

## CULTURAL RESOURCES EXISTING CONDITIONS MEMORANDUM

**Date:** June 12, 2015

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**Company:** Michael Baker International

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**Subject:** Boulder County TO 3 Fourmile Canyon Drive, Cultural Resources Existing Conditions Memorandum

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The Fourmile Canyon Drive Flood Recovery Project is located along Fourmile Canyon Drive (CR 118) between Salina Junction and Boulder Canyon Drive (SH 119) approximately 2.5 miles west of Boulder, Colorado. This project is part of the permanent repair work being performed by Boulder County in response to flood events that occurred in September 2013. The Fourmile Canyon Drive Project is approximately 5-miles long, and is located in a narrow mountain valley characterized by residential development along the Fourmile Creek Basin. Prior to the September 2013 floods, Fourmile Canyon Drive was a 20-foot-wide paved roadway.

The proposed action is to improve the roadway and drainage along Fourmile Canyon Drive. Boulder County has identified two sections of Fourmile Canyon Drive that need permanent repairs. The proposed project would include a 27-foot wide typical section consisting of a 4-foot bike lane, two 11-foot lanes, a 1-foot downhill shoulder, and a drainage system which includes drainage inlets, manholes, roadside ditches, offsite ditches, storm drain pipe, riprap, and energy dissipaters.

The Federal Emergency Management Agency (FEMA) Environmental Historic Preservation (EHP) department has requested to review existing project conditions in the early stages of project development. The purpose of this memorandum is to assess the existing cultural resource sites that have potential to be impacted by the proposed action.

### Area of Potential Effects

An Area of Potential Effects (APE) for the two sections was developed to take into account areas where there is the potential for direct or indirect impacts to potentially historic resources.

- **Fourmile Canyon South (Figure 1)** The Fourmile Canyon South section starts a mile north of Boulder Canyon Road and extends northwest approximately 3,600 feet to Poorman Road. Temporary easements and any Right-of-Way acquisitions have not been identified at this time.
- **Fourmile Canyon North (Figure 2)** The Fourmile Canyon North section starts just south of Salina Junction and extends approximately 3,300 feet southeast. Temporary easements and any Right-of-Way acquisitions have not been identified at this time.

## Historic Methodology and Results

### File Search

A file search of the Office of Archaeology and Historic Preservation (OAHP) COMPASS database was completed on May 4, 2015, to assess the presence of any previously recorded historic resources in the project vicinity. The recorded historic resources identified in proximity to the APE during the review of the COMPASS database were segments of the following:

- Switzerland Trail Railroad (5BL.358.5)
- Colorado Railroad (5BL.358.6)
- Northwestern Railroad (5BL.358.7)

None of these previously surveyed segments were found within the two APEs.

### Site Visit

Pinyon Historian Liz Walker visited the area on May 21, 2015, and observed possible evidence of the Switzerland Trail Railroad near the north end of the southern section of the APE (Figure 3). However, it was located on the opposite side of the creek, and not accessible by foot. If this site will be impacted, a linear component site form will need to be completed to determine the railroad bed's eligibility.

### County Assessor's Research

A search of the Boulder County Assessor's database was completed on May 6, 2015, for parcels with improvements dating over 50 years in the two project areas. There are 11 parcels older than 50 years that will require an architectural inventory if any temporary easements or permanent takes are required (See Table 1 and Table 2). The 11 parcels with potential for future recordings are denoted with bold text (see Table 1 and Table 2).

**Table 1. Boulder County Assessor Search Results, Site #1 – Fourmile Canyon Drive South**

Parcel Number	Address	Year Built	Previously Recorded	Future Recordings Required
146127000033	1033 Fourmile Canyon Drive	1968	No	None
<b>146127000034</b>	<b>1057 Fourmile Canyon Drive</b>	<b>1959</b>	<b>No</b>	<b>Architectural Inventory</b>
146127000035	1061 Fourmile Canyon Drive	1997	No	None
<b>146127000036</b>	<b>1107 Fourmile Canyon Drive</b>	<b>1960</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146127000037</b>	<b>1109 Fourmile Canyon Drive</b>	<b>1959</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146127000038</b>	<b>1175 Fourmile Canyon Drive</b>	<b>1959</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146127000039</b>	<b>1177 Fourmile Canyon Drive</b>	<b>1959</b>	<b>No</b>	<b>Architectural Inventory</b>

<b>Parcel Number</b>	<b>Address</b>	<b>Year Built</b>	<b>Previously Recorded</b>	<b>Future Recordings Required</b>
<b>14612800002</b>	<b>1267 Fourmile Canyon Drive</b>	<b>1956</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146121000025</b>	<b>1685 Fourmile Canyon Drive</b>	<b>1965</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146121000026</b>	<b>1311 Poorman Drive</b>	<b>1951</b>	<b>No</b>	<b>Architectural Inventory</b>

**Table 2. Boulder County Assessor Search Results, Site #2 – Fourmile Canyon Drive North**

<b>Parcel Number</b>	<b>Address</b>	<b>Year Built</b>	<b>Previously Recorded</b>	<b>Future Recordings Required</b>
146117000045	4726 Fourmile Canyon Drive	1969	No	None
146117000047	4582 Fourmile Canyon Drive	1974	No	None
<b>146117000050</b>	<b>4472 Fourmile Canyon Drive</b>	<b>1910</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146117000051</b>	<b>4451 Fourmile Canyon Drive</b>	<b>1962</b>	<b>No</b>	<b>Architectural Inventory</b>
<b>146117000057</b>	<b>4389 Fourmile Canyon Drive</b>	<b>1957</b>	<b>No</b>	<b>Architectural Inventory</b>
146117000064	4367 Fourmile Canyon Drive	2011	No	None
146117000063	4369 Fourmile Canyon Drive	2011	No	None
146117000034	5411 Sunshine Canyon Drive	1985	No	None

## **Archaeology Methodology and Results**

### File Search

The OAHP file search revealed that the only previously recorded archaeological site that is possibly within the APEs was a mine, site 5BL.2684, located on the west side of the creek in the southern APE. Pinyon Archeologist Michelle Slaughter was unable to see the capped mine entrance (or any other sign of the site) from the opposite side of the creek. On March 8, 1990, the site was determined to be officially not eligible to the NRHP, so no further work is recommended for site 5BL.2684.

### Site Visit

On May 25, 2015, Ms. Slaughter conducted an intensive pedestrian survey of the project APEs. The survey was conducted under Ms. Slaughter's state archaeological survey and testing permit, No. 2015-19. The day was intermittently cloudy and sunny, and was pleasant. Flood damages and the related clean-up potentially impacted the context and integrity of any archaeological remains in the APEs. There is still considerable flood-related ground disturbance and debris in many places along the creek; however, the creek channel (e.g., the north end of the northern APE) has been mechanically altered, and the adjacent banks have been leveled and re-vegetated.

The narrow APEs are comprised of steep, rocky slopes, the roadway, and the creek. On the side opposite of the creek, pine duff and vegetation (e.g., various conifers, aspens, grasses, bushes and forbs) limit ground visibility.

The archaeological survey of the Fourmile Canyon North APE started at the junction of Fourmile Canyon Drive and Gold Run Road. A single transect was sufficient on both sides of the road since most slopes were too steep to survey and the creek filled most of the APE on the west side of Fourmile Canyon Drive.

There were three potential findings discovered during the archeological site visit that were not previously recorded, and one finding that was previously recorded (Table 3).

**Table 3. Archaeological Survey Results**

Site Name	Previously Recorded	Future Recordings Required if Impacted by Proposed Action
Capped Mine Adit	No	Yes
Black Swan Mill	No	Yes
Stacked Rock Walls	No	Yes
5BL.2684	Yes	No – site found ineligible

Capped Mine Adit

A capped mine adit was encountered within 20 feet of Fourmile Canyon Drive on the east side of the road and approximately 390 feet from the Fourmile and Gold Run intersection (See Figure 4 for location of the adit and Figure 6 for a photo of the adit). This adit is unrecorded and within the APE, so if construction will impact it, it should be recorded and a National Register of Historic Places (NRHP) recommendation should be made prior to any earth-moving activities.

Black Swan Mill

The remains of the Black Swan Mill is also on the east side of the road, further south near the middle of the North APE (Figure 6). The site is located at 4472 Fourmile Canyon Drive, which is also the location of a historic house identified in the Boulder County Assessor Search Results (Figures 7-8). The Mill was operational from 1902 through 1954. The remains of the mill site (stone walls near the APE and possible remnants of foundations further east and outside of the APE) that could be seen from the road are likely outside of the APE, and no obvious artifacts or features were seen near the road. The site was not formally surveyed for archaeological artifacts and features, as this was a reconnaissance survey only. If the project may impact this historic property and site, the site should be recorded and a NRHP recommendation should be made prior to earth-moving activities.

Stacked Rock Walls

At the far south end of the North APE, also on the east side of the road, there are a series of erosion-preventing stacked rock walls that appear to be the base of historic roadways, or areas where there may have been historic buildings or features (Figure 9). These walls are currently unrecorded. The upper (northern) walls are outside the APE, but the lower wall may abut the APE. It seems unlikely that the proposed work within the canyon will have a direct impact on the walls since they are high up the hill slope above the road, on the opposite side of road from the creek. If the walls are avoided and construction will have no impact on them, then no further work is necessary. If there is a chance that work will damage the walls, then they should be recorded and a NRHP recommendation should be made prior to earth moving activities.

Other than the possible remnants of the Switzerland Trail Railroad grade on the west side of Fourmile Creek, no other archaeological resources were noted in the South APE.

### **Summary**

There are 15 cultural resources sites that could potentially be impacted by the proposed action. These sites are within or in close proximity to the APE and include: 11 parcels 50 years or older; Switzerland Trail Railroad bed; Black Swan Mill; a mine adit; and stacked rock walls ( See Tables 1-3 and Figures 1-9).

The permanent repair design should minimize impacts to these sites if possible. If impacts to these resources are expected, architectural survey forms and archeological recordation should be conducted prior to construction. Further, consultation with the State Historic Preservation Officer (SHPO), and possibly mitigation, would be required.

### **Recommendations**

As the archaeological survey indicated, this is an area rich in historic mining ruins, and historic mining features were seen outside and inside the APEs. If any historic features are encountered (mining related or otherwise) such as building foundations, trails, wagon roads, railroad grades, stone wall remains, mine adits, or prospect pits, within or immediately adjacent to the APE, care should be taken to avoid them in order to preserve the remaining material culture associated with Boulder County's historic mining era. Once roadway and drainage improvements begin, if any surface or subsurface archaeological materials are encountered (e.g., artifacts such as, but not limited to, historic trash like bottles, dishware, household or mining items, etc.; features such as those mining features mentioned above or others; prehistoric stone tools such as projectile points or other flaked stone items; or prehistoric features like hearths, etc.); work should be halted in the location of the find, and a qualified professional archaeologist should be promptly notified to examine the artifacts or feature. The site of the find should be secured and work should not resume until an archaeologist can evaluate the discovery. If warranted, additional archaeological testing or data recovery may be necessary before work can be resumed. If bones of potential human origin or other suspected human remains are encountered during construction, ground-disturbing work must be stopped in the vicinity of the discovery, and the Boulder County Sheriff and Coroner, and the Colorado State Archaeologist should be immediately notified. Work cannot resume near human remains until clearance is granted.

If project plans change so that there are additional areas not encompassed within the APE's as described in this memorandum, either direct or indirect, thus warranting an alteration to the APE, the Section 106 review process will need to be re-visited. Once design has been advanced, and the project footprint, or area of disturbance, is known, re-visitation and formal survey work for historic and archeological resources will be required.

**Figures**

**Figure I APE South**



Figure 2 APE North



**Figure 3:** Possible remnants of the Switzerland Trail Railroad grade on the west side of the creek, near the north end of the South APE.



Figure 4 South end with comments of archeological sites

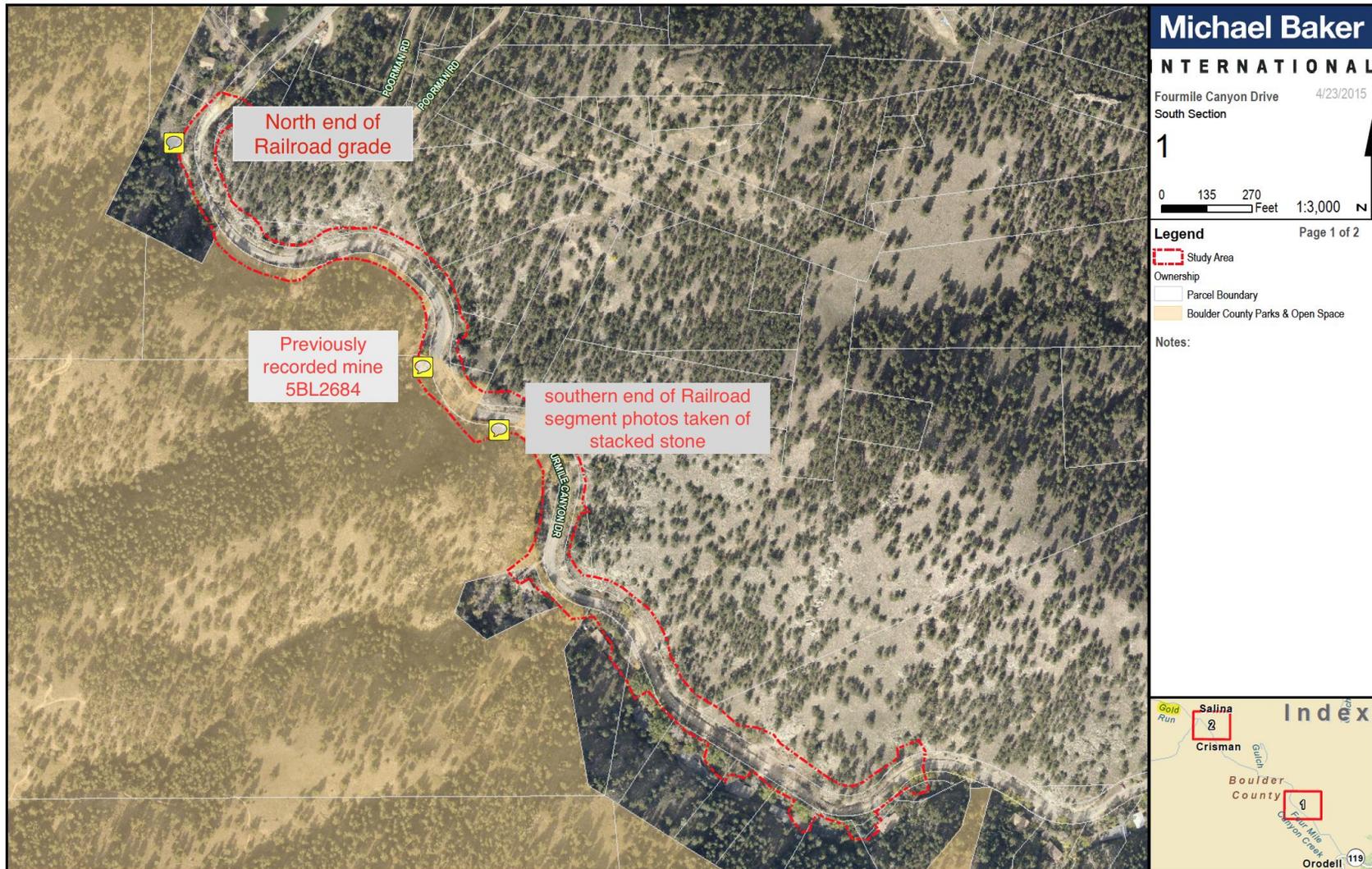
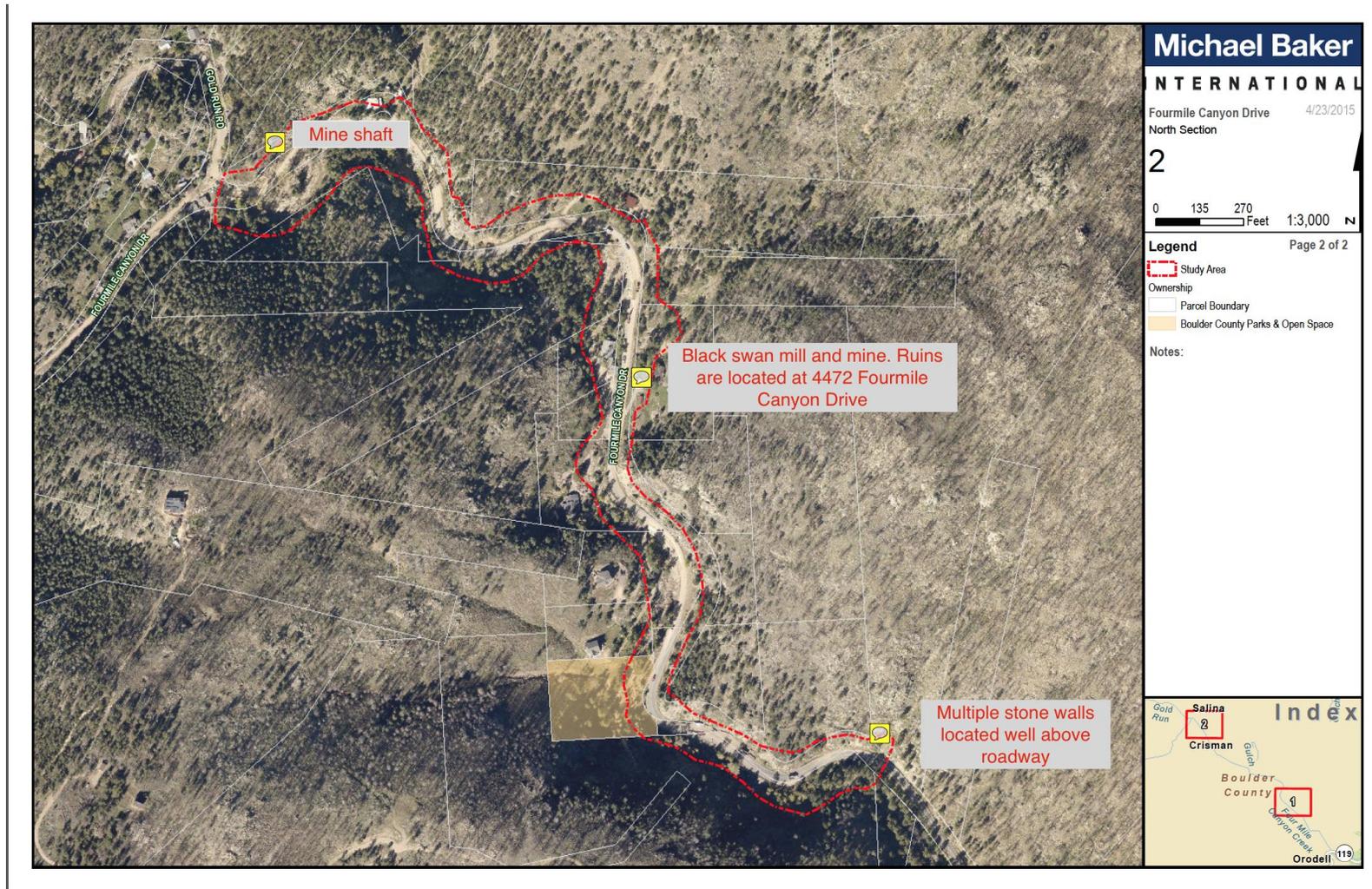


Figure 5 North end with comments on archeological sites



**Figure 6:** The adit adjacent to and north of Fourmile Canyon Drive in the North APE. View is to the west.



**Figure 7:** The historic house at 4472 Fourmile Canyon Drive in the North APE. This is also the location of the Black Swan Mill. View is to the northeast.



**Figure 8:** The mill site remains at 4472 Fourmile Canyon Drive in the North APE. View is to the east.



**Figure 9:** Rock walls at the southern terminus of the North APE. The walls are north of the road (the opposite side from the creek) immediately adjacent to and possibly abutting the APE. View is to the ENE.

