

Atlantic Design Engineers, LLC.

ATLANTIC WIRELESS SERVICES

Our *WIRELESS SERVICES GROUP* is dedicated to providing responsive and effective engineering design and permitting services to the wireless communications industry throughout the U.S. and Canada. Our services include:

- **Site Plans And Zoning Drawings**
- **Construction Management and Inspection Services**
- **Tower Inspection Reports with recommendations**
- **Wetlands Delineation and Wetlands Permitting Services**
- **Tower Mappings and As-Built Tower Plans**
- **Structural Analyses and Tower Upgrade Design Services**
- **Permit Applications and Permitting Assistance**
- **Design of Tenant Improvements**
- **Site Evaluation and Due Diligence Reports**
- **Geotechnical Investigation and Design Services**
- **Construction Drawings and Specifications**
- **Site Survey and Survey Certifications**
- **Construction Control, and Stakeout Services**
- **Environmental Site Assessments**

Our wireless services are enhanced by our engineering software programs and our state-of-the-art, computer-assisted design and drafting system. Use of these tools allow us to readily complete comprehensive engineering assessments and technical drawings in accordance with the accelerated program schedules of the wireless industry.

To date we have been successfully involved in the fast-track permitting, design and construction phases of over 250 wireless communications sites; 180 of these sites were completed within the last two years. Our multidisciplinary team includes in-house structural, mechanical, electrical and civil engineers along with CADD technicians, architects and professional surveyors.

We would be pleased to discuss with you any current or future needs for wireless communications services. Please contact Simon B. Thomas at (508) 888-9282 or e-mail us at wireless@cape.com to discuss your specific needs.

REPRESENTATIVE CLIENTS/PROJECTS

We have been providing permitting and engineering design services since 1989 to the wireless communications industry. Select clients include:

AAT Communications - Edison, New Jersey

- Arch Communications – Westborough, Massachusetts
- Aritaur Communications – Pittsfield, Massachusetts
- Bell Atlantic Mobile – Woburn, Massachusetts
- Berkshire Wireless - Lee, Massachusetts
- Crown Castle Atlantic, Woburn, MA
- Green Mountain Communications, Inc. - Wolfeboro Falls, New Hampshire
- Industrial Communications and Electronics, Marshfield, Massachusetts
- KJI Broadcasting - Providence, Rhode Island
- Nextel Communications - Lexington, Massachusetts
- Nynex Mobile Communications - Woburn, Massachusetts
- Omnipoint Communications - Providence, Rhode Island
- SBA, Lowell, MA and New London, CT
- Sprint Spectrum- Wakefield, Massachusetts and Mahwah, New Jersey
- ThruCom – St. Petersburg, Florida
- Tower Ventures, Inc. – Providence, Rhode Island
- Unisite – South Kingston, Rhode Island
- WFI/Entel - Nashua, New Hampshire
- Verizon Wireless – Westborough, Massachusetts

SELECT PROJECTS

Rooftop Installation - Newport Hospital - Newport, Rhode Island - A custom design was performed for a rooftop addition at the Newport Hospital to house both NYNEX and Cellular One wireless equipment. Services included structural review of existing building capacity and preparation of complete architectural, structural, mechanical and electrical construction plans.

New Communications Tower - Waquoit, Massachusetts - Complete services were provided for a new 100 foot monopole including site survey, geotechnical investigations, and preparation of zoning and construction drawings. An expanded set of site plans was approved by the Cape Cod Commission in accordance with Technical Bulletin 97-001. This was the first site approved under these comprehensive filing requirements by the Cape Cod Commission.

Rooftop Installation - Sea School- Quissett Harbor - Falmouth, Massachusetts - Complete services were provided for installation of wireless antennas and associated BTS equipment at the Sea School. Major structural design was required for the existing roof to accept additional loadings from the array.

Colocation and Tower Upgrade - Barnstable, Massachusetts - Complete permitting and engineering services were provided for a tower upgrade and equipment colocation for Nextel Communications at the existing Bell Atlantic guyed tower on Oak Street. Services included structural tower analysis, tower reinforcing analysis and recommendations, site survey, zoning drawings/site plans, and structural tower reinforcing plans.

Tower Inspection Mapping Reports & Structural Capacity Analyses – New York
Complete tower inspections and mapping services were provided for a series of existing communications towers in upstate New York. Analyses were performed at each tower to determine structural tower capacities and develop recommendations for tower upgrades.

Tower Inspection, Structural Analysis, Structural Upgrade Design and Fabrication Drawings – Nantucket, MA

Complete tower inspection and structural design for a guyed tower were provided for over five carriers on an extensive upgrade project. Services included complete structural analysis of the existing tower and a customized upgrade design to accommodate both present and future loadings. The site was also upgraded to provide a multicarrier building capable of supporting over five carriers in one facility. Atlantic provided all of the engineering and site design for the entire project.

PROGRAM BUILDOUTS

Bell Atlantic Mobile – Responsible for permitting and engineering services for over 50 telecommunication sites in Southeastern Massachusetts and Rhode Island between 1989 and 1992.

Omnipoint/Voicestream – Responsible for permitting, engineering and photosimulation services for over 85 telecommunications sites in Massachusetts, Rhode Island and Maine.

Nextel Communications – Responsible for site survey, zoning and construction drawing services for over 60 new telecommunications towers in Massachusetts and Rhode Island.

Sprint Spectrum/Sprint PCS – Responsible for survey, permitting, digital photosimulation and construction services for over 30 telecommunications sites in Rhode Island and Massachusetts

Crown Castle Atlantic – Responsible for site survey, zoning, digital photosimulation and construction drawing services for over 20 new telecommunication sites in New Hampshire and Rhode Island.

REFERENCES

**Bell Atlantic/Verizon
Margaret Gleavy
(617) 743-7891**

**Crown Castle Atlantic
Brian Orlandi
(781) 729-3546**

**American Tower Corporation
Paul Young
(617) 585-7603
Jeremy McDevitt
(617) 585-7600**

**Omnipoint/Voicestream
Mike Walker
(508) 287-4313**

**WFI/Entel Inc.
John White
Construction Manager
(603) 897-2387**

**Atlantic Western Wireless
Vincent Granese, President
(781) 932-1313**

**Sprint PCS
Frank J. Ramirez
(201) 634-4307**