

EXTRACT FROM REPORT ON VIRGINIA FEDERAL AID  
PROJECT 371-C

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The following data are presented herewith from a lengthy report submitted by J C Albright, of Virginia, on an experimental concrete road finished in July, 1926, as Federal Aid Project 371-C and built by the Virginia State Highway Commission in cooperation with the U S Bureau of Public Roads. A large number of experimental sections were laid to demonstrate the effect of certain variables as listed. No detailed description of the project will be given here, but the details are on file in the records of the Highway Research Board. The data herewith presented will, however, serve as a record of the experiments now under way and will be useful for reference purposes in the future.

The pavement is laid near Bull Run, Virginia. It is 4.26 miles in length and is 18 feet wide. All sections were nominally of 8-6-8 cross-section excepting Nos. 20, 21, 22, 23 and 24, which were of 7 inches nominal uniform thickness.

- Section No. 1 3,935 feet in length 1 2 4 Vibrolithic construction.  
Section No. 2 1,358 feet 1 2 4 concrete Vibrolithic construction  
with an admixture of 5 per cent of calcium hydrate  
Section No. 3 527.5 feet of 1 2 4 concrete, plain, with a 5 per cent  
admixture of calcium hydrate  
Section No. 4 100 feet of 1 2 4 concrete, plain, with an 8 per cent  
admixture of calcium hydrate  
Section No. 5 762.5 feet of 1 2 4 concrete, plain, with 5 per cent  
admixture of calcium hydrate  
Section No. 6 3,980 feet of 1 2 4 concrete, plain  
Section No. 7 1,522.5 feet of one layer of 42-pound welded mesh  
fabric reinforcement  
Section No. 8 860.5 feet of two layers of 42-pound welded mesh  
fabric reinforcement. A 1 2 4 mix of concrete was used on  
both of these two reinforced sections  
Section No. 9 552 feet of two layers of 42-pound welded mesh  
fabric with a 1 2½ 3½ mix of concrete  
Section No. 10 1,625 feet of 1 2 4 concrete with 3 per cent admix-  
ture of Celite  
Section No. 11 205 feet of 1 2 4 concrete, plain

- Section No 12 475 feet of 1 2 4 plain concrete with a longitudinal plane of weakness
- Section No 13 120 feet of 1 2 4 plain concrete with longitudinal plane of weakness and one layer of single-ply tar paper on the subgrade
- Section No 14 365 feet of 1 2 4 concrete with longitudinal plane of weakness
- Section No 15 87 feet of 1 2 4 concrete, plain, with longitudinal plane of weakness and two layers of single-ply tar paper on subgrade In all of the above concrete Tidewater Portland cement was used
- Section No 16 308 feet of 1 2 4 concrete with longitudinal plane of weakness using Edison Portland cement
- Section No 17 53 feet of 1 2 4 concrete with longitudinal plane of weakness and one layer of Mosinee paper, Edison Portland cement
- Section No 18 77 feet of 1 2 4 concrete with longitudinal plane of weakness using Edison Portland cement
- Section No 19 120 feet of 1 2 4 plain concrete with longitudinal and transverse plane of weakness, 8-6-8 section transverse plane of weakness 40 feet center to center, Tidewater Portland cement used
- Section No 20 685 feet of 1 2 4 concrete with longitudinal and transverse planes of weakness, 7 inches uniform section and transverse planes of weakness 40 feet center to center
- Section No 21 200 feet of 1 2 4 concrete with longitudinal and transverse planes of weakness, 7 inches uniform section, 40 feet center to center, Edison Portland cement was used
- Section No 22 422 5 feet of 1 2 4 concrete with longitudinal and transverse planes of weakness, 7-inch uniform section, Edison Portland cement used and 4-foot  $\frac{5}{8}$ -inch dowells across center joint, 5 feet center to center
- Section No 23 625 feet of 1 2 4 concrete, Edison Portland cement, with a 2 per cent admixture of calcium chloride
- Section No 24 737 5 feet of 1 2 4 concrete, Tidewater Portland cement, with a 2 per cent admixture of calcium chloride
- Section No 25 2,780 feet of 1 2 4 concrete, plain, with Tidewater Portland cement Except where specified above, all of these sections were 8-6-8-inch sections