To Our Prospective Client,

I founded Milhouse Engineering & Construction, Inc. with the goal of building the best engineering company in the country. It was based on the belief that if I hired great people, challenged them to excel, and maintained laser focus on the needs of our clients, success would come; and so it has. Our portfolio of successful projects continues to grow; our family of highly satisfied clients continues to expand, and our staff, now numbering over 150 strong, just gets better and better. One of the things of which I am most proud is our 11th consecutive selection as one of the “101 Best and Brightest Companies to Work For” by The National Association of Business Resources.

As you review this description of our company’s qualifications, please note that I have based our business model on combining the wisdom and experience of senior experts with the energy, vitality, and creativity of young professionals. The resulting powerful project teams have proven they can meet any challenge and produce great projects on schedule and under budget. I am proud of our people, and I know that Milhouse can present a project team that equals or exceeds the capabilities of any team from any competitor, be they new or old, large or small.

We will listen carefully to your needs. We will work tirelessly to see that those needs are fulfilled. We will hold ourselves to the highest standards of integrity and professionalism. We understand the importance of your projects, and we know that we must earn your trust every day.

We look forward to an opportunity to serve you.

Sincerely,

Wilbur C. Milhouse III, P.E.
Milhouse Engineering & Construction, Inc.
President/CEO
About Us

Milhouse is a professional full service engineering and architecture consulting firm with headquarters in downtown Chicago serving public and private sectors. As a multi-disciplinary full-service firm, we offer expertise in Civil, Mechanical, Electrical, Structural, and Construction engineering. To complement our professional engineering capabilities, Milhouse also offers Architectural services.

Milhouse is comprised of a dedicated team of more than 150 talented engineers including 4 LEED-accredited professionals. As an engineering industry leader, the Milhouse team is committed to delivering technical excellence, innovative solutions, and value engineering to foresee and meet client needs.

Industries
Aviation, Facilities, Gas, Power, Transportation, and Water/Wastewater

Recognitions
• 2016 Chicago’s 101 Best & Brightest Companies to Work For, 11 Years in a Row
• 2015 Zweig Group HotFirm Winner
• 2015 ACEC Consultant Exceptional Service Award
• 2015 UIUC Power Moves Business & Entrepreneurship Award
• 2015 March of Dimes Rufus Taylor Award
• 2014 ENR Regional Best Airport/Transit Project
• 2014 March of Dimes Construction Project of The Year
• 2014 ACEC Excellence in Design Award

Certifications
Milhouse is certified with various cities and states as a Minority Business Enterprise (MBE). We are also certified with the U.S. Small Business Administration as a small business concern.

Office Locations

Chicago - HQ
60 E Van Buren Street, Suite 1501
Chicago, IL 60605
312.987.0061

Chicago
1000 E 111th Street, 7th Floor
Chicago, IL 60628
773.264.4855

Indiana
7725 Broadway Avenue, Suite E
Merrillville, IN 46410
219.648.2933

Michigan
2723 South State Street, Suite 150
Ann Arbor, MI 48104
734.794.4747

Maryland
18310 Montgomery Village, Suite 500
Gaithersburg, MD 20879
240.224.7791

Texas
1431 Greenway Drive, Suite 800
Irving, TX 75038
972.815.2337
Professional Services

Civil Engineering
- Site Civil
- Grading & Drainage
- Storm Water Detention Design
- Utilities
- ADA Ramp Design
- GEOTECH Analysis
- Environmental Remediation

Transportation
- Traffic Engineering Studies & Planning
- Roadway Design
- Roadway Drainage
- Utilities & Lighting
- Parking Studies & Parking Lot Design
- Maintenance of Traffic (MOT)

Natural Gas
- Transmission
- Distribution
- Gathering Systems
- Pressure Improvements
- Public Improvements
- Vault Repair/Replacement
- New Business

Mechanical Engineering
- Building HVAC Systems
- Central Plant Systems
- Commissioning & Retro Commissioning
- Renewable Energy
- Sustainable Design
- Condition Assessments & Code Reviews
- Value Engineering Studies
- Fire Suppression
- NFPA Classified Area Designs
- Process Systems
- Building Automation Systems
- Pumping Stations

Electrical Engineering
Facilities
- Low Voltage Power and Controls
- Medium Voltage Power and Controls
- SCADA and Telemetry
- Short Circuit, Load Flow, Arc Flash
- Condition Assessments & Code Reviews
- Fire and Hazardous Gas Alarm Systems
- Exterior and Interior Lighting
- Lightning Protection

Power
- Substation Design
- Protection & Control Design
- Distribution Systems

Structural Engineering
- Construction Engineering for Contractors
- Bridge Design
  (Advanced Typical, Highway, Railroad, Moveables)
- Bridge Condition Assessments
- Bridge Inspections
- Retaining Walls
- Substation Structures & Foundations
- SPCC

Construction Engineering
Pre-Construction
- Construction Documentation Review
- Construction Cost Estimating
- Project Schedule Preparation Program Development
- Project Development

Construction
- Roadways
- Site Civil
- Vertical Construction
- Process Systems
- Control & Telemetry Systems
- Major Equipment
- Low & Medium Voltage Systems
- Materials Testing
- Document Control
- Claims Management

Post Construction
- Operation and Maintenance
- Manuals/Warranties
- As-Builts & Record Drawings
- Punch List & Close-out
- QA/QC Plan(s)

Architecture
- Preliminary & Schematic Design
- Design Development
- Construction Documentation
- Construction Administration
- Feasibility Analysis
- Physical Assessments
- Program Development
- Value Engineering Studies
- Space Planning
- Remodeling
- Furnishings

Clients
- Ameren Corporation
- Atlanta Gas Light Resources
- Chicago Public Schools
- Chicago State University
- City of Chicago
- Department of Aviation
- O’Hare Modernization Program
- Department of Sewers
- Department of Transportation
- Department of Water Management
- ComEd
- DC Water
- DePaul University
- DuPage County Department of Public Works
- Federal Emergency Management Agency (FEMA)
- General Services Administration (GSA)
- Illinois Department of Transportation
- Illinois State Toll and Highway Authority
- Metropolitan Water Reclamation District of Greater Chicago (MWRD)
- Milwaukee Metropolitan Sewer District
- Naval Facilities Engineering Command (NAVFAC)
- Navy Pier
- Nicor Gas
- NIPSCO
- Peoples Gas
- Pepco
- Public Building Commission of Chicago
- Rush University
- Scott Airforce Base
- The University of Chicago
- United States Housing Urban Development (HUD)
- University of Illinois at Chicago
- U.S. Cellular Field
- Washington Suburban Sanitary Commission (WSSC)
- WEC Energy

Partners
- AECOM
- Arcadis
- Benesch
- Black & Veatch Corporation
- Burns & McDonnell Engineering, Inc.
- CH2M Hill
- Cotter Consulting, Inc.
- Crawford Murphy & Tilly, Inc.
- Environmental Design International, Inc.
- ESI International
- EXP, Inc.
- JACOBS Engineering, Inc.
- HDR Engineering, Inc.
- HNTB Corporation
- HOH Group
- Parsons Brinckerhoff
- Parsons Corporation
- Solomon Cordwell Buenz (SCB) Architecture
- US Equities
Power

Milhouse has built a reputation as a client-focused, problem-solving, and innovative engineering firm that provides services throughout the country. A performance-based focus on quality, operational considerations, project phasing, efficiency, flexibility, reliability, constructability, and innovation results in projects tailored to each client’s needs. This approach makes the difference between an acceptable project and an exceptional solution.

Utility providers face regulatory requirements to provide reliable power to their customers. The pressures of changing regulations, advancing technologies, an aging workforce, and the forces of competition have compelled utility companies to develop new approaches to achieve operational excellence in the generation, transmission, and distribution of power.

Milhouse delivers solutions that meet or exceed our clients’ expectations for well-planned and delivered projects. We provide innovative engineering, economic, and planning services to nationwide electric utilities; rural electric distribution cooperatives; investor-owned utilities; municipal utilities; public utility districts; independent power producers; and industrial clients. We are committed to providing our clients with solutions that reduce work content, resulting in lower operational costs and greater efficiency.

Our experience with utility providers includes partnering with other firms to provide the optimum solutions for our clients. We have worked on a variety of projects, including relay protection and RTU/SCADA upgrades; physical plans and sections; grounding; civil design; and structural design. Our services encompass all of the engineering requirements of new substations; however, we pride ourselves on providing innovative and efficient design solutions in challenging environments posed by aging power delivery infrastructure.

Milhouse uses a macro approach to provide solutions that take into account all aspects of facility operations and our clients’ overall business goals and objectives. Our goal is help clients integrate their systems, reduce costs, and improve operations.

Milhouse believes that utility infrastructure is the economic and social backbone of this country. As such, it deserves only the best people who are passionate about their work and understand the importance of getting it right the first time. Our team has been empowering critical infrastructure projects for over 14 years, through comprehensive electrical, mechanical, civil, and structural services.

Whether you need an expansion to an existing substation, a relay upgrade for line protection, or a new substation built from the ground up, Milhouse’s experienced team can make your project come to reality. Our team has completed substation projects in the United States and abroad, ranging from small 4kV distribution substations to large 765kV bulk transmission facilities.
Design Services

Substation Design
- Site layout for grading and draining
- Foundation design
- Major equipment and bus layout design
- Detailed plan and elevation designs
- Design of steel support structures
- Design of grounding systems
- Design of underground cable trench, duct, and conduit systems
- SCADA system design
- Communications / SONET system design
- Protection & Control systems design, including panel layout and wiring diagrams
- Cable schedules / routing designs
- Development of relay settings
- Commissioning support
- Metering systems design
- UPS and battery systems
- Control buildings and HVAC design
- Oil spill containment design
- SPCC development and review
- Preparation of major equipment specifications
- Preparation of bills of material and purchase requisitions
- Application of owner standards and computer designs
- Application of prefabricated buildings

Project Management
- Planning and scheduling
- Budget monitoring and performance evaluation
- Estimates and cash flow
- Information processing
- Document control
- Vendor tracking
- Quality control

Procurement
- Bills of material and computerized procurement
- Factory inspection and witness of equipment testing
- Purchasing and expediting
- Preparation of construction specifications and EPC requests for quotations
- Bid solicitation and evaluation

Construction Assistance
- Project construction management
- Resident engineering and inspection
- Commissioning oversight
- Cutover plans and construction sequence
- Record drawing preparation

Operation
- Preparation of operating procedures
- Training of operating personnel
- Preparation of maintenance procedures

Distribution
- Underground cable replacement
- Pole replacement
- Duct bank package design
- Residential/new business and relocations
- Distribution automation
Highlighted Projects
Schererville Electric Distribution Substation
Schererville, Indiana

The Northern Indiana Public Service Company (NIPSCO) undertook a multi-year program to upgrade its electrical infrastructure. The work included several new or replacement transmission and distribution projects to promote safety, reliability, system modernization, and economic development. Milhouse was retained to provide electrical engineering design services for a switchgear replacement at NIPSCO's Schererville Substation.

Milhouse provided design services to connect existing equipment to new double-ended, in-line switchgear. Connecting to the new switchgear includes new 12kV power cables, in conduit, from both existing 69-12kV transformers and 5 feeder circuits to riser poles outside of the substation.

Work for which Milhouse is responsible includes:
- Design of new 69kV switches on the existing steel structure
- Removal of two (2) 69kv ground switches
- Replacement of the 69kV bus tie, 6957, and 6917 manually-operated load break disconnect switches
- Replacement of 12 existing 69kV station class arresters
- Replacement of existing station lighting with LED yard lights
- Relocation of the existing distribution automation (DA) from the current battery house to a new switchgear building
- Installation of a new communication coaxial cable from the new DA antenna pole to the switchgear's communication cubicle
- Removal of the existing battery house and switchgear building
- Removal of the existing switchgear
- Addition of a new switchgear and its foundation
- Installation of new fiber optic cable to Transformer No. 1 and No. 2 control cabinet
- Replacement of all control and 12kV power cables
- Design of additional ground grid to accommodate a 3,200 sq. ft. substation yard expansion
- Relocation of two (2) 69kV transmission structures to the north of the substation property
- Relocation of a fiber optic cable from the communication cubicle to the new pole to the north

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**Client**
Northern Indiana Public Service Company (NIPSCO)

**Prime**
Milhouse Engineering & Construction, Inc.

**Role**
Electrical Systems Design
Civil Design
Structural Design
Milhouse was retained by Black & Veatch (B&V) to provide electrical engineering, mechanical specialty design, and construction administration services for the $60M design-build-operate combined cycle methane gas turbine generating station at the Blue Plains Advanced Wastewater Treatment Plant (AWTP) in Washington, D.C. The 20-year agreement between DC Water and Pepco provides approximately half of the 27-megawatt (MW) electrical load of the Blue Plains AWTP. The project consisted of a classified area gas blower building; a classified area gas compressor and conditioning building; and a turbine building with classified areas.

Electrical work included design services for the following:
- 13.2 kV to 480V for 4 MVA substations
- Multiple motor control centers
- Power distribution for processes and facilities
- Lighting and grounding systems
- Ductbanks
- Gas alarm and fire alarm systems
- Security systems and classified areas
- Electrical systems three 4.5 MW, combined cycle size gas turbines
- Reduced voltage starting systems for three 450 horsepower (HP), two-pole compressors
- Siloxane treatment systems
- 250 HP gas blower systems
- SCADA interfaces

Milhouse also conducted load flow, short circuit, coordination, arc-flash, and harmonics studies for the facilities. Mechanical work included design of instrument air systems, an auxiliary boiler, water treatment systems, and chemical systems for the co-generation facilities. The work also included support design, steam distribution system guides, and anchors.

The project was performed in several offices nationwide and required extensive coordination among consultants. The design incorporated DC Water’s standards, the latest code updates, and good practice design standards for power generating facilities.
Milhouse worked under a contract with Sargent & Lundy LLC to provide Quality Control/Owner’s Representative services for three Commonwealth Edison (ComEd) substations in Chicago, Illinois: Crawford North, Crawford South, and Crawford East. All projects were part of an Exelon wide program to upgrade critical substations with high-security enhancement features to comply with NERC regulations.

The scope of the security enhancements included:

- Installing new 12-ft.-tall double wall high security fencing
- Installing microwave zone enhanced protection
- Mounting cameras on the fencing and control buildings
- Attaching fibersense motion detection cable to the fencing
- Upgrading site control buildings with high-security locking and video monitoring of all security features
- Installing new fence-mounted conduit and junction boxes
- Installing new electronic sliding and fixed gates with festoon grounding
- Installing a grounding system for the fencing
- Installing below grade electrical duct encasements
- Installing fiber optic connections between control buildings
- Providing 24-hour camera monitoring and fibersense surveillance of the fencing
- Providing oversight inspection
- Managing schedules, requests for information, quality control, and documentation for all security enhancement features and design requirements
- Managing all site contractors’ activities
- Securing the required Exelon and ComEd contract completion dates
Milhouse providing protection and control engineering design services for the addition of a new 765kV circuit breaker at ComEd’s TSS 112 Wilton Center on the L.11215 Inductor.

Milhouse, as a subconsultant to Black & Veatch, is responsible for the design of new protective relaying for the 765kV L.11215 inductor, as well as design of controls for the new 765kV circuit breaker to replace the existing inductor link. The design includes removal of the existing relay panel 121, along with upgrades to inductor protection on a new relay panel 121 entering the control house. Milhouse’s scope includes revisions to the existing 765kV Mimic (Control) panel to incorporate the controls and indication for the new 765kV circuit breaker. Milhouse is also providing one-line diagrams, schematic diagrams, DC schematic diagrams, front views, bills of material (BOMs), wiring diagrams, cable tables, and demolition drawings.

Milhouse was also responsible for wiring and fiber design services for the 765kV circuit breaker. The work includes creating new drawings that incorporate the vendor’s drawings for the new 765kV circuit breaker, as well as providing the required DC schematic diagrams, front views, BOMs, wiring diagrams, and cable tables. All new cables to the circuit breaker are being rerouted via the existing trench way.

In addition, Milhouse designed modifications to the existing SCADA rack to incorporate the connectivity of the new protective relays and circuit breaker control/status points. Additional scope elements include a battery study for the substation, weekly coordination meetings, construction support, and as-built record revisions.
As a multinational corporation with facilities located throughout North America, AT&T must actively work to ensure that its numerous sites are in excellent working condition and current with all safety codes. These efforts are necessary to ensure a safe work environment, and to provide consistent coverage to AT&T’s customers. To support this ongoing effort, Milhouse carried out short circuit, coordination, and arc flash studies to not only ensure that the equipment is properly protected but also to determine the appropriate PPE.

Milhouse was responsible for the following services at AT&T facilities throughout Illinois and Wisconsin:

- Verifying and updating the existing one-line diagrams
- Performing surveys
- Conducting arc flash studies
- Conducting coordination studies
- Conducting short circuit studies
- Affixing equipment-specific Arc Flash Hazard labels to the electrical equipment

With each facility costing on average $15,000-$20,000 for testing and labor, the total estimated project value for 2016 is $430,454. AT&T is expected to identify additional locations at which studies are to be carried out, with the possibility of a multi-year work extension for locations within and outside the current geographical area of work.
Milhouse is providing foundation design and analysis services for three new structures to relocate an existing 69kV transmission line in Rockford, Illinois. The new structures have concrete foundations and consist of steel structures that will be designed in accordance with ComEd's loading and clearance standards.

Milhouse, as a subconsultant to Black & Veatch, was responsible for developing the design of the new structures' foundations and related drawings. Foundations been designed in accordance with client standards. The work involved spotting the new structures within the proposed route provided by the client on plans and profile drawings. Milhouse will use Moment Foundation Analysis and Design (MFAD) software to analyze and design deep foundations for transmission line structures. MFAD uses a four-spring load-deflection model and an ultimate capacity model for the geotechnical analysis and design of laterally-loaded drilled shafts. For direct embedded poles, MFAD uses a two-spring loaded-deflection model.

Milhouse's scope included creating Plan of Work drawings, identifying the necessary data to be acquired for foundation design, and providing a complete package of foundation drawings and loading schedules. Additional scope elements included providing engineering support to the client to secure all required permits and preparing the bill of materials, as well as construction support.
As part of Commonwealth Edison’s GRIP Program, Milhouse provided protection and control engineering design services at TSS 76 Blue Island Substation.

ComEd replaced the 300MVA TR 82 and installed a 345kV circuit breaker and bus side motor operated disconnect on the high side of the transformer. The current MOD on the high side of the transformer and 34kV tertiary capacitor bank has been removed. The 138kV conductor from TR 82 has been upgraded. Two new 138kV 57.6 MVA capacitor banks have been installed. A new 138kV capacitor bank circuit breaker and MOD has been installed. Two new 138kV capacitor bank circuit switchers with pre-insertion inductors have also been installed.

Milhouse was responsible for the design of:

- The protection and controls for all new equipment
- The breaker failure design for all new breakers
- New current transformer contributions to the 345kV L.11614 from the new TR 82 circuit breaker
- Modified tripping and closing controls for L.11614 to include the new TR 82 circuit breaker
- New fiber communication to the new equipment to be used for monitoring
- New bus protection for 138kV Bus 2
- A new communication processor, SEL-2032, that allowed for communication between the new protective relays, transformer, and breakers
- A battery study that determines the impact of the DC load from the new equipment

Client
ComEd

Prime
Black & Veach

Role
Electrical Engineering Design Services
Milhouse served as a partner in the O'Hare Airfield Engineers (OAE) joint venture on the design of Runway 10C-28C and Associated Taxiways at O'Hare International Airport. The project included a new 10,800 foot x 200 foot, Group VI runway and associated taxiways, a new airport service road, 2 new cargo aprons, the extension of the south cargo tunnel under the new runway, and numerous enabling projects. The design and construction of this project included numerous runway/taxiway bid packages; relocation (temporary and permanent) of a major waterway, railroad, and roadway; relocation of 2 cargo facilities, and relocation of Lake O'Hare. Upon completion and commissioning, Runway 10C-28C became O'Hare Airport’s first Group VI runway and its completion allows air traffic to operate primarily in an east-west configuration.

As an OAE JV partner, Milhouse’s scope included all aspects of utility infrastructure associated with the proposed runway, taxiways, and surrounding areas. Utility scope items included: review and validation of existing conditions, identification of proposed conflicts, and design of proposed and relocated infrastructure.

During the course of the project Milhouse was responsible for the design of the following items:
• 45,000 LF of ductbanks (CED, ComEd, FAA, and AT&T)
• 3,000 LF of sanitary sewer main
• 8,500 LF of water main
• 2,600 LF of storm sewer
• 5,000 LF of jacked steel casing
• Cathodic protection, utility structures, and equipment associated with this infrastructure, including: 3 above-ground backflow preventers in heated enclosures and ComEd equipment.

Milhouse was also involved in providing Construction Phase Services for this project by maintaining an on-site presence at the client office for the majority of the project. Services provided during construction included: attendance at weekly coordination meetings, reviewing Contractor shop drawings, and responding to construction requests for information. A significant role provided during Construction Phase Services involved extensive coordination with the Owner, FAA, and project/airport stakeholders to accommodate the dynamic conditions typically encountered at O'Hare Airport. Additionally, during 2 of the bid packages, significant coordination was required with the O'Hare Fuel Committee regarding their concurrent project to relocate the FedEx cargo apron fuel line.
Power Team

Joseph Zurad, PE  
Executive Vice President of Engineering  
Mr. Zurad is an accomplished design engineer with over 40 years of extensive managerial and electrical engineering experience. His experience includes planning, designing, construction and rehabilitation of electrical systems. He has worked on power distribution systems, switchgear, generation interconnects, and an assortment of power system studies.

Robert A. Smith, PE  
Vice President of Electrical Engineering  
Mr. Smith has over 20 years of experience in the Power Delivery Industry as an electrical engineer, engineering manager, project and program manager, client manager, and team builder. Substation engineering experience includes protection and controls; schematic design; wiring diagrams; bills of material; physical layout; and construction coordination for various transmission and distribution substation projects. He is knowledgeable in all areas of substation and grid interconnection design and engineering, as well as commissioning and startup of substations and high-voltage equipment.

Stan-Lee Kaderbek, SE, PE, LEED AP  
Vice President of Civil and Transportation  
Mr. Kaderbek has over 35 years of experience in the design, construction and management of infrastructure and building improvement projects. Mr. Kaderbek’s unique background includes working for a public agency, consultant, large metropolitan city, and a national contractor and brings a perspective from having served as an Owner, Designer, and Builder. Mr. Kaderbek’s career has been principally focused on the design and construction of railroad, transit and highway bridges, both fixed and movable. He has designed and built both steel, pre-cast and cast-in-place concrete structures.

Myesha McClendon, LEED AP  
Electrical Design Section Manager  
Ms. McClendon has over 11 years of diversified experience in electrical engineering and has extensive experience with underground power distribution systems. She is a performance-driven and results-oriented professional with a proven ability to manage all aspects of a project, including design, construction, budget, scheduling, site supervision, and quality assurance/quality control. Her dynamic ability to work with multiple projects teams simultaneously has led to her success in managing multimillion-dollar projects for government and private clients.

Juan Campos, PE  
Power Sector Manager  
Mr. Campos has over 15 years of experience in substation design and construction which includes system protection design and substation physical design, as well as knowledge of power system studies and relay settings. He also has significant experience with substation construction and commissioning of high voltage equipment. Mr. Campos has also developed good Union/Management working relationships.

Craig Turner, PE, PLS  
Civil Design Section Manager  
Mr. Turner has over 20 years of experience in civil engineering and land surveying. This unique combination of experience allows him to be a valued asset to any project in which he is involved. His project experience ranges from airport and highway design to producing plats of surveys.
Power Team

Dan Divane
Director of Construction
Mr. Divane has over 34 years of experience and has an outstanding reputation throughout the electrical industry. Dan has overseen a workforce of more than 250 IBEW electricians, project managers, and support staff on a daily basis. His dedication to his employees translates into quality, integrity, and satisfaction that all customers deserve. Dan is highly involved with, and committed to safety, quality control, and information systems on all projects. Dan maintains long-term relationships with customers and valued business partners to remain trusted and reliable in both the public and private sectors.

Mario Lopez
Senior Electrical Engineer
Mr. Lopez has eight years of experience in designing and reviewing schematics and diagrams for substations. He is well versed in modeling lines, transformers, and other power system components, as well as running coordination studies and checking fault current levels. Mario has produced settings for relays within various protective schemes and confirmed relays in maintenance systems to conform with NERC PRC-005. He has developed protection schemes for transmission and distribution systems. He has significant experience determining settings for microprocessor-based and electromechanical relays. He has developed protection schemes for capacitor banks and transformers, as well as evaluated and calculated high voltage electric line constants.

Salvador Anaya
Senior Electrical Engineer
Mr. Anaya has 14 years of experience in Telecommunications Engineering and Network Design covering central office infrastructure, telemetry, demarcation, switching, and transmission equipment. He is well versed in identifying measures or indicators of system performance and the actions needed to improve or correct a routine, relative to the system goals. He is knowledgeable about Quality Control issues to ensure that engineering standards and database integrity are maintained from Remote Terminal through Ethernet routing, switching, and transport to the headend Central Office and all points between.

Priyan De Silva, PE
Senior Electrical Engineer
Mr. De Silva is a very seasoned electrical engineer with extensive substation and generation experience and a proven track record for success. Priyan De Silva specializes in analysis, design, development, and commissioning of high, medium, and low voltage electrical systems for critical facilities.

Ronald Ciesla
Electrical Designer
Mr. Ciesla is an Electrical Designer with over 10 years of experience performing substation design projects. Ron has extensive experience working with client-specific CAD standards in both AutoCAD and Micro-Station, as well as design experience with protection & control schematics, wiring diagrams, and a variety of physical layout drawings. Ron also has strong knowledge in the use of several document management platforms, such as Meridian & Buzzsaw.

Mona Saffari Tehrani, EIT
Structural Engineer
Ms. Tehrani is a civil and structural engineer with over nine years of related work experience in engineering companies, six of which has been dedicated to the power industry. Mona works well in a team environment to develop innovative approaches in design and construction of critical and challenging substation projects, ranging from 13.8kV to 345kV. The scope of projects includes engineering through construction. Her responsibilities include oversight of the projects to insure their timely delivery according to the defined scope of work and within the allocated budget.
Power Team

Andraya Parrish, EIT
Associate Electrical Engineer
Ms. Andraya Parrish is an Associate Electrical Engineer with 11 years of experience in engineering design, project management and consulting services. She specializes in power engineering, project management and design engineering of power systems for mission critical facilities and data center applications. She has experience working with healthcare, education, aviation and transportation clients. Some of her most recent projects include updating or replacing fire alarm systems, lighting systems, HVAC systems, lightning protection, and power.

Stephen Carniello
Associate Electrical Engineer
Mr. Carniello has four years of experience within the power industry ranging from substation maintenance to substation design. He worked multiple years doing field work for a utility maintenance program for NERC PRC-005 & 006; designed physical prints and P&C schematics for countless pieces of equipment in substations ranging from 345kV to 12kV systems; and has engineered multiple emergency transmission transformer replacements. He has also done field and design work for underground distribution systems.

Joshua Schafer
Associate Electrical Engineer
Mr. Schafer is an Electrical Engineer with five years of experience in the areas of high voltage substation equipment and controls commissioning, testing, and maintenance. Mr. Schafer also has experience in project management, protection and control design, and substation design. He brings extensive experience with substation design projects, construction support, and project management from the Power Delivery Industry. Joshua also has three years of experience in the design and management of projects for the gas and electric utilities of residential and commercial customers.

Andraya Parrish, EIT
Associate Electrical Engineer
Ms. Andraya Parrish is an Associate Electrical Engineer with 11 years of experience in engineering design, project management and consulting services. She specializes in power engineering, project management and design engineering of power systems for mission critical facilities and data center applications. She has experience working with healthcare, education, aviation and transportation clients. Some of her most recent projects include updating or replacing fire alarm systems, lighting systems, HVAC systems, lightning protection, and power.

Brad Holland, P.E.
Associate Electrical Engineer
Mr. Holland has worked in the nuclear generation group for a major utility provider for four years, and spent one year with a municipal co-op in power distribution. Mr. Holland has experience in a variety of areas, including power distribution, substation management, fire protection, protective coordination, motor control center troubleshooting/startup testing, and creating design modification and installation packages.