

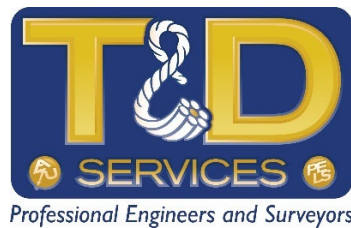
**Kit Carson Electric Cooperative**

**Field Review and Design  
for  
Storm Restoration**

**January 2022**

**Prepared by:**

**Transmission & Distribution Services, LLC**



## Executive Summary

T&D has completed the field review and design of the storm damaged Kit Carson Electric Cooperative (KCEC) primary electrical system (Project). Copies of the staking tabulations, kmz, and plan and profile that represent the design's primary documents are enclosed. In conjunction with the staking sheets, the design was completed using a GIS based online mapping system and flown with a UAV for LiDAR and imagery. The design follows USDA RUS specifications, as described in the most current version of *RUS Bulletin 1728F-803: Specification and Drawing for 24.9/14.4 kV Line Construction*. The design is also in accordance with IEEE Standard C2-2017, which is the 2017 version (most current) of the *National Electrical Safety Code*, and finally the most current version of NFPA 70, the *National Electrical Code*. The RUS Bulletin is available for download at the RUS website at:

[https://www.rd.usda.gov/sites/default/files/UEP\\_Bulletin\\_1728F-803.pdf](https://www.rd.usda.gov/sites/default/files/UEP_Bulletin_1728F-803.pdf)

The wind and snow are the two primary factors that have made the area very difficult to access for assessment and construction. The wind blew down a large number of trees in the area damaging the electrical grid and causing the outage. Additionally, several feet of snow has covered the downed trees, power poles, electric wire, communication cable, and roads. The system is currently approximately 2.86 miles of line with 67 primary electric poles with multiple taps providing service to the subdivision. There is a total of 92 meters in the area and 45 transformers. There are 18 primary poles in the subdivision that are presently unusable. Many of the poles that remain standing have some damage, but are usable to restore power. Most of the electric wire has been damaged and is under snow cover. The wire remaining in the air has damage from over tension due to wind and tree damage. The majority of the 2.86 miles will need to be re strung with new conductor. A large number of the meter poles and weather head on the houses are damaged and will need to be rebuilt.

T&D survey crews are working with Taos County to clear pole locations and side roads for construction access. Construction crews will be on site Monday, January 17, 2022 to start hauling material and begin construction. KCEC has assembled needed material for the Project and is ready for the construction crews. Crews will start at the north side and restore power as they move through the area. Construction is expected to take several weeks under current conditions. The contractor will mobilize additional resources once construction is underway to help improve the timeline.

As work is performed in the area, the wire and poles that are uncovered will be removed. With better accessibility in the spring and summer months, KCEC plans to storm harden the area and clean up the storm damage.

Due to the scale and detail of the Project, an electronic approach was taken with mapping as details cannot be viewed on paper maps. Attached is a live link to the interactive map where the devices and staking sheet details can be seen and the progress as the crews complete items.

Shared Folder:

[https://tdservicesabq-my.sharepoint.com/:f/g/person/aroybal\\_t-d-services\\_com/Etj2\\_FMGWppGrBxAQ0tITVkB9EAQn5MAH9w33-ggj4nKIQ?e=c0THoP](https://tdservicesabq-my.sharepoint.com/:f/g/person/aroybal_t-d-services_com/Etj2_FMGWppGrBxAQ0tITVkB9EAQn5MAH9w33-ggj4nKIQ?e=c0THoP)

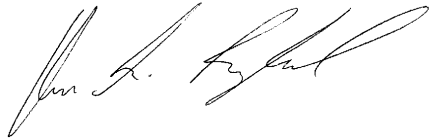
Live Maps of the project:

<https://storymaps.arcgis.com/stories/eae048bdf0d34678b2e9d1544a1bad79>

Username: TandD\_Engineering2

Password: Dead3nd20Crossarm

Transmission & Distribution Services, LLC

A handwritten signature in black ink, appearing to read "Adam G. Roybal". The signature is fluid and cursive, with a large initial "A" and "R".

Adam G. Roybal, P.E.

Distribution Division Manager