

DokaXpress



The formwork magazine

Vol. 23 Issue 1

doka

Connecting Challenges with Solutions

1111 Church Street, Nashville, TN | 18

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"As part of this goal and using the motto "DOKA CONNECTS," we are encouraging you to learn how our products and innovations improve productivity, efficiency and sustainability in formwork, concrete and digital services."

Doka Connects with Solutions at ConExpo

At Doka, we are proud to be part of a resilient and forward-thinking industry that continues to produce extraordinary structures despite the challenges we have faced in recent years. As we look forward to 2023, we will continue our commitment to building these remarkable structures. As we look ahead, leading construction industry experts are optimistic. Dodge Data & Analytics, states that the impact on the construction industry for 2023 should be even better than 2022, as there are factors working in the industry's favor, including a strong banking system and an undersupplied residential housing market. Looking back at 2022, the total construction starts were excellent – rising 17%. Moving into 2023, the good news is that developers and owners are continuing to put projects in the queue despite the possibility of rising interest rates and economic slowdown. With this in mind, we are confident 2023 will be consistent as we see a steady introduction of new projects.

As we all know, the biggest hurdle to overcome in the future will be the worker shortage. While the building industry has put forth a good effort to educate the public about opportunities, this is not a situation that will quickly disappear. Workplace shortages will plague the building industry, as well as many other industries, for the next few years, pushing us all to discover methods to work more effectively. This is why looking to innovations that bring products and teams together to improve efficiency is crucial.

As part of this goal and using the motto "DOKA CONNECTS," we are encouraging you to learn how our products and innovations improve productivity, efficiency and sustainability in formwork, concrete and digital services. This will be evident

Doka at Conexpo 2023

March 14-18, 2023 | Las Vegas

Find us at:
Outdoor Booth
– Diamond Lot
– #D2001



Scan QR code for more info about Doka at Conexpo 2023



AR Marker Symbol: Download the app at DokaAR.com, open the app on your smartphone or tablet device, scan the image with the AR Marker symbol to fully experience the latest developments of Doka USA!



at ConExpo 2023, where Doka is displaying its impressive new scaffolding options, innovations in its formwork and shoring portfolio, digital services, and numerous highlights in systems and safety. Additionally, to understand how all our offerings and innovations work together, visitors to our booth #D2001 at the show will experience hands-on wall and slab formwork, safety, scaffolding and digital services that will connect contractors with successful solutions. Doka is particularly excited to introduce two new products at ConExpo. SiteLight introduces visitors to a completely new spectrum of construction site advertising opportunities. The innovative technology is visible far beyond the exhibition grounds: SiteLight raises the potential use of valuable advertising space on construction sites and creates a win-win situation for all parties. This joint venture between Doka and Umdasch The Store Markers (part of the Doka/Umdasch group) combines the skills of experts and pushes digital advertising to the next level. Another new product is our Super Flex Garage Beam System, a complete and flexible formwork and shoring solution for cast-in-place garage beams and slabs in post-tensioned multi-story parking garage structures. The system uses standard rentable components and comes pre-assembled ready for use once it arrives onsite. This only touches upon the many solutions that will be at Doka's ConExpo booth. Whether you are looking for solutions in building construction, scaffolding, digital services, engineered formwork and infrastructure, or safety and components, stop by and see how DOKA CONNECTS with your project's needs.

Michael Kennedy,
CEO, Doka USA

Doka Connects Formwork with Scaffolding Acquiring 100% stake of scaffolding company AT-PAC

News
flash

Doka, one of the world's leading suppliers of formwork with headquarters in Amstetten, Austria, completed the 100% acquisition of scaffolding manufacturer AT-PAC. Both companies initially partnered in 2020 to provide comprehensive global site solutions. The acquisition positions Doka as a single source for formwork and scaffolding for the global construction industry and strengthens the company's new global business segment, "Industrial Scaffolding". For AT-PAC this means full access to a global market.

Read more: <https://www.doka.com/en/news/press/doka-at-pac>

See Doka and AT-PAC connect at their 3,000 sq. ft. outdoor booth (#D2001) at Conexpo in Las Vegas, March 14 – 18, 2023.



Doka Connects People with Passion. At our Brand New State of the Facility in New Jersey!

We have a new home for our Corporate Headquarters and Northeast Branch office located at **251 Monroe Ave, Kenilworth, NJ 07033**. The 19-acre property will help better serve your Formwork, Shoring, and Scaffolding needs and provide greater capacities for pre-assembly, reconditioning, standard material stock, material delivery and returns, training, and more!





PROJECT

New York City's first All-Electric Building

Doka's safety and shoring solutions aid in building construction

Located on the border of Boerum Hill and downtown Brooklyn, 100 Flatbush is the first phase of a mixed-use development by Alloy Development. The tower will include approximately 30,000sf of retail space on the ground floor and 440 rentable apartments. This will be the first completely carbon neutral all-electric building in the city, no steam or gas is said to be included. This residential building includes 396 market-rate apartments and 45 affordable apartments, which are developed in partnership with the local non-profit fifth avenue committee.



The Challenge

The building's geometry and the exposed concrete architectural requirement were some of the challenges faced by concrete contractor RNC Industries.

The Solution

Doka safety and shoring solutions, as well as engineering and account management provided an excellent construction system. The system can be assembled with no small loose pieces, and the shoring towers offer elevated safety features, such as OSHA-approved built-in tie-off handles in every frame. Productivity is maximized and fall hazards are reduced with the development a protection screen designed with mostly solid translucent panels. The interior climbing system carries the formwork hydraulically and creates safe shaft protection taking the work of cycling and rebuilding formwork off of the manpower, increasing productivity. Fall hazards are also reduced where the shaft closure doesn't need to be built in place. Doka's interior climbing platform offers a split and suspended two-level working platform.



Hear what Michael Jaquez from RNC Industries likes about working with Doka's protection screen.

- 1 Doka's Xbright protections screen solution ensures full safety around the entire perimeter of structure to ensure worker safety.
- 2 With varying floor heights between 15' to 27', a combination of SuperDek slab formwork and Staxo shoring towers was used to maximize productivity and ensure seamless transitions.



We used Doka Staxo on this project. As soon as we poured the slab, we reinforced the re-shore, and you can see the quality and safety of this product.



Ronnie, Project Superintendent,
RNC Industries



- 3 The full-area enclosure around the perimeter of the building enables all work to be carried out in complete safety, protected from all weather conditions. A loading platform can be integrated into the protection screen for straightforward, safe repositioning of slab formwork, tools and other materials
- 4 Doka's Super Props standing tall in reshore



The Facts

Description/Intro: 100 Flatbush

Location: 100 Flatbush Avenue, Brooklyn, NY

General Contractor: Lendlease

Concrete Contractor: RNC Industries

Architect: Alloy Design

Type of structure: Mixed

Height: 500+ feet

Stories: 52 stories

Sq. Ft: 525,000 sq. ft.

Cycle time: 3-day cycle planned

Construction time: Estimated 8 months duration for concrete superstructure

Products used: Facade: Xclimb 60 protection screen, Shoring: Staxo 100, SuperDek & Dokaflex slab formwork, Super Props



PROJECT

Collaborative Team Efforts on Kellen Research Building



The Stephen Kellen Building sits on a large campus in Rochester, Minnesota. The energy-efficient structure will feature 11 floors and 176,000 square feet of flexible laboratory space. The building initially was announced in 2019 as a four-story building, but the pandemic experience demonstrated the need to grow and accelerate scientific advancements. For this extensive project Doka was able to provide the most comprehensive forming and shoring package.



The Facts

Project Name: Kellen Research Building

Location: Rochester, MN

Contractor: Knutson Construction

Architect: HDR Architecture

Type of structure: Research Facility

Construction time: July 2021 - October 2022

Height: 185 ft

Stories: 11 stories

Products used: Slab Formwork: Doka Truss Tables with Doka-Matic Table + DokaFlex Infill Reshore: Doka Eurex 30 Props
Deep Foundations: Frami was used interchangeably on the Foundation Walls + Pile Caps + 1 Sided Walls + Columns



- 1 On the right side of the Truss Table, notice the Dokamatic Table. The site utilized Dokamatic tables on the column lines to reduce loose shoring, since most of the shoring was approximately 15' tall. Setting & stripping are much faster
- 2 Heavy Duty Staxo Shoring Towers were used within the Stair Feature. Shoring heights of nearly 30' supporting nearly 30" deep beams
- 3 The C8 Channel Cantilever was left in place to support the reshored levels
- 4 Completed concrete floor with reshore supported by Eurex 30 props



See more on YouTube:



Scan here!



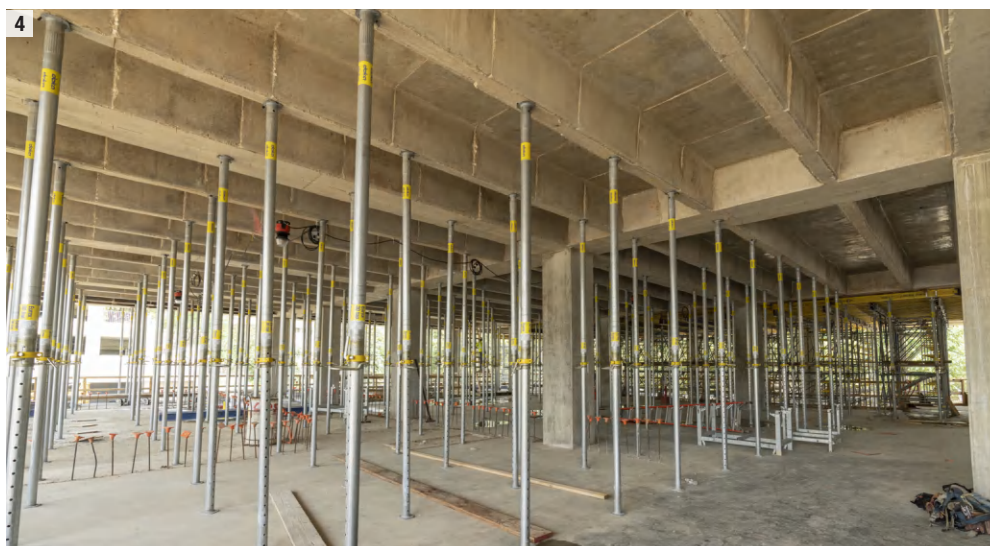
The Challenges

Due to the Kellen Research Building being a large-scale project with many phases in the formwork, several challenges arose. These challenges included: a large foundation package, heavy tall bay shoring, cantilever shoring with C8 channels and pipe bracing, installation of truss tables and a 24' tall penthouse shoring. The significant cantilever on L2 could not be shored to the ground.

The Solution

Doka was able to incorporate Frami into many different applications within the foundations to minimize the equipment on site. The lightweight Frami is ideal for fast and economical forming, with or without a crane. To ensure Knutson had what they needed, when they needed it, Doka made sure to prioritize communication with the site.

With the support of Doka Engineering, a C8 Channel and Pipe Brace Solution was used to support the significant cantilever without shoring or reshoring going to the ground. This allowed the second phase of the project to continue to move forward.



When we started this project, we brought Doka on about 6 months prior to ordering for our formwork systems, so it was a collaborative team effort to work through solutions and the challenges we had in our site as we got prepared to start our concrete work.



Tyler Lenzner, Project Manager, Knutson Construction

Connecting People with Passion

Early collaboration between Keystone Concrete and Doka's team results in success.

A collection of 117 luxury residences are in the heart of the arts district in downtown Austin. The Linden is a 28-story tower that introduces a new concept in inspired living.







1



2

The Facts

Project: The Linden

Location: Austin, TX

General Contractor: Bartlett Cook

Concrete Contractor: Keystone Concrete

Architect: Rhode Partners

Developer: Reger Holdings

Type of structure: Residential Tower

Height: 333 ft

Stories: 28 stories

Cycle time: Slabs are broken in
2 pours per floor, 7 days per floor

Construction time: December 2021 – January 2023

Products used: Foundation Columns: Top 50 /
Foundation Walls: Top 50 & Framax / SCP Core with
Top 50 Formwork



3

- 1 The Super Climber SCP climbing system's single stroke cylinder raises all interior and exterior core formwork, all working level platforms and the markets largest concrete placing boom at the push of a button
- 2 Platform customization on the SCP ensures that the customers have access to all the walls as well as capabilities to hang access stair towers
- 3 Hole numbering, anti-handtrap and anti-dropout safeguards, forged nuts, galvanized finish, ergonomically shaped fastening clamps – these are just some of the features of the Euxex floor props that have convinced customers all over the world

The Challenges

The architectural finish requirements along with the unequal shaped core and a vigorous construction schedule were some of the challenges on this 28-story project.

The Solution

Providing custom Super Climber SCP and formwork solutions provided an easier stripping and climbing process. Also, Doka was able to incorporate Top 50 and Framax into many different applications within the foundations to minimize the equipment on site. Installation times worked in conjunction with the project schedule.

Doka was involved very early on in the project, allowing Keystone Concrete and Doka's team to come up with the best forming solution for the project. Doka has built a long-standing relationship on trust and project execution, allowing continued work with the contractor.



EVENTS



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DOKA CONNECTS

you with Innovative Formwork, Safety, Shoring
and Scaffolding Solutions

See u
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Outdoor B
– Diamond
#D20



DokaTruss Table



SuperDek Slab Formwork



Frami Xlife Framed Formwork

PROJECT



1



2

- 1 Doka is developing Church Street in Nashville on three projects underway simultaneously.
- 2 Doka's unique slab grab attachment on the safety net fans meant Charter could use them on taller floor heights without having to rest on slab below.
- 3 Pre-assembled panels arrived on trucks and were lifted directly in place on Staxo 100 Shoring Towers
- 4 The SuperClimber keeps the core above the slab where it requires no crane and thus removes the core from the critical path.

3





Charter Construction uses SCP and Truss Table to exceed construction schedules

Charter Construction relies on Doka formwork solutions and services on multiple project in Nashville.

A new 22-story apartment and retail tower in Nashville with 380 one- and two-bedroom apartment units, emerges vertically out of the base. The tower's modernist-styled design provides order to the exposed structural concrete columns that extend beyond the roofline. Doka was selected as the formwork supplier because of their DokaTruss and SuperClimber SCP solutions aid with the complex design.





The Challenge

1111 Church Street Residences is a large-scale project with many phases in the formwork, and several challenges arose. These challenges included: a large foundation package and a heavy, tall bay shoring. The SuperClimber SCP core was very complex with many intersecting walls which also brings its own challenges.

The Solution

To mitigate risks encountered when encountering a complex core, the Doka SuperClimber SCP allowed for variations in the core. The SuperClimber SCP self-climbing core system was important for this job because it allowed all platforms, along with formwork for an entire floor, to be raised in one single cylinder stroke. The DokaTruss tables with electric hoist allowed for quick transition from floor to floor during the construction of the building. The Doka-Truss table is the fastest method to set and strip large slab formwork. The project uses not only core formwork, but Charter Construction adapted Top 50 and Dokamatic to use with 6.5" aluminum.



The Facts

Project: 1111 Church Street

Location: Nashville, TN

General Contractor: Charter Construction

Architect: HDR Architecture

Height: 235 ft

Stories: 22 stories

Type of structure: Residential Condominiums

Construction time: September 2021 – July 2022

Products Used: Slab Formwork: Doka Truss, Reshore: Doka Euxex 30 Props, Deep Foundations: Framax Foundation Walls

4. Charter owns Doka Truss tables on both sides of building. Over 16,000 sq. ft. of 50 x 16' Doka Truss Tables were in use on this project
5. Doka Birch Plywood on the Truss Table lasted the entire duration of project and maintained a good finish for the 22 floors it was used on. **Safety Tip:** Electric Hoist Compensator DokaTruss table used in conjunctive with an electric hoist compensator eliminates the need for "Pinching" the truss table. As front of table flies out, a button is pressed on the compensator to remove slack from the back pick points, allowing for a nicely leveled and safe pick
6. Doka Truss legs fly with the table eliminating the need to lower the table to the ground and allows for quick resetting

6



We use Doka for four of our largest projects. We use their SuperClimber, Dokamatic table, Doka Truss and Doka Safety Nets on these projects. We connect with Doka because we have a great working relationship with their engineering and salesmen for over 10 years.



Josh Schneider,
Superintendent, Charter Construction

Reducing Costs for Customer

Working with Customer-owned Formwork

Symphony Square's 32-story residential tower, named The Waller, will include a mix of micro-studio, one-bedroom, two-bedroom, and three-bedroom apartments, totaling 388 units. Floor-to-ceiling windows will combine with project's location and height to give residents stunning views of Waterloo Park, the Capitol rotunda, the University of Texas campus, and the downtown skyline.



- 1 SCP saves more space on site by moving the Generator on the +1 deck as well as hanging SW formwork on the cantilevered gantry beams
- 2 Keystone Concrete uses Framax wall formwork and Super-Climber system on the main core of the building

The Facts

Project: Symphony Square

Location: Austin, TX

General Contractor: Greystar

Shell Contractor: Keystone Concrete

Architect: R2L

Developer: Greystar

Type of structure: Residential Tower

Height: 379 ft.

Stories: 32

Construction time: Keystone began foundations in August of 2021 and will top out with structural concrete in December 2022.

Products used: Foundation Walls: D22 Single sided Top 50, SCP Core with Framax Formwork



2





4

The Challenges

Challenges encountered during the construction of Symphony Square included: providing a single-sided application that could move from floor-to-floor to keep up with the construction schedule, maintaining the reuse with minimal rebuild, and providing a climbing system to utilize customer owned formwork.

The Solution

The solution provided for the customer's benefit was to use the customer owned Framax with a SCP climbing system. This reduces the overall cost for the customer. We also provided D22 with Top 50 to move around the project, as well as up the ramps, to keep up with the fast pace of the customer's construction schedule.

Collaborating early on in the project, allowed Keystone Concrete and Doka to come up with the best forming solution for the project. A long-standing relationship on trust and execution of projects also allowed Doka to continue work with this contractor.

- 3 A great team work atmosphere between Keystone and Doka continues to result in successful projects
- 4 Keystone concrete owns over 10,000 Doka Eurex props for reshoring

PROJECT

Parking Structure Rises Using Staxo and SuperDek

Doka Engineering Key on this Fast-track Project

Located in Atlanta, a second phase of construction for this site consisted of an 8-story, 168,000 sq. ft. cast-in-place concrete parking structure, an events space and a vertical connection from North Avenue to the Beltline, located adjacent to the site. This new concrete structure was designed and constructed to hold up to an additional 15 possible stories for future development.





The Facts

Project Name: Ponce City Market Parcel F

Location: Atlanta, GA

General Contractor: JE Dunn

Concrete Contractor: Cornerstone Forming

Architect: Handel Architects, LLP

Developer: Jamestown Ponce City Market LP

Type of structure: Apartments

Height: 220 feet

Stories: 14 stories

Construction time: Project began in February 2022 and was topped out in October 2022.

Products used: Slab Formwork: Doka SuperDek and 10k shoring, Transfer Beams: Staxo 100 and Girder Panels, Reshore: Doka Eurex 30 props and super props, Columns: Frami, Shearwalls: Framax, shaft platforms and MF240 Brackets

1 Staxo 100 allowed the contractor to fly 80-foot-tall towers into place while reducing reshoring in the existing garage.

2-3 Large grid / prop spacing, up to 8' x 8' (64sf), interlocking joists and stringers and a unique slab edge forming solution will provide increased productivity with less labor and maximum safety.



3



4 With its rugged steel frames, Staxo 100 is designed for large shoring-heights and high loads

5 From the ground below, hook joist into stringer and let hang at an angle. Use beam fork to push it up and move it sideways (to the left) past the opposite stringer. One person can safely install all joists, from the ground. No ladders or rolling scaffold necessary

6 Staxo 100 includes slip-resistant ladders and clear safety tie-off points built into every frame, in addition the ability to be used as a stair tower





6

The Challenges

Because the transfer floor has 10-foot-deep transfer beams over the existing parking garage, the new floor plate extended outside the floor plate of the parking garage. The 18-foot-deep transfer beam was outside the existing floor plate.

The Solution

One solution was Doka Staxo 100, which is designed for large shoring-heights and high loads.

Fast work allowed the contractor to fly 80-foot-tall towers into place while reducing reshoring in the existing garage. Another solution was that SuperDek, a simple handset drop head slab formwork system, allowed the contractor to maintain the schedule while not relying on a crane to move the shoring. As the project was an addition to an existing structure, Doka Engineering was critical for maintaining the schedule as problems were discovered weekly.

The 19-foot-deep transfer beams were supported by placing Girder support brackets against the elevator core and using Girders, an all-steel modular form system, to span over an existing structure. Staxo 100 towers were then placed above the Girders to support the cantilever floor and Transfer Beam.

Doka was selected based on previous experience with the customer and because of full stocked inventory, engineering and experience to handle this fast-track project.



PROJECT

Custom Engineering Provides Access in Minimal Space

Safe Access Was Key to Tight Entry

A new 27-story apartment tower is emerging in Minneapolis' Downtown East neighborhood, at the 4th and Park Apartments. Steps away from US Bank stadium, home of the Minnesota Vikings, the area also includes The Commons Community Park and plenty of restaurants.

The Facts

Description/Intro: 4th and Park Apartments

Location: 700 Fourth St. S, Minneapolis, MN

General & Concrete Contractor: Ryan Companies

Architect: Ryan A & E

Developer: Weidner Apartment Homes

Type of structure: Apartment Tower

Height: 300 feet

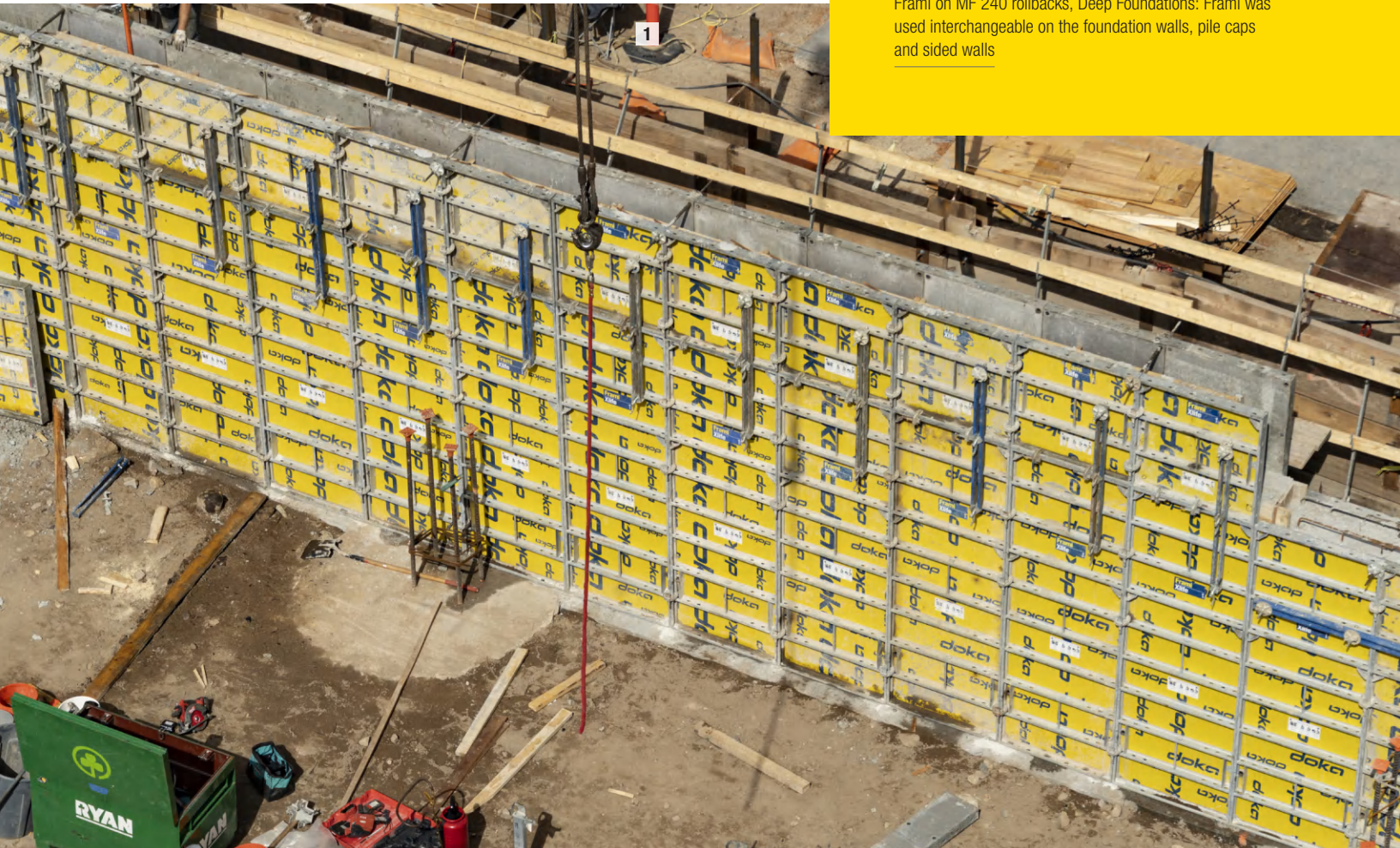
Stories: 27 stories

Sq. Ft: 525,000 sq. ft.

Cycle time: 3-day cycle planned

Construction time: Ryan Companies started foundations in early May with the SCP Climbing Core installed the last week of May. The concrete structure should be topping out in June of 2023.

Products used: Core: SuperClimber SCP with Top 50 + C8 Channels to minimize tie hole locations; 45 ft of hanging Staxo Stair Tower off of the gantry for access, Shear Walls: Frami on MF 240 rollbacks, Deep Foundations: Frami was used interchangeable on the foundation walls, pile caps and sided walls





The Challenges

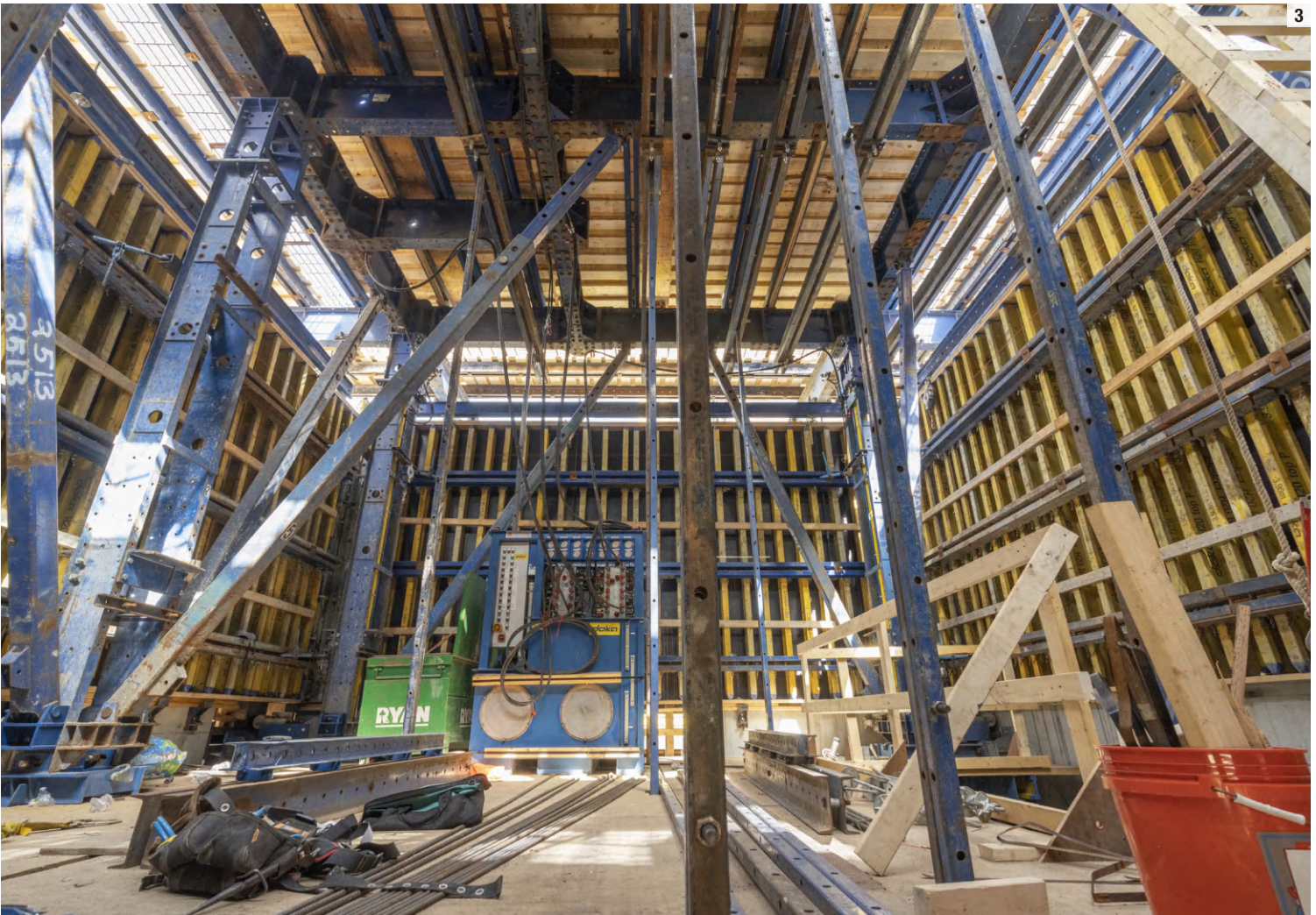
Challenges were encountered because there was minimal access in and out of the project site. With very little laydown space to store equipment and a tight timeline, the project had a few challenges.

The Solution

A unique formwork solution on this project was used to form a shear wall against an existing core safely. Minimal space was in between the existing structure and the new structure. Doka Engineering created a custom WS 10 Steel + T7 Spindle Platform that gave the contractor, Ryan Companies, a safe way to get in between the existing and new structure, providing a simple but effective solution.

Because Doka and Ryan Companies had just completed the Eleven Tower in Downtown Minneapolis in mid-2021, much of the same crew on Eleven Tower transferred to the 4th and Park building. In addition to the high level of preassembly provided, Doka provided an equally high level of customer service and engineering support.

- 1 Foundation wall has been placed with Doka's modular system – Frami.
- 2 Super Climber SCP has been utilized for the main core of the building
- 3 Inside of the SCP core system



The project is a constrained jobsite which takes most of the property and to help manage Doka has come up with a few unique systems by utilizing their Frami and SuperClimber SCP systems. Frami gives us a lot of versatility to utilize the same forms in different positions around the project. And then the climber core comes in larger pieces that make it quicker and easier to assemble and get out of the way of everything else that is happening on site.

Luke Vollmer, Project Manager, Ryan Construction



Doka Rises a Revolutionary Sphere in Las Vegas

Multiple forming solutions help with the difficult shape and a challenging schedule

Futuristic new arena MSG Sphere in Las Vegas will be home to a wide variety of music and entertainment-focused events including original attractions, residencies, corporate events, sports and more. The MSG Sphere will be powered by cutting-edge technologies, including those used in its construction.

To build this spherical structure, multi-level shoring solutions and stacked platform conditions within structure are necessary. Doka was selected as the formwork supplier to provide multi-phase formwork and shoring solutions with pre-assembly services. Additionally, Doka could provide high-level project management, sales, operations and engineering support, as well as on-site field services that are always on-call.



- 1 Staxo and gantry used as vehicle bridge and support for upper walkway platforms
- 2 Staxo stair towers used for access to upper levels of the MSG Sphere

2





The MSG Sphere project, an innovative and complex concrete structure, has presented many challenges to our team. Among these challenges, one of the most daunting was constructing the P-Wall. Given the complexity of this task, we recognized the need for expert support and thus reached out to Danny Torrez and the team at Doka.

Through their in-depth knowledge and experience in Formwork design and engineering, the Doka team devised a highly efficient strategy that met our rigorous standards and proved cost-effective and time-efficient.

With their exceptional professionalism and unwavering commitment to quality, the Doka team proved to be an invaluable partner in constructing the MSG Sphere project.



Loay Hanthel, P.E., Sr. Project Manager, MJ Dean Construction



4

The Challenges

On the MSG Las Vegas Venue, some of the big challenges are providing shearwalls, transfer beam and high-load shoring solutions with an expedited delivery.

There are tight design and delivery windows, including a unique design for the circular-shaped structure.

The Solution

For re-shoring, Staxo shoring towers are used. Top 50 wall formwork with pilasters were selected for the shearwalls. To support the Top 50 on work platforms, they are shored with Staxo shoring towers and Super Props. For the circular shaped structure High-load Staxo shoring towers and mass quantities are used. Then the tall stair towers used Staxo to climb up the structure.



5

The Facts

Project: MSG Sphere Las Vegas

Location: Corner of Koval Lane and Sands Avenue in Las Vegas

Owners & Developers: Madison Square Garden Company and Las Vegas Sands

Architect: Populous

General Contractor: MJ Dean Construction

Structural Engineer: Severud Associates

Type of structure: Entertainment Facility

Size: 18-acre footprint with approximately 18,000 seats.

Stories: 11

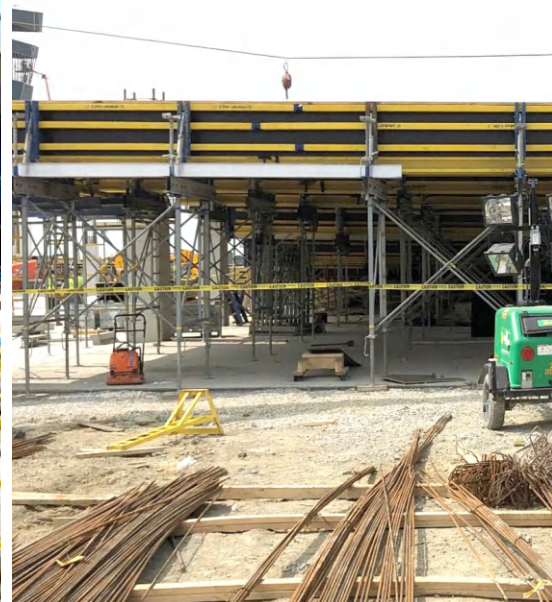
Square Footage: 174,990 sq. ft.

Construction time: March of 2022 to beginning Q2, in 2023.

Products used: Super Prop System, Frami S Xlife, Top 50, Staxo shoring towers, Staxo stair towers

- 3 Doka shoring and preassembling walkway platforms
- 4 The Super Prop is used as a reshore in the basement
- 5 Preassembled Top 50 gangs with pilasters

PROJECT



- 1 Early construction stage of the 7 story parking garage
- 2 Panelized slab formwork is set with a forklift
- 3 Slab formwork spans between integral stringers on beam formwork shoring



3



New Super Flex Garage System used on CVG Hub Amazon Parking Garage

Doka develops new system for post-tensioned beam and slab parking garages

The Amazon CVG Hub parking garage in Hebron, KY is part of the new Amazon distribution center. The air hub will allow Amazon to reduce Prime delivery from two day to one day in the area. The campus includes a 800,000 square foot sortation center. The 7 story, 515,000 square foot parking garage was constructed exclusively for the Amazon employees.

Concrete subcontractor Lithko selected Doka to provide one full floor of formwork for the post-tensioned beam and slab garage. The system consisted of 120 beam forms that varied size and length, 468 panelized slab tables and 84 preassembled column capital forms.



4

The Facts

Project: Amazon CVG Hub Parking Garage

Description: New employee parking garage to support the Amazon Air HUB

Location: Terminal Drive, Hebron, KY

General Contractor: Whiting Turner/Kokosing JV

Concrete Contractor: Lithko Contracting LLC

Architect: SMDC Architects

Developer: Amazon

Type of Structure: Parking Garage

Height: 86 feet tall

Stories: 7 stories

Sq. ft: 72,000 sq ft/ per floor

Construction time: July 2020 - June 2021

Products Used: Core: Frami; Facade: MF240 and Frami; Reshoring: SuperProps/Eurex Posts; Shoring: Super Flex Garage Beam System; Other: DokaScaff Stair Towers

6





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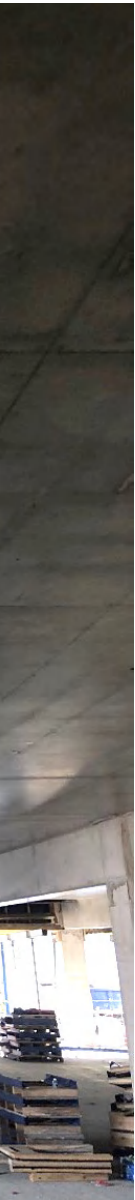
The Challenge

The garage has primary post-tensioned beam that vary in length from 37' to 61', transverse beams at the perimeter and transverse girders. With the range of beam and girders sizes results in 31 unique beam intersections to be formed at the supporting columns.

The Solution

The Super Flex Garage system was developed to provide a very labor efficient solution for cast-in-place beam and slab parking garages. The beam forms are assembled into reusable gangs with all rentable components and are adaptable to wide range of beam sizes and beam lengths. The slab formwork is assembled in 8' wide gangs that are set and striped with a forklift. The beam shoring is designed with aisle ways that allow the beam formwork gangs and slab table gangs to be cycled through the system without the use of the crane. The beam formwork tie into the columns with column capital forms that are designed and preassembled by Doka.

- 4 Beam formwork is preassembled and erected in half-length gangs
- 5 Beam formwork ties into preassemble column capital forms
- 6 Concrete finished produced by the beam and column capital formwork



Doka Supports Moore Group in Formwork + Shoring

Xclimb 60 Provides Protection Barrier



1

Construction is rising at 8 Court Square, a 20-story residential tower in Long Island City, Queens. Sitting on an irregularly shaped lot, the tower will have frontages on Jackson Avenue, 44th Drive, and Thomson Avenue. The facade includes floor-to-ceiling glass, framed by a grid of dark metal trims.



- 1 Sitting on an irregularly shaped lot, the tower will have frontages on Jackson Avenue, 44th Drive, and Thomson Avenue. The façade includes floor-to-ceiling glass, framed by a grid of dark metal trims. The pre-assembly team built all the different “Pie” shaped elements to transfer to the job site for a direct installation.
- 2 Dokaflex is the fast, versatile floor-slab formwork for any desired deck layout. The flexibility simplifies complex shoring applications.
- 3 From left: Cesar Pillajo – General Superintendent, Moore Group, Kyle Essig, Doka Account Manager, Jose Cabrera, Superintendent, Moore Group



“What we like the most about Dokaflex is how easy it is to jack up the floors and level them off, they are very lightweight.”

Jose Cabrera, Superintendent, Moore Group



The Facts

Project Name: 8 Court Square

Location: 8 Court Square, 27-10 44th Drive, Long Island, Queens, NY

General Contractor: Cauldwell Wingate

Concrete Contractor: Moore Group

Architect: Hill West Architects

Developer: 25-34 Jackson Avenue Property Owner LLC

Type of structure: Mixed Use (107,377 sq ft residential & 10,170 sq ft commercial)

Height: 224 feet

Stories: 20 Stories

Cycle time: 3-day cycle planned

Sq. Ft: 117,547 square feet

Construction time: 6-month duration for concrete superstructure

Products used: Facade: X-climb 60 solid edge protection system, Shoring: Dokaflex

The Challenges

A specialized climbing system was needed for the glass facade at 8 Court Square. The building design offered minimal distance from existing adjacent buildings. Logistics and the geometry of the structure with sharp angle slabs also contributed to the building challenges on this project.

The Solution

Doka had to quickly design and supply a specialized Xclimb 60 climbing system to create a cantilevered solid protection barrier near the glass facade. The system is known for being cost-effectively deployed anywhere in the high-rise construction field. In this solution, the Xclimb system was slab mounted, so the installation and the access were safe. The design included the ability to support an entirely solid barrier, ensuring there wouldn't be the smallest possibility for damage to the immediately adjacent glass floor.

Doka was selected as the shoring and safety system provider because Doka's Xclimb system is flexible, simple to install and easy to climb. The flexibility of Dokaflex supported the Moore team with all their slab formwork operations with ease.

See what our customers are saying on Youtube:



Scan here!



Tight Site in Nashville

Staxo and SuperDek easily meet site restrictions

The Printing House Hotel is part of the Tapestry Collection by Hilton. The 11-story hotel development is situated on Rutledge Hill, a Downtown Nashville sub-district. The project is located at the corner of 3rd Ave South and Peabody Street in what used to be a thriving publishing business area, still known today as Printer's Alley.

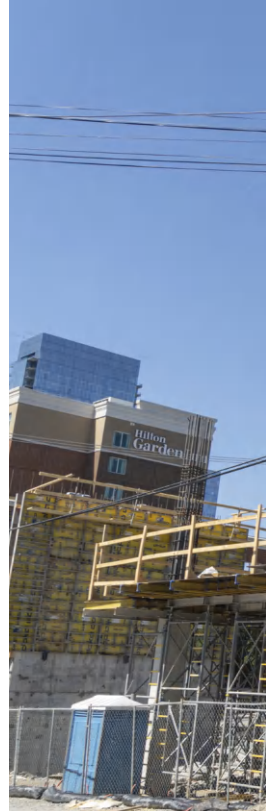
Doka was brought in on this project because the customer was looking for a company with top-of-the-line shoring equipment and expected excellent service. Doka could provide all the shoring essentials and the safety gear required while providing superior service. Doka's yard is also located only 30 minutes away from the project.



- 1 Elevator Core View From 3rd Street
- 2 Stair Core from Peabody and Almond St.



2





The Facts

Project: Hilton Tapestry Collection Hotel

Location: 501 3rd Avenue South, Nashville, TN

General Contractor: Sun Development

Subcontractor: HC Construction Group

Architect: RATIO Architects

Developer: Sun Development and Management Corp.

Type of structure: Hotel

Height: 146 ft.

Stories: 11

Square Footage: 174,990 sq. ft.

Construction time: March of 2022 to beginning Q2, in 2023.

Products used: Core: Frami; Facade: MF240 and Frami;
Reshoring: Staxo and Superprops; Shoring: Staxo, SuperDek;
Other: Safety Nets



The Challenges

This project had a limited area to store material, so Doka had to provide a solution that came compact and could be stacked. Also, it was necessary to be able to quickly and easily switch from one system to another, despite site restrictions.

The Solution

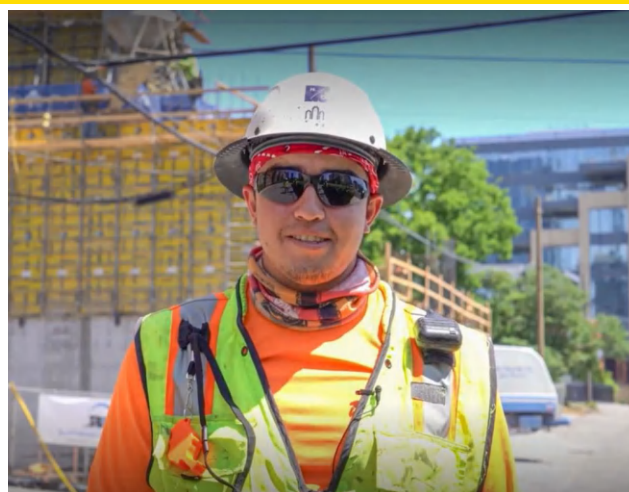
Staxo was ideal due to the thick slabs and high floor heights in this project. The spacing of the frames with Staxo is greater than using 10K due to the engineered design of the material. It also included a safety ladder and OSHA-approved tie-off point.

Using SuperDek helped save on freight costs since the extremely dense system can transport nearly 10k sq. ft. of material on one truck. SuperDek was used for all flat slabs and an 8-ft x 8-ft grid was used to achieve a whopping 64 sq. ft per post. This helped to reduce the number of posts that had to be adjusted and leveled, resulting in reduced labor and additional cost savings. Additionally, Doka was able to supply the customer with additional drawings and new material with minimal delay in schedule.

- 3 Level 1 Shoring using Staxo 100 Solution
- 4 Elevator core using Frami with MF240 Platforms sitting above Staxo 100 Shoring System
- 5 Twin Shear Walls using Frami Wall Formwork

“The main challenge on this project was the main core, but Doka made our work easy. In general we love Doka because with the formwork we can do many details on the walls. Doka's system works pretty good.”

Chino, Foreman HC Construction



PROJECT



1

2



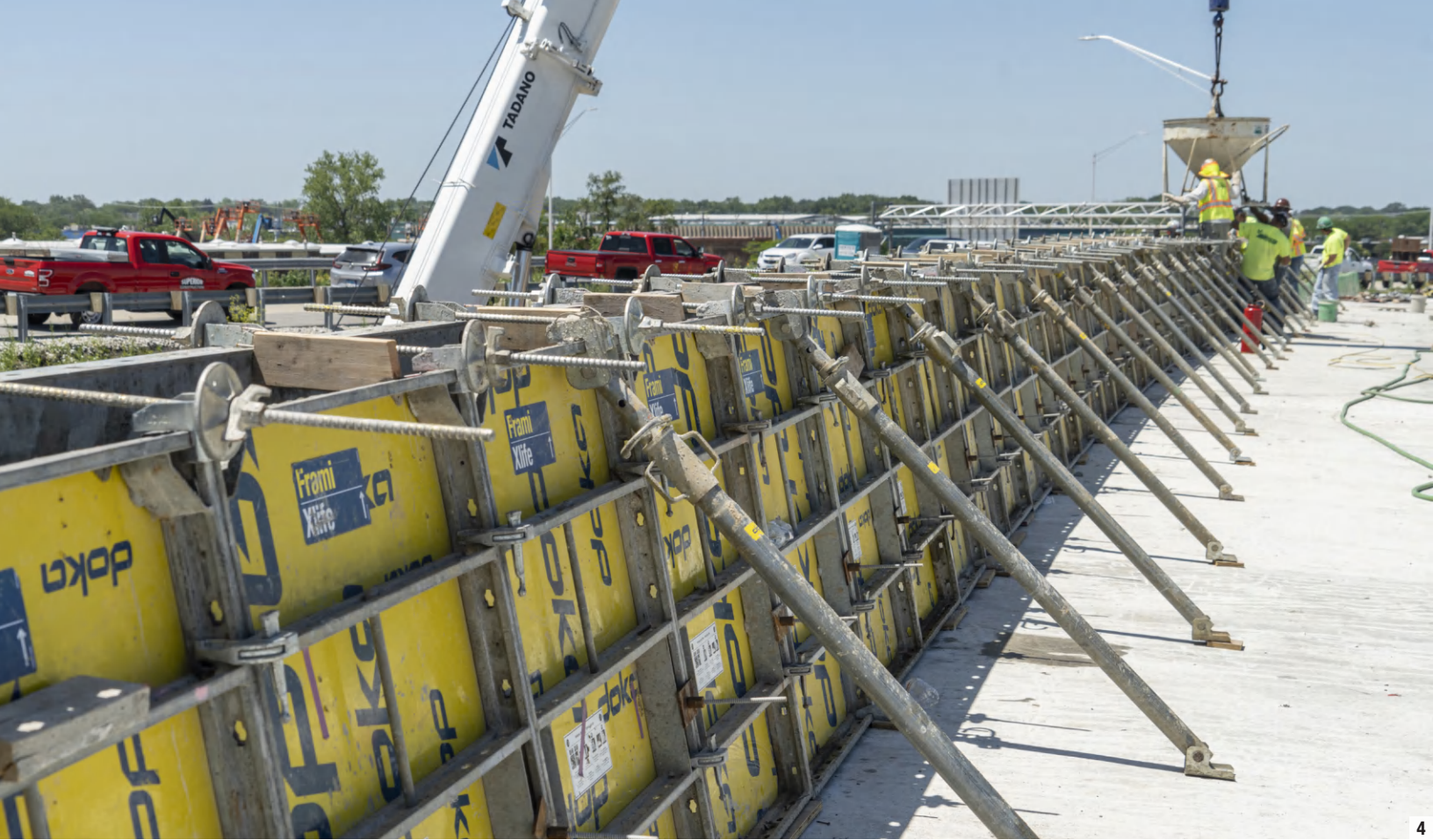


3

Efficient Building of Parapet Walls

Frami provides solution for bridge/interchange

On a bridge and interchange in Illinois, Doka was selected as the formwork supplier in order to form the parapet walls so to minimize the labor costs in erection and finishing.



4

The Challenge

The contractor, Superior Construction, needed the most efficient way to form parapet walls designed with a single-battered face and a straight face, up to 4-feet-tall.

The Solution

Frami formwork was used with a single-battered face with a single wet tie and a dry tie-on top. In order to accommodate the formliner, fiberglass ties were used to provide adequate finish in tie areas. The 3-foot x 4-foot Frami panels greatly reduced erection and finishing time by maximizing tie spacing while still allowing the contractor to handset the formwork.

6





5

- 1 Displaying the straight face of the parapet walls while the contractor works on their pour
- 2 Superior's Ryan Boyle and Doka's Zach Dolph discuss the project's specificities
- 3 The contractor lowers the bucket to place more concrete in the formwork
- 4 Displaying the battered face of the parapet wall as well as the curvature of the wall to match the bridge
- 5 The contractor is working on their pour in another view
- 6 Placing concrete in the formwork

The Facts

Project: Illinois Tollway 4722

Description: Parapet Walls for bridge/interchange

Location: Bensenville, IL

General Contractor: Superior Construction

Type of Structure: Highway Bridge

Construction time: June - August 2022

Products Used: Frami for Parapet Walls





Multi-use Parking, Retail and Residential Tower

SCP brackets for triple barrel core

Nashville Yards is an 18-acre thoughtfully designed environment with pedestrian experiences, open green spaces and plazas. Charter Construction was brought on to work on Nashville Yards Parcel 3A. Doka has worked closely with Charter Construction for a number of years, adapting their means and methods to Doka's equipment to formulate a successful blend of methodologies.

The Facts

Description/Intro: Nashville Yards Parcel 3A

Location: 10th Avenue and Commerce, Nashville, TN

General Contractor: Clark/Bell j/v

Frame Contractor: Charter Construction

Architect: SDL Engineering, Brentwood, TN

Developer: Southwest Partners, San Diego, CA

Structural Engineer: Gresham Smith Nashville, TN

Height: 561 feet

Stories: 37 stories

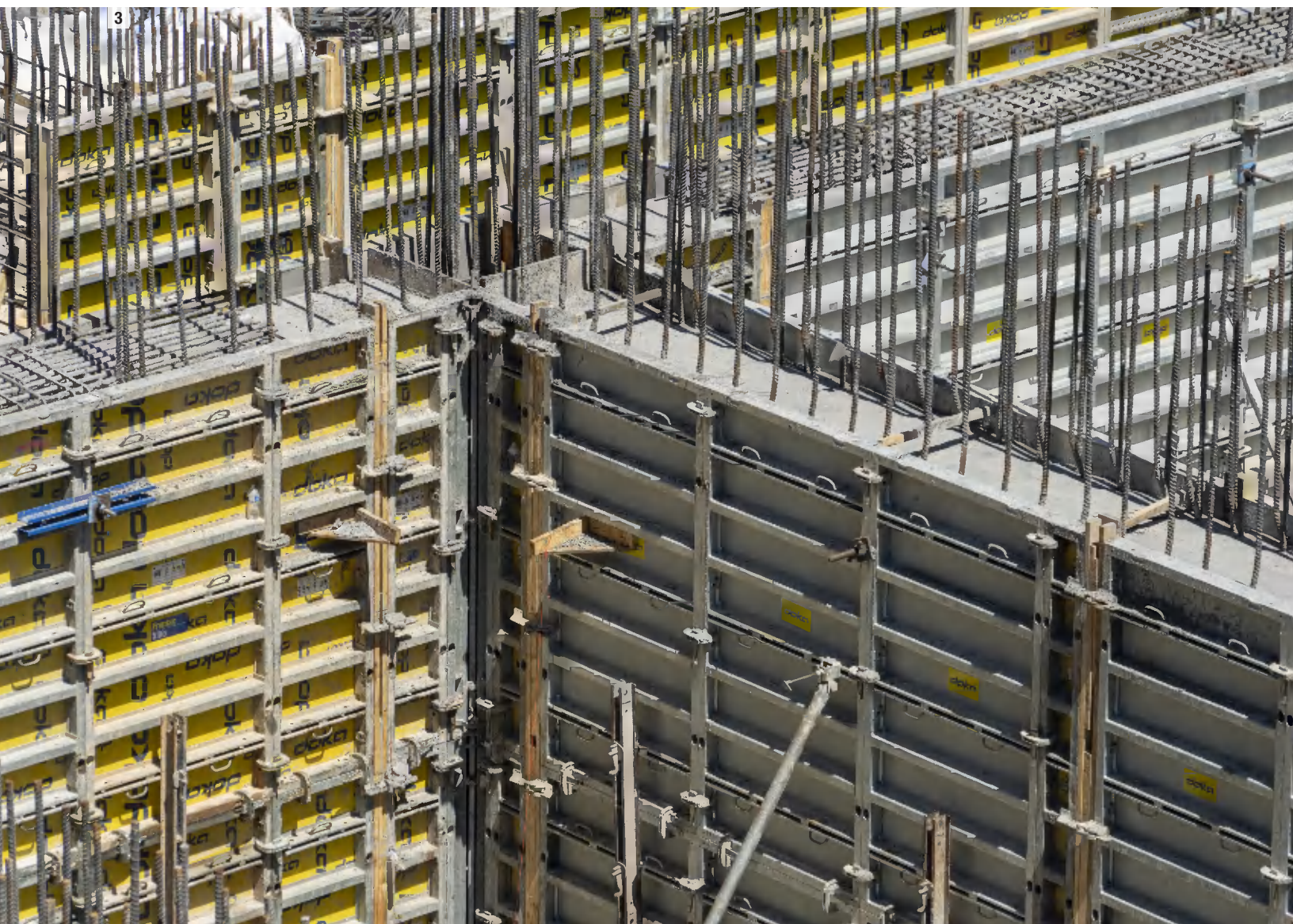
Sq. Ft: 525,000 sq. ft.

Construction time: Total for parking deck and tower will take 22 months

Products used: Core: Charter Top 100 - Top 50 with 6.5" Aluminum beam and Super Climber, Reshoring: Eurex props and super prop, Shoring: 10k shoring/ Charter tables (DokaMatic with Aluminum beam) Tower: Doka Truss, Stair Towers for egress

2





The Challenges

The main challenge for this project was the size of the core. It has a triple barrel core with each individual core at 28 ft x 36 ft with 3-ft walls for an outside dimension of 94 ft x 42 ft, requiring 12 SCP brackets. The precast stairs are installed so that large openings had to be left in the SCP platforms, which could be closed while stairs were not being flown in and then opened when they were.

The Solution

The solution was to use four SCP brackets per core with an elaborate steel gantry set up. This allowed enough capacity for placing booms, stair towers and even under-sling gantries for the general contractor to mount hoists for equipment. This allowed the customer to do everything they needed to do, without affecting the schedule. Charter Construction likes to use 6.5-in. aluminum as the joist for the core formwork, so Doka adapted the Top 50 components to make this work. Re-configuring the transition plate allowed them to use bias stripping corners



4



5

- 1 Parcel 3B is approximately 250k sq. ft. of parking. We used 1/2 Framax Xlife and 1/2 new Framax with Alkus faces
- 2 Parcel 3A core-SCP 12 brackets/Top 50 concept with Aluminum beam as joist
- 3 Framax Xlife & Framax
- 4 Charter tables utilize WS 10 wallings, Dokamatic swivel heads, Euxex props and aluminum beam by contracor
- 5 Paul Campbell, Doka Account Manager and Ricardo Avila, Charter Construction



PROJECT

First RCC Dam in Florida

Doka's Framax, a straightforward, quality system

The C-51 Reservoir is a regional alternative water supply project for Southeast Florida designed to capture excess storm water currently wasted to tide and causing harm to the Lake Worth Lagoon. Phase I will provide 14,000 acre-feet of storage and be approximately 36 feet deep with the majority of the storage below ground. It will also include engineered levees, concrete spillways and armoring, control structures and other facilities.

This project is the first and only gravity roller compacted concrete dam in Florida and was one hundred percent self-performed by contractor Phillips & Jordan. During construction, 24 ft x 8.85 ft upstream formwork (comprised of two 12-ft forms stacked on top of each other) is cycled in each placement section. Phillips and Jordan had the dam broken into 1300 LF sections for a total of five placements. The 8.85 ft x 4.43 ft downstream formwork is placed on each four verticals to one horizontal stair steps and is cycled every other lift after three 4 ft tall steps have been placed.





1

- 1 Stepped Downstream face
- 2 1,300 LF of formwork full height for the upstream face
- 3 Upstream side full height formwork during third 1,300 LF placement
- 4 The finished RCC can be seen on the upstream side

3



The Facts

Project: C-51 Reservoir – Phase 1

Location: Loxahatchee, FL

General Contractor: Phillips & Jordan

Engineer of Record: Black & Veatch

Owner: Palm Beach Aggregates

Developer: Reger Holdings

Type of structure: RCC Gravity Dam

Height: 24 ft

Length: 6500 LF

Sq. Ft: 55,000 sq ft of Framax formwork

Total Panels: Approximately three hundred (300) 12 ft x 8.85 ft upstream forms & six hundred (600) 8.85 ft x 4.43 ft downstream forms

Construction time: 11-month duration

Products used: Framax with C5 & C8 channel assemblies



2



4

The Challenges

The C-51 Reservoir faced several challenges during construction. Delays resulted due to the rainy season, and it was difficult to find local experienced carpenters.

The Solution

To alleviate the worker problem, out-of-town experienced help was used. The project then operated 24 hours a day with seven-man carpenter crews. Doka was chosen for its timely deliveries and material availability. Using Framax, the wall form system, allowed the use of only a very few different panel formats to achieve a consistent increment-grid, no matter whether the panels were stood upright or on their sides. Doka was recognized for straightforward product assembly and a quality system.



Going with Doka's formwork system has helped P&J stay on schedule, as well as streamline the RCC placement production. Their pricing was competitive, the lead times were reasonable, and deliveries were on time as promised.



Grayson, Senior Project Engineer for Phillips & Jordan



Frami Is Key for Multiple Applications

Building rises with combined solutions

Big Deahl is a multi-building development in the Near North Side in Chicago. The community is centered around a new public park. On the eastern edge, Common Lincoln Park is planned as a 10-story, 400-bed co-living community. The general contractor, Power Construction, has a long-standing relationship with Doka. The ability to perform in all aspects of the project from bid phase to top-out has been a firm driver to use Doka on projects.

- 1 Carpenter is leveling his stringer line on the building's active deck
- 2 Frami Core Formwork being placed to pour with the deck

2





The Facts

Project: Big Deahl - Common Lincoln Park

Location: Chicago, IL

General Contractor: Power Construction

Developer: Structured Development

Type of structure: Apartments

Height: 117 feet

Stories: 10 stories

Sq. Ft: 525,000 sq. ft.

Cycle time: 3-day cycle planned

Construction time: February 2022 - September 2022

Products used: Frami for Grade Beams, Frami, Shaft Platform and MF240 for cores, Frami for Tall Columns, Dokaflex Aluminum Beam and LVL for Decks

- 3 Dokaflex is being utilized for the active floor
- 4 Eureka 30 Props shown in the reshore application on the lower floors
- 5 Power's Jason Ritter and Doka's Zach Dolph discuss the challenges of this building's construction

4



5



The Challenges

This community consists of a three-building development, which is already a quarter complete. The challenge is the remaining of the buildings are rising quickly in tandem. The open space on the ground floor of Common Lincoln Park is currently full of storage and staging space for all three buildings under construction.

The Solution

On this structure, Frami was used for the grade beam and tall columns. The universal panels from the framed formwork system are ideal for forming varied cross-sections of column in 2-inch increments. In addition to Frami, shaft platform and MF240 were instrumental in quickly constructing the cores. The shaft platform, when used with Frami, allows for the entire unit to be repositioned quickly and in one piece. MF240 is a climbing formwork, so it permitted controlled, regular working cycles. The formwork and climbing scaffold are linked together as a single unit which can be repositioned in just one crane-lift.

Large Core Challenges at Big Deahl

Using SCP Hydraulic Core leads to maximize efficiencies

A residential tower at 1475 N Kingsbury Street is one of the newest high-rises to come to Clybourn Corridor in Chicago. The 27-story building will offer retail space on the first floor, while more than 300 apartments will be housed on its upper floors, and parking for more than 100 vehicles is included in the design.



- 1 To keep their aggressive schedule, the contractor utilizes Doka's Pre-assembly capabilities with the SCP Self Climbing Core and Top-50 Wall Formwork
- 2 Contractor is utilizing Frami to form the ramp levels in the building's lower-level parking area

The Facts

Project: Big Deahl-Tower A

Location: Chicago, IL

General Contractor: Power Construction

Concrete Contractor: Power Construction

Developer: Structured Development

Type of structure: Apartments/Parking

Height: 229 ft.

Stories: 27 stories

Construction time: May 2022 – December 2022

Products used: Frami for Grade Beams and Foundation Walls; Core: Top 50 and SCP; Tall Columns: Frami; Decks: 10-Kip Aluminum Beam and LVL, Dokaflex Aluminum Beam and LVL







- 3 Ironworker climbs the Framax Panel to begin working on the next lift
- 4 The Carpenters are flying in the Frami Panels to build the ramp wall
- 5 Lower-level parking is constructed using 10k Shoring Towers



The Challenges

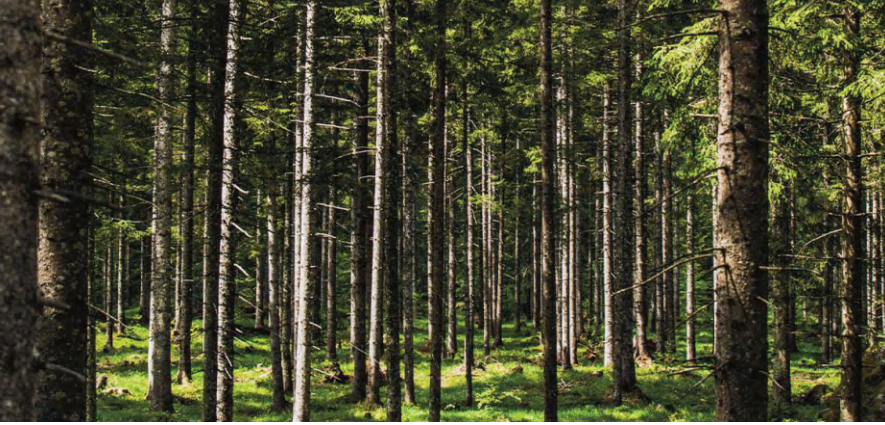
This 487-unit community centered around a new public park had a tight schedule with a large core and limited crane time. Another problem encountered was multiple slab changes, as well as non-typical balconies.

The Solution

SCP Hydraulic Core was selected to maximize efficiency and minimize crane time for the duration of the project. This selection – considered the fastest way to strip concrete cores – also allowed the contractor added flexibility to utilize the crane on site for other key areas. The modular Top 50 formwork paired with SCP allowed for an optimized erection schedule to get the core up and running.

Doka also provided a cantilever slab solution for the forming of the balcony areas. By extending the forming area for multiple floors between the deck pour, Power Construction was able to form off of the cantilever forming area when forming the atypical balconies on this project.

Doka has a long-standing relationship with Power Construction. Because of this relationship and the ability to perform in all aspects of the project from the bid phase to the top-out phase was why Doka was selected as the formwork supplier.



Net ZERO by 2040

How we understand sustainability

Our goal is to be carbon neutral by 2040. The important first step towards that goal is to calculate our Product Carbon Footprint (PCF). We can already provide a PCF for every item in our entire product portfolio, which also informs our customers how much Doka's products contribute to each customer's own carbon footprint. At the same time, the PCF enables us to identify CO2 hotspots in the life cycle of our products and to implement targeted measures to reduce greenhouse gas emissions. We are using our PCFs to develop climate-friendly products in the future: this is a central component of our climate strategy.

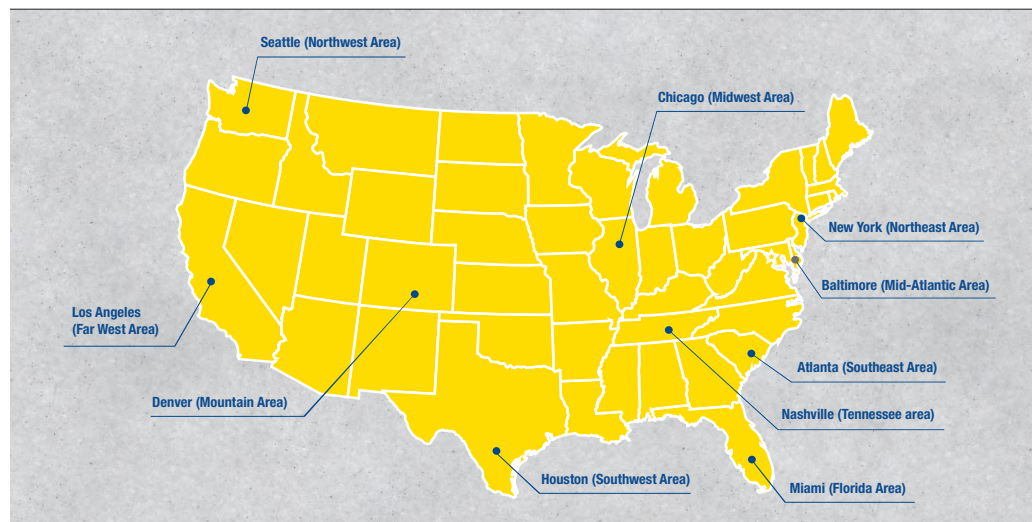
Read More: <https://www.doka.com/us/about/sustainability/sustainability>

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NEW USA Headquarters | Doka USA Ltd. | 251 Monroe Ave. | Kenilworth, NJ 07033 | **T** (201) 329-7839 | **T** (877) DOKA-USA | **F** (201) 641-6254 | usa@doka.com | www.dokausa.com
New York (Northeast Area) | Doka USA, Ltd. | 208 Gates Road | Little Ferry, NJ 07643 | **T** (877) DOKA-USA | **Baltimore (Mid-Atlantic Area)** | Doka USA, Ltd. | 3665 Benson Avenue | Baltimore, MD 21227
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