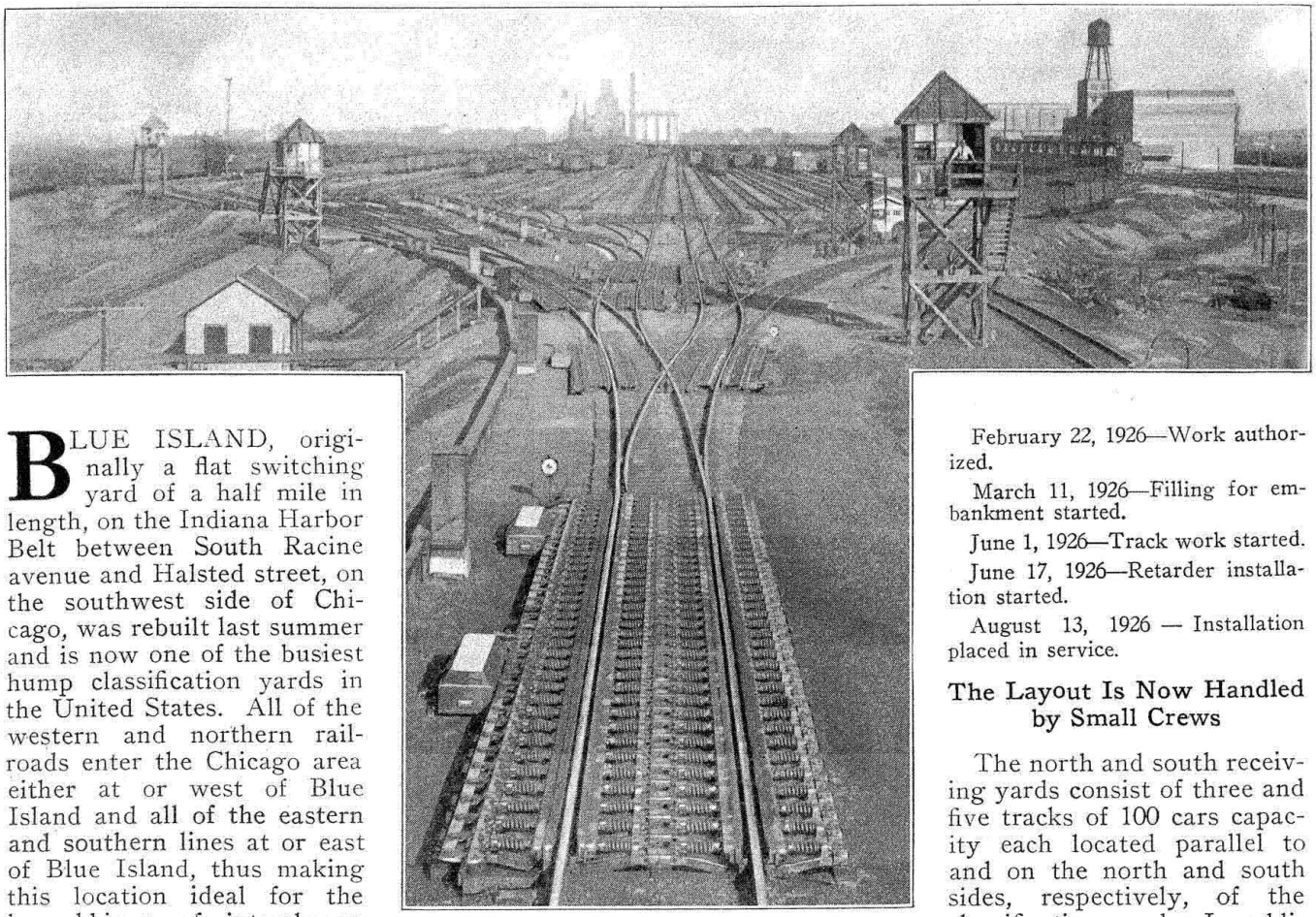
Indiana Harbor Belt Rebuilds Flat Yard Into Hump Layout Providing Retarders and Power Switches

Capacity of yard increased efficiently using smaller crews to classify an average of 2,000 cars a day under all weather conditions



General view of Blue Island yard looking east down the hump with the first retarder in foreground—Retarder control towers at edge of yard

BLUE ISLAND, originally a flat switching yard of a half mile in length, on the Indiana Harbor Belt between South Racine avenue and Halsted street, on the southwest side of Chicago, was rebuilt last summer and is now one of the busiest hump classification yards in the United States. All of the western and northern railroads enter the Chicago area either at or west of Blue Island and all of the eastern and southern lines at or east of Blue Island, thus making this location ideal for the handling of interchange traffic.

The best expansion that could be made without moving the yard several miles east or west, which would have necessitated serious back-hauls of traffic, was by closing Racine avenue and extending the yard so that it occupies a full mile between Halsted street and Ashland avenue with room for leads extending on the west from the cross-line of the Baltimore & Ohio Chicago Terminal and on the east to the Illinois Central. This condition forced the building of train and receiving tracks parallel to and adjoining the classification tracks as shown on the plan. The final plans call for a fourth lead on the west end so that there will be a separate lead for each receiving yard and two leads to the hump.

Converting this flat switching yard into a power-operated hump classification yard, including the installation of the G-R-S all-electric car retarder system was accomplished in less than six months' time. The record follows:

February 22, 1926—Work authorized.

March 11, 1926—Filling for embankment started.

June 1, 1926—Track work started.

June 17, 1926—Retarder installation started.

August 13, 1926 — Installation placed in service.

The Layout Is Now Handled by Small Crews

The north and south receiving yards consist of three and five tracks of 100 cars capacity each located parallel to and on the north and south sides, respectively, of the classification yard. In addition, two ice-house receiving tracks hold 100 cars each. This plan permits hump engines to pull cars out of one receiving yard while trains are arriving in the other yard. The departure yard consists of three tracks, each holding 100 cars.

The gradients of the classification yard after leaving the last retarder are, at present, 0.25 per cent although 0.3 per cent is ordinarily recommended. The operation of the yard, so far, shows less gradient required to overcome curvature than was originally contemplated. The entire gradients are so well balanced as to take care of all kinds of traffic.

The hump yard crew for each eight-hour shift consists of one yard master, one hump conductor, five car retarder operators, three switchmen, two engine crews (engineman and fireman), and one maintainer. Night switching is facilitated by a floodlighting system so arranged as to supply adequate illumination for the entire yard.

Approximately 50 per cent of all the freight traffic