

Scaffolding and Work Platforms

Short description

This section provides guidance for erecting, dismantling, and using scaffold systems and work platforms on Centennial project sites.

Contact person

Andrew Richardson

Name

770-613-2999

Phone number

HSEQ

Functional Department

arichardson@cce-inc.com

Email address

Responsible

Brent LeVander

Name

HSEQ

Functional Department

Approval

Geoff Preisman

Name

President and CEO

Title

Content

1	Objective and area of application.....	3
2	Superior and additional applicable documents.....	4
3	Definitions.....	4
4	Personnel roles and responsibilities.....	6
	4.1 Qualified person.....	6
	4.2 Competent person.....	6
	4.3 Authorized user.....	7
	4.4 Erectors and dismantlers.....	7
5	Scaffold and work platform inspections.....	7
	5.1 Inspection prior to erection or setup.....	7
	5.2 Pre-shift or pre-use inspection.....	8
	5.3 Scaffold and work platform tag system.....	8
6	Access, fall protection, falling object protection, planking, and decking.....	8
	6.1 Access.....	8
	6.2 Guardrails and fall protection.....	9
	6.3 Falling object protection.....	9
	6.4 Planking and decking.....	9
7	Supported scaffolds and work platforms.....	10
8	Suspended scaffolds and work platforms.....	11
9	Mobile Elevated Work Platform.....	12
10	Amendment history.....	13
11	Appendix.....	13

1 Objective and area of application

The objective of this section is to identify the requirements for Centennial employees and subcontractors who may perform work from or access scaffold systems including work platforms.

For the purpose of this section, scaffold systems include:

- Supported scaffolds
- Suspended scaffolds
- Work platforms
- Scissor lifts
- Aerial lifts

Scaffolding and work platforms have a variety of applications on Centennial project sites. Scaffolding and work platforms often enable safe, comfortable, and convenient access to work areas compared to leaning over edges, assuming poor work positions or working from ladders. All manufactured scaffolds and work platforms used on Centennial project sites will be erected, used, maintained, and repaired in accordance with ANSI/ASSE A10.8 and adhere to all manufacturers' recommendations.

Common hazards associated with scaffold systems and work platforms include:

- Improper access/egress
- Collapse
- Electrical hazards
- Falls from heights or same level
- Instability
- Struck-by falling objects
- Erection/dismantling

This section applies to all Centennial employees, subcontractors or visitors who access or conduct work from a scaffold system or work platform.

- Centennial employees
 - All Centennial employees working on a project site where scaffolding or work platforms may be utilized (gaining access to work areas or conducting inspections) shall comply with the requirements of this section
- Subcontractors
 - Subcontractors are responsible for ensuring that employees working or accessing scaffolding or work platforms on a Centennial project site will have the required training commensurate with the task they will perform (authorized user, competent person, qualified person, erector/dismantler) and comply with the requirements of this section
- Guests or visitors
 - Guests or visitors (Centennial employees or other personnel) may inspect or tour a Centennial project site where scaffolding or a work platform is used to gain

access to the site or work area(s). Guests or visitors are responsible for complying with the requirements of this section

2 Superior and additional applicable documents

1000_GD_11_01_en_1.2 Group Principle on HSEQ

1000_GP_11_01_en_7.0 Group Policy on Health, Safety, Environment and Quality (HSEQ)

1000_SOP_11_01_en_2.0 SOP on HSEQ Management

1000_SOP_11_03_en_1.0 SOP on Leadership & Workers Involvement

1000_SOP_11_04_en_1.0 SOP on Health & Safety Standards of Work

1000_SOP_11_05_en_1.0 SOP on HSEQ Incidents & Accounting Rules

1000_SOP_11_06_en_1.0 SOP on Administration and use of the HSEQ management software
ACTIVE

ANSI/ASSE A10.8 Scaffolding Safety Requirements

This section of the HSEQ Manual applies to all Centennial employees and subcontractors who are performing work in Centennial facilities and project sites. There may be more stringent requirements than this section as defined by specific State, local or contract specific scaffolding or work platform requirements. If there is a conflict between this section and other applicable regulations, the more stringent will apply.

3 Definitions

The following definitions of terms are important for an understanding of this section.

Term	Definition
Centennial	All Centennial employees, joint venture employees, subcontractors, and business partners
HSEQ	Health, Safety, Environment and Quality
Scaffold	Any temporary elevated or suspended platform and its supporting structure for personnel and/or materials
Baseplate	A device used to distribute the vertical load
Mudsill	A footing, usually wood, which distributes the vertical scaffold leg loads to the ground
Cross braces	Two diagonal scaffold members joined at their center to form an "X". Used between frames or uprights or both

Guardrail	A protective rail system secured to uprights and erected along the exposed sides and ends of platforms
Walking/working surface	Any surface, whether horizontal or vertical, on which an employee walks or works
Top rail	The highest rail component of a guardrail system located between 38-45 inches from the scaffold platform or walking/working surface and secured to the uprights erected along the exposed sides and ends of the platform
Mid-rail	A rail approximately midway between the top-rail and the scaffold platform or walking/working surface and secured to the uprights erected along the exposed sides and ends of platform
Toe-board	A barrier secured along the sides and ends of a platform, to guard against materials, tools and other loose objects falling
Maximum intended load	The total load of all employees, equipment, tools, materials, transmitted loads, wind loads, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time
Guys	Wires that attach the scaffold either to the ground or to a structure in order to increase the stability of the scaffold
Ties	Wires that connect a scaffold to an adjacent structure in order to increase the stability of the scaffold
Braces	Rigid supports that are used to support a scaffold by connecting it to a nearby structure. Ties and braces are often used together
Outrigger	The structural member of a supported scaffold used to increase the base width of a scaffold in order to provide greater stability for the scaffold
Hoist	A mechanical device to raise or lower a suspended scaffold. It may be mechanically powered or manually operated
Plank	A wood board or fabricated component that serves as a platform unit
Platform	A general term for an elevated work surface composed of one or more platform units
Aerial lift	Vehicle-mounted aerial devices used to elevate employees including, but not limited to, scissor lifts, boom lifts or bucket trucks
PSO	Project Safety Officer
PSM	Project Safety Manager
HSEQ Director	Leads the HSEQ Team
MEWP	Mobile Elevated Work Platform

4 Personnel roles and responsibilities

4.1 Qualified person

A qualified person is an individual who possesses a recognized degree, certificate, or professional standing, or has extensive knowledge, training, and experience, and has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project

A qualified person is required under the following circumstances:

- To design and load scaffolds in accordance with that design
- To train employees working on the scaffolds to recognize the associated hazards and understand procedures to control or minimize those hazards

4.2 Competent person

One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate hazards.

The role of the competent person for scaffolding and work platforms includes the following:

- Determining safe access for people erecting and dismantling scaffolds and/or work platforms
- Inspecting scaffolds and work platforms and their components for hazards before each work shift and after any event that could affect their structural integrity
- Supervising and directing all scaffold and work platform erection, dismantling, and altering procedures
- Training erectors and dismantlers to recognize hazards associated with their work
- Determining the feasibility of providing fall protection for each scaffold and/or work platform erection and dismantling operation
 - An AHA detailing why fall protection would be infeasible or hazardous must be submitted to and approved by the PSO and the PSM
- Determine whether it is safe to work on scaffolds and/or work platforms during storms, high wind, or other potentially adverse weather conditions
- Determining safe working loads of scaffolds and/or work platforms
 - Light duty - 25 lbs. per square foot
 - Medium duty - 50 lbs. per square foot
 - Heavy duty - 75 lbs. per square foot

The competent person will have the authority to approve, inspect and enforce all modifications, corrective measures and safe work practices associated with scaffolds.

4.3 Authorized user

An individual who has received training from a qualified person on the potential hazards associated with scaffolding and/or work platforms and is authorized to access or work from a scaffold system or work platform. Authorized users shall report any deficiencies or sub-standard conditions related to the scaffold or work platform to the competent person and the Centennial project superintendent.

Authorized users will be trained by a qualified person in the following:

- The hazards associated with the specific type of scaffold being used and the procedures to control or minimize those hazards
- The nature of:
 - Electrical hazards
 - Fall hazards
 - Falling object hazards
 - Access to scaffold or work platform walkways, platform components and access areas
 - The scaffold or work platform's load capacity and types of loads appropriate

4.4 Erectors and dismantlers

Scaffold or work platform erectors and dismantlers are personnel whose principal activity involves assembling and disassembling scaffolding before other work can commence, and after that work, or a portion of it, has been completed. Scaffold erectors and dismantlers shall receive training from a competent person on the specific hazards associated with erecting and/or dismantling each scaffold system or work platform that they will erect or dismantle.

In addition to the required training in section 4.3 of this section, erectors and dismantlers must also be trained in the following:

- Hazards associated with the specific scaffold that will be erected and/or dismantled
- Correct procedures for erecting, disassembling, moving, and maintaining the scaffold
- Design criteria, maximum intended loads, and intended use of the scaffold

5 Scaffold and work platform inspections

5.1 Inspection prior to erection or setup

Prior to erecting a scaffold or work platform, the competent person and scaffold erection personnel will inspect all components using the Scaffold/Work Platform Erector and Dismantler Checklist (Appendix 1), or other acceptable inspection checklist, used to inspect scaffolds and work platform components for:

- Corrosion- heavily rusted or eroded
- Straightness of members

- Welds- components with damaged or re-welding beyond the original manufacturer's weld shall not be used
- Locking devices

5.2 Pre-shift or pre-use inspection

After the scaffold is erected, a competent person shall inspect the scaffold or work platform and their components for visible defects before each work shift and after any occurrence which could affect the structural integrity using the Scaffold/Work Platform Checklist (Appendix 2) or other acceptable inspection checklist. This inspection shall be documented and maintained on the project site for duration of the project.

5.3 Scaffold and work platform tag system

All scaffold systems and work platforms must be visibly tagged to indicate their condition according to the scaffold or work platform tag system listed below:

- Red tag – The scaffold or work platform is unsafe for use and is out of service
- Yellow tag—The scaffold has temporary limitations, is being modified, or does not meet full standard safety requirements
- Green tag – the scaffold or work platform has been inspected and is safe for use

Only the competent person is allowed to place or remove these tags. Any scaffold not tagged shall be considered unsafe for use and will not be used. A red tag shall be placed on any incomplete scaffold/work platform or incomplete section of scaffolding.

Scaffold or work platform tags must contain the following information:

- The competent person's name or initials
- Date of inspection and previous inspections (if any)
- Scaffold inspection and documentation shall take place at the beginning of each shift

6 Access, fall protection and falling object protection

6.1 Access

Authorized users, guests and/or visitors shall be provided a means of safe access to scaffolds and work platforms. Ladders or stairways may be used to gain access to platforms that are more than 24 inches above or below an access point or walking/working surface. Cross braces may never be used to gain access to a scaffold section or platform.

Several types of scaffolds and work platform access are permitted:

- Ladders (portable or hook-on)
- Stair towers
- Ramps and walkways
- Integral prefabricated frames

- Direct access
 - when the scaffold is not more than 14 inches horizontally and not more than 24 inches vertically from the other surfaces

6.2 Guardrails and fall protection

Guardrails shall be installed on all open sides and ends of scaffold platforms that are six or more feet from a lower level or walking/working surface in accordance with Federal, state, local or contract specific regulations and will consist of top rails, mid-rails, and toe-boards.

The requirements for the top rail of a guardrail system include the following provisions:

- The top edge height of top-rails or equivalent member on supported scaffolds manufactured or placed in service after Jan. 1, 2000, shall be installed between 38" and 45" above the platform surface
- The top edge height on supported scaffolds manufactured and placed in service before Jan. 1, 2000, and on all suspended scaffolds where both a guardrail and a personal fall arrest system are required shall be between 36" and 45"

Authorized users working from supported or suspended scaffold may require the use of a personal fall arrest system for protection. This fall arrest system shall consist of a full body harness, connecting device, arrest system, and independent anchorage. The anchorage point shall be an independent point on a structure and must be capable of supporting at least 5,000 pounds for each user. A fall protection plan (see HSEQ Manual section 20) shall be submitted to the Centennial Representative, HSEQ Team Representative and the Senior Site Representative for approval prior to utilizing a personal fall arrest system on a scaffold or work platform.

6.3 Falling object protection

Personnel on walking/working surfaces below a scaffold or work platform will be protected from the hazard of falling objects by implementing one or more of the following hazard controls:

- Toe-boards (required on all scaffold or work platforms whose height is greater than 6 feet above a lower level or walking/working surface)
- Mesh debris screens and nets
- Catch platforms
- Solid panels or canopies
- Restricting personnel access by placing barricades and signage
- Hardhats (required at all times on Centennial project sites)

6.4 Planking and decking

This section includes the following types of scaffolds and work platform planking and decking:

- Wooden scaffold planking
- Prefabricated planking
- Prefabricated decking

- Prefabricated platform

General requirements for planking and decking are as follows:

- All working levels of scaffolds or work platforms will be fully planked or decked
- All wooden planking will be “scaffold grade” and bear distinct marking stating this
- All planking or decking will be secured to prevent tipping or displacement
- Walkways and work platforms shall be a minimum of 18 inches wide
 - If a work area is less than 18 inches wide, a fall protection plan will be submitted to the Centennial Representative, HSEQ Team Representative and the Senior Site Representative for approval detailing the means used to protect personnel from fall hazards
- Planking or platform must not deflect more than 1/60 the span when loaded (1.6 inches over 8 feet of span)
- All planking of platforms shall be overlapped (minimum 12 inches), or secured from movement
- Scaffold or work platform planking shall extend over their end supports not less than 6 inches nor more than 12 inches
- Tools, materials, and debris shall not be allowed to accumulate in quantities that create a hazard. Housekeeping activities on scaffolds and work platforms will be in accordance with HSEQ Manual section 12 (Housekeeping, Sanitation and Environmental Control)
- Planking and decking shall be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch wide, except where it can be demonstrated that a wider space is necessary (for example, to fit around uprights when side brackets are used to extend the width of the platform)
- Planking or decking that is cut, split, chemically damaged, or painted shall not be used
- Workers will not use any device to gain additional height from the scaffold or work platform

7 Supported scaffolds and work platforms

Supported scaffolds and work platforms consist of one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support. Supported scaffolds and work platforms include the following:

- Fabricated frame (frame scaffold)
- Manually propelled or mobile scaffold
- Pump jack
- Ladder jack (prohibited on Centennial project sites)
- Tube and coupler
- Systems scaffold

General requirements for supported scaffolds and work platforms are as follows:

- Supported scaffold systems and work platforms will be inspected by a competent person prior to being placed into service according to section 5 of this section

- Supported scaffolds, work platforms and their components must be capable of supporting their own weight and 4 times the maximum intended load
- Supported scaffold shall bear on adequate firm foundation and be equipped with mudsills and baseplates that sufficiently distribute the weight of the scaffold or work platform and its contents
- Supported scaffolds and work platforms will be plumb and level
- Supported scaffolds shall not be constructed more than 4 times higher than the minimum base dimension of the scaffold or work platform without guys, ties, or braces installed to restrain from tipping
- Scaffolds shall not be altered or moved horizontally while in use or occupied except when a scaffold has been specifically designed for such use (aerial/scissor lift)
- Work on scaffolds is not permitted during sustained winds above 25 MPH or gusts above 35 MPH, electrical storms or when snow, hail, or other hazards exist as determined by the Centennial project superintendent
 - Manufacturer guidance shall take precedence if wind speed restrictions are more stringent than this section
- Supported scaffolds with a height to base width ratio of more than four to one (4:1) shall be restrained from tipping by one or more of the following:
 - Guys
 - Ties
 - Braces
 - Outriggers
- Scaffolds and work platforms will be plumb and level
- Portable ladders or other means of gaining additional height shall not be permitted on scaffolds or work platforms

8 Suspended scaffolds

All manufactured suspended scaffolds and work platforms used on Centennial project sites will be erected maintained and repaired in accordance with ANSI/ASSE A10.8 and adhere to all manufacturers' recommendations.

Types of suspended scaffolds or work platforms include:

- Two point or swing stage
- Single-point adjustable
- Centenary
- Multi-point adjustable
- Interior hung
- Needle beam
- Boatswains chair

General requirements for suspended scaffolds and work platforms are as follows:

- Suspended scaffold systems and work platforms will be inspected and documented by a competent person prior to being placed into service and prior to the beginning of each shift according to section 5 of this section and tagged according to section 5.3 of this

section. Specific components requiring inspection on a suspended scaffold or work platform may include the following:

- Working platforms or decking
 - Hoists
 - Connection and anchorage systems
 - Governors and secondary braking systems
- Suspended scaffolds, work platforms and their components must be capable of supporting their own weight and 4 times the maximum load applied or transmitted
 - Support and anchorage (including connection hardware) for suspended scaffold systems and work platforms must support 6 times the load applied or transmitted
- Direct connections to roofs and floors, and counterweights used to balance adjustable suspension scaffolds, shall be capable of resisting at least 4 times the tipping moment imposed by the scaffold operating at the rated load of the hoist
- Scaffolds and work platforms will be plumb and level
- Personal fall-arrest systems used on suspended scaffolds are to be attached by a lanyard to a lifeline and be independent of the suspended scaffold PFAS systems shall be used in accordance with HSEQ Manual section 20 (Fall Protection)

9 Mobile Elevated Work Platform

The following hazards are associated with working from Mobile Elevated Work Platforms (formerly called aerial lifts)

- Falls from heights
- Falling objects
- Stability failure (tip-over)
- Ejections from the lift platform
- Structural failures (collapses)
- Electric shock or electrocution
- Contact with objects

General requirements for aerial lifts include the following:

- Only personnel trained in ANSI A92 are allowed to operate or work from a Mobile Elevated Work Platforms (MEWP)
- MEWP equipment must be inspected prior to use using the MEWP Inspection Checklist (Appendix 3) or another approved checklist
- The work area must be inspected for the following potential hazards:
 - Holes, unstable surfaces, drop-offs, or loose materials
 - Hazardous slopes
 - Debris or other obstructions
 - Overhead power lines or hazardous obstructions
 - High winds or severe weather
 - Others working within close proximity
- Controls must be clearly marked
- Brakes must be set and outriggers used if provided
- Boom and basket load limits must not be exceeded

- Users must use a full body harness and restraint attached to the manufacturer provided anchor point
- No devices may be used to raise the employee above the basket floor unless approved by the manufacturer
- Materials will not be transported horizontally or vertically on the guardrails of the lift
- Materials shall not be hoisted with a lift unless approved by the manufacturer with the appropriate attachments
- The lift shall not be loaded past its rated capacity
- The lift shall not be driven while elevated
- Users shall not stand on the mid-rail or top rail of the lift
- All manufacturers provided instructions and operating manuals shall be maintained on the lift at all times

10 Amendment history

Date	Version	Revised content
27.03.2014	1.0	Initial Preparation
01.01.2018	2.0	Updates to Paragraph 2 Superior Documents to add the Group Policy and Global Standards, Paragraph 3 Definitions (Centennial and MEWP), Paragraph 4.2 Competent person (approvals), Paragraph 6.2 Guardrails and fall protection (approvals), Paragraph 6.4 Planking and decking (approvals), Paragraph 9 Mobile Elevated Work Platform (aerial lift change and ANSI A92 addition), Appendices 1 and 2 (logo) and Appendix 3 (aerial lift to MEWP and logo)
11.01.2021	2.1	Updates to the Table of Contents (Aerial Lifts to MEWP)
07.01.2026	2.2	Updates to Paragraph 2 Superior Documents, Paragraph 5.3 (added yellow tag), Paragraph 6.2 and 6.4 (updated approval authority), and Appendix 2.2.(single day to 5-day form)

11 Appendix

Appendix 1: Scaffold/Work Platform Erector and Dismantler Checklist
(0206500_CP_11_14_en_A1.1)

Appendix 2: Scaffold/Work Platform Checklist (0206500_CP_11_14_en_A2.2)

Appendix 3: MEWP Inspection Checklist (0206500_CP_11_14_en_A3.1)

Instructions:

Use the checklist below to inspect scaffold components prior to initiating erection / dismantling.

Note – This checklist applies to supported scaffolds.

Erector / Dismantler Checklist:

Inspector's Name (print): _____ Date: _____ Choose an answer for each statement with: Yes - No - N/A

Scaffold has been designed by a Qualified Person (QP)	
Erectors and dismantlers have been trained by a Competent Person (CP)	
Scaffold is erected, moved, dismantled or altered under the supervision of a CP	
A CP has determined the means of access / egress to the scaffold	
A CP determines feasible safe access at each stage of erection / dismantling	
Hook-on or attachable ladders and/or stair cases are installed as soon as possible	
Bottom step of access ladders is no more than 24" above or below scaffold support level	
Cross bracing is not used as a means of access / egress to the platform	
Erectors / dismantlers used fall protection systems when feasible (determined by CP)	
Scaffold is built from the bottom up and dismantled from the top down	
Poles, legs, posts, frames and uprights bear on base plates	
Scaffold is secured to the structure during erection / dismantling	
Ties to the structure are installed as soon as the scaffold is completed in each tie-in area	
Ties are removed only as dismantling activities progress downward	
Scaffolds which exceed the 4-to-1 base / height ratio are prevented from tipping	
Scaffold components from different manufacturers are not used unless they fit together easily and do not affect the scaffold's integrity (QP approval required)	
Damaged scaffold components are removed from service and replaced until repaired	
Scaffold is free from corrosion, bends, kinks, excessive dirt / mud / concrete	
Platforms are secure so they can't slip from supports	
The end of each abutted plank on a long platform rests on a separate support	
Planks overlapped to make a long platform overlap at least 12 inches over the supports	
Structural members are not removed below the level being dismantled	

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Note – This

Scaffold / Work platform Inspection Checklist:

Date	Date	Date	Date	Date

Confidentiality: Internal

MEWP Inspection Checklist

0206500_CP_11_14_en_A3.1



Operator Name (print):

Date (Week of):

MEWP Lift ID#:

Unit Type:

Project site:

Trained / Certified Operator: YES NO

Instructions: Fill in the inspection checklist below before initiating work in or on an MEWP. If the MEWP fails any part of this inspection, DO NOT operate the lift. Contact the Centennial Superintendent immediately and report the problem.

Please choose one answer for each category: Yes - No - N/A

Operating Controls (operational)	Mon	Tue	Wed	Thu	Fri	Maintenance Needed / Notes
Emergency Stop / EMO Button						
Base Operation Controls						
Basket Operation Controls						
Foot Controls						
Safety Signs (legible)						
Boom & Basket (operational)	Mon	Tue	Wed	Thu	Fri	Maintenance Needed / Notes
Hydraulic Leaks						
Extension Chain & Pivot Pins						
Electrical Lines						
Basket Cage & Gate						
Fall Protection Anchor Points						
Guardrails						
MEWP Base (visual / good working condition)	Mon	Tue	Wed	Thu	Fri	Maintenance Needed / Notes
Broken, Cracked or Loose Parts						
Fluid Leaks						
Electrical Lines						
Tires						
Outriggers						
Directional Alarm						
Owners Manual						
Fire Extinguisher						
Engine (Visual / Manual)	Mon	Tue	Wed	Thu	Fri	Maintenance Needed / Notes
Oil Level						
Fuel Level						
Battery Level / Condition						
Belt, Hose & Motor Condition						
Other items recommended by manufacturer? Lift Specific?	Mon	Tue	Wed	Thu	Fri	Maintenance Needed / Notes

Additional Notes:

Note that MEWP use shall be discontinued during periods of inclement weather. Consult owners manual to determine work limitations as a result of wind speed, ice, snow, etc...

Inspected by:

Date: