BRIDGE FOUNDATION INVESTIGATION

APD F-056-1 (5) FULTON
I-285 EBL OVER NBL
BRIDGE #4

121-0247-0
121-00407D-026.10C

1. LOCATION - 40

This bridge is to be located in the proposed I-285 - F-056 interchange on the present I-285 between Roswell Road and Peachtree Dunwoody Road. It is to be geologically sited in the Carolina Series of the Georgia Piedmont Region.

2. SUBSURFACE CONDITIONS -

Reference should be made to the attached soil profile and boring logs. Some pertinent subsurface details are as follows:

a) The ground water table was at elevation 980.0 at the time of our exploration.

b) The present I-285 roadway is in a low fill section.

c) Weathered rock was encountered between elevations 947.0 and 955.0. This weathered rock graded rapidly into hard rock.

3. END BENT FOUNDATIONS -

Steel "H" piles and cast-in-place concrete piles were considered here. Steel "H" piles would have considerably longer lengths for the same bearings as cast-in-place. In view of this, cast-in-place concrete piles are considered best suited and are recommended. Maximum recommended bearings for these piles at this site are as follows:

12" CIP	48 Tons
14" CIP	58 Tons
16" CIP	76 Tons

Cast-in-place concrete piles should obtain these bearings with the following tip elevations:

Bent 1	943.0
Bent 4	964.0

These piles may be driven to bearing as determined by the dynamic driving formula.

4. INTERMEDIATE BENT FOUNDATIONS -

Cast-in-place concrete pile foundations and steel "H" pile foundations were considered for this bridge. CIP piles are well suited except at the left footing of bent 2 where hard driving is indicated for marginal penetration. In view of this, pile footings

using steel "H" piles are recommended for all intermediate bents. Maximum recommended bearings for these piles are as follows:

10 BP 42	55 Tons
12 BP 53	70 Tons

This bearing should be available at or near the refusal points shown on the borings. Piles may be driven to bearing as determined by the dynamic formula.

5. DANGER FROM FILL SETTLEMENT - No danger.

Thomas D. Moreland
Highway Materials Engineer

TDM:JCR:sev

7-25-66

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-19-66

LOCATION I-285 EBL OVER NBL BR. #4 BORING NO. 1

BENT NO. 1 FOOTING LT. GROUND ELEV. 1007.53

PROPOSED FOOTING ELEV. 1000.0 PARTY CHIEF SIMMONS

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
	SOFT RED SILTY CLAY			0-2' BASE											
	BROWN SANDY SILT														
1000	BOULDERS														
	LOOSE - MEDIUM DENSE MULTICOLORED SANDY CLAYEY SILT	1S	18		20.1								21		
990		2S	27		36.1								28		
		3S	4		45.6								32		
980		4S	9	•	41.6								23		
		5S	4		46.4								32		
970		6S	8		40.8								31		
		7S	11		33.1								19		
	DENSE MULTICOLORED MICACEOUS SILT 75°	8S	37		29.3								29		
		9S	21		30.7								29		
950		10S	28		27.4								31		
		11S	43		20.5								11		
	WEATHERED ROCK														
930	END DRILLING?														

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-20-66

LOCATION I-285 EBL OVER NBL Br. #4 BORING NO. 3

BENT NO. 2 FOOTING LT. GROUND ELEV. 1005.83

PROPOSED FOOTING ELEV. 975.0 PARTY CHIEF MAXWELL

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.			0-2' BASE											
	BROWN MICACEOUS SILT														
1000															
990	RED SANDY CLAY														
S.W.T.	LOOSE-MEDIUM DENSE MULTICOLORED SANDY SILT														
980	TP	1S	11												
970		2S	18												
	DENSE-VERY DENSE (SAME)	3S	40												
		4S	74												
960		5S	42												
	WEATHERED ROCK	6S	60=7"												
950	REFUSAL ON ROCK?	75'													

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 6-6-66

LOCATION I-285 EBL OVER NBL #4 BORING NO. 4

BENT NO. 2 FOOTING RT. GROUND ELEV. 1006.27

PROPOSED FOOTING ELEV. 975.0 PARTY CHIEF MAXWELL

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
	BROWN MICACEOUS SILT			0-2' BASE											
1000															
	BOULDER														
	BROWN MICACEOUS SILT														
990	BOULDER														
	LOOSE - MEDIUM DENSE BROWN MICACEOUS SILT (MOIST)														
980		1S	8		46.6								27		
		2S	12		39.9								25		
970		3S	11		36.1								22		
		4S	15		34.1								27		
		5S	14		37.1								27		
960	DENSE - VERY DENSE MULTICOLORED MICACEOUS SILT	6S	30		25.1								25		
		7S	33		24.7								22		
950		8S	60/.5'	•	19.0								26		
	WEATHERED ROCK														
940															

.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-20-66

LOCATION I-285 EBL #4 BORING NO. 5

BENT NO. 3 FOOTING LT. GROUND ELEV. 1003.5

PROPOSED FOOTING ELEV. 970.0 PARTY CHIEF MAXWELL

EV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	Ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
000	BROWN MICACEOUS SILT			0-2' BASE											
990															
	RED SILTY CLAY														
980	LOOSE-MEDIUM DENSE MULTICOLORED MICACEOUS SILT														
970		1S	10												
		2S	11												
		3S	16												
		4S	9												
960															
		5S	17												
		6S	22												
950															
	WEATHERED ROCK 75c	7S	60 0.4'												
	REFUSAL														

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 6-2-66

LOCATION I-285 EBL # 4 BORING NO. 6

BENT NO. 3 FOOTING RT. GROUND ELEV. 1003.7

PROPOSED FOOTING ELEV. 970.0 PARTY CHIEF MAXWELL

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
	BROWN MICACEOUS CLAYEY SILT			0-2' BASE											
1000															
990	BOULDERS														
	RED SILTY CLAY														
980	VERY LOOSE MULTICOLORED MICACEOUS SILT														
970		1S	6												
		2S	11												
		3S	8												
960	MEDIUM DENSE & DENSE (SAME)	4S	11												
		5S	19												
950		6S	36												
	VERY DENSE (SAME)	7S	60/.3'												
	WEATHERED ROCK														
930	END														

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

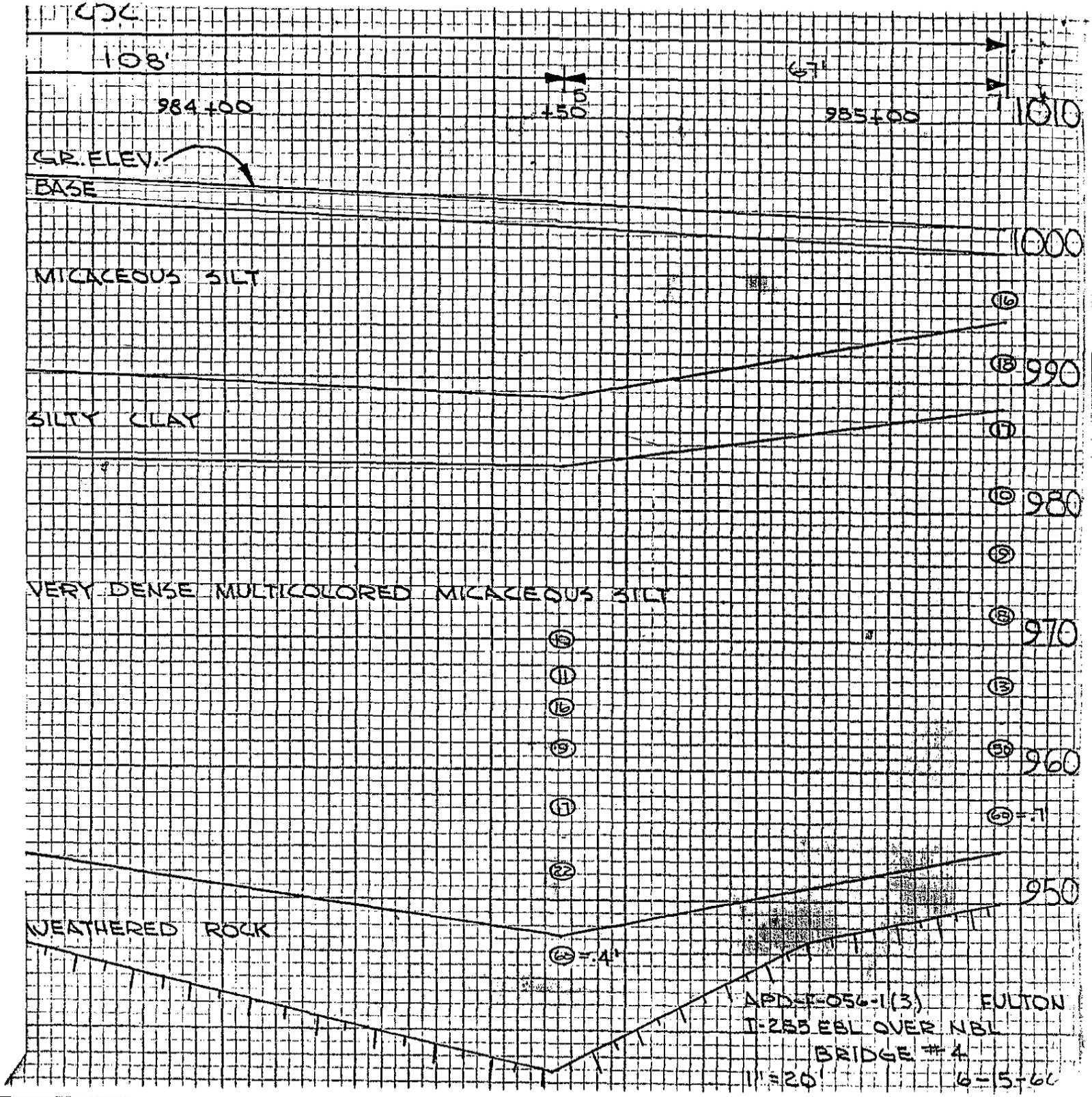
PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-23-66

LOCATION I-285 EBL #4 BORING NO. 1

BENT NO. 4 FOOTING LT. GROUND ELEV. 1001.9

PROPOSED FOOTING ELEV. 997.0 PARTY CHIEF MAXWELL

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
1000	MEDIUM DENSE BROWN MICACEOUS SILT			0-2' BASE											
		1s	16												
	STIFF RED MICACEOUS SILTY CLAY	2s	18												
990															
	LOOSE - MEDIUM DENSE MULTICOLORED MICACEOUS SILT (MOIST)	3s	17												
		4s	10												
980															
		5s	9												
		6s	8												
970															
		7s	13												
	DENSE MULTICOLORED SILTY SAND 75+	8s	50												
960															
		9s	60-7"												
	WEATHERED ROCK														
950															
	REFUSAL ON ROCK?														


108'
984+00
+50
985+00
67'
GR. ELEV.
BASE
1010
1000
MICACEOUS SILT
990
SILTY CLAY
980
970
VERY DENSE MULTICOLORED MICACEOUS SILT
960
950
WEATHERED ROCK
APD-I-056-1(3) FULTON
I-285 EBL OVER NBL
BRIDGE #4
1" = 20'
6-15-66

H.D. 500-A (10-66)

12-26-68 BOD #7

TEST PILE DRIVING DATA

DATE 9-27-68

PROJECT NO. APD-056-1(10) CT. 2 COUNTY FULTON

BRIDGE AT I-285 E. BOUND LANES STATION 982+75.74 TO STATION 984+99.07

PILING	LOCATION	SUMMARY
UT ..... x ___	TEST PILE NO. 2 / BRIDGE NO. 4 / BENT NO. 4 / PILE NO. 20	ELEVATIONS, IN WHOLE FEET ONLY
TT ..... x ___		(1) CUT-OFF 996
H. ___ BP ___ x ___		GROUND 995
C-I-P 12 IN. O.D. x 40		(2) TIP. FINAL 962
PSC ___ IN ___ x ___	HAMMER	(3) TIP. ACCEP. ~~958~~ 960
PCC ___ IN. ___ x ___	GRAVITY. ___ LB.	(1) – (2) = 34
OTHER: ___	MKT DE – ___	(1) – (3) = ~~38~~ 36
PLAN DRIVING OBJECTIVE (PDO)	DELMAG D – ___	NAME: H.R. SMITH
☐ PRACTICAL REFUSAL	VULCAN NO. 1 15000 FT-LBS	
☒ REFUSAL ☐ ROCK	LINK-BELT MODEL ___	
☐ TONS. ___	OTHER: ___	

DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND, SPECIFY, OR ESTIMATE ? (INSERT)

A MIN. PILE TIP ELEV.? ___

A PILE TIP ELEV.? ___

ANY PILE LENGTHS? ___

DRIVING TO A STRATUM? 964

DRIVING TO AN "N" OF? ___

OTHER? ___

TEST BEGAN WITH A PENT. OF 2.00 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 994 (WHOLE NO.'S ONLY)

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC. 993.79
3	10	24	2.400	991		991.37
		2	.200	991	38	
		2	.200	991	38	
		2 1/4	.225	991	35	
		2 1/4	.225	991	35	990.65
		2 1/2	.250	990	33	
		2 1/2	.250	990		CUT-OFF ELEV = 996
		2 1/2	.250	990		TIP ELEV = 962
		2 1/2	.250	990		34
		2 1/2	.250	990		
		2 1/2	.250	989		(~~RECOMMEND = 34'~~
		2 1/2	.250	989	33	ORDER LENGTH)
		2 3/4	.275	989	32	~~RECOM~~
		2 3/4	.275	989	32	
		3	.300	988	30	988.47
		3 1/2	.350	988	27	
		3 1/2	.350	988		ORDER LENGTH = ~~38~~ 36
		3 1/2	.350	988		
		3 1/2	.350	987		
		3 1/2	.350	987	27	987.02
		3 1/4	.325	987	29	
		3 1/4	.325	987	29	
		3	.300	986	30	
		3	.300	986	30	
		3	.300	986	30	985.73
		4	.400	985	25	
		4	.400	985	25	
		3 1/2	.350	985	27	
		3	.300	985	30	
		3	.300	984	30	984.28

*FOR GRAVITY AND POWER HAMMERS.

FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS. USE MANUFACTURER'S ENERGY RATING.

FOR LINK-BELT. CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART: USE IN S. A. FORMULA.

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

TEST PILE NO. (2) BR #4 PILE 20 CONTINUED. PAGE NO. 2 OF 6

PROJECT NO. APD-056-1 (10) CT. 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
3	10	3	.300	984	30	984.66
		3	.300	↓	30	
		3	.300	984	30	983.53
		2 7/8	.250	983	33	
		2 1/2	.250		33	
		2 1/2	.250	↓	33	
		2 3/4	.275	983	32	982.67
		3	.300	982	30	
		3	.300	↓		
		3	.300	↓		
		3	.300	982		981.67
		3	.300	981		
		3	.300	↓		
		3	.300	↓		
		3	.300	981		980.67
		3	.300	980		
		3	.300	↓		
		3	.300	↓		
		3	.300	980		979.67
		3	.300	979		
		3	.300	↓		
		3	.300	↓		
		3	.300	979	↓	
		3	.300	978	30	978.42
		2 1/2	.250	↓	33	
		2 1/2	↓	↓	↓	
		2 1/2	↓	↓	↓	
		2 1/2	↓	978	↓	
		2 1/2	↓	977	↓	
		2 1/2	↓	↓	↓	
		2 1/2	↓	↓	↓	
		2 1/2	↓	↓	↓	
		2 1/2	↓	977	↓	
		2 1/2	↓	976	↓	
		2 1/2	.250	↓	33	976.11
		2 1/4	.225	↓	35	
		2 1/4	↓	↓	↓	
		2 1/4	↓	976	↓	
		2 1/4	↓	975	↓	
		2 1/4	↓	↓	↓	
		2 1/4	↓	↓	↓	
		2 1/4	↓	↓	↓	
		2 1/4	↓	975	↓	
		2 1/4	.225	974	35	974.40
		2	.200	↓	38	
		2	↓	↓	↓	
		2	↓	↓	↓	
		2	↓	974	↓	
		2	↓	973	↓	
↓	↓	2	.200	973	38	973.21

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

(2) BR #4
TEST PILE NO. PILE 20 CONTINUED. PAGE NO. 3 OF 6

PROJECT NO. APD-056-1(10)CT:2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
						973.64
3	10	2	.200	973	38	973.04
		1 3/4	.175		40	
		1 3/4		973		
		1 3/4		972		
		1 3/4				
		1 3/4				
		1 3/4			40	972.06
		1 3/4	.175		40	
		1 1/2	.150		43	
		1 1/2	.150		43	
		1 1/2	.150	972	43	971.56
		1 1/2	.150	971	43	
		1 1/4	.125		46	
		1 1/4	.125		46	
		1 1/4	.125		46	
		1 1/8	.1125		48	971.05
		1 1/8	.1125		48	
		1 1/8	.1125		48	
		1	.1000		50	970.79
		1				
		1		971		
		1		970		
		1				
		1				
		1				
		1				
		1				
		1				969.99
		1				
		1				
		1				
		1				
		1				
		1		970		
		1		969		
		1				
		1	..			969.19
		1				
		1				
		1				
		1				
		1				
		1				
		1				
		1		969		
		1		968		
		1		968		966.39
		1	.1000	968	50	968.31

H.D. 560-B
(10-66)

TEST PILE DRIVING DATA

(2) BR #4

TEST PILE NO. PILE 20 CONTINUED. PAGE NO. 4 OF 6

PROJECT NO. APD-056-1(10) CT. 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
3	10	1	.1000	968	50	968.23
				968		967.51
				967		
				967		966.71
				966		
				966		965.91
				965		
				965		965.11
				964		
				964		964.31
		1	.1000	964	50	964.23

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

(2) BR #4

TEST PILE NO. PILE 20 CONTINUED. PAGE NO. 5 OF 6

PROJECT NO. APD-056-1(10) CT. 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP, WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC.
						964.32
3	10	1	.100	964	50	
		1				964.07
		1				
		1				
		1	↓		↓	
		1	.100		50	
		3/4	.075		55	
		3/4				
		3/4		↓		
		3/4		964		963.51
		3/4		963		
		3/4			↓	
		3/4	.075		55	
		1/2	.050		60	
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				963.01
		1/2				
		1/2				
		1/2				962.89
		1/2				
		1/2	↓			
		1/2	.050		↓	
		1/2	.050		60	
		3/8	.0375		63	
		3/8				
		3/8				
		3/8				
		3/8				
		3/8		↓		
		3/8		963		962.52
		3/8		962		
		3/8				
		3/8				
		3/8	↓		↓	
		3/8	.0375		63	
		1/4	.025		67	
		1/4				
		1/4				
		1/4				
		1/4				
		1/4				
		1/4				
		1/4				
		1/4				
		1/4				
		1/4	↓	↓	↓	962.17
↓	↓	1/4	.025	962	67	962.15

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

TEST PILE NO. (2) BR#4 PILE 20 CONTINUED. PAGE NO. 6 OF 6

PROJECT NO. APD-056-1(10) CT.2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP, WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
3	10	1/4	.025	962	- 67	962.13
		1/8	.0125		71	
		1/8	.0125			
		1/8	.0125			
		1/8	.0125			
		1/8	.0125			
		1/8	.0125		71	
		1/16	.00625		73	
		1/16	.00625			
		1/16	.00625			
		1/16	.00625		73	
		0	.000	962	75	962.05
		0	.000			
		0	.000			
		0	.000			
		0	.000			
		0	.000	962	75	

H.D. 500-A (10-66)

12-26-68 Boat #1

TEST PILE DRIVING DATA

DATE 9-25-68

PROJECT NO. APD-056-1(10) CT.2 COUNTY

BRIDGE AT No. 4 I-285 E. BOUND LANES STATION 982+75 TO STATION 985+00

PILING

UT . . . . . x ,
TT . . . . . x ,
H. BP x ,
C-I-P 12 IN. O.D. x 40 ,
PSC IN. x ,
PCC IN. x ,
OTHER: ,

PLAN DRIVING OBJECTIVE (PDO)

☐ PRACTICAL REFUSAL
☑ REFUSAL ☐ ROCK
☐ TONS.

LOCATION

TEST PILE NO. 1
BRIDGE NO. 4
BENT NO. 1
PILE NO. 7

HAMMER

GRAVITY. LB.
MKT DE –
DELMAG D –
VULCAN NO. 1
LINK-BELT MODEL
OTHER:

SUMMARY

ELEVATIONS IN WHOLE FEET ONLY

(1) CUT-OFF 1001
GROUND 1000
(2) TIP. FINAL 961
(3) TIP. ACCEP. 961
(1) – (2) = 40
(1) – (3) = 40

NAME: HENRY R. SMITH

DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND. SPECIFY. OR ESTIMATE ? (INSERT)

A MIN. P. TIP ELEV.?
A PILE TIP ELEV.?
ANY PILE LENGTHS?
DRIVING TO A STRATUM? 943
DRIVING TO AN "N" OF?
OTHER?

TEST BEGAN WITH A PENT. OF 2.00 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 999 (WHOLE NO.'S ONLY)

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
3	10	36	3.60	996		996.03 – 999.44
↓	1	24	2.40	994		994.03
		15	1.50	993		
		7	.70	992	17	
		7	.70	992	17	
		7	.70	991	17	991.04
		4	.40	991	25	
		3	.30	990	30	CUT-OFF ELEV = 1001
		3	.30	990	30	REFUSAL ELEV = 961
		3	.30	990	30	40
		3	.30	990	30	
		4	.40	989	25	(RECOMMEND 40' ORDER LENGTH)
		4	.40	989	25	988.72
		4	.40	989	25	
		4½	.45	988	23	
		4¾	.475	988	24	
		5	.50	988	21	
		5½	.55	987	20	ORDER LENGTH = 40'
		6	.600	987	19	
		7	.700	986	17	MW
		6	.600	986	19	
		5	.500	985	21	985.08
		4½	.45	985	23	~~985.08~~
		4	.40	984	25	
		4	.40	984		
		4	.40	984		
		4	.40	983		
		4	.40	983		
		4	.40	983		
↓	↓	4	.40	982	↓	982.40

*FOR GRAVITY AND POWER HAMMERS.
FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS. USE MANUFACTURER'S ENERGY RATING.
FOR LINK-BELT. CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART: USE IN S. A. FORMULA.

F.D. 500
(10-66)

TEST PILE DRIVING DATA

BR # 4
TEST PILE NO. PILE NO. 7 CONTINUED, PAGE NO. 2 OF 5

PROJECT NO. APD-056-1(10) CT. 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
3	10	4	.40		25	982.07 982.58
		4	.40			981.74
		4	.40			
		4	.40			
		4	.40		↓	
		3 3/4	.375		26	980.44
		3 1/2	.35		27	
		3 1/4	.325		29	
		3	.30		30	979.63
		3	.30		30	
		3	.30		30	
		2 1/2	.25		33	
		2 1/2	.25		↓	
		2 1/2	.25			978.50
		2 1/2	.25			
		2 1/2	.25		↓	
		2 1/2	.225		35	
		2 1/4	.225		↑	
		2 1/4	.225			977.51
		2 1/4	.225		↓	
		2 1/4	.225		35	
		2 1/8	.2125		36	
		2 1/2	.225		35	
		2 1/4	.225		↓	976.57
		2 1/4	.225			
		2 1/4	.225			
	9	2 1/4	.225			
		2 1/4	.225			
		2 1/4	.225			
		2 1/4	.225			975.43
		2 1/4	.225		↓	
		2 1/8	.2125		36	
		↓	↓		↓	
						974.52
				974		973.62
		11		973		
				973		972.54
				972		
		↓	↓		↓	
		2	.200		38	
		2	.200		↓	
↓	↓	2	.200	972	↓	971.67

H.D. 500 –,
(10-66)

TEST PILE DRIVING DATA

BR NO. 4

TEST PILE NO. PILE NO. 7 CONTINUED, PAGE NO. 3 OF 5

PROJECT NO. ARV-056-1(10) CT. 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS, ETC.
3	10	2	.200	972 971	38	976.50 977.30
		1 3/4	.175	971 970	40	970.51
				970 969		969.53
				969 968		968.55
		1 1/2	.150	963 967	43	967.57
				967 966		966.61
		1 1/4	.125	966 965	46	965.57
				965		964.97

D. 501
(10-66)

TEST PILE DRIVING DATA

BR NO 4

TEST PILE NO. PILE NO. 7 CONTINUED. PAGE NO. 4 OF 5

PROJECT NO. APD-056-1(10) CT.2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS, ETC.
3	10	1 1/4	.125	965	- 46	964.87 — 965.0
				965		964.57
				964		
		1				
				964		963.59
				963		
		1 1/8	.1125		48	963.17
		1	.100		50	
				963		962.54
				962		
		3/4	.075		55	
		1				962.00
		5/8	.0625		57	961.88
		5/8	.0625		57	
		1/2	.050		60	
		1				
				962		961.50
				961		
		3/8	.0375		63	
		1				
				961		961.28

H.D. 50-W
(10-66)

TEST PILE DRIVING DATA

BR NO. 4

TEST PILE NO. PILE NO. 7 CONTINUED. PAGE NO. 5 OF 5

PROJECT NO. APD-056-1(10) CT. 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
3	10	3/8	.0375	961	63	961.25
		↓	↓		↓	
		1/4	.025		67	
		↓	↓		↓	
		1/8	.0125		71	
		↓	↓		↓	
		1/16	.00625	↓	73	
		1/16	.00625	961	73	961.04
		0	0		75	
		0	↓		↓	
		0				
		0		↓		
↓	↓	0	0	961	75	

H.D. 500-A (10-56)

12-26-68 B.O.R. #2

TEST PILE DRIVING DATA

DATE 10-8-68

PROJECT NO. APD056-1(10)CT2 BR #4 COUNTY FULTON

BRIDGE AT I-285 + N. FULTON AVE. STATION 982+75 TO STATION 983+00

PILING

UT . . . . . x ,
TT . . . . . x ,
H. 10 BP 42 x ,
C-I-P IN. O.D. x ,
PSC IN x ,
PCC IN. x ,
OTHER:

PLAN DRIVING OBJECTIVE (PDO)

☐ PRACTICAL REFUSAL
☑ REFUSAL ☐ ROCK
☐ TONS.

LOCATION

TEST PILE NO. 4
BRIDGE NO. 4
BENT NO. 2
PILE NO. 51

HAMMER

GRAVITY. LB.
MKT DE –
DELMAG D –
VULCAN NO. 1 15,000 FT/LB
LINK-BELT MODEL
OTHER:

SUMMARY

ELEVATIONS, IN WHOLE FEET ONLY

(1) CUT-OFF 973
GROUND 972
(2) TIP. FINAL 946
(3) TIP. ACCEP. 943
(1) – (2) = 27.06
(1) – (3) = 30

NAME: S.A. Applied by D.C. JONES N.R. SMITH

DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND, SPECIFY, OR ESTIMATE . . . ? (INSERT)

A MIN. PILE TIP ELEV.?
A PILE TIP ELEV.?
ANY PILE LENGTHS?
DRIVING TO A STRATUM?
DRIVING TO AN "N" OF?
OTHER? 30 Soundings AT: 956 AT: 947

TEST BEGAN WITH A PENT. OF 1.00 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 972 (WHOLE NO.'S ONLY)

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
9	10	60	6.0	972		972.30 X
↓	↓	36	3.6			967.30
		36	3.6	971		
		10	1.0			
		8	.8		15	CUTOFF 972.57
		8	.8		15	LENGTH IN PLACE 26.30
		6	.6		19	
		6	.6		19	
		4	.4		25	PLAN TP LENGTH 40.00
		4	.4			
		4	.4			
		4	.4			
		4	.4			ORDER LENGTH = 30'
		4	.4		25	
		3½	.35		27	
		3	.3		30	
		3	.3			
		3	.3	960	30	955.00
		2½	.25		33	
		2	.2		38	
		2	.2			
		2	.2			
		2	.2		38	
		1½	.15		43	953.88
		1½	.15			
		1½	.15			
		1½	.15	954		
		1½	.15		43	
↓	↓	2	.2		38	
3	10	2	.2	953	38	953.31

*FOR GRAVITY AND POWER HAMMERS.
FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS, USE MANUFACTURER'S ENERGY RATING.
FOR LINK-BELT, CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART: USE IN S. A. FORMULA.

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

TEST PILE NO. 4 CONTINUED. PAGE NO. 2 OF 3

BR 4

PROJECT NO. ADD 056-1 (10) CT-2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP, WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC.
3	10	2	.20	953	38	952.82 952.90
		2				
		2		953		
		2		952		
		2				
		2				
		2				
		2				
		2				
		2		932		
		2		951		
		2	.20		38	
		1 3/4	.175		40	950.82
		1 3/4				
		1 3/4		951		
		1 3/4	.175	950	40	
		1 1/2	.15		43	
		1 1/4	.125		46	
		1 1/4				950.12
		1 1/4				
		1 1/4				
		1 1/4				
		1 1/4	.125		46	
		1	.10	950	50	949.51
		1		949		
		1				
		1				
		1				
		1				
		1				
		1				
		1	.10		50	
		3/4	.075		55	947.68
		3/4		949		
		3/4		949		
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4	.075		55	
		1	.10		50	
		1	.10		50	
		3/4	.075		55	947.76
		3/4				
		3/4				
3	10	3/4	.075	945	55	947.58

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

TEST PILE NO. 4 CONTINUED. PAGE NO. 3 OF 3

PROJECT NO. APD 056-1 (10) CT 2 RR No 9 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
						947.60
3	10	3/4	.075	946	63	947.52
		5/8	.062	947	57	
		5/8	.062		57	
		1/2	.05		60	
		1/2	.05		60	
		5/8	.062		57	
		5/8				
		5/8				
		5/8	.062		57	
		3/4	.075		55	
		1/2	.06		60	947.10
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2	.05		60	
		3/4	.075		63	946.75
		3/4				
		3/4				
		3/4				
		3/4		947		
		3/4		946		
		3/4				
		3/4				
		3/4	.037		63	
		1/2	.025		67	
		1/2				
		1/2	.025		67	
		1/2	.02		71	946.37
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2				
		1/2	.012	946	71	946.27
		0			75	
		0				
		0				
3	10					

H.D. 500-A (10-66)

10-26-68 Book #5

TEST PILE DRIVING DATA

DATE 10-2-68

PROJECT NO. APD 056-1 (10) CT 2 COUNTY FULTON

BRIDGE AT T-285 + N. FULTON STATION 982+75.74 TO STATION 984+99.07

PILING	LOCATION	SUMMARY
UT ..... x ___ '	TEST PILE NO. 3 / BRIDGE NO. 4 / BENT NO. 3 / PILE NO. 33	ELEVATIONS, IN WHOLE FEET ONLY
TT ..... x ___ '		(1) CUT-OFF 974.00
H. 10 BP 42 x 50 '		GROUND 973.00
C-I-P ___ IN. O.D. x ___ '		(2) TIP, FINAL 946.00
PSC ___ IN ___ x ___ '		(3) TIP, ACCEP. 944
PCC ___ IN. ___ x ___ '		(1) − (2) = 28
OTHER:		(1) − (3) = 30
		NAME: Sam Oglines D.C. Jones

PLAN DRIVING OBJECTIVE (PDO)

- ☐ PRACTICAL REFUSAL
- ☑ REFUSAL ☐ ROCK
- ☐ TONS.

HAMMER

GRAVITY. ___ LB.
MKT DE —
DELMAG D —
VULCAN NO. 1 15000 FAB
LINK-BELT MODEL
OTHER:

DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND, SPECIFY, OR ESTIMATE . . ? (INSERT)

A MIN. PILE TIP ELEV.?
A PILE TIP ELEV.?
ANY PILE LENGTHS?
DRIVING TO A STRATUM?
DRIVING TO AN "N" OF?
OTHER? SOUNDINGS 949 LT FT. 945 RT. FT.

TEST BEGAN WITH A PENT. OF 5 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 969 (WHOLE NO.'S ONLY)

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP, WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC.
						969.22
8	10	60	6.0	964		964.22
3	10	36	3.6	961		961.22
		24	2.4	959	6	959.22
		12	1.2	958	11	958.22
		8	.80	958	15	
		8	.80	957	15	(Length in Place)
		8		956	15	
		8	.80	956	15	955.54 28.55 FT.
		4	.40	955	25	
		4		955	25	
		4	.40	955	25	(Plan Order Length)
		3½	.35	954	27	
		3	.30		30	50.00
		3	.30		30	
		2¾	.275	954	32	CUT-OFF ELEV - 974
		3	.30	953	30	TIP ELEV - 946
		2½	.25		33	28
		2½			33	
		2½		953	33	952.65
		2½		952	33	
		2½			33	
		2½			33	~~RECOMMEND 30'~~
		2½			33	ORDER LENGTH
		2½		952	33	
		2½		951	33	ORDER LENGTH = 30
		2½			33	
		2½			33	
		2½			33	
		2½	.25	951	33	950.55
3	10	2¼	.225	950	35	950.36

*FOR GRAVITY AND POWER HAMMERS.
FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS, USE MANUFACTURER'S ENERGY RATING.
FOR LINK-BELT, CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART: USE IN S. A. FORMULA.

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

TEST PILE NO. 3 CONTINUED. PAGE NO. 2 OF 3

PROJECT NO. APD 056-1 (10) CT 2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP, WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS, ETC.
						950 + 8
3	10	2 1/4	.225	950	35	950.17
		2	.20		38	
		2		950		
		2		949		949.49
		2			38	
		2	.20			
		1 3/4	.175		40	
		1 3/4				
		1 3/4	.175		46	
		1 1/2	.15	949	43	
		1 1/2	.15	948	43	948.49
		1 1/4	.125		46	
		1	.10		56	
		1				
		1				
		1	.10		50	947.99
		3/4	.075		55	
		3/4				
		3/4				
		3/4				
		3/4				
		3/4		948		947.57
		3/4		948		
		3/4		947		
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4				
		3/4	.075		55	
		1/2	.05		60	
		1/2	.05		60	
		3/4	.075		55	
		3/4				
		3/4				
		3/4	.075		55	946.71
		5/8	.0625		57	
		5/8				
		5/8				
		5/8		947		
		5/8		946		
		5/8				
		5/8				
		5/8				
		5/8				
		5/8	.0625		57	946.21
8	10	1/2	.05	946	60	946.17

H.D. 500-B
(10-66)

TEST PILE DRIVING DATA

TEST PILE NO. 3 CONTINUED. PAGE NO. 3 OF 3

PROJECT NO. APD 056-1(10)CT2 COUNTY FULTON

HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION. FINAL TIP ELEVATION. ORDER LENGTHS. ETC.
						946.19
3	10	1/2	.05	946	— 60	946.13
		1/2				
		1/2				
		1/2				946.01
		1/2				
		1/2				
		1/2	.05		66	
		3/8	.0375		63	
		3/8				
		3/8				
		3/8	.0375		63	
		1/4	.025		67	
		1/4				
		1/4				
		1/4				
		1/4				
		1/4				
		1/4	.025		67	
		1/4	.0125		71	945.62
		1/8				
		1/8				
		1/8				
		1/8				
		1/8				
		1/8				
		1/8	.0125	946	71	945.55
		C	0		75	
		0	0			
		0	0			
		0	0			
		0	0			
		0	0	946		945.55
3	10					

121-
121-

BRIDGE FOUNDATION INVESTIGATION

APD-F-056-1 (5) FULTON
I-285 WBL OVER NBL
STATION 982+68 - STATION 985+20
BRIDGE #5

1. LOCATION - This bridge is located just southeast of Sandy Springs near the interchange of I-285 and Peachtree-Dunwoody Road. It is geologically sited in the Carolina Series Biotite Gneiss and Schist Formation of the Piedmont region.

2. SUBSURFACE CONDITIONS - Reference should be made to the attached boring logs and soil profile. Some pertinent subsurface details are as follows:

a) The ground water varied from elevation 968.0 to 977.5.

b) Refusal to a power auger was encountered in all borings at this site. Rock refusal elevations varied from 939.0 to 956.0.

c) In all borings, hard rock was overlain by very dense weathered rock.

3. END BENT FOUNDATIONS - Pile bents using cast-in-place concrete piles are recommended for both end bents of this bridge. Maximum recommended bearings for CIP piles are:

12" CIP	48 Tons
14" CIP	58 Tons
16" CIP	76 Tons

Estimated tip elevations for these bearings are 950.0 to 963.0 for bent 1 and 961.0 for bent 4.

Piles may be driven to bearing as determined by the dynamic driving formula.

An alternate design would be to use steel "H" pile footings. Maximum bearings of 55 tons for 10" BP 42 and 70 tons for 12" BP 53 could be used. Estimated tip elevations for these bearings are 945.0 for bent 1 and 953.0 for bent 4.

4. INTERMEDIATE BENT FOUNDATIONS - Spread footings on weathered rock are recommended for both intermediate bents at this site. Recommended elevations and maximum design bearings are as follows:

Bent	Footing	Elevation	Design Bearing
2	Left	968.0	6 ksf
2	Right	959.0	6 ksf
3	Left	967.0	4 ksf
3	Right	967.0	4 ksf

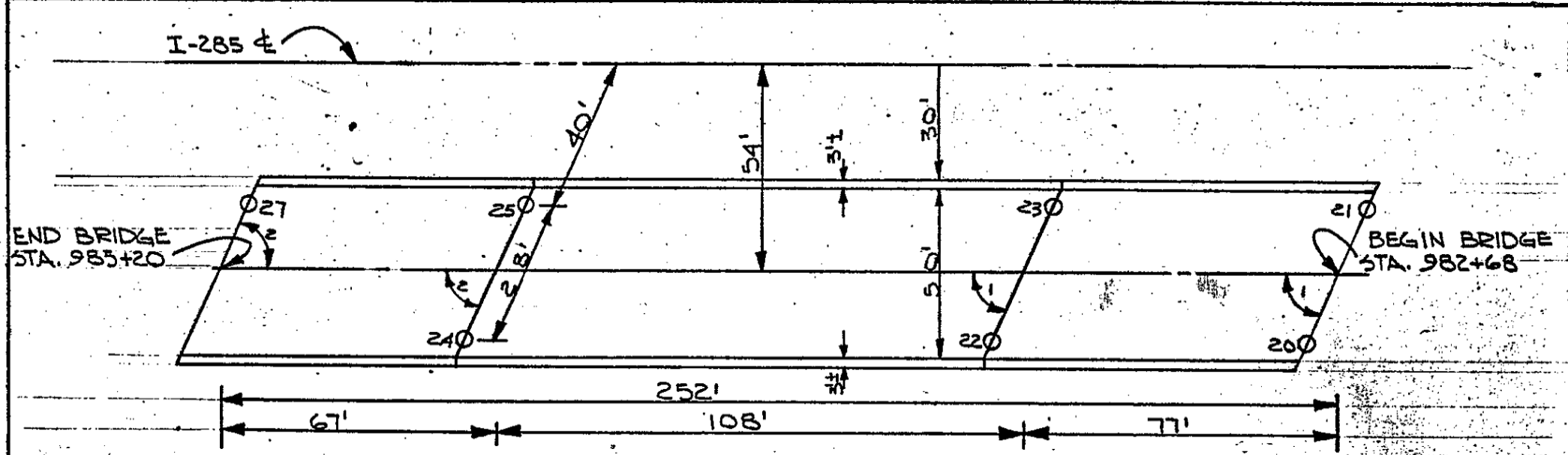
An alternate design for the right footing at bent 2 would be a pile footing at elevation 970.0. Either cast-in-place concrete or steel "H" piles could be used with the same maximum bearings outlined in section 3 of this report. Cast-in-place concrete pile lengths should range from 10' to 15' and steel "H" piles 15' to 25' for bearings outlined above.

5. DANGER FROM FILL SETTLEMENT - No danger.

Thomas D. Moreland
Civil Engineer IV

TDM:FAC:sev

9-23-66



1. SKEW ANGLE 65° 58' 50"
2. SKEW ANGLE 65° 05' 46"

N

STATE HIGHWAY DEPARTMENT OF GEORGIA
Bridge Foundation Investigation

DRW. PT	APD-F054-1(5) FULTON
CKD. LM	I-285 W.B. OVER N.B.L.
	BRIDGE #5
APP.	NO SCALE 6-9-66

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-31-66

LOCATION I-285 U.B.L. OVER NBL, BRIDGE #5 BORING NO. 20

BENT NO. 1 FOOTING LT. GROUND ELEV. 1005.50

PROPOSED FOOTING ELEV. 992.0± PARTY CHIEF MAXWELL

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
	BASE			0-.6' PAVEMENT											
	LOOSE - MEDIUM DENSE MULTICOLORED MICACEOUS SILT														
1000		1U			24.8	113.1	2.67				—	—	49.1	7.5	
		2S	17												
		3U			27.9	114.9	2.63				—	—	50.7	7.5	
990		4S	9												
		5U			30.4	112.6	2.67				—	—	59.9	7.2	
		6S	13												
		7U			31.3	112.8	2.62				—	—	54.7	6.6	
980		8S	8												
		9U			30.6	112.9	2.67				—	—	57.9	5.0	
		10S	17												
		11S	7												
970		12S	16												
		13S	17												
960		14S	22												
	DENSE-VERY — 75% DENSE MULTICOLORED SILTY SAND	15S	26												
950		16S	6095'												
	REFUSAL ON ROCK?														
940															

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-17-66

LOCATION I-285 WBL #5 BORING NO. 21

BENT NO. 1 FOOTING RT. GROUND ELEV. 1005.97

PROPOSED FOOTING ELEV. 999.0± PARTY CHIEF MAXWELL

ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
	BASE			0-.8' PAVEMENT											
	CLAYEY SILT														
1000	LOOSE - MEDIUM DENSE MULTICOLORED SILTY SAND	1S	13		26.3								40		
		2S	9		32.6								38		
990		3S	10		32.9								34		
		4S	7		45.9								36		
980		5S	8		44.2								30		
		6S	18		42.1								30		
970		7S	9		35.9								30		
		8S	11		35.1								30		
	WEATHERED ROCK														
960		9S	60=7"		18.6								23		
		10S	60=6"		22.3								26		
950															
	REFUSAL ON ROCK														

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

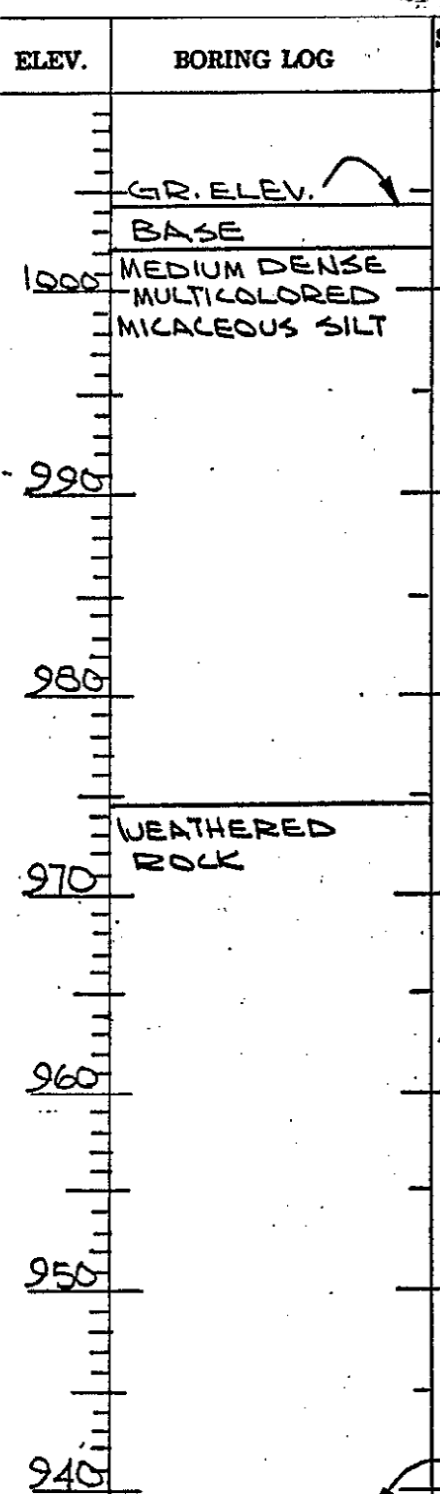
BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-26-66

LOCATION I-285-WBL #5 BORING NO. 22

BENT NO. 2 FOOTING LT. GROUND ELEV. 1004.27

PROPOSED FOOTING ELEV. 970.0 ± PARTY CHIEF MAXWELL



ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.			0-.6' PAVEMENT											
	BASE														
1000	MEDIUM DENSE MULTICOLORED MICACEOUS SILT														
990															
980															
	WEATHERED ROCK														
970		1S	40												
		2S	60=.6'												
		3S	60=.7'												
		4S	60=.7'												
960		5S	60												
		6S	60=4'												
950															
940															

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

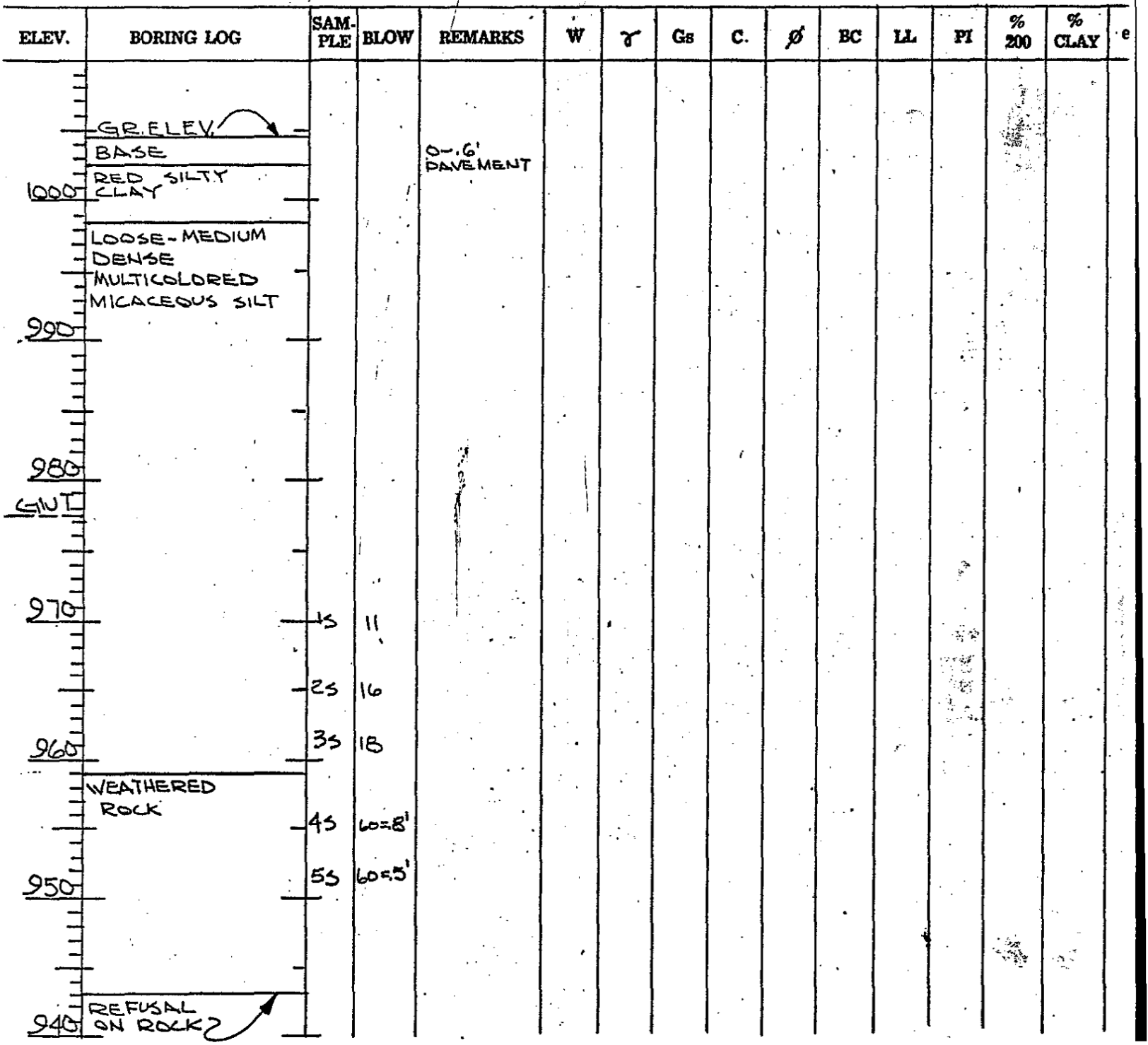
BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F-056-1(5) COUNTY FULTON DATE 5-18-66

LOCATION I-285 WBL #5 BORING NO. 23

BENT NO. 2 FOOTING RT. GROUND ELEV. 1004.57

PROPOSED FOOTING ELEV. 970.0 PARTY CHIEF MAXWELL



H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

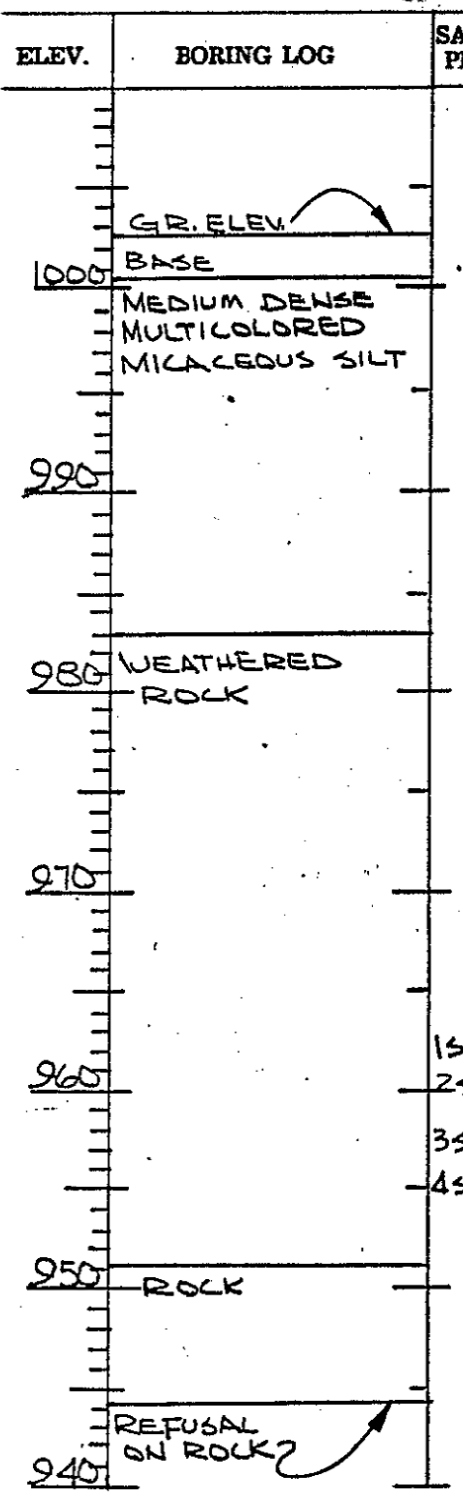
BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F056-1(5) COUNTY FULTON DATE 5-26-66

LOCATION I-285 WBL #5 BORING NO. 24

BENT NO. 3 FOOTING LT. GROUND ELEV. 1002.4

PROPOSED FOOTING ELEV. 967.0 PARTY CHIEF MAXWELL



ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	ø	BC	LL	PI	% 200	% CLAY	e
				0-.6' PAVEMENT											
		1S	60=7'												
		2S	60=4'												
		3S	60=7'												
		4S	60=3'												

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

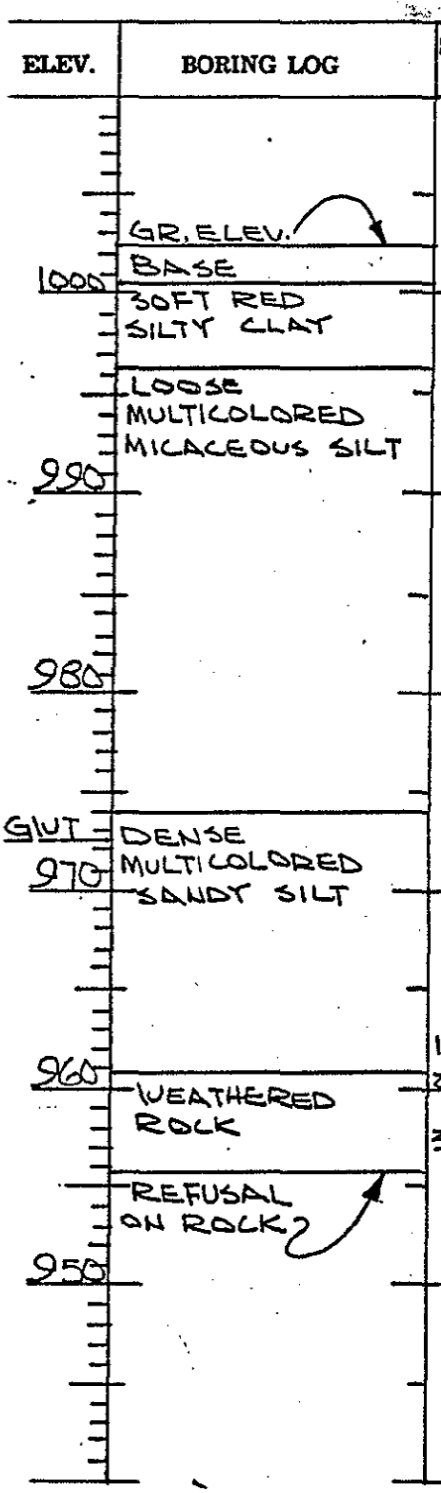
BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F056-1(5) COUNTY FULTON DATE 5-16-66

LOCATION I-285 WBL #5 BORING NO. 25

BENT NO. 3 FOOTING RT. GROUND ELEV. 1002.57

PROPOSED FOOTING ELEV. 967.0 PARTY CHIEF MAXWELL



ELEV.	BORING LOG	SAMPLE	BLOW	REMARKS	W	γ	Gs	C.	∅	BC	LL	PI	% 200	% CLAY	e
	GR. ELEV.														
1000	BASE			0-.6' PAVEMENT											
	30FT RED SILTY CLAY														
	LOOSE MULTICOLORED MICACEOUS SILT														
990															
980															
970	DENSE MULTICOLORED SANDY SILT														
		15	34												
960	WEATHERED ROCK	25	60=9'												
		35	60=4'												
	REFUSAL ON ROCK?														
950															

H.D.490

STATE HIGHWAY DEPARTMENT OF GEORGIA

DIVISION OF MATERIALS AND TEST, ATLANTA, GEORGIA

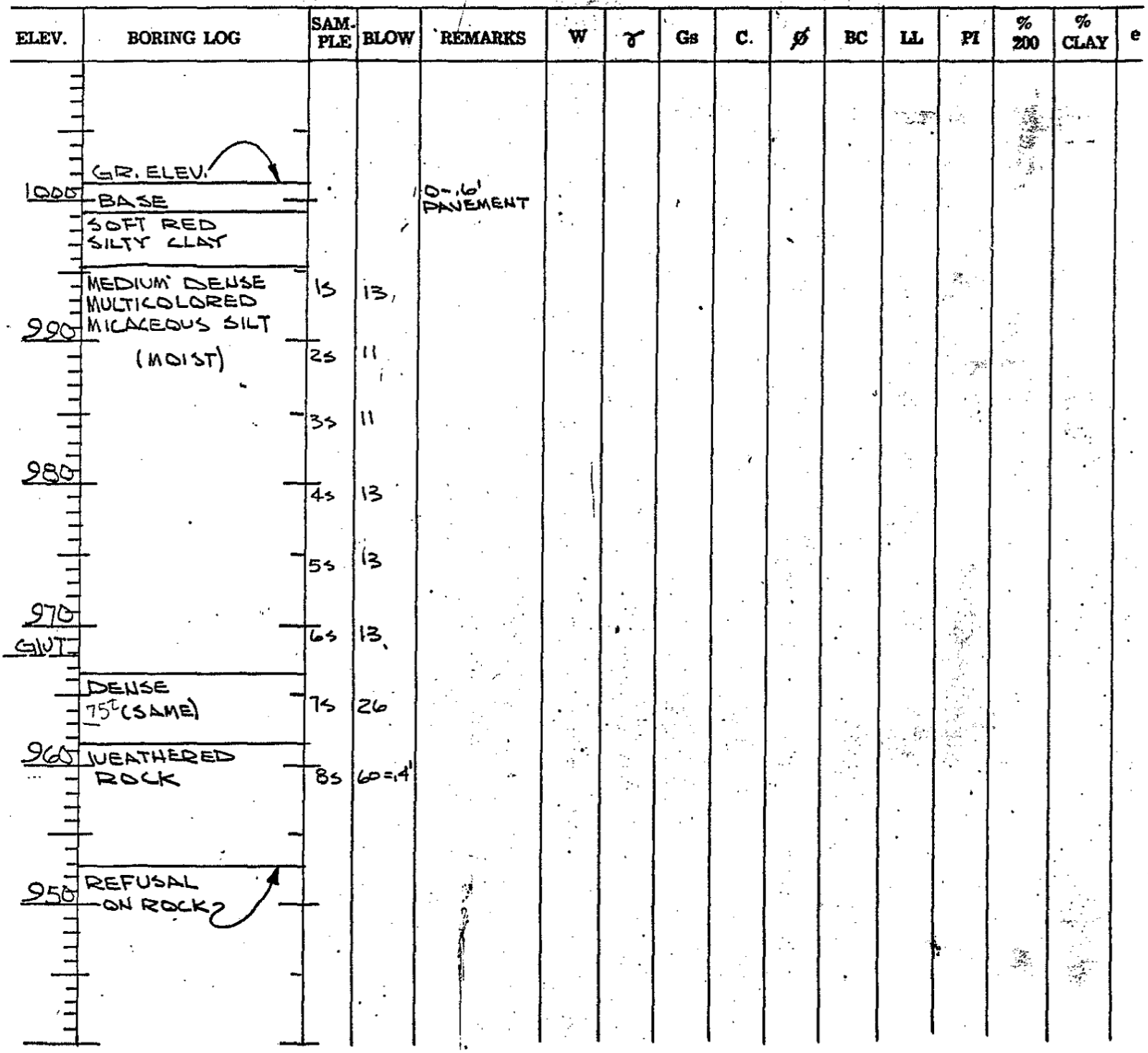
BRIDGE SUBSURFACE INVESTIGATION

PROJECT APD-F056-1(5) COUNTY FULTON DATE 5-19-66

LOCATION I-285 W BL #5 BORING NO. 27

BENT NO. 4 FOOTING RT GROUND ELEV. 1001.29

PROPOSED FOOTING ELEV. 994.0 PARTY CHIEF MAXWELL



H.D. 500-A
(10-66)

TEST PILE DRIVING DATA

DATE 4-17-69

PROJECT NO. AND 056-1 (10) CT 2 COUNTY FULTON

BRIDGE AT 285 + N. FULTON STATION 982+62.32 TO STATION 985+06.66

5-9-69 BOR#21

PILING	LOCATION	SUMMARY
UT . . . . . x ___ '	TEST PILE NO. 3 / BRIDGE NO. 5 / BENT NO. 2 / PILE NO. 31	ELEVATIONS, IN WHOLE FEET ONLY
TT . . . . . x ___ '		(1) CUT-OFF ~~971~~ 970
H. ___ BP ___ x ___ '		GROUND ~~970~~ 969
C-I-P 12" IN. O.D. x ___ '	HAMMER	(2) TIP. FINAL 954
PSC ___ IN ___ x ___ '	GRAVITY. ___ LB.	(3) TIP. ACCEP. ~~954~~ 951
PCC ___ IN. ___ x ___ '	MKT DE —	(1) — (2) = 17.00
OTHER:	DELMAG D —	(1) — (3) = 19.00
PLAN DRIVING OBJECTIVE (PDO)	VULCAN NO. ONE - AIR	NAME: Sam Ogilvie
☐ PRACTICAL REFUSAL	LINK-BELT MODEL	DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND, SPECIFY, OR ESTIMATE ? (INSERT)
☐ REFUSAL ☑ ROCK	OTHER:	A MIN. PILE TIP ELEV.?
☐ TONS. 45 TONS		A PILE TIP ELEV.? 955 TO 960
		ANY PILE LENGTHS? 10-15
		DRIVING TO A STRATUM? Rock
		DRIVING TO AN "N" OF?
		OTHER? 45 TONS

TEST BEGAN WITH A PENT. OF 4.00 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 966 (WHOLE NO.'S ONLY)

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC.
0	0	4.8	4.8	971		970.60
3	10	36	3.6	967		966.60
		24	2.4	964		963.61
		10	1.0	962		961.62
		8	.80	961	15	960.77
		6	.60	960	19	960.11
		5	.50		21	959.61
		5	.50	960	21	ORDER LENGTH = 19'
		11	11		21	PLAN TEST PILE = 24.00 FT.
		11	11	959	21	LENGTH IN PLACE 16.53 FT.
		11	11		21	
		4¾	.475	958	22	957.52
		4½	.45	957	23	957.13
		4	.40		25	956.75
		3½	.35		27	956.42
		3½	.35		27	
		3	.30	956	30	955.83
		2½	.25		33	955.58
		2½	.25		33	
		2	.20	955	38	955.17
		2	.20		38	
		1½	.15		43	954.83
		1½	.15		43	
		1½	.15		43	
		1	.10		50	954.45
		1	.10		50	
		¾	.075	954	55	954.29
		¾	.075		55	
		½	.050		60	954.17
3	10	½	.050		60	954.13

*FOR GRAVITY AND POWER HAMMERS.
FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS, USE MANUFACTURER'S ENERGY RATING.
FOR LINK-BELT, CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART: USE IN S. A. FORMULA.

H.D. 500-A (1-66)

TEST PILE DRIVING DATA

DATE 4-28-69

5-20-69 BORN 27

PROJECT NO. APD 056-1 (10) [illegible] 2 COUNTY FULTON

BRIDGE AT I 285 over N. FULTON STATION 982+[illegible].32 TO STATION 985+01.66

PILING	LOCATION	SUMMARY
UT ..... x ____	TEST PILE NO. 2 / BRIDGE NO. 5 / BENT NO. 4 / PILE NO. 21	ELEVATIONS, IN WHOLE FEET ONLY
TT ..... x ____		(1) CUT-OFF 995
H. ____ BP ____ x ____		GROUND 994
C-I-P 12" IN. O.D. x ____	HAMMER	(2) TIP, FINAL 963
PSC ____ IN ____ x ____	GRAVITY ____ LB.	(3) TIP, ACCEP. 963
PCC ____ IN ____ x ____	MKT DE —	(1) — (2) = 32.00
OTHER: ____	DELMAG D —	(1) — (3) = ~~22.00~~ 34
PLAN DRIVING OBJECTIVE (PDO)	VULCAN NO. ONE - AIR	NAME [illegible]
☐ PRACTICAL REFUSAL	LINK-BELT MODEL ____	
☐ REFUSAL ☑ ROCK	OTHER: ____	
☐ TONS 42		

DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND, SPECIFY, OR ESTIMATE ? (INSERT)

A MIN. PILE TIP ELEV.? ____

A PILE TIP ELEV.? 961

ANY PILE LENGTHS? 12" CIP

DRIVING TO A STRATUM? 48 TONS

DRIVING TO AN "N" OF? ____

OTHER? ____

TEST BEGAN WITH A PENT. OF 0 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 994 (WHOLE NO.'S ONLY)

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP, WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC.
3	10	24	2.4	991		991.02 ✓
		36	3.60	989		989.02 ✓
		6½	.65	988	18	986.02 ✓
		6	.60		19	985.48 ✓
		6	.60	985	19	
		5½	.50		20	984.48 ✓
		5½	.45	984	20	
		5	.50		21	983.56 ✓
		4½	.45	983	23	~~[illegible]~~ 983.15 ✓
		4½	.45			PLAN TEST PILE 44.00
		4½	.45			LENGTH IN PLACE 31.70
		4½	.45	982	23	
		5	.50		21	~~[illegible]~~ 981.65 ✓
		5	.50		21	
		4½	.45	981	23	980.81 ✓
		4½	.45			ORDER LENGTH = 34'
		4½	.45		23	
		5	.50	980	21	979.69 ✓
		5	.50			
		5	.50	979	21	
		4½	.45		23	978.44 ✓
		4½	.45	978		
		4½	.45			
		4½	.45	977		
		4½	.45		23	
		4¼	.425		24	976.56 ✓
		4¼	.425	976		
		4¼	.425			
		4¼	.425		24	
3	10	4½	.45	975	23	975.15 ✓

*FOR GRAVITY AND POWER HAMMERS.

FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS, USE MANUFACTURER'S ENERGY RATING.

FOR LINK-BELT, CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART. USE IN S. A. FORMULA.

H.D. 500-A
(10-60)

TEST PILE DRIVING DATA

5-1-69
BOP #20

PROJECT APD 056-1 (10) CT2 COUNTY [illegible]

BRIDGE AT T-285 over N. FULTON STATION [illegible] TO STATION [illegible]

PILING	LOCATION			SUMMARY	
UT ..... x ___	TEST PILE NO. 1	BRIDGE NO. 5	BENT NO. 1	ELEVATIONS IN WHOLE FEET ONLY	DID BRIDGE FOUNDATION INVESTIGATION REPORT RECOMMEND SPECIFY OR ESTIMATE [illegible]
TT ..... x ___			PILE NO. 7	(1) CUT-OFF 998.22	A MIN. PILE TIP ELEV. ___
H. ___ BP ___ x ___				GROUND 998.22	A PILE TIP ELEV.? ___
C-I-P 2" IN. O.D. x ___	HAMMER			(2) TIP. FINAL 957	ANY PILE LENGTHS? ___
PSC ___ IN ___ x ___	GRAVITY ___ LB.			(3) TIP. ACCEP. 955	DRIVING TO A STRATUM? ___
PCC ___ IN. ___ x ___	MKT DE — ___			(1) — (2) = [illegible]	DRIVING TO AN "N" OF? ___
OTHER: ___	DELMAG D — ___			(1) — (3) = [illegible]	OTHER? ___
PLAN DRIVING OBJECTIVE (PDO)	VULCAN NO. ONE - AIR			NAME: ___	
☐ PRACTICAL REFUSAL	LINK-BELT MODEL ___				
☒ REFUSAL ☒ ROCK	OTHER: ___				
☐ TONS. ___					

TEST BEGAN WITH A PENT. OF 1.00 FEET BELOW CUT-OFF AND A TIP ELEVATION OF 998 WHOLE NO.'S ONLY

*HAMMER FALL (FEET)	NO. OF BLOWS	TOTAL PENT. (INCHES)	AVER. PENT. PER BLOW (INCHES)	ELEVATION OF TIP. WHOLE FEET	BEARING IN WHOLE TONS	OCCASIONAL CORRECTED TIP ELEVATION, FINAL TIP ELEVATION, ORDER LENGTHS, ETC.
3	-	24	2.4	998		[illegible]
		[illegible]	2.4	996		[illegible]
		[illegible]	2.4	994		[illegible]
		[illegible]	[illegible]	992		[illegible]
		7	[illegible]	990	17	[illegible]
		[illegible]	[illegible]	989	18	[illegible]
		[illegible]	.60		19	[illegible]
		6				
		6				ORDER LENGTH = 44'
		6	.60		19	
		5	.50	987	21	[illegible]
		[illegible]				
		[illegible]				[illegible]
		[illegible]		986		
		[illegible]				[illegible]
		[illegible]		985		
		5	.50		21	
		4½	.45	984	23	[illegible]
		[illegible]				
		[illegible]		983		
		[illegible]				
		[illegible]				
		[illegible]		982		
		[illegible]	.45		23	
		[illegible]	[illegible]		25	[illegible]
		[illegible]		981		
		[illegible]	[illegible]		25	
		4½	.45	980	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	

*FOR GRAVITY AND POWER HAMMERS.
FOR DIFFERENTIAL OR DOUBLE ACTING STEAM OR AIR HAMMERS, USE MANUFACTURER'S ENERGY RATING.
FOR LINK-BELT, CONVERT BOUNCE CHAMBER PRESSURE READING TO "WH" VALUE BY MEANS OF CHART [illegible]

H.D. 488
13-67

"AS-BUILT" BRIDGE FOUNDATION REPORT

DATA FOR BRIDGE ENGINEER, ATLANTA

APD-056-1(10)(c)2 COUNTY FULTON

NO. 5 (Lt.) (Rt.) OVER/AT Z 285 AT STA. 753+8078

DATE OF THIS REPORT 5-10 1969 BY DAVID JONES ENGINEER

ELEVATIONS OF BOTTOMS OF FOOTINGS (= BF) & LOWEST AND HIGHEST ELEVATIONS OF PILE TIPS (= LOW, HIGH)
(Express this data in whole numbers only — NO DECIMALS)

BENT NO.	ELEVATION OF	FOR FOUNDATION BENTS ONLY AT LEFT FOOTING	MIDDLE FOOTING	RIGHT FOOTING	FOR PILE BENTS ONLY LOW	HIGH	REMARKS, INCLUDING SURVEY ORIENTATION
1	BF		998				END BENT
	LOW HIGH		960 966				
2	BF	968	963	969			
	LOW HIGH			954 955			
3	BF	967	967	967			
	LOW HIGH						
4	BF		993				END BENT
	LOW HIGH		960 960				
5	BF						
	LOW HIGH						
6	BF						
	LOW HIGH						
7	BF						
	LOW HIGH						
8	BF						
	LOW HIGH						
9	BF						
	LOW HIGH						
10	BF						
	LOW HIGH						
11	BF						
	LOW HIGH						
12	BF						
	LOW HIGH						
13	BF						
	LOW HIGH						
14	BF						
	LOW HIGH						
15	BF						
	LOW HIGH						
16	BF						
	LOW HIGH						
17	BF						
	LOW HIGH						
18	BF						
	LOW HIGH						
19	BF						
	LOW HIGH						
20	BF						
	LOW HIGH						
21	BF						
	LOW HIGH						
22	BF						
	LOW HIGH						

ORIGINAL TO: BRIDGE ENGINEER ✓
COPY TO : DIVISION OFFICE

NOTE: COMPLETE THIS FORM FOR EVERY BRIDGE AS SOON AS THE INFORMATION IS KNOWN AND MAIL PROMPTLY.