

SAFETY
ZONE

LEGAL
ISSUES

DEMOLITION

THE OFFICIAL MAGAZINE OF THE NATIONAL DEMOLITION ASSOCIATION ■ JANUARY/FEBRUARY 2018

the SINKING ICE CUBE

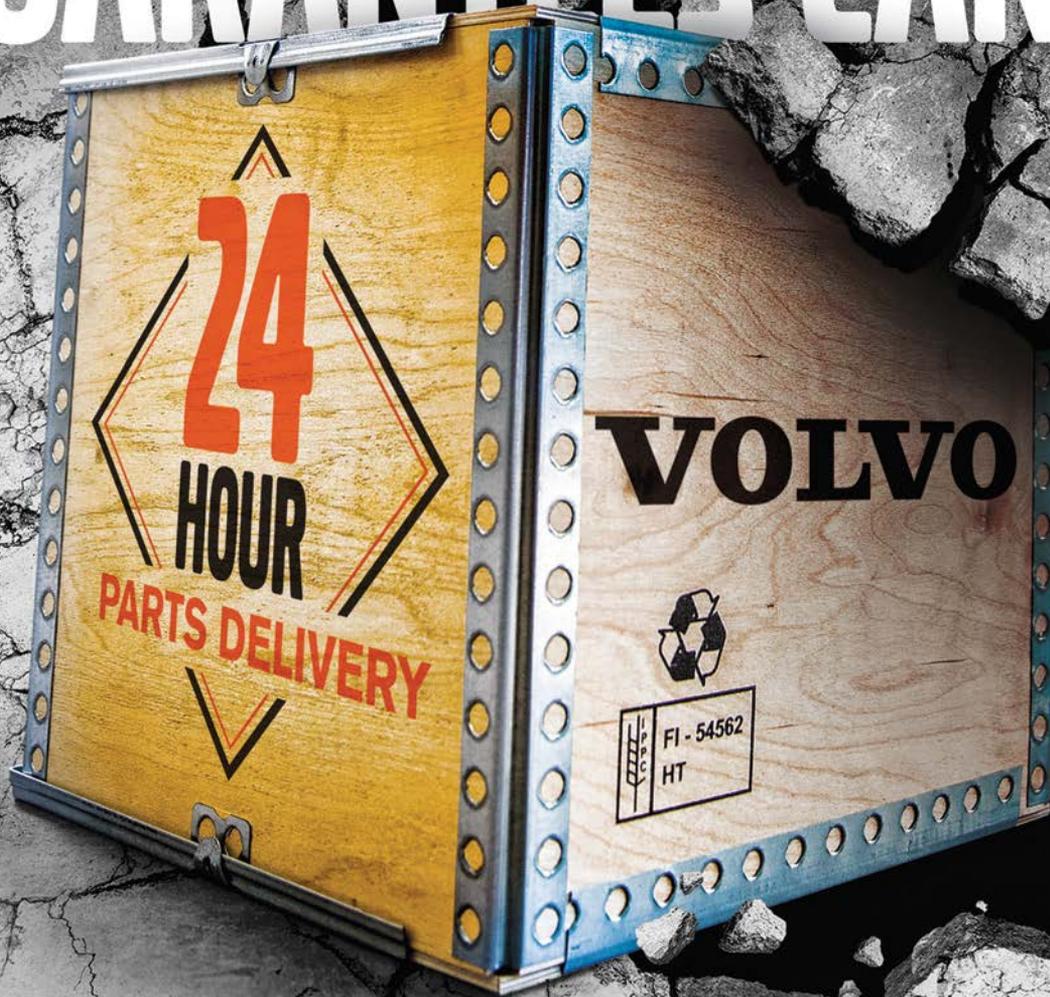
SSD SUCCESSFULLY IMPLODES AN ATLANTA STAPLE

LLOYD'S CONSTRUCTION SERVICES TAKES ON THE
LIVING BUILDING CHALLENGE

FRATTALONE COMPANIES DEMOLISHES A
1.5-MILLION-SQUARE-FOOT SUPERFUND SITE



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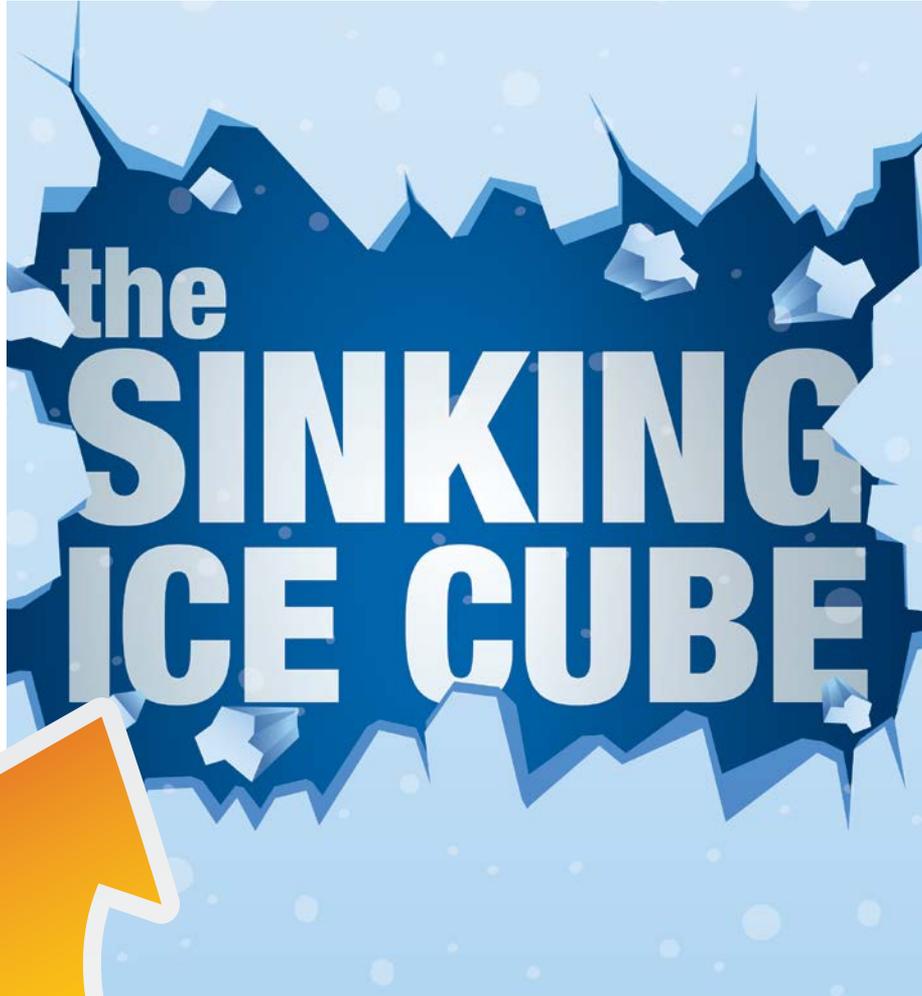
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An Exciting Year Begins

With the deep freeze going on in most of the country, Demolition Austin is a great place to warm up and inspire yourself for what is looking to be a great year for the demolition industry.

This year's convention is very exciting with our first ever hands-on, live outdoor exhibit demonstration. You will be able to try many pieces of equipment, including excavators, shears, concrete breakers, hammers and material handling equipment in an active recycling yard. There will be drones, dust suppression equipment and robotic equipment available for you to try out and run through its paces.

In an unlikely pairing at the same recycling yard, there is a 2,000-animal game park with over 100 different species from six continents. It is certain to be a great first-time event, so bring your equipment operators and kids and spend a day with some great equipment and interesting wildlife.

NDA has been listening to you. With overwhelming interest, the Education Committee worked hard developing "Foundations of Demolition Project Management," a two-day pre-conference course. This is our second straight major course offering on the heels of our sold-out estimating courses over the past year. Please stay tuned, as the British National Federation of Demolition Contractors will be discussing its full educational program offerings with our board in Austin for some inspiring insight and ideas.

Also, the Awards Committee is poised to present over \$50,000 in scholarship awards again this year. This continues to be one of our most rewarding endeavors. As the applications reveal, there is a



Scott Knightly
National Demolition Association

President

hardworking group of individuals that we can help make a difference for in their lives. We should all be proud of what our organization has been able to accomplish through your generous gifts.

There is so much energy and enthusiasm within the organization. All the committees are working hard, from the Environmental Committee's new website additions for the landfill by state to the Government Affairs Committee meeting with the director of OSHA in Washington, D.C. If you would like to get involved and help NDA make a difference, please reach out to a committee or board member to see how you can help change the face of demolition.

This convention would not be possible without all of the hard work from each of the committees, but I would like to personally thank the entire staff, vendors, sponsors and especially the Convention Committee for the countless hours dedicated to pulling together this amazing convention. Thank you all and I hope see each and everyone of you here in Austin.

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It Takes a Team to Host Demolition Austin

The NDA staff team and Convention Committee worked hard to bring you this year's convention and expo, and with the addition of the Live DEMolition, we are certain this will be the best year yet!

Planning Demolition Austin has been a long-term project — we started all the way back in May 2016. One of our main goals this year was to spend additional time focusing on providing as much value as we could to all our attendees, and we have been carefully putting all the details into place to make this a reality.

Each event on the agenda is special, as the planning team has made sure to incorporate the spirit of Austin into many areas of the program. One example is the Beer Tasting Reception in the Expo Hall on Saturday, Feb. 24. Austin is one of the largest producers of craft beer, with over 60 breweries in the region. We carefully curated a selection for you to sample.

The level of involvement we received from exhibitors and sponsors this year was unbelievable. We have more square footage of booth space than we have had in more than five years. Combined with the chance to see some of this equipment in motion at the Live DEMolition, Demolition Austin really is breaking new ground. Special thanks to the Gregory family and the team at Texas Disposal Systems for providing the space for the Live DEMolition.

In the spirit of teamwork, I'd like to introduce you to Ame Petry, NDA's meeting and events manager. She has worked with the association since 2015 and has made a tremendous impact.

"I am thrilled to welcome you to the Live Music Capital of the World. I lived in Austin for six years and consider it



Cheryl Caulfield, IOM, CAE
National Demolition Association

CEO

THANKS TO NDA'S CONVENTION COMMITTEE

- | | |
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one of my hometowns, so in between all the great events we have planned, I hope you have a chance to experience the city, particularly the delicious barbeque (The Salt Lick BBQ and Franklin Barbecue are two of my favorites) and some of the other Austin staples, like heading to the Broken Spoke for live music and some Texas two-step lessons."

In the next issue, we'll hear from another NDA staff team member. Until then, enjoy Demolition Austin!

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the
**SINKING
ICE CUBE**

SSD Demolition and Environmental works with the Atlanta community pull off the sustainable demolition and successful implosion of to an 18-story archives building

By Alexa Schlosser



Local Atlantans knew the Georgia Archives Building as the “White Ice Cube” because, well, it looked like one. The 18-story marble structure stood near the city’s four major highways and was the official repository of archival records for the State of Georgia starting in 1965. Its collections included the founding documents of the state, such as the Royal Charter that created the colony of Georgia in 1733, and the Ratification of the United States Constitution, which designated Georgia as one of the original 13 colonies.

Although the building was recognized as the most modern archival facility in the country, in 1998, engineers discovered that the White Ice Cube was sinking due to groundwater and nearby interstate construction. The building was also in need of costly HVAC system repairs, and it was ultimately determined

that new construction was the most viable option. It was closed permanently in 2012 and earmarked for demolition and implosion.

NDA member SSD Demolition and Environmental (SSD) was chosen to perform the asbestos abatement and demolition of four stories underground and 14 stories above ground, totaling approximately 650,000 square feet, as well as the implosion.

PLANNING AND COMMUNITY INVOLVEMENT

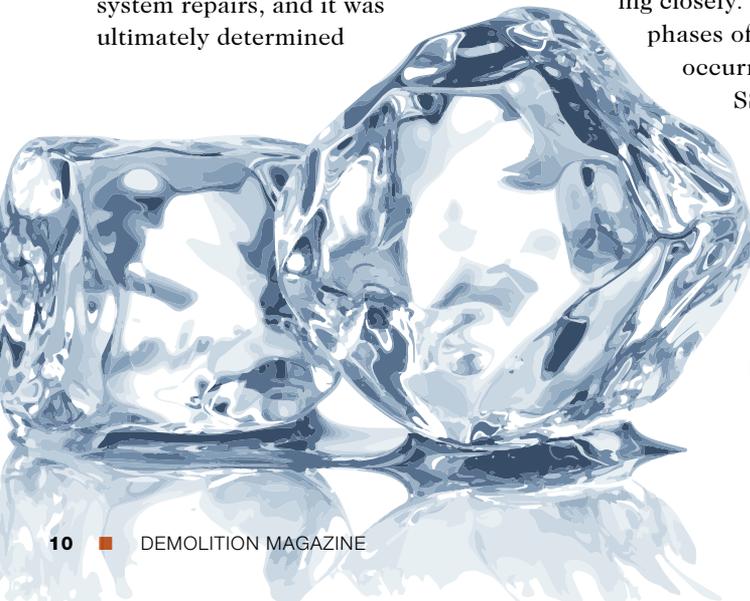
SSD — a CVE-certified service disabled veteran owned small business and a Georgia DBE/MBE minority-owned company — was the first contractor on-site, and because of the scope and location of the job, the eyes of the city, county, state and surrounding community were watching closely. During the planning phases of the project, which occurred over six months, SSD held several meetings to educate the surrounding community on implosion procedures, impacts, safety and knowledge of the company’s previous implosion experiences.

“We took our responsibility for community involvement very seriously,” says Michael Gorman, president of SSD. “The demolition portion of the project was an ‘open book’ for the community and was instrumental in garnering and maintaining community support, including an implosion-day breakfast and party for area neighbors and friends as a thank you for their involvement in the process.”

ABATEMENT, DEMOLITION AND IMPLOSION

The State of Georgia and the general contractor had set some tight timelines, so SSD had to work on all aspects of the project simultaneously. As each section of the building’s abatement was completed, the demolition would begin as the next building floor’s abatement began. Recyclables were separated and removed first on an ongoing basis as the project progressed. Once all the materials were removed from the building, the preparation for the implosion began. The concrete material was stockpiled in order to begin crushing. A portable concrete crusher was brought to the site, and the stockpiled materials were processed concurrently with the ongoing crushing operation.

The implosion occurred on March 5, 2017. A total of 1,800 holes were drilled throughout six designated blast floors. A total of 6,000 feet of concrete saw-cutting took place in order to separate the building walls and floors from structures





00:12



00:15



00:18



00:21



00:24



00:27



600 pounds of explosives were used inside the building, which went down in

30 SECONDS

PROJECT STATISTICS



18-STORY
MARBLE BUILDING



32
PIECES OF HEAVY
EQUIPMENT



1,800
HOLES DRILLED



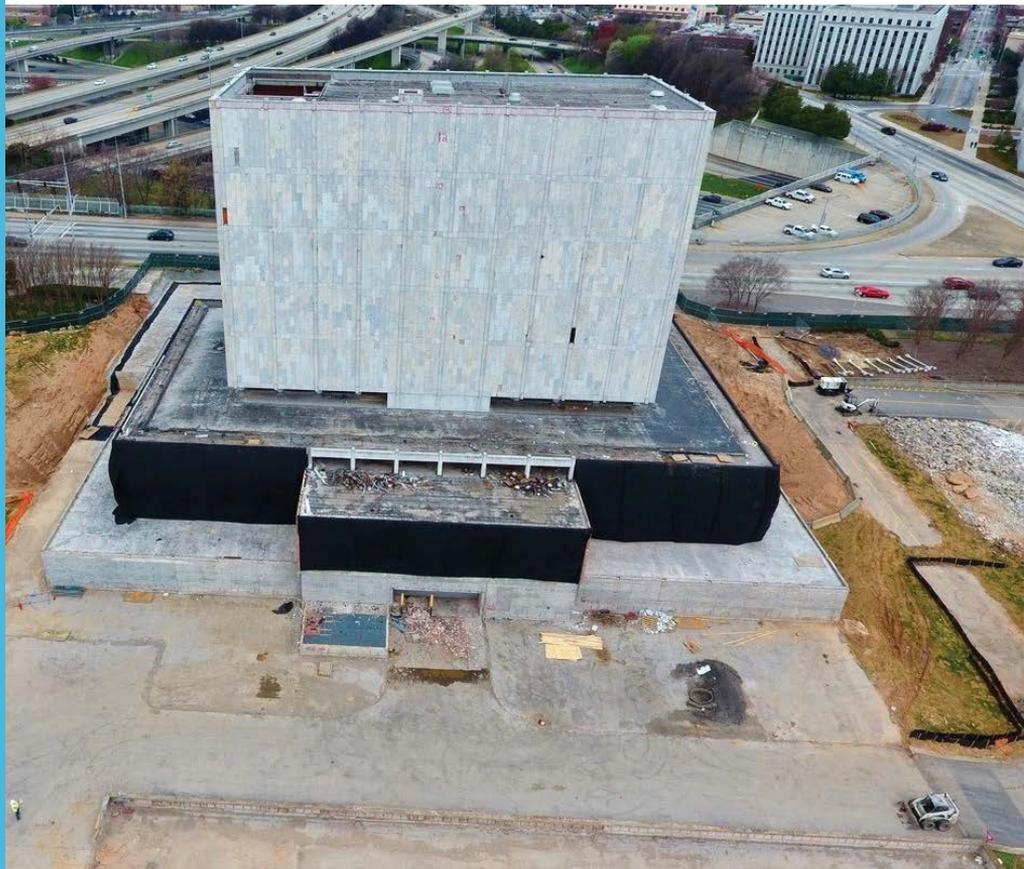
8,800
TONS OF VARIOUS
METALS RECYCLED



59,650
TONS OF CONCRETE
RECYCLED



600
POUNDS OF EXPLOSIVES



that remained; 1,500 feet of prima cord and 600 pounds of explosives were used inside the building.

SUSTAINABILITY AND SAFETY

Over the course of the project, SSD removed asbestos-containing material from approximately 250,000 square feet of the 650,000-square-foot building. It also recycled 8,800 tons of various metals, 59,650 tons of concrete and 4,600 square feet of marble. All of the above volumes represent tonnage diverted from landfill disposal. In total, 98.7 percent of all debris generated by the demolition was recycled.

The efficiencies of scale that occurred during the abatement and demolition phases contributed to the overall sustainability of the project. SSD reused the crushed concrete as fill material to fill the four-story

underground parking deck, and the site will become the new State Courts Building that will house the newly expanded Georgia Supreme Court and Georgia Court of Appeals.

“It was vitally important to the State of Georgia that the sustainability of the project began at the demolition and remediation stage of the project,” says project manager Oscar Contreras.

“SSD was selected in large part due to its longstanding reputation for ‘green demolition,’” says Greg Gorman, senior vice president of SSD. “SSD’s innovative approach to asset recovery and recycling was implemented immediately and began the project’s strategic shift from landfill based waste disposal mindset to a ‘reduce, reuse, recycle’ philosophy.”

In addition to sustainability, SSD focused its efforts on having a safe working environment. Site safety



The implosion took place on March 5, 2017. Governor Nathan Deal of Georgia, pictured here, attended the implosion from a viewing platform across the street from the site.



PROJECT STATISTICS

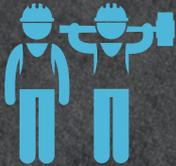


30

SECOND IMPLOSION TIME



98.7%
RECYCLED



110

EMPLOYEES ON-SITE



650,000

SQUARE FEET TOTAL



6,000

FEET OF CONCRETE
SAW-CUTTING



The demolition portion of the project was an ‘open book’ for the community and was instrumental in garnering and maintaining community support, including an implosion-day breakfast and party for area neighbors and friends as a thank you for their involvement in the process.



was of paramount concern on a project with this many moving pieces. The company added a dedicated third-party safety officer to manage and monitor safety on a daily basis.

“The full-time site safety officer implemented daily, full-site safety meetings and educated our employees on potential hazards during the scope of work,” Greg Gorman says. “SSD operates using a behavioral-based safety bonus program that ties all employee bonus dollars to the overall safety record of each project. The safety bonus program was in full effect on this project and operated at a 100 percent safety record for lack of injuries and safety bonuses.”

ment, SSD was able to ensure a project that ran smoothly and was lauded by the community and the stakeholders as a total success.

“This project was a wonderful example of how the municipality, the community and the contractor can work together early in the project to define roles and set expectations based upon the experiences and the desires of the stakeholders,” Michael Gorman says. “As implosive demolition, this was textbook.” 



Alexa Schlosser is the editor-in-chief of DEMOLITION magazine. Has your company recently completed a cool project? Contact her at

aschlosser@demolitionassociation.com.

WORKING TOGETHER

While the implosion of the White Ice Cube lasted only 30 seconds, it represented months and months of planning and hard work among many different groups.

SSD’s early involvement allowed it to create an atmosphere of partnership with all stakeholders and deliver exactly what was promised. Through proper planning, communication and community involve-





Over the course of the project, Southern Site Demolition recycled 8,800 tons of various metals, 59,650 tons of concrete and 4,600 square feet of marble. All of the concrete was processed and crushed on site and reused in the building phase of the project.



Six-hundred pounds of explosives were used inside the building, which went down in 30 seconds.



UNDER



TAKING ON THE CHALLENGE

Lloyd's Construction Services takes on the Living Building Challenge to help revamp Wolf Ridge Environmental Learning Center

By Katie Condon

Pete Smerud, the executive director of Wolf Ridge Environmental Learning Center, was told by three contractors that it couldn't be done. The challenge: Revamp Wolf Ridge's land, facilities and curriculum, while also satisfying the rigorous requirements of Living Building Challenge (LBC). To do so, every phase of the project — including demolition of the standing facilities — had to be as environmentally sustainable as possible.

Each year, Wolf Ridge engages over 13,000 students, teachers and parents from more than 185 schools in the upper Midwest in environmental awareness and education. The first environmental learning center to be accredited as a K-12 school, Wolf Ridge long ago established itself as an environmental education leader. The center

is currently fundraising a \$9.4-million campaign to improve and update its land and facilities.

With the goals of innovation and continued leadership in mind, Smerud and the board of trustees decided it was not enough to simply meet LEED certification requirements for this project; they decided to seek full certification in all seven sustainability requirements of the Living Building Challenge aim, making them approximately the 45th building in history to do so. To date, only 10 percent of 450 projects that have attempted the challenge have been successful.

While many contractors shied away from the project, NDA member Lloyd's Construction Services (LCS) took the challenge head-on. A third-generation family business servicing Minnesota for 34 years, LCS was excited to be awarded this unique demolition contract. Many

within the LCS company visited this learning center themselves as children, and they are now sending their own children and grandchildren. While the personal connection increased the company's passion for the project, they also had the expertise to get the job done. "Lloyd's accepted the challenge and went above and beyond to make sure the maximum amount of waste was diverted," Smerud says. To do this was no easy feat.

MINIMIZING WASTE IN A REMOTE LOCATION

While beautifully untouched, the location presented significant environmental obstacles. Recycling facilities are not close to the campus, making recycling efforts increasingly difficult. Instead, priority was given to donating or reusing materials. Laborers went as far as to remove all nails from demol-

WHAT IS THE LIVING BUILDING CHALLENGE?

The Living Building Challenge is a green building certification program and sustainable design framework that visualizes the ideal for the built environment. Living buildings give more than they take, creating a positive impact on the human and natural systems that interact with them. Learn more at living-future.org.



One unique component of the Living Building Challenge is taking the “big picture” environmental impact into consideration. Electric boom lifts were used to minimize the carbon footprint on the project.



As opposed to normal selective demolition processes, crews took extra time and effort to disassemble and sort building components. Nails were removed from the lumber to maximize the reuse potential.



With demolition work on the dormitory complete, Wolf Ridge is one step closer to its newly renovated campus. The Margaret A. Cargill Lodge will serve as an interactive teaching tool on environmentally conscious demolition and building techniques for future guests.



ished lumber so it could be reused by the school. For the instances in which materials could not be recycled, per LBC's requirements, advocacy letters requesting assistance in establishing markets for unrecyclable materials were sent to city, county and state governmental agencies. "This take on the demolition process took the building components that are typically deemed as unwanted and found another use for them on a local scale," says John Lloyd, vice president and owner of LCS.

CONCERNS FOR SAFETY

While many of the general safety concerns were present — fall protection, confined space entry, normal PPE practices — personal protection was a unique component of the project, thanks to the wilderness of Northern Minnesota. There was an increased likelihood of contracting illness and injury from biting insects and nearby predators. Because the workers were more familiar with safety issues in urban settings, the company ensured that wilderness risk awareness was brought to the forefront. Another concern was that the nearest major medical facility was 70 miles from the job site. It was crucial for workers to know first aid and be educated on injury prevention, especially when encountering wild creatures.

GOING ABOVE AND BEYOND

The renovation project had a lofty objective of 90 percent landfill diversion, which was difficult considering its isolated location. During the demolition phase, Lloyd's took the extra time to ensure that environmental impact would be minimal. The company's extensive knowledge in selective demolition helped it meet both architectural and environmental goals. Every aspect of resource utilization was considered — from reducing its carbon footprint with electric boom lifts and other equipment to communicating via electronics or recyclable paper. PVC, chrome and other harmfully processed products were banned from the site as well, so as not to pre-emptively bring in any materials that hurt the environment.

The demolition project was unique in that the goal was not to demolish as quickly and efficiently as possible, but rather to eliminate waste, reuse and recycle as much as possible. Piece by piece, LCS workers deconstructed the structures and source-separated on-site to maximize recycling rates. Because of its efforts, 100 percent of the windows, doors and lumber were reused. Additionally, crews were able to source-separate and recycle all metal and cardboard. All the

reused materials were donated to a local school, positively impacting the local Northern Minnesota community. Overall, LCS had a big hand in a project that the general contractor, Gardner Builders, described as "a few hundred steps beyond LEED platinum."

ENVIRONMENTAL STEWARDSHIP LOCALLY AND GLOBALLY

The LBC encourages contractors to think of the impact of construction and demolition assignments on a larger scale, which the Wolf Ridge project perfectly exemplifies. In total, the crew was able to recycle 32.41 percent of recyclable materials, which is quite a high percentage to hit considering the lack of nearby recycling facilities. Also, 23.04 tons of lumber were donated to a local school in Finland, Minnesota. LCS is "extremely enthusiastic about this project," says John Lloyd. 



Katie Condon is the associate editor of DEMOLITION magazine.

PROJECT STATISTICS



1,861
MAN HOURS



10
CREW SIZE



32.41%
RECYCLED



23.04 TONS
OF REUSED LUMBER



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A STACKED TEAM

Frattalone Companies works with multiple agencies and stakeholders to demolish more than 1.5 million square feet of a Superfund site in Fridley, Minnesota



Five miles north of downtown Minneapolis, what was once a World War II-era Naval Industrial Reserve Ordinance Plant is well on its way to becoming an urban industrial/office park with its own microbrewery. Fridley Land LLC, a joint venture comprised of Hyde Development and Mortenson Construction, purchased the 122-acre facility in 2013 and proposed a five-year development plan that, along with creating an office park and microbrewery, would renovate existing tenant BAE Systems' space. The project, known as Northern Stacks, began in January 2015 and is one of the largest Brownfield infill commercial redevelopment sites in the Twin Cities region.

NDA member Frattalone Companies got involved with the demolition and continues to provide civil site construction services through final project buildout in the summer of 2018. "The scope of work has included demolition of more than 1.5 million square feet of industrial manufacturing; excavation and correction of more than 1 million cubic yards of soil, much of it contaminated or impacted; removal of all existing underground utilities; recycling concrete and asphalt removals;

and construction of site utilities," says Chris Niemand, Frattalone's project manager.

THE 5 BIGGEST CHALLENGES

"As a Brownfields development of an industrial facility, where a portion of the facility was to remain, there were multiple challenges to overcome," Niemand says.

1. Protect the operations and personnel within the existing building from the noise, dust and vibrations of the demolition.

The demolition work required separating the occupied north 500,000 square feet of the building that would remain from the south 1.5 million square feet to be demolished. In order to separate the demolition zone, the team constructed a temporary, weather-tight wall to protect tenant-critical operations from weather, dust and noise. The temporary wall allowed Frattalone to perform the precision demolition work along the entire 1,300-foot-long separation.

2. Ensure that all regulated waste was properly managed during the work.

As a large, complicated facility, with multiple building additions and changes to the operations over 70-plus years, there were wastes not apparent until being encountered, both in the

building materials and in the soils. The demolished plant contained large amounts of asbestos-containing materials and regulated wastes that required abatement and removal prior to demolition. To ensure that all hazards were identified, demolition proceeded in two phases. In phase one, Frattalone removed everything above the slab and foundations. This was followed by additional investigation and identification of contaminated areas below the slabs and foundations prior to their subsequent removal in phase two.

3. Keep and reuse all contaminated soils on-site.

The project used resources efficiently by recycling and reusing all crushed concrete from the demolition work. Impacted soils that might otherwise have been landfilled off-site were encapsulated under parking areas using a Minnesota Pollution Control Agency (MPCA)-approved Response Action Plan. Interiors of the remaining portion of the existing building were updated with new heating and cooling equipment. New site drainage was installed that created green spaces and separated storm water from the permanent Superfund ground water filtration system. The project achieved an 89 percent recycling rate.

PROJECT STATISTICS



0
INJURIES



22,500
MAN HOURS OF
DEMOLITION WORK



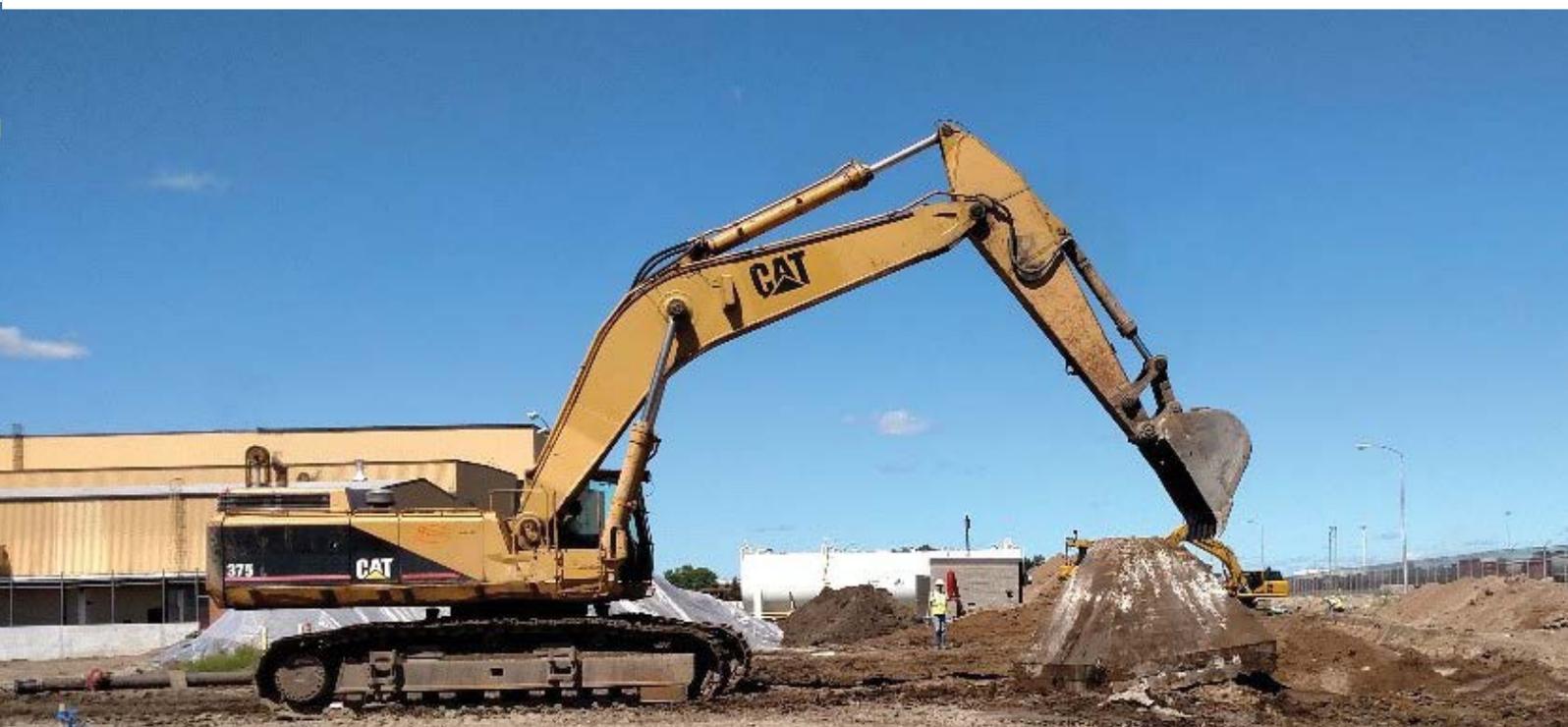
89%
RECYCLING RATE



18,000
TONS OF STEEL RECYCLED



Northern Stacks aerial view before demolition



PROJECT STATISTICS



240,000

TONS OF CONCRETE REUSED



5-10

CREW SIZE



20

MONTH-LONG DEMOLITION



1.5

MILLION SQUARE
FEET DEMOLISHED

Fridley Land and Braun Intertec reached out to the local community to include the City of Fridley, Minnesota, and its citizens as partners in the planning and implementation of the project.

4. Complete the work in a timely manner.

Frattalone began construction of new foundations for the tenant improvements and utilities prior to fully completing demolition of the below-ground structures. The project required close coordination with weekly progress meetings involving the owner, general contractor, owner's rep, Frattalone and numerous subcontractors.

5. Roll with the unexpected.

The below-ground concrete structures for column footings and machine tool foundations were massive and not fully known until they were exposed. The largest foundation contained over 1,200 cubic yards of concrete embedded with 1.5-inch diameter rebar suspended on I-beam frames.

MANY AGENCIES, ONE GOAL

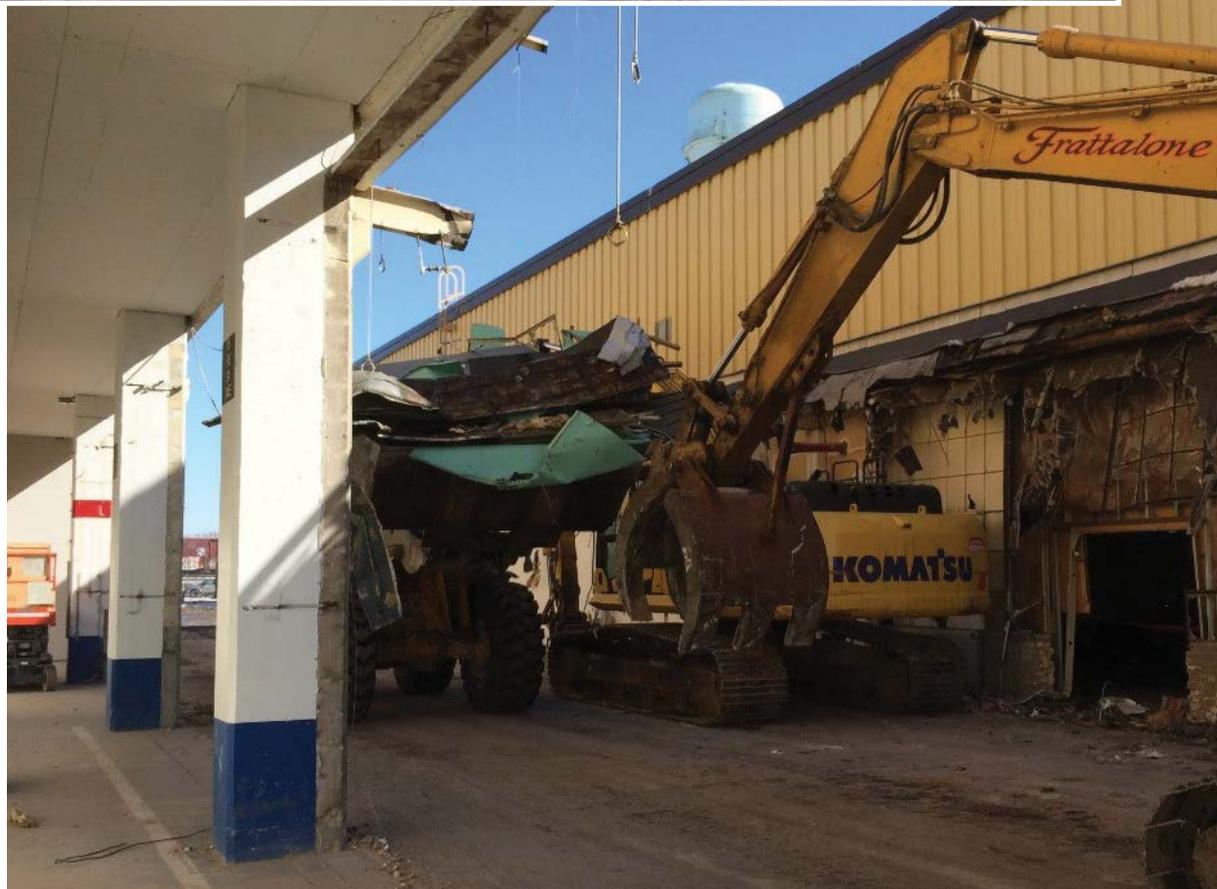
The scope of the Northern Stacks project required cooperation among many parties. Local, state and federal agencies cooperated with the owner and each other to reach consensus on the existing building, future development, public assistance and grant funding for contamination cleanup and regulatory approvals to permit and promote the reuse of a

highly contaminated Superfund site into a multi-use office park that is protective of environmental health and safety.

Fridley Land and Braun Intertec reached out to the local community to include the City of Fridley, Minnesota, and its citizens as partners in the planning and implementation of the project. "Because of the Superfund status of the project site, the owner and Braun Intertec needed to educate and work with the city and community about the issues involved and, in turn, have them develop a high level of confidence that the project team could solve those issues and create a valuable asset to the community," says Chris Thompson, principal with Braun Intertec, the lead consultant and owner's rep.

Working closely with the City of Fridley, the project owners spent several years planning details and obtaining entitlements and grants for the project that removed vacant, unwanted and underutilized buildings and replaced them with new buildings housing new businesses in the community.

Braun Intertec developed the Response Action Plan (RAP), approved by the Minnesota MPCA, that detailed how the site's environmental



Building separation in progress

issues would be addressed and improved through asbestos abatement, isolation and encapsulation of contaminated soils under hard surfaced parking areas, protection from possible vapor intrusion by installation of sub-slab vapor mitigation

systems in new buildings, separating storm water from and working around, and permanently maintaining the Navy's groundwater pump and treat system.

Thompson says: "Northern Stacks has improved the quality of life in Fridley

and adjacent communities by cleaning up a contaminated Superfund property, removing and replacing unused and outdated buildings, and retaining over 500 jobs while adding hundreds of new ones." 

Avoiding 2017 Liabilities in 2018

By Mark A. Lies II



With 2017 now in the past, it is important to look back at what occurred and hopefully learn from events. As human beings, if we do not learn from history, we are doomed to repeat it.

OSHA ENFORCEMENT IN 2017

In 2017, OSHA essentially continued to operate as it had during the Obama Administration since there was no Assistant Secretary of Labor for OSHA appointed and approved by Congress to replace Dr. David Michaels. As a result, the career OSHA bureaucrats continued to operate as they had in the past. For those employers with nationwide operations, it was very common to see in 2017 that the OSHA regulations were being enforced unevenly or inconsistently from one region to another because there was a lack of central direction from Washington. This inconsistency was further complicated by the fact that OSHA has experienced significant numbers of retirements of career baby boomers at the area and regional office levels, as well as in the solicitor's office, which prosecutes the citations at trial.

This inconsistency is also evident within the state plan OSHA programs. An employer can expect to be treated with very different interpretations of the underlying federal OSHA regulations depending on whether it is cited, for example, in Indiana, Michigan, Minnesota, Nevada, Washington and other states.

Often times, the state plan regulations do not recognize federal interpretations of federal regulations or case law from the OSHA Review Commission or federal courts, creating further uncertainty.

2017 OSHA EXPERIENCE

The following discusses pitfalls in 2018 based upon 2017 occurrences:

OSHA inspections – Failure to become aware of the rights of OSHA, the employer and employees during inspections. Many employers lack basic understanding of the process, especially in the area of OSHA employee interviews, which are the source of 60-70 percent of citations. Employers never inform their employees of these rights and do not prepare employees for the interviews or consider “debriefing” them after the interviews.

PARTICULAR HAZARDS

Some of the more frequent hazards encountered in 2017 include:

Lockout Tagout (LOTO)/Machine Guarding – Employers are required to have a written LOTO procedure for each piece of equipment. In 2017, many employers were found to be lacking these procedures; they were not current as to the correct procedure or employees were never trained on how to use them. Other employers did not conduct the annual periodic inspections. Regarding machine guarding, many employers failed to conduct a job hazard assessment to identify whether guarding was necessary or adequate or, worse, failed to enforce keeping guards in place. As a

Many employers are unaware that every citation which is accepted creates a five-year period during which any subsequent violation during that period which is “substantially similar” can result in a repeat citation with significant penalties.

result, there were many fatalities and amputation-type injuries.

Powered Industrial Trucks (PITS) – Employers cannot allow employees to operate PITS unless and until they have been trained, authorized and certified with supporting documentation. Employees must also be recertified every three years and retrained after an accident or near miss. Employers were cited for failure to train the PITS operators or to enforce the safe operation of the equipment. In addition, many employers allowed outside contractors or temporary employers to operate the equipment without training. PIT accidents typically result in serious injury or death.

Personal Protective Equipment (PPE) – Employers are required to conduct a hazard assessment to identify hazards which require PPE (gloves, eye protection, foot protection, etc.), to certify the assessment and certify that the PPE was provided. In addition, employers must enforce the use of PPE. Many employees sustained serious injury because PPE was never provided or required to be used.

Fall Protection – Employers are required to protect employees against the hazard of a fall. OSHA has extensive regulations requiring the use of fall protec-

tion (guardrails, safety nets or personal fall protection) when employees perform elevated work. This year saw many tragic accidents where employees fell off of roofs, mobile equipment, interior structures, truck trailers, towers and other elevated equipment.

Hazardous Substances – Employers must provide Hazard Communication training to employees working with hazardous substances and document such training. There are also requirements for labeling. The failure to provide this training has resulted in employee exposure to hazardous chemicals or other substances that may be in the worksite.

Multi-Employer Worksites – Another liability involved multi-employer worksites where there are a number of employers at the same worksite. Each employer has OSHA duties to other employer’s employees at the site depending on whether the employer is one of the following:

- » employer who creates the hazard
- » employer who exposes the employee to the hazard
- » employer who is responsible to correct the hazard
- » employer who has control over the worksite or a particular hazard

Many employers are totally unaware of these liabilities and fail to take appropriate action to protect other employees, including independent contractor employees and temporary staffing employees.

OSHA INFORMAL CONFERENCES

Many employers fail to adequately prepare for the OSHA informal conference after citations are issued. Unfortunately, many let the typical 15 working day period (state plan program time periods may vary) to attend a conference or file a written contest to the citation, and it becomes a final court order. In other

instances, employers do not adequately prepare for the conference to assert their factual and legal defenses and when they attend, they cannot articulate the defenses. Worse yet, many attend and make “admissions” of liability which support the violation.

Many employers are unaware that every citation which is accepted creates a five-year period during which any subsequent violation during that period which is “substantially similar” can result in a repeat citation with significant penalties. In so doing, they accept citations which should have been contested for expediency and have no conception of the potential legal minefield that may be created in the next five years.

CONCLUSION

Hopefully, we all can learn from our own unfortunate experiences or those of others in 2017 to avoid repeating errors that result in accidents or regulatory liability. If you have any questions about these issues, please do not hesitate to contact me. I hope you all have a safe and healthy 2018. **D**



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Job Site Security: Trespassers

By Joshua Estrin



Perhaps one of the most overlooked aspects of construction and demolition safety management is job site security. Despite the best efforts of construction managers and site supervisors, the 2017 Construction Equipment Guide estimates that construction site theft can cost the industry as much as a billion dollars every year. These are costs that must somehow be accounted for in project estimates and overall projects costs.

While trespassing, vandalism and theft are not new problems, when dealing with young people, unique precautions need to be taken. Minors, specifically teenagers, have not yet learned to properly assess a dangerous situation or take actions to minimize their own exposure to danger. In fact, high-risk behavior appeals to them as a result of an underdeveloped sense of impulse control. There are any number of social and psychological factors that contribute to these behaviors, which, when combined in a group context, increase the risk of accidents. To

that end, an analysis of the psychosocial forces that impact the adolescent/teenage decision-making process offer insight into why they are at greater risk of injury in an inherently hazardous and potentially dangerous location such as the construction or demolition job site.

These are some of the most compelling character traits that all safety professionals must take into account:

- » **Acting without thinking:** The adolescent mind is not yet fully devel-

oped and often tends to encourage action before all consequences are thoroughly considered.

- » **“Bird in the hand” syndrome:** When given a choice between an immediate small reward and a larger, delayed reward, teenagers often become impatient and err on the side of receiving instant gratification.
- » **YOLO:** In their never-ending quest to experience life to its fullest, the exploration of new things attracts the younger mind despite any perceived risks associated with these behaviors.
- » **Peer pressure:** “Looking good” in front of friends is especially important to this group and can lead to many negative actions that might otherwise not even be considered when alone.

It is to be noted that the idea of safety, or taking some type of mitigating action, appears to be antithetical to the juvenile behavior. Site managers, therefore, need to understand that the responsibility for preventing or reducing the impact these adolescent behaviors, as they relate to job site safety, falls squarely on their shoulders.

PROACTIVE JOB SITE SECURITY STEPS

The American Association of Insurance Services (AAIS) and Insurance Service Offices (ISO) estimate that 6.3 percent of builders risk losses can be attributed to juvenile theft, vandalism and mischief.

To prevent construction and demolition sites from turning into unintended playgrounds for trespassers, job site security must be a top priority, with a specific focus on preventing access to teenagers.

The National Safety Council (NSC) defines safety as taking actions that control recognized hazards in an effort to achieve an acceptable level of risk. Safety is the result of proactive steps taken by those in charge to prevent accidents from occurring. When developing a construction or demolition safety management plan, certain steps need to be taken to minimize the unsafe conditions and hazards, which can be especially attractive to teenagers. These actions include:

- » Reducing surfaces to climb, such as walls and piles of dirt, or eliminating access to these potential hazards.
- » Securing construction equipment at the end of the shift. Much unintended damage can be prevented simply by ensuring that keys are not available, or that equipment is not left operational during non-work hours.
- » Paying attention to ladders and scaffolds, which can offer adolescents an opportunity to climb and explore interior building spaces. Gated or key access to these areas to block access to the worksite by teenagers.
- » Removing access to dangerous equipment. Access to tools during non-work hours must be of the highest priority; locked boxes or removal from the job site itself are two of the most reliable solutions in a well-constructed safety/secu-

rity plan that focuses on reducing the temptation to take action simply because something is in plain sight or easily available.

- » Increasing job site security through fencing, monitoring, lighting or on-site personnel.

The good news is that there are many benefits to increasing job site security. Not only are these actions part of accepted construction management techniques, they serve to increase safety levels, both for those who are intended to be on the site and also for those who are attracted to the site for unintended purposes. Increased protection can help reduce cost overruns, minimize liability exposure and increase safety for all.

A simple “commitment to safety” statement is not enough to prevent worksite accidents or provide job site safety. Construction companies and building owners need to codify a culture of safety by ensuring the preparation of a site-specific safety plan, which takes into consideration the juvenile mindset. Through these actions, managers and owners can mitigate the danger of preventable accidents, act in their company’s best interests by protecting the job site, and help teenagers protect themselves from unintended consequences or serious injuries. ▀



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professor at Columbia University in New York City, and can be reached at joshua@sa-estrin.com.

Updates from Washington

By Kevin McKenney, NDA Director of Government Affairs



NDA's team in Washington will be engaging with Congress and the Trump Administration to make sure your voice is heard when these issues are being considered.



The first year of the Trump Administration was certainly a departure from business as usual in Washington. Pundits, pollsters and media figures were wrong about President Trump's chances of winning, and many say that the first year of the administration was not a success. While Congress seemed to struggle to pass significant legislation, the federal government did plenty of work in 2017, and NDA was engaged along the way.

The hot issue at the Occupational Safety and Health Administration (OSHA) was the ongoing implementation of the new crystalline silica rule. NDA has been engaged with this issue on multiple fronts, and OSHA has been receptive to NDA's concerns, particularly with Table 1. We expect that OSHA will be soliciting more information from the public about ways to improve the rule, and NDA will be on the front lines to work with OSHA on making improvements for the industry.

OSHA has been active on other issues, as well. In November, the agency issued a final rule setting Nov. 10, 2018, as the date for employers in the construction industries to comply with a requirement for crane operator certification. OSHA also responded to concerns with its new electronic recordkeeping rule by granting extensions for filing 2016 300A logs. President Trump also nominated an assistant secretary of labor last year to lead OSHA's office. Scott Mugno is a former executive at FedEx and has already appeared before the Senate Health, Education, Labor and Pensions (HELP) Committee. His nomination will proceed to the Senate floor, where he is expected to be confirmed.

In Congress, the House passed legislation to reauthorize the Brownfields Program at the Environmental Protection Agency (EPA). The program enjoys bipartisan support, and a companion bill was introduced in the Senate by Sen. Jim Inhofe (R-OK). The program had not been reauthorized in several years, and this was a rare example of bipartisan legislation in the House. Before leaving town for the holidays, Congress managed to pass an overhaul of the federal tax code that contained several positive elements for the industry. Congress allowed most taxpayers with pass-through income, such as from "S" corporations, to deduct 20 percent of that income based on wages, allowed for immediate expensing of capital investments for the next five years, and lowered tax rates for corporations and individuals alike. These measures are positive steps and will help to ensure a strong and thriving demolition industry.

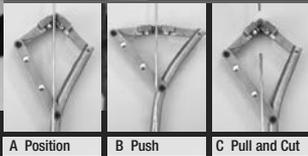
Looking into 2018, one of the topics President Trump has articulated support for is a comprehensive infrastructure spending package. The president spoke of infrastructure often during the 2016 campaign, and Senate Majority Leader Mitch McConnell (R-KY) has expressed support for bringing legislation to the Senate floor. Republicans have a razor-thin majority in the Senate, so it may be necessary to grab support from moderate Democrats to pass infrastructure legislation, along with several other legislative priorities.

NDA's team in Washington will be engaging with Congress and the Trump Administration to make sure your voice is heard when these issues are being considered. Make sure to visit our website for the latest updates and exclusive resources for NDA members. |▣

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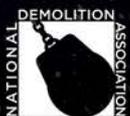
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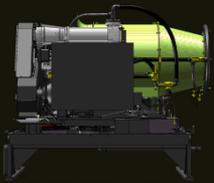
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