

CONVEYANCE CONSULTING

A Woman Owned Strategic Planning
& Civil Engineering Firm

CONNECTING PEOPLE THROUGH
STRATEGY & SUSTAINABLE
DEVELOPMENT

*Conveyance strives to cultivate solutions for
communities in partnership with them to meet
their goals.*



Build Strategic

Build Sustainable

Build for the Future

EMPOWERING SUSTAINABILITY

Embracing all aspects of ESG in our business makes us a better employer, a better partner, and a better company.

Conveyance builds sustainable growth, provides an inclusive and diverse culture, supports our communities and act as stewards of the environment.

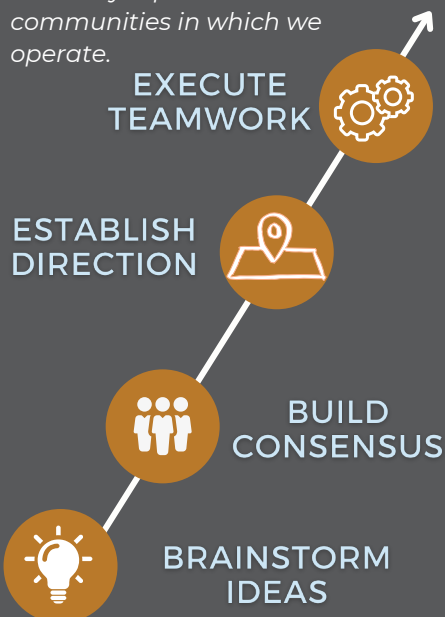


Strategic BLUE Print Social | Environment | Governance

Social

Inclusion and Diversity

By cultivating Diversity and Inclusion, we are more creative, innovative and attract more top talent. That is why we strongly believe we will only be successful if we fully represent the communities in which we operate.



Environmental

Efficient environmental considerations best begin during the earliest stages of planning. Projects that incorporate sustainable principles of:

- efficiency
- resource allocation
- resilience
- effects on the climate and
- multi-benefit use

from the earliest planning stages will reap significant cost savings.



Governance

We believe that meeting our business needs in a manner that respects sustainability principles and addresses potentially negative impacts with strong governance will increase our ability to drive profits and create lasting value for all our stakeholders, including investors, customers, employees, partners, suppliers and local communities.



TRANSFORMED COMMUNITIES



It's how we do it that matters most. It takes unshakable commitment. It takes strategic solutions that thoughtfully utilize and preserve our customer's resources. It takes an ability to adapt responses to any need and scale. And it takes doing all of those things—all the time with all of our partners.

OUR PERSPECTIVE

We empower our team to transform communities by protecting water, enhancing communications, transporting energy, and strengthening structures. Our clear vision, powerful collaboration, and fierce drive ensure the vitality and sustainability of what is most important to us—a better planet.

Making a Difference Design | Life | Impact

DESIGN



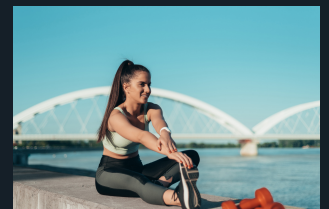
The design of a project is where each story begins. Our belief to build safer, more sustainable, and for future generations drives our goals to reach better solutions with our customer's goals as a priority.

LIFE

Ultimately, everything we do is for the benefit of our end users—the millions of people who utilize our infrastructure every day. Their value is never lost on us, and as a result, never absent in our work.



IMPACT



We're only as valuable as the engineering benefits we offer to the world around us. Sweeping, sustainable, long-lasting impact is the goal for our entire team, and we're confident in sharing this intention.

EXPERTISE: WORKING FOR YOU

BUSINESS STRATEGY CONSULTING

With the right strategy, you can get your whole team on board to reaching your goals THIS YEAR.

With over ten years of executive experience as a strategist, Kim has taken organizations that were in desperate shape to growth and prosperity by showing executives how to build their team, their customers and the business.

Starting with strategy that is built to align with the organization's values, purpose and the desired culture, Kim uses simple approaches that set the leadership and business on the path to growth and goal alignment.



ENVISION SPECIALIST

Conveyance has the expertise to consult decision makers to implement principles of sustainability into infrastructure planning, design, construction, and operations and maintenance. We will work with customers to increase sustainability through, stakeholder involvement, inclusive practices, innovation, and leadership.

Envision can benefit communities, projects, and people in numerous ways.

- Lower costs through management and stakeholder collaboration.
- Reduced negative impacts on the community and the environment.
- Potential to save owners money over time through efficiency.



ACCELERATED CONSTRUCTION: PRODUCT DESIGN & SOLUTIONS



WALLS



BRIDGES



ROAD
BARRIERS



RAIL



SUPER
STRUCTURES

Accelerated construction uses various techniques and technologies to help reduce construction time while enhancing/maintaining safety and quality in building a **resilient, modern, and sustainable infrastructure system**.

Conveyance will design your projects with solutions that meet your timeline.



EXPERTISE: WORKING FOR YOU

UNDERGROUND INFRASTRUCTURE: DESIGN SOLUTIONS



Transformation of communities requires high quality solutions throughout the communities it serves. **These product design solutions help make our company a leader in advancing the world around us.**



UNDERGROUND INFRASTRUCTURE: MSI INSPECTION

MAXIMIZING BUDGETS

Multi Sensor Inspection provides you with the data to make decisions, so you can pinpoint and budget for critical repairs and replacement where and when they are needed.

The City of Coppell

"Informative pipeline assessment including remaining service life was useful to make informed resource allocation decisions for efficient maintenance of our pipeline system."
Michael Garza, Assistant Director of Public Works, City of Coppell



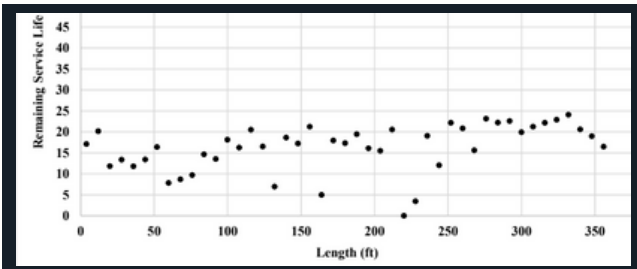
The City of Waxahachie

The analysis provided the city with invaluable information related to utility infrastructure life expectancy, enabling us to make more well informed decisions related to its pipeline maintenance and replacement program." Tommy Ludwig, Assistant City Manager Waxahachie

ARTIFICIAL INTELLIGENCE: GIS MAPPING & SERVICE LIFE PREDICTION

FISCALLY RESPONSIBLE ASSET MANAGEMENT

A **Service Life model** can be developed based on historic data using machine learning algorithms.



Information at your fingertips every 5 feet:

All the inspection results and estimated service life are available at the click of your mouse.

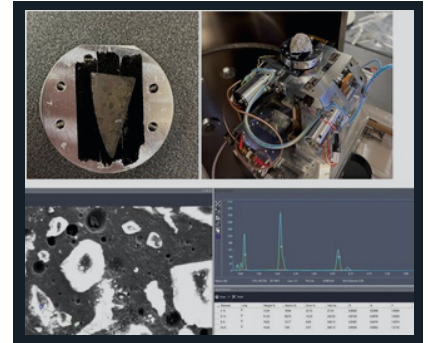


EXPERTISE: WORKING FOR YOU

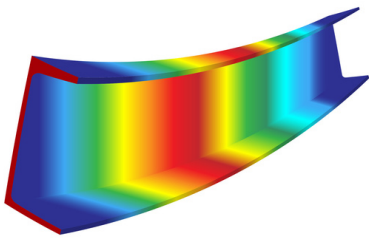
SAMPLING & TESTING: BUILDING AND PRODUCT MATERIALS & GEOTECH

In partnership with two Universities, Conveyance Consulting can offer state-of-the-art interdisciplinary, materials science, civil engineering and mechanics testing for developing and testing innovative and engineered smart materials for the infrastructure of today.

We strive to advance designs and implement the use of smart and innovative materials that address the societal needs of infrastructure materials tomorrow.



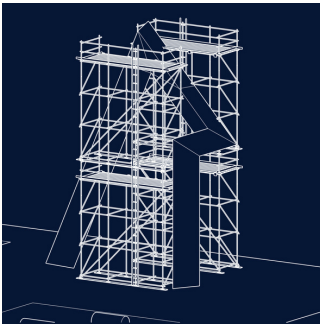
FINITE ELEMENT ANALYSIS



Finite element analysis (FEA) plays a key role in structural engineering, both during the design stage in order to anticipate the structural behavior, as well as during the service life of an already built structure.

Conveyance can help your project predict the performance of structural, thermal, fluid, and other physical systems to generate the most efficient and effective designs. with the ability to model many civil components and specializing in pipeline systems.

STRUCTURAL ENGINEERING & CONDITION ASSESSMENT



BUILDING INFORMATION MODELING (REVIT)

Expertise in Revit BIM allows the Conveyance teams to **create high-quality buildings and infrastructure designs and condition assessments** to:

Design, analyze, and detail structures for buildings (office, warehouse, plant, parking garage, data center and more), heavy equipment structures, outage support and plant renovations and upgrades,

3D AND HDR IMAGE SURVEYING : BRIDGES, ROADS, RAIL, TUNNELS

Conveyance has the Leica ScanStation equipment with the ability to capture a detailed as-built representation of a facade, a 2D floor plan, 3D data and High Dynamic Range (HDR) imaging for integration into Building Information Modelling (BIM), capturing 3D geometry of roads, rails, tunnels and bridges or high-definition scan data for topographic maps and as-built surveys to meet the project's needs.

Integrated 3D laser scanning solution provides unsurpassed speed, accuracy and range for demanding scanning projects of today's designs.



Kim Spahn, P.E., Env SP



CHIEF EXECUTIVE OFFICER | CONVEYANCE CONSULTING | Present
PRESIDENT | ACPA RESEARCH AND EDUCATION FOUNDATION | 2016-2022
VICE PRESIDENT OF STRATEGY AND OPERATIONS | AMERICAN CONCRETE
PIPE ASSOCIATION | 2016-2022
SUCCESSIVE ENGINEERING POSITIONS | ACPA | 2005-2016
STRUCTURAL ENGINEER | HKS | 2003-2005
BS CIVIL ENGINEERING | 2002 | Summa Cum Laude | Univ. of Texas at Arlington

As Chief Executive Officer of Conveyance Consulting, Kim partners with agencies and design firms to cultivate solutions for businesses and communities to exceed their goals through both strategic planning and innovative design. She negotiates contracts for civil engineering design, inspection, analysis and research. Kim leads the company to focus on connecting people through sustainable development. Her expertise leads to a more effective businesses and a built environment that will be safer, environmentally friendlier, and provide a higher quality of life for the people who live, work and play there.

LEADERSHIP

Accomplished leader and effective communicator with executives, partners and team members. Proven negotiator, polished public speaker, tenacious competitor yet productive consensus and team builder.



DECISION MAKER INFLUENCE

Active participation in multi-level relationships from city, state and national engineering professionals who serve as decision makers for their agencies.



TECHNICAL GOVERNANCE

Honored to serve in technical leadership roles such as

- ASTM Committee Secretary
- Subcommittee Chair,
- ASCE Committee Chair,
- TRB Young Member Founder

to build consensus among stakeholders and drive technical standards forward.

STRATEGIC EXCELLENCE

Expert skills in cultivating operational and team excellence in the execution of business strategic planning and goal setting.



CONTRACT EXPERTISE

Contracts play a critical role in a timely completion of a project with partnerships between consultants, small businesses, and owners. Expertise of a small business owner allows for clear communication and understanding to ensure full execution of the contract.



POLITICAL ADVOCACY

From Washington DC Fly-Ins and Governor tours to coalition partnerships, my political advocacy experience is effective for growing relationships and partnering with industry and agencies to gain support on the Hill.



YEONHO PARK, PH.D. , P.E.

STRUCTURAL ENGINEER

Dr. Park specializes in structural engineering and structural condition assessment for building structures (office, warehouse, plant, parking garage, data center, etc.), heavy equipment structures, outage support and plant renovations and upgrades, including:

- Monorails, Conveyor Systems
- Platforms
- Foundations for Heavy Equipment
- Hoists, Crane Structures, Lifting Lugs
- Structural Design for Cooling Towers, Chillers, Generators,
- Transformers, Pipes, Bins and Silos

SKILLS

- Structural Analysis
- Finite Element Analysis
- Structural Engineering

PUBLICATIONS

- "Investigation of Flexural Toughness for Steel-and-Synthetic Fiber Reinforced Concrete Pipes", J of Structures
- "Extended-Implicit Integration process by Nonlinear Dynamics in Finite Element Analysis", Structural Engineering and Mechanics, An International Journal.
- "Research and Concepts behind the ASTM C1818 Specification for Synthetic Fiber Concrete Pipes", ASTM Special Topic (STP1601)
- "Field Deflection Measurement Techniques and Finite-Element Simulation for Large Diameter Steel Pipes with Controlled Low Strength Material (CLSM)", ASCE J. of Pipeline Systems Eng. and Practice.
- Compressive Strength of Fly Ash-based Geopolymer Concrete with Crumb Rubber Partially Replacing Sand", Construction and Building Materials.

HIGHLIGHTED EXPERIENCE

- Forensic Engineering Consultant and BIM (Revit/AutoCAD)
- Reviewed international structural drawings and SAP2000 models and resolved issues to building codes during preliminary design stage.
- Engineering Consultant, for the Design and Construction of Hashemite university's structural engineering laboratory
- Designed multi-story buildings and large spatial structures: analysis of the structure (Concrete and Steel Structures)
- Analyzed and designed structural systems, including dual system and momentresisting frame system for RC, steel and composite structures with pushover analysis.
- Luminant Oak Grove S.E.S. Air Preheater Structural Improvements and Maintenance Support
- Staged Construction Modeling of Steel Pipes Buried in Controlled Low Strength Material Using 3-D Nonlinear Finite Element Analysis (Tarrant Reginal Water District)
- Development of Service Life Prediction for Fiber Reinforced Concrete Pavement
- Designed multi-story buildings and large spatial structures: analysis of the structure (Concrete and Steel Structures)

EDUCATION

- Ph.D. Civil Engineering (Structure) University of Texas at Arlington (UTA) 2012
Focus Area: Structural concrete reinforced/strengthened with FRP composites, concrete pipe engineering and development of sustainable concrete.
- M.E. Civil Engineering (Structure) Texas A&M University 2008
- M.S. Architectural Engineering KyungHee University 2004
- B. E. Architectural Engineering KyungHee University 2002

AMIT POKHAREL, PHD, PACP

STRUCTURAL/ARTIFICIAL INTELLIGENCE ENGINEER



Dr. Pokharel specializes in service life analysis using Artificial Intelligence and Machine Learning models. He further specializes in multi-sensor inspection of underground infrastructures, automation of data processing, coding & app development, and GIS implementation.

- Five years of experience in asset design, MSI inspection, automated data processing, GIS implementation, and service life analysis of underground infrastructures using AI and Machine Learning models
- Finite Element analyst with experience in modeling of underground infrastructures and soil- pipe interaction
- Administered national level project of repair and rehabilitation of 24 highway bridges damaged by 7.8 magnitude earthquake in 9 districts of Nepal as a site engineer and project manager

SKILLS

- Bridge Design, - PGSuper
- Machine Learning and Artificial Intelligence
- Finite Element Analysis, ABAQUS
- Structural Design & Analysis, SAP2000 & NONLIN

PUBLICATIONS

- Behavior of a Buried Wye Penstock under Hydrostatic Test with and without Crotch Plate Reinforcement-Case Study and Finite Element Analysis (First Author, Engineering Failure Analysis, 2020)
- Application of Finite Element Modeling for Large-Diameter Steel Pressure Pipes Buried in Any Type of Backfill Materials (Supporting Author, The Water Research Foundation, 02-25-2020)
- Deformation of Buried Large Diameter Steel Pipes during Staged Construction-Case Study and Finite Element Analysis (Supporting Author, Transportation Geotechnics, 2021)

HIGHLIGHTED EXPERIENCE

- Finite Element analyst for the analysis and design of large diameter buried pipes, reinforced wye joints and pre/ post tensioned thin-walled box culverts
- Managed a 30-member team for successful completion of the project "Repair and rehabilitation of 24 highway bridges damaged by 7.8 magnitude earthquake" within the designated time frame of 1 year
- Application of Finite Element Analysis in the design of large diameter buried steel pipes' Water Research Foundation (WRF), Tarrant Regional Water District (TRWD) and UTA
- Worked with Ultra High Strength Concrete, Repair Mortars, Carbon and Glass Fibers (BASF®), Epoxy and Cement Slurry Grouting, Steel Girder Retrofitting.
- DMSI inspection of underground infrastructures, data post processing, and service life analysis for several cities such as the City of Dallas, Waxahachie, Mansfield, Coppell, Arlington, and Enid, OK
- Instructor for the 'AutoCAD' and 'Civil-3D' courses for 3 years

EDUCATION

- Doctor of Philosophy (PhD): Civil Engineering
University of Texas at Arlington
2017 - 2021
- Master of Science: Civil Engineering
Structural Engineering at University of Texas at Arlington
2017 – 2021
- Bachelor's in civil engineering
Pokhara University, Nepal
2010 – 2014

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Let us build your solution!
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