

BIANNUAL KE NEWSLETTER



J U L Y
2023

KE Engineering and
Land Surveying, P.C.
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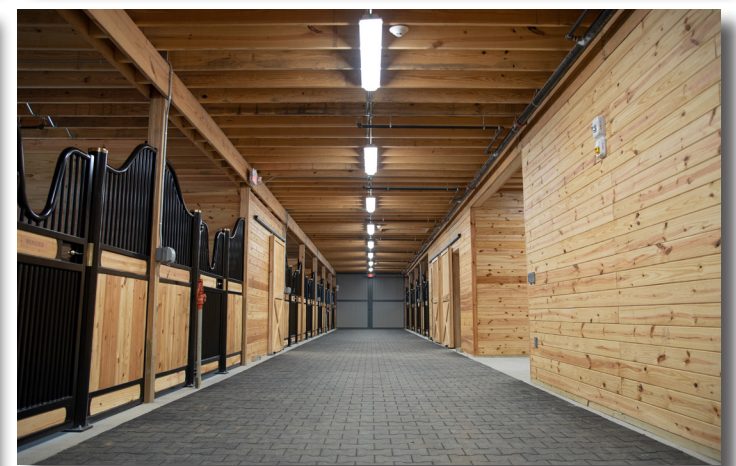
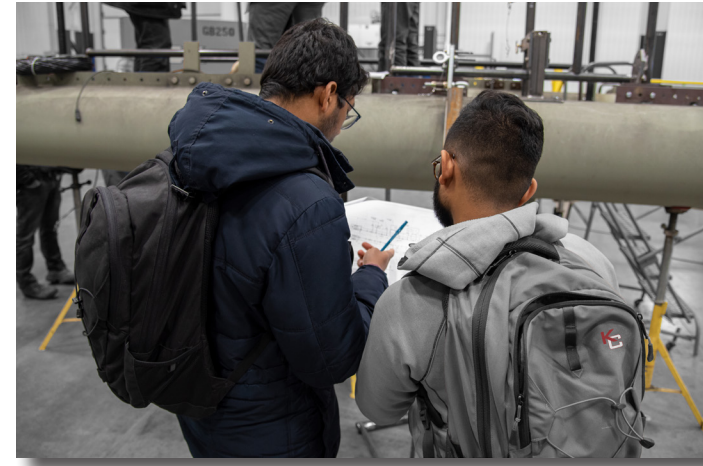
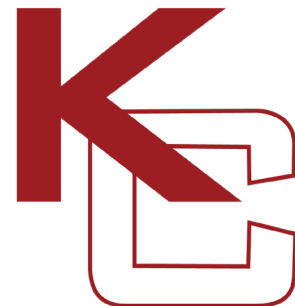
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「A LETTER FROM RAJ RAVILLA」

Hello KC family and friends. April marked KC's 40th anniversary.

I would like to begin this newsletter by thanking our employees for their hard work and dedication over the years and who have been instrumental in facilitating the firm's success. Your enthusiastic work ethic and determination are some of KC's greatest strengths and you continually elevate the company to new heights. As always, this newsletter includes a section dedicated to employees that have worked for KC for several years, new employees that have recently joined us, and employee achievements.

In the January 2023 newsletter, I talked about the challenges facing the architecture, engineering, and construction (AEC) industry. Despite these challenges, I expressed optimism for KC's future fortunes in the face of industry headwinds. I am happy to report that I was correct in my assessment.

Since we published the January 2023 newsletter, KC, as a member of a design-build team, has won one of the biggest projects in the company's history: the New York State Department of Transportation (NYSDOT) I-81 Viaduct Contract 1, Phase 2 project as Lead Designer and Quality Manager.

“Our success is a testament to the quality of KC's work across all departments and disciplines.”

This is a massive project that is critically important to NYSDOT Region 3 and New York State as a whole, and I am very proud of our dedicated staff, including our technical, marketing, and accounting groups, who put in many hours of hard work to deliver a best value submission on time and of the highest quality.

Not only is this success a testament to the quality of our work on this specific proposal submission, but it is a result of continuous improvement in our processes from the time we entered the design-build industry in 2014 all the way to today. Through wins and losses, we have consistently fine-tuned our approach to these important projects through lessons learned, and our diligence has paid off.

We have also been shortlisted for another major NYSDOT design-build project: the

Livingston Avenue Bridge Replacement project, which we are pursuing as Quality Manager and lead Construction Inspection firm as a member of a design-build team. Our success with these and other proposals is a testament to the quality of KC's work across all departments and disciplines.

As we work through the second half of 2023, we should not rest on our laurels. Instead, we should utilize the momentum from our success on all our projects to propel us into success on new projects, for which our time-tested approach to quality and timely delivery of services will continue to reap dividends for all of us, including our clients and the public.

Let's meet the rest of the year with enthusiasm and aplomb.

-RAJ

「MILESTONES」

Today and every day, KC celebrates our employees.



15

**JULIAN LLORENTE, P.E., P.T.O.E.
SR. ASSOCIATE / PM**

Julian celebrated 15 years with KC this past May. In his time with KC, he has led several teams as PM, Design Manager, and Lead Civil Engineer on many of KC's most important projects. He was also the Lead Drainage Engineer for the recently completed NYSDOT Design-Build Contract D900043: Kew Gardens Interchange Infrastructure and Operational Improvements.



10

**JAYA BARAL, P.E.
SR. ENGINEERING AUDITOR**

In April, Jaya marked 10 years with KC. He started his time with KC performing inspection on some crucial KC projects, before starting work as Sr. Engineering Auditor on NYCDEP Contract OEA-EAA3: Engineering and Accounting Auditor Services, where he ensures that the City receives appropriate value under the terms of contracts.



10

**DHAWAL PATEL
SR. INSPECTOR**

Dhawal has been with KC for 10 years. An ACI-certified Field Technician with ample experience in structural inspection, he has performed a wide variety of work as a Sr. Inspector, Civil Engineer, and Engineering Auditor. He is currently working as Sr. Inspector on NYCDDC Contract SEN002178: Reconstruction of Combined Sewers.



10

**JOHN BOLGER, P.E., ENV SP
ASSOCIATE / PROJECT ENG.**

In the 10 years John has been with KC, he has applied his background in the construction industry as well as the areas of structural engineering and water and wastewater treatment design to ensure success on many KC projects, including a septage receiving station and complete aeration basin replacement design.



5

**TRACIE DAN OLOO
CIVIL ENGINEER**

Tracie has enjoyed her time at KC for the last 5 years. Her mentorship under Senior Engineers as well as several years of field work in the Villages of Wappingers Falls and Rhinebeck have been a highlight for her. Additionally, she honed her skills in electrical design on NYSTA Design-Build Contract D800002: Cashless Tolling, keeping her involved and busy.



5

**ALIYAH THOMAS
MARKETING MANAGER**

Aliyah has worked in KC's marketing department for 5 years and was recently promoted to Marketing Manager after serving as Sr. Proposal Coordinator. During her time at KC, she has gained valuable insight into the engineering and construction industries and worked closely with her team to prepare hundreds of proposal submissions.



5

**NATE HAVENER, P.E., ENV SP
ASSOCIATE / PROJECT ENG.**

Nate celebrated 5 years with KC recently. His experience includes assisting in the design of various stormwater management techniques; preparing site, grading, and erosion control plans; and coordinating with local municipalities and other approval agencies in positions including Sr. Civil Engineer and Sr. Environmental Engineer.



NEW

**FABIAN ZABALA, P.E.
RESIDENT ENGINEER**

Fabian is a professional engineer with over 10 years of experience in the construction industry. He joined KC in February, bringing with him an exemplary track record of managing capital construction contracts involving the installation and replacement of highways, bridges, storm and sanitary sewers, sewer outlets, and water mains.



NEW

**ABDULAZIZ ABDALLA
INSPECTOR**

Abdulaziz became a KC employee in March, starting work on Orange County DPW Contract RFP-DPW01-19. He is overseeing sewer line trench excavation, house connection, and manhole installation; confirming the sewer line invert to ensure compliance with drawings and specifications; and performing sewer pipe installation testing.



NEW

**ALI YOUSEF
PROJECT ACCOUNTANT**

Ali joined KC's accounting group in April. A graduate of Baruch College in New York with a degree in Business Administration and Management, Ali has experience as a Billing Analyst and a Bookkeeper, maintaining budgets and reporting systems, invoicing, forecasting, tax preparation, and financial and business analysis.



5

**JAMES SCHULZ
SURVEY PARTY CHIEF**

James marked 5 years with KC in May and has consistently applied his knowledge of surveying and Geographic Information System (GIS) procedures and calculations to KC's most important survey projects, including NYSTA Design-Build Contract D800002: Cashless Tolling and NYSDOT Design-Build Contract D900043: Kew Gardens Interchange.



5

**CLARA EDWINS, P.E., ENV SP
ASSOCIATE / PROJECT ENG.**

Clara has been with KC for 5 years, in which time she has provided structural engineering services on many KC projects, including several design-build projects. She has ample experience designing structural modifications and repairs, reviewing shop drawings, and supervising the development of plans, specifications, and estimates (PS&E).



NEW

**ADEL NASR, P.E.
RESIDENT ENGINEER**

Adel, who joined KC in January, was Engineer-In-Charge (EIC) for NYSDOT from December 1993 to June 2016, where he applied his experience performing quality assurance / quality control (QA / QC) to ensure that construction operations were performed in accordance with applicable New York State and federal laws, regulations, and procedures.



NEW

**ALICE FERONE
CONTRACT SPECIALIST**

Alice joined KC with 31 years of experience providing consulting engineering, materials testing, construction inspection, and engineering audit and design services for capital improvement projects. She possesses an extensive track record of exceptional service with the NYCDEP for City construction contracts.



NEW

**BISHOY SOURIAL, P.E.
OFFICE ENGINEER**

Before joining KC, Bishoy worked for more than 8 years as an Office Engineer for several multi-million-dollar NYCDDC construction contracts. He has experience in cost reduction and containment, stakeholder coordination, risk management, research, AutoCAD services, and analytical observation for multiple New York City agencies.



NEW

**MICHAEL SHORT
SURVEY PARTY CHIEF**

Michael became a member of KC's survey team in May, for which he performs record research, construction stakeout, boundary, topographic, transportation, hydrographic, global positioning system (GPS) control, and utility surveys, and maintains equipment in good working condition, including calibrations and collimations.



NEW

**JOSE RAMIREZ, E.I.T.
CIVIL ENGINEER**

Jose joined the civil engineering team in June, having recently graduated from the University of New Haven with a degree in Civil Engineering. He had interned with KC last summer, and has recently joined full-time as an employee. Additionally, Jose recently passed the FE exam, earning his Engineer-In-Training certification.



NEW

**YOUSEF EBIED
ENGINEER I**

Yousef joined KC in July as an Engineer I. A recent graduate of Princeton University with a B.S. in Civil and Environmental Engineering, Yousef has experience as a Construction Manager for PANYNJ for the LaGuardia Airport Redevelopment project. He is looking forward to taking the FE exam soon.

NO PHOTO

NEW

**YOUSSEF KHATEB
SR. INSPECTOR**

Youssef joined KC with over 16 years of experience in project management, QA/QC, structural and civil engineering, planning and design, and construction inspection. Most recently, he has performed inspection for bridge rehabilitation projects for NYSDOT in Region 8 as well as for NYSTA Design-Build Contract D800002: Cashless Tolling.

PROMOTIONS

Congratulations to **James Schulz** on his promotion to **Survey Party Chief** and to **Yogendra Gauchan, P.E.** on his promotion to **Associate / Project Engineer!**

INTERNS



**THOMAS SHERIDAN
SURVEY INTERN**



**EMILY JIBB
CIVIL INTERN**



**KYLE FUTRELL
CIVIL INTERN**



**AMIT CHAUDHARY
CADD INTERN**

Senior Inspector Dhawal Patel overseeing work on NYCDDC Contract SEN002178: Reconstruction of Combined Sewers.



INTERSTATE HIGHWAY SYSTEM: PAST, PRESENT, FUTURE



The Interstate Highway System is an integral part of American life. Begun in 1956 and completed in 1992 at a cost of \$114B, one in four miles driven every year are driven on the Interstate Highway System. Each of the 50 states and Puerto Rico feature Interstate Highways.

While federal funding is an integral facet of America's highway system today, before 1916, roadways were primarily funded locally and the state of roads in the United States was deplorable at best. Many were unpaved dirt roads riddled with potholes, making any longer trip hazardous and time consuming. The summer road trip, a staple of modern American life, was rare at the time, but that was quickly changing. Something had to be done on a federal level to accommodate an emerging automobile culture.

The 1907 Supreme Court case *Wilson v. Shaw* affirmed that Congress had the authorization to fund interstate highways, and the Ford Model T, the first mass-produced low-price automobile, was introduced the very next year. The automobile was quickly becoming an indispensable aspect of American life, and President Woodrow Wilson included federal funding for roadways as part of his

party's platform in 1916. The Federal Aid Road Act was enacted that same year, providing federal funding for roadways for the very first time. Each state developed its own highway agency to determine how best to utilize the funds; however, the outbreak of World War I limited the effectiveness of the Act. The war ended in 1918. In 1919, the US Army, concerned about the effectiveness of America's roads in the event of another major war, sent a military convoy on a 3,200-mile-long journey from the steps of the White House to the Presidio Army base in San Francisco. The expedition was plagued with issues and ended up taking 62 days to complete, moving at an average of 5 miles per hour, adding to the urgency of updating America's roads. A young lieutenant colonel by the name of Dwight D. Eisenhower accompanied the trip and was appalled by what he experienced, vowing to do everything in his power to do something about it.

The Federal Aid Highway Act of 1921 was passed just a few years after the Army expedition and served to amend the 1916 Act, presenting a viable path forward for a nationwide highway system. Matching funds were provided to states for building highways, with \$75M being delivered to states by the

end of 1921. The 'Roaring 20s' proved to be exactly that for America's highways, with thousands of miles of new highways being built, including the New York Parkway System, which were some of the first limited-access highway systems in the United States. At the time, there were few standards dictating the design of these highways. For example, even today, many sections of the New York Parkway System lack shoulders.

Throughout the late 1930s and early 1940s, as the personal automobile continued to proliferate throughout American society, the need for an interconnected national system with consistent nationwide standards became

even more apparent. However, the outbreak of war once again extinguished these plans.

In 1953, eight years after World War II ended, Dwight D. Eisenhower was elected President. As part of his platform, he presented ideas for an Interstate Highway System, inspired to fix issues he encountered on his 1919 cross-country expedition with the US Army. The Federal-Aid Highway Act of 1956, incorporating Eisenhower's ideas as well as ideas from across the political spectrum, was enacted and mandated construction of 41,000 miles of highway across the country. It was the largest federal public works project in history at the time. The Act also established national standards for highway design, construction, and signage, as defined by the American Association of State Highway and Transportation Officials (AASHTO). The Act was paid for through the creation of the Highway Trust Fund, which paid for 90% of the highways through fuel and other taxes, with the remaining 10% being handled by the States. States then owned the highways that were constructed through their states. Once the highways authorized by the Act were completed, the 62-day journey that Eisenhower had taken 37 years earlier would now only take 5 days to complete.



Overhead signs on the Interstate Highway System must adhere to AASHTO standards.

The Interstate Highway System, initially expected to finish in 1968 at the cost of \$25B, was completed in 1992 at the cost of \$114B. By 1996, the Interstate Highway System had recouped its \$114B investment. Regardless of the return on investment, the Interstate Highway System continues to present countless benefits to American society and the economy.



KC personnel surveying I-87, part of the Interstate Highway System.

However, while there were many benefits presented by a nationally funded national highway system, there were shortcomings as well. For example, environmental issues were widespread throughout the construction

phases. Additionally, many communities were permanently altered by the new infrastructure. One prominent example of this occurred in Syracuse, NY in 1960. I-81 was built through Syracuse, and the 15th Ward, a predominantly Black neighborhood, was almost completely replaced by highway. Over the next 60 years, as the City of Syracuse experienced the myriad social and economic effects of I-81, the population of Syracuse declined by over 30 percent while Onondaga County grew by 55 percent. Over this time period, I-81 remained a physical and visible barrier between Syracuse neighborhoods and its state deteriorated significantly, while traffic remained a constant issue.

In 2022, after much research and deliberation into the best path forward for I-81 in Syracuse, the Federal Highway Administration (FHWA) and New York State Department of Transportation (NYSDOT) determined that the existing elevated portion of I-81 that runs through Syracuse, the “I-81 Viaduct,” should be demolished and replaced with a Community Grid, which would offer the most benefits to the community as well as travelers. The I-81 Viaduct project is a multi-phase project, and KC is currently working on Phase 1, Contract 2 as Lead Designer and Quality Manager.

As infrastructure projects continue to age past their useful lives, Departments of Transportation and other stakeholders in coordination with communities across the country are evaluating ways to fix this aging infrastructure while considering ways to improve upon infrastructure shortcomings and reduce adverse environmental and community impacts. No matter the needs of the project, KC’s experienced and dedicated staff are always ready to rise to the occasion and deliver a project that provides the best value for communities and our clients. φ



The Cross-Westchester Expressway (I-287)



KC personnel inspecting the Bruckner Viaduct, a key interchange for I-87 and I-278.

PROJECT HIGHLIGHTS

KC's diverse worklog demands meticulous attention to detail, and our highly capable staff are always ready to rise to the occasion.

NEW AWARD: Design-Build Contract D900056, PIN 3501.91: I-81 Viaduct, Phase 1, Contract 2, New York State Department of Transportation (NYSDOT): KC, as a member of a design-build team, is Lead Designer and Quality Manager for this design-build project. The scope of work consists of Phase 1 of the conversion of the section of I-81 in Syracuse between the southern I-81 / I-481 interchange (Interchange 16A) and the northern I-81 / I-481 interchange (Interchange 29) to Business Loop 81 (BL-81), and re-designation of the existing I-481 as I-81.

NEW AWARD: Champlain Hudson Power Express (CHPE): The CHPE is an innovative renewable power transmission project for the delivery of low-cost renewable energy to New York State, which includes installation of approximately 339 miles of underground and underwater transmission line. KC is responsible for providing consulting engineering and design services for several tasks associated with this project, including upland cable installation and a converter station in Astoria, Queens.

NEW AWARD: Contract L038180-005 / D038180-04: Proposed High-Occupancy Vehicle (HOV) Lane on Staten Island Expressway (I-278); Richmond (NYC) Feasibility Study, NYSDOT: This project, under an existing Regional Design Services Agreement (RDSA), involves

evaluating an alternative for extending the HOV lane on the Staten Island Expressway (I-278) in some form. KC will be providing survey services as a subconsultant for this project.

NEW AWARD: Contract L038085-006 / D038085-05: Design Services for Safety Enhancements, Various Locations, Nassau and Suffolk Counties, NYSDOT: This project, under an existing RDSA, involves preliminary design (Phases I-IV), including preparation of a Scoping Report with a Draft Design Report / Final Design Report (DDR / FDR), as well as final design services (Phase V and VI). KC will be providing design and survey services for this project.

NEW AWARD: Contract SCA23-00069R Construction Management in Connection with Contingent and Temporary Staffing (Small), New York City School Construction Authority (NYCSCA): The scope of services for this project consists of KC providing construction management staffing in support of NYCSCA staff and reporting to the NYCSCA Chief Project Officers. The KC team will enforce the maintenance of good field operation practices by the contractor(s), including maintaining a safe worksite, conducting progress meetings and Toolbox Talks, adhering to the project schedule, and field supervision.

NEW SHORTLIST: Design-Build Contract D900058: Livingston Avenue Bridge Replacement, NYSDOT: This project includes design and construction of a new movable two track vertical lift railroad bridge capable of remote operations spanning the Hudson River in the cities of Albany and Rensselaer, NY. The scope also involves realignment and improvements to tracks east of the bridge in Rensselaer, rehabilitation and reconfiguration of the rail bridges over Water Street and Centre Street in Albany, railroad signal, electrical infrastructure, and site and drainage work. KC was shortlisted as Quality Manager and lead Construction Inspection firm as a member of a design-build team.

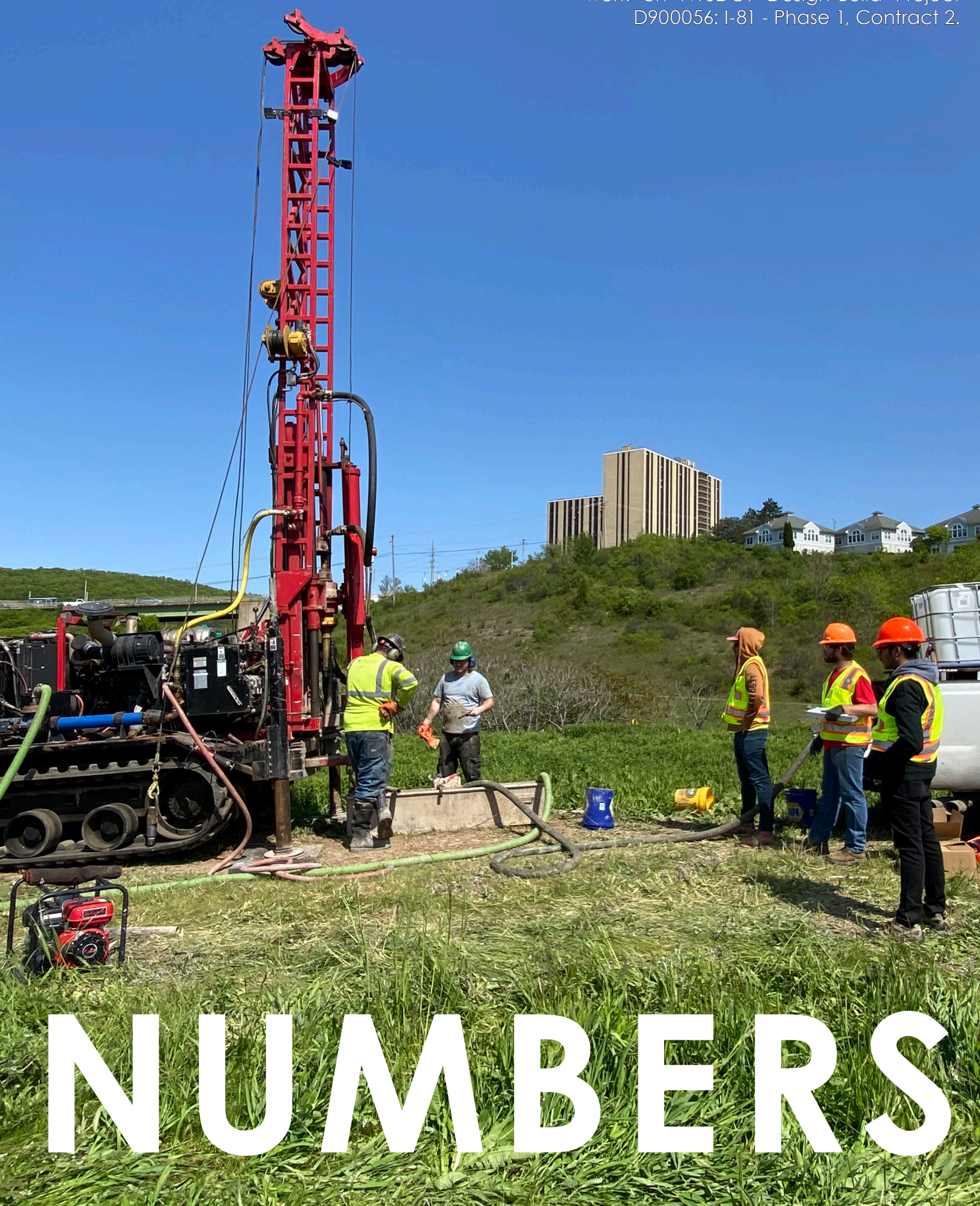
NEW SHORTLIST: Design-Build Contract A37369: Progressive Design-Build Services for State of Good Repair at Various Stations, Metropolitan Transportation Authority (MTA): This project involves design and construction work for 44 New York City Transit Authority (NYCT) subway stations in the Boroughs of Manhattan and Brooklyn in two phases. In Phase 1, the scope of work involves site surveys, investigations, planning, securing approvals and permits, developing design documents, and preparing cost estimates and pricing for a group of stations. In Phase 2, the design-builder will perform structural repairs for the stations. KC

was shortlisted as a member of a design-build team to provide structural engineering services.

NEW SHORTLIST: Design-Build Contract 8262310001: Upstate Roadway and Reconstruction Improvements, New York City Department of Environmental Protection (NYCDEP): The scope of work for this project includes the rehabilitation and/or replacement of roadway, guardrail, culverts, retaining wall, underground storage tanks, electrical transformer and switchgear, and sanitary force mains at three locations that are part of NYCDEP's Upstate Water Reservoir System. KC was shortlisted as Lead Designer and Quality Manager as a member of a design-build team. φ



KC engineers overseeing geotechnical work on NYSDOT Design-Build Project D900056: I-81 - Phase 1, Contract 2.



NUMBERS

12 ***New opportunities awarded in 2023 so far***
KC continually wins new jobs thanks to our qualifications and our leadership.

2 ***Municipalities where KC is the Municipal Engineer***
We take pride in serving our clients, especially when it benefits our local communities.

64 ***Proposals submitted in 2023 so far***
KC's project managers, in tandem with the marketing group, produce a steady stream of new proposals, keeping KC at the forefront of the industry.

114 ***KC employees***
KC's staff is comprised of engineers from many disciplines, land surveyors, inspectors, and administrative staff.

4 ***Job openings***
KC is currently hiring for multiple positions. [Visit our website to learn more.](#)

3 ***KC offices***
The KC headquarters is located in New York, NY with regional offices in Newburgh and Albany, NY.