

INDOT IC Demonstration – US 52, West Lafayette, IN

Sept. 21 to 24, 2009

On-Site Contact List

Last name	First name	Affiliation	Telephone	Email
ICPF Project Team				
Chang	George	Transtec Group	512-451-6233 C 512-659-1231	gkchang@thetranstecgroup.com
Horan	Bob	Asphalt Institute	C 804-539-3036	bhoran@AsphaltInstitute.org
Xu	Qinwu	Transtec Group, Inc.	512-451-6233 C 512-709-4155	qinwu@thetranstecgroup.com
Michael	Larry	LLM-Asphalt-Technology Consultant	301-745-3334 C 301-331-6150	larry@larrylmichael.com
Gallivan	Lee	FHWA	317-226-7493	Victor.Gallivan@fhwa.dot.gov
State DOT and etc.				
Prather	Michael	INDOT – Asphalt eng.	317.610.7251	mprather@indot.IN.gov
Andrewski	Dave	INDOT – Office of Pavement Eng.	317-232-5452	dandrewski@indot.in.gov
Nantung	Tommy	INDOT	765-463-1521	Tnantung@indot.in.gov
Walker	Ron	INDOT	317-610-7251	rwalker@indot.in.gov
Knopf	Bill	APAI	317-632-2441	wknopf@asphaltindiana.org
Roller/Components Vendors				
Mansell	Todd	Sakai America	770-877-9433 C 770-324-6455	t-mansell@sakaiaamerica.com
Connolly	Chris	Bomag	301-529-8477	chris.connolly@bomag.com
Dennison	Dave	Bomag	C 309-853-7862	dave.dennison@bomag.com
Wyant	Jim			jimwyant@macallister.com
Kaz	Pete	Trimble	C 937-8921	
Dayton	Dan	SITECH	317-545-2151 C 317-439-1025	
Paving Contractors				
Walschlager	Ken	Milestone (construction)	765-772-7500 C 765-969-8177	ken.walschlager@milestonelp.com
Cruea	Brad	Milestone (testing)	317-788-6855 C 317-502-3425	brad.cruea@milestonelp.com
Smith	Jim	Milestone (surveyor)	765-772-7501 C 765-427-4475	Jim.smith@milestonelp.com

All onsite participants will meet at US 52 and Klondike Road near the southwest corner of the intersection at 8AM, Monday 9/21. The location is across US52 from the Menards store (2868 US 52 West, West Lafayette, IN 47906).

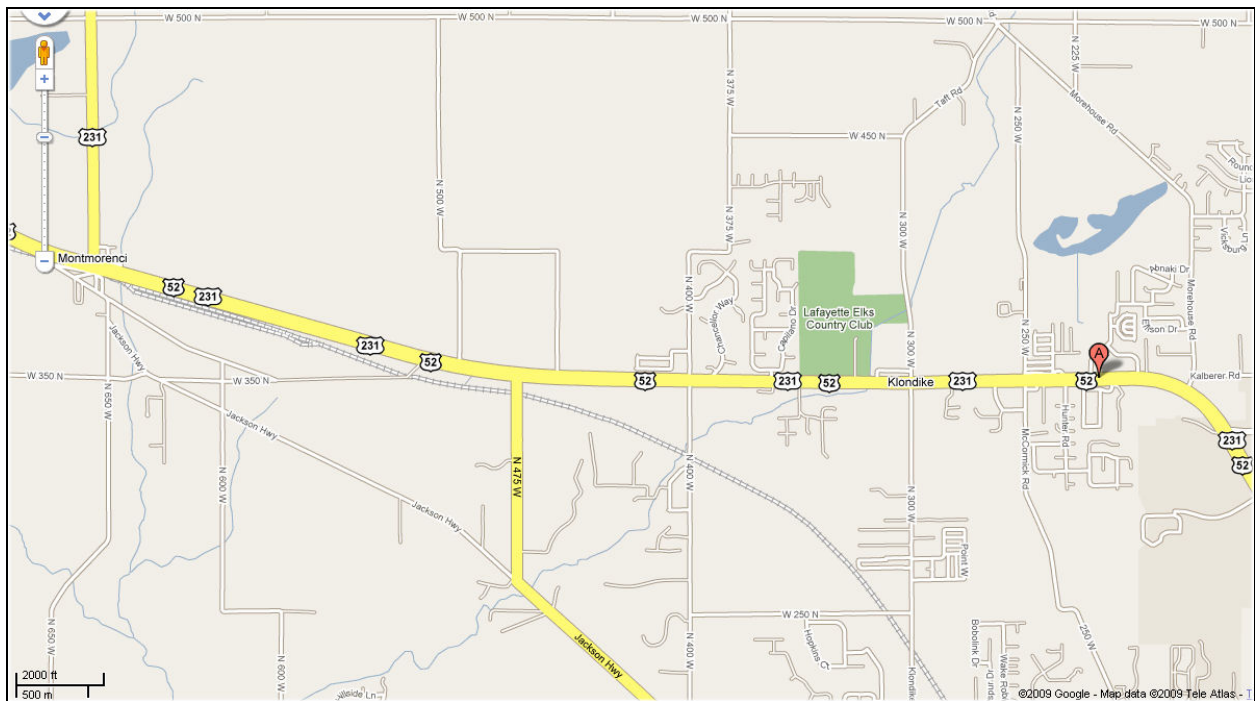
Roller Shipment

The shipping address is: **2868 US Hwy 52 W., West Lafayette, IN 47906**

Contacts: Ken Walschlager, (765)-969-8177

Rollers will be shipped to this address by Friday (Sept 21, 2009).

Site Map – US 52, West Lafayette, IN



The test site is located on US 52 between the junction with US 231 and Cumberland Ave, Lafayette, IN. The length of the project is about 5 miles long with two lanes on each direction. The existing pavement structure is 6” of HMA on top of 7” of concrete pavements. The existing pavement will be milled for about 2”. A 2.5” of intermediate HMA layer (19-mm max. nominal aggregate size) and 1.5” HMA surface layer (9.5-mm max. nominal aggregate size) will be constructed on top of the milled surface.

On-site Activities (tentative)

Schedule	Activities
Days 1	<ul style="list-style-type: none"> • Conduct project briefing onsite (all parties). • Discussion, training of DOT and contractor personnel in machine operations, data collection, data management, and in-situ testing strategies. • At project site, set up the GPS base station and IC roller/GPS system. • Conduct trial runs to verify the machine is operating and communicating with the GPS. Verify that GPS rover location corresponds to GPS roller location. • Compaction of the 19-mm intermediate layer.
Day 2	<ul style="list-style-type: none"> • Mapping of existing surface using roller measurement system of the IC rollers within a 1000-ft test strip. • Complete in-situ testing of the existing surface using FWD within the test strip. • Compaction of the 19-mm HMA intermediate layer. • Correlation tests with the IC roller stiffness, nuclear and core density testing on one test strip of one roller width wide. • The IC roller will be used in the breakdown roller position and all measurement values will be taken when the surface temperature measurements are in excess of 230 °F and the internal measured temperature is in excess of 240 °F. • At least 20 locations on the pavement will be marked and both density and drum measurement values will be obtained at each location.
Day 3	<ul style="list-style-type: none"> • Repeat the Day 2 operation on the 9.5-mm HMA surface layer.
Days 4	<ul style="list-style-type: none"> • Analyze and report the IC and in situ results, generating a preliminary report and presentation of results for the Open House.

Note:

- The IC roller mappings on the existing milled asphalt pavement surfaces may be conducted on Day 2 or Day 3.
- Two double-drum IC rollers, Sakai and Bomag, will be used for this demo. One IC roller will be used at the break-down position while the other will be used at the intermediate position. The IC rollers may be swapped for operations on different days. GPS and control panels will be removed at the end of each daily paving operation.

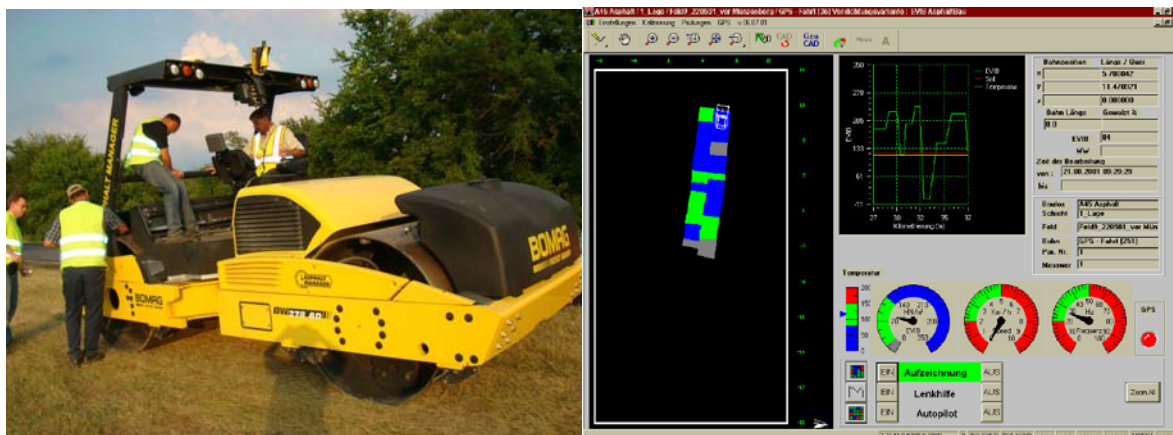
Test Settings

Date	TB	Machine	Amp (mm)	Spot Tests	Notes/Comments
9/20	Arrive on site.				
9/21	1	Sakai Bomag	Compaction: 0.3 (low) at 4000 vpm	NG	Machine and GPS setup, trial runs, and production rolling. 1. Verify the roller GPS measurements with GSP rover 2. Compact 19-mm intermediate course with normal roller passes.
9/22	2	Sakai Bomag	Mapping: 0.3 (low) at 3000 vpm Compaction: 0.3 (low) at 4000 vpm	FWD NG	Mapping and Production rolling . 1. Map the existing milled HMA surface for 1000 ft. Spot test with FWD within the test strip. 2. Compact 9.5-mm surface with normal roller passes. 3. Spot test with nuclear density gauge.
9/23	3	Sakai Bomag	Mapping: 0.3 (low) at 3000 vpm Compaction: 0.3 (low) at 4000 vpm	FWD NG	Production rolling for asphalt base course. 1. Map the existing milled HMA surface for 1000 ft. 2. Spot test with FWD within the test strip. 3. Compact 9.5-mm surface layer with normal roller passes. 4. Spot test with nuclear density gauge.
9/24	Open House –presentation of preliminary results and roller demonstrations.				

Sakai Double Drum IC roller



Bomag Double Drum IC Roller



GPS Grid References

UTM 16-N is the preferred grid reference.

Field Work and In-Situ Testings

INDOT

- Falling Weight Deflectometer (FWD) and an operator (test on existing milled asphalt pavement surface at designated locations. GPS measurements will be conducted on the same locations.)

Machine settings for the FWD test are as follows:

- Platen Size: 5.9” radius (rigid plate)
- Geophone positions: 0, 12, 24, 36, 48, 60, 72 inches (7 sensors)
- Drops/Loads: Save 2 drops at targeting 9,000 and 12,000 lbs.
- File format: F25, DDX, and MDB.

Milestone

- Provide two roller operators
- Assist in mobilizing IC rollers if necessary
- Two density Gauges (NG or PQI) for asphalt and an operator
- A handheld survey grade GPS (rover) and an operator
- Corings for HMA

Open House

(9:00AM to noon, Thursday, Sept. 24):

Session 1 - 9:00AM to 11:00PM - Indoor Presentation (INDOT/Superpave Center, 1205 Montgomery Street, West Lafayette, IN 47906)

Session 2 - 11:00PM to noon - Field Demonstration (INDOT/Superpave Center, parking lot)

RSVP by Sept. 22, Contact Ruth Calish, ruth@thetranstecgroup.com, (512) 451-6233