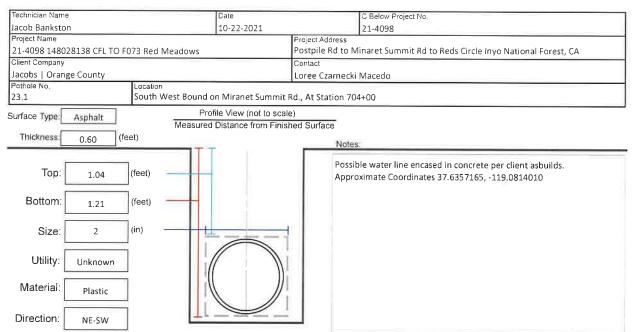
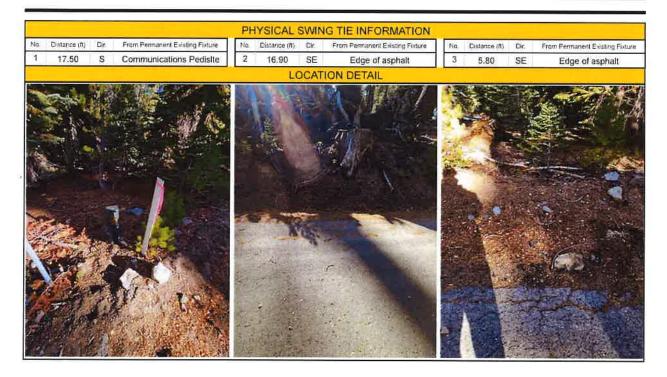


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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
23.1	Unknown	2	Plastic	1.04	NE-SW	South West Bound on Miranet Summit Rd., At Station 704+00	Asphalt





Photo 1 Photo 2



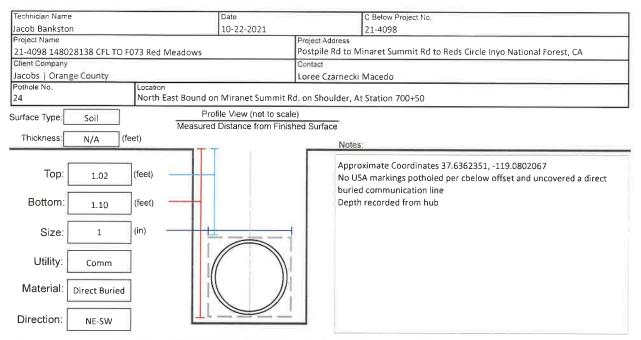


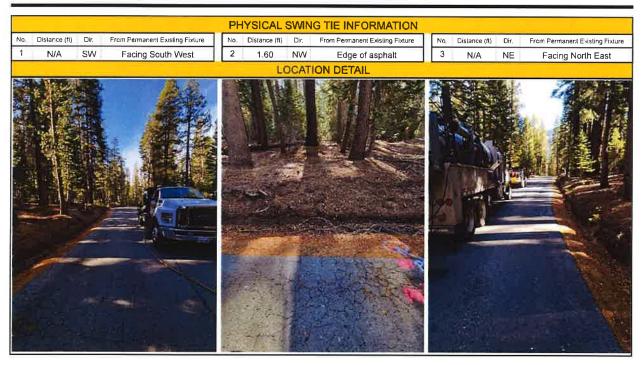
Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
24	Comm	1	Direct Buried	1.02	NE-SW	North East Bound on Miranet Summit Rd. on Shoulder, At Station 700+50	Soil





Photo 2

Photo 1



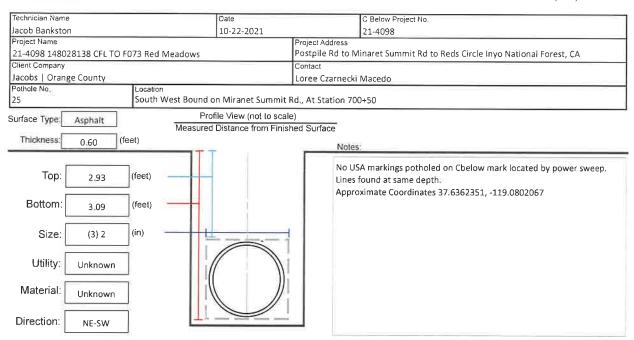


Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
25	Unknown	(3) 2	Unknown	2.93	NE-SW	South West Bound on Miranet Summit Rd., At Station 700+50	Asphalt





Photo 1 Photo 2



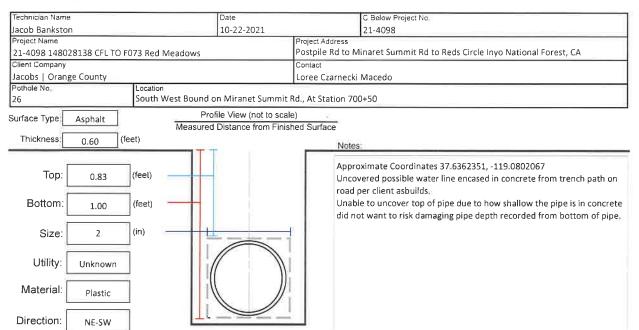


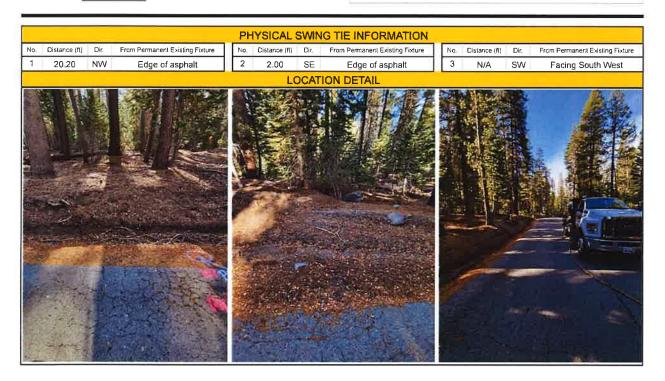
Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
26	Unknown	2	Plastic	0.83	NE-SW	South West Bound on Miranet Summit Rd., At Station 700+50	Asphalt





Photo 1 Photo 2





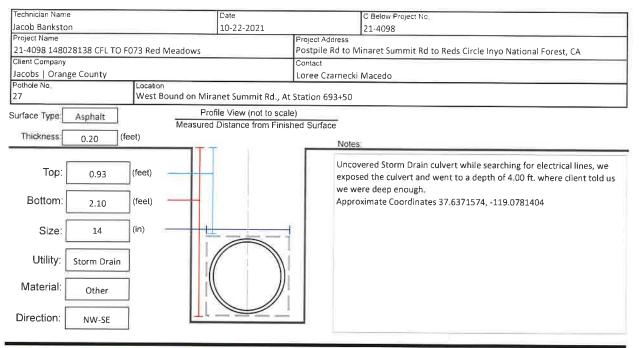
Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
27	Storm Drain	14	Other	0.93	NW-SE	West Bound on Miranet Summit Rd., At Station 693+50	Asphalt



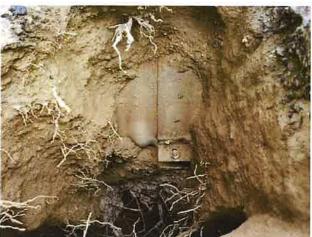


Photo 1 Photo 2





Photo 3 Photo 4



No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
27	Storm Drain	14	Other	0,93	NW-SE	West Bound on Miranet Summit Rd., At Station 693+50	Asphalt





Photo 5 Photo 6

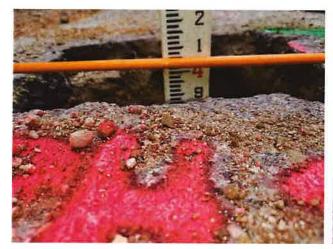


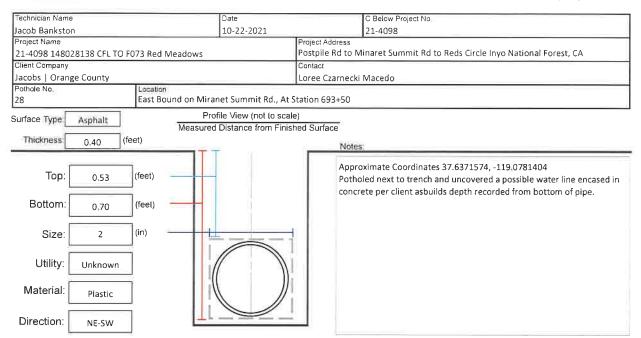


Photo 7 Photo 8





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
28	Unknown	2	Plastic	0.53	NE-SW	East Bound on Miranet Summit Rd., At Station 693+50	Asphalt





Photo 1 Photo 2





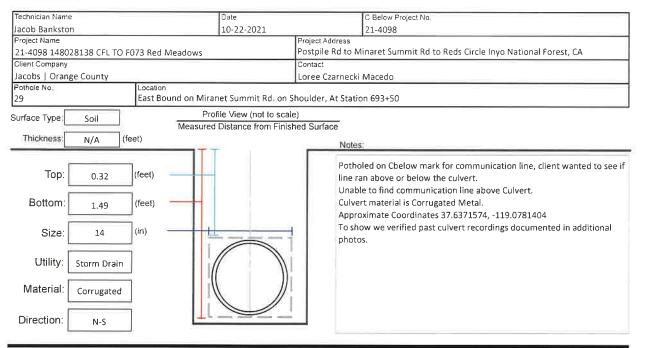
Photo 3 Photo 4

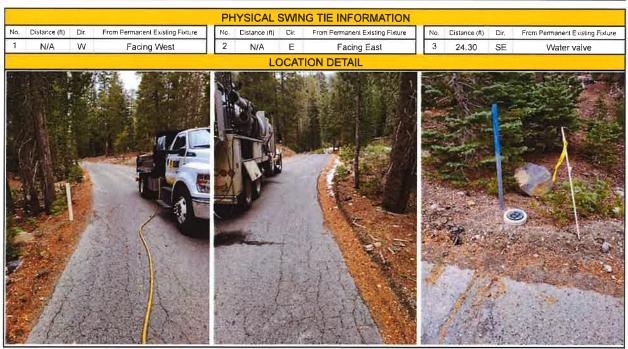




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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
29	Storm Drain	14	Corrugated	0.32	N-S	East Bound on Miranet Summit Rd. on Shoulder, At Station 693+50	Soil





Photo 1 Photo 2





Photo 3 Photo 4



No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
29	Strom Drain	14	Corrugated	0.32	N-S	East Bound on Miranet Summit Rd. on Shoulder, At Station 693+50	Soil





Photo 5 Photo 6



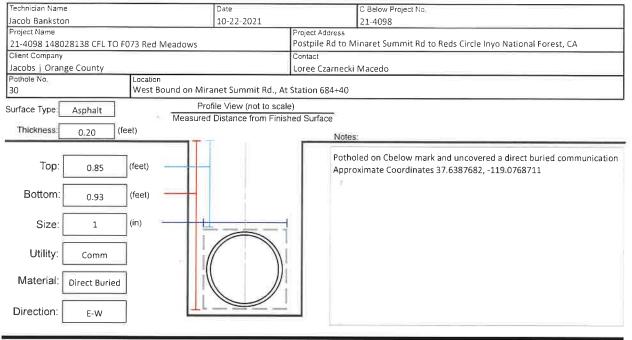
Photo 7

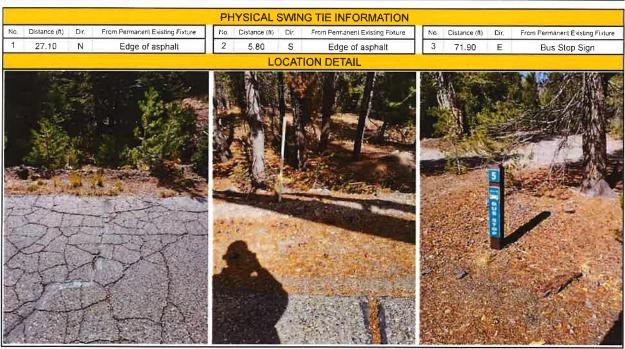




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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
30	Comm	1	Direct Buried	0.85	E-W	West Bound on Miranet Summit Rd., At Station 684+40	Asphalt





Photo 1

Photo 2





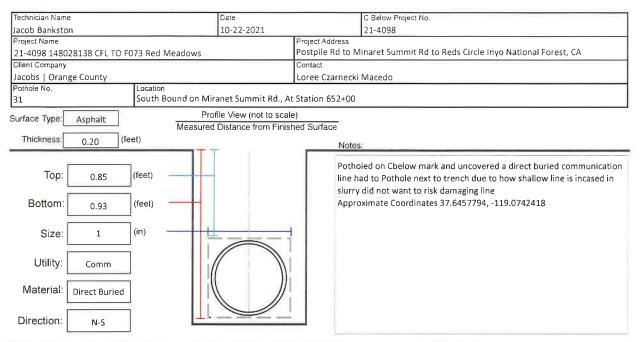
Photo 3

Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
31	Comm	1	Direct Buried	0,85	N-S	South Bound on Miranet Summit Rd., At Station 652+00	Asphalt





Photo 1

Photo 2





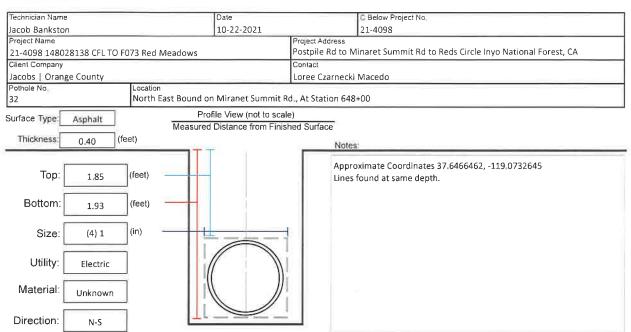
Photo 3

Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
32	Electric	(4) 1	Unknown	1.85	N-S	North East Bound on Miranet Summit Rd., At Station 648+00	Asphalt





Photo 1

Photo 2





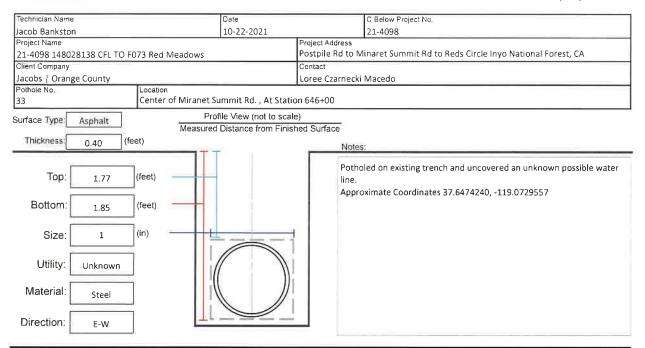
Photo 3

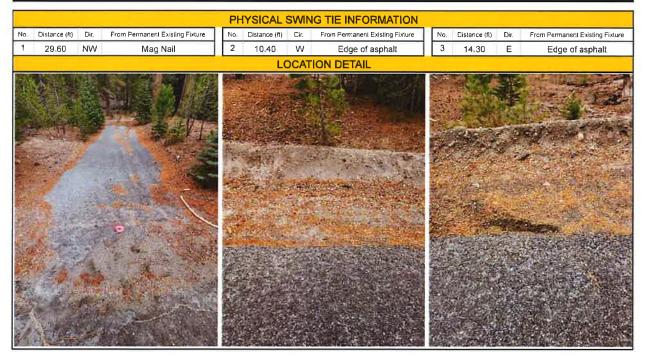
Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
33	Unknown	1	Steel	1.77	E-W	Center of Miranet Summit Rd. , At Station 646 +00	Asphalt





Photo 1

Photo 2





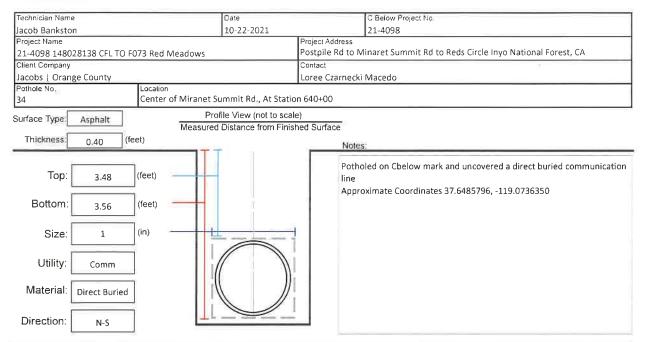
Photo 3

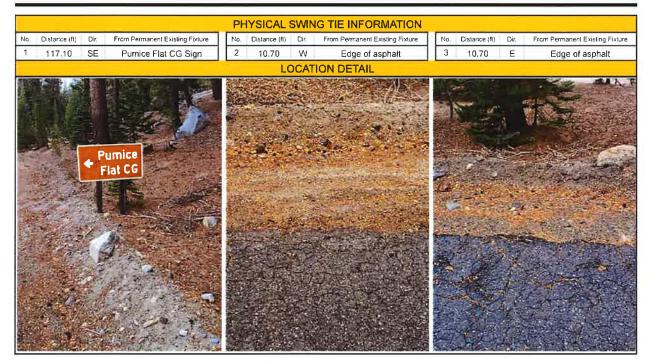
Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
34	Comm	1	Direct Buried	3.48	N-S	Center of Miranet Summit Rd., At Station 640 +00	Asphalt





Photo 1 Photo 2



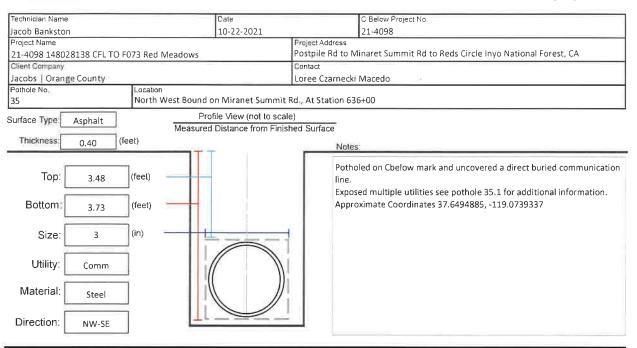


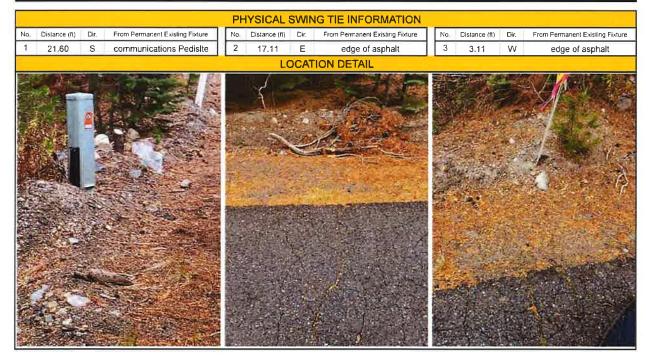
Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
35	Comm	3	Steel	3.48	NW-SE	North West Bound on Miranet Summit Rd., At Station 636+00	Asphalt





Photo 1 Photo 2



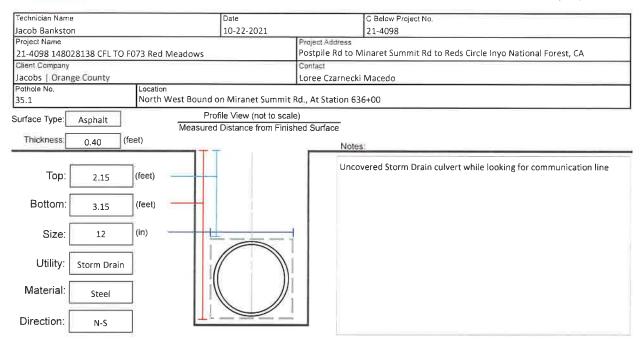


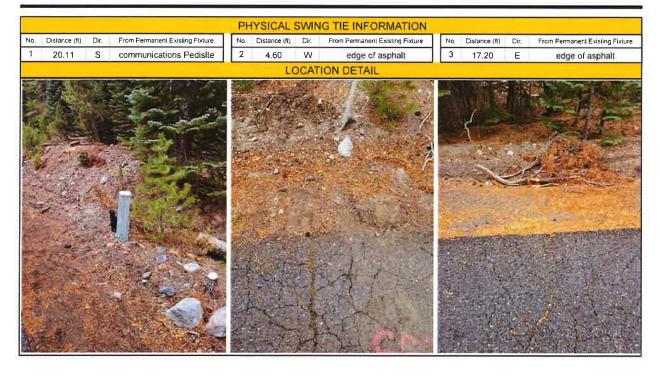
Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
35.1	Storm Drain	12	Steel	2.15	N-S	North West Bound on Miranet Summit Rd., At Station 636+00	Asphalt





Photo 1 Photo 2

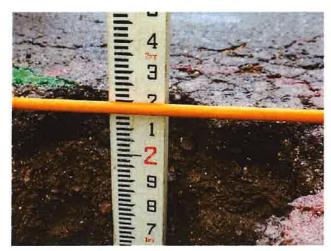


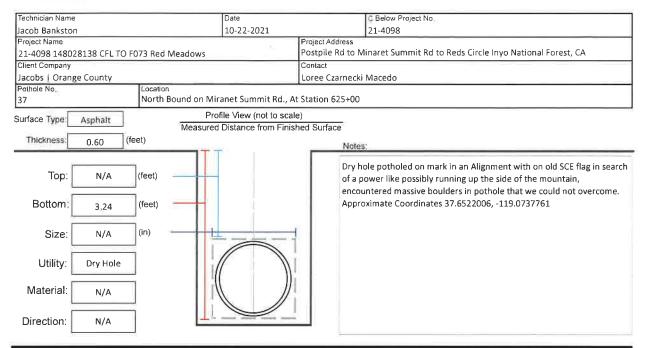


Photo 3 Photo 4





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No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
37	Dry Hole	N/A	N/A	N/A	N/A	North Bound on Miranet Summit Rd., At Station 625+00	Asphalt





Photo 1

Photo 2





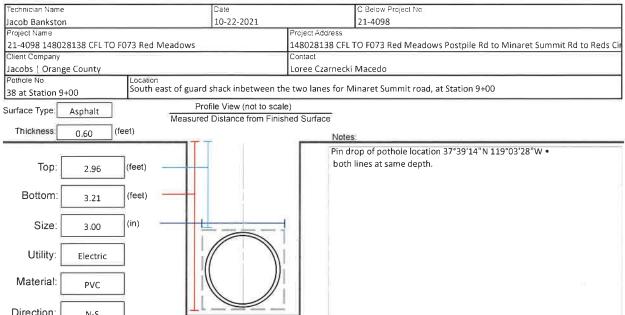
Photo 3

Photo 4





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				PHYSICAL SWING TIE INFORMATION	
No	Distance (ft)	Dir	From Permanent Existing Fixture	No. Distance (ft) Dir. From Permanent Existing Fixture No. Distance (ft) Dir. From Permanent Existing	ng Fixtur
1	18,40	SE	Flag pole	2 33.00 N electrical meter 3 41,50 SW Stop sign	
				LOCATION DETAIL	
				STOP	

No.	Utility	Size (in)	Material	Top Depth (ft)	Direction	Location	Surface
38 at Stati	Electric	3.00	PVC	2.96		South east of guard shack inbetween the two lanes for Minaret Summit road, at Station 9+00	Asphalt





Photo 1 Photo 2





Photo 3 Photo 4





Date: 8/2/22

UTILITY DATA QUALITY LEVEL CERTIFICATION

To: Federal Highway Administration

Central Federal Lands Highway Division

12300 West Dakota Avenue Lakewood, CO 80228

Dustin Robbins, Project Manager

From: Travis Howard

Project: FLAP 03S11(1) Reds Meadow Road

Subject: Utility Data Quality Certification (Indicate A, B, C or D)

Quality Level D: I hereby certify that the following tasks have been completed:

- Records and Information Research
 - Records Collection
 - · Records Review
 - Include Aerial or Ground-Mounted Facilities
 - Compilation and Presentation of Data
- \square Quality Level C: I hereby certify that the following tasks have been completed:
 - Inclusive of QL D Tasks
 - Identification of Surface Utility Features
 - Include Aerial or Ground-Mounted Facilities
 - Surveys
 - Correlation, Interpretation, and Presentation of data, Resolution of Discrepancies
- Quality Level B: I hereby certify that the following tasks have been completed:
 - Inclusive of QL C Tasks
 - Line Detection and Marking
 - Surveys
 - Correlation, Interpretation, and Presentation of Data; Resolution of Discrepancies
- ✓ Quality Level A: I hereby certify that the following tasks have been completed:
 - Inclusive of OL B Tasks.
 - Selection of Test Locations.
 - · Selection of Method.
 - Compliance with UNCL Requirements.
 - Excavation of Test Holes.

Central Federal Lands Highway Division 12300 W Dakota Avenue Lakewood Co, 80228

Utility Data Quality Level Certification

- Collection, Recording, and Presentation of Data.
- Site Restoration.
- Interpretation of Data and Resolution of Discrepancies.

Signed:

Travis Howard

Travis Howard, PE Utilities Coordinator Jacobs

Encl:

Utility Data Quality Certification Matrix

cc: (Distribution by FHWA Project Manager, Dustin Robbins) FHWA Right of Way Engineer (original for archives) - Ray Golden



Definitions for Utility Data Quality Certification

QUALITY LEVEL D TASKS

Tasks leading to QL D include:

A. Records and Information Research.

Conduct appropriate investigations, e.g. owner records, DOT records, UNCL records, County records, personal interviews, visual inspections, etc., to help identify utility owners that may have facilities within the project limits or that may be affected by the project.

B. Records Collection.

Collect applicable records (e.g., utility owner base maps, "as built" or record drawings, permit records, field notes, geographic information system data, oral histories, etc.) on the existence and approximate location of existing involved utilities.

C. Records Review.

Review records for: evidence or indication of additional available records; duplicate or conflicting information; need for clarification.

- D. Include Aerial or Ground-Mounted Facilities.
 - Include records research, identification, and depiction of aerial or ground mounted utility facilities in QL D tasks if specified (see "Miscellaneous Tasks").
- E. Compilation and Presentation of Data.
 - 1. Transfer information on all involved utilities to appropriate plan sheets, electronic files, and/or other documents as required or directed by DOT.
 - 2. Exercise professional judgment to resolve conflicting information.
 - 3. For information depicted, indicate: utility type and ownership; date of depiction; quality level(s); end points of any utility data; line status (e.g., active, abandoned, out of service); line size and condition; number of jointly buried cables; and encasement.

OUALITY LEVEL C TASKS

Tasks leading to QL C include:

- A. Inclusive of QL D Tasks.
 - Perform tasks as described for QL D. There is no prescribed order in which QL D and C tasks must be performed.
- B. Identification of Surface Utility Features.
 - Identify surface features, from project topographic data (if available) and from field observations, that are surface appurtenances of subsurface utilities.
- C. Aerial or Ground-Mounted Facilities.
 - Include survey and correlation of aerial or ground-mounted utility facilities in QL C tasks if specified (see "Miscellaneous Tasks").
- D. Surveys.

- Survey surface features of subsurface utility facilities or systems, if such features have not already been surveyed by a registered professional. If previously surveyed, check survey data for accuracy and completeness.
- 2. The survey shall also include (in addition to subsurface utility features visible at the ground surface): determination of invert elevations of any manholes and vaults; sketches showing interior dimensions and line connections of such manholes and vaults; any surface markings denoting subsurface utilities, furnished by utility owners for design purposes.
- Confined Space Procedures: Whenever the work requires the entry of
 personnel into confined spaces (including but not limited to manholes, vaults,
 and pipes), comply with applicable OSHA (Occupational Safety and Health
 Administration, U.S. Department of Labor) procedures and requirements.
- E. Correlation, Interpretation, and Presentation of Data; Resolution of Discrepancies.
 - 1. Exercise professional judgment to correlate data from different sources, and to resolve conflicting information.
 - 2. Update (or prepare) plan sheets, electronic files, and/or other documents to reflect the integration of QL D and QL C information.
 - 3. Recommend follow-up investigations (e.g., additional surveys, consultation with utility owners, etc.) as may be needed to further resolve discrepancies.
 - 4. As appropriate, amend the indicated quality level of depicted information.

QUALITY LEVEL B TASKS

Tasks leading to QL B include:

A. Inclusive of QL C Tasks.

Perform tasks as described for QL C. There is no prescribed order in which QL C and B tasks must be performed.

- B. Line Detection and Marking.
 - Select and apply appropriate surface geophysical method(\$ to search for and detect subsurface utilities within the project limits, and/or to trace a particular utility line or system.
 - Based on an interpretation of data, mark the indications of utilities on the ground surface, for subsequent survey. Utilize paint or other method acceptable to DOT for marking of lines.
 - Utilize the uniform color code of the American Public Works Association for marking of utilities.
 - 4. Unless otherwise directed, mark centerline of single-conduit lines, and outside edges of multi-conduit systems.
 - 5. Unless otherwise approved, maintain horizontal accuracy of +/- 1.5 feet (450 mm) in the marking of lines.
 - 6. As an alternative to the physical marking of lines, the Consultant may, with DOT'S approval, utilize other means of data collection, storage, retrieval, and

reduction that enables the correlation of surface geophysical data to the project's survey control.

C. Surveys.

- 1. Survey markings that indicate the presence of a subsurface utility.
- 2. Perform surveys to a horizontal accuracy consistent with applicable DOT survey standards. Reference surveys to the project's survey control.
- If requested, record depth information as may be indicated by the particular detection method used.
- D. Correlation, Interpretation, and Presentation of Data; Resolution of discrepancies.
 - 1. Exercise professional judgment to correlate data from different sources, and to resolve conflicting information.
 - 2. Update (or prepare) plan sheets, electronic files, and/or other documents to reflect the integration of QL D, QL C, and QL B information.
 - 3. Recommend follow-up investigations (e.g., additional surveys, consultation with utility owners, etc.) as may be needed to further resolve discrepancies.
 - 4. As appropriate, amend the indicated quality level of depicted information.

QUALITY LEVEL A TASKS

Tasks leading to QL A include:

A. Inclusive of QL B Tasks.

Perform tasks as described for QL B. There is no prescribed order in which QL B and A tasks must be performed.

- B. Selection of Test Locations.
 - 1. DOT may require QL A data where the precise horizontal and vertical location of utilities, obtained by exposure and survey of the utility at specific points, is needed for conflict assessment resolution purposes.
 - 2. The Consultant may recommend test locations based on the requirements of the project and on existing subsurface utility information.
- C. Selection of Method.
 - When available, verifiable information on previously exposed and surveyed utilities (such as survey records during utility line construction) shall be furnished in lieu of new excavation, exposure, and survey at that same point, or at a suitable nearby point.
 - 2. Otherwise, when utility lines must be exposed and surveyed at specified locations, the Consultant shall use minimally intrusive excavation techniques, acceptable to DOT, that ensure the safety of the excavation, the integrity of the utility line to be measured, and that of other lines which may be encountered during excavation.
 - 3. DOT intends that excavation shall be by means of air- or water-assisted vacuum excavation equipment manufactured specifically for the purpose. Provided, however, that approval of water-assisted vacuum excavation may be

subject to additional findings by DOT that such method poses minimal risk of damage to the highway facility or utility lines.

- D. Compliance with UNCL Requirements.
 - 1. The Consultant shall comply with all applicable provisions of [State Law] when planning or performing excavations at utility test hole sites.
 - 2. Compliance actions include, but are not limited to: notify owners or operators of underground utility facilities at least two (2) business days prior (not including the day of actual notice) to making or beginning excavations in the vicinity of such facilities; call the UNCL at for the marking of member utilities; contact non-member utilities directly; coordinate with utility owner representatives as required for inspection or other on-site assistance; immediately cease excavation work and report any resultant utility line damage to owner.
- E. Excavation of Test Holes.
 - 1. Clear the test borehole area of surface debris.
 - 2. In paved areas, neatly cut and remove existing pavement, which cut shall not exceed 225 square inches (0.15 square meters) unless otherwise approved.
 - 3. Excavate the test hole by the method(s) acceptable to DOT and to the standards set forth herein (see also "Selection of Method" above). The nominal diameter of the test hole shall not exceed 15 inches (375 mm) unless otherwise approved.
 - 4. Expose the utility only to the extent required for identification and data collection purposes.
 - 5. Avoid damage to lines, wrappings, coatings, cathodic protection or other protective coverings and features.
 - 6. Hand-dig as needed to supplement mechanical excavation and to ensure safety.
 - 7. Revise the test hole location as necessary to positively expose the utility.
 - 8. Store excavated material for re-use or disposal, as appropriate.
- F. Collection, Recording, and Presentation of Data.
 - Measure and/or record the following information on an appropriately formatted test borehole data sheet that has been sealed and dated by the Consultant:
- 1. Elevation of top and/or bottom of the utility tied to the project datum, to a vertical accuracy of +I- 0.05 feet (1 5 mm).
- 2. Elevation of existing grade over utility at test-hole.
- 3. Horizontal location referenced to project coordinate datum, to a horizontal accuracy consistent with applicable DOT survey standards.
- 4. Field sketch showing horizontal location referenced to a minimum of three (3) swing ties to physical structures existing in the field and shown on the project plans.
- 5. Approximate centerline bearing of utility line.
- 6. Outside diameter of pipe, width of duct banks, and configuration of non-encased multi-conduit systems.
- 7. Utility structure material composition, when reasonably ascertainable.

- 8. Identity of benchmarks used to determine elevations.
- 9. Utility facility condition.
- 10. Pavement thickness and type when applicable.
- 11. Soil type and site conditions.
- 12. Identity of utility owner/operator.
- 13. Other pertinent information as is reasonably ascertainable from test hole.
 - G. Site Restoration.
 - Replace bedding material around exposed utility lines in accordance with owner's specifications or as otherwise directed or approved.
 - Backfill and compact the excavation in a manner acceptable to DOT. If approved, re-use excavated material with appropriate moisture/density control.
 - 3. Install color-coded warning ribbon within the backfill area and directly above the utility line.
 - As applicable, provide permanent, pavement restoration within the limits of the original cut using materials, compaction, and pavement thickness acceptable to DOT.
 - 5. Repair or replace backfill or pavement that fails (i.e., subsidence and/or loss of pavement material) within two (2) years of the original restoration work.
 - 6. For excavations in unpaved areas, restore disturbed area as nearly as practicable to pre-existing conditions.
 - 7. Furnish and install permanent surface marker (e.g., P.K. nail, peg, steel pin, or hub) directly above the centerline of the structure and record the elevation of the marker.
 - H. Interpretation of Data and Resolution of Discrepancies.
 - 1. Exercise professional judgment to correlate data from different sources, and to resolve conflicting information.
 - 2. Update plan & profile sheets, electronic files, and/or other documents to reflect the integration of QL D, QL C, QL B, and QL A information.
 - 3. Recommend follow-up investigations (e.g., additional surveys, consultation with utility owners, etc.) as may be needed to further resolve discrepancies.
 - 4. As appropriate, amend the indicated quality level of depicted information.