Environment and Infrastructure Solutions

Global leader in integrated solutions: community conscious, environmentally resilient, regulatory compliant and business sustainable.
Wood is a global leader in project delivery, engineering and technical services, providing efficient, integrated solutions across the asset life cycle in multiple sectors. We are proud of our rich heritage which underpins our unrivalled breadth and depth of capability. We employ people with the brightest minds and the sharpest skills, who use our leading-edge technology to help our customers succeed.

Our differentiators include our extensive range of services, the quality of our delivery, the passion of our people and our unique culture. True to our values, we work in an open and transparent way; a committed partner to our customers, supply chain and the communities we work with.

Care
Working safely with integrity, respecting and valuing each other and our communities

Commitment
Consistently delivering to all our stakeholders

Courage
Pushing the boundaries to create smarter, more sustainable solutions

“Each and every individual in our business has the ability to make a significant impact to our safety delivery. Safety is what we care about most and being safe means looking out for yourself and showing care for your colleagues. Keep safety at the heart of every conversation you have.”

Robin Watson,
Chief Executive
Productivity, efficiency, capacity, asset life, costs, schedule, compliance, risk management, resiliency - your priorities, our priorities.

In a world of complex environmental and infrastructure challenges, Wood applies ingenuity, innovative technologies, and customer focus to deliver balanced solutions that meet your specific business priorities.

**Big challenges, and big ideas**

With a global network of engineers, scientists, and project managers and a footprint spanning six continents, we engineer resilient infrastructure, design facilities, enhance mobility, restore contaminated sites and address regulatory compliance challenges across a range of sectors.

We work with some of the world’s most respected businesses and government agencies to reduce environmental liabilities and maximise efficiencies across the life cycle of their operations. We save our customers time and money and help safeguard their interests by focusing on their business priorities.

**Innovation doesn’t mean impractical**

From the water we drink, the power we use and the roads we travel, to the cultural and natural resources we treasure and the communities we call home, the work we do impacts everything around us.

We have thousands of people with decades of experience, and our reputation is forged not only in intense heat but in the frozen tundra and the deepest oceans, building and managing facilities in the most challenging environments. We emphasise delivering on time, on budget, and to established technical standards for the project and your business.

Innovation runs through every part of our business. We are embracing technology to create new possibilities, transforming how we use information to innovate and differentiate our business to meet the evolving needs of our customers. With our vast experience resolving issues applying practical knowhow and focused creativity, we deliver solutions that make sense for our customers for now and for the long-term, always mindful of their bottom line.
20,000+ active environment and infrastructure projects
Collaborating with 100 Resilient Cities to provide extreme weather pattern forecasts and assess localised infrastructure impacts

Expanding public transit networks to meet the growing population demands and the trend for Smart Cities

Implementing technologies to treat emerging contaminants and attain regulatory closure at hazardous and radiological waste sites

Expanding one of the world’s busiest airports to accommodate 130 million passengers’ travel plans

Consistently ranked among the top 10 environmental and design firms by Engineering News-Record

We plan, design, and build infrastructure and tackle complex environmental challenges to transform communities and shape the future.
Developing flood resilience plans for areas vulnerable to catastrophic weather.
Environmental studies, permitting, and compliance

Our teams of scientists, engineers, and regulatory specialists maximise your operational flexibility throughout the permitting process and maximise performance improvements while helping to assure your asset complies with applicable standards and regulations. We reduce your risk, liabilities and costs, and we look for opportunities to enhance both environmental quality and your bottom line.

Adding value through the toughest environmental projects
In today’s complex regulatory environment, the need for a reliable and innovative partner to guide you through infrastructure development, permitting and compliance is greater than ever. Wood’s global network of experts in policy, regulations, environmental science and engineering, and sustainability work seamlessly to help customers develop and operate compliant, productive assets. With technical and regulatory expertise covering water, land use, air and related ecosystems, we focus on addressing our customers’ environmental challenges and managing important inputs from regulatory authorities and other key stakeholders that can either enable or roadblock projects with environmental concerns.

Your guide from policy to permit
We proactively monitor developments and changes in environmental policies to provide an early look at emerging regulatory trends and likely changes to regulations. By linking policy to applicable regulations and project-specific permit conditions, we assist our customers with major infrastructure developments, environmental audits, permits, and other required project approvals.

We understand the real-world challenges our customers face in complying with so many regulations while striving to operate profitably and meet schedules. We relish taking on the most challenging of projects from strategy to submissions, with a keen focus on always meeting your priorities and adding value.

- Environmental impact studies and assessments
- Development planning
- Natural resource management
- Flood studies and mapping
- GIS and environmental mapping
- Hydrogeology and hydrology
- Meteorological and oceanographic studies
- Aquatic, terrestrial and airborne ecology
- Industrial hygiene
- Permitting (all environmental media)
- Emission identification and assessment
- Regulatory compliance reporting
- Environmental, Health, and Safety (EHS) compliance audits
- Stakeholder facilitation and public engagement
- Emergency planning
- Noise and vibration services

80+ deep-sea drilling operations depend on our met-ocean monitoring support for the safety of their operations

1st first ever consent obtained from an indigenous group in a remote Peruvian village to allow studies on their land

4 advising governments across four continents on water scarcity planning
Environmental remediation

Innovative restoration solutions for complex site contamination challenges aligned with our customers’ priorities: regulatory closure, risk management, and site re-use. We make your priorities our business, realising the potential of your assets through reduced liabilities and integrated repurposing strategies for the highest and best use while balancing near-term remedial costs and long-term operational expenses.

Rethinking remediation

From breakthrough remediation projects to applying innovative technology to conventional waste management solutions, we apply our proven technical expertise to solve environmental liability issues.

We start with the future “end state” for your liability and work back into the optimised closure strategy to enable our customers to maximise value of the asset after remediation while balancing risks, unknowns, and capital and operational costs.

Getting to site closure is more feasible when stakeholders and regulatory agencies see the possibilities of future productive site re-use and our customers achieve closure at lower life cycle costs.

We start from solid foundations, building on a sound track record of excellence. We integrate a full range of environmental remediation services from site investigations and risk assessment through closure plans, remedial design, remediation, facility decommissioning and site redevelopment. Our expertise balances local regulatory knowledge with global subject matter experts, and we serve customers across all sectors and all environmental media.

First to the future

Our record is one of safety, leadership, and experience in creating customised, innovative solutions that save money and create value, while balancing the need to meet environmental obligations. This approach is strengthened by our expert cross-functional teams that understand wider business and regulatory environments.

We’re investing in research and development today to meet the new challenges of tomorrow. Our recent innovations include new sustainable treatment technology for removing emerging contaminants from groundwater and advanced radiation detection that provides rapid and accurate radiological surveying and monitoring. We instinctively understand what works, rapidly bringing new ideas to life.

Whatever your remediation challenge, we explore, develop and deliver the right treatment technology for your project. Our vendor-independent approach means we provide objective insight and fit-for-purpose solutions to maximise efficiency, reliability and productivity.

Whether you require support with a single remediation challenge or an entire program, we are here to support you with expertise in:

- Transactional due diligence
- Environmental site investigation
- Environmental data management
- Remedial design
- Environmental remedial services
- Facility decommissioning services
- Brownfield site redevelopment
- Regulatory permit application and negotiation
- Risk assessment
- Modelling studies
- Sediment studies and remediation
- Emerging contaminants

Highlights:

- Removed per-and polyfluoroalkyl substances (PFAS) from groundwater with first-of-its-kind pump and treat system in the US
- Transformed a 138-acre steel mill into an award winning live-work-play community
- Remediated and restored oil contaminated soil in the Middle East
- Partnered with local community for remediation of waste oil refining residuals in Africa

1,000+ remediation projects managed every year
Working with customers to reduce liabilities and challenging ourselves to develop more efficient treatment methods to mitigate the impacts of air, land and water contamination issues.
By incorporating the latest technologies and involving strategic partners, we combine new approaches and techniques for faster project delivery.
Public infrastructure services

For complex infrastructure demands, we combine a practical approach with ingenuity to deliver cost-effective, flexible technical solutions to enhance capacity, improve mobility, protect water quality, and build sustainable communities.

From ideas to blueprint to boots-on-the-ground

Whether expanding public transit options for a large metropolitan area or securing a stable water supply for a water-scarce country, major infrastructure projects pose unique challenges. To develop cost-effective, practical solutions, we deliver the technical expertise and resources required to manage programmes and provide support through all stages of a project, offering flexibility in project delivery methods.

From large-scale transportation projects to water/wastewater treatment, stormwater management, and site development projects, we help you execute your infrastructure projects on time and on budget. We provide conceptual, basic and detailed design plans and specifications for a wide variety of civil and environmental projects. And, we’re with you during the construction phase of your infrastructure project with expertise in construction engineering, inspection, and quality control/quality assurance.

Technology-enhanced solutions

We incorporate the latest technologies and involve strategic partners to provide greater value at every point in the development of a project, from the use of new materials and techniques to streamlining systems for faster project delivery. Our expertise in management, planning and design, combined with our understanding of infrastructure construction and use, enables us to create resilient solutions that are safe, sustainable and cost-effective. We deliver infrastructure solutions that strive to preserve designated public funds.

For example, in the US we expanded one of Illinois’ busiest interstates to include the state’s first SmartRoad, which allows the Tollway to communicate traffic-related information to drivers in real time and ultimately will save drivers a projected $440 million annually from reduced congestion and delays.

The pursuit of resilience

Now, more than ever, our customers are designing, building and operating facilities with significant consideration for sustainability and resiliency features and flexibility. As those challenges grow more diverse and uncertain, it is imperative that resilience planning becomes a forethought instead of an afterthought in all phases of project planning, design, and delivery.

Our partnership with 100 Resilient Cities (100RC) facilitates strategic collaboration with other public and private sector members within the network and creates more opportunities to innovate all over the world using new technologies and new thinking. In Ontario, we are working to broaden transportation resilience as we expand the public transit networks that connect the neighbourhoods of Toronto.

Across multiple sectors and geographies, we are the partner of choice to deliver.

- Infrastructure master plans
- Permitting strategy and implementation
- Traffic studies
- Road and bridge design
- Rail infrastructure design
- Site development and design
- Stormwater design services
- Sustainable infrastructure design
- Water conveyance system design
- Airport infrastructure design
- Port and marine infrastructure design
- Water and wastewater treatment services
- Waste management facility design
- Construction engineering and inspection

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200+

rail projects completed annually

2,000+
miles of roadway planning and design in North America

Highlights:

- Advised four of the UK’s five largest airports
- Designed and built Illinois’ first SmartRoad
- Worked for each of the major railroads in North America
- Provided stable water supplies to water-scarce countries
- Expanded rail transit options to meet Ontario’s growing population demands
Geotechnical and materials

Subsurface conditions can make or break your capital project and/or greatly impact your asset’s safety and useful life. We combine geoscience, geotechnical engineering, and materials expertise to understand complex ground conditions and how to achieve the best built solution for your project.

A solid foundation
What’s below the ground is as critical and complex as the structure it supports. We leverage our experience in analysing, testing, designing and monitoring virtually every combination of rock, soil and water in the most difficult conditions to provide comprehensive technical support for your project. The breadth of our global geotechnical and materials expertise allows us to assist our customers in assessing any subsurface environment.

Digging deep to meet your goals
Whether developing a new greenfield site or expanding infrastructure or an existing facility, we investigate, characterise, quantify, and model surface and subsurface materials and geohazards in all environments. By taking the time to understand your challenges, we engineer practical, innovative, sustainable and cost-effective solutions that enable you to build successfully from the ground up. Where necessary, we provide technical approaches to facilitate ground improvements and construction methods that meet both the requirements of your site and the constraints of your budget.

Building for our future
Our geotechnical and materials capabilities include field construction monitoring, inspection, and testing. The scope of our geotechnical experience covers vertical structures, tanks, tunnels, roads and bridges, landfills, dams and levees, and tailings storage facilities.

From our certified materials laboratories, we provide a wide range of testing services for soil, rock, and construction materials (concrete, paving, steel) that complement our geotechnical services. To enhance the quality and value of your project, we assure high-performing material compositions according to international and local standards. Our understanding of the importance of local knowledge of subsurface conditions combined with the ability to access our global geotechnical and materials experts provides you the technical strength you need for any project. Our superior geotechnical and materials services include:

- Geological site characterisation and geotechnical modelling
- Foundations and geo-structural engineering
- Dams, levees, and impoundments design and inspections
- Route geotechnical engineering
- Geotechnical and seismic (earthquake) engineering
- Mining and rock engineering
- Ground performance, improvement, and verification
- Geotechnical and construction instrumentation and monitoring
- Geotechnical laboratory services
- Materials field/laboratory services for quality control/assurance
- Pavement engineering, condition and performance
- Steel inspection

Landmark projects:
- Seismic engineering and foundation support for 73-storey building in high risk earthquake zone in the heart of Los Angeles
- Ensuring a world class stadium with 40,000 tons of steel can safely support 71,000 fans

750+ specialists globally
60+ construction materials labs for soil, steel, cement, masonry, concrete and asphalt testing
300+ safety evaluations at dams
60+ years of superior geotechnical and materials services
From the office, on site, or in the lab, our geotechnical and materials specialists provide life cycle solutions in the most complex ground conditions.
We provide greater cost certainty, using proven best practices to deliver projects that shape the future.
Project costs and risks need to be controlled through disciplined engineering and construction management. We stay focused on your priorities to deliver innovative and cost-effective methods to plan, engineer, design and construct assets, adding value and assurance every step of the way.

Combining style and substance
Customers rely on Wood to deliver improved water treatment systems, resilient transportation systems, complex pharmaceutical facilities, and effective remediation projects. Few firms effectively transition projects from the consulting phase to detailed engineering and construction because they fail to integrate the required engineering and construction disciplines on your project.

Wood integrates our civil, environmental, process, mechanical, electrical, and structural engineering expertise to execute small and large-scale projects, on schedule and within budget.

We take time to understand when a simple design may be the best solution because it accelerates the design phase to allow innovative solutions. Depending on customer-specific requirements, preliminary engineering can be followed by a traditional detailed design, a progressive design and construction approach, or a design-build approach. We customise our approach to meet your project delivery preferences.

One size fits none
We assemble multi-disciplinary project teams to meet the size, complexity, and geographic needs of your project. Wood applies ingenuity as standard to ensure your project’s success from initial concept and design, through construction and commissioning to operations and maintenance. Many customers rely on our skills for independent construction oversight or for overall construction management.

For some projects, our ability to deliver a full engineer/procure/construct (EPC) solution provides the best value. Our project control discipline and experienced construction management teams work closely with our customers. At a time when many projects are experiencing dramatic cost and schedule over-runs, our project managers are trained to successfully deliver the basics: meet scope, safety, quality, schedule, and budget targets.

Absolute assurance
A successful construction project depends on safe work performance, disciplined construction planning, thorough project control during execution, and adherence to quality control requirements. Whether performing construction management as the owner’s agent, programme management services, or a design/build scope, our quality control and quality assurance standards during construction ensure the facility, road, or treatment system functions as designed. If the scope involves commissioning, start-up, and operations, we bring the same attention to quality. Meeting your current and future needs through specialised expertise, global resources, and innovation:

- Civil site and infrastructure design
- Facilities engineering and design
- Industrial water treatment
- Construction engineering/inspection and construction management
- Engineering, procurement, construction management (EPCM)
- Decommissioning and demolition planning

93%
Water recovery provided through a designed industrial wastewater reuse system

$50 million
In annual savings generated from energy audits at 700+ government facilities

75+
Radiation portal monitors upgraded at 11 border protection sites

Landmark projects:
- Engineering and construction services for a state-of-the-art biotechnology facility in Germany
- Construction support services for 824-megawatt hydroelectric dam to reduce greenhouse emissions
Wood is a global leader delivering technical, engineering and project services across the entire asset life cycle. We operate in more than 60 countries, employing about 60,000 people. We provide performance-driven solutions from development to decommissioning for a broad range of industries including all energy sectors, process and refining, power and utilities, mining and manufacturing.

For further information please go to: