The Ewing T. Kerr Federal Building and Courthouse was built in 1932 in the Classical Revival style designed by James A. Wetmore, Supervising Architect of the U.S. Treasury Department. Features of this style include the rectangular plan, symmetrical facade, pedimented frontispiece with arched entrances and two-story pilasters. Other distinguished elements include the use of Wyoming sandstone comprising the base, belt courses, frieze, cornice and quoins. Original features and spaces that remain include the courtroom and main lobby.

A time capsule was placed in the cornerstone and includes items such as Masonic publications, copies of newspapers, lists of Casper area federal employees and names of firms working on the construction project. The building consolidated all federal agencies in the Casper area into one location, including the U.S. Post Office, Courthouse, Army and Navy Recruiting, Internal Revenue Service and U.S. Geological Survey.

The interior was remodeled in 1971 when the post office moved to a new location. The Post Office lobby was remodeled and replaced with offices, and new entrances were created from window openings to install an accessible ramp.

The building was renamed in 1992 after Ewing T. Kerr, a former Wyoming Attorney General and U.S. District Court judge. The building was listed in the National Register of Historic Places in 1998 for its significance in architecture.