



Autumn 2018  
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Issue 4

# INSIDE THE OC&E

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Colorado Model  
Railroad Museum  
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Greeley, CO 80631  
970-392-2934  
www.cmrmm.org

## Littler Youth Fund Awards Grant to CMRM Youth Program

The Community Foundation of Greeley and Weld County awarded a Grant to the CMRM the first week of October to provide after-school and summer activities in a cross-curricular, hands-on learning environment using the LEGO Education STEAM Programs. The curriculum will engage students to become more independent learners helping them to develop 21st-century skills which include problem-solving, comprehension, communication, creativity, and critical thinking. The LEGO WeDo and Mindstorms EV3 software also introduce students to basic programming skills preparing them for the increasing STEAM requirements for their future careers.

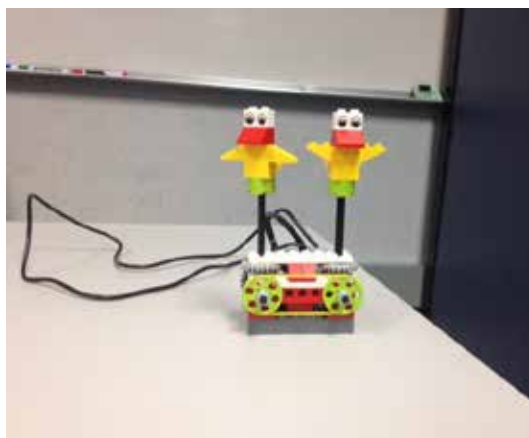
The program's funds will be used to support the participation of students using robotics while integrating other academic subjects through collaboration with the local schools. LEGO after-school education curriculums will be developed for grades K-2, 3-5 and 6-8. Also, LEGO summer competitions, classes, and events will be conducted at the museum for all

kids from ages 5-12+. The Core engineering curriculum for 2019 will include an Introduction to STEAM and a STEAM Challenge. These programs will be broad in theme and draw upon a variety of possible projects based on the LEGO Education Program.



The program will expand the collaborative relationship that the CMRM has developed with the Weld County Community. The target population will emphasize children located in or near Greeley and within Weld County in grades one through eight.

The museum will continue to expand the program based on the growth of funding and volunteers supporting the Youth Program. We are always looking for more talented and dedicated volunteers. Please let the museum know if you are interested in helping the community through your participation in the Youth Program.



**The LEGO Robotics will be the emphasis of the CMRM STEAM Program enabled by the Littler Youth Fund Grant Award**

# CMRM Supports the High Plains History Festival at Centennial Village in Greeley

By Norm Wolstein

Over 2,000 fourth and fifth-grade students from Cheyenne, Fort Collins, and the surrounding areas visited Centennial Village in Greeley during its annual Fall High Plains History Festival from September 21 through September 25. Since 1992, the City of Greeley Museums has produced living history festivals for teachers and students, complete with interactive elements and demonstrations illustrating life in historic Northern Colorado and the old American West. Centennial Village includes a 1910 Union Pacific train depot, a one-room schoolhouse, a replica of a fire station with an antique fire truck, village square, homes furnished with antiques galore, lush gardens, winding pathways, and lots more. The Colorado Model Railroad Museum supports the History Festival by setting up a model train layout and providing a brief history of the Transcontinental Railroad and the critical role Greeley played in the development of Colorado railroads to the students.

The history lessons are given in the Union Pacific Train Station from Burns, Wyoming that was beautifully restored and relocated to Centennial Village in Greeley, Colorado.



The CMRM history lesson emphasizes the challenges of building the Transcontinental Railroad as the Civil War was ending in the East. The labor required to build the railroad was extensive, and the main laborers did back-straining work for days on end in sometimes brutal conditions. The massive construction project required an entire network of support workers, including medical staff, cooks, and proprietors of provisions stores and living areas. School children in the United States are taught that the Transcontinental Railroad was completed on May 10, 1869, at Promontory Point, Utah when Leland Stanford drove in the Golden Spike. The railroad was built by the Union Pacific building west from Omaha and the Central Pacific building eastward from Sacramento.



The Union Pacific hired mostly Irish immigrants, freed African American former slaves, and Civil War veterans. The Central Pacific, which built the railroad from California to Utah, hired primarily Chinese immigrants. Initially, the Central Pacific's management had also tried to hire Irish workers, but for several reasons, that was not successful. To fill the gap, Central Pacific turned to Chinese immigrants, who were traveling across the Pacific Ocean in increasing numbers, 40,000 in the 1850's alone. Many of these Chinese immigrants had come to California for the Gold Rush and had stayed.

The western half of the railroad was much more challenging to build because of the rugged mountain ranges and deserts that had to be crossed. The eastern half of the Transcontinental Railroad was easier to build since it started in the Nebraska prairie and was able to follow rivers and natural trails before encountering the mountain ranges. The Union Pacific built the railroad going through Cheyenne to avoid the challenges of the mountains west of Denver. Greeley became a key railroad location for the development of Colorado railroads being



halfway between Denver and Cheyenne on the Denver Pacific railroad with its connections to Julesburg and Cheyenne. After the brief history lesson, the visiting school children ran trains on the model train layout set up by the museum while discussing the role Greeley played in Colorado History.



## Visitors from Down Under



Ian and Viv Duston from Wellington, New Zealand visited the museum on July 26, 2018. Ian has modeled the OC&E since the early 1990's, and he brought photos on his tablet to show. He has visited Lakeview and Klamath Falls, Oregon multiple times.

## Boys and Girls Club



The partnership of CMRM and The Boys and Girls Club of Weld County completed their layout in September.

## New Exhibit

The museum has a new exhibit, a LEGO display next to the Dispatcher's office. CoWLUG, the Colorado & Wyoming LEGO Users Group, is a group of over 100 LEGO enthusiasts who like to share their passion with other like-minded individuals from across Colorado and Wyoming. CoWLUG members enjoy volunteering for public displays and events. They made a great impression at "Rails in the Rockies" in February 2018. After seeing their display in Estes Park, the CMRM contacted the group and asked for them to create an exhibit for the museum. The group decided to develop a Halloween themed display and installed it in the Kid's Corner. The display operates a ghost train with fantastic detail attracting both kids and adults. Thanks to everyone from CoWLUG for the Halloween display and the museum looks forward to the installation of a new exhibit in November.



# Rio Grande Days at the Museum

Photos by Bill Kepner

Periodically the museum recognizes some of our favorite railroads by having a weekend where volunteers can run trains that represent those railroads. On the weekend of October 5-6, we celebrated **Rio Grande Days**, and we had several good examples of Denver and Rio Grande Western Railroad trains run across the OC&E.

In 1988 the D&RGW purchased the much larger Southern Pacific but decided to use SP's identity as it was better known

to customers. The Rio Grande then slowly faded from sight in the 1990's as the Southern Pacific influence became more apparent. Once Union Pacific assimilated the SP in 1996, most of the remaining D&RGW locomotives were quickly retired, patched, or painted to remove any evidence of the once feisty competitor. Several examples of Rio Grande locomotives are preserved in museums such as the Colorado Railroad Museum in Golden, Colorado and the Utah State Railroad Museum in Ogden, Utah.

**Left:** Rio Grande joined the Chicago, Burlington, and Quincy, and the Western Pacific Railroads to operate the *California Zephyr* from Chicago to Oakland, California from 1949 to 1970. What's the CZ doing on the OC&E with Rio Grande ALCO PA1 locomotives? It doesn't matter, the CZ would be welcome regardless of where it ran! **Below:** A Rio Grande GP40-2 and an SD40T-2 Tunnel motor lead a westbound train at Lakeview. While it wasn't common to see Rio Grande power mixed with BN's, perhaps the Burlington Northern is power short and needs the extra help.





It's hard to imagine today, but in the 1970's, before fuel prices rose significantly, railroads would run multiple 4-axle locomotives on their "Hot Trains." **Left:** Two of Rio Grande's GP60's lead a train over the high bridge. **Below:** A GP40-2 leads two older GP40 locomotives out of Dog Lake. What's with the orange lettering? In 1983, Rio Grande acquired 23 GP40 locomotives from Conrail. In the ensuing years, Rio Grande had a contractor paint them into the Railroad's colors. Unfortunately, the color used was almost orange instead of the tradition Grande Gold.

Bill Rogers shot video during Rio Grande Days 2018 of a 48 car Rio Grande coal train and it is available for viewing at

<https://www.youtube.com/watch?v=abUJ03AATrM>  
or Google "youtube cmrm rio grande days"



# New Locomotives for the Glow Worm

By Bill Kepner

For the last 10 years or so, the OC&E's famed *Glow Worm*, trains 201/202, has been usually powered with solid sets of Great Northern locomotives. GN Usually assigned older, 4-axle locomotives to the Worm, just about anything that could run, from worn-out F units, to "Big Sky Blue" Geeps, to an occasional GP35 or even an ALCO.

This routing is actually more difficult for the SP than it was for the Great Northern; the loaded train must climb Sage Hen Summit on the Modoc Line, then backtrack and climb the eastern side of Donner Pass. From there the train will be routed down the Valley Line to Tehachapi Pass, and finally, into the Los Angeles basin.



A new set of Southern Pacific power brings the empty *Glow Worm* past Lakeview Yard. The locomotives are SD40 7712, SD45T-2's 9259, 9258, and 9184, and SD40T-2 8306. This

photo was taken the day after the 9184 was repaired and returned to service.

GN's partners, the Western Pacific Railroad and Santa Fe, helped piece together the route that delivered liquid chlorine produced at the Hooker Chemical plant outside of Olympia, Washington, to a customer in the Los Angeles area.

The original contract was for 10 years, and when it came up for renewal, the Southern Pacific outbid GN/WP/ATSF and assumed the responsibility for future shipments. Fortunately for the OC&E, Great Northern had exclusive access to the Olympia plant and was able to negotiate the location of the interchange to be Fairport, Oregon on the eastern end of the OC&E. The Southern Pacific then will haul the train from there, all the way to southern California.

SP has always used the most powerful locomotives available on their mountainous lines, and their initial plans for the reroutes are no exception. On the first day of the new service, a set of 5 6-axle locomotives, including an SD40 (SP 7712), a couple SD45T-2's (SP9258, 9259, and 9184), and an SD40T-2 (SP8306) led train 201 out of the Fairport interchange onto the OC&E.

The EMD SD40 was first available in 1966, and SP quickly jumped on the bandwagon, eventually accumulating 89 units of that type. Their 3000 HP was produced by a 16-cylinder 645 diesel prime mover. SP would subsequently rebuild these in the early-1980's, and some of them ran up until the merger with the Union Pacific in 1995.

Next came the SD45T-2. Like the EMD SD45, these employed a 20-cylinder 645 diesel prime mover and produced a whopping 3600 HP. SP and the Rio Grande had experienced overheating problems with earlier high horsepower diesels on long mountain grades, especially when tunnels were present. They asked EMD to design a solution, and the Tunnel Motor was born. The radiators of these new locomotives would be located lower in the car body, and the air intake would be just above the rear truck. There would be 248 examples of this model on the SP, 184 of them lettered Southern Pacific and the rest Cotton Belt. A humorous note about Cotton Belt's Tunnel Motors, officially named the St. Louis Southwestern Railroad, the roughly 2000-mile-long railroad connecting St. Louis with Texas didn't have a single tunnel.

The newest locomotive used on the *Glow Worm* would be the SD40T-2, the second Tunnel Motor model. While only 3000 HP versus the 3600 of the 45 series, by 1974, fuel costs had risen significantly, and it was determined that the 40 series locomotives with only a 16-cylinder motor would be more economical to run. SP/Cotton Belt would eventually buy 239 of these units, and Rio Grande would buy another 73 units.

With over 17,000 Horsepower at their disposal, OC&E engineers felt they would be able to make better time over the railroad, but were a little bit concerned that with all that horsepower, there might be a tendency to be a little sloppy with their train handling.

On the first day of the new 201 consist, the 9184 developed a problem with the front truck and eventually had to be set out for repairs at Klamath Falls. Otherwise, the engineer had one of his fastest runs over the railroad.

At this time it is unclear whether the other set of locomotives dedicated to the *Glow Worm* will be replaced and currently the old GN engines soldier on.

You never know what will happen next!

**Editor's Note:** As this issue goes to press we hear rumors that the SP is having a hard time meeting their schedules and the customer is threatening to cancel the new contract. So the SP motors on the *Glow Worm* may be a temporary situation. Get your photos just in case!



**Above:** In this 1986 photo on the Modoc line, SP 8306 is leading a southbound train through Likely, California. The SD45T-2 locomotives seemed to stay around Oregon and northern California during the first years of their career. The Modoc Line was typically used as a bypass around the Sacramento and Roseville area for lumber products out of Klamath Falls, Oregon.



**Left:** The *Glow Worm* drifts into Lakeview and is about to cross the big bridge over the harbor. **Above:** SP 8306 was also spotted leading a mixed freight train through Stockton, California in 1984.



# More Lights for Night Ops!

One of the neatest things we can do with the OC&E model railroad is to operate “at night.” The main museum lights are dimmed, and the “blue lights” are turned up, simulating night time on the railroad.

Darrel Ellis and Steve Palmer have replaced all the Street lights in Lakeview with rebuilt units that feature 3-volts LED bulbs from a set of Christmas lights, and they should last forever. Steve also rebuilt the channel marker lights at Nasty Flats and added some signs to the scene.

As this work was underway, other volunteers noticed the lights were acting funny; Darrel had a little fun with this and wrote up a response:

*According to a Lake County Examiner report: “Last Thursday night a light aircraft was having difficulty finding the Lake County Airport. The streetlights on main street of Lakeview were set to flash to help guide the lost aircraft to the airport. Fortunately, the aircraft was able to find the airport and land safely. Unfortunately, the process of making the streetlights flash blew out a Lakeview Light and Power transformer. LL&P has assured everyone that the Lakeview streetlights will be back to normal operations as soon as possible.*

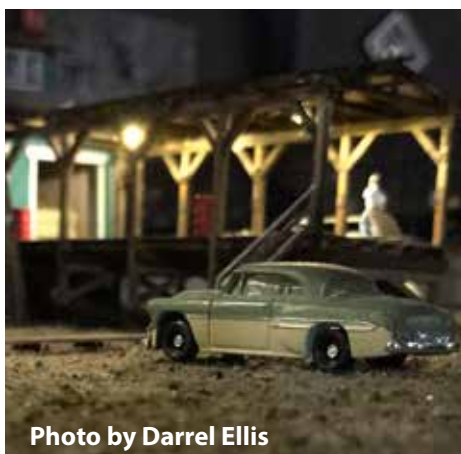


Photo by Darrel Ellis



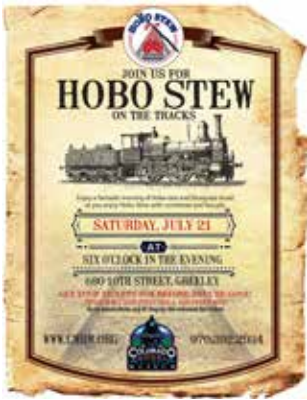


# 2019 Calendars Now Available at the Museum Giftshop



# Hobo Stew Fundraiser

On Saturday, July 21, the museum conducted the 3rd annual "Hobo Stew" fund raiser in the south building. Eighty-six museum supporters attended and were treated to a fantastic evening of Hobo lore, games, and bluegrass music, with an enjoyable meal of Hobo Stew with corn bread, biscuits, and dessert catered by UNC. The legendary steam locomotive UP 844 also made a cameo appearance on its way to Denver.





# Always Alert - Nobody Hurt

Professional accident investigators will usually tell you that an accident, whether it be on the railroad, automotive, or industrial, is rarely caused by just a single event. It could be just a simple change from the norm but compounded by inexperience or unfamiliarity with the environment.

The OC&E Ore Train #211/300 always demands special care. With 80 relatively short, but heavy cars, operators should always be on the alert when tackling the Quartz Mountain grade.

A bad coupling could result in a runaway when climbing the grade. Several times there have been incidents where the rear part of the train ran away down the hill, reaching speeds that are likely to be over 100 scale miles per hour, only to "pile up" on one of the curves above Dairy.

Fortunately, these cars are reasonably robust and may not be severely damaged. However, untangling the mess is going to take a fair amount of time, tying up a critical portion of the railroad. Our visitors then have to resort to watching you painstakingly re-rail each car. Some accidents such as this might have been caused by a coupler problems and might have been prevented by carefully inspecting for mismatched coupler heights. The entire train probably weights on the order of 20 pounds, and we depend on less than a 1/4 square inch of coupler contact between each car to keep the train together. No wonder we outlaw plastic couplers!

The accident pictured below might have been caused by the ore train stalling as it climbed the western side of the Quartz Mountain Grade. For some of us, it's a natural reaction to a stall to try to reverse the throttle direction, maybe to verify that the locomotives had electrical contact with the rails.



Photo by Darrel Ellis

But don't do that! Even if we do it for just a second to confirm that the engines are still running, with an 80-car train, that's going to result in several real inches of slack action. On the west side of the mountain, there are many tunnels and you may not be able to immediately determine that there is a car on the ground or some obstruction on the track.

Each situation demands that care be taken, and if you don't know what is happening, a careful inspection might first be appropriate before attempting to free the train. If you aren't sure what is wrong, please call for help! There is no penalty for admitting you are unsure what to do. Others will gladly be willing to help you.

So, remember that rules and recommendations are made usually after such an accident occurs! That's why we demand our operating crews to pay attention when running your train. The OC&E is not your simple loop of track around the Christmas Tree! So please, keep your cell phone in your pocket and always watch the train for anything out of the ordinary. **Always Alert - Nobody Hurt** was a safety slogan that the Union Pacific placed on one of their cabooses in 1967. That might be a thought to have as you pick up your throttle on the OC&E.

# Upcoming Museum Events

**November 9-11**

- Military Appreciation Weekend, all Military free admission

**November 16-17**

- Extreme Trains Session

**November 20 to 21**

- Holiday extended hours 10 AM to 4 PM

**November 22**

- Thanksgiving - Closed

**November 23**

- Open normal hours 10 AM to 4 PM

**November 24**

- Santa, 10 AM to 1PM

**November 25**

- *Polar Express* Movie at the Kress Theatre! Tickets \$12, show times: 1 PM, 4 PM, 7 PM. Includes 1 Free pass to our Festival of Trains during the Holidays  
- Open Sunday hours, 1 PM to 4 PM

**December 1**

- National Lionel Train Day

**December 14**

- Members Only Night Trains with Santa 5 PM to 8 PM

**December 15**

- Santa 10 AM to 1 PM, open 10 AM to 4 PM

**December 18 to December 31**

- Holiday Extended Hours, 10 AM to 4 PM

**December 21**

- Public Night Trains with Santa 5 PM to 8 PM (Must call the museum at 970-392-2934 to schedule a photo time slot)

**December 22**

- Santa 10 AM to 1 PM, open 10 AM to 4 PM

**December 23**

- Open Sunday hours, 1 PM to 4 PM

**December 24**

- Open 10 AM to 1 PM

**December 25**

- Christmas Day - Closed

**December 30**

- Open 1 PM to 4 PM

**December 31**

- Closed (Maintenance Monday)

**January 1**

- Closed - New Year's Day

**January 2 to January 6**

- Holiday Extended Hours 10 AM to 4 PM

**January 5**

- Literacy Day



# Car Show Benefits the Museum

The museum hosted a car show on September 22, 2018. GLH Construction of Windsor helped sponsor the event, that was held at the East (city) Parking Lot across the tracks. There were 27 cars entered and prizes were awarded for 1st, 2nd, and 3rd places.

The Music Man DJ Service provided the sounds, food trucks came by to feed, face painting for the kids, and everyone had fun. We'll be doing this again next Summer.



**1st Place**



**2nd Place**



**3rd Place**





# Sales of Excess Collections

By Duane Fields

The museum frequently receives donations of model railroad equipment. Unless these items are historical or unique and worthy of display in the museum, we usually try to find a good home for them. Proceeds of these items are funneled directly back into the museum’s budget and allow us to purchase new equipment for the OC&E model railroad.

As a member of the collections committee I have taken over the sale of donated items from Keith Woolf, who had been performing this role for many years. Thank you, Keith! We have a corner in the south building where we store our merchandise, and it has taken quite a bit of time to sort and organize.

I am willing to take museum members and volunteers to the south building to view and purchase donated items anytime I am present at the museum. You can then take your purchases to the front desk and pay with cash or plastic.

We also have a store on eBay named “Colomodelrrmuseum” that I have been listing several auctions per week. The easiest way to find our store is to do an advanced search, selecting “show items only from specific sellers.”

We also sell stuff at the train shows. As donations come in, I plan on giving the volunteers priority; and if someone is looking for a particular item, I will be glad to keep an eye out for it.



## The Museum and Operation Lifesaver

Operation Lifesaver is a nonprofit public safety education and awareness organization dedicated to reducing collisions, fatalities and injuries at highway-rail crossings, and trespassing on or near railroad tracks.

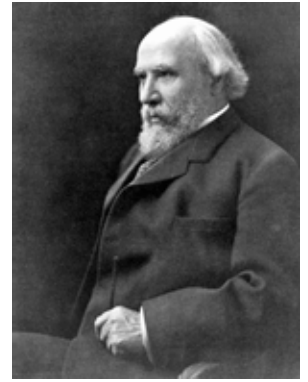
On Saturday, October 6, 2018, Museum Director Michelle Kempema promoted railroad safety for Operation Lifesaver at the Family Safety Expo at the Larimer County Fairgrounds. About 600 people learned how to be safe around trains.

If more museum volunteers wanted to help, Operation Lifesaver could certainly use the help! Mike McCoy is the local Operation Lifesaver Director and can host training anytime we get a few people signed up to volunteer.

The first step is to go to <https://oli.org/> and sign up to be a volunteer. This will send an email to Mike so he can add you to the list of the next training, and we could host that here at the museum. This is such a great organization with an important message; Michelle says she is honored to be able to spread the word about Railroad safety to the community.







## Memo from the Museum Director

### Subject: Empire Builders

James J. Hill is considered the original Empire Builder in American history with his building of the Great Northern Railroad and later involvement with the Northern Pacific Railroad to create a railroad empire that settled the West and spanned generations. In much the same way the Colorado Model Railroad Museum (CMRM) is establishing connections with the Greeley community, the entire nation and beyond. The museum, a bucket list attraction for many across the globe, not only provides a location in Greeley where model railroading comes to life but also takes educational STEAM programming to schools and youth services in the Northern Colorado region. The museum has built a national presence in the industry as a leader in innovation and education. Though the network is growing every day, the underlying commitment of the museum to its Mission to educate, inspire, and bring joy to all ages, remains the core of how CMRM operates. CMRM's commitment to the community is shown in how the museum has given back over \$12,000 of in-kind and ticket donations to community non-profits in just the past year. But it's the right thing to do... so we do it.

In deciding what to call those who invest in the CMRM and its future in this community we were reminded that just as the railroads had Empire Builders, our communities do too. This is why CMRM will now designate its highest level investors as Empire Builders.

We invite you to become an Empire Builder and invest in the future of this museum and your community. There are two ways to be involved: through Membership or Sponsorship. If you would like your investment to be from a personal or family donation, you can choose our new Empire Builder Membership level. If you would prefer to have your business sponsor the museum you can choose the Empire Builder Sponsorship. Both start at the \$2,500 investment level and come with benefits for you and your family or employees.

On behalf of the museum Board, staff, volunteers, and youth served, we hope you will give this thoughtful consideration. Our community and your museum need Empire Builders like you.

Thank You!

Michelle Kempema  
CMRM Executive Director



# What's Neat at the Museum

The CMRM staff attended the National Train Show in Kansas City to promote the museum. While there, Executive Director Michelle Kempema was interviewed by Ken Patterson who produces the monthly *What's Neat in Model Railroading* video magazine. The free monthly video is available on YouTube in conjunction with the *Model Railroad Hobbyist* online magazine.

The segment featuring Michelle was published in the October 2018 edition. It's a brief interview, but Ken was impressed enough with the response he got that he will feature CMRM periodically in the future.

Ken Patterson also publishes a weekly version of his magazine called "What's Neat This Week", also available free on YouTube. CMRM was also featured on the October 6th edition by way of Skype, which allowed Michelle to show off the actual museum during the show. By some incredible planning, or maybe just plain luck, a southbound Union Pacific train blew its horn right as the show started. CMRM got about 10 minutes of the show, and about halfway in Ken asks, "You have tracks running right outside your building, what must that be like? Do all the guys run outside to go see the train?" To which Michelle replies, "They actually do. The building almost empties when a train goes by."

Getting this exposure was a tremendous opportunity, and it

is likely this could open up an ongoing partnership, possibly featuring CMRM every 4 to 6 weeks. There will be plenty of opportunities for museum volunteers and supporters to help supply material for these shows.



## To see the videos:

October edition of *What's Neat in Model Railroading*:  
<https://www.youtube.com/watch?v=h31ZMEtWFyY>  
 or search for:  
 "what's neat in model railroading October 2018"

October 6 Podcast #51 of *What's Neat This Week*  
<https://www.youtube.com/watch?v=vYiEKlrYKbo>  
 or search for  
 "what's neat in model railroading podcast 51"

# Partnership with the Girl Scouts

The museum recently received a Boettcher Foundation grant for \$5,000 to create an ADA compliant sidewalk and door to the south warehouse from the main museum.

Girl Scout Troop #78586 from Eaton, Colorado, comprised of 17 Daisies and Brownies, will be partnering with the museum to design the sidewalk. They will also help us with the design of a low water eco-system garden that will go next to the door on the south warehouse.



## Museum Donations

Jack Dietz  
 Duane Fields  
 Ghost Town Club of Colorado  
 Skip Herbert  
 Jo Anne & Fred McCargar  
 Tim Mc Mahon  
 Beverly & Jay Norman  
 Scheels Sporting Goods

## Volunteer Awards

|   |   |
|---|---|
| <b>500 Hour</b><br>David Allen                  | <b>4000 Hours</b><br>Brian Milota<br>Brent Milota |
| <b>1000 Hours</b><br>Scott Warren               | <b>8000 Hours</b><br>Darrel Ellis<br>Randy Palmer |
| <b>1500 Hours</b><br>Carl Debo                  |   |
| <b>2000 Hours</b><br>Skip Herbert<br>Jim Inglis |   |

### *Inside the OC&E*

*Inside the OC&E* is the official newsletter of the Colorado Model Railroad Museum. Its purpose is to communicate news and information to museum volunteers and others interested in the museum.

The Winter 2019 issue **PUBLICATION DEADLINE:** Tuesday, **January 1, 2019 at 5:00 PM.** Send submissions to **drgw0579@comcast.net.**

Bill Kepner, Editor.  
 Ed Hurtubis and Bob Owens, Associate Editors



Volunteer Car #1 "David Trussell"





