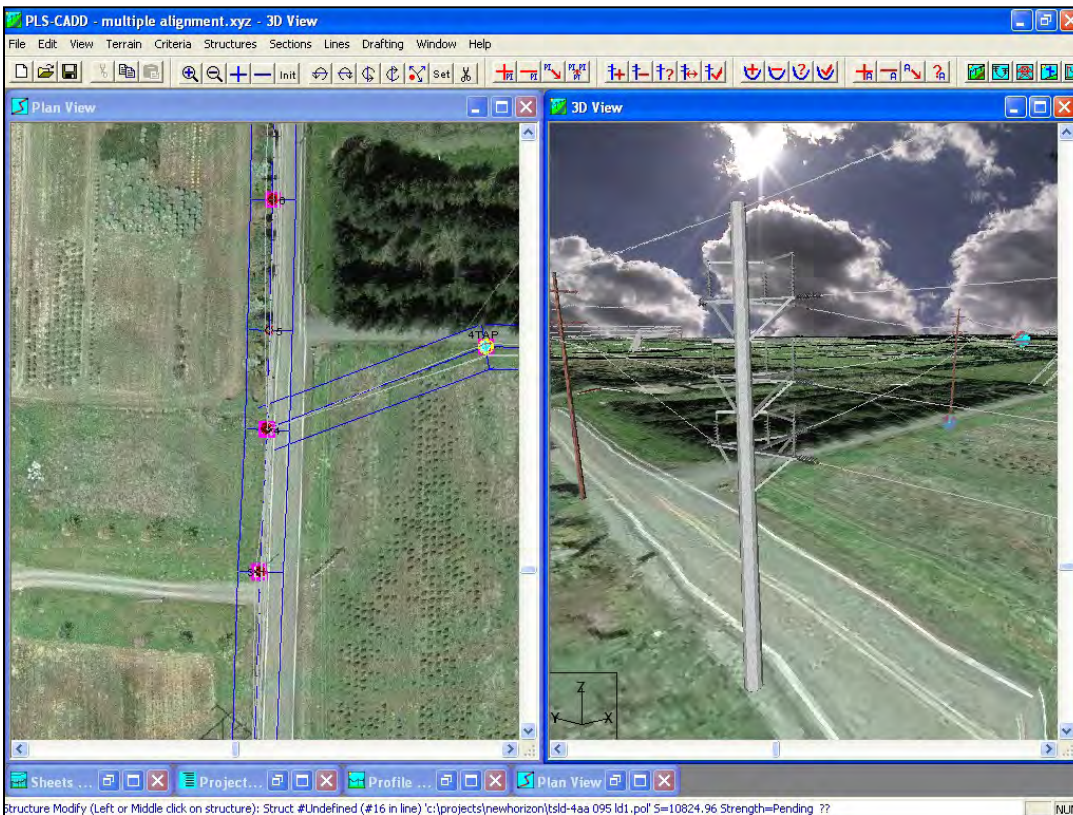


# Advanced PLS-CADD Training

## Using PLS-CADD with LiDAR Data to Meet NERC FAC-008 Requirements



May 3 - 5, 2011

8:30 AM to 4:30 PM Tues.-Wed.

8:30 AM to 12:00 PM Thurs.

at

Madison Marriott West

1313 John Q Hammons Drive

Middleton, Wisconsin 53562 USA

**POWER LINE**<sup>®</sup>  
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<http://www.powline.com>

Learn how the Industry  
Leading Line Design  
Software helps you meet  
NERC FAC-008

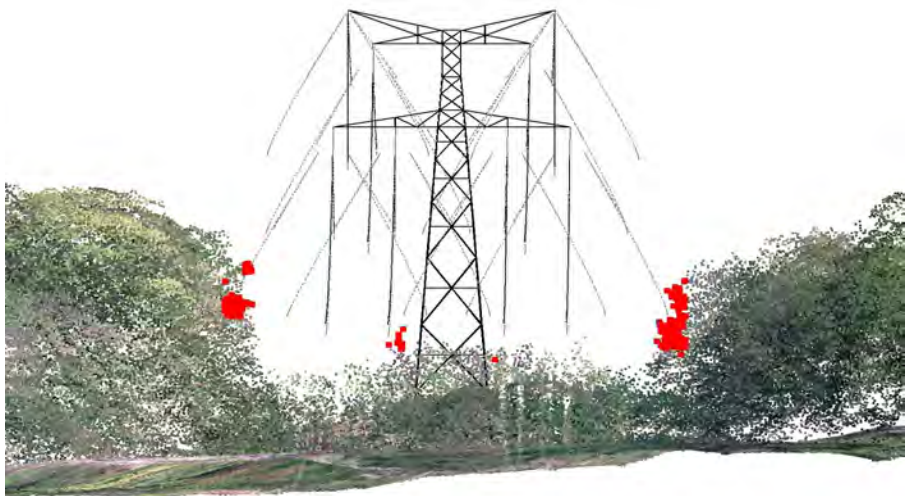
This course is designed for the North American electric power transmission line industry.

NERC recently issued a [Facility Ratings Methodology Alert to Industry](#) that lists PLS-CADD as a solution to meet the requirements of reviewing current facilities rating methodologies to verify that they are based on actual field conditions, and the

use of LiDAR to identify possible discrepancies between the design data and the actual field conditions of transmission facilities. This course will teach the attendee how to use PLS-CADD to develop line rating methods for NERC compliance reporting including: importing LiDAR, criteria development, structure definition, conductor sag matching, conductor movement prediction, thermal rating and violation reporting, and violation mitigation. PLS-CADD is the Industry Standard in overhead line design and analysis software. You will see why at this course.

### Topics Covered

- General Overview
- LiDAR Data
  - Accuracy and Classification
  - LiDAR Importing
- Terrain Model Development
- Criteria Requirements
- Structure Modeling
- Sagging of Conductors to Match Actual Field Conditions
  - Conductor Temperature
  - Ruling Span approximation vs. Finite Element accuracy
- Conductor Behavior - Movement and Prediction
- Generation of Reports
  - Thermal Rating
  - Exporting Violations for Use in Other Applications (Google Earth or GIS)
- Various Methods for Rerating and Uprating Existing Lines
  - Traditional Methods
  - Nontraditional Methods



### Who Should Attend?

This course is intended for engineers, technicians, and managers who are involved in transmission line ratings and whose companies currently use PLS-CADD or are considering purchasing it. The attendee should have some basic understanding of overhead line design concepts and already be familiar with PLS-CADD as the class focuses on advanced use of the software and not on the fundamentals of line design or PLS-CADD.

**Cost:** US\$1200 per person



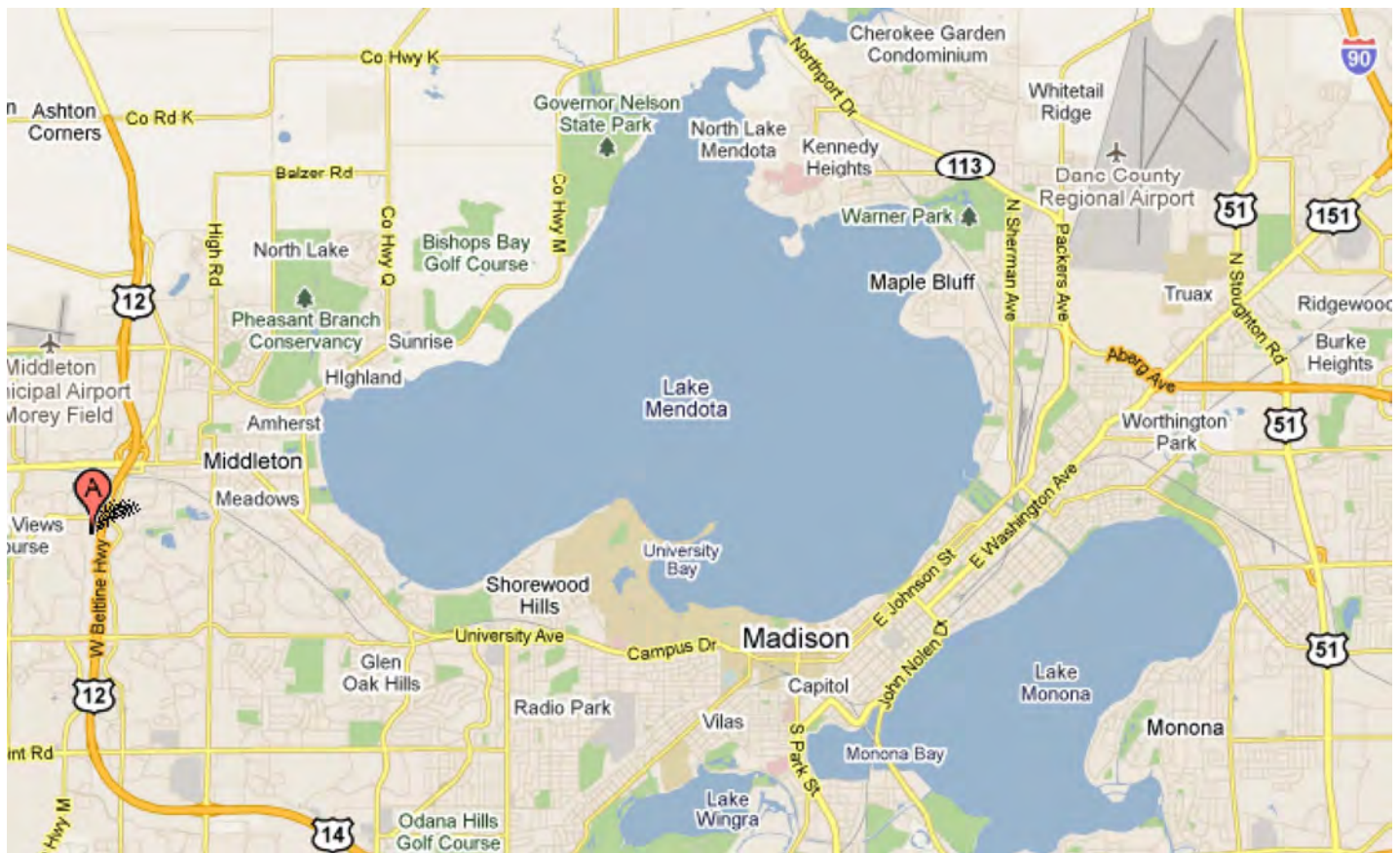


## Instructor

The course will be conducted by Otto J. Lynch, P.E., Vice President of Engineering at Power Line Systems Inc. He has more than 20 years of experience in transmission line design and has used PLS-CADD since its inception. Otto pioneered the use of LiDAR data for transmission line modeling. Otto is a registered Professional Engineer and an active member of many ASCE and IEEE technical committees, including serving as the current Chair of the ASCE Structural Engineering Institute Electrical Transmission Structures Committee. He is also a member of Subcommittee 5 of the National Electric Safety Code.

## Details

The class will be held from 8:30 AM to 4:30 PM Tuesday through Wednesday and from 8:30 AM to 12:00 PM on Thursday. The course will be conducted at the Madison Marriott West in Middleton, Wisconsin (point A in the map below). Lunch will be provided Tuesday and Wednesday. Attendees are responsible for all other costs incurred including lodging. We have negotiated a discounted rate for a limited number of rooms at the Madison Marriott West that can be obtained online at <http://www.marriott.com/hotels/travel/msnwe-madison-marriott-west/> by using Corporate Code ZWW or by calling the hotel and mentioning "Power Line Systems".



Please see <http://www.powline.com/visiting.html> for information on traveling to Madison and for listings of other area hotels. A registration form is on the back of this brochure. Seats are limited, so don't miss out. We must receive payment and your registration form in order to reserve your seat.



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# PLS-CADD Class Registration Form

May 3 - 5, 2011 in Madison, Wisconsin, USA

*Each attendee must submit a completed form to register – please print.*

## Attendee Information

Name (First/Last) \_\_\_\_\_ Phone \_\_\_\_\_  
Company \_\_\_\_\_ Fax \_\_\_\_\_  
Address \_\_\_\_\_ E-Mail \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## Payment Information

Full payment is required prior to the class and must be received in order to reserve a seat. Seats are reserved on a first-paid first-reserved basis and are limited.

Check No. \_\_\_\_\_

I authorize Power Line Systems, Inc. to charge my \_\_\_MasterCard \_\_\_Visa for the amount of \$1200. Note that Power Line Systems can only accept MasterCard or VISA credit cards.

Cardholder Name \_\_\_\_\_ Signature \_\_\_\_\_  
Card No. \_\_\_\_\_ Expiration Date \_\_\_\_\_  
Credit Card Billing Address \_\_\_\_\_  
(if different than above) \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## Cancellation Policy

Confirmed registrants who do not participate or who cancel after April 12, 2011, will forfeit their entire registration fee. Power Line Systems, Inc. reserves the right to cancel the training session and will refund the entire class registration fee in the unlikely event this happens.