

04 | SESSION PLANS
SYSTEMS SCAFFOLDS



SESSION 1: OVERVIEW

SYSTEM SCAFFOLDS

SESSION PURPOSE

The purpose of this session is to familiarize trainees with System Scaffold components and accessories, and providing them with guidelines for selecting and inspecting System Scaffold equipment.

LEARNING OUTCOMES

By the end of this session, your trainees should be able to:

- Identify System Scaffold components and accessories
- Discuss what factors need to be considered when selecting System Scaffold equipment
- Inspect System Scaffold equipment for damage or decay

DURATION

Approximately 30 minutes



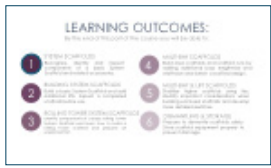

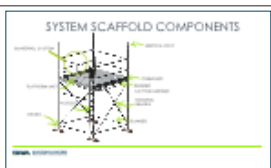


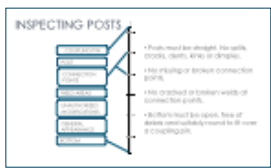

PREPARATION REQUIRED




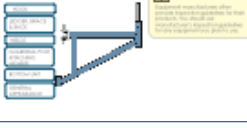
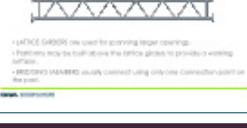


- Read Section 1 of the Study Guide and familiarize yourself with the Key Points
- Review the PowerPoint slides for Section 1 and the Trainer Notes
- (*Optional*) Gather a selection of some basic frame scaffold components to be able to show trainees and demonstrate their use.

FLEXIBILITY

The instructions in this Trainer Manual are a recommended delivery option. You may need to adapt the activities and timings to suit the needs of trainees.

SESSION 1: SESSION PLAN

SLIDE(S)	INSTRUCTIONS
	
	<ul style="list-style-type: none"> • SYSTEM SCAFFOLDS: Intro Slide
	<ul style="list-style-type: none"> • Briefly go over the Learning Outcomes for the System Scaffold portion of the course.
	<ul style="list-style-type: none"> • Describe the features and range of uses for System Scaffolds
	<ul style="list-style-type: none"> • Briefly review the various components of a basic System Scaffold and describe their function.
	<ul style="list-style-type: none"> • Describe the different System Scaffold connection types, how they work and the advantages of each.
	<ul style="list-style-type: none"> • Discuss the importance of inspecting equipment before beginning to build a scaffold.
	<ul style="list-style-type: none"> • Describe what to look for when inspecting posts.
	<ul style="list-style-type: none"> • Describe what to look for when inspecting horizontals and diagonals.

 <p>BASES</p> <ul style="list-style-type: none"> Screwjacks are used for leveling the scaffold when the floor is not level. When the lower levelled bases and beams are in place, the structure can be erected. System Scaffolds should be built using screwjacks. A base collar provides rigid bracing to the base of the scaffold and can be used for setting up and leveling the scaffold base. 	<ul style="list-style-type: none"> Describe the types of Screwjacks available and review how they are used. Describe Base Collars and explain their function and how they must be installed.
 <p>INSPECTING BASES</p> <ul style="list-style-type: none"> Check the level of the bases and beams. Check the level of the scaffold. Check the level of the floor. Check the level of the walls. Check the level of the roof. Check the level of the ground. Check the level of the air. Check the level of the water. Check the level of the sun. Check the level of the moon. Check the level of the stars. Check the level of the planets. Check the level of the galaxies. Check the level of the universe. 	<ul style="list-style-type: none"> Describe what to look for when inspecting bases.
 <p>BRACKETS</p> <ul style="list-style-type: none"> Brackets are a common component used to extend the length and/or width of the scaffold system. They are designed to carry workers only. Brackets attach the jobsite to other scaffolded components. The width of the bracket varies from one foot and three inches wide, allowing the contractor to choose the right width for the specific project. 	<ul style="list-style-type: none"> Discuss when brackets might be needed and explain that they are to be used to support workers only.
 <p>INSPECTING BRACKETS</p> <ul style="list-style-type: none"> Check the level of the brackets. Check the level of the scaffold. Check the level of the floor. Check the level of the walls. Check the level of the roof. Check the level of the ground. Check the level of the air. Check the level of the water. Check the level of the sun. Check the level of the moon. Check the level of the stars. Check the level of the planets. Check the level of the galaxies. Check the level of the universe. <p>IMPORTANT: Brackets are designed to carry workers only. They are not designed to carry equipment or materials.</p>	<ul style="list-style-type: none"> Point out the parts of brackets and explain what to look for when inspecting them.
 <p>LATTICE GIRDERS & BRIDGING MEMBERS</p> <ul style="list-style-type: none"> LATTICE GIRDERS are used for spanning larger openings. Members are built above the lattice girder to provide a working surface. BRIDGING MEMBERS usually connect using one-to-one connections on the ends. 	<ul style="list-style-type: none"> Describe the lattice girders and bridging members and what they are used for.
<h2>LEARNING ACTIVITY</h2>	
 <p>LEARNING ACTIVITY</p> <p>Inspect the scaffold equipment that has been provided for the practical that will comprise of this course.</p>	<ul style="list-style-type: none"> Have trainees get up and go inspect the equipment that is to be used for the Practical Assessment.
 <p>KEY POINTS</p> <ul style="list-style-type: none"> REFERENCE: All scaffold equipment from different manufacturers is covered in the course. BRACKETS extend the length and/or width of the scaffold system. They are designed to carry workers only. LATTICE GIRDERS are used for spanning openings. Other components are connected to the lattice girders. SELECTING THE RIGHT EQUIPMENT for the job is important for SAFETY CONSIDERATIONS. 	<ul style="list-style-type: none"> Review the key points from this session.



KEY POINTS

*The most important information you **MUST** cover in this section:*

- Some System Scaffolds may look alike, but there are important variations. Intermixing of equipment from different manufacturers is discouraged to minimize the potential hazards.
- Brackets** are a common component used to extend the length and/or width of the scaffold platform. They are designed to carry workers only.
- Lattice girders** are used for spanning openings. Other configurations are commonly referred to as **bridging members**.
- Selecting the right equipment for the job is very important for the safe and efficient use of System Scaffolds. Jobsite conditions, equipment availability, and user requirements will determine what equipment must be used. If the scaffold's basic characteristics are unsuited to the task, or if all the necessary components are not available, workers are forced to make do with what is available which could lead to accidents.
- Thoroughly inspect scaffold equipment or components before use to ensure they are safe. Learn to recognize possible defects or unsafe conditions present in scaffold frames and accessories.
- Scaffold components should be inspected for: structural damage, modification, missing parts or pieces, damage, excessive corrosion, discoloration and other types of damage or physical defects.



NOTES

SESSION 2: OVERVIEW

BUILDING SYSTEM SCAFFOLDS

SESSION PURPOSE

The purpose of this session is to familiarize trainees with the process of building a basic System Scaffold and add additional lifts as well as how to inspect them and how often.

LEARNING OUTCOMES

By the end of this session, your trainees should be able to:

- Describe how to build a basic System Scaffold and add additional lifts.
- Explain when, how often and how to inspect System Scaffolds.

DURATION

Approximately 20 minutes


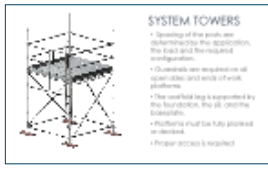



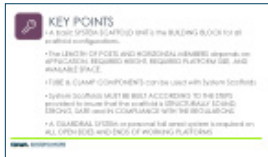
PREPARATION REQUIRED

- Read Section 2 of the Study Guide and familiarize yourself with the Key Points
- Review the PowerPoint slides for Section 2 and the Trainer Notes
- Complete the Learning Activity in at the end of Section 2 in the Study Guide and answer the questions about the scenario.

FLEXIBILITY

The instructions in this Trainer Manual are a recommended delivery option. You may need to adapt the activities and timings to suit the needs of trainees.

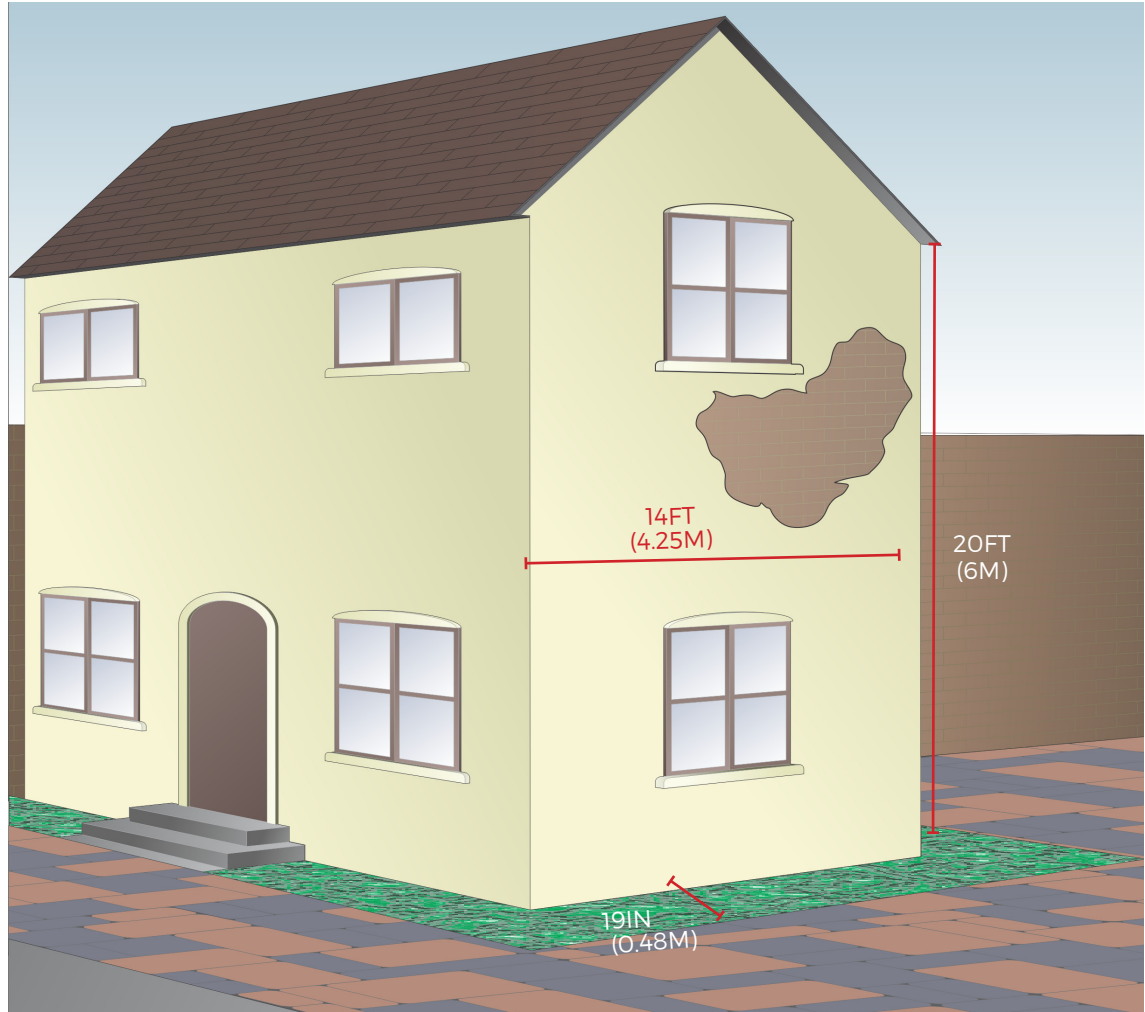
SESSION 2: SESSION PLAN

SLIDE(S)	INSTRUCTIONS
	<ul style="list-style-type: none"> BUILDING SYSTEM SCAFFOLDS: Intro Slide
	<ul style="list-style-type: none"> Point out the different components of the basic System Scaffold and discuss the importance of including guardrails, fully-planked platforms and providing proper access
	<ul style="list-style-type: none"> Briefly describe each step in the process of building a basic System Scaffold unit. Discuss the importance of inspecting the scaffold before it is used and how often it should be inspected afterwards.
	<ul style="list-style-type: none"> Discuss proper access and best practices when installing access. Refer to any relevant regulations related to access (<i>these should already have been discussed in Scaffold Fundamentals Section 2 so just a brief reminder</i>). Discuss the importance of 3 points of contact when climbing ladders.
LEARNING ACTIVITY	
	<ul style="list-style-type: none"> Discuss the learning activity as a group or have trainees work in pairs to answer the questions on page 34.
	<ul style="list-style-type: none"> Review the key points from this session.



LEARNING ACTIVITY

Analyze the following scaffolding scenario to get an idea of the reasons certain choices were made in terms of scaffold design and equipment chosen. Fill in the details in the Job Requirement Checklist and answer the questions on page 34.



SYSTEMS TOWER SCAFFOLD

SCENARIO: A plasterer must repair a wide patch on the exterior upper wall of a two-story house. He needs a working platform of at least 5 ft wide to have room for his materials and to be able to get across the entire space that needs repair without having to reach or move the scaffold. There is a small strip of garden at the base of the wall that the owner does not want disturbed so the scaffold must be built on the paving stone driveway 19in (0.48m) out from the wall. The load will include the plasterer, a 25lb bag of dry plaster mix, and his tools.



LEARNING ACTIVITY

Analyze the job scenario to understand why certain equipment choices were made for this scaffold:

Why was a 9ft-10in (3m) post used?

What (if any) preparation of the foundation would be necessary in this scenario?

If the concrete foundation was level, why would screwjacks be needed in this scenario?

Why was a guardrail attached on all open sides of the platform?

Why do you think steel planks were chosen rather than wood planks?

Why would a stairway not be a good choice for this scaffold?



KEY POINTS

The most important information you MUST cover in this section:

- A basic System Scaffold unit is made of **vertical posts**, **horizontal members** and **diagonal braces**. It is the building block for all System Scaffold configurations.
- There is a systematic method for building a safe, structurally sound System Scaffold that is in compliance with the regulations and the practices of the industry.
- The length of posts and horizontal members will depend on the application, the height of the scaffold, the required platform size, and the available space for the scaffold.
- Tube & Clamp components can often be used in conjunction with System Scaffolds for added flexibility.
- A guardrail system or personal fall arrest system is required on any scaffold that has a working platform that is more than 10ft (3m) above the ground or floor to which an occupant can fall (or lower in some jurisdictions). It must also be installed on all open sides and ends of the scaffold.
- All working platforms must be fully planked or decked. Platform materials should be securely attached to the scaffold.
- Proper safe access must be provided for workers to use.
- Begin with a firm foundation and clear away any debris, materials and equipment from the area where the scaffold is to be built.
- Pick the highest ground level for the starting point to simplify later adjustment. It helps if the screwjack adjusting handle is about a hand width above the bottom of the thread.
- Level, square, and plumb the scaffold to ensure the scaffold will be safe to use.
- Though it is not required by law, the three-colored tag system is widely recognized and used on many job sites to let workers know when the scaffold is or isn't safe to use.
- Scaffold inspections must be made after the scaffold has been built and before it is used and at minimum it should be inspected once per shift, at the beginning of each shift, or after an event that could have altered the scaffold or affected its structural stability.



NOTES

2

SESSION 3: OVERVIEW

ROLLING TOWER SCAFFOLDS

SESSION PURPOSE

The purpose of this session is prepare trainees to build Rolling Tower Scaffolds safely and how to prepare an equipment list.

LEARNING OUTCOMES

By the end of this session, your trainees should be able to:

- Identify components of a basic rolling tower System Scaffold.
- Describe how to build a rolling tower scaffold
- Prepare an equipment list.

DURATION

Approximately 15 -20 minutes

PREPARATION REQUIRED



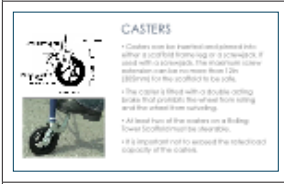


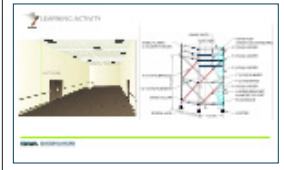

- Read Section 3 of the Study Guide and familiarize yourself with the Key Points
- Review the PowerPoint slides for Section 3 and the Trainer Notes
- Review the Learning Activity at the end of Section 3 in the Study Guide.

FLEXIBILITY

The instructions in this Trainer Manual are a recommended delivery option. You may need to adapt the activities and timings to suit the needs of trainees.

SESSION 3: SESSION PLAN

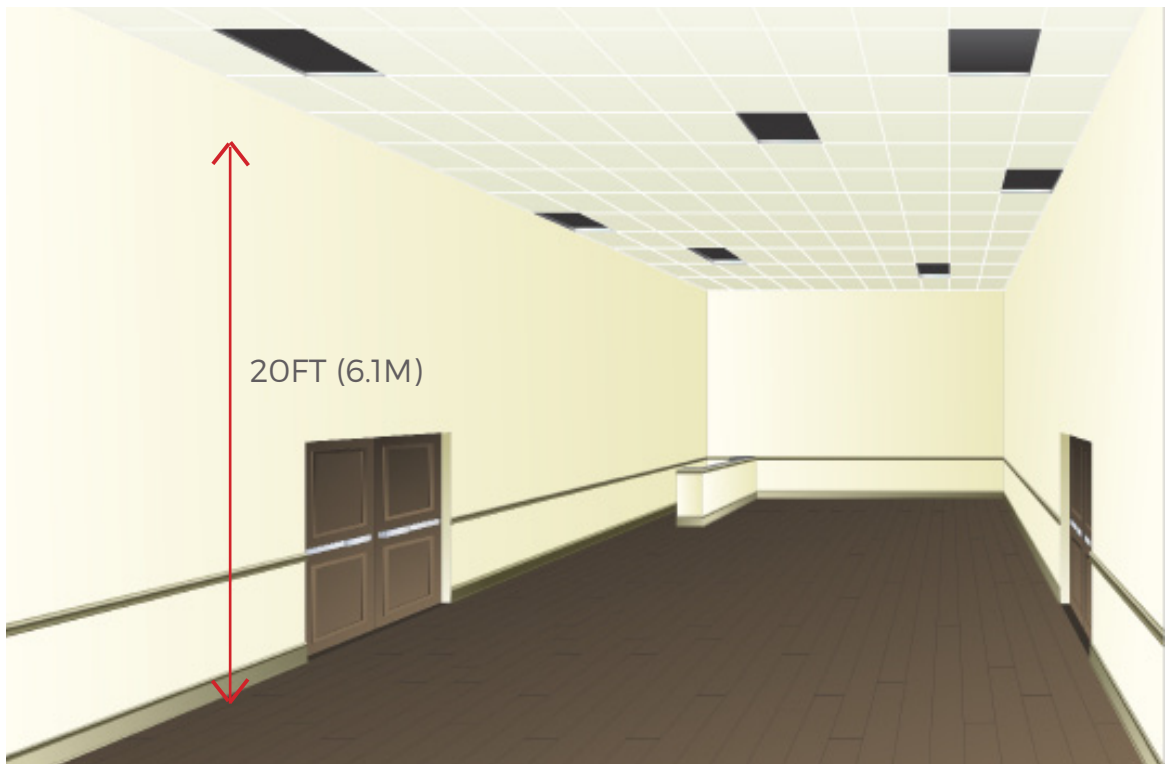
3

SLIDE(S)	INSTRUCTIONS
	
	<ul style="list-style-type: none"> Describe situations when it is advantageous to use a Rolling Scaffold Tower. Point out the elements that differ from a stationary System Scaffold tower.
	<ul style="list-style-type: none"> Describe the features of a proper scaffold caster. Explain the proper way to attach casters to System Scaffold legs.
	<ul style="list-style-type: none"> Explain the purpose of a horizontal brace and why it is needed for Rolling Towers.
	<ul style="list-style-type: none"> Explain the purpose of outriggers and how they help stabilize scaffolds and when they should be used. Describe the proper placement and process for installing outriggers.
LEARNING ACTIVITY	
	<ul style="list-style-type: none"> Go through the Learning Activity with the group and discuss the equipment required (referring to the equipment list on page 46).
	<ul style="list-style-type: none"> Review the KEY POINTS from this session.



LEARNING ACTIVITY

Use the details in the following scenario to complete the Job Requirement Checklist. A sketch of the required scaffold has been provided. Using the Equipment Checklist on page 46 select your equipment for the scaffold that is shown.



ROLLING TOWER SCAFFOLD

SCENARIO: A worker must replace ceiling tiles in different locations, in the suspended ceiling of a large ballroom. The ceiling is exactly 20ft (6.1m) above the flat level hardwood floor of the ballroom. The worker can stand and reach 6ft (1.8m) above a work platform, a scaffold platform is required 14ft (4.3m) above the floor. The load will include one worker, two boxes of ceiling tiles that weigh 50 lb (22.7kg) each, and miscellaneous hand tools.

SYSTEM SCAFFOLD EQUIPMENT LIST:

Quantity	Item Description
	1ft 8in (0.5m)
	3ft 3in (1m)
	4ft 11in (1.5m)
	6ft 6in (2m)
	9ft 10in (3m)
	2ft 2in (0.65m)
	3ft 6in (1.04m)
	3ft 10in (1.15m)
	5ft 2in (1.57m)
	5ft 4in (1.63m)
	6ft (1.83m)
	7ft (2.13m)
	8ft (2.44m)
	10ft (3.05m)
	7ft (2.13m)
	10ft (3.05m)
	3ft 10in (1.15m)
	5ft 2in (1.57m)
	5ft 4in (1.63m)
	6ft (1.83m)
	7ft (2.13m)
	8ft (2.44m)
	10ft (3.05m)
	21ft (6.39m)
	Screwjack 24in Straight (0.61m)
	Screwjack 19in Swivel Base (0.47m)
	Base Collar 9in (0.229m)
	Casters

Quantity	Item Description
	6in (150mm) Starter Bracket
	3ft (914mm) ladder
	5ft (1.52m) ladder
	Safety Gate 3ft 6in (1.04m)
	(1.5m) Crazy Leg post
	Stair Unit
	Inside Handrail
	Outside Handrail
	2in (533mm)
	9-5/8in (245mm)
	31-1/8in (791mm)
	Alum/Ply Deck 7ft (2.13m)
	Alum/Ply Deck 10ft (3.05m)
	Steel Plank 2ft 2in (0.65m)
	Steel Plank 3ft 10in (1.15m)
	Steel Plank 5ft 2in (1.57m)
	Steel Plank 5ft 4in (1.63m)
	Steel Plank 7ft (2.13m)
	Steel Plank 8ft (2.44m)
	Steel Plank 10ft (3.05m)
	Toeboards
	9-5/8in (245mm)
	2in (533mm)
	31-1/8in (791mm)



KEY POINTS

The most important information you MUST cover in this section:

- The steps for building a Rolling Tower System Scaffold are very similar to a stationary System Scaffold except for two main differences: 1) the bases use **casters** instead of baseplates 2) a **horizontal diagonal** (or **plan brace**) is required.
- The caster must be pinned to the post or bolted to the screwjack caster adapters so it doesn't fall out. If the caster is used with a screwjack, the maximum screw extension can be no more than 12in (305mm).
- The caster is fitted with a double acting brake that prohibits the wheels from rolling or swiveling. At least two of the casters on a Rolling Tower Scaffold must be steerable.
- A **horizontal diagonal (plan)** brace is attached diagonally across the tower from one post across to the diagonally opposite post. This brace provides stiffness to the tower, keeps it square while it is being moved, and prevents it from "folding up" and collapsing.
- Adding levels (called **lifts**) above the first level requires workers to hand scaffold components up to a worker on the platform. As you build higher, a hoisting line or a wheel pulley may be required to lift the scaffold components higher. Be aware of and compensate for the overturning forces imposed by hoisting line or wheel pulley.
- **Outriggers** are important safety devices designed to provide stability when a scaffold height-to-base width ratio exceeds 4:1 (or 3:1 depending on your jurisdiction).



NOTES

3

SESSION 4: OVERVIEW

MULTI-BAY SCAFFOLDS

SESSION PURPOSE

The purpose of this session is to prepare trainees to build larger scaffolds by adding bays and to show them how to sketch a scaffold design.

LEARNING OUTCOMES

By the end of this session, your trainees should be able to:

- Build area scaffolds and scaffold runs by adding additional bays lengthwise and widthwise
- Sketch a scaffold design

DURATION

Approximately 20 minutes









PREPARATION REQUIRED

- Read Section 4 of the Study Guide and familiarize yourself with the Key Points
- Review the PowerPoint slides for Section 4 and the Trainer Notes
- Review the Learning Activities for Section 4 and determine how you will facilitate these with the trainees. Make sure you work through them yourself so you are able to answer any questions they may have.

FLEXIBILITY

The instructions in this Trainer Manual are a recommended delivery option. You may need to adapt the activities and timings to suit the needs of trainees.

SESSION 4: SESSION PLAN

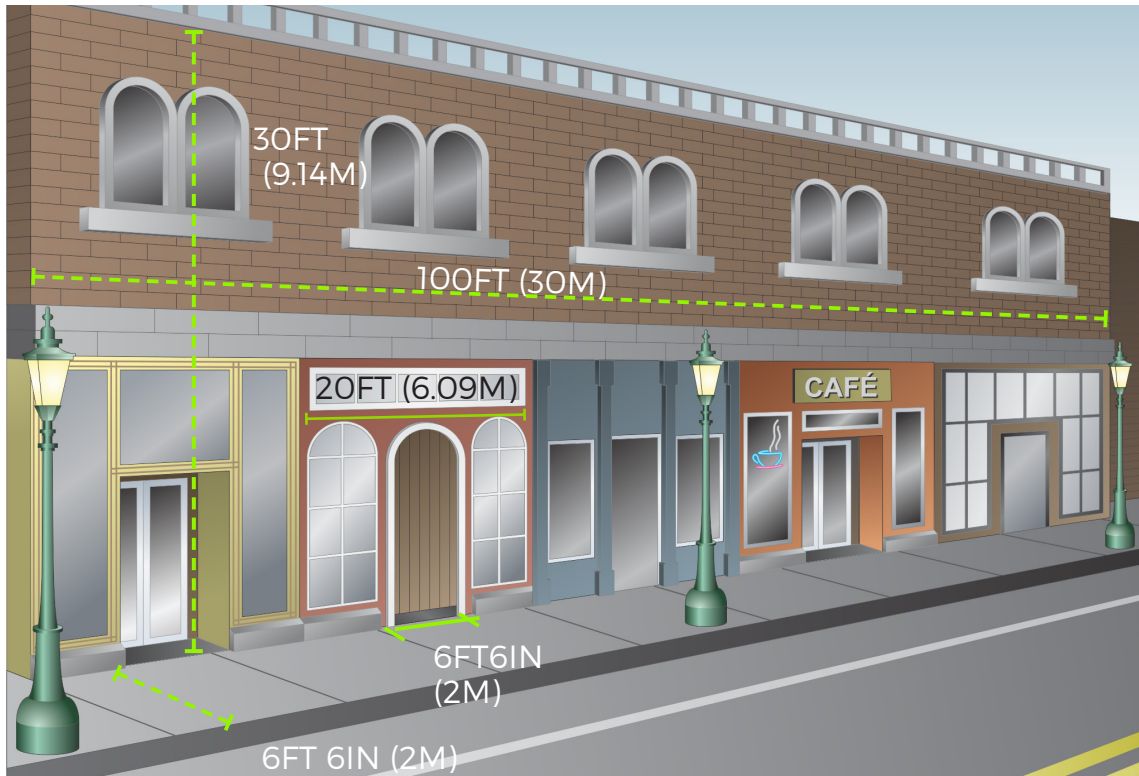
SLIDE(S)	INSTRUCTIONS
	<ul style="list-style-type: none"> MULTIBAY SCAFFOLDS: Intro Slide
	<ul style="list-style-type: none"> Describe scaffold runs and where they are typically used.
	<ul style="list-style-type: none"> Describe area scaffolds and what types of jobs they are typically used for.
	<ul style="list-style-type: none"> Explain the importance of bracing and describe how and where to install bracing on System Scaffolds. Emphasize the importance of following manufacturer's instructions for bracing of specific System Scaffold Equipment.
	<ul style="list-style-type: none"> Explain how sketching a plan of the scaffold can be helpful when preparing equipment lists and communicating with scaffold builders and users. Point out the different types of views shown here (elevation, plan view, side view etc.)
LEARNING ACTIVITIES	
	<ul style="list-style-type: none"> Discuss the Learning Activity on page 62 and roughly sketch out (if you have a whiteboard) what the design of the scaffold for this scenario should look like. Discuss what equipment will be needed for this scaffold.
	<ul style="list-style-type: none"> Discuss the Learning Activity on page 66 and roughly sketch out (if you have a whiteboard) what the design of the scaffold for this scenario should look like, Discuss what equipment will be needed for this scaffold.
	<ul style="list-style-type: none"> Review the KEY POINTS from this session.





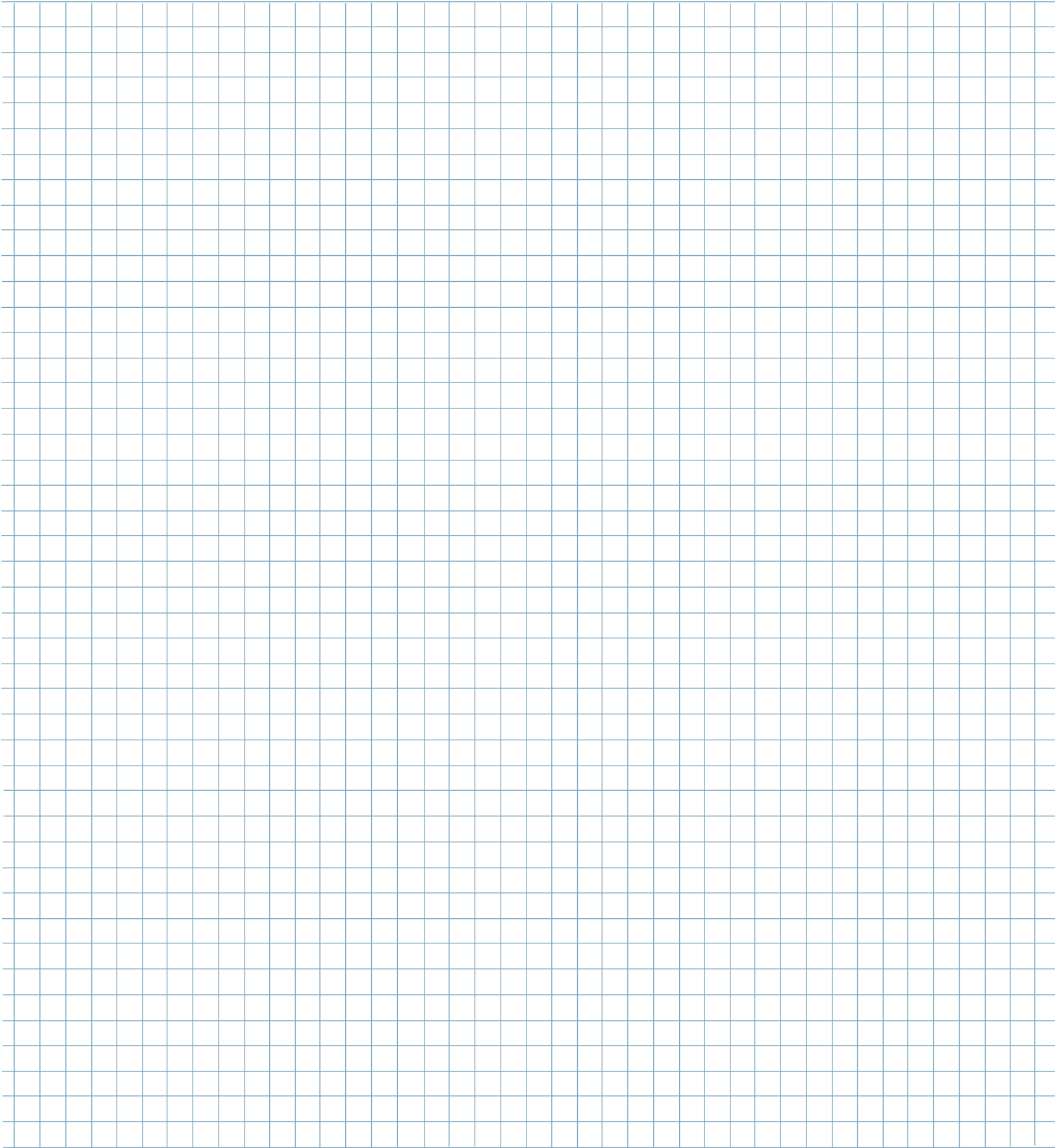
LEARNING ACTIVITY

1. Read the following scenario to determine the job requirements. Write these in the Job Requirement Checklist.
2. Sketch out your scaffold design using the graph paper provided on the following pages
3. Write out your equipment list based on the sketches of the required scaffold.



SCAFFOLD RUN

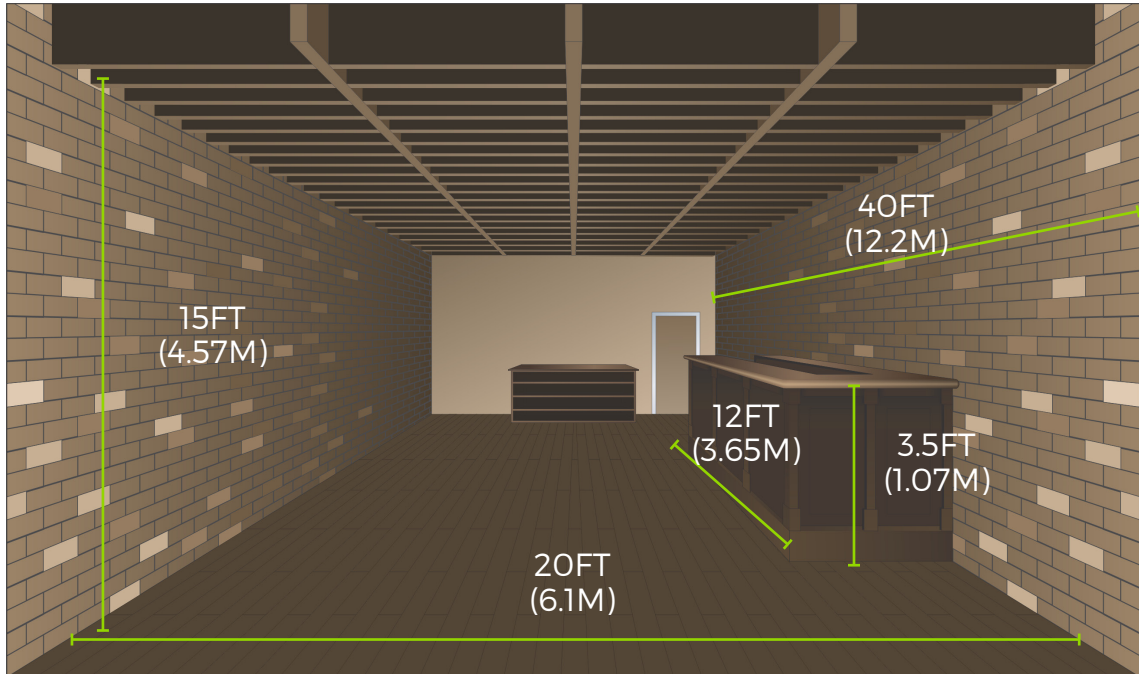
SCENARIO: Five workers must repaint brickwork on the top level of a building that runs about 100ft (30m) long. The scaffold will be built on a concrete sidewalk that is 6ft 6in (2m) wide. There are street lights on the sidewalk which will be off for the duration of time the scaffold is in use. There is 5ft 6in (1.6m) of space between the street lights and the front of the building. There are shops on the lower level of the building - each of them is 20ft (6m) wide with 6ft 6in (2m) doorways. The shop doors must be accessible and the scaffold must be able to allow for pedestrian traffic on the sidewalk. The owner wants the work to be completed in 3 days. The loads will include the workers, their paints and





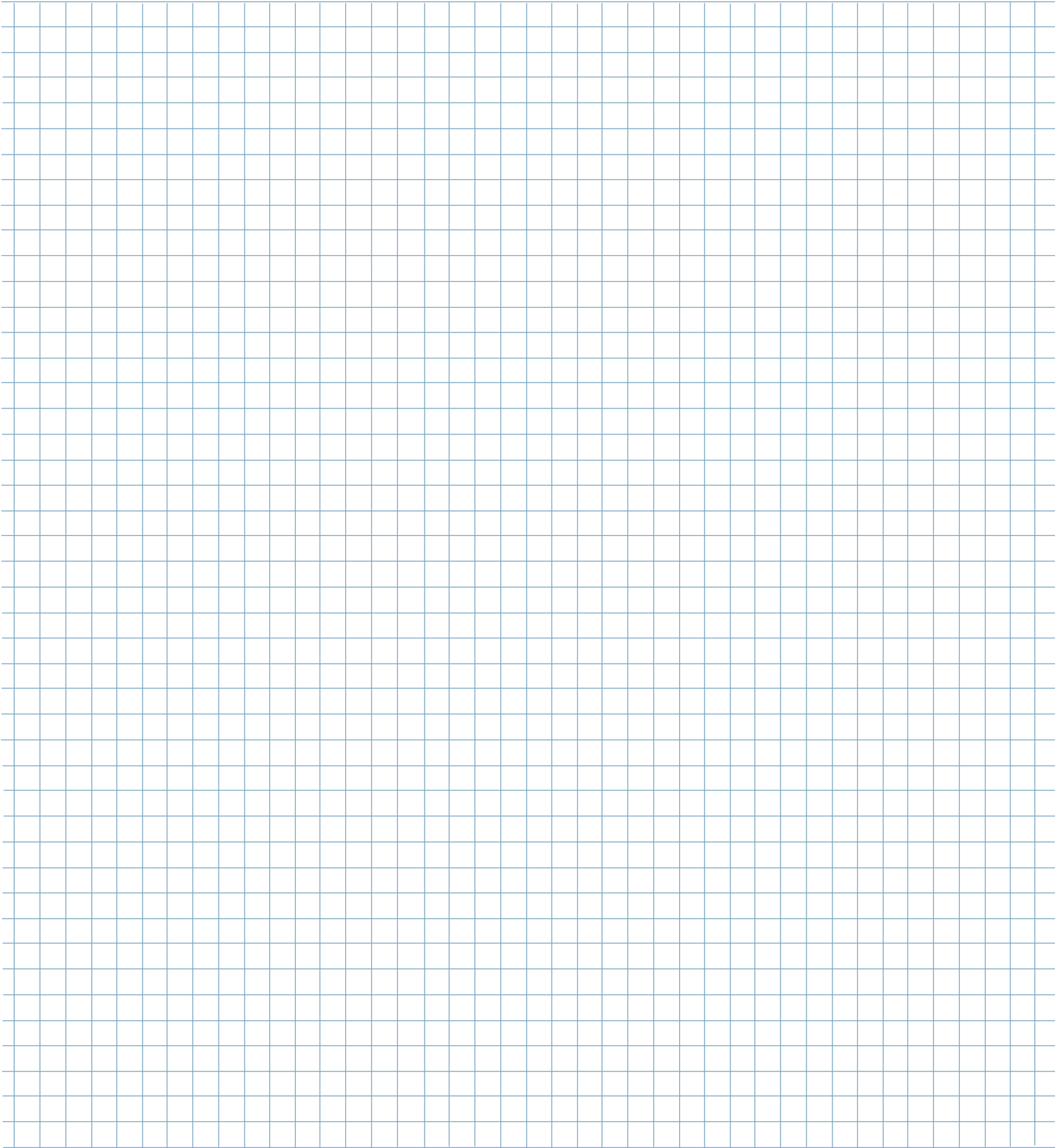
LEARNING ACTIVITY

1. Read the following scenario to determine the job requirements. Write these in the Job Requirement Checklist.
2. Sketch your scaffold design
3. Write out your equipment list based on the sketches of the required scaffold.



AREA SCAFFOLD

SCENARIO: A new restaurant is being built in an older building. There is some work to be done on the ceiling including installing ducts, lighting and painting the ceiling. The owners hope to open in a few days so several different tradesmen may need access to the ceiling to do their work at the same time. The floor of the restaurant is wood on top of concrete. The height of the ceiling is 15ft (4.57m) and the restaurant measures 20ft X 40ft (6.1m x 12.2m).





KEY POINTS

The most important information you MUST cover in this section:

- System Scaffolds can be constructed many ways including the following three fundamental ways: **A Single Bay (Tower) Scaffold, Scaffold Runs** or **Area Scaffolds**. They are often used for circular scaffolds and around odd-shaped or irregular structures.
- Square bays by placing a horizontal diagonal brace (plan brace) between two diagonally opposite corner posts or some other method such as a squaring tool (if available).
- The specific configuration of the scaffold will determine the best layout arrangement for all ties and bracing. **Always follow manufacturer's instructions regarding bracing requirements for your scaffold equipment.**
- Once you know all the requirements of the project, you can develop a plan. This plan, in the form of a sketch or drawing, allows you to figure out the scaffold design on paper.
- You can develop your equipment list from a sketch or drawing of the scaffold configuration. While it is possible to make an equipment list from a mental picture of what is required, errors can easily result from such an approach.
- Your sketch doesn't have to be perfect but it should show different views of the scaffold such as: the plan view and elevations (front and side). It should also include important details such as tie design and placement (if required).
- Graph paper can be a helpful tool to allow you to draw your scaffold to scale.



NOTES

SESSION 5: OVERVIEW

MULTI-LIFT & BAY SCAFFOLDS

SESSION PURPOSE

The purpose of this session is remind trainees about the need for ties when scaffolds exceed the locally allowable height-to-base ratio and when they are enclosed. It is also to give trainees an understanding of considerations when working with enclosed scaffolds.

LEARNING OUTCOMES

By the end of this session, your trainees should be able to:

- Stabilize higher scaffolds using ties,
- identify important considerations when building enclosed scaffolds
- develop more detailed sketches.

DURATION

Approximately 20 minutes

PREPARATION REQUIRED

- Read Section 5 of the Study Guide and familiarize yourself with the Key Points
- Review the PowerPoint slides for Section 5 and the Trainer Notes
- Review the Learning Activities for Section 5 and determine how you will facilitate these with the trainees. Make sure you work through them yourself so you are able to answer any questions they may have.

FLEXIBILITY

The instructions in this Trainer Manual are a recommended delivery option. You may need to adapt the activities and timings to suit the needs of trainees.

SESSION 5: SESSION PLAN

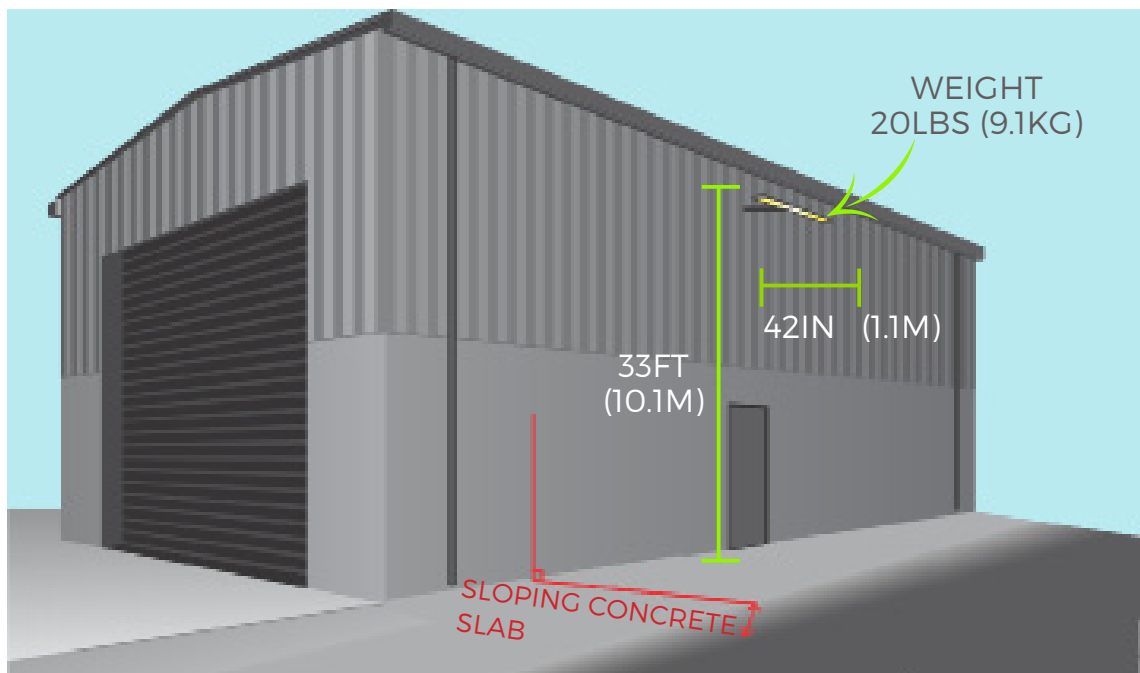
SLIDE(S)	INSTRUCTIONS
	<ul style="list-style-type: none"> MULTI-LIFT & BAY SCAFFOLDS: Intro Slide
	<ul style="list-style-type: none"> Discuss the different types of ties and the different ways ties can be constructed. Emphasize the importance of ties for stabilizing higher multi-lift scaffolds.
	<ul style="list-style-type: none"> Discuss the increased loads that enclosed scaffolds are subjected to and the importance of having a qualified person design the scaffold (including the ties required).
	<ul style="list-style-type: none"> Clearly outline the Competent Person's responsibilities regarding scaffold inspections. Explain how often scaffolds must be inspected and that this is a MINIMUM. Describe the three color tag system and how it works.
	<ul style="list-style-type: none"> Discuss the Learning Activity on page 74. If possible sketch out the scaffold design (on a whiteboard) and the type of tie that should be used in this scenario.
	<ul style="list-style-type: none"> Discuss the Learning Activity on page 78. If possible sketch out the scaffold design (on a whiteboard) that should be used in this scenario.
	<ul style="list-style-type: none"> Review the KEY POINTS from this session.



LEARNING ACTIVITY

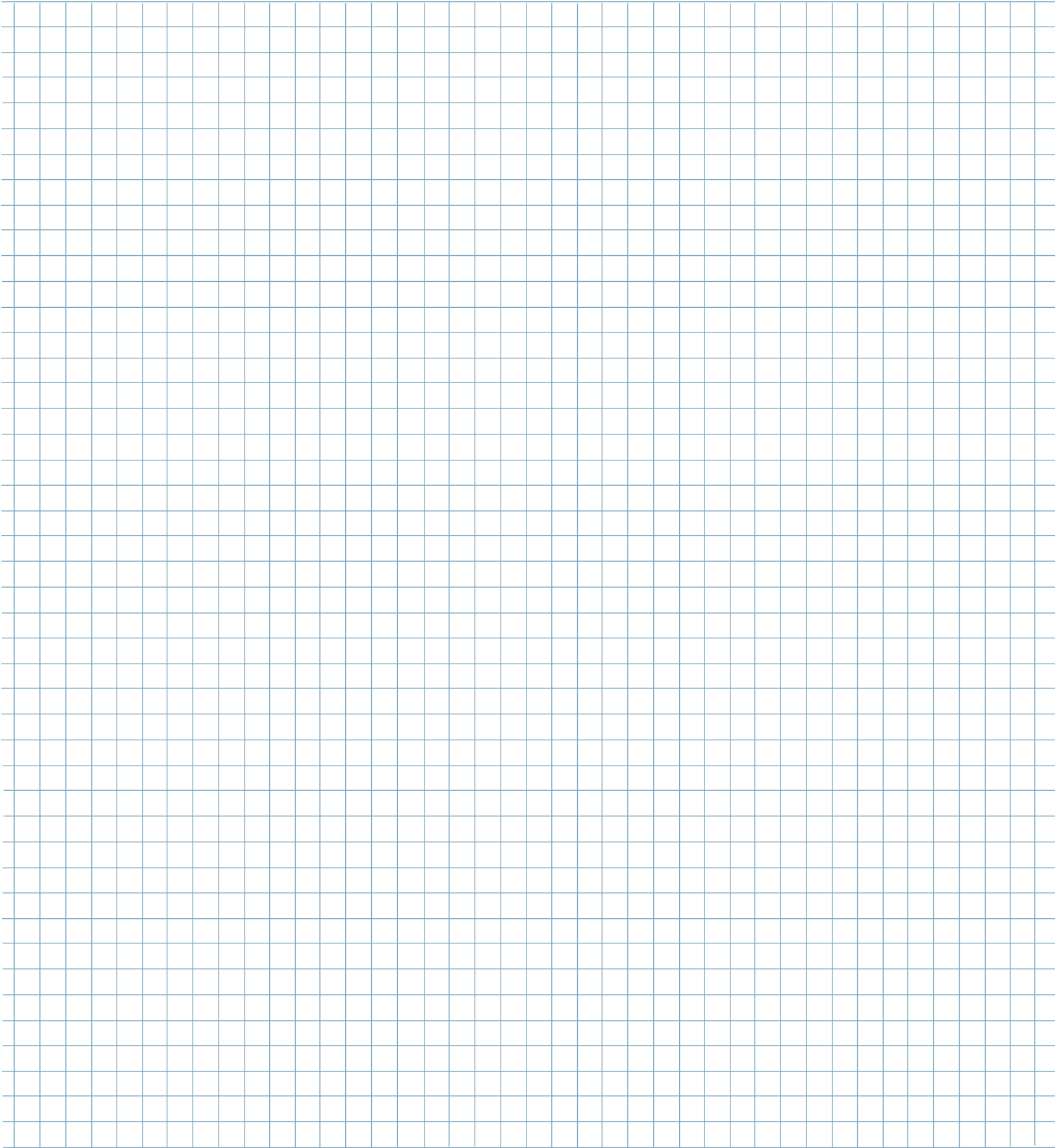
For the following two scenarios complete the following exercises:

1. Analyze the scenario and complete the Job Requirement Checklist
2. Based on the Equipment List provided, sketch out the design of the scaffold that is needed (assuming the only materials you have available are those listed in the Equipment list). Use the graph paper on the following pages for your sketch.
3. Determine the number and location of ties that are required according to your local regulations and indicate these locations on your sketches.
4. Sketch out a design for the tie you plan to use.



MULTI-LIFT SYSTEM SCAFFOLD TOWER

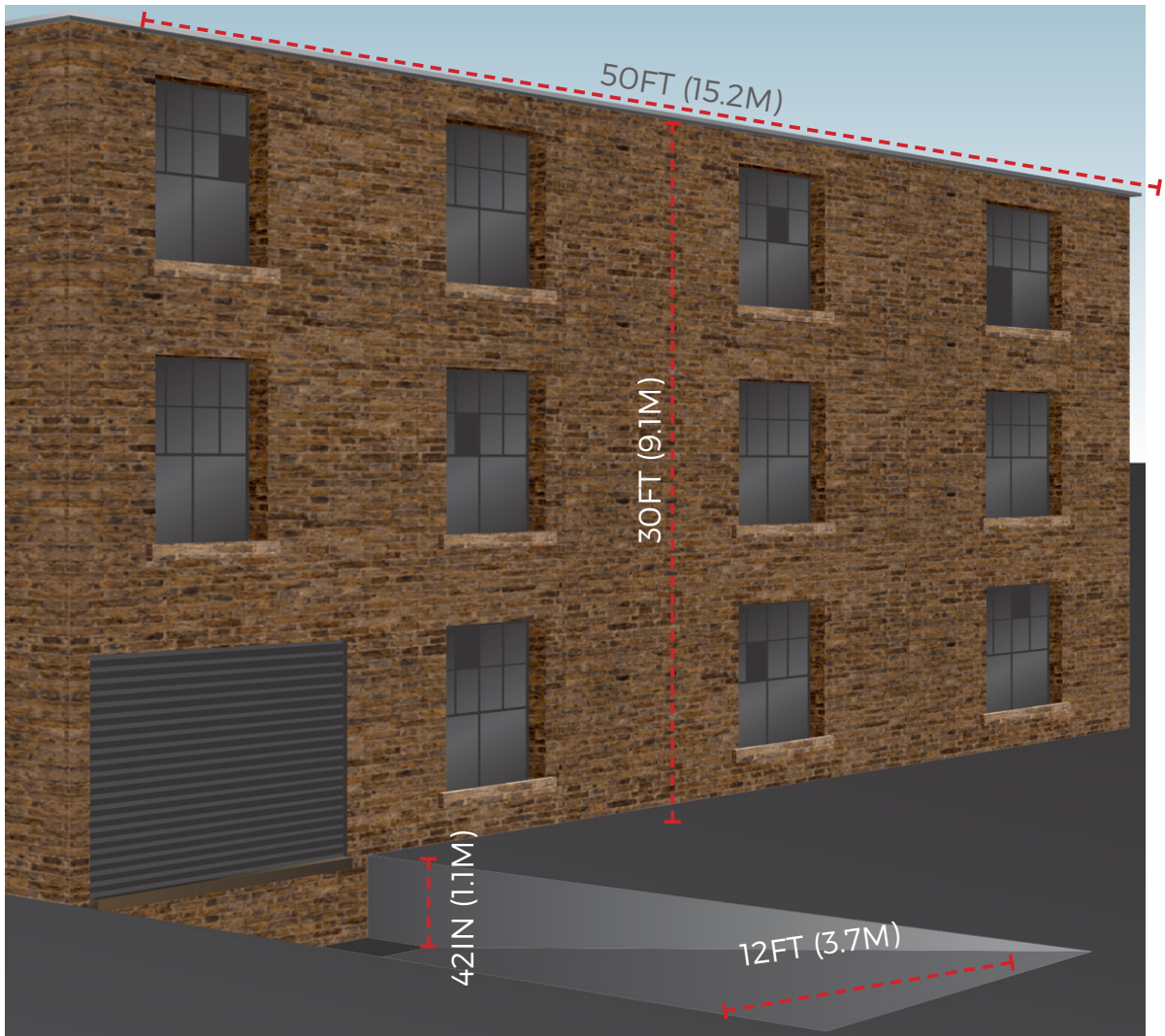
SCENARIO: A worker must repair an outdoor lighting fixture extending 42in (1.1m) out from the face of a warehouse wall. The light fixture, which weighs approximately 20 lb. (9.1kg), is 33ft. (10.1 m) above a slightly sloping concrete slab. The worker can stand and reach 6ft. (1.8 m) above a work platform, so the scaffold platform must be approximately 27ft. (8.2 m) above the concrete slab.





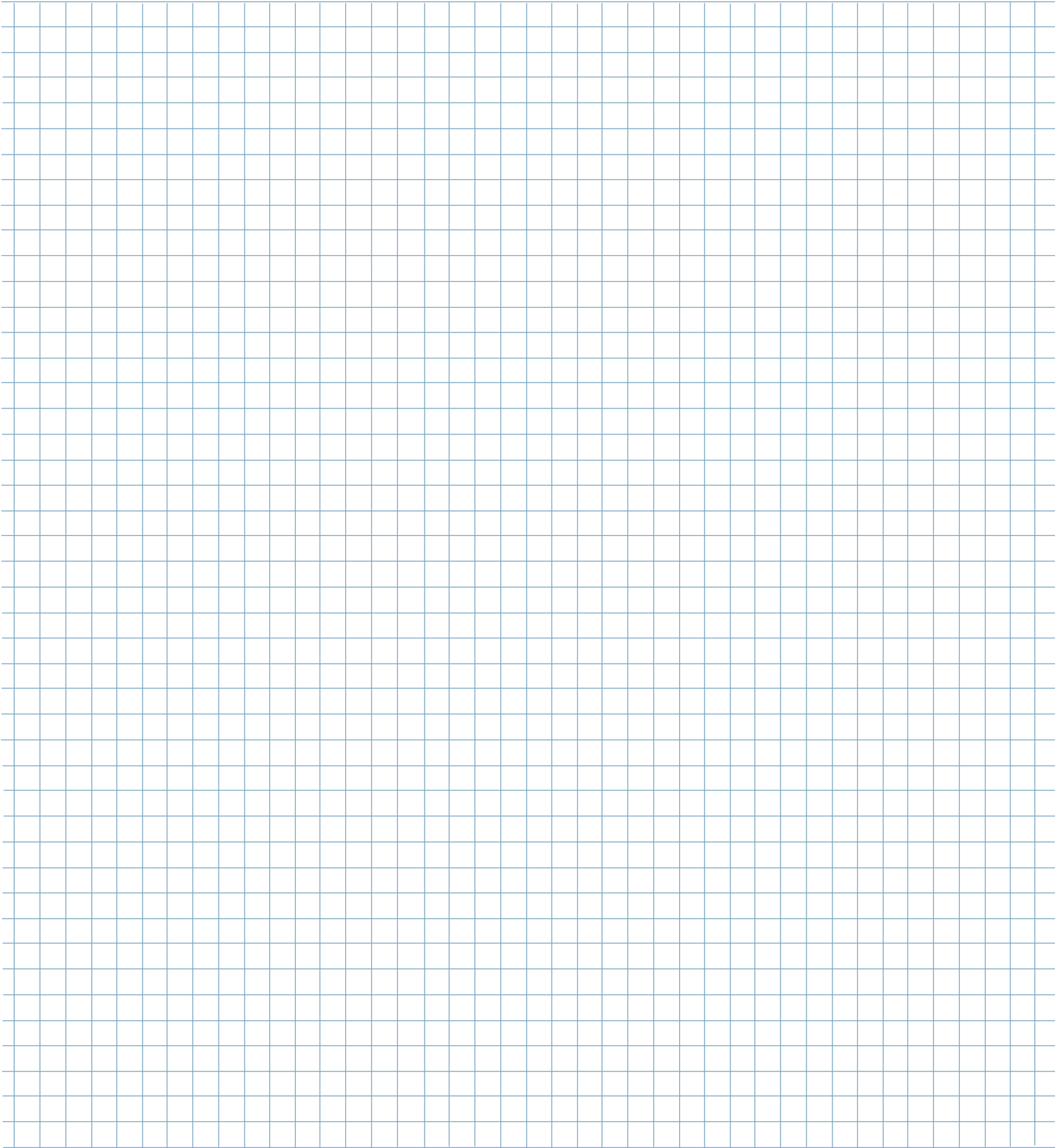
LEARNING ACTIVITY

Complete the same tasks as you did for the previous scenario. Sketch your scaffold design on the graph paper provided on the following pages.



MULTI-LIFT SYSTEM SCAFFOLD RUN

SCENARIO: Minor repair work is required on the rear windows and facade of a building that is 30 ft. (9.1 m) tall. There is a loading dock that drops down 42 in (1.1m) below the ground level. The loading dock, which will be closed during the operation, is paved with concrete while the adjacent areas are asphalt. The entire length of the wall is 50ft (15.2m) and the loading dock is 12ft (3.7m) wide, located at the corner of the building. The repair work consists of caulking the windows, patching some cracks, and painting the gutter. Several workers may be working simultaneously, so the scaffold must be planked on





KEY POINTS

The most important information you MUST cover in this section:

- Ties to the existing structure are an important requirement to ensure the stability of a scaffold. They are required when the scaffold is enclosed or exceeds a permissible height relative to the minimum base width.
- There are a variety of tie methods that can be used for securing the scaffold to the structure. A “hard tie” using an eye bolt and a tube with a pigtail at the end is clamped to the scaffold and provides an excellent push/pull (Tension/Compression) tie. Another method utilizes wire for tension (the scaffold falling away from the structure), and either tube or a piece of wood to resist compression (the scaffold falling into the structure).
- Tubes used for ties should be clamped to BOTH the inner and outer leg of the scaffold for maximum stability.
- Check your local regulations for the required spacing of ties based on the dimensions of your scaffold. Make sure all the required ties are in place. The best location for the ties is near the top bearer or horizontal member.
- Enclosed Scaffolds are used for weather protection, or to prevent materials such as sandblasting grit, asbestos or other undesirable materials from spreading into the environment, or to prevent debris from falling into areas below the scaffold.
- Enclosed Scaffolds are subjected to much greater loads than standard scaffolds. Additional ties and/or bracing may be required. Consult a qualified person for assistance.
- Scaffold equipment used for hazardous material abatement must be protected from contamination.



NOTES

SESSION 6: OVERVIEW

DISMANTLING & STORAGE

SESSION PURPOSE

The purpose of this session is to familiarize trainees with the process of safely dismantling a scaffold and how to properly store System Scaffold equipment.

LEARNING OUTCOMES

By the end of this session, your trainees should be able to:

- Demonstrate how to prepare for and dismantle scaffolds safely.
- Store scaffold equipment properly to prevent damage.

DURATION

Approximately 70 minutes (Includes Practical Assessment and Dismantling)

PREPARATION REQUIRED

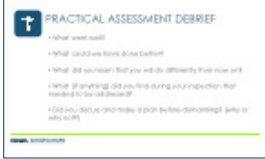

- Read Section 6 of the Study Guide and familiarize yourself with the Key Points
- Review the SAIA or SIAC Codes of Safe Practices section on Dismantling Scaffolds
- Review the Scaffold Dismantling Checklist
- Review the PowerPoint slides for Section 6 and the Trainer Notes

FLEXIBILITY

The instructions in this Trainer Manual are a recommended delivery option. You may need to adapt the activities and timings to suit the needs of trainees.

SESSION 6: SESSION PLAN

SLIDE(S)	INSTRUCTIONS
	<ul style="list-style-type: none"> DISMANTLING SCAFFOLDS: Intro Slide
	<ul style="list-style-type: none"> Discuss the most important points to remember when dismantling System Scaffolds. Remind the trainees that the dismantling of the scaffold is as important a part of the PRACTICAL ASSESSMENT as the building and you expect them to work safely and remove components in the correct order. No matter how short you are on time - DO NOT allow them to rush the dismantling process.
	<ul style="list-style-type: none"> Explain that while trainees may not be responsible for the storage of the equipment they are using, it is still important to stack equipment neatly and group similar sized components together for easy pick-up and storage. It may be important to compare what is there with the original shipment list to ensure nothing has gone missing. Emphasize the importance of separating and tagging any damaged components so they are not re-used.
	<ul style="list-style-type: none"> Review the key points from this session.
PRACTICAL ASSESSMENT	
	<ul style="list-style-type: none"> Stop the presentation here and review the requirements of the Practical Assessment with the trainees. Provide them with a drawing or plan for the scaffold you want them to build. Ensure they are wearing all appropriate Personal Protective Equipment. After the scaffold(s) have been built - have the trainees inspect their scaffold using their Inspection Checklists.

SLIDE(S)	INSTRUCTIONS
	<ul style="list-style-type: none"> • Divide the trainees into teams based on how many scaffolds were built. (If only one scaffold was built work as one group). • Instruct the teams (or group) to discuss the process of dismantling the scaffold. (<i>What should be done before dismantling?, Which components should be removed first? Etc.</i>) • Use the Dismantling Checklist provided (as well as the Dismantling section of the SAIA Code of Safe Practices or SIAC Code of Safe Practice) as guidance • Store or pack up the equipment following best practices. Remove or separate any damaged equipment. • Share your observations of the build with the trainees (what you saw that they did well and what you feel they could have improved). Allow them the opportunity to share their answers to these debrief questions.
	<ul style="list-style-type: none"> • Review briefly the course content before the exam. • REMEMBER - THIS IS YOUR OPPORTUNITY TO CORRECT ANY UNSAFE OR INCORRECT PRACTICES.



SAFETY FIRST

No matter how late it gets, do NOT allow trainees to rush the dismantling process. Make sure the scaffold is dismantled safely and no equipment is damaged.



IMPORTANT!

Even if the Practical Assessment did not go very well, it is important to debrief with the trainees. This is their best opportunity to learn from what went wrong to prevent them from making similar mistakes on the job.



LEARNING ACTIVITY

*Discuss with your team the process of dismantling the scaffold that you constructed in class. Use the following checklist (as well as the Dismantling section of the Code of Safe Practices - in the Appendix of **Scaffold Fundamentals** manual) as guidance:*

Dismantling checklist:

- Wear proper protective equipment including: Hard hat, safety glasses, hand protection and appropriate footwear.
- Correct Fall Arrest Equipment is worn as required by local Health and Safety regulations.
- Dismantling crew understands the purpose and design of the scaffold.
- Scaffold inspected for missing or damaged parts, prior to dismantling. Missing or defective parts replaced prior to dismantling.
- Intended procedures were discussed with the dismantling crew.
- Proper access is correctly used to reach upper platform.
- Equipment is dismantled with care, in the reverse order of how it was built.
- Materials are passed safely.
- Equipment and materials are returned to storage neatly.
- Correct safety procedures are followed.

Comments:



KEY POINTS

The most important information you MUST cover in this session:

- A Competent Person must inspect the scaffold before starting work to make sure the scaffold is stable and has not been dangerously modified.
- Dismantling should be done carefully to ensure that the scaffold will come down in a controlled, safe, logical manner. Begin dismantling the scaffold from the top.
- Dismantlers must understand how the scaffold was erected, how loads are transferred, and the best sequence for dismantling the scaffold, BEFORE beginning the dismantling process.
- It is very important that workers at lower levels not get ahead of the dismantlers by removing braces, planking, or guardrails to “speed up the job.”
- When dismantling scaffolds it is important to wear the proper personal protective as required by the jobsite conditions.
- Before disassembling, inspect the scaffold to make sure it is structurally stable. Make sure platform units are safe and secure and ensure and both ends of all planks and platforms are resting on load-bearing members. Make sure all critical bracing and ties intact.
- Inspect all working platform areas for loose items that could accidentally fall on a worker as the scaffold is being disassembled. Remove all loose items before disassembling the scaffold.
- Workers below should stand in a safe position when scaffold components above are being lowered down.
- Never leave partially dismantled platform unguarded or without proper barricades.
- Examine components for damage and separate them for later disposal or repair.
- Once all the scaffold components have been inspected it is important to store them properly.



NOTES