

*Statement of Qualifications*

# **GREAT WEST ENGINEERING**



*Client Commitment*



*Empowered Employees*



*Quality Solutions*

103 Employees

6,000+  
Projects  
since 1984

5  
Offices  
Helena  
Billings  
Great Falls  
Boise  
Spokane



*We Promise* to truly listen to your project goals, be responsive to your needs, and advocate on your behalf.

## Our Professional *Services.*

■ Grants	3
■ Water	4
■ Wastewater	5
■ Solid Waste	6
■ Transportation	7
■ Bridges	8
■ Parks and Trails	9
■ Natural Resources	10
■ Planning	11

▶ [www.greatwesteng.com](http://www.greatwesteng.com) See what's *possible.*



**BILLINGS**  
6780 Trade Center Ave.  
Billings, MT 59101  
Phone: (406) 652-5000



**BOISE**  
1921 E Overland Road  
Meridian, ID 83642  
Phone: (208) 576-6646



**GREAT FALLS**  
702 2nd Street South,  
Suite 2  
Great Falls, MT 59405  
Phone: (406) 952-1109



**HELENA**  
2501 Belt View Drive  
Helena, MT 59601  
Phone: (406) 449-8627  
Fax: (406) 449-8631



**SPOKANE**  
10220 N. Nevada St.,  
Suite 130  
Spokane, WA 99218  
Phone: (509) 413-1430

Great West Engineering provides a broad range of professional services to counties, cities, towns, water and sewer districts, state and federal agencies, private developers, and other consultants. For close to four

decades, Great West has helped our communities and clients succeed. Our diversity of capabilities and depth of professional experience has allowed us to help our clients find solutions to challenges affecting their communities.

With over 100 staff members and offices in *Montana, Idaho, and Washington* Great West provides the *horsepower* of a large firm and the *responsive service* of a small firm.

## Our Roots

Our roots date back to 1984 when President Emeritus Daniel McCauley partnered to form what is now Great West Engineering. Based in Helena Montana, the budding company quickly developed a reputation for client care and responsive service with the unmatched ability to secure communities funding to offset the cost of projects. Since that time, the company has grown to over 100 employees with locations in Montana, Idaho, and Washington. Much of this growth and success can be attributed to the original core values of client commitment, empowered employees, and quality solutions, all of which the company still practices today.

CLIENT  
COMMITMENT

QUALITY  
SOLUTIONS

EMPOWERED  
EMPLOYEES



▲ Employee Family Members Take the First Ride on the Old Yellowstone Trail Project



## Our Purpose

*Provide a better quality of life by improving the world in which we work and live and creating a sense of community for our staff.*

## *Over \$455 million* secured in grants for our clients!

We recognize that public entities are often faced with the need to improve infrastructure but have limited resources for infrastructure projects. Great West specializes in grant writing and administration and is a leader in helping communities win grant funding for infrastructure projects of all types. We have successfully secured over \$455 million in grants for our clients to date and have multiple Certified Grant Writers® on staff. Our documented success in securing grants is simply unparalleled. Our grant success is based on extensive knowledge and our ongoing commitment to understanding the nuances of the programs that fund infrastructure projects. Our funding services include assisting clients in developing funding strategies, grant writing, grant administration, rate structure analysis, and development. Our funding experience includes:

- American Rescue Plan Act
- Bureau of Reclamation WaterSMART Grant Program
- Economic Development Administration Public Works Program
- EPA Solid Waste Infrastructure for Recycling Grant Program
- Federal Lands Access Program
- FEMA - Hazard Mitigation Funding and Building Resilient Infrastructure and Communities
- U.S. Army Corps of Engineers Section 595 Funding Program
- CWSRF Program
- Montana Community Development Block Grant
- Montana Coal Endowment Program
- Montana Tourism Grant Program

- Montana Transportation Alternatives Program
- Renewable Resource Grant and Loan Project
- Reclamation and Development Grant and Loan Program

*Scan to learn more  
about our  
grant capabilities.*



**\$** Experts in  
**GRANT  
ADMINISTRATION**

In addition to helping clients apply for funding, we have spent a tremendous amount of internal resources and training to ensure our staff can assist clients with grant administration. Grant administration includes accountability for grant compliance and use of grant funds, compiling draw requests to disburse funds, compliance auditing, labor compliance, and project closeout. From project conception to project closeout Great West can provide project funding expertise to communities of all sizes.



▲ Gypsy Jackson Memorial Library, City of Homedale | CDBG/Rural Envelopment Funding and Administration

## *Hundreds* of distribution, storage, supply, and treatment projects completed!

Municipalities and other public entities are often tasked with developing, maintaining, and operating water systems to provide safe drinking water for the community. Great West Engineering has extensive experience working on water systems with projects ranging from water main replacements to multi-million dollar state-of-the-art treatment facilities. We have established a proven track record of developing the right solution the first time on these projects and have taken most of these projects from the planning stage, through funding, design, and construction. Our experience includes:

### *Distribution Systems*

- Hundreds of projects resulting in the installation of millions of lineal feet of pipe, utilizing:
  - Traditional open cut methods
  - Trenchless rehabilitation and pipe bursting
  - Jacking and boring
  - Horizontal directional drilling
- Analysis and design of booster pump stations
- Hydraulic models to analyze needed improvements to distribution systems

### *Source and Supply*

- Source water evaluations and hydrogeologic studies
- Public water supply projects including:
  - Multiple raw water intakes
  - Large diameter transmission mains
  - Raw water pumping stations
  - Groundwater wells

### *Storage*

- Elevated, on grade, and buried water storage tanks
- Tanks of all materials including:
  - Concrete
  - Welded steel
  - Bolted steel
  - Glass-lined steel
- Water tank maintenance utilizing our NACE certified inspectors for coatings

### *Water Treatment*

- Water treatment facility projects, including:
  - Conventional filtration
  - Cartridge filtration
  - Micro/ultrafiltration
- Reverse osmosis
- SCADA and controls
- Chlorine and ultraviolet (UV) disinfection
- O&M manuals



▲ Storage Tank Construction For Musselshell Judith Rural Water System, 230 Mile System Delivering Water to Seven Communities

Scan to learn more  
about our  
water capabilities.



## *Wide range of experience* from collection systems to state-of-the-art treatment.

Collecting and treating sanitary sewer while protecting public health/safety and the environment is a large responsibility. Great West Engineering is ready and willing to help, we have extensive experience working on sewer systems with projects ranging from routine sewer main replacement to cutting edge treatment plants. We have a proven track record of designing the appropriate system the first time and have taken most projects from the planning stage, through funding, design, and construction. Our experience includes:

### *Collection Systems*

- Hundreds of projects resulting in the installation of millions of lineal feet of pipe, utilizing:
  - Traditional open cut methods
  - Trenchless rehabilitation and slip-lining with CIPP
  - Jacking and boring
  - Horizontal directional drilling
- Lift station analysis and design
- Manhole and wet well rehabilitation
- Infiltration and inflow (I&I) studies
- Permitting and regulatory compliance
- Reviewed and provided comments on a multitude of NPDES permits
- NPDES permit compliance, monitoring, and analyses to identify and calculate potential future effluent limits
- Assisted with addressing dozens of Administrative Orders on Consent (AOCs)
- Pre-treatment programs and ordinances for communities

### *Wastewater Treatment*

- Wastewater treatment facility projects, including:
  - Activated sludge plants
  - Sequencing batch reactor (SBR) plants
  - Custom biological nutrient removal (BNR) plants
  - Traditional lagoon systems
  - Advanced lagoon systems
- SCADA and controls
- Ultraviolet disinfection (UV)
- Chlorine disinfection
- Sludge management
- O&M manuals



▲ ICEAS Mechanical Wastewater Treatment Plant | City of Glendive

Scan to learn more about our  
wastewater capabilities.



## *Extensive solid waste experience* from new landfills to environmental compliance.

We understand the complexities of solid waste management and the challenge to provide environmentally and fiscally responsible sanitation systems. Applying the best solution is critically important for the successful implementation of long-term and sustainable solid waste management programs. For nearly 40 years, we have worked with solid waste clients on hundreds of projects in Idaho, Montana, Washington, and the greater Northwest. Solid waste management is not a one-size-fits all approach. Our excellent rapport with State regulatory agencies aids our clients with timely approvals while avoiding potential compliance issues. Our experience includes:

### *Landfill Projects*

- Siting, master planning and permitting of landfills
- Design and construction of lined landfill projects, many with alternative bottom liner systems
- Design and construction of landfill closure projects, including alternative final cover systems
- Leachate collection and storage systems, including in-cell collection, pumping and conveyance systems, lined ponds, storage tanks, and evaporation basins
- Landfill gas collection and control systems, including design and operation of wellheads
- Infrastructure design for support facilities including access roads, stormwater drainage systems, recycling drop-off facilities, scales and scalehouses, household hazardous waste buildings, shop and maintenance buildings, etc.
- Operations plans, closure-post closure plans and financial assurance
- Environmental permitting and compliance, including groundwater monitoring, leachate, and landfill gas system design, sampling, and reporting
- Transfer stations including siting, master planning, and permitting
- Drainage systems, stormwater detention ponds, and leachate ponds and systems
- Household hazardous waste facilities

*Scan to learn more  
about our  
solid waste capabilities.*



▲ New Scalehouse and Entrance Improvements | City of Walla Walla

### *Additional Solid Waste Experience*

- Landfill and transfer station operational assistance including evaluation of compaction, cover, fill staging, and access road, drainage system planning, and arrangement of facilities for efficiencies and safety
- Evaluation of landfill disposal efficiency metrics to help optimize airspace utilization
- Certified SWANA MOLO and Transfer Station Operations instructors on-staff to bridge the gap between engineering and pragmatic operations
- Integrated waste management plans and alternatives analysis, and siting studies
- Landfill planning including operations plans, closure and post-closure plans, groundwater monitoring and sampling plans, and financial assurance
- Landfill monitoring networks & hydrogeologic analysis including the evaluation of the hydrogeologic conditions, installation of groundwater and methane monitoring systems, regular groundwater and gas monitoring
- Intermediate handling & transfer facilities

## *Wide range of experience* from roads to cultural inventory and permitting.

Transportation infrastructure is a key component for any public entity. Great West offers vast experience in transportation systems with projects ranging from city streets to highways, county roads, sidewalks, and multimodal paths. We have experience with these projects from preliminary planning, funding, and design and construction. Having completed designs on hundreds of miles of roads, our firm is very familiar with guidelines and design standards for federally funded road design projects including integrated services such as environmental, bridge design, and hydraulics. Our experience includes:

### *Roadways*

- Road location and P-line surveys
- Full topographic survey and construction staking
- Design of city streets, county roads, highways, and Forest Service roads
- Geometric design
- Feasibility studies
- Right of Way design
- Complete streets design: vehicles, bikes, pedestrians
- Vehicle turning movements
- Street drainage improvements
- Gravel roads
  - Surfacing gravel design
  - Plasticity modifications
  - Cement treated base
- Funding
  - Assist with creation of SID
  - Federal grants

### *Pavement Preservation*

- Crack seal, slurry seal, chip seals
- Leveling courses and overlays
- Paser evaluations

### *Sidewalks/Multiuse Paths*

- Safe routes to school sidewalks and paths
- CTEP and TA funded sidewalks and trails
- ADA sidewalks and site design

### *Permitting*

- Environmental Assessments
- Wetland delineations
- USACOE Section 10 and 404 permitting
- Biological assessment and opinions
- Floodplain modeling/mapping and permitting

### *Retaining Walls*

- Concrete systems
- MSE walls
- Rock buttresses

### *Site Design*

- Survey & construction staking
- Site grading and drainage plans
- Utility design
- Parking lot layout and design
- Fire flows
- Signing and striping plans



▲ Kiowa Jct N&S and N of Kiowa N | Montana Department of Transportation

Scan to learn more about our transportation capabilities.





Providing *safe, reliable, and structurally sound* bridges is a key component for local public entities and the federal government.

Great West Engineering offers expertise in bridge design, load rating, and inspection experience. Our client list includes three federal agencies, DOT's, and 170 counties, cities, towns, and districts. Our firm has extensive understanding and familiarity with the preparation of technical engineering reports and grant applications, resulting in projects that are implemented efficiently and at affordable costs to users. We have completed over 300 bridge replacements for various agencies. Bridge and structures projects are often complex and require the services of a multi-discipline team to deliver the project. Every project has unique challenges to overcome throughout the course of design. Our engineers routinely propose innovative concepts and technology applications.

Our team has the in-house experience and capabilities to provide exceptional service for new bridge designs, rehabilitations, load ratings, and technical reviews.

We also offer the expertise of in-house NBIS qualified bridge inspectors and surveying capabilities to respond to emergency repair projects. Our experience includes:

- Pedestrian/trail bridges
- Vehicular bridges

- Structure evaluations
- Permitting
- Bridge load ratings
- Accelerated bridge construction
- Bridge construction observation
- Bridge grants

### *Aquatic Organism Passage Structures*

- Bridge systems (concrete, steel, timber)
- Steel culverts
- Concrete culverts
- Fish ladders and screens

### *Bridge Inspections*

- NBIS qualified staff
- Routine bridge inspections
- Fracture critical bridge inspections



▲ EDA Funded Moorehead Bridge | Powder River County



Scan to learn more  
about our  
bridge capabilities.

## Designed *hundreds of parks and trail systems* for a wide range of needs.

Parks and trails provide recreational opportunities breathing life into communities. Great West has substantial experience developing both small and large recreational infrastructure. Our experience ranges from the development of large parks with sporting facilities to small pavilions and recreational boat access sites. Our team has significant experience with trail systems from back country trails for the Federal Government to legs of the Rails to Trails initiative running from the East Coast to the West Coast of the United States. Our experience includes:

### *Community Parks & Recreational Facilities*

- Park Master Plans
- Public outreach and surveys
- Concept plans
- Preliminary opinions of cost
- Sidewalks, trails, & multiuse facilities
- Dog parks
- Sports facilities/fields
- Latrines and restroom facilities
- ADA compliant facilities
- Boat ramps and parking facilities

### *Trail Systems*

- ADA compliant trail systems
- Paved community multimodal trails
- Forest system trails
- Trail signage
- Dedicated bike paths
- Trail bridges



▲ Centennial Park | Billings



▲ Old Yellowstone Trail, Part of Rails to Trails System Spanning East to West of United States | Powell County

Scan to learn more about our  
parks and trails capabilities.



## *Hundreds of natural resource projects* completed from dams to channel realignments.

Whether it's flood-control issues, restoring the natural beauty of a river or stream, or navigating through the complex web of environmental permits, Great West's team of engineers and scientists know how to integrate infrastructure into the natural environment to help our clients achieve their project goals. Our experienced team is aware of the intricacies of environmental and natural resource projects and understand the importance of integrating our clients' goals with practical, cost-efficient, and innovative solutions. Great West has significant experience with stream restoration, fisheries and passage, dams, river mechanics, stormwater management, and hydraulics and hydrology. Our experience includes:

### *Stream Restoration Services*

- Restoration services from assessment, design, and permitting through construction oversight
- Restoration techniques from Rosgen-based geomorphic design and detailed engineered plans to nature-based low-cost passive restoration
- Improvement of aquatic habitat and stream carrying capacity for fisheries
- Reduction of sediment loading, pasture loss and channel widening
- Restorations of natural processes and groundwater elevation for healthy stream and floodplain functionality
- Maintaining project compliance with NEPA, ESA, and other environmental regulations

### *Fish Passage Services*

- Aquatic Organism Passage culverts and bridges
- Geomorphic assessments
- Natural channel design
- Bridge and culvert scour analysis
- Fish ladders and screens

### *Irrigation Services*

- Irrigation diversion, headgate, and ditch design
- Fish Screens and barriers
- Hydrologic and Hydraulic analysis
- Efficiency analysis
- Aquatic habitat assessment and design
- Streambank stabilization

- Assistance with water rights
- Cost-effective solutions for beaver impacts
- Environmental permitting

### *Stormwater*

- System assessments & inspection
- Collection, routing, and treatment design
- Hydrologic and Hydraulic analysis and modeling
- Detention/retention facilities
- Water quality treatment
- Stormwater Master Plans and Preliminary Engineering reports
- Rate studies
- Grant funding



▲ American River Aquatic Organism Passage Culvert

### *Dam Services*

- Feasibility assessment and inspection
- Rehabilitation design, and permitting through construction oversight
- Spillway, outlet and embankment design
- Risk assessment and emergency planning support
- Hydrologic and Hydraulic analysis

### *NEPA Permitting Compliance*

- Environmental assessments
- Wetland delineations
- USACOE Section 10 and 404 permitting
- Biological assessment and opinions
- Floodplain modeling/mapping and permitting
- DEQ MS4 permitting

Scan to learn more about our natural resource capabilities.



## Wide ranging *planning experience* from Growth Policies to community engagement.

Planning is the foundation for successful communities, but it can be very intimidating to undertake. Whether developing a Growth Policy/Comprehensive Plan, Capital Improvements Plan, subdivision regulations, zoning code, or other community planning projects, Great West has the experience to assist your community. We know that community planning should not have a predetermined outcome. Put simply, there is no “one size fits all” approach for all communities. We work with our clients to develop a planning process that meets their specific needs and is practical and achievable. Ultimately, our goal is to provide the expertise to ensure that planning processes create the communities that our clients want. Our experience includes:

### *Community Planning Documents*

- Growth Policies
- Capital Improvements Plans
- Downtown Revitalization Plans

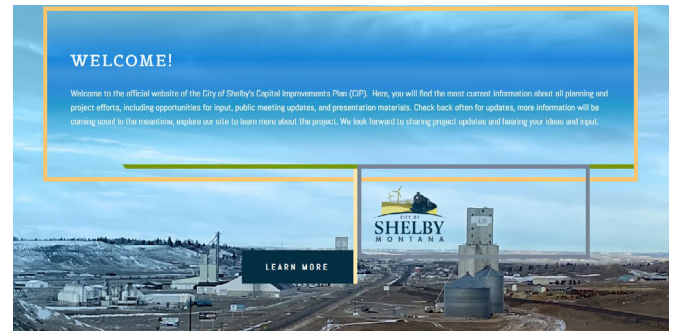
### *Land Use Regulations*

- Zoning codes
- Subdivision regulations
- Floodplain development regulations



▲ Great West Led Community Planning Session

Scan to learn more  
about our  
planning capabilities.



▲ Community Engagement Website Created by Great West Engineering

### *Subdivision and Zoning*

- Subdivision review
- COS/subdivision exemption review
- Conditional Use Permit review
- Airport Affected Area permitting

### *Floodplain Administration*

- Floodplain development permit application reviews
- FEMA National Flood Insurance Program (NFIP) compliance
- General water permitting inquiries
- Serve as community floodplain administrator

### *Planning Boards*

- Board function/training
- Public meeting facilitation
- Board support (drafting ordinances, resolutions, etc)
- Community outreach and stakeholder engagement

### *On-Call Planning Services*

- Assist communities experiencing increased workload or personnel changes

Grant Services

Water

Wastewater

Solid Waste

Transportation

Bridges

Natural Resources

Planning

[www.greatwesteng.com](http://www.greatwesteng.com)

**BILLINGS**

6780 Trade Center Ave.  
Billings, MT 59101  
Phone: (406) 652-5000  
Fax: (406) 248-1363

**BOISE**

1921 E Overland Road  
Meridian, ID 83642  
Phone: (208) 576-6646

**GREAT FALLS**

702 2nd Street South, Suite 2  
Great Falls, MT 59405  
Phone: (406) 952-1109

**HELENA**

2501 Belt View Drive  
Helena, MT 59601  
Phone: (406) 449-8627  
Fax: (406) 449-8631

**SPOKANE**

10220 N. Nevada St.,  
Suite 130  
Spokane, WA 99218  
Phone: (509) 413-1430

