We have worked in the telecommunications industry since 1994 and supported most of the wireless carriers in the Northeast region, as well as turnkey vendors and local firms contributing to this industry’s growth. We have been an integral part of the design for multiple Distributed Antenna Systems (DAS) in municipalities, tunnels, professional and collegiate athletic stadiums and professional and college campuses.

**Tunnels**

Tunnel projects typically include hub room design, fiber, COAX, and antenna mounts made of stainless steel due to the corrosive environment and detailed plans laying out many miles of fiber, splices, antennas, and COAX. We recently completed the build-out of the DAS system for the entire Boston subway system, and LTE upgrades for the Baltimore Harbor and Fort McHenry tunnels.

**Stadiums**

Antennas, COAX, or fiber mounts and runs are challenging in stadiums. Landlords and historical commissions are discriminating about the visual impact of the DAS installation, so we design site-specific mounts to blend with existing features. We place COAX and fiber lines in locations that have little or no visibility to the fan base.

**Campuses**

Large corporate and college campuses present their own unique challenges with typical designs for the hub and antennas. Our solution is to be creative with transmission methods for fiber and COAX from building to building throughout the campus.

**Neighborhoods**

Typically a neutral host type installation, these projects include intricate transmission runs and antenna mounting designs. For example, we designed a custom light pole to match existing poles to satisfy a neighborhood historic commission, with a base large enough to house a small sliding cabinet, power source and fiber splice.

**Innovation**

Concepts and innovations are often the result of the unique requirements of a particular client’s situation, operation or site conditions. Our clients often call on us to solve their complex construction projects and sensitive community relations issues. Our staff has overcome such challenges as building faux sites in urban areas, placing equipment rooms on rooftops, and locating equipment in restrictive spaces employing creative solutions.
Central Artery Tunnel Wireless | Boston, MA
We designed the largest highway DAS of its kind with more than 3.5 miles of tunnel accessed by more than 225,000 vehicles daily. We created the only complete digital set of plans for the entire network that provides wireless phone and data services, E911 emergency response, and revenue for carriers and MassDOT.

Richmond International Airport | Richmond, VA
Richmond International Airport is Central Virginia’s busiest air transportation hub, serving more than 3.6 million passengers daily. We designed a 600-square-foot neutral host DAS head end to service up to four wireless carriers. We provided civil, mechanical, and electrical designs for the new partition of the existing back of house mechanical space with minimal impact to daily airport operations.

InSite Wireless MBTA DAS | Boston, MA
DAS system build-out of the MBTA Boston subway system. Initial phases included design of 2,085-SF DAS hub location, overnight design visits walking the tunnel to map and locate fiber, utility rooms, proposed antennas, power supplies, and leaky COAX to optimize system performance, fiber/COAX routing and power design. We designed the expansion of the equipment room including fire protection.

Harvard iDAS | Cambridge, MA
Comprised a 2,200-SF data center with raised floor, air conditioning system with three 15-ton split system CRAC units, sound dampening, overhead structural system. Construction required fire suppression and alarm modifications and tie-ins, power upgrades that included addition of a 1,600-amp new switch gear with an 800-amp feed to the head end and a temporary generator connection.

Yale iDAS | New Haven, CT
For a DAS project covering the entire campus, 2,200-SF was barely enough space. A backup generator and two 30-ton combined HVAC units on a steel platform were designed for the roof. Structural load analyses were completed for the new equipment platform, roof loading from suspended cable, fiber, HVAC ducting and lighting systems, and the floor. Power upgrades included a new 800 amp service with backup generator.

Fenway Park DAS | Boston, MA
This wireless phone and data neutral host system includes 300+ antennas and two intermediate head-end shelters located within the park. The eight-node, 12-antenna system is then connected to an off-site main hub via fiber optic cable. We provided designs for Massachusetts historical and zoning approval as well as structural, electrical, and HVAC designs for both the intermediate hub rooms and the main hub location.

Boston College DAS | Chestnut Hill, MA
The demand for wireless voice and data during sporting events has developed into a comprehensive campus-wide plan to implement a neutral host DAS at Boston College. The initial build-out focused on Alumni Stadium, Conte Forum, and the surrounding buildings and included 300+ antennas and an intermediate and main hub location. We provided leasing, zoning, and construction documents that included structural, HVAC, and electrical designs.

TD Gardens DAS | Boston, MA
A more robust communications system was needed in the Boston TD Garden—the 755,000 square foot, 19,600 seat arena that is home of the Boston Celtics and Bruins—so the best wireless coverage possible could reach 3.5 million people expected each year. We incorporated a Neutral Host DAS on all levels of the facility and designed a state-of-the-art data center on the 10th floor mechanical level to provide access to high-capacity wireless voice and data services.