

# FREE SAMPLE MODEL BUILDING

With the Compliments of –

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1



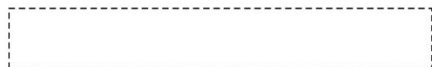
Insert roof flap (part 5) through thin slit and glue in place on back of shop front.



2



3

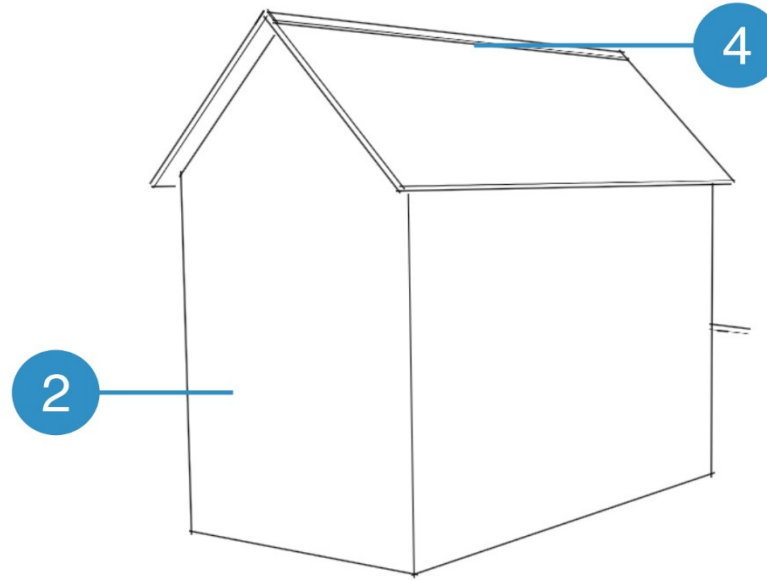
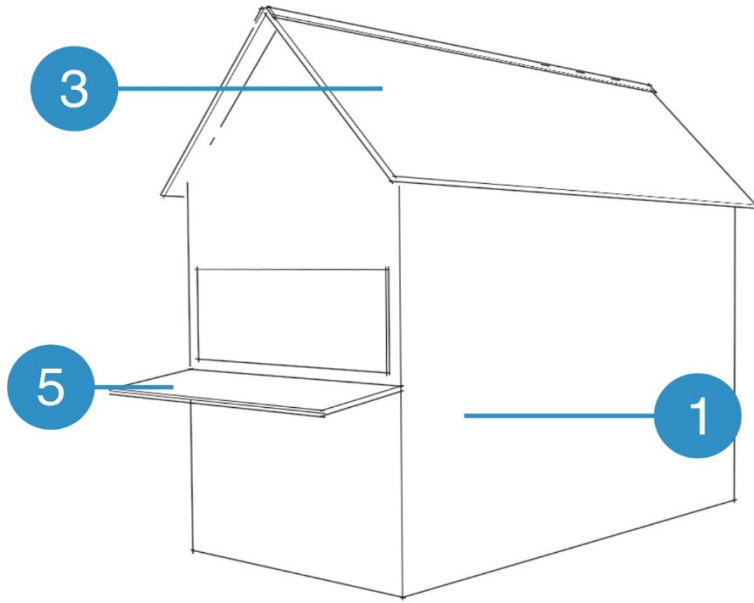


5

4



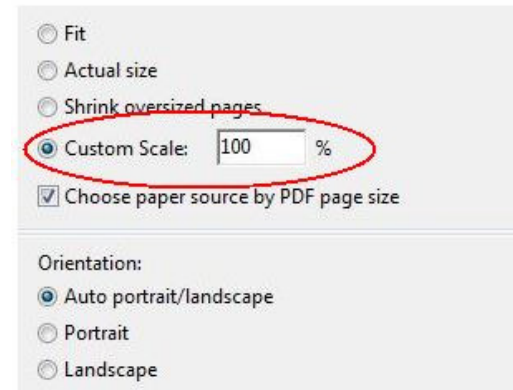
Glue onto thinner card, score and fold,  
then super glue in place



**Simple to scale:** If you are working in OO gauge you just print the PDF out actual size. If you want to construct it in another scale you just alter the settings on your printer to suit. Here are the details:

- HO scale reduce the print down to 87%
- OO scale is 100% (same size)
- S enlarge the print to 118%;
- Z scale reduce it down to 35%
- N scale reduce the print to 48%

You can scale distant buildings at 80% or 90% of the normal scale sizing you are working to if you want them to look like they are miles away in the distance.



Printers vary a little from brand to brand. Most printers will have settings something like this. Select your custom scale e.g. 87% for HO scale.

# How Structures Can Add Realism to Your Model Railroad Layout

Natural scenery is a lot of fun to create and easy to do well. It really is the prime scene-setter on any model railroad layout, but let's not forget the real purpose for the railroad's existence. It generally has to serve an industry of some kind, and that means that structures should be a pivotal element of your layout.

## Deciding What and Where to Build

Just throwing pre-built buildings out on the layout willy-nilly isn't an effective technique. Structures are created in real life to serve a need for shelter of some kind. On the layout, the structures suggest the presence of humans in the context of the railroad scene. While the placements of buildings in real life depend on a number of factors, the most common reasons for a certain location are a reasonable price for the location, convenient access to road and/or rail transportation and proximity to natural resources.

We have complete control over the arrangement of structures on the layout so the economic factor doesn't play a part, but you can set the stage so that the structures on the layout look as though they belong in the place you put them. When you plan your layout to include a town or city, take a drive around your own town and see if you can determine what factors influence structure placement. For example, does a sawmill dropped in the middle of a farm field make sense, or is it more logical to place the mill on the bank of a river? Would a grain elevator be erected in the center of an industrial production plant, or best built next to the tracks in a rural setting?

Placement of buildings is very important to the overall look. Put them on the scene before gluing them down and stand back and view from different angles and heights and shift them around until you are satisfied with the scene. Sometimes it is worth leaving them and going back the next day with fresh ideas. Run the trains and see what works best. Your trains need to be planned also, no need to send cattle wagons to a saw mill.

Most railroad yards would have a dispatcher's office, a small shed with windows in a small yard or something larger in a city yard either with the freight shed or separate office elsewhere. You might want to position a dispatcher's office near the exit to the yard so that the dispatcher can view the departing trains. Have workers amongst the wagons on the sidings to look as if they are recording the wagons for the next consist. A rail yard is a busy place and needs to look busy on your model. While your mainline trains can take care of themselves or someone operating them, a switching or shunting engine changing wagons at the freight shed adds some interest.

## Is Bigger Better?

Also important is a sense of proportion. Large industrial areas such as refineries and steel mills are most often found near larger cities. Creating a large manufacturing plant with just a small surrounding community might look odd unless the scene includes some hints of a larger city nearby, such as a background with an urban skyline. Perspective is an important element of structure placement. Buildings near the front of the layout should be at scale and as detailed as your skills and desire allow. Structures farther back on the layout may be smaller than scale to force a perspective of greater distance. Because they are not near the viewer, they can be less detailed and still be realistic.



## Space Efficient Low Profile Buildings

Most of us would not have the space for a full-blown town so we use back drops and low profile buildings to make the viewer believe. Low profile buildings have a front and sides and are placed against a back drop to make the transition between the picture in 2D and model in 3D. In some instances it is possible to use even less space by gluing the front of the building directly to the backdrop.



The low relief background buildings featured in these scenes are available from <http://www.modelbuildings.org/background-building-plans.html>

## Your Layout is a Planned Community

The actual physical placement of buildings on a layout should be simulated by cardboard models of a similar size so you can judge the best arrangement for appearance. Structures need to sit on a level location just as they do in the prototypical world, which means that structure placement plans should be in place prior to doing a lot of scenery development around the area. It's much easier to create a level space of building size when you are working at the foam board cutting stage than it is to cut into existing scenery and try to retrofit a foundation into a hillside after the plaster cloth has dried and been sculpted, painted, and ground covered.

One tool that can help is to create a full size map of your town on a long piece of butcher paper. Move your cardboard structure simulators around until the arrangement looks natural to you, and then outline the foundation areas in pencil. Use the map overlay on your foam or base to mark out building locations for eventual placement when you get to the detail stage. This can also help you lay in streets and roads.

Just because you have a flat plan for your community, don't be lulled into making the town itself flat. Most towns have hills and plateaus that make life challenging. An extremely effective and dramatic layout scene features a small village built up around a mining operation. The trains are late 19<sup>th</sup> century narrow gauge steam, but the most interesting part of the layout is the small dilapidated and slightly seedy town clinging tenaciously to the side of a steep hill. The buildings range from a couple of saloons and rooming houses to a jail and courthouse, all done in impeccable detail. The dirt streets seem to climb straight up, then turn and plunge straight down again, complete with Ford Model A era cars and

horse-drawn wagons. The town, of course, is home to the miners and those who provide the services the miners need. It is a classic story of the industry appearing first, then drawing in all the other business that are necessary to create a community for the workers. Although the structures may be in a terrible state of repair and leaning at crazy angles, they all share the element of a level base on which they are built.

### **More Than a City**

Don't forget that the railroad itself will need a suite of structures. Storage sheds, depots, maintenance shops, roundhouses, yards, sanding towers, fuel and water structures are all required just to help the trains move from place to place.

### **Old Man Weather(ing)**

Let's look a little more at realism in structures. If you drive around your town or county, you can see many examples of structures that have been in place for decades. Most owners will paint them and do maintenance periodically, but there are plenty around that show signs of weathering. It's pretty common to find a structure that has been neglected and has peeling paint, broken windows, sagging roof, or porch and stairs about to fall off. These are things that you don't really see when you drive by unless you are looking for them, but they are really at the heart of making your layout appear realistic. The model buildings you download from <http://www.modelbuildings.org> are "photo-realistic" so are pre-weathering for you. You can add additional details if you wish, but keep in mind how much structure and scene disorder, chaos and disrepair can add to the drama!

When constructing these buildings it is best to work off a solid flat surface with a cutting mat or MDF board. A small metal square or ruler can be used to keep the building square and level as it is glued together. The cuts require a sharp blade and you may need to change the blade quite often. You can use old blades to score the card for bending. There is the option to cut out the windows with the use of a pointed blade and then glaze them with some thin celluloid or clear acetate from product boxes you would usually throw out. Cut it larger than required and glue in place inside the building taking care not to get glue on the window where it can be seen.

If people are to be present you can make the door ajar and if you want the shed to be on a foundation cut a piece of card the right size and glue it to the base add piles made of square timber or fold the card to look like a concrete foundation. You can add lichen or small shrubs etc for a garden with wooden edges shingle paths and of course people not just adults also small children playing in the garden. You can add a dog or a cat, maybe some chickens if it's a country house you are modeling.

Industrial buildings can have scale 6 foot fences made from fine zinc mesh netting with gates made of the same or none at all if placed in a rail yard. Some industrial buildings have a gate keepers hut and they monitor vehicles coming and going. Nothing needs to be trim and proper. Some building can be a bit run down or derelict.

Add variety as this makes the scene more interesting and don't forget the workers and vehicles and industrial junk scattered around, derelict cars trucks etc even an old railroad wagon weathered and rusted that can serve as a shed in older style scenes, containers in more modern scenes. A timber mill generates saw dust so a pile of that behind the mill will add authenticity to the scene. Use N scale buildings in the back ground if you model in HO scale as this gives a depth to your scenes, also use smaller N scale trees, people vehicles etc.



The model buildings from [www.modelbuildings.org](http://www.modelbuildings.org) are very realistic resembling real photos of actual structures. They are cheap to buy (with many below \$10) and they are easy to strengthen using extra card or even balsa, core flute (like on those plastic real estate signs), or foam board.

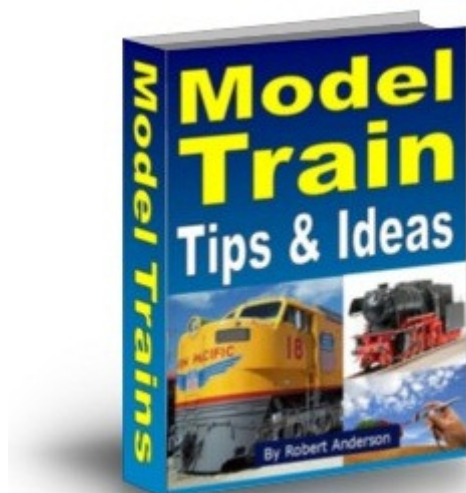
### **Plan the Work, Work the Plan**

And finally, even if you don't intend to make photography a hobby, an inexpensive point and shoot digital camera or smart phone is one of the most useful tools you can acquire. It will help you document existing prototype structures and machinery that you can model and provide you with a permanent inventory of all the elements of a real-life scene that you may wish to duplicate in miniature. Take a LOT of pictures from all angles, and don't leave out the surrounding trees, grass, street details, etc!

One final word of advice: Have fun! Your model might not be an exact duplicate of the real thing, but it will certainly demonstrate your style and technique to anyone who views it.

See the huge range of model buildings and special offers at <http://www.modelbuildings.org>

## **FREE EBOOK**



Download your copy of Model Train Tips & Ideas ebook for free from <http://www.modeltrainclub.org/free.html>

## 3D Buildings

Download - Print - Build



See the full range of low-cost, easy to construct, photo-realistic buildings at [www.modelbuildings.org](http://www.modelbuildings.org)

## Low Relief Buildings

Download Once - Print Many Times!

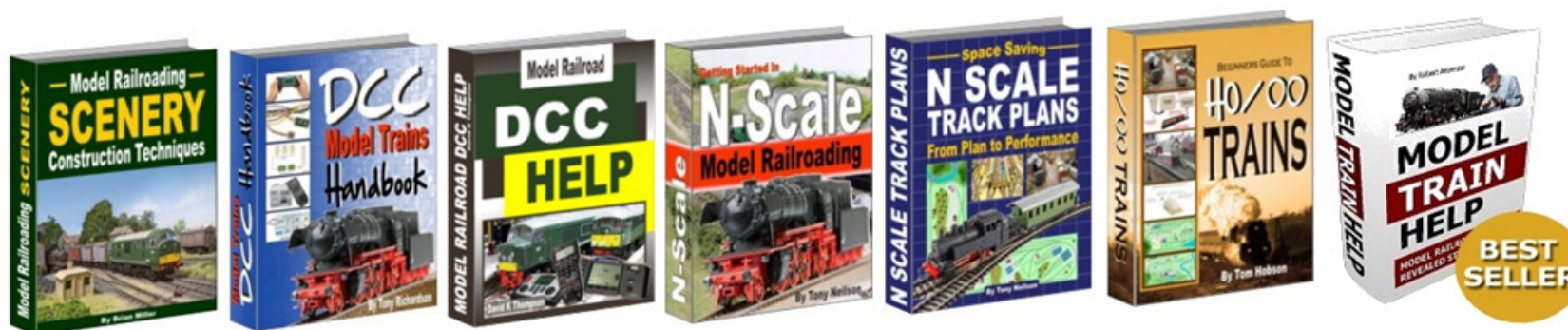


## Useful Resources:

- Get 24/7 online access to Robert Andersons Online Model Train Club (Highly Recommended).

Full details and informative videos to watch at <http://www.modeltrainclub.org/club.html>

- For Scenery ideas <http://www.modelrailwayscenery.org/model-railroad-scenery.html>
- DCC Model Trains Handbook and DCC Help e-book available from <http://www.dccmodeltrains.org>
- N scale e-book <http://www.ngaugelayouts.com/trains.html>
- N scale track plans e-book <http://www.ngaugelayouts.com/n-scale-track-plans.html>
- HO/OO e-book <http://www.hoscalelayouts.com>
- Model Train Help e-book by Robert Anderson <http://www.model-train-help.com>



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