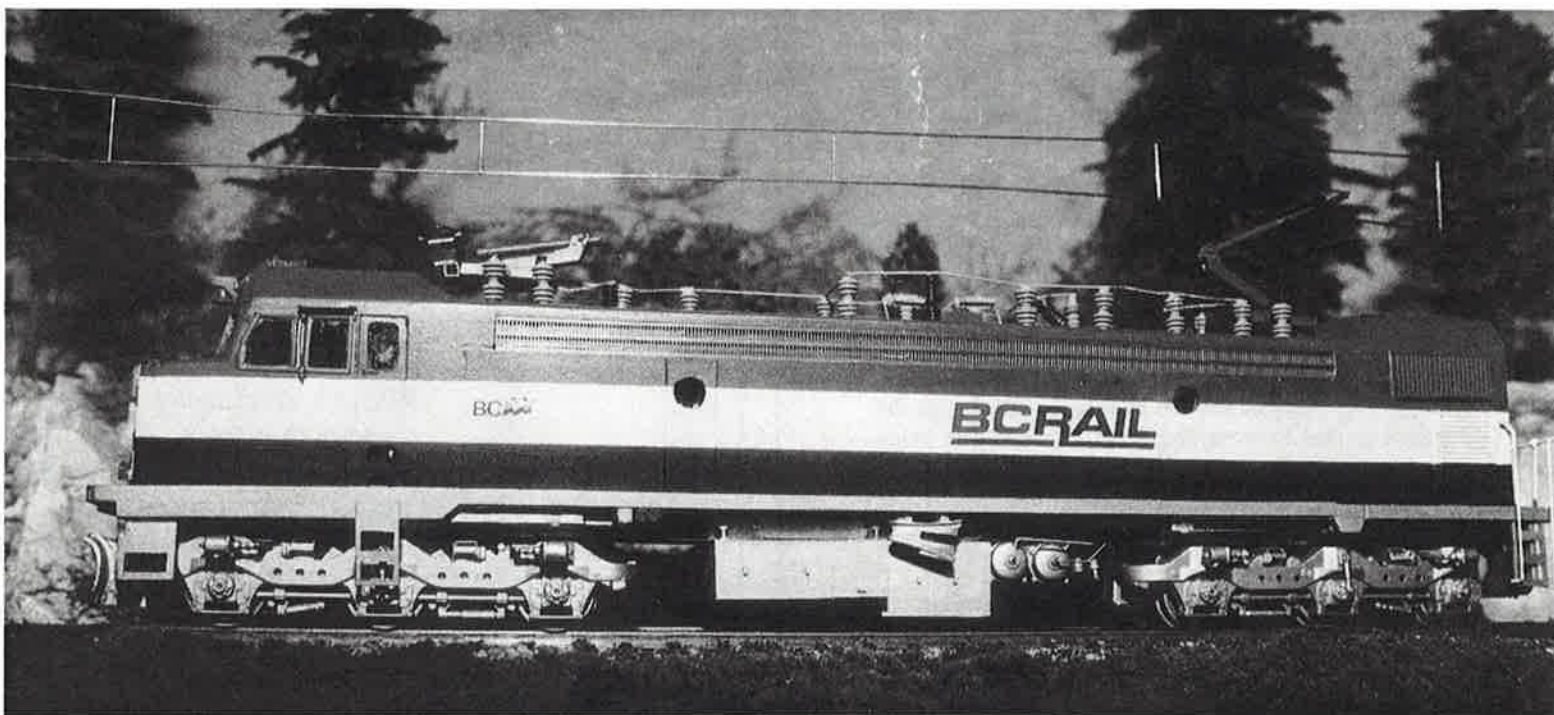




The CARIBOO



The British Columbia Railway Historical & Technical Society



Issue 29

July 1997

PGE Stock Cars

General Electric GF6C

Dawson Creek Station

IN THE NEWS

Edited by Jim Moore

The original PGE North Vancouver station, which served the railway from the foot of Lonsdale Avenue from 1912, is being returned to its original location. Moved ten years ago when the tunnel under the area was built, the station went to Mahon Park and served as the first home of the North Vancouver Museum. The move is expected to be completed by June. (WCRA News via Andy Barber) □

A group of youths partying on the tracks near Fish Creek forced a BC Rail train to make an emergency stop before they hurled beer bottles at the train. The incident, which occurred in early February, involved about 60 young people who also lit bonfires near the tracks.

Ft. St. John police reported that while the train was stopped someone or several people tampered with the train's air brake system resulting in several cars being uncoupled. BCR employees corrected the problem and prevented it from becoming potentially serious. (Alaska Highway News via Ross Pugsley) □

The CN Lines SIG will host its annual convention in Oakville ON on October 10-12. Our Society includes many CN modelers, and our convention last August received considerable support from both the CN and CP SIG's. For further info write Al Lill at 5569 Cortez Rd, North. Vancouver, BC V7R 4P9. □

Issue 26 (October 1996) contained an article on the sulphur plant at Hasler Flats. On page 29 is a photo showing sulphur being loaded into LEF&C 100-ton hoppers. There is also a photo on page 265 of John Garden's British Columbia Railway showing a UMP hopper in sulphur service. The UMP car can be modeled in HO scale using Bower's new H43 hopper and Herald King decal set H-1780.

On Our Cover...

Vancouver Island modeler Mark Giles shares his insight into scratchbuilding an HO scale version of the General Electric GF6C locomotive. His story begins on page thirteen. Photo courtesy of Mark Giles.

The CARIBOO

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All contributions are welcome. It is helpful if submissions are on a 3.5" disk in Microsoft Word (IBM format) or compatible software, or typewritten.

All submissions are subject to editing as a condition of publication. Material will be retained unless other arrangements have been agreed upon in advance.

The editors encourage submission of photographs and illustrations which help reinforce the content of material submitted. Appropriate captions should be included. Photographs may be either black and white prints, colour prints, or colour slides.

Our 24-hour fax line is (805) 253-1208. We also accept submissions via e-mail (transitwiz@aol.com).

Authors are responsible for all original statements made in their work. Submissions are accepted with the understanding that they are not under consideration elsewhere.

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According to *Railmodel Journal* (July 1996), the UMP cars were slightly longer than the Bowser kit. The cars shown in our photo have a different rib spacing, the sides at the slope sheet are a different shape, and the logo is larger. *RMJ* continues, the LEF&C also rostered Greenville cars which were once available from Con-Cor. And these may be the cars depicted in our photo.

In the 1970s, BC Rail hauled sulphur in 52-foot mill gondolas which are quite similar in appearance to the new Life-Like cars. I also understand these gondolas will be available as resin kits from Sidney Model Works. (Brian Clogg) □

The history of BCOL's ubiquitous plug-door boxcar/covered hopper #2126 is traced in the April issue of *Model Railroader*. For further info regarding this car, we recommend reading William MacLachy's text which appeared in Issue 17. (Paul J. Crozier Smith)

A S scale drawing of CPR's 3800-cubic foot cylindrical hopper appeared in the February issue of *Mainline Modeler*. Drawn by BCRH&TS member Patrick Lawson, the car depicted is similar in appearance to the cylindrical hoppers discussed in our Issue 21. □

The BCRH&TS website is now a reality! Check us out on the Internet at "<http://129.93.226.138/rr/BCRH&TS/BCRH&TS..htm>". The website was designed by member Allen Szalanski. □

An article by Eric G. Nelson in the February issue of *Rail News* (formerly *Pacific Rail News*) traces the development and operation of Vancouver's Westshore Terminals, a high-tech reload coal export facility. Known as Port Sub, BC Rail personnel coordinate all crew dispatching on this 23.5 subdivision. □

Canadian Pacific RSD-17 #8921 has been acquired by the Elgin County Railway Museum in St. Thomas, Ontario. Built as an MLW demonstrator in 1957, the unit toured Canada as CP #7005, CN #3899, and PGE #624 but generated no sales. (*Trains*) □

The new power car for the Royal Hudson was unveiled in late February. The converted ex VIA Rail baggage car will match the consist perfectly. Named *Shalalth*, it replaces the *Checkamus River*, a blue boxcar conversion that has operated since the Prince George was retired. (WCRA News) □

MOTIVE POWER NOTES

Edited by Paul J. Crozier Smith

BC Rail retired M420's #682, #687, and B36-7 #7497 on February 2. These units were seriously damaged in the derailment of the Mackenzie Switcher at Mile 562. Unit #7497 will be cannibalized for spare parts.

The CAT re-engine program is still on hold. It is hoped that units #621 and #630 will still be completed sometime in 1997.

The following B36-7's have been upgraded:

complete: #3607 (7490) October 4, 96
#3616 (7499) January 24, 97

cab only: #3602 (7485) June 21, 96
#3603 (7486) November 6, 96
#3608 (7491) October 4, 96
#3610 (7493) March 8, 96

Three complete overhauls and one cab upgrade are planned for 1997.

The Dash 8-40CM upgrades have been completed as follows:

EFI engine only: #4602 March 15, 96
#4605 April 4, 96
#4607 April 29, 96
#4614 May 21, 96
#4619 June 12, 96

The split cooling will be installed on these units at a later date.

Full upgrade: #4601 Dec 11, 96
#4603 Nov 22, 96
#4611 Jan 17, 97
#4612 Oct 28, 96
#4616 Sep 16, 96
#4622 Feb 6, 97

M420 #645 was sold to the Genesee Valley RR effective March 15, 1997.

NEW PRODUCTS

Edited by Brad Dunlop

My name is Brad Dunlop and I answered Jim Moore's request for a compiler of information for this column.

I am the son of a longtime PGE/BCR Section Foreman, Archie Dunlop, and as such I grew up on the railway. We lived in Chasm, Clinton, and Lillooet during my childhood years and railroading was what made the world go around!

I worked on the PGE as a Fence Gang Laborer, Sectionman, and Track Patrolman. And later with the British Columbia Railway as Fence Gang Foreman, and the last two times as a Trainman. I went on to complete an electrical apprenticeship in the forest industry and kind of lost touch with the railway during this period.

I attended the annual fall model railroading show held in Burnaby with the intention of finding something for dad for Christmas and was bit by the railway bug again! I bought dad a RDC-1 and RS-3 done in the British Columbia Railway colour scheme but, by the time the weekend was over, he was to receive a substitute gift.

I am currently residing in Kelowna, B.C. where I am working for Riverside Forest Products and building a PGE layout circa 1962-64 in HO scale.

My objective in compiling this information is simply to inform the membership of items which may be of interest, but, unless specifically mentioned, without endorsing any product. I believe that would be more properly achieved by a proper product review, whether it be by me or someone else. I also intend, space permitting, to include the full address of the manufacturer or supplier, including any Internet address. I consider information a tangible product, with a place in this forum.

- BCRH&TS member Laszlo Dora has produced HO scale castings for the PGE/BCR 70-ton wood chip cars (series 90001-90140). These castings feature fine detail, although some add-on details (i.e., grab irons, ladders) are not included. Instructions are included. Trucks and couplers are not.

The cost of each kit is \$20. US addresses send \$20USD to cover shipping and bank charges. Order

from Laszlo at 47 Taylor Drive, Toronto ON M4C 3B4.

- S-Helper Service (2 Roberts Road, New Brunswick, NJ 08901) has introduced its ready-to-run model of a bulkhead flatcar with load. The cars feature diecast Zamac metal bodies with ABS plastic decking and bulkheads. Price is \$49.95. (*Mainline Modeler*)
- The Anthracite Railroads Historical Society commissioned Bethlehem Car Works to produce a HO scale version of the Leigh Valley's standard steel coach. Several of these cars made their way to the PGE.

This limited run kit includes etched brass sides, a molded plastic roof, ends and floor. Trucks and couplers may be purchased separately.

The kit sells for \$55, plus \$5 shipping. Trucks are \$11.95. Order from ARHS, POB 519, Lansdale, PA 19446-0519. (John Bruce and *Model Railroader*)

- Andy Carlson (157 South Pueblo Avenue, Ojai, CA 93023) offers polyurethane resin freight cars in HO scale.

According to company literature, "These distinctively Canadian design cars are recognized by their fishbelly design with 14 panels and 13 z-shape bar posts. The transition to the lower fishbelly sides was achieved within one panel, unlike most North American contemporary gondolas which used two panels. The use of the s-shape bar for posts had fallen out of favor by the 1940s, replaced by pressed steel hat-section posts on most other car builders' designs."

At present, Andy Carlson offers gondolas in two versions: high (4'-0") and low (3'-6"). PGE used the low-side design with a wood floor and with fixed (non-dropping) dreadnaught ends. These cars were very close to the CP 330000-series gondolas. A suitable end for the PGE cars is expected to be ready for shipment later this spring.

Andy's kits include CDS dry transfers, brake detail parts in injection molded styrene, styrene strips for the crossbearers, wire straight and drop grab irons, brass corner steps, and an eleven piece polyurethane casting set. (Jim Moore)

- A second attempt by a Brazilian firm to produce the HO scale Evans 50-foot double-plug door boxcar for Atlas Models has also failed to measure up to the company's standards. Atlas has now contracted with a Chinese firm to produce the car and says it expects to release the long awaited model in late 1997. (Mike Jackson)
- Correction: In Issue 27 (page 22) we printed info re Funaro & Carmerlengo's HO scale version of the Canadian National slab-side covered hopper. According to Richard Yaremko, this kit would not be reflective of the PGE cars, as the PGE had the latter version.
- Update: In Issue 28 (page 4) we shared news of a new line of quartz wall clocks, including one decorated for the British Columbia Railway. When one of our Canadian members tried to purchase a clock, he was told that Canadian funds are not accepted as payment. Great marketing strategy!
- Fletchco Scale Products (9 Smolkin Street Amprior ON K7S 3R9) offers a HO scale urethane resin shell kit for the MLW M420. (Paul J. Crozier Smith)
- Walthers, as part of its Trees & Trains series, will be releasing a 72-foot centerbeam flatcar in single car (#932-4101) or 3-pack (932-34101) versions. This offering will include a BC Rail version with oval "opera" windows. Delivery is expected for May or June.
- Model Power (180 Smith St., Farmingdale, NY 11735) will soon be releasing a series of HO scale Canadian railroad freight cars including 40-foot boxcars decorated in British Columbia Railway and Pacific Great Eastern colour schemes.
- Micro-Trains Line (POB 1200, Talent, OR 97540-1200) announced the release of a N scale 40-foot standard single-door boxcar decorated in a Pacific Great Eastern Railway scheme.
- Micro-Trains has also announced the release of a Z scale 40-foot standard single-door boxcar decorated in the British Columbia Railway dogwood scheme.
- Dallee Electronics (10 Witner Road, Lancaster, PA 17602) has released a new and improved ALCO Prime Mover in Locomotive Digitized Sound System including eight notches each of road and switcher

prime move sounds, as well as horn, bell, brake and compressor relief valve sounds.

- A nine-day, 2300-mile tour of BC Rail by Budd car is being offered by Trains Unlimited Tours (800 359 4870). Tour dates are June 21-29, and pricing starts at \$1,795.
- Iron Horse Video Productions (5906 Teresa Place, Prince George, BC V2K 2C9) has released 8 cab-shot videos, including BC Rail coverage. Iron Horse is owned by BCRH&TS member Roy Smith.
- P.D.R.'s Train Shop (3874 Winlake Crescent, Burnaby, BC V5A 2G5) has released its Spring/Summer Sales & Trade List #35 featuring a large selection of ever changing railroad memorabilia including many PGE/BCR items.
- Sidney Model Works (POB 235, Saanichton, B.C. V8M 2C3) is now offering three kits of interest to BC Rail modelers.

The first is a resin car kit of BC Rail's wood chip hopper. The first car series is BCOL 90441-90840, which was built by Railwest between 1975 and 1976. The kit, which is less decals, includes Intermountain trucks and couplers. Price is \$25 CDN plus tax and shipping.

The second item is a resin kit of BC Rail's welded gondolas, series 9251-9300 and 9321-9370. These gondolas, built between 1971 and 1972, were primarily used for copper concentrate. The kit includes ends for CP Rail and BC Rail series 9301-9320. The kit, which is less decals, includes Intermountain trucks and couplers. Price is \$25 CDN plus tax and shipping.

The third item is retrofit parts for specific BC Rail freight cars. The first is the ends necessary to change a Model Power Thrall all-door boxcar into an Evans all-door boxcar. Price is \$7.50 CDN plus tax and shipping. Second is the carside required to modify an Intermountain PS-1 50-foot boxcar into one of BC Rail's 12-foot door, 50-foot PS-1 boxcars. Priced is \$9.50 CDN plus tax and shipping. Third is a pilot used on PGE/BCR's RS-18, RS-10, RS-3, and some slugs. Price is \$4.50 CDN plus tax and shipping.

The Stock Cars of the Pacific Great Eastern

John Riddell

Livestock traffic was handled by the PGE from its earliest years. The vast grazing land of the central interior of British Columbia supported an important livestock industry. The PGE provided an efficient transportation option for shipping cattle to market prior to the development of the province's roadway system. In 1950, the PGE shipped the following livestock: 4,978 tons of cattle, 151 tons of horses, 146 tons of sheep, and 87 tons of hogs. During shipping season, the PGE likely supplemented its stock car fleet by borrowing cars from other railroads.

The acquisition of rolling stock was severely limited by funds, especially in the early years. In 1914, the PGE ordered its first stock cars—the only stock cars that would be purchased new. They were five 30-ton, steel underframe cars built by Canadian Car & Foundry and numbered 501-505. These single-deck cars had an inside length and height of 36 feet and 8 feet, respectively. They had 6-foot wide doors with vertical rods, and 1'-11" x 2'-6" end doors. Capacity was 2448 cubic feet. See photo one.

Between 1916 and June 1919, the PGE purchased a number of wood truss-rod stock cars second-hand, likely from a used equipment dealer. The fleet numbers were mixed in with steel-framed cars in the 506-535 series. This group of thirty rebuilt thirty-ton cars were in service by June 1919. They had an interior height of 7'-1", and doors of 4'-10" width and 6'-10" height. These cars featured end doors of 1'-10" by 1'-8". Their capacity was 2146 cubic feet, and featured a number of variations including the number of end braces, doors styles, and trucks. See photo two, as well as pages 50 and 53 of Patrick O. Hind's *"Pacific Great Eastern Steam Locomotives"* (BCRHA, 1984).

Subsequently, in 1918, the PGE expanded its stock car fleet by rebuilding existing single-sheathed 36-foot Fowler-patent boxcars that had been originally delivered to both the Canadian National and the Canadian Pacific in 1914. Some, such as car 562 and 575, had solid vertically-sheathed wood doors. Most, such as car 577, had vertically-slatted wood doors. Some included ends braced with two posts, while others had four posts. Many cars retained their original arch-bar trucks for their entire lives while some were upgraded with Bettendorf-style trucks.

The PGE used its fleet of stock cars to haul livestock from the Cariboo ranching county to the Squamish docks, where they were loaded on PGE rail barges for the 40-mile journey to Vancouver. During the fruit season, the stock cars were employed to ship tomatoes and apples, since the PGE owned few refrigerator cars at the time. The open-slatted sides enabled some air flow over the perishable fruit. No doubt the cars were thoroughly cleaned prior to loading fruit.

In 1937 and 1939, the PGE again converted additional 1914-built single-sheathed PGE 3400-series boxcars to stock cars to replace the wood truss-rod stock cars which were subsequently scrapped between 1947 and 1949. During the 1940s, the railway owned as many stock cars as boxcars.

By January 1955, four cars survived in the series 502-505. Meanwhile, the thirty cars in series 506-535 had been renumbered to 551-586. By July 1959, only two cars survived in series 504-505; while 43 cars were in series 551-593.

Between July 1959 and October 1964, the PGE rebuilt 15 of its 4000-series steel boxcars into stock cars, series 5000-5014. This group had an interior length and height of 40'-6" and 10'-6", respectively; with 6-foot wide doors. Roof hatches were cut into the roof to load feed. They were equipped with permanent half-decking with a 5'8" height to the bottom of the half-deck, and featured silver sides and boxcar red roof ends. Car 5000 is preserved at the Central British Columbia Railway and Forest Industry Museum in Prince George.

The number of stock cars owned by the PGE peaked at 52 in approximately 1964. By July 1969, only two cars survived from series 551-592 and 14 from series 5000-5014. By January 1977, 14 from series 5000-5014 were in service. By October 1981, all stock cars had been removed from revenue service.

As was common practice during this time, the PGE painted its stock cars boxcar red overall and usually applied lime white-wash disinfectant to the lower portion of the carbody. The car lettering was white and the style evolved. At least six distinct lettering schemes have been identified.

Initially, "PACIFIC GREAT EASTERN RAILWAY" was stenciled in block letters on a separate board attached along the upper left of the car side. The car number was stenciled on a separate board at top right. The dimension and capacity information was stenciled at the lower right. An example of this scheme can be found on page 113 of Adolph Hungry Wolf's "Route of the Cariboo" (Canadian Caboose Press, 1994).

A second variation had "PACIFIC GREAT EASTERN" in block letters stenciled on a separate board at the top left of the car side. The car number was stenciled in a separate board at the top right. See photo one.

A third variation had "PACIFIC GREAT EASTERN" stenciled in block letters on a separate board, across the top left of the carside. The car number was stenciled directly below this and was framed by horizontal lines. See photo two.

Post 1945, a fourth variation had "P.G.E." and the car number stenciled in block letters on the car body, in a stacked format (second panel, left of car door). Both the road name and car number were framed by horizontal lines. A 20-inch caribou herald was stenciled on the car (third panel, left of door), dimensional information was on the first panel (left of door), and capacity info on the third panel (right of door). See photo three.

After 1948, a fifth variation had "P.G.E." stenciled in block letters on the car body (second panel, left of door). The car number was stenciled directly below this. Capacity information was stenciled on the car body (third panel, left of door), while dimensional info was stenciled to the right of the door (second panel). A 20-inch caribou herald was stenciled on to the car (third panel, right of door). See photos four, five, and six.

A sixth and final variation had "P.G.E." stenciled in block letter on the car body (third panel, left of door). The car number was stenciled onto the body directly below the road name, both of which were framed by horizontal lines. Capacity information was stenciled on the car body (second panel, left of car door), while dimensional info was stenciled on the car (third panel, right of door). See photos seven and eight.

Westerfield Scale Replica kits #4202 or 4205 can be used to model the Fowler stock cars in HO scale. When used along with the manufacturer's #1500-series boxcar doors or scratchbuild vertical-slatted doors, numerous variations can be produced. Although not fully reflective of any of the lettering variations described above, CDS Lettering Ltd. offers dry transfer sets in both HO and N scales (#90) for the PGE stock cars.

Further reading: Fowler stock cars, *Railroad Model Craftsman*, (November 1991).

All photos courtesy of John Riddell.

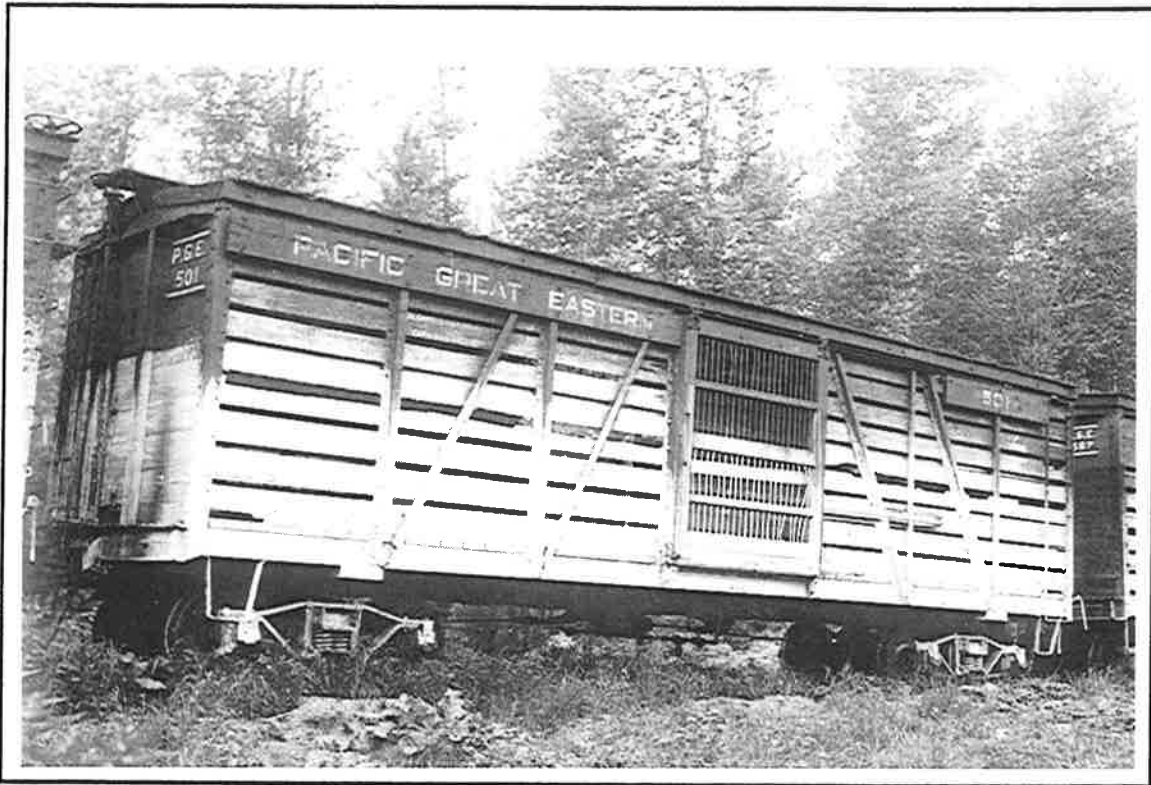


Photo One: Built as a stock car in 1914, PGE 501 still had its arch-bar trucks when photographed by Stan F. Styles in Squamish in May 1954.

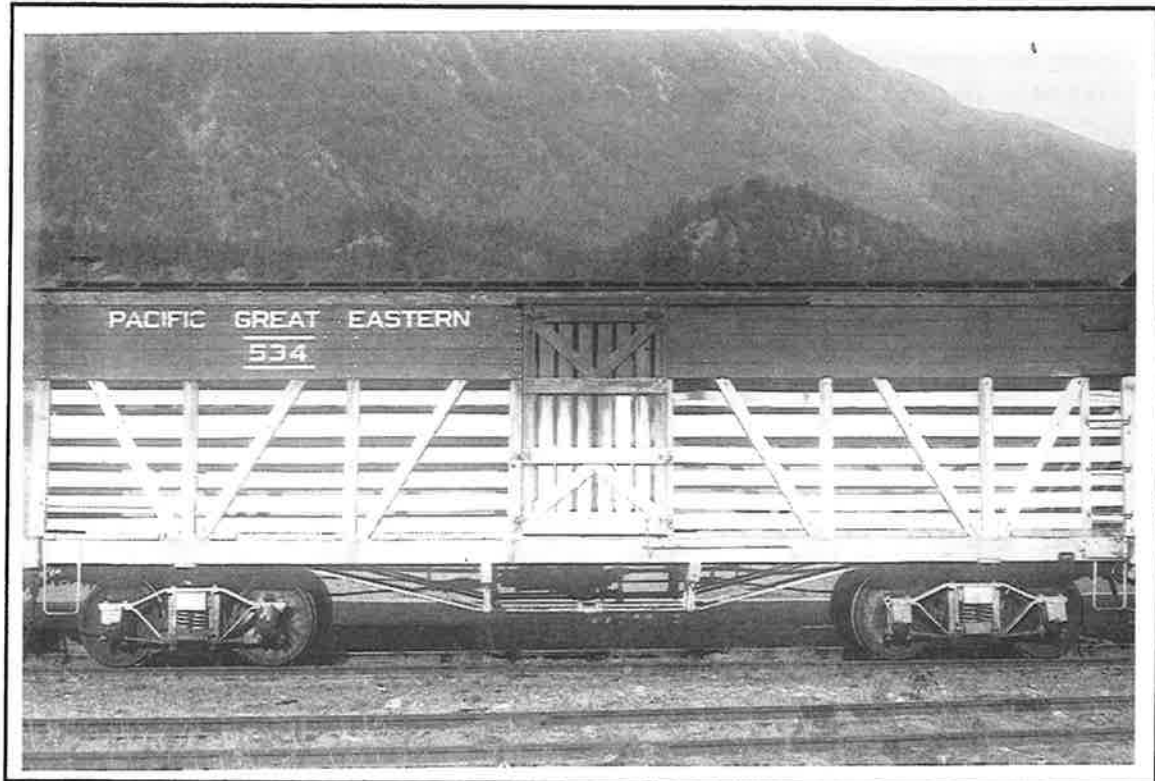


Photo Two: PGE 534 was one of the stock cars obtained second-hand in 1919. Note the wood truss rods and arch-bar trucks. W.C. Whittaker. Lillooet, August 1954.



Photo Three: PGE 557. National Archives of Canada.

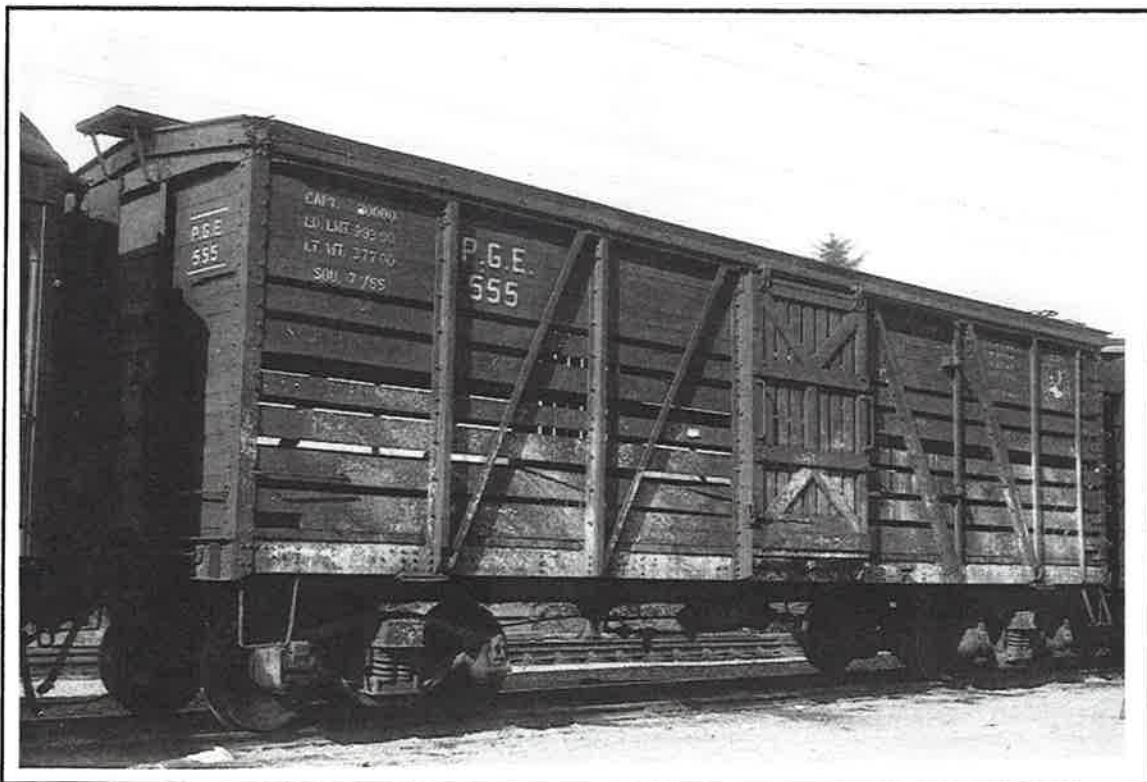


Photo Four: PGE 555 was built in July 1914. Circa 1957. R.J. Burg Collection.

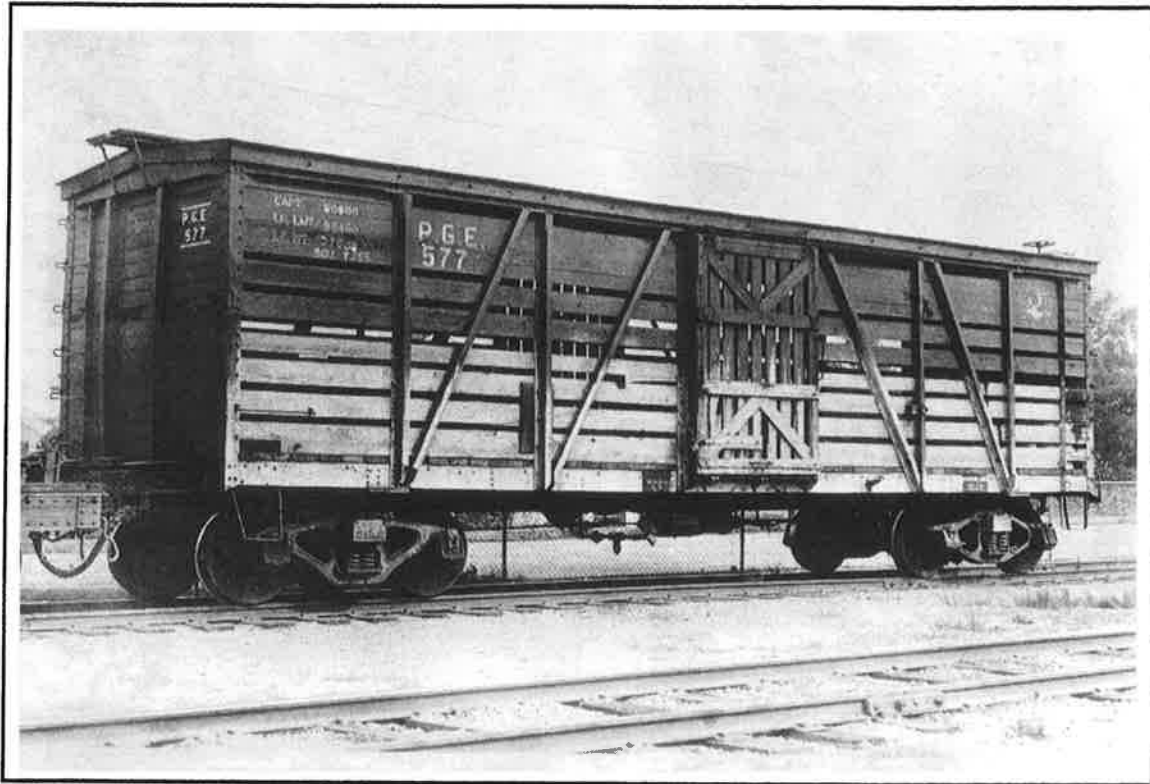


Photo Five: PGE 577. BC Archives.

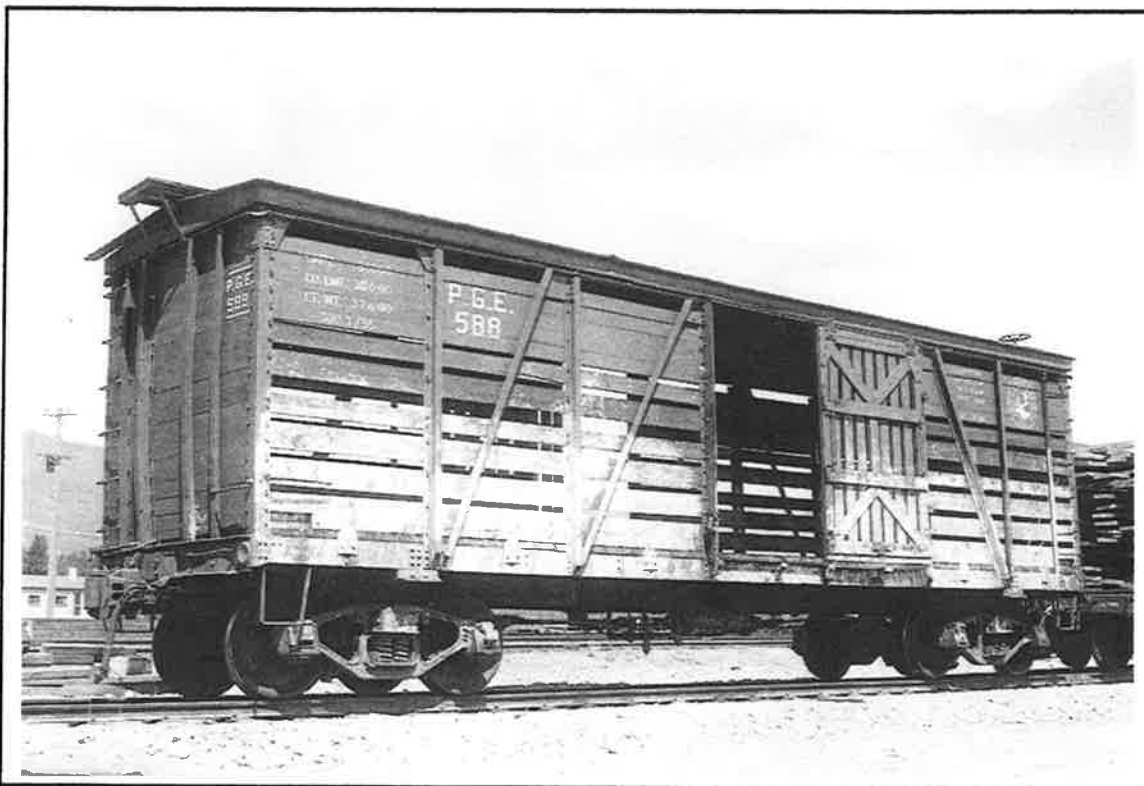


Photo Six: Converted from a former CPR boxcar, PGE 588 was photographed in 1948 by Ed Mines.

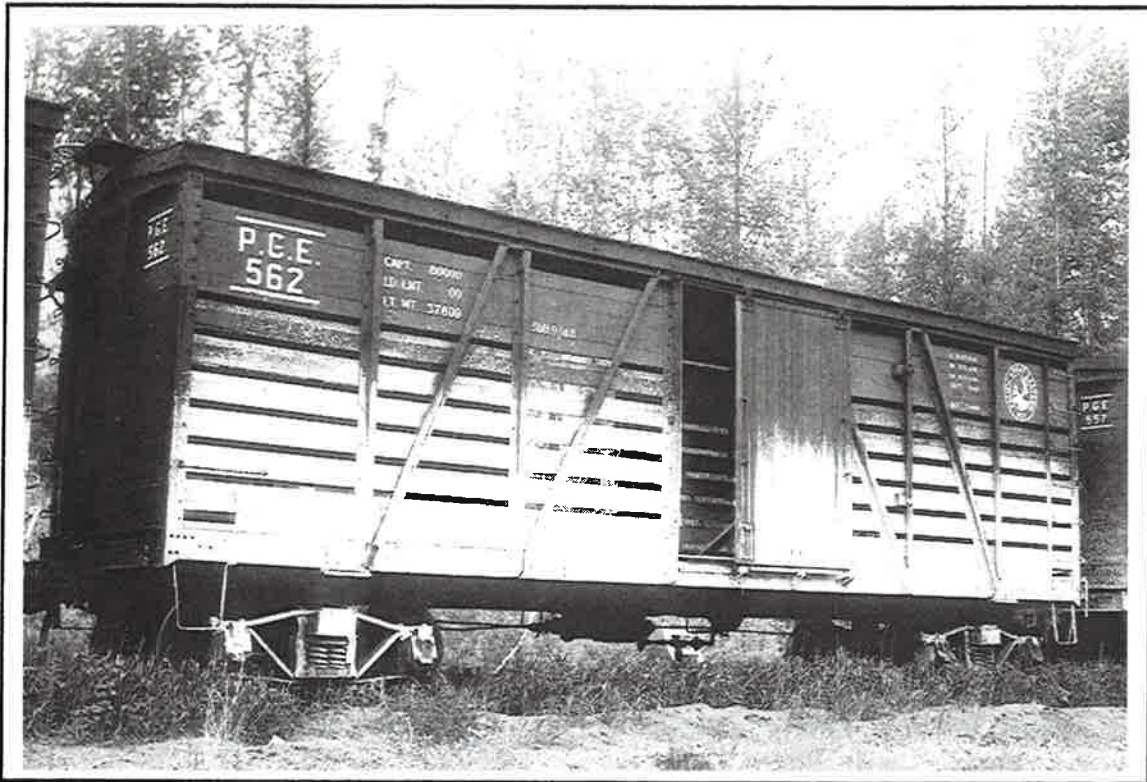


Photo Seven: PGE 562. Built in July 1914. Circa 1948. R.J. Burg Collection.

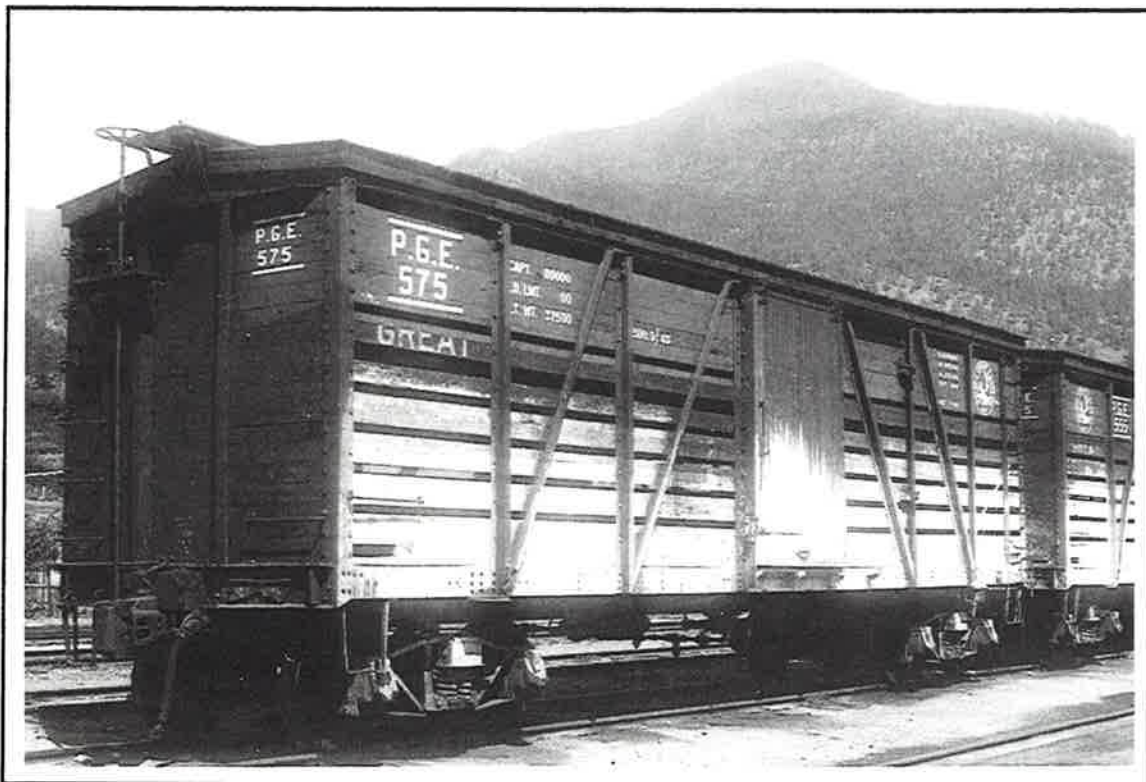


Photo Eight: Sporting a 5-foot solid door and K-style brakes, PGE 575 was photographed shortly after its conversion from a PGE boxcar. Ed Mines, Squamish, September 1948.

INTERCHANGE

Wanted: Rail Canada, Volume 2, by Donald C. Lewis. Will pay top dollar for bound or paperback copy in good condition. Brad Dunlop, 170 Jupiter Court, Kelowna, BC V1X 5W5 (or e-mail: boc@direct.ca).

Photos Needed: We are seeking photographs to illustrate articles on the following subjects: stock loading, PGE ice house operations, the history of Lillooet station. All materials will be returned promptly in original condition. Jim Moore, BCRH&TS, 25852 McBean Parkway, Suite 187, Valencia, California 91355-3705 USA.

PGE Steam Locomotives: A limited supply of this informative book authored by BCRH&TS member Patrick O. Hind is available from The BC Railway Historical Association. Priced at only \$11.95 USD or \$13.95 CDN. Order from BCRHA, Box 8114, VCPO, Victoria, BC V8R 3R8.

Modeling C/M630s: Dave Barone is preparing an article for publication in *The Cariboo*. He is seeking input from anyone who has tried modeling these locomotives in N scale. Write Dave at 409 North Gerard, Villa Park, IL 60181 (or on the Internet at bc701@aol.com).

Route of the Cariboo: Autographed by the author, in mint condition. Originally priced at \$60 CDN, will sell for \$50 including shipping. Great reference source of PGE/BCR railfans and modelers. Jim Moore, 25852 McBean Parkway #187, Valencia, CA 91355-3705.

Novelist Seeks Assistance: I am hoping to obtain data on any railways --and/or the trains which used them--that may have existed in the Vancouver area in 1959-60. I am particularly interested in those which may have traveled south, into Washington state. James E. Drenning, POB 66, Davis WV 26260.

Atlas C425 For Sale: HO scale, factory painted as BCR #805. Priced at \$140 CDN plus shipping. Paul J. Crozier Smith, 1148 Balmoral Road, Victoria, BC V8T 1B1.

Contributions and Submissions

The Cariboo is continuously seeking articles, photographs, plans, data, maps and other materials about BC Rail and its predecessor and associated railways. No payment is made. Submit articles and other materials for consideration to the publisher.

The British Columbia Railway Historical & Technical Society is an independent, nonprofit educational organization formed in 1990 to collect, preserve, and disseminate information about BC Rail and its associated lines. Individuals sharing an interest in BC Rail -- whether as railfans, veterans, modelers, collectors or historians, --are invited to join the BCRHTS.

MODELLING BC RAIL'S GF6C ELECTRICS

Mark Giles

Construction on BC Rail's Tumbler Ridge subdivision started in 1980. Its completion was accomplished one month ahead of schedule on November 1, 1983, and is one of four 50kV electrified Overhead Contact Systems (OCS) in the world.

When electrification was first proposed for the Tumbler Ridge line in 1982, the search was undertaken to locate the right motive power for the application. Both General Electric and GMD (GM of Canada) were able to offer existing designs in response to BC Rail's request for bids. GMD's design was ultimately successful due to both price and because of its superior sustained tractive effort, which was achieved through its proprietary method of motor connection. The final result was the GF6C, a 6000 horsepower electric locomotive. Six of these units are utilized on the Tumbler Ridge operation, with a seventh held in reserve.

As with many new ventures, teething problems occurred when these locomotives first became operational. It took at least one full year (including the typical Northern BC winter) to resolve these problems. Consequently, these locomotives were continually upgraded and as a result underwent many modifications.

Building the GF6C was my first fully scratch built locomotive, and I learned a few things I would like to share. First, and probably the most important, is to take many pictures from every angle and numerous detail shots. Next, take as many measurements of the locomotive as possible and pay attention to detail (i.e., grills, doors and other noticeable detail). Thanks to many friends, I was to get much of the information and photos I needed for my modeling.

The GF6C is an interesting model in that each locomotive is distinctive and even the same unit differs from its "as delivered" to its present configuration. I decided to model #6001 as delivered mainly because most of my information was about this unit.

THE UNDERFRAME

Start with an Athearn SD40-2 frame. Since we are modeling an electric locomotive, the diesel fuel tank can be cut out as shown in Drawing #1. Reunite the cut frame with a 1/8"x27 scale foot solid brass plate. Bevel at each end to match the contour of the flywheel space (see Drawing #2). File all raised areas as shown in Drawing #1. I used a NWSL can motor (#20309-9) and two flywheels (#207-6) to enhance the model's performance. You can either scratchbuild a bracket for the motor or use silicon to glue it in place as I did. I used the original trucks and gears, but stripped them down. I then washed them in 99% isopropyl alcohol. Check all gears under a magnifying glass for any defects or flash. Once clean, reassemble and use Labelle Teflon grease #106 sparingly. Then detail the trucks using wire for sand spouts, chain for the brake rigging, and a Detail Associates slip indicator. The boxes under the frame are easy to fabricate using .020" styrene for sides and floor. When dry, fill with one mm shot to add weight. Glue lids on and add I-beams to the tops as shown in Drawing #3. Add the air tanks and all under frame piping, then set aside for later.

THE BODY

Sides

Drawing #3 is to scale. Each modeler has their own technique for translating a scale drawing into a component or template from which to scratchbuild a part. My method was to overlay these drawings with clear acetate and trace the parts using a fine point black ink pen. You will have to augment your template transfers using data from photographs, depending on the specific unit or time period you are modelling.

To begin, cut the sides from .030" styrene. Next cut out all of the body openings such as windows, doors, and the large grill at the top of the sides. Continue construction by laminating pieces of styrene on to the sides using methyl ethyl ketone (MEK) or Testors liquid cement. Microscale's Micro Weld, which claims to be non-toxic, works equally well.

Laminate .030" styrene to the inside the shell (both sides) to form the backing for the long grill. Line the inside edges of the long grill with scale 2"x2" styrene strips. This will provide the correct depth and backing for the grill itself. The grill is a stainless steel grill from an E8/9 unit (see parts list).

Using .010" styrene make the side panels and body access door. Laminate them to the side's exterior. For the short rear grills, cut and splice Cannon & Company grills (#191-1301) to get the right shape. Refer to Drawing #8 for placement and cuts. The forward body interior access door is made from a .020" styrene insert with a back laminate to hold the door in place. The door is recessed .010".

THE REAR

The back end is constructed using 0.030" styrene, and is a three piece sub-assembly. Cut the sides and openings to match the template. Build recessed receptacles for the inset rear sand hatches. Refer to Drawings #3 and #5 for detailed dimensions and exact location. The rear door is fabricated from .020" styrene and inset by .010", and provided with a backing to enhance its strength. Drill the port hole window in the door. Bevel all three pieces of the rear end to fit the angles and glue as a complete sub-assembly. The classification boards are .010" styrene cut and drilled to accept jewels. BC Rail does not use these lights, so lamping them is not necessary. Mount a Detail Associates (#1004) headlight as shown. Number boards are .010" styrene cut to shape and glued on.

THE FRONT

I found the front part of this locomotive to be the hardest part to model. To start, I used my templates to cut parts out of .030" styrene. However, in hind sight, I think I should have used .010" styrene for the front cab window section because installed windows (thin acetate or glass) looks better. With .030" styrene, the window depth is not as realistic. The front took a few trials because I did not get the angular slopes to look correct immediately. I continually referred to prototype photographs, and disassembled the pieces for further cutting. The advantage of using MEK is, if you make a mistake, you can gently pry the parts apart. Let the parts stand to harden and try again.

THE ROOF

To fabricate the roof, I cut out all the parts using the templates. I then assembled them paying close attention to the angles. Once dried, laminate on the access plates using .010 styrene. Next, using the top template, mark the location of the insulators and other roof gear. See Drawing #3 for location and identification information. The mounts involved for the roof gear are not complicated. Proceed as follows:

- 1) Pantograph Insulator Mounts: (Drawing #6). Lay down two scale 2"x2" strips, one per side on the access panels that carry the pantographs. Now cap these strips with scale 1"x4" strips to form a T-shape when viewed in a cross-section. Taper each end of each "T" mount beam. At the insulator positions, make braces from scale 2"x2" and 1"x4" strips as described. Again bevel the ends, starting the bevel from the exact centre of the cross-brace to the end (Drawing #7(1A)). These mounts are for insulators type "A" (Drawing #7(2A)). Note that the front and rear roof access panels are identical (Drawing #3). Insulator type "B" (Drawing #7(2B)) on the front and rear panels does not receive an insulator mount. Instead it is mounted directly to the roof panel.
- 2) Middle Access Panel Insulator Mounts: Six of the eleven insulators (type "A") located on this panel receive "+" style mounts (Drawing #7(2A)). See Drawing #3 for their location and identification. Construction of these mounts is identical in concept and materials to the method described for the pantograph insulators, except that these mounts are simply cross braces like a Christmas tree stand. Refer to Drawing #7(2A) for dimensions.

For the remaining five insulators proceed as follows:

- i) For insulators style "C" build a rectangular panel 80" x 16" out of .010" styrene. Laminate it directly to the roof. Mount the insulators as shown in Drawing #3.
- ii) For insulators style "D", "E" and "F" are mounted directly to the roof.
- iii) Making the Insulators

INSULATOR STYLE

HOW TO MAKE INSULATORS

- | | |
|-----|--|
| A | Sommerfelt part #157. Two are required per insulator. Skew one on top of the other and back-to-back using 1/32" brass wire (K&S #160), with the large end up. |
| B | Hand made from 1/8" diameter brass rod (K&S #164). Using a Dremel, cut with a razor saw to appropriate shape/appearance. |
| C | Sommerfelt part #941 is cut in two proper size parts and glue onto a .040" x .060" as shown in Drawing #7(2D). Then place onto the scale 80"x16" panel as shown. |
| D | Cut Sommerfelt part #941 to the correct length. Cut the parts for the lower bracket out of .010" styrene and glue in place as in Drawing #7(2C). Build the upper bracket by cutting to shape and then bend to the appropriate shape. |
| E-F | These are made by turning 1/8" brass rod to the proper profile and place as shown on Drawing #7(2E) |

NOTE: Do not add these insulators to the roof until the final assembly. This makes painting the shell much easier.

THE BOTTOM

A bottom assembly is required so that the body shell gets properly centered and room exists to attach underbody detail. I achieved this by laminating two pieces of .020" styrene together for rigidity. Then I cut out the space needed to accommodate the motor and modified frame. See Drawing #4 to obtain template for this floor cut-out section. It is important to use two pieces of .020" styrene rather than one piece of .040" because the front and rear deck ends are only .020" thick and exhibit a recess underneath.

Now refer to Drawing #3 to obtain dimensions, locations, and templates for front and rear end pilots made from .020" styrene. Cement to the bottom. Add tapered support beams under front and rear end platforms. Use .040" x .060" strip styrene for these supports.

Next completely wrap a strip of .010" x .040" styrene around the bottom edge. Finally, cut out the coupler openings and frame this opening so as to form the coupler pockets. Install Kadee #5 couplers. Add the plow, air lines, mu hoses, and uncoupling levers. See Drawings #3 and #5.

FINAL ASSEMBLY

The assembly of the shell is straight forward. Start with the sides and sub-floor. Position the sides on top of the floor and glue in place. While the sides are drying, insert the back end to help with attain the square shape desired. Then let the assembly dry completely. Next insert the front subassembly and align accordingly. Once dry, add the roof and let stand for a day or two to cure. Now fill all the gaps and sand with 400 and 600 wet/dry sandpaper. Once all the surfaces are smooth and square, round all the angular edges. Note that the edge at the back of the cab and front of the fan housing are **not rounded**.

Start installing the detail parts. First cut out holes for the front sand hatches (see Drawing #5). I used Detail Associates mu covers as sand hatches. Use the roof template as a drill guide for placement of insulators and other roof detail. Make sure that the pantograph insulators are even and square because it makes placement easier. The bell, classification lights, horn, and antennas are now glued in place. The bell mounting is filed and sanded to match the prototype. Build the angled mounting bracket from .010" styrene and glue in place. The rear dynamic brake fan was difficult to find. I finally found a fairly close substitute in a military detail kit. The rear fan assembly requires some finesse. Photographs of the prototype show this fan to be slightly raised off the roof deck. Further, there is a screen located under the fan grill. To replicate all this I proceeded as follows:

- 1) Cut out a square screen a bit larger than the fan housing hole. Glue it to the roof.
- 2) Overlay a section of .010" styrene on this screen. The dimensions of this section are given in Drawing #3. Doing this will effectively simulate the slight raised appearance.
- 3) The fan grill can now be installed.

The pantographs were made of brass tubing and wire. See Drawing #6 for measurements and assembly. Leave off until locomotive is painted.

PARTS LIST

<u>Company</u>	<u>Part Number</u>	<u>Item</u>
Cannon & Company	191-1301	grills
Custom Finishing	247-238	ditch lights
Custom Finishing	247-258	ditch lights
Detail Associates	229-1004	headlights
Detail Associates	229-1302	sun shades
Detail Associates	229-1602	horn
Detail Associates	229-1803	large antenna
Detail Associates	229-2204	coupler levers
Detail Associates	229-2312	rearview mirrors
Detail Associates	229-2701	long grill modified
Detail Associates	229-101101	lift rings
Details West	235-180	plow
Evergreen Styrene	.010" sheet	
Evergreen Styrene	.020" sheet	
Evergreen Styrene	.030" sheet	
Evergreen Styrene	.010" x .040" strip	
Evergreen Styrene	.040" x .040" strip	
Juneco	C-6	rerailer
Juneco	C-11	hood bell
Kadee	5	couplers
Kadee	438	air hoses
K & S Engineering	125	round brass tube
K & S Engineering	126	round brass tube
K & S Engineering	150	round brass tube
K & S Engineering	159	brass wire
K & S Engineering	160	brass wire
Precision Scale	585-3997	door handles
On The Mark Models	TMP-3506	Leopard 2 MBT for grill
Sommerfelt	157	for Type A insulators
Sommerfelt	941	for Type C and D insulators

OTHER ADDITIONS

Cut an inset for the front headlights and install backing so that a flush fit of the Detail Associates headlight is achieved. The ditch lights access hatches (see Drawing #5) on the nose are made from .010" styrene. Add Custom Finishing ditch lights and then add micro bulbs.

The number boards were made from laminating scrap styrene. Bevel and shape to correct dimensions. A solid piece of styrene would do just as well.

Make a mu hose receptacle sub-assembly. Glue the mu receptacles to a piece of .040" x .040" styrene (see Drawing #3). Install on the side of the unit at the location shown.

Switchman steps are made from .020" styrene cut to size (see Drawing #3).

Add door handles (Precision Scale #585-3997) to all doors.

Now for the side windows. First find a source for microscope slide glass. To cut the glass, you will need a plate of glass, a steel rule, and a Dremel cutting disk. Put a cover on the glass and mark the cut lines on the glass. Place the steel rule on the cover. Gently hold the rule and run the disk along the cut line. Score the glass just like normal glass. You should not have to snap it, a gentle pressure like trying to pick it up works. This takes some practice, but the effect is worth it. Use .020" x .020" styrene as a sash and cut out the pieces. Use MEK and a small brush and glue to glass. When dry, paint this signal red.

Once the shell is fully assembled, painting can begin. I used Badger Accu-flex as much as possible. Spray Accu-flex primer grey, then white. Let this dry about an hour, and then mask for the Accu-flex signal red. Paint over the insulators. You will paint them later with a small brush using primer grey. Let dry for one hour. Now mask for the Floquil dark blue #110050 and spray. Three colours in two hours, neat eh!?

Let Floquil dry for three days then mask for the Floquil platinum mist #110010. I sprayed the shell and frame at the same time, and cleaned the wheels and pickups afterwards. Once the paint has fully dried, add handles and paint according. Decal using Andy W. decal set #1000 using photos as a guide. The correct decals for the locomotive are not commercially available, so for now this modern lettering will have to do.

THE PANTOGRAPHS

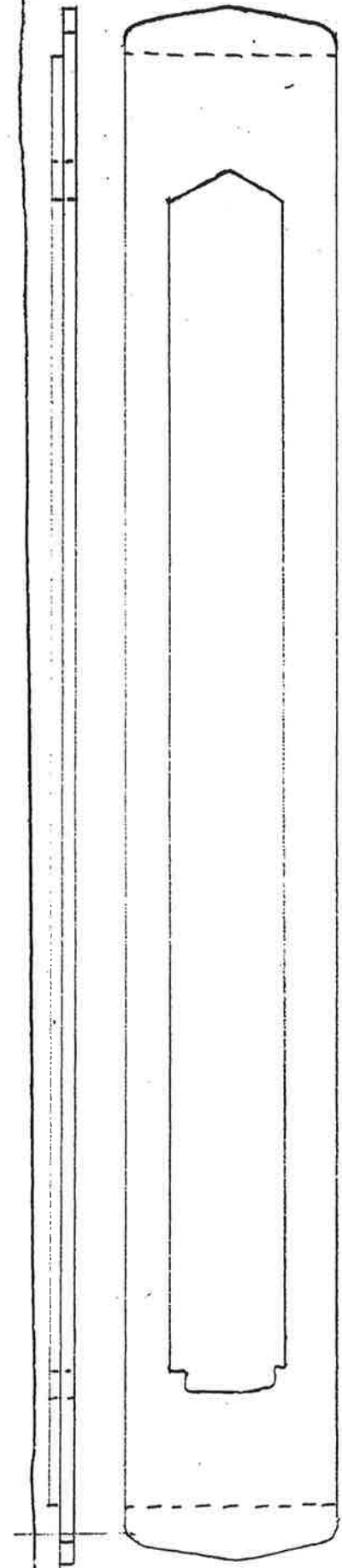
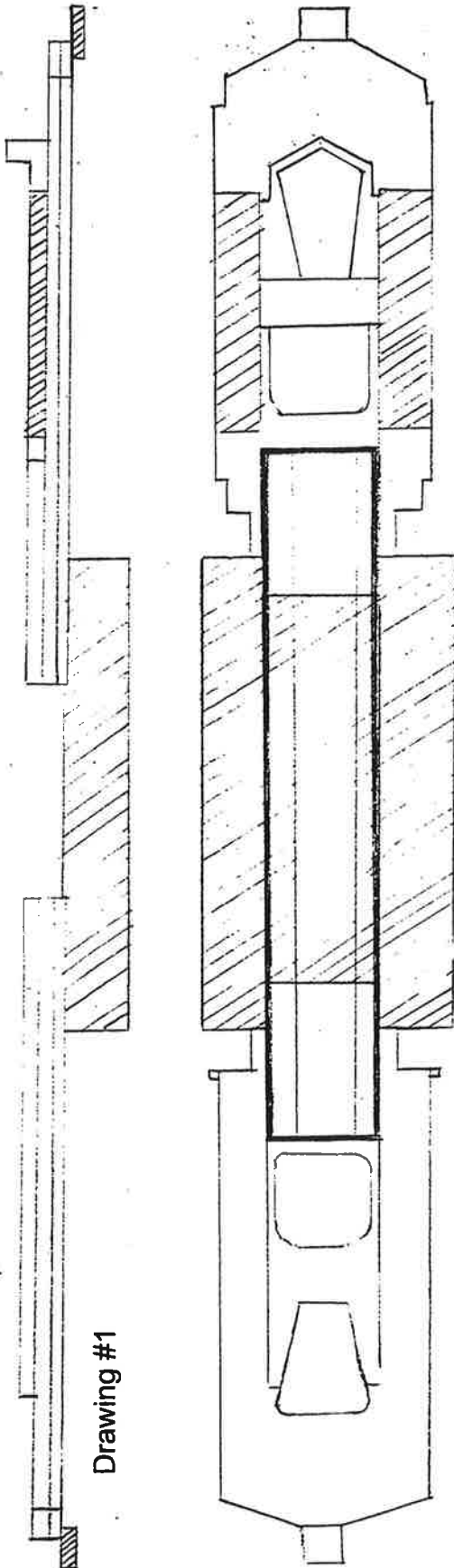
I used mostly brass shapes from K&S to build the pantographs. Start with square brass and build the base by using Drawing #6 as a template. Place a piece of round stock in position to represent the pneumatic cylinders. Now build the arms as shown and assemble it by first installing the spring wire. Bend both ends of the spring wire and install the upper arm. Finish by assembling and installing the wiper part. Using .040" x .020" strip of styrene, cut to length and shape as shown. Glue this to the pantograph assembly. Now install the assembled unit on to the insulators making sure that it is square and running parallel to the frame. This pantograph will work in the up position only. It will keep enough tension on the contact wire.

I would like to thank a few friends for their help with this project: Andy Barber, Les Burrows, Stewart Clark, Paul J. Crozier Smith, Jeff Phillips and Dan Rowsell.

Further reading: Tumbler Ridge – Ten Years On (Issue 18/October 1994)
General Electric GF-6C specification sheet (Issue 8/April 1992)

Mainline Modeler (August and September 1995)
Model Railroader (April 1995)

Full HO Scale

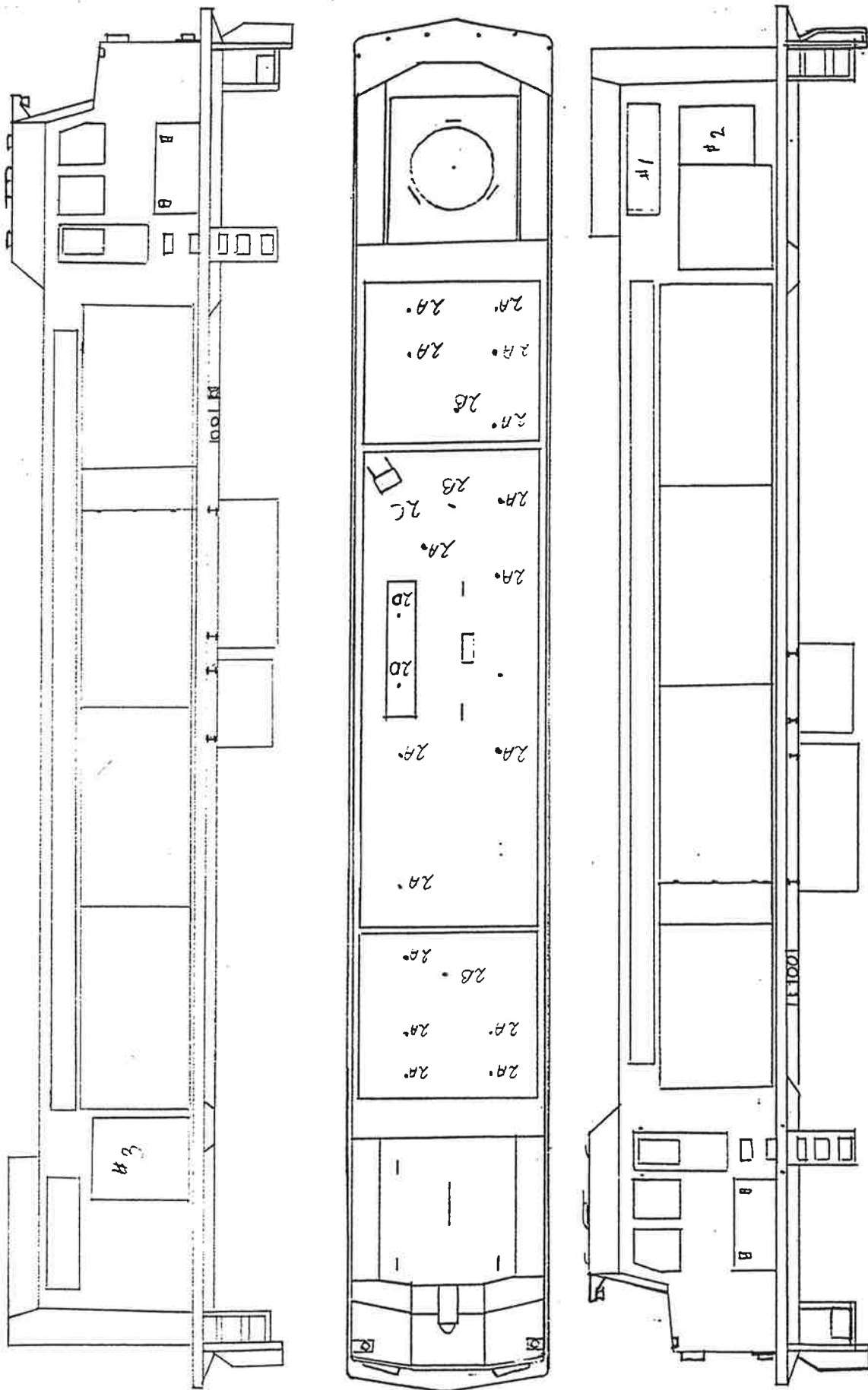


Drawing #4

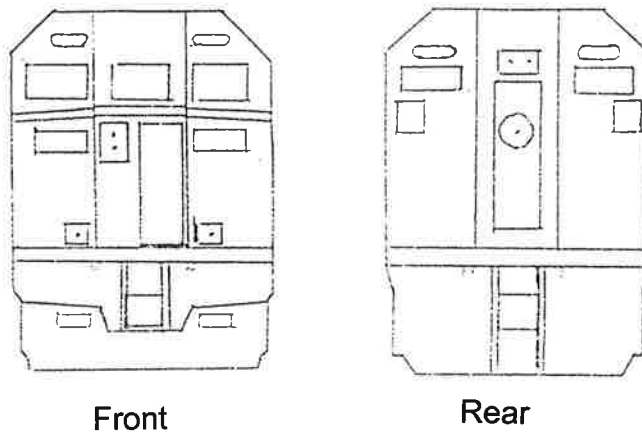
ALL DRAWINGS
BY
MARK GILES

Full HO Scale

Drawing #3

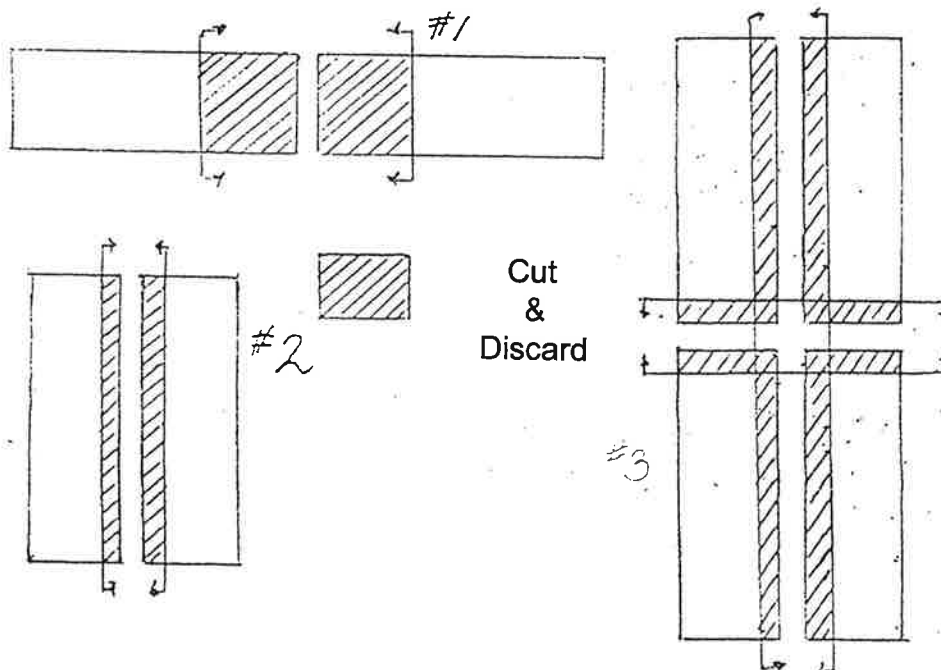


Drawing #5

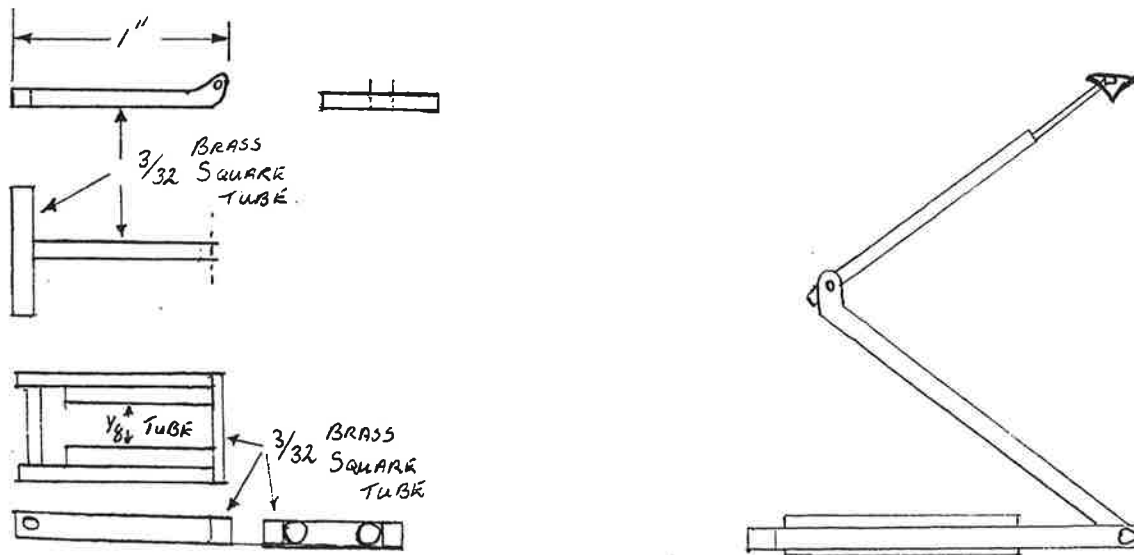


Drawing #8

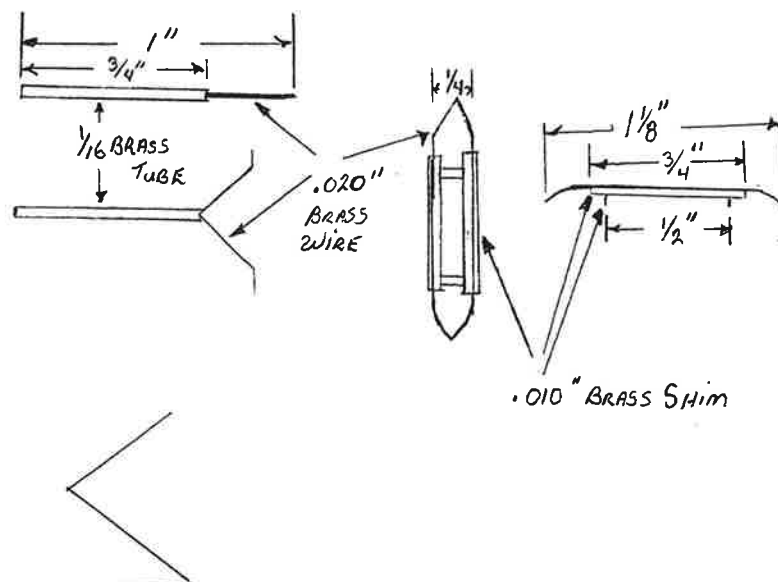
Cannon & Company Grill Cuts



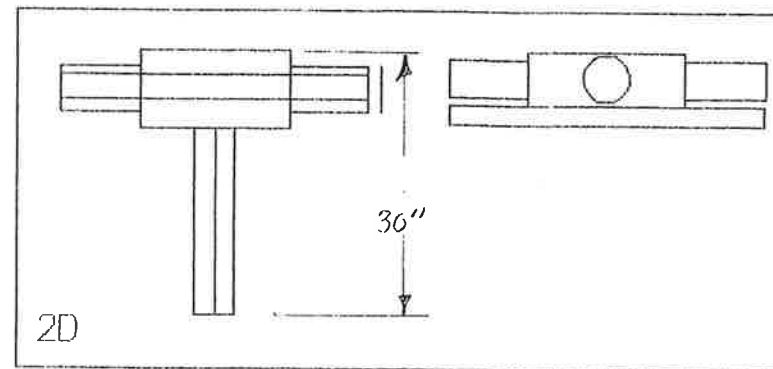
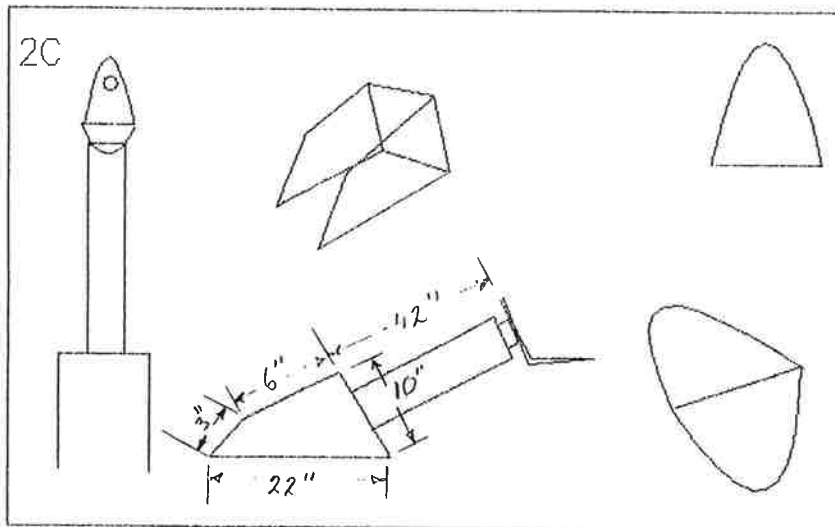
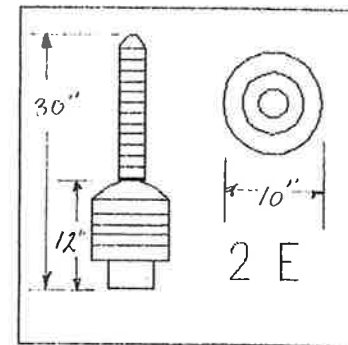
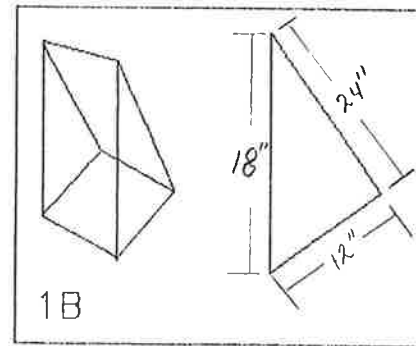
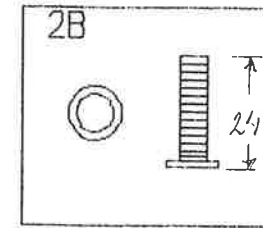
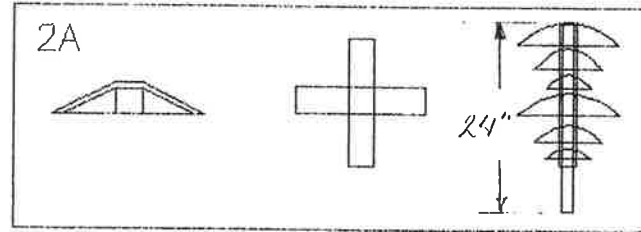
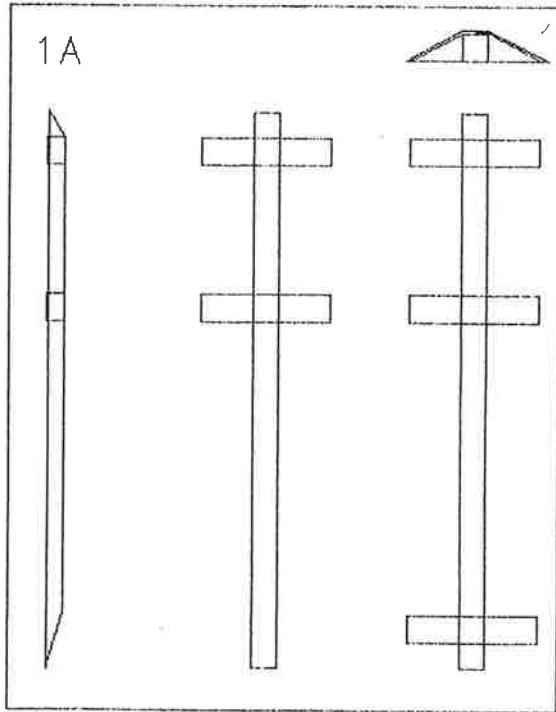
Drawing 6



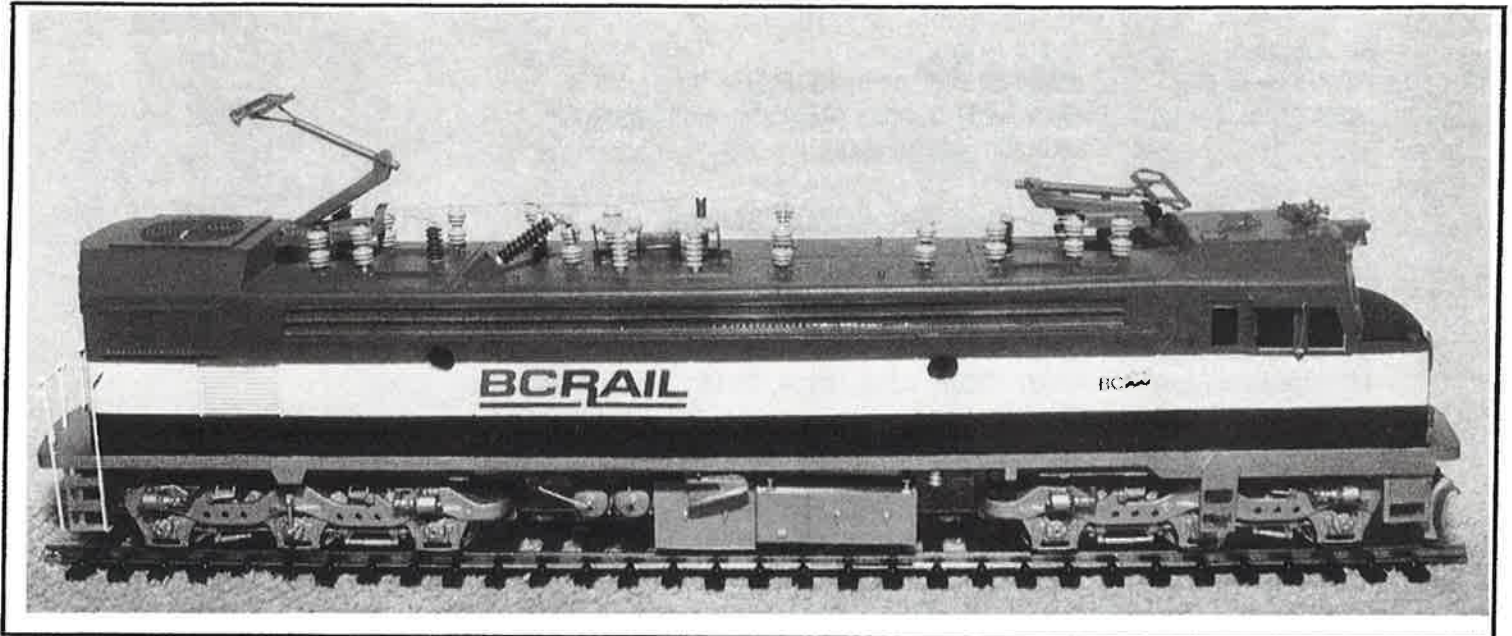
Not to Scale



INSULATORS and SAND HATCH



Mark Giles' Photos



BC Rail System Wide "Sightings" - June 1995

Ron Tuff

Freight Cars in PGE Paint Schemes

52' Gondola #9219 (P.G.E.)
 MOW Power Car #990293, 993304 (map herald)
 MOW Tool Car #8027(map herald), 993066 (PGE stacked), 993067,
 993815 (map herald)

BCOL Freight Cars in Dogwood Herald Paint Scheme

32' Tank Car #1949, 1955.
 57' Tank Car #1960, 1961, 1965, 1967, 1968.
 36' Covered Hopper #2103.
 41' Pressure Flow #2207, 2208, 2212, 2214, 2215, 2219, 2225, 2227, 2229.
 50' Covered Hopper #2300.
 50' Box Car (sliding/plug door) #5119, 5190, 5202, 5213, 5300, 5421, 5456,
 5514, 5595, 5676, 5689, 5735, 5745, 5756, 5770.
 52' Gondola # 9077, 9078, 9085, 9091, 9107, 9011, 9112, 9113.
 9121, 9135, 9152, 9172, 9203, 9211, 9212, 9215,
 9218, 9267, 9274, 9276, 9325, 9406, 9411, 9416,
 9418, 9422, 9425.
 62' Log Flat #10006, 10007, 10009, 10011, 10012, 10025, 10026, 10027,
 10031, 10032, 10033, 10035, 10040, 10049, 10053, 10055,
 10056, 10065, 10076, 10098, 10101, 10103, 10118, 10121,
 10123, 10139, 10144, 10152, 10175, 10180, 10201, 10236, 10293
 50' Box Car (sliding/plug door) # 40010, 40070, 40165, 40117, 40171,
 40195, 40271, 40272, 40337, 40454, 40468, 40482, 40511,
 40524, 40529, 40569, 40580, 40588, 40606, 40614, 40646,
 40670, 40733, 40759, 40784, 40821, 40851, 40898, 40913, 41018
 50' Box Car (12' sliding door) BCIT# 800653, 800654, 800707, 800709,
 800729, 800814, 800816, 800818.
 52' Box Car (double sliding doors) BCIT# 801020, 801048, 801076, 801123,
 801149, 801159, 801199.
 62' Wood Chip #9817, 90404, 90170.
 52' gondola (scrap service) #307007, 310003, 310005, 310008, 310009.

MOW Service in Dogwood Herald Paint Scheme

40' Insulated Box #993068, 993069
 American Derrick #6401
 American Boom Car #6402

Cabooses & Locomotives in Dogwood Herald Paint Scheme

MOW service #1800, 1801, 1803 993804
 Revenue svc #1851, 1852, 1854 1855 1858 1859 1861 1862 1963
 1865, 1867, 1868, 1870, 1871, 1881, 1882, 1884
 RS-18 #621, 622, 628, 630
 C420 #632
 M420W #645

The Building of the Dawson Creek Station

Eric L. Johnson

In the late 1950s, I was in construction, working mainly in the uranium mining camps of northern Saskatchewan. Laid off during winter months, the crew was asked in January of 1959 if we wanted to make a trip to B.C. to put up two steel buildings. We were basically "wood-butchers" (carpenters), but decided to take the steel job on anyway. The gypso contractor (non-union) was called Byrnes and Hall Construction, and the boss had got contracts to erect two buildings: one for the CNR at Kamloops, and another for the PGE at Dawson Creek. We set off for Kamloops first. The crew consisted of the boss's brother (Nels Hall), two brothers-in-law (Harvey Jorgenson and Dan Santowski), the boss's long-time friend (Leo Nolan), and me -- new-comer and foreman in charge. It would not be a pleasant job for me.

The contract had been picked up from a supplier and engineering firm in Vancouver the name of which I can't recall. Site preparation work had been done, and all we had to do was erect the steel and sheath the building. The Kamloops building was fabricated in England by a company called Atkinson. It was incredibly complex, shipped in bundles of hundreds of pieces of steel which we had to bolt together with thousands of bolts. It was finished by mid-March when we set off for Dawson Creek.

We arrived to find other sub-contractors had already finished the base. The building here was truly a pleasure to set up. Built by a U.S. company called Soule, the building was simplicity itself in design and erection. The station would be "split-level", with the long north end at loading dock height to serve as warehouse, and the shorter south end as waiting room below, and agent's quarters above. On the warehouse end, concrete pads supported timber posts on which was built a heavy timber deck. The shorter steel building posts here were lag-bolted to this deck. At the south end, the tall steel posts were bolted directly to concrete pads. The wide cross-section of the post tops and lower rafter ends, and heavy gussets, eliminated the need for complicated roof trusses which we had just seen on the Atkinson building.

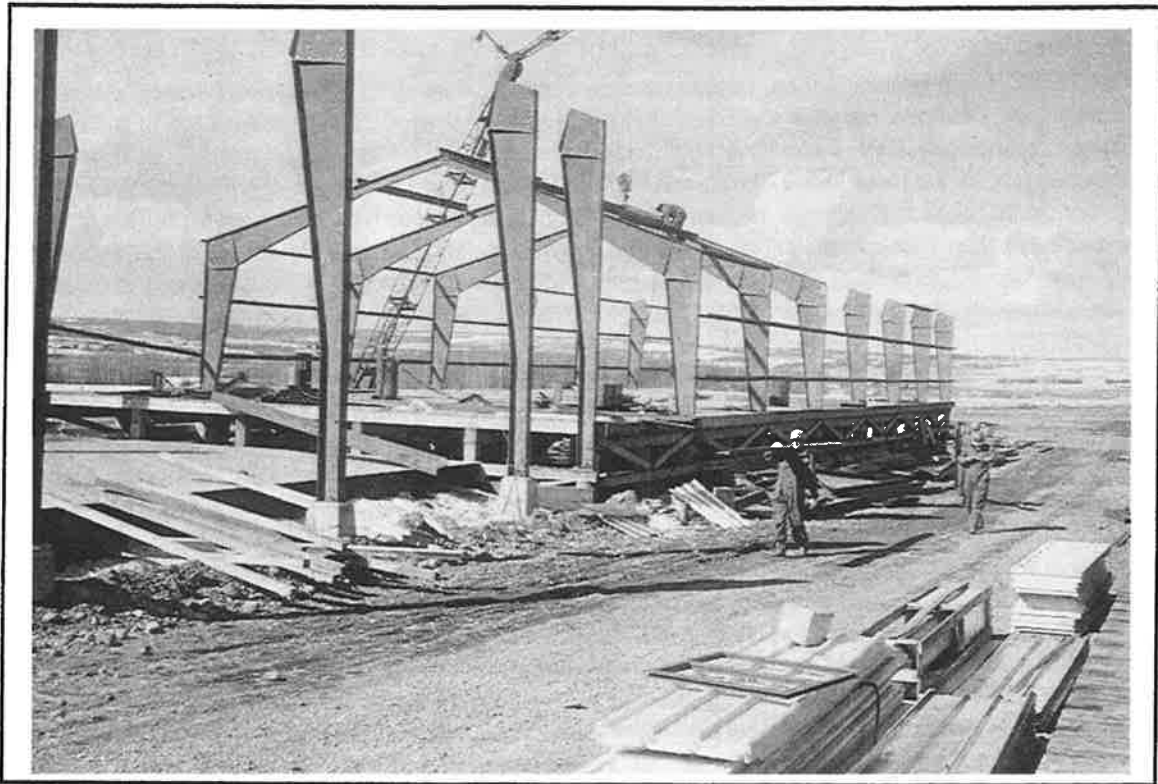
Between posts and rafters, purlins (longitudinal stringers) tied sections together and supported the sheet-metal sheathing. Purlins were of a rather light gauge sheet metal, and a squared-off "Z" is cross-section. Sheathing was attached by what was then a brand-new method - pop rivets. Riveting attachments for 1/4-inch drills were given us by the steel supplier. Of course, holes for the attachment (through the sheathing and purlin) were drilled as we proceeded. Extra lengths of rafter were welded in place over the railside entrance to the warehouse to provide a "Porch" roof (this was gone when I saw the building 1990). Three roll-up doors were installed on each side of the warehouse, and a long sliding door was installed on the north end.

Another sub-contractor began work on the south end after we had the framework and roof in place. This was all-wood construction, and even the beams supporting the second floor were of wood - just steel ledges bolted to the tall posts on which the beams rested. We left Dawson Creek in early May of 1959, our sub-contract completed. I never saw the building again until June of 1990. It burned down not long afterward.

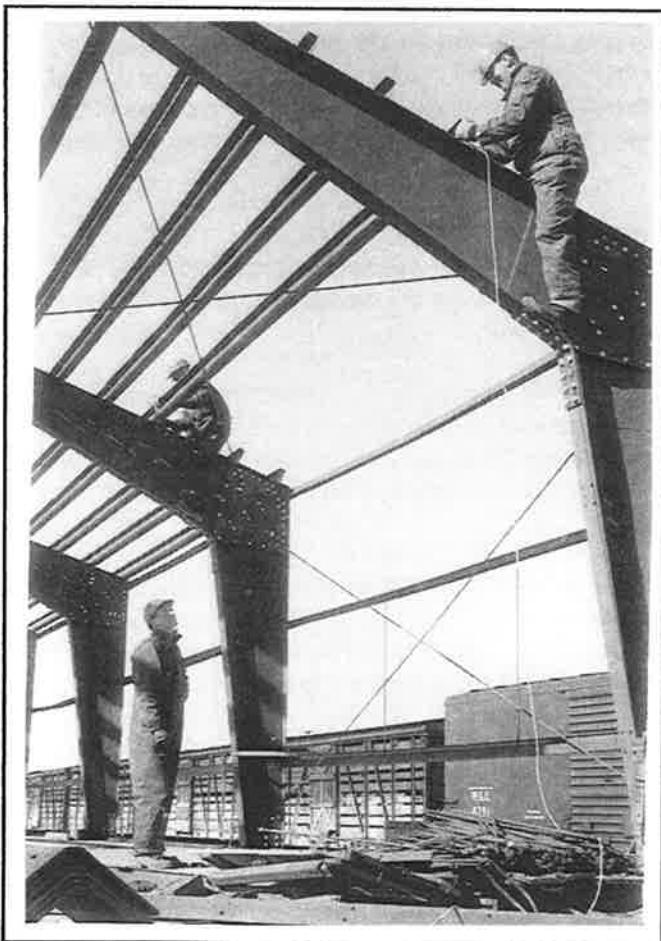
During construction we ran into assembly problems, so drove to Fort St. John to see the PGE station there which was identical in all respects, and which had been completed by another contractor only a short time earlier. The Alaska Highway bridge over the Peace River (between Fort St. John and Dawson Creek) had gone down in 1957(?), so at the time, public traffic was using the PGE bridge just upstream. We did not see the station at Chetwynd, but it seems reasonable to suspect that it too was identical.

It is only within the last dozen years that I have become a "hard-core" PGE/BCR fan; so as you can guess, I have kicked myself many times for not paying more attention to what was happening right next to our construction site. I didn't get a single shot of engines or of activity. Dawson Creek was not a nice place in March, or even April, and we were all happy to be heading back into the lake/pine/wildlife country of northern Saskatchewan in mid-May.

A word on the color pictures: I experimented with a lot of transparency film then, and as you can see, the Ektachrome 64 (ASA) was a disaster, yellowing terribly over the years. Although thin compared to Kodachrome 25 (which I have never liked), Anscochrome 64 was my favorite color film, and over the years it has remained stable. The 1990 color pictures were done with print film.



Dawson Creek, March 23, 1959.
A Soule building.
All photos by the author.

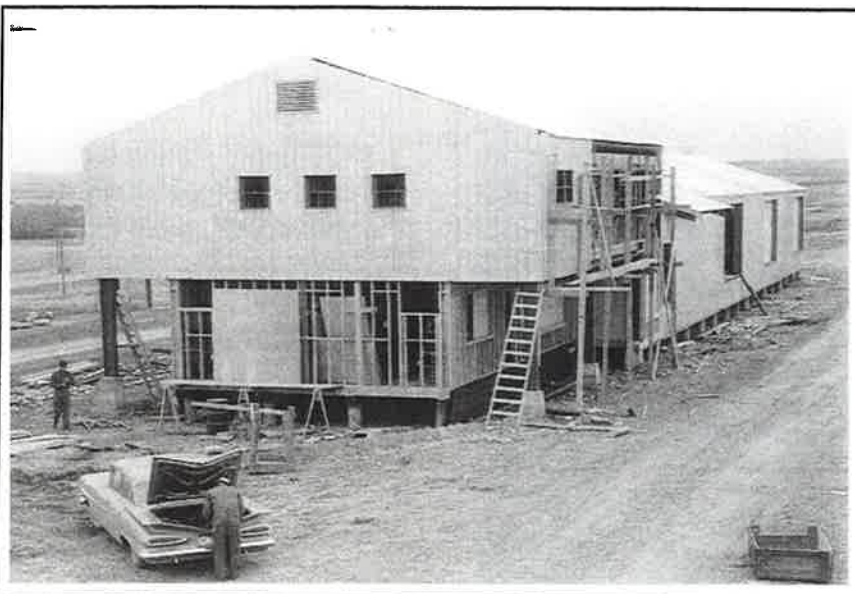
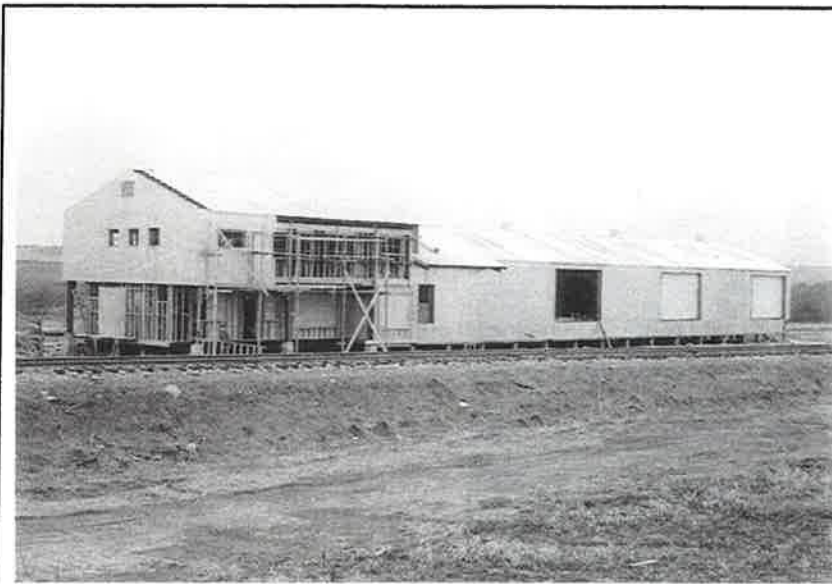


Note the iron rod, diagonal
stiffening, and cross-section
of purlins.



The Crew: Jorgenson, Nolan, Hall and Santowski.

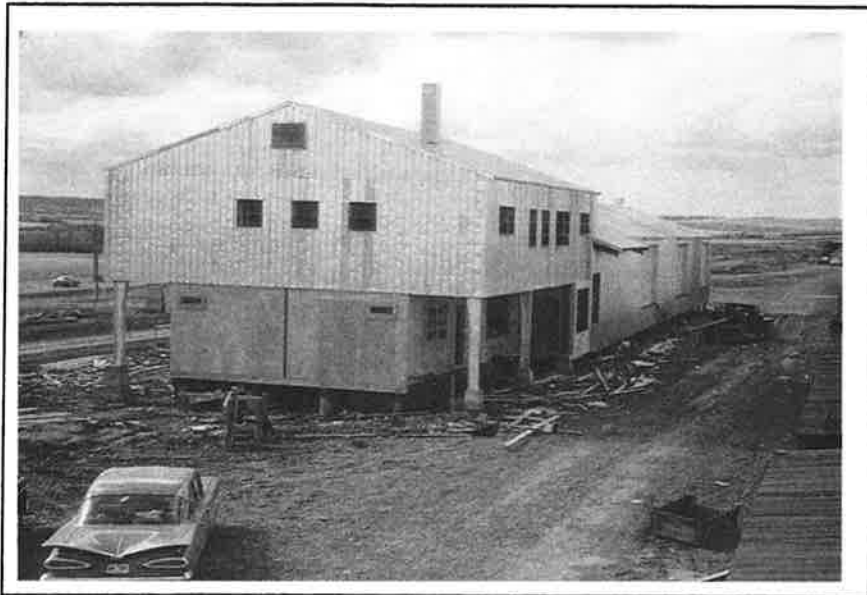
The attachment fixtures on the long legs for second floor support beams.



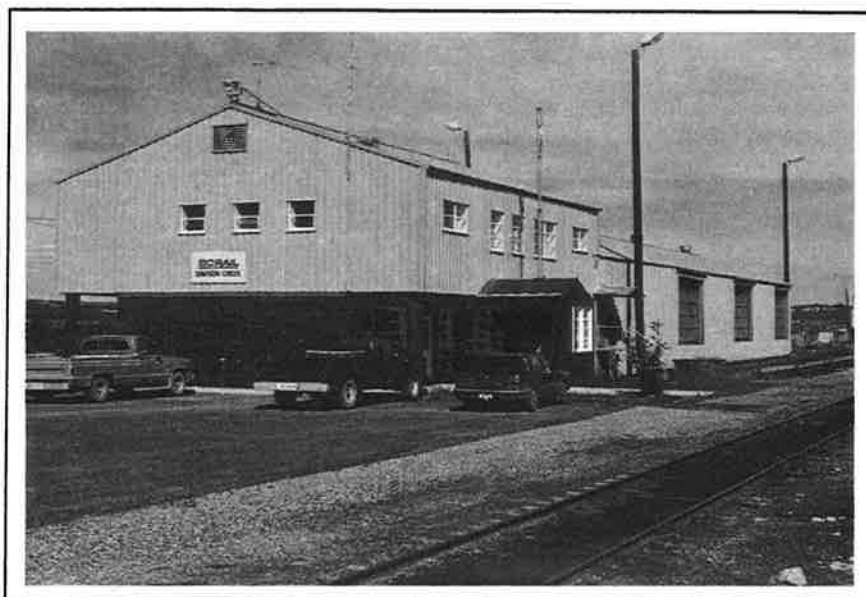
Roof extensions over warehouse entry, gone in 1990. Roof ventilation jacks over the warehouse. Pairs of translucent fibreglass panels (corrugated) in the largely sheet metal sheathed warehouse roof.



April 28, 1959.



Both prints from
Ektachrome 64
transparencies.



July 10, 1990.

The upper station is
painted a light brown,
almost buff; while the
lower part is chocolate

Windows and doors
are white, while the
large freight doors
are dark green.