



# Nebraska DOT RDM/GPR Update

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Materials and Research Division



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**410**



**SHRP2S**  
TOO



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**SHRP2** SC  
TOOL

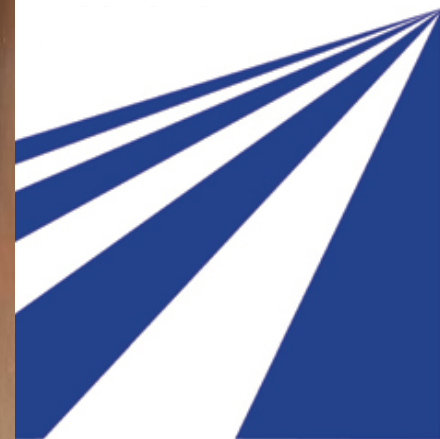
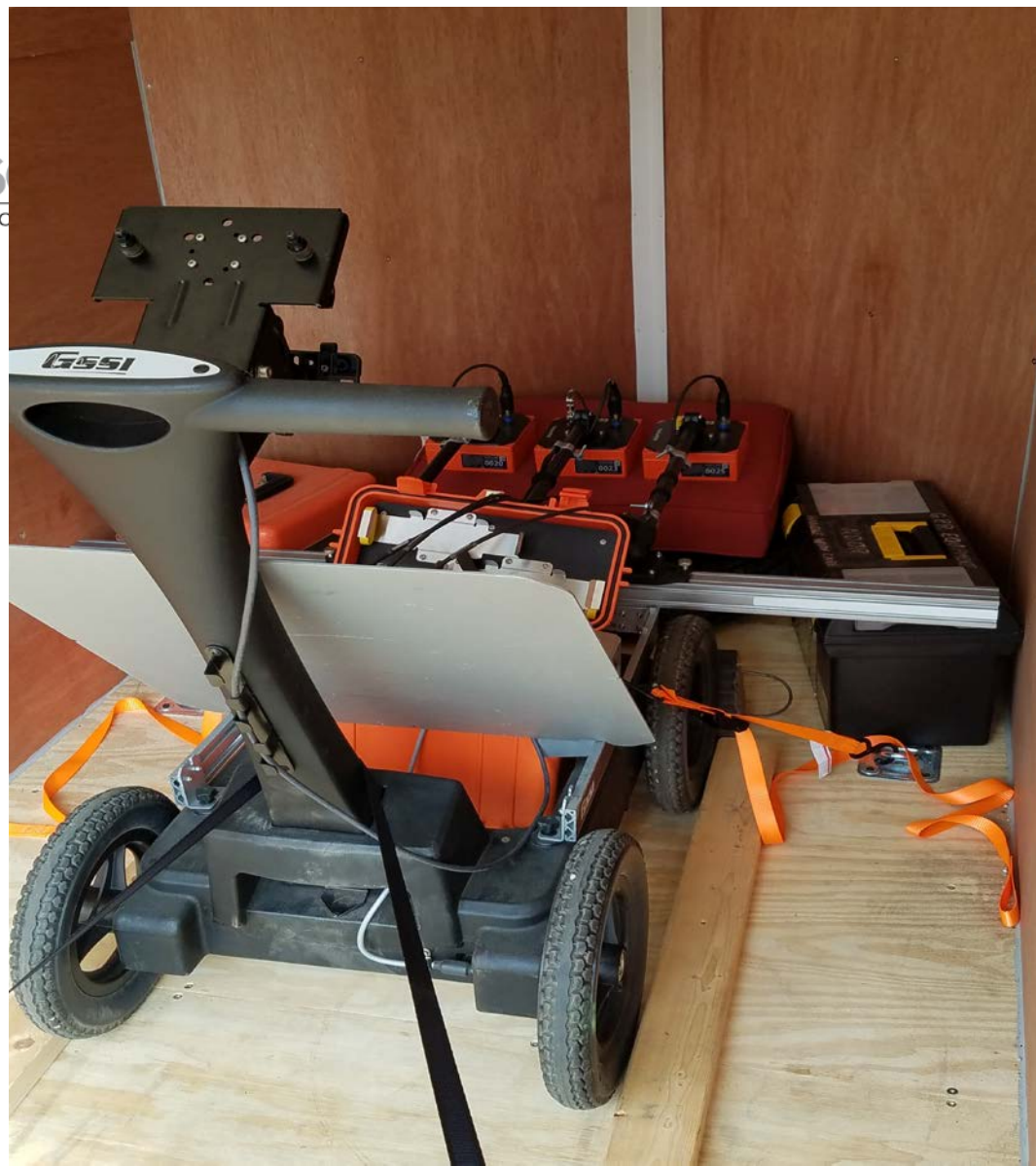


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RD-112-1(1005)	Location #	Dilectric	Easy Dielectric	Actual Core	Difference	Average	Correction	Easy	Difference
			Density	Density		Correction	Factor		
	1	4.7	95.3	95.1	0.2	-0.2	0.0	95.3	0.2
	2	5.1	94.9	95.6	-0.7	-0.2	0.0	94.9	-0.7
	3	4.9	95.1	95.3	-0.2	-0.2	0.0	95.1	-0.2
STP-15-3(115)									
	1	5.1	94.9	92.9	2.0	-1.4	-1.4	93.5	0.6
	2	4.3	95.7	94.8	0.9	-1.4	-1.4	94.3	-0.5
	3	4.6	95.4	94.1	1.3	-1.4	-1.4	94.0	-0.1



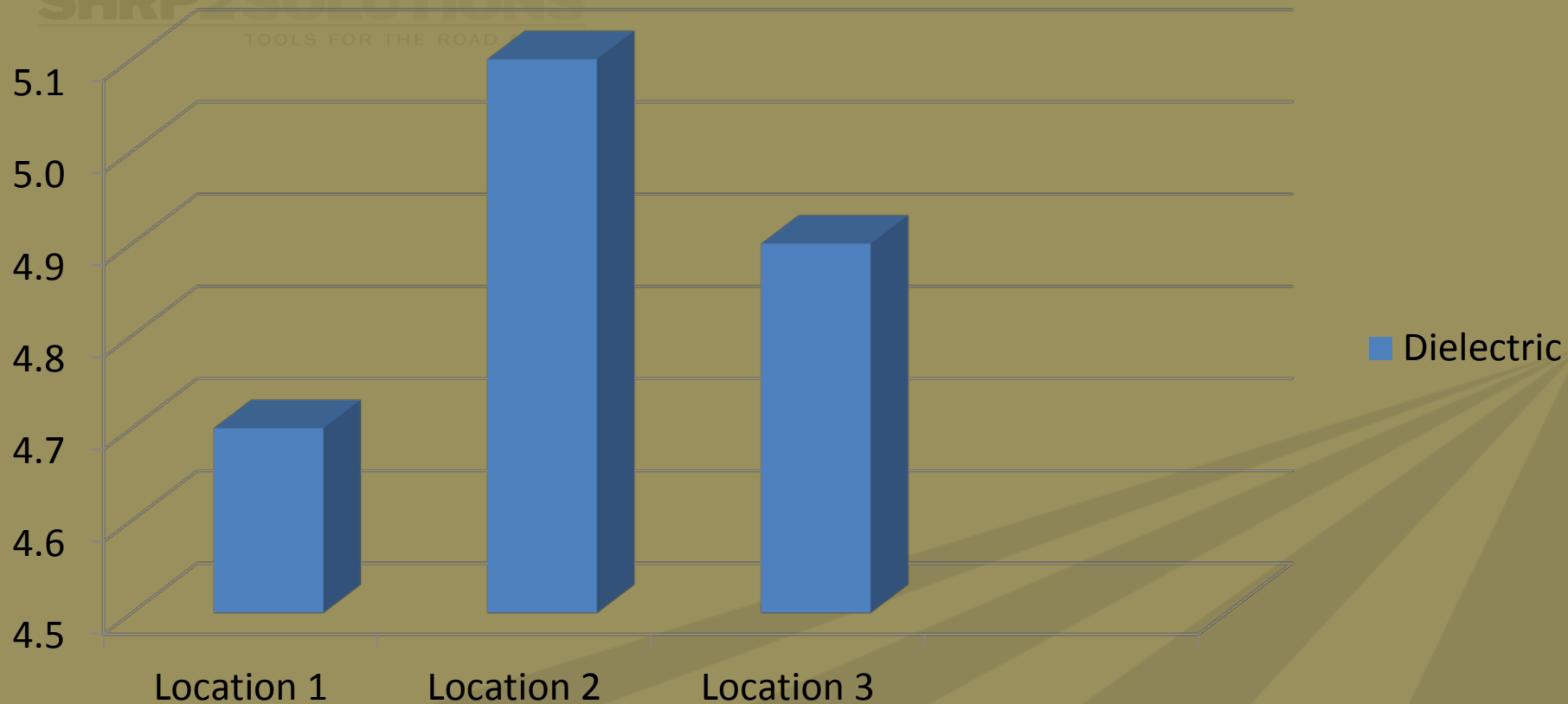
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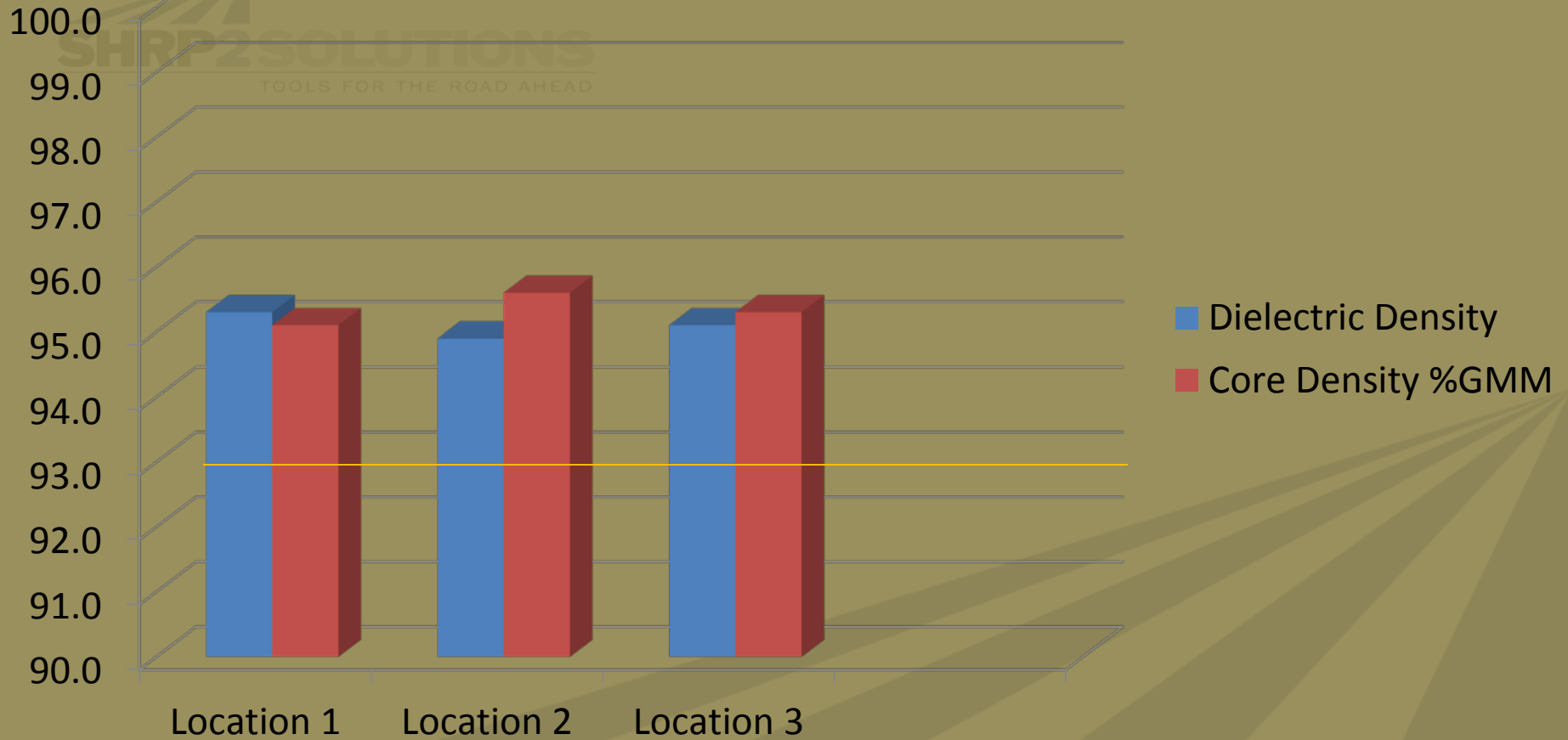


## Dielectric



Project #1 RD-112-1(1005), N-112 Jct N-8 to US-77

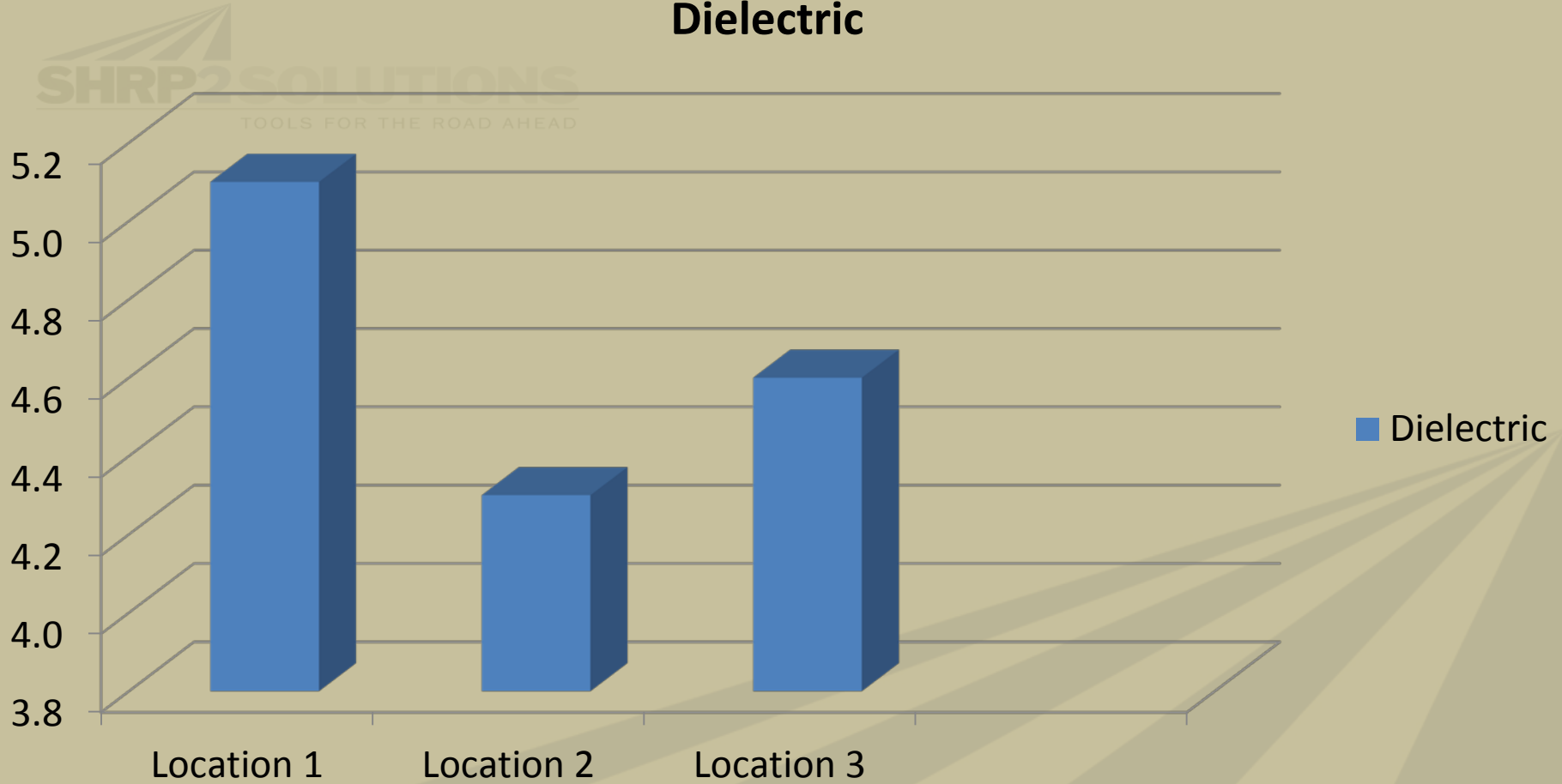




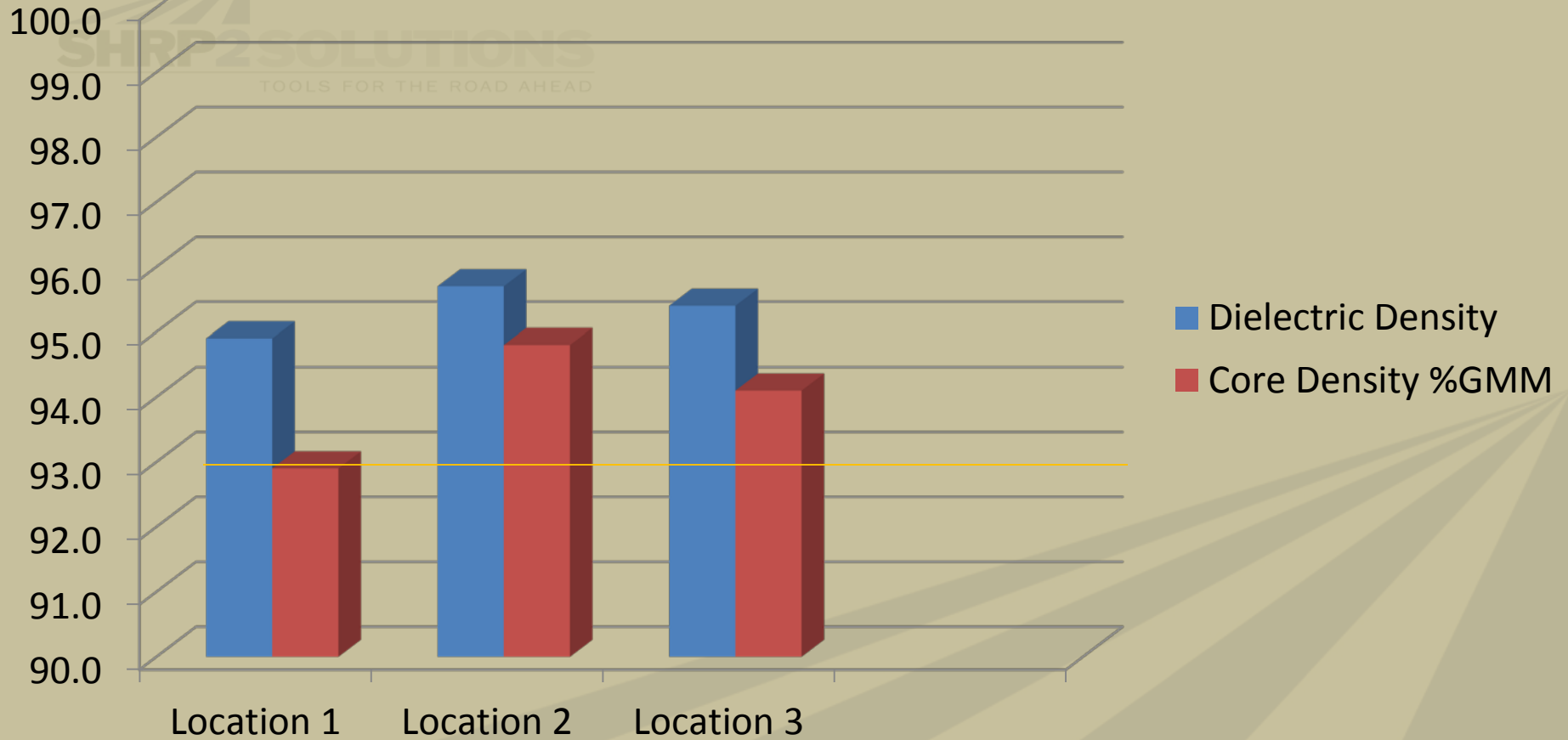
**Project #1 RD-112-1(1005), N-112 Jct N-8 to US-77**



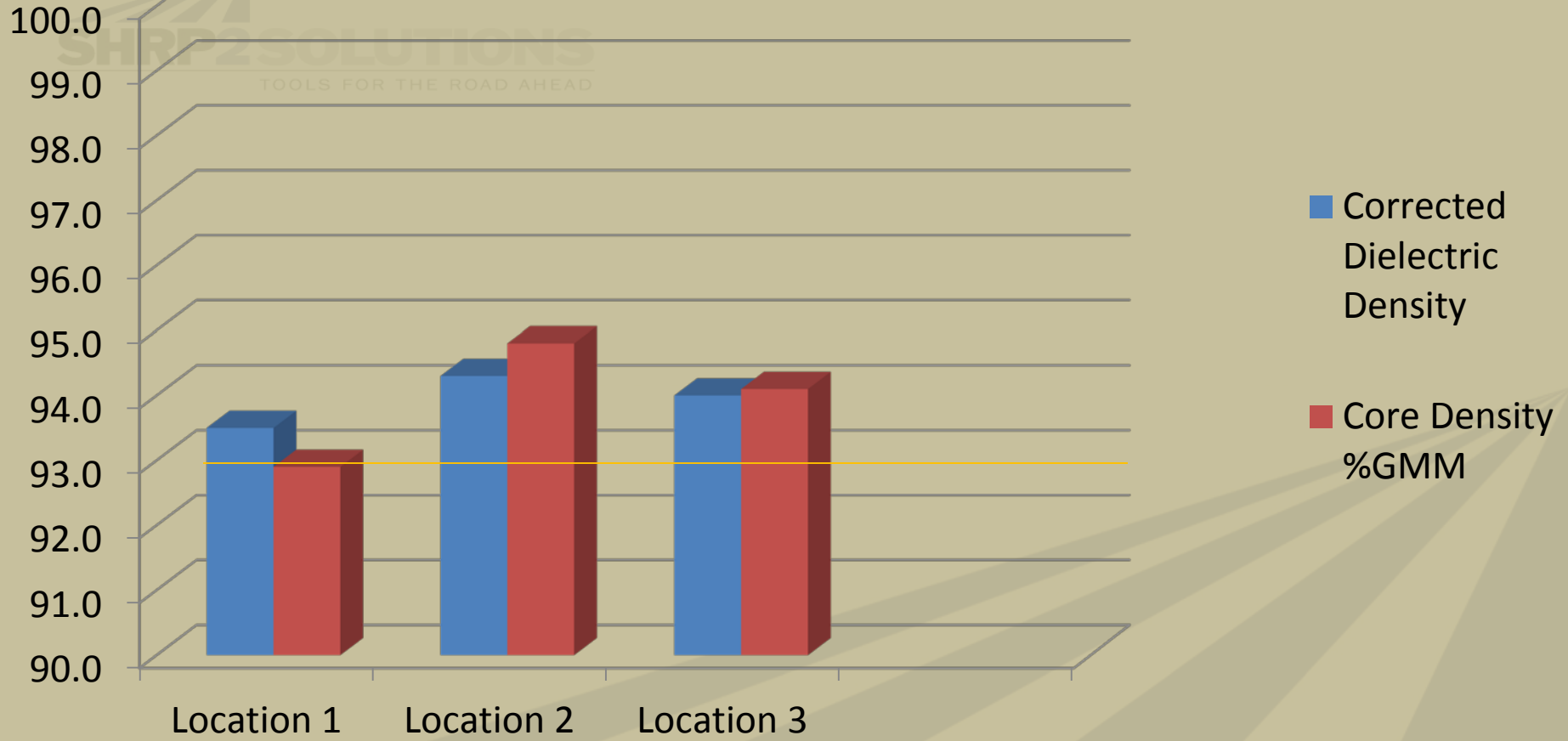
## Dielectric



Project #2 STP-15-3(115), N-15 Hwy N-91 North



**Project #2 STP-15-3(115), N-15 Hwy N-91 North**



**Project #2 STP-15-3(115), N-15 Hwy N-91 North**



## Software

The current software is fine for full project and in-depth research. We think there should be an option for a simple data/dielectric capture easy save\* screen. So we can run any section real quick, grab a core make the correction and keep going. And a simple screenshot for say 500 foot sections and then GPS mark the location, etc



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## Calibration

For some reason this has been hit and miss for us. Sometimes it goes thru proper start up, calibration and warm up, and sometimes we have to ‘reboot’ it to get it to do it. Any recommendations on this would be appreciated.



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Dielectric Number

or

NDOT Easy Dielectric Density

So far this works pretty well for us, more data to come.



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## Dielectric Number Correction Factors

When the average density difference at 3 locations/cores with corresponding Easy Dielectric Density are out by more than 0.7%, apply correction factor.....and we may change our mind on that after we collect more data.



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## Ideal Setup and use of Technology.....

One sensor on front outside of roller drum, the operator can see 'relative' density and could also read the outside edge and joint density and know what needs more rolling and what patterns are yielding optimum density while mat is still hot.



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Thank you !

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