

RIICPL401E

SUPERVISE THE INSTALLATION OF UNDERGROUND SERVICES USING OPEN EXCAVATION

ASSESSMENT SUMMARY

The assessment activities for *RIICPL401E Supervise the installation of underground services using open excavation* cover all aspects of the unit of competency. For Apprentices/Trainees, this includes supervisor completion of the Apprentice/Trainee Record (ATR).

Participants must read all the information given before starting any assessment task. The assessment tasks are intended to be fair, flexible, valid and reliable. If a Participant has any questions or requires alternative arrangements to be made such requests should be directed to their Trainer/Assessor, who should note such arrangements in the 'Assessor Comments' on the affected assessment. If a Participant feels they are not yet ready to be assessed, they should discuss their options with their Trainer/Assessor.

To satisfactorily complete the assessment, the Participant is required to answer all questions correctly and demonstrate their skills to industry standards. If a Participant does not answer all questions or perform all tasks, they will be deemed 'Not Satisfactory' for the task and 'Not Yet Competent' for the unit of competency.

The Trainer/Assessor can provide the Participant with additional information on interpreting the assessment outcomes and guide the Participant's options. If a Participant is still deemed 'Not Satisfactory' they will have the opportunity to undertake a supplementary assessment or appeal the result as per the process in the Student Handbook.

By signing below, the Participant acknowledges:

- They understand the assessment instructions and requirements, and consent to being assessed.
- The work submitted is to be their own work – with the work of/with others needing to be clearly acknowledged and documented.
- They consent to any photo/video recording of their work that occurs during assessment.

Participant name	TRACY BUTLER
Participant signature	

Pre-requisite unit(s) to be achieved and authenticated prior to undertaking assessment

☐ Not applicable

Task	Date completed	Assessment Results	
Theory Exam		☐ Satisfactory	☐ Not Satisfactory
Practical Assessment		☐ Satisfactory	☐ Not Satisfactory
Outcome for RIICPL401E		☐ Competent	☐ Not Yet Competent

Evidence requirements checklist (ticked by assessor and evidence supplied to RTO)

☐ Theory Exam

☐ Practical Assessment

Assessor Name	
Assessor Signature	

RIICPL401E
SUPERVISE THE INSTALLATION OF
UNDERGROUND SERVICES USING OPEN
EXCAVATION
THEORY EXAM

Participant name	IREY BUTLER
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FOR THE PARTICIPANT	
Instructions	
• You will complete written questions as outlined on the following pages. You must attempt all questions and provide enough detail in your responses to demonstrate your knowledge. • It is anticipated that you should complete this assessment within two (2) hours, but additional time may be allowed upon negotiation with the Assessor. • You must complete all questions unassisted by the Assessor or other personnel but may refer to reference material as needed. All questions must be answered correctly for a 'Satisfactory' assessment outcome to be awarded. ○ An oral examination may be allowed under certain circumstances, whereby your answers will be documented by another party. ○ Any written questions that are incomplete, or not answered satisfactorily will need to be completed again after further training support. ▪ If you answer a question incorrectly but modify your response, put your initials next to the written change (or the Assessor must initial a verbal change).	
Resources required	
Pen	

FOR THE ASSESSOR	
Instructions	
• Where oral examination has occurred, ensure that this is acknowledged in writing (e.g. FT001 and Assessor Comments) • All questions must be satisfactorily demonstrated by the Participant for a Satisfactory determination (indicated by an Assessor tick to the right of the question). • Assessors are to complete marking in pen of a different colour to the Participant. • If the Participant verbally modifies their response, write in the modified response verbatim and put your initials next to the written change.	

- Q1. You have been assigned the task of supervising open excavation for installing services. Complete the table below describing documents you need to review to confirm the work activity and compliance.

Answer

Type of document	Documents required
Project documents	site plan excavation permit safety plan / SWMS risk assessments documentation of underground service location
Guidance documents	Excavation work code of practice 2021
Legislation	Work Health and Safety Act Work Health and Safety Regulation Environmental Protection Act Fair Work Act Aboriginal Cultural Heritage Act



Q2. What type of information are you expecting to locate from the documents listed in Q1. ?

Answer

SWMS - safety procedure, trench limitations/requirements
area information - existing structures and/or utilities



Q3. What are three (3) considerations you make as part of risk assessment processes during the 'walk-through' of the work area?

Answer

1. identify hazards

2. the risk

3. controls for the risk



Q4. How would you divert runoff around stockpiles unavoidably located in drainage paths?

Answer

create an up slope perimeter bank to intercept
and redirect water, or use sediment fences to trap sediment
and slow runoff



Q5. All workers must wear the PPE required by the site. Why is it particularly important for supervisors?

Answer

because they lead by example, and they are responsible for the safety of their team and compliance with regulations



Q6. Where does the use of PPE fit in the risk management process?

Answer

the last resort or a back-up after other control measures such as elimination, substitution, engineering, administrative controls have been considered and implemented



Q7. What would you read in the job plan to confirm the plan meets task requirements?

Answer

scope of works
Determine requirements
Schedule
risks and plan for contingencies
Quality assurance



Q8. Why is it important to understand the relationship of the job to other jobs within the project?

Answer

for effective teamwork, clear communication, and project success



Q9. How do you confirm that required resources are available to meet job requirements?

Answer

Daily program meeting



Q10. Two (2) labourers assigned to your team have called in sick and are unable to attend site as allocated. How would you respond?

Answer

establish communication - be considerate of illness
make a contingency plan for missing labourers and work out best work strategy to continue works



Q11. Once your team members have arrived on-site, how do you confirm that they understand their roles and all requirements?

Answer

conduct a brief, interactive orientation
provide clear communication channels,
allow for open questions and feedback

Q12. What emergency response information should you be sure your team understands before undertaking work tasks?

Answer

Radio call up response
first aiders
floor plan (evacuation areas)

Q13. How do you encourage workers to adhere to work zone traffic management controls such as exclusion zones and traffic routes?

Answer

provide comprehensive training, clear define responsibilities, enforce safety procedures and utilise effective communication methods

Q14. How can you support sub-contractors to achieve their responsibilities?

Answer

☐ safe work environment
provide necessary resources
offer training
clear communication channels
provide information ahead of schedule

Q15. How do supervisors determine human resources and sub-contractors needed for the job plan?

Answer

☐ communicate with relevant personnel within program
meeting when setting up job plan

Q16. What is the relationship between various areas of civil work and how are these relationships relevant when developing job plans and work schedules?

Answer

relationships are crucial for effective job planning and scheduling. Ensuring projects are completed efficiently and on time



Q17. Elaborate on four (4) different types of estimates used when developing job plans.

Answer

1.

Materials



2.

Time

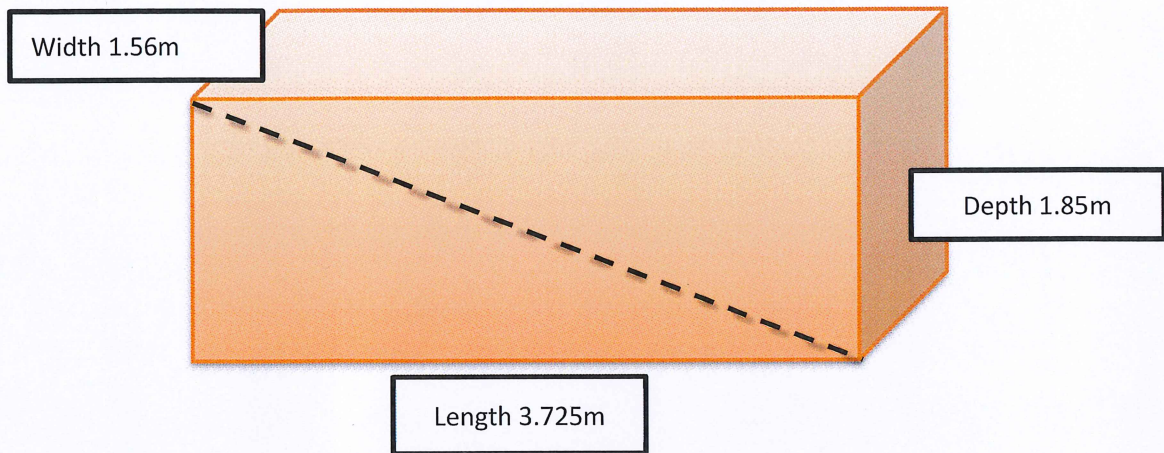
3.

plant and equipment

4.

Cost

Refer to the following image and respond to Q18. Q19. and Q20.



Q18. What is the total volume of the shape?

Answer

10.750 m³



Q19. Calculate the surface area of the shape.

Answer

14.27 m²



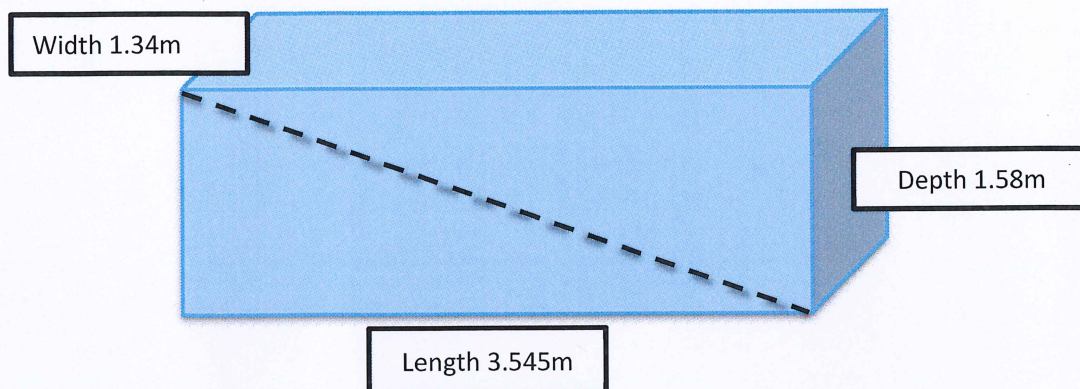
Q20. Calculate the percent grade of the dotted line.

Answer

4.038%



Refer to the following image and respond to Q21. and Q22.



Q21. Calculate the volume of the shape.

Answer

1.505 m³

☐

Q22. Calculate the grade of the dotted line as a percentage.

Answer

3.789m

3.78%

☐

Q23. You need an excavator for 3 days and have been asked to make sure there is enough diesel to last the whole 3 days.

The excavator uses 15 litres per hour and will be operating for approximately 6 hours per day. The company buys its diesel at cost (\$1.10 p/l) and it has a policy that requires all orders to include a contingency of 10%.

How much diesel will you need to order?

Answer

270 Litres

297 Litres with 10% contingency

☐

Q24. Clearly explain the steps you undertake when setting out the site for a trench.

Answer

plan for works briefing - nature and extent of works
exclusion zones
disposal of soil
Existing structures and utility services

☐

Q25. A hold point may be required following the set out. Why would this be necessary?

Answer

for an inspection to continue works

☐

Q26. Write a description for each of the following trench collapse prevention methods (1) shoring, (2) benching (3) battering.

Answer

1. metal plates are placed on either side of the trench. walls are kept in place with spacers matching trench ~~it~~ width
2. excavating the sides to form a series of steps/levels
3. the trench wall are dug at an angle



Q27. Why is it important that the slope ratio not exceed the prescribed maximum value?

Answer

collapse or cave ins



Q28. What does it mean, to monitor the excavation and installation process?

Answer

to ensure task is done to correct procedure
task is safe (ground conditions, lifts)
inspected



Q29. What methods do you use to confirm the outcomes are being achieved according to the job requirements?

Answer

inspection reports
job diary/ies
status reports

☐

Q30. What is one (1) reason you may have to adjust the work practices and (2) what effect can this have on your work plan?

Answer

1. Weather conditions (wet)
2. extend work time, soil saturation

☐

Q31. How do you record the changes and adjustments made to work practices mentioned in Q30. ?

Answer

Contingency Plan
Daily diary

☐

Q32. If you come across an unidentified existing service during excavation work, which methods or procedures would you use to identify the service?

Answer

use a vae truck
ground penetrating radar or cable locators
to pinpoint location depth and direction

☐

Q33. What is the BYDA system and how would you go about getting the information sent out to you and by what means?

Answer

Before You Dig Australia
Via BYDA website or BYDA APP

☐

Q34. What are some characteristics, technical capabilities and limitations related to one (1) item of plant or equipment you should be monitoring during installation works?

Answer

lifting capacity at different radii, operating speed

☐

Q35. How do you, as the supervisor, confirm plant, equipment and tools maintenance requirements are carried out and recorded according to job requirements and manufacturer specifications?

Answer

check item pre-start
communication with operators/workers

☐
