Allgeier, Martin and Associates, Inc. has provided planning, design, and construction phase engineering services to public and private sector clients since 1954. Our Civil and Electrical Divisions provide our clients specialized, professional expertise.

Civil Engineering Services
The Civil Division serves municipalities, government agencies, institutions and industries. We provide a complete range of civil and hydrological engineering services needed by small and medium-sized cities. Because of the multi-disciplinary approach, many of our clients have no need to go beyond Allgeier Martin, even for large, complex projects.

Electrical Engineering Services
The Electrical Division serves rural electric cooperatives, investor-owned and municipal-owned utilities. We have the capability to undertake large, complex electrical engineering projects and have planned and managed projects in twelve states in the mid-west and southwest.

Survey Department Services
Our Survey Department is fully equipped with premium equipment. Every crew is equipped with a Leica GPS System, a Leica Total Station utilizing Explorer Data Collectors and a laptop computer running Carlson Survey software. Office personnel use AutoDesk Civil 3D to integrate the field data into related engineering projects.

CIVIL ENGINEERING SERVICES

- Airports
- Bridges
- City Engineering
- Commercial Development
- Compliance Permit Applications
- Comprehensive Planning (zoning, subdivision regulation, traffic planning)
- Construction Monitoring
- Environmental Studies & Plans
- Flood Control Projects
- Hydrology Analyses & Structures
- Streets & Street Lighting
- Rate Studies
- River Engineering
- Site Investigations & Assessments
- Stormwater Management
- Wastewater Collection & Treatment
- Water Distribution & Supply
- Water Treatment & Storage
- Construction Phase Services
- Project Bidding & Contract Award
- Cash-Flow
- Construction Staking
- Resident Project Representation
- Contract Administration
- Shop Drawing Review
- O & M Manuals Development
- Start-Up/Follow-Up Services
- Electrical Engineering Services
- Substation Design, 2.4 kV – 500kV
- Transmission Line Design – 345kV
- Distribution Line Design – 25kV
- Grounding Networks
- Long-Range Facilities Planning
- Microwave Communication Systems
- Optical Fiber Systems
- Power System Studies
- Power Supply Studies
- Protective Relaying Systems
- Rate Studies
- SCADA Systems
- System Mapping & GIS Services
- Regulatory Compliance Assistance
- Property, Route & Easement
- Surveying
- Corrosion Mitigation Systems
- Storm Restoration Design
- Surveying Services
- ALTA/ACSM
- Construction Staking
Allgeier Martin’s Civil Division manages projects in the wastewater, water, transportation, stormwater, and site development fields. We have in-house capabilities for structural, mechanical, and electrical design. A full staff of surveyors and experienced field technicians complements the division. We have maintained a strong reputation working for public and private clients, both large and small, since 1954. Our clientele stretches across the states of Missouri, Kansas Oklahoma, and Arkansas.

Wastewater
Wastewater treatment projects vary in size from a few thousand gallons per day to tens of millions of gallons per day. Collection system lift stations capable of pumping over 8.5 million gallons per day, and interceptor sewers up to 60” in diameter are among our project experience.

Allgeier Martin’s wastewater treatment facilities design experience includes extended aeration activated sludge systems, such as oxidation ditches and sequencing batch reactors, conventional activated sludge systems, trickling filter towers, recirculating sand filters, high-rate and low-rate land application systems, and a variety of proprietary and non-proprietary processes. Biosolids treatment, dewatering, and disposal have also been dealt with, by way of aerobic or anaerobic digesters, sludge drying beds, gravity belt thickeners, and land application.

Water
Our water system experience includes conventional single-stage and two-stage water treatment facilities for public systems, reverse osmosis treatment for industrial process water, and aeration/filtration/disinfection systems for treating groundwater supplies. We have worked extensively in the planning and design of water distribution system upgrades, extensions and replacements, new deep wells, water storage facilities of up to 2.5 million gallons capacity, and in performing comprehensive, long-range studies of water systems. The clients that we regularly serve include municipal systems, rural water districts, and private and commercial systems.

Many of our water system projects have been directly associated with planning and design relative to expansion, improvements, and development of water supplies, distribution, and storage. Each project is preceded by a thorough study in order to provide our client with a functional, efficient, and cost-effective system.
Stormwater
Stormwater and hydrology are also a part of our extensive engineering expertise. Our registered engineers and hydrologists have years of experience in the planning and design of new stormwater systems, hydraulic structures, and in the evaluation of existing systems.

- Master Planning
- Watershed Modeling
- Storm Sewer Systems
- Culvert Analysis/Design
- Detention Reservoirs
- GIS Applications
- Floodplain Mapping and Modeling
- FEMA Map Revisions
- Stream Data Collection
- Technical Training

Site Development
Allgeier Martin is regularly involved in site planning and layout, which can include extensive grading and earthwork computations, sanitary and storm sewer design, hydrology, water line design, and roadway layout for municipal and private industrial development projects. Many projects require stormwater management and detention facility design, boundary and topographic surveys, utility relocation and extensions, grading plans, easement preparation, construction oversight and coordination with the client regarding permitting and zoning.

Transportation
Allgeier Martin has been designing roads, streets, intersections, bridges, signalization, street lighting, and airports since 1954. State transportation departments, municipalities, counties, industries, and airport agencies have taken advantage of our experience and technical knowledge to plan and design new facilities, or to make improvements to existing facilities, to meet the growing needs of the traveling public.

Survey Experience
Our Survey Department consists of four Registered Land Surveyors (R.L.S.), with a combined ninety years of experience in surveying services, two civil engineering crews, two electrical transmission crews, and two electrical distribution crews that are fully equipped with premium equipment. Every crew is equipped with a Leica GPS System, a Leica Total Station utilizing Explorer Data Collectors and a laptop running Carlson Survey software. Office personnel use AutoDesk Civil 3D to integrate the field data into related engineering projects. We have several staff members that are registered ITIC users for 1-Call for the determination and location of underground utilities. In addition, a number of our surveying staff are HazMat and OSHA approved.

- Construction Staking
- ALTA/ACSM
- Boundary and Topographic Surveys
- GPS
- Project Bidding
- Contract Award
- Resident Project Representation
- Contract Administration
- Start-Up and Follow Up Services
Allgeier Martin’s Electrical Engineering Division provides several specialty services. We have served municipalities, electrical cooperatives, power companies, industries, institutions and the federal government on hundreds of projects.

Transmission Line Design, 69 kV – 345 kV  
Distribution Line Design, 2400V – 25 kV  
Substations, 2400V – 500 kV  
Power System Planning  
Power Supply and Rate Studies  
Protective Relaying and Control Systems  
SCADA Systems  
Fiber Optic Communications Systems  
Microwave Communications Systems

**Transmission Line Design and Routing**

We have designed thousands of miles of transmission line ranging in voltage from 69kV-345 kV in rural and urban environments. Services include route analysis and selection, environmental and cultural surveys, right-of-way acquisition, survey and staking, physical line design, upgrade or modification services from existing facilities, project management services, and on-site construction representation.

**Substation Design**

Substation designs include all standard voltages from 2400V to 500 kV. We can prepare specifications for steel, transformers, breakers, switches, relaying, and other items needed for the substation construction. We will reuse existing designs of steel structures and detail new modified structures in house to reduce costs. We design the relay panel layouts and point-to-point wiring, which maintains control, includes client’s desires, and also reduces costs. We prepare contracts and handle the bidding, award, and administration processes.

**Communication Services**

- Communication System Planning
- Microwave Path Analysis and Surveys
- Land Mobile Radio Studies
- FAA Determination and FCC License Applications
- NEPA Report Preparation
- Frequency Coordination Administration
- Site Development and Design
- Tower Specifications
- Communication Building Design and Specifications
- Construction Administration and Inspection
- Tower and Antenna Inspections
- Guy Anchor Corrosion Testing
- System Types
- 900 MHz, 2, 6 and 10 GHz Microwave
- Optical Fiber
- Low Band, High Band and UHF
- Land Mobile Radio
- Power Line Carrier
- Multiple Address Radio

**Electric Rate Studies**

Past year system operating costs are used to develop the pro forma year costs, which are divided into consumer, demand, and energy related expenses. They are allocated to different consumer groups (residential, commercial, industrial). The electric rate is designed to generate the required revenues, and the rate structure is designed to be as equitable as possible between customer classifications.

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**Distribution Systems**

Distribution systems begin with long and short term planning. Long range plans guide the designing for systems over a 10-20 years. Short term recommends specific improvements over a 2-4 year period. Other services include: distribution system automation, economic conductor analysis, mapping and CAD services, cost-of-service studies, power requirement studies, and right-of-way.

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