Proposal to the ACCRS membership for Multimedia stations and video

This proposal is being sent out to the ACCRS membership before the May 3rd membership meeting. I am sending this as I will not be able to attend the meeting as I am at the PCR Convention in Sacramento that day, in fact planning to join one of the railroads for an operating session that evening. I would ask that both proposals be considered and voted at the meeting. Approval at this meeting is mandatory to reach the goal of completion by the fair.

The proposal is a key part of changing the ACCRS/Fair railroad from being just a model layout to having educational value. Transforming the ACCRS layouts form models to educational requires engagement. However, due to the challenging environment for attracting new members and limited numbers of existing members coming for open events, having any public engagement that requires active labor will be challenging. The following are two suggestions for multimedia engagement that does not require any labor during open hours.

Annual Fair Theme

As an educational center, the ACCRS layouts can have an annual focus. For the 2019 fair and associated events (the Good Guys immediately adjacent), the proposed theme is 'The 150th Anniversary of the Completion of the Transcontinental Railroad". This theme is both topical and enables an extended dialog about the impact of railroads on California and Alameda County. Attached to the email is a draft of an article to give tot eh local papers to promote the new educational aspect and the 150th. The ability to propose people coming to the fair to see the new railroad is a critical ask form Jerome and the fair management.

Audio Multimedia Stations

The first proposal is to install 4 audio-based multimedia "Railroad Education Stations (RES) at key points on both layouts. A prototype RES has been placed at the O Scale mountains for demonstrations. Each RES is designed to have a pushbutton (or two) that enable the public to get a recorded audio message of about 60-90 seconds to play. As the audio is played through an overhead directional speaker (DYI). Having two buttons will enable two different messages for each location, one historical, the other model railroad focused. The experience can be enhanced with additional visual aids (pictures, etc.) placed ate the location to illustrate the comments (Lincoln signing the Pacific Act, the engines meeting in Promontory)

The proposal is to put 4 stations in the following locations with the following messages for 2019. The approximate locations are marked with blue masking tape on the upper facia.

> O Scale Mountains – This first RES will introduce the theme and the mountains. For 2019, the focus is on how crossing the Sierras was critical for the transcontinental railroad.
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> HO Scale Port – the focus of the port is how railroads and sea shipping combined. For 2019, this will allow talking about the sea journey the railroad replaced and how the railroad opened the US to shipments form the far east. The recording can reflect how containerized shipping has changed the world as well.

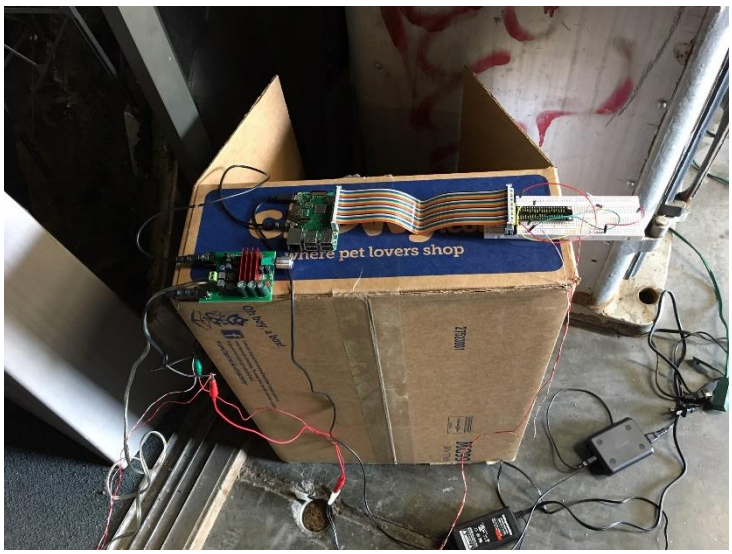
HO Scale City – the focus of this for 2019 is how the transcontinental railroad enabled 6-day travel across the country and the predominance of train travel as the primary long distance/cross-country travel until the late 1950s/early 1960s. This can tie to the posers in the lobby and the named trains for the major California railroads during the "Golden Age' of rail passenger travel.

O Scale Narrow gauge- This station will focus on how narrow gauge opened the resources (Mining and timber) in California due to lower cost and rapid operations. The proximity tot eh narrow gauge engine terminal allows comments on steam train servicing.

Each Railroad Education Station has three components for a total cost each of about $130. As the Pi and amp need both 5 and 12 volts, it is proposed to u se two PC power supplies (one for each end) to provide this power for two stations.

- Raspberry Pi - $60 (70) – This is a small computer. It is used to play the audio based on the button push for input. The $60 includes the Raspberry Pi, 16G Micro SD card and the pushbutton(s) (Extra $10 is if there are two or three buttons – may add a stop button as well)
- Audio Amplifier - $18 – this is a single channel/mono amplifier with volume knob. The $18 includes the amplifier and the cable to connect to the audio output of the Pi.

- Directional Speaker – $50 - the DIY directional speaker uses an 18" plastic salad bowl from Costco ($17) and a small Pyle 3" speaker ($15), along with a food container ($1) to create the slot loading on the speaker. The frame is pine and plywood. The salad bowl is coated on the outside with two cans of auto undercoat separated by a layer of 2mm static grass. This creates a sound absorbing coating on the bowl to minimize coupling of the sound out into the room. Also uses about 1 $1 can of flat black spray paint



Prototype for evaluation

A prototype unit has been set up by the O Scale mountains for evaluation. Note the intro/exit chuffing is too loud in the recording and this recording is too long. However, evaluate the level of sound for the listener below the speaker versus at the conductor chair when the fans are turned on to see the impact when we are open for the fair.

Directional Speaker for HO drive-in theater

As there will be new sound sources at the south end based on the multimedia, it is proposed to build a directional speaker for the movie theater as well. As this will connect to the existing sound system, the cost is about $50 only.

Audi RES Total Proposal Cost

Based on a cost of $130 per station and $50 for the theater speaker replacement, the total cost for this proposal is $570.

Video Education Station

The second proposal is a video education station at the corner by the members lounge/office stairs. This would be a (about) 36-42” LCD television mounted to the wall with a moveable bracket. The system would play either a video loop or timed videos. The monitor/audio will be driven form a raspberry PI, enabling a defined program to be played. For the initial 150th in 2019, it is proposed to use parts from the 2010 history channel presentation about he westward migration and the transcontinental railroad. Other videos could be Operation Lifesaver or modelling videos.

The Video Station will require a TV/Monitor, bracket, Raspberry PI, etc. Based on low prices for the TV/monitor of $250, the total budget will be about $400.