

= McDonald Ranch House =

The McDonald Ranch House , also known as Trinity Site , in the Oscura Mountains of Socorro County , New Mexico , was the location of assembly of the world 's first nuclear weapon . The active components of the Trinity test " gadget " , a plutonium Fat Man @-@ type bomb similar to that later dropped on Nagasaki , Japan , were assembled there on July 13 , 1945 . The completed bomb was winched up the test tower the following day and detonated on July 16 , 1945 as the Trinity nuclear test .

The McDonald Ranch House was built in 1913 by Franz Schmidt , a German immigrant , and acquired by the McDonald family in the 1930s . The ranch was vacated by the McDonald family under protest in 1942 , when the United States Army took over the land as part of the Alamogordo Bombing and Gunnery Range to use in training bomber crews during World War II .

The family hoped that the ranch would be returned after the war , but it was not , and in 1970 , the Army announced that it would be kept permanently . The McDonald Ranch House was empty and deteriorating until 1982 , when it was stabilized by the Army . In 1984 it was restored by the National Park Service to appear as it did on July 12 , 1945 . The site is now open to visitors once a year , on the first Saturday in April .

= = Early history = =

The George McDonald Ranch House sits within an 85 @-@ by @-@ 85 @-@ foot (26 by 26 m) low stone wall . The house was built in 1913 by Franz Schmidt , a German immigrant , whose old house a mile away burned down in 1912 . An addition was constructed on the north side by the McDonald family , who had moved into area in the late 1870s or early 1880s , and acquired the ranch house in the 1930s .

The ranch house is a one @-@ story , 1 @,@ 750 @-@ square @-@ foot (163 m2) building . It is built of adobe , which was plastered and painted . An ice house is located on the west side , along with an underground cistern which stored rain water running off the roof . At one time , the north addition contained a toilet and bathtub , which drained into a septic tank northwest of the house . There is a large , divided water storage tank and a Chicago Aermotor windmill east of the house . The scientists and support people used the north tank as a swimming pool during the summer of 1945 . South of the windmill are the remains of a bunkhouse and a barn which was part garage . Further to the east are corrals and holding pens . The buildings and fixtures east of the house have been stabilized to prevent further deterioration .

The ranch was vacated by the McDonald family under protest in 1942 , when the Alamogordo Bombing and Gunnery Range took over the land to use in training bomber crews during World War II . Area lands were condemned and ranchers simply told to leave . The occupants were given the option of going to court or accepting a settlement , but had to leave in either case . The McDonalds chose to go to court , and were awarded about \$ 60 @,@ 000 for their patented land .

= = Manhattan Project = =

The house stood empty until the Manhattan Project support personnel arrived in early 1945 . The northeast room (the master bedroom) was designated the assembly room . Workbenches and tables were installed . To keep dust and sand out of instruments and tools , the windows were covered with plastic . Tape was used to fasten the edges of the plastic and to seal doors and cracks in the walls .

The plutonium hemispheres for the pit of the Trinity nuclear test " gadget " (bomb) were delivered to the McDonald Ranch House on July 11 , 1945 . Brigadier General Thomas F. Farrell , the Deputy Director of the Manhattan Project , signed for them , and handed them over to Louis Slotin , the head of the Pit Assembly Team . The active components of the bomb were assembled in the assembly room on July 13 , 1945 , The bomb was winched up the test tower the following day . The Trinity test occurred on July 16 , 1945 . A plutonium Fat Man @-@ type bomb was detonated ,

similar to the bomb later dropped on Nagasaki .

The explosion only 2 miles (3 @. @ 2 km) away blew most of the home 's windows out but did not significantly damage the structure ; years of rain water intrusion through the roof were responsible for decades of subsequent deterioration . The barn roof was bowed inward by the blast and some of its roofing was blown away ; it collapsed some time thereafter .

= = 1960s ? 1980s = =

On December 21 , 1965 , the Trinity Site was declared a National Historic Landmark district , and , on October 15 , 1966 , the McDonald House was listed on the National Register of Historic Places .

The McDonalds had expected that the ranch would be returned after the war , but this did not occur . In the 1970s it was announced that the land would not be returned . Dave McDonald and his niece , Mary McDonald , staged an armed reoccupation of the ranch in protest in 1982 .

The house stood empty and deteriorating until 1982 . White Sands Missile Range commander United States Army Major General Niles J. Fulwyler , who had directed the restoration of the White Sands V @-@ 2 Launching Site , ordered the structure stabilized to prevent any further damage . Shortly after , Fulwyler acquired funding from the Department of Energy and the Army for the National Park Service to completely restore the house to the way it appeared on July 12 , 1945 . Work was completed in 1984 .

Fulwyler buried a 25 @-@ year time capsule describing the restoration . It was opened during an open house on October 3 , 2009 . Its artifacts are now in display inside the home . On the back of a photograph of himself Fulwyler wrote :

Greetings to you of 2009 . When I came to White Sands Missile Range in 1982 I took as my command project the restoration of the MacDonald Ranch House . It was my great privilege to be the catalyst for this restoration , ably assisted by Mr. Al Johnson , who died shortly after its dedication . This is a most historic structure , in a most historic area . I hope you and succeeding generations appreciate what we have done . Take care of it . It is part of our heritage .

= = Access = =

For many years the site was open on the first Saturday in April and October . Admission is free . There is a display on the Schmidt family in the house during each open house . In 2014 , the White Sands Missile Range announced that due to budgetary constraints , the site would only be open once a year , on the first Saturday in April . In 2015 , this decision was reversed , and two events were scheduled , in April and October .