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66  Observations — Joe Giannovario
Denver's Union Station has long been one of the city's architectural and historical treasures. The cavernous waiting area holds countless memories for hundreds of thousands of travelers involved in greeting and saying good-bye to friends and family members returning from or leaving to go to world wars, family vacations, college educations and journeys across the country. In its basement resides a truly marvelous train layout that has been a part of the Denver model railroading community for 74 years. It is one of the oldest and largest O Scale layouts in the United States, the Colorado Midland.

Union Station was built originally in 1881 and rebuilt after a disastrous fire in 1894. In 1933, Cherry Creek flooded and filled Union Station with a foot of water standing on the main floor with the basement filled to its ceiling. Lost were all of the records of the Colorado & Southern Railroad. A small O Scale layout had been on display on the mezzanine, but after the flood, a large storeroom in the basement was offered to the Denver Society of Model Railroaders to build a much larger layout. All they had to do was clean out the mud, muck and the remains of the records, which was six feet deep in a 75’ x 90’ basement room. The club named the layout the Colorado Midland and their handiwork depicts specific and composite scenes from the state. O Scale was the choice of the Denver Society as not much else was readily available in model railroading at that time. Work on the design and implementation began immediately after the cleanup was completed in 1935. The Colorado Midland is one of the pioneering 2-rail layouts.

There are two separate mainlines, one standard gauge and one narrow gauge. The standard gauge line measures approximately 1200 linear feet, and the narrow gauge covers just over 600 linear feet. The yards and sidings add almost another 1800 feet, bringing the total trackage to just less than 3600. It takes almost 30 minutes for a standard gauge train to travel the entire mainline and 25 minutes to travel the narrow gauge route.

Much of the track laid in the 1930s and ‘40s features ties that were nailed to the underlayment as adhesives were still rather primitive and scarce due to the war effort. The track is 98% handlaid with code 148 and 172 rail for the standard gauge and code 100 for the narrow gauge. The standard gauge curves are 72” radius with a 2-1/2 % maximum grade, and a 48” radius on the narrow gauge with a maximum 3-1/2% grade. Army surplus B-25 bomber horizontal trim motors were used to power some of the turnouts, and two still function flawlessly today.

The scenery is plaster over chicken wire and the layout has been painstakingly scenicked with thousands of trees, hundreds of details, and many bridges and trestles. Gravel and rocks from Colorado railyards, most from the area being modeled, are used throughout the entire layout. Industrial areas, railyards and small towns are spread throughout the layout, and the attention to detail, especially on such a large layout, is quite impressive. Almost all the traditional methods of scenery creation have been used over the course of the seventy-four year history of this layout. The cottonwood trees, of which there are many, are made of Colorado sagebrush. Some pine trees were made by the “Jack Work” method of drilling sticks to hold caspia branches and then spray painting the caspia. Members have also used the “twisted two wire” method to create tree trunks. The towns of Sargent, Cerro Summit and Marshall Pass are modeled as accurately as possible to the real thing, and all structures are scratchbuilt.

All the rolling stock and locomotives are owned by the club’s members and on the monthly operating night, club members can run a complete California Zephyr, Yampa Valley Mail, San Francisco Chief, The Prospector, a long Burlington Sunset 3rd Rail CB&Q M-4 Colorado #6310 exits Grove Siding past the station. The station is a Builder’s in Scale model of a former D&RGW Tennessee Pass Station.
The latest addition to the layout, built during the last 10 years, is this scene of standard gauge Leadville in the foreground and Sargent on the narrow gauge in the distance.

The crew of D&RGW K-36 #489 chat before moving their locomotive away from the Sargent coaling dock. The loco is from MMI and the coaling dock was scratchbuilt using prototype plans.

UP Extra East 264 passes the Grove station. The crowd on the platform is waiting for the next westbound passenger train.

D&RGW K-27 #454 crosses over a trestle in front of a photo backdrop of the real Dallas Divide on the RGS.

The eastbound UP Pacific Limited holds the main while a CB&Q M-4 enters Grove siding.

CB&Q GP9 #289 gets some spot-time as the crew ponders the next switching move. The Geep is from Red Caboose with a P&D drive.

Many scenes are visible from any viewing spot. Here the narrow gauge is in the foreground with a UP passenger train leaving a tunnel while an ATSF GFX (Green Fruit Express) crosses a tall bridge and trestle over the Springs Colorado yard.

The eastbound San Francisco Chief splits the signals headed toward MacIntosh and then Springs. The locomotives are from Key.
An MMI K-27 #452 slowly descends a grade trailed by a train of Gramps tanks cars.

CB&Q O5B #5632 passes the Book Cliffs in western Colorado with a train of equipment during WWII. This train is a favorite of the many kids attending our open houses.

K-27 #452 rolls past the front of the Grays depot.

Minor welding repairs are performed on a piece of work equipment.

"A train of tanks cars is just not a good train to hop, no place to ride. I'll wait for the next train."

D&RGW Tunnel motors pull a double stack train under the Book Cliffs in western Colorado.

"Construction, reconstruction and improvements have been ongoing for years. This photograph is from the 1960s as a large narrow gauge yard at Grays was removed for better access to the trackage underneath. At the same time a new bridge across the access aisle is being built."

Rio Grande Southern's Galloping Goose pulls in for another load of tourists at Junction.
A high trestle on the way to Marshall Pass on the narrow gauge is under construction in the 1980s, towering over South Yard, also under construction.

From the 1970s, All Nation F units pass an Amtrak passenger train powered by an US Hobbies FP45.

The Colorado Midland’s roundhouse serving Springs and East Yard, photographed in 1954, was scratchbuilt to fit the space and is still in use. The CM #401 is a diecast 2-8-0 kit from the “blacksmith” era of O Scale.

K-28 #473 switching at Junction.

John O’Connel explaining the layout to a group of kids during an open house.
Fast Mail, an Amtrak train, and the Exposition Flyer. The California Zephyr consist is made up of cars built and marketed by club members Ron Keiser and Don Elliott as Midland Reproductions kits in the 1980s.

Locomotives range from a classic 1939 Lionel Hudson that is used on special occasions to products of US Hobbies, All Nation, PFM, Sunset 3rd Rail, Overland, Key, P&D, and Red Caboose. The All Nation F units were painted with the last gallon of Rio Grande Aspen Gold paint from the railroad’s Burnham Shops in Denver.

Red Caboose, Atlas and Intermountain cars populate the rolling stock roster with the remainder being made up of brass units built worldwide in the last 20 years. Models manufactured in the 1950s have been removed from the layout due to a lack of detail.

An operating session on the standard gauge line requires three engineers, a dispatcher, a yardmaster, someone in the staging yard and a floater to move to any trouble spots quickly. Other members greet visitors and give tours of the layout as the trains move along. The narrow gauge run requires three to four other members in similar roles.

Adjacent to the layout, there is a small meeting room and a large workshop with woodworking and modeling tools available and several projects are always in various stages of completion. New members are welcome to join as long as they are willing to make the commitment to work on the layout. The payoff is the chance to run trains on one of the most historic train layouts in the United States.

What the future holds for the club and its layout is some-what in question. The entire Union Station complex is under redevelopment with a variety of plans for the station and the adjacent yards currently being discussed. The club has received preliminary assurance that it will continue to be able to house the layout as it has for the past 74 years. The members continue to make progress on installing DCC control but to completely convert a layout this large will take some time and money.

Visitors are encouraged to attend operating sessions on the last Friday night of each month from 7-9 pm., September to May. The layout can be accessed by entering the lobby of Union Station and taking the elevator downstairs. Then look for the signs to the Colorado Midland. This is a trip worth making! The locomotives and rolling stock are outstanding in their detail and composition. The scenery and details are accurate and complete, and the two hours of operations will pass quickly for a visitor who wishes to spend a pleasant evening in this historic setting.

More information and pictures can be found on the club’s website at [www.denveroscale.org] or by calling 303-572-1015. You can also watch videos of operating sessions by searching the YouTube website (www.youtube.com) or linking to YouTube from the club’s website. The addition of webcams so that website visitors can watch operating sessions live is in the club’s plans as well.

Special thanks go to club member Chip Rovetta for his work in captioning the photos as well as adding his considerable knowledge to this article, and to Erik Lindgren for his tireless photo work.

Fast Mail, an Amtrak train, and the Exposition Flyer. The California Zephyr consist is made up of cars built and marketed by club members Ron Keiser and Don Elliott as Midland Reproductions kits in the 1980s.

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Go And See For Yourself

In the culture of a certain well-known Japanese corporation there is a saying: *Genshi Genbutsu* (gen-she, gen-bootsue, the "t" sound goes on the last syllable), or in English—*go and see for yourself*. This is a mindset of the company’s executives who feel that their knowledge of a situation will often be incomplete and therefore, possibly even inaccurate, without first-hand knowledge. So they make a practice of going to see for themselves what issues a supplier, or factory worker might be facing. There is a parallel in modeling from the prototype. Our knowledge of a car, locomotive or location will be incomplete or inaccurate until if possible, we go and see it for ourselves.

A case of going to see for myself, involved watching a switching operation at a local plastics plant. It was one of those things where I had the time, the camera and the local showed up while I was there. I finally hit a trifecta! What I learned was how much time and effort it takes for a crew to sort cars into the right order before spotting them at the plant. I watched as the locomotive would cherry-pick a single car out of a cut, park it somewhere and then go after another one and so on, until they were all in the order specified by the plant’s traffic manager. This took a long time and the ground crew must have walked for miles going back and forth to uncouple cars and throw switches. I watched this for a couple of hours and they weren’t even close to being done when I left.

This got me to thinking about how we do things on our layouts. Historically, the hobby focused on individual industries and the more of them the merrier. Each layout had to have a town, or preferably several, that featured one or more small industries that needed to be switched as the core of operating interest. This often led to the cliché of an industry that was smaller than the train car spotted next to it. For the past fifty to sixty years, this hasn’t really changed. We always assume that more is better and stuff our layouts to the gills accordingly. What I saw last August proved to me that this doesn’t have to be the case. A single large industry, when done right can be just as interesting to operate as a bunch of smaller ones, and probably will be more realistic too. I think the implications for O Scale are that we can have a more faithful interpretation of a scene in a smaller space without giving up operational interest. This factory is seldom switched the same way twice. Traffic levels vary with the production of the plant. Sometimes they are switched twice a week, other times it’s less than once a week.

Many times in this hobby, we assume that we know how things are today or were done yesterday, but do we really? Often yes. However, there’s tons of stuff that I don’t know about trains or their operations and until I *genshi genbutsu*—go see for myself—my modeling won’t be as accurate as it could be.

Best regards,

Mike
Starting Over

Part 3 – The build begins

Joe Giannovario

When we left you last time, I had gone through eight major iterations to develop a track plan. Now it was time to start building. I contracted with Tom Thorpe to build the basic benchwork because I wanted a 10-inch drop for a trestle at Creek Junction. I’d seen Tom’s work at shows and conventions and I was convinced he was the right person to do this job. I worked right alongside him during the whole process.

Before Tom could start, Jaini and I had to tear out the old layout and prep the room. (I detailed the cosmetic changes we made to the room in Part 1 so I won’t rehash them here.) I tried to salvage track and switches but I discovered that ballasted track does not want to come up nicely. Anything that was ballasted on the old layout was trashed. I also discovered the flex track that has had the rails painted rust brown was no longer flexible, so that, too, went in the trash.

We saved the factory (OST #41), the coal mine (OST #42) and the block of rowhouses (see the OST Blog “We built this city”). I’m not sure what to do with the coal mine yet but the rowhouses and the factory have a definite place to go.

With the room bare, Tom came over to start taking measurements. You saw a photo of his initial setup in Part 1. Tom uses a ledger system to hold up the benchwork along the walls. After careful measurements we decided on a layout height of 40 inches off the floor. He installed the ledger accordingly compensating for his benchwork (Photo 1).

Before we went beyond this point Jaini and I decided to correct another error we’d made with the old layout. The time to install/paint a backdrop (if you want one) is before you put up the benchwork, not after. I looked at a lot of different options. We’d reviewed the SceniKing backgrounds (OST #40) which are 8” x 13” which worked out to $4.82 per square foot. While the SceniKing backgrounds are very nice we had 56 linear feet of wall to cover and I wanted something more than 13” high. I went to Backdrop Warehouse online and found a pair of backdrops that depict a rolling landscape of the type you’d expect to see in Virginia where the N&W ran. The Backdrop Warehouse backdrops are 6 color printed on a vinyl wallpaper stock. The O Scale units are 3 feet high and 12 feet long. We choose only two images but by using mirror images we managed to create a 60-foot long backdrop made of 5 panels. With shipping the cost per square foot was $5.50 but the end result is spectacular, as you will see.

While waiting for the backdrops to arrive we mounted hardboard on the walls so we’d have a nice surface to hang them on. One side of the room has several bump outs and we were going to need smooth transitions over those. Photo 2 shows several units mounted in that part of the room.

After consulting with Tom on how much clearance he needed for decking, we set our own temporary ledgers above his. We started on the flat wall to the right in the photo (Damascus) and worked our way around toward Whitetop and then the other end toward Abingdon. We mounted the hardboard to the drywall with Liquid Nails adhesive. Where two boards joined, we pushed them up tight and put temporary screws through the hardboard into the drywall until the adhesive set. We pushed the hardboard tight into all the corners and were able to maintain a 24” radius. The vertical piece of wood in the photo above helped to keep the S-curve in the hardboard until the adhesive set. After 24 hours I removed all the screws and the temporary ledgers.

Finally the backdrop arrived and our next task was to figure out how to mount it. I read all the instructions and a whole bunch of posts online from people who had used these backdrops. The consensus was to use vinyl wallpaper paste and gently squeegee the backdrop in place.

Once I coated the hardboard with the vinyl paste the hardboard soaked it up like a sponge! It seems I had missed the instruction to seal the hardboard first. This turned out to be a good thing because I also discovered we were hanging the wrong image in the wrong place.

I thought there had to be a better way. We purchased white Velcro hooks and loops with self-adhesive backing. We attached the hooks to the top and bottom edges of the hardboard and the loops to the top and bottom edges of the backdrop sheets. We started by attaching the top edge of a panel to the top edge of the hardboard and then worked out the wrinkles while we attached the bottom edge.

There is an unprinted stripe along each panel’s top and bottom edges. Scenery will cover the bottom edge, but the top edge needed to be covered or disguised. I did not want to attempt to trim it off so I took a section of the panel with sky in it to a local Home Depot and had them color match a can of paint to the sky. It’s a near perfect match.

We also carefully aligned each panel so there would be sev-
eral inches of overlap at the seams. The backdrops are printed with these overlaps. We then used a straightedge and razor knife to trim the vertical edges and glued them together with stick glue. Photo 3 shows the seamed backdrops in place with the top edge painted to match the sky.

Meanwhile, Tom had not been idle. He had been designing and building the Creek Junction benchwork at his home workshop. Photo 4 shows a dry fit of the Creek Junction benchwork while we were still working on the backdrop. You will notice painters tape at seam locations. Also note how the benchwork sits on top of the ledger, not up against it. Photo 5 shows a close-up of the Creek Junction benchwork. I should note here that Tom does not use dimensioned lumber in his benchwork except for legs. All of the wood used was cut from 3/4” birch plywood. Done that way the front frame rail at Creek Junction is a single piece of wood and is much stronger.

Photo 6 shows all of the basic benchwork in place. Note the octagonal opening in the foreground. That’s for the turntable pit at Whitetop. You can see a similar opening in the Abingdon benchwork in the middle.

There was one additional piece of tricky benchwork that I presented to Tom as a requirement. My 2’ x 6’ workbench had to store under Damascus. Tom solved this by building a special 6.5’ section that is a 1” thick lightweight box spanning the workbench storage area. You can see it in the back of photo 6 where the top edge of the frame lifts up slightly to go over the workbench. There is a 9” clearance on the work surface. Without giving too much away Photo 7 shows the workbench extended into the aisle. The OttLites overhead provide more than enough illumination for my modeling work.

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The Hoggers vs. The Greasers

While this can sound like a sporting event between two teams that you have never heard of, you will not find this competition on ESPN or the local cable sports channels. This occurs on a daily basis on the BNSF’s Birmingham Subdivision as well as other national rail systems. The players: “Hoggers”, a slang term for a locomotive engineer, carried over from the days when steam locomotives were referred to as hogs. “Greasers” are the personnel from the Track Department who maintain the flange lubricators across the subdivision.

Tractive effort is the name of the game. The hoggers must move their train from one point to another, traveling over hills, curves and valleys without stalling or causing a service interruption. Greasers, attempting to assist in this process, place flange lubricators to reduce rolling resistance and prevent rail wear. In recent years a High-Rail pickup truck equipped with a lubricating spray system, has been added to the arsenal.

I’m operating a 3500-ton intermodal train powered by two GE 6-axle locomotives rated at 8800 total horsepower. With 50 miles left to go, traveling downhill in dynamic braking at speed; the engines drop their load. I get slack run-out when the engines slip and then a little love tap run-in when the train catches up. “Greasy got us, he’s been through here today.” was the conversation between the conductor and myself. Two major hills are left to climb as we slip and jump along until we reach our first challenge: Quinton Hill. 

We roll out of the valley at the bottom of Quinton Hill changing from dynamic braking to number 8 throttle quickly. Running at the 35 MPH track speed, we hit the S curve at the base of the hill. The load meter of the lead unit becomes erratic as our speed begins to slow. Out of the curve, the engines settle down into a hard pull as we start the long climb to the S curve at the top of the hill. We enter the curve and once again the engines jump and slip but we’re over the crest at 16 MPH. While it wasn’t pretty, we made it. One hill left, the “Train Killer” commonly known as Adamsville Hill.

Adamsville Hill is 5 miles long, mostly curves with two sections of tangent track. The grade is steepest in the last mile at the top and is known for stalling many a train. Traveling 30 MPH, we power out of the valley at the bottom of the hill. The meter becomes erratic again as the wheel slip and sand lights both flash. It’s obvious Greasy has done a thorough job greasing the hill. Our speed drops as we slip and jump along at full throttle. When we slow to 10 MPH, the conductor grabs his lantern and heads out the back door of the cab to the second unit. No need for conversation, we’ve both been here before.

With sanders on the lead unit already running, the conductor operates the manual sanders on the second unit. I begin applying engine brakes. At 10 pounds of air, the locomotives won’t maintain their load and we’re still slowing down. At 20 pounds things begin to go our way. The speed is down to 2.6 MPH when we gain traction and the speed slowly begins to increase. We crest the hill at 9 MPH. The grease almost got us but we made it. If the rail been clean and dry, this train would have pulled the hill at track speed in number 6 throttle.

Flange Lubrication Systems are used on Class-1 rail systems and do prevent rail wear. For modeling purposes, commercial castings may be available from a company such as Keil-Line Products or they can be scratchbuilt. The photos show the basic design and its installation close to a road crossing to allow for service. Heavy deposits of grease and dirt on the track in the area of the lubricator are proof of its performance. The flange lubricator in the photos is located in a valley area between uphill grades in either direction.

I did make an attempt to catch up with Greasy in order to get a photograph of him and his hi-rail greaser truck for this article, but unfortunately he tends to avoid hoggers. So until the next time, “Keep your rail clean and dry.”
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Building Traction Flat Trailers – Part 2

Well, let’s see if we can pick up right where we left off with the last column! Referring back to Photo #3 of the last column, we were installing the centersills and as you could see then, on the one car these were plain and straight while the other set were sort of a fishbelly style. In Figure 1, you can get the dimensions that I used for making those parts in section A of the drawing. On that same car with the fishbelly centersill, I added a sideboard made from 2”x16”. But, on the other car I thought I’d put a styrene wrapper around it to change the side profile from straight to fishbelly. I took some 1/2” wide 0.020” styrene (2 pieces) and wrapped that around the sides of the car and from that got the end and slope dimensions in section B of Figure 1. I transferred that directly off the car onto the styrene, cut and hacked, which got me to what is in Photo 1. Now, I could have added rivets, etc, and you certainly could, but I passed on that exercise and moved on to attaching these two wrappers, which by the way, do a nice job of covering up our plywood/lead assembly. To join these three mixed materials together, I applied a film of Walther’s Goo to the car side and a bead of medium viscosity CA to the styrene. This seems to work close to instant contact cement, so get it right the first time!

Going back to the other car, I applied some more 0.020” styrene in between those straight sides to cover up the plywood/lead assembly. Cross members, made from the left-over 5/32”x1/16” centersills, were added on both cars. On the straight sided car these are beveled from 5/32” to 3/16” to be flush with the 3/16”x1/16” side sills, while on the other car these are not beveled but are mortised 3/16”x1/16” to rest on the side sills flush up against the styrene sides. From there, flip the car back over, and add some 3/32” spaced 1/32” thick scribed decking to the top and cut to fit flush all the way around. We’re coming into the home stretch, and now we need to start looking at the finishing details that are in Photo 2.

One of the characteristic details for traction freight cars are radial couplers. These, combined with the rounded car ends, really promote the ability to get around some very tight corners. In Photo 2 you can see the very nice commercial ones from Q-Car (Part CB010) and some Kadee 804 couplers that are wired and soldered to some flat brass stock. Precision Scale also sells some nice brass radial couplers. Neither of the two commercial radial coupler products provides operating couplers, but they do really look nice. The shop-built 804-coupler version is operating; it is also admittedly not all that attractive. I put one of each option on these cars to illustrate their installation. The Kadee version needs a 3/8”x1/16” mounting pad and a small wood screw to hold it in place. The Q-Car radial coupler unit takes three small screws (and a little Goo). I used some 3/8” #0 blackened screws that I “shortened”. The other interesting detail to add is anti-climbers to each end. Q-Car (Part CS334) is a soft white metal casting that you just bend to conform to the end of the car. A little Goo and CA, and not only are those mounted, but the seam in the styrene wrapper is gone!

After that, there’s not a lot more to do. I’ve added four stirrup steps to each car and some stake pockets to sides of the one car to add a little interest (Grandt Line #83, #89). After that, a brake wheel on some 0.022” brass wire and the accompanying ratchet & pawl (Grandt Line #42) pretty much wrap these cars up. You are of course free to “improvise” with detail parts. I don’t bother with any brake details on these basic cars and you can easily add stakes to turn your flat car into a gondola. I generally use Athearn arch bar trucks with Intermountain wheelsets and those go on easily provided you remembered to drill and tap those car bolsters.

Next column we’ll get started on mapping out a CERA box trailer. The NMRA library came through with yet some more plans for these cars that I have to decipher (FUN!).

---

**Fig. 1**

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**Photo 1**

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**Photo 2**

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**Fig. 2**

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If you’ve followed along so far in this series, we’ve looked at the basics of brass construction in Part One. Part Two covered construction of the trucks, and now it’s time to put it all together and build the chassis.

**Drive Train**

The P&D Hobbies gearboxes work okay, but the plastic tower portion for the drive chain is too wobbly for me, so I made my own from brass stock. Keep in mind the height of this tower must fit inside of the hood and there has to be some swivel room. It will be a trial and error process to get the top gear the correct distance from the larger bottom gear, so that the chain will roll without being too tight or too loose. Because the axle span is 7’ you will have to shorten the brass tube that fits over the worm gear shafts between the gearboxes. This tube keeps the two gearboxes squarely locked together horizontally. (If you are using Northwest Short Line gearboxes the setup may be different). Photo 1 shows the gearboxes and tower with the finished truck sideframes ready to be assembled. Note the bolster has a brass 2-56 screw soldered to it. This screw will be for mounting to the frame with a spring as shown in Photo 2. Electrically, I make the left side insulated, with the right side as the ground on both trucks. This increases the span for pick-up and helps when going through long switches. I also make homemade wheel wipers as shown in Photo 3. Styrene is used for insulation and fastened to the truck bolsters with a nylon screw. It helps to make sure the brass wiper cannot turn on the screw; I used a short section of a styrene channel. Notice that the wiper portion rubs on the flange not the tread. The flange doesn’t pick up track crud like the tread does which will interfere with electrical pick-up.

**Building the frame**

Now comes the frame. The piece that sets up everything and that says “CB&Q center cab.” In studying the RMC drawing of the diesel, I had to figure out how to separate the hood/cab from the frame for installing and maintaining the motor and electrical system. And what about those handrails? The easiest method I could think of is to solder all of the upper components to the safety tread decking including the handrails. This sheet would have the center cut out to the fit over the motor, electrical, and speaker enclosure, allowing the complete hood/cab assembly to be removable (Photo 4).

The prototype’s frame had an 8” channel along the sides. I used a strip of flat bar, 1/64” X 1/8”, with rivet impressions. Photos 5 and 6 and Figure 1 (page 22) show a homemade rivet punch that I have used for years. It has been written up in Mainline Modeler and on the Proto 48 Yahoo site. I used it to set up the rivet impressions on the 1/64” X 1/8” strip for the side channels.

The top of the frame is made from PSC safety tread (GH-48257, 0.020” thick). The bottom of frame will be a sheet of 0.020” brass. The top and bottom sheets together with the...
strips (think of a brass sandwich) make that 8” channel.

The top and bottom sheets extend 3” over the sides, and are flush on the ends. Photo 7 shows this effect. The major portion of the frame is a piece of 1/8” thick brass stock milled to a scale 9’ wide by 37’ long. Mark out the truck’s wheelbase, which is 21’-10”, and drill a #44 hole to clear the 2-56 bolster screw. Mill out the open portions of the frame (with the bottom sheet soldered in place) as shown in Photo 8 to clear the tops of the gearboxes.

My frame also has a large hole in the center for a speaker port. Use a two-flute mill for this as you can drill with it and follow the scribed outlines for the openings. The bolster position between the gearbox openings can be milled to be thinner than 1/8”. This may be necessary for the required 3’ 8” height from railhead to bottom of the frame. As mentioned earlier, the thickness of the bolsters at the attachment screw will be a factor here too. There will be a hole drilled at each bolster position to pass the wiper wire to a decoder.

I milled out a section on each end of the frame to solder a stiffener piece on the bottom ends of the deck sheet. This stiffener will be drilled for the end handrail stanchions and uncoupling levers. Photo 4 shows these stiffeners. Note also the short pins in the center of each end. These ensure the screw holes will be accurately aligned when securing the two sections together. To set these two pins accurately, drill a 0.040” hole centered in the end of the deck plate through the stiffeners. Mark both the deck plate and the frame section so that each
end can be separately identified. I should mention here that this center cab had a front and rear although both ends look identical. The smoke stack at the cab with the horn is “front.” The end with the bell is “rear.” This is important because it affects the detailing and assembly of components during the build.

Clamp the deck plate to the frame making sure all is square and even all around. Then drill through the frame using the deck plate hole as a guide. Solder in a short length of 0.040” wire for the alignment pin. Photo 8 also shows all the openings in the frame piece including the holes to attach the hood/cab assembly.

If you plan on having sound, a space will be required for a speaker enclosure. I wanted to be able to detail inside the cab, so a speaker couldn’t go there. But, what about underneath the cab’s floor? Some quick measuring showed that a flat 1.5” speaker in an enclosure would fit, but the sound would come out the bottom. What about those fuel and air tanks under the frame, would they hinder the sound passage? I don’t think so. The tank assembly hangs down from the frame with some open space at the top. You could consider drilling holes in the cab floor and have the speaker pointing up. With the cab doors and windows, open the sound would be easily heard. But this might be dangerous for the crew; with all those holes in the floor somebody is going to break a leg!

**Fuel tanks**

Time to build the fuel and air tanks assembly underneath the cab. The center fuel tank is made with two sections of 7/16” tube 7’ 6” long soldered side-by-side with a piece of 1/16” spacer between. Wrap them with 0.010” sheet then solder on the end pieces and file to give the appearance of one tank. The tank should measure 3’ 6” horizontally. The filler tubes, one each side, is a 3/32” brass rod slightly rounded on the top with a tiny groove machined near the top to look like a cap, then soldered at a slight upward angle. The two air tanks were made from thick walled (.032”) 7/16” tubing also 7’ 6” long. This thick wall allows you to gently round the ends to give the appearance of a manufactured air tank with a crimped end. The center is a solid brass rod all the way through with convex ends and 0.033” hole drilled each end for the air lines. The straps holding the tanks are 1/64” x 1/16” strip. Here is an easy way to get that proper curve in the air tank straps. Chuck a 7/16” thin walled (0.014”) tube and using a cut-off tool machine off several rings 1/16” wide. These rings can be cut and bent with a 0.020 hole drilled for a wire so that it appears to be a bolt holding the strap sections together. The hangers appear to be somewhat complicated but with a jig as shown in Photo 9 they aren’t too hard to form. Before drilling, measure the position of the suspended tank assembly under the frame. You will note that this assembly is offset 6” towards the engine front.

Photo 10 shows the fuel and air tank assembly together with the straps for hanging from the I-beams. Photo 11 shows how the assembly was soldered together with 3/16” I-beams and the attaching screws. This assembly must be removable in order to remove the trucks and the drive shaft. The tanks required some modifications because of clearance problems for the drive shaft and universals. Photo 11 shows what I did. Yours may be different if another gearbox system is used.

With the frame made and the suspended tanks fitted the next chapter will put together the motor and drive system. ◆
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There are some imaginative and well thought-out kits available for O Scale modelers. However, you may want to put your own stamp of creativity on a building and be able to point out to visitors that yes, you built it from “scratch.” Yes, you can and it’s easier than you think.

There are two starting points. First, you can design your own building based on your layout’s needs. That takes a little up front planning since you’ll have to work out the details of the design before ordering materials. If trying to come up with an original building design leaves your brain and piece of paper blank, here’s another thought: Check out the various HO kit offerings or some of the great HO layouts online. There are dozens of wonderful building design ideas that, unfortunately, are not available in O Scale. And if you’re building a large layout, using kits, as wonderful as they may be, can easily break the bank. So what to do? Scratchbuild them yourself.

I started this process with some very simple building designs of my own and graduated to more ambitious buildings. None of these designs are available in O Scale. And, since there are some manufacturers whose instructions leave something to be desired, you’ll avoid the frustrations of trying to figure out what you’re being told to do. Believe me, if you follow these steps, you’ll find out you are quite good at scratchbuilding and that all you need are the right materials and time. The more you do it, the more efficient you’ll become as your talents develop. Finally, one of the side benefits of this is that you’ll become familiar with virtually all the O Scale detail manufacturers that will add the ultimate detail to your building.

The principles here apply to virtually any wood building, from easy four-walled buildings to more complicated designs like those shown above. For demonstration purposes, we’ll use Froggie’s Café as a step-by-step example.

Step 1 – Supplies

Start with a generous supply of clapboard and board & batten wood sections. I generally use Northeastern Scale Lumber’s [northeasternscalelumber.com] clapboard (1/8” spacing) and various sizes of board & batten. You can also get excellent versions from Mt. Albert Scale Lumber Co. and Micro-Mark. You should also have a good supply of different sized wood strips on hand, (e.g. 1/8” and 1/4” square, and 1/8” x 1/32”) for interior bracing and external details like corner molding (Photo 1).

The other crucial step is to have a handy supply of styrene windows of various types and sizes. There’s no magic to this and following an HO design doesn’t mean you have to do...
the windows and doors the same way. In fact, I rarely do. Often you can’t duplicate the HO window/door anyway, but the building will look just as good. You can get as creative as you want with doors and windows. My favorite suppliers for these are Grandt Line [www.grandline.com] and Tichy [tichy-traingroup.com]. You can also buy many of the Grandt Line selections from Valley Model Trains [valleymodeltrains.com] at a discount. Tichy offers a much more limited selection but their prices can’t be beat. One thing to remember is to buy windows with casing. This will allow you some flexibility in cutting the openings, as the casing will hide any missteps. Masonry windows don’t have any casings or frames so it’s more difficult to get a good fit without some space showing around the windows. On doors, you can experiment with versions without frames since it’s very simple to build a frame around the door to hide any gaps after installation.

**Step 2 – Sizing & Templates**

In your search for ideas, you’re just looking for interesting designs and shapes. Prototype buildings come in every imaginable size, so model buildings do as well. (Hint: the secret to what really determines the scale of a model are the windows and doors and various details that go on the roof or on a loading dock.)

Even those manufacturers that offer a kit in both HO and O Scales vary the measurement scale. The O Scale footprint often runs between 60%-80% larger, occasionally more, than the HO model. This seems to be a function of manufacturing, cost and how large the eventual O Scale model might be if they scale it up too much. If the HO specs are available you can use those print measurements as a rough guide but, in truth, the overall size of the building is your personal preference using the “what-looks-good” method and your layout’s space.

Again, you have some leeway here, so if your space allows for a deeper building or is restricted because your building is against track or scenery, just make the appropriate adjustment. If the building is basically head on to the viewer, the narrower profile will hardly be noticeable, if at all.

If you’re unsure about the measurements, the easiest way to avoid having to discard your mistakes is to make a rough cardstock version of the building. This will help determine the shape and size of the building and confirm that it fits in your designated layout space. Cardstock, scissors, tape and a few minutes time are all you need. It’s not an essential thing to do, since you could eyeball the size pretty well but it does come in handy particularly for cutting a roof section that will fit exactly inside a four-walled structure.

**Step 3 – Cutting the Wall Sections**

Now the fun and fast part where you’ll see the whole thing start to come together pretty quickly. Draw the wall’s outline on the clapboard or board & batten sections. Cut each out with a very sharp hobby knife. I like to use an Olfa knife but there are scores, no pun intended, of similar cutting tools. I prefer the Olfa knife because it is heavier than the usual X-Acto tool with a #11 blade and easier to control. They come with multiple blade sections that you just snap off when one dulls out.

On clapboard, remember to have all the board overlaps facing down and when you’re cutting opposite walls, to draw one section on the back (plain side) so that when you cut and turn it over it will be the mirror image of the first wall. Otherwise, you’ll end up with two walls exactly the same, one of which will be cut wrong.

The height is much easier. I use Northeastern Scale Model clapboard sections that are available in 11” x 3” with a 1/8” spacing (there’s a 24” version but the width is 3-1/2”). Each 3” section becomes one floor. For a second (or third) floor, just glue another section and brace it on the back for stability. Nail holes, wood cracks, painting and weathering will hide the seams.

**Step 4 – Window and Door Openings**

Draw and cut in the windows and doors (Photo 2). You can measure the back of the window frame or with a small diameter pen/pencil trace the outline under the frame. Either way, you may want to cut inside the line until you get used to the process (which will take just a few minutes) so you don’t make the opening too large. Use a metal straight edge with a thick side so your knife doesn’t slip. I like the Micro-Mark straight edge which has a small knob handle (item #60916) to hold the edge in place and helps avoid having your hand too close to the knife blade if/when the blade slips.

**Step 5 - Bracing**

Once you have all your cuts made, it’s time for some bracing. This helps avoid warping and also makes assembly easier. Glue some 1/4” or thinner square strips on both ends of the side walls. Don’t go to the top of the building side or you’ll have to cut the bracing to fit in the roof panel. You may also want to glue a few interior braces on all walls, but watch out for the window and door openings; leave enough room to insert the castings.

For flat inset roofs, some interior bracing should be glued around all building’s sides, about 1/4” below the roof edge so the roof can neatly slip in and rest on the bracing. Make your bracing at least 1/2” inch short of the end of the wall to allow for the bracing of the perpendicular wall to fit when glued together. If your building has an overhang or peaked roof, this type of interior bracing is not necessary. However, you may want to cut some peaked bracing so the roof sections have more surface area to rest on. Also, run a horizontal piece of stripwood between the front and back bracing, providing more stability and more gluing surface.

**Step 6 – Painting**

Now for the finishing steps. Spray both sides of the walls with some inexpensive gray primer (Wal-Mart’s brand is fine). After it’s dry, run a pounce wheel (Micro-Mark again or Dr. Ben’s) with teeth a little less than 1/2” apart down every wall to create nail holes. Then randomly use a sharp #11 blade to pick up a few individual clapboards by inserting the knife under a board and gently twisting. You’ll get the hang of this pretty quickly.

To finish the wall sections, apply your final paint color.
Inexpensive acrylic paints are available in dozens of colors from craft stores like Michael's. For a weathered appearance, apply the paint somewhere between the classic drybrushing technique used for weathering (where the paint is virtually wiped off the brush before applying) and a fully covered painted wall. Basically, you want a “bad-looking paint job” which of course, allows a lot of flexibility in terms of how you want it to look. Using a 1/2” soft flat brush, apply the paint but don’t cover every board perfectly. Let some of the gray primer show giving a weathered appearance (Photo 3). If you don’t like what you see, either sand back the paint with fine sandpaper or apply more paint where it’s not covering enough.

Step 7 – Windows & Doors

Paint your windows and doors. I prime them with inexpensive spray paint then spray paint the final color. By folding some masking tape at the edges and attaching it to scrap cardboard, you can adhere all the windows and doors to the tape and paint them all at once. It will take about 15 minutes including the time to let the primer dry to the touch. You can do this painting by hand, but it will take longer to do. Unless you’re using a primer color, the spray cans won’t give you a totally flat finish. The flattest finish you can get is Satin, but a final coat of Testor’s Dullcote will do the job. For some weathering of the windows, add a very light spray of black or a light wash of India Ink/alcohol (2 tps. or less to 1 pint alcohol).

When the final coat is dry, glue in the windows and doors. Since they have thin frames, you may not want to use CA glue unless you use a small micro brush for application, which is a bit frustrating and time consuming, or you like your fingers glued together. I use G-S Hypo Cement (Micro-Mark or a number of eBay sellers) that has a thin needle applicator. The only trick is getting the darn cap back on to the needle to seal the tube. If you have trouble threading a needle, you may want to find another solution like Canopy Glue (available from many sources).

Once your windows are in, glue acetate on the back for the window glass. You can use the Hypo or Canopy Glue. You don’t have to cut these to exact size, just make sure you’re covering the window opening. Use colored craft paper for window shades, gluing them over the acetate on the backside. Again, any size will work (hint: make them different heights which adds to the realism). If you want to ensure everything stays in place after the building is assembled, add a drop of Elmer’s White Glue or Canopy Glue on each corner of the acetate/window shade. After drying, you’ll be ready for final assembly.

Step 8 – Assembling the Walls & Roof

Glue the front and back to the sides, using a square to make sure the walls dry straight. I like Aleene’s Tacky Glue for this step. It dries clear, has a very quick tack, but takes awhile to fully set so you can make adjustments well before it cures. This step is easy since you have the corner bracing on the walls for more gluing surface area. Add 1/8” x 1/32” painted stripwood to create a corner molding. These can be the same color as the walls or for variation, a complimentary color.

Make a roof template from craft paper, and then cut some black cardstock for the roof. To make a tarpaper roof (Photo 4), spray black craft paper with black paint to dull out the finish. Very lightly spray on some gray or white and finally, some tan. Use a sweeping motion for these colors, keeping the spray can about 10” from the paper and in motion, passing back and forth beyond the edges of the paper. The paper can be taped on the back so it will stick to a larger piece of cardboard for easy handling. Cut strips about 1/2” wide and use rubber cement to attach them to the roof. Cut a few pieces into smaller sections so it’s not all uniform. Also, add a couple of very small patches to suggest repairs on the roof and outline them with thin lines of white glue to simulate tar. For a final touch, weather with shades of gray, black and even tan chalk dust. This will further weather the roof’s appearance.

One section of the building has a corrugated metal roof. This material is great for older sections and roof overhangs. The material is available from Sodders Enterprises, Builders-in-Scale and others. To weather the metal, prime it first then paint it grimy black, and then add weathering powders. Dr. Ben’s is a good source for weathering powders and liquids, including liquid rust.

Step 9 – A Foundation (Optional)

If you want a foundation, add some 1/8” or 1/4” wood strips around the base of the building, slightly indented from the wall’s edges. These should be painted a concrete color (PolyScale Concrete or Aged Concrete).

Step 10 – Final Details

For a final touch, include some ads (Photo 5) and roof details. For the ads, sand the backside and apply Elmer’s White Glue then press in place. After a few minutes, run your fingernail along the ad, sinking the paper into the grooves.
of the clapboard siding. For more weathering, the ad can be drybrushed and weathered with an India Ink/alcohol mix or with chalk. If you want a tin sign, mount the ad on some thin styrene or wood painted black. For the ultimate in realism, drill some very small holes in each corner with a pin vise and insert some nut/bolt castings available from Grandt Line or Tichy.

For the roof, add vents, chimneys, smokestacks, water tanks, billboards, etc. as desired. Virtually all these castings are available from various manufacturers like Valley Model Trains [valleymodeltrains.com], Sodders Enterprises [soddersenterprises.com], Model Tech Studios [modeltechstudios.com], Berkshire Valley [www.berkshirevalleyinc.com], Schomberg [schombergscalemodels.com], Turner Model Works [turnermodelworks.com], etc. To find resources, remember the axiom: “Google is your friend.” While Bar Mills no longer makes billboards, many are still available on eBay and Blair Line [blairline.com] continues to offer a line of O Scale billboards. They’re easy to construct and add terrific detail to your rooftops. Or, you can make your own billboards, but maybe that’s a subject for another time. Garbage cans, boxes, newspapers, etc., are also great details to add around the base of the building (Photo 6).

That’s about it. The principles here will work with most scratchbuilt wooden buildings although obviously some building profiles and shapes are more difficult than others. But, the principles are the same. Have fun and get to work. You can do it!
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30 • O Scale Trains - May/June '10
Ever since Julian Cavalier’s drawing appeared in the October, 1976 issue of Railroad Model Craftsman, I’ve toyed with the idea of scratchbuilding the Norfolk and Western steam turbine Jawn Henry. Thirty years later I bought a copy of Rails Remembered, Volume 4, The Tale of a Turbine by Louis M. Newton and after reading it from cover to cover, I decided it was about time to get started.

Lewis Newton was an employee of the motive power department at the N&W and spent a year at Baldwin-Lima-Hamilton overseeing the construction of the new steam turbine (completed in 1954), and the next year riding along as an observer. He took volumes of detailed notes that allowed him to write his excellent book. The railroad designated the loco class TE-1 for turbine-electric and numbered it 2300. It was generally referred to as John Henry or Jawn Henry.

The TE-1 burned coal to produce steam from a 600psi boiler. The steam powered a turbine, which turned generators to produce electricity for traction motors. One can quickly see the differences and similarities between diesel-electric and turbine-electric.

Testing of the locomotive began in 1954 and was conducted over the various divisions of the railroad. I was in the fourth grade and living in Keystone, West Virginia when the testing began on the Pocahontas Division. This allowed me to see it pulling a freight train every day for a short period of time. It really was an impressive sight.

The success of the experimental loco was mixed. It performed well in most respects, but its complexity and frequent breakdowns caused the railroad to abandon the project after three and a half years. TE-1, number 2300 was retired and scraped in 1957.

As I contemplated the construction of such a long loco, I wondered if it could ever run on my layout without its overhang destroying everything along curved track. I made a footprint of the loco’s carbody of 1/4” plywood and mounted it on four passenger trucks with span bolsters that were spaced the same as the loco. As I pushed this contraption around the layout, I was surprised to discover that it cleared everything! Later I read that the prototype was designed to have no more outside overhang than the largest N&W articulated or more inside overhang than an eighty-foot passenger car. My model railroad has the same requirements so I happily have no problems running the turbine.

I made the loco’s body of styrene in three separate sections (Photo 1). That piece of plywood in the photo is the template I used in testing for track clearance. The body’s sides are 0.040” styrene glued to a number of interior bulkheads for strength. The horizontal and vertical ribs are applied styrene strips and the louvers are cut from styrene clapboard sheets. After the basic carbody was assembled I added another layer of 0.040” styrene to the inside of the sidewalls for strength. If I were doing this again, I would simply use 0.080” styrene. The 0.040” material was just not rigid enough.

Photo 2 shows the method I used to achieve a uniform curve to a very long roof. That black piece is the clerestory section of a plastic passenger car roof. It was cut into short sections and glued between each set of bulkheads. All ribs were filed away and an overlay of 0.020” styrene was used.

The Jawn Henry in O Scale

Conley Wallace

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for the finished roof.

The series of vents along the upper part of the loco were fashioned from material used on F7 vents and the rear vents were brass-screening material (Photo 3). The trickiest part of the basic body's construction was the nose. I used a table saw to cut a blank with the proper angles, using a piece of cherry because it is tight grained and stable. Photo 4 shows the blank and the completed nosepiece. The door and screens are made of styrene and aluminum screen. The wood was carefully chiseled out to accept the door and screens. The top was cut and sanded to match the roof, then sealed with sanding sealer so the grain would not show when painted. The installed nose and other detail may be seen in Photo 5.

When I began to add details to the loco, I realized that I did not have enough information to complete the roof or the interior of the cab. I belong to the N&W Historical Society so I contacted John Snidow to arrange a visit to the society's archives in Roanoke, Virginia. My biggest treat came when he arranged for me to meet Louis Newton who is now retired and living in Roanoke. Mr. Newton was able to answer a number of my questions and I remain indebted to him.

The cab's interior is detailed with all the equipment I could identify. It has the fireman's console, the engineer's console, and a cabinet, brake stand and three chairs. The third chair was original and was designated for the observer (Photo 6). The cab roof is removable and was made from a piece of aluminum flashing. I used this instead of styrene because it is easily curved and will stay curved without gluing.

The pilot for this loco is identical to the pilot used on the N&W Class A but I could not locate one. I bought a UP Big Boy pilot from PSC and soldered a brass sheet over it. I filed the overhang flush with the casting and added a door for the coupler.

The loco is powered with two Pittman can motors with flywheels via a chain drive. The trucks are Alco freight diesel trucks and were manufactured by Kemtron/PSC. The chain drive system and trucks are available as kits from P&D Hobbies. The two outside axles on each truck are powered while the center axle is an idler. The trucks are connected by homemade span bolsters and mounted on a brass frame that fits into the body. It runs well but it is noisy with two chains (Photos 7 & 8).

The headlight is battery powered, operated by a switch hidden in the firebox grate. The tender was made of sheet brass. I chose brass over styrene because of the sharp bends between the sides and top (Photo 9). I was afraid the styrene would break down in time along the bend. The water treatment equipment (Photo 10) was made of styrene as a separate assembly and screwed to the tender deck. The treated water tank was made from two PVC pipe caps I picked up in a plumbing supply store. The trucks are from MTH, the ones used on their N&W Class A.

I painted the loco and tender with Floquil's Loco Black with some white added to show details better. Lettering is from Microscale. The cab interior is a shade of tan similar to the tan found on an ordinary metal file cabinet. That's the way Mr. Newton described the color to me and he should know!
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In OST #45 I talked about the new roundhouse for my P48 Clover Leaf Route. In this issue I cover the support facilities that are often found nearby on the prototype.

Most model railroads have an engine facility. If steam locomotives are involved, then you will need water service plus coal and sand delivery at a minimum. Cinder dumps, covered inspection pits for servicing inside bearing locomotives, along with the means for starting fires and repairing running gear will be added touches along with the use of compressed air and steam to run various items. If diesel locomotives are involved, all you need is a fueling, water and sand delivery plant. The one I built is constrained by limited available space, and by my childhood memories.

By the mid-Forties, Toledo had become a backwater terminal for the NKP. The facility provided running repairs (bearings, tire shimming, brake shoes, bulbs, gaskets, bushings, and change outs of boiler jewelry); and on rare occasion, boiler washes and 90 day locomotive inspections when the facilities at Delphos and Frankfort were not available. The storeroom was always stocked with several grades of lube oils, grease sticks, cotton waste, bearing brasses, etc.

Starting with the roundhouse, I added interior lights and metal forming machines from OMI. Western Scale Models supplied the belt driven radial drill press, engine lathe, and 50HP electric motor. All the figures are by Arttista. In the front office, enginehouse foreman, John Hoefer is giving the “kid” the latest engine line-up while machinists Pat Bends and Ore Swan work on returning NKP 597 to service (Photos 1-2).

To round out my compact facility, I added a small car department repair shop to do wheels, draft gear, brakes and safety appliances (Photo 3). Remember, it wasn’t until diesels and roller bearing trucks were well established that the industry changed from joining steel with rivets to welding and Huck bolts. The building itself is a limited edition of Stoney.
Creek Designs kit #4, light industrial building. I had a friend make a decal/sign for the front, and I added a lean-to on the back. The jack stands, bottle jack, Whiting trolley crane and truck dismantling trestle were made from styrene shapes and CC Crow castings (Photo 4).

Water service is provided by a column that serves both the enginehouse lead and the mainline (Photo 5). I pasted an enlarged photo of an early 20th Century water tower onto the four sides of a square column that holds up the dining room floor. The water treatment plant, a single story brick building, nestles up to one corner of the tower/pillar.

Coal service is provided by a locomotive crane with a clam shell bucket that transfers coal from gondolas to the tenders. The crane also cleans out the cinder pit, and with its block and tackle, can also remove/replace parts on a locomotive. A most versatile machine to have around a service facility (Photo 6).

The inbound enginehouse track has an 11' X 20' cinder pit that is 8' deep (Photo 7). I cut a metal running board from a forty-foot boxcar in half to run on the outside of the running rails. The rails are CA’d to 2 ft. high I beams. On the right side of the pit is a tool rack for cinder hoes and steam cleaning lines. To the right of this is an underground utility box housing air and steam connections.

Just beyond the cinder pit is the sandhouse, which started out as a Model Tech Studios kit. I changed it around to be like the one I remember from my childhood. It will require a line from the compressed air plant (Venturi) to move the sand from a rail car to the “green” sand storage, then to the stove.
and into the tower. The entire structure could also be scratch-built. No two were exactly alike from what I’ve seen (Photo 8).

A small wood rack is found on the outbound ready track. I cut up a bunch of flat toothpicks to represent the four-foot long freight boxes split up by the personnel at central stores in Lima, Ohio. The wood along with oil soaked cotton waste is used for restarting fireboxes when making locomotives ready for service (Photo 9).

The elevated steam, condensate and air lines can be sited at a number of points (Photo 10). On my layout, the steam plant is in the roundhouse, while the air plant is in the lean-to behind the car department building. Both these facilities used steam and air along with the sand plant and the drops to each side of the ready track (for cleaning and Alemite lubrication).

The condensate/water line is 1/16" styrene rod. The air line is .045" brass wire. I used elbows, globe valves, and joints from a Walther’s Cornerstone Series #933-3105, HO gauge piping kit to detail the lines. The poles are 12" square basswood strips about 20’ high and spaced about 25 to 29 feet apart. They hold a 4’ long cross arm about a foot and a half from the top, with the water/steam lines hung under the cross arms using 0.010” wire hangers and bails, with the air line resting on top the cross arms. The steam and water lines were painted a light color and the poles and air line were painted a grimy black. Be sure to paint the lower part of the poles a dirty white color so employees don’t drive into them (Photos 11-12-13).

The steam line is a 3/16” styrene tube (Evergreen #426). The expansion loop is formed on the jig shown in Photo 14 (page 40). The steam line expansion loop jig is made of 1inch PVC pipe cross-sections. A hot air gun set on low heat was
used to bend the styrene tubing around the jig.

The last item is the diesel fuel stand, which I built from a photo of a home-built one found in a Classic Trains Magazine (The M&StL at Peoria). Near the stand is a cabinet housing the pump controls and metering device for fuel stored in a nearby 8,000 gal. company owned tank car (Photos 15-16). Other details include fireplugs, fire hose cabinets and three-phase electric service.

Many roundhouses also had a bunkhouse (usually from an old double-sheathed boxcar) available to visiting train crews. The track department might also be present, storing snowplows, camp cars, tool cars and emergency track materials. Be judicial in the junk and scrap you leave around. No tripping or falling hazards, and small enough that you don’t need a 250-ton wrecking crane to lift the pieces off the ground. Another rule of thumb offered by our assistant vice president of grunge, Rich Bougerie: “If it is a light color – give it a liberal dose of alcohol thinned India Ink, and if it is a dark color, drybrush it with an off-white paint to bring out the detail.”

Andrews L Section
Andrews trucks were produced from 1910 through the 1930s. A single-walled truck, the big selling feature of the Andrews design was that journal boxes from older Arch Bar trucks could be reused in new Andrews trucks.

Arch Bar
Once common under freight equipment, the Arch Bar truck was banned from interchange service in December 1939. $30/pair O Scale or Proto:48

Andrews Caboose Trucks
This style came onto the scene in 1910 and remained popular through the 1930s. $33/pair O Scale

Bettendorf Caboose
$33/pair O Scale

50-Ton Bettendorf
$30/pair O Scale, $32/pair P:48

National B1
$30/pair O Scale, $32/pair P:48

Vulcan
Vulcan cast trucks were produced in the 1920s. The re-use of journal boxes from Archbar trucks was an economical way to upgrade a freight truck, and the Vulcan sideframe was a common choice. $30/pair O Scale

Dirt Road Fuel Stand
A photo of the actual stand found at the Classic Trains Museum at La Crosse, Wisconsin. The paper on the control panel says, “Director’s Order: Keep this tank full.”

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The Right Stuff

My grandniece likes the “doggies” on the magazine masthead. I like the mix of prototype, craftsman, and reflections on the future of the hobby articles. You are going in the right direction. Money is tight these days but I am “voting” with my subscription renewal.

Richard Swart, WA

Small Is Beautiful

Joe, read your piece on the redesigned layout. Reality does set in after awhile, doesn’t it? Unfortunately, it is usually after we have spent a small fortune pursuing illusions of grandeur. I have done some layout redesign of my own.

Small is beautiful, especially if you don’t want to spend every free hour working on the layout or running trains. When I was single I could do that. Not now. Not only does a small layout take less time, money and space to build and maintain, but it also can have variety by different periods and by changing industries, thereby justifying a wider selection of cars, with one limitation: 50 footers just don’t work, nor do locos with long wheelbases. So the early ’60s is as far as I can go with this layout. Which is okay. I go back to the 1950s and remember steam engines in my youth. This is as much about nostalgia as it is about realism.

So that raises for me one question about the layout you settled on. Will it afford you enough switching interest? Since it isn’t a loop you can’t be into just running trains, so what’s the justification for moving freight from one place to the other? It looks a little thin in that regard. I will be looking forward to what comes next.

Sarah Flynn, VT

(Joe replies: That’s a great question and I will answer it in detail in the series when I discuss the track plans at Abingdon, Damascus and White Top. I spent a lot of time looking at maps of the areas and I have this great booklet put out by the N&W called Along the Right Of Way that lists every stop on every division where the population was greater than 100. The descriptions tell you what was going in and out at that depot. That’s what drives the freight out and back.

A Riveting Suggestion

I was reading your review of the Mullet River kit [in OST#49]. This simple tool [www.mike.calvert.btinternet.co.uk/RiveringTool.htm] is good for etched kit rivets. For folding etched parts, sometimes it helps to open up or deepen the fold lines. To deepen, use a scribaker [a.k.a. a scriber-Ed.]. Olfa makes one for scribing plastic sheet, but it works fine on brass. Pull along the half etched line until you see a faint ridge on the other side, then it will fold easily. If it does not fold to a 90° bend, use a file to open out the slot.

Lee Marsh, UK

Rivets Part II

One other answer to the rivet issue with the Mullet River boxcar frame is the rivet decals by Archer. They work well, are easy to use, and I highly recommend them for areas where wear is not a problem. Got this idea from Jim Zwernemann, young man full of ideas. FYI,

Jesse Patton via e-mail

Going P48 or 3-Rail?

I, and others at the O Scale Club, am concerned about the direction OST seems to be going: P48. It’s a free country to choose this but as one of the more articulate members said: “O Scale is such a small market, why fracture it more, and all for what, about 1/16th of an inch?” Most of us build models, run trains, and a few of us do prototype style operation (me included).

So, I’m going to “wait and see” (before renewing) which is too bad because you have the best photos and some really good modeling.

Frank Hillman, OR

(Joe responds: My goodness! Where do folks get these ideas? First, people accuse us of going 3-rail. Now they accuse us of going P48! Neither is true.

While it is true that Capt. Mix’s article is about building a P48 center cab diesel, it’s focus is the scratchbuilding, not the P48 part. Mike models in P48 and writes about prototype modeling, which anyone can learn from regardless of the track gauge. If you have read my Starting Over series, you know I’m building the new layout using Atlas O track and switches. The last I checked, they’re not P48.

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See the Review in this Issue!

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In Paul Larson’s Honor

William W. Davis

Like so many of us I grew up in the 1950s and early ‘60s and I had my heroes. You may remember the Lone Ranger, Superman, and Mickey Mantle just to name a few. But I also had some other heroes that most kids didn’t. These were guys who built model trains. You know, John Allen, Jack Work, Bill Livingston and Bill Clouser. I was lucky enough to meet a couple of these guys but that’s another story.

There was another guy that greatly influenced my modeling. I’m speaking of Paul Larson. His HO models and layout in ‘50s was in many ways, ahead of its time, but it was his modeling after he made the switch to O Scale that influenced me most. Recently there was a discussion about Paul on the P48 list and this got me to dig out the old articles from Railroad Model Craftsman. Among them was an article in the April 1967 issue on building a “Super Stock Car.” This car was exceptional for the times and I decided I’d build one based on his car and letter it for his railroad (Photo 1).

Getting started

For me the first step in building the stock car was to decide how I was going to add weight. Since the sides are open, I just couldn’t add a washer or other type of weight inside as I would on a boxcar. That just wasn’t going to work! Paul filled the centersill with Cerro Bend but I want an open design there so that also was out. To solve my problem I made a sandwich type construction for the floor and ends. To build it I cut two pieces of Evergreen 0.020” thick x 1/8” spaced scribed sheeting a scale 36” long x 9’ 2” wide that would represent the floorboard’s tops and bottoms. Next I added 0.015” x 0.188” styrene strips around the edges and filled the middle with a piece of 0.015” brass sheet (Photo 2). Finally I finished the floor by scribing the ends of the floorboards on the edge so the sandwiching wouldn’t show. This took a little time, but this kind of attention to the details makes a finished model look better. As an added bonus, the sandwich construction gave a strong flat surface for building the rest of my car. For the ends I simply cut two pieces of scribed sheeting and put a piece of 0.010” brass between them, using CA to adhere everything together. Since the edge of the finished end wasn’t going to show I didn’t need the strips (Photo 3).

The next step was to detail the ends. This was really a fun
part of the project because I got to try something I have never done before. I built the Z braces by cutting a piece of 0.010” x 0.060” styrene strips, gluing them 12” from each side of center. I also cut pieces to form part of the corner angles on the edges of the ends. Next, I added two pieces of 0.060” angle to complete the Z bracing and a piece of 0.100” channel for the sway braces. I cut a piece of 0.030” thick for the end fascia area with a piece of 0.080” strip at the bottom (Photo 4).

Rivets are always a challenge and I hate doing them. However my friend David Reed came to my rescue. He suggested I try using a product from Archers Fine Transfers [www.archertransfers.com] that would give me the needed rivet details but are actually decals. Decals? Could there be a solution that simple?

Well the answer is yes and it turned out to be the perfect solution. They were no more difficult to use then decal lettering and once set they leave a little bump that represents a rivet. These aren’t for every rivet application and I didn’t use them everywhere on this project. However, I can see that I’ll be using them and other surface details from this company on many other projects in the future. (See the product review on page 48.)

Underframe

Next I started detailing the underframe by cutting out the locations for the sidewall supports so that the finished underframe would be 8’ 9” wide. I made the sidesills by cutting two pieces of 0.188” styrene channel the length of the floor, gluing them on edge at the cutouts. Next I made the centersill channels from of 0.020” x 0.250” styrene strip for the web with two pieces of 0.010” x 0.080” for the top and bottom flanges for the two channels that make up the centersill. I centered them on the underframe 12” apart with the flanges facing out. I made the body bolsters by cutting eight pieces of 0.020” x 0.250” that matched the angle between the centersill’s height and the sidesill’s height. I located the body bolster five feet on center from the car end. I also cut four pieces for the two cross bearers near the car’s center, located 3’ from the center to correspond with the doorposts. I covered these with pieces of 0.010” styrene sheet cut to size and shape and added the decal rivets. I also added the bearing plates and side bearers to the body bolster at this time. I built two other channels that go between the body bolster and center frame supports using 0.010” x 0.125” strip and 0.010” x 0.080” strips to form a channel. These were located in line with the side post locations between the center post and body bolster. I added the angled channels in the corners after cutting out the frame ends from a sheet of 0.020” styrene. The poling pocket was piece of styrene tubing. Lastly I added the supports for the brake cylinder and all the brake rigging, and then gave the underframe a coat of boxcar red paint (Photo 5).

Car sides

Now I was ready to build the sides. I knew this part of the project would be the most challenging as I had to drill for all the carriage bolt heads on the Z bracing and I wasn’t looking forward to that. I drew a very rough drawing of the board spacing and glued it to a piece of foam core to which I’d space and pin the sideboards to for assembly. I built the car sides from pieces 0.015” x 0.100” styrene strips, held together with 0.010” x 0.060” strip for the flat part of the Z bracing. Just like the ends, I added the 0.060” channel to complete the braces. I added a strip of 0.060” x 0.100” for the fascia area. For the carriage bolt heads I used Tichy 0.030” rivets. To complete each side I added grab irons, ladders, doorstops; the door track and the letterboard. You’ll note in Photo 6 some temporary pieces across the bottom of the door openings, which hold the sides together until they’re installed on the underframe.

The doors are 6’ wide x 8’ 4” tall, built the same way as the sides using the Tichy rivets to represent the carriage bolt heads. I added Grandt Line D&RGW door hangers for mounting them on the door track (Photo 7). I waited until installation to complete some of the end details for the cross braces and the door handle. Okay, we have the ends, the underframe, the sides and doors all built. It’s time to put this all together. Now this was bit tricky. I decided to assemble...
a side and an end to form an L and then glue these to the underframe and each other. This actually worked out very well. I also at this time added the decal rivets where the side’s Z braces meet the underframe. Next I finished the brake wheel platform and installed the doors after I cut out the support bar, which was no longer needed (Photo 8). I added the door lock details and was ready to move on to the roof.

**Roof**

Since the subroof wasn’t going to be seen, I built a simple support system from six pieces of 0.060” x 0.250” styrene strips and 0.080” x 0.080” strips lengthwise, doubling the center strip (Photo 9).

For the roofing I glued 0.020” thick by 0.100” spaced scribed sheets back to back so I’d have board detail top and bottom. This turned out to be a waste of time, as the underside didn’t show. So I could have simply used a piece of 0.040” x 0.100” scribed sheeting. Oh well live and learn!

However I did have an advantage doing it this way. I cut the top piece the full 10’ 3” width of the car. I then glued the lower pieces so there was a very slight space between them at the center. This actually worked out quite well when I bent the roof and glued it to the car body. For the running boards I used Simpson supports (I believe) I had in my parts bin. Lastly, I added the 0.030” x 0.188” boards and two 0.010” x 0.040” pieces across the walk to represent the metal joint cover details. I felt I needed a better fascia, so I added 0.015” x 0.100” strips to represent the side and end fascias. I built the running board end supports out of 0.010” x 0.040” styrene strips. With this my car is basically finished and ready to head for the paint shop.

**Painting and weathering**

Let the fun begin! I like building models with that been-on-the-road-working-hard look. Not that they are abused, but have been out in the elements and it shows. The first part I wanted to paint was the roof. I wanted it to show the most wear from the steady beating of the sun over the years and I wanted that to be obvious. So after priming, I sprayed the roof with a coat of Testor’s Model Master # FS33613 Radome Tan (a military color). Once dry, I gave it a wash of Folk Art #476 Asphaltum, again, allowing that to dry overnight before giving the roof an uneven coat of boxcar red leaving many areas bare. The next day I sanded the roof and running boards with 100 grit sandpaper, which evened out the colors making it appear like the paint had peeled over the years. I gave the roof a wash of Ruslall’s Blackwash, which really gave me the effect I was after (Photo 10).

After I had painted the carbody I needed to get the rest of the car to look like the roof. I knew I couldn’t do the sanding method I used on the roof because of all the details. I decided to paint the weathering! I did this by drybrushing the car sides and ends with the Radome Tan and the Asphaltum. After I was happy with how it looked, I gave the car a wash of the Rustall Blackwash (Photo 11). For lettering, I used a Champ stock car data set and an alphabet set I got from my friend Mickey. I let-
tered the car CMR&P, which was Paul's road name and gave it the number 41967, which is the month and year of the article by Paul. I weathered the lettering with a light wash of the Asphaltum so it wasn't so white. At this point it was looking really good but the underframe need some weathering. I had noticed that Gene Deimling had gotten some very nice effects by over spraying his cars with flat lacquer and then using the Rustall Rust color and Blackwash. I'm no chemist but the Rustall products don't like the lacquer and created a weathered chalky effect that looks like weathered metal, so I thought I'd give this method a try. It works great! (Photos 12-14.)

Well that's it! This was a challenging but fun project. One that has given me a unique car for my railroad and also an opportunity to honor a man who gave so much to the hobby and who greatly affected my modeling. I hope that you might also be able to build a car that will maybe honor a fellow model railroad hero of yours.
Highlands Station, LLC, has just released its 15th digital book, *Norfolk Southern Coal Cars*, by David Casdorph. The digital publication features 440 pages of new, never before published, information detailing Norfolk Southern’s current coal car fleet, including those from predecessor roads that were still on the roster as of late 2009 (Conrail, Norfolk & Western, Reading and Southern). With over 200 high-resolution color photos and extensive historical data, this book provides the most comprehensive examination of NS’s coal fleet ever published. Casdorph documents the physical characteristics and dimensions of all of the various types and classes of NS coal gondolas and hoppers. Also included is a brief overview of available HO and N Scale models. This CD is a valuable research tool for both modern-day Norfolk Southern modelers and rail historians.

Presented in PDF format (Adobe® Reader® 5.0 or later required), all text is fully searchable, and all the 600 dpi high-resolution color photos can be zoomed in on for close examination of every detail. The CD requires a computer with a CD drive and cannot be played on a DVD player for viewing on your TV. Pages may be printed for personal use. Retail price is $19.95 plus $4.85 S&H per order (US). S&H via International Priority Mail to Canada and Mexico is $10.45, $13.45 for all other countries.

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**A2760—Shootin’ Hoops:** Six boys enjoy a street game of hoops. Set includes backboard and hoop. MSRP: $22.99
Book Review: *Alco Locomotives*, by Brian Solomon; MSRP: $40.00
Voyageur Press, 400 First Avenue North, Minneapolis, MN 55401
800-458-0454 • www.voyageurpress.com

Reviewed by Brian Scace

With the possible exception of the Civil War, there is probably no field of American History so replete with books as railroading. For us as modelers, a photo book showing hitherto unpublished images of a favorite prototype or locale (in the vein of Morning Sun) is of great value. For the rail historian or the student of the history of technology, if a work isn’t a personal reminiscence in the vein of John Orr’s *Set Up Running* and Stuart Leuthen’s *The Railroaders*, a treatment of some narrow subject in great depth (Bill Edson’s books come to mind) really is the useful ground to cover. Today, I would argue that there are far too many “light” railroad books being cranked out (not unlike Thomas Kinkaid prints) for any one person to digest.

**Overall Impressions, Layout, and Organization**

It is with this preconceived notion perhaps too firmly in mind that I review Brian Solomon’s *Alco Locomotives*, published by Voyageur Press. The book is organized in chronological order, starting with a snapshot of the formation of Alco, vignettes dealing with the author’s cull of significant steam types, and a similar treatment for diesel production. More of the book is spent on diesel production than on all other subjects combined and some significant areas, such as Alco’s wartime activities and export models, beyond a touch of Canada and Mexico, are unexplored. The quality of the printing and of the photographic reproduction is very nice. My only real comment about the layout is with regards to the occasional printing of photos across the spine, a pet peeve of mine in a book, and the swapped assignment of a caption or two.

**The Photography**

Although well presented, one asks what sets this book apart from the vast number of railroad books out there such that it deserves a place on the shelf? Given the breadth of the subject, the modeler probably won’t find the photos as useful for their purposes as a photo/caption book on their favorite locale. Sure, there will be one or two from a favorite railroad, but not much more. Once the time period shifts from steam (and the detail clarity of the black-and white 3/4 perspective or builder’s shot of the era) to diesel, color creeps into the book. While quite a few of the color shots from the ’50s are historically worthwhile and interesting from a modeler’s viewpoint (ever seen a photo of the rear of a DL109?), the photo selection gets a bit “art-sy” by the time we start looking at the survivors in the ’90s and beyond. While lovely to look at from an aesthetic point of view, many of the modern-era photographs (in the reviewer’s opinion) are more in keeping with a casual reader’s coffee-table book rather than what is touted by the publisher as a “comprehensive history”.

**The Text**

That being said, let’s look instead at what’s offered in the text. The publisher’s blurb states in part, “This comprehensive history includes a collection of … photos and… images complimented with primary research examining the gamut of Alco locomotives…” Given that, I found myself looking first at the bibliography, which tells a different tale; most of the sources are previously published works and periodicals, not primary material in the traditional sense. That’s not a bad thing, really, for there is always opportunity to go for a fresh interpretation and advance some new conclusions.

After giving the book a good read (Remember the snows of February?), I had to conclude that no risks were taken here. What I held in my hand was a good thumbnail summary of the chronology of American Locomotive, as good as any out there if one is looking for a single volume as a general treatment of a very broad subject. Perhaps I was expecting too much, but I found precious little in the text not already advanced by others. Here also, I’ll advance the idea that perhaps the publisher’s blurb, in its zeal, had far overstated the author’s intent. I’ll admit disappointment, here, for American Locomotive is a subject that, thus far, has only been touched on in the narrow confines of the railfan interpretation and really could have used the treatment Hirsimaki gave Lima Locomotive.

As an example, the book addresses Alco’s exit from the US marketplace, but loses an opportunity by merely repeating the same interpretations as have been advanced before. There could have been some real gold for the digging, here. A look at the events in the context of Alco’s overall business model compared to its competitors and of the health of the customer base as a whole might yield a far different (and more balanced) interpretation of the events leading to Alco’s exit from the marketplace. As it is, the blame is laid on the usual suspects. War Production Board allocations during WWII allowing EMD some sort of permanent advantage over Alco is one such conclusion, repeated here. Just how the “WPB advantage”, which casts Alco (and Baldwin, for that matter) as the Johnny-come-lately in the road-diesel game to its permanent detriment, really bears up is questionable especially in light of subsequent history seeing GE (the Johnny-come-even-later) jumping in the road-diesel game, much to GM’s detriment. A fresh look at this one, pro or con, would have been worth it.

Also given a quick re-polish is the notion that permanent damage was done to Alco by the rush to get the 244 prime mover into production. Comparing Alco’s 244 experience with EMD’s survival of similar teething issues with new models (the turbo-charging of the 567, the initial problems with the frames on the GP40, and the issues with the 20-cylinder 645 in the SD45 come to mind) would also have been an interesting area to explore. Alas, not here.

**Conclusions**

From a modeler’s perspective (unless one is collecting or building examples of significant Alco models over the years) one will not find the wealth of photos for a particular project he would find in a region or railroad-specific photo book. Also not to be found is anything like the dry but useful tabulations of orders, dates, and builder’s numbers that railroad modelers and historians dearly love, as one finds in Hirsimaki’s Lima book or as the Dolzalls presented in their Baldwin diesel book. From a historian’s perspective, this is a fine compilation of popular interpretation (and I can’t help but think this was the author’s true intent), however there is precious little new ground explored.
Review: Decal Rivet Details; MSRP: $14.95 per sheet
Archer Fine Transfers, PO Box 1277, Youngsville, NC 27596
919-570-1026 • www.archertransfers.com

Reviewed by William W. Davis

Anyone who has scratchbuilt or kit-bashed a locomotive or piece of rolling stock knows that one of the more difficult parts of the project is adding the rivet details. Over the years there have been many different ways to create these rivets. There are pounce wheels, commercial rivet machines, converted sewing machines or drilling holes and placing individual rivet castings to name just a few of the methods available. All of these methods have their strengths and weaknesses.

Recently I took on the challenge of building a stock car from scratch (See page 42). I was discussing my frustration with making the rivets with a friend who said he had a solution to the problem that would ease construction. He suggested I try Archer Fine Transfers’ decal rivets and sent me part of a sheet he had for me to try. I had never heard of Archers Fine Transfers before, however this isn’t a new company as they have been producing both dry and wet transfers since 1989 and until recently their products were designed only for military modelers.

This changed when they expanded their line to include surface details of various types. In addition to the aforementioned rivets, they also have various types of weld beads, wood grain (both distressed and non-distressed), diamond plate, fabric weave and raised panel lines. All these details are useful to us as railroad modelers.

They have four sheets of rivets available in O Scale:
(#AR88032) 7/8” Rivets (#AR88033) 5/8” Rivets, (#AR88034)

units are $9.95 each while the D unit is $12.95. A piece of heat shrink tubing is supplied to cut down on extraneous reflections that might give a false trigger. The board requires the use of a 9-24VDC regulated and filtered power supply. You cannot use the Accessory terminals on most typical DC power supplies.

While the Sensa-Trak II is designed to operate an LED panel light to indicate when a block of track is occupied, it can be used for other devices as long as you do not exceed the current limit of the board. If you have any doubt about your application, email Tim through his website and he will work with you to provide an answer.

My tests showed the Sensa-Trak II units work perfectly although I did have one source/sensor pair that was DOA out of the box. Stuff happens. The heat shrink tubing around the source/sensor pair is a must. Without it, slight changes in illumination or reflections will trigger the detector. With it, the detector is rock solid and only triggers when the beam is interrupted in its line of sight. If you choose the D unit, make sure the cable is plugged firmly into the main board. There’s no detent on the plug and it’s easy to wiggle loose.

I am interested in determining if I can make a slit opening to improve the line of sight detection without compromising the sensitivity. At these prices, I can afford to experiment. Other optical detectors on the market sell for up to four times the cost of the TCH units. That makes these a great bargain and you get Tim Hatch’s expertise to boot!
Review: Mt. Albert Fire Station: MSRP: $170 plus s&h
Mt. Albert Scale Models, PO Box 1218 Mt. Albert Ontario
Canada L0G 1M0
905-473-3161 • www.mtalbert.com

Reviewed by Dick Nagle

With over 60 years as a model railroader and 50 years as a firefighter my attention was immediately drawn to an ad in the Sept/Oct ’09 edition of O Scale Trains Magazine for a fire station kit. This was the fourth in a series of limited edition craftsman kits offered by Mt. Albert Scale Models. It arrived the day after Christmas just in time to do some holiday modeling.

The kit included laser cut plywood and basswood, which, with one exception, was very well done. Plastic detail parts were also included along with 5 pages of printed instructions by Roger Malinowski and an accompanying CD-ROM with construction photos. I had never used a CD in this manner before and it took a little getting used to, but in the end, it worked out fine.

While Floquil was the recommended paint, my local hobby shop does not carry that brand. I substituted Tamiya acrylic colors instead. I also could not find Dr. Mike’s Model-n’ Crafters Glue and used Zap’s CA with great results.

Assembly went pretty much as described in the printed directions. I did run into a time consuming stumbling block when I came to Photo 21 with the instruction to “assemble four main walls and floor.” After much back and forth trying to match the intersecting “tabs” on the walls I finally resorted to applying some wood strips in each corner and attached the walls to them (see photo). The instructions suggest attaching the six add-on wall sections to the main building as the next step. I held off on this almost to the end of the project as it made for easier handling of the main structure. It was also suggested that a doorstop be added inside the front main door. This is best done before putting the walls and floor together.

Instead of the roofing paper included with the two small, attached structures I chose a green paper grocery bag for this step. I also sprayed the main roof with a matte green chalk spray to get away from the black color which I found overpowering. The Tamiya flat red acrylic paint I used for the door and window trim also gave a brighter “firehouse” look to the piece.

Assembling the tower presented its own set of problems. The “tabs” proved troublesome and I ended up removing all of them with an X-Acto knife, and sanded the edges to a flat surface and installing as such. It worked fine.

I used Minwax wood filler wherever necessary. It dries fast, sands easily and accepts any paint applied to it.

I have not added the roof rafter ends as directed because I am still trying to figure out how to model and attach leaders and gutters. On my layout it rains several times a month and I like to have a place for the runoff to be directed so I don’t flood the firehouse. Leaders and gutters are not included in the kit. Neither, for that matter, are hinges and locking mechanisms for the main door. I’m looking in model ship catalogs for the proper hardware to finish off the doors. And how about a flagpole? Every firehouse I have ever seen has a flag flying out front. As soon as I find one I’ll add it.

The big sign on the front of the building is a little too “showy” for my taste. After installing it I realized I had placed it a little lower than where it should be. I will probably change it out sometime in the future, maybe when I add the gutters and flagpole.

The fire engine that is included in the kit is great! It is, admittedly, just slightly off-scale but it sure looks nice sitting on the front ramp of this beautiful, classic, American firehouse.

This was a great kit, (despite my picky comments), and I truly enjoyed the challenge. (And it was a challenge!) I have found that as I age my eyes and fingers have more and more difficulty with HO Scale and I find myself now embracing O Scale. Also with age comes a certain acquired wisdom. There is no need to rush through a project. Take it a little bit at a time, and enjoy the experience of building a structure of which you can be proud. Thank you Mt. Albert Scale Models, for creating a terrific model.
Reviewed by Joe Giannovario

When I started model railroading in earnest during the early 1970s, the switch machine of choice was solenoid operated. About the only way to improve their performance was to build a capacitive discharge power supply. Later came the stall motor switch machine that seems to be the current object of favor for turnout control. I tripped over Duncan McRee’s Tam Valley Depot website while searching for something else and discovered what I believe will be the "next big thing" in terms of switch motors.

What Duncan has done is build a special board, which makes an RC servomotor usable as a switch machine. RC servos are inexpensive and even the micro servos are powerful enough to hold an O Scale switch-point closed. Duncan developed his first controller for use on his own HO Scale layout.

The Singlet Servo Decoder (Photo 1) is designed for use with DCC systems but works with straight DC just as well. The Singlet board houses a microprocessor, a pair of miniature push buttons and two yellow LEDs. The microprocessor decodes the push button presses and actuates the servo. The LEDs indicate direction and assist in programming the servo.

I was amazed at the functionality compressed into this tiny board. With just the two push buttons you can (and need) to adjust the throw of the servo arm. Each side is independently adjustable, i.e., one side can throw more than the other if that's required. You can also adjust the speed of the throw from very slow to moderately fast. Finally, if you are using a DCC system, the unit can be programmed to accept a DCC accessory address and function independently of the push buttons.

An assembled unit comes complete, ready to use with a micro servo. The kit requires you to buy the servo as an extra and solder in the push buttons and LEDs. I opted for the kit because it allowed me to replace the push buttons with sockets and do some circuit development that you will see in the next issue. The sockets also permit you to mount the decoder board next to the servo while the push buttons can be remotely mounted anywhere within reason.

The servo is quite small (Photo 2) so I mounted it to a piece of hardboard (with the hardware that's included) for easier handling. I mounted a turnout to my roadbed and bent up a piece of 0.040” brass wire as my switch rod (Photo 3). I inserted this through my benchwork and based on its location I mounted the servo and bent the rest of the wire to fit through a hole in the servo arm (Photo 4). I don’t think the installation took more than 10 minutes total.

Once installed, I followed the instructions to adjust the throw and the throw speed. That took another 10 minutes. In my tests, the servo decoder and servo work great together. I did not test the unit with a DCC system but I would be amazed if that did not work as well as the rest of this system does. I was so impressed with how this works and how it looks in operation that I bought enough units to power every turnout on the new layout.

I have not seen any articles about using RC servos as switch machines in the mainstream model railroad press. I do predict, however, that we will hear more about them as more modelers discover how easy they are to use with the Singlet Servo Decoder.

Tam Valley Depot also makes Quad, Octopus and Dual 3-Way servo decoders. The Octopus is a DC only device while the Quad and Dual 3-Way, like the Singlet, can be programmed for a DCC address. Check it all out online.

Review: Singlet Servo Decoder; MSRP: $18 assembled/$15 kit form
Tam Valley Depot, 4541 Hidalgo Ave, San Diego, CA 92117
www.tamvalleydepot.com • dmcree@tamvalleyrr.com
Review: Atlas TRAINMAN 60' Heavyweight Baggage, RPO, Combine and Coach; MSRP: $84.95
www.atlaso.com

Reviewed by Tom Houle

Being a Chicago & North Western fan, I was intrigued when Atlas added a heavyweight car series based on C&NW prototypes to their Trainman offerings. The heavyweight line consists of a coach, combine, baggage and an RPO. All cars are 60' long. Current road names: Boston & Maine, Chicago & North Western, New Haven, Santa Fe, Lackawanna, Lehigh Valley, NYC, and D&R G. This review covers the RPO and baggage cars.

The Prototype

I was asked to review these cars from the standpoint of the C&NW prototype. Joe Pierson and Joe Follmar both of the C&NW Historical Society helped me out here. Joe Pierson provided RPO car photos and a drawing from the Winter 1989 North Western Lines magazine. I used an article by Joe Follmar that ran in the June 1988 Mainline Modeler plus, I found additional photos on the Internet.

Beginning with the baggage car, it appears that Atlas followed the American Car & Foundry cars built in 1910. These were equipped with six-wheel trucks. In 1913 and 1914, additional cars were built with four-wheel trucks. The C&NW subsidiary, Chicago, St. Paul, Minneapolis, and Omaha, rostered six of these cars with four-wheel trucks. The original cars were painted yellow and green with dark red roofs. Later they were painted overall dark green. In the Fifties, some of these cars were repainted back into the modern green and yellow scheme. The C&NW operated these cars in all runs except the Streamliner, Twin Cities, and Peninsula 400 trains.

Pullman Car Company built the first all-steel RPO cars for the C&NW in 1911. These had six wheel trucks and were also originally painted yellow and green with dark red or aluminum roofs, and later repainted dark green. In the Fifties, some of these cars were painted green and yellow. At least one of these 1911 cars was painted in two-tone gray with white pin striping for service on the Chicago - Omaha route. In 1921, American Car & Foundry built two additional cars with six-wheel trucks for the Chicago, St. Paul, Minneapolis, & Omaha.

The Model

Other than window and door arrangements, the two car bodies are identical. The underframes and trucks are also identical. The car bodies are a one-piece injection molded design with the side steps cast onto the body. The doors do not operate.

The rivet detail is clean and crisp throughout. The grabs on the sides and roof are made of stiff wire. The Tuscan paint has a satin sheen and doesn't obscure the details. The lettering is crisp and opaque. The black roof is too shiny to suit me. A coat of Testors Dullcote will tone down the shine.

Both cars have interior floor inserts. The baggage car's interior is minimal. There is a lavatory compartment in one corner and what looks to be corrugated flooring at the center of the car. The RPO car doors have mailbag hooks separately applied. Inside are sorting desks and bins.

Two incandescent lamps provide interior lighting. The lamps are powered by pick-ups on four wheels of each truck. The leads are connected in parallel inside the car. Either truck provides power to both lamps. The lighting is not constant, but a Miniatronics light kit would be easy to install. I'd attach Miniatronics lamps to the lamp towers inside the car.

I did have a problem with the RPO's interior lighting. When I set the car on the rails and applied power, my power supply tripped out, indicating a dead short somewhere in the wiring. I discovered I could avoid tripping the protector if I used only one truck to power the lighting. That figured out, I reversed the two pick-up leads on one truck, which eliminated the problem. The leads are polarized with a white dot on one of the connectors. On the baggage car, the two white dot leads are on the same side of the car. On the RPO, one white dot ended up on the LH side and on the other truck is on the RH side. Compared to the baggage car, the dots on the RPO are reversed, but it works.

The underframe, battery box, air conditioning, and brake components are the same casting on both cars. There are...
shallow fishbelly centersills molded to the underframe. They are not correct for the C&NW cars. They had straight centersills on the coach, combine, baggage, and RPO cars. Five screws hold the car body to the underframe.

The trucks are gorgeous, very nicely done. The side frames are two-piece die-cast metal, softly sprung, and are a near perfect match to the C&NW photos. The wheel diameter is 36”. The wheelsets checked perfectly on my NMRA gage. All six wheels on each truck are insulated. The outside wheel faces are blackened. The treads and flanges are natural bright plating. The trucks rolled freely and easily coasted through 36” radius curves.

The Atlas couplers are approximately a 1/8” too low when checked with the Kadee 804/805 coupler height gage. When I removed the couplers on one of the cars I discovered the Atlas coupler box mounting hole spacing is approximately .030” less than the Kadee coupler box hole spacing. Why the centers don’t match is a mystery. I also discovered the underside of the underframe is right at the Kadee recommended coupler box height. You can easily add Kadee couplers with a minimal amount of rework.

These cars come with long and short diaphragms. The 2-rail cars come with the long diaphragms attached. When coupled, the diaphragms on my two cars compressed and mated up perfectly. There was no air between them. When I ran the cars through 36” curves, the diaphragms stayed in contact. The short diaphragms are intended for the smaller 3-rail curves. Both cars weighed in at a hefty 1 lb – 6 oz. Atlas offers two car numbers for each of the C&NW cars: 8611 and 8619 for the baggage and 9425 and 9429 for the RPO. These car numbers are correct.

Fidelity To Scale

Other than the underframes, the car bodies, truck side-frames and wheelbase checked out perfectly with the C&NW and Mainline Modeler drawings and photos. The Atlas cars scale out at 60’ 3” in length, 9’ 9” wide, and 10’ 6’ height. These dimensions are spot on. The only dimensional discrepancy I found is both cars are approximately six scale inches lower than the drawings. Coupling the Atlas cars to my scratchbuilt C&NW and Lackawanna head end cars verified this discrepancy. Raising the body 1/8” can be easily done by backing out the truck mounting screws and adding 2 - 3 washers and there is enough bolster material to allow this. The change in car height will also require the addition of 1/8” styrene or basswood shims to the coupler boxes.

Compatibility

I placed one of the Atlas cars on the rails and lined it up with a Lackawanna baggage car and a C&NW combine with open-end platforms. Other than the difference in sill height, the Atlas diaphragms aligned with my cars. I also coupled the Atlas car to a Walthers baggage car. In this case, the sill height difference was minimal and the diaphragms mated perfectly. The Atlas cars should operate fine with the other coach and head cars out there.

Conclusions

Atlas has hit a home run with these cars. They are accurately scaled to the prototype, are well built, detailed, lettered, and painted. $84.95 might seem like a hefty price for one of these cars, but if I were to scratchbuild this car, which I was considering before I saw these, it would cost me at least the retail price for materials, trucks, paint, decals, and detail parts, not to mention time at the bench. The only negatives for me were non-constant lighting and Atlas couplers that should be replaced with Kadees. Both items are easily corrected. A string of these cars would look great behind a C&NW class R-1 4-6-0.
Background

The Lehigh Valley's passenger depot in Naples, NY was located at the corner of Academy Street and West Avenue. The separate freight depot (drawn here) was located just north of that. The area also had a small yard, a coal and lumber business, facilities for engine servicing and a turntable for turning. We are indebted to Mary Hamilton Dann for the information about this branch that is contained in her book, *Upstate Odyssey, The Lehigh Valley in Western New York*.

The Naples area is particularly fertile. The region produces cabbage, pears, beets, carrots and various grains in abundance. It has been reported that in the 1890s as many as 700 car loads of cabbage were shipped from Naples to the Sauerkrut manufacturing plants up the line in Phelps, NY. To get products to larger markets at Geneva and Canandaigua, farmers resorted to horse drawn wagons and the steamboats that traveled the lakes. In winter however, such transportation was difficult if not virtually impossible. There was much rejoicing in 1892 when the Middlesex Valley Railroad was built northward from Naples to Stanley, a major railroad junction for the Northern Central, the Sodus Point and Southern and the Geneva, Seneca Falls and Waterloo. The Middlesex Valley RR was 21.9 miles long and the running time to Stanley was less than two hours. In 1894 the line was extended to Geneva with an interchange to the Lehigh. Two mixed trains ran two round trips daily. Significant station stops were at West River, Middlesex, Valley View, Rushville and Gorham. As opposed to some railroad's "cookie cutter" depot designs, the Middlesex's depots each had a distinctive architecture. Business was brisk. Many farmers had their own sidings and small pickup stations were located at many crossroads.

When the Lehigh Valley RR acquired the Middlesex Valley in December 1895, major improvements were made to the line including ballasting the roadbed. The running time was reduced and ridership increased dramatically. By this time the Naples annual fair provided an added incentive to ride the line. The Lehigh's better years prevailed on the Naples branch as well. The line was free from competition and profitable. Eventually however, the public used the highways. Passenger service was discontinued in 1938. The line from Naples to Rushville was abandoned in 1970, with the remainder of the line to Geneva taken out of service in 1972 and dismantled in 1978.

Little remains today of the Lehigh's branch that ran from Geneva to Naples. The depot at Gorham is slowly being taken over by vines that are undermining the stucco. The freight depot at Naples is in decent repair probably because it has been occupied by various businesses from time to time. When I measured it for this drawing, it was vacant. Today the Naples, NY area is noteworthy for its abundance of grape vineyards and wineries.

Modeling the Freight Depot

Such a small building can be an easy modeling project that can be made from commercial shiplap siding and conventional asphalt shingle roofing. The interior of the depot has been modified many times to accommodate the various businesses that occupied it since the railroad's demise. One can speculate that the south end contained offices while the north portion held the freight. There was no evidence of platforms running along the sides of the building. Boxcars were probably unloaded with a ramp from the building's door into the car and trucks were similarly serviced on the other side. A small storage shed is located at the north end of the depot. This was further punctuated by a large privy that rested on the ground without a foundation, while the buildings rested on a concrete slab. When I first measured them, the depot and shed were painted dark green with dark red trim; the privy gray with red trim. A later trip revealed that one failed business had painted the south end blue with maroon trim.

This structure served as the freight depot for the Naples Branch of the Lehigh Valley in Naples, NY. The southern end of the building contained offices while the northern end held freight. After the railroad left town, the building has served as home for several business including a food co-op and craft store.

A small storage shed was added to the depot at a later time. The privy is typical of what was still found around some railroad facilities in the 1940s and beyond.
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2010 O SCALE NATIONAL CONVENTION

Why Attend? Up to 300 trading tables of 2-rail O scale items, about 40 home and club layouts open, banquet, California State Railroad Museum tour, contests, clinics, convention cars, O scale layouts on site, videos. Fly to a major western city and drive a DIY Grand Tour between there and the convention, visiting model and real railroads, museums, national parks, and other attractions. Complete information is on the web site (see below). Convention sponsored and managed by O Scale West.

Where: Santa Clara, California (San Francisco area)
When: June 30 - July 3, 2010
Location: Hyatt Regency Santa Clara
Room rate: $109 plus tax for 1 - 4 occupancy, Regency rooms $145 + tax
Registration: $35, $40 after April 30, registration includes spouse and children under 18
Table Rentals: 30” x 72” tables are $45, $50 after April 30, electrical hook-ups are free
Banquet: Friday July 2, $50 per plate including gratuity and tax, sign up by June 20
Tour: Wednesday June 30, California State Railroad Museum in Sacramento, $60 per person includes round trip train ride between Santa Clara and Sacramento, museum admission, sign up by June 1

Overall Schedule:
June 27-July 4: layout visits
June 30: register, set up, layout visits, videos, clinics, museum tour
July 1-3: register, sales/exhibits, contests, layouts, clinics
July 4-on: layout visits

Web Site: www.2010oscalenational.com
E-mail: info@2010oscalenational.com
Telephone: 650-329-0424 please call between 9AM and 8PM Pacific time

The registration form can be downloaded from the web site. To receive a paper form, send an LSSAE with 1 oz. of postage to: Registration Form, 2010 O Scale National, 876 Boyce Avenue, Palo Alto, CA 94301-3003.
Passenger 1st Place: City of Beckley. Ed Bommer built this car from an American Standard Car Co. kit. It has a full interior and added underbody details from Keil Line. The model represents a 1969 appearance.

Passenger 2nd Place: This AT&SF 60’ baggage was built by Terry Nelms from an American Standard Car Co. kit with a custom screen door. It has a full interior and working lights.

Traction 1st Place: This Chicago Surface Lines 1700 series was scratchbuilt by Wes Moreland from styrene, brass, white metal castings and some commercial parts. Wes did the paint scheme, one of several CSL used to show support for WWII. Wes also designed and commissioned the decals.

Traction 2nd Place: This Chicago Surface Lines work motor #W14 was scratchbuilt by Rich Nielsen. It is made mostly from wood and powered with NWSL trucks.

Steam 1st Place: Louis Bartig took first place steam with this scratchbuilt N&W Y6b made from nickel silver and brass. Louis has over 4000 hours in the model. He handmade the drivers! The model sports all-wheel drive with helical gearing. It also won Best of Show.
Structures 1st Place: J. Hunter Mercantile was scratchbuilt by Roger Malinowski. Roger built everything you see including the gas pump.

Freight 1st Place: Ed Bommer built this Lehigh Valley M-80 dbl-sheath boxcar with left-opening doors using styrene with InterMountain parts. The flour "sacks" are painted Chiclets.

Diesel 1st Place: Another Ed Bommer winner. This B&O Class DS-13F, FM H10-44 is a "scale-ized" MTH unit from the early 1990s. Ed rebuilt just about everything on the unit and added an NCE 5-amp DCC decoder.

Diesel 2nd Place: This Conrail GP-10 was kitbash by Patrick Welch from a Red caboose GP-9. Patrick rebuilt it to match the Conrail prototype. The model is custom painted, custom detailed and built to Proto48 standards. You will see exactly how Patrick did the rebuild in a future issue of OST.

Structures 2nd Place: This LS&MS (NYC System) tower diorama was scratchbuilt by Randy Swanson from photos using scale aircraft plywood and stripwood. The original was demolished in 1948. The tower features a full interior and lights.

Freight 2nd Place: This Susquehanna & Chesapeake caboose was scratchbuilt by Ed Bommer from Northeastern milled wood, stripwood and brass. The model has a full interior and complete air brake piping and rigging on the underframe.
STEEL RAILS to the Sunset

2010 O Scale National Overview
by Rod Miller

The 2010 O Scale National Convention will be held June 30 - July 3 in Santa Clara, California (near San Francisco). Your convention host is O Scale West. Twenty-years old this year, O Scale West has the reputation of being fun and well managed. Please see the ad elsewhere in this issue for more information.

Clinics will start on Wednesday and will be offered twice. Contests include favorite model, favorite photo, and a juried model contest. We will have movies by Don Olsen of Catenary Productions. It is always entertaining to hear Don’s commentary during the movies; he was a railroader and has interviewed many other railroaders to aid the accuracy of his products.

The banquet offers four choices of entree, including vegetarian, for $50 a plate including tax and tip (equivalent to a $40 meal not including tax and tip). The speaker will be Mr. Art Lloyd, a long time railroader and active consultant in today’s railroading environment. We are offering a tour of the world-class California State Railroad Museum. The tour includes a round trip ride on Amtrak’s Capitol Limited, a tour of the museum with possible access to the “back lot”, and some time to enjoy nearby Old Sacramento. The tour takes the entire day of June 30.

At the time I write this, we have 56 local and remote layouts that will be open for you to visit. We are in the process of recruiting more remote layouts (see Grand Tour below), and expect a total of 60+ layouts to be open for visiting before, during, and after the convention! Local layouts are open during the convention. Remote layouts are open before or after the convention because their distance from Santa Clara.)

Gary Schrader’s layout, shown in the photos, is one of the many local layouts that will be open during the convention. Gary models the ATSF and SP in the 1947-1951 timeframe. The layout’s size is 20’ x 40’. There is a double track mainline, a large yard, Union Station, and a 14-stall roundhouse. All track is hand laid. About 50% of the scenery is done including a large curved timber trestle. All engines and cars are super-detailed. DCC control is by NCE radio control. Some engines now have Soundtraxx’s Tsunami stunning sound in O Scale. Things to look for are the complete, accurate 14-car Daylight and 11-car Super Chief with lighted drumheads, and several nicely done scratchbuilt and kitbashed bridges.

With so many local layouts open, it is a challenge to see them all. We are asking the owners to be open more times and to be open before the convention starts. We expect to have them open as early as June 27, the Sunday before the convention. Up-to-date schedules for all layout visits will be maintained on the convention’s web site.

Some of the layouts are S and HO scale. S because the O Scale West meets for the last four years have successfully included S Scalers. Their part of the event is called S West. We include HO layouts such as Jack Burgess’s and Jim Vail’s because they are stunning examples of the evolution in layout design and construction that has taken place. Two live steam layouts, one local, one remote, will be open.

The other layouts are on the Grand Tour, which is a do-it-yourself tour of layouts, railroads, museums, national parks, and other major attractions of the West Coast. The area of the Grand Tour layouts is bounded by a line from Durango, CO to Seattle, another line from Durango, CO to Los Angeles, and the Pacific Coast (none in Hawaii...) Much more information about the Tour is on the web site, www.2010oscalenational.com The site is frequently updated and you can get complete up-to-date information about the convention, so re-visit often for the latest info. If you don’t have Internet access, call Rod Miller at 650-329-0424 between 9AM and 8PM Pacific Time to get your questions answered.

I know for some of you the West Coast is a long way to come. I encourage you to make your convention experience part of a larger family trip that includes the many attractions of the Western U.S. I look forward to seeing you at the convention.
THE O SCALE KINGS are looking for new members. The present members are good but we need more good members. Send LSASE for “O Scale Trains Shows” flyer and “Projects List” flyer to Bob Retallack, Dept. OST, 2224 Adner Ct, Columbus, OH 43220.

WANTED: Small N&W custom-built or scratch-built steam. Especially looking for N&W 4-8-0 by Bill Lenoir. Also 2-8-0, 4-6-0. Also looking for N&W brass parts, e.g., pilot, cylinders, domes, tenders, etc. Contact Joe Giannovario, jg@oscalemag.com or call 610-363-7117.

WANTED: Ambroid special run 50’ Milw. boxcars, Hallmark comp gons, Sunset WWII emergency boxcars, PRB WWII comp gons, Lobaugh 50’ reefer, WWII era boxcars what have you? Mail only. Jim Seacrest, PO Box 6397, Lincoln, NE 68506-0397.

WANTED: LTD AMT Steam/Diesel era GN, NP, C&NW, CM&O engines, passenger cars, freight cars, MoW, cabooses, What have you? Mail only please. Jim Seacrest, PO Box 6397, Lincoln NE 68506.

FOR SALE: Southern Pacific by PSC F/P, mint & TRO: AC-12 #4294, $4950; MT-5 #4370 (latest run), $2750; P-10 (Skyline casing/desktired) w/120 C-8 tender & Soufie drive, $2500; P-8 w/120 C-8 tender & Cockерham drive, $2500. ATSF Pecos River Brass - F/P Stock cars; F/P Heavyweight: latest run; Horse car, Cafe/Obs, Combine, (2) 70’ Baggage, Business car, Lounge, diner, earlier run; F/P RPO and U/P; (2) A/C chair cars, non A/C partitioned coach. Request prices. Reasonable offers considered. Call Bruce Antell, 650-347-4402 or email bantell@pacbell.net. Bruce Antell, 50 S San Mateo Dr, Ste 105, San Mateo, CA 94401-3857.

FOR SALE: Berlyn 20-ton gantry crane, F/P $725; Sunset NYC S1b F/P $925; Sunset USA 4-8-2, C/P $825; PSC NYC 4-6-0 F/P $950; OVL F-3 Phase B C/P NYC $550; Weaver VO1000 F/P NYC $225; CB RS-1 C/P GN $500; Atlas SW8 F/P NYC $250, Atlas GP35 DC F/P $325, PFM GN 4-6-0 F/P new $1600. WANT Atlas C-424 F/P Wabash. Phone 423-772-4401, or write: Norm Reaume, 129 Hamby Rd, Roan Mt, TN 37687-0004.

FOR SALE: Kohs GG1, Dark Green, 5 stripe, Gold Leaf, Clarendon, Fixed coupler #4821, TRO, beautiful condition, $2950; Westside Santa Fe Mikado, mechanically rebuilt by Gary Schrader, $1100. Bill Pierson, 133 Wheatland Dr, Livermore, CA 17339-9408.

FOR SALE: Sunset UP 4-4-2, new, $599. Call 650-759-9054 or mail to James J Herdich, 3220 Upper Lock Ave, Belmont, CA 94002-1317.

WANTED: Rich Yoder “Crown 70-ton Trucks”. Contact Bill Pierson at 717-766-1234 or wmp@abwe.org, or Bill Pierson, 133 Wheatland Rd, Lewesberry, PA 17339-9408.

WANTED: SP steam and diesel, Amtrak Overland cars and diesels, PSC Pullman cars. Email: lima4449@yahoo.com or call 619-593-0886 or mail to Albert E Espinosa, 316 E Camden Ave, El Cajon, CA 92020-4504.


FOR SALE: O Scale cardstock buildings, quality metal and plastic detail parts, backdrops. Free catalog. Pioneer Valley Models, 35 Yale St, S Hadley MA 01075, 413-533-5350, or email boudreaurobert@hotmail.com.

To ensure your event listing makes it into the proper issue, please note the following deadlines for publication:

June 2010
30th to July 3rd: Santa Clara CA
The 2010 O Scale National is being held in lieu of the 2010 O Scale West. The hotel room rate is $109/night plus 10% room tax, for up to 4 people in the room. Registration is $35, $40 After April 30, 2010. Vendor tables (72”) are $45, $50 after April 30, 2010. A banquet will be held at 7:30 PM Friday outside the hotel. For more details, contact the O Scale National Convention, c/o 876 Boyce Ave., Palo Alto, CA 94301. 3003 or call Rod Miller at 650-329-0424 between 9:00 AM Pacific Time and 9:00 PM Pacific Time. Email: rod@rodmiller.com.

July 2010
10: Merchantville NJ
Cherry Valley Model RR Club Open House Cherry Valley Open House during the Merchantville Antique Car Show, 1 PM to 7 PM. At Grace Episcopal Church, 7 E Maple Ave. No admission but donations accepted. Contact jdunn8888@hotmail.com

11-18: Milwaukee WI
NMRA National Convention & 75th Anniv. The National Model Railroad Association (NMRA) will be celebrating its 75th birthday in 2010. As part of the festivities the National Convention will be held in Milwaukee Wisconsin, the birthplace of the NMRA. We are planning a rail roaring Midwestern, good time for all, both model railroader and general interest attendee alike. Dates for the convention are Sunday July 11th to Sunday July 18th. On Sunday the 11th, we are going to kick off the week with a Beer and Brat Fest (a Milwaukee favorite) at Zediller Union Square Park, just a stone’s throw away from the convention site and hotel. Contact Ken Jaglinski, Vice-Chair. Contact mjaglinski@wi.rr.com

August 2010
7: Strasburg PA
Strasburg Train Show Two-rail swap meet at the Strasburg Fire Co., 203 W. Franklin St., 9 AM to 1 PM. Admission $5 (Wives/Children/Active Military w/ID, FREE). Tables: $25 first one, $20 each additional table. Great food, modular layout, clinics. Call John Dunn, 609-432-2871. Contact jdunn8888@hotmail.com

October 2010
2: Gardner MA
Southern New England O Scale Model Train Show Show held at Chestnut Street United Methodist Church, 161 Chestnut Street, 9:30 AM to 4 PM. Admission - Adults $5, Children 5-12 $1, Family Max $8, Tables: $20 - 8 ft, $15 - 6ft. O scale, Hi-Rail, NG, P-48, books, videos, food and a layout. Call or email Larry Grant, 508-337-6661. Contact BigBrotherLar@netzero.net

9: Strasburg PA
Strasburg Train Show Two-rail swap meet at the Strasburg Fire Co., 203 W. Franklin St., 9 Am to 1 PM. Admission $5 (Wives/Children/Active Military w/ID, FREE).Tables: $25 first one, $20 each additional table. Great food, modular layout, clinics. Call John Dunn, 609-432-2871. Contact jdunn8888@hotmail.com
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A “Golden” Issue

This is issue #50, our “golden” issue. I think the mix of articles in this issue reflects the “golden” age of O Scale that we’re living in. Never before have we had access to so many quality items for our hobby.

If you are a ready-to-run fan, there are tons of models for you to purchase and plunk down on your layout and begin operations immediately. If you are a kit-basher, there are tons more models and kits to purchase that you can bend, fold and spindle to your heart’s desire. If you are a scratchbuilder, there are more materials than you can possible use on any given model that will yield your desired result. Oh, I know there are some folks who miss the cast bronze doorstops and paper car sides, but I don’t.

The response to Capt. Tom Mix’s scratchbuilding series has been extremely positive. His work inspires people to achieve more with their own model building. There hasn’t been a series like this since Mel Thornburgh wrote for MR and Tom certainly has earned the right to Mel’s mantle. Tom’s third installment appears in this issue.

I’ve also been surprised at the positive response to my series Starting Over. Many of you have sent short notes sympathizing with my situation and expressed a great deal of interest in how I developed the new trackplan. In this issue you’ll see how we prepped the room for the benchwork. Some of you have asked about the operations and I will discuss that in later issues. I’ll get specific about each destination.

Bill Davis’s article on scratchbuilding a stock car is a good example of the new materials I mentioned above. Bill’s car is built from styrene, one of my favorite mediums, but he also uses Archer resin decal rivets. If you have not seen these, you need to visit [www.archertransfers.com] and check out their complete line of surface details.

The rest of the issue is more scratchbuilding and kitbashing by the likes of Conley Wallace (Jawn Henry), Warner Clark (Roundhouse) and Jerry Zaret (Scratch Buildings). I think there’s something here for everyone. I hope you enjoy our 50th issue and I promise well be around for the 100th.

A New Venture

I want to take this opportunity to announce the formation of a new enterprise; OST Publications Inc. Mike Cougill and I have joined together to create a publishing company that will focus on the needs of the intermediate to advanced O Scale modeler in terms of fine craftsmanship. First up, Mike authors a trackwork book. Our second project will be a Proto48 Handbook. There are other titles in the works and when we’ve decided on the next one we’ll let you all know. In the meantime, watch for the ad announcing Mike’s new book.

Pet Peeves

I’ve been meaning to get this off my chest for a while. I’ve been a member of eBay since 1998 and while I am not an eBay “powerhouse” I do look at it every day for things I am interested in buying. One of my pet peeves is people who cannot seem to fathom the idea of a category. I have O Scale bookmarked and one of the categories under O Scale is Brass Imports. So, will someone please explain to me how a diecast Lionel Hudson belongs under brass imports? Or for that matter why plastic tubing, or books, or a plastic freight station is there? I find it most annoying.

Is There Life Beyond Trains? (Gasp!)

For those of you who live in the Northeast corridor, you know we’ve had a record snowfall this season. As of today, we’ve hit 7 feet of snow since December. As a result, Jaini and I have spent a lot of this winter indoors with the pups (talk about cabin fever!).

Between doing OST administrivia all-day and working on the new OST layout, I have to take a break from trains and do something else. That something else is video games.

Yes, Jaini and I are hard-core gamers. We play virtually every evening for a couple hours. We’re Xbox users (which is amazing because I’m a Macintosh computer die-hard). We got hooked on the Xbox because of a game called HALO, a first-person shooter (FPS). We have all four HALO games and we’re waiting for the new HALO: Reach beta to debut in March. Other games that we’re especially fond of are: Star Wars: Knights of the Old Republic (aka KOTOR I and KOTOR II both role-playing games (RPG); Mass Effect 1 and 2 (another sci-fi RPG); Metal Arms: Glitch In The System (a platformer); and our newest favorite, Borderlands, which combines elements of an RPG with an FPS.

But the one game we’ve played consistently for nearly two years is Civilization: Revolution. It’s a strategy game that can be played in as little as 20 minutes or as long as three hours, depending on the goal and difficulty level. Civ: Rev is about resource management and problem solving. It’s an easy game to start playing but it takes a long time to understand all the nuances of the choices you make during a game. Not to go into too much detail but any given game involves 5 of a possible 14 civilizations, each with unique abilities. You can win a game by dominating the others (war), amassing 20,000 gold and build the World Bank, create a strong culture and build the United Nations, or with technology by building and launching a starship to Alpha Centauri.

I bring this up because the choices we make early on in designing and building a model railroad will have consequences later on down the road. Playing Civ: Rev has given me an appreciation for planning and resource management as applied to my hobby.

So, I’m wondering if anyone else has a non-train hobby that has lessons applicable to trains? If you do, let us know and we’ll share them with everyone.

Another Survey

I’ve set up a second OST Reader’s Survey. I would appreciate it if everyone reading this would take a few minutes to complete the survey online. Go to the OST website [www.oscalemag.com] and you will find a link on the front page to the survey. We’re interested in knowing more about who our readers are, how they model in O Scale and what they’d like to see in future issues of OST.

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