



## Firm Overview

Rii is a broad-based, multi-disciplined professional engineering consulting firm specializing in construction management, information technology and planning and design of building and infrastructure projects valued in excess of \$1 billion annually. Rii was chartered as an Ohio corporation in 1941 and has been operating as a woman-owned business since 1973. Rii is managed by its Owner and Chief Executive Officer, Farah Majidzadeh, and its Owner and President, Kamran Majidzadeh, Ph.D., P.E., as well as its Vice Presidents and Division Managers.

Today, the Columbus-based corporate headquarters and its branch offices throughout the Midwest and abroad employ more than 160 professionals; many who are long-standing and have worked at Rii their entire career. The firm lists an impressive roster of projects for public and private agencies. In addition, we maintain multi-disciplined departments allowing for most services to be performed in-house including field operations needed for investigations, surveys, assessments, and studies.

## Civil Engineering Services

Rii's Civil Engineering Division provides quality engineering services for municipal, county, state agencies, and A/E firms and private developers.

Our professional staff has vast experience working with these entities, private utilities and regulatory agencies for successful completion of a variety of projects. From planning, design, bidding, and construction through project closeout, our in-house resources and capabilities provide cost effective solutions for all aspects of the project. Our design staff perform studies, design and construction services for stormwater management, wastewater collections, water distribution, roadway, parking lot and drainage structures, site improvements for treatment facilities and site development. Detailed services include:

### Stormwater Management

Our stormwater system design experience includes stormwater master plans, detention/retention basin design, I/I studies, and low-impact development utilizing green solution BMPs such as bioretention basins, dry extended swales, rainwater harvesting cisterns, and permeable pavers.

Retention/detention basin design also includes applying the requirements under OEPA's General Construction Permit for water quality design features to meet post-construction water quality criteria. We perform preliminary engineering consisting of reviewing background information, interviews, field investigations, survey, public meetings, preparing conceptual layout of stormwater system improvements to mitigate problem areas, hydrologic and hydraulic analysis, and report preparation. Detailed design includes plan and contract document preparation and accurate quantity and cost estimates.

### CORE SERVICES

- Civil Engineering
- Stormwater Management
- Wastewater Collections
- Water Distribution
- Surveying, Mapping and SUE
- Environmental Services
- Geotechnical Engineering
- Construction Services

### CERTIFICATIONS

- MSDGC - SBE
- City of Cincinnati - SBE
- State of Ohio - EDGE and DBE
- Women's Business Enterprise National Council (WBENC) - WBE

### REPRESENTATIVE CLIENTS

- Butler County Regional Airport
- Butler County Transportation Improvement District
- Caesar's Entertainment
- Clermont County Transportation Improvement District
- Cincinnati Children's Hospital
- City of Blue Ash
- City of Cincinnati
- Greater Cincinnati Water Works
- Hamilton County
- Highland County Airport
- James A. Rhodes Airport
- Metropolitan Sewer District of Greater Cincinnati
- Ohio Department of Transportation
- Ohio Facilities Construction Commission
- Sanitation District No. 1 of Northern Kentucky
- USAF - Wright Patterson Air Force Base
- Various A/E Consultants

## Local Office

Our full service, Cincinnati office was established in 1995 and has been providing services to local clients like MSDGC, GCWW, the City of Cincinnati, ODOT, and Hamilton County since its inception. See additional clients above.

## Wastewater Collections

Wastewater collection projects include sanitary sewer replacement and rehabilitation projects, PACP and MACP assessments, CSO regulator modifications, and trenchless technology. For sewer assessments and evaluation, key personnel maintain NASSCO PACP/MACP certifications and are permit required confined entry trained.

Our trenchless rehabilitation experience for the design of sewer projects has included pipe bursting, jack and bore, directional drilling, tunneling, cured in place lining (CIPP), sliplining, and chemical grouting of joints. We have vast experience in open cut sewer construction including dewatering, soil stabilization and rock excavation. Sewer improvement design includes small and large diameter sewers ranging in size up to 108 – inches plus working on large storage tunnels.

## Water Distribution

Our project experience on water distribution projects have ranged from replacement, extension, relocation and/or new construction for pipe sizes ranging from 2" - 30". Rehabilitation projects have also included alternative design solutions for trenchless rehabilitation options such as CIPP.

Rii's design staff has experience with ductile iron, PCCP and PVC piping for urban and rural systems and applications. We work closely with the fire department and local authorities on design and installation of fire hydrant systems and service connections to all facilities and homes. Detailed plans and specifications are prepared in accordance with AWWA and local standards for bidding and construction.

## Environmental Services

Rii has more than 30 years of experience providing environmental services and has managed environmental projects as a prime and subcontractor for owners and A/E consultants. Services include hazardous materials surveys and abatement oversight; Phase I / II environmental site assessments; underground storage tank investigations; subsurface and groundwater investigations; construction SWP3 services and section 401/404 permitting. We have certified professional geologists, asbestos hazard evaluation specialists and abatement project designers on staff.

## Geotechnical Engineering

Rii's vast geotechnical and laboratory experience includes certified staff, laboratories and drilling and sampling equipment necessary to perform these services:

- Soil and Rock Drilling
- Geotechnical Instrumentation Installation & Monitoring
- In-situ Soil and Rock Testing for Tunneling Systems
- Laboratory Classification and Specialty Testing of Soil and Rock
- Bearing Capacity and Settlement Analysis of Shallow and Deep Foundation Systems
- Slope Stability and Seepage Analysis
- Design of Mechanical Slope Retention Systems
- Retaining Wall, Sheet Piling and Anchor System design
- Pavement Design

*Rii adheres to ISO 9001 certification guidelines to provide high quality, accurate services in a timely manner.\**



- Geophysical Investigations
- Hydrogeological Studies
- Dewatering Planning Development

## Surveying, Mapping & SUE

Rii has state-of-the-art survey equipment, software, and professional surveyors on staff. Rii's survey team performs detailed land surveys for determining and documenting existing site features of topography, buildings locations, utilities and structures, property corners, boundaries, right of way and easements. Our survey crews establish vertical and horizontal control prior to and during construction of buildings, utilities and infrastructure. We also provide subsurface utility engineering (SUE) using specialized geophysical equipment to designate and locate underground utilities and structures. Ground Penetrating Radar (GPR), a non-destructive inspection method, is also another method used to locate utilities that Rii maintains in-house. Surveying equipment and software includes:

- Trimble R8 GNSS GPS Receivers; 5603 Robotic Total stations and TSCII Data Collectors
- TOPCON GTS-3B Total Stations and TOPCON Automatic Level
- Leica SR530 GPS Receivers and NA2002 Digital Level
- MetroTech 9810 Utility Locators; Radio Detection RD433 Utility Locators and Schonstedt GA-52Cx Locators
- Ground Penetrating Radar
- AutoCAD Civil3D

## Construction Services

The Rii construction services division has become a strong and distinctive department within the company, with excess of 100,000 man-hours annually, working on multiple high profile projects. Construction administration, materials testing and inspection services have been provided on all types of projects over the years, including municipal facilities, wastewater/water treatment plants, roadway and infrastructure projects, commercial and high-rise buildings, educational facilities, and correctional institutions. Project costs range from \$500 M to \$1 billion per year.

## Contact

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*\* Rii has implemented an ISO 9001 Quality Management system to ensure that we are providing a high quality, accurate service to our clients in a timely manner. We are scheduled to be audited in March of 2013, in plans of becoming ISO 9001 certified at that time.*