RIICCM202E

Identify, Locate and Protect

Learner Guide Instructions

Who is this document for?

The learner.

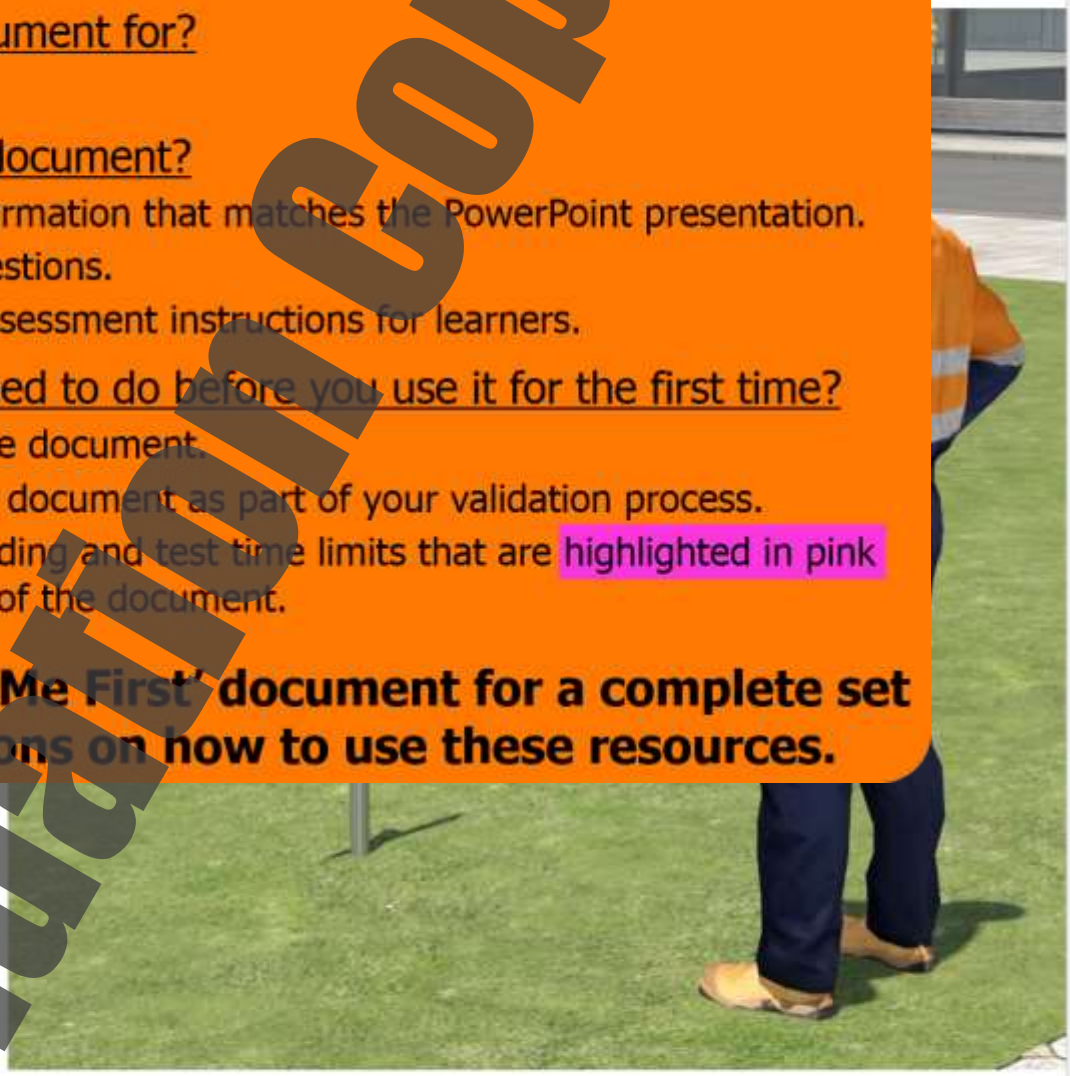
What is in this document?

- Course information that matches the PowerPoint presentation.
- Review questions.
- Practical assessment instructions for learners.

What do you need to do before you use it for the first time?

1. Rebrand the document.
2. Review the document as part of your validation process.
3. Set the reading and test time limits that are highlighted in pink at the end of the document.

See the 'Read Me First' document for a complete set of instructions on how to use these resources.



LEARNER GUIDE

RIICCM202E Identify, Locate and Protect Underground Services

Learner Name:	
Learner ID:	
Learner Contact Number:	
Learner Email Address:	
Date Training Commenced:	

This Book Contains:

- ☐ Course Information.
- ☐ Review Questions.
- ☐ Practical Assessment overview and Instructions.

Table of Contents

1.1 Introduction

This course is based upon the unit of competency **RIICCM202E Identify, Locate and Protect Underground Services.**

It will discuss how to identify, locate and protect underground services when working in the civil construction industry.

This unit will include information on:

- Planning and preparation of work areas.
- Locating underground services.
- Closing and cleaning up the area.

1.1.1 Underground Services

Underground services are those services such as gas, electricity, internet and telephone that are required for modern life.

It is a requirement that all attempts are made to locate these services before using worksite equipment that may cut or damage the services.

Most states and territories have a Dial Before You Dig style provision that can be used to identify where underground service cables are located.

1.2 Working Safely

You must follow all safety rules and instructions when performing any work. If you are not sure about what you should do, ask your boss or supervisor. They will tell you what you need to do and how to do it in a safe way.

1.2.1 Operations Documentation

Before starting your work, you need to make sure you have access to all operations documentation for the job. This will help you to do your work in the safest way and make sure all work is compliant.

Operations documentation includes:

Site Details
The information and safety requirements of the workplace environment (where you will be working).

Hazard Details
Any hazards in the work area or related to the work. This could also include instructions on how to handle dangerous or hazardous materials.

Task Details
Instructions of what the work is or what you will be doing. Also instructions on how to safely do the job.

Faulty Equipment Procedures
Isolation procedures to follow or forms to fill out.

Signage
Site signage tells you what equipment you need to have, or areas that are not safe to be in.

Equipment and Work Instructions
Details of how to operate plant and equipment and the sequence of work to be done.

Safety Policies and Procedures for Underground Services

Civil construction work sites operate under a broad range of safety policies and procedures to ensure the wellbeing of all site personnel. These policies and procedures include:

- Workplace health and safety (WHS) and/or Occupational health and safety (OHS).
- Environmental protection measures.
- Operating and maintaining equipment safely and in accordance with manufacturer's instructions.
- Fault checking and calibrating locating equipment.
- Guidelines and standards for marking underground asset locations.
- Waste disposal and recycling of unwanted or leftover materials.
- Site isolation and traffic control to direct vehicle and pedestrian traffic away from the work area.
- Excavation and finished surfaces reinstatement guidelines.
- Obtaining emergency numbers and contact details of service and utility owners in case of incidents.
- Obtaining and preparing search requirement information from Dial Before You Dig (DBYD).
- Damage to services and utilities response and reporting requirements.

These policies and procedures dictate how you plan and conduct the work relating to underground services.

1.2.2 Work Health and Safety

Every workplace has to follow laws and rules to keep everyone safe. There are 4 main types:

Law	Description
Acts	These are laws that you have to follow.
Regulations	These explain what the law means.
Codes of Practice	These are instructions on how to follow the law; based on industry standards.
Australian Standards	These tell you what the minimum requirement is for a job, product or hazard.

Some states use OHS laws, and other states use WHS laws. They both talk about the same thing but use different words or names for people. If you have any questions about safety rules, you should talk to your boss or supervisor.

WHS law says that all companies and workers need to keep themselves and other people safe while they work. This is called a duty of care.

To keep yourself and other workers safe you need to:

- Follow your instructions.
- Follow all workplace rules.
- Make sure all equipment is safe to use.
- Carry out your work safely.
- Report any problems.

If you think something is dangerous, tell your boss or supervisor as soon as possible.

Review Questions

1.	List 3 things that may be included in 'operations documentation'.	☐
1. 2. 3.		

1.3 Work Instructions

You need to be clear about what work you will be doing.

Make sure you have everything about the job written down before you start.

This includes what you will be doing, how you will be doing it and what equipment you will be using.

1.3.1 Reading and Checking Your Work Instructions

Your work instructions will tell you the safest way to do the job, and the equipment that you will need to use. It is a good idea to check your work instructions with your boss or supervisor to make sure you know exactly what you need to do.

Make sure you have all of the details about where you will be working. For example:

- **Site**: Is there clear access for all equipment? Are there obstacles in the way? What are the ground conditions like? Is the site ready for your work to begin? Are there structures, workers, traffic or areas that you need to avoid?
- **Weather:** Is there wind, rain or other bad weather? Is it too dark?
- **Traffic:** Are there people, vehicles or other equipment in the area that you need to think about? Do you need to get them moved out of the area? Do you need to set up barriers or signs?
- **Hazards:** Are there dangerous materials to work around or think about? Will you be working close to other people?

You also need to make sure you have all of the details about the kind of work you will be doing:

- **Task** – What kind of services are you looking for? How long do you have to complete the work?
- **Communications** – How are you going to communicate with other workers?
- **Procedures and Rules** – Do you need any special permits or licences for the work? Are there site rules that affect the way you will do the work?

All work needs to follow worksite, environment and company safety procedures.

Procedures help to make sure that all work is done in a safe way, without damaging equipment or putting people in unsafe situations.

They also help to make sure that work is done in the correct order and doesn't interrupt or get in the way of other work that is happening on the site.

This is especially important in civil construction projects that need to be completed in a particular sequence.

If you don't know where to get your instructions or you can't understand the language or civil construction terminology being used in them, you can ask your boss or supervisor.

They will tell you where to find your work instructions and explain what they mean.

1.3.2 Work Method Statements

Many worksites require a work method statement (WMS) before any dangerous work can start.

A work method statement is a list of steps that outlines how a job will be done. It also includes any hazards that occur at each step, and what you need to do about them. These statements can also be known as Safe Work Method Statement (SWMS), Job Safety Analysis (JSA) or Safe Operating Procedure (SOP).

Work method statements can be used for organising your work activities and making sure you have completed everything. They will also outline the details of all tools, equipment and coordination with other workers relating to your job. Make sure all of these are available and ready before you start.

A Job Safety and Environmental Analysis (JSEA) is a written document that details the high risk work activities to be carried out at a workplace, the hazards and risks arising from these activities, and the measures to be put in place to control the risks.

A JSEA considers both environmental and health hazards. Its purpose is to help you implement and monitor the control measures established at the workplace to ensure high risk work is carried out safely.

1.3.3 Safety Data Sheets

A Safety Data Sheet (SDS) is a document containing important information about a hazardous material (which may be a hazardous substance and/or dangerous goods). It includes safe handling practices and safety requirements.

The SDS will contain details that can help you to identify:

SDS Component	Description
Basic Details of the Chemical or Material	Name, type and identification number.
Hazards Associated with the Material	Whether it is flammable or corrosive.
Safe Handling and Storage Procedures	PPE to use, sealed containers or storage temperatures.
Emergency Procedures	What to do if the chemical or material gets out of hand.
Disposal Procedures	Suggestions for removing the chemical or material from the site.

There will be a register of SDS at every work site. It should be used as an information tool to ensure that everyone is involved in managing exposure to hazardous substances exposure.

Suppliers, employers and self-employed persons have specific labelling obligations for all hazardous substance containers in the workplace.

1.3.4 Project Quality Requirements

Every civil construction project will have quality requirements. These outline when tasks need to be completed and the required standard of the work.

Your work instructions and plans/drawings will guide you and help you make sure you are achieving the set quality standard for the project.

They can include:

- Project dimensions.
- Project tolerances.
- Standards of work.
- Material standards.

Review Questions

2.	What are two (2) details about the work area can you get from your work instructions?	☐

1.

2.

3.	What is a Work Method Statement?	☐

4.	What is a Safety Data Sheet?	☐

5.	What are two (2) details outlined in project quality requirements?	☐
1. 2.		

1.4 Identify and Manage Hazards

Part of your job is to look around to see if you can find any hazards before you start work.

A **hazard** is a thing or situation with the potential to cause injury, harm or damage.

1.4.1 Identify Hazards

When you start checking for hazards, make sure you look everywhere. A good way to do this is to check:

- Up high above your head.
- All around you at eye level.
- Down low on the ground (and also think about what is under the ground).

Some common workplace hazards you should check for in the work area:

- Trees.
- Excavation.
- Uneven, soft, slippery or unstable terrain.
- Traffic.
- Buildings.
- Hazardous materials.
- Pedestrians and other public traffic.
- Weather and environment.
- Other workers or site visitors.

1.4.1.1 Hazards Relating to Underground Services

Working on or near underground services can be dangerous. Access to underground services may require excavation of an area resulting in a risk of falls or working in a confined space. Limited room within the excavation can also make some jobs difficult, especially manual handling tasks.

Some services may be live so be careful whenever work near electrical or gas lines. These can pose a serious risk to health and safety if not handled properly.

Be aware of:

- Traffic.
- Live Electrical Services.
- Confined Spaces.
- Falls.
- Locating near other works in progress.
- Manual handling.
- Gas.

1.4.2 Risk Assessment and Hazard Control

After hazards have been identified you need to take appropriate action to reduce the risk as much as possible to make the work safe. Check your work instructions for methods that can be used to minimise the risk of hazards.

The Hierarchy of Hazard control is a method used to try and eliminate the hazards and risks associated with work.

There are 6 levels:

Hierarchy Level	Action
1. Elimination	Completely remove the hazard. This is the best kind of hazard control.
2. Substitution	Swap a dangerous work method or situation for one that is less dangerous.
3. Isolation	Isolate or restrict access to the hazard.
4. Engineering Controls	Use equipment to lower the risk level.
5. Administrative Controls	Site rules and policies attempt to control a hazard.
6. Personal Protective Equipment	The least effective control. Use PPE while you carry out your work.

If you are unable to properly implement the hazard controls, then the work should not start. Speak to your supervisor about what further steps should be taken to ensure the work can be done safely.

1.4.3 Reporting Hazards

Any hazard or environmental issue that you identify will need to be reported. If you have taken any action, you will also need to report those details. This could include written or verbal reports.

Your worksite may have standard paperwork that needs to be filled out, for example:

- Hazard report forms.
- Work method statements.
- Other documents.

Your report may need to be given to a safety officer, your supervisor or a member of the management team.

Review Questions

6.	List 5 examples of hazards you should check for in the work area.	☐

1.

2.

3.

4.

5.

1.5 Environmental Protection Requirements

Environmental protection requirements are part of every worksite.

Make sure you check with your supervisor about what environmental issues need to be managed during your work.

1.5.1 Environmental Management Plan

All environmental details should be listed in an 'Environmental Management Plan' for the site. It can include details for:

- Waste management.
- Water quality protection.
- Noise control.
- Vibration control.
- Dust management.

The plan will outline the steps and processes needed to prevent or minimise damage to the environment through the use of machinery and equipment.

Environmental controls could include:

- Soil and water management, including clearing and grubbing tasks, erosion and sediment control, drainage management and water licensing.
- Waste management.
- Environmental sensitivity and heritage factors.
- Air quality.
- Flora and fauna management, including protected species management.
- Demolition management, including dust control, noise management, vibration minimisation and blasting requirements.
- Vegetation protection.
- Stormwater management.
- Weed control measures.
- Chemical and hazardous substance storage requirements.
- Other requirement relevant to tasks and activities.

Review Questions

7.	What does an environmental plan outline?	☐

8.	What are three (3) types of environmental controls?	☐
1. 2. 3.		