

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BUT-4-13.90

LIBERTY TOWNSHIP BUTLER COUNTY

PROJECT DESCRIPTION

CONSTRUCT NORTHBOUND RIGHT TURN LANE ON SR 747 AT SR 4. REMOVE THE EXISTING SLIP LANE FROM NORTHBOUND SR 747 TO SR 4. REBUILD/UPGRADE THE EXISTING SIGNAL, INCLUDING ADDING BACKPLATES.

PROJECT EARTH DISTURBED AREA: 0.69 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

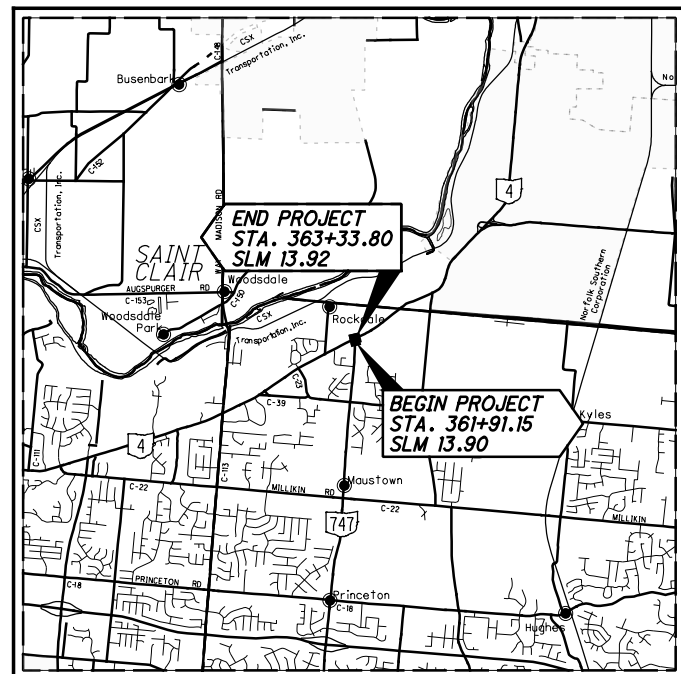
2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

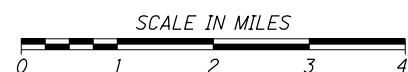
APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION



LOCATION MAP

LATITUDE: 39°25'40" LONGITUDE: -84°27'07"



PORTION TO BE IMPROVED	_____
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

DESIGN DESIGNATION

SR 4	SR 747
CURRENT ADT (2020) ----- 29,500	CURRENT ADT (2020) ----- 6,600
DESIGN YEAR ADT (2041) ----- 37,000	DESIGN YEAR ADT (2041) ----- 6,900
DESIGN HOURLY VOLUME (20) -----	DESIGN HOURLY VOLUME (20) -----
DIRECTIONAL DISTRIBUTION -----	DIRECTIONAL DISTRIBUTION -----
TRUCKS (24 HOUR B&C) ----- 17%	TRUCKS (24 HOUR B&C) ----- 17%
DESIGN SPEED ----- 55 MPH	DESIGN SPEED ----- 45 MPH
LEGAL SPEED ----- 55 MPH	LEGAL SPEED ----- 45 MPH
DESIGN FUNCTIONAL CLASSIFICATION: 03 URBAN PRINCIPAL ARTERIAL	DESIGN FUNCTIONAL CLASSIFICATION: 04 URBAN MINOR ARTERIAL
NHS PROJECT ----- YES	NHS PROJECT ----- NO

DESIGN EXCEPTIONS

NONE REQUIRED

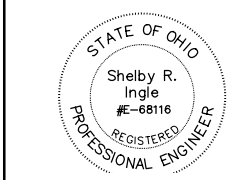
UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:

CMT
CRAWFORD, MURPHY & TILLY, INC.
84 REMICK BOULEVARD
SPRINGBORO, OHIO 45066
PH (937)701-2193
www.cmtengr.com

ENGINEERS SEAL:



SIGNED: *Shelby R. Ingle*
DATE: 12-08-20

STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	01/17/20	HW-2.1	7/20/18	TC-41.40	10/18/13	800-2019	7/17/20
BP-4.1	7/19/13	HW-2.2	7/20/18	TC-42.20	10/18/13	809	7/17/20
BP-5.1	1/18/19			TC-52.10	10/18/13	832	10/19/18
BP-7.1	7/17/20	MT-95.30	7/19/19	TC-52.20	7/20/18	878	1/17/20
		MT-97.10	4/19/19	TC-65.10	1/17/14	909	7/17/20
		MT-97.12	1/20/17	TC-65.11	7/21/17		
		MT-99.20	4/19/19	TC-71.10	1/19/18		
MH-1.2	1/15/16	MT-101.90	7/21/17	TC-81.22	4/17/20		
		MT-105.10	1/17/20	TC-83.10	1/17/20		
DM-1.1	7/21/17			TC-83.20	7/21/17		
DM-4.3	1/15/16	HL-30.11	4/17/20	TC-85.10	4/17/20		
DM-4.4	1/15/16	HL-30.22	4/17/20	TC-85.20	7/20/18		
CB-1.1	7/19/19	TC-21.21	4/17/20	ITS-12.50	1/17/20		
CB-2.1	7/20/18	TC-41.20	10/18/13				
CB-2.2	7/20/18	TC-41.30	10/18/13				

FEDERAL PROJECT NO. **E191888**
PID NO. **110458**
CONSTRUCTION PROJECT NO. _____
RAILROAD INVOLVEMENT **NONE**
BUT-4-13.90
1/47

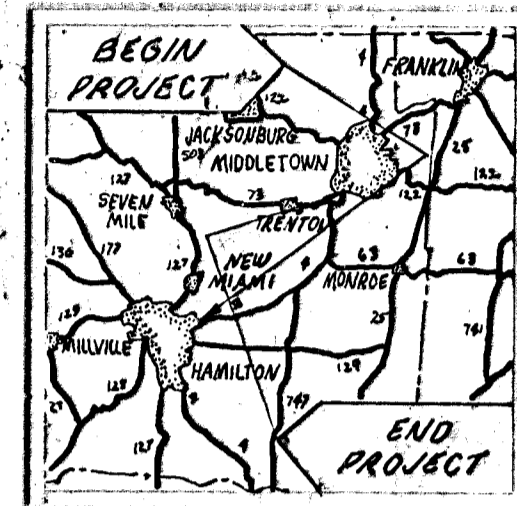
L:\ODOT\19066304-00_07&8SafetyDesign\05_BUT-4\110458\Roadway\Sheets\110458_GT001.dgn 12/28/2020 9:33:16 AM Wilson

SOIL PROFILE
BUTLER COUNTY
BUT-4 (8.52-19.59)
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
 U. S. CAMPUS, COLUMBUS, OHIO

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NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.

REVISED - OCTOBER-1954



LOCATION MAP

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 204 SAMPLES TESTED

DESCRIPTION	A.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1a	A-1a	72	12	5	8	3	24	5	-	5
GRAVEL WITH SAND	A-1-b	A-1b	34	40	12	10	4	23	1	13	3
GRAVEL WITH SAND & SILT	A-2-A	A-2-A	58	14	4	19	6	25	8	7	2
GRAVEL WITH SAND, SILT, AND CLAY	A-2-B	A-2-B	48	13	11	15	13	33	10	17	3
COARSE & FINE SAND	-	A-3a	2	33	42	13	10	N.P.	N.R.	18	5
SANDY SILT	A-4(a)	A-4a	18	12	18	3	21	23	7	15	49
SILT	A-4(b)	A-4b	2	3	9	61	25	27	5	19	25
SILT & CLAY	A-6(a)	A-6a	10	9	13	34	34	29	13	17	51
CLAY	A-6(b)	A-6b	13	7	11	30	39	36	18	18	30
ELASTIC CLAY WITH SOME ORGANIC MATERIAL	A-7-5(a)	A-7-5a	4	4	11	50	31	42	13	26	2
CLAY	A-7-6(a)	A-7-6a	14	3	0	32	45	44	23	21	23
SHALE											6
LIMESTONE											1
CINDERS											1

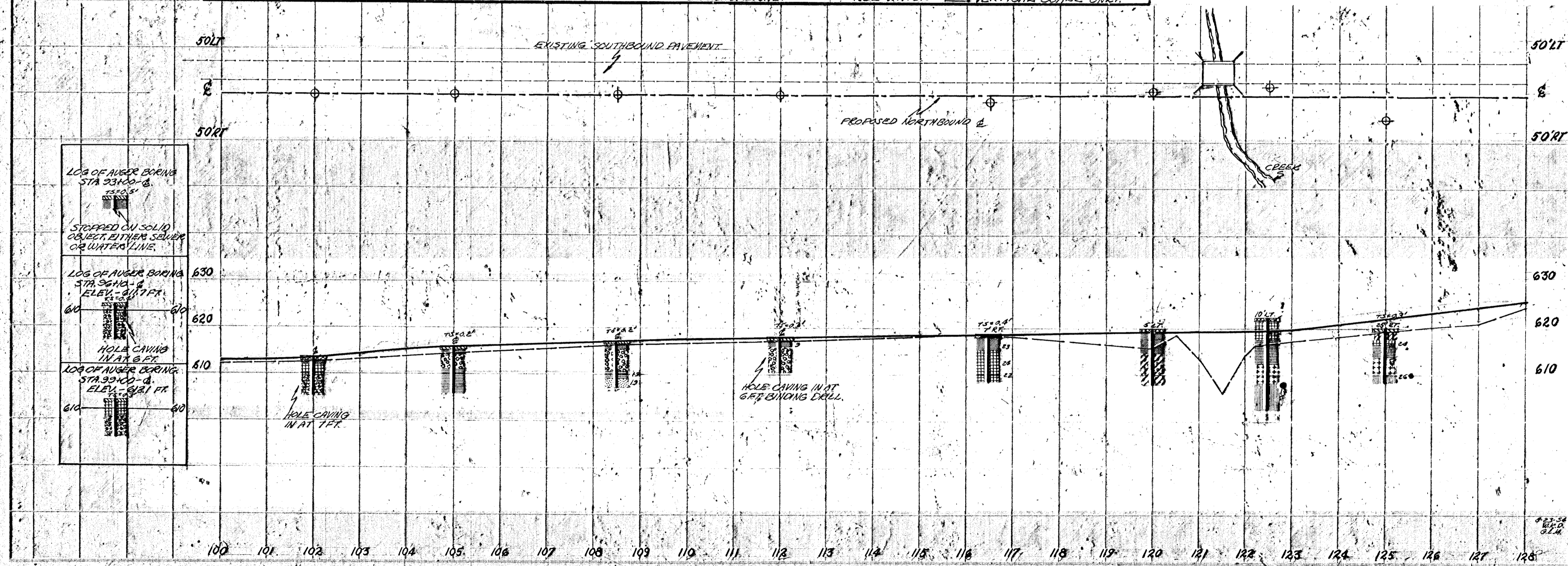
CLASSIFIED BY VISUAL INSPECTION.

CLASSIFIED BY VISUAL INSPECTION.

CLASSIFIED BY VISUAL INSPECTION.

-SAMPLES TESTED-
 LAB. NOS. 50-1002-1026 INCL; 1041-1087 INCL;
 1192-1219 INCL; 1448-1477 INCL; 1496-1515 INCL;
 1643-1669 INCL; 1773-1802 INCL.
 MOISTURE DENSITY SAMPLE.
 LAB. NO. 50-1087.
 NOTE: FIGURES BESIDE BORING INDICATE
 MOISTURE CONTENT IN PERCENT.

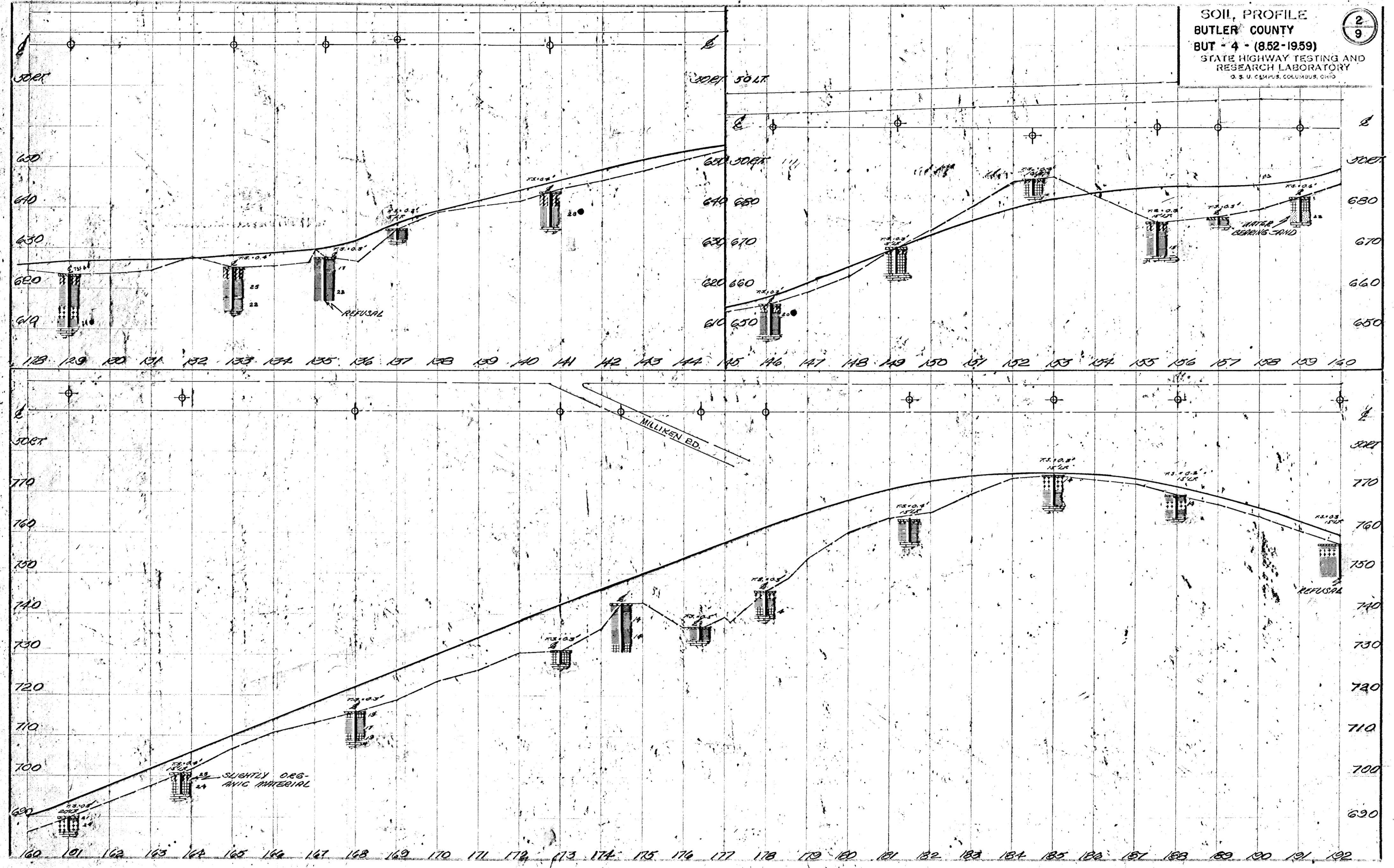
AUGER BORING PLOTTED TO TOP SOIL TS-X' - AUGER BORING PLOTTED TO VERTICAL SCALE ONLY. APPROX. DEPTH. MOISTURE CONTENT NEARLY EQUAL TO OR GREATER THAN THE LIQUID LIMIT. CORE BORING PLOTTED TO VERTICAL SCALE ONLY. FREE WATER.



8.23.54
 W.C.
 G.L.M.

SOIL PROFILE
 BUTLER COUNTY
 BUT - 4 - (852-1959)
 STATE HIGHWAY TESTING AND
 RESEARCH LABORATORY
 O. S. U. CAMPUS, COLUMBUS, OHIO

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EXISTING ROAD

NOTE: REFUSAL PROBABLY DENOTES
 BEDROCK CONSISTING OF
 SHALES WITH INTERMITTENT
 LAYERS OF LIMESTONE.

THIN BEDDED LIMESTONE
 EXPOSED IN BOTTOM
 OF DRY RUN

STA 242+89
 CHANGE IN STATIONING
 FROM NORTHBOUND TO
 SOUTHBOUND LANES.

ORGANIC
 MATTER

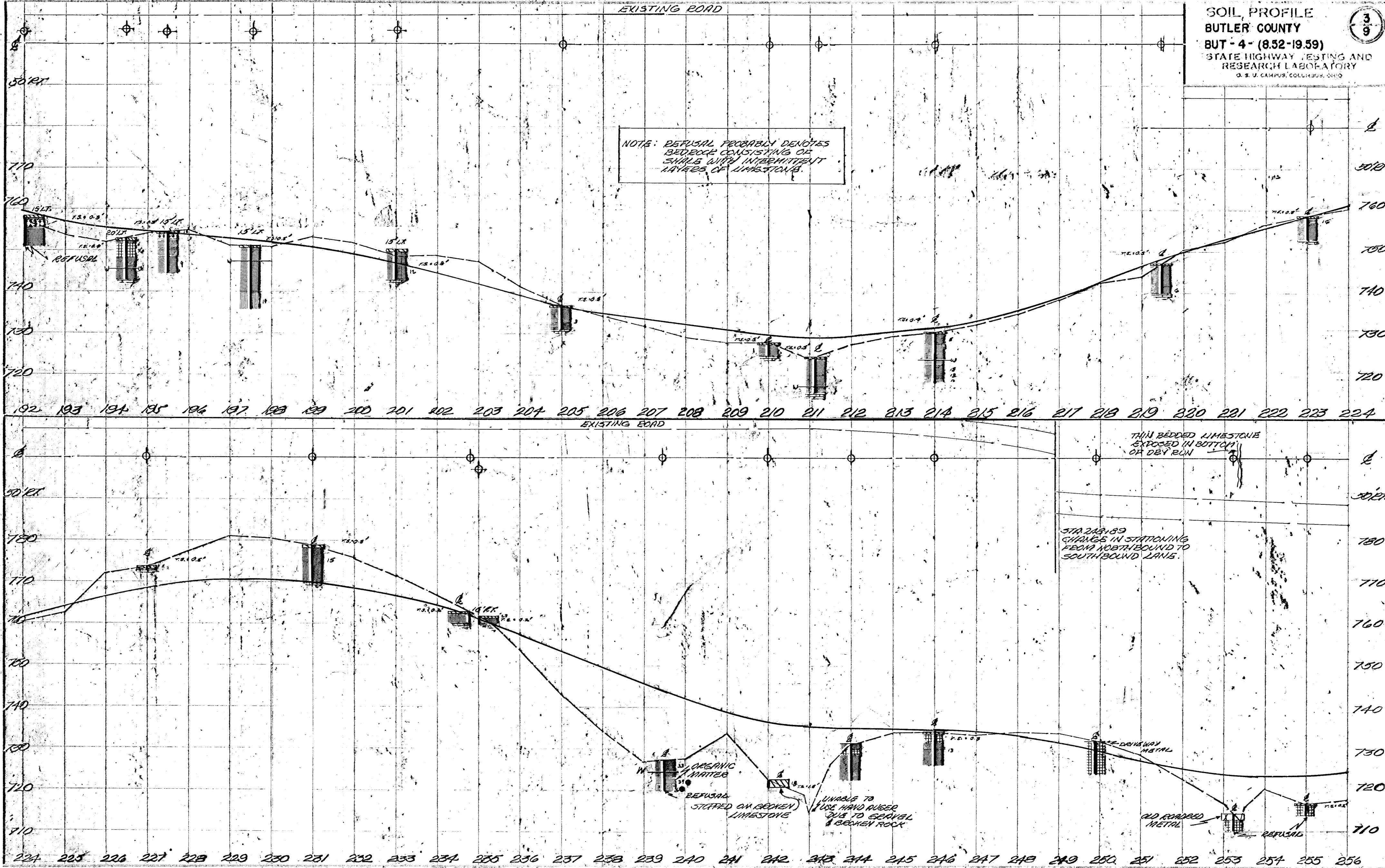
REFUSAL
 STOPPED ON BECKEN
 LIMESTONE

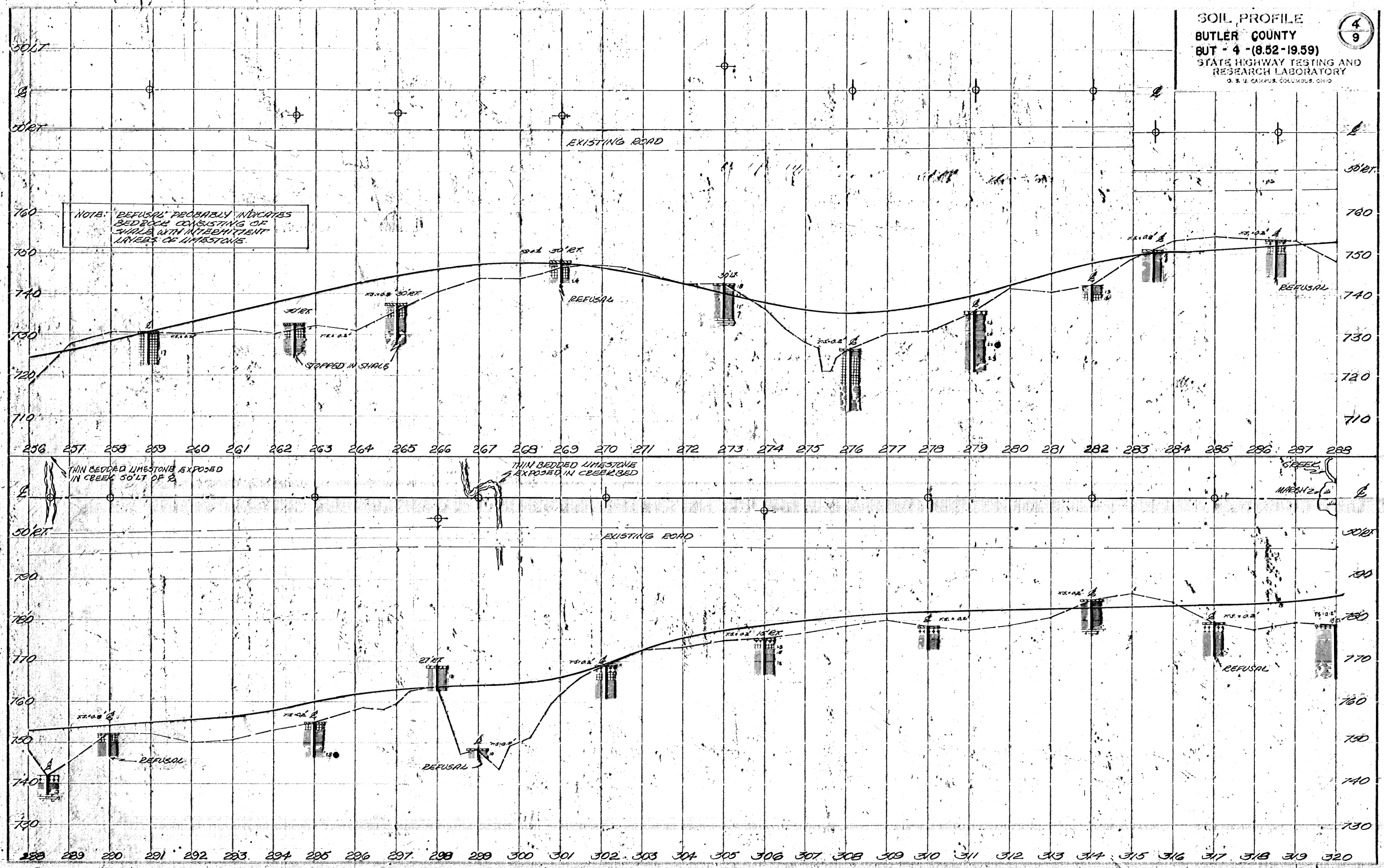
UNABLE TO
 USE HAND AUGER
 DUE TO GRAVEL
 & BECKEN ROCK

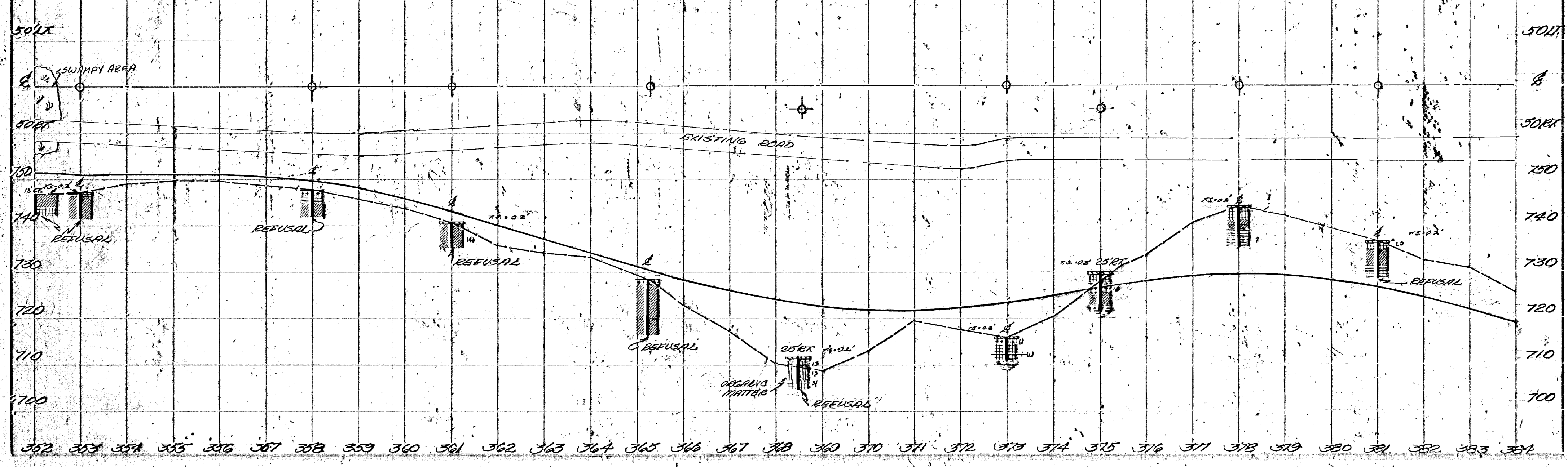
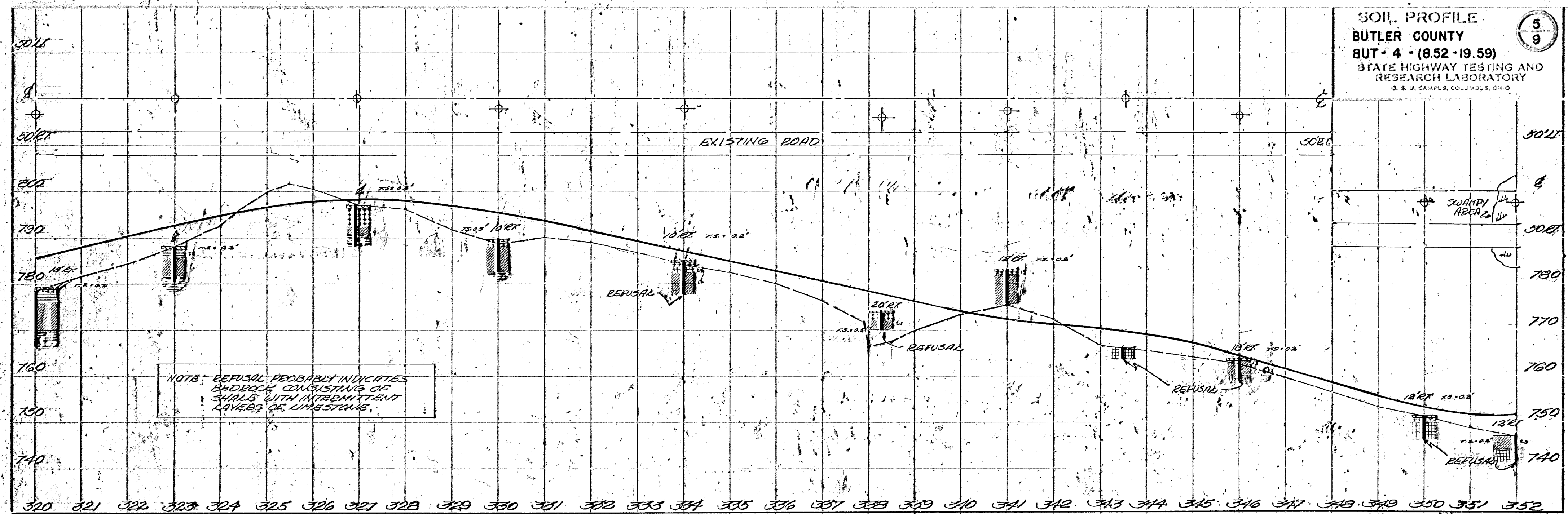
SEE DRAWING
 METAL

OLD REBARRED
 METAL

REFUSAL

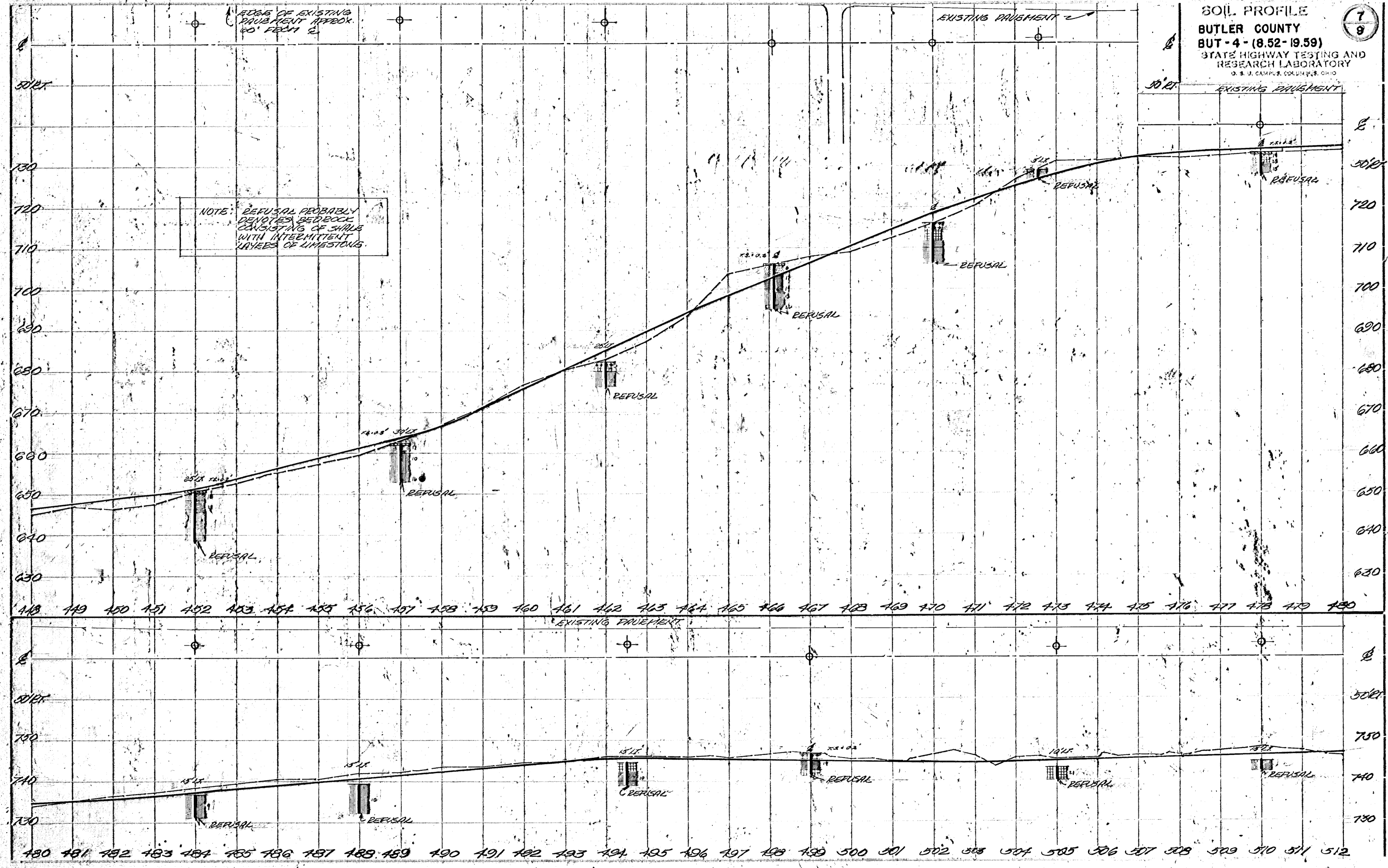






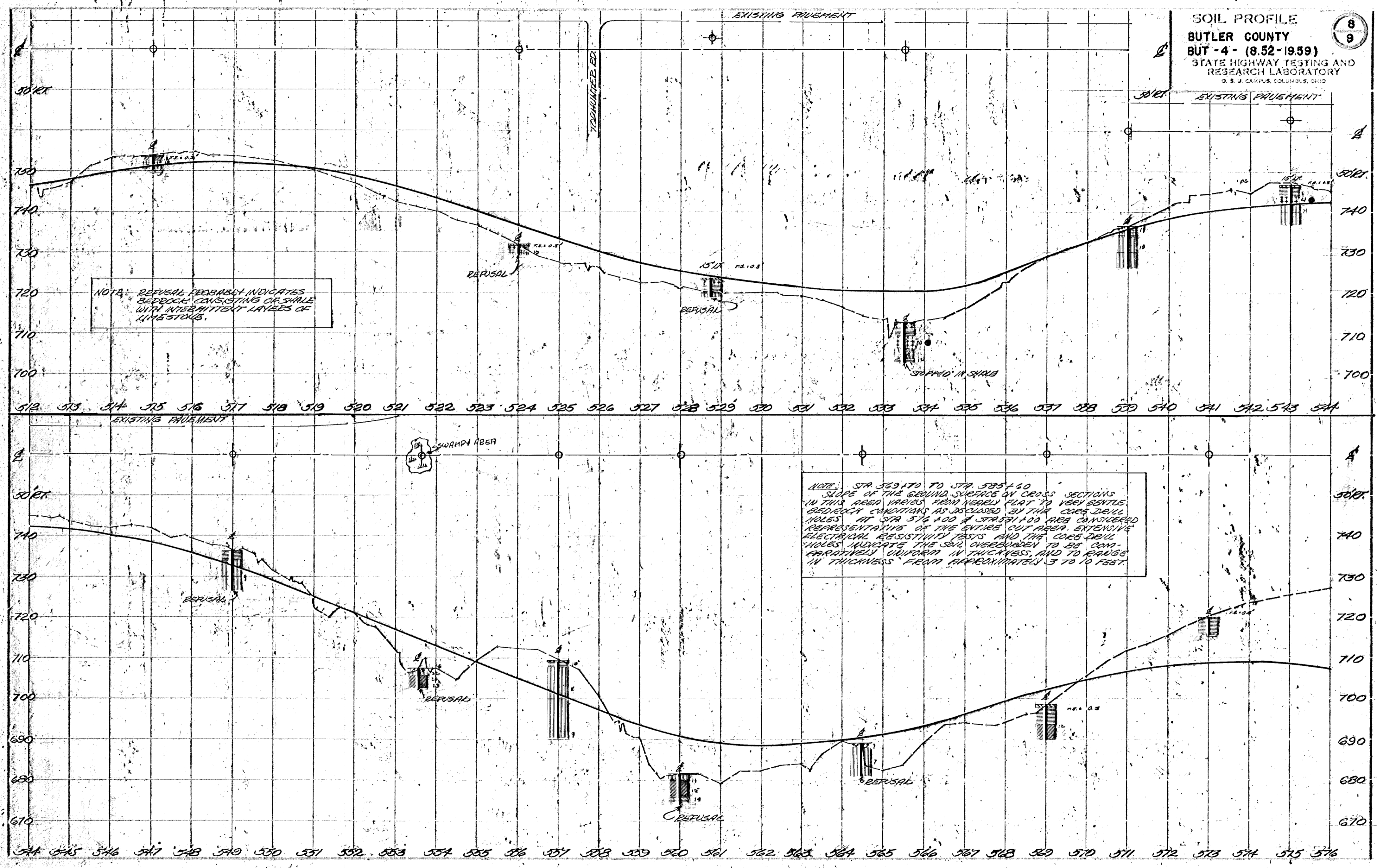
SOIL PROFILE
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SOIL PROFILE
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NOTE: REFUSAL PROBABLY INDICATES BEDROCK CONSISTING OF SHALE WITH INTERMITTENT LAYERS OF LIVESTONE.

NOTE: STA 563+70 TO STA 585+40 SLOPE OF THE GROUND SURFACE IN CROSS SECTIONS IN THIS AREA VARIES FROM NEARLY FLAT TO VERY GENTLE. BEDROCK CONDITIONS AS DISCUSSED IN THE CORE DRILL HOLES AT STA 576+00 & STA 581+00 ARE CONSIDERED REPRESENTATIVE OF THE ENTIRE CUT AREA. EXTENSIVE ELECTRICAL RESISTIVITY TESTS AND THE CORE DRILL HOLES INDICATE THE SOIL OVERLIEGERS TO BE COMPARATIVELY UNIFORM IN THICKNESS, AND TO RANGE IN THICKNESS FROM APPROXIMATELY 3 TO 10 FEET.

SWAMPY AREA

TOPPAVED 12"

EXISTING PAVEMENT

EXISTING PAVEMENT

512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544

544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576

SOIL PROFILE
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