MnROAD Monitoring Activities and Schedule - 2010

Update: 02/08/2010

Measurement		Cells	Frequency	Tests/Lane/ Cell	Lead	Month												Comments
						J	F	M	A	M	J	J	A	S	O	N	D	
Aging Samples	Cores	All	1 / year	2 / lane/ cell	Burnham													Cores taken to monitor aging of HMA mix and PCC joint condition.
Curl & Warp	ALPS[2]	Special	2 / year	Hourly Tests	Burnham/ S.Olson													ALPS Data collected to support Mich tech study - Detailed measurements taken over several periods thoughtout the day and seasons.
Distress Survey	LTPP Modified	All	2 / year	1 Survey	Clyne													Modified LTPP Survey on all cells
Joint Faulting/ Shoulder Dropoff	Faultmeter	PCC	3 / year	Variable	Burnham													Mn/DOT modified Georgia Faultmeter measurements.
	Faultmeter	PCC	3 / year	1 midpanel edge/ 100'	Burnham													Use of the Georgia Faultmeter per modified LTPP protocol
Friction	Skid Trailer	All	2 / year	1 test Cell/Surface	Fischer													KJ Law profiler used – one test per lane per cell using both smooth and ribbed tire - collected by Mn/DOT pavements office for MnROAD.
	Grip Tester	All	3 / year	1 test Cell/Surface	S. Olson													Borrowed equipment.
	Dynamic Friction Tester	Select HMA	2 / year	1 test / 25'	Wood													
Dynamic Load Testing	Truck	All	4 / year	Variable	Burnham													Dynamic load testing of sensors. Loading from MnROAD truck and FWD.
	FWD	All	2 / year	Variable	Burnham													Dynamic load testing of sensors. Loading from MnROAD truck and FWD.
Falling Weight Deflectometer	Routine FWD Testing	PCC	6 / year	Variable	Clyne						No Jts	No Jts						MnROAD has 2 Dynatest falling weight deflectometers and Mn/DOT also has 2. HMA testing includes both lanes roughly every 100' at marked points. PCC testing includes 5 points a panel and 4 panels a lane for both lanes. Testing schedule varies thoughout the year – multilple tests per year.
	Routine FWD Testing	HMA	8 / year	1 test / 100' (multiple offsets)	Clyne													
	Relative Calibration		4 / year		Clyne													
	Reference Calibration		1 / year		Clyne													
HMA Rutting	ALPS	HMA	3 / year	10 points	Strommen													Advanced Laser Profile System (ALPS) every 50 feet. Used to characterize ruts, cupping, lane/shoulder drop-off.
HMA Crack Cupping	ALPS	HMA	3 / year	Transverse Cracks	Strommen													Advanced Laser Profile System (ALPS) every 50 feet. Used to characterize ruts, cupping, lane/shoulder drop-off.
Lysimeter	Maintenance (Empty)	Select HMA	9 / year		Lindenfelser													Empty and reset lysimeters.
Noise	OBSI	All	3 / year	1 run	S. Olson													On Board Sound Intensity (OBSI) measurements will be conducted with a Mn/DOT owned system.
Piezometer	Piezometer	Pervious	4 / year	2 / Cell	Herndon													Monitoring well measurements.
Permeability	Perveometer	Pervious	2 / year	1 test / 25'	Rohne													Test permeability of pervious/porous test cells.
Ride Quality	Pathways	All	2 / year	1 run	Pavements													Pavement Management office collects ride data summaries using using Pathways equipment.
	LISA – Lightweight	All	4 / year	10 runs	Pantelis/ S.Olson													Mn/DOT owned lightweight Profiler. IRI and ERD files developed for each lane and cell.
Sound Absorption	Sound Impedance Tube	Select HMA & PCC	2 / year	2 / lane/ cell	S. Olson													Sound absorption measurements.
Surface Texture	Sand Patch	Select PCC	4 / year	1 test / 50'	Rohne													
	Texture Meter	Select HMA	2 / year	1 test / 50'	Wood													
	Texture Meter	Select PCC	4 / year	1 test / 50'	Rohne													