



Whit Webb
Feasibility Studies Unit
C.S. #5-31-00
Highway Bldg

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT, JR.
GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201

SAM HUNT
SECRETARY

July 14, 1993

JUL 19 1993
STATE DEPARTMENT OF TRANSPORTATION

MEMORANDUM TO: Mr. Whit H. Webb
Head of Feasibility Studies Unit

FROM: E. T. Cozart, III, PE *E. Milton for*
Special Design Engineer

SUBJECT: Nash County
I-95/NC 4 Interchange at Gold Rock
I-95/US 64 Interchange at Rocky Mount

Lighting

In response to the verbal request by Mr. Mohammed Mustafa on July 12, 1993 to Dave Milton of this office, an estimate has been made to provide lighting at the subject interchanges. The estimates are being forwarded to Mr. Doug Lane by copy of this memo to assure that appropriate percentages are added for mobilization, engineering and contract administration. It should be noted that only traffic control and landscape work considered essential to accomplish the lighting work was included.

An estimate was prepared for each of the interchanges because they were constructed as part of separate NCDOT roadway projects. The I-95/US 64 interchange was constructed as part of NCDOT project 8.1161704 (let July 1975) and the I-95/NC 4 interchange was constructed as part of NCDOT project 8.1161805 (let October 1965).

The estimates are based on using a combination of high mast (100' and 120') and conventional (45') mounting height lights with underground circuitry, and high pressure sodium (HPS) lamps.

The estimated annual electrical cost to operate the lighting system at NC 4 (30.6 kw load) is \$9,792 and for US 64 (71.6 kw load) is \$23,040. Both electrical estimates are based on 4000 hours per year at \$.08 per kilowatt hour (Kwhr).



Mr. Webb
July 14, 1993
page 2

The annual maintenance cost to replace failed lamps and circuitry, and to repair pole knockdowns is difficult to estimate, but \$1,500 for NC 4 and \$3,000 for US 64 would not be unreasonable.

If additional information is needed please contact Mr. Dave Milton or Mr. Doug Lane at (919) 250-4128.

ETC\TFP\tfp

CC: Mr. W. D. McFarling, PE
Ms. Kathy Lassiter, PE (attn: Mr. Roland Robinson)
Mr. C. A. Gardner, Jr., PE
Mr. Kenneth Hill
Mr. Mohammed Mustafa
Mr. D. F. Milton w/attachment worksheets and estimates
Mr. Doug Lane w/attachment estimates

file: C:\TIP\R3009\WW071493.WP