



HO Structure Kit **MODERN ROUNDHOUSE** **ADD ON STALLS** 933-2901

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. Please Note: This kit is designed to enlarge the Modern Roundhouse #933-2900, sold separately, and it does not include side walls. Parts for three interior stalls are provided; additional kits may be combined to build a larger roundhouse up to a full-circle.

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 engines could spend more time on the road, so fewer terminals were needed and they 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 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 helped reduce the chances of fire, but also allowed easy remodeling if even bigger engines should ever be purchased.

While electric lights were used, the available bulbs were not very powerful so the outer walls of the roundhouse were still

fitted with large windows. Most roundhouse interiors were dim and smoky, especially in winter when doors were kept closed and darkness came early. Placing big windows along the back wall helped reduce the problem. Most inspection and repair work was 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 the engine 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' .9-3.6m 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 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 coaling towers, water tanks and other steam servicing facilities, most 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

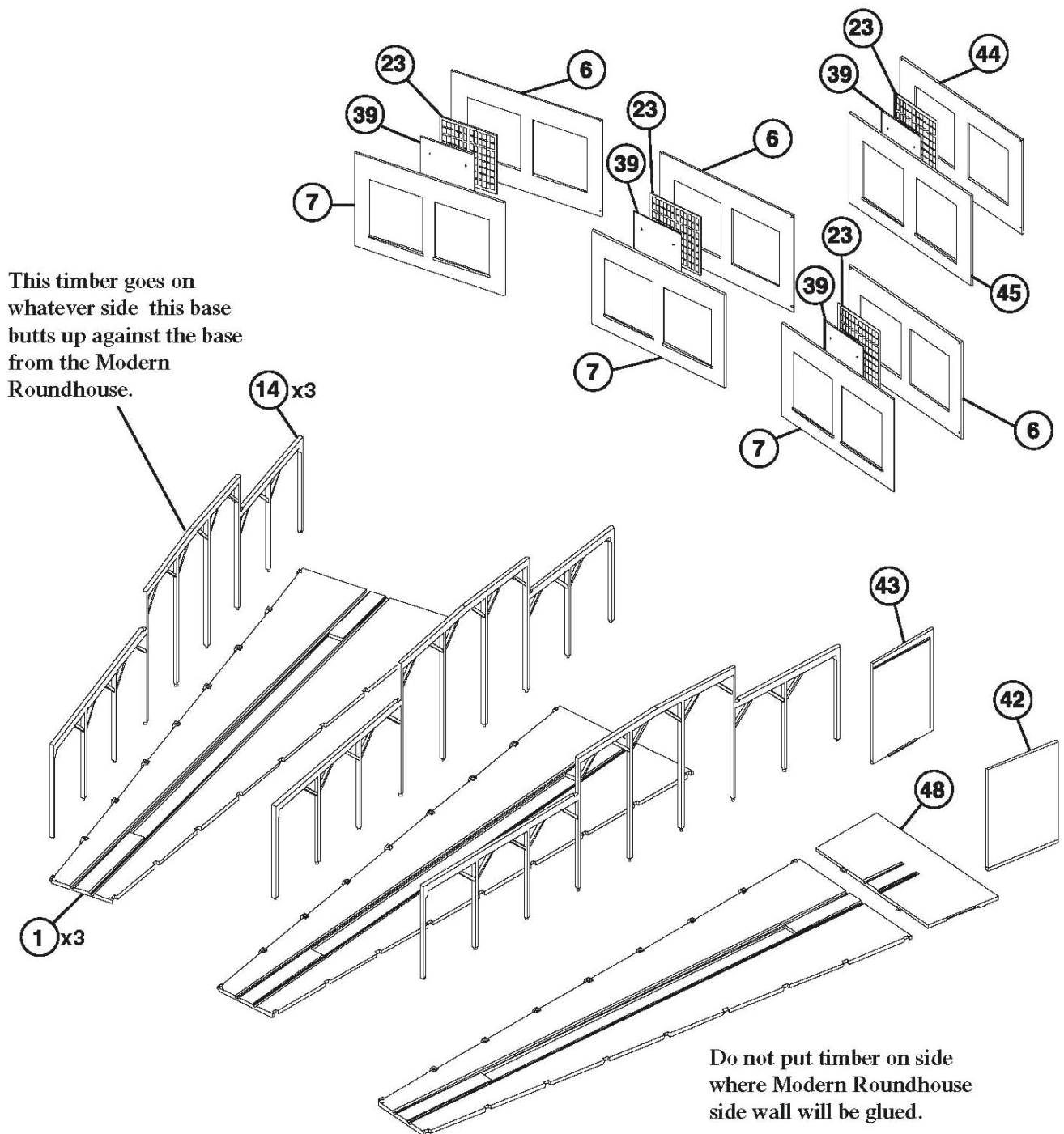
Capturing the character of typical North American structures, this kit is designed especially for use with the Modern Roundhouse (933-2900, sold separately) and includes matching roof panels, doors and interior truss work for three additional stalls. Parts to extend a single stall for engines like the Big Boy, Allegheny and similar large articulateds are also included.

To put your new roundhouse in service, you'll need the Modern 130' Turntable (933-2829, sold separately). Typical of equipment found where big steam was used, it holds locos up to 18" 45cm long. This is a completely assembled model, with motor drive, indexing unit for fast and easy track alignment, one-piece pit and detailed bridge.

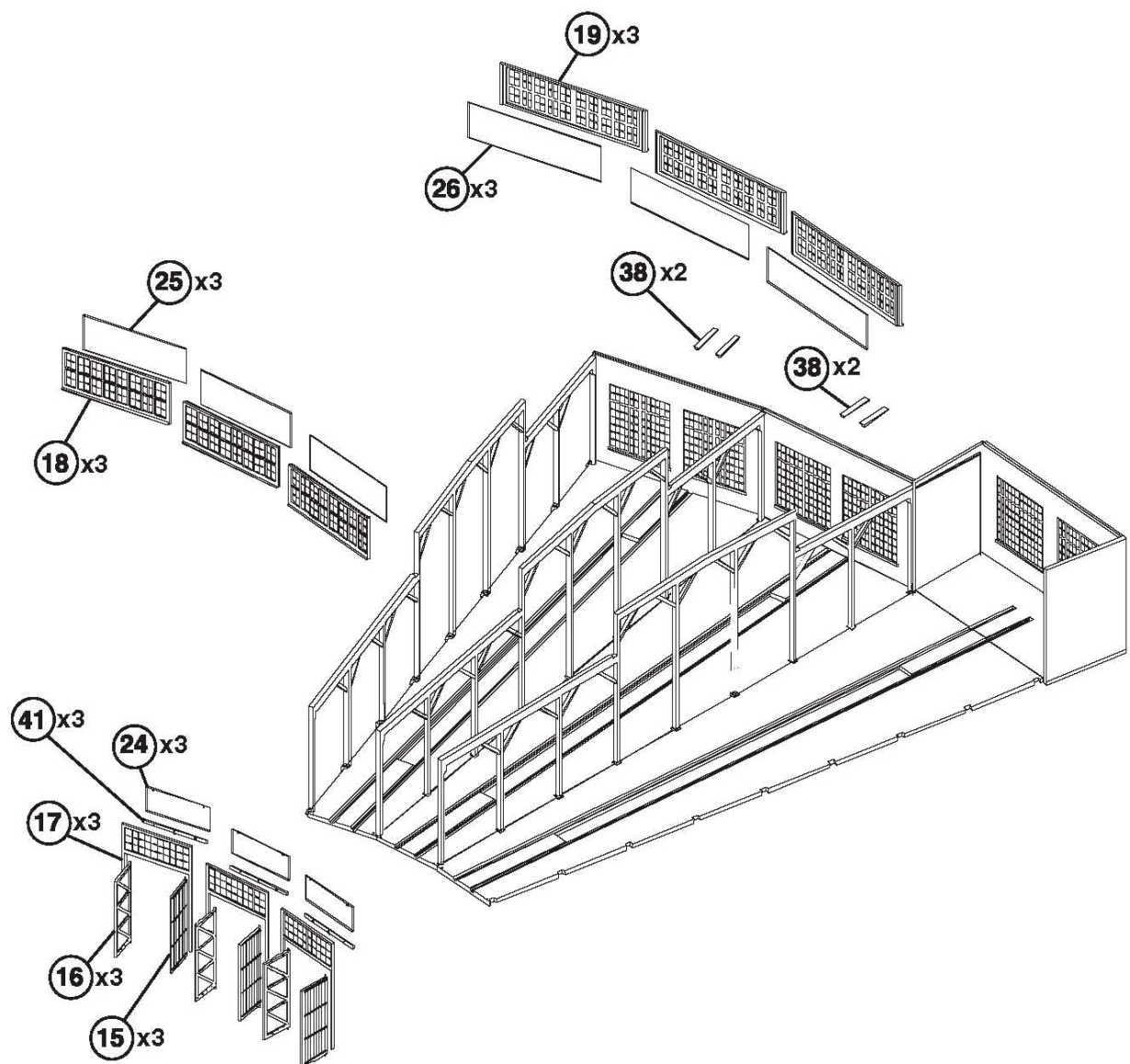
Roundhouses of this type were typically division point terminals, where engines were changed and serviced. A complete facility can be built with the Cinder Conveyor & Ash Pit (933-3181), Modern Coaling Tower (933-2903) or Concrete Coaling Tower (933-3042), Sanding Towers & Drying House (933-3182), Steel Water Tank (933-3043) or Wood Water Tank kit (933-3531).

For more ideas to detail your roundhouse scene, ask your dealer, visit our Web-site walterscornerstone.com or see the latest Walthers HO Scale Model Railroad Reference Book.

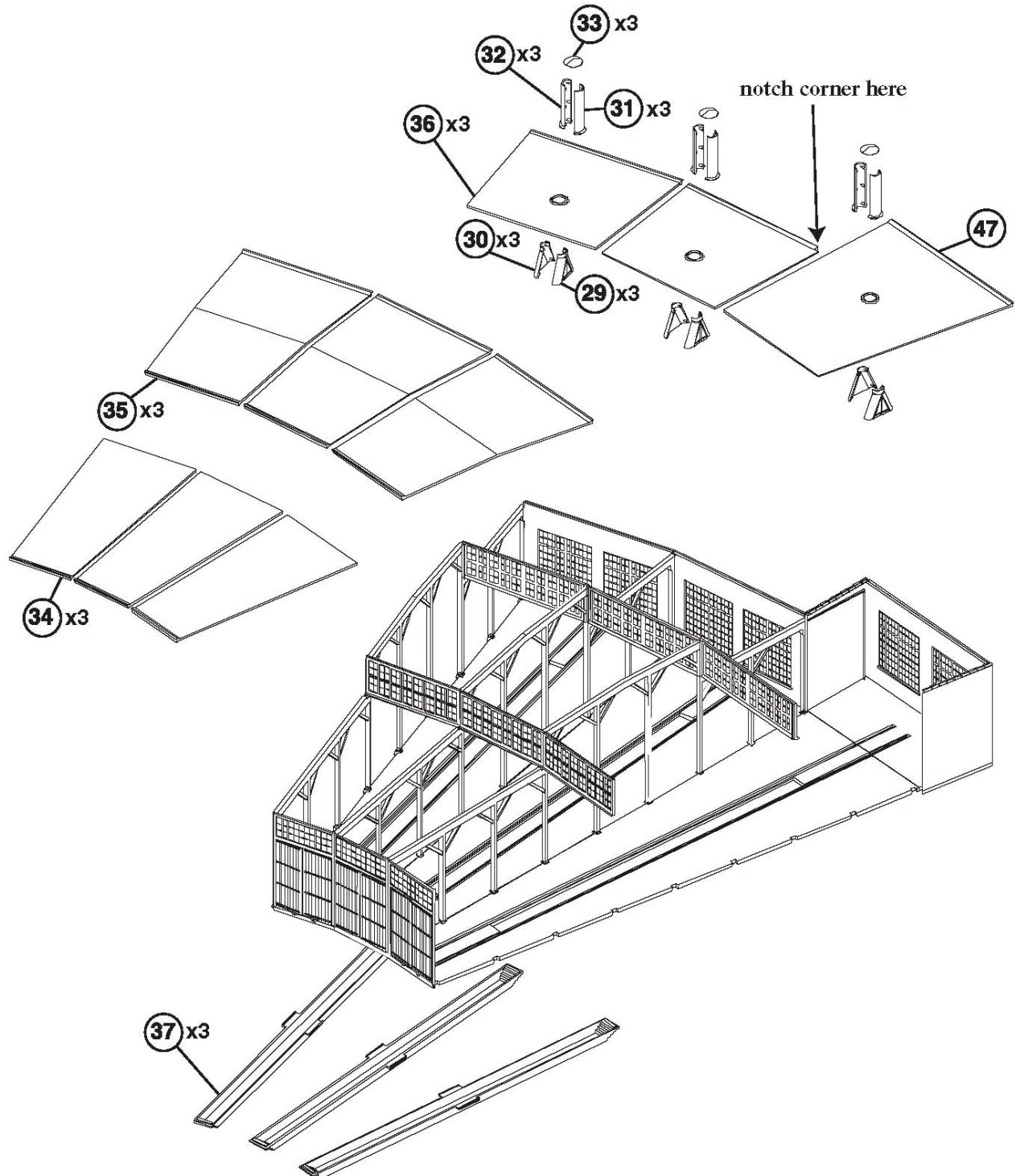
1. Glue the bases (1) together. If you wish to extend one stall, glue the extension (48) to the end of one of the bases. Note: There are only enough parts to make one extended stall. Then glue this to the base of the Modern Roundhouse 933-2900 (not included) where you left the side wall off.
2. Glue the timber frames (14) into the holes in the base. Note: Do not put a timber frame on the side where the side wall (from kit 933-2900) will be glued.
3. Glue the windows (23), the thick horizontal transom towards the top, into the openings in the outer wall panels (6, 44). Note: #44 is to be used for a stall extension. Glue the "glass" (39) onto the backs of the windows using the pegs and notches to align properly. Note: Make sure all flash is removed from the "glass" to insure a proper fit between inner and outer panels. Then glue the inner panels (7, 45) to the outer ones.
4. Glue the short stall rear walls (6/7) to the base. If adding the stall extension, glue the extension walls (42, 43) to the sides of the extension floor (48). Glue the rear extension wall (44/45) to base and side walls.



6. Glue the floor rail fillers (38) into the track grooves at the end of the short stalls only. Then mount track rails of your choice (not included) to all stalls.
7. Glue “glass” (24) to the backs of the stall fronts (17). Then glue the door retainers (41) to the backs of the fronts. Place the door’s (15, 16) upper peg into the door retainer. Glue the fronts in place with the door bottom pegs inserted into the holes in the base.
8. Follow Modern Roundhouse kit (933-2900) instructions as to side wall construction and placement.
9. Glue the “glass” (25, 26) to backs of the clerestory windows (18, 19).
10. Glue the front and rear clerestory windows (18, 19) in place.



11. Glue the exhaust stacks (29, 30) together and to the bottoms of the back roofs (36, 47). Note: Use #47 for a lengthened stall.
12. Glue roofs (34, 35, 36, 47) in place. Note: When using extended stall, a notch must be cut out at the corner of rear roof #36 – see illustration.
13. Glue smokejacks (31, 32, 33) together and in place on the roof.
14. Glue the inspection pits (37) in place on the bottom of the floor.



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 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®.