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# **GSS101 Gold Shovel Standard Digging Awareness – Ground Disturbance**

Course Overview: Developed with input from a cross-sector of industries, Locate Management Institute's new online Gold Shovel Standard Digging Awareness course (1-2 hours) is intended to teach individuals of the hazards and safety requirements associated with ground disturbance or excavation activities. This e-learning course introduces the student to the PROPPER Phases of Safe Digging and some of the key legislation and steps necessary to safely perform a ground disturbance (excavation). This online program has utilized elements of our Safe Digging course which has been assessed and endorsed by the Alberta Common Ground Alliance against ABCGA Standard 201, Ground Disturbance – Supervisory. Included in this Digging Awareness training course: Online quizzes. Certificate and wallet card issued upon successful completion.

# **Module 1 – Introduction to Digging Awareness**

This training course is based upon the Gold Shovel Standard with the goal of "... improving workforce and public safety and the integrity of vital buried infrastructure. GSS believes that greater transparency in all aspects of damage prevention among buried-asset operators, locators and contractors is essential to drive continuous improvement, and vital to ensure increasingly safe working conditions and communities."

#### Module 2 - Damage Prevention - Why It Is Important

Damage prevention is the protection and safe operation of infrastructure.

#### Module 3 – Ground Disturbance and Excavation

Many work activities above, below, or near buried facilities, including excavation, can result in a disturbance of the ground.

## Module 4 - Facilities, Damage and Stakeholders

Each of the stakeholder groups in the damage prevention process has (specific) roles and responsibilities, which, when recognized, accepted, and fulfilled leading to PROPPER safe digging practices, will enhance the process and have a positive impact on worker safety, public safety, protection of the environment, and preservation of the integrity of the buried infrastructure.





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# Module 5 - Requirements Prior to Ground Disturbance

Safe digging projects and damage prevention require accurate information. All available sources of information should be used throughout every phase of a ground disturbance.



The ground disturber must effectively communicate with the owners of buried facilities to request locates.

### Module 7 – Locating and Identifying Buried Facilities

Locators use various types of equipment to search for and identify buried facilities and objects. They mark and document these to help the ground disturber understand what is below the ground's surface.

#### Module 8 - Hand Exposure and Hand Expose Zones

Once the locations of all buried facilities have been marked, the ground disturber must not use mechanical excavation equipment within the hand expose zone until the buried facilities have been hand exposed and are clearly visible.



#### **Module 9 – Ground Disturbance Safety Procedures**

It is the responsibility of the stakeholders involved in a ground disturbance to reduce hazards and protect people, infrastructure, and the environment.

#### Module 10 - Plan, Review and Organize

This section introduces and provides a brief overview of the PROPPER phases or best practices of safe digging that are essential for ensuring that ground disturbances meet mandatory personal safety standards and prevent damage to surface property, underground facilities, and the environment.

#### Module 11 - Perform Locates and Pre-Excavate

Review information sources and the result of the locate with the locator in order to verify the locates and to discuss discrepancies. Ensure that all locates performed are verified with positive confirmation from the buried facility owner/operator prior to the commencement of any (mechanical) excavation activity.

#### Module 12 - Excavate and Restore

The ground disturbance equipment operator (whether it be mechanical or hand-operated) must be aware of the buried facilities within the work area.

#### **Module 13 – Incidents and Damage Prevention Procedures**

Each year, incidents occur due to unsafe digging practices. Most incidents are preventable if PROPPER safe digging procedures are followed.