Year	Job No.	County
1965	07508	CLARK

Changes _____

010445

Project Identification CLA-68-3.60

FEP-165

File No. 18-C-26 Proj. No. _____

Begin Sta. 204+00 End Sta. 272+00 Length 1.48* Miles

	RECON	AUGER	CORE	DRIVE ROD	RESISTIVITY
By	W.C.J	L.M.D			
Dates	4-6-65	4/13-17/65			
No. of Holes or Soundings		93			
Footage		221.5			
Samples Tested		69			

Drafting By R.L.D. A.F. A.D.B.

Completion Date 4/30-65

Drafting Hours 35

Topo Sheet

☐ Samples Accounted For

Transmittal Date 5/4/65 No. of Tracings 4 Filed with year 5-2-69

Revisions _____ Remarks FET 184

Refer to _____

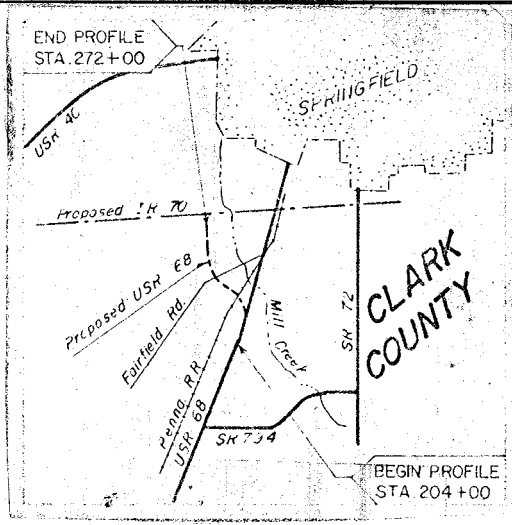
DO NOT WRITE IN THIS SPACE

Length	Auger Data			Core Data			Drive Rod Data		Resistivity
	No. of Holes	Footage	Samples	No. of Holes	Footage	Samples	No. of Soundings	Footage	No. of Locations
1.48	23	221.5	69	—	—	—	—	—	—

* See Reverse Side

TOTAL SAMPLES					
Samples VOIDED	Auger	Drive	Samples USED	Auger	Drive
TOTAL MILEAGE 1.48					

Alignment	Stations From——To	Mileage
USR 68.	204+00 - 272+00.	1.29
Fairfield Rd.	15+00 - 25+00.	.19



PLACE

010445

FIELD BORING LOG

County, Route No., Section CIR-68-3.60

Station 206+00 Offset 20' RT Elev. 2

Date APR-13-65 Water Elev. 4 feet

Crew [illegible] Equipment [illegible]

MCW-ABW

Drafting

Depth Feet	Field Number	Description
		Shoulder of US 68
0.0-		①
2-4	18	Dry sand + gravel.
7-6	22	MOIST STIFF dense clay with gravel
5		
7-9	3 11	WET sand + gravel
10		
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIR-68-360

Station 910+00 Offset ℄ Elev. ℄

Date BPR 73-65 Water Elev. [illegible]

Crew [illegible] Equipment 74-300-19

MAN

Drafting

Depth Feet	Field Number	① Description
0.0-		
1-6	2 3 4	moist dense brown soil
5 6a	2 5	moist dense clay & gravel. w water.
W 2-4	6 6	wet brown soil, sand & gravel
4a 10	7	moist stiff dense gray clay
1-b	8 14	wet brown sand & gravel.
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section

Station 214+50 Offset ℄ Elev. ℄

Date APR 5-13-65 Water Elev. [redacted]

Crew LMD Equipment [illegible]

[illegible] ABW

Drafting		

Depth Feet	Field Number	① Description
0.0-		Black TSF 1.0 foot
	35	wet brown clay
7-6	40	water
5	17	wet brown clay & gravel
2-4		Gravel stopped HA
		R (Gravel)
10		(HA)
		Bldr 3 ft
		N
15		A
		21
20		
		13
25		
		wet on surface
		ground soaked with
		water
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIa-68-3.60

Station 217+25 Offset ℄ Elev. [illegible]

Date 8-14-65 Water Elev. [illegible]

Crew [illegible] Equipment 74-300-19

Drafting

Depth Feet	Field Number	(1-2) Description
0.0-		Junk Yard Parts
6a	31 12	Moist stiff brown silt clay
W 5		← water
2-4	15 13	wet silt clay & gravel
10 1-6	14	wet gray sandy sand & gravel
		Completes
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIR-68-3.60

Station 219+25 Offset a Elev.

Date APR-14-65 Water Elev. 5.5

Crew LMD MCW-ABW Equipment 74-300-17

Drafting

Depth Feet	Field Number	(2) Description
0.0-		JUNK YARD NOTES.
6.6	23 15	MOIST BROWN SILT CLAY
W 5.5		← WATER
2-6	2/6	WET SOIL SAND + GRAVEL
7.6		MOIST DENSE STIFF HARD PAN
		Complete

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section: CIa-68-3.60

Station: 221+00 Offset: ℄ Elev.: ℄

Date: APR-14-65 Water Elev.: Dry

Crew: MCW ADW Equipment: 74 Mobil 19

Drafting

Depth Feet	Field Number	(2) Description
0.0-		CORN field ND FS-
7-6	18	moist brown silt clay
1-a 5	5 19	moist sand & gravel
1-a 10	5 20	moist sand & gravel
		Compacted well drained
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section Cla- 68-360

Station 223+00 Offset ℄ Elev. ℄

Date _____ Water Elev. _____

Crew LMD MCW ABW Equipment 24-300-19

Drafting

Depth Feet	Field Number	Description
0.0-		② CORN No Top Soil
7-6	27	Moist Brown clay
4.0	22	Moist brown sandy silt + gravel
5		
1-0	4 23	Clean sand + gravel
10		Complete
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIA-68-360

Station 228+00 Offset ℄ Elev. ℄

Date APR-17-65 Water Elev. No water

Crew [illegible] MCW ABW Equipment #19

Drafting

Corr (2-3) Description NO TS

Depth Feet	Field Number	Description
0.0-		
7-6	24	moist stiff brown clay
4a 5	25 16	moist brown silt clay with small gravel mostly soil
4a 10	10 26	moist brown silt clay with gravel mostly soil
1-a	6 27	clean sand + gravel
		Complete
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CLARK-68-3.60

Station 232 +00 Offset ℄ Elev. ℄

Date APR-17-65 Water Elev.

Crew LMO Equipment 74-300-19

MCW ABW

Drafting

Depth Feet	Field Number	(3) Description
0.0-		NO T.S.
7-6	234	MOIST brown clay
1-a 5	5 29	clean sand + gravel
1-a 10	30 6	clean sand + gravel
		Complete
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section Clark-68-360

Station 235+45 Offset ℄ Elev. ℄

Date Apr-17-65 Water Elev. No water

Crew LMD Equipment 74-300-17

MCW

Drafting

Depth Feet	Field Number	Description
		wet (3) on surface
0.0-		No TS
4.0	3991	wet brown silt clay
4.0	13 32	moist brown silt clay with stone fragments
5		
4.0	13 33	moist brown silt clay with stone frags. color ch
10 4.0	34	moist grey Till
		Complete
15		wet on surface because of stopped up tile and no gravel below to drain water away
20		
25		wet spot on side of Hill couldn't get truck on location
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIR-68-360

Station 238+50 Offset ℄ Elev. ℄

Date APR-14-65 Water Elev. NO WATER

Crew LMG Equipment 74-300-17

MCW

Drafting		

Depth Feet	Field Number	(3) Description
0.0-		No dark TS
7-6	33 35	moist dense brown
5 4.0	12 36	wetter brown silt clay + stone frags
1-0 10	37	moist sand + gravel
		complete
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIR-68-3.60

Station 241+00 Offset ℄ Elev. ℄

Date APR-13-65 Water Elev. NO WATER

Crew LMO Equipment 74-300-19

MOW.

Drafting		

Depth Feet	Field Number	(3-4) Description
0.0-		Low Brew
4.9 12	28	Dark silt clay
7.6 5	39 23	moist brown silt clay
4a	45	moist brown till
10 4a	49	moist grey till
		Complete
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CC-68-3.60

Station 244+00 Offset ℄ Elev. a

Date APR-14-65 Water Elev. Dry

Crew LMD Equipment 74-300-19

MCW

Drafting

Depth Feet	Field Number	(4) Description
D.O.		TS = 0.7
0.7		DARK TS LIKE 38 - 0.7
6a	42/4	moist brown silt clay
5		
4a	43/3	moist brown silt clay
3a	44/4	moist sand
		Complete
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CLR-68-360

Station 248+00 Offset ℄ Elev. ℄

Date APR-14-65 Water Elev.

Crew LMO Equipment 7V-310-B

MCW

Drafting

Depth Feet	Field Number	(4) Description
0.0-		TS = 0.4'
		DARK T.S. 0.4
	23	MOIST brown SILT
6a	45	CLAY
5		water
	22	WET SAND + SILT
4a	46	
10		
1-b	18	Cleaner SAND
	47	
15	14'	
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CA-68-360

Station 251+00 Offset ℄ Elev. ℄

Date APR-14-65 Water Elev. 6.5

Crew DMD Equipment 74-300-10

Drafting

Depth Feet	Field Number	(4) Description
0.0-	[redacted]	wet dark T.S. = 0.5
7-6	482	moist brown clay
4.6 5	20 49	moist brown silt clay
W		
2.4 10	12 50	wet silty sand & gravel
		Refusal on boulder
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIa-68

Station 252+50 Offset ℄ Elev. ℄

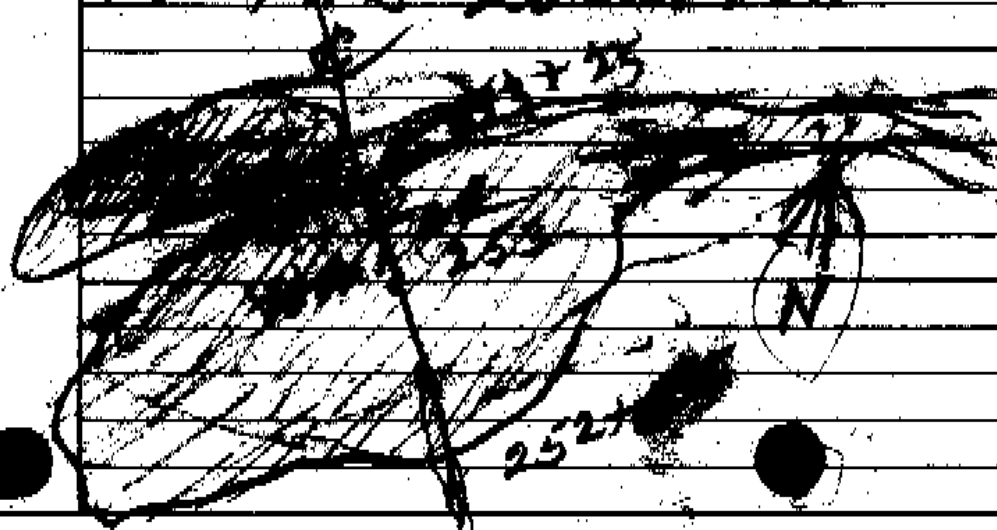
Date APR-14-65 Water Elev. on surface

Crew Lmp Equipment Hand Auger

MCW

Drafting

Depth Feet	Field Number	(4) Description
0.0-		W
7.2	51	wet Dark T.S. 1½" 14"
6.9	52 23	wet brown silt clay + gravel
		Refusal too much gravel to dig deeper.
10		(Gravel) (H.A.)
		Some soil poor drainage
15		Soil wet on top couldn't get truck to this location
20		
25		
30		



Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIA-68-3.60

Station 256+00 Offset 10 LT Elev. a

Date Water Elev.

Crew KMD Equipment HA

MCW

Drafting

Depth Feet	Field Number	(5) Description
0.0-		
0.7		Cultivated Top soil 8" 0.7
7-6	279	Moist brown silt clay
4.0	68	Moist brown silt clay & stone fragments
		Ref. 7 inch gravel in soil
		(Gravel) stopped - HA
10		(H.a.)
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section Clark 68 3.66

Station 259+10 Offset 6' LT Elev. @

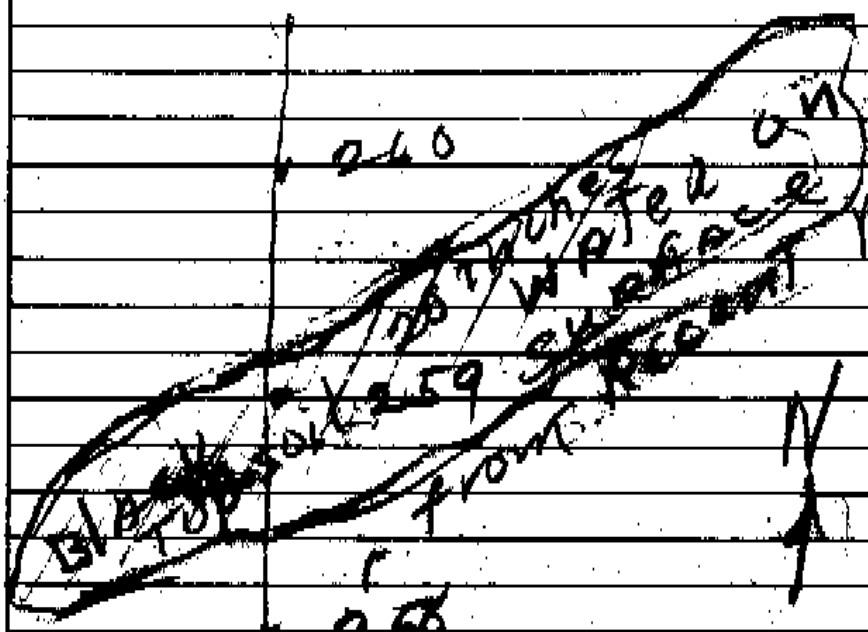
Date April 15-1965 Water Elev. on surface

Crew Jim B. - McW Equipment H.A.

ABW

Drafting

Depth Feet	Field Number	Description
0.0-		Corn field.
		(5)
	61	Black TS. 2.0' ~~1.5~~
7.6	62	Moist brown silt clay
5	39	Limestone frags
	Ref (Ha)	stopped
10		
15		240
20		259
25		250
		TS probably stopped up.
30		



Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section Clark 68 3.60

Station 261+50 Offset 20' Lt Elev. 0

Date April 15-1965 Water Elev. 4 Ft

Crew 2 MB - MCW Equipment 4 A-

ABW

Drafting

Depth Feet	Field Number	(5) Description
0.0-		
	21	Cultivated J.S. = 0.8
6a	23	moist brown silt
		clay.
5		wet brown silt clay
4a		+ stone frags
	6'	Ref.
		(Ha)
10		
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CLR-68 6.06

Station 265+00 Offset 30 LT Elev. 2

Date APR-16-65 Water Elev. on surface

Crew [illegible] MCW Equipment [illegible]

Drafting

Depth Feet	Field Number	(S-6) Description
0.0		T.S. = 1.2
1.2	65	Black top soil
6.6	38	wet stiff clay
6.6	27	wet brown clay + limestone fragments stopped
		Ref HR (Ha)
10		water standing in
		Poor drainage
15		corn field
20		[illegible]
25		Black T.S. 14 inches
30		surface

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section Cla-68-6.06

Station 269+25 Offset 40 Lt Elev.

Date APR-16-65 Water Elev.

Crew [illegible] Equipment [illegible]

MCW

Drafting

Depth Feet	Field Number	(6) Description
0.0-0.0		Cultivated T.S=0.6
0.0-7.6	26 66	Moist Red brown clay
7.6-9.5	6 8 30	wet brown soil & stone fragments, stopped H.a.
		Ref (H.a.)
10		
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section CIA-68-3.6B

Station 17+00 Offset 12 LT Elev. ℄

Date Apr-15-65 Water Elev. DRY

Crew MCW-ABW. Equipment 74-300-19

Drafting

Depth Feet	Field Number	Description
0.0-		(5) Fairfield Road - Shoulder of Road
7-6	[illegible]	Moist Clay Fill
4a 5	1 [illegible]	Moist brown silt clay Limestone Frags
6a	10 53	Moist brown silt clay & Limestone Fragments
10		Complete
20		
25		
30		

Use reverse side of this sheet for additional notes.

FIELD BORING LOG

County, Route No., Section Clark-68-36.2

Station 23+00 Offset 12 RT Elev.

Date Apr-15-65 Water Elev. DRY

Crew AMD MCW Equipment 74-300-19

Drafting

Depth Feet	Field Number	Description
		(5) Fairfield Road
0.0-		Shoulder of Road.
4a	56 15	Fill from ditch.
7-6	57 21	moist brown silt clay stone fragments
1-b	58 9	moist sand small gravel
10		
15		
20		
25		
30		

Use reverse side of this sheet for additional notes.

SC-11

SOIL PROFILE PROJECT SUMMARY

COUNTY, RT. NO., & SEC. NO. CLA-68-3.60

FEDERAL NO. _____ LENGTH 1.2 MILES

BEGIN PROFILE STA. 204+00 END PROFILE STA. 222+00

PRESENT SURFACE _____ PROPOSED SURFACE _____

RECON. BY _____ FIELD WORK STARTED _____ FIELD WORK COMPLETED _____

EARTH AUGER: NO. OF HOLES _____ LIN.FT. BORING _____ BY _____ DAYS _____

CORE DRILL: NO. OF HOLES _____ LIN.FT. BORING _____ BY _____ DAYS _____

EARTH AUGER: SAMPLES INSP. _____ SAMPLES TESTED _____ TOTAL SAMPLES _____

CORE DRILL: SAMPLES INSP. _____ SAMPLES TESTED _____ TOTAL SAMPLES _____

DRAFTING BY _____ DRAFTING COMPLETED _____ LETTER OR PROFILE SENT _____

REMARKS _____

HRB GROUP DESIGNATION	OHIO GROUP DESIGNATION	AGGREGATE %	COARSE SAND %	FINE SAND %	SILT %	CLAY %	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	NO. SAMPLES TESTED	DENSITY DATA: NO. DENSITY SAMPLES	DENSITY DATA: OPTIMUM MOISTURE	DENSITY DATA: MAX. DRY WT. LBS/CU.FT.
A-1-a(0)	A-1-a	61	28	5	6		N-P		6	8			
A-1-b(0)	A-1-b	39	35	15	7	4	23	1	13	4			
A-3 (0)	A-3												
-	A-3a	6	1	70	11	12	N-P		9	1			
A-2-4(0)	A-2-4	48	17	10	14	11	24	7	14	5			
A-2-5(0)	A-2-5												
A-2-6(0)	A-2-6	54	8	12	18	8	30	13	21	1			
A-2-7( )	A-2-7												
A-4 (3)	A-4a	24	10	14	30	22	23	7	14	16			
A-4 (8)	A-4b	0	4	8	55	32	29	5	26	~~X~~	3		
A-5 ( )	A-5												
A-6 (7)	A-6a	13	6	13	32	30	32	12	21	7			
A-6 (12)	A-6b	4	4	13	38	41	37	19	30	4			
~~A-7-5~~	~~A-7-5~~	~~0~~	~~2~~	~~5~~	~~16~~	~~77~~	~~37~~	~~33~~	~~50~~	~~1~~			
A-7-6(15)	A-7-6	5	6	12	31	46	44	25	26	~~X~~	16		

LAB. NOS. SAMPLES TESTED 82663-82731 = 69 SAMPLES

LAB. NOS. MOISTURE DENSITY SAMPLES _____

COUNTY CLARK

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-360 (H.M.D.)

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis: Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact.: L.L.	P.I.	Water Cont. %	Density: Opt.	Max. Dry Wt.	SHTL Class	Remarks
82663	1	206+0 20Rt	0'-2'	49	26	8	8	9	25	9	8			A-24	GR
4	2	"	2'-4'	34	19	6	13	28	46	23	24			A-7-6	
5	3	"	4'-10'	64	21	3	8	4	NP		11			A-1-a	GR
6	4	210+0 ℄	0'-4'	29	4	8	23	36	52	27	27			A-7-6	
7	5	"	4-6	31	11	11	27	20	30	11	20			A-6a	
8	6	"	6'-8'	35	21	12	18	14	27	9	16			A-2-4	GR
9	7	"	8'-10'	20	11	16	29	24	21	5	12			A-4a	
82670	8	"	10'-14'	64	14	6	10	6	23	5	14			A-1-b	GR
1	9	214+0 ℄	0'-1'	(0	2	5	46	47	77	35	58)			~~A-7-5~~	A-6a
				Topsoil										Visual	
2	10	"	1'-4'	0	1	1	52	46	46	24	35			A-7-6	
3	1	"	4'-6'	68	4	4	16	8	28	7	17			A-2-4	GR
4	2	217+25 ℄	0'-5'	0	1	15	44	40	36	14	31			A-6a	
5	13	"	5'-9'	52	13	9	16	10	24	6	15			A-2-4	ST FRAG

SO-8

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-3.60

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis: Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact.: L.L.	P.I.	Water Cont. %	Density: Opt.	Max. Dry Wt.	SHTL Class	Remarks
82676	14	217+25 ℄	9'-12'	43	26	16	10	5	N-P		11			A-1-b	
7	5	219+25 ℄	0'-5.5	0	3	13	35	49	40	21	23			A-6 b	
8	6	"	5.5-11'	54	8	12	18	8	30	13	21			A-2-6	Stabs
9	7	"	11'-12'	0	12	20	20	48	48	28	21			A-7-6	
82680	8	221+0 ℄	0'-2'	0	7	22	30	41	45	27	22			A-7-6	
1	9	"	2'-6'	69	23	3	-5-		N-P		5			A-1a	GR
2	20	"	6'-10'	51	34	6	-9-		N-P		5			A-1a	GR
3	1	223+0 ℄	0'-2'	0	5	14	28	53	49	28	27			A-7-6	
4	2	"	2'-5'	91	14	9	23	13	20	4	7			A-4a	
5	3	"	5'-10'	54	39	3	-4-		N-P		4			A-1a	GR
6	4	228+0 ℄	0'-2'	20	4	10	19	47	54	31	27			A-7-6	
7	5	"	2'-6	22	9	12	34	23	26	10	16			A-4a	
8	26	"	6'-10'	24	10	11	35	20	21	6	10			A-4a	

SO-8

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-3.60

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis: Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact. Density: L.L.	P.I.	Water Cont. %	Opt.	Max. Dry Wt.	SHTL Class	Remarks
82689	27	228+0 ℄	10'-13'	51	40	4	-5-		N-P		6			A-1a	GR
82690	8	232+0 ℄	0'-2'	0	5	14	32	49	45	25	24			A-7-6	
1	9	"	2'-6'	64	27	6	-3-		N-P		5			A-1a	GR
2	30	"	6'-10'	63	22	8	-7-		N-P		6			A-1a	GR
3	1	235+45 ℄	0'-1'	0	3	13	55	29	26	2	31			A-4b	O
4	2	"	1'-5'	19	10	12	35	24	21	6	13			A-4a	
5	3	"	5'-9'	21	11	15	32	21	20	5	13			A-4a	
6	4	"	9'-11'	19	9	18	34	20	17	3	9			A-4a	
7	5	238+50 ℄	0'-2'	0	5	13	46	36	42	20	23			A-7-6	
8	6	"	2'-8'	19	11	16	33	21	22	6	12			A-4a	
9	7	"	8-11	71	19	5	-5-		N-P		7			A-1a	GR
82700	8	244+0 ℄	0-12	0	2	9	39	30	31	3	27			A-4b	
1	39	"	12'-6'	0	2	8	39	51	51	26	23			A-7-6	

SO-8

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-3.6.0

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis: Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact.: L.L.	P.I.	Density: Water Cont. %	Opt.	Max. Dry Wt.	SHTL Class	Remarks
82702	40	241+0 ℄	6'-9'	20	9	17	32	22	23	6	15			A-4a	
3	1	"	9'-12'	34	10	14	26	16	22	8	10			A-4a	
4	2	244+0 ℄	0.7'-5'	16	8	13	39	24	30	13	14			A-6a	
5	3	"	5'-8'	16	10	14	34	26	23	8	13			A-4a	
6	4	"	8'-11'	6	1	70	11	12	NP		9			A-3a	
7	5	248+0 ℄	0.4'-6'	0	3	11	47	39	37	11	23			A-6a	
8	6	"	6'-11'	8	13	23	29	27	26	8	22			A-4a	
9	7	"	11'-14'	12	60	19	-9-		NP		18			A-1-b	GR
82710	8	251+0 ℄	0.5'-2'	0	1	7	45	47	44	20	27			A-7-6	
1	9	"	2'-7'	0	7	6	50	37	29	10	20			A-4b	
2	50	"	7'-11'	35	19	20	12	14	17	2	12			A-2-4	GR
3	1	252+50 ℄	0'-1.8'	0	2	12	52	34	30	5	30			A-4b	①
4	52	"	1.5'-6'	Topsoil 27	7	13	27	26	28	11	23			Visual A-6a	

SO-8

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-3.60

5
6

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact. L.L.	P.I.	Density Water Cont. %	Opt.	Max. Dry Wt.	SHTL Class	Remarks
82715	53	17+0 12'Lt	0'-2'	0	4	14	28	54	48	26	24			A-7-6	
6	4	"	2'-6'	19	9	15	31	26	25	9	16			A-4a	
7	5		6'-10'	17	7	13	46	17	28	11	16			A-6a	
8	6	23+0 12 Rt	0'-2'	23	8	16	28	25	26	9	15			A-4a	
9	7	"	2'-7'	0	6	19	24	51	46	26	21			A-7-6	
82720	8	"	7'-10'	35	39	19	-7-		N	P	9			A-1-b	
1	9	256+0 10'Lt	0'-3'	0	5	18	30	47	45	22	27			A-7-6	
2	60	"	3'-6'	45	5	10	22	18	27	9	19			A-4a	
3	1	259+10 6'Lt	0'-2'	(0	5	8	44	43	45	19	35)			~~A-7-6~~	
				Topsoil										Visual	
4	2	"	2'-5.5'	0	10	4	39	47	50	27	39			A-7-6	
5	3	261+50 20'Lt	0.8'-4'	0	3	14	34	49	33	12	21			A-6a	
6	4	"	4'-6'	34	6	13	24	23	26	10	22			A-4a	
7	5	265+0 30'Lt	0'-1.8'	(0	2	7	50	41	42	21	37)			~~A-7-6~~	
				Topsoil										Visual	

Rejected

SO-8

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-3.60

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact. L.L.	P.I.	Water Cont. %	Density Opt.	Max. Dry Wt.	SHTL Class	Remarks
82728	66	265+00 30'Lt	1½'-3'	0	2	9	49	40	40	19	38			A6b	
9	7	"	3'-6'	14	5	14	31	36	33	17	27			A6b	
82730	8	269+25 40'Lt	06'-3'	0	4	15	34	47	43	25	26			A7-6	
82731	69	"	3'-5'	0	6	17	35	42	34	17	30			A6b	

SO-8

30

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-3.60

1/2

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact. L.L.	P.I.	Density Water Cont. %	Opt.	Max. Dry Wt.	SHTL Class	Remarks
		TOTAL -8		487	225	38	-50-		N-P		49			A-1-a	
		AVE		61	28	5	-6-		N-P		6				
		TOTAL - 4		154	139	60	29	18	23	5	52			A-1-b	
									①						
		AVE		39	35	15	7	4	23	1	13				
		TOTAL - 1		6	1	70	11	12	N-P		9			A-3a	
		TOTAL - 5		239	83	53	70	55	121	33	68			A-2-4	
									⑤						
		AVE		48	17	10	14	11	24	7	14				
		TOTAL - 1		54	8	12	18	8	30	13	21			A-2-6	
		TOTAL - 16		384	155	231	481	349	366	112	224			A-4a	
									⑯						
		AVE		24	10	14	30	22	23	7	14				
		TOTAL - 4		0	14	40	216	130	116	20	108			A-4b	
									④						
		AVE		0	4	10	54	32	29	5	27				

SO-8

SUMMARY OF TESTS ON SOIL PROFILE SAMPLES

County, Rt. No., & Section CLA-68-360

Lab. No. So.-	Sample No.	Station	Depth in Feet	Mechanical Analysis Agg. %	C Sand %	F Sand %	Silt %	Clay %	Physical Charact. L.L.	P.I.	Water Cont. %	Density Opt.	Max. Dry Wt.	SHTL Class	Remarks
		TOTAL - 7		91	40	90	264	215	224	83	148			A-6a	
		AVE.		13	6	13	38	30	32	12	21				
		TOTAL - 4		14	16	53	150	167	147	74	118			A-6b	
		AVE.		4	4	13	38	41	37	19	30				
		TOTAL - 1		0	2	5	46	47	77	35	58			A-7-5	
		TOTAL - 18		83	101	208	596	812	798	445	489			A-7-6	
		AVE.		5	6	12	32	45	44	25	27				

SO-8

FE-27

VISUAL CLASSIFICATION OF SOIL SAMPLES

PROJECT: CLA-68-3.60

DRILLER: DICASA CLASSIFIED BY: DAP DATE: APR-19-65

Field No.	Visual Description	Consistency	Moist. Cont.
1	BR S & GRAVEL		M
2	BR SILT & GRAVEL		M
3	BR S & GRAVEL		WET
4	BR MC TO ST. FRAGS	M	M
5	BR CM W SOME ST. FRAGS		M
6	BR CM & ST. FRAGS		WET
7	GR-BR SCM W LITTLE ST. FRAGS		M+
8	BR MS & GRAVEL		WET
9	DRK GR ORG CM (TOP SOIL)		M+
10	MOTT BR & GR CS	SOFT	WET
11	GR FINE SCM & GRAVEL		WET
12	BR FINE SMC TO ST. FRAGS	M	M
13	BR MC & ST. FRAGS & GRAVEL		WET
14	BR S & GRAVEL		WET
15	BR CM TO ST. FRAGS	M	M
16	GR CMS & GRAVEL		WET
17	RED BR MC W LITTLE ST. FRAGS		M
18	d.o.	M	M
19	BR S & GRAVEL		d
20	BR d.o.		d
21	BR MC	STIFF	M=
22	BR CSM & GRAVEL		M
23	BR S & GRAVEL		d
24	BR MC W LITTLE ST. FRAGS		M
25	BR CM TO ST. FRAGS		M
26	BR CSM W SOME GRAVEL & ST. FRAGS		M
27	BR S & GRAVEL		d
28	BR MC	M	M
29	BR S & GRAVEL		M
30	d.o.		d
31	BR CM TO ROOTS FOR TOP SOIL		WET
32	BR FINE SCM W LITTLE ST. FRAGS		M
33	BR CM W LITTLE ST. FRAGS		M
34	GR SCM W SOME ST. FRAGS		M
35	BR MC TO ST. FRAGS	M	M
36	BR CM W SOME GRAVEL		M
37	BR S & GRAVEL		M
38	DRK BR CM W ROOTS FOR TOP SOIL		M
39	BR MC	M	M
40	BR CM W LITTLE ST. FRAGS		M
41	GR CSM & GRAVEL & ST. FRAGS		M
42	BR SCM W LITTLE ST. FRAGS		M
43	d.o.		M
44	BR S		d
45	BR CM	M	M
46	BR CS TO ST. FRAGS		WET
47	BR S W SOME ST. FRAGS		WET
48	BR CM	M	M

FE-27

VISUAL CLASSIFICATION OF SOIL SAMPLES

PROJECT: CLA-68-3.60

DRILLER: DICKERSON CLASSIFIED BY: D.A.P. DATE: 19-APR-6

Field No.	Visual Description	Consistency	Moist. Cont.
49	BR CM	M	MT
50	BR SCM (ST. FRAGS & GRAVEL		WET
51	BR FINE SCM TR. ROOTS (POSS. TOP SOIL)		MT
52	BR CM W/ LITTLE ST. FRAGS TR. ROOTS		WET
53	BR MC TR. ST. FRAGS	M	MT
54	BR SCM W/ LITTLE GRAVEL & ST. FRAGS		M
55	BR CM W/ LITTLE ST. FRAGS	M	MT
56	BR CM W/ SOME ST. FRAGS (POSS. FILL MAT)		M
57	BR MC TR. ST. FRAGS	STIFF	M=
58	BR S W/ SOME GRAVEL		M
59	BR MC TR. ST. FRAGS	M	MT
60	BR CM W/ SOME ST. FRAGS		M
61	DRK GR ORG CM W/ ROOTS		MT
62	BR MC TR. ST. FRAGS	V. SOFT	WET
63	BR MC TR. ST. FRAGS	M	MT
64	BR MC & ST. FRAGS		WET
65	DRK GR ORG CM (TOP SOIL) W/ ONE LIVE WORM		WET
66	BR MC	SOFT	WET
67	BR MC TR. ST. FRAGS	SOFT	WET
68	BR MC TR. ST. FRAGS	M	MT
69	BR MC TR. ST. FRAGS	SOFT	WET

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
FOUNDATION EXPLORATION SECTION

SCHEDULE OF TEST BORINGS

Reconn. By: WILLIAM C. LEWELL Co., Rt., Sec.: GLA 68-3.60

Bridge No: —

Date: 4-6-65 Job No.: 07508

Sheet 1 of 2

Borings No.	Station and Offset	RURAL	URBAN	Type HA	Type TA	Type DC	DEPTH	Check Clearance Req'd A	W	S	G	E	T
1	206+00 20' Rt	✓			✓		10'		✓	✓	✓		
2	210+00 ℄	✓			✓		11'	✓		✓			
3	214+00 ℄	✓			✓		13'	✓		R 6			
4	217+25 ℄	✓			✓		12'	✓		✓			
5	219+25 ℄	✓			✓		12'	✓		✓			
6	221+00 ℄	✓			✓		10'	✓		✓			
7	223+00 ℄	✓			✓		10'	✓		✓			
8	228+00 ℄	✓			✓		13'	✓		✓			
9	232+00 ℄	✓			✓		10'	✓		✓			
10	235+~~75~~ 45 ℄	✓			✓		11'	✓		✓			
11	238+50 ℄	✓			✓		11'	✓		✓			
12	241+00 ℄	✓			✓		12'	✓		✓			
13	244+00 ℄	✓			✓		11'	✓		✓			
14	248+00 ℄	✓			✓		14'	✓		✓			
15	252+50 ℄	✓			✓		15'	✓		R 6			
16	251+00 ℄									R 11			

HA=Hand auger or other hand method
TA=Truck-mounted auger

DC=Drive Sample or rock core

A=Access to Private Property
W=Water lines
S=Sewer lines

G=Gas lines
E=Electrical Cables
T=Telephone Cables

FE-3

FOUNDATION EXPLORATION SECTION

SCHEDULE OF TEST BORINGS

Continued - Sheet 2 of 2

CO., RT., SEC. CLA 68-3.60

Borings		RURAL	URBAN	TYPE			DEPTH	Check Clearance Record					
No.	Station and Offset			HA	TA	DC		A	W	S	G	E	T
16	256+00 10'Lt.	✓			✓		12'	✓		R6			
17	259+~~00~~ 18 ~~10~~ 6'Lt	✓			✓		13'	✓		R5.5			
18	261+50 20'Lt	✓			✓		11'	✓		R6			
19	265+00 30'Lt.	✓			✓		13'	✓		R6			
20	269+25 40'Lt	✓			✓		10'	✓		R5			
	FAIRFIELD ROAD												
21	17+00 12'Lt	✓			✓		10'	✓		✓			
22	23+00 12'Rt.	✓			✓		10'	✓		✓			

FOUNDATION EXPLORATION SECTION

SUBSURFACE INVESTIGATION RECONNAISSANCE REPORT

RECONNAISSANCE OF:

Roadway ✓

Bridge _____

Retaining Wall _____

Other _____; If other, specify _____

PROJECT: CLA 68-3.60

BRIDGE NO.: -

RECONN. BY: William C. Jewell

DATES: from 4-6 to 4-6-65

NOTE: In preparing the reconnaissance report, the above entries shall be completed. In accordance with instructions to reconnaissance personnel the report shall include the following:

1. Description of Work.
2. Geology of Location or Site.
3. Topography
4. General Subsurface conditions.
5. Schedule of Borings.
6. Sketches of Water Points
7. Sketches of off-plan access
8. Listing of Special Equipment Required.

FOUNDATION EXPLORATION SECTION

SUBSURFACE INVESTIGATION RECONNAISSANCE REPORT

DESCRIPTION OF WORK

It is proposed to relocate USR 68. The new road is to be a four lane, divided, limited access highway. The subject section, however, is mostly a two lane highway connecting existing USR 68 with the interchange of proposed highways USR 40 and 68. The last 1800 feet of this section are transitional from two lane to four lane.

This project starts 4.3± miles south of the Springfield City hall (1300' south of Emery Chapel) on existing U.S.R. 68 at station 204+00, and proceeds northwest ending at station 271+67.

GEOLOGY OF LOCATION

Previous borings in this area indicate glacial sands and gravels overlain by two to three feet of silty clay to be the dominant soil section. The fill is believed to be not more than fifty feet thick. The underlying rock is believed to be the Niagaran dolomite, a sedimentary deposit of Silurian age.

TOPOGRAPHY

Ground elevation varies from 990 to 1020. Drainage is generally poor, due in part to the granular nature of the sub soils and, in part, to the youthful

FOUNDATION EXPLORATION SECTION

SUBSURFACE INVESTIGATION RECONNAISSANCE REPORT

nature of the region.

GENERAL SUBSURFACE CONDITIONS

The auger is not likely to encounter rock. Rather, stratified granular materials (silts, sands and gravels) will be found under a thin cohesive cap. In poorly drained areas, slightly organic materials might be found to depths of ten feet

Form AU-77

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

INTER-OFFICE COMMUNICATION

County of CLARK Div. 7

S. H. 68 Sec. 3.60

Date May 4, 1965

To R. M. Ricketts, Engineer of Location & Design Attention: H. E. Marshall

From F. M. Williams Per: R. E. Calvin

Subject Report of Soil Profile Investigation
CLA-68-3.60

File: 13-3-1
Clark

Transmitted herewith is a copy of the soil profile for the subject project. General information regarding observations, the investigation, and findings, appears on drawing sheet number one.

The reproduced tracings of this report are being sent to Division 7 to be attached to the plans.

F. M. Williams
Engineer of Tests

Per: _____
R. E. Calvin
Assistant Engineer

RDR:DEM:bjm
Encl.
cc: O. M. Liggitt (3)
W. G. Kessel (no encl.)
H. L. Krauser, Attn: C. H. Shepard
Ohio State Geological Survey, Attn: Karl Hoover and J. L. Forsyth
R. E. Calvin (4)

Form AU-77

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

County of CLARK Div. 7

S.R. 68 Sec. 3.60

INTER-OFFICE COMMUNICATION

Date May 11, 1965

To Oliver M. Liggitt, Division Engineer Attention: W. G. Knasel

From R. N. Ricketts, Engineer, Location & Design By: H. E. Marshall

Subject CLARK-68-3.60

On May 4, 1965, this office received a copy of the soil profile which was prepared for this project.

Silt clay and clay soils, classified as A-6 and A-7-6, are predominant.

Considering the fact that this project is intended to provide a temporary connection with existing U.S. 68, pending the eventual improvement of U.S. 68 to the south, we recommend the use of a flexible pavement design as follows:

1½"	404	Asphalt Concrete Surface
1½"	402	Asphalt Concrete Leveling
8"	301	Bituminous Aggregate Base
6"	310	Subbase

In the following locations, the subbase and subgrade should be drained by 605 pipe underdrains, located 2 feet from the edge of pavement:

STATION	to	STATION
204+00		208+00
223+00		232+00

Elsewhere, the subbase course should be drained by 605 aggregate drains.

We would be pleased to discuss these recommendations with you if so requested.

H. E. Marshall
Engineer Geologist

RNR/HEM/vm
cc: Mr. Ricketts
Mr. Hoffman
Mr. Haager
Mr. Calvin
Mr. Shepard

File - 2

RECEIVED
MAY 1965
DIVISION OF HIGHWAYS
GEOLOGY LABORATORY

Form AU 76

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

INTER-OFFICE COMMUNICATION

County of Clark Div. 7
U.S.R. 68 Sec. 3.60
Date March 19, 1965

To Frank Williams Engineer of Tests Attention: R. E. Calvin

From O. M. Liggitt, Div. Dep. Dir., By W. G. Knasel, D/E Design & Planning

Subject Soil Profile

We are furnishing to you herewith two sets of preliminary prints for your use in preparing a soil profile on the above identified project. Included in each set of prints are:

1) One title sheet for general orientation.

2) One schematic plan sheet.

3) One typical section sheet. It will be noted that this project will connect with and be an extension of the four-lane section of U.S.R. 68, CLA-68-6.06, and the interchange which is being built with project CLA-I.R. 70-5.62. Therefore, there will be a considerable length of transition extending south from the four-lane divided section to the two-lane section as shown on the attached print.

4) Ten sheets showing plan and profile from Station 192 to Station 292. It will be noted that proposed work will begin at about Station 204, and that the subject project will connect with the interchange work included in project CLA-70-5.62 at Station 271+66.99.

5) Plan and profile on existing Fairfield Road from Station 15 to Station 25.

The attached information has not yet been reviewed by Central Office Location & Design. However, we are confident that the proposed profile as shown is reasonably close to that which will finally be used, and is sufficiently accurate for you to proceed with the field work for the soil profile.

Please furnish soil profile information on the main line and also on the intersecting Fairfield Road, and for the connection to existing U.S.R. 68 to the north, right of about Station 212.

The main line has only recently been staked in the field and is now well marked. The connection right of Station 212, to existing U.S.R. 68 to the north, has not been staked in the field.

Oliver M. Liggitt
Division Deputy Director

W. G. Knasel

W. G. Knasel
D/E Design & Planning

WGK:jb
Attach.
cc: File Hoffman
Leistner (2)
Ricketts, attention Sholl

GENERAL INFORMATION

INTRODUCTION

The project consists of the relocation of 1.28 miles of USR 68, beginning at existing USR 68, approximately 1.4 miles north of the SR 794-USR 68 intersection, extends northwestward and terminates immediately south of Proposed IR 70, approximately 1.0 mile west of existing USR 68. Included in this report is the soil profile of Proposed Fairfield Road.

Proposed grades indicate the following maximum cuts and fill embankments:

	CUTS (Max.)	FILL EMBANKMENTS (Max.)
Proposed USR 68	5'	10'
Proposed Fairfield Road	1'	-

GEOLOGY AND OBSERVATIONS OF THE PROJECT

The alignment traverses a gently rolling portion of the glaciated Mississippi Valley Plain, where moderately deep morainal deposits overlie dolomite bedrock, of Devonian and Silurian ages. Areas of poor surface drainage were observed between stations 213+00 and 216+00, 252+50 and 253+50, 258+50 and 259+50, 264+00 and 266+00.

EXPLORATION

Exploratory borings were made by means of truck-mounted mechanical soil auger and hand auger (in areas of difficult access), between April 13 and 17, 1965.

INVESTIGATIONAL FINDINGS

Materials encountered consist predominantly of silt clays (A-6a and A-6b) and clays (A-7-6) underlain by gravels (A-1-a), sandy gravel (A-1-b and A-2-4) and sandy silt (A-4a), generally having low moisture contents and moisture contents in the lower portions of the plastic range.

Frost susceptible silt was encountered within three feet below proposed grade at station 235+45.

Wet materials were encountered at stations 235+45 and 265+00.

LEGEND FOR PROFILE AVERAGE RESULTS OF TESTS 65 [illegible]

Gravel	A-1-a(0)	A-1-a	61	28	5	-6-		NP	NP	6	8
Gravel with sand	A-1-b(0)	A-1-b	39	35	15	7	4	NP	NP	13	4
Coarse and fine sand	--	A-3a	6	1	70	11	12	NP	NP	9	1
Gravel and/or stone fragments with sand and silt	A-2-4(0)	A-2-4	48	17	10	14	11	24	7	14	5
Gravel with sand, silt, and clay	A-2-6(0)	A-2-6	54	8	12	18	8	30	13	21	1
Sandy silt	A-4(3)	A-4a	24	10	14	30	22	23	7	14	16
Silt	A-4(8)	A-4b	0	4	9	55	32	29	5	26	3
Silt and clay	A-6(7)	A-6a	13	6	13	38	30	32	12	21	7
Silty clay	A-6(12)	A-6b	4	4	13	38	41	37	19	30	4
Clay	A-7-6(15)	A-7-6	5	6	12	31	46	44	25	26	16

Topsoil = X' = Approximate depth.

Auger boring-plan view.

Auger boring plotted to vertical scale only.

Water content nearly equal to or greater than liquid limit.

W Free water.

Static water level.

NOTE: Figures beside borings indicate water content in percent. e.g. 15

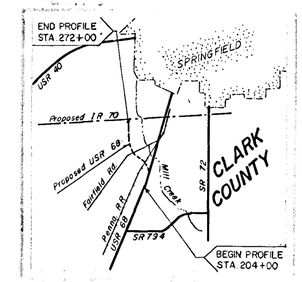
SOIL PROFILE

CLARK COUNTY
CLA-68-3.60

[illegible] 1520 N. BROAD [illegible]

1/4

NOTE: INFORMATION SHOWN AT [illegible] WAS OBTAINED SOLELY FOR USE IN ESTABLISHING CONTROLS FOR THE PROJECT. THE STATE OF [illegible] DOES NOT GUARANTEE THE ACCURACY OF THIS [illegible] IS NOT TO BE CONSTRUED AS A [illegible] DURING CONSTRUCTION [illegible]



Recon - W.C.J. - 4/6/65
Auger - L.M.D. - 4/13/65 - 4/17/65
Drafting - R.L.D. - A.F. - A.D.B. - 5/4/65

SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
				USR 68							
206+00	20'Rt	0.0-2.0	49	20	8	8	9	25	9	8	A-2-4*
		2.0-4.0	34	19	6	13	28	46	23	24	A-7-6*
		4.0-10.0	64	21	3	8	4	NP	NP	11	A-1-a
210+00	CL	0.0-4.0	29	4	8	23	36	52	27	27	A-7-6*
		4.0-6.0	31	11	11	27	20	30	11	20	A-6a
		6.0-8.0	35	21	12	18	14	27	9	16	A-2-4
		8.0-10.0	20	11	16	29	24	21	5	12	A-4a
		10.0-14.0	64	14	6	10	6	23	5	14	A-1-b
214+00	CL	0.0-1.0	(0	2	5	46	47	77	35	58)	
			Topsoil								Visual
		1.0-4.0	0	1	1	52	46	46	24	35	A-7-6
		4.0-6.0	68	4	4	16	8	28	7	17	A-2-4
217+25	CL	0.0-5.0	0	1	15	44	40	36	14	31	A-6a
		5.0-9.0	52	13	9	16	10	24	6	15	A-2-4
		9.0-12.0	43	26	16	10	5	NP	NP	11	A-1-b
219+25	CL	0.0-5.5	0	3	13	35	49	40	21	23	A-6b
		5.5-11.0	34	8	12	18	8	30	13	21	A-2-6
		11.0-12.0	0	12	20	20	48	48	28	21	A-7-6
221+00	CL	0.0-2.0	0	7	22	30	41	45	27	22	A-7-6*
		2.0-6.0	69	23	3	-5-		NP	NP	5	A-1-a*
		6.0-10.0	31	34	6	-9-		NP	NP	5	A-1-a
223+00	CL	0.0-2.0	0	5	14	28	53	49	28	27	A-7-6
		2.0-5.0	41	14	9	23	13	20	4	7	A-4a
		5.0-10.0	34	39	3	-4-		NP	NP	4	A-1-a
228+00	CL	0.0-2.0	20	4	10	19	47	54	31	27	A-7-6
		2.0-5.0	22	9	12	34	23	26	10	16	A-4a*
		5.0-10.0	24	10	11	35	20	21	6	10	A-4a*
		10.0-13.0	51	40	4	-5-		NP	NP	6	A-1-a
233+00	CL	0.0-2.0	0	5	14	32	49	45	25	24	A-7-6*
		2.0-6.0	64	27	6	-3-		NP	NP	5	A-1-a*
		6.0-10.0	63	22	8	-7-		NP	NP	6	A-1-a
235+45	CL	0.0-1.0	0	3	13	55	29	26	2	31	A-4b*
		1.0-5.0	19	10	12	35	24	21	6	13	A-4a
		5.0-9.0	21	11	15	32	21	20	5	13	A-4a
		9.0-11.0	19	9	18	34	20	17	3	9	A-4a

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
238+50	CL	0.0-2.0	0	5	13	46	36	42	20	23	A-7-6*
		2.0-8.0	19	11	16	33	21	22	5	12	A-4a*
		8.0-11.0	71	19	5	-5-		NP	NP	7	A-1-a
241+00	CL	0.0-1.2	0	2	9	59	30	31	3	27	A-4b
		1.2-6.0	0	2	8	39	51	51	26	23	A-7-6
		6.0-9.0	20	9	17	32	22	23	6	15	A-4a
		9.0-12.0	34	10	14	26	16	22	8	10	A-4a
244+00	CL	0.7-5.0	16	8	13	39	24	30	13	14	A-6a*
		5.0-8.0	16	10	14	34	26	23	8	13	A-4a
		8.0-11.0	6	1	70	11	12	NP	NP	9	A-3a
248+00	CL	0.4-6.0	0	3	11	47	39	37	11	23	A-6a
		6.0-11.0	8	13	23	29	27	26	8	22	A-4a
		11.0-14.0	12	60	19	-9-		NP	NP	18	A-1-b
251+00	CL	0.5-2.0	0	1	7	45	47	44	20	27	A-7-6
		2.0-7.0	0	7	6	50	37	29	10	20	A-4b
		7.0-11.0	35	19	20	12	14	17	2	12	A-2-4
252+50	CL	0.0-1.2	(0	2	12	52	34	30	5	30)	
			Topsoil								Visual
		1.2-6.0	27	7	13	27	26	28	11	23	A-6a
256+00	10'Lt	0.7-3.0	0	5	18	30	47	45	22	27	A-7-6
		3.0-6.0	45	5	10	22	18	27	9	19	A-4a
259+10	6'Lt	0.0-2.0	(0	5	8	44	43	45	19	35)	
			Topsoil								Visual
		2.0-5.5	0	10	4	39	47	50	27	39	A-7-6
261+50	20'Lt	0.8-4.0	0	3	14	34	49	33	12	21	A-6a*
		4.0-6.0	34	6	13	24	23	26	10	22	A-4a
265+00	30'Lt	0.0-1.2	(0	2	7	50	41	42	21	37)	
			Topsoil								Visual
		1.2-3.0	0	2	9	49	40	40	19	38	A-6b
		3.0-6.0	14	5	14	31	36	33	17	27	A-6b
269+25	40'Lt	0.6-3.0	0	4	15	34	47	43	25	26	A-7-6*
		3.0-5.0	0	6	17	35	42	34	17	30	A-6b*
				FAIRFIELD ROAD							
17+00	12'Lt	0.0-2.0	0	14	14	28	54	42	26	24	A-7-6*
		2.0-6.0	19	9	15	31	26	25	3	16	A-4a*
		6.0-10.0	17	7	13	46	17	26	11	16	A-6a
23+00	12'Rt	0.0-2.0	23	8	16	28	25	26	9	15	A-4a*
		2.0-7.0	0	6	19	24	51	46	26	21	A-7-6*
		7.0-10.0	35	39	19	-7-		NP	NP	9	A-1-b

GENERAL INFORMATION

INTRODUCTION

The project consists of the relocation of 1.28 miles of USR 68, beginning at existing USR 68, approximately 1.4 miles north of the SR 794-USR 68 intersection, extends northwestward and terminates immediately south of Proposed IR 70, approximately 1.0 mile west of existing USR 68. Included in this report is the soil profile of Proposed Fairfield Road.

Proposed grades indicate the following maximum cuts and fill embankments:

	CUTS (Max.)	FILL EMBANKMENTS (Max.)
Proposed USR 68	5'	10'
Proposed Fairfield Road	1'	-

GEOLOGY AND OBSERVATIONS OF THE PROJECT

The alignment traverses a gently rolling portion of the glaciated Mississippi Valley Plain, where moderately deep morainal deposits overlie dolomite bedrock, of Devonian and Silurian ages. Areas of poor surface drainage were observed between stations 213+00 and 216+00, 252+50 and 253+50, 258+50 and 259+50, 264+00 and 266+00.

EXPLORATION

Exploratory borings were made by means of truck-mounted mechanical soil auger and hand auger (in areas of difficult access), between April 13 and 17, 1965.

INVESTIGATIONAL FINDINGS

Materials encountered consist predominantly of silt clays (A-6a and A-6b) and clays (A-7-6) underlain by gravels (A-1-a), sandy gravel (A-1-b and A-2-4) and sandy silt (A-4a), generally having low moisture contents and moisture contents in the lower portions of the plastic range.

Frost susceptible silt was encountered within three feet below proposed grade at station 235+45.

Wet materials were encountered at stations 235+45 and 265+00.

LEGEND FOR [illegible] AVERAGE RESULTS OF TESTS 65 [illegible] TESTS

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gravel	A-1-a(0)	A-1-a	61	28	5	-6-		NP	NP	6	8
Gravel with sand	A-1-b(0)	A-1-b	39	35	15	7	4	NP	NP	13	4
Coarse and fine sand	--	A-3a	6	1	70	11	12	NP	NP	9	1
Gravel and/or stone fragments with sand and silt	A-2-4(0)	A-2-4	48	17	10	14	11	24	7	14	5
Gravel with sand, silt, and clay	A-2-6(0)	A-2-6	54	8	12	18	8	30	13	21	1
Sandy silt	A-4(3)	A-4a	24	10	14	30	22	23	7	14	16
Silt	A-4(8)	A-4b	0	4	9	55	32	29	5	26	3
Silt and clay	A-6(7)	A-6a	13	6	13	38	30	32	12	21	7
Silty clay	A-6(12)	A-6b	4	4	13	38	41	37	19	30	4
Clay	A-7-6(15)	A-7-6	5	6	12	31	46	44	25	26	16

Topsoil = X' = Approximate depth.

Auger boring-plan view.

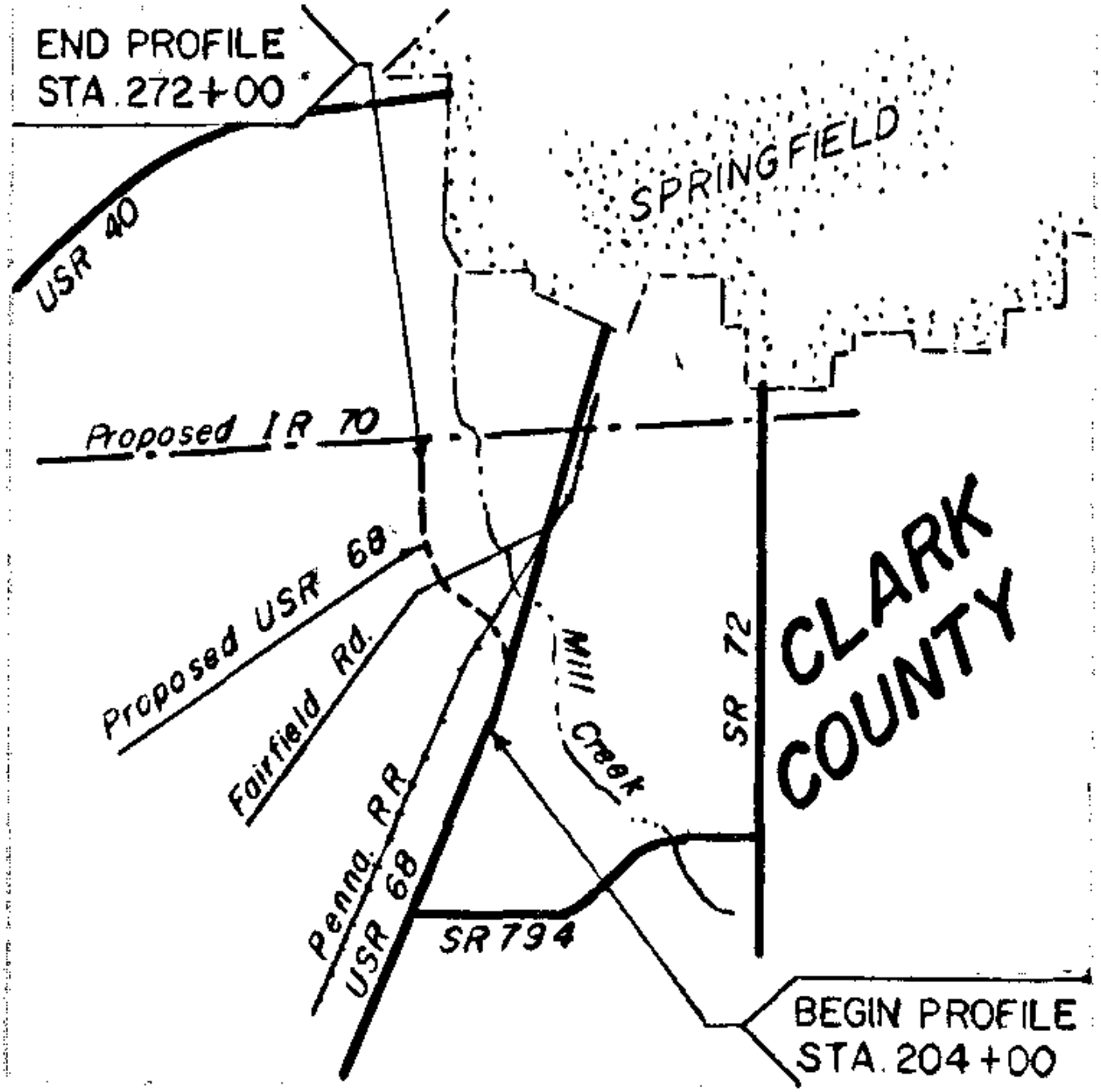
Auger boring plotted to vertical scale only.

Water content nearly equal to or greater than liquid limit.

Free water.

Static water level.

NOTE: Figures beside borings indicate water content in percent. e.g. 15


END PROFILE
STA. 272+00
USR 40
SPRINGFIELD
Proposed IR 70
Proposed USR 68
Fairfield Rd.
Penna. RR
USR 68
Mill Creek
SR 72
CLARK
COUNTY
SR 794
BEGIN PROFILE
STA. 204+00

SUMMARY OF SOIL TEST DATA

NOTE: NP shown in Liquid and Plasticity Index columns indicates that the material is non-plastic.
*Denotes sample taken at or near grade.

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	%N. W.C.	SHTL CLASS.
				USR 68							
206+00	20'Rt	0.0-2.0	49	26	8	8	9	25	9	8	A-2-4*
		2.0-4.0	34	19	6	13	28	46	23	24	A-7-6*
		4.0-10.0	64	21	3	8	4	NP	NP	11	A-1-a
210+00	CL	0.0-4.0	29	4	8	23	36	52	27	27	A-7-6*
		4.0-6.0	31	11	11	27	20	30	11	20	A-6a
		6.0-8.0	35	21	12	18	14	27	9	16	A-2-4
		8.0-10.0	20	11	16	29	24	21	5	12	A-4a
		10.0-14.0	64	14	6	10	6	23	5	14	A-1-b
214+00	CL	(0.0-1.0	(0	2	5	46	47	77	35	58)	
			Topsoil								Visual
		1.0-4.0	0	1	1	52	46	46	24	35	A-7-6
		4.0-6.0	68	4	4	16	8	28	7	17	A-2-4
217+25	CL	0.0-5.0	0	1	15	44	40	36	14	31	A-6a
		5.0-9.0	52	13	9	16	10	24	6	15	A-2-4
		9.0-12.0	43	26	16	10	5	NP	NP	11	A-1-b
219+25	CL	0.0-5.5	0	3	13	35	49	40	21	23	A-6b
		5.5-11.0	54	8	12	18	8	30	13	21	A-2-6
		11.0-12.0	0	12	20	20	48	48	28	21	A-7-6
221+00	CL	0.0-2.0	0	7	22	30	41	45	27	22	A-7-6*
		2.0-6.0	69	23	3		-5-	NP	NP	5	A-1-a*
		6.0-10.0	51	34	6		-9-	NP	NP	5	A-1-a
223+00	CL	0.0-2.0	0	5	14	28	53	49	28	27	A-7-6
		2.0-3.0	41	14	9	23	13	20	4	7	A-4a
		3.0-10.0	34	39	3		-4-	NP	NP	4	A-1-a
228+00	CL	0.0-2.0	20	4	10	19	47	54	31	27	A-7-6
		2.0-5.0	22	9	12	34	23	26	10	16	A-4a*
		6.0-10.0	24	10	11	35	20	21	6	10	A-4a*
		10.0-13.0	51	40	4		-5-	NP	NP	6	A-1-a
233+00	CL	0.0-2.0	0	5	14	32	49	45	25	24	A-7-6*
		2.0-6.0	64	27	6		-3-	NP	NP	5	A-1-a*
		6.0-10.0	63	22	8		-7-	NP	NP	6	A-1-a
235+45	CL	0.0-1.0	0	3	13	55	29	26	2	31	A-4b*
		1.0-5.0	19	10	12	35	24	21	6	13	A-4a
		5.0-9.0	21	11	15	32	21	20	5	13	A-4a
		9.0-11.0	19	9	18	34	20	17	3	9	A-4a
238+50	CL	0.0-2.0	0	5	13	46	36	43	20	23	A-7-6*
		2.0-8.0	19	11	16	33	21	22	6	12	A-4a*
		8.0-11.0	71	19	5		-5-	NP	NP	7	A-1-a
241+00	CL	0.0-1.2	0	2	9	59	30	31	3	27	A-4b
		1.2-6.0	0	2	8	39	51	51	26	23	A-7-6
		6.0-9.0	20	9	17	32	22	23	6	15	A-4a
		9.0-12.0	34	10	14	26	16	22	8	10	A-4a
244+00	CL	0.7-5.0	16	8	13	39	24	30	13	14	A-6a*
		5.0-8.0	16	10	14	34	26	23	8	13	A-4a
		8.0-11.0	6	1	70	11	12	NP	NP	9	A-3a
248+00	CL	0.4-6.0	0	3	11	47	39	37	11	23	A-6a
		6.0-11.0	8	13	23	29	27	26	8	22	A-4a
		11.0-14.0	12	60	19		-9-	NP	NP	18	A-1-b
251+00	CL	0.5-2.0	0	1	7	45	47	44	20	27	A-7-6
		2.0-7.0	0	7	6	50	37	29	10	20	A-4b
		7.0-11.0	35	19	20	12	14	17	2	12	A-2-4
252+50	CL	0.0-1.2	(0	2	12	52	34	30	5	30)	
			Topsoil								Visual
		1.2-6.0	27	7	13	27	26	28	11	23	A-6a
256+00	10'Lt	0.7-3.0	0	5	18	30	47	45	22	27	A-7-6
		3.0-6.0	45	5	10	22	18	27	9	19	A-4a
259+10	6'Lt	0.0-2.0	(0	5	8	44	43	45	19	35)	
			Topsoil								Visual
		2.0-5.5	0	10	4	39	47	50	27	39	A-7-6
261+50	20'Lt	0.8-4.0	0	3	14	34	49	33	12	21	A-6a*
		4.0-6.0	34	6	13	24	23	26	10	22	A-4a
265+00	30'Lt	0.0-1.2	(0	2	7	50	41	42	21	37)	
			Topsoil								Visual
		1.2-3.0	0	2	9	49	40	40	19	38	A-6b
		3.0-6.0	14	5	14	31	36	33	17	27	A-6b
269+25	40'Lt	0.6-3.0	0	4	15	34	47	43	25	26	A-7-6*
		3.0-5.0	0	6	17	35	42	34	17	30	A-6b*
				FAIRFIELD ROAD							
17+00	12'Lt	0.0-2.0	0	14	14	28	54	42	26	24	A-7-6*
		2.0-6.0	19	9	15	31	26	25	9	16	A-4a*
		6.0-10.0	17	7	13	46	17	28	11	16	A-6a
23+00	12'Rt	0.0-2.0	23	8	16	28	25	26	9	15	A-4a*
		2.0-7.0	0	6	19	24	51	46	26	21	A-7-6*
		7.0-10.0	35	39	19		-7-	NP	NP	9	A-1-b

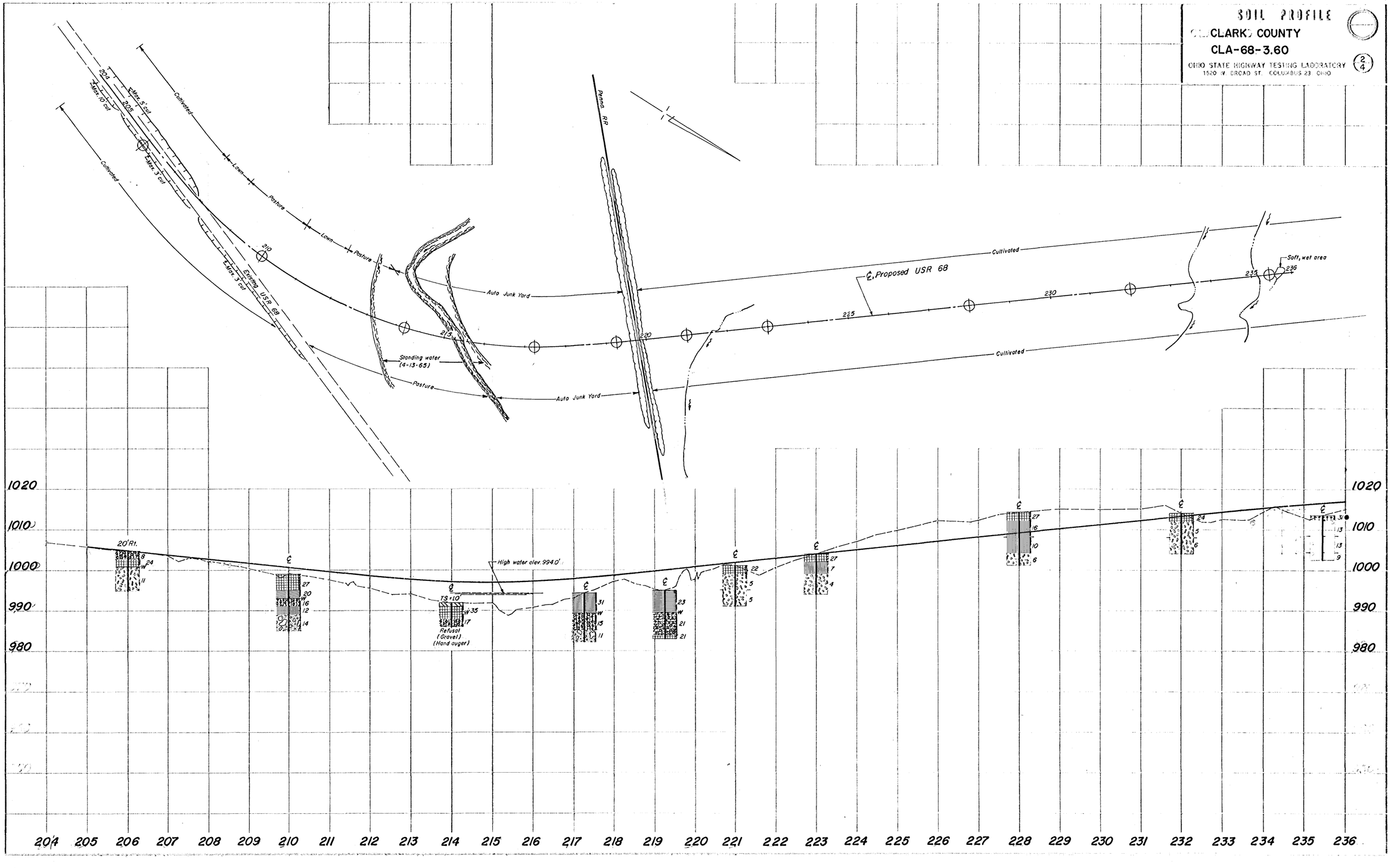
SOIL PROFILE

CLARK COUNTY

CLA-68-3.60

OHIO STATE HIGHWAY TESTING LABORATORY
1520 W. BROAD ST. COLUMBUS 23 OHIO

2/4



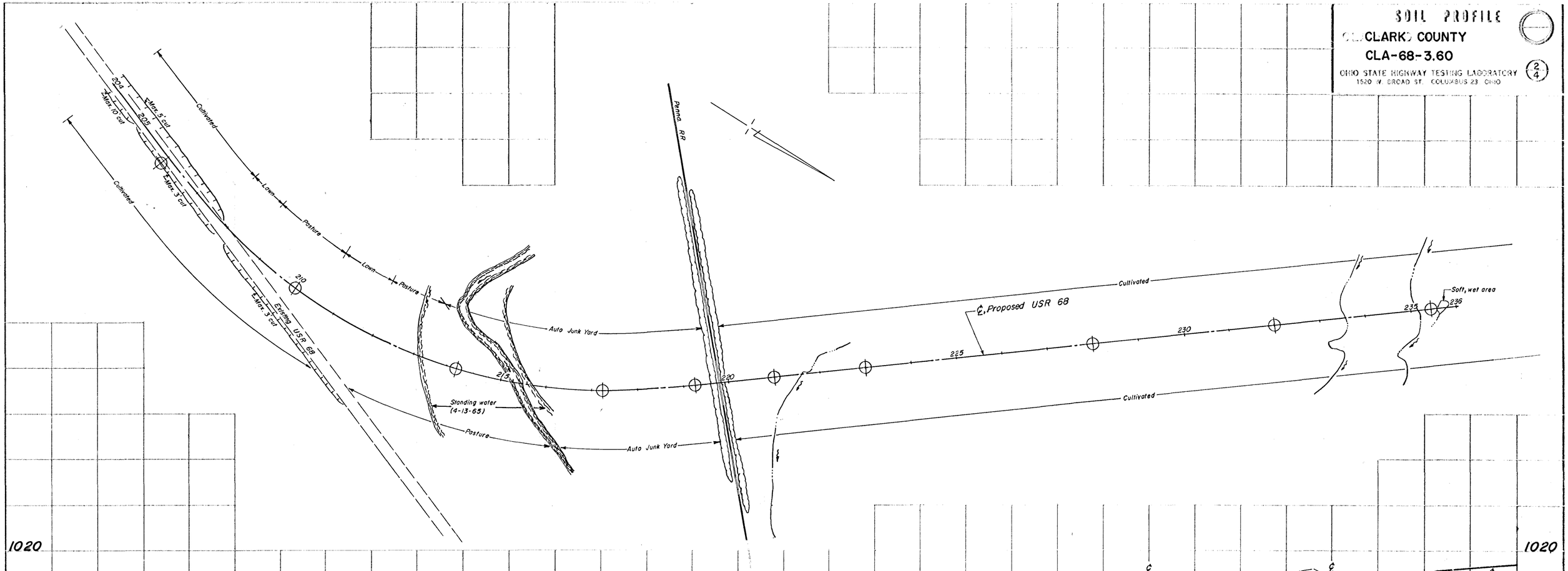
SOIL PROFILE

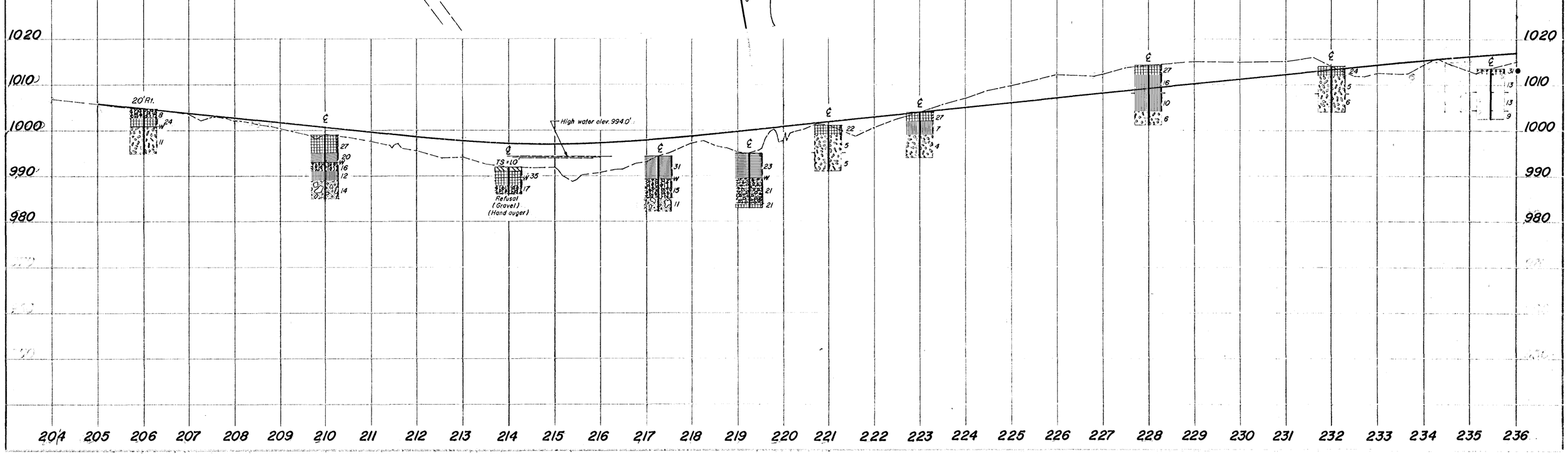
CLARK COUNTY

CLA-68-3.60

OHIO STATE HIGHWAY TESTING LABORATORY
1520 W. BROAD ST. COLUMBUS 23, OHIO

2/4




1020
1010
1000
990
980
20'Rt.
High water elev. 994.0'
TS=10'
Refusal
(Gravel)
(Hand auger)
204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236

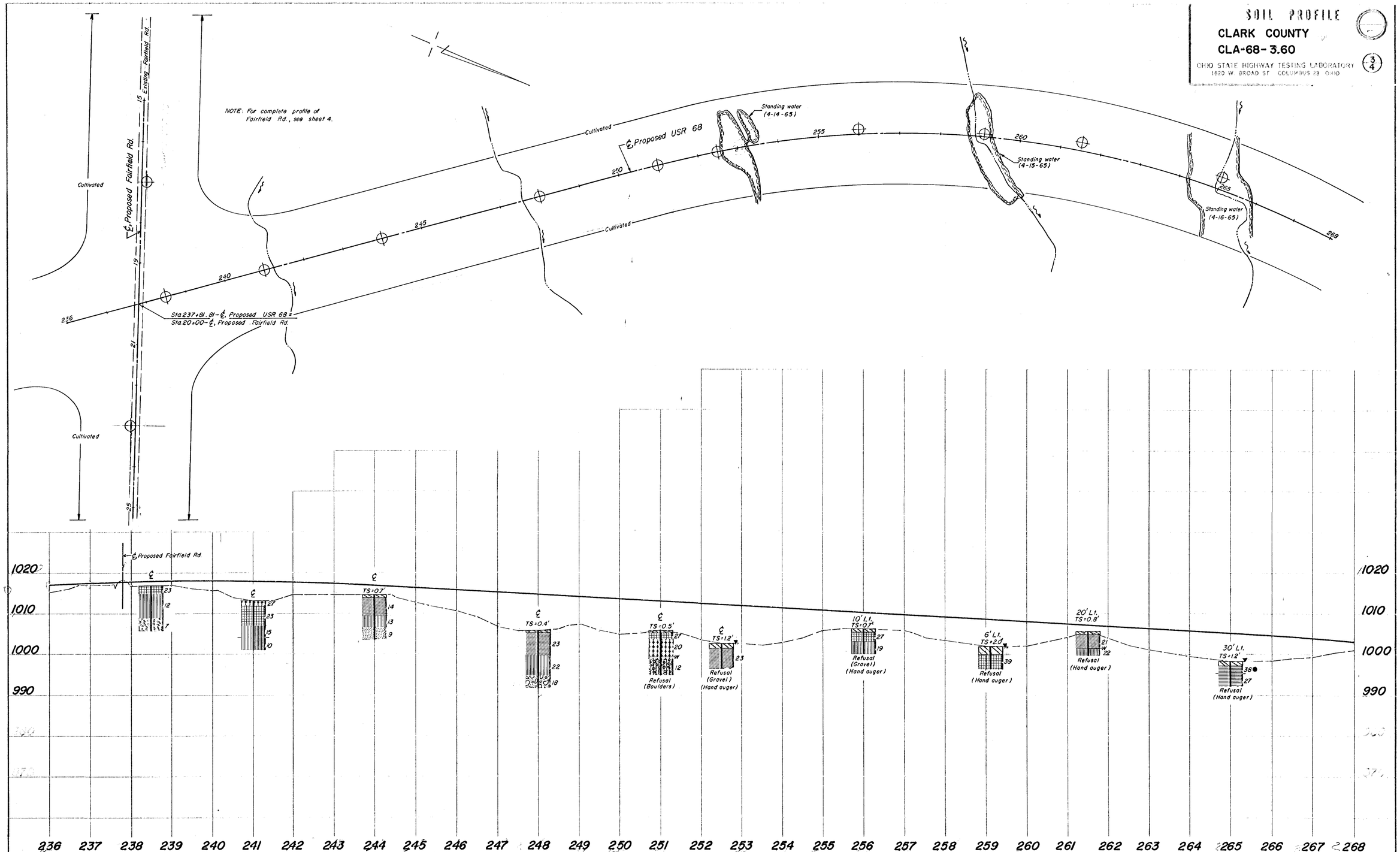
SOIL PROFILE

CLARK COUNTY

CLA-68-3.60

OHIO STATE HIGHWAY TESTING LABORATORY
1820 W. BROAD ST. COLUMBUS 23, OHIO

3/4



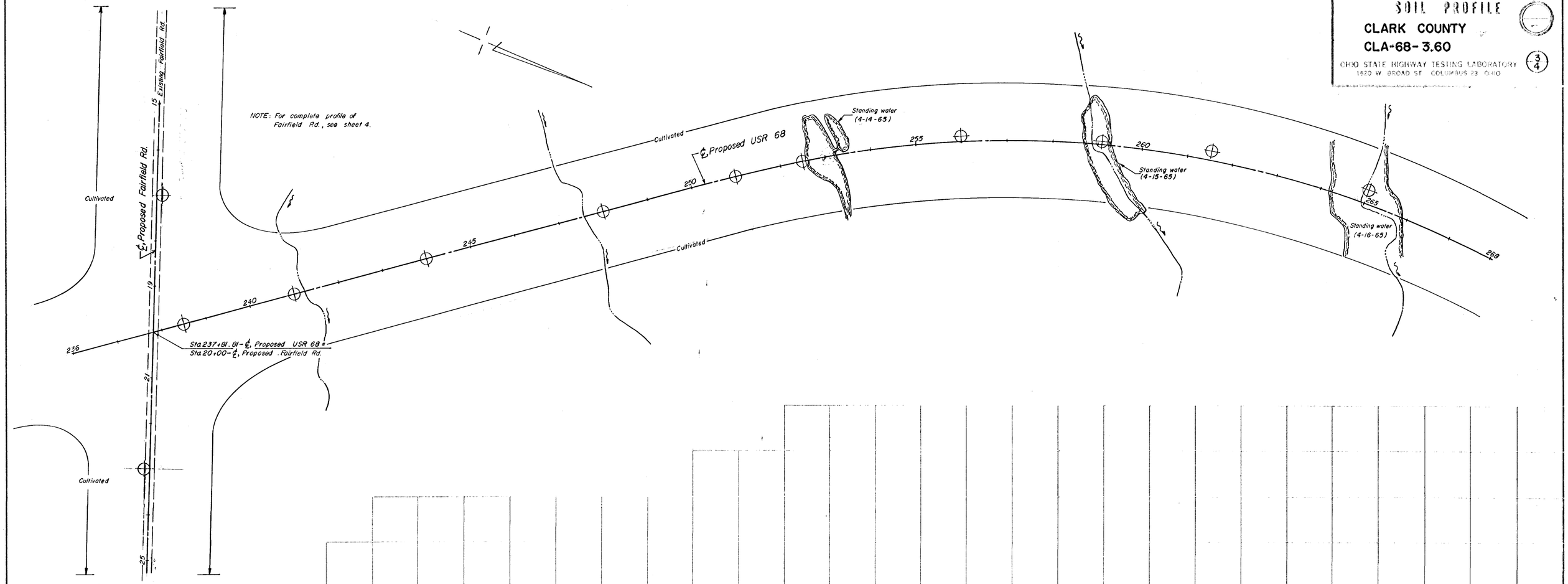
SOIL PROFILE

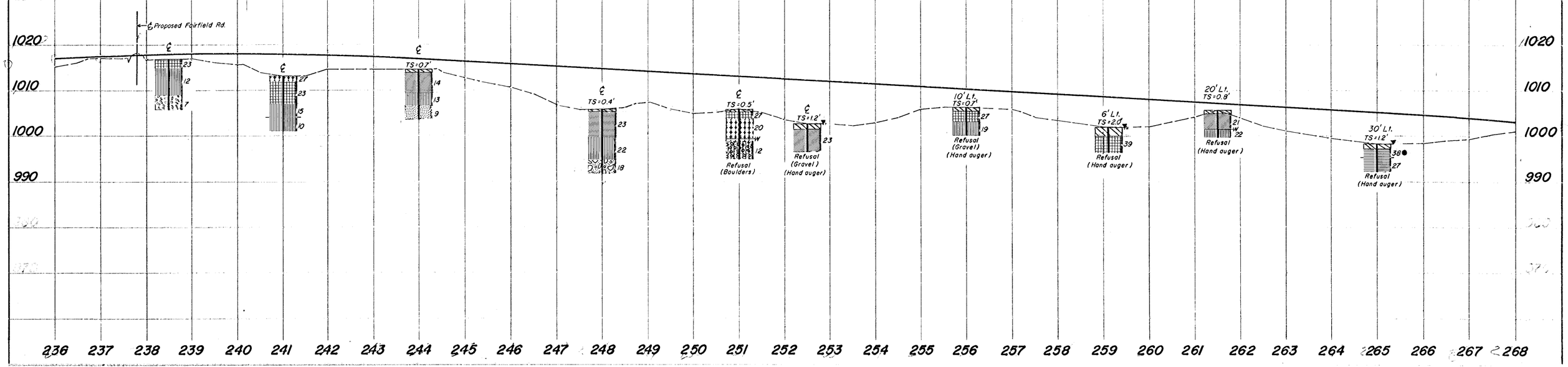
CLARK COUNTY

CLA-68-3.60

OHIO STATE HIGHWAY TESTING LABORATORY
1520 W. BROAD ST. COLUMBUS 23, OHIO

3/4




Proposed Fairfield Rd.
1020
1010
1000
990
TS=0.7'
TS=0.4'
TS=0.5'
TS=1.2'
10' Lt.
TS=0.7'
6' Lt.
TS=2.0'
20' Lt.
TS=0.8'
30' Lt.
TS=1.2'
Refusal (Boulders)
Refusal (Gravel) (Hand auger)
Refusal (Gravel) (Hand auger)
Refusal (Hand auger)
Refusal (Hand auger)
Refusal (Hand auger)
236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268

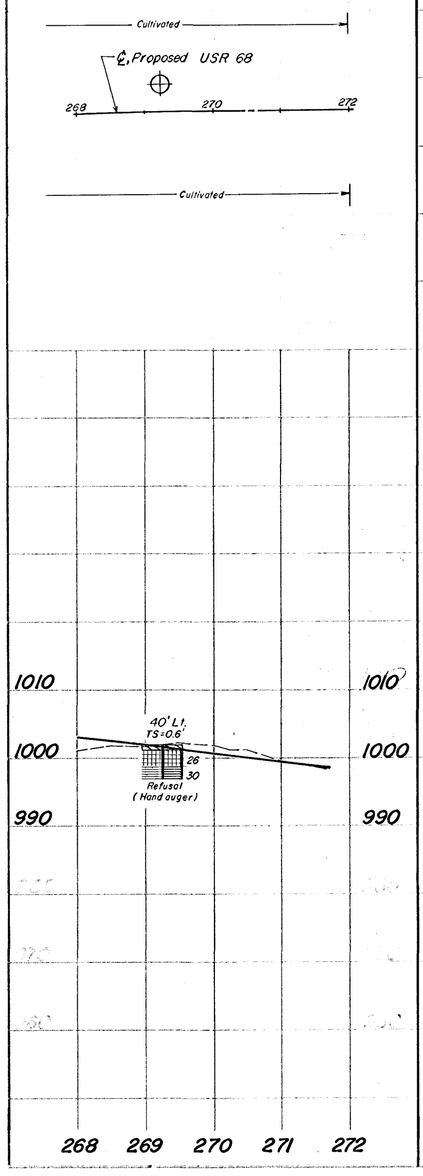
SOIL PROFILE

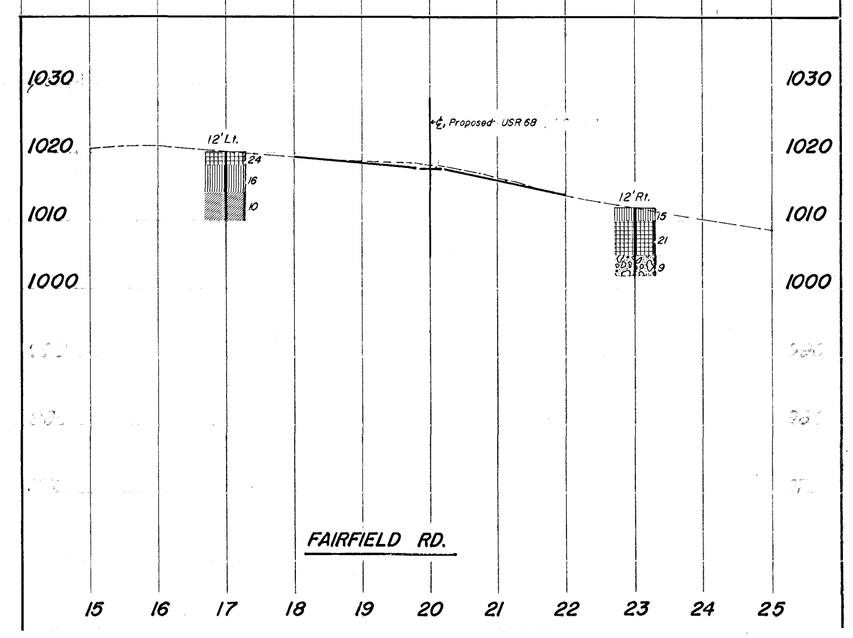
CLARK COUNTY

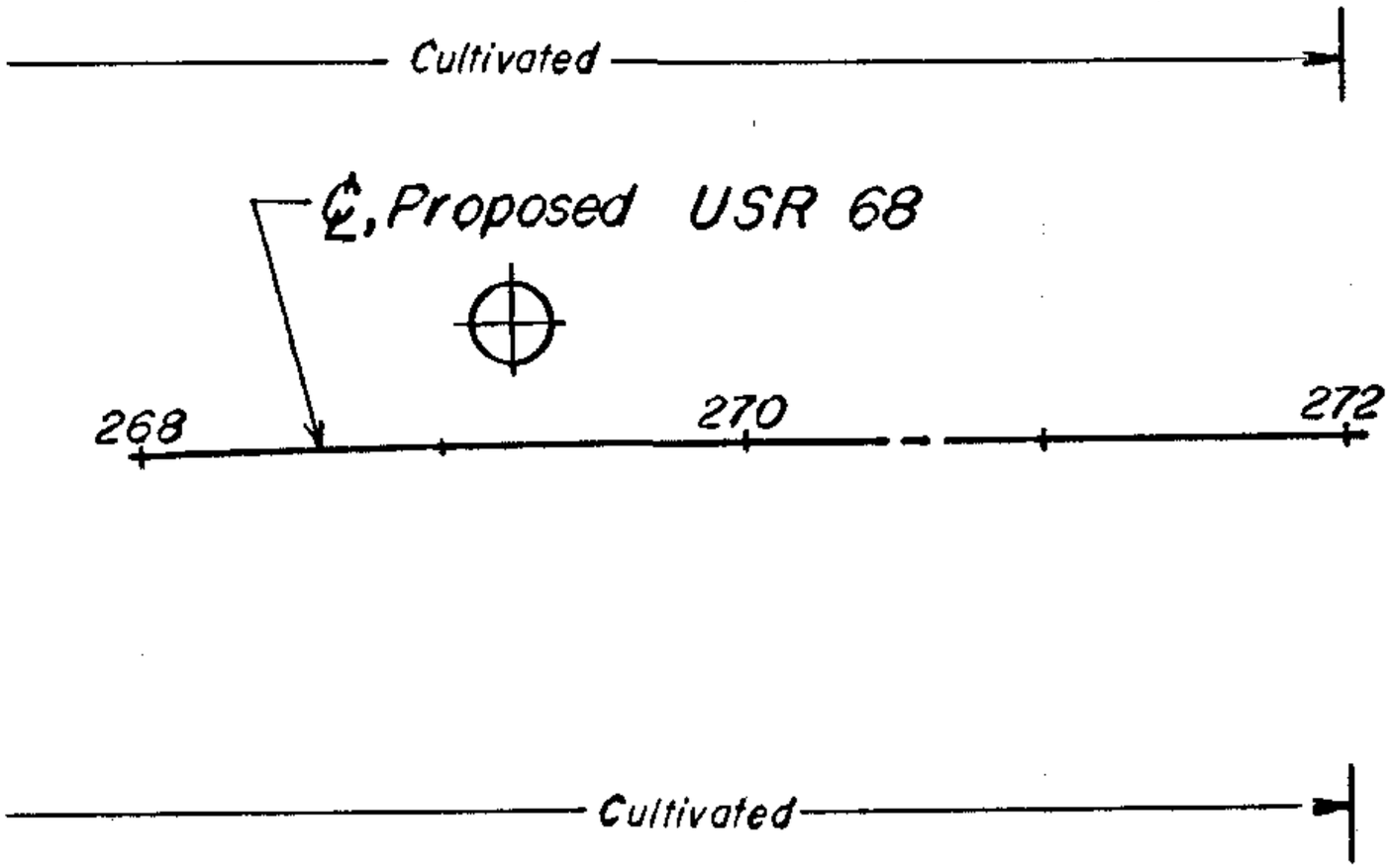
CLA-68-3.60

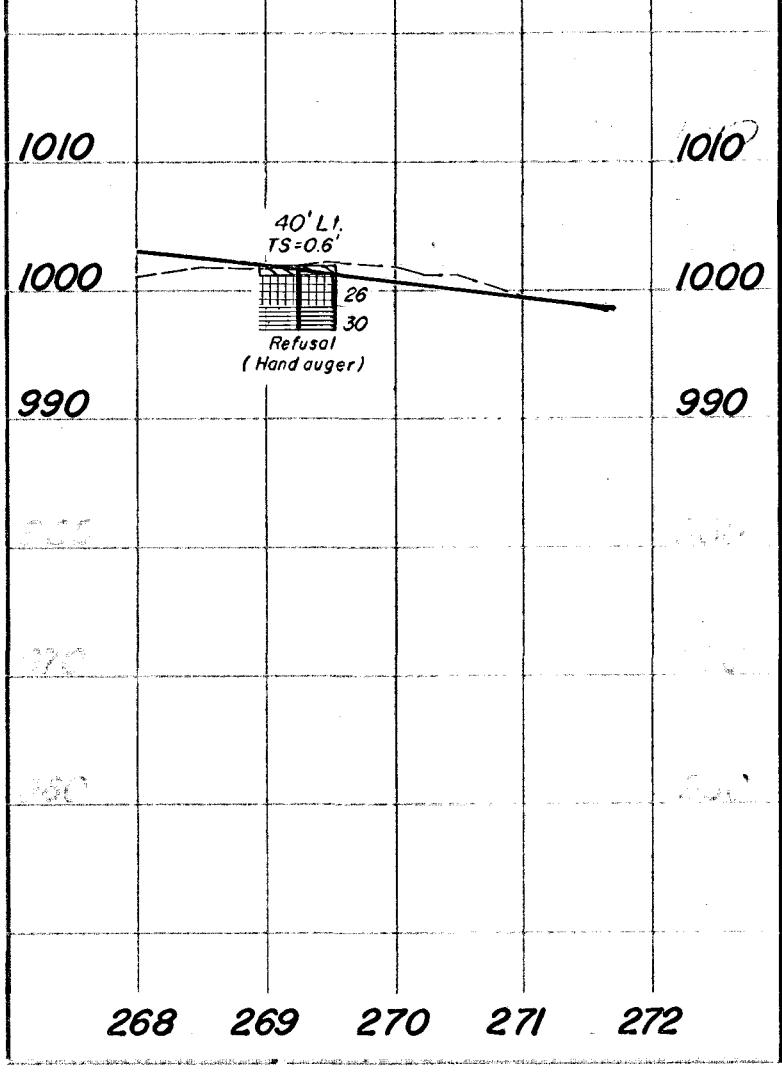
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

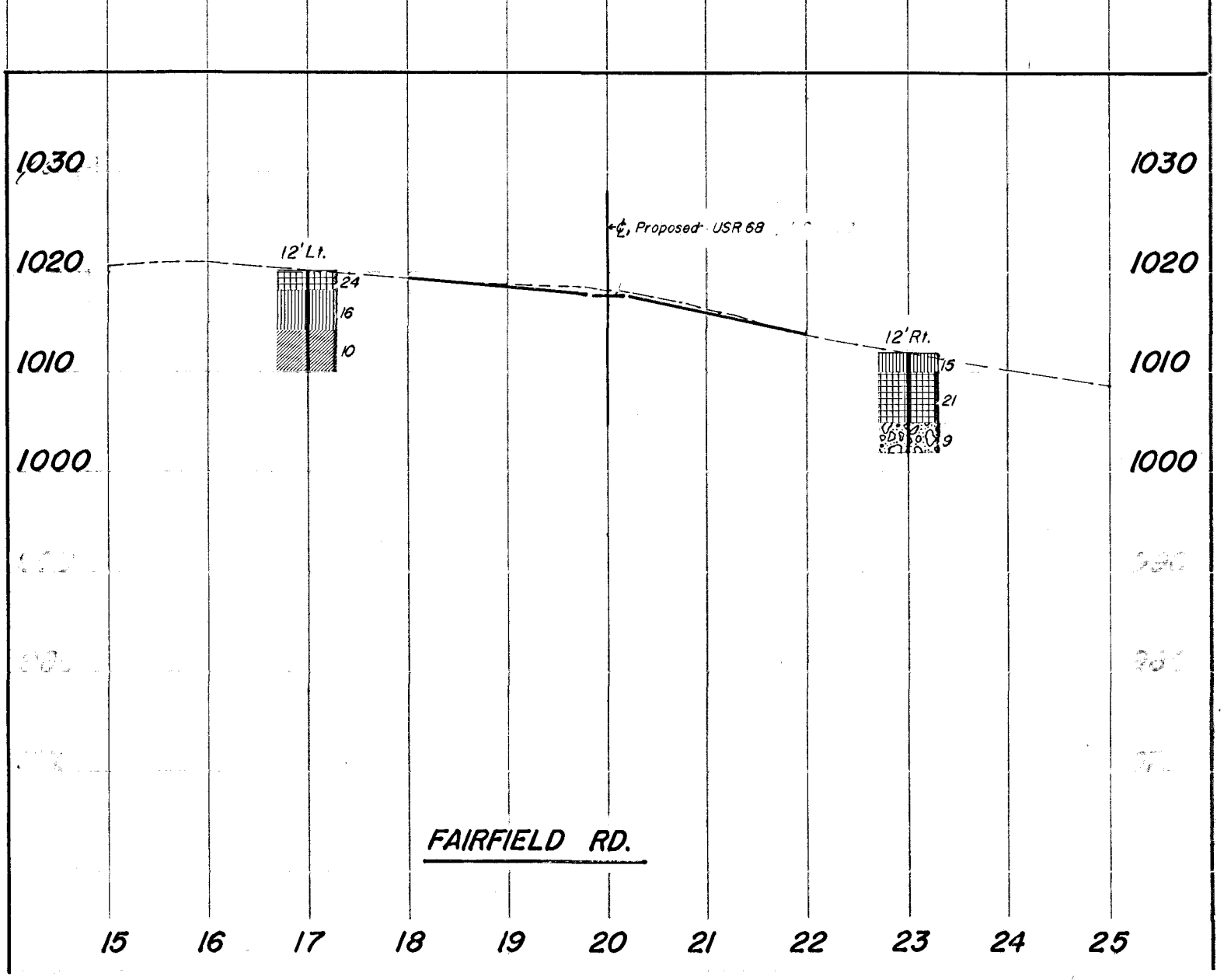
4/4






Cultivated
℄, Proposed USR 68
268
270
272
Cultivated


1010
1000
990
1010
1000
990
40' Lt.
TS=0.6'
26
30
Refusal
(Hand auger)
268
269
270
271
272


1030
1020
1010
1000
1030
1020
1010
1000
℄, Proposed USR 68
12' Lt.
24
16
10
12' Rt.
15
21
9
FAIRFIELD RD.
15
16
17
18
19
20
21
22
23
24
25