PROFESSIONAL SERVICES

METAL PRODUCTION & PROCESSING

AUTOMOTIVE & MANUFACTURING

CHEMICAL PRODUCTION & PROCESSING

FEDERAL, STATE & LOCAL GOVERNMENT

POWER GENERATION & TRANSMISSION

COMMERCIAL & INSTITUTIONAL FACILITIES

REWARNER & ASSOCIATES INC.

ENGINEERS
ARCHITECTS
SURVEYORS
CONSTRUCTION MANAGERS
R.E. Warner and Associates, Inc. is a full service multi-discipline consulting firm that has provided a wide variety of services to both public and private clients for more than 55 years. During that period, we have established a consistent track record of successfully completing projects, both large and small, within established schedules and budgets.

Our services are delivered through a rigid quality control process based on ISO-9001 and utilizing state of the art technology.

R.E. Warner & Associates is conveniently located in LA Office Plaza II, Suite 200, 25777 Detroit Road, just west of the Columbia Road exit of I-90 in Westlake, Ohio. Our modern 24,000 sq. ft. facility is designed to serve our clients nationwide by incorporating audio and video conferencing, high speed internet connectivity, video presentation, video streaming and archiving.

While these advantages are important, they are small in comparison to the most significant strength we have acquired over the years—our people. It is the attitude of our staff toward their work and our clients. It could be termed a corporate philosophy, a mind set or a company spirit. This positive attitude is evident throughout our organization. It applies equally to management, engineering, and construction.

Our way of doing business is not a casual commitment to excellence. It is strong! It is visible! It is total! It has a very definite and most remarkable effect on the work of our people, resulting in avid attention to quality and an unswerving dedication to our clients.

MARKETS SERVED
- Metal Production & Processing
- Automotive & Manufacturing
- Chemical Processing
- Federal, State & Local Government
- Power Generation & Transmission
- Commercial & Institutional Facilities

AREAS OF PRACTICE
- Buildings & Facilities
- Industrial Operations & Process Engineering
- Infrastructure
- Transportation
- Energy
- Environmental Services
- Surveying Services
- Construction Services
REPRESENTATIVE CLIENTS

AlMCO Real Estate Investment Trust
AK Steel Corporation
American Spring and Wire Company
ArcelorMittal Steel USA
ASHTA Chemicals, Inc.
Babcock & Wilcox Company, The
Broadview Heights, City of
Brush Wellman, Inc.
BWX Technologies, Inc.
Cargill, Inc. - Salt Division
Charter Steel Division of Charter Manufacturing Co.
Chrysler Corporation
Cinergy (Cincinnati Gas & Electric Company)
Cleveland Clinic Foundation
Cleveland Hopkins International Airport
Cleveland Municipal School District
Cleveland State University
Cleveland, City of
Continental Airlines
Corning, Inc.
Cuyahoga Community College
Cuyahoga County Engineer
Cuyahoga Metropolitan Housing Authority
Dominion Energy Corporation
Eaton Corporation
Energizer, Inc.
Firestone Polymers
FirstEnergy Corporation
Ford Motor Company
General Electric Company
General Motors Company
Gerdau Ameristeel
Gilbane Building Company
Greater Cleveland Regional Transit Authority
HCR ManorCare
Heidtman Steel Products, Inc.
Honda of America Mfg., Inc.
Hydrodec
International Truck
KB Compost
Kenworth Truck Company
Lake County Commissioners & Engineer
Lorain County Commissioners & Engineer
Millennium Inorganic Chemicals
Moreland Hills, Village of
NASA Glenn Research Center
Ohio Department of Administrative Services
Ohio Department of Natural Resources
Ohio Department of Transportation
Oregon Steel Mills, Inc.
PET Processors, LLC
PPG Industries
Reliant Energy
Richard E. Jacobs Group, The
Ross Environmental Services, Inc.
RTI International Metals, Inc.
Rudolph Libbe, Inc
SeverStal North America, Inc.
Solon, City of
Stark County Engineer
Subaru-Isuzu Automotive, Inc.
Sun Oil Company (Sunoco)
Timken Company, The
Union Rural Electric Co-Op
United States Steel Corporation
We Energies (Wisconsin Electric Company)
Westlake, City of
Whiting-Turner Contracting Company
ARCHITECTURAL & PLANNING

LAND PLANNING
- Master Planning
- Site Selection & Analysis
- Landscape Design

ARCHITECTURE
- Feasibility Studies
- Building Envelopes Analysis
- Building Code Review
- Program Development
- Schematic Design
- Design Development
- Material Analysis
- Construction Document Development
- Specifications
- Renderings
- 3D Modeling
- Construction Administration

INTERIOR DESIGN
- Program Development
- Space Planning
- Contract Documents
- Graphics
- Furnishings Selection
- Finishes Selection
- Color Coordination
- Lighting Design

INTERIOR DESIGN (continued)
- Renderings
- Color Boards

STRUCTURAL ENGINEERING

ANALYSIS & INVESTIGATION
- Structural Investigation & Evaluation
- Integrity Assessment
- Crane Railway Surveys & Inspections
- Condition Surveys
- Finite Element Analysis

FOUNDATION DESIGN
- Pilings
- Caissons
- Footings
- Isolated Foundations
- Mats

BUILDING DESIGN
- Structural Steel
- Reinforced Concrete
- Pre-stressed Concrete
- Masonry
- Timber

SPECIAL STRUCTURES
- Fall Protection
- Overhead Crane Runways
- Material Handling System Structures
- Storage Tanks
- Substation Structures
- Retaining Walls
- Water Intake & Outfall Structures

BRIDGES & CULVERTS
- Highway
- Pedestrian
- Material Handling

CIVIL ENGINEERING

SITE DESIGN
- Grading & Drainage
- Stormwater Management
- Streets & Roadways
- Underground Utilities
- Water Quality
- Irrigation Systems
- Erosion Protection & Control
- Parking Areas
- Railroad Spurs
- Permitting & Compliance
- Stormwater Pollution
- Prevention Plans

TRANSPORTATION ENGINEERING
- Roads & Highway Design
- Bridges & Structures
- Transportation Planning
- Waterways

MUNICIPAL ENGINEERING
- Water Storage, Transmission & Distribution
- Sanitary Sewage Collection
- Stormwater Management
- Storm Sewer Systems
- Culverts & Drainage Structures
- Streets & Roadways
- Parks & Recreational Facilities
PROCESS & PIPING ENGINEERING

PROCESS ENGINEERING
- Process Flowsheets
- Process Evaluation and Optimization
- P&ID Development
- Size and Specify
  - Pumps
  - Heat Exchangers
  - Relief Valves
  - Control Valves
  - Piping
- Safety System Design
- Equipment Specification
- Unit Operations
- Energy Recovery
- Energy and Water Conservation
- Process Hazard Analysis
- Process Safety Management
- Operating Procedures
- Commissioning

UTILITY SYSTEMS
- Steam/Condensate
- Cooling Water
- Chillers/Refrigeration
- Compressed Air Systems
- Nitrogen Systems
- Gas Systems
- Fuel Supply Systems
- Hot Oil Systems
- Sewer Systems
- Vacuum Systems
- Dust Control Systems
- VOC Control Systems
- Fire Control/Suppression Systems

PIPING DESIGN & LAYOUT
- Process Systems
- Stress Analysis
- Code/Pressure Vessel Design
- Welding and Materials Design
- Pipe Support Systems
- Air
- Natural Gas
- Oxygen

PIPING DESIGN & LAYOUT (continued)
- Nitrogen
- Steam
- Water
- Liquid Fuels
- Process Fluids
- Chemicals
- Slurry

MECHANICAL/HVAC ENGINEERING

STUDIES
- Indoor Air Quality
- Energy Audits
- System Alternatives & Feasibility
- Economic Evaluations and Planning
- Plant Ventilation Analysis & Evaluation

HEATING, VENTILATING AND AIR CONDITIONING
- Boilers, Chillers and Cooling Towers
- Air Handling Equipment & Systems
- Energy Recovery Systems
- Geothermal Systems
- Energy Management Control Systems
- Smoke Removal Systems
- Kitchen Exhaust & Make-up Air Systems
- Computer Room Air Conditioning
- Clean Room Systems
- Variable Air Volume Systems and Controls
- Humidification and Dehumidification

PIPING
- Hydronic and Steam Systems
- Compressed Air Systems
- Vacuum Systems
- Water Purification Systems
- Pneumatic Conveying

INDUSTRIAL VENTILATION
- Dry Dust Collection Systems
- Wet Dust Collection Systems
- Process Exhaust Systems
- Make-up Air Systems
- Hazardous Fume Exhaust Systems
- General Ventilation for Heat Control & Dilution
- System Airflow Testing & Balancing

GENERAL SERVICES
- Design Build
- Equipment, Systems & Construction Specifications
- Project and Construction Management
- System Start-Up
- Conceptual Design to Detail Fabrication

FIRE PROTECTION
- Wet & Dry Pipe Systems
- Pre-action & Deluge Systems
- Foam Suppression Systems
- Clean Agent Suppression Systems
- Fire Pumps
- Hydraulic Flow Calculations

PLUMBING
- Domestic Hot and Cold Water Systems
- Sanitary Sewer Systems
- Storm Sewer Systems
- Fuel Gas Piping Systems
- Medical Gas Piping Systems
INSTRUMENTATION & CONTROL ENGINEERING

STUDIES
- Equipment System Analysis/Upgrade Evaluations
- Functional Operation Review/Recommendations
- Economic Evaluation & Planning
- Probable Cost of Construction Estimates

AUTOMATION & SYSTEM INTEGRATION
- Single Loop Controllers
- Multiple Loop Controllers
- Continuous Process Control
- Batch Process Control
- Material Handling
- Angular and Linear Motion
- Data Acquisition
- Fiber Optic Networks
- Intrinsically Safe Systems

INSTRUMENTS & SENSORS
- Electronic Transmitters & Controllers
- Pneumatic Transmitters & Controllers
  - Level
  - Flow
  - Pressure
  - Temperature
  - Conductivity
  - pH/ORP
  - Recorders

START-UP & COMMISSIONING
- Instrument Calibration
- Loop Check-out
- Design/Build Installations

OPERATOR & MAINTENANCE TRAINING
- In-Plant Operator Training
- Maintenance Training
- Complete O&M Manual Preparation

ELECTRICAL ENGINEERING

STUDIES
- Power System Computer Modeling
- Short Circuit Analysis
- Load Flow Analysis
- Protective Device Coordination
- Power Factor Correction
- Harmonic Filtering
- Power Quality Metering
- Arc Flash Studies
- Energy Audits
- Economic Evaluations & Planning
- Probable Cost of Construction Estimates
- Hazardous Area Classification

POWER SYSTEMS
- Medium Voltage Distribution
- Low Voltage Distribution
- Substation & Distribution Equipment Specifications
- Emergency Generators
- Uninterruptible Power Supplies
- DC Rectifiers/Substations

SYSTEM INSTALLATION
- Conduit & Cable Tray Raceway Systems
- Hazardous Area Equipment, Raceways, & Cable Systems
- Intrinsically Safe Systems
- Database Conduit & Cable Schedules
- Motor Control Systems
- AC Drive Systems
- DC Drive Systems
- Heat Trace Systems
- Grounding
- Lightning Protection
- Leak Detection Systems

LIGHTING & COMMUNICATIONS
- Indoor and Outdoor
- Commercial and Industrial
- Emergency Lighting
- High Mast Lighting
- Fire Protection Systems
- Security & Alarm Systems
- Communication Systems
- Fiber Optic Networks

START-UP & COMMISSIONING
- Substation & Motor Control Commissioning
- Protective Device Setting & Calibration
- System Construction Support & Commissioning
- Design Build
ENVIRONMENTAL SCIENCE AND ENGINEERING

AIR EMISSION CONTROL
- Air Pollution Control Systems
- Air Source Evaluations & Potential to Emit Determinations
- Title V Assistance
- Air Permits to Install & Operate
- Industrial Ventilation

WATER & WASTEWATER TREATMENT
- Water Supply, Treatment & Distribution
- Water System Permits
- Industrial Pre-treatment Assessments & Permits
- Sewer Collection Systems
- Wastewater Treatment Design
- NPDES Discharge Studies & Permits

STORMWATER MANAGEMENT
- Hydraulics and Hydrology
- Storm Sewer System Design

ENVIRONMENTAL ASSESSMENTS
- Property/Facility Assessments and Surveys
- Risk Assessments & Risk-Based Actions

FACILITY COMPLIANCE
- Succession of Operations
- Waste Management
- Spill Control
- Permitting

SAFETY ENGINEERING & COMPLIANCE
- Facility Safety Services
- Environmental Health & Safety Program Support

TRAINING AND EDUCATION
- Environmental Compliance
- Spill Prevention & Control

MULTI-DISCIPLINE PROPERTY EVALUATIONS
- Property Evaluations
- Code Compliance Evaluations
- Environmental Assessments & Surveys
- Maintenance Program Evaluations

SURVEYING

BOUNDARY SURVEY
- Commercial
- Residential
- Lot Splits
- Consolidation Plats
- Dedication/Vacation Plats
- Legal Descriptions

ROUTE SURVEYS
- Interstate Highways
- State Routes
- Rail Lines

RIGHT-OF-WAY SURVEYS
- Plan Development
- Legal Descriptions

PIPELINE SURVEYS

ELECTRIC POWER TRANSMISSION LINE SURVEYS

HORIZONTAL & VERTICAL CONTROL
- Control Monuments
- Benches

GIS DATA COLLECTION
- GPS
- Robotics
- Manual

TOPOGRAPHIC SURVEY
- Base Mapping (Microstation & AutoCAD)
- Plot Plan

CONSTRUCTION LAYOUT & STAKING
- Heavy Highway
- Utilities
- Sitework
- Foundations

LAND SUBDIVISIONS
- Residential
- Commercial
- Industrial Parks
- Condominiums

DEFORMATION MONITORING
- Walls
- Columns
- Trusses
- Ground

TECHNICAL SERVICES

MANAGEMENT
- Contract Administration
- Economic Analysis
- Expert Witnesses
- Facility Master Plans
- Grant & Loan Applications & Administration
- Operation & Maintenance Manuals
- Operator Training
- Studies & Surveys
- Value Engineering

CONSTRUCTION MANAGEMENT
- Administrative Control
- Schedule Control
- Financial Control & Reports
- Consultation During Design
- Building & Contracting
- Procedurement
- Resident Engineers
- Field Observation
- Surveying
- Start-Up & Testing
“Our mission is to efficiently provide technical solutions to our clients through professionals with a passion for service.”

Since our founding in 1951, R.E. Warner & Associates, Inc. has experienced steady and continuous growth. Building on our traditional strengths and values, we have entered into new fields only when it is consistent with the basic mission of our company. Today, R.E. Warner is a full service, multi-discipline consulting firm serving both public and private clients.

We call ourselves multi-discipline because we offer professional services in civil, structural, mechanical, electrical and process engineering; architecture and planning; surveying; and environmental science and engineering.

Our impressive list of clients includes many of our nation’s largest steel, automotive and chemical producers, electric power companies, health and educational facilities, and various agencies of the federal, state and local governments.

R.E. Warner’s mission is to provide efficient technical solutions that significantly improve our client’s core business through people with a passion for customer service. Our areas of practice include buildings and facilities, industrial operations and process engineering, infrastructure, transportation, energy management, surveying, environmental and construction services.

In order to fulfill our mission to our clients, R.E. Warner consistently recruits, hires and retains leaders in our profession. In recognition of our great workplace, R.E. Warner has been named a multi-year winner of the NorthCoast 99 Award, presented annually by the Employers Resource Council to the top 99 companies to work for in Northeast Ohio.

We invite you to contact many of our peers listed in this brochure to discover how working with R.E. Warner can be economical, efficient, and always professional.