



AMERICAN NATIONAL STANDARD

ANSI/ASSE A10.8 – 2011
Scaffolding Safety Requirements

American National Standard
for Construction and
Demolition Operations

ANSI/ASSE A10.8 – 2011



AMERICAN SOCIETY OF
SAFETY ENGINEERS

21.11 When a workbench is used at an approximate height of 42 inches, the toprail may be eliminated if the workbench is fully decked, if the planking is secured, and if it is capable of withstanding a 200 pound force in any direction.

21.12 Employees shall not be permitted to use a workbench as a standing platform.

21.13 Legible manufacturer's instructions shall be affixed to the jack.

21.14 A ladder shall be provided for access to the platform during use.

21.15 Guardrails shall be installed at ground level before any work is begun.

21.16 Poles shall not be erected or used in the immediate vicinity of power lines or electrical conductors until such are insulated, de-energized or otherwise rendered safe against contact.

22. HORSE SCAFFOLDS

22.1 Horse scaffolds shall not be constructed or arranged more than two tiers or 10 feet in height.

22.2 The members of the horses shall not be less than those specified in Table 17.

22.3 Horses shall be spaced not more than 5 feet for medium-duty (see 5.1.2.3.4) and not more than 8 feet for light-duty (see 5.1.2.3.3).

22.4 When arranged in tiers, each horse shall be placed directly over the horse in the tier below.

22.5 On all scaffolds arranged in tiers, the legs shall be nailed down to the planks to prevent displacement or thrust, and each tier shall be substantially crossbraced.

22.6 Weakened or defective components shall not be used.

23. CRAWLING BOARDS (CHICKEN LADDERS)

23.1 Crawling boards, when used on roofs with slopes greater than one in 4 inches, shall conform to the requirements of 23.2 and 23.4.

23.2 Crawling boards shall be at least 10 inches wide by 1-1/2 inches thick with full width cleats spaced at equal intervals not exceeding 24 inches. The cleats shall be at least one inch thick by 1-1/2 inches wide. They shall be attached to the board with nails driven and clinched under the board or with construction screws.

23.3 Crawling boards shall extend from the roof's ridge to its eave and shall be secured to the roof by ridge hooks or an equivalent means.

23.4 A separate lifeline shall be provided for each crawling board. Each worker shall be provided with a harness with a lanyard and a fall-arresting device for attachment to the lifeline(s).

24. ADJUSTABLE SCAFFOLDS

24.1 General.

24.1.1 The entire system shall be capable of supporting, without failure, its own weight and at least four times the platform rated load. It is the user's responsibility to assure that the scaffold loading does not exceed the load capacity of the scaffold planks for the span used.

24.1.2 In addition to the requirements of Section 4.3, the tested scaffold design shall be capable of supporting twice its material platform rated load concentrated over a 4 foot square area placed anywhere on the material platform when the platform is elevated to its maximum freestanding height and remain stable without failure, overturning or deforming the vertical structure.

24.1.3 Planking shall conform to 4.17 except that in locations where crossbraces pass through the platform, the planking may be omitted.

24.1.4 Platform access shall be provided in accordance with 4.20, subparagraphs 2-5 3-5.

24.2 Hoists.

24.2.1 Hoist gears shall be manufactured and strength rated in accordance with the American Gear Manufacturers Association criteria. Cast grey iron shall not be used.

24.2.2 Ratchet driven winding drum hoists shall be equipped with a driving pawl and a locking pawl. The locking pawl must automatically engage when the driving pawl is released.

24.2.3 All crank-driven winding drum hoists shall employ a positively actuated locking pawl that engages the drive train of the hoist and is actuated by reverse descending movement of the crank handle to prevent free-spinning of the crank handle. This mechanism shall not be rendered inoperative by outside contamination.

24.2.4 Every winding drum shall contain not less than three wraps of the suspension wire rope at the lowest point of hoist travel.

24.2.5 Each hoist shall be provided with positive wire rope attachments. Wire rope attachments shall develop a minimum of 80% of the wire rope breaking strength. Wire rope termination methods shall be according to the manufacturer's recommendation. U-type wire rope clips shall not be used as a wire rope termination method.

24.3 Wire Rope.

The wire rope shall be capable of supporting at least six times the scaffold's design load. The wire rope shall conform to 6.8.2, 6.8.8 and 6.8.10. Use only wire rope recommended by the hoist manufacturer.

Wire ropes shall be continuous throughout their entire length. Splicing is prohibited.

24.4 Carriage.

24.4.1 Platform descent shall only occur when the locking pawl is forcefully disengaged by the hoist operator. When this force is removed, a pawl shall automatically engage the drive train, preventing further platform descent.

24.4.2 A safety device shall be installed on each carriage. This safety device shall lock the carriage to the scaffold structure to stop uncontrolled downward movement of the carriage within 14 inches of actuation. This mechanism shall not be rendered inoperative by outside contamination. Gravity-operated safety devices shall not be used.

24.5 Use.

24.5.1 Guardrail systems and toeboards per Sections 4.7 through 4.7.9 are only required on the rear of material platforms and at the ends of material and work platforms. Guardrail systems may be removed when stocking materials on the material platform, but must be replaced immediately upon completion of the operation. Toeboards may be omitted if the area surrounding the scaffold is barricaded to prevent work or passage beneath the scaffold.

24.5.2 Prior to relocating the scaffold structure wire rope attachment point, the carriage must be temporarily supported by a device capable of supporting twice the platform design load.

24.5.3 Every manufacturer shall provide an instruction manual specifying:

- 1) Leveling procedures.
- 2) Handling procedures.

- 3) Erection, use and dismantling procedures.
- 4) Crossbracing.
- 5) Maximum freestanding height.
- 6) Tying the scaffold to the structure.
- 7) Maximum allowable height.
- 8) Load placement.
- 9) Maximum allowable carriage load.
- 10) Design load of carriage and components.
- 11) Platform elevating and lowering procedures.
- 12) Inspection and maintenance.
- 13) Fall protection during erection and dismantling.

24.5.4 Employers shall instruct and supervise their employees in the safe use of the adjustable scaffolding provided and shall supply them with all of the manufacturer's instructional material. The scaffold system shall be operated and used by persons who have:

- 1) Read and understood the manufacturer's instructions.
- 2) Been instructed in the safe operation, use and inspection of the scaffold system and related components.

24.5.5 Personnel shall not work on scaffolds during storms, high winds or other adverse weather conditions. The use of platform canopies or enclosures must be employed in accordance with the manufacturer's recommendations.

25. MOBILE WORK STANDS

25.1 General.

25.1.1 Mobile work stands shall be capable of supporting, without failure, their own weight and at least four times the maximum intended load. Although performance testing is not a part of this standard, those interested in testing are directed to the applicable revision of ANSI/UL 1322.

25.2 Work Levels.

25.2.1 The platform height shall not exceed three times the minimum base dimension and shall not be greater than 48 inches above the ground or floor.

25.2.2 Platform units may be used at two different standing levels, provided the difference in the heights between platform units shall not exceed 16-1/2 inches. The difference in heights between the platform units may be greater than 16-1/2 inches provided that the upper platform unit not be used as a standing level.

25.2.3 A minimum of two platform units shall be used at all times. The minimum platform width of a single platform unit shall be 8 inches. The width is the minimum dimension of the standing surface, measured perpendicular to the length. If two or more platform units are used at the same standing level, the space between adjacent platforms shall not exceed one inch.

25.2.4 Access to the platform may be permitted from the ground or floor provided that the lowest standing level is less than 24 inches. Access to higher standing levels shall be provided as specified in 4.20.

25.2.5 Mobile work stands shall be braced by cross, horizontal or diagonal braces, by restrained platforms, or by equivalent means. All brace connections shall be secure to prevent racking.

4.16 Fasteners used in the construction of scaffolds shall be of adequate size and in sufficient numbers to develop the designed strength of the scaffold.

4.17 Platforms on all working and rest surfaces on all scaffolds shall be fully planked or decked with platform units as follows:

- 1) Platform units shall be placed as close as possible to adjacent units. Any space between adjacent units shall be no more than one inch wide except as necessary to fit around uprights when side brackets are used to extend the width of the platform.
- 2) Where full planking or decking cannot be obtained using standard width units, the platform shall be planked or decked as fully as possible. However, the remaining open space between the platform and guardrail supports shall not exceed 9-1/2 inches.

4.18 At intermediate supports in continuous runs, all platform units shall be secured from horizontal movement or shall be overlapped a minimum of 12 inches, except for platforms supplied with hooks intended for the support of the plank. Overlap shall occur at supports and each unit shall extend a minimum of 6 inches over support (see 4.19).

4.19 Each end of a platform unit, unless cleated or otherwise restrained by hooks or equivalent means, shall extend over its support centerline not less than 6 inches. Each end of a platform unit shall not extend over its support centerline more than 18 inches unless the unit is designed, capable and installed to support employees without tipping or is guarded to prevent access to the cantilevered end. Users shall not stand on the cantilevered portion of platforms unless the platform is restrained from tipping.

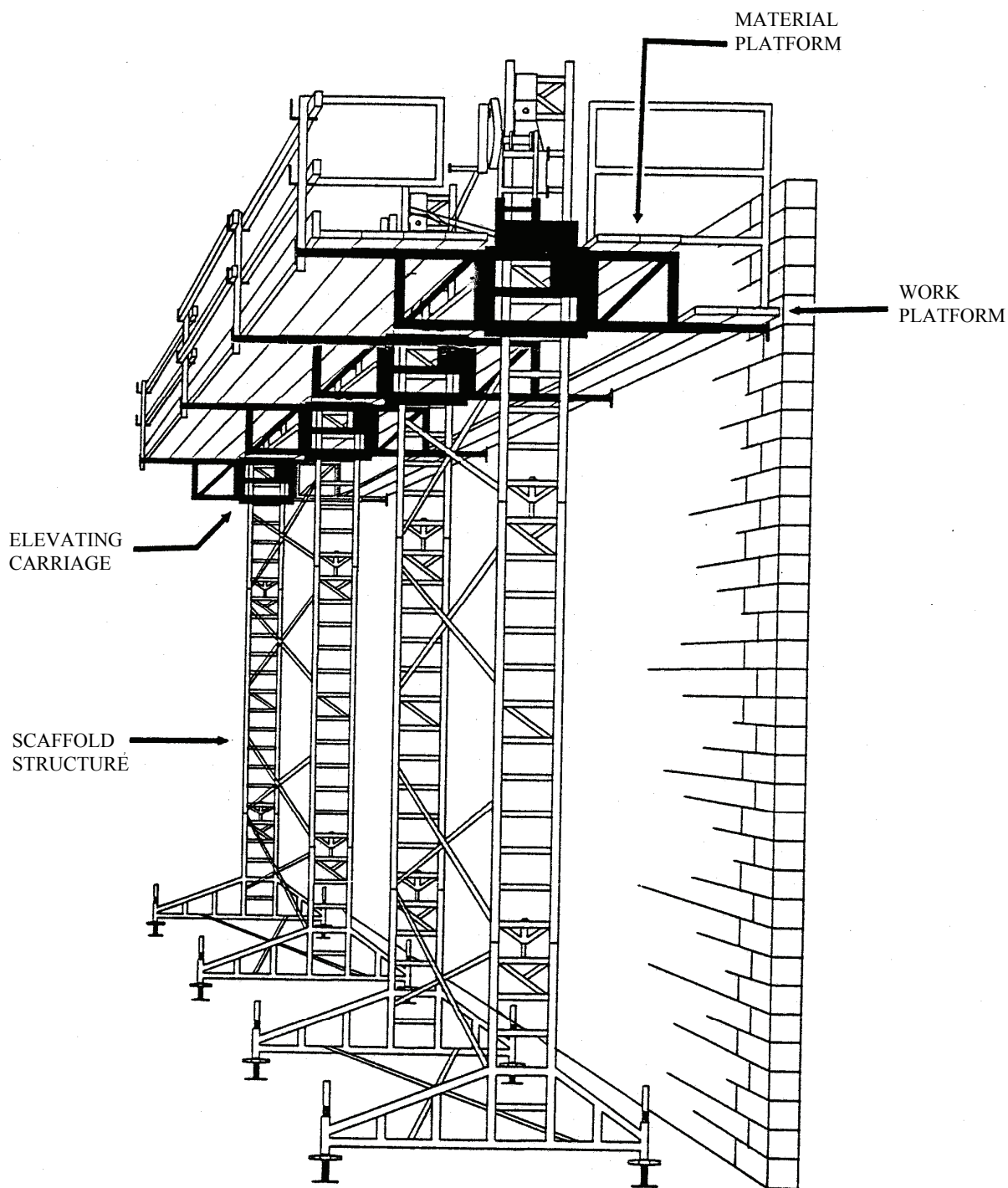
4.20 Access shall be provided to work platforms of all types of scaffolds by one of the following, except during erection or dismantling.

- 1) Portable wood, metal or glass-reinforced plastic ladders manufactured or used in accordance with ANSI/ALI A14.1, A14.2 and A14.5.
- 2) Scaffold frame when the maximum spacing between the rungs of the frame does not exceed 16-3/4 inches. The length of the rungs shall not be less than 8 inches. There shall be sufficient clearance to provide a safe handhold and foot space.
- 3) Hook-on or attachable metal ladders specifically designed for use in conjunction with proprietary types of scaffolds.
- 4) Step or stair-type access specifically designed for use with proprietary types of scaffolds.
- 5) Direct access from adjacent structure or personnel hoist.

4.21 The distance from the supporting surface to the first step of a ladder or frame designed to be climbed shall not exceed 2 feet. Ladders shall be positioned so as not to tip the scaffold.

4.22 Cages are not recommended for use on scaffold access systems as they are used outside the confines of the scaffold and they could lead to overturning the scaffold. Persons climbing or descending scaffolds shall have both hands free for climbing and shall remove foreign substances, such as, but not limited to, mud or grease, from their shoes and hands.

4.23 If ladder safety devices are used, they must be tested after installation to



NOTE: See Section 24 for requirements for adjustable scaffolds.

FIGURE D46
ADJUSTABLE SCAFFOLD