SOLAR, EV CHARGING & BATTERY STORAGE

STATEMENT OF QUALIFICATIONS

Tectonic

PRACTICAL SOLUTIONS. EXCEPTIONAL SERVICE.

www.tectonicengineering.com

ABOUT US

Founded in 1986, Tectonic is a multi-disciplined engineering firm employing a staff of approximately 500 professionals comprised of civil, structural, geotechnical and environmental engineers, surveyors, planners, and construction inspectors. The substantial experience of our staff presents a company that is highly qualified to accomplish projects varying in size, scope or complexity.

To ensure the standard of quality expected by our clients, we concentrate our services on core market sectors that reflect the strength and talent of our staff. Tectonic provides a full range of professional services in the following market sectors: Energy, Institutions, Education and Healthcare, Land Planning, Telecommunications, Transportation, Water Resources and Disaster Recovery.

With 39 years of experience, Tectonic forged a reputation within the engineering and construction community for its technical knowledge, rigorous standards and fresh approach as design engineers and construction consultants. We take pride in the integrity and technical application of our services and strive to accomplish the goals of each Client.

As a result, our successes on contracts and overall activity in the industry are both recognized by our Clients through positive evaluations, and by reputable organizations through award and ranking programs.

The Zweig Letter ranked Tectonic #92 on its 2024 Hot Firm list of Architectural and Engineering Firms in the U.S. and Canada.

Tectonic continues to be listed on the annual Top AEC Firms list by Public Works magazine.

Our most recent recognitions also include:

- ENR National Top 500 Design Firms: #224 in 2025
- ENR National Top 100 Construction Management-for-Fee/PM Firm: #68 in 2023
- ENR National Top 50 Design Firms by Sector: Telecommunications #35 in 2022
- ENR National Top 10 Design Firms by Sector: Towers and Antennae #8 in 2022
- ENR NY Top Design Firms: #23 in 2022
- Trenchless Technology Top 50 Design Firms: #44 in 2022
- Crains Largest Engineering Firms in NY Area: #19 in 2020

When you choose Tectonic you work with some of the finest professionals in the business - professionals who understand your goals and will put their skills and resources to work for you - professionals who will earn your trust and confidence, every day and on every project.

TECTONIC'S GOALS, MISSION STATEMENT AND PHILOSOPHY

Tectonic has been guided by a focused philosophy since the firm's beginning - vision, integrity and technical expertise. Simply put, Tectonic's goals are to:

- Maintain the standard of quality expected by our clients on each and every project.
- Complete projects within budget and on-time.
- Exceed our Client's expectations.

"Practical Solutions, Exceptional Service"

Morgan Stanley Phoenix Solar Array Installation, Westchester County, NY

Mapleview Towers Ballasted Solar System Installation, Stamford, CT

SERVICES

LICENSING & PERMITTING

NEPA and SHPO
State Environmental Quality Review Acts
Environmental Impact Statements
US Army Corps of Engineers 404 Permitting
Planning and Zoning Approvals
Public Outreach
Site Acquisition & Real Estate Services

ENVIRONMENTAL

Visual Assessments and Renderings
Monitoring/Mitigation Programs
Aquatic/Wetland Delineation
Archaeological Studies
Avian and Bat Impact Assessments
Phase I and Phase II Site Assessments

SURVEYING SERVICES

Acquisition/ROW
Aerial Control
ALTA/ACSM Land Title
Certified Boundary
Geodetic Control
GIS Mapping
Mobile Mapping
Property Subdivision
Route Surveys
Topographic
Underground Utility Mark-Outs
Wetland Delineation

ENGINEERING

Civil Site Design
Geotechnical Investigations
Structural Analysis
Foundation Design
Stormwater Management Plans
Erosion Control
Access Roads for Construction
Support Building Design
Security Planning/Design

CONSTRUCTION SUPPORT SERVICES

Bid Documents
Bid Evaluations
Contractor Selection
Construction Management
Resident Engineering
Construction Inspection
Materials Testing

Solar Rooftop Site - Johnston, Rhode Island

Solar Rooftop Site - Johnston, Rhode Island

NASA Central Campus Solar Plant Addition, Merritt Island, FL

SOLAR

With the price of oil increasing, renewable energy sources have become a viable option. Solar power, the never ending energy source, has not only taken off for commercial and industrial use but also for utility scale systems. Tectonic is dedicated to designing efficient and high quality solar systems. We have the experience and capacity to efficiently evaluate potential sites, effectively negotiate the regulatory climate and ensure engineering and construction is completed within the anticipated schedule. Tectonic has vast experience with various types of solar installations.

Sunkeeper Solar, Rooftop Canopy, NYC

TYPES OF INSTALLATIONS

- Ground Mounted
- Carport Canopy Systems
- Rooftop (Canopy/Ballasted)
- Steel Framed / Anchored
- Utility Scale Solar Farms
- Landfill
- Building Facade Structures

Battery Storage, NYC

BATTERY ENERGY STORAGE SYSTEM (BESS)

The electrical grid is rapidly aging and will continue to be challenged by the constant evolving renewable energy landscape. This drive for renewable energy solutions has created logistical and financial challenges for utilities. Tectonic has the experience to assist with the infrastructure support for the installation of batteries and obtain all proper permitting approvals to sucessfully deploy them across the country.

Rooftop Battery Installation, Queens, NY

TYPES OF INSTALLATIONS

- Ground Mounted
- Rooftop (steel support infrastructure for battery installation)
- Steel Framed / Anchored
- In-Building - Building analysis for battery installations

Volta-Shell Public Charging Stations, Hoboken, NJ

EV CHARGING STATIONS

Tectonic provides engineering design for electric vehicle (EV) charging stations in which we focus on creating a safe, accessible, and efficient infrastructure that supports the growing demand for electric vehicles. This involves thorough site assessments to determine optimal locations with proximity to power sources, and adequate space for vehicle maneuvering. Our designs consider the layout of the charging bays, traffic flow patterns, stormwater drainage systems, and landscaping to ensure safety and enhance aesthetics. Additional due diligence is performed to confirm compliance with zoning regulations as well as environmental impact assessments to meet all local jurisdiction requirements.

SERVICES

- Site Identification
- Leasing
- Zoning Analysis
- Municipal Permitting
- Due Diligence
- Program Management
- A&E Coordination
- Building and Electrical Permits
- Regulatory Compliance
- Third Party Vendor Mangagement
- Civil Engineering
- Geotechnical Engineering
- Structural Engineering/Analysis
- Environmental Studies
- Electrical Engineering
- Surveying
- Program and Construction Management
- Foundation Investigations
- Photo Simulations

PROJECT PROFILE

Solar Rooftop Installation Design at Cornell Bloomberg Building Cornell Tech's Roosevelt Island Campus Construction

This project included the construction of a new Cornell Tech campus including two million square feet of state-of-the-art buildings, over two acres of open space that will become home to over 2,000 graduate students and hundreds of faculty. The construction included the installation of solar panels on the Bloomberg Center and Bridge building. When completed, the 12-acre campus will be known as one of the most environmentally friendly and energy efficient campuses worldwide. Tectonic provided engineering services for the installation of a rooftop solar system at the Bloomberg Center Building and Bridge Building.

Tectonic performed structural analysis and design of the proposed solar mounting steel support system. The support system for Bloomberg was composed of steel members and Unirac rails and the Bridge building was composed of Unirac rails at an 8-degree tilt. The design included a design to span the large 25' and 30' spans as required to support the PV panels. Tectonic also drafted structural design drawings and was involved with the permitting process with the NYC DOB.

PROJECT CLIENT:
EnterSolar

LOCATION:
Roosevelt Island, NY

PROJECT PROFILE

National Institute of Standards (NIST) – 5MW Solar Farm

Tectonic performed geotechnical, environmental, civil, and surveying services for the proposed 5 MW ground mounted solar installation on the campus of the National Institute of Standards and Technology (NIST) in Gaithersburg, MD. The details of the provided services are:

- **Geotechnical** - Performed a subsurface investigation and geotechnical engineering analysis for construction site improvements. The purpose was to evaluate the subsurface conditions across the site and develop geotechnical recommendations for the design and construction of the roadway pavement sections and electrical manhole structures.

- **Civil Engineering Services** – Performed civil design for the proposed solar system. Sediment erosion control, SWPPP, grading, and stormwater designs were included for the 5 MW system.

- **Environmental Engineering Services** – Performed a Phase I ESA to characterize the environmental quality of the property through determining the likely presence (or not) of Recognized Environmental Conditions (RECs). This was performed in conformance with ASTM Practice E1527-13, in order to identify obvious and likely potential sources of contamination such as hazardous substances or petroleum products and assess general environmental conditions of the property.

- **Surveying Services** - Tectonic was requested to provide additional surveying services because the array geometry and location changed requiring additional areas on the property to be surveyed. A topographic survey was performed for a 5 MW solar ground mount system for the new area required of the solar installation and prepared mapping in AutoCAD format. The mapping showed all visible improvements, roadways, structures, etc. with a 2-ft contour interval, and spot elevations on all flat surfaces and improvements, including rims and inverts on all sanitary and drainage structures. All vertical data was based on the North American Vertical Datum of 1988.

PROJECT CLIENT:
Legatus6

LOCATION:
Gaithersburg, Maryland

PROJECT PROFILE

Agness Scott College 176.8 kW Solar Rooftop - Structural Analysis & Design

Tectonic performed the structural engineering analysis and design for a rooftop solar canopy superstructure atop the existing multi-level parking garage in Decatur, Georgia. The design solution centered on a three-dimensional space truss system composed of hollow structural sections (HSS), strategically selected for their ability to span long distances beyond the limits of conventional steel members. This solution provided a structurally optimized assembly of steel members that could withstand the sites demanding loading conditions.

In addition to the primary steel framework, Tectonic engineered the cold-formed light-gauge framing system that supports the photovoltaic (PV) solar array. This secondary framing was optimized for both structural efficiency and modular integration with the solar mounting hardware. To accommodate the existing column grid of the concrete garage below, a custom ground pipe support system was developed. This system offers enhanced spatial flexibility, allowing precise alignment with existing structural elements while maintaining clearances for vehicular circulation and rooftop access.

The final design balances structural performance, constructability, and long-term durability, supporting the client's sustainability goals while integrating seamlessly with the existing infrastructure.

PROJECT CLIENT:
Quest Renewables

LOCATION:
Decatur, GA

PROJECT PROFILE

5MW Solar Installation

Tectonic provided services as the Owner's Engineer on this 5MW solar PV installation in Morris County, New Jersey. The solar installation on this site encompasses ground mount, carports, and roof mounted systems with multiple array azimuths and inclinations. Seven different sub arrays are utilized to optimize the system output using the three different mounting systems. Requiring approximately 20 acres of tree removal, grading and overall site work, the extensive system is predicted to supply approximately 70% of the power consumption for the existing facility.

Our services as Owner's Engineer include the following:

- Technical Design/Code Compliance Review
- Permitting Review and Assistance
- Threatened & Endangered Species Studies
- Contractor Submittal Reviews and RFI Responses
- Engineering Support during Design Phase
- Construction Administration during Construction and Close-Out Phase
- Site Visits and Engineering Inspections
- Change Order Review and Takeoffs

PROJECT CLIENT:
KDC Solar, LLC

LOCATION:
Morris County, NJ
Commons Way, Rockaway, NJ

PROJECT PROFILE

2.3MW Solar PV Installation

Tectonic provided engineering services on this 2.3MW solar PV installation in Somerset County, New Jersey. The solar installation on this site encompassed a ground mounted system with multiple sub-arrays utilized to optimize the system output. Initially requiring approximately 20 acres of tree removal and overall site work (to coordinate with future planned investment in the property), the extensive system was predicted to supply approximately 80% of the power consumption for the existing facility. The facility spans two municipalities, so land use approvals were required from both to construct the array and its 4,000 foot overhead connection to the grid at an existing onsite substation. In coordination with local preservation groups, the property owner, and the Town, the array was ultimately relocated northward onsite to a position which minimized the clearing. Our services as the project engineer included the following:

- Civil Engineering
  - Storm-Water Management
  - Erosion and Sediment Control Planning
  - Land-use approval plans
- Structural Engineering
  - Ground-Mounted System
  - Transmission Line Analysis and Design
- Geotechnical Engineering
- Surveying
- Environmental Engineering
  - Threatened & Endangered Species Studies
  - Wetlands Delineation
  - Environmental Impact Statement
  - Cultural Resource Management
- Technical Design/Code Compliance Review
- Municipal Review (two townships)
  - Planning Board Approvals
- NJDEP LURP, Wetlands (LOI, General Permits)
- Somerset Union Soil Conservation District
- Somerset County Planning Board

PROJECT CLIENT:
Confidential

LOCATION:
Somerset County, New Jersey

PROJECT PROFILE

Smith Cairns Carport & Rooftop 395 kW Solar Array Installation

Tectonic provided structural design, surveying, a subsurface investigation and geotechnical engineering analyses for the proposed carport and rooftop PV solar arrays to be installed at the Smith Cairns Ford car dealership at 900 Central Park Avenue in the City of Yonkers. The carport included a total of two (2) carports to be installed within the existing parking lot. This included determining the design load, performing an analysis to check the building supporting elements and examining the existing roof deck and connections to support the proposed solar installation. The solar installation will provide alternate power solutions to the Ford Dealership building resulting in cost savings as well as clean energy.

PROJECT CLIENT:
Standard Solar

LOCATION:
Yonkers, NY

PROJECT PROFILE

NASA John F. Kennedy Space Center Central Campus Solar Plant

NASA planned to install a 2 MW ground mounted solar plant generating capacity that connects to the KSC 13.2KV 60hz electrical grid at the John F. Kennedy Space Center in Merritt Island, Florida. The 2 MW array will become part of NASA's electrical distribution system. Tectonic provided civil engineering services including SWPPP, a dewatering plan, grading and erosion and sediment control plans.

Project Challenges:
The location of the system will be close to the coast line. The soils are corrosive and with combination of the salt in the air effects the electrical equipment. The system will need to be designed to take into consideration of the air quality and flood zones.

PROJECT CLIENT:
Legatus6

LOCATION:
Merritt Island, Florida

PROJECT PROFILE

Christian Cultural Center 273.3kW Solar System – Structural Assessment Verification

Tectonic provided engineering services for a 273.3kW solar system on the roof of the Christian Cultural Center located in Brooklyn, NY. A structural review of the existing building structure and the proposed solar-ballasted system analyses was performed.

Services involved with designing the structure included the following procedures:

- **FDNY Package**
  - Prepared drawings
  - Designed narrative document to include any non-compliant conditions
  - Prepared FDNY paperwork per NYC building code
  - Filed plans and applications with the FDNY rooftop access unit

- **Department of Buildings (DOB) Filing**
  - Prepared Alteration Type II D14 applications for NYC DOB approval
  - Reviewed and sealed drawings
  - Prepared work permit applications
  - Completed Letter of Completion as required to close out NYC DOB building permit application.

The structural assessment was based upon the most stringent criteria of the 2014 New York City Building Code.

PROJECT CLIENT:
UGE USA Inc.

LOCATION:
Brooklyn, NY

DATE:
2017

PROJECT PROFILE

Shakespeare Building 28.3 kW Solar Installation

Tectonic performed a structural analysis for a 28.3 kW solar system supported on the roof of the building located at 1282 Shakespeare Ave, Bronx, NY.

The purpose was to determine the design loads for the solar panel support system and design the proposed steel framing. Framing materials primarily utilized strut channels on top of the proposed pipe framing.

Tectonic also determined the quantity and locations of roof penetrations required to support the proposed solar system. Tectonic provided all connection details and post down connections to the roof.

In conclusion, the proposed strut and pipe framing was adequate to support the loads and the existing supporting structure was sufficient to support the proposed solar installation.

PROJECT CLIENT:
Bright Power, Inc.

LOCATION:
Bronx, NY

PROJECT PROFILE

Marcus Garvey Buildings 300 kW Solar Installation

Tectonic performed structural analyses of the existing rooftops for 22 buildings within the Marcus Garvey village to support a total of 300 kW of solar. The solar system was installed as non-penetrating ballasted mounts.

The purpose of the project was for the Village to consume all the energy it generates, without exporting to the grid. This system will also lower energy costs, deliver essential load relief for utilities, and help reduce greenhouse gas emissions.

PROJECT CLIENT:
Bright Power, Inc.

LOCATION:
Brooklyn, NY

PROJECT PROFILE

Via Verde 18-Story LEED Gold Building

Via Verde is an 18-story LEED Gold building project in the Bronx. This 300,000 square foot building consists of 202 affordable housing units with a building integrated 65kW solar photovoltaic system. The solar panels are a prominent architectural feature of the building as they form the visible façade along the southern building elevations. In addition, solar panels have been integrated on top of a pergola structure located on the 7th floor.

Tectonic provided services to Aeon Solar, the building's solar installer, to design the structural support system for the solar panels on the building façade and over the pergola structure.

PROJECT CLIENT:
Aeon Solar

LOCATION:
Bronx, NY

PROJECT PROFILE

Facebook MPK22 Parking Structure Solar Installation

Tectonic provided engineering services for the installation of a rooftop solar system at the site of the Facebook MPK22 Parking Structure in Menlo Park, CA. Consultant services included:

• Structural Analysis for Solar System – performed structural analysis and design of the proposed solar mounting steel support system which was in compliance with the latest code of California, including lateral and gravity analysis and reviewed proposed dunnage to ensure compliance with proposed mounting rail system.

• Structural Analysis for Steel Support Dunnage - analyzed the steel support structure to ensure adequacy with imposed solar loads.

• Construction Drawings - prepared structural design of the system and connections which included plans, sections, and details to be used for construction.

PROJECT CLIENT:
Entersolar

LOCATION:
Menlo Park, California

REPRESENTATIVE CLIENTS

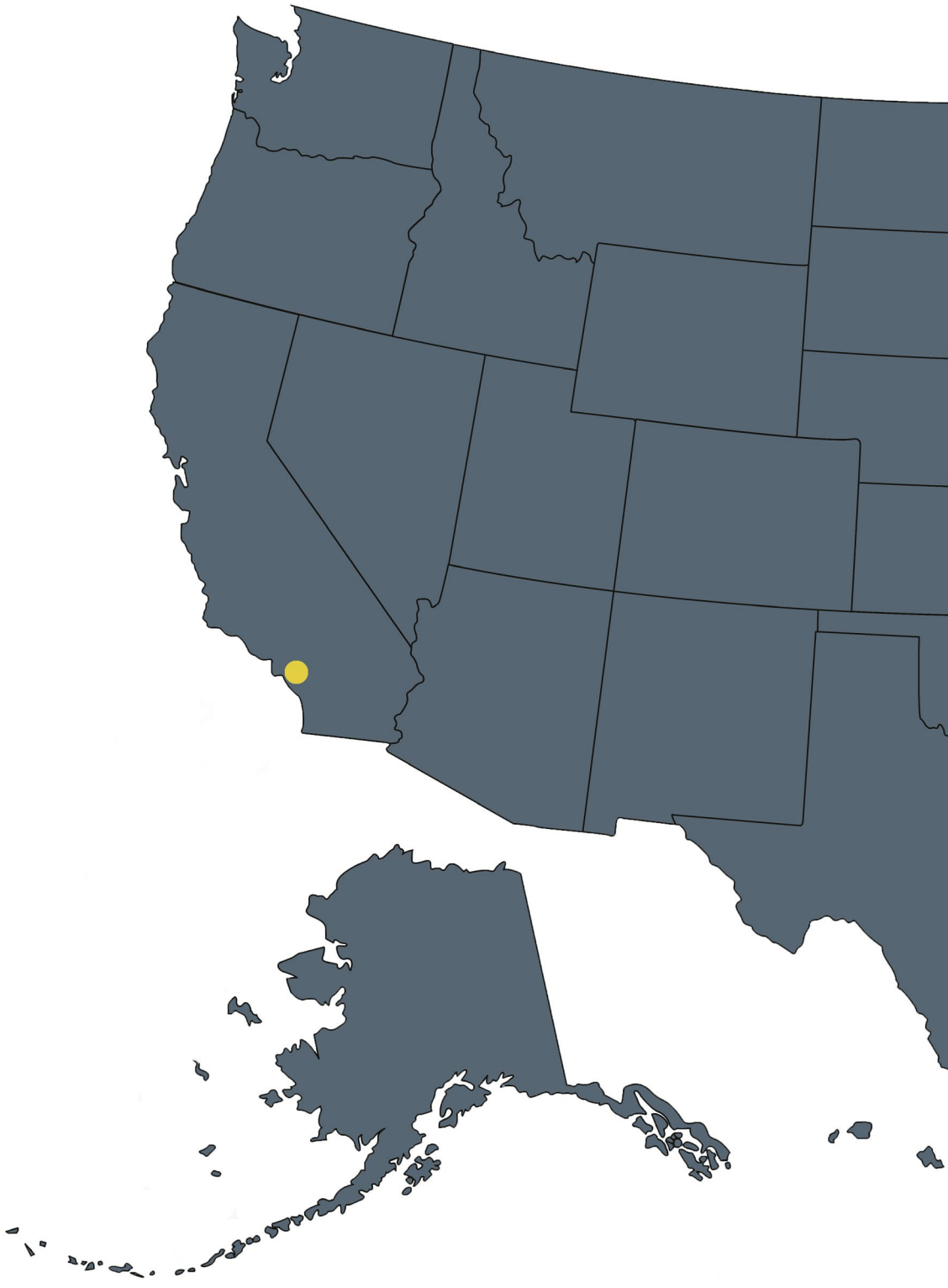
Tectonic has worked for a number of public and private clients providing planning, environmental, engineering, surveying and construction management services. Presented below is a brief representation of those clients.

Altus Power
Amped
ATMS (Turnkey GC) on behalf of Volta
Brightcore Energy
Clean Slate Solar
CVE Solar
Ecogy Energy
KB Racking
NineDot
PowerFlex
PurePower
Quest Renewables
Radiance Solar
Sea Bright Solar
Siemens USA
Smartflower
Solar Energy Solutions
Solar Mounting Solutions, LLC
Sunkeeper Solar
Standard Solar
Tesla
Teracom
UGE
Unirac, Inc.
World Energy
Zuvan Renewables

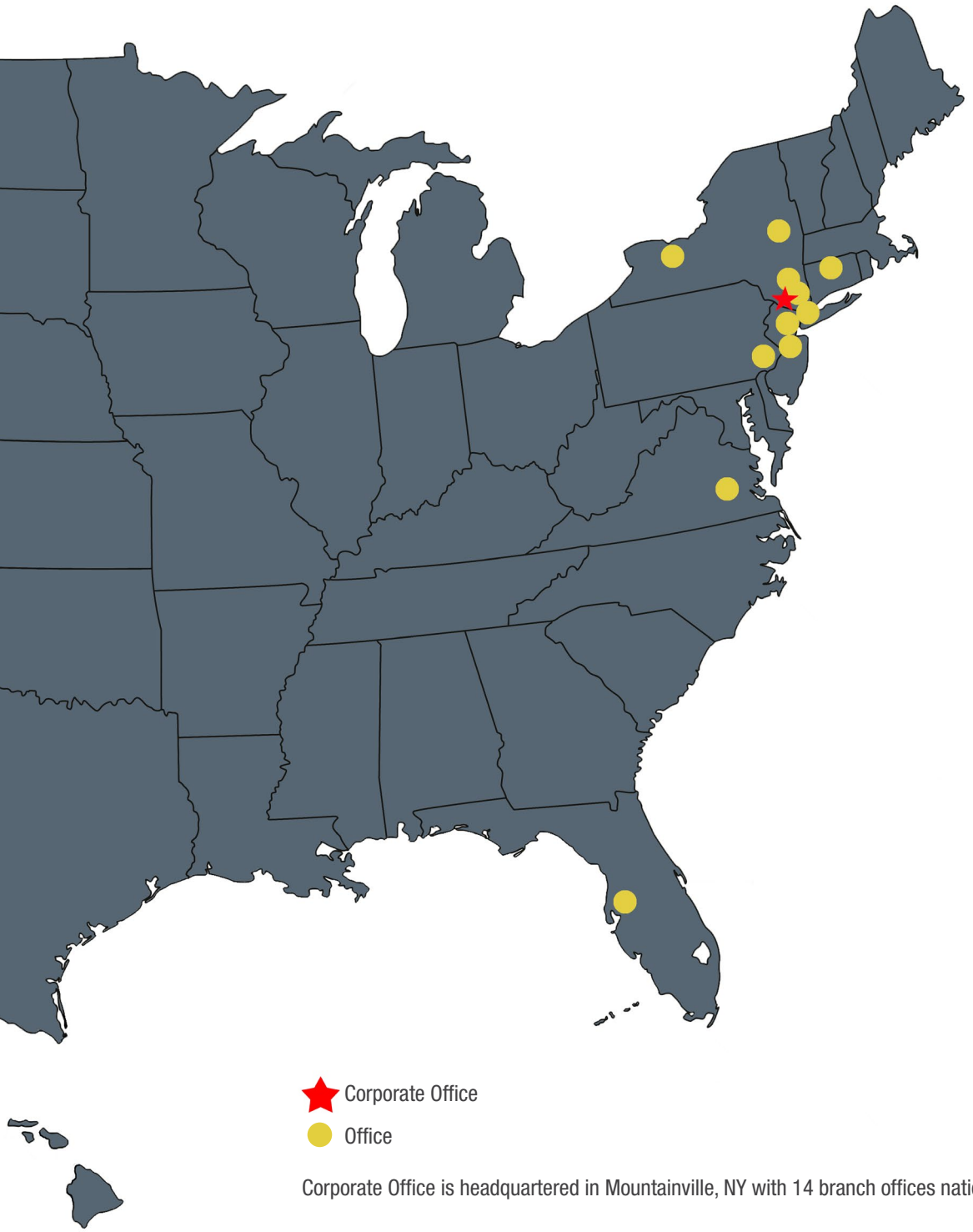
OFFICES

- NEW YORK - (Mountainville, Corporate Office)
- CALIFORNIA - (Newport Beach)
- CONNECTICUT - (Hartford)
- FLORIDA - (Tampa)
- NEW JERSEY - (East Brunswick)
- NEW JERSEY - (Millburn)
- NEW YORK - (Albany)
- NEW YORK - (New York City)
- NEW YORK - (New York City - Lab)
- NEW YORK - (Newburgh)
- NEW YORK - (Newburgh - Lab)
- NEW YORK - (Rochester)
- NEW YORK - (White Plains)
- PENNSYLVANIA - (Philadelphia)
- VIRGINIA - (Richmond)

OFFICE



LOCATIONS



Corporate Office

Office

Corporate Office is headquartered in Mountainville, NY with 14 branch offices nationwide.

Our Story

For the past 39 years, Tectonic has delivered quality professional services in a timely and cost effective manner by pooling its talented staff into project teams that think, act, and perform as one integral unit. By carefully listening and collaborating with its clients, the firm is able to identify the key issues and assure stakeholder objectives are met in the final deliverables. Through innovating and adopting technological advances, the firm is able to generate unique solutions to improve our nation's infrastructure and build energy efficient communities.

As the world evolves, and its challenges grow more complex, Tectonic continues to innovate and provide the practical solutions and exceptional customer service its clients have trusted since its founding.

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Contact Information
Edward Frawley
Executive Vice President
efrawley@tectonicengineering.com
(518) 441-2964

Edward Iamiceli
Managing Director
eiamiceli@tectonicengineering.com
(845) 238-9103

Tectonic

MOUNTAINVILLE, NY (CORPORATE OFFICE)
70 Pleasant Hill Road, PO Box 37
Mountainville, NY, 10953
Phone: 845-534-5959
Fax: 845-534-5999