



Stacking the Deck



Photos courtesy of the Wind Creek Wetumpka.





Slab decks were cut into 20-foot by 6-foot sections.

The stairwells were cut using 880 Pro Force chain saws from ICS and hydraulic hand saws from Diamond Products, taking four hours to complete. A Weka DK1601 handheld core drill was then used to make 2-inch-diameter pick holes in all cut sections before Ard Contracting arrived on site to remove each one with a 90-ton crane. With all other cut pieces removed, IDS began cutting a series of 2-foot by-2-foot columns using the wire saw. A total of 80 pull cuts were made, each completed in 60 minutes.

An important part of the cutting contractor's work was the identification and de-tensioning of all post-tension cables before cutting. Failure to do this would have caused the cables to retract when cut, creating a major safety hazard for workers in the area. The cables were located on the side of the slab and covered by a small mortar patch. Each one had 25,000 PSI of pressure applied. IDS also had to be sure that all shoring was secure before and during cutting, so work would stop periodically to check the positioning of the shoring and make adjustments.

With all cables correctly identified and safely de-tensioned, the IDS team was able to concentrate on keeping operators and equipment safe while working at height. Some slab cuts ran to the edge of the concrete, so there was a concern that the saws would have gone too close to the edge and fallen off. To prevent this type of accident, the contractor set chains to



The contractor was 110 feet above ground level while cutting the fourth story of the structure.



Slab decks, beams and piers were removed so that the existing parking garage could link to a new hotel and casino building.



Wire saws were used to cut through support piers and beams.

Cutting began on the ground level of the parking garage. The 6-inch-thick reinforced concrete slab deck was cut using a Core Cut 6560 ELT saw from Diamond Products and a FS6600 saw from Husqvarna Construction Products. The specified area was cut in sections measuring 20 feet by 6 feet, with each section taking one hour to complete. Operators then began setting up sawing equipment on the top level of the structure, where in addition to the slab, there were beams and stairwells to cut. The cutting team was now working four stories up, approximately 110 feet from ground level, so it was necessary for everyone to be tied off and provided with all Personal Protective Equipment needed to do the work safely.

Operators began by using a Core Cut CC110 saw from Diamond Products to plunge cut through reinforced concrete beams that were 30 inches thick. A Hydrostress wire saw was also used to pull cut through the 3-foot-by-3-foot cross section of the beams. IDS made 56 pull cuts through the beams of the garage, each taking 45 minutes to complete. Once all beams were cut, operators turned their attention to the slab deck and used 20-foot by 6-foot measurements to cut sections free, just like on the ground floor slab. All slab sections were shored during cutting to prevent unplanned breaks.



Operators used slab saws to cut through 30 inches of reinforced concrete.



Crowds lined up for the casino's opening day in December 2013.

Odds in Cutter's Favor on Casino Project

When a general contractor needed someone to perform over 18,000 feet of concrete cutting on a high-stakes project, there was no time for gambling. A combination of knowledge, experience, reliable equipment and industry-certified operators meant this specialty contractor was a sure bet for success.

The project involved the cutting and removal of approximately one-third of an existing four-story reinforced concrete parking garage in Wetumpka, Alabama. The renovations would allow the garage to connect with a new luxury hotel and casino being constructed adjacent to it.

Wind Creek Wetumpka is a 20-story, deluxe hotel and casino that features 283 rooms, 85,000 feet of gaming space, five restaurants and a 16,000-gallon shark tank at the casino's bar. It is one of three casinos owned by the Poarch Band of Creek Indians; Alabama's only federally recognized tribe. Construction on the development began in May 2012 and took over 18 months to complete. It was during the construction phase of this project that the general contractor, Ard Contracting, Inc. of Birmingham, Alabama, chose CSDA member International Drilling & Sawing, Inc. (IDS) of Montgomery to do the concrete cutting work.

"We were chosen for the job because we met all of the specifications set by Ard Contracting and had the experience necessary to do the work," said Terry Sanders, project manager for IDS. "Our operators were able to cut the heavily-reinforced structure accurately, with reduced dust and debris. In addition, our techniques produced less noise and vibrations than other methods, meaning the other two-thirds of the parking garage deck remained free of damage."

The team from IDS was tasked with cutting slab decks, beams, columns and four stairwells while core drilling pick holes on all four levels of the garage. These holes would allow the general contractor to remove cut sections by crane. Also, a number of post-tension cables had to be exposed and detensioned before cutting could begin. The company began work in early July 2013 and was provided with a six-week window to complete all tasks.