CONTINUOUS BEAM ANALYSIS

NORTH CAROLINA STATE HIGHWAY

E70100

PROB. IDENT. NO. (NUMERIC)	FREE STYLE	PROJECT NO. (INCLUDE DECIMAL)	NAME FIRST LAST	PHONE	PROG. NO.
*		*			E 7 0 1 0 0

"1" = NON-COMP. BM.
"0" = COMP. BM.

BEAM CONSTANTS

N_s	$\mathbb{L}$ CLASS	TYPE	W_{DLnc}	W_{DLc}	W_{sw}	W_c	E	BM. SPAC.	ΣZ_r
1									

"1" = CONC. BM.
"0" = STEEL BM.

"1" = EXT. BM.
"0" = INT. BM.

REV. E70100
GEORGIA PROGRAM

OPTIONAL BEAM CONSTANTS

	D^f_m	D^f_{ve}	D^f_d	$n = E_s/E_c$ 1n	3n	$\mathbb{L}$ SKIP T	L	M	# $\mathbb{L}$ STRESS CYCLES	STEEL BEAM ONLY F_y	F_u	CONCRETE BM. ONLY F_c	F_s
2													

BEAM CONSTANTS

N_s — NUMBER OF SPANS ($2 < N_s < 8$)
$\mathbb{L}$ CLASS — A.A.S.H.T.O. $\mathbb{L}$ DESIGNATION, HS 20, etc.
W_{DLnc} — UNIFORM NON-COMPOSITE DEAD LOAD, kips/ft.
W_{DLc} — UNIFORM COMPOSITE DEAD LOAD, kips/ft.
W_{sw} — UNIFORM SIDEWALK LIVE LOAD, kips/ft.
W_c — UNIT WEIGHT OF BEAM MATERIAL, lbs./ft.^{3}
E — MODULUS OF ELASTICITY OF BEAM MATERIAL, million lbs./in.^{2}
BM. SPAC. — BEAM SPACING, ft.
ΣZ_r — SHEAR CONNECTOR CAPACITY, ONE TRANSVERSE ROW, kips.
DO NOT INCLUDE BEAM WEIGHT IN W_{DLnc}.

OPTIONAL BEAM CONSTANTS

D^f_m — DISTRIBUTION FACTOR FOR MOMENT, SHEAR.
D^f_{ve} — DISTRIBUTION FACTOR FOR END SHEAR.
D^f_d — DISTRIBUTION FACTOR FOR $\mathbb{L}$ DEFLECTIONS.
n - MODULAR RATIO SHORT(1n) AND LONG (3n) TERM VALUES.
(9 and 27 assumed if not given)
$\mathbb{L}$ SKIP — ENTER DIGIT "1" TO SKIP TRUCK (T), LANE (L), OR MILITARY (M) LIVE LOAD.

VALUES ASSUMED IF NOT GIVEN:

NO. $\mathbb{L}$ CYCLES — NUMBER CYCLES MAXIMUM STRESS. 500,000
F_y — MIN. YIELD STRENGTH BEAM MATERIAL, kips/in.^{2} 50.0
F_u — MIN. TENSILE STRENGTH BEAM MATERIAL, kips/in.^{2} 70.0
F_c — ALLOWABLE CONCRETE FLEXURE STRESS, kips/in.^{2} 1.200
F_s — ALLOWABLE REINFORCING STEEL STRESS, kips/in.^{2} 20.0