

FIRM OVERVIEW

Delta Engineers, Architects, & Land Surveyors, P.C. (Delta), an ISO 9001:2008 certified company, was founded in 1976 and has grown from pure civil engineering roots into a multidisciplinary professional services firm that delivers a wide range of engineering, architectural, and survey & mapping services targeted to clients in five (5) primary market sectors: Facilities, Transportation, Specialty Precast, Environmental, and Survey & Mapping. Our mission statement is stated simply: **“We are a seamless extension of our clients’ organizations.”** All members of our staff strive to provide our clients with responsive service and a quality project that embodies their vision.

FACILITIES

Delta’s Facilities Group provides building planning, design, and project management services for all phases of new and renovation facility projects from architectural concept through construction administration. Delta architects and engineers deliver an integrated package of structural, civil, mechanical, electrical, plumbing, fire protection, environmental, and construction administration services that are customized to our clients’ requirements. Projects range from small single system renovations such as a fire protection system upgrade to complex renovations involving design coordination across all design disciplines such as a complete dormitory upgrade.



TRANSPORTATION

Delta’s Transportation Group provides design, analysis, project management, and construction administration services for transportation, safety and quality of life infrastructure projects including bridge, highway, traffic, parking, recreational trail and road usage. Delta transportation engineers deliver a complete portfolio of services for municipal, county, state, federal and private client projects and offer special expertise in the rehabilitation of historic, metal truss, and concrete arch bridges as well as an innovative program that enables municipal and county clients to proactively manage and protect their infrastructure assets.



ENVIRONMENTAL

Delta’s Environmental Group provides asbestos project design, inspection, and monitoring services, lead-based paint hazard assessment, remediation design, and monitoring services, industrial hygiene investigations, hazardous material and water sampling, safety and compliance services, indoor air quality evaluations, and other environmental science and compliance services. The group is staffed by fifteen (15) full-time asbestos-certified professionals and seven (7) full-time lead-based paint specialists as well as environmental science professionals and a project management team with years of collective project design and management experience.



FACILITIES

TRANSPORTATION

ENVIRONMENTAL

SPECIALTY PRECAST

SURVEY & MAPPING

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SPECIALTY PRECAST

Delta's Specialty Precast Group provides structural design and technical consulting engineering services to precast concrete manufacturers throughout the United States that enable them to streamline their project design and approval workflow. Typical precast projects include utility vaults and manholes, box culverts, concrete pipes, retaining and noise walls, arch and prestressed bridges, and complete modular buildings. In addition, Delta offers the DP Vault software package that enables clients to rapidly analyze new precast projects and to develop approved construction drawings from our Engineers of Record. Delta's precast engineers are directly licensed in 45 states and the District of Columbia and able to obtain licenses nationwide and internationally.



SURVEY & MAPPING

Delta's Survey & Mapping Group provides custom survey and mapping services to governmental, institutional, commercial, and residential clients that range from simple boundary line determinations to complex three-dimensional assessments of structures and construction sites. Specialty areas include the integration of laser scanning into engineering design for transportation and facility projects and the highest quality mapping for topographic, ALTA, and construction site surveys. Delta's Surveying and Mapping Group was recently awarded five first place awards at the 2013 New York State Association of Professional Land Surveyors (NYSAPLS) competition and two additional awards at the 2013 HxGN World Wide High Definition Laser Scanner Users Conference Plan Contest.



ISO 9001:2008 CERTIFICATION

Delta received ISO 9001:2008 certification in 2010 and is certified for the development of contract documents for building and transportation projects and the performance of land surveying, construction administration, commissioning, and lead and asbestos abatement. Our Quality Management System is developed and maintained around our key production and system processes. For design, survey, field investigations and construction phase services, we have formalized requirements that specify the type and control of project documents that are consistent with ISO 9001:2008 requirements. All project deliverables are internally reviewed and undergo a thorough final evaluation by senior staff members in the appropriate discipline before delivery to our clients.

Contact

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President & CEO

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DELTA CORPORATE HEADQUARTERS - ENDWELL, NY



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Director

Mr. Harris is Director of Mechanical, Electrical and Plumbing (MEP) Services. Don leads Delta's MEP Group in providing innovative, efficient, and cost-effective designs for a wide range of clients including entertainment, health care, industrial, governmental, higher educational, and residential projects. He has over thirty-seven (37) years of combined experience in mechanical and electrical engineering, facilities design and engineering management, with special expertise in the areas of Combined Heat and Power (CHP) systems, power distribution, sustainable design, HVAC systems, energy conservation, and geothermal heating and cooling technology.

Donald P. Harris

Licenses

Professional Engineer: CT, MA, ME, NH, NJ, NY, PA, RI, VT

Education

Pennsylvania State University, BA, Architectural Engineering, 1976

PROJECT EXPERIENCE

University Plaza Metroplex New Student Housing Development Binghamton, NY

Senior Mechanical Engineer

The Metroplex Center is a new 750-bed, off campus student housing complex under development in Binghamton, NY. This is a design-build project in coordination with Newman Development Group and the estimated scheduled for occupancy in summer of 2015. Delta is providing architectural design and space planning and mechanical, electrical, plumbing, and fire protection design services for this project. The architectural scope of work included full architectural product specifications, overall code review, life safety plans for each level of the building, floor plans, and elevations. *Project Owner: Newman Development Group LLC*

While employed at another firm, Mr. Harris performed work on the following projects:

Massachusetts Gaming Commission Slot Parlor Application Review Massachusetts - Statewide

Project Manager

Mr. Harris completed the design review scoring and reporting for the mechanical, electrical, and plumbing portions of applications for the selection of the first slotparlor in the Commonwealth of Massachusetts. Sustainable design system component review included on-site renewable generation, combined heat and power (CHP), LEED certification, site lighting, mechanical system conceptual design, security plan and emergency response for the public. *Project Owner: Massachusetts Gaming Commission*

The Meadows Casino and Racetrack Washington, PA

Project Manager

Mr. Harris was lead mechanical and electrical designer for the temporary and permanent casino and renovations of the grandstands. The project included a new power plant with boilers, chillers, emergency generators, security and data centers, and utility electric service distribution. The power plant served the temporary casino through underground distribution and was enlarged to serve the permanent casino and grandstand in parallel with additional systems in the new casino. The combined project total budget was \$156,000,000. *Project Owner: The Meadows Casino*

Mohegan Sun Casinos Uncasville, Connecticut

Lead Engineer

Designed and developed site support systems for the casino expansion and development of tribal lands. Design included a new power substation with primary power from two utilities, water, sewer, and storm water management for the casino site and new tribal buildings. MEP design was provided for the new service station, visitor center, office buildings, tribal Fire Department, two parking garages, warehouse, service center, and day care center for the Mohegan Tribe. *Project Owner: Mohegan Tribe*





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Licenses

Professional Engineer: CT, MA, ME, NH, NJ, NY, PA, RI, VT

Education

Pennsylvania State University, BA, Architectural Engineering, 1976

PROJECT EXPERIENCE (continued)

Tioga Downs Casino Owego, NY

Lead Engineer

Mr. Harris provided civil, mechanical, electrical, plumbing, and special system design for the restoration of the racetrack and grandstands as well as creation of a new gaming floor and restaurants. Site design included new electric service for the utility, upgrades to the existing water tank, wells, and water treatment systems; upgrades to the existing septic system and leach beds, track lighting replacement, and storm water management. Interior work included a new race betting system, new security system, coordination of all networking, cabling, emergency power, dedicated cabling for the gaming systems, and MEP for the restaurants.

Project Owner: Tioga Downs

Center Ithaca Combined Heat and Power (CHP) Installation Ithaca, NY

Project Manager

Project manager and lead mechanical and electrical designer for this \$1,800,000 project. The project includes installation of two micro turbines and an absorption chiller with modifications to the existing building HVAC and electrical systems. The project will utilize NYSERDA funding incentives to make this CHP project a success for the owner and model for other CHP systems in the area. *Project Owner: Travis Hyde Properties*

South Hill Business Campus Combined Heat and Power Ithaca, NY

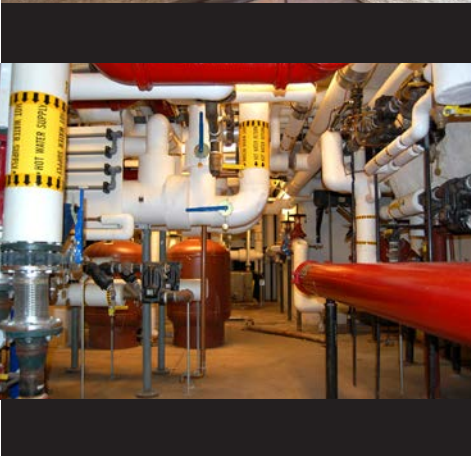
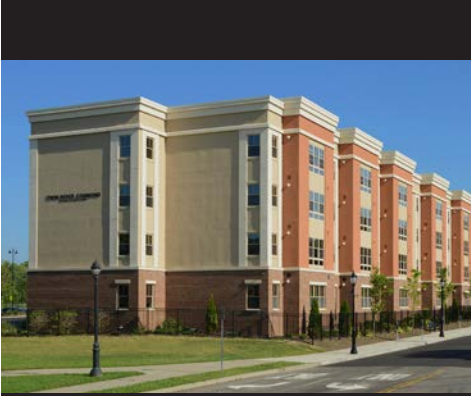
Senior Mechanical and Electrical Design Engineer

Provided building analysis for location and potential loads for a new \$1.1 million CHP system to be installed and integrated into existing building HVAC and power systems. The design included one engine-driven generator with heat recovery and an absorption chiller connected to existing building systems. Preliminary construction cost and load analysis was provided for an Initial Facility Assessment (IFA) that demonstrated the feasibility of the project. *Project Owner: South Hill Business Campus*

Experience with Solar Projects

Mr. Harris is knowledgeable about and has experience with design and operation of solar photovoltaic facilities. He wrote a white paper for the NYS Department of Transportation about the feasibility of photovoltaic systems at airports in New York State. He has experience designing a number of solar photovoltaic projects in the Northeast. At Marcy Correctional Facility in Oneida County, New York, a 100 kw rooftop photovoltaic solar energy system and solar domestic water heating system were installed to reduce the facility's energy needs. At the Sullivan County Bus garage, a 25 kw ground-mounted photovoltaic system was installed. Mr. Harris also developed solar farm plans for Manchester-Boston Regional Airport in New Hampshire and Morristown Airport in New Jersey, although those facilities have not been installed.





FACILITIES SERVICES

MECHANICAL- HVAC, PLUMBING, FIRE PROTECTION, & ELECTRICAL

Delta Engineers, Architects, & Land Surveyors, PC (Delta) provides building planning, design, and project management services for all phases of new and renovation facility projects from architectural concept through construction administration. Delta engineers deliver an integrated package of mechanical, electrical, plumbing, and fire protection design services that are customized to our clients' requirements.

SUSTAINABLE DESIGN

Sustainable design starts from day one in the design of a Delta project. As project concepts are developed, sustainable alternatives are reviewed with the client and solutions that best match project priorities are selected. Delta is proud of our own LEED Gold Corporate Headquarters facility in Endwell, NY that stands as an example of our commitment to sustainability leadership. Current initiatives include **Combined Heat and Power (CHP)** systems that save energy and that reduce greenhouse gas emissions. Delta is also developing smart grid, solar energy, and district heating projects in local communities. Other sustainable systems used in recent projects include rainwater harvesting, daylight harvesting, advanced control systems, and sustainable materials selection or reuse.

MECHANICAL-HVAC, & PLUMBING

We design mechanical and plumbing systems for residential, educational, health care, correctional, industrial, and commercial clients. Our staff has developed new systems and retrofitted all types of HVAC and plumbing systems for facilities such as high rise university dormitories, commercial kitchens, and correctional facilities. Our mechanical and plumbing engineers work closely with our architects and other design disciplines within a Revit®-based BIM system to eliminate potential system conflicts before they become costly change orders.

FIRE PROTECTION

Delta provides state-of-the-art fire protection design services including engineering design for wet and dry preaction fire protection systems including water supply analysis for fire pump and storage tank requirements and alternative systems such as wet chemical and clean agent extinguishing systems. All of our fire protection systems conform strictly to the NFPA and FM Global specifications and standards.

ELECTRICAL

Delta's engineers also provide new and renovation electrical design for a wide range of clients and facilities. Our staff is well-versed with all relevant building codes for projects ranging from educational facilities to municipal buildings. We provide comprehensive and integrated design packages that address all things electrical including overall facility assessment, load balancing, interior lighting, access and security systems, and life cycle cost analysis. In addition to electrical design for facilities, our staff expertise includes primary and secondary power distribution as well as arc flash risk evaluation and mitigation.

TOTAL QUALITY MANAGEMENT

Total Quality Management has always been of highest importance at **Delta**. The goal of delivering the best quality product on every project drove us to develop a comprehensive Quality Management System (QMS) and to pursue formal International Organization for Standardization (ISO) certification. We are certified at the **ISO 9001:2008** level. With our QMS in place, we deliver on our promises and make our products better every day.



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MECHANICAL - HVAC, PLUMBING, FIRE PROTECTION & ELECTRICAL SERVICES

Delta has built a solid reputation for listening to our clients and for delivering responsive service that exceeds expectations. A representative sample of mechanical, HVAC, plumbing, fire protection and electrical services that Delta can deliver is presented below. If you have additional requirements, please contact us for further information.

MECHANICAL - HVAC, & PLUMBING

- Heating (Steam, Hot Water, Air Systems)
- Boilers / Burners (Oil, Gas, Alternate Fuel)
- Central Plant & Utility Distribution
- Ventilation & Indoor Air Quality Systems
- Air Handling and Distribution Systems
- Air Conditioning Systems
- Compressed Air & Gas Distribution Systems
- Plumbing Analysis & Design
- Domestic Hot/Cold Water Design
- Service Water Heating Systems
- Potable Water Distribution Systems
- Chiller Systems & Refrigeration Design
- Laboratory & Process Piping Systems
- Storm and Sanitary Drainage Systems
- Medical Gas & Vacuum Distribution Systems
- Life Safety Systems
- Energy Conservation & Management
- Solar Hot Water
- Rain Water Collection
- Geothermal Heat Pumps

FIRE PROTECTION

- Sprinkler Systems
 - Dry Fire Protection Systems
 - Wet Fire Protection Systems
- Hydraulic Calculations
- Water Supply Analysis
- Fire Pump & Storage Tank Design

- Chemical & Clean Agent Systems
- NFPA Conformance
- Food Preparation
- Data Processing Centers
- Aviation Facilities

ELECTRICAL

- Facility Assessment Studies
- Interior Power Distribution
- Lighting (Exterior, Interior, Site, Security)
- Power Generation (Primary and Standby)
- Fire Alarm System Design
- Performance Systems (Lighting & Sound)
- Voice Communication Systems
- Data and Multimedia Networks
- Power Conditioning & UPS Systems
- Access and Security Systems
- Lightning Protection Systems
- Emergency Power Systems & Generators
- Machine Controls/HMI's/PLC's
- CCTV/CATV Systems
- Medium Voltage Substations
- Short Circuit/Protective Device
- Electrical Coordination Studies
- Load/Phase Balance Analysis
- Power Factor Analysis
- Life Cycle Cost Analysis
- Energy Conservation Audit
- Day Lighting Controls



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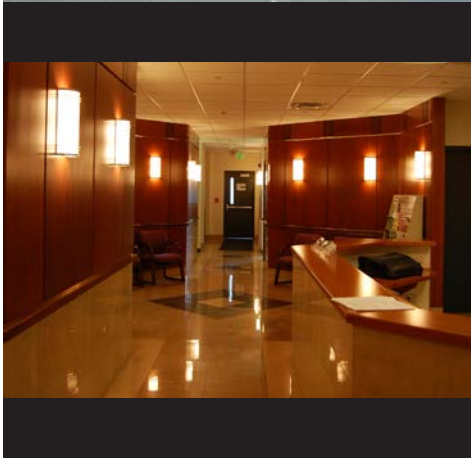


LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN (LEED) EXPERIENCE

Project Name	LEED Certification	Architectural	Mechanical	Plumbing	Electrical	Structural	Civil	Environmental	Construction Administration
Ithaca College Peggy Ryan Williams Center Building Design and Construction Administration	LEED platinum 		X	X	X		X		X
Delta Engineers, Architects, & Land Surveyors' Corporate Office Building	LEED gold 	X	X	X	X	X	X	X	X
CVS Rx Services Chemung Distribution Facility	LEED gold 				X				X
Binghamton University Downtown Academic Center	LEED silver 		X	X	X	X	X		X
Corning Children's Center Design Services	LEED silver 		X	X	X	X	X		X
SUNY IT Oriskany Hall New Dormitory Building Design	LEED silver 		X	X		X	X		X
SUNY Cortland School of Education with Integrated Child Care Center	LEED silver 		X	X	X	X		X	X
Albion Correctional Facility Program Building Addition	LEED certified 				X				X
SUNY Plattsburgh Macdonough Residence Hall Rehabilitation	LEED certified 		X	X	X	X	X		X



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FURTHER RELEVANT EXPERIENCE

Project Name	Architectural	Mechanical	Plumbing	Electrical	Structural	Civil	Environmental	Constr. Admin.
Vernon Downs Hotel Expansion Plan Review	X	X	X	X		X		X
Amphenol Interconnect Facility Design-Build Services	X	X	X	X		X	X	X
Binghamton University College in the Woods Dining Hall Renovation	X	X	X	X			X	X
Binghamton University Innovative Technology Complex Building Design Services		X	X	X	X	X		X
Binghamton University Newing Dining Hall Renovations	X	X	X	X				X
Ella McQueen Residential Center 4th Floor Renovation	X	X	X	X				X
Empire State Plaza Upgrade Corning Tower Elevators				X				X
Ithaca College Job Hall Renovations		X	X	X				X
New York State Electric & Gas SCADA Facility at Kirkwood General Office	X	X	X	X				X
New York State Electric & Gas Elmira Service Center Fuel Conversion		X	X					
SUNY Plattsburgh Hood Hall Dormitory Renovation		X	X	X				X
Tier Orthopedics Medical Building Rehabilitation	X	X	X	X				
Twin River Commons New Dormitory Design		X	X	X				X
University at Albany Livingston and Eastman Tower Elevator Replacements	X			X	X		X	X
University at Albany Rehabilitate Water Tower and Fountains		X	X			X		X
Weitsman Binghamton Facility	X	X	X	X	X		X	X



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Ithaca College Peggy Ryan Williams Center Building Design and Construction Administration

This project involved the design and construction administration of the Ithaca College Peggy Ryan Williams Center (PRWC) Administration Building. The 60,000 square foot building incorporates office and programming space for admissions, registrar, financial aid, executive offices, provost, a forum area, and a three story atrium. As a sub-consultant on this project, Delta provided mechanical, plumbing, fire protection, and electrical systems; as well as security, card access, and fire alarm designs.

The client's commitment to an environmentally-friendly building design allowed the team to utilize many innovative technologies for energy efficiency and resource re-use. A rainwater harvesting system gathers rainwater from the roof and pumps it to the urinals and water closets to significantly reduce annual potable water use by 87%. A geothermal heat pump system

utilizes the earth as a heat sink or a heat source to warm and cool the system, allowing for a 34% energy savings over standard construction. Dedicated outdoor air energy recovery units provide ventilation air to the building. The three-story atrium, with curtain wall windows shaded by the roof overhang, allows the utilization of daylight harvesting methods to conserve energy by automatically dimming the interior lighting when sufficient natural sunlight is available. The team also used natural convection technology to draw cool night air throughout the building to reduce the need for initial cooling of the building each morning.

This project began as an energy-efficient effort, and ended up as a carbon-neutral, sustainable building earning LEED Platinum certification.



Project Owner:
Ithaca College

Project Client:
Holt Architects, PC

Project Contact & Phone #:
**Robert O'Brien Principal
607-273-7600**

Construction Completion Date:
2009

Professional Service Completion Date:
2009

Construction Cost:
\$18,000,000

Delta Project Manager:
Richard R. Sanguinito, PE, LEED AP

2006.179.001





Binghamton University Downtown Academic Center

Binghamton University constructed a new satellite campus located within the heart of Binghamton, New York. This 74,400 square foot, four-story, brick and limestone building houses Binghamton University's College of Community and Public Affairs along with two offices of Broome Community College. In addition to office space, the building also houses eleven (11) state-of-the-art classrooms, conference areas, a combined library and computer pod, student lounge, kitchen, and a coffee kiosk. This was a fast-track multi-phased project - the first of its kind for the State University Construction Fund (SUCF). Delta's scope of work involved structural, mechanical, plumbing, fire protection, and electrical systems.

This project is United States Green Building Council (USGBC) registered and has attained the Leadership in Energy and Environmental Design (LEED) Silver Certification. The LEED features for this project included high-efficiency mechanical equipment and lighting, energy-efficient windows, daylight views, and recycled building materials. Due

to the unique design of the glass atrium, a smoke purge system was designed. Delta provided design services for card access, closed-circuit television (CCTV), emergency and standby power systems, a fire alarm system, controls for the elevator, as well as the gate control for the parking lot. Electrical services were additionally provided for a twenty-four (24) hour fire command center and security room, as well as a data distribution center. Mechanical and electrical services were also provided for the storage building located on the premises. Holt Architects performed the architectural design for this project.

This project received the 2008 ACI Bronze Award for Excellence in Masonry Design and Installation.



Project Owner:
Binghamton University

Project Client:
Holt Architects, PC

Project Contact & Phone #:
**Robert O'Brien Principal
607-273-7600**

Construction Completion Date:
2007

Professional Service Completion Date:
2007

Construction Cost:
\$29,000,000

Delta Project Manager:
Richard R. Sanguinito, PE, LEED AP

2004.213.001

