

Total Pave Inc. 153 Saunders Street Fredericton, NB E3B 1N3 1-506-261-3226

May 22, 2019

Prajwol Tamrakar Tensar International Corporation Alpharetta, GA

Tensar International Corporation engaged Total Pave Inc. (TotalPave) to perform a road condition assessment in the San Diego, California metro area on May 15, 2019. The assessment used TotalPave's smartphone-based system to evaluate two different performance measures:

Pavement Condition Index (PCI) - A score between 0 and 100 measuring a road's surface distress based on ASTM D6433 survey methodology. The survey calls for an engineer to visually assess road segments for standard distresses; when a distress is located, it is classified by type, severity, and the extent is estimated. Distresses found are entered into TotalPave's PCI mobile application following this standard survey methodology, then the system calculates a PCI score.

International Roughness Index (IRI) – A measure of road roughness evaluating meters of vertical deflection per kilometer, starting at zero and increasing as roughness increases based on ASTM E1926. A smartphone loaded with TotalPave IRI is mounted to the windshield of a vehicle and as the user drives each segment, the system records smartphone sensor data then uses that data to produce IRI values.

Four segments in total were evaluated: Carroll Canyon Road Eastbound, Carroll Canyon Road Westbound, La Media Road Northbound, La Media Road Southbound. Carroll Canyon Road was located north of San Diego in the Carroll Canyon Business Park area, while La Media Road was located south of San Diego in the Otay Mesa area. IRI and PCI results for each segment are presented in the appendix of this report and on Tensar's TotalPave Web Portal.

Best Regards,

Coady Cameron, MScE, Peng Chief Executive Officer Total Pave Inc.

Table 1 - PCI Detailed

							Alligator Grack	Bleeding		Block Crack	Bumps / Sags	Corrugation	Depression	Edge Cracking	Joint Reflection	Lane Drop Off	Long/Trans Crack	Patching/Utility Cut	Polished Aggregate	Potholes	Railroad Crossing	Ravelling	Rutting	Shoving	Slippage Crack	Swell	Weathering
Section ID	Section Name	Section PCI	Section IRI	Sample ID	Sample Name	Sample PCI	L M H	I L M	H L	ь м н	L M	H L M	H L M	H L M H	L M H	L M H	L M I	H L M	H L M H	L M H	L M H	L M H	L M H	L M H	L M H	L M H	L M H
780607	Carroll Canyon Eastbound	91	1.57	70889	Sample 1	91											533	21.3				0.2					
780608	Carroll Canyon Westbound	100	2.29	70888	Sample 1	100											124.8	28.2									
780840	La Media Southbound	75	1.66	71310	Sample 1	75			129	99							14 29 2	3									4071
780841	La Media Northbound	71	1.26	71309	Sample 1	71			175	54							194 47 1	2									4432

Table 2 - IRI Detailed

Section ID	Section Name	IRI (m/km)	Notes
780607	Carroll Canyon Eastbound	1.5618	CC EB Passing Lane
780607	Carroll Canyon Eastbound	1.5733	CC EB Driving Lane
780608	Carroll Canyon Westbound	2.2609	CC WB Passing Lane
780608	Carroll Canyon Westbound	2.3259	CC WB Driving Lane
780840	La Media Southbound	1.4776	LM SB Passing Lane
780840	La Media Southbound	1.8504	LM SB Driving Lane
780841	La Media Northbound	1.22	LM NB Passing Lane
780841	La Media Northbound	1.3011	LM NB Driving Land

Table 3 - PCI Summary

Section ID	Section Name	PCI	Length (m)	Average Width (m)
780607	Carroll Canyon Eastbound	91	767.82	8.83
780608	Carroll Canyon Westbound	100	749.30	9.17
780840	La Media Southbound	75	279.80	14.55
780841	La Media Northbound	71	279.80	15.84

Table 4 - IRI Summary

Section ID	Section Name	IRI (m/km)	Length (m)	Average Width (m)
780607	Carroll Canyon Eastbound	1.57	767.82	8.83
780608	Carroll Canyon Westbound	2.29	749.30	9.17
780840	La Media Southbound	1.66	279.80	14.55
780841	La Media Northbound	1.26	279.80	15.84