

MODIFICATIONS MADE FOR GRAPHICS USING

GEORGIA BRIDGE GEOMETRY PROGRAM

Modifications have been made to the Georgia Bridge Geometry Program that will create a graphic representation of a plan view of a bridge.

The following pages will illustrate what additions to the input and what commands are necessary to create the graphics.

NOTE: NEGATIVE NUMBERS ARE DESIGNATED BY A MINUS (-) SIGN PRECEDING THE FIRST SIGNIFICANT DIGIT OF THE FIELD.

PROBLEM IDENTIFICATION, PROJECT, COUNTY, DATE, BY, ETC.

PROG. NO. 10  
# B.O.2

15 20 25 30 35 40 45 50 55 60 65 70 75 80

WRITE "CONT." IN C.C. 77-80 WHEN AN ADDITIONAL IDENT. CARD IS TO BE USED.

LOCATION DATA

STATION OF REFERENCE POINT	REF. ANGLE $\alpha$	DIST. FROM ORIGIN $X_o, Y_o$	REQUIRED ONLY WHEN CURVE 2 IS ON A TANGENT
DEG. MIN. SEC.	DEG. MIN. SEC.		

HORIZONTAL CURVE DATA

CURVE NO. 1	CURVE NO. 2 (MUST CONTAIN THE REFERENCE POINT)	CURVE NO. 3
DEG. MIN. SEC.	DEG. MIN. SEC.	DEG. MIN. SEC.
PC. STATION	P.T. STATION	
10	28	42

VERTICAL CURVE DATA \*\* ALWAYS DEFINED, ALL CASES (TYP)

PVI. 1 STA.	PVI. 2 STA.
17	27

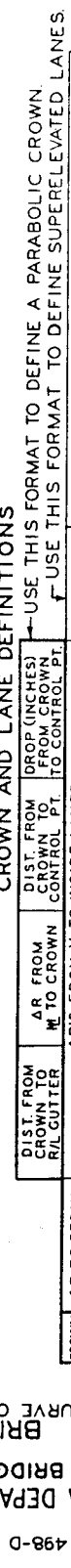
ELEV. PVI. 2	% GRADE 2-1	L.V.C. 1	% GRADE 1-2	L.V.C. 2	% GRADE 2-3
10	13	26	35	42	52

CROWN AND LANE DEFINITIONS

AR FROM M TO CROWN	DIST. FROM CROWN TO CONTROL PT. TO CONTROL PT.	USE THIS FORMAT TO DEFINE A PARABOLIC CROWN
M TO CROWN	FROM CROWN	USE THIS FORMAT TO DEFINE SUPERELEVATED LANES
AR FROM M TO INSIDE LANES	AR TO BEGIN OUTSIDE S.E.	
S.R. 1	S.R. 2	S.R. 3
3	17	32

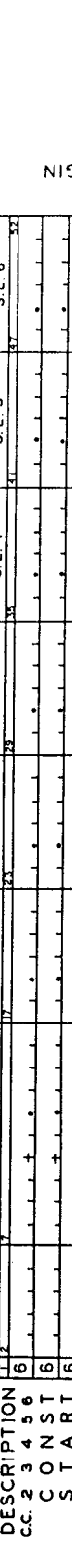
SUPERELEVATION DATA (MAX. NO. OF 10)

DESCRIPTION	AT STATION **	S.E. 1	S.E. 2	S.E. 3	S.E. 4	S.E. 5	S.E. 6
CC. 2	7	17	23	28	35	41	47
3							
4							
5							
6							



\*\* MAY BE WITHIN OR OUTSIDE OF LIMITING STATIONS

NOTE: THE PROGRAM WILL NOT RECOGNIZE A STATIONING "EQUALITY".



GIVE SUPERELEVATIONS IN INCHES PER FOOT

SHEET 1 OF 1

ADDITIONS TO CODE:

In the "LOCATION DATA" record column 51 should contain one of the following;

- A. "R" code, for horizontal curve to the right
- B. "L" code, for horizontal curve to the left
- C. "S" code, for no horizontal curve straight

GEORGIA DEPARTMENT OF TRANSPORTATION  
BRIDGE DESIGN OFFICE  
BRIDGE GEOMETRY  
CURVE ORIGIN IS ON THIS SIDE, SE

DOT 498-D 7-1-72

7-1-72

DOT 498-L  
THE LAST CODE  
GIVEN MUST BE  
"END"

BRIDGE GEOMETRY- LONGITUDINAL LINES

MAX. NUMBER OF LINES IS THIRTY (30).  
USE THIS FORMAT FOR RLG, ARC, CRD, STP, CTP, PAR, PIA, COS, PIB CODES.  
USE THIS FORMAT FOR COR CODE.

Δ R FROM W IF IGNORE EXCEPT FOR STP, CTP & COS  
COS, CTP, ARC, CRD, STP, PAR, PIA CONTROL STA TAPER RATE IF CTP  
LINE IF RLG, PAR, PIB, PIA STP RADIUS IF COS

SEQ. NO.	TYPE	REF. CALL	POINT 1 X-COORDINATE	POINT 2 Y-COORDINATE	POINT 3 X-COORDINATE	POINT 4 Y-COORDINATE	REMARKS
701							
702							
703							
704							
705							
706							
707							
708							
709							
710							
711							
712							
713							
714							
715							
716							
717							
718							
719							
720							
721							
722							
723							
724							
725							
726							
727							
728							
729							
730							
731							

REQUIRED FOR RLG, PAR, PIB, AND PIA CODES. TAPER RATES ARE IN FEET PER HUNDRED FEET. MEET OF

ADDITIONS TO CODE:

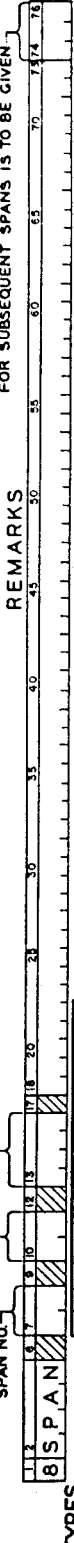
The code to be placed in column 80 in the "LONGITUDINAL LINE" record provides an option of 6 letters and a blank space. That is, each longitudinal line is to be one of the following:

1. "B" for centerline of beam, dashed line
2. "C" for solid concrete line
3. "S" for centerline of construction, survey, P.G.L., dashed line
4. "E" for existing concrete line, dashed line
5. "L" for alternate centerline, dashed line
6. "W" for wingwall line, dashed line
7. (blank) no plot

7-1-72

# BRIDGE GEOMETRY-SPAN TYPE TRANSVERSE LINE DATA

NUMBER OF "T" LINES THIS SPAN: 8 SPAN NO. 1 WRITE "LAST" IF LAST SPAN



WRITE "YES" IF LONGITUDINAL LINE DATA FOR SUBSEQUENT SPANS IS TO BE GIVEN

SPAN NO.	1	2	3	4	5	6	7	8
LONGITUDINAL LINE DATA								

STATION	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

LINE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
REMARKS																					

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

STA.	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
REMARKS																	

MAX. NO. OF T-LINES IS TWENTY (20). SHEET \_\_\_ OF \_\_\_

**BENT CODE TYPES**  
 C.C. 5 6 7 8  
 S SKEW  
 P PARL  
 P STA  
 S SAME  
 (B ONLY)  
 P PREV  
 (A ONLY)

**T-LINE CODES**  
 FIRST CODE  
 SECOND CODE  
 SKEW STAT  
 CONS DIST PROP  
 NORM DIST PROP  
 PARL DIST PROP  
 ANGL DIST PROP  
 PTPT DIST PROP  
 COOR

\*STATION MUST BE ON THE CONTROL LINE.

ADDITIONS TO CODE:

On each "TRANSVERSE LINE" sheet, the back bent, "B", and the ahead bent "A" must have a code entered to column 50. Choose one of the following for line B, and one for line A.

1. "C" for solid concrete line at centerline bent
2. "S" for dashed line at centerline bent
3. (blank) no plot

TO RUN GEOMETRY PLOT PROGRAM

In BBB

-Run the program (BRGMINT) using line codes for graphics.

\$ BRGMINT

Enter Input File:  
Enter Output File:  
Enter Integraph File: \_\_\_\_ .INT

In CCC

-Exit graphics mode  
-Copy or Net Integraph File from BBB

\$ COP VAX::DT\_USER:[DTUSER]\_\_\_\_.INT []

Copies using same name.

\$ NET

Nodename:  
Username:  
Password:

To exit type in QUIT  
File(s) to be copied from BBB:Filename.INT  
Location of files on BBB :DT\_BR?:[DTBR?]

-After INT file is copied, exit NET (QUIT)  
-Run the conversion program that takes the \_\_\_\_ .INT File

\$ GATRANS

Enter \_\_\_\_ .INT file from Geometry program : \_\_\_\_ .INT

This is a batch job and will take some time to  
create a graphics file called \_\_\_\_ .DGN  
To check on completion. \$ DIR/SIZ=ALL \_\_\_\_ .\*

-After batch job is completed you may view the graphics  
using a graphics terminal (Modgraph terminal).

-To view on a Modgraph terminal:

-located in CCC  
-comands

\$ SETUP <RETURN>  
GX1000 (CODE FOR MODGRAPH)  
N for tablet

\$PSEUDO FILENAME (DGN not necessary)

-COMMANDS

ZOOM IN (factor) <RETURN> [MAKES LARGER]  
set crosshair with arrows 2<activates>  
ZOOM OUT (factor) <RETURN> [MAKES SMALLER]  
set crosshair with arrows 2<activates>

FIT <RETURN> fills screen [BEST FIT]  
SET LEVEL ? (ON or OFF)  
SET TEXT (SLOW or OFF)

SUMMARY OF INTERGRAPH CODES FOR GRAPHICS LINE CODES

LONGITUDINAL LINE CODES

TYPE	GEOMETRY CODE	LV	LC	LT	LS
SOLID CONCRETE	C	2	0	4	0
CENT. LINE BEAM	B	6	2	1	4
SURVEY CENT. LINE/PGL	S	5	2	1	6
EXISTING CONCRETE	E	19	7	1	0
CENT. LINE BRIDGE(IF DIFF.)	L	5	2	1	7
WING WALL	W	20	0	1	5

BENT LINE CODES

TYPE	GEOMETRY CODE	LV	LC	LT	LS
SOLID CONCRETE	C	2	0	4	0
DASHED	S	2	0	4	3

T-LINES

TYPE	GEOMETRY CODE	LV	LC	LT	LS
ALL T-LINES	N/A	20	5	1	7