



LJB Engineering
Corporate Overview

LJB Engineering

We're engineers, consultants, problem solvers and trusted advisors, improving the quality of life for the clients, communities and individuals we serve.



Founded in 1966, we are a North American engineering firm who cares deeply about our clients, our team, and all stakeholders. We provide civil and structural engineering, as well as geospatial, underground and safety services.

Our diverse expertise, client base and geographies have enabled LJB to serve clients in all 50 U.S. states and several countries. Our projects are located worldwide.

LJB's skilled staff holds professional engineering licenses in all 50 states, Washington, D.C., as well as several U.S. territories and Canadian provinces.

Markets

- COMMERCIAL
- EDUCATIONAL
- FEDERAL
- HEALTH CARE
- INDUSTRIAL / MANUFACTURING
- STATE AND LOCAL GOVERNMENT

Services

 STRUCTURAL	 FALL PROTECTION SAFETY
 TRANSPORTATION	 WATER RESOURCES
 SITE DESIGN	 TECHNOLOGY & INNOVATION
 SURVEY	 UNDERGROUND SERVICES

To Improve the Quality of Life

Since 1966, LJB Inc. has been improving the quality of life for our clients, our people and the communities we serve. In everything we do, we want to make a positive difference in our world.

Our three fundamental core values represent our guiding principles and are not just mottos we tap into at work. We live them.



Integrity Defines Us

We exhibit integrity when we keep our promise to deliver the best value.



Quality Distinguishes Us

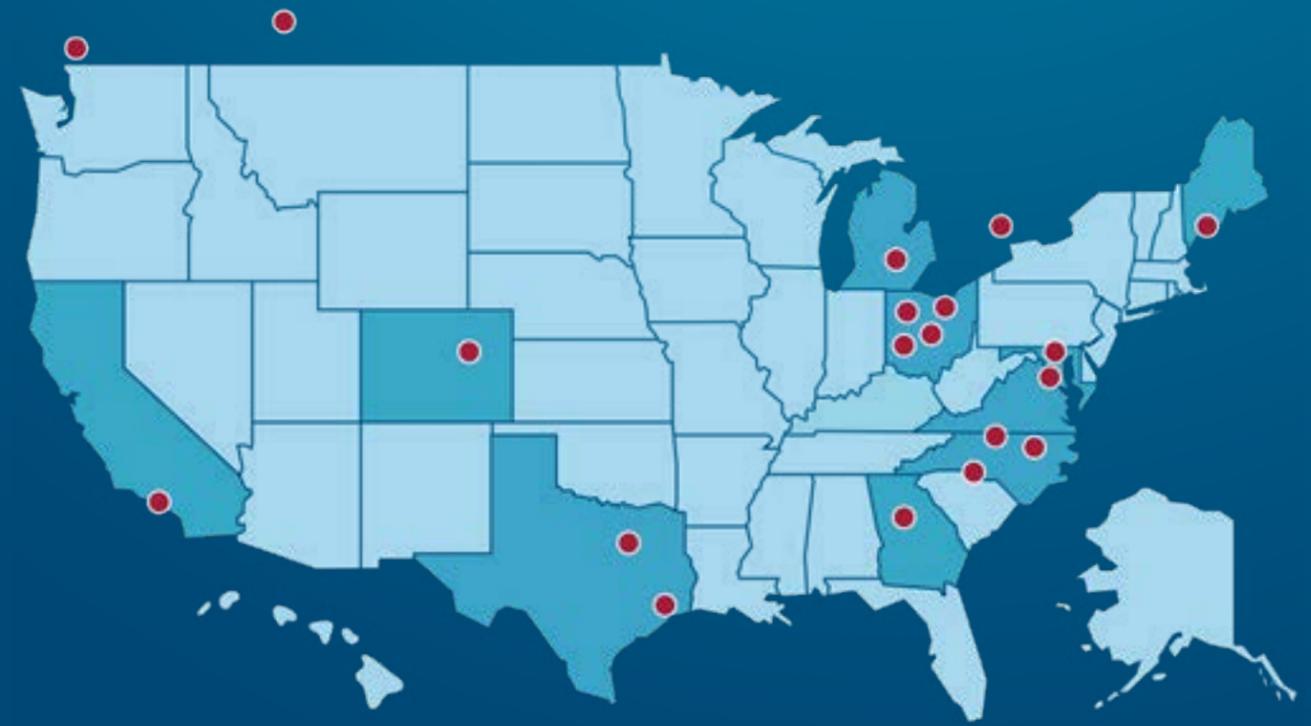
Quality and plan accuracy is LJB's commitment to our clients.



Service Fulfills Us

We are each called to do "whatever it takes" to serve our clients, teammates and communities.

OFFICE LOCATIONS



MIDWEST: Dayton | Cleveland | Columbus
Lima | Lansing

MID-ATLANTIC: Arlington, VA | Frederick, MD

NORTHEAST: South Portland, ME

SOUTHEAST: Atlanta | Charlotte | Kernersville | Raleigh

SOUTH: Dallas | Houston

WEST: Denver | Los Angeles

CANADA: Calgary | Toronto | Vancouver



Structural Engineering

Our passion for developing cost-efficient structural designs goes beyond using the minimum amount of building materials for maximum impact.

We actively collaborate with architects and contractors, ensuring that we select the right structural system from project start, adhere to the owner's architectural vision, and incorporate details that can be easily and reliably constructed.

Services

- NEW STRUCTURES
 - > Structural Steel
 - > Precast Concrete
 - > Tilt-Up Concrete
 - > Cast-In-Place Concrete
 - > Timber
 - > Masonry
- RENOVATIONS
- RETAINING WALLS
- FOUNDATIONS
- MATERIAL HANDLING AND CRANE SYSTEMS
- MEZZANINES AND STORAGE FACILITIES
- STRUCTURAL STEEL AND TILT-UP CONCRETE DETAILING
- STRUCTURAL CONDITION EVALUATIONS
- LOAD RATING
- CONSTRUCTION OBSERVATION



STRUCTURAL



DAIKIN TEXAS TECHNOLOGY PARK - HOCKLEY, TX

Client: Powers Brown Architecture

LJB served as structural engineer of record for the design of this 4M-square-foot warehouse, manufacturing and office facility. It is the world's largest structure built using the concrete tilt-up construction method.

NEBRASKA FURNITURE MART - KANSAS CITY, KS

Client: Interbrand Design Forum

LJB designed the structural steel building shell and precast concrete wall panels for one of the largest single-site furniture stores in the world. LJB also provided steel detailing shop drawings, which compressed the schedule by 6 weeks.



MARINE CORPS SUPPORT FACILITY - NEW ORLEANS, LA

Client: NAVFAC Southeast

As part of a design-build team, LJB provided structural engineering for this new four-story facility—the national headquarters for the Marine Forces Reserve. LJB designed the building to fulfill progressive collapse avoidance requirements, anti-terrorism and force protection criteria, federal blast standards, as well as for hurricane protection.

DAYTON CHILDREN'S MEDICAL CENTER - SPRINGBORO, OH

Client: Synergy Building Systems

LJB provided structural design for the \$47.5M expansion for this Children's Hospital suburban campus. The project consisted of a two-story, 70,000-square-foot medical office building (MOB) and a two-story, 48,900-square-foot ambulatory surgery center/emergency department.



Fall Protection

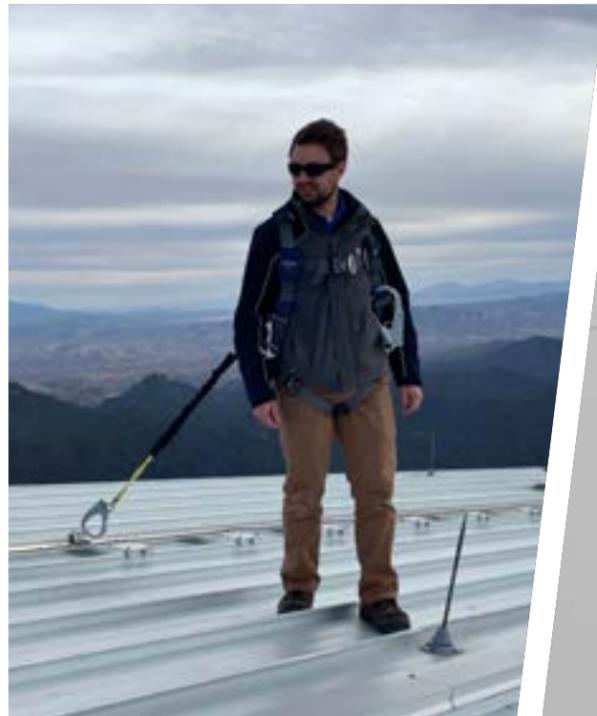
For more than 30 years, LJB has helped organizations develop and maintain comprehensive managed fall protection programs that create safer workplaces.

As safety consultants, our goal is to improve safety and reduce risk for work at heights. Our breadth and depth of expertise and experience facilitates cost-efficient and effective fall protection solutions that ensure compliance and reduce risk.

LJB's fall protection experts work directly with managers and users to strike a balance between cost efficiency, compliance, safety and productivity.

Services

- CONSULTING
 - > Program Evaluation
 - > Program Development & Management
- FALL HAZARD RISK ASSESSMENT
- CONCEPTUAL & FINAL DESIGN
- SYSTEM CERTIFICATION
- TURNKEY / DESIGN-BUILD
- TRAINING
 - > Qualified Person
 - > Competent Person
 - > Authorized Person
- DIGITAL INSPECTION & ASSET MANAGEMENT



FALL PROTECTION
SAFETY



FALL PROTECTION SERVICES
- NATIONWIDE

Client: Smithsonian Institution
LJB holds a multi-year task order contract to provide an array of fall protection services for Smithsonian Institution facilities across the country. LJB has provided risk assessments, system inspections and certifications, as well as design of new safety solutions.

FALL PROTECTION SYSTEM
INSPECTION - CANTON, OH

Client: Marathon Petroleum Company, LLC

LJB has provided a variety of fall protection services for Marathon Petroleum, and we continue to provide annual inspections for active fall protection systems at multiple Marathon refinery locations.



FALL HAZARD RISK
ASSESSMENT - WORLDWIDE

Client: Headquarters Pacific Air Forces

As part of a USAF-wide initiative to assess all weapons systems, LJB performed a fall hazard risk assessment to identify tasks that expose USAF maintainers to a fall of 4 feet or greater at all PACAF bases.

HORIZONTAL LIFELINE
DESIGN - HARRISBURG, PA

Client: FedEx Ground

LJB provided final design and construction period services for horizontal lifeline systems to protect workers performing maintenance and operations tasks at the tilt tray lines for this FedEx Ground location.



Transportation

We know that improving infrastructure improves communities, which improves quality of life—and that’s what drives everything we do.

For more than 50 years, LJB has been designing ways to connect people and communities safely and efficiently. As a full-service transportation team, we have the diverse capabilities and proven know-how to design solutions that meet today’s needs and tomorrow’s demands.

Our vast transportation design experience means we have the insight to see what’s ahead—to anticipate and accommodate for potential issues, whether related to environmental, right-of-way, construction, utilities, safety or something else entirely. We apply our creativity and technical expertise to design transportation solutions that keep people, businesses and communities moving.

Services

- BRIDGE DESIGN & INSPECTION
- EROSION & SEDIMENT CONTROL
- RECREATIONAL TRAILS
- ROADWAY
- SURVEY
- TRAFFIC SIGNALS/SYSTEMS
- TRAFFIC STUDIES
- TRANSPORTATION PLANNING
- WATER RESOURCES
- ASSET MANAGEMENT



TRANSPORTATION



WEBSTER AVE BRIDGE & TRAIL IMPROVEMENTS - BANGOR, ME

Client: Becker Structural, MaineDOT, City of Bangor

This project included the I-395 bridge replacement over Webster Avenue with a precast concrete box unit, roadway improvements, and sewer main replacement. Construction was staged for a four day shutdown with detour plans ensuring traffic flow.

MCKAIG ROAD RECONSTRUCTION, PHASES 2-4- TROY, OH

Client: City of Troy

LJB designed roadway improvements to enhance the safety and condition of this corridor, including a single-lane roundabout. LJB’s design also included new sanitary sewer, water main where necessary and added an enclosed drainage system to the corridor.



FISH CREEK ROAD & DECHMAN DRIVE - GRAND PRAIRIE, TX

Client: City of Grand Prairie, TX

Our team provided surveying, engineering, bidding, and construction administration for a \$4.3M project replacing 4,800 feet of asphalt road with concrete. To avoid acquiring right-of-way, we designed a traffic-calming chicane with median landscaping and completed the project ahead of a six month schedule to meet the city’s timeline for a new charter school opening.

NC DOT EXPRESS FEASIBILITY STUDY CONTRACTS - STATEWIDE, NC

Client: NC Department of Transportation

Through three sequential contracts, the LJB team has performed transportation studies ranging from multi-lane rural highway alternative analysis to interstate interchange alternative designs. Each study has evaluated alternative design concepts in terms of traffic operations, construction staging, construction cost, and impacts to right-of-way and the environment.



Site Design

LJB's experienced site development professionals help owners make the best decisions up front to benefit the long-term health of a project.

While a new business or development project can spur economic development and increase tax revenue, it can also impact the infrastructure of the surrounding community.

Our team carefully reviews all infrastructure impacts to ensure adequate capacity is provided without negatively impacting stakeholders and the general public. LJB works with all stakeholders to make sure new facilities are properly supported to avoid issues like reduced water pressure, flooded yards or congested traffic.

Services

- SITE SELECTION
- FEASIBILITY STUDIES
- MASTER PLAN PREPARATION
- MAJOR EARTHWORK
- GRADING
- UTILITIES DESIGN/RELOCATION
- WATER AND SANITARY
- ROADWAY AND PAVEMENT
- RESIDENTIAL DEVELOPMENT
- EROSION CONTROL DESIGN
- LOCAL, STATE, AND FEDERAL PERMITTING
- GIS/ASSET MANAGEMENT



SITE DESIGN



SITE DESIGN FOR NEW BELMONT HIGH SCHOOL - DAYTON, OH

Client: Dayton Public Schools

LJB provided site civil and survey services for this new public high school on a 47-acre site. LJB completed site and grading plans including new storm sewer, sanitary, and water, as well as stormwater management and detention design.

NEW PUBLIX STORES - OAK ISLAND & OCEAN ISLE, NC

Client: Halpern Enterprises, Inc.

LJB provided preconstruction, project management and construction management services for two Publix-anchored shopping centers. Services included preliminary estimates, due diligence oversight, utility coordination, permit oversight and weekly site reviews.



THE CLIFF HOUSE- CAPE NEDDICK, ME

Client: The Cliff House

Our team led the site design and permitting for the redevelopment of this iconic 70-acre property. The project added major enhancements, including facility renovation, event lawns, swimming pools, scenic walkways, and trails. We gave special attention to preserving the resort's historic appeal, respecting nearby residential neighbors, and accommodating summer operations through careful construction phasing.

GREENSBORO-RANDOLPH COUNTY MEGASITE INFRASTRUCTURE DESIGN - GREENSBORO, NC

Client: Randolph County Economic Dev. Corp.

For this 1,500-acre industrial property, LJB delivered a broad range of services, including planning and environmental documentation, roadway improvements, traffic impact and capacity analysis, site development, surveying and wetland delineation, and a stormwater drainage plan.



Survey

At LJB, surveying is more than locating points. It's about providing a visual image of the project and a framework for the design team.

By establishing existing geographical conditions, our surveyors can provide a 3-D picture of the project, allowing designers to determine how proposed improvements will work within an existing property or facility.

With advanced data collection and layout equipment, our seasoned crews provide unsurpassed professional analysis and construction layout support.

LJB provides data collection, professional analysis and project support from initial fieldwork and property research to fast, accurate survey documentation.

Services

- GROUND SURVEY
 - > ALTA
 - > Boundary
 - > Construction Staking
 - > Topographic
 - > Machine Control
- AERIAL SURVEY
 - > Aerial Mapping
 - > Inspection
 - > Photogrammetry
 - > Thermal Imaging
- LIDAR / LASER SCANNING



SURVEY



FEDERAL CORRECTIONS INSTITUTION - MEMPHIS, TN

Client: Federal Bureau of Prisons

To assist the design team in planning for re-roofing buildings at two Federal prison sites, LJB provided aerial survey from UAV flights over the sites. LJB also provided infrared temperature imagery to help identify potential problem areas with the roofs.

SURVEY & RIGHT-OF-WAY SERVICES: BRENT SPENCE BRIDGE - CINCINNATI, OH

Client: ODOT - District 8

To assist in planning this bridge replacement, LJB completed field survey, boundary reconnaissance and resolution, right-of-way plans, utility mapping, and acquisition services, along 2.3 miles of interstate highway through dense urban development.



COMMUNITY COLLEGE ROOF FALL HAZARD RISK ASSESSMENT - PORTLAND, OR

Client: Portland Community College

To identify fall hazards associated with accessing the roofs and performing maintenance tasks on the roof or building façade, LJB used UAVs to collect hazard data across 50 buildings and 2 million square feet of roof area.

SITE SURVEY FOR NEW DEALERSHIP - WILMINGTON, OH

Client: Lazydays RV

LJB saved the owner an estimated four weeks in design delays and additional site visit costs with less than a day of data collection and processing. Starting with 3D scanning and delivering a web-based 3D viewer and a Revit model allowed for seamless coordination of design adjustments with the as-built construction and utility stubs.



Water Resources

Our staff is recognized for its diverse expertise and creativity in providing innovative water, wastewater and stormwater solutions.



WATER
RESOURCES

We understand the intricacies of federal, state and local project implementation, which enables your projects to stay on schedule.

Design Services

- WATER
 - > Distribution Lines
 - > Wellfields
 - > Storage Tanks
 - > SCADA & Control Systems
 - > Pump Stations
 - > Treatment Plants
 - > Dam & Lake Engineering
 - > Industrial Water Management



- SANITARY
 - > Collection Systems
 - > Sewer Rehabilitation
 - > Lift Stations
 - > Treatment Plants
 - > SSES Programs
 - > SCADA & Control Systems
 - > CSO Controls

Planning & Support

- Asset Management Programs
- Construction Administration
- Engineering Studies & Reports
- Hydraulic/Hydrologic Modeling
- Rate Studies
- Analysis & Permitting
- Master Plans
- Funding Assistance
- Construction Observation
- Gis Mapping & Application Development
- Drainage Studies
- Extreme Rainfall & Flood Assessments
- Fema Floodplain Evaluations
- Bridge Surveys
- Drone (UAS) Services
- Dam Safety



RAILROAD CONSULTING
Our railroad consulting team is a leading provider of water resources engineering solutions for the nation's largest railroad companies. For more than 25 years, we have provided study, design and permitting services specialized for the unique needs of this industry.

DELAWARE STATE PARK WASTEWATER TREATMENT SYSTEM ASSESSMENT – MT. STERLING, OH

Client: Ohio Department of Natural Resources

LJB provided an assessment of the existing plant, lift stations and collection system, including cost estimates, permitting, pipeline logistics, effluent limitations, location of other facilities and local geopolitics.



BASS LAKE STREAM CHANNEL IMPROVEMENTS - HOLLY SPRINGS, NC

Client: Town of Holly Springs

After Bass Lake overtopped the emergency spillway during Hurricane Matthew, LJB provided a dam inspection and then assisted the Town in providing conceptual design and estimated costs to garner the funding needed to complete the channel improvements.

STORMWATER PROGRAM & MANAGEMENT SUPPORT - SMITHFIELD, NC

Client: Town of Smithfield

LJB assisted the Town in developing a stormwater management program action plan by conducting town staff workshops/surveys, field reviews for drainage and stream systems, public workshops, citizen surveys, and finally presented the action plan report to Town Council.



Technology & Innovation

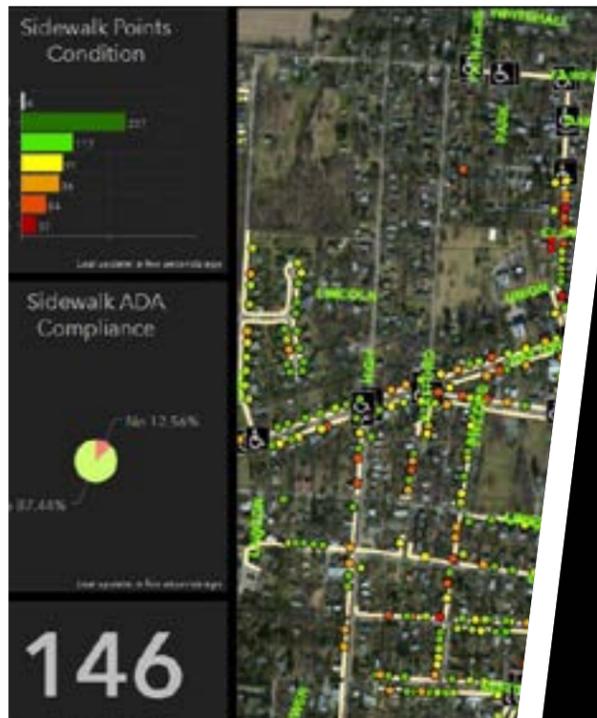
LJB's team leverages the best technology solutions to provide value for project planning, management, design, and construction.

LJB uses unmanned aerial systems (UAS), photogrammetry and laser scanning technologies to safely and efficiently collect valuable data. This helps organizations quickly collect real-world information into a data-rich digital environment to help project stakeholders collaborate and develop solutions.

We strive to customize each project to make valuable data as accessible as possible for organizations, without requiring advanced GIS experience or software licenses.

Services

- UAS SERVICES
 - > Aerial Mapping
 - > Inspection
 - > Photogrammetry
 - > Thermal Imaging
- GIS
 - > Asset Management
 - > Planning
 - > Inventories
 - > Custom Solutions
- 3-D REALITY CAPTURE
 - > Digital Twin Modeling
 - > Laser Scanning
 - > Matterport



TECHNOLOGY & INNOVATION



WORLD HEADQUARTERS SAFETY ASSESSMENT
- BEAVERTON, OR

Client: W.W. Grainger, Inc.
LJB collected UAS imagery to allow facility management personnel to gather information on safety and operational needs, such as lighting, pavement analysis and utility tracking.

WATER ASSET MANAGEMENT - MIAMISBURG, OH

Client: City of Miamisburg

The City needed a modern GIS solution to manage its water, wastewater, and stormwater infrastructure. LJB's solution offers advanced analytical capabilities, integrates GPS-assisted field collection systems, and allows the City to maintain their assets in a more effective and efficient manner.



ROUNDHOUSE 3D SCANNING - DAYTON, OH

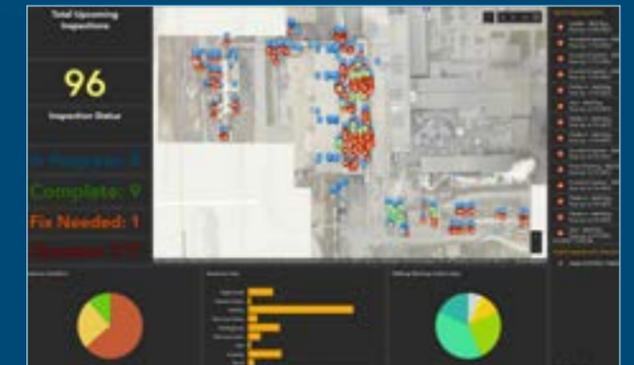
Client: OnMain

LJB completed a site survey for an old Fairgrounds property that lead to scanning the building with lidar to support the upcoming renovation project. LJB is also developing a Revit model from the scan to deliver to the architect & structural engineer for the project.

SAFETY ASSESSMENT & ASSET MANAGEMENT TOOL - BUTLER, IN

Client: Steel Dynamics, Inc. (SDI)

To streamline safety data collection and create an actionable monitoring system, LJB developed a map-based digital management program and mobile application to help SDI manage safety for their 600+ walking-working surface assets. The program dashboard graphically showcases real-time statistics and information to help the organization manage its critical safety activities.



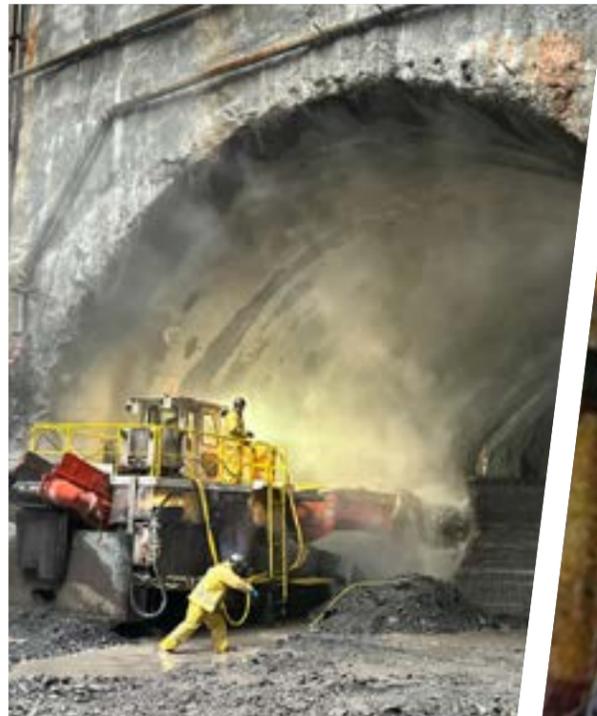
Underground Services

Our global experience and inventive thinking help us tackle complex challenges and deliver solutions that are safe, resilient, and practical to build.

Our team delivers high-quality, inventive engineering solutions for complex underground structures. We bring unmatched tunneling, geotechnical and structural expertise in the underground engineering field. With 15+ years of experience on more than 100 tunneling projects worldwide, we have worked on some of the most challenging and important underground projects in North America.

Services

- TUNNEL DESIGN & CONSTRUCTION SUPPORT
 - > Bored And Mined Tunnels
 - > New Austrian Tunneling Method (NATM)
 - > Lining & Segment Design
 - > Excavation Support
 - > Rehabilitation Design
- TRENCHLESS TECHNOLOGIES
 - > Direct Steerable Pipe Thrusting (DSPT / DPI)
 - > Horizontal Directional Drilling (HDD)
 - > Microtunneling
 - > Horizontal & Pilot Tube Guided Auger Boring
 - > Pipe Jacking & Ramming
 - > Hand Mining / Tunneling
- GEOTECHNICAL & STRUCTURAL SERVICES
- PLANNING & INVESTIGATION
- PROJECT DELIVERY SUPPORT



REBECCA TRUNK WASTEWATER MAIN – OAKVILLE, ON

Client: Cole Engineering

This award-winning project featured nearly 4 kilometers of 1200mm and 1350mm microtunnel installation up to 14 meters deep. Designed in complex geology, the project included nine drives—eight curved—using MTBM and concrete caisson shafts.

WESTSIDE PURPLE LINE EXTENSION, PHASE 3 - LOS ANGELES, CA

Client: STV Inc.

This \$1.27 billion project includes twin-bore tunnel in a dense urban environment. The 2.6-mile alignment crossed the Santa Monica fault, major highways, and dense infrastructure. Specialized linings and seismic connections at stations ensure performance in high-risk conditions.



ALASKAN WAY VIADUCT REPLACEMENT PROGRAM - SEATTLE, WA

Client: Washington State DOT

As part of a \$3.1 billion WSDOT program, LJB served on the expert panel that verified cost and risk for a 58-ft-wide, 2.9-km double-deck tunnel built in soft ground. Our Underground Services team helped deliver risk and budget oversight, reporting annually to the Governor's office and legislature before and during construction.

BLACKLICK CREEK TRUNK SEWER - NEW ALBANY, OH

Client: City of New Albany

Our team delivered microtunnel design, construction management, and inspection for this 961-meter wastewater subtrunk sewer. The \$8M project featured two curved drives—one horizontal and one vertical—and required crews to navigate bedrock valleys and mixed ground conditions at three shaft locations.

