Applicable Forms:
→ Excavation Safety Checklist
→ Safe Work Permit

Excavation
Field Reference Tool

Life Critical Expectations

EXCAVATION

Obtain authorization before initiating or entering an excavation

- I never excavate without a valid line locate.
- I never enter an excavation until an Excavation Competent Person has performed an onsite review and protective measures are in place.
- I confirm rescue provisions are in place when entering an excavation which:

  Exceeds 4' in depth, has limited means of access or egress, and has the potential to contain a hazardous atmosphere.

Life Critical Failure Examples

- Crew does not perform a line locate prior to beginning the excavation.
- A qualified Excavation Competent Person is not present for excavations requiring personnel entry.
- Crew enters an excavation deeper than 5' without protective measures in place.
- Crew does not have rescue provisions when required.
- Entering an excavation without a Safe Work Permit when required.

Complete Section A of the Excavation Safety Checklist and locate all underground utilities prior to digging

One Call (811) State Requirements		
Oklahoma and North Dakota	**New Mexico**	**Texas**

• One call required at any depth.
• Exception: One call not required for road grading or blading.
  • If within fence line, review pad drawings.
  • On lease roads, local line locating is performed at all known line crossings utilizing a line locating device or other methods.
	• One call required at any depth.	• One call required at ≥16".
		• Excavations <16" are marked by BU line locators using pin flags or paint.
		• Exception: One call not required within central facilities, well pads, stand alones, or on lease roads. Review pad drawings.
		• Local line locating is required at all known line crossings.

⇒ Section A is not required where only surface materials (gravel, caliche etc.) that are on company owned locations are being removed with manual tools or by means of vacuuming not to exceed 3" in depth. State One Call requirements may still apply.
⇒ If the One Call confirms no third party lines in the area, locate all Marathon Oil lines and commence digging.
⇒ Call any utility operators that do not participate in the One Call system and inform them of the excavation.

Entering an Excavation – The Excavation Competent Person completes sections B and C of the Excavation Safety Checklist

Do NOT enter an excavation until of the following steps are completed:

⇒ For excavations 5 feet or deeper, protective measures are in place (sloping, benching, a trench box, or shoring.)
⇒ The atmosphere inside the excavation is monitored if a hazardous atmosphere exists or could potentially exist.
⇒ For excavations 4 feet or deeper, means of entry and exit are placed every 25 feet (ladders or ramps.)
⇒ For excavations that have or could have a hazardous atmosphere, are 4 feet or deeper, and have limited means of entry and exit (ladders,) a rescue plan is developed.

Rescue Provisions are used when the excavation is 4' or deeper, has limited means of entry and exit and has or could have a hazardous atmosphere

Rescue Provisions	Requirements
Non-Entry Rescue	Worker entering the excavation wears a full-body harness with a retrieval line attached at the center of their back near shoulder level or above their head. A Marathon Representative and Attendant must be present.
Rescue Services	•Used when non-entry rescue is not possible or would be ineffective. •Rescue services team must have at least two people (one trained in CPR and first aid,) and are readily available with their rescue equipment staged on-site. A Marathon Representative and Attendant must be present.

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DEFINITIONS

Excavation – Any man-made cut, cavity, trench or depression in the earth's surface formed by earth removal. This includes but is not limited to anchoring, augering, digging, ditching, drilling, trenching, and tunneling as well as any grading, land leveling, and scraping associated with site construction or redesign.

Excavation Competent Person – The Excavation Competent Person has specific training in and is knowledgeable about soil analysis, the use of protective systems and the requirements of **OSHA's 29 CFR-1926 Subpart P-Excavations.** The person has the authority to take prompt corrective measures to eliminate these hazards and conditions.

Safe Work Permit (SWP) Issuer – Responsible for authorizing and issuing the permit. Issuer completes a permit when personnel enter excavations deeper than 2 feet and wider than 18 inches AND the excavation contains or has the potential to contain a hazardous atmosphere.

Hazardous Atmosphere – An atmosphere that exposes personnel to the risk of death, incapacitation, impairment of ability to self-rescue, injury, or acute illness.

Protective Systems – The Excavation Competent Person verifies that a worker protection system is properly selected, installed and used in excavations that are 5 feet deep or greater unless the excavation is made entirely in stable rock.

Restricted Access/Egress – Use of an earthen ramp or steps cut/sloped 1 ½ : 1 or less is not considered restricted, however, a ladder would be considered restricted.

Soil Classifications – Determined through soil analysis.

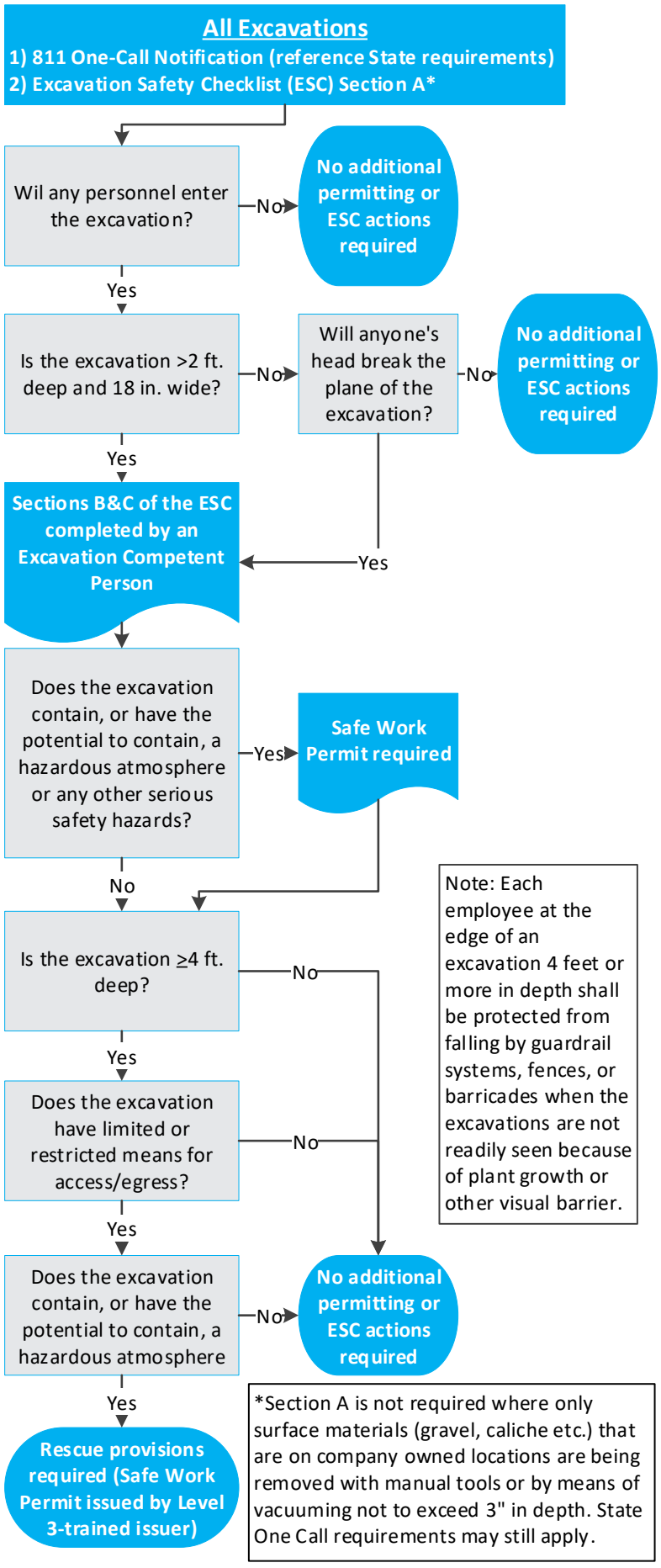
- **Type A**: Cohesive soils such as clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam The unconfined compressive strength is 1.5 tons per square foot or greater.
- **Type B**: Granular cohesion-less soils including angular gravel (similar to crushed rock), silt, silt loam, and sandy loam. The unconfined compressive strength is between 0.5 and 1.5 tons per square foot.
- **Type C:** Previously disturbed and granular soils including gravel, sand, and loamy sand or submerged soil or soil from which water is freely seeping. The unconfined compressive strength is 0.5 tons per square foot or less.

Sloping – Type C soils and the preferred protective system for safeguarding personnel in any excavation 5' or deeper.

Benching – Type B soils, benches are created up the walls of the excavation.

Trench Box – A metal, pre-engineered trench box may be used when appropriate sloping or benching is not feasible.

Shoring – Engineered system to support excavation walls using hydraulics, pneumatics, screw jack, or timber.



Note: Each employee at the edge of an excavation 4 feet or more in depth shall be protected from falling by guardrail systems, fences, or barricades when the excavations are not readily seen because of plant growth or other visual barrier.

*Section A is not required where only surface materials (gravel, caliche etc.) that are on company owned locations are being removed with manual tools or by means of vacuuming not to exceed 3" in depth. State One Call requirements may still apply.