



*American Public  
Transportation Association*

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## **Meeting Minutes Streetcar & Heritage Trolley Subcommittee**

**James Graebner, chair**  
Tom Hickey, vice chair, Tim Borchers, secretary

Winter Meeting  
San Francisco, CA

February 23-24, 2007

### **INTRODUCTIONS:**

Martin Schroeder called the meeting to order at 10:15am. Introductions were made of attendees. Martin thanked our sponsors Ansaldo Breda for providing lunch and LTK Engineering Services for providing a reception at the San Francisco Railway Museum. Special thanks and recognition were given to Cam Beach for organizing the F-Line Tour on Saturday. Martin thanked subcommittee members for their attendance and support of the subcommittee. James Graebner also announced that Gomaco was a new APTA member. Congratulations Gomaco, and welcome as a member of your association.

### **MINUTES FROM SAN JOSE**

The meeting minutes from the Subcommittee meeting at the Annual Conference in San Jose, were accepted with minor revisions.

### **RECOMMENDED PRACTICES – RAILROAD/TRANSIT SHARED CROSSINGS**

Lewis Ames kindly made a very informative presentation on the effort of TRB to develop recommended practices for railroad and transit shared crossings. A copy of the presentation was provided to meeting attendees. Lewis covered the detail of the proposed recommended practices including articulation of condition variations, petitions for waivers, reference standards from APTA and General Orders, etc. The recommended practice is considers new and existing systems. Also discussed were elements of a risk and hazard analysis. Lewis is asking for comments. Martin thanked Lewis for the informative presentation and asked the subcommittee to look at the proposal.

Jim Schantz opened a question regarding whether railroads can prevent such crossings. Bruce Horowitz noted three cases addressing this question. Tim Borchers asked about the process for receiving waivers.

### **OVERVIEW OF TRACK STANDARDS WORKING GROUP**

Martin provided an overview of the track standards effort underway between APTA and AREMA. The intent of the effort is to outline shortcomings in AREMA recommended practices.

AREMA and APTA have signed an MOU defining responsibilities and ownership of forthcoming additions to Chapter 12 and others from the AREMA Manual. The working groups being led by the APTA Track and Noise/Vibration Technical Forum include: 1) embedded track, 2) non-ballasted track, 3) wheel/rail dynamics, 4) corrosion, 5) special track work, 6) clearance, and 7) tight radius curves. Martin encouraged the Subcommittee to provide support and insight into the effort from the streetcar perspective. Those who specifically volunteered to provide this support included: Richard Carman, Richard Guthrie, John Smatlak, Harvey Stone, and Jim Schantz together with Jim Graebner. Martin thanked all for their support. Martin will add these new volunteers to the working group roster.

Other discussions ensued regarding notes about compromised wheel standards, AREMA TCRP Report 71 Volume 3 Application of AREMA Track Practice for Transit Agencies. Tom Irion noted a question regarding track inspection cycles; appropriateness of two-week cycle. Harry noted the occurrence of encased track in San Diego. John Smatlak pointed out that the AREMA report considers wheels, switch design, flanging wheels, tongue design, wayside lubrication, etc. John Smatlak and Tim Borchers noted the importance of European standards.

#### **VEHICLE STANDARD UPDATE**

John Smatlak led the discussion on the heritage trolley vehicle standard awareness and review – asking members for comments or needs for changes and enhancements to standard. Martin noted that APTA standards are normally reviewed on five year basis, unless problems are brought to the attention of the creating committee. John went on to mention General Order 143 for California PUC regarding trolley specifications, which was used as a guide for the APTA standard.

Martin discussed the ongoing effort by the ASME Rail Transit Standards Committee to write structural and crashworthiness standards for light and heavy rail vehicles. Martin chairs this committee and noted that for light rail vehicles, the committee is intending on proceeding to develop standards based more on crash performance rather than poorly defined static buff strength requirements, currently set at a value of twice the vehicle weight for California vehicles. By contrast, Europe sees strength values much lower – on the order of 1-g or less depending on vehicle type and operating environment. Martin offered to provide more detail on technical papers he and others have written regarding this point and the application of CEM design.

#### **OCS STANDARDS**

The Subcommittee sees the importance of developing an OCS standard. However Chris Pagne noted that IEEE is writing a specification of current collector for pantograph. IEEE is working with Rohr to reword General Order 95 because of the need for modernization. Chapter seven of this GO covers design, construction and operation of overhead wire, but was last reviewed in 1942. Jim Schantz noted that Jeffrey Sisson is leading pantograph work. Jim called on the Subcommittee to coordinate with the IEEE group especially because of their emphasis on light rail and not streetcar/trolley. Cam had mentioned bringing to the subcommittee more information on this effort – design primer for trolley wire.

#### **SPECIAL PRESENTATION ON BORDEAU - SCHANTZ**

Jim Schantz made a PowerPoint presentation on the Bordeaux, France rail system using an underground current collector, being marketed by Alstom. The system includes direct current shoes on a center embedded rail and a controller system that energizes track but only under the



vehicle. The system was noted to be impressive, but may have problems operating in climates where snow is more prevalent. Operational speeds range up to 30mph. Cost for the system is five times that of traditional OCS systems. Thanks Jim for making this information available to the Subcommittee.

## **PHOTOGRAPHY AND SECURITY**

Jim Graebner and Martin Schroeder agreed to look at an APTA web site idea that provides some level of ID badge as photographer. Atlanta nearly banned photography. BNSF has a guideline called friends of rails. There was some indication that APTA could tailor a similar program.

## **ACTIONS**

1. Cam to help with a primer for trolley wire.
2. Martin to include new track standards volunteers on track roster.
3. Jim Graebner and Martin to look into photography registration idea.
4. Subcommittee to support IEEE standards on OCS
5. Subcommittee to review crossings recommended practice draft

## **NEXT MEETING**

APTA Rail Conference, Toronto, Ontario, Canada, June 2007.

Jim Graebner thanked everyone for attending and adjourned the meeting without objection at 5:00ish.

## **SPECIAL NOTE:**

Saturday's tour was on the F-Line riding a 1914 Jewett Car and a Friday reception at the San Francisco Railway Museum. [I happened to note the detail of this car; a knurled steel match striking pad on the back post of the car.] Nat Ford and others were in attendance for the reception. This was a great reception and tour. The subcommittee is greatly indebted to MUNI, Nat Ford, and Cam Beach for organizing the tour. Thanks again also to our sponsors LTK and Ansaldo Breda. Many commented to APTA regarding the high quality of this particular meeting.

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Martin P. Schroeder, M.S.M.E., P.E.  
APTA Sr. Manager – Rail