

STATEMENT OF QUALIFICATIONS

CIVIL ENGINEERING



SERVING THE INTERMOUNTAIN WEST!

CIVIL | GEOTECHNICAL | ENVIRONMENTAL | MATERIALS TESTING | SURVEYING | DRILLING



www.inberg-miller.com

GREETINGS FROM IME!

At Inberg-Miller Engineers, our civil engineering professionals share one common passion: the success of our clients. We know that this success is found at the crossroads of providing quality solutions and timely results with a constant focus on the bottom line. Your pathway to success starts with selecting the right civil engineer, and we thank you for considering us to partner with you on your project.

The following information has been compiled to give you a better understanding of the breadth of civil engineering services offered by Inberg-Miller Engineers. On many civil engineering projects, the extent of our services and our depth of experience is vital to ensuring that all the pieces of your project puzzle are put in place. We understand the many complexities of civil engineering projects, whether it's providing innovating solutions to perceived roadblocks, navigating through complex permitting processes, or delivering services that span seamlessly across multiple engineering disciplines.

Our professional staff take pride in providing civil engineering designs on projects in the communities where we work, live, and play. From initial conceptual design, to final permitting and groundbreaking, to construction completion, Inberg-Miller Engineers is with you every step of the way with the principle that your success is our success.

Sincerely,

Michael Brown, P.E. Vice President / Civil Engineering Department Head mbrown@inberg-miller.com



Inberg-Miller Engineers provides a full suite of civil engineering services to meet all your project needs.

Our civil design team brings over 100 years of combined experience and thrives on challenges and can make important decisions that impact budgets and public safety. IME has successfully provided clients with the necessary experience, expertise, ability, and equipment to perform technical engineering services. Our clients include private individuals, small and large businesses, mining, and mineral companies, and local, state, and federal governments. IME is ideally qualified to provide responsive, cost-efficient, and locally knowledgeable services for our clients throughout the Intermountain Region.

Our civil engineering staff provides Civil 3D services for many of our civil engineering designs. One of the benefits of using Civil 3D is that we can make changes quickly and dynamically, allowing our clients to consider an assortment of design options on the fly. Civil 3D enables us to provide our clients with an industry-compatible digital design that can be used seamlessly for construction surveys and GPS-enabled earth-moving equipment.



WE HAVE PERFORMED NUMEROUS CIVIL DESIGN PROJECTS FOR PRIVATE AND PUBLIC ENTITIES THROUGHOUT THE ROCKY MOUNTAIN REGION.



Safety - Service - Reliability

At Inberg-Miller Engineers our team is known for our innovative and thoughtful approach. Large scale or small, our team goes the extra mile to understand the project, make precise decisions based on the complexity and unique characteristics of each project.

OUR APPROACH ON EVERY PROJECT IS TO FIND A BALANCE BETWEEN COST-EFFECTIVE SOLUTIONS (VALUE ENGINEERING) AND HIGH-QUALITY DESIGN.



CIVIL ENGINEERING

Inberg-Miller Engineers provides a full suite of civil engineering services to meet all your project needs.

CIVIL ENGINEERING SERVICES:

Transportation Engineering

Roadway Design

Site and Grading Design

Subdivision Design

Structural Design, Analysis & Foundations

Stormwater Services

Utility Services

Irrigation Design

Permitting

Construction Administration & Observation







WE ARE HAPPY TO PROVIDE SPECIFIC PROJECT EXPERIENCE RELEVANT TO YOUR PROJECT.

EXPERTISE

Inberg-Miller Engineers employs over 65 civil, geotechnical, and environmental engineers, land surveyors, scientists, technicians, and administrative staff.

Our staff holds advanced degrees and training in specific disciplines, in addition to being versatile enough to assist in Inberg-Miller's overall mission of "Quality Solutions through Teamwork."

We have Certified Federal Surveyors (CFedS) in house to perform those surveys requiring this certification.

EQUAL OPPORTUNITY EMPLOYER

Inberg-Miller Engineers is an equal opportunity employer. All applicants will be considered for employment without attention to age, race, color, religion, sex, sexual orientation, gender identity, national origin, veteran or disability status.

SAFETY

At Inberg-Miller Engineers safety is our top priority. As such, we have developed a "culture" of safety which all our employees have adopted as standard working practice. Our culture of safety transcends our work in the office, laboratory, and field, to the homes of our employees. We have developed this longstanding culture of safety by conducting weekly office safety meetings, job site tailgate meetings, performing job site analysis (JSAs), attending site-specific safety training at various facilities, as well as hosting company-wide safety meetings during our annual corporate week. During our annual safety meeting, we discuss concerns, equipment, and review standard safety practices. We are proud of our low incident rates and have received numerous through safety awards the Wyoming Contractors Association for zero-incident rates based on man-hours worked. Our clients have grown to appreciate our attention to safety.



MEET OUR TEAM

CIVIL DEPARTMENT

YOUR PROJECT, OUR PRIORITY!



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C. Dawn Willhelm, P.E. Riverton Senior Civil Engineer Vice President (307) 856-8136 dwillhelm@inberg-miller.com



Gary Steele, P.E. Cheyenne Cheyenne Office Manager Senior Civil Engineer (307) 635-6827 gsteele@inberg-miller.com



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MEET OUR TEAM

CIVIL DEPARTMENT, CONTINUED



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GIVE US A CALL TODAY TO GET YOUR PROJECT STARTED!



TRANSPORTATION

Transportation Engineering

TRAFFIC STUDIES SPEED LIMIT RECOMMENDATIONS ROUNDABOUT DESIGN TRAFFIC CONTROL PLANS

Inberg-Miller has experience in performing speed studies and speed limit recommendations for county roads and has performed traffic impact studies for various new and existing developments including hotels and casinos, schools, commercial and industrial developments, residential subdivisions, and business parks. In addition, our team has experience in roundabout design, traffic calming measures, and traffic signal warrants. Striping, signing, and traffic control plans are frequently a part of an overall design package, but can be performed by our staff as a separate, stand-alone design.

Our traffic engineering staff has practical application and experience in the technical design guidelines and requirements included in Title 31 of the Wyoming State Statutes for speed studies, the Institute of Transportation Engineer's (ITE) Trip Generation, the Highway Capacity Manual (HCM), the Manual on Uniform Traffic Control Devices (MUTCD), and AASHTO's "A Policy on Geometric Design of Highways and Streets," among other technical references related to traffic and transportation engineering, planning, and safety.

Careful consideration and detailed engineering accounting for many variables including access, growth, and climate make our roads more safe and easier to navigate.





Inberg-Miller has designed numerous road construction projects totaling many miles of highways and roads for the Wyoming Department of Transportation (WYDOT) and local counties, cities, and towns.

The services we have provided for our clients include field surveys to establish right-of-way lines; generating cross-sections from either field surveys or digital terrain models generated from aerial drone surveys; geotechnical investigations for the roadway, borrow sources, and aggregate sources; design of the horizontal and vertical alignment and superelevation; evaluation and design of climbing lanes; hydrologic and hydraulic analysis for culverts; pavement section design; design of cross-section elements and snow fence to control blowing snow; earthwork balance and preparation of earthwork mass diagrams; quantity estimates; and preparation of the final plans including plan and profile sheets, quantities summary tables, details, cross-sections and culvert profiles.

In 2021, Teton County contracted with Inberg-Miller Engineers to provide subsurface investigation, geotechnical and civil engineering design services, Construction Administration and Resident Project Representative services during construction of 3.67 miles of road in Alta, WY. Ultimately, the County chose to resurface the roads with a process known as heater repaving, the first time this particular process has been used in Wyoming. Not only is this process a cost-effective option, it also increases the durability of the road by adding asphalt to the existing cross section which increases the strength of the road.

Teton County chose heater repaving in part, because of the cost savings, but also because aligned it with the Teton County Comprehensive Plan which focuses, in part, on Ecosystem After Stewardship. Because heater repaving uses less energy, aggregate, and asphalt, greenhouse gas emissions are and the existing asphalt can be reduced, recycled for use in the project rather than disposed of making it a wise choice when considering ecosystem stewardship.

Inberg-Miller Engineers is proud to be a part of this project which provides a safe, durable, and cost-effective solution to road maintenance.



INBERG-MILLER ENGINEERS



2019 American Public Works Association Rocky Mountain Chapter Project of the Year 2021 Wyoming Engineering Society President's Project of the Year

AWARD WINNING ENGINEERING



INBERG-MILLER ENGINEERS

Hot In-Place Asphalt Resurfacing Teton County Roads

In 2021, Teton County contracted with Inberg-Miller Engineers (IME) to provide subsurface investigation, geotechnical and civil engineering design, construction administration and resident project representative services during construction for 3.67 miles of roads in Alta, WY.

With consultation from IME, the County chose to resurface the roads with a process known as heater repaying. This is the first time this new technology has been used in Wyoming. The use of this process in the State of Wyoming challenges the idea that road rehabilitation is strictly mill and overlay or chip seal. This process gives municipalities and other entities another option for road rehabilitation and maintenance. Not only is this process a cost-effective option for municipalities, it also increases the durability of the road by adding asphalt to the existing cross section which increases the strength and longevity of the road.

Because heater repaving uses less energy, aggregate, and asphalt, greenhouse gas emissions are reduced. The existing asphalt can be recycled for use in the project rather than being disposed of as waste, which aligns with Teton County's values of promoting ecosystem stewardship.

The project would not have been possible without the willingness of Teton County to seek a new alternative to an old problem, the flexibility of Avail Construction, Inc., and the innovation of Cutler Repaving, Inc.

Compared to a traditional overlay and based on the original bids, the savings equated to \$24,146.76 per mile of the project.

Final Cost Savings: \$88,618.60!



Use the camera on your smartphone to scan the QR code. Learn more about heater repaving and take a virtual drive-through of the completed project!





What are the Benefits of Innovation?

WESS 2021

Project of the

Year

- Heater Repaving uses up to 35% less energy than conventional paving methods. Lower energy consumption provides cost savings and results in lower emissions.
- The heater repaving process is accomplished in a single pass, resulting in less disruption and improved safety conditions for residences and visitors through minimized traffic delays and improved conditions for motorist safety.
- ▲ U.S. Department of Transportation study has shown that single pass asphalt recycling provides 35% more pavement repair for every maintenance dollar spent.
- ✓ The heater repaying process simultaneously recycles and resurfaces the roadway creating less waste.
- ✓ The innovative single pass method uses less energy and emits fewer greenhouse gases than other repaving methods. Hot in-place recycling meets sustainability requirements.
- ✓ The performance of hot in-place recycled asphalt is equivalent to conventionally constructed pavement according to a National Cooperative Highway research study.
- From start to completion, this process proves to be as efficient, if not more, than traditional methods. Total resurfacing took just 9 days!
- ✓ In previous applications, the longevity of such resurfacing projects has a service life of at least 7 to 12 years and is considered among the smoothest overall finishes in the industry.



SITE DESIGN SERVICES

Site and Grading Design

IME has designed and platted more than 100 developments which consisted of dividing a total of more than 3,300 acres into more than 2,300 lots or tracts including more than 50 miles of city streets or county roads. Inberg-Miller Engineer's site design capabilities include residential lot layouts, commercial and industrial sites, and large-scale business park developments.

Site development projects completed by Inberg-Miller Engineers consistently meet expectations due to our insight on local ordinances and careful consideration of utilities, storm drainage, parking, and pedestrian facility design. Each site development is unique and requires consideration of the proposed use and a thoughtful and tailored design approach that meets the needs of our client.





Our client's involvement during each step of the design phase is critical in determining a project's success. Knowing this, we promote the use of visual aids such as graphical layouts using satellite imagery and three-dimensional, fully interactive site renderings that help our clients not only make informed decisions on their projects but see their projects come to life before construction begins.





STRUCTURAL SERVICES

Structural Design, Analysis & Foundations

Inberg-Miller Engineers has an experienced staff capable of performing detailed analyses and structural producing drawings for various foundation and earth retaining systems. We have completed analyses and designs for commercial buildings and industrial equipment. This includes conventional, shallow, spread, and continuous footers, drilled piers, mat/raft foundations, retaining walls, and storage tank ring walls. Our analyses and designs meet local, county, state, and federal compliance codes by using design guides such as the current editions of the International Building Code (IBC), American Society of Civil Engineers (ASCE), American Concrete Institute (ACI), and American Institute of Steel Construction (AISC).

A good foundation starts from the ground up, so regardless of scale, Inberg-Miller Engineers strongly recommends and can provide, a site soil investigation. These investigations provide accurate information as a basis for your design which will help ensure your structure remains sound.







In addition to the larger-scale commercial and industrial structural design applications, our staff also has experience with providing services for residential projects. Our experience includes, but is not limited to, structures such as stock-built homes, modular homes, pole barns, and engineered metal framed buildings.

STRUCTURAL SERVICES

SUBDIVISION DESIGN

Inberg-Miller Engineers has worked on more than 100 developments in Wyoming, including subdivisions, office parks, industrial parks, small businesses, and larger commercial locations.

new homes for families within Providing а community, as well as new areas for commercial development, is both rewarding and exciting. New residential subdivisions can spur other local community development and promote a sense of community pride. Our team at Inberg-Miller Engineers knows the path a subdivision must take to transform a vacant plot of land into a vibrant community. New subdivisions require planning, collaboration engineering, and with local municipalities and counties, each having its own set ordinances. standards and Through of our experience in working on new subdivisions across the state, we have found that a well-planned and thoughtful street and lot layout promotes a more sensible infrastructure layout including water, sewer, and drainage while maximizing the use of the land. Whether your new subdivision is located in one of Wyoming's many rural regions or the heart of a town or city, our team is ready to take your subdivision from inception to completion.







Inberg-Miller Engineers is committed to a successful partnership with you in order to provide quality design, on time, and within budget!

Storm Sewer Design, Drainage Design, and Flood Studies

Managing surface water is vital to protecting public health, enhancing property value, and sustaining our environment. From streams and open channels to storm sewer systems to onsite stormwater storage systems, the ability to manage stormwater is essential to every project.

Our expertise in stormwater design includes hydrologic evaluation of drainage basins, floodplain analyses, hydraulic design of drainage structures and channels, design of storm sewer drainage networks, culvert designs, and hydraulic energy dissipaters. Our engineering staff use HEC-based and GIS software and a variety of culvert designing software to size and model overland and channel flows and culverts. For storm sewer design and analysis and on-site drainage conveyance and stormwater storage design, we use Autodesk's Storm and Sanitary Analysis, which seamlessly overlays onto our Civil 3D design.

Our clients expect us to know and understand the local, state, and federal requirements that will impact their project. With experience in drainage design spanning several decades, Inberg-Miller Engineers has developed long-standing relationships with permitting agencies. Whether your project will requirement stormwater detention from the local municipality, a turbidity increase permit from the State of Wyoming, a permit from the US Army Corps of Engineers, or State Engineer's Office, Inberg-Miller Engineers is ready to guide you through the required permit processes for your project.



Water System and Sanitary Sewer System Design

IME has extensive experience with the design, modification, permitting, and operations of over 50 potable water and wastewater systems across Wyoming. We bring 50 years of experience working with municipalities throughout Wyoming to establish a comprehensive database of public works infrastructure, including water distribution systems. We take great pride in developing practical designs which minimize construction costs, energy use, labor, and cost of operations.

INBERG-MILLER ENGINEERS ARE EXPERTS IN WATER AND WASTEWATER DESIGN.



WATER SYSTEM SERVICES: Utility Analysis Design Water Well Design Water Pumping System Design Water Storage Design Water Line Transmission/Distribution Design Water Treatment Design



WASTEWATER SYSTEM SERVICES:

Wastewater Collection and Pumping Design Wastewater Treatment Design Primary, secondary, and extended treatment systems Disinfection Systems Design Improvement Studies Funding Applications



IRRIGATION/PERMITTING

Irrigation Design

We have provided engineering services for irrigation projects including diversion structures, canals, irrigation pipelines, inverted siphons, water delivery structures, and water measurement devices.

Our team members leverage our training and experience with the latest computer technology in civil engineering analysis and design services and we are familiar with many applications from routine calculations, including HECRas, Autodesk Hydraflow extensions, and WYDOTs culvert design software, to complicated modeling of various processes.





Permitting

Inberg-Miller Engineers has designed and assisted in preparing applications for the permitting of water lines, sewer lines, services, and fire lines in accordance with Wyoming Department of Environmental Quality, Water Quality Chapter 3. We have also designed and prepared applications for underground injection control systems from small residential leach fields to larger commercial leach fields and wastewater treatment lagoons. We are familiar with WDEQ/WQD rules and regulations as they relate to private and public water and wastewater utilities.

IME is familiar with stormwater regulations in the State of Wyoming. We routinely design the facilities and provide drainage reports to different municipalities. If a stormwater retention pond is designed, we prepare an application for the Wyoming State Engineer's Office.

Proper permitting is important to ensure the safety of the structure for occupants, the stability of the structure, avoid future issues upon sale of the property, and can clarify insurance coverage should an incident occur.

CONSTRUCTION SERVICES

Construction Administration and Observation

One of the most important aspects of your construction project is knowing that your project is being built within prescribed standards and that you are getting your money's worth. Inberg-Miller Engineers provides construction phase services on many of our design projects, everything from construction quality control services to providing an on-site resident project representative to administering construction contracts. From quantity takeoffs and payment applicants to reviewing work orders and materials submittals, Inberg-Miller Engineers can provide you with the peace of mind that your project will be a success.

Inberg-Miller Engineers can guide you through construction contract process, including EJCDC documents appropriate for your projct.





As the liaison between you, the owner, and the contractor, IME will handle contractor and subcontractor questions and identify issues during construction so your project can move forward smoothly. We are there to ensure the construction is completed as specified.

OUR COMPLETE SERVICES

CIVIL ENGINEERING

- Land Use Planning & Engineering
- Subdivisions
- Commercial and Industrial Site Plan
- Highways, Streets, and Parking Areas
- Water Supply and Sewage Disposal Systems
- Storm Water Systems
- Site Reclamation Planning and Design
- Civil 3D Drafting Services

ENVIRONMENTAL

- Phase I, II, & III Environmental Site Assessments
- Asbestos Surveys
- Environmental Remediation Wells
- Groundwater Sampling
- Surface Water Sampling
- Well Installation / Permitting
- Solid Waste Management, Planning, Permitting, and Design
- NEPA Environmental Assessment
- Spill Prevention, Control, and Counter Measure (SPCC)
- Storm Water Pollution Plans (SWPPP)
- Wetlands Delineation
- Vapor Encroachment and Intrusion Assessment

LAND SURVEYING

- Property Surveys
- Topographic Surveys
- Global Positioning System (GPS)
- Pipeline and Utility Route Surveys, As-Built Surveys
- Construction Staking
- Water Rights
- Oil & Gas Well Locations and Pipelines
- Computer Aided Design and Drafting (CADD)
- ALTA/NSPS Land Title Surveys
- Drone Surveys

GEOTECHNICAL

- Subsurface Exploration and Drilling
- Geology and Hydrogeologic Studies
- Geotechnical Studies
- Analysis / Recommendations on all types of Structures
- Foundation Excavation & Construction Observation
- Groundwater Monitoring Wells
- Geotechnical Laboratory Testing
- Geophysical Testing and Exploration

DRILLING

- Contract Drilling
- Solid Flight Auger Drilling
- Air Rotary Drilling
- Air Coring
- Mud Rotary Drilling
- Macro Sampling (Contract Drilling)
- Environmental Drilling Licensed in Wyoming, Montana, Nebraska, Idaho, North Dakota, and South Dakota

CONSTRUCTION MATERIALS TESTING

- Concrete Testing air content, slump, and unit weight
- Concrete Lab Testing compressive and flexural strength
- Field Testing in place density and moisture content of soils
- Soil and Aggregate Testing compaction characteristics, particle size analysis, and atterberg limits testing

SPECIAL INSPECTIONS

- Soils
- Reinforced Concrete
- Structural Masonry Construction
- Structural Steel S1 & S2
- Spray Applied Fire Proofing



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