TECHNOLOGY

INSIDE:

MAX USA Corp’s Rebar Tying Technology

Montgomery, Ala., embraces smart city designation

Apps connect residents and cities
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ON THE COVER
MAX USA Corp. has improved rebar tying technology with the invention of the Twintier RB441T, a dual wire feeding rebar tier. This piece of technology saves money long term by reducing wire waste and improves worker safety, reducing repetitive motion injuries. Learn more on page 10.
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From the Cover: Handheld battery-powered technology to aid America’s infrastructure upgrade projects

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Correction

In the October 2019 article “Orrville firefighters go above and beyond providing event for their community,” Orrville Mayor Dave Handwerk’s last name was misspelled as Hendwerk. The Municipal regrets this error and any confusion it might have caused.
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As technology continues to evolve, privacy has become a constant juggling act. This fine line is particularly seen in today's debate on facial recognition. Some cities are embracing it — often seeing considerable value in the realm of public safety — while others are banning its usage with concerns in regards to its accuracy and the potential for privacy violations.

Personally, having watched way too much true crime-related fare, I can definitely see how facial recognition would be invaluable to law enforcement, solving many crimes when accompanied by solid police work. On the other hand, I question where such information will be stored and for how long. Cities, after all, don’t always have the most stellar track records when it comes to digital security.

In a June 26, report, the BBC found Florida municipalities had paid $1.1 million over ransomware. These cities are not alone. Baltimore, Md., found its computer networks paralyzed by ransomware this spring while further west Akron, Ohio’s, help line was taken out by hackers during a major snowstorm.

In its Sept. 28 article, "Washington idle as ransomware ravages cities big and small," Politico reported that in 2018, “The FBI received nearly 1,500 ransomware reports last year from all sectors, with an estimated damage total of $3.6 million.” The magazine added, “The cybersecurity firm Recorded Future, which has kept track of publicly reported ransomware attacks, tracked 80 on municipalities this year, compared with 53 in 2018, though both figures are likely to be underreported. And when it comes to paying the ransom to hackers, the cyber firm Coveware found that governments on average pay 10 times more than businesses.”

Digital security should probably be put before the implementation of facial recognition, but that is not to say the latter technology shouldn’t be looked into. When that time comes around — if it’s not banned on the federal level — some of the concerns associated with facial recognition technology may have been worked out as it improves, likely within a short time span.

While technology evolves quickly, that doesn’t mean cities should sit on the side lines. In this issue focused on technology, we are highlighting two cities — Montgomery, Ala., and Salt Lake City, Utah — which have striven to integrate new technologies not only to streamline their operations but also to improve their citizens’ quality of life.

Other cities featured in this issue are rolling out apps to connect with residents, empowering them to report problems they see — like potholes — or simply pay their bills. Finally, we will also be looking at how technology can be used to manage air pollution.

We hope as always you find this issue to be educational.
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In 2019, the American Society of Civil Engineers gave the nation’s infrastructure a D+ grade. The infrastructure referenced on this report card represents the roads and bridges Americans use daily to commute back and forth. With a major declaration, the White House has promised to make major investments in infrastructure projects, which include the rebuilding of roads, bridges, airports, tunnels and railways nationwide. With this in mind, there is no greater time for a discussion about the technologies that can help execute this presidential edict.

The Better Utilizing Investments to Leverage Development — or B.U.I.L.D. — grant program is a $1.5 million federal fund that has supported 90-plus road, rail, transit and port projects around the U.S. On a state level, many departments of transportation are also beginning to make large investments in the rebuilding of aging roads and bridges. One such project is Oakland County, Mich.’s, 18-mile-long Modernize 75 project. This $944 million project is funded by the Michigan Department of Transportation. Its plans to modernize I-75 include a reconstruction of the freeway pavement; improved interchanges and bridges; an additional lane in each direction, created by enclosing the median; drainage improvements; aesthetics; noise walls, where they meet federal/state criteria; and also the addition of Michigan’s first high-occupancy vehicle lanes.

This highway project requires that thousands of tons of rebar be laid and tied. Pre-1994, ironworkers would have completed this job using a spool of wire and pliers. This labor-intensive job led MAX to develop the world’s first battery-powered rebar tying tool. Since this technological advancement for tying rebar became popularized, these battery-powered tools have revolutionized rebar tying around the world.

MAX has continued improving rebar tying technology, which led to the invention of the TwinTier RB441T, a dual wire feeding rebar tier. This groundbreaking technology allows ironworkers to make 4,000 ties per battery charge. The tool also saves workers from throwing money down the drain by eliminating wire waste. The RB441T delivers just the right amount of wire to securely tie rebar intersections, boosting productivity and cost savings. These innovative features make the TwinTier RB441T the most innovative and efficient rebar tier in the world. Today, MAX manufactures a full line of rebar guns, which can tie mesh up to No. 8 and No. 9 rebar.

Using MAX rebar tying tools on the I-75 road project has reduced the time it took to complete phase one; it’s also having a similar effect on phase two, which is scheduled to be completed in November 2020. The MAX TwinTier RB441T is conservatively five times faster than hand tying sections of rebar.
The tying of rebar predisposes ironworkers to the risk of developing musculoskeletal disorders to upper and lower extremities; MAX Twintier RB441T reduces this risk. (Photo provided)

which is laid to minimize the possibility of concrete cracking while also promoting a healthier and longer life for concrete slabs. With an approximate tying speed of less than one second, MAX RE-BAR-TIERs reduce the time spent tying, consequently reducing the man hours necessary to complete a job.

Another benefit of using the MAX RB441T or other battery-powered rebar tying tools in MAX’s product line — www.maxusacorp.com/rebar_tying_tools — is the health benefit for the ironworkers. The repetitive motion used in manually tying rebar predisposes ironworkers to the risk of developing musculoskeletal disorders to upper extremities — i.e., wrists, hands, fingers and shoulders — and lower extremities — i.e., knees, ankles, feet and back. A study conducted by the National Institute for Occupational Safety and Health concluded that the use of battery-powered tiers reduces the risk of developing hand, wrist or elbow disorders. The study also found that using battery-powered tiers with an extension arm helped to reduce the risk of sustaining back injuries.

Frequently epoxy-coated rebars, which provide greater resistance to corrosion, are used for road and bridge constructions. MAX manufactures polyester-coated wire for this use.

As the I-75 project moves toward its projected completion date in the fall of 2023, MAX rebar tying tools will be around to support the work of ironworkers who’ve been hired to lay the foundation for this infrastructure project.

For more information on MAX rebar tying tools visit: maxusacorp.com/rebar_tying_tools or call us at 800-223-4293.

References


Winterthur is situated about a mile and a half west of the unincorporated community of the same name at the northern tip of Delaware.

The founder
Du Pont was a Renaissance man of sorts in his time. For many decades he plied a career as a noted horticulturalist and a premier breeder of Holstein Friesian dairy cattle.

He had a dubious educational start, struggling as a student at a Massachusetts boarding school and telling his father, “I know I am stupid, but I think if I had a tutor to myself, I could pass my preliminaries.” He served himself well and was admitted to the prestigious Bussey Institution at Harvard University, from which he graduated in 1903.

For several years Du Pont identified his occupation as “farmer” on tax returns and other documents. In the 1920s he developed an avocational interest in antique furniture and American decorative art. He developed a reputation as an expert, and First Lady Jacqueline Kennedy commissioned him to oversee the two-year renovation of the White House in 1961.

He expanded the family estate, built in 1837, from 30 rooms to a 175-room mansion, now a museum maintained by a sizable staff of experts, and oversaw construction of the 60-acre garden and landscaping on Winterthur’s nearly 1,000 acres.

After he dedicated the museum and grounds to public use in 1951, he wrote:
“Sincerely hope the museum will be a continuing source of inspiration and education for all time, and the gardens and grounds will of themselves be a country place museum where visitors may enjoy, as I have, not only the flowers, trees and shrubs, but also the sunlit meadows, shady wood paths and the peace and great calm of a country place which has been loved and taken care of for three generations.”

The museum
The museum houses nearly 90,000 decorative and functional household objects made or used in America between about 1630 and 1860. Most of the mansion’s rooms are furnished as period rooms, many of them accessible through public guided tours. Various galleries throughout the facility feature permanent and rotating displays.

The collection is organized into categories: ceramics, glass, metalwork, paintings and prints, furniture, textiles and needlework. Curators continually add to the collection, following a carefully
crafted acquisition policy. Some of the collections can be viewed online through databases, virtual catalogues and webcasts.

Partnering with the University of Delaware, Winterthur offers master’s degree programs in American material culture and art conservation.

Winterthur’s conservation department, consisting of 25 conservators and assistants, scientists, preventive conservation aides, a lighting specialist and documentation image specialist, manage the collections in the museum, library, estate and garden.

The department shares its expertise through tours on the first Wednesday of each month, a written informative manual available for purchase by the public and monthly conservation clinics where the public can bring in personal objects for condition assessment and recommendations for care.

The garden and landscaping
According to www.winterthur.org, “The gardens and landscape surrounding the museum are not a botanical collection maintained for scientific purposes, but rather an artistic composition that captures a significant period in the history of American horticulture. This landscape is a significant cultural artifact and its components — plants, architecture and decorative objects — are preserved and managed as a collection.”

The website, which maintains a yearly bloom calendar, describes du Pont’s passion and foresight in planting the garden. “He selected the choicest plants from around the world to enhance the natural setting, arranging them in lyrical color combinations and carefully orchestrating a succession of bloom from late January to November.”

The garden contains 13 variously constructed and decorated follies, small shelters providing respite for visitors.

The library
Winterthur’s expansive library involves several collections totaling more than half a million documents of one form or another.

The collection of books and periodicals contains more than 100,000 volumes in open stacks and about 20,000 rare American and European imprints in closed stacks available only by appointment.

The rare book collection includes travel narratives, children’s books, women’s magazines, literature on etiquette, city directories and guidebooks.

The Joseph Downs collection of manuscripts and printed ephemera contains diaries, family papers, tax records, wills, household inventories, children’s toys and games, scrapbooks, journals and fabric swatch books.

The visual resources collection holds tens of thousands of preserved photographs.

Upcoming events
The museum complex hosts more than 200 educational and cultural programs and events every year. Some of the upcoming exhibits, on display until Jan. 5, 2020, are:

- “Costuming The Crown,” a dazzling display of 40 costumes from the Netflix series.
- “Hamilton & Burr: Who Wrote Their Stories?,” which examines the historical figures’ legacies through documents and family statements.
- “Yuletide at Winterthur,” celebrating 40 years of Christmas season traditions, customs and decorations of the du Pont family.

For more information, call (800) 448-3883 or (302) 888-4600, or visit www.winterthur.org.
The city seal of Chandler, Ariz., adopted Feb. 8, 1994, is simple enough, but it symbolizes three major components of the city’s heritage: the San Tan Mountains, an irrigated agricultural field and a silhouette of an industrial plant.

Overarching the images is a blue letter “C” curling over a clear sky.

Chandler was founded in 1912 by Dr. A.J. Chandler, a pioneer veterinary surgeon and land developer. He settled on a ranch south of Mesa in the Arizona Territory in 1891. The area consisted primarily of cotton fields, which befitted Chandler’s study of irrigation engineering. By the turn of the century, he had acquired 18,000 acres and began drawing up plans for a town.

He founded his namesake community with the opening of a townsit office on May 17, 1912, the same year Chandler High School opened its doors, and incorporated the city in May 1920. He built the Hotel San Marcos, the state’s first golf resort.

The economy held steady during the Great Depression but was bludgeoned by the cotton crash a few years later. The population of the city remained static until it experienced a small bump with the founding of Williams Air Force Base in 1941. The population doubled by 1950 and then grew nearly eightfold by 1980, from 3,799 to 29,673.

The population further exploded, experiencing more than a 200% growth from 1980 to 1990, and nearly tripling its total by 2010. The city, one of the fastest growing in the nation, now boasts a population of 257,165.

Most of the agricultural plots have been replaced with suburban housing and manufacturing plants, foremost of which are Motorola, Intel Corporation and Microchip Technology Inc.

Chandler has preserved its historic downtown, including the award-winning city hall and Chandler Center for the Arts. The National Civic League named Chandler an All-American City in 2010.

The website for the Chandler Office of Tourism, www.visitchandler.com, touts the varied lifestyle and attractions of the city: “Located in Metropolitan Phoenix, Chandler embodies an active lifestyle with easy access to outdoor recreation with endless family fun, award-winning events, world-class golf facilities and a vibrant downtown. Chandler visitors will enjoy the diverse community with its fabulous restaurants of every cuisine, premier shopping, arts and culture and a wide range of things to do all year-round.”

The website lists such attractions as:
• No snow days
• Spring training camps for 15 Major League Baseball teams
• A “gamut” of restaurants
• Seven championship golf courses
• The annual Ostrich Festival, Great American Barbecue and Beer Festival and Tumbleweed Tree Lighting Ceremony
• Sixty parks and six aquatic facilities
• Annual solar walk and science celebration

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Focus on: Technology

14,000
Wake Forest, N.C.’s, app has been downloaded over 14,000 times. It allows residents to perform numerous tasks, from paying bills to reporting potholes.

Learn how cities are using apps to connect with residents on page 20.

400
Ring, a doorbell-camera company, has entered video-sharing partnerships with more than 400 police forces across the U.S.


$2 million
Montgomery, Ala., saved more than this amount since 2016 through its partnership with Cenergistic.

More information about Montgomery’s smart city efforts on page 16.

92%
The estimated percentage of the world’s population who live in locations where air pollution levels exceed the World Health Organization’s limits.

Read about how technology is being used to monitor and address air pollution on page 24.

$7 billion
The facial recognition industry is expected to grow from $3.2 billion in 2019 to $7 billion by 2024 in the U.S.


$28.9 billion
The green technology and sustainability market is expected to grow from $8.7 billion in 2019 to $28.9 billion by 2024.

The city of Montgomery, Ala., has recently been recognized for its technological advances in becoming a smart city. It began with a collaboration and consultation between technology advocate and entrepreneur Boyd Stephens and Mayor Todd Strange. Their goal was to bring the vision of open data and the internet of things to life in Montgomery.

Open Data Montgomery
As one of the first cities to adopt an open data policy, Montgomery has worked toward increasing transparency and accountability while also better engaging residents.

“Launched in 2015, Open Data Montgomery was the city’s first foray into the smart city space and is the foundation of our efforts to better serve residents by doing more with less thanks to aggregated information and data-based decision-making that helps us optimize government processes by maximizing efficiency,” Griffith Waller, public relations specialist for the city, illustrated.

With the use of Socrata software, the city has been able to help unlock government legacy system data silos. Employees are empowered to work smarter to reduce redundancies and keep a record of their biggest accomplishments. This leads to an increased quality of life, economic development and operations.

The initial launch included data sets comprised of information and interactive maps on street paving. Direct access to the interactive register, budget and spending tool and city employee salaries was then offered to the public, ultimately leading to an increase in trust of the local government.

“In the near future, we will further optimize this website by enhancing user experiences to allow for easier comprehension of this massive treasure trove of information,” he explained.

Montgomery Internet Exchange
In 2016, the Montgomery Internet Exchange came online as the first internet exchange point in Alabama and one of only four in the Southeast. It was a collaboration between the city, county, chamber of commerce, research universities, Air Force base and the Cyber College of the Air Force.

Waller recalled, “The Montgomery Internet Exchange was one of the initial sparks in Montgomery’s smart city journey and provides the technological infrastructure and capabilities to do everything we’re now implementing.”

Since its implementation, MGMix has brought Fortune 100 clients and several technological and startup businesses to the community.

Smart City Living Lab
According to Waller, the lab was a “joint venture guided by the Montgomery Smart Community Alliance, a group comprising the city, county and Montgomery Area Chamber of Commerce, that serves as a testing ground for new high-tech projects.”

By NICHOLETTE CARLSON | The Municipal
This lab helps to connect the city’s business and entertainment area with the Maxwell-Gunter Air Force Base and Alabama’s Capitol Complex.

He explained, “The convergence of advanced infrastructure, including a fiber network and the Montgomery Internet Exchange, helped cement this development along with our collaborative approach. The Living Lab currently features fiber optic infrastructure; IoT capabilities as a result of the expansion of Montgomery’s open data portal; free high-speed public Wi-Fi; conversion of streetlights to LED; and smart parking solutions.”

Once these various concepts and projects are tested and proven to be successful at the Living Lab, they can then be implemented citywide.

**STAR Watch**

In February, a new police and community technology initiative was launched by the Montgomery Police Department. The River Region Strategic Technology and Resource Center is a state-of-the-art project using video feeds throughout the city to utilize police resources more efficiently.

“It’s built around a real-time crime center that taps camera feeds from across the city to better protect and serve Montgomery residents,” Waller described. Businesses, residents, schools and neighborhoods are able to volunteer to be a part of the program and share their camera feeds with the police department via the STAR Center.

**Rubicon**

In June 2018, a pilot program was launched with Rubicon Global LLC for six months. “The software incorporates AI and machine learning into everyday sanitation processes to improve efficiency and service,” Waller shared. “This technology helps to optimize daily operations and ultimately find myriad efficiencies and thus cost savings from fleet and equipment repair costs to manpower and overtime.”

Following the successful pilot program, the sanitation department entered into a three-year agreement with Rubicon to equip over 60 municipal vehicles with this smart city software. The software includes a phone app so key metrics, such as service confirmations, missed pickups and issues at the curb, can be tracked. This allows the fleet management department to collect the data and track vehicle usage and maintenance needs in real time, preventing vehicle failure and other costly issues.

The phone app also allows the sanitation fleet to act as mobile data collectors with the ability to flag potholes and fallen limbs along their route.

“Rubicon is also one of our best examples of a department head and a cabinet member seeing a need, hearing about the company and then finding a way to test its solutions,” Waller described.

**Roadbotics**

Another AI-based pilot program, Roadbotics, began in July 2018 to address paving priorities throughout the city. “It has since offered a much more comprehensive analysis of Montgomery’s infrastructure needs at a fraction of the time and costs associated with those in previous years,” Waller explained. “Along with freeing staff resources, the program uses AI and machine learning to pinpoint road issues undetectable to the human eye and defects that could snowball into larger issues down the line.”

The benefits of this proactive approach will be seen in future taxpayer savings and longer lasting roads.

**Awards**

As a winner of the smart city distinction in the Smart Cities Challenge competition, Montgomery was given the opportunity to host a readiness workshop with fellow municipal leaders and private innovators.
Montgomery shared the outlined plans in its winning application while leaders shared solutions for ongoing challenges.

“Following this workshop, we will now move forward to the implementation phase for some of the new projects that came about as a result,” Waller expressed. “We’ll then record the results as a blueprint for other cities.” As a winner in the Smart Cities Challenge competition, the city also gained access to the Project Activator Tool, which offers guidelines, reviews and best practices to help lower risk with new technology investments.

In August, Montgomery was awarded the Government Innovation Award for the city’s partnership with Rubicon. The city has also won two Smart 50 awards in the mobility and urban operations categories and been recognized both statewide and nationally for high tech GDP growth.

“Each award strengthens our team’s resolve to adopt practical, high tech solutions that better serve residents, add to our quality of life and expand access to the tools and technology needed for future success,” Waller emphasized.

Each of these programs have stemmed from the need to find a new and innovative solution. Some solutions have replaced outdated legacy systems while others help lead to bigger savings at no additional cost to taxpayers. “The smart city initiative as a whole also ensures we remain competitive and attract new economic opportunity to our community,” commented Waller.

“Our ultimate goal is to enhance overall quality of life and quality of place in Montgomery,” Waller stated. “Whether we do that by leveraging technology and innovation to enhance residential service and expand opportunity in Montgomery, partnerships and collaboration have been key to our progress and several national awards, which have positioned our community a leader among smart cities.”

Cenergistic energy specialist Charlotte Prestridge optimizes settings in the city’s energy nerve center as part of the city’s partnership with Cenergistic. Cenergistic’s energy efficiency strategies have helped save Montgomery more than $2 million in utility costs since 2016 and led to several city facilities, including city hall, achieving ENERGY STAR certification. (Photo provided by the city of Montgomery)

Cenergistic energy specialist Charlotte Prestridge optimizes settings in the city’s energy nerve center as part of the city’s partnership with Cenergistic. Cenergistic’s energy efficiency strategies have helped save Montgomery more than $2 million in utility costs since 2016 and led to several city facilities, including city hall, achieving ENERGY STAR certification. (Photo provided by the city of Montgomery)
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Cities have an app for that

As technology improves, it’s up to municipalities to provide more and more modern conveniences. This often means adding information and functionality to a city’s website. But how people access the internet has dramatically changed over the years and will continue to do so.

According to a report published in January 2019 by the World Advertising Research Center, about 72.6% of internet users will access it solely via their smartphone.

This means municipalities can no longer cater their website and information to a desktop computer, which is why many local governments have begun to invest in cell-phone apps that allow community members to access services and information quickly and efficiently.

Most municipalities build an app through a private developer, which sometimes offers special deals and prices to provide a community with its services.

“We were contacted by a local resident who owned and operated Purple Monkey apps, and he was interested in working with the town to develop an app for the town,” said Bill Crabtree, the communications and public affairs director for Wake Forest, N.C. “And so we had a good conversation. We were impressed with what he was able to offer and the price that he proposed. So that started the whole process, and since then, we’ve gotten over 14,000 app downloads.”

Crabtree said one of his major initiatives in creating the app was getting the word out to residents that it existed. He and his team used a variety of flyers and other information...
to encourage Wake Forest residents to download it, but he added the biggest marketing tool has probably been word of mouth.

A municipality’s app can provide a number of different functionalities.

The Wake Forest app is available for download on Apple and Android products and contains a number of different functionalities. They are:

- Report nonemergency issues, such as street maintenance issues, lights being out, potholes and graffiti. Residents can even use the app to send a photo and the exact location of the problem.
- Access important information about popular local events.
- Receive timely notifications concerning parks and recreation practice and game cancellations due to inclement weather.
- Access important information about parks and recreation youth athletics, including league schedules.
- Locate and learn about town parks and greenways.
- Pay Wake Forest power bills online.
- Access town news.
- Receive breaking news messages.
- Link to job listings.
- Access contact information for every town department.

While Wake Forest has a high number of functionalities in its app, a different city government could design its app around just one or two of these functions. But Crabtree said their app provides a good framework of all the different things a municipality can include in an app for its residents. For instance, Wake Forest residents can pay their power bill quickly from their phone or report a pothole by taking a picture of it and uploading it to the app.

“One thing that they really like is the push notifications or the mobile alerts that we can send out,” he said. “I think that is something that has really been well received so we can keep residents informed about breaking news in real time. And so that’s been especially helpful during weather events and reminding them about a popular town events that are coming up.”

Unless the app needs significant maintenance, Crabtree is able to update the app from his computer. He said now that the app has been built, the city only pays a small monthly maintenance fee to fix any issues that might arise. This also helps maintain the security of the app since private and sensitive resident information is also shared within it.

Over time, an app may need updating—a process Colorado Springs, Colo., is currently in the middle of doing. The city is designing the new app while the old one is still functional.

“We’re trying to make the transition as easy as possible by providing a link in the old app to download the new one in this sort of transition period,” said Jabob Anderson, who is in charge of city engagement with Colorado Springs. “So people will be able to hopefully rather seamlessly move. If they’re existing users, they’ll transfer over, and if they’re new users, they’ll just get the new app once it goes live.”

Anderson is also using a private developer to create the new app. Because the city already has a useable app, it is taking its time to make sure the new one is perfect. The Colorado Springs app simply allows users to report certain issues like a pothole or water wasting to the city. He said the new app will do a better job of notifying only the necessary city departments of an issue. This will save the city time and manpower and get issues residents care about taken care of quicker.
Society’s fast-paced ways have transformed internet access from a luxury into a necessity and important quality of life issue. Equally relevant, technological developments have proven so beneficial in society that more and more advancements continue to arise at record speed on the tails of their predecessors.

Salt Lake City, Utah, is riding this wave of innovation, continuing to propel itself onto the digital world stage. In fact, Salt Lake City was prestigiously designated by the Federal Communications Commission in mid-September as one of two initial “Innovation Zones” — along with New York City — that will test wireless communications in relevant, real-world settings.

This announcement comes after a very thorough application process that started more than a year and a half ago. As Andrew Wittenberg, marketing and research manager for the Department of Economic Development in Salt Lake City indicated, many universities across the country competed not only for the distinction but for the grant that would be bestowed by the National Science Foundation and more than two dozen private contributors. According to Wittenberg, “One of the key criteria that set the University of Utah and Salt Lake City apart was a show of support by the city for the project.” Specifically, the city wrote a letter as a testament of public support and that the city would provide the right of way for the testing locations.

“While it is certainly great to see Salt Lake City on the same list as New York City, this does not come as a surprise to its residents,” said Wittenberg. As he explained,
a healthy relationship exists between the city government and the University of Utah. Their networking relationship has actually enabled them to work together on previous initiatives. Furthermore, the University of Utah’s innovative campus is strong in the field of technology and more than capable of handling the task at hand.

“Technology is just as relevant for the city itself as it seeks to create a positive environment for living,” noted Wittenberg.

Salt Lake City, a thriving technical corridor, considers innovation an economic driving force. It is because of this that Salt Lake City intends to remain on the forefront of these breakthroughs.

“After all,” stated Wittenberg, “Salt Lake City has become more of a metropolitan area in the last 15 years, part of which is due to technological advances.” Its local culture is open to these improvements for a number of reasons: its recent, yet significant, growth, reputation for holding international events like the Olympics and emphasis on quality of life and environment.

The test sites will primarily be located on the University of Utah’s campus and areas of Salt Lake City near the university; however, finalization of details are in the works. Testing will continue for two more years into 2020 and 2021 before consumer participation will take place. The idea is to expand the network as testing continues. Right now, the select users will be local area businesses. They will be able to utilize this new technology, testing it in terms of business applications directed at making work easier and more efficient. During this phase where businesses will participate in the trials, no consumer interference is expected. This means there will be no short-term disruption of residents’ cell-phone usage, and towers already in place will not be affected.

There certainly is value in investigating wireless communication technologies and networks with 5G capabilities. The goal, whether it be cellular networks, Wi-Fi connections or commercial applications, will ultimately be to provide faster speeds and more reliable connections. Thus, there will be benefits for consumers and commercial enterprises as well as students and CEOs alike. An anticipated further benefit includes incentivizing businesses to look at Salt Lake City for expansion and growth, knowing these kinds of technologies are being nurtured and embraced by the city and the state’s flagship university.

Residents have been supportive of Salt Lake City’s many improvements, especially if they further quality of life. Pictured is Sugar House, a trendy area of the city with a lively nightlife. (Photo provided by LanceTyrrell/Salt Lake City)

With its pursuit of new technologies, Salt Lake City hopes to improve connectivity for businesses and residents alike. (Photo provided by LanceTyrrell/Salt Lake City)

Overall, Salt Lake City’s honor is recognized by welcome ears. The results of the test sites will prove beneficial on individual and corporate levels in addition to the proposed improvements that can be understood and directed at the city’s future economic development. All in all, connectivity is important in the day-to-day lives of citizens as it promotes a sense of community and boosts productivity.  

LEFT: Salt Lake City, Utah, is set to become one of two initial “Innovation Zones” for the Federal Communications Commission. (Photo provided by LanceTyrrell/Salt Lake City)

With its pursuit of new technologies, Salt Lake City hopes to improve connectivity for businesses and residents alike. (Photo provided by LanceTyrrell/Salt Lake City)
The most prevalent commodity shared by human beings is the air we breathe. Unfortunately, especially in municipalities to varying degrees, that air is not always clean.

The stakes are dire. According to www.healthaffairs.org, air pollution contributed to 6.1 million deaths around the world in 2016 and is now the fourth leading cause of death. Regular exposure to bad air can lead to heart attacks, strokes, cancer, cardiovascular problems, asthma, lung disease, Type 2 diabetes, high blood pressure and neurological effects in children, resulting in behavioral problems and learning deficits.

The World Health Organization reported 270,000 children a year die before living a full month because of poor air quality, and an estimated 92% of the world’s population lives in locations where air pollution levels exceed WHO limits.

Demographic trends do not promise to alleviate the concern. The world is becoming increasingly urbanized, and the United Nations predicts 60% of the world’s population will live in cities by 2030. Despite such ominous findings, many experts believe the problem is fixable.

Therefore, it behooves municipalities to take proactive steps to combating air pollution within their boundaries. Fortunately, technology has advanced in cost effectiveness and accuracy to enable cities and towns of any size to begin the process.

The three-step procedure to alleviating air pollution is to monitor for pollution levels — which can vary from block to block — throughout the municipality, collect and analyze the data and take action to counteract the problem.

Louisville, Ky., has long been a forerunner at the cutting edge of monitoring air quality. “We started some kind of air monitoring in the 1950s,” said Billy Dewitt, the city’s air monitoring program manager. “Our main task is to test for compliance with the Clean Air Act. Anything else will be project specific.

Handheld air pollution monitors are capable of detecting harmful particulates to within one part per billion and can display an easy-to-understand value on a zero to 100 scale so citizens can select the cleanest parts of the city in which to take a stroll or ride a bike. (Shutterstock.com)
The regulations are all laid out in the Code of Federal Regulations. The methods are very expensive, “he said.

The technology in monitoring air pollution usually involves small electronic stationary or mobile devices, which record pollution levels in parts per billion for analysis and may display air quality values from zero to 100 for personal information in handheld units.

As pollution levels vary in different parts of a municipality, a wide distribution of monitors is preferable. Stationary devices posted on street lamps and buildings can complement units attached to city vehicles, capturing data during the vehicle’s perambulations during government business. Citizens can acquire monitors with GPS capabilities that will continually display air quality values and suggest the cleanest routes for walking, biking or commuting. Louisville has opted to use only stationary devices.

The next step is to collect and analyze the recorded data, often sent in real time to a central processor. Algorithmic interfaces can cancel out the occasional statistical glitch, compensate for drift from changes in temperature and humidity and map out the areas of largest concern.

Two teams of technicians are deployed in Dewitt’s department. “One collects the data and the other quality assures the data,” he said.

The more sensors transmitting real-time information, the better, much like “polling the audience” on a game show tends to definitively yield the correct answer.

Dewitt said his department “looks carefully” at “millions of points of data.”

Then it is up to city leaders to take action. The solution will likely necessitate collaboration among a variety of municipal departments, including building, zoning, parks, streets, waste management and public utilities.

How does a city commence its plan of attack?

First, “try and bring in an expert, someone who can evaluate the project and give specific advice,” said Dewitt. Some consultants suggest starting with a pilot program of not more than 10 small, low-power, low-cost monitors. “Start slow and small if you don’t have a mandate,” Dewitt said.

Monitors should be placed out of the reach of vandals but close enough to the ground to record the air citizens are actually breathing. Placement suggestions include street lamp-posts and second-floor building exteriors. Mobile sensors can be attached to police cars, public buses and other municipal vehicles that travel around the municipality during the employees’ work shifts.

The units may run on batteries or solar technology or be powered through the municipality’s infrastructure. Monitors are also sensitive to electronic interference and can be affected by the noise in electronic circuits. Placement should be made to avoid such conflicts.

Once the sensory network is providing constant accurate information to the central software system, analysis and mapping can begin, with proposed countervailing efforts targeting high-risk areas and addressing overall air quality.

WHO offers several recommendations for intervention, either citywide or by sector.

**Transportation**
- Prioritizing public urban and interurban transit and walking and cycling networks
- Shifting to cleaner diesel and low-emission vehicles and fuels

**Housing**
- Using lower-emission cookstoves and cleaner fuels
- Improving energy efficiency for homes and commercial buildings

**Industry**
- Reducing smokestack emissions and increasing recovery and use of gas released during industrial processes, such as methane gas from landfills

**Power generation**
- Transitioning away from fossil fuels and using diesel generators for small-scale production
- Increasing use of low-emission fuels and renewable power sources, such as solar, wind and hydropower
- Increasing reliance on co-generation heat and power and distributed energy generation, such as mini-grids and rooftop solar power

**City infrastructure**
- Making cities more compact and thus more energy efficient
- Creating spaces for safe walking and cycling
- Creating green spaces to help clean the atmosphere

**Waste management**
- Promoting waste reduction, separation, recycling and reuse
- Improving methods of biological waste management, such as anaerobic waste digestion
• Implementing low-cost alternatives to open incineration of solid waste where feasible

Agriculture
• Reducing the burning of agricultural fields
• Improving the management of agricultural waste and livestock manure

Urban planning
• Revising zoning regulations that separate residential neighborhoods from other land uses to encourage walking or biking to retail and service businesses
• Reducing dependence on private vehicle travel
• Refurbishing disadvantaged areas with street networks, expanded green spaces and upgraded infrastructure

Urban diets
• Encouraging rooftop and community gardens
• Accommodating farmer’s markets

Energy-efficient housing
• Implementing effective strategies in building orientation, window placement, shading and greenery, building materials and natural ventilation

A network of stationary sensors throughout a city can send real-time data to central software processors, allowing municipal departments to focus their energy and resources on the areas of most concern. (Shutterstock.com)

More ambitious, long-term projects may include designing an open skyline, porous parking surfaces, fountains and urban pocket parks. Parks may also be built above underground parking lots and may be laced with walking trails and bikeways.

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‘Grand’ new attractions:
Grand Junction makes improvements to its downtown district

By JULIE YOUNG | The Municipal

As the most populous municipality in western Colorado, the city of Grand Junction, located in Mesa County, is working hard to make improvements to its downtown district that will encourage new businesses to flourish, coax visitors to stay a while and offer residents the highest quality of life possible.

“We have a population of 65,000, but because we are the regional hub for a county of 150,000, there are about 100,000 people moving in and out of our community on any given day,” said City Manager Greg Caton. “It’s an exciting time for the city of Grand Junction and everyone who is part of it.”

Conventional thinking
Home to a number of locally owned business, walkable streets, public art displays and historic architecture, Grand Junction’s downtown district is already a relaxing place to spend some time no matter if you live nearby or are just visiting for a day or two. However, in the summer of 2018, the city embarked on an ambitious plan to renovate the Two Rivers Convention Center — a 26,000-square-foot space — with some much needed repairs and upgrades to the aging facility’s systems, functionality and aesthetics.

“The renovation is part of a public-private partnership with the Downtown Development Authority, that is investing $7.3 million in the building,” Caton said. “Along with the renovation of the convention center, we are also constructing a hotel that will be connected, which will give guests a fifth option for lodging when visiting our city.”
In recent years, the city has also been developing two sizable properties along the Colorado River that will add more value to the community and exciting places where folks can work, stay and play.

“These developments are set to be the gems of Grand Junction — we are very excited about them,” Caton said.

**Las Colonias**

Las Colonias is a 147-acre space that was once a seasonal housing addition for migrant farmers before segueing into a uranium mill that produced over 2 million tons of radioactive tailings over the years. It was further contaminated when it became a junkyard for used cars, but in the 1980s, the area was given new life when community leaders removed the cars, cleaned up the waste and dreamed of using the land for a more balanced purpose that would benefit the entire community.

“Today, Las Colonias Park includes a botanical garden and an amphitheater for concerts, but three years ago, we started developing a business park that will include a Google-like campus that will attract outdoor-related businesses and amenities,” Caton said.

According to the park’s website, the development will be an environmentally responsible one, with all buildings — both provided and those built-to-suit — incorporating sustainable design practices from LEED, Green Globes and other industry leaders. The office park will not only embrace the natural environment but will also include outdoor meeting spaces and recreational amenities to promote a healthy lifestyle for those who work throughout the development.

In order to create Las Colonias, the city partnered with the downtown development authority to build the business park for an overall public-private investment of $30 million. The city council has approved an incentive package for the retention and expansion of Bonsai Design — an existing outdoor recreation business — as an anchor tenant in the park, and it is hoped that the firm will be an active participant in the economic partnership and will help recruit new businesses to the property.

“Economic development is a team sport, and we want everyone to be involved,” Caton said.

**Dos Rios**

The second riverside development coming to Grand Junction is Dos Rios, a 58-acre mixed-use property in the heart of the city that will consist of 15.8 acres of parks and green space, nearly 10 acres of light industrial and commercial areas and 10 acres set aside for mixed-use. With unparalleled access to the river, trail systems and open space, not to mention the community’s downtown district, Grand Junction hopes that Dos Rios will become a vibrant neighborhood, workplace and playground for area artists, entrepreneurs and 21st century innovators.

Live-work spaces are increasingly popular for young professionals who want to “have their cake and eat it, too” but they also help rejuvenate older areas of town into something modern, fresh and on the cusp of the future. Caton said it is wonderful to see how time has transformed these previously undesirable pieces of property into developments that will serve as significant gems of the Grand Junction community.

“We still have a long way to go, but it’s very exciting,” he said. “When I am reminded of the history of the land and how we have turned that history around to create a landscape and environment that people will want to be part of, it’s wonderful to know that our efforts will not only preserve the past but shape the future of our community.”
When Bloomington, Ill., Public Works Director Jim Karch watches his pennies for a whole year, he saves on average $250,000. But it’s not really his money; it belongs to Bloomington because Karch, PE, MPA, oversaw a successful merger of the public works and water departments, an idea that began last year.

“Bob Yehl, the director of water, was looking to step back from this role to better provide a work/life balance with his family,” said Karch, adding Yehl, now assistant public works director, still works more than a 40-hour week, but it is markedly cut back from the common 60-plus-hour weeks he put in before.

“It has worked out exceedingly well having him as the assistant. Originally, he was hired in the public works department as the assistant city engineer before being promoted to the water director, so my staff and I think highly of his skills. He is well respected in the department and his salary of $121,370 did not change after the consolidation.”
Also, City Manager Tim Gleason was still within his first six months with the city and saw an opportunity to consider department consolidation. Yehl had the ability and desire to remain working for the city at a high level so it was a natural fit to have him step into the assistant public works director role. Discussions about the potential merger started in the late summer and were completed by October 2018. Other department heads who were involved in this endeavor included Nicole Albertson, human resources director, and Scott Rathbun, finance director; both were essential players in the consolidation alongside Gleason.

“The merger included completion of the transition of the utility billing function from the water division to finance,” said Rathbun. “Coinciding this restructure with the merger added to the efficiencies realized within the new public works department and consolidated related activities under the city’s finance department, a move that acknowledged the focus/expertise of both areas.”

Karch’s department has saved about $250,000 annually without triggering layoffs. How did this come to pass?

“The savings were realized without layoffs because two existing vacancies in the engineering area were not backfilled,” said Karch. “This was one full-time and one part-time position. In addition, the city had been contracting in-house engineering services that were able to be saved. Within the existing public works department, the engineering division was able to fulfill many of the overlapping engineering needs.”

A big consideration was how to divide the work between two top officials: Are there two supervisors, one for water and one for public works?

The newly consolidated public works department has three divisions, which are engineering, public service and water, according to Karch.

“As operational divisions, public service and water have an operational manager who runs the division, answering to the public works director,” said Karch, “and the engineering division is led by the city engineer.”

There were a few challenges in the endeavor when beginning this project. The most difficult to overcome were changes in management and maintaining strong communications.

“Employees needed to have the time to process how the merger was going to affect them,” said Karch. “Multiple meetings directly with both large and small groups of employees happened. It was stressed that for almost all employees of each area there were going to be no changes in what they did on a daily basis and who they reported to. In essence, there would be no visible changes that would affect them right away.”

There was also the need to work with the union.

“Union partnership was an integral piece of the communication plan,” said Karch. “The consolidation was a key time to build trust in the union-management relationship. Forecasting the lack of change for 90 days and then working with union leadership to implement any changes in partnership with front-line employees has been crucial to the success of the consolidation. I give a lot of credit to our union leadership team on the success of the merger.

“The water department had Lodge 1000 of the International Association of Machinists and Aerospace Workers, AFL-CIO representing most of the employees. Their union leadership was brought in before rolling the plan out to the larger employee group so they could partner with management on the merger. Public works has the philosophy that on contract issues employees are encouraged to speak to their union leadership who in turn work with the operations manager for that division. This keeps the relationship solid and minimizes destructive gossip and false information. Management does its best to keep the union leadership in on all upcoming changes. Clear lines of communication and openness fosters trust, which is the foundation for any strong team.”

Were there a lot of compromises?

“While it was not a compromise, one of the strategies that was most effective was saying that there would be no changes implemented in the first 90 days of the consolidation,” said Karch. “Even good ideas would not be (used) until after the first three months. This allowed for some solidity for employees. After the 90 days...
days were up, any potential changes would be discussed with union leadership and directly with employees.

“Now that we are at the 10-month mark, I can say that this was one of the best things that we did,” noted Karch.

Having the support of administration, specifically the city manager, was critical for the success of the consolidation, according to Karch. “Tim proactively reached out to the elected officials so there were no surprises with each step.”

For other public works and water departments considering merges, Karch cannot stress enough the need to communicate.

“Be ready to spend the needed additional time with employees,” was Karch’s first suggestion.

“A well-run consolidation is really about trust. For any organization, trust is the foundation. If employees come into the process not trusting management, then the process will face additional challenges. Maintaining trust throughout the process entails extensive communication. I’ll use the example of the support staff. I held more meetings with this group than any other area. Why? Because they were the most impacted. They changed who they reported to and the structure of their staff. Because of that, I met often with them. To this day, we have a great relationship and the trust between us is high with the newly brought in employees and maintained with the existing staff.”

Looking back, Karch noted, “Overall, the communication and timing of the consolidation went smoothly. If an organization had additional time, I would recommend forecasting the consolidation as early as possible. It is not possible to over-communicate when you are dealing with organizational change.

“After the 90-day mark, we have started to provide for updated standard operating procedures, standardized forms and as equipment is updated changing the logo to say public works instead of water,” said Karch. “This was not done right away and was viewed well by employees that we didn’t make drastic changes.”

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One of the most important tasks for any state department of transportation or city street department is to save lives. That’s why road construction and repair is so vital to pretty much every municipality.
Yet vehicle-related fatalities are still a major cause of death in America. According to the National Safety Council, in 2018 roughly 40,000 people lost their lives to car crashes, and that does not include the thousands of other people who were seriously injured.

While it’s not necessarily a new solution, high friction surface treatments have shown that they can be a cost-effective way to save lives.

According to the U.S. Department of Transportation Federal Highway Administration, HFST “involves the application of very high-quality aggregate to the pavement using a polymer binder to restore and/or maintain pavement friction at existing or potentially high crash areas. The higher pavement friction helps motorists maintain better control in both dry and wet driving conditions.”

HFST is critical for use in spots with sharp horizontal curves and in any areas where the pavement has become polished due to use and wear. The less friction a road has, the less safe it is to drive on. Per the FHWA, the treatments are often applied to high volume intersections, interchange ramps, bridges and selected segments of interstate alignments. As of 2018, only seven states had not tried the use of HFST on a curve. On the other hand, eight states had applied HFST to more than 100 curves, including the state of Pennsylvania.

The Pennsylvania Department of Transportation has been using this technology since 2007 and seen a significant reduction in traffic accidents.

“As of November 2018, PennDOT had successfully installed high friction surface treatments on over 300 different two-lane sections of Pennsylvania roadways,” said Alexis Campbell, PennDOT press secretary. “These locations were selected based on wet-road crash data, excessive braking at intersections, presence of unmovable objects affecting the width of the clear zone and other lane departure crashes.”

By using follow-up data where crash information was available for at least three years, it was shown that after high surface friction treatments were installed road friction was improved in wet conditions, with fewer people running off the road or hitting fixed objects. Additionally, there were fewer overall crashes.

Per Campbell, at the 47 locations, fatalities went from eight to zero, while overall crashes went from 190 to 71.

“Our ultimate goal is we don’t want any fatalities on our roadways,” she said. “We know that the use of infrastructural safety measures like high friction surface treatments can be helpful in certain locations, specific locations where a lot of crashes where people are leaving the roadway are happening. For example around curves. So if they apply the treatment in certain areas, it can help slow vehicles down, and it can help with reducing crashes. And we’ve seen the evidence that it’s effective in those situations.”

Campbell said the installation of HSFT is usually inexpensive, especially if it’s done in the midst of a larger road construction project.

“Generally, we would use the high friction surface treatments in spot locations. So when you consider the total project cost, it wouldn’t be particularly expensive cause it’s done as part of a larger project in general,” she said.

“How long it takes would depend on the project, too. Like if they’re just applying it to one curve where the pavement is already in good condition, then there would be very minimal impact to the work zone; however, if they’re doing a couple of different curves and it’s being done as part of a larger paving project, then it takes longer but not because of the surface treatment because of a larger project in general.”

While HFST can help keep communities safe no matter the weather conditions — snow, sleet, rain or light ice — the treatment has shown it can be particularly impactful in reducing winter conditions.

The South Dakota Department of Transportation won a finalist placing from the American Association of State Highway and Transportation Officials for a project where it added HSFT in and around the Black Hills.

“This project was the first demonstration in the country of how the technology of a high friction surface treatment could be used to reduce road departure crashes with winter road conditions as a contributing factor,” said Darin Bergquist, secretary of transportation, in a press release. “Driver safety is a high priority for the department, and the innovative use of this treatment is already reducing crashes and saving lives.”

High friction surface treatments can reduce accidents on stretches of roadways that have had high rates of them, including during wet conditions. (Shutterstock.com)
New George Webb Park offers unique amenities for McKinney residents

Dedicated to the city of McKinney, Texas, through a parkland dedication ordinance, the new George Webb Park is an 11-acre neighborhood park. Amber Hamilton, administration customer service representative for the parks and recreation department, explained, “It was simply an empty plot of land that was earmarked for a new neighborhood park in the Westridge subdivision. Our neighborhood parks are 10 to 15 acres and are designed to serve their surrounding neighborhoods.”

The name of the park honors a local man in the community. “The park is named after George Webb, who was the local pharmacist in McKinney for 50-plus years,” Hamilton described. “He has had a tremendous impact on the community. He even helped establish the first recreational center in the city.” She continued, “To honor Mr. Webb, we planted herbs and plants that have some kind of medicinal use. Each planting has its own explanatory sign that describes its purpose.”

The budget
A total of $2.4 million was necessary for the George Webb Park project to become a reality. “With the amount of growth the city sees, a new neighborhood park is budgeted each year,” Hamilton mentioned. “This particular park is the third of six neighborhood parks designated on a general development plan that dates back to 2000.”

The initial funding for the park came from the issuance of 2014 bonds. Additional funds were then added the next year by the McKinney Community Development Corporation after probable costs for the project were developed.

During the bidding process the project came in over budget. “It was determined to build the entire project rather than eliminate alternatives...”

By NICOLETTE CARLSON | The Municipal

TOP LEFT: George Webb Park is the newest park in McKinney, Texas, after just being completed in September. It offers many unique amenities throughout its 11 acres and cost a total of $2.4 million. (Photo provided by Amber Hamilton and the city of McKinney)

BOTTOM LEFT: One of the most important aspects the community wanted to see in this park was shade. The city listened and shade structures were included in the design of the park. It has made such a difference that, from now on, these shade structures will become the norm for parks built or remodeled in McKinney. (Photo provided by Amber Hamilton and the city of McKinney)
so the council awarded additional funds from the parkland dedication fund to cover the additional cost,” she commented.

The process
In 2015, the land for the future George Webb Park was donated to the city by a developer. The city then has a standard practice for turning the dedicated land into a neighborhood park. “The process is almost always the same,” Hamilton detailed. “Once we have a park location in mind, public input is brought in and we begin designing and hiring for the park to come to fruition.”

The design contract was issued in October 2016. “During the design process, we held public meetings with residents, did an online survey and met with school officials to gather feedback on what the park would look like,” she said. “We partnered with the school to have the students create a plan of what they would like to see in the park.” Other suggestions from members of the community included wanting an educational amenity, a water feature that was not a splash pad, a tall play structure, a climbing wall, an area for teenagers and lots of shade.

After the design phase, construction on the park began in July 2018 with completion of the park anticipated in April 2019; however, the city did experience some setbacks.

“We had an exceptionally wet year and construction was delayed an unprecedented amount of time,” Hamilton recounted. “Now we are dealing with excessive heat and dry conditions.”

Many rocks in the ground presented another obstacle. Additional equipment also had to be brought in to cut water, electrical and irrigations.

Neighborhood parks in McKinney are typically located near an elementary school and include a playground, pavilion, looped trail and open green space for free play or sports practices. George Webb Park has special amenities that separate it from other parks in McKinney.

A rock creek that mimics a dry river bed is the primary focal point of the park. The rock creek features three hand pumps to pump water into the bed. The rocks can also be moved around the base of the bed in order to create different water flows. There is also a three-tier play structure with swings, rock climbing apparatus and several spinning features.

Though a few months past its anticipated date, the park was finished in September.

“This park is unique in that all of the play equipment, with the exception of the musical instruments on the hike and bike trail, is completely shaded,” Hamilton described. “George Webb Park is really the first of its kind in McKinney. This park sets precedent moving forward with how we renovate current parks and build new parks.” One of the biggest precedents is the fact that McKinney plans on making large shade structures over playground equipment the new norm.

“We wanted this park to be different, not like your run of the mill city park with the plain colors, plain amenities and typical features,” Hamilton illustrated. “After all, McKinney is unique by nature and we intend to stay that way.”

Many rocks in the ground presented another obstacle. Additional equipment also had to be brought in to cut water, electrical and irrigations.

Along the looping hiking and bike trail surrounding the park are musical instruments for visitors to play. Though they are one of the few unshaded areas of the park, they provide a unique amenity to experience and learn. (Photo provided by Amber Hamilton and the city of McKinney)
Hampstead, N.C., residents grapple with incorporation

By BARB SIEMINSKI | The Municipal

To incorporate or not to incorporate — that is the question.

The answer? Not so simple. Hampstead, N.C., has been trying for years to incorporate, according to Suzann Rhodes, FAICP, who has been closely involved with the so-far-unsuccessful endeavor and led the Hampstead Pro-Incorporation Steering Committee.

“There is a lot of history around attempts to incorporate Hampstead,” said Rhodes. “It was tried twice before our effort — the issues have been the same and had the same politically influential opponents. The reasons the public opposes it remain basically the same: Current large landowners want to sell for a big profit and know how to get through the current system. Local citizens do not want to pay more taxes and people do not trust government.”

To get some background on Hampstead and why its incorporation hasn’t happened yet, let’s look at some stats. Hampstead is a 34-square-mile piece of extended land in Pender County, which has expanded from under 5,000 residents 20 years ago to more than 15,000 today with 465 people per square mile. Benefits of incorporation would include police protection; road maintenance; waste collection; sidewalks and trails; streetlights; park and recreational facilities; and land use control.

If incorporated, Hampstead would claim the title of North Carolina’s 55th largest city out of 553.

Only the North Carolina General Assembly can approve and incorporate a city, town or village. The NCGA meets “in regular session every two years. This session must include the Senate and House of Representatives... her house shall proceed upon public business unless a majority of all its members are actually present... Extra sessions are on legislative call.”

Technically they meet biannually but are in session almost year-round, according to Rhodes. “Unfortunately, we never got our petition requesting incorporation in front of the NCGA because we could not get enough signatures (we needed 1,950 signatures or 15% of registered voters in the proposed ‘city’) to get it to a level the NCGA would even consider it.”

The public effort to incorporate began in July 2018 when a group of Hampstead residents met to discuss the possibility.

“The reason for the initial discussions,” said Rhodes, who organized and spearheaded the meetings, “was that rapid growth and extensive development had occurred since the last failed incorporation effort in 2007, and it was time for the community to revisit the possibility of incorporating.”

On the pros and cons of incorporating, taxes are a biggie. An ad valorem property tax of 20 cents per $1,000 property valuation would be needed to generate more than $4 million in revenues for Hampstead. For the average household, this would be between 55 cents and $1.10 per day in additional taxes. An extra measure of government, which translates into a mayor, city council and clerk, among other vital positions, would also be required.

Incorporating has its very vocal naysayers who point out that incorporating a town will only serve to duplicate almost all these services, which, in turn, could result in massive spending and higher taxes and fees while putting a burden on those with fixed incomes. They also question why residents should pay more for trash service when they already have full access to the county trash station. Trash service was proposed as optional for households wanting pickup services rather than needing to drive their trash to the county refuse facility. The proposed trash pickup service would have been covered by a separate fee negotiated by the new city and paid for only and directly by households selecting this additional service.
Rhodes, whose area was being hit by Dorian as she was being interviewed for this article, mentioned another reason for incorporation efforts. "During Dorian, we kept power, but a local water main broke so we have limited water," said Rhodes, adding there was also flooding in the area, which is a continual problem because of overbuilding in flood-prone areas.

"Some roads are closed because of flooding. The development in the area — not so much overdevelopment but development in low-lying areas sensitive to erosion and areas that do not drain or drain directly into coastal waters are and have been one of the big issues leading to the three efforts to incorporate and take over the zoning from the county."

The county itself has officially said it wanted to remain neutral on the topic of incorporation.

The anti-incorporation group has its own website, saveourcommuity.net, though the veracity of its claims have been called into question. The group also has a physical petition available on the website, which Rhodes checked with the legislators several months ago and found that less than five people had even submitted the anti-incorporation form.

"One of the services we proposed was a local police department that would work to support the five county sheriff deputies who patrol the 870 square miles of the county," said Rhodes, adding the county’s area is about half the size of Rhode Island.

"While this is a low-crime area, it often takes 45 minutes for a sheriff’s deputy to respond to a call from the Hampstead area," she said. "One article on the front page of the local print newspaper for the county quoted the opposition group as saying the pro-incorporation group was proposing a ‘police state’. After that, the paper refused to print any clarification or even a letter to the editor from me or anyone pro-incorporation refuting that statement. I will restate my concern that the opposition group used name-calling as a diversion to stop the conversation at our public meetings."

She also noted, “I offered to meet privately and discuss the issues. They turned me down, saying there was no room for compromise.”

The committee favoring incorporation tried to make sure all its bases were covered.

“We began our research efforts looking into incorporation in mid-2017. We looked at its history — the legal requirements, the pros and cons. After doing a lot of research, we put together a steering committee of about 35 local leaders, including the presidents of all the Hampstead area homeowners associations we could contact, which was about 20. We spent six months talking with them in our monthly meetings and interviewing local elected and appointed officials and local government staffs.

“We began our community meetings in February and held four. Each was attended by about 75-100. We also held meetings with the local Kiwanis Club, Rotary Club, two homeowners’ associations, and we contacted all local media outlets.”

Despite this effort, Rhodes said, “At the first community meeting, we were shouted at and accused of being out for personal gain, backed by some undisclosed person, called communists and so on. Basically our motives and character were challenged. After the second meeting, we had a county sheriff’s deputy there to keep the peace.”

Rhodes estimated that her group probably got about 350 attendees and, in the end, had 200 signatures. Unfortunately, this was far short of the 1,950 needed based on North Carolina state statutes.

“If we had had financial backing adequate to do a broad-based mailing to the community, we may have come closer to getting the signatures needed to take the petition to the NCGA,” said Rhodes.

Robert Muller, a member of the North Carolina State General Assembly, provided guidance to Rhodes’ efforts from a legislative standpoint.

“I do not see incorporation close at all,” said Muller, adding the last time it was tried in 2007, it lost 3-1. “The sentiment seems to be the populace does not want another level of government with the expense that goes along with it. They do not buy the thought of controlling their own destiny at the local level. No change even though the area has grown tremendously in the last 10 years.”

Muller reiterated the point that any town, city, village or county does not exist without the approval of the state legislature. He helped Rhodes through the legislative jungle, neither supporting nor discouraging incorporation but tried to provide insight to how the system worked in order to incorporate.

“Basically, it is this: If 15% of the people — registered voters — in the designated footprint of Hampstead petition the (general assembly) to incorporate, the representative can put forth a bill to incorporate by calling within the bill for a vote to take place during a scheduled election, and if it passes, the GA will then allow the area to incorporate. This time around the committee has a very difficult time getting 15%.”

Curtis Schrecangost, a resident of Pender County and an early supporter of incorporation who served on the pro-incorporation advisory committee as it progressed, feels that the opposition wants to keep the land the way it is — a rural coastal area. But the problem with that position is the Hampstead area is no longer rural.

"Pender County is not qualified to regulate the higher-density population in Hampstead," said Schrecangost. “While not an expert, I would suspect this is why higher-density areas incorporate to provide a different level of government to manage complex infrastructure and population challenges.”
“For example, the sewage treatment plant at the headwaters of Mill Creek — the plant has previously spilled sewage into the creek. The county allowed the expansion of the plant even though there was a local outcry from the nearby residents. Cited was the failure of the county to initially require the facility to fence in the treatment pond. Many residents were angry with the expansion of the sewage treatment plant.”

Schrecangost referenced poor water management and not charging developers impact fees for new developments as two more reasons for incorporation.

The bottom line of why Hampstead has stopped its efforts to incorporate is the steering committee could not get the 15% of registered voters inside the footprint to sign the petition to the NCGA to consider incorporation, said Rhodes.

“I think for Hampstead to incorporate it’s going to take either a generation change or a major problem,” concluded Rhodes.

“My advice to an area wanting to incorporate is either to try when the area and populace is small and manageable (under 2,000), or figure out who is politically influential — who will be impacted by the changes incorporating will bring and get them behind you. Today even the argument that you will be able to control your own area is met with many citizens saying, ‘Government is corrupt everywhere, and it will just become that way here.’”

“We are in a very sad time in terms of political discourse. I hate to sound so pessimistic. I am also hopeful — time changes a lot of people, attitudes and conditions — maybe in another 10 years it will be a better time to try again.”

This shows the 34-square-mile piece of land that would make up the city of Hampstead should it ever incorporate. (Photo provided)
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True heroism is remarkably sober, very undramatic. It is not the urge to surpass all others at whatever cost, but the urge to serve others at whatever cost.

-Arthur Ashe

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The tried-and-true method of traditional government bidding does not always keep up with the times — particularly with technology purchases. Beyond the IT commodities of computers, tablets, and phones, technology has encroached into most everything that is purchased — crossing all department lines. Since a typical government contract is often awarded for multiple years, these long-term contracts may miss out on newly introduced technologies or lock an agency into long-term pricing for items that may become less expensive over time.

GovSpend, a software as a service company, aggregates purchasing data from government agencies to enable them to research vendors, identify the best prices, evaluate various purchasing options and collaborate with other agencies. According to Jack Siney, GovSpend co-founder, “Government agencies can experience up to 100% variance in pricing for technology products across the country.”

A key technology, adopted by many organizations over the past decade, consolidates print capabilities through shared devices by handling multiple tasks — copying, faxing, scanning and printing. According to Konica-Minolta, the trend to use multi-function devices allows government employees the ability to scan directly into an enterprise content management system to increase storage, security and compliance, while digitizing paperwork to ultimately streamline processes and serve the public with greater speed, accuracy and efficiency.

In their own research, Konica-Minolta stated, “60% of the workforce is driven by paper processes, and more significantly, 90% of organizations do not fully understand what they are spending on print.” Many agencies may not know how many devices they own, what is being printed on those devices or how much is being spent per device.

Strategic agencies are learning to combine consulting, hardware, software implementation and workflow management to gain a unique solution. For example, by using automation technology, toner can be delivered automatically rather than ordering online or making a run to the store. IT personnel savings can result as printers are proactively monitored and serviced by trained technicians, freeing up agency IT staff. Use of technology can track user behavior, reroute jobs to cost-efficient devices and increase security by a user allowing the document’s release at the device.

Safeware, a company with a public safety and homeland security cooperative contract with OMNIA Partners, acknowledges that public safety procurement is particularly challenging for municipalities, with ever-increasing requests by police and fire for new technologies. For instance, recent national events have prompted increased demands on products such as opioid and metal detection in schools and public office environments. It is quite common for a government purchasing professional to find the police chief or a fire captain entering their office, waving a picture of a product that they need purchased right way. Sometimes, it’s a product so new to the market that no existing agency contract is already in place to meet the request.

Drones and unmanned aircraft are the fastest growing commodity purchases for government agencies, becoming a major requirement for many public safety departments. Consider the case of Cobb County, Ga., with 50-60 certified drone pilots, with every fire chief hosting a drone on their vehicle. Cobb Fire can use the drone during a fire incident to determine smoke conditions, where to attack the fire and to view all sides of the emergency to facilitate better decisions. During a flood situation where a river rescue is necessary, communication with a victim can be difficult. Cobb County Fire can fly a drone with a two-way radio to the person requiring a rescue and then drop the radio to communicate directly with the rescue team. Cobb County Fire also partners with its law enforcement teams to address any potential active shooter scenarios to respond to real-time events as they unfold. And it can protect government workers by becoming the first responder in a hazmat situation. If there is a chemical spill from a tanker on I-75, a drone can be deployed to view the hazardous material stickers on the tanker and the spread of damage. The hazmat personnel can better understand what they are dealing
with and what they need to wear and bring to enter the “hot zone.”

Fleet operations can be affected as well by fast-changing technology. In the past, a typical government fleet warehouse may keep a certain number of items on the shelves — windshield wipers, oil filters, belts, etc. — for routine fleet maintenance. However, as those vehicles are changed out or upgraded, older model parts and supplies remain on the shelves, eventually collecting dust. These soon to be obsolete products represent real dollars in the budget and continue to be inventoried and managed, even if no longer viable to the organization.

A new trend is to have the fleet parts warehouse managed by an outside company, ordering whatever is needed for the organization, and only being charged for a product when it is dispatched to the agency. A key advantage of entering a public-private partnership like one offered by NAPA’s Integrated Business Solutions program, allows municipal fleet operations access to the latest technology resources in their facilities.

“Government facilities are always striving for efficiency,” said Jett Kuntz, vice president of NAPA IBS. “As an industry-leading technology partner, IBS has found success with government fleets by marrying their existing technology investments with supplemental systems, resulting in a more economical tool to help them streamline their operations.” By integrating current technologies with the latest IBS tools and systems, municipal leaders gain access to real-time inventory data, automated invoice reconciliation and on-demand reporting. The result is government technicians are more productive working from their bays with reduced administrative time and a seamless, auditable procurement trail.

“Gap filling” is a growing need for many governments as change develops so rapidly. For example, an agency puts out a bid and receives responses. After an agency contract is awarded, over time, there may be new items identified not originally included with the specifications. In this case, “piggybacking” on an already competitively bid solicitation with a greater range of commodities and services, may be an option. Known as cooperative procurement, this contracting methodology can reduce the time and leverage greater pricing for local governments and school districts to spot buy, fill commodity gaps and avoid the lengthy process of going out to bid again.

Even cooperative organizations face the challenge of changing technology. Keystone Purchasing Network, a national purchasing cooperative, has incorporated changes in their own contracting methodology.

Jeff Kimball, director of Cooperative Purchasing Services, stated, “To respond more proactively to changing technology, our team listens to the concerns of government clients while also talking to suppliers on the latest advances as we prepare solicitations. The resulting contracts are more encompassing and forward thinking to reflect the changing marketplace and latest technologies.”

Tammy Rimes, MPA, is a keynote speaker, procurement consultant and executive director of the National Cooperative Procurement Partners, or NCPP. She served as former purchasing agent for the city of San Diego and implemented its first environmentally preferred purchasing program. She served during one of Southern California’s largest emergencies — the 2007 Witch Creek Fires, which raged for 17 days and destroyed over 2,000 homes and structures. Free educational materials on emergency preparedness, cooperative contracts and a free webinar series are available at www.NCPPAssociation.org.
Some city and town names have garnered more popularity with founders than others. In fact, some names have cropped up repeatedly in several states.

Have you ever wondered which of these repeated names is more common? Wonder no longer as WorldAtlas narrowed down the most common town and city names in the U.S. And not too surprisingly, many individuals wanted to honor the U.S.’s first president. Several Founding Fathers haven’t fared too poorly themselves when it comes to collecting place names either.

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If You Purchased Liquid Aluminum Sulfate In The United States
Directly From a Defendant From January 1, 1997 Through February 28, 2011,
You Could Be Affected By Proposed Class Action Settlement

Please read this entire Notice carefully. This Settlement may affect your rights.

YOU ARE HEREBY NOTIFIED, pursuant to Rule 23 of the Federal Rules of Civil Procedure and an Order of the United States District Court for the District of New Jersey, that the class action lawsuit captioned In Re: Liquid Aluminum Sulfate Antitrust Litigation, Civil Action No. 16-md-2687 (JLL) (JAD) (“Action”) has been preliminarily certified as a class action for the purposes of settlement only and that proposed partial settlement of the Action (“Settlement”) have been reached.

The Settlement is between Direct Purchaser Class Plaintiffs1 and settling defendant C&S Chemicals, Inc. (“C&S”). C&S has agreed to pay $1.3 million in cash, payable in monthly installments over a period of four years. The Settlement does not release any claims of Direct Purchaser Class Plaintiffs and the other members of the Direct Purchaser Settlement Class (as defined below) against any other Defendant named in the Action.2

WHAT IS THE LAWSUIT ABOUT?

The lawsuit claims that C&S participated in a conspiracy — with other Defendants in the Action and unnamed co-conspirators — to allocate territories and/or not to compete for each other’s historical business by rigging bids, allocating customers, and fixing, stabilizing, and maintaining the price of liquid aluminum sulfate (“Alum”) sold in the United States from January 1, 1997 to at least February 28, 2011 in violation of the federal antitrust laws. C&S denies all of Direct Purchaser Class Plaintiffs’ claims, denies all wrongdoing and has asserted various defenses to the claims.

The Court has not made any decision on the merits of Direct Purchaser Class Plaintiffs’ claims against C&S because the parties have agreed to settle the claims. On September 11, 2019, the Court granted preliminary approval of the Settlement.

AM I A MEMBER OF THE DIRECT PURCHASER SETTLEMENT CLASS?
The Direct Purchaser Settlement Class consists of all persons or entities that purchased Alum in the United States directly from a Defendant from January 1, 1997 through February 28, 2011. Excluded from the Direct Purchaser Settlement Class are (1) Defendants and their respective parents, subsidiaries, and affiliates, and (2) any Direct Purchaser Settlement Class Members who timely and validly elect to be excluded from the Direct Purchaser Settlement Class.

WHAT DOES THE SETTLEMENT PROVIDE?

In accordance with the terms of the Settlement, C&S has agreed to pay $1.3 million in cash, payable in equal monthly installments over a period of four years. The foregoing monetary amounts and any accrued interest are referred to herein as the “Settlement Funds.” You may be eligible to receive a payment from the Settlement Funds.

Every Direct Purchaser Settlement Class Member who submits a valid claim will receive their pro rata share of the Settlement Funds based on: (1) the Direct Purchaser Settlement Class Member’s eligible purchases of Alum; (2) the total money available to pay claims; (3) the total dollar value of all valid claims submitted; and (4) the cost of settlement administration and notice and Court-awarded attorneys’ fees and expenses. Interim DPP Lead Counsel will seek an award of attorneys’ fees up to 33.3% of the total consideration made available to the Direct Purchaser Settlement Class to compensate all of the lawyers and their law firms that have worked on this Action since its inception. Interim DPP Lead Counsel will also seek reimbursement of the costs and expenses advanced on behalf of the Direct Purchaser Settlement Class, and up to $20,000 for each of the Director Purchaser Class Plaintiffs. All Court-awarded attorneys’ fees, expenses and case contribution awards will be paid from the Settlement Funds. Interim DPP Lead Counsel’s application for attorneys’ fees, expenses and case contribution awards will be available for review on the Settlement website, www.liquidaluminumdirectsettlement.com, once it is filed with the Court on or before October 17, 2019.

HOW DO I OBJECT TO THE SETTLEMENT?

You can object to the Settlement, plan of distribution, or the request for attorneys’ fees, expenses, and case contribution awards if you are a Direct Purchaser Settlement Class Member and have not requested exclusion. To object, you must file your written objection and any supporting materials with the Court and mail copies to counsel, www.liquidaluminumdirectsettlement.com, have instructions regarding how to object.

WHAT IF I DO NOTHING?

If you do nothing, you will not receive a payment from the Settlement Funds, but you will remain in the Direct Purchaser Settlement Class, and you will be bound by the releases regarding the claims in this case as set forth in paragraphs 14 and 15 of the Settlement Agreements, available in their entirety on the Settlement website, www.liquidaluminumdirectsettlement.com. The only way to qualify for a payment from the Settlement is to submit a Claim Form.

WHO REPRESENTS ME?
The Court appointed James E. Cecchi, Esq. of Carell, Byrne, Cecchi, Olstein, Brody & Agnello, P.C. as Interim DPP Lead Counsel to represent the Direct Purchaser Class. If you want to be represented by your own lawyer, you may hire one at your own expense.

WHEN WILL THE JUDGE DECIDE WHETHER TO APPROVE THE SETTLEMENT?
The Court will hold a final fairness hearing to decide whether to approve the terms of the Settlement at 2:00 p.m. on November 14, 2019, at the Martin Luther King, Jr. Building & U.S. Courthouse, 50 Walnut Street, Newark, New Jersey 07101. If there are objections, the Court will consider them but may still approve the Settlement. You may appear at the hearing, but you are not required to do so. The hearing may be rescheduled without notice to the Direct Purchaser Settlement Class, so if you plan to attend, please periodically check the Settlement website for any updates.

This notice is only a summary. For more information regarding this lawsuit and the Settlement, please visit the Settlement website, www.liquidaluminumdirectsettlement.com.

1 Direct Purchaser Class Plaintiffs are Central Arkansas Water; City of Charlotte, North Carolina; City and County of Denver, Colorado; acting by and through its board of Water Commissioners; Flambeau River Papers, LLC; City of Greenboro, North Carolina; Mobile Water and Sewer Board; City of Rochester, Minnesota; City of Sacramento, California; SUEZ Water Environmental Services Inc.; SUEZ Water New Jersey Inc.; SUEZ Water Princeton Meadows Inc.; SUEZ Water New York Inc.; SUEZ Water Pennsylvania Inc.; and City of Texarkana, Arkansas, City of Texarkana, Texas, d/b/a Texarkana Water Utilities and City of Shreveport, Louisiana.

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