

Progress of Track Elevation at Chicago.

An article on the above subject gives the following table:—

Track Elevation.	Length of track in miles.	Length of main tracks in miles.	No. of cross-ings eliminated.	No. of subways built.
A. T. & F. Ry.	1.75	3.50
C. & Alton R. R.	0.65	0.65
C. & N. W. Ry.	14.85	60.00	150	96
C. B. & Q. R. R.	2.75	11.00	14	16
C. M. & St. P. Ry. ...	8.40	18.30	33	29
C. R. I. & P. Ry., & L. S. & M. S. Ry. ..	5.50	22.00	32	32
C. R. I. & P. Ry. (alone)	1.80	3.60	15	14
L. S. & M. S. Ry. (alone)	0.90	1.80	2	3
Ill Cen. R. R.	3.00	30.00	19	26
C. M. & N. Ry.	1.00	2.00
S. C. Air Line	1.25	2.50	3	3
P. C. C. & S. L. R. (1,330 miles) included in C. & N. W. Ry.				
P. Ft. W. & C. Ry. ...	2.50	10.00	15	15
Total Elevation	44.00	165.35	283	234
Tracks Depressed:—				
A. T. & S. F. Ry. & C. & W. I. R. R. ...	0.50	10.00	2	2
C. M. & St. P. Ry. ...	0.50	0.50	.	.
Illinois Central Ry. ..	2.00	52.00	.	.
Total Depression	3.00	62.50	2	2
Work Provided for—				
A. T. & S. F. Ry. & C. M. & N. Ry.	2.84	12.30		
C. & Alton Ry.	4.50	13.50	56	40
P. C. C. & St. L. Ry., C. T. T. R. R. & W. St. Yds. & Co. 1.27	3.50			
P. Ft. W. & C. Ry., & W. L. R. R., Gd. T. R. & W. St. Yd. Co.	4.00	16.00	75	75
Total work provided for	12.61	45.23	131	115
Total work done and provided for	56.96	273.08	416	351

Nottingham. Population, 1901, 239,743. Proceedings, Inst., C.E. Great Central Railway, England. Northern Division.

A viaduct carries the railway across part of the town and passes over a number of streets, a canal and the tracks of the Midland Railway. For the rest of the town the track is principally in tunnel or cutting with a few overhead bridges.

At Loughborough (population, 1901, 21,508), the track is elevated, and at Leicester (population, 1901, 211,579), it is carried on a viaduct. A right-of-way occupation road crosses the line at grade about a mile south of Leicester, this being a special case, and the only grade crossing on the 52 miles of line.

Generally, this railway runs at right angles to the run of the ridges and valleys which caused heavy work in deep cuts or tunnels and high fills or viaducts.

Jersey City, N.J. Population, 1900, 206,433. Erie Track Elevation. Railroad Gazette, Vol. 29, page 74.

All grade crossings to be abo'ished which necessitates the elevation of the tracks from mouth of Bergen Hill Tunnel to the Terminal Yard at the water front. The crossing overhead of six streets and the closing of three streets.

The new grades will be much worse than the old ones, the main line between Henderson Street and the trainshed falling 0.832 per cent.; the elevated branch falling 1.75 per cent.; and the freight yard branch falling 2.49 per cent. to overcome which it will no doubt be necessary to elevate the yards between Henderson Street and the docks. The Engineering News (Vol. 57, page 204, February 21st, 1907), in describing the construction of a new four-track line through Bergen Hill, partly in open cut and partly in tunnel, says "the Erie looks forward to elevating its tracks, passing through the low lying portion of the city to the east of Bergen Hill."

Pennsylvania Railroad Terminal Improvement. Engineering News, Vol. 24, page 572, December 27th, 1890. The work comprises the construction of a four-track viaduct about 3,000 feet long, replacing oil surface tracks and grade crossings. This elevated structure runs from Bergen Hill to Henderson Street, and from there to the end of track the surface has been elevated by filling to height of 15 to 20 feet above the former surface. Heavy retaining walls support the embankment on all sides. Total area elevated covers about 55,000 square yards, requiring 350,000 cubic yards of filling.

Montreal, Que. Population, 267,730 in 1901. Transaction of Canadian Society of Civil Engineers, (February 15th, 1900).

Ontario Street subway carries street under ten tracks of the C.P.R. at Hochelaga, width of subway 40 feet over all, with 3 feet wall and posts in the centre, leaving two roadways 13 feet and 6 inches, and two sidewalks 5 feet wide.

Brock Street tunnel built from Craig Street to wharf to eliminate the climb to and from Notre Dame Street passes under C.P.R. tracks.

Notre Dame Street viaduct carries the street over the tracks of the C.P.R. leading to Place Viger Station.

Milwaukee, Wis. Population, 1900, 285,316. Engineering News, March 9th, 1905.

The problem of separation of grades is being taken up for the following reasons:—

- 1st.—Elimination of danger due to grade crossings.
- 2nd.—Elimination of delay to street traffic (including fire department equipment.)

A commencement has been already made, one piece of the line has been depressed, an ordinance has been passed and accepted, for the elevation of another line, and preliminary arrangements made in regard to other lines so that the work of eliminating the grade crossings will be spread over a number of years.

Track Depression.

The part already done is the depression of the main line of the C. & N. W. Railway where it passes through the north-east part of the city. This line has three tracks, but the width between retaining walls and abutments is made for four tracks. Part of the line has retaining walls on both sides, or on one side only, the remainder being through ordinary cuts with some side hill work along the Milwaukee River. The maximum depression is 18 to 20 feet, and the city lowered the sewers and water mains so as to place them about five feet below sub-grade.

Track Elevation.

The C. & N. W. Railway has accepted an ordinance providing for the elevation of the tracks of its Madison Division in the south-east part of the city, from the city limits to Greenfield Avenue. An ordinance is pending for the elevation of the C. M. & St. P. Railway tracks, which parallel those of the C. & N. W. Railway from Lincoln Avenue to Greenfield Avenue, including part of the spur connecting with the Chicago line of the latter railway. Negotiations are also in progress in regard to the lines of the C. M. & St. P. Railway running west from Union Station.