

BIAZZUAL

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A LETTER FROM RAJ RAVILLA

Rajashekar (Raj) Ravilla, P.E. is KC's president. He is responsible for the quality assurance and quality control of all projects and ensures a direct line of communication to each client at the highest level of management in the firm.

2018 has been a productive and bountiful year for KC. Almost every department within our company has experienced an increase in personnel, and as our forces continue to burgeon, so too does our quality of work.

This growth, as well as our desire to offer a more central location to accommodate both employees and clients,

has led us to seek out office space that will allow us to consolidate personnel from our Poughkeepsie and Circleville locations. Our current Circleville location has a capacity of 35 employees, while our Poughkeepsie location holds 15.

We are in the process of acquiring a central space that will allow for a capacity

of at least 75 people. This new location will not only provide us with more room to flourish, but it will additionally allow our Hudson Valley team to collaborate more fluidly and enable KC to be more strategically accessible to our clients.

Our New York City office has also experienced tremendous growth over the past few

years. As a result, we will be expanding to include more office space on the 17th floor of our Penn Plaza location. This will more than double our office capacity, from 20 to a maximum capacity of 50, thus enabling us to continue hiring high-quality personnel and strengthening the foundations of our company.

With an ever-growing team of professionals, we can continue pursuing more large-scale jobs and expand our industry presence in the New York Metropolitan and Mid-Hudson Valley areas without overtaxing current employees.

I thank you for all your hard work over the past year, and I hope you will continue to

thrive with us as we forge ahead into 2019. Together we can continue maintaining the highest caliber of professionalism in business, perform all tasks with an emphasis on quality and efficiency, and do excellent work.

I wish all of you a very happy holiday season and a healthy and prosperous New Year!

-RAJ

“As our forces continue to burgeon, so too does our quality of work.”

MILESTONES

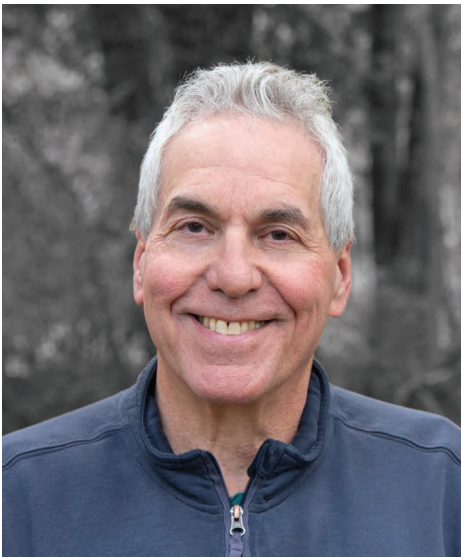
New talent is constantly integrated into our team thanks to ongoing growth at KC. This quarter, we welcome a number of new employees from varied disciplines, and we also celebrate major milestones for several KCers. Competitive compensation and engaging work make KC an attractive firm at which to build a long-term career.



ENGINEERING AUDITOR
JOSEPH FOTI

An engineering auditor at KC, Joseph celebrated 35 years with the firm last quarter. He has experience in all aspects of planning and design of land development projects, and he assists KC in a large variety of wastewater and inspection projects. Through his daily auditing work at the DEP, Joseph is thoroughly familiar with the OEA's auditing procedures and the DEP's Automated Procurement Tracking (APT) System.

35



VP / SURVEY MANAGER
DAVID BAKER, P.L.S.

Dave has been with KC for 10 years, where he has served as survey manager and lead surveyor on numerous projects. With a career spanning over three decades, he is known for his expertise in mapping and resolving boundaries, high order GPS collection, and deeds and records research. As one of the go-to's for all things relating to survey, Dave is a pillar of the survey department and an integral member of KC.

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EXECUTIVE ASSISTANT
HELEN WOO

Helen Woo, KC's Executive Assistant in our NYC office, celebrated 20 years with the firm last quarter. Helen is in the HR department, acts as the first point of contact for our clients and partnering firms in NYC, and manages KC's deliveries. In addition to acting as gatekeeper for the NYC office, she assists with billing and client relations and manages all communications that either enter the office or leave it.

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OFFICE ENGINEER
RAM DARISA

Ram Darisa celebrated 10 years with the firm last quarter. Ram is skilled in the fundamentals of civil and structural engineering, serving as an office engineer and resident engineer on a variety of KC's projects for the NYCDDC. In addition to his extensive experience with the design and construction inspection of bridges and highway utilities, he also holds a Master's in Civil Engineering and is OSHA and WZTC certified.

10





**PROJECT ENGINEER
MICHAEL TAMIGI, P.E.**

Last quarter, Mike celebrated his fifth year at KC. As a civil engineer with a background in computers and technology, his career has flourished from designing small commercial wastewater and drainage systems to installing multi-million dollar SCADA systems and complete electrical design layouts for bridges.



**ARCHITECT
JAMES TERWILLIGER**

Jim Terwilliger marked five years at KC last quarter. With over a decade of experience, from conducting boundary surveys, to inspecting fuel storage tanks, to designing renovations for public restrooms, there are few areas in which Jim is uninvolved.



**VP / PROJECT EXECUTIVE
WILLIAM LIPSKI, P.E.**

As a project executive and senior claims specialist on various NYC DDC and DEP projects, Bill has over 35 years of engineering and management experience in the City of New York. Celebrating his fifth KC anniversary this year, Bill is known for his strong understanding and knowledge of infrastructure contract work.



**MEDIA COORDINATOR
EVAN THOMAS**

Evan joined KC's marketing team last August as a Proposal and Digital Media Coordinator. Previously an administrator at an arts organization, he is skilled in media production, editing, and brand development. Evan utilizes this experience to ensure quality, consistent visuals and tone across multiple KC platforms and media.



**CIVIL ENGINEER
AAKARSH BUDARAPU**

A graduate of University of Detroit Mercy with a Master's in civil engineering, Aakarsh joined KC's Circleville office last October as a civil engineer. With six years of experience in engineering, Aakarsh's skills in civil and structural design, material and labor management, and problem resolution will aid KC in future projects.



**INSPECTOR
HAMZEH GHANNAM**

Hamzeh brought eight years of experience as an engineer and inspector with him when he joined KC last August. Well-versed in various Autodesk programs and familiar with working on multimillion-dollar projects, Hamzah's inspection expertise will surely come in handy.

RETURNING



**CIVIL ENGINEER
MELINDA KWOK**

In her five years at KC, Melinda has quickly accumulated responsibility as a civil engineer. With a wealth of experience in working with regulatory agencies and evaluating septic systems for redevelopment and expansion, her skillset has been heavily utilized in various municipal projects.



**PROJECT ENGINEER
CHRISTIAN MOORE, P.E.**

Next quarter marks Christian's fifth year with KC. With 20 years of civil engineering experience and extensive knowledge of site investigation and project management, he serves as a mentor for his fellow engineers. Christian was previously an employee of Paggi, Martin & Del Bene, LLP before they were acquired by KC in 2014.



**OFFICE MANAGER
LISA WEISS**

Lisa, who has been with KC for five years, serves as the office manager and gatekeeper of KC Poughkeepsie. Keeping track of incoming calls, mail, and engineer reports can get chaotic – but not for Lisa, who has over 15 years of experience in office management. Lisa was also previously an employee of Paggi, Martin & Del Bene, LLP.



**PROJECT ENGINEER
JAMES QUIGLEY, P.E.**

Jim started at KC's NYC office last August. With 9 years of structural design, structural analysis, and team leading experience, including work for the Delaware Department of Transportation and the Southeastern Pennsylvania Transportation Authority, his skillset will be a great asset for future proposals and design-builds.



**CADD MANAGER
ERIC POST**

Coming aboard as a CADD Manager in KC's Circleville office last September, Eric seamlessly fit into the team. He has 13 years of experience in architectural, civil engineer, and hand drafting, and has performed Civil 3D modeling and survey base mapping – the perfect bridge between engineering and land surveying.



**CIVIL ENGINEER
SAMANTHA CASH**

A graduate of Clarkson University with a Bachelor's in Environmental Engineering, Sam joined KC's Circleville office last year as a civil engineer. After taking a brief sabbatical to hike the Appalachian Trail, she has been assisting with various projects for local municipalities.

BUILDING THE BRIDGE

THE CAREER OF NANCY CLARK, P.E.

I am a classic civil engineer.

Much of my work has been in municipal engineering, meaning publicly-funded projects for towns and villages, and work for various state agencies – anything from streets and sidewalks to drainage, water and sewer, wastewater treatment, and water supply. I've done campus work in my past, which I enjoyed quite a bit, because it was improving a space that was already there and not new development on empty land.

I was hired by KC as a senior project manager in 2014 – not to be VP at KC Poughkeepsie, but there was a need – and after a year of getting to know the company, I became the head of the office.

I learned through experience that some of the process and procedure I was looking for didn't exist yet when I first started working here because KC was still growing from its prior, smaller firm roots. My biggest example is the orientation process: it was originally like handing down tribal knowledge, or what you remembered to say

to the new person. Now we have procedures like videos, training, and forms. It's not the most exciting first few days of work but it's very necessary, and that's just one example of the firm growing. We are now an ISO-certified firm and we use those processes and perspectives to continually improve. It feels good to have part of my perspective contribute to the firm's growth.

I really enjoy the young staff here at KC; the current culture is very collaborative. Working with digital natives is incredible and provides great capacity to get things done and present valuable, well-prepared work products for our clients. In our work together, we have people at different levels in their careers contributing their perspectives, and as we give voices to varied perspectives, we achieve the best solutions to technical issues.

When working through a project in my style, everyone involved on the project is aware of the proposal – which describes the scope, schedule, and cost for a project – and everyone

understands the purpose that we're working towards. That helps to get people moving forward in the right direction, as does having dialogue at appropriate times during the progress of the work. I find it best to make sure we talk about the assignment while not defining it so much that we cut off someone's ownership of their work and their ability to contribute their own creativity, while touching base often enough that they can see they're on the right track.



There's a lot of creativity in our work, with many ways to do something right, and the young staff are able to contribute their fresh eyes and ideas even on the tools we use. In my experience here, if there's a tool that's identified to be a benefit to our work and we make a pitch for why it's a benefit, we generally get approval to get the tool. That perspective often comes from the younger staff.

At the beginning of my career, we actually looked things up in microfiche; it's now a different world with regulations and reference materials available online and in a much more efficient way. Recently we bought a couple of dashcams because they make it safer and easier to pull in observations along a public highway. You review the plans ahead of time, create a list of what you're looking for, and use the

dashcam for videos and still shots. I may not have thought of that on my own. We have tablets for project materials and daily inspection reports, rather than just doing pencil reports and scanning them in. More of the work and record-keeping is done electronically, and it's more efficient for keeping the project team current. It's easy to collaborate across offices too, as we have seamless connectivity and our project files are stored in the cloud.

In my first year at KC as a senior project manager, I felt like a sage on a bench. I did project work and had a couple of visitor's chairs in my work area where people would come in and ask me questions, but I didn't have staff management responsibilities – which was different for me. Since growing with KC, I've been able to better weave the multiple skills that I've learned along my path.

I've been in the engineering consulting business for 30 years now. When you walk your path, you grab bits from every one of your experiences, and for me, I have been able to fold it all into a real positive at KC.

I've had staff here say, "You have a smile on your face so much!" What's there to not smile about?
Φ

MAKING OPPORTUNITIES

It's normal for college upperclassmen to get anxious about finding a job, but what if you could get ahead of the curve while still in school? Through networking, reaching out to businesses, and getting some preliminary resume-builders out of the way early, crossing the chasm between education and employment has never been easier.

Investigate and Research

If you've got a company in mind that you want to work for after graduation, start doing research. What are their latest projects? What disciplines are their primary specialty? Where are they located? Most engineering firms have lists of services and past projects on their website, as well as marketing materials such as brochures and newsletters. For KC, all of this can be found at www.kcepc.com.

If you know the company you want to work for will

be at a career fair or social networking event, introduce yourself. Building professional relationships is the key to expansion within an industry, and by reaching out early you're giving yourself a chance to be remembered later during a job interview. If you don't have a chance to catch them at a social event, consider reaching out via LinkedIn. Not only will you be able to connect in a professional environment, but it gives them a chance to look into you, too.

Ask About Internships

Internships are offered to not only give students professional experience, but also to hone their skills. By starting a job with internship experience, you're able to strengthen your talents while applying what you learned in school. If you don't have any prior experience, internships are a perfect opportunity to accumulate some!

Most businesses use internships to train future employees, so treat the experience like a stepping stone to employment. If a business doesn't look like it has internships, it doesn't hurt to reach out to Human Resources. Due to office capacity, some businesses (including KC) may not regularly advertise internships, but there's always a chance!

Strengthen Your Resume

If you're not sure where to work yet, or you just want to bolster your professional portfolio, there are a few things you can do to set yourself apart from the crowd.

Joining a professional society, such as the American Society of Civil Engineers, can help connect you to a wide network of engineers –

some colleges even have student chapters.

Often cited as the first step to becoming a professional engineer or land surveyor, taking the Fundamentals of Engineering (FE) or Fundamentals of Surveying (FS) exam shows a desire for professional growth. Both are often taken following graduation but can be taken before finishing an undergraduate degree.

KC is always looking for the best and brightest. We provide a stimulating, stable, and rewarding work environment where we attract, retain, and develop our employees as leaders. If you're looking for a challenging and rewarding career in engineering or land surveying, please contact us. ☐



■ Supplying water for over 20 neighborhoods, Manhattan's water distribution system utilizes water mains and appurtenances to connect to 4 crucial shafts.

PIPELINES & PIPE DREAMS

As bitter cold temperatures, powder-white landscapes and cool grey skies greet the new year, we are still left with the crumbling infrastructure of years past.

The cold temperatures aren't just an annoyance for us – they also wreak havoc on the country's roads, power lines, and water mains. Water infrastructure is especially susceptible to winter's extreme conditions. A severe drop in temperature causes water to freeze and expand, exerting pressure on already vulnerable pipes, which then burst and cause service disruptions and extensive damage to the surrounding area.

Utility crews have the misfortune of having to perform lengthy repair work in sub-zero temperatures while we wait hours – even days – to have our service restored. If bursting pipes are an inconvenience for a single household, how does it compare to hospitals, municipal water systems, or other large facilities that serve the public? And if deficient piping is the problem, why not weatherize the system?

In a perfect world, the solution would be that simple.

But with over one million miles of pipes and only a fraction of our country's spending dedicated to improving water infrastructure, it's not as easy as replacing and weatherizing the entire country's water systems. Even on a much smaller scale, a municipality's budget can be severely overrun by its infrastructure needs.

According to the American Society of Civil Engineers (ASCE), most water infrastructure has either met or exceeded its useful lifespan – typically not more than 100 years – and requires more than \$100 billion in funding to be brought to a sufficient state.

There's no easy way to remedy this problem, especially since we've let it linger on the back burner for decades. Repairs and remediation will be costly but continuing to push the problem off will result in higher costs later down the line. The question remains: do we invest now or continue to turn a blind eye?

KC continues to work diligently with municipalities in the Mid-Hudson Valley, providing innovative and cost-effective designs for new and existing water treatment, storage, and distribution systems. Our commitment to revitalizing old systems and creating new, resilient infrastructure for our public and private sector clients remains one of our main priorities.

With over one million miles of pipes continuously working to deliver water to citizens across the country, can we afford to underfund our national programs and water projects? ☐



KC HOLIDAY CRUISE 2018

This past December, the KC team took a cruise around some famous NYC landmarks to celebrate the season and a prosperous year.

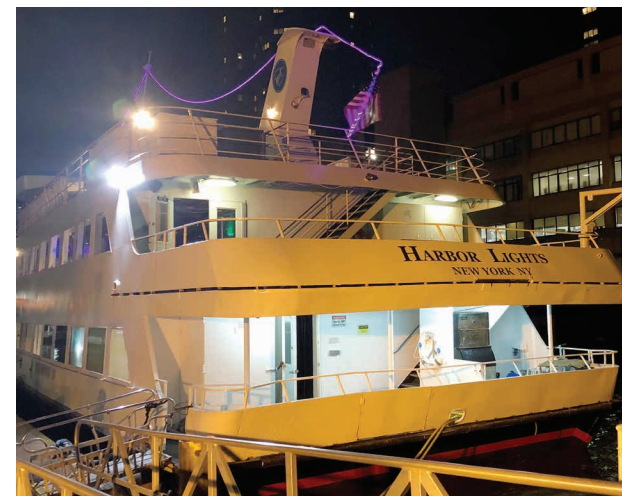
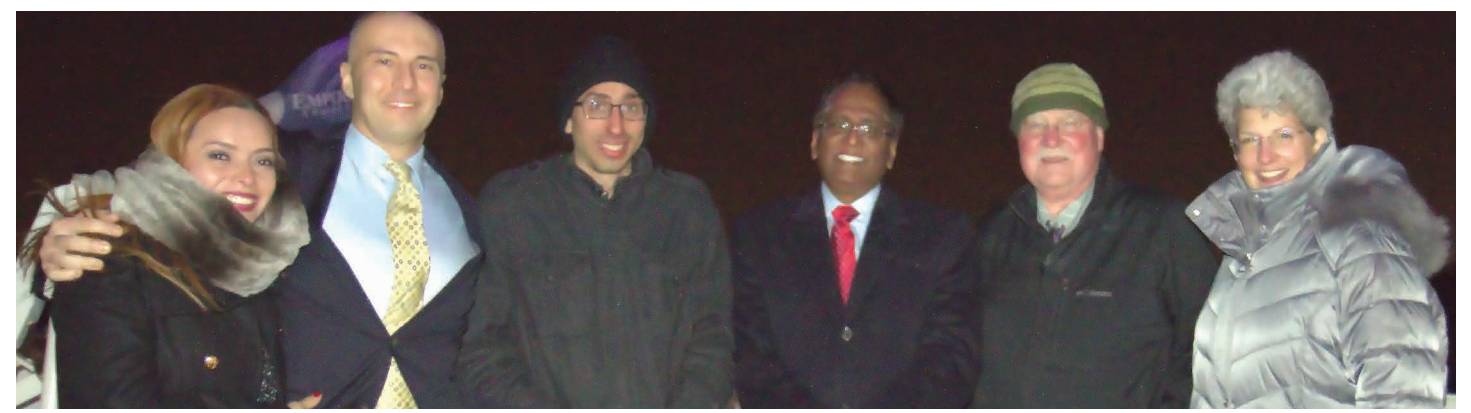
Starting at Skyport Marina, KC set sail aboard the Harbor Lights – a 3-deck, 180-foot yacht stocked with amenities, including appetizers and dinner, an open bar, and a dance floor lined with party lights. From the windows of the vessel, guests could easily

spot some familiar sights, including the Statue of Liberty, the Chrysler Building, and the Empire State Building, but the best view (for those tough enough to brave the cold) came from the upper deck. KC employees from all of our offices enjoyed being able to relax and mingle with fellow employees and their guests.

There was something especially humbling about passing beneath NYC's

bridges and getting a closer look at the infrastructure of the Brooklyn and Manhattan Bridges. As a team of professionals in the engineering and surveying business, the tour of NYC stood as a reminder of just how far we all can go.

From everyone here at KC, have a happy holiday season!



PROJECT HIGHLIGHTS

KC takes pride in being the leading mid-sized consulting engineering firm in the Mid-Hudson Valley and New York Metro area. This distinction is a direct result of our multi-disciplinary approach. What's currently on our desks? Read on.

KC's work log includes dozens of unique projects, handled by teams of staff carefully grouped to take advantage of their unique individual skills. Examples follow.

NEW AWARD: NYSDOT D900043 Kew Gardens Interchange Infrastructure and Operational Improvement Project – Grand Central Parkway: As subconsultant on the design-build team, KC is providing design and quality control services for this design-build project. The project scope encompasses a number of existing structures and bridges, including the Grand Central Parkway (GCP), Jackie Robinson Parkway (JRP), and Union Turnpike (UT) within the Kew Gardens Interchange (KGI). With KC's extensive history providing expert structural engineering services on several large-scale projects, including several design-build projects, we are confident that we can contribute lasting, innovative design to this project.

NEW AWARD: Village of Hillburn Water System Financial Evaluation: KC will provide a financial evaluation to determine the value of a proposed water distribution system – including analysis of infrastructure and revenue value compared to maintenance and operating expenses – for the Village of

Hillburn. KC recognizes the need for improved water infrastructure and will propose a sound solution for the Village. Our skilled water supply experts and experience providing services to local municipalities, government agencies, and private clients makes KC well-suited to successfully complete a project of this scope.

NEW AWARD: Village of Wappingers Falls Brownfields Assessments: Continuing upon our long-standing professional relationship with the Village of Wappingers Falls, KC will provide environmental consulting services for the assessment of various Brownfield properties. The project scope will include meetings with stakeholders and the community; site assessments, such as Phase I and II Environmental Site Assessments (ESAs); quality assurance and quality control; and development of cleanup plans. KC's assessments will provide the Village with the knowledge required to move forward with developing the Brownfield properties into usable industrial, commercial, and recreational property.

NEW AWARD: NYC Parks B548 Construction of a Comfort Station, Playground, and Multi-Purpose Sports Field, Bounded by Vandalia Avenue, Schroeders Avenue, Walter Street,



Survey Technicians Mark Eubanks and Chris Depoala prepare to scan a portion of the KGI. Using the Leica ScanStation P50, they can collect millions of points of data at once to create a 3D model of their study area.

and Ashford Street, Borough of Brooklyn: As subconsultant, KC will provide land surveying services for this site remediation and design project. KC will locate all visible utilities and perform utility markout in public right-of-ways (ROWs), locate and identify trees, and produce digital mapping of the project area. The proposed site, located in the Borough of Brooklyn, will be transformed into a community park with additional amenities for the park's patrons. We will continue our efforts to serve the public through recreational development projects.

NEW AWARD: NYCDOT Bridge Resident Engineering Inspection Services: KC has been placed on the Department's Pre-Qualification List for Bridge Resident Engineering Inspection Services, which will be used to select firms for the Capital Rehabilitation Program. We are eager to pursue contracts with the NYCDOT's Division of Bridges as opportunities are made available.

NEW AWARD: NYSOGS SC456 Dam Inspections & Engineering Services: As a subconsultant, KC was awarded the above referenced contract with NYSOGS to support the mission of NYSDEC Operations, and particularly their dams program, on an as-needed basis.

NEW AWARD: NYSDOT D037787 Term Agreement for the Construction Inspection of Highway and Bridge Projects in Various Counties, Region 8: As a subconsultant, KC will provide construction inspection services to address the needs of a number of bridge and highway construction projects.

NEW AWARD: NYSDOT D031472-14 Design Services Agreement, Highway Design, Final Design, and Construction Support Services for Long Island Welcome Center, Suffolk County: KC will be providing highway and final design services as a subconsultant for the Long Island Welcome Center, located on the Long Island Expressway.

NEW AWARD: NYS Office of Parks, Recreation and Historic Preservation D005475, D005476, D005477 Engineering Term Contract (Saratoga, Palisades, and Taconic Regions): As part of an engineering term contract for the Saratoga, Palisades, and Taconic state park regions of New York, KC will be providing survey, civil, and drainage/stormwater management services on an as-needed basis. ☐

FAQ

How long has KC been around? KC was founded in 1983, but with the acquisition of Eustance and Horowitz, P.C., our oldest experience dates back to the 1950s!

What is land surveying? Land surveying is a broad discipline that includes applying mathematics to measure and plot all dimensions and areas of any portion of earth. Some commonly used examples of land surveying are the boundary survey, which involves the retracement and establishment of property lines for adjoining owners utilizing legal principles and boundary law, and construction surveying, which entails laying out grade stakes to assist contractors with the construction of subdivisions.

What is a professional land surveyor? A professional land surveyor is a person who, through rigorous experience and education, is licensed by the State Department of Education to practice and render opinions regarding property boundaries, is well versed in mathematics and technology, has grasped various concepts regarding boundary law and legal principles, and can apply said concepts on a daily basis.

How long does it take to become a surveyor? In New York, a surveyor-in-training without any college education must work a minimum of eight years, with many of those years in charge of boundary surveys, field crew deployments, and

dealing with managerial duties, before sitting for the Professional Surveyor exam. Requirements vary by state; New Jersey requires a four-year survey-specific degree plus a minimum of three years of additional experience, whereas in New York a two- or four-year degree in surveying may reduce the practical experience portion of the requirement by four to six years.

Once the Board accepts your qualifications, the individual sits for three exams: the Fundamentals of Surveying (FS), which is a 110 question, 6-hour nationalized exam; the Principles and Practices exam (PS), a 7-hour, 100 question national exam; and a state-specific exam that tests

knowledge of local and state-specific laws and legal issues/precedence (2 hours in NY).

When will I need to hire a land surveying firm? Clients may request surveying services for many different items. For example: a mortgage lender may require an updated survey before a person may buy a house; if a homeowner wants to do any kind of construction on their property, they may need to know where the property lines are; two neighbors could have a conflict with their property boundary and need to have it surveyed; a contractor may need to subdivide a larger parcel of land and also require additional services during the construction period; and anything that

involves land development or land reconstruction will likely require surveying. The surveyor may also be retained for forensic services, geodetic surveys, high order monitoring services, etc.

What does a surveyor earn? In addition to a salary commonly averaging between \$45K/yr and \$135K/yr, surveyors are often paid in comprehensive benefits, company profit sharing, year-end bonuses, and paid time off. KC offers all of these.

In what sectors do surveyors work? Surveyors work in both the public and private sectors.

Why should I work at KC? KC is the leading mid-sized engineering and land surveying firm in the

Mid-Hudson Valley and NY Metro area. We consult for major national and global firms on multibillion-dollar projects. Our employees have myriad opportunities to grow their skills and advance their careers. KC provides a stimulating, stable, and rewarding work environment. KC attracts, retains, and develops its employees as leaders in the business of providing professional services to our clients. If you're looking for a challenging and rewarding career in engineering or surveying, please contact us. ☐



- As part of a recent design-build, KC designed a three-span continuous steel girder bridge, spanning NYS Route 209 over Rochester Creek.

NUMBERS

50 ***New contracts awarded during 2018***
KC continually wins new jobs thanks to our qualifications and our leadership.

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

215 ***Proposals submitted***
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.

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

3 ***KC offices***
KC is located in New York, NY; Circleville, NY; and Poughkeepsire, NY.

1,000+ ***Milestones completed in 2018***
Project milestones, sometimes called "tasks," define key developments. KC works to complete all projects on or ahead of schedule.

9 ***Career positions currently listed on KC's website***
There are plenty of opportunities to join KC, and new ones are always being added. Visit our website's career page at www.kcepc.com/careers to find out more.