

MATERIALS & RESEARCH DIVISION

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RESEARCH UPDATE

NUMBER 88-16

MIRAMAT EROSION CONTROL / VEGETATION MAT

REFERENCE:

Work Plan 87-R-1

HISTORY:

Miramat, a three dimensional web of bonded vinyl monofilaments, was specified for use on an urban street reconstruction project, Barre M600(9)S, known locally as Prospect Street. The installation site consisted of a 225' long by 11-1/2' wide shallow ditch on a 16+% grade situated between a concrete curb and a 10±' high concrete wall. Two D.I.s were located within the ditch line. The seeded ditch was specified in place of a paved or stone lined treatment to comply with the city's request.

STATUS

The installation was made on September 20, 1988. The area had been graded, fertilized, limed and seeded earlier. Two strips of the 3'-9" wide material were placed with a 4" overlap at the center. The mat was anchored at the beginning and end of the installation by placing it in 8" deep by 12" wide terminal trenches. In addition, the material was folded down into 8" deep by 12" wide check slots at two additional locations. Six inch long wire staples were used to pin the mat in the trenches and at 3' intervals at the centerline overlap. The 225' installation was completed by placing the outside edge of the mat in a shallow trench and covering it with soil. Upon completion an average of 5-1/2' of the mat remained exposed. The work was completed by a crew of two men working a total of 3-1/2 man hours. Photographs were taken of the installation.

COST

MIRAMAT was paid for at a cost of \$10.00 per square yard. The cost of seed (80# / acre at \$8.00 / lb), fertilizer (500 # / acre at \$1.00 / lb), and limestone (2 Tons / acre at \$300.00 / Ton) increased the overall cost of treatment to approximately \$11.00 / sy.

Other treatments which could have been used at the site and their estimated costs are as follows:

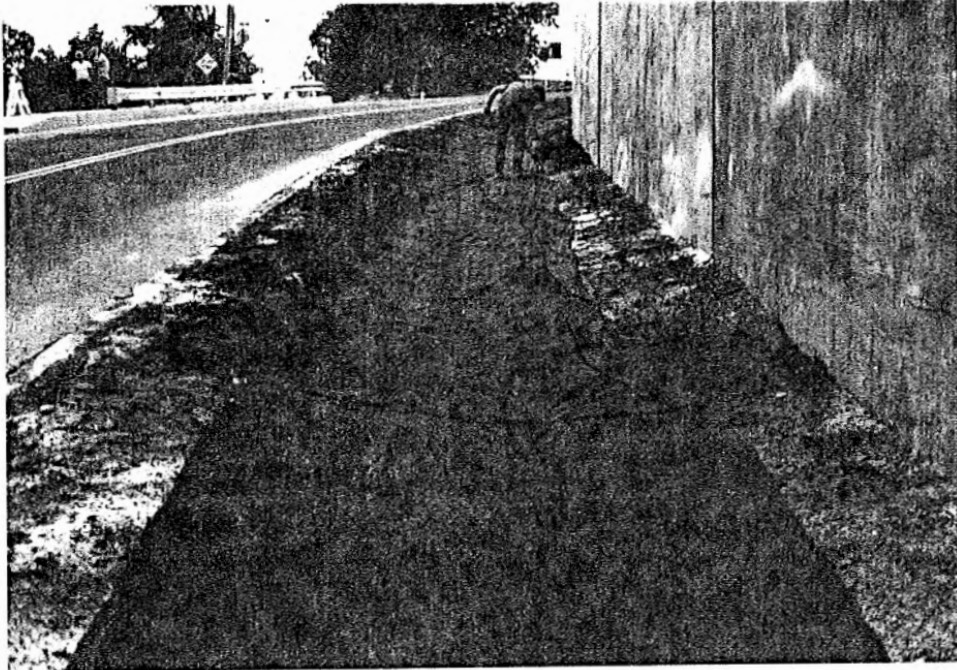
Item 613.10 Type I Stone Fill	\$25.00 / cy	=	\$8.33 / sy
Item 616.47 Bituminous Gutters	\$88.00 / Ton	=	\$9.58 / sy
Item 651.30 Sodding		=	\$6.00 / sy

#### SUMMARY

The product was installed quickly and without difficulty. The green color of the mat provided an aesthetically pleasing appearance. The \$11.00 / sy. cost of the treatment was significantly higher than the cost of Stone Fill, Bituminous Gutters or Sodding.

#### FOLLOW UP

Moderate to heavy rainfall the evening after the installation did not result in erosion. With very few days remaining in the growing season, particular attention will be paid to the generation of grass beneath the mat and on the adjacent mulched area. Monitoring will continue with a final performance report planned.



Anchoring the edges of the mat.