While citizens of Roswell, New Mexico, are well versed in the many theories surrounding the alleged UFO crash near their hometown on July 4, 1947, today's residents have been watching an entirely different sighting – the sight of two elevated composite tanks seemingly sprouting from the city's desert landscape.

In 2019, the City of Roswell undertook the ambitious project of building not one, but two elevated composite water storage tanks to help serve its nearly 50,000 residents. These tanks have been constructed north of the Roswell International Air Center, seven miles south of the city center, in an area ripe for commercial and industrial development. Funding for the project was secured through the New Mexico Finance Authority and the U.S. Environmental Protection Agency.

The design, fabrication and construction of the two 750,000-gallon tanks kicked off in the fall of 2019 with a tank style analysis performed by the tank consulting company. The study looked at various elevated tank style options and the relative advantages and disadvantages of each, and the option of constructing one larger elevated tank versus two smaller tanks. Tank styles included in this analysis included fluted pedestal, composite elevated, single-pedestal spheroid and multi-column elevated.

A related life-cost analysis of the options was included in the report to the city. The analysis compared such things as tank aesthetics, the amount of surface area that would require coating, potential storage in the base of some tank styles, piping requirements, ease of future installation of communications equipment (antennas) on the tank, the number of available fabricators for each style of tank, the initial fabrication and construction costs, and requirements for future maintenance. Based on this analysis, the city elected to construct two 750,000-gallon elevated tanks.

Detailed technical specification prepared by the consultants included two alternate styles of tanks – single-pedestal spheroids and composite elevated tanks – allowing interested contractors the option of bidding either or both styles of tanks. The consultants also assisted the city through the bidding process and provided project management and on-site inspection throughout the fabrication, construction and painting of the tanks. Once contracts were negotiated, the city issued the Project Notice to Proceed to the awarded contractor on Nov. 12, 2019.

The work was split into two sites, one for each tank. The contractor arrived on the Gillis Street tank site on Nov. 18, and work on the foundation and pedestal was underway. Once the concrete crew was finished at the Gillis Street site, they moved on to the second site off Martin Street. This sequencing of construction operations continued during the project until it was determined that the Martin Street Tank should be completed first, at which point in time the sequence shifted. Both tanks were completed in the spring of 2021, and both tanks bear the striking approximately 24-foot-wide by 27-foot-tall logo of the City of Roswell.

Work for each tank began with construction of the concrete foundation before the steel container was raised. The city's original tank stands adjacent to one of the new tanks and will be deconstructed once the new tanks are online later this year.

Coating Application

Project specifications for the cleaning and coating of the tanks included application of 2.5–3.5 mils of a zinc-rich primer in the shop, and the field coating of the tank exterior with 2.5–3.5 mils of a two-component zinc primer as the field primer, followed by an intermediate coat of 2–3 mils of aliphatic acrylic polyurethane, and a finish coating of 2–3 mils of fluoropolymer for a total of 6.5–9.5 mils of exterior coating. The exterior intermediate, finish coat and logo were applied once the tank container was raised to the top of the pedestal.

The owner elected to seal the exterior of the concrete pedestals to provide a more uniform appearance using a solvent-based, solid color concrete sealer. A mock-up panel was erected so the city could view