

# RACETRACK REHAB

## HARRIS HILLS RACEWAY MAKES CAPITAL IMPROVEMENTS

BY EMILY ADAMS, TXAPA



Anyone with a passion for racing will tell you the difficulty level of the track is what makes the sport exciting and fun. Drivers must navigate hairpin turns, steeply graded curves, and straightaways that are just long enough to embolden one racer to pass another. The high-speed adrenaline rush is exactly why racing has expanded beyond the professional realm to include recreational drivers. For those who live near San Marcos, Texas, Harris Hills Raceway offers the perfect opportunity for racing aficionados to get together, race their own vehicles on a challenging track, and enjoy the camaraderie of like-minded enthusiasts—all without the risk of getting a ticket! You could say that Harris Hills Raceway is an oasis for “civilians” with the need for speed. With a thriving client-base to satisfy, the condition of the track is an important investment for the family owned business. When owner Bo Rivers realized it was time for some much-needed rehabilitation, he began looking for a paving contractor that could meet the track’s unique needs.

Enter Karen Harris, Chairwoman of Texas Governor Greg Abbott’s Commission for Women. Harris’ husband, Dr. Dennis Harris, is an avid recreational racer and member of Harris Hills Raceway. He and others in the racing community were experiencing reduced speeds and even damage to their vehicles caused by the pavement’s condition. At a meeting of the commission, Harris mentioned to Vice Chair Nathali Parker, a TXAPA member, that the track in San Marcos desperately needed repairs. Parker, who along with her sister Karen Rogers owns KLP Construction



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Supply, immediately thought of fellow TXAPA member Hunter Industries, Ltd. a heavy highway construction firm also based in San Marcos. What happens when a heavy-highway contractor takes on a 1.82-mile, 11-turn asphalt racetrack? In this case, the answer is lots of planning, prep work, communication, and problem solving.

#### ASSESSMENT & PREP WORK

Hunter's first step was to perform an assessment of the track's condition, then determine what kind of prep work would be

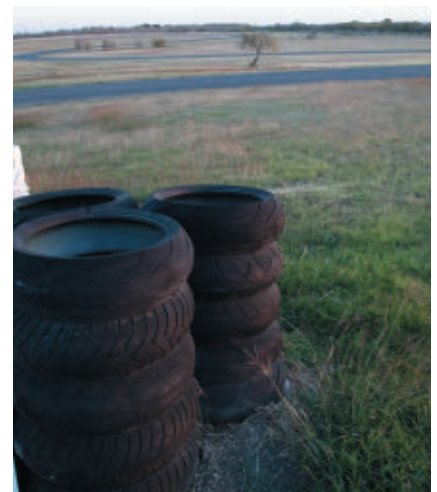
required to get the track ready for paving. The assessment revealed a fair amount of cracking, pavement failures, and undulations in the riding surface. There was also no in-ground drainage beneath the track and some of the distress indicated sheet flow water damage on the edges of the pavement. To add a wrinkle, the Rivers also needed to increase the space between the track and the fence surrounding their property due to the planned extension of the nearby FM 110. Based on the track's condition and the need for a greater setback from the fence, Hunter crafted a plan to level the

track, install drainage, and change the shape of the back corner nearest the fence line to get the track ready for paving. Hunter involved the owner early in the planning process to insure he understood the strategy and was onboard. With the Rivers' buy in, Hunter got to work.

To address pavement failures Hunter utilized a 341 Type B PG 64-22 hot mix and performed repairs anywhere from two to six inches in depth. Says Hunter's Glen Dvorak, "You must improve the existing roadbed because when it's got failures and cracking, you can't pave over them and expect your surface to last. The life of the surface course is determined by the integrity of the existing pavement." He added, "When we do all the prep work correctly, we're allowing the final surface to be paved at a uniform thickness. We're not asking the paver to do any more than it needs to. Paving a consistent depth allows a uniform rolling pattern and consistent in place air voids." To address the existing pavement undulations Hunter utilized profile milling on the humps and 341 Type D PG 64-22 hot mix in the dips.

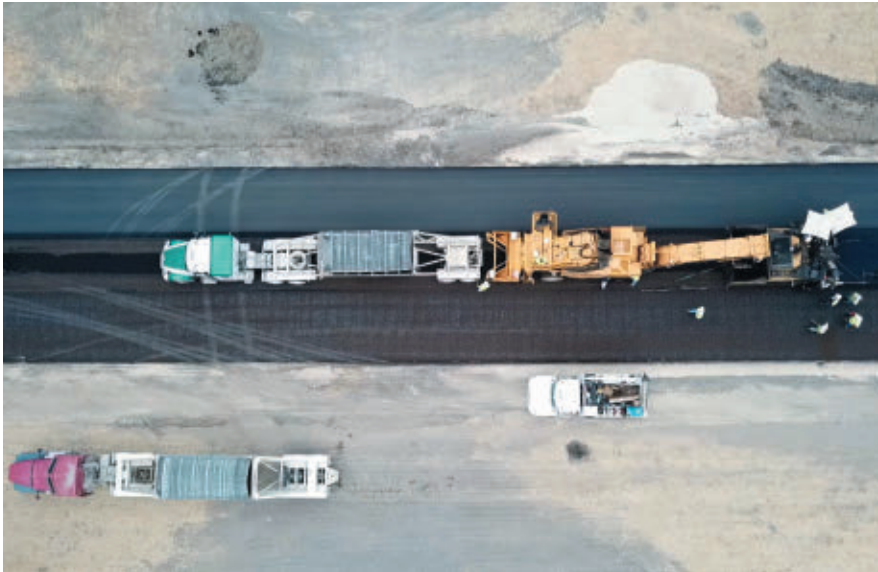
To remedy the drainage, they proposed adding a new multi-barrel pipe structure, calling on KLP Construction Supply to source the pipes and other related materials. They re-graded the ditches, and then bladed the





pavement edges, a maintenance best practice which keeps soil and grass from building up along the pavement's edge, preventing water from draining off its surface. Proper maintenance extends the life of any pavement, and Hunter accounted for maintenance in every stage of the project to give the track owner a superior, long-lasting result. To tighten the back corner, Hunter built an inside curve and brought the track in approximately 20 feet. They did a hot mix full depth widening using a 341 Type B PG 64-22 on the inside of the curve. On the outside of the curve where the track remained, they did a mill texture to help cars that were unable to maneuver the curve to slow down and to improve safety for any car leaving the track.

After completing all the pavement repairs and the level up, Hunter did two things. First, the visible cracks were sealed using a hot poured rubber. Second, they did a full width, full length, grade three chip seal to serve



as a waterproof membrane. Originally, the owner was going to pour the crack seal and then overlay it, but Hunter pointed out that when you pave hot mix over hot poured rubber, a bump will occur in the pavement which will affect the ride. The chip seal would also extend the pavement life by insulating it from movement in the soil, which is a common issue in central Texas.

### PAVING THE FINAL SURFACE

Before paving the final surface, a two-inch 341 Type D (SAC B) PG 70-22, Hunter held an all-hands to review the paving plan and to identify the many unique challenges inherent to taking a highway crew and their equipment onto a track with hairpin curves, which don't exist on TxDOT roadways. The crew needed to work out how to pave on a 10% vertical grade ending in a tight curve to the left at the bottom. Said Dvorak, "The challenge when you go through a hairpin curve is how do you feed the paver? You can't do it with just any device. You need to make sure you have that conversation." He continues, "When you go through that hairpin curve, you also must make sure your pavers are feeding uniformly to your screed because if not, you're going to feel that in the ride. When the paver is turning, the outside is going faster than the inside so more material must be fed to the outside as its coming around the corner." At the bottom of the hill, Hunter went manually on grade controls. Dvorak explains, "To handle that steep grade, we did a manual control of our screeds. You really need experienced personnel. If the operator had left the screed on automatic, he would have had 12 inches of

mix at the sag curve at the bottom and would have the screed digging in at the crest vertical curve." **He is emphatic that the real key to success on the job was having a paving plan and having everybody on the same page.**

## BY THE NUMBERS

PAVEMENT REPAIR  
AND SPOT LEVEL UP:  
**1,000 TONS**

WIDENING:  
**2,100 TONS**

SURFACE MIX:  
**5,300 TONS**

### CLIENT RESPONSE

By all accounts the Harris Hills Raceway rehab is a success story told through the lens of technical virtuosity, dedication to quality, and partnership. Perhaps the best measure of success, however, is the response from Rivers and his drivers. Dr. Dennis Harris, a member for six years, said the track before rehab had so many undulations he was forced to slow to as few as 10 miles per hour in some places. Even then his tires were leaving the track and his helmet was hitting the roof of his vehicle. "I hate to say it, but we were getting a bad reputation," he said. "Now, the track is like butter. The long-time members like me are extremely happy, and the quality of the track is attracting new members. I think we're going to become very popular." Harris said he didn't know what to expect from a paving company but if he had to sum it up in two words, they would be *uncommon professionalism*. Said Harris, "Hunter did things we didn't dare ask for and I know they weren't just being nice. They wanted to make it professional." Said Rivers of his experience working with Hunter, "they brought the most professional team I have seen in decades and they do business the old-fashioned way—they do what they say they will do. They keep their word." He describes the new track as being like a renaissance stating that the original surface was paved in 2008 and at 12 years old, it was like any Texas back road that hadn't been improved. "The new track is faster, smoother, and has a lot more grip, and with racers grip is everything. The traction is amazing, the surface is amazing, everybody loves it!" Adding a final thought, he says, "In a racer's world it's as close to nirvana as it gets." 🍀



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— Dr. Dennis Harris

IMAGES COURTESY OF DR. DENNIS HARRIS.