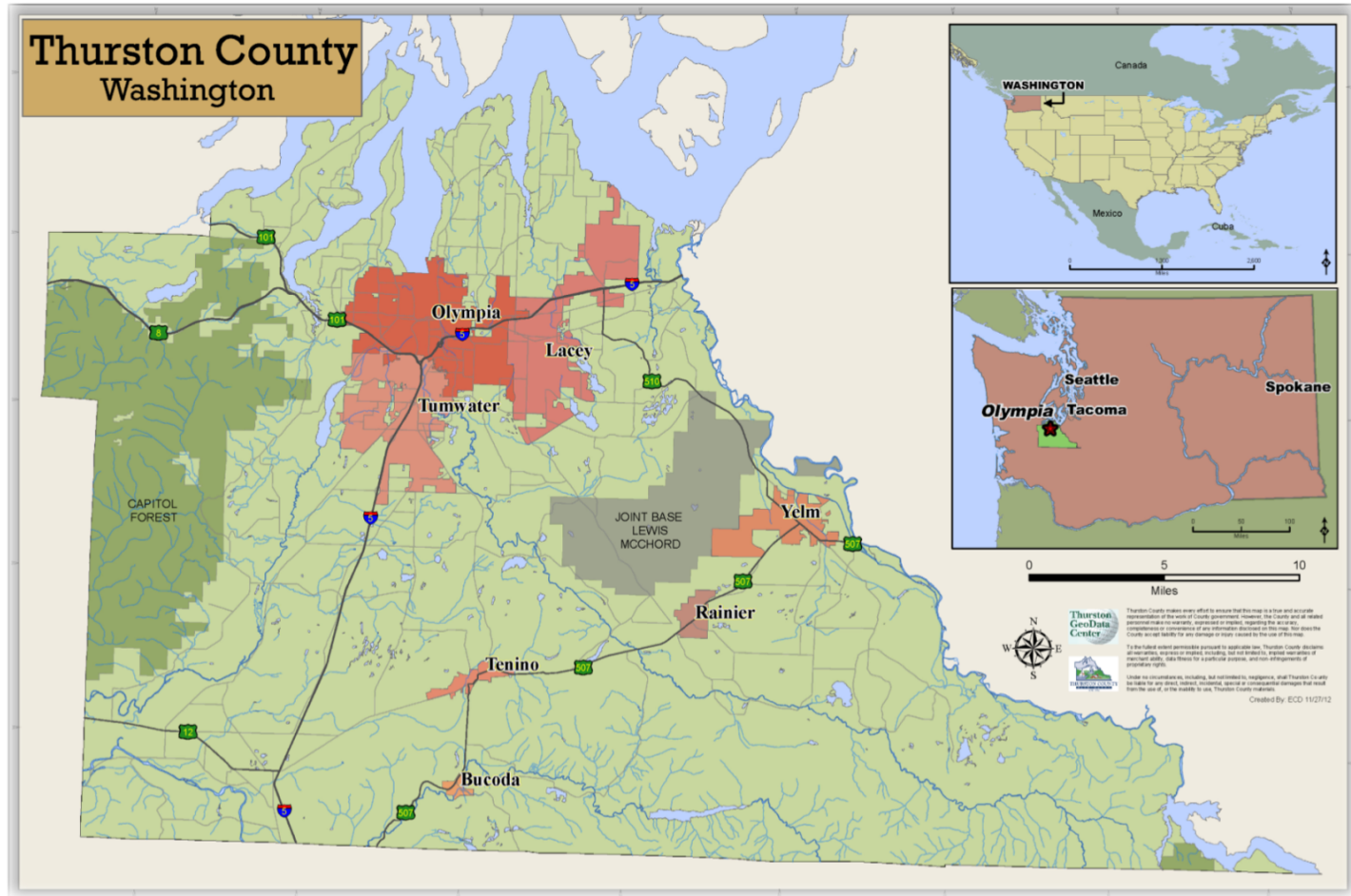




# Local Roads on High Friction

By Scott Davis, PE  
Thurston County Public Works  
Washington State

# Where is Thurston County?

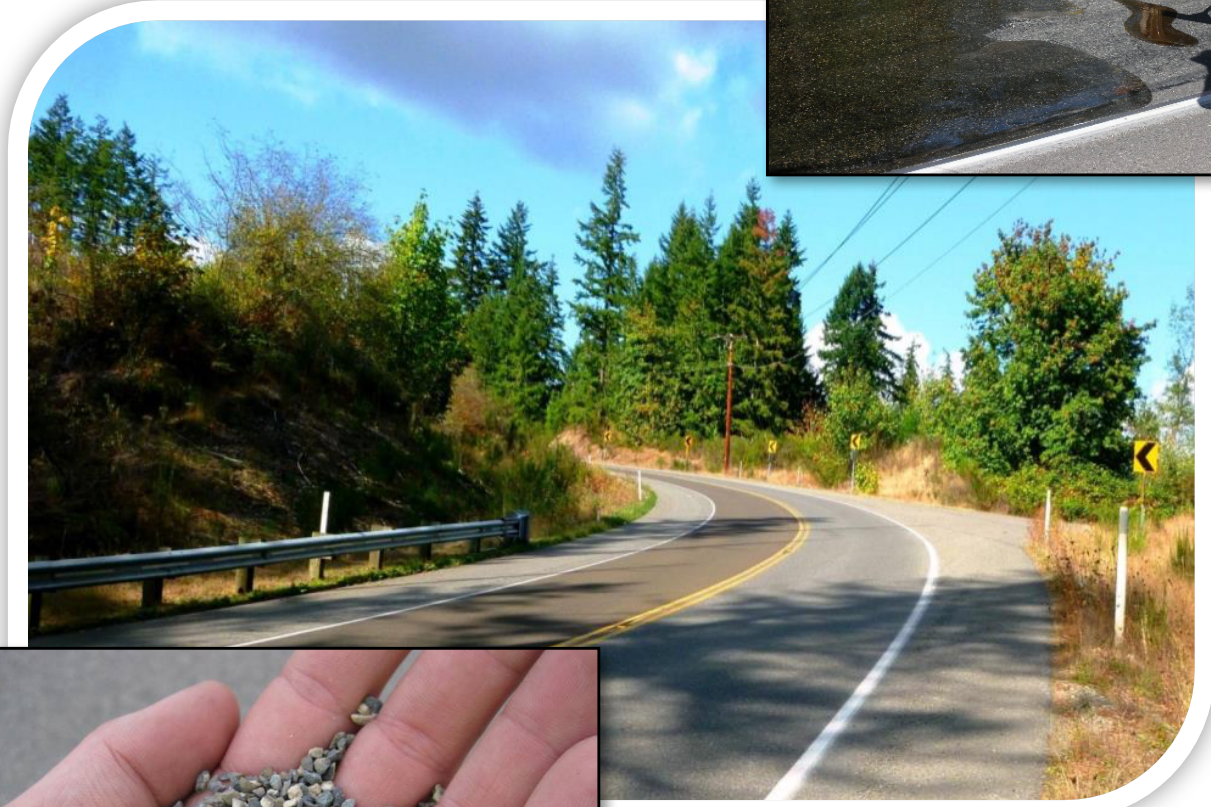


# What is High Friction Surfacing?

[http://safety.fhwa.dot.gov/roadway\\_dept/pavement\\_friction/high\\_friction/](http://safety.fhwa.dot.gov/roadway_dept/pavement_friction/high_friction/)

High friction surface treatments (HFST) are pavement treatments that dramatically and immediately reduce crashes, injuries, and fatalities associated with friction demand issues,

Acrylic or Epoxy Binder



Thurston County, WA

Calcined Bauxite

# Why High Friction Surfacing?

*Pennsylvania, Kentucky and South Carolina DOTs report a before/after **total crash reduction of 100 percent, 90 percent, and 57 percent, respectively, for their signature HFST trial projects.***



Hamilton County, OH

HFST is a  
**Proven**  
safety  
countermeasure

# Case Study

“In my 10 years here at the district, this application is one of the best materials I’ve ever seen in terms of one-to-one correlation of immediate and definite effects on making a roadway safer,”

- Steve Pohowsky, PennDOT.

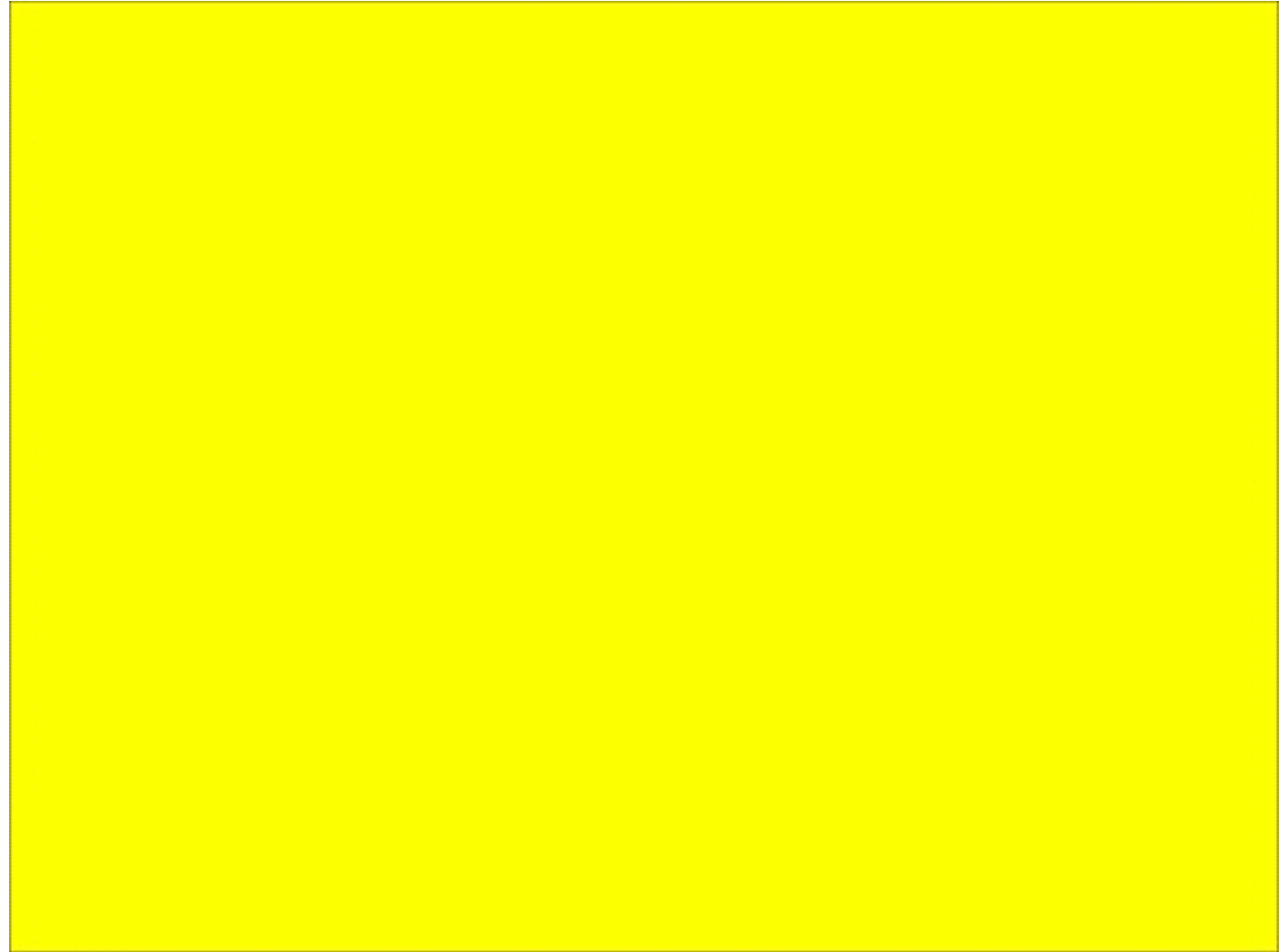


Bellevue, WA



*Video Courtesy of FHWA*

**How did  
Thurston  
County get  
involved  
with HFST?**



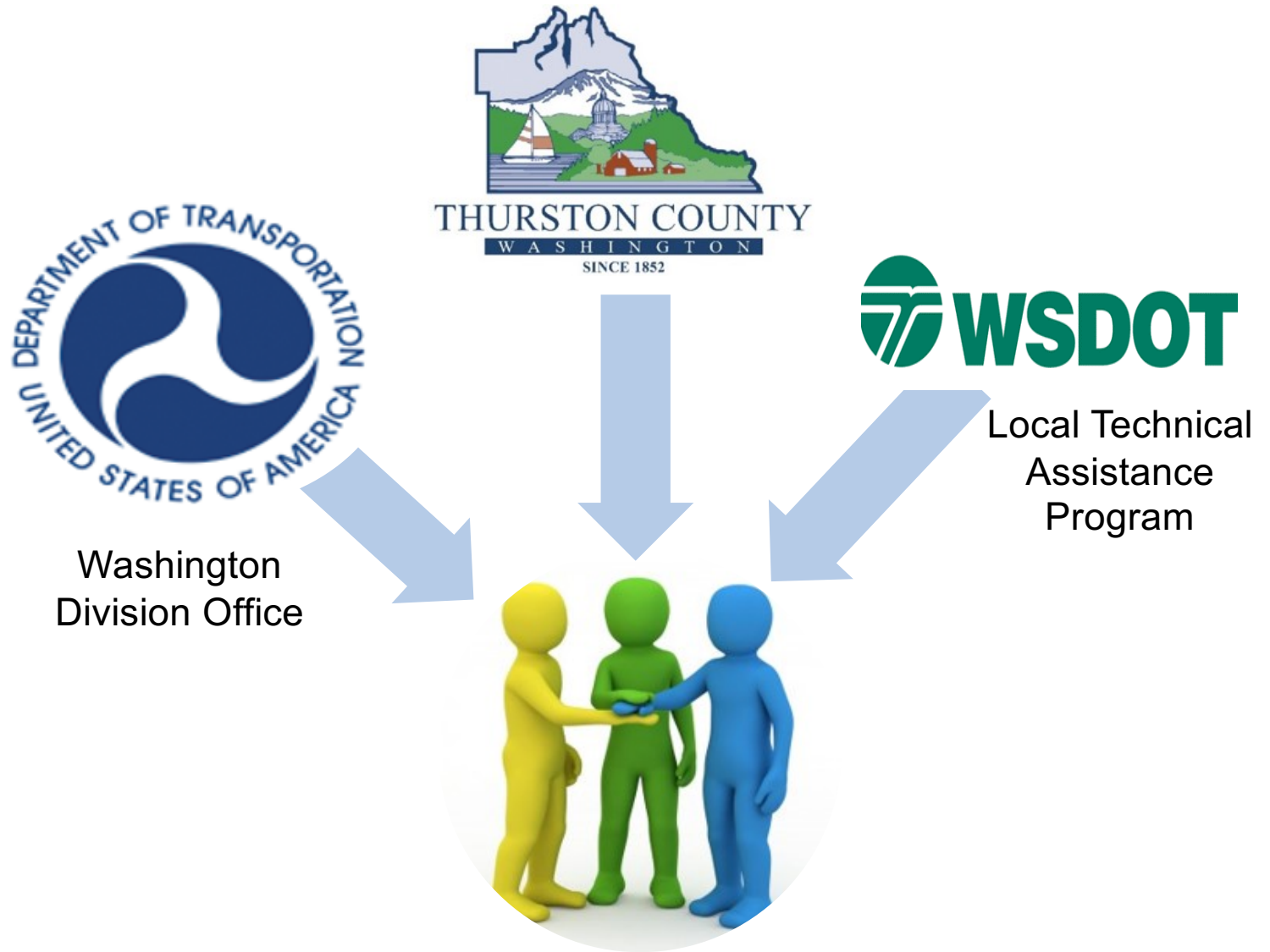
Marquette Interchange, WI

*Video Curtesy of FHWA*

Before  
Getting  
Started

Cost <sup>Training</sup> experience specifications  
Maintenance

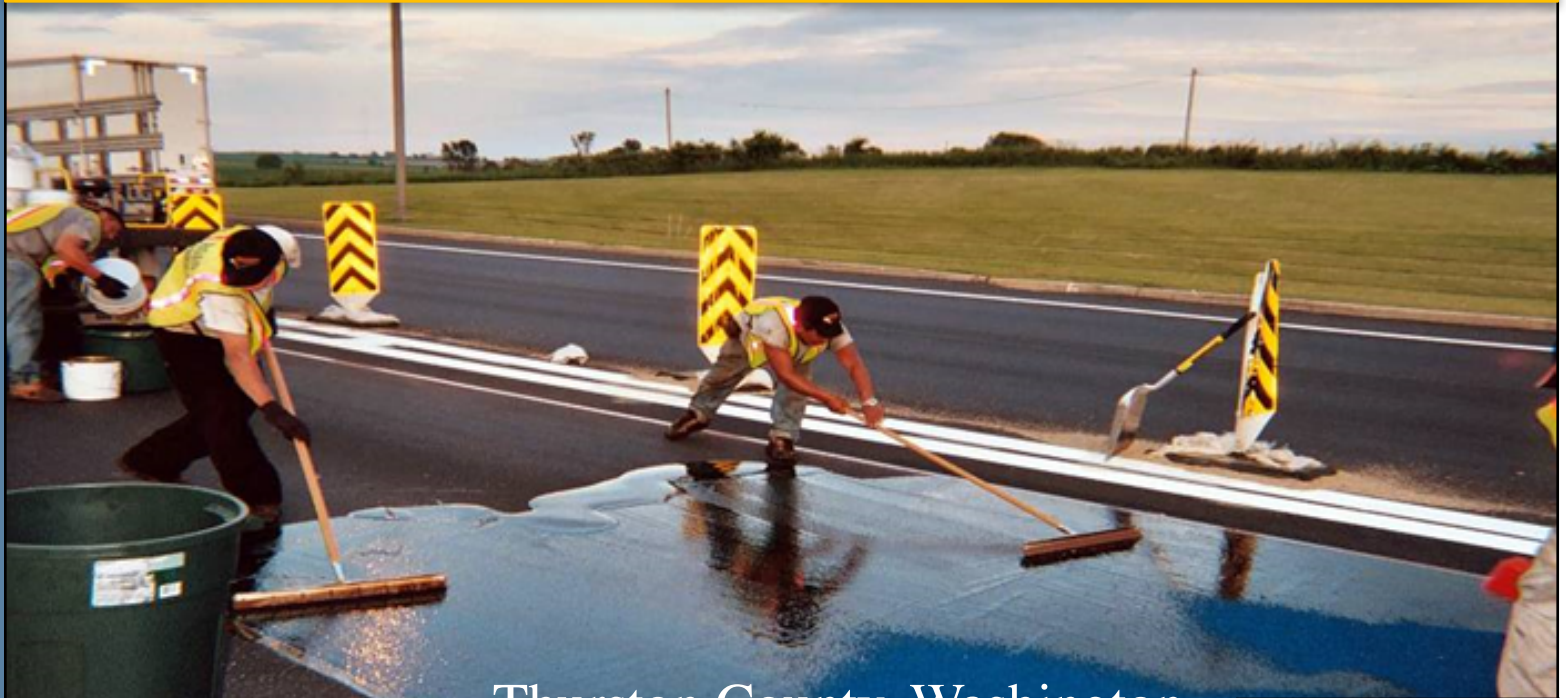
# Planning & Partners





# Local Force Training

## High Friction Surface Treatment Application Procedures for Manual Application



Thurston County, Washington  
HFST Demonstration



*Slide courtesy of Dan Uldall, Kwik Bond Polymers*

# Preparation



Tailgate Meeting



Clean Road Surface



Tape Paint Lines



Mix Setup



Pre-Positioning

# When Things go Wrong



# Concocting the Mixture

## Suggestion Box

*Mix on a tarp*

*Have a backup drill*

*Use mixing container without irregular shapes and has smooth sides*

## Polymer Resin



## Catalyst & Mixing



# Painting the Road Black

## Suggestion Box

*Don't get too far ahead of  
rocking operations*

*Pulling resin vs. pushing can  
provide a better film*



Squeegee



Pouring Resin



Spreading

# Rock n' it

## Suggestion Box

*Rock until refusal*

*A vacuum sweeper can collect excess rock and you can re-use it later*



Re-load



Blowing Rock  
(contractor)



Rock Casting



Rock Casting

# Installation Video



*Video Courtesy of FHWA*

# Cleaning Up

## Thurston County



Pulling tape off paint lines

## Contractor



Mobile Broom



Vacuum sweeper



Leaf Blowers



# Completed Project

Before Vacuum



Finished Surface



# Peer Exchange

Examine  
Educate  
Discuss



# HFST after the Peer Exchange



## Legend



HFST Installation

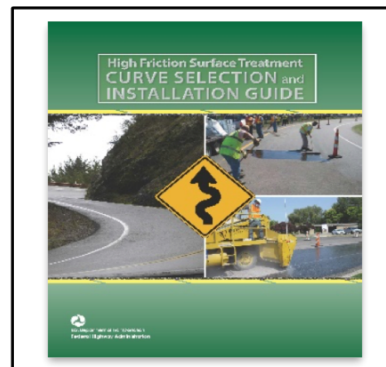
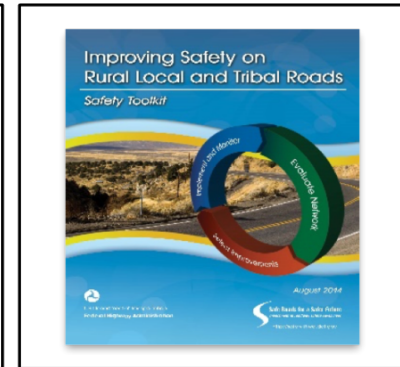


Planned HFST  
Installation

36 Planned or Installed  
HFST Sites



# Site Selection Tools





# Training & Resources



## Web links

[http://safety.fhwa.dot.gov/roadway\\_dept/pavement\\_friction/high\\_friction/](http://safety.fhwa.dot.gov/roadway_dept/pavement_friction/high_friction/)

<http://www.atssa.com/resources/highfrictionsurfacing.aspx>



# Questions

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Photo Courtesy of DBI Services