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IN THE CARDS

O'Rourke Wrecking Company demolishes a former playing card company headquarters

MILBURN DEMOLITION WORKS ON A CHICAGO HIGH-RISE

ENVIRONMENTAL HOLDINGS GROUP DISMANTLES AN EXPRESSWAY







IN THE CARDS

O'Rourke Wrecking Company abates and demolishes the former United States Playing Card Company world headquarters in Norwood, Ohio.

By Michael P. O'Rourke



Since it was founded in 1867, The United States Playing Card Company has led the world in the design and manufacturing of quality playing cards.

This project, located just outside Cincinnati in Norwood, Ohio, entailed the remediation and demolition of the plant that served as the company's world headquarters from 1899 until 2009. The facility was designed by Samuel Hannaford and Sons, who also designed the iconic Cincinnati Music Hall and Cincinnati City Hall. The historic clock tower is on the National Register of Historic Places and was preserved by NDA member O'Rourke Wrecking Company for incorporation into the new site redevelopment. The United States Playing Card Company (USPC) continues to manufacture many iconic brands of playing cards including Bicycle, BEE, Aviator, Aristocrat and many more.

History made at the Norwood plant extends well beyond its famous clock tower. Interestingly, the plant played an important role in some of

PROJECT BREAKDOWN

Equipment Staging/Preparatory Work – Prior to the start of active demolition: installation of supplemental temporary fence panels; establishing general site security and access procedures; and protocol and verification of utility disconnects and make safe. Incidental work included preparation of appropriate project pre-planning documents; obtaining necessary demolition permits and filing notifications; removal of demolition debris from the site; tracking of waste streams; submittal of close-out documentation; and other associated demolition-specific support activities.

Asbestos Abatement – As a part of the overall decommissioning/demolition and site recovery project, regulated asbestos containing materials (RACM) was properly abated by O'ROURKE. This included removal of identified asbestos containing

thermal pipe and fitting insulation, mudded fittings, boiler breeching/tank insulation, cementitious (transite) panels, wire rope firestop material, fire doors, friable window glazing, electrical boxes/components and other identified RACM.

Mass Demolition and Removal Operations – Demolition work involved a combination of conventional mass demolition, ultra-selective dismantling/deconstruction, hand demolition, rigging, torch cutting and associated activities. Special consideration and attention was expended with regards to protecting adjacent facilities and site infrastructure scheduled to remain operational including general public safety concerns. Demolition operations were designed and coordinated to maintain general site access, emergency routes and access to adjacent facilities.

our nation's conflicts. During WWII, in collaboration with the U.S. government, USPC developed "spotter" decks that featured illustrations of tanks, ships and aircraft used by enemy forces to aid military personnel in identifying the enemy. Also, special decks were created for American troops with the latest military intelligence. The cards concealed maps printed between two layers of cards that revealed escape routes from POW camps. The cards were delivered by the Red Cross in Christmas parcels. Since cards were common with all troops, the Nazi camp guards overlooked them. These "map decks" are believed to have helped 32 soldiers escape from Colditz Castle. Very little is known about the clandestine decks, as they were kept secret after the war because their use was a violation of the Geneva Convention. The only two surviving decks are currently housed in the International Spy Museum in Washington, D.C.

During the Vietnam War, USPC produced decks of cards that contained only the ace of spades. These special decks were used as psychological

O'ROURKE is consistently ranked by Engineering News Record (ENR) as a Top 15 Leading Specialty Demolition Contractor Firm.

warfare, as the Vietcong were very superstitious and frightened of this ace. They believed it predicted death and suffering. Thousands of the decks were sent to U.S. troops in Vietnam, and the cards were deliberately scattered in the jungle and in hostile villages during raids.

In 2009, the aging facility was finally abandoned as production transitioned to a modern factory. Many uses of the site were explored over the next decade. In 2019, the site was acquired by a developer with ambitious plans to invest

\$100 million into the 21-acre site to convert it to a mixed-use development.

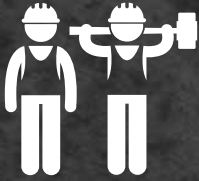
The developer relied on upon O'ROURKE's 58-year repository of vast demolition and abatement experience to devise and implement a site-specific environmental/demolition/site safety plan that was unique to the challenge of abating and demolishing multiple buildings, with integral buildings/structures that had to be segregated and protected under a fast-paced schedule.



PROJECT STATISTICS



7 MONTHS
LENGTH OF PROJECT



~20 WORKERS
CREW SIZE



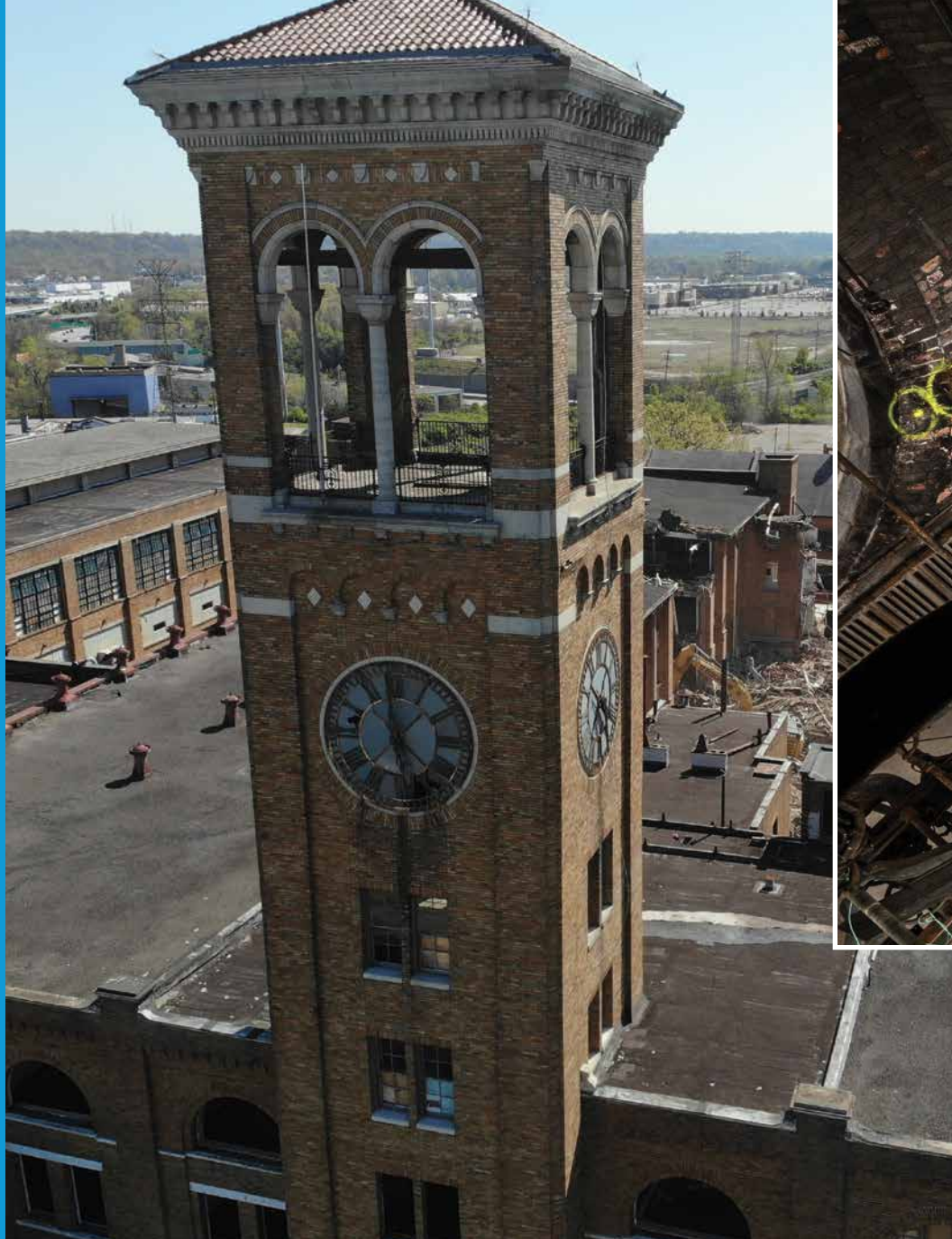
OVER
250,000 BF
TIMBER SALVAGED



750,000
BRICKS CLEANED
FOR REUSE



20,000 CY
CONCRETE RECYCLED
AND CRUSHED



O'ROURKE has performed full-service, turnkey abatement, demolition and site recovery services to our clients throughout the North American market since 1962. We have successfully decommissioned and demolished numerous structures located throughout the United States, including past work at similar industrial facilities. During our tenure performing demolition work, we have earned a reputation for excellence in both front-end engineering and on-site field performance. O'ROURKE is consistently ranked by Engineering News Record (ENR) as a Top 15 Leading Specialty Demolition

Contractor Firm. We have an impeccable record of successfully completing difficult projects safely, on budget and ahead of schedule.

O'ROURKE was engaged to study the environmental and demolition challenges to achieve the best use of the property while respecting the historic aspects of the site. The facility's construction began in 1899 and continued into the 1920s. The result was a group of interconnected structures primarily of wood post and beam construction, while the newest buildings were constructed of reinforced concrete. Steam for



The historic clock tower and smokestack that served the boiler house were protected and preserved for reincorporation into the redevelopment effort.

heat was supplied by the boiler house on-site through a system of below-grade steam tunnels.

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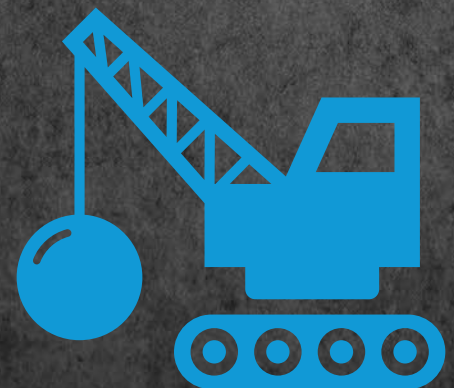
As the project kickoff neared, the start of work was delayed. Hollywood came calling! Because the site was so unique, the developer allowed a Bruce Willis movie tentatively titled “Open Source” to film there. Part of the agreement included that the historic clock tower had to be captured on film.

O’ROURKE crews began work in March 2020 with a team of 20 trained asbestos workers to abate the large amount of RACM on-site. The largest area of concern was the boiler house that had two coal-fired brick boilers and a labyrinth of below-grade steam tunnels that contained thousands of feet of ACM piping.

Once asbestos abatement progressed, a phased utility shutdown of the site began. This was critical, as most of the buildings were of wood construction, and fire safety was a key concern. O’ROURKE relied on its extensive fleet

EQUIPMENT USED

- **1 LINK BELT SL 208 CRANE WITH CLAM BUCKET AND WRECKING BALL**
- **5 CAT EXCAVATORS WITH SHEARS AND GRAPPLES**
- **2 BOBCATS**
- **2 MAN LIFTS**
- **10 TRUCKS PER DAY**






of equipment to accomplish the project. A Link Belt LS 208 Crane, five CAT Excavators with shears and grapples, and a fleet of trucks were utilized for scrap/debris removal.

Successful demolition work at the former US Playing Card facility involved a combination of conventional mass demolition, specialized dismantling/deconstruction, rigging, torch-cutting, debris segregation and load-out activities carefully orchestrated and implemented by trained demolition personnel. A proactive approach was utilized, which included controlled demolition techniques, well thought-out building/

infrastructure protection and demolition personnel protection measures to successfully perform the demolition work. The goal of 100% debris containment within the active demolition work zone was achieved.

For the ultra-selective demolition work to separate the clock tower, two crews of four men worked to hand-demolish and isolate all buildings surrounding the clock tower in a floor-by-floor manner. Care was taken to segregate and recycle as much timber and floor planking as possible throughout the process. Over 250,000 BF of timber was salvaged from the structures. Also, the common brick

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from the facility was very desirable. Approximately 750,000 bricks were cleaned and palletized for reuse.

This project clearly demonstrated demolition as a green industry by recycling 90% of debris and clearing a degrading/dilapidated plant while maintaining its history in preparation for new construction of a much needed development in Norwood. At O'ROURKE, we believe that there will be a tomorrow, and our core business practices reflect this concern for the future. Our corporate sustainability goal is to reduce, recycle and repurpose/reuse materials whenever possible on all of our projects.

Waste generation, segregation, sampling/profiling, manifesting, transportation and disposal/recycling were monitored daily to assure compliance with and adherence to all applicable federal, state and local regulations. A Waste Tracking

Log was kept documenting all debris leaving the site and made available during performance of work.


By implementing a site-specific demolition strategy that focused on protection of adjacent properties/businesses, the general public and the surrounding environment made it successful for both O'ROURKE and, importantly, the owner. Our multilayered demolition approach and top-notch crews delivered the site in a safe, efficient and timely manner, and clearly exceeded industry standard practices and requirements. Work is scheduled to complete on time at the end of September 2020. ▶



Michael P. O'Rourke is the president of O'Rourke Wrecking Company.



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