

## DAILY TRENCH / EXCAVATION INSPECTION LOG

Job Name: \_\_\_\_\_ Job #: \_\_\_\_\_ Date: \_\_\_\_\_

Competent Person Signature: \_\_\_\_\_ Time: \_\_\_\_\_

Competent Person Printed Name: \_\_\_\_\_

Location (e.g. Station #): \_\_\_\_\_

**PURPOSE OF EXCAVATION:**       Drainage       Water       Sewer       Other: \_\_\_\_\_

VISUAL INSPECTION:	Yes	No	OTHER CONSIDERATIONS:	Yes	No
Adjacent Excavation	<input type="checkbox"/>	<input type="checkbox"/>	Blue Stake Notified	<input type="checkbox"/>	<input type="checkbox"/>
Adjacent Structures	<input type="checkbox"/>	<input type="checkbox"/>	Confined Space Exposure	<input type="checkbox"/>	<input type="checkbox"/>
Cracks on Side of Trench	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous Atmosphere Existence	<input type="checkbox"/>	<input type="checkbox"/>
Cracks on Top of Trench	<input type="checkbox"/>	<input type="checkbox"/>	Overhead Power	<input type="checkbox"/>	<input type="checkbox"/>
Previously Disturbed Soil	<input type="checkbox"/>	<input type="checkbox"/>	Spoils 2' From Edge	<input type="checkbox"/>	<input type="checkbox"/>
Surface Water Present	<input type="checkbox"/>	<input type="checkbox"/>			
Utility Crossing	<input type="checkbox"/>	<input type="checkbox"/>			
Wet Conditions	<input type="checkbox"/>	<input type="checkbox"/>			
Are other Utilities Protected (e.g. Water, Sewer, Gas or Other Structures)				<input type="checkbox"/>	<input type="checkbox"/>
Exposed to Vibration	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, What Type? _____		
Surface Encumbrances	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, What Type? _____		
Access/Egress Within 25' of Each Employee	<input type="checkbox"/>	<input type="checkbox"/>	If Yes, What Type? _____		

**VISUAL SOIL TEST:** *(You must perform at least one visual test, see instructions on page 2)*

Based on the visual soil test(s) conducted, this soil is:       Cohesive       Granular

**MANUAL SOIL TEST:** *(You must perform at least one manual test, see instructions on page 2)*

- (1) **Plasticity**       Cohesive       Non-Cohesive
- (2) **Dry Strength**       Granular (Crumbles Easily)       Cohesive (Broken with Difficulty)
- (3) **Thumb Penetration Test**       Indented with Great Effort       Indented with Some Effort       Easily Penetrated
- (4) **Penetrometer Test**       1.5 tsf or Greater       0.5 tsf to 1.5 tsf       0.5 tsf or Less
- (5) **Shearvane Test**       1.5 tsf or Greater       0.5 tsf to 1.5 tsf       0.5 tsf or Less

**SOIL CLASSIFICATION:** *Based on the visual and manual tests conducted, this soil is classified as:*

Type B       Type C       **OTHER** as approved by Registered Professional Engineer (RPE)\*\*

**PROTECTIVE SYSTEMS SELECTED:**

- Trench Shield       Aluminum Hydraulic Shoring       Other: \_\_\_\_\_
- \*Benching       Sloping      Slope Ratio:     1½ : 1     1 : 1
- \*\*Registered Professional Engineered (RPE), Specify Slope: \_\_\_\_\_

\* Can be used in Conjunction with Type A or B soils only, can **NOT** be used in conjunction with Type C soil  
 \*\*Requires a Registered Professional engineer Tabulated Data. Tabulated Data **MUST** be readily available on-site

	Depth	Bottom Width	Minimum Top Width	Length
<b>TRENCH DIMENSIONS:</b>				

**VISUAL SOIL TESTS:**

- (1) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.
- (2) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breaks up easily and does not stay in clumps is granular.

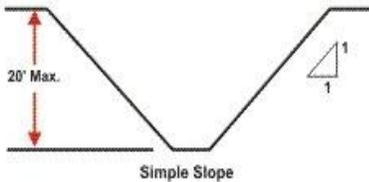
**MANUAL SOIL TESTS:**

- (1) **Plasticity** – Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8" in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a 2" (50mm) length of 1/8" thread can be held on the end without tearing, the soil is cohesive.
- (2) **Dry Strength** – If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular. If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand, or silt. If the dry soil breaks into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.
- (3) **Thumb Penetration** – The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. Type B soils can be readily indented by the thumb; however, they can be penetrated by the thumb with some effort. Type C soils can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences. If the excavation is later exposed to wetting influences (rain, flooding), the classification of the soil must be changed accordingly.

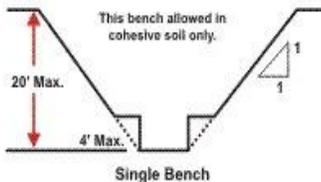
**TRENCH DIAGRAM**

**EXCAVATIONS MADE IN TYPE B SOIL**

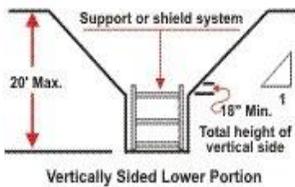
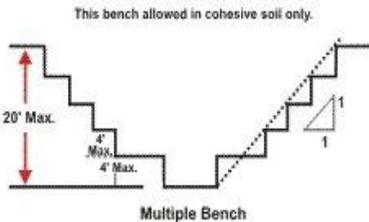
1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1.



2. All benched excavations 20 feet or less in depth shall have a maximum allowable slope of 1:1 and maximum bench dimensions as follows:



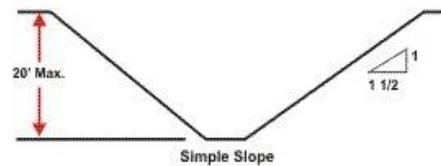
3. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1:1.



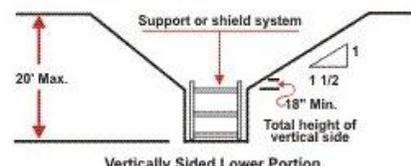
4. All other sloped excavations shall be in accordance with the other options permitted in §1926.652(b).

**EXCAVATIONS MADE IN TYPE C SOIL**

1. All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1 1/2:1



2. All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1 1/2:1.



3. All other sloped excavations shall be in accordance with the other options permitted in §1926.652(b).