



The Nickel City Dispatch

News From The Nickel City Line Railroad

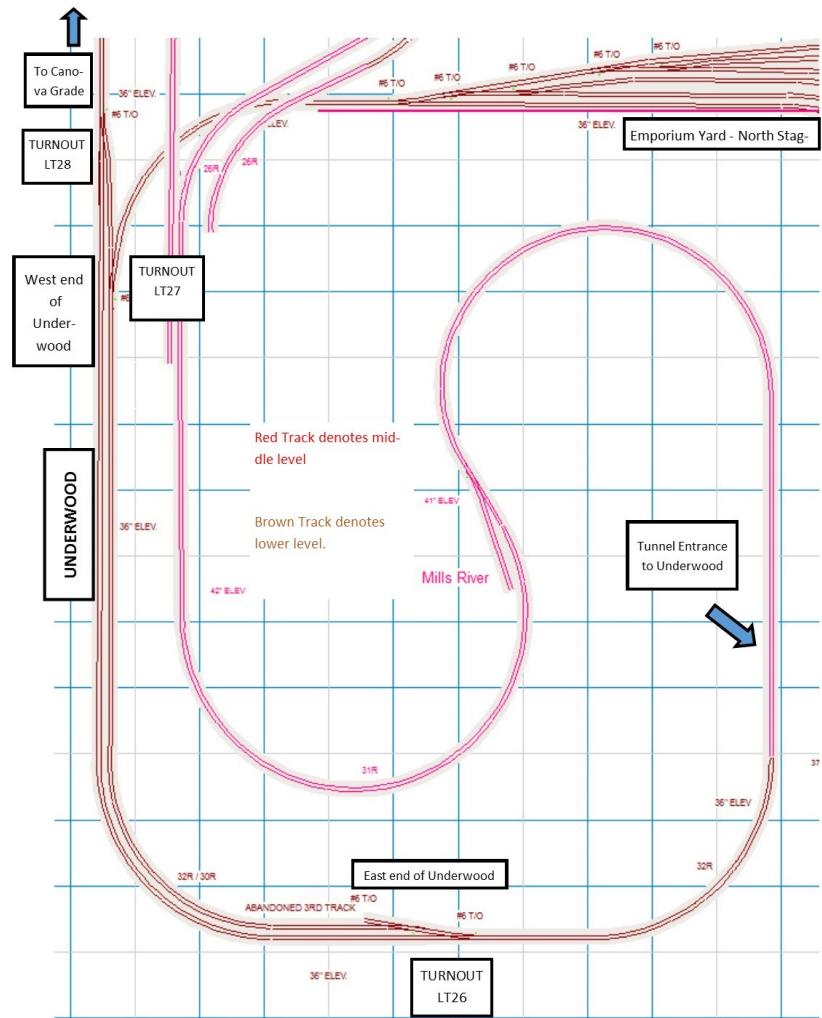
DECEMBER 2015

Shifting the Tracks in Underwood

In January I began a number of projects to improve the layout and operations. The first project to begin called for the widening of the right of way in Underwood. As originally designed, the west end turnouts for the town of Underwood were located under the layout and against a back wall where they were not easily accessible for maintenance or derailments. The plan was to relocate those turnouts, known as LT 27 and LT28 closer to the actual location of Underwood, which is directly under the town of Sheppardsfield. The relocation of the turnouts would result in improved access and visibility to operators when traveling through the interlock for the Canova Grade or when headed towards the yard at Emporium.

The first step in the process was to install additional sub roadbed in Underwood in order to lay double track where single track existed. It also meant a new turnout would have to be installed closer to the tunnel portal by the east end of Underwood. While the process appeared to be relatively straight forward, as the project commenced I quickly found numerous wires for building lights, turnout controls and signals that needed to be relocated.

Once all the wires were relocated and the sub roadbed was installed, I began relocating the first turnout motor (LT26). That turnout was moved farther east, just prior to the tunnel entrance to Underwood, in order to provide a sufficient siding length for the majority of trains operating on the NCL. The turnout needed to be Code 83. Once past the turnout, the rail transitioned to Code 100 through Underwood and for the remainder of the layout. With the new Track 2 added in Underwood, turnouts LT27 and LT28 relocated east to a more accessible location. Once the turnouts were



The original track plan for Underwood. Turnouts LT27 and LT28 (upper left) were well hidden under the layout and hard to access for maintenance. Train crews had difficulty seeing them as well.

SEE UNDERWOOD, PAGE 2, COLUMN 2

Miners Gain Train in New Contract

On January 28th, the Nickel City Line management signed a 90 day interim contract with the Nickel Mining Workers Union to provide passenger rail service to coal mines along the railroad right of way. A refurbished F7A locomotive and a Budd commuter cab car will be placed in service to run as the Miner's Shuttle. The train will make stops at all rail stations between Nickel City and Monserrat with additional stops at Laurel Valley, Mills River, and Bristow.



The Miner's Shuttle, an F7A locomotive and Budd Cab Car sits in the Nickel City Locomotive Yard awaiting its start of service in 2015.

Several small passenger shelters will be constructed for use at Laurel Valley and Mills River. The shelters will be only designated for mine personnel using the Miner's Shuttle. No other passenger services will serve the shelters.

During the first 90 days of service, the Miner's Shuttle will run as an extra. After the first 90 days of service, NCL management has the option to extend the contract another 90 days or operate the trains as regular scheduled passenger trains.



Left: Several Passenger Shelters like this one in Mills River were added along the Miner's Shuttle Route to serve passengers.

The Miner's Shuttle will run twice daily in the morning and in the afternoon, Monday through Friday. The train will not operate on weekends or on holidays.



Underwood, From Page 1

relocated along with the turnout motors, I decided to operate the interlock as a single turnout address. The two turnouts were wired together and connected to the turnout control



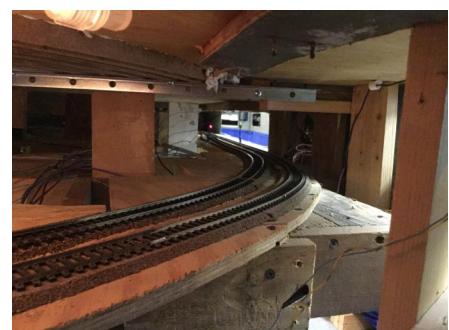
New plywood and cork roadbed was added to the east end of Underwood where it was previously only single track. This allowed turnouts to be relocated for improved access.

board and assigned as LT28. This provided added safety if one turnout was thrown, so was the opposing turnout, resulting in less accidental derailments.

With all of the turnouts relocated and in operation the next step was to remove the old turnouts LT27 and LT 28 at the far west end of Underwood and replace each with straight track sections. Prior to their removal, both turnouts were pinned in place after the new interlock for LT28 was installed. This allowed operation sessions to continue with minimal interruption. Then the turnouts were removed and replaced with straight sections. Rail joints were soldered into place. Block detection in the area where LT27 and LT 28 were removed needed to be reconfigured to the new track arrangement. This involved adding additional feeder wires to the existing tracks and relocating block wires from the former blocks to the new block locations.

After the track and turnout wiring were completed, all signals at both ends of Underwood had to be relocated to their new locations. Each signal

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With the new double track in place, signals were relocated to the new area of Underwood.

Underwood, From Page 2.

had to be removed and the wiring extended so they would operate in their new locations. In addition to relocating the signals, I installed a signal repeater board for the east-bound signals on the west end of Underwood. These signals, while easily seen on the CCTV camera, were not easily seen in person by the train operators.

In order to give the operators better visibility of these signals, a signal repeater panel was built and installed on the fascia next to the signal locations. The panel is easily viewed and was spliced into the existing signal wiring so that what was displayed on the signal head was also displayed on the panel.

After listening to numerous comments from our operators, I relocated the CCTV monitor for Underwood from its location on the Sheppardsfield fascia over to the fascia at Canova. The relocation of the monitor enhanced operations by allowing the operator to stay in one location longer and merely monitor their train's progress on the CCTV monitor rather than rushing



The relocated CCTV monitor for the eastbound signals west of Underwood allow operators to remain in one place and track their train's progress on the CCTV monitor rather than moving around the operator aisle.

from one aisle to the other.

The last piece of work to be done involved some reprogram-

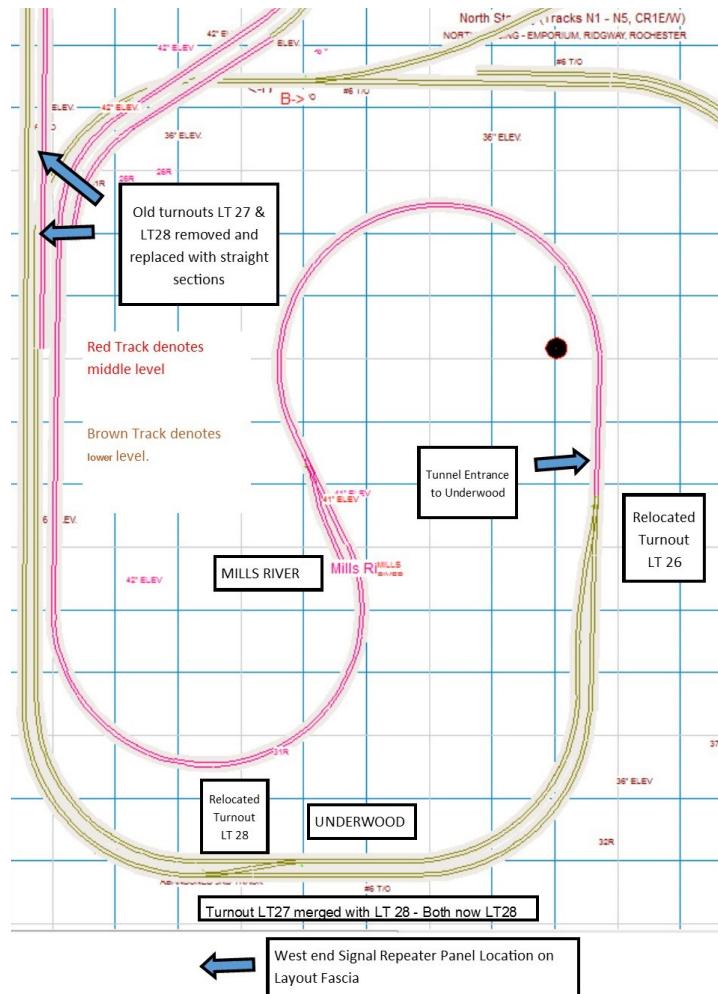


Signal Repeater Panel for the west end of Underwood.

ming of turnout and signal head logix in the JMRI software.

With LT27 removed (because it was wired into LT28), a number of Logix conditions had to be updated so that the signal heads responded properly in the new layout configuration.

All of the work in Underwood was wrapped up by early May. I had several inexpensive plastic structures that someone had donated to me at one time or another. I decided to simply place them on the expanded sub roadbed area to generate the



The revised plan for Underwood shifted Tracks 1 and 2 eastward and to a more accessible area underneath Sheppardsfield. The new location enhanced operation and maintenance access.

feel that a town exists in Underwood. In the track plan, Underwood is merely an interlock where routes branch off to go North or West. But since I named the area Underwood, I thought it would be nice to populate it a little bit, if not inexpensively.

Since that time, the changes at Underwood have been a big improvement to overall operations on the railroad.



NMRA Civil AP Board Constructed

In March I began construction of a demonstration board for the National Model Railroad Association's Engineering – Civil Achievement certificate. Construction and operation of the demonstration board is part of the requirements to earn the Civil AP certificate. There are a number of track elements to choose from which have to be hand built and operational. For my demonstraton board I chose to construct a simple turnout, a crossover, and a 90 degree crossing.

I began the project by using a piece of hardwood shelving which measured roughly 12 inches wide by 6 feet long. I traced out my layout design using Fast Tracks templates that I downloaded from the Fast Tracks website. The rail would be Code 83. The turnouts and crossing would be constructed using Fast Tracks jigs I borrowed from fellow model railroad, Pete LaGuardia.

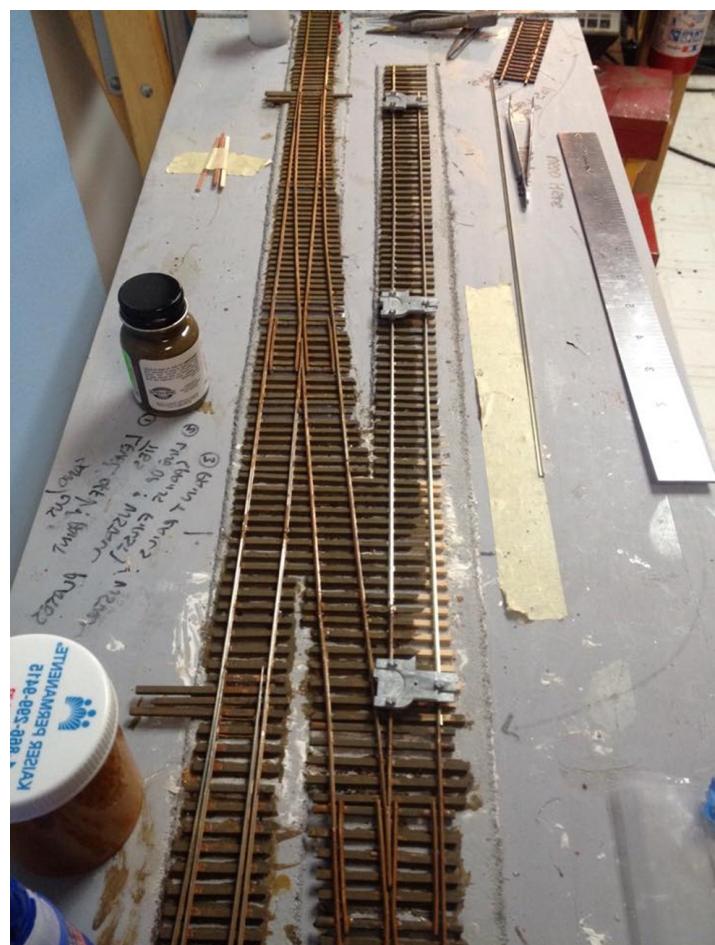
By April I had constructed the three turnouts and 90 degree crossing I would use for the board. I soldered feeder wires of all the rails to the underside of each rail so they would not be visible to the viewer.

I first laid down the cork roadbed. For this project I used N-scale roadbed instead of the normal HO-scale roadbed. I thought the size of the N-scale roadbed looked more prototypical for what I was doing. I purchased wood ties also from Fast Tracks. Using the templates I downloaded earlier, I glued them to the cork roadbed. Then I proceeded to glue the wood ties in place on top of the template. Once the glue on the ties had dried I used a pencil to trace the first rail onto the ties. Using a track spacing tool I purchased several years ago I traced out the second rail onto the ties.

For track detail parts I purchased tie places, bolts, and rail joiners from Proto87. These finely detailed parts needed to be installed along with the ties in order to give the track work a prototypical look. I started by gluing the tie plates onto the wooden ties with CA adhesive. Once the plates were in place I painted the ties with Floquil Rail Tie Brown colored paint.

Afterwards I laid the constructed turnouts onto the tie plates and secured them with CA adhesive. Once all the rails were properly connected I added the plates, bolts and other detail parts to the rails with CA adhesive. Once everything had dried, I painted the rails, detail parts, and tie plates rust brown.

Once I tested the electrical conductivity and was satisfied everything was working correctly I moved onto to scenery. Again I turned to N-scale for my ballast. I used mixed gray ballast for



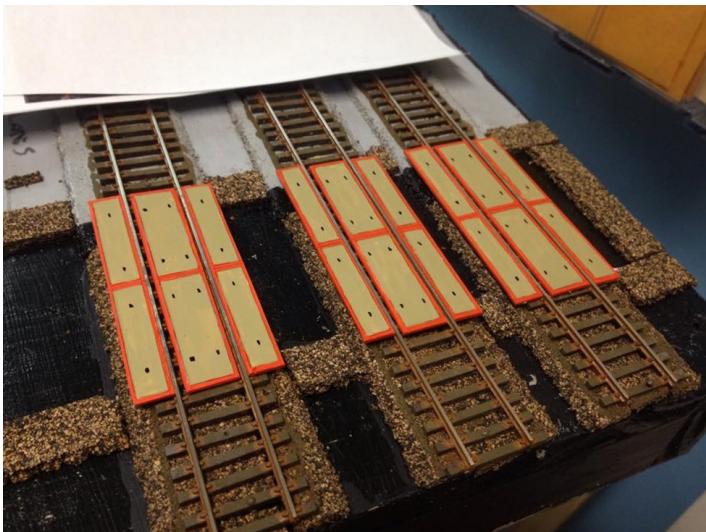
Above: Basic track work, tie plates, bolts, and rail joiners have been installed on the Civil AP Demonstration Board. Ties are in the process of being painted a Rail Brown color.

the two main lines and brown ballast for the spur. Along the edges of the mainline ballast I used a small amount of black ballast to enhance the mainline ballast. For structures I wanted two warehouses. Looking in my scrap parts boxes I found a number of wall sections, windows and roof panels from an old Faller's roundhouse. I kit-bashed them along with some styrene to construct the loading dock and structures. I added a few figures and some wooden pallets on the loading dock for additional interest.

To finish up the track work I installed several propane heaters for the turnouts. I constructed safety bollards for the propane tanks out of brass tubing which I painted yellow. I also installed a derail for the spur to the warehouse, as well as wheel stops at the end of the spur as well as switch motor castings by each turnout. On the mainline tracks I added a train defect detector and equipment relay boxes for the grade crossing, defect detector, and turnout motors.

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Civil, From Page 4



Several pieces of Styrene were cut and scribed to resemble a concrete grade crossing. The styrene was painted an aged concrete color. The orange rectangles are the steel frames surrounding each concrete pour. Recessed lift out rungs were painted on last.

For the grade crossing I cut pieces of styrene and scribed them to represent a concrete grade crossing. The styrene was airbrushed in an aged concrete color. I used Fast 'N Final lightweight plaster for the roadways and parking lot. Once the plaster dried, I sanded it smooth and painted it. I masked off the road markings and airbrushed them onto the pavement. I used a railroad crossing stencil to airbrush the grade warning onto the road surface. Finally I added a NJ International crossing gate and light to one side of the road. I used several very detailed HO scale vehicles on my layout from various manufacturers to populate the parking lot of the demonstration board.

For operation I connected several pieces of Code 83 flex track to each end of the demonstration board. The flex track was mounted on 1x4s that were clamped to the framing of the demonstrator board. This allowed a longer travel of the locomotive across the board in all four directions. For power I used simple DC power from a Tech II power pack. The locomotive was DCC equipped but had analog control enabled so it would run on straight DC voltage. To switch tracks, each turnout was controlled by a manual ground throw. The ground throws were located at the front of the demonstrator board. Each ground throw was connected to the turnout from underneath the board. A small hole had been predrilled beside each throw bar. Piano wire which ran through a brass sleeve underneath the board and up to each throw bar were connected to the ground throws. This simplified the changing of each route on the board.

Once all the necessary additional requirements were documented and the required paperwork was completed, the demonstrator board was judged on December 2nd. The board earned 118 out of 125 merit points. The demonstrator board along with all the other Civil AP requirements were deemed complete and I received my NMRA Engineer-Civil Achievement certificate in early 2016.



Some of the detail parts added to the demonstration board included propane switch heaters and equipment relay boxes.



A Derail was installed on the industrial spur to add some interest.



Metal castings of switch motors were added to each turnout to provide additional details.

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Civil, From Page 5



A thick coat of Matte Medium applied over the scenery and then allowed to bake in the summer sun adhered everything completely to the Civil AP Demonstration Board.



Train Defect Detector equipment was added to the mainline to add additional interest to the demonstration board.



A couple of kit-bashed structures complete the scene on the demonstration board.

Road markings and some wear and tear to the roadway surface add to the realism of the demonstration board.

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Civil, From Page 6



A trackside view of the completed Civil AP Demonstration Board.

ue hosting personal web pages;

- The NCL dispatcher got a new chair.....with casters!;
- Neck wallets were purchased to hold all paperwork for operators during ops sessions;
- LED task lighting was added to the Hostler and Yardmaster work areas;



New LED task lighting enhances the work areas at the Hostler and Yardmaster's desks

2015 Recap

Here is the annual recap for the Nickel City Line in 2015:

- Storage racks added in Hostler's Office for Employee Bulletins, Locomotive Cards, Train Cards, and Ops Session folders;
- Underwood track work underwent a major overhaul including the addition of double track in single track areas and relocation of turnouts and signals to better enhance operations;
- Miner's Shuttle service was added to the operations schedule;
- JMRI WiiThrottle interface capability was added;
- Digitrax PM42 Power Management modules were added to provide all detection blocks with overcurrent protection;
- Made major track repairs in Nickel City in March due to several continuous weeks of extreme cold weather;
- The NCL purchased 11 box cars, several tank and flat cars to help replace outdated equipment;
- Four Western Maryland flat cars were detailed, renumbered, and equipped with freight loads;
- The NCL website moved from Comcast to the NMRA Potomac Division server due to Comcast's decision to discontin-



PRR locomotive 8539 joins the consist for Train 211R and 212R.

- Pennsylvania Railroad locomotive 8539, a GE ES-44AC, was added to the roster and will be working with PRR locomotive 8102, another GE ES-44AC, on trains 211R and 212R;
- The JMRI Dispatcher Panel was updated to include turnout preset buttons for each shift of the day, permitting quicker setup of routes at the beginning of each operation session;
- Demolition started on December 31st for Nickel City Yard. The entire yard has been redesigned and will be rebuilt in 2016.



2015 Annual Operations Report

Number of Operation Sessions Held: 3

Number of Open Houses Held: 0

Number of Trains Operated: 36

Number of Rail Cars Moved: 304

Number of Rail Cars Correctly Setout: 296

Number of Rail Cars Incorrectly Setout: 8

2015 Efficiency Score: 97%

2016 Operations Schedule

January to June

No Sessions Due to Major Layout Construction

July

Sunday – July 17, 2016 – 1:00PM to 5:00PM
(Session 41A)

November

Saturday – November 12, 2016 - 9:30AM to 1:30PM
(Session 41B)

December

Thursday – December 1, 2016 - 9:30AM to 1:30PM
(Session 41C)



Train 502T, the mainline local, heads east past Bain's Customs House in the town of Bristow on a late fall afternoon.

Photo taken on the Civil AP Demonstration Module by the author.

Stay Informed. Check Out the Nickel City Line on the Web at: <http://nclrr.potomac-nmra.org/index.htm> or on Facebook at:
www.facebook.com/NickelCityLineModelRailroad