



1



2



3



4

Overview

- Plan – Provide – Train
- Statistics
- Scope, Application and Definitions
- Inspections and Fall Prevention Systems
- Fall Protection Regulations-
 - California Code of Regulations Title 8
 - CURRENT fall protection standards
- Planning and Integration
- Cal/OSHA Consultation
- Summary

NATIONAL SAFETY STAND-DOWN TO PREVENT FALLS IN CONSTRUCTION

Stop Falls Stand-Down

- Plan a toolbox talk or other safety activity
- Take a break to talk about how to prevent falls
- Provide training for all workers

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OSHA Statistics - 2024

- Falls from elevation continue to be a leading cause of death for construction workers
- Accounts for **389** of the 1,034 construction fatalities (37.6%) (Bureau of Labor Statistics (BLS))

In CA- Top 10 – Fed OSHA #1

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Statistics

Causes of DEATH from FALLS

- Roofs 33.0%
- Towers/Poles 1.4%
- Scaffolds/Staging 13.9%
- Floors/Ground Surfaces 8.4%
- Ladders 23.4%
- Other 12.8%
- Machinery/Vehicles 6.3%

Join the Campaign to Stop Construction Falls!
www.stopconstructionfalls.com

PLAN. PROVIDE. TRAIN.

#StandDown4Safety

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Scope and Applications

§1502. Application.

(a) These Orders establish minimum safety standards whenever employment exists in connection with the construction, alteration, painting, repairing, construction maintenance, renovation, removal, or wrecking of any fixed structure or its parts. These Orders also apply to all excavations not covered by other safety orders for a specific industry or operation

(b) At construction projects, these Orders take precedence over any other general orders that are inconsistent with them, except for Tunnel Safety Orders or the Pressurized Worksite Standards in Article 154 of the General Industry Safety Orders

(c) Machines, equipment, processes, and operations not specifically covered by these Orders shall be governed by other applicable general Safety Orders

Title 8 Regs

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Scope and Applications

§1671.1. Fall Protection Plan

This changed!!

(a) This section **applies** to all construction operations when it can be shown that the use of conventional fall protection is impractical or creates a greater hazard



§1716.2. Wood and Light Gage Steel Frame Construction, Residential/Light Commercial.

(a) Scope and Application.

This section applies to work directly associated with the framing of new buildings or structures using the operations, methods, and procedures associated with residential-type framing activities, i.e., joists or trusses resting on stud walls



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Scope and Applications



Misc. Construction- 1670

Roofing – 1730, 1731

Scaffolding – 1637-47

Framing – 1716.1,.2

Steel Erection – 1710

Elevating Equipment (scissor lifts, aerial devices and

industrial trucks)- 3646, 3648, 3657

General Industry Safety Order (GISO)

Find what applies to your workplace!



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Definitions: 1504



- **Competent Person:** One who can identify 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 them
- **Hole:** Any opening in a floor or platform, which is smaller than an opening
- **Leading Edge:** The edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction
- **Opening:** An opening in any floor or platform, **12 inches** or more in the least horizontal dimension. It includes stairway floor openings, ladderway floor openings, hatchways and chute floor openings



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Definitions: 1504



- **Qualified Person:** A person designated by the employer who by reason of training, experience or instruction has demonstrated the ability to safely perform all assigned duties and, when required, is properly licensed in accordance with federal, state, or local laws and regulations
- **Personal Fall Arrest System:** A system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited
- **Wall opening:** A gap or void 30 inches or more high and 18 inches or more wide, in a wall or partition, through which employees can fall to a lower level



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Plan: Misc. Construction 1670 -Rescue Plans?

- (b)(14)-The employer shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves
- + **Suspension trauma straps**
- + **Harnesses with built in saddles**
- + **Using fall protection and working alone?**



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Misc. Construction 1671.1 (a)-Fall Protection Plans

- Fall Protection Plan
- (a) This section applies to all construction operations when it can be shown that the use of conventional fall protection is impractical or creates a greater hazard

Fall Protection Policy – YES!
Fall Protection Plan is only needed when traditional fall protection is infeasible or creates a greater hazard

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Misc. Construction Solar Panels – 1670 (a)

- 1670 (a) – 7 ½ feet
- Short duration – 1669 (c) apply?

Worked with Solar
Panel Installers?

NOT ROOFING!



Solar Panel Installation

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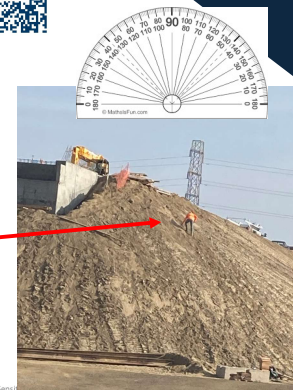
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Misc. Construction Slopes – 1670 (a)

- (a) Approved personal fall arrest, personal fall restraint or positioning systems ...worn...fall in excess of 7 1/2 feet...
- **surfaces steeper than 7:12, or other**
- **sloped surfaces steeper than 40 degrees**



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Steel Erection - 1710

- 15' Erecting
- 30' Connecting



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Residential Framing: 1716.2

****As of July 1, 2025****
Changed from 15' to 6': When Fall Protection is required

(a) Scope and Application. This section applies to work directly associated with the **framing of new buildings or structures** using the operations, methods, and procedures associated with residential-type and light commercial framing activities, i.e., **joists or trusses resting on stud walls.**

6 feet!!!

Read it!

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Residential Framing: 1716.2

As of July 1, 2025
Changed from 15' to 6': When Fall Protection is required

(b) Definitions.*** (7) Residential-type Framing Activities.** For the purposes of this section, **residential-type framing activities** include:

- installation of floor joists,
- floor sheathing,
- layout and installation of walls,
- hanging and nailing of shear panels,
- setting and bracing roof trusses and rafters,
- installation of starter board,
- roof sheathing, and fascia board;
- installation of windows, siding and exterior trim

6 feet!!!

Residential-type framing activities includes framing of commercial structures that use traditional wood frame construction materials and methods.

Read it!

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Residential Framing: 1716.2

As of July 1, 2025
Changed from 15' to 6': When Fall Protection is required

1. Preplanning each house to determine means and methods of fall protection
2. Nets are likely not a viable option.
3. Fall Protection Plan is enticing, but not possible because of the technology. Cost is not a consideration.
4. Many of the builders build the same house type. So, they need to evaluate each house before construction starts (see item 1).
5. Managers need to talk to the crew foreman to develop plan. Get their input and buy in.
6. Additional training on ladders, use of horse scaffolding and nail guns; (use more near head).
7. Main problem area is first floor interior. The exterior can be protected by metal scaffolding or bracket scaffolding.
8. Bracing of walls will have to be planned out more so they do not get in the way of ladders and scaffolding being used.

6 feet!!!

Read it!

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Roofing-Residential CCR, T8, 1723-1731

Residential-type roofing activities. Roofing work consists of roofing and re-roofing work, including roof removal performed on single-family homes, townhouses, duplexes and other structures covered by Section 1716.2. Roofing work also includes loading and installation of roofing materials, including related insulation, sheet metal that is integral to the roofing system, and vapor barrier work, but does not include the construction of the roof deck.

→

6 feet!!!

Previous Title 8
(15' and 20')

Now Effective
(6')

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Roofing CCR, T8, 1723-1731

• **Application - 1723 (a)**-The Orders contained in this Article are intended to apply to employees engaged in the **removal or application of:**

20 feet (Commercial) 20 feet (Residential) 15 feet (Tract Homes)

6'

Previous Title 8
(15' and 20')

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Roofing-Residential CCR, T8, 1723-1731

NEW 1731:

Scope: This section shall apply only to **residential-type** roofing activities

Residential-type roofing activities. Roofing work consists of **roofing and re-roofing** work, including roof removal performed on single-family homes, townhouses, duplexes and other structures covered by Section 1716.2. Roofing work also **includes loading and installation of roofing materials, including related insulation, sheet metal that is integral to the roofing system, and vapor barrier work, but does not include the construction of the roof deck.**

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Roofing-Residential CCR, T8, 1723-1731

NEW 1731:

(e) For the purposes of this section, the employee's fall height measurement shall be determined by measuring the **vertical distance from the employee's walking/working surface to the ground or level below.** The height of parapets shall not be included in the roof height measurement.

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Roofing-Residential CCR, T8, 1723-1731



- Protection required?
- Pre July 1, 2025
- Post July 1, 2025

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Roofing-Residential CCR, T8, 1723-1731

1731:

7/12 Pitch



(c) Fall Protection for Roofing Work. (1) Roof slopes 0:12 up to and including 7:12. Employees shall be protected from falling when on a roof surface where the employee fall distance is 6 feet or more above the grade or level below

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Scaffolding (1637-1672)

?

- 7 ½ feet guardrails
- Access



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Tree Work CCR T8, 3420-3428



- 100% Fall Protection
- Specialized Equipment
- Specialized Training
- Rescue Plans
- First-Aid & CPR for All Employees
- PPE

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Elevating Equipment

Scissor lift (3646)(3328)



Aerial Device (3648 (o))



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Elevating Equipment

Scissor lift (3646)(3328)



Bolt on fall arrest – JLG
Genie Lift



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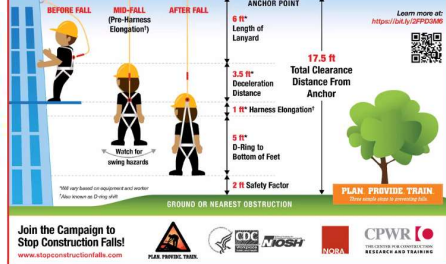
30

Elevating Equipment

THE RIGHT LENGTH LANYARD WILL PROTECT WORKERS IN A FALL
Employers, do the math. Example Below.



CPWR Publications



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Planning Needs Assessment

- Who bids the jobs? How?
- Type of work-roofing, framing, steel erection, painting, gutter installation, satellites, cable, HVAC, solar panels,...?
- Work Area known?
- Requirements?
- Fall Hazards?
- Plan?
- Integrate?
- Train?
- Implement?
- Review and Culture and Mission



1670(b)(19): Each personal fall arrest system shall be inspected not less than twice annually by a **competent person** in accordance with the **manufacturer's recommendations**. The date of each inspection shall be documented.



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Planning Needs Assessment

Can we use a Safety Net?



1671(a): Where the elevation is **25 feet or more above the ground**, water surface, or continuous floor level below, and when the use of personal fall arrest systems, personal fall restraint systems, positioning device systems or more conventional types of protection are clearly impractical...



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Potential Solutions

Go find it!






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Potential Solutions



Bolt-On External Fall Arrest

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Potential Solutions?





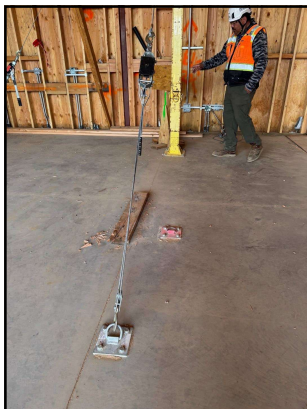
Safety Pole, Inc.

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**Framing Company
Has been Using
this For 11 years**

**Installation planning
service comes with
purchase**



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Potential Solutions



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Potential Solutions



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Potential Solutions

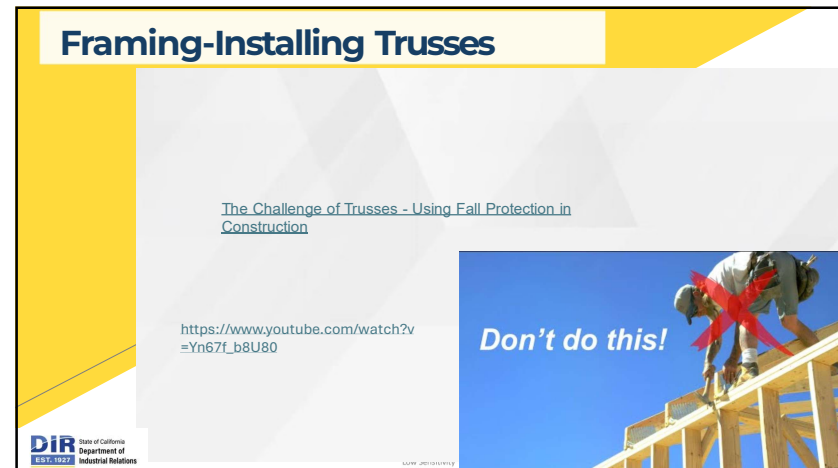
**Bracket
Scaffolding
(perimeters)**



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Potential Solutions



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Potential Solutions



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Potential Solutions

Bracket Scaffolding
(Permittees)

< 42"



Make sure that the inside fall
is not more than 6'.

This means the platform needs to be
42" below interior wall. This makes
Much of the bracket scaffold
un-useable.

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Potential Solutions

Employees can work from scaffolding to roll out the trusses, set them in place, attach the lateral bracing, nail freeze blocks, cut rafter tails, attach the fascia board, and nail the first row of roof deck sheeting. This keeps them off the top plate and is safer and faster than using a ladder. The scaffold can be made from materials on the job, or you can use a manufactured scaffold bracket.



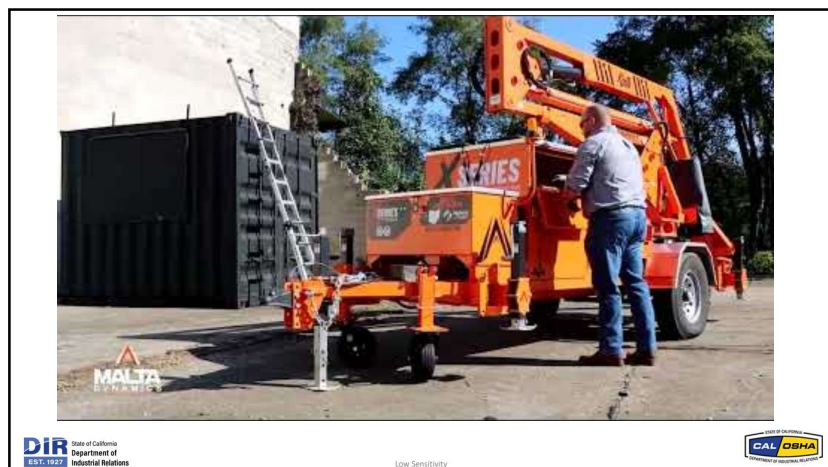
Manufactured exterior
carpenter's bracket
scaffolding.

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Platform Ladders-Interior work



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Potential Solutions

Aluminum (light)
Scaffolding
(Interior)



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Potential Solutions

A-frame Collapsible
Scaffolding up to 6'
(Interior & Exterior)



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Potential Solutions

Anchor used at the top of beam



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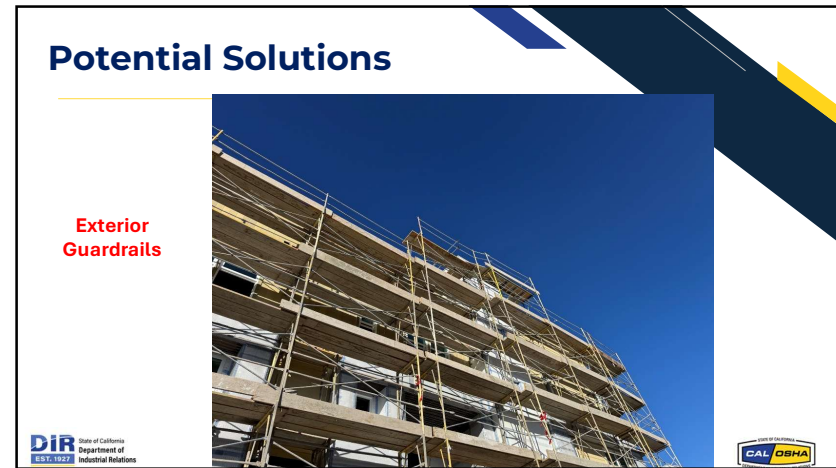
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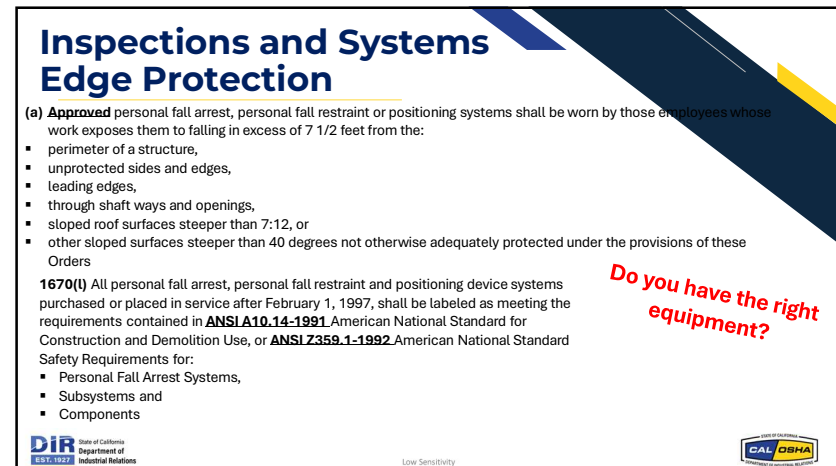
61



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Inspections and Systems Edge Protection

To be compliant with **ANSI Z359.14**, a **self-retracting lifeline (SRL)**- **leading edge (LE)** must have an integrated **shock absorber** and be rated by the manufacturer to be used in LE applications. In extensive product testing, Guardian has also made the determination that SRL-LEs must have a galvanized steel lifeline, since lifelines made from web or rope are too susceptible to damage



Do you have the right equipment?

SRL-LE = Self Retracting Lifeline – Leading Edge



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Inspections and Systems

- 1670(b)(15) Personal fall arrest systems shall be inspected prior to each use...

How do you document inspections?
Check the inspections!

- 1670(b)(19) Each personal fall arrest system shall be inspected not less than twice annually...manufacturer's recommendations. The dates...document



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Inspections and Systems

Activation Date

Typically, the date of manufacture on a product or the date of purchase is used to help determine when a product is due for inspection. The date of the products first use can also be used as an activation date

The activation date is defined as the time when a product is first put into actual service (initially or after service/repair)



Fall Protection Experts



Technical Bulletin

No. MSC002, Rev. E

Subject: Product Life
Date: February 1998

The current OSHA policy on the life of products is totally dependent on the condition of the item and not the age. A OSHA product can be used as long as the inspection performed does not reveal any damage, wear, or other characteristics that will effect the product's performance.

The inspection of the product shall be performed according to details outlined in the user instruction manual on the specific product as well as other applicable information provided by OSHA. The frequency of inspections to determine the usability of the product shall be as follows:

1. Inspect before each use (by user).
2. Monthly (by competent person other than user) (for winches, RPE's, Rescumators, tripods, davit arms) (recorded).
3. Annually (by competent person other than the user) (recorded).



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Inspections and Systems



Know your equipment!



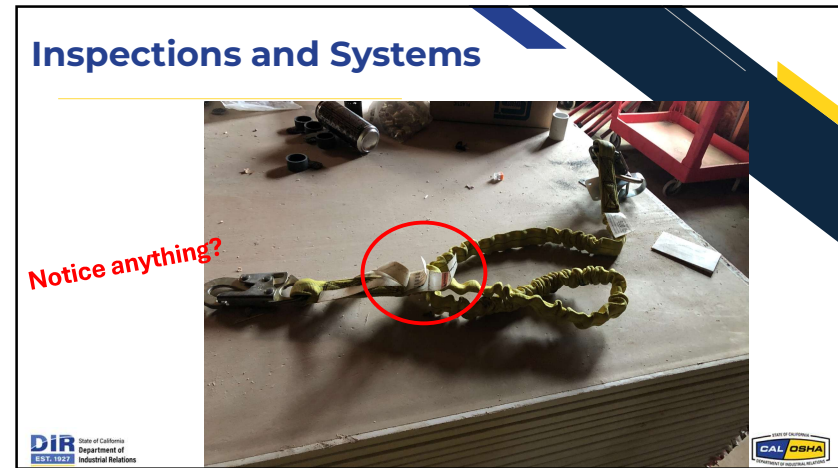
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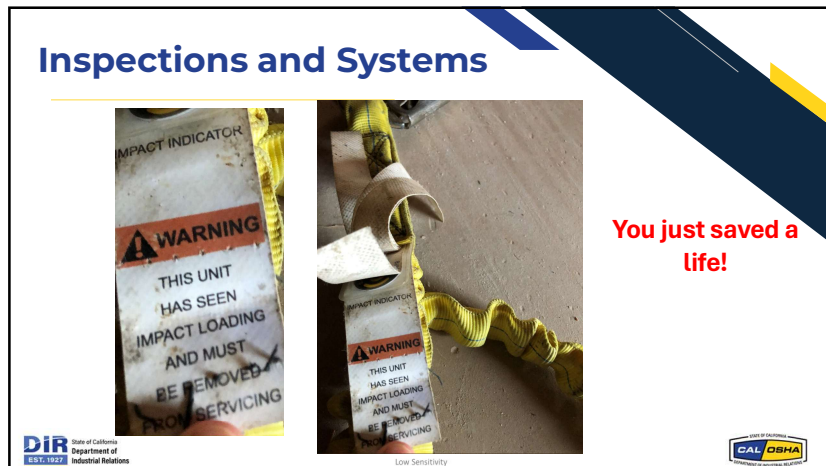
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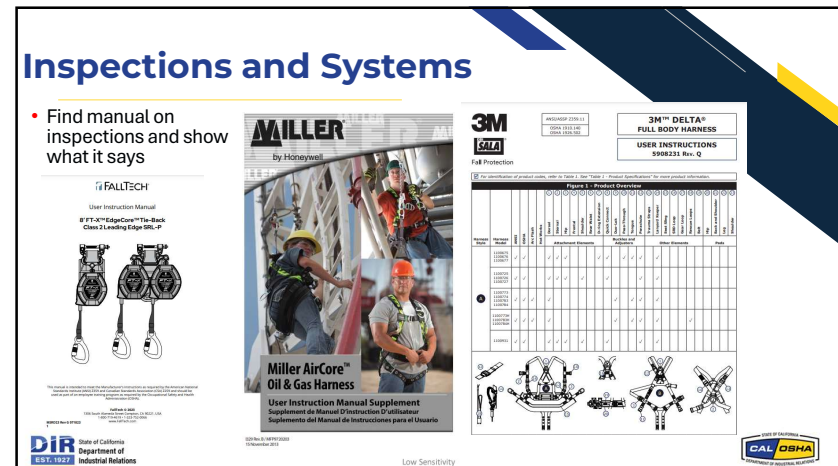
69



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Tools and Technologies

- NIOSH Ladder App
- Fall protection companies' industry specific equipment and tools
- Visit their web sites!



Honeywell

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FALLTECH

NIOSH

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Trigger Heights

Type of Work	Trigger Height	T8 Reference
Aerial Device	0	3648(o)
Building structures (GISO)	30"	3210(a)
Framing (CSO)	15' now 6'	1716.1., 1716.2
Other elevated locations (GISO)	4'	3210(b)
Roofing Commercial	20'	1730
Roofing Residential	20' now 6'	1731(c)
Scaffolding	7 ½'	1644
Steel Erection (Connecting)	15' 30'	1710
Tree Work (GISO)	0	3427 (a)
Unprotected edges, HVAC, Painting, Solar Panels, Electrical (CSO)	7 ½'	1670
Wall openings (CSO)	4'	1632

Standards Board

CAL/OSHA

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Citations

Roofing

1730(a)	Roof Hazards_comply with 1509 (ILPP)
1730(b)(1)	Roofing Residential, Slopes 0:12 to 4:12--Single-Unit (Monolithic) Roof Coverings_protect from falls>20'
1730(f)	Roofing Residential_Slopes Greater Than 5:12--Multiple-Unit Roof Coverings_protect from falls >20'
1731(c)(1)	Residential-type Roofing Activities; Fall protection-roof slopes up to 7:12; 6' or > protection from falls required
1731(c)(2)	Residential-type Roofing Activities; roof slopes greater than 7:12, protection from falls required
1731(d)(1)	Residential-type Roofing Activities; Training - additional training beyond 1509 and 3203 requirements

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Citations

Framing

1716.2(d)	Residential Framing, stabilization of structures
1716.2(e)	Residential Framing, work on top plate, joists & roof structure
1716.2(e)(1)	Residential Framing, fall protection required
1716.2(g)(1)	Residential Framing, work on Starter Board, Roof Sheathing & Fascia Board
1716.2(g)(1)(A)	Residential Framing, work on Starter Board, Roof Sheathing & Fascia Board

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Fall Protection Trigger Heights

Fall Protection in Residential Construction

CONSTRUCTION SAFETY ORDERS,
Sections 1671.1, 1716.2, 1730 and 1731 *

Status	Date
Public hearing:	Jan. 18, 2024
45-day comment period:	Dec. 1, 2023 - Jan. 18, 2024
15-day Notice comment period:	Apr. 5, 2024 - Apr. 22, 2024
2nd 15-day Notice comment period:	Jun. 26, 2024 - Jul. 15, 2024
Filed with Secretary of State:	Nov. 26, 2024
Effective date:	Jul. 1, 2025

★

Rulemaking Documents

- Notice / informative digest
- Proposed regulation
- Initial statement of reasons
- 15-day Notice of proposed modifications
- 2nd 15-day Notice of proposed modifications
- Final statement of reasons *Revised per OAL*
- Text for Board consideration
- Text approved by OAL

NEW Regulation





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Planning Needs Assessment

- **Pre-Planning** each job is key to success
- If you have same house, you can use same plan
- General Contractor is also Responsible (Multi-employer worksites)
- Put it in the contracts
- Change of process may be required
- Create safe solutions by engaging crew for best solutions




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Planning and Integration

Does Health and Safety have a seat at the table?



Integrated fall protection anchor in the concrete ceiling

Inset pieces next to loading areas, fall hazards

Required planning and safety integrated




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Cal/OSHA Consultation

- **Free** service to the employer community
- **No fines, penalties, or citations**
- We **do not share** our findings with Cal/OSHA Enforcement
- **Confidential**
- Employer will receive a **written report** summarizing our evaluation
- The written report is not a citation





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Why Partner with Cal-OSHA Consultation?

- Is Cal-OSHA Consultation advantageous?
- Skilled and knowledgeable team
- Employer surveys and on-site consultations
- Experience Modifications decreased by about 25% over four years—our support helps employers lower injuries and related expenses

Rely on Cal-OSHA Consultation



STATE OF CALIFORNIA
CAL OSHA
DEPARTMENT OF INDUSTRIAL RELATIONS

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Links and Sources

- **Title 8 Search:** <https://www.dir.ca.gov/samples/search/query.htm>
- **Cal/OSHA P&P Manual:** <https://www.dir.ca.gov/samples/search/querypnp.htm>
- **Cal/OSHA Publications List:** <https://www.dir.ca.gov/dosh/puborder.asp>
- **OSHA Establishment Search:** <https://www.osha.gov/ords/imis/establishment.html>
- **CDPH FACE Reports and Videos:** <https://www.cdph.ca.gov/Programs/CCDCPP/DEODC/OHB/FACE/Pages/Publications.aspx#>
- **OSHA Fatality Data:** <https://www.osha.gov/fatalities>
- **Cal/OSHA Standards Board:** <https://www.dir.ca.gov/oshsb/oshsb.html>
- **Cal/OSHA Appeals Board:** <https://www.dir.ca.gov/oshab/oshab.html>



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Fall Protection Plan-1671.1

What does 1671.1 say?




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Thank you!
Contact me with questions and ideas

Gary McIver
gmciver@dir.ca.gov
916.390.3024



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Questions?

Webinar Survey



Visit State Fund's Safety Resource Center, www.SafeAtWorkCA.com, for additional resources

For other safety questions email:
SafetySupport@scif.com

If you are viewing this webinar as a Webinar on Demand, email SafetySupport@scif.com to request the Webinar Resource Guide be emailed to you.

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Safety Equipment Grants Program



Safety Equipment Grants FAQs



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