



Colorado Department of Labor and Employment
Division of Oil and Public Safety
Underground Damage Prevention Safety Commission
633 17th Street, Suite 500
Denver, CO 80202-3610

Phone: 303-318-8525
Email: cdle_safetycommission@state.co.us
Web: www.colorado.gov/SafetyCommission

Best Practice – Locating & Marking

(Approved December 9, 2021; Updated February 10, 2022)

Scope

This Best Practice is meant to help industry stakeholders and the public understand the concepts of **Locating** and **Marking** by defining them, citing relevant sources and portions of the Excavation Requirements Statute (ops.colorado.gov/RegulationsStatutes), and discussing practical applications/intentions of the law.

Best Practices are recommendations of the Underground Damage Prevention Safety Commission (Safety Commission).

The use of this Best Practice is meant to:

- Elevate awareness and improve the communication between excavators and facility owners/operators;
- Increase safety;
- Provide consistency/standardization with locating methods so that everyone knows what is marked (or not), which helps with safety and communication and reduces confusion;
- Prevent delays and costs associated with a project;
- Create accountability for excavators and facility owners/operators by detailing their responsibilities; and
- Expand on the Excavation Requirements Statute.

With these considerations in mind, the Safety Commission has reviewed and chosen the Common Ground Alliance (CGA) [Best Practices 18.0](#) (which references the American Public Works Association (APWA) 2001 publication [Recommended Marking Guidelines for Underground Utilities](#)) as a recommended Best Practice. As a newer document, CGA is detailed and references the APWA color code, as well as some of the APWA guidelines.

Locating & Marking Standards: Defined

APWA's color code is adopted in the Colorado Statute and is referenced in this Best Practice.

For the purposes of this Best Practice, the Safety Commission is utilizing the definitions from the CGA *Best Practices 18.0* Appendix A: Glossary of Terms and Definitions (published 2021) for the following terms:

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 that line or facility.*

Marking Standards: *The methods by which a facility owner/operator indicates its line or facility in accordance with the APWA guidelines.*

For the purposes of this Best Practice, the Safety Commission is utilizing the definition for *subsurface utility engineering notification* from the Excavation Requirements Statute **Section 9-1.5-102. Definitions.**

(6.7) "Subsurface utility engineering notification" means a notice to the notification association that a project is being designed by a licensed professional engineer and that the project will include the investigation and depiction of existing underground facilities that meet or exceed the ASCE 38 standard.

In this Best Practice, **SUE** stands for *Subsurface Utility Engineering*.

Excavation Requirements Statute 9-1.5-103 (2.7)

SUE or other requests for Design

An underground facility owner that receives a subsurface utility engineering notification or other request for information from a designer shall respond to the request within ten business days after the request, not including the day of actual notice, in one or more of the following ways:

- (a) Provide underground facility location records that give the available information on the location, not to include depth, of underground facilities within the project limits;*
- (b) Provide a mark on the ground that gives the approximate location, not to include depth, of its underground facilities within the project limits; or*
- (c) Provide the available information as to the approximate location, not to include depth, of its underground facilities within the project limits.*

Practical Application

Responding to a request for planning and design purposes is mandated by law. The law allows any of the three ways above as an appropriate response.

Responding to a request allows information to be gathered:

- For route selection;
- To minimize hazards;
- To promote safety to facility and workers;
- To reduce the cost; and
- To optimize work to produce the final project.

SUE-specific section of Statute

- The Safety Commission published a Best Practice – Subsurface Utility Engineering (SUE) (approved April 9, 2020) that details content related to the SUE process. This document can be obtained on the Safety Commission's website (colorado.gov/safetycommission).
- Any design investigation that requires excavation, including but not limited to any form of digging test holes (i.e., hand digging, hydro excavation, or vacuum excavation), requires an excavation locate request.

Excavation Requirements Statute 9-1.5-103 (3)(c)(II)

Excavation Locate Request

If an area of excavation cannot be accurately described on the locate request, the excavator shall notify the owner or operator of the area of excavation using one or more of the following methods:

- (A) Physical delineation with white marks on a hard surface area;*
- (B) Electronic delineation on a map, plan sheet, or aerial photograph that can be transmitted electronically from the excavator to the facility owner or operator through the notification association; or*
- (C) Scheduling an on-site meeting between the excavator and the owner or operator.*

Practical Application

The One Call Center (Colorado 811) is structured to provide a single point of contact for the excavator to notify facility owners/operators, to submit information and for follow up. In addition, Colorado 811 allows pertinent information to be shared between all affected parties.

Here is additional information on the practical application of Section 9-1.5-103 (3)(c)(II):

Responsibility: Excavators

- Clear communication of the excavation area is the expectation. If the excavation area cannot be clearly described in words, the excavator will then use one of the options described in Sections **(A)**, **(B)** or **(C)** (above) to clearly explain the excavation area. It is recommended that as much information about the proposed excavation is provided to clarify and ensure safety.
- When work activities or locates are complex, face-to-face meetings are recommended because all parties are on the scene to enhance safety and communication. Based on work volume, face-to-face meetings may be impractical.

White lining: Physical delineation with white marks



- This form of white lining typically involves putting white flags in, or paint on, the ground to delineate the area (and any alternatives) planned for excavation.

- If using white flags, care should be taken when placing them into the ground (as that area has yet to be located) to prevent unintended damage to a facility. A photo example of a white lined area with paint and flags is included.
 - White flags are typically inserted using ~1/16" wire.
 - Since the area has yet to be located, the potential to impact a yet-unidentified facility exists. To prevent unintended damage to the facility, place the flags into the soil as shallow as possible; the material used as the flag 'stem/pole' should be sturdy enough to penetrate the ground and minimal enough that the likelihood of piercing a facility is negligible.
- A lack of a white line, or a partial white line, does not exempt the responsibility of the facility owner/operator from locating facilities on time.
- If a white line area exists, it may be helpful to extend locating marks beyond the area to help the excavators execute their job; however, there is no requirement to mark outside of the white lines.
- If there is a discrepancy between the description written on the locate request and an area that has been white lined, or if the white lining is incomplete, clarification needs to be made by communication between the facility owner/operator and the excavator. The locate request and white lined area need to match.

Digital white lining: Electronic delineation transmitted through Colorado 811

- This form of white lining means providing a map, plan sheet, or aerial photograph with the excavation area delineated electronically.
- Electronic delineation can be sent as an attachment when creating locate requests through Colorado 811 within the online self service platforms. The files sent through Colorado 811 are not modified or reviewed by Colorado 811 staff.
- If the area cannot be accurately described, the attachment can be used by the excavator as a way to describe the excavation area.

Excavation Requirements Statute 9-1.5-103 (4)(a)(I)

Positive Response

Any owner or operator receiving notice pursuant to subsection (3) of this section shall, at no cost to the excavator and within two business days, not including the day of actual notice, use reasonable care to advise the excavator of the location, number, and size of any underground facilities in the proposed excavation area, including laterals in the public right-of way, by marking the location of the facilities with clearly identifiable markings within eighteen inches horizontally from the exterior sides of the facilities. The markings must include the depth, if known, and shall be made pursuant to the uniform color code as approved by the American Public Works Association.

The documentation required by this subsection (4)(a)(I) shall be provided to the excavator through the notification association and must meet or exceed any quality standards established by the safety commission pursuant to section 9-1.5-104.2 (1)(a)(I). In addition to the markings, the owner or operator shall provide for each of its underground facilities:

(A) Documentation listing the owner's or operator's name and the size and type of each marked underground facility; and

(B) Documentation of the location of the underground facilities in the form of a digital sketch, a hand-drawn sketch, or a photograph that includes a readily identifiable landmark, where practicable.

Practical Application

Responsibility: Owners and Operators

- Although a homeowner may be the owner of a lateral, the facility owner/operator is likely in the best position to provide locate information. Under the above statute, facility owners/operators must locate laterals that are located in public right-of-ways, including electronically locatable (also known as E-locatable) facilities.
- In urban [crowded corridor] situations, projects can be complex with multiple joint trench utilities. It is important to capture direction changes and line number changes; this should be communicated with marks on the ground. Follow CGA 4-10 for guidance on multiple facilities in the same trench.
- Different requirements apply to sewer laterals that are not electronically locatable. For information about sanitary/storm sewer laterals, see Section **9-1.5-104 (4)(a)(II)** below.
- Owners/operators are encouraged to share the estimated depth data obtained on locate tools. Estimated depth obtained during the locate process is not guaranteed, and excavators should not rely on this information. Excavators should consider it an estimate for informational purposes only and use reasonable care to verify depth (e.g., pothole). Facility owners/operators are not liable for depth estimates.
- Pertaining to Section **9-1.5-103 (4)(a)(I)(B)**, it is helpful to use a readily identifiable landmark - when available/practicable. In some cases it is not feasible (e.g., in a grassy field). The goal is to provide a reference point or scale.
- The need for traffic control does not negate the responsibility to complete the locate. The facility owner/operator is responsible for the safety of its locators and ensuring its facilities are located.

APWA Uniform Color Code

- The Colorado Excavation Requirements Statute requires use of the APWA color code. This uniform color code and marking symbols have been adopted nationally as the standard for marking:

White.....	Proposed Excavation
Pink.....	Temporary Survey Markings
Red.....	Electric Power Lines, Cables, Conduit and Lighting Cables
Yellow.....	Gas, Oil, Steam, Petroleum or Gaseous Materials
Orange.....	Communication, Alarm or Signal Lines, Cables or Conduit
Blue.....	Potable Water
Purple.....	Reclaimed Water, Irrigation and Slurry Lines
Green.....	Sewers and Drain Lines

Marking Standards established by the Safety Commission

See *Excavation Requirements Statute 9-1.5-104.2 section [below]* for details.

In addition to the best practices outlined in Section 4-8 of *CGA Best Practices 18.0*, this Best Practice recommends that:

- Facilities should be appropriately marked for conditions which may affect markings, such as rain, snow, vegetation, high traffic, construction, etc.

- Marking may include one or any combination of the following: paint, chalk, flags, stakes, brushes, whisksers, or permanent posts.
- Offsets (marking with paint on the side of the area with a reference to distance) may be used in addition to physically marking the actual location above the facilities.

Positive Response: Documentation & Process

- Positive Response: A facility owner's response to Colorado 811 or the excavator with regard to the status of the locate request.
 - Because a positive response is only the **status** of a ticket (locate request), this is a separate action from '**marking the location of the facilities with clearly identifiable markings.**' Some positive response codes do not necessarily mean that the locate was completed.
 - A positive response allows the excavator to know whether all facilities have been marked prior to excavation. It is also a tool for the facility owner/operator to communicate with the excavator that additional information must be shared before marks can be provided and digging should begin.
 - The positive response may indicate that additional time to complete the locates is necessary, or that additional communication may be necessary before excavation can begin.
 - When the positive response is used and locates are not complete, it is important that two-way communication is made and documented to ensure the safety of all stakeholders, with an understanding between all parties of when the locates will be completed.
- The Safety Commission expects that a facility owner/operator will use a positive response code that accurately reflects the status of a ticket.
 - All positive response codes will preclude automatic renotification from occurring. However, if the selected code does not include marks being placed on the ground, this may result in an excavator renotification needing to be completed through Colorado 811's various platforms.
 - Not being able to complete a locate due to time or staffing constraints does **not** remove your obligation from the law, and completing the ticket. There is no positive response code for these circumstances, and automatic renotification should occur. The intent of positive response codes -008 and -023 are for agreed-upon additional communication to occur. To extend the deadline, both parties should agree to this formalized and documented plan to enhance safety and optimize these locate resources.
 - A facility owner/operator's inability to locate its facility should not suspend an excavation indefinitely. If attempts have been made and a facility cannot be located within two business days, not including the day of actual notice, the facility owner/operator should provide a positive response to the excavator of this fact. The excavator has the option to proceed with the excavation without being liable for damage except upon proof of the excavator's lack of reasonable care.
 - A facility owner/operator should always document what work was completed on the locate request. Careful documentation helps ensure that there is an accurate record of the work that was performed by the facility owner/operator and helps eliminate confusion over what work was requested by the excavator. This documentation may also be helpful during an investigation in the event of damage.
 - Submitting a positive response to Colorado 811 (when marks are not completed) does not alleviate the requirement to the facility owner/operator to complete said locate request.

- Documentation (per Sections **9-1.5-103 (4)(a)(I)(A)** and **(B)** above) is required to be provided through Colorado 811's positive response system because this is the repository of all information associated with the locate request.
- Positive response is a two-way communication between the excavator and facility owner/operator. The list of Colorado 811 positive response codes (as of the publication date for this Best Practice) is included below¹.

#	Response	Response Requiring Comments
001	Locate Area Marked	
002	Clear- No Conflict	
003	No Access – Animal - New ticket requested	
004	No Access - gate/fence - New ticket requested	
005	Bad Address/incorrect street info, New ticket requested	
006	Excavator No Show for Meet	
007	No Pre-marked Area	
008	Call Facility Owner for Further Info	Comments Required
009	Requires Stand-by at Time of Excavation – Contact Facility Owner	
010	Excavator Completed Work Prior to Due Date	
011	Marked, Abandoned Facilities May Be In Area	
012	Marked Up To Privately Owned Utility – Contact Private Utility Owner For Locate	
013	No Conflict, Privately Owned Utility on Property – Contact Private Utility Owner for Locate	
014	Visible or Exposed Facility – Contact Facility Owner if Crossing	
015	Extraordinary Circumstances Exist-No Locate Due To Weather/Emergency Conditions	
017	Completed - See Marks On Site	
018	Installation Records, Maps or Other Documents Have Been Provided <i>(only allowed on SUE and Engineering tickets)</i>	
019	Marked, All Crossings Must Be Exposed During Trenchless Excavation	
020	Sewer Marked - Best Available Information Provided on Laterals	
021	Existing Marks Verified	Comments Required
022	No Locate Necessary – Per Excavator No Locate Needed	Comments Required
023	Ongoing Ticket - per locator/excavator agreement	Comments Required
888	Ticket Has Been Cancelled <i>(888 is only used if excavator has cancelled ticket with CO811) NOTE: Colorado 811 automatically posts this response to cancelled tickets.</i>	

¹ During the process of developing this Best Practice, the Safety Commission worked with Colorado 811 to include the positive response code list published at the time this Best Practice was developed. The Safety Commission will review future changes to the list when they become available, and this Best Practice may be updated to reference a more current Colorado 811 positive response code list in a future revision.

Excavation Requirements Statute 9-1.5-104 (4)(a)(II)

Sewer System Laterals

A sewer system owner or operator shall provide its best available information when marking the location of sewer laterals in the public right-of-way with clearly identifiable markings. "Best available information" includes tap measurements and historic records. If the sewer lateral can be electronically located, the sewer system owner or operator shall mark and document the location of the sewer laterals in accordance with this subsection (4)(a). If a sewer system owner or operator of a sewer lateral cannot electronically locate the sewer lateral, the excavator shall find the sewer lateral.

Practical Application

- This section (4)(a)(II) is specific to sewer laterals only. Sewer laterals may include sanitary sewers, storm sewers and underdrains.
- As of August 8, 2018, newly installed sewer laterals shall be made electronically locatable per Section 9-1.5-103(10), CRS.
- Regardless of the installation date:
 - If the sewer lateral can be electronically located, then it shall be.
 - If it is not electronically locatable, then the facility owner/operator shall provide the best available information. The excavator needs to use this information carefully.
- Best available information includes, but is not limited to, tap measurements and historic records, such as inspection reports, development plans, GIS maps, markings in the concrete (e.g., S&W stamp), camera inspections, and as-built records.
- Facility owners/operators may choose how to mark the sewer laterals (paint on the ground, distance from nearest manhole, etc.). The facility owner/operator and excavator are encouraged to communicate to share this information.

Excavation Requirements Statute 9-1.5-104 (4)(a)(III)

Customer-Owned Laterals

The marking of customer-owned laterals in the public right-of-way is for informational purposes only, and an owner or operator is not liable to any party for damages or injuries resulting from damage done to customer-owned laterals.

Practical Application

Customer-owned Utilities²

- The expectation is that the facility owner/operator will locate customer-owned utilities in the right-of-way, if locatable. Otherwise, the facility owner/operator will provide the best available information.
- The Safety Commission recommends some type of communication in the locating process that denotes what is owned by the facility owner/operator versus what is customer-owned and the

² Explanation from Safety Commission *Best Practice – Electronically Locatable* (Approved November 14, 2019)

accuracy of the marks. This could be a differentiation in the painted marks or could be communicated in an on-site meeting.

Beyond the laterals in the public right-of-way, customer-owned utilities should be located when possible, even on private property, up to the existing structures, **if in the area of excavation**. For excavations in areas with customer-owned utilities, the excavator can use any historical information and use reasonable care to confirm location.

The Safety Commission supports the *Colorado 811 Access Statement*: “The area to be marked must be completely accessible, free of locked gates and animals for three (3) business days from the date the E-Mail confirmation is received. If you want your utilities marked, ensure you meet this requirement.”

Excavation Requirements Statute 9-1.5-104 (4)(a)(IV)

Standby Request

If a person is involved in excavating across a preexisting underground facility, the owner of such facility shall, upon a predetermined agreement at the request of the excavator or the owner, provide on-site assistance. Any owner or operator receiving notice concerning an excavator's intent to excavate shall use reasonable care to advise the excavator of the absence of any underground facilities in the proposed excavation area by providing positive response documentation to the excavator through the notification association that no underground facilities exist in the proposed excavation area. An owner or operator shall, within the time limits specified in subsection (6) of this section, provide to the excavator evidence, if any, of underground facilities abandoned after January 1, 2001, known to the owner or operator to be in the proposed excavation area.

Practical Application

See *Excavation Requirements Statute Section 9-1.5-104 (4)(a)(I) [above]* for **Positive Response Documentation** details.

Upon a Predetermined Agreement

- This is often called a “standby” and typically comes at the request of the facility owner/operator. This is communicated through the positive response. However, it is not an agreement until a meeting date/time is set.
- When a **facility owner/operator** makes the request, and an agreement on meeting date/time has been reached, the expectation in this Best Practice is that the work should not begin until that agreed-upon meeting time for on-site assistance is completed. The facility owner/operator making the request to provide on-site assistance shall make a concerted effort to minimize negative impacts on the excavation schedule.
- When an **excavator** makes a request for on-site assistance from the facility owner/operator, and an agreement on meeting date/time has been reached, the expectation in this Best Practice is that a concerted effort is made by the facility owner/operator to minimize negative impacts on the excavation schedule.
- If an agreement cannot be reached or a meeting cannot be completed, the excavator may move forward with reasonable care.

Abandoned Facilities

- Locating and marking abandoned facilities may be difficult. When the presence of an abandoned facility is within the excavation zone, an attempt should be made to locate and mark the abandoned facility.
- If a facility owner/operator knows or believes that an abandoned facility exists in the excavation zone and cannot otherwise locate it, any information about an abandoned facility must be shared with the excavator with a circled 'A' and potential depth, if known.
- If an unknown facility is discovered in the excavation area, the excavator should contact Colorado 811 to determine if it is abandoned or active.

Excavation Requirements Statute 9-1.5-104 (4)(b)

Markings/Road Maintenance

The marking of underground facilities shall be considered valid so long as the markings are clearly visible, but not for more than thirty calendar days following the due date of the locate request initiated pursuant to subsection (3) of this section; except that, if an excavation notice is limited to only annual road maintenance that does not exceed six inches in depth conducted by a government agency on an existing unpaved road, the marking shall be considered valid for up to one hundred eighty days.

Practical Application

- An excavation can be conducted for up to 30 days so long as the marks are clearly visible. Submitting an Update or Multi-Day ticket to Colorado 811 does not invalidate the prior tickets (so long as the marks are still clearly visible).
- HB21-1095 (811 Locate Exemption for County Road Maintenance) will take effect on June 1, 2022, and at that time, it will impact the requirement in the law regarding 'annual road maintenance that does not exceed six inches in depth conducted by a government agency on an existing unpaved road.'

Excavation Requirements Statute 9-1.5-104 (4)(c)

Excavator Responsibilities/Markings/Documentation

(I)(B) The excavator shall maintain adequate and accurate documentation, including photographs, video, or sketches and documentation obtained through the notification association, at the excavation site on the location and identification of any underground facility and shall maintain adequate markings of any underground facility throughout the excavation period.

(II)(A) If the documentation or markings maintained pursuant to subsection (4)(c)(I) of this section become lost or invalid, the excavator shall notify the notification association or the affected owner or operator through the notification association and request an immediate reverification of the location of any underground facility. Upon receipt of the notification, the affected owner or operator shall respond as quickly as is practicable. The excavator shall cease

excavation activities at the affected location until the location of any underground facilities has been reverified.

(II)(B) If the documentation or markings maintained pursuant to subsection (4)(c)(I) of this section are determined to be inaccurate, the excavator shall immediately notify the affected owner or operator through the notification association and shall request an immediate reverification of the location of any underground facility. Upon receipt of the notification, the affected owner or operator shall respond as quickly as practicable. The excavator may continue excavation activity if the excavator exercises due caution and care to prevent damaging any underground facility.

Practical Application

For all Excavation, including the Crossing of Underground Facilities

9-1.5-103 (4)(c)(I)(B): Excavator responsibilities:

- Maintain documentation, whether electronic (e.g., on a tablet) or hard copy (e.g., paper).
- Maintain adequate markings, which can include an offset or paint directly above the known facility.
- During the potholing process, facility locations, including depth, are confirmed and documented.
- During the boring process, the running line and depth of the bored facility are documented to confirm actual location and depth at the site.
- Sketches and pothole logs are used to create a more permanent record than those established on-site.

9-1.5-103 (4)(c)(II)(A): If markings become lost or invalid, the excavator must contact Colorado 811 and get the underground facility remarked.

9-1.5-103 (4)(c)(II)(B): If the documentation or markings are determined to be inaccurate (or if the facility is not found during potholing/excavating), the excavator shall, through Colorado 811, advise the facility owner/operator.

Excavation Requirements Statute 9-1.5-103 (10)

Electronically Locatable - New Facilities

All new underground facilities, including laterals up to the structure or building being served, installed on or after August 8, 2018, must be electronically locatable when installed.

Practical Application

The Safety Commission published a Best Practice – Electronically Locatable, approved on November 14, 2019, that details content related to this topic. This document can be obtained on the Safety Commission’s website (colorado.gov/safetycommission).

Excavation Requirements Statute 9-1.5-104.2

Marking & Documentation from CGA Chapters 4 & 5

The safety commission shall:

(I) Advise the notification association and other state agencies, the general assembly, and local governments on:

(A) Best practices and training to prevent damage to underground utilities;

(B) Policies to enhance public safety, including the establishment and periodic updating of industry best standards, including marking and documentation best practices and technology advancements;

Practical Application

Since its inception in 2019, the Safety Commission has been working to establish industry best practices with the input of stakeholders and referencing long-standing material previously developed by various agencies to enhance safety and the damage prevention programs. Additional information about best practices is available on the Safety Commission's website (colorado.gov/safetycommission). Best Practices are provided to clarify the Statute.

Locating & Marking Resources

- The oil and gas industry has long used the CGA Best Practices for locating, marking, and having conversations. The CGA Best Practices can also be another useful resource for stakeholders outside of the oil and gas industry.
- For the purposes of this Best Practice, the Safety Commission adopts the following sections of Chapter 4 and all of Chapter 5 of CGA's [Best Practices 18.0](#) (2021), supplemented with the following notes and specific Colorado requirements:
 - 4-1 Available Records
 - Maps and records should not be solely relied upon to locate and mark infrastructure, as they do not represent an actual on-the-ground survey; records and maps should be used along with on-site methods.
 - Maps and records used shall be accurate and up-to-date, and facility owners/operators should be communicating with locators regularly to ensure this is the case.
 - 4-2 Corrections and Updates
 - [no additions at this time]
 - 4-3 Color Code
 - The law requires APWA's Color Code to be followed. Note that Pink: Temporary Survey Marking includes markings for SUE purposes when facilities are marked by engineers (vs. excavation work to be performed). Facility owners/operators should use their assigned color from the color code based on facility type, whether for excavation or SUE purposes.
 - 4-4 Single Locator
 - Using a single locator is a business decision, and where companies have determined this is effective, the Safety Commission supports their decision.
 - 4-5 Locator Training
 - [no additions at this time]

- 4-6 Safety
 - Traffic control is the responsibility of the facility owner/operator, as it is their responsibility to mark their facility.
 - When available, if the contractor/excavator already has their traffic control in place, it is appropriate for the facility owner/operator to coordinate with them to ensure the safety of the locator in performing the locate.
- 4-7 Visual Inspection
 - [no additions at this time]
- 4-8 Facility Marking
 - [no additions at this time]
- 4-9 Positive Response to Locate Request
 - In Colorado, a positive response must include positive response documentation to be made with Colorado 811 (Notification Association).
 - As a best practice, the Safety Commission recommends having documentation include a point of contact that has knowledge of the locate work and a contact method within the notes for clarity and consistency in communication.
- 4-10 Marking Multiple Facilities in the Same Trench
 - [no additions at this time]
- 4-11 Abandoned Facilities
 - Per Section 9-1.5-103 (4)(a)(IV), CRS: “An owner or operator shall, within the time limits specified in subsection (6) of this section [of the Statute], provide to the excavator evidence, if any, of underground facilities abandoned after January 1, 2001, known to the owner or operator to be in the proposed excavation area.”
 - As a Best Practice, if a facility owner/operator knows of facilities that were abandoned prior to this date, that information can be shared as well.
- 4-12 Locating Electromagnetically
 - The Safety Commission published a *Best Practice – Electronically Locatable*.
 - The Best Practice is to use electronic locating techniques.
 - If the facility owner/operator used a technique other than electronic locating, that method should be communicated with the excavator.
 - Untraceable lines do exist; facility owners/operators should communicate this to the person that requested the ticket when known/discovered. The best information available is still expected to be provided to allow the excavator to proceed in a reasonable amount of time.
- 4-13 Facility Owner/Operator Identification
 - In Colorado, communicating the identity of the facility owner/operator and facility type through the positive response system is required.
- 4-14 Communication Between Parties
 - [no additions at this time]
- 4-15 Documentation of Work Performed
 - In Colorado, this documentation is provided as an attachment with the positive response.
 - When all of the locate work cannot be completed on a locate ticket at once (e.g., multi-day ticket, multiple sites, or large excavation area), it is important for the facility owner/operator to communicate with the excavator where work has been completed and where the locate is still incomplete with additional locates needed. This communication ensures:
 - Safety for the excavator to ensure digging activities only begin in the located areas.

- The excavator and the facility owner/operator are aware that additional locating activities will be completed within the law's time requirements.
 - Not completing locates due to lack of manpower or ability to complete within the allotted time is not an acceptable communication to excavators.
 - If only part of the site is located (i.e., the facility owner/operator was unable to finish locates at a site due to other emergencies, end of the day with plans to complete the following day, etc.), the facility owner/operator should communicate with the excavator through the Colorado 811 documentation attachment feature that the facility owner/operator was unable to complete the work requested. The excavator should never assume that marks on the ground mean a ticket is closed.
 - Use a partial complete/ongoing code with appropriate documentation/drawings/photos to clearly communicate what has or has not been marked. As a best practice, the facility owner/operator should clearly denote where the marks have stopped (e.g., date and note on the ground and in the positive response documents).
 - In-person meetings between facility owner/operator and excavator are encouraged as communication tools. This ensures the facility owner/operator is clear on where excavations may begin when partial locating is completed.
- 4-16, 4-17, 4-18: not included in this Best Practice for the Safety Commission.
 - 4-19 Trenchless Excavation
 - Per Section 9-1.5-103(4)(c)(I)(A), CRS: "When utilizing trenchless excavation methods, the excavator shall expose underground facilities and visually observe the safe crossing of marked underground facilities when requested to do so by the underground facility owner or operator or the government agency that issued a permit for the excavation."
 - 4-20 Locating and Marking in Navigable Waterways
 - [no additions at this time]
 - 4-21 Service Lines
 - Service lines are referred to as "Customer-owned laterals" in the Excavation Requirements Statute.
 - See **Excavation Requirements Statute 9-1.5-104 (4)(a)(III) *Practical Application*** above.
 - 4-22 Marking Newly Installed Facilities
 - In Colorado, facilities installed after August 8, 2018, shall be electronically locatable.
 - When new facilities are installed by a contractor (and not yet activated by the facility owner/operator), the contractor is responsible to mark those newly installed facilities.