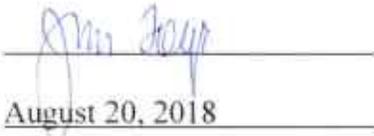




## Ground Disturbance Safety

**Prepared by:** Gordon Hood, Coordinator Health, Safety and Environment

**Approved by:** Jim Toye, City Manager

**Signature:**  **Policy No:** 5

**Effective:** August 20, 2018 **Replaces:** February 12, 2018

**Policy:**

The City of Prince Albert believes in providing an environment in which all employees and contractors are protected from harm during ground disturbance activities

**Purpose:**

To ensure that proper work practices and procedures are in place to protect staff and contractors from hazards associated with ground disturbance.

**Scope:**

This policy applies to all City of Prince Albert employees and contractors performing work on behalf of the city when involved in ground disturbance activities.

**Responsibility:**

1. **Manager:**

All managers that oversee ground disturbance work must ensure that staff and contractors are appropriately trained in their duties and responsibilities and are complying with the requirements of this policy including:

- Reviewing Excavation/Trenching Hazard checklist.
- Ensuring all staff has received training in Ground Disturbance and that training is documented and copies provided to the Coordinator Health Safety and Environment.
- Ensure that all supervisors/foreman under their direction are complying with the requirements of this policy.
- Providing necessary equipment to ensure safe ground disturbance activities.

**2. Supervisor/Foreman:**

All Supervisors/Foreman involved in ground disturbance work must ensure that the provisions of this policy are followed. They must also:

- Coordinate and participate in the training of those personnel involved in ground disturbance work under their supervision.
- Complete the Excavation/Trenching Hazard checklist, prior to work, at each site and at least weekly for longer duration site activities when required.
- Determine the means of protection required at each site and ensure that it is in place prior to allowing staff to enter the excavated area.
- Monitor site activities to ensure compliance with this policy and associated procedures at all times.

**3. Worker/Staff:**

All staff involved in ground disturbance activities must assist their Supervisors in ensuring conditions are safe. This includes:

- Following safe work procedures and practices at all times.
- Following training that is provided.
- Inspecting all equipment used in the processes to ensure safety which includes required PPE and safety devices.
- Reporting any concerns or incidents immediately.

**Definitions:**

1. **Ground Disturbance** includes excavating, trenching, landscaping, or any other movement of soil but does not include snow removal, road surface grading, rototilling in established plots, removal of soil from stock piles or back filling of areas.
2. **Type 1 Soil** includes soils that most closely exhibit the following characteristics:
  - Hard in consistency, very dense in compactive condition and has a standard penetration resistance of 50 blows per 300mm.
  - Can be penetrated only with difficulty by a small sharp object.
  - Has a dry appearance.
  - Has no signs of water seepage.
  - Can be excavated only by mechanical equipment.
  - Does not include previously excavated soils.
3. **Type 2 Soil** includes soils that most closely exhibit the following characteristics:
  - Is very stiff in consistency, dense in compactive condition and has a standard penetration resistance of between 30-50 blows per 300 mm.
  - Can be penetrated with moderate difficulty by a small sharp object.
  - Is difficult to excavate with hand tools.
  - Has a low to medium natural moisture content and a damp appearance once excavated.
  - Has no signs of water seepage.
  - Does not include previously excavated soils.

4. **Type 3 Soil** includes soils that most closely exhibit the following characteristics:
- Is stiff in consistency, compact in compactive condition and has a standard penetration resistance of 10-29 blows per 300mm.
  - Can be penetrated with moderate ease by a small sharp object.
  - If moderately difficult to excavate with hand tools.
  - Exhibits signs of localized water seepage.
  - Includes previously excavated soils that do not exhibit the characteristics of type 4 soil.
5. **Type 4 Soil** includes soils that most closely exhibit the following characteristics:
- Is firm to very soft in consistency, loose to very loose in compactive condition and has a standard penetration resistance of less than 10 blows per 300mm.
  - Is easy to excavate with hand tools.
  - Is cohesive soil that is sensitive and on disturbance is slightly reduced in internal strength.
  - Is dry and runs easily into a well-defined conical pile.
  - Has a wet appearance and runs easily or flows.
  - Is granular soil below the water table, unless the soil has been dewatered.
  - Exerts substantial hydraulic pressure when a support system is used.
  - Is previously excavated soil that exhibits any of the characteristics listed in this definition

6. **Shoring** means an assembly of structural members designed to prevent earth or material from falling or sliding in to an excavation.
7. **Spoil Pile** means material that has been excavated and piled.
8. **Temporary Protective structure** means a structure or device in an Excavation, trench, tunnel, or excavated shaft that is designed to provide Protection from cave ins, collapse, sliding or rolling material and includes shoring boxes, trench shields and similar structures.
9. **Sheeting** means the members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system and includes uprights placed so that individual members are closely spaced, in contact with, or interconnect with each other.
10. **Upright** means a vertical member of a shoring system that is placed in contact with the earth and usually placed so that it doesn't contact any other vertical members.
11. **Wale** means a horizontal member of a shoring system that is placed parallel to the excavation face and whose sides bear against the vertical members of the shoring system or earth.
12. **Excavation** means any dug out area of ground other than a trench, tunnel or excavated shaft.
13. **Trench** means an elongated dug out area of land whose depth exceeds its width at the bottom.

**References and Related Statements of Policy and Procedure:**

*The Occupational Health and Safety Regulations, 1996*

*The Saskatchewan Employment Act*