

# LAKE FOREST LIVE STEAMERS RAILWAY MUSEUM INCORPORATED

An I.R.S. recognized 501(c)(3) non-profit organization

Presents

## Live Steam Rail Camp<sup>®</sup>

at

*Edward "Bud" Buker's Historic*

## Deerfield and Roundabout Railway



Deerfield and Roundabout Railway Engine Nos. 284, 326 and 442 on the stall tracks of the "Little Round House."

Restoration of the structure completed in June 2013 by members of the LFLSRM.

**LIVE STEAM RAIL CAMP** is an educational opportunity for persons interested in railway engineering and operation to put into practice or experience, on a miniature reduced scale, engineering and operating principles applicable to 56.5 inch gauge of track railways of the United States during the first half of the Twentieth Century.

**THE DEERFIELD AND ROUNDABOUT RAILWAY** and its Kennedy Road main line established in 1977 in then unincorporated Lake County, Illinois, is a 1:8 scale 7 and 1/2 inch gauge of track miniature steam locomotive powered railway.

# **INSTRUCTIONS, DEMONSTRATIONS, AND HANDS-ON CLASSES IN RAILWAY CONSTRUCTION AND OPERATION ARE SUBJECTS GIVEN EACH LIVE STEAM RAIL CAMP MONTH**

## **TOPICS OF INSTRUCTION MAY INCLUDE:**

### **FUNDAMENTALS OF PLANE SURVEYING**

- Route surveying
- Setup and use of the transit
- Differential leveling
- Horizontal curve layout by deflection angle
- Gradients and vertical curves

### **FUNDAMENTALS OF TRAIN DYNAMICS**

- Train rolling resistance
- Grade resistance
- Curve resistance
- Curve resistance compensation

### **FUNDAMENTALS OF WHEEL SETS AND TRACK**

- Relationship between wheel gauge and track gauge dimensions
- Plain unguarded track gauges on tangent and curved track
- Guarded track gauges at turnouts and crossings

### **FUNDAMENTALS OF ROADBED AND TRACK CONSTRUCTION**

- Roadbed drainage
- Roadbed profile in cuts
- Roadbed profile on embankments
- Ballast selection and profile
- Plain unguarded track construction
- Tie selection and placement
- Rail fastening to ties
- Joining rails to rails
- Turnout and crossing construction
- Track alignment, the horizontal element of track geometry
- Track surface, the vertical element of track geometry
- Super elevation applied to curved track

## FUNDAMENTALS OF THE STEAM LOCOMOTIVE

- Design elements effecting tractive effort
- Construction principles
- Operating principles
- Maintenance and lubrication considerations

## FUNDAMENTALS OF TRAIN CARS

- Construction principles
- Draft gear and couplers
- Passenger car trucks
- Freight cars trucks
- Maintenance and lubrication considerations

## FUNDAMENTALS OF TRAIN OPERATION

- Time table and train order operating rules
- Railway block signals, interlocking signals and track circuits

## SAFETY CONSIDERATIONS FOR AMATEUR OBSERVERS OF RAILWAY OPERATIONS

**WHEN IS IT:** The second Saturday of the months of May, June, July, August, September and October of each year. Additional sessions may be scheduled upon application to Lake Forest Live Steamers Railway Museum.

**Live Steam Rail Camp shall promptly start at 10:00 a.m. and end at 3:00 pm. It is important that all participants be on time. Any late comers will not be allowed to join in the session.**

**LIMITED OPENINGS:** Due to the nature of Edward "Bud" Buker's Historic Deerfield and Roundabout Railway, generally not more than ten (10) Live Steam Rail Camp participants may attend on a given day.

**An application or inquiry for a reservation for an opening must be sent to the following e-mail address:**

**l f l s r m @ g m a i l . c o m**

**If an applicant is accepted for participation in Live Steam Rail Camp, a confirmation with additional information will be sent to the applicant via e-mail or other means.**

**LIVE STEAM RAIL CAMP PARTICIPANTS shall be eighteen (18) years of age or older**, shall provide documentation of proof of age if requested and shall all execute a waiver releasing Lake Forest Live Steamers Railway Museum Incorporated from liability.

Lake Forest Live Steamers Railway Museum Incorporated reserves the right to refuse an applicant's request to participate in Live Steam Rail Camp.

Lake Forest Live Steamers Railway Museum Incorporated reserves the right to cancel at any time a Live Steam Rail Camp session.

For additional information please visit web site:

[www.lflsrm.org](http://www.lflsrm.org)



Lake Forest Live Steamers Railway Museum supports the efforts of  
**Operation Lifesaver**  
in educating the general public to act in a safe manner  
whenever near railway tracks or trains.

For additional information visit Operation Lifesaver web site:

[www.oli.org](http://www.oli.org)



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