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Over the past 50 hours, I led a team of four people building an aerial fiber network path through a largely rural area to the customer. Given the very limited density of the fiber network cabling, it gave far fewer options for the path build versus what I would consider a typical path. This brought with it several advantages and disadvantages in tandem. For instance it simplified the total number of steps in the process. Everytime the cable which the network path is on enters a splice enclosure with other cables it needs to be opened and have the continuity of the fiber path verified. In a fiber optic cable dense area this could potentially involve dozens of individual locations to verify which is extremely time consuming. A disadvantage would be a critical reliance on the existing sparse cabling.

On this path build it became a particular issue as a several mile span of cable was damaged in several locations with no alternative routes which left the final option, repair the cable itself. Typically this is a last resort because a damaged cable is still liable to further damage even after being repaired. I had to find service loops of the cable along a several mile stretch of aerial telecommunication strands until I located them. I then sent that information to the cable construction company which sent out a crew to move the cable slack to the positions needed. Then my team and I would cut out the damaged sections and splice within an enclosure the fibers back together to their corresponding ones which are labeled through a color code.

My major objective was to oversee the implementation of the design and make the necessary changes along the way. I conducted multiple surveys to determine how the design maps lined up with the reality of the in place infrastructure. After ensuring cable integrity I came up with individual work objectives for my team and myself before putting everyone into action.

Certain splice cases and cable cuts were particularly technical or risky which required me to help my team members while attempting to keep pace with my own work. I found it challenging to be focused on my own objectives then have to switch gears quickly to help with another portion of the project yet it got easier as the path continued to be built. Towards the end of our build came the critical moments where we needed to test the integrity of our path. Testing is where the proof is in the pudding. Success means project completion and failure could mean many more hours of work depending on the circumstances. Thankfully in this case once every splice had been completed and enclosure built, all test results were satisfactory.