STORM DRAINAGE

LOCATION: Branchester Section 3
DATE: 6/1/89 CALC. DAJ CHKD. CLC P.N.
REV. 6/15/89

J. TIMMONS & ASSOC., P.C.
4411 CROSSINGS BLVD.
PRINCE GEORGE CO., VA.
458-8685

$h_j = 0.35\,(V_1^2/2g)$ – EXPANSION LOSS
$h_j = 0.25\,(V_2^2/2g)$ – CONTRACTION LOSS
$h_j = K\,(V_2^2/2g)$ – BEND LOSS
$h_j = h_1 + h_2 + h_3$ – TOTAL JUNCTION LOSS

THE ENERGY LOSS FOR THE INITIAL INLET OF A STORM SEWER SYSTEM IS $0.5\,(V_2^2/2g)$.
WHEN MORE THAN ONE LINE ENTERS AN INLET DETERMINE LINE EXERTING GREATEST MOMENTUM (QV) FOR V_1.
USE LINE WITH GREATEST "K" VALUE FOR DETERMINING h_j.
IF INLET SHAPING IS USED REDUCE "h_j" BY 50%.
IF SURFACE INFLOW OCCURS INCREASE "h_j" BY 50%.
BEGIN HYDRAULIC GRADE LINE AT PIPE OUTFALL USING 0.5 PIPE DIA. OR TW WHICHEVER IS GREATER.

90° E = 0.70	90° E = 0.55
60° E = 0.80	60° E = 0.55
45° E = 0.85	45° E = 0.60
30° E = 0.85	30° E = 0.60
22½° E = 0.87	22½° E = 0.60

HYDRAULIC GRADE LINE — JUNCTION LOSSES

| 35 V_1 | | |