The communications market sector may be the most resilient for engineering and construction firms during the current pandemic-caused recession. According to FMI’s third-quarter 2020 report, only the communications sector will rise each year between 2020 and 2024, to $27 billion from $23 billion in annual design and construction spending.

Once considered a niche market, telecommunications design and construction is becoming increasingly mainstream due to its growth, which parallels the growth of connected devices and the massive amounts of data moving across the internet. The need for social distancing during the COVID-19 pandemic has translated into millions of Americans needing to work from home, engage in distance learning, shop via the internet, and even have medical appointments using telemedicine. Increased streaming of media and meeting platforms is not just a market trend—it’s a life necessity. Analysis by the Uptime Institute finds that media streaming represents the biggest portion of global internet traffic and is, in fact, the “energy guzzler of the internet.”

For broadband there remains a significant challenge in bringing connectivity all the way to residences and small businesses nationwide, particularly in rural areas. According to the Federal Communications Commission (FCC) 2020 Broadband Deployment Report, 22.3 percent of Americans in rural areas and 27.3 percent of those on tribal lands lack access to high-speed internet. The U.S. Chamber of Commerce’s Chamber Technology Engagement Center reports that if rural small business had broadband access, annual gross domestic product and employment would increase by $41.3 billion and 316,605 jobs, respectively. In addition, rural access would likely slow out-migration from rural areas, improving overall economic development. Private telecommunications companies have had little incentive to invest in rural connectivity on their own, as the customer base is often not dense enough to support the cost of the infrastructure.

Recognizing the need for federal action in connecting rural America to broadband, the FCC in 2010 established the National Broadband Plan, which initiated a decadelong push for connectivity, with considerable activity in the last couple of years. Besides the FCC, the U.S. Department of Agriculture (USDA) is the main federal agency with rural broadband initiatives. Key actions and programs of these government agencies include:

- In 2018, the USDA created ReConnect, a rural broadband program that is part of the Rural Utilities Service. Congress allocated ReConnect $1.15 billion for grants, grant-loan awards, and low-interest loans for infrastructure, including the cost of construction, improvement, and/or acquisition of facilities and equipment. The second round of funding closed on April 15, 2020, with applications currently under review.
- In January 2020, the FCC established the Rural Digital Opportunity Fund to cover the deployment of high-speed broadband networks in rural America. Through a two-phase reverse auction mechanism, the FCC will direct up to $20.4 billion over 10 years to finance networks.
- In March 2020, President Donald Trump signed into law the bipartisan-supported Broadband
Single-Family Residential Surges

The single-family housing market is emerging as a star during the economic recovery from the COVID-19 pandemic. Single-family homebuilding jumped 8.5 percent to a rate of 1.108 million units in September, according to monthly U.S. Census Bureau and U.S. Department of Housing and Urban Development joint numbers. This is the highest rate of single-family starts since June 2007, according to the World Property Journal. Single-family homebuilding is a leading indicator, according to Bloomberg, which noted that construction of single-family homes in September reached the highest level in more than 13 years. In the nation’s largest region, the South, new single-family home construction starts rose 17.7 percent—a 13-year high. Single-family homes accounted for 78 percent of total homebuilding, which is the largest share recorded since 2010. Multifamily construction, which makes up the rest of the market, is not experiencing growth.

Analysts attribute single-family growth to several factors: record-low interest rates, families looking for more space as they engage in work-from-home and remote schooling during the pandemic, and the demographics of the millennial generation shifting to the suburbs.

It is no surprise that builder confidence is soaring. The National Association of Home Builders/Wells Fargo Housing Market Index (HMI) rose by 2 points to an all-time high of 85 in October, up from the previous all-time high of 83 recorded in September. These months are the first with readings over 80 in the index’s 35-year history. The HMI surveys respondents on three components: conditions for present single-family sales, conditions for single-family sales over the next six months, and prospective buyer traffic.

Deployment Accuracy and Technological Availability Act (DATA), which requires the FCC to collect granular service data and develop maps detailing rural broadband availability.

The activities around funding and financing rural broadband deployment, and the targeting of electric cooperatives (referred to as “co-ops”) to play a unique role in this deployment, present new business opportunities for engineering firms. Co-ops were created after President Franklin D. Roosevelt established the Rural Electrification Administration in 1935, bringing electricity to rural parts of the country in the 1930s and 1940s. Today there are still 900 co-ops, which are independent electric utilities owned by the members they serve, and co-ops are getting the opportunity to again transform rural America through broadband deployment. In 2010 only one co-op was providing broadband connectivity, but as of 2019 more than 140 were offering broadband, according to the Institute for Local Self-Reliance. Besides supporting their rural customers, there is an additional driver for co-ops, which need to add fiber to modernize their electrical grids, so they are “smarter,” more resilient, and efficient. According to the National Rural Electric Cooperative Association, more than 200 co-ops that are not yet deploying broadband are seriously exploring this as an additional offering.

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