



B. MOORE

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT JR.  
GOVERNOR

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

R. SAMUEL HUNT III  
SECRETARY

MEMO TO: Roadway Design Project Engineers  
Roadway Design Project Design Engineers  
Charlie Casey, Zigrida Smith

FROM: Harry Thompson

DATE: September 5, 1995

SUBJECT: Metric Structure Recommendations

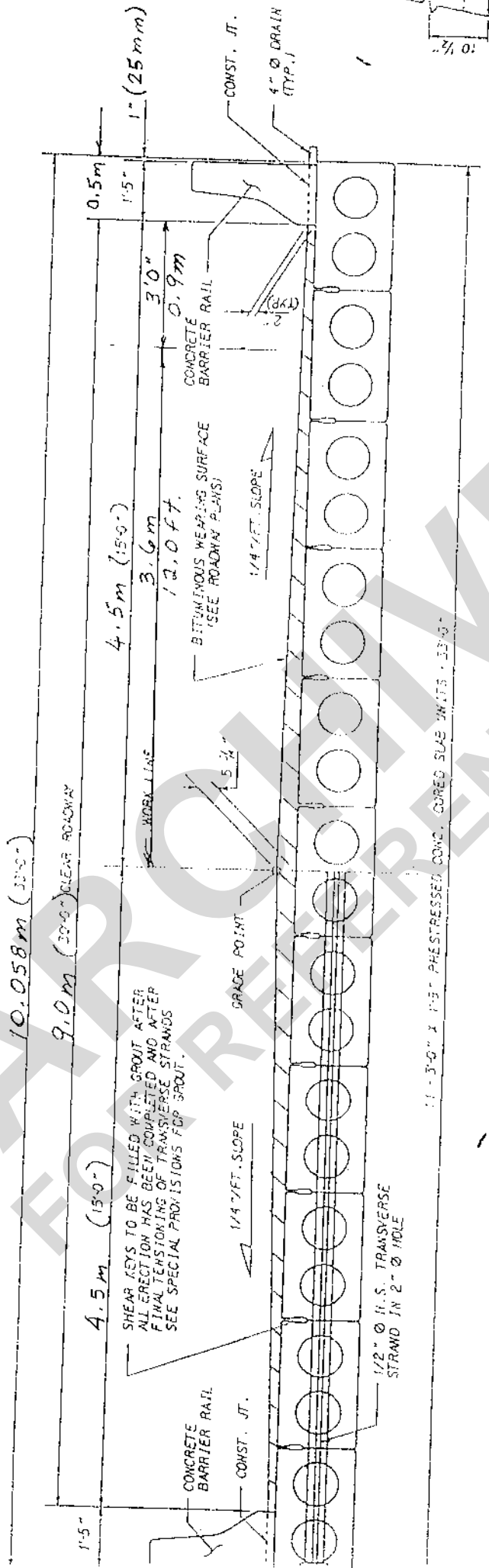
In our efforts to utilize "hard" metric numbers where possible, we decided to use 1 meter as the hard metric number for the 3' offset on structures. This results in an offset approximately three inches greater than three feet. Since we were striving to use "hard" numbers, we believed this difference to be acceptable.

This works well on all bridge cross-sections except for one condition. This condition is the cored slab bridge with a 30' roadway clearance, 2-12' lanes and 3' offsets. In this case only, the one meter offset will not work. A 0.9 meter offset is needed for this condition so the same number of 3' slabs can be utilized. The total width available in english is 33.0 feet (10.058 m). The total width needed in metric is 7.2 m (2 lanes), 1.8 m (2 offsets), and 1 m (2 bridge rails), which is 10 meters. This leaves 58 mm for 2 shelves outside the bridge rails which is used during construction for slip forming the bridge rails (see attachment).

HMT

cc: Mr. Tom Shearin, PE  
Mr. Len Hill, PE  
Mr. Bob Pearson, PE





HALF SECTION @ INTERMEDIATE DIAPHRAGM

HALF SECTION @ END BENT & BENT