



N Structure Kit

MODERN ROUNDHOUSE

933-3260

Thanks for purchasing this Cornerstone Series® kit. Please study the instructions and drawings before starting. All parts are styrene plastic, so use compatible glue and paint to assemble your model.

From the early 1920s on, railroads began designing and buying more powerful, taller, heavier and longer steam locos. Engineers had to consider if their proposals would fit existing roundhouses and turntables. If not, the railroad might modify the design, or opt to rebuild or replace structures. As a result, new engines were often just the first step in a larger modernization program. Built to meet specific operating conditions, big power was typically operated on only one or two divisions. Since fewer facilities had to be modified, expenses could be kept down.

Many roads found it easier to build new terminals to increase efficiency and lower costs. With their bigger tenders, modern steam engines could spend more time on the road, so fewer terminals were needed and could be located farther apart. New roundhouses were designed to accommodate all classes of engines in regular use on a division, but if space was limited, only a few long stalls might be built to handle the largest locos. Most stalls were actually about 20' longer than the biggest engines in service. This allowed at least 10' of workspace up front, while the remaining 10' at the rear was needed if the engine and tender had to be disconnected.

Brick was still the favored material for roundhouse construction. It reduced the chances of fire and also allowed easy remodeling if even bigger engines should ever be purchased.

While electric lights were used, the available bulbs were not powerful enough so the outer walls of the roundhouse were still fitted with large windows. Most roundhouse interiors were dim and smoky, especially in the winter when doors were kept closed and darkness came early. Placing big

windows along the back wall helped reduce this problem. Most inspection and repair work were done on the front of the engine so locos were run inside facing the windows to put more natural light where it was needed. Interior walls were also painted in brighter colors or whitewashed to reflect more light into the building. And if for any reason the throttle should accidentally open and cause the engine to roll forward, windows were cheaper to replace than brick walls!

Considering the costs of repairing and replacing such a large surface, the roof was typically divided and pitched in different directions. This allowed more efficient removal of rainwater (or run-off from melting snow) which could be drained away from the front. Many roundhouses were constructed with monitor-type roofs, featuring a raised section with a clerestory. This could be fitted with windows or louvers to get more light and air into the building. At the rear of the roof, each stall was fitted with a smokejack. Inside, these connected to a large hood about 8-12' (2.4-3.6m) long so engines did not have to be spotted in an exact location. When an engine was inside, the hood was lowered over the smokestack and the hot exhaust gas vented up and out of the building.

In addition to cleaning, refueling and inspection, many new roundhouses were also doing more complex repair work than they had in the past. These "maintaining" facilities had a machine shop attached to the back or side of the roundhouse, or built as a freestanding building close-by. All types of lathes, grinders, presses and machine tools could be found inside, and some also included a forge as well as a tool room. While most were set up to repair running gear, machinery and fittings, some roads equipped these outlying shops to make heavy repairs. This regular maintenance reduced downtime and helped prevent more expensive repairs that would require a trip to the backshop.

Although diesels quickly put an end to the use of most steam-specific facilities roundhouses continued in service. Since individual diesels were much shorter than steamers, few if any modifications were needed in the building, and they continued to be used to house and inspect locos. Although the number of roundhouses has diminished as operations changed, you can still find these large buildings in use today.

ON YOUR LAYOUT

Capturing the character of typical North American structures, this roundhouse is designed especially for engines like Mallet 2-8-8-2s, and similar large articulateds. While the basic kit builds a three-stall structure, its modular design makes it easy to expand up to a full-circle using the Modern Roundhouse Add-On Stalls kit 933-3261 (sold separately) which includes matching roof panels, doors and interior truss work for three additional stalls. For a more complete facility, the Machine Shop 933-3264 can be added to further detail your new roundhouse.

To put your new roundhouse in service, you'll need the Modern 130' Turntable 933-2613. Typical of equipment found where big steam was used, it holds locos with a wheelbase up to 9-3/4" 24.8cm long. This is a completely assembled model, with motor drive, programmable indexing unit for fast easy track alignment, one-piece pit and detailed bridge.

Roundhouses of this type were typically division point terminals, where engines were changed and serviced. A complete facility can be built with the Modern Coaling Tower 933-3262 and Steel Water Tank 933-2601 (both sold separately).

For more ideas to detail your Roundhouse scene, ask your dealer, visit waltherscornerstone.com online or see the latest Walthers N&Z Scale Model Railroad Reference Book.

1. Glue the windows (15, 16) and doors (17) into the openings in the backs of the sidewalls (2, 3). Note: Make sure the transom is on the top. Glue the "glass" (22, 23) onto the backs of their respective windows. Glue the caps (4) on top of the pilasters on the sides of the walls.

2. Glue the windows (18) into the openings in the back of the rear walls (5), transom on top. Glue the "glass" (32) onto the backs of the windows.

3. Glue the doorstops (33) into the holes in the backs of the doorways (12). Glue the "glass" (19) over the upper window areas on the backs of #12.

4. Glue the bases (1) together. Then glue the main supports (9) in place as shown.

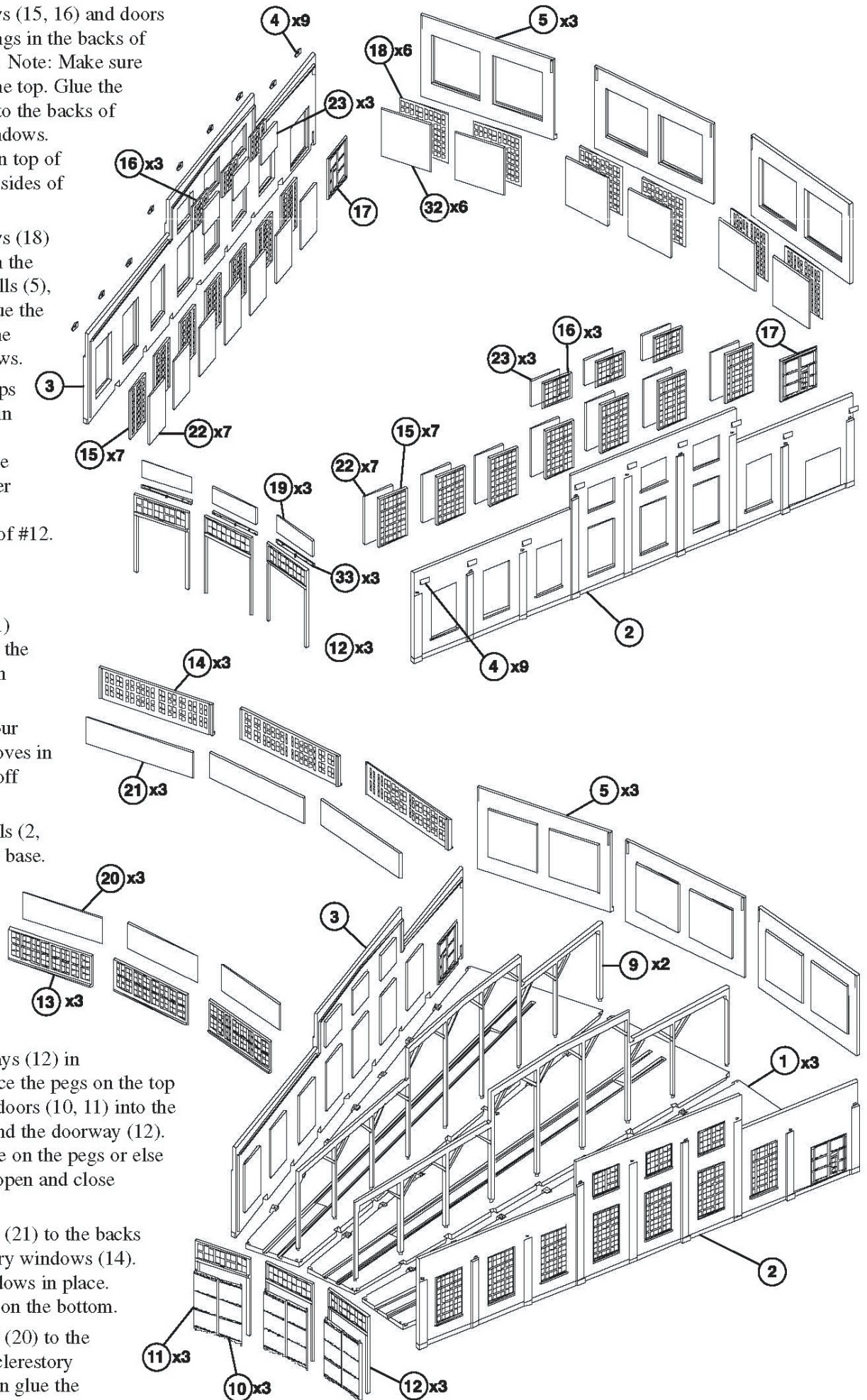
5. Install rails of your choice into the grooves in the bases. Cut ties off before inserting.

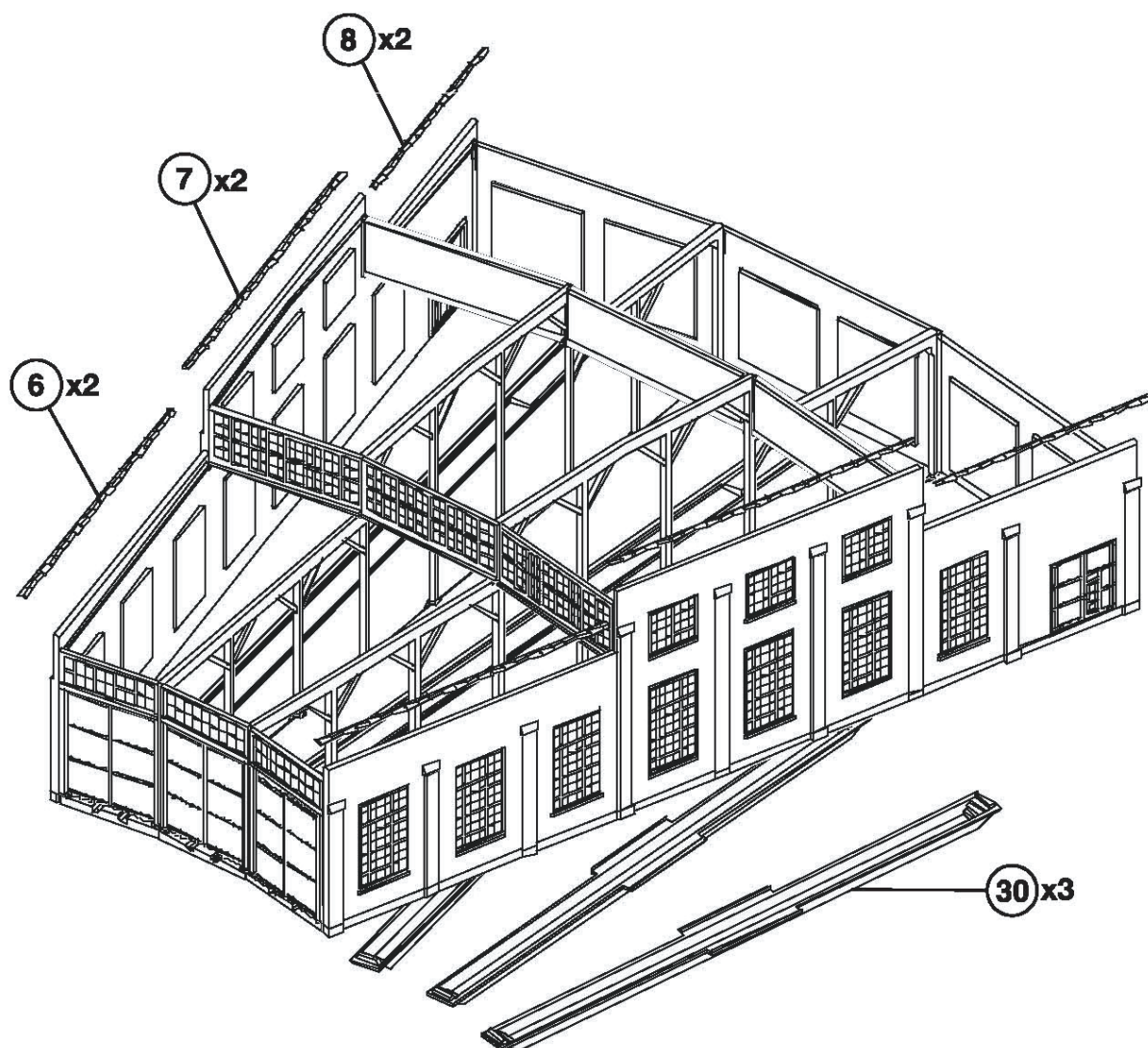
6. Glue the sidewalls (2, 3) to the assembled base. Then glue the rear walls (5) together and to the base.

7. Glue the doorways (12) in position. Note: Place the pegs on the top and bottom of the doors (10, 11) into the holes in the base and the doorway (12). Do not get any glue on the pegs or else the doors will not open and close freely.

8. Glue the "glass" (21) to the backs of the rear clerestory windows (14). Then glue the windows in place. Note: The ledge is on the bottom.

9. Glue the "glass" (20) to the backs of the front clerestory windows (13). Then glue the windows in place, making sure the ledge is on the bottom.

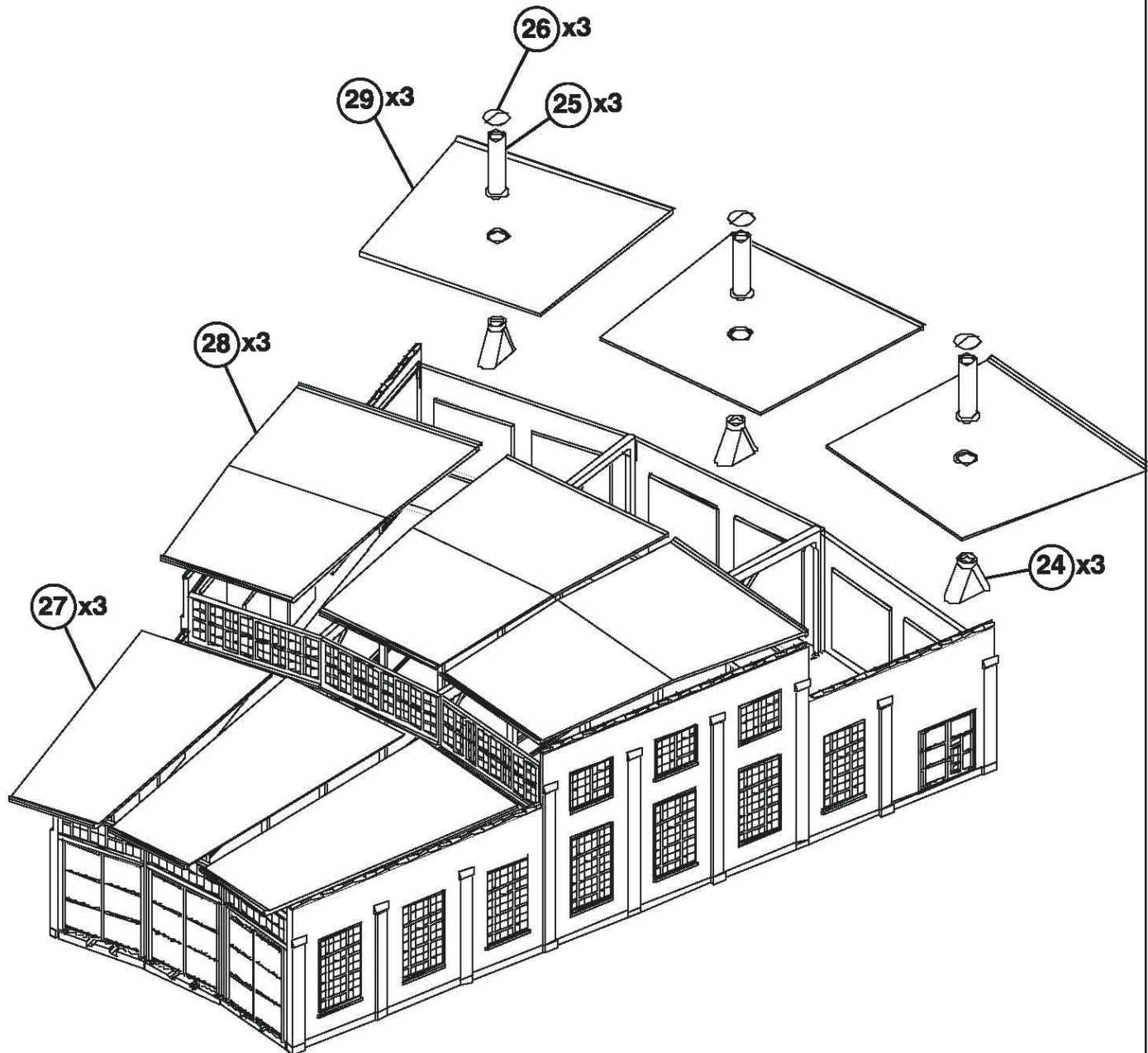




10. Glue the pits (30) to the bottom of the base.
11. Glue the wall caps (6, 7, 8) in place as illustrated.

12. Glue the top roof vent (25, 26) together and then to the top of the rear roof panel (29). Then glue the exhaust shroud (24) to the bottom of the roof.

13. You can either glue the roof panels (27, 28, 29) on or place them in position so you can remove them to detail the interior.



DECALING

1. After cutting out the decal, dip in water for 10 seconds, remove and let stand for 1 minute. Slide decal onto surface, position and then blot off any excess water.
2. Lightly brush Micro Sol® on top. This will soften the decal allowing it to conform to irregular surfaces. DO NOT TOUCH DECAL while wet!
3. When the decal is thoroughly dry, check for any trapped air bubbles. Prick them with the point of a small pin or hobby knife blade and apply more Micro Sol®.