

106 SUCCESS STORY

Innovative Cell Tower Designed to Preserve Rural New Mexican Setting Abiquíú, New Mexico

“The new ‘stealth’ cellular tower will enable the public to capture and share the memories they create while visiting this historic landmark, without spoiling its natural beauty with an obtrusive traditional tower structure. Luckily, this location was elevated, meaning the tower didn’t need to be as tall as is usually the case. We’re pleased that our collaboration with the New Mexico SHPO staff allowed us to find a solution that both benefits the public and compliments the landscape.”

— MARK HANSEN

Vice President—Network Operations,
Commnet Wireless, Atlantic
Tele-Network, Inc.

Photos: Above, looking south toward the Santo Tomás Church, past the Bosshard Gallery compound; Right, Looking north from a vantage point in front of the Ranchito de Natividad, toward the structure where the proposed tower would be located, on the peak of a metal roof behind the Santo Tomás Church; Looking west toward the tower site on the roof of the Bosshard Gallery across the garden associated with the O’Keeffe Home and Studio. (photos courtesy Elizabeth Oster, Jemez Mountains Research Center)



THE STORY

The Chama River flows through northern New Mexico cutting dramatic canyons along sandstone and shale outcroppings creating a fertile river basin. Archaeological evidence shows a prehistoric pueblo in the Chama Valley, dating back nearly 5,000 years and occupied until 400 A.D. From around 1200 to 1500 A.D., Tewa Pueblo communities located in the valley but eventually abandoned their settlements.

Beginning in the 1730s, Hispanic settlers farmed along the Chama River until 1747, when they abandoned the area after repeated attacks from bands of Indians. In 1750, a fortified plaza was built on a mesa high above the Chama Valley, and the surrounding area was settled by Spaniards and Genízaros—non-Pueblo, Christianized Indians whom the Spanish had taken into indentured service. In return for defending outposts of the Spanish empire, they received their freedom and grants of land to farm. The new site with its Genízaro mission was called Santo Tomás de Abiquíú. Today, the village of Abiquíú is made up of low rise adobe structures surrounding the 1935 replacement of Santo Tomás Church on the mesa.

In 1945, noted artist Georgia O’Keeffe purchased a small adobe house and gardens in the village and remodeled them into her residence and studio. The Georgia O’Keeffe Home and Studio is a National Historic Landmark (NHL) on the mesa surrounded by a cultural landscape that includes centuries of historic resources listed in or eligible to be listed in the National Register of Historic Places: La Ranchita de Natividad, East Morada de Abiquíú, segments of the Old Spanish National Historic Trail, Santa Rosa de Lima de Abiquíú Church and Convent, and the Abiquíú Archaeological District, consisting of numerous ancestral Puebloan ruins and agricultural features.

THE PROJECT

The remote rural village of Abiquíú lacked dependable telephone or cellular service. In 2013 Commnet Wireless, LLC, applied for a permit from the Federal Communications Commission (FCC) to collocate antennae on the rooftop of an art gallery in Abiquíú.

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Photos: Above, looking west toward the rooftop of the gallery where the tower is installed; Right, close up of the tower. (photos courtesy Elizabeth Oster, Jemez Mountains Research Center)



The proposed site for the tower was within one-half mile of several listed historic properties and easily visible from them. The New Mexico State Historic Preservation Officer (SHPO) expressed concerns that a traditional metal tower with affixed antennae would introduce modern elements altering the historic village and rural cultural landscape that served as inspiration and subject for Georgia O’Keeffe and others.

THE 106 PROCESS

The FCC was the federal agency responsible for conducting the Section 106 process under the National Historic Preservation Act. Section 106 requires that federal agencies identify historic properties and assess the effects on those properties of the projects they carry out, fund, or permit. Federal agencies also are required to consult with parties that have an interest in the fate of historic properties when adverse effects are likely to ensue.

Although not required, the project proponent from the outset agreed to take a comprehensive approach and fully evaluate the visual impacts of the proposed telecommunications structure to the historic properties. Commnet Wireless worked closely with the SHPO, the gallery owner, and consultants developing a design for a roof-mounted telecommunications tower that would fit the appearance of the village and not visually affect any of the nearby historic properties. After numerous photo simulations from all the listed properties toward the gallery, the consulting parties proposed an innovative solution consisting of a “stealth” structure installed within a 16” round enclosure mounted at the roof peak on the gallery. The resulting structure mimics a metal chimney similar to other chimneys in the area. The necessary antennae were mounted within that enclosure, fully meeting the telecommunication carrier’s needs for the project.

THE SUCCESS

Commnet’s willingness to be creative led to a solution that effectively avoided adverse visual effects to the historic properties, including the O’Keeffe NHL, while providing much needed cell phone service to the rural Abiquíu community. Through collaboration fostered by the Section 106 consultation, an innovative “cell tower” design that fits with surrounding structures was developed and agreed upon in 120 days. The chimney telecommunications structure provides a model for other rural communities where expansive historic vistas can often be degraded by 21st century intrusions.

Consulting Parties:

Federal Communications Commission
New Mexico State Historic Preservation Officer
Commnet Wireless

For more about Section 106 and the ACHP go to www.achp.gov

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308, Washington DC 20001

Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov



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