TE-95
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GENERAL INFORMATION

INTRODUCTION

THIS REPORT CONSISTS OF THE SOILS INVESTIGATION OF A PROPOSED FILL EMBANKMENT UNDERNEATH USR 20, OVER AN ABANDONED RAILROAD BED AT THE EXISTING 15.59 MILE MARKER STRUCTURE SITE, WHICH IS APPROXIMATELY 1.3 MILES TO THE NORTHEAST OF THE USR 20 STRUCTURE OVER SR 44. THE MAXIMUM HEIGHT OF THE FILL EMBANKMENT WILL BE 21.5 FEET.

GEOLOGY AND OBSERVATIONS

THIS PROJECT IS LOCATED ON THE GENTLY ROLLING, GLACIATED PORTION OF THE LAKE PLAIN REGION, ON AN ABANDONED RAILROAD BED, IN AN AREA WHERE MODERATELY DEEP (AT THE VERY LEAST) FILL MATERIALS, LAKE DEPOSITS AND GLACIAL-DERIVED MATERIALS OVERLIE BEDROCK OF DEVONIAN AGE.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF A MECHANICALLY-POWERED HOLLOW STEM ROTARY AUGER ON SEPTEMBER 15 AND 16, 1992.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE PREDOMINANTLY COMPRISED OF SANDY SILTS (A-4A) AND SILT CLAYS (A-6A) WITH SOME SANDS (A-3A) GENERALLY HAVING LOW MOISTURE CONTENTS AND MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE.

SOME WET MATERIAL WAS ENCOUNTERED AT STATION 9+50.

BOULDERS WERE ENCOUNTERED AT TWO DIFFERENT DEPTHS AT STATION 10+50.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS — 20 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
COARSE AND FINE SAND.	A-3(0)	A-3A	10	25	43	16	6	NP	NP	20	3
STONE FRAGS. W/SAND & SILT	A-2-4(0)	A-2-4	43	13	9	21	14	25	7	8	1
SANDY SILT.	A-4(3)	A-4A	18	13	18	29	22	23	5	12	7
SILT.	A-4(8)	A-4B	0	2	10	62	26	21	4	16	1
SILT & CLAY.	A-6(9)	A-6A	0	3	5	46	46	31	12	15	1
VARIOUS OTHER MATERIALS.	RAILROAD CINDERS		BOULDERY ZONE			VISUAL	CLASSIFICATION				7

DRIVE SAMPLE—PLAN VIEW.

DRIVE SAMPLE BORING PLOTTED TO VERTICAL SCALE ONLY.

INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.

FREE WATER.

NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST.
X=NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y=NUMBER OF BLOWS FOR SECOND 6 INCHES.
Z=NUMBER OF BLOWS FOR THIRD 6 INCHES.

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT. e.g. 15

FILL EMB. INVESTIGATION
LAKE COUNTY
LAK-20-1558

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-TESTING LABORATORY
1600 WEST BROAD STREET COLUMBUS, OHIO 43223

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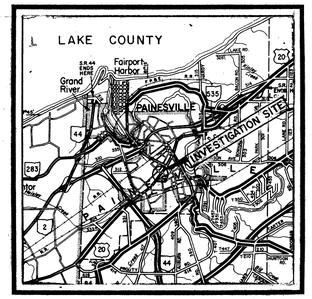
NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

ALL AVAILABLE SOIL AND BEDROCK INFORMATION WHICH CAN BE CONVENIENTLY SHOWN ON THE SOIL PROFILE FOUNDATION INVESTIGATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE INVESTIGATION, SOIL TESTS AND BEDROCK BORINGS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE BUREAU OF TESTS AT 1600 WEST BROAD STREET, THE PAVEMENT AND SOILS SECTION OF THE BUREAU OF LOCATION AND DESIGN OR IN THE BRIDGE BUREAU AT 25 SOUTH FRONT STREET.



LOCATION MAP

Recon. M.R.S., 8/31/92

Drilling B.H., 9/15/92, 9/16/92

Drafting K.A.B. 11/4/92

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATES THAT THE MATERIAL IS NON-PLASTIC
* DENOTES SAMPLE TAKEN AT OR NEAR GRADE

STATION & OFFSET	DEPTH FROM	DEPTH TO	% AGG	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
9+50.000 ℄	02.5	04.0	14	17	52	14	3	NP	NP	18	A-3A*
	05.0	06.5	17	16	39	19	9	NP	NP	24	A-3A
	07.5	09.0	12	13	31	25	19	20	5	13	A-4A
	10.0	11.5	30	12	11	25	22	25	7	14	A-4A
	12.5	14.0	0	3	5	46	46	31	12	15	A-6A
	15.0	16.5	0	0	0	0	0	-	-	16	
	GRAY SILT & CLAY										VISUAL
	17.5	19.0	0	0	0	0	0	-	-	10	
	GRAY SILT & CLAY										VISUAL
	20.0	21.5	0	0	0	0	0	-	-	13	
	GRAY SILT & CLAY										VISUAL
	22.5	24.0	0	0	0	0	0	-	-	9	
	GRAY SILT & CLAY										VISUAL
	25.0	25.5	43	13	9	21	14	25	7	8	A-2-4

STATION & OFFSET	DEPTH FROM	DEPTH TO	% AGG	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS
10+50.000 ℄	02.5	04.0	0	41	39	15	5	NP	NP	18	A-3A*
	05.0	06.5	0	16	31	33	20	21	4	15	A-4A
	07.5	08.5	34	10	15	22	19	NP	NP	10	A-4A
	10.0	11.5	13	11	16	32	28	26	8	13	A-4A
	12.5	14.0	0	0	0	0	0	-	-	11	
	GRAY SANDY SILT										VISUAL
	15.0	16.5	0	2	10	62	26	21	4	16	A-4B
	17.5	19.0	16	14	15	32	23	24	7	11	A-4A
	20.0	20.5	0	0	0	0	0	-	-	14	
	GRAY S' SILT W/BOULDERS										VISUAL
	22.5	24.0	22	13	11	33	21	23	6	9	A-4A
	25.0	25.5	0	0	0	0	0	-	-	4	
	GR M & C W/STONE FRGMT										VISUAL