

PROJECT: Rehabilitate the Ranger Operations Building

LOCATION: South Rim, Grand Canyon National Park, Arizona

SIZE: 5,000 SF **DATE:** 2000-2005

ROLE: Project Manager for Historic Structure Report, Schematic Design, Construction Documents, and Rehabilitation Construction.

DESCRIPTION:

From its creation in 1916, the National Park Service had sought to seek an appropriate architecture for some of the most scenic natural areas of the United States--the National Parks. The Ranger Operations Building provides a prime illustration of the accomplishment of this goal. In 1986, the building received designation as a National Historic Landmark. The "style" of the building is created by those natural-feeling forms and materials that tied the structure with its environment.

The Ranger Operations Building is a two-story stone and wood-frame structure of classic rustic design. The National Park Service originally constructed the building in 1929 as the new park headquarters. The building continued in that role until the late 1950s when a new headquarters building assumed this function. Since 1958, the building has served as the operations office for the park's law enforcement rangers.

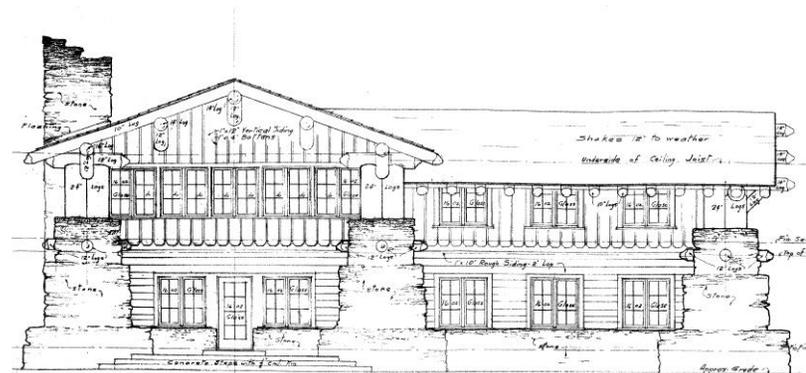
The first floor up to sill height and the structure's corner piers are of coursed rubble masonry.

The remainder of the superstructure is of wood-frame construction with horizontal siding sheathing the first floor and vertical siding covering the second story walls. The stone piers on the building's corners each support peeled logs that define and emphasize the corners.

The gable roof of the central portion of the building runs east-west and intersects the gable roof of the southern wing that runs north-south. The roof of the 1938 addition at the north end of the building also runs in a north-south direction and abuts the wall of the central portion below the eaves and encircles the central chimney. The roof is now finished with wood shingles though historic photographs show the original roofing had been cement asbestos. The project team did not succeed in finding a product that could suitably recreate the visual character of the original cement asbestos shingles, electing instead to use wood shingles. The principal entrance to the building is through the central bay, where enormous stone piers flank the symmetrical entrance of a central door with paired casements on either side. Stone steps lead up to that entrance.

Interior building elements addressed in the National Historic Landmark designation include the lobby and in the areas directly adjacent to it. The lobby's stone fireplace is articulated by stone piers of coursed rubble masonry that are topped by peeled logs supporting a log ceiling beam. The project restored the lobby's original faux flagstone floor that had been covered with wall-to-wall carpeting. The lobby's original log slab interior siding extends to an adjoining wood staircase. The original doors to the 1938 restroom addition flank the fireplace. These doors and the restrooms have been rehabilitated to meet contemporary accessibility standards.

The rehabilitation project included seismic & structural upgrading, and restoration of siding, doors, windows, and log rafter tails. The project also addressed new mechanical, fire detection and fire suppression systems. The rehabilitated building now provides suitable space to house 21st century law enforcement operations for Grand Canyon National Park.

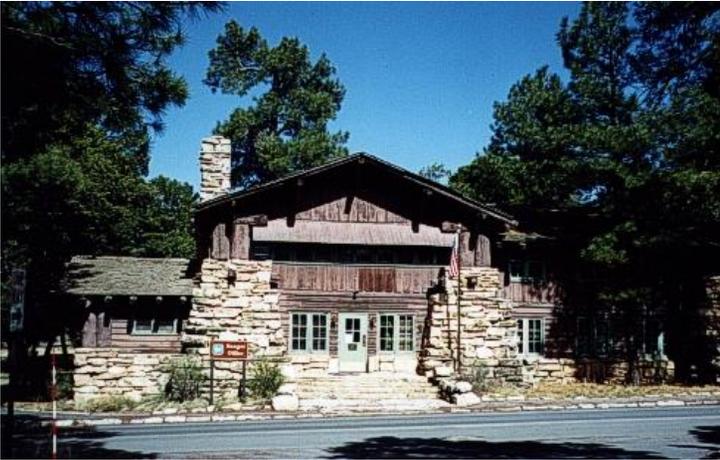


Original 1928 west elevation construction drawing.



Ranger Operations Building in 1929. Diamond patterned cement asbestos shingles are seen in the photograph instead of wood shakes as called for in original construction drawings.

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West elevation prior start of project. 1938 restroom addition visible at left.



West elevation: 2nd floor awning now removed. Casement windows matching original design in place.



Wood siding replacement and rehabilitated historic wood sash casement windows.



Log rafter tail condition prior to project.

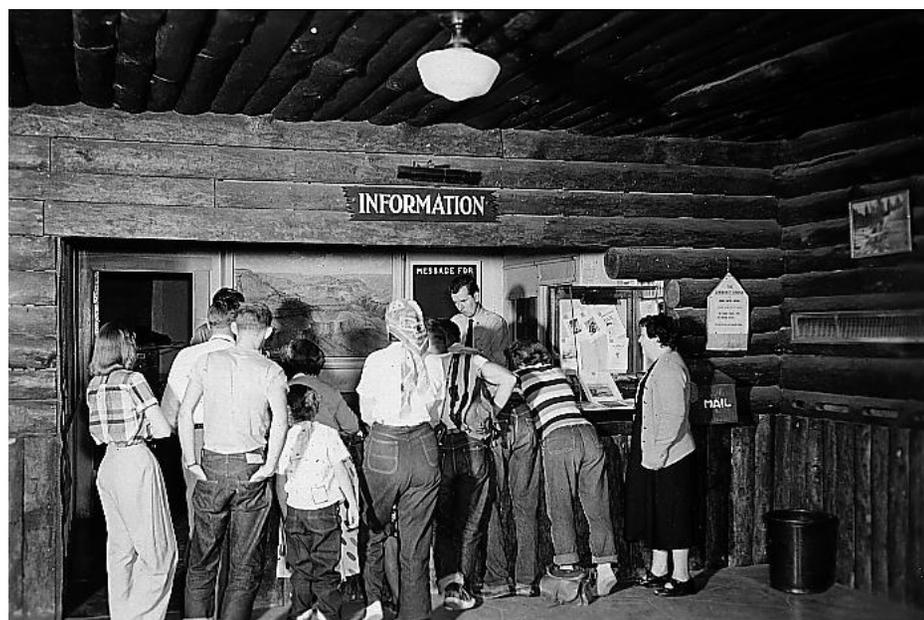


Log rafter tail replacement underway.

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Lobby fireplace with adjoining rehabilitated restroom entries.



Lobby before 1958 when the building served as park headquarters and visitor information center.

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