

Damage Information Reporting Tool (DIRT) USER’S GUIDE

The USER’S GUIDE is intended to assist users of the DIRT in selecting the proper entries as the form or computer entry is completed. This will help ensure that individuals submitting reports have a common understanding of the data fields, which in turn will make analysis of the data more useful and meaningful. New registrants are encouraged to read this entire document prior to submitting data. Experienced data reporters are encouraged to refer to the USER’S GUIDE as needed.

The tool will accept data relating to damages, events that do not involve damage such as near misses, and downtime. The term “*event*” will be used throughout this document to include downtime, damages and near misses. These terms are defined in the Glossary. If the user wishes to report two or more facilities damaged in the same event, please complete an event report for each facility damaged.

Please fill out the form as accurately and as truthfully as you can based on the best of your knowledge. Several fields have choices of *Data Not Collected* and *Unknown/Other*. The guide material herein describes the distinction between the two. These two choices are mainly intended for new users who may not yet have aligned their investigations and reporting practices with DIRT, with the hope that they would soon do so. Use of these choices is discouraged, as complete and accurate information on all fields will provide the most value to the data analysis.

If you find anything to be confusing or unclear within the tool and/or this USER’S GUIDE, please select from the options available in the tool that you consider to be the best answer. Let us know what is unclear by using the “Feedback” link on the bottom of the page on the www.cga-dirt.com website. We welcome and encourage any feedback on how DIRT or this USER’S GUIDE can be improved.

Records entered into the tool can be revised with the appropriate level of authority granted through the DIRT registration process. Users of the tool with managerial or administrator status can update records.

The data collected will be used to analyze the root causes of these events and conduct trend analyses, thereby increasing public awareness and the effectiveness of educational programs. The data will not be used for enforcement purposes or to determine liability. The CGA understands that it may receive reports from multiple sources regarding the same event. The DIRT software has several built-in features to enable identification of such multiple reports. If there is conflicting information, this may be factored into the data analysis.

If you would like additional information on the Reporting & Evaluation Best Practices (please

refer to Chapter 9 of Best Practices) or on additional practices identified during the Common Ground Study, please refer to the most current edition of “Common Ground Alliance Best Practices.” It is available through the Common Ground Alliance web site (www.commongroundalliance.com).

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DIRT USER’S GUIDE

Part A: Who is submitting this information?

Who is providing this information?

Please select one of the following from the pull-down menu to indicate which stakeholder group is submitting this information:

- Electric
- Engineer/Design
- Equipment Manufacturer
- Excavator
- Insurance
- Liquid Pipeline
- Locator
- Natural Gas
- One Call Center: For one call centers that compile data from other parties, such as their membership, for submission to DIRT, the original-source stakeholder group should be used rather than one call center, to allow for more accurate analysis of the original source of the data.
- Private Water
- Public Works
- Railroad
- Road Builder
- State Regulator
- Telecommunication
- Unknown/Other: Select if no other choice is appropriate. For example you may have simply witnessed an event but were not involved in any capacity as defined in any other listed category.

Name of person providing this information

This field is automatically populated based on the log-in information.

Part B: Date and Location of the event

*Date of event:

Please enter the date the event occurred, if known (in MM/DD/YYYY format). Otherwise, please provide the date it was discovered. For example, damage to a facility in an open trench can readily be documented at the time of occurrence. However, if a directional bore damaged a facility the date of discovery may be days or even weeks later.

*Country:

Country where the event occurred.

*State:

Select the state or Canadian province where the event occurred. The tool will default to your home state based on the log-in information. However, a different state or province may be chosen if necessary.

*County:

Select the county where the event occurred. The list of possible counties will be automatically provided in the field drop-down box based on the state selected. (Parishes would be included in this category.)

City:

Enter the city where the event occurred. The “city” is defined as an incorporated municipality in the United States or Canada with definite boundaries and legal powers set forth in a charter granted by the state or a Canadian municipality of high rank, usually determined by population but varying by province. (Towns, Boroughs, Villages, etc. would be included in this category.)

Street Address:

Enter the street address where the event occurred. This field is not required and will not be published in any reports issued by the CGA. However, providing this information may enable identification of multiple reports of the same event.

Latitude/Longitude:

If the location of the damage is available from GPS coordinates, provide the latitude, longitude, and the accuracy if known. Lat/Lon can be provided in two forms:

- Decimal degrees like 41.34512 and -102.3189 (please note longitudes in the United States and Canada are negative).
- Degrees/minutes/seconds like N deg: 41 min: 20 sec: 42 and W deg: 102 min: 19 sec: 8.

Accuracy can be provided via the pull-down based on the accuracy from the GPS device or mapping source:

- 100’/30m for stable GPS,
- 350’/100m for approximate GPS,

- 1000’/300m for ZIP code + 4 locations,
- 1mi/1.6km for street locations,
- 3mi/5km for city locations,
- 10mi/16km for ZIP code locations,
- 30mi/50km for county locations
- 100mi/300km for less accurate locations,
- Unknown if the accuracy of the latitude/longitude is not known.

NOTE: The on-line DIRT Damage Report entry form has a “Map Location” feature that opens a Google Maps window. Users can use the navigation features (zoom in or out, move east, west, north or south) to pinpoint the desired location. Clicking on “Set Location” will populate the DIRT entry form with the Latitude/Longitude as well as the State, County, City and Street Address.

Nearest Intersection:

Enter the nearest intersection, or cross street, to where the event occurred. This field is not required and will not be published in any reports issued by the CGA. However, providing this information may enable identification of multiple reports of the same event.

*Right of Way where the event occurred:

Select the type of land or property, in which the underground facility was placed, where the event occurred. If uncertain, please provide a “best guess” based on the information below. Please select from the drop-down menu options listed.

- Public – City Street: Within the boundaries of a road that is under the jurisdiction of and maintained by a municipality where a permit was required to place the facility. Typically, a city street is a paved road within the city limits with boundaries at the outer edge of a sidewalk, building front or back-of-ditch line if no sidewalk is present.
- Public – State Highway: Within the boundaries of a road that is under the jurisdiction of and maintained by the state department of transportation (DOT) where a permit was required to place the facility. Typically, a state DOT owns and maintains anywhere from 20 feet to 50 feet from the centerline of the road on either side of the road, although these distances vary. Often, a fence line or back-of-ditch line denotes the edge of the state right of way.
- Public – County Road: Within the boundaries of a road that is under the jurisdiction of and maintained by a county department of roads or public works and where a permit was required to place the facility. County roads can be paved, gravel or dirt. Typically, a county owns and maintains anywhere from 20 feet to 50 feet from the centerline of the road on either side of the road, although these distances vary. Often, a fence line or back-of-ditch line denotes the edge of the county right of way.
- Public – Interstate Highway: Within the boundaries of a road that is under the jurisdiction of and maintained by the state DOT where a permit was required to place the facility and is a controlled access highway linking major cities across the United States.
- Public – Other: Within public lands not covered by Federal Lands (as defined below). This

includes National Parks, Native American lands, or other city, state or Federal property not covered under the street, highway or road descriptions.

- Private – Land Owner: On land that is owned by a person, group, corporation or other entity, not a government body, but does not fit within any other listed right of way type.
- Private – Business: On land owned by a person, group, corporation or other entity and not owned by a government body. The land is used for commercial or industrial purposes, but does not fit within any other listed right of way type.
- Private Easement: Property owned by a person, group, corporation or other entity, not a governmental body. Placement of facilities within the property of a private person, group, corporation or other entity typically requires an easement (a right created by a grant or agreement with the land owner to allow the placement and maintenance of the facility by the facility owner). Easements are of varying widths.
- Pipeline: Within a strip of land where a private easement has been obtained to place and maintain a gas or petroleum pipeline. Typically, this strip of land is a cross country route with boundaries of 20 feet to 50 feet on either side of the pipeline, although this width may vary. If the event occurred within an area that is common to a city street, state highway or county road and a pipeline crossing, then choose the appropriate option of city street, state highway or county road.
- Power/Transmission Line: Within a strip of land where a private easement has been obtained to place and maintain an overhead power or high-voltage transmission line. Typically, this strip of land is a cross country route with boundaries of 20 feet to 50 feet or more on either side of the pole/tower line. If the event occurred within an area that is common to a city street, state highway or county road and a power/transmission line crossing, then choose the appropriate option of city street, state highway or county road.
- Railroad: Within the boundaries of land maintained by a railroad company and where a permit from the railroad company was required to place the facility. If the event occurred within an area that is common to a city street, state highway or county road and a railroad crossing, then choose the appropriate option of city street, state highway or county road.
- Dedicated Public Utility Easement: A strip of land devoted solely for the placement of public utilities. Typically, dedicated public utility easements are 10 feet to 20 feet wide and are found between adjacent properties (usually along the back sides) within a subdivision.
- Federal Land: Within lands owned by the United States government, except for lands in the National Park System, lands held in trust for a Native American or Native American tribe, and lands on the Outer Continental Shelf (see “Public – Other” above).
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: Select if none of the above apply. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the type of right of way could not be determined.

Part C: Affected Facility Information

*What type of facility operation was affected?

Select one of the following options from the drop-down menu. If the user wishes to report two or more facilities damaged in the same event, please complete an event report for each facility damaged.

- Cable TV: Any underground CATV facility.
- Electric: Any underground electrical lines and related electrical facilities regardless of the voltage or the type of service i.e., primary or secondary.
- Liquid Pipeline: Any underground facility that contains and/or transports any liquid other than water, including petroleum products.
- Natural Gas: Any underground facility containing and/or transporting natural gas.
- Sewer (Sanitary/Storm): Select for both forced mains and gravity sewers and facilities associated with lift stations. This category also includes storm water facilities.
- Steam: Any underground facility providing steam for use in heating or other industrial applications
- Telecommunications: Any underground buried telecommunication lines and fiber optic lines used for either telecommunications or for internet/data transfer.
- Water: Any underground facility installed for the purpose of supplying or transporting water for consumption or industrial purposes, including reclaimed water.
- Unknown/Other: Any underground service not included in the other categories. For example, high or low-pressure gas lines exist with other products such as air, helium, nitrogen, etc.

*What type of facility was affected?

Select one of the following options from the drop-down menu.

- Distribution: Distribution lines are the tier below transmission for gas and electric but also apply to water companies. Water companies often refer to their distribution lines as water mains. Electric companies further delineate the distribution network into primary and secondary. For the purpose of the DIRT, please select *Distribution* for primary electric and as appropriate for the other listed utilities.
- Gathering: Any pipeline that transports a commodity from a production facility to a transmission line or distribution main, or directly to an end-user.
- Service/Drop: For the purpose of DIRT, please select *Service/Drop* for secondary electrical lines, gas services, and laterals for water and sewer. Also, since CATV and telecommunications are not normally delineated as either transmission or distribution, select *Service* for these utilities.
- Transmission: Transmission lines are generally operated by electrical utilities and by natural gas and other pipeline utilities/operators. Electrical transmission includes both extra-high-voltage (EHV) lines and high voltage (HV).
- Unknown/Other: All other facilities that do not fulfill the requirements stated above. For example there are many temporary or localized utilities that may not meet the requirements as defined previously in this section. Pipelines carrying gasses other than natural gas, such as air, helium or nitrogen, should be listed as Unknown/Other.

Was this facility part of a joint trench?

See definition of “joint trench” in the glossary. Select one of three options from the drop-down menu.

- --(unknown/other)—
- Yes
- No

Was facility owner a member of one call?

See definition of “one call center” in the glossary. Select one of three options from the drop-down menu.

- --(unknown/other)—
- Yes
- No

Part D: Excavation Information

*Type of Excavator:

See definition of “excavator” in Glossary. Please identify the type of excavator that was involved in the event, regardless of fault, liability or root cause. Select from the following options on the drop-down menu.

- Contractor: The excavating party plans, executes, and controls excavation with its employees and its schedule on property or right of way that it does not own. This includes subcontractors hired by (for example) utility, municipality, general contractor, etc.
- County: The excavating party is employed by a county government agency and is engaged in excavation for any purpose.
- Developer: The excavating party plans, executes, and controls excavation with its employees and its schedule on property or right of way that it does own or lease.
- Farmer: The excavating party tends land for agriculture purposes that it owns, rents or leases.
- Municipality: The excavating party is a town, city, or district having the power of self-government and engaged in excavation for any purpose.
- Occupant: The excavating party is a resident or property owner and performs excavation activities on the same property.
- Railroad: The excavating party is performing railroad construction, maintenance, or excavation with railroad employees.
- State: The excavating party is employed by a state government agency and is engaged in excavation for any purpose.
- Utility: The excavating party plans, executes, and controls excavation with its employees under its control in placing utilities it owns.
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: The excavating party cannot be determined to fit the above categories, or the

excavating party does some specialized excavation that does not fit the above categories. To distinguish from *Data not collected* – the reporting entity does attempt to capture this information, but in this instance the type of *Type of Excavator* could not be determined.

***Type of Excavation Equipment:**

Please indicate the type of equipment or machinery that was involved in the event, regardless of fault or liability. Most are self-explanatory.

Select one of the following options from the drop-down menu.

- Auger: Machinery used to drill earth horizontally or vertically by means of a cutting head and auger or other functionally similar device.
- Backhoe/Trackhoe
- Boring: Machinery used to dislodge or displace spoil by a rotating auger or drill string to produce a hole called a bore. Also include pneumatic tools such as hammer head or hole hog.
- Drilling
- Directional Drilling: A steerable system for the installation of pipes, conduits and cables in a shallow arc using a surface launched drilling rig. Traditionally the term applies to crossings in

which a fluid-filled pilot bore is drilled using a fluid-driven motor at the end of a bent-sub, and back reamer to the size required for the product pipe.

- Explosives
- Farm Equipment: Planter, combine, tractor, plow, and items used for tiling, tilling, terracing, anhydrous fertilizer applicators, sub-soilers (used to break up hard pan for draining), etc. (See also: *Agriculture* under Type of Work Performed).
- Grader/Scraper includes bulldozer
- Hand Tools: Pick ax, shovel, drill, hammer, grounding rod.
- Milling Equipment: Equipment used for grinding a paved road surface, typically in preparation for repaving. The ground up material is either disposed of or treated and reapplied.
- Probing Device
- Trencher: If the activity is in a farm environment, consider selecting *Farm Equipment*.
- Vacuum Equipment – example: hydro-vac.
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: The type of work performed cannot be determined to fit any of the available choices. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the type of Type of Excavation Equipment could not be determined. For example, a previously unreported damage is discovered.

***Type of Work Performed:**

Check the category that best describes the work being done at the time of the event. Most are self-explanatory. If multiple types of work were occurring concurrently, for example Water and Sewer, choose the one that best fits the work being performed at the time of the event, if possible. If not possible to narrow it down to a single Type of Work, choose one. Part J may also be used to record additional comments.

Select one of the following from the drop-down menu.

- Agriculture: Excavator working in farm environment, this includes tiling, tilling, plowing, sub soiling, terracing, etc. Also include logging activities here.
- Cable TV
- Bldg. construction
- Curb/Sidewalk
- Bldg. Demolition
- Drainage: Excavator working in open trenches. If the activity is in a farm environment, consider selecting *Agriculture*.
- Driveway
- Electric
- Engineering/Surveying
- Fencing
- Grading: Excavator is using equipment to manipulate the ground surface.
- Irrigation
- Landscaping
- Liquid Pipeline
- Milling: Grinding of a paved road surface, typically in preparation for repaving. The ground up material is either disposed of or treated and reapplied.
- Natural Gas: Natural gas underground pipelines and related natural gas facilities
- Pole
- Public Transit Authority
- Railroad Maintenance
- Road Work
- Sewer (Sanitary/Storm)
- Site Development: Excavation work, in preparation for building, that is not better described by another selection.
- Steam
- Storm Drain/Culvert: Excavator working with drainage system.
- Street Light
- Telecommunications
- Traffic Signal
- Traffic Sign
- Water
- Waterway Improvement: Excavator working along waterway (this includes dredging and stream bank improvements).
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: The type of work performed cannot be determined to fit any of the available choices. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the type of Type of Work performed could not be determined. For example, a previously unreported damage is discovered.

Part E: Notification

“Was the one call center notified?”

See definitions of “locate request”, “notice” and “one call center” in the Glossary. Select yes or no.

- Yes: There was a valid ticket, with correct information, and in accordance with state law. Part F must also be completed.
- No: No notification to the one call center was provided for the location of the event, or notification was made but not in conformance with applicable regulations (notice expired or otherwise invalid according to state law). Proceed to Part G.

If “No” is selected, please note: Any root cause may be chosen in Part I – Description of Root Cause. See Guide Material for Part I – Description of Root Cause – choices “Notification to the one call center made but not sufficient” and “Wrong information provided.”

If Yes, choose the one call center:

If yes is chosen for the previous question, the drop-down box will be automatically populated with appropriate choices based on the state selected. Select the one call notification center that was notified.

If yes, please provide the ticket number:

See definition of “ticket number” in the Glossary. Enter the ticket number in the text box provided. This field is not required and will not be published in any reports issued by the CGA. However, providing this information, if known, may help to establish the identification of multiple reports of the same event.

Part F: Locating and Marking (required if answered yes to Part E)

Note: If answered no to Part E, then Part F is automatically indicated as n/a.

Part E: Notification	
*Was the one-call center notified?	<input type="button" value="No"/> ▼
If yes, choose the one-call center:	n/a
If yes, please provide the ticket number:	n/a

Part F: Locating and Marking (required if answered yes to part E)	
*Type of Locator:	n/a
*Were facility locate marks visible in the area of the excavation?	n/a
*Were facilities marked correctly?	n/a

*Type of Locator:

See definition of “locator”, in Glossary. Select one of the following from the drop-down menu.

- Utility Owner: The locator is employed by the same entity that operates the buried facility being located.
- Contract Locator: The locator is employed by a firm that performs locating services on a contract basis for operators of buried facilities or others.
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: Select if none of the above apply. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the type of locator could not be determined.

*Were facility locate marks visible in the area of the excavation?

Facility locate (see definition in Glossary) marks are the marks that result from a valid one call ticket, with correct information, and in accordance with state law. Select one of the following from the drop-down menu.

- No – The worksite was not marked at all, or the work site had been marked, but the marks were deteriorated or were missing.
- Yes – Choose if the owner of the damaged facility responded by marking their facilities. Choose if marks were generally visible from a valid locate, even if part of the facilities were missed, such as service, main extension, offset, etc.
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: Select if none of the above apply. To distinguish from “data not collected” – the reporting entity does attempt to capture this information, but in this instance the information could not be determined. For example, a previously unreported damage is discovered.

*Were facilities marked correctly?

Facilities were marked correctly if:

- a. Locate marks were within the ‘tolerance zone’ specified by state law. If state law does not specify a tolerance zone, then use 18” on either side of the outside edges of the underground facility. (See definition of “tolerance zone” in Glossary.)
- b. Locate marks were made using correct colors and symbols
- c. Locate marks were made in accordance with local/state requirements

Select one of the following from the drop-down menu.

- No
- Yes
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: Select if none of the above apply. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the information

could not be determined. For example, a previously unreported damage is discovered.

Part G: Excavator Downtime

Did the excavator incur downtime?

See definition of “downtime” in Glossary. Downtime may occur with or without damage to a facility. For example, an excavator may be delayed while waiting for repairs to a damaged facility that was either incorrectly marked or unmarked. Alternatively, an excavator may discover a mislocated or unlocated facility with no damage occurring, but be delayed while the facility owner/operator corrects the situation. Time spent trying to find a correctly marked but hard-to-find facility does not constitute downtime.

Examples of downtime include delays associated with the following:

- a. A mislocated or unlocated facility.
- b. A facility owner/operator refusing to allow work near their facilities.
- c. An excavator made proper notice to the one call center, but upon arrival at the work site on the start date finds that some or all of the operators have not completed their locates.

Select yes or no.

- Yes
- No.

If yes, how much time?

Provide the amount of time the work crew is delayed that can be determined and proved. For example, on a large project, the crew may be able to move to another area and continue working. In this case, include only the time required to move to the other area.

Select one of the following from the drop-down menu.

- Unknown
- Less than 1 hour: 0:01 to 0:59
- 1 to 2 hours: 1:00 to 2:00
- 2 to 3 hours: 2:01 to 3:00
- More than 3 hours: 3:00 and above
- Enter Exact Value: A new box will appear where an exact value may be entered.

Estimated Cost of Downtime:

Only costs that are associated with the delay and can be documented should be included in the cost of downtime. Generally, the hourly or daily cost of a work crew is known and that cost can be determined and proved. An event such as a mislocate may not delay the total crew. In addition, on a large project, the crew may be able to move to another area and continue working. In this case, include only the costs associated with the time required to move to the other area, and other documented costs.

Select one of the following from the drop-down menu.

- Unknown
- \$0
- \$1 – 500
- \$501 – 1,000
- \$1,001 – 2,500
- \$2,501 – 5,000
- \$5,001 – 25,000
- \$25,001 – 50,000
- \$50,001 and over
- Enter Exact Value: A new box will appear where an exact value may be entered.

Part H: Description of Damage

*Was there damage to the facility?

See definitions of “damage” and “near miss” in Glossary. Select yes or no.

- Yes
- No (i.e. near miss)

*Did the damage cause an interruption of service?

Select yes or no.

- Yes: Include all situations where any changes are required for the facility that actually affects customers or causes a deviation from normal operating capabilities
- No
- Data Not Collected: The reporting entity does not currently collect this data.
- Unknown/Other: Select if none of the above apply. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the information could not be determined. For example, a previously unreported damage is discovered.

If yes, duration of the interruption:

Include the total time the facility operation has been impaired causing an actual interruption of service or deviation from normal operating capabilities. The duration of the interruption includes the time required to relight or activate service for ALL customers who are available for such service, or as can best be determined.

Select one of the following from the drop-down menu.

Less than 1 hour: 0:01 to 0:59

- 1 to 2 hours: 1:00 to 1:59
- 2 to 4 hours: 2:00 to 3:59

- 4 to 8 hours: 4:00 to 7:59
- 8 to 12 hours: 8:00 to 11:59
- 12 to 24 hours: 12:00 to 23:59
- 1 to 2 days: 24:00 to 47:59
- 2 to 3 days: 48:00 to 71:59
- More than 3 days: 72 hours and above
- Enter Exact Value: A new box will appear where an exact value may be entered.
- Unknown: Select if no other choice applies. To distinguish from *Data Not Collected* – the reporting entity does attempt to capture this information, but in this instance the duration of the interruption could not be determined. For example, a previously unreported damage is discovered.
- Data Not Collected: The reporting entity does not currently collect this data.

Approximately how many customers were affected?

Use your best estimate, and update if more accurate information becomes available. Select one of the following from the drop-down menu.

- Unknown
- 0
- 1
- 2 - 10
- 11 - 50
- 51 or more
- Enter Exact Value: A new box will appear where an exact value may be entered.

Estimated cost of damage repair/restoration?

Include an estimate the total costs for repairs, interruption of service, and other costs. Include the value of any lost product. Update the information in this field if additional costs are incurred or updated information becomes available.

Select one of the following from the drop-down menu.

- Unknown
- \$0
- \$1 – 500
- \$501 – 1,000
- \$1,001 – 2,500
- \$2,501 – 5,000
- \$5,001 – 25,000
- \$25,001 – 50,000
- \$50,001 and over
- Enter Exact Value: A new box will appear where an exact value may be entered.

Number of people injured?

Enter this information and update as required.

Select one of the following from the drop-down menu.

- Unknown
- 0
- 1
- 2 – 9
- 10 – 19
- 20 – 49
- 50 – 99
- 100 or more
- Enter Exact Value: A new box will appear where an exact value may be entered.

Number of fatalities?

Enter this information and update as required.

Select one of the following from the drop-down menu.

- Unknown
- 0
- 1
- 2 – 9
- 10 – 19
- 20 – 49
- 50 – 99
- 100 or more
- Enter Exact Value: A new box will appear where an exact value may be entered.

Part I: Description of the Root Cause

Choose a first level root cause:

See Root Cause definition in Glossary

The first three listed root causes- *One Call notification practices not sufficient; Locating practices not sufficient; and Excavation practices not sufficient* – are used for categorizing related root causes. These require a choice of a “2nd-level cause” i.e. *the predominant reason that the event occurred*. The remaining root causes have only first-level causes.

- One Call notification practices not sufficient: Choose one of the following 2nd-level causes:
 - No notification made to the one call center at all. Or, select this if an invalid one call ticket (except for the two bulleted below) was the main cause of the damage. See USER’S GUIDE material under Part E – No.
- OR
- Notification to the one call center made but not sufficient: The excavator or caller who contacted the notification center did not provide sufficient information. Also includes situations where the excavator or caller did not provide sufficient advance notification time according to state law. No must be selected for Part E.
- OR

- Wrong information provided: An error occurred because an excavator or caller provided the wrong address for excavation to the one call center, or there was a miscommunication between stakeholders. *No* must be selected for Part E.

- Locating practices not sufficient: Choose one of the following 2nd-level causes:
 - Facility could not be found/located: Type of facility, depth, or lack of records prevented locating of facility.

OR

 - Facility markings or location not sufficient: Includes all areas where marking was inaccurate or otherwise insufficient in designating the location of the buried facilities, but **NOT** covered by the following choices found elsewhere in Part I:
 - Facility could not be found/located
 - Incorrect facility records/maps
 - Abandoned facility

OR

 - Facility was not located or marked: No locating or marking was completed prior to excavation activities. This assumes valid notification to the one call center and waiting the proper time according to state law.

OR

 - Incorrect facility records/maps: Incorrect facility records or maps led to an incorrect locate: **CAUTION:**
 - If records/maps are generally available, but something was not plotted or recorded such as a service, main extension, offset, etc., choose “Incorrect facility records/maps”
 - If the issue is lack of records/maps, choose *Facility could not be located*
 - If an abandoned facility was involved, choose *Abandoned facility*

- Excavation practices not sufficient: The excavator did not use proper care or follow the correct procedures when excavating near a facility. Choose one of the following 2nd-level causes:
 - Excavation practices not sufficient (other): None of the 2nd-level causes described below applies.
 - OR
 - Failure to maintain clearance with powered equipment - as defined by applicable state regulations or underground facility owner.
 - OR
 - Failure to maintain the marks: The marks deteriorated or were lost and the excavator failed to request that they be restored/refreshed. If the state law has a 'life-of-ticket' that has been exceeded, consider selecting *No notification made to the one call center*.
 - OR
 - Failure to support exposed facilities: Facility failed due to lack of support in accordance with generally accepted engineering practices or instructions provided by the facility operator.
 - OR
 - Failure to use hand tools where required.
 - OR
 - Failure to verify location by test hole (pot holing): Some state regulations define a 'tolerance zone' around buried facilities and require that the accuracy of the facility marks be verified by exposing the facility by hand digging prior to excavation within the tolerance zone, or require hand digging or special precautions when working within the tolerance zone.
 - OR
 - Improper backfilling. Damage caused by improper materials (ex: large/sharp rocks) in the backfill or improper compaction of the backfill.

First-level Root Causes (with no second level)

- One Call notification center error: Includes all issues related to the center such as incorrectly entered data, ticket transmission failures, stakeholder omissions (failure to transmit the ticket to

a facility operator that should have received it), et al.

- Abandoned facility: An event caused by an abandoned facility issue. For example, a nearby abandoned facility may have been located instead of the active facility. Or, a facility may have been located as abandoned, but found active after the excavation exposed the facility.
- Deteriorated facility: Situations in which an excavation disrupts the soil around a facility resulting in damage, failure, or interruption of service. However, the facility was deteriorated (ex: corroded, graphitized, etc.) to the extent that the deterioration and not the excavation activity caused the facility issue.
- Previous damage: A significant period of time has passed from the actual damage to the failure or discovery of the damages.
- Data Not Collected.
- Other: Includes all root causes not addressed above. Please explain in the text box provided.

Part J: Comments

This text field (4,000 characters maximum) is available for stakeholder to enter/add other applicable information. The stakeholder may use this field to assist them in tracking their damages.

Part Z cont.: (non-CGA) Images and Attachments

This field is available for stakeholders to attach images and attachments such as photographs from the event, damage reports, one-call notices, etc. This enables DIRT to be used as a repository for users to maintain all information relating to an event. This material will not be shared via User Grants as it is only available to the submitter. This material will not be used by the CGA Data Reporting and Evaluation Committee for the Annual Report.

Glossary of Terms

Abandoned Line or Facility: Any underground or submerged line or facility no longer in use.

Backfill: To fill the void created by excavating.

Cathodic Protection: The process of arresting corrosion on a buried or submerged structure by electrically reversing the natural chemical reaction. This includes, but is not limited to, installation of a sacrificial anode bed, use of a rectifier based system, or any combination of these or other similar systems. Wiring is installed between the buried or submerged structure and all anodes and rectifiers; wiring is also installed to test stations that are used to measure the effectiveness of the cathodic protection system.

Damage: Any impact or exposure that results in the need to repair an underground facility due to a weakening or the partial or complete destruction of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection or the housing for the line device or facility.

Demolition Work: The partial or complete destruction by any means of a structure served by, or adjacent, to an underground line or facility.

Designer: Any architect, engineer, or other person who prepares or issues a drawing or blueprint for a construction or other project that requires excavation or demolition work.

Downtime: Lost time reported by a stakeholder on the Damage Information Reporting Tool (DIRT) field form for an excavation project due to failure of one or more stakeholders to comply with applicable damage prevention regulations.

Event: The occurrence of facility damage, near miss, or downtime.

Excavate or Excavation: Any operation using non-mechanized or mechanized equipment, demolition or explosives in the movement of earth, rock or other material below existing grade.

Excavator: Any person proposing to excavate or engaging in excavation or demolition work for himself or for another person.

Facility: An underground or submerged conductor, pipe or structure used in providing electric or communications service (including, but not limited to, traffic control loops and similar underground or submerged devices), or an underground or submerged pipe used in carrying, providing, or gathering gas, oil or oil product, sewage, storm drainage, water, or other liquid service (including, but not limited to, irrigation systems), and appurtenances thereto.

Facility Owner/Operator: Any person, utility, municipality, authority, political subdivision, or other person or entity who owns, operates, or controls the operation of an underground line/facility.

Global Positioning System (GPS): A system consisting of 25 satellites used to provide precise position, velocity, and time information to users anywhere on earth. Location information can be received using a GPS receiver. The GPS receiver helps determine locations on the earth’s surface by collecting signals from three or more satellites through a process called triangulation. Simple and inexpensive hand-held receivers provide an accuracy of ± 100 meters of a true position. More sophisticated receivers that use additional technologies or that post-process the original GPS data can provide sub-meter accuracy.

Grade: The surface of the earth (i.e., ground level) upon which a structure is built or prepared.

Grounding Systems: A system of one or more ground conductors or ground rods providing a low-resistance path-to-earth ground potential through a mechanical connection to structures, conductors, and equipment.

Joint Trench: A trench containing two or more facilities that are buried together by design or agreement.

Large/Complex Project: A single project, or a series of repetitive, small, short-term projects that are related in scope, that impact facilities over a long period of time or a large area.

Latitude (Lat): Distance measured north or south of the equator.

Locate: To indicate the existence of a line or facility by establishing a mark through the use of stakes, paint, flagging, whiskers, or some other customary manner, that approximately determines the location of a line or facility.

Locate Request: A communication between an excavator and one call center personnel in which a request for locating underground facilities is processed.

Locator: A person whose job is to locate lines or facilities.

Longitude (Long): Distance measured east or west from a reference meridian (Greenwich).

Near Miss – An event where damage (as defined above) did not occur, but a clear potential for damage was identified.

Notice: The timely communication by the excavator/designer to the one call center that alerts the involved underground facility owners/operators of the intent to excavate.

One Call Center: An entity that administers a system through which a person can notify owners/operators of lines or facilities of proposed excavations.

Person: Any individual or legal entity, public or private.

Public: The general population or community at large.

Root Cause: The primary reason an event occurred.

Test Hole: Exposure of a facility by safe excavation practices used to ascertain the precise horizontal and vertical position of underground lines or facilities.

Ticket number: A unique identification number assigned by the one call center to each locate request.

Tolerance Zone: The space in which a line or facility is located and in which special care is to be taken.

Vacuum Excavation: A means of soil extraction through vacuum; water or air jet devices are commonly used for breaking the ground.

