



LAN ASSOCIATES

SINCE 1965

ENGINEERING • PLANNING • ARCHITECTURE • SURVEYING, INC.

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March 15, 2016

Township of Union Board of Education
2369 Morris Avenue
Union, NJ 07083

Attention: Mr. Manuel E. Vieira
Interim Board Secretary

Subject: Proposal for Civil Engineering
Services
LAN Ref. #2.8000 - #3246

Dear Mr. Vieira:

In accordance with your Request for Proposal, LAN Associates Engineering, Planning, Architecture, Surveying, Inc. (LAN) is pleased to submit this proposal to provide civil engineering services for the Township of Union Board of Education.

LAN is recognized in the industry as a leader in school design and renovation and has been actively working with school districts throughout New Jersey for the last 50 years. We have completed hundreds of school projects ranging from renovations to new buildings.

We believe we are uniquely qualified to perform civil engineering services for your District in the following ways:

Full-Service Firm: Having all our engineering and architectural service in-house allows for a carefully coordinated set of documents. Coordination starts early in the design process which ensures for faster production of construction documents and lessens issues during construction.

Adherence to Timelines: We have worked on numerous jobs where deadlines were critical to the start of school. In all cases, we were able to work as needed to ensure success for our clients.

Permit and Code Analysis: Having completed projects over the past 50 years, with various permitting requirements has enabled us to have a close working relationship with key individuals at the State of New Jersey Department of Education, Bureau of Facility Planning, School Development Authority, and Department of Community Affairs.

We appreciate having this opportunity to present LAN's qualifications to you and look forward to working with you.

Respectfully submitted,

LAN Associates, Engineering,
Planning, Architecture, Surveying, Inc.

Richard Westbrock, PE,
Director of Civil Engineering

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LIST OF ATTACHMENTS

- 1 Professional Licenses
- 2 Certificate of Employee Information Report
- 3 New Jersey Business Registration Certificate
- 4 Certificates of Insurance (Samples)
- 5 Corporate Organizational Chart
- 6 Resumes of Key Personnel

LAN ASSOCIATES

Firm Profile

LAN Associates, Engineering, Planning, Architecture, Surveying, Inc. is one of the largest full-service architectural and engineering firms in northern New Jersey. Founded in 1965, LAN has been providing its clients with superior professional services for over fifty years. We believe in the importance of high standards of quality for all projects, and our staff. We hire skilled, educated, experienced professionals with a strong work ethic. Our mission is to provide our community with sustainable, inspirational and functional solutions that are designed to not only serve our clients current needs but also transcend future generations. To accomplish our goal we are dedicated to three principles: providing expert services, dedication to our clients, and innovation.

About Us

LAN is an employee owned company which is organized into two major segments- Architecture/ Engineering headed by Kenneth H. Karle, Registered Architect, Professional Engineer, and Professional Planner; and Environmental and Facilities Engineering headed by Ronald Panicucci, Professional Engineer and Professional Planner.

Architecture/ Engineering

As part of the architecture/engineering activities, LAN designs new buildings and innovative renovations and additions for schools, health care facilities, municipalities, government (state) agencies, churches, housing, residential, and commercial clients. Being a multi-disciplined firm, we perform work in areas of civil, structural, mechanical, plumbing, electrical, and elevator engineering along with general architectural services.

Environmental/ Facilities Engineering

Under the environmental and facilities engineering activities, LAN performs services in the areas of environmental, health, and safety compliance consulting, site assessments, air and water pollution control, indoor air quality (IAQ), underground and above-ground tanks, asbestos, groundwater monitoring, solid waste management,

industrial wastewater, sewer rehabilitation and water supply. Surveying services include topographical and elevation surveys, industrial/commercial surveys, and boundary surveys. LAN also performs construction stakeout and subdivisions.

Staffing

Presently, we employ over seventy engineers, architects, intern architects, engineers-in-training, designers, CAD operators, field observers, and secretarial support staff. LAN is responsible for over \$100 million worth of construction per year for federal, state, county and municipal governments, boards of education, housing authorities, Fortune 500 companies, foreign companies, churches, and private clients.

LAN is fully computerized and 100% of design work is performed in CAD. We utilize building information modeling (BIM) software for project design. Our experience has been that using BIM provides better visualization for client stakeholders and the design team ensuring decreased production time. More informed decisions are made earlier and BIM facilitates coordination, reducing time spent correcting conflicts later. In addition, all specs and reports are produced using Microsoft Word, Excel and a number of other software packages.

LAN routinely prepares construction documents and specifications for review by the NJ Department of Community Affairs, NJDEP, HUD, State of New Jersey Department of Education, Port Authority of NY & NJ, local municipalities and state agencies.

Small Business Enterprise (SBE)

LAN's main office is located in Midland Park, New Jersey with a satellite office in Goshen, New York. Despite our overall growth, we continue to remain a Category 3 and 6 Small Business Enterprise (SBE), with the skills and experience necessary to contribute to the success of your project.

Sustainability

LAN has twenty-one (21) in-house LEED accredited professionals and ten (10) LEED accredited professionals specializing in Building Design and Construction (BD+C) who can incorporate "green design" into your project. There are a variety of options and strategies we can employ to contribute to LEED points, as well as helping to reduce operating costs compared to base line equipment selections. LAN can either pursue actual LEED certification or design according to LEED principles without incurring the cost of the certification documentation.

LAN has been incorporating various energy-efficient strategies in all of our projects, whether LEED designed or not, for many years.

HVAC systems account for the greatest share of the energy costs in most building and in all commercial office-type buildings. LEED design incorporates not only energy-efficient HVAC design but also takes into account site selection (for new buildings), efficient building envelope design, efficient use of water, minimizing negative impact on the environment, efficient lighting, material and resources, and indoor environmental quality.

Quality Control

LAN prides itself on providing quality client services. The backbone of the ability to provide those services is our in-house quality assurance program. LAN employees adhere to the procedures established by this plan. Because many of our employees are stockholders and owners, their understanding of the need to provide quality service goes beyond their employment status. It is our commitment to quality services that allows LAN to grow, under controlled conditions, year after year, by gaining new business primarily through referrals. Our staff is trained that the purpose of our business is to satisfy clients. If our clients are satisfied, long-standing relationships that generate repeat business are developed.

The main ingredient of our quality assurance program is the review procedure performed on work products. Standard protocols are in place for the preparation of letters, reports, specifications, drawings, etc. Before LAN issues a work product, it undergoes an internal review process where a senior licensed professional reviews it. The review covers format, attachments, tables, figures, appendices, and so forth. The titles of those responsible for performing the review include the Department Director or a Principal.

LAN'S Qualifications School Clients

As a result of our experience, we have considerable expertise within school construction industry. Our clients benefit from our experience by our commitment to providing quality services while integrating creative design solutions and staying on budget.

LAN has worked with numerous Boards of Education over the past 50 years. Many of these have been with us for over ten (10) years because of our ability to listen to our client's needs, be responsive and obtain results which exceed our client's expectations. Our design philosophy focuses on creating solutions which enhance the educational curriculum, engages students and fosters good learning environments.

Some of our current Board of Education clients include the following school districts:

School District	Grade Level	Length of Service
Ridgewood	K-12	30 years on/off
Jersey City	K-12	16 years on/off
Demarest	K-8	8 years
Alpine	K-8	12 years
Saddle River	K-8	11 years
Cliffside Park	K-12	2 years
Florham Park	K-8	6 years
River Vale	K-8	8 years
Rutherford	K-12	4 years
Manalapan	K-12	1 year
Maywood	K-8	3 years
Montvale	K-8	2 years
Prospect Park	K-8	15 years
Wanaque	K-8	4 years
Passaic	K-12	10 years on/off
Bloomingtondale	K-8	10 years
Passaic Valley HS	9-12	11 years
Northern Highlands HS	9-12	10 years on/off
Cranford	K-12	19 years
Fair Lawn	K-12	15 years
West Milford	K-12	11 years
Paterson	K-12	6 years
Boonton	K-12	3 years
Ramapo/Indian Hills Reg. HS	9-12	3 years
Plainfield	K-12	2 years
Elizabeth	K-12	20 years on/off
Edison	K-12	2 years
East Newark	K-8	1 year

We encourage you to contact our references as listed below:

- Florham Park Board of Education, P.O. Box 39, 71 Ridgedale Avenue, Florham Park, NJ, Contact: Mr. John Csatos, Business Administrator, Telephone #973-822-3880 (Ext. 1005)
- Fair Lawn Board of Education, 37-01 Fair Lawn Avenue, Fair Lawn, NJ, Contact: Mr. Bruce Watson, Superintendent, Telephone #201-794-5500
- Passaic Valley Regional High School District, 170 East Main Street, Little Falls, NJ 07424, Contact: Dr. Viktor Joganow, Superintendent Telephone #973-890-2555
- Cranford Board of Education, 132 Thomas Street, Cranford, NJ, Contact: Mr. Robert Carfagno, Business Administrator/Board Secretary, Telephone #908-709-6210
- Northern Highlands Regional High School District, 298 Hillside Avenue, Allendale, NJ 07401, Contact: Mr. James Davis, Business Administrator/ Board Secretary, Telephone #201-327-8700 (Ext. 204).
- Plainfield Board of Education, 1200 Myrtle Avenue, Plainfield, NJ, Contact: Mr. Gary Ottmann; Telephone #908-731-4224
- Bloomingtondale Board of Education, 225 Glenwild Avenue, Bloomingtondale, NJ 07403, Contact: Mr. George Hagl, Business Administrator/Board Secretary; Telephone #973-838-0555

PAST PERFORMANCE

LAN has not been involved with any judgements within the last three (3) years and no bankruptcy or organizational proceedings within the last ten (10) years.

CONFLICT OF INTEREST

LAN has no immediate relatives whom are Board employees or elected officials of the Board.

PROJECT APPROACH

The following outlines the typical steps undertaken for projects:

Task 1: Liaison with Board of Education

As soon as the job assignment is directed to LAN, we will immediately schedule a meeting with the Township of Union Board of Education to visit the project site and discuss the scope of work. In advance of this meeting, we would normally prepare and coordinate an agenda with the client so that no time is wasted in developing the requirements of the project. We would obtain basic information such as surveys showing existing conditions, as-built drawings, permitting requirements, site-specific project parameters, funding and other basic information required to develop the program.

During this kick-off meeting, we also discuss budget, permitting, historic significance, time schedule and any other important parameters and directions that the agency may have. We will also establish chains of command and communication for the implementation of the project. Field memos document all of our meetings and field observation trips. Photographs will be taken of existing conditions and project progress, as necessary. Copies will be sent to those attending the meeting and any other people that the School District so authorizes.

We would borrow the necessary documents from the Board of Education, reproduce same and return originals. Where practical, we will take site measurements and collect field data, which may be useful or expedite the project pending your approval.

Based on this meeting and depending on the project scope of work, we would either proceed on an hourly basis or prepare a formal proposal with cost breakdown of engineering fees and allowances.

Task 2: Preliminary Design

If the proposal is acceptable to the Township of Union Board of Education, and if the project requires drawings and specifications, we will then proceed with additional site visits as required. Preliminary design would begin from the information gleaned and evaluated under the Task 1 Liaison with Board of Education and follow-up site visits as required. All of our project drawings are prepared in AutoCAD format.

Fieldwork will be conducted to verify the site conditions; measurements will be taken; and existing as-built drawings confirmed. Follow-up meetings may be necessary during the preliminary phases to get input from the client as the project develops.

At the end of the Task 2 Preliminary Design, we will provide the Board of Education with preliminary drawings and outline specifications for review. With authorization from the Township of Union Board of Education, we will develop budgetary construction cost estimates.

During the preliminary design phases, we will identify what permitting is required from local municipalities, county agencies, health departments and soil conservation districts, and State agencies. We shall prepare the permit application documentation and, if appropriate, meet with the reviewing agencies to address the project specific concerns.

We would expect a final meeting with the Township of Union Board of Education under the preliminary design phase so that we can proceed forward with the design drawings and specifications under Task 3.

We would submit the project to the NJ Department of Education (DOE) for their approval. We will prepare the DOE application and necessary drawings.

If the end product were a study, investigative report or scope of work, we would prepare a draft under the preliminary phases for review by the Township of Union Board of Education after which a final report would be issued.

Task 2 Continued...

Environmental concerns identified during the design or construction phases shall be brought to the attention of the Township of Union Board of Education. The situation shall be addressed on a case-by-case basis, with appropriate action in accordance with applicable laws.

Task 3: Final Drawings and Specifications

Based on the approval of the Township of Union Board of Education, LAN will proceed with final drawings and specifications. The drawings are in CAD format normally on 30" x 42" or 24" x 36" sheets or for small projects on 8 1/2" x 11" which drawings would be inserted into the specification book.

Once the drawings and specifications are complete, we will schedule a meeting with you to review same prior to final submittal. At this time, if there were any permits required, the finalized drawings and specifications would be made attachments to the permit applications.

For investigating or studies, we will provide you with reports signed and sealed by a licensed professional, complete with analysis, summaries, and recommendations. If appropriate, the report will include memos, photographs, cost estimates, sketches or schematic drawings.

Task 4: Bidding & Award of Contract

We are available to conduct pre-bid conferences and site walk-through. We shall respond to potential contractor questions of a technical nature. We will also provide you copies of the drawings and plans necessary for bidding or at your option provide mylar reproducibles of the drawings.

We can check references of the various contractors who may be the lower bidders. We will attend the bid opening, if requested by you, and evaluate the bids and make a recommendation for contract award.

Task 5: Construction Observation/ Contract Administration

Normally in our office on projects, our project manager would be responsible for the construction observation services, inasmuch, during construction, these projects should move quickly. To support the project manager, there are one or two of our construction observers who would become familiar with the project and observe the project. Basically, under construction observation, the various sub-tasks involved are:

1. LAN will chair a pre-construction meeting with the contractor and the Board of Education to establish project construction criteria such as time schedule, payment schedule, shop drawing schedule, milestone events of construction, construction observation, construction accepted practice, communications, code inspections, processing of monthly vouchers, project completion, certificate of completion, punch list and project closeout.
2. LAN will chair the preconstruction meeting, and document and distribute the minutes. We will proceed with construction observation services when authorized by your office.

LAN, as our standard practice, documents all our site visits with a memorandum of the project progress and site conditions. The progress is also documented with captioned photographs, copies of which are provided to you. We shall follow up on the correction of deficient or sub-standard work by the contractor.

3. We will prepare a punch list at substantial completion of the project.
4. At the completion of the construction project, LAN will review operation manuals and as-builts and provide copies to you.

Should there be any testing requirements such as asphalt, concrete, soils compaction, etc., LAN will subcontract these services to qualified laboratories. Fees for this subcontractor work would be identified separately or as an allowance.

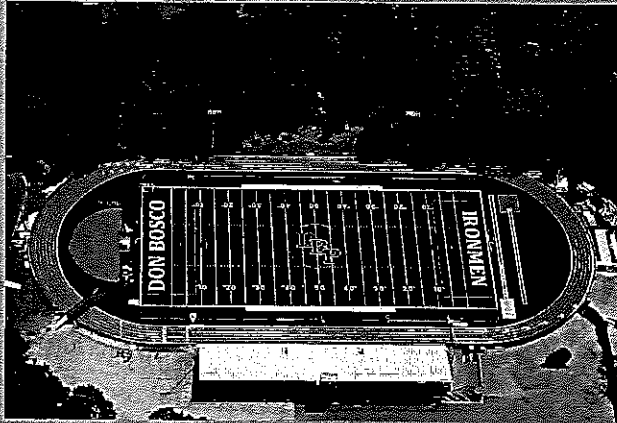
WHY LAN?

Case Studies

CASE STUDY 1

Don Bosco Prep School Football Field Ramsey, New Jersey

Contact: Father Jack Janko
T 201-327-8003



LAN worked in partnership with the School Administrative Staff, maintenance contractor, and FieldTurf to resurface the stadium field surface and synthetic track.

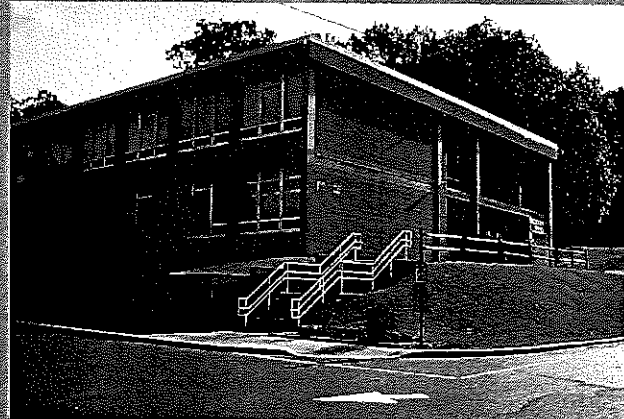
Essential to the project was the timing of the design and construction phases of the project inasmuch as the stadium is extensively used for school and summer programs.

In reviewing the subbase material after the surface rug was removed, it was determined that significant improvements to the perimeter drainage system was need and in fact was removed and replaced in its entirety.

CASE STUDY 2

Dogwood Hill Elementary School Oakland, New Jersey

Contact: Mr. Glenn Clark
T 201-337-5822



LAN was contracted to improve pedestrian circulation from the entry drive to the school's entrance. As such, the current configuration was flipped, relocating the sidewalk to the western side of the driveway. This allowed pedestrians to cross at the rear access drive rather than through the main drop-off area. In addition, the curb line was widened to gain a queuing lane. A French drain was developed to collect and direct surface and groundwater flow to the existing catch basin. New guardrails were installed due to sloped topography. Construction was started and completed in the summer of 2011.

CASE STUDY 3

**James Monroe Elementary,
Edison, New Jersey**

Contact: Mr. Daniel Michaud,
Business Administrator; T. 732-452-4965



LAN was selected out of a highly competitive field of 21 architectural firms, as the architect and engineer for the James Monroe Elementary School in Edison, NJ. One of the reasons LAN was chosen to lead this effort was because of our full-service capabilities. The new two-story, 67,000 SF school will be constructed on the site of the former school which was destroyed in a fire last March. Since then, students have occupied classrooms at Middlesex County College and now at St. Cecilia's in Iselin. Returning students back to their own school is a top priority for the District and LAN.

The new educational facility is designed to provide modern classrooms filled with daylight and will utilize LED light fixtures with daylight harvesting and motion sensors to provide energy efficiency. This facility will provide specialized instructional spaces that were missing from the original structure. In addition, the school will have a community wing for after-school programs and the surrounding neighborhood. In terms of site placement, the footprint of the school is similar to that of the former facility, in order to take advantage of existing utility connections, site improvements, and lessen the impact on its neighbors. However, various deficiencies in the overall site layout will be addressed, including lack of parking, emergency access, and deficient drainage.

CASE STUDY 4

**Hawes Elementary,
Ridgewood, New Jersey**

Contact: Dr. Alfredo Aguilar
Business Administrator; T. 201-670-2700



LAN Associates designed a 9,000 sf classroom addition for the Hawes Elementary School. The orientation and footprint of the existing building on the site predicated the placement of the classroom addition to be constructed on the south end of the school property. The building design focused on providing ample daylight to minimize reliance on artificial lighting and reduce energy consumption. Sufficient daylight is proven to create an environment that schoolchildren are able to better concentrate and maintain focus. The window configuration along the south facing elevation was coordinated with a unique ceiling design to provide ample daylight. A louvered horizontal sunshade was affixed to the exterior window mullion of the (4) oversized classroom windows to minimize glare conditions. Fixed and operable windows were intermingled throughout each classroom to provide the occupants with flexibility to adjust light & ventilation as needed throughout the day. A glazed curtain-wall was constructed along the perimeter of an interior courtyard providing abundant natural daylight into the corridor spaces.

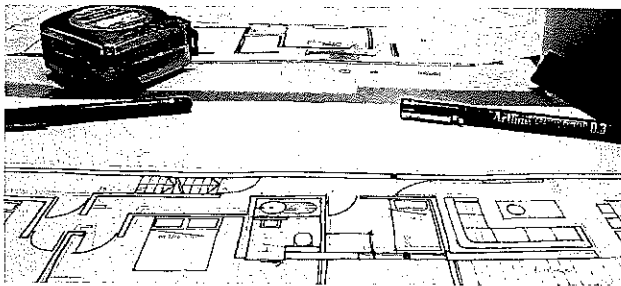
MEET THE TEAM

LAN has a staff of over seventy employees with a wide range of backgrounds and capabilities. Our team of professionals offers the following credentials to your projects:

- Thirteen (13) Professional Engineers (PEs)
- Nine (9) Registered Architects (RAs)
- Four (4) Professional Planners (PPs)
- Two (2) Professional Land Surveyors (PLSs)
- Three (3) Certified Municipal Engineers (CMEs)
- Two (2) NJDEP Licensed Site Remediation Professional (LSRPs)
- Five (5) NJDEP-Certified UST Personnel
- One (1) Certified Professional Geologist (CPG)
- One (1) Certified Industrial Hygienist (CIH)
- Four (4) AHERA Building Inspectors
- One (1) AHERA Management Planner
- One (1) AHERA Supervisor/Contractor
- One (1) AHERA Project Designer
- One (1) Certified Hazardous Materials Manager (CHMM)
- Four (4) Wetlands Professionals
- Twenty-One (21) LEED Accredited Professionals

Our depth of experience allows us to provide turn-key services to Ocean County without the need for sub-contractors. By offering this variety of services with in-house capabilities, LAN is able to better control project schedules and can be more responsive to its client's needs. This is particularly important when reacting to the varying needs of task order work.

An Organizational Chart and Resumes of key personnel are attached herein.



DESIGN TEAM

Principal in Charge: Mr. Kenneth H. Karle, RA, PP, PE, LEED AP, President

A further expansion of staff as required on the project is as follows:

Description	Project Manager	Design Team & CAD Production
Civil Engineering	Richard Wostbrock, PE, LEED AP	Erik Boe, PE, LEED AP Christopher Guddemi, PLS, LEED AP BD+C

CIVIL ENGINEERING:

LAN's civil engineering group provides services to homeowners, commercial and property managers, municipal, county and state agencies in New York and New Jersey, and other design professionals. LAN's experience includes performing freshwater wetlands and stream encroachment mapping and permitting for Ramapo College of New Jersey (RCNJ). RCNJ is located on a 300-acre campus in Mahwah, New Jersey, and has an enrollment of over 5,500 students. The work performed relative to this category included wetlands identification and delineation, and the preparation of stream encroachment permit applications. LAN also prepared design drawings and permit applications necessary to extend water and sewer service to the new dormitory facilities.

Additionally, LAN has been providing architectural and engineering services to the Christian Health Care Center in Wyckoff, New Jersey for approximately 20 years. Currently, we are serving as the engineers of record for a proposed 258 unit condominium development on a 19 acre section of the overall campus. As part of the site development and design of the wooded area, LAN performed the field surveys to identify the wetland boundaries and prepare the Letter of Interpretation application including survey drawings, reports and supporting documentation. The application led to LAN providing expert analysis in determining the wetland areas versus State Open Water boundaries.

Design Team Continued...

LAN has also been providing a range of services under a task order contract with the NJDEP Division of Parks and Forestry since 1995, and has worked on over 170 projects from High Point to Cape May. Tasks have included drainage designs, stormwater permitting, and wetlands identification and delineation.

Our civil engineering services include:

- Engineering Feasibility Analysis
- Zoning Analysis
- Site Engineering
- Parking Lot Layout, Design & Maintenance
- Residential Plot Plan
- Subdivisions
- Planning and Zoning Board Testimony
- Soil Movement
- Utility Engineering
- Trenchless Sewer Rehabilitation
- Treatment Works Approvals
- Septic Design & Evaluation
- Water Distribution
- Retaining Wall Design
- Natural Turf Fields
- Artificial Turf Fields
- Swimming Pools
- Soil Erosion & Sediment Control
- Stormwater Pollution Prevention Plans Inspection
- Hydrologic & Hydraulic Studies/Reports
- Wetlands
- Stream Encroachment

PROJECT BUDGET

Introduction

LAN will provide cost estimating, cost-estimating review/oversight, and cost control services for all phases of projects identified by the Township of Union School District. LAN recognizes the complex and critical process of developing an accurate estimate at each phase of the design. Phase I being the most critical as it sets the parameters and scope for the entire project; LAN will work with the Township of Union Board of Education from the preliminary design phase through to the construction services phase with a thorough understanding of the design and decision process. Where the design is not fully developed, the cost estimate will be built by historic numbers of similar capital improvement projects completed by the firm.

As a multi-disciplined firm, LAN's Construction Administration Department will provide Cost Estimating/Budget Control oversight, and independent review services. LAN estimators are experienced in all disciplines and have hands-on knowledge in the field of current methodology and practices. LAN will review project plans and specifications to isolate construction activities or systems that show unexpectedly large costs per square foot, procurement time, or construction time. Alternatives and an estimate of their impacts on project schedule, cost, and quality will then be proposed.

Cost Estimating Methodology

Initial cost estimates will be more general in scope and will rely on cost per square foot numbers with high contingency percentages. As the project and details are developed those general estimates will turn into line item estimates grouped together under standard Construction Specifications Institute (CSI) divisions with a summary sheet showing an overall trade number. Labor and material pricing strategy will be based on current market prices and trends, as well, as the location of the project. Local labor rates will be researched and vendors will be contacted to establish current materials prices are on track with current industry trends. These numbers

will be checked with LAN's in-office data base of material prices regularly updated to reflect changes in prices. The labor component of the cost will be based on construction crew productivity, prevailing labor rates, and equipment costs.

Once the costs have been established, LAN will apply mark-ups to reach the total project cost. Mark-ups will include General Construction contingencies. Also, included is an escalation factor to predict the project cost at the time of construction.

Budget Control

The LAN Team will initiate an ongoing process of cost and budget control, and will work closely with the Township of Union School District to achieve clear construction cost data for each phase of the design process. Our approach is proactive and focuses on continuous monitoring and corrective action. Corrective action in the early phases of the project results in the most cost effective and least disruptive approach to the design process. This effort includes:

- Developing a baseline estimate as soon as possible.
- Conforming the cost estimate baseline to Township of Union School District budget and developing action phasing plans for reconciliation where variances occur.
- Developing a list of value added and potential cost-saving options, including material alternatives and construction phasing scenarios.
- Identifying 'Scope Creep' during subsequent phases of the project where it is not obvious that additional scope is being added to the project.

By providing cost estimates at every phase during the process, we enable clients and project teams to make informed decisions so that benefits are maximized by directly linking client objectives to proposed design solutions. Our firm's Cost Management services are tailored towards proactively engaging all of a project's stakeholders in the process of defining and achieving value.

SCHEDULE

Schedule Development

LAN will work with the Township of Union School District to establish a Project Baseline Schedule. Our Project Manager will work with the Township of Union School District to provide the planning, work breakdown structure, and schedule logic required to develop the estimated time durations for each activity. A CPM schedule will be prepared that illustrates the shortest time in which the project can be completed, identify those activities which cannot slip, and illustrate the potential slippage (float) available for those activities that are not critical.

- Providing "cloud" space for the project where all A/E design team members can collaborate and share files with client stakeholders.
- Listening- the design team understands how to listen to clients so that work is done once and done correctly, avoiding time-consuming re-work.
- Coordinating the work of LAN and sub-consultant professionals by scheduling regular design team meetings where issues are raised and resolved.

LAN has most of its professionals in-house, however those sub consultants we do use have been working with LAN for many years on a number of projects. Our successful working relationships prepares our team to be able to mobilize immediately and be effective.

Schedule Control

LAN's schedule control is based upon predicting rather than reacting to problems. The approach is both simple and comprehensive and impacts all aspects of project implementation. Once due dates are determined, we work backwards to array and sequence all the predecessor activities that must be accomplished to meet the due dates. All team members are informed of what they need to do and when they need to do it. The Project Master Schedule will be updated to reflect actual progress on a regular basis to determine compliance with the Baseline. Updates will include input of actual dates, remaining durations, percent's complete, and actual costs/resource usage. Comparisons will be made with variances highlighted. Recommendations will be provided to client stakeholders regarding project status, including the status of key milestones and the critical path.

SUMMATION

Commitment of Our Team

Although difficult to state in a proposal, LAN prides itself on being realistic and understanding of our clients' needs. We believe in realistic design and project approaches. We stress problem-solving and moving forward on projects to complete them in the best possible manner to meet your needs.

Every effort has been made to address the requirements of the RFP and to present our staffing, qualifications, experience and our approach. We offer the following:

Methods for Meeting Deliverable Milestones

In order for this project to be executed successfully, it is imperative that the milestones of all phases are met. In order to ensure these dates are adhered to LAN will abide by the following methodology.

- Using Building Information Modeling (BIM) software for project design. Our experience has been that BIM allows for better coordination earlier in the design process which reduces the time later correcting conflicts.
- A multi-disciplined employee-owned company with experience in most disciplines of engineering and architecture.
- Management and staff who are client-oriented with an objective to complete the project within scope, time schedule, and budget.
- A stable, qualified, diversified and highly motivated staff.