

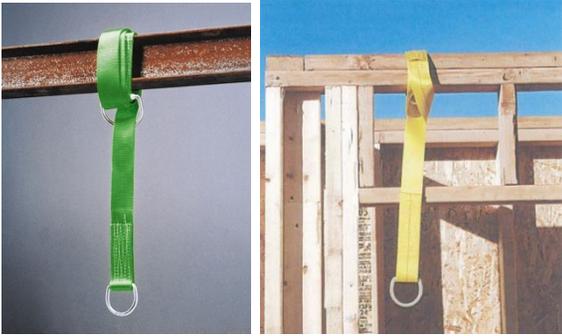
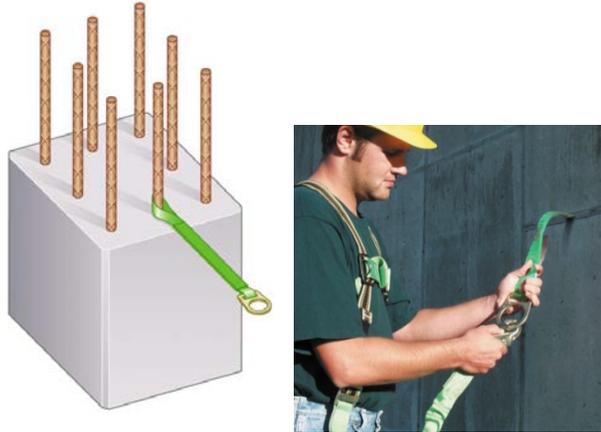
Appendix C – Examples: Fall Protection Anchors by Type

This appendix identifies various types of anchors, how they are generally used and shows an image of the anchor in use.

Anchor Type	Typical Use or Purpose	Illustration	
<p>Peak Anchor (One or Two D-Rings)</p>	<p>Typically used on a house roof after it is sheathed or fully constructed. They are typically left in place after the job is completed for future repairs.</p>		
<p>Truss Anchor (including Spreaders)</p>	<p>Used before a structure is fully framed. A spreader is a method a qualified person may use to improve anchor point lateral stability before trusses are fully sheathed.</p>		
<p>Engineered Clamp</p>			
<p>I-beam clamp and structural steel (vertical or horizontal beams)</p>	<p>The clamp adjusts to various steel beam sizes.</p>		

Anchor Type	Typical Use or Purpose	Illustration
Trolley beam anchor	Allows a worker to have greater access to a larger area without a longer lanyard.	
Standing seam metal roof anchor	For workers on standing seam metal roofs. This anchor clamps onto parallel seams.	
Doorway and window opening clamp	For anchoring between interior building framing or a window opening.	

Anchor Type	Typical Use or Purpose	Illustration
Top Plate Anchor	For activities near the framed wall top plate.	
Strap Anchor		
Cable anchorage sling	For use around structural steel or I-beams.	
Drop-through anchor cable	Anchor point drops through a small hole in an overhead substrate (concrete or steel).	

Anchor Type	Typical Use or Purpose	Illustration
Strap anchor (web)	For sturdy horizontal structures (e.g., beams or structural steel members). Sharp or rough edges could damage the strap.	
Concrete Anchor		
Concrete anchor strap with D-ring	<p>Often used by workers conducting foundation and formwork. The concrete anchor strap has a tough sleeve or wear-pad that protects it from abrasion where it contacts concrete. The strap loop slips over rebar and is left in place (with D-ring exposed) when concrete is poured. When no longer needed, the strap is cut flush with the concrete surface.</p> <p>Photo: a worker connects a shock-absorbing lanyard to an embedded concrete anchor strap.</p>	

Anchor Type	Typical Use or Purpose	Illustration
Precast hollow core concrete anchor	For workers performing activities with precast hollow concrete. Allows a single worker to tie off.	 A blue metal anchor with a loop and a threaded end. The anchor consists of a blue metal loop on the left, a threaded metal shaft in the middle, and a metal nut and washer on the right.

Anchor Type	Typical Use or Purpose	Illustration
Bolt-on wall anchor	Temporary or permanent anchor point on a vertical concrete wall.	
Welded Anchor		
Welded D-ring anchor	Single D-ring temporary or permanent anchor point that is welded onto vertical structural steel.	
Weld-on anchor post	This permanent anchor point is welded onto an I-beam.	

Anchor Type	Typical Use or Purpose	Illustration
Trench Box Guardrail Anchor	For performing deep excavation. The trench box guardrail is designed with an anchor point on a post near the guardrail.	 The illustration consists of two side-by-side photographs. The left photograph shows a construction site with a trench box guardrail system. A yellow guardrail is supported by a red vertical post. A worker in a white hard hat and safety vest is visible near the trench. The right photograph is a close-up of the guardrail anchor system, showing a red vertical post connected to a yellow horizontal rail. A blue and white anchor point is visible, and an orange and white traffic cone is in the background.

Anchor Type	Typical Use or Purpose	Illustration
Anchor Not Bolted or Clamped in Place		
Mobile fall protection system	Intended for a single worker using a fall arrest system. It allows quick mobility from place to place on a job site. Larger versions allow multiple workers to anchor.	
Rotating retractable anchor mast	For use on sloped residential roofs. Allows the worker greater range of motion (up to 360 degrees for some models) and helps elevate the anchor point above the worker.	
Dead weight anchor	For use on roofs where penetrating the surface is not an option. Anchorage is provided by the weight of heavy materials (e.g., concrete, steel, water bladder).	

Anchor Type	Typical Use or Purpose	Illustration
Bolt hole anchor	For use in horizontal steel bolt holes.	
Vertical Lifeline		
Rope grab (with vertical lifeline)	<p>Rope lifeline attaches to an anchorage at the top and hangs vertically down through the work area. Movable rope grab attaches to the rope. Lanyard connects the rope grab to workers' harness. To move up and down the work area, the worker can slide the rope grab up and down the lifeline, then relock it in place. If the worker falls, the rope grab locks onto the rope to break the fall. This system's effectiveness depends on how well the worker is trained to reposition the rope grab while moving about. The grab can slide off the end of the rope if the rope is too short, if a knot is not tied near the end of the rope, or if the grab</p>	

Anchor Type	Typical Use or Purpose	Illustration
	is not installed properly.	
Horizontal Lifeline	<p>This hybrid system uses one line (firmly anchored at both ends) as the anchorage for another. This allows the worker greater lateral movement than a fixed anchor point. The components are the same as other personal fall protection systems. A deceleration device or rip-stitch lanyard can be included.</p> <p>In some cases, more than one worker will connect to the horizontal lifeline if approved by the manufacturer and a qualified person.</p>	
Photos used with permission of the equipment manufacturers.		