



APEX

ENGINEERING, INC.

Statement of Qualifications

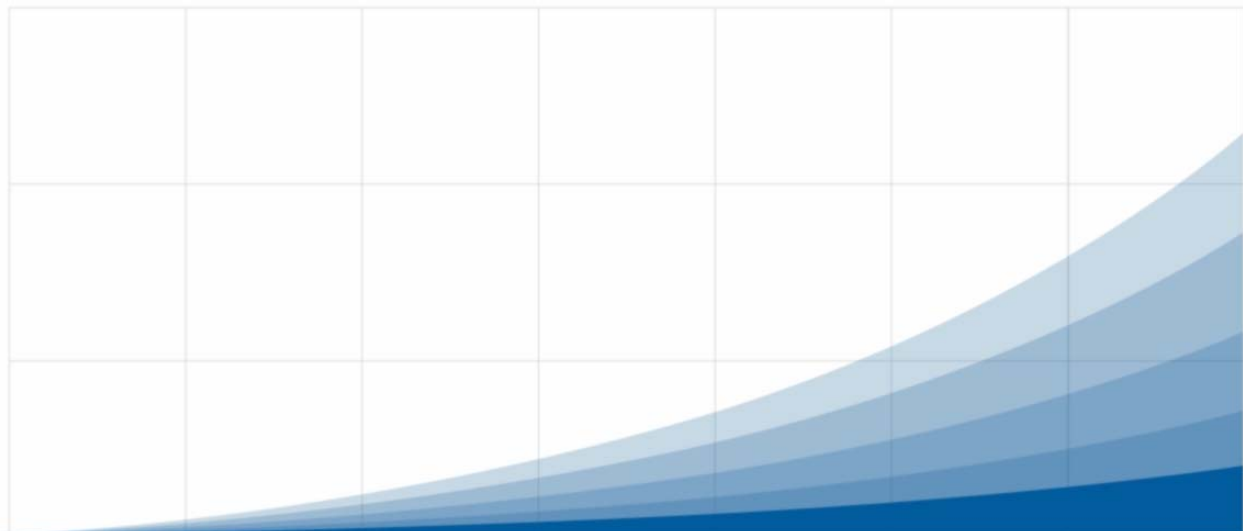
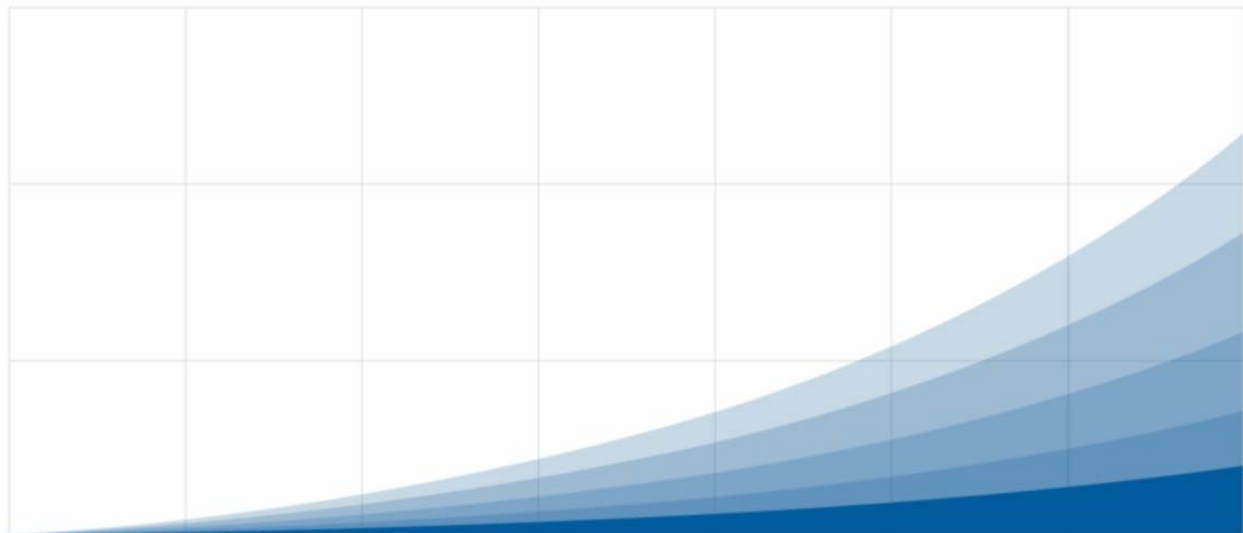


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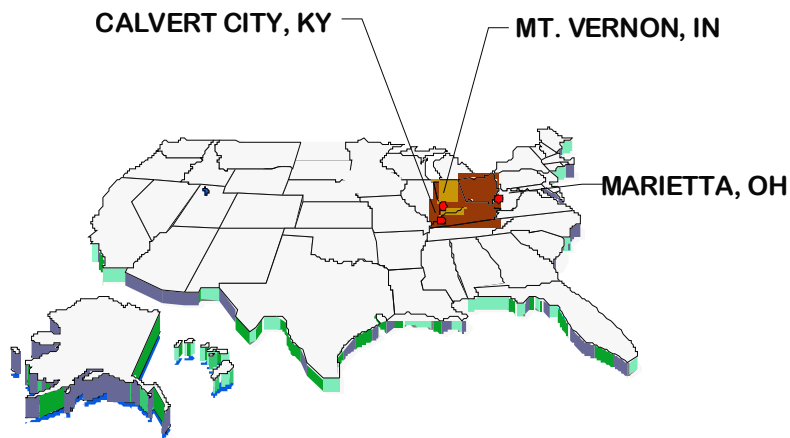
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1.0 INTRODUCTION

Apex Engineering, Incorporated, a full service engineering firm, provides consulting engineering services to diverse segments of industry. Our clients include major producers of specialty chemicals, polymers, nonferrous metals, electric power generation, rubber and elastomer products, process equipment manufacturers and pulp and paper products. First established in Calvert City, Kentucky in 1974, Apex now has additional permanent offices in Mt. Vernon, Indiana, and Marietta, Ohio.



Today Apex Engineering is a multi-disciplined firm, providing a wide range of services to U.S and International clients. These services include:

- Project Engineering
- Automation
- Process Design
- Cost Estimation
- Project Management
- Control System Design
- Construction Management
- Software Development
- Purchasing Support

Apex Engineering's continued success is attributed to long-term, confidential relationships we maintain with our clients. This is achieved through quality management, fast response and engineering excellence. From small engineering tasks to large-scale projects, Apex Engineering provides unsurpassed quality resources to the client.



2.0 CAPABILITIES AND SERVICES

Apex Engineering provides a complete range of engineering services to cover every facet of project implementation including feasibility studies, estimating, scheduling, procurement, design, construction management and commissioning.

2.1 PROJECT MANAGEMENT

Project Management services offered by Apex enable clients to deal with one individual throughout all phases of a project. Apex project managers are experienced with projects of varying sizes from retrofits to new, complete, multi-million dollar manufacturing plants. Services include:

- Project Management and Control
- Development Procedures
- Scheduling
- Cost Control
- Project Estimating
- Scope Development
- Reporting Systems and Document Management
- Start-up and On-going Technical Support Services

2.2 PROJECT ENGINEERING

Apex Engineering can furnish an integrated team of professionals for chemical, civil, structural, piping, mechanical, instrumentation and electrical engineering design. This project team can produce the working documents necessary for procurement, fabrication and installation of all materials required to construct a plant ready for operation.

Our designs emphasize safety, quality, and practicality. In addition, economy, ease of operation, and maintenance are important considerations in each process plant design.

2.3 PROCESS ENGINEERING

Apex Engineering's process design team offers the benefits of many years of experience in industrial applications. Our process engineers have performed a wide range of studies, from process optimization of existing units to design of new process facilities. Services include:

- Process flow diagram development
- Detail process design
- Heat and material balances
- Equipment sizing and specifications
- Pipe sizing and relief requirements
- Environmental permit application preparation
- Process plant computer simulations



2.4 CONTROL SYSTEM AND SOFTWARE DEVELOPMENT

Apex offers expert system integration and software development. We have extensive experience with programmable controllers and routinely work with Allen-Bradley, Modicon, GE/Fanuc, Siemens and other PLC hardware platforms. Our systems range from 20 I/O to projects involving over 5,000 I/O points. In addition to normal discrete I/O modules, we are experienced in specialized modules, such as analog I/O modules, RTD modules, PID control modules, programmable operator interfaces, variable frequency drive interfaces, high speed counters, axis positioning modules, BASIC cards, RS-232/RS-422 communications modules, Ethernet adapters and communications networks of up to 10,000 ft. length. Apex Engineering is also a software developer for Rockwell and an authorized systems integrator for Wonderware, GE Fanuc and other quality control products suppliers.

Apex can also provide System Control and Data Acquisition (SCADA) programming and HMI development for operator interface terminals. Project experience includes FixDMACS, TCP Smart Screen, RS View, Cimplicity, Factory Link, Intellution, and Wonderware.

In addition to extensive work with programmable controllers, Apex has staff expertise in distributed control systems (DCS) including Fisher Provox, Bailey, Honeywell, Westinghouse, GSE, Yokogawa, and PC-based control systems. Our highly skilled DCS group has extensive experience with controls narration, design and implementation.

Apex offers extensive experience in the instrumentation field. We have designed a variety of control systems from single loop controllers to large scale DCS controlled systems including specifying, designing and start-up of instrumentation in the four major control groups, i.e., pressure, temperature, level and flow. We have many years of combined experience in standard electrical control systems involving hard-wired control devices. Apex also provides complete start-up and system trouble-shooting services.

2.5 SPECIALIZED MACHINE/SYSTEM SKILLS

Apex Engineering, Inc. has developed specialized skills in several machine and processing system technologies, including:

- Bulk solids handling and processing systems
- Extrusion machinery and systems
- Air separation systems
- Package boiler systems
- Air and gas compressors

2.6 QUARRY AND AGGREGATE SYSTEM DESIGN AND AUTOMATION

Apex offers extensive experience in Quarry and Aggregate Industry Electrical Engineering and Automation. We have successfully designed and automated over 13 quarries in the past 11 years. Ranging from single plant systems to as many as seven plants within one quarry. We take pride in and measure success by how long it takes an operator, who may never have touched a computer, to completely control and monitor a plant using our system design. The operator is usually even more comfortable running the plant by the end of the first day using our system than he was before.



2.7 PURCHASING SUPPORT

Apex offers complete purchasing services, from purchasing assistance to complete procurement management. Our up-to-date knowledge of equipment vendors, scheduling and costs can be beneficial to the flow of a project. Our in-house purchasing assures close coordination with engineering to assure proper compliance with specifications. Apex Engineering also works closely with clients to facilitate Reverse Auctions when required.

2.8 PROJECT COST ESTIMATION

For medium to large projects, Apex uses Aspen™ Icarus® Project Manager (IPM) estimating software products to efficiently prepare detailed cost estimates. IPM is continuously updated to maintain accurate labor, materials and equipment cost databases for projects throughout the United States.

2.9 CONSTRUCTION MANAGEMENT

Experienced construction management can help owners reduce cost and risk throughout a construction project. We provide professional assistance with the following tasks:

- Determination of project goals and budget
- Development of cost control, scheduling and reporting systems
- Review of design documents
- Development of procurement and contract strategies
- Assistance with bidding
- Maintenance of project records
- Coordination of construction activities
- Inspection for conformance to plans and specifications
- Negotiations

2.10 COMPUTER DRAFTING & DESIGN

In keeping pace with the latest technology, our design staff uses AutoDesk® AUTOCAD® products and Coade CADworx® 3D piping and Multisteel 3D structural design software products. We also use Bentley® Microstation to service clients using Intergraph Systems.

2.11 SOFTWARE

In keeping pace with the latest technologies, our design staff uses a variety of software to aid in design.

- AUTOCAD®, and CoAde CADworx® and Multisteel® 3D Drafting software
- Process Simulation (CHEMCAD®, ASPEN™ PLUS®, SUPERCHEMS®)
- Estimating (ASPEN™ IPM®)
- Structural (RAMSTEEL, STAAD®)
- Stress (CAEPIPE® and CAESAR II®)
- Scheduling (Microsoft Project® and TIMELINE®)
- Business Systems (Microsoft, WIND2)



3.0 GENERAL EXPERIENCE

Apex Engineering's growth can be contributed to the successful completion of many diverse projects. This section lists specific engineering and design services, arrayed by discipline, which we provide to our clients.

3.1 PROCESS ENGINEERING

- Preliminary process design including feasibility and economic studies, cost estimates and scheduling
- Flowsheet development including heat and material balances, PFD's, P&ID's, and UFD's
- Detailed process design and equipment specifications
- Process control for new facilities and retrofit of existing facilities
- Software available: Icarus Project Manager[®], Apex developed cost databases, Aspen[™] Plus[®] with Model Manager, Aspen[™] Dynamics[®] and Pipe Flo[®] hydraulic design software
- Flowsheet development for existing facilities to conform to the requirements of OSHA 1910

3.2 FACILITIES, CIVIL AND STRUCTURAL ENGINEERING

- New buildings and building expansions for general plant works, control buildings, loading/unloading facilities, offices, change rooms, labs and maintenance shops
- Site planning including grade plans and drainage systems
- Storm and process drainage with containment systems
- Wastewater treatment facilities including aeration, flocculation, filtration, suspended solids removal and pH control
- Foundations for building and equipment per ACI Code
- Structural steel for buildings, stadiums, platforms, walkways, ladders, stairways, etc. per AISC Code

3.3 MECHANICAL ENGINEERING

- Conveyor system designs for bulk solids and containers, including gravity and power systems
- Pneumatic conveying systems for bulk solids
- Patented design and fabrication of Plate Blending Silo for mixing bulk solids
- Specialty machinery design, fabrication and installation supervision including motion devices and controls
- ASME pressure vessels and TEMA heat exchangers
- API-650 and API-620 storage tanks
- API gravity separators
- Piping systems per ASME-B31 specification series handling numerous media including hazardous chemicals
- Skid-mounted, packaged equipment and piping
- Preparation and modifications of piping specifications
- Heat trace systems for process and cold protection using hot water, steam, hot oil and electrical tracing



- Extrusion systems for the plastics industry including feeder and packaging systems
- Deflagration venting per NFPA-68
- GE Turbine Systems Expertise
- Dust Collection Systems

3.4 INSTRUMENTATION ENGINEERING

- Field instrument device selection, specification and troubleshooting
- Control valve and safety relief valve selection and specification
- Preparation of instrument loop diagrams and installation details

3.5 ELECTRICAL ENGINEERING

- Electrical designs for new plants and expansion projects
- Lighting design
- Substation and MCC design
- Complete power surveys and load studies
- Preparation of elementary electrical diagrams and electrical one line drawings
- Electrical designs of power distribution in compliance with the National Electrical Code (NEC) to meet hazardous (classified) location requirements, flammable gasses and liquids
- Power Factor Improvement Project to reduce power costs

3.6 CONTROL SYSTEM ENGINEERING

- Graphics screen development for graphical operator interface systems including full color touch screen applications utilizing many major software packages
- Design of complete process controls systems for various industrial process plants using a variety of control architectures and operating platforms
- Software troubleshooting and equipment start-ups
- Plant control system recommendation and detailed design
- Programmable Logic Controller installations including GE, Modicon, Allen Bradley, Siemens and others
- Distributive Control Systems including Honeywell TDC, Bailey, Emerson Provox and DeltaV, Applied Automation and GS&E D3.
- PC-based control systems including Steeplechase, Cimplicity, Opto22 and others
- Block and graphic process control panels
- I/O subsystems
- Profibus, DH+, Modbus and Industrial Ethernet networks
- Specialized service through ACS (Apex Controls Specialists)

3.7 PLANT UTILITY DESIGN AND ENGINEERING

- Refrigeration packages for industrial process cooling applications
- Chilled water cooling systems
- Ventilation systems for industrial use, including scrubber equipment, air curtains, evaporative coolers, and dust control
- Utility systems for steam, plant and instrument air, water, nitrogen, oxygen and boiler feedwater treatment chemicals
- Building HVAC systems



3.8 QUARRY AND AGGREGATE SYSTEM DESIGN AND AUTOMATION

- Electrical Engineering and Design for new plants and expansion projects
- Complete Automation Services, Startup Assistance and Continuous Support
- Substation and MCC Design
- Control System Design

3.9 DRAWINGS AND DOCUMENT MANAGEMENT

- Conversion and updating of existing drawings onto various CAD formats
- Preparations of as-built drawings in all major engineering disciplines
- Numerous AutoCAD® and Bentley Microstation® systems on-line and also have experience with CADAM®, CADKEY®, CALMA® and AUTOTROL®

3.10 PURCHASING SUPPORT

- Reverse Auction bidding process
- Complete handling of all project purchasing activities including issuing of purchase orders and payments
- Partial handling of all project purchasing as “agent” for client excluding issuing of purchase orders and payments
- Selection and evaluation of recommended vendors lists
- Preparation of purchase requisitions with supporting equipment and performance specifications
- Quotation evaluation and recommendations
- Vendor data review and approval
- Witness inspections at vendor’s plant for quality assurance
- Expediting of project equipment and vendor data

3.11 CONSTRUCTION SUPPORT

- Overall site management
- I/E punch listing and loop checking
- Piping walk-downs, punch listing and installation verification
- Foundation/structural steel installation verification
- Resolution of design improvements and preparation of revision documentation

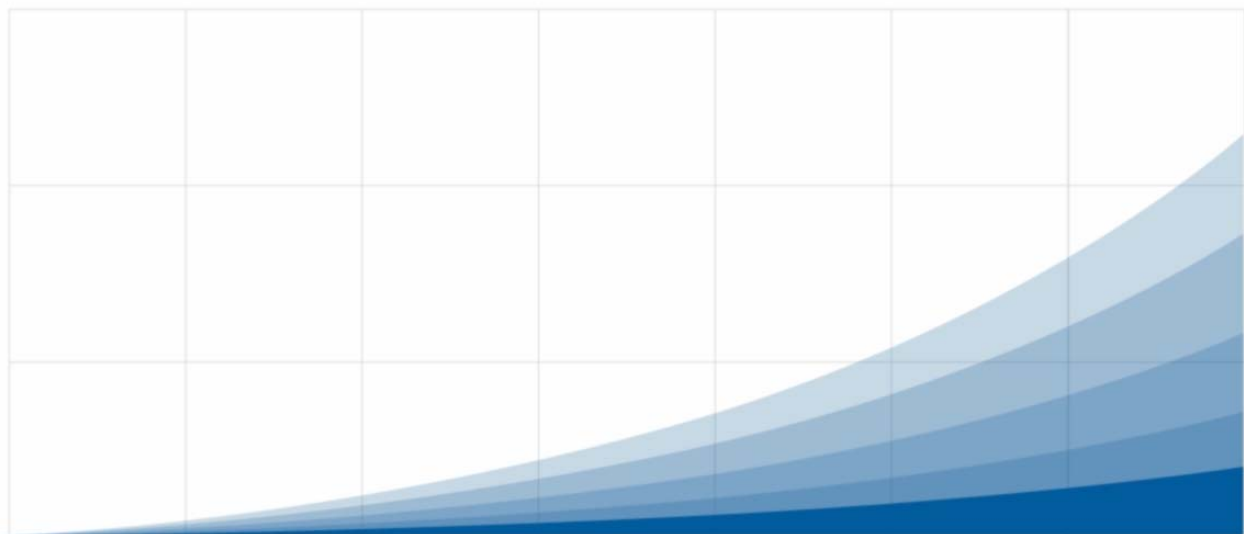
3.12 PROCESS SAFETY MANAGEMENT

- Assess existing programs and resources
- Develop compliance action plan including documents, operating procedures, mechanical integrity, etc.
- Develop prioritized schedule for process hazard analysis
- Provide HAZOP and SWIFT facilitation and recording support
- Management of Change Requirements



3.13 COMMISSIONING SUPPORT

- Planning, scheduling and staffing to ensure safe and timely equipment commissioning
- Mechanical checkout, lubrication and testing
- Electrical testing, loop checks and I/O verification
- PLC and DCS software testing and start-up
- Training classes and individual instruction for production and maintenance
- Coordination of vendor field service personnel
- Technical support, 24-hour coverage, on-call coverage, or other support as required by client





4.0 REPRESENTATIVE PROJECT EXPERIENCE

The partial listing herein provides a brief description of representative projects performed by Apex Engineering. Apex is proud that our success stems from repeat business from satisfied clients. All project costs are in US Dollars.

Industry	Project Description	Capital Cost
Aggregate	Plant Expansion Complete plant expansion, primary, secondary, finishing, blending, barge loadout, automation and startup. Western Kentucky.	\$45,000,000
Aggregate	Crushing and Conveying Primary crushing, conveying, secondary crushing and finishing systems, electrical and controls design, automation and startup. Western Kentucky.	\$5,500,000
Aggregate	Blending and Barge Loading Primary, secondary, auxiliary, aggregate, blending, barge loading systems, controls design, automation and startup. Southern Illinois.	\$5,000,000
Aggregate	Crushing and Conveying Primary crushing, conveying, secondary crushing and finishing systems, electrical and controls design, automation and startup. Western Kentucky.	\$4,500,000
Aggregate	Lime Plant Automation Lime plant system controls design, automation and startup. Western Kentucky.	\$3,500,000
Aggregate	Crushing and Conveying Primary crushing, conveying, secondary crushing, finishing, storage systems electrical and controls design, automation and startup. Included equipment specification and procurement. Mid-Ohio.	\$2,500,000
Aggregate	Crushing and Conveying Secondary crushing, conveying, storage, truck loadout systems controls design, automation and startup. Eastern Missouri.	\$1,500,000
Aggregate	Portable Crushing and Conveying Portable plant crushing, conveying, loadout, electrical and controls design and startup. Included equipment specification and procurement. Canada.	\$1,500,000
Aggregate	Conveying and Truck Loadout Plant conveying and truck loadout system, electrical, controls, automation and startup. North Arkansas.	\$1,500,000



Industry	Project Description	Capital Cost
Aggregate	Crushing and Conveying Tertiary crushing and conveying systems controls design, automation and startup. Western Kentucky.	\$1,000,000
Aluminum	Metals Dust Collection System	\$1,100,000
Aluminum	Dust Collection System Preliminary and detail design to replace a dust collection system at a major aluminum plant.	\$1,000,000
Chemical	Groundwater Collection System Design of a groundwater collection system (mechanical, electrical and controls) for an existing chemical plant.	\$3,000,000
Chemical	Reactor Design Preliminary and detailed design of reactor processes to produce starter liquid for continuous specialty chemical process.	\$1,750,000
Chemical	API-650 Liquid Storage Tanks Design of several API-650 storage tanks for product liquors and two lime storage bins per ASME code, non-stamped.	\$1,000,000
Clay	Belt Conveyor 45-degree corrugated-wall cleated belt conveyor to convey cat litter from grade to the top of silo.	\$150,000
Coal	Coal Concrete Silos, Reclaim Tunnels Stacking Tubes Installed raw coal silos, clean coal silos, blending silos, reclaim tunnels, stacking tubes, and flyash silos for numerous clients.	\$250,000 \$4,000,000
Coal	Replace Belt on 5 Mile Overland Conveyor Plan and coordinate the shutdown and replacement of a 5-mile 72" conveyor. Project also included adding new office facility with underground elevator, shower facilities, telecommunications hub, and substation.	\$3,000,000
Coal	Wood Chip and Coal Handling Conveyors Wood chip and coal handling conveyors to feed boilerhouse. One conveyor was overland and two (2) conveyors ran side-by-side through a tubular gallery with a maximum span of 115 feet.	\$2,000,000
Coal	Coal and Limestone Conveyors Six (6) – 500 TPH coal and limestone conveyors to convey materials from unloading and reclaim to crushing and screening structures and thence to the boilerhouse. Maximum convey span was 125' long.	\$800,000



Industry	Project Description	Capital Cost
Coal	Conveyors Four-1200 TPH coal conveyors to divert product coal from the main storage silo to an alternate silo. One conveyor bridge span was 165 feet long.	\$750,000
Fertilizer	Belt Conveyors Basic design and procurement for two (2) belt conveyors conveying chemical fertilizer. Also added a non-corrodible enclosure over an existing open storage bin for the product.	\$350,000
Metals	Carbon Solids Handling System Preliminary design and budget of equipment for crushing, conveying and treatment of contaminated carbon-based solid product.	\$8,000,000
Metals	Furnace Control Modernization Detail design, control software and start-up to replace obsolete controls on four furnaces.	\$1,600,000
Metals	Water Storage and Monitoring Detail design for electrical installation of a 200,000 gallon elevated storage tank and monitoring of associated cooling system.	\$1,000,000
Metals	Belt and Apron Conveyors Four (4) belt conveyors and two (2) apron conveyors to surge feed raw material into a furnace. Included two (2) new bins and the rework of two (2) existing bins.	\$800,000
Metals	Cleated Belt Conveyor 80-foot long, 67-foot tall, z-shaped flexible-wall, cleated belt conveyors to elevate shredded aluminum chips into a furnace.	\$400,000
Paper	Sodium Hypochlorite Tank Provide engineering and design for installation of a Kynar lined pipe to allow injection of sodium hypochlorite into the existing sludge piping system. Installation of a new fiberglass storage tank and new metering pump and piping system.	\$320,000
Paper	PH Control Conversion Provide layout, design and construction management for the electrical work, piping and installation of new carbon dioxide tank, refrigeration unit and vaporizer to convert the pH control of the lime softened water in the clarifier to a carbon dioxide controlled system.	\$275,000



Industry	Project Description	Capital Cost
Paper	PH Control System PH control system to control pH of a paper chest using acid and caustic. The pH control was done using injection nozzles on the pump sections. Essentially a continuous system verses a batch system.	\$100,000
Plastics	PEP and Extruder Installations Prepared a preliminary engineering estimate package (PEP) and a +20% estimate for three new extruder lines, a new building extension, a power upgrade, packaging and raw material delivery system upgrades and site services upgrades. PEP package for AR generation purposes and receiving engineering bids for the detailed design phase of the project	\$10,000,000
Plastics	New Extrusion Line Provided the “preliminary” and “detailed” engineering services for the installation of a new 70mm extruder line to replace an old Baker-Perkins right angle unit. Work included Civil-Structural-Instrumentation-Electrical-Mechanical to install all new feeders, dust collectors, extruder, receiving vessels, water bath, pelletizer and associated piping. Demolition of the old unit and associated equipment was also involved.	\$4,800,000
Plastics	Silo Project Polycarbonate resin storage silo, with multiple vacuum and pressure powder transfer systems and a truck loading system.	\$4,000,000
Plastics	NPI Extrusion System Extruder installation complete with powder mixing, feed, extrusion, and packaging.	\$3,500,000
Plastics	Transfer Material Completed the preliminary design and estimates at a Nylon Compounding facility to transfer materials from railcars to intermediate storage and then from storage to the extruder lines.	\$3,000,000
Plastics	Transferring Pellets Completed the preliminary design and estimates at a Nylon Compounding facility to transfer pellets from the extruders lines to bulk truck and bulk rail loading. Design included new hoppers, silos, transfer blowers, and a truck/railcar loading structure or system.	\$3,000,000



Industry	Project Description	Capital Cost
Plastics	<p>Turn-Key Vacuum Conveying</p> <p>Closed looped vacuum conveying of explosive BPA flake from railcars to silos at a rate greater than 9000 pounds per hour per system. The BPA is conveyed in an atmosphere of less than 4% oxygen with an inerting gas of nitrogen. The conveying can be completed by two separate product conveying systems with one common conveying gas header system. The two separate product conveying systems can be connected to one railcar simultaneously and convey to two separate silos.</p>	\$3,000,000
Plastics	<p>Weigh Bins</p> <p>At a Plastics Compounding facility, completed the detailed design for installing four (4) overhead net weigh bins to accurately weigh product flowing from the line verification bins to boxes on new densifiers located within the load-out conveyors.</p>	\$2,500,000
Plastics	<p>Material Feed</p> <p>Provided raw material feed capability to five (5) extruders in a Nylon Compounding Plant. Project included installation of feeder carousels on each line and material handling and dump stations.</p>	\$2,000,000
Plastics	<p>Recycled Material</p> <p>Install equipment to utilize recycled material. This included box unload bins, a pneumatic blender, two (2) blower, two (2) surge hoppers, support steel, associate piping and electrical controls.</p>	\$1,400,000
Plastics	<p>Improved Management System</p> <p>Provide engineering, design and drafting to provide an improved management system at a Plastics facility to contain storm water contaminated with polyethylene powder and pellets. Then segregate the powder and pellets from the effluent prior to discharging offsite. These modifications shall add two (2) new points of powder/pellet segregation before the water reaches a sump. This shall also provide a means to trap powder and pellets at the storm water out falls and ditches before exiting the site.</p>	\$1,000,000
Plastics	<p>Super Sack</p> <p>Design of optical quality polycarbonate super sack packaging system to package 1,760 pounds of pellets into a densified finished product. System included number seven mirror finished hopper and a slow, gentle dense phase conveying system. All rooms, hoppers and containers require one-micron filter air to maintain and ultra clean packaging environment.</p>	\$700,000



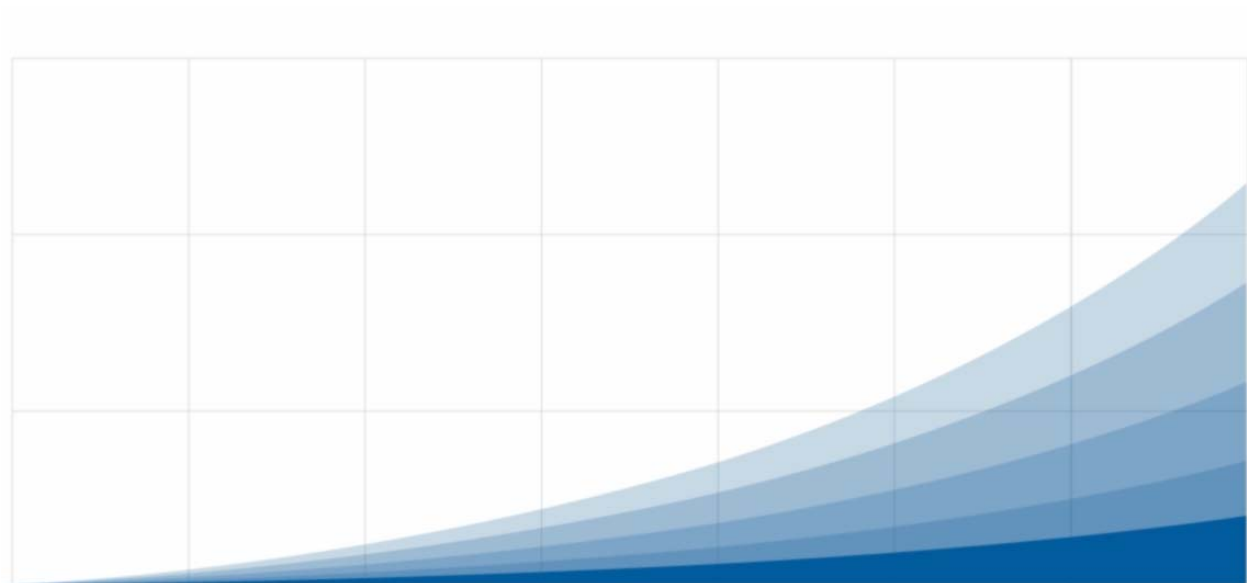
Industry	Project Description	Capital Cost
Plastics	<p>Feed System</p> <p>Addition of a color concentrate and fiberglass strand feed system to an existing 4 1/2" single screw extruder. Design work also included the installation of a multi-feeder controller, master rate controller, extrusion control panel and a side feeder.</p>	\$600,000
Plastics	<p>Storage and Handling System</p> <p>Involved engineering design to install new storage and handling system. A new 15,000 gallon tank, liquid transfer pump and extruder distribution piping completed the system</p>	\$500,000
Plastics	<p>Nitrogen Inerting System</p> <p>Addition of a nitrogen inerting system and oxygen monitoring system to two existing railcar loading facilities.</p>	\$450,000
Plastics	<p>Dual Laminate Corzan/FRP Header</p> <p>Replace a chlorine 24" header with a dual laminate Corzan/FRP header. New header supports for the 300' system.</p>	\$400,000
Plastics	<p>Extruder Feed System</p> <p>Upgrade of an existing 40mm extruder feed system. Added fiberglass and effects feeder along with a downstream side feeder.</p>	\$300,000
Plastics	<p>Dust Collection System</p> <p>Design of dust collection system for eight extrusion lines. A wet centrifugal collector (crotoclone) was designed to collect nuisance dust from feed throat hoppers and feeders. The project design also included the sizing and routing of the dust collection system ductwork.</p>	\$250,000
Plastics	<p>Multiple Powder Silos</p> <p>Engineering design, start up assistance and programming to add multiple powder silo sources to the existing powder transfer system</p>	\$210,000
Plastics	<p>Injection of Liquid Additive</p> <p>Included the injecting of a liquid additive into the extruder feed throats via the existing catalyst pumps. Modifications to the existing fourth formulation area included a containment dike, a formulation platform and CVC formulation tank.</p>	\$150,000
Power	<p>Instrument Air</p> <p>Design, engineering and construction supervision to install new instrument/service compressed air system.</p>	\$1,000,000



Industry	Project Description	Capital Cost
Power	Fuel Blending Control System Engineering and design for the installation of a PLC-controlled fuel blending control system including programming and screen configuration.	\$375,000
Power	Coal Dust Suppression System Design, engineering and start-up of coal dust suppression system.	\$350,000
Power	Fuel Handling Conveyor Design and engineering of a fuel handling conveyor.	\$300,000
Power	Dust Control and Collection Design and construction management to improve emissions by collection of fugitive dust.	\$250,000
Sand	Sand Delivery System A sand delivery system that starts out with pneumatic conveyors moving foundry sand to a storage hopper in the top of the structure. After the sand descends through the structure it is heated and mixed with rosins. From the mixer the mixed batch was transported along a traveling hopper to dump into one of six (6) sand molding machines.	\$500,000
Utilities	Boilerhouse Layout, design and oversee construction for 5,300 square foot boilerhouse expansion for the installation of a 206,000 lbs./hr., gas-fired B & W steam boiler.	\$11,600,000
Utilities	Air Separation Unit Completed electrical design for the installation of an ASU (Air Separation Unit) from the incoming power supply to the individual end users. Plot plans were redone on scale suitable for power and instrumentation drawings. Cable tray layouts were done for all instrumentation, control and 480V power cables. Conduit and cable schedules for all plant cables, including cooling tower and control building. Elementary and schematic diagrams were done for all motors, lube oil pumps and lube oil heaters. Preparation of contractor bid package and copying of vendor drawings were also done.	\$10,000,000
Utilities	Piping System Installation of a piping system and tank to supply softened water.	\$150,000



Industry	Project Description	Capital Cost
Wood Chips	Wood Fines Conveying and Storage Pneumatic conveyors, surge hopper, screener, vibrating conveyor, and pulverized process for handling wood fines for engineered wood structural panels.	\$750,000
Wood Chips	Belt Conveyors Belt conveyors for bark drying and bark classification systems to transfer flow from an existing process	\$550,000
Wood Chips	Wood Chip Handling Conveyors Two (2) wood chip handling conveyors. Unique structural designs utilizing curved trusses and supports that had to circumvent a number of different obstacles.	\$500,000



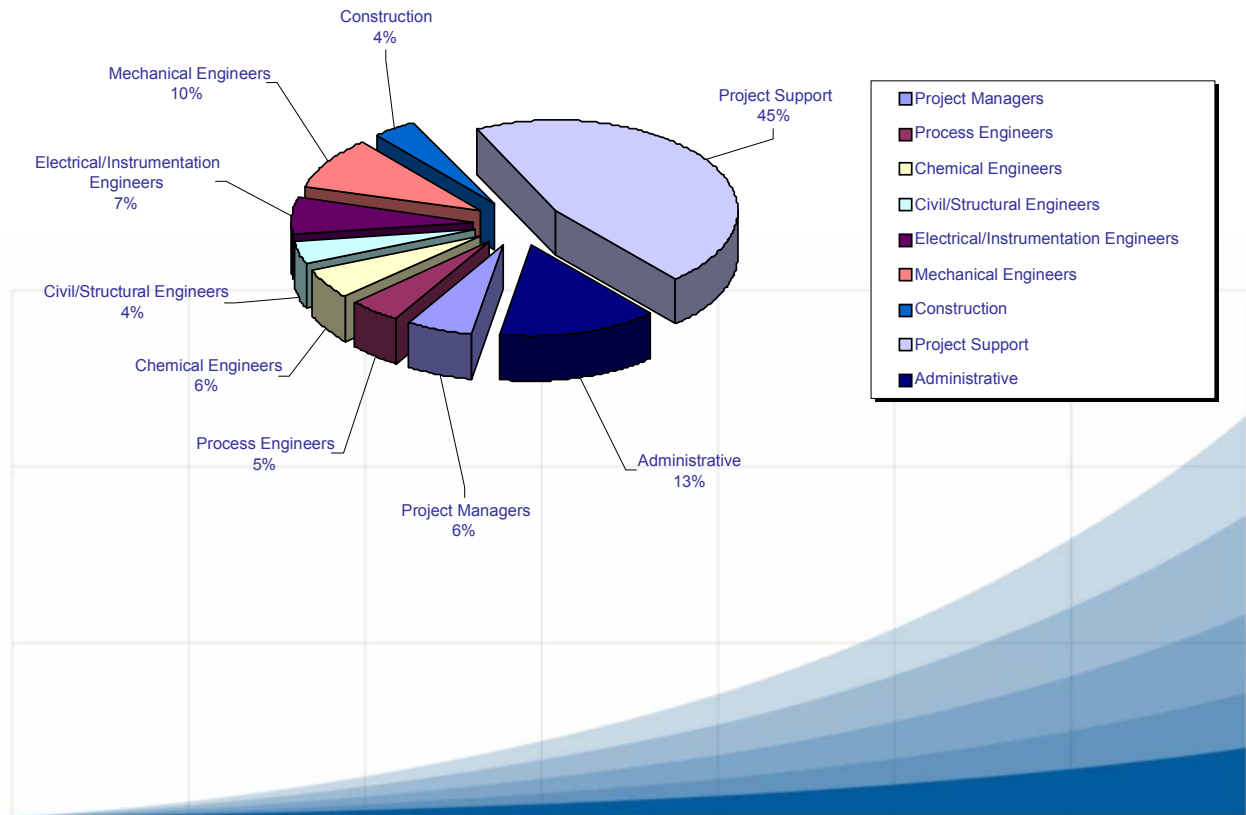


5.0 ADDITIONAL INFORMATION

5.1 STAFFING

Project Managers	6
Engineers	
Process	5
Chemical	6
Civil/Structural	4
Electrical/Instrumentation	7
Mechanical	10
Construction	4
Project Support	48
Administrative	15
<hr/>	
Total Staffing	105

Apex Staffing





5.2 REPRESENTATIVE CLIENTS

American Electric Power
 Air Products Chemical Group
 AK Steel
 Alabama State Docks
 Alcan Composites, Inc.
 Alcan Rolled Products Company
 Alpharma Pharmaceutical
 American Coal
 Amoco
 Ansell Incorporated
 Archer Daniels Midland
 Aristech Chemical
 Arkema, Inc.
 Basell USA, Inc.
 BASF
 Bayer Corporation
 Bethlehem Steel
 Bremner
 Bristol-Myers Squibb
 Cabot Corporation
 Carbide Industries LLC
 CCMA Metals and Alloys
 Cemex
 Century Aluminum
 Chemtura Corporation
 Chevron, USA
 Colorado Ute
 Commonwealth Aluminum
 Condaire, Inc.
 Conoco-Phillips
 Consul Energy
 Continental General Tire
 Continental Mills
 Criterion Catalysts
 Cytec Corporation
 Daikin America
 Degussa Hüls Corporation

Dow Chemicals
 Dravo Lime
 Drummond Coal
 Duke Energy
 Dupont
 Eastern Associated Coal
 Electric Energy, Inc. (EEI)
 Elkem Metals
 Eramet
 Eveready Battery
 Flexsys America
 Foundation Coal
 Freeman Coal
 GAF Corporation
 GE Aircraft Engines
 GE Electromaterials
 GE Plastics
 GE Transportation
 George Koch & Sons
 Gerdau Ameristeel
 German Valley Limestone
 Ghent Generating Station
 Goodyear Tire and Rubber Company
 HB Fuller Company
 Honeywell Specialty Materials
 Hoosier Energy
 ICT Corporation
 Innovative Processing Solutions
 ISP Chemicals
 Japan Steel Works
 Kimberly-Clark Corporation
 Kraton Polymers
 Lafarge
 LNP Engineering Plastics
 Logan Aluminum
 Louisville Gas & Electric

Lyondell Chemical
 Marathon/Ashland
 Petroleum
 Martin-Marietta Materials
 Mead Johnson Nutritional
 MeadWestvaco Corporation
 Messer Industries
 NEU International
 Noranda Aluminum
 Nova Chemicals
 Ormet Aluminum
 Outkumpa Copper
 Paducah Water Works
 Peabody Coal
 Pechiney Rolled Products
 Procter & Gamble
 Remington Arms
 Rhodia Inc
 Roche Vitamins
 Rogers Group
 Seapac
 SIGECO
 Solvay Advanced Polymers
 Southern Illinois Power
 Stedman Machine
 Sunoco Chemicals
 Supresta
 Toray Resin
 US Army Corps of Engineers
 Valley Steel Company
 Vanderbilt Chemical Company
 Vectren Corporation
 Vulcan Materials
 Wacker Polymer Systems
 Warrior Coal
 Washington Penn Plastics
 Webster County Coal
 Westlake Chemical Group

