A Guide to HO Scale Northern Pacific Passenger Equipment September 2022 Publication

By John Helberg

Nearly every NP modeler plans to have a *North Coast Limited* charging down the track on their layout. Whether steam power heavyweight or diesel power streamliner, the train was a dynamic symbol of the NP that few modelers can resist. There are also *The Mainstreeter* (or *Alaskan* depending on your timeframe) and a number of local trains to model. The NP modeler is well supplied with prototypically correct ready to run diesel locomotives but accurate steam locomotives and passenger car models are much more difficult to find. In this article we will look at all NP ready to run models and kits from early 1950s train sets to high end factory painted brass. Included will be ready to run options available for those wanting a stand-in train, and available options for those wanting a prototypically correct train.

There are a number of factors to consider when modeling a particular passenger train including budget, available time, modeling skills, and model railway layout minimum curve radius. The individual modeler should evaluate their own situation to determine what the best course of action is for them. A modeler with good modeling skills and ample available time may choose to kit build or even scratchbuild large portions of a train. Another modeler with a large budget but little available time may choose to purchase the train in factory painted brass. A large number of modelers may be content to have a ready to run plastic train that looks good and will function as a good stand-in. It is up to the individual modeler to determine what is right for them. Modeling is above all a hobby, and the chief goal is to enjoy it.

TRAINS AND CONSISTS

The streamline era began for the Northern Pacific Railway's premier *North Coast Limited* in October 1946, with delivery of 500-series lightweight coaches from Pullman-Standard Car Co., introducing what was known officially as the "Streamliner" color scheme (now also called "Pine Tree" by railfans) of Pullman green with light green window band, yellow-gold trim. Diesel power replaced steam on the train in January 1947, and that summer lightweight baggage/mail, coach lounge-dormitories, and lunch counter-diners entered service, followed in 1948 by lightweight Pullman sleepers and sleeper-observation cars. The *NCL* also continued to carry HW tourist sleepers in both new and old colors. On November 16, 1952, it was renumbered 25/26 and, with the elimination of the tourist sleepers, now consisted entirely of lightweight equipment. In the summer of 1954 it became the *Vista Dome North Coast Limited* with addition of Budd dome cars and the new Raymond Loewy-designed paint scheme.

Train 1/2, *The Mainstreeter*, was introduced November 16, 1952, replacing the *Alaskan*, and it handled much mail and express service. It had a mixed lightweight/heavyweight consist for nearly its entire existence. By 1967 the only heavyweight cars were headend baggage and RPO cars as the NP purchased a number of secondhand lightweight cars in the early-mid 1960s. The loss of the U.S. mail contract in fall 1967 greatly shortened the train consist.

The NP ran many other trains in the postwar period including:

Trains 3/4 Alaskan, after 1952 an unnamed mail-and-coach-only train between St Paul and Mandan

Trains 5/6 Spokane - Seattle

Trains 7/8 St Paul - Fargo

Trains 11/12 St Paul - International Falls

Trains 13/14 St Paul - Manitoba Jct.

Trains 61/62 Duluth - St. Paul

Trains 65/66 Twin Ports - Twin City Express

Trains 347/348 Pasco - Walla Walla

Trains 401/402, 407/408 Portland - Seattle

There were also many local branchline and mainline trains that ran with gas electrics and RDCs.

Some of the trains were quite lengthy: Summer-season *Mainstreeters* of the 1950s often ran 15-20 cars, and in 1962 Seattle World's Fair traffic expanded the *North Coast Limited* to 17 cars. Modelers may wish to run the shorter winter version instead or selectively compress the trains by eliminating some of the less distinctive cars. Specific train consist information is available in various books listed in the references. Some trains regularly had CB&Q cars transferred from other trains, and sleeping cars from other roads were also sometimes added, especially during the 1962 World's Fair.

STEAM LOCOMOTIVES

During the steam era, the NP class Q 4-6-2 Pacifics, built in various sub-classes 1904 to 1923, were the mainline passenger locomotive until the class A 4-8-4 Northerns were delivered in 1926 to 1943 and took over their work on important trains. Unfortunately, none of these locomotives has been produced in injection molded plastic. There have been a large number of brass models released over the years and Broadway Limited has recently released a brass hybrid Northern with DCC sound. Secondhand brass locomotives can be found at various online auction sites, hobby shops, and brass sellers. Prices on used brass locomotives vary greatly based on age, amount of detail, scarcity, and whether it is painted. It is sometimes possible to buy an older brass locomotive for about the same price as modern plastic steam locomotives. Early brass is not known for good quiet running qualities but more recent brass has a better reputation and is sometimes available with DCC sound. Early brass locomotives can be upgraded with new motors, gearing, and DCC sound to improve performance. If the modeler is hesitant to upgrade the model themselves, there are online brass locomotive shops that can do the work. Some steam locomotives models may lack sufficient pulling power to haul a full-length train and may require a "powered" baggage car to assist.

NP 2100-2147	Class O-1	American 1	Locomotive	Co	(ALCO)	1904-1907

<u>Importer</u>	Type/Loco Number	Manufacturer/Year
W&R	unpainted	Samhongsa 1991
W&R	NP-2129 factory painted (fp)black	Samhongsa 1991
W&R	NP-2130 fp gray	Samhongsa 1991
W&R with snowplow	unpainted	Samhongsa 1991
W&R with snowplow	NP-2116 fp black	Samhongsa 1991
W&R with snowplow	NP-2126 fp gray	Samhongsa 1991

NP2148-2170 Class Q-3, Baldwin Locomotive Works, 1909

<u>Importer</u>	Type/Loco Numbers	Manufacturer/Year
W&R	unpainted	Samhongsa 1985
Precision Scale PSC-18010-1	NP-2159, 2163, 2169 fp black	Boo-Rim 2008
Precision Scale PSC-18010-2	NP-2162, 2167 fp gray	Boo-Rim 2008
Precision Scale PSC-18012-1	NP-2160, 2166 fp black	Boo-Rim 2008
Precision Scale PSC-18012-2	NP-2164, 2168 fp gray	Boo-Rim 2008

NP 2177-2225 Class Q-4, Baldwin, 1902; ALCO, 1910

<u>Importer</u>	Type/Loco Numbers	Manufacturer/Year
W&R	unpainted	Samhongsa 1985
Precision Scale PSC-18014-1	NP-2208, 2212, 2215, 2225 fp black	Boo-Rim 2008
Precision Scale PSC-18014-2	NP-2209, 2223 fp gray	Boo-Rim 2008
Precision Scale PSC-18016-1	NP-2208, 2216, 2222, 2224 fp black	Boo-Rim 2008
Precision Scale PSC-18016-2	NP-2209, 2220, 2221, 2225 fp gray	Boo-Rim 2008
Precision Scale PSC-18018-1	NP-2177, 2186, 2194, 2207 fp black	Boo-Rim 2008
Precision Scale PSC-18018-2	NP-2178, 2184, 2196 fp gray	Boo-Rim 2008
Precision Scale PSC-18020-1	NP-2179, 2187, 2192, 2200 fp black	Boo-Rim 2008
Precision Scale PSC-18020-2	NP-2197, 2202, 2205 fp gray	Boo-Rim 2008

NP 2226-2245 Class Q-5, ALCO, 1920

<u>Importer</u> <u>Type/Loco Numbers</u> <u>Manufacturer/Year</u>

W&R	unpainted	Samhongsa 1989
W&R	NP-2226, 2234 fp black	Samhongsa 1989
W&R	NP-2228 fp gray	Samhongsa 1989
	100	
NP 2246-2265 Class Q-6, ALCO		
<u>Importer</u>	Type/Loco Numbers	Manufacturer/Year
Northwest Short Line	unpainted	1965
W&R version 1	unpainted	Samhongsa 1989
W&R version 1	NP-2246, 2252 fp black	Samhongsa 1989
W&R version 1	NP-2257 fp gray	Samhongsa 1989
W&R version 2	unpainted	Samhongsa 1989
W&R version 2	NP-2250 fp black	Samhongsa 1989
W&R version 2	NP-2250 fp gray	Samhongsa 1989
NP 2600-2611 Class A, ALCO,	1926-1927	
<u>Importer</u>	Type/Loco Numbers	Manufacturer/Year
NJ Custom Brass ST-234	unpainted	Gom 1977
W&R Version 1A coal	NP-2605	Samhongsa 2001
W&R Version 1A coal	NP-2605	Samhongsa 2001
W&R Version 2 oil	NP-2600 fp black	Samhongsa 2001
W&R Version 3 oil	NP-2609 fp gray	Samhongsa 2001
NP 2626 Class A-1, ALCO, 193	0	
Importer	Type/Loco Numbers	Manufacturer/Year
Key Model	unpainted	Samhongsa 1978
W&R Version 2 oil	NP-2626 fp gray	Samhongsa 2001
wart version 2 on	111 2020 ip gruy	Saimongsa 2001
NP 2650-2659 Class A-2, Baldw		
<u>Importer</u>	Type/Loco Numbers	Manufacturer/Year
AHM No. 406	unpainted	1967
Overland OMI-1448	unpainted	JP Models 1981
Overland OMI-1448.1	custom painted by OMI	JP Models 1981
W&R Wilson feed water heater	unpainted	Samhongsa 1992
W&R Wilson fwh	NP-2659 fp black	Samhongsa 1992
W&R Worthington fwh	unpainted	Samhongsa 1992
W&R Worthington fwh	NP-2652 fp black	Samhongsa 1992
W&R Worthington fwh	NP-2651 fp gray	Samhongsa 1992
W&R limited edition #3	NP-2657 fp gray	Samhongsa 1992
Precision Scale PSC-18034-1	factory painted	Boo-Rim 2009
Precision Scale PSC-18034-2	NP-2651 fp gray	Boo-Rim 2009
Precision Scale PSC-18036-1	NP-2658 fp black	Boo-Rim 2009
Precision Scale PSC-18036-2	NP-2657 fp gray	Boo-Rim 2009
Precision Scale PSC-18038-1	NP-2650 fp black	Boo-Rim 2009
Precision Scale PSC-18038-2	NP-2653 fp gray	Boo-Rim 2009
Precision Scale PSC-18040-1	NP-2659 fp black	Boo-Rim 2009
Precision Scale PSC-18040-2	NP-2656 fp black	Boo-Rim 2009
NP 2660-2667 Class A-3, Baldw	vin, 1938	
Toron contain	Toma/Lana Normalana	Manufastunan/Vasu

Importer	Type/Loco Numbers	Manufacturer/Year
Pacific Fast Mail (PFM)	unpainted	Fujiyama 1971-72
W&R	unpainted	Samhongsa 1993
W&R	NP-2660 fp black	Samhongsa 1993
W&R	NP-2666 fp gray	Samhongsa 1993
Precision Scale PSC-18052-1	NP-2663 fp black	Boo-Rim 2009
Precision Scale PSC-18052-2	NP-2661 fp gray	Boo-Rim 2009
Precision Scale PSC-18054-1	NP-2660 fp black	Boo-Rim 2009

Precision Scale PSC-18054-2 Sunset Models Broadway Ltd BLI-4920 Broadway Ltd BLI-4921 Broadway Ltd BLI-4922 Broadway Ltd BLI-4923 Broadway Ltd BLI-4924	NP-2666 fp black NP-2660, 2667 fp black, DCC sound avail. NP-2660 fp black DCC sound NP-2661 fp gray DCC sound NP-2663 fp black DCC sound NP-2664 fp black DCC sound painted with brass paint	Boo-Rim 2009 2008 brass hybrid 2020 brass hybrid 2020 brass hybrid 2020 brass hybrid 2020 brass hybrid 2020
NP 2670-2677 Class A-4, Baldwin	ı, 1941	
<u>Importer</u>	Type/Loco Numbers	Manufacturer/Year
Oriental Ltd-0284	unpainted	Dai Young 1983
W&R	unpainted	Samhongsa 1993
W&R	NP-2674 fp black	Samhongsa 1993
W&R	NP-2670, 2676 fp gray	Samhongsa 1993
Precision Scale PSC-17824-1	NP-2670 fp gray	2007
Precision Scale PSC-17824-2	NP-2671 fp gray	2007
Precision Scale PSC-18024-2	NP-2671, 2672, 2677 fp black	Boo-Rim 2008
Precision Scale PSC-18030-1	NP-2671, 2672, 2677 fp black	Boo-Rim 2008
Precision Scale PSC-18030-2	NP-2670, 2673, 2674, 2676 fp gray	Boo-Rim 2008
Sunset Models	NP-2670, 2677 fp gray, DCC sound avail.	2008

NP 2680-2689 Class A-5, Baldwin, 1943

Precision Scale PSC-18122-1

Precision Scale PSC-18122-2

facturer/Year
ama 1965
ama 1967
ama 1973
oung 1983
ongsa 1993
ongsa 1993
ongsa 1993
Rim 2008
Rim 2008
Rim 2009
Rim 2009

NP-2675 fp black

NP-2671 fp black

Boo-Rim 2009

Boo-Rim 2009

For those wanting to avoid brass, possible stand-in injection molded plastic locomotives are available. 4-8-4 Northern models have been produced by Athearn, Bachmann, and MTH but most have distinctive features such as streamlining or smoke deflectors that do not match the NP prototypes. The Athearn UP FEF-2 is probably the closest in general appearance. 4-6-2 Pacific models include USRA light Pacifics by Athearn, Broadway Ltd, IHC, and Mantua. Broadway Ltd has released a USRA 4-6-2 light Pacific with DCC sound decorated for NP-2225 (BLI-4626). The light Pacific models are closer in general appearance to the NP Q classes than the USRA heavy Pacifics by Mantua and Rivarossi. For modelers with less than 24" minimum radius curves it will be necessary to consult manufacturer minimum radius specifications.

DIESEL LOCOMOTIVES

The first NP diesel passenger locomotives were seven F3A/F3B/F3B sets delivered in January 1947 as NP 6500A/B/C to 6506A/B/C. These were converted to four F3A/F3B/F5A sets in 1948 and three F3A/F3B/F7A sets in 1949. Four of the displaced F3B units went to freight service and the other three put into F7A/F3B/F7A sets as NP 6507A/B/C to 6509A/B/C in 1949. Four additional F7A/F7B/F7A sets were added in 1949-50 as NP 6510A/B/C to 6513A/B/C. Two FP7A units were purchased in 1952 as NP 6600A

and 6601A. In 1959-1960 three of the F3B units that were converted to freight service in 1948 were converted back to passenger service as NP 6551B, 6552B, and 6553B.

The NP purchased one F9A/F9B/F9A set in 1954 as NP 6700A/B/C. An additional set followed in 1956 as NP 6701A/B/C along with three F9A units numbered NP 6702A, 6703A, and 6704A. NP 6703A and 6704A were later converted to freight service in 1959. In 1964-1967 freight F9s were converted to passenger service F9A/F9B/F9A sets as NP 6702B/C, 6703A/B, 6705A/B/C to 6707A/B/C, and single F9Bs NP 6708B, 6709B, and 6710B. NP 6703C was rebuilt as a F9A from wrecked F7A NP 6500C.

A few road switchers were also fitted with steam generators and water tanks for passenger service including Baldwin DRS 4-4-1500 NP 175 and 176, EMD GP-7s NP 550, 551, and 569, and EMD GP-9s NP 244, 245, 260, 263, and 267.

The easiest part of an NP passenger train to model, for those in the diesel traction era, is the locomotives. There are a large number of choices and the majority are prototypically accurate. EMD F3, F7, and F9 locomotives have all been produced in the NP passenger schemes. The early models are less well detailed with molded on grab irons. The later models are highly detailed with separately applied grab irons, windshield wipers, lift rings, DCC sound, and other features. Since model standards have changed significantly from the early days, the diesel models will be reviewed in a roughly chronological order.

Athearn EMD F-7A/B units were produced in the mid-1950s as motive power for their passenger cars. The units were green with a *Main Street of the Northwest* slogan. They do not match a prototypical NP scheme and do not have correct numbers, but do go with the original NP passenger cars released by Athearn.

Model Numbers	<u>Type</u>	Loco Numbers
3029	F7A Unpowered	NP-6707
3030	F7B Unpowered	NP-6011B
3129	F7A Powered	NP-6707
3229	F7A Powered with flywheel	NP-6707

Penn Line produced EMD F7A/B units in the mid-1950s in the Loewy scheme for their passenger train sets. The F7B does not have a correct locomotive number.

Set Numbers	Model Numbers	<u>Type</u>	Loco Numbers
5503	900A	F7A Powered	NP-no
5506	900A	F7A Powered	NP-no
5506	900B	F7B Unpowered	NP-6501

Gilbert American Flyer released EMD F3A/B units in the Loewy scheme in 1957-58 to go with their lightweight streamlined NP train. The locomotive numbers are not correct. These units were likely made by Varney.

Model Numbers	<u>Type</u>	Loco Numbers
31010	F3A Powered	NP-423 or NP-31010
31011	F3B Unpowered	NP-no number
31012	F3A Unpowered	NP-424 or NP-31012

Mantua/Tyco has produced EMD F7A/B units in the Loewy scheme in 1985 and the Pine Tree scheme in 2001. The locomotive numbers are not correct for EMD F7s.

Model Numbers	Type	Loco Numbers
402-004	F7A Powered	Loewy, NP-6700
409-004	F7B Unpowered	Loewy, NP-6701
411-004	F7A Powered	Loewy, NP-unknown
412-004	F7B Unpowered	Pine Tree, NP-unknown
423-004	F7A Powered	Pine Tree, NP-unknown

Atlas produced an EMD FP7A powered DC unit as NP-6600 in the Pine Tree scheme (8326).

Lifelike/Walthers Proto 2000 has produced EMD GP-7s and GP-9s, and Athearn has produced an EMD GP-9s that can be used as passenger units. Stand-in models can be made with simple renumbering. More accurate models may require modifications such as installation of walkway mounted water tanks on some of the GP-7s. Bowser has produced a Baldwin DRS 4-4-15 but not decorated for NP.

IHC has produced EMD F3A units in the Loewy scheme. These are not well detailed units but are available with DCC sound. The locomotive numbers are not correct for EMD F3s.

Model Numbers	Type	<u>Loco Numbers</u>
M6824	F3A Powered DC	NP-6700
M6824DS	F3A Powered DCC sound	NP-6700

Stewart (later Kato/Stewart and Bowser/Stewart) has produced EMD F3A/B and F9A/B units in the Loewy scheme

Type	Loco Numbers
F3A Powered/F3B Unpowered	NP-6503
F3A Powered	NP-6503C
F9A Powered/F9B Unpowered	NP-no number
F3A Powered/F3B Powered	NP-no number
	F3A Powered/F3B Unpowered F3A Powered/F9B Unpowered

MTH Electric Trains has produced well detailed EMD F7A/B units in the Pine Tree scheme.

Model Numbers	Type	Loco Numbers
80-2120-0	F7A/B DCC ready	NP-6511A/6511B
80-2120-1	F7A/B DCC sound	NP-6511A/6511B
80-2121-0	F7A DCC ready	NP-6511C
80-2121-1	F7A DCC sound	NP-6511C
80-2122-0	F7B DCC ready	NP-6512B
80-2122-1	F7B DCC sound	NP-6512B

Athearn has produced a variety of EMD F3A/B, F7A/B, FP7A, and F9A/B units in the Loewy and Pine Tree schemes. The Athearn Genesis (ATHG) units are highly detailed. The Roundhouse (RND) units are budget locomotives with fewer details.

Athearn Numbers	<u>sType</u>	Scheme	Loco Numbers
ATHG-2032	F3A Powered DC	Pine Tree	NP-6503C
ATHG-2532	F3A/B Powered DC	Pine Tree	NP-6503A/6503B
ATHG-2632	F3A/B/B Powered DC	Pine Tree	NP-6501A/6501B/6501C
ATHG-3001	F9A Powered DC	Loewy	NP-6701C
ATHG-3201	F9A/B Powered DC	Loewy	NP-6701A/6701B
ATHG-20321	F3A Powered DCC sound	Pine Tree	NP-6503C
ATHG-22092	F7A Powered DCC ready	Loewy	NP-6507C
ATHG-22192	F7A Powered DCC sound	Loewy	NP-6507C
ATHG-22093	F7A/B Powered DCC ready	Loewy	NP-6512A/6511B
ATHG-22193	F7A/B Powered DCC sound	Loewy	NP-6512A/6511B
ATHG-22094	F7A/B Powered DCC ready	Loewy	NP-6513C/6512B
ATHG-22194	F7A/B Powered DCC sound	Loewy	NP-6513C/6512B
ATHG-22706	FP7A Powered DCC ready	Loewy	NP-6600
ATHG-22707	FP7A Powered DCC ready	Loewy	NP-6601
ATHG-22806	FP7A Powered DCC sound	Loewy	NP-6600
ATHG-22807	FP7A Powered DCC sound	Loewy	NP-6601
ATH-8027	F7A Powered DC/F7B Unpowered	Pine Tree	NP-6508
ATH-80217	F7A Powered DC/F7B Unpowered	Loewy	NP-6510A/6510B
RND-82062	F7A Powered DC	Loewy	NP-6511C
RND-82063	F7A Powered DC/F7B Unpowered	Loewy	NP-6513A/6513B

Intermountain has produced a variety of highly detailed EMD F3A/B, F7A/B, and FP7A units in the Loewy and Pine Tree schemes.

<u>Intermountain# Type</u> <u>Scheme</u> <u>Loco Numbers</u>

49033-01	F7A Powered DCC	Loewy	NP-6507A
49033-02	F7A Powered DCC	Loewy	NP-6508C
49033-03	F7A Powered DCC	Loewy	NP-6511A
49033-04	F7A Powered DCC	Loewy	NP-6511C
49033S-01	F7A Powered DCC Sound	Loewy	NP-6507A
49033S-02	F7A Powered DCC Sound	Loewy	NP-6508C
49033S-03	F7A Powered DCC Sound	Loewy	NP-6511A
49033S-04	F7A Powered DCC Sound	Loewy	NP-6511C
49060-01	F7A Powered DCC	Pine Tree	NP-6510A
49060-02	F7A Powered DCC	Pine Tree	NP-6510C
49060-03	F7A Powered DCC	Pine Tree	NP-6511C
49060-04	F7A Powered DCC	Pine Tree	NP-6512A
49060S-01	F7A Powered DCC Sound	Pine Tree	NP-6510A
49060S-02	F7A Powered DCC Sound	Pine Tree	NP-6510C
49060S-03	F7A Powered DCC Sound	Pine Tree	NP-6511C
49060S-04	F7A Powered DCC Sound	Pine Tree	NP-6512A
49112-01	F3A Powered DCC	Loewy	NP-6502A
49112-02	F3A Powered DCC	Loewy	NP-6504A
49112-03	F3A Powered DCC	Loewy	NP-6506A
49112S-01	F3A Powered DCC Sound	Loewy	NP-6502A
49112S-02	F3A Powered DCC Sound	Loewy	NP-6504A
49112S-03	F3A Powered DCC Sound	Loewy	NP-6506A
49114-01	F3A Powered DCC	Pine Tree	NP-6500
49114-02	F3A Powered DCC	Pine Tree	NP-6501
49114-02	F3A Powered DCC	Pine Tree	NP-6504
49114-04	F3A Powered DCC	Pine Tree	NP-6505
49114S-01	F3A Powered DCC Sound	Pine Tree	NP-6500
49114S-01 49114S-02	F3A Powered DCC Sound	Pine Tree	NP-6501
49114S-02 49114S-03	F3A Powered DCC Sound	Pine Tree	NP-6504
49114S-04	F3A Powered DCC Sound	Pine Tree	NP-6505
49533-01	F7B Powered DCC		NP-6512B
	F7B Powered DCC	Loewy	
49533-02 49533-03	F7B Powered DCC	Loewy	NP-6513B NP-6510B
	F7B Powered DCC	Loewy	NP-6511B
49533-04 49533S-01	F7B Powered DCC Sound	Loewy	NP-6512B
		Loewy	
49533S-02	F7B Powered DCC Sound F7B Powered DCC Sound	Loewy	NP-6513B
49533S-03		Loewy	NP-6510B
49533S-04	F7B Powered DCC Sound	Loewy	NP-6511B
49560-01	F7B Powered DCC	Pine Tree	NP-6510B
49560-02	F7B Powered DCC	Pine Tree	NP-6511B
49560-03	F7B Powered DCC	Pine Tree	NP-6550B
49560S-01	F7B Powered DCC Sound	Pine Tree	NP-6510B
49560S-02	F7B Powered DCC Sound	Pine Tree	NP-6511B
49560S-03	F7B Powered DCC Sound	Pine Tree	NP-6550B
49612-01	F3B Powered DCC	Loewy	NP-6504B
49612-02	F3B Powered DCC	Loewy	NP-6553B
49612-03	F3B Powered DCC	Loewy	NP-6506B
49614	F3B Powered DCC	Pine Tree	NP-no number
49614S	F3B Powered DCC Sound	Pine Tree	NP-no number
49933-01	FP7A Powered DCC Ready	Loewy	NP-6600
49933-02	FP7A Powered DCC Ready	Loewy	NP-6601
49933S-01	FP7A Powered DCC Sound	Loewy	NP-6600
49933S-02	FP7A Powered DCC Sound	Loewy	NP-6601

Broadway Limited has recently released highly detailed EMD F7A/B units in the Loewy scheme Model Numbers Type Loco Numbers

BLI-4847	F7A Powered DCC sound/F7B unpowered	NP-6510A/6510B
BLI-4858	F7A Powered DCC sound	NP-6511A
BLI-4859	F7B Powered DCC sound	NP-6511B

A number of brass importers have released EMD F3A/B, F5A, FP7A, F7B, and F9A/B units in the Pine Tree and Loewy schemes.

Importer/Model Numbers	<u>Type</u>	<u>Scheme</u>	Loco Numbers
Challenger 2378.1	F3A/F3B/F5A	Loewy	NP-6505A/6505B/6505C
Challenger 2378.2	F3B	Loewy	NP-6501B
Challenger 2379.1	F3A/F3B/F5A	Pine Tree	NP-6503A/6503B/6503C
Challenger 2379.2	F3B	Pine Tree	NP-6500B
Challenger 2379.3	F3A/F3B	Pine Tree	NP-6504A/6504B
Challenger 2379.4	F3A	Pine Tree	NP-6503A
Challenger 2381.1	F3A/F3B/F5A	Loewy	NP-6506A/6506B/6506C
Challenger 2381.2	F3B	Loewy	NP-6503B
Challenger 2381.3	F3A	Loewy	NP-6505C
Division Point DP-2101	FP7A/FP7A	Loewy	NP-6600/6601
Division Point DP-2101P	FP7A/FP7A	Pine Tree	NP-6600/6601
Division Point DP-2140A	F9A	Loewy	NP-6700A or 6706C
Division Point DP-2140B	F9B	Loewy	NP-6700B or 6704B
Division Point DP-2158	F7B	Loewy	NP-6550
Overland OMI-5494	F3A	Loewy	NP-6503A
Overland OMI-5495	F3B	Loewy	NP-6501B
Overland OMI-6511	F9A	Loewy	NP-no number
Overland OMI-6512	F9B	Loewy	NP-no number
Overland OMI-7063.1	F3A/F3B	Loewy	NP-6501A/6500B

NON-PROTOTYPICAL "WHAT-IF" LOCOMOTIVES

There have been a number of non-prototypical NP models over the years. They all tend to be unusual and eye catching. Although inaccurate, they can be fun to run.

AHM/Rivarossi released a Fairbanks-Morse "C-Line" cab unit in the mid-1960s. Although a somewhat crude model, it was released in the NP Pine Tree scheme. They were released again by IHC in 1993.

Model Numbers	<u>Type</u>	Loco Numbers
AHM 5024-G / 5024-07 / 5030	A Powered & A Unpowered	NP-6500 & NP-6500
AHM 7024 / 7030	B Unpowered	NP-no number
IHC M384 - M584	A Powered & A Unpowered	NP-6500 & NP-6500

AHM/Rivarossi released an EMD E8A in 1967-68 in the Pine Tree scheme. It was re-released by IHC/Rivarossi in 1987 and 1993. The 1993 release may have included a Loewy scheme. The NP was the only one of the Hill Lines (which included the Great Northern; Chicago Burlington & Quincy; and Spokane Portland & Seattle) that not have E units.

Model Numbers	Type	<u>Loco Numbers</u>
AHM 5121-F	E8A Powered	NP-no number, Pine Tree
AHM 5121-FD	E8A Unpowered	NP-no number, Pine Tree
Rivarossi 1830	E8A Powered	NP-no number, Pine Tree
Rivarossi 1849	E8A Unpowered	NP-no number, Pine Tree
Rivarossi 1825	E8A Powered & E8A Unpowered	NP-no numbers, Pine Tree
IHC/Rivarossi 1825-1 / 1927	E8A Powered & E8A Unpowered	NP-no numbers, Pine Tree
IHC/Rivarossi 6119	E8B Powered	NP-no number, Pine Tree
IHC/Rivarossi 6120	E8B Unpowered	NP-no number, Pine Tree
IHC/Rivarossi 1970	E8A Powered & E8A Unpowered	NP-9821A & NP-9822A, Loewy?
IHC/Rivarossi 6187	E8B Powered	NP-9821B, Loewy?
IHC/Rivarossi 6188	E8B Unpowered	NP-9822B, Loewy?

AHM/Mehano released an EMD FP45 in the mid-1970s in the Pine Tree scheme. The prototype FP45 was purchased by the Milwaukee Road and Santa Fe railroads for passenger service.

Model Numbers	<u>Type</u>	<u>Loco Numbers</u>
5150-E / 5150-05	FP45 Powered	NP-1246
5150-ED	FP45 Unpowered	NP-1246

In the early 1980s Tyco released a Baldwin RF-16 in the NP Loewy scheme. The prototype locomotive was purchased by a few eastern railroads but not by any western railroad.

Model Numbers	<u>Type</u>	Loco Numbers
222-72	RF16 - A unit	NP-no number

GAS ELECTRICS AND RDCs

The NP had a variety of gas electrics and Budd Rail Diesel Cars (RDC) that were used on local mainline and branchline trains. There are several accurate gas electric models available, all of them brass.

Oriental Ltd 1924 EMC Gas Electric Northern Pacific and others (unpainted brass) is a model of the 59'-4" L coach-baggage units built by EMC in 1924 to 1926. NP B-3 to B-8 appear to match this model. NP B-9 and B-10 are the same length but I could not locate a photograph of them to compare.

W&R Gas Electric B-14 (unpainted brass) is a model of the 74'-3" Coach-Baggage-Mail unit built by EMC in 1927. NP units B-15 & B-16 are the same length but are Baggage-Mail units that look significantly different.

W&R Brill Gas Electric B-17 (painted brass) is a model of the 77'-0.5" coach-baggage unit built by Brill in 1929.

There are several stand-in models available. The Walthers 60-ft EMC gas electric is based on a B&M prototype and is similar to the B-3 to B-8 units. It is available decorated as NP B-3 (932-6283). Suydam has produced an unpainted Brill Model 350 gas electric that might serve as a stand in for NP B-17. Modelers wanting one of the newer B-18 to B-25 series variety of 77'-0" L units built by EMC in 1927-1930 will need to scratchbuild them from either the Walthers or Bachmann Spectrum units.

The NP had a fleet of six Budd RDCs, including three RDC-2 Coach-Baggage: B30 purchased new in 1955, B31 and B32 purchased second-hand from WP in 1962; and three RDC-3 Coach-Baggage-RPO: B40 and B41 purchased new in 1956 and B42 purchased second hand from DM&IR in 1963. Modelers wanting a Northern Pacific RDC are well supplied due to the recent Rapido release. Proto 1000 has produced RDC-2 and RDC -3 units in the past. ATT produced a crude RDC in the late 1960s that was inaccurately lettered for NP-900 for the low end of the toy train market.

<u>Manufacturer</u>	<u>Type</u>	NP Unit Numbers
Proto-1000 #23980	RDC-2	B-30
Proto-1000 #23981	RDC-2	B-31
Proto-1000 #31246	RDC-3	B-42
Rapido #16147 DC, #16647 DCC sound	RDC-2	B-30
Rapido #16148 DC, #16648 DCC sound	RDC-2	B-31
Rapido #16149 DC, #16649 DCC sound	RDC-3	B-40
Rapido #16151 DC, #16651 DCC sound	RDC-3	B-41
Rapido #16150 DC, #16650 DCC sound	RDC-3	B-42

PASSENGER CARS

Passenger cars can be broadly split into two types: heavyweight and lightweight. The older heavyweight equipment was typically of riveted steel construction with clerestory roofs and three axle trucks. The NP purchased its first lightweight coaches in 1935 but did not purchase any more until 1947, when it started reequipping the *North Coast Limited* as a lightweight streamline train.

For this guide, passenger cars have been divided into three groups: ready to run reduced-length "shorty" stand-in cars, ready to run full-length stand-in cars, and prototypically accurate cars. The first practical consideration to look at when purchasing passenger cars is layout minimum curve radius. If the train is to be run on an existing layout with tight curves (less than 24" radius), the choice for rolling stock is limited to the so called "shorty" category. For these cars the manufacturer has reduced the length of the car from the prototypical length, such as making a car a scale 72 feet long instead of the prototype 85 feet long, to enable the car to easily negotiate the tight curves found on many model railways. The result is not prototypically accurate but is operationally functional for those who enjoy operating (running) their trains. Fellow modelers may notice the cars are short and understand the reason, but the majority of family and friends will just enjoy seeing the stylish *North Coast Limited* run around the layout.

Ready to Run Reduced Length "Shorty" Stand-in Cars

Many of the early models are more of a collectable antique than they are a contender for a prototypical NP train. However, for the sake of completeness and since they are often seen in the secondhand market, they will be included in this study.

Some of the earliest NP models were produced by Athearn, beginning in 1955. They are lightweight streamlined models with fluted sides and a whimsical NP scheme that does not match any known prototype. These are probably the least desirable models as they do not look anything like an NP passenger train. Athearn released EMD F7A/B units to match the cars.

Athearn Numbers Type		Car Numbers
1786	Baggage	NP-155
1796	72-ft Diner	NP-459, 468
1806	72-ft RPO	NP-3406
1816	Coach	NP-3150
1826	Vista Dome	NP-500
1836	Observation	NP-3246

Penn Line released an NP passenger train in 1955-1956 with 60-ft diecast cars built by Fleischmann in Germany. These models are smooth-sided with a fairly nice Loewy scheme and mostly prototype numbers. Unfortunately, the cars are based on styling from German coaches of the late 1930s, and are not very American-looking. The two train sets were pulled by EMD F7 units listed previously.

Set Numbers	Model Numbers	<u>Type</u>	Car/Loco Numbers
5503	520	Baggage	NP-425
5503	530	Coach	NP-586
5503	540	Club (Diner)	NP-451
5506	520	Baggage	NP-425
5506	530	Coach	NP-586
5506	540	Club (Diner)	NP-451
5506	550	Pullman	NP-357

Somewhat better-looking NP models were produced by Gilbert American Flyer in 1957-1962. The models, later used by Tyco, were lightweight streamlined models with fluted sides in the Loewy scheme. Four different cars were available with the model number also used as the car number. The cars have windows with silhouettes of passengers to make them look occupied. Unfortunately, the coarse fluted siding does not really capture the look of smooth-sided NP trains.

Model Numbers	<u>Type</u>	Car Numbers
540/33540	Baggage/Club	NP-540 / NP-33540
541/33541	Coach	NP-541 / NP-33541
542/33542	Vista Dome	NP-542 / NP-33542
543/33543	Observation	NP-543 / NP-33543

In the early 1970s MDC/Roundhouse released a series of old-time 34-ft Overton cars. The coach and combine were based on Sierra Railroad prototypes built in 1902 that were purposely short to negotiate the

switchbacks of the Angels branch. The baggage and observation car were fictional. Although undeniably "cute" they are not similar to any NP prototype, nor is the paint scheme accurate. NP cars of the same period were 60 or 70 feet long.

MDC Numbers	<u>Type</u>	Car Numbers
3704	Coach	NP-none
3724	Combine	NP-none
3734	Business Car	NP-none
3744	Baggage	NP-none

In the mid-1980s Mantua Classic Trains released a *North Coast Limited* set with fluted-side passenger cars in the Loewy scheme. The train consisted of a powered F7A, unpowered F7B, and seven cars. It has a greater variety of cars than the earlier Gilbert American Flyer set and does not have the toy-looking passenger silhouettes in the windows, but the fluted sides do not really convey the feeling of an NP train.

Mantua Numbers Type		Car Numbers
221-04	Baggage	NP-none
222-04	Combine	NP-none
223-04	Coach	NP-none
224-04	Diner	NP-none
225-04	Sleeper	NP-none
226-04	Observation	NP-none
227-04	Vista Dome	NP-none

Con-Cor's series of 72-ft smooth-side lightweight cars with an 18" minimum radius are said to be based on C&NW or UP prototypes. They were released in the Pine Tree scheme in 2012 and the Loewy scheme in 2016. They are the best-looking lightweight shorty cars available.

Con-Cor NP Pine Tree scheme:

Model Numbers	<u>Type</u>	Car Numbers
94710	Coach	NP-558?
94711	RPO	NP-225
94712	Dome Car	NP-558?
94713	Observation	NP-392?
94714	Sleeper	NP-353
94715	Diner	NP-460?
94716	Baggage	NP-402?
Con-Cor Loewy scheme:		
Model Numbers	<u>Type</u>	Car Numbers
190019 / 1-900S	Coach	NP-589
192019	RPO	NP-
194019	Vista Dome	NP-556
196019	Observation	NP-
198019 / 1-980S	Sleeper	NP-Butte
1100019 / 1-1006S	Diner	NP-450
1102019	Baggage	NP-

Con-Cor has also released a series of 65-ft heavyweight cars in the Pine Tree scheme. These cars are only about 5 ft shorter than typical heavyweight cars and about 15 ft shorter than typical Pullman sleepers. NP RPOs were 60-ft and 70-ft, so the RPO is either too short or too long.

Model Numbers Type Car Numbers

Model Numbers	Type	<u>Car Numbers</u>
94225	Coach	NP-785
94325	RPO	NP-165/158
94375	Combine	
94425	Solarium-Observation	NP-Menoken or Wynooche
94475	Parlor Lounge Buffet	•

Athearn Roundhouse has released their lightweight streamlined models with fluted sides in a Loewy scheme. These are far better-looking than their original release and have mostly accurate car numbers, but the fluted side cars do not really look like the smooth-sided NP prototypes.

Roundhouse Numbers Type Car Nu	mbers
82973 72-ft RPO NP-425	5
82974 Baggage NP-210)
82975 Coach NP-594	1
82976 Vista Dome NP-330)
82977 72-ft Diner NP-463	3
82978 Observation NP-390)

Mantua has recently released an 1860s coach and combine lettered for NP. These models were originally tooled in the mid-1950s as the Tyco General Set and are Civil War era flat-roofed passenger cars. The NP purchased later clerestory-roofed passenger cars which look significantly different and are longer.

Mantua Nun	<u>Car Numbers</u>	
717004	Combine	NP-120
718004	Coach	NP-152

Ready to Run Full-Length Stand-in Cars

Full-length cars look more prototypical but generally require a layout with 24" minimum radius curves to operate and even larger radius curves to look good operating. A wide variety is available and it is possible to put together a good-looking *North Coast Limited. The Mainstreeter* is more problematic in that there is a lack of heavyweight equipment in the Loewy scheme.

Balboa imported a five-car brass set made by Katsumi in the 1960s in the Loewy scheme. Balboa No. 855 included an RPO, coach, sleeper, dome car, and round-end observation. None of the cars had car numbers. They have no known prototype but are somewhat similar to Great Northern cars. The cars include wire grab irons but are easily identified by having no end detail. The set is nice-looking but can be expensive. Westside also imported these sets. At least some of the cars were also available individually.

The AHM 1930s cars, made by Rivarossi in Italy, were some of the first full-length passenger car models. They are smooth-side lightweight models based on PRR and UP prototypes. The observation car is based on a PRR prototype with a squared-off end—the prototype NP observation car had a rounded end. The RPO is a modernized heavyweight car and is also significantly different from the NP prototype. An attractive set was put out in the Pine Tree scheme in the 1960s. It should also be noted that the prototype NP dome car was never painted in the Pine Tree scheme. In the mid-1980s Rivarossi released the cars again, and IHC Rivarossi did another release in the early 1990s. The diner seems to have been a later addition.

AHM Model Numbers	<u>Rivarossi Numbers</u>	<u>Type</u>	Car Numbers
6284-G	2804/0	Duplex Sleeper	NP-5031
6285-G	2825	Baggage	NP-503
6440	2765	85-ft sleeper	NP-Roomette
6441	2776/0	Observation	NP-Montana Club
6403-NP / 6442	2773/0	72-ft RPO	NP-155
6443	2775	85-ft Coach	NP-6443
6444	2764	85-ft Dome Coach	NP-557
	2817	Diner	NP-451
	9143	8-car set	

In the late 1980s-early 1990s IHC Rivarossi finally released the 1930s cars in the Loewy scheme. These cars should not be confused with the later IHC cars which have cruder detail.

IHC/Rivarossi#	<u>Type</u>	Car Numbers
6065	Baggage	NP-203
6066	RPO	NP-100

6067	Coach	NP-581
6068	Pullman/Roomette	NP-364, 367
6069	Vista Dome	NP-550
6070	Duplex Sleeper	NP-353, 350
6071	Diner	
6072	Observation	
9155	8-car set	

Athearn has released their heavyweight cars, originally introduced in 1960, in the Pine Tree scheme. The cars are generic but based on typical Pullman construction. All are 72-ft long, except for the RPO which is 67 ft. They were given plausible NP numbers and are approximately the correct length except for the Pullman sleeper and the observation car, which are short compared to the usual 80-ft -plus length for a Pullman sleeper.

<u>Car Numbers</u>
NP-1574
NP-1101
Sleeper NP-Chief Black Foot
NP-1298
ind-roof NP-1272
restory NP-627
on NP-1714

Bev-Bel has released the heavyweight Athearn passenger cars in the Pullman green scheme.

Bev-Bel (Athearn) Pullman green scheme

Model Numbers	Type	Car Numbers
5502	Diner	NP-1697
5503	Pullman Sleeper	NP-Chief Baptista
5504	Pullman Sleeper	NP-Tenino
5505	Observation	NP-North Coast Ltd.
5506	Coach	NP-3140

IHC released full-length lightweight passenger cars in the 2000s that were not based on the Rivarossi cars. The observation car has a rounded end, similar to the NP prototype. The baggage, combine, and RPO cars have a baggage door located near the end of the car, which the prototype NP cars never had. The cars were released in the Loewy scheme and have relatively accurate car numbers.

IHC Numbers	<u>Type</u>	Car Numbers
48191	Coach smooth-side PS	NP-587
48192	Dining Car smooth-side PS	NP-455
48193	Observation smooth-side PS	NP-391
48194	Combine smooth-side PS	NP-432
48195	RPO smooth-side	NP-424
48196	Sleeper smooth-side	NP-480
48197	Vista Dome smooth-side	NP-559

IHC also released full length heavyweight cars in the Pine Tree scheme with fairly accurate numbers. They are not based on any known prototype and are not as detailed as the older Rivarossi heavyweight cars. The paint scheme is not as well executed as on the Athearn heavyweight cars.

IHC Numbers	<u>Type</u>	Car Numbers
49520	Baggage	NP-150
49521	Coach	NP-621
49522	Combine	NP-155
49523	Diner	NP-1697
49524	Observation	NP-1710
49525	RPO	
49526	8-1-2 Sleeper	NP-Chief Rocky Bear
49527	12-1 Sleeper	NP-Tenino

MTH released full-length lightweight passenger cars in the early 2010s in the Pine Tree scheme with somewhat accurate numbers. The cars are based on Southern Pacific *Daylight* prototypes. A 5-car and 3-car set were produced. A baggage car (MTH 80-60083) was advertised but not produced. These cars were released at the same time as the MTH EMD F7s listed earlier.

MTH Numbers	<u>Type</u>	<u>Car Numbers</u>
81-60008	Combine	NP-429
81-60008	Parlor	NP-500
81-60008	Coach	NP-590
81-60008	Tavern	NP-492
81-60008	Observation	NP-391
81-60016	Sleeper	NP-507
81-60016	Sleeper	NP-517

Branchline Trains has produced a paired-window coach, based on a Chesapeake & Ohio prototype, in the Pine Tree scheme (No. 5715). Atlas has released the coaches as a ready to run model in the Pine Tree scheme as NP-621 (20004965), NP-627 (20004966), and NP-609 (20004967).

Walthers has released a variety of lightweight passenger cars in the Loewy scheme. The majority are standin cars. The Budd Slumbercoach is accurate for NP, the Budd vista dome coach is based on a GN prototype which has only minor differences in roof vents from the NP prototype.

Walthers Nos.	Type	Car Numbers
932-6706	Pullman Standard 4-4-2 Sleeper	NP-no number
932-6726	Pullman Standard 6-6-4 Sleeper	NP-no number
932-6746	Pullman Standard 10-5 Sleeper	NP-no number
932-6766	Pullman Standard 52-seat coach	NP-no number
932-6786	Pullman Standard 64-seat Coach	NP-no number
932-6806	Pullman Standard 72-ft Baggage	NP-no number
932-6826	Pullman Standard Diner	NP-no number
932-6846	Pullman Standard Plan 4140 10-6 Sleeper	NP-no number
932-6905	ACF Railway Post Office-Baggage	NP-no number
932-6926	ACF 44-seat Coach	NP-no number
932-9095	Budd 46-seat Vista Dome Coach	NP-no number
932-9406	Pullman Standard 12 DB Sleeper	NP-no number
932-15207	Pullman Standard 10-5 Sleeper	NP-no number
932-15252	Pullman Standard 4-4-2 Sleeper	NP-no number
932-15354	Pullman Standard 48-seat Diner	NP-no number
932-16362	Budd Slumbercoach 24-8 Sleeper	NP-no number

Rapido has released a number of lightweight Canadian prototype models in the Loewy scheme. These are highly detailed cars.

Rapido Nos.	<u>Type</u>	Car Numbers
100036	Lightweight Coach	NP-581
100037	Lightweight Coach	NP-582
100038	Lightweight Coach	NP-583
100039	Lightweight Coach	NP-584
100040	Lightweight Coach	NP-585
100339	C&CF 52-seat Day-Nite Leg Rest Coach	NP-578
100340	C&CF 52-seat Day-Nite Leg Rest Coach	NP-579
100341	C&CF 52-seat Day-Nite Leg Rest Coach	NP-580
100342	C&CF 52-seat Day-Nite Leg Rest Coach	NP-582
100343	C&CF 52-seat Day-Nite Leg Rest Coach	NP-584
101036	Duplex Sleeper	NP-367
101037	Duplex Sleeper	NP-368
101038	Duplex Sleeper	NP-369
101039	Duplex Sleeper	NP-371

101040	Duplex Sleeper	NP-372
103043	Café-Bar-Lounge Holiday Lounge	NP-492
103044	Café-Bar-Lounge Holiday Lounge	NP-493
104066	10-5 Sleeper	NP-364
104067	10-5 Sleeper	NP-365
106055	73'-6" Baggage Express	NP-210
106056	73'-6" Baggage Express	NP-213
106057	73'-6" Baggage Express	NP-221
106058	73'-6" Baggage Express	NP-225
106059	73'-6" Baggage Express	NP-226
106060	73'-6" Baggage Express	NP-229
107143	Steam Generator	NP-H1
107144	Steam Generator	NP-H2
107145	Steam Generator	NP-H3
107146	Steam Generator	NP-H4
107227	Steam Generator	NP-H4
107228	Steam Generator	NP-H5
107229	Steam Generator	NP-H6
107230	Steam Generator	NP-H7
111042	First Grill-Parlor	NP-487
111043	First Grill-Parlor	NP-488
111044	First Grill-Parlor	NP-490
111045	First Grill-Parlor	NP-491
113060	6-6-4 Sleeper	NP-350
113061	6-6-4 Sleeper	NP-352
113062	6-6-4 Sleeper	NP-355
113063	6-6-4 Sleeper	NP-359
113064	6-6-4 Sleeper	NP-361
124046	Diner	NP-450
124047	Diner	NP-454
124048	Diner	NP-457

Prototypically Accurate Cars

Many NP modelers have waited for years for an accurate to be available from Walthers, Rapido, Broadway Limited, or other manufacturer. Similar western dome trains such as the Great Northern *Empire Builder*, Milwaukee Road *Hiawatha*, CB&Q/D&RGW/WP *California Zephyr*, Santa Fe *Super Chief*, Santa Fe *El Capitan*, Union Pacific *Cities* train, and Canadian Pacific *Canadian* have been produced. However, the high cost of tooling a complete train has kept this list from being expanded and it is quite possible there will not be an accurate ready to run *North Coast Limited* in the future.

There are very few plastic ready to run cars that are prototypically accurate for NP. For those modelers who want to have a complete train there are a number of choices but they require either some modeling skill and time, or a significant available budget. The choices for prototypically accurate cars include car sides/kits, unpainted brass, factory painted brass, or kitbashing/scratchbuilding. Lightweight streamlined cars have a greater variety of options, heavyweight cars have fewer kits and the modeler is more dependent on brass or scratch building/kitbashing.

Kit modeling is typically using brass, plastic, or acrylic sides. The sides may be sold separately from the car body as Brass Car Sides and Union Station. These will require a core kit with roof, ends, and floor to complete. Older core kits had wood roofs and floors with cast metal ends. Newer core kits are plastic. Trucks and underbody details may need to be purchased separately. Grabirons will also need to be applied. Some sides are designed to be attached to specific ready to run cars. Other companies such as Bethlehem Car Works, Branchline, and NKP Car Co. sell complete kits. Kits are typically the least expensive method of modeling accurate passenger cars but require some modeling skill. The Brass Car Sides website has a free construction article available as a PDF download.

Brass is considered by many modelers to be cost-prohibitive; however, the earlier 1980s unpainted brass models may be purchased in the \$90 to \$150 range for the Oriental Limited, Soho, Palace Car, Cascade and AWE models. W&R heavyweight models usually go for more money but have more detail. The cost of much of the older brass is about what it sold for originally. This is also about the same range as the current ready to run models from Walthers and Rapido. There is the additional cost of paint, decals, interior details, and perhaps lighting that needs to be added, but the overall cost is still not outlandish. It is interesting and perhaps cautionary that the majority of brass cars from the 1980s are still not painted over thirty years later.

Factory-painted brass models are available for those with the budget for them. They are of more recent manufacture and are better detailed than the older unpainted models. With a price typically in the \$300 to \$800 range they are beautiful models if you can afford them. Challenger Imports' 1948 *North Coast Limited* set in the Pine Tree scheme and 1955 *North Coast Limited* sets in the Loewy scheme offer a complete train plus add-on cars.

Scratchbulding/kitbashing is a potentially low-cost option for those cars that are not available or not available within the budget of the modeler. General techniques can be found in a number of articles in various modeling magazines. Archer rivets have made the previously time-consuming process of embossing or harvesting and reusing individual rivets much simpler. *Mainline Modeler* magazine has published drawings of a number of the NP heavyweight cars. Photos can also be scanned and scaled out using computer software to plan out other cars. 3-D printing is also an option for those that are patient and computer savvy enough to learn it.

ROSTER OF ACCURATE NP PASSENGER CAR MODELS

The car length listed is the length over end sills. This length is more useful from a model perspective than coupled length (typically 85'-0" for lightweight cars). The coupled length of a model passenger car is typically a bit larger than the prototype to allow for the tighter radius curves on a model railway. Modelers with only large radius curves can modify coupler shank and mounting to allow for closer to prototype coupling.

HEAVYWEIGHT

NP 98-99: Postal, 60'-3" L, Pressed Steel Car Co. 1914

W&R Version 1 - Postal, Pullman green (factory painted brass)

W&R Version 2 - Mail Storage, Pullman green (factory painted brass)

W&R Version 3 - Mail Storage, Pine Tree (factory painted brass)

W&R Version 4 - Mail Storage, Loewy (factory painted brass)

NP 100-101: Postal, 80'-5" L, Pullman Car & Mfg. Co., 1918, 1921

(former Pullman Tourist Sleepers converted to Postal cars in 1951)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

LIGHTWEIGHT

NP 200-202: Baggage, 71'-8" L, Pullman-Standard (PS), 1956 Railway Classics NP-01 Loewy (factory painted brass)

NP 203-239: Baggage, 71'-8" L, PS, 1956-1963

(NP 208 and 209 renumbered 406 and 408 in 1962; 210 and 218 renum. 408 and 409 in 1965, 211 renum. 410 in 1966; 222 renum. 411 in 1967)

AWE 0112 (unpainted brass)

Railway Classics NP-02 Loewy (factory painted brass)

CB&Q 304-305, SP&S-306, NP 307-31: Dome Sleeper 4-4-4, 82'-6" L, Budd, 1954/1957

(NP 307-308, 311-812, 314, and CB&Q 304 renum. NP 375-379 and CB&Q-380 Lounge in the Sky, in 1967)

Brass Car Sides 173-24 (Concor) & 173-84 (Walthers)

Challenger Imports 2256.1S & 2256.2S, Loewy (factory painted brass, 10-car set)

Northstar Railroad Models 3200 (acrylic sides)

Oriental Ltd (unpainted brass)

Union Station Products 9669-141 (styrene sides)

NP 325-334, CB&Q 335-336: Slumbercoach 24-8, 82'-6"L, Budd, 1959

(NP 329-336 bought used, 1964)

Oriental Ltd stainless steel (factory plated brass)

Shoreham Shops NP-07 stainless steel (factory plated brass)

Union Station Products 9691-090 (styrene sides)

Walthers 932-16362 stainless steel (Ready to Run plastic)

NP 350-363, SP&S 366, CB&Q 480-482: Sleeper 8-6-3-1, 82'-10" L, PS, 1948

("City" series cars in the Pine Tree scheme, cars numbered in the Loewy scheme; NP-353 and 354 wrecked at Evaro in 1962; NP 350, 351, 352, 359 and 361 to dorm sleeper NP 442, 443, 440, 444, and 441 in 1965)

Brass Car Sides 173-5 (brass sides)

Challenger Imports 2257.2S and 2257.4S Loewy (factory painted brass, 3 car sets)

Challenger Imports 2351.1S Pine Tree (factory painted brass, 10 car set)

Challenger Imports 2351.2S and 2351.3S Pine Tree (factory painted brass, 3 car sets)

Northstar Railroad Models (acrylic sides)

Oriental Ltd (unpainted brass)

Union Station Products 4119 (styrene sides)

NP 364-365: Sleeper 10-6, 82'-10" L, PS, 1950

(used on NP train 407/408-SP 11/12, *Cascade*)

Brass Car Sides 173-51 (brass sides)

Great Brass Fleet (unpainted brass)

Union Station 4140C (styrene sides)

Union Terminal Imports 1081 & -1 SP General Service (factory painted brass)

Union Terminal Imports 1081-2 & 3 Loewy (factory painted brass)

SP&S-366, NP 367-372: Sleeper 8-6-4, 82'-10" L, PS, 1954

Athabasca (brass sides kit)

Challenger Imports 2256.1S & 2256.2S Loewy (factory painted brass, 10-car set)

Northstar Railroad Models 5200 (acrylic sides)

Oriental Ltd (unpainted brass)

Palace Car Co 900 (unpainted brass)

NP 375-379, CB&Q 380: Dome Sleeper Lounge, 82'-6" L, Budd, 1954/1957

(rebuilt 1967 from NP 307-308, 311-812, 314, and CB&Q 304 with Lounge in the Sky)

Brass Car Sides 173-24 for Concor dome (brass sides)

Brass Car Sides 173-84 for Walthers dome (brass sides)

Northstar Railroad Models 3200 (acrylic sides)

Oriental Ltd (unpainted brass)

Union Station Products 9669-141 (styrene sides)

NP 390-394, CB&Q-483: Sleeper 4-1-Buffet Lounge-Observation, 83'-4" L, PS, 1948

(originally "Club" series, given numbers with Loewy repaint in 1954-55)

Challenger Imports 2256.1S and 2256.2S Loewy (factory painted brass, 10-car set)

Challenger Imports 2351.1S Pine Tree (factory painted brass, 10-car set)

Northstar Railroad Models 6200 (acrylic sides)

Oriental Ltd (unpainted brass)

Union Station 4120 (styrene sides)

NP 400-405: Water Baggage, 82'-10" L, PS, 1947

(NP-402 wrecked at Granite 1962, NP-405 wrecked at Evaro, Mont., 1962)

Brass Car Sides 173-56 (brass sides)

Challenger Imports 2256.1S & 2256.2S Loewy (factory painted brass, 10-car set)

Challenger Imports 2351.1S Pine Tree (factory painted brass, 10-car set)

Northstar Railroad Models 1200 (acrylic sides)

Oriental Ltd (unpainted brass)

Union Station 7532 (styrene sides)

NP 406-411: Water Baggage, 71'-8" L, PS built 1947

AWE 0113 (unpainted brass)

Northstar Railroad Models 1201 (acrylic sides)

Railway Classics NP-06 Loewy (factory painted brass)

NP 425-429, CB&Q 430: Mail Dormitory, 82'-10" L, PS, 1947

(CB&Q-430 renumbered CB&Q-479 in 1954)

Brass Car Sides 173-50 (brass sides)

Challenger Imports 2256.1S & 2256.2S Loewy (factory painted brass, 10-car set)

Challenger Imports 2351.1S Pine Tree (factory painted brass, 10-car set)

Northstar Railroad Models 1202 (acrylic sides)

Oriental Ltd (unpainted brass)

Union Station Products 7533 (styrene sides)

NP 450-454, CB&Q-455: Diner-Lunch Counter, 82'-10" L, PS, 1947

(rebuilt to full diner in 1953-54, 450-453 and 455 rebuilt to diner-lounge in 1962; 450-451, 453-454 to economy buffet in 1966-1968)

Brass Car Sides 173-61 Diner (1953-54 version) (brass sides)

Challenger Imports 2351.1S (1947 version) (factory painted brass, 10-car set)

Challenger Imports 2256.1S (1953-54 version) (factory painted brass, 10-car set)

Northstar Railroad Models 4200 (1953-54 version) (acrylic sides)

Oriental Ltd (1953-54 version) (unpainted brass)

Union Station Products 7534 (1947 version) (styrene sides)

Union Station Products 7534A (1953-54 version) (styrene sides)

NP 456-457: Diner, 82'-10" L, PS, 1953

(NP-456 rebuilt to diner-lounge in 1962, 456-457 rebuilt to economy buffet, 1967)

Brass Car Sides 173-61 Diner (1953-54 version) (brass sides)

Northstar Railroad Models 4200 (1953-54 version) (acrylic sides)

Oriental Ltd (1953-54 version) (unpainted brass)

Union Station Products 7534A (1953-54 version) (styrene sides)

NP 459-463, CB&Q-458: Diner, 82'-6" L, Budd, 1957

Brass Car Sides 173-29 (Con-Cor) (brass sides)

Brass Car Sides 173-89 (Walthers) (brass sides)

Challenger Imports 2256.2S Loewy (factory painted brass, 10-car set)

Oriental Ltd (unpainted brass)

Union Station Products 9624-210 (styrene sides)

NP 487-491: Parlor Bar Holiday Lounge, 82'-10" L, PS, 1956

(rebuilt to deluxe coach 581-585 in 1962-63)

Brass Car Sides 173-65 (brass sides)

Shoreham Shops NP-03 (unpainted brass)

NP 492-493: Parlor Bar Holiday Lounge, 82'-10" L, PS, 1954

Brass Car Sides 173-65 (brass sides)

Northstar Railroad Models 4202 (acrylic sides)

NP 494-498, CB&Q-499: Coach Buffet Lounge, 82'-10" L, PS, 1947

(rebuilt to Lewis & Clark Travellers Rest lounge in 1955)

Brass Car Sides 173-19 (post-1955) (brass sides)

Challenger Imports 2256.1S Loewy (post-1955) (factory painted brass, 10-car set)

Challenger Imports 2351.1S Pine Tree (pre-1955) (factory painted brass, 10-car set)

Northstar Railroad Models 4201 (post-1955) (acrylic sides)

Oriental Ltd (pre-1955) (unpainted brass)

Oriental Ltd (post-1955) (unpainted brass)

Union Station 7511 (pre-1955) (styrene sides)

Union Station 7511R (post-1955) (styrene sides)

NP 500-517: Reclining Seat Coach, 82'-10" L, PS, 1946

AWE 0114 (unpainted brass)

Brass Car Sides 173-30 (brass sides)

Challenger Imports 2256.1S & 2256.2S Loewy (factory painted brass, 10-car set)

Challenger Imports 2351.1S Pine Tree (factory painted brass, 10-car set)

Challenger Imports 2351.2S & 2351.3S Pine Tree (factory painted brass, 3-car set)

Oriental Ltd (unpainted brass)

Railway Classics NP08 Loewy (factory painted brass)

Union Station 7510 (styrene sides)

NP 518-526: Reclining Seat Coach, 82'-6" L, PS, 1946-47, PS rebuilt 1958

(former C&NW bought 1962-63)

Brass Car Sides 173-1 (brass sides)

Northstar Railroad Models 2300 (acrylic sides)

Railway Classics NP04 Loewy (factory painted brass)

Union Station 7485R (styrene sides)

NP 527: Reclining Seat Coach, 79'-2" L, PS built 1953

(Fluted sides, former MKT bought 1966)

Overland Models AF-1114-1 stainless steel (factory painted brass)

Union Station 7636A (styrene sides)

NP 528-532: Reclining Seat Coach, 79'-2" L, PS, 1955

(Fluted sides, former MKT bought 1966)

Overland Models AF-10169-1 to 4 stainless steel (factory painted brass)

Union Station 7647 (styrene sides)

NP 549-556, CB&Q 557-558, SP&S-559: Vista Dome Coach, 82'-6" L, Budd, 1954/57

Brass Car Sides 173-20 (brass sides)

Challenger Imports 2256.1S & 2256.2S Loewy (factory painted brass, 10-car set)

Challenger Imports 2257.1S & 2257.2S Loewy (factory painted brass, 3-car set)

Oriental Ltd (unpainted brass)

Soho (unpainted brass, GN prototype, roof vents have minor differences)

Union Station 9646-141 (styrene sides)

Walthers 932-9095 (ready to run plastic, GN prototype, roof vents have minor differences)

NP 581-585: Day-Nite Coach, 82'-10" L, PS, 1956

(rebuilt from parlor-bar Holiday Lounge 487-491, 1962-63)

Northstar Railroad Models 2200 (acrylic sides)

Shoreham Shops NP05 (factory painted brass)

NP 586-587: Day-Nite Coach, 82'-10" L, PS, 1954

Brass Car Sides 173-72 (brass sides)

Soho 2301 (unpainted brass)

NP 588-597, CB&Q 598-599: Day-Nite Coach, 82'-10" L, PS, 1947-48

AWE 0115 (unpainted brass)

Brass Car Sides 173-4 (brass sides)

Challenger Imports 2256.1S & 2256.2S Loewy (factory painted brass, 10-car set)

Challenger Imports 2351.1S Pine Tree (factory painted brass, 10-car set)

Challenger Imports 2351.2S Pine Tree (factory painted brass, 3-car set)

Northstar Railroad Models 2201 (acrylic sides)

Oriental Ltd (unpainted brass)

Railway Classics NP-09 Loewy (factory painted brass)

Wright Enterprises (stamped metal sides)

HEAVYWEIGHT

NP 600-636: Coach, 73'-6" L, Pullman, 1910-1917

(rebuilt 1941 from Pullman Parlor cars)

Branchline Trains sleeper kitbash (article in Spring 2009 NPRHA *Mainstreeter*)

Bethlehem Car Works 1104 (resin car sides)

Cascade 2450 NP-609 series (unpainted brass)

Cascade 2455 NP-604 series (unpainted brass)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

NP 700-724: 10-1-1 Sleeper, 74'-6" L, Pullman, 1930

(Pullman plan 3973A Chief series bought 1948, originally numbered in NP 300-324 series and renumbered in 1954-59)

Atlas 20003623 NP Pine Tree, Chief Black Bear (RTR)

Atlas 20003624 NP Pine Tree, Chief Many Horns (RTR)

Atlas 20003625 NP Pine Tree, Chief Standing Buffalo (RTR)

Bethlehem Car Works 1503 NP Pullman Green (plastic kit)

Bethlehem Car Works 1504 NP Loewy (plastic kit)

Bethlehem Car Works NP Pine Tree (plastic kit)

Branchline 5527 NP Pine Tree, Chief Black Bear (plastic kit)

Branchline 5528 NP Pine Tree, Chief Many Horns (plastic kit)

Branchline 5529 NP Pine Tree, Chief Standing Buffalo (plastic kit)

NKP Car Co Chief series (brass sides kit)

Soho 2114 (unpainted brass)

W&R Pullman green Chief series (factory painted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 740-743: 6-6 Sleeper, 76'-4" L, Pullman, 1916-1920

(Pullman plan 4084 Poplar series, bought 1948. CB&Q also purchased four cars from Pullman in 1948 for use on the *North Coast Ltd* - 1 plan 4060, 2 plan 4084, and 1 plan 4084B)

NKP Car Co Poplar series Plan 4084 and 4084B (brass car side kit)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 798-799: Dormitory Coach, 70'-10" L, Pullman, 1915

(renumbered from NP 1100-1101, former NP 1220-1221 series coach)

W&R Loewy (factory painted brass)

NP 900-931: Coach, 60'-0" L, Pullman, 1901

W&R Pullman green (factory painted brass)

NP 932-951: Coach, 60'-0" L, Pullman, 1902

W&R Version 1 Pullman green (factory painted brass)

W&R Version 2 Pullman green (factory painted brass)

NP 1000-1049: Coach, 70'-0" L, Barney & Smith (B&S), 1907

W&R Pullman green (factory painted brass)

NP 1100-1101: Coach Tourist, 70'-10" L, Pullman, 1915

(former NP 1220-1221 series coach rebuilt to coach-tourist in 1938, later renumbered NP 798-799)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

NP 1100-1102: RPO-Baggage-Coach, 73'-6" L, Pullman, 1914

(rebuilt from 600-636 series coaches in 1947-1948)

Cascade 2520 NP-1100 (unpainted brass)

Cascade 2521 NP-1101 (unpainted brass)

Cascade 2522 NP-1102 (unpainted brass)

W&R Pine Tree (factory painted brass)

NP 1164-1181: Smoker, 70'-0" L, B&S, 1909

(former 750-769 series rebuilt with steel underframes by Pullman in 1922)

W&R Pullman green (factory painted brass)

NP 1194-1199: Baggage Smoker, 70'-0" L, Pullman, 1901; B&S, 1909

W&R Pullman green (factory painted brass)

W&R Loewy (factory painted brass)

NP 1206-1227: Coach, 70'-10" L, Pullman, 1915

W&R (unpainted brass)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 1233-1254: Coach, 70'-0" L, B&S, 1910; American Car & Fdry. (ACF), 1910

(rebuilt with steel underframes by Pullman in 1921)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

NP 1255-1257: Coach, 70'-0" L, B&S, 1909

(former 1050-1074 series coach, rebuilt by Pullman in 1922 with steel underframes as 1255-1257)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

NP 1292-1294: Café-Coach, 72'-0" L, B&S, 1910

(former NP 1658-1660 diners, rebuilt by Pullman in 1922 with steel underframes, converted to café coach in 1948)

W&R Pine Tree (factory painted brass)

NP 1298: Restaurant, 70'-10" L. Pullman, 1915

(former NP 1207 coach, converted to Restaurant car in 1937 for service on train 407/408)

W&R Pine Tree (factory painted brass)

NP-1299: Tavern, 70'-10" L, Pullman, 1915

(former NP-1202 first-class coach, converted to Tavern car in 1937 for service on train 407/408)

W&R Pullman green (factory painted brass)

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W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory Painted brass)
        W&R Loewy (factory painted brass)
NP 1342-1349: Deluxe Coach, 73'-6" L, Pullman, 1913-1921
(former Pullman tourist sleepers purchased 1948 and converted to coaches, 1954-55)
        W&R Loewy (factory painted brass)
NP 1350-1366: Deluxe Coach, 70'-10" L, Pullman, 1915
(former 1200-1232 series first-class coaches and 1150-1163 smoker-coaches, renumbered 1935-1937)
        W&R (unpainted brass)
        W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory Painted brass)
        W&R Loewy (factory painted brass)
NP 1370-1379: Deluxe Coach, 70'-10" L, Pullman, 1915
(former 1200-1232 series first-class coaches and 1150-1163 smoker-coaches, renumbered 1936-1938)
        W&R (unpainted brass)
        W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory Painted brass)
        W&R Loewy (factory painted brass)
NP 1380-1381: Reserved Seat Coach, 70'-10" L, Pullman, 1925
(former 1277-1278 coach, to reserved seat coach in 1937)
        W&R (unpainted brass)
        W&R Pullman green (factory painted brass)
NP 1402-1421: Mail & Express, 70'-0" L, Pullman, 1915
        W&R (unpainted brass)
        W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory painted brass)
        W&R Loewy (factory painted brass)
NP 1427-1430: Mail & Express, 70'-0" L, B&S, 1904
(former NP 155-158 rebuilt with steel underframe by Pullman in 1922)
        W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory painted brass)
NP 1443-1452: Mail & Express, 70'-0" L, ACF, 1929
        W&R (unpainted brass)
        W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory painted brass)
        W&R Loewy (factory painted brass)
NP 1480-1487: Baggage-Dormitory, 70'-0" L, B&S, 1907; ACF, 1908
(former mail & express cars rebuilt with steel underframes by Pullman in 1922, converted to dormitory-
express in 1929)
        W&R Pullman green (factory painted brass)
NP 1493-1499: Baggage-Dormitory, 73'-6" L, Pullman, 1910-1917
(former Pullman parlors, bought 1941 and converted to baggage-dormitory, 1942)
        W&R Pullman green (factory painted brass)
        W&R Pine Tree (factory painted brass)
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NP 1300-1303; Deluxe Coach (LIGHTWEIGHT), 74'-6" L. Pullman, 1935

NP 1493-1499: Baggage, 73'-6" L, Pullman, 1910-1917 (rebuilt from baggage-dormitory 1493-1499, 1960)

W&R Loewy (factory painted brass)

NP 1495-1496: Baggage-Dormitory, 73'-6" L, Pullman, 1914

(rebuilt 1942 from Pullman parlor cars, rebuilt to baggage cars in 1960)

Cascade 2440 (unpainted brass)

NP 1500-1515: Baggage, 70'-10", Pullman, 1915

W&R (unpainted brass)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 1517-1576: Baggage, 70'-0", ACF, 1908/1910; B&S, 1902-1909

(rebuilt by Pullman 1921-22 with steel underframes)

W&R (unpainted brass)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

NP 1587-1591: Baggage, 70'-10" L, Pullman, 1925

NKP Car Co 1500 series (brass sides kit)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 1516, 1564, 1592-1599: Baggage, 72'-0" L, B&S, 1906-1910

(formerly diners rebuilt with steel underframe by Pullman in 1921, rebuilt to baggage cars in 1939)

W&R Pullman green (factory painted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 1615-1640: Baggage, 73'-6" L, Pullman, 1911-1922

(rebuilt 1948-1950 from Pullman Sleepers)

Cascade #2530 (unpainted brass)

W&R Pine Tree (factory painted brass)

W&R Loewy (factory painted brass)

NP 1650-1673: Diner, 72'-0" L, B&S 1907, 1910

(rebuilt by Pullman 1921-22 with steel underframes)

W&R Pullman green, no air-conditioning (factory painted brass)

NP 1650-1655: Water Baggage, 73'-6" L, Pullman, 1915-1922

(former Pullman sleepers rebuilt to baggage cars in 1948-1950, converted to water baggage 1950-58)

W&R Loewy (factory painted brass)

NP 1661-1662, 1667: Café-Coach, 72'-0" L, B&S, 1910

(rebuilt with steel underframes by Pullman in 1921, rebuilt to café-lounge in 1933, rebuilt to café-coach in 1935)

W&R Pullman green, no air-conditioning (factory painted brass)

NP 1674-1679: Diner, HW 72'-10" L, Pullman, 1915

Cascade 2610 original (unpainted brass)

Cascade 2611 NP 1674-1676, 1678-1679 modernized (unpainted brass)

Cascade 2612 NP 1677 modernized (unpainted brass)

W&R NP 1677-1679 with air-conditioning, Pullman green (factory painted brass)

W&R NP 1677-1679 with air-conditioning, Pine Tree (factory painted brass)

NP 1680-1681: Coffee Shop-Coach, 72'-0" L, Pullman, 1925 (rebuilt 1957 from 1271-1280 series coaches) W&R Loewy (factory painted brass)

NP 1690-1698: Diner, 80'-2" L, Pullman, 1930 Challenger Imports 2410.1 (factory painted brass)

NP 1710-1719: Observation, 77'-3" L, Pullman, 1926 (NP-1716 to business car No. 2 in 1942, remainder sold to US Army in 1943) W&R Pullman green (factory painted brass)

NP 1730-1731: Parlor, 75'-0" L, B&S, 1910 (former NP-1785 & 1786 rebuilt with steel underframe by Pullman in 1922) W&R Version 1 Pullman green (factory painted brass) W&R Version 2 Pine Tree (factory painted brass)

NP 1732: Lounge-Coach, 70'-0" L, B&S, 1907 (former NP-1795 rebuilt with steel underframe by Pullman in 1922) W&R Pullman green (factory painted brass) W&R Pine Tree (factory painted brass)

PREPAINTED BRASS TRAINS

The 1948 *North Coast Limited* 10-car set, Challenger Imports 2351.1S, is factory painted in the Pine Tree scheme. Individual cars include: NP-400 Water Baggage, CB&Q-430 Mail Dormitory, NP-508 & 512 Day Coaches (2), NP-588 Day-Nite Coach, NP-452 Lunch Counter Diner, NP-497 Coach-Buffet-Lounge, NP "Walla Walla" 8-6-3-1 Sleeper, CB&Q "Savanna" 8-6-3-1 Sleeper, and NP "Tacoma Club" 4-1-Observation. Two 3-car add-on sets were also produced for the 1948 *North Coast Limited*, factory painted in the Pine Tree scheme. Set "A", Challenger Imports 2351.2S, included: NP-514 Day Coach, NP-590 Day-Nite Coach, and NP "Fargo" 8-6-3-1 Sleeper. Set "B", Challenger Imports 2351.3S, included: NP-517 Day Coach, SP&S-300 Day Coach, and NP "Portland" 8-6-3-1 Sleeper.

Two 1958 North Coast Limited 10-car sets were produced, factory painted in the Loewy scheme. Challenger Imports 2256.1S included: NP-401 Water Baggage, NP-427 Mail Dormitory, NP-501 Day Coach, NP-549 Budd Dome Coach, NP-598 Day-Nite Coach, NP-494 Travelers Rest Lounge, NP-450 Diner, NP-312 Budd Dome Sleeper, NP-367 8-6-4 Sleeper, and NP-390 4-1-Observation. Challenger Imports 2256.2S included: NP-404 Water Baggage, NP-425 Mail Dormitory, NP-515 Day Coach, NP-556 Budd Dome Coach, NP-589 Day-Nite Coach, NP-495 Travelers Rest Lounge, NP-459 Budd Diner, NP-304 Budd Dome Sleeper, NP-368 8-6-4 Sleeper, and NP-394 4-1-Observation.

There were also several 3 car 1955 *North Coast Limited* three-car add-on sets. Challenger Imports 2257.1S included: NP-553 Budd Dome Coach, CB&Q-481 8-6-3-1 Sleeper, and NP-307 Budd Dome Sleeper. Challenger Imports 2257.2S/4S included: SP&S-559 Budd Dome Coach, SP&S-366 8-6-3-1 Sleeper, and SP&S-306 Budd Dome Sleeper.

PULLMAN CARS

The Pullman Co. owned and operated sleepers and tourist sleepers on Northern Pacific trains until 1948. Some were assigned to NP trains but others were in pool service and used only for brief periods. In 1948, when the Pullman fleet was broken up, the NP purchased a number of heavyweight sleepers including NP 700-724 Chief series, NP 740-743 Poplar series, NP 749 Palm Point, and eight 3000 series tourist sleepers. CB&Q also purchased four 3000 series tourist sleepers and four Poplar series 6-6 sleepers from Pullman in 1948 for use on the *North Coast Limited*. There are many Pullman cars available from Bethlehem Car

Works, Branchline, NKP Car Co, Walthers, and others. The ones listed here are just some of the cars known to be assigned to NP trains.

Pullman 3000 series: 14-section Tourist Sleeper (plan 4061, 4061A & 4061B), HW (eight cars purchased by NP in 1948: 3095, 3096, 3121, 3130, 3135, 3136, 3138, and 3140, four cars were purchased by CB&Q in 1948 for use on the *North Coast Ltd*: 3023, 3029, 3066, 3119)

Coach Yard plan 4061 Pullman green (factory painted brass) W&R Pine Tree (factory painted brass)

Pullman 4000 series: 16-section Tourist Sleeper (plan 2412N, 2412T, 2412U), HW (twelve cars were assigned to the *North Coast Limited* in 1947: 4108, 4110, 4134, 4136, 4137, 4139, 4197, 4221, 4238, 4268, 4270, and 4295)

NKP Car Co plan 2410U (brass sides kit) W&R Pullman green (factory painted brass)

Pullman 12-1 sleeper (plan 2410), HW

Bethlehem Car Works plan 2410I (resin car sides kit)

Rivarossi plan 2410

W&R Pullman green (factory painted brass)

Pullman 14-section sleeper (plan 3958), HW

Branchline Atlas plan 3958/3958A (plastic kit)

Soho (unpainted brass)

W&R Pullman green (factory painted brass)

Pullman Canyon Series: Solarium Observation (plan 3975), HW Oriental Ltd #01000 plan 3975C (unpainted brass) W&R Pullman green (factory painted brass)

Pullman Club Series: Solarium Observation (plan 3989B, 3989F), HW

W&R Pullman green (factory painted brass)

W&R Loewy (factory painted brass)

GENERAL MODELING NOTES

PAINTING AND DECALS

Pullman green was the standard NP passenger car scheme until the introduction of the Streamliner/Pine Tree scheme in 1946. The Pine Tree scheme was dark green with a lighter green window band and yellow-gold trim and lettering. The Loewy scheme of two-tone green with white trim was introduced in 1953. Northern Pacific paint colors are available from Scalecoat and Tru-Color. Colors can be checked against NP color drift cards under layout lighting for accuracy. Some modelers believe that colors should be lightened slightly to compensate for the small size of models versus the prototype. Airbrushing is a very useful modeling skill to develop as it provides a far better finish than brush painting. Many modelers are hesitant to paint brass, however brass is a very forgiving material to paint. If you do a poor job, it is easy to strip the paint and try it again as many times as necessary. Custom painting is an option for those not wanting to do it themselves but can be expensive.

Champ, Herald King, Microscale, and Walthers have produced decals for NP passenger cars and locomotives. Care should be taken to ensure lettering decals are level by looking down the car from the end.

PAINT COLOR DIFFERENCES

There are some differences in paint shades or hues between some manufacturers ready to run equipment. Minor differences are normal in the prototype due to differences in paint sources and the effects of aging

and weathering. However, too much difference tends to be a bit jarring. One way to get around the problem is to paint the entire train to ensure all the paint is all the same shade. A less extreme approach is just repainting cars which are radically different shades.

SKIRTS

Lightweight passenger cars were originally delivered with skirting which covered the mechanical equipment underneath the car. The skirts were found to be a bothersome by maintenance personal and were later removed. The Oriental Limited brass cars are produced in skirted and non-skirted version. he Brass Car sides come with skirts but there is an option to have them removed. The modeler can also remove the skirting themselves.

UNDERBODY DETAILS

Besides the usual air brake equipment, the underbody of passenger cars was used as a location to mount a variety of mechanical and electrical equipment. These items included water tanks, generator, alternator, battery boxes, air conditioning compressor, air conditioning wet condenser, gas for cooking in dining cars, and all associated piping and electrical conduit. The amount of underbody detail varies greatly among manufacturers. Brass car manufacturers have consistently added more details over time, as can be seen in the car underbody photos. Modelers can add more detail to early brass cars. For those modelers constructing brass or acrylic side kits, the core kits have some underbody detail. Separate underbody detail is also available from American Scale Models, Bethlehem Car Works, Palace Car Company, Train Station Products, and others. The Official Pullman-Standard Library book has a good explanation of the various electrical and mechanical systems along with photos. As there are few available layout drawings for the underbody of passenger cars, car photos are the best source of information.

WINDOW GLAZING/SHADES

Most ready to run cars have glazing already. For the kits, unpainted brass, and other cars needing glazing 0.010" clear polystyrene sheet (Evergreen 9006 or equivalent) is recommended as it is thick enough that it will not become wavy. For restroom windows V-grove styrene painted silver can be used for the privacy windows. Window shades can be cut from white styrene. Be sure to cut them at varying heights to replicate the different preferences of the passengers. For windows along a corridor, such is in a sleeping car, the car attendant usual keeps them all the way up and a piece of stainless steel wire can be used to simulate the safety railing that protects the windows inside the car.

INTERIORS/PASSENGERS

Interiors and passengers are a nice feature to add to cars that do not have them. They are nearly a necessity for dome cars, but are less important for baggage cars. Sleeping cars should have interior partitions to prevent looking through the car in an unprototypical manner to the windows on the other side. For coaches, some seating and passengers make the car much more realistic. Interior seats and other details are available from Palace Car Co, Pikestuff, Red Cap Line, Railway Classics, and others. The importance of interiors and passengers is greater if interior lighting is to be installed. A well-lit car displaying an empty interior will be very noticeable.

INTERIOR LIGHTING

Interior lighting of passenger cars can be accomplished using a variety of LED light strips available from various model railway manufacturers including Rapido, Train Tech, and Walthers. The desirability of interior lighting varies with the modeler, the important question being: Are you going to use it? Some modelers consider it important to be able to turn off the room lights to better show off their well-lit passenger trains. Others may not see it as important feature, as they always run their trains with the room lights on. Modelers who have a prototype location for their layout may wish to consult the timetable to see when their trains went through. For example, in 1965 the *North Coast Limited* stopped at Billings at 11:00 a.m. and 1 p.m., when interior car lighting would not be apparent. However, *The Mainstreeter* stopped at

12-midnight and 3:30 a.m., when car lighting would be noticed. At those times, the coach interior lighting is dimmed so the passengers can sleep, but there is usually some light at the ends of the cars and the vestibules so people can use the restrooms and move about the train safely. To simulate this effect, parts of the LED light bar could be masked or painted to reduce the amount of light. If the train had stopped at 8 or 9 p.m., coaches would be well-lit and the LED light bar could be used as-is.

DRUMHEADS AND MARKER LIGHTS

Lighted drumheads appeared on the end observation car on the heavyweight and lightweight *North Coast Limited* and a number of other NP trains. Tomar Industries produces six different varieties of NP drumheads. Marker lights can also be added on tail-end cars; various lighted marker lights are available from ESU, LEDs Etc, Richmond Controls, Tomar, Utah Pacific, and others.

DIAPHRAGMS

The 1948 lightweight *North Coast Limited* cars were originally delivered with full-width diaphragms between cars. These are available from American Limited, Broadway Limited, Coachyard, Railway Classics, and Union Station. The full-width diaphragms were apparently problematic in service, as they did not appear on cars built for the railroad during the 1950s.

REFERENCES

There are a number of good reference books for modeling NP trains. *The Official Pullman-Standard Library Vol. 3: Great Northern - Northern Pacific - SP&S*, by W. David Randall and William M. Ross, provides interior and exterior photos and drawings of the Pullman Standard built lightweight cars. *The Passenger Car Library Vol. 3: Western Railroads*, by W. David Randall, contains interior and exterior photos and drawings of ACF and Budd-built lightweight cars. *NP Color Guide to Freight and Passenger Equipment*, by Todd Sullivan (Morning Sun), has photos of various passenger equipment. The NP Numerical Register of Equipment on the NPRHA website provides builder, renumbering, and disposition information for the passenger car fleet. PDF copies of the NP Passenger Car diagram books for 1936 and 1969 are available on DVD. "Passenger Cars of the Northern Pacific Railway: An All-time Roster, 1870-1970," compiled by Lorenz P. Schrenk, gives builder, rebuilding, and disposition information on the lightweight and heavyweight passenger car fleet.

The Vista-Dome North Coast Limited, William R. Kuebler Jr. (Oso Publishing), provides excellent information and photos of the 1954-1970 train. Northern Pacific Pictorial Vol. 4: The First Northern Transcontinental Becomes the Main Street of the Northwest, by John F. Strauss Jr. (Four Ways West) provides photos and consist information on a variety of NP trains from 1930 until 1951. His Northern Pacific Pictorial Vol. 5: Domes, RDCs and Slumbercoaches continues coverage from 1952 until 1970. Northern Pacific Through Passenger Service in Color, by Geoffrey H. Doughty (Morning Sun), offers ample color photo coverage of NP trains and equipment, mostly in the 1960s. Northern Pacific Public Timetables provide information on trains running during a specific time period along with their schedule, available online at NPRHA.com.

Andy Sperandeo's *Model Railroader's Guide to Passenger Equipment and Operation* (Kalmbach Publishing Co.) does not have specific NP content but does provide a good general overview of prototype and model passenger trains that may assist in understanding the operation of NP passenger trains. *The American Railroad Passenger Car*, by John H. White Jr. (Johns Hopkins), covers the evolution of construction materials and methods used for passenger cars and the various car types, and is especially useful for scratchbuilders. *Dining Car Line to the Pacific*, by William A. McKenzie (Univ. of Minnesota Press), provides a historical review of NP dining car service.

Sunday River Productions has released several videos on DVD including: *North Coast Limited: Stampede Pass, North Coast Limited: The Rockies,* and *North Coast Limited: Bozeman Pass - Mississippi.*Many of these items are available at the NPRHA Company Store.