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Build Up Not Out, Part 2

Editor's Note: In his previously published article, Alan indicated a part two or even a part three article would follow. This article extends his thinking about and planning for verticality in his TALL train layout at home.

HIGHLIGHT:

Although many layout builders included small cities or towns with low-rise structures in their environments, big city themes were relatively rare.



O-gauge Railroading in a Big City

Most hobbyists use mountains, small land forms, or geologic features to create a backdrop for their trains. I chose an urban setting instead, so the “mountains” on my layout are high-rise buildings. When I built my first O-gauge layout in the late 1980s, only a few hobbyists – John Allen and some HO/O-scale folks – had placed tall high-rise buildings on train layouts. Although many layout builders included small cities or towns with low-rise structures in their environments, big city themes were relatively rare.

I enjoy urban cityscapes, and my architectural education and early career path reveal that interest. Nothing thrills me more than seeking the tallest building in a city and going to the top of it! After my initial city-based train layout was taken down, I started planning the ultimate urban environment for a train layout.



The high-rise buildings on the current layout are made from a variety of materials. A number of them are made from early 1960s to 1980s building sets that I modified in some way or another or expanded to fit the needs of the project at hand. Kits and sets by Girder and Panel® and the Kenner Toy Company® are examples of what I used to build some of the structures. Kenner was one of the toy companies acquired by the Fundimensions Division™ of General Mills® at about the same time as the Lionel® brand.

I modified these kits in various ways; for example, putting special panels on the exterior. That worked very well because it echoed the real-life methods applied to the exteriors of buildings by civil engineers and architects.

Another company, ELGO®, produced a series of kits called American Skyline™ which were absolutely beautiful. They're comprised of MANY small pieces and parts. That product line could never be remade today because the small pieces would probably be considered a swallowing hazard to youngsters. I have several skyscrapers made from these kits. In some cases, up to 25,000 pieces were required for a building.

Those kits were in the architectural style of the 1920s and 30s, so they fit perfectly with the classic period of American railroads. Some visitors have told me that these buildings remind them of the Wrigley Building in Chicago. In addition, I have designed and built structures from the ground up by kit-bashing without manufactured parts from kits. I used many kinds of materials, including plate glass, cardboard, Foamcore™, plastic – anything that could be adapted to the needs of the current project.

Some Kits Are Costly, but Worth It

The very first new building that I built for the layout was made from parts by Uberarc®. It is the tallest building on my layout and has TV towers on the roof. Their kits are stupendous – the nicest I have seen in many years. Their products come in many sizes, so hobbyists are not limited to just constructing buildings. Their kits are expensive but can be used to build fantastic-looking structures as well as a lot of other things your imagination can envision.

This layout, particularly its skyscrapers, represents any large city but does not model any particular one. Regardless, you will see elements that may remind you of some landmark buildings. I admire the work of Frank Lloyd Wright, but there is nothing on the layout that resembles anything he designed and built. That may sound a bit surprising since I now live in a house that has some Frank Lloyd Wright lineage. Actually, it was a church, and my wife and I have made it our home.

Imagination at Work

Some of my buildings have unusual beginnings. I was driving to visit a client one day and happened to look out my side window and noticed a glass display case outside an antique store. I turned around and discovered that the display case was a watch cabinet, the type with a



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thumb-operated turntable in it so you could spin it and view the contents. It was about two feet tall with an octagonal shape with four larger sides and four smaller sides. I'm looking at this thing and thinking, "I could turn that into a modern-looking skyscraper." So I negotiated a deal for the case, paid ten dollars, and brought it home. Within a few days I had transformed it into the modern-style building I had imagined by applying paint, reflective window tint, and automotive striping for the window frames/floors. I'll start a building project with anything that looks like it can be transformed into an urban structure!

When observing a city, particularly a post-modern city, one will recognize many different architectural styles. Chicago is a prime example of a city with a varied mix of architecture in its skyline. I wanted to build an urban train layout that reminded me of growing up in the Chicagoland area. Such cities were crowded and full of structures with lots of activity.

Teasing the Eye

My tall buildings not only depict a busy urban railroad city, they also create "view blocks" so visitors can't see the entire layout at one glance. As visitors walk through the room, the layout is progressively revealed to them as they look around. When a train is running, you can't see the entire train. Many modelers use mountains and geological formations on their layouts for this same purpose.

I'm trying to show as much realism as I can. In any city there are high-rise office towers, but as one looks beyond the central core the buildings get shorter, yet appropriate to their function – small business buildings, professional offices, mom and pop shops, restaurants, and such. I've done the same thing here. I surrounded the tall "power buildings" with smaller and shorter structures from one story up to eight or ten stories. This gives perspective, in many cases forced perspective, and it fools the eye by suggesting that there's more in the scene than is actually there.

A Dramatic Lighting Effect

The west wall of the layout is 40 feet long. When deciding what to do with that wall, I adapted an idea from a famous modeler, John Allen, who used many ingenious techniques. I decided to develop a photo backdrop of urban buildings representing a continuation of the city into the distance. I made copies of photographs of actual skyscrapers available from a few websites and mounted them along the entire wall. I used copy paper with a higher than normal white count. Applying one of John Allen's techniques, I installed blacklight tubes above the wall on the ceiling. When the room lights are off and the blacklights are on, the buildings glow like they are in the distance reflecting mercury vapor and other city street lights. Applying florescent crayons to some of the windows, I created a glow like there's light inside.

Factory-made Buildings Too

As the cityscape transforms into suburbia, I installed buildings by Lionel and MTH® and scratch-built some others. The factory-made buildings are very nice and reasonably priced. I modified some Plasticville® structures



and placed them in the distance since their size is a bit smaller. It is easy to raise these buildings on a foundation for an appearance that is better suited to the scale of the trains. The result is very convincing.

In addition to the “EL” with the appropriate steel supporting structure, I am now working on a subway under the main city making extensive use of Plasticville structures for small shops, snack stands, and newsstands. There is even a Farmer’s Market at the end of the subway line.

There’s no “countryside” on this layout, except for a suggestion of it in the distance. No mountains; after all, this is a megalopolis. There are bridges and trestles and even a harbor scene in front of the central part of the city.

Industrial Area with Operating Accessories

At the north end of the city is an industrial district with a rather substantial oil refinery, oil tanks, and pumping stations. The inspiration for this area came from my good friend on the *OGR Forum*, Bill Elliott after I saw his refinery! There is a coal-related industrial area as well as a lumber manufacturing and loading facility. These areas present reasons to install operating accessories and blend them into the scene. It works well since I have nearly every one of the Lionel, American Flyer®, and MTH accessories. There is an intermodal facility with a Mi-Jack unit as well as servicing areas for both diesel and steam locomotives. This area includes a roundhouse, turntable, transfer tables, coal and sand loading units, and wash and fuel racks.

Huge Passenger Service Structure

The major passenger facility features a train shed built from four “Bridgeboss” shed sections available from my friend Jim Robinson who allowed me to do some modifications of his initial design. The train shed covers 32 square feet of layout space and can hold more than 100 full-length passenger cars. The freight yard across from the passenger yard can handle nearly 200 pieces of rolling stock.

Command and Control Systems

The layout is designed for multiple operators using both the Lionel TMCC™ and the MTH DCS™ systems. Someone can exercise control in the yards while another person is running trains on three main lines. I can keep half a dozen people busy! With the modern operating systems, I can run many trains simultaneously depending on their length. I like running long trains, and this layout can accommodate trains with more than 120 cars, emulating Class One railroads with unit trains like one of my favorites, the UP.

Photographs by Alan Arnold

Editor’s Postscript: In a planned Part 3, Alan will describe the finishing touches to his railroad for heightened realism – adding figures, creating scenes, and applying track treatments. Also, he will show his traditional Super O layout featuring military trains.

