FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	STATE	

1/172

ROSS COUNTY
ROS-23-(15.37)(16.01)

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
ROS-23-(15.37) (16.01)

SPRINGFIELD & GREEN TOWNSHIPS
ROSS COUNTY

LIMITED ACCESS

This improvement is especially designed for through traffic and has been declared a limited access highway or freeway, between Sta. 844+41.31 and Sta. 1008+58.05, by action of the Director of Highways in accordance with the provisions of Section 5511.02 of the Revised Code of Ohio.

523

Plans prepared by ELMER S. BARRETT ASSOCIATES
Elmer S. Barrett P.E. 6937
249 S. Paint St. Chillicothe, Ohio

The standard specifications of the State of Ohio, Department of Highways, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way necessary for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved Joseph N. Doyle
Date 4-2-56 Division Deputy Director

No RR, C&O bridge omitted HRT 5-4-56

Approved John J. Heer eys
Date 5-8-56 Deputy Director of Planning and Programming

Approved Richard Orth
Date 5-4-56 Engineer of Bridges

Approved E. S. Preston
Date 5-8-56 Engineer of Location and Design

Approved W. Gerald
Date 5-8-56 Deputy Director of Design and Construction

Approved V. P. Schaublin
Date 5-9-56 First Ass't Director

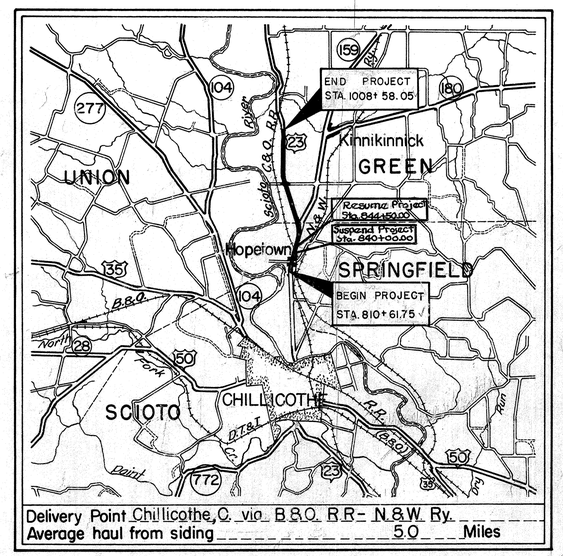
Approved S. Ringgold
Date 5-9-56 Director of Highways

CONVENTIONAL SIGNS

State Line
County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail (existing)
Guard Rail (proposed)
Steam Railroad
Power Poles
Telephone Poles
Trees or Stumps (Existing)
Trees or Stumps (to be removed)

INDEX OF SHEETS

Title Sheet	1
Schematic Plan	2
Typical Sections	3-6
Typical Details	7-9
Notes	10-11
Summary of Quantities	12-15
General Summary	16-17
Plan & Profile	18-39
Superelevation Tables	40-44
Cross Sections	45-100
Approach & Intersection Details	101-132
Drainage Details	133-141
Structures Over 20' Span	142-162
Right of Way	163-172



LOCATION MAP

SCALE OF MILES
0 1 2 3 4 5 6 7

Portion to be improved
Federal Roads
State Roads
Other Roads

LINE DATA

Begin Project	810+61.75	
Suspend Project	840+00.00	
		2,938.25 Lin. Ft.
Resume Project	844+50.00	
End Project	1008+58.05	
		16,408.05 Lin. Ft.
		19,346.30 Lin. Ft. or 3.664 Miles
Net Length of Project		
Add for Approaches		
808+32.00 to 810+61.75		+229.75
840+00.00-841+25 to 843+00-844+50		+275.00
S.R. 159 (Southbound) 5+44.80 to 24+62.00		+1917.20
S.R. 159 (Northbound) 4+36.00 to 19+00.00		+1464.00
S.R. 159 (Connection) 15+30.50 to 24+71.04		+940.54
DELANO RD.		+511.66
HOPETOWN RD.		+349.00
Add for Equation in Approaches		
810+75.67 Back = 810+61.75 Ahead		+13.92 Lin. Ft.
Net Length of Work		25047.37 Lin. Ft. or 4.743 Miles

SCALE

Plan	1"= 50'
Profile: Horizontal	1"= 50'
Profile: Vertical	1"= 5'
Cross Sections	1"= 10'
Approaches & Intersections	1"= 20'

Revisions have been made on Sh. Nos 22, 23, 24, 25, 27, 33, 65, 107, 165, 166, 168 & 170 (6-24-57) R.G.S. (Contract No. 13236 Change Order No. 2)

APR 13 1961
GROUND PHOTOLAB

Revised As Built

Reviewed & Approved: W. E. Eichenlaub
Date: 5-7-56 Engineer of Traffic

File No.
ROSS COUNTY ROS-23-(15.37)(16.01)
Date of Letting 195
Contract No.

Supplemental Prints of Standard Construction Drawings

AS-1-54	12-1-54	I-12	7-1-54	L.J. No 1	7-1-55	I-8 C.B. 2-3 & 2-4	5-1-52
B-T-50-70-71 IE No. 1	10-1-47	I-14G	1-22-52	RI-1	1-3-55	I-8 C.B. No 3-A	5-1-52
B-T-71R	3-2-53	I-15 No 1	8-1-55	S-27 P.C.-3	2-20-45	I-8 C.B. No 6	5-1-52
DR-1	1-3-55	I-15 No 2	12-1-54	S-27 P.C.-4	1-4-54	SP-53	7-21-53
G-7.07	4-2-56	I-21-23	10-17-55	T-35	1-2-56	L-1	4-1-50
I-1,2,3,4 & 5	2-20-45	L-3	4-1-50	T.J.	2-23-56	OS-1	7-1-55
I-8 C.B. 2-2A & B	5-1-52	L-3-A	4-1-50	RB-1-55	3-1-55		

Supplemental Specifications	
6	12-28-55
B-119	REV. 12-14-55
S-114	8-30-55
L-20.9.12	7-17-54
M-110.27	9-9-52
5	6-8-55
M-109.23	Rev. 4-20-56

Rev. 6-24-57

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2/177

ROSS COUNTY
ROS. 23-(15.37)(16.01)

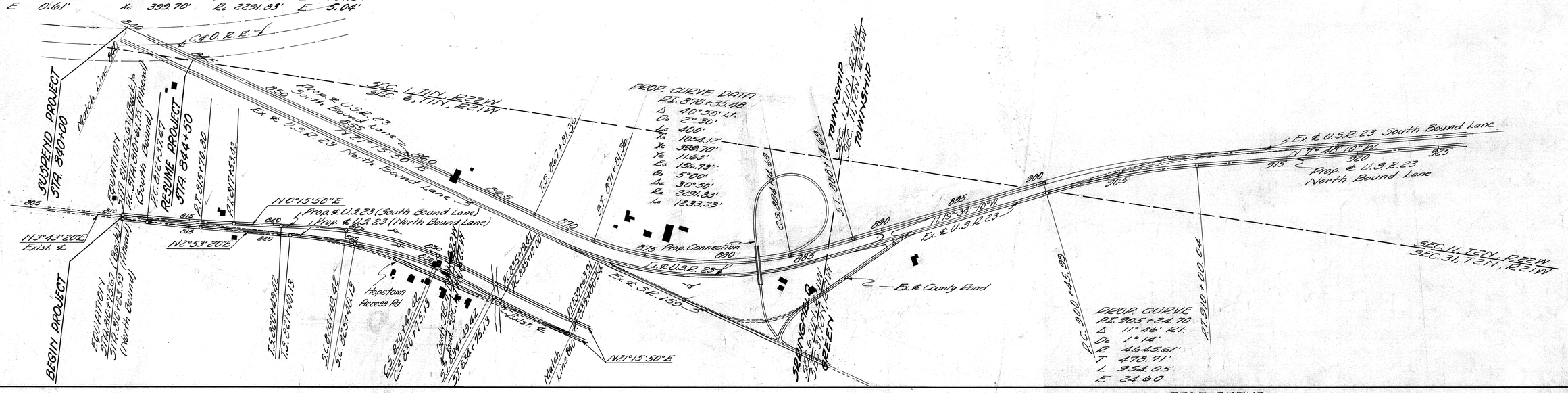
Note:
The total number of sheets shown throughout this plan as 177 shall be considered to read 172.

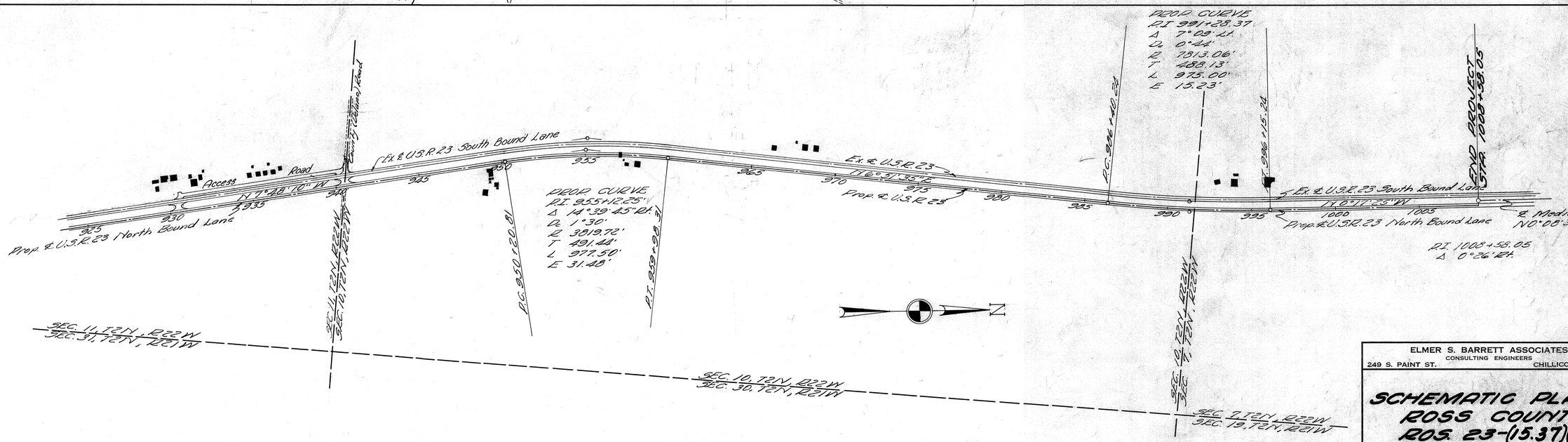
PROP. CURVE & SPIRAL DATA SOUTH BOUND LANE

P.I. 814+07.69	P.I. 827+58.10			P.I. 837+41.78	
Δ 3°27'30" Lt.	Δ 25°00' Rt.			Δ 4°00' Lt.	
D_a 0°30'	L_a 2°30'	Y_c	11.63'	D_a 0°54'	
R 11459.16'	L_s 400'	θ_s	5°00'	R 6366.20'	
T 345.94'	T_s 708.68'	Δ_c	15°00'	T 222.31'	
L 691.67'	E_s 58.60'	L_c	600'	L 444.44'	
E 5.22'	X_s 399.70'	R_c	2291.83'	E 3.88'	

PROP. CURVE & SPIRAL DATA NORTH BOUND LANE

P.I. 814+04.14	P.I. 828+14.78			P.I. 837+49.92	
Δ 0°50' Lt.	Δ 23°22'30" Rt.			Δ 5°00' Lt.	
D_a 0°15'	D_a 2°30'	Y_c	11.63'	D_a 1°05'	
R 22918.32'	L_s 400'	θ_s	5°00'	R 5288.84'	
T 166.67'	T_s 674.65'	Δ_c	13°22'30"	T 230.92'	
L 333.33'	E_s 51.49'	L_c	535.00'	L 461.54'	
E 0.61'	X_s 399.70'	R_c	2291.83'	E 5.04'	





ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SCHEMATIC PLAN
ROSS COUNTY
ROS. 23-(15.37)(16.01)

SCALE 1" = 300' DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
C.J.S.	C.J.S.	C.J.S.	S.R.W.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

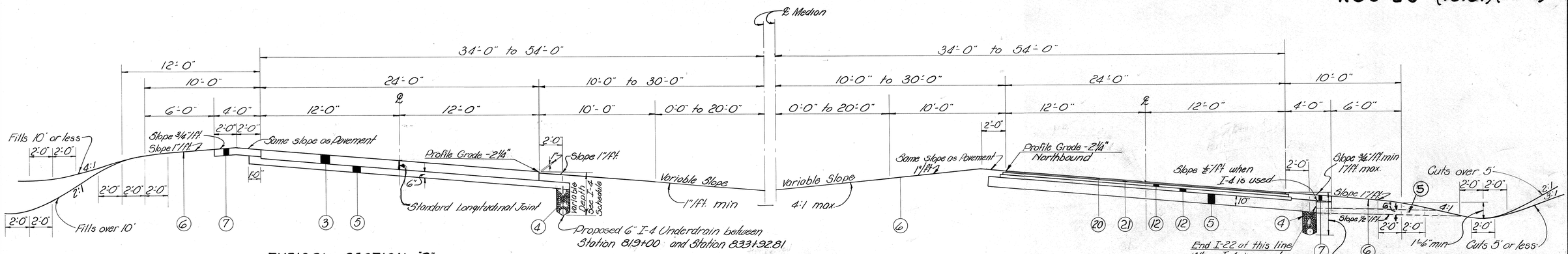
3/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

TYPICAL SECTION

TYPE T-71 AND TYPE T-35 ON B-119

Scale 1/4" = 1'-0"

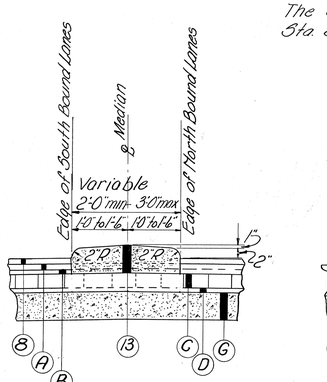


TYPICAL SECTION "G"

The above Typical Section applies between the following Stations
Sta. 819+00 (S.B.) to Sta. 833+92.81 (S.B.)

TYPICAL SECTION "H"

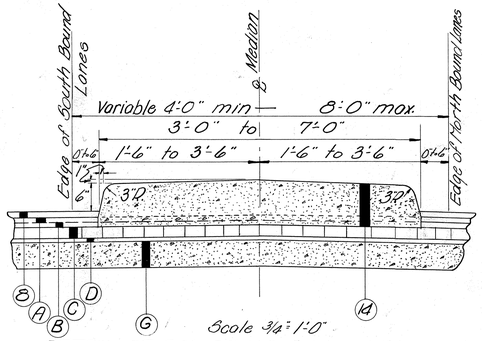
The above Typical Section applies between the following Stations:
Sta. 816+00 (S.B.) to Sta. 819+00 (S.B.) (Reversed)
Sta. 825+50 (N.B.) to Sta. 834+39.84 (N.B.) (See Part Section below)



DETAIL OF I-21 CONCRETE MEDIAN TYPE 2 MODIFIED

Scale 3/4" = 1'-0"

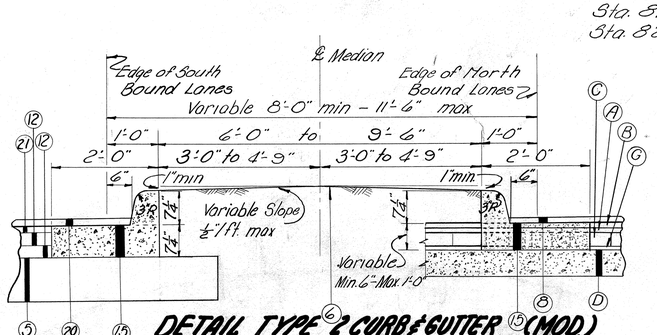
The above Part Typical Section applies between the following Stations:
Sta. 810+61.75 (S.B.) to Sta. 812+50 (S.B.)



DETAIL OF I-21 CONCRETE MEDIAN TYPE-2

Scale 3/4" = 1'-0"

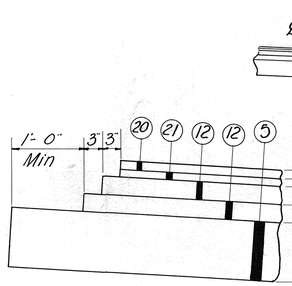
The above Part Typical Section applies between the following Stations:
Sta. 812+50 (S.B.) to Sta. 815+00 (S.B.)



DETAIL TYPE 2 CURB & GUTTER (MOD.) & PART TYPICAL SECTION

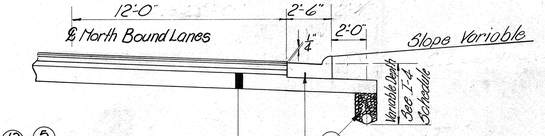
Scale 3/4" = 1'-0"

The above Part Typical Section applies between the following Stations:
Sta. 815+00 (S.B.) to Sta. 816+90 (S.B.)



COURSE DETAIL AT EDGE OF T-35 PAVEMENT

Scale 1" = 1'-0"



PART TYPICAL SECTION

Scale 1/4" = 1'-0"

The above Part Typical Section applies between the following Stations:
Sta. 828+39.25 (N.B.) to Sta. 833+81.50 (N.B.)

TYPICAL SECTION SCHEDULE

Station to Station	Lin. Ft.	Typical Section Description, etc.
810+55.67-810+75.67 Back (S.B.)	2000	Approach
Ahead 810+61.75 - 816+00 (S.B.)	538.25	See Detail Sheet No. 101
816+00 - 819+00 (S.B.)	300.00	Typical Section "H" (Reversed)
819+00 - 833+92.81 (S.B.)	1,492.81	Typical Section "G"
834+33.59-840+00.00 (S.B.)	566.41	Lt. 1/2 of Typical Section "E"
Ahead 810+83.59-825+50 (N.B.)	1,466.41	See Detail Sheet No. 101
825+50 - 834+39.84 (N.B.)	889.84	Typical Section "H"
835+31.12 - 839+80.54 (N.B.)	449.42	See Detail Sheet No. 103
841+50 - 864+06.36	2,256.36	Typical Section "A"
867+06.36 - 888+39.69	2,133.33	Typical Section "E"
888+39.69 - 898+75.00	985.31	Typical Section "A"
898+75 - 900+45.99	170.99	Typical Section "D"
900+45.99 - 911+73.00	1,127.01	Typical Section "C"
911+73.00 - 915+00	326.00	Typical Section "F"
915+00 - 943+50	3,350.00	Typical Section "B"
943+50 - 961+75	1,825.00	Typical Section "E"
961+75 - 984+50	2,275.00	Typical Section "B"
984+50 - 998+00	1,350.00	Typical Section "D"
998+00 - 1008+58.05	1,058.05	Typical Section "B"

LEGEND

①	Item	I-12	Combination Curb and Gutter Type 2
②	Item	B-35	Asphaltic Concrete Leveling Course (70-80) Var. Depth 3" Max.
③	Item	T-71	9" Reinforced Portland Cement Concrete Pavement
④	Item	I-4	6" Underdrains
⑤	Item	I-22	Subbase (Thickness as shown)
⑥	Item	L-9	Seeding and Protecting
⑦	Item	I-18	Stabilized Crushed Aggregate Shoulders and Approaches, 6" Thick, unless otherwise shown.
⑧	Item	T-35	Asphaltic Concrete Surface Course, Type "C" (70-80) 1 1/4" Min. - 1 1/2" Avg.
⑨	Item	I-12	Concrete Curb (Type 2-A)
⑩	Item	T-30	Bituminous Prime Coat Sec. M-5.2, RC-1 or RC-2, or M-5.7 RT-2 or RT-3 applied at 0.35 gal. per sq. yd.
⑪	Item	T-70	7" Portland Cement Concrete Pavement
⑫	Item	B-35	3" Asphaltic Concrete Base Course (70-80)
⑬	Item	I-21	Portland Cement Concrete Median Type 2 (Mod.)
⑭	Item	I-21	Portland Cement Concrete Median (Type 2)
⑮	Item	I-12	Combination Curb and Gutter Type 2 (Mod.)
⑯	Item	B-119	Crushed Aggregate Base Course (Placed in 4" Max. Layers) See Sht. 121 & 122
⑰	Item	I-12	Concrete Header Curb (As per plan)
⑱	Item	B-70	10" Portland Cement Concrete Base Course
⑲	Item	T-30	Bituminous Tack Coat Sec. M-5.2 RC-1 or RC-2 or Sec. M-5.5 MS-2 or RS-1, applied at the rate of 0.10 gals. per sq. yd. (See note in proposal)
⑳	Item	T-35	1 1/4" Asphaltic Concrete Surface Course (70-80), Type "C"
㉑	Item	B-35	1 1/4" Asphaltic Concrete Leveling Course (70-80)
㉒	Item	B-35	2" Asphaltic Concrete Leveling Course (70-80)
Ⓐ			Existing 1 1/4" Asphaltic Concrete Surface Course
Ⓑ			Existing Asphaltic Concrete Leveling Course (1" Average)
Ⓒ			Existing 3" Brick Wearing Course
Ⓓ			Existing 6" Reinforced Concrete Base
Ⓔ			Existing Asphaltic Concrete Widening
Ⓕ			Existing 1 1/4" Insulation Course
Ⓖ			Existing 3/4" Asphaltic Limestone

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTION

SCALE As Shown DATE Jan. 30, 1956

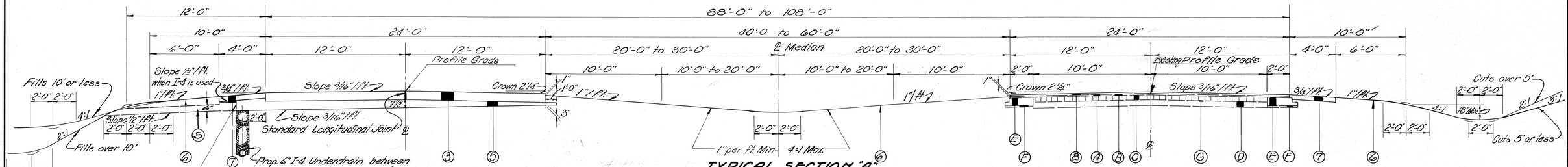
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
R.G	R.G	P.J.M	SEW		

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

4/177

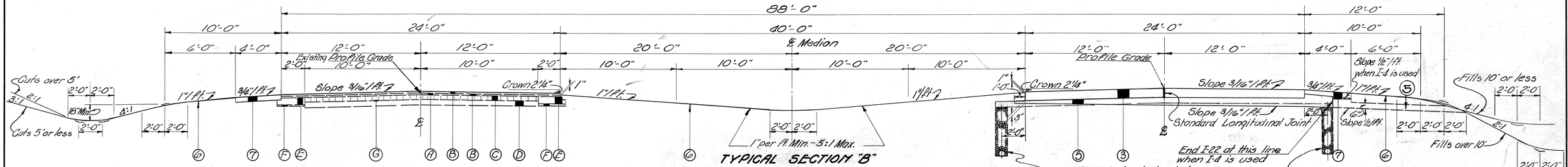
ROSS COUNTY
ROS-23-(15.37)(16.01)

TYPICAL SECTIONS
TYPE T-71 AND TYPE T-35
Scale 1/4" = 1'-0"



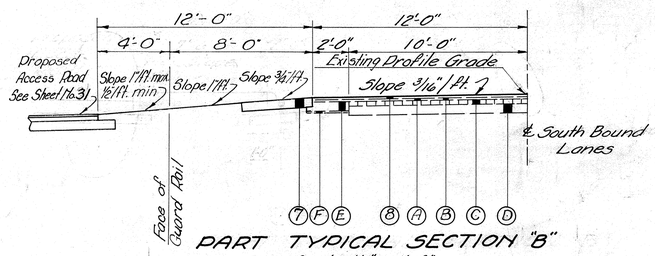
TYPICAL SECTION "A"

The above Typical Section applies between the following stations:
Sta. 844+50.00 (B.B.) to Sta. 867+06.36 (60' Median)
Sta. 888+89.69 to Sta. 898+75.00 (40' Median)



TYPICAL SECTION "B"

The above Typical Section applies between the following Stations: (See Part Typical Section "B")
Sta. 915+00 to Sta. 943+50
Sta. 961+75 to Sta. 984+50
Sta. 998+00 to Sta. 1008+58.05



PART TYPICAL SECTION "B"
Scale 1/4" = 1'-0"

The above Part Typical Section applies between the following Stations:
Sta. 930+77.01 to Sta. 940+29.90

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTIONS

SCALE 1/4" = 1'-0" DATE Oct. 12, 1955

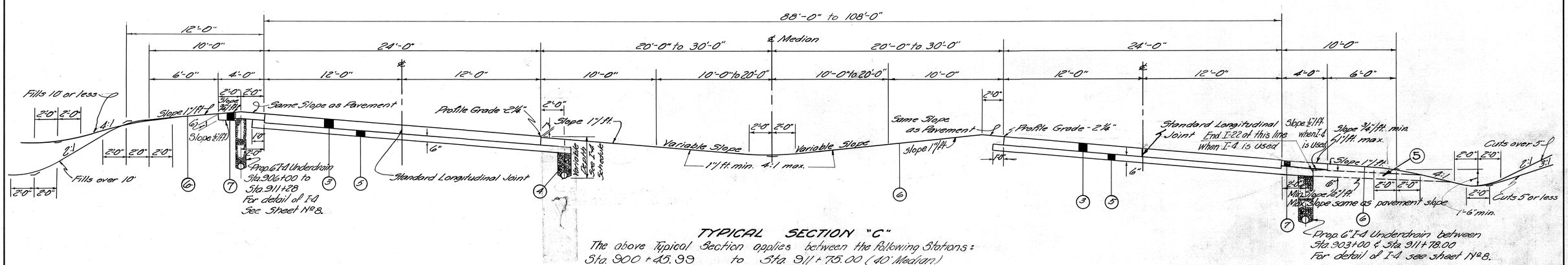
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G.	R.G.	P.J.M.	SBW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

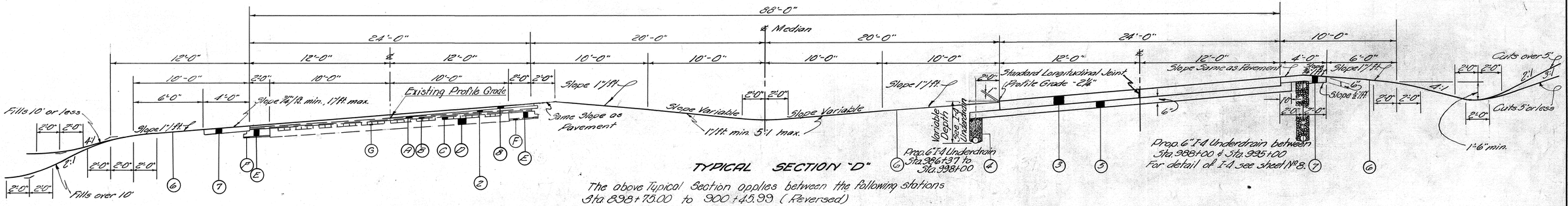
5
177

ROSS COUNTY
ROS-23- (15.37)(16.01)

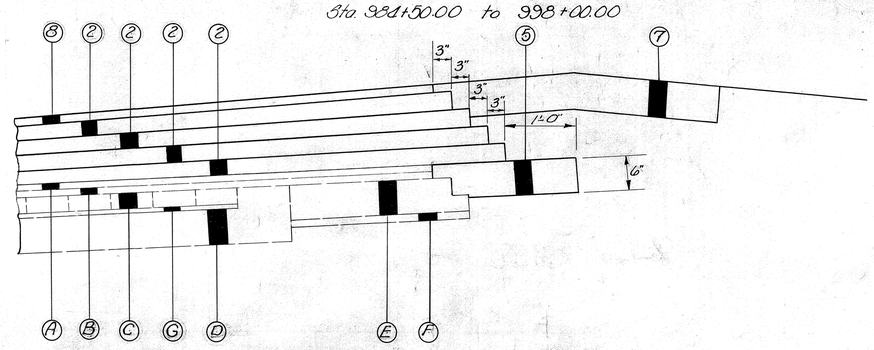
TYPICAL SECTIONS
TYPE T-71 AND TYPE T-35
Scale ½"=1'-0"



TYPICAL SECTION "C"
The above Typical Section applies between the following Stations:
Sta. 900+25.99 to Sta. 911+75.00 (40' Median)



TYPICAL SECTION "D"
The above Typical Section applies between the following stations
Sta. 898+75.00 to 900+45.99 (Reversed)
Sta. 983+50.00 to 998+00.00



COURSE DETAIL FOR SUPERELEVATED SECTIONS OF EXISTING PAVEMENT
Scale 1"= 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTIONS

SCALE As Shown DATE Oct. 12-1955

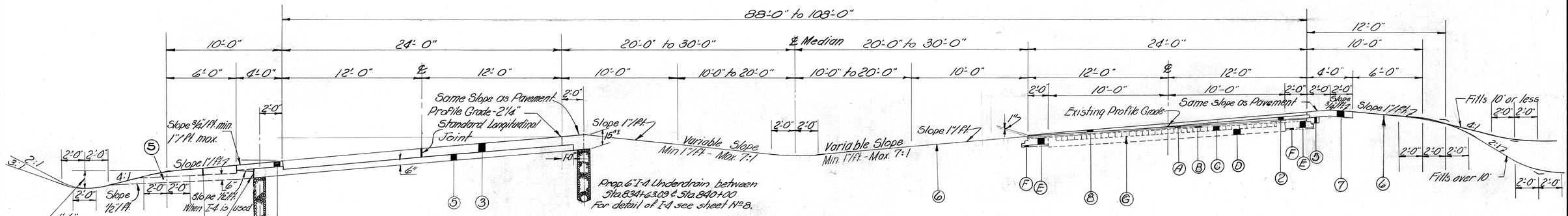
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	R.E.J. P.J.M.	SRW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

6/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

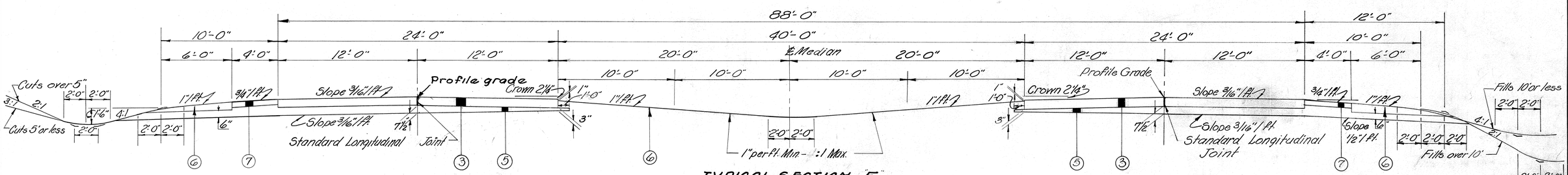
TYPICAL SECTIONS
TYPE T-71 AND TYPE T-35
Scale 1/4" = 1'-0"



TYPICAL SECTION E

The above Typical Section applies between the following stations:
Sta. 834+83.39 (S.B.) to Sta. 840+00 (S.B.) (60'± 40' Median) (Left half of Typical Section)

Sta. 867+06.36 to Sta. 888+89.69 (60' to 40' Median)
Sta. 948+50.00 to Sta. 961+75 (Reversed) (40' Median)



TYPICAL SECTION F

The above Typical Section applies between the following stations
Sta. 911+75.00 to Sta. 915+00

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL SECTIONS

SCALE 1/4" = 1'-0" DATE Oct. 12, 1955

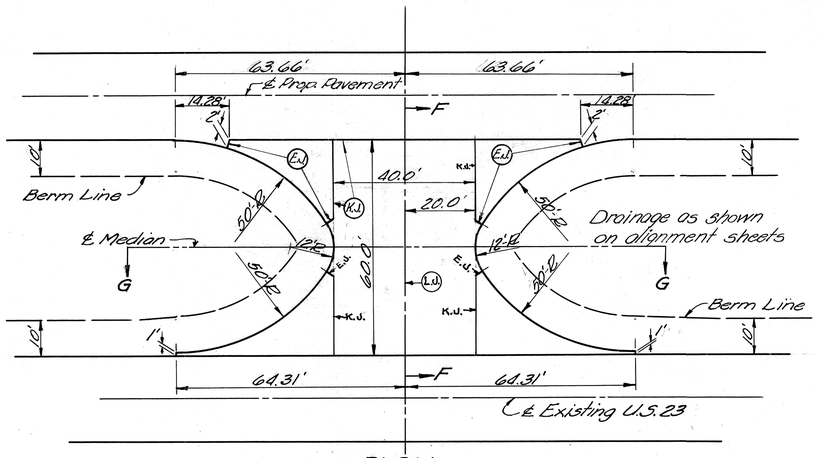
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RWG	RWG	PJM	SEW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

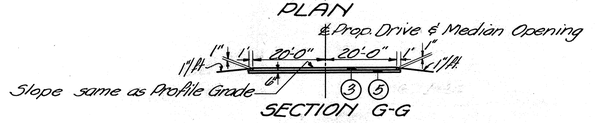
7/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

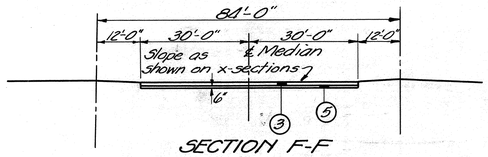
TYPICAL DETAILS



PLAN

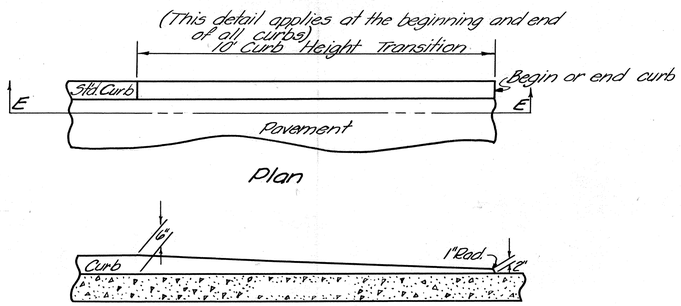


SECTION G-G



SECTION F-F

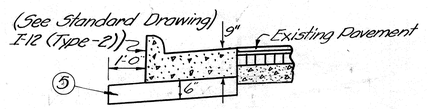
DETAIL OF TYPICAL MEDIAN OPENING FOR DRIVEWAYS
Scale: 1"=20'-0"



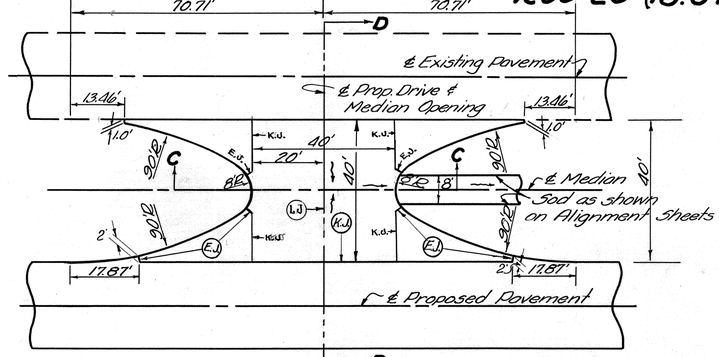
Plan

Section E-E

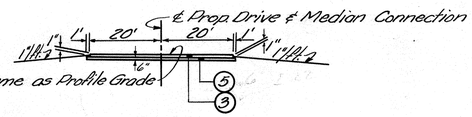
DETAIL OF CURB HEIGHT TRANSITION
Scale: 1"=2'-0"



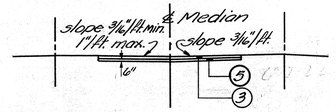
DETAIL OF TYPE-2 COMBINATION CURB & GUTTER
Scale: 1"=2'-0"



Plan

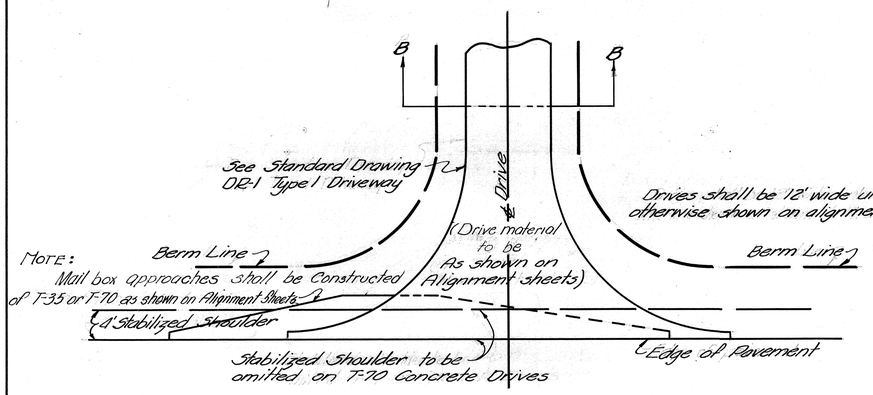


Section C-C



Section D-D

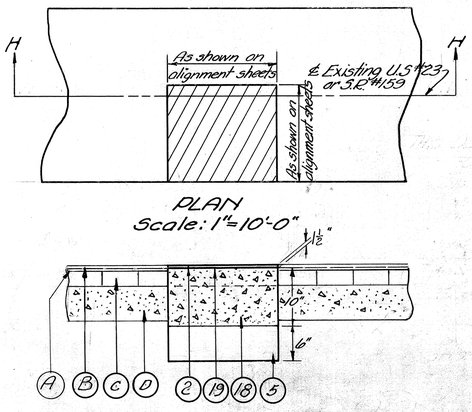
DETAIL OF TYPICAL MEDIAN OPENING FOR DRIVEWAYS
Scale: 1"=20'-0"



PLAN

SECTION B-B

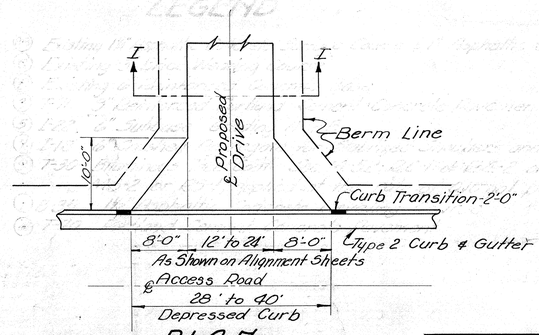
DETAIL OF TYPICAL DRIVE & MAILBOX APPROACH
Scale: 1"=10'-0"



PLAN
Scale: 1"=10'-0"

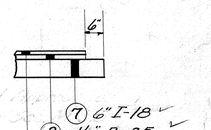
SECTION H-H

DETAIL SHOWING PAVEMENT TO BE USED TO REPLACE EXISTING BASE
(For Location see alignment sheets)



PLAN

SECTION I-I



SKETCH "A"

DETAIL OF TYPICAL DRIVE - TYPE 2 MODIFIED
Scale 1"=10'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL DETAILS

SCALE As Shown DATE March 22 1956

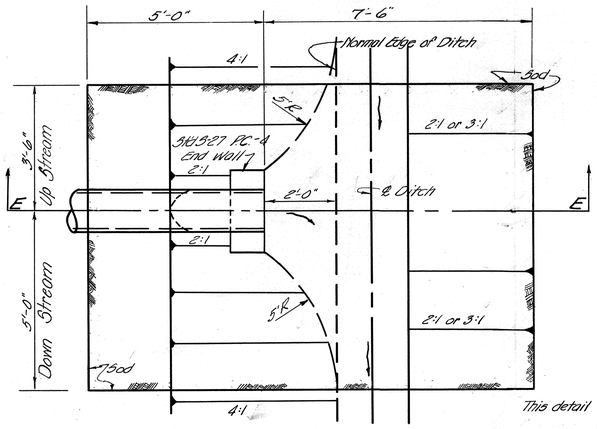
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G	P.J.M	J.A.-L.A. P.J.M.	S.E.W.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

8/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

TYPICAL DETAILS

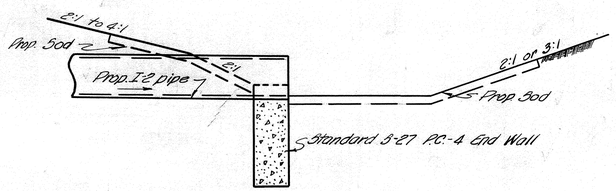


PLAN

Quantity of L-10 Sodding = 12 Sq. Yds. Each

This detail applies at the following locations

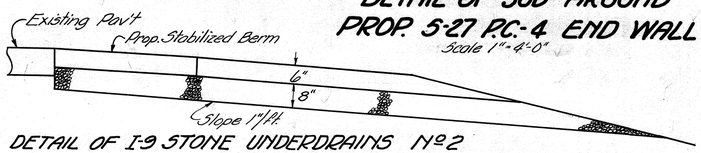
Sta 822+85 (SB)
Sta 881+49
Sta 882+25
Sta 900+50
Sta 909+90
Sta 919+60
Sta 992+10
Sta 998+56



SECTION E-E

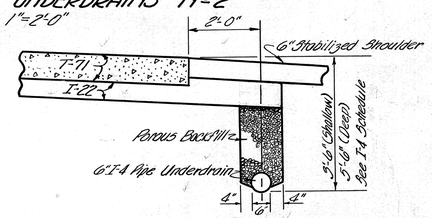
DETAIL OF SOD AROUND PROP. S-27 P.C.-4 END WALL

Scale 1"=4'-0"



DETAIL OF I-9 STONE UNDERDRAINS Nº2

Scale 1"=2'-0"

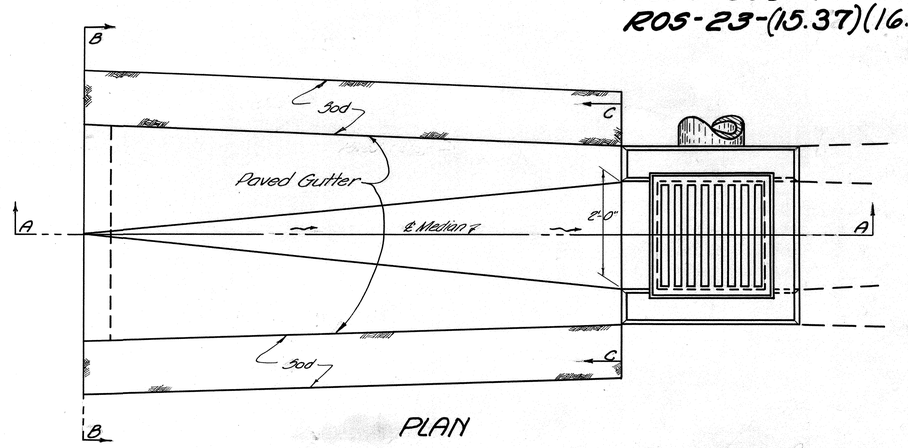


DETAIL OF I-4 UNDERDRAIN

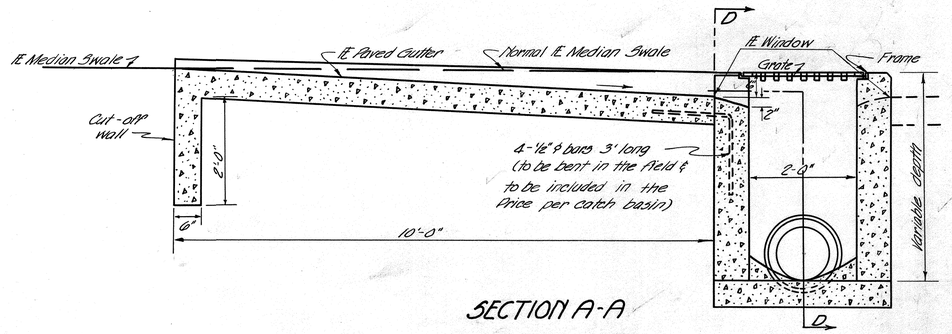
Scale 1"=2'-0"

I-4 UNDERDRAIN SCHEDULE

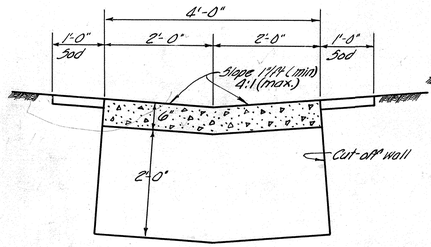
Shallow - 3.50' to 4.50' below edge of pavement.			Deep - 4.50 to 5.50' below edge of pavement.		
SIDE	STATION	TO STATION	STATION	TO STATION	SIDE
Rt.	818+30	834+323 (SB)	825+50	834+179.14	Rt.
Lt.	835+91.92	840+00 (NB)	834+44.59	840+00 (SB)	Lt.
Rt.	866+00	868+90	834+63.09	840+00 (SB)	Rt.
Lt.	866+20	868+90	868+90	881+00	Lt.
Rt.	898+75	900+00	868+90	881+00	Rt.
Lt.	900+00	910+00	906+00	911+78	Rt.
Rt.	903+00	906+00	905+70	911+50	Lt.
Rt.	910+00	912+10	920+00	928+77.5	Rt.
Lt.	981+78	989+00	920+00	929+00	Lt.
			928+92	942+50	Rt.
			929+00	942+27	Lt.
			930+68 (SB Lt)	938+34.5	Lt.
			969+00	975+00	Rt.
			969+00	975+00	Lt.
			989+00	995+00	Rt.
			983+70 (SB)	986+35	Lt.
			986+37	998+00	Lt.



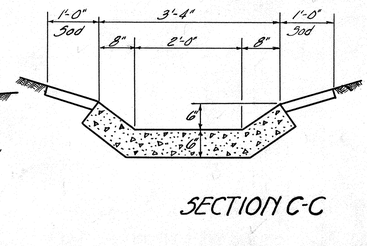
PLAN



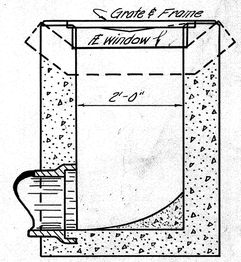
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

DETAIL OF STANDARD Nº22-A CATCH BASIN (MODIFIED) AND PAVED GUTTER TYPE I-A

(Scale 3/4" = 1'-0")

NOTES

For details of catch basin not shown see Standard Drawing I-8 C.B. 22-A.

Frame shall be Neenah Foundry Co. R-4899 or equal.

Two windows shall be constructed at the locations indicated on the alignment sheets.

Both grate and frame castings shall be given one coat of asphaltum paint per specifications.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL DETAILS

SCALE AS SHOWN DATE 10-5-35

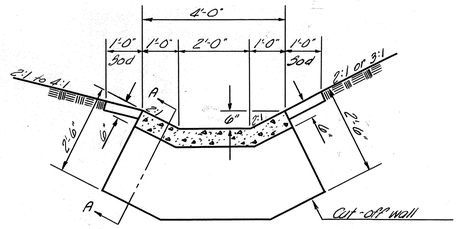
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G.	P.J.M.		SEWS			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

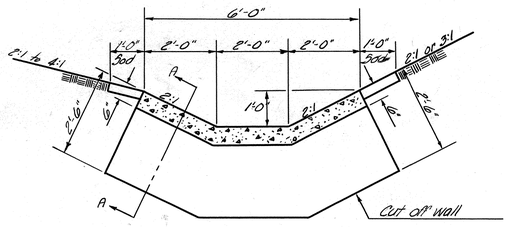
9/177

ROSS COUNTY
ROS-23- (15.37)(16.01)

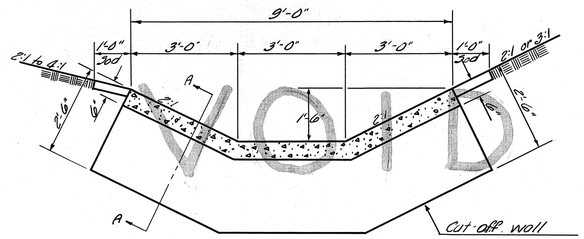
PAVED GUTTER TYPES 1-B & 1-C



1-B



1-C

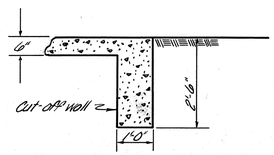


1-D

NOTE:
For detail of Type 1-A Paved Gutter see sheet No. 8.

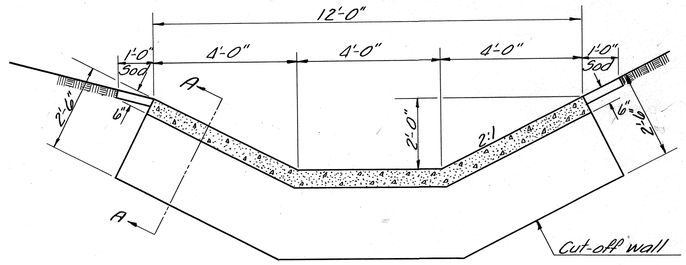
NOTE:
For further details of paved gutters types 1-A, 1-B, 1-C, 1-E & 1-F see standard drawing I-14G.

NOTE:
See alignment sheets for location of cut-off walls.

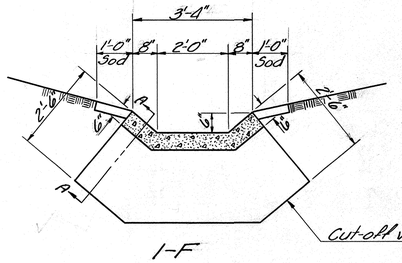


SECTION A-A

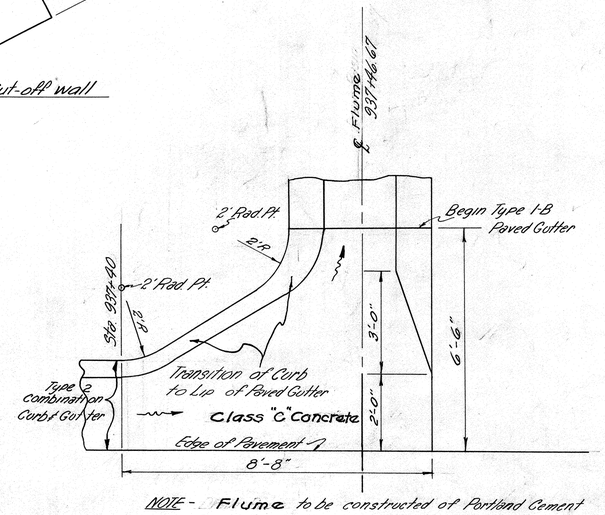
PAVED GUTTER TYPES 1-E & 1-F



1-E



1-F



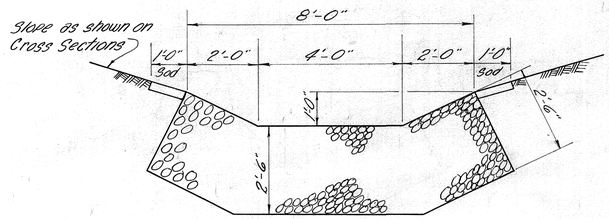
NOTE - Flume to be constructed of Portland Cement Concrete - Bottom thickness to be 6"
Slope of drain basin to be 1" / ft. away from pavement

DETAIL OF FLUME
(See note in proposal)
STA. 937+46.67

DETAIL OF DUMPED ROCK FILL

This detail applies at the following locations

Sta 952+95 to Sta 953+20 (Left ℄)
Sta 964+51 to Sta 964+76 (Left ℄)
Sta 965+75 to Sta 966+00 (Right ℄)



ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

TYPICAL DETAILS

SCALE 1/2" = 1'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G.	R.G. R.J.M.	R.J.M.	S.E.W.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

10/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

NOTES

GENERAL

FIELD OFFICE

The contractor shall provide a suitable field office in accordance with Section 5-0.01 having a minumum floor area of 500 sq. ft. The contractor shall have a telephone installed and maintained during the construction of this project.

DESIGN SPEED

The design speed of this project is 70 M.P.H.

UTILITY ADJUSTMENT

Any and all work required for Public or Private Utilities will be done by and at the expense of their respective owners unless otherwise noted in these plans. Such work shall be accomplished in accordance with the State of Ohio, Construction and Material Specifications.

MAINTAINING TRAFFIC

Two-way traffic shall be maintained on U.S. #23 at all times throughout the entire project.

The existing pavment and the proposed pavement shall be used to maintain traffic whenever and wherever possible.

The contractors attention is directed to the following Sections of the Construction and Materials Specifications, C-4.05 Maintaining of local traffic, C-7.06 Public Convenience and Safety, G-10.7 Barricades, Danger and Warning Signs, and T-11.25 Duration of Curing.

The contractor shall arrange his operation so as to keep Traffic inconvenience to a minimum.

The following is a suggested sequence of construction operations to facilitate the maintenance of traffic.

Two-way traffic shall be maintained on the existing pavement of U.S. #23 from Begin Project to End Project while the Southbound lanes are constructed from Begin Project to Sta 840+00 and from Sta 844+50 to Sta 907±. Also construct the North bound lanes from Sta 907± to End Project and Temporary Connections Sta 834+94.47 to Sta 849+00 (See Sheet No 106)

Reroute traffic over the proposed Southbound lanes & Temporary Connections from Begin Project to Sta. 907±, while the Northbound lanes are being constructed between Begin Project and Sta. 907±. Then reroute traffic entirely on Northbound lanes from Begin Project to End Project and construct the Southbound lanes from Sta 907± to End Project.

Resurfacing of the existing pavement shall be performed in a single full width operation. See note in proposal.

The Existing pavement within the limits of this Project shall not be used for hauling earthwork or for the movement of construction equipment except as follows:

Equipment may cross the pavement at approved right angle crossings where necessary. Watchmen shall be provided at all crossings approved by the Engineer for the control of construction equipment so as to maintain the uninterrupted flow of through traffic. Weights in excess of the Legal Limit will not be permitted.

Two-way traffic shall be maintained on existing SR 159 (Sta 873±) during construction of the connecting road between U.S. 23 and existing SR 159 (Rt & Sta 890+27). Then route two-way traffic over new road (Rt & Sta 890+27) during construction and paving operations on the North bound lanes and the Southbound ramp of the proposed interchange.

Two-way traffic shall be maintained on the township road (Sta. 831+97.61) and on Delano Road (Sta. 940+51.87) during the construction of the approaches. One-way traffic shall be maintained during the placing of the pavement.

An estimated amount of T-10, Traffic Compacted Surface Course, and M-10 Calcium Chloride has been provided in the Summary of Quantities for the maintenance of traffic, See Sheet No 15. **Payment for construction, maintenance and removal, where required, of temporary roadways surfaced with T-10 aggregate and stabilized with chloride, except for items T-10 and M-10, is included in the lump sum bid for Maintaining Traffic.**

In lieu of the above method of maintaining traffic, the Contractor may submit to the Director for approval a written detailed schedule of method of work procedure, including sequence of construction operations of his alternate method of maintaining traffic. No schedule change shall be made until written approval of same is received from the Director.

This note shall not be construed to waive any portion of the Construction and Material Specifications. (Traffic Note Cont'd on Sheet 11.)

PAVEMENT

SUPERELEVATION

Superelevated curves shall be built without crown. The crown shall be worked out of the pavement in that portion between the beginning of the transition and the point where the superelevation equals twice the crown.

REPLACEMENT

The contractor will be required to replace in kind at his own expense any sidewalk, pavement, curb and gutter, walls, casting, or any similar item (inside or outside) the work limits shown on these plans that may be damaged by his operations or equipment during the construction of this project.

FINISHING CONCRETE PAVEMENT

Hand finishing of road approaches and connections to road approaches, drives and mail box turnouts, will be permitted as per Section T-71.211 of the General Specifications.

REPLACEMENT OF FAILED BASE AREAS

The following estimated quantities are to be used as shown on the Alignment Sheets and as directed by the Engineer, for replacement of existing failed base areas. See detail on Sheet No 7

Payment shall be made on final measurements.

The estimated quantities are as follows:

Item	B-35	1½" Asphaltic Concrete Leveling Course	1845	Sq. Yds.
Item	B-70	10" Portland Cement Concrete Base Course	1845	Sq. Yds.
Item	I-22	6" Subbase	1845	Sq. Yds.
Item	T-30	Bituminous Tack Coat Sec. M-5.2 RC-1 or RC-2 or Sec. M-5.5 MS-2 or RS-1, applied at the rate of 0.10 gal. per sq yd.	1845	Sq. Yds.
Item	E-8	Removal of Existing Pavement	1845	Sq. Yds.

The above quantities are carried to Sub-Summary Sheet No 13

NON-PERFORMANCE OF I-22 SUBBASE

In areas where the natural subgrade is made up of granular material meeting I-22 requirements the subbase shall be omitted and the appropriate subbase and excavation quantities non-performed as directed by the Engineer. It is anticipated that gravel will be encountered within the following limits: Station 835+00 to Station 850+00

FLEXIBLE FORMS

Approved flexible forms shall be used for construction of circular pavement edges where the radius is 150 feet or less.

BUILDING BASEMENT LT. OF STA. 831+35

The best information available indicates that the existing brick building left of Sta. 831+35 was built with a first basement and a sub-basement, and that the first basement has been filled and a concrete slab constructed thereon, leaving the cavity of the sub-basement in existence. In order to assure adequate support for the highway, the existing concrete slab and fill material shall be removed from the first basement and the floor thereof shall be completely broken and demolished to permit the satisfactory filling of any underlying cavity or sub-basement. All of the above shall be included in the lump sum bid for Item S-24, Removal and Disposal of Existing Structures. The entire cavity shall then be properly filled and compacted in accordance with Sec. E-1.08. Cost of the backfilling operation shall be included in "Item E-1 Roadway Excavation" for payment.

PROFILE

The profile of the proposed surface course in resurfacing areas shall be approximately 1½ inches above that of the existing pavement.

I-2 STORM SEWER AND I-4 UNDERDRAINS

An estimated amount of storm sewer, Item I-2, has been provided to replace any field drains, within the Right of Way that may be encountered during construction. The outlet locations, grades and lengths of pipe required shall be determined by the Engineer during construction, and payment shall be made on final measurement. All field drains encountered shall be replaced with the next size larger. The estimated amount of Underdrains Item I-4 shall be placed as directed by the Engineer.

The estimated sizes and amounts are as follows:

Item I-2 8" Class A Storm Sewer	500 Lin. Ft.
Item I-2 8" Class A Storm Sewer under Pavement and Approaches	500 Lin. Ft.
Item I-2 10" Class A Storm Sewer	200 Lin. Ft.
Item I-2 10" Class A Storm Sewer under Pavement and Approaches	200 Lin. Ft.
Item I-4 6" Underdrains (Shallow)	500 Lin. Ft.

The above quantities are carried to Sub-Summary Sheet No 12

ITEM SPECIAL, WELL ABANDON AND CAPPED:

The existing well cover shall be removed and disposed of in accordance with Sec. E-1.06. The pump and all other salvable parts shall be carefully removed and stored on the right-of-way at the disposal of the property owner. The casing shall be cut off at least three (3') feet below the proposed pavement subgrade elevation and capped with concrete or a standard threaded pipe cap.

The unit price bid for each "Well Abandoned and Capped" shall include pavement for all the above operations, and for all labor, tools equipment, materials and incidentals necessary to complete this item.

GUARD RAIL REMOVAL

The Removal of any Guard Rail or Guard Rail Posts lying within the limits of Roadway Excavation or Embankment (and not specifically paid for under a separate Item) is included in the Contract Unit Price per Cubic Yard bid for Item E-1, Roadway Excavation. All resulting materials shall become the property of the Contractor and shall be disposed of by him at no extra cost to the state, except the steel rail on all existing steel beam type Guard Rail shall be stored on the right of way at the disposal of the State.

ITEM I-9 STONE UNDERDRAINS No. 2

Stone underdrains shall be placed on the ditch side of the existing pavement at approximately 50 foot intervals or as directed by the project engineer for the entire length of the project.

Stone underdrains shall be placed on the ditch side of the existing pavement to drain the I-18 Stabilized Shoulders. Stone underdrains shall be placed at approximately 50 foot intervals, or as directed by the Engineer, for the entire length of the project.

Payment shall be made on final measurement.

Estimated Number Required ------ 925
Average length of each drain ------ 15 Lin. Ft.
Estimated Quantity of Stone Underdrain 1875 Lin. Ft.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

NOTES

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G	R.G	W.D.S J.E.	SEW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

11/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

NOTES

ROADWAY

NORMAL SHOULDER AND DITCH CONSTRUCTION

All angles of change of slope shall be rounded as shown on typical section and Standard Drawing RI-1.

LOCATION OF SUBSURFACE UTILITIES

The State of Ohio will not be responsible for the accuracy of the location shown of water, sewer, and telephone lines. They are shown as near correct as the available information permits. The exact depth and location of the water, sewer, and telephone lines where proposed structures and storm sewers are to be placed shall be determined by the contractor prior to the installation of such items. Adjustment of flow lines of proposed catch basins, manholes, and storm sewers may be made with the approval of the Division Office, Bureau of Location and Design to meet existing conditions.

REMOVAL (MISCELLANEOUS)

The removal and disposal of any existing pavement, sidewalk, building foundations, steps, cellar floors, well cover, cisterns, tanks of all kinds, concrete bases, walls, curb and gutters, rails, ties, pole stubs, guard posts, headwalls, pipes, cast iron plates or other masonry lying within or below the limits of Roadway Excavation, Item E-1, or Excavation for Structures, Item E-2 (and not specifically paid for under a seperate item) are classified as excavation and paid for under the excavation item of which they are a part.

Sidewalks, steps, cellar floors, or other masonry shall be excavated to a depth of three (3') feet below the proposed pavement subgrade and to a depth of three (3') feet below the proposed finished surface if outside the limits of the proposed pavement area.

Pavement, cellar floors or other masonry below the above limits shall be broken up into portions whose area does not exceed one (1) square foot, but need not be removed.

Backfilling shall be performed according to section E-1.08 of the Construction and Material Specifications.

Wells, cisterns, tanks of all kinds & privy vaults shall be filled with broken foundation masonry, or rock placed as rock embankment according to section E-1.08 of the Construction and Material Specifications.

Payment for the above operations shall be included in the contract unit price bid for Roadway Excavation Item E-1, and Excavation for Structures, Item E-2.

Additional excavation necessary to perform any of the above operations shall be paid for at the contract unit price bid per cubic yard for Roadway Excavation Item E-1, and Excavation for Structures Item E-2. The suitable waste masonry obtained may be used for Rip-Rap or Dumped Rock Fill consistent with the requirements of Item I-10.

REMOVAL OF TREES AND STUMPS

The number, type and size of trees and stumps shown for removal on these plans is as nearly correct as the available information permits.

The State of Ohio will not be responsible for any variations found during construction. The Lump Sum bid for Item E-9, Removal of Trees and Stumps, shall constitute full payment for this item and no additional compensation will be allowed.

CUT-OFF WALLS

Cut-off Walls, where called for on these plans shall be included in price bid for the respective item of which they are a part.

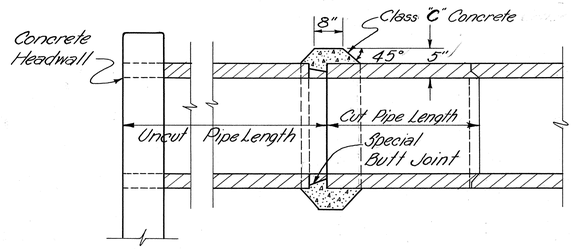
Cut-off walls shall be constructed at the beginning and end of all paved gutters.

ROADWAY

PIPE CUT OFF

When bell and spigot pipe is used any necessary cut-off will be made at the spigot end of the length of pipe adjacent to the end length.

When tongue and groove pipe is used, the length of pipe next to the end length shall be cut and the butt joint formed with a collar as shown below, to be included in the price bid per linear foot of pipe.



ITEM I-15 GUARD RAIL REMOVED AND STORED

In lieu of the provisions of Sec. I-15.08, the guard rail posts shall become the property of the Contractor and shall be disposed of by him.

DUMPED ROCK FILL:

The cost of any additional excavation required for placing dumped rock fill to the lines and grades shown on the plan shall be included in the unit price per cubic yard bid for Item I-10 Dumped Rock Fill, as per plan.

SOD AREAS

All sod areas are to have Commercial Fertilizer (10-6-4) and Agricultural Liming Materials applied at the rate and in the same manner as for the seeded areas in accordance with section L-9.11. The sod bed shall have two (2") inches of loose soil on which sod is laid after excavation for sod thickness.

LOCATION AND SIZE OF EXISTING PIPE

The location, size, type and depth of all existing pipes are shown as near exact as the available information will permit. The State of Ohio will not be responsible for any variations found during construction. Payment for pipe removed will be made according to the listing shown on these plans.

LENGTH OF PIPE SPECIALS

The number of linear feet of pipe to be paid for as pipe specials shall be the assumed length, regardless of the actual length of pipe special used. If actual length of the pipe special used is less than that shown below, the contractor will furnish enough extra pipe to make up the difference between the assumed and the actual length with cost included in price bid for each special. If the actual length of the pipe special used is greater than the assumed length, the extra length of each pipe special, over and above the assumed length shall be paid for as linear feet of pipe.

ITEM NO.	DESCRIPTION	ASSUMED LENGTH OF PIPE SPECIAL
I-4	Pipe Underdrains	2'-0"
I-2	Storm Sewer	4'-0"
S-27	Pipe for Roadway Culverts	4'-0"

ROADWAY

COMPACTION FOR DRIVES

The subgrade for drives and mailbox turnouts paved with T-70 shall be compacted to a depth of six (6) inches to the density requirements of Table III, Item E-1. Payment for subgrade compaction, as specified above, shall be included in the unit price bid for Item E-1 Roadway excavation, as per plan.

DUMPED ROCK FILL

All Dumped Rock, Item I-10 used at the outlet of culverts shall be uniformly placed, and at least 50 per cent of the pieces will weigh at least 75 pounds.

SEEDING QUANTITIES

Quantities for seeding are calculated for the soil areas between lines ten feet (10') outside the construction limits as shown on the cross-sections or to the R/W line if such line is less than ten (10) feet from the construction limits. All areas outside these limits where the vegetative growth has been injuriously disturbed or destroyed by the contractor shall be restored and seeded in accordance with the provisions of Item L-9 by the contractor at his own expense.

SANITARY SEWERS AND DRAINAGE

Existing or proposed sanitary sewers, house sewers or the drainage from such appurtenances to a sewerage system shall not be connected in any manner to the proposed storm sewers, pipe or gutter drains, ditches, or any other portion of the drainage system of this project.

CLEANING PRIVY VAULTS

Privy vaults shall be cleaned and filled with suitable material if they are under the roadway. Material removed from these vaults shall be classified as unsuitable and shall be disposed of by the contractor outside the limits of the Right-of-Way or Easement Lines. The yardage of this material shall be determined by the Engineer and shall be paid for under Item E-1 Roadway Excavation.

PRESERVATION AND RESTORATION OF CORNERSTONES MONUMENTS AND LAND MARKERS

Existing cornerstones, monuments, and land markers within the Right-of-Way of the proposed highway, shall be protected, referenced and preserved or replaced as outlined in section G-7.09 of the Specifications, except that payment to the contractor for work incidental to the installation of cornerstones, monuments, and land markers, shall be included in the unit price bid for Item E-1, Roadway Excavation.

MILE MARKERS

Mile markers within the limits of this project will be removed prior to the beginning of work and replaced after completion of work by the State.

MAINTAINING TRAFFIC (Cont'd from Sh. 10)

At approximate Station 846+85 on proposed southbound lanes a gate type barricade, 35 feet long, as described in standard drawing No G-7.07, shall be erected before any traffic is placed on the southbound lanes in this vicinity by the contractor. The barricade shall be left in place on completion of this contract.

Payment for the barricade specified above and maintenance thereof during the life of the contract is included in the lump sum bid for "Maintaining Traffic".

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

NOTES

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	W.D.J.	W.D.J.	S.E.W.			

SUMMARY OF QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

12/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

SHEET NUMBER

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	10	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	121	133	134	135	135	136	137	138	139	140	141
			DRAINAGE																																
F-2	801	Cu Yds.	Excavation for Structures																							46	471	54	24	3	74	59	45	11	14
F-3	117	Cu Yds.	Channel Excavation																												6	111			
I-2	500	Lin. Ft.	8" Class A	500																															
I-2	500	Lin. Ft.	8" Class A under pavement	500																															
I-2	200	Lin. Ft.	10" Class A	200																															
I-2	200	Lin. Ft.	10" Class A under pavement	200																															
I-2	44	Lin. Ft.	12" Class B				38	6																											
I-2	1420	Lin. Ft.	12" Class B under pavement		190	72	57	78						129	86	102	18	233	79	68	77	80	144	7											
I-2	46	Lin. Ft.	Storm Sewer Sec. M-6.4(c) (12")		20														26																
I-3	26	Lin. Ft.	8" Roadway Drainage																					26											
I-3	106	Lin. Ft.	18" Roadway Drainage									106																							
I-3	58	Lin. Ft.	30" Roadway Drainage																	58															
I-3	76	Lin. Ft.	18" Roadway Drainage with Shallow Cover									76																							
I-4	24	Lin. Ft.	6" Pipe outlet for Underdrains				24																												
I-4	4662	Lin. Ft.	6" (Shallow) Underdrains	500	168	998	930			290			125	1300	232							119													
I-4	12354	Lin. Ft.	6" (Deep) Underdrains			449	1609			110	1000	100		841	323	1986	2802	484		200	1000	750	1300												
I-4	108	Lin. Ft.	8" Pipe Outlet for Underdrains							10					20	10		10				20					18	20							
I-4	50	Lin. Ft.	10" (Shallow) Underdrains																													50			
I-5	1	Each	30"x12"x8" Cross for Rdwy Culv.																								1								
I-5	4	Each	6"x 30° Bend for Underdrains.				4																												
I-5	1	Each	8" 45° Bend for Underdrains.																									1							
I-5	14	Each	6"x 45° Bend for Underdrains.		3-A 1					1				2	2	3	1	1				3													
I-5	1	Each	8" 60° Bend for Underdrains.																								1								
I-5	4	Each	6" x 45° Y Branch for Underdrains.												1	1	1	1																	
I-5	1	Each	Pipe Special 12"x 30° Fill Sec. M-6.4(c) Storm S.																1																
I-5	1	Each	12"x 6" Tee, Storm Sewer Under pavt.												1																				
I-5	1	Each	18"x 12" Tee for Rdwy Culv.																							1									
I-5	1	Each	6"x 6" Tee for Underdrains.				1																												
I-8	2	Each	No 3-A, Catch Basin				1										1																		
I-8	24	Each	No 2-2-A Catch Basin (Mod)		1	2	2	2				1		2	1	1		3	1	1	1	1	2	1			1	1							
I-8	3	Each	No 6 Catch Basin				1											2																
Special	1	Each	Concrete Flume.														1																		
I-8	1	Each	Catch Basin Adjusted to grade			1																													
I-8	1	Each	No 2-3 Catch Basin, as per plan																								1								
I-10	62	Sq. Yds.	Rip Rap Type A																											62					
I-10	151	Cu Yds	Dumped Rock Fill				22												52	38											20		7	12	
I-14	210	Lin Ft.	Paved Gutter Type 1-A	10	10	20	20							20	10	10		30	10	10	10	10	20	10				10							
I-14	12	Lin Ft.	Paved Gutter Type 1-B														12																		
I-14	1103	Lin Ft.	Paved Gutter Type 1-C				69	593			35							40	212	130											24				
I-14	40	Lin. Ft.	Paved Gutter Type 1-E																												40				
I-14	148	Lin. Ft.	Paved Gutter Type 1-F		88		60																												
I-10	16840	Sq. Yds.	Sodding	329	127	34	395	1447	1087	1195	164	54	57	276	30	298	943	1486	2064	2453	2042	176	1485	675	6		3				14				
S-1	1.92	Cu. Yds.	Concrete for Structures Class C.													0.65																	1.27		
S-1	22.19	Cu. Yds.	Concrete for Structures Class E.			0.23		0.23				0.80		0.46	0.23			0.69	0.23	0.23	0.23	0.23	0.46			0.60	0.51	0.30	0.26	0.53	0.51	3.44	0.82	10.06	1.04
S-4	155	Pounds	Reinforcing Steel													20															27		31	77
S-22	Lump	Lump	Removal of Portions of Existing Structure																										Lump	Lump	Lump		Lump		
S-23	33.5	Lin. Ft.	Dowel Holes 1¼"																												9		11	13.5	
S-24	Lump	Lump	Removal of Existing Structures				Lump				Lump	Lump														Lump	Lump								
S-27	54	Lin. Ft.	15" Pipe for Roadway Culverts																									54							
S-27	218	Lin. Ft.	18" Pipe for Roadway Culverts																							108		84		26					
S-27	82	Lin. Ft.	24" Pipe for Roadway Culverts																													82			
S-27	328	Lin. Ft.	30" Pipe for Roadway Culverts																								328								
S-27	70	Lin. Ft.	36" Pipe for Roadway Culverts																															70	
S-27	148	Lin. Ft.	48" Pipe for Roadway Culverts																											148					
S-27	82	Lin. Ft.	65"x 40" Pipe Arch for Rdwy. Culvert (Bgs)																												82				
S-28	94	Lin. Ft.	6'-1"x 4'-7" Sectional Corrugated Metal Structure (Bgs)																														94		

SUMMARY OF QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

13/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

| SHEET NUMBER | | |

PAVEMENT CALCULATIONS

See Sheet no.	STATION TO STATION TYPICAL SECTION CALCULATIONS etc.	I-18 Subl. Cr. Payne for Shoulders & Approaches 6" Sq. Yds.	I-22 SUBBASE Average Depth 6" Sq. Yds.	6 1/8" Sq. Yds.	6 1/4" Sq. Yds.	6 5/8" Sq. Yds.	10" Sq. Yds.	B-35 Asphaltic Concrete Leveling Course 1 1/4" Sq. Yds.	1 1/2" Sq. Yds.	2" Sq. Yds.	0" Min. 3" Aver. Cu. Yds.	B-35 Asphaltic Concrete Base Course 3" Sq. Yds.	T-30 Bituminous Prime Coat @ 0.25 gal per Sq. Yd. Sq. Yds.	T-30 Bituminous Tack Coat @ 0.10 gal per Sq. Yd. Sq. Yds.	T-35 1½" Min. Asphaltic Conc. Surface Course 1½" Avg. Sq. Yds.	T-35 Asphaltic Conc. Surface Course 1 1/4" Sq. Yds.	B-70 Portland Cement Conc Base Course 10" Sq. Yds.	T-10 Portland Cement Conc Pvt. 7" Sq. Yds.	T-10 Portland Cement Conc Pvt. 8" Sq. Yds.	T-11 Reinforced Portland Cement Concrete Pavement 9" Sq. Yds.
	810+61.75 To 816+00 (Southbound) 538.25 L.F.																			
	538.25 x 24 ÷ 9														1435.33					
	8948.12 sq ft ÷ 9							994.24												
	9082.68 sq ft ÷ 9											1009.19								
	9217.25 sq ft ÷ 9											1024.14								
	538.25 x 29.57 ÷ 9						1768.45													
	538.25 x 4 ÷ 9	239.22																		
	Material for Correcting Crown										54.97									
	TYPICAL SECTION "H" (Southbound) 300.00 L.F.																			
	300 x 24 ÷ 9							800.00								800.00				
	300 x 24.30 ÷ 9											816.67								
	300 x 25 ÷ 9											833.33								
	300 x 37.74 ÷ 9						1258.00													
	300 x 4 ÷ 9	133.33																		
	TYPICAL SECTION "G" (Southbound) 149.28 L.F.																			
	1492.81 x 24 ÷ 9																			3980.83
	1492.81 x 27.58 ÷ 9			4574.63																
	1492.81 x 4 ÷ 9	663.47																		
	LEFT ½ of TYPICAL SECTION "E" (S.B.) 516.41 L.F.																			
	516.41 x 24 ÷ 9																			1377.09
	516.41 x 27.58 ÷ 9				1582.51															
	516.41 x 4 ÷ 9	229.52																		
	810+83.39 To 825+50 (Northbound) 1466.41 L.F.																			
	1466.41 x 24 ÷ 9														3910.45					
	12,230.83 ÷ 9							1358.98												
	12,594.33 ÷ 9											1399.44								
	12,959.03 ÷ 9											1439.89								
	1466.41 x 19.37 ÷ 9						3156.04													
	Material for correcting crown & Superelevation										144.52									
	1466.41 x 4 ÷ 9	651.74																		
	TYPICAL SECTION "H" (Northbound) 889.84 L.F.																			
	889.84 x 24 ÷ 9							2372.91								2372.91				
	377.59 x 24.50 ÷ 9											1027.88								
	512.25 x 24.50 ÷ 9											1380.23								
	377.59 x 25 ÷ 9											1048.86								
	512.25 x 24.50 ÷ 9											1394.46								
	377.59 x 28.08 ÷ 9						1178.08													
	512.25 x 30.58 ÷ 9						1740.51													
	377.59 x 4 ÷ 9	167.82																		
	835+31.12 To 839+80.54 (Northbound) 449.42 L.F.																			
	449.42 x 24 ÷ 9														1198.45					
	449.42 x 7.58 ÷ 9											378.51								
	449.42 x 7.83 ÷ 9											391.00								
	449.42 x 10.11 ÷ 9						504.85													
	449.42 x 4 ÷ 9	199.74																		
	Material for correcting crown & Superelevation										65.85									
	TYPICAL SECTION "A" 2256.36 L.F.																			
	2256.36 x 24 ÷ 9														6016.96					6016.96
	217000 x 37.74 ÷ 9					9099.53														
	86.36 x 27.58 ÷ 9					264.63														
	2256.36 x 8 ÷ 9	2005.65																		
	TYPICAL SECTION "E" 2183.33 L.F.																			
	2183.33 x 24 ÷ 9														5822.21					5822.21
	Material for correcting superelevation										608.00									
	1393.64 x 27.58 ÷ 9				4270.73															
	789.69 x 37.74 ÷ 9				3311.43															
	2183.33 x 8 ÷ 9	1940.74																		
	TYPICAL SECTION "A" 985.31 L.F.																			
	985.31 x 24 ÷ 9														2627.49					2627.49
	985.31 x 37.74 ÷ 9					4131.73														
	985.31 x 8 ÷ 9	875.83																		
	TYPICAL SECTION "D" 170.99 L.F.																			
	170.99 x 24 ÷ 9														455.97					455.97
	Material for correcting superelevation										12.00									
	170.99 x 27.58 ÷ 9			523.99																
	170.99 x 10 ÷ 9	151.99																		
	TYPICAL SECTION "C" 1129.01 L.F.																			
	1129.01 x 24 x 2 ÷ 9																			6021.39
	112901 x 27.58 ÷ 9			3113.81																
	875.00 x 27.58 ÷ 9				2681.39															
	254.01 x 37.74 ÷ 9				1065.15															
	1129.01 x 8 ÷ 9	1003.57																		
	TYPICAL SECTION "F" 325.00 L.F.																			
	325.00 x 24 x 2 ÷ 9																			1733.33
	325.00 x 37.74 ÷ 9					2725.67														
	325.00 x 8 ÷ 9	288.89																		
	TYPICAL SECTION "B" 3350.00 L.F.																			
	3350.00 x 24 ÷ 9														8933.33					8933.33
	2199.00 x 29.16 ÷ 9				7124.76															
	28.00 x 27.58 ÷ 9					85.80														
	1123.00 x 37.74 ÷ 9					4709.11														
	3350.00 x 8 ÷ 9	2977.78																		
	TYPICAL SECTION "E" 1,325 L.F.																			
	1325.00 x 24 ÷ 9														3533.33					3533.33
	Material for correcting superelevation										162.00									
	1325.00 x 37.74 ÷ 9				5556.17															
	1325.00 x 8 ÷ 9	1177.78																		
	TYPICAL SECTION "B" 2275.00 L.F.																			
	2275.00 x 24 ÷ 9														6066.67					6066.67
	613.00 x 29.16 ÷ 9				1986.12															
	1662.00 x 37.74 ÷ 9					6969.32														
	2275.00 x 8 ÷ 9	2022.22																		
	TYPICAL SECTION "D" 1350.00 L.F.																			
	1350.00 x 24 ÷ 9														3600.00					3600.00
	Material for correcting superelevation										59.00									
	1350.00 x 27.58 ÷ 9			4137.00																
	1350.00 x 8 ÷ 9	1200.00																		
	TYPICAL SECTION "B" 1058.05																			
	1058.05 x 24 ÷ 9														2821.47					2821.47
	1058.05 x 37.74 ÷ 9					4436.76		315325												
	1058.05 x 8 ÷ 9	940.49																		
13	Transferred From Summary of Quantities	11,068.56	4,653.85				1,765.02	3153.25	2413.96	1852.29	1239.97	9159.20	1592.73	1978.34	3568.16	7157.11	1845	698.36	1352.78	9681.17
	1844.76 C.Y. x 6 =																			
	TOTALS	27,938.34	4,653.85	12,349.43	27,578.26	32,422.57	11,370.95	8679.38	2413.96	1852.29	1236.71	15,302.80	1592.73	1978.34	49989.82	10,330.02	1845	698.36	1352.78	62871.24
	Conversion To Cu Yds., Gal. etc.	4656 C.Y.	2443 C.Y.	2102 C.Y.	4788 C.Y.	5967 C.Y.	3159 C.Y.	301.4 C.Y.	100.6 C.Y.	102.9 C.Y.	1236.71 C.Y.	1275.3 C.Y.	558 Gal.	198 Gal.	2082.9 C.Y.	358.7 C.Y.	1845 S.Y.	698.36 S.Y.	1352.78 S.Y.	62871.24 S.Y.
	TOTALS	4656			18459 Cu. Yds.			1742. Cu. Yds.				1276	558	198	2442	Cu. Yds.	1845	699	1353	62872

PAVEMENT CALCULATIONS

ROSS COUNTY
ROS-23-(15.37)(16.01)

FED. NO. DIVISION	STATE	PROJECT
2	OHIO	

14
177

SUMMARY OF QUANTITIES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

15/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

EXCAVATION AND EMBANKMENT

See Sheet Number	Station to Station Locations, Calculations etc.	E-1 Roadway Excavation	Roadway Embankment	Roadway Embankment +20 %	E-4 Borrow	E-1 Compacted Subgrade	E-11 Water
		Cu. Yds.	Cu. Yds.	Cu. Yds.	Cu. Yds.	Sq. Yds.	M. Gals.
	808+32 to 1008+58.05	171,392	211,281	253,537	81,945	92,168	1,267.7
	Embankment 253,537×.5÷1000						
	I-18 ×3118×8÷1000						25.0
	I-22 18,459×8÷1000						147.7
	TF-10+8" F-70+9" F-71+13" I-7						
	TOTALS	171,392 Cu.Yds.	211,281 Cu.Yds.	253,537 Cu.Yds.	81,945 Sq.Yds.	92,168 Sq.Yds.	1441 M.Gals.

EROSION CONTROL

See Sheet Number	Station to Station Location, Calculations, etc.	L-9 Seeding and Protecting	L-9 Commercial Fertilizer (10-6-4)	L-9 Agricultural Liming Materials			
		Sq. Yds.	Tons	Tons			
	808+32 to 1008+58.05	310,543					
	310,543×9×20÷2000÷1000		27.95				
	310,543×9×100÷2000÷1000			139.75			
12	Sodding Area, 16,858 sq.yd.		1.52	7.59			
	TOTALS	310,543	29.47 Tons	147.34 Tons			

AGGREGATE FOR MAINTAINING TRAFFIC

See Sheet Number	Station to Station Location, Calculations, etc.	Length Requiring Temporary Pavement	T-10 Traffic Compacted Surface Course	M-10 Calcium Chloride	
		Lin. Ft.	Cu. Yds.	Tons	
	815+44 - 817+44	200	300	6	
	842+50 - 844+50	200	300	6	
	907+00 - 915+00	800	1200	24	
	TOTAL		1800	36	

E-9 REMOVAL OF TREES AND STUMPS

See Sheet Number	Station to Station	E-9 Lump	
		Lump	
	808+32 to 1008+58.05	Lump	

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUMMARY OF QUANTITIES

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G.	W.A.J. D.J.M.		S.E.W.			

GENERAL SUMMARY

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
			ROADWAY
E-1	171,592	Cu. Yds.	Roadway Excavation, as per plan
E-1	67,446	Sq. Yds.	Compacted Subgrade
E-4	81,945	Cu. Yds.	Borrow
E-8	9,717	Sq. Yds.	Removal and Disposal of Existing Pavement
E-8	233	Sq. Yds.	Removal and Disposal of Existing Bituminous Wearing Course
E-9	Lump	Lump	Removal of Trees and Stumps
E-11	1441	M. Gal	Water
E-12	2315	Lin. Ft.	Pipe Removed, 15" and Under
E-12	76	Lin. Ft.	Pipe Removed, Over 15"
E-12	789	Lin. Ft.	12" Pipe Removed for Storage
E-12	18	Lin. Ft.	15" Pipe Removed for Storage
E-12	107	Lin. Ft.	24" Pipe Removed for Storage
E-12	133	Lin. Ft.	30" Pipe Removed for Storage
I-15	1,941	Lin. Ft.	Guard Rail Removed and Stored, as per plan
I-15	6,511	Lin. Ft.	Guard Rail Steel Beam Type (Deep)
I-16	4	Each	Catch Basins or Inlets Abandoned.
S-24	Lump	Lump	Removal of Existing Structures
I-18	4656	Cu. Yds.	Stabilized Crushed Aggregate Shoulders and Approaches
L-9	310,543	Sq. Yds.	Seeding and Protecting
L-9	29.47	Tons	Commercial Fertilizer (10-6-4)
L-9	147.34	Tons	Agricultural Liming Materials
Special	3	Each	Single Pole Overhead Sign Assemblies, Type A
L-10	16,858	Sq. Yds.	Sodding
Special	2	Each	Well Abandoned and Capped.
T-10	1,800	Cu. Yds.	Traffic Compacted Surface Course for Maintaining Traffic
M-10	36	Tons	Calcium Chloride or Calcium Magnesium Chloride furnished and applied for Maintaining Traffic.
			DRAINAGE
E-2	801	Cu. Yds.	Excavation for Structures.
E-3	117	Cu. Yds.	Channel Excavation
I-1	633	Lin. Ft.	12" Pipe for Driveways, Sec. M-6.4(a)
I-1	142	Lin. Ft.	15" Pipe for Driveways, Sec. M-6.4(a)
I-1	175	Lin. Ft.	18" Pipe for Driveways, Sec. M-6.4(a)
I-1	92	Lin. Ft.	24" Pipe for Driveways, Sec. M-6.4(a)
I-1	129	Lin. Ft.	30" Pipe for Driveways.
I-2	500	Lin. Ft.	8" Class "A" Storm Sewers.
I-2	500	Lin. Ft.	8" Class "A" Storm Sewers under Pavement or Approaches, Sec. M-6.5(b) or Sec. M-6.8(b)
I-2	200	Lin. Ft.	10" Class "A" Storm Sewers.
I-2	200	Lin. Ft.	10" Class "A" Storm Sewers under Pavement or Approaches, Sec. M-6.5(b) or Sec. M-6.8(b)
I-2	44	Lin. Ft.	12" Class "B" Storm Sewers.
I-2	1420	Lin. Ft.	12" Class "B" Storm Sewers under Pavement or Approaches
I-2	46	Lin. Ft.	12" Storm Sewers, Sec. M-6.4(c)
I-3	26	Lin. Ft.	8" Roadway Drainage
I-3	106	Lin. Ft.	18" Roadway Drainage
I-3	76	Lin. Ft.	18" Roadway Drainage with Shallow Cover
I-3	58	Lin. Ft.	30" Roadway Drainage with Shallow Cover
I-4	24	Lin. Ft.	6" Outlets for Underdrains, Sec. M-6.4(b) without Perforations
I-4	4662	Lin. Ft.	6" Underdrains (Shallow)
I-4	12,954	Lin. Ft.	6" Underdrains (Deep)
I-4	108	Lin. Ft.	8" Outlets for Underdrains, Sec. M-6.4(a)
I-4	50	Lin. Ft.	10" Underdrains (Shallow)
I-5	23	Each	6" Pipe Specials for Underdrains
I-5	2	Each	8" Pipe Specials for Underdrains
I-5	1	Each	Pipe Specials 30", for Roadway Culverts.
I-5	1	Each	Pipe Special 12", for Class "B" Storm Sewers Under Pavement or Approaches
I-5	1	Each	Pipe Special 18", for Roadway Culverts.
I-5	1	Each	12" Bituminous Coated Corrugated Metal Pipe Special, Sec. M-6.4(c), for Storm Sewers
I-8	2	Each	Standard Number 3-A Catch Basins.
I-8	24	Each	Standard Number 2-2-A Catch Basins Modified as per plan
I-8	3	Each	Standard Number 6 Catch Basins
I-8	1	Each	Standard Number 2-3 Catch Basins, Modified as per plan
Special	1	Each	Concrete Flume, as per plan.
I-8	1	Each	Catch Basins Adjusted to grade
I-9	4875	Lin. Ft.	Stone Underdrains No 2

FED. RD. DIVISION 2 | STATE OHIO | PROJECT

ROSS COUNTY
ROS-23-5.37(16.01)

16
111

GENERAL SUMMARY

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
			DRAINAGE (CONT.)
I-10	62	Sq. Yds.	Rip Rap Type "A"
I-10	151	Cu. Yds.	Dumped Rock Fill, as per plan
I-14	210	Lin. Ft.	Paved Gutter Type 1-A, as per plan.
I-14	12	Lin. Ft.	Paved Gutter Type 1-B, as per plan.
I-14	1135	Lin. Ft.	Paved Gutter Type 1-C, as per plan.
I-14	40	Lin. Ft.	Paved Gutter Type 1-E, as per plan.
I-14	148	Lin. Ft.	Paved Gutter Type 1-F, as per plan.
S-1	1.9	Cu. Yds.	Concrete for Structures Class "C"
S-1	22.2	Cu. Yds.	Concrete for Structures Class "E"
S-4	155	Lbs.	Reinforcing Steel
S-22	Lump	Lump	Removal of Portions of Existing Structures
S-23	34	Lin. Ft.	Dowel Holes
S-24	Lump	Lump	Removal of Existing Structures
S-27	54	Lin. Ft.	15" Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8(b)
S-27	218	Lin. Ft.	18" Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8(b)
S-27	82	Lin. Ft.	24" Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8(b)
S-27	328	Lin. Ft.	30" Pipe for Roadway Culverts, Sec. M-6.6(b) or Sec. M-6.8(b)
S-27	70	Lin. Ft.	36" Pipe for Roadway Culverts
S-27	148	Lin. Ft.	48" Pipe for Roadway Culverts
S-27	82	Lin. Ft.	65"X40" Paved Bituminous Coated Corrugated Metal Arch with Integral Base, Sec. M-6.4(d)(i), for Roadway Culverts, 8 Gage
S-28	94	Lin. Ft.	6'-1"X4'-7" Sectional Corrugated Metal Structure(10-10gage), Sec. M-6.4(g).
			PAVEMENT
B-35	1,742	Cu. Yds.	Asphaltic Concrete Leveling Course (70-80)
B-35	1,276	Cu. Yds.	Asphaltic Concrete Base Course (70-80)
B-70	1845	Sq. Yds.	10" Portland Cement Concrete Base Course
B-119	135	Cu. Yds.	Crushed Aggregate Base Course, as per plan
I-7	356	Sq. Yds.	Reinforced Concrete Approach Slabs (T=13")
I-12	811	Lin. Ft.	Standard Concrete Curb Type 2-A
I-12	1,590	Lin. Ft.	Standard Combination Curb and Gutter Type 2
I-12	381	Lin. Ft.	Standard Combination Curb and Gutter Type 2, Modified as per plan.
I-12	1,072	Lin. Ft.	Concrete Header Curb, as per plan
I-21	120	Sq. Yds.	Portland Cement Concrete Median Pavement Type 2
I-21	50	Sq. Yds.	Portland Cement Concrete Median Pavement Type 2, Modified as per plan.
I-22	18,459	Cu. Yds.	Subbase
I-23	10	Each	Precast White Portland Cement Concrete Traffic Dividers
T-30	198	Gals.	Bituminous Tack Coat, as per plan.
T-30	558	Gals.	Bituminous Prime Coat Sec. M-5.2, RC-1 or RC-2, or M-5.7 RT-2 or RT-3
T-35	2,442	Cu. Yds.	Asphaltic Concrete Surface Course (70-80) Type "C"
T-70	699	Sq. Yds.	7" Portland Cement Concrete Pavement
T-70	1,353	Sq. Yds.	8" Portland Cement Concrete Pavement
T-71	62,872	Sq. Yds.	9" Reinforced Portland Cement Concrete Pavement

STRUCTURES OVER 20 FOOT SPAN, SEE SHEETS 143 AND 157

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

ROSS COUNTY
ROS-23-(15.37)(16.01)

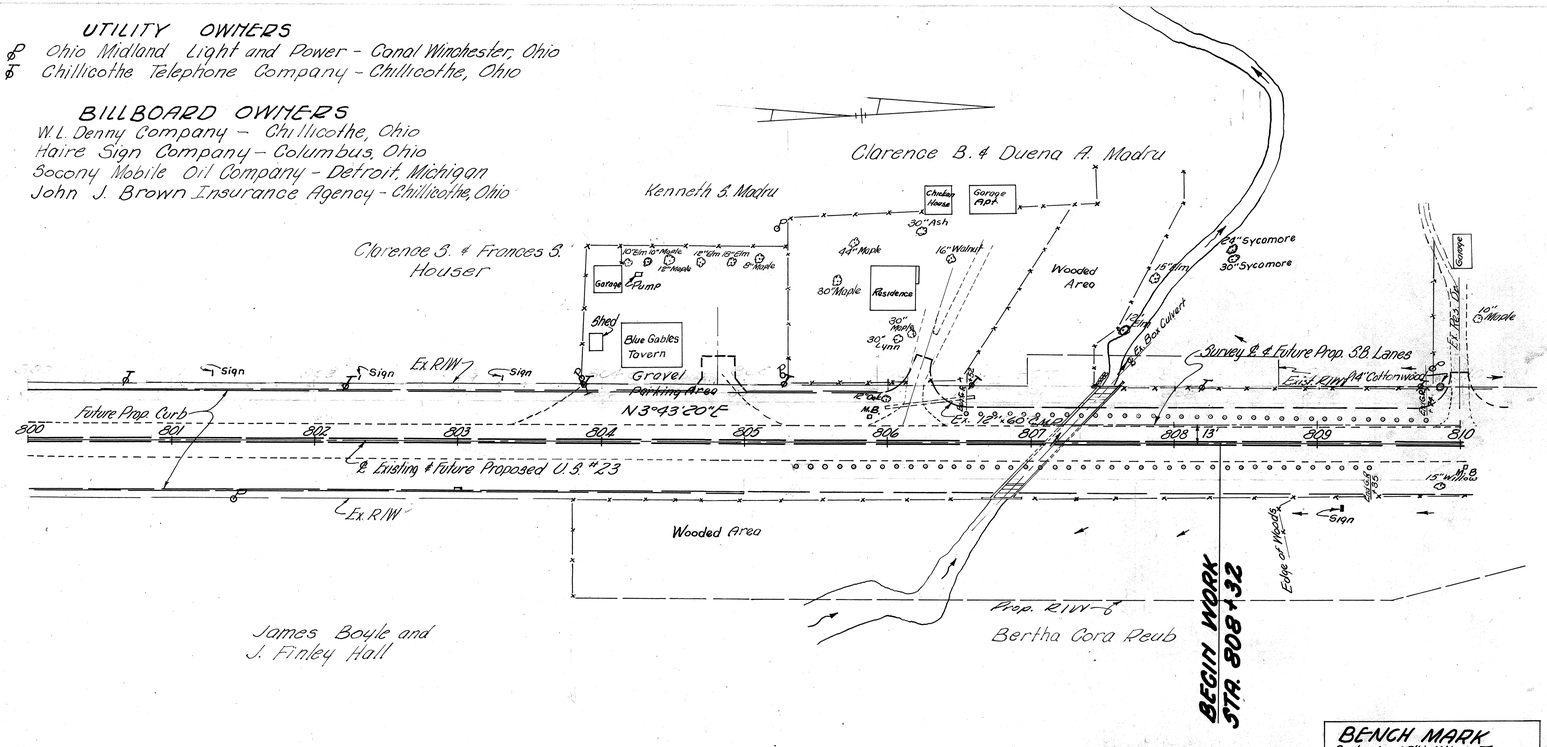
ROSS COUNTY
ROS-23-(15.37)(16.01)

UTILITY OWNERS

℄ Ohio Midland Light and Power - Canal Winchester, Ohio
℄ Chillicothe Telephone Company - Chillicothe, Ohio

BILLBOARD OWNERS

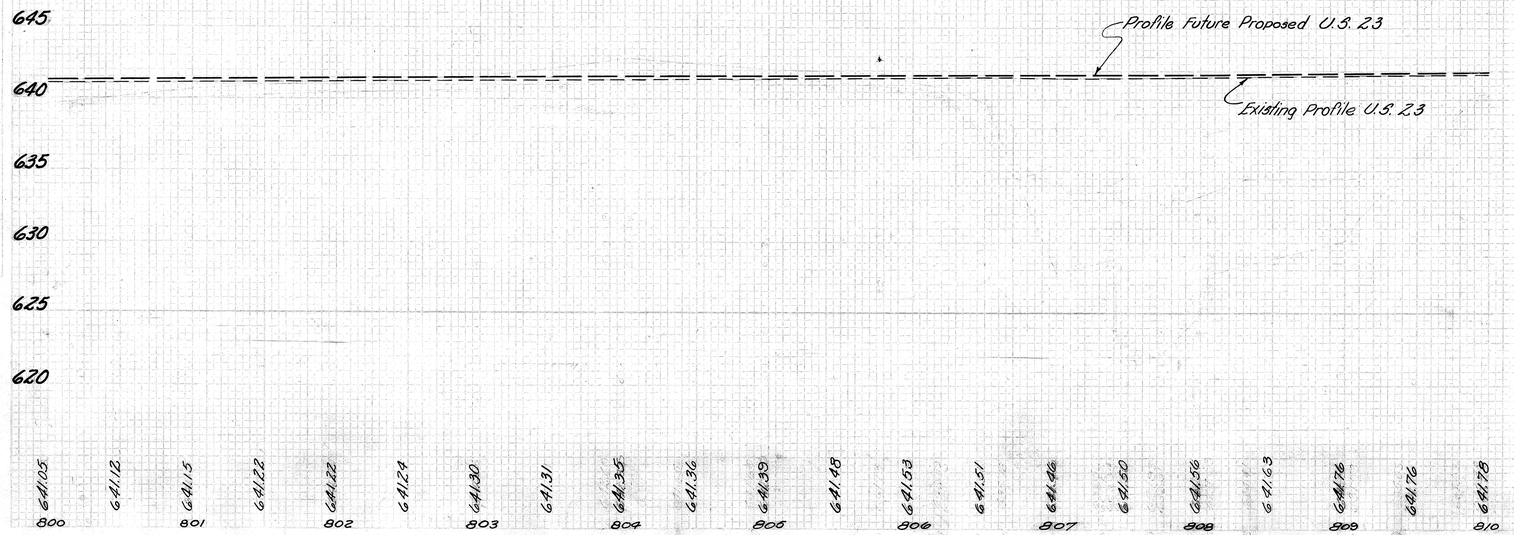
W.L. Denny Company - Chillicothe, Ohio
Haire Sign Company - Columbus, Ohio
Socony Mobile Oil Company - Detroit, Michigan
John J. Brown Insurance Agency - Chillicothe, Ohio



BENCH MARK
Spike in 15" Willow Tree
30' Rt. of ℄ Sta 809+84
Elev. 641.29

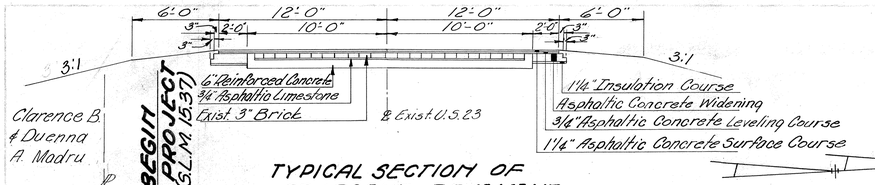
641.24 641.27 641.29 641.31 641.33 641.35 641.37 641.39 641.40 641.41 641.42 641.43 641.44 641.45 641.46 641.48 641.50 641.52 641.54 641.56 641.58 641.60 641.62 641.64 641.65 641.66 641.67 641.68 641.69 641.70 641.71 641.72 641.74 641.76 641.79 641.83 641.88 641.92 641.95 641.97 641.98

NOTE: All elevations shown are with reference to U.S.G.S. Datum. Profile shown is crown of proposed pavement except on superelevated sections.



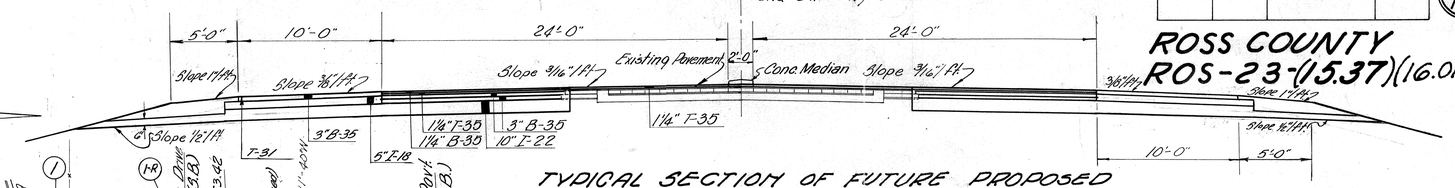
STA. 800+0 TO STA. 810+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



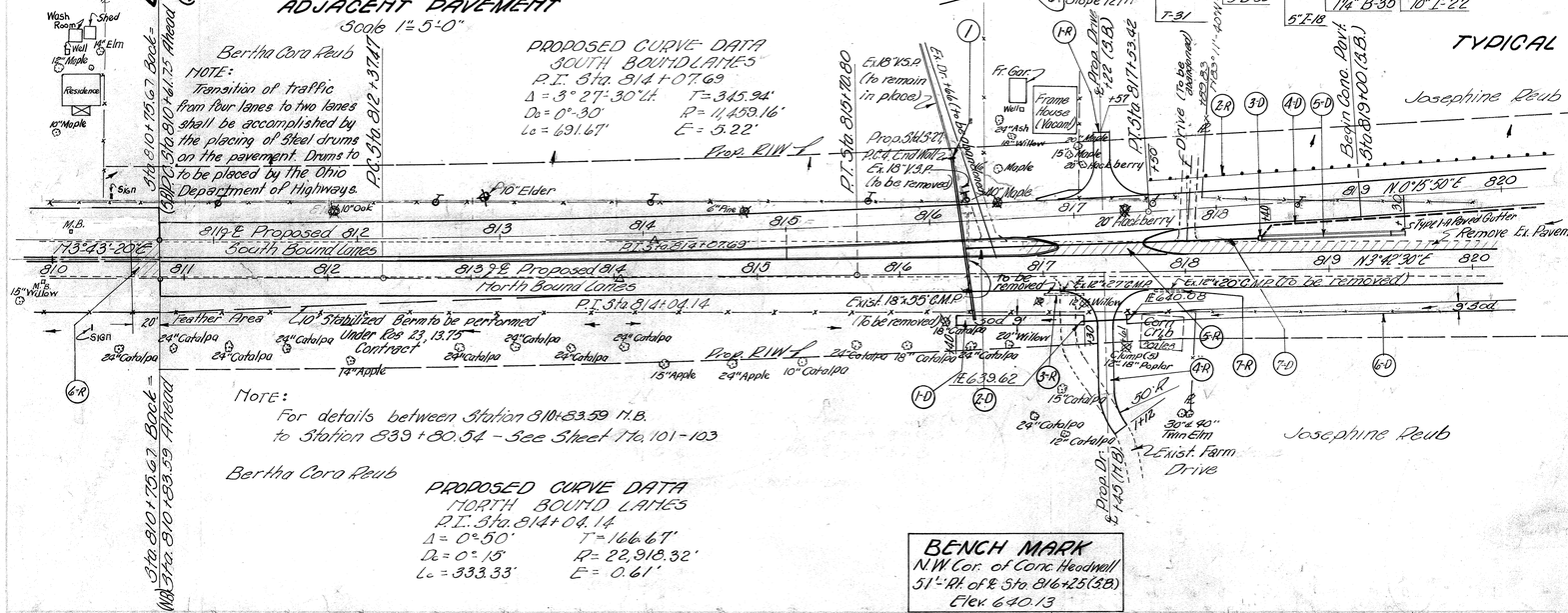
TYPICAL SECTION OF ADJACENT PAVEMENT

Scale 1"=5'-0"

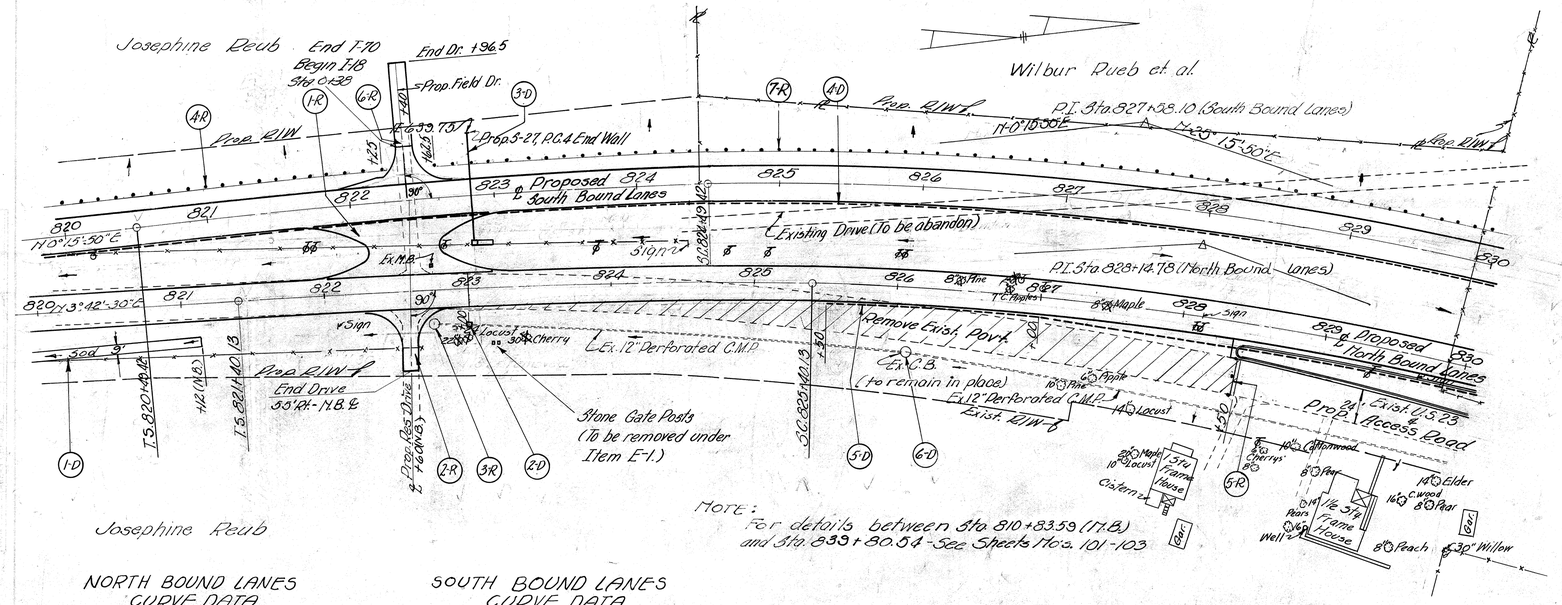


TYPICAL SECTION OF FUTURE PROPOSED U.S. 23 AT BEGIN PROJECT

Scale 1"=5'-0"


Clarence B. & Duenna A. Modru
BEGIN PROJECT (S.L.M. 15.37)
Sta 810+75.67 Back = Sta 810+61.75 Ahead
Sta 810+83.59 Ahead = Sta 810+75.67 Back
Wash Room
Shed
Well
Elm
Maple
Residence
10" Maple
Bertha Cora Reub
NOTE:
Transition of traffic from four lanes to two lanes shall be accomplished by the placing of steel drums on the pavement. Drums to be placed by the Ohio Department of Highways.
PC Sta 812+37.47
PROPOSED CURVE DATA
SOUTH BOUND LANES
P.I. Sta. 814+07.69
Δ = 3°27'.30" Lt.
D = 0°-30'
Lc = 691.67'
T = 345.94'
R = 11,459.16'
E = 5.22'
Prop. ℄ W
10" Oak
10" Elder
6" Pine
Prop. 8"W.L.
Prop. 8"S.L.
M.B.
813+43.20 ℄
812 ℄ Proposed 812 South Bound Lanes
813 ℄ Proposed 814 North Bound Lanes
PT Sta 814+07.69
Exist. 18"x35" C.M.P. to be removed
Exist. 18" Willow
Exist. 20" Willow
Exist. 15" Willow
Exist. 12" Willow
Exist. 20" Willow
Exist. 18" Catalpa
Exist. 20" Catalpa
Exist. 15" Catalpa
Exist. 12" Catalpa
Exist. 10" Catalpa
Exist. 15" Apple
Exist. 24" Apple
Exist. 14" Apple
Exist. 10" Catalpa
Exist. 24" Catalpa
Exist. 24" Catalpa
Exist. 24

ROSS COUNTY
ROS-23-(15.37)(16.01)



NOTE: For details between Sta. 810+83.59 (N.B.) and Sta. 833+80.54 - See Sheets Nos. 101-103

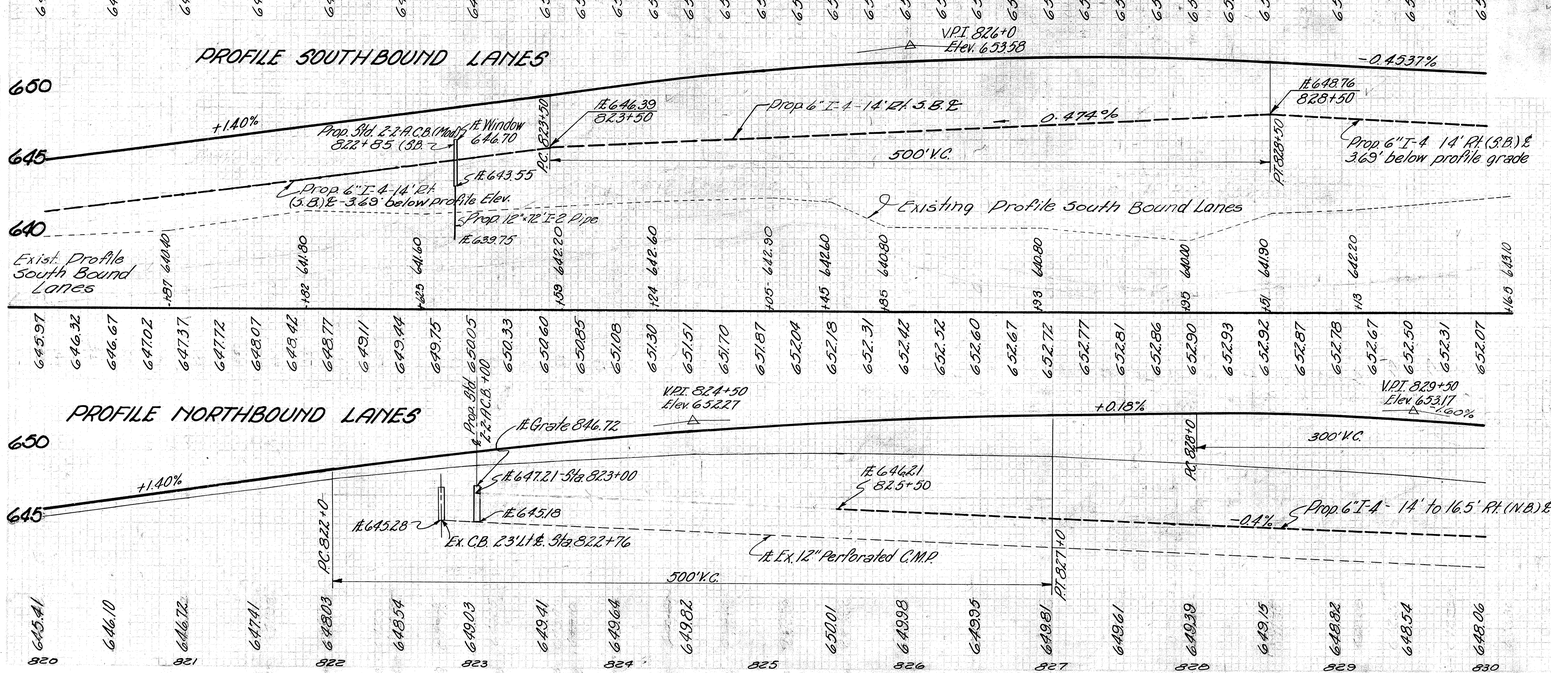
NORTH BOUND LANES CURVE DATA

Δ = 23°22'30" Rt.	P_c = 2.91'
D_c = 2°30'	K = 199.95'
R_c = 2,291.83'	X_c = 399.70'
L_c = 535.00'	Y_c = 11.63'
Δ_c = 13°22'30"	T_c = 274.65'
Θ_s = 5°00'	E_s = 51.49
L_s = 400.00'	

SOUTH BOUND LANES CURVE DATA

Δ = 25°00'00" Rt.	P_c = 2.91'
D_c = 2°30'	K = 199.95'
R_c = 2,291.83'	X_c = 399.70
L_c = 600.00'	Y_c = 11.63'
Δ_c = 15°00'	T_c = 308.68
Θ_s = 5°00'	E_s = 58.60
L_s = 400.00'	

BENCH MARK
Spike in ℄ 144 Rt. & Sta. 828+60 (S.B.)
Elev. 644.17

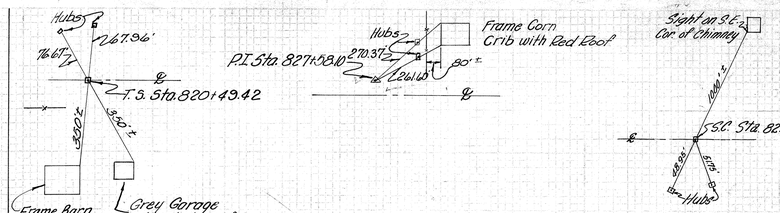


ROADWAY

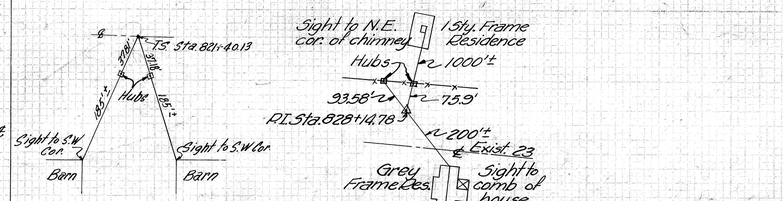
Reference Number	See Sheet Number	Station to Station	Side	I-15 Guard Rail Steel Beam Type Deep Catch Basin Abandoned	I-16	I-19 Filling Approx. for Shoulders & Approaches	I-22 Subbase 6"	B-35 Asphaltic Conc. Leveling Course 1⅛"	T-35 Surface Course 1¼"	T-70 Cement Conc. Pavt. Portland Cement 7"	T-71 Cement Conc. Pavt. Portland Cement 9"	E-12 Pipe Removed 12"
				Lin.Ft.	Each	Cu.Yds.	Sq.Yds.	Sq.Yds.	Sq.Yds.	Sq.Yds.	Sq.Yds.	
1-R	20	822+60 (N.B.)	Lt.				273.78				273.78	
2-R	20	822+60 (N.B.)	Rt.			16.51		92.70	92.70			
3-R	20	822+76 - 823+00 (N.B.)	Rt.		1							24
4-R	20	820+00 - 822+25 (S.B.)	Lt.	225								
5-R	20	828+48 (Access Rd.)	℄	25								
6-R	20	822+40 (S.B.)	Lt.			13.02				80.25		
7-R	20	822+62.5 - 830+00 (S.B.)	Lt.	750.5								
		TOTAL		1000.5	1	29.53	273.78	92.70	92.70	80.25	273.78	24

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer Class A, Under Pavt. 12"	I-4 Underdrains Shallow 6"	I-4 Underdrains Deep 6"	I-8 Catch Basin Std. 19.2 A (Mod.)	I-14 Manhole Cover Type 1-A	L-10 Sodding	S-1 Conc. for Structures Class E	I-8 Catch Basin Adjusted to grade
				Lin.Ft.	Lin.Ft.	Lin.Ft.	Each	Lin.Ft.	Sq.Yds.	Cu.Yds.	Each
1-D	20	820+00 (S.B.) - 821+12 (N.B.)	Rt.						112		
2-D	20	823+00 (N.B.)	Rt.				1				
3-D	20	822+85 (S.B.)	Lt. & Rt.	72			1	10	15	0.23	
4-D	20	820+00 - 830+00 (S.B.)	Rt.		998						
5-D	20	825+50 - 830+00 (N.B.)	Rt.			449					
6-D	20	826+10 (N.B.)	Rt.								1
		TOTAL		72	998	449	2	10	127	0.23	1

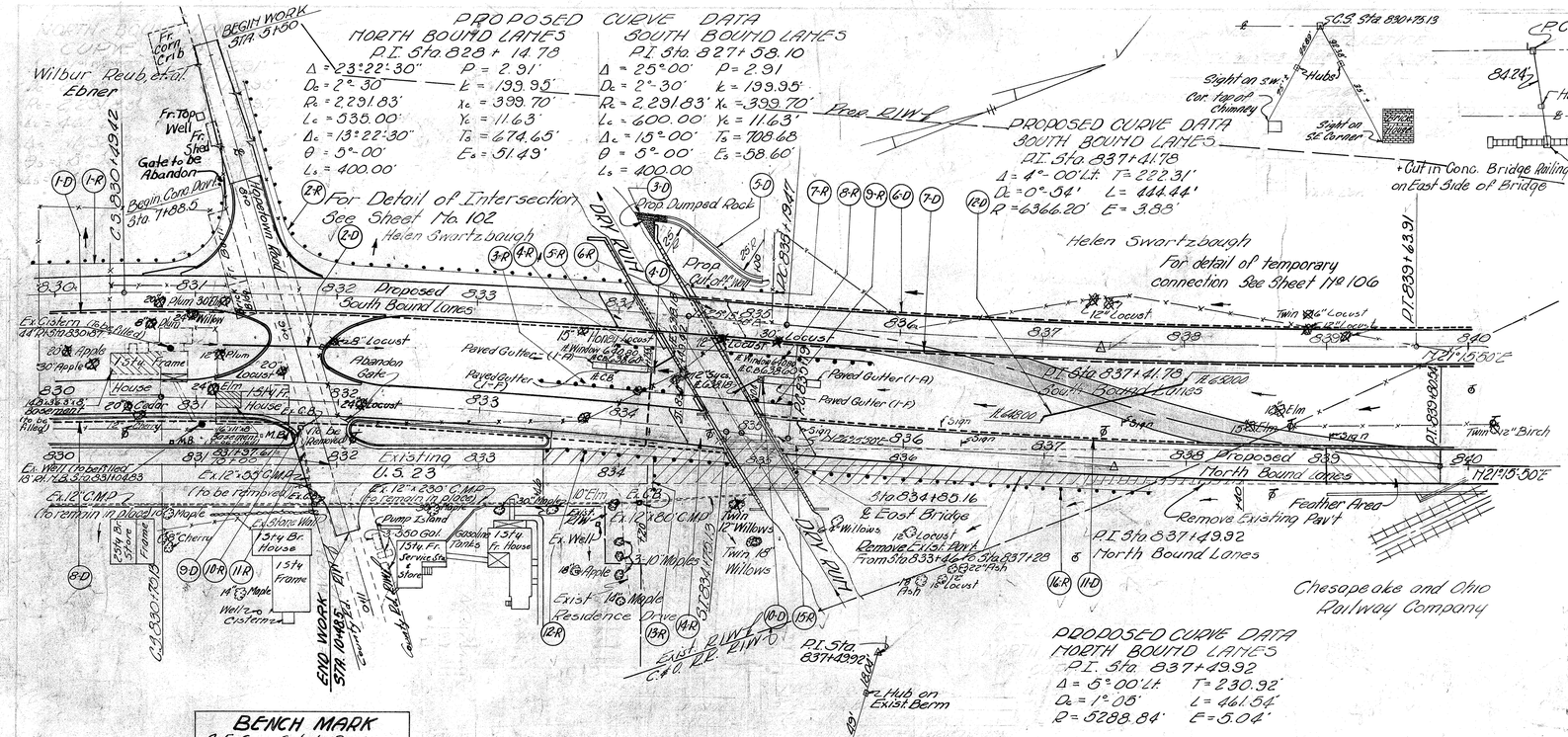


REFERENCE T.S. STA. 820+49.42 - P.I. STA 827+38.10
SOUTH BOUND LANES



REFERENCE T.S. STA. 821+40.13 - P.I. STA 828+14.78
NORTH BOUND LANES

STA. 820+0 TO STA. 830+0


PROPOSED CURVE DATA
NORTH BOUND LANES
P.I. Sta. 827+58.10
Δ = 23°22'30" P = 2.91'
Dc = 2° 30' k = 199.95'
Rc = 2291.83' Xc = 399.70'
Lc = 535.00' Yc = 11.63'
Δc = 13°22'30" Tc = 674.65'
θ = 5°-00' Es = 51.49'
Ls = 400.00'
CURVE DATA
SOUTH BOUND LANES
P.I. Sta. 827+58.10
Δ = 25°00' P = 2.91
Dc = 2°-30' k = 199.95'
Rc = 2291.83' Xc = 399.70'
Lc = 600.00' Yc = 11.63'
Δc = 15°-00' Tc = 708.68
θ = 5°-00' Es = 58.60'
Ls = 400.00
PROPOSED CURVE DATA
SOUTH BOUND LANES
P.I. Sta. 837+41.78
Δ = 4°-00' Lt. T = 222.31'
Dc = 0°-54' L = 444.44'
R = 6366.20' E = 3.88'
PROPOSED CURVE DATA
NORTH BOUND LANES
P.I. Sta. 837+49.92
Δ = 5°-00' Lt. T = 230.92'
Dc = 1°-05' L = 461.54'
R = 5288.84' E = 5.04'
BENCH MARK
S.E. Cor. Catch Basin
72' Rt. & Sta. 831+90
NB Lanes - Elev. 646.09
PROFILE SOUTHBOUND LANES
PROFILE NORTHBOUND LANES
Wilbur Reub, et ux
Ebner
Helen Swartzbough
Chesapeake and Ohio Railway Company
U.S. 23
Hopetown Road
Abandon Gate
Gate to be Abandon
Existing 833
Proposed 833
South Bound Lanes
Proposed 835
North Bound Lanes
Remove Existing Pav't
Feather Area
Sta 834+88.16
℄ East Bridge
P.I. Sta 837+49.92
North Bound Lanes
P.I. Sta 837+41.78
South Bound Lanes
Abandon Existing Pav't From Sta 833+66 to Sta 837+28
Existing Well
Pump Island
350 Gal. Gasoline Tanks
Vr. House
Jersey Ex. Store
Residence
Drive
Drop Dumped Rock
Drop Cut of 8" Sump
Paved Gutter (1-A)
Paved Gutter (1-F)
Sign
Twin 18" Willows
Twin 12" Locust
Twin 12" Birch
Twin 12" Elm
Twin 18" Locust
Twin 18" Maples
Twin 12" Maples
Twin 12" Willows
Twin 18" Willows
Twin 18" Apple
Twin 12" Apple
Twin 12" Cherry
Twin 18" Elm
Twin 12" Locust
Twin 18" Locust
Twin 12" Maples
Twin 18

ROSS COUNTY
ROS.-23-(15.37)(16.01)

END CONC. PAVEMENT SUSPEND PROJECT STR. 840+00 S.L.M. 15.92

SUSPEND WORK STA. 841+25

RESUME WORK STA. 843+00

BEGIN CONC. PAVT. RESUME PROJECT STA. 844+50 S.L.M. 16.01

Note.
Southbound Pavement, I-4 Underdrain and C.&O. Structure to be non-performed between Sta. 840+00 to Sta. 844+50. An estimated amount of Sod and Paved Gutter has been provided for Erosion Control to be located (Sta. 840+00 to Sta. 844+50) as directed by the Engineer. (5-D)

EXISTING STRUCTURE DATA
C. & O. UNDERPASS

Steel Plate Through Girder on Concrete Abutments
Clear Roadway 36'-0"
Existing Clearance Height 14'-2¾"

PROPOSED BRIDGE DATA

TYPE: Through Steel Girder with Reinforced Concrete Substructure.
SPAN: 92.62' Clear
WIDTH: 37'-0" ± % Girders
LOADING: Cooper E-72
SKEW: 63°-02'
RAILROAD ALIGNMENT: 1°-00' Curve
NO. OF TRACKS: Two

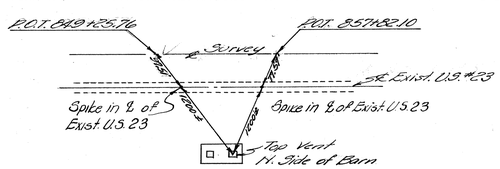
BENCH MARK

Din M.E. End of S.E. Abut. of P.C. #0. Bridge Sta. 841+
Elev. 679.70

For detail of drive See Sheet 17 to 107
For revision of drive see Sh. No. 107.
For detail of Temporary Connection See Sheet 17 to 106
For detail of drive See Sheet 17 to 107

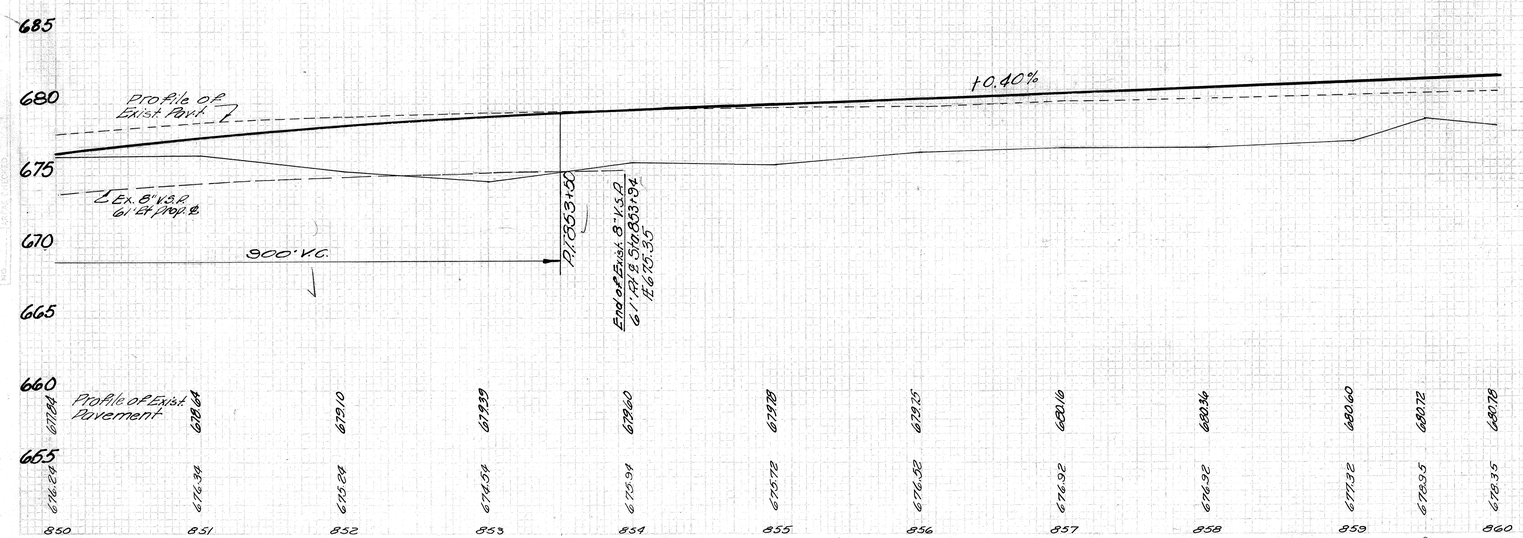
Charles A. Kilvert et al.
Helen Swartzbaugh
Chesapeake and Ohio Railway Company
Ex. R.R. Crossing (To be abandoned)
Ex. Farm Lane
Approximate Location of 1¼" Water Line
Water Trough
Barn
Ex. Drive (To be abound.)
Ex. Underground Telephone Cable
Ex. R.R. Sign (To be removed between Sta. 838+00 & 843+23 Under Item 623)
Ex. Side Ditch Inlet (To be removed)
Remove 58' Ex. 8" VSP
Remove 11' Ex. Paved Gutter Item (Ft.)
Ex. 12" x 126' VSP (To be removed)
Ex. 6' Paved Gutter Lined With Stone (To remain in Place)
Ex. 12" x 200' CMP
Ex. Side Ditch Inlet (To remain in place)
Ex. 12" x 40' CMP (To be removed)
Ex. 12" x 40' CMP (To be removed)
Ex. Side Ditch Inlet (To be removed)
Feather Area
Ex. 11'-2" x 20' CMP (To be removed)
Ex. Side Ditch Inlet (To remain in place)
Ex. Farm Drive (Has been abandoned)
Prop. Residence Drive
Fr. Barn
Fr. Tool Shed
Fr. Bldg.
Fr. Chicken House
Fr. Corn Crib
Fr. Silo
Fr. Shed
Fr. Shed
Fr. Shed

ROSS COUNTY
ROS-23-(15.37)(16.01)



BENCH MARK
Spike in ℗ - 123' Rt of ℄ Sta. 854+53
Elev. 676.81

676.34 676.66 676.36 677.25 677.52 677.77 678.01 678.23 678.44 678.63 678.80 678.96 679.10 679.22 679.33 679.53 679.73 679.93 680.13 680.33 680.53 680.73 680.93 681.13 681.33 681.53 681.73 682.93



ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	E-12 Pipe Removed Lin. Ft. 12"	I-18 Rip Rap Class Apron Slope Paved Ft. Shoulders Cu. Yds. Approaches
I-R	23	859+05 - 860+00	Lt.		23.06
2-R	23	859+82	Rt.	30	
		TOTAL		30	23.06

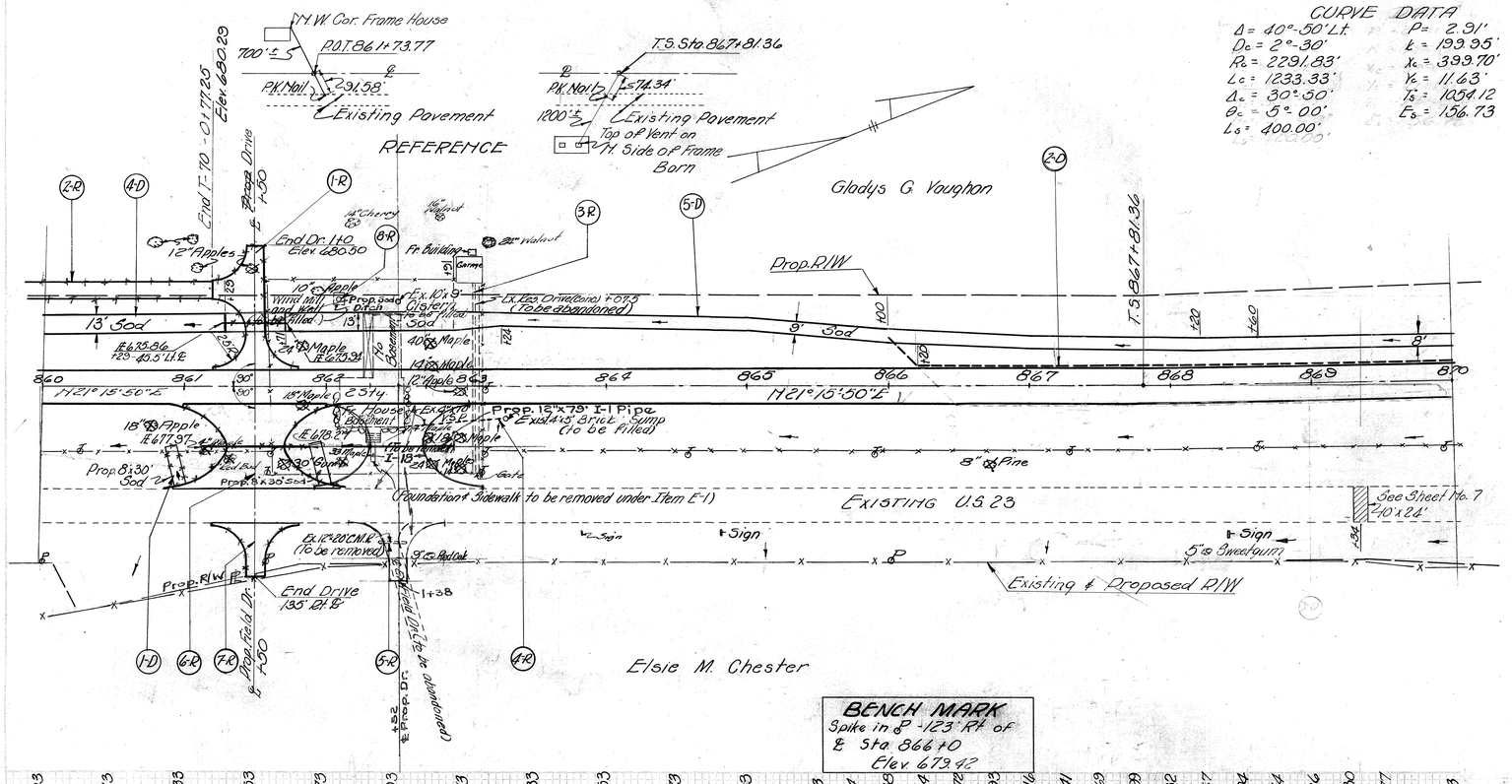
DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	L-10 Bedding Sq. Yds.
I-D	23	850+00 - 860+00	Lt.	144.7
		TOTAL		144.7

STA. 850+0 TO STA. 860+0

Rev. 6-24-30

ROSS COUNTY
ROS-23-(15.37)(16.01)



CURVE DATA

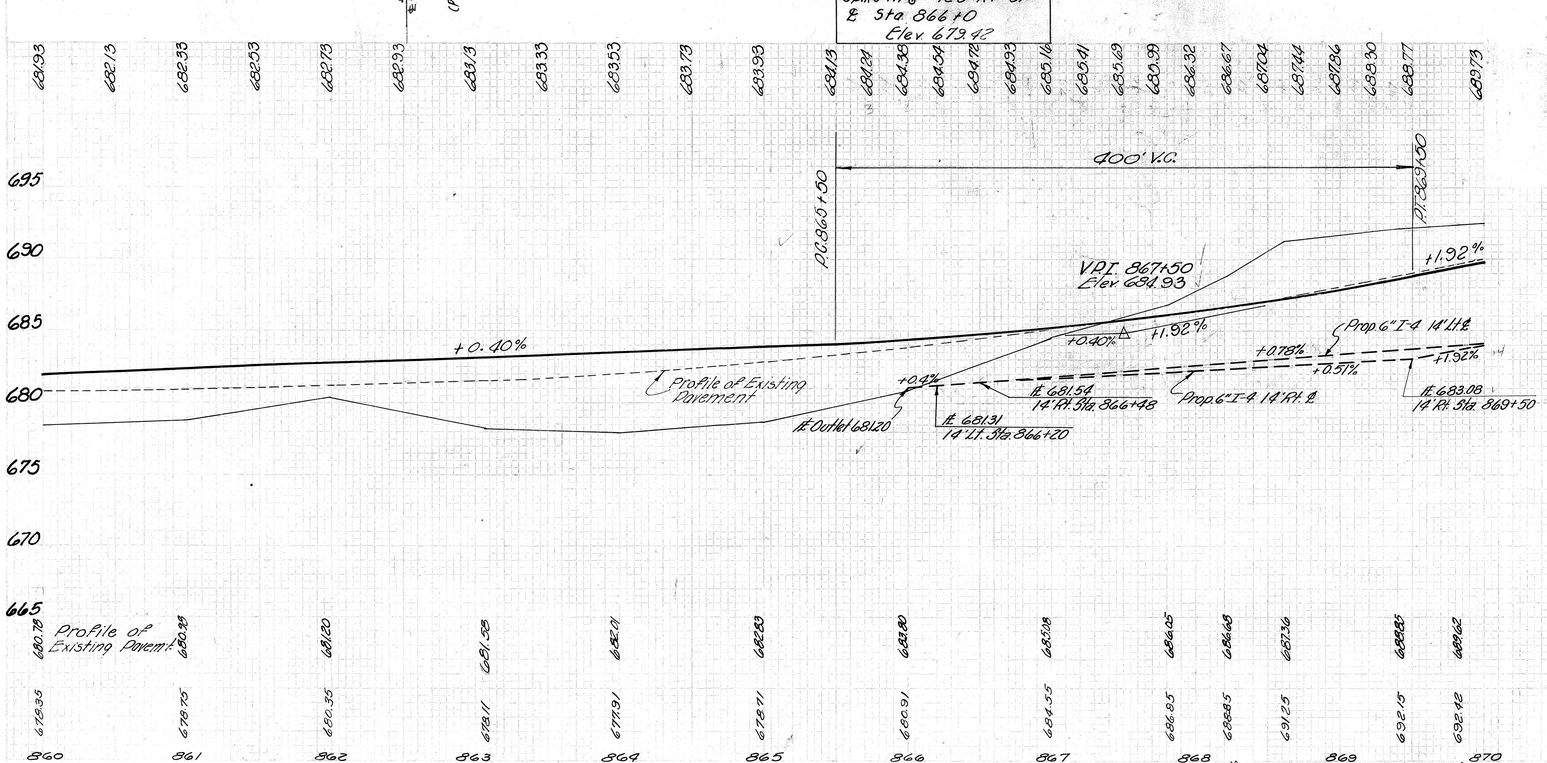
Δ = 40°-50' Lt.	P = 2.91'
Dc = 2°-30'	k = 199.95'
Rc = 2291.83'	Xc = 399.70'
Lc = 1233.33'	Yc = 11.63'
Δc = 30°-50'	Ts = 1054.12
θc = 5°-00'	Es = 156.73
Ls = 400.00'	

ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	E-8 Removal & Disposal of Ex. Pavt. Sq. Yds.	E-12 Pipe Removal 4" Lin. Ft.	E-12 Pipe Removal 12" Lin. Ft.	I-1 Pipe for Driveways 12" Lin. Ft.	I-1 Pipe for Driveways 24" Lin. Ft.	I-18 Stb. Rppr. for Shoulders & Approaches Cu. Yds.	I-22 Subbase 6" Sq. Yds.	T-70 Portland Cement Conc. Pavt. 7" Sq. Yds.	T-71 Reinf. Portland Cement Conc. Pavt. 9" Sq. Yds.	Special Wells, Abandoned, & Capped Each
1-R	24	861+50	Lt.					48			215.84		
2-R	24	860+00 - 861+19	Lt.						26.44				
3-R	24	863+07.5	Lt. & Rt.	60									
4-R	24	862+55 - 863+16	Rt.		70								
5-R	24	862+46	Rt.			20							
6-R	24	861+50	Rt.				79			425.78		425.78	
7-R	24	861+50	Rt.						14.34				
8-R	24	862+10	Lt.										1
		TOTAL		60	70	20	79	48	40.78	425.78	215.84	425.78	1

DRAINAGE

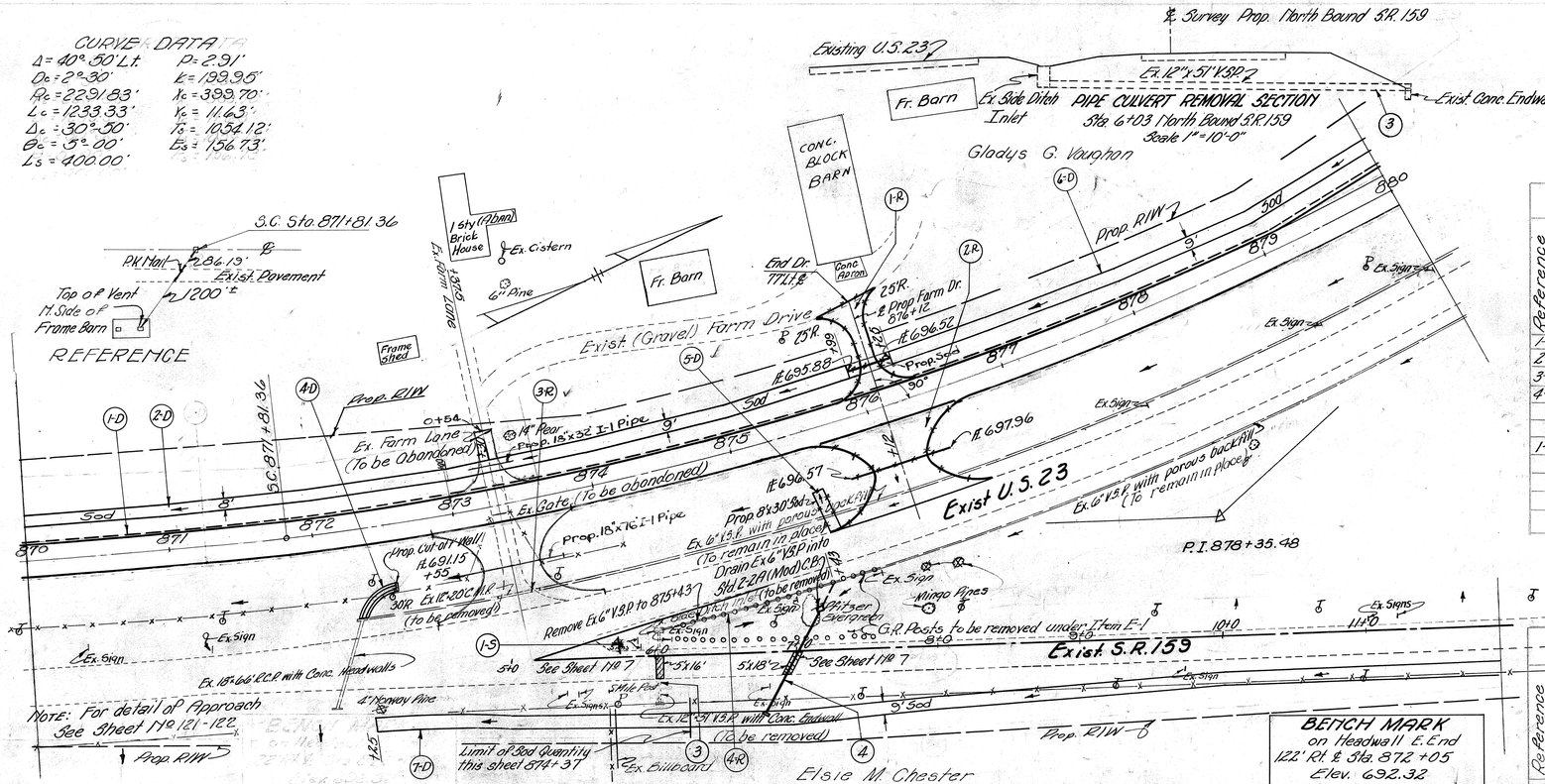
Reference Number	See Sheet Number	Station to Station	Side	I-4 Outlet for Underdrains 8" Lin. Ft.	I-4 Underdrains Shallow 6" Lin. Ft.	I-4 Underdrains Deep 6" Lin. Ft.	I-5 Pipe Special 6"x45° Bend Each	L-10 Sodding Sq. Yds.
1-D	24	860+93	Rt.					27
2-D	24	866+20 - 870+00	Lt.	10	290	110	1	
3-D	24	866+00 - 870+00	Lt. & Rt.	10	309	110	1	
4-D	24	860+00 - 861+29	Lt.					186
5-D	24	861+71 - 870+00	Lt.					874
		TOTAL		10	290	110	1	1087



STA. 860+0 TO STA. 870+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

CURVE DATA
Δ = 40°50' Lt. P = 2.91'
Dc = 2°30' Lc = 199.95'
Rc = 2291.83' Xc = 399.70'
Lc = 1233.33' Yc = 11.63'
Δs = 30°50' Ts = 1054.12'
Dc = 5°00' Es = 156.73'
Ls = 400.00'



ROADWAY

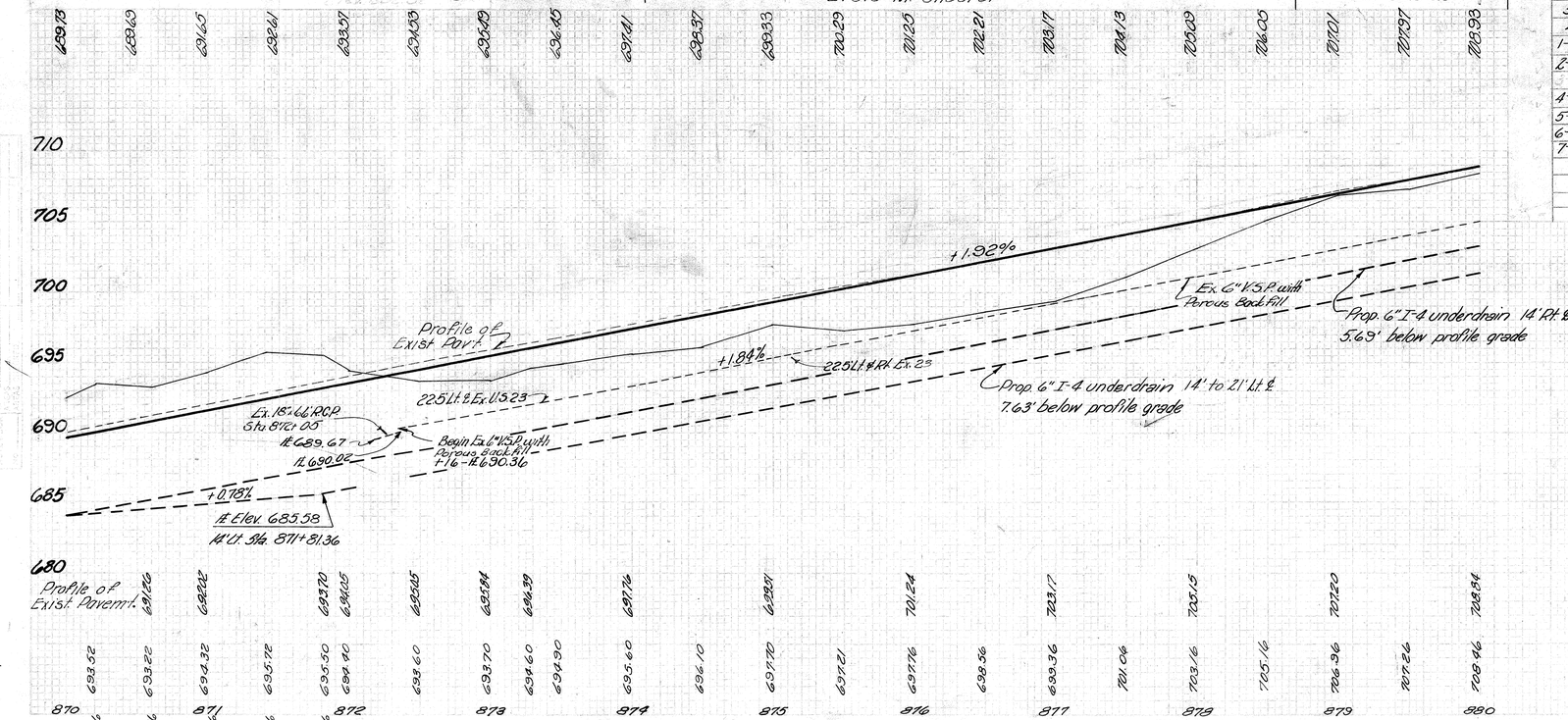
Reference Number	See Sheet Number	Station to Station	Side	F-12 Pipe Removed 6"	F-12 Pipe Removed for Storage Pipe 12"	I-1 Pipe for Driveways Std. Appr. for Shoulders & Approaches 18"	I-18 Subbase 6"	I-22 Asphalt Portland Cement Conc. Pavt. 9"	T-71	Spec. Single Pipe Cut-off Wall Type C-1-45				
				Lin. Ft.	Lin. Ft.	Lin. Ft.	Cu. Yds.	Sq. Yds.	Sq. Yds.	Each				
1-R	25	876+12	Lt.			32	24.01							
2-R	25	876+12	Rt.			76		425.78	425.78					
3-R	25	873+37.5	Rt.		20									
4-R	25	874+24 - 875+43	Rt.	128										
1-S	25	874+00 & 5+75	—							1				
		TOTAL		128	20	108	24.01	425.78	425.78	1				

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-4 Underdrains Deep 6"	I-14 Paved Gutter Type 1-C	L-10 Sodding	S-24 Removal of Existing Structure							
				Lin. Ft.	Lin. Ft.	Sq. Yds.	Lump							
3	25	6+03 (North Bound 159)	Lt. & Rt.				Lump							
4	135	7+0 (North Bound) 159)	Lt. & Rt.											
1-D	25	870+00 - 880+00	Lt.	1000										
2-D	25	870+00 - 875+99	Lt.			565								
			Rt.	1000										
4-D	25	872+27 - 872+55	Rt.		35	8								
5-D	25	875+52	Rt.			27								
6-D	25	876+25 - 880+00	Lt.			375								
7-D	25	872+25 - 874+37	Rt.			220								
		TOTAL		1000	35	1195	Lump							

BENCH MARK
on Headwall E. End
122' Rt. ℄ Sta. 872+05
Elev. 692.32

Overhead Sign
Sta. 874+00 (N.B. U.S. 23)
Sta. 5+75 (N.B. S.R. 159)
Type: 0.5-1-A
Pole: 19'-6" (7 Ga.)
B: 12' H=3'
2 Signs: 3'x6'
4 Sign Supports



STA. 870+0 TO STA. 880+0

Rev. 6-24-57

ROSS COUNTY
ROS-23-(15.37)(16.01)

For details of S.R. #159 S.B. See Sheet No. 108-111

C.S. Sta 884+14.69

62.4' Rt. P.K. Nail in Edge of Exist. Pavement — Exist. Apprt.

S.E. Cor. of Chimney on Frame Residence

REFERENCE

Gladys G. Voughan

Existing U.S. 23

Ex. Conc. Headwall

Exist. 12"x54" V.S.P.

Exist. Conc. Headwall

Section
PIPE CULVERT REMOVAL
62' Rt. ℄ STA 883+00
Scale 1"=10'-0"

S.T. 883+14.69

Prop. R/W

Prop. 15"x54" S-27 Pipe

Prop. 5.8 S.R. #159

Prop. Std. S-27 PC & F End Wall

Prop. 18"x76" I-3 Pipe on 1.82%

Prop. Std. 14'x12'CB (Mod.) 145°-RC-A 760-10

Sta. 883+42.88 = PCC Sta. 5+44.80

Sta. 882+00 = Sta. 19+42.5

S.T. 18+03.19

E 705.19

E Window 107.70

E 709.07

E 710.49

E 710.82

T.S. 21+65.40

Prop. R/W

Ex. Field Ln. (No Deer Delineators)

Ex. Field Ln. (To be abandoned)

Ex. 12"x20' C.M.P. (To be removed)

Ex. 12"x54" V.S.P. (To be removed) See Sheet No. 7

Ex. 12"x30' C.M.P. (To be removed)

Ex. Sign

Ex. Guard Rail

Ex. 6" V.S.P. with Porous Backfill (To remain in place)

Ex. 6" V.S.P. with Porous Backfill (To remain in place)

Prop. S-27 PC & F End Wall

Prop. S-27 PC & F End Wall

Prop. 6" I-4 14' Rt. ℄ - 5.63' below profile grade.

Prop. 6" I-4 - 21' to 25.5' Lt. ℄ 7.63' below profile grade

Ex. 6" V.S.P. End Sta. 882+98

Ex. 12"x54" V.S.P.

Profile of Exist. Pavement

+1.92%

-1.84%

P.C. 882+25

1000' V.C.

End Ex. 6" V.S.P. 1.93 - E 708.66

Existing Highway Scales (To be removed)

Note: For details of approach Rt. Sta. 890+27 See Sheet No. 122-127

Note: Existing Highway Scales to be removed and disposed of as directed by the Engineer. (Item S-24).

Fence Posts to be removed under Item E-1

Ornamental Spreaders

Mimgo Pines

Frame Barn

Frame Shed

Frame House

Fr. Toilet

Well

10" Elm

14" Apple

16" Apple

14" Maple

8" Hackberry

5" Hackberry

8" Pin Oak

6" Linden

10" Locust

2" Red Maple

Ex. Sign

Ex. Guard Rail

Ex. Field Ln. (To be abandoned)

EXISTING COUNTY ROAD (OLD U.S. 23)

CURVE DATA
Δ = 10°-50' Lt.
D_c = 2°-30'
R_c = 2291.83
L_c = 1233.33
Δ_c = 30°-50'
θ_s = 5°-00'
L_s = 100.00'
P_c = 2.91
K = 199.95
X_c = 399.70
Y_c = 11.63'
T_L = 1054.12'
E_s = 15.73

BENCH MARK
□ in N.W. Cor. of Headwall
48' Rt. of ℄ Sta. 883+0
Elev. 711.207

PROPOSED BRIDGE DATA
BR-ROS-23-1.67
Type: Continuous Steel Beam with Concrete Deck and Concrete Substructure.
Spans: 49'-70'-70'-49' ℄ Bearings
Roadway: 20'-0" F to F of 2'-0" Safety Curbs
Load Frequency: CF-130-51
Skew: 0°-00'
Wearing Surface: ¾" Monolithic
Approach Slabs: A3-1-54, 25'-0" Long
Railing: Half Parapet Wall with Aluminum Rail & Support
Alignment: Tangent

ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	E-12 Pipe Removed for Storage 12" Lin. Ft.	Special Single Pole Overhead Sign Type OS-1-A Each
1-R	26	886+36	Rt.	20	
2-R	26	880+85	Rt.	50	
3-R	26	885+26	Rt.	20	
1-S	26	889+50	Rt.		1
		TOTAL		90	1

DRAINAGE

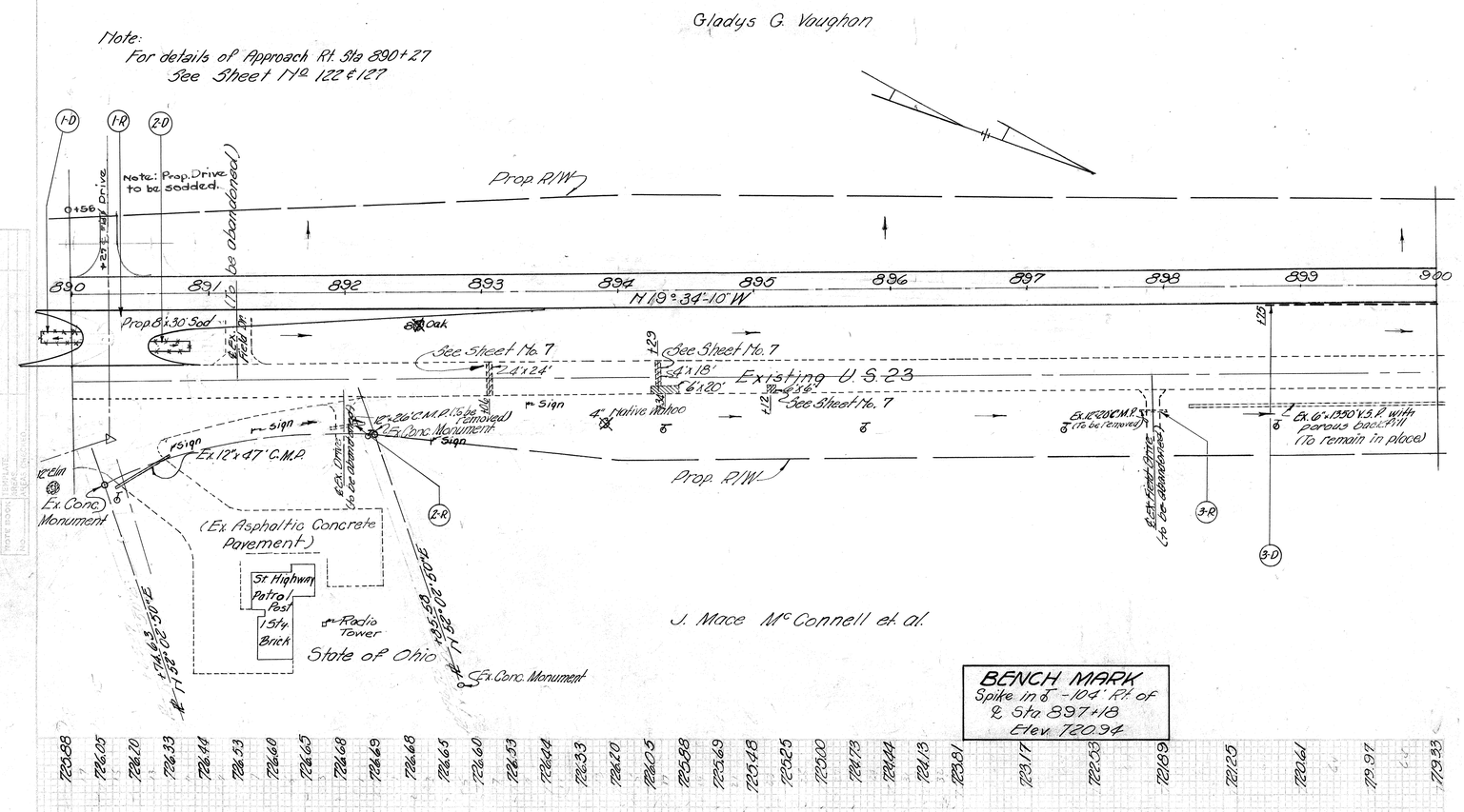
Reference Number	See Sheet Number	Station to Station	Side	I-3 Roadway Inlet 18"x55 Std. Curb Lin. Ft.	I-3 Roadway Drainage 18" Lin. Ft.	I-4 Underdrains Deep 6" Lin. Ft.	I-8 Catch Basin 36"/18"x22'-9" (Mod.) Each	L-10 Seeding Sq. Yds.	S-1 Concrete for Structures Class "E" Cu. Yds.	S-24 Removal of Existing Structure Lump
5	26	883+00	Rt.							Lump
6	135	7+75 South Bound S.R. #159	Lt. & Rt.							
1-D	26	880+00 - 881+39	Lt.					140		
2-D	26	880+00 - 881+00	Lt.			100				
4-D	26	881+39 - 882+45	Lt.		106		1		0.30	
5-D	26	881+49 - 882+25	Rt.	76				24	0.60	
	26	887+50	Rt.							Lump
		TOTAL		76	106	100	1	164	0.90	Lump

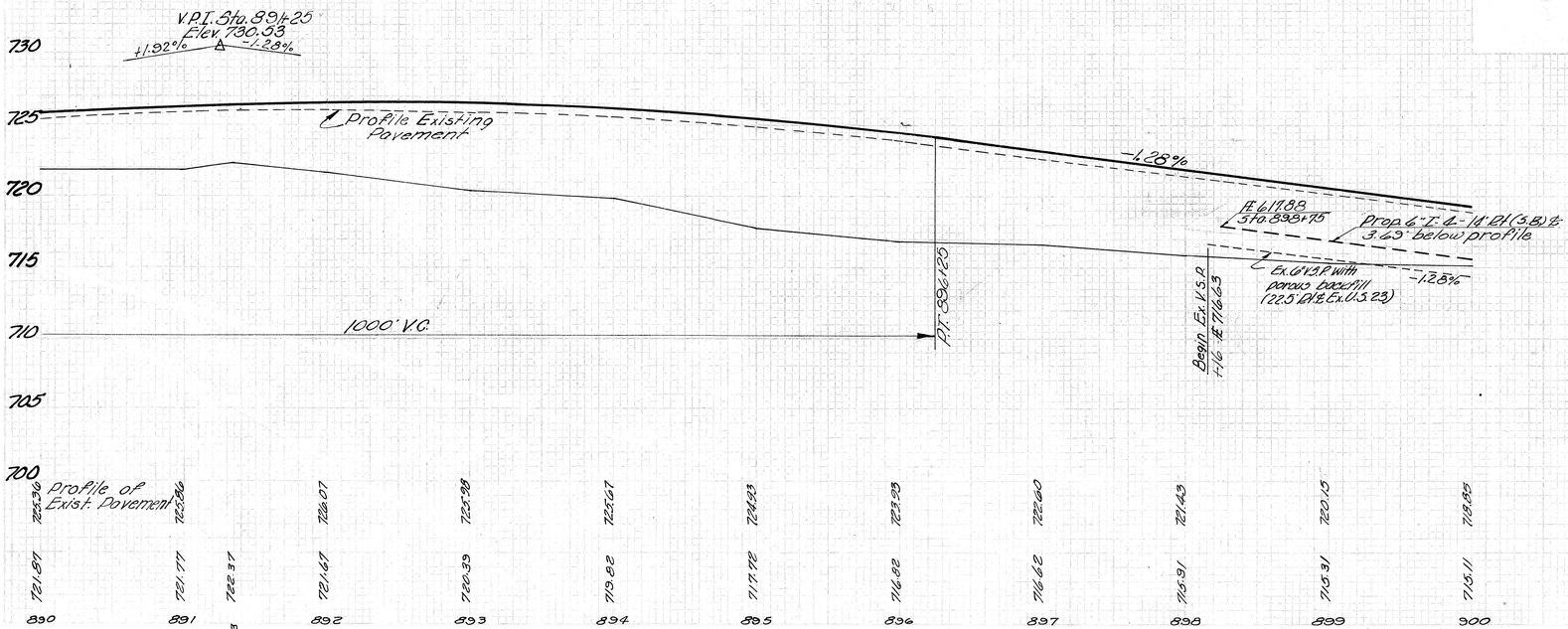
Overhead Signs
Sta. 889+50 (ctr. of median)
Type: OS-1-A
Pole: 19'-6" (76a.)
B=5' H=3'
1 Sign: 3'x6'
2 Sign Supports

STA. 880+0 TO STA. 890+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Note:
For details of Approach Rt. Sta 890+27
See Sheet No. 122 & 127





ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	F-12 Pipe Removed for Storage 12" Lin. Ft.	I-22 6" Subbase Sq. Yds.	T-71 Rmvl. Portland Cement Conc. Pavt. 9" Sq. Yds.
1-R	27	890+27	Rt.		497.94	487.11
2-R	27	892+00	Rt.	26		
3-R	27	897+91	Rt.	20		
		TOTAL		46	497.94	487.11

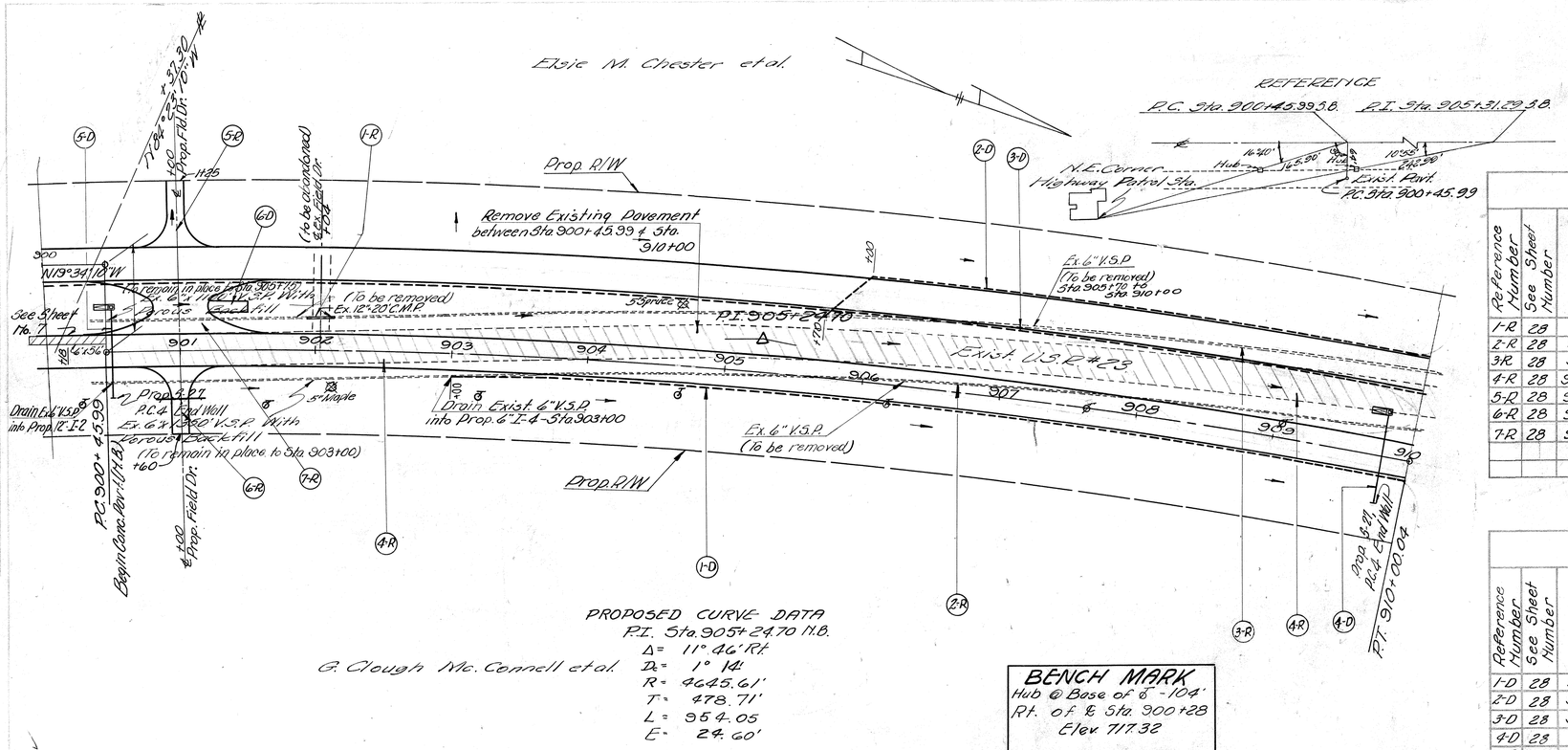
DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-4 Underdrains Shallow 6" Lin. Ft.	L-10 Sodding Sq. Yds.
1-D	27	889+92	Rt.		27
2-D	27	890+62	Rt.		27
3-D	27	898+75 - 900+00	Rt.	125	
		TOTAL		125	54

STA. 890+0 TO STA. 900+0

REV. 6-24-57

ROSS COUNTY
ROS-23-(15.37)(16.01)



PROPOSED CURVE DATA
P.I. Sta. 905+24.70 N.B.
Δ = 11° 46' Rt.
D_c = 1° 14'
R = 4645.61'
T = 478.71'
L = 954.05
E = 24.60'

G. Clough Mc. Connell et al.

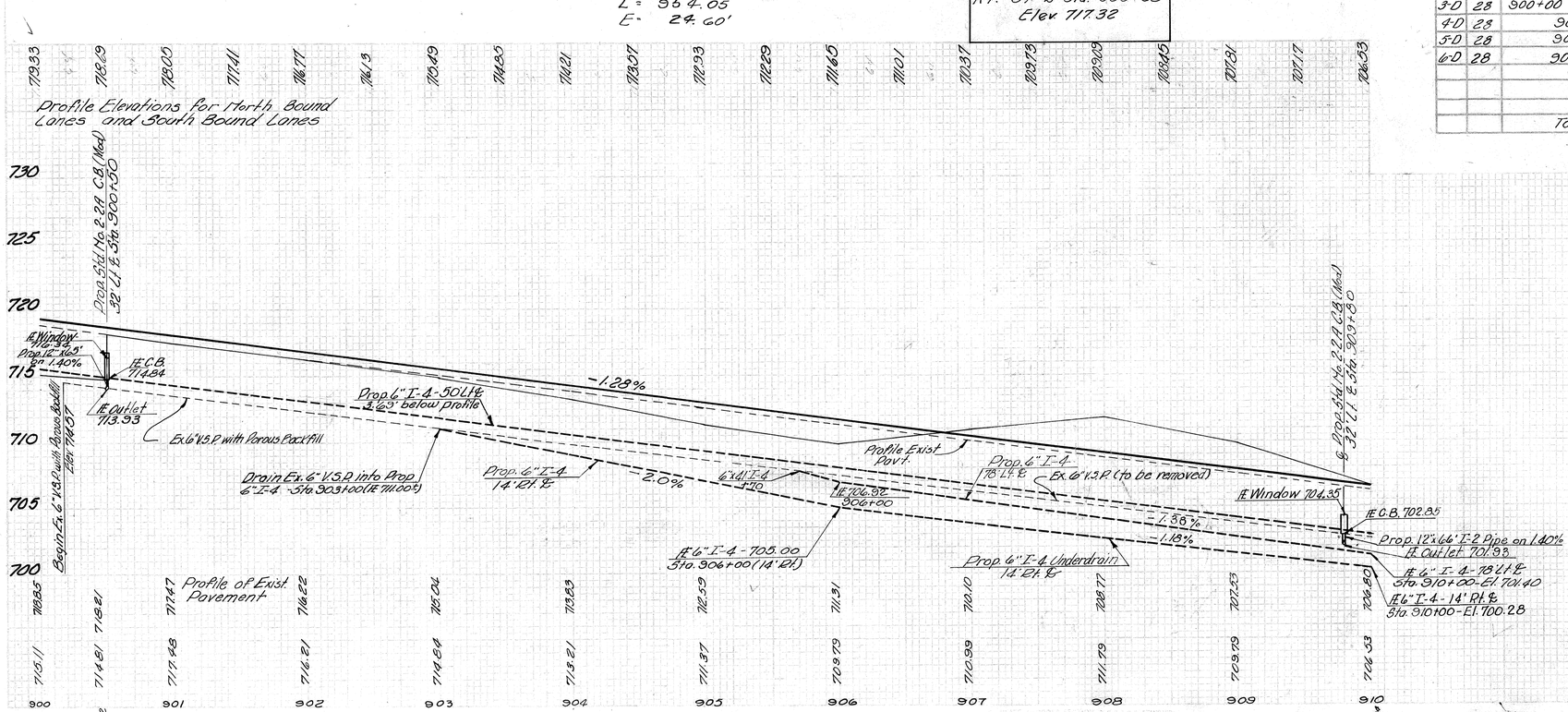
BENCH MARK
Hub @ Base of ℄ -104' Rt. of ℄ Sta. 900+28
Elev 717.32

ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	F-8 Removal & Disposal of Exist. Pavt. Sq.Yds.	F-12 Pipe Removed 6" Lin.Ft.	F-12 Pipe Removed for Storage 12" Lin.Ft.	I-1 Pipe for Driveway 15" Lin.Ft.	I-18 Prepare for Shoulders & Approaches Stbl. Cu.Yds.	I-22 Subbase 6" Sq.Yds.	I-71 Reinf. Portland Conc. Pavement Sq.Yds.
1-R	28	902+04	Lt.			20				
2-R	28	903+00 - 910+00	Lt. & Rt.		700					
3-R	28	905+70 - 910+00	Lt.		430					
4-R	28	900+45.99 - 910+00	Lt. & Rt.	2544						
5-R	28	901+00	Lt.					17.85		
6-R	28	901+00	Rt.				36	17.64		
7-R	28	901+00	Lt.						293.41	293.41
		TOTAL		2544	1130	20	36	35.49	293.41	293.41

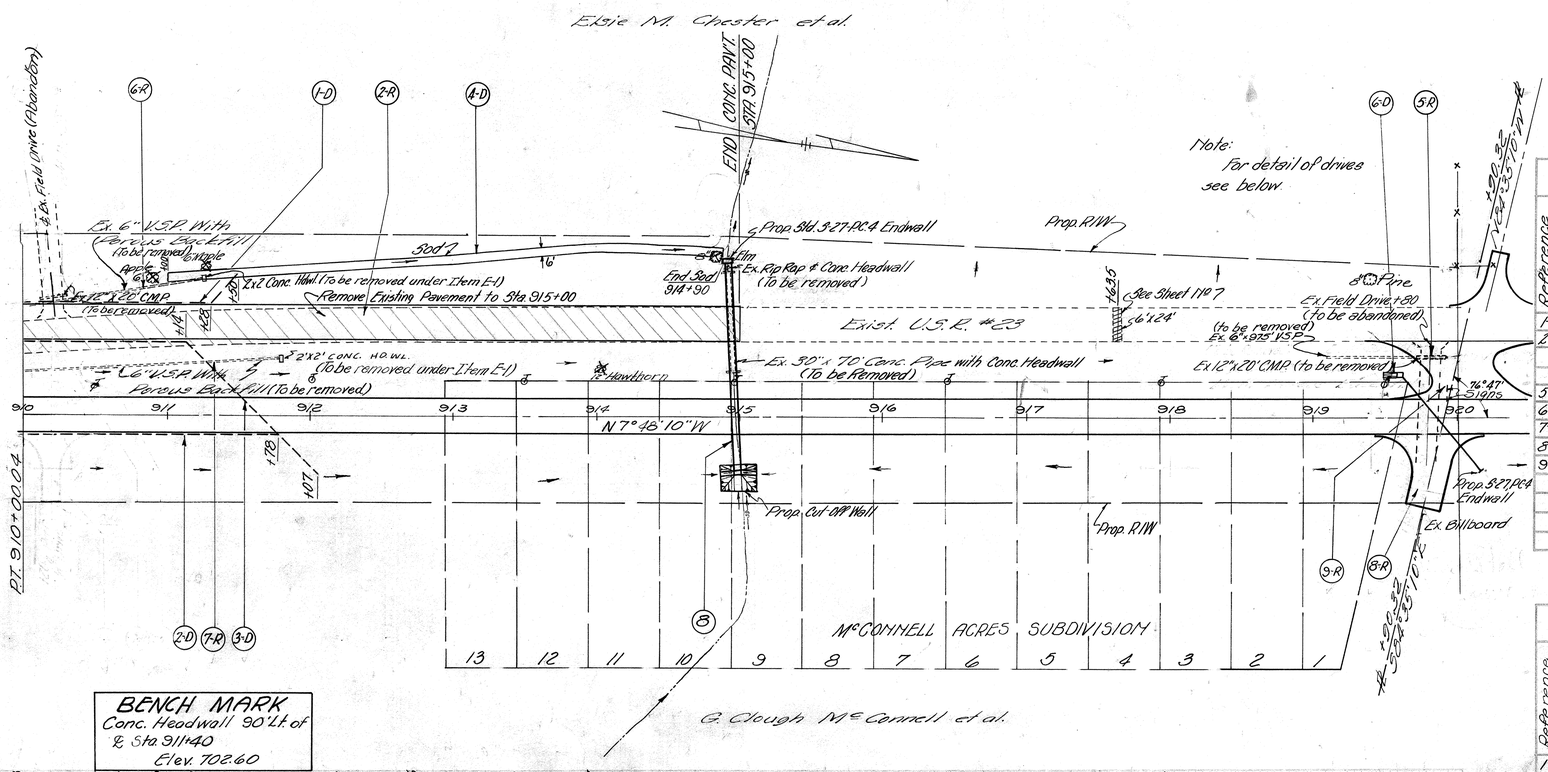
DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer 12" Class S Under Pavt. Lin.Ft.	I-4 Underdrains Shallow 6" Lin.Ft.	I-4 Underdrains Deep 6" Lin.Ft.	I-5 Pipe Special 12"x6" Tee Each	I-5 Pipe Special 6"x45° Curve Bend Each	I-8 Basin Stl. 11"x2'-4" (Mod.) Paved Gutter Each	I-14 Paved Gutter Type I-A Lin.Ft.	L-10 Bedding Sq.Yds.	S-1 Concrete for Structures Class E Cu.Yds.		
1-D	28	903+00 - 910+00	Rt.		300	400								
2-D	28	905+70 - 910+00	Lt.			441		2						
3-D	28	900+00 - 910+00	Lt.		1000									
4-D	28	909+80	Lt. & Rt.	66					1	10	15	0.23		
5-D	28	900+50	Lt. & Rt.	63			1		1	10	15	0.23		
6-D	28	901+35	Lt.								27			
		TOTAL		129	1300	841	1	2	2	20	57	0.46		



STA. 900+0 TO STA. 910+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



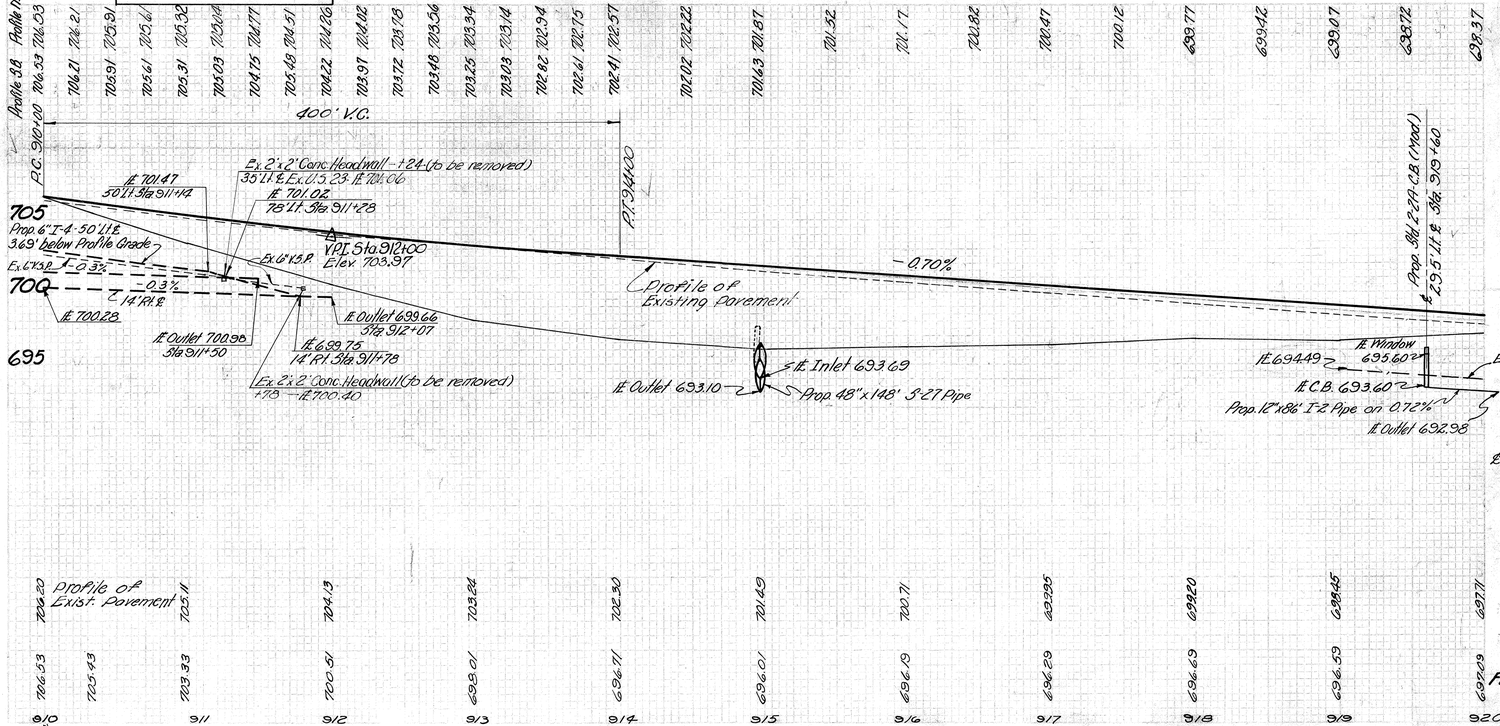
BENCH MARK
Conc. Headwall 90' Lt. of
℄ Sta. 911+40
Elev. 702.60

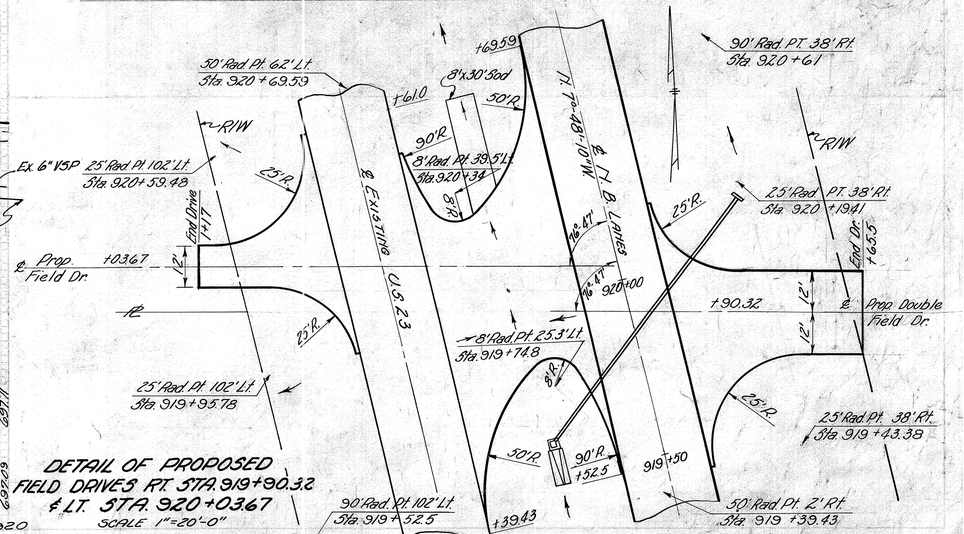
ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	E-8 Removal & Disposal of Existing Pavt. Sq. Yds.	E-12 Pipe Removed 6" Lin. Ft.	E-12 Pipe Removed for 12" Storage Lin. Ft.		I-18 Appr. to Shoulders & Approaches Cu. Yds.	I-22 Subbase 6" Sq. Yds.	T-71 Paint Portland Cement 9" Conc. Pavt. Sq. Yds.
1-R	29	910+20	Lt.			20				
2-R	29	910+00 - 915+00	Lt.	1,333						
5-R	29	919+80	Lt.			20				
6-R	29	910+00 - 911+26	Lt.		129					
7-R	29	910+00 - 911+80	Lt.		180					
8-R	29	919+90.32	Rt.					30.37		
9-R	29	919+90.32	Lt.						287.11	287.11
		TOTAL		1,333	309	40		30.37	287.11	287.11

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer Class B 12" Under Pavt. Lin. Ft.	I-4 Underdrains Deep 6" Lin. Ft.	I-4 Underdrains Shallow 6" Lin. Ft.	I-4 Pipe Outlets for Underdrains 8" Lin. Ft.		I-5 Pipe Special 6"-45° Y Branch Each	I-5 Pipe Special 6"x6"-45° Conc. Reinf. Cored Basin Each	I-8 Sta. 2+19 (Mod.) Paved Gutter Type I-A Lin. Ft.	L-10 Seeding Sq. Yds.	S-1 Concrete for Structures Class E Cu. Yds.
1-D	29	910+00 - 911+50	Lt.		145		10			1			
2-D	29	910+00 - 911+78	Rt.		178								
3-D	29	910+00 - 912+07	Lt. & Rt.			232	10		1	1			
4-D	29	911+00 - 914+90	Lt.									261	
6-D	29	919+60	Lt. & Rt.	86							1	10	15 0.23
8	137	914+97.47	Lt. & Rt.										
		TOTAL		86	323	232	20		1	2	1	10	276 0.23

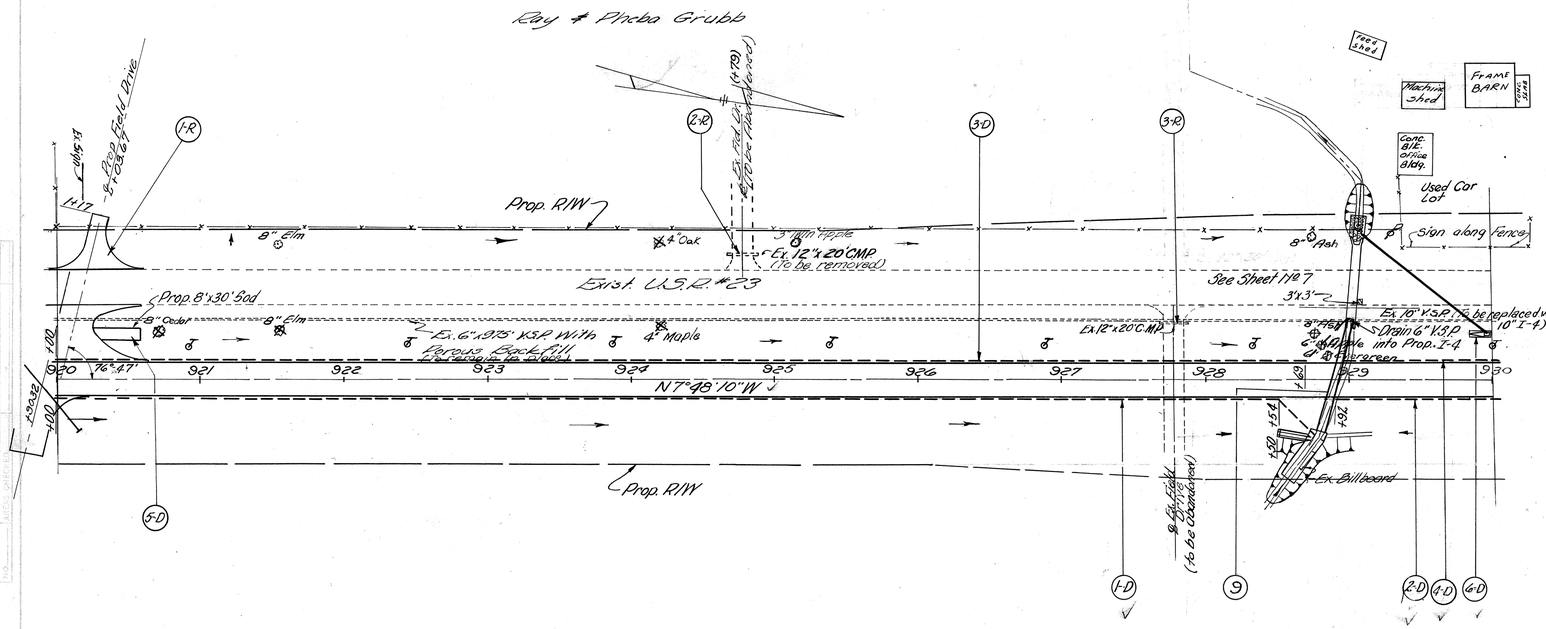




DETAIL OF PROPOSED FIELD DRIVES RT. STA. 919+90.32 & LT. STA. 920+03.67
SCALE 1"=20'-0"

STA. 910+0 TO STA. 920+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



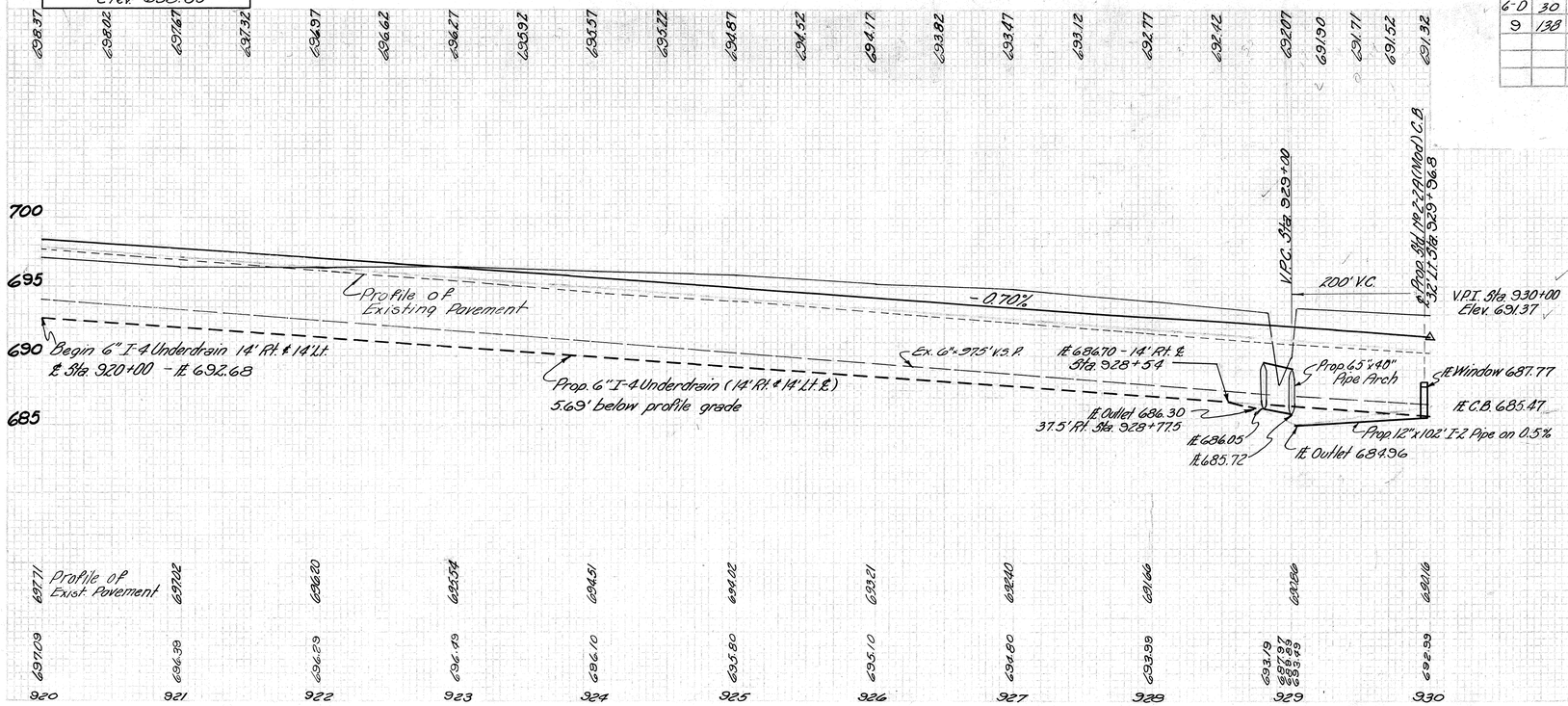
ROADWAY

Reference Number	See Sheet Number	Station to Station	Side	F-12 Pipe Removed for 12" Storage Str. Approx. for Shoulders & Approaches	I-18			
				Lin.Ft.	Cu.Yds.			
1-R	30	920+03.67	Lt.		14.81			
2-R	30	924+79	Lt.	20				
3-R	30	927+76	Lt.	20				
		TOTAL		40	14.81			

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer Class B 12" Under Pav't.	I-4 Underdrains Deep 6"	I-4 Pipe Outlets for 8"	I-5 Underdrains Pipe Sleeves 6"x45° Bend	I-5 Pipe Sleeves 6"x45° Y Branch	I-8 Catch Basin Std. 112.2-11 (Mod.) Paved Gutter Type 1-A	I-14 Gutter	L-10 Sodding
				Lin.Ft.	Lin.Ft.	Lin.Ft.	Each	Each	Each	Lin.Ft.	Sq.Yds.
1-D	30	920+00 - 928+77.5	Rt.		873	10	1				
2-D	30	928+92 - 930+00	Rt.		108						
3-D	30	920+00 - 929+00	Lt.		905		2	1			
4-D	30	929+00 - 930+00	Lt.		100						
5-D	30	920+42	Lt.								27
6-D	30	929+96.8	Lt.	102					1	10	3
9	138	928+90	Lt. & Rt.								
		TOTAL		102	1986	10	3	1	1	10	30

BENCH MARK
Top Conc. Post 106' Lt. of ℄ Sta. 920+02
Elev. 698.59

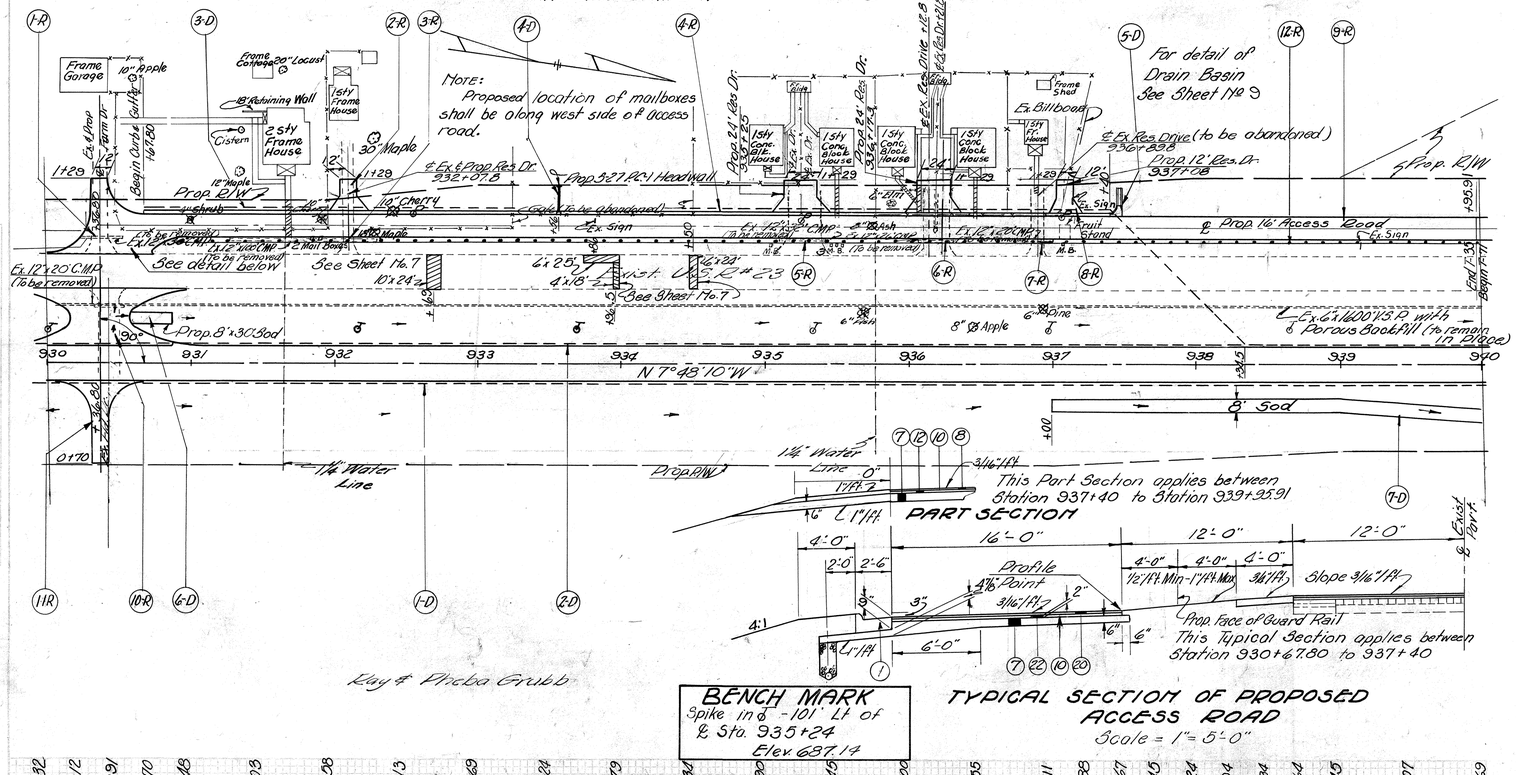


STA. 920+0 TO STA. 930+0

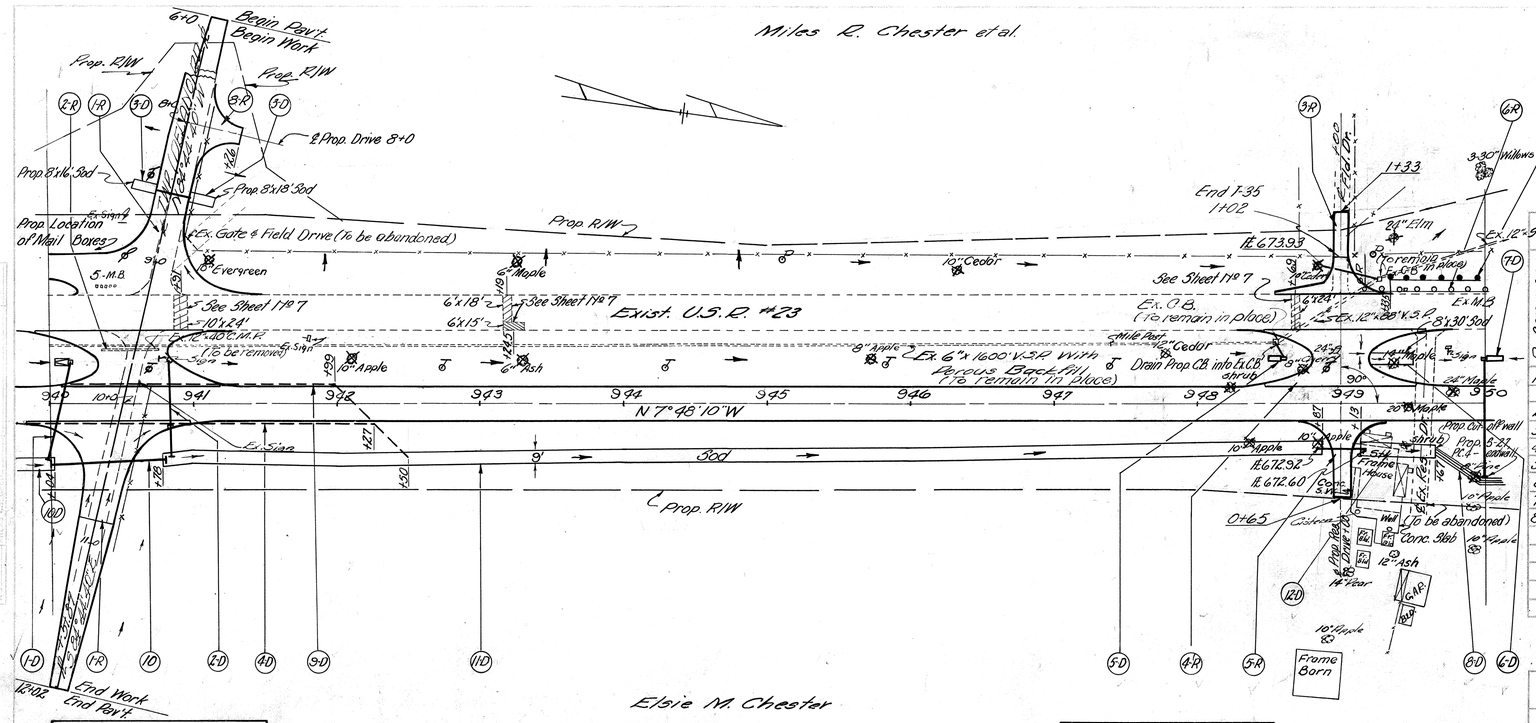
ROSS COUNTY
ROS-23-(15.37)(16.01)

NOTE: Remove Existing House Walks to R/W under Item E-1.

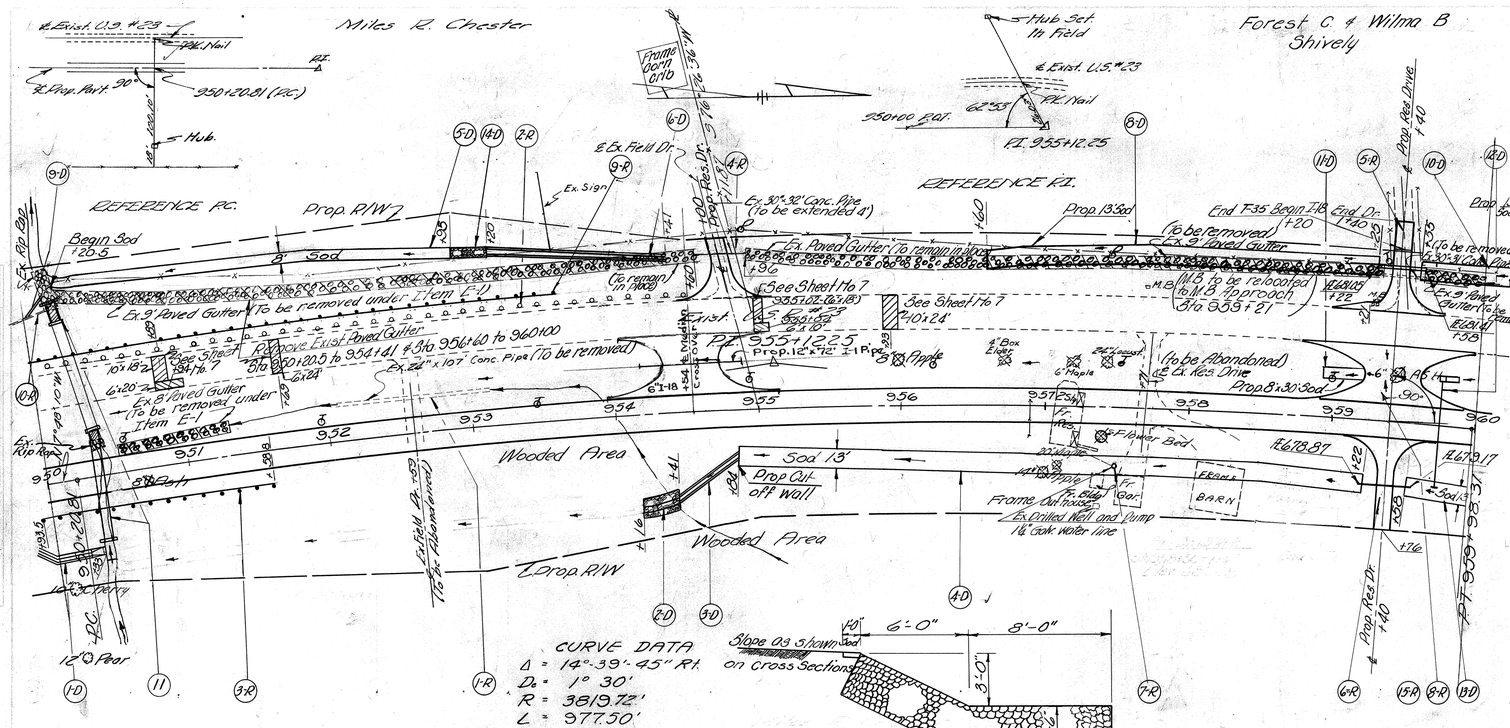
Ray & Pheba Grubb


Frame Garage
10" Apple
Frame Cottage
20" Locust
18" Retaining Wall
1Sty Frame House
2 Sty Frame House
Cistern
30" Maple
12" Maple
Ex & Prop R/W
Ex & Prop Res Dr. 932+07.8
Prop 32' Pc-1 Headwall
Prop 24' Res Dr. 930+67.8
Prop 12' Res Dr. 937+08
1Sty Conc Block House
1Sty Conc Block House
1Sty Conc Block House
Ex Res Drive (to be abandoned) 936+23.8
Ex Billboard
1Sty Fr House
Frame Shed
Ex Sign
Fruit Stand
Prop R/W
Prop 16' Access Road
Ex Sign
Shrub
Ex 24" Maple
Ex 18" Maple
Ex 2-12" Water Mains (To be removed)
Ex 2-6" Wall Drains
Ex 12"x20' CMP (To be removed)
See detail below
See Sheet No. 7
10'x24'
4'x25'
4'x18'
Ex 12"x20' CMP
See Sheet No. 7
Prop 8'x30' Sod
930
931
932
933
934
935
936
937
938
939
940
N 7°48'10" W
Ex 6" Water Line
Ex 12" Water Line
Prop R/W
1" Water Line
8' Sod
Ex 6" Water Line
Ex 6" Gas Line
Ex 8" Gas Line
Ex 6" Gas Line
Ex 8" Apple
6" Pine
6" Ash
Ex 6" Gas Line
Ex 6" Gas Line
Ex 6" Gas Line

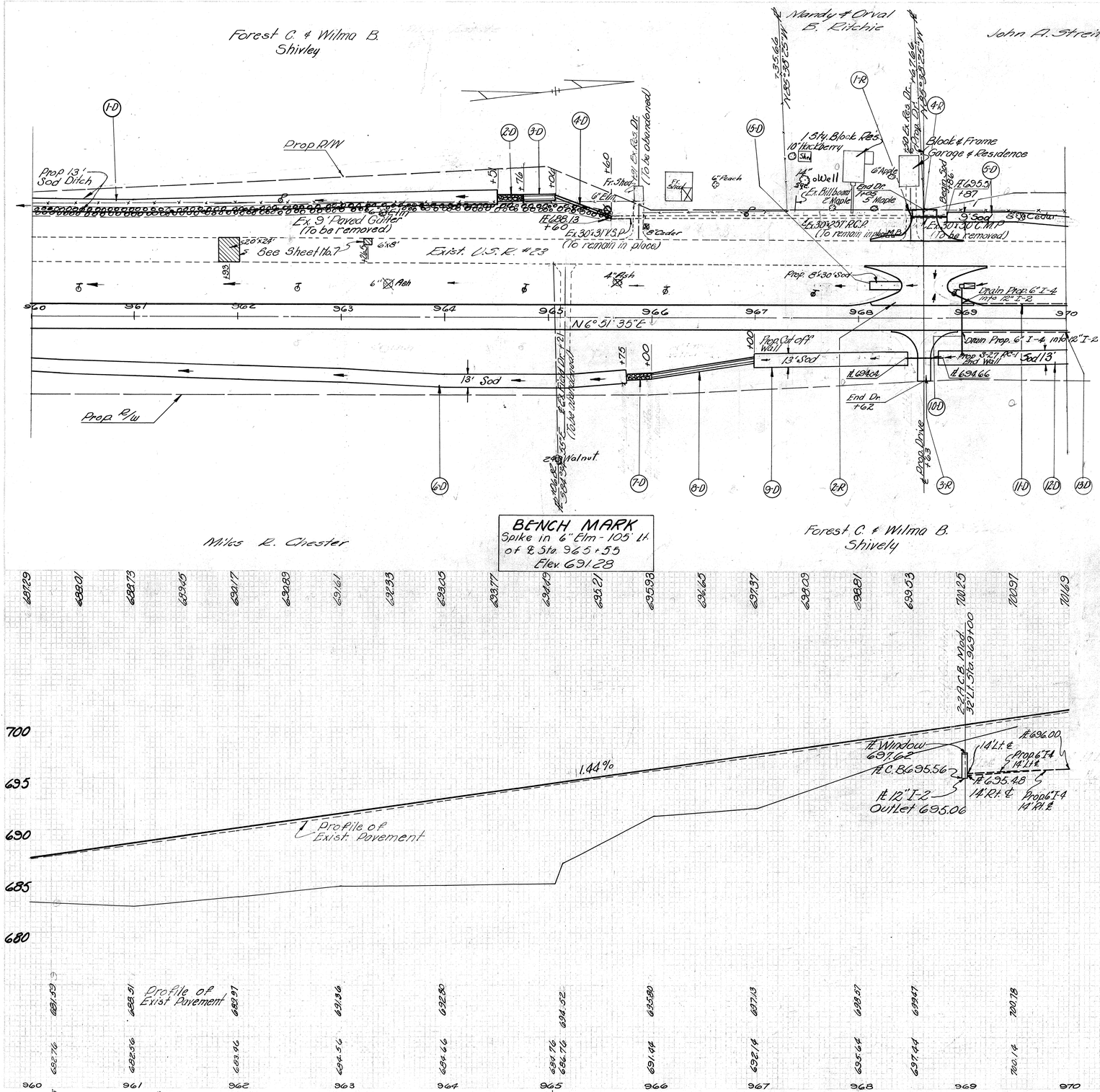
ROSS COUNTY
ROS-23-(15.37)(16.01)



ROSS COUNTY
ROS-23-(15.37)(16.01)


Miles R. Chester
Forest C. & Wilma B. Shively
REFERENCE PC.
REFERENCE PI.
REFERENCE PT.
Prop. R/W
Begin Sod 120.5
End Sod 960+60
Ex. 9' Paved Gutter (To be removed under Item E-1)
Ex. 8' Paved Gutter (To be removed under Item E-1)
Remove Exist. Paved Gutter Sta 950+120.5 to 954+41 & Sta 956+60 to 960+00
Ex. 24" x 101' Conc. Pipe (To be removed)
Ex. 30"-32" Conc. Pipe (To be extended 4')
Ex. 13'Pave
Prop. 13'Pave
Prop. 13'Sod
Ex. 3' Paved Gutter (To be removed)
Ex. 3' Paved Gutter (To be removed)
Ex. 30"x34" Conc. Pipe (To be removed)
Prop. 3' Paved Gutter (To be removed)
Prop. 3' Paved Gutter
Prop. 8'x30' Sod
Prop. 6'x20' Sod
Prop. 10'x18' Sod
Prop. 6'x20' Sod
Prop. 6'x24' Sod
Prop. 6'x24' Sod
Prop. 6'x20' Sod
Prop. 6'x20' Sod
Prop. 6'x20

ROSS COUNTY
ROS-23-(15.37)(16.01)



ROADWAY

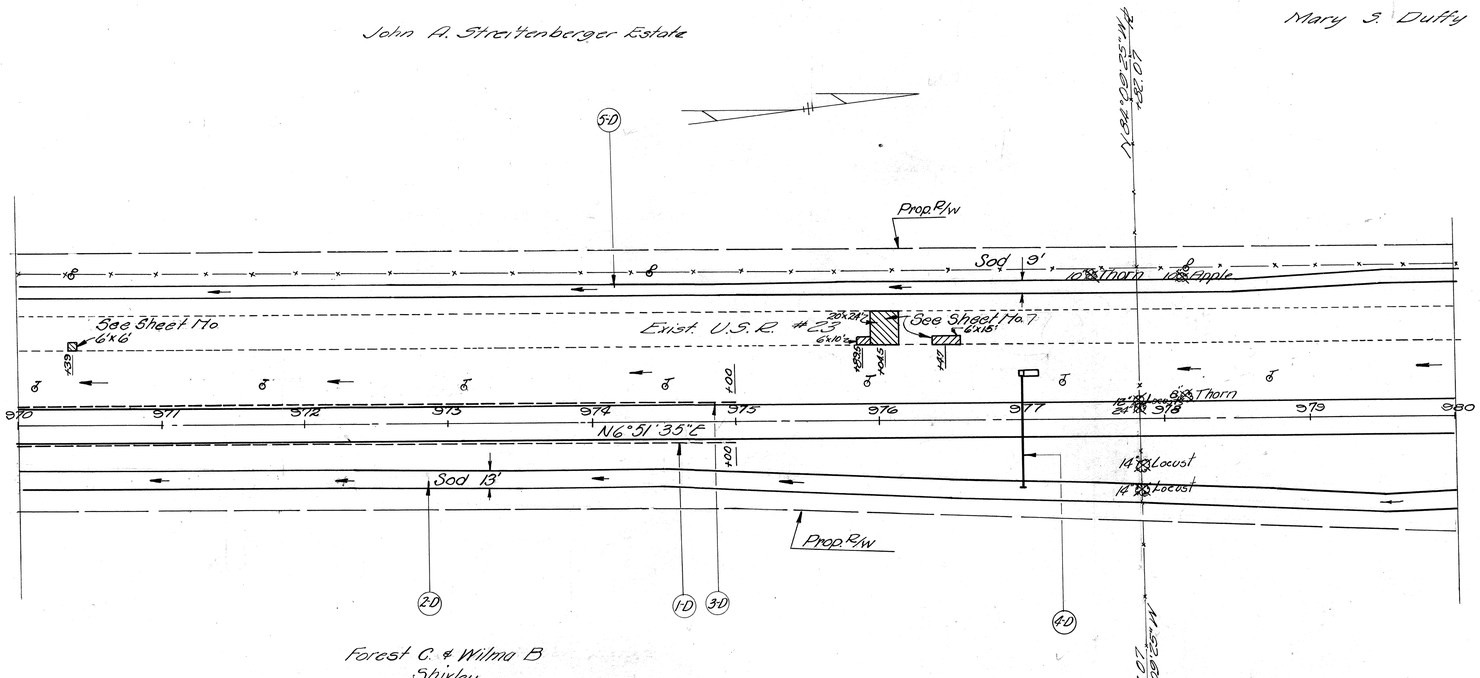
Reference Number	See Sheet Number	Station to Station	Side	E-12 Pipe Removed 30" Lin.Ft.	I-1 Pipe for 18" Driveways Incl. Apron for Shoulders & Approaches Lin.Ft.	I-18 Cu.Yds.	I-22 Subbase 6" Sq.Yds.	B-35 Asphaltic Conc Leveling 1½" Sq.Yds.	T-35 Asphaltic Conc Surface Course 1¼" Sq.Yds.	T-91 Remf. Portland Cement Conc. Pavement 9" Sq.Yds.	I-1 Pipe for 30" Driveways Lin.Ft.
1-R	34	968+63	Lt.			22.31		127.78	127.78		
2-R	34	968+63	Lt.				293.41			293.41	
3-R	34	968+63	Rt.		35	17.01					
4-R	34	968+51 - 968+87	Lt.	30							36
		TOTAL		30	35	39.32	293.41	127.78	127.78	293.41	36

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer Class B Under Pav't. 12" Lin.Ft.	I-3 Roadway Drainage 30" Lin.Ft.	I-4 Underdrains Deep 6" Lin.Ft.	I-8 Catch Basin Std. 210.22 FA (Mod.) Each	I-10 Dumped Rock Fill Cu.Yds.	I-14 Paved Gutter Type 1-9 Lin.Ft.	I-14 Paved Gutter Type 1-C Lin.Ft.	L-10 Sodding Sq.Yds.	S-1 Concrete for Structures Class E Cu.Yds.
1-D	34	960+00 - 964+51	Lt.								651	
2-D	34	964+51 - 964+76	Lt.					19			6	
3-D	34	964+76 - 965+06	Lt.							30	7	
4-D	34	965+06 - 965+60	Lt.		58							
5-D	34	968+66 - 970+00	Lt.								115	
6-D	34	960+00 - 965+75	Rt.								834	
7-D	34	965+75 - 966+00	Rt.					19			6	
8-D	34	966+00 - 967+00	Rt.							100	23	
9-D	34	967+00 - 968+48.5	Rt.								215	
10-D	34	969+00	Rt. & Lt.	68			1		10		3	0.23
11-D	34	969+00 - 970+00	Lt.			100						
12-D	34	968+77.5 - 970+00	Rt.								177	
13-D	34	969+00 - 970+00	Rt.			100						
15-D	34	968+28	Lt.								27	
		TOTAL		68	58	200	1	38	10	130	2064	0.23

STA. 960+0 TO STA. 970+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



ROADWAY

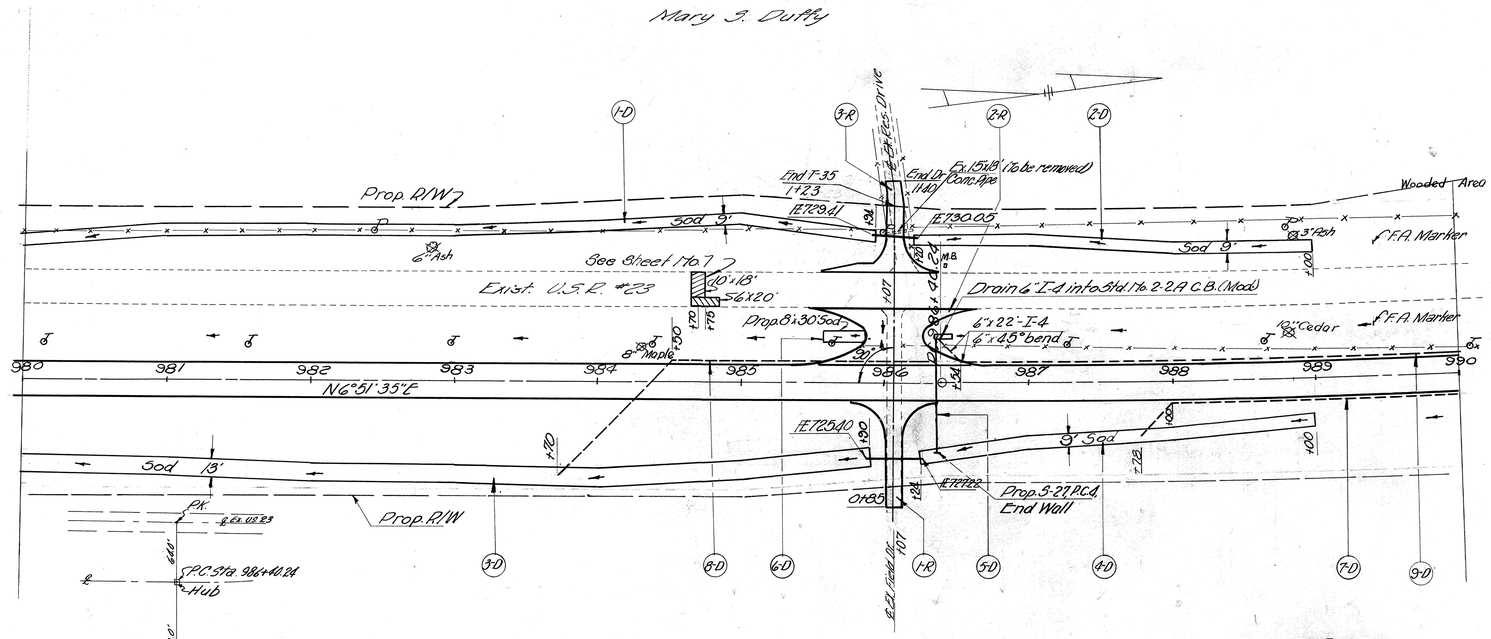
Reference Number See Sheet Number	Station to Station	Side

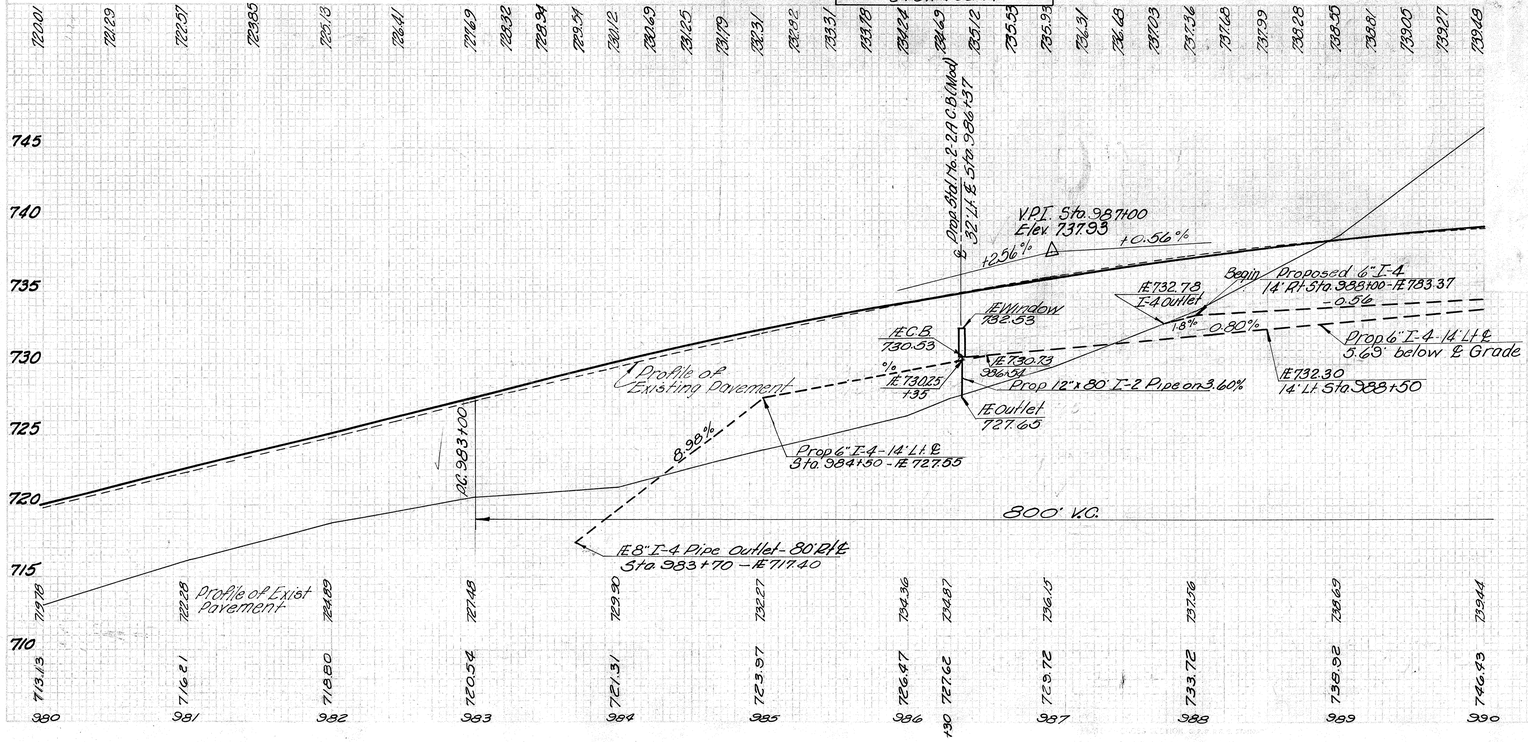
DRAINAGE

Reference Number See Sheet Number	Station to Station	Side	I-2 Storm Sewer 12" Class B Under Pav't Lin Ft.	I-4 Underdrains 6" Deep Lin Ft.	I-8 Catch Basin 36" (M.S.D.-I-D (Mod.)) Each	I-14 Paved Gutter Type (1-A) Lin Ft.	L-10 Sodding Sq Yds	S-1 Concrete for Structure Class E Cu Yds			
1-D	35	970+00 - 975+00	Rt.		500						
2-D	35	970+00 - 980+00	Rt.					1448			
3-D	35	970+00 - 975+00	Lt.		500						
4-D	35	977+00	Lt & Rt.	77		1	10	3	0.23		
5-D	35	970+00 - 980+00	Lt.					1002			
		TOTAL		77	1000	1	10	2453	0.23		

STA. 970+0 TO STA. 980+0

ROSS COUNTY
ROS-23-(15.37)(16.01)





ROADWAY

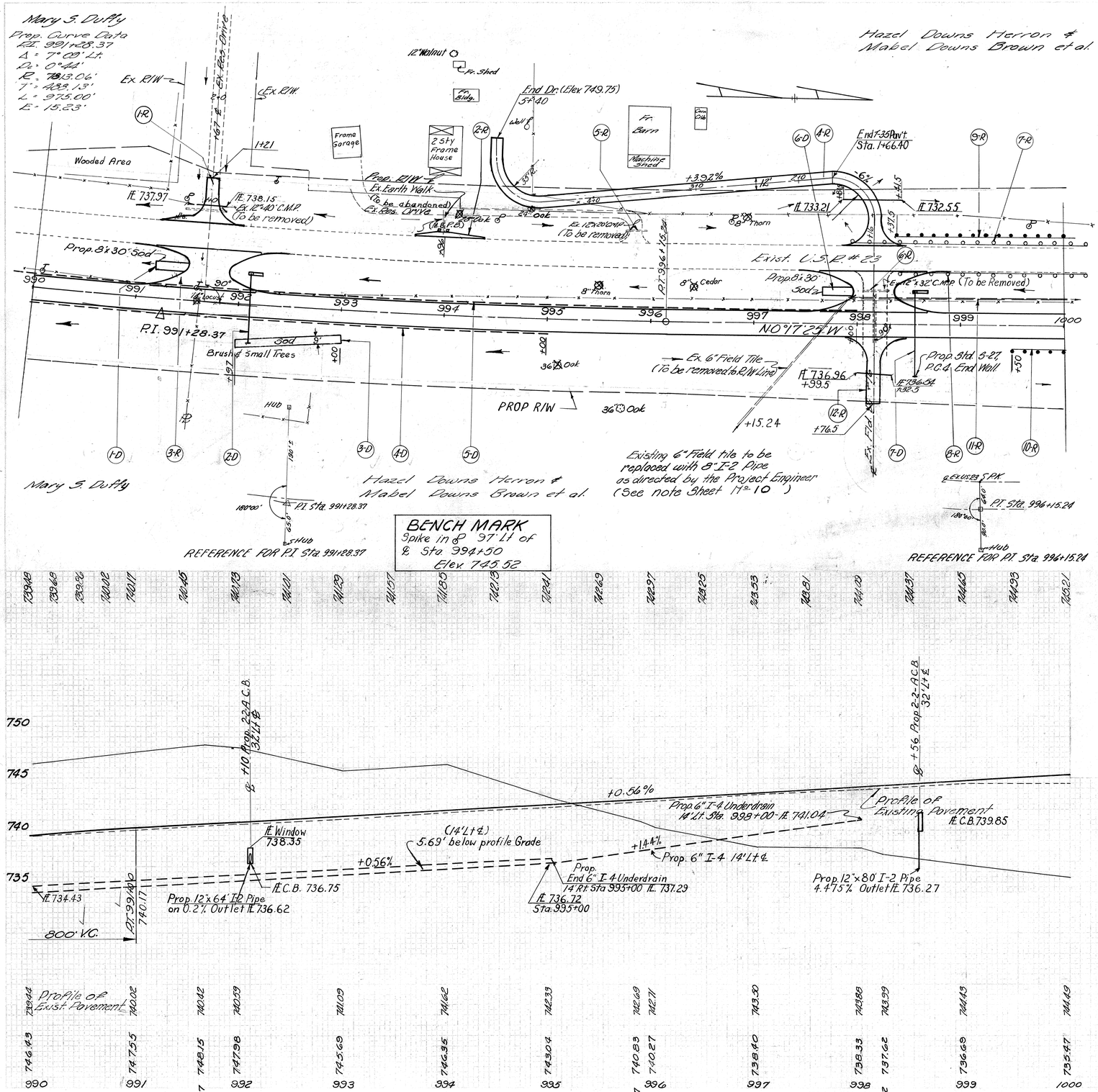
Reference Number	See Sheet Number	Station to Station	Side	F-12 Pipe Removal for Storage 15"	I-1 Pipe for Driveways 15"	I-18 Stab. Appr. for Shoulders & Paravalves	I-22 Subbase 6"	B-35 Portland. Conc. Leveling 1¼" Course	T-35 Asphaltic Conc. Base-Slice Course 1⅜"	T-71 Port. Portland 9" Cement Conc. Pvt.			
				Lin. Ft.	Lin. Ft.	Cu. Yds	Sq. Yds	Sq. Yds	Sq. Yds	Sq. Yds			
1-R	36	986+07	Rt.		40	22.11							
2-R	36	986+07	Lt.				293.41			293.41			
3-R	36	986+07	Lt.	18	32	23.12		108.25	108.25				
		TOTAL		18	72	45.23	293.41	108.25	108.25	293.41			

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer 12" Class B Under Pvmt. Lin. Ft.	I-4 Underdrains 6" Shallow Lin. Ft.	I-4 Underdrain 6" Deep Lin. Ft.	I-4 Pipe Outlet for 6" Lin. Ft.	I-5 Underdrains Pipe Special 45° Curve 6" Each	I-8 Underdrains Pipe Bend Catch Basin Rt. Inl. 2-2A (Mod.) Each	I-14 Manhole Cover Type (1-A) Each	L-10 Seeding Sq. Yds.	S-1 Concrete for Structures Class C Cu. Yds.		
1-D	36	980+00 - 985+94	Lt.								596			
2-D	36	986+20 - 989+00	Lt.								281			
3-D	36	980+00 - 985+90	Rt.								857			
4-D	36	986+24 - 989+00	Rt.								278			
5-D	36	986+37	Lt & Rt.	80					1	10	3	0.23		
6-D	36	985+72	Lt.								27			
7-D	36	987+78 - 990+00	Rt.		119	100	10	1						
8-D	36	983+70 - 986+35	Lt & Rt.			284	10	1						
9-D	36	986+37 - 990+00	Lt.			366		1						
		TOTAL		80	119	750	20	3	1	10	2042	0.23		

STA. 980+0 TO STA. 990+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



ROADWAY

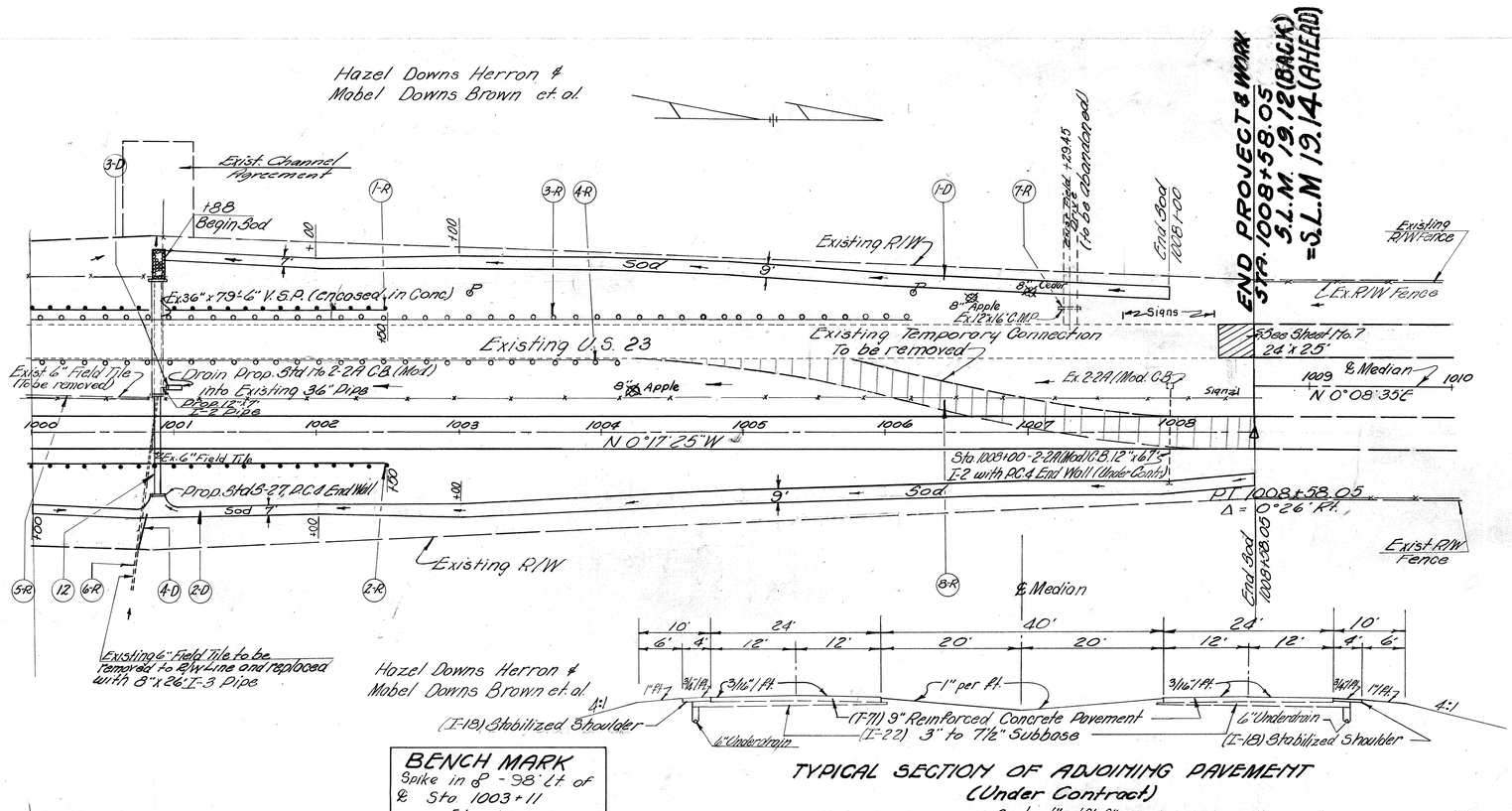
Reference Number	See Sheet Number	Station to Station	Side	E-12 Pipe Removed 12" and Stored Lin. Ft.	E-12 Pipe Removed 6" Lin. Ft.	I-1 Pipe for Driveways 12" Lin. Ft.	I-15 Guard Rail Removed & Stored Lin. Ft.	I-15 Guard Rail Steel Beam Type Lin. Ft.	I-18 Type Approx. for Shoulders & Approaches Cu. Yds.	I-22 Subbase 6" Sq. Yds.		T-71 Rent Portland Cement Concrete Pavt. Sq. Yds.	T-35 Asphaltic Conc. Surface Course 1½" Sq. Yds.	B-35 Asphaltic Conc. Leveling Course 1½" Sq. Yds.
1-R	37	991+67	Lt.	40		32			23.15				105.58	105.58
2-R	37	993+96	Lt.						5.79				30.83	30.83
3-R	37	991+67	Lt.							293.41		293.41		
4-R	37	998+16	Lt.			57			69.45				155.90	155.90
5-R	37	995+86	Lt.	20										
6-R	37	998+16	Lt.	32						293.41		293.41		
7-R	37	997+95 -1000+00	Lt.				205							
8-R	37	998+41 -1000+00	Lt.				159							
9-R	37	998+375 -1000+00	Lt.					162.50						
10-R	37	999+50 -1000+00	Rt.					50.00						
11-R	37	997+12 -1000+00	Lt. & Rt.		335									
12-R	37	998+16	Rt.			33			20.23					
		TOTAL		92	335	122	364	212.50	118.62	586.82		586.82	292.31	292.31

DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer 12" Class B Under Pavt. Lin. Ft.	I-4 Underdrain 6" Deep Lin. Ft.	I-8 Catch Basin Std. 192.239 (Mod.) Each	I-14 Paved Gutter Type 1-9 Lin. Ft.	L-10 Sodding Sq. Yds.	B-1 Conc. for Structure Class "E" Cu. Yds.
1-D	37	991+32	Lt.					27	
2-D	37	992+10	Lt. & Rt.	64		1	10	3	0.23
3-D	37	991+97 - 992+00	Rt.					104	
4-D	37	990+00 - 995+00	Rt.		500				
5-D	37	990+00 - 998+00	Lt.		800				
6-D	37	997+81	Lt.					27	
7-D	37	998+56	Lt. & Rt.	80		1	10	15	0.23
		TOTAL		144	1300	2	20	176	0.46

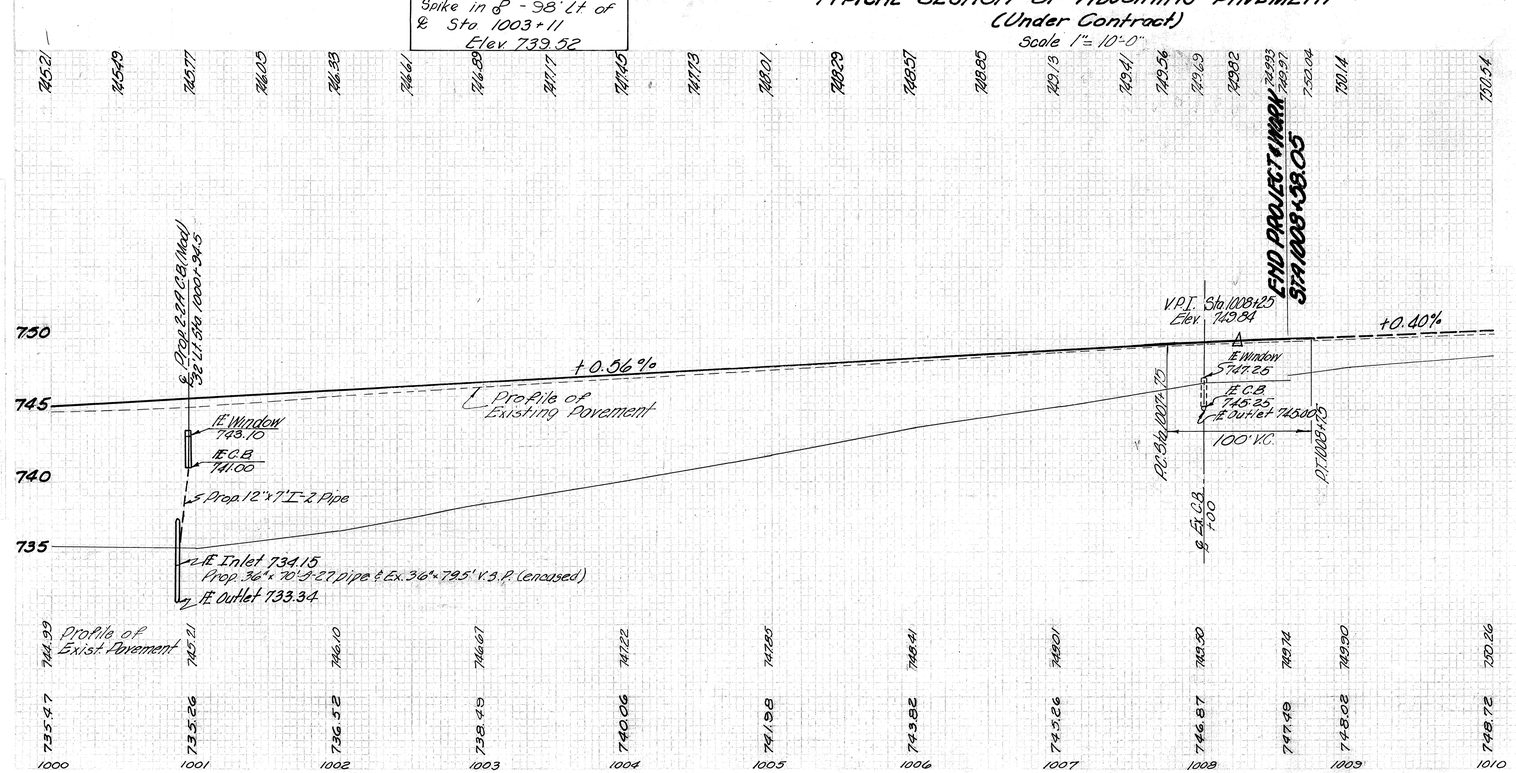
STA. 990+0 TO STA. 1000+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



BENCH MARK
Spike in ℄ - 98' Lt of
℄ Sta 1003+11
Elev. 739.52

TYPICAL SECTION OF ADJOINING PAVEMENT
(Under Contract)
Scale 1" = 10'-0"



ROADWAY

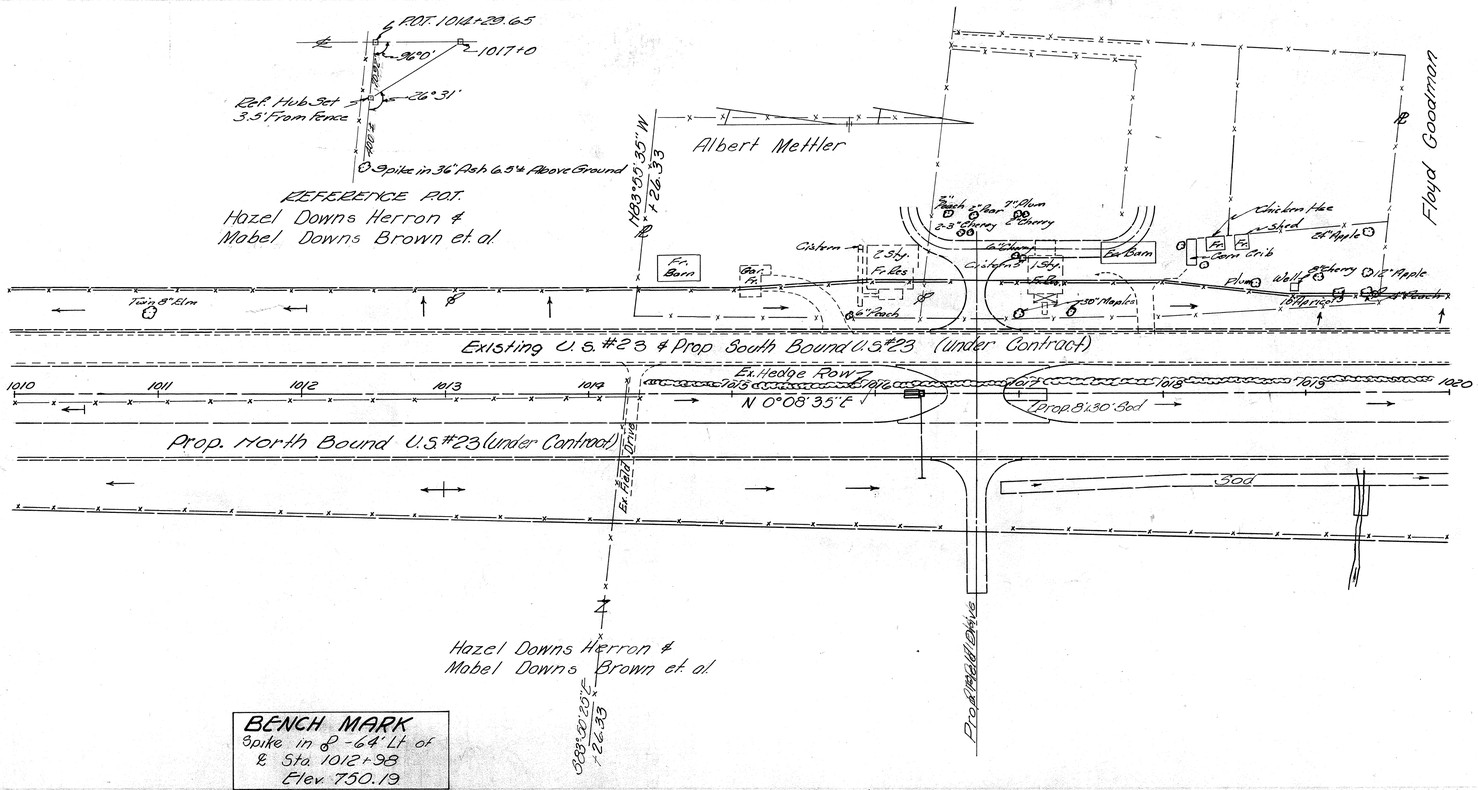
Reference Number	See Sheet Number	Station to Station	Side	E-8 Removal & Disposal of Ex. Pav't. Sq.Yds.	E-12 Pipe Removed 6" Lin.Ft.	E-12 Pipe Removed for 12" Storage Lin.Ft.	I-15 Guard Rail Steel Beam Type Deep Lin.Ft.	I-15 Guard Rail Removed & Stored Lin.Ft.		
1-R	38	1000+00 - 1002+50	Lt.				250			
2-R	38	1000+00 - 1002+50	Rt.				250			
3-R	38	1000+00 - 1006+14	Lt.					614		
4-R	38	1000+00 - 1004+24	Lt.					424		
5-R	38	1000+00 - 1000+85	Lt.		85					
6-R	38	1000+79	Lt. & Rt.		110					
7-R	38	1007+29.45	Lt.			16				
8-R	38	1004+24 - 1008+38.05	Lt. & Rt.	695						
		TOTAL		695	195	16	500	1038		

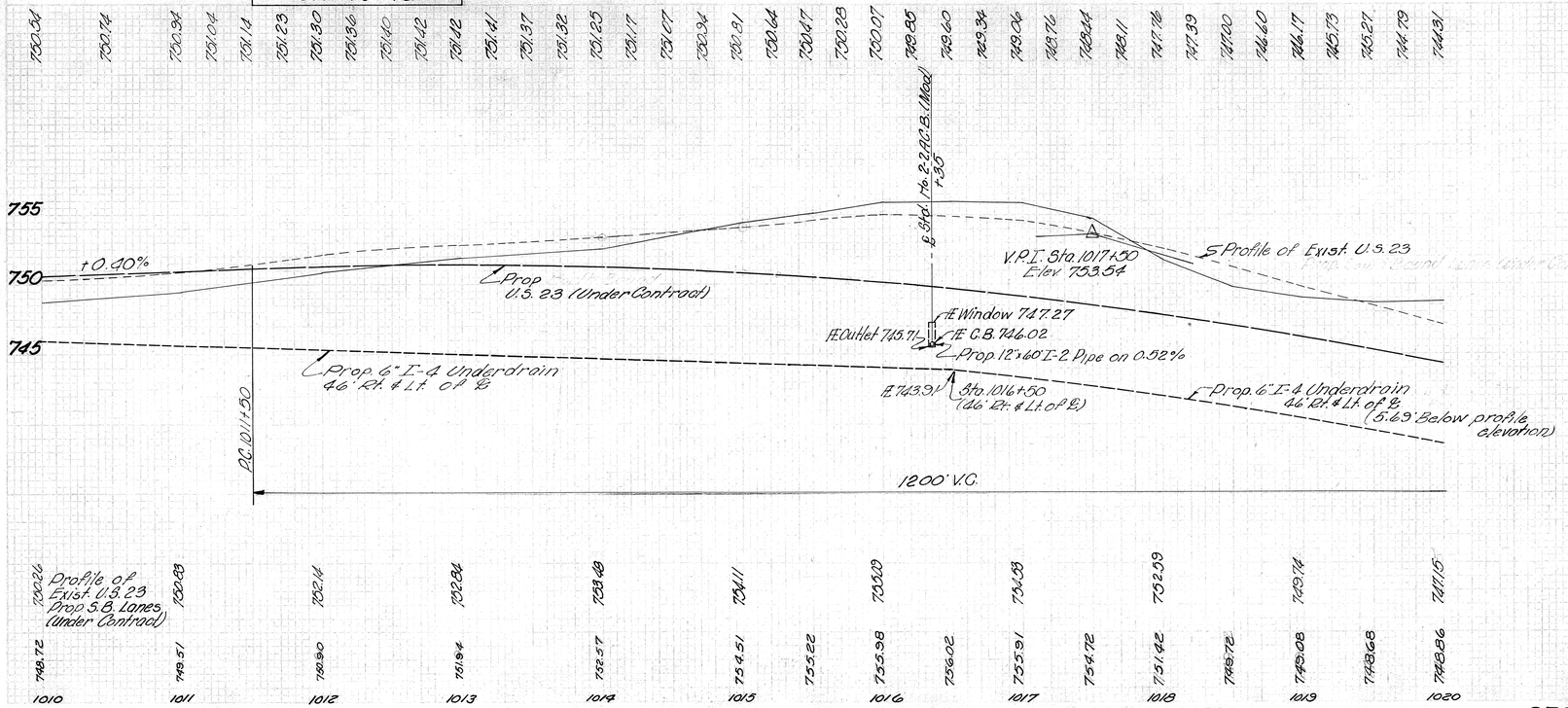
DRAINAGE

Reference Number	See Sheet Number	Station to Station	Side	I-2 Storm Sewer Class B 12" Lin.Ft.	I-3 Roadway Drainage 8" Lin.Ft.	I-8 Catch Basin Std. 14-2.2-8 (Mod.) Each	I-14 Paved Gutter Type I-9 Lin.Ft.	L-10 Sodding Sq.Yds.					
12	141	1000+85	Lt. & Rt.										
1-D		1000+88 - 1008+00	Lt.					679					
2-D		1000+00 - 1008+58.05	Rt.					803					
3-D		1000+94.5	Lt.	7		1	10	3					
4-D		1000+79	Rt.		26								
		TOTAL		7	26	1	10	1485					

STA. 1000+0 TO STA. 1010+0

ROSS COUNTY
ROS-23-(15.37)(16.01)





STA. 1010+0 TO STA. 1020+0

SUPERELEVATION TABLES

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

40
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

SOUTH BOUND LANES

LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	PROFILE ELEVATION	STATION	SUPER-ELEVATION
641.54	641.73	641.92	642.11	810 + 61.75	-0.38
641.55	641.74	641.93	642.12	+ 75	
641.57	641.76	641.95	642.14	811 + 00	
641.59	641.78	641.97	642.16	+25	
641.61	641.80	641.99	642.18	+50	
641.63	641.82	642.01	642.20	+75	
641.65	641.84	642.03	642.22	812 +00	
641.67	641.86	642.05	642.24	+25	
641.69	641.88	642.07	642.26	+50	
641.71	641.90	642.09	642.28	+75	
641.73	641.92	642.11	642.30	813 +00	
641.75	641.94	642.13	642.32	+25	
641.77	641.96	642.15	642.34	+50	
641.79	641.98	642.17	642.36	+75	
641.81	642.00	642.19	642.38	814 +00	
641.83	642.02	642.21	642.40	+25	
641.86	642.05	642.24	642.43	+50	
641.88	642.07	642.26	642.45	+75	
641.90	642.09	642.28	642.47	815 +00	
641.92	642.11	642.30	642.49	+25	
641.94	642.13	642.32	642.51	+50	
641.96	642.15	642.34	642.53	+75	
641.98	642.17	642.36	642.55	816 +00	
642.00	642.19	642.38	642.57	+25	
642.02	642.21	642.40	642.59	+50	
642.04	642.23	642.42	642.61	+75	
642.06	642.25	642.44	642.63	817 +00	-0.38
642.14	642.33	642.47	642.66	+25	0.33
642.25	642.44	642.54	642.73	+50	0.29
642.41	642.60	642.65	642.84	+75	0.24
642.57	642.78	642.78	642.97	818 +00	0.19
642.81	643.00	642.95	643.14	+25	0.14
643.05	643.24	643.15	643.34	+50	0.10
643.34	643.53	643.39	643.58	+75	0.05
643.66	643.85	643.66	643.85	819 +00	0.00
643.96	644.15	643.96	644.15	+25	0.00
644.29	644.48	644.29	644.48	+50	0.00
644.69	644.83	644.64	644.83	+75	0.05
645.09	645.18	644.99	645.18	820 +00	0.10
645.48	645.53	645.34	645.53	+25	0.14
645.87	645.87	645.68	645.87	+49.42	0.19
646.24	646.15	645.96	646.15	+69.42	0.28
646.61	646.43	646.24	646.43	+89.42	0.37
646.97	646.75	646.52	646.71	821 +09.42	0.45
647.34	647.07	646.80	646.99	+29.42	0.54
647.71	647.40	647.08	647.27	+49.42	0.63
648.08	647.72	647.36	647.55	+69.42	0.72
648.44	648.04	647.64	647.83	+89.42	0.80
648.81	648.37	647.92	648.11	822 +09.42	0.89
649.18	648.69	648.20	648.39	+29.42	0.98
649.55	649.02	648.48	648.67	+49.42	1.07
649.91	649.34	648.76	648.95	+69.42	1.15
650.28	649.66	649.04	649.23	+89.42	1.24
650.65	649.99	649.32	649.51	823 +09.42	1.33
651.02	650.31	649.60	649.79	+29.42	1.42
651.38	650.63	649.88	650.07	+49.42	1.50
651.74	650.95	650.15	650.34	+69.42	1.59
652.09	651.25	650.41	650.60	+89.42	1.68
652.42	651.54	650.65	650.84	824 +09.42	1.77
652.73	651.81	650.88	651.07	+29.42	1.85
653.03	652.06	651.09	651.28	+49.42	1.94
653.04	652.07	651.10	651.29	+50	
653.29	652.32	651.35	651.54	+75	
653.51	652.54	651.57	651.76	825 +00	
653.55	652.58	651.61	651.80	+05	
653.71	652.74	651.77	651.96	+25	
653.85	652.88	651.91	652.10	+45	
653.89	652.92	651.95	652.14	+50	
654.04	653.07	652.10	652.29	+75	
654.09	653.12	652.15	652.34	+85	
654.17	653.20	652.23	652.42	826 +00	
654.28	653.31	652.34	652.53	+25	1.94

SOUTH BOUND LANES

LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	PROFILE ELEVATION	STATION	SUPER-ELEVATION
654.36	653.39	652.42	652.61	826 + 50	1.94
654.42	653.45	652.48	652.67	+75	
654.45	653.48	652.51	652.70	+93	
654.46	653.49	652.52	652.71	827 +00	
654.47	653.50	652.53	652.72	+25	
654.46	653.49	652.52	652.71	+50	
654.44	653.47	652.50	652.69	+75	
654.38	653.41	652.44	652.63	+95	
654.37	653.40	652.43	652.62	828 +00	
654.30	653.33	652.36	652.55	+25	
654.20	653.23	652.26	652.45	+50	
654.20	653.23	652.26	652.45	+51	
654.08	653.11	652.14	652.33	+75	
653.97	653.00	652.03	652.22	829 +00	
653.86	652.89	651.92	652.11	+25	
653.74	652.77	651.80	651.99	+50	
653.63	652.66	651.69	651.88	+75	
653.52	652.55	651.58	651.77	830 +00	
653.40	652.43	651.46	651.65	+25	1.94
653.27	652.31	651.35	651.54	+49.42	1.92
653.11	652.19	651.26	651.45	+69.42	1.85
652.93	652.05	651.17	651.36	+89.42	1.76
652.74	651.91	651.08	651.27	831 +09.42	1.66
652.56	651.78	650.99	651.18	+29.42	1.57
652.38	651.64	650.90	651.09	+49.42	1.48
652.20	651.51	650.81	651.00	+69.42	1.39
652.02	651.37	650.72	650.91	+89.42	1.30
651.84	651.24	650.63	650.82	832 +09.42	1.21
651.64	651.09	650.53	650.72	+29.42	1.11
651.46	650.95	650.44	650.63	+49.42	1.02
651.28	650.82	650.35	650.54	+69.42	0.93
651.10	650.68	650.26	650.45	+89.42	0.84
650.92	650.55	650.17	650.36	833 +09.42	0.75
650.73	650.41	650.08	650.27	+29.42	0.65
650.55	650.27	649.99	650.18	+49.42	0.56
650.38	650.15	649.91	650.10	+69.42	0.47
650.23	650.04	649.85	650.04	+89.42	0.38
650.09	649.95	649.80	649.99	834 +09.42	0.29
649.98	649.88	649.78	649.97	+29.42	0.20
649.87	649.82	649.77	649.96	+49.42	0.10
649.87	649.82	649.77	649.96	+50	0.10
649.79	649.79	649.78	649.97	+75	0.01
649.70	649.77	649.83	650.02	835 +00	0.13
649.66	649.78	649.90	650.09	+25	0.21
649.65	649.83	650.01	650.20	+50	0.36
649.67	649.91	650.14	650.33	+75	0.47
649.71	650.00	650.30	650.49	836 +00	0.59
649.81	650.15	650.49	650.68	+25	0.63
650.01	650.36	650.71	650.90	+50	0.70
650.26	650.61	650.96	651.15	+75	
650.54	650.89	651.24	651.43	837 +00	
650.84	651.19	651.54	651.73	+25	
651.18	651.53	651.88	652.07	+50	
651.53	651.88	652.23	652.42	+75	
651.88	652.23	652.58	652.77	838 +00	
652.23	652.58	652.93	653.12	+25	
652.52	652.83	653.28	653.47	+50	
652.93	653.28	653.63	653.82	+75	
653.28	653.63	653.98	654.17	839 +00	0.70
653.66	654.00	654.33	654.52	+25	0.67
654.08	654.38	654.68	654.87	+50	0.60
654.54	654.79	655.04	655.23	+75	0.50
655.02	655.22	655.41	655.60	840 +00	0.39
655.52	655.71	655.81	656.00	+25	0.29
656.02	656.21	656.21	656.40	+50	0.18
656.51	656.70	656.64	656.83	+75	0.13
657.02	657.21	657.08	657.27	841 +00	0.06
657.52	657.71	657.54	657.73	+25	0.02
658.02	658.21	658.02	658.21	+50	0.00

← Suspend Pavement Sta 840+00

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERELEVATION TABLES

SOUTH BOUND LANES

STA. 810+61.75 TO STA. 841+50

SCALE ——— DATE 3-14-56

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	W.D.J.	[illegible]			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

41/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

SUPERELEVATION TABLES

NORTH BOUND LANES

LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	PROFILE ELEVATION	STATION	SUPER-ELEVATION
641.92	641.73	641.54	642.11	810+83.59	0.38
641.93	641.74	641.55	642.12	811 +00	
641.96	641.77	641.58	642.15	+25	
641.98	641.79	641.60	642.17	+50	
642.00	641.81	641.62	642.19	+75	
642.02	641.83	641.64	642.21	812 +00	
642.04	641.85	641.66	642.23	+25	
642.06	641.87	641.68	642.25	+50	
642.08	641.89	641.70	642.27	+75	
642.10	641.91	641.72	642.29	813 +00	
642.12	641.93	641.74	642.31	+25	
642.14	641.95	641.76	642.33	+50	
642.16	641.97	641.78	642.35	+75	
642.18	641.99	641.80	642.37	814 +00	
642.21	642.02	641.83	642.40	+25	
642.23	642.04	641.85	642.42	+50	
642.25	642.06	641.87	642.44	+75	
642.27	642.08	641.89	642.46	815 +00	
642.29	642.10	641.91	642.48	+25	
642.31	642.12	641.93	642.50	+50	
642.33	642.14	641.95	642.52	+75	
642.37	642.18	641.99	642.56	816 +00	
642.43	642.24	642.05	642.62	+25	
642.51	642.32	642.13	642.70	+50	
642.61	642.42	642.23	642.80	+75	
642.73	642.54	642.35	642.92	817 +00	
642.87	642.68	642.49	643.06	+25	
643.03	642.84	642.65	643.22	+50	
643.22	643.03	642.84	643.41	+75	
643.43	643.24	643.05	643.62	818 +00	
643.65	643.46	643.27	643.84	+25	
643.90	643.71	643.52	644.09	+50	
644.16	643.97	643.78	644.35	+75	
644.45	644.26	644.07	644.64	819 +00	
644.76	644.57	644.38	644.95	+25	
645.08	644.89	644.70	645.27	+50	
645.43	645.24	645.05	645.62	+75	
645.78	645.59	645.40	645.97	820 +00	
646.13	645.94	645.75	646.32	+25	
646.48	646.29	646.10	646.67	+50	
646.83	646.64	646.45	647.02	+75	
647.18	646.99	646.80	647.37	821 +00	
647.53	647.34	647.15	647.72	+25	
647.74	647.55	647.36	647.93	+40.13	
648.02	647.83	647.64	648.21	+60.13	
648.30	648.11	647.92	648.49	+80.13	0.38
648.58	648.36	648.13	648.77	822 +00.13	0.45
648.86	648.59	648.32	649.05	+20.13	0.54
649.12	648.81	648.49	649.31	+40.13	0.63
649.38	649.02	648.66	649.57	+60.13	0.72
649.62	649.22	648.82	649.81	+80.13	0.80
649.86	649.42	648.97	650.05	823 +00.13	0.89
650.08	649.59	649.10	650.27	+20.13	0.98
650.30	649.77	649.23	650.49	+40.13	1.07
650.51	649.94	649.36	650.70	+60.13	1.15
650.70	650.08	649.46	650.89	+80.13	1.24
650.89	650.23	649.56	651.08	824 +00.13	1.33
651.07	650.36	649.65	651.26	+20.13	1.42
651.24	650.49	649.74	651.43	+40.13	1.50
651.40	650.61	649.81	651.59	+60.13	1.59
651.54	650.70	649.86	651.73	+80.13	1.68
651.68	650.80	649.91	651.87	825 +00.13	1.77
651.81	650.89	649.96	652.00	+20.13	1.85
651.93	650.96	649.99	652.12	+40.13	1.94
651.99	651.02	650.05	652.18	+50	1.94
652.12	651.15	650.18	652.31	+75	1.94

NORTH BOUND LANES

LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	PROFILE ELEVATION	STATION	SUPER-ELEVATION
652.23	651.26	650.29	652.42	826 +00	1.94
652.33	651.36	650.39	652.52	+25	
652.41	651.44	650.47	652.60	+50	
652.48	651.51	650.54	652.67	+75	
652.53	651.56	650.59	652.72	827 +00	
652.58	651.61	650.64	652.77	+25	
652.62	651.65	650.68	652.81	+50	
652.67	651.70	650.73	652.86	+75	
652.71	651.74	650.77	652.90	828 +00	
652.74	651.77	650.80	652.93	+25	
652.73	651.76	650.79	652.92	+50	
652.68	651.71	650.74	652.87	+75	
652.59	651.62	650.65	652.78	829 +00	
652.48	651.51	650.53	652.67	+25	
652.31	651.34	650.37	652.50	+50	
652.12	651.15	650.18	652.31	+75	
651.88	650.91	649.94	652.07	830 +00	
651.61	650.64	649.67	651.80	+25	
651.31	650.34	649.37	651.50	+50	
650.96	649.99	649.02	651.15	+75	
650.56	649.99	649.02	651.15	+75.13	1.94
650.66	649.74	648.81	650.85	+95.13	1.85
650.34	649.47	648.59	650.53	831 +15.13	1.75
650.02	649.19	648.36	650.21	+35.13	1.66
649.70	648.92	648.14	649.89	+55.13	1.56
649.38	648.65	647.91	649.57	+75.13	1.47
649.08	648.40	647.71	649.27	+95.13	1.37
648.80	648.16	647.52	648.99	832 +15.13	1.23
648.56	647.97	647.37	648.75	+35.13	1.13
648.36	647.82	647.27	648.55	+55.13	1.03
648.18	647.68	647.18	648.37	+75.13	1.07
648.04	647.59	647.14	648.23	+95.13	0.97
647.93	647.53	647.12	648.12	833 +15.13	0.81
647.85	647.50	647.14	648.04	+35.13	0.71
647.80	647.49	647.18	647.99	+55.13	0.62
647.79	647.53	647.26	647.98	+75.13	0.53
647.81	647.60	647.38	648.00	+95.13	0.43
647.86	647.69	647.52	648.05	834 +15.13	0.31
647.94	647.82	647.70	648.13	+35.13	0.24
648.05	647.98	647.90	648.24	+55.13	0.15
648.20	648.18	648.15	648.39	+75.13	0.05
648.43	648.46	648.49	648.62	835 +00	0.00
648.71	648.80	648.89	648.90	+25	0.18
649.03	649.18	649.33	649.22	+50	0.30
649.41	649.62	649.83	649.60	+75	0.41
649.84	650.11	650.37	650.03	836 +00	0.53
650.32	650.65	650.97	650.51	+25	0.65
650.85	651.24	651.62	651.04	+50	0.77
651.43	651.82	652.20	651.62	+75	
652.04	652.43	652.81	652.23	837 +00	
652.64	653.03	653.41	652.83	+25	
653.25	653.64	654.02	653.44	+50	
653.85	654.24	654.62	654.04	+75	
654.46	654.85	655.23	654.65	838 +00	
655.06	655.45	655.83	655.25	+25	
655.67	656.06	656.44	655.86	+50	
656.27	656.66	657.04	656.46	+75	
656.88	657.27	657.65	657.07	839 +00	0.77
NOTE—			657.67	+25	
Pavement shall be feathered and warped to meet existing pavement between 839+00 and 839+80.54			658.28	+50	
			658.88	+75	
			659.49	840 +00	

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERELEVATION TABLES

NORTH BOUND LANES

STA. 810+83.59 TO STA 841+00

SCALE ——— DATE 12-28-55

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	W.D.J.	SEG			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

ROSS COUNTY
ROS-23-(15.37)(16.01)

SUPERELEVATION TABLES

SOUTH BOUND LANES						NORTH BOUND LANES		
LT. EDGE ELEVATION	& ELEVATION	RT. EDGE ELEVATION	SOUTH BOUND PROFILE ELEVATION	STATION	SUPER-ELEVATION	LT. EDGE ELEVATION	& ELEVATION	RT. EDGE ELEVATION
685.03	685.22	685.03	685.22	867+06.36	0.00	685.03	685.22	685.03
685.17	685.36	685.22	685.41	867+25	0.05	685.26	685.45	685.31
685.39	685.58	685.50	685.69	+50	0.11	685.56	685.75	685.67
685.69	685.88	685.88	686.07	+81.36	0.19	685.96	686.15	686.15
685.86	686.05	686.14	686.33	868+01.36	0.28	686.25	686.44	686.53
686.05	686.24	686.42	686.61	+21.36	0.37	686.57	686.76	686.94
686.26	686.49	686.71	686.90	+41.36	0.45	686.87	687.10	687.32
686.49	686.76	687.04	687.23	+61.36	0.54	687.18	687.45	687.72
686.72	687.04	687.35	687.54	+81.36	0.63	687.49	687.81	688.12
686.97	687.33	687.69	687.88	869+01.36	0.72	687.83	688.19	688.55
687.25	687.65	688.05	688.24	+21.36	0.80	688.18	688.58	688.98
687.52	687.97	688.41	688.60	+41.36	0.89	688.50	688.95	689.39
687.82	688.31	688.80	688.99	+61.36	0.98	688.85	689.34	689.83
688.11	688.65	689.18	689.37	+81.36	1.07	689.20	689.74	690.27
688.42	689.00	689.57	689.76	870+01.36	1.15	689.56	690.14	690.71
688.72	689.34	689.96	690.14	+21.36	1.24	689.94	690.56	691.18
689.01	689.68	690.34	690.53	+41.36	1.33	690.31	690.98	691.64
689.30	690.01	690.72	690.91	+61.36	1.42	690.69	691.40	692.11
689.61	690.36	691.11	691.29	+81.36	1.50	691.07	691.82	692.57
689.90	690.70	691.49	691.68	871+01.36	1.59	691.45	692.24	693.04
690.20	691.04	691.88	692.06	+21.36	1.68	691.83	692.67	693.51
690.49	691.38	692.26	692.45	+41.36	1.77	692.20	693.09	693.97
690.79	691.72	692.64	692.83	+61.36	1.85	692.57	693.50	694.42
691.10	692.06	693.02	693.21	+81.36	1.92	692.96	693.92	694.86
691.44	692.41	693.38	693.57	872+00	1.94	693.35	694.31	695.29
691.92	692.89	693.86	694.05	+25	1.94	693.83	694.80	695.77
692.40	693.37	694.34	694.53	+50		694.31	695.28	696.25
692.88	693.85	694.82	695.01	+75		694.79	695.76	696.73
693.36	694.33	695.30	695.49	873+00		695.27	696.24	697.21
693.84	694.81	695.78	695.97	+25		695.74	696.71	697.68
693.94	694.91	695.88	696.07	+30		695.83	696.80	697.77
694.32	695.29	696.26	696.45	+50		696.19	697.16	698.13
694.80	695.77	696.74	696.93	+75		696.67	697.64	698.61
695.28	696.25	697.22	697.41	874+00		697.13	698.10	699.07
695.76	696.73	697.70	697.89	+25		697.61	698.58	699.55
696.24	697.21	698.18	698.37	+50		698.09	699.06	700.03
696.72	697.69	698.66	698.85	+75		698.56	699.53	700.50
697.20	698.17	699.14	699.33	875+00		699.03	700.00	700.97
697.68	698.65	699.62	699.81	+25		699.51	700.48	701.45
698.16	699.13	700.10	700.29	+50		699.99	700.96	701.93
698.64	699.61	700.58	700.77	+75		700.46	701.43	702.40
699.12	700.09	701.06	701.25	876+00		700.94	701.91	702.88
699.60	700.57	701.54	701.73	+25		701.42	702.39	703.36
700.08	701.05	702.02	702.21	+50		701.90	702.87	703.84
700.56	701.53	702.50	702.69	+75		702.37	703.34	704.31
701.04	702.01	702.98	703.17	877+00		702.85	703.82	704.79
701.52	702.49	703.46	703.65	+25		703.33	704.30	705.27
702.00	702.97	703.94	704.13	+50		703.81	704.78	705.75
702.48	703.45	704.42	704.61	+75		704.28	705.25	706.22
702.96	703.93	704.90	705.09	878+00		704.76	705.73	706.70
703.44	704.41	705.38	705.57	+25		705.24	706.21	707.18
703.92	704.89	705.86	706.05	+50		705.72	706.69	707.66
704.40	705.37	706.34	706.53	+75		706.19	707.16	708.13
704.88	705.85	706.82	707.01	879+00		706.67	707.64	708.61
705.36	706.33	707.30	707.49	+25		707.15	708.12	709.09
705.84	706.81	707.78	707.97	+50		707.63	708.60	709.57
706.32	707.29	708.26	708.45	+75		708.10	709.07	710.04
706.80	707.77	708.74	708.93	880+00		708.58	709.55	710.52
707.28	708.25	709.22	709.41	+25		709.06	710.03	711.00
707.76	708.73	709.70	709.89	+50		709.54	710.51	711.48
708.24	709.21	710.18	710.37	+75		710.01	710.98	711.95
708.72	709.69	710.66	710.85	881+00		710.49	711.46	712.43
709.20	710.17	711.14	711.33	+25		710.97	711.94	712.91
709.68	710.65	711.62	711.81	+50		711.44	712.41	713.38
710.16	711.13	712.10	712.29	+75		711.92	712.89	713.86
710.64	711.61	712.58	712.77	882+00		712.39	713.36	714.33
711.12	712.09	713.06	713.25	+25	1.94	712.87	713.84	714.81

SOUTH BOUND LANES						NORTH BOUND LANES		
LT. EDGE ELEVATION	& ELEVATION	RT. EDGE ELEVATION	SOUTH BOUND PROFILE ELEVATION	STATION	SUPER-ELEVATION	LT. EDGE ELEVATION	& ELEVATION	RT. EDGE ELEVATION
711.60	712.57	713.54	713.73	882+50	1.94	713.34	714.31	715.28
712.08	713.05	714.02	714.21	+75		713.82	714.79	715.76
712.56	713.53	714.50	714.69	883+00		714.29	715.26	716.23
713.04	714.01	714.98	715.17	+25		714.75	715.72	716.69
713.52	714.49	715.46	715.65	+50		715.22	716.19	717.16
714.00	714.97	715.94	716.13	+75		715.68	716.65	717.62
714.48	715.45	716.42	716.61	884+00	1.94	716.14	717.11	718.08
714.78	715.74	716.70	716.89	+14.69	1.92	716.42	717.38	718.34
715.23	716.16	717.08	717.27	+34.69	1.85	716.80	717.73	718.65
715.71	716.59	717.47	717.66	+54.69	1.77	717.19	718.08	718.96
716.17	717.01	717.85	718.04	+74.69	1.68	717.57	718.41	719.25
716.65	717.45	718.24	718.43	+94.69	1.59	717.96	718.76	719.55
717.12	717.87	718.62	718.81	885+14.69	1.50	718.34	719.09	719.84
717.58	718.29	719.00	719.19	+34.69	1.42	718.72	719.43	720.14
718.06	718.73	719.39	719.58	+54.69	1.33	719.10	719.77	720.43
718.53	719.15	719.77	719.96	+74.69	1.24	719.48	720.10	720.72
719.01	719.59	720.16	720.35	+94.69	1.15	719.86	720.44	721.01
719.47	720.01	720.54	720.73	886+14.69	1.07	720.24	720.78	721.31
719.95	720.44	720.93	721.12	+34.69	0.98	720.62	721.11	721.60
720.41	720.86	721.30	721.49	+54.69	0.89	721.01	721.46	721.90
720.85	721.25	721.65	721.84	+74.69	0.80	721.33	721.73	722.13
721.28	721.64	722.00	722.19	+94.69	0.72	721.64	722.00	722.36
721.70	722.02	722.33	722.52	887+14.69	0.63	721.95	722.27	722.58
722.12	722.39	722.66	722.85	+34.69	0.54	722.25	722.52	722.79
722.52	722.75	722.97	723.16	+54.69	0.45	722.53	722.76	722.98
722.90	723.09	723.27	723.46	+74.69	0.37	722.81	723.00	723.18
723.27	723.46	723.55	723.74	+94.69	0.28	723.08	723.27	723.36
723.63	723.82	723.82	724.01	888+14.69	0.19	723.36	723.55	723.55
723.78	723.97	723.94	724.13	+25	0.16	723.49	723.68	723.65
724.15	724.34	724.25	724.44	+50	0.10	723.81	724.00	723.91
724.50	724.69	724.54	724.73	+75	0.04	724.10	724.29	724.16
724.70	724.89	724.70	724.89	888+89.69	0.00	724.28	724.47	724.28

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERELEVATION TABLES

STA. 867+06.36 TO
STA. 888+89.69

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RWG	JHZ	JHZ	SEW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

43/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

SUPERELEVATION TABLES

SOUTH BOUND LANES						NORTH BOUND LANES		
LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	PROFILE ELEVATION	STATION	SUPER-ELEVATION	LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION
720.74	720.93	720.74	720.93	898+75	0.00	720.40	720.59	720.40
720.48	720.61	720.42	720.61	899+00	0.06	720.09	720.23	720.04
720.23	720.29	720.10	720.29	+25	0.13	719.82	719.91	719.72
719.97	719.97	719.78	719.97	+50	0.19	719.55	719.59	719.40
719.75	719.65	719.46	719.65	+75	0.29	719.32	719.29	719.10
719.52	719.33	719.14	719.33	900+00	0.38	719.07	718.94	718.75
719.30	719.06	718.82	719.01	+25	0.48	718.81	718.60	718.39
719.11	718.83	718.55	718.74	+45.99	0.56	718.55	718.30	718.05
719.08	718.79	718.50	718.69	+50	0.58	718.50	718.24	717.98
718.85	718.52	718.18	718.37	+75	0.67	718.18	717.87	717.56
718.63	718.25	717.86	718.05	901+00	0.77	717.86	717.50	717.14
718.40	717.97	717.54	717.73	+25	0.86	717.54	717.13	716.72
718.15	717.69	717.22	717.41	+50	0.93	717.22	716.76	716.30
717.86	717.38	716.90	717.09	+75	0.96	716.90	716.42	715.94
717.54	717.06	716.58	716.77	902+00		716.58	716.10	715.62
717.22	716.74	716.26	716.45	+25		716.26	715.78	715.30
716.90	716.42	715.94	716.13	+50		715.94	715.46	714.98
716.58	716.10	715.62	715.81	+75		715.62	715.14	714.66
716.26	715.78	715.30	715.49	903+00		715.30	714.82	714.34
715.94	715.46	714.98	715.17	+25		714.98	714.50	714.02
715.62	715.14	714.66	714.85	+50		714.66	714.18	713.70
715.30	714.82	714.34	714.53	+75		714.34	713.86	713.38
714.98	714.50	714.02	714.21	904+00		714.02	713.54	713.06
714.66	714.18	713.70	713.89	+25		713.70	713.22	712.74
714.34	713.86	713.38	713.57	+50		713.38	712.90	712.42
714.02	713.54	713.06	713.25	+75		713.06	712.58	712.10
713.70	713.22	712.74	712.93	905+00		712.74	712.26	711.78
713.38	712.90	712.42	712.61	+25		712.42	711.94	711.46
713.06	712.58	712.10	712.29	+50		712.10	711.62	711.14
712.74	712.26	711.78	711.97	+75		711.78	711.30	710.82
712.42	711.94	711.46	711.65	906+00		711.46	710.98	710.50
712.10	711.62	711.14	711.33	+25		711.14	710.66	710.18
711.78	711.30	710.82	711.01	+50		710.82	710.34	709.86
711.46	710.98	710.50	710.69	+75		710.50	710.02	709.54
711.14	710.66	710.18	710.37	907+00		710.18	709.70	709.22
710.82	710.32	709.86	710.05	+25		709.86	709.38	708.90
710.50	710.02	709.54	709.73	+50		709.54	709.06	708.58
710.18	709.70	709.22	709.41	+75		709.22	708.74	708.26
709.86	709.38	708.90	709.09	908+00		708.90	708.42	707.94
709.54	709.06	708.58	708.77	+25		708.58	708.10	707.62
709.22	708.74	708.26	708.45	+50		708.26	707.78	707.30
708.90	708.42	708.94	708.13	+75	0.96	707.94	707.46	706.98
708.55	708.09	707.62	707.81	909+00	0.93	707.62	707.16	706.69
708.16	707.73	707.30	707.49	+25	0.86	707.30	706.87	706.44
707.75	707.37	706.98	707.17	+50	0.77	706.98	706.60	706.21
707.33	707.00	706.66	706.85	+75	0.67	706.66	706.33	705.99
706.92	706.63	706.34	706.53	910+00	0.58	706.34	706.05	705.76
706.50	706.26	706.02	706.21	+25	0.48	706.02	705.78	705.54
706.10	705.91	705.72	705.91	+50	0.38	705.72	705.53	705.34
705.71	705.61	705.42	705.61	+75	0.29	705.42	705.32	705.13
705.31	705.31	705.12	705.31	911+00	0.19	705.13	705.13	704.94
704.97	705.03	704.84	705.03	+25	0.13	704.85	704.91	704.72
704.62	704.75	704.56	704.75	+50	0.06	704.58	704.71	704.52
704.29	704.48	704.29	704.48	+75	0.00	704.32	704.51	704.32

SOUTH BOUND LANES						NORTH BOUND LANES		
LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	NORTH BOUND PROFILE ELEVATION	STATION	SUPER-ELEVATION	LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION
676.83	677.02	676.83	676.28	948+50	0.00	676.09	676.28	676.09
676.87	677.00	676.81	676.14	+75	0.06	675.95	676.08	675.89
676.92	676.98	676.19	676.03	949+00	0.13	675.84	675.90	675.71
676.95	676.95	676.76	675.95	+25	0.19	675.76	675.76	675.57
677.02	676.92	676.73	675.88	+50	0.29	675.69	675.57	675.38
677.11	676.92	676.72	675.85	+67	0.39	675.66	675.47	675.27
677.14	676.93	676.71	675.84	+75	0.43	675.65	675.44	675.22
677.24	676.97	676.69	675.82	950+00	0.55	675.63	675.36	675.08
			675.82	+20.81	0.65	675.63	675.31	674.98
677.34	677.01	676.67	675.83	+25	0.67	675.64	675.31	674.97
677.40	677.04	676.67	675.84	+37.50	0.73	675.65	675.29	674.92
677.47	677.08	676.68	675.86	+50	0.79	675.67	675.28	674.88
677.61	677.16	676.70	675.91	+75	0.91	675.72	675.27	674.81
677.79	677.28	676.76	675.98	951+00	1.03	675.79	675.28	674.76
677.98	677.41	676.83	676.08	+25	1.15	675.89	675.32	674.76
678.06	677.49	676.91	676.20	+50		676.01	675.44	674.86
678.15	677.58	677.00	676.34	+75		676.15	675.58	675.00
678.25	677.68	677.10	676.50	952+00		676.31	675.74	675.16
678.38	677.81	677.23	676.69	+25		676.50	675.93	675.35
678.52	677.95	677.37	676.90	+50		676.71	676.14	675.56
678.59	678.02	677.44	677.01	+62		676.82	676.25	675.67
678.66	678.09	677.45	677.14	+75		676.95	676.38	675.80
678.80	678.23	677.65	677.39	953+00		677.20	676.63	676.05
678.94	678.37	677.79	677.62	+20		677.43	676.86	676.28
678.98	678.41	677.83	677.67	+25		677.48	676.91	676.33
679.18	678.61	678.03	677.98	+50		677.79	677.22	676.64
679.40	678.83	678.25	678.30	+75		678.11	677.54	676.96
679.47	678.90	678.32	678.40	+82		678.21	677.64	677.06
679.66	679.09	678.51	678.65	954+00		678.46	677.89	677.31
679.95	679.38	678.80	679.01	+25		678.82	678.25	677.67
680.15	679.58	679.00	679.24	+41		679.05	678.48	677.90
680.24	679.67	679.09	679.37	+50		679.18	678.61	678.03
680.55	679.98	679.40	679.73	+75		679.34	678.97	678.39
680.67	680.10	679.52	679.86	+84		679.67	679.10	678.52
680.88	680.31	679.73	680.09	955+00		679.90	679.33	678.75
681.23	680.66	680.08	680.45	+25		680.26	679.69	679.11
681.59	681.02	680.44	680.81	+50		680.62	680.05	679.47
681.95	681.38	680.80	681.17	+75		680.98	680.41	679.83
682.08	681.51	680.93	681.31	+85		681.12	680.55	679.97
682.31	681.74	681.16	681.53	956+00		681.34	680.76	680.19
682.66	682.09	681.51	681.59	+25		681.70	681.12	680.55
683.02	682.45	681.87	682.25	+50		682.06	681.48	680.91
683.38	682.81	682.23	682.61	+75		682.42	681.84	681.27
683.52	682.95	682.37	682.75	+85		682.56	681.98	681.41
683.74	683.17	682.59	682.97	957+00		682.78	682.20	681.63
684.10	683.53	682.95	683.33	+25		683.14	682.56	681.99
684.46	683.89	683.31	683.69	+50		683.50	682.92	682.35
684.79	684.22	683.64	684.02	+73		683.83	683.25	682.68
684.82	684.25	683.67	684.05	+75		683.86	683.28	682.71
685.18	684.61	684.03	684.41	958+00		684.22	683.64	683.07
685.54	684.97	684.39	684.77	+25		684.58	684.00	683.43
685.90	685.33	684.79	685.13	+50		684.94	684.36	683.79
686.26	685.69	685.11	685.49	+75	1.15	685.30	684.72	684.15
686.62	686.05	685.47	685.85	959+00	1.11	685.66	686.11	684.55
686.91	686.40	685.88	686.21	+25	1.03	686.02	685.51	684.99
687.20	686.75	686.29	686.57	+50	0.91	686.38	685.93	685.47
687.49	687.10	686.70	686.93	+75	0.79	686.74	686.35	685.95
			687.27	+98.31	0.68	687.08	686.74	686.40
687.74	687.41	687.07	687.29	960+00	0.67	687.10	686.77	686.43
687.98	687.71	687.43	687.65	+25	0.55	687.46	687.19	686.91
688.21	688.00	687.78	688.01	+50	0.43	687.82	687.61	687.39
688.44	688.32	688.13	688.37	+75	0.31	688.18	688.06	687.87
688.64	688.64	688.45	688.73	961+00	0.19	688.54	688.34	688.35
688.88	688.94	688.75	689.09	+25	0.13	688.90	688.96	688.77
689.13	689.26	689.07	689.45	+50	0.06	689.26	689.39	689.20
689.43	689.62	689.43	689.81	+75	0.00	689.62	689.81	689.62

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERELEVATION TABLES

STA. 898+75 TO STA. 911+75
STA. 948+50 to STA. 961+75

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	J.H.Z	R.L.M.	[illegible]			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

44/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

SUPERELEVATION TABLES

SOUTH BOUND LANES						NORTH BOUND LANES		
LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION	NORTH BOUND PROFILE ELEVATION	STATION	SUPER-ELEVATION	LT. EDGE ELEVATION	℄ ELEVATION	RT. EDGE ELEVATION
731.08	731.27	731.08	731.25	984+50	0.00	731.06	731.25	731.06
731.60	731.79	731.66	731.79	+75	0.06	731.60	731.79	731.66
732.13	732.32	732.26	732.31	985+00	0.13	732.12	732.31	732.25
732.66	732.85	732.85	732.82	+25	0.19	732.63	732.82	732.82
733.19	733.38	733.46	733.31	+50	027/0.25	733.12	733.31	733.37
733.69	733.88	734.00	733.78	+75	0.31	733.59	733.78	733.90
734.18	734.37	734.56	734.24	986+00	0.38	734.05	734.24	734.43
734.65	734.87	735.09	734.69	+25	0.44	734.50	734.72	734.94
			734.95	+40.24	0.48	734.76	735.00	735.24
735.11	735.36	735.61	735.12	+50	0.50	734.93	735.18	735.43
735.54	735.82	736.10	735.53	+75	0.56	735.34	735.62	735.90
			735.56	+78	0.57	735.37	735.65	735.94
735.97	736.26	736.54	735.93	987+00		735.74	736.02	736.31
736.33	736.72	736.90	736.31	+25		736.12	736.40	736.69
736.68	736.97	737.26	736.68	+50		736.49	736.77	737.06
737.02	737.31	737.59	737.03	+75		736.84	737.12	737.41
737.34	737.63	737.91	737.36	988+00		737.17	737.45	737.74
737.64	737.93	738.21	737.68	+25		737.49	737.77	738.06
737.93	738.22	738.50	737.99	+50		737.80	738.08	738.37
738.20	738.49	738.77	738.28	+75		738.09	738.37	738.66
738.46	738.75	739.03	738.55	989+00		738.36	738.64	738.93
738.69	738.98	739.26	738.81	+25		738.62	738.90	739.19
738.93	739.22	739.50	739.05	+50		738.86	739.14	739.43
739.10	739.39	739.67	739.27	+75		739.08	739.36	739.65
739.28	739.57	739.85	739.48	990+00		739.29	739.57	739.86
739.42	739.71	739.99	739.68	+25		739.49	739.77	740.06
739.56	739.85	740.13	739.86	+50		739.67	739.95	740.24
739.70	739.99	740.27	740.02	+75		739.83	740.11	740.40
739.84	740.13	740.41	740.17	991+00		739.98	740.26	740.55
739.98	740.27	740.55	740.31	+25		740.12	740.40	740.69
740.12	740.41	740.69	740.45	+50		740.26	740.54	740.83
740.26	740.55	740.83	740.59	+75		740.40	740.68	740.97
740.40	740.69	740.97	740.73	992+00		740.54	740.82	741.11
740.54	740.83	741.11	740.87	+25		740.68	740.96	741.25
740.68	740.97	741.25	741.01	+50		740.82	741.10	741.39
74082	741.11	741.39	741.15	+75		740.96	741.24	741.53
740.96	741.25	741.53	741.29	993+00		741.10	741.38	741.67
741.10	741.39	741.67	741.43	+25		741.24	741.52	741.81
741.24	741.53	741.81	741.57	+50		741.38	741.66	741.95
741.38	741.67	741.95	741.71	+75		741.52	741.80	742.09
741.52	741.81	742.09	741.85	994+00		741.66	741.94	742.23
741.66	741.95	742.23	741.99	+25		741.80	742.08	742.37
741.80	742.09	742.37	742.13	+50		741.94	742.22	742.51
741.94	742.23	742.51	742.27	+75		742.08	742.36	742.65
742.08	742.37	742.65	742.41	995+00		742.22	742.50	742.79
742.22	742.51	742.79	742.55	+25		742.36	742.64	742.93
742.36	742.65	742.93	742.69	+50		742.50	742.78	743.07
			742.81	+72	0.57	742.62	742.90	743.19
742.50	742.78	743.06	742.83	+75	0.56	742.64	742.92	743.20
742.64	742.90	743.15	742.97	996+00	0.51	742.78	743.03	743.29
742.75	742.98	743.21	743.06	+15.68	0.46	742.87	743.10	743.33
742.80	743.02	743.24	743.11	+25	0.44	742.92	743.14	743.36
742.96	743.15	743.34	743.25	+50	0.38	743.06	743.25	743.44
743.12	743.31	743.43	743.39	+75	0.31	743.20	743.39	743.51
743.28	743.47	743.53	743.53	997+00	0.25	743.34	743.53	743.59
743.42	743.61	743.61	743.67	+25	0.19	743.48	743.67	743.67
743.54	743.73	743.67	743.81	+50	0.13	743.62	743.81	743.75
743.66	743.85	743.72	743.95	+75	0.06	743.76	743.95	743.82
743.78	743.97	743.78	744.09	998+00	0.00	743.90	744.09	743.90

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERELEVATION TABLES

STA. 984+50 TO STA. 988+00

SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	J.H.Z.	R.J.M.	E.S.B.			

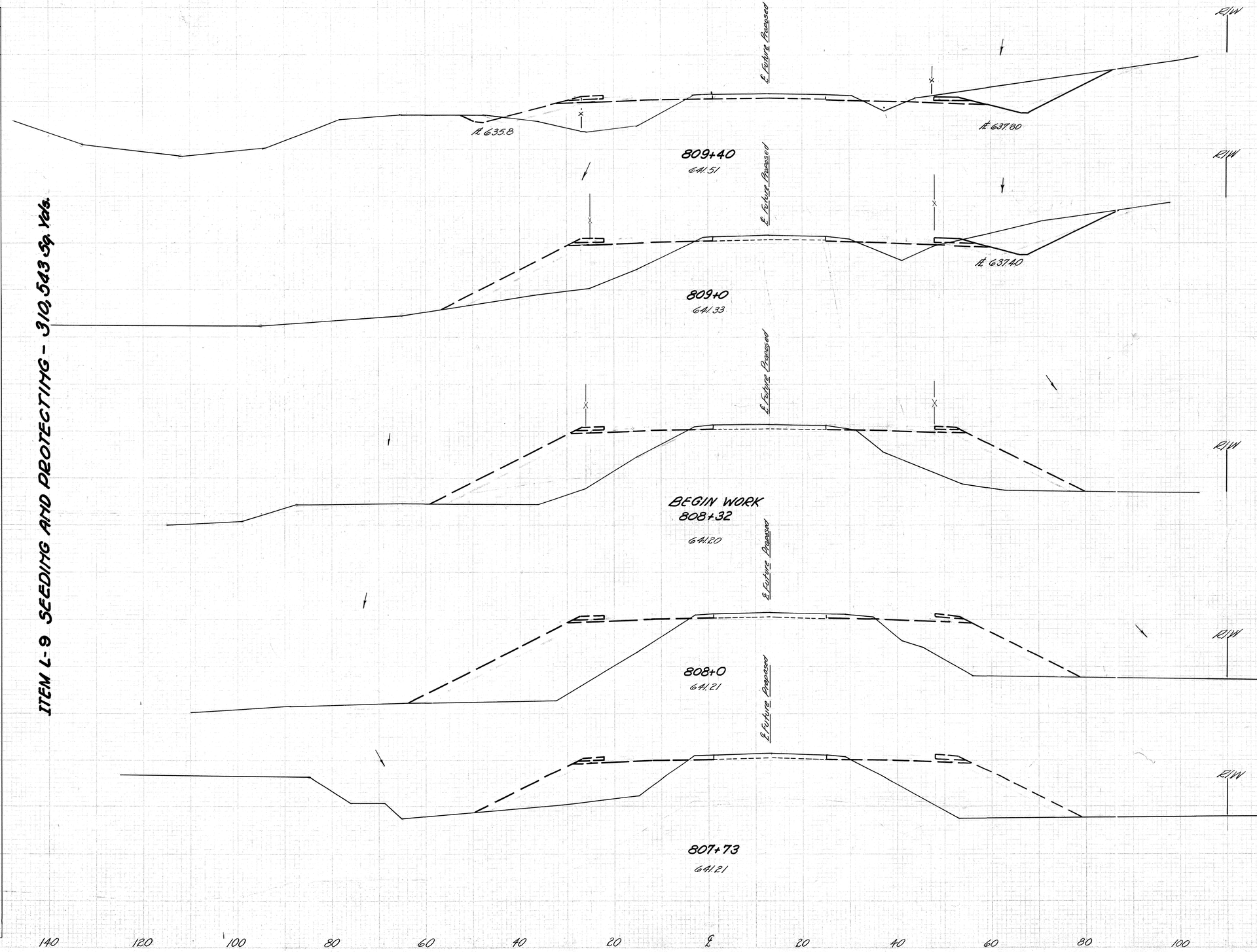
FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

45
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
60	256
55	208
0	

ITEM L-9 SEEDING AND PROTECTING - 310,543 Sq. Yds.



171,592 Cu. Yds.
211,281 Cu. Yds.

EXCAVATION
EMBANKMENT

End Area		Volume	
Cut	Fill	Cut	Fill
155	0		
		214	0
134	0		
		169	0
0	0		

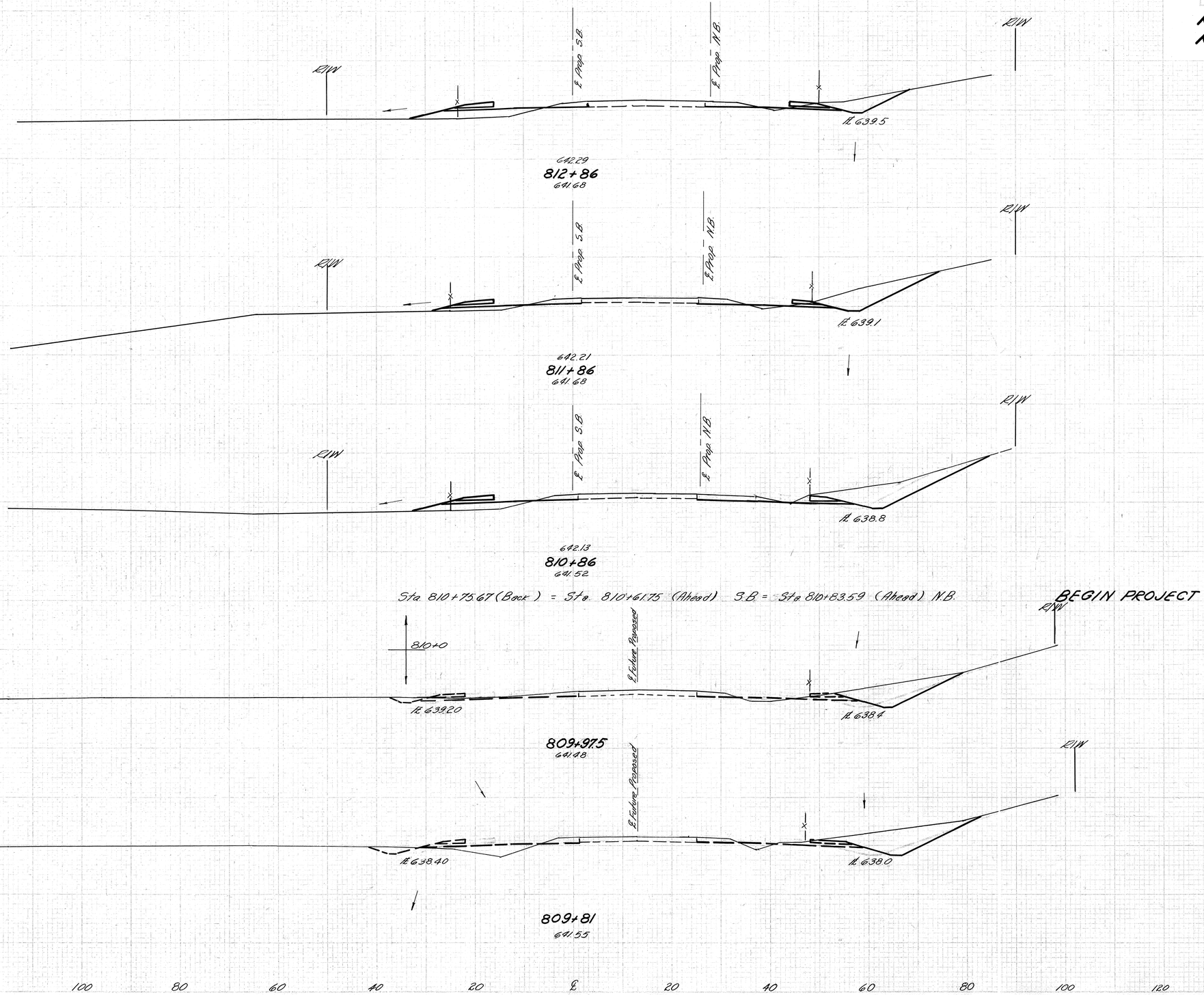
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 807+73 TO STA 809+40

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

46
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



End Area		Volume	
Cut	Fill	Cut	Fill
55	52		
		270	152
91	30		
		335	128
90	39		
		280	68
81	0		
		52	0
89	0		
		185	0
155	0		

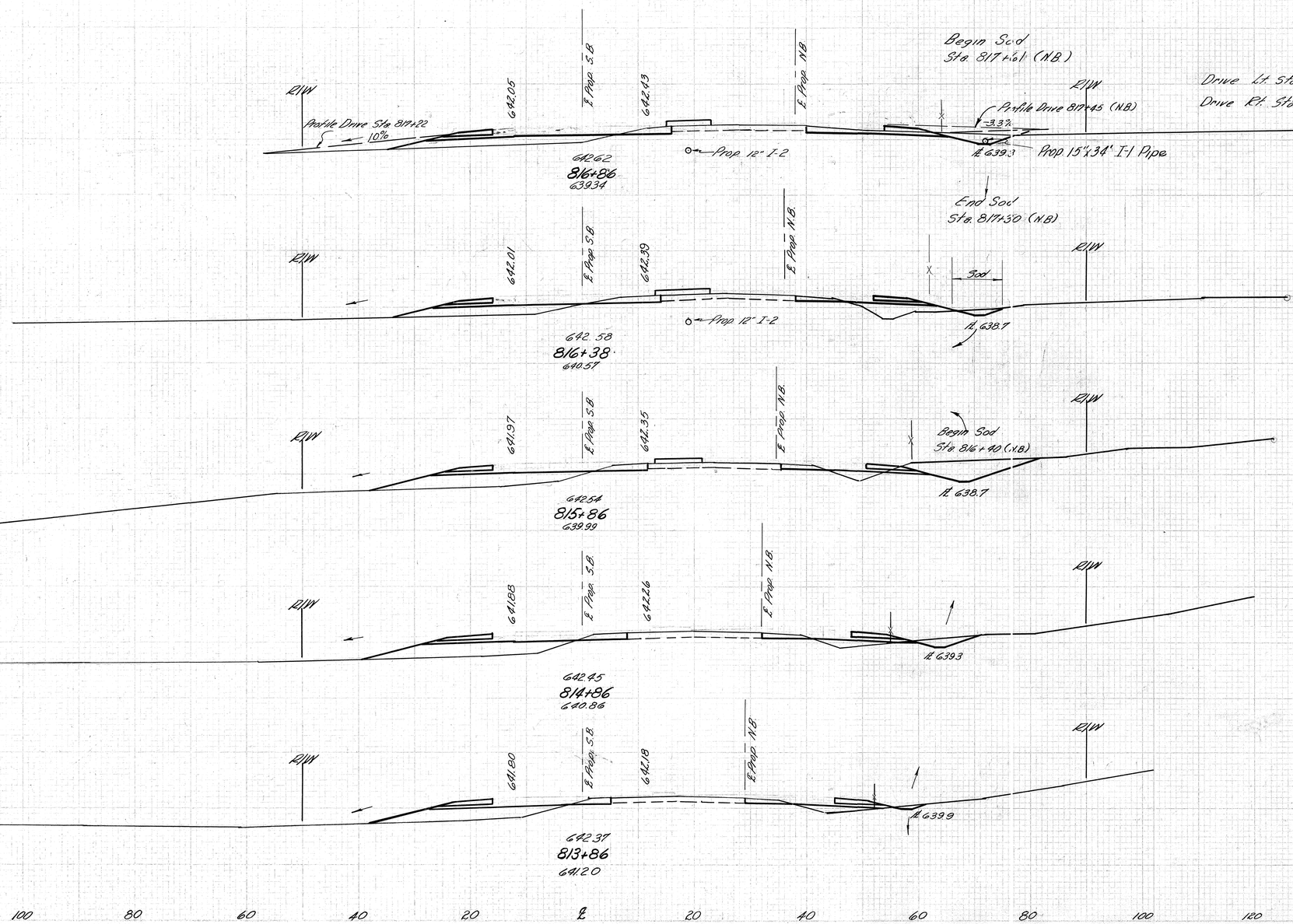
STA. 809+81 TO STA. 812+86

FED. RD. DIVISION	STATE	PROJECT		47
2	OHIO			177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
72	
	384
72	
	454
85	
	850
68	
	711
60	
	689
64	

Sta 812+86



End Area		Volume	
Cut	Fill	Cut	Fill
		0	25
		0	30
11	66		
		56	132
22	82		
		94	164
76	88		
		187	335
25	93		
		72	319
14	79		
		128	243
55	52		

Sta 821+86

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 813+86 TO STA. 816+86

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

48
177

ROSS COUNTY
ROS - 23-(15.37)(16.01)

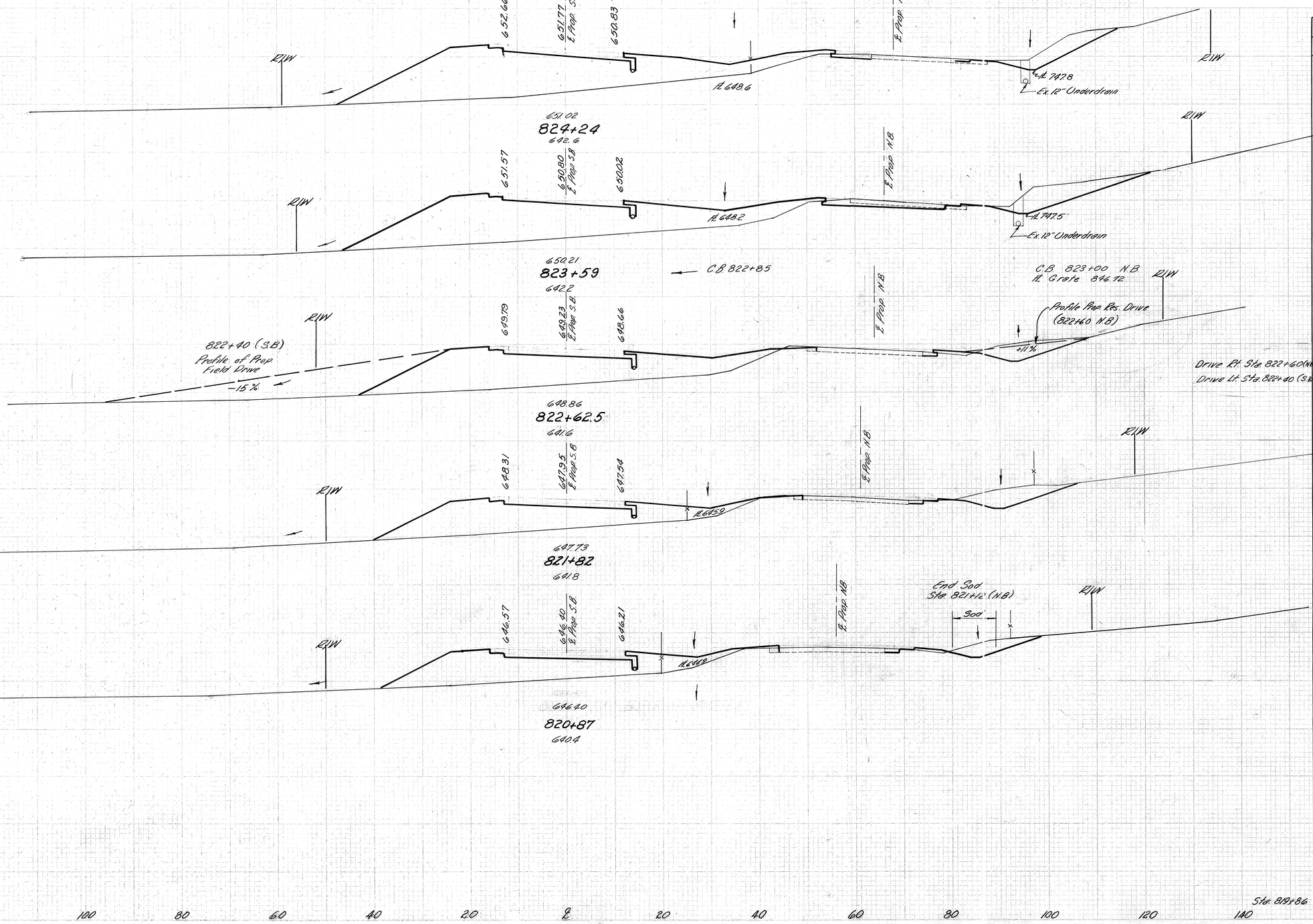
Seeding	
End Width	Sq Yds.
97	

Fed. Rd. Division	State	Project	
2	OHIO		

49
177

ROSS COUNTY
ROS - 23 - (15.37)(16.01

Seeding	
End Width	Sq. Yds.
132	
	971
137	
	1389
124	
	1060
113	
	1151
105	
	1133
97	



End Area		Volume	
Cut	Fill	Cut	Fill
62	595		
		188	1385
90	556		
		281	1828
		Drive Rt. Sta. 822+60 (N.B.) 0	39
		Drive Lt. Sta. 822+40 (S.B.) 0	318
63	467		
		182	1200
59	338		
		164	1185
39	313		
		146	1051
44	249		

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 820+87 TO STA. 824+24

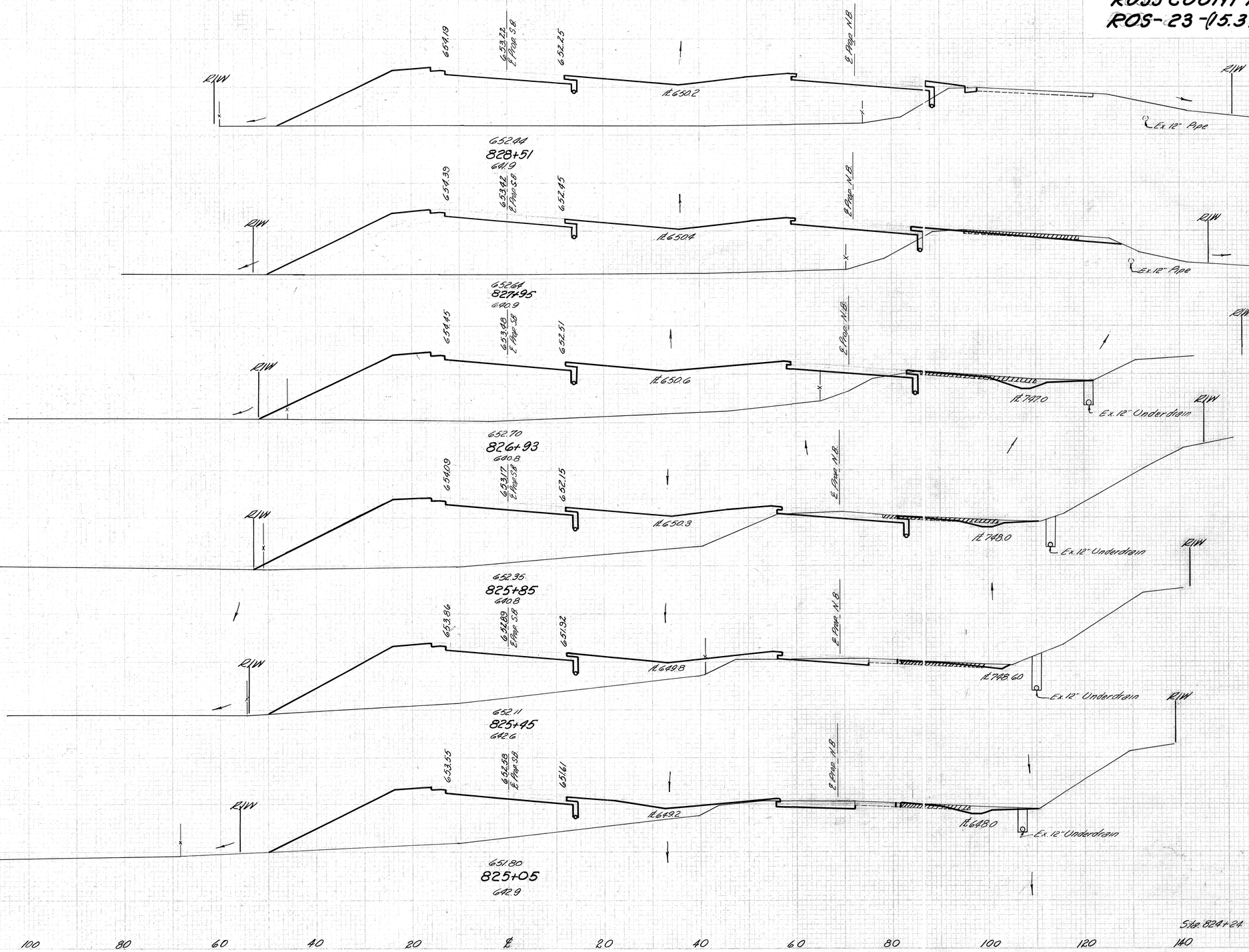
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

50
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
113	818
150	1677
196	1692
136	582
126	571
131	1184
132	

Sta. 824+24



End Area		Volume	
Cut	Fill	Cut	Fill
2	1188		
		11	2533
9	1255		
		47	4601
16	1181		
		96	4282
32	960		
		36	1234
16	706		
		33	987
29	627		
		137	1833
62	595		

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 825+05 TO STA. 828+51

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

51
177

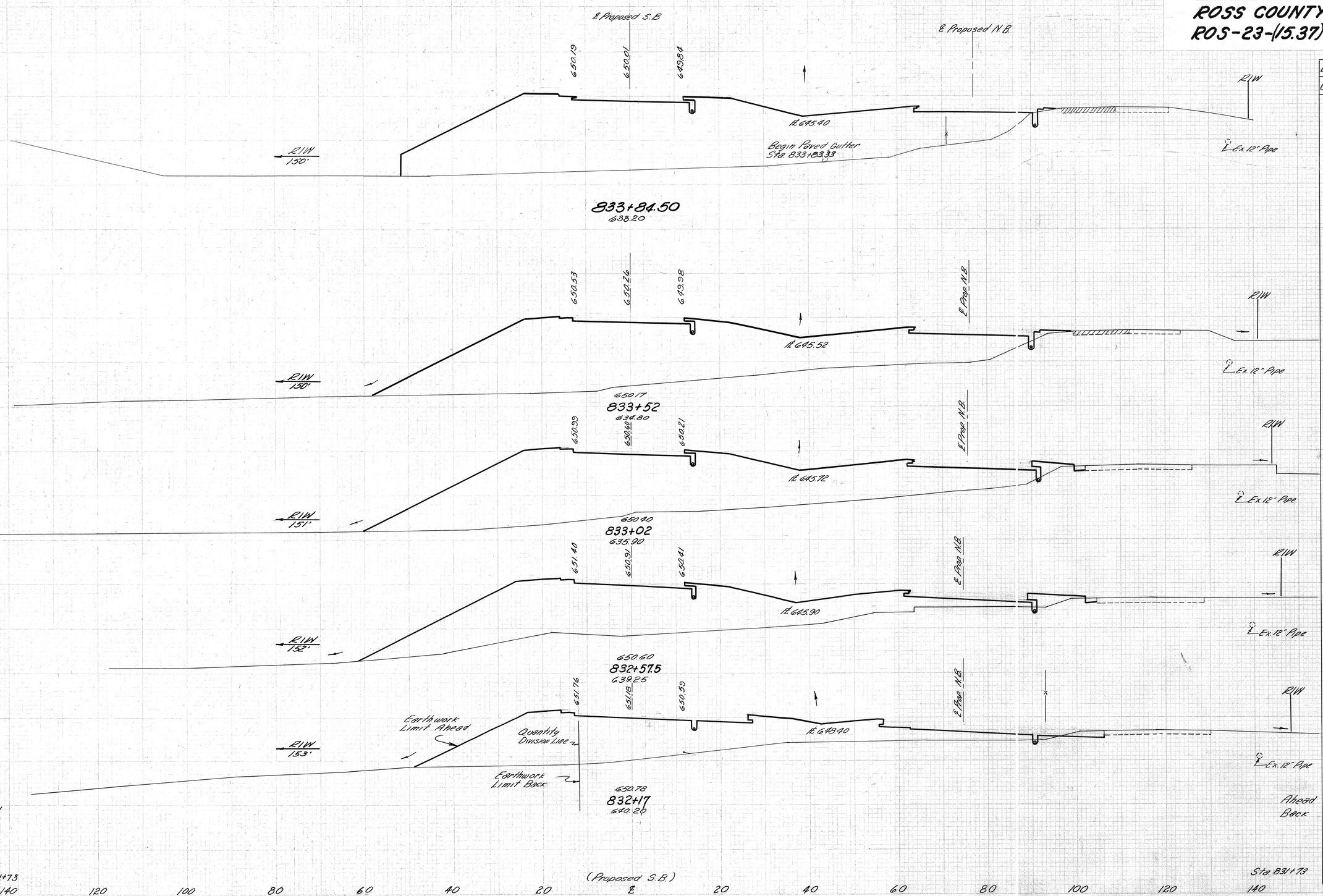
ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

52
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



Seeding End Width	Seeding Sq. Yds.
95	
	383
117	
	661
121	
	606
124	
	454
78	Ahead
31	Back
	76
0	Sta 831+73

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

	End Area Cut	End Area Fill	Volume Cut	Volume Fill
	0	171.4		
			1	195.1
	1	152.8		
			2	285.7
	1	153.8		
			2	221.9
	1	113.5		
Ahead	9	87.3		
Back	9	57.5		
			17	83.8
Sta 831+73	12	45.4		

STA. 832+17 TO STA. 833+84.50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

53
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding		End Area		Volume	
End Width	Sq. Yds.	Cut	Fill	Cut	Fill
171		83	880		
	230			25	414
147		22	839		
188				10	481
124		22	1080		
203				7	860
79		0	1499		
174				0	1071
95		0	1714		

Sta. 833+84.5 — Sta. 833+84.50

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Begin Paved Gutter
Sta. 834+41
End Dumped Rock

RIW 149'

RIW 249'

Ex. 12" Pipe

℄ 629.90

834+40
632.00

RIW 149'

RIW 252'

Ex. 12" Pipe

℄ 629.60

834+33
632.00

C.B. Sta. 834+25.5

End Paved Gutter
Sta. 834+23.84

RIW 149'

RIW 177'

Ex. 12" Pipe

℄ 629.40

BRIDGE LIMIT
Sta. 834+17.81 (S.B.)

834+20.50
632.00

Begin Dumped Rock
Sta. 834+14

630.04
629.92
629.78

RIW 149'

RIW 178'

Ex. 12" Pipe

834+02.50
632.60

STA. 834+02.50 TO STA. 834+40

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

54
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding		End Area		Volume	
End Width	Sq. Yds.	Cut	Fill	Cut	Fill
165		1433	604		
387		854	272		
183		872	330		
383		481	359		
190		531	720		
291		165	429		
171		83	880		

RIW 149'

649.73 649.78 649.82

Paved Gutter
℄ 646.70

834+93
649.00

RIW 227'

Ex. 12" Pipe

RIW 149'

649.81 649.79 649.78

Paved Gutter
℄ 641.30

834+73
644.00

RIW 236'

Ex. 12" Pipe

BRIDGE LIMIT STA. 834+58.59 (S.B.)

BRIDGE LIMIT STA. 834+69.84 (N.B.)

649.88 649.83 649.77

RIW 149'

Paved Gutter
℄ 633.70

834+34.50
634.00

RIW 243'

Ex. 12" Pipe

Sta. 834+40

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

Sta. 834+40

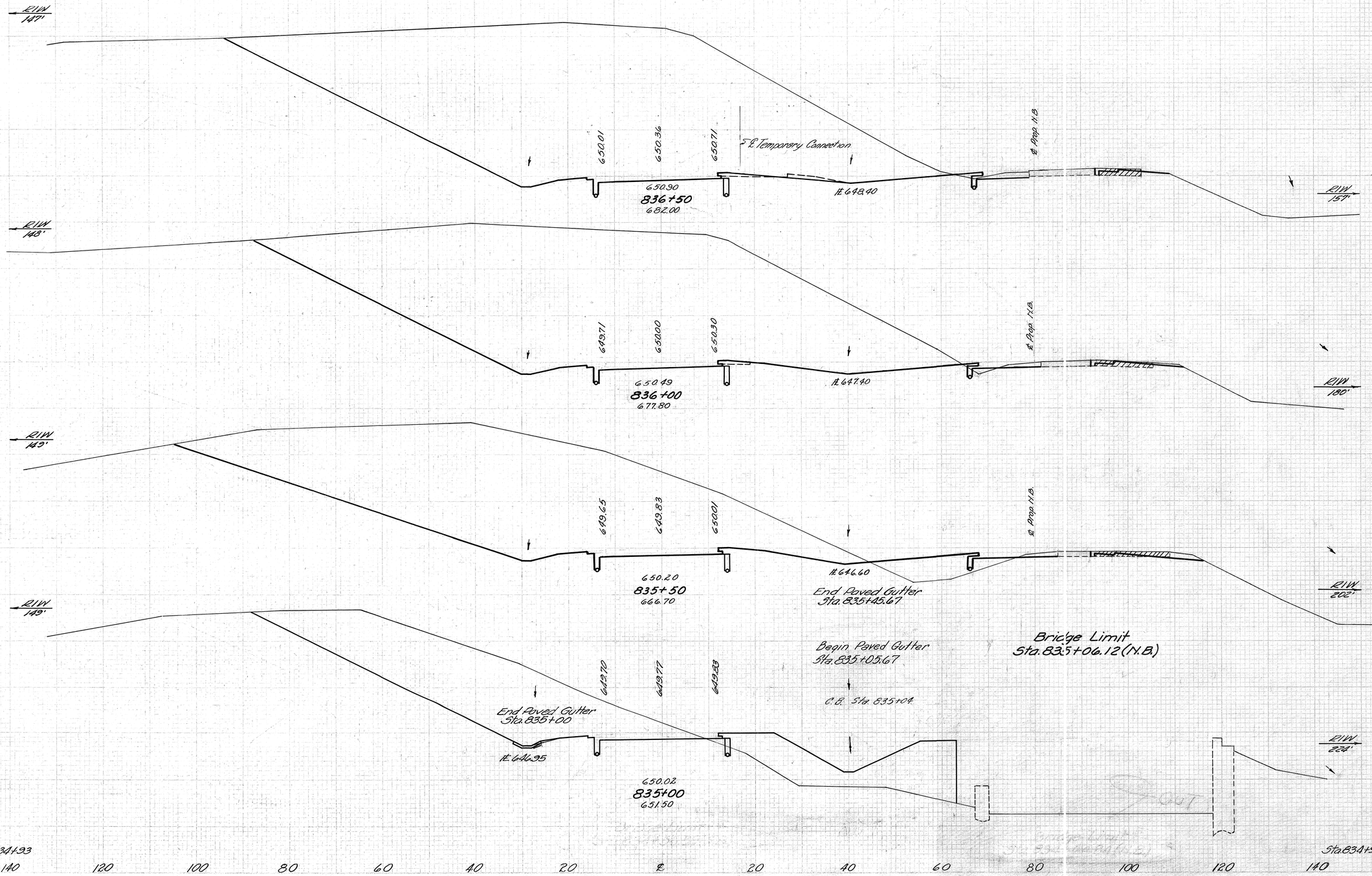
STA. 834+34.50 TO STA. 834+93.3

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

55
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding		End Area		Volume	
End Width	Sq. Yds.	Cut	Fill	Cut	Fill
175		3214	19		
	961			5754	44
171		3000	29		
	1000			4859	129
189		2248	111		
	308			2385	433
138					
	118			976	357
165				312	98
Sta. 834+93		1433	404		



STA. 835+00 TO STA. 836+50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

56
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
182	1082	2961	5	5220	30
193	1125	2677	30	5181	76
212	1203	2919	52	6659	66
221	1275	4273	19	8072	26
238	1147	4445	9	7091	26
175		3214	19		

Sta. 836+50

Sta. 836+50

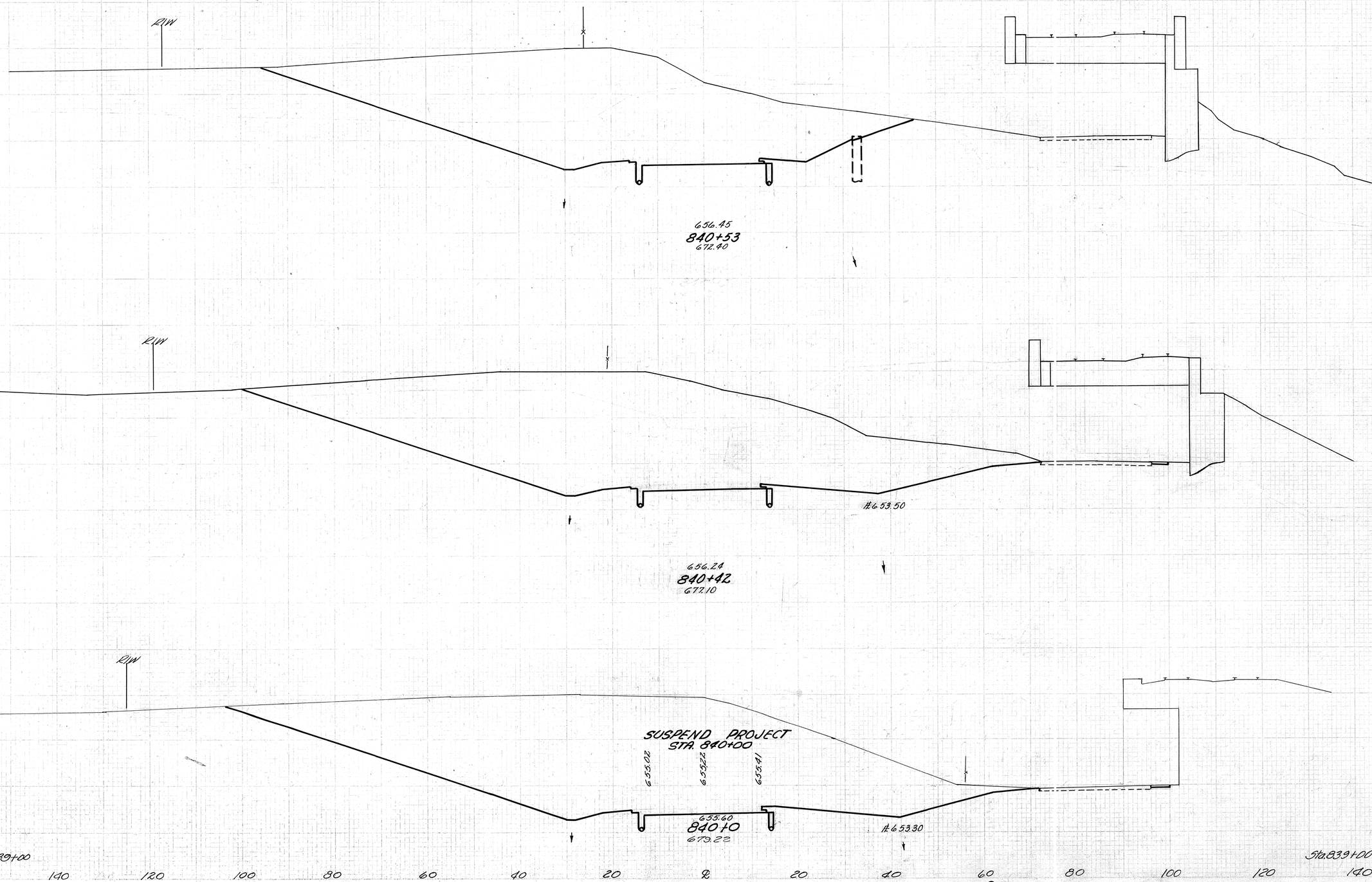
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 837+0 TO STA. 839+0

FED. ROD. DIVISION	STATE	PROJECT	
2	OHIO		

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
127	
175	
159	
149	
162	
182	1911



End Area		Volume	
Cut	Fill	Cut	Fill
2018	0		
		950	0
2647	0		
		4149	0
2687	0	10140	0
2961	5		

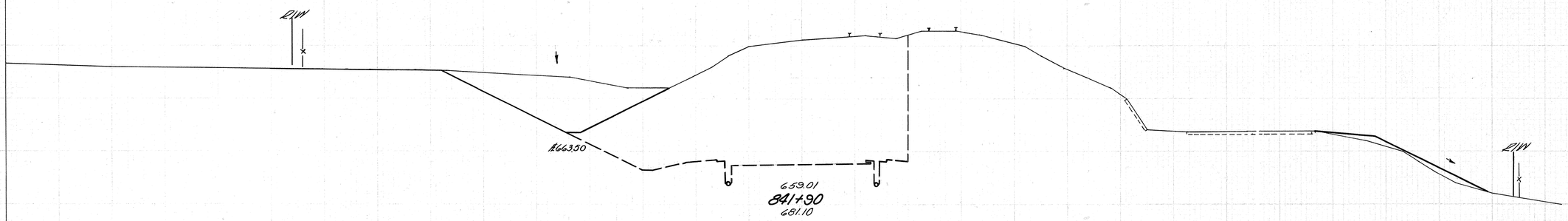
STA. 840+0 TO STA. 840+53

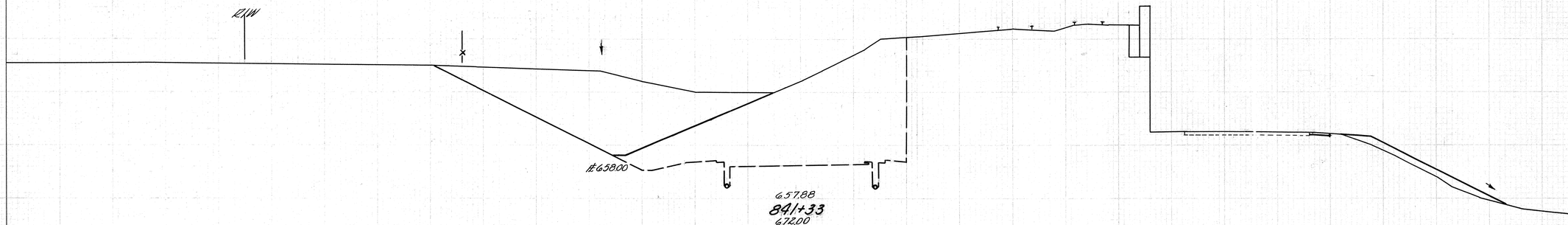
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

58
177

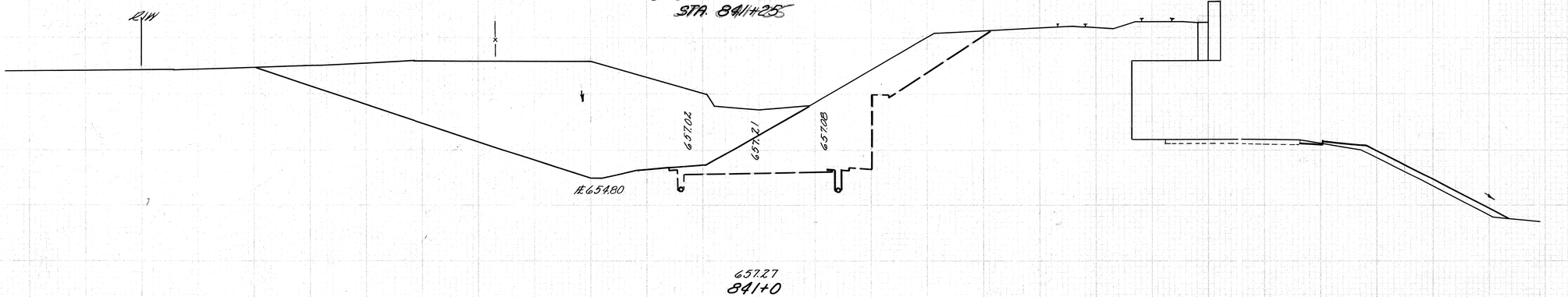
ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
113	
	785
135	
	563
172	
	781
127	





SUSPEND WORK
STA. 841+25



Sta. 840+53

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

End Area Cut	End Area Fill	Volume Cut	Volume Fill
235	29		
		770	72
494	41		
		963	47
1082	36		
		2408	31
2018	0		

Sta. 840+53

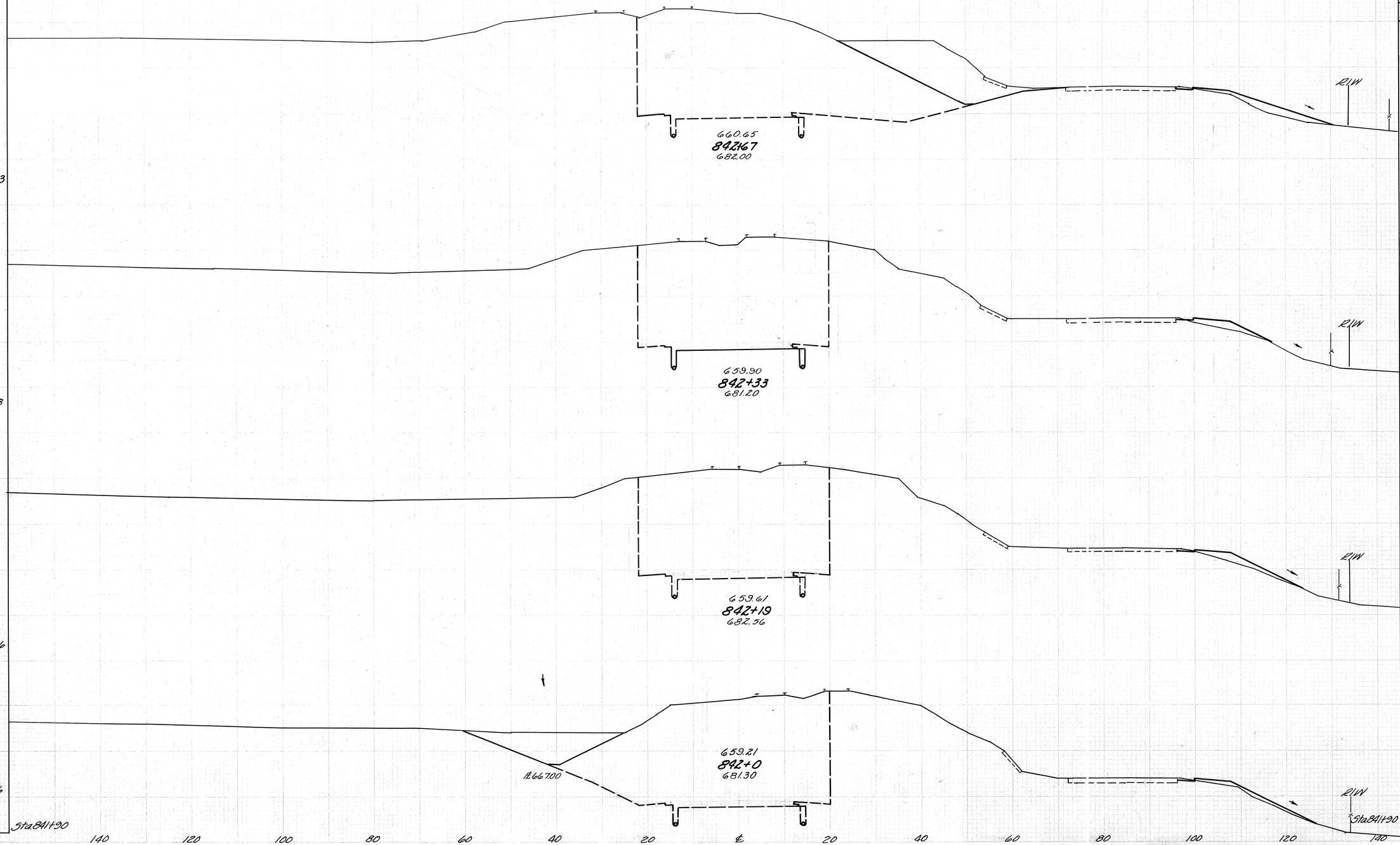
STA. 841+0 TO STA. 841+90

T.D. Div.	State	Project	
2	OHIO		

59
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
106	
	253
28	
	48
34	
	136
95	
	116
113	



End Area Cut	End Area Fill	Volume Cut	Volume Fill
246	35		
		155	34
0	19		
		0	10
1	20		
		49	14
139	20		
		69	9
235	29		

STA. 842+0 TO STA. 842+67

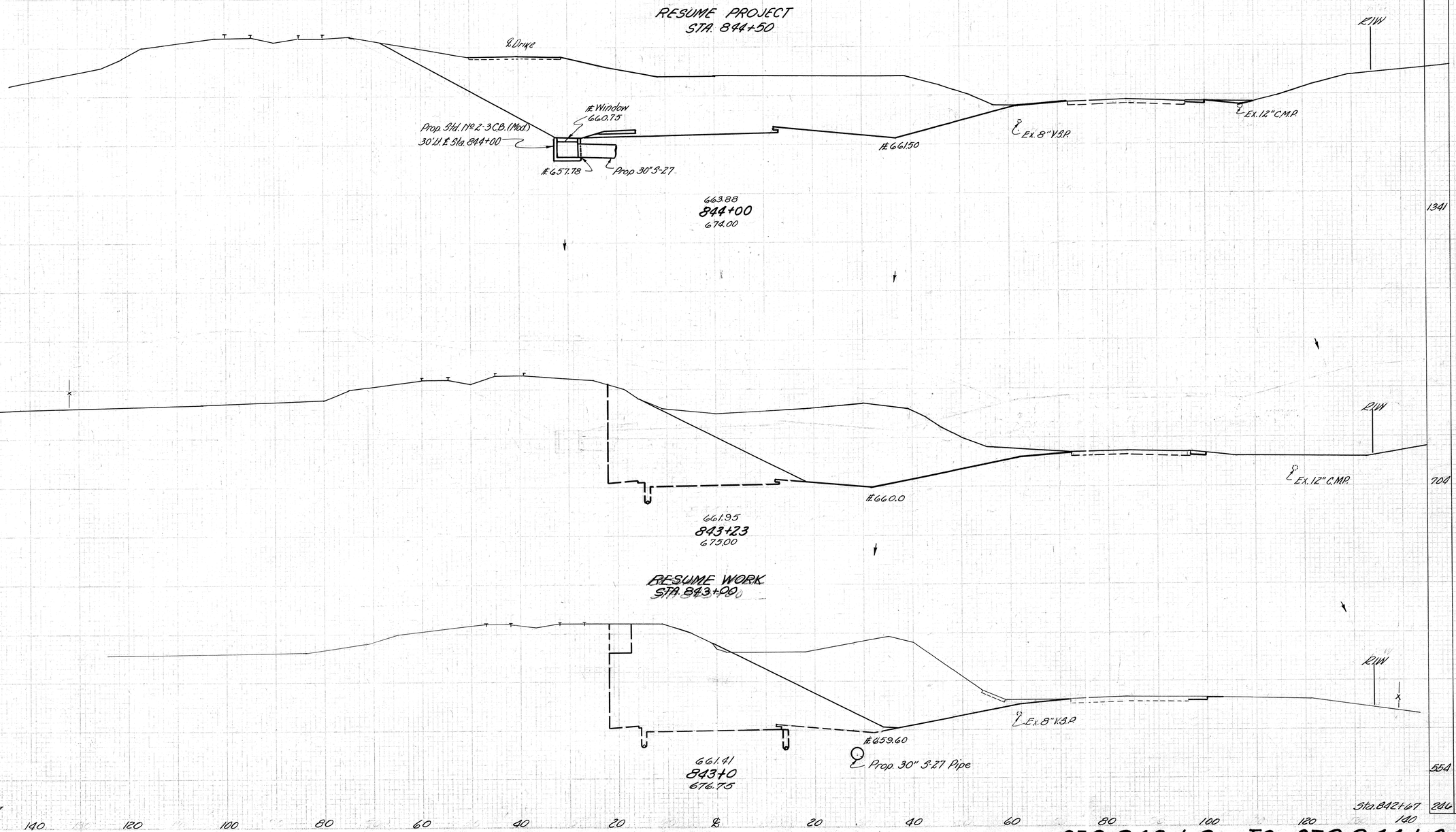
FED. ROD. DIVISION	STATE	PROJECT	
2	OHIO		

60
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
143	
1087	
111	
271	
101	380
106	

End Areo		Volume	
Cut	Fill	Cut	Fill
1341	2		
		2916	3
704	0		
		536	1
554	2		
		489	23
216	35		



Sta. 842+67 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 Sta. 842+67

STA. 843+0 TO STA. 844+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding		
End	Sq.	
Width	Yds.	
94		
	700	
153		
	1672	
148		
	1639	
147		
	1678	
155		
	1656	
143		Sta. 844+00

End Area		Volume	
Cut	Fill	Cut	Fill
		5	34
648	0		
		59	80
		1240	0
665	0		
		2433	0
649	0		
		2437	41
667	22		
		3750	41
1358	0		
1341	2	4998	4

R/W
Sod
Prop 30"x 53' I-1 Pipe
Begin Sod 848+40
Profile Median Crossover
4.24%
Ex 676.45
℄ Ex. 8" V.S.P
℄ 673.74
L/W
Drive Rt. ℄ Sta. 848+72.27
℄ Drive
Profile of Prop. Dr. Rt. ℄
Sta. 848+72.27
0.37%
3/16" per foot
Prop. 12"x 52' I-1 Pipe
674.10
848+51
677.52

See Detail Sheet No. 107
R/W
Profile of Prop. Drive Lt. ℄
Sta. 848+36.34
Prop. 30"x 53' I-1 Pipe
℄ 670.20
℄ Ex. 8" V.S.P
℄ 673.37
Drive Lt. ℄ Sta. 848+36.34
L/W
1/2" per foot
℄ Drive
673.20
848+0
676.22

End Type 1-C Paved Gutter
Lt. ℄ Sta. 847+92
L/W
151'
℄ Temporary Connection
℄ 668.05
℄ 668.20
℄ Ex. 8" V.S.P
671.24
847+0
675.72

R/W
℄ 665.84
℄ 668.00
℄ 666.40
℄ Temporary Connection
℄ Ex. 8" V.S.P
L/W
℄ Drive
669.03
846+0
673.52

Ex. Side Ditch Inlet (To be abandoned)
@ 844+96.5
℄ Grate 668.82
℄ 666.67
℄ Temporary Connection
℄ Ex. 12" V.S.P
L/W
℄ Drive

Begin Type 1-C Paved Gutter
Lt. ℄ Sta. 844+12.7
℄ 663.36
℄ 664.00
666.55
845+0
678.52

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

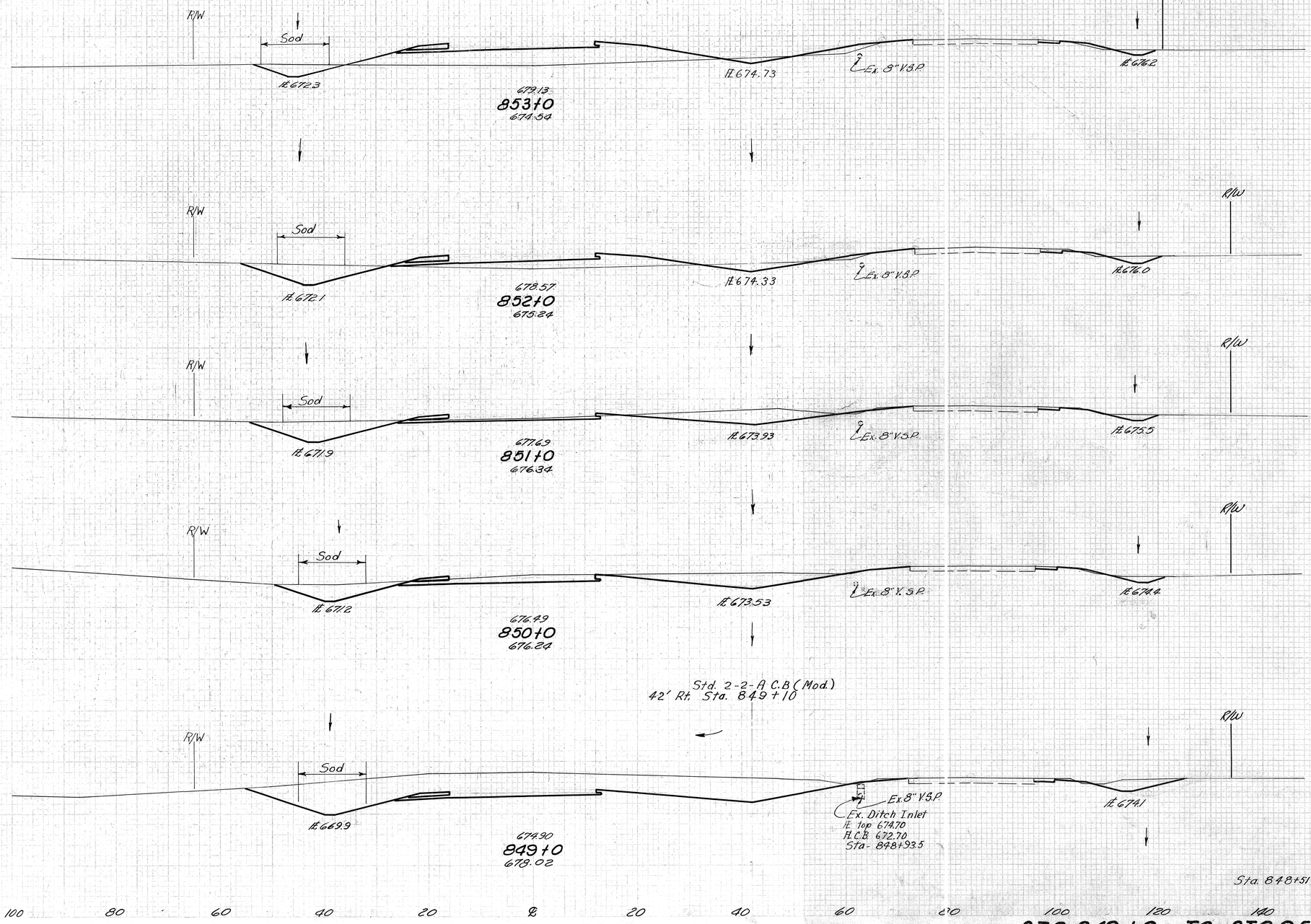
Sta. 844+0

STA. 845+0 TO 848+51

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
130	1500
140	1544
138	1517
135	1556
145	

Sta. 848+51



End Area		Volume	
Cut	Fill	Cut	Fill
36	258		
		222	648
84	92		
		446	178
157	4		
		602	15
168	4		
		1209	9
485	1		
623	0	1005	1

Sta. 848+51

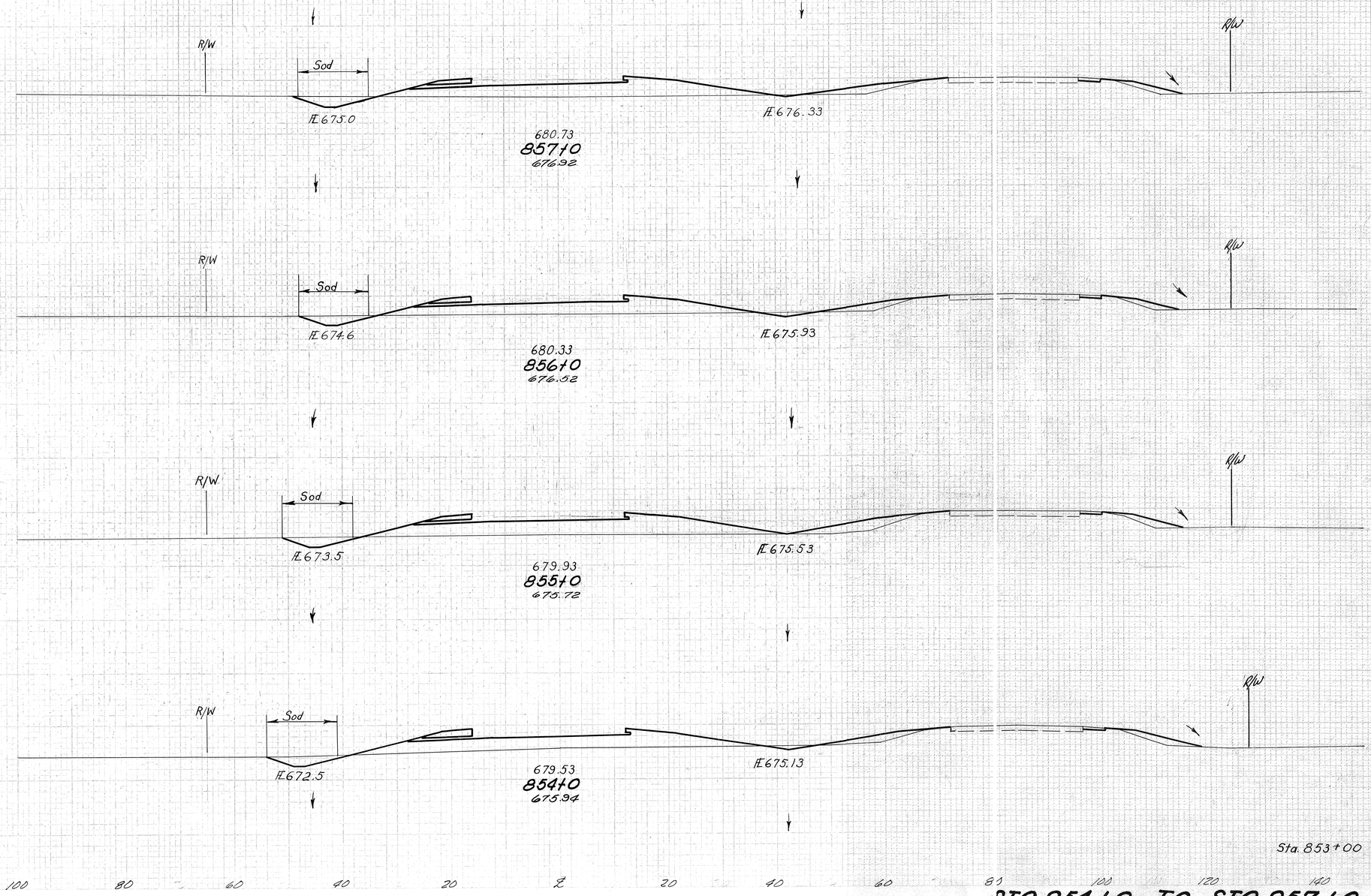
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 849+0 TO STA. 853+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
128	
141	
126	
142	
130	
147	
136	
147	
130	

Sta. 853+0



End Area		Volume	
Cut	Fill	Cut	Fill
21	180		
		78	630
21	160		
		74	719
19	228		
		76	767
22	186		
		101	822
36	258		

Sta. 853+00

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

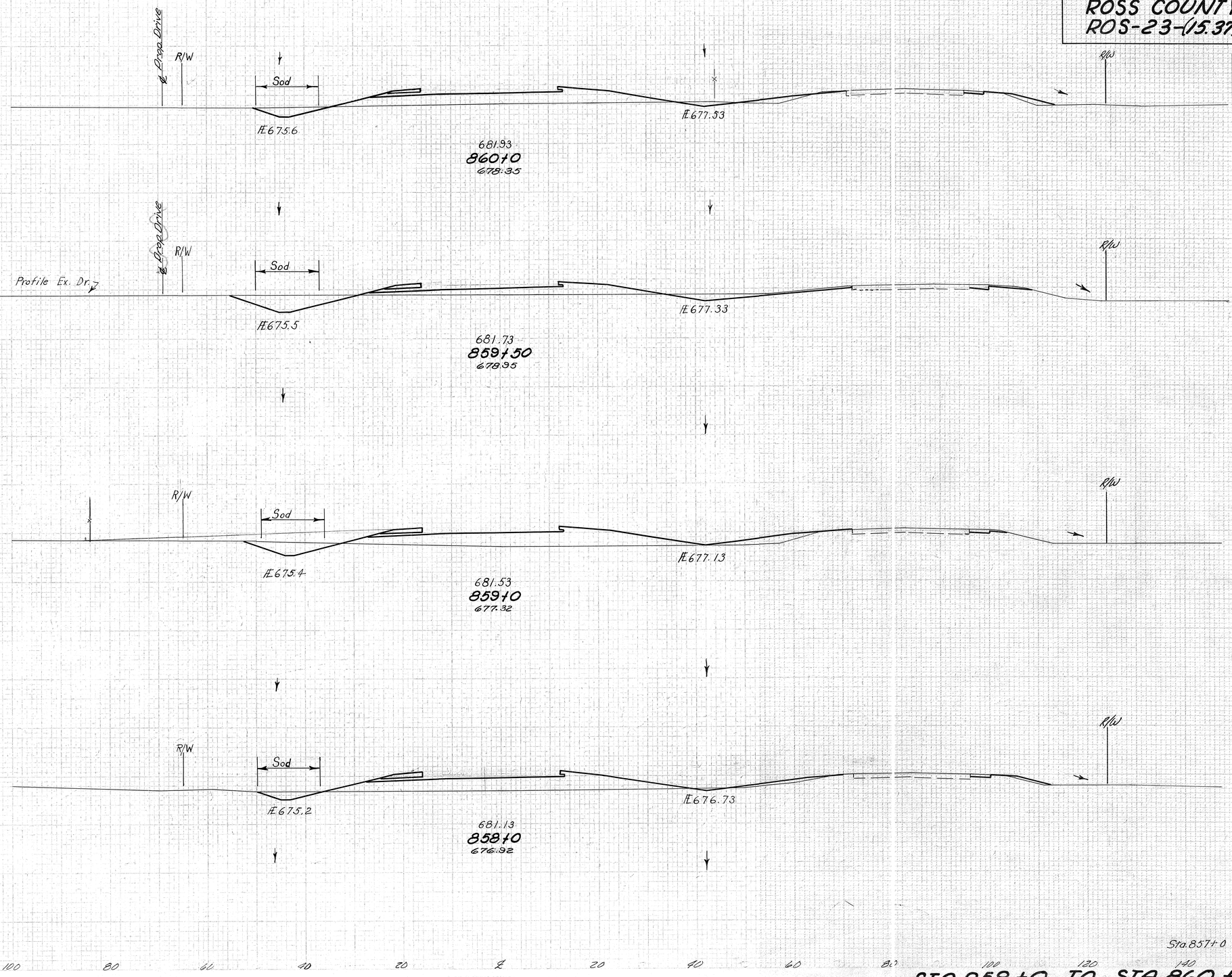
STA. 854+0 TO STA. 857+0

64
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
129	
	717
129	
692	
120	
	1378
128	
	1422
128	

Sta. 857+0



End Area		Volume	
Cut	Fill	Cut	Fill
26	174		
		96	280
78	85		
		100	263
30	199		
		85	730
16	195		
		69	691
21	180		

Sta. 857+0

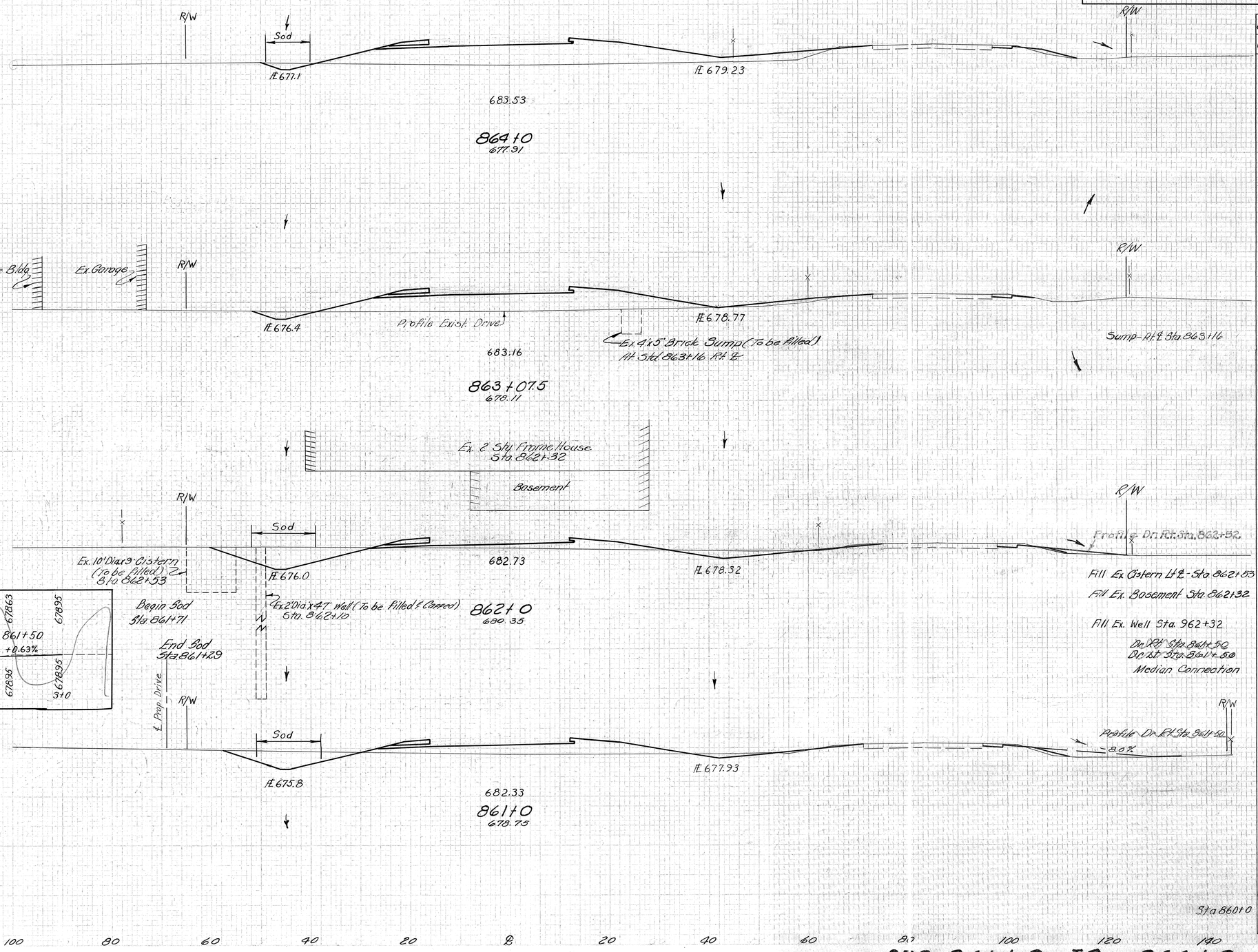
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 858+0 TO STA. 860+0

65/177

ROSS COUNTY
ROS-23-15.37)(16.01)

Seeding	
End Width	Sq. Yds.
129	
1310	
126	
1541	
132	
1478	
134	
1461	
129	



End Area Volume			
Cut	Fill	Cut	Fill
11	328		
		24	387
		0	3
13	248		
		229	633
		0	33
			467
102	70		
		0	5
		0	16
		16	88
		42	0
		317	369
69	129		
		176	561
26	174		

Sta. 860+0

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

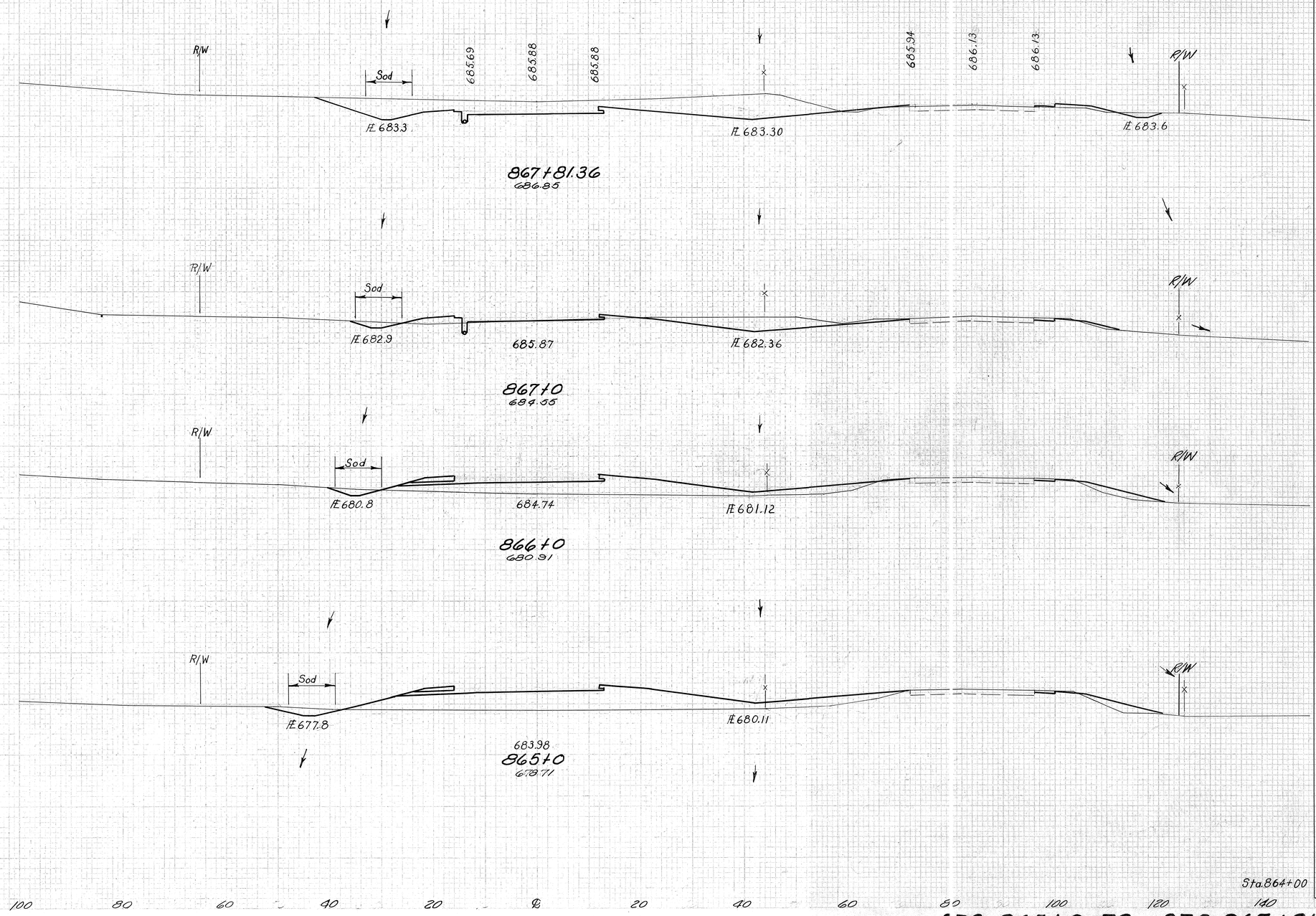
STA. 861+0 TO 864+0

Rev. 6-24-57.

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
122	
1062	
113	
1289	
119	
1389	
131	
1444	
129	

Sta. 864+0



End Area		Volume	
Cut	Fill	Cut	Fill
298	13		
		560	44
74	16		
		1564	117
10	209		
		509	778
17	319		
		521	1198
11	328		

Sta. 864+00

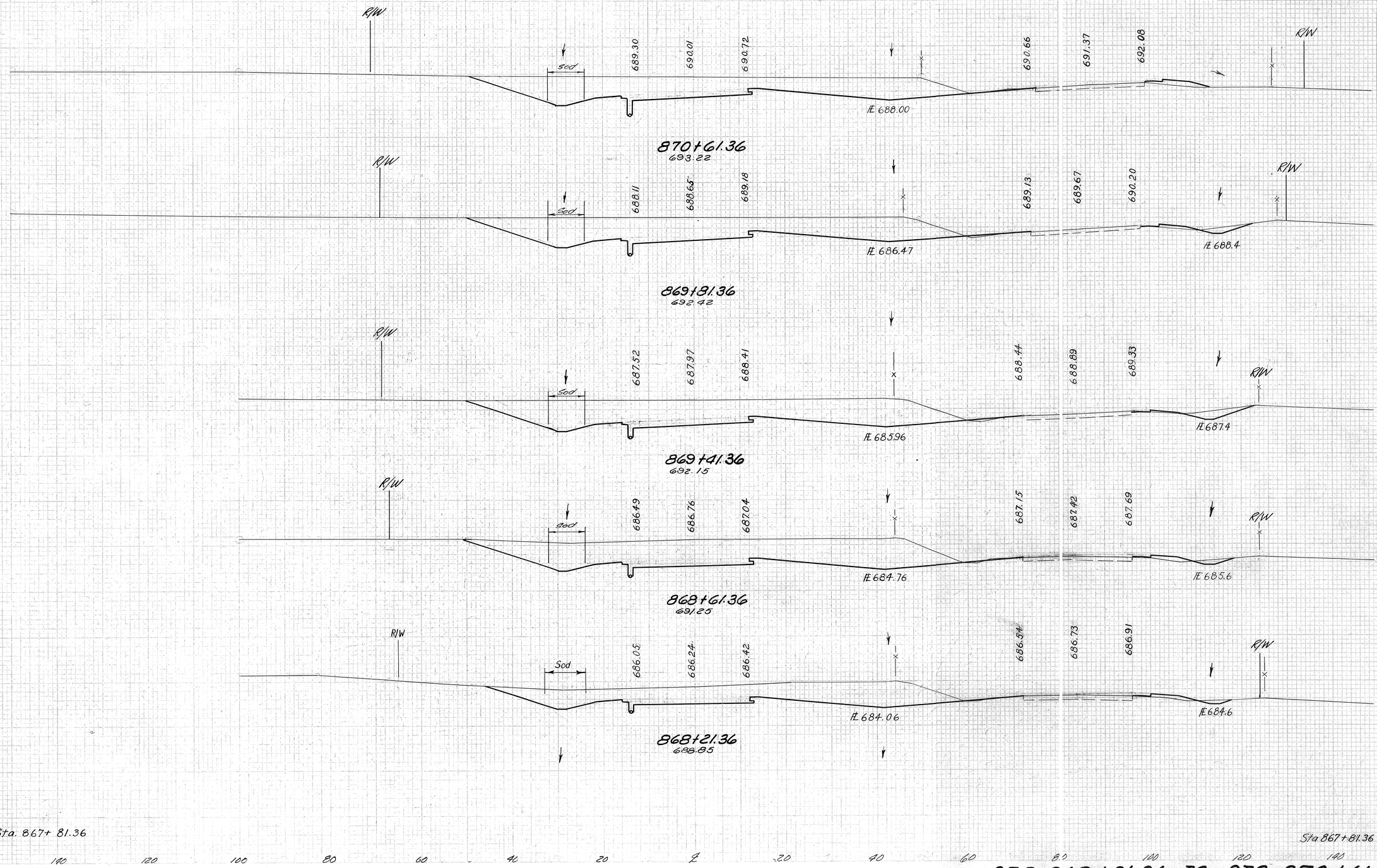
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 865+0 TO STA. 867+81.36

67
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
127	1164
135	591
131	1164
131	567
124	547
122	



End Area		Volume	
Cut	Fill	Cut	Fill
410	12		1304.31
470	9		788.11
540	6		1599.28
539	13		696.19
401	12		518.19
298	13		

Sta. 867+ 81.36

Sta 867+81.36

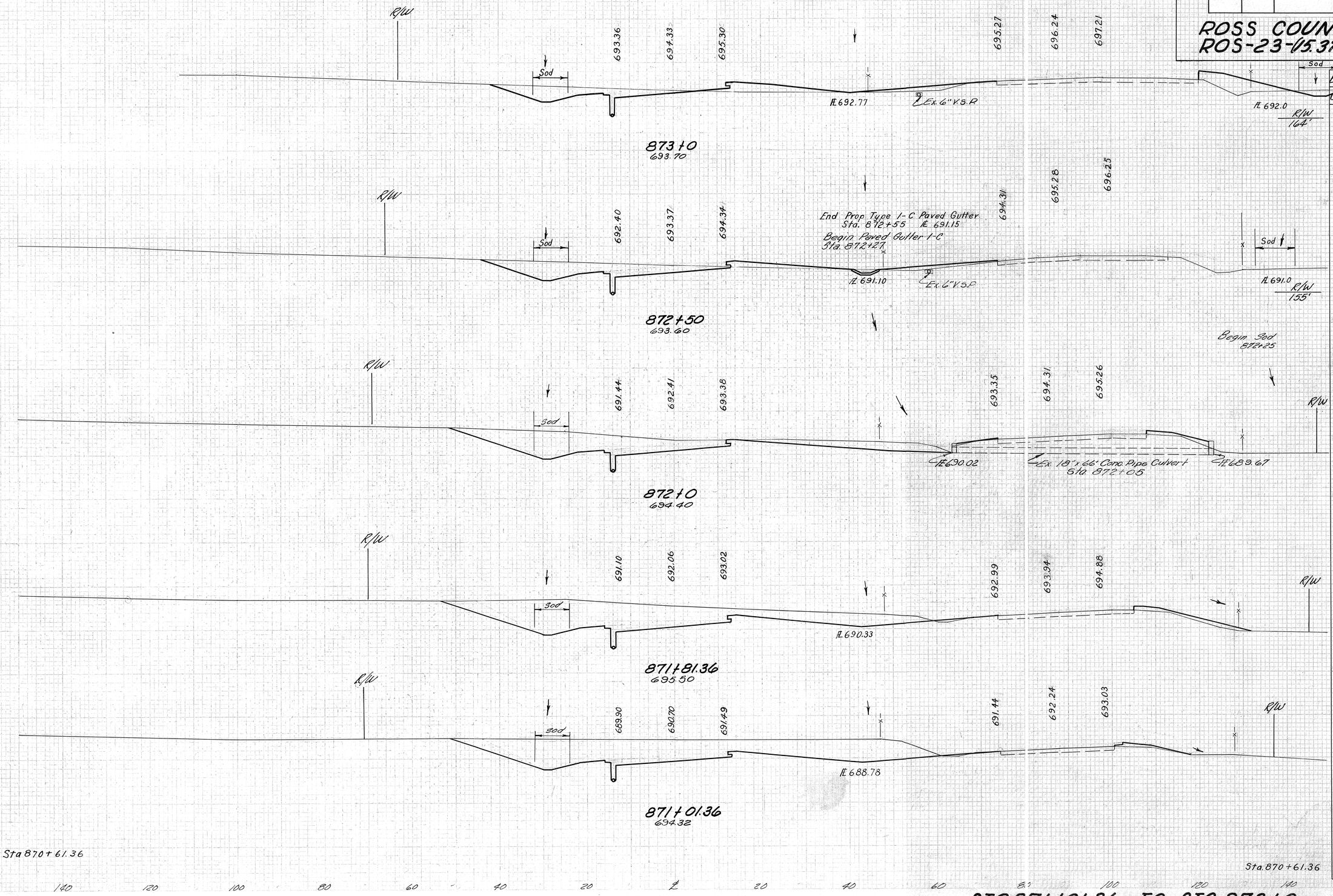
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 868+21.36 TO STA. 870+61.36

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
142	789
142	764
133	292
149	1258
134	580
127	

Sta 870+61.36



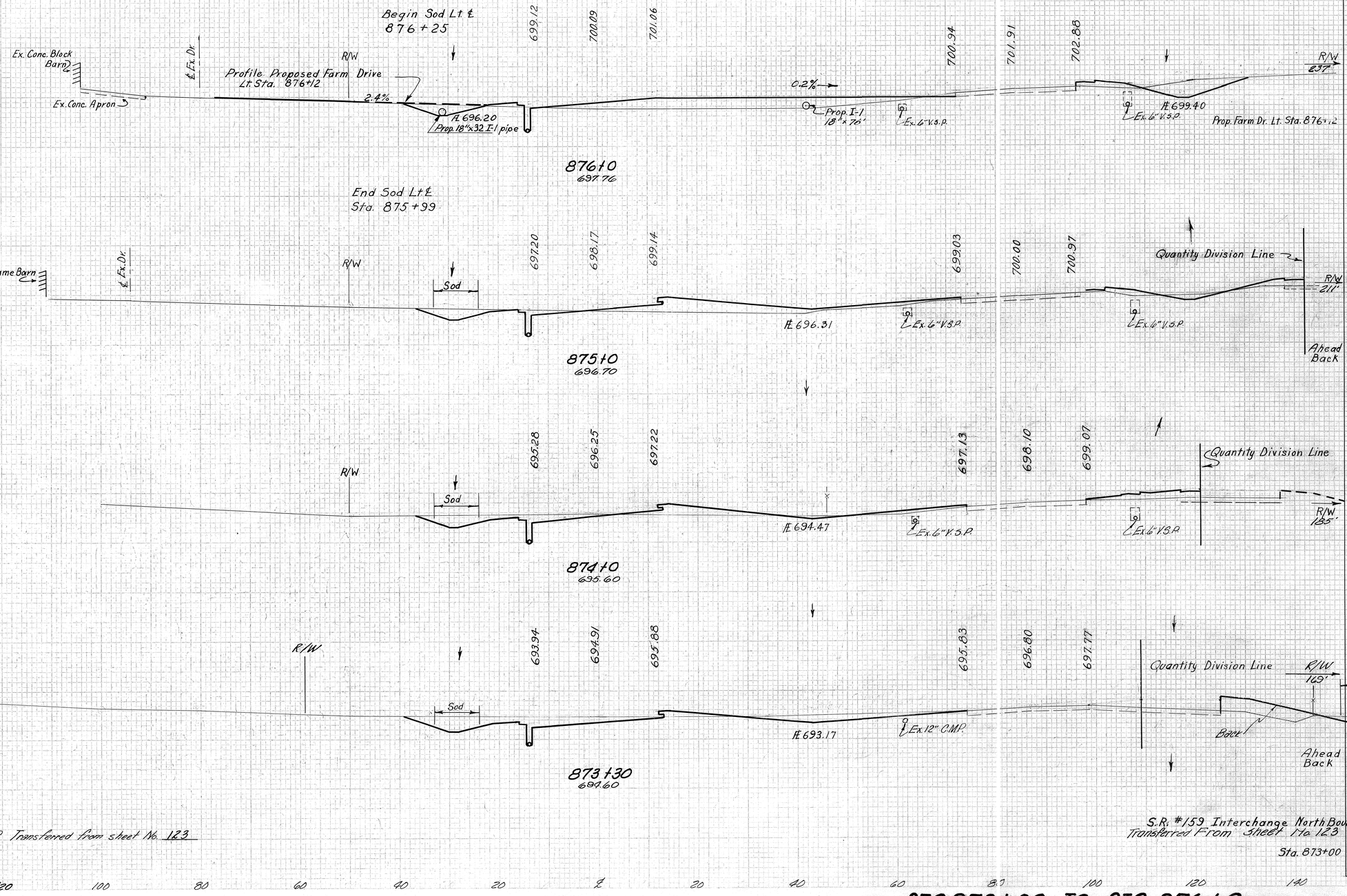
End Area		Volume	
Cut	Fill	Cut	Fill
110	116		
		231	170
140	68		
		407	74
300	12		
		255	15
438	30		
		1381	55
494	7		
		670	14
410	12		

160 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 871+01.36 TO STA. 873+10

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
	117
	1389
	133
	1322
	105
	824
	107
	415
	7361
	142



End Area Volume			
Cut	Fill	Cut	Fill
			16
		57	144
		176	517
Ahead		38	135
Back		38	135
			200 402
		70	82
			242 132
			133 142
		745	621
		Sta. 873+00	110 116

S.R. 159 Interchange N.B. Transferred from sheet No. 123

Sta 873+0

S.R. #159 Interchange North Bound
Transferred From Sheet No. 123

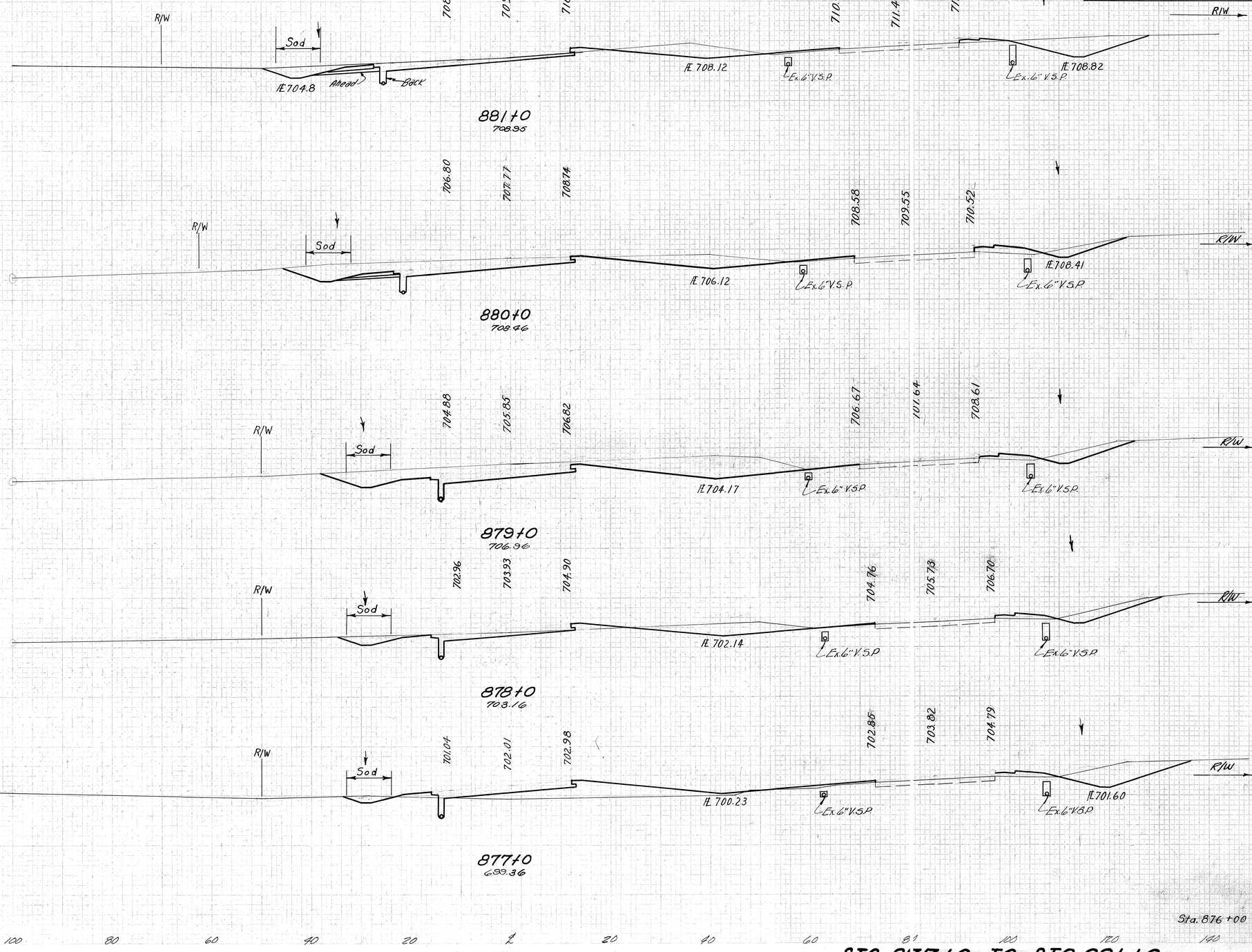
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 873+30 TO STA. 876+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

End Sod Lt. ℄ Sta. 881+39

Seeding	
End Width	Sq Yds
136	
	1483
131	
	1439
128	
	1433
130	
	1472
135	
	1400
117	



End Area		Volume	
Cut	Fill	Cut	Fill
166	12		
		678	57
200	19		
		885	54
278	10		
		744	57
124	21		
		370	254
76	116		
		246	481
57	144		

Sta 876+00

Sta 876+0

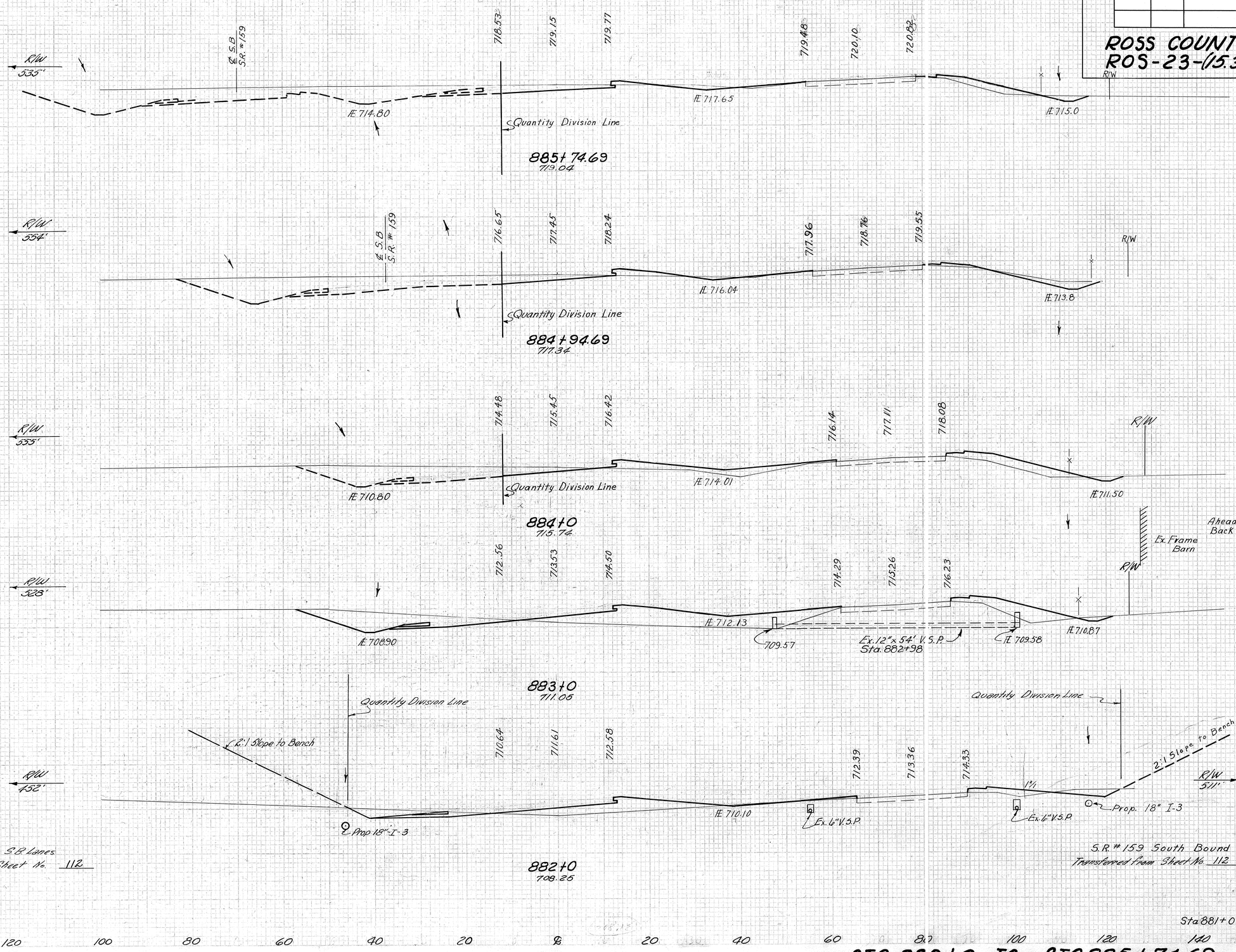
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 877+0 TO STA. 881+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
82	
	742
85	
	915
89	
	1197
126	
1406	
28.00	
127	
	1961
136	

Sta. 881+0



SR 159 Interchange S.B. Lanes
Transferred from Sheet No. 112

S.R. #159 South Bound
Transferred from Sheet No. 112

	End Area Cut	End Area Fill	Volume Cut	Volume Fill
	40	35		
			138	76
	53	16		
			144	224
Ahead	29	112		
Back	168	112		
			513	626
	109	226		
			306	606
			2185	3845
	56	101		
			611	209
	Sta 881+0	166	12	

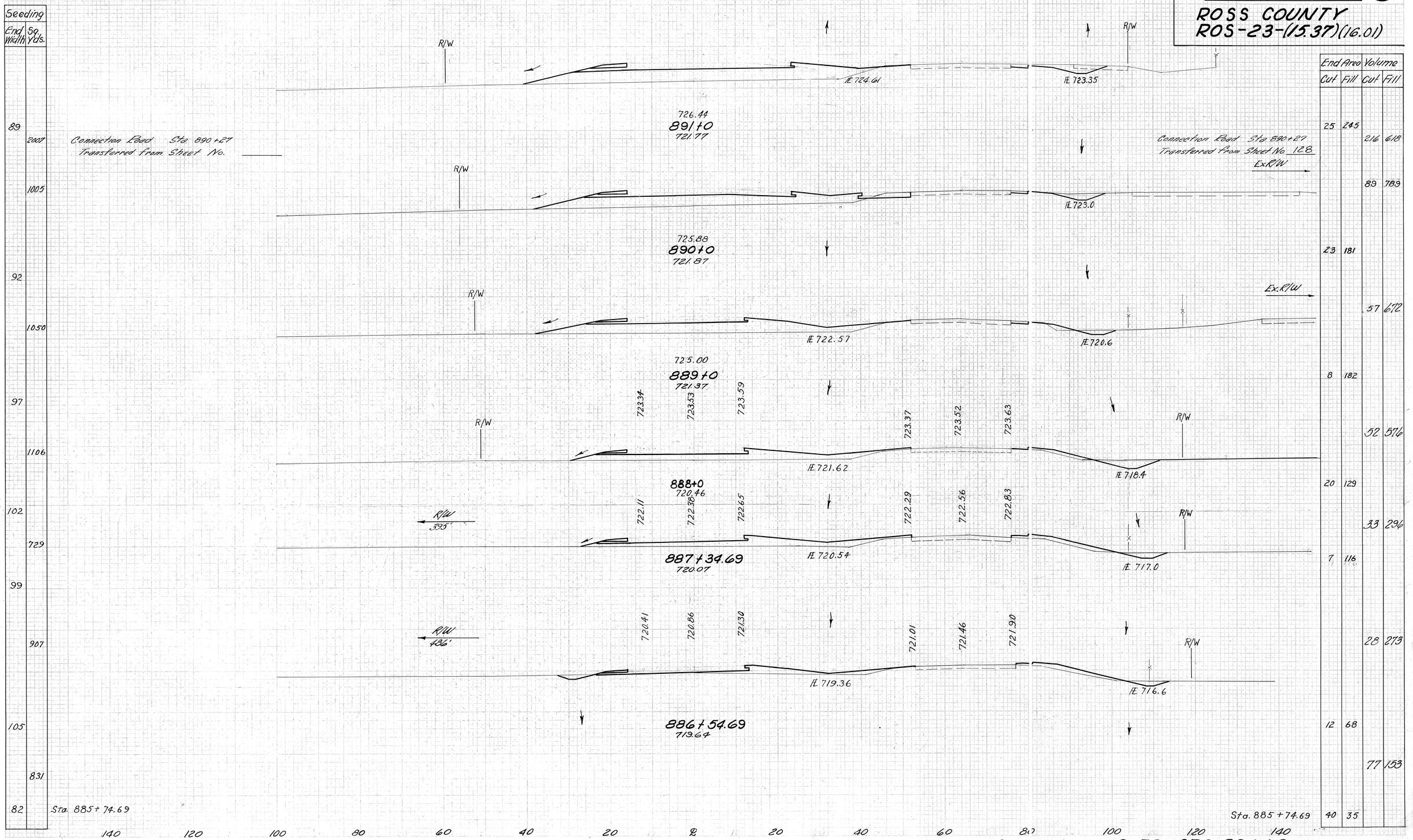
Sta. 881+0 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 882+0 TO STA. 885+74.69

FINAL SURVEY — SURVEYED BY, DRAWN BY, TRACED BY, H'PLATE BY, CHECKED BY, NOTE BOOK, PAGE, NO.

ORIGINAL SURVEY — SURVEYED BY, DRAWN BY, TRACED BY, H'PLATE BY, CHECKED BY, NOTE BOOK, PAGE, NO.

ROSS COUNTY
ROS-23-(15.37)(16.01)



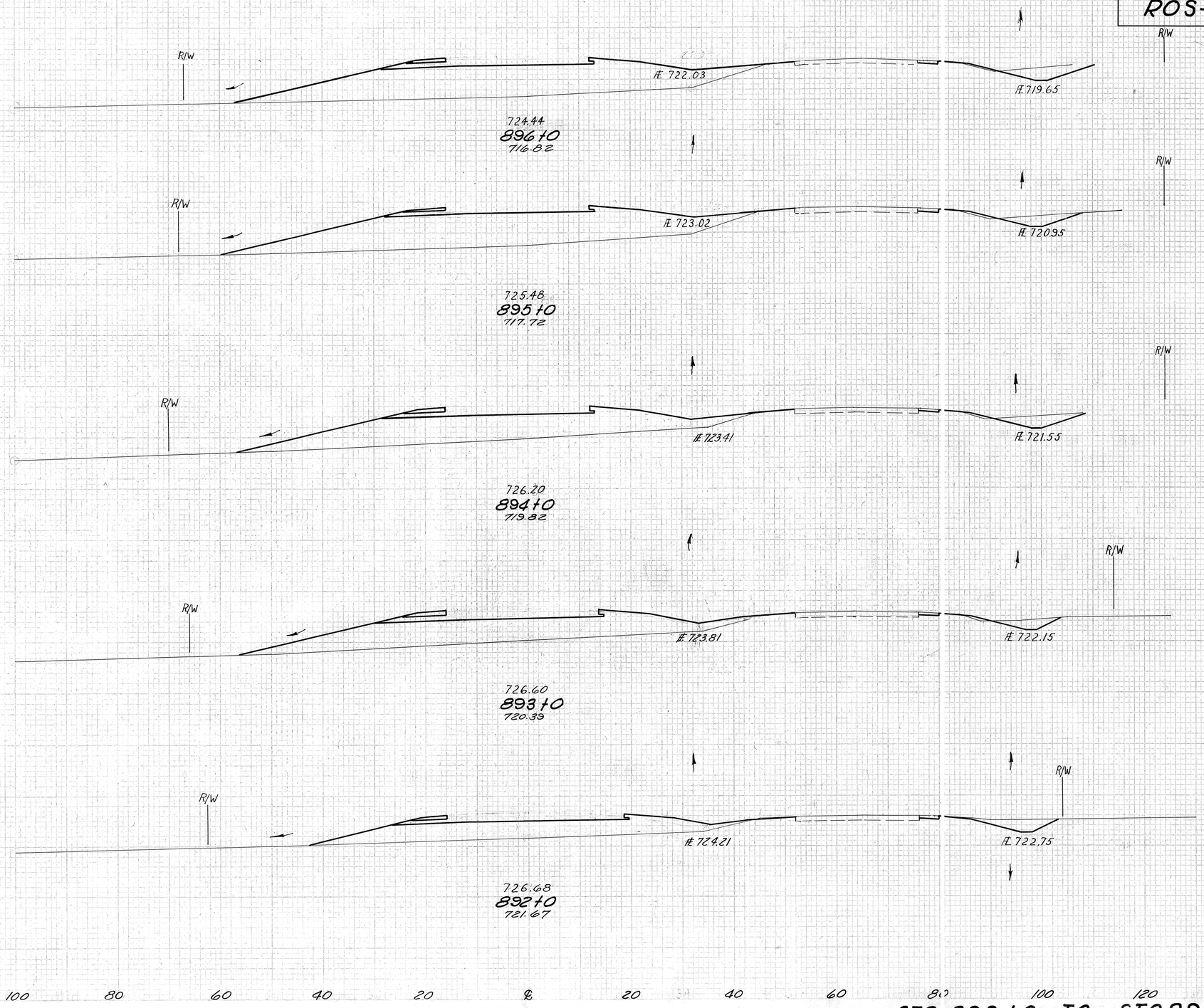
End Area Cut	End Area Fill	Volume Cut	Volume Fill
25	245		
		216	618
		89	789
23	181		
		57	672
8	182		
		52	576
20	129		
		33	296
7	116		
		28	273
12	68		
		77	153
40	35		

STA. 886+54.69 TO STA. 891+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
133	
	1472
132	
	1461
131	
	1422
125	
	1233
97	
	1033
89	

Sta. 891+0



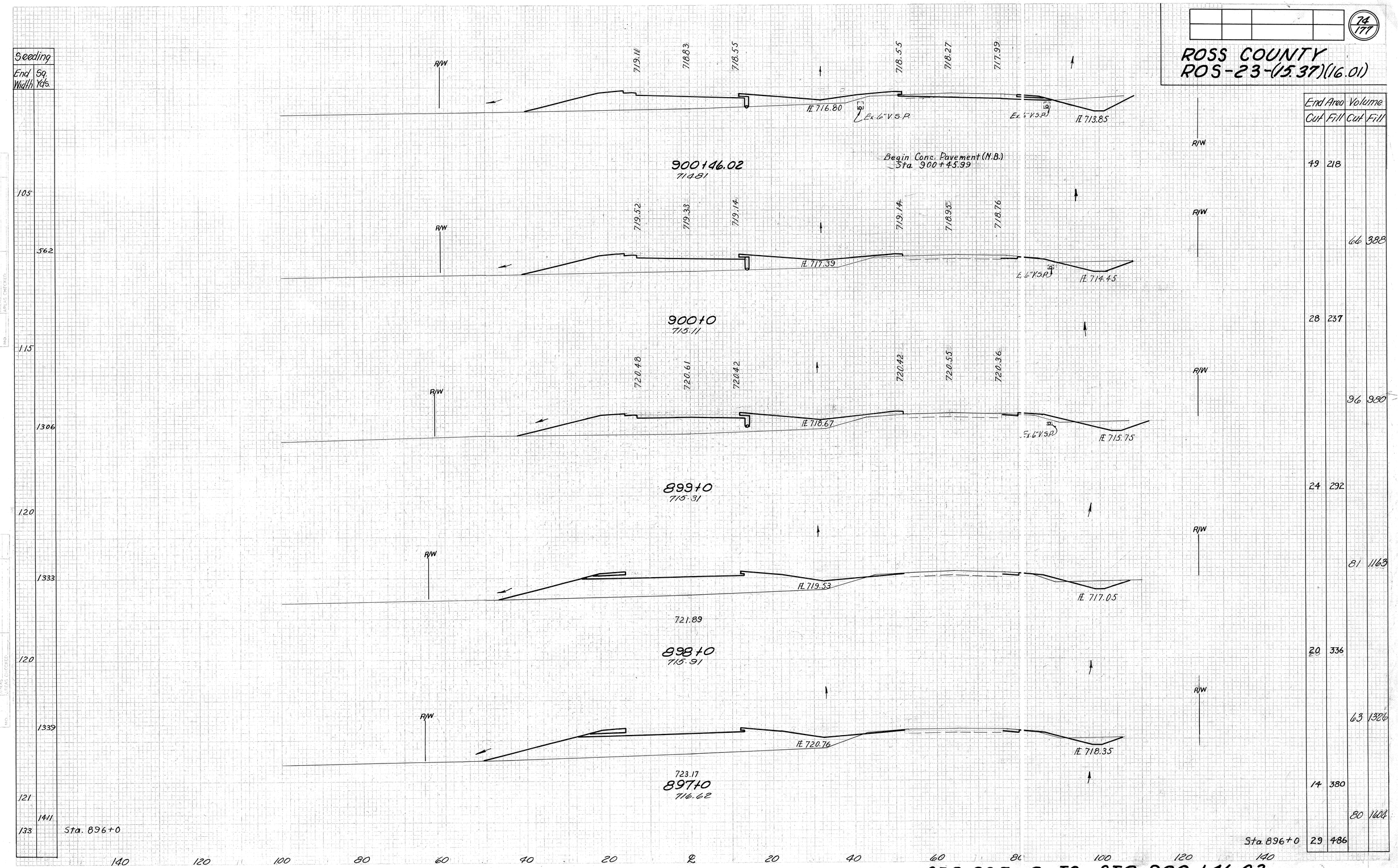
End Area		Volume	
Cut	Fill	Cut	Fill
29	486		
		96	1820
23	497		
		89	1669
25	404		
		83	1446
20	377		
		81	1161
24	250		
		91	917
25	245		

Sta. 891+0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 892+0 TO STA. 896+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

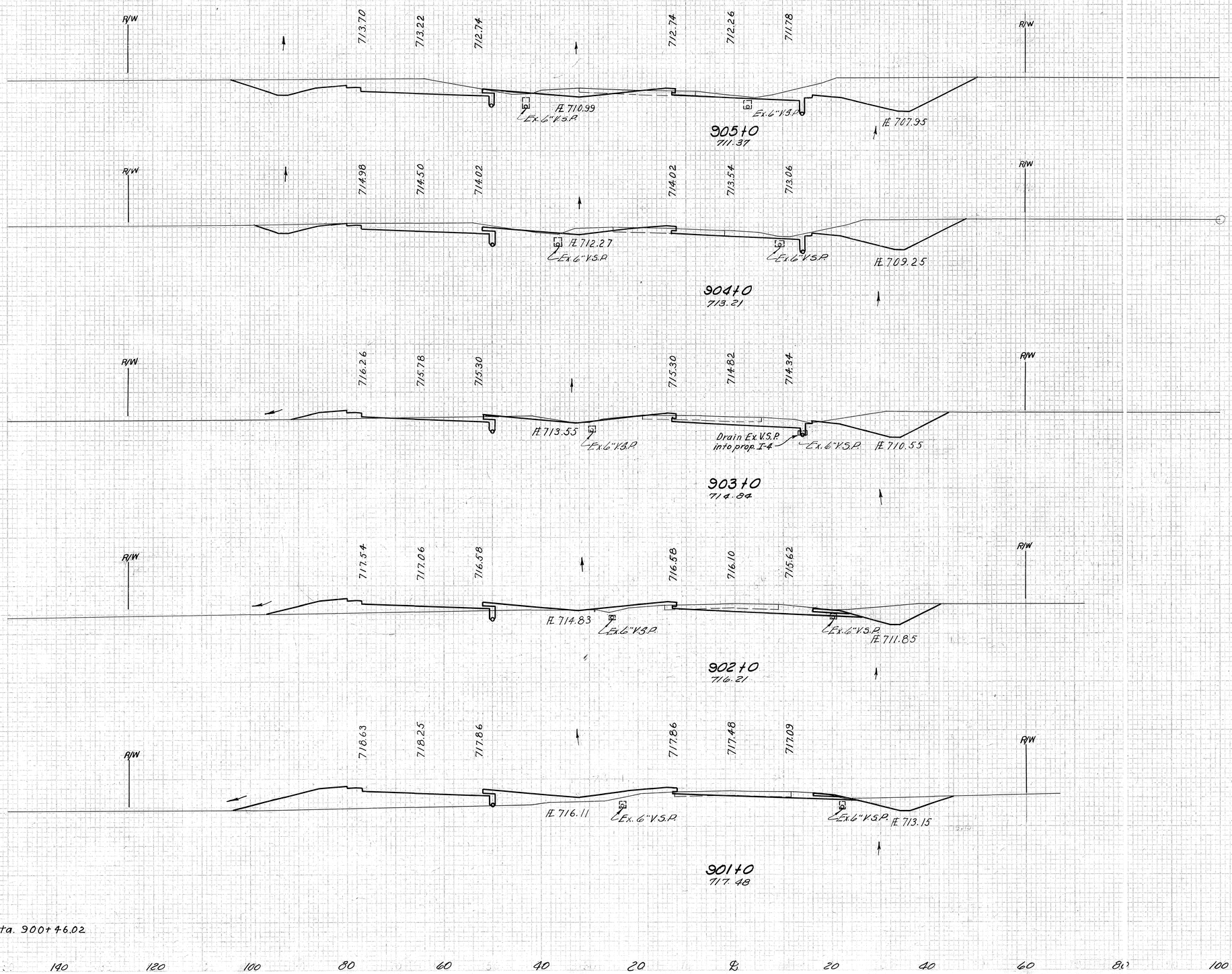


End Area Cut	End Area Fill	Volume Cut	Volume Fill
49	218		
		66	388
28	237		
		96	980
24	292		
		81	1163
20	336		
		63	1326
14	380		
		80	1604
29	486		

Sta. 896+0

STA. 897+0 TO STA. 900+46.02

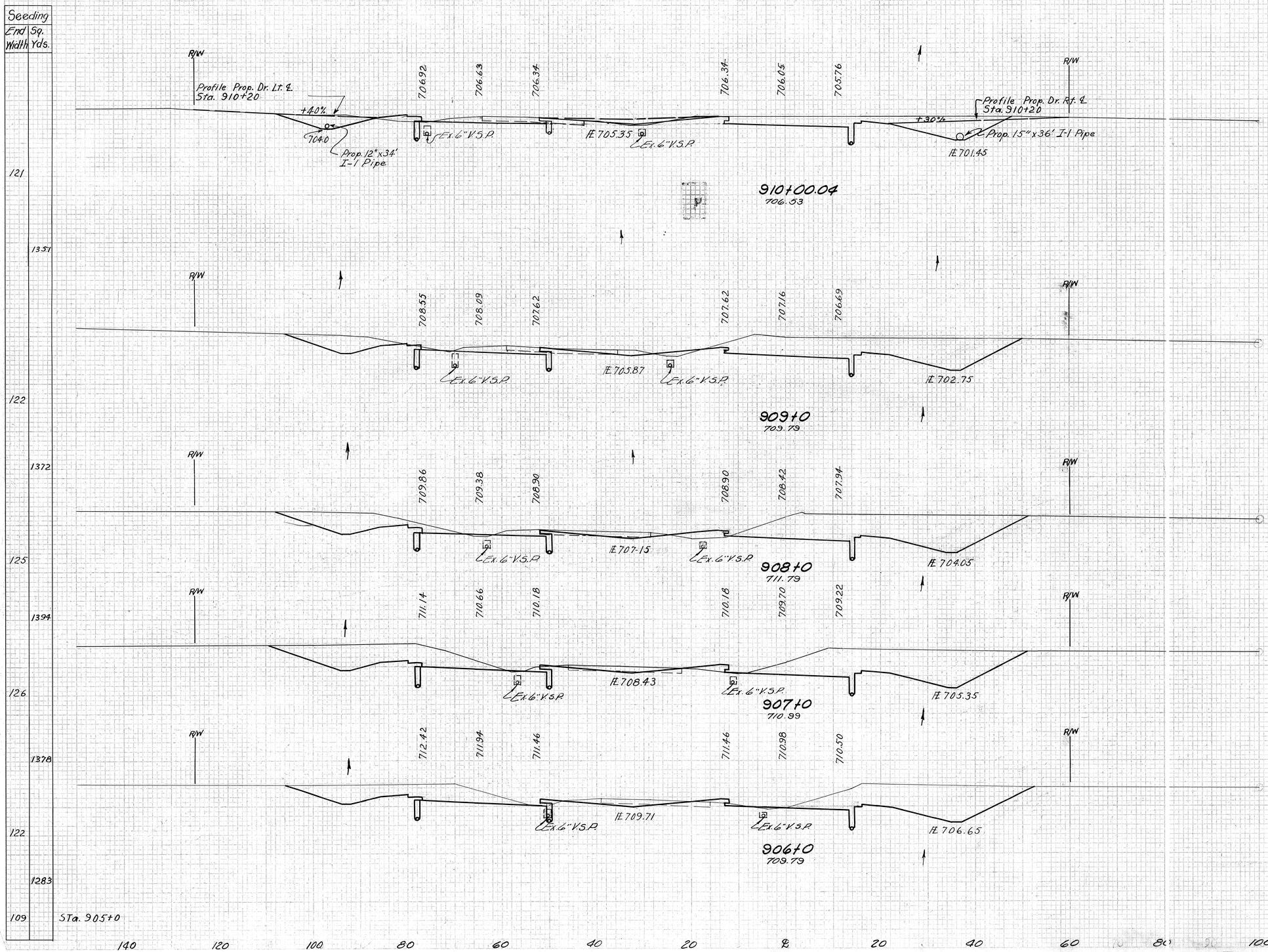
ROSS COUNTY
ROS-23-(15.37)(16.01)



	End Area Cut	End Area Fill	Volume Cut	Volume Fill
	338	3		
			1043	9
	225	2		
			678	50
	141	25		
			454	254
	104	112		
			328	641
	73	234		
			122	452
Sta. 900+46.02	49	218		

STA. 901+0 TO STA. 905+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



	End Area Cut	End Area Fill	Volume Cut	Volume Fill
Drive Rt. ℄-Sta. 910+20			5	52
Drive Lt. ℄-Sta. 910+20			0	32
Median Connection			52	0
	200	9		
			989	28
	334	6		
			1359	41
	400	16		
			1539	43
	431	7		
			1444	31
	349	10		
			1272	24
Sta. 905+0	338	3		

STA. 906+0 TO STA. 910+00.04

ROSS COUNTY
ROS-23-15.37)(16.01)

Seeding	
End Width	Sq. Yds.
124	
1400	
128	
1383	
121	
1349	
121	
1311	
115	
1311	
121	

End Conc. Pavement 915+00

R/W 701.44 701.63 701.44 R/W

℄ 699.75 ℄ 695.4

701.87

915+0

696.01

End Sod
Sta. 914+90

R/W Sod 702.22 702.41 702.22 R/W

℄ 693.8 ℄ 700.51 ℄ 696.38

702.57

914+0

696.71

R/W Sod 703.06 703.25 703.06 R/W

℄ 697.4 ℄ 701.34 ℄ 697.55

703.34

913+0

698.01

R/W Sod 704.03 704.22 704.03 704.04 704.23 704.04 R/W

℄ 699.4 ℄ 702.29 ℄ 698.85

912+0

700.51

R/W Sod 705.31 705.31 705.12 705.13 705.13 704.94 R/W

℄ 702.4 ℄ 703.45 ℄ 700.15

Ex. 6" V.S.P. Ex. 6" V.S.P.

Begin Sod
911+0

911+0

703.33

Sta 910 + 00.04

End Area		Volume	
Cut	Fill	Cut	Fill
5	349		
		28	1276
10	340		
		39	1128
11	269		
		69	897
26	194		
		130	454
44	51		
		452	111
200	9		

Sta. 910+00.04

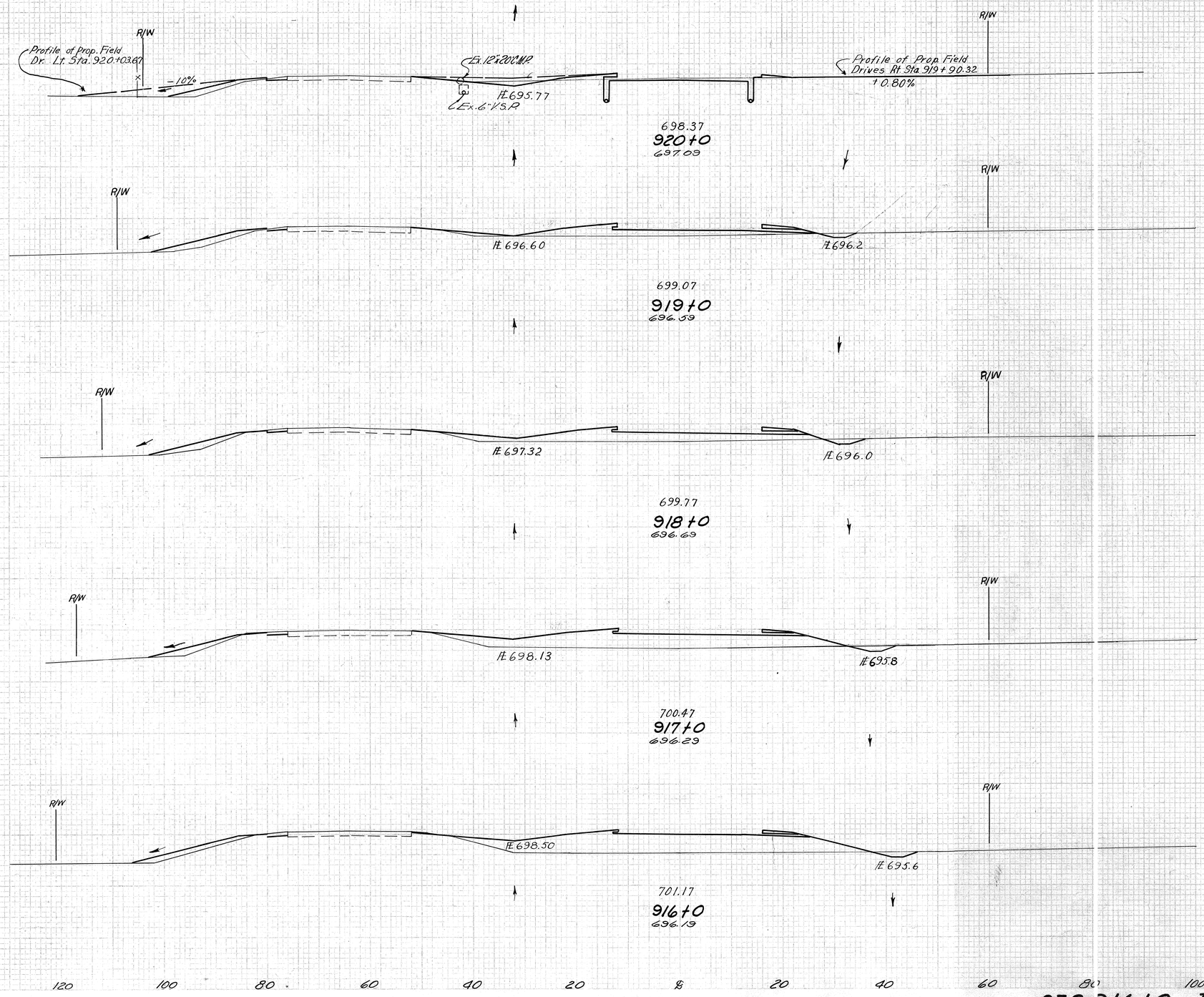
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 911+0 TO STA. 915+0

78/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq Yds.
109	
1194	
97	
1100	
101	
1161	
108	
1250	
117	
1339	
127	Sta. 915+0

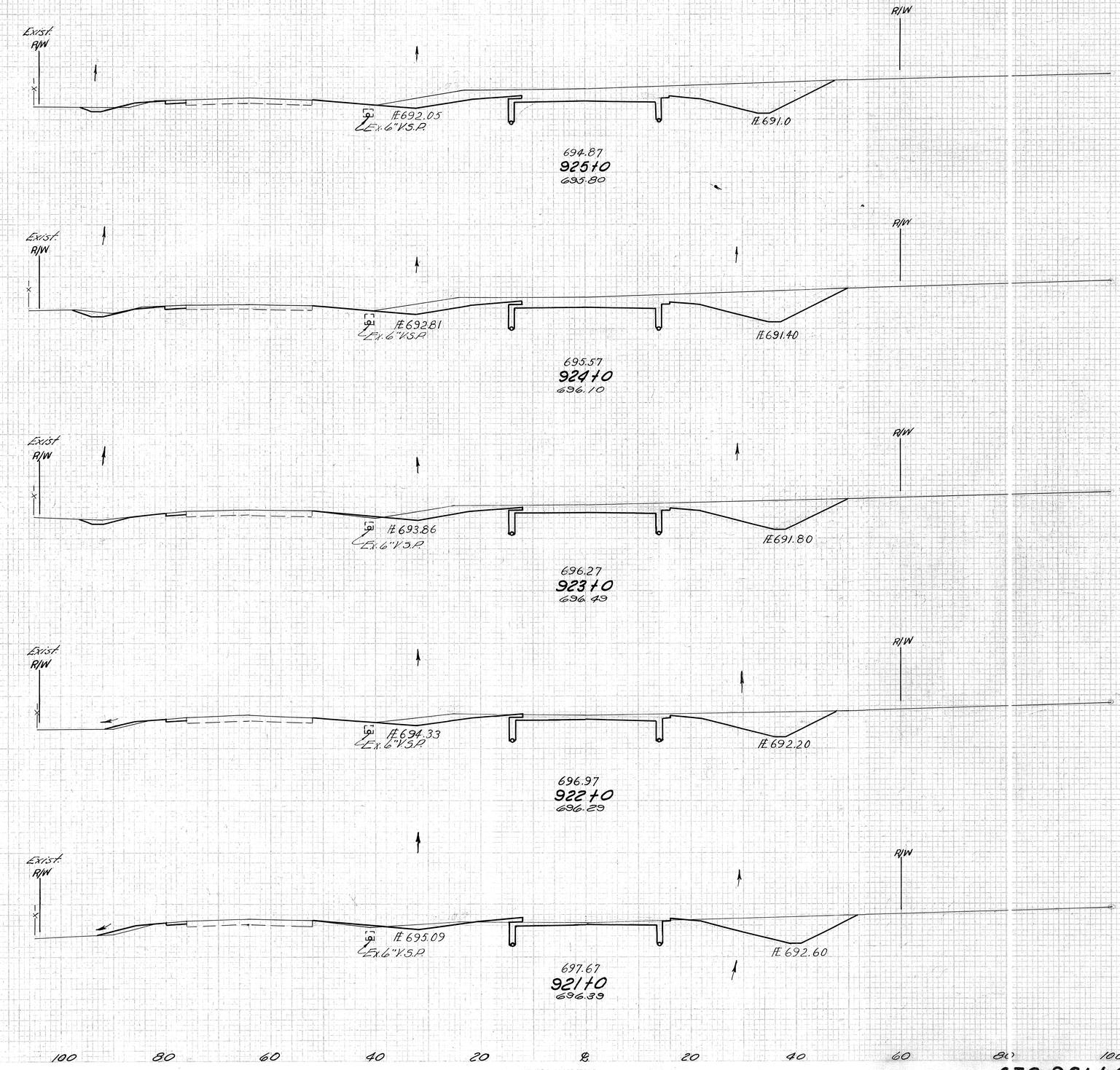


	End Area		Volume	
	Cut	Fill	Cut	Fill
	18	25		
Field Dr. Lt. Sta. 920+03.67			0	11
Field Dr. Rt. Sta. 919+90.32			0	0
Median Connection			22	0
			44	211
	6	89		
			21	367
	7	109		
			27	576
	8	202		
			30	870
	8	268		
			24	1143
Sta. 915+0	5	349		

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 916+0 TO STA. 920+0

ROSS COUNTY
ROS-23-(15.37)(16.01)



Seeding	
End Width	59 Yds.
107	
1200	
109	
1206	
108	
1178	
104	
1178	
108	
1206	
109	

Sta. 920+0

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

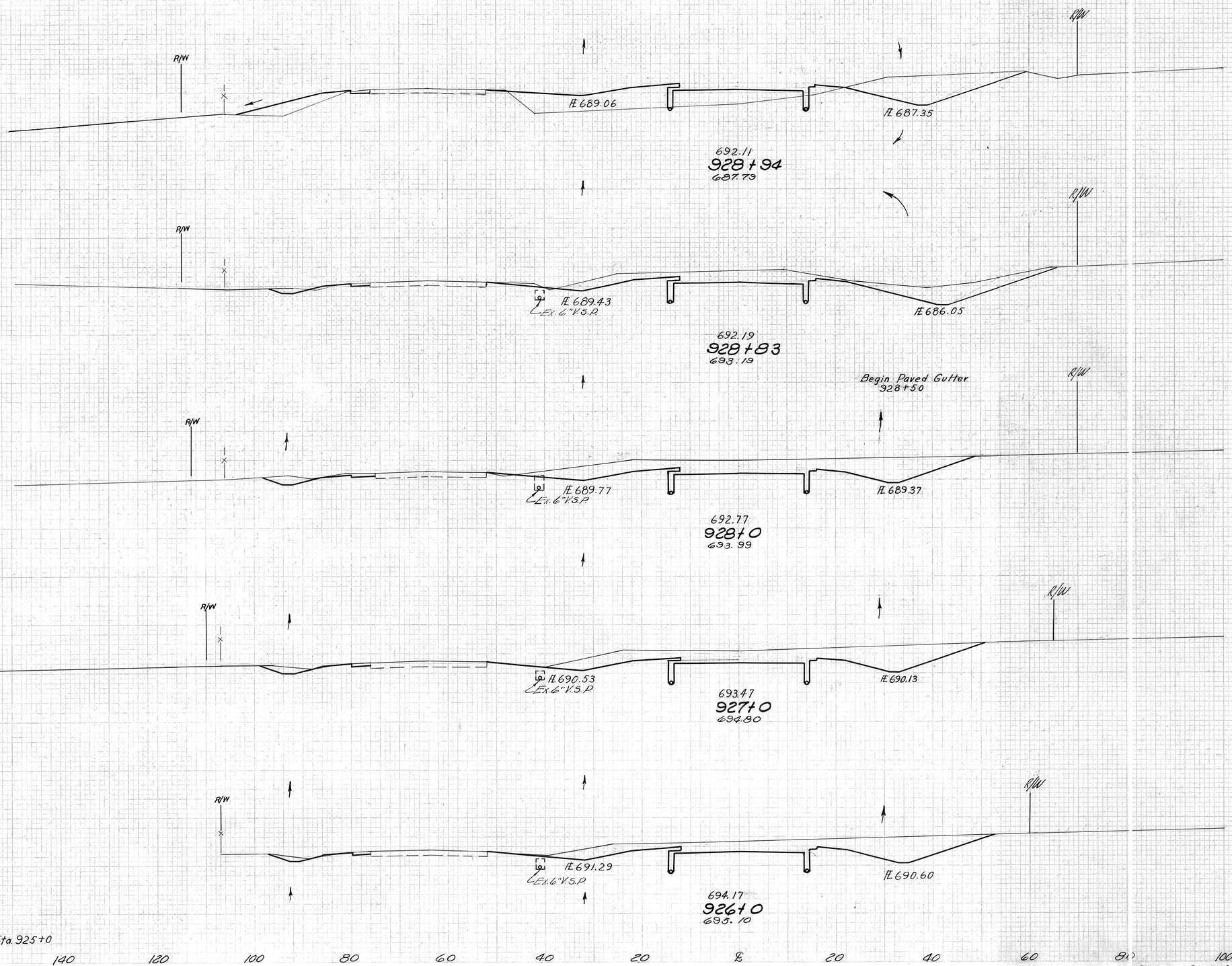
Sta. 920+0

End Area		Volume	
Cut	Fill	Cut	Fill
215	2		
		809	4
222	0		
		757	6
187	3		
		589	11
131	3		
		465	24
120	10		
		256	65
18	25		

STA. 921+0 TO STA. 925+0

80
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



End Area Cut	End Area Fill	Volume Cut	Volume Fill
132	248		
		72	51
223	4		
		744	9
261	2		
		954	4
254	0		
		911	2
238	1		
215	2	839	6

Sta. 925+0

STA. 926+0 TO STA. 928+94

81/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
108	1150
99	1100
99	1256
127	1379
126	1421
129	

R/W
686.91
℄ Prop. Access Rd.
687.16
℄ 686.07
Ex. 6" V.S.P
688.69
933+0
691.48

R/W
Profile of Prop. Res. Dr.
932+07.8
3.55%
687.67
℄ Prop. Access Rd.
Ex. 12" x 100' C.M.P.
℄ 686.83
Ex. 6" V.S.P
End Dr. 1+29
687.52
689.58
932+0
692.49

Ex. 2 Sty. Fr. House
Sta. 931+67
R/W
688.43
℄ Prop Access Rd.
688.68
℄ 687.59
Ex. 6" V.S.P
690.48
931+0
692.79

R/W
Profile Prop Drive Rt.
Sta. 930+36.80
+10%
℄ 687.5
℄ 688.83
Ex. 6" V.S.P
691.32
930+0
692.99

R/W
℄ 689.08
℄ 687.4
692.04
929+04
693.49

Sta 928+94

End Area Cut	End Area Fill	Volume Cut	Volume Fill
352	4		
		1359	7
		6	0
382	0		
		1307	13
324	7		
		1017	20
		45	0
		54	0
		4	0
225	4		
		891	60
278	30		
		76	51
132	248		

Drive Lt ℄ Sta. 932+07.8

Median Connection
Drive Rt ℄ Sta. 930+36.80
Drive Lt ℄ Sta. 930+36.80

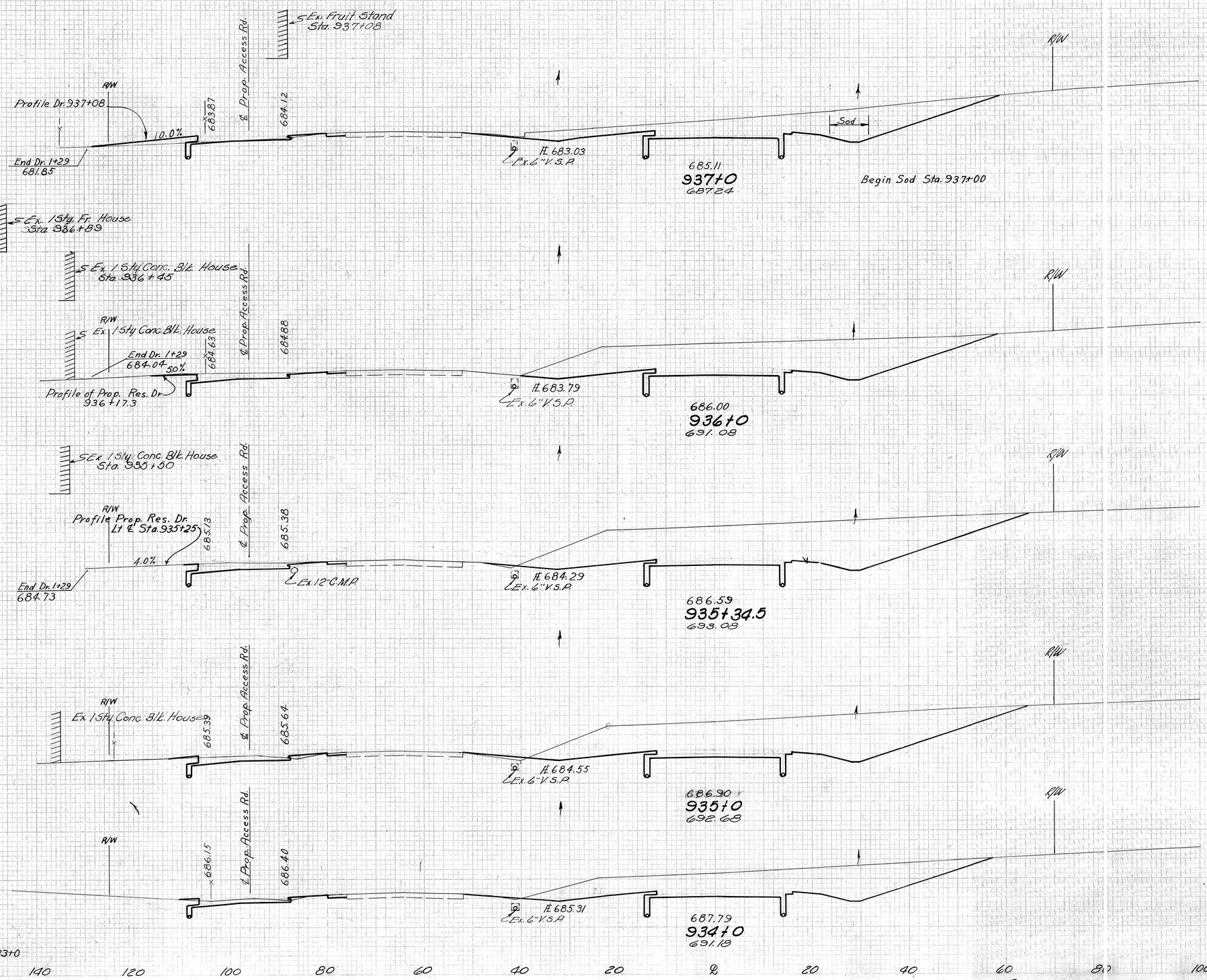
Sta. 928+94

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 929+04 TO STA. 933+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Sq. Yds.
	112
	1294
	121
	866
	117
	452
	119
	1294
	114
	1233
	108



End Area Cut	End Area Fill	Volume Cut	Volume Fill
		2	2
346	20		
		170	37
		10	0
572	0		
		1351	1
		10	0
707	1		
		875	6
662	9		
		2044	26
442	5	1470	17
352	4		

STA. 934+0 TO STA. 937+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
0	19%
112	
38	
115	
1217	
104	
1189	
110	
1233	
112	

CO. ROAD R/W

Approach Lt ℄ Sta. 940+51.87

Quantity Division Line (See Approach Road Sections Sta. 9+21.98)

℄ 681.62

Ex. 6" V.S.P.

Prop. 12" I-2 Pipe

682.12

940+75
679.24

Quantity Division Line (See Approach Road Sections Sta. 10+12.32)

R/W

Begin Sod Sta. 940+78

Prop. 24"x 82' S-27 Pipe

Approach (Lt. & Rt. ℄) Sta. 940+51.87
Transfered From Sheet No. 130

R/W 211'

Approach Lt ℄ Sta. 940+51.87

℄ 681.78

Ex. 6" V.S.P.

Ex. 12" C.M.P.

Prop. 12" I-2 Pipe

682.28

Approach Rt ℄ Sta 940+51.87

CO. ROAD R/W

Prop. 24"x 82' S-27 Pipe

Seeding for Delano Road Sta. 940+51.87
Transfered From Sheet No. 130

940+53.7
682.02

℄ Prop. Access Rd.

681.59

681.84

R/W 191'

℄ 680.75

Ex. 6" V.S.P.

682.69

R/W

End Sod Sta. 940+04.04

Sod

℄ 678.35

Ahead

Back

940+0
681.34

940+00 Ahead
940+00 Back

℄ Prop. Access Rd.

682.35

682.60

R/W

℄ 681.51

Ex. 6" V.S.P.

683.45

Sod

℄ 681.01

939+0
682.24

℄ Prop. Access Rd.

683.11

683.36

R/W

℄ 682.27

Ex. 6" V.S.P.

684.24

938+0
683.54

Sod

Sta. 937+0

Sta. 937+0

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 938+0 TO STA. 940+75

End Area Volume Cut	Fill	Cut	Fill
10	80		
		312	581
		42	32
96	0		
		122	16
		226	372
43	90		
		261	274
98	58		
		822	144
346	20		

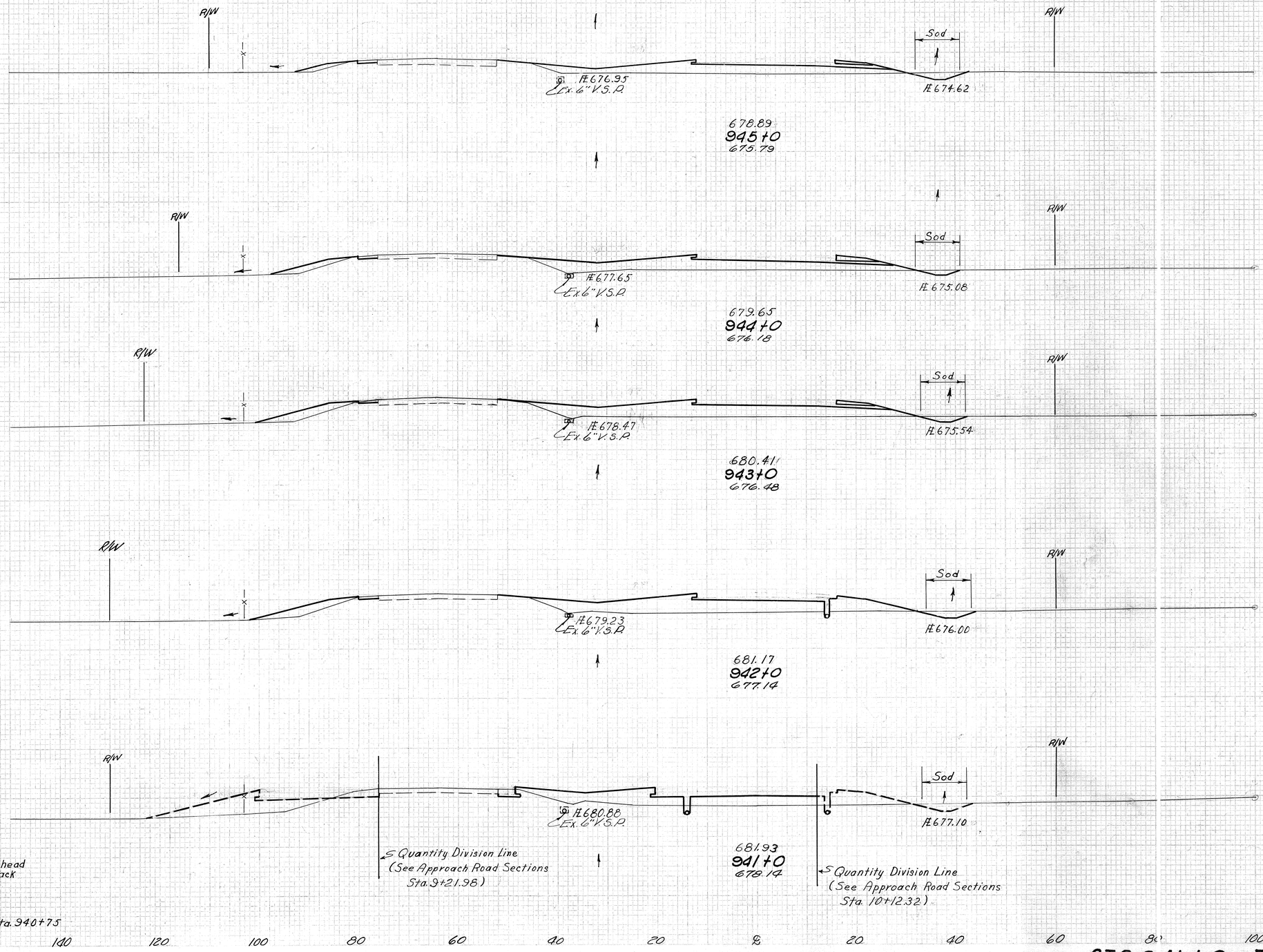
27 16
79 111

ORIGINAL SURVEY — SURVEYED BY / DRAFTED BY / COMPARED BY / DATE / CHECKED BY / NOTE BOOKS / TEMPLATE / SHEETS / DATUM OF ELEVATIONS / NO. OF CONTROL SHEETS

84
177

ROSS COUNTY
ROS-23-(5.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
101	1139
104	1183
109	1211
109	1139
96	Ahead
28	Back
	39
0	Sta. 940+75



End Area Cut	End Area Fill	Volume Cut	Volume Fill
13	140		
		39	543
8	153		
		31	637
9	191		
		39	741
12	209		
		70	800
26	223		
6	112		
		7	89
10	80		

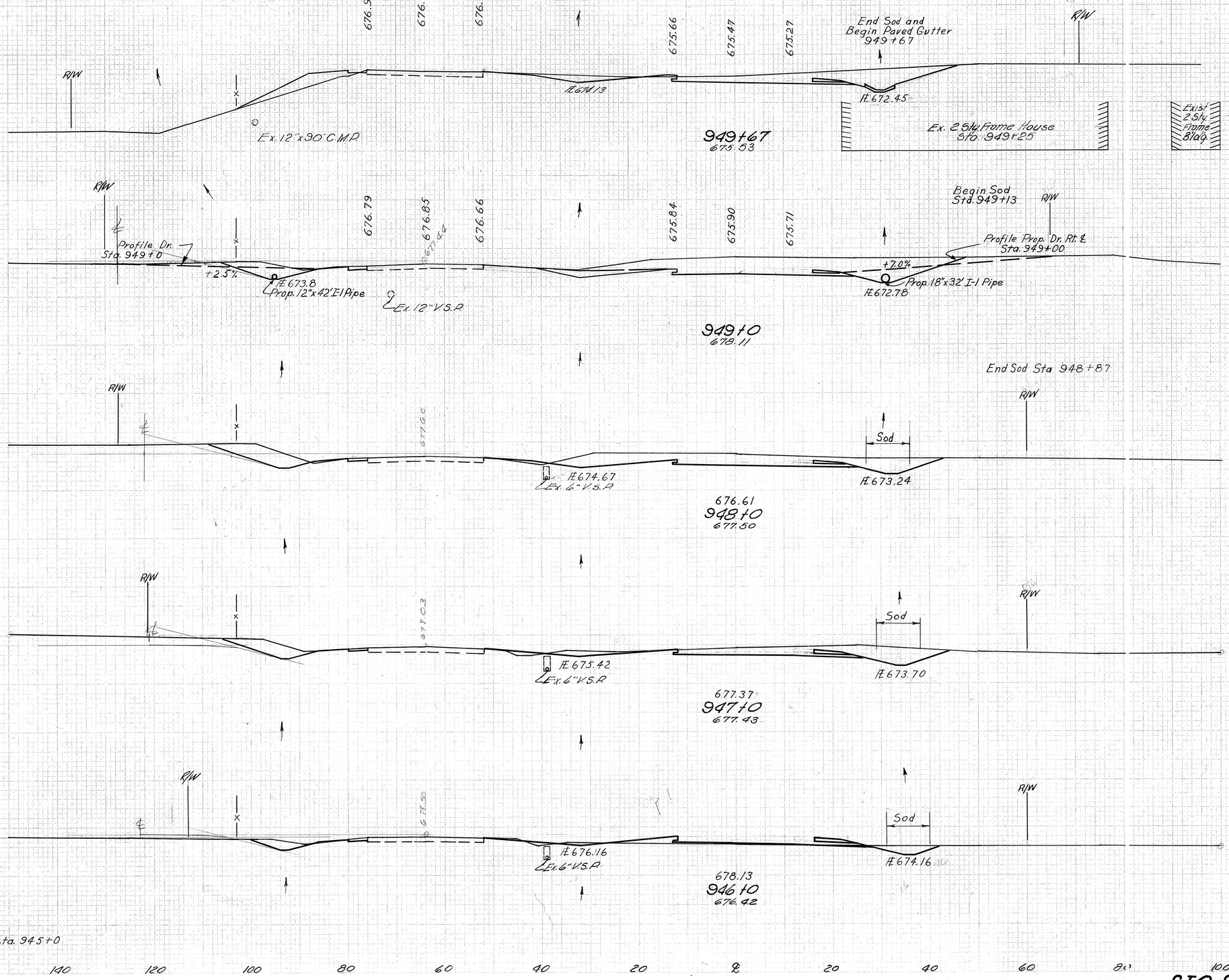
941+00 Ahead
941+00 Back

STA. 941+0 TO STA. 945+0

85/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
116	875
119	1300
115	1272
114	1211
104	1139
101	



	End Area		Volume	
	Cut	Fill	Cut	Fill
	149	38		
			572	47
Median Connection			76	0
Drive Rt. ℄ - Sta. 949+00			5	47
Drive Lt ℄ - Sta. 949+00			3	51
	312	0		
			981	11
	218	6		
			676	19
	197	4		
			335	52
	34	24		
			87	304
Sta. 945+0	13	140		

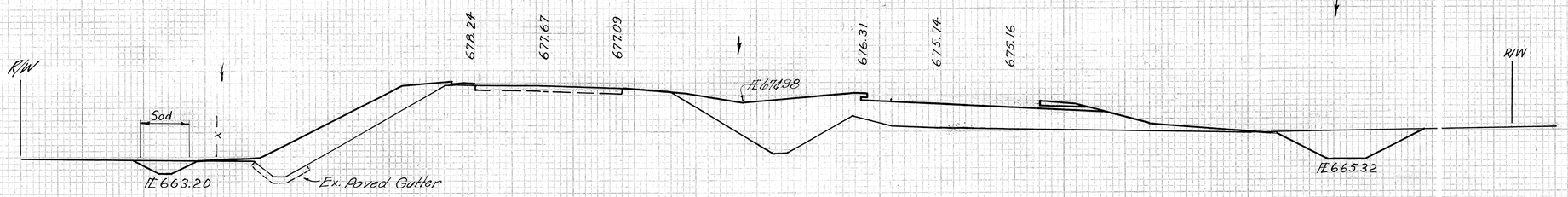
STA. 946+0 TO STA. 949+67

86/177

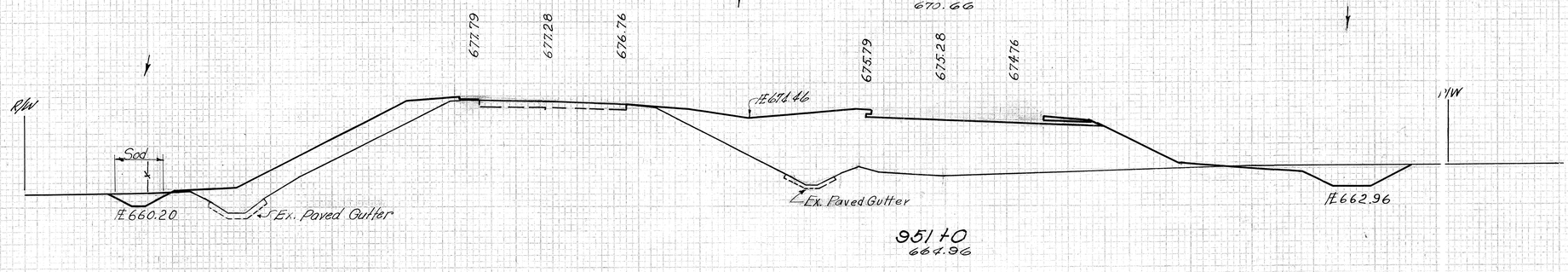
ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
179	
199	
180	
113	
153	
631	
150	
488	
116	

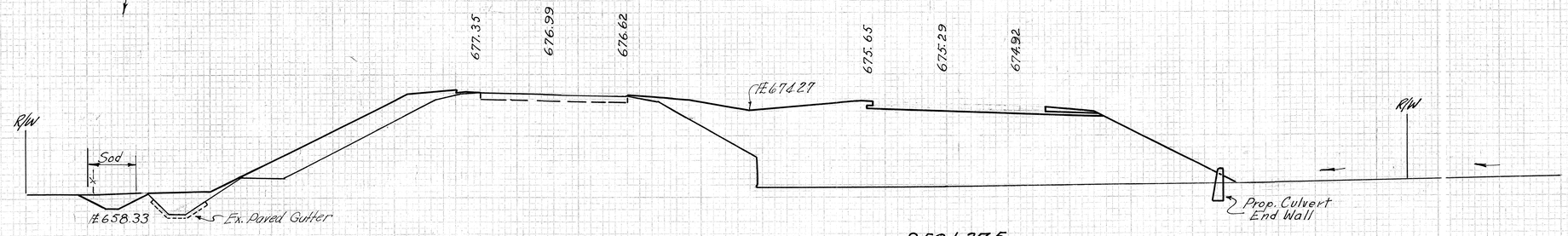
End Area Cut	End Area Fill	Volume Cut	Volume Fill
82	445		
		267	2235
62	762		
91	2097		
17	1015		
18	1149		
9	640		
		97	414
149	38		



95+70
670.66



95+10
664.96



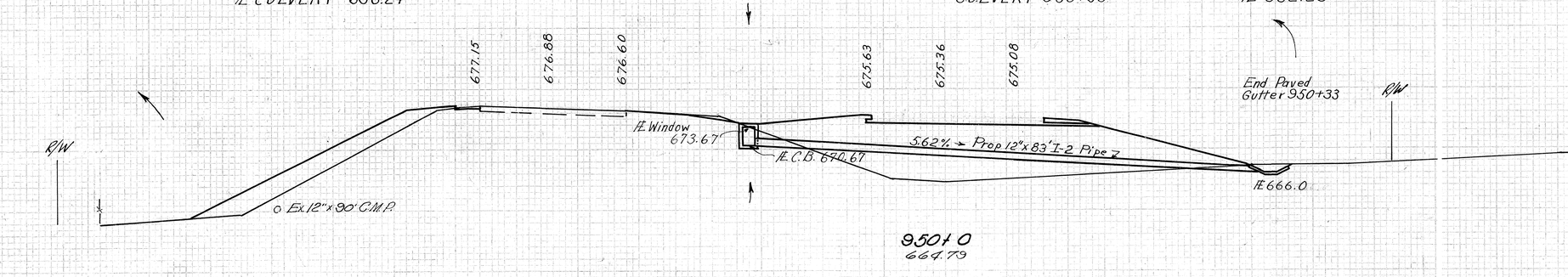
95+37.5
661.89

Begin Sod
930+20.5

℄ CULVERT = 656.24

CULVERT 950+36

℄ 662.23



95+10
664.79

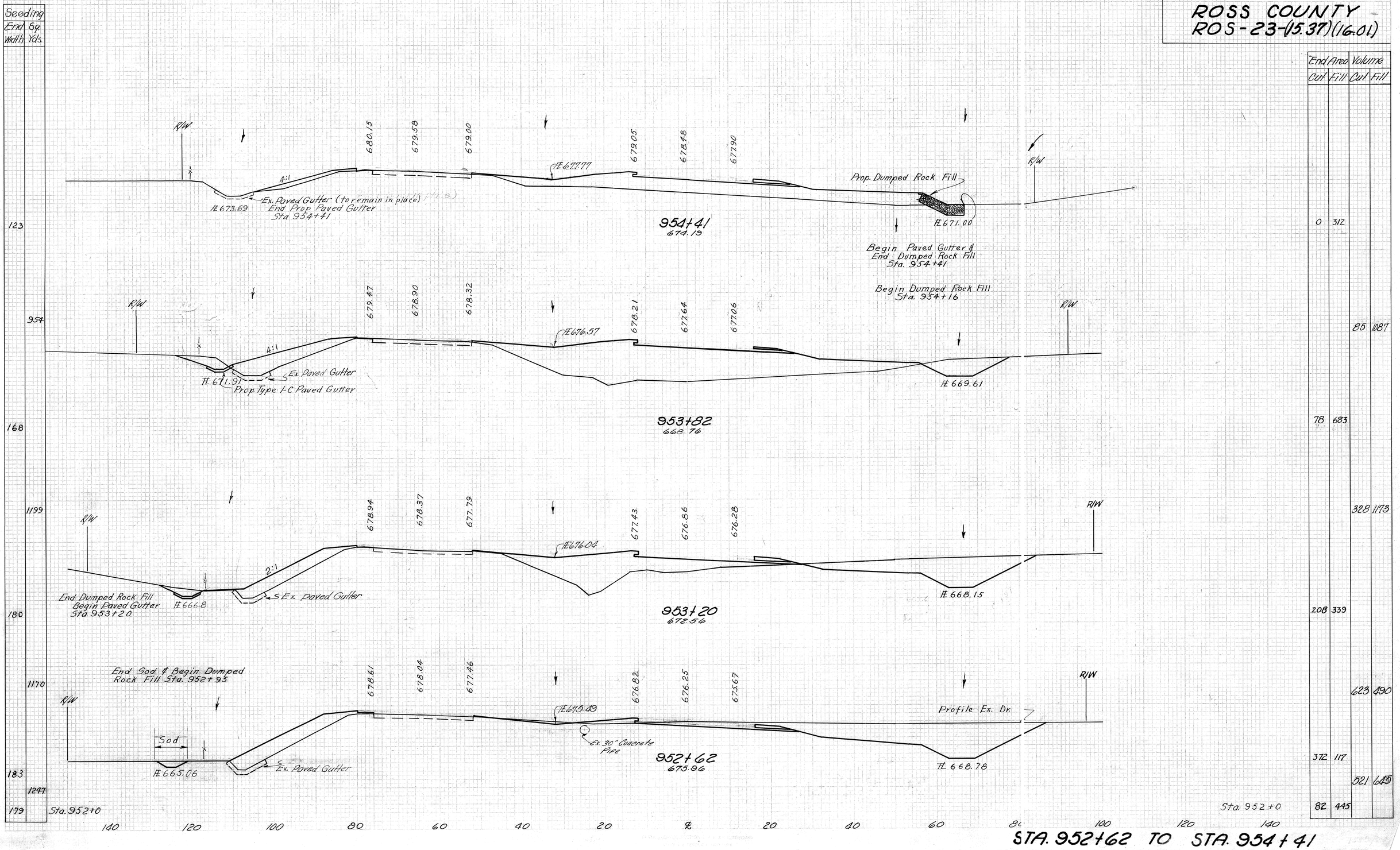
Sta 949+67

Sta. 949+67

140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140

STA. 950+0 TO STA. 952+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

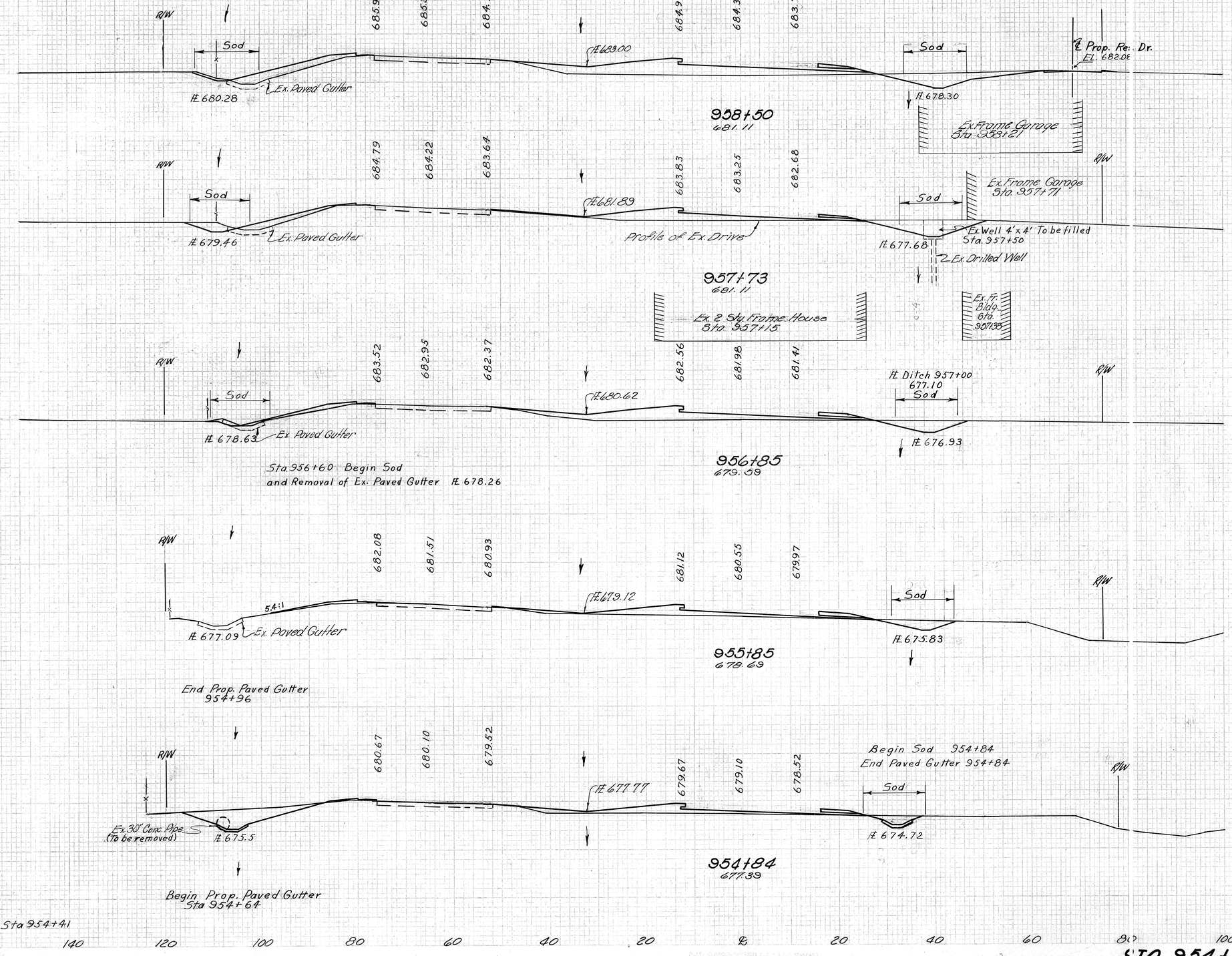


STA. 952+62 TO STA. 954+41

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
127	1078
125	1208
122	1300
112	1251
111	559
123	

Sta 954+41

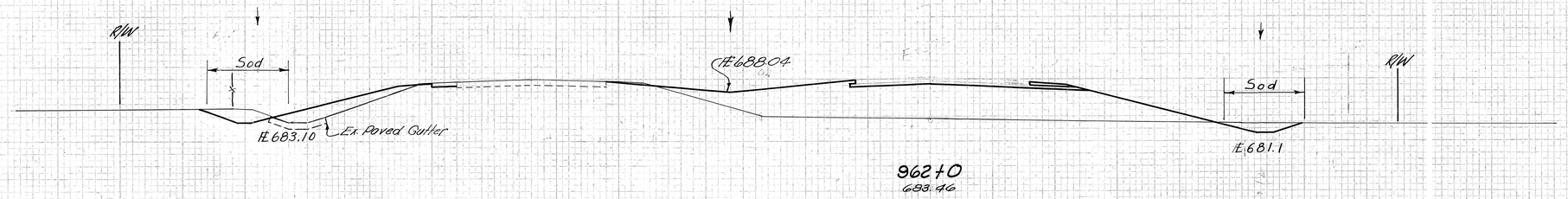


End Area Cut	End Area Fill	Volume Cut	Volume Fill
49	184		
			151 396

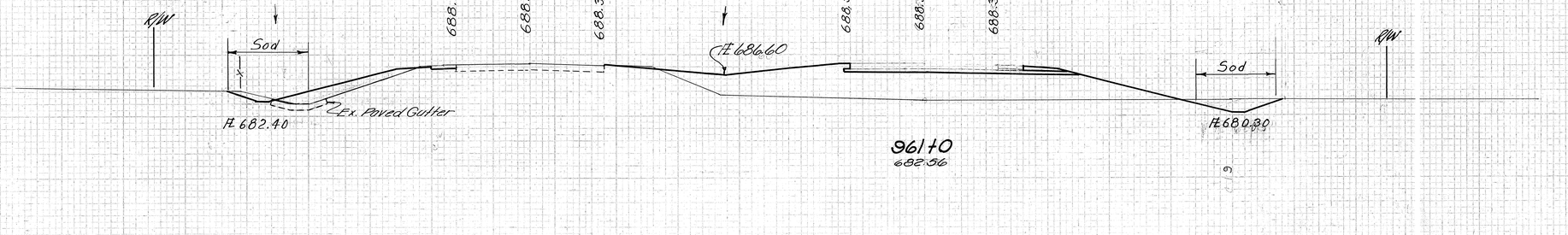
ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Sq. Yds
142	
1606	
147	
1167	
133	
1087	
128	
1417	
127	

End Area Cut	End Area Fill	Volume Cut	Volume Fill
30	407		
		107	1430
28	365		
		83	899
32	282		
		135	656
		0	76
		0	193
		10	10
65	190	211	693
49	184		



962+0
683.46

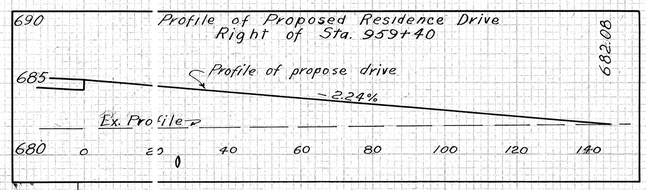


961+0
682.56



687.18
960+25
682.76

685.92
959+50
681.91



Drive Lt. ℄ - Sta. 959+40
Drive Rt. ℄ - Sta. 959+40
Median Connection

STA. 959+50 TO STA. 962+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Sq. Yds.
115	1229
157	2049
153	1667
147	1606
142	

Ex. 1514 Ft. House Sta 966+27

Ex. Frame Garage Sta 962+86

℄ Prop & Ex 30" Pipe 688.13 Sta. 965+60

Ex. 30" x 30'C.M.P.

℄ Prop. 30" Pipe 685.48

End Paved Gutter 965+06 - ℄ 684.71

℄ Prop 30" Pipe 684.71 Sta. 965+06

End Dumped Rock Fill & Begin Paved Gutter Sta. 964+76

End Sod and Begin Dumped Rock Fill Sta 964+51

Ex. Paved Gutter

℄ 686.36

℄ 693.89

℄ 692.63

℄ 690.89

℄ 689.47

℄ 684.50

℄ 683.80

℄ 686.00

End Dumped Rock Fill Begin Paved Gutter Sta 966+00

End Sod Begin Dumped Rock Fill Sta 965+75

℄ 683.98

℄ 682.70

℄ 681.90

Sod

R/W

695.93
966+0
691.44

694.76
965+19
686.46

693.05
964+0
684.66

691.61
963+0
684.56

℄ Ditch 965+0[illegible] - 683+50

End Area Cut	End Area Fill	Volume Cut	Volume Fill
8	262		
		32	1213
13	540		
		101	2406
33	552		
		106	1886
24	434		
		100	1557
30	407		

Sta 962+0 140 120 100 80 60 40 20 & 20 40 60 80 100 120 140

STA. 963+0 TO STA. 966+0

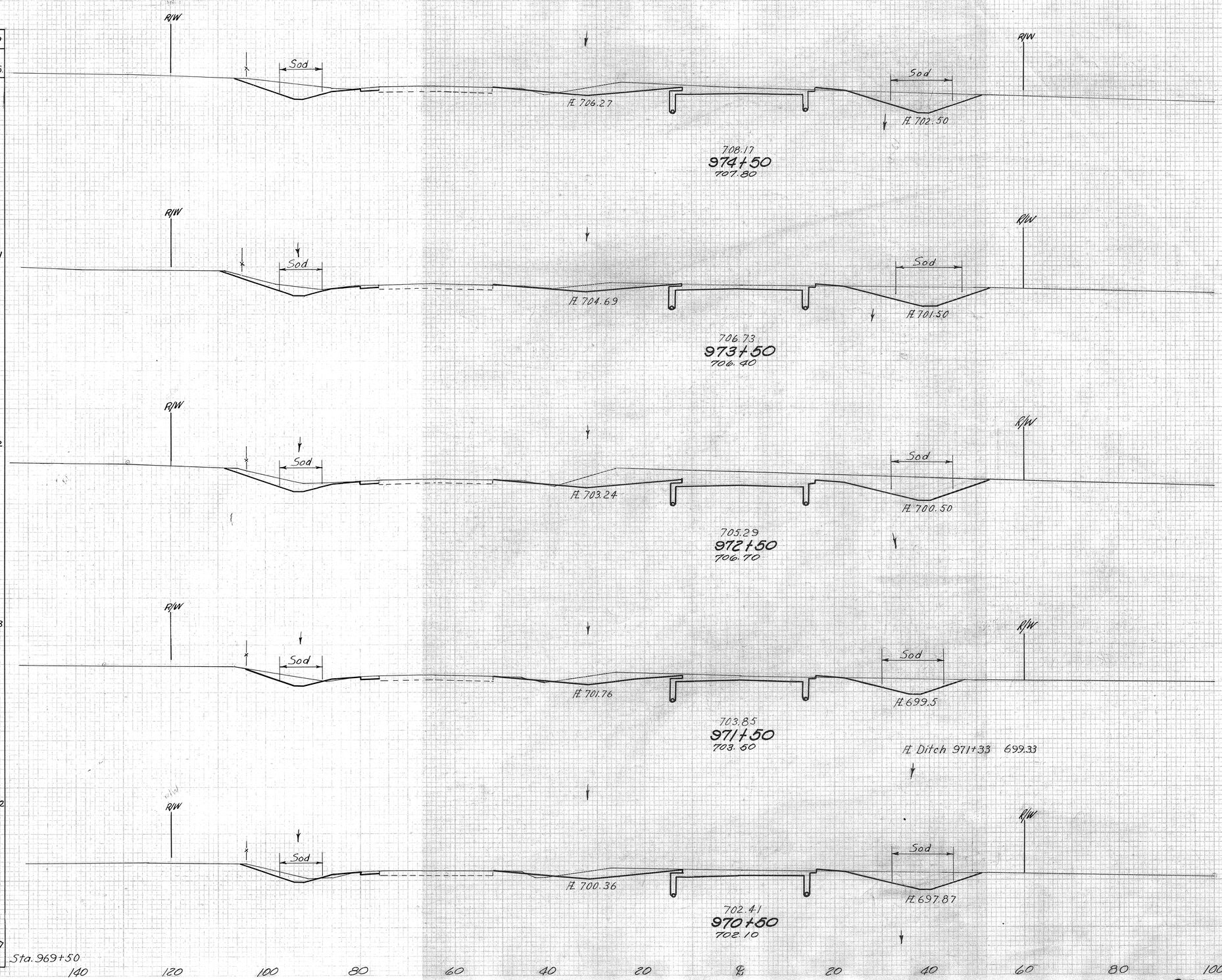
91/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.		End Area Cut	End Area Fill	Volume Cut	Volume Fill

ROSS COUNTY
ROS-23-(15.37)(16.01)

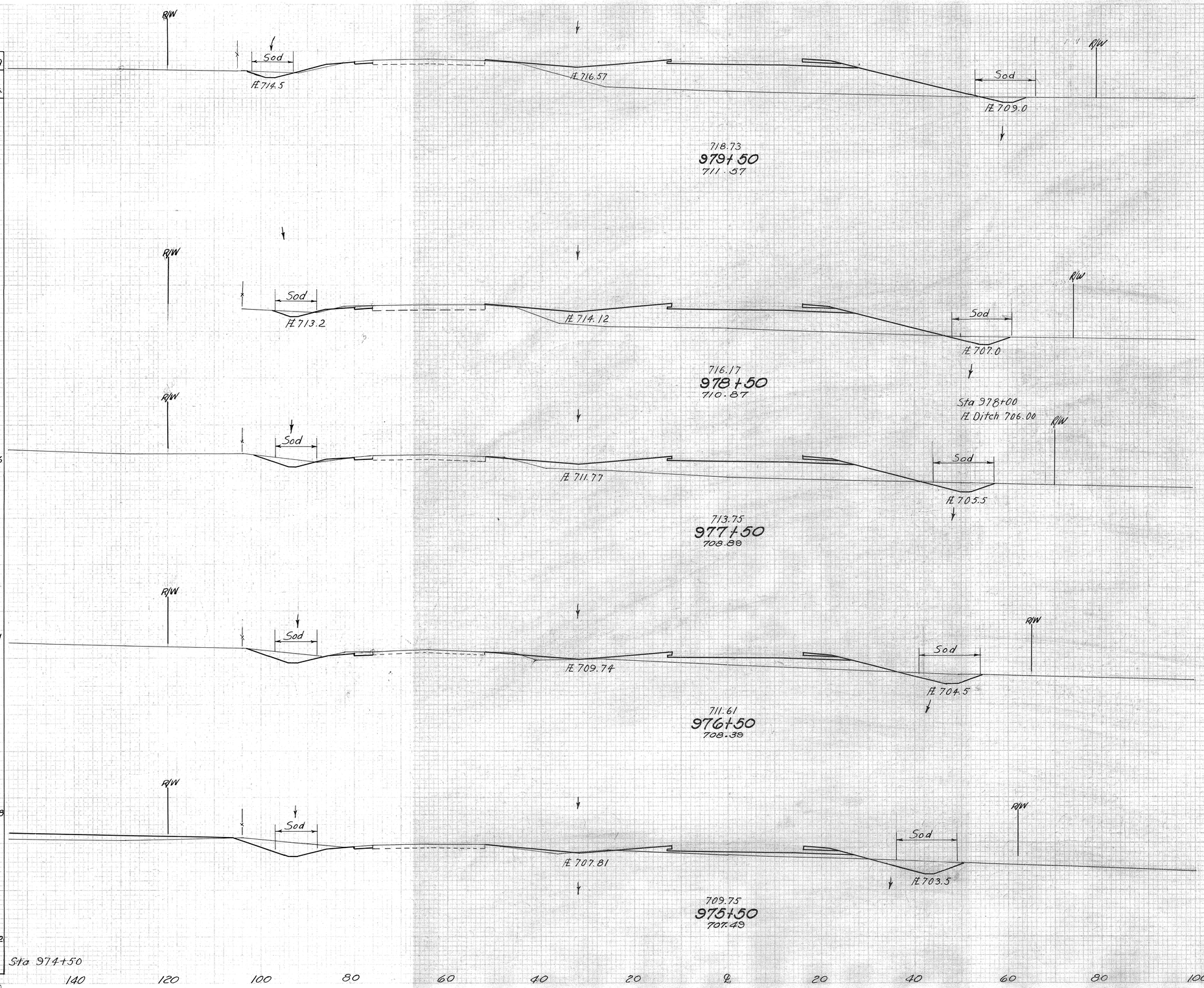
Seeding		End Area		Volume	
End Width	Sq. Yds.	Cut	Fill	Cut	Fill
121	1361	188	5	619	13
124	1372	146	2	801	6
123	1333	288	1	761	11
117	1322	123	5	466	22
121	1367	129	7	432	17
125		115	2		



STA. 970+50 TO STA. 974+50

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Sq. Yds.
133	
141	
121	
135.6	
123	
136	
122	
137.8	
126	
137.2	



End Area Cut	End Area Fill	Volume Cut	Volume Fill
15	432		
		69	1363
22	304		
		96	985
30	228		
		143	626
47	110		
		224	300
74	52		
		485	106
Sta. 974+50 188	5		

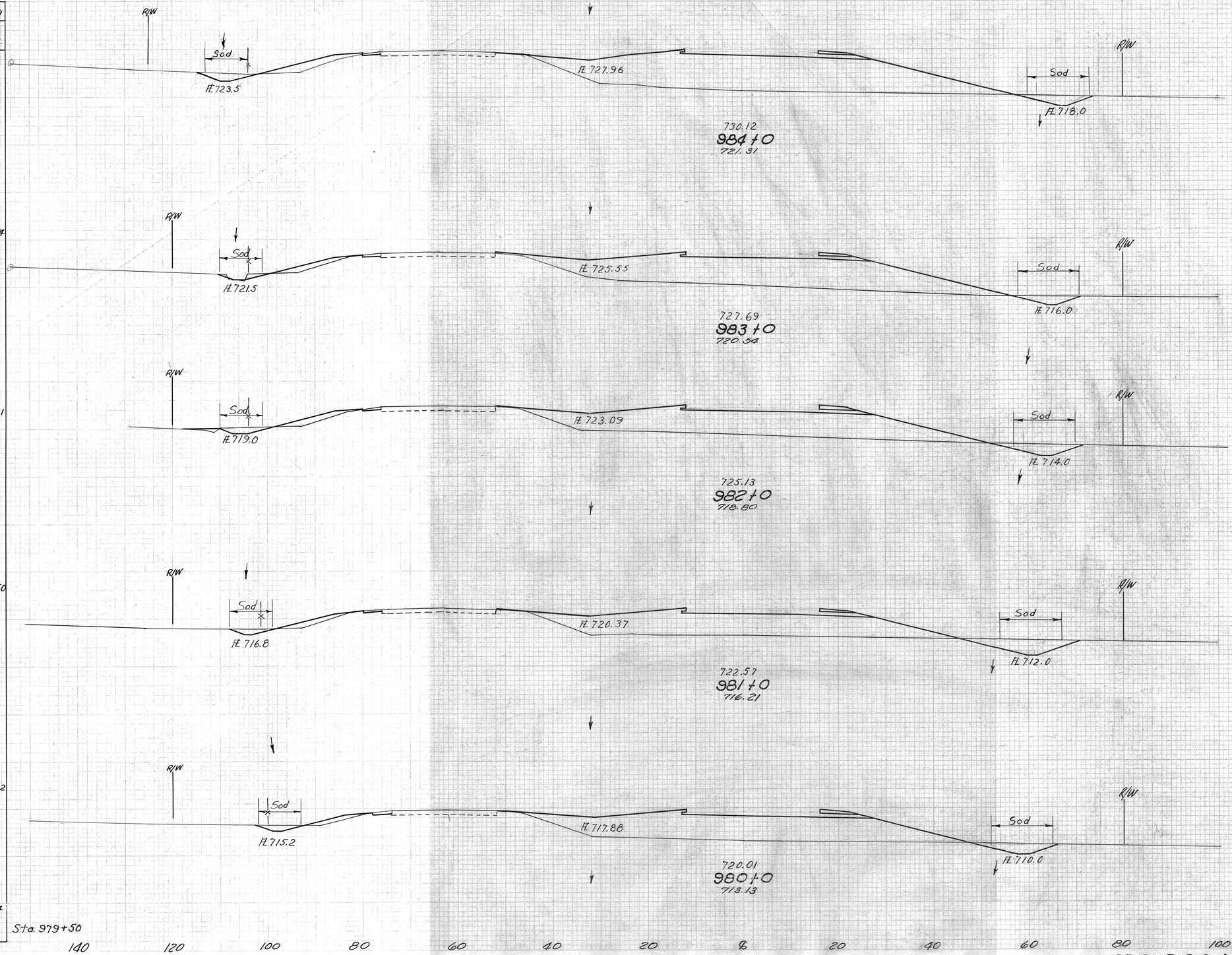
STA. 975+50 TO STA 979+50

6878

94
177

ROSS COUNTY
ROS-23-15.37)(16.01)

Seeding	
End Width	Sq. Yds.
146	
159	
141	
156	
140	
155	
139	
152	
135	
74	
133	Sta. 979+50

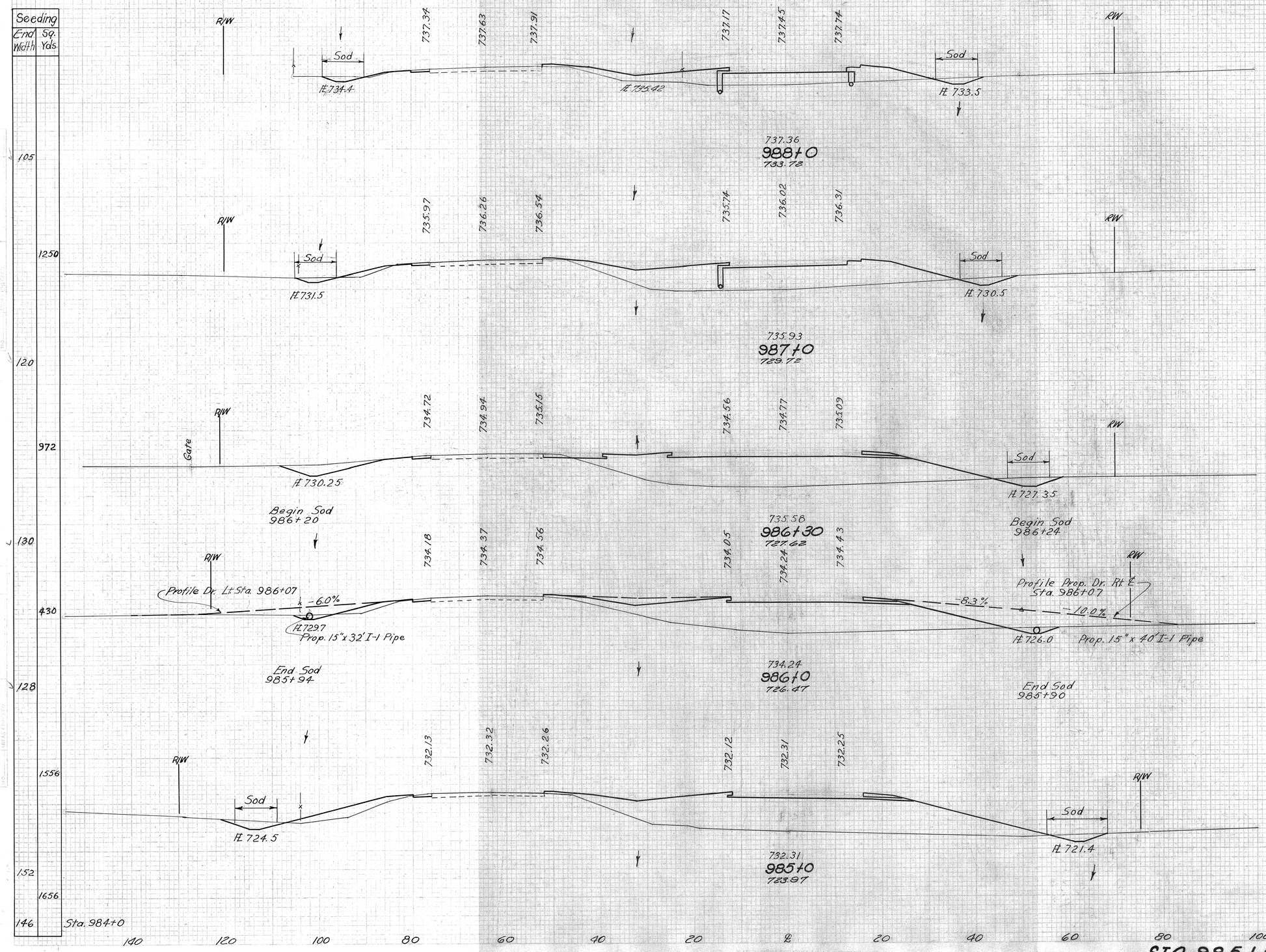


End Area		Volume	
Cut	Fill	Cut	Fill
31	573		
		98	1904
22	482		
		113	1606
39	412		
		170	1446
53	369		
		154	1441
30	409		
		42	1657
Sta. 979+50 15	432		

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 980+0 TO STA. 984+0

ROSS COUNTY
ROS- 23-(15.37)(16.01)



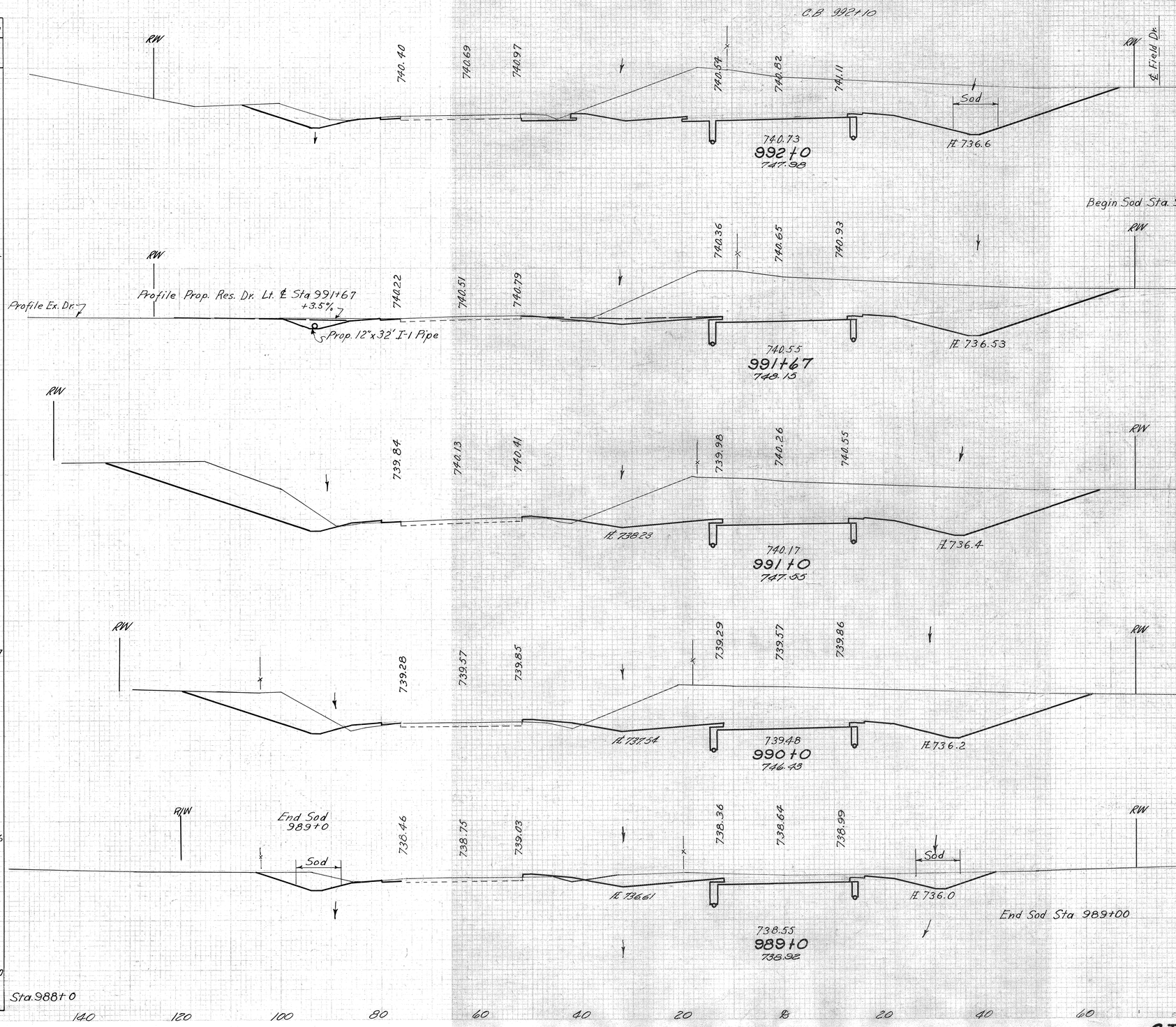
	End Area Cut	End Area Fill	Volume Cut	Volume Fill
	21	181		
			81	1015
	23	367		
			100	1045
Drive Lt. ℄ - Sta. 986+07			0	32
	54	439		
			39	1611
Drive Rt. ℄ - Sta. 986+07			0	108
Median Connection			0	0
	16	431		
			80	1893
	27	591		
			107	2156
Sta. 984+0	31	573		

STA. 985+0 TO 988+0

96/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
121	445
122	942
131	1467
133	1356
111	1200
105	

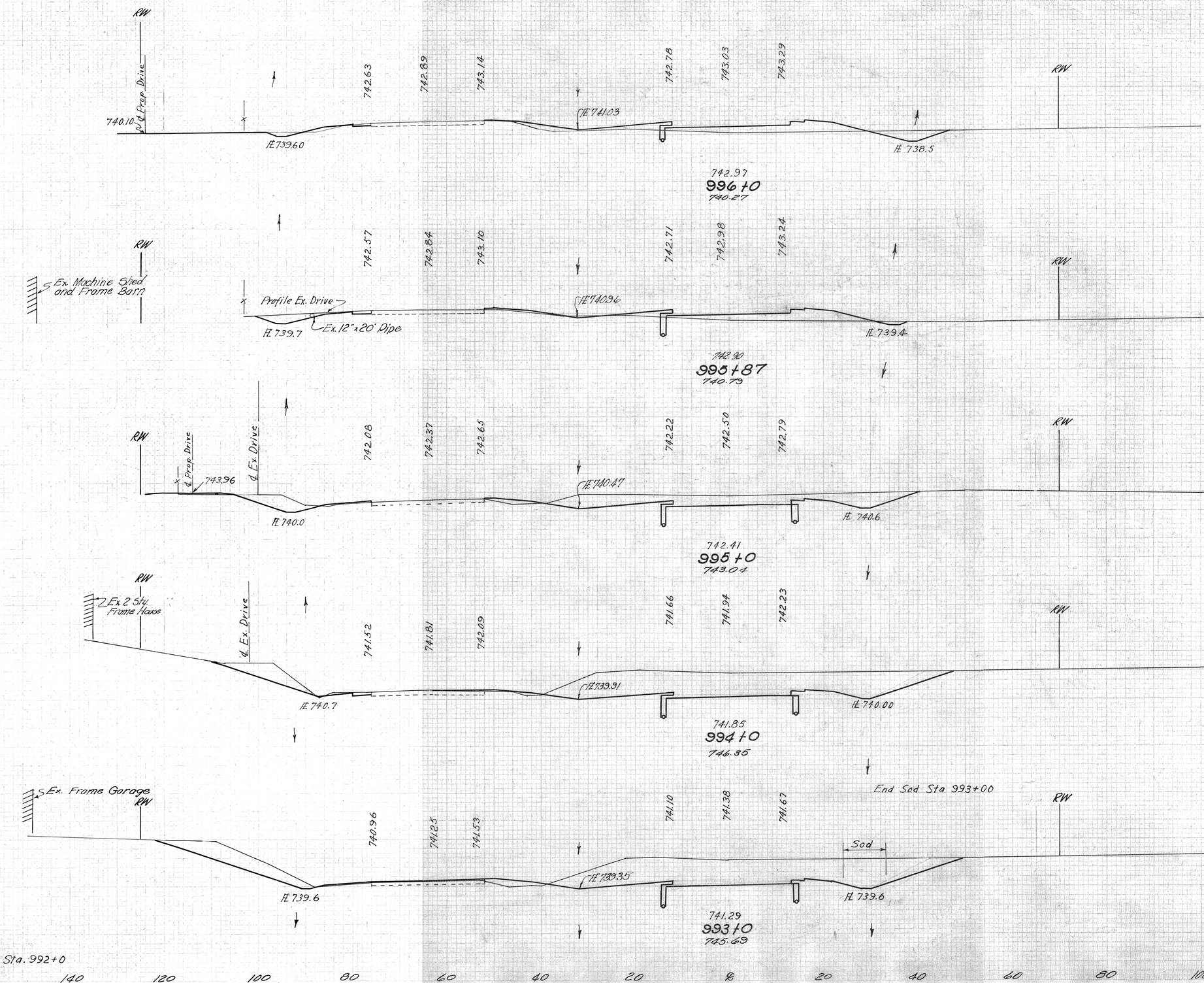


	End Area Cut	End Area Fill	Volume Cut	Volume Fill
	799	0		
			928	0
			1/76	12
	720	0		
			2022	14
	910	11		
			3135	57
	783	20		
			1791	54
	184	9		
			380	302
Sta. 988+0	21	181		

STA. 989+0 TO 992+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
121	
	162
103	
	1034
111	
1300	
123	
1411	
131	
121	1422

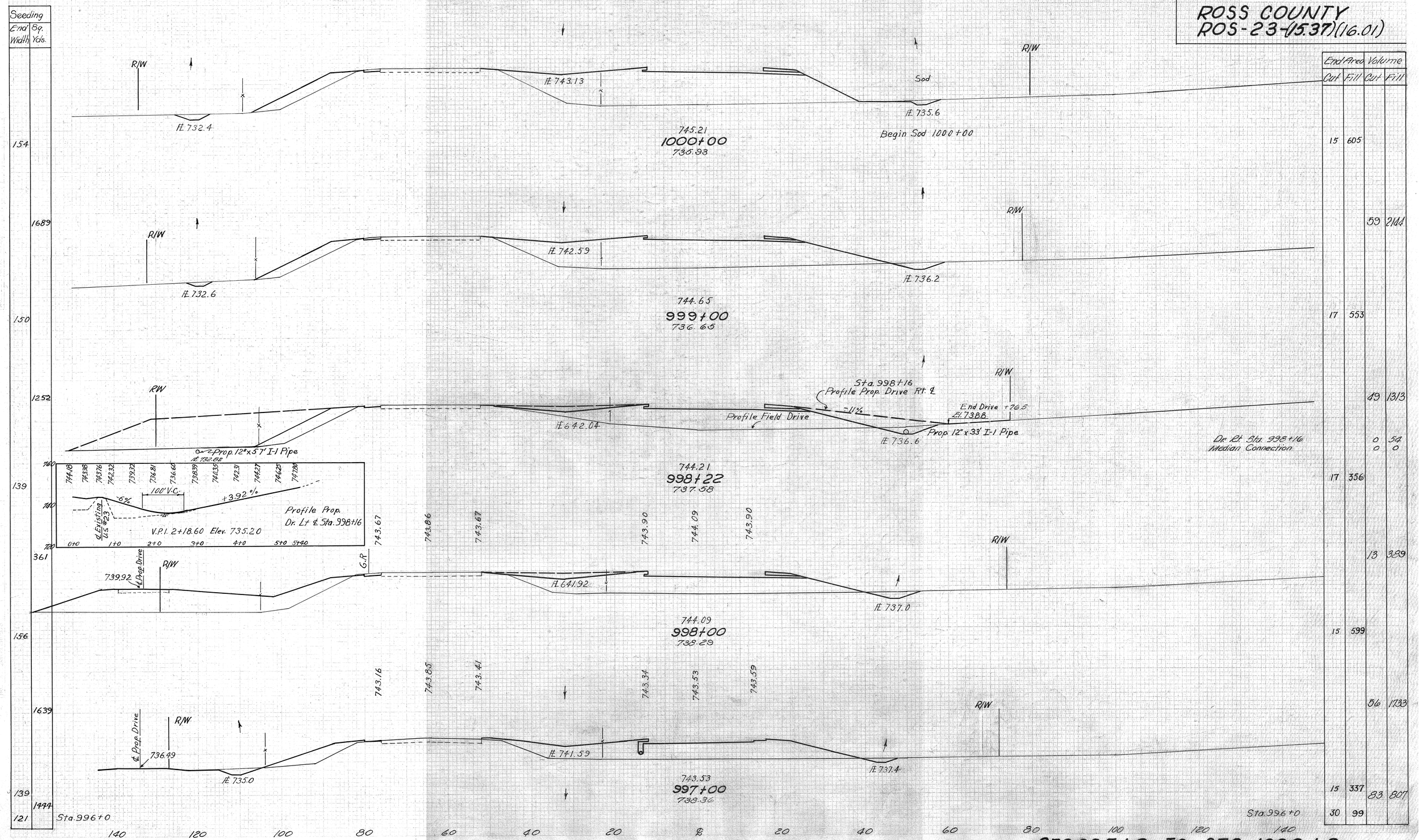


End Area Cut	End Area Fill	Volume Cut	Volume Fill
30	99		
		13	42
25	76		
		350	143
192	13		
		1122	30
414	3		
		1641	37
472	17		
799	0	2354	31

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 993+0 TO STA. 996+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

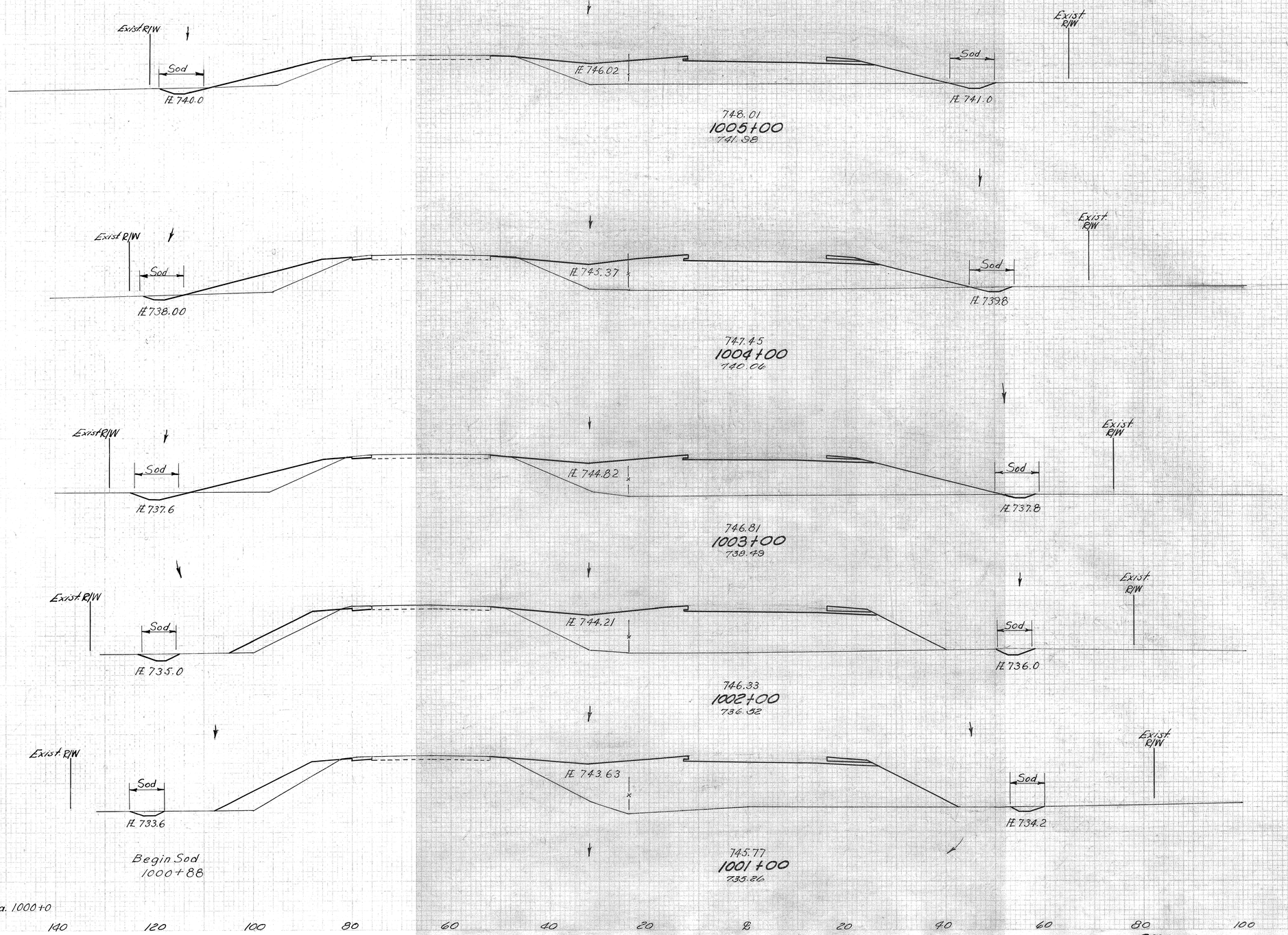


End Area Cut	End Area Fill	Volume Cut	Volume Fill
15	605		
		59	2144
17	553		
		49	1313
		0	54
		0	0
17	356		
		13	389
15	599		
		56	1733
15	337	83	807
30	99		

STA. 997+0 TO STA. 1000+0

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds
131	
	1494
138	
	1583
147	
	1549
131	
	1578
153	
	1706
154	



End Area		Volume	
Cut	Fill	Cut	Fill
16	401		
			52 1670
12	501		
			50 2069
15	616		
			59 2315
17	634		
			54 2506
12	746		
			50 2502
15	605		

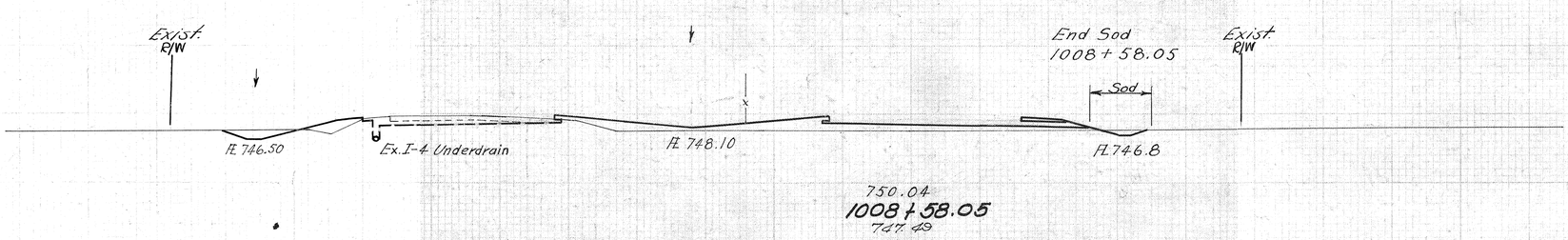
Sta. 1000+0

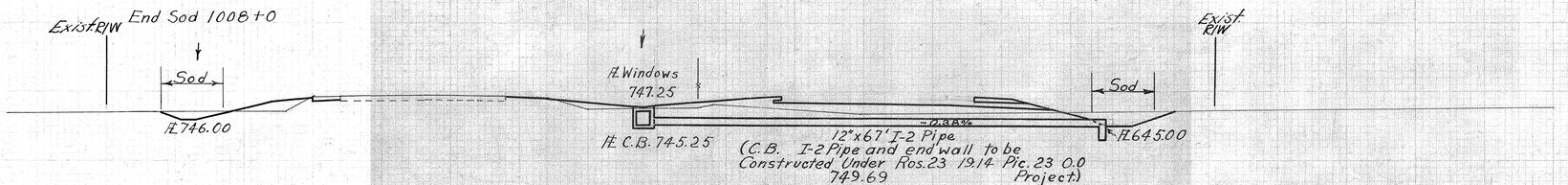
STA. 1001+0 TO STA. 1005+0

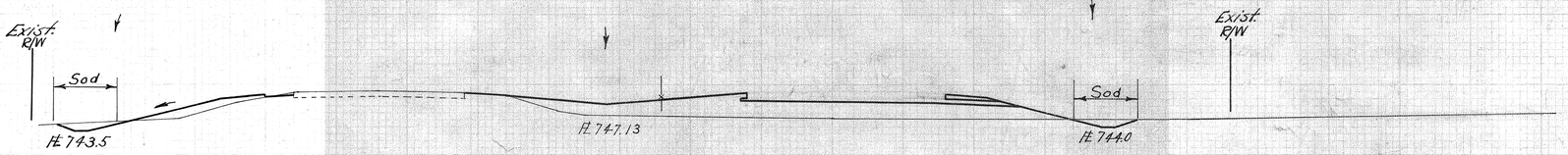
FED. RD. DIVISION	STATE	PROJECT		100 177
2	OHIO			

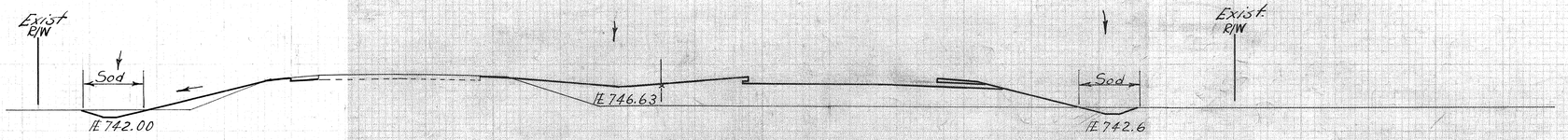
ROSS COUNTY
ROS-23-(15.37)(16.01)

END PROJECT & WORK
STA. 1008+58.05









Seeding End Width	Seeding Sq. Yds.	Sta. 1005+0
98		
	658	
106		
1239		
117		
1333		
123		
1411		
131		

End Area Cut	End Area Fill	Volume Cut	Volume Fill	Sta. 1005+0
13	86			
		106	177	
86	79			
		131	489	
12	185			
		46	820	
13	258			
		54	1220	
16	401			

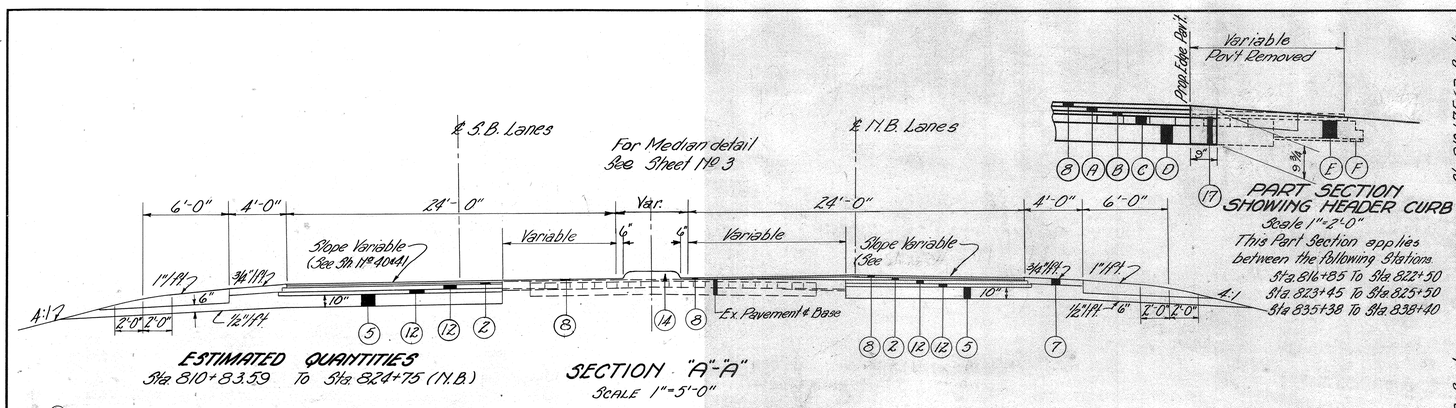
140 120 100 80 60 40 20 0 20 40 60 80 100 120 140

STA. 1006+0 TO STA. 1008+58.05

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

101/177

ROSS COUNTY
ROS-23-(15.37)(16.01)



ESTIMATED QUANTITIES

Sta. 810+83.59 To Sta. 824+75 (N.B.)

1-R	F-8	Removal and Disposal of Existing Bituminous Wearing Course	233 Sq. Yds.
2-R	F-8	Removal and Disposal of Existing Pavement	438 Sq. Yds.
3-R	I-12	Combination Curb and Gutter, Type 2 (Mod.)	381 Lin. Ft.
4-R	I-21	Portland Cement Concrete Median (Type 2)	120 Sq. Yds.
5-R	I-12	Header Curb as per plan	695 Lin. Ft.
6-R	I-21	Portland Cement Concrete Median Type 2 (Mod.)	50 Sq. Yds.

NOTE: For pavement Quantities See Pavement Calculations, Sheet 1№14

SECTION "A"-"A"

SCALE 1"=5'-0"

PART SECTION SHOWING HEADER CURB

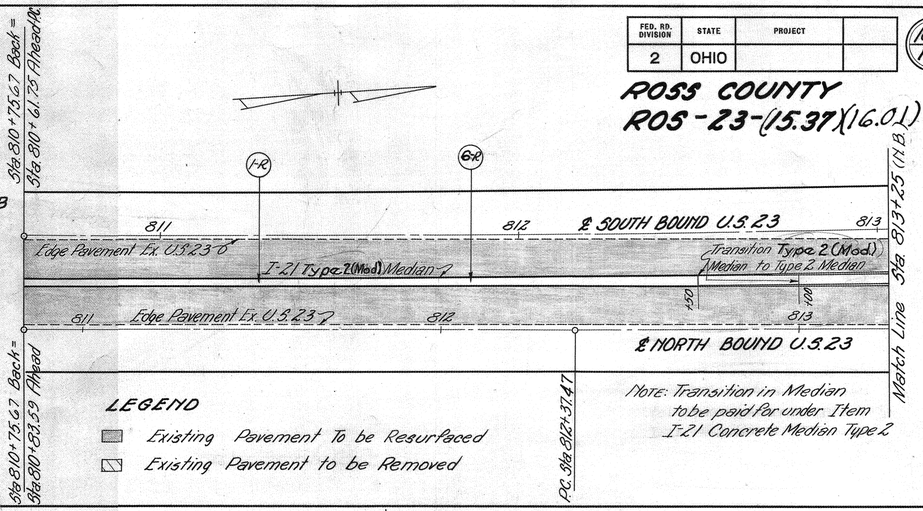
Scale 1"=2'-0"

This Part Section applies between the following Stations

Sta. 816+85 To Sta. 822+50
Sta. 823+45 To Sta. 825+50
Sta. 835+38 To Sta. 838+40

Sta. 810+75.67 Back = Sta. 810+61.75 Ahead ℄

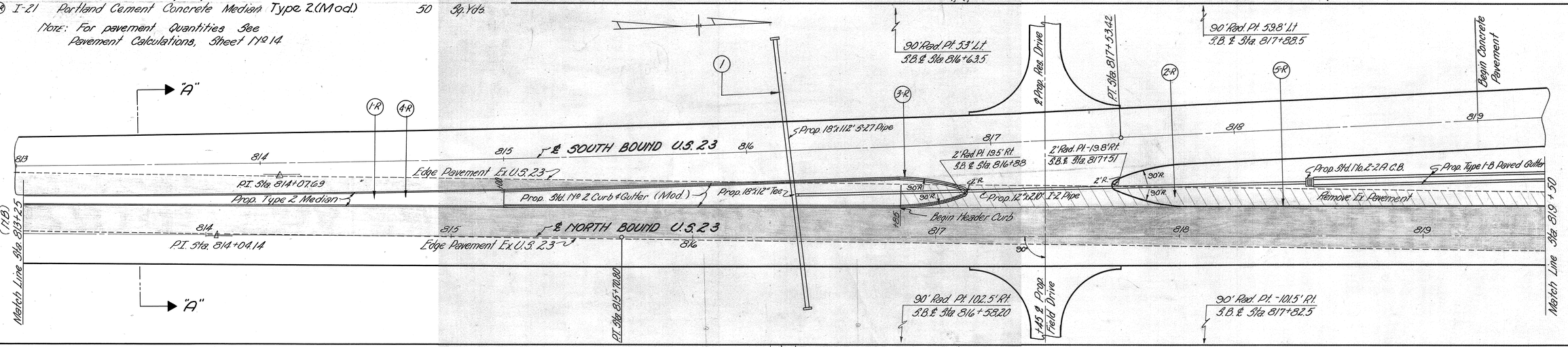
Sta. 810+75.67 Back = Sta. 810+83.59 Ahead ℄



NOTE: Transition in Median to be paid for under Item I-21 Concrete Median Type 2.

LEGEND

- Existing Pavement To be Resurfaced
- Existing Pavement to be Removed



ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PAVEMENT DETAILS

STA. 810+61.75 To STA. 825+00 (SOUTH BOUND)
STA. 810+83.59 To STA. 824+75 (NORTH BOUND)

SCALE 1"=20'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RWG.	RWG.	W.D.J.	S.L.W.			

ROSS COUNTY
ROS-23-(15.37)(16.01)

ESTIMATED QUANTITES

Item E-12	Concrete Curb (Type 2-A)	333	Lin.Ft.
Item E-12	Combination Curb & Gutter (Type 2)	242	Lin.Ft.
Item E-18	9/16 Crushed Aggregate for Shoulders & Approaches	140.06	Cu.Yds.
Item E-22	6" Subbase	681.22	Sq.Yds.
Item E-70	7" Portland Cement Concrete Pavement	10.22	Sq.Yds.
Item E-71	9" Reinforced Portland Cement Concrete Pavement	767.56	Sq.Yds.
Item E-22	10" Subbase	129.78	Sq.Yds.
Item B-35	3" Asphaltic Concrete Base Course	252.44	Sq.Yds.
Item B-35	1½" Asphaltic Concrete Leveling Course	129.78	Sq.Yds.
Item E-35	1½" Asphaltic Concrete Surface Course	677.97	Sq.Yds.

Note: Warp proposed pavement between stations 5+50 and 6+50 to meet existing pavement.

TYPICAL SECTION OF EXISTING PAVEMENT LT. OF ℄
Scale ¼" = 1'-0"

TYPICAL SECTION OF EXISTING PAVEMENT RT. OF ℄
Scale ¼" = 1'-0"

TYPICAL SECTION OF PROPOSED PAVEMENT
Sta 6+50 to Sta 7+88.5
Scale: 1"=10'-0"

SECTION "A"-"A" OF PROPOSED E-71 PAVEMENT
Scale-1"=10'-0"

For joint legend see Sheet 129

(R) E-35 1½" Asphaltic Concrete Surface Course
B-35 1½" Asphaltic Concrete Leveling Course
B-35 3" Asphaltic Concrete Base Course
B-35 3" Asphaltic Concrete Base Course
E-22 10" Subbase
(3) E-35 1½" Min. Asphaltic Concrete Surface Course (1½" Avg.)
(T) E-71 9" Reinf. Portland Cement Concrete Pavement
E-22 6" Subbase

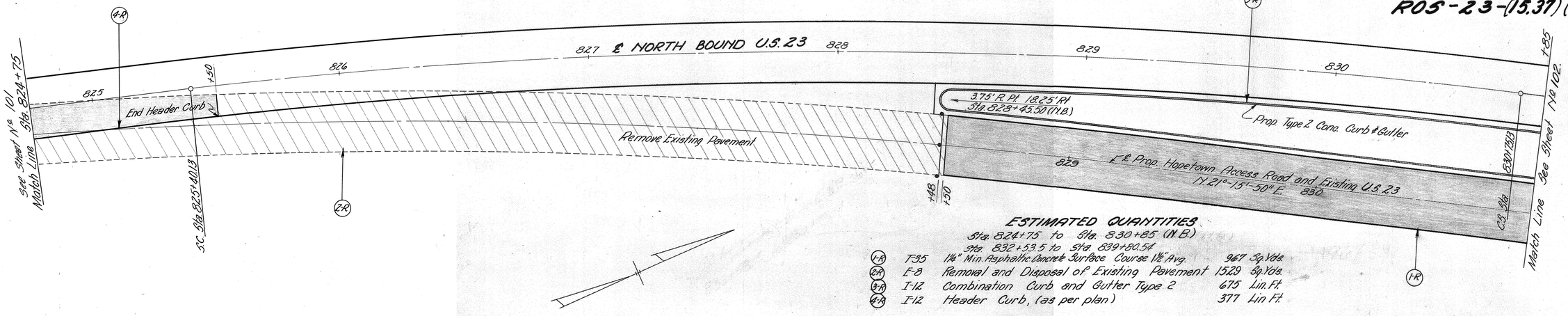
NOTE: Elevation shown on plan above are normal pavement edge elevations.

DETAIL OF HOPETOWN INTERSECTION - STA. 831+97.61

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

103
177

ROSS COUNTY
ROS-23-(15.37) (16.01)

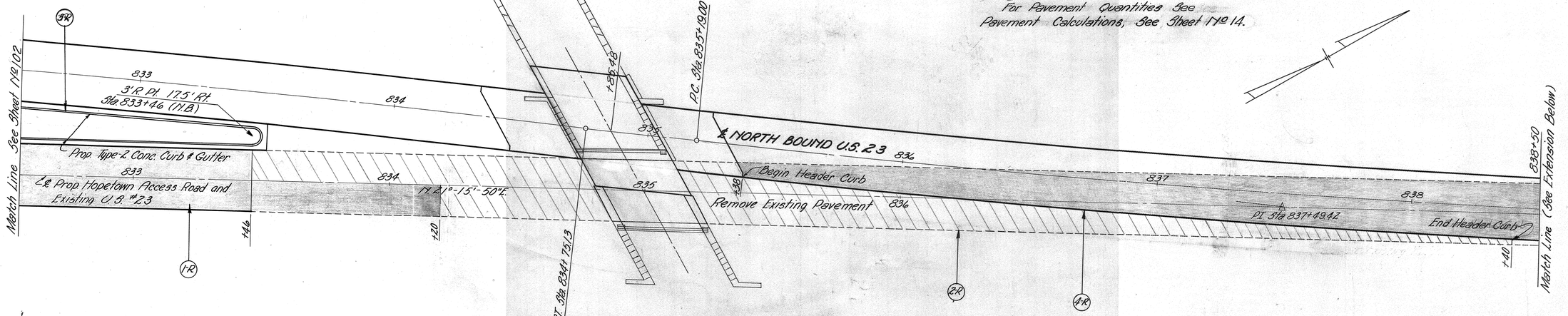


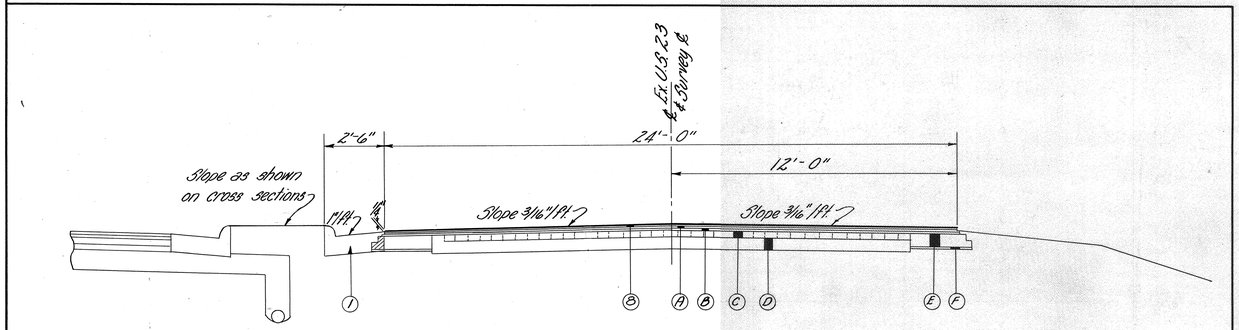
ESTIMATED QUANTITIES

Sta. 824+75 to Sta. 830+85 (N.B.)
Sta. 832+53.5 to Sta. 839+80.54

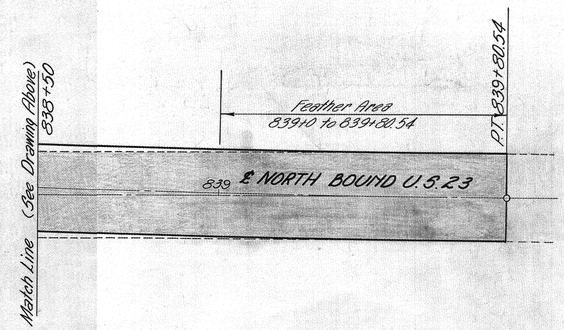
1-R	F-35	1½" Min. Asphaltic Concrete Surface Course 1½" Avg.	967 Sq. Yds.
2-R	F-8	Removal and Disposal of Existing Pavement	1529 Sq. Yds.
3-R	I-12	Combination Curb and Gutter Type 2	675 Lin. Ft.
4-R	F-12	Header Curb, (as per plan)	377 Lin. Ft.

NOTE:
For Pavement Quantities See Pavement Calculations, See Sheet 1 No 14.





TYPICAL SECTION OF HOPETOWN ACCESS ROAD
SCALE 1"=3'-0"



ELMER S. BARRETT ASSOCIATES
249 S. PAINT ST. CONSULTING ENGINEERS CHILLICOTHE, OHIO

DETAIL OF HOPETOWN ACCESS ROAD
STA. 824+75 TO STA 839+80.54 (N.B.)

SCALE As Shown DATE 1-30-56

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	W.D.J.	SEW			

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

104
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
69	
	328
49	
	242
38	
	106
0	0

Frame Shed

648.88
7+0
643.72

645.91
6+50
643.31

Profile Prop. Field Drive
Sta. 5+85
0.0%

643.58
6+0
642.96

642.52
5+50
642.52

BEGIN WORK

642.10
5+0
642.10

TOTAL SEEDING 2231 Sq. Yds.
TRANSFERRED TO SHEET 1 of 51.

TOTAL EXCAVATION 4 Cu. Yds.
TOTAL EMBANKMENT 4130 Cu. Yds.

TRANSFERRED TO SHEET 1 of 51.

End Area		Volume	
Cut	Fill	Cut	Fill
0	482		
			611
0	178		
		2	172
2	8		
		2	7
0	0		
		4	190

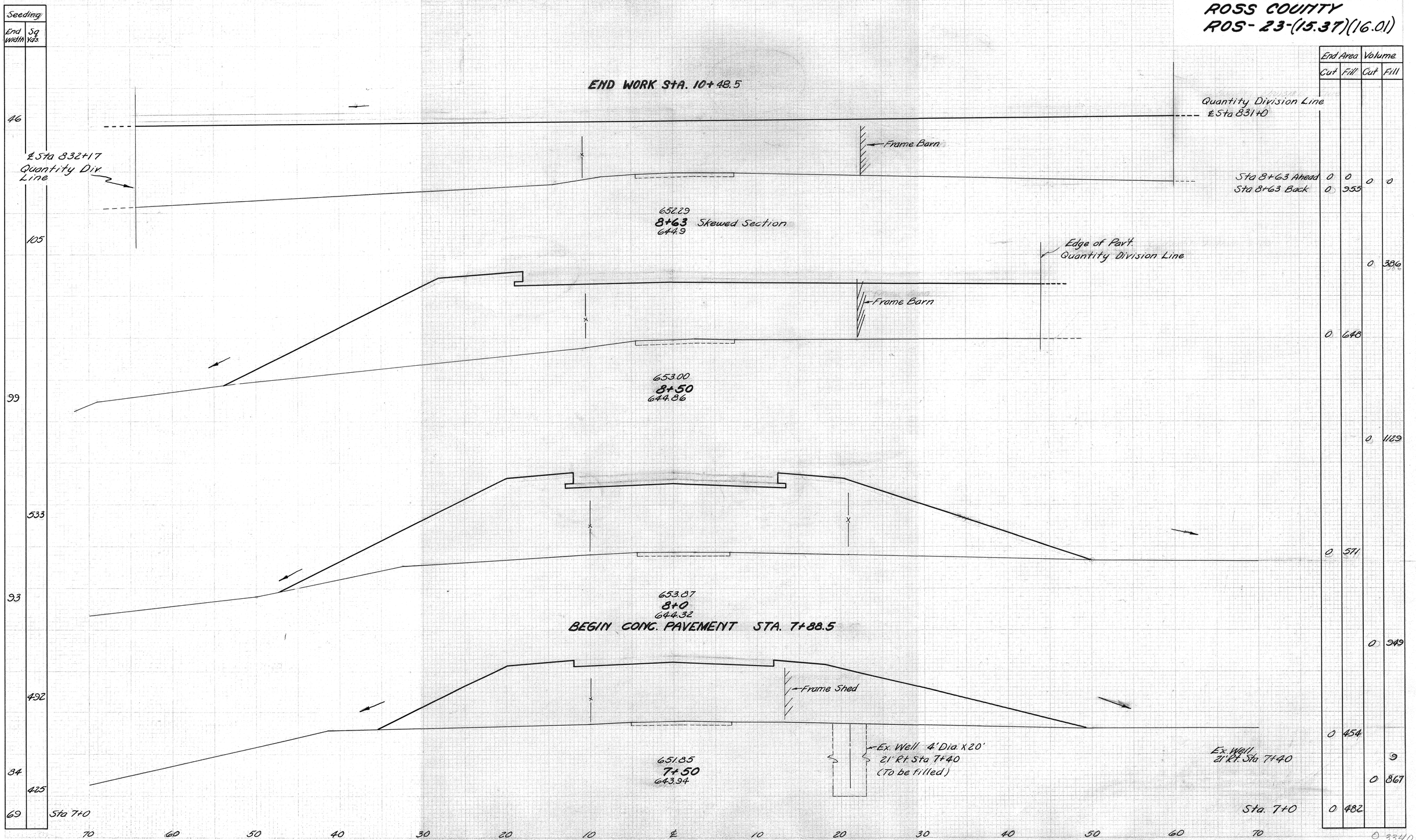
70 60 50 45 30 20 10 ℄ 10 20 30 40 50 60 70

STA. 5+00 to STA. 7+00 HOPETOWN ROAD

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

105
177

ROSS COUNTY
ROS-23-(13.37)(16.01)



	End Area		Volume	
	Cut	Fill	Cut	Fill
Sta 8+63 Ahead	0	0	0	0
Sta 8+63 Back	0	355		
			0	386
	0	648		
			0	1129
	0	571		
			0	949
	0	454		
				9
			0	867
Sta. 7+0	0	482		
				3340

STA 7+50 TO STA 8+63 HOPETOWN ROAD

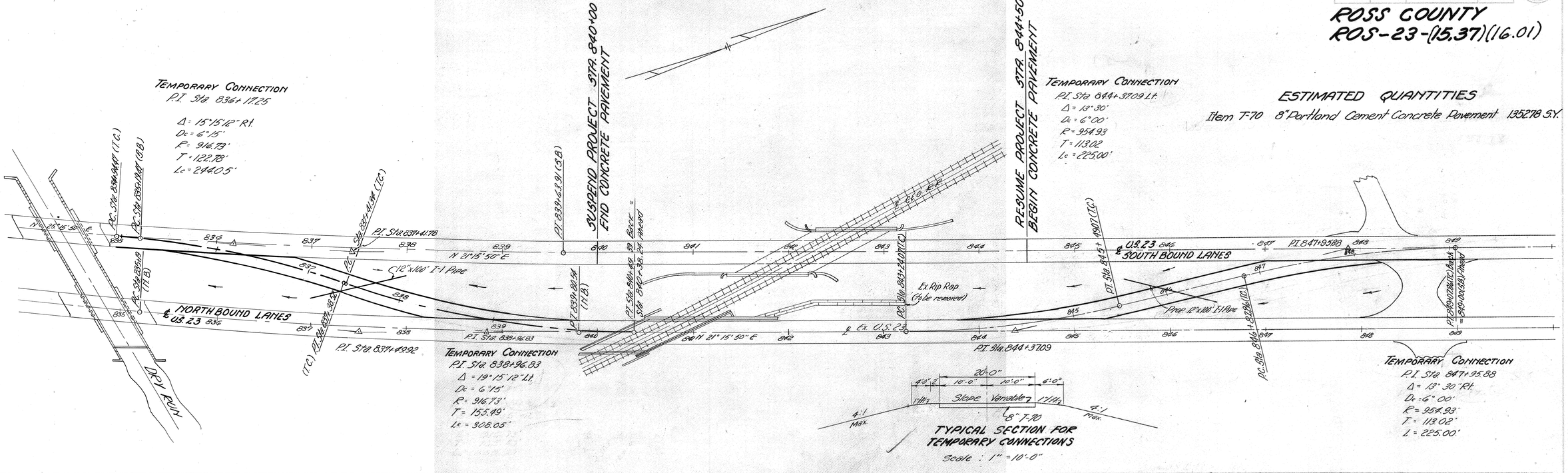
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

106
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

ESTIMATED QUANTITIES

Item T-70 8" Portland Cement Concrete Pavement 135278 S.Y.



PAVEMENT ELEVATIONS FOR TEMPORARY CONNECTION
Sta. 834+94.97 To Sta. 840+49.39

℄ Station	Right Edge Elevation	Left Edge Elevation
835 + 50	650.01	
+75	650.07	
836 +00	650.18	
+25	650.30	
+50	650.45	
+75	650.66	+83 651.05
837 +00	650.95	651.20
+25	651.35	651.60
+50	652.05	652.12
+75	653.08	652.90
838 +00	653.92	653.68
+25	654.88	654.40
+50		655.12
+75		655.82
839 +00		656.50
+25		657.12
+50		657.78
+75		658.57

PAVEMENT ELEVATIONS FOR TEMPORARY CONNECTION
Sta. 843+29.02 To Sta. 849+07.86

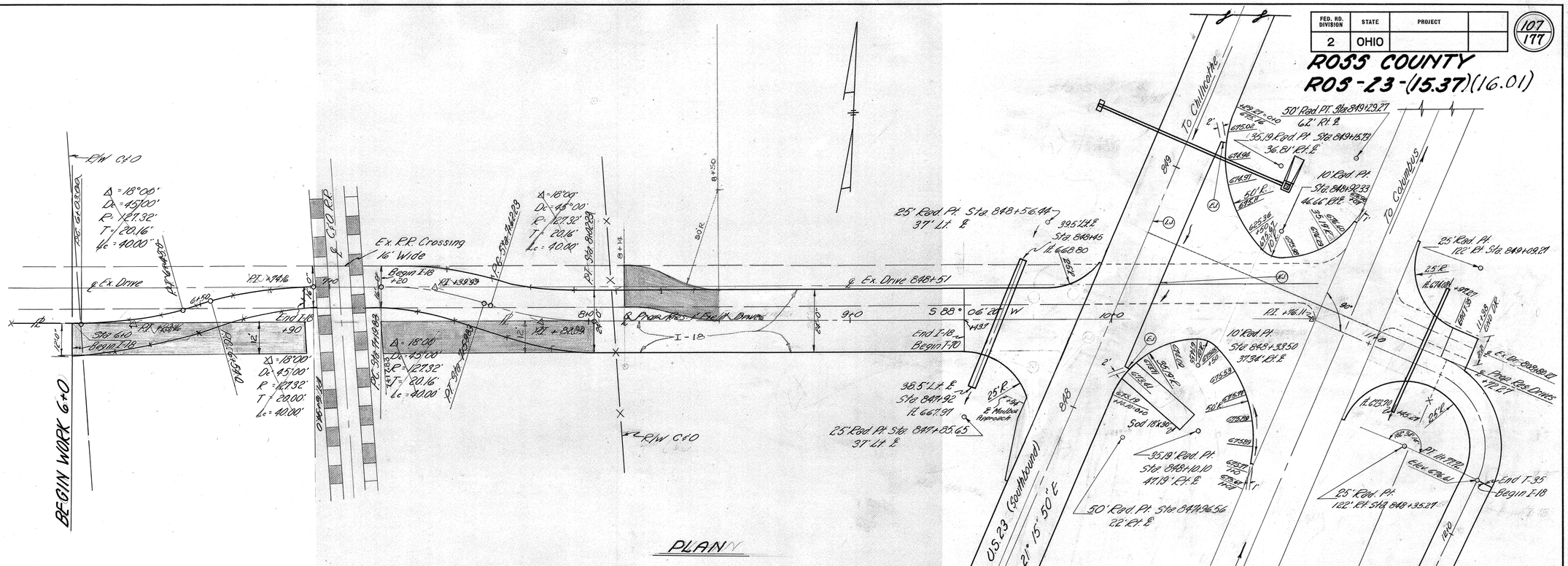
℄ Station	Lt. Edge Elevation	Rt. Edge Elevation
844 +00	668.82	
+25	669.33	
+50	669.82	
+75	670.23	
845 +00	670.58	
+25	670.75	
+50	670.68	671.53
+75	670.45	671.32
846 +00	670.20	670.86
+25	670.05	670.28
+50	670.10	669.78
+75	670.38	669.90
847 +00	670.75	670.40
+25		671.06
+50		671.66
+75		672.24
848 +00		672.88
+25		673.41

DETAIL OF TEMPORARY CONNECTIONS STA. 834+94.47 TO STA. 850+0

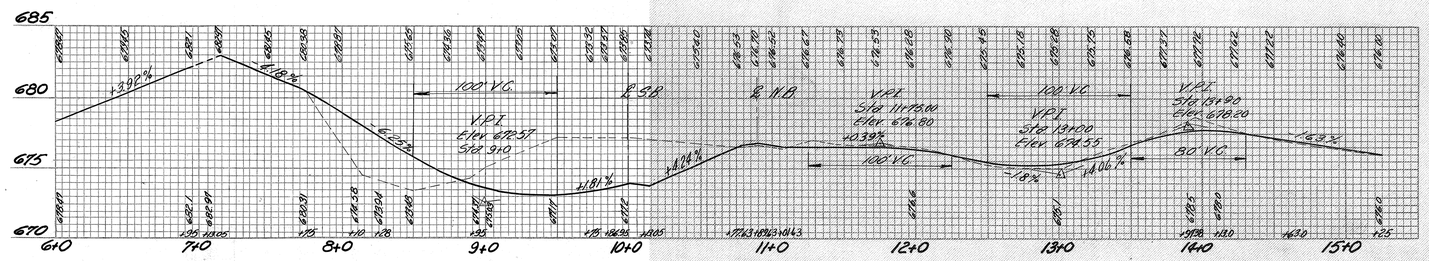
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

107/177

ROSS COUNTY
ROS-23-(15.37)(16.01)



PLAN



PROFILE DRIVES

For joint legend see Sheet №129

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

DETAIL RES. DRIVES
Left of Sta. 848+36.34
Right of Sta. 848+72.27

SCALE 1" = 20'-0" DATE Jan. 18, 1956

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.W.B.	K.W.B.	J.C.E.	E.S.B.			

Rev. 6-24-56

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

108/177

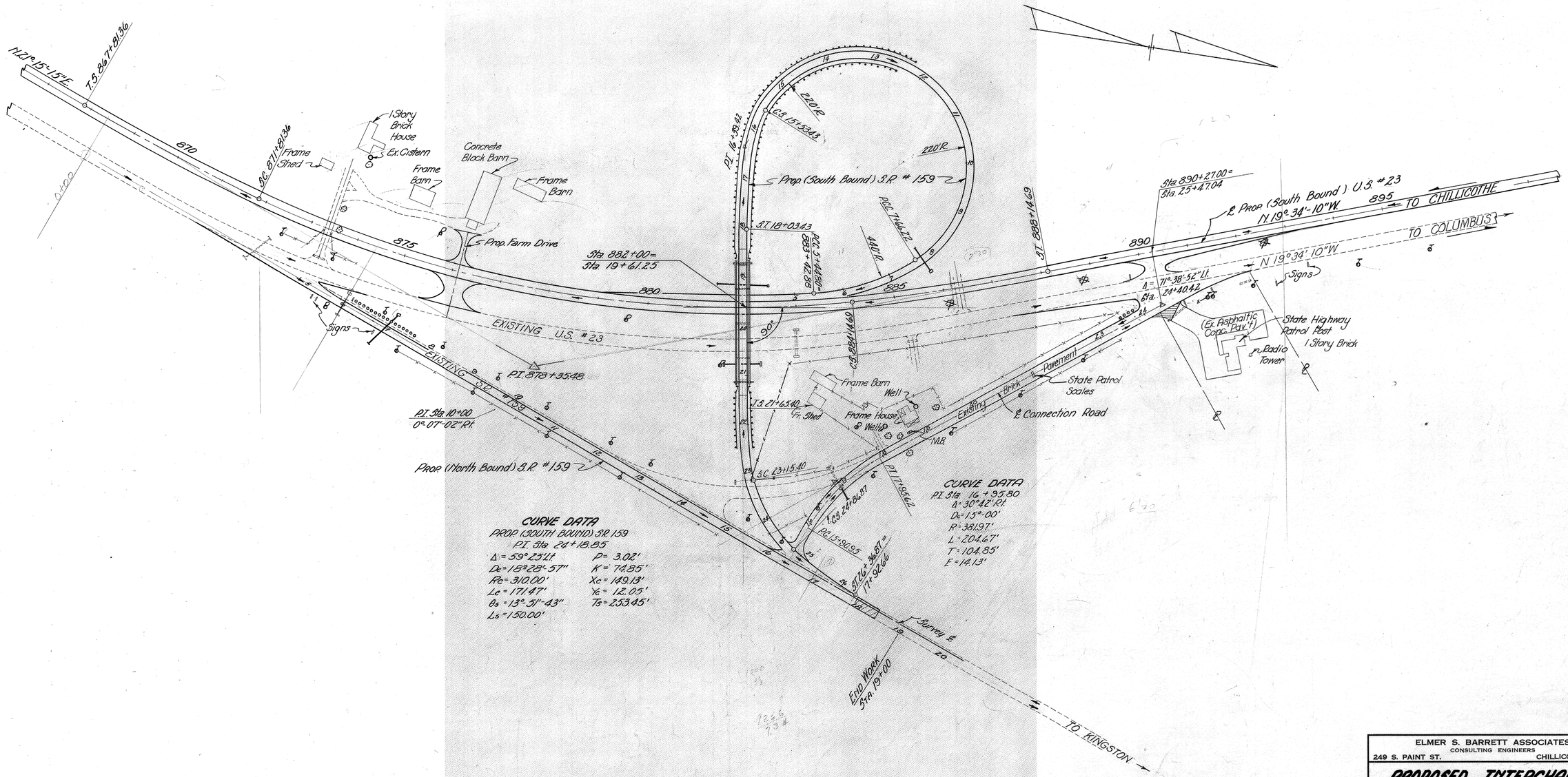
ROSS COUNTY
ROS-23-(15.37)(16.01)

CURVE DATA
PROP. (SOUTH BOUND) U.S. 23
P.I. Sta. 878+35.48

Δ = 40° 50' Lt.	P = 2.91'
Dc = 2° 30'	K = 199.95'
Rc = 2291.83'	Xc = 399.70'
Lc = 1233.33'	Yc = 11.63'
Δc = 30° 50'	Ts = 1054.12'
θs = 5° 00'	Es = 156.73'
Ls = 400.00'	

CURVE DATA
PROP. (SOUTH BOUND) S.R. 159
P.I. Sta. 16+39.42

θs = 32° 33'-16"	
Dc = 26°-02'-37"	
Rc = 220.00'	
L.T. = 169.58'	
S.T. = 85.99'	



CURVE DATA
P.I. Sta. 16+95.80

Δ = 30°42' Rt.	
Dc = 15°-00'	
R = 381.97'	
L = 204.67'	
T = 104.85'	
E = 14.13'	

CURVE DATA
PROP. (SOUTH BOUND) S.R. 159
P.I. Sta. 24+18.85

Δ = 59° 25' Lt.	P = 3.02'
Dc = 18°28'-57"	K = 74.85'
Rc = 310.00'	Xc = 149.13'
Lc = 171.47'	Yc = 12.05'
θs = 13°-51'-43"	Ts = 253.45'
Ls = 150.00'	

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PROPOSED INTERCHANGE U.S. 23 UNDER S.R. 159

ROSS COUNTY U.S. 23
SEC. ROS-23-(15.37) STA. 882+00

SCALE 1" = 100'-0" DATE 10-27-55

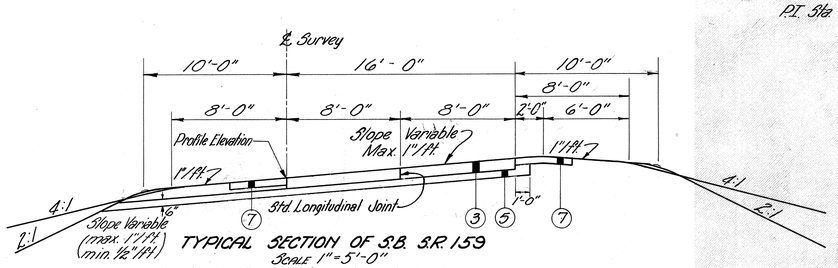
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	D.H.P. W.B.J.	SEW			

FED. AID DIVISION	STATE	PROJECT		109
2	OHIO			177

ROSS COUNTY
ROS-23-(15.37)(16.01)

PROPOSED BRIDGE DATA

Type: Continuous Steel Beam with Concrete Deck and Concrete Substructure.
Spans: 49' - 70' - 70' - 49' ℄ Bearings
Roadway: 20'-0" f/f of 2'-0" Safety Curbs
Load Frequency: CF-130-51
Skew: 0°-00'
Wearing Surface: ¾" Monolithic
Approach Slabs: AS-1-54, 25'-0" Long
Railing: Half Parapet Wall with Aluminium Rail and Supports
Alignment: Tangent



TYPICAL SECTION OF S.B. S.R. 159

Scale 1"=5'-0"
Sta. 6+89.98 To Sta. 24+86.87

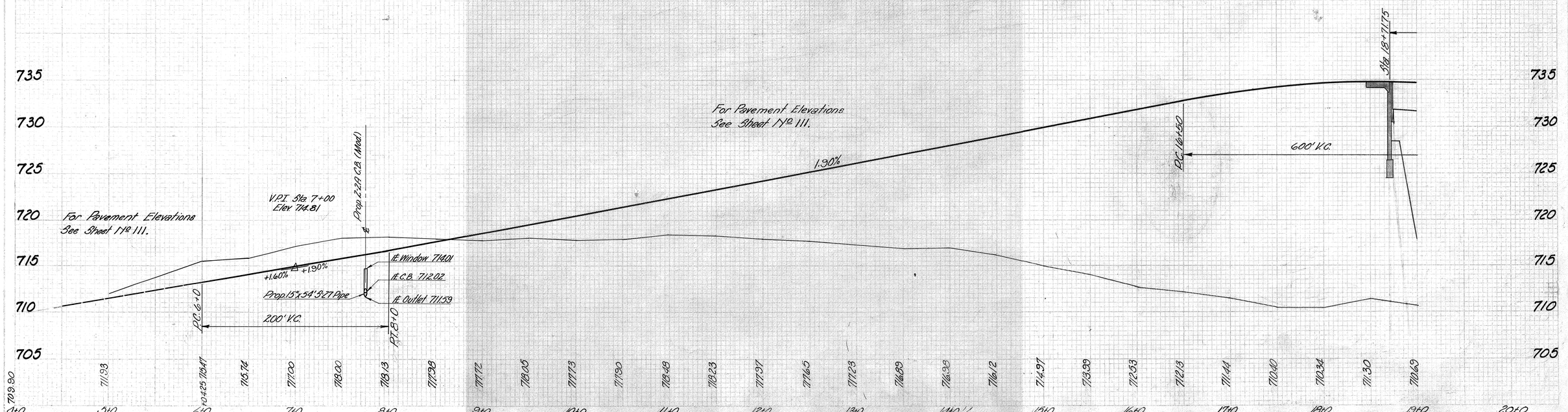
CURVE DATA

Prop. South Bound Lanes

Δ = 40°-50' Lt.		P= 2.91	
D_c = 2°-30'		k = 199.95'	
R_c = 2291.83'		X_c = 399.70'	
L_c = 1233.33'		Y_c = 11.63	
Δ_c = 30°-50'		T_s = 1054.12'	
θ = 5°-00		E_s = 156.73	
L_s = 400.00			

ESTIMATED QUANTITIES

I-7	13" Reinforced Concrete Approach Slabs	44.44 S.Y.
I-15	Guard Rail Steel Beam Type Deep	1300.00 L.F.
I-18	6" Crushed Aggregate Shoulders and Approaches	162.35 C.Y.
I-22	6" Subbase	4069.60 S.Y.
F-71	9" Reinforced Portland Cement Concrete Pavement	2125.65 S.Y.



SOUTH BOUND S.R. 159 INTERCHANGE STA. 882+00

ROSS COUNTY
ROS-23-(15.37)(16.01)

PROPOSED BRIDGE DATA

Type: Continuous Steel Beam with Concrete Deck and Concrete Substructure.
Spans: 49'-70'-70'-49' c/c Bearings.
Roadway: 20'-0" f/f of 2'-0" Safety Curbs.
Load Frequency: CF-130-51
Skew: 0°-00"
Wearing Surface: 3/4" Monolithic
Approach Slabs: AS-1-54, 25'-0" Long
Railing: Half Parapet Wall with Aluminum Rail and Supports.
Alignment: Tangent.

CURVE DATA

Prop. (S.B.) S.R. #159
P.I. Sta. 24+18.85

Δ = 59°-25' Lt	θs = 13°-51'-43"
R = 310.00'	P = 3.02'
Dc = 18°-28'-57"	K = 74.85'
Ts = 253.45'	Xc = 149.12'
Ls = 150.00'	Yc = 12.05'
Lc = 171.47'	

CURVE DATA

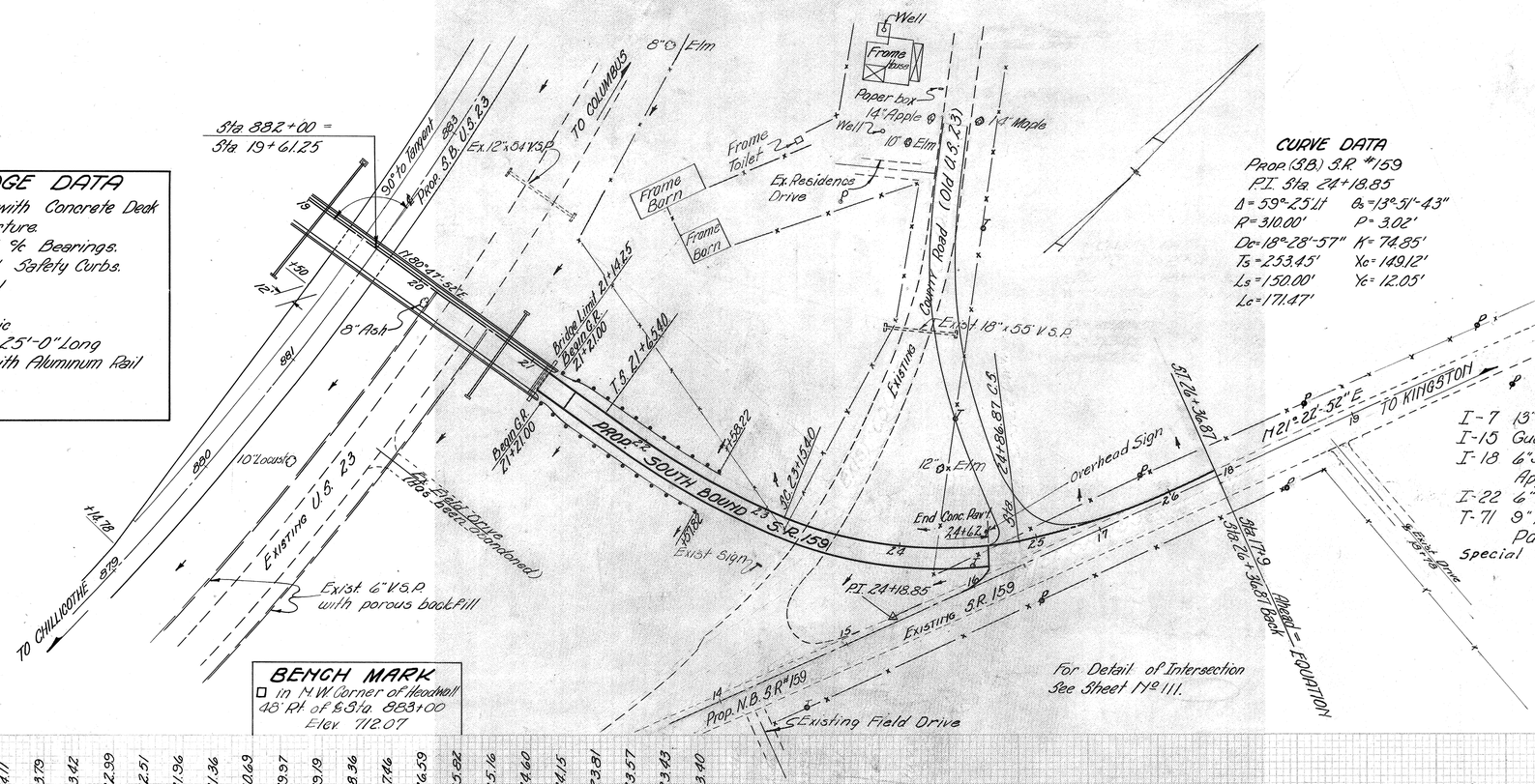
Δ = 40°50'	P = 2.91'
Dc = 2°30'	k = 199.95'
Rc = 2291.83'	Xc = 399.70'
Lc = 1233.33'	Yc = 11.63'
Δc = 30°50'	Ts = 1054.12
θs = 5°-00'	Es = 156.73
Ls = 400.00'	

ESTIMATED QUANTITIES

I-7	13" Reinforced Concrete Approach Slab	44.44 Sq. Yds.
I-15	Guard Rail Steel Beam Type Deep	275.00 Lin. Ft.
I-18	6" Stabilized Crushed Aggregate Shoulders and Approaches	52.65 Cu. Yds.
I-22	6" Subbase	1184.67 Sq. Yds.
T-71	9" Reinforced Portland Cement Concrete Pavement	587.38 Sq. Yds.
Special	Single Pole Overhead Sign Assembly	1 Each

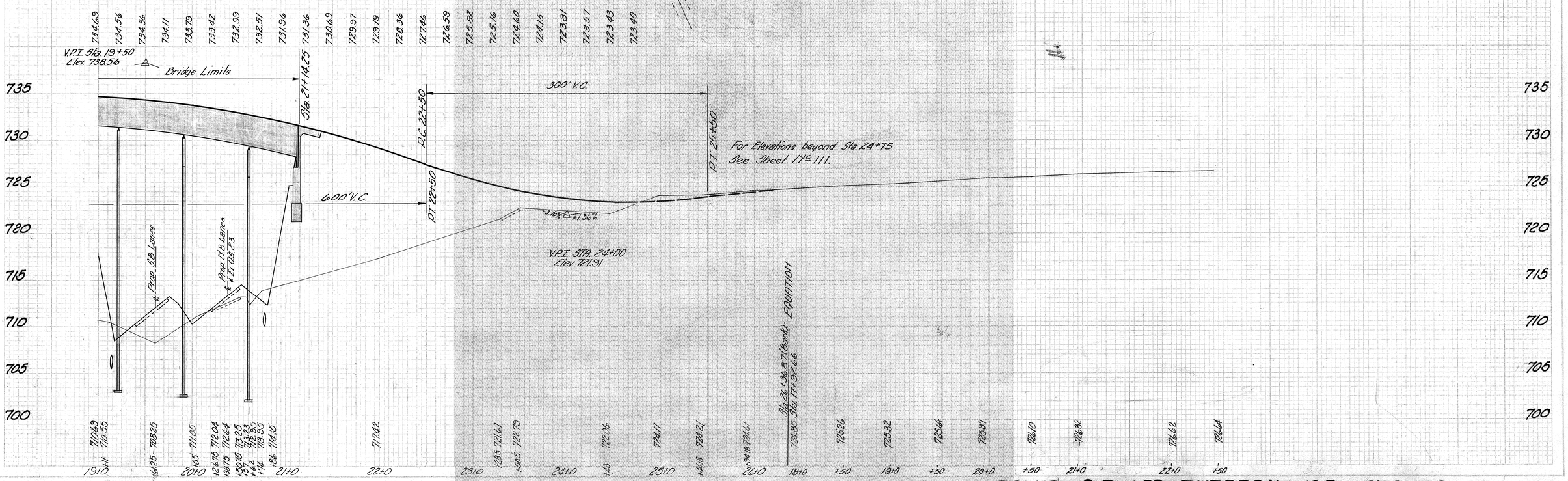
OVERHEAD SIGN

Sta. 24+62 10' Lt. (S.B. S.R. 159)
Type: OS-1-A
Pole: 19'-6" (7 Ga.)
B = 8', H = 3'
1 Sign 3'×10'
2 Sign Supports



BENCH MARK

□ in N.W. Corner of Headwall 48' Rt. of ℄ Sta. 883+00
Elev. 712.07



SOUTH BOUND S.R. 159 INTERCHANGE STA. 882+00

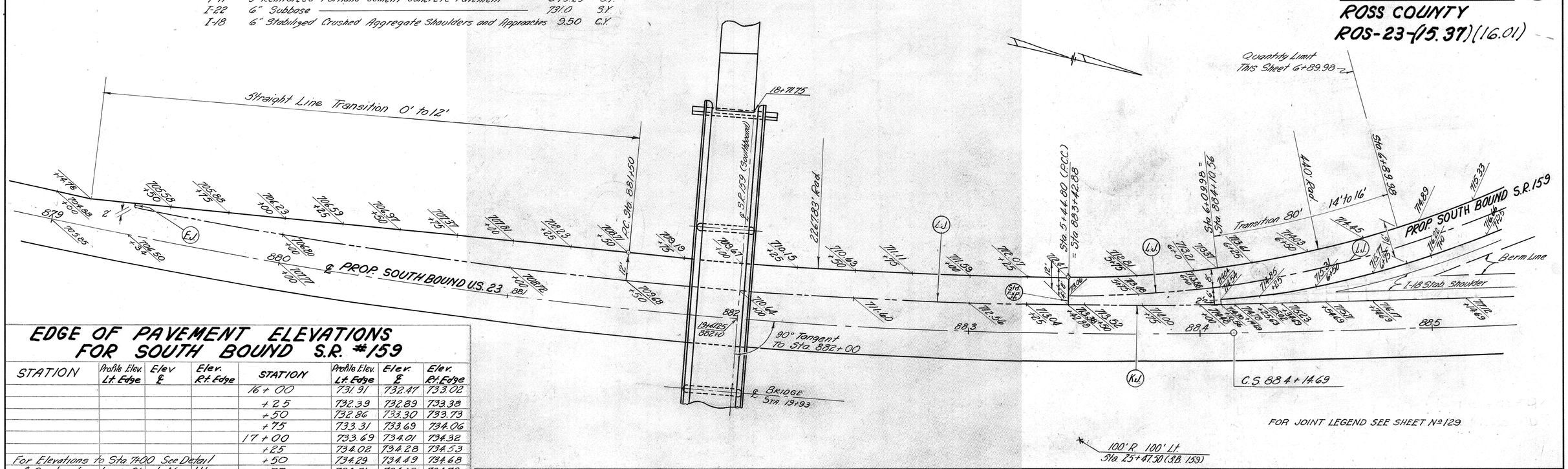
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

111
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

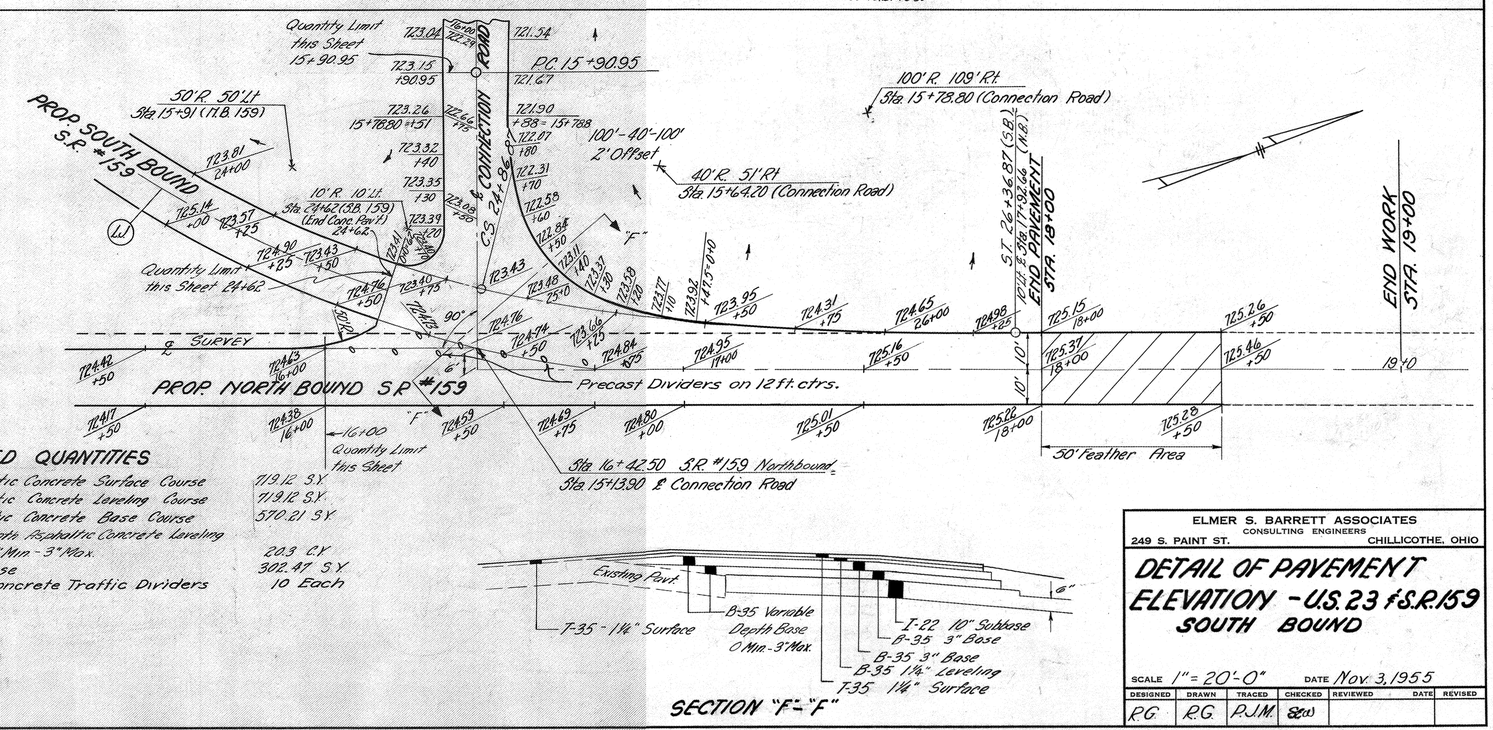
ESTIMATED QUANTITIES

T-71	9" Reinforced Portland Cement Concrete Pavement	649.29	S.Y.
I-22	6" Subbase	731.0	S.Y.
I-18	6" Stabilized Crushed Aggregate Shoulders and Approaches	9.50	C.Y.



EDGE OF PAVEMENT ELEVATIONS FOR SOUTH BOUND S.R. #159

STATION	Profile Elev. Lt. Edge	Elev ℄	Elev. Rt. Edge	STATION	Profile Elev. Lt. Edge	Elev. ℄	Elev. Rt. Edge
				16+00	731.91	732.47	733.02
				+25	732.39	732.89	733.38
				+50	732.86	733.30	733.73
				+75	733.31	733.69	734.06
				17+00	733.69	734.01	734.32
				+25	734.02	734.28	734.53
For Elevations to Sta 7+00 See Detail of Acceleration Lane Sheet No. 111				+50	734.29	734.49	734.68
				+75	734.51	734.65	734.78
7+00	714.89	715.56	716.22	18+00	734.66	734.79	734.86
+25	715.33	716.00	716.66	+03.19	734.67	734.80	734.80
+50	715.78	716.45	717.11	+25	734.76	734.89	734.85
+75	716.24	716.91	717.57	+50	734.79	734.92	734.83
8+00	716.71	717.38	718.04	Bridge Limit +71.75	734.76	734.91	734.78
+25	717.19	717.86	718.52	+75	734.77	734.90	734.77
+50	717.66	718.33	718.99	19+00	734.69	734.82	734.69
+75	718.14	718.81	719.47	+25	734.56	734.69	734.56
9+00	718.61	719.28	719.94	+50	734.36	734.49	734.36
+25	719.09	719.76	720.42	+75	734.11	734.24	734.11
+50	719.56	720.23	720.89	20+00	733.79	733.92	733.79
+75	720.04	720.71	721.37	+25	733.42	733.55	733.42
10+00	720.51	721.18	721.84	+50	732.99	733.12	732.99
+25	720.99	721.66	722.32	+75	732.51	732.64	732.51
+50	721.46	722.13	722.79	21+00	731.96	732.09	731.96
+75	721.94	722.61	723.27	Bridge Limit +14.25	731.62	731.75	731.62
11+00	722.41	723.08	723.74	+25	731.36	731.49	731.39
+25	722.89	723.56	724.22	+50	731.069	730.82	730.78
+50	723.36	724.03	724.69	+65.40	730.825	730.38	730.38
+75	723.84	724.51	725.17	+75	729.97	730.10	730.20
12+00	724.31	724.98	725.64	22+00	729.19	729.40	729.60
+25	724.79	725.46	726.12	+25	728.36	728.67	728.97
+50	725.26	725.93	726.59	+50	727.46	727.87	728.27
+75	725.74	726.41	727.07	+75	726.59	727.10	727.60
13+00	726.21	726.98	727.54	23+00	725.82	726.43	727.03
+25	726.69	727.36	728.02	+15	725.40	726.07	726.73
+50	727.16	727.83	728.49	+25	725.16	725.83	726.49
+75	727.64	728.31	728.97	+50	724.60	725.27	725.93
14+00	728.11	728.78	729.44	+75	724.15	724.82	725.48
+25	728.59	729.26	729.92	24+00	723.81	724.48	725.14
+50	729.06	729.73	730.39	+25	723.57	724.24	724.90
+75	729.54	730.21	730.87	+50	723.43	724.10	724.76
15+00	730.01	730.68	731.34	+62	723.40	724.07	724.73
+25	730.49	731.16	731.82				
+50	730.96	731.61	732.25	For Elevations Beyond Sta 24+62			
+53.19	731.02	731.66	732.30	See Detail of Pavement Elevations			
+75	731.44	732.04	732.64	on Sheet No. 111			



ESTIMATED QUANTITIES

T-35	1½" Asphaltic Concrete Surface Course	719.12	S.Y.
B-35	1½" Asphaltic Concrete Leveling Course	719.12	S.Y.
B-35	3" Asphaltic Concrete Base Course	570.21	S.Y.
B-35	Variable Depth Asphaltic Concrete Leveling Course 0" Min - 3" Max.	20.3	C.Y.
I-22	10" Subbase	302.47	S.Y.
I-23	Precast Concrete Traffic Dividers	10	Each

SECTION "F-F"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

DETAIL OF PAVEMENT ELEVATION - U.S. 23 & S.R. 159 SOUTH BOUND

SCALE 1" = 20'-0" DATE Nov. 3, 1955

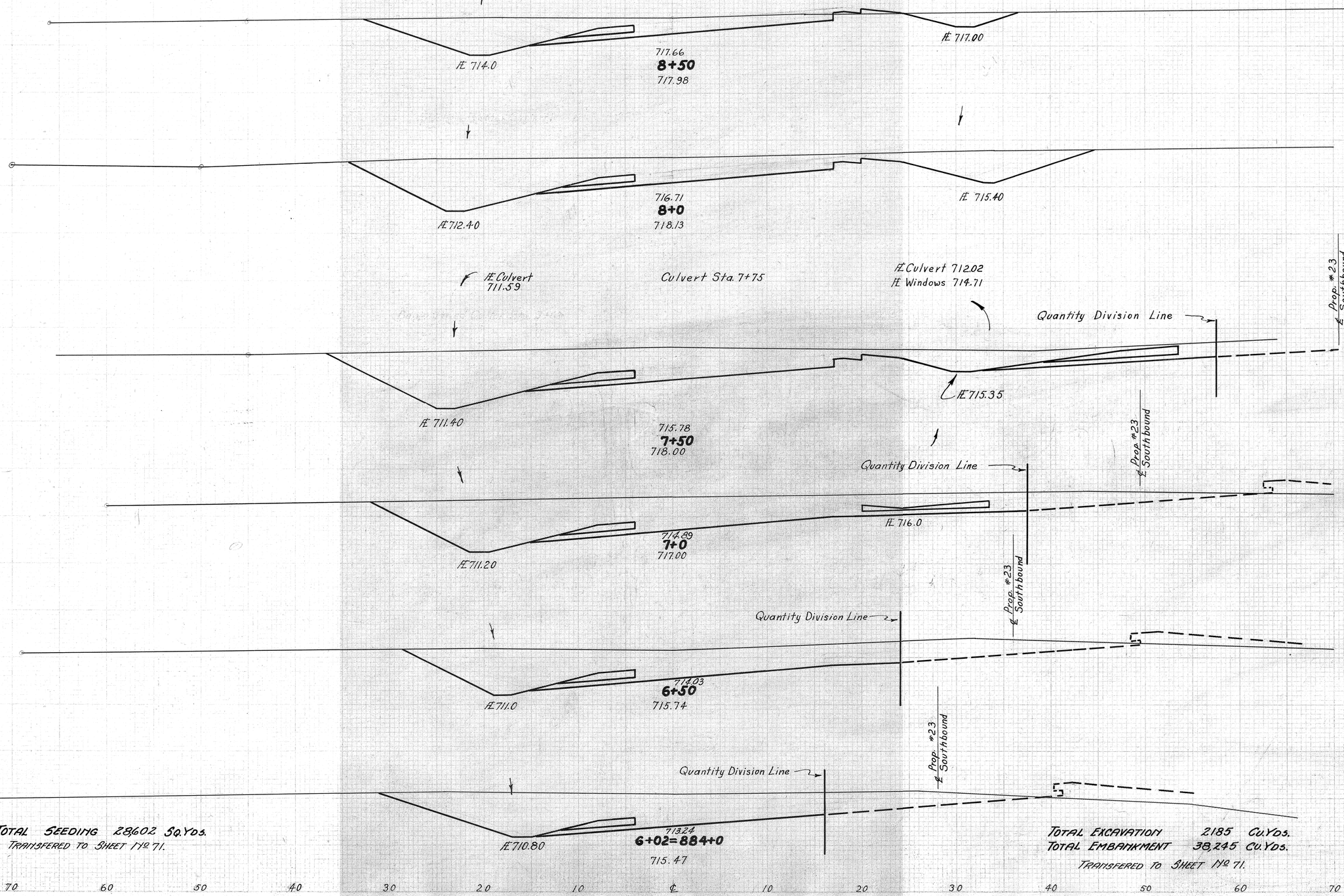
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G.	R.G.	R.J.M.	[illegible]			

FED. HWY. DIVISION	STATE	PROJECT	
2	OHIO	Arranged per	

112
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
112	
	686
135	
	805
155	
	697
96	
	439
62	
	341
66	



End Area Volume			
Cut	Fill	Cut	Fill
108	7		
	7		
		285	6
200	0		
		415	0
248	0		
		423	0
209	0		
		340	0
158	0		
		276	0
152	0		

TOTAL SEEDING 28602 SQ.YDS.
TRANSFERED TO SHEET 1/Nº 71.

TOTAL EXCAVATION 2185 CU.YDS.
TOTAL EMBANKMENT 38,245 CU.YDS.
TRANSFERED TO SHEET 1/Nº 71.

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

2968

(SOUTHBOUND) S.R.Nº 159 INTERCHANGE

1739/6

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	Areas ckd. CEC	

113
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
109	586
102	536
91	519
96	556
104	600
112	

R/W

722.41
11+0
718.48

End Areas		Volume	
Cut	Fill	Cut	Fill
0	198		
		2	314
2	141		
		5	224
3	101		
		17	138
15	48		
		50	62
39	19		
		136	24
108	7		

R/W

℄ 717.80

721.46
10+50
717.90

R/W

℄ 717.60

720.51
10+0
717.73

℄ 717.0

719.56
9+50
718.05

℄ 717.40

℄ 715.60

718.61
9+0
717.72

℄ 717.20

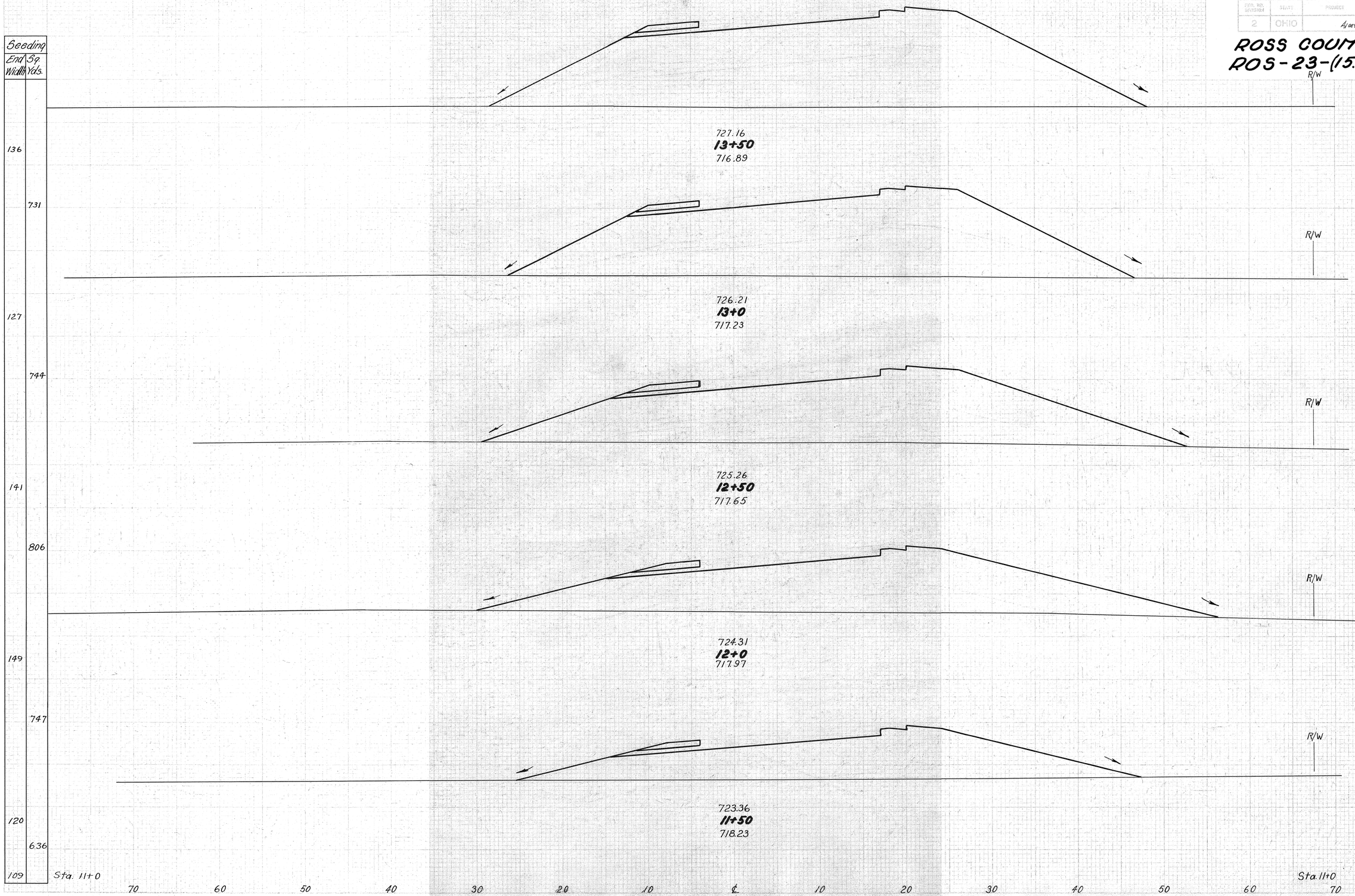
Sta. 8+50 — 80 70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70 — Sta. 8+50

(SOUTHBOUND) S. R. #159 INTERCHANGE

2797

210/162

ROSS COUNTY
ROS-23-(15.37)(16.01)



Seeding End Width	Seeding Sq. Yds.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
136		0	564		
	731			0	972
127		0	486		
	744			0	853
141		0	435		
	806			0	746
149		0	374		
	747			0	583
120		0	259		
	636			0	423
109		0	198		

3664

(SOUTHBOUND) S.R. #159 INTERCHANGE 0/3577

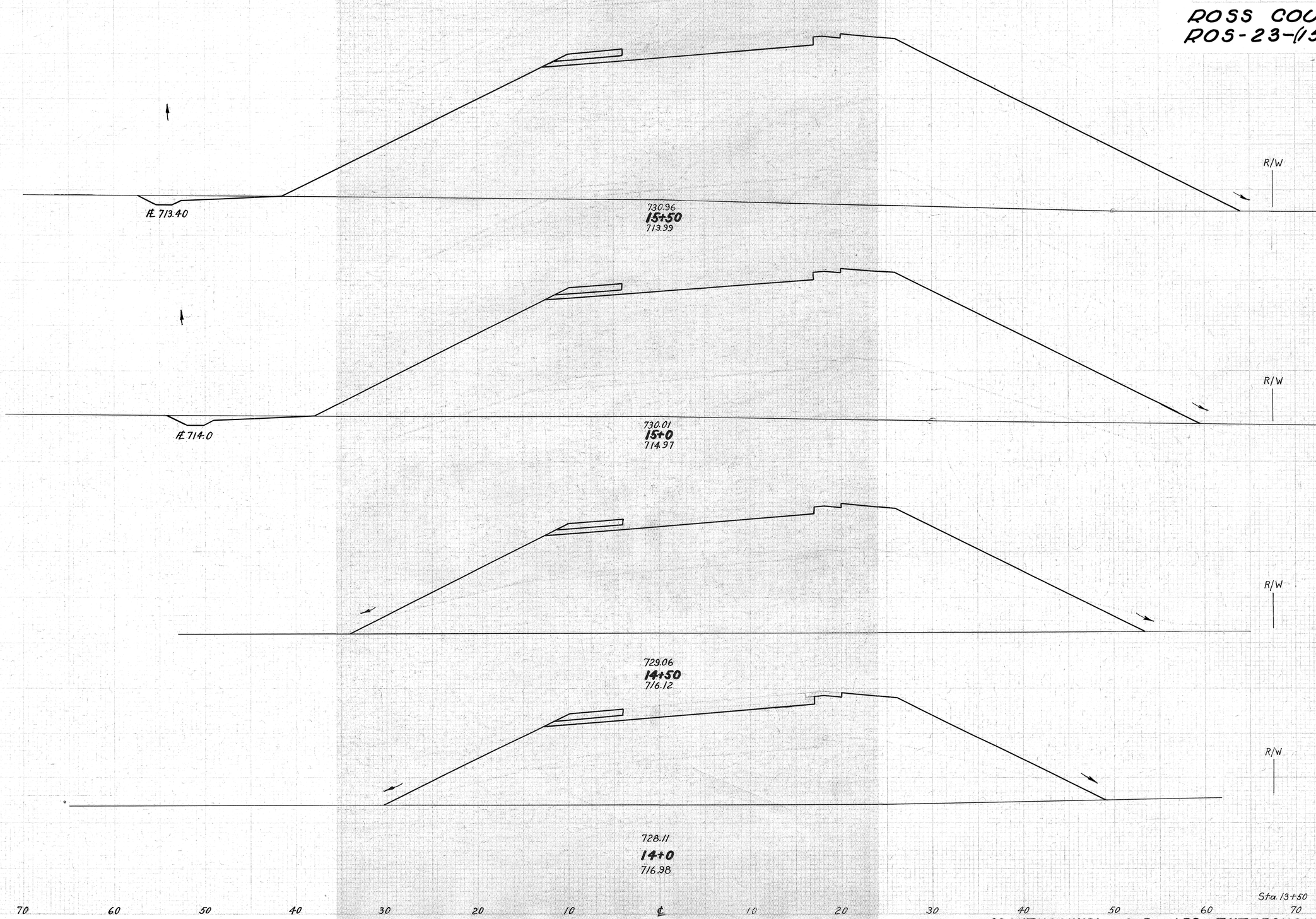
STA. NO. DIVISION	STATE	PROJECT	
2	OHIO	Area C	

115
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
197	
	1053
182	
160	
	839
142	
	772
136	

Sta. 13+50



End Area Cut	End Area Fill	Volume Cut	Volume Fill
6	1225		
		11	2072
		6	1669
0	789		
		0	1318
0	633		
		0	1108
0	564		

Sta. 13+50

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

3614

(SOUTHBOUND) S.R. #159 INTERCHANGE

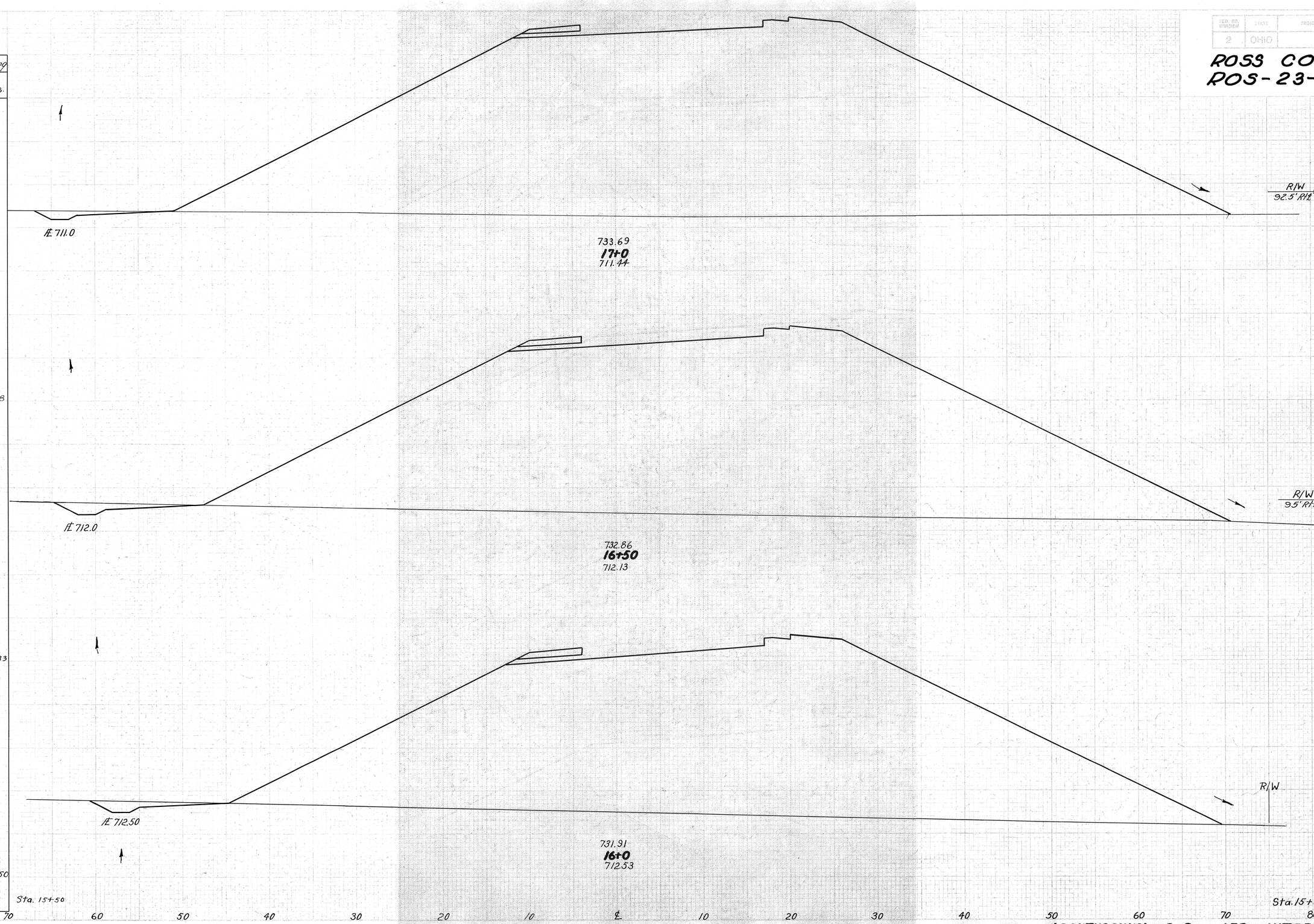
17/1166

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	ARMS	CO.

116
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
269	
1478	
263	
1433	
253	
1250	
197	



End Area		Volume	
Cut	Fill	Cut	Fill
6	1729		
		12	3073
7	1590		
		13	2831
7	1463		
		12	2694
6	1225		

(SOUTHBOUND) S.R. # 159 INTERCHANGE

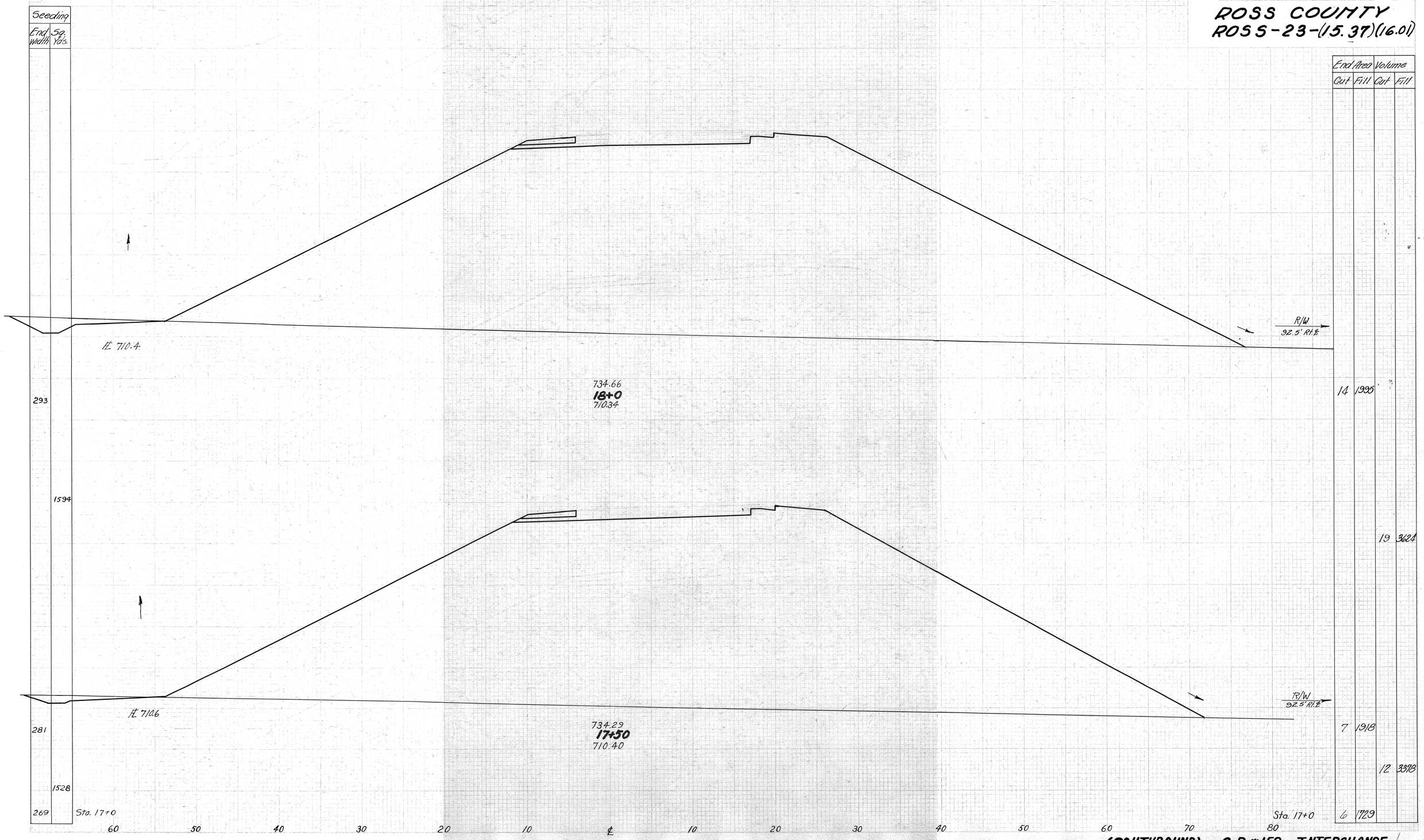
37/8 398

4161

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	Atens ckd CL

117
177

ROSS COUNTY
ROSS-23-(15.37)(16.01)



End Area Cut	End Area Fill	Volume Cut	Volume Fill
14	1995		
		19	3624
7	1918		
		12	3378
6	1729		

(SOUTHBOUND) S.R. #159 INTERCHANGE

FED. RD. DIVISION	STATE	PROJECT		118 / 177
2	OHIO			

ROSS COUNTY
ROS-23-(15.37)(16.01)

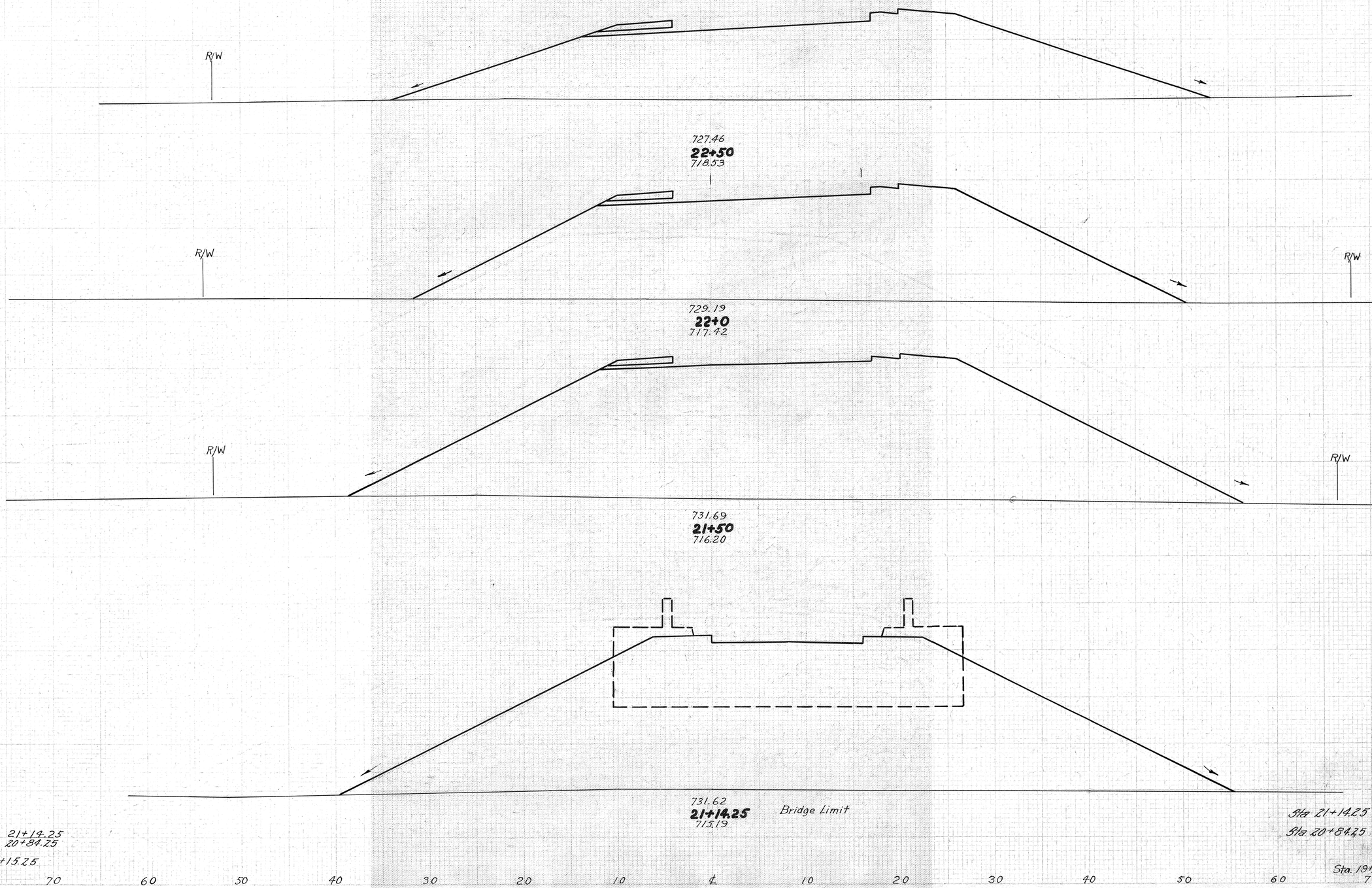
Seeding	
End Width	Sq. Yds.
0	735
304	1733

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

119
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
152	
	833
148	
	903
177	
	736
194	323
0	0
0	



End Area		Volume	
Cut	Fill	Cut	Fill
0	519		
		0	1180
0	669		
		0	1513
0	965		
		0	1304
Sta 21+14.25	0	1004	0	558
Sta 20+84.25	0	0		
		0	0
Sta. 19+15.25	0	0		

2795

(SOUTHBOUND) S.R. #159 INTERCHANGE

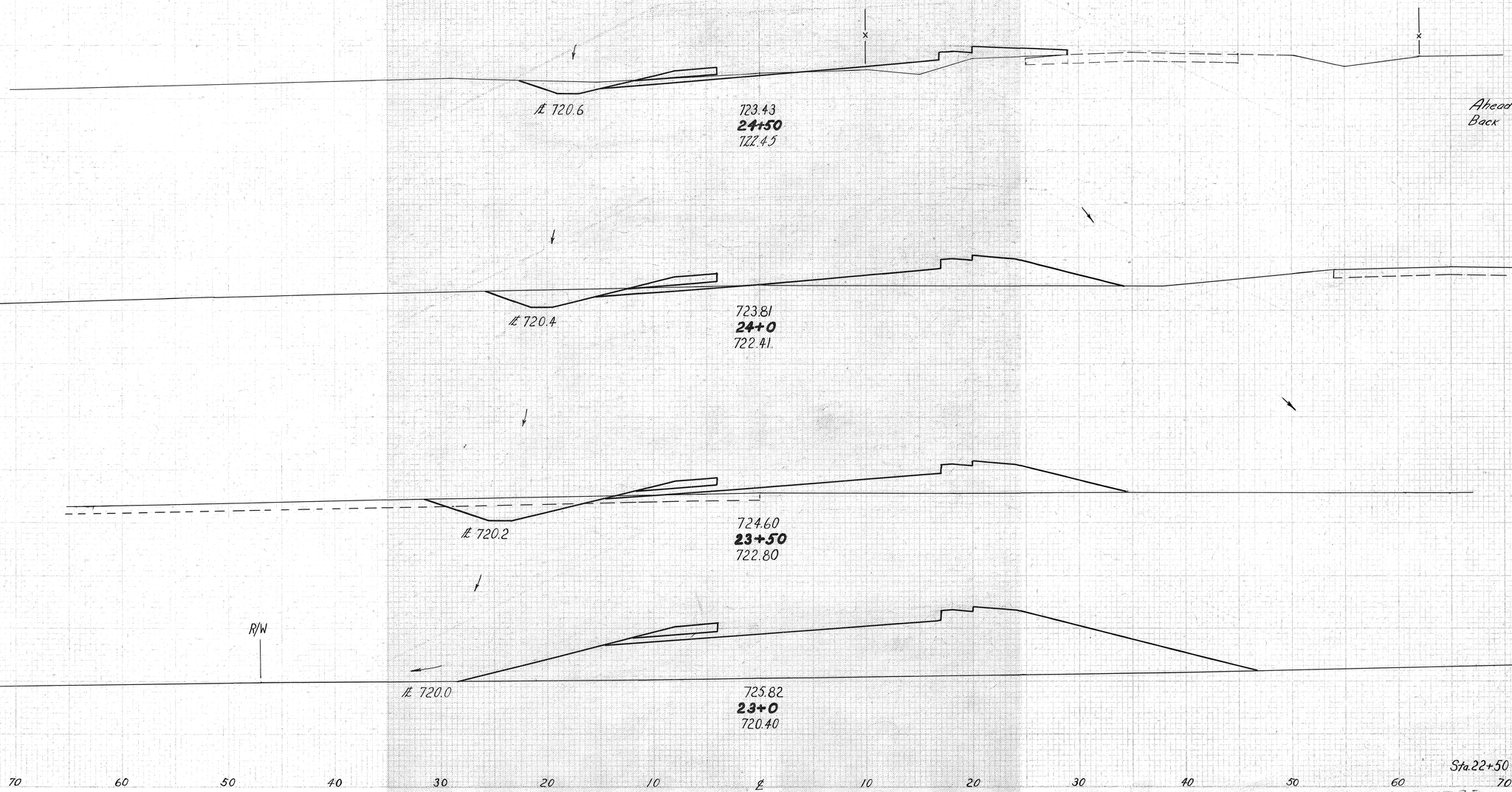
0/4475

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

120
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding			End Area		Volume	
End Width	Sq. Yds.		Cut	Fill	Cut	Fill
0	0	Ahead				
48		Back				
	394					29 70
94					17	51
	556					36 106
106					22	63
	642					20 318
125					0	280
	769					0 740
152		Sta. 22+50			0	519



Ahead 0 0
Back 14 25

Sta. 22+50

(SOUTHBOUND) S.R. # 159 INTERCHANGE 85/1234

2361

FED. AID PROJECT	STATE	PROJECT	TYPE FUNDS
2	OHIO		

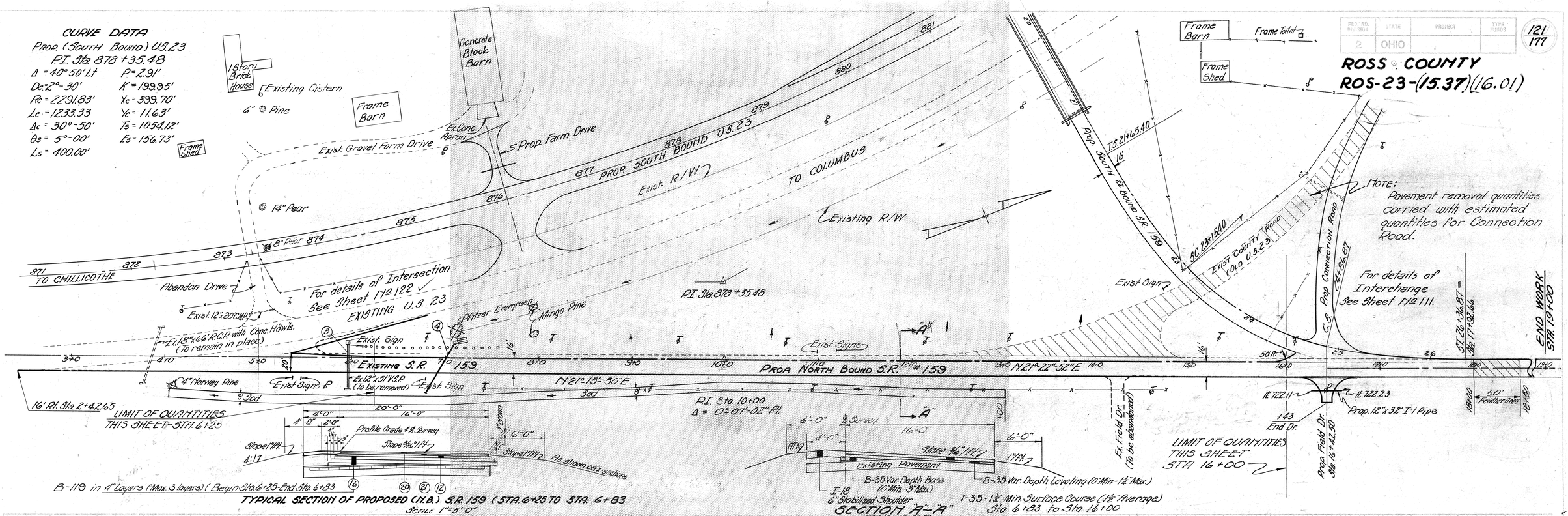
121
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

CURVE DATA

Prop (South Bound) U.S. 23
P.I. Sta. 878 + 35.48

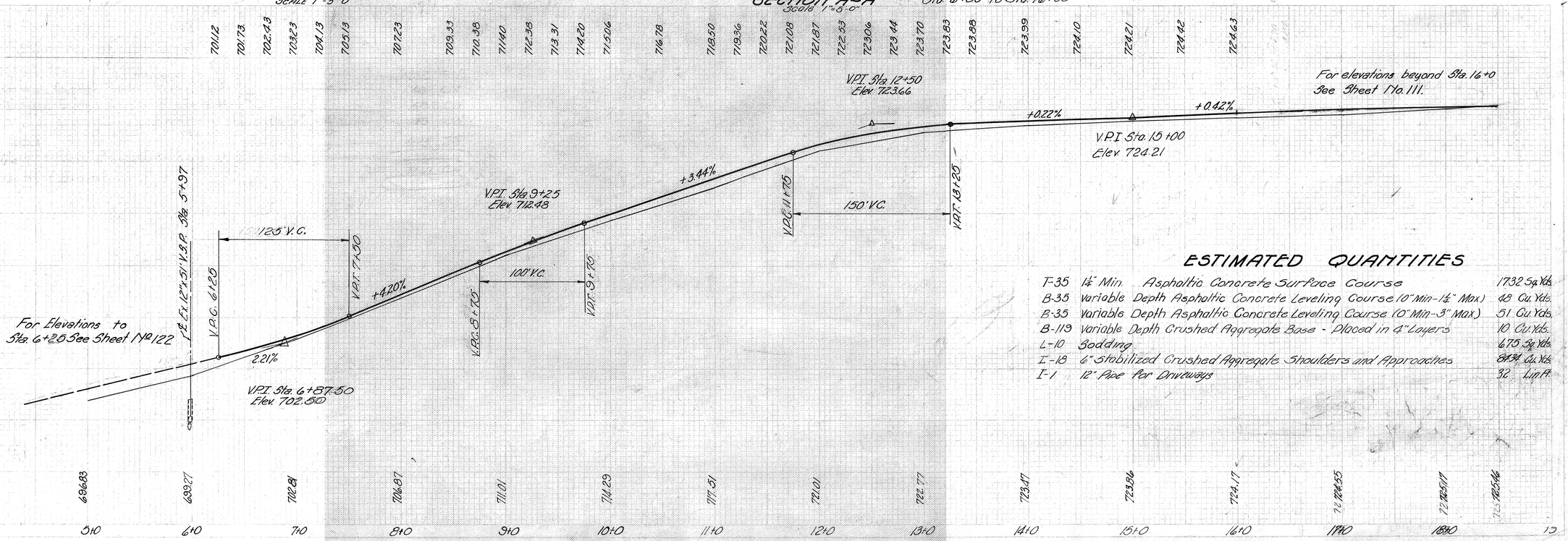
Δ = 40° 50' Lt	P = 2.91'
Dc = 2° - 30'	K = 1993.5'
Rc = 2291.83'	Xc = 399.70'
Lc = 1233.33	Yc = 11.63'
Δc = 30° - 50'	Ts = 1054.12'
Θs = 5° - 00'	Es = 156.73'
Ls = 400.00'	



B-119 in 4" Layers (Max. 3 layers) (Begin Sta. 6+25 - End Sta. 6+83

TYPICAL SECTION OF PROPOSED (N.B.) S.R. 159 (STA. 6+25 TO STA. 6+83
Scale 1" = 5'-0"

SECTION "A"-"A"
Scale 1" = 5'-0"



ESTIMATED QUANTITIES

T-35	1½" Min. Asphaltic Concrete Surface Course	1732 Sq. Yds.
B-35	Variable Depth Asphaltic Concrete Leveling Course (0" Min - 1½" Max.)	48 Cu. Yds.
B-35	Variable Depth Asphaltic Concrete Leveling Course (0" Min - 3" Max.)	51 Cu. Yds.
B-119	Variable Depth Crushed Aggregate Base - Placed in 4" Layers	10 Cu. Yds.
L-10	Bedding	675 Sq. Yds.
I-18	6" Stabilized Crushed Aggregate Shoulders and Approaches	843 Cu. Yds.
I-1	12" Pipe for Driveways	32 Lin. Ft.

S.R. 159 INTERCHANGE NORTH BOUND

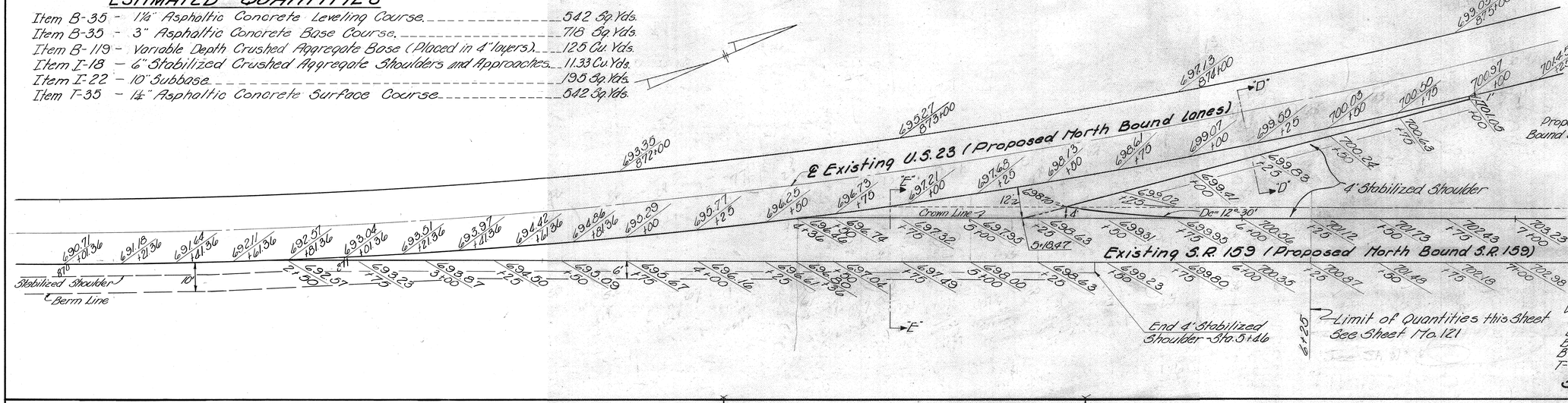
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

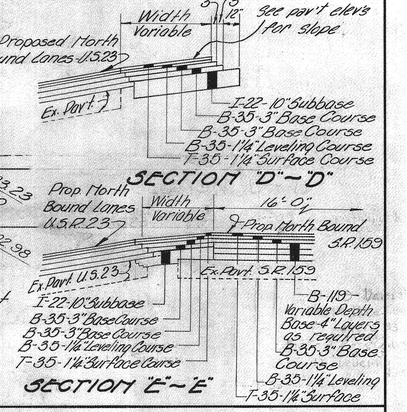
122/177

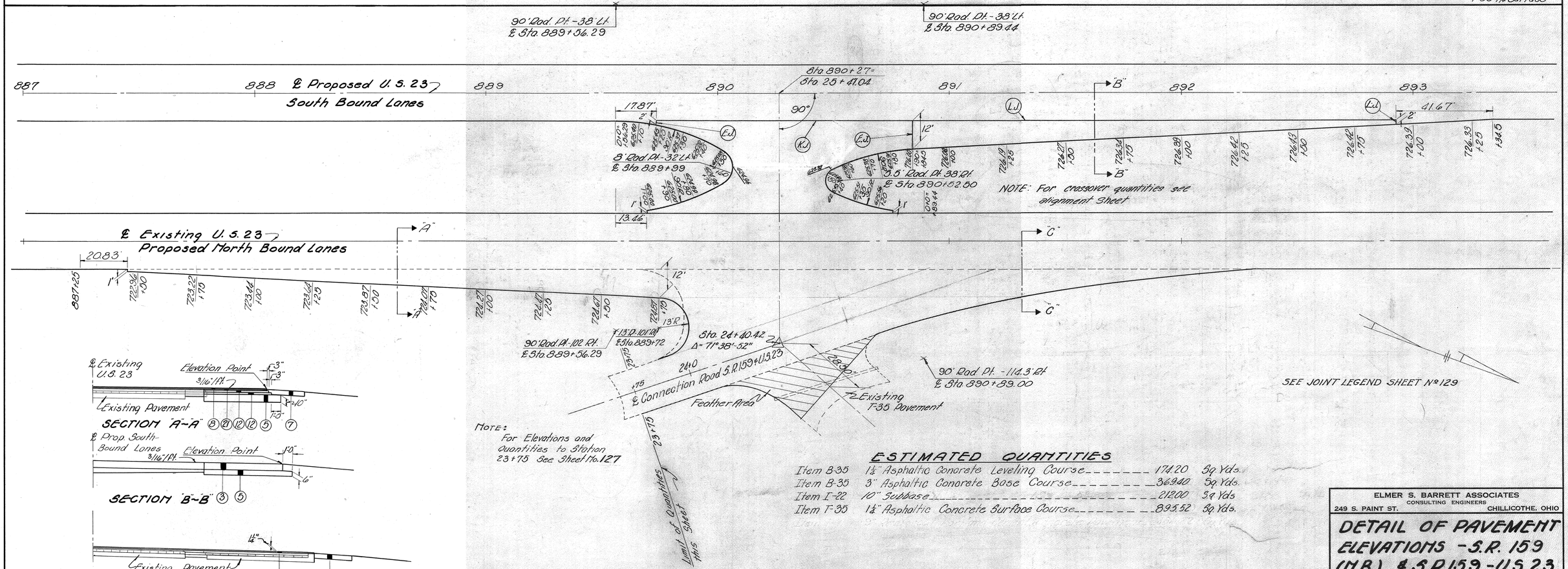
ROSS COUNTY
ROS-23-(15.37)(16.01)

ESTIMATED QUANTITIES

Item B-35	1½" Asphaltic Concrete Leveling Course	542 Sq. Yds.
Item B-35	3" Asphaltic Concrete Base Course	718 Sq. Yds.
Item B-119	Variable Depth Crushed Aggregate Base (Placed in 4" layers)	125 Cu. Yds.
Item I-18	6" Stabilized Crushed Aggregate Shoulders and Approaches	11.33 Cu. Yds.
Item I-22	10" Subbase	195 Sq. Yds.
Item F-35	1¼" Asphaltic Concrete Surface Course	542 Sq. Yds.







NOTE: For Elevations and Quantities to Station 23+75 See Sheet No. 127

ESTIMATED QUANTITIES

Item B-35	1½" Asphaltic Concrete Leveling Course	174.20 Sq. Yds.
Item B-35	3" Asphaltic Concrete Base Course	369.40 Sq. Yds.
Item I-22	10" Subbase	212.00 Sq. Yds.
Item F-35	1¼" Asphaltic Concrete Surface Course	895.52 Sq. Yds.

SEE JOINT LEGEND SHEET No. 129

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

DETAIL OF PAVEMENT ELEVATIONS - S.R. 159 (N.B.) & S.R. 159 - U.S. 23 CONNECTION ROAD

SCALE 1" = 20'-0" DATE Feb. 20, 1956

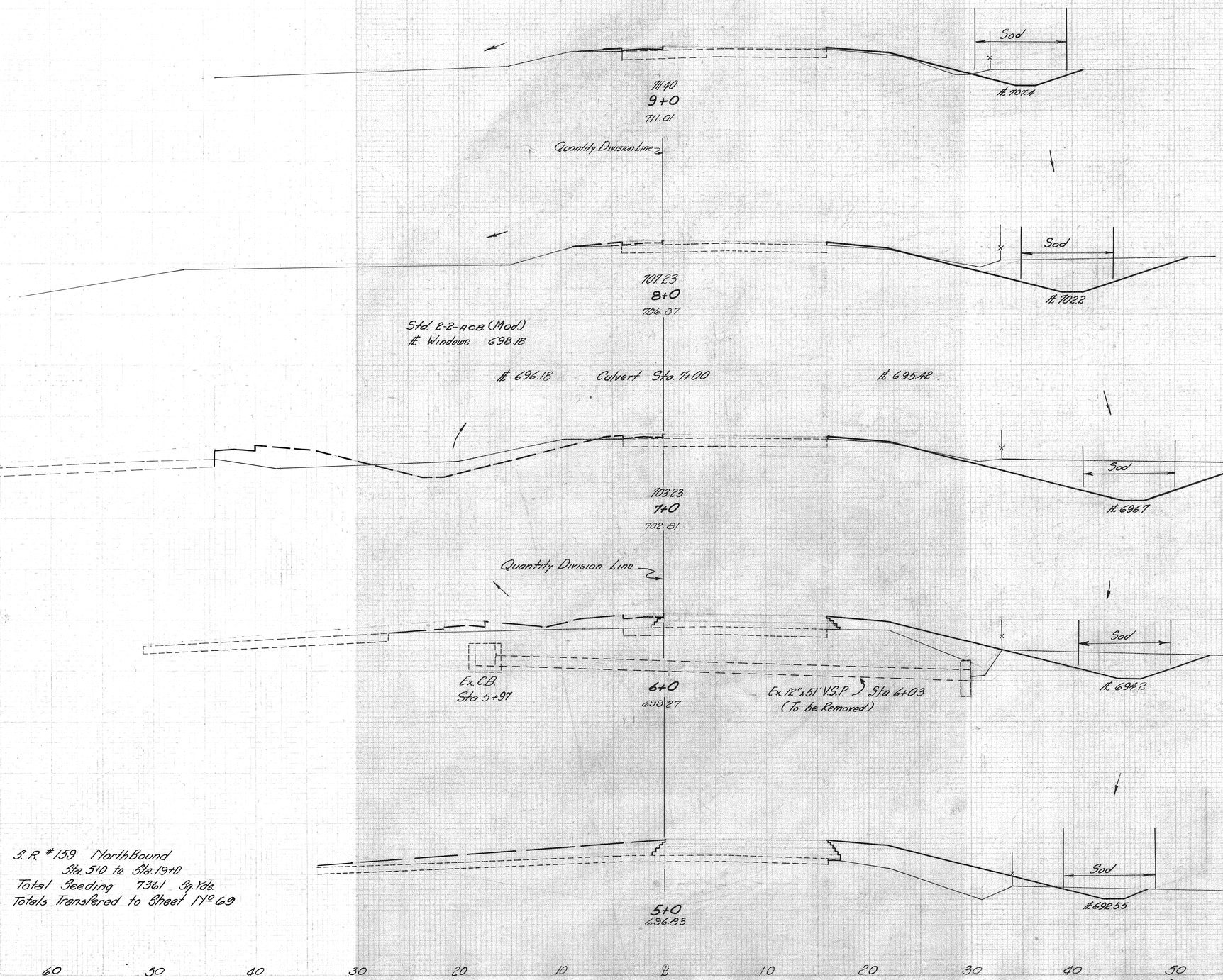
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G. P.J.M.	P.J.M.	~~S.E.B.~~			

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

123
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding End Width	Seeding Sq. Yds.
54	
	667
66	Ahead
47	Back
	550
52	
	555
48	
	500
42	Ahead
0	0 Back



S.R. #159 North Bound
Sta. 5+0 to Sta. 19+0
Total Seeding 7361 Sq. Yds.
Totals Transfered to Sheet N° 69

S.R. #159 North Bound
Sta. 5+0 to Sta. 19+0
Total Excavation = 745 Cu. Yds.
Total Embankment = 621 Cu. Yds.
Totals Transferred to Sheet N° 69

	End Area Cut	End Area Fill	Volume Cut	Volume Fill
	10	7		
			94	22
Ahead	41	5		
Back	41	2		
			189	7
	61	2		
			167	50
	29	25		
			65	128
Ahead	6	44		
Back	0	0		

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

2272

S.R. #159 INTERCHANGE NORTH BOUND

5/15/2007

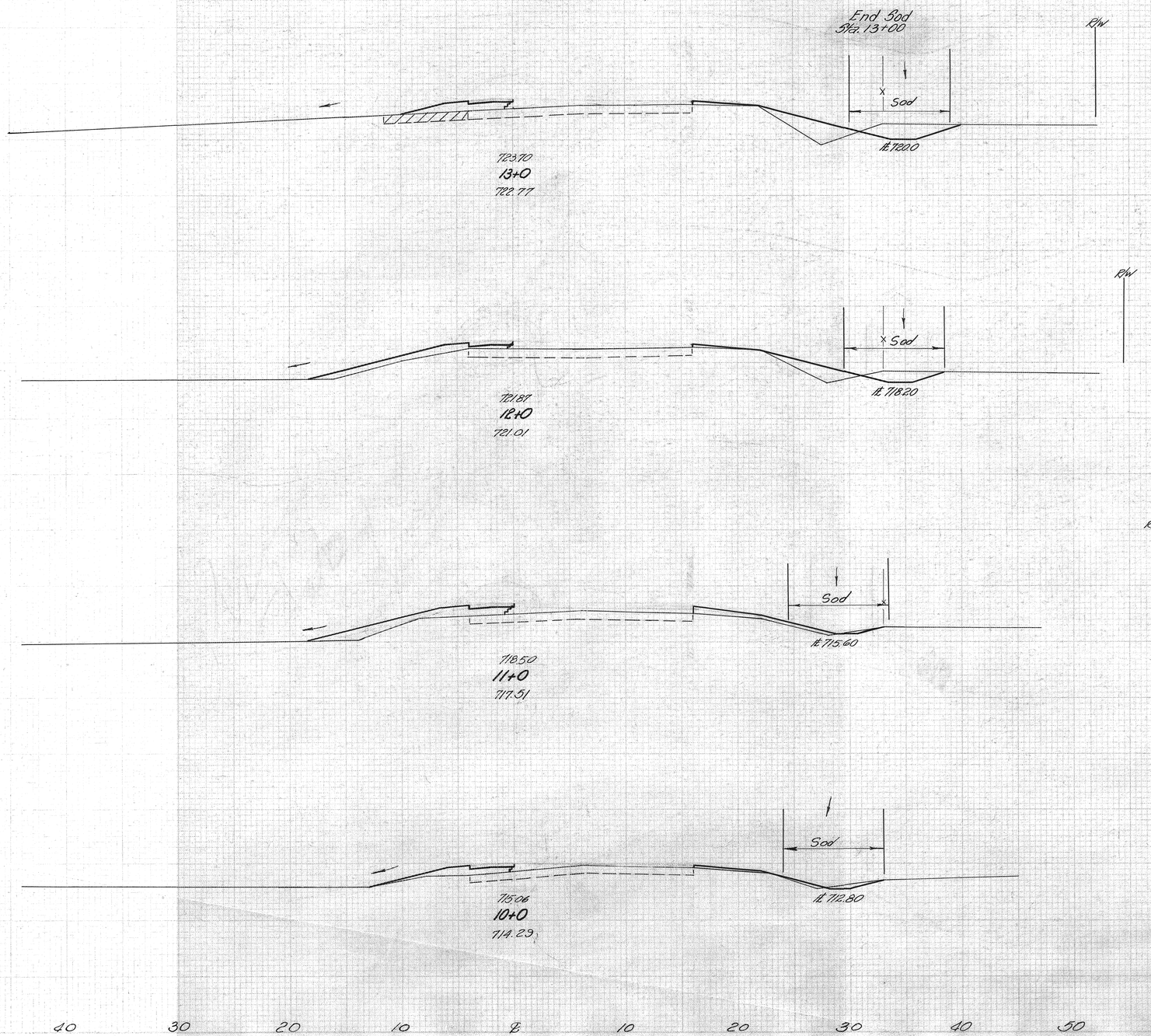
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

124
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End Width	Sq. Yds.
55	
	650
62	
	656
56	
	589
50	
54	578

End Area		Volume	
Cut	Fill	Cut	Fill
9	17		
		26	63
5	17		
		11	67
1	19		
		6	52
2	9		
		22	30
10	7		
		65	212



2473

SR. #159 INTERCHANGE NORTH BOUND

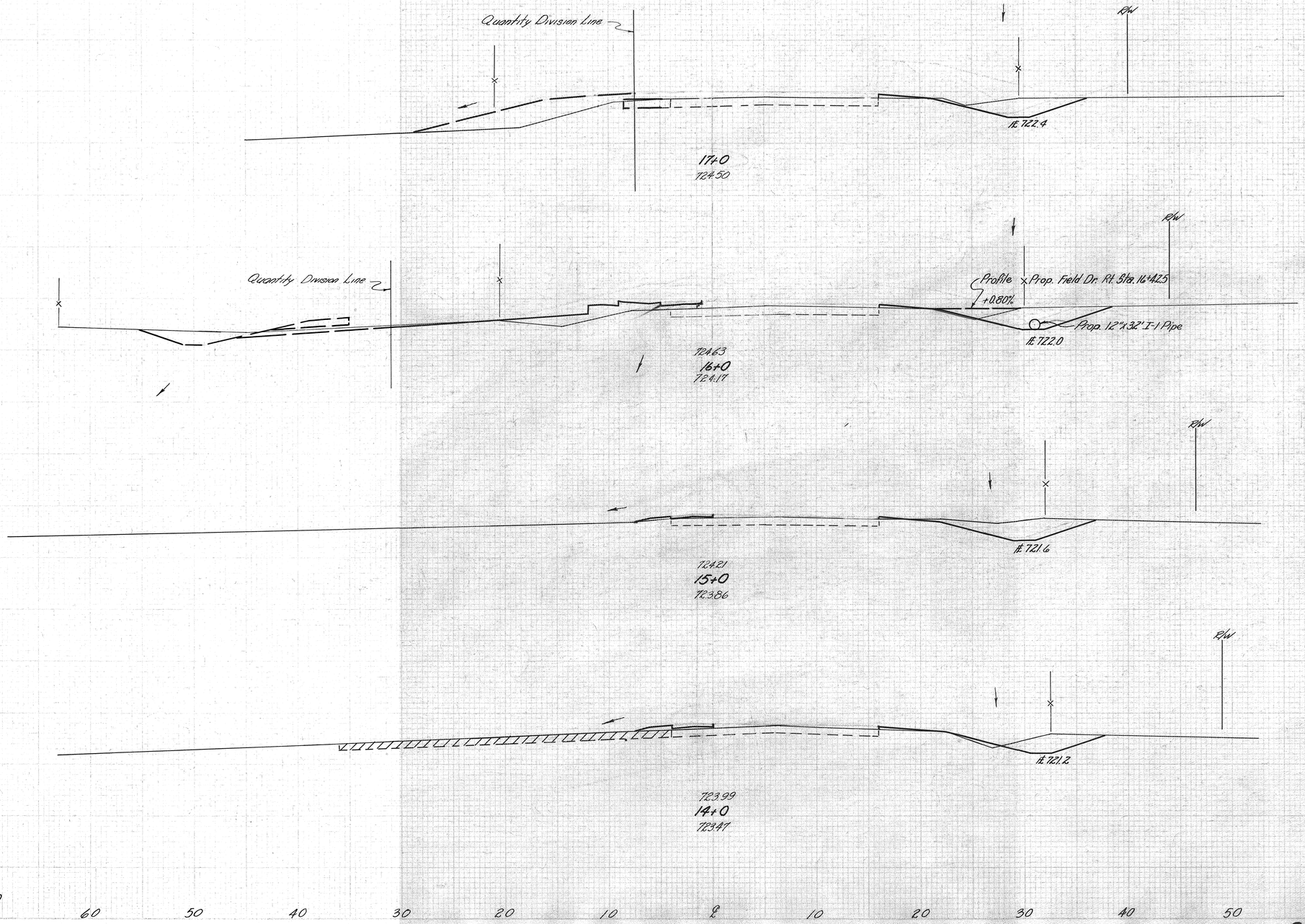
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

125
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding		End Area		Volume	
End Width	Sq Yds.	Cut	Fill	Cut	Fill
24		8	1		
	344			0	16
				30	33
38		8	17		
	472			41	35
47		14	2		
	517			31	13
46		3	5		
	561			22	41
55		9	17		

Field Drive
Rt. ℄ Sta 16+42.5



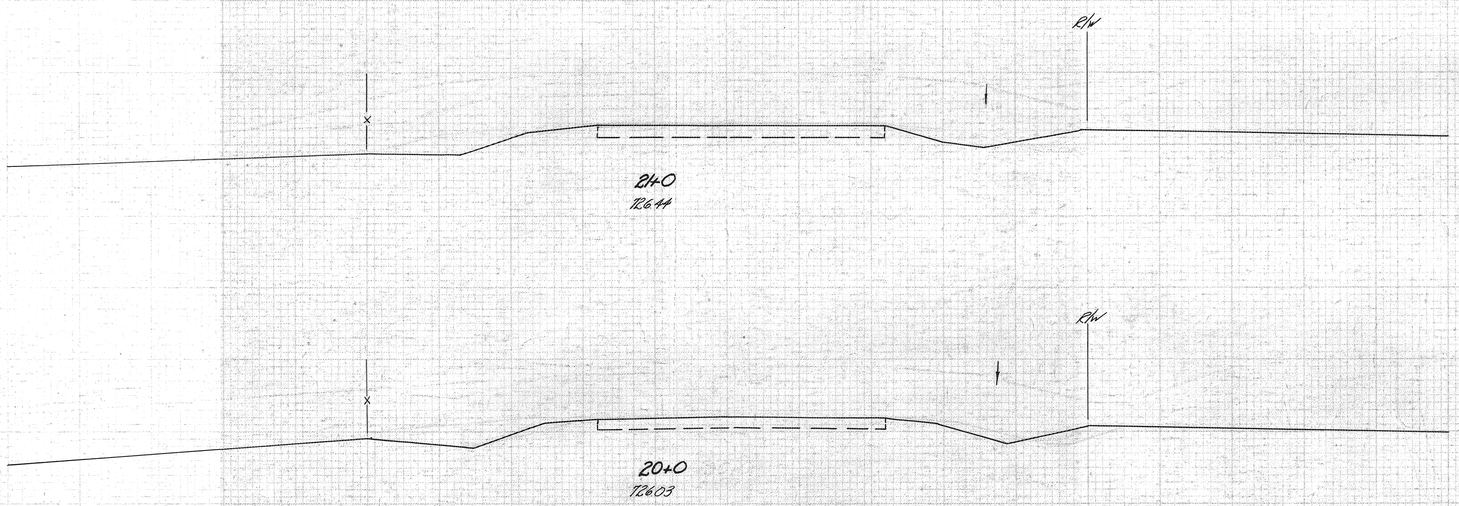
1894

S.R. #159 INTERCHANGE NORTH BOUN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

126
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



Seeding	
End Width	Sq. Yds.
0	0
1	294
53	428
24	428

End Area		Volume	
Cut	Fill	Cut	Fill
0	0		
		13	31
7	17		
		28	33
8	1		

Sta. 17+0

60 50 40 30 20 10 ℄ 10 20 30 40 50 60

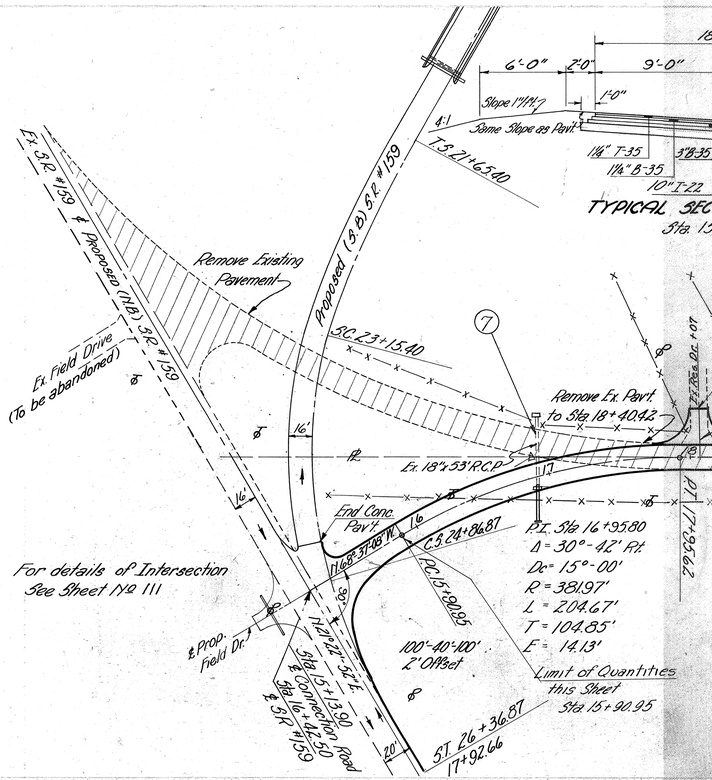
Sta. 17+0

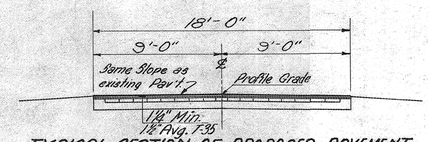
S.R. #159 INTERCHANGE NORTH BOUND

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

127
177

ROSS COUNTY
ROS-23-(15.37)(16.01





TYPICAL SECTION OF PROPOSED PAVEMENT
Sta 19+40.42 To Sta 23+75
SCALE 1" = 5'-0"

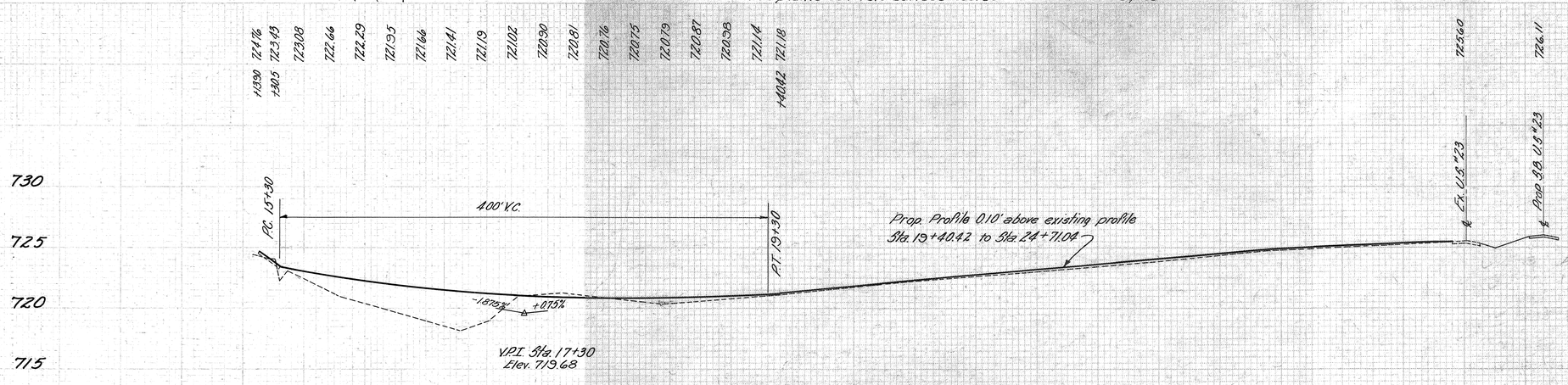
NOTE:
Existing Highway Scales to be removed and disposed of as directed by the Engineer

ESTIMATED QUANTITIES

Item B-35	1 1/2" Asphaltic Concrete Leveling Course	568.96 Sq. Yds.
Item T-35	1 1/4" Asphaltic Concrete Surface Course (1 1/2" Average)	863.16 Sq. Yds.
Item I-22	10" Subbase	831.57 Sq. Yds.
Item E-8	Removal of Existing Pavement	12.73 Cu. Yds.
Item B-35	3" Asphaltic Concrete Base Course	1039.46 Sq. Yds.
Item B-35	Variable Depth Asphaltic Concrete Leveling Course (0" Min - 3" Max.)	10.67 Sq. Yds.
Item T-35	1 1/4" Asphaltic Concrete Surface Course	768.96 Sq. Yds.

PAVEMENT ELEVATIONS
STA. 16+00 TO STA 19+40.42

STATION	ELEVATION Lt. EDGE	ELEVATION ℄	ELEVATION Rt. EDGE
16+0	723.04	722.29	721.54
+25	722.70	721.95	721.20
+50	722.41	721.66	720.91
+75	722.16	721.41	720.66
17+0	721.94	721.19	720.44
+25	721.77	721.02	720.27
+50	721.65	720.90	720.15
+75	721.44	720.81	720.18
18+0	721.27	720.76	720.25
+25	721.15	720.75	720.35
+50	721.07	720.79	720.51
+75	721.03	720.87	720.71
19+0	721.02	720.98	720.83
+25	721.03	721.14	720.99
+40.42	721.03	721.18	721.03



S.R. 159 AND U.S. 23 CONNECTION ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

128
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

Seeding	
End width	Sq. yds.
0	
	40
21	
44	
	575
58	
	568
68	
	728
63	
	96
0	
0	

Sta 18+75 Ahead Back

Profile Prop. Res. Drive Lt. Sta. 18+07 — 10%

R/W

720.77
18+40.42
720.35

R/W

R/W

720.95
17+39
721.29

I.E. 718.00

Culvert I.E. 717.28

R/W

721.58
16+57.90
718.32

I.E. 717.50

I.E. 720.60

I.E. 720.20

722.35
15+57.90
721.42

Quantity Division Line
16+0 N.B. 159

Quantity Division Line
17+00 N.B. 159

723.43
15+30.5

	End Area		Volume	
	Cut	Fill	Cut	Fill
Sta. 18+75	0	0		
			0	18
Ahead	0	28		
Back	19	28		
Drive Lt. Sta. 18+07				25
			81	94
	24	21		
			42	201
	4	113		
			43	265
	19	30		
			50	15
Ahead	80	0		
Back	0	0		

SEEDING 2007 SQ. YDS.
TRANSFERRED TO SHEET 11Q 72

TOTAL EXCAVATION 216 CU. YDS.
TOTAL EMBANKMENT 618 CU. YDS.
TRANSFERRED TO SHEET 11Q 72

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70

CONNECTION ROAD STA. 15+30.50 TO STA. 18+40.42

FED. NO. DIVISION	STATE	PROJECT		
2	OHIO			

129
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

ESTIMATED QUANTITIES

③	Item T-71 9" Reinforced Portland Cement Concrete Pavement	1099.56 Sq. Yds.
⑨	Item I-12 Concrete Curb Type 2-A	478 Lin. Ft.
⑤	Item I-22 6" Subbase	1141.60 Sq. Yds.
⑦	Item I-18 Stabilized Crushed Aggregate Shoulders and Approaches	131 Cu. Yds.

NOTE:

A - Prop. Std. 11°+6 C.B. 32'Lt. Sta 940+84
If. Grate 681.41 If. C.B. 678.10

B - Prop. Std. 11°+6 C.B.
If. Grate 681.88 If. C.B. 677.75

BEGIN WORK STA 6+0

END WORK STA 12+02

℄ DELANO ROAD

℄ NORTHBOUND LANE

℄ SOUTHBOUND LANE

℄ ACCESS ROAD

(6+0 to 8+50.9) 6" T-18

(110+52 to 12+02) 6" T-18

End T-71 Begin I-18

End I-18 Begin T-71

End T-71 Begin T-35

210' Transition Crown to be warped to meet existing

120' Transition Crown to be warped to meet existing

Prop. Std. 11°+6 C.B. 32' Lt. Sta 940+84

Prop. 36" RCP (Reel) C.B. 28' Lt. Survey ℄ Sta 940+15

Prop. Std. 11°+6 C.B. 173' Rt. Survey ℄ Sta 940+82.5

Prop. 12"x 48' I-2 Pipe on 0.73%

Prop. 12"x 70' I-2 Pipe on 0.40%

Prop. 12"x 20' I-2 Pipe on 1.38%

Prop. 24"x 82' S-27 Pipe

Prop. Std. S-27, PC & Endwalls

Proposed Location of Mail Boxes

Prop. 8'x 16' Std

Prop. Field Drive Sta. 8+0

Ex. 6"x 12"x 20" Paved Apron with Endwall

Ex. 12"x 20' CMP-2 to be removed

Plug Ex. 16"x 20' CMP

Prop. 9' Std

Prop. 12"x 20' I-2 Pipe

Prop. Std. S-27, PC & Endwall

100' Rad Pt. 119.02' Lt. Sta 941+94.34

30' Rad Pt. 68' Lt. Sta 941+68.34

90' Rad Pt. 102' Lt. Sta 941+40.03

100' Rad Pt. 176' Lt. Sta 941+49.12

35' Rad Pt. 114' Lt. Sta 941+29.64

40' Rad Pt. 149' Lt. Sta 940+31.89

90' Rad Pt. 102' Lt. Sta 939+95.23

120' Rad Pt. 32.25' Rt. Sta 941+65.99

120' Rad Pt. 132' Rt. Sta 941+16.43

90' Rad Pt. 38' Rt. Sta 941+23.34

45' Rad Pt. 59' Rt. Sta 940+98.75

35' Rad Pt. 50' Rt. Sta 939+88.94

100' Rad Pt. 112' Rt. Sta 939+69.48

50' Rad Pt. 4' Rt. Sta 939+59.67

35' Rad Pt. 63' Lt. Sta 939+55.91

100' Rad Pt. 53.02' Rt. Sta 939+24.14

N 17°-48'-10" W

100'-45'-120' 2' offset

100'-35'-100' 3' offset

℄ Delano Road
24'-0"
6'-0" | 12'-0" | 12'-0" | 6'-0"
1"/ft. | Slope 3/16"/ft. | 1"/ft.
4:12 | 4:12
1" | 6"
⑤ ⑤ ⑨

TYPICAL SECTION OF PROPOSED PAVEMENT
Scale 1"=10'-0"

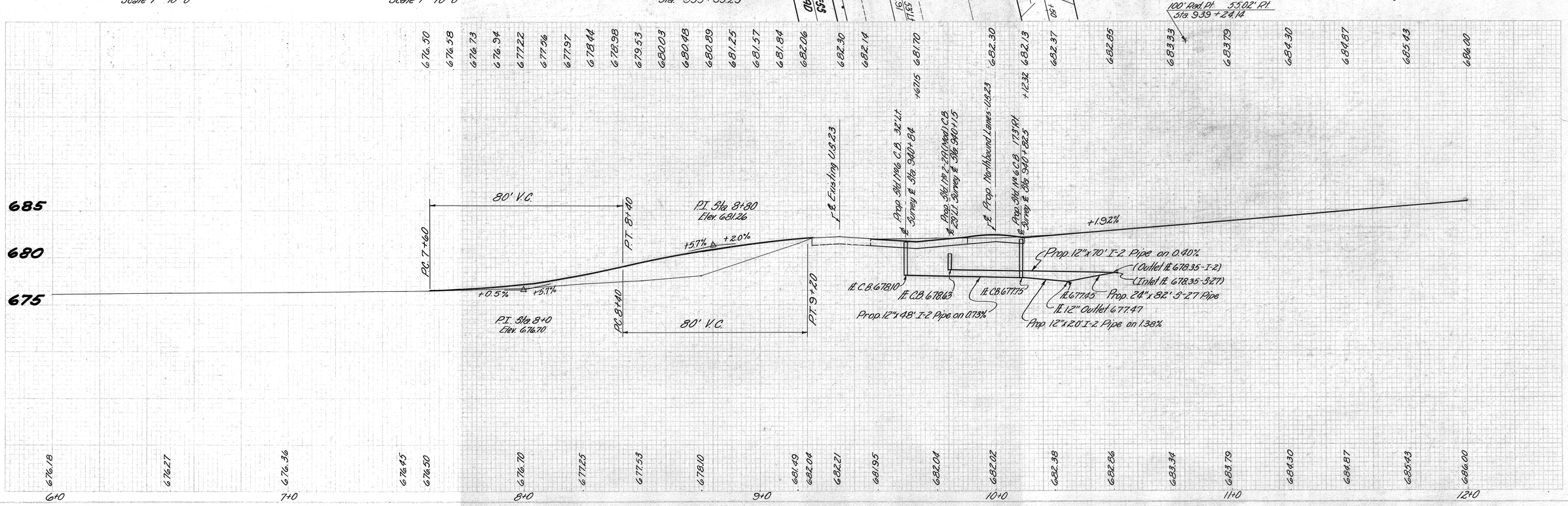
℄ Delano Road
12' | 14'
6'-7" | 6'-7"
Slope Varies 2:1 to 1"/ft. | Slope Varies 0"/ft. to 1/2"/ft. | Slope Varies 2:1 to 1"/ft.
6" Gravel Base

TYPICAL SECTION OF EXISTING PAVEMENT
Scale 1"=10'-0"

LEGEND

- (J) Standard Longitudinal Joint
- (K) Standard Key Joint without Tie Bars
- (E) Expansion Joint without Dowels (on radial lines)
- 681.58 Elevations Shown at 10' Intervals

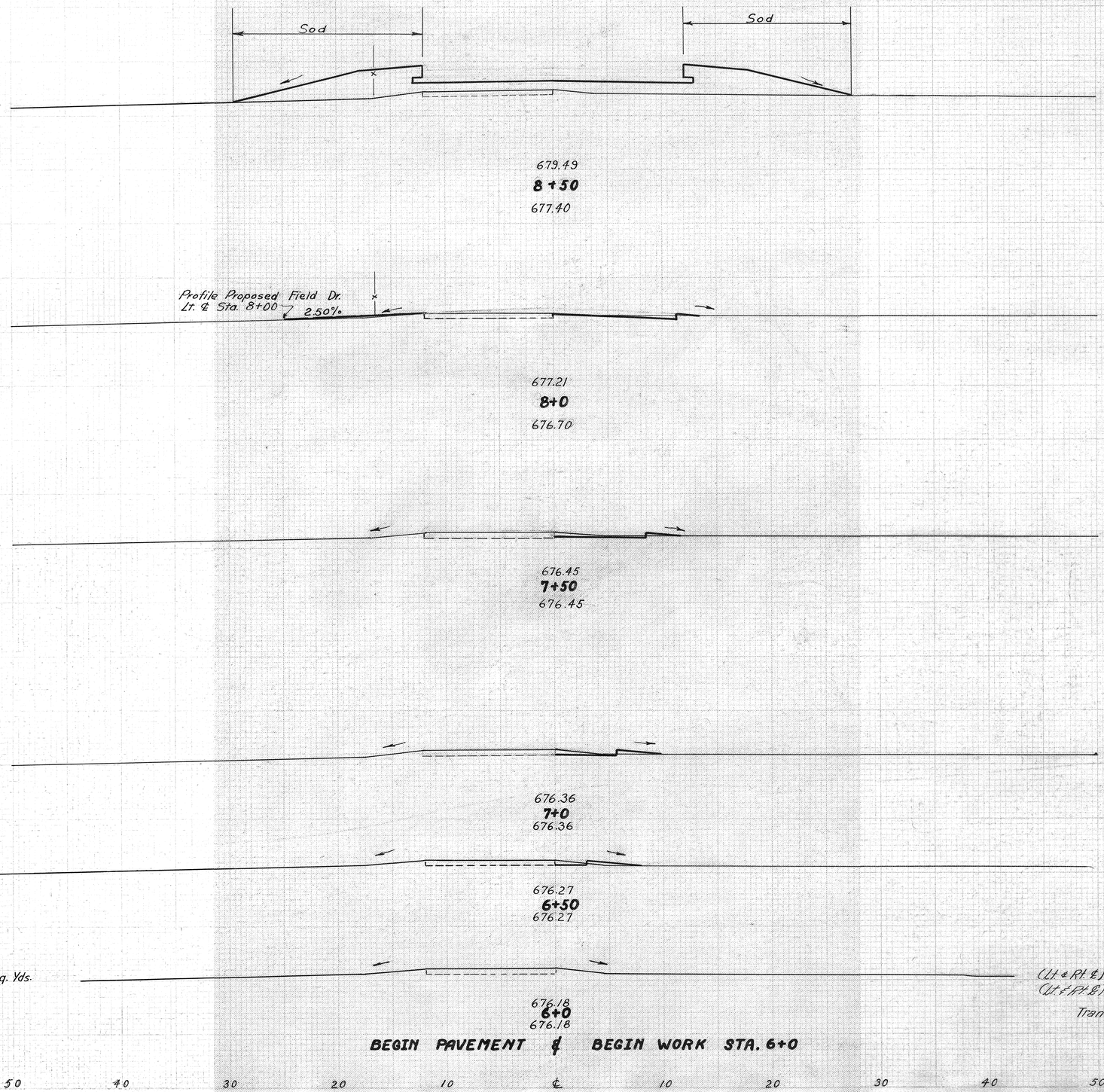
All radii Shown are to Back of Curb or Edge of Pavement



DETAIL OF DELANO ROAD INTERSECTION STA. 940+51.87

FED. RD. DIVISION	STATE	PROJECT		130 / 177
2	OHIO			

ROSS COUNTY
ROS-23-(15.37)(16.01



Seeding	
End Width	Sq. Yds.
54	
	183
12	
	69
13	
	75
14	
	80
15	
	42
0	

(Lt & Rt ℄) Total Seeding 1976 Sq. Yds.
Transferred to Roadway Sections
See Sheet No 83

	End Area		Volume	
	Cut	Fill	Cut	Fill
	0	80		
			3	74
Field Dr. Lt. Sta 8+00			0	0
	3	0		
			6	1
	3	1		
			5	2
	2	1		
			3	3
	1	2		
			1	2
	0	0		

(Lt & Rt ℄) Total Excavation 312 Cu. Yds.
(Lt & Rt ℄) Total Embankment 581 Cu. Yds.
Transferred to Roadway Sections
See Sheet No 83

STA. 7+00 TO STA. 8+50 DELANO ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

131
177

ROSS COUNTY
ROS-23-(1537)(16.01)

Seeding		End Area		Volume	
End Width	Sq. Yds.	Cut	Fill	Cut	Fill
0		Ahead 63	48		
		Back 0	0		
				0	0
0		Ahead 0	0		
		Back 111	0		
66				45	83
54				0	203
161				0	160
62				0	143
161				0	103
54				0	80

Edge of Prop. N.B. Lanes

Bottom of Prop. Subbase at Edge of Pav't

682.13

10+12.32

681.95

Quantity Division Line
(Shown on Roadway X-Sections of Sta. 940+0)

Quantity Division Line
(Shown on Roadway X-Sections of Sta. 941+0)

Ex Edge of Pavement

Bottom of Prop. Subbase at Edge of Pav't

Quantity Division Line

682.04

9+21.98

682.04

Quantity Division Line

681.51

9+0

679.70

680.64

8+75

678.05

Sta 8+50

Sta. 8+50

70 60 50 40 30 20 10 ℄ 10 20 30 40 50 60 70

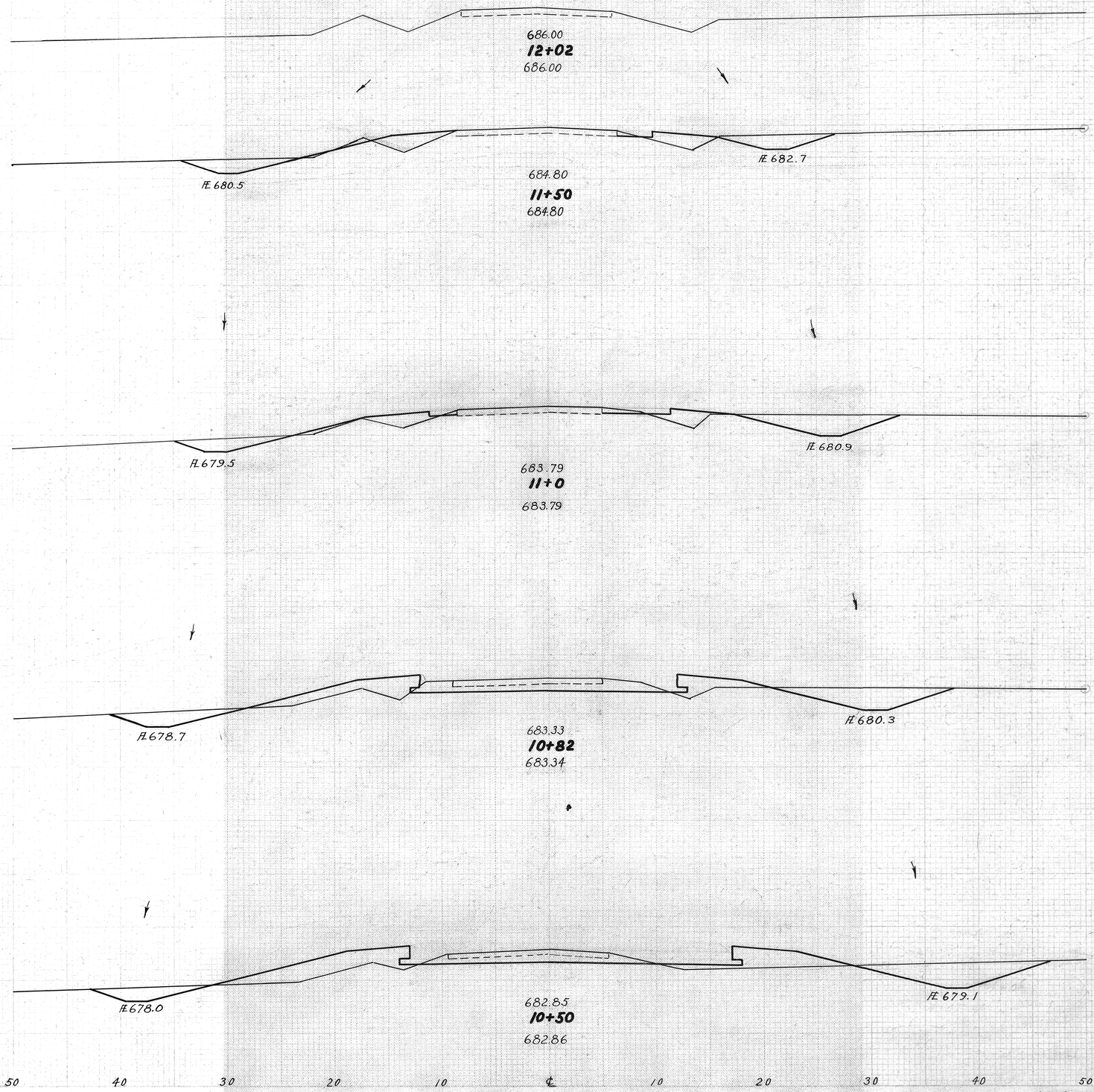
STA. 8+75 TO STA. 10+12.32 DELANO ROAD

END PAVEMENT ℄ END WORK STA. 12+02

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

132
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



Seeding		End Area		Volume	
End Width	Sq. Yds.	Cut	Fill	Cut	Fill
0					
	188				
65					
		Sta. 12+02	0	0	
				21	14
		Sta 11+50	22	14	
	364				
				47	24
66					
			29	12	
	141			29	13
75				57	26
	277			68	40
81				57	41
	169			84	62
0.	Sta. 10+12.32		63	48	Sta. 10+12.32

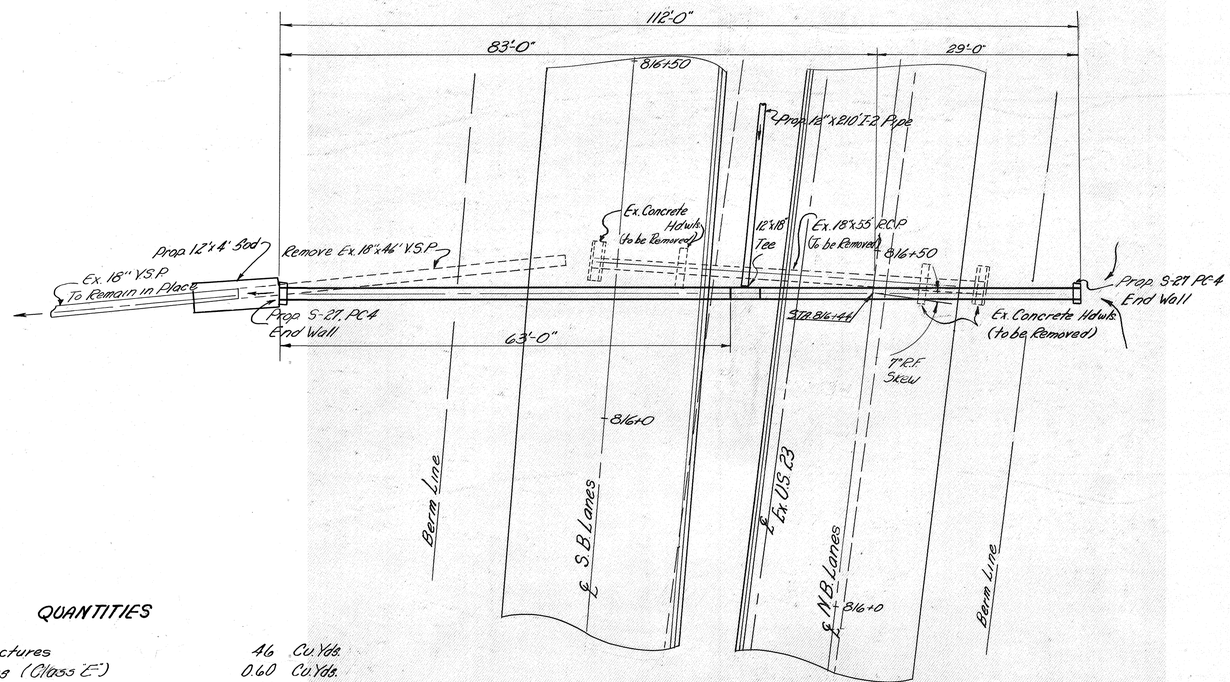
60 50 40 30 20 10 ℄ 10 20 30 40 50 60

STA. 10+50 TO STA. 11+50 DELANO ROAD

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

133/177

ROSS COUNTY
ROS-23-(15.37)((16.04)



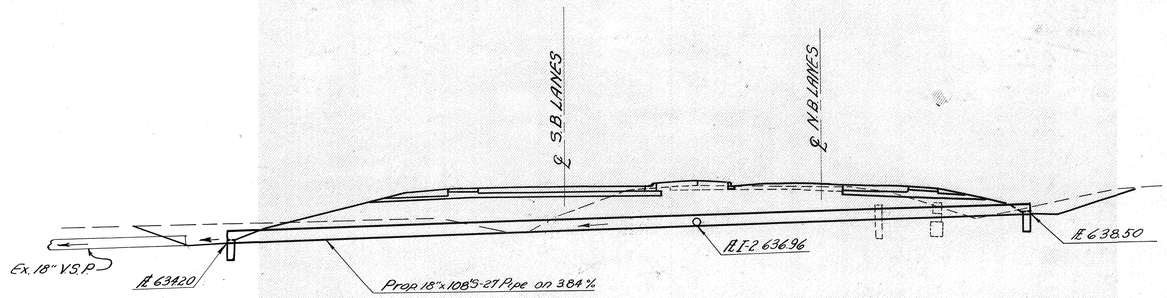
PLAN

ESTIMATED QUANTITIES

E-2	Excavation for Structures	46 Cu. Yds.
S-1	Concrete for Structures (Class "E")	0.60 Cu. Yds.
E-12	18" Pipe Removed	46 Lin. Ft.
S-24	Removal of Existing Structure	Lump Lump
S-27	18" Pipe for Roadway Culverts	108 Lin. Ft.
I-5	Pipe Specials 18"x12" Tee	1 Each
L-10	Sodding	6 Sq. Yds.

DRAINAGE DATA

Drainage Area	7.6	Ac.
Q25	9.8	C.F.S.



Datum Elev. 600.00 ?

SECTION

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (1)
STA. 816+44.00 (N.B.)

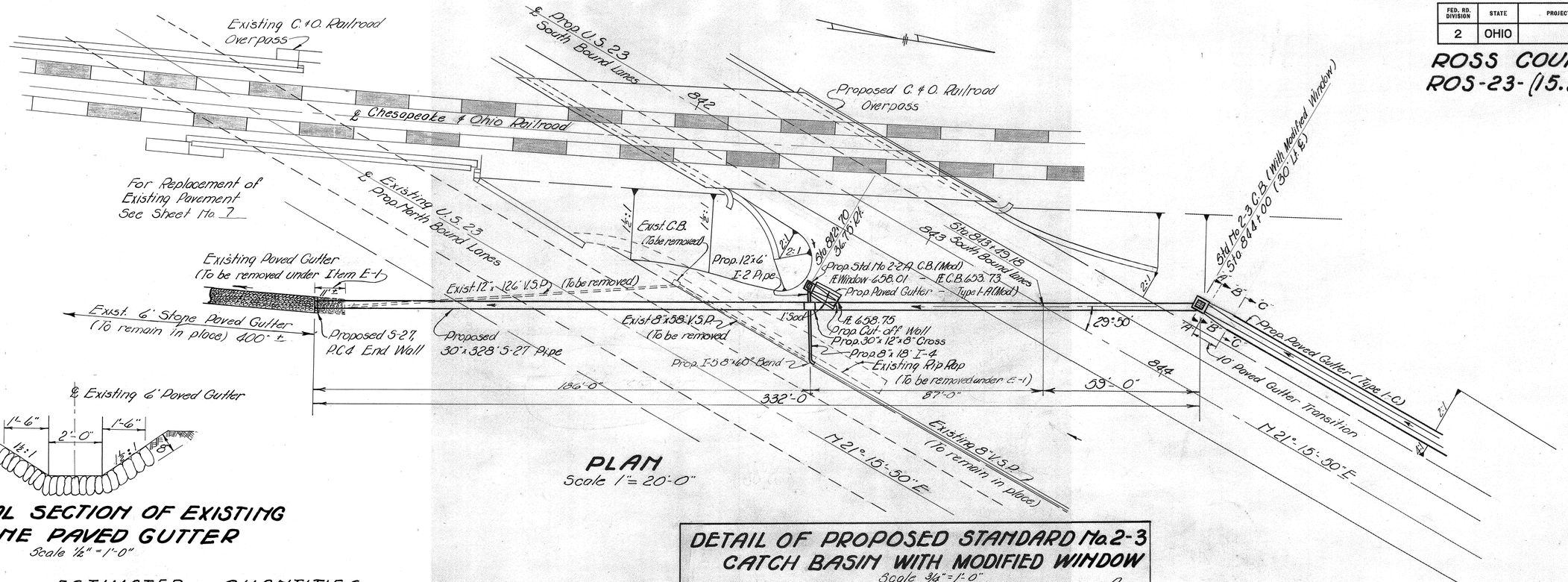
SCALE 1" = 10'-0" DATE 1-31-56

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	J.E.	[illegible]			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

134/177

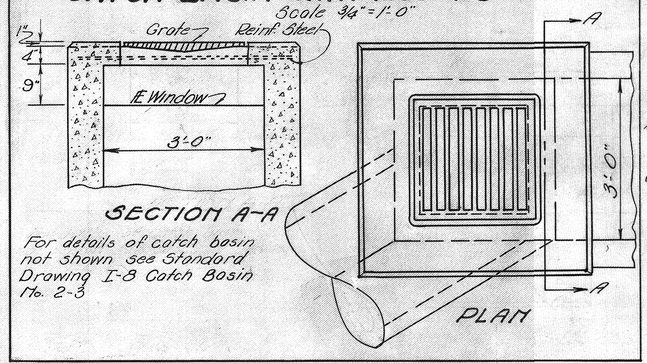
ROSS COUNTY
ROS-23-(15.37)(16.01)



PLAN
Scale 1" = 20'-0"

TYPICAL SECTION OF EXISTING STONE PAVED GUTTER
Scale ½" = 1'-0"

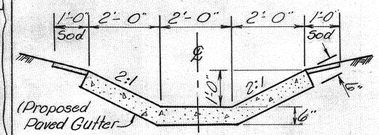
DETAIL OF PROPOSED STANDARD No. 2-3 CATCH BASIN WITH MODIFIED WINDOW
Scale ¾" = 1'-0"



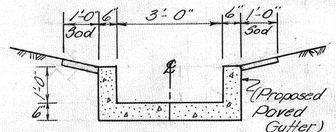
SECTION A-A

PLAN

For details of catch basin not shown see Standard Drawing I-8 Catch Basin No. 2-3



SECTION C-C
Scale ½" = 1'-0"



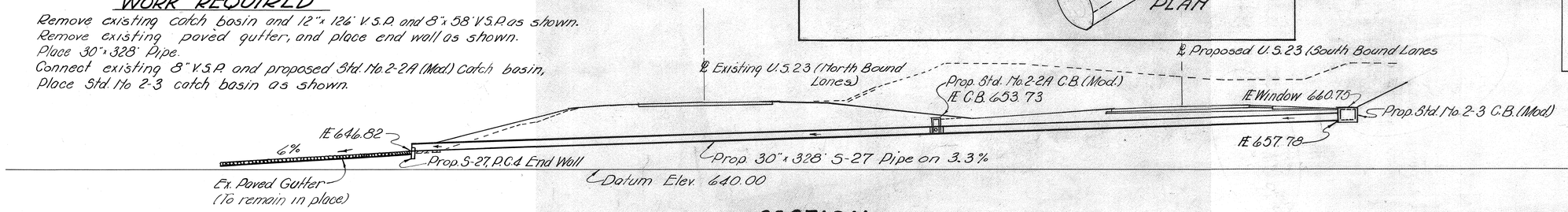
SECTION B-B
Scale ½" = 1'-0"

ESTIMATED QUANTITIES

E-2	Excavation for Structures	471 Cu Yds
S-24	Removal of Existing Structure	Lump
I-4	8" Pipe Outlet for Underdrain	18 Lin. Ft.
I-5	Pipe Special 30"x 12"x 8" Cross	1 Each
I-5	Pipe Special 8"x 60° Bend	1 Each
I-8	Standard No. 2-3 Catch Basin (as per plan)	1 Each
S-1	Concrete for Structures (Class "E")	0.51 Cu Yds
S-27	30" Pipe for Roadway Culvert	328 Lin. Ft.

CULVERT DATA
EXISTING: 12"x 126" V.S.P.
PROPOSED: 30"x 328' Pipe Culvert

WORK REQUIRED
Remove existing catch basin and 12"x 126" V.S.P. and 8"x 58" V.S.P. as shown.
Remove existing paved gutter, and place end wall as shown.
Place 30"x 328' Pipe.
Connect existing 8" V.S.P. and proposed Std. No. 2-2A (Mod.) Catch basin.
Place Std. No. 2-3 catch basin as shown.



SECTION
Scale 1" = 20'-0"

DRAINAGE DATA

Drainage Area	=	45.60 Acres
Q25	=	33.0 c.f.s.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (2)
STA. 843+49.18

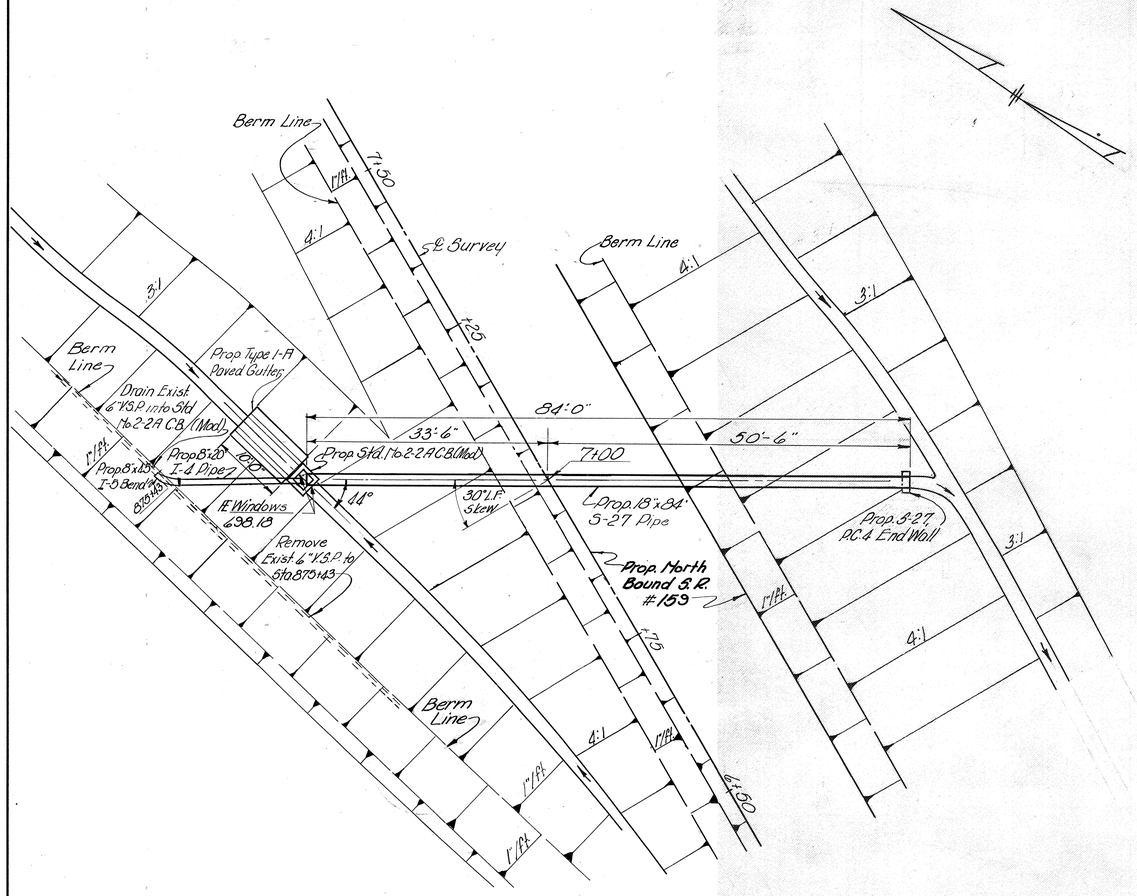
SCALE As Shown DATE Dec. 12, 1955

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.G.	F.S.	J.E. B.J.M.	SGW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

135/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

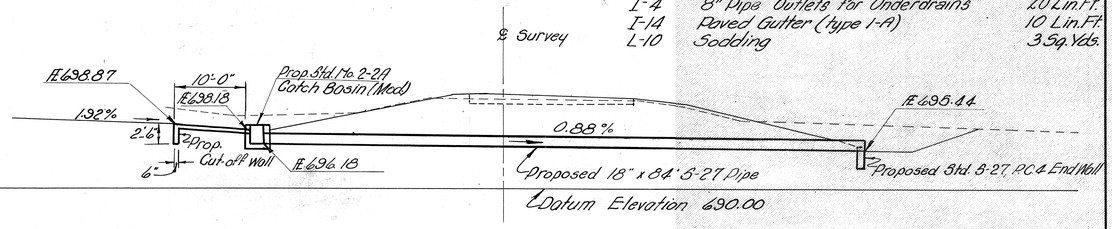


PLAN
Scale 1"= 10'-0"

DRAINAGE	DATA.
Drainage Area	13.6 Acres
Q25 =	11 c.f.s.

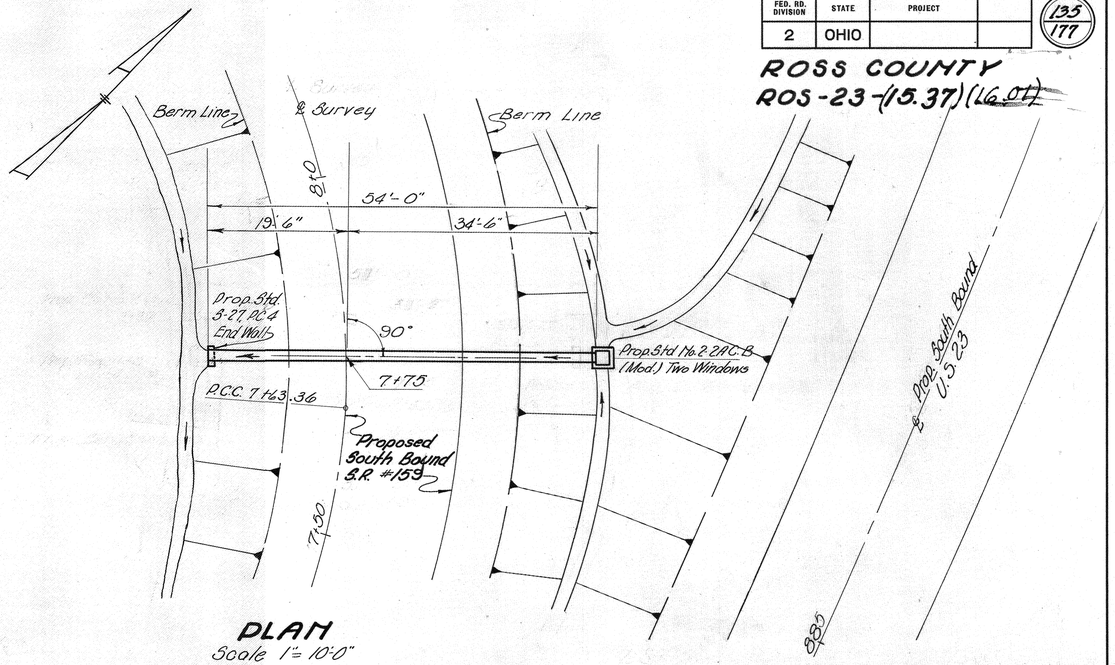
ESTIMATED QUANTITIES

E-2	Excavation for Structure	54 Cu Yds.
I-5	Pipe Special - 8"x 45° Bend	1 Each
I-8	Standard No 2-2A Catch Basin (Modified)	1 Each
S-1	Concrete for Structure (Class "E")	0.30 Cu Yds.
S-27	18" Pipe for Roadway Culvert	84 Lin. Ft.
I-4	8" Pipe Outlets for Underdrains	20 Lin. Ft.
F-14	Paved Gutter (type 1-A)	10 Lin. Ft.
L-10	Sodding	3.5 Sq. Yds.



SECTION
Scale 1"= 10'-0"

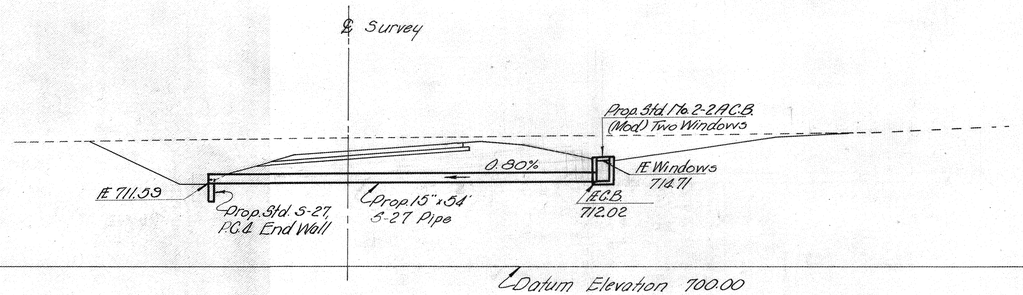
4



PLAN
Scale 1"= 10'-0"

ESTIMATED QUANTITIES

E-2	Excavation for Structure	24 Cu Yds.
I-8	Standard No 2-2A Catch Basin (Modified)	1 Each
S-1	Concrete for Structures (Class "E")	0.26 Cu Yds.
S-27	15" Pipe for Roadway Culvert	54 Lin. Ft.



SECTION
Scale 1"=10'-0"

6

DRAINAGE	DATA
Drainage Area =	2.0 Acres
Q25 =	5 c.f.s.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (6)
STA. 7+75 - SOUTH BOUND S.R. 159
CULVERT DETAIL (4)
STA. 7+00 - NORTH BOUND S.R. 159

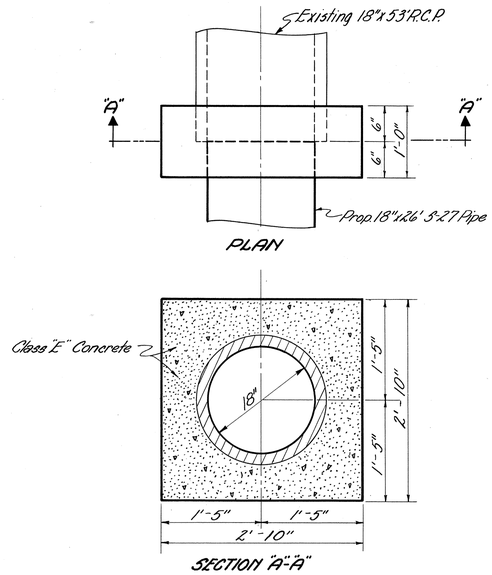
SCALE 1"= 10'-0" DATE Nov. 3, 1955

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G. J.Z.	T.B.-J.E. A.J.M.	S.E.W.			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

136/177

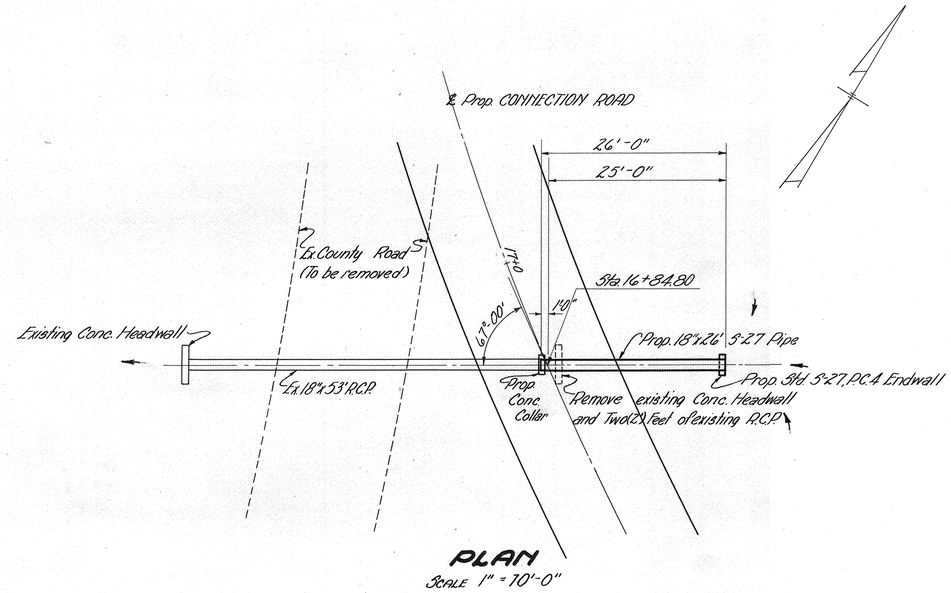
ROSS COUNTY
ROS-23-(15.37)(16.01)



DETAIL OF PROPOSED CONCRETE COLLAR

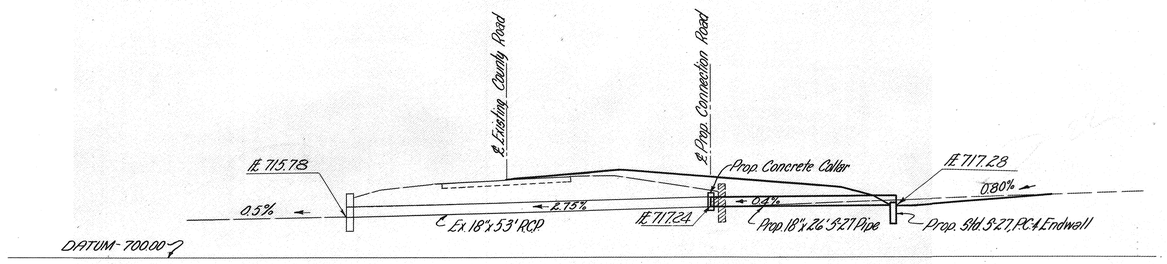
SCALE 1" = 1'-0"

NOTE: Proposed concrete collar to be non-performed providing proposed 18"x 26' 3-27 Pipe fits properly into existing 18" x 53' R.C.P.



PLAN

SCALE 1" = 10'-0"



SECTION

Scale 1" = 10'-0"

DRAINAGE AREA = 8.33 ACRES

Q25 = 778 c.f.s.

ESTIMATED QUANTITIES

E-2	Excavation for Structure	3 Cu.Yds.
S-1	Concrete for Structure (Class "E")	0.53 Cu.Yds.
S-22	Removal of portion of Existing Structure	Lump Lump
S-27	18" Pipe for Roadway Culvert	26 Lin.Ft.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PIPE CULVERT ⑦

CONNECTION ROAD
STA. 16+84.80

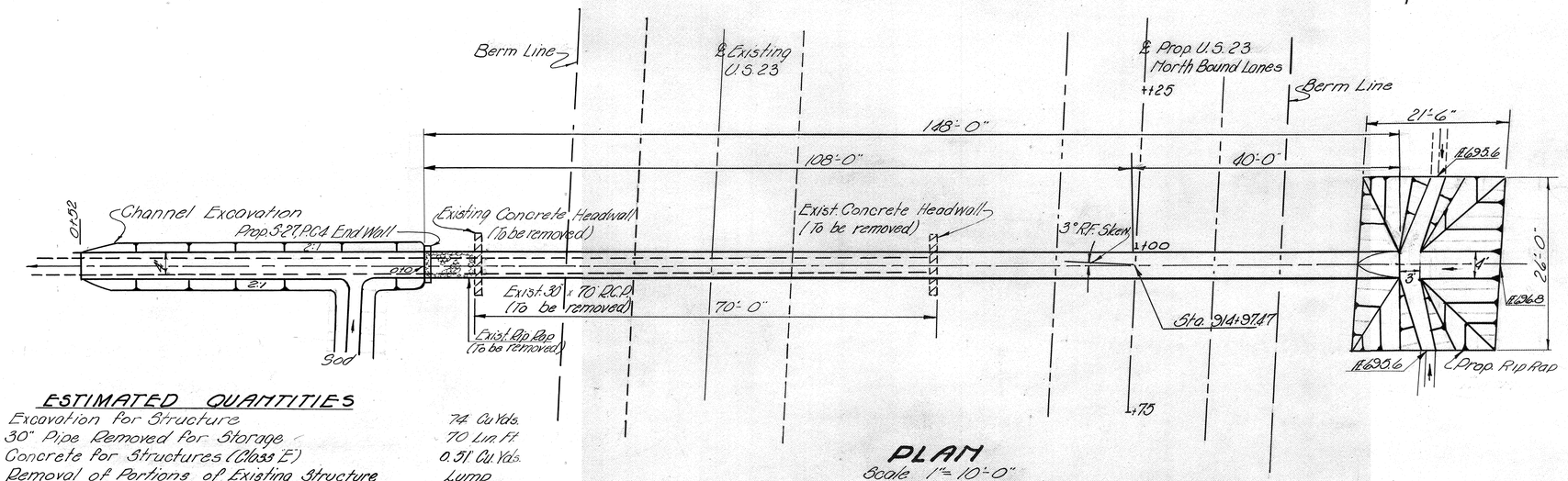
SCALE As Shown DATE 3-9-56

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	W.D.J.	SEW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

137
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



PLAN
Scale 1"= 10'-0"

ESTIMATED QUANTITIES

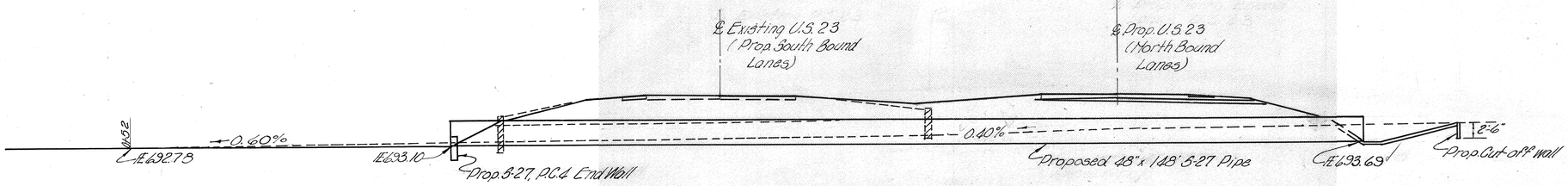
E-2 Excavation for Structure	74 Cu Yds.
E-12 30" Pipe Removed for Storage	70 Lin. Ft.
S-1 Concrete for Structures (Class E)	0.51 Cu. Yds.
S-22 Removal of Portions of Existing Structure	Lump
S-27 48" Pipe for Roadway Culvert	148 Lin. Ft.
E-3 Channel Excavation	6 Cu Yds.
E-10 Rip Rap Type A"	62 Sq Yds.

WORK REQUIRED

Remove existing 30" x 70' R.C.P. and concrete headwalls
Remove existing rip rap under Item E-1
Place 48" x 148' S-27 pipe for Roadway Culvert with S-27, P.C.4 End Wall and 21'-6" x 26'-0" Paved Gutter as shown.

DRAINAGE DATA

Drainage Area	=	122 Acres
Q25	=	50 c.f.s.



Datum Elev 680.00

SECTION
Scale 1"= 10'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (8)
STA. 914 + 97.47

SCALE 1"=10'-0" DATE Dec. 7, 1955

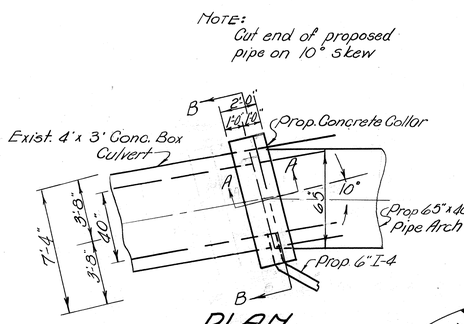
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.I.C.	W.I.C.	E.C. R.M.	SEW			

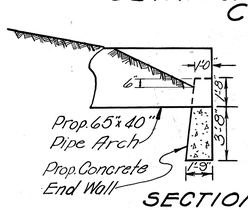
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

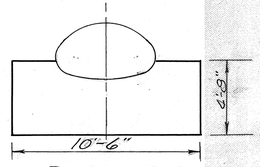
138/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

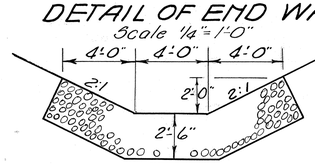
NOTE: Cut end of proposed pipe on 10° skew





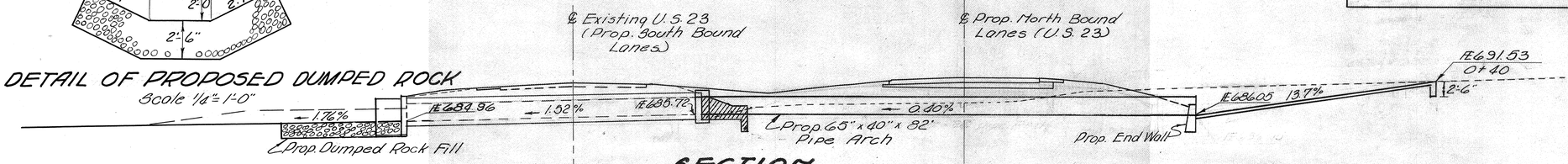


DETAIL OF PROPOSED CONCRETE COLLAR
Scale 1/4"= 1'-0"



DETAIL OF END WALL
Scale 1/4"= 1'-0"

DETAIL OF PROPOSED DUMPED ROCK
Scale 1/4"= 1'-0"



℄ Datum Elevation 660.00

ESTIMATED QUANTITIES

E-2	Excavation for Structures	59 Cu. Yds.
E-3	Channel Excavation	111 Cu. Yds.
I-10	Dumped Rock Fill	20 Cu. Yds.
I-14	Paved Gutter Type I-C	24 Lin. Ft.
I-14	Paved Gutter Type I-E	40 Lin. Ft.
S-1	Concrete for Structures (Class E)	3.44 Cu. Yds.
S-4	Reinforcing Steel	27 Lbs.
S-22	Removal of Portions of Existing Structure	Lump
S-23	Dowel Holes (1¼")	9 Lin. Ft.
S-27	65" x 40" Pipe Arch for Roadway Culvert (8 Gage)	82 Lin. Ft.
I-4	10" Pipe for Underdrains (Shallow)	50 Lin. Ft.
E-12	10" Pipe Removed	50 Lin. Ft.
L-10	Sodding	14 Sq. Yds.

DRAINAGE DATA		
Drainage Area	=	83 Acres
Q25	=	60 c.f.s.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (9)
STA. 928+90

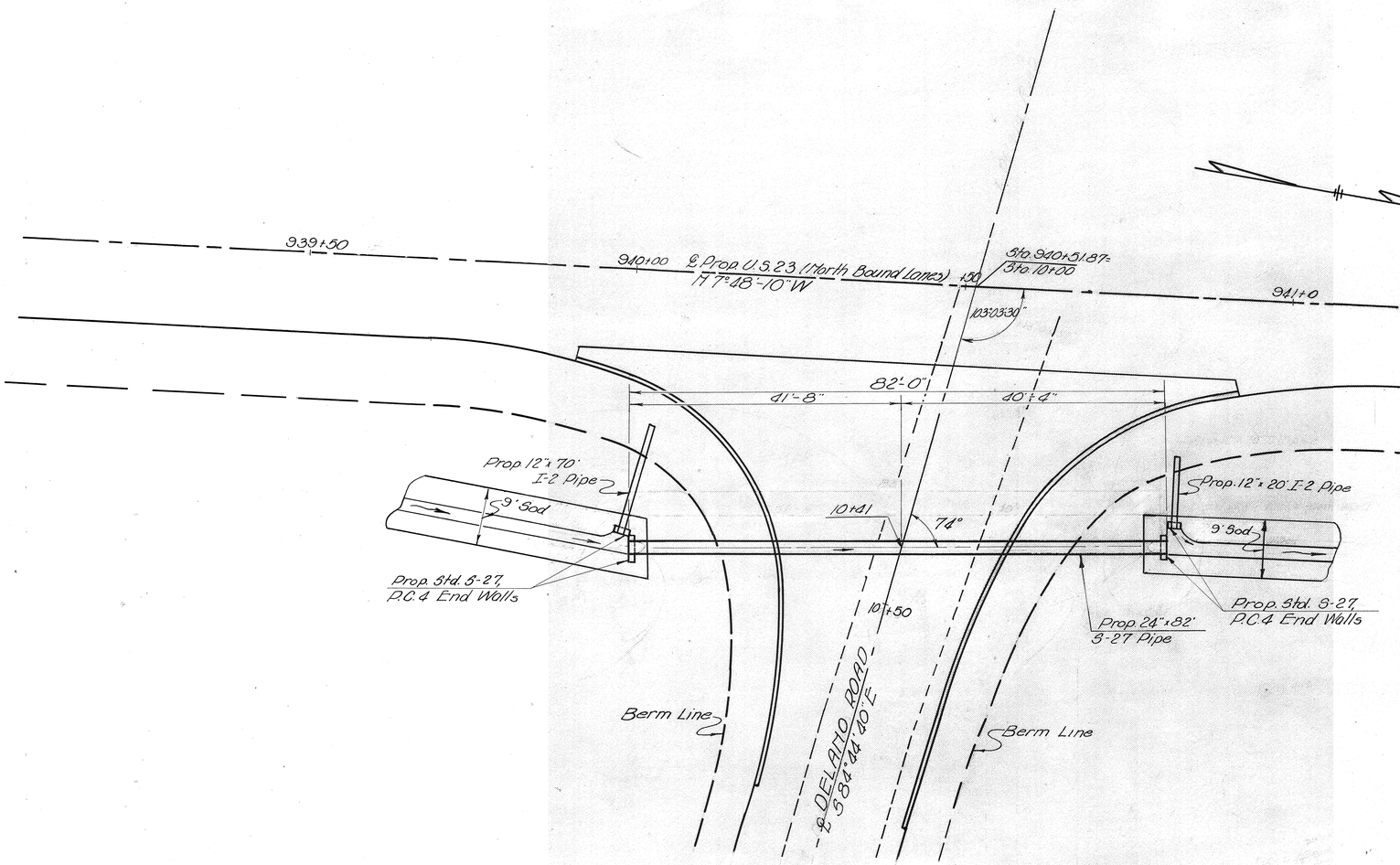
SCALE As Shown DATE Oct. 31, 1955

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.		J.E. P.J.M.	BEW			

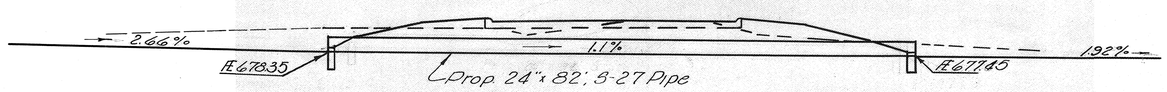
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

139
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



PLAN
Scale 1" = 10'-0"



SECTION
Scale 1" = 10'-0"

℄ Datum Elevation 660.00

ESTIMATED QUANTITIES

E-2	Excavation for Structures	45 Cu. Yds.
S-1	Concrete for Structures (Class "E")	0.82 Cu. Yds.
S-27	24" Pipe for Roadway Culverts	82 Lin. Ft.

DRAINAGE DATA

Drainage Area = 19.7 Acres
Q25 = 20.4 c.f.s.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (10)
STA. 10+41
DELANO ROAD

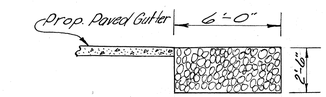
SCALE 1" = 10'-0" DATE Oct. 31, 1955

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RWO	JZ	EC. JE PJM	SBW			

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

140/177

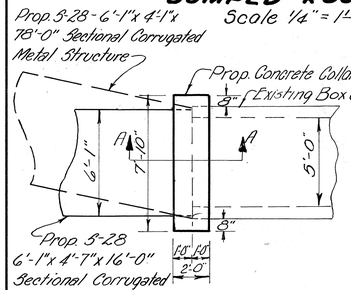
ROSS COUNTY
ROS-23-(15.37)(16.01)



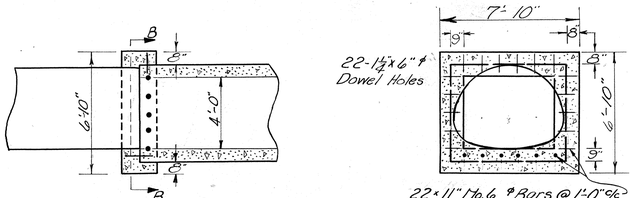
SECTION D-D

SECTION OF PROPOSED DUMPED ROCK FILL

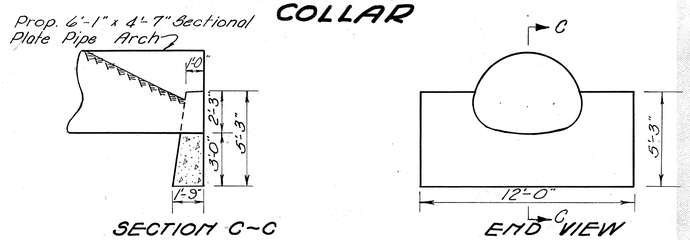
Scale 1/4" = 1'-0"



PLAN

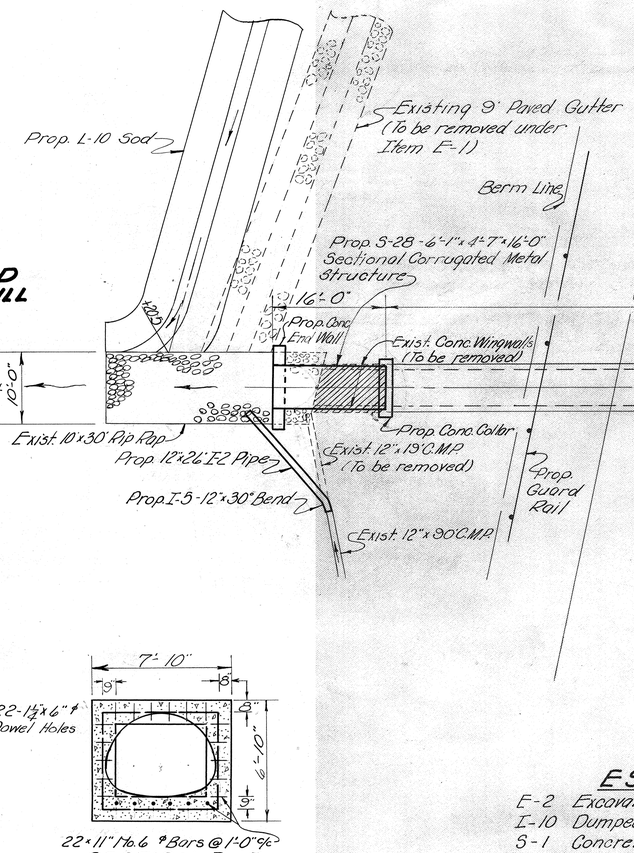


DETAIL OF CONCRETE COLLAR



DETAIL OF PROPOSED END WALLS

Scale 1/4" = 1'-0"



PLAN

Scale 1" = 10'-0"

ESTIMATED QUANTITIES

E-2	Excavation for Structures	11 Cu. Yds.
I-10	Dumped Rock Fill	7 Cu. Yds.
S-1	Concrete for Structures (Class 'E')	10.06 Cu. Yds.
S-4	Reinforcing Steel	31 Lbs.
S-22	Removal of Portions of Existing Structure	Lump
S-23	Dowel Holes (1¼")	11 Lin. Ft.
S-28	6'-1" x 4'-7" Sectional Corrugated Metal Structure (10-10) Gage)	94 Lin. Ft.

WORK REQUIRED

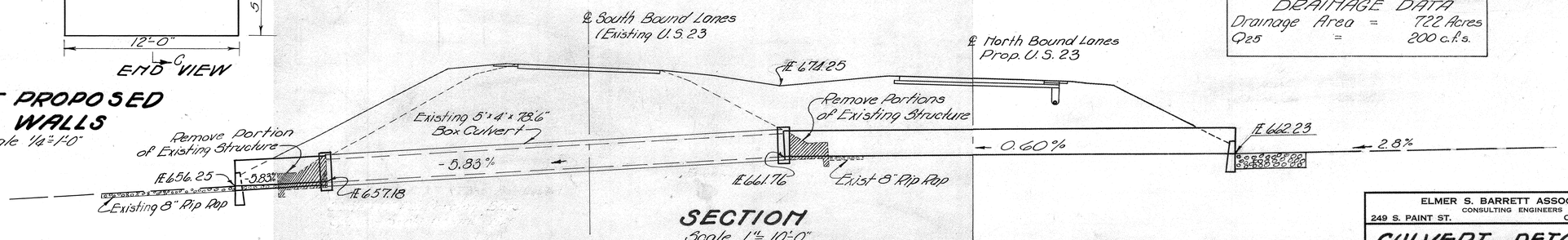
Extend existing 5' x 4' Box Culvert on Right with 78' and on Left with 16' of 6'-1" x 4'-7" Sectional Plate Pipe Arch. Remove portions of the Existing Structure. Build Concrete Collars and dowel them to existing Structure. Build end walls as shown.

EXISTING CULVERT DATA

Type: Box Culvert
Size: 5' x 4' x 78'-6" with wing walls on both ends
Condition: Good

DRAINAGE DATA

Drainage Area	=	722 Acres
Q25	=	200 c.f.s.



SECTION

Scale 1" = 10'-0"

Datum Elevation 640.00

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (11)
STA. 950 + 36

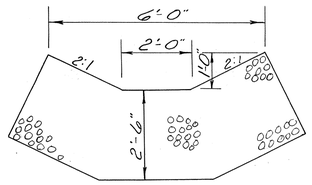
SCALE As Shown DATE Nov. 10, 1955

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.W.G.	P.W.G.	J.E. P.J.M.	S&W			

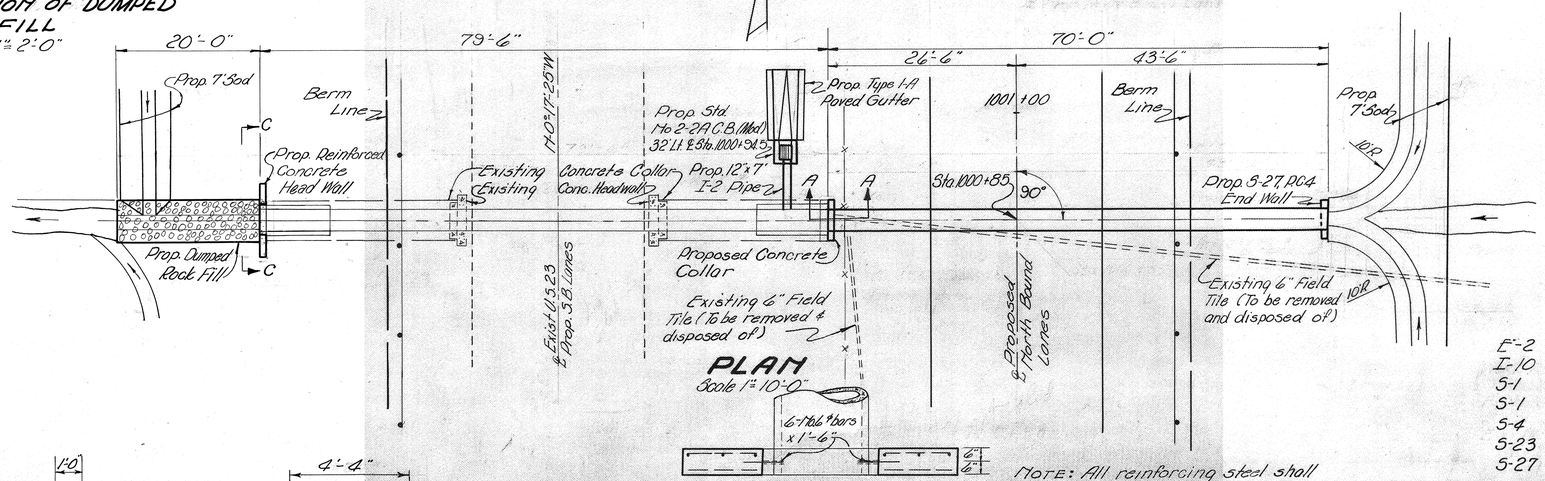
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

141/177

ROSS COUNTY
ROS-23-(15.37)(16.01)



TYPICAL SECTION OF DUMPED ROCK FILL
Scale 1"=2'-0"



PLAN
Scale 1"=10'-0"

SECTION E-E

NOTE: All reinforcing steel shall be 2" clear unless otherwise shown.

ESTIMATED QUANTITIES

E-2	Excavation for Structures	14 cu. yds.
I-10	Dumped Rock Fill	12 Cu. Yds.
S-1	Concrete for Structures (Class "E")	1.04 Cu. Yds.
S-1	Concrete for Structures (Class "C")	1.27 Cu. Yds.
S-4	Reinforcing Steel	77 Lbs.
S-23	Dowel Holes (1¼")	13.5 Lin. Ft.
S-27	36" Pipe for Roadway Culvert	70 Lin. Ft.

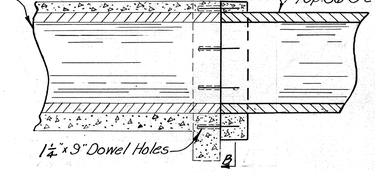
WORK REQUIRED

Extend existing culvert on the right with 36" x 70' S-27 Pipe. Build concrete collar and dowels at connection as shown. Build S-27, P.C.4 End Wall on the right and reinforced concrete Head Wall on the left. Place dumped rock fill as shown.

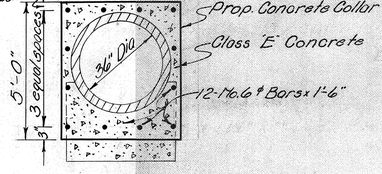
EXISTING CULVERT DATA

Type: V.S.P. encased in concrete with concrete cradles on each end and R.C.P. Pipe.
Size: 36" x 79'-6".
Condition: Good.

DRAINAGE DATA		
Drainage Area	=	32 Acres
Q25	=	25.2 c.f.s.

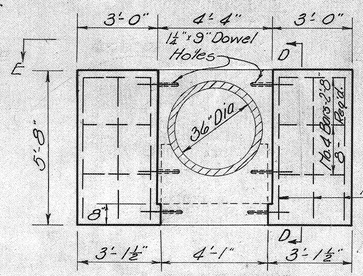


SECTION A-A
Scale 3/8"=1'-0"

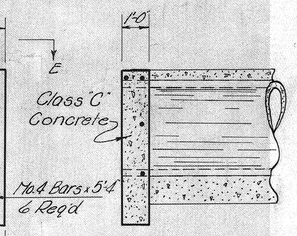


SECTION B-B
Scale 3/8"=1'-0"

(The proposed concrete collar shall be non-performed if the proposed S-27 Pipe fits properly into the Existing 36" V.S.P. (Bell & Spigot) joint



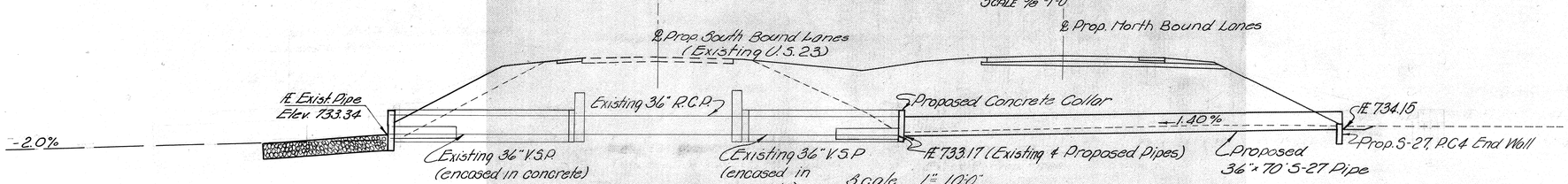
SECTION C-C



SECTION D-D

DETAIL OF PROPOSED CONCRETE HEAD WALL

SCALE 3/8"=1'-0"



Scale 1"=10'0"
SECTION

℄ Datum Elevation 720.00

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

CULVERT DETAIL (12)
STA. 1000+85

SCALE As Shown DATE Sept. 19, 1955

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.W.G.	R.W.G.	J.W.A. P.J.M.	S&W			

ROSS COUNTY
ROS-23-(15.37)(16.01)

PROP. (S.B.) CURVE DATA
P.I. Sta 827+58.10

Δ = 25°-00' Rt.	L = 199.95'
D_a = 2°30'	X_c = 399.70'
L_s = 400.00'	Y_c = 11.63'
T_s = 708.68'	L.T. = 266.77'
E_s = 58.60'	S.T. = 133.43'
θ_s = 5°-00'	Δ_c = 15°00'
P = 2.91'	L_c = 600.00'
R = 2,291.83'	

PROP. (N.B.) CURVE DATA
P.I. Sta 828+14.78

Δ = 23°-22'30" Rt.	L = 199.95'
D_a = 2°-30'	X_c = 399.70'
L_s = 400.00'	Y_c = 11.63'
T_s = 674.65'	L.T. = 266.77'
E_s = 51.49'	S.T. = 133.43'
θ_s = 5°-00'	Δ_c = 13°22'30"
P = 2.91'	L_c = 535.00'
R = 2,291.83'	

NOTE:
All pipes and underdrains with outlets passing through the proposed abutments shall extend 6" beyond the face of the abutments.

EXISTING BRIDGE DATA
Bridge Number: ROS-23-158
Type: Concrete Beam
Span: 31'-6½"
Roadway: 24'+2-2'-6" Sidewalks
Height: 13'-9"
Condition: Substructure and Superstructure good. Railing and Curbs are disintegrating.
Loading: S-15
Disposition: Remove Entire Superstructure and Alter Abutments for Steel Beam Bridge
Effective Waterway: 227 sq ft to Elev. 640.3

PROPOSED EAST BRIDGE DATA
Type: Single Span Steel Beam Utilizing the Existing Abutments.
Span: 35'-9⅜"
Roadway: 44'-0" + Lf of Guard Rail
Loading: C.F. 400
Skew: 35°-00' R.F.
Wearing Surface: 2½" Asphaltic Concrete
Approach Slabs: AS-1-54 (25' Long)
Railing Type: I-15.13

PROPOSED WEST BRIDGE DATA
Type: Single Span Steel Beam
Span: 35'-4½"
Roadway: 44'+Lf of Guard Rail
Loading: C.F.-400
Skew: 34°-00' R.F.
Wearing Course: 1" Monolithic Concrete
Approach Slabs: AS-1-54 (25' Long)
Railing Type: I-15.13

FOUNDATION SOUNDINGS
Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made of the site. This sounding information may be inspected in the Office of the Bureau of Bridges in Columbus, or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

PROPOSED TEMPORARY CONNECTION CURVE DATA
P.I. Sta 836+17.25

Δ = 15°-13'-12" Rt.	T = 122.78'
D_c = 6°-15°	L = 244.85'
R = 916.73'	E = 8.18'

PROP. (N.B.) CURVE DATA
P.I. Sta 837+41.78

Δ = 4°-00' Lt.	T = 222.31'
D_c = 0°-54'	L = 444.44'
R = 6,366.20	E = 3.88'

PROP. (N.B.) CURVE DATA
P.I. Sta 837+49.92

Δ = 5°00' Lt.	T = 230.82'
D_c = 1°05'	L = 461.54'
R = 5288.84'	E = 5.04'

DRAINAGE DATA
Drainage Area = 5.99 Sq. Mi.

SITE PLAN
FOR BRIDGE NO. ROS-23-1583
DRY RUN

ROSS COUNTY — US. 23
SEC. ROS-23-1537 — STA. 834+38.20 (S.B.) STA. 834+85.48 (N.B.)

SCALE: 1" = 20'-0"

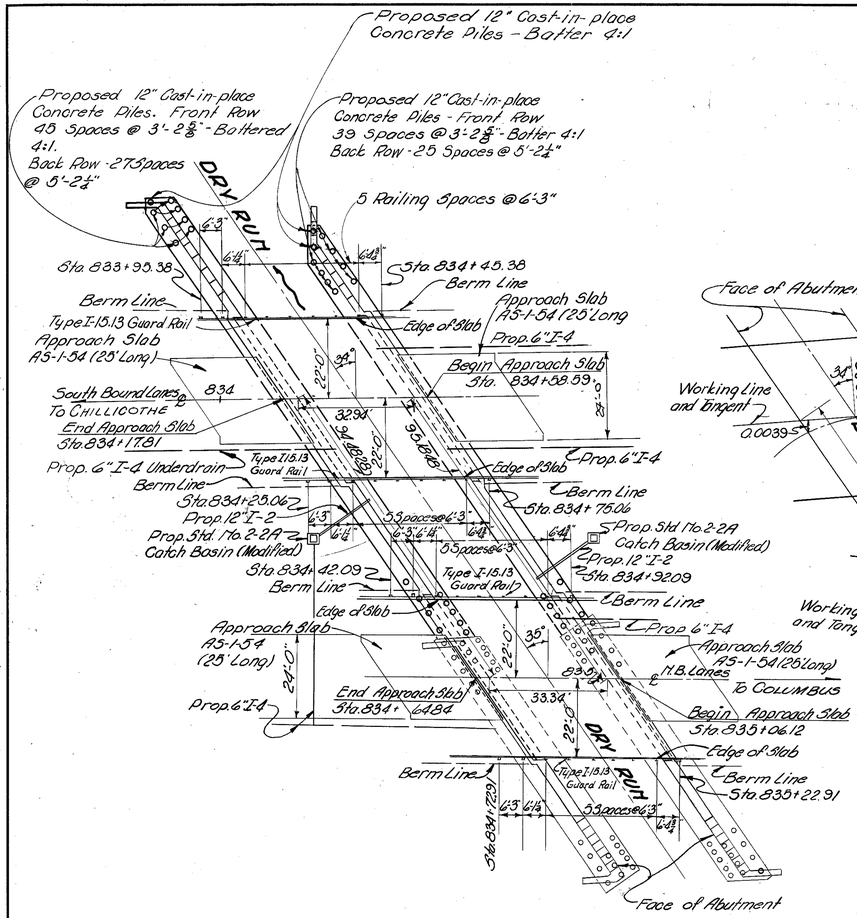
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
R.T.M. R.W.G.	P.J.M.	F.H.S.	F.H.S. P.J.M.	F.H.S.	E.S.B. 5-2-56

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

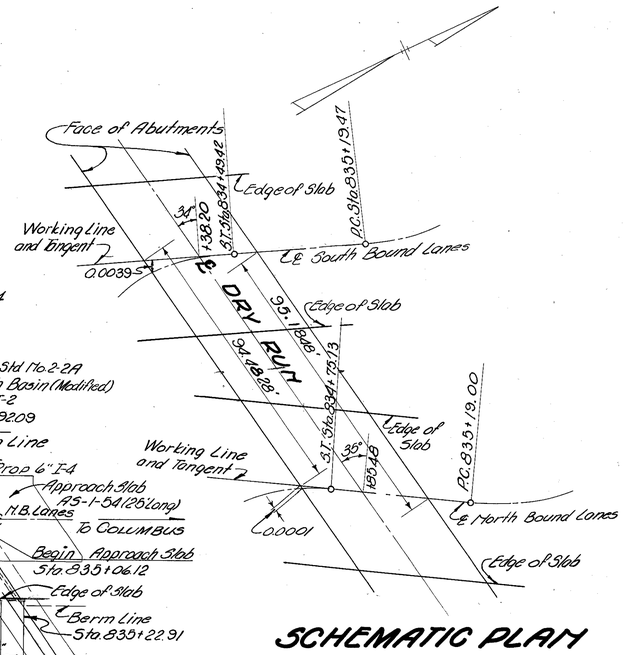
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

143
177

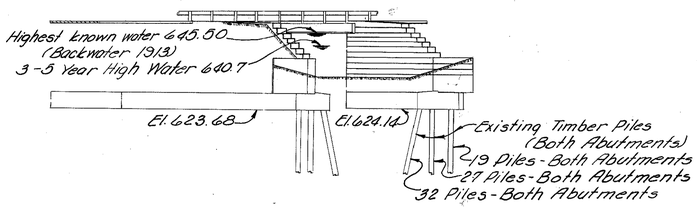
ROSS COUNTY
ROS-23-(15.37)(16.01)



GENERAL PLAN
Scale 1"= 20'-0"



SCHEMATIC PLAN



GENERAL ELEVATION
Scale 1"= 20'-0"

GENERAL NOTES

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structure" of the State of Ohio, Department of Highways, dated 10-1-51, together with revisions thereof dated 7-15-52, 4-1-54 and 2-1-55.

REMOVAL OF EXISTING STRUCTURE: When west bridge is completed and proposed southbound lanes are opened to two-way traffic, the superstructure and portion of abutments of existing bridge shall be removed, as shown in details, and shall become the property of the contractor. Suitable waste masonry may be disposed of as bank protection as directed by the engineer.

GRAVEL, if used as the coarse aggregate, shall be according to Sec. M-3.93 instead of M-3.91 for Class "C" concrete in the superstructure. Gravel meeting the requirements of Sec. M-3.93 also may be used for other concrete in this structure.

WELDING of structural steel shall be Class "A" except as otherwise shown. Any welds shown as field welds may, at the option of the contractor, be made in the shop.

GALVANIZING of all members which are specified to be galvanized shall be as called for in Sec. M-7.4 (d).

SURFACE FINISH OF CONCRETE: Fascia of deck slab for the West Bridge shall receive a rubbed surface finish. All other exposed surfaces shall be governed by the provisions of Item 511.

2½" ASPHALTIC CONCRETE SURFACE COURSE, ITEM 441, laid in two 1½" courses, shall be provided for the East Bridge.

PAINT, both shop and field, shall be applied by brushing. Spray application will not be permitted.

PILES shall be driven to a minimum bearing capacity of 40 tons for the abutments. The length of penetration of every pile shall be of least 80% of the estimated average pay length of the piles in the pertinenent abutment as indicated on the plans unless a lesser penetration is approved by the Director.

POROUS BACKFILL 2 feet thick full length of abutment and wings shall extend up to the underside of the approach slab or to the finished ground surface.

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	ABUTMENT	SUPER	GENERAL	AS BUILT
E-2	Lump Sum	Lump	Cofferdams, Cribs and Sheeting			Lump Sum	
E-2	~~1,017~~	Cu. Yds.	Excavation for Structure, Unclassified				C-1, +24 1,041
511	85	Cu. Yds.	Class "C" Concrete for Superstructure		85		
511	534	Cu. Yds.	Class "E" Concrete for Abutment Walls	534			
511	~~348~~	Cu. Yds.	Class "E" Concrete for Footings	~~348~~			C-2, -12 336
513	197	Sq. Yds.	Type "C" Waterproofing		197		
513	552	Lin. Ft.	Premolded Sealing Strip	552			
514	93,540	Pounds	Reinforcing Steel	74,479	2d,948	113	
515	~~90,100~~	Pounds	Structural Steel		~~90,100~~		C-1, -620 89,480
515	~~90,100~~	Pounds	Field Painting of Structural Steel		~~90,100~~		C-1, -620 89,480
516	80	Sq. Ft.	1" Preformed Expansion Joint Filler	80			
517	164.12	Lin. Ft.	Railing, Type I-15.13 with Galvanized Steel Posts and Bolts		164.12		
518	Lump Sum	Lump	First Test Pile			Lump Sum	
518	~~3150~~	Lin. Ft.	12" Cast-in-place Reinforced Concrete Piles	~~3150~~			C-2, -891 22,590
522	132	Cu. Yds.	Removal of Portions of Existing Structure			132	
523	92	Lin. Ft.	Dowel Holes	92			
529	390	Cu. Yds.	Porous Backfill			390	
F-35	13	Cu. Yds.	2½" Asphaltic Concrete Surface Course, Type "C" (70-80)		13		
Special	55	Lin. Ft.	New Weep Holes in Existing Abutment	55			

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

GENERAL PLAN & ELEVATION
EST. QUANTITIES & GEN. NOTES
FOR BRIDGE NO. ROS-23-1583
DRY RUN

ROSS COUNTY — U.S. 23
SEC. ROS-23-15.37 — STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

SCALE AS SHOWN — DATE

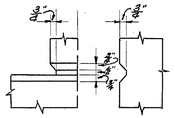
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	R.E.J.	R.E.J. P.J.M.	F.H.S.	C.S.B.	5-2-56	

8-7-58 As Built JEP

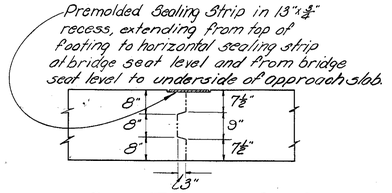
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

144
177

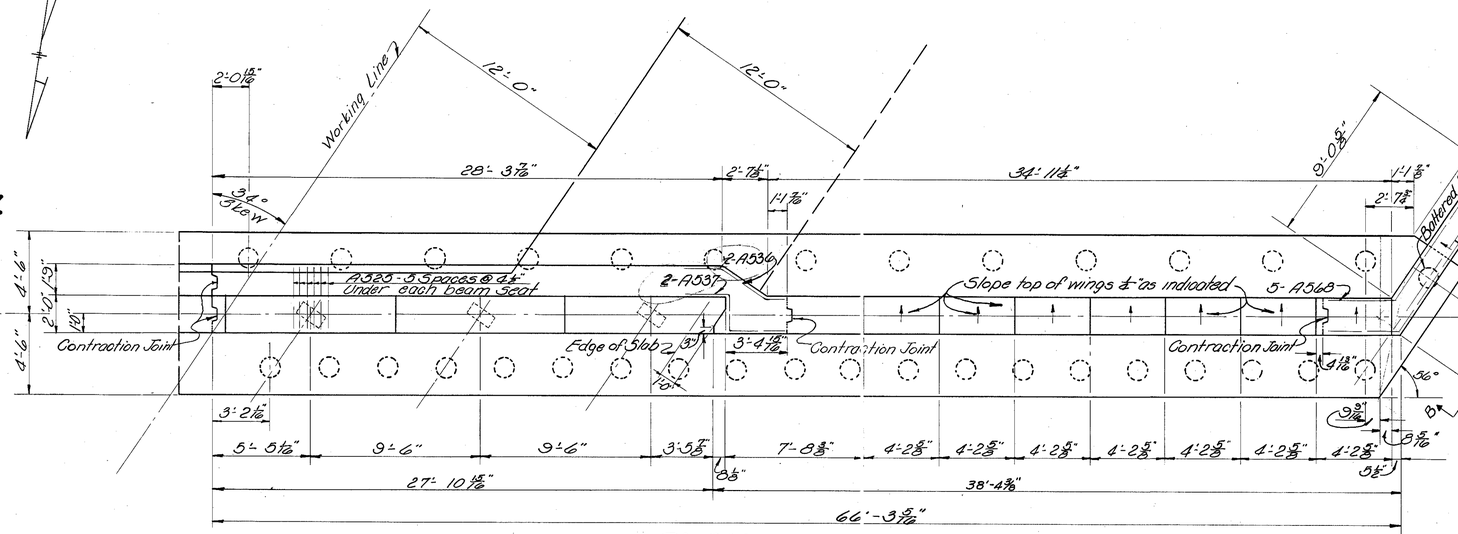
ROSS COUNTY
ROS-23-(15.37)(16.01)



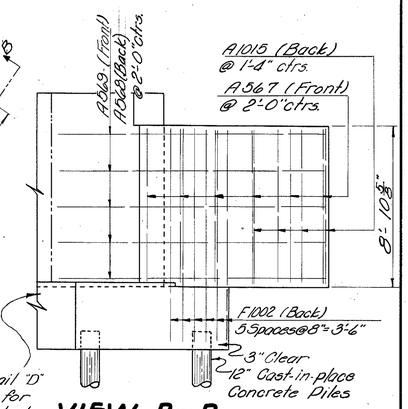
RUSTICATION DETAIL



SECTION C-C
CONTRACTION JOINT DETAIL
Scale ¼"= 1'-0"

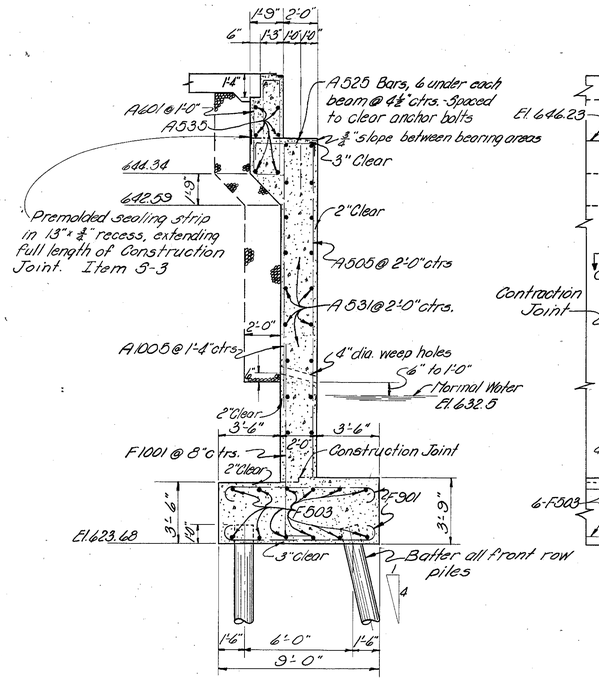


PLAN
WEST SECTION ~ SOUTH ABUTMENT
Scale ¼"= 1'-0"

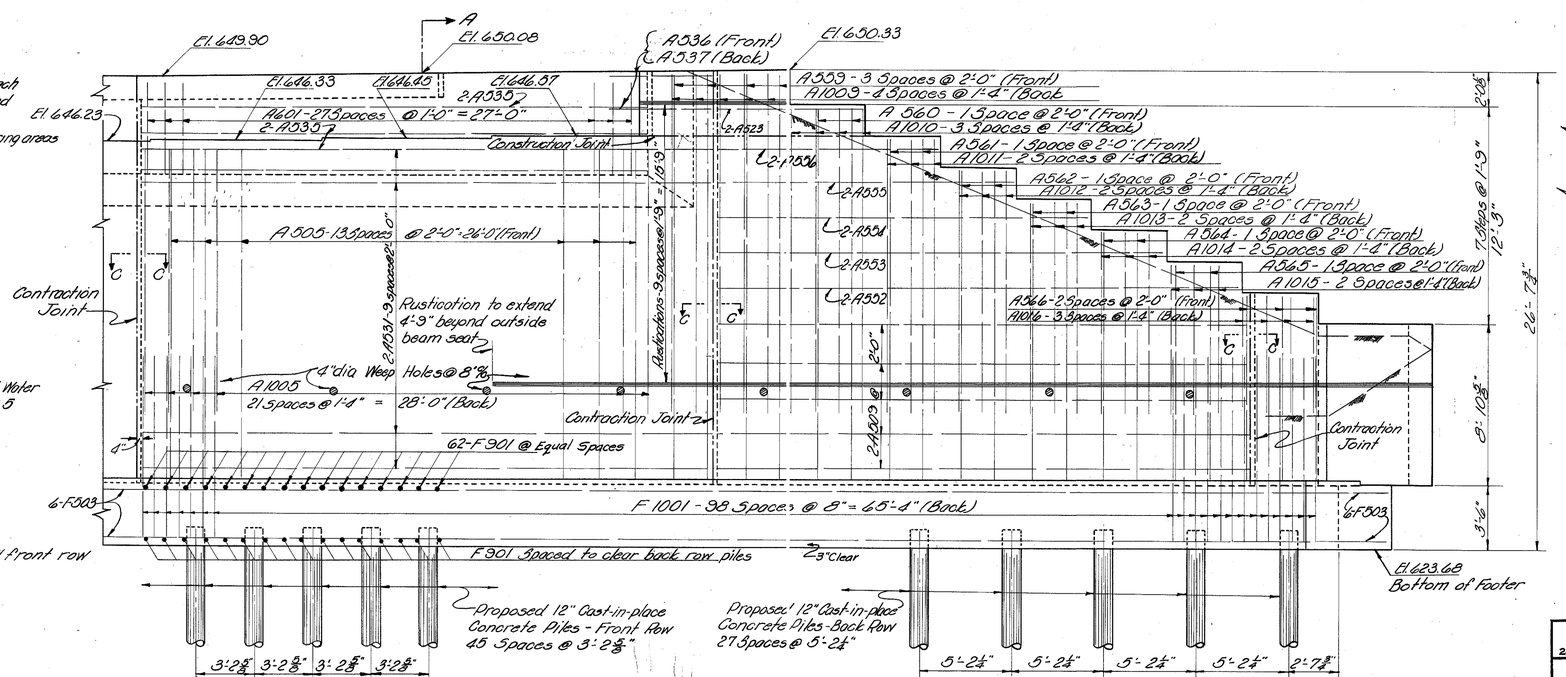


Note:
See Detail "D" on this sheet for reinforcing steel in west end of footer

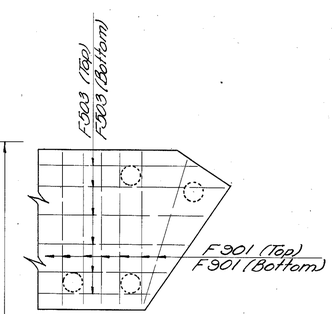
VIEW B-B



SECTION A-A



ELEVATION
WEST SECTION ~ SOUTH ABUTMENT
Scale ¼"= 1'-0"



DETAIL "D"
PLAN VIEW
WEST END OF FOOTER

More:
Reinforcing steel shall be 2" clear except where otherwise shown.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS
FOR BRIDGE NO. ROS-23-1583
OVER DRY RUN
ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)
SCALE 1/4" = 1'-0" DATE

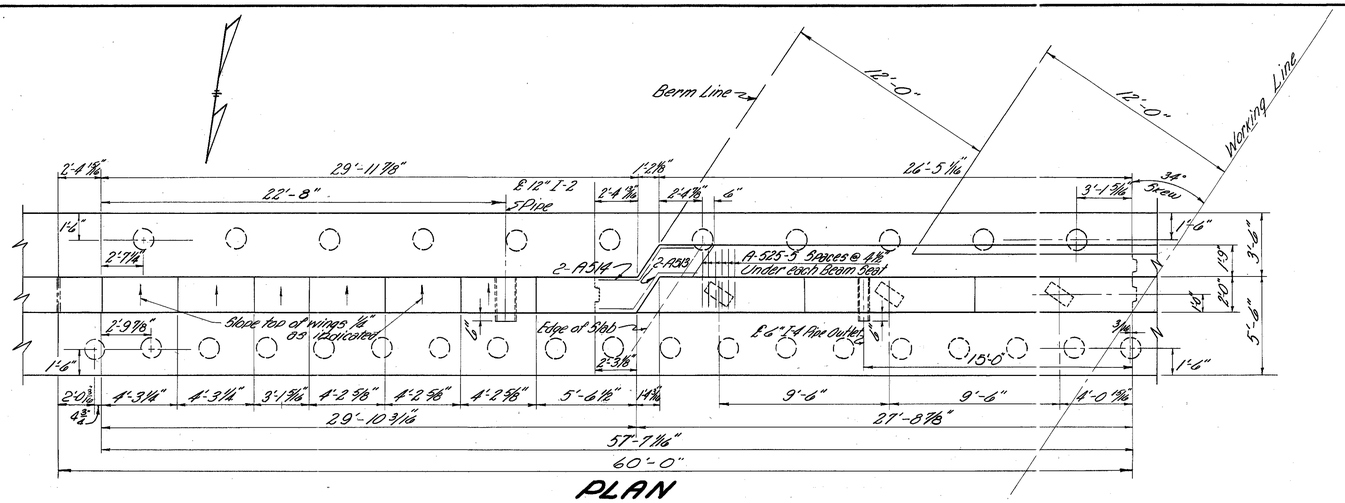
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D	F.H.S. P.J.M.	P.J.M.	W.K.	[illegible]	5-1-56	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

145
177

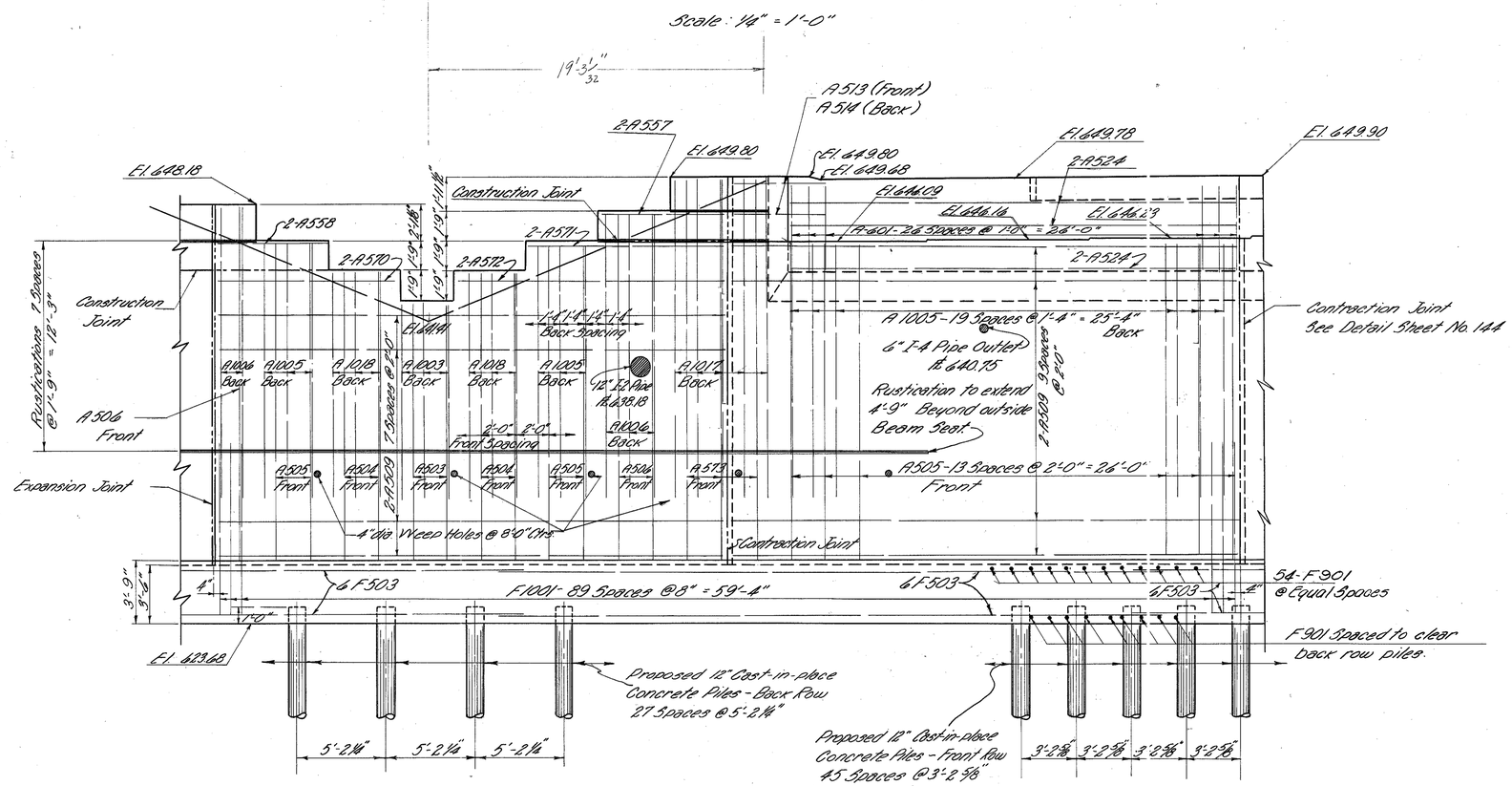
ROSS COUNTY
ROS-23-(15.37)(16.01)

NOTE:
Reinforcing Steel shall be 2" clear except where otherwise shown.



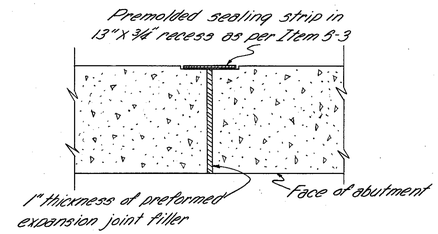
PLAN
CENTER SECTION — SOUTH ABUTMENT

Scale: 1/4" = 1'-0"



ELEVATION
CENTER SECTION — SOUTH ABUTMENT

Scale: 1/4" = 1'-0"



SECTIONAL PLAN OF EXPANSION JOINT

Scale: 3/4" = 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS

FOR BRIDGE NO. ROS-23-1583
OVER **DRY RUN**

ROSS COUNTY — U.S. 23
SEC. ROS-23-15.37 — STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

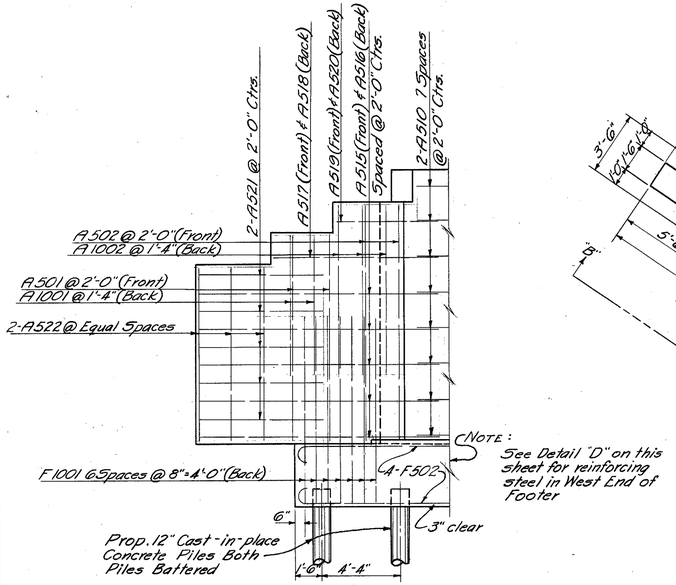
SCALE 1/4" = 1'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D	K.D.D. D.J.M.	J.E.	W.K.	E.S.B.	5-2-56	

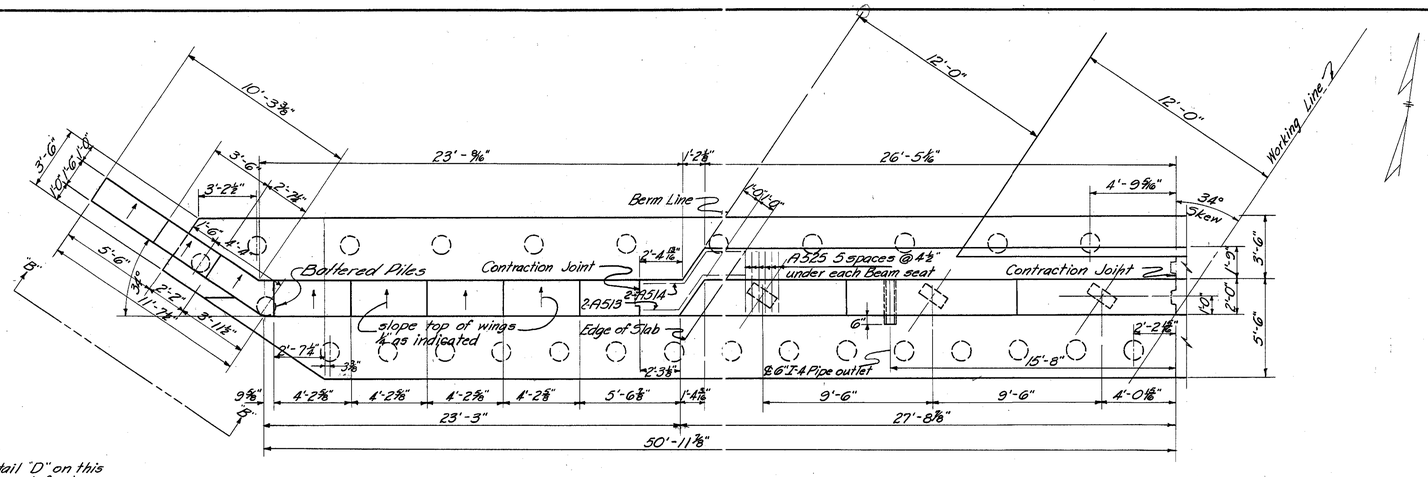
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

147
177

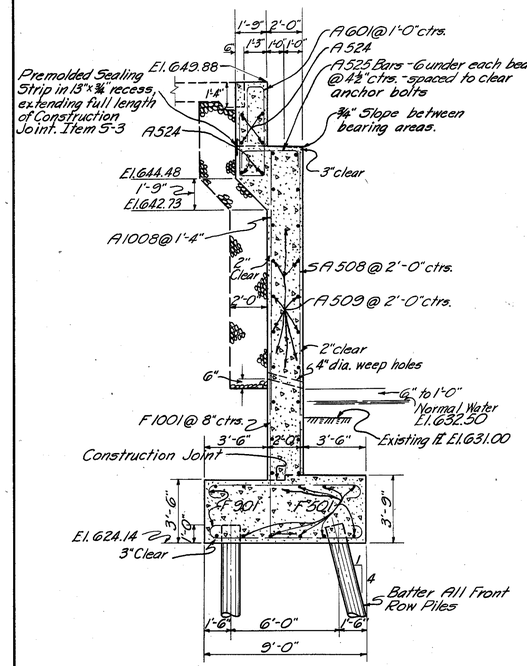
ROSS COUNTY
ROS-23-(15.37)(16.01)



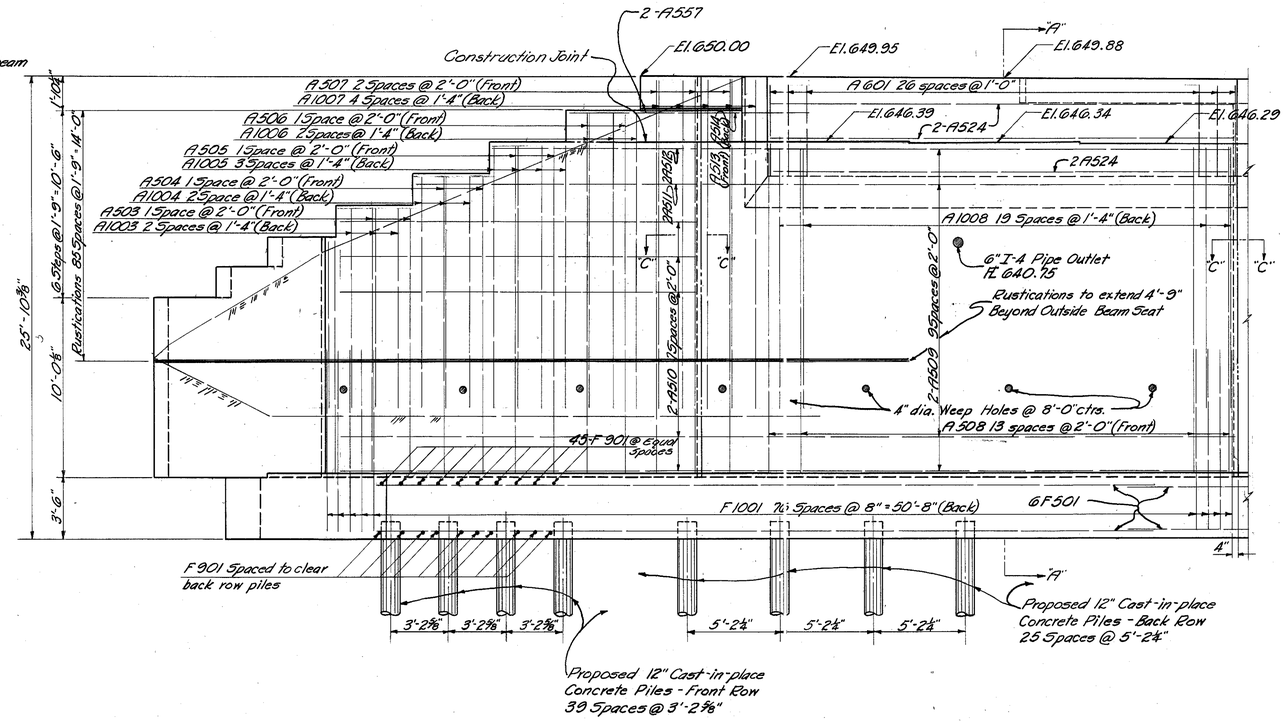
SECTION B-B



PLAN
WEST SECTION - NORTH ABUTMENT
Scale 1/4" = 1'-0"

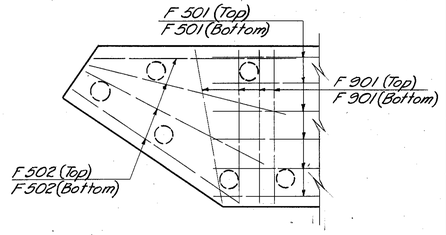


SECTION A-A



ELEVATION
WEST SECTION - NORTH ABUTMENT
Scale 1/4" = 1'-0"

NOTE:
For Contraction Joint Detail - Section "C"-"C" See Sheet No 144
All Reinforcing Steel to be 2" Clear except where otherwise shown



DETAIL "D"
PLAN VIEW WEST END OF FOOTER

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS.
FOR BRIDGE NO. ROS-23-1583
DRY RUN

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

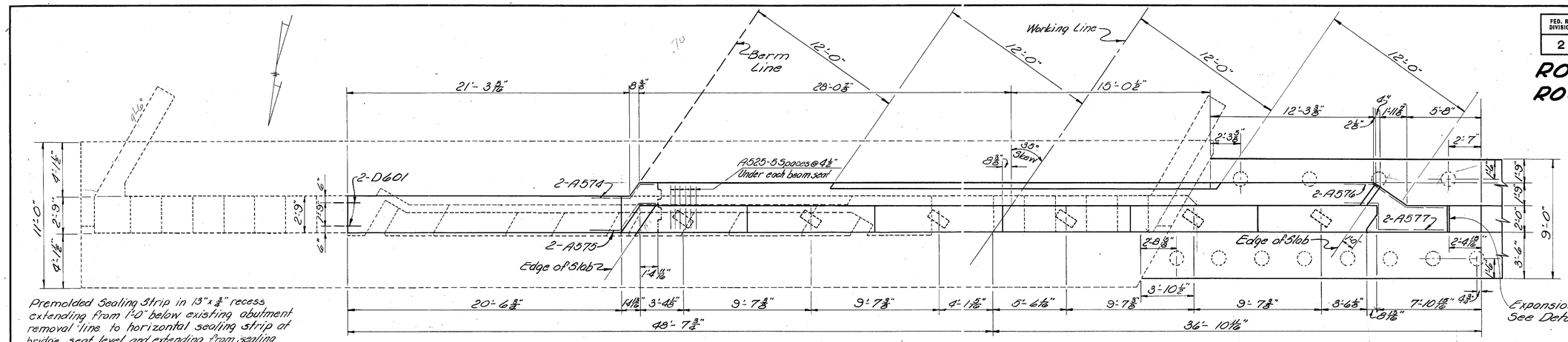
SCALE 1/4" = 1'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D.	K.D.D. P.J.M.	P.T.M. R.O.	WK		5-2-56	

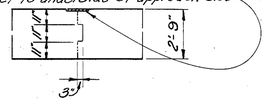
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

146
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



Premolded Sealing Strip in 13"x 3/4" recess extending from 1'-0" below existing abutment removal line to horizontal sealing strip at bridge seat level and extending from sealing strip at bridge seat level to underside of approach slab.

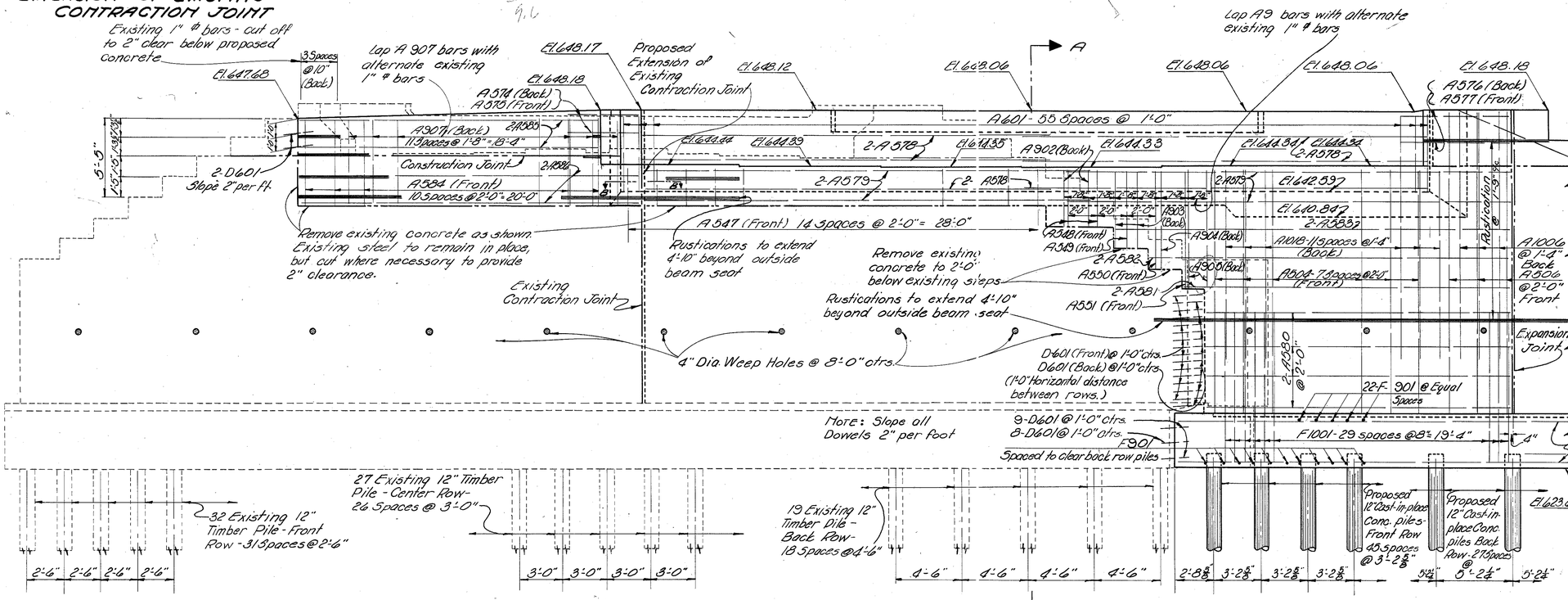


SECTION B-B
EXTENSION OF EXISTING CONTRACTION JOINT

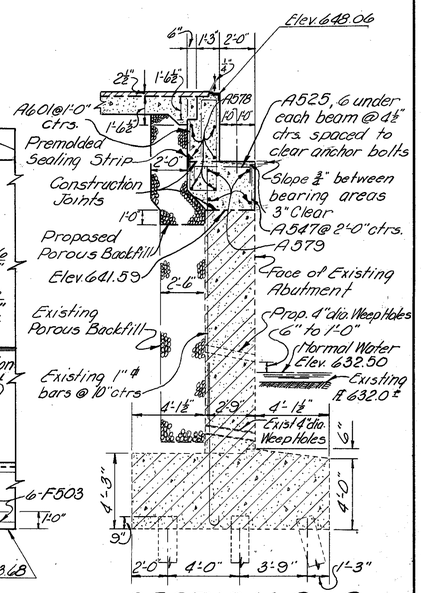
PLAN
EAST SECTION - SOUTH ABUTMENT
Scale 1/4" = 1'-0"

NOTE

Reinforcing Steel to be 2" clear except where otherwise shown.



ELEVATION
EAST SECTION - SOUTH ABUTMENT
Scale 1/4" = 1'-0"



SECTION A-A

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS
FOR BRIDGE NO. ROS-23-1583
OVER **DRY RUN**

ROSS COUNTY — U.S.23
SEC. ROS-23-15.37
STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

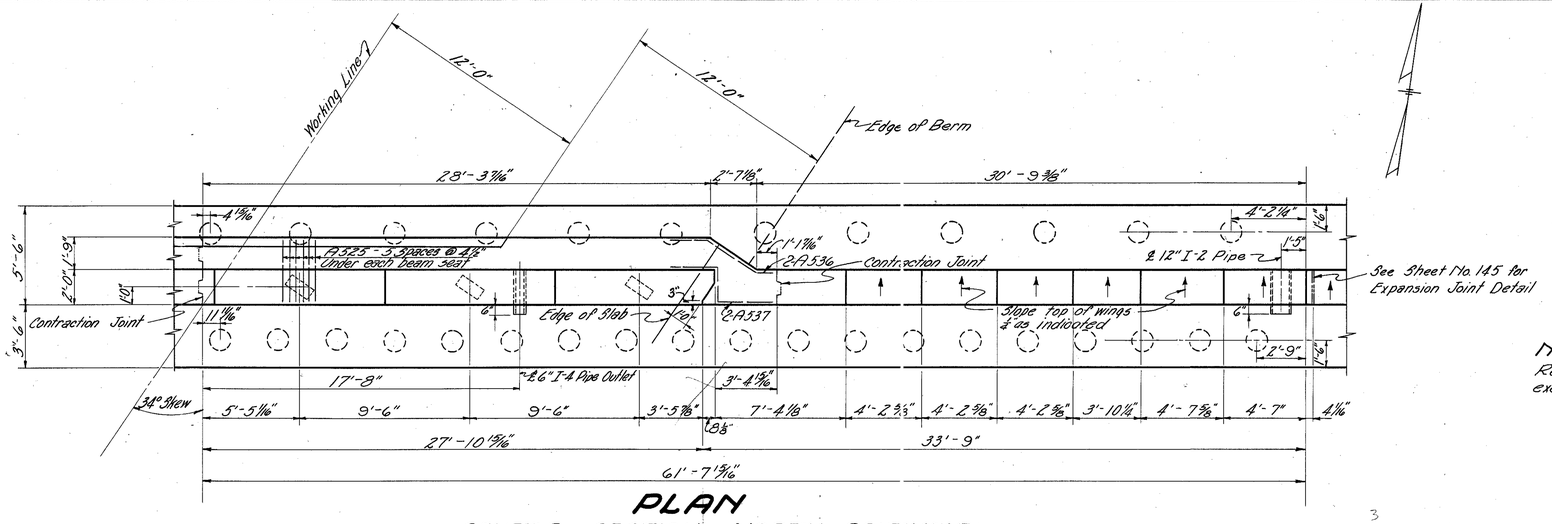
SCALE 1/4" = 1'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D	F.H.S. P.J.M.	P.J.M.	W.K.	E.S.B.	5-2-56	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

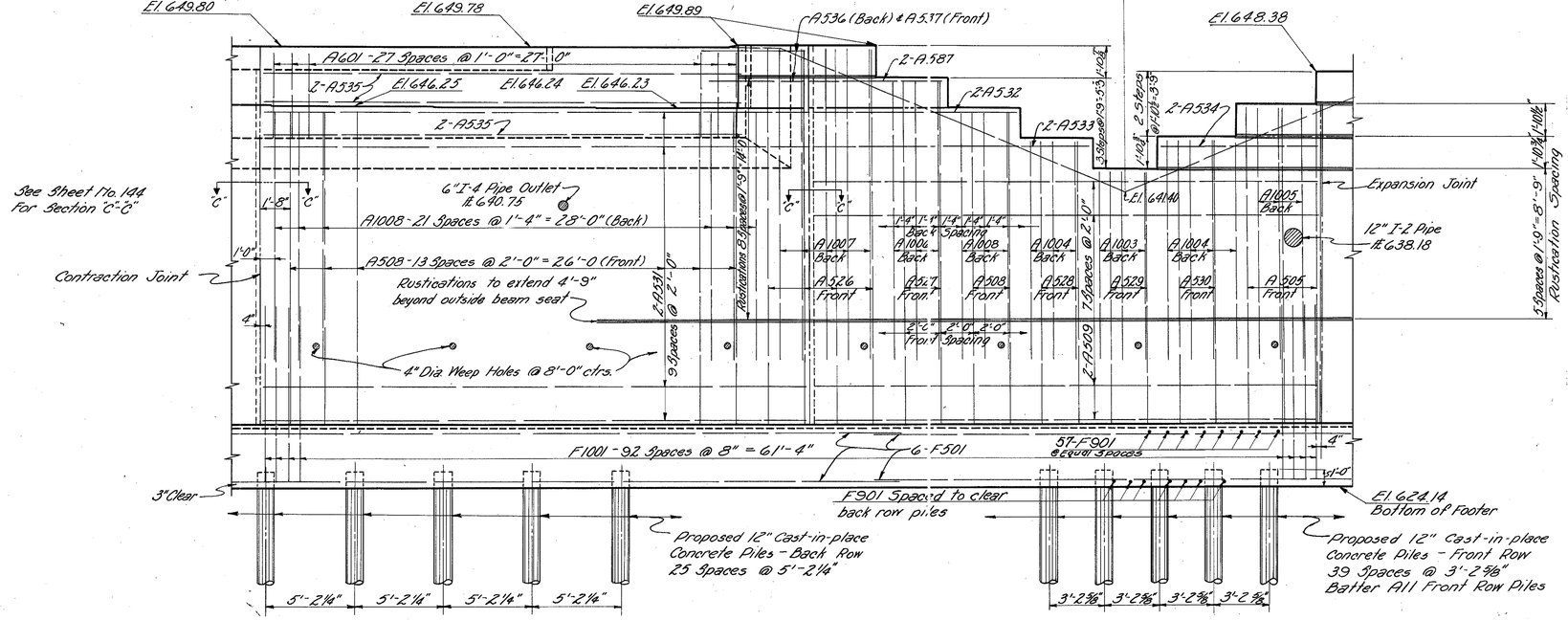
148
177

ROSS COUNTY
ROS-23-15.37 (16.01)



PLAN
CENTER SECTION - NORTH ABUTMENT
SCALE 1/4" = 1'-0"

NOTE:
Reinforcing Steel shall be 2" clear except where otherwise shown.



ELEVATION
CENTER SECTION - NORTH ABUTMENT
SCALE 1/4" = 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS
FOR BRIDGE NO. ROS - 23 - 1583
OVER DRY RUN

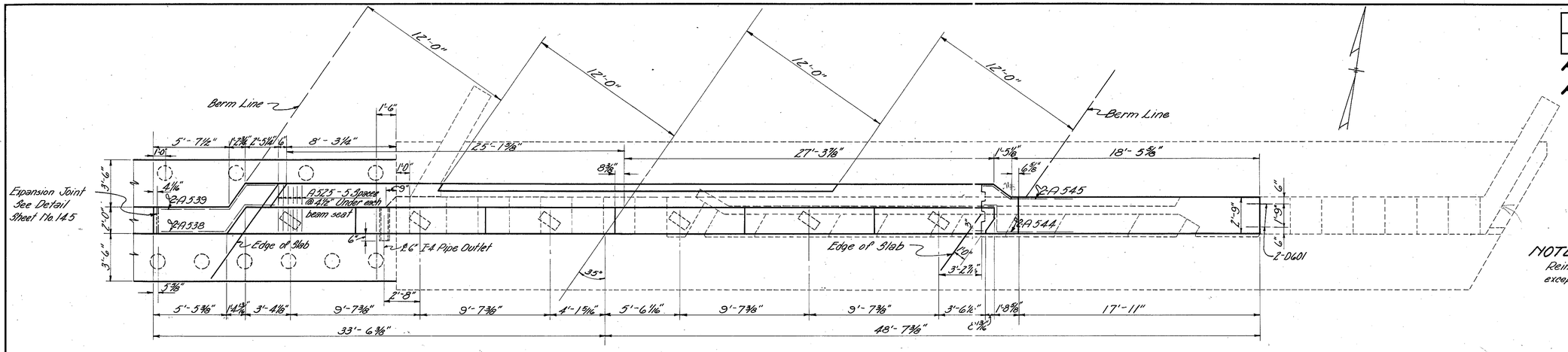
ROSS COUNTY U. S. 23
SEC. ROS - 23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)
SCALE 1/4" = 1' - 0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D.	K.D.D. R.J.M.	W.D.J.	W.M.	E.S.B.	5-2-56	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

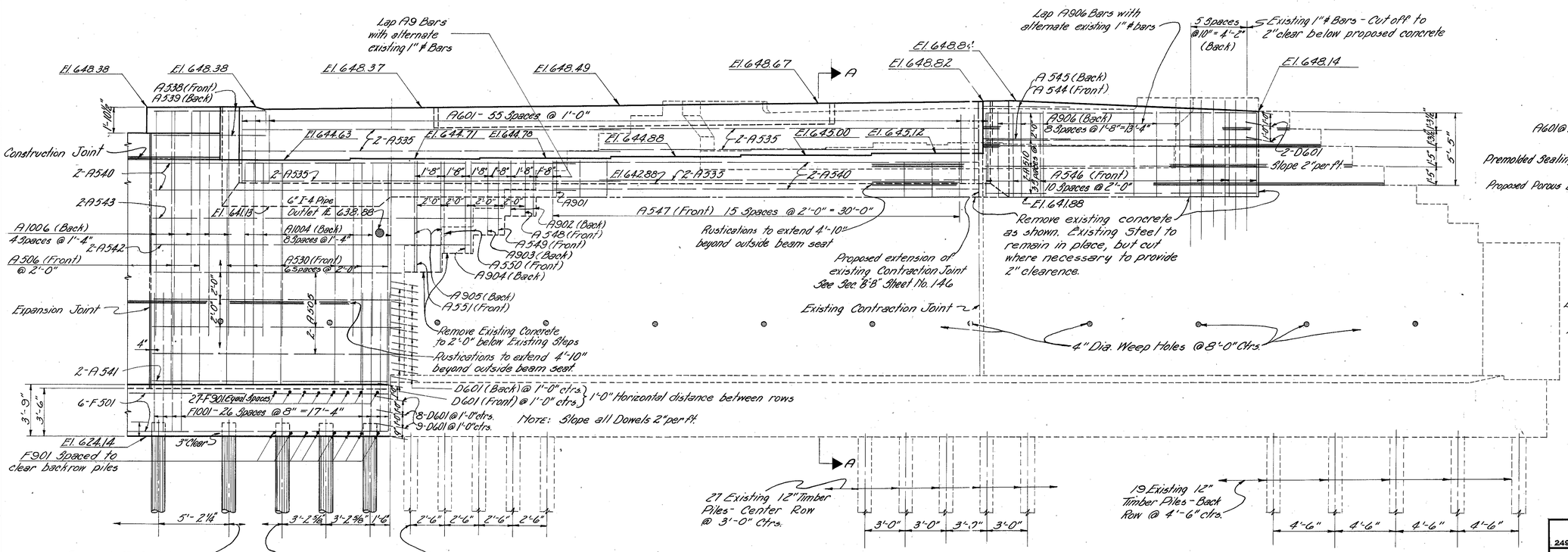
149
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

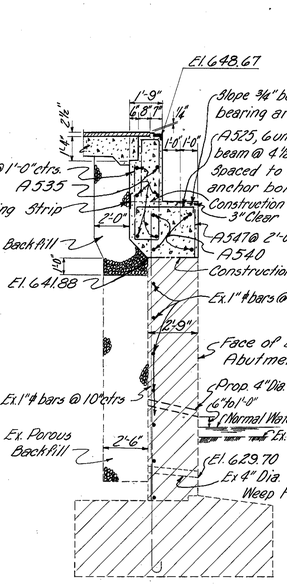


NOTE:
Reinforcing Steel shall be 2" clear except where otherwise shown

PLAN
EAST SECTION - NORTH ABUTMENT
SCALE ¼" = 1'-0"



ELEVATION
EAST SECTION - NORTH ABUTMENT
SCALE ¼" = 1'-0"



SECTION - A-A
SCALE ¼" = 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS
FOR BRIDGE NO. ROS-23-1583
DRY RUN

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

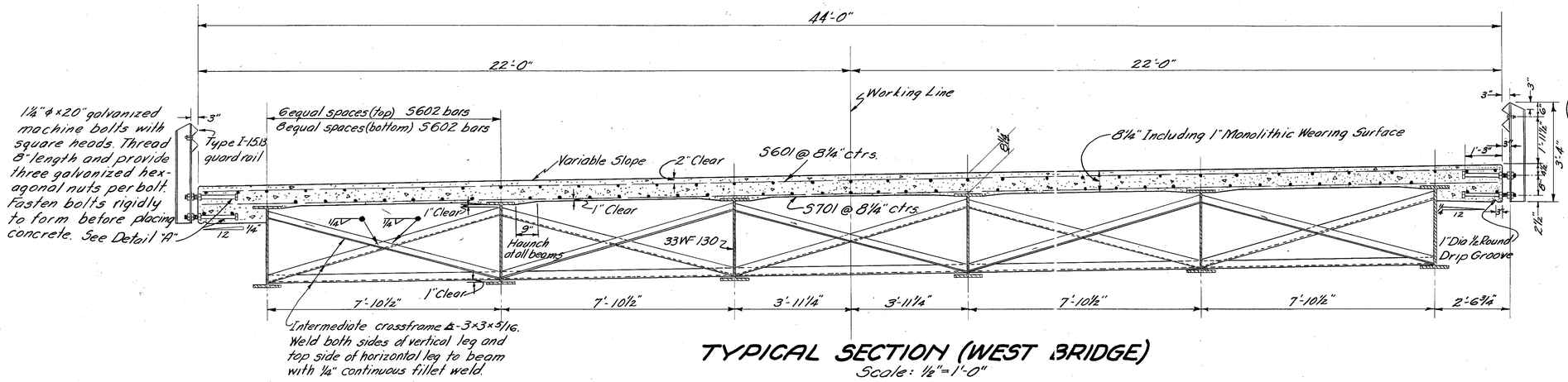
SCALE 1/4" = 1'-0" DATE.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D.	K.D.D. P.J.M.	W.D.J.	M.K.	C.M.S.	5-2-56	

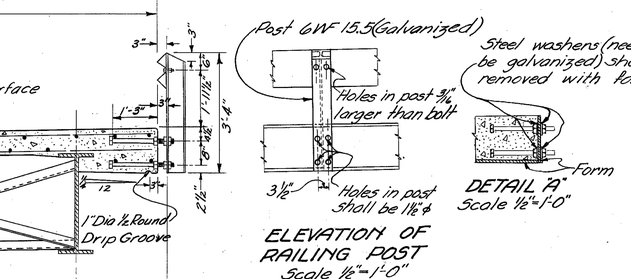
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

150
177

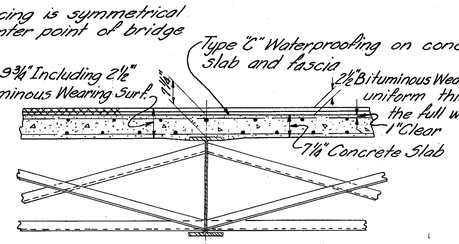
ROSS COUNTY
ROS-23-(15.37)(16.01)



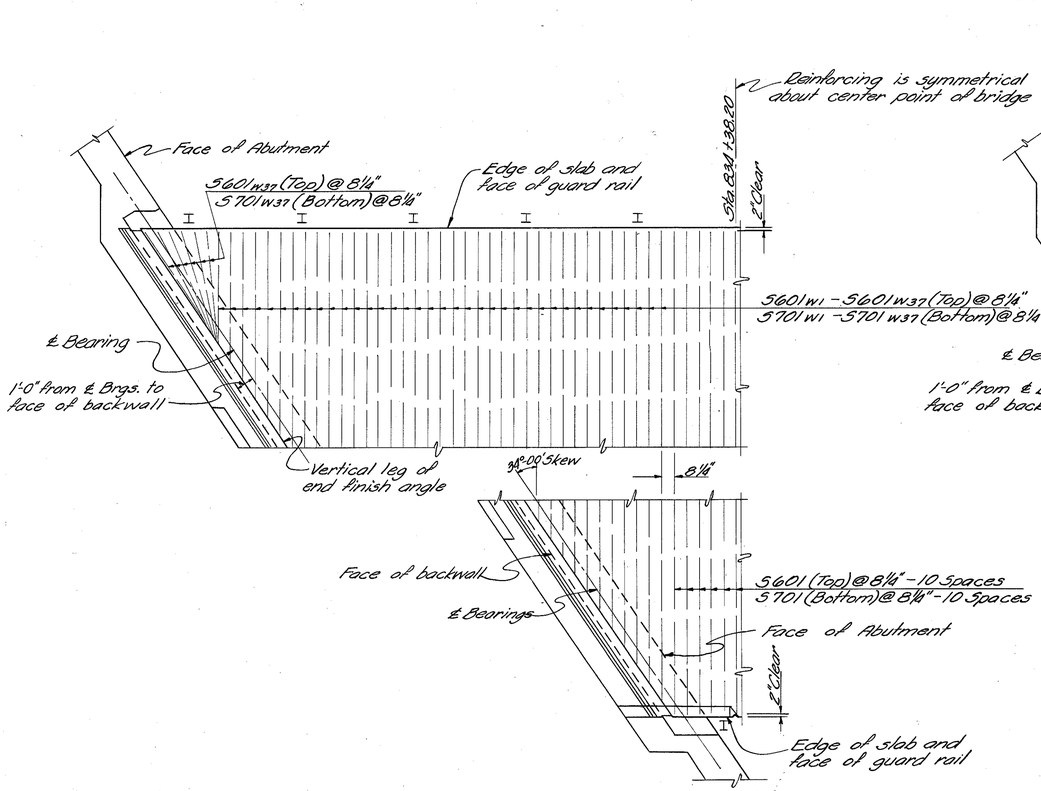
TYPICAL SECTION (WEST BRIDGE)
Scale: ½"=1'-0"



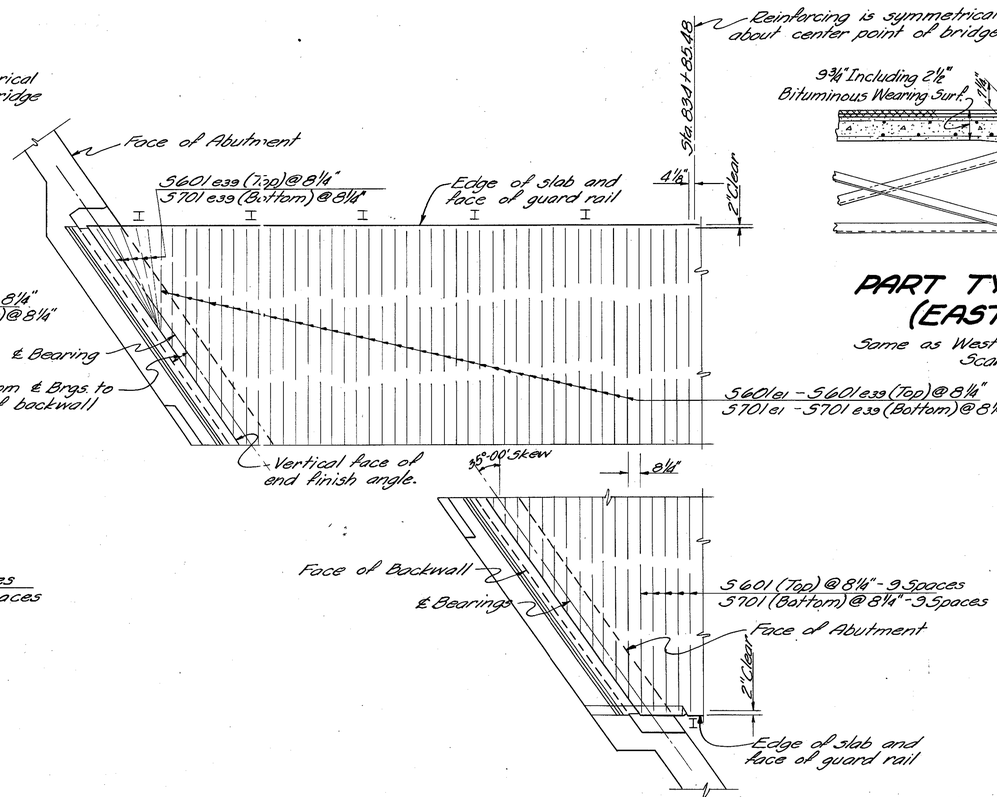
ELEVATION OF RAILING POST
Scale ½"=1'-0"



PART TYPICAL SECTION (EAST BRIDGE)
Same as West Bridge except as shown
Scale: ½"=1'-0"



SLAB REINFORCING STEEL PLAN (WEST BRIDGE)
Scale: 1/8"=1'-0"



SLAB REINFORCING STEEL PLAN (EAST BRIDGE)
Scale: 1/8"=1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS
FOR BRIDGE NO. ROS-23-1538.
DRY RUN

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

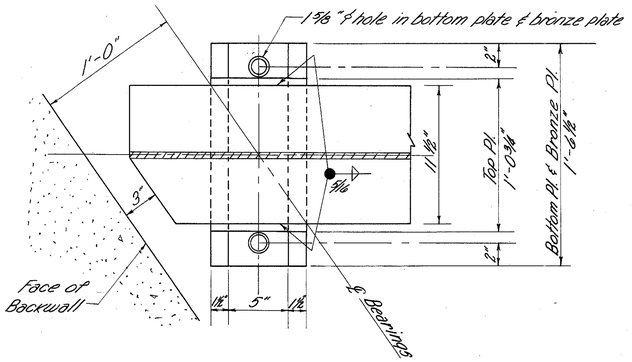
SCALE AS SHOWN DATE

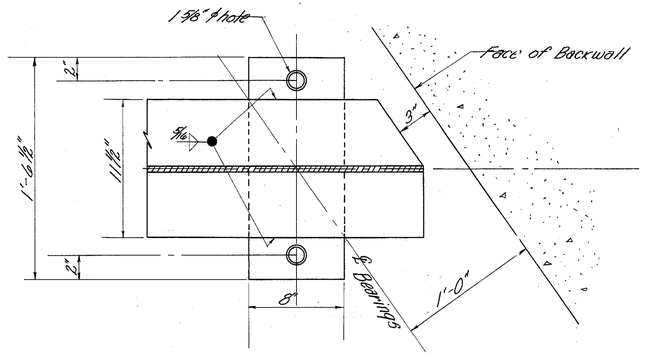
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	D.R.F.H.S. R.E.J.	R.E.J. G.A.H.	F.H.S.	C.R.S.	5-2-56	

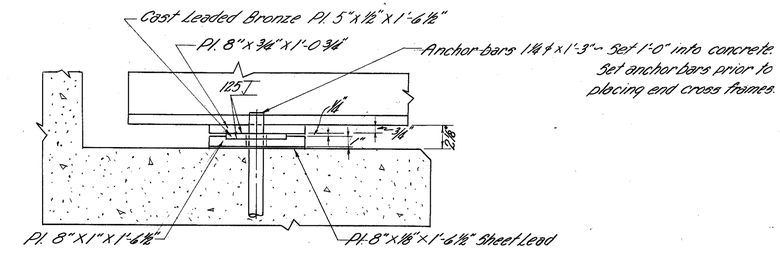
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

151/177

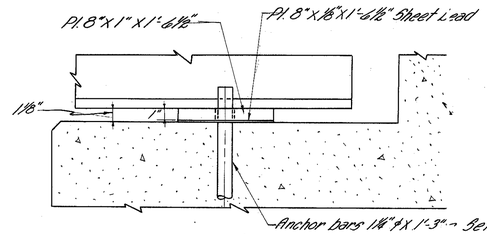
ROSS COUNTY
ROS-23-(15.37)(16.01)





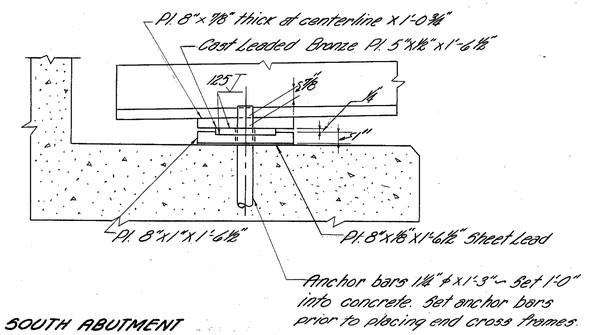


SOUTH ABUTMENT (EXPANSION)

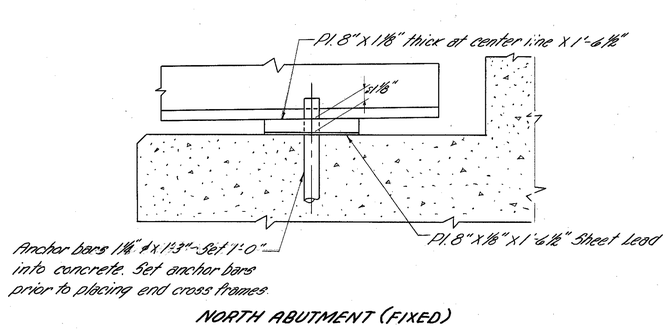


NORTH ABUTMENT (FIXED)

BEARING PLATES



SOUTH ABUTMENT (EXPANSION)



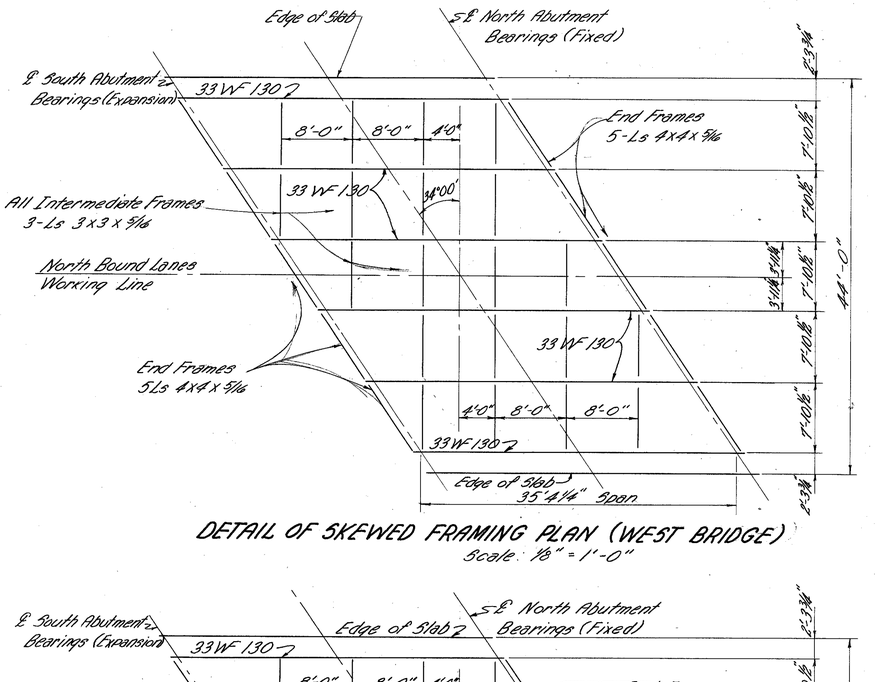
NORTH ABUTMENT (FIXED)

BEVELED BEARING PLATES

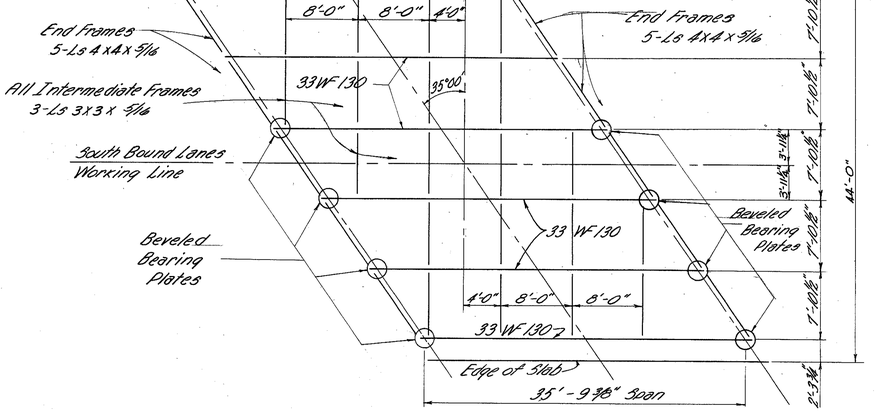
ABUTMENT BEARING PLATES

Scale: 2" = 1'-0"

NOTE: See Steel Framing Plans this sheet for location of beveled bearing plates.



DETAIL OF SKEWED FRAMING PLAN (WEST BRIDGE)
Scale: 1/8" = 1'-0"



DETAIL OF SKEWED FRAMING PLAN (EAST BRIDGE)
Scale: 1/8" = 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS

FOR BRIDGE NO. ROS-23-1583
OVER DRY RUN

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

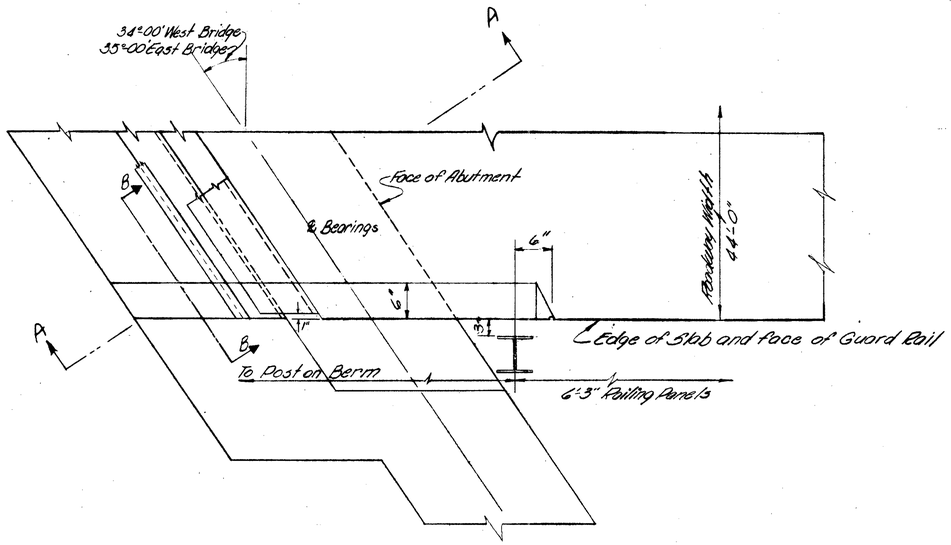
SCALE AS SHOWN DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	R.E.J. F.H.S.	J.C.E.	F.H.S.	C.S.B.	5-2-56	

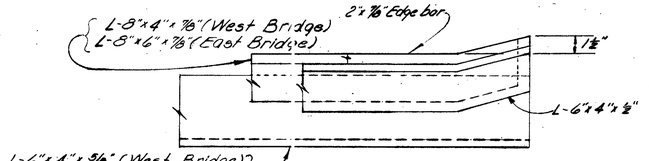
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

152
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

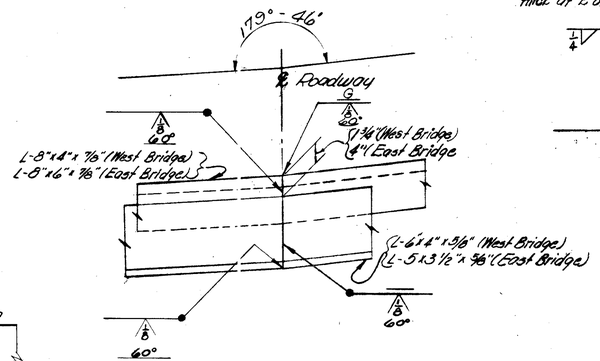


PART PLAN AT ABUTMENT
Scale 1"= 1'-0"

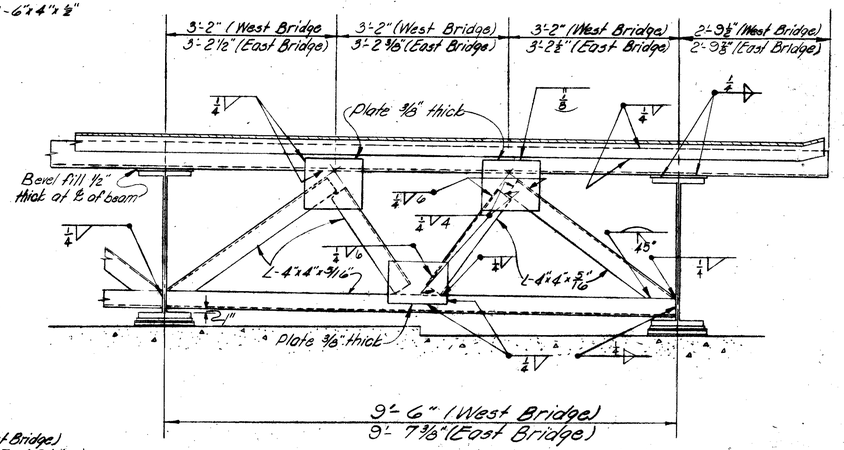


SECTION B~B
Scale 2"= 1'-0"

Angle of End Finish at both ends of both bridges



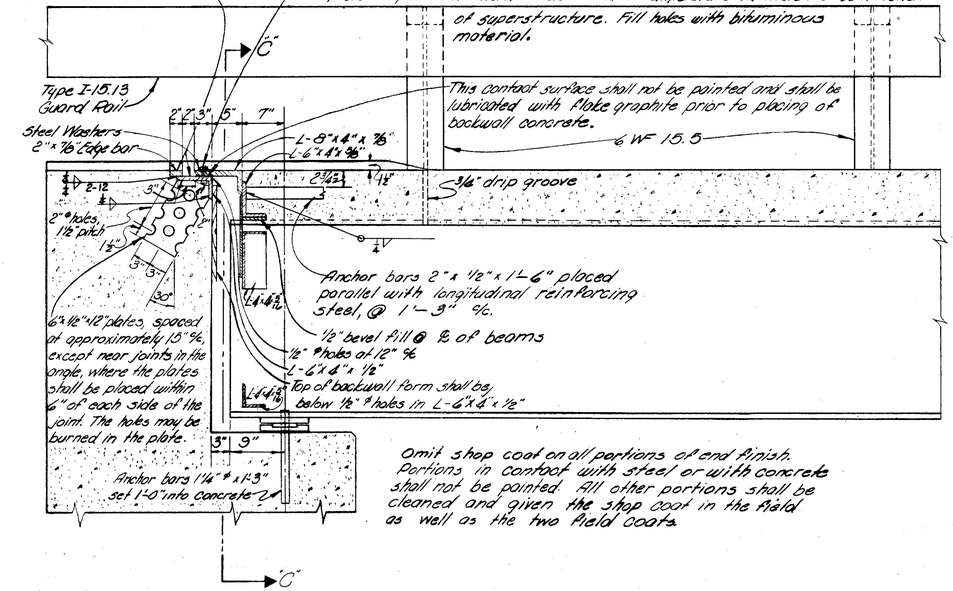
WELDED BUTT JOINT IN SUPERSTRUCTURE
END FINISH ANGLES AT ℄ OF ROADWAY
Scale 2"= 1'-0"



SECTION "C"~"C"
Scale 3/4" = 1'-0"

Provide a joint in the edge bar and in the angle on the center line of the roadway. Additional joints may be provided in them at a minimum spacing of 6'-0". (Joints shall not be welded)

5/8" x 2" bolts of not more than 2'-0" ℄ with nuts tack-welded to under side of lower angle. 1" holes in upper angle. Center 5/8" bolts in 1" holes. Apply Plate graphite between washers and angle. Turn bolt tight and release one-half turn. Remove bolts as soon as concrete has been reasonably set, preferably within two hours, to avoid effect of temperature expansion or contraction of superstructure. Fill holes with bituminous material.

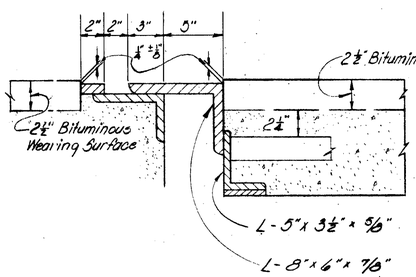


Omit shop coat on all portions of end finish. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.

SECTION A~A
FOR MONOLITHIC WEARING SURFACE
WEST BRIDGE
Scale 1"= 1'-0"

NOTES

END FINISH shall be steel. A welded butt joint in the end finish, at the centerline of roadway, will be required for that portion of the end finish attached to the superstructure. The portion attached to the backwall shall be placed in segments which shall be closely butted, with one of the joints at the point of crown, but shall not be welded. Joints will be required at contraction joints.



Note:
All dimensions and details are the same as SECTION A-A for monolithic wearing surface, except as shown.

DETAIL SHOWING ROADWAY END FINISH
FOR BITUMINOUS WEARING SURFACE
EAST BRIDGE
Scale 2"= 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS
FOR BRIDGE NO. ROS-23-1583
OVER DRY RUN

ROSS COUNTY — U.S.23
SEC. ROS-23-15.37 — STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)

SCALE As Shown — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	P.J.M.	Photo	F.H.S.	[illegible]	5-1-56	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

153 / 177

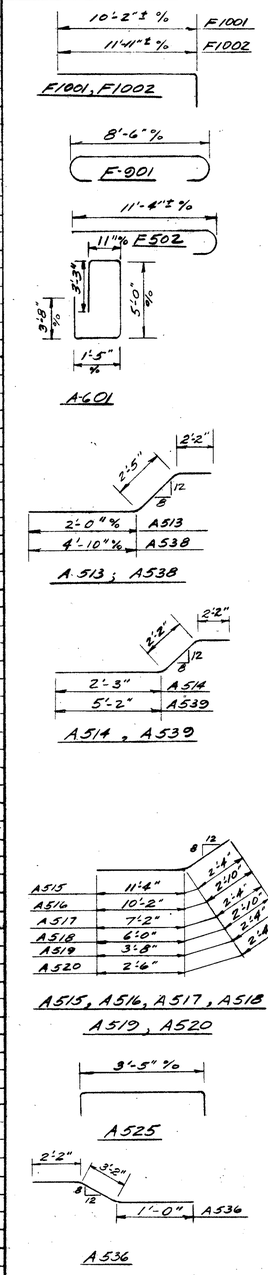
ROSS COUNTY
ROS-23-(15.37)(16.01)

REINFORCING STEEL LIST

Bar Number	Total No. Req'd	Number Required-South Abutment West Sect.	Center Sect.	East Sect.	Number Required-North Abutment West Sect.	Center Sect.	East Sect.	Shape	Length	Weight
F-1001	423	99	90	30	84	93	27	Bent	11'-3"	20,477
F-1002	6	6						Bent	13'-0"	336
F-301	514	128	108	44	90	114	34	Bent	11'-0"	19,224
F-501	36				36 Req'd. for Entire N. Abut. Footer			Str.	43'-7"	1,636
F-502	8				8			Bent	11'-11"	99
F-503	48	48 Req'd For Entire S. Abut. Footer						Str.	38'-9"	1,940
A1001	2				2			Str.	7'-9"	67
A1002	3				3			Str.	9'-6"	123
A1003	9		3		3	3		Str.	11'-4"	439
A1004	19				3	7	9	Str.	13'-0"	1,063
A1005	55	22	26		4	3		Str.	14'-10"	3,511
A1006	19		5	3	3	3	5	Str.	16'-7"	1,356
A1007	10				5	5		Str.	18'-4"	789
A1008	45				20	25		Str.	14'-7"	2,824
A1009	5	5						Str.	19'-1"	411
A1010	4	4						Str.	17'-2"	295
A1011	3	3						Str.	15'-5"	199
A1012	3	3						Str.	13'-8"	176
A1013	3	3						Str.	11'-11"	154
A1014	3	3						Str.	10'-2"	131
A1015	7	7						Str.	8'-3"	254
A1016	4	4						Str.	6'-8"	115
A1017	5		5					Str.	18'-7"	400
A1018	18		6	12				Str.	19'-2"	1020
A901	1						1	Str.	2'-6"	9
A902	4			2			2	Str.	3'-11"	53
A903	3			2			1	Str.	5'-4"	54
A904	2			1			1	Str.	6'-9"	46
A905	4			2			2	Str.	8'-2"	111
A906	9						9	Str.	6'-3"	191
A907	12			12				Str.	5'-11"	241
A601	222	28	27	56	27	28	56	Bent	13'-8"	4557
A501	2				2			Str.	11'-3"	24
A502	2				2			Str.	13'-2"	27
A503	4		2		2			Str.	14'-11"	62
A504	14		4	8	2			Str.	16'-8"	243
A505	45	14	18		2	3	8	Str.	18'-5"	864
A506	10		3	3	2		2	Str.	20'-2"	210
A507	3				3			Str.	21'-11"	69
A508	30				14	16		Str.	18'-1"	566
A509	82	10	36		20	16		Str.	29'-8"	2,537
A510	24				16		8	Str.	20'-0"	501
A511	2				2			Str.	15'-9"	33
A512	2				2			Str.	11'-6"	24
A513	4		2					Bent	6'-7"	27
A514	4		2					Bent	6'-7"	27
A515	5				5			Bent	13'-8"	71
A516	5				5			Bent	13'-0"	68
A517	1				1			Bent	9'-6"	10
A518	1				1			Bent	8'-10"	9
A519	1				1			Bent	6'-0"	6
A520	1				1			Bent	4'-10"	5
A521	10				5			Str.	6'-11"	72
A522	6				6			Str.	9'-8"	60
A523	2	2						Str.	8'-2"	17
A524	12		6		6			Str.	26'-3"	329
A525	144	18	18	36	18	18	36	Bent	4'-5"	663
A526	4					4		Str.	21'-9"	91
A527	2					2		Str.	19'-11"	42
A528	2					2		Str.	16'-5"	34
A529	2					2		Str.	14'-8"	31
A530	9					2	7	Str.	16'-6"	155
A531	40	20				20		Str.	31'-8"	1,321
A532	2					2		Str.	12'-0"	25
A533	2					2		Str.	16'-3"	34
A534	2					2		Str.	9'-2"	19
A535	24	6				6	12	Str.	28'-1"	703
A536	4	2				2		Bent	6'-4"	26
A537	4	2				2		Bent	7'-2"	30
A538	2						2	Bent	9'-5"	20
A539	2						2	Bent	9'-6"	20
A540	8						8	Str.	31'-3"	261
A541	2						2	Str.	17'-4"	36

Continued Above

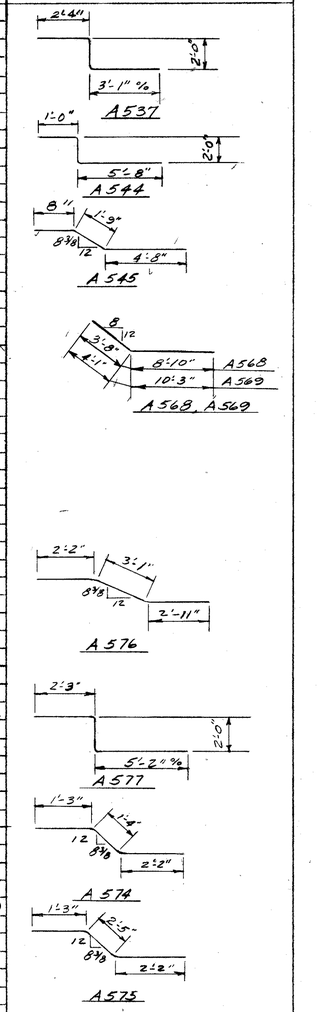
Bending Diagrams



REINFORCING STEEL LIST (CONTINUED)

Bar Number	Total No. Req'd	Number Required-South Abutment West Sect.	Center Sect.	East Sect.	Number Required-North Abutment West Sect.	Center Sect.	East Sect.	Shape	Length	Weight
A542	2						2	Str.	23'-4"	49
A543	2						2	Str.	25'-8"	54
A544								Bent	8'-5"	18
A545								Bent	7'-1"	10
A546	11						11	Str.	6'-1"	70
A547	31			15			16	Str.	2'-6"	81
A548	3			2			1	Str.	3'-11"	12
A549	2			1			1	Str.	5'-4"	11
A550	3			1			2	Str.	6'-9"	21
A551	2			1			1	Str.	8'-2"	17
A552	2	2						Str.	29'-3"	61
A553	2	2						Str.	25'-0"	52
A554	2	2						Str.	20'-9"	43
A555	2	2						Str.	16'-7"	35
A556	2	2						Str.	12'-4"	26
A557	4		2		2			Str.	7'-2"	30
A558	2		2					Str.	6'-4"	13
A559	4	4						Str.	22'-8"	95
A560	2	2						Str.	20'-8"	43
A561	2	2						Str.	18'-11"	39
A562	2	2						Str.	17'-2"	36
A563	2	2						Str.	15'-5"	32
A564	2	2						Str.	13'-8"	29
A565	2	2						Str.	11'-11"	25
A566	3	3						Str.	10'-2"	32
A567	6	6						Str.	8'-3"	53
A568	5	5						Bent	12'-6"	65
A569	5	5						Bent	14'-4"	75
A570	2		2					Str.	10'-7"	22
A571	2		2					Str.	11'-4"	24
A572	2		2					Str.	15'-7"	33
A573	3		3					Str.	22'-2"	69
A574	2			2				Bent	4'-9"	10
A575	2			2				Bent	5'-10"	12
A576	2			2				Bent	8'-2"	17
A577	2			2				Bent	9'-2"	19
A578	12			12				Str.	27'-3"	346
A579	8			8				Str.	30'-6"	254
A580	8			8				Str.	20'-8"	172
A581	2			2				Str.	22'-5"	47
A582	2			2				Str.	24'-9"	52
A583	2			2				Str.	27'-1"	56
A584	11			11				Str.	5'-11"	68
A585	4			4				Str.	20'-5"	85
A586	4			4				Str.	23'-0"	96
A587	2						2	Str.	7'-9"	16
D-601	92			46			46	Str.	2'-0"	276
					TOTAL ABUTMENT STEEL					74,479

Bending Diagrams



Note: See Sheet No. 154 for remainder of reinforcing steel and notes.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT
REINFORCING STEEL LIST
FOR BRIDGE NO. ROS-23-1563
OVER DRY RUN
ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)
SCALE DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S. K.D.D	P.J.M.	Photo	WK	ESB	5-2-64	

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

154
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

SUPERSTRUCTURE REINFORCING STEEL LIST (WEST BRIDGE)

Bar Number	Number Required	Length	Shape	Weight
S701	11	43'-8"	Str.	982
S701w1	2	42'-10"	Str.	175
S701w2	2	41'-10"	Str.	171
S701w3	2	40'-10"	Str.	167
S701w4	2	39'-9"	Str.	163
S701w5	2	38'-9"	Str.	158
S701w6	2	37'-9"	Str.	154
S701w7	2	36'-9"	Str.	150
S701w8	2	35'-8"	Str.	146
S701w9	2	34'-8"	Str.	142
S701w10	2	33'-8"	Str.	138
S701w11	2	32'-8"	Str.	134
S701w12	2	31'-8"	Str.	130
S701w13	2	30'-7"	Str.	125
S701w14	2	29'-7"	Str.	121
S701w15	2	28'-7"	Str.	117
S701w16	2	27'-7"	Str.	113
S701w17	2	26'-6"	Str.	108
S701w18	2	25'-6"	Str.	104
S701w19	2	24'-6"	Str.	100
S701w20	2	23'-6"	Str.	96
S701w21	2	22'-5"	Str.	92
S701w22	2	21'-5"	Str.	88
S701w23	2	20'-5"	Str.	84
S701w24	2	19'-5"	Str.	79
S701w25	2	18'-5"	Str.	75
S701w26	2	17'-4"	Str.	71
S701w27	2	16'-4"	Str.	67
S701w28	2	15'-4"	Str.	63
S701w29	2	14'-4"	Str.	59
S701w30	2	13'-3"	Str.	54

Bar Number	Number Required	Length	Shape	Weight
S701w31	2	12'-3"	Str.	50
S701w32	2	11'-3"	Str.	46
S701w33	2	10'-3"	Str.	42
S701w34	2	9'-2"	Str.	38
S701w35	2	8'-2"	Str.	33
S701w36	2	7'-2"	Str.	30
S701w37	14	6'-2"	Str.	176
S601	11	43'-8"	Str.	721
S601w1	2	42'-10"	Str.	129
S601w2	2	41'-10"	Str.	126
S601w3	2	40'-10"	Str.	123
S601w4	2	39'-9"	Str.	119
S601w5	2	38'-9"	Str.	116
S601w6	2	37'-9"	Str.	113
S601w7	2	36'-9"	Str.	110
S601w8	2	35'-8"	Str.	107
S601w9	2	34'-8"	Str.	104
S601w10	2	33'-8"	Str.	101
S601w11	2	32'-8"	Str.	98
S601w12	2	31'-8"	Str.	95
S601w13	2	30'-7"	Str.	92
S601w14	2	29'-7"	Str.	89
S601w15	2	28'-7"	Str.	86
S601w16	2	27'-7"	Str.	83
S601w17	2	26'-6"	Str.	80
S601w18	2	25'-6"	Str.	77
S601w19	2	24'-6"	Str.	74
S601w20	2	23'-6"	Str.	71
S601w21	2	22'-5"	Str.	67
S601w22	2	21'-5"	Str.	64
S601w23	2	20'-5"	Str.	61

Bar Number	Number Required	Length	Shape	Weight
S601w24	2	19'-5"	Str.	58
S601w25	2	18'-5"	Str.	55
S601w26	2	17'-4"	Str.	52
S601w27	2	16'-4"	Str.	49
S601w28	2	15'-4"	Str.	46
S601w29	2	14'-4"	Str.	43
S601w30	2	13'-3"	Str.	40
S601w31	2	12'-3"	Str.	37
S601w32	2	11'-3"	Str.	34
S601w33	2	10'-3"	Str.	31
S601w34	2	9'-2"	Str.	28
S601w35	2	8'-2"	Str.	25
S601w36	2	7'-2"	Str.	22
S601w37	14	6'-2"	Str.	130
S602w	74	36'-3"	Str.	4029
TOTAL SUPERSTRUCTURE (WEST BRIDGE)				12,426

NOTE

BAR SIZE is indicated in the bar mark. The first digit where three digits are used and the first two digits where four are used, indicate the bar size number. For example A500 is a No. 5 size bar and A1001 is a No. 10 size.

REPLACEMENT STEEL LIST

Bar Number	Number Required	Length	Shape	Weight
XA1005	2	7'-3"	Str.	62
XA904	1	6'-9"	Str.	23
XS701	1	6'-3"	Str.	13
XS601	1	5'-11"	Str.	9
XA507	1	5'-7"	Str.	6
TOTAL REPLACEMENT STEEL 113				

SUPERSTRUCTURE REINFORCING STEEL LIST (EAST BRIDGE)

Bar Number	Number Required	Length	Shape	Weight
S701e1	10	43'-8"	Str.	893
S701e1	2	42'-10"	Str.	175
S701e2	2	41'-11"	Str.	171
S701e3	2	40'-11"	Str.	167
S701e4	2	39'-11"	Str.	163
S701e5	2	38'-11"	Str.	159
S701e6	2	38'-0"	Str.	155
S701e7	2	37'-0"	Str.	151
S701e8	2	36'-0"	Str.	147
S701e9	2	35'-0"	Str.	143
S701e10	2	34'-0"	Str.	139
S701e11	2	33'-1"	Str.	135
S701e12	2	32'-1"	Str.	131
S701e13	2	31'-1"	Str.	127
S701e14	2	30'-1"	Str.	123
S701e15	2	29'-2"	Str.	119
S701e16	2	28'-2"	Str.	115
S701e17	2	27'-2"	Str.	111
S701e18	2	26'-2"	Str.	107
S701e19	2	25'-2"	Str.	103
S701e20	2	24'-3"	Str.	99
S701e21	2	23'-3"	Str.	95
S701e22	2	22'-3"	Str.	91
S701e23	2	21'-3"	Str.	87
S701e24	2	20'-4"	Str.	83
S701e25	2	19'-4"	Str.	79
S701e26	2	18'-4"	Str.	75
S701e27	2	17'-4"	Str.	71
S701e28	2	16'-4"	Str.	67
S701e29	2	15'-5"	Str.	63
S701e30	2	14'-5"	Str.	59

Bar Number	Number Required	Length	Shape	Weight
S701e31	2	13'-5"	Str.	55
S701e32	2	12'-5"	Str.	51
S701e33	2	11'-5"	Str.	47
S701e34	2	10'-6"	Str.	43
S701e35	2	9'-6"	Str.	39
S701e36	2	8'-6"	Str.	35
S701e37	2	7'-6"	Str.	31
S701e38	2	6'-6"	Str.	27
S701e39	12	5'-7"	Str.	137
S601	10	43'-8"	Str.	656
S601e1	2	42'-10"	Str.	129
S601e2	2	41'-11"	Str.	126
S601e3	2	40'11"	Str.	123
S601e4	2	39'-11"	Str.	120
S601e5	2	38'-11"	Str.	117
S601e6	2	38'-0"	Str.	114
S601e7	2	37'-0"	Str.	111
S601e8	2	36'-0"	Str.	108
S601e9	2	35'-0"	Str.	105
S601e10	2	34'-0"	Str.	102
S601e11	2	33'-1"	Str.	99
S601e12	2	32'-1"	Str.	96
S601e13	2	31'-1"	Str.	93
S601e14	2	30'-1"	Str.	90
S601e15	2	29'-2"	Str.	88
S601e16	2	28'-2"	Str.	85
S601e17	2	27'-2"	Str.	82
S601e18	2	26'-2"	Str.	79
S601e19	2	25'-2"	Str.	76
S601e20	2	24'-3"	Str.	73
S601e21	2	23'-3"	Str.	70
S601e22	2	22'-3"	Str.	67
S601e23	2	21'-3"	Str.	64

Bar Number	Number Required	Length	Shape	Weight
S601e24	2	20'-4"	Str.	61
S601e25	2	19'-4"	Str.	58
S601e26	2	18'-4"	Str.	55
S601e27	2	17'-4"	Str.	52
S601e28	2	16'-4"	Str.	49
S601e29	2	15'-5"	Str.	46
S601e30	2	14'-5"	Str.	43
S601e31	2	13'-5"	Str.	40
S601e32	2	12'-5"	Str.	37
S601e33	2	11'-5"	Str.	34
S601e34	2	10'-6"	Str.	32
S601e35	2	9'-6"	Str.	29
S601e36	2	8'-6"	Str.	26
S601e37	2	7'-6"	Str.	23
S601e38	2	6'-6"	Str.	20
S601e39	12	5'-7"	Str.	101
S602e	74	36'-8"	Str.	4075
TOTAL SUPERSTRUCTURE (EAST BRIDGE)				12,522

TOTAL ABUTMENT STEEL	71,479
TOTAL SUPERSTRUCTURE STEEL	24,948
TOTAL REPLACEMENT STEEL	113
TOTAL REINFORCING STEEL	99,540

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE REINFORCING STEEL
FOR BRIDGE NO. ROS-23-1583
OVER DRY RUN
ROSS COUNTY U.S. 23
SEC. ROS-23-15,37 STA. 834+38.20 (S.B.)
STA. 834+85.48 (N.B.)
SCALE
DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
F.H.S.	R.E.J.	Photo	F.H.S.	E.S.B.	5-2-56	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

155/177

ROSS COUNTY
ROS-23-(15.37)(16.01)

CURVE DATA
P.I. Sta 878+35.43
Prop. (S.B.) U.S. 23

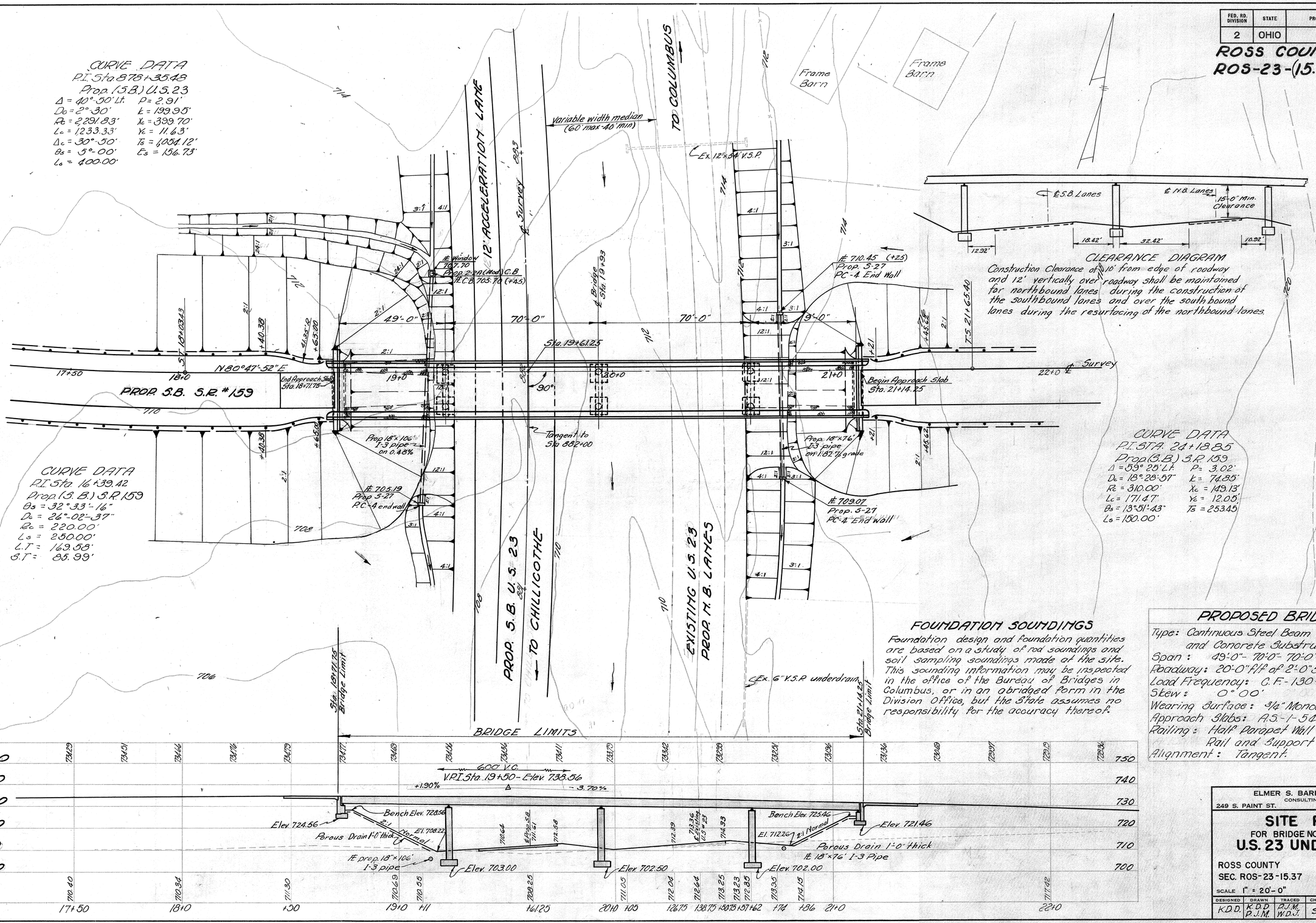
Δ = 40°-30' Lt.	P = 2.91'
D_a = 2°-30'	k = 199.95'
R_a = 2291.83'	X_c = 399.70'
L_c = 1233.33'	Y_c = 11.63'
Δ_c = 30°-30'	T_s = 1054.12'
θ_s = 5°-00'	E_s = 156.73'
L_s = 400.00'	

CURVE DATA
P.I. Sta 16+39.42
Prop. (S.B.) S.R. 159

θ_s = 32°33'-16"	
D_a = 26°-02'-37"	
R_a = 220.00'	
L_s = 250.00'	
L.T. = 169.58'	
S.T. = 86.99'	

CURVE DATA
P.I. STA. 24+18.85
Prop. (S.B.) S.R. 159

Δ = 59° 25' Lt.	P = 3.02'
D_a = 18°-28'-57"	k = 74.85'
R_a = 310.00'	X_c = 149.13'
L_c = 171.47'	Y_c = 12.05'
θ_s = 13°-51'-43"	T_s = 253.45
L_s = 150.00'	



FOUNDATION SOUNDINGS

Foundation design and foundation quantities are based on a study of rod soundings and soil sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus, or in an abridged form in the Division Office, but the State assumes no responsibility for the accuracy thereof.

CLEARANCE DIAGRAM

Construction Clearance of 16' from edge of roadway and 12' vertically over roadway shall be maintained for northbound lanes during the construction of the southbound lanes and over the southbound lanes during the resurfacing of the northbound lanes.

PROPOSED BRIDGE DATA

Type: Continuous Steel Beam with Concrete Deck and Concrete Substructure.
Span: 49'-0" - 70'-0" - 70'-0" - 49'-0" ℄ Bearings
Roadway: 20'-0" F/F of 2'-0" Safety Curbs.
Load Frequency: C.F.-130-51
Skew: 0°-00'
Wearing Surface: 3/4" Monolithic Concrete
Approach Slabs: A.S.-1-54, 25' Long.
Railing: Half Parapet Wall with Aluminum Rail and Support
Alignment: Tangent.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SITE PLAN
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159

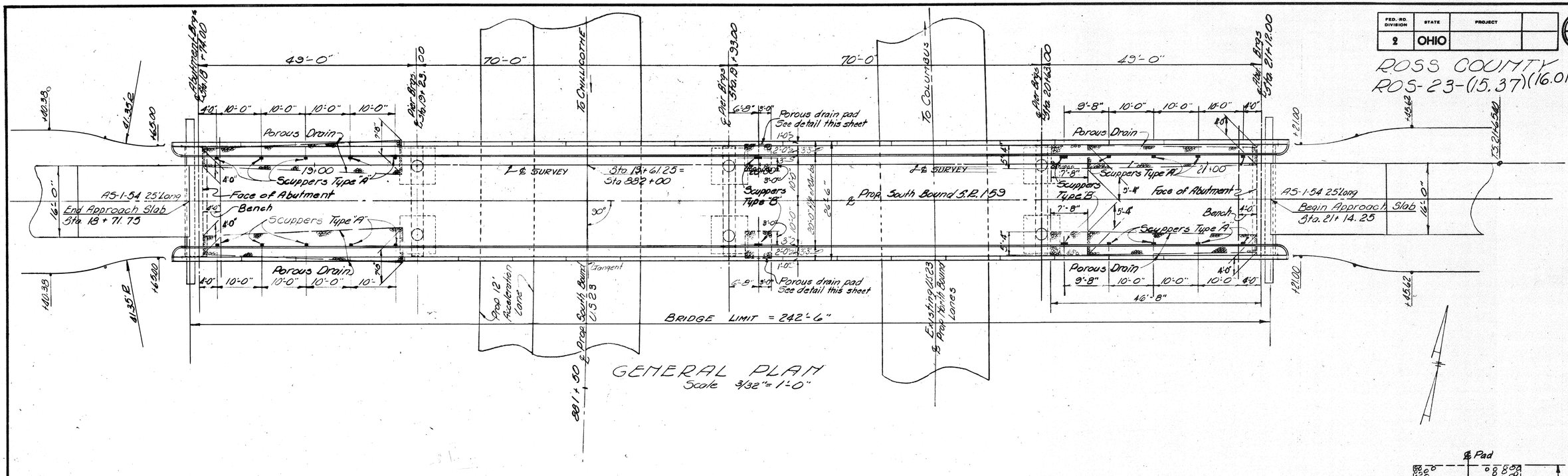
ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 882+00
SCALE 1" = 20'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D.	K.D.D. P.J.M.	P.J.M. W.D.J.	SEW	CHB	5-1-56	

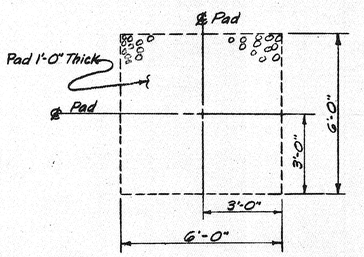
FED.-RD. DIVISION	STATE	PROJECT	
2	OHIO		

154
177

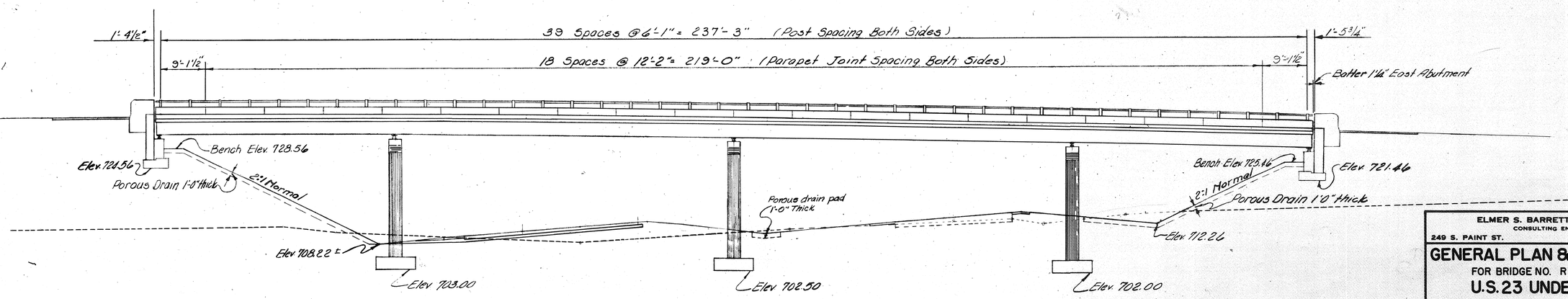
ROSS COUNTY
ROS-23-(15.37)(16.01)



GENERAL PLAN
Scale 3/32"= 1'-0"



DETAIL POROUS DRAIN PAD



GENERAL ELEVATION
Scale 3/32"= 1'-0"

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

GENERAL PLAN & ELEVATION
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 882+00

SCALE 3/32" = 1'-0" DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDD	R.L.M.	Photo	SEW	EWB	15-1-54	

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

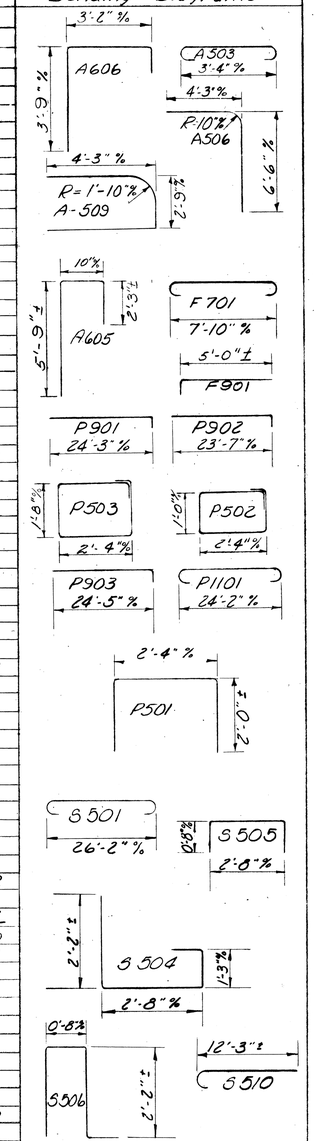
157
177

ROSS COUNTY
ROS-23-(15.37)(16.01)

REINFORCING STEEL LIST

Bar No.	No. Reqd.	Length	Shape	Weight
TWO ABUTMENTS				
A601	24	24'-0"	Str.	865
A602	40	8'-8"	Str.	521
A603	34	8'-6"	Str.	434
A604	12	9'-8"	Str.	174
A605	34	8'-7"	Bent	438
A606	34	7'-6"	Bent	383
A503	32	4'-6"	Bent	150
A504	32	8'-11"	Str.	297
A505	8	7'-10"	Str.	65
A506	8	10'-4"	Bent	86
A507	24	6'-6"	Str.	163
A508	16	4'-3"	Str.	71
A509	16	10'-4"	Bent	172
A510	16	3'-6"	Str.	58
TOTAL TWO ABUTMENTS				3,877
THREE PIERS				
F901	72	6'-0"	Bent	1,469
F701	96	9'-6"	Bent	1,864
P1101	18	27'-4"	Bent	2,614
P1001	12	19'-8"	Str.	1,016
P901	24	25'-3"	Bent	2,060
P902	24	24'-7"	Bent	2,006
P903	24	25'-5"	Bent	2,074
P701	6	13'-10"	Str.	170
P501	120	6'-1"	Bent	761
P502	6	7'-7"	Bent	47
P503	6	8'-11"	Bent	56
TOTAL THREE PIERS				14,137
SUPERSTRUCTURE				
S501	359	27'-4"	Bent	10,235
S502	336	35'-6"	Str.	12,441
S503	66	28'-0"	Str.	1,927
S504	330 336	6'-4"	Bent	2,118
S505	320	3'-9"	Bent	1,252
S506	320	5'-3"	Bent	1,752
S507	144	11'-8"	Str.	1,752
S508	16	9'-11"	Str.	166
S509	24	5'-6"	Str.	138
S510	8	12'-10"	Bent	107
S601	359	26'-2"	Str.	14,110
S602	8	12'-2"	Str.	146
TOTAL SUPERSTRUCTURE				46,132
REPLACEMENT STEEL				
X1101	1	7'-7"	Str.	10
X1001	1	7'-3"	Str.	31
X901	1	6'-10"	Str.	23
X701	1	6'-3"	Str.	13
X601	1	5'-11"	Str.	9
X501	2	5'-7"	Str.	6
X401	1	5'-3"	Spiral	4
TOTAL REPLACEMENT STEEL				126
TOTAL SPIRAL STEEL				2,010
TOTAL REINFORCING STEEL				66,282

Bending Diagrams



GENERAL NOTES

REFERENCE shall be made to Standard Drawing RB-1-55 dated 3-1-55 and to Supplemental Specifications, S-114, Aluminum for Railing, dated 8-30-55.

PAINT, both shop and field, shall be applied by brushing. Spray application will not be permitted.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 10-1-51; together with revisions thereof dated 7-15-52, 4-1-54 and 2-1-55.

CONCRETE AGGREGATE: Gravel if used as course aggregate shall be according to Sec. M-3.33 instead of Sec. M-3.31 for Class "C" concrete in the superstructure. Gravel meeting the requirements of Sec. M-3.33 may also be used for other concrete in this structure.

SURFACE FINISH OF CONCRETE: Abutment railing posts, curb faces, parapet walls, deck fascia and exposed surfaces of piers, abutments and wing walls shall receive a rubbed surface finish. All other surfaces shall be finished in accordance with the provisions of Item 511.

POROUS BACKFILL shall extend upward to the approach slab and to the surface of the earth shoulders and outward to the surface of the embankment slopes. Excavation therefor in excess of that required for construction of the footing shall be considered as paid for in the bid price per cubic yard, paid for porous backfill.

EXCAVATION: Earthwork required to construct the roadway under the bridge to finished grade is classified as E-1 and included in roadway quantities.
EXCAVATION QUANTITY FOR ABUTMENTS includes the removal of till material between top of the earth bench and the bottom of the abutment.
EXCAVATION QUANTITY FOR PIERS includes the removal of material from top of finished grade or the existing ground line, whichever is lower, to the bottom of footer.

WELDING of structural steel shall be Class A except as otherwise shown. Any welds shown as field welds, may at the option of the Contractor, be made in the shop. Class "B" welds are shown thus: B

BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four are used, indicates the bar size number. For example A401 is a No. 4 bar and A1001 is a No. 10 bar.

SPIRAL REINFORCING BARS

The "Length" shown in the steel list for the spiral bars is the distance from the top of the footing to the bottom of the pier cap.

The "Number of Turns" shown in the steel list for the spiral bars is the "Length" divided by the pitch, plus 3 turns (total number of closed coils) expressed as the nearest whole number.

Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 511.4.

1½ closed coils shall be provided at the ends of each spiral unit.

Three steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The number of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

SPIRAL REINFORCING LIST

Bar No.	No. Reqd.	Core Dia. of Spiral	Length Pitch	No. of Turns	Weight
SP401	2	28"	21'-8" 4½"	61	676
SP402	2	28"	21'-0⅜" 4½"	59	657
SP403	2	28"	21'-10⅝" 4½"	61	677
TOTAL THREE PIERS					2,010

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION	ABUTMENT	PIERS	SUPER	GENERAL	AS BUILT	
E-2	Lump	Sum	Cofferdams, Cribs and Sheeting				Lump		
E-2	256	Cu. Yds.	Excavation for Structure, Unclassified	58	198			C-4, -5 251	A
S-1	199	Cu. Yds.	Class "C" Concrete for Superstructure, including end posts			199			
S-1	47	Cu. Yds.	Class "C" Concrete for Pier Caps and Columns		47				
S-1	114	Cu. Yds.	Class "E" Concrete for Abutments and Pier Footings	77	37				
S-4	66,282	Pounds	Reinforcing Steel	3,877	16,137	46,132	126	C-4, +555 67,837	A
S-7	160,012	Pounds	Structural Steel			160,012		C-4, +622 160,634	A
S-8	160,012	Pounds	Field Painting of Structural Steel			160,012		C-4, +622 160,634	A
S-14	479.5	Lin. Ft.	Railing (Aluminum rail & supports and Concrete Parapet)			479.5			
S-29	38	Cu. Yds.	Porous Drains on embankment slopes & Pads				38		
S-29	16	Cu. Yds.	Porous Backfill	16					

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

ESTIMATED QUANTITIES, GENERAL NOTES & REINFORCING STEEL
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159
ROSS COUNTY U.S.23
SEC. ROS-23-15.37 STA. 882+00

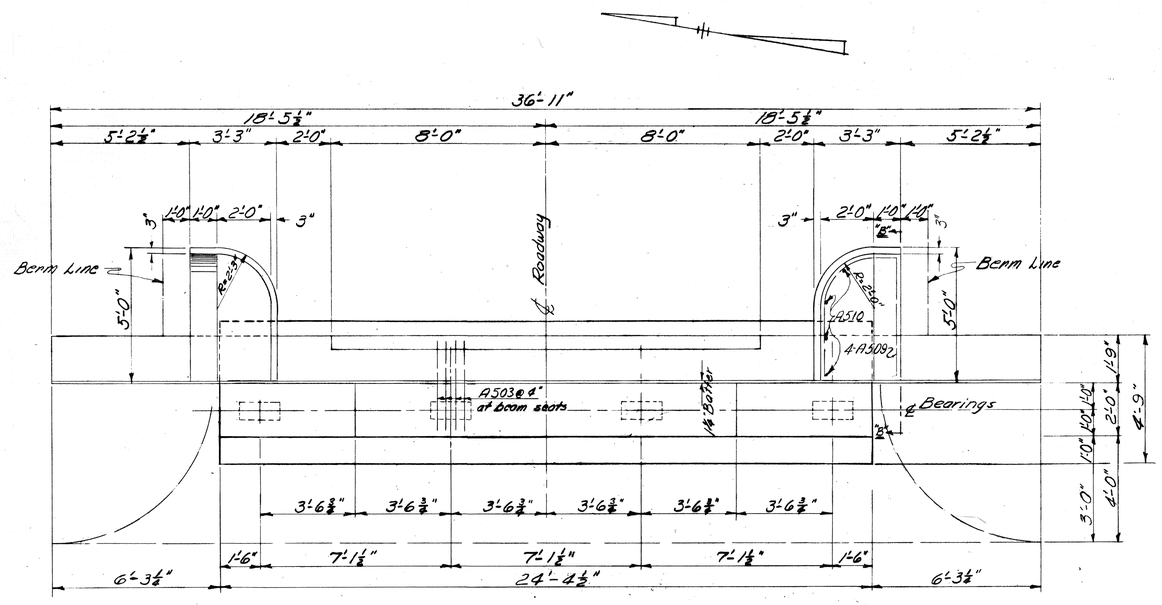
SCALE					DATE	
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D.	P.J.M.	Photo	S.E.W.	C.L.B.	5-1-56	

8-7-58 A Revised As-Built J.E.P.

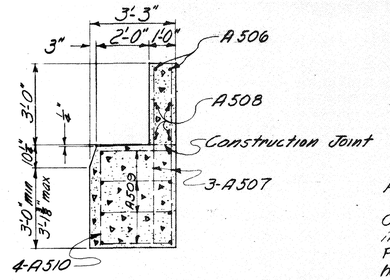
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

158
177

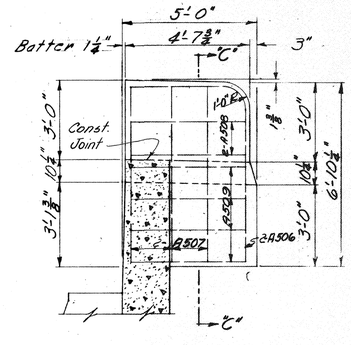
ROSS COUNTY
ROS-23-(15.37)(16.01)



EAST ABUTMENT PLAN
Scale ⅜"=1'-0"



SECTION "C-C"
Scale ~ ⅜"=1'-0"



SECTION "B-B"
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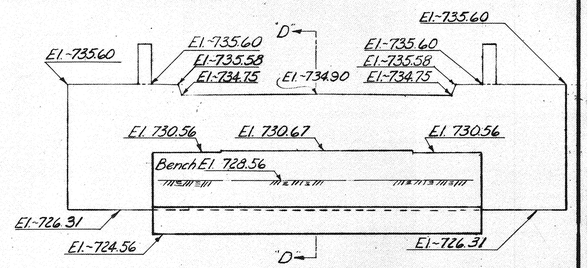


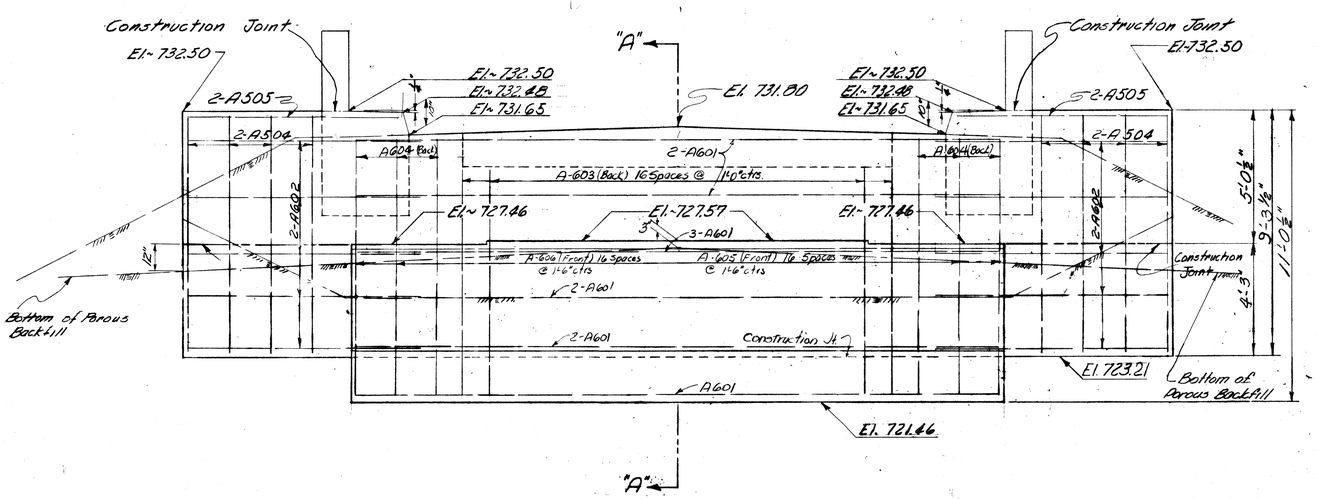
ELEVATION (WEST ABUTMENT)
Scale ~ 3/16"=1'-0"

NOTES

REINFORCING STEEL shall be 2" clear except where otherwise shown.

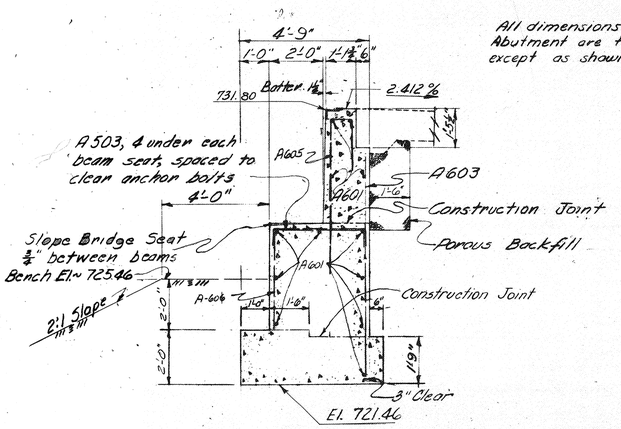
CONCRETE for end posts above curb height is included in superstructure quantities for payment.

PROCEDURE: The embankment shall be placed and compacted to the height of the earth bench, after which excavation shall be made for the abutment.

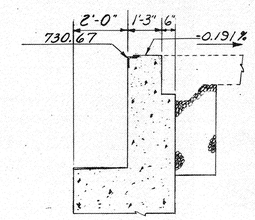


ELEVATION
Scale ⅜"=1'-0"

All dimensions and reinforcing steel for West Abutment are the same as for the East Abutment except as shown.



SECTION A-A
Scale ⅜"=1'-0"



SECTION D-D
Scale ~ ⅜"=1'-0"

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249 S. PAINT ST. CHILLICOTHE, OHIO

ABUTMENT DETAILS
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 882+00

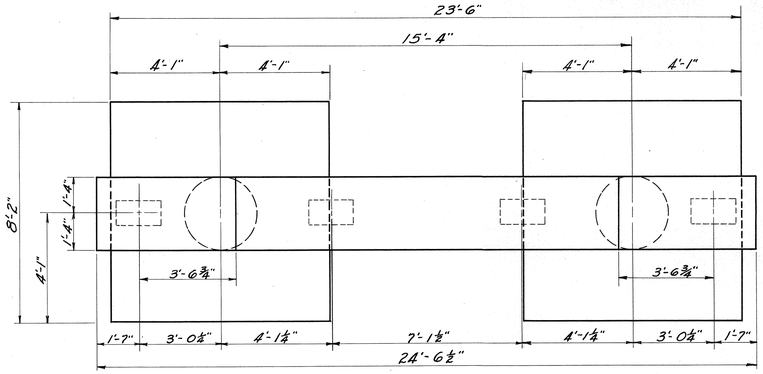
SCALE AS SHOWN DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
KDD	K.D.D. R.J.-P.J.M.	Photo	SEW	EWB	5-1-56	

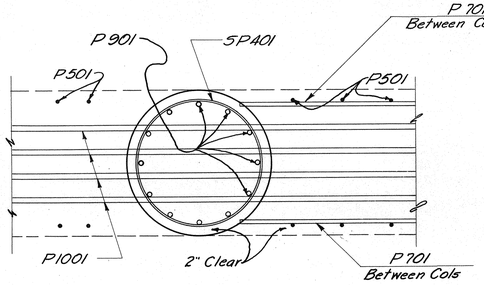
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

159
177

ROSS COUNTY
ROS-23-(15.37)(16.01)



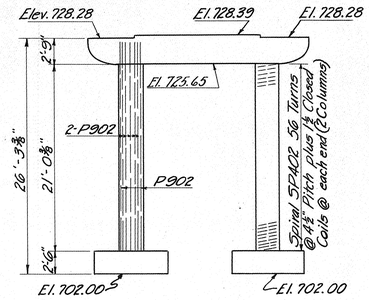
CENTER PIER PLAN
Scale ⅜" = 1'-0"



PLACEMENT OF CAP AND COLUMN STEEL
Scale ¾" = 1'-0"

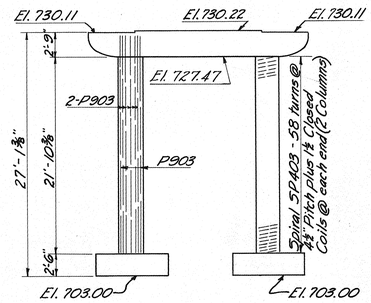
NOTES

REINFORCING STEEL — Shall be 2" clear except where otherwise shown.
BRIDGE SEATS — Care shall be taken in placing reinforcing steel under beam seats of the center pier to clear anchor bolts.
SPIRALS — See "Spiral Reinforcing Bars" on Sheet No. 137.



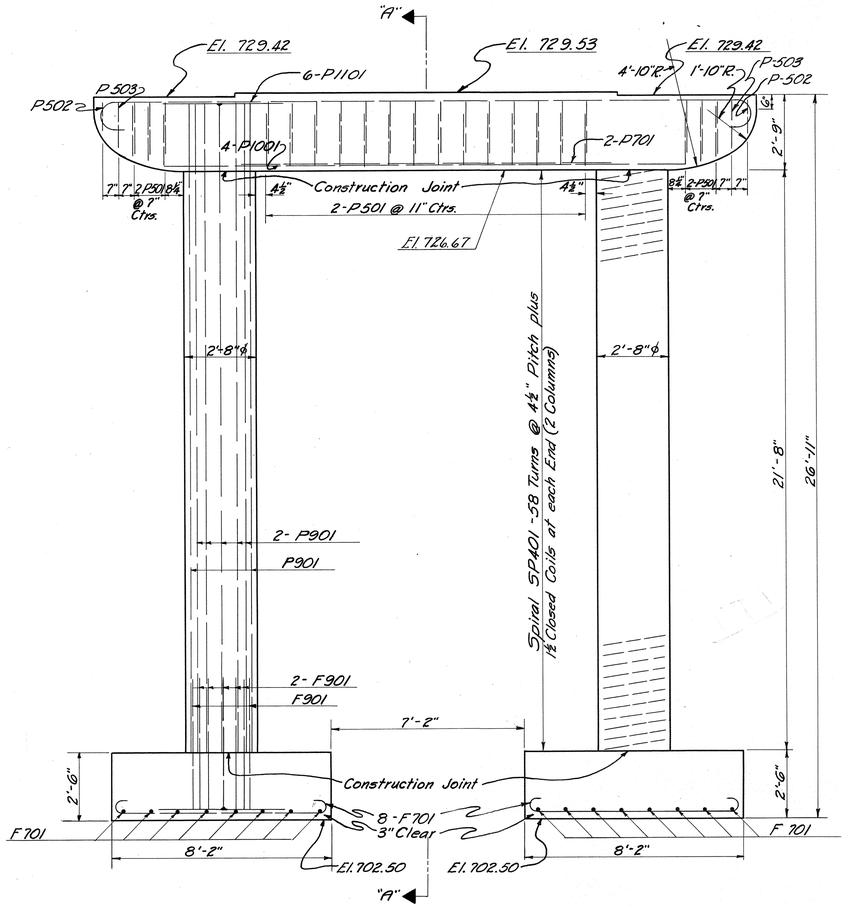
EAST PIER ELEVATION
Scale ⅛" = 1'-0"

NOTE: All dimensions and reinforcing steel not shown are identical to Center Pier

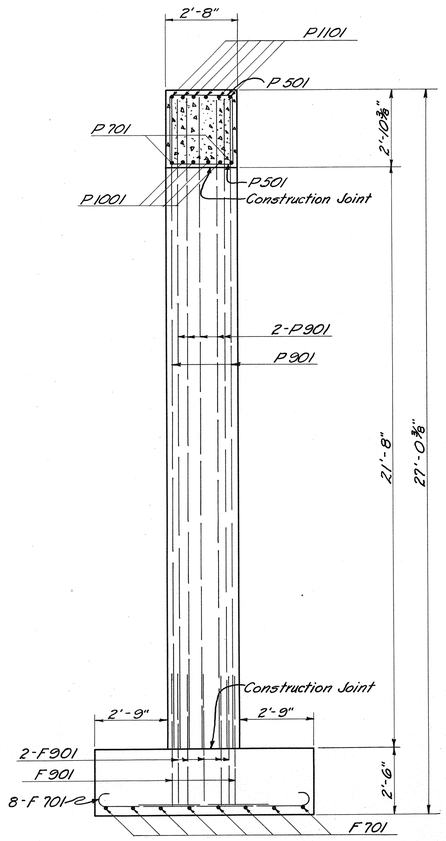


WEST PIER ELEVATION
Scale ⅛" = 1'-0"

NOTE: All dimensions and reinforcing steel not shown are identical to Center Pier



CENTER PIER ELEVATION
Scale ⅜" = 1'-0"



SECTION "A"-"A"
Scale ⅜" = 1'-0"

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CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

PIER DETAILS
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER SR. 159

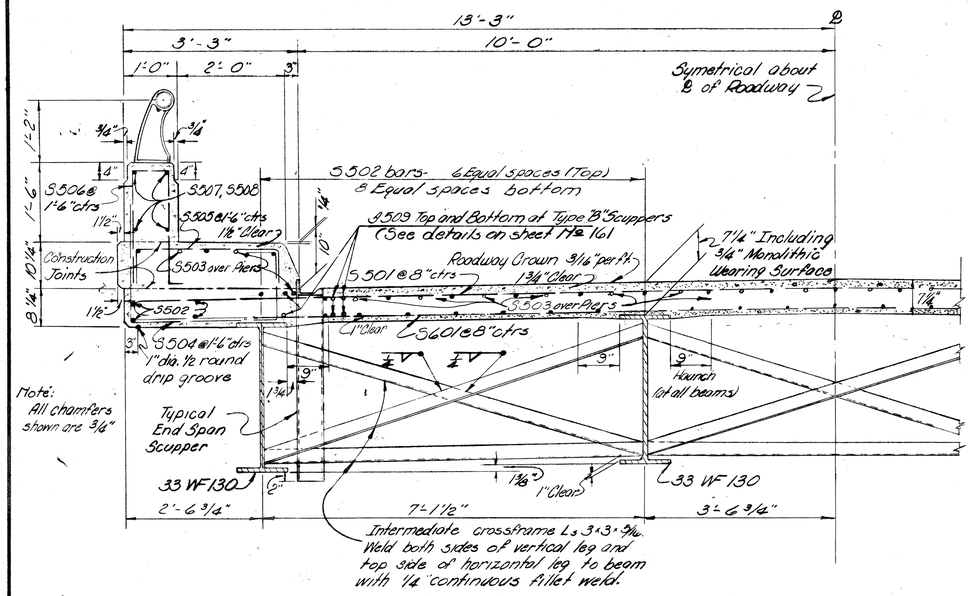
ROSS COUNTY — U.S.23
SEC. ROS-23-15.37 — STA. 882+00

SCALE AS SHOWN — DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D	K.D.D	J.E. R.O.	SEW	[illegible]	5-1-56	

FED. RD. DIVISION	STATE	PROJECT		160 / 177
2	OHIO			

ROSS COUNTY
ROS-23-(15.37)(16.01)



HALF TYPICAL SECTION
Scale 3/4" = 1'-0"

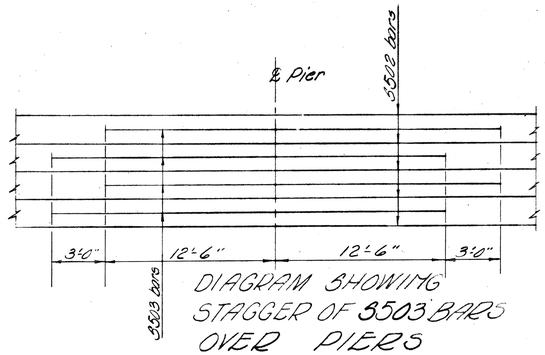
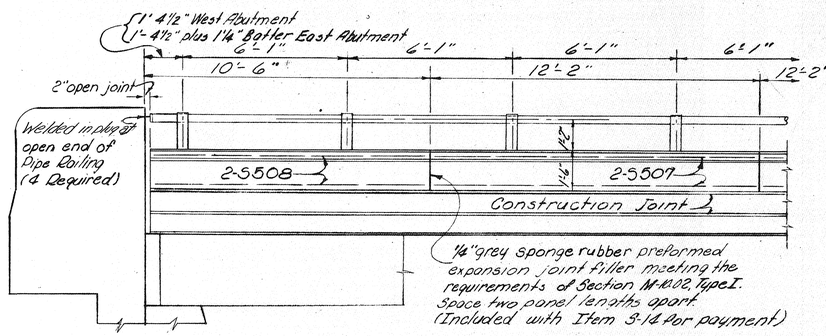


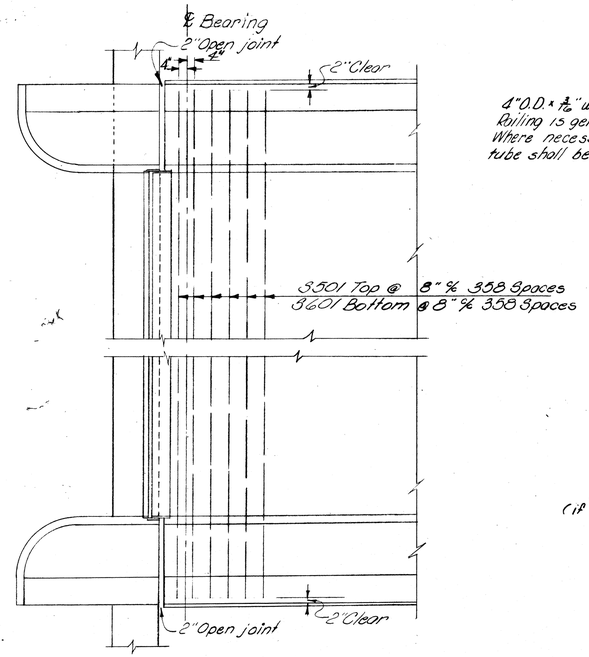
DIAGRAM SHOWING STAGGER OF 3503 BARS OVER PIERS

NOTES

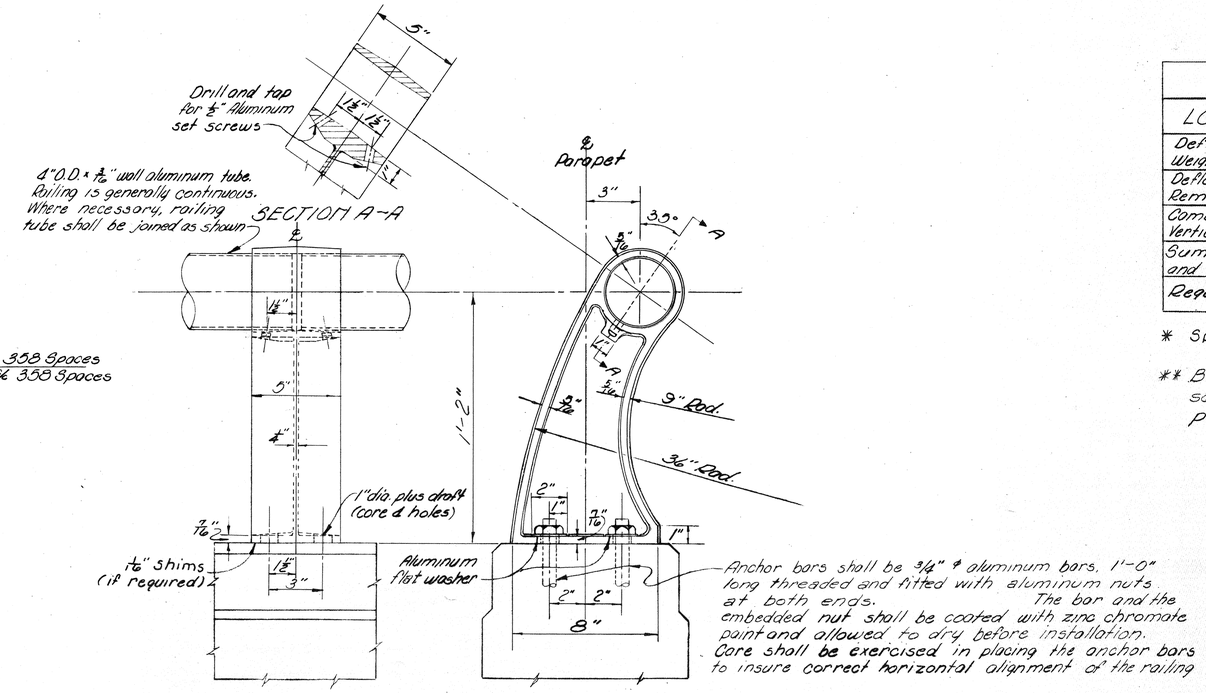
REFERENCE shall be made to Supplemental Specification S-114, Aluminum for Railing.



TREATMENT OF PARAPET AND FASCIA ELEVATION
Scale 3/8" = 1'-0"



SLAB REINFORCING STEEL PLAN



ALUMINUM RAILING POST DETAILS
Scale 3" = 1'-0"

Anchor bars shall be 3/4" ϕ aluminum bars, 1'-0" long threaded and fitted with aluminum nuts at both ends. The bar and the embedded nut shall be coated with zinc chromate paint and allowed to dry before installation. Care shall be exercised in placing the anchor bars to insure correct horizontal alignment of the railing

DEFLECTION AND CAMBER

LOCATION	OUTSIDE BEAMS				INSIDE BEAMS			
	*1st Span	*2nd Span	*3rd Span	*4th Span	*1st Span	*2nd Span	*3rd Span	*4th Span
Deflection due to Weight of Steel	0.03"	0.08"	0.08"	0.03"	0.03"	0.03"	0.03"	0.03"
Deflection due to Remaining Dead Load	0.23"	0.74"	0.74"	0.23"	0.12"	0.38"	0.38"	0.12"
Camber required for Vertical Curve	0.35"	0.68"	0.68"	0.35"	0.35"	0.68"	0.68"	0.35"
Sum of Deflection and Camber	0.61"	1.50"	1.50"	0.61"	0.50"	1.15"	1.15"	0.50"
Required Camber	0" **	1 1/2"	1 1/2"	0" **	0" **	1 1/8"	1 1/8"	0" **

* Spans numbered consecutively from West to East

** Beams not requiring shop camber shall be so fabricated that any curved beam will be placed convex flange up.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

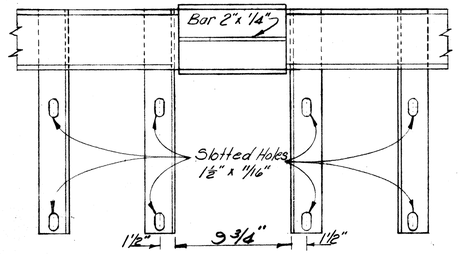
SUPERSTRUCTURE DETAILS
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159
ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 882+00.00
SCALE As Shown DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D	P.J.M.	Photo	SEW	EMB	5-1-56	

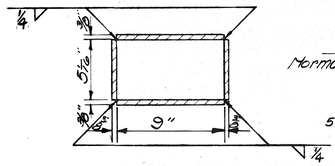
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

161/177

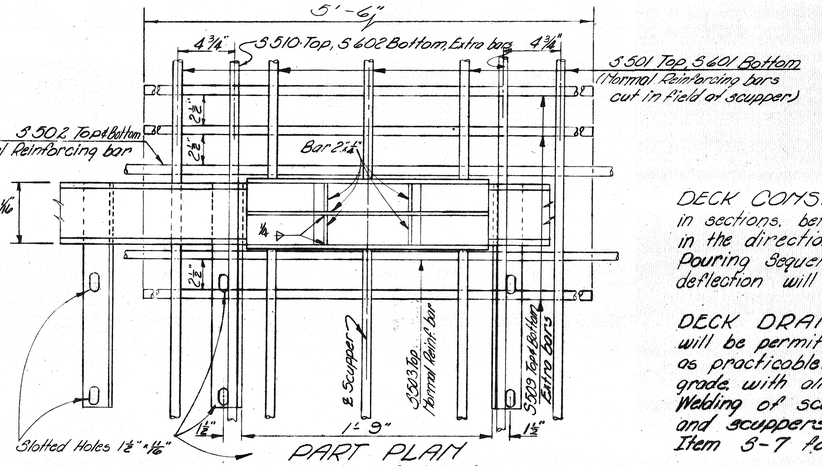
ROSS COUNTY
ROS-23-(15.37)(16.01)



PART PLAN
Scale 2"=1'-0"



SECTION B-B



PART PLAN
Scale 2"=1'-0"

NOTES

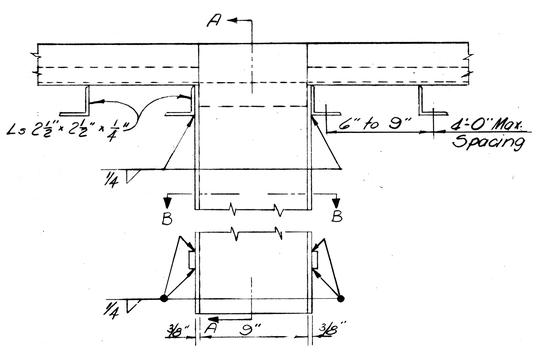
DECK CONSTRUCTION PROCEDURE: The deck slab shall be placed in sections, between transverse construction joints, in the numerical order and in the direction indicated on the "Illustration of Framing and Concrete Pouring Sequence" in order that the major portion of the dead load deflection will occur prior to placing concrete over each pier.

DECK DRAINAGE: Scuppers shall be made of steel. Milled joints will be permitted in bulb angles, but individual lengths shall be as long as practicable. Gutters shall be accurately adjusted for alignment and grade, with allowance for dead load deflection, before concrete is placed. Welding of scuppers shall be continuous fillet weld. Steel gutters and scuppers are included in the weight of Structural Steel, Item 3-7 for payment.

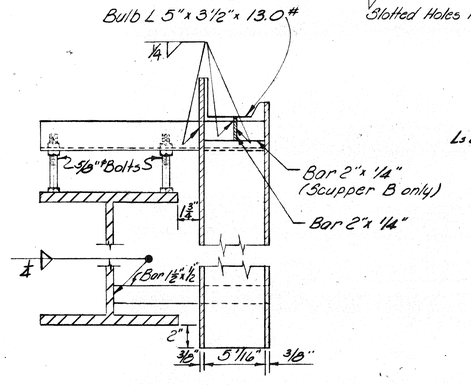
BEAM SPLICE WELDING PROCEDURE:

1. Raise end of beam at second pier 1 3/8".
2. Butt-weld beam flanges and web at first pier, using the following sequence: make one pass on each flange, then one on the web; repeat until welds are completed.
3. Weld top and bottom flange moment plates at first pier.
4. Lower end of beam at second pier.
5. Make splice at second and third pier in the same manner, raising the end of the beams 1 5/8" at the pier and 7/8" at the abutments.

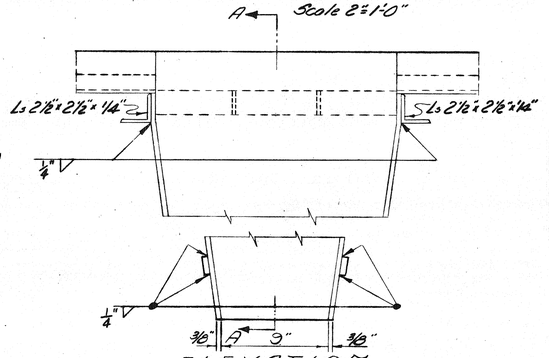
ADDITIONAL SUPERSTRUCTURE NOTES:
See General Notes Sheet No. 157



ELEVATION
DETAIL SCUPPER A



SECTION A-A



ELEVATION
DETAIL SCUPPER B

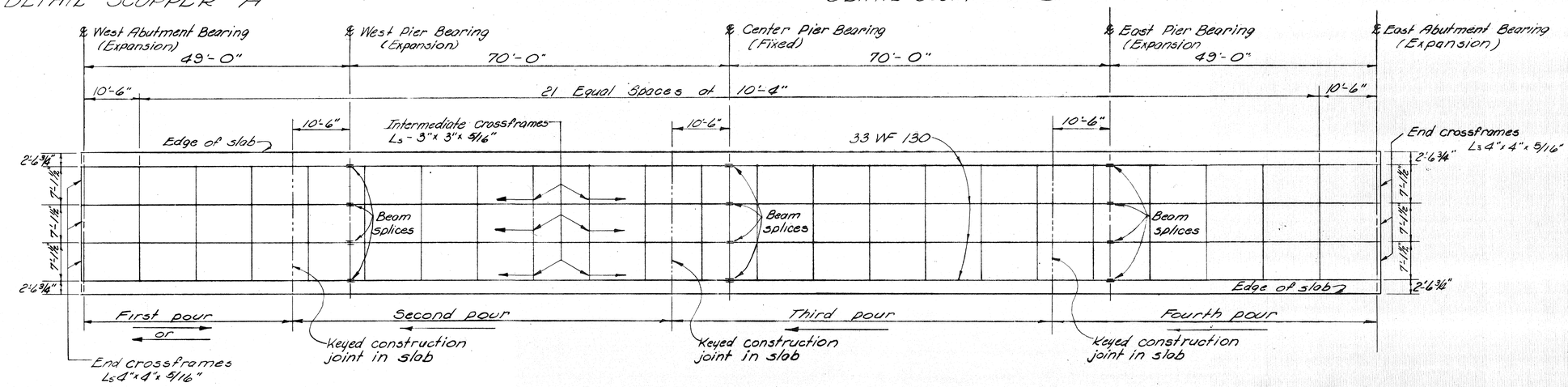


ILLUSTRATION OF FRAMING
AND CONCRETE POURING SEQUENCE

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS

FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159
ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 882+00.00

SCALE As Shown DATE

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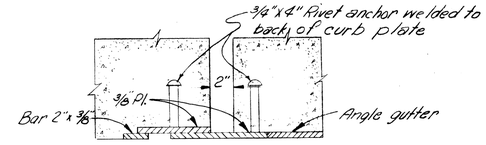
K.D.D.	P.J.M.	Photo	[illegible]	[illegible]	5-1-56	

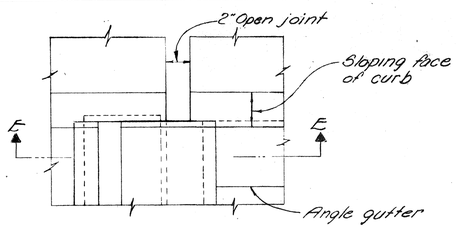
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

162/177

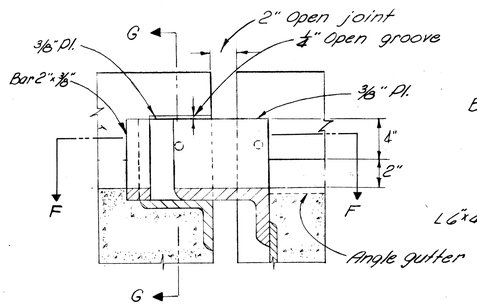
ROSS COUNTY
ROS-23-(15.37)(16.01)



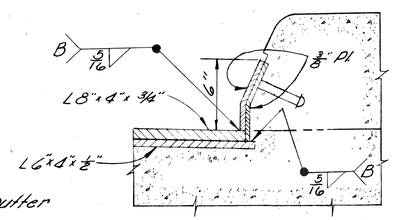
SECTION F-F



PART PLAN

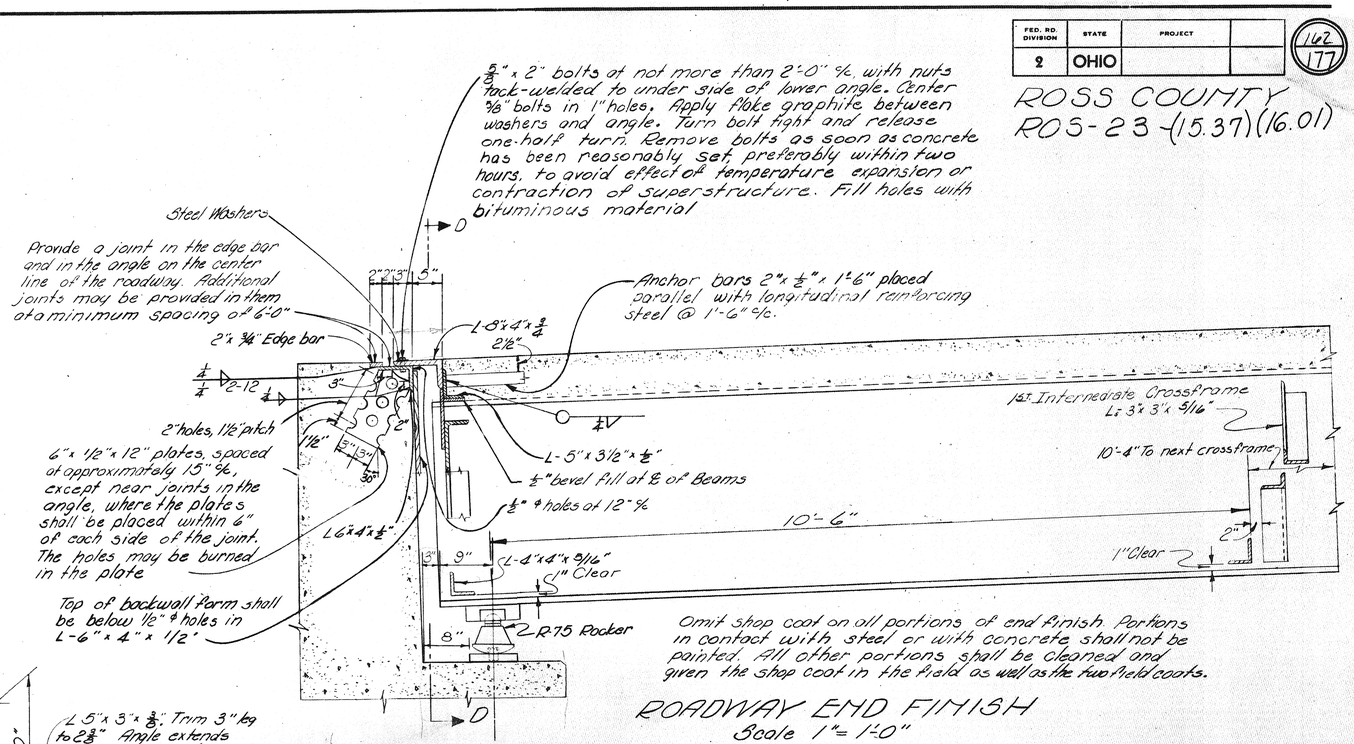


SECTION E-E



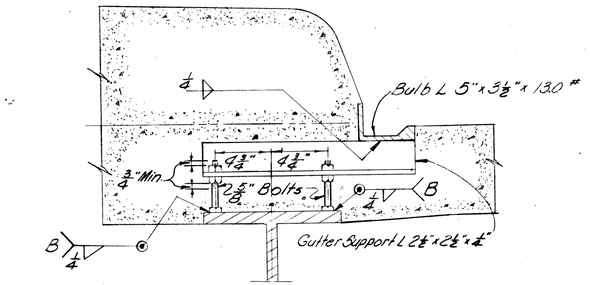
SECTION G-G

CURB PLATE DETAILS

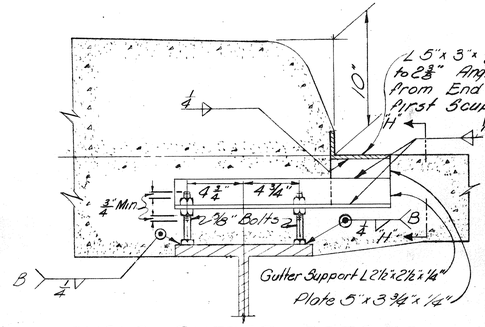


ROADWAY END FINISH
Scale 1"= 1'-0"

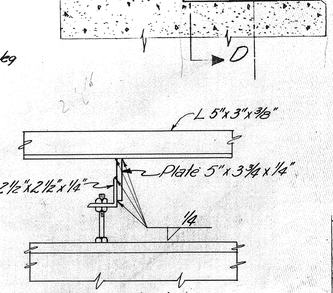
Omit shop coat on all portions of end finish. Portions in contact with steel or with concrete shall not be painted. All other portions shall be cleaned and given the shop coat in the field as well as the two field coats.



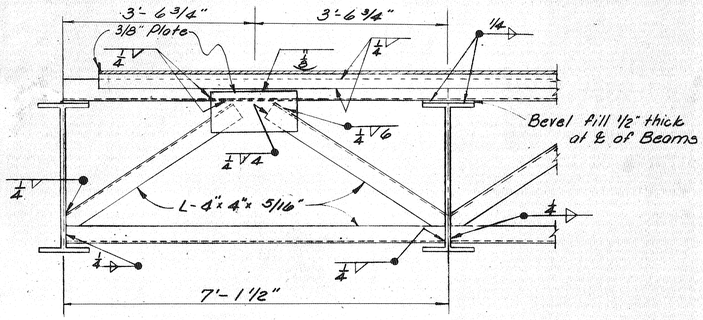
GUTTER SUPPORT



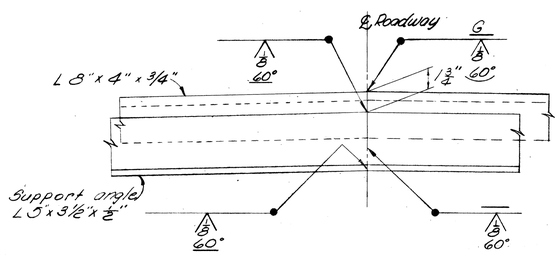
ANGLE GUTTER DETAILS
FOR DOWNGRADE END OF BRIDGE



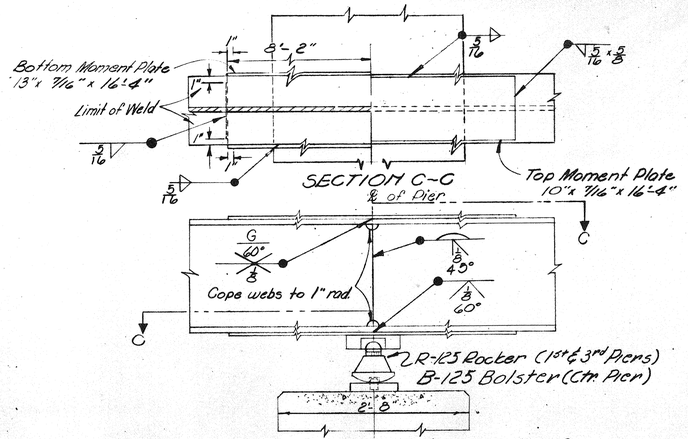
SECTION "H"-"H"



SECTION D-D
Scale 3/4"= 1'-0"



WELDED BUTT JOINT
IN SUPERSTRUCTURE END FINISH ANGLES
AT ℄ OF ROADWAY



BEAM SPLICE DETAILS

NOTES

END FINISH: A welded butt joint in the end finish at the center line of roadway will be required for that portion of the end finish attached to the superstructure. The portion attached to the backwall shall be placed in segments which shall be closely butted with one of the joints at the apex of the crown but shall not be welded.

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SUPERSTRUCTURE DETAILS
FOR BRIDGE NO. ROS-23-1670
U.S. 23 UNDER S.R. 159

ROSS COUNTY U.S. 23
SEC. ROS-23-15.37 STA. 882+00

SCALE AS SHOWN DATE

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
K.D.D	P.J.M.	Photo	SEW	EMB	5-1-56	

LOCATION PLAN

STATE ROUTE Nº 23
SECTION - 15.37
SEC. 1, T1N, R22W & SEC. 6, T8N, R21W
SPRINGFIELD TWP.
SEC. 11, 10 & 7, T2N, R22W
SEC. 31, T9N, R21W
GREEN TWP.
ROSS COUNTY
SCALE 1" = 600'

0 500 1000 1500 2000

LIMITED ACCESS

N

PROP. CURVE & SPIRAL DATA SOUTH BOUND LANE

P.I. 814+07.69	P.I. 827+38.10			P.I. 837+41.78	
Δ 3°27'30" Lt.	Δ 25°00' Rt.			Δ 4°00' Lt.	
Da 0°30'	Da 2°30'	Ys	11.63'	Da 0°54'	
R 11459.16'	Ls 400'	θs	5°00'	R 6366.20'	
T 345.94'	Ts 708.68'	Δc	15°00'	T 222.31'	
L 691.67'	Es 38.60'	Lc	600'	L 444.44'	
E 5.22'	Xs 399.70'	Rc	2291.83'	E 3.88'	

PROP. CURVE & SPIRAL DATA NORTH BOUND LANE

P.I. 814+04.14	P.I. 828+14.78			P.I. 837+49.92	
Δ 0°50' Lt.	Δ 23°22'30" Rt.			Δ 5°00' Lt.	
Da 0°15'	Da 2°30'	Ys	11.63'	Da 1°05'	
R 22918.32'	Ls 400'	θs	5°00'	R 5288.84'	
T 166.67'	Ts 674.65'	Δc	13°22'30"	T 230.92'	
L 333.33'	Es 51.	Lc	535'	L 461.54'	
E 0.61'	Xs 399.70'	Rc	2291.83'	E 5.04'	

PROP. SPIRAL CURVE

P.I.	878+35.48
Δ	40°50' Lt.
Da	2°30'
Ls	400'
Ts	1054.12'
Xs	399.70'
Ys	11.63'
Es	136.73'
θs	5°00'
Δc	30°50'
Rc	2291.83'
Lc	1233.33'

PROP. CURVE DATA

P.I.	991+28.37
Δ	7°09' Lt.
Da	0°44'
R	7813.06'
T	488.13'
L	975.00'
E	15.23'

PROP. CURVE DATA

P.I.	903+24.70
Δ	11°46' Rt.
Da	1°14'
R	4645.61'
T	479.71'
L	953.05'
E	24.60'

PROP. CURVE DATA

P.I.	955+12.25
Δ	14°39'45" Rt.
Da	1°30'
R	3819.72'
T	491.44'
L	977.50'
E	31.48'

EQUATION 804+25.61 (Back) = 804+80.13 (Ahead) SOUTH BOUND

PT. 817+53.42

N 0°10'30" E 320 HIGH 66

SEC. 4, T1N, R22W

SEC. 1, T1N, R22W

C.S. 824+19.82 ℄ County Road ℄ SEC. LINE

STA. 824+19.82 P.C. 825+19.82

CLEAR ZONE 60' FROM ℄ OF PROP. ℄

Existing ℄ N 21°15'30" E

Proposed Connection

Existing ℄ U.S. Rt. 23

N 17°48'10" W

Centerline of Survey & North Bound Lane 64' Lt. of Exist. ℄

SEC. 11, T2N, R22W SEC. 31, T9N, R21W

SEC. 10, T2N, R22W SEC. 30, T9N, R21W

SEC. 7, T2N, R22W SEC. 19, T9N, R21W

SEC. 11, T2N, R22W SEC. 10, T2N, R22W & County Road

N 6°51'35" E

N 0°17'25" W

N 10°28'35" E

P.C. 986+40.24

P.T. 996+15.58

END LIMITED ACCESS STA. 1000+85

END PROJECT STA. 1009+38.05 S.L.M. 19.12

Centerline of Survey & Centerline of Median

P.I. 1003+53.05 Δ 0°26' Rt.

Centerline of Survey & North Bound Lane 64' Rt. of Exist. ℄

N 19°34'10" W Prop. ℄ 300 Exist. ℄ 30° 901 Prop. ℄ Exist. ℄ N 19°34'10" W 902 Scale 1" = 100'

SPRINGFIELD TWP. SEC. 6, T8N, R21W SEC. 31, T9N, R21W GREEN TWP.

SPRINGFIELD TWP. SEC. 1, T1N, R22W SEC. 11, T2N, R22W GREEN TWP.

The Chesapeake & Ohio Railway Co.

Existing ℄ U.S. Rt. 23

RESUME PROJECT STA. 844+50 S.L.M. 16.01 Centerline of Survey & South Bound Lane 84' Lt. of Exist. ℄

P.C. 844+50.36 Δ 0°54'30" (Ahead 32.139)

P.T. 845+32.50

℄ County Road Old 32 # 23

Proposed Connection

N 19°34'10" W

N 25°15'30" E 859

P.C. 903+24.70

P.T. 908+78.39

P.C. 955+12.25

P.T. 969+89.91

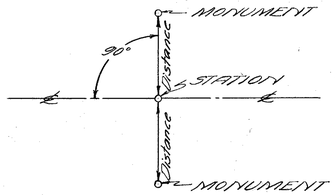
BEGIN PROJECT S.L.M. 15.37 STA. 801+38.03 (Ahead) = STA. 801+38.03 (Back) SUSPEND PROJECT S.L.M. 15.37 STA. 840+00 S.L.M. 15.37

BEGIN LIMITED ACCESS STA. 844+41.31

END LIMITED ACCESS STA. 13+61.14 (S.R. 159)

REFERENCE POINTS TO BE SET AFTER CONSTRUCTION

Station	Dist. From ℄ Left	Dist. From ℄ Right	Station	Dist. From ℄ Left	Dist. From ℄ Right	Station	Dist. From ℄ Left	Dist. From ℄ Right
EQUATION 801+25.61 (Back) = 801+80.13 (Ahead)	21'	46'	834+14.69	—	94'	959+98.31	83'	21'
			838+14.69	21'	84'	965+00	84'	21'
817+53.42	21'	59'	895+00	21'	85'	970+00	85'	21'
820+19.42	23'	77'	900+45.99	21'	84'	975+00	85'	21'
824+49.42	23'	89'	905+00	85'	21'	980+00	83'	21'
830+49.42	23'	—	910+00.04	85'	21'	986+40.24	85'	21'
834+49.42	23'	—	915+00	85'	21'	990+00	85'	21'
835+19.47	21'	—	920+00	85'	21'	996+15.58	85'	21'
839+63.90	21'	—	925+00	85'	21'	1000+00	87'	21'
845+00	21'	—	930+00	85'	21'	1005+00	85'	21'
850+00	21'	104'	935+00	110'	21'			
855+00	21'	104'	940+00	110'	26'			
860+00	21'	104'	945+00	85'	21'			
867+81.36	21'	105'	950+20.81	87'	21'			
871+81.36	21'	110'	955+00	85'	21'			



DETAIL FOR SETTING REFERENCE POINTS

THIS IMPROVEMENT HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR OF HIGHWAYS AND RECORDED IN VOLUME 40 PAGE 149 OF THE DIRECTORS JOURNAL IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02, REVISED CODE (1178-21 GEN. CODE OF OHIO) AND DATED Oct. 7, 1955.

THIS PLAN RECORDED IN THE ROSS COUNTY RECORDS OF PLATS, VOLUME 4 PAGE 72 AND DATED April 9, 1956

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF HIGHWAYS IN 1955 BY ELMER S. BARRETT ASSOCIATES

Elmer S. Barrett 3-30-56

ELMER S. BARRETT RE. 6937 DATE SEAL

UTILITIES
T Telephone line owned by The Chillicothe Telephone Company
Chillicothe, Ohio
P Power line Owned by The Ohio Midland Light & Power Company
Canal Winchester, Ohio

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

163/177

R/W PLAN
ROS. 23-(15.37)(16.01
ROSS COUNTY

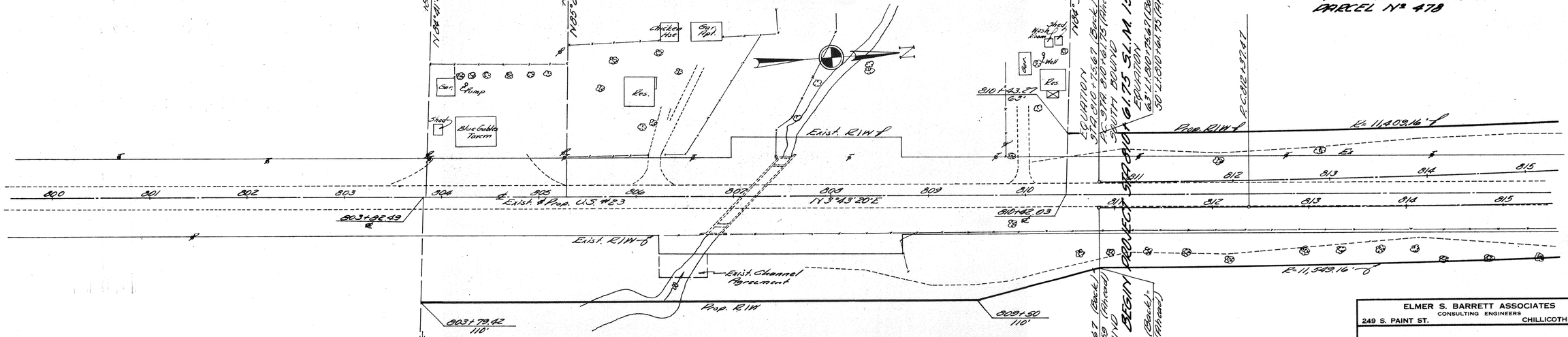
CLARENCE S. & FRANCES S. HOUSER
Vol. 246, Pg. 429
PARCEL Nº 474

KENNETH S. MADRU
Vol. 262, Pg. 157
PARCEL Nº 476

CLARENCE B. & DENNA A. MADRU
Vol. 264, Pg. 73
PARCEL Nº 477

SEC. 4, T1N, R22W
SPRINGFIELD TOWNYSHIP

BERTHA CORA REUB
Vol. 120, Pg. 267
1.979 ACRES
PRES. RD. 2.136 AC.
PARCEL Nº 478



JAMES BOYLE & J. FINLEY HALL
Vol. 211, Pg. 320 - Vol. 272, Pg. 392 - Vol. 275, Pg. 437
PARCEL Nº 475

SEC. 4, T1N, R22W
SPRINGFIELD TOWNYSHIP

BERTHA CORA REUB
Vol. 120, Pg. 267
1.979 ACRES
PRES. RD. 2.136 AC.
PARCEL Nº 478

ELMER S. BARRETT ASSOCIATES
CONSULTING ENGINEERS
249 S. PAINT ST. CHILLICOTHE, OHIO

SCALE			DATE			
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

STA 800+00 to STA. 815+00

R/W PLAN
ROS. 23-15.37
ROSS COUNTY

Revised 4/11/56 CM
" 4/24/56 CM
" 5/14/56 CM
" 6/23/56 CM
" 8/30/56 CM
" 4/17/57 CM

Added Recording Information 6-2-57

PRIOR CURVE DATA

SOUTH BOUND LANE		NORTH BOUND LANE	
P.I.	814+07.69	P.I.	814+04.14
Δ	3°27'30" Lt.	Δ	0°30' Lt.
D_a	0°30'	D_a	0°15'
R	11,459.16'	R	22,918.32'
T	345.94'	T	166.67'
L	691.67'	L	333.33'
E	5.22'	E	0.61'

BERTHA CORA RUEB
Vol. 120, Pg. 267
PARCEL N° 478
1.585 ACRES
PRES. RD. 2.136 AC.

SEC. 4, T1N, R22W
SPRINGFIELD TOWNSHIP

JOSEPHINE THERESA RUEB
Vol. 113, Pg. 298
PARCEL N° 479
1.306 ACRES
PRES. RD. 1.111 AC.

EQUATION
STA. 810+40.03 (Back)=
STA. 810+25.61 (Ahead)
NORTH BOUND

EQUATION
STA. 810+75.37 (Back)=
STA. 810+59.59 (Ahead)
SOUTH BOUND

BEGIN PROJECT STA. 810+40.03

Area Acquired By Free & Vol. 62, Pg. 331

Shed
Wash. Room
Gar.
Well
Res.
Empty Res.
Barn
Corn Crib
Farm Gate Post to be Removed
3 Farm Gate Posts to be Removed

Prop. R/W
Construction Limit
Exist. R/W
Exist. U.S. #23
Prop. South Bound Lane ℄ of Survey
Exist. R/W
Prop. R/W

N 3°43'20" E
N 7°43'20" E
N 10°45'50" E
N 7°45'50" E
N 2°15'50" E
N 1°26'50" E

Equation
STA. 820+49.42 Back =
STA. 820+53.62 Ahead
Left

Equation
STA. 824+44.42 Back =
STA. 824+60.40 Ahead
Left

Equation
STA. 824+45.12 Ahead =
STA. 824+79.12 Back
Left

Equation
STA. 824+45.12 Ahead =
STA. 824+79.12 Back
Right

Equation
STA. 824+44.42 Back =
STA. 824+60.40 Ahead
Right

Equation
STA. 820+49.42 Back =
STA. 820+53.62 Ahead
Right

P.I. 811+58.82
P.I. 812+53.62
P.I. 813+70.80
P.I. 814+07.69
P.I. 814+04.14
P.I. 820+49.42
P.I. 824+44.42
P.I. 824+79.12

P.C. 812+77.47
P.T. 814+69.14
P.C. 814+03.47
P.T. 815+94.14
P.C. 824+79.12
P.C. 825+40.13

Sta. 811+49.16 ℄
Sta. 811+49.16 ℄
Sta. 811+72.38
91.10'
Sta. 820+49.42
105'
Sta. 824+02.90
131.10'
Sta. 824+92.15
139.65'
Sta. 824+44.42
60.40'
Sta. 824+79.12
79'

Sta. 811+72.38 ℄
Sta. 811+72.38 ℄
Sta. 820+49.42 ℄
Sta. 820+49.42 ℄
Sta. 824+79.12 ℄
Sta. 824+79.12 ℄

R/W PLAN
ROS. 23-15.37
ROSS COUNTY
LIMITED ACCESS

Revised 5/23/56 WHJ
" 8/30/56 WHJ
" 5-9-57 WHJ

HELEN SWARTZBAUGH
Vol. 188, Pg. 314
PARCEL Nº 485

THE CHESAPEAKE & OHIO RAILWAY CO.
PARCEL Nº 485
(Note: For R/W See Project on Sec. 15.92)

SEC. 1, T1N, R22W
SPRINGFIELD TWP.

CHARLES A. KILVERT et al.
Vol. 234, Pg. 381
PARCEL Nº 487 L.A.
2.835 ACRES - PRES. RD. 1.030 AC.

SUSPEND PROJECT
STA. 840+00
SL.M. 15.92

BEGIN LIMITED ACCESS STA. 841+41.31

RESUME PROJECT
STA. 844+30
SL.M. 16.01

ACCESS POINT
LT. STA. 848+36.34

ACCESS POINT
RT. STA. 848+72.27

HELEN SWARTZBAUGH
Vol. 188, Pg. 314
PARCEL Nº 486 L.A.
1.244 ACRES - PRES. RD. 1.270 AC.

SEC. 6, T8N, R21W
SPRINGFIELD TWP.

CHARLES A. KILVERT et al.
Vol. 234, Pg. 381
PARCEL Nº 487 L.A.
2.835 ACRES - PRES. RD. 1.030 AC.

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Vol. 234, Pg. 381
PARCEL Nº 487 L.A.
2.835 ACRES
PRES. RD. 1.030 ACRES

GLADYS G. VAUGHAN
Vol. 273, Pg. 3
Vol. 225, Pg. 372, 378 & 379
PARCEL Nº 499 L.A.
18.116 ACRES
PRES. RD. 5.495 AC.

18.116

ACCESS POINT
LT. & STA. 859+08.29

ACCESS POINT
RT. & STA. 862+52

CHARLES A. KILVERT et al.
Vol. 234, Pg. 381
PARCEL Nº 487 L.A.
2.835 ACRES
PRES. RD. 1.030 AC.

ELSIE M. CHESTER et al.
Vol. 263, Pg. 74 & 75
PARCEL Nº 488 L.A.
0.683 ACRES - PRES. RD. 1.905 AC.

Legal Real Exhibit A.

STA. 840+00 to STA. 870+00

R/W PLAN
ROS. 23-15.37
ROSS COUNTY
LIMITED ACCESS

SEC. 6, T8N, R21W
SPRINGFIELD TWP.

DEDP. SPIRAL CURVE
P.I. 878+35.48
Δ 40° 30' Lt.
L_a 2° 30'
L_s 400'
T_s 1054.12'
X_c 399.70'
Y_c 11.63'
E_s 136.73'
θ_s 5°00'
Δ= 30°50'
R_c 2291.83'
L_c 1233.33'

GLADYS G. VAUGHAN
Vol. 225, Pg. 377, 378, 379
Vol. 273, Pg. 3.
PARCEL Nº 439 L.A.
18.116 ACRES
PRES. RD. 5.495 AC.

ACCESS POINT
Lt. STA 873+37.50

GLADYS G. VAUGHAN

E. CLOUGH, M. S. CONNELL et al.
Vol. 271, Pg. 501, 516, 518
PARCEL Nº 491 L.A.
0.349 ACRES
PRES. RD. 0.414 AC.

ELSIE M. CHESTER et al.
Vol. 263, Pg. 74 & 75
PARCEL Nº 488 L.A.
0.683 ACRES - PRES. RD. 1.905 AC.

ACCESS POINT
P.I. & STA. 16+42.50

STA. 870+00 to 885+00

SEC. 6, T8N, R21W
SPRINGFIELD TWP.

R/W PLAN
ROS. 23-15.37
ROSS COUNTY
LIMITED ACCESS

Revised 5/23/56 ARW

G. CLOUGH McCONNELL et al.
Vol. 227, Pg. 56, 57 & 58
PARCEL Nº 491 A-L.A.
0.349 ACRES
PRES. RD. 0.414 AC.

PROP. SPIRAL DATA
PROP. (SOUTH BOUND) S.R. #159
PI. 164+39.42 Ls 250'
Δs 32°33'16" Xc 248.05'
Dc 26°02'37" Yc 44.27'
Rc 220.00'
LT. 169.58'
ST. 85.99'

CURVE DATA
Δ 205°01'06"
Dc 26°02'37"
R 220'
L 787.21'

PROP. SPIRAL CURVE
PI. 878+35.48
Δ 40°50' Lt.
Ds 2°30'
Ls 400'
Ts 1054.18'
Xc 392.70'
Yc 111.63'
Es 136.73'
Rc 5°00'
Δc 30°50'
Ec 2291.83'
Lc 1233.33'

PROP. CURVE DATA
PROP. (SOUTH BOUND) S.R. #159
Δ 59°25' Lt.
Dc 18°28'57"
Rc 310'
Lc 171.47'
Ec 13°37'43"
Ls 150'
Xc 142.13'
Yc 12.05'
Ts 253.45'

PROP. CONNECTION CURVE
PI. 16+95.80
Δ 30°42' Rt.
Dc 15°00'
R 381.97'
T 104.85'
L 204.67'
E 14.13'

GLADYS G. VAUGHAN
Vol. 225, Pg. 377, 378 & 379
Vol. 273, Pg. 3
PARCEL Nº 489 L.A.
18.116 ACRES
PRES. RD. 3.495 AC.

Total crop Area
7.437 Acres
0.461 "
0.294 "
6.683 Acres.

ELSIE M. CHESTER et al.
Vol. 263, Pg. 74 & 75
PARCEL Nº 488 L.A.
0.683 ACRES - PRES. RD. 1.905 AC.

GREEN TWP.
SEC. 31, T2N, R21W
SPRINGFIELD TWP.
SEC. 6, T1N, R21W

END LIMITED ACCESS
STA. 18+61.14

END WORK
STA. 19+00

ACCESS POINT
RT. & STA. 16+42.50

INTERCHANGE U.S. 23 & S.R. 159

R/W PLAN
ROS. 23-15.37
ROSS COUNTY
LIMITED ACCESS

Revised 4/10/56 C.V.
" 3/23/56 W.W.
" 5-9-57 J.A.B.
" 9.22.59 C.J.S.

SEC. 6, T11N, R21W
SPRINGFIELD TWP.

SEC. 31, T9N, R21W
GREEN TWP.

SEC. 11, T2N, R22W
GREEN TWP.

SEC. 11, T2N, R22W
SEC. 31, T9N, R21W

GLADYS G. VAUGHAN
Vol. 225, Pg. 377, 378 & 379
Vol. 273, Pg. 3
PARCEL Nº 489 L.A.
18.116 ACRES
PRES. RD. 5.495 AC.

SPRINGFIELD TWP.
GREEN TWP.

Rec. 7463.36

Fnd. Lt. (To be abandoned)

Fnd. Lt. (To be abandoned)

Prop. R/W ℄

Construction Limit ℄

Prop. South Bound Lane U.S. #23 ℄

Exist. R/W ℄

Exist. U.S. 23 ℄

N 19°34'10" W

Sign

Exist. R/W ℄

Construction Limit ℄

Prop. R/W

Fnd. Lt. (To be abandoned)

SEC. 6, T11N, R21W
SEC. 31, T9N, R21W

Exist County Road (Old U.S. #23)

N 37°55'08" W

STATE OF OHIO
Vol. 277, Pg. 113
PARCEL Nº 490 L.A.
PRES. RD. 0.143 AC.
LIMITED ACCESS ONLY

ACCESS POINT
LT. & DT. & STA. 890+27

Fd'rd Rail Hwy. Brid.

Radio Tower

Fr. Hse.

Well

SEC. 31, T9N, R21W
GREEN TWP.

G. CLOUGH McCONNELL et al.
Vol. 227, Pg. 56, 57 & 58
PARCEL Nº 491 L.A.
3.027 ACRES
PRES. RD. 2.677 AC.

Note:
Access Point Left of Station 901+00 Extinguished. New Access Point Left Station 903+44 By Direction of the Director, and Recorded In His Journal Vol. 44 At Page 781, By I.O.C. Dated 15 Sept. 1959.

SEC. 11, T2N, R22W
GREEN TWP.

ELSIE M. CHESTER et al.
Vol. 263, Pg. 79
PARCEL Nº 492 L.A.
1.793 ACRES
PRES. RD. 1.825 AC.

Parcel No. 6 of Deed
Excepting 0.7947 Acres of
Recorded Vol. 263 Page 234

Channel Change
Parcel Nº 492X
0.052 Acres

Drive (To be Abandoned)

See above Note

Fnd. Lt. (To be abandoned)

Prop. R/W ℄

Construction Limit ℄

Exist. R/W ℄

Exist. U.S. 23 ℄

Prop. North Bound Lane U.S. #23 ℄

Construction Limit ℄

Prop. R/W ℄

R=4770.61' ℄

R=4583.66' ℄

R=4535.61' ℄

SEC. 11, T2N, R22W
SEC. 31, T9N, R21W

ACCESS POINT
Rt. STA. 901+00
12' Wide R/W

PROP. CURVE DATA
P.I. 905+24.70
Δ 11°46' Rt.
Dc 1°14'
R 4645.61'
T 478.71'
L 954.05'
E 24.60'

SEC. 31, T9N, R21W
GREEN TWP.

G. CLOUGH McCONNELL et al.
Vol. 227, Pg. 56, 57 & 58
PARCEL Nº 491 L.A.
3.027 ACRES
PRES. RD. 2.677 AC.

McCONNELL ACRES SUB
Vol. 4, Pg. 37
RECORDED APRIL 7, 1955

SEC. 11, T2N, R22W
GREEN TWP.

STA. 885+00 to STA. 915+00

R/W PLAN
ROS. 23-13.37
ROSS COUNTY
LIMITED ACCESS

Revised 5/23/66 Rec'd 10/19/66 Rec'd 11/14/67

ELSIE M. CHESTER et al.
Vol. 263, Pg. 79
PARCEL Nº 492 L.A.
1.793 ACRES
PRES. RD. 1.825 AC.

SEC. 11, T2N, R22W
GREEN TWP.

RAY & PHOEBA GRUBB
Vol. 241, Pg. 617 & 618
PARCEL Nº 493 L.A.
4.655 ACRES - PRES. RD. 3.949 AC.
PARCEL Nº 493A - 0.176 AC.
PRES. RD. 0.062 AC.

Channel Change
Parcel Nº 493X
0.036 Ac.

ACCESS POINT
LT. STA. 920+00

N 64° 35' 10" E
390.32

Prop. R/W ℄

Exist. R/W ℄

Construction Limit ℄

Exist. U.S. #23

Prop. North Bound Lane U.S. 23 ℄

N 7° 48' 10" W

Construction Limit ℄

Prop. R/W ℄

Exist. R/W ℄

Channel Change
Parcel Nº 493X-1
0.040 Ac.

ACCESS POINT
RT. STA. 919+90.32

N 64° 35' 10" E
390.32

McCONNELL ACRES SUB.
Vol. 4, Pg. 57
RECORDED APRIL 7, 1955

G. CLOUGH McCONNELL et al.
Vol. 227, Pg. 56, 57 & 58
PARCEL Nº 491 L.A.
3.027 ACRES
PRES. RD. 2.677 AC.

RAY & PHOEBA GRUBB
Vol. 241, Pg. 617 & 618
PARCEL Nº 493 L.A.
4.655 ACRES - PRES. RD. 3.949 AC.
PARCEL Nº 493A - 0.176 AC. PRES RD. 0.062 AC.

SEC. 11, T2N, R22W
GREEN TWP.

SEC. 14, T2N, R22W
GREEN TWP.

Slope Agreement
Parcel Nº 493 SL.
0.01 Acres

Sewer Easement
Parcel Nº 493 Sewer

Service Road

Jervis Road

Prop. R/W ℄

Exist. R/W ℄

Construction Limit ℄

Exist. U.S. 23 ℄

Prop. North Bound Lane U.S. 23 ℄ N 7° 48' 10" W

Exist. R/W

Exist. R/W

ACCESS POINT
LT. & RT. STA. 930+36.8

ACCESS POINT
LT. & RT. STA. 940+51.87

Parcel No. 493-B
Area = 0.064 AC.
Pres. Road = 0.063 AC.

For Final R/W See
Parcel No. 494-A
Area = 0.034 AC.
Pres. Road = 0.065 AC.
Service Road 16.25

SEC. 11, T2N, R22W

SEC. 10, T2N, R22W

RAY & PHOEBA GRUBB
Vol. 241, Pg. 617 & 618
PARCEL Nº 493 L.A.
4.655 ACRES - PRES. RD. 3.949 AC.
PARCEL Nº 493A 0.176 AC. - PRES. RD. 0.062

SEC 11, T2N, R22W
GREEN TWP.

MILES R. CHESTER et al.
Vol. 263, Pg. 339
PARCEL Nº 495 L.A.
3.788 ACRES - PRES. RD. 3.197 AC.
PARCEL Nº 495A
0.096 ACRES - PRES. RD. 0.062 AC.

ELSIE M. CHESTER et al.
Vol. 223, Pg. 293
PARCEL Nº 494 L.A.
1.933 ACRES
PRES. RD. 0.919 AC.

STA. 915+00 to Sta. 945+00

R/W PLAN
ROS. 23-15.37
ROSS COUNTY
LIMITED ACCESS

Revised 4/16/56 Chf's Let. 6/28/56 WMS
" 5-9-57 MGB

MILES R. CHESTER et al.
Vol. 263, Pg. 339
PARCEL Nº 495 L.A.
3.788 ACRES - PRES. RD. 3.197 AC.
PARCEL Nº 495 A.
0.096 ACRES - PRES. RD. 0.063 AC.

SEC. 10, T2N, R22W
GREEN TWP.

FOREST C. & WILMA B. SHIVELY
Vol. 290, Pg. 243
PARCEL Nº 496 L.A.
2.931 ACRES
PRES. RD. 2.591 AC.

ELSIE M. CHESTER et al.
Vol. 223, Pg. 293
PARCEL Nº 494 L.A.
1.933 ACRES
PRES. RD. 0.919 AC.

ACCESS POINT
Lt. & Rt. STA. 949+00

ACCESS POINT
Lt. & STA. 955+00

ACCESS POINT
Lt. & Rt. STA. 959+40

MILES R. CHESTER et al.
Vol. 263, Pg. 339
PARCEL Nº 495 L.A.
3.788 ACRES - PRES. RD. 3.197 AC.

PROP. CURVE DATA
P.I. 955+12.25
Δ 14° 39' 45" Rt.
Dc 1° 30'
R 3819.72'
T 491.44'
L 977.50'
E 31.48'

FOREST C. & WILMA B. SHIVELY
Vol. 290, Pg. 243
PARCEL Nº 496 L.A.
2.931 ACRES
PRES. RD. 2.591 AC.

MANDY & ORVAL B. RITCHIE
Vol. 254, Pg. 63
PARCEL Nº 497 L.A.
PRES. RD.
0.125 AC.
LIMITED
ACCESS ONLY

JOHN A. STREITENBERGER ESTATE
Vol. 122, Pg. 327
PARCEL Nº 498 L.A.
0.322 ACRES
PRES. RD. 0.854 AC.

MILES R. CHESTER
Vol. 263, Pg. 339
PARCEL Nº 495 L.A.
3.788 ACRES
PRES. RD. 3.197 AC.

ACCESS POINT
Lt. & Rt. STA. 968+63

FOREST C. & WILMA B. SHIVELY
Vol. 290, Pg. 243
PARCEL Nº 496 L.A.
2.931 ACRES
PRES. RD. 2.591 AC.

SEC. 10, T2N, R22W
GREEN TWP.

STA. 945+00 to STA. 975+00

R/W PLAN
ROS. 23-15.37
ROSS COUNTY
LIMITED ACCESS

Revised 5/23/56 KRW

JOHN A. STREITENBERGER ESTATE
Vol. 122, Pg. 327
PARCEL Nº 498 L.A.
0.322 ACRES
PRES. RD. 0.854 AC.

SEC. 10, T2N, R22W
GREEN TWP.

MARY S. DUFFY
Vol. 266, Pg. 35
PARCEL Nº 499 L.A.
3.042 ACRES
PRES. RD. 3.277 AC.

N 25° 00' E 1.30'

977+79.24
120'

983+00
120'

985+00
130'

986+40.24
120'

989+00
120'

R = 7690.06'

Prop. R/W ℄

Construction Limits ℄

Exist. R/W ℄

℄ Exist. U.S. #23 ℄

977+80.23
60'

975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990

℄ Prop. North Bound Lane U.S. #23

N 16° 51' 35" E

Exist. R/W ℄

Construction Limits ℄

975+00
60'

980+00
80'

977+83.33
71.93'

Prop. R/W ℄

985+00
80'

986+40.24
70'

R = 7883.06' ℄

ACCESS POINT
LT. & RT. & STA. 986+07

Fireworks
Cooper

FOREST C. & WILMA B. SHIVELY
Vol. 290 Pg. 243
PARCEL Nº 496 L.A.
2.931 ACRES
PRES. RD. 2.591 AC.

Exist. R/W ℄

N 21° 52' 20" W 1.52'

R = 7883.06' ℄

MARY S. DUFFY
Vol. 266, Pg. 35
PARCEL Nº 499 L.A.
3.042 ACRES - PRES. RD. 3.277 AC.

PROP. CURVE DATA
P.I. 991+28.37
Δ 7° 09' Lt.
D_c 0° 44'
R 7813.06'
T 488.13'
L 975.00'
E 15.23'
25% Tr. Misc.

HAZEL DOWNS HERRON & MABEL DOWNS BROWN et al.
Vol. 263, Pg. 605
PARCEL Nº 500A-L.A.
2.408 ACRES
PRES. RD. 1.859 AC.

SEC. 7, T2N, R22W
GREEN TWP.

Fr. Barn
Concr. Crib
Hay Shed
Fr. Gar.
Fr. Misc.

991+00
115'

991+67.47
125'

996+15.24
125'

1000+85
137'

Exist. Channel Agreement

R = 7630.06' ℄

Prop. R/W ℄

Construction Limits ℄

Exist. R/W ℄

(Drive To Be Abandoned)

℄ Exist. U.S. #23 ℄

Exist. R/W ℄

990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005

℄ Prop. North Bound Lane U.S. #23

Ex. 12"x12" CMP Ex. 6" Fld. Tile

N 10° 17' 25" W

Ex. 8" Brick

Ex. Fld. Tile

Construction Limits ℄

991+59.12
70'

R = 7883.06' ℄

996+15.24
70'

Prop. R/W ℄

Exist. R/W

1000+85
93'

ACCESS POINT
LT. & STA. 991+62.15

ACCESS POINT
LT. & RT. STA. 993+46

SEC. 10, T2N, R22W
SEC. 7, T2N, R22W

END LIMITED ACCESS
STA 1000+85

HAZEL DOWNS HERRON & MABEL DOWNS BROWN et al.
Vol. 263, Pg. 605
PARCEL Nº 500A-L.A.
2.408 ACRES - PRES. RD. 1.859 AC.

SEC. 7, T2N, R22W
GREEN TWP.

STA. 975+00 to STA. 1005+00

CALC BY _____ DATE _____
CHKD BY _____ DATE _____

OHIO
FHWA REGION 5

1

GREEN TOWNSHIP
FR. SEC. 10, T-2N, R-22W

0 100 200
SCALE IN FEET

ADVANCED ACQUISITION OF RIGHT-OF-WAY FOR PROPOSED HIGHWAY PROJECT ROS ~ 207 ~ 00.00

171A
177

EXIST. U.S.R. 23 ℄ CURVE DATA
NORTHBOUND LANE

PI 991+28.37
▷ 07°09'00" LT.
D_c 00°44'00"
R 7813.06'
T 488.13'
L_c 975.00'
E 15.23'

977+84.34
64.00'
862.74'
N06°51'35"E
℄ S.B. U.S.R. 23
986+47.14
64.00'
R.7639.44'
CH.L. 512.27'
CH.B. N04°56'18"E
991+63.73
63.79'
996+15.24
P.T.
N00°17'25"W
975
64'
980
N06°51'35"E
℄ N.B. U.S.R. 23
985
P.C. 986+40.24
990
995
(235.27')
63.83'
(234.03')
70.05'
EXIST.
L.A. R/W
+84.04
171.27'
GATE
2-SIGNS
BILLBOARD
S06°06'23"W
857.08'
PROP. R/W
S06°04'10"W
526.02'
97.81'
977+83.24
171.27'
986+40.24
160.00'
991+55.37
170.09'
SEE DETAIL
NOT TO SCALE
3
WD-1
N82°52'17"W
S84°53'18"E
+61.40

GROSS TAKE: 7.227 AC.
P.R.O. IN TAKE: 4.395 AC.
NET TAKE: 2.832 AC.

AREA TO BE ACQUIRED FROM
STEPHEN E. COOPER
PATRICIA J. COOPER

VOLUME: 547 **PAGE:** 0652

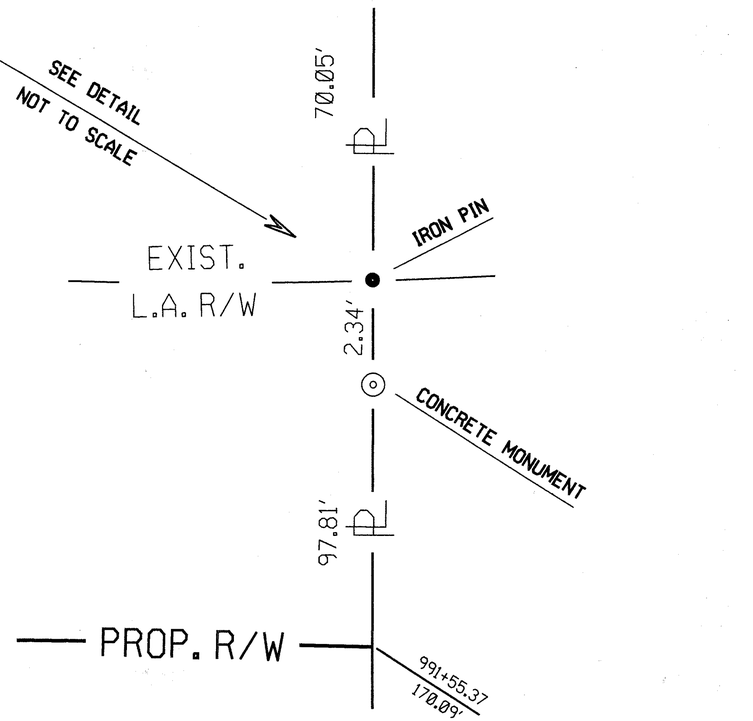
LEGEND
MONUMENT (FND) ⊙
IRON PIN W/CAP (SET) •

43.340 AC.

1124.76'
FR. SEC. 10
FR. SEC. 7
LARGE POST
T-2N, R-22W
T-9N, R-21W
SEC. 30
SEC. 19

FOR BASIS OF BEARING SEE LOCATION PLAN
ROS ~ 23 ~ 15.37

VOLUME: 4 **PAGE:** 79 **DATE:** 04-09-56



PLAT OF PROPERTY TO BE ACQUIRED BY
STATE OF OHIO DEPARTMENT OF TRANSPORTATION.

I CERTIFY THAT THIS PLAT AND SURVEY
WAS PERFORMED UNDER MY SUPERVISION AND
IS CORRECT TO THE BEST OF MY KNOWLEDGE.

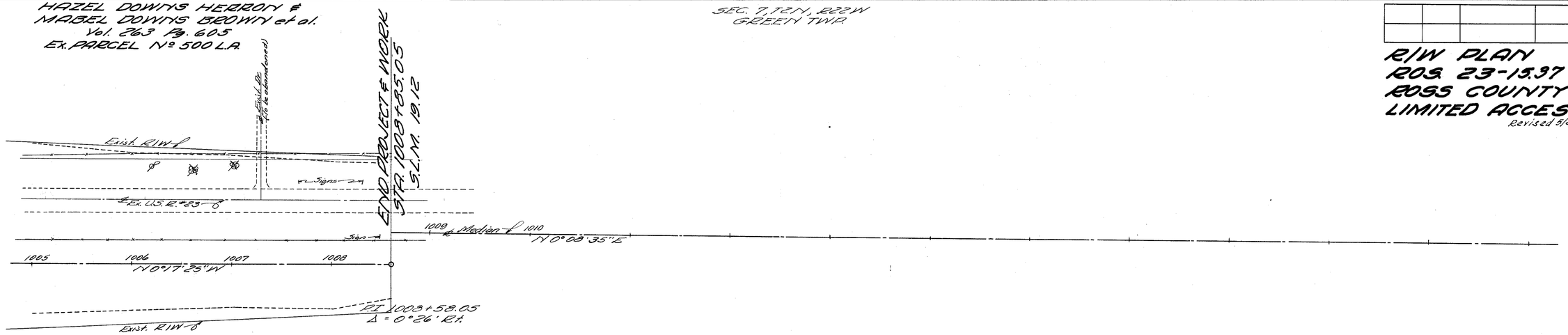
STATE OF OHIO
ROBERT D. BROWN
S-5629
REGISTERED
PROFESSIONAL SURVEYOR

Robert D. Brown P.S. # 5629

DATE: 1-28-94

HAZEL DOWNS HEBRON &
MABEL DOWNS BROWN et al.
Vol. 263 Pg. 605
Ex. PARCEL Nº 500 L.A.

SEC. 7, T2N, R22W
GREEN TWP.



HAZEL DOWNS HEBRON &
MABEL DOWNS BROWN et al.
Vol. 263, Pg. 605
Ex. PARCEL Nº 500 L.A.

SEC. 7, T2N, R22W
GREEN TWP.

172
177

R/W PLAN
ROS. 23-13.37
ROSS COUNTY
LIMITED ACCESS

Revised 8/23/56 M.H.C.

STA. 1005+00 to STA. 1008+58.05

SOIL PROFILE
ROSS COUNTY
ROSS-23-(15.37)(16.01)
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO

1/5

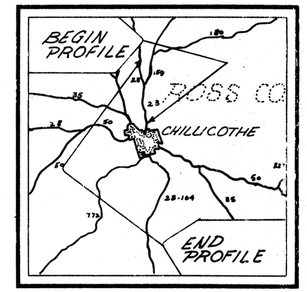
NOTE: THE INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS SECURED FOR THE USE OF THE STATE OF OHIO AND IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING THE CONSTRUCTION OF THE PROJECT.

LEGEND FOR PROJECT-AVERAGE RESULTS OF TESTS- 206 SAMPLES TESTED

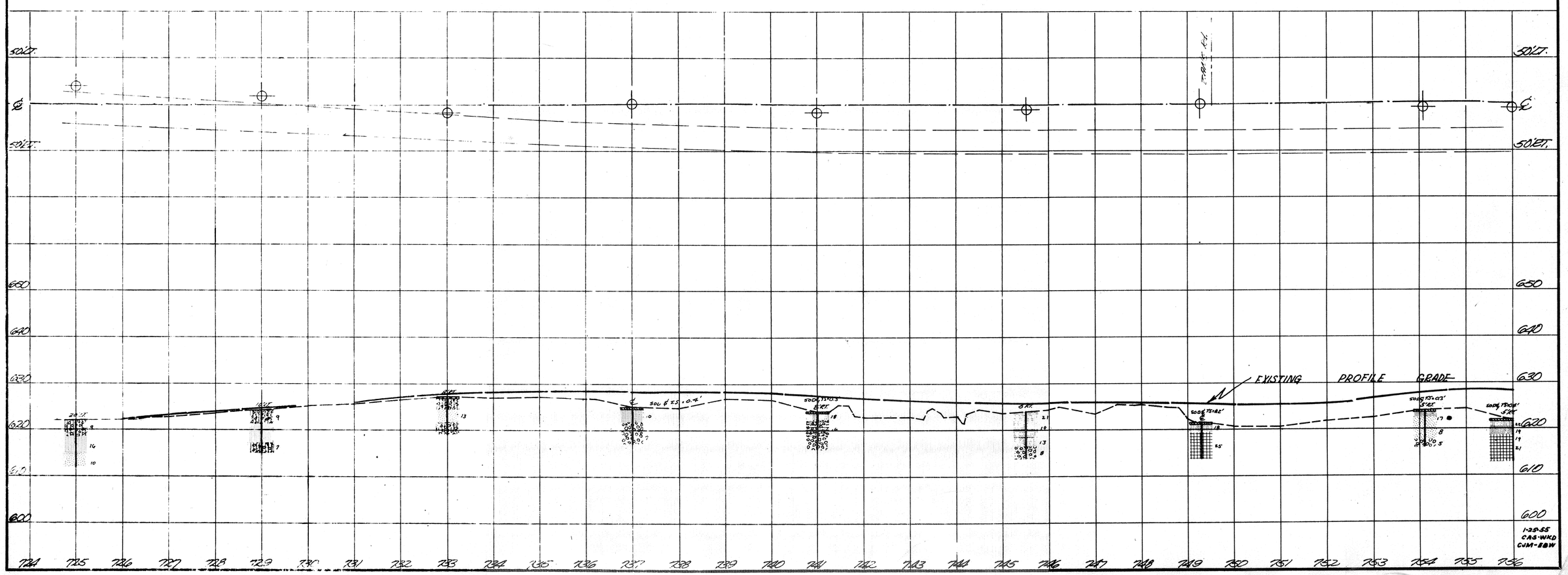
DESCRIPTION	H. R. B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
GRAVEL	A-1-a(0)	A-1-a	59	20	10	7	4	18	1	7	9
GRAVEL & SAND	A-1-b(0)	A-1-b	38	28	16	12	6	20	1	7	12
COARSE & FINE SAND	—	A-3a	7	25	41	17	10	21	4	12	11
GRAVEL, SAND & SILT	A-2-4(0)	A-2-4	43	14	18	17	8	23	4	9	10
GRAVEL, SAND, SILT & CLAY	A-2-6(1)	A-2-6	15	33	26	9	17	34	17	18	3
SANDY SILT	A-4(4)	A-4a	12	10	21	34	23	23	5	15	69
SILT	A-4-(8)	A-4b	1	3	9	62	25	27	5	22	15
SILT & CLAY	A-6(8)	A-6a	5	7	15	42	31	32	13	20	37
SILTY CLAY	A-6(12)	A-6b	3	7	13	41	36	36	17	22	20
ELASTIC CLAY W/ORGANIC MATERIAL	A-7-5(20)	A-7-5	0	6	17	50	27	96	54	69	2
CLAY	A-7-6(12)	A-7-6	5	7	12	35	41	47	26	24	18

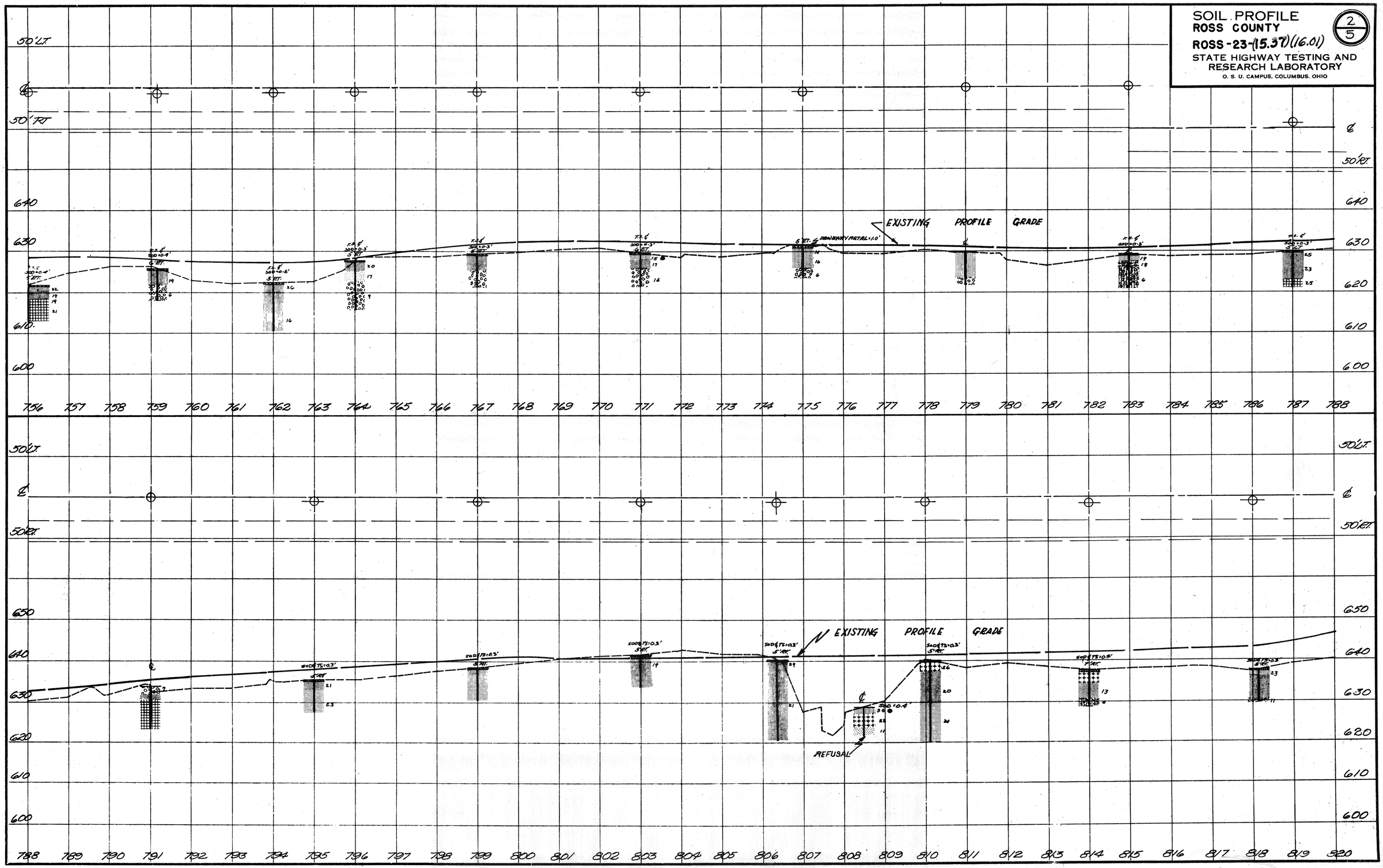
BERM MATERIAL
TOPSOIL = T.S. = APPROX. DEPTH
AUGER HOLE PLOTTED TO VERTICAL SCALE ONLY
⊕ AUGER HOLE - PLAN VIEW
NOTE: NUMBERS BESIDE BORINGS INDICATE MOISTURE CONTENT IN PERCENT
— W FREE WATER
● MOISTURE CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT

- SAMPLES TESTED -
LAB NOS. SO-7486-7553, 7685-7763, 7960-7989, 7998-8046 INC.



LOCATION MAP




SOIL PROFILE
ROSS COUNTY
ROSS-23-(15.37)(16.01)
2/5
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO
50' LT.
50' RT.
EXISTING PROFILE GRADE
DRIVEWAY METAL = 1.0'
REFUSAL
640
630
620
610
600
650
756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788
788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820

SOIL PROFILE

ROSS COUNTY

ROSS-23-(15.37)(16.01)

STATE HIGHWAY TESTING AND RESEARCH LABORATORY

O. S. U. CAMPUS, COLUMBUS, OHIO

3/5

GRAVEL RD.

STA. 832+97.61 BACK

STA. 832+96.76 AHEAD

EQUATION: 832+97.61 BACK = 832+96.76 AHEAD

C.&O. R.R.

RD.

RAILROAD EMBANKMENT - FILL FROM BOTH SIDES

EXPOSURE IN STREAM BANK SHOWS THIS MATERIAL TO BE ERRATIC DEPOSIT OF SANDY GRAVEL & SANDY SILT-CLAY: GLACIAL DRIFT

PROPOSED PROFILE GRADE

EXISTING PROFILE GRADE

HOLE CAVED IN AT 7.4 FT

HOLE CAVED IN AT 6.0 FT

HOLE CAVED IN AT 7.0 FT

STOPPED IN SAND & GRAVEL

STOPPED IN LARGE GRAVEL

50 LT

50 RT

680

670

660

650

640

630

620

800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832

RD.

EXISTING U.S. 23

EXISTING S.R. 159

HOLE CAVED IN AT 5' FT.

STOPPED IN LARGE GRAVEL

710

700

690

680

670

660

650

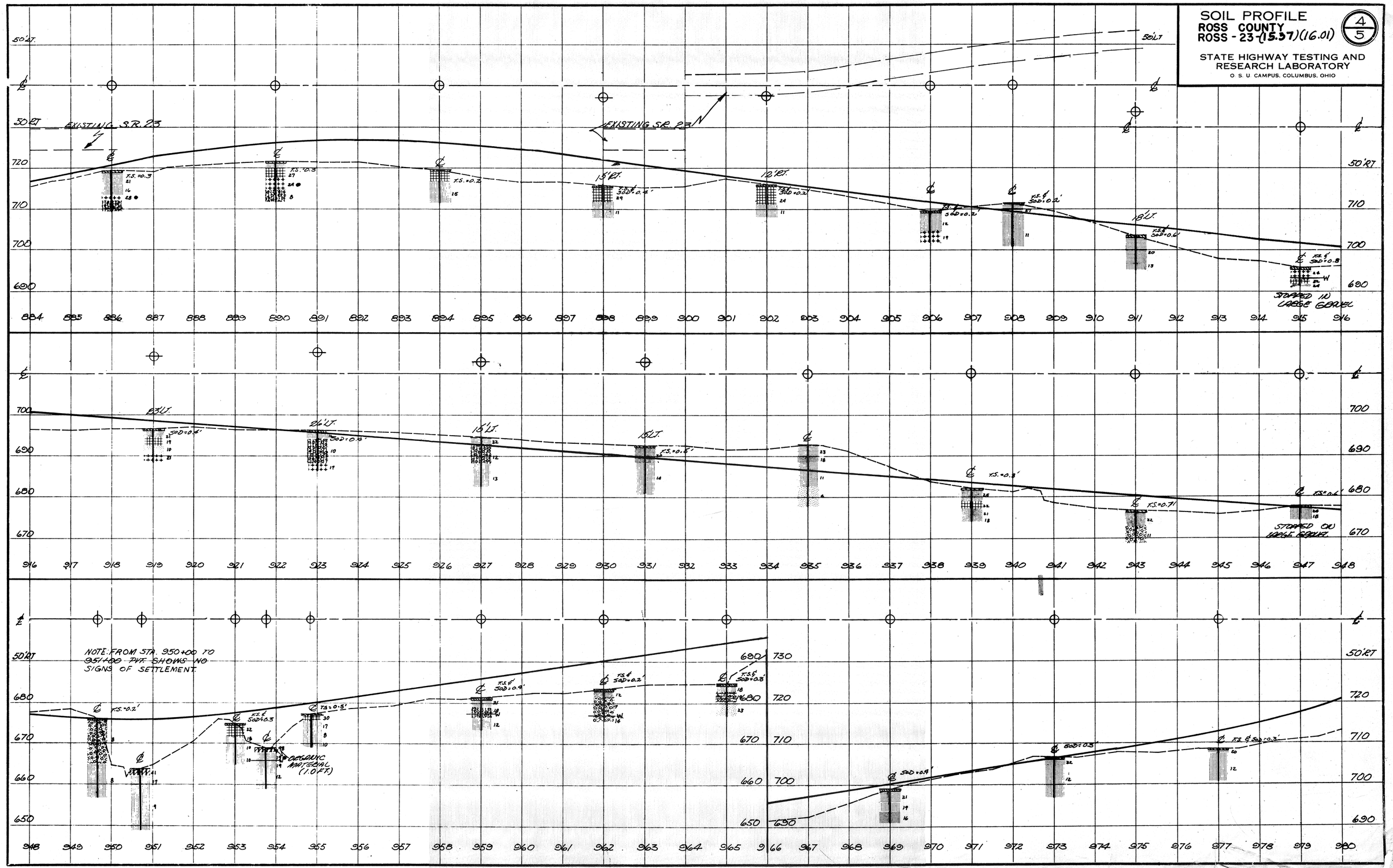
832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864

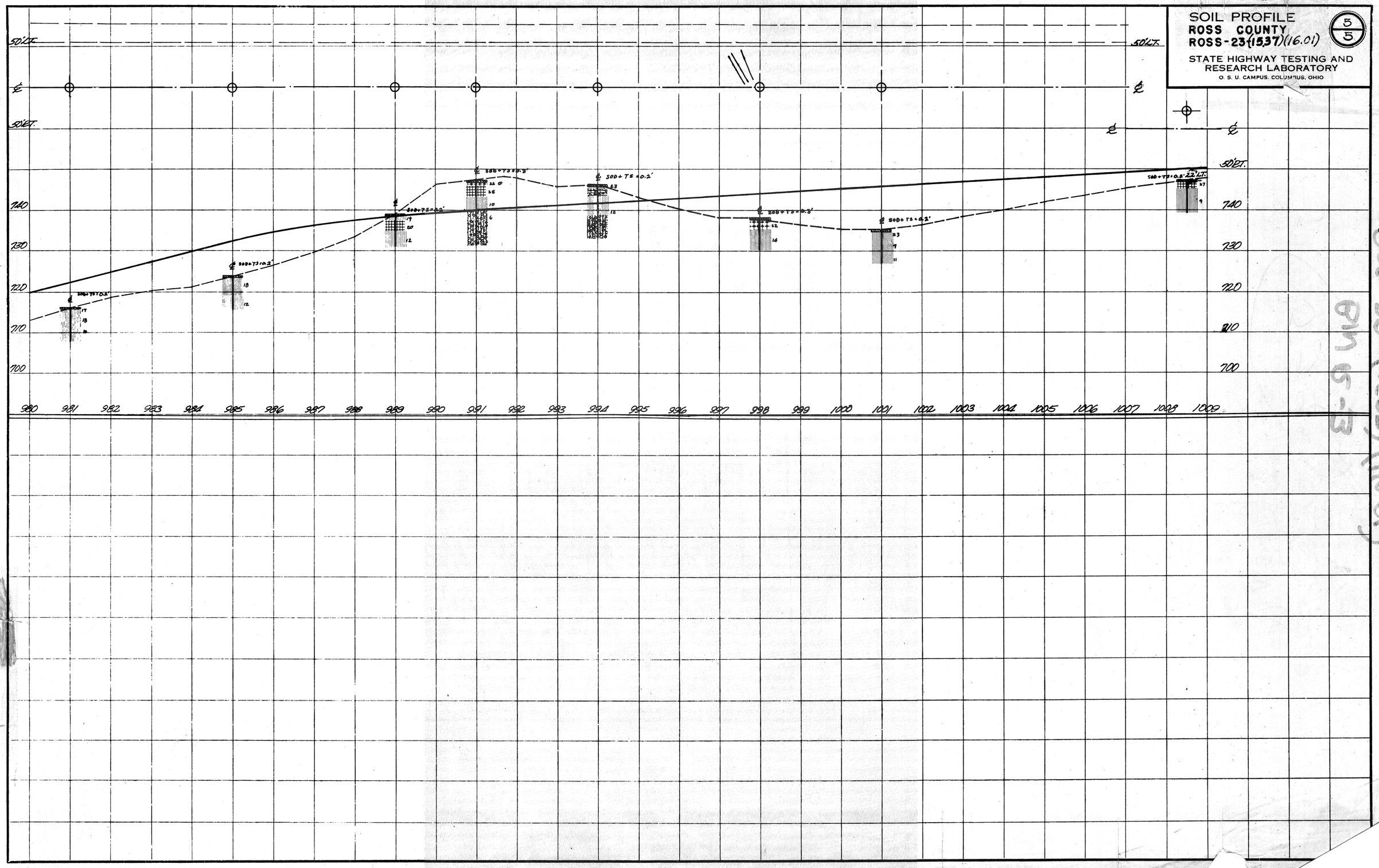
SOIL PROFILE

ROSS COUNTY
ROSS - 23-(15.37)(16.01)

4/5

STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO




SOIL PROFILE
ROSS COUNTY
ROSS-23(15.37)(16.01)
5/5
STATE HIGHWAY TESTING AND RESEARCH LABORATORY
O. S. U. CAMPUS, COLUMBUS, OHIO
50' LT.
50' RT.
740
730
720
710
700
980
981
982
983
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