



NO DECK DRAINS REQUIRED. SPREAD ANALYSIS table with columns for REVISIONS, CORRECTED EFFECTIVE, and DUCPLICATE EFFECTIVE.

FEMA PERFORMANCE TABLE and NCDOT PERFORMANCE TABLE with columns for PROPOSED, EXISTING, and NATURAL conditions.

Technical data tables including K=28, EL=607.72, PL=15+50.00 and K=58, EL=606.94, PL=12+90.00.

SCALE: 1" = 50' HORIZONTAL, 1" = 10' VERTICAL

INFORMATION TO BE SHOWN ON PLANS

Table with columns: Design, Discharge, Frequency, Elev. for various flow conditions.

ADDITIONAL INFORMATION AND COMPUTATIONS

USGS RURAL REGRESSION EQUATIONS and PRELIMINARY HEC-RAS DISCHARGE table.

AFTER COMPARISON, THE DISCHARGES FROM THE PRELIMINARY HEC-RAS MODEL SHOULD BE USED TO DESIGN THE PROPOSED BRIDGE.

LIVE-BED CONTRACTION SCOUR: Ys = Y1(Q2/Q1)^0.67 [W1/W2]^0.33

- NOTES: 1. NO UPSTREAM OR DOWNSTREAM STRUCTURES... 2. STREAM BED MATERIAL IS SILTY SAND... 3. JEFFREY BROWN, THE NCDOT DIVISION 7 TRANSPORTATION SUPERVISOR...

SITE DATA

Drainage Area 7.0 SQ. MI., River Basin CAPE FEAR, Stream Classification WS-IV; NSW, Data on Existing Structure 2 SPANS, 1@20'-3" AND 1@21'-0" TIMBER DECK ON I-BEAMS...

DESIGN DATA

Hydrological Method FEMA PRELIMINARY DISCHARGES COMPARED WITH USGS RURAL REGRESSION EQUATIONS, Floods Evaluated table, Waterway Opening Provided Below: Design W.S. Elev. 401.3 s.f., 100yr W.S. Elev. 475.7 s.f., Total 529.2 s.f.

BRIDGE SURVEY & HYDRAULIC DESIGN REPORT

N. C. DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS HYDRAULICS UNIT RALEIGH, N. C.

I.D. No. SF-400205, Project No. 17BP.7.R.135, Project Station 14+30.0, County GUILFORD, Bridge Over ROCK CREEK, Bridge Inv. No. 0205, On Highway (BETHEL CHURCH ROAD) Between (GARDEN ACRES DR.) and (DUNN ROAD), Recommended Structure 1 SPAN, 24" PCCS, 1@70' w/4' DEEP CAPS.



Designed by: MOTT MACDONALD, Assisted by: EMR, Project Engineer: TRENTON J. CORMIER, PE, Reviewed by: Erik Seiler

