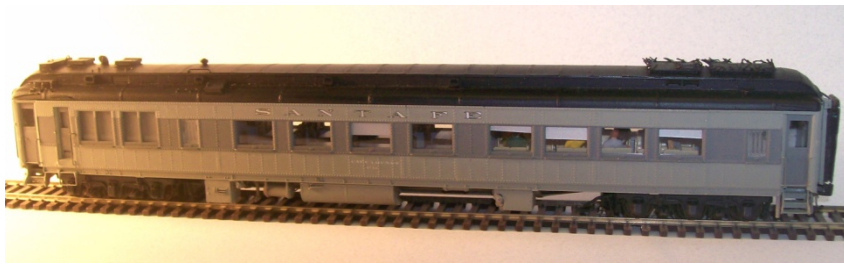
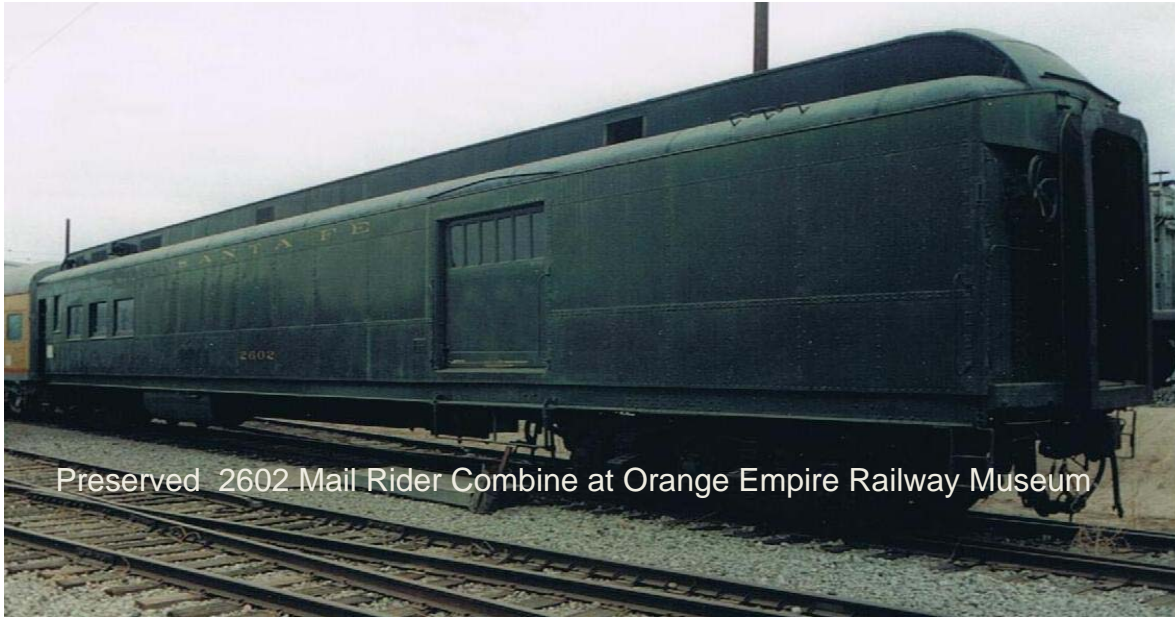


Prototype Models From Toy Trains



The one car that leads to many good models:



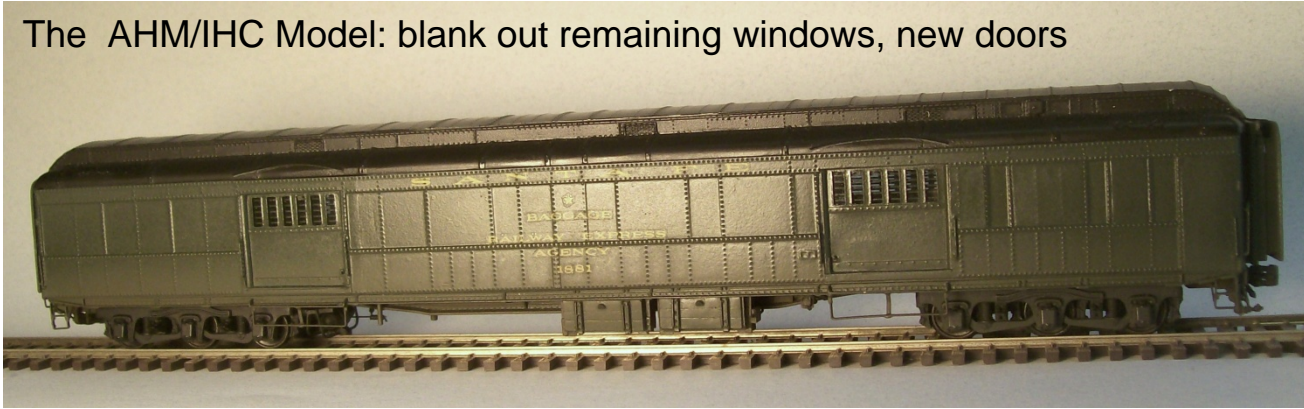
Preserved 2602 Mail Rider Combine at Orange Empire Railway Museum



The AHM/IHC Model

The one car that leads to many good models:

The AHM/IHC Model: blank out remaining windows, new doors



A "1: to: 1"
conversion

The AHM/IHC Model: back date to buffet library cars



A "2: to: 1"
conversion

The AHM/IHC Model: re-detail combine as is to get the mail rider



First things to fix:

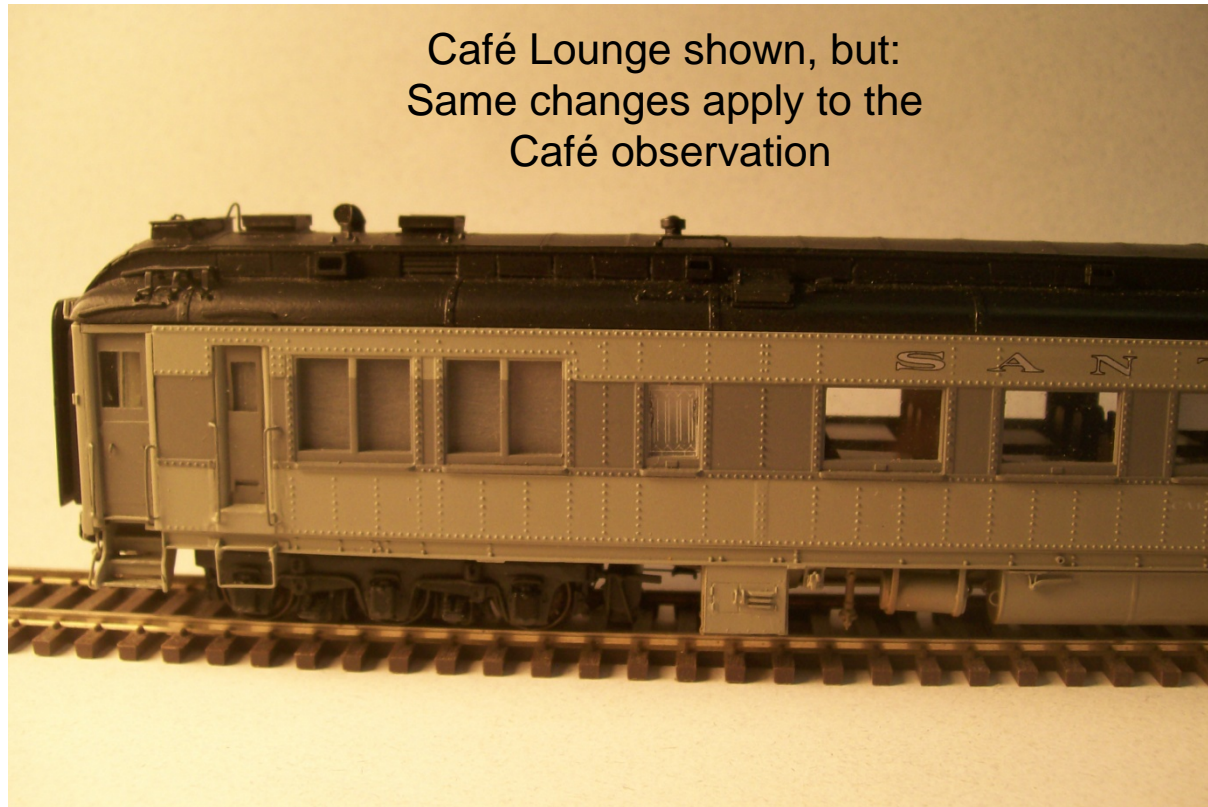
Identify the errors that can be fixed



Correct car height to 14' – 3" standard
Remove or replace overall details meant for "toy" market

First things to fix: Doors & Side Sill

Fixed!!

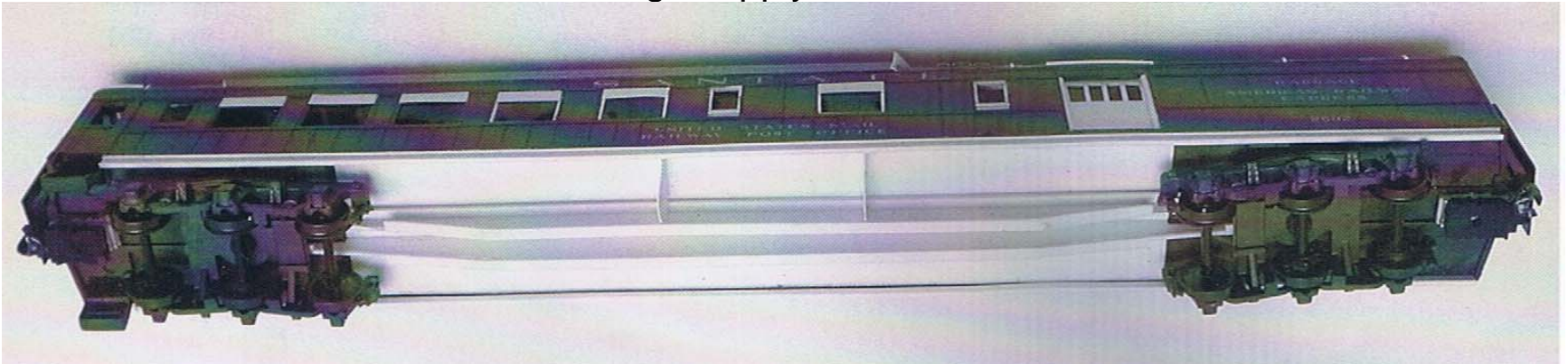


Cut away the flat side channel & replace with true 3D channel
Add depth to the door by recessing behind the side
Note that heavyweight era cars did not have flush doors and windows!

First things to fix: The Floor

Fixed!!

Mail Rider Combine shown.
Same changes apply to ALL AHM/IHC cars



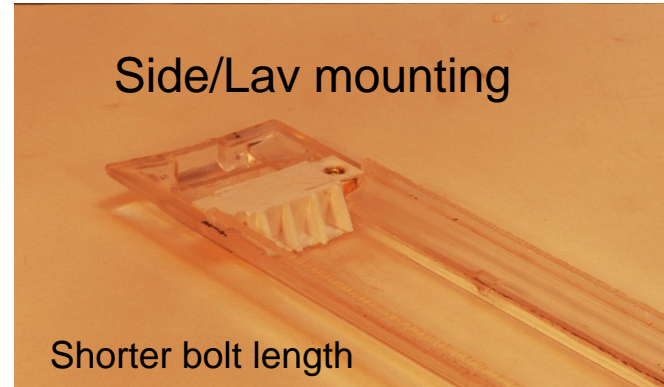
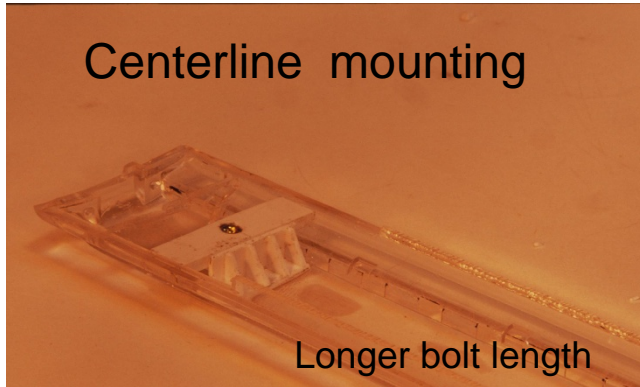
Cut away the flat side channel & replace with true 3D channel: (Evergreen .100")
Cut out the original floor from nearly bolster to bolster & replace with a new floor.
New floor made from Evergreen sheet flush with the bottom of the old floor depth.

Cut and fit the replacement floor with great care!

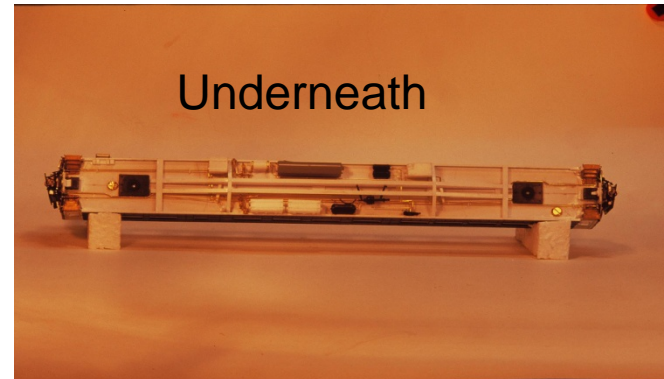
New Center sill channel made from Evergreen 5/16" channel

First things to fix: Roof attachment

Fixed!!



Only bolt length & alignment matter!



Create a new attachment system;
Cut a 2" long 10-24 brass bolt to the correct length,
Imbed a matching nut into blocks of scrap styrene glued inside the roof

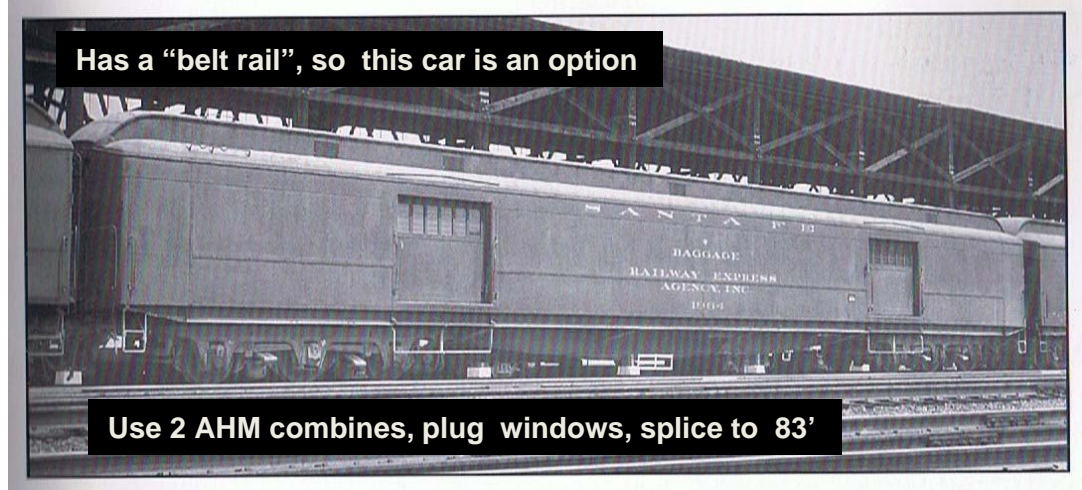
Pick a Prototype to model: The “Rules”

- The “cant’s”:
 - The die work molded into the sides determines which prototype can be done,
 - You can’t mix & match side components between the AHM cars because of letter board height, “belt rail” and window rivet patterns.
- The “can do’s”
 - The car length can be changed to match a chosen prototype,
 - Window & door rearrangement is fair game.

Pick a Prototype to model: Introducing “Flat Kit Side Scrabble”



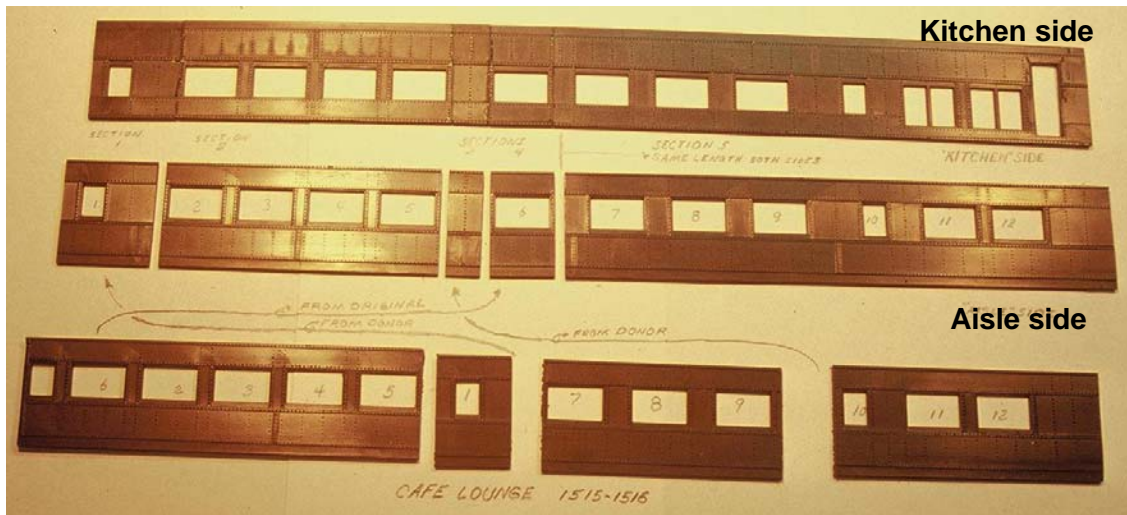
No “belt rail”, so this car is not an option



Has a “belt rail”, so this car is an option

Use 2 AHM combines, plug windows, splice to 83'

Example showing the café lounge made from two café observations



Note: Freight cars have a “B” and “A” end, passengers cars are not so obvious!

The hand brake housing is normally inside the vestibule, except for head end cars & cars with out vestibules. (generally, but not always!)

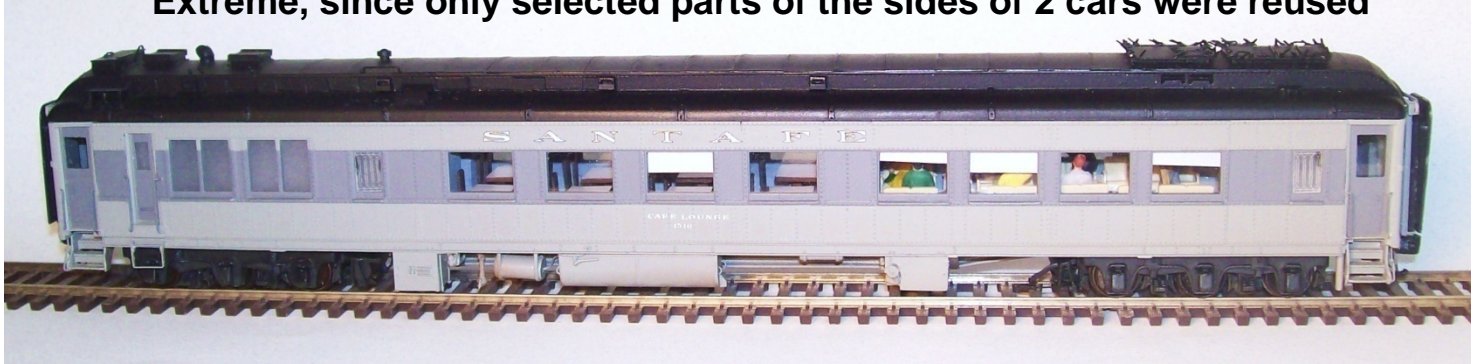
Instead, think of “aisle side” or “kitchen side”

Published floor plans reveal window spacing

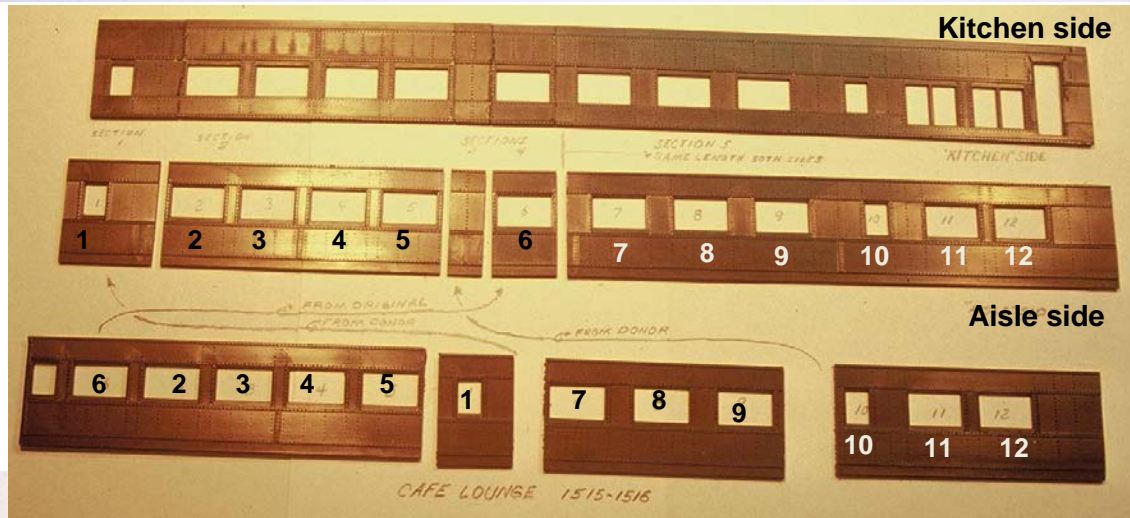
Flat Kit Side Scrabble

Extreme, since only selected parts of the sides of 2 cars were reused

3



Locate cuts next to an existing seam or window edge to hide the resultant splice



Kitchen side

Aisle side

CAFE LOUNGE 1515-1516

This scheme will require a new floor and creation of vestibules, Not hard to do, really!



Aisle side

Flat Kit Side Scrabble

The café lounge. The new floor as a base to assemble the side pieces

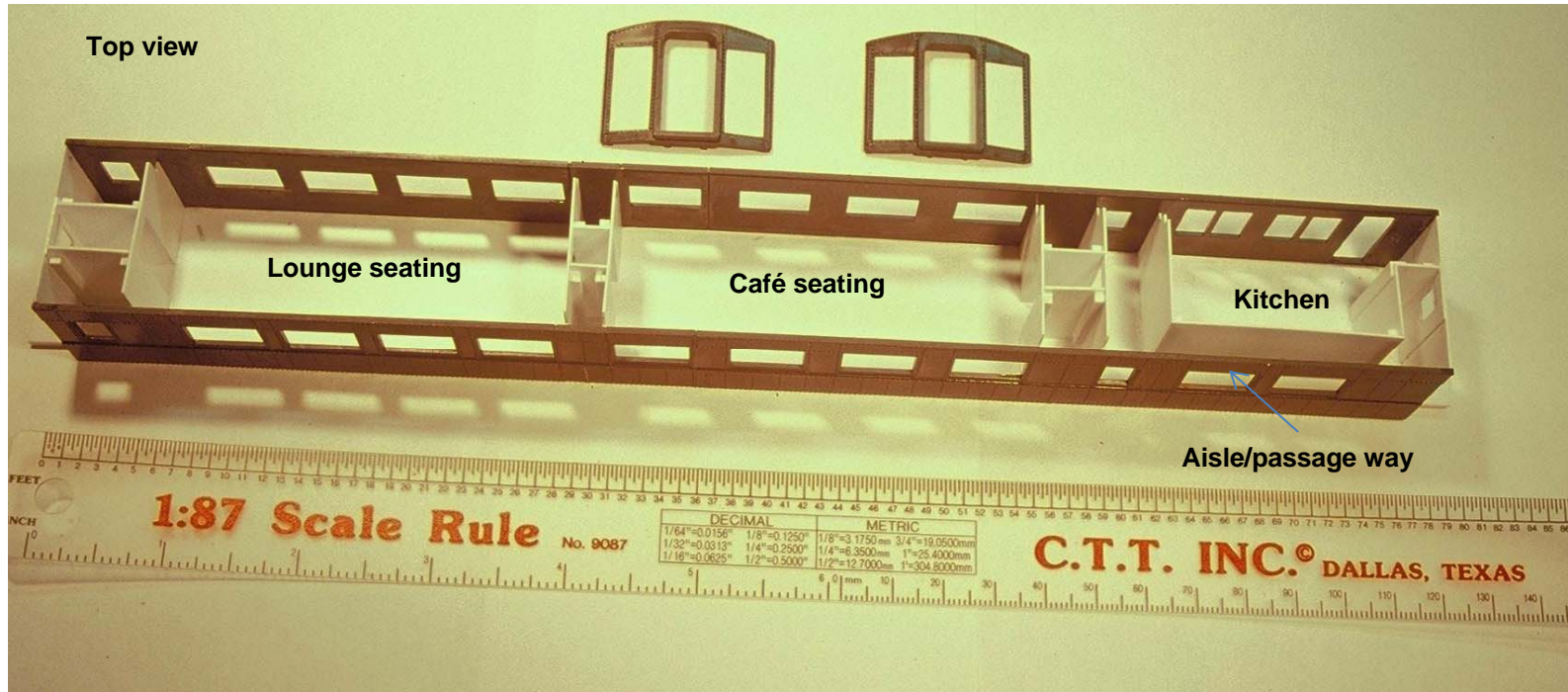


Sizing and cutting the floor is the most “fussy” step, it must be correct dimensionally, true edges, square corners.

1. Use a good pair of calipers to measure the interior width of an intact car near the floor to determine the replacement floor width.
2. The length is the final side length, plus the width of the two vestibules.
3. Maintain the overall car length.
4. Reference the floor plan for dimensions!

Flat Kit Side Scrabble

The café lounge. The new floor as a base to assemble the side pieces



Assemble the side pieces as flat parts first, then join to each side to the floor.

Working with the parts as flat subassemblies allows for an easier time to check dimensions from side to side and match to the floor

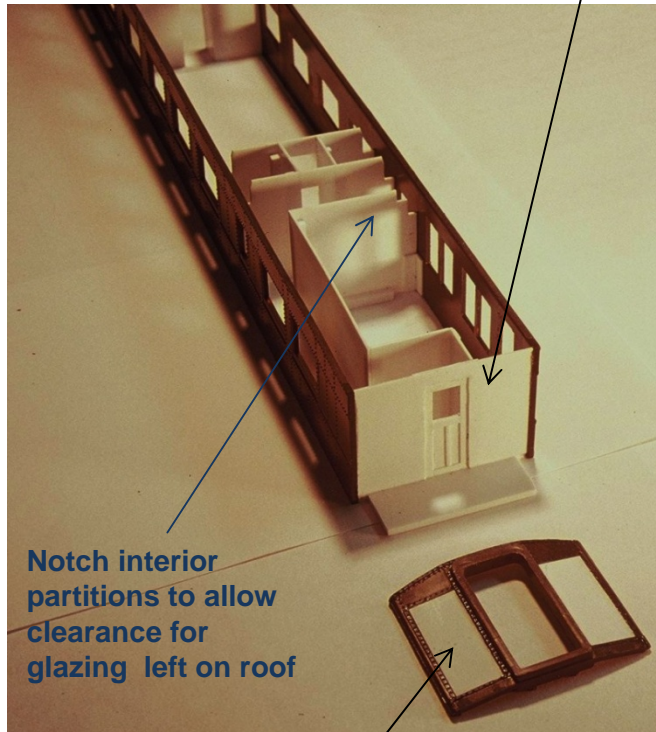
The interior partitions aid in squaring and bracing the assembly. Note that the width is EXACTLY the same as the floor.



Flat Kit Side Scrabble

The café lounge. Build & detail the vestibule ends

Build new vestibule ends from 0.020" sheet
Build interior doors & trim with strip stock
Exterior doors also made from 0.020" stock

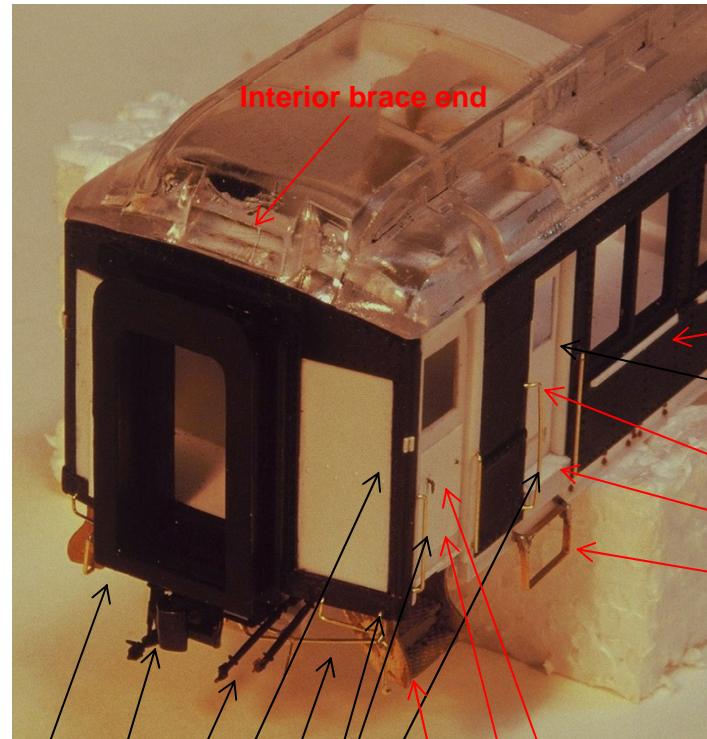


Notch interior partitions to allow clearance for glazing left on roof

Salvaged end

Warning! Detail to the level you desire, this example was done to enter in a contest!

Assembled & detailed:
Standard for ALL cars in black,
Unique to this conversion in RED



Interior brace end

Window sills

Door edges

Kitchen door

Door sill

Stirrup steps

Diaphragm

Body mounted KD's

Air, steam & signal lines

Marker light brackets

Cut levers

Grab irons

Door handle

Vestibule door

Vestibule steps

If your workbench isn't messy by now, you're not using it!

Flat Kit Side Scrabble

The café lounge. Build & detail the floor ends

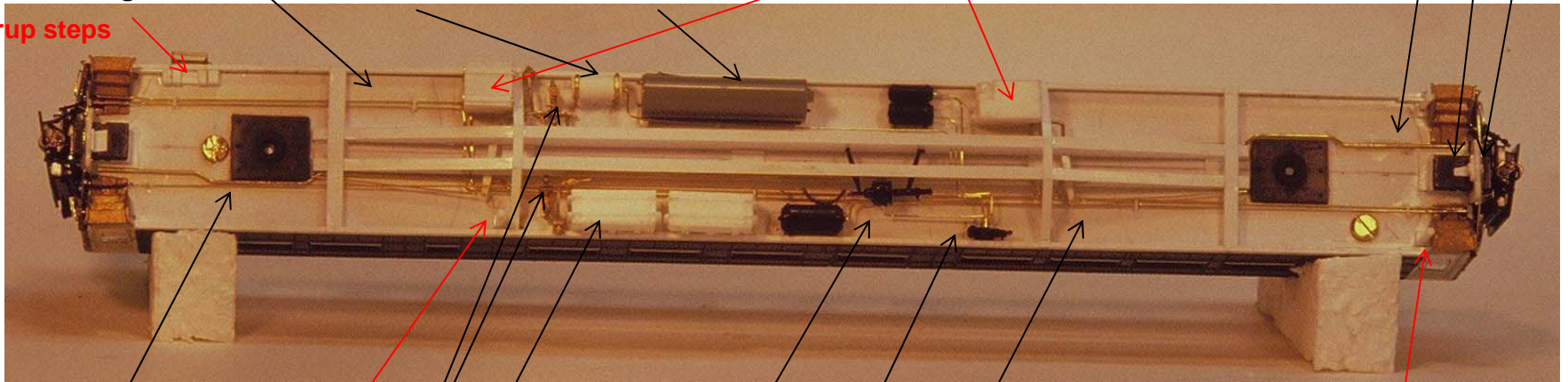
Assembled & detailed:
Standard for ALL cars in black,
Unique to this conversion in RED

Coupler yoke (resin)
Body mounted KD's
Steam line

S/E Valve box (2)

Air, & signal lines APWS air tank APWS water tank

Stirrup steps



Waste chute

Waste chute

Salvaged truck bolster

Vapor traps (2)

UC Brake Set
UC Brake Valve & Lines

Brake levers & rods

Battery boxes (resin)

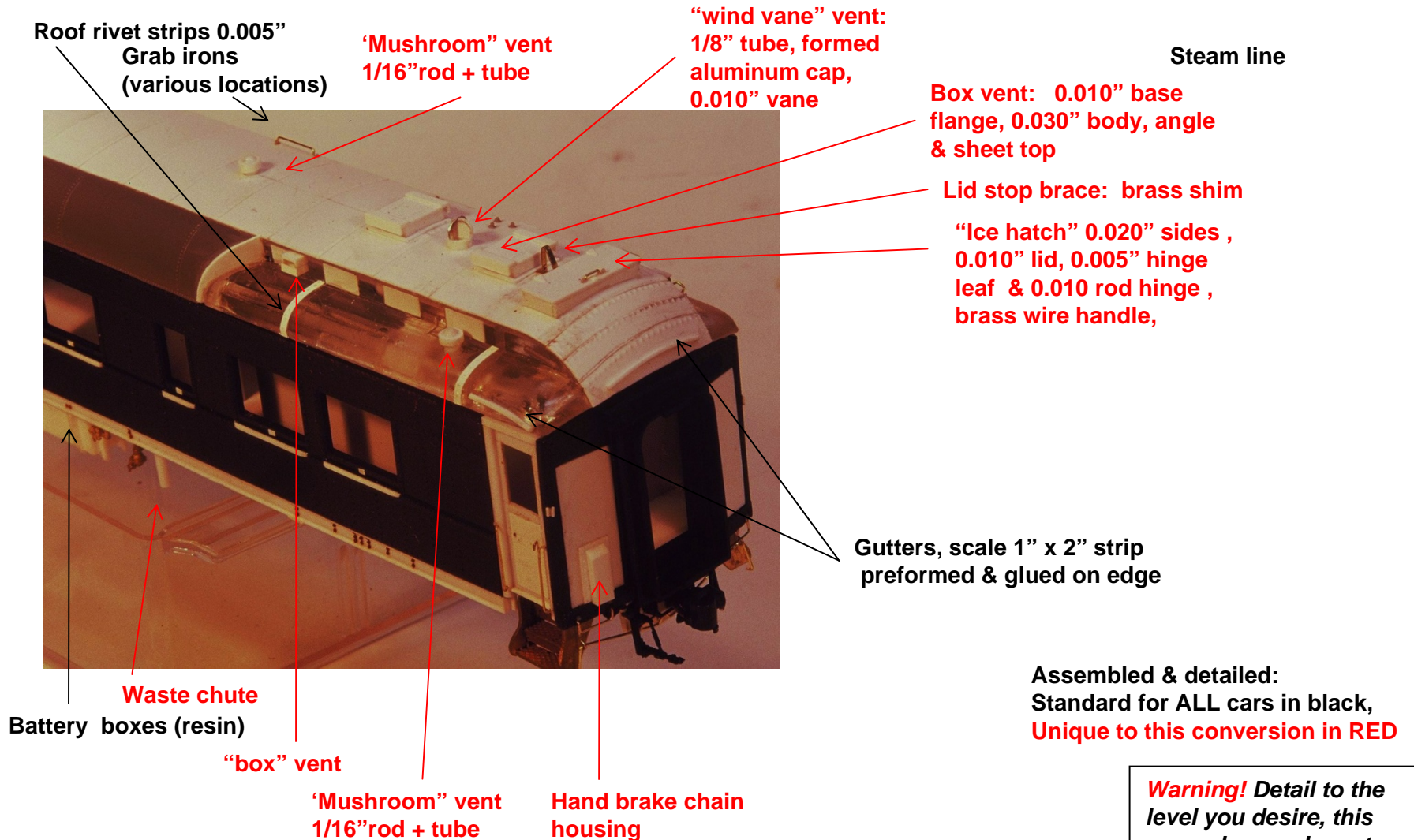
Warning! Detail to the level you desire, this example was done to enter in a contest!
Or be required to run your cars up-side down every April 1st.

If your workbench is TOO messy, you can't find anything!

Flat Kit Side Scrabble

The café lounge. Build & detail the roof : **Part 1 kitchen end, aisle side.**

The roof is a model within a model, *especially so for diners with A/C.*



Assembled & detailed:
Standard for ALL cars in black,
Unique to this conversion in RED

Warning! Detail to the level you desire, this example was done to enter in a contest !

If you can't FIND your workbench, The maid quit!

Flat Kit Side Scrabble

The café lounge. Build & detail the roof : **Part 2 kitchen end, kitchen side.**

Note that these details could also be added to the café-obs, minus the "scrabble".

The roof is a model with a model, *especially so for diners with A/C.*

Assembled & detailed:
Standard for ALL cars in black,
Unique to this conversion in RED

Pantry area ice hatch:
0.010" base flange , 0.030"
body, 0.010" lid, 0.005"
hinge leaf & 0.010 rod
hinge , brass wire handle,

Small grab on side of hatch

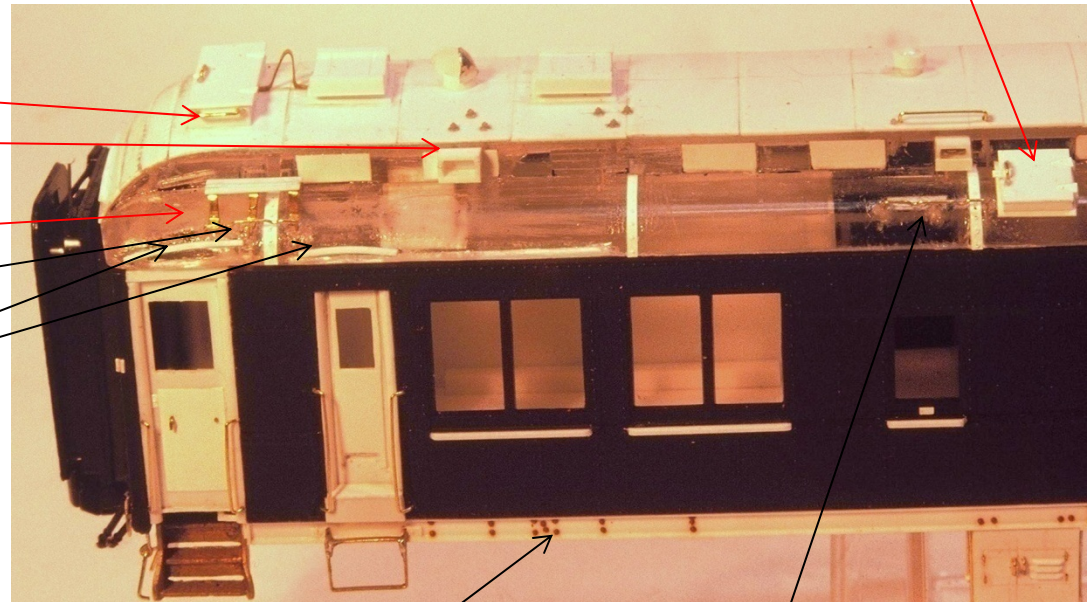
Box vent : sq tube

Work platform: shim brass support
legs, 2" x3" strip boards (3), scribed
wood graining

Long grab iron with ladder notches
(various locations)

Gutters, scale 1" x 2" strip
preformed & glued on edge

Warning! Detail to the
level you desire, this
example was done to
enter in a contest !



Tichy rivets

Long grab iron with ladder notches

If can SEE your workbench from the other side of the room, Fire the maid...

Flat Kit Side Scrabble

The café lounge. Build & detail the roof : **Part 3 lounge end S/E A/C hatch**

The roof is a model with a model, *especially so for cars with A/C.*

Assembled & detailed:
Standard for ALL cars in black,
Unique to this conversion in RED

Roof vent , round tube
trimmed & capped

Hatch cover hold down
dogs: 0.010" X 0.015"
flat brass bar

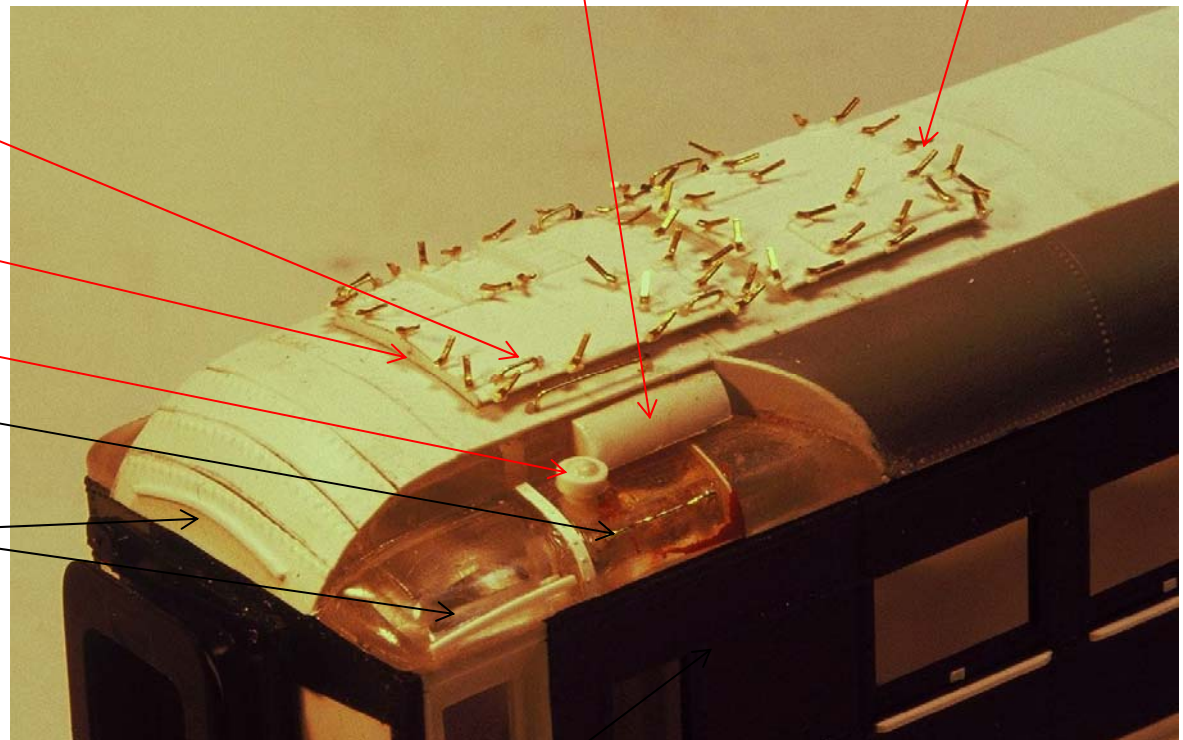
Hatch cover: 0.010"
sheet, creased & bent
for "peak", W/ rivet
detail

Hatch base: 0.030"
sheet, creased & bent
for "peak"

'Mushroom" vent
1/16" rod + tube

Long grab iron with ladder notches
(various locations)

Gutters, scale 1" x 2" strip
preformed & glued on edge



Warning! Detail to the level
you desire, this example
was done by someone
allegedly NUTS!

Because your stuff is now on EBay!

Flat Kit Side Scrabble

- Lots of “work” so, if not building a model for a contest, why bother?
 - Passenger train consists, unlike freight trains, had relatively constant consists.
 - Santa Fe cars were of a unique appearance, and only a few cars are needed to fill out a consist.
 - The old AHM/IHM cars can be brought up to the current state of the art in appearance to work well with new offerings from Branch Line and Walthers

Time to wake up, clinics almost over!

Some other cars to consider:



The AHM/IHC 12-1 sleeper conversion to a 16 section tourist sleeper

A “1: to: 1” conversion but, every window is replaced!



The AHM/IHC diner, rearranged "scrabble style"

A “2: to: 1” conversion, described in *nauseous* detail in the other clinic



The AHM/IHC 12-1 sleeper conversion to a 3-2-obs

A “1: to: 1” conversion, every window is replaced, unnecessary now with the Walthers 3-2-obs

Consider detailing the AHM cafe/obs:



To a higher level of detail.....



Painted in two-tone grey.....

Prototype Models From Toy Trains

- A debt of gratitude to the many authors, editors, prototype photographers represented in the Society publications, all the information you could want is found there!
- Thanks for your time and attention!
- If you'd like a copy of this presentation, email me at: tyesac@aol.com
- Any questions?



Ship and travel Santa Fe -All the way!