Steele Creek Roadhouse Rehabilitation, July 2010

Robin O. Mills, Archaeologist
Bureau of Land Management, Fairbanks District Office, Fairbanks, AK
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Cover: Steele Creek Roadhouse, July 2010, after rehabilitation efforts.

Location: Steele Creek Roadhouse (49-EAG-00019), Fortymile river mile 22.8R
Participants: Robin Mills (BLM-FDO Archaeologist), Kevan Cooper (BLM-FDO Realty), Doug Stephens + 4 additional USFS employees (USDA Forest Service, Mountain Heritage associates), Nick Moser (BLM-FDO Realty Technician), Courtney Cooper (BLM-FDO Realty Technician), Jessica Peterson (BLM-FDO Archaeologist Technician), Gerad Smith (BLM-FDO Archaeologist Technician)
Date(s): July 4 – July 16, 2010

The Undertaking:

This project involves rehabilitating portions of the Steele Creek Roadhouse (49-EAG-00019), a site on the National Register of Historic Places, located on the Fortymile River at river mile 22.8R, inside the Fortymile National Wild & Scenic River corridor, managed by the Bureau of Land Management (BLM) (Figure 1). The log roadhouse measures 52' in length and 21' wide, is two-stories tall, with a full gable height of about 25'. The building is oriented east-west. The ground floor of the building is composed of two large rectangular rooms, side-by-side, sharing a short-axis wall. There is also a single-story shed off of the western short-axis end of the building. See Figure 2 for a plan view of the building. Specific goals of the project this summer included: (1) replacing all remaining rotten sill and lower courses of wall logs of the roadhouse that were not replaced in 2009, and (2) straightening the building which was leaning a 1-2 feet out of plumb to the northward. These goals were accomplished this summer 2010.

March- July 2010:

Between March 29 and April 1, 2010, personnel from the BLM–Fairbanks District Office (archaeologists Robin Mills and William Hedman; recreation specialist Colin Cogley; realty specialist Kevan Cooper) travelled from Fairbanks to the main bridge over the Fortymile River at Taylor Highway MP 112.4, where, over the course of a couple of days, they transported with snowmachines 11 spruce logs over the river ice to the roadhouse site, located 6.6 miles downstream from the bridge. These 11 joined 40 others that had been drug to the site the previous spring. The logs had been delivered by a contractor from Tok during the previous fall and stored at Larry and June Taylor's property at MP 113.3.

On July 4, 2010, 11 employees associated with the BLM and the USDA Forest Service (see list of personnel, top of page 2, above), along with much equipment, supplies, and provisions, travelled from Fairbanks into the Fortymile area. All personnel spent the night at Larry and June Taylor's B&B at Taylor Highway MP 113.3. Over the course of the next two days, all personnel and supplies were transported to the site via river boat hired from the Taylors, with each round trip taking about 1 hour to accomplish.

Again, the specific goals of the project this summer included: (1) replacing all remaining rotten sill and lower courses of wall logs of the roadhouse that were not replaced in 2009, and (2)

straightening the building which was leaning out of plumb to the northward. These goals were fully met in the span of the two weeks that the crew was at the site (July 5-16) (Figure 2, green highlight). Since the walls that needed log replacement included portions of two rectangular rooms situated side-by-side, there were a total of six external weight-bearing walls that needed their lower rotten logs replaced: two short-axis walls (at the opposite east and west ends of the building), and four long-axis walls, corresponding to the north and south long-axis walls of the two rooms (see Figure 2). In 2009, two of these six walls were fully stabilized. In 2010, the remaining four walls were fully stabilized. In addition, all rotten logs associated with the single-floor shed attached to the western end of the roadhouse were also replaced in 2010. All told, more than 40 logs were replaced in 2009 and 2010. Finally, the whole roadhouse was straightened with a system of 11 come-alongs anchored on the south side of the building, which were attached to straps that passed through the building and were attached to long, vertical logs abutting to the outside of the north wall of the building, as well as inside the south wall of the building. In this manner, and by working all come-alongs at once, the crew was able to pull the roadhouse into proper alignment.

In addition, the crew dug out 3 $ft.^3$ pits underneath the ends of all sill logs, as well as at the approximate midway point of each sill log, and filled them with large stream cobbles gathered from Steele Creek. In this manner, the sill logs now largely rest upon the cobble piers, with most of their lengths not touching the ground.

The 110+ year roadhouse might now be considered stabilized, at least for the foreseeable future. The work this summer proceeded up until midnight of the last day of the project, so a series of smaller-scale tasks still need to be accomplished, including applying BoraCare log preservative to the new sill logs, installing Impel rods in the new sill logs to prevent insect infestation, inserting a multi-ply plastic sheeting to the sill logs in places where soil touches them to prevent eventual degradation, and doing additional contouring around the roadhouse in order to better direct spring runoff away from the building.

A series of photos have been included, next, which illustrates the nature of the work that was accomplished during the summer of 2010. These include digging out, exposing and ripping out all of the rotten sill and lower courses of logs (Figures 3-5); bracing the walls either internally or with wood blocks on the ground, in order to prevent the building from collapsing (Figures 6-8); cutting and notching and fitting together the replacement logs (Figures 9-13); installing the replacement logs (Figures 14-15); pulling the building into vertical via the come-along system (Figures 16-20); inundating the site with the worst flood in recorded history (Figure 21); gathering cobbles to put into pits dug underneath the sill logs, in order to keep them off of the ground (Figures 22-24); and backfilling the trenches. Figures 25-28 illustrate the finished product.

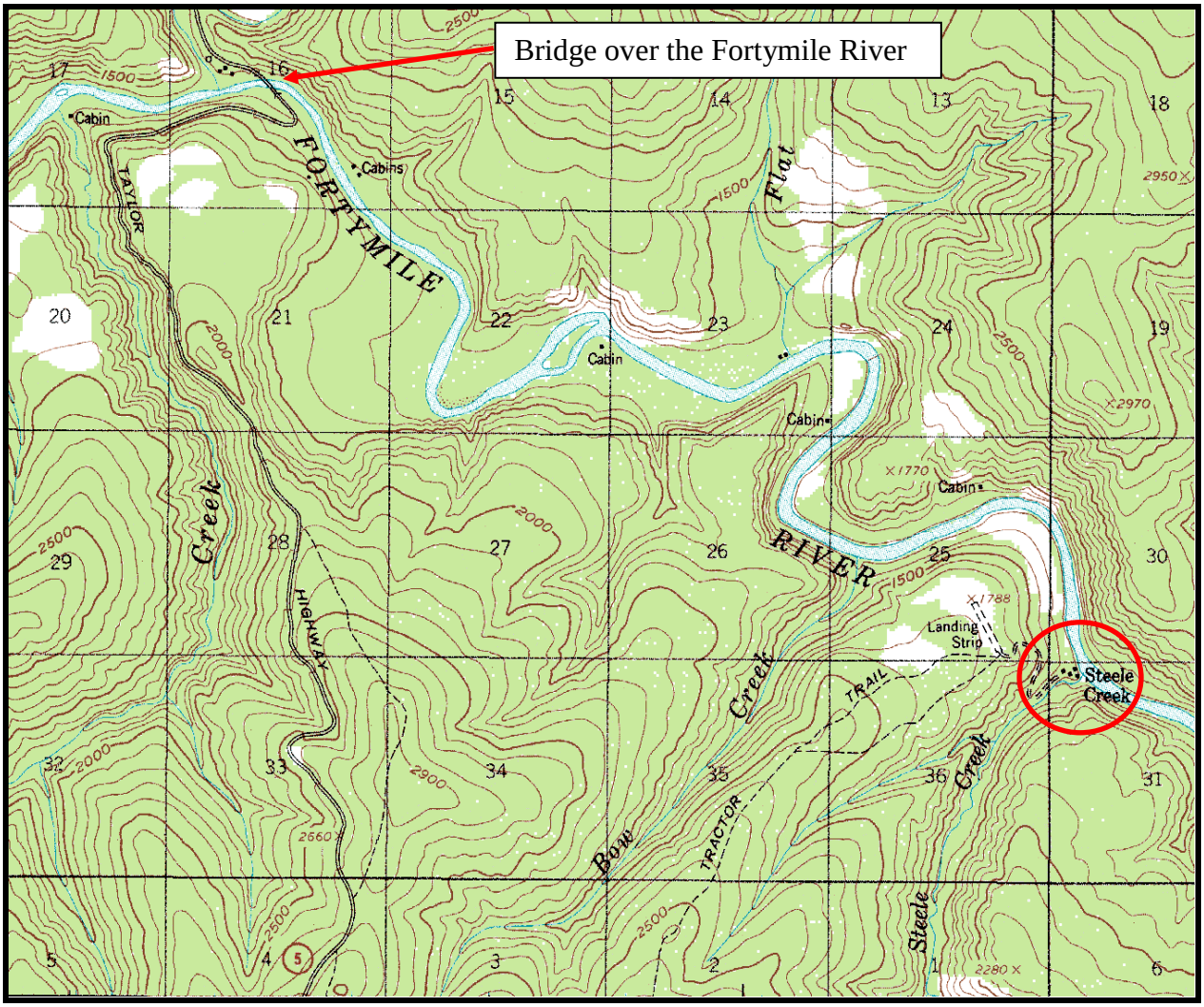

Figure 1. Portion of Eagle B-1 USGS quad map, 1:63,360 scale. Each section is 1 mile squared. Map shows the Taylor Highway crossing the Fortymile River at highway MP 112.4 and river mile 16.2. The Steele Creek site is found at river mile 22.8 on the south bank (circled).

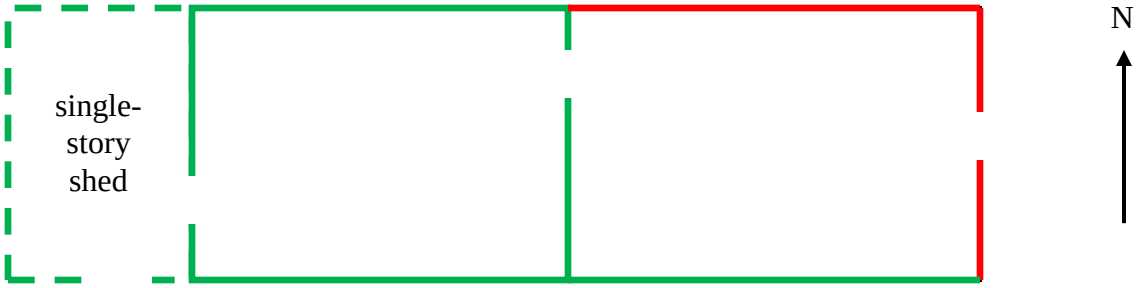

Figure 2. Plan view of Steele Creek Roadhouse, not to scale. Main building (excluding shed) is 52’ long and 21’ wide. The shed is 13’ x 21’ wide. The walls whose lower courses of rotten logs that were replaced in 2009 are highlighted in red; those replaced in 2010 are highlighted in green.

Figure 3. Steele Creek Roadhouse. Digging trenches to expose the rotten sill and lower courses of logs all the way around the roadhouse. North long-axis wall; view southwest.

Figure 4. Steele Creek Roadhouse. Digging trenches to expose the rotten sill and lower courses of logs all the way around the roadhouse. Shed at west end of building; view southeast.

Figure 5. Steele Creek Roadhouse. Trenches dug, and rotten logs removed. Upper walls "hanging in space" by interior block bracing (see Figures 7 and 8). South wall long axis; view north.

Figure 6. Steele Creek Roadhouse. Trenches dug, and rotten logs removed. Without internal bracing, some walls were supported by blocks on the ground. Shed on west end of building; view southeast.

Figure 7. Steele Creek Roadhouse. Internal bracing was required along the north long-axis wall to support the roadhouse while the rotten lower logs were removed. Western long-axis room; view northeast.

Figure 8. Steele Creek Roadhouse. Internal bracing was required along the north long-axis wall to support the roadhouse while the rotten lower logs were removed. Eastern long-axis room; view north.

Figure 9. Steele Creek Roadhouse. Sections of replacement walls were notched and constructed in a large open area in front of the roadhouse prior to installing them under the walls. Notching was accomplished with chainsaws, … [continued]

Figure 10. Steele Creek Roadhouse. …and axes… [continued]

Figure 11. Steele Creek Roadhouse. …and other specialized wood working tools.

Figure 12. Steele Creek Roadhouse. Replacement log wall sections being assembled in front of the roadhouse prior to installation.

Figure 13. Steele Creek Roadhouse. Replacement log wall sections being assembled in front of the roadhouse prior to installation.

Figure 14. Steele Creek Roadhouse. Wall logs being replaced. Note that the logs had to be inserted from the top, downward. Each log, once jacked into place, was then secured with a 2x4. South long-axis wall; view northwest.

Figure 15. Steele Creek Roadhouse. Wall logs' installation finished along two long-axis wall sections; 4 logs replaced in the foreground wall, and 5 in the back wall. North long-axis wall; view southeast.

Figure 16. Steele Creek Roadhouse. The roadhouse also needed to be pulled back plumb, after leaning a foot or more to the north. Here, 11 come-alongs are anchored on the south side of the roadhouse. View east. See next figure.

Figure 17. Steele Creek Roadhouse. The roadhouse also needed to be pulled back plumb, after leaning a foot or more to the north. Here, 11 come-alongs are anchored on the south side of the roadhouse. View northeast. See next figure.

Figure 18. Steele Creek Roadhouse. The come-along straps entered the building and connected to vertical logs abutting the inside of the south long-axis wall. In the photo, the logs are coming up through the 2nd story floor. Straps attached to these (left side of photo) continued northward, across the interior of the building ….

Figure 19. Steele Creek Roadhouse. [continued] … across the building, through the north long-axis walls [left side of photo], and ….

Figure 20. Steele Creek Roadhouse. [continued] … and out the other side, where they were attached to vertical logs abutting the outside of the north long-axis wall of the building. By jacking the north wall up, and pulling with the come-alongs, the building was straightened plumb (Figure 27). View southeast.

Figure 21. Steele Creek Roadhouse. Just after the final logs were installed, the Fortymile River experienced its worst flooding in recorded history. At peak, the roadhouse was flooded with 18” of standing water. View east.

Figure 22. Steele Creek Roadhouse. After the flood receded, piles of stream cobbles were collected to put as footings underneath the sill logs. North long-axis wall; view southeast.

Figure 23. Steele Creek Roadhouse. Pits (3 $ft^{3)}$ were dug under the ends and in the middle of each wall. These were filled with cobbles, and built up to the sill logs. All remaining blocking was subsequently removed, leaving the sill logs high and dry.

Figure 24. Steele Creek Roadhouse. Same as Figure 23.

Figure 25. Steele Creek Roadhouse. South long-axis wall after all cobbles put in place and trenches backfilled. View east.

Figure 26. Steele Creek Roadhouse. Shed adjoining the west end of roadhouse, after all cobbles put in place and trenches backfilled. View southeast.

Figure 27. Steele Creek Roadhouse. North wall of shed and roadhouse, after all cobbles put in place. Note the vertical nature of the wall after being straightened. Trenches not yet backfilled. View east.

Figure 28. Steele Creek Roadhouse. The roadhouse after all cobbles put in place and trenches backfilled. Note: The external bracing erected in 2003 was kept in place as a backup.