# Trades Access Common Core

## Line D: Organizational Skills Competency D-6: Plan Projects





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## **Trades Access** COMMON CORE

Line D: Organizational Skills Competency D-6: Plan Projects

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#### Foreword

The BC Open Textbook Project began in 2012 with the goal of making post-secondary education in British Columbia more accessible by reducing student cost through the use of openly licensed textbooks. The BC Open Textbook Project is administered by BCcampus and is funded by the British Columbia Ministry of Advanced Education.

Open textbooks are open educational resources (OER); they are instructional resources created and shared in ways so that more people have access to them. This is a different model than traditionally copyrighted materials. OER are defined as teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property licence that permits their free use and repurposing by others (Hewlett Foundation). Our open textbooks are openly licensed using a Creative Commons licence, and are offered in various e-book formats free of charge, or as printed books that are available at cost. For more information about this project, please contact <u>opentext@bccampus.ca</u>. If you are an instructor who is using this book for a course, please let us know.

#### Preface

The concept of identifying and creating resources for skills that are common to many trades has a long history in the Province of British Columbia. This collection of Trades Access Common Core (TACC) resources was adapted from the 15 Trades Common Core line modules co-published by the Industry Training and Apprenticeship Commission (ITAC) and the Centre for Curriculum Transfer and Technology (C2T2) in 2000-2002. Those modules were revisions of the original Common Core portion of the TRAC modules prepared by the Province of British Columbia Ministry of Post-Secondary Education in 1986. The TACC resources are still in use by a number of trades programs today and, with the permission from the Industry Training Authority (ITA), have been utilized in this project.

These open resources have been updated and realigned to match many of the line and competency titles found in the Province of BC's trades apprenticeship program outlines. A review was carried out to analyze the provincial program outlines of a number of trades, with the intent of finding common entry-level learning tasks that could be assembled into this package. This analysis provided the template for the outline used to update the existing modules. Many images found in ITA apprentice training modules were also incorporated into these resources to create books that are similar to what students will see when they continue their chosen trades training. The project team has also taken many new photographs for this project, which are available for use in other trades training resources.

The following list of lines and competencies was generated with the goal of creating an entry-level trades training resource, while still offering the flexibility for lines to be used as stand-alone books. This flexibility—in addition to the textbook content being openly licensed—allows these resources to be used within other contexts as well. For example, instructors or institutions may incorporate these resources into foundation-level trades training programming or within an online learning management system (LMS).

#### Line A – Safe Work Practices

- A-1 Control Workplace Hazards
- A-2 Describe WorkSafeBC Regulations
- A-3 Handle Hazardous Materials Safely
- A-4 Describe Personal Safety Practices
- A-5 Describe Fire Safety

#### Line B – Employability Skills

- B-1 Apply Study and Learning Skills
- B-2 Describe Expectations and Responsibilities of Employers and Employees
- B-3 Use Interpersonal Communication Skills
- B-4 Describe the Apprenticeship System

#### Line C-Tools and Equipment

- C-1 Describe Common Hand Tools and Their Uses
- C-2 Describe Common Power Tools and Their Uses
- C-3 Describe Rigging and Hoisting Equipment
- C-4 Describe Ladders and Platforms

#### Line D-Organizational Skills

- D-1 Solve Trades Mathematical Problems
- D-2 Apply Science Concepts to Trades Applications
- D-3 Read Drawings and Specifications
- D-4 Use Codes, Regulations, and Standards
- D-5 Use Manufacturer and Supplier Documentation
- D-6 Plan Projects

#### Line E – Electrical Fundamentals

- E-1 Describe the Basic Principles of Electricity
- E-2 Identify Common Circuit Components and Their Symbols
- E-3 Explain Wiring Connections
- E-4 Use Multimeters

All of these textbooks are available in a variety of formats in addition to print:

- PDF—printable document with TOC and hyperlinks intact
- HTML—basic export of an HTML file and its assets, suitable for use in learning management systems
- Reflowable EPUB—format that is suitable for all screen sizes including phones

All of the self-test questions are also available from BCcampus as separate data, if instructors would like to use the questions for online quizzes or competency testing.

#### **About This Book**

In an effort to make this book a flexible resource for trainers and learners, the following features are included:

- An introduction outlining the high-level goal of the Competency, and a list of objectives reflecting the skills and knowledge a person would need to achieve to fulfill this goal.
- Discrete Learning Tasks designed to help a person achieve these objectives
- Self-tests at the end of each Learning Task, designed to informally test for understanding.
- A reminder at the end of each Competency to complete a Competency test. Individual trainers are expected to determine the requirements for this test, as required.
- Throughout the textbook, there may also be links and/or references to other resources that learners will need to access, some of which are only available online.
- Notes, cautions, and warnings are identified by special symbols. A list of those symbols is provided below.

#### Symbols Legend



Important: This icon highlights important information.



**Poisonous:** This icon is a reminder for a potentially toxic/poisonous situation.

**Resources:** The resource icon highlights any required or optional resources.



Flammable: This icon is a reminder for a potentially flammable situation.



**Self-test:** This icon reminds you to complete a self-test.



**Explosive:** This icon is a reminder for a possibly explosive situation.



Safety gear: The safety gear icon is an important reminder to use protective equipment.



**Electric shock:** This icon is a reminder for potential electric shock.

#### Safety Advisory

Be advised that references to the Workers' Compensation Board of British Columbia safety regulations contained within these materials do not/may not reflect the most recent Occupational Health and Safety Regulation. The current Standards and Regulation in BC can be obtained at the following website: <u>http://www.worksafebc.com</u>.

Please note that it is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulation pertaining to his/her area of work.

BCcampus January 2015

#### Disclaimer

The materials in the Trades Access Common Core Open Textbook project are for use by students and instructional staff and have been compiled from sources believed to be reliable and to represent best current opinions on these subjects. These manuals are intended to serve as a starting point for good practices and may not specify all minimum legal standards. No warranty, guarantee or representation is made by BCcampus as to the accuracy or sufficiency of the information contained in these publications. These manuals are intended to provide basic guidelines for trade practices. Do not assume, therefore, that all necessary warnings and safety precautionary measures are contained in this module and that other or additional measures may not be required.

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### Introduction

Every job is different and may have special requirements. Anticipating these requirements and planning accordingly is vital to ensuring that you have the materials, tools, and time to complete the job.

To do this effectively you will need to have a clear understanding of the overall job. You will need to know what materials are required and be able to record organized and accurate notes on the time and materials used when the job is complete.

Planning ahead saves time and money and makes a job more profitable. Effectively managing time and resources, including materials, and keeping detailed notes is very important whether you are working for another company or on your own. It allows your company to be more competitive and also provides a good base for estimating the costs of similar jobs in the future.

### Objectives

When you have completed the Learning Tasks in this Competency, you will be able to:

- Describe the organization of a project
- Describe the importance of efficiency on a project
- Describe the procedures required to handle material
- Select procedures to safely transport, store, and secure material

#### Resources

You will be required to reference publications and videos available online.

# Describe the organization of a project

All jobs differ in degree of complexity, partly due to the sector they are in: residential, commercial, or industrial. Depending on the size of the project, the planning process will be more or less complex.

Planning work must be done daily in conjunction with forepersons, supervisors, and other trades workers on the job. Time pressures may become intense and interruptions from others can result in frequent stops and starts to a project. Planning and organizing can vary from job to job, but there are some commonalities among them.

### **Blueprints**

Most projects begin with a set of drawings called *blueprints* or *prints*. They will include drawings of electrical, plumbing, and mechanical systems and all construction details. The prints have detailed drawings of specific information for the construction of the project. A written form of the information will accompany the drawings—a document called *project specifications*.

### **Project specifications**

Project specifications outline everything required to complete the project. They provide a detailed description of the work, materials, and techniques that should be used throughout the work. For large projects, project specifications can often be the size of a book and can change frequently, particularly at the onset of a project. The text of the specifications allows the engineer or designer to be very specific about the construction process and the products used. It is important to be familiar with the specifications to begin the planning process.

#### **Schedules**

Within the specifications will be a series of schedules. Schedules provide information about building components to be installed. Using schedules is an efficient way to lay out the specifications for products like doors and windows. The item can be put in the schedule once, and then it can appear in the drawings multiple times as a symbol instead of dimensions and details that would overcrowd the drawing.

Door						Frame		Threshold	Weather STR	Remarks	
Type	Size (W $\times$ H $\times$ T)	Mat.	Core	Fin.	Closer	Mat.	Fin.				
A	750 × 2100 × 45	Alum.	Hollow	Anod.	YES	Alum.	Anod.	YES	YES	Double glazed	
В	810 × 2100 × 45	DO	DO	PT.	NO	Steel	PT	YES	NO	Lock and key	
С	910 × 2030 × 45	Wood	DO	DO	DO	DO	DO	NO	DO		
D	610 × 2030 × 45	DO	Solid	DO	DO	DO	DO	YES	DO		
E	750 × 2100 × 35	DO	Hollow	DO	DO	Wood	DO	NO	DO		
F	810 × 2100 × 35	DO	DO	DO	DO	DO	DO	DO	DO		
G	910 × 2030 × 35	DO	DO	DO	DO	DO	DO	DO	DO		

For example, think of how many doors are in your home. If all details were shown in the drawing, it would quickly become very congested. Figure 1 shows a typical door schedule.

Figure 1 — Door schedule

### Permits

A permit is an official document that states that a specific construction activity has been approved and is permitted. Many projects require you to apply for one or more permits from the local municipality or other authority. This issuing authority will also inspect the work and enforce the requirements of the permit.

The permits issued for building construction range from development permits to occupancy permits. The purpose of permits and building regulations is to ensure the safety of the general public.

The application process for a permit can range from a few weeks to months or even years, depending on the scale of the project. Checking with the local authority on the permit process for the project should be one of the first tasks done. Drawings, specifications, and other documentation may have to accompany the application, so knowing the permit process is very important to the planning process. Some jobs that require permits are any electrical, gas, demolition, or structural work.

Completing work without having the proper permits can result in a job site being shut down for weeks or months, and can result in fines, project delays, and additional costs for materials and supplies.

### Safety

Safety is always the highest priority on a job site. Before any work commences, a work site safety survey should be conducted. Even on small jobs, you must first assess the job site and identify any hazards. For example, some jobs require power lines to be de-energized or removed completely in order to complete a project. Every day before work begins, a scan for hazards on the job site should be conducted. Any identified hazards should be addressed before starting work.

#### Work orders

A work order helps keep the project organized. This is a document that describes the job to be completed. It includes issues or repairs to be addressed or installation details for an item. It is usually an internal company document that allows the company to organize its own schedule. If the job must be completed by a certain date or within a specific time frame, the work order will specify this information.

### **Change orders**

A change order is used to change the original scope of work—either an addition or deletion of something. It may alter the original contract amount and/or completion date. Change orders are common in projects that are large in size and scope.

The following are some common reasons for requiring a change order:

- The project's work was incorrectly estimated.
- Problems or possible deficiencies are discovered that require a change to the original plan.
- During the project, the client requests additional items or upgrades.
- Weather conditions cause delays.

#### **Request for information**

A request for information (RFI) form is used to clarify the interpretation of a detail, specification, product, or process as it relates to the project. For example, an RFI could be submitted by a contractor to confirm a piece of equipment that was unclear in the specifications, or to state the poor design of a system. If some detail has been overlooked earlier in the process, an RFI can be used to bring attention to the issue. It can result in a change order being issued if a problem is identified.

### Prioritizing and coordinating with other trades

Part of the planning process is coordinating and scheduling the various trades on a project site. Some work must be done before other work, and the schedules of all of the trades on a job site need to be prioritized. For example, there would be no sense having drywall installed before an electrician completes wiring a room, or completing jobs that require the use of large-scale heavy-duty equipment after the final surface of a road has been applied. Every job must follow a specific sequence, and delays or changes in one aspect of the project can have an impact on one or several other trades.

Working with other trades is not only about scheduling. It is common to find that one trade's work will affect another trade and may require some modifications to how a job is completed. For example, if a plumber and a sheet metal worker are both trying to access a pipe in the same location, one will have to adjust the design of their system to avoid overlap. Conflicts like this can add time to the job, so it is important to look for any potential problems early in the project.

### **Estimating materials**

Estimating materials needed for a job is an important part of the planning process. A contractor needs to price all materials to be used in order to submit a price for the job. A contractor will go through drawings, specifications, schedules, and any other documentation available in order to gather as much information as possible to make the estimate.

Additional items that do not appear in drawings but which are required for a job are called *takeoffs*. A drawing of a plumbing line may show the line extending between two points, but it does not necessarily list the number of tees, branches, or other fittings required to install the line. These items are called *takeoffs* because they are taken off the drawing.

As another example, contractors must determine the number and types of light fixtures for a job, which are then built into his or her estimate. The contractor uses this information to calculate how much will be charged, the total bid, to complete the job.

### **Tools and equipment**

When planning for a job, it is very important to have all the tools and equipment that will be needed. Time is wasted if you have to go back and forth picking up items once the job has started. Make a list and think of the job you are going to be doing before you leave for the job site. Review the list with your colleagues to see if anything has been missed. Keep your list and check things off as you load them to take to the site.

#### **Inventory requirements**

When beginning a job, it is important to plan for the tools, equipment, and materials that will be kept at the job site. Storage security, delivery schedules, labelling, and consumables are a few examples of details that need to be addressed before a job begins.

#### Secure storage

On-the-job storage can be as simple as a lockbox or as complex as a portable building. The size of the job will determine what type of storage is required. The supplies and equipment must be secure to prevent theft and vandalism, as well as to ensure the safety of the public. For example, if a power tool is left accessible and someone who is unfamiliar with it tries to use it, liability issues could arise if an accident were to occur.

#### **Delivery schedules**

Deliveries must be scheduled well in advance of a job beginning. It can take considerable time to order certain items. As well, delivery of the items need to be scheduled at the appropriate times for the job. If the job has different stages of completion, the items need to be delivered to match those stages. For example, if you have completed the first stage of a job and then leave to work on another site for a week, it would not make sense to have the materials scheduled for delivery during your absence.

It is very important that someone be on the job site to receive the deliveries and check that all items are received and have no visible damage.

#### Labelling materials

On some jobs, materials may be delivered in parts and pieces. It is important to make sure that all parts have been received, and it can be a gruelling task to find where each different piece goes if they are not labelled and organized properly. Consider a sheet metal worker installing a heating system. There may be 200 different parts to the system and many are similar but are different enough that they must be installed correctly according to the manufacturer's or designer's plans. Each piece should be labelled according to where in the system it will go; this may be done with numbers or codes.

#### Consumables

Consumables are materials or products that will eventually be used up. For example, a grinding disk is a consumable because it will wear out at some point. These items need to be stored and tracked on the job site. For example, if welding gas is needed regularly on site and no one checks the supply on hand, it will be very time consuming and costly to stop and find or order some if the supply runs out in the middle of a job.

### Using a checklist

Using a checklist is a very easy way to keep track of a job. It allows you to know what has been completed and the status of different tasks. The checklist should be updated frequently to keep the job well organized and to allow you to pinpoint what needs to be done. Continually going back to aspects of a job that have been done is a waste of time.

### **Cost efficiency**

How well a job is managed can affect cost efficiencies and can be the difference between a profit or a loss. Efficiency is essential in industry today. Sometimes referred to as "lean construction," working efficiently is a simple concept. It means working in a way where time, materials, and effort are not wasted. For example, if you are on a job site on the 10th floor of a building and are taking a break to go down for a coffee, it is efficient to take the time to check with your colleagues before you go if anything is needed from the storage area downstairs. If you don't take the time to do this and then return to find out you need some additional supplies from your truck, it is a tremendous waste of time and effort. There are many ways to be well organized on the job, and some simple planning can help create an excellent cost-efficient job.

#### **As-built drawings**

As-built drawings are done for many jobs. These are drawings that indicate any changes from the original drawing. They show the actual completed job exactly as it was built or done. For example, sometimes small changes are made, such as moving a pipe to get around a beam; this would be the type of change shown on the as-built drawing.



Now complete the Learning Task Self-Test.

#### Self-Test 1

- 1. Most projects begin with blueprints.
  - a. True
  - b. False
- 2. Which of the following best describes what project specifications are?
  - a. A book about project details
  - b. Information about building components to be installed
  - c. The official document that states a specific construction activity has been approved
  - d. A detailed description of the work, materials, and techniques that should be used to complete the work
- 3. What components are commonly detailed in a schedule?
  - a. Flooring
  - b. Interior finishes
  - c. Roofing material
  - d. Doors and windows
- 4. Most construction projects do not require a permit.
  - a. True
  - b. False
- 5. Permits can usually be issued with little notice.
  - a. True
  - b. False
- 6. Before any work commences, what document should be completed at the job site?
  - a. A work order
  - b. An inspection form
  - c. A work site safety survey
  - d. An electrical permit application
- 7. If a change in the original scope of work arises, what form should be filed?
  - a. Work order
  - b. Change order
  - c. Change request
  - d. Request for information

- 8. Scheduling with all trades must be part of the project planning.
  - a. True
  - b. False
- 9. Why are permits required for certain construction-related jobs?
  - a. For safety concerns
  - b. To ensure a quality job
  - c. For municipal records
  - d. To keep track of contractors
- 10. Why is it important to plan for all tools and equipment needed for a job?
  - a. To be efficient
  - b. To be cost effective
  - c. So time is not wasted
  - d. All of the above
- 11. What is required to plan the inventory of a project, in addition to security, storage, and delivery?
  - a. Shelter
  - b. Timing
  - c. Labelling
  - d. Scheduling
- 12. Once a project is complete, what drawing should be created?
  - a. As-built drawing
  - b. Finishing drawing
  - c. Completion drawing
  - d. Termination drawing
- 13. If there is an unclear aspect of a project, what document can be used for clarification?
  - a. Work order
  - b. Change order
  - c. As-built drawing
  - d. Request for information

### LEARNING TASK 2 Describe considerations when handling materials

Material handling refers to the movement, storage, security, and control of different items found on a job site. These items could be supplies, equipment, tools, or any other products used on the job.

There are many considerations involved with handling materials. Managing materials for a job is an important part of planning a project. From safety to time management to transportation to storage, efficiently dealing with the materials on the job can produce a profitable and successful result.

### Safety

Every material-handling task can be different, and safety in the workplace is always a top priority. All workers and supervisors must take care to ensure safety practices are in place at every stage of handling different materials.

Everyone has a role to play in safety when handling and storing materials. Good housekeeping, proper lifting and loading procedures, and proper packaging are all important.

An unsafe job site is not only dangerous to the workers, it costs time and money. When handling materials for a job, it is important to do so safely. For example, if you are loading material such as lumber, it should be stacked neatly in a location where other workers will not be hindered by it. If the lumber is thrown into a chaotic and disorganized pile, it can become a tripping hazard.

### Storage and accessibility

The storage and accessibility of the materials on a job must be given some forethought. Consider again the example of stacking lumber: if you pile a bunch of lumber on top of some plywood and the plywood is needed first, you will be moving the lumber multiple times and wasting significant time and energy.

All material needs to be stored in an effective manner, keeping access and availability in mind. Thinking ahead and planning what will be needed at what point and ensuring that you have the right size of aisle in order to get to the materials will keep the job running efficiently. Storing material also requires considering weather conditions and security. Some materials can be stored outside and some may need to be in a climate-controlled or secure environment. Make sure the location of storage is suitable for the items.

Some job sites have on-site and/or remote security; however, many do not. Whether or not there is security on site, materials and equipment should always be stored in a secure location. The loss or theft of materials and equipment due to improper storage can be very costly and time consuming.

### Timing and sequencing

The proper timing and sequencing of material deliveries can make the handling of materials more efficient. If an item is not required on site for a couple of months, there is no reason to bring it to the job site until it is needed. Having too many items that are not immediately required can create a cluttered job site. And the more disorganized a job site is, the more handling of materials needs to be done. Moving items repeatedly can be avoided by properly timing and sequencing the delivery of the materials for the job.

### Transportation

Accidents and mishaps often occur during the transportation of materials. Always check the following:

- The load is secured properly.
- The load is balanced and loaded properly.
- The vehicle is being used for its designed purpose.
- The speed limits are being followed.
- The proper labels are affixed and visible.

Always check the load upon arrival and make sure it is safe to untie before unloading.

### Hoisting and rigging

When materials need to be moved to higher floors of a building, hoists and rigs may be required. At times, a rope may be used to lift materials a short distance, but other materials require proper lifting equipment. Make sure you are familiar with the lifting equipment being used.

More detailed information on rigging and hoisting can be found in Competency C-3: Describe Rigging and Hoisting Equipment.

### Labelling

As discussed in Learning Task 1, some materials require labelling. When handling any materials, make sure the labels are visible. Take care not to scratch or damage the label when moving an item.

Some items may be very difficult to distinguish without the label intact. Some labels may indicate that a product is toxic or needs to be transported, stored, handled, and/or used in a specific way. Be sure to follow these instructions for the aspect of the job you are handling.

### **Disposal and recycling**

The proper disposal of all materials is a very important part of material handling. Some products may be hazardous, such as asbestos, and require controlled removal and disposal. You need to know what materials are being handled to decide on how to best dispose of or recycle them.

Make sure you follow all local rules on the disposal and recycling of materials. Keep different materials separated so they can be easily disposed of. For example, wood and metal can both be recycled, but they need to be separated to do so.

Most municipalities have disposal and recycling programs, so check the local regulations.



Now complete the Learning Task Self-Test.

#### Self-Test 2

- 1. All workers and supervisors must take care to ensure safety practices are in place at every stage of handling different materials.
  - a. True
  - b. False
- 2. Why is the storage and accessibility of materials important?
  - a. So the material is well organized
  - b. So the material will be secured properly
  - c. So the material can be accessed when needed
  - d. All of the above
- 3. Proper timing and sequencing of material deliveries does not affect efficiency.
  - a. True
  - b. False
- 4. What is essential to check when transporting materials?
  - a. Traffic is calm.
  - b. The load is secure.
  - c. The truck is washed.
  - d. The load is complete.
- 5. Labels may contain information about the safe transporting of a product.
  - a. True
  - b. False
- 6. Which of the following products requires controlled disposal?
  - a. Lumber
  - b. Plastics
  - c. Asbestos
  - d. Scrap metal

### LEARNING TASK 3 Select procedures for handling materials

Selecting the proper procedures for handling materials is critical. Hazardous materials must be handled following strictly controlled measures. Some other materials have no regulations but still need to be dealt with in a particular way.

### Safety

It is particularly important to select the correct manner in which to handle hazardous materials. Moulds and asbestos are frequently encountered in construction and need to be taken very seriously. Figure 1 shows where asbestos may be present in a home.

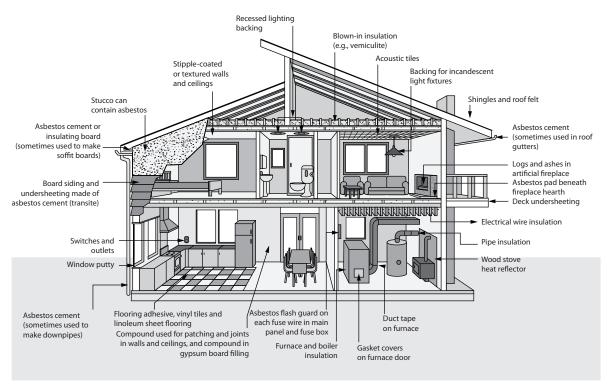


Figure 1 — Potential sources of asbestos in the home

Always make sure you know what the material is before you move or disturb it. If you are unsure, act cautiously. Material testing may be required to determine if there are hazards present.

WorkSafeBC sets the regulations on handling hazardous materials, so once you know what the material is you can research the proper procedure for handling it.



Watch the WorkSafeBC video "Asbestos Hazards in Renovations, Restorations, and Demolition": <u>https://youtu.be/PQd\_UDBp8nA</u>

#### **Procedures**

There are many different procedures for handling material correctly, but a few simple rules should always be followed:

- Be sure to know what the material is and follow all regulations if it is hazardous.
- Use equipment to move heavy materials.
- Use proper housekeeping to keep materials organized.
- Use proper timing and sequencing to avoid a cluttered job site.
- Think ahead to avoid having to move loads repeatedly.

#### Securing

How materials are secured on a job site will depend on a few different factors. The materials being secured will vary in size and shape, as will the job site itself.

In some cases, you may have a job box in which to store small items. A job box is a steel storage box brought to a job site for an extended time. It should be located close to where you are doing your work because even though it is portable, it is not easy to move. If you are on a job working from floor to floor, you may only move it once each floor has been completed.

On larger jobs, a shipping container or portable building may be brought in. These are normally used on large jobs that last for many months or years.

Some materials may be secured by locking them to something solid in the building, such as a steel or concrete pillar. Ladders are a common item to lock up in this manner. Make sure that the materials to be left at a job site are secured to protect against theft and vandalism and are located out of the way of other workers.

### Packaging/Shipping

Certain items will require packaging and shipping, and this requires great care. Damage to materials can easily occur if packaging is not done correctly. If a window installer is shipping glass, for example, it must be appropriately protected against breaking. Other items may have a painted finish that needs to be protected.



Now complete the Learning Task Self-Test.

#### Self-Test 3

- 1. Efficiency when selecting material-handling procedures is not important.
  - a. True
  - b. False
- 2. Asbestos is found in many building products.
  - a. True
  - b. False
- 3. Who sets regulations on handling hazardous materials?
  - a. BC Hazmat
  - b. WorkSafeBC
  - c. BC government
  - d. BC Safety Authority
- 4. What is the best storage solution for a long-term project?
  - a. Job box
  - b. Large lockbox
  - c. Portable container
  - d. No storage is needed
- 5. When shipping a load of painted railings to a job site, what should be considered?
  - a. Make sure the paint is protected properly.
  - b. Make sure the railings are scheduled to arrive on site.
  - c. Make sure the railings are secured properly in the truck.
  - d. All of the above.

#### **Answer Key**

#### Self-Test 1

- 1. a. True
- 2. d. A detailed description of the work, materials, and techniques that should be used to complete the work
- 3. d. Doors and windows
- 4. b. False
- 5. b. False
- 6. c. A work site safety survey
- 7. b. Change order
- 8. a. True
- 9. a. For safety concerns
- 10. d. All of the above
- 11. c. Labelling
- 12. a. As-built drawing
- 13. d. Request for information

#### Self-Test 2

- 1. a. True
- 2. d. All of the above
- 3. b. False
- 4. b. The load is secure.
- 5. a. True
- 6. c. Asbestos

#### Self-Test 3

- 1. b. False
- 2. a. True
- 3. b. WorkSafeBC
- 4. c. Portable container
- 5. d. All of the above.

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