



# Asphalt Laydown Technician Training Summary Report

**Tom Gamblin, Industrial Learning Resources Ltd.**

**April 17, 2012**

## Description

Asphalt Laydown Technician Program was sponsored by the Nova Scotia Road Builder Association in partnership with Atlantic Cat Paving Division. Training took place at the NSCSA facilities and at Atlantic Cat. The program was a four week program from March 19 thru April 13, 2012.

## Participants

Fourteen participants representing three companies participated in the training program of 120 hours. Participants represented a variety of experience in the paving industry, including crew foremen, MTV operators, paver operators, quality control person, screed operators, and tack truck operator. Two participants had no background in paving and attended the course to gain knowledge and skills in asphalt paving. Both of these participants had a background in the construction industry.

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*“The knowledge that I have gained in these four weeks would have taken me years to obtain otherwise.”*

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In total there was 147 years of paving and construction experience to draw from in the training room.

## Trainers

The following trainers presented the program:

Tom Gamblin	Industrial Learning Resources Inc.
Howard Chandler	Dexter Construction
Mark Medeiros	Caterpillar Global Paving
Adrian Jacobs	Caterpillar Global Paving
Steve Hourscht	Caterpillar Global Paving
Troy Nickerson	Atlantic Cat
	TCP, NSCSA
	WHMIS, NSCSA
Melissa Upton	First Aid, NSCSA

## Class Evaluation

Area	x/4
Meeting your expectations	3.96
Level of instruction	4.00
Length of presentation	3.93
Usefulness of participant guide	3.93
Effectiveness of visual aids (PPT, etc.)	3.86
Effectiveness of learning activities (discussions, group work, handouts, etc.)	4.10*
Overall effectiveness of the training presentation	4.00
Average	3.97

\*1 score of 5

### Comments:

“This training will change my ways on the job by the understanding of safety for myself as well as others. I will always refer to the best practices we discussed.”

“This course is a must have for anybody in the field, even people with years of experience.”

“I came into the course with what I thought was a lot of paving knowledge and I came out with a lot more than I ever thought.”

“I think this course will help increase the quality of my job, because now I have the knowledge to make it happen.”

“The knowledge that I have gained in these four weeks would have taken me years to obtain otherwise.”

“Great course, hope it continues so in the future we will be building better roads.”

## Trainer Evaluation

Area	x/4
Knowledgeable in the subject	3.80
Preparation for training presentation	4.00
Professional demeanor	3.86
Providing opportunities for discussion of material	4.00
Organization	3.93
Overall skills of the trainer	4.00
Average	3.93

### Comments:

“Having the group discussions organized was an amazing teaching skill.”

“Excellent instructor, very fun and informative teaching style.”

“There was never a dull moment.”

“Howard’s knowledge and Tom’s instruction = Great Course.”

“Thanks to Howard, it was refreshing to see the knowledge one man has to offer.”

“I think Tom and Howard did a really good job, the program was really set up good and I would suggest it for others.”

“Trainer did an awesome job in the training of the guys. It was very clear that he learned from the guys as well. It was a learning experience for all.”

“Cat trainers were awesome.”

## Previous Knowledge Assessment

1. Participants indicated their perceived level of knowledge prior to the training session.
2. Participants indicated their perceived knowledge after the training.
3. Each area is representative of the Learning Outcomes for the training program.
4. Percentage growth represents the participants' perceived growth in knowledge for the outcome.

<b>SELF-ASSESSMENT OF KNOWLEDGE AND SKILLS RELATED TO:</b>	<b>% GROWTH</b>
<i>Paving industry in Canada and in Nova Scotia</i>	<b>52.50</b>
<i>History of paving and future trends</i>	<b>103.23</b>
<i>Basic asphalt road construction</i>	<b>34.78</b>
<i>Asphalt production and production plants</i>	<b>31.82</b>
<i>Five processes of placing asphalt</i>	<b>30.43</b>
<i>Quality control</i>	<b>74.29</b>
<i>Your rights and responsibilities under the OHS Act</i>	<b>28.57</b>
<i>Asphalt safety and work site safety</i>	<b>52.38</b>
<i>Hazard recognition and control hierarchy</i>	<b>36.96</b>
<i>Heat stress and heat stroke</i>	<b>23.53</b>
<i>Responsibilities of paving crew members</i>	<b>18.18</b>
<i>Safety warnings and labels</i>	<b>43.18</b>
<i>Inspecting hydraulic hoses and connections</i>	<b>50.00</b>
<i>General maintenance of paving machines</i>	<b>38.01</b>
<i>Read and interpret ISO symbols</i>	<b>46.51</b>
<i>Paver factors that influence mat thickness</i>	<b>25.00</b>
<i>Screed factors that influence mat quality</i>	<b>29.17</b>
<i>Adjusting and setting up the screed</i>	<b>79.41</b>
<i>Rolling longitudinal joints</i>	<b>55.00</b>
<i>Rolling transverse joints</i>	<b>34.04</b>
<i>Milling machines and operation</i>	<b>103.70</b>

<i>MTV operation.</i>	<b>47.57</b>
<i>Handwork – Raking, luting and shoveling</i>	<b>28.57</b>
<i>Other small equipment used in paving</i>	<b>28.59</b>
<i>Recognition of mat defects</i>	<b>47.62</b>
<i>Prevention and correction of mat defects</i>	<b>52.50</b>
<i>Segregation; causes, prevention and controls</i>	<b>87.88</b>
<i>Paving by the numbers - 14 Steps</i>	<b>43.18</b>
<i>TopCon paving</i>	<b>40.48</b>
<i>Importance and calculation of spread rates</i>	<b>93.10</b>
<i>Machine guidance control for paving</i>	<b>171.43</b>
<i>Traffic Control Person</i>	<b>35.56</b>
<i>WHMIS</i>	<b>16.67</b>
<b><i>Overall growth in learning</i></b>	<b>45.76</b>

## Recommendations

The following recommendations are compiled from the feedback session on April 13, 2012:

1. Participants should have two to three years' experience in paving or construction.
2. Maintain the four week format. This permitted in depth discussions and exploration of the topics.
3. Incorporate Cat classroom topics into the training program. This will eliminate any duplication of content and permit the opportunity for more machine time at Cat.
4. The following content be added to the training program:
  - a. Parking lot paving and urban paving
  - b. Calculating asphalt needed for the job
  - c. Spread rates and importance
  - d. More information on causes of segregation (aggregates to laydown).
  - e. Increase content on quality control
  - f. Add more information on tack and road base preparation
5. Change certification requirements from competency skills in six areas to three or four areas.
6. Re-evaluate the requirement for TCP, WHMIS and First Aid. If participants qualified within past year, no need to complete the course.
7. The two day intensive first aid course would be more valuable to the participants.