


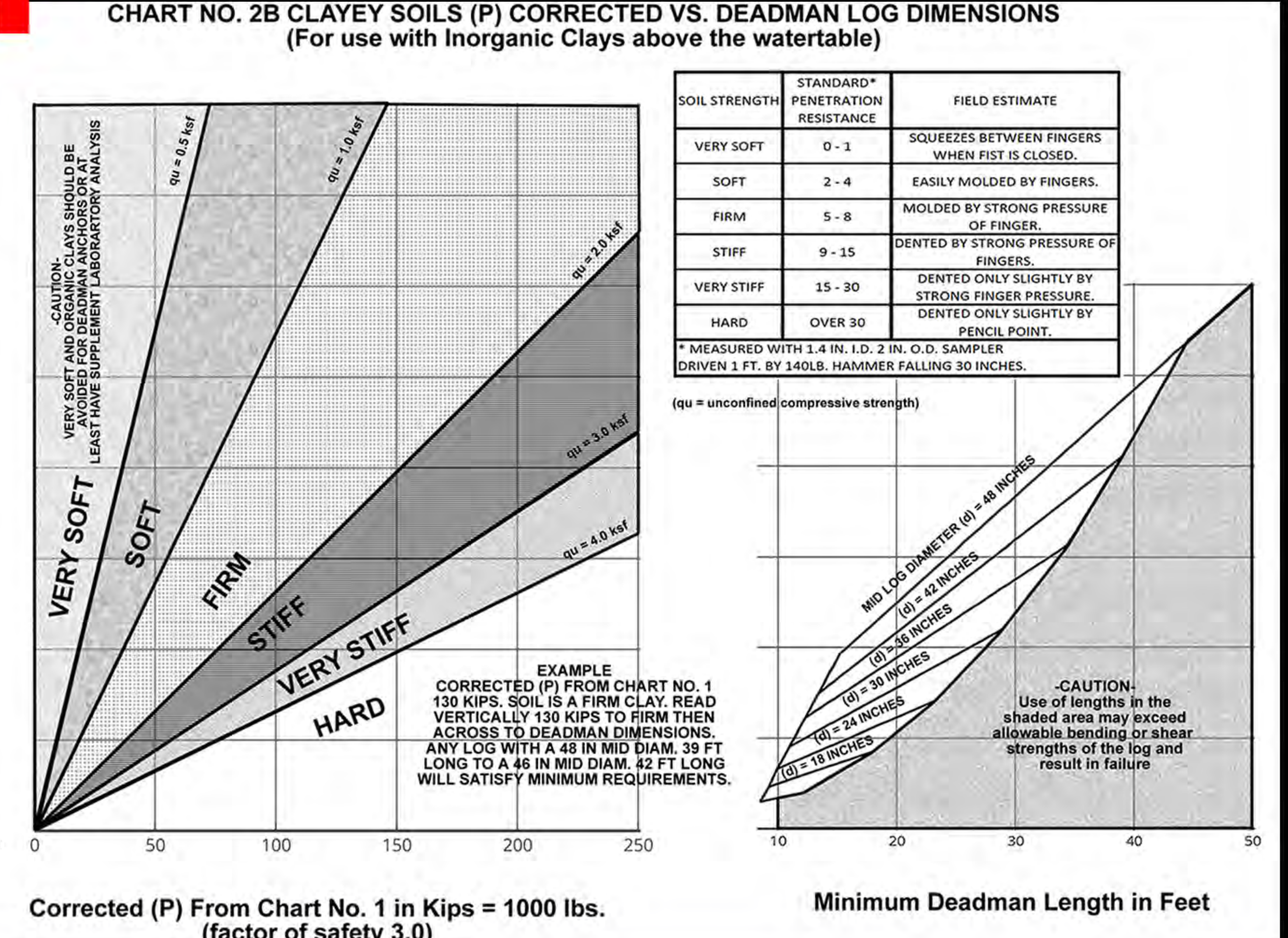
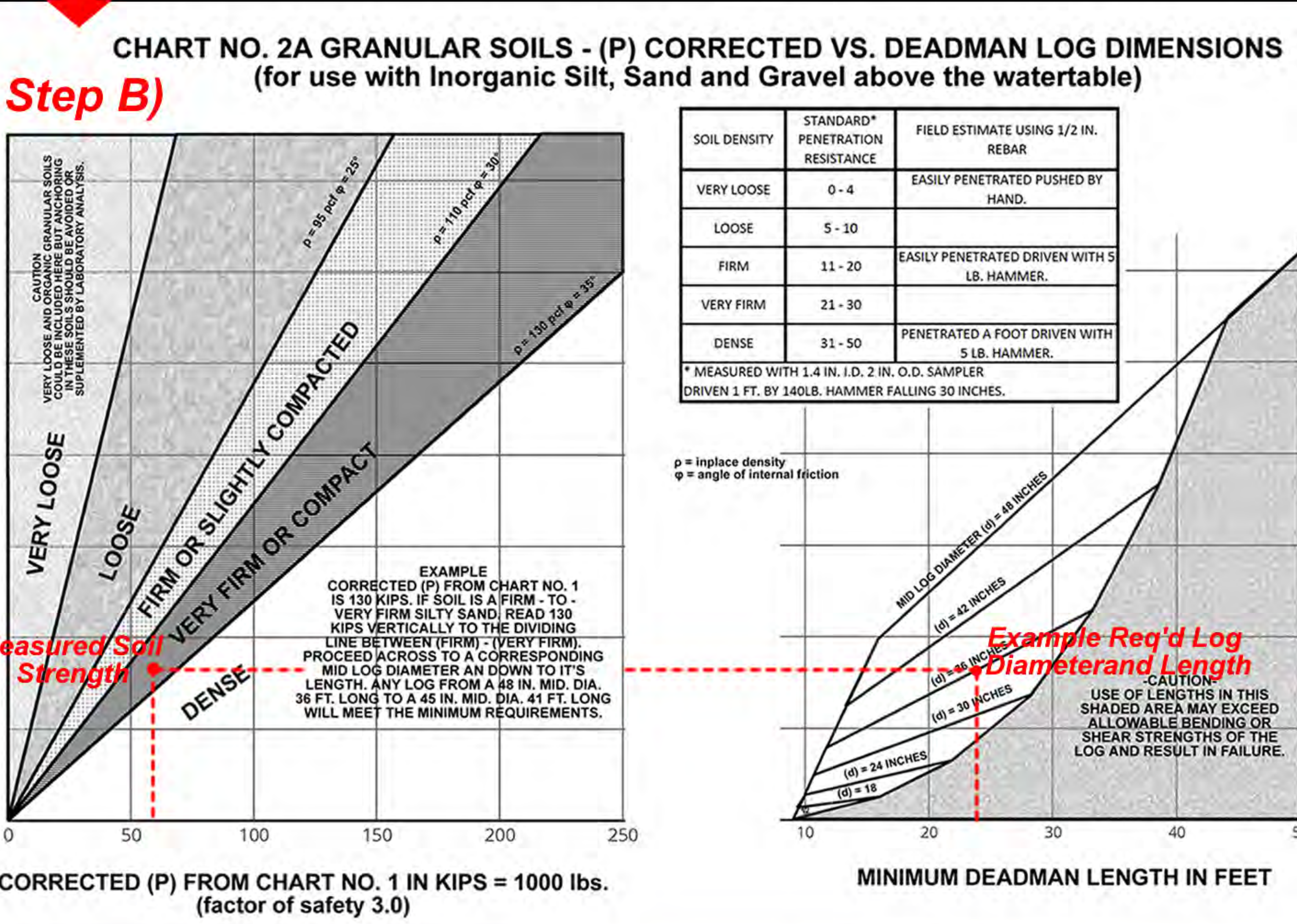
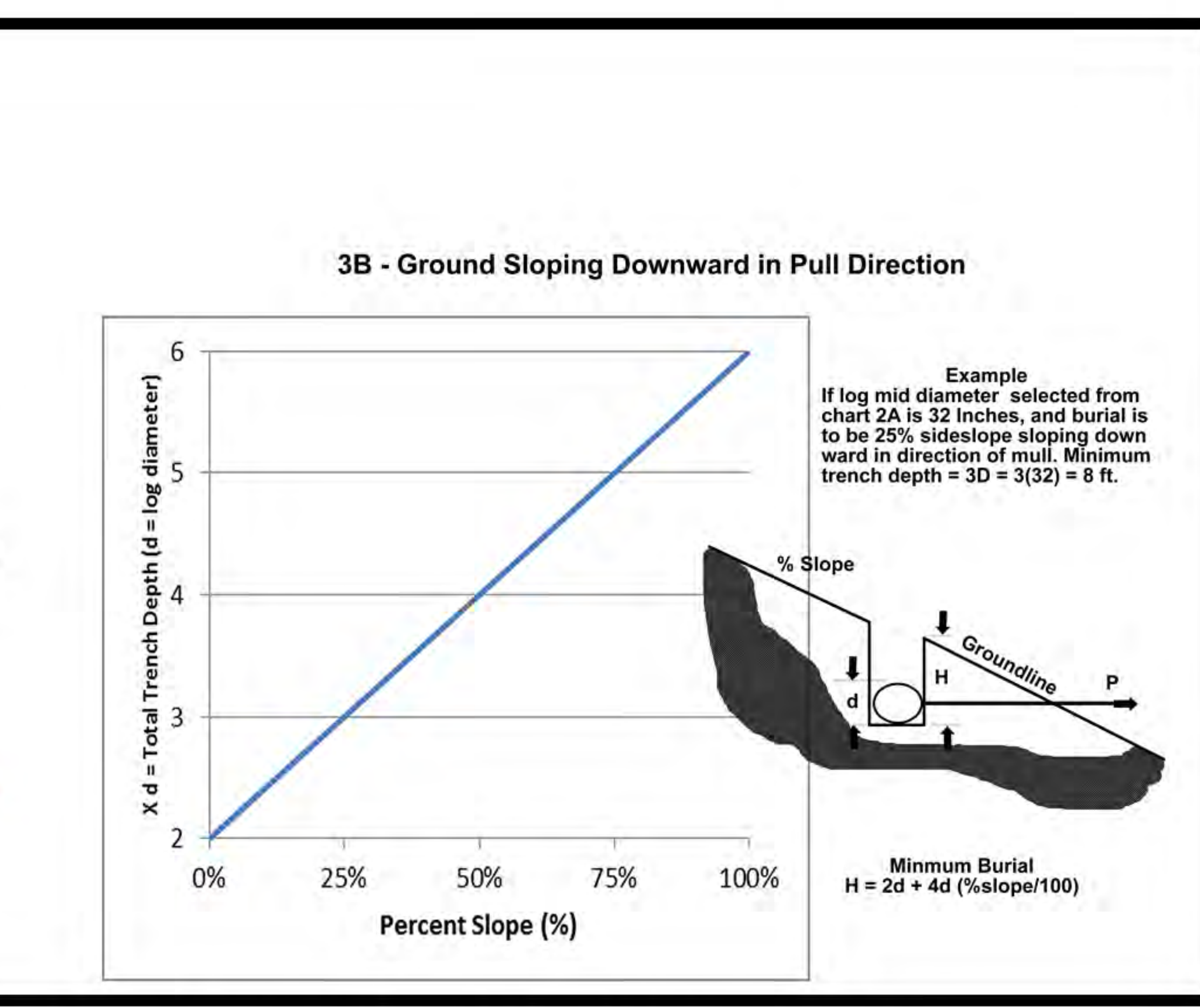
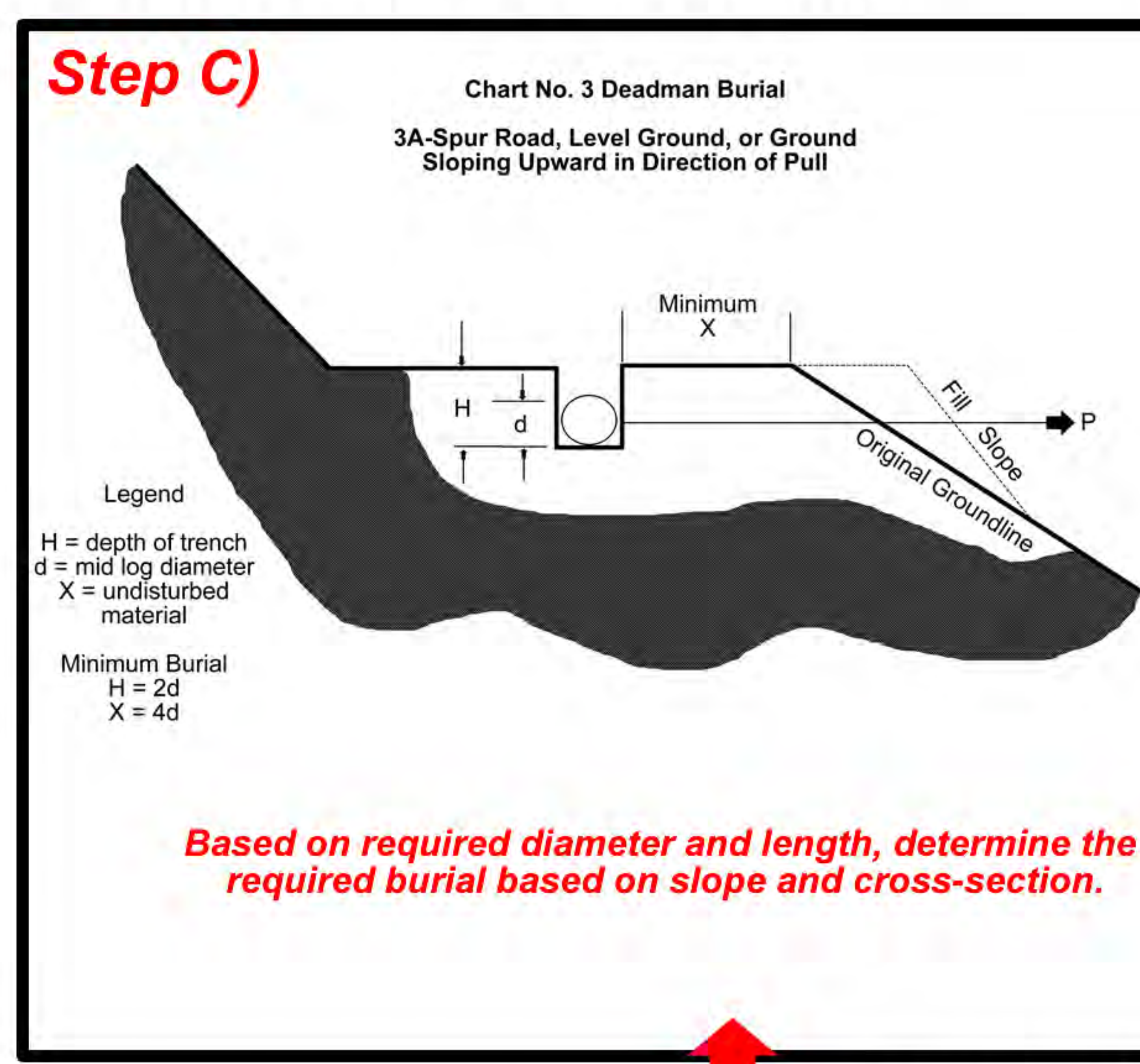
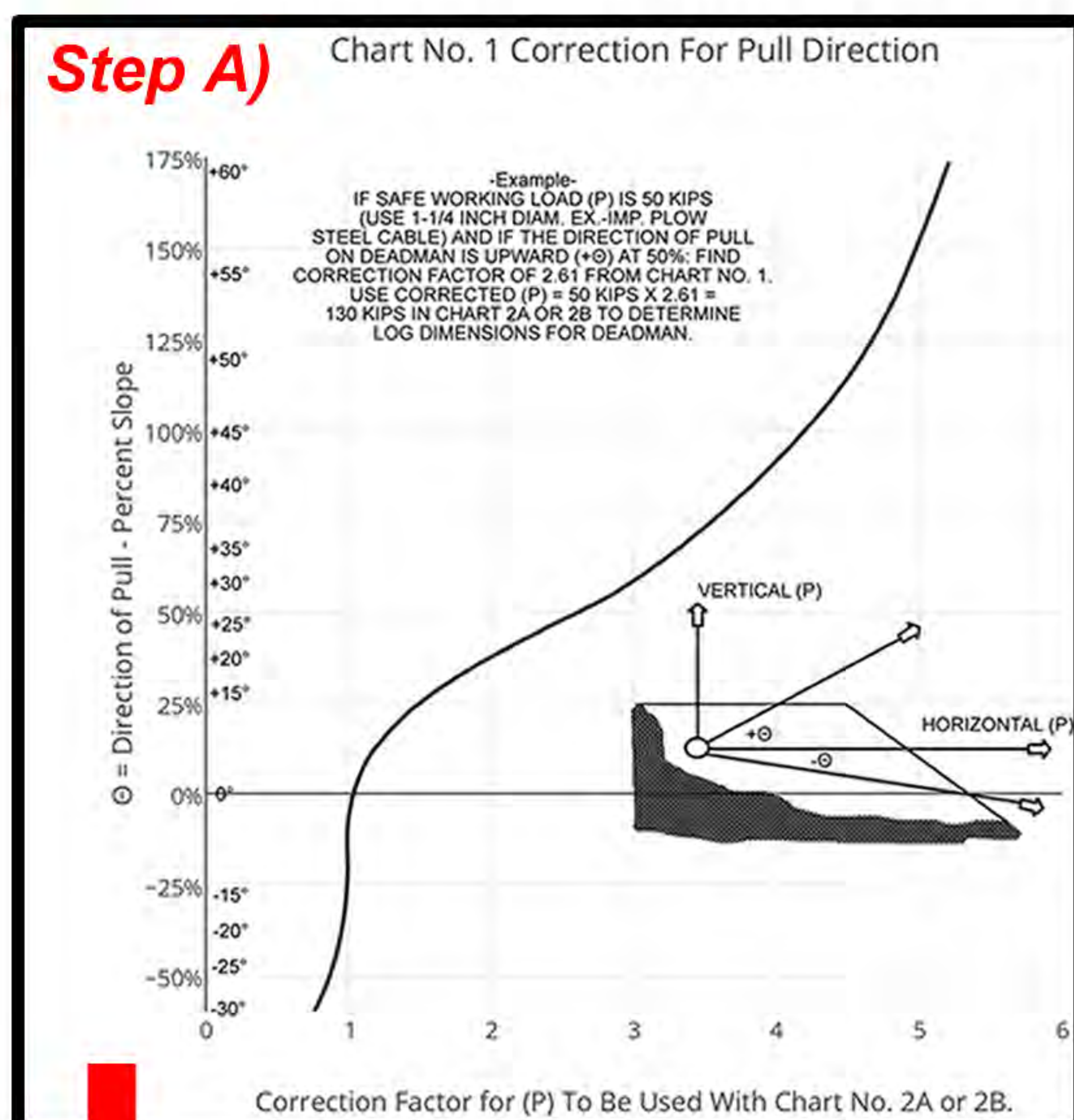


# Deadman Anchor Quick Reference




This reference is intended as general guidance only. Final anchor design should be prepared by qualified personnel.

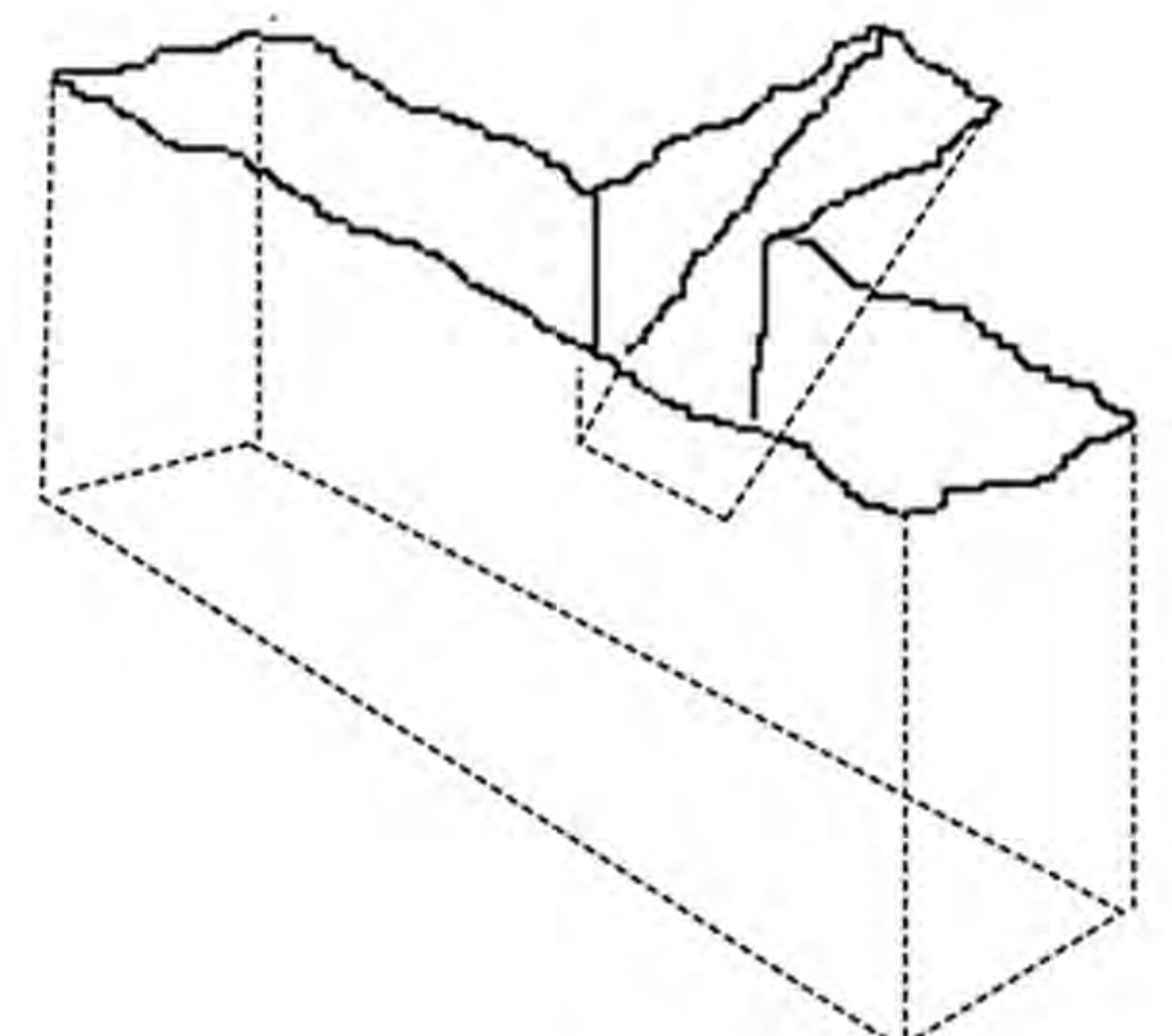
## Step 1. Establish site conditions and Determine Deadman Dimensions.

-  Determine the maximum expected load that will be enacted on the deadman.
-  Determine the angle of pull, the slope of the ground, the dimensions required for the log and the required trench depth using the design charts presented (below). A clinometer may be useful in determining line and slope angles.
-  A log of sufficient size should be at least 16 feet long and 18 inches in diameter. Several smaller logs can be bundled with a strap if necessary.






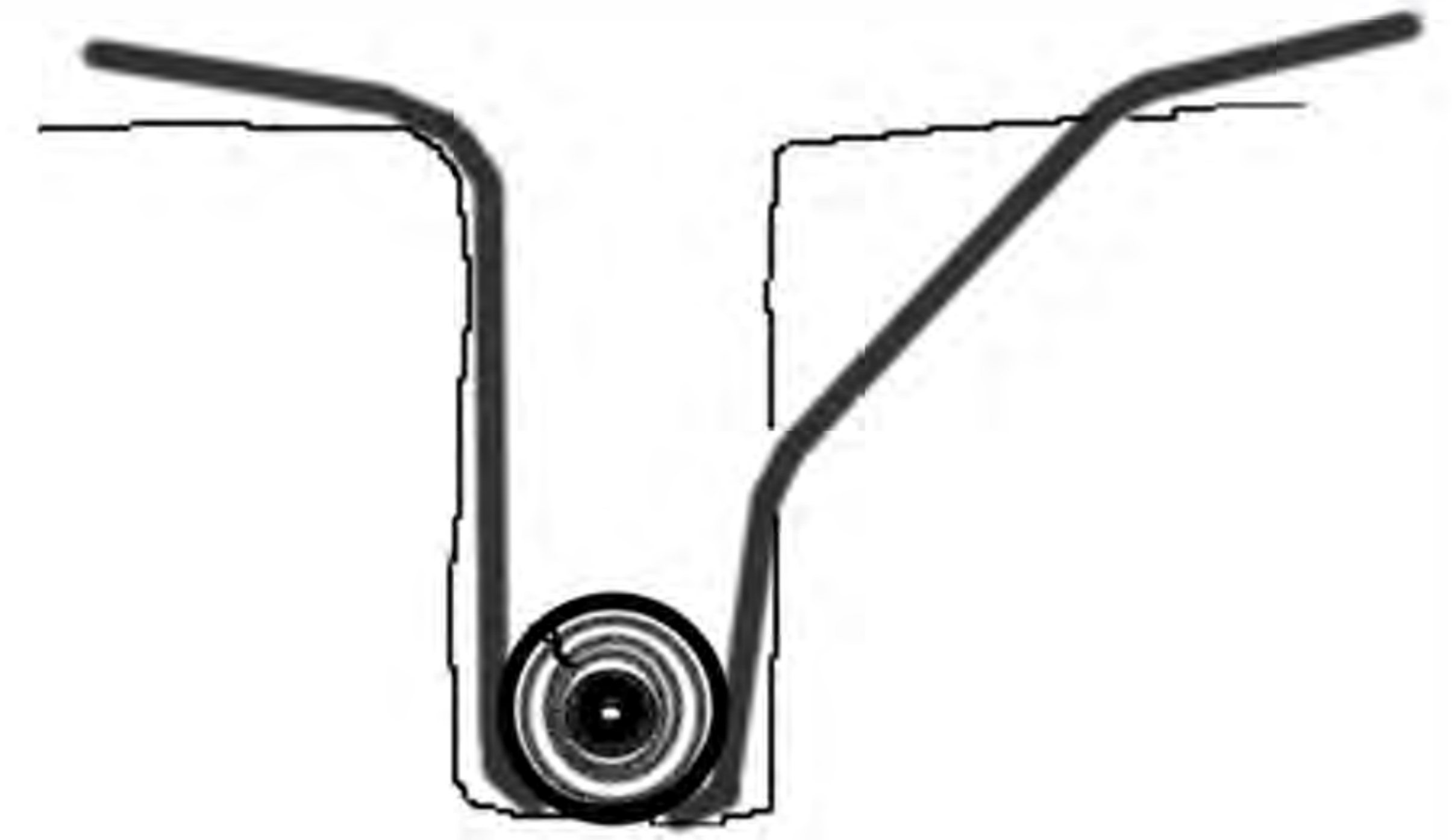
## Step 2. Excavate Deadman trench.

-  Excavate perpendicular to the direction of pull for maximum resistance. Maintain vertical walls in the trench.
-  An angled notch should be cut in the side where the line emerges from the ground. This notch should be no wider than the width of the excavator bucket used to excavate the trench.
-  The trench depth should be at least 5 feet deep. Be sure to follow excavation safety regulations during digging and installation.





### Step 3. Place the line and logs within the trench.


-  Place the line within the trench with sufficient slack for cinching after log placement.
-  Carefully place the log (or logs) in the trench above the cable.
-  Loop the line end over the logs and fasten the line ends in the expected direction of pull. This will ensure minimal movement during initial tensioning.






### Step 4. Backfill the trench.

-  Backfill the trench halfway, ensuring that the line ends are not completely buried.
-  Compact the soil during backfilling.



### Step 5. Attach the chain and tension with excavator.

-  Thread a chain or strap through the eyes/ends of the exposed line and attach to the excavator or other heavy equipment. Pull the line tight.

### Step 6. Backfill trench.

-  Backfill the trench completely. Compact with a hand compactor or the bucket of the excavator, paying close attention to avoid damaging the line.
-  Avoid disturbance of the front vertical wall of the trench as it will reduce anchor capacity.
-  An added pile of soil or rocks placed above the trench may increase anchor capacity.

### Step 7. Ensure that line is exposed and perform inspection.

-  Paint the exposed line ends for easy inspection. This will ensure that movement can be detected during inspection.
-  Inspect the deadman at least daily, but more often is better. Check for line movement, soil displacement, and damage to the line to ensure proper function. If movements are noted, halt the operation and reinstall the deadman under more optimal conditions (deeper, lower cable angle, more logs).

*Additional considerations can be found in the OR-OSHA Yarding and Loading Handbook, which serves as the basis for this reference sheet.*

*Oregon Occupational Health and Safety Administration (OR-OSHA), 2010, Yarding and Loading Handbook. < <http://www.cbs.state.or.us/osha/pdf/pubs/1935.pdf> >*

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