JOB HAZARD ANALYSIS (JHA)

Business name

Document: JHA-001 Rev 1
Prepared: Nov 9, 2026
Review by: Dec 9, 2026
Highest risk after controls: Medium

1. BUSINESS AND JOB DETAILS

Job	Install metal roof sheets	**Start date**	Nov 9, 2026
Working hours	7:00 am to 3:30 pm	**Trade**	Roofing

2. JOB STEPS, HAZARDS AND CONTROLS

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
1	Install scaffold edge protection and safety mesh before any sheets go up	Falling from a roof edge Falling from height Scaffold collapse or fall from scaffold Rules: 29 CFR 1926 Subpart M; 29 CFR 1926 Subpart L	**Critical** **Likely / Fatality**	1.1 Do what you can from the ground or from a scaffold at the gutter line, for example pre-assemble parts on the ground. [Elimination] 1.2 Install edge protection or guardrails on all open roof edges before work starts. [Engineering (guarding)] 1.3 Use a perimeter scaffold with handrails and toe boards along the eaves where practical. [Engineering] 1.4 Where guardrails cannot be fitted, use fall restraint on certified roof anchors so workers cannot reach the edge. [Engineering] 1.5 Low-slope roofs: guardrails, safety nets, personal fall arrest, or a warning line combined with one of these or with a safety monitor (a safety monitor alone only on roofs 50 feet wide or less). Steep roofs: guardrails with toe boards, safety nets or personal fall arrest (29 CFR 1926.501(b)(10), (11)). [Administrative] 1.6 Use one safe, controlled access point and keep others off the roof. [Administrative] 1.7 Do the work from the ground where you can, for example pre-assemble on the ground or use extension poles. [Elimination] 1.8 Install guardrails or edge protection on all open edges before work starts. [Engineering (guarding)] 1.9 Use a scaffold, mobile work platform or aerial lift instead of working off a ladder. [Engineering] 1.10 Where edge protection is not practical, use a fall restraint or fall arrest system on a rated anchor point. [Engineering] 1.11 Provide fall protection at 6 feet or more and train workers to recognize fall hazards (29 CFR 1926.503). [Administrative] 1.12 Have a rescue plan so a worker hanging in a harness can be brought down within minutes. [Administrative] 1.13 Scaffold is built, moved and taken down under the supervision of a competent person. [Engineering]	**Medium** **Rare / Fatality**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				1.14 Fit guardrails, mid rails and toe boards on every platform more than 10 feet above a lower level, or use personal fall arrest (29 CFR 1926.451(g)(1)). [Engineering] 1.15 Use mobile scaffolds only on firm, level ground with casters locked, and guy, tie, brace or fit outriggers once the height is more than 4 times the base width (29 CFR 1926.451(c)(1)). Never move one with anyone on it. [Engineering] 1.16 Every worker on the scaffold is trained by a qualified person (29 CFR 1926.454). [Administrative] 1.17 A competent person inspects the scaffold before each shift and after anything that could affect it (29 CFR 1926.451(f)(3)). [Administrative] 1.18 Do not overload platforms. Know the rated load (light, medium or heavy duty) and stack materials over the legs, not mid-span (29 CFR 1926.451(f)(1)). [Administrative]		
2	Check wind speed and stop lifting or laying sheets in strong wind	Strong wind and storms	**High** **Possible / Serious injury**	2.1 Check the forecast each morning and plan work at height and lifting around the weather. [Elimination] 2.2 Tie down or weigh down loose sheets, panels, boards and rubbish at the end of each shift. [Engineering] 2.3 Set wind limits for roof work, platforms and cranes, using the manufacturer's limits, and stop when they are reached. [Administrative] 2.4 Stop work and get down in lightning. Wait 30 minutes after the last thunder before going back up. [Administrative] 2.5 Check scaffold, fencing and edge protection after strong wind before anyone uses them. [Administrative] 2.6 Do not carry large sheets on roofs in wind. [Administrative] 2.7 Wear a hard hat with a chin strap at height in windy conditions. [PPE]	**Low** **Rare / Serious injury**	Site supervisor
3	Lift sheet packs onto the roof with a crane or telehandler, keeping everyone out from under the load	Crane and lifting failure Falling tools and materials Contact with overhead power lines Being hit by heavy equipment Rules: 29 CFR 1926 Subpart CC; 29 CFR 1926.501(c); 29 CFR 1926.1408 and 1926.416; 29 CFR 1926 Subpart O	**Critical** **Possible / Fatality**	3.1 Barricade the lift zone and keep everyone out from under the load. [Engineering (guarding)] 3.2 Use a crane rated for the load at the radius, set up on firm ground with outrigger pads. [Engineering] 3.3 Check slings, chains, shackles and hooks before use. Remove anything damaged or not tagged. [Engineering] 3.4 Plan the lift: weight, radius, ground, path and landing area. Use a written lift plan for complex lifts. [Administrative] 3.5 Barricade and sign the drop zone under overhead work so nobody walks beneath. [Engineering (guarding)] 3.6 Fit toe boards, kick plates and mesh screens on scaffolds and edges. [Engineering] 3.7 Use catch fans, debris netting or covered walkways where people pass below. [Engineering] 3.8 Tether hand tools when working at height. [Engineering] 3.9 Ask the utility to de-energize, move or insulate the lines before work starts. [Elimination]	**Medium** **Unlikely / Serious injury**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				3.10 Use non-conductive (fiberglass) ladders near any power lines. [Substitution] 3.11 Mark the safe distance with flags, tape or warning lines and keep all equipment and people outside it. [Engineering (guarding)] 3.12 Keep equipment at least 10 feet from lines up to 50 kV once the utility confirms the voltage, more for higher voltages, and 20 feet when the voltage is unknown (29 CFR 1926.1408). [Administrative] 3.13 Use a dedicated spotter whenever equipment moves or raises anything near lines. [Administrative] 3.14 Separate people and equipment with barriers, exclusion zones and marked walkways. [Engineering (guarding)] 3.15 Use equipment with working backup alarms, cameras and lights. [Engineering] 3.16 Have a site traffic plan showing equipment routes, loading areas and pedestrian paths. [Administrative] 3.17 Use a spotter when backing up or working near people. [Administrative]		
4	Lay sheets one at a time and fix them down straight away so they cannot blow off	Lifting and carrying heavy loads Cuts from sharp edges Strong wind and storms	**High Likely / Recordable / lost time**	4.1 Plan to avoid carrying: have materials delivered, and old items picked up, as close as possible to where they are used. [Elimination] 4.2 Use lighter or smaller loads: order smaller bags and shorter lengths, and drain or break down old items before moving them. [Substitution] 4.3 Use trolleys, pallet jacks, hoists, vacuum lifters or plant instead of carrying by hand. [Engineering] 4.4 Use a two-person lift for anything heavy, long or awkward. Plan the route first and clear it. [Administrative] 4.5 Keep the load close, back straight and no twisting. Turn with your feet. [Administrative] 4.6 Deburr or cover sharp edges, and fit edge protectors on exposed sheet metal. [Engineering] 4.7 Use knives with retractable or self-retracting blades. [Engineering] 4.8 Cut away from your body and keep your other hand clear. [Administrative] 4.9 Put used blades in a blade bin or sharps container. [Administrative] 4.10 Use two people to handle large sheets of metal or glass. [Administrative] 4.11 Strong wind and storms: see step 2 for the full controls [Administrative]	**Medium Unlikely / Recordable / lost time**	Site supervisor
5	Cut sheets with nibblers or shears rather than a grinder where possible	Angle grinder injuries Fire from hot works Eye injuries Loud noise	**Critical Possible / Fatality**	5.1 Use a guarded saw or a different tool where you can. [Substitution] 5.2 Keep the guard on and use the side handle. Never remove the guard. [Engineering] 5.3 Use the right disc for the job, rated for the grinder's	**Medium Unlikely / Serious injury**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
		Rules: 29 CFR 1926.352 and NFPA 51B (35 ft rule also in 1910.252(a)); 29 CFR 1926.52		speed. Check it for cracks first. [Administrative] 5.4 Only trained people change discs, with the grinder unplugged or the battery out. [Administrative] 5.5 Use cold work methods where you can, such as bolting, press fittings or cutting with a saw instead of a torch. [Elimination] 5.6 Move anything that can burn at least 35 feet away, or cover it with fire blankets. [Engineering (guarding)] 5.7 Use fire-resistant screens to stop sparks reaching people or gaps in walls and floors. [Engineering] 5.8 Get a hot work permit before starting. [Administrative] 5.9 Use tool guards and screens to stop flying particles. [Engineering] 5.10 Use dust extraction and water to keep dust out of the air. [Engineering] 5.11 Keep others out of the area when cutting, grinding or chipping. [Administrative] 5.12 Keep an eye wash station or eye wash bottles on site. [Administrative] 5.13 Use quieter tools and methods, such as cut-to-size materials, low-noise machines and battery tools. [Substitution] 5.14 Keep noisy plant away from work areas, and use screens or distance between the noise and people. [Engineering (guarding)] 5.15 Keep tools maintained and use mufflers on compressors and generators. [Engineering] 5.16 Limit time on noisy tools and rotate workers. [Administrative]		
6	Screw off sheets and fit flashings and ridge capping	Injury from power tools Heat stress Sun exposure (UV) Burns from hot surfaces Rules: 29 CFR 1926 Subpart I; OSH Act Section 5(a)(1) General Duty Clause; state heat rules where they apply (Cal/OSHA T8 3395, WA WAC 296-62-095, OR OAR 437-002-0156, MD COMAR 09.12.32)	**High Possible / Serious injury**	6.1 Keep all guards fitted and working. Never tie back or remove a guard. [Engineering] 6.2 Clamp or secure the work piece. Do not hold it by hand. [Engineering] 6.3 Only trained, competent people use power tools, following the maker's instructions. [Administrative] 6.4 Check tools before use. Unplug or remove the battery before changing blades or bits. [Administrative] 6.5 Schedule heavy work for the cooler part of the day. [Elimination] 6.6 Provide shade over work and rest areas, and fans or cooling in attics. [Engineering] 6.7 Supply cool drinking water close by and drink a cup every 15 to 20 minutes. [Administrative] 6.8 Take regular rest breaks in the shade, more often as it gets hotter. [Administrative] 6.9 In California, Washington, Oregon and Maryland, follow the state heat illness rule: written plan, shade, water, rest and high-heat procedures. [Administrative] 6.10 Plan outdoor work for early morning or late afternoon	**Medium Unlikely / Serious injury**	Site supervisor

#	Job step	Hazards	Risk before	Controls	Risk after	Responsible
				when UV is lower. [Elimination] 6.11 Put shade covers over fixed work areas. [Engineering] 6.12 Check the UV index each day. Use sun protection when it is 3 or higher. [Administrative] 6.13 Check your skin regularly and see a doctor about any new or changing spots. [Administrative] 6.14 Isolate heating systems and let parts cool before you touch them. [Elimination] 6.15 Fit guards or insulation on hot pipes and equipment. [Engineering] 6.16 Mark hot items with chalk or a "HOT" sign so others know. [Administrative] 6.17 Keep a first aid kit and cool running water nearby for burns. [Administrative]		
7	Sweep off swarf and offcuts, then remove mesh and edge protection last	Poor housekeeping and waste Falling from a roof edge Falling tools and materials Rules: 29 CFR 1926 Subpart M; 29 CFR 1926.501(c)	**Critical Likely / Fatality**	7.1 Order materials to size and send packaging back where you can. [Elimination] 7.2 Put dumpsters and waste chutes close to the work. [Engineering] 7.3 Clean as you go, and do a full clean up at the end of each day. [Administrative] 7.4 Keep exits, stairs and walkways clear at all times. [Administrative] 7.5 Stack materials neatly on level ground, away from edges. [Administrative] 7.6 Stop roof work in strong wind or rain, and when the roof is wet, icy or covered in dust or frost. [Administrative] 7.7 Wear a harness clipped to a rated anchor when using restraint or fall arrest, and soft-soled non-slip boots. [PPE] 7.8 Falling from a roof edge: see step 1 for the full controls [Administrative] 7.9 Keep platforms tidy. Do not stack materials near edges or above toe board height. [Administrative] 7.10 Lower materials with a hoist, chute or rope. Never throw or drop anything down. [Administrative] 7.11 Wear a hard hat anywhere objects could fall. [PPE] 7.12 Falling tools and materials: see step 3 for the full controls [Administrative]	**Medium Unlikely / Serious injury**	Site supervisor

Risk key: risk = likelihood x consequence on a 5 x 5 matrix. Low, Medium, High, Critical. Work must not start while the risk after controls is high or above. Controls are listed in order of the hierarchy of controls: Elimination, Substitution, Engineering (guarding), Engineering, Administrative, PPE.

3. PPE AND PERMITS

Required PPE	Permits and plans
Safety-toe boots (ASTM F2413) Personal fall arrest system (harness) Cut-resistant gloves	Written fall protection plan (only where guardrails, nets or personal fall arrest are not feasible, 1926.502(k)) Critical lift plan

Required PPE	Permits and plans
Safety glasses (ANSI Z87.1) Hearing protection (earmuffs or plugs) Sun protection (sunscreen, hat, long sleeves) Hard hat (ANSI Z89.1) High-visibility safety apparel, ANSI/ISEA 107 Class 2 or 3 (Type R near roadways) Work gloves Face shield (ANSI Z87.1) Welding gloves Coveralls Safety goggles (ANSI Z87.1)	Hot work permit (fire watch at least 60 minutes after, NFPA 51B)

4. PLANT AND EQUIPMENT

Plant / equipment	License or training needed	Inspection needed	Rego / ID	Last inspected	Certificate / report
Supported scaffold	Erected under a competent person (29 CFR 1926.451)	Inspected by a competent person for visible defects before each work shift and after any occurrence that could affect its integrity (29 CFR 1926.451(f)(3))			
Telehandler	Trained and evaluated operator, certified by the employer with name, training date, evaluation date and evaluator; re-evaluated every 3 years (29 CFR 1910.178(l), via 1926.602(d)). If used to hoist a suspended load with a winch or jib, crane rules apply (29 CFR 1926 Subpart CC)	Examined before use at least daily, and after each shift where used round the clock (29 CFR 1910.178(q)(7)); crane inspections under Subpart CC if hoisting suspended loads			
Mobile crane	Operator certified by an accredited body or audited employer program (29 CFR 1926.1427) and evaluated by the employer, with a signed evaluation on site (1926.1427(f)); qualified rigger (1926.1425) and qualified signal person (1926.1428)	Shift inspection by a competent person (29 CFR 1926.1412(d)), documented monthly inspection (1926.1412(e)) and annual inspection by a qualified person (1926.1412(f))			
Power drill		Visual check of cord, plug and guards before each day's use; if you run an assured equipment grounding program instead of GFCIs, test every 3 months (29 CFR 1926.404(b)(1))			
Angle grinder		Visual check of cord, plug and guards before each day's use; if you run an assured equipment grounding program instead of GFCIs, test every 3 months (29 CFR 1926.404(b)(1))			
Hand tools					

5. TRAINING REQUIRED FOR THIS WORK

- Fall protection training by a competent person, with a written certification record (29 CFR 1926.503)
- Scaffold user training by a qualified person; erectors trained by a competent person (29 CFR 1926.454)
- Crane operator certification plus documented employer evaluation (29 CFR 1926.1427); qualified rigger (1926.1425); qualified signal person (1926.1428)
- Equipment operator training (29 CFR 1926.20(b)(4)); forklift and telehandler operators trained, evaluated and certified, re-evaluated every 3 years (29 CFR 1910.178(l))

6. CREW TRAINING AND CERTIFICATIONS

Crew listed at sign-on below, with ticket and licence numbers.

7. EMERGENCY ARRANGEMENTS

Emergency number	911	**First aid kit**	In the work vehicle
Fire extinguisher	In the work vehicle	**Alarm and evacuation**	Shout for help and stop work. Make the area safe and go to the assembly point. Call the emergency number and send someone to meet the ambulance.
Reporting incidents	Report a fatality to OSHA within 8 hours, and an in-patient hospitalization, amputation or eye loss within 24 hours.		

8. MONITORING, REVIEW AND LEGAL BASIS

A competent person inspects the job site, materials and equipment before work each day and as conditions change (29 CFR 1926.20(b)(2)). Any time this JHA is revised, the affected crew is re-briefed and signs again.

Legal basis: OSH Act Section 5(a)(1) and 29 CFR 1926, Safety and Health Regulations for Construction (incl. 1926.20 and 1926.21). OSHA requires employers to find and fix hazards and to train workers on them. A JHA breaks the job into steps, lists the hazards in each step and the controls that protect the crew. General contractors often require one before you start.

Keep this JHA on site during the job, and keep it with the training and inspection records for at least 1 year after the job (longer if your state plan or general contractor requires it). OSHA does not set a retention period for JHAs themselves.

9. REVISION HISTORY

Rev	Date	By	What changed
1	Nov 9, 2026		First issue

10. SIGN-OFF

	Name	Signature	Date	
Prepared by				
Supervisor				
General contractor review				Accepted for use: Yes / No

By signing below, each crew member confirms they were trained on the hazards and controls in this JHA before work started, and will follow it. Stop work and tell the supervisor if conditions change.

Name	Role / company	Tickets / licences	Signature	Date

Name	Role / company	Tickets / licences	Signature	Date