



SKIDABRADER
PAVEMENT AND SURFACE TECHNOLOGIES

WE SUPPORT SAFER HIGHWAYS

-  Improve Wet Weather Traction
-  Reduce Accident Rates



SKIDABRADER.COM



Corporate Office
4924 Kalterbrun Rd.
Fort Worth, TX

800-440-2934



SKIDABRADER
PAVEMENT AND SURFACE TECHNOLOGIES



**Get to
know us:**



**“What we do matters.”
We believe in it, work
hard at it and go home
at night knowing we
made a difference.**

Skidabradar Group is a technology and solutions-based contractor specializing in infrastructure preservation and renewal. Our services employ the unique and impressive technologies of the Skidabradar® bi-directional high-velocity shot-blasting machine and ultra-high-pressure water-blasting for infrastructure rehabilitation, improving friction and texture for safety on roads and runways.

Based in Fort Worth, Skidabradar Group combines unique proprietary technologies with a proven, industry-experienced management team with regional hubs throughout the U.S. We have built a comprehensive plan to support roads, bridges, runways and tunnels with a renewed domestic and international government focus on cleaning and texture to meet applied friction standards.

Since 1983, the name Skidabradar™ has represented a high-production pavement texturing service for the transportation industry. This large fleet of 1,000-horsepower, bidirectional shot-blast machines can quickly and cost-effectively transform slick pavement into a surface that resists skidding and hydroplaning, “Skidabrading” the surface to prevent roadway accidents and runway friction issues.

Why Skidabrader

The name Skidabrader™ denotes a high-production pavement texturing service for the transportation industry, operated by Skidabrader Group LLC, a company dedicated to advanced road and runway safety technology.

In addition to our unique patented Skidabrader abrading technology, Skidabrader Group offers state-of-the-art Ultra High- and Low-Pressure Water Blasting. The truck-mounted UHP equipment is highway-legal and can mobilize to perform rubber and stripe removal on runways; it also removes coatings and cleans bitumen from road surfaces.

Our large shot blasting equipment can process up to 12,000 square feet per hour and is the most powerful machine available. These specialized machines are today's most advanced, powerful, productive, and economical method available to solve friction and ghost striping applications.



EXPERIENCE AND STANDARDS

The Skidabrader team of operators has 100 years of combined experience on roads and runways, specializing in texture improvement, surface modification, and rubber and marking removal. We operate in accordance with the industry's highest safety and testing standards. We pride ourselves on training and certifying every professional before assigning them to any job or function. When the Skidabrader Group is on the job, an industry expert is also on the job, backed by Skidabrader's 25+ years of references. We will complete the job safely and on time, in accordance with the specified requirements.



EXCEEDING YOUR EXPECTATIONS

From NASA to the nation's highways, from major airports to international racetracks, from huge parking centers to universities, Skidabrader Group is committed to not only meeting but exceeding your expectations. Our specialized equipment and dedicated staff are focused on this singular goal. We are proud to have a world-class reference list of satisfied customers who have experienced our commitment to exceeding expectations.

Bridges & Tunnels



Elevated roadways are more prone to freezing and require texture to keep vehicle tires on aggregate peaks rather than on water and ice. Skidabrader™ simultaneously improves texture, drainage, and friction in existing pavement. Steel and synthetic joints are unaffected and do not require protection or alteration. Traffic disruption is minimal, and paint lines can be left in place if desired. Texturing and preparation can be done on and for overlays concrete and asphalt.

THE SKIDABRADER SOLUTION



No damage to joints or drainage outlets



No airborne contaminants



No contaminated runoff



Truck-mounted vacuum for off-site material disposal



12 foot wide lanes textured in one pass



Can be done with almost no traffic disruption

Roads & Highways



Worn and polished highway surfaces become slippery in wet weather and contribute to thousands of injuries and crashes each year, including fatalities. The Skidabrader™, with its high-velocity, bidirectional surface-abrading process, offers a solution for slick pavement. This process promotes surface drainage, allowing tires to contact new aggregate points on the existing pavement. The new surface enables water to escape in all directions, improving friction results. Skidabrader's process can remediate ghost striping from 80%-100%, enhancing the road's appearance and overall surface quality. This process creates a more uniform look and ease of drive, highlighting Skidabrader's expertise and commitment to quality.

THE SKIDABRADER SOLUTION



Texturing



Curing Removal



Asphalt And Concrete



Bitumen Removal



Surface Preparation



Ghost Stripe Remediation



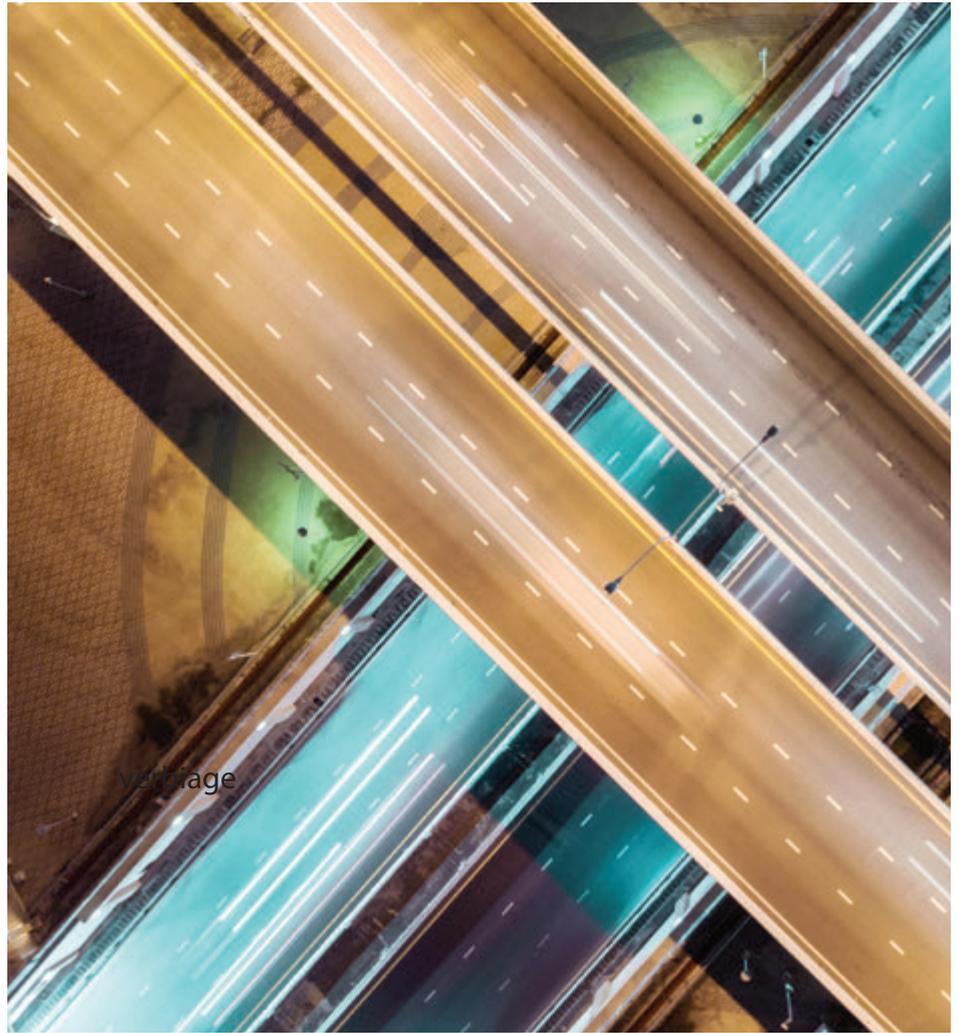
Runways

Constant tire scuffing and rubber removal tend to polish runway surfaces. Major airports in the United States and Canada specify the Skidabrader™ exclusively to restore their runway texture to FAA compliance. These runway surfaces are abraded bidirectionally. The Skidabrader™ promotes surface drainage, allowing tires to contact new aggregate points on the existing pavement.

This Skidabrader™ modification delivers excellent friction values while reducing tire wear and rubber buildup, enabling longer intervals between rubber removals. Some airports report that this modification is performed periodically, with the cost recouped through reduced rubber removal requirements.

THE SKIDABRADER SOLUTION

- Clean, dry operation.
- No foreign object debris (FOD).
- Truck-mounted electro-magnets are used on all airport projects.
- Excellent friction numbers with reduced tire wear and rubber build-up.
- In emergencies we can evacuate the work site in less than three minutes.
- Only technology that's able to remove rubber and re-texture in sub-freezing temperatures.



NASA needed a surface modification for its Shuttle Landing Runway in Florida. Engineers conducted extensive tests for months to evaluate competing methods that claimed to reduce tire wear. The goal was to develop a surface modification that would allow the \$2 billion shuttle to land safely in a 20-knot crosswind, a condition previously considered too dangerous.

Dozens of military and major international airports use our services to support the rubber removal process and maintain required friction readings. Skidabrader™ can provide both abrading and ultra-high-pressure water processes as part of a maintenance contract, ensuring the safest possible runway conditions. We also provide certified runway skid and stripe reflectivity testing using the industry's latest equipment and methods.

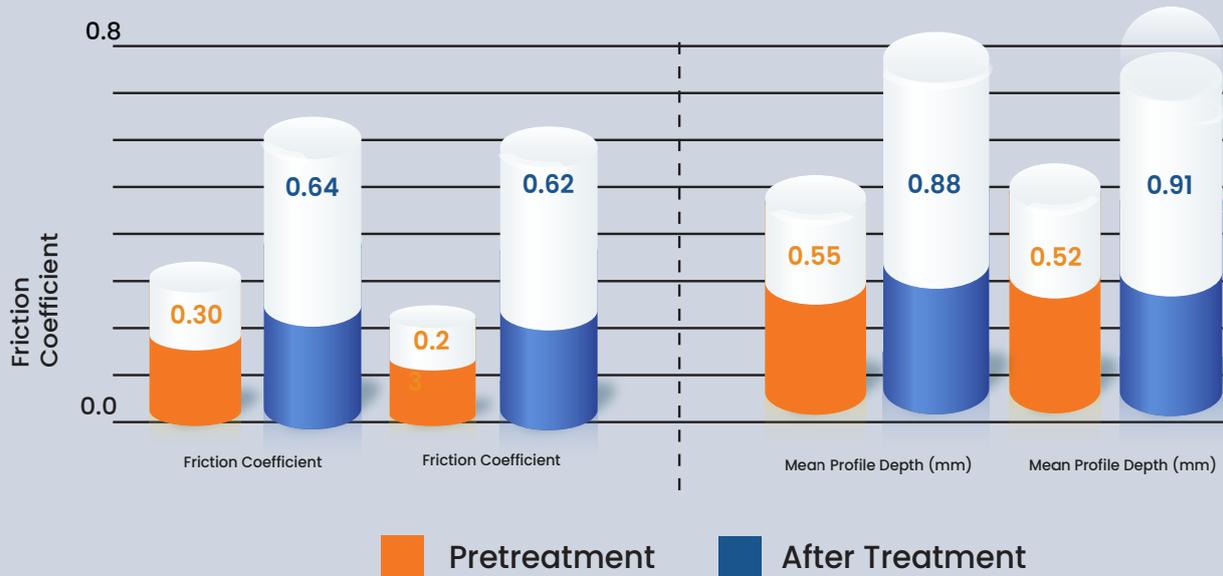


Quantifiable Results

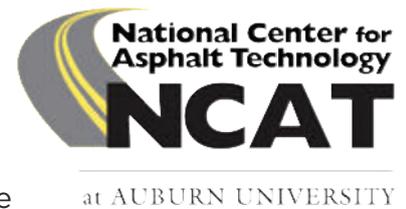
SKIDABRADING SAVES LIVES

For any on-road vehicle, be it a large transportation truck, aircraft or a small commuter car, friction is an extremely important factor in road safety. The moment a tire loses grip and starts skidding over the road, both the passenger and other motorists are struck with fear. In 1997, over 53,000 accidents were caused by slippery roads in the US out of an estimated 4,000,000 accidents (nearly 1.3 per cent). In 2021, there are nearly 276 million vehicles registered here in the US, which bumps these numbers up proportionately. Even a small reduction in road texture can have a drastic effect on surface friction. To put things in perspective, the dusting of wet snow on the road increases the accident rate by almost 1000 percent. Road agencies have few approaches to increasing road texture, such as creating a convex camber to provide better mechanical grip and sufficient drainage for wet roads or installing storm drains at regular intervals. But these options can only be implemented during the initial construction of the road and does little to overcome skidding due to rain-related hydroplaning. To this end, a superior abrading process shines through as a clear solution— Skidabrading, by the Skidabrader Group.

Before and After Skidabrasion

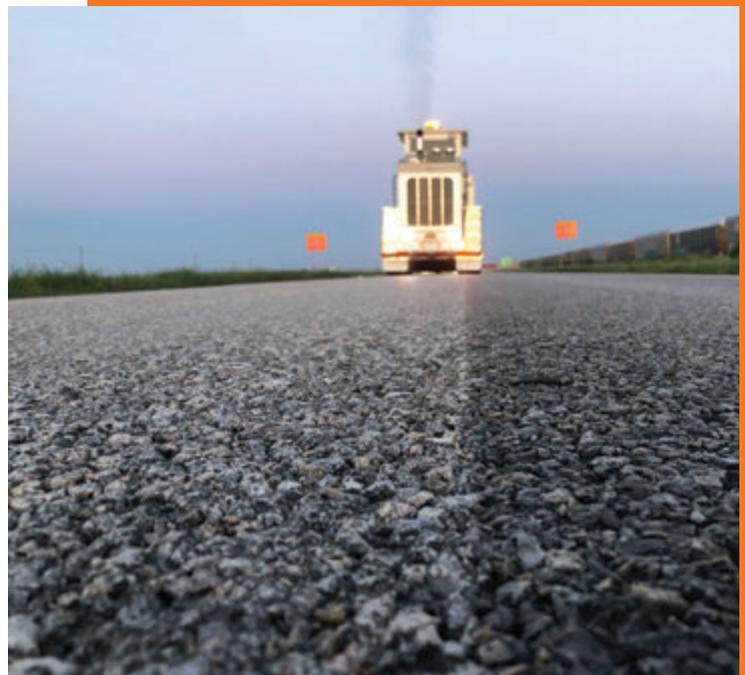


In 2019, Skidabrader had the opportunity to texture 8 sections of the National Center for Asphalt Technology Test Track (NCAT). A common issue agencies are faced within their roadway network is maintaining adequate surface friction characteristics of pavement. The main attribute to frictional properties of a pavement surface is the quality of aggregate used in the pavement. In areas where less than desirable aggregates are available it can be costly to the agency to use higher quality aggregates. These agencies are faced with a bit of a balancing act with pavement mix designs specifying the right percentage of lower and higher quality aggregates to yield the best results from a frictional and cost stand point. This study focuses on pavement surfaces which have a higher percentage of lower quality aggregates and the utilization of The Skidabrader Texturing process to restore the frictional properties of these pavements.



Macro/ Micro Texture Matter

The abrasion process targets and alters the macrotexture of the desired pavement. Macrotexture is the primary pavement characteristic associated with the microtexture. Macrotexture is effectively the average depth of the gaps or voids between the coarse aggregate particles in the surface.



Skidabrader Technologies

1. SKIDABRADING:



SKIDABRADERS patented high velocity, bi-directional impact method uses multiple blast wheels propelling steel abrasive at the surface in a proprietary head design. These 1000 horsepower units can texture 360 degrees around the aggregate to provide improved micro and macro texture. Skidabrading is the fastest and most economical method to address friction requirements and re-texturing on roads and runways with infinite variables to achieve any specification results needed.

Every vehicle in a Skidabrader operation is capable of highway mobilization at the legal speed limit on its own wheels, eliminating the need for loading and unloading equipment. This capability allows a rolling safety zone configuration among the trucks, creating the least impact on traffic in adjacent lanes. Breakdowns are virtually non-existent due to quality construction and rigid maintenance of the machines, and the operators in charge have years of both on and off the job training before they are authorized to take on the controls. The machines also leverage wireless communications, laser-guided alignment, and closed-circuit TV systems to ensure that the longitudinal passes of the abrasions run parallel to the structures themselves. The Skidabrader trucks can be in full operation within three minutes of arriving on the job and exit the job site just as quickly in case of an emergency when the full use of the road, bridge or runway is required. As a result, the process expedites the speed of operations and lowers overall monetary expenditure.

Effective on all pavements, Skidabrading also reduces groove steering, removes ghost striping, and eliminates road glare, while leaving paint, and stripes, and reflectors intact. Skidabraders' are Laser guided for a straight professional appearance.

2. GHOST STRIPE REMEDIATION

EFFICIENTLY REMOVES

- SCARRING
- TIRE WHINING AND GRAB
- AUTONOMOUS ALERTS
- DRIVER CONFUSION AND GLARE



Ghost Striping and Safety

Ghost striping is a significant concern across the United States and is commonly associated with erratic driving behaviors such as lane weaving or sudden lane changes, increased DOT liability, and citizen complaints referencing safety concerns. In addition, clear and accurate road markings are crucial for autonomous driving systems, lane-keeping, aiding navigation, object and pedestrian detection, and traffic management.

The Problem

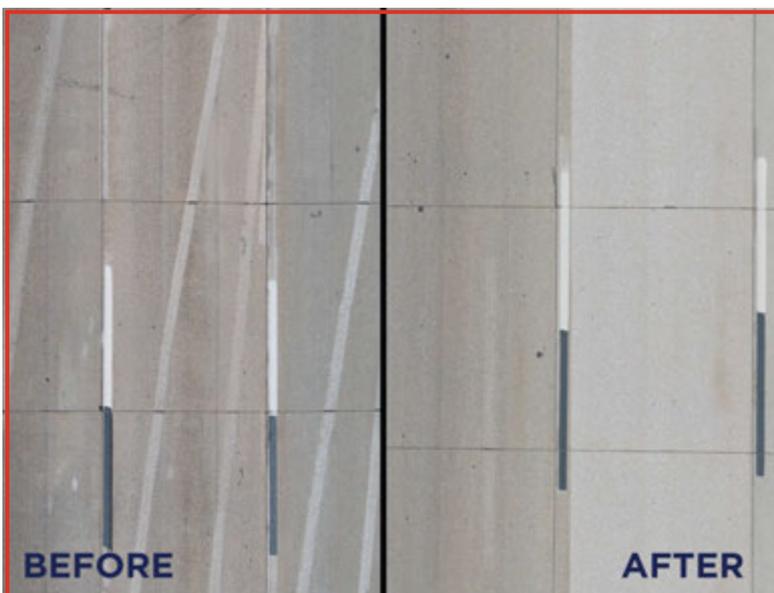
Ghost striping refers to stripes or markings that conflict, typically resulting from mainline lateral shifts or detours. These conflicting markings present a safety hazard to the traveling public by misdirecting or adding to driver confusion.

The Solution

Blank Canvas involves uniformly treating the pavement width to mitigate color and texture contrast from ghost striping. This is accomplished using Skidabrader pavement texturing to achieve the desired surface finish.

The Blank Canvas

Blank Canvas offers a cost-effective, efficient way to address these issues, ultimately leading to clearer road guidance for drivers, fewer accidents, and lower maintenance costs for state DOTs.



3 .SHOTBLASTING

SHOTBLASTING TECHNOLOGY - An extremely powerful and productive machine that can tackle the largest surface and coating preparations. The technology of our Shotblasters are an environmentally sound choice for high productivity in surface preparation.

Skidabrader Group operates the largest shot blasters available in the market today for Surface preparation and coating removal. TClosed-circuit media blasting machines project a large volume of steel abrasive media at the surface via centrifugal force. The shot blaster recycles the media after the steel abrasive hits the surface. Dust and contaminants are removed by an air wash separator and directed to a dedicated dust collector. This makes the process dust-free. Blasting with steel shot is the most environmentally friendly abrasive blasting method because it uses no chemical products and avoids wasting valuable drinking water.



4. ULTRA HIGH-WATER PRESSURE

- HARD SURFACE CLEANING
- PAINT AND RUBBER REMOVAL
- PERVIOUS CONCRETE CLEANING
- SPORT TRACK CLEANING

Our UHWP technology is a patented unique system that uses only ultra-high-pressure water and cyclonic high velocity air movement systems. This allows us to use 50% less water usage than traditional high-pressure machines. Our system provides instant recovery of water with no run-off or discharge, separating the solids from liquid for easy environmentally sound disposal.

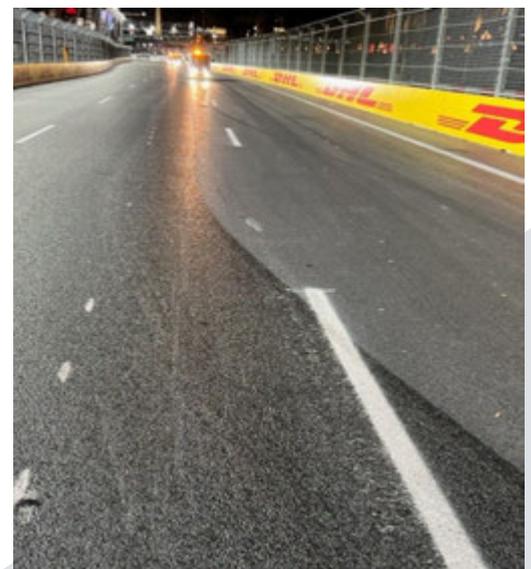


FASTER Our UHP machines can run up to 44, 000 psi and are equipped with both a rubber and paint removal head for quick change over. Skidabrader operates several high production trucks in various designs specific to the cleaning need of the customer.

GREENER Solid waste is recovered and separated out for proper treatment or recycling. This process allows for a much more efficient recovery of water from the surface being cleaned than other systems. Our machines use 50% less water, less fuel and are smaller and safer than typical high-pressure equipment.

CLEANER Skidabradars use of cyclonic UHP technology means that this ensures 95% of the water is recovered and wastewater run-off is eliminated. The results are a clean surface without standing water. Our equipment can be used for recovery of Glycol as well.

Our equipment is rated #1 by an Army Corps of Engineers Field Evaluation that tested friction values after rubber removal.



Testing Services And Products

FULL COMPLIANCE WITH FAA AND ICAO STANDARD

- Pre and Post Friction Testing
- Identify Paint Reflectivity with the Stripe Master Retro Reflectometer
- Test problem areas to check for good water drainage with the Hydro Timer®
- Our Operators are each Certified on the equipment they run as per FAA / ICAO guidelines

HYDROTIMER®

Measures Pavement Drainage Capability ASTM E-2380-05

The HydroTimer® is self-contained outflow meter to evaluate surface drainage on concrete and asphalt pavements. The purpose of this device is to measure the ability of the pavement to relieve water pressure at the tire footprint, thus giving an excellent indication of vehicular skidding and hydroplaning potential under wet weather conditions.





REFLECTOMETER

Measures Pavement Marking Reflectiveness

Agencies have always recognized the important correlation between pavement marking visibility and roadway safety. As automated and autonomous vehicles become more prolific, good markings become even more critical for continued safe operation on mixed-use roads. These agencies are embarking on the challenge of assessing and managing the pavement markings of their entire roadway system.

SKID FRICTION TESTER

Measuring the Friction on Pavement

Airplanes and Automobiles depend on tire friction between runways, roadways, aging infrastructure and contaminants. The most common and persistent contaminant problem is the deposits of rubber from tires.



Job References

ROADS

KENTUCKY TRANSPORTATION CABINET

34,000 SQUARE YARDS

COMPLETED IN 3 WORKING SHIFTS.

Skidabrader was called in on an emergency contract to Skidabrade a section of I-75 just south of Cincinnati, Ohio. The Kentucky Transportation Cabinet had declared a state of emergency for this section of I-75, a steep grade which leads into a curve. This curve was the site of many hydroplaning accidents primarily with commercial trucks that were hitting the inside barrier wall sending large pieces of concrete into the opposing lane. The Skidabrader process showed a 50%-70% improvement in friction, eliminating accidents and hydroplaning in the process. Skidabrader is now under contract to address all low friction areas throughout the state.

MARYLAND DEPARTMENT OF TRANSPORTATION-SHA

In 2021 Skidabrader crews processed a 20-mile stretch of the Capital Beltway for the Maryland Department of Transportation, including what's become known as "The Big Curve," a portion of I-495's outer loop near Bethesda. "It's the bane of our existence, it's a thorn in all of our sides", stated AAA Mid-Atlantic's John Thompson to Fox 5 at the time. "It's a source of so many overturned and jackknifed trucks, especially after it rains." But four months later - "The initial results showed a 50 percent increase in friction, which we were extremely pleased with", the State Highway Administration's Michael Little stated. "We haven't had very many if any bad weather crashes," added another official, John Gover. "That was through the snow and the rain."

LOUISIANA STATEWIDE CONTRACT

1,794,662 SQUARE YARDS

COMPLETED IN 41 WORKING DAYS

The large-scale project spanned nine parish districts and consisted of all Interstate highways. Skidabrader textured these roads to lower wet weather accident rates.

BRIDGES

LAKE PONTCHATRAIN CAUSEWAY

782,000 SQUARE YARDS

COMPLETION IN 25 WORKING DAYS

The causeway twin span bridge at 23.85 miles long is the longest bridge over water (continuous) in the world. The Skidabrader resorted its surface to a safe texture and helped complete the project 90 days ahead of schedule.

ATCHAFALAYA BRIDGE

500,684 SQUARE YARDS

COMPLETION IN 12 WORKING DAYS WITH TWO MACHINES

Also known as the Louisiana Airborne Memorial Bridge, this 18.2-mile-long twin span bridge is the second longest in the U.S. Skidabrader was able to texture the entire length with no traffic disruption.

Airports

CALGARY INTERNATIONAL AIRPORT

112,500 SQUARE MILES

COMPLETED IN 12 WORKING SHIFTS

In 2019 The Calgary International Airport employed our group to retexture one of their concrete runways. This runway was placed without adequate transverse grooving and the airport searched for a solution to boost the texture on the runway. It is important to note that the runway was put back into service following each nightly shift with little to no interruption to airport operations.

INDIANAPOLIS INTERNATIONAL

250,200 SQUARE FEET

COMPLETED IN TWO DAYS

WORKING WITH TIGHT RESTRICTION WE COMPLETED THE RUNWAY AHEAD OF SCHEDULE

Major aircraft manufactures use this operating airport for braking tests. Skidabrader textured this runway to a targeted skid number that met FAA specification.

AIRPORTS

Indianapolis International
San Antonio International
Ontario International
Chicago O'Hare International
Sky Harbor International
Tucson International
McCarran International
San Francisco International
Bergstrom International
Toronto-Pearson Intl-Canada
Houston International
Calgary International-Canada
Tucson International
Albuquerque Sun Port
Los Angeles World Airports
Van Nuys Airport
San Francisco International
Sacramento International
John Wayne International
Reno/Tahoe International
Burbank "Bob Hope" International
Palm Springs International
Port of Portland
Salt Lake City International
Santa Rosa CA
Meadows Field, CA
Phoenix Mesa Gateway
San Diego International
St. Louis Lambert Field

MILITARY

Lemoore NAV
Pt. Magu NAV
Beale AFB
Travis AFB
Nellis-Creech AFB
Edwards AFB
Lemoore NAV
Miller/Ripley Army
El Centro NAV
Edwards AFB
FT. Huachuca Army, AZ
National Aeronautics Space Admin (NASA)

ROADS-BRIDGES-TUNNELS

Texas DOT
Caltrans
Nevada DOT
Tennessee DOT
Georgia DOT
Arkansas DOT
Washington DOT
Maryland DOT
Hawaii DOT
South Dakota DOT
Kentucky Transportation Cabinet
Arizona DOT
Ohio DOT
New Jersey DOT
Canada-Ministry of Transportation
Delaware DOT
NY-NJ Port Authority
Seattle DOT
N. Carolina DOT

SAFETY MATTERS

With offices across the U.S., let us evaluate your surface and we will demonstrate through a live demo or online presentation on how we can help extend the life of your substrate.

Skidabrader Group is confident we can improve safety and reduce skid incidents on your highway and roadway.

LIFE SAVING

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"HFST's coefficient of friction lasts longer and reduces friction-related crashes better than any other pavement treatment."

— PennDOT

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Compared to conventional pavement maintenance treatments, this seems quite expensive. What must be considered is that HFST is NOT a pavement maintenance treatment, and the costs being saved are the prevention of crashes and fatalities. The alternative to HFST is actually roadway geometric corrections, which are considerably more expensive and time consuming. Looking at the costs saved by reducing total crashes and fatalities, the average 5-yr benefit-cost ratio for HFST on tight curves is 24.5. So, for a typical 1,500-sy application, costing roughly \$92,000, the agency could estimate savings of \$2.2M over a 5-yr period. The actual service life of HFST can be as long as 10 years.

—FloridaDOT

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Please come visit our Global Operations Hub in Fort Worth, TX
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CONTACT US

Contact us for a demonstration and see why Skidabraders technology makes a difference.



SKIDABRADER GROUP, LLC



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