PROJECT PROFILE

# Acme Paving at McCarran Airport

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| Contractor: | Acme Paving | Market: | Airport |
| Location: | Las Vegas, NV USA | Paving Dates: | November 2008 - March 2009 |
| Equipment: | S850 Slipform Paver<br>S1500 Slipform Paver<br>PS1200 Placer Spreader<br>ISF-150 Belt Placer<br>TC1500 Texture/Cure Machine | Paving Width: | Runways: 37.5' (11.43 m)<br>Taxiways: 33.3' (10.15 m) |
| Paving Thickness: | 18" (457.2 mm) | Dowel Placement Method: | Baskets |
| Texture: | Runways: Grooving<br>All Other Surfaces: Turf Drag | Crown: | Runways: 1.25%<br>Taxiways: 1.25% variable |

Runway 25L/7R, the busiest runway at McCarran Airport in Las Vegas, has recently undergone a $75 million reconstruction. The 25L/7R reconstruction was one of the largest airport paving projects under construction in the USA. The project required extensive planning efforts due to a hefty liquidating damage clause in the contract of $500,000 per day. This liquidating damage clause is purported to be the largest in the history of paving.

Asphalt milling of the existing runway began on November 3, 2008 and was completed just 16 days later, producing more than 300,000 tons of recyclable AC millings. Las Vegas Paving, the prime contractor on the project, subcontracted the paving operation to ACME Concrete Paving, Inc (Spokane, WA). Upon milling completion ACME rapidly mobilized 2 RexCon Dual Drum 12 cubic yard (9.17 cubic meter) concrete plants, 2 G&Z pavers (S850 and S1500), 2 G&Z belt placers (PS1200 and ISF-150), and a G&Z texture/cure machine (TC1500). Concrete paving began on November 19, 2008 with production rates sometimes exceeding 7,000 cubic yards (5,351 cubic meters) per day. Paving dimensions on the 18" thick runway were 10,525' x 150' wide and 11,000' x 100' wide on the parallel taxiway.

A unique setup at the plant-site allowed stockpiling to occur at night during minimal traffic hours. A single drive over grizzly with large receiving hopper permitted tandem and triple belly dump trailer delivery, dumping onto a simple reversible belt that allowed feeding to either batch plant. The sand and two coarse aggregates were stockpiled using radial stackers. Individual stockpiles were kept small to minimize stockpile loss with timely deliveries by aggregate producer and prime contractor, Las Vegas Paving. Also unique to this job was ACME's utilization of Kawasaki loaders, water trucks, and light plants supplied by Las Vegas Paving all of which greatly reduced mobilization costs for Acme Paving coming all the way from Spokane, WA.

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The pours on the runway were paved at 37.5' (11.43 m) lanes with the G&Z S1500 fed by the new PS1200 Placer/Spreader from the right side and the older G&Z ISF-150 feeder from the left side. The taxiway pours were paved at 33'-4" (10.15 m) wide with Acme's new G&Z S850. The PS1200 which was purchased specifically for this project was delivered to ACME in 2009. The PS1200 was designed with the ability to leave the tractor at 37'-6" (11.43 m) while rapidly changing strike-off widths to 33'-4" (10.15 m) using a specifically designed set of strike off support arms.

The ability of the G&Z equipment to rotate tracks 90 degrees enabled quick moves to the next pour and minimized hand pours on cross taxiways where ACME utilized a pair of Multi-Quip roller screeds. Acme also cited the effectiveness of the S850 to pave "stringless" on the closure passes. Elevation was sensed by "locking to grade" where the elevation sensors took their grade reference off the crawler track yokes. Alignment was accurately sensed for both the front and rear crawler tracks in the "front steer only" mode requiring only the front steering sensor referencing off the inside of the previously poured concrete. Acme also made good use of the S850's Computerized Crown Control feature which allows automatic transitions in and out of crown. The runways were paved at a consistent 1.25% crown, but the taxiways were paved with a 1.25% variable crown. The pavers ability to automatically adjust to the specification saved a lot of time.

The G&Z PS1200 Placer/Spreader has been working in the North American Concrete Paving Market in a number of different paving applications for over 5 years. Never has it been utilized in a tougher application than on this project. For this particular application, the design limits of the G&Z PS1200 were tested by the 18" thick 37.5' wide pavement, concrete with an average slump of 1". This low slump airport mix was made partially with manufactured sand which added to the "stiffness" of the mix. One challenge was the concrete being pre-placed in front of the PS1200 by another G&Z Placer. This created large piles of concrete that had to be pushed by the PS1200 while still receiving and placing concrete. Acme was impressed with the PS1200's mobility which saved them a lot of time maneuvering around the job site as well as on/off the site. Due to the time sensitive nature of the job, it was necessary that all pieces of equipment used were highly productive. The PS1200 was designed to operate at a level of high productivity. Though the conditions were challenging, the PS1200 met them time and time again.

With this large scale project completed, Acme Paving is quite satisfied with its purchase of G&Z equipment. Not only did the G&Z equipment perform well on the job site despite the challenges allowing Acme to finish two weeks ahead of schedule. Furthermore, the professionalism and knowledge displayed by the G&Z service techs during the project added to the value of the equipment. Even under a rigorous timeline and tough airport paving conditions, the team at Acme along with the G&Z equipment and personnel rose to the challenge.


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