

121-0749-0

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE MLP 400 (27) Fulton County OFFICE Materials and Research
P.I. No. 720790 Forest Park, Georgia
DATE December 14, 1988

FROM David A. Mitchell, Chief, Geotechnical Engineering Bureau

TO Paul Liles, State Bridge and Structural Design Engineer

SUBJECT BRIDGE FOUNDATION INVESTIGATION
Glenridge Perimeter Connector over
GA 400 Bridge # 19

As requested, a bridge foundation investigation has been made at the above listed site. The results of this work are attached.

If any additional information is needed, please advise.

George Malone Hearz
George M. Geary
Engineering Design Unit

DAM:GG:cdj

Attachment

copy: Paul Mullins

BRIDGE FOUNDATION INVESTIGATION

PROJECT NO.: MLP-400 (27) Fulton County
LOCATION: Glenridge Perimeter Connector over GA 400 Bridge #19

P. I. No. 720790

GEOLOGIC FORMATION: Button Mica Schist

NOTABLE SUBSURFACE FEATURES: Very dense weathered rock found at erratic elevations
 Groundwater found near elevation 990 at bent 6 left.

MAXIMUM PILE DESIGN LOADS

TIMBER *	12" MS=	10 BP42 = 55	Tons
END BEARING-(X)	14" MS=	12 BP 53= 70	Tons
FRICITION- ()	16" MS=	14 BP 73= 96	Tons
	18" MS=		

FOUNDATION RECOMMENDATIONS

<u>BENT</u>	<u>SPREAD FTG. (BEARING)</u>	<u>PILE FTG. (PILE TYPE)</u>
1,4,6 Lt. & 7	()	("H")
2,3,5 & 6 Rt.	(8 KSF)	()
	()	()
6 Rt. Alternate	()	("H")
	()	()

Partially weathered rock

The Department of Transportation in making this foundation report is not liable to contractors assumes **PILE TYPE** is accuracy.

No claim will be considered if the contractor or relies on this information in his bidding or in his construction operations and finds the data inaccurate.

This foundation investigation report is not considered as a part of the Plans and Specifications of Contract on the job.

ELEVATIONS

<u>BENT</u>	<u>BOTTOM of FTG.</u>	<u>MINIMUM TIP</u>	<u>ESTIMATED TIP</u>
1		1005	1000 - 985
2	1005 or below		
3	999 or below		
4		minimum 10' penetration	990 - 980
5	998 or below	970	965 - 955
6 Lt.			
6 Rt.	998 or below		
6 Rt. Alt.		minimum 10' penetration	995 - 985
7		1000	985 - 970

P.D.O. - Driving resistance after minimum tip elevations or minimum penetration is achieved.

Point Protection - Pruy points 75750 or equal required at bent 4 and 6 right alternate to insure adequate penetration.

Special Problems - 1) Bent 1 recommendations based on adjacent borings due to inaccessible location. The Geotechnical Engineering Bureau should be notified if discrepancies are noted in the field.

2) Due to erratic nature of weathered rock in this area, the Geotechnical Engineering Bureau should be notified prior to excavation of the footings for possible site inspection.

Protection of Excavation - Spread footings should be placed as soon after excavation as possible. The excavation should be protected from surface runoff. Standing water should not be allowed in footing area.

Reported by: Georgene M. Geary **Drafted by:** Claire Hollis

Reviewed by: Wann Boy **P.E.**

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA
 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6 / 8 / 88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 5
 BENT NO. 2 FOOTING 44' RT. E GROUND ELEV. 1011.43

PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1020												
1010	Gr. Elev. <i>9</i>											
	Dse. Miltc. Micac Sdy. Silt	1s										
1000		2s										
	V. Dse. Same	3s										
990		4s										
	Refusal on Hard Rock	HB										
970												
960												

The Department of Transportation in making this report assumes no responsibility for the accuracy of the data furnished by the contractor. No liability is assumed for the use of this report for any purpose other than that for which it was prepared. This foundation investigation report is only considered as a part of the Plans and Specifications of Contract on file job.

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA
 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400 (27) COUNTY FULTON DATE 6 / 7 / 88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 7
 BENT NO. 3 FOOTING 5' LT. C GROUND ELEV. 1019.66
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ϕ
1020	Gr. Elev.											
1010	Med. Dse. Mitr. Micas Sdy. Silt											
1000	Dse. Same	1s 40										
		2s 60=.8										
		3s 60=.6										
990	V. Dse. Same	4s 60=.8										
		5s 60=.9										
980		6s 60=.2										
		7s 60=.0										
970												
960	Practical Refusal											

The Department of Transportation in making this report is not responsible for the accuracy or reliability of the data furnished by the contractor. The Department is not responsible for the accuracy or reliability of the data furnished by the contractor or for the construction specifications and methods of construction. This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA
 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/8/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 8
 BENT NO. 3 FOOTING 40' RT. E GROUND ELEV. 1022.56

PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1020	Gr. Elev. <i>J</i>											
1010	Med. Dse. To Dse. Milt. Mic. Sdy. Silt											
1000	V. Dse. Some W / Gravel	1s 60=9' 2s 60=7' 3s 70=7' 4s 60=7'										
990												
980	V. Hd. Drilling	5s 60=1'										
970	Refusal <i>J</i>											
960												

The undersigned certifies that this report was prepared by him or under his direct supervision and that he is a duly Licensed Professional Engineer in the State of Georgia. No claim will be made by him or his firm for any liability in connection with this report unless it is specifically stated in the report. This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

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 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/7/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 10
 BENT NO. 4 FOOTING ℄ GROUND ELEV. 1025.00
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV.	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1020	Gr. Elev. 9											
1010	Med. Dse. Milt. Micacs Sdy. Silt											
1000		1s										
990		2s 60=9'										
		3s 60										
	V. Dse. Same	4s 60=.4'										
		5s 60=.4'										
		6s HB										
970	End Boring											
960												

The Department of Transportation in making this log, has not tested for any of the following conditions or for any other conditions which may be of importance to the contractor. No claim will be allowed for the cost of any test or investigation in the field or in the laboratory which is not specifically mentioned in this log or in the specifications and tests for this foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

DEPARTMENT OF TRANSPORTATION

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 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6 / 7 / 88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 11
 BENT NO. 4 FOOTING 40' RT. C GROUND ELEV. 1029.05
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200 CLAY	LL	PI	C	ϕ
1020	0. Elev. \uparrow										
1010	Med. Dse. Mitr. Micac Sdy. Silt	1s									
1000	Dse. Same	2s									
990	Med. Dse. Same	3s									
	V. Dse. Same	4s									
980	Rock Lyrs.	5s									
	Practical Refusal	HB									

The Department of Transportation in making this foundation report is not liable for contractor's assumptions or for the contractor's operations and finds that no claim will be considered in his bidding or relies on this information in his bidding or in his construction operations and finds that it is inaccurate.
 This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

DEPARTMENT OF TRANSPORTATION

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BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/8/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 13
 BENT NO. 5 FOOTING 10' LT. E GROUND ELEV. 1023.96
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV.	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	ϕ
1020	Gr. Elev.											
1010	Med. Dse. Black & Brn. Micaceous Silt											
1000		1s 39										
	Dse. Same	2s 60										
		3s 60=4'										
		4s 60=5'										
990		5s 60										
		7s 60=2'										
	V. Dse. Same W/Gravel	8s 60=6'										
980		9s 60=0'										
970												
960	Practical Refusal											

The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy. No claim will be made for the accuracy of or relies on this information for use in this construction. The contractor is responsible for its own investigation. This foundation information should be used as a guide only. The contractor should conduct his own investigation on the site.

DEPARTMENT OF TRANSPORTATION

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BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/8/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 14
 BENT NO. 5 FOOTING 40' RT. C GROUND ELEV. 1023.89
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1020	Gr. Elev. <i>9</i>											
1010	Med. Dse. Miltc. Micacs Sdy. Silt											
1000	V. Dse. Miltc. Same W / Gravel	1s 2s 3s										
990		4s 60										
980		5s 60=7'										
970	End Boring <i>U</i>	6s 60=6'										
960		7s 60=1'										



The Department of Transportation in making this foundation report available to contractors assumes no responsibility for its accuracy. No claim will be made for the accuracy of or relies on this information in the design or at his construction operations and finds that it is inadequate.
 This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on this job.

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 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/14/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 15
 BENT NO. 6 FOOTING 35' LT. E GROUND ELEV. 1001.46
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV.	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1000	Gr. Elev. 											
990	Med. Dse. Red Cy. Sdy. Silt	1s										
990	Med. Dse. Milt. Micob Sdy. Silt	2s										
980		3s										
980		4s										
970		5s										
970		6s										
960	V. Dse. Same											
950	Practical Refusal 											
940												


The Department of Transportation does not warrant this log as a true and correct record of the borings assumed to be true and correct. No claim will be made for the accuracy of this log or the results of any tests thereon. This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

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BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/14/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 16
 BENT NO. 6 FOOTING 12' RT. E GROUND ELEV. 1010.79
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200 CLAY	LL	PI	C	ϕ
1020											
1010	Gr. Elev. 										
1000	1s Des. Mifc. Micac Sdy. Silt	26									
	2s	32									
	3s	30									
	4s	60=2'									
	5s	60=8'									
990	6s	60=7'									
980	7s V. Dsc. Same	60=9'									
970	Rock Lys.										
960	Practical Refusal										

The Department of Transportation and its staff
 do not warrant the accuracy of the data
 or the results of the investigation. It is the user's
 responsibility to verify the data and results of the
 investigation. The Department of Transportation
 assumes no responsibility for the use of the
 information for any purpose other than that
 for which it was prepared.

No claim will be made by the Department of
 Transportation for this information if it is used
 for any purpose other than that for which it
 was prepared. The Department of Transportation
 is not responsible for the use of the information
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BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400 (27) COUNTY FULTON DATE 6/14/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 18
 BENT NO. 7 FOOTING 25' LT. C GROUND ELEV. 1003.56
 PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1000	Gr. Elev. <i>9</i>											
	Med. Dse. Miltc. Cy. Sdy. Silt	15										
	Med. Dse. Miltc. Micas Sdy. Silt	22										
990		34										
	Dse. Same	28										
		38										
970		27										
960	Drilling Weath. - Lys.											
950	Practical Refusal											
940												

This Department is responsible for making this investigation and the results thereon. It assumes the responsibility for the accuracy of this information. No claim shall be made by this Department or its representatives if this investigation is used for purposes other than those for which it was intended. This information is not to be considered as a part of the specifications or Contract conditions of Contract No. 12-1-10.

DEPARTMENT OF TRANSPORTATION

OFFICE OF MATERIALS AND RESEARCH, FOREST PARK, GEORGIA
 GEOTECHNICAL ENGINEERING

BRIDGE SUBSURFACE INVESTIGATION

PROJECT MLP-400(27) COUNTY FULTON DATE 6/14/88
 LOCATION BR. NO. 19 GLENRIDGE PERIMETER CONNECTOR O/GA. 400 BORING NO. 19
 BENT NO. 7 FOOTING 20' RT. E GROUND ELEV. 1009.64

PROPOSED FOOTING ELEV. _____ PARTY CHIEF SPORNBERGER

ELEV.	BORING LOG	BLOW	UNIFIED	γ	W	Gs	% 200	% CLAY	LL	PI	C	φ
1020												
1010	Gr. Elev. <u>9</u>											
1000	1s	27										
	2s	33										
	3s	35										
	4s	38										
	5s	60										
	6s	60										
970												
960	Practical Refusal											

The Department of Transportation is making this log available only to contractors assumes no responsibility for its accuracy. No claim will be considered if the contractor or relies on this information in the absence of in his construction operations and units that it is irrevocable. This foundation investigation report is not considered as a part of the Plans and Specifications or Contract on the job.

STATE HIGHWAY DEPARTMENT OF GEORGIA, STATE HIGHWAY DEPARTMENT
HIGHWAY DEPARTMENT OF GEORGIA, STATE HIGHWAY DEPARTMENT, OR DEPARTMENT WHEN
THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA, MEAN AND SHAL
TO MEAN THE DEPARTMENT OF TRANSPORTATION.

ON

**END PROJECT
MLP-400(27)**

*3/4 ASP. C&G. M&E.
8/11/66
3/14 ASP. C&G. M&E.
8/11/66*

