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ABOUT US

Taylor Wiseman & Taylor (TWT) was founded in 1901 as a civil engineering and land surveying company. TWT has been in business in New Jersey for 117 years, and our Corporate Headquarters is located in Burlington County. Our firm is very experienced in the design requirements and project advancement process of federally-funded capital improvement projects, and assistance of counties and municipalities with transportation improvements throughout New Jersey. TWT has provided planning, design and construction support services to public agencies for the development of numerous roads, bridges, schools and higher education institutions, in addition to athletic, recreation and park facilities, and waterfront development projects. Additionally, we have played a leading role in the design and construction of the commercial centers, residential communities, and other infrastructure that facilitated the rapid and productive growth of commerce and industry in our region.



Our <u>Transportation Engineering Department</u> has broad experience in every phase of design and supervision of construction of county and municipal roads and streets, in addition to state highways, freeways and turnpikes. Among the services which the firm provides are: preliminary studies for alignment, cost and feasibility, right-of-way, topographic and control surveys, earthwork, foundations, pavements, signs, sign structures, lighting, traffic signals, service areas and rest areas, supervision, layout and inspection of all phases of construction and preparation of "as-built" drawings and quantity computations upon the completion of construction and bridge inspection and rating reports.

We have had extensive, proven experience with the design of improvements to existing roadways from the initial study phase (alternatives analysis/concept development) to final design and construction contract inspection and administration, including geometric improvements, widening, safety improvements and rehabilitation. We currently serve as NJDOT's task order consultant for its Transportation Enhancement and Transportation Alternatives Design Assistance Program for its programmed pool of Local Public Agencies (LPA), are currently contracted with the DVRPC and Burlington County to perform engineering services for local roadway improvements throughout South Jersey, and will additionally be performing transportation engineering support services for Cape May County (in 2018).

Our highway and bridge design staff is aided in its work through the use of our in-house computer facilities. All of our recent highway and bridge designs, and the variety of corresponding construction plans, have been prepared with our Computer-Aided Design and Drafting (CADD) system, utilizing Bentley MicroStation and InRoads software, which is interchangeable with AutoCAD software.

TWT's services will be additionally supplemented, where needed, by an accomplished team of specialty subconsultants, whose professional services are summarized within on the following pages, following the listing of TWT's Representative Projects summarized below.

REPRESENTATIVE PROJECTS

DELAWARE RIVER HERITAGE TRAIL: Taylor Wiseman & Taylor prepared design plans for a 1.33-mile segment of the Delaware River Heritage Trail, a visionary 40+ mile greenway linking 24 towns along the Delaware River corridor, from Trenton to Palmyra in New Jersey, and from Morrisville, NJ to Philadelphia's Tacony neighborhood. TWT prepared trail plans for a 1-mile segment bordering the former U.S. Pipe Foundry in Burlington City along River Road (CR 656). The trail utilized a pervious bituminous pavement treatment and interpretative signage to satisfy requirements of the NJDEP Waterfront Development Permit and State Historic Preservation Office, respectively. A proposed stormwater management basin impacting Native American artifacts was able to be eliminated with the implementation of the pervious pavement. Additionally, a separate, but connecting, 1/3-mile trail section in Burlington Township was designed by TWT in concert with the redevelopment of the Hercules brownfield site, now known as Burlington Industrial Park, containing 1.69 million square feet of warehouse space. The overall 12'-wide path was designed in accordance with the AASHTO Guide for Development of Bicycle Facilities.





PETERS BROOK GREENWAY EXTENSION & ROUTE 202/206 PEDESTRIAN BRIDGE: Taylor Wiseman & Taylor provided design assistance to Somerset County for an extension to the Peters Brook Greenway which provided a pedestrian connection across the Route 202/206 corridor. The Peters Brook Greenway is a network of pathways extending over three miles, generally following the course of Peters Brook that will ultimately link the Raritan River in Somerville Borough to the Bridgewater-Raritan High School in Bridgewater Township. This 0.45-mile portion of pathway provides a safe pedestrian connection linking the Clarks Woods recreation complex to the Bridgewater Commons shopping center and the existing Greenway. A key component of the project is the pedestrian bridge over U.S. Routes 202/206 where the highway currently forms a barrier to the linear park system and fragments the Greenway on opposite sides of the highway. The 140-foot long pedestrian bridge spans five lanes of U.S. Routes 202/206 and includes ADA compliant ramps within limited right-of-way. A new cantilever sign structure prior to the bridge was required to replace an overhead sign obscured by the new bridge. The project was



funded through the American Recovery and Reinvestment Act (ARRA) Transportation Enhancement grant program, with the <u>NJDOT Bureau of Local Aid and Economic Development</u> administering the funds. TWT assisted Somerset County in shepherding the project through the Local Aid process. This included review of contract documents to verify compliance with Local Aid provisions, meeting with stakeholders, and providing project management to ensure the project adhered to a very rigid timeframe and met milestone submissions in order to qualify for 100% funding. TWT prepared construction estimates, construction schedules, and secured a NJDOT Highway Occupancy Permit for the bridge and a FHWA Public Interest Finding approval for use of a proprietary lighting maintenance catwalk on the cantilever sign structure specified by NJDOT maintenance forces.



GRAND CENTRAL AVENUE SIDEWALK BEAUTIFICATION PROJECT: Taylor Wiseman & Taylor provided design assistance to Lavallette Borough for a sidewalk beautification project that included reconstructed curb, block paver sidewalk, benches, shade trees, newspaper racks, trash receptacles, and decorative street lamps in the Borough's downtown area. Grand Central Avenue (State Highway 35) has many stores, shops, and restaurants/nightly entertainment establishments located along the roadway and is considered the downtown business district of Lavallette. The Grand Central Avenue Sidewalk Beautification Project reconstructed the deteriorating concrete curb and sidewalk area and added pedestrian amenities to complement the project, which extended for 3 blocks (approximately 850 feet) from Reese Avenue to Bond Avenue along both sides of the roadway. The project was funded through the American Recovery and Reinvestment Act (ARRA) Transportation Enhancement grant program which distributed the funds through the NJDOT Local Aid Process. TWT assisted Lavallette Borough in navigating the Local Aid process to ensure that plans and specifications were prepared in accordance with NJDOT provisions, completed required forms and documentation, and provided project management to ensure that the

expedited project schedule was maintained in order to receive 100% funding. TWT prepared construction estimates, construction schedules, and secured a FHWA Public Interest Finding approval for use of proprietary items for concrete pavers, newspaper racks and pedestrian lights.

RIVER ROAD STREETSCAPE WEST: Taylor Wiseman & Taylor provided design assistance to Fair Haven Borough for a streetscape improvement project. The River Road Streetscape West Project links two economic districts in Fair Haven by replacing the existing, failing, and narrow sidewalk, without handicapped accessibility, with consistent-width sidewalk and crosswalks that are ADA compliant. Pedestrian scale lighting was also installed along the main thoroughfare through the borough. The sidewalk upgrade extends approximately 0.5 miles along both sides of the road from Smith Street east to Fair Haven Road and includes pedestrian amenities such as benches, planters, shade trees, and trash receptacles. The streetscape project links two economic centers of the borough with a multi-modal transportation corridor serving pedestrians, bus and transit riders, and vehicular transportation to promote shopping, use of professional services, and dining. TWT partnered with Fair Haven to secure project funding through the American Recovery and Reinvestment Act (ARRA) Transportation Enhancement grant program, managed by the NJDOT Bureau of Local Aid and Economic Development. TWT reviewed plans and specifications for conformance with Local Aid requirements, prepared construction cost estimate



and schedule, and provided project oversight with bi-weekly status reports to ensure that milestone submissions were met in order to receive 100% funding. TWT also assisted NJDOT staff in preparation of a Categorical Exclusion Document (CED) for environmental impacts in order to qualify for Federal funding.



RELATED SERVICES: SITE/CIVIL ENGINEERING, SURVEYING, ENVIRONMENTAL PERMITTING

SITE / CIVIL ENGINEERING: Taylor Wiseman & Taylor provides Site and Civil Engineering services to a wide variety of clients in both the public and private sectors. Our staff of engineers, planners, and landscape architects are among the best in providing a full range of services. Taylor Wiseman & Taylor provides its clients with an uncompromising level of professional experience in the area of Land Development Engineering, Design, Planning, and Project Management.

Taylor Wiseman & Taylor's Site/Civil Engineering services include:

- Grading and Drainage Design
- Land Planning and Zoning
- Street and Highway Design
- Major and Minor Subdivision Design
- Land Development Feasibility Studies
- Redevelopment & Brownfields Projects
- Stormwater Management
- Parking Studies and Parking Lot Design
- Site Modeling and Digital Mapping
- Site Design
- Landscape Architecture
- Permitting Assistance
- Water System Design
- Wastewater Systems
- Project Management

LAND SURVEYING: Land Surveying was, and continues to be, one of the backbone services that our company provides. TWT has performed tens of thousands of land surveys, and have been responsible for the development and implementation of much of the technology upon which the industry depends today. We are also proud to have been a part of many of the definitive land surveys that have established significant state and federal boundary lines, and to have participated in the retracement of historically significant boundaries including the Mason-Dixon Line and the Lawrence Line. Our key role in the surveying history of our region endows us with a depth of experience and knowledge that brings value to every project we undertake. Taylor Wiseman & Taylor has been actively involved in Global Positioning System (GPS) Surveying since 1990 and we have utilized GPS to support a wide variety of survey projects. We operate seven (7) Reference Base Stations within a Real Time RTK Network (RTN) ranging from Vermont to North Carolina. This network facilitates faster Real Time high precision field surveying. Additionally, we currently utilize existing RTN's in North and South Carolina. Another advantage of an RTN is that it optimizes 3D machine control for earth moving operations, linear mapping and surveying projects.

Our focus on providing the combination of extensive research, precise field measurement and clear mapping, in a timely manner, sets us apart from our competition. We take our role in the industry seriously - as technical experts, reliable business partners, and respected practitioners of our profession.

Given the diversity of projects with which our firm is involved, the scope of our surveying services is exceptionally broad. A general listing of our survey services includes:

- Boundary/ALTA Surveys
- Topographic Surveys
- As-Built Surveys

- Aerial Surveys
- 3D Laser Scanning
- Hydrographic Surveys

- Construction Stakeout
- GIS Data Acquisition
- Wetland Delineation Surveys
- High Order Geodetic Control Surveys
- High-Precision Facility Surveys
- Utility Location Surveys

Subsurface Utility Engineering (SUE): An SUE Program is the branch of engineering that involves managing certain risks associated with utility mapping at appropriate quality levels, utility coordination, utility relocation design and coordination, utility condition assessment, communication of utility data to concerned parties, utility relocation cost estimates, implementation of utility accommodation policies, and utility design. Taylor Wiseman & Taylor is a leading SUE firm in New Jersey, and aides in identifying impacts to underground utilities during design and avoiding unanticipated and costly utility impacts during construction. As necessary, we perform the four quality levels (QL) of SUE as recognized by the American Society of Civil Engineers' (ASCE) Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data, which include: QL-D (utility records research), which is useful primarily for project planning; QL-C (surveying visible utility facilities and correlating the information with QL-D information), which is used primarily on rural projects where utilities are not prevalent, or not too expensive to repair or relocate; QL-B (designating), which involves the application of appropriate surface geophysical methods to determining the existence and the horizontal position of underground utilities, which enables design engineers to make decisions regarding location of storm drainage systems, footers, foundations, etc.; and, QL-A (locating), which provides information for the precise plan and profile mapping via the use of nondestructive exposure (i.e. vacuum excavation) of underground utilities, including type, size, condition, material and other underground features.



ABOUT OUR TEAM SUBCONSULTANTS (listed below in alphabetical order)

Advanced Infrastructure Design, Inc. (AID): Located at 1 Crossroads Drive, Hamilton, New Jersey, AID is a DBE/SBE/WBE certified and research-driven consulting engineering firm that specializes in (in situ) evaluation of the integrity of existing infrastructure and providing design and/or repair strategies to prolong useful life. AID is recognized nationally for the services they provide in pavement and geotechnical engineering and have been involved in investigations and design on projects covering a wide range of geological formations, pavement types and conditions. AID, established in 1998, provides comprehensive engineering services to Federal, State and Local government authorities in addition to private consultants and contractors. Their staff is well qualified and comprised of engineers and researchers with many years of practical experience on roadways, bridges, airports, and ports. AID has provided pavement engineering, bridge deck and substructure evaluation services using Non-Destructive Testing and traditional methods on many roadways and bridges within the tri-state area.

Amy S. Greene Environmental Consultants, Inc. (ASGECI): Located in Flemington, New Jersey, ASGECI is a certified Disadvantaged Business Enterprise (DBE)/ESBE under the NJ Unified Certification Program. Since 1991, ASGECI has provided environmental services on over 280 projects for the NJDOT, including: environmental documentation; wetland delineation; endangered and threatened species studies; environmental permitting; and identification, and design, redesign and monitoring of wetland mitigation plans. ASGECI's professional staff have performed environmental screenings and prepared environmental documents, including NEPA Categorical Exclusion Documents, Environmental Assessments (EAs) and Environmental Impact Statements (EISs), as well as NJ EO 215 EAs and EISs for federally and state and funded transportation projects throughout New Jersey.

Brinckerhoff Environmental Services, Inc. (BES): Located in Manasquan, New Jersey, is a certified DBE/SBE/WBE firm that provides technical services to comply with applicable environmental laws, regulations, practices, and policies. Potential requirements include actions under the New Jersey Department of Environmental Protection (NJDEP), the United States Environmental Protection Agency (USEPA), National Environmental Policy Act (NEPA) and the Resource Conservation and Recovery Act (RCRA) such as remedial planning, design, removal implementation, response and cleanup, solid/hazardous waste determinations, waste removal, transportation and disposal, and investigations.

Malick & Scherer, P.C. (M&S): Located in Hampton, New Jersey, M&S is a certified DBE/ESBE/MBE/SBE firm providing engineering and surveying services throughout the state of New Jersey. Their professional engineers, environmental scientists, inspectors, and professional land surveyors have been providing design services to highway and transit agencies for 20+ years. M&S will be responsible for drainage, stormwater management (SWM), and hydrology & hydraulics (H&H). As a subconsultant, M&S's staff has developed exceptional communications skills and the ability to coordinate design goals with the prime consultant, and with the Local Public Agency (LPA). Having a thorough knowledge of the New Jersey rules & regulations of each region gives M&S the advantage of making good decisions early-on in the design process, avoiding costly delays.

Richard Grubb Associates (RGA): Located in Cranbury, New Jersey, RGA is a full-service, women-owned cultural resource management firm established in 1988. RGA has conducted more than 1,000 transportation and transportation-related projects throughout New Jersey, with over 200 performed either directly for NJDOT or through prime engineering firms. This experience includes cultural resources screenings, Phase I-III archaeological surveys, reconnaissance and intensive-level architectural surveys, and fulfilling mitigation measures, such as Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) documentation and National Register nominations.

SJH Engineering, **P.C.** (**SJH**): A certified SBE/MBE/DBE firm with an office location in Princeton, New Jersey, SJH provides geotechnical engineering including subsurface investigations for foundation design, design of support structures for deep foundations, design of earth support structures for excavation work, slope stability analysis and design of flood retaining structures, engineering analysis and foundation design, and geotechnical investigations for design of hazardous waste containment structures. They have a working relationship with local drilling contractors and testing laboratories to work on projects allowing development of technically comprehensive investigations, while maintaining cost effectiveness. SJH's familiarity with standard and state-of-the-art in-situ and laboratory testing techniques permits our team to solve the complex challenges projects. Furthermore, SJH has the capability to provide geotechnical engineering services comprised of the following: soil boring and testing, foundation design, pavement design, slope stability and retaining walls, and scour analysis.

Stokes Creative Group, Inc. (SCG): SCG is a certified WBE/DBE/SBE firm located in Vincentown, New Jersey. Leading Community Involvement efforts, their job is to anticipate unforeseeable challenges that may emerge and provide fast and effective solutions to meet the project goals and initiatives. SCG's diverse team of specialists are experts at telling stories and creating engaging and effective marketing solutions to make projects "come to life". Through the proper selection of traditional and modern methods, SCG will capture every detail precisely in order to share the critical milestones of projects as they unfold. Over the past 30 years, SCG has built a reputation as a premier public outreach firm working with state transportation agencies and consultants on some of the nation's largest transportation and construction projects - offering unparalleled services in project branding, public and educational outreach, video production, photography, website design and development, graphic design and social media.

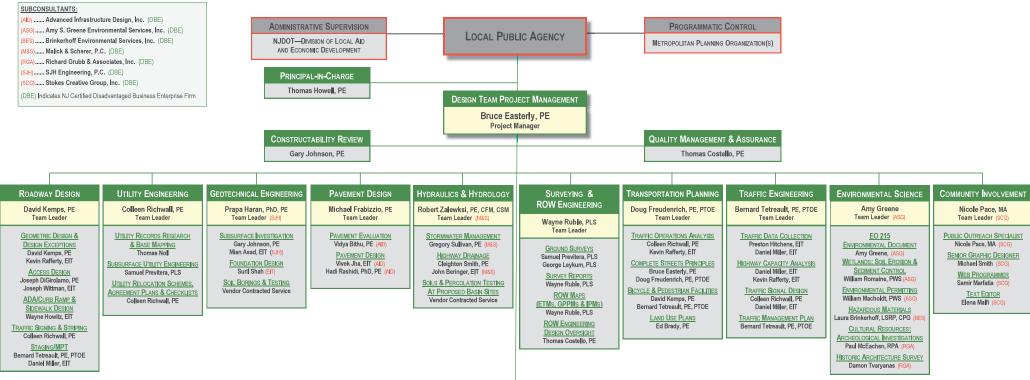




ORGANIZATION CHART



SOLICITATION #173: TRANSPORTATION ALTERNATIVES 2016 DESIGN ASSISTANCE PROGRAM



BRIDGE / RETAINING WALL DESIGN	Ŀ
Gary Johnson, PE Maulik Patel (SJH)	
INSPECTIONS & ASSESSMENTS	TRAFE

RETAINING WALL DESIGN Gary Johnson, PE Maulik Patel (SJH)	HIGHWAY LIGHTING & VISUAL SOFTWARE Dennis Moore, PE
CTIONS & ASSESSMENTS seph DiGirolamo, PE ling Kang, PE (SJH)	TRAFFIC SIGNAL - ELECTRICAL Daniel Miller, EIT Ryan Lee, EIT

STRUCTURAL DESIGN ELECTRICAL ENGINEERING

ITS COORDINATED TRAFFIC SIGNAL SYTEMS Preston Hitchens, EIT BICYCLE/PEDESTRIAN DETECTION
Doug Freudenrich, PE, PTOE LANDSCAPE ARCHITECTURE Cecilia Schmidt, LLA Michelle Lim

JURISDICTIONAL LIMIT MAPS & AGREEMENTS Wayne Howitz, EIT

David Kemps, PE Colleen Richwall, PE

ADDITIONAL SUPPORT

COST ESTIMATES **SPECIFICATIONS**

Dennis Moore, PE

Wavne Howirz, EIT

CONSTRUCTION SCHEDULE Primavera: Microsoft Project David Kemps, PE

Joseph Wittman, EIT

CADD TECHNICIANS MicroStation V8.i Maria Cerasaro Roosevelt Darby

James Gavi

Thomas Noll

CONSTRUCTION ENGINEERING

> LPA Support (If & Where Requested) Bruce Easterly, PE Gary Johnson, PE