

# Residential Roofing Safety

Draft 4 8 2023

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# Fall Protection – The Problem

- Falls are a serious safety concern in the jobsite.
- Falls are the leading cause of worker deaths in construction.



Scaffold in Dupage County

# 2022



## OSHA News Release - Region 5

U.S. Department of Labor

May 23, 2022

**Illinois construction contractor continues to ignore deadly fall hazards, faces \$263K in fines after Park Ridge inspection finds roofers exposed to risks**  
*Emerald Inc. ignores OSHA citations, additional \$378K in fines in troubling 8-year history*

# 2022



## OSHA News Release - Region 5

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U.S. Department of Labor

November 10, 2022

**Chicago-area contractor faces \$277K in fines for repeated failures to protect roofing employees from exposure to deadly fall hazards**

*Araujo Construction Corp. exposed workers to hazards 3 times in 4 months*

# Mar 2018



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**WW Home Improvement Corp** Over 10 ft you have to use osha

Like · Reply · 8m

**John Newquist** it is 6 feet. 1926.501(b)(13)

"Residential construction." Each employee engaged in residential construction activities 6 feet (1.8 m) or more above lower levels shall be protected by guardrail systems, safety net system, or personal fall arrest system unless another provision in paragraph (b) of this section provides for an alternative fall protection measure. Exception: When the employer can demonstrate that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan which meets the requirements of paragraph (k) of 1926.502.  
[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document...](https://www.osha.gov/pls/oshaweb/owadisp.show_document...)

Duty to have fall protection. - 1926.501 | Occupational Safety and Health Administration

# OSHA



- April 2013
- \$47,960 for exposing workers to falls of heights up to 20 feet and other hazards.
- Woodridge Enterprises Inc., of Lemont, was cited for [eight alleged safety violations](#)—three repeat and five serious—at a residential job site in Hinsdale, IL,.

# OSHA



- Feb 2014
- \$158,015 against an Illinois roofing company.
- The company, [Affordable Roofing and Exteriors, Inc.](#) of Trenton, Ill., was cited after inspections at three job sites where workers were improperly using fall protection during the installation of shingles on residential roof

# OSHA



- Aug 2014
- Champion Roofing fined \$48K for 2 willful safety violations after workers exposed to dangerous fall hazards in Bradley, Illinois



# Hazard Recognition



# Hazard Recognition



# Hazard Recognition



# Hazard Recognition



# Hazard Recognition



Three

# Sales Impact of Selected Injuries

Injury/ Illness	Average Direct Cost	Indirect Cost	Total Cost	Sales Needed (5% profit)
<b>Sprain</b>	\$4,245	\$6,792	\$11,037	<b>\$220,740</b>
<b>Laceration</b>	\$1,101	\$4,955	\$6,056	<b>\$121,120</b>
<b>Foreign Body</b>	\$317	\$1,427	\$1,744	<b>\$34,880</b>

# Lawsuits

- **D.B. V. J.L. ADLER ROOFING INC. ET AL.:**
- **\$5.7 million settlement** for a 27-year-old Joliet, IL roofer in a workplace injury case who was paralyzed when he fell from a roof as a result of the general contractor's failure to provide appropriate safety devices.



# Quadraplegic

- In August 2010, Quelino Ojeda Jimenez, an undocumented construction worker in Chicago, fell 20 feet off a building while on the job and was paralyzed from the neck down.
- Unable to [pay his own medical expenses](#), he was deported back to Mexico on December 22, 2010.



But he never made it home. Instead, he was left to languish at a small Mexican hospital that was unequipped to handle his needs. UPI [reports](#) that Ojeda died on New Year's Day:



# February 2015

- Canton MA
- The victim and another worker were on the roof assessing snow removal operations.
- They separated and one person walked across a skylight that had been covered by the snow.
- The light gave way and he fell 40 feet to his death.



# February 2015

- Genie
- Allows a user to exit the platform and work comfortably around the outside of the platform with a 6-ft lanyard. It attaches to a 6- or 8-ft platform on all Genie telescopic and articulating boom lifts with lift heights higher than 40 ft., with the exception of the S-125HD model.

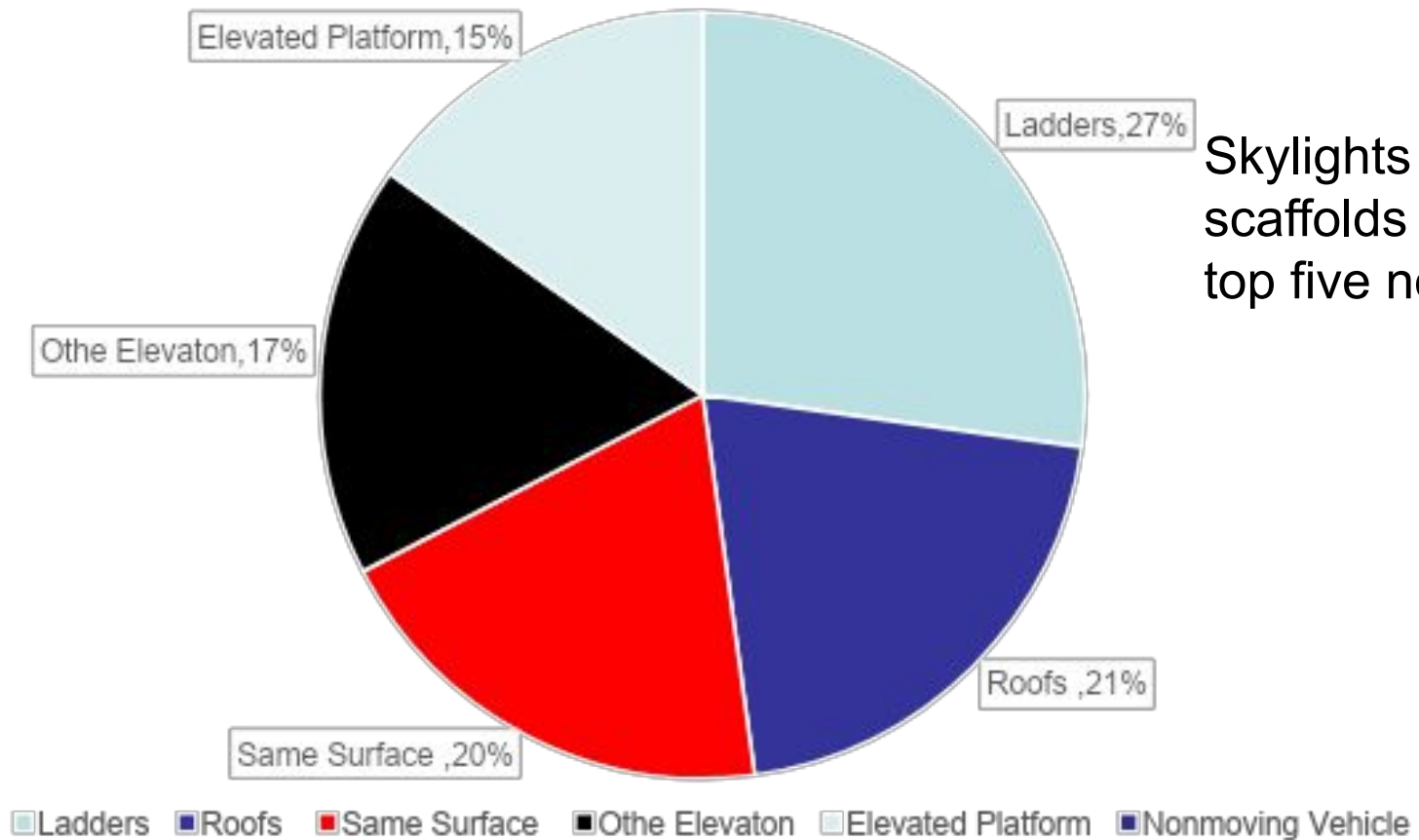


# May 2015

- Roof rot

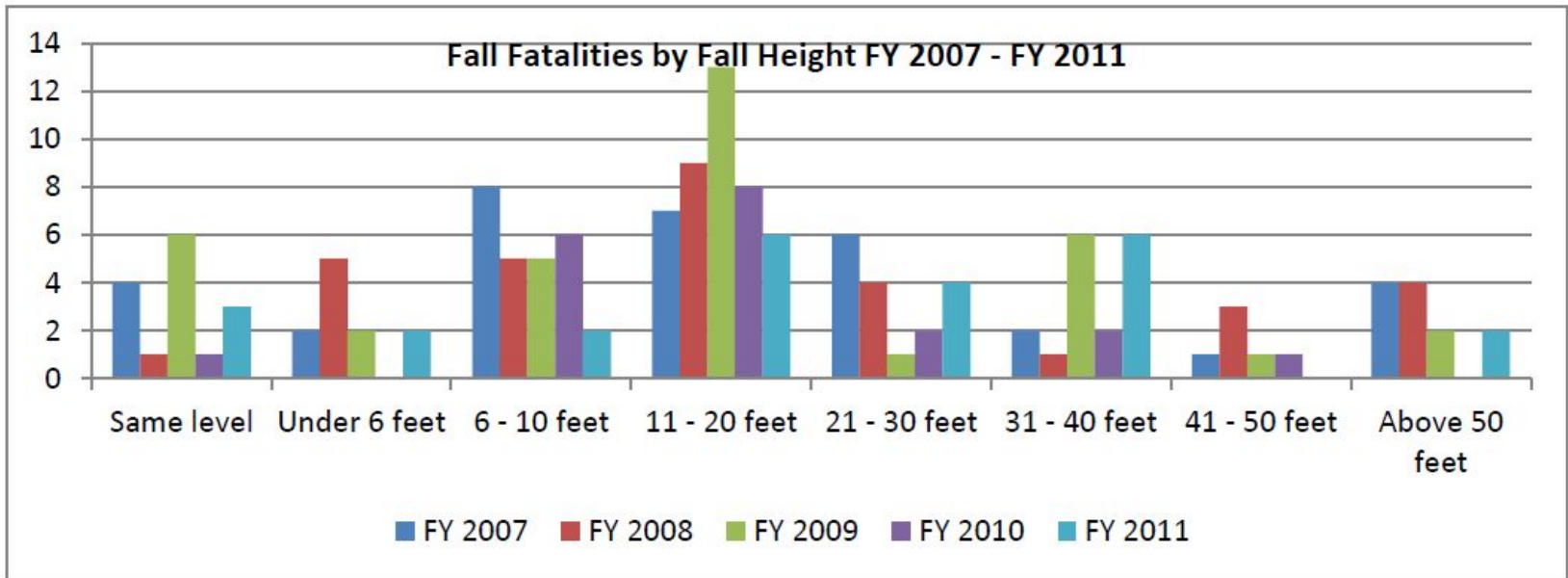


# Top Fall Sources Region V 2010-2014



Region 5 is seeing more non construction falls than construction falls.

# Heights Falling?



Region V fatality data  
2007-2011

# Inspections

- Conduct periodic inspections
- Is fall arrest is worn?
- Is fall protection is place?
- Take pictures of people doing it right



# Inspection

- December 2014



# Snow and Ice

- Many falls while getting up on roofs.
- Issues?





# Dec 2013

- OSHA - two willful, following the death of a worker.
- On June 27, a worker was electrocuted at a residential jobsite in Boca Raton when his employer directed him to reposition a metal extension ladder in close proximity to overhead electrical power lines that had not been de-energized, grounded or guarded.



# December 2014

- Safe or not safe?



# January 2015

- Texas
- Roof Fall Protection



# Dec 2013

- MD
- A man working in the garage level of a row of town houses under slipped on a small patch of ice, fell and struck his head and died.



# OSHA

- 1926.503(a)
- "Training Program."
- The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.



# OSHA cont

- The employer shall assure that each employee has been trained
- The nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- The use and operation of guardrail systems, personal fall arrest systems, controlled access zones, and other protection to be used;
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection; and
- The role of employees in fall protection plans;
- The standards contained in this subpart.



# "Certification of Training."

- 1926.503(b)(1)
- The employer shall verify compliance with paragraph (a) of this section by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature of the person who conducted the training or the signature of the employer. If the employer relies on training conducted by another employer or completed prior to the effective date of this section, the certification record shall indicate the date the employer determined the prior training was adequate rather than the date of actual training.



# Electrocutions

- Powerlines – 18  
(Most ladders and gutters)
- Pressure tank – 1
- Air Handler – 1
- Lighting circuit – 1
- Electrical cord - 1



10 feet away is required.



# Shingling Falls

- Most the falls are those with no fall protection
- Workers can slip on shingle or felt to start slipping



No slide protection used

# Shingling Abatement

- Slide guards not acceptable
- Convention Fall protection must be used



# Roof Sheathing

- Conventional Fall Protection
- If not Feasible Alternative Fall Protection requiring:
- Written Fall Prevention Plan
- Monitor
- CAZ
- Slideguards
- Training



No slide guards used

# Sheathing Abatement

Conventional Fall Protection  
used



Slideguards used on the  
roofs.

# Slides Guards?

- Before: Alternative measures such as slide guards acceptable
- Now: Prove that the use of conventional fall protection is infeasible or created a greater hazard
- Proof is via written fall protection plan



# Slate and Tile Roofs

- Common defense is that anchorages may damage the roof.
- Must Show Infeasibility in Written Plan



# Fall Protection



# January 2015

- Texas
- Roof Fall Protection





# How to Comply



# How to Comply



*Attached to top chord using factory supplied hex head fasteners.*



*The attachment ring is sized to fit all common size snaphooks and carabiners.*



*Using fastener package #2011, the Universal can be installed directly to the sheathing or over existing roofing without attaching to a top chord.*



*Installs quickly with our #2012 duplex nail fastener package, making it just as easy to remove.*

# How to Comply



# How To Comply



# How to Comply



# How to Comply



# How to Comply



# How to Comply





# How to Comply



# How to Comply



# Guardrail Systems



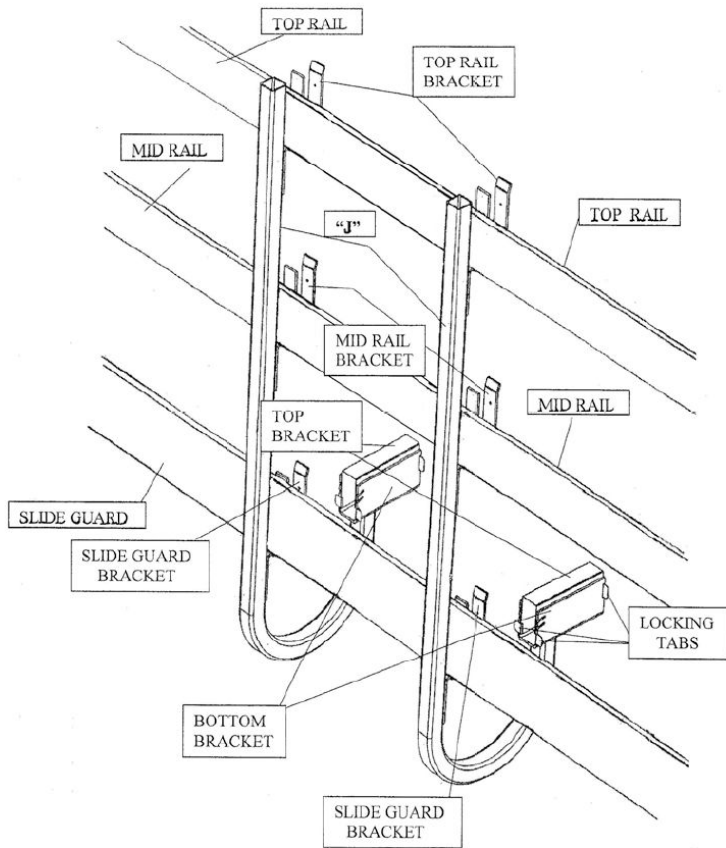
Guardrails in place during re-roofing activities.

Note: The picture on the right lacks protection for the rake edge so some means of protecting this worker (guardrail, safety nets or PFAS) must be used.

# How to Comply



# How to Comply



# How to Comply



# Side Wall Bracket



# How To Comply





# Floor Openings

- Many falls through openings were stair openings



Violation: Floor opening with no guardrails.

# Open Side Floor Abatement

- Floor sheathing abatement using alternative fall protection methods.



No Violation: Area for wall building marked off six feet from edge.

# Floor Opening Abatement



Violation: 4' x 8' sheets of plywood covering a stairway opening to the basement of a house. Only four nails hold the two covers. The cover is not marked.



No Violation: Guardrails used

# Ladderjack Scaffold

- Work is often siding
- No fall arrest worn



# Ladder Jack Abatement

- Fall arrest is often a roof anchorage, rope grab, and body harness.



# Rotten Roofs

- Roof tear off on old roofs can pose a danger for falling through the roof.



# Training

- 1926.503 (a)(1)
- The employer shall provide a training program for each employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.



No slide guard or fall protection used

# Criminal 2014

- US Marshalls take IL trenching contractor to jail.
- "A U.S. Marshall has taken an Illinois business owner into custody after the employer failed to correct serious trenching hazards and pay OSHA penalties.
- On Oct. 27, the Seventh Circuit Court of Appeals granted a motion filed by Secretary of Labor Thomas E. Perez against the owner of Mike Neri Sewer & Water Contractor Inc., based in Elk Grove Village, Ill.
- This action followed the owner's long history of failing to comply with OSHA standards and orders of the independent Occupational Safety and Health Review Commission.
- In October 2013, the Court issued an enforcement order against Neri and when he failed to comply, the Court held Neri in contempt in July 2014 and threatened him with possible incarceration.
- Last week, after receiving no response from Neri, the Court granted the Secretary's motion to proceed with coercive actions, ordering the U.S. Marshal to place Neri in the custody of the Attorney General.
- Neri will remain in custody until a District or Magistrate Judge certifies to the Court that he has either fully complied with the Court's enforcement order or has demonstrated he is unable to comply.



# Update

- Update to the Neri Criminal trench jail.
- He was released from jail December 24 after serving three weeks.
- Neri was permanently enjoined from engaging in trenching, excavation, construction or related activities and permanently prohibited from possessing or leasing any construction excavation equipment.
- The judges also found that Neri, based on a review of his tax returns and other financial records, was unable to pay the \$110,440 fine.
- However, the judges said the government “may continue to pursue collection through an appropriate tribunal

# Criminal 2014

- Blake Bryant, 14, of Palatka fell from a 71-foot tree after he accidentally cut through his safety harness while working for John Wilkes Tree Service in Middleburg.
- 15 years in jail (Feb 2015)



# Covers

- Hold twice the weight
- Secured
- Marked



Violation: 4' x 8' sheets of plywood covering a stairway opening to the basement of a house. Only four nails hold the two covers. The cover is not marked.

# Multiple Deaths

- Floor holes



Putting plywood over an opening without marking and securing it is very dangerous.

# Skylights

- Must cover them if working by them.
- Will not hold a person's weight



# Forklifts

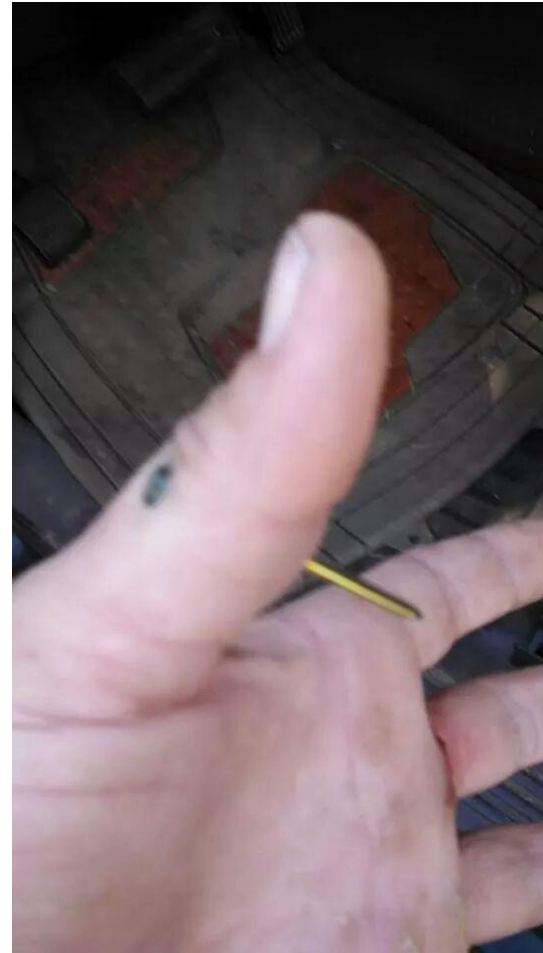
- No riders



Working on a pallet is very dangerous.

# February 2015

- How does this happen?



# Nail Guns

- Safety to prevent accidental firing
- Wear safety glasses
- No Horseplay.



Nail embedded in the  
knee



# 2013 MI

- A 33-year-old Waterford man was hospitalized last week after suffering a serious injury while working on a construction site in White Lake.
- According to a report filed with the White Lake Police Department, the man was using a high powered nail gun when it misfired, sending a nail through the corner of the man's eye, and into his brain.



# Table Saw



□ Unguarded table saws.



□ Guarded table saw.

# Issues?



# 1998 Wearing Fall Arrest



# Controlled Access Zones

- Alternative methods
- Floor joist installation
- Erecting Exterior walls
- Sheathing
- Roof Truss Erection



# Top Plate

- The worker has to get on the top plate to give leverage and assist the center man with the large truss.

Due to the many configurations of residential designs it will be evaluated on a case by case basis.



# Wall Walking

- Many contractors are using safety devices that attach to the wall to avoid working on the top plate.
- Not anticipated to be exempt under fall protection plan.



This is dangerous and other methods can be used.



Work off ladders and scaffolds if possible.

# Top Plate Scaffold





# It Can Be Done



# It Can Be Done



# It Can Be Done



# It Can Be Done



# It Can Be Done



# It Can Be Done



