CONSTRUCTION & CONSTRUCTION MANAGEMENT

- Services
- Industries
- Clients
- Key Personnel
INTRODUCING ADELPHI

A delphi provides our clients a full range of capital improvement project work, shutdown, turnaround and plant maintenance services. Client satisfaction leading to long-term relationships is our corporate goal.

Our corporate offices are located in the Kansas City metropolitan area, strategically positioned and centrally located for fast mobilization and minimal field expenses.

Adelphi personnel have an average of over 25 years experience in their respective areas (see Key Personnel). We have learned over the years that performance and quality is realized from experienced staff. Adelphi personnel are hand-picked and seasoned for success.

IMPROVEMENT EVOLUTION

A delphi personnel strive to improve our performance on each task. An important factor in achieving an evolving improvement is integrating our customer’s requirements on a project by project basis with all elements of Adelphi’s work team: project management, project engineering, site management and planners.

PERFORMANCE MEASUREMENT

A delphi has a program whereby we establish the performance goal system at the front end of each project mobilization. On a weekly basis we compare our team’s results against these goals to develop a project success profile.

We recognize the importance of meeting client goals and expectations. With ever increasing pressure facing our clients to improve financial results, bottom line performance is what counts! We measure our success based on our performance in the areas of safety, budget, schedule, quality of workmanship and, most important, each client’s evaluation of our performance.

Many clients have specific performance criteria that need to be addressed in their program. We address these needs through providing cost effective project scheduling, constructability analyses, turnaround planning support, etc. As part of our on-going commitment to continuous improvement, we meet frequently with each client to evaluate our performance, then establish benchmarks to measure improvements.
FIELD EXPERIENCE
Adelphi personnel have specific experience in:
- Pipeline Construction and Maintenance
- Refineries & Chemical Plants
- Power Plant Maintenance
- Dust Collector Systems
- Pneumatic Conveying Systems
- Mechanical Conveying Systems
- Bulk Material Storage Systems
- Bulk Material Load-Out Facilities
- Electrical Cabling and Wiring
- Control Automation Installation
- Startup and Commissioning
- Emergency Service and Repair
- Routine Plant Maintenance
- Plant Turnaround Projects
- Dust Collector Re-Bagging Service
- Operation and Maintenance Training

INDUSTRIES SERVED
Adelphi personnel have served the following industries:
- Refineries
- Petroleum
- Natural Gas Transmission
- Rock Products & Mineral Processing
- Steam Boilers
- Utilities and Power
- Ethanol Processing
- Chemical Plants
- Plastic Manufacturing
- Rubber Processing
- Food Processing
ADDITIONAL SERVICES

Together with its affiliated companies, Adelphi can also help its customer clients with project related:
- Automated Control Systems
- Civil Engineering
- Foundation Design
- Project Management
- Custom Designed Equipment; OEM Equipment
- Project Specific Fabrication
- OEM Equipment Designed for Air Pollution Control, Fans and Pneumatic Material Conveying, Bulk Conveying
- Structural Steel
- Ductwork and Piping
- Custom Process Valving and Automated Controls

SUMMARY

Adelphi provides a wide range of services to enable our clients to achieve a one-stop source of project services and talents:
- Complete Design (Mechanical, Civil, Structural and Electrical) Services
- PE Qualification
- Project Management
- OEM Equipment Supply
- Complete Design / Build Projects
- Fabrication Capabilities
- Full Construction and Erection
- Field Services and Ongoing Maintenance
- Maintenance Shutdown, Turnaround and Planning
- Automated Control Systems
- Start-Up and Supervision
- Process Piping
KEY PERSONNEL

People are the key to success for any business, but experienced personnel are an absolute requirement for a successful Construction Management and Construction Services firm. Adelphi management personnel are selected based on their track record of performance in the field. Project Crews are constructed based on the specific project requirements and the individual skill sets of crew members. The key Adelphi personnel you see listed below have managed construction projects up to $10 million in value with up to 60 craftsmen and millwright personnel on site and under command.

Marty Lester – Project, Safety and QA/QC Manager – Marty brings over 20 years experience with QA/QC Management in manufacturing and construction projects. His experience ranges from refineries to power plants, paper mills, railroad yards, petro-chemical plants and pipelines. Marty has worked on mill-spec contracts both in a shop and field environment. Marty is a Certified Welding Inspector and has held numerous positions in the inspection of work related to superheater and economizer sections and modules, hydro and pneumatic testing of completed work and has coordinated N.D.E. requirements with various companies. In addition to his QA/QC background, Marty has extensive safety training in job safety assessment, fall protection, confined space entry, fresh air, personal protective equipment, respirator use, fire safety, and with various acids.

L.C. Hunt – Safety Manager – L.C. has more than 30 years experience managing crews and turnaround projects. In addition, L.C. has 5 years experience as a Safety Coordinator within the power utility, concrete, petro-chemical, pulp and paper, and refinery industries. L.C. is a licensed crane operator in multiple cities and states. He attended Northwest State University, Arlington State University, and the University of Houston.
Robert Frye - Bob has more than 38 years experience in the pneumatic conveying and bulk material handling industry and in the past has served as General Manager of MAC Pneumatic Systems Company and Corporate Chief Engineer for Far-Mar-Co, Inc. which was then the third largest bulk material storage company in the world. He is author and originator of numerous concepts and articles concerning laminar flow for bucket elevator leg and pre-cleaning dump pits. Bob is an Architectural Engineer and served on the National Academy of Sciences panel in Washington, which wrote the rules for prevention of dust explosions in material handling equipment. This panel’s studies have recently been released as the latest OSHA regulations for in-plant dust control. Bob provides a significant engineering contribution to Adelphi projects prior to implementation and during construction.

Calvin Easley - Project Manager - Calvin has over 25 years of experience planning, scheduling, staffing, and managing industrial construction sites. He has experience in the power utility, petro-chemical, refinery, and pulp and paper industries. He is an experienced pipe fitter, rigger, and plant operator and is an experienced safety and quality control supervisor. He is a stickler for adherence to Client and Company policies, procedures, rules, and regulations.
## EXAMPLE PROJECTS

The list of Example Projects below provides an overview of the scope of work Adelphi personnel typically undertake. Each entry is a separate facility and location. Following this list you will find a chronological list of field installation projects recently completed by personnel on our staff. Feel free to call with questions or further description for any of the projects.

| Outage and Maintenance Turnaround Work | Prefabricate pipe spools  
2 Refineries  
Central United States | Hot tie ins  
100% X ray weld testing  
Mild steel, stainless steel, chrome alloy welding  
24/7 field work for 4-6 weeks at both locations |
| Multiple Outages and Maintenance Work | Repair hammer mills  
Cement Plant  
Oklahoma | Re- face hardened wear surfaces  
Install steel and ducting  
24/7 field work for 1-2 weeks at a time |
| Melt Shop Baghouse, Central South USA | Installed 200,000 CFM air pollution control system for a steel mill melt shop  
System included baghouse, fans, ducting, stack and dust handling, pneumatic transfer equipment |
| Renewable Fuel Pellet Plant, Central Midwest USA | Installed the first grass based pellet plant in the United States  
Plant will produce 100,000 TPY of bulk pellets for utility and institutional boilers and bagged pellets for the retail home stove markets |
| Foundry Baghouse, Central Midwest | Replace Electric Arc & #3 Melter phase 2 foundry baghouse with new IAC “M-Pulse” baghouse  
Install new ductwork and tie into existing ducting system  
New unit sized for 240,000 ACFM  
Install (3) new 400 HP and (1) new 150 HP fans  
Install required Motor Control Center and control automation  
“Tie-ins” executed over Easter, Memorial Day, and Labor Day weekends  
Union & Non-Union labor supplied for all steel erection, concrete foundations, siding, paint, electrical cabling, control automation, and commissioning |
<table>
<thead>
<tr>
<th>Location</th>
<th>Projects Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumina Processing Plant, Mid-South USA</td>
<td>- Convert existing Norblo 432 bag shaker style baghouse to IAC pleated element style pulse jet collector (180 elements)&lt;br&gt;- Project executed over 7 day production turnaround and started up as scheduled&lt;br&gt;- Performed additional work as requested by the customer without additional time</td>
</tr>
<tr>
<td>Bulk Storage &amp; Load Out Terminal, Caribbean</td>
<td>- Installation of two bolted silos with 8000 tons of finished product storage&lt;br&gt;- Installation of pneumatic unload transfer systems complete with dust collectors, ship to terminal&lt;br&gt;- Truck drive-through in each silo for silo to truck unloading&lt;br&gt;- Installation of load-out system and control automation&lt;br&gt;- Startup and commissioning</td>
</tr>
<tr>
<td>Lime FGD (Flue Gas Desulphurization) Silos and Pneumatic Injection Systems, Midwest USA</td>
<td>- Erected welded silos for bulk lime additive for use in FGD system&lt;br&gt;- Installation of computerized, negative weigh product metering system from silo&lt;br&gt;- Pneumatic transfer blowers and line to ductwork for lime injection to flue gases&lt;br&gt;- Computerized controls with commissioning</td>
</tr>
<tr>
<td>Cement Processing Plant, Upper Midwest USA</td>
<td>- Repeat customer with many installation projects executed since 1998&lt;br&gt;- Projects typically executed during plant shut-down / plant turnaround&lt;br&gt;- Most recent project was conversion of (2) Fuller plenum pulse baghouses to pulse-jet technology.&lt;br&gt;- These conversions executed on top of 170’ high material storage silos&lt;br&gt;- Work completed ahead of schedule</td>
</tr>
<tr>
<td>Brewery, Southeastern USA</td>
<td>- Install central vacuum system with 5000’ of tubing&lt;br&gt;- Pickup point installation from several points in plant</td>
</tr>
<tr>
<td>Cement Processing Plant, Central Midwest USA</td>
<td>- Complete replacement of Alkali BLBAS baghouse&lt;br&gt;- Contract executed during plant shut-down, working 24 hours daily, with 14 day window&lt;br&gt;- Project executed ahead of schedule in 13 days</td>
</tr>
<tr>
<td>Cement Processing Plant, Southeastern USA</td>
<td>- Filter conversion to pulse-jet cleaning&lt;br&gt;- Project located on 4th level of plant&lt;br&gt;- Project executed during 14 day shut down&lt;br&gt;- Project completed in 10 days – 4 days ahead of schedule</td>
</tr>
</tbody>
</table>
## Cement Processing Plant, South USA
- Three unloading and silo vent filters replaced while plant in operation – one filter at a time
- No plant downtime allowed
- Baghouse filters elevated on material storage equipment

## Cement Processing Plant, South USA
- Two new filters installed in truck load-out building while plant in operation
- Close-quarter project
- No plant downtime allowed

## Cement Processing Plant, Northeast USA
- Baghouse dust collector replacement project
- Several projects completed since 1995
- Filters replaced during plant turnaround

## Cement Processing Plant, Southeast USA
- Removal of existing baghouse filter, and replacement with new pulse-jet filter
- Filter installed on truck load-out facility
- Filter replaced during plant operation

## Cement Processing Plant, South USA
- Several different projects executed since mid-1990s
- Key projects listed below
- New baghouse filter for limestone crusher
- New baghouse filter for sizing screen and transfer system
- New baghouse filters for electrical control room pressurization
- New baghouse filter for truck load-out silos

## Cement Mill – Separator / Terminal, Southeast USA
- 40 year old shaker style collector replaced with pulse jet unit
- Unit located on top roof of cement mill – separator building
- New ducting included in change-over
- (14) 12 hour shifts allowed for conversion
- Plant placed back on-line ahead of schedule

## ENGINEERING CAPABILITIES
Adelphi can help arrange project specific engineering as needs arise. Adelphi can provide project engineering to the following requirements:

- Civil Engineering
- Foundation Design
- P.E. Stamps in 38 States
- Structural Engineering
- Piping Layout and Design
- Custom Ductwork & Ductwork Tie-In
- Fan Sizing and Air Handling Ductwork Design
- Autodesk Inventor 10
- Algor Analysis Software
- Mechanical Engineering
- Electrical Engineering
- AutoCad 2006
- AutoCad Mechanical 2006
**FABRICATION CAPABILITIES**

Adelphi can help arrange project specific fabrication as needs arise. Through several affiliated companies, Adelphi has access to the following type fabrication equipment and can help coordinate fabrication from Hot Rolled Steel (HRS), Stainless Steel (including food grade), or Aluminum materials.

- 3000 Watt CNC Laser
- CNC High Definition Plasma
- Up to 400 Ton Press-Brakes
- Up to 100 Ton Ironworkers
- Up to 18” Lathes
- TIG/MIG/SUBARC Welding
- Tank Turning Rolls to ½” capacity
- Up to 30,000# Overhead Crane Capacity
- Up to 21’ Hook Height Under Crane
- Stainless “Safe Areas”
- Dedicated Paint Areas

**PROCESS CONTROLS**

Through Adelphi’s close association with control firms that specialize in process engineering and process control upgrades, Adelphi can assist clients in project specific power, control panel, control automation and control cabling upgrades if required.

This engineering, design, and fabrication capability augments Adelphi’s electrical cabling and control automation installation capability, and greatly expands Adelphi’s product and service capability for its customers.

Specifically, Adelphi can arrange to have a Power System Analysis conducted prior to required system upgrades, coordinate application calculations, coordinate all electrical system drawings and schematics, coordinate control automation upgrades, and ensure that all upgrades are PE (Professional Engineering) Certified, when required.

Control and System Automation upgrades are executed through a crew with over 40 years design experience in control automation upgrades.

Affiliate companies are well versed in conceptualizing and designing control systems for a wide range of industrial processes. All panels are designed to National Electrical Code specifications, and the Electrical Standard of Industrial Machinery, NFPA Article 79. Affiliated companies are well-versed in PLC (Programmable Logic Controller) programming for Allen Bradley, Siemens, Square D, Texas Instruments, and General Electric systems as well as HMI (Human Machine Interface) and OI (Operator Interface) programming for Rockwell, Panelview, Intelluation, Total Control, Nematron, and Wonderware systems.
QUALITY
Adelphi personnel pride themselves in executing projects ahead of schedule whenever possible. Bringing a project “on line” on a timely basis, however, is only half the challenge. Adelphi crews hold work quality and safety ahead of the project schedule priorities. Adelphi embraces a ZERO rejects philosophy for every aspect of work. Adelphi implements a Quality Control / Inspection Plan for every project in order to meet this goal. This plan is constructed prior to the start of work. The initial activities normally include a full review of the client’s specifications, then a specific plan is developed around good work practices and critical hold points.
The Adelphi Quality Control / Inspection process focuses primarily on three key strategies:
- Craft Training and Certification
- Defining Hold Points
- Identifying Common Work Errors in Advance

CRAFT TRAINING
Through well-trained craft personnel, common mistakes are avoided because people know what to do and what to avoid. When supplemented through visual inspection in the field, safe and efficient work practices are constantly monitored and reinforced.

HOlD POINTS
By defining the hold points for inspection in advance of the start of work, quality can be built in by making sure critical points of inspection are made. This reduces costly rework and ensures troublefree start up. Hold Points are reviewed daily with each foreman prior to the start of work to ensure full compliance.

COMMON WORK ERRORS
Adelphi believes in prevention, not correction. To achieve this, the site manager issues a list of inspection requirements and hold points at the start of the project. These are areas of concern based on years of experience and have proven to be one of the best tools to identify preventable mistakes and plan the daily work to eliminate these mistakes.

SAFETY POLICIES
No project can be considered successful unless it is executed with Safety as the Number 1 Priority. The policy statement from Adelphi’s Safety Manual and from Adelphi’s Vice President Bill Berk, most accurately reflects Adelphi attitude toward field safety for both our clients and our crews. If you would like a copy of the full manual, it is available on request. Please contact us by emailing info@adelphiconstructionlc.com or calling 913-384-5511.
Clients Served
Adelphi personnel and Adelphi’s affiliated companies have served the following Fortune 700 clients on key projects:

- 3M
- AES
- AK Steel Holding
- Abbott Laboratories
- Alcoa
- Alleghany Energy
- Alliant Energy
- Alliant Techsystems
- Ameren
- American Electric Power
- Anheuser Busch
- Archer Daniels Midland
- Burns and McDonnell
- Caterpillar
- Cinergy
- Coca-Cola
- Colgate-Palmolive
- ConAgra Foods
- ConocoPhillips
- Corning
- Delphi
- Direct Energy
- Dow Chemical
- Duke Energy
- DuPont
- Eastman Chemical
- General Motors
- Goodrich
- Goodyear Tire & Rubber
- Great Plains Energy
- Holcim Cement, USA
- International Paper
- Johnson Controls
- Johnson & Johnson
- Kellogg
- Kerr-McGee
- Lafarge Cement
- Land O’Lakes
- Louisiana Pacific
- MeadWestvaco
- Merck
- Monsanto
- Navistar International
- Nucor
- Occidental Petroleum
- Owens Corning
- PPG Industries
- PPL
- Pactiv
- Pfizer
- Phelps Dodge
- Proctor and Gamble
- R.R. Donnelley & Sons
- Raytheon
- Reliant Energy
- Reynolds American
- Seaboard
- Sierra Pacific Resources
- Sinclair Oil Refinery
- Smithfield Foods
- Solutia
- TECO Energy
- Terex
- Tyson Foods
- USG
- US Steel
- Vulcan Materials
- Weyerhaeuser
- Xcel Energy
- Xerox

4800 Lamar Avenue
Mission, KS 66202
Phone: 913-384-5511
Toll Free: 1-800-334-7431
Fax: 913-384-6577
www.iac-intl.com