



Fall Protection

Susan Harwood Grant Training Program
2019
Steel Erection



Learning Objectives

- Understand the OSHA requirements for fall protection during steel erection
- Identify best practices for protecting workers from falls performing steel erection



Shear Studs

- Shear studs are commonly used in construction for composite concrete decks.
- But they are a tripping hazard.
- Workers may not walk on beams with studs or other protrusions.
- There must be an work alternate platform.





Joist As Fall Anchorages

- Joists cannot be used as fall arrest anchorages unless there is written approval by a qualified person.





Fall Protection on Metal Buildings



- Purlins and girts may not be used as fall arrest anchorages unless approved by a qualified person.
- May not walk on purlins until all permanent bridging has been installed and fall protection is provided.



Fall Protection

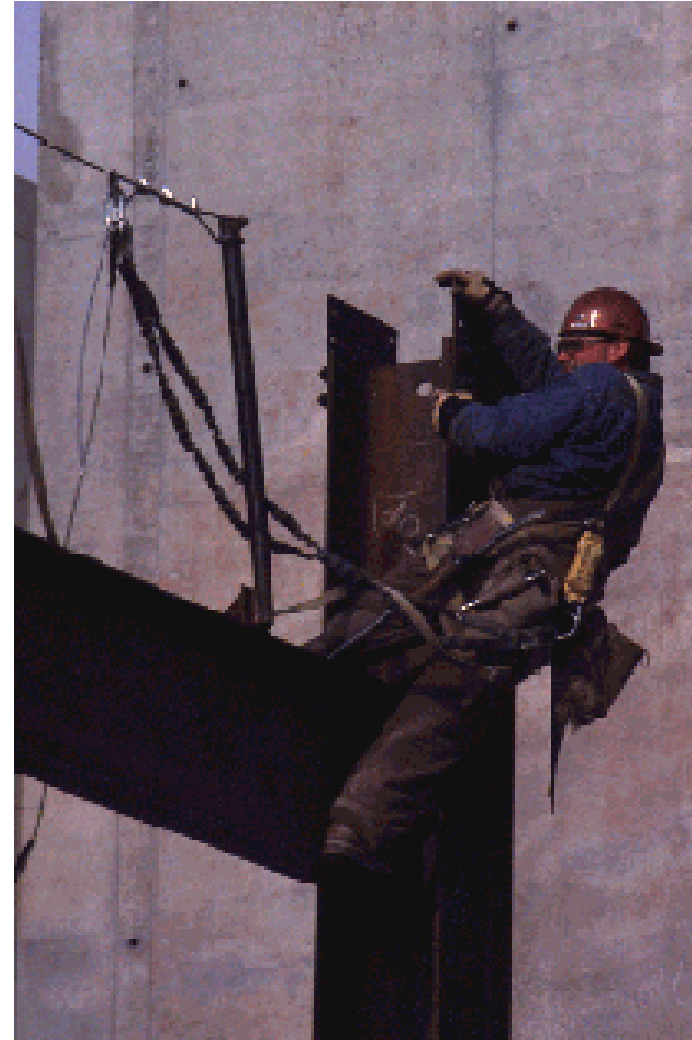


- Must be provided at 15 feet.
- Exceptions (15 – 30 feet)
 - Initial connecting
 - Decking in a “Controlled Decking Zone”



Connector

- An employee who, working with hoisting equipment, is placing and connecting structural members and/or components.





Connectors



- Must be protected from fall hazards of more than two stories or 30 ft. above a lower level whichever is less;
- Must have completed connector training;
- Must be provided – at heights over 15 ft. and less than 30 ft. above a lower level – with a personal fall arrest system, positioning device system or fall restraint system; and
- Must wear the equipment necessary to be tied off or provided with other means of fall protection.



Using Lifts

- Using lifts, where feasible, eliminates the need to climb on the steel and eliminates some fall protection issues.





Fully Planked Decks

- A fully planked or decked floor or safety nets shall be maintained within two stories or 30 feet, whichever is less, directly under any erection work being performed





Controlled Decking Zone (CDZ)

- A marked area in which initial installation and placement of metal deck may take place without fall protection.
- Access to the zone is controlled.
- No more than 90' X 90' wide.





Decking

- Can be done in a “Controlled Decking Zone” up to 30 feet.
- Workers must be trained.
- Workers must not cut holes or must cover all floor or deck holes immediately when formed.
- Perimeter protections must be established as soon as possible.





Controlled Decking Plan

- Not required but advisable
- Can be used between 15 & 30 feet.
- Must be developed by a qualified person.
- Must be site specific.
- Must establish alternate procedures for fall protection.
- Employees must complete CDZ training.



Decking Gaps

- Decking gaps must be filled.
- Wire mesh, exterior plywood, or equivalent, shall be installed around columns where planks or metal decking do not fit tightly.





Decking Operations

Employees working over 30 feet must be protected by conventional fall protection.





Decking Pre-Engineered Buildings



- Insulation and roof panels on Systems Engineered buildings fall under this section.



Simple Saver Plus Insulation Pre-Engineered Buildings

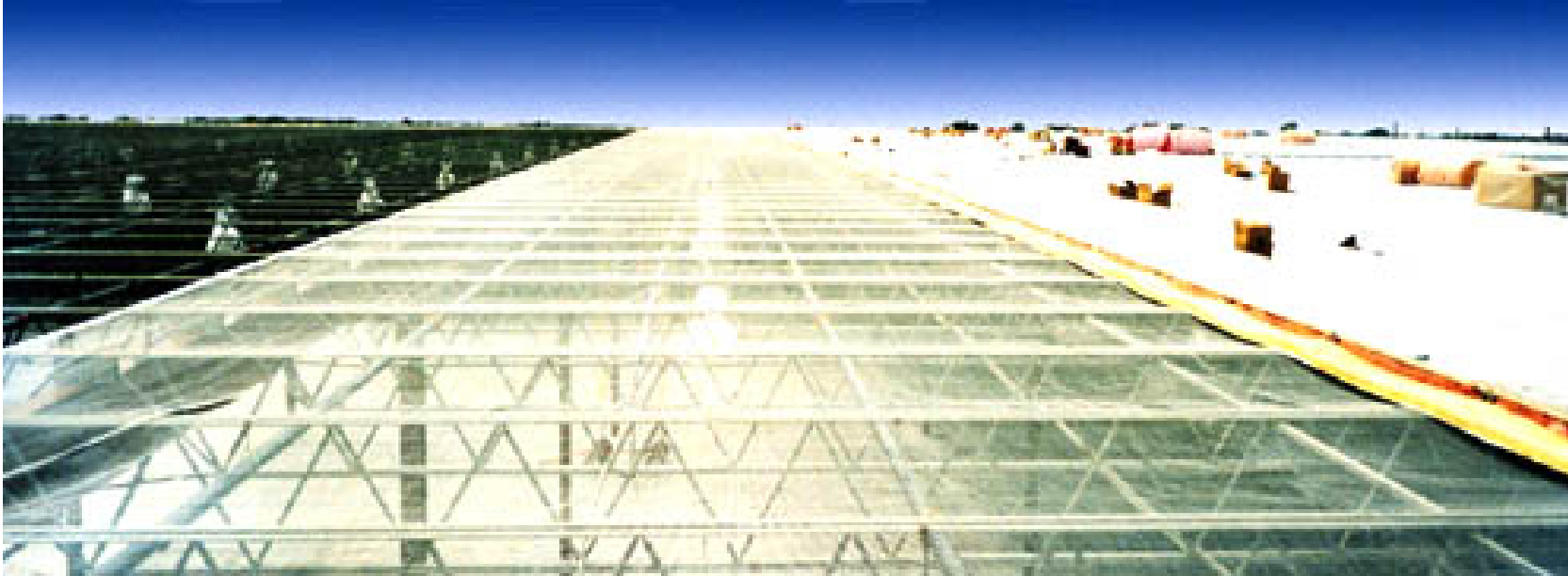


- System creates a fall protection netting while holding insulation.





Skyweb System Pre-Engineered Buildings



- Acts as an internal safety net.



Use of Decking Systems (Pre-Engineered)

- Mechanical decking systems and rolling scaffold systems eliminate many fall exposures on large pre-engineered roof decks



Elaminator System





Custody of Fall Protection



- Controlling contractor must inspect and accept control and responsibility of the fall protection, such as cable guardrails, when steel erector leaves the site.
- Controlling contractor must be sure that the cables meet standards before accepting.