#2059

MICROFILMED
APR 17 1996

		STATE	

1/231

HENRY COUNTY
HEN-6-16.43

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
HEN-6-16.43
LIBERTY & HARRISON TOWNSHIPS
HENRY COUNTY

CONVENTIONAL SIGNS

Section Line
Center Line
Property Line
Fence Line
Guard Rail — NEW — EXIST
Railroads
Pole Lines — ℄ telephone ℄ power

Underground Utilities — indicate
Trees or Stumps — exist. ○ remove ⊠
Construction Limits
Existing Right-of-Way
Right-of-Way Only — R/W
Limited Access Right-of-Way — L/A R/W

INDEX OF SHEETS

Title Sheet	1
Schematic Plan	2&3
Typical Sections	4-14
General Notes	15&16
Subsummaries & Computations	17-21
General Summary	22&23
Plan & Profile	24-46
Cross Sections	47-85
S.R. 424 Interchange	86-104
S.R. 110 Interchange	105-126
Minor Cross Roads	127-128, 128A, 128B, 128C
Existing U.S. 6 Connection	129&130
Superelevation Tables	131
Pavement Details	132-138
Miscellaneous Details	139
Structures 20' Span & Under	140-155
Channel Cross Sections	156
Traffic Control Details	157-170
Approach Slab Details	171-173
Structures Over 20 Foot Span	174-200
Right-of-Way Plans	201-228

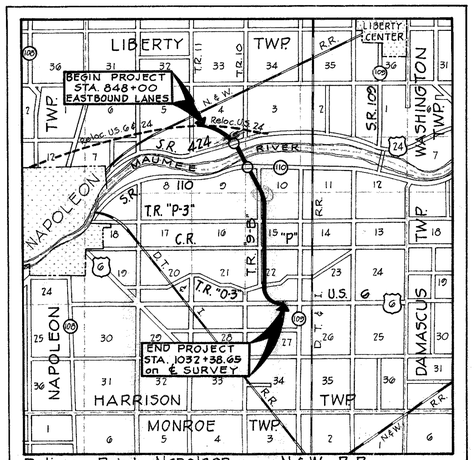
LINE DATA

Begin Project and Work	Sta. 848+00	Eastbound Lanes
End Project	Sta. 1032+38.65	℄ Survey
Gross Length of Project	18,438.65	Lin. Ft.
Deduct for Equations *	− 210.01	Lin. Ft.
NET LENGTH OF PROJECT	18,228.64	Lin. Ft. = 3.452 Miles
End Work	Sta. 1052+60	℄ Survey
Length Work (Relocated U.S.6)	20,249.99	Lin. Ft.

Add for Approaches *		
S.R. 424	2018.00	Lin. Ft.
S.R. 110	2277.02	Lin. Ft.
Existing U.S. 6 Connection	637.36	Lin. Ft.
Length Work (Approaches)	4932.98	Lin. Ft
NET LENGTH OF WORK	25,182.97	Lin. Ft = 4.769 Miles

* See Sheet No. 2

Sheet No. 176 revised 8-24-66



Delivery Point Napoleon - N&W R.R.
Average Haul 4 Miles

LOCATION MAP

SCALE OF MILES
0 1 2 3 4

Portion to be Improved
State Roads — 110
Other Roads
Proposed Work under separate contract

SCALES

Plan	1" = 50'
Profile, Horizontal	1" = 50'
Profile, Vertical	1" = 5'
Cross Sections, Horizontal & Vertical	1" = 10'

LIMITED ACCESS

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

1965 SPECIFICATIONS

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 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 the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved Thomas M. Major
Date Feb. 8, 1966 Division Deputy Director

Approved C. H. Ashbrook
Date 5-11-66 Engineer of Bridges

Approved R. M. Ricketts
Date 3-16-66 Engineer of Location & Design

Approved D. E. Shultz
Date 3-16-66 Deputy Director of Design & Construction

Approved T. H. Boorom
Date 3-21-66 Deputy Director of Right-of-Way

Approved E. W. Wilson
Date 3-21-66 Deputy Director of Planning & Programming

Approved
Date First Assistant Director

Approved P. E. Masheter
Date 3/22/66 Director of Highways

PLANS PREPARED BY:
T.C. BIEBESHEIMER ENGINEERING CO.
TOLEDO, OHIO
by: T.C. Biebesheimer
Registered Professional Engineer
date: 1-13-66
18253
Certificate No.

STATE OF OHIO — THOMAS C BIEBESHEIMER 18253 — REGISTERED PROFESSIONAL ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER DATE

FILE NO.	HENRY COUNTY HEN-6-16.43
	DATE OF LETTING: 19
	CONTRACT NO.

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

DRAWING NO.	DATE	DRAWING NO.	DATE	DRAWING NO.	DATE
BP-1	6-1-65	F-1	6-1-65	GR-2A	9-1-65
BP-2	6-1-65	L-1	6-1-65	GR-6	6-1-65
BP-3	6-1-65			SP-53	6-30-61
BP-4	6-1-65	HW-E	6-1-65	AS-1-54	8-10-65
BP-5	6-1-65	CB 2-2-A&B	6-1-65		
BP-6	6-1-65	CB-5	6-1-65	BR-1-65	11-24-65
BP-7	1-1-66	CB-6	6-1-65	FSB-1-62	1-15-63
MC-1	6-1-65	CB-8	6-1-65	RB-1-55	2-2-50
		I-2	6-1-65	SD-1-65 (1-7-3)	11-8-65
MC-3	6-1-65	MH-1	6-1-65		
MC-4	6-1-65	MH-1A	6-1-65		
MC-5	6-1-65	MH-2	6-1-65		
MC-6	6-1-65	GR-1	6-1-65		

SUPPLEMENTAL SPECIFICATIONS	
801	9-2-65
816	8-6-65
905	9-23-65
808	7-14-65
811	3-29-65
825	4-22-65
828	7-21-65

MK

SCHEMATIC PLAN

Sheet 1 of 2

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

2 / 231

HENRY COUNTY
HEN-6-16.43

APPROACH WORK LINE DATA

S.R. 424 ..... Sta. 720+25 to 740+43 ..... 2018 Lin. Ft.
S.R. 110 ..... Sta. 216+16.75 to 239+00 ..... 2283.25
Deduct for Station Equations ..... -5.63
2277.62 Lin. Ft.

Existing U.S.6 Connection.... Sta. 904+14.74 to 910+52.10..... 637.36 Lin. Ft.

Sta. Equation: 864+86.64 E.B. Lanes Back = 866+81.87 ℄ Survey Ahead = 195.23 Lin. Ft.
Sta. Equation: 923+80.60 E.B. Lanes Back = 923+95.38 ℄ Survey Ahead = 14.78 Lin. Ft.
Total Deduct for Reloc. U.S. 6 ..... 210.01 Lin. Ft.

EXPLANATION OF PROJECT LINE DATA

Sta. 848+00 to 864+86.64 E.B. Lanes = 1686.64 lin. ft.
Sta. 866+81.87 to 904+27.20 ℄ Survey = 3745.33 lin. ft.
Sta. 904+27.20 to 923+80.60 E.B. Lanes = 1953.40 lin. ft.
Sta. 923+95.38 to 1032+38.65 ℄ Survey = 10843.27 lin. ft.
Net Length Project = 18228.64 lin. ft.

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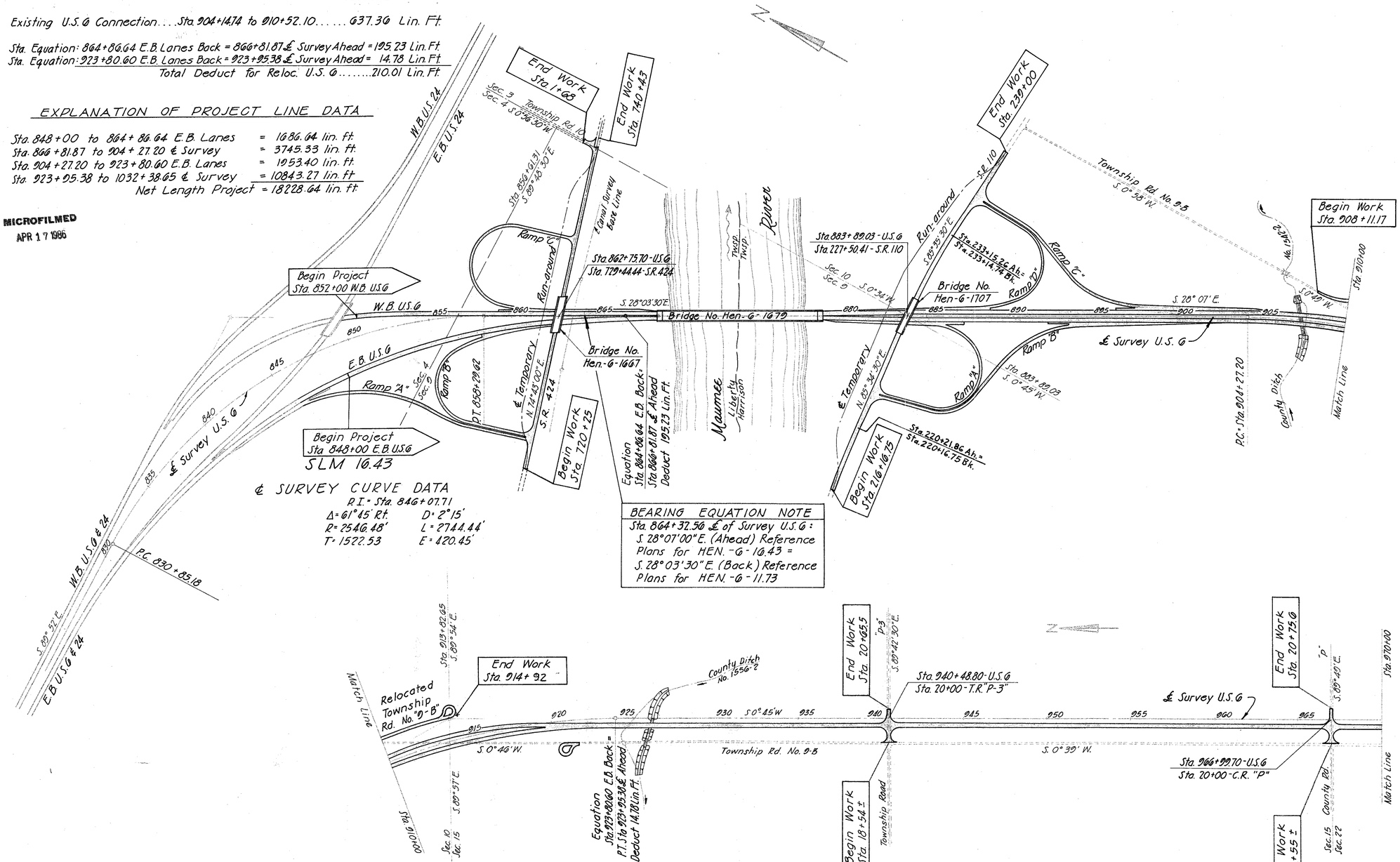


T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

Schematic Plan

Scale 1"=300'

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	G.W.M.				

Schematic Plan

MICROFILMED
APR 17 1986

SCHEMATIC PLAN

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

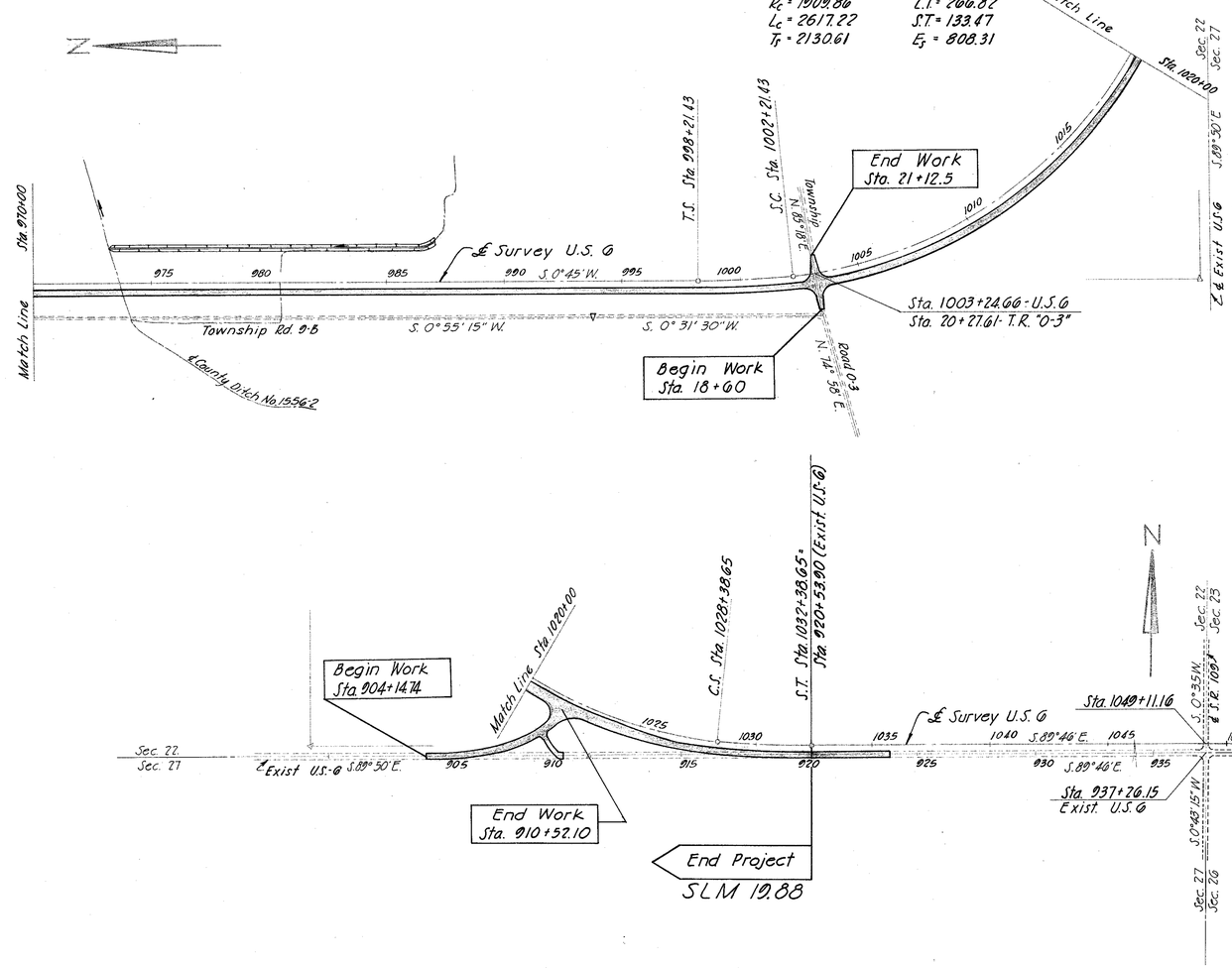
HENRY COUNTY
HEN-6-16.43

3
731

℄ SURVEY CURVE DATA

P.I. = Sta. 1019+52.04
Δ = 90° 31' Left

Δ_c = 78° 31'	θ_i = 6° 00'
D_c = 3° 00'	L_s = 400'
R_c = 1909.86'	L.T. = 766.82
L_c = 2617.22	S.T. = 133.47
T_s = 2130.61	E_s = 808.31

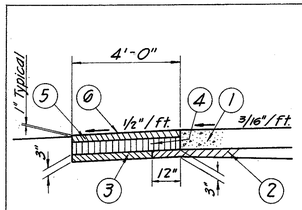


T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

Schematic Plan

Scale 1" = 300'

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	G.W.M.				



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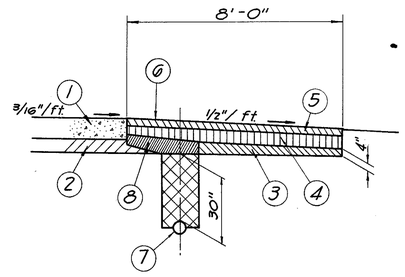

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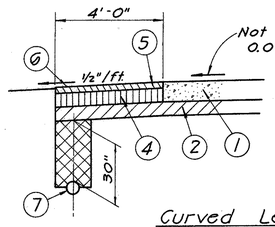
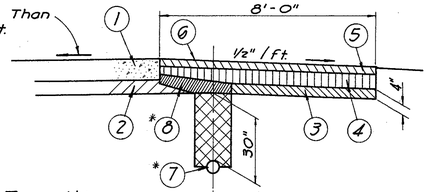
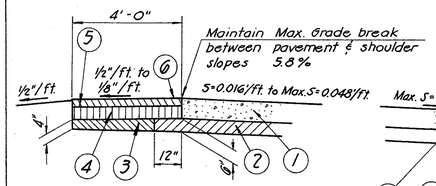
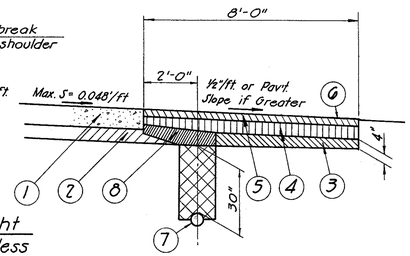


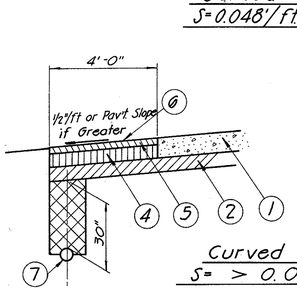


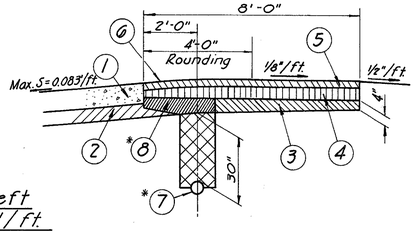
Curved Left Transition





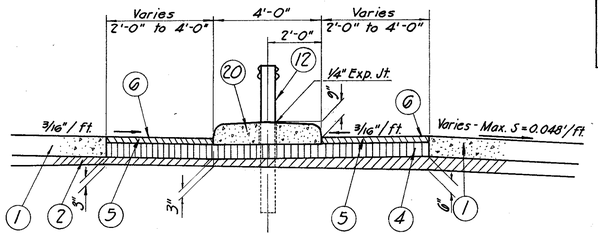
Curved Right
S=0.048'/ft. or less





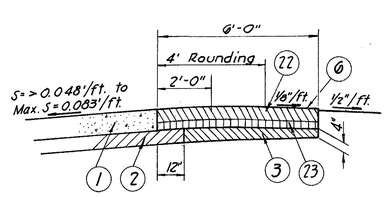
Curved Left
S= > 0.048'/ft.

Shoulder Treatment - Directional Roadway

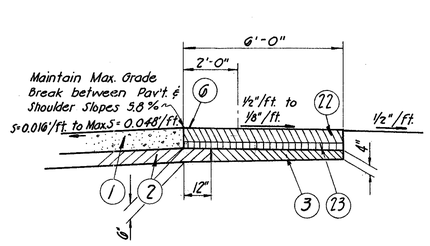


Shoulder Treatment - Barrier Median

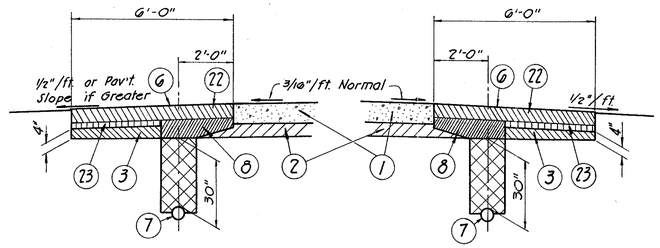
Note: 1" Earth Shoulder drop typical for all 301 Paved Shoulders.



Curved Left
S= > 0.048'/ft.



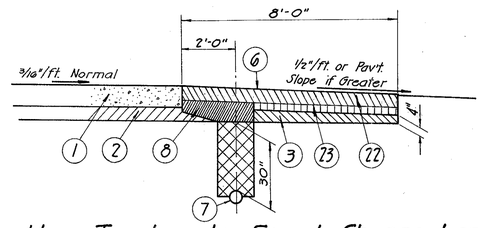
Curved Left Transition
S= Not over 0.048'/ft.



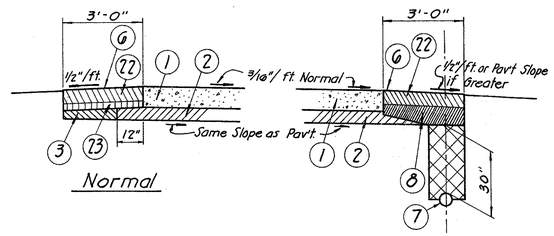
Normal or Curve Left

Normal

Shoulder Treatment - Two Way Ramp

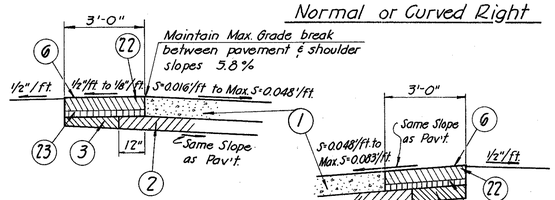


Shoulder Treatment - Speed Change Lane



Normal

Normal or Curved Right



Curved Right Transition
S=0.048'/ft or less

Curved Left S= > 0.048'/ft.

Shoulder Treatment - One Way Ramps

* Omit underdrain & special drainage connection on fill

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

4
231

HENRY COUNTY
HEN-6-10.43

LEGEND

(1) Item 451 9" Reinforced Portland Cement Concrete Pavement

(2) Item 310 Subbase, grading A or B Depth 6" or as shown (See General Note)

(3) Item 310 Subbase

(4) Item 304 6" Aggregate Base

(5) Item 301 3" Bituminous Aggregate Base, 702.01 (85-100) or 702.09 RT-12, as per plan (See note in proposal)

(6) Item 409 Seal Coat using 0.008 cu. yd. No.8 cover aggregate per sq. yd. and 0.25 gal. bituminous material per sq. yd. (see note in proposal)

(7) Item 605 6" Shallow Pipe Underdrains

(8) Item Special Drainage Connection using No.8 Aggregate (See note in proposal)

(9) Item 659 Seeding and Mulching

(10) Item 606 Guard Rail, Type 4

(11) Item 612 Concrete Median (Standard)

(12) Item 606 Guard Rail, Type 4 Barrier

(13) Item 404 1¼" Asphalt Concrete (70-85)

(14) Item 402 1¼" Asphalt Concrete (70-85)

(15) Item 301 8" Bituminous Aggregate Base, 702.01 (85-100) or 702.09 RT-12

(16) Item 310 Subbase, using Limestone or Slag Screenings, As Per Plan (Depth as Shown)

(17) Item 408 Bituminous Prime Coat Sec. 702.09, RT-2 or RT-3 applied at the rate of 0.40 gal. per sq. yd.

(18) Item 304 8" Aggregate Base

(19) Item 605 Aggregate Drains

(20) Item 612 Concrete Median, as per plan

(21) Item 409 Seal Coat using 0.008 cu.yd. No.8 cover aggregate per sq. yd. and 0.3 gal. Bituminous material, 702.09 RT-9 or RT-10, or 702.02 MC-800 or MC-3000

(22) Item 301 6" Bituminous Aggregate Base, 702.01 (85-100) or 702.09 RT-12, as per plan (See note in proposal)

(23) Item 304 3" Aggregate Base

(24) Item 404 1½" Asphalt Concrete (70-85)

(25) Item 301 3" Bituminous Aggregate Base, 702.01 (85-100) or 702.09 RT-12

(26) Item 301 6" Bituminous Aggregate Base, 702.01 (85-100) or 702.09 RT-12

JOINT LEGEND

(L) Standard Longitudinal Joint

(LK) Key Joint Without Tie Bar

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

Shoulder Treatment for 451 Pavement and Typical Sections Legend

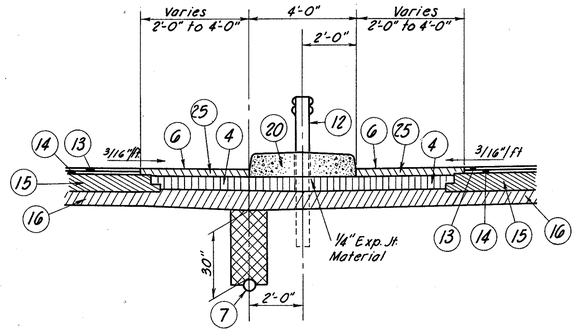
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	RWF MK				

Typical Section Legend & Shoulder Treatment for 451 Pav't.

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

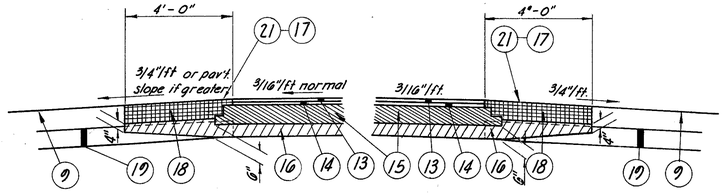
5
231

HENRY COUNTY
HEN- 6 - 16.43

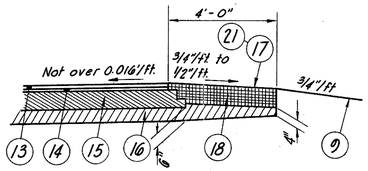


Shoulder Treatment — Barrier Median

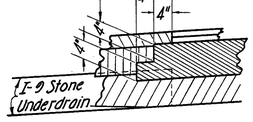
Note: 1" Earth Shoulder Drop Typical for all 301 paved Shoulders



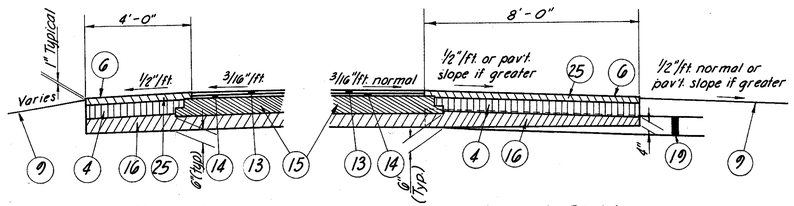
Normal or Curved Left — Normal



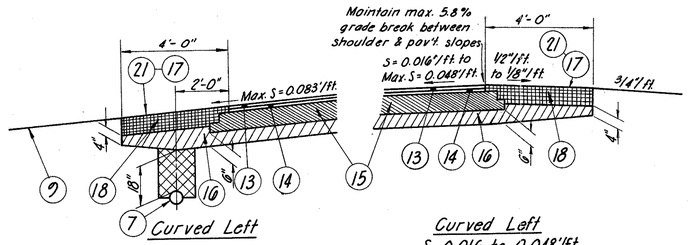
Curved Left Transition



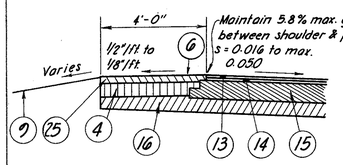
STEP DETAIL
Typical for 301 Waterproofed Aggregate Base Course



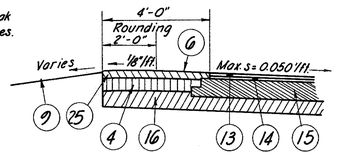
Normal — Normal or Curved Right



Curved Left — Curved Left S = 0.016 to 0.048'/ft.



Curved Right S = 0.016 to 0.048



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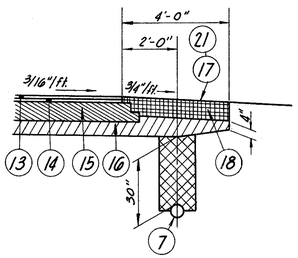
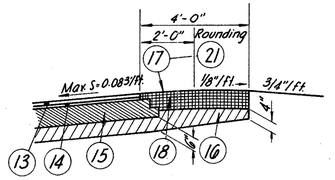
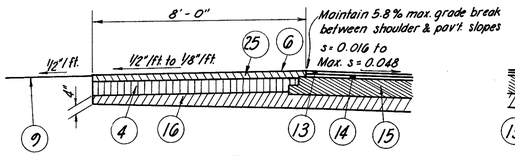


Pipe Underdrain Detail

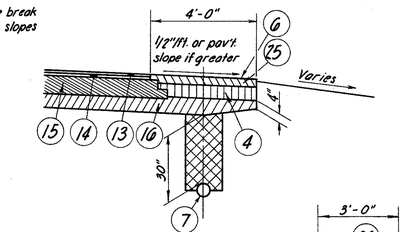


Curved Left S = > 0.048'/ft.

Median Edge

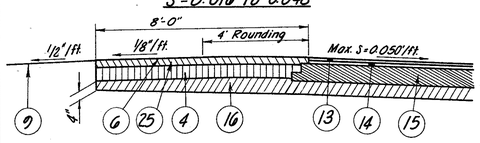


High Edge Curved Right S = 0.016 to 0.048

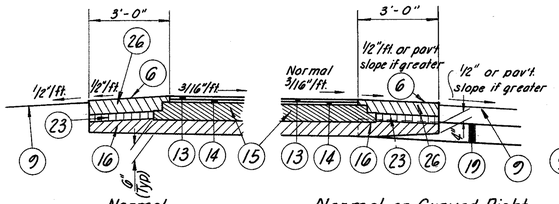


Median Edge Curved Right

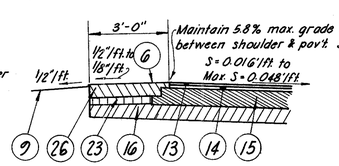
Shoulder Treatment — Two Lane Section



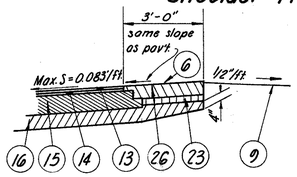
High Edge Curved Right S = > 0.048



Normal — Normal or Curved Right



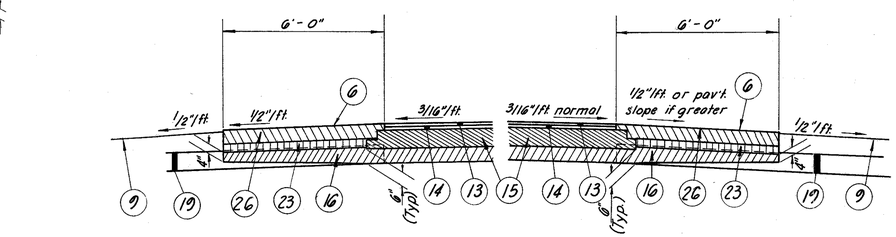
Curved Right S = 0.016 to 0.048



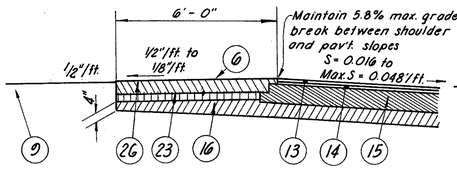
Curved Left S = > 0.048'/ft.

Shoulder Treatment — 4 Lane Section

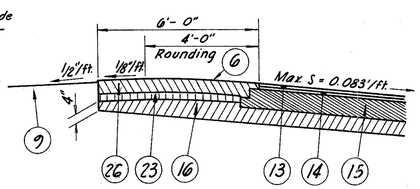
Shoulder Treatment — One Way Ramp



Normal — Normal or Curved Right



Curved Right S = 0.048'/ft. or less



Curved Right S = > 0.048'/ft.

Shoulder Treatment — Two Way Ramp

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

Shoulder Treatment for 404 on 301 Pavement

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	A.P.O.				

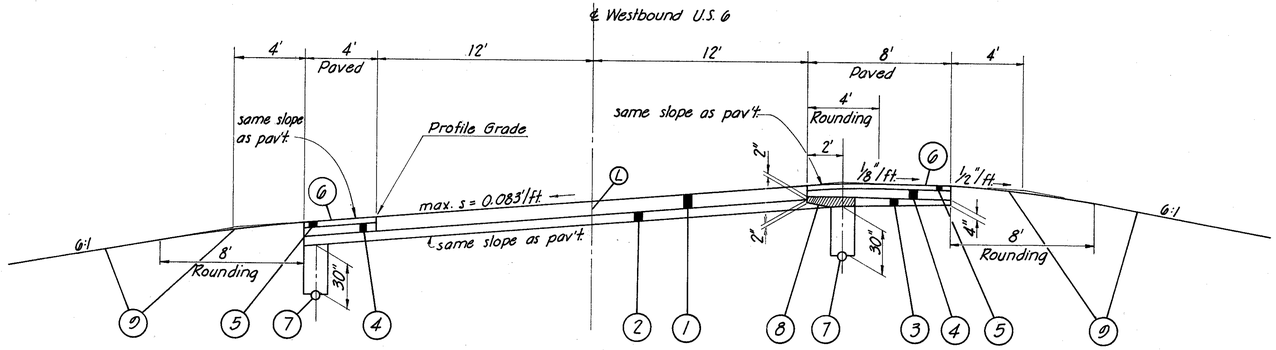
Shoulder Treatment for 404 on 301 Pav't.

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

HENRY COUNTY
HEN - 6 - 16.43

TYPICAL SECTIONS

TYPE 451

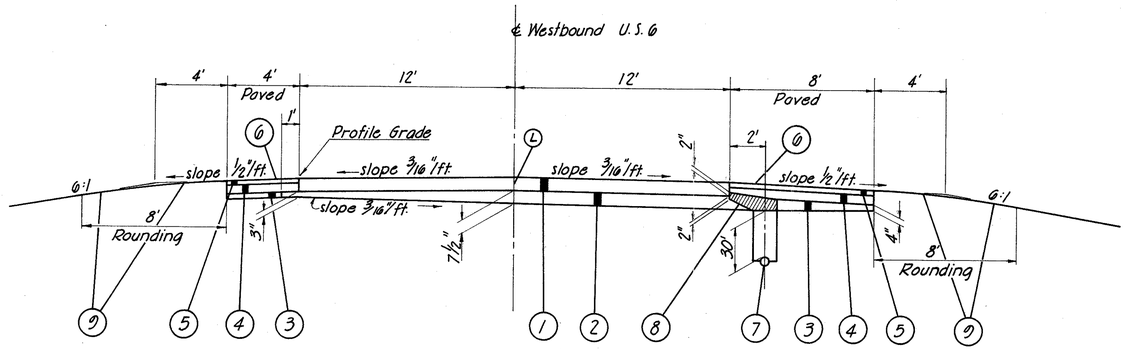


The above typical section applies from Sta. 852+00 to Sta. 855+86.48 W.B. Lanes = 386.48 lin. ft.

Typical Section "A"
Superelevated
Westbound Directional Roadway

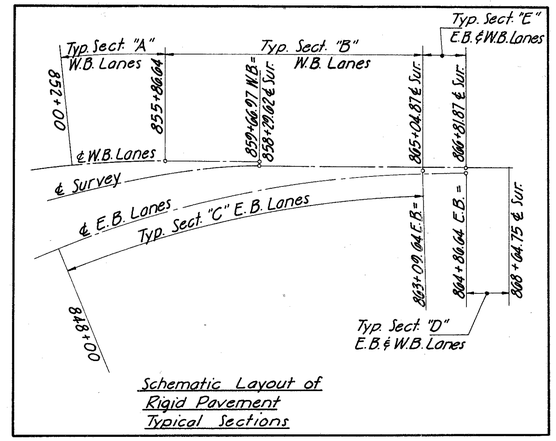
Note: The left and right configuration of these sections are in reference to direction of travel.

NOTES
See Sht. No. 4 for Pavement Legend
For Details not shown see Std. Dwg. MC-1
For Ditch and Slopes see Cross Sections



The above typical section applies from Sta. 855+86.48 to Sta. 859+66.97 W.B. Lanes = 380.49
Sta. 858+29.02 to Sta. 865+04.87 ℄ Survey = 675.25
1055.74 lin. ft.

Typical Section "B"
Normal
Westbound Directional Roadway



Schematic Layout of
Rigid Pavement
Typical Sections

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS

TYPE 451

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
GWM	APO				

TYPICAL SECTIONS

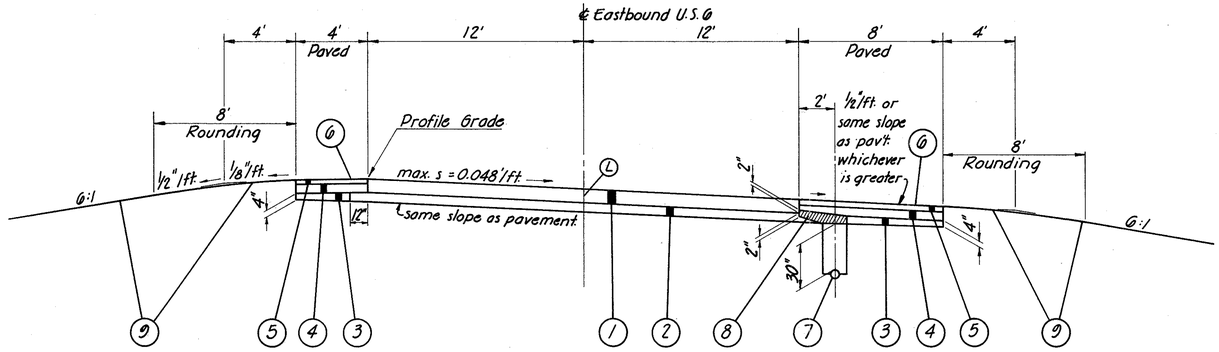
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

7
231

HENRY COUNTY
HEN-6-16.43

TYPICAL SECTIONS

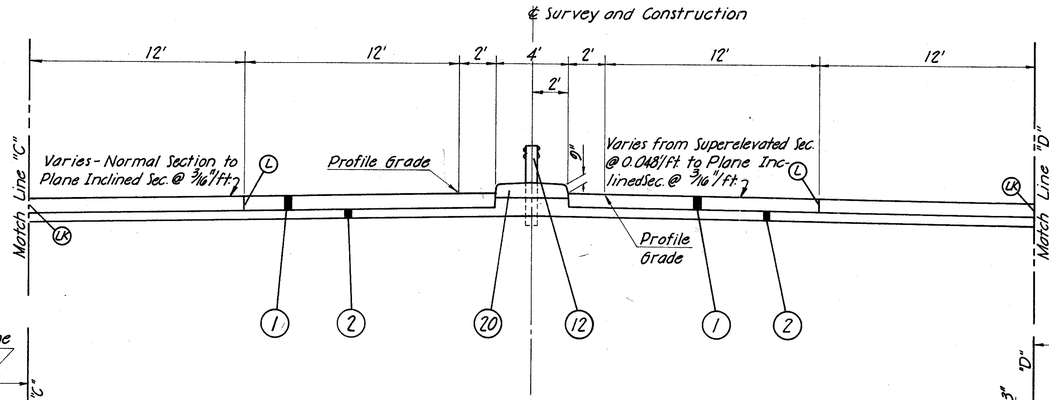
TYPE 451

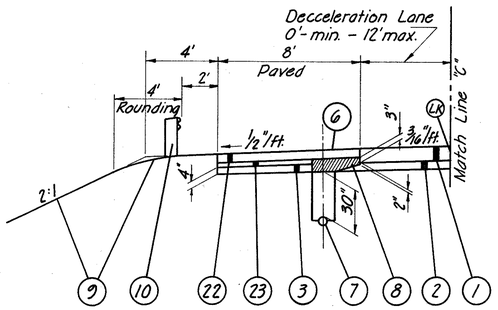


The above typical section applies between Sta. 848+00 to Sta. 863+09.04 E.B. Lanes = Sta. 865+04.87 ℄ Survey = 1509.04 lin. ft.

Typical Section "C"
Supperelevated
Eastbound Directional Roadway

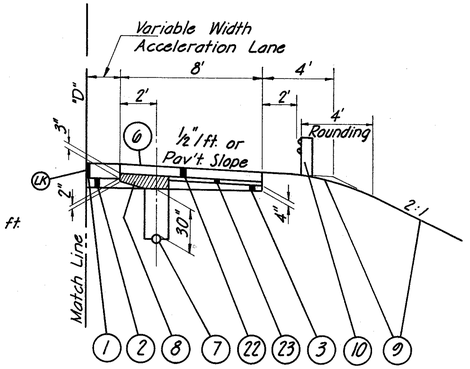
NOTES
See Sht. No. 4 for Pavement Legend
For Ditch and Slope Treatment see Cross Sections





The above typical section applies between Sta. 866+81.87 to Sta. 868+64.75 ℄ Survey = 182.88 lin. ft.

Typical Section "D"
4 Lane - Paved Median Roadway



T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
TYPE 451

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	R.W.F.				

TYPICAL SECTIONS

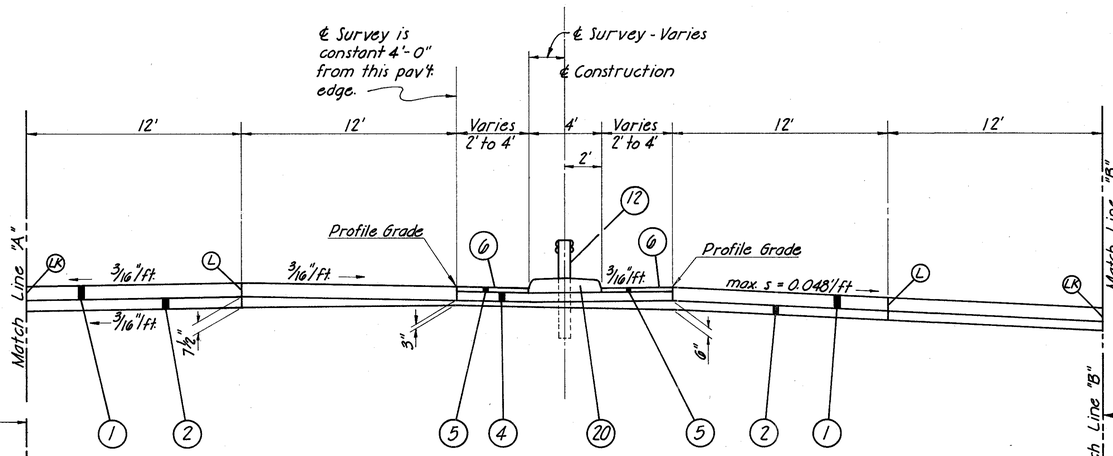
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

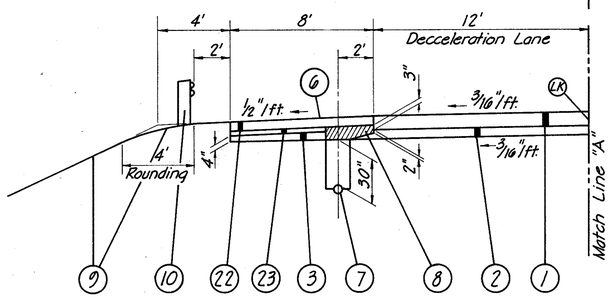
HENRY COUNTY
HEN - 6 - 16.43

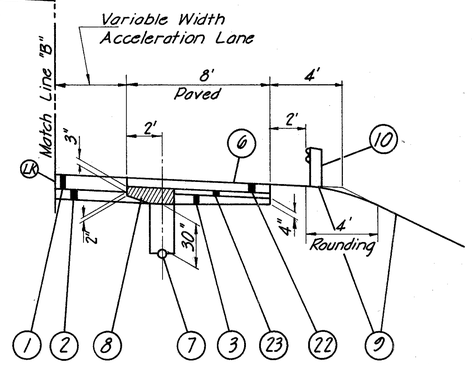
8
231

TYPICAL SECTIONS
TYPE - 451

NOTES
See Sht. No. 4 for Pavement Legend
For Ditch and Slope Treatment see Cross Sections







The above typical section applies between Sta. 865+04.87 to Sta. 866+81.87 ℄ Survey = 177.00 lin. ft.

Typical Section "E"
4 Lane - Paved Median Roadway
With Paved Median Shoulder

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
TYPE 451

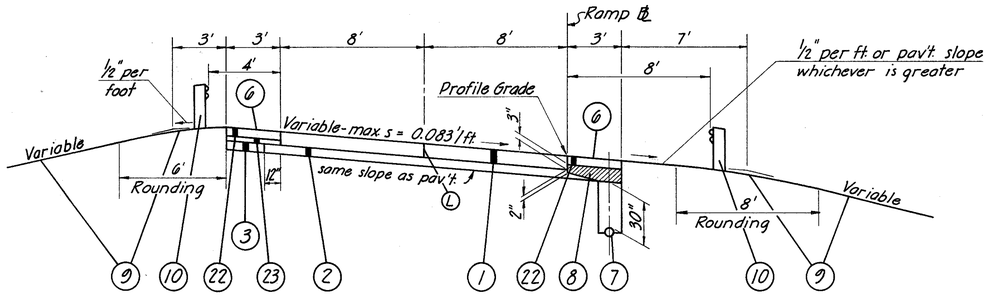
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	R.W.F.				

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

HENRY COUNTY
HEN-6-10.43

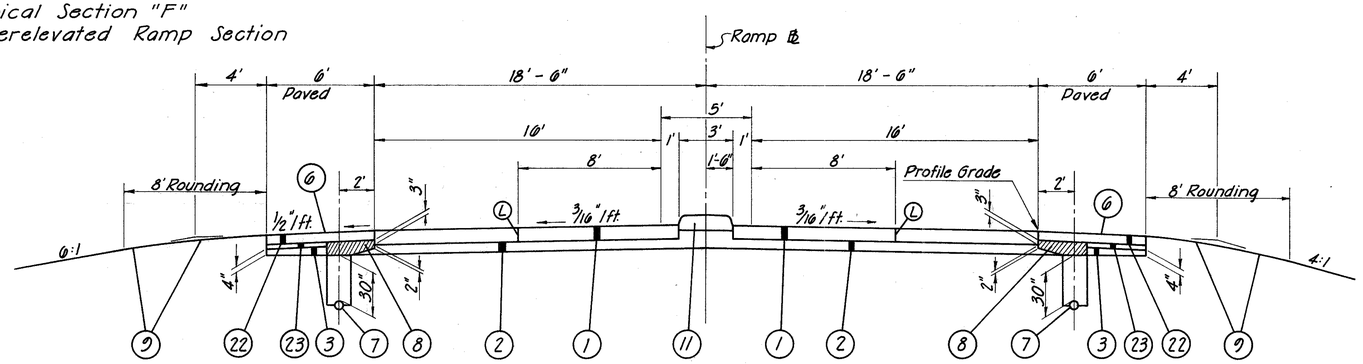
9
731

S.R. 424 INTERCHANGE
TYPICAL SECTIONS
TYPE 451



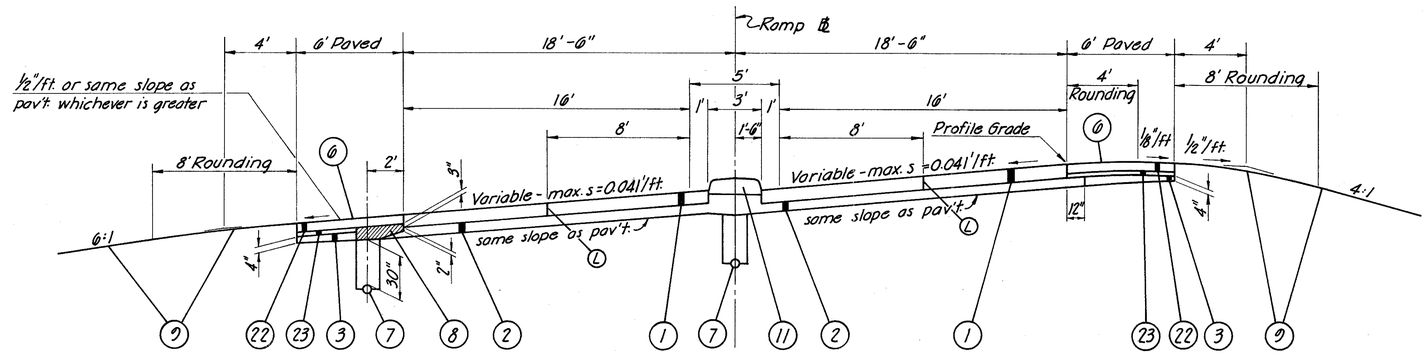
The above typical section applies between Sta. 848+00 to Sta. 852+90 Ramp "A" = 490.00
Sta. 850+80 to Sta. 853+60 Ramp "B" = 280.00
Sta. 849+28.92 to Sta. 859+25 Ramp "C" = 996.08
1766.08 lin. ft.

Typical Section "F"
Normal & Superelevated Ramp Section



The above typical section applies between Sta. 850+00 to Sta. 857+66.52 Ramp "A" = 166.52 lin. ft.

Typical Section "G"
Normal Two Way Ramp Section



The above typical section applies between Sta. 854+75.96 to Sta. 856+00 Ramp "A" = 124.04 lin. ft.

Typical Section "H"
Superelevated Two Way Ramp Section

Note: The left and right configuration on these sections are in reference to direction of travel.

NOTE
See Sht. No. 4 for Pavement Legend
For Ditch and Slope Treatment see Cross Sections

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
TYPE 451

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
G.W.M.	J.C.O.				

TYPICAL SECTIONS

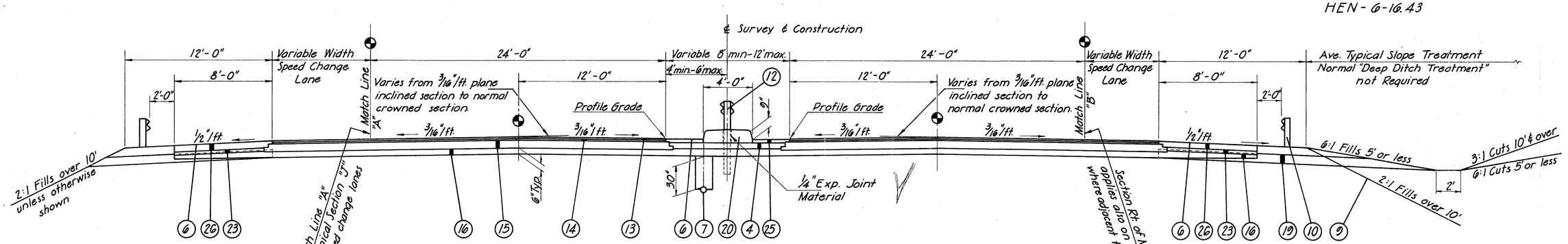
TYPICAL SECTIONS

TYPE 404 on 301

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

10
231

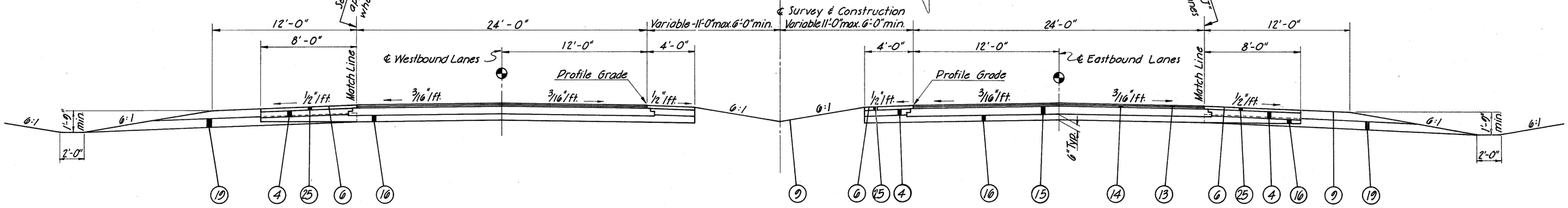
HENRY COUNTY
HEN-6-16.43



The above typical section applies between Sta. 878+59.25 to Sta. 880+74 ℄ Survey = 214.75 lin. ft.

Typical Section "I"

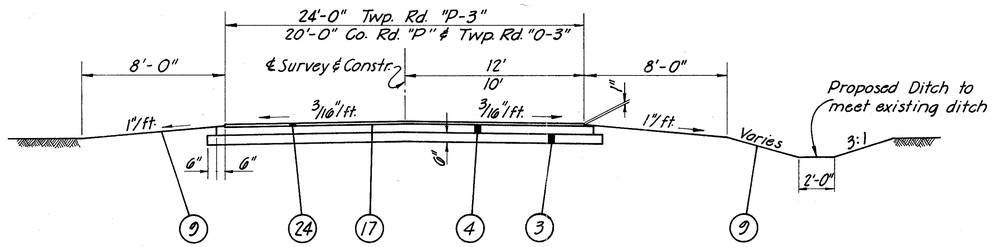
4-Lane Paved Median with Paved Median Shoulders



The above typical section applies between Sta. 880+74 ℄ Survey to Sta. 903+75 W.B. Lanes = 2301.00
Sta. 880+74 ℄ Survey to Sta. 903+00 E.B. Lanes = 2226.00
4527.00 lin. ft.

Typical Section "J"

Normal 4-Lane Divided Roadway



Typical Section "V"

for County & Township Roads

NOTE

See Sht. No. 4 for Pavement Legend
For details not shown see Std. Dwg. MC-1
Location of Hot Longitudinal Joint shown thus.....

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
TYPE 404

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	N.K.				

TYPICAL SECTIONS

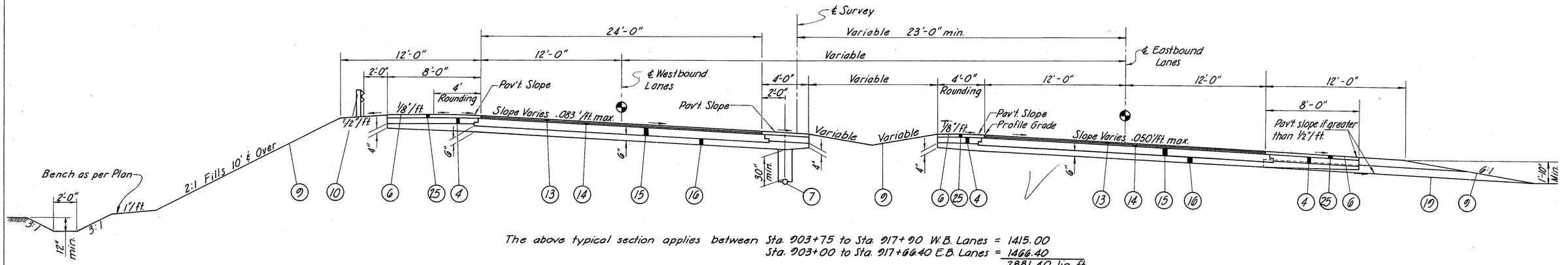
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

HENRY COUNTY
HEN-6-16.43

11
231

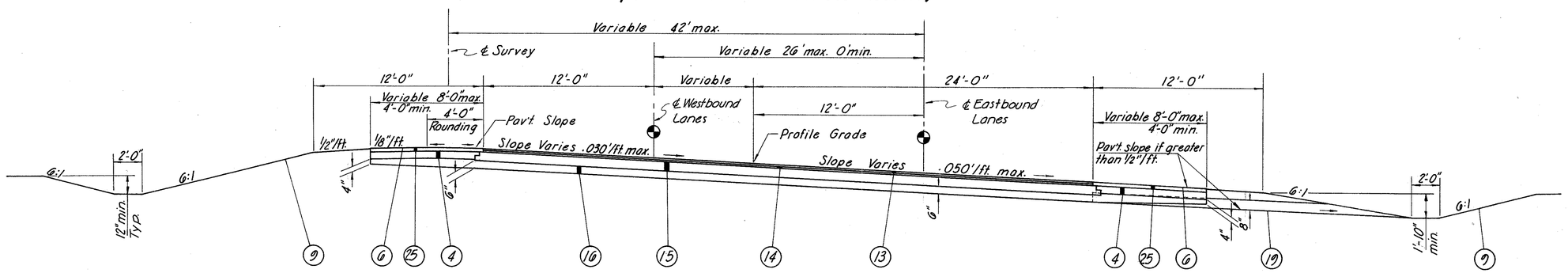
TYPICAL SECTIONS

TYPE 404 on 301



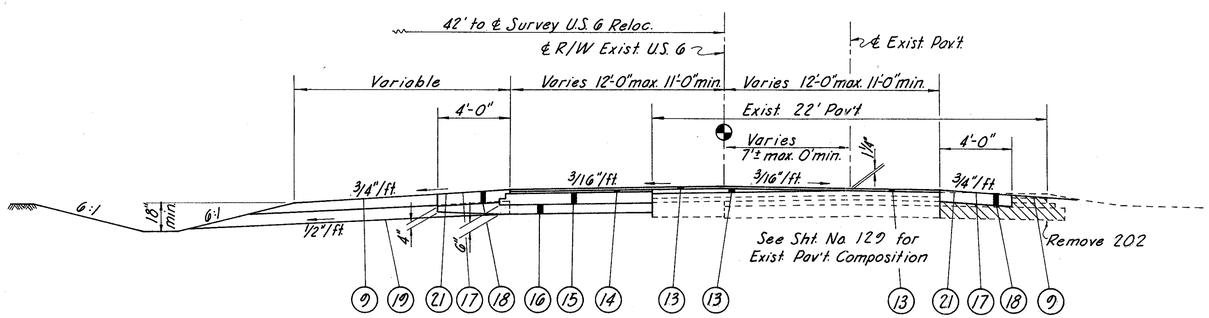
The above typical section applies between Sta. 903+75 to Sta. 917+90 W.B. Lanes = 1415.00
Sta. 903+00 to Sta. 917+66.40 E.B. Lanes = 1466.40
2881.40 lin. ft.

Typical Section "K"
Superelevated 4-Lane Divided Roadway



The above typical section applies between Sta. 918+76.50 to Sta. 923+06.77 E.B. Lanes = 430.27 lin. ft.

Typical Section "L"
Transitional Roadway



The above typical section applies between Sta. 1032+38.65 to Sta. 1035+63.65 ℄ Survey = 325 lin. ft.

Typical Section "O"
Taper & Salvage Roadway

NOTES
For details not shown see Std. Dwg. MC-1
See sheet no. 4 for pavement legend.
For Ditch and Slope Treatment see Cross Sections.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
TYPE 404

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	R.W.F.				

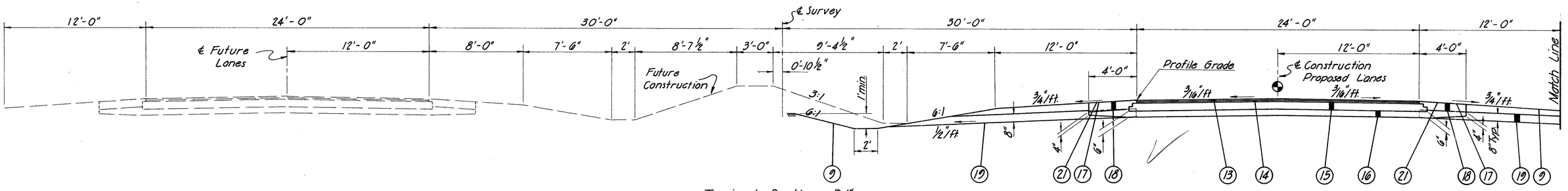
Typical Sections

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

12
231

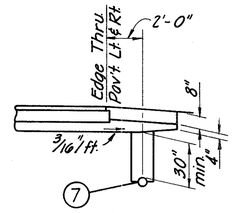
HENRY COUNTY
HEN-6-16.43

TYPICAL SECTION
TYPE 404 on 301

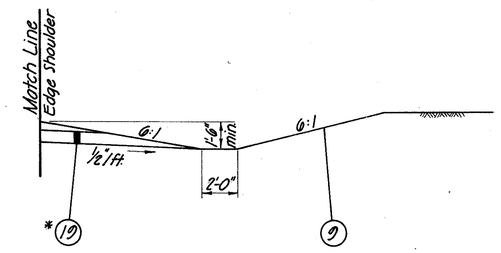


Typical Section "M"
Normal 2-Lane Roadway

The above typical section applies between Sta. 923+21.55 to Sta. 998+75 ℄ Survey = 7553.45 lin. ft.

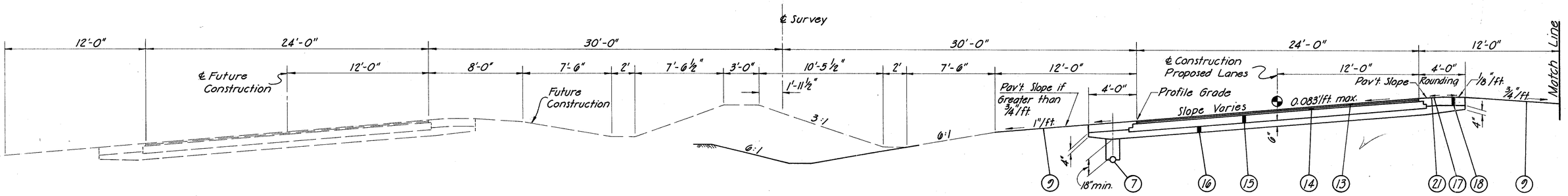


PIPE UNDERDRAIN DETAIL
Typical Section "M"



*Typical Section "M" only

TYPICAL SLODE TREATMENT



Typical Section "N"
Superelevated 2-Lane Roadway

The above typical section applies between Sta. 998+75 to Sta. 1032+38.65 ℄ Survey = 3363.65 lin. ft.

NOTES
For details not shown See Std. Dwg. MC-1
See Sheet No. 4 for Pavement Legend.
For Ditch and Slope Treatment See Cross Sections.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
TYPE 404

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	R.W.F.				

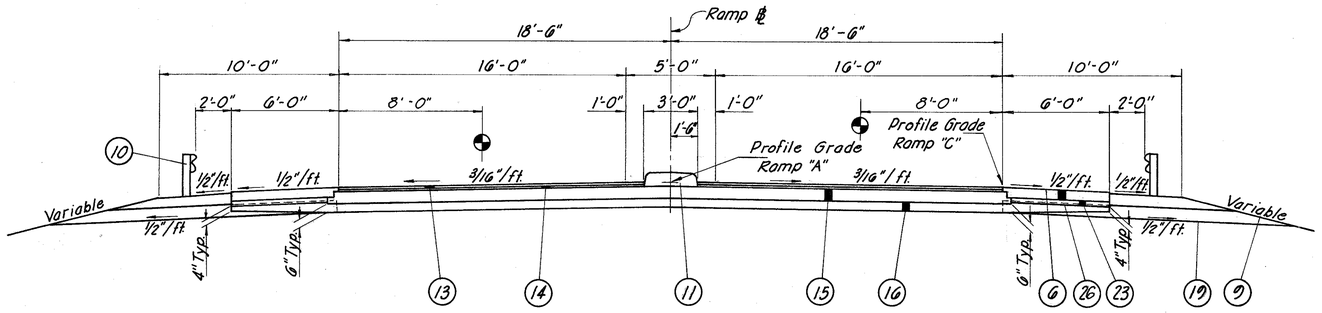
TYPICAL SECTIONS

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

13
231

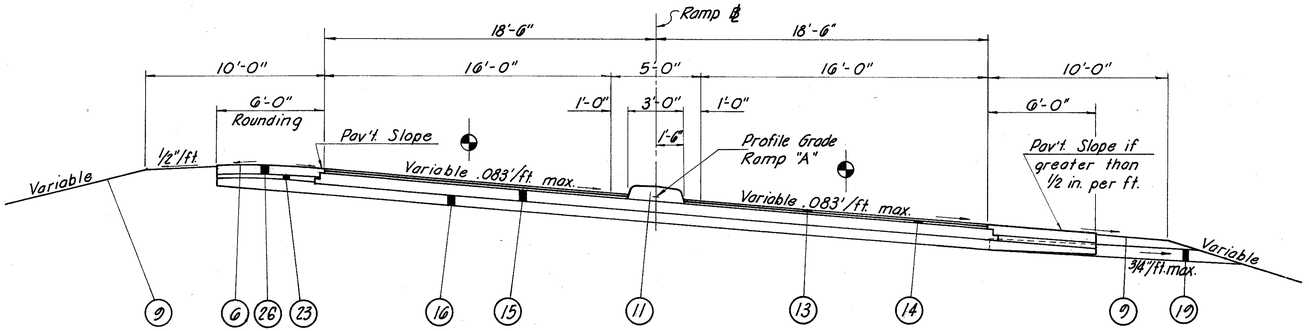
HENRY COUNTY
HEN-G-16.43

TYPICAL SECTIONS
404 on 301
SR 110 Interchange



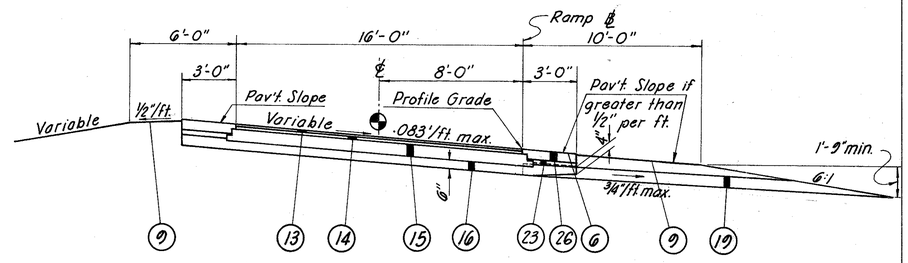
The above typical section applies between Sta. 894+75 to Sta. 896+21.64 Ramp "A" = 146.64
Sta. 886+93.57 to Sta. 888+64 Ramp "C" = 170.43
317.07 lin. ft.

TWO-WAY RAMP NORMAL SECTION "Q"



The above typical section applies between Sta. 890+89.57 to Sta. 894+75 Ramp "A" = 385.43
Sta. 888+64 to Sta. 889+36.07 Ramp "C" = 72.07
457.50 lin. ft.

TWO-WAY RAMP SUPERELEVATED SECTION "R"



The above typical section applies between Sta. 886+36.73 to Sta. 889+80 Ramp "A" 343.27
Sta. 887+55 to Sta. 892+81 Ramp "B" 526.00
Sta. 891+24 to Sta. 896+67.73 Ramp "C" 543.73
Sta. 883+40 to Sta. 886+60 Ramp "D" 320.00
1733.00 lin. ft.

NORMAL & SUPERELEVATED ONE-WAY RAMP SECTION "P"

NOTES

1) See Sheet No. 4 for Pavement Legend
2) Left & right side configuration shall be referenced to direction of travel instead of direction of stationing.
3) For Ditch and Slope Treatment See Cross Sections
4) All corners shall be rounded as per Std. Dwg. MC-1

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS
Type 404

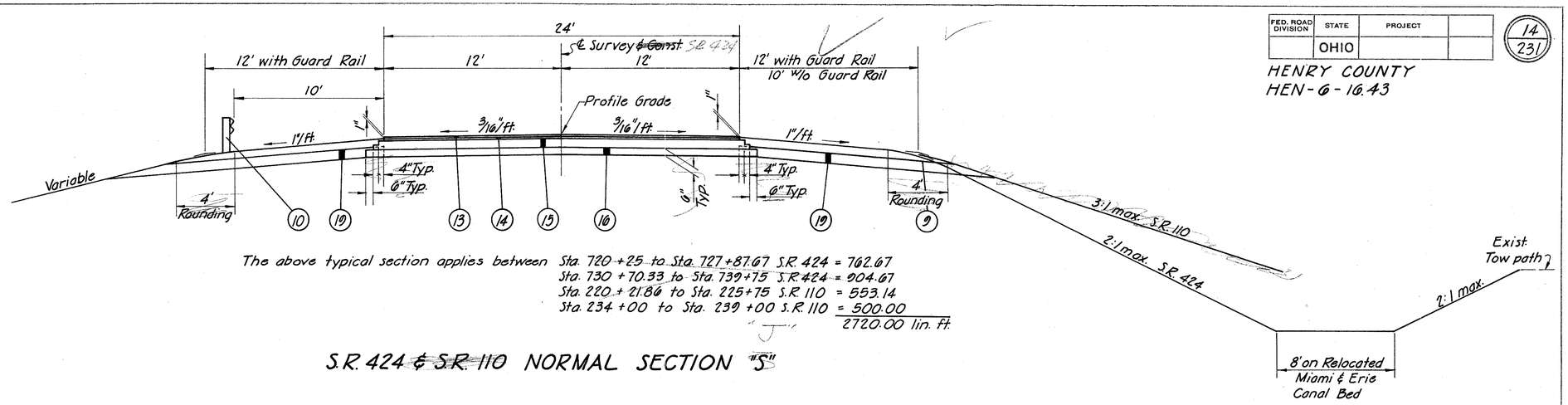
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	MC APO				

TYPICAL SECTIONS

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

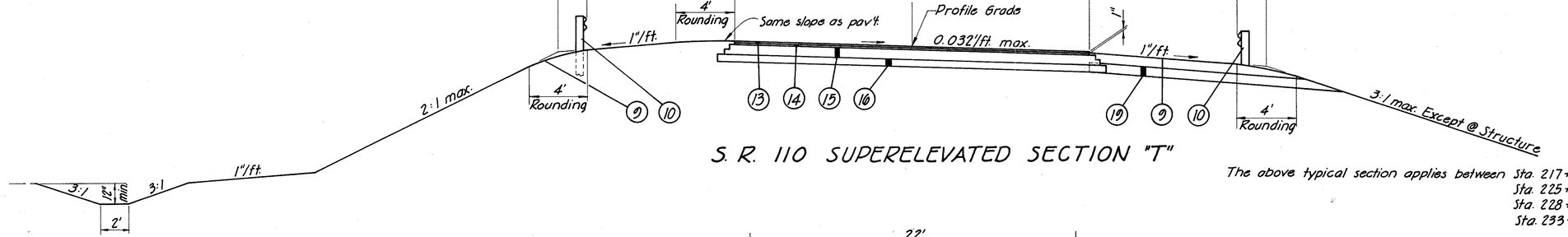
HENRY COUNTY
HEN-6-16.43

14
231



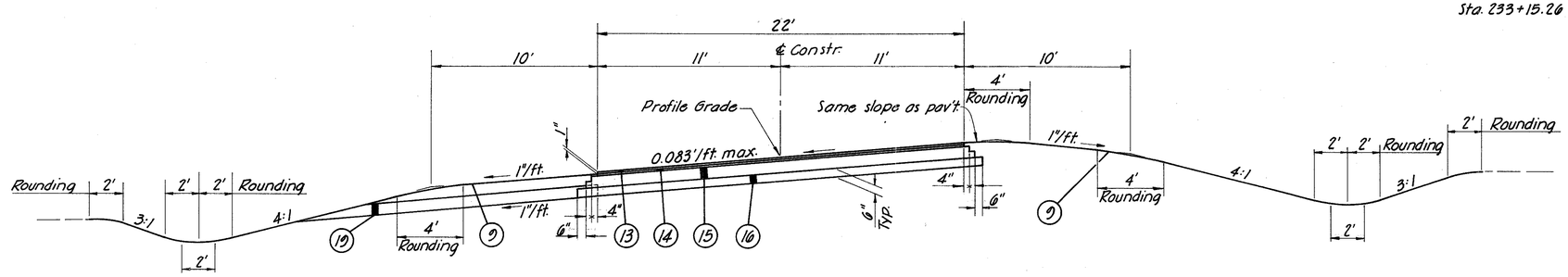
The above typical section applies between Sta. 720+25 to Sta. 727+87.67 S.R. 424 = 762.67
Sta. 730+70.33 to Sta. 739+75 S.R. 424 = 904.67
Sta. 220+21.86 to Sta. 225+75 S.R. 110 = 553.14
Sta. 234+00 to Sta. 239+00 S.R. 110 = 500.00
2720.00 lin. ft.

S.R. 424 & S.R. 110 NORMAL SECTION "S"



S. R. 110 SUPERELEVATED SECTION "T"

The above typical section applies between Sta. 217+00 to Sta. 220+16.75 = 316.75
Sta. 225+75 to Sta. 226+08.88 = 33.88
Sta. 228+93.38 to Sta. 233+14.74 = 421.36
Sta. 233+15.26 to Sta. 234+00 = 84.74
856.73 lin. ft.



The above typical section applies between Sta. 904+14.74 to Sta. 904+49.08 = 534.34 lin. ft.

EXISTING U.S. 6 CONNECTION SECTION "U"

NOTES
See Sheet No. 4 for Pavement Legend
For Details not shown see Std. Dwg. MC-1

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

TYPICAL SECTIONS TYPE 404

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	J.C.O.				

TYPICAL SECTIONS

GENERAL

FIELD OFFICE

THE CONTRACTOR SHALL, IN ADDITION TO THE REQUIREMENTS OF 105.152 PROVIDE FOR THE EXCLUSIVE USE OF THE DEPARTMENT, A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 500 SQ. FT. OF FLOOR SPACE. THE CONTRACTOR SHALL HAVE A TELEPHONE INSTALLED AND MAINTAINED IN THIS FIELD OFFICE DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE AND MAINTAIN SANITARY PROVISIONS AS PER 107.06. THE CONTRACTOR SHALL ALSO PROVIDE AND INSTALL WIRING AND OUTLETS SUITABLE FOR CONNECTING ELECTRIC LIGHTS AND OFFICE EQUIPMENT IN THE FIELD OFFICE AND PROVIDE 110-VOLT ALTERNATING CURRENT TO THE OFFICE DURING THE ENTIRE PERIOD OF CONSTRUCTION OF THIS PROJECT. ALL OF THE ABOVE IS TO BE INCLUDED IN THE LUMP SUM BID FOR FIELD OFFICE.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON THE U.S.G.S. DATUM.

UTILITIES

THE LOCATIONS OF UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE STATE OF OHIO MAKES NO GUARANTEES AS TO THEIR ACCURACY OR COMPLETENESS.

OWNERSHIP OF UTILITIES AFFECTED BY THIS PROJECT IS AS FOLLOWS:

NAPOLEON MUNICIPAL ELECTRIC CO. NAPOLEON, OHIO
NORTHWESTERN TELEPHONE SERVICE CO. 117 E. CLINTON ST., NAPOLEON, OHIO
TRI-COUNTY RURAL ELECTRIC COOPERATIVE, INC.
GLENWOOD & PARK, NAPOLEON, OHIO

REMOVAL OF TREES AND STUMPS

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	NO. TREES	NO. STUMPS
18"	39	166
30"	13	32
48"	1	
60"		

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201 CLEARING AND GRUBBING.

REMOVAL OF EXISTING PIPE

THE REMOVAL OF ALL EXISTING PIPE DRAINS WHICH WOULD NORMALLY BE REMOVED IN VARIOUS EXCAVATION ITEMS SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICES BID FOR THE RESPECTIVE EXCAVATION ITEMS, UNLESS OTHERWISE ITEMIZED IN THE PLANS.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON STANDARD DRAWING MC-1 AS MODIFIED BY THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

CONSTRUCTION LAYOUT STAKES

SEE NOTE IN PROPOSAL DESCRIBING THE WORK INCLUDED IN THIS LUMP SUM PAY ITEM.

GENERAL

RIGHT-OF-WAY FOR FUTURE CONSTRUCTION

THE CONTRACTOR'S ATTENTION IS CALLED TO THE EXTRA RIGHT-OF-WAY THAT HAS BEEN PURCHASED FOR FUTURE CONSTRUCTION. THE CONTRACTOR SHALL NOT BE RELIEVED OF HIS RESPONSIBILITIES AS PROVIDED UNDER THE PROVISIONS OF ITEM 201 IN THE AREAS WHERE EXTRA RIGHT-OF-WAY HAS BEEN PURCHASED EXCEPT WHERE THESE PROVISIONS ARE COVERED BY SEPARATE PAY ITEMS IN THE CONTRACT.

SUPERELEVATION

SUPERELEVATED CURVES SHALL BE BUILT WITHOUT CROWN. THE CROWN SHALL BE WORKED OUT OF THE PAVEMENT IN THE PORTION BETWEEN THE BEGINNING OF THE TRANSITION AND THE POINT WHERE THE SUPERELEVATION EQUALS TWICE THE CROWN.

ROADWAY

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

AFTER THE EXISTING PAVEMENT AS INDICATED ON THE PLANS HAS BEEN REMOVED, THE OLD ROADWAY SHALL BE GRADED TO THE LEVEL OF THE SURROUNDING GROUND, THE OLD DITCHES FILLED AND THE DISTURBED AREAS SLOPED TO DRAIN AND LEFT IN A NEAT CONDITION READY FOR SEEDING. SEEDING SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM 659 SEEDING AND MULCHING. PAYMENT FOR ALL OTHER WORK REQUIRED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203.

PRIVY VAULTS

PRIVY VAULTS SHALL BE CLEANED AND REMOVED OR FILLED AS CONDITIONS REQUIRE AND INCLUDED FOR PAYMENT IN PRICE BID FOR ITEM 203 EXCAVATION.

ITEM 203 PROOF ROLLING

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE IN PROOF ROLLING OF SUBGRADE FOR THE MAINLINE AND RAMP PAVEMENTS, AND FOR PAVED SHOULDERS, IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 801.

ROADWAY

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN LINES TEN (10) FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON THE CROSS-SECTIONS, OR TO THE RIGHT-OF-WAY LINE IF SUCH LINE IS LESS THAN TEN (10) FEET FROM THE WORK LIMITS EXCEPT IN AREAS WHERE RIGHT-OF-WAY IS ACQUIRED FOR FUTURE CONSTRUCTION, IN WHICH CASE SEEDING AREAS ARE CALCULATED TO THE RIGHT-OF-WAY LINES.

THE SEEDING MIXTURE TO BE USED IS AS FOLLOWS:

CREEPING RED FESCUE	40%
KENTUCKY BLUE	30%
RED TOP	25%
ALSIKE CLOVER	5%

COMMERCIAL FERTILIZER (12-12-12) SHALL BE APPLIED AT THE RATE OF 20 POUNDS PER 1000 SQ.FT. TO THE AREAS TO BE SEEDED OR SODDED.

ITEM 310, SUBBASE, USING LIMESTONE OR SLAG SCREENINGS, AS PER PLAN

MATERIAL USED FOR THIS ITEM SHALL BE CRUSHED LIMESTONE OR CRUSHED AIR COOLED BLAST FURNACE SLAG, FREE FROM DIRT OR OTHER FOREIGN MATERIAL, MEETING THE REQUIREMENTS OF 703.10 WITH THE FURTHER PROVISION THAT NOT MORE THAN 15% BY WEIGHT OF THE GRAINS OR PARTICLES WILL PASS A NO 200 SIEVE.

ITEM 310, SUBBASE GRADING A OR B AS PER PLAN

MATERIAL FOR THIS ITEM SHALL MEET THE REQUIREMENTS OF GRADING A OR B OF SEC.310.02 EXCEPT THAT FOR EITHER GRADING NO MORE THAN 10% OF THE MATERIAL SHALL PASS A NO.200 SIEVE AFTER ALL OPERATIONS OF PLACING AND COMPACTING HAVE BEEN COMPLETED.

ITEM 202 GUARD RAIL REMOVED FOR STORAGE

THE CONTRACTOR SHALL STORE THIS ITEM WITHIN THE RIGHT-OF-WAY FOR REMOVAL BY STATE FORCES.

CENTERLINE REFERENCE MONUMENTS, AS PER PLAN

MONUMENTS SHALL BE SET PLUMB WITH CENTER MARKER ON THE EXACT LOCATION AS ESTABLISHED BY THE ENGINEER.

THE ITEM, 604 CENTERLINE REFERENCE MONUMENTS AND CENTERLINE MONUMENTS, SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THIS ITEM, EXCEPT MONUMENTS, WHICH WILL BE DELIVERED TO THE FIELD OFFICE BY THE STATE.

FOR LOCATIONS AND DETAILS SEE SHEET NO. 8 OF THE RIGHT-OF-WAY PLANS.

EMBANKMENT CONSTRUCTION - STATION 864+25 TO 869+00

BETWEEN THE ABOVE LIMITING STATIONS, THE RATE OF EMBANKMENT PLACEMENT SHALL NOT BE IN EXCESS OF 4 FEET, MEASURED FROM THE LOWEST POINT ON THE CROSS SECTIONS, PER WEEK (7 CALENDAR DAYS) FOR THE FULL HEIGHT OF FILL. A WAITING PERIOD OF 30 DAYS SHALL ELAPSE BETWEEN TIME OF COMPLETION OF THE EMBANKMENT TO GRADE AND COMMENCEMENT OF WORK ON THE NORTH ABUTMENT. HUBS SHALL BE PLACED IN THE ABUTMENT AREA TO BE USED FOR OBSERVATION OF THE RATE AND AMOUNT OF EMBANKMENT SETTLEMENT.

GENERAL NOTES

DRAINAGE

EROSION CONTROL

ITEMS 601, 660 AND 667 ARE PROVIDED IN THESE PLANS FOR EROSION CONTROL. THE ENGINEER WILL CHECK AND NON-PERFORM QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

FIELD TILE (SUBSURFACE DRAINAGE)

ALL FARM TILES WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS UNDER THE DIRECTION OF THE ENGINEER, EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE RIGHT-OF-WAY BY 603, TYPE B CONDUIT WITH CLASS B BEDDING.

EXISTING COLLECTORS AND ISOLATED FARM TILES WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF THE ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH WITH 603 TYPE F CONDUITS. THE OPTIMUM OUTLET ELEVATION SHALL BE, IF POSSIBLE, ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH.

LATERIAL TILE FIELDS WHICH CROSS THE ROADWAY SHALL BE INTERCEPTED BY TILE COLLECTORS, LOCATED OUTSIDE OF THE RIGHT-OF-WAY AND INSTALLED BY THE OWNERS THRU RIGHT-OF-WAY SETTLEMENT, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE TYPE, SIZE, AND GRADE OF REQUIRED REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE DRAINAGE SUMMARY FOR THIS WORK. NONE OF THESE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL REQUESTED BY THE ENGINEER.

300'-8" CONDUIT TYPE B W/CL. B. BEDDING
300'-10" CONDUIT TYPE B W/CL. B BEDDING
200'-6" CONDUIT TYPE F
200'-8" CONDUIT TYPE F

THE LOCATION OF THESE EXISTING FIELD TILE SHALL BE DETERMINED BY THE CONTRACTOR, WHEN DIRECTED BY THE ENGINEER. THE COST OF SUCH TILE LOCATION SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT OF 603 CONDUITS.

MAINTENANCE OF SEWER FLOWS

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES SEWER FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE AND THROUGH FACILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PLACED INTO USE. PAYMENT FOR ANY ADDITIONAL COSTS INVOLVED IN MAINTAINING THESE FLOWS BY PUMPING OR BY ANY OTHER MEANS APPROVED BY THE ENGINEER SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RESPECTIVE ITEMS OF 603 CONDUIT.

SKEWED PIPE ENDS

WHERE REQUIRED BY STRUCTURE DETAILS, THE SKEWED END SECTIONS OF THE PIPE SHALL BE SPECIALLY FABRICATED BY THE MANUFACTURER. THE SHORT SIDE OF ANY SPECIALLY FABRICATED PIPE SECTION SHALL NOT BE LESS THAN TWO (2) FEET LONG.

SPECIAL DITCHES

FOR SPECIAL DITCHES SEE CROSS-SECTIONS.

ITEM 601 RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN

CLASS E REINFORCED CONCRETE CUT-OFF WALLS SHALL BE PROVIDED FOR THIS ITEM WHERE DETAILED IN THE PLANS. PAYMENT FOR THE CUT-OFF WALLS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 601, RIPRAP USING 6" REINFORCED CONCRETE SLAB, AS PER PLAN.

DRAINAGE

REVIEW OF PROJECT SEWERS AND DITCHES

BEFORE ANY WORK IS STARTED ON THE PROJECT, REPRESENTATIVES OF THE STATE, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING STORM SEWERS AND DITCHES WHICH ARE TO REMAIN IN SERVICE AND WHICH WILL BE AFFECTED BY THE WORK. A RECORD OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE. ALL NEW SEWERS, INLETS AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE. ALL EXISTING SEWERS AND DITCHES INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN THE SAME CONDITION AS DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. THE COST OF MAKING INSPECTIONS AND ANY REPAIRING OR CORRECTING OF SEWERS OR DITCHES, AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RESPECTIVE CONDUIT ITEMS OF THE CONTRACT.

CONNECTIONS TO EXISTING SEWERS

AT THOSE LOCATIONS WHERE THE PLANS REQUIRE THE CONNECTION OF (1) A NEW SEWER TO AN EXISTING SEWER OR APPURTENANCE OR (2) AN EXISTING SEWER OR EXISTING APPURTENANCE TO A NEW SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING SEWER OR APPURTENANCE BOTH AS TO LINE AND GRADE BEFORE HE STARTS CONSTRUCTION OF THE PROPOSED SEWER. PAYMENT FOR THIS OPERATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEM.

ITEM 605 AGGREGATE DRAINS

ITEM 605 AGGREGATE DRAIN QUANTITIES ARE COMPUTED FOR FIFTY (50) FOOT INTERVALS ON EACH SIDE OF THE PAVEMENT, EXCEPT FOR SUPERELEVATED SECTIONS WHERE THEY ARE PLACED ON THE LOW SIDE AT TWENTY-FIVE (25) FOOT INTERVALS. FINAL LOCATION OF 605 AGGREGATE DRAINS WHERE THE ABOVE SPACING CONFLICTS WITH OTHER INSTALLATIONS, SHALL BE AS DETERMINED BY THE ENGINEER. AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE.

SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEM

THIS PLAN MAKES NO PROVISION FOR CONNECTING, NOR SHALL THE ENGINEER OR CONTRACTOR CONNECT, ANY EXISTING OR NEW DRAINAGE INTO THE HIGHWAY DRAINAGE SYSTEM WHEN SUCH DRAINS CARRY FLOW FROM ANY PLUMBING FIXTURE INCLUDING FLOOR DRAINS AND SINK DRAINS OR DRAINS FROM LIVESTOCK LOTS OR BARNS OR POLLUTED WATER OF ANY KIND. EXISTING PIPE CARRYING FLOW WHICH COMES WITHIN THE CATEGORY OUTLINED ABOVE SHALL BE PLUGGED WITH CLASS E CONCRETE AT THE RIGHT-OF-WAY LINE. PAYMENT FOR THE SAID PLUGGING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION.

605, 6" PIPE UNDERDRAINS, 707.06 OR 707.12, AS PER PLAN

A QUANTITY OF 200 LINEAR FEET OF PIPE UNDERDRAINS HAS BEEN PROVIDED FOR IN THE GENERAL SUMMARY OF ESTIMATED QUANTITIES FOR USE IN CUT SLOPES OR AT OTHER LOCATIONS AS MAY BE DIRECTED BY THE ENGINEER.

PAYMENT FOR THIS WORK WILL BE MADE AT THE UNIT PRICE BID PER LINEAR FOOT FOR 605 PIPE UNDERDRAINS, 707.06 OR 707.12, AS PER PLAN, WHICH PRICE SHALL CONSTITUTE FULL COMPENSATION FOR ALL TOOLS, LABOR, MATERIALS, FURNISHING AND PLACING, EXCAVATION, BACKFILL AND ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

NONE OF THE ABOVE MATERIALS SHALL BE ORDERED BY THE CONTRACTOR UNTIL REQUESTED BY THE ENGINEER.

CASTINGS ON EXISTING DRAINAGE STRUCTURES TO BE REMOVED, OR REPLACED

ALL OF THE CASTINGS ON THE EXISTING DRAINAGE STRUCTURES THAT ARE INDICATED ON THE PLAN TO BE REMOVED, OR REPLACED BY NEW DRAINAGE STRUCTURES, SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS NOTED OTHERWISE ON THE PLAN.

PAVEMENT

HOT LONGITUDINAL JOINT

ASPHALT CONCRETE IN THE LEVELING AND SURFACE COURSES ON THE MAIN LINE PAVEMENT SHALL BE LAID USING TWO OR MORE BITUMINOUS PAVERS OPERATING IN PARALLEL LINES, ONE JUST AHEAD OF ANOTHER, SO THAT HOT LONGITUDINAL JOINTS WILL BE SECURED AT LOCATIONS INDICATED ON THE TYPICAL SECTIONS. AT NO TIME SHALL ONE OF THE PAVERS BE FURTHER AHEAD OF THE ADJACENT PAVER THAN THE DISTANCE THE NORMAL LOAD BEING HAULED WILL COVER. THE LOADS OF MIXTURE AS THEY ARRIVE SHALL BE ALTERNATED BETWEEN THE PAVERS. ROLLERS PERFORMING THE INITIAL ROLLING OPERATION ON THE FIRST LANE LAID SHALL IN NO CASE BE ALLOWED CLOSER THAN 12 INCHES TO THE LONGITUDINAL JOINT UNTIL THE ADJACENT LANE IS LAID. PAYMENT FOR ALL THE ABOVE WORK SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE PERTINENT PAVEMENT ITEMS.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH TEMPORARY GUIDE MARKERS OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

CONTRACTION AND EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN EXPANSION AND CONTRACTION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES AND THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS SHALL IN ALL CASES BE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWINGS AND THE SPECIFICATIONS.

TRAFFIC

MAINTENANCE OF TRAFFIC

WHERE COUNTY AND TOWNSHIP ROADS ARE PROPOSED FOR INTERSECTION ON EXISTING ALIGNMENT, THE ROAD MAY BE CLOSED DURING SUCH TIME AS IS REQUIRED TO PROVIDE THE CONNECTION UTILIZING THE EXISTING ROAD NET TO PROVIDE THE SHORTEST DETOUR ROUTE. NO TWO ADJACENT INTERSECTIONS SHALL BE CLOSED TO TRAFFIC AT THE SAME TIME. NO ROAD SHALL BE CLOSED FOR A PERIOD TO EXCEED 30 CONSECUTIVE DAYS.

EXISTING SR 110

TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY THE USE OF THE EXISTING PAVEMENT, TEMPORARY PAVEMENT OR THE PROPOSED STRUCTURE AND PAVEMENT.

EXISTING SR 24

IF AT THE TIME OF CONSTRUCTION OF THIS PROJECT, THE ADJACENT PROJECT HEN 6-11.73 & HEN 24-9.64 IS COMPLETED, THE TEMPORARY PAVEMENT FOR THE RUNAROUND ON EXISTING US 24 MAY BE NON-PERFORMED. ALL WESTBOUND THROUGH TRAFFIC SHALL BE DETOURED ONTO RELOCATED US 24. LOCAL TRAFFIC MAY HAVE ACCESS TO EXISTING US 24 VIA RELOCATED US 24 AND TOWNSHIP ROADS NO. 10 AND 11.

EXISTING US 6

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES. TRAFFIC SHALL BE MAINTAINED BY USE OF EITHER THE EXISTING PAVEMENT, THE PROPOSED PAVEMENT OR TEMPORARY ROADWAYS SURFACED WITH 410 AGGREGATE AND STABILIZED WITH ITEM 616 CALCIUM CHLORIDE.

ALL WORK ON RELOCATED US 6 SHALL BE COMPLETED BEFORE ANY WORK COMMENCES INVOLVING THE CONNECTION OF THE RELOCATED US 6 PAVEMENT AND THE EXISTING US 6 PAVEMENT.

ESTIMATED QUANTITIES OF THE FOLLOWING ITEMS HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED IN MAINTAINING TRAFFIC:

ITEM 410 TRAFFIC COMPACTED SURFACE TYPE C	200 CU.YD.
ITEM 616 CALCIUM CHLORIDE	75 TON

FED. RD. DIVISION	STATE	PROJECT		17
2	OHIO			231

HENRY COUNTY
HEN-G-16.43

ITEM 607 FENCE TABLE

R/W Plan Sheet No.	Fence Type 39 Lin. Ft
10	1370
11	3361
12	5975
13	5374
14	6052
15	5000
16	2121
17	498
19	3065
23	4537
26	1931
27	2278
28	1884
Total	*43,396

* Carried to General Summary

ⓖ GUARD RAIL TABLE

Sheet No.	Ref. Number	Station From	Station To	Side	Location	Item 606 Type 4	Item 606 Type 4 Barrier	Item 606 Type 4 as per plan (6'3" Spacing)
						Lin. Ft.		
25&28	1-G	859+70.10	868+77	R	E.B. & ℄	700		
27	2-G	861+94.54	863+32.04	R	℄ Survey	137.5		
27	3-G	862+57.04	863+32.04	R	℄ Survey	75		
27&28	4-G	862+6544	868+77	L	℄ Survey	612.5		
27&28	5-G	863+32.04	863+94.54	℄ & R	℄ Survey		562.5	
28&29	6-G	878+47	885+72.40	R	E.B. & Ramp A	762.5		
28&29	7-G	878+29.46	883+29.46	℄	℄ Survey		500	
28&29	8-G	878+47	887+21.68	L	W.B & ℄	875		
29	9-G	883+29.46	884+16.96	R	℄ Survey	87.5		
29	10-G	883+29.46	884+66.96	L	℄ Survey	137.5		
31	11-G	903+50	908+27.37	R	℄ & E.B.	475		
31	12-G	903+50	908+97.43	L	℄ & W.B.	550		
33	13-G	925+46	925+96	R	℄ Survey	50		
33	14-G	925+05	926+15	R	℄ Survey	50		
33	15-G	924+35	926+60	R	℄ Survey	225		
33	16-G	925+57	927+82	R	℄ Survey	225		
38	17-G	971+99	974+49	R	℄ Survey	250		
38	18-G	972+99	975+49	R	℄ Survey	250		
45	19-G	1042+25	1044+25	R	℄ Survey	200		
45	20-G	1043+02.5	1043+90	R	℄ Survey	815		
45	21-G	1044+19	1044+69	R	℄ Survey	50		
89&90	22-G	720+30.61	728+05.36	R	℄ S.R. 424	775		
89&90	23-G	723+96.50	727+96.25	L	℄ S.R. 424	400		
90&91	24-G	730+61.75	737+11.50	R	℄ S.R. 424	650		
90	25-G	730+52.04	840+75.3	L	S.R. 424 & Ramp C	375		
91	26-G	737+03	739+75.5	R	℄ S.R. 424	212.5		
110&111	27-G	896+35.46	226+28.96	R	Ramp A & S.R. 110	3875		
109&110	28-G	221+01.79	226+14.04	L	℄ S.R. 110	512.5		
110&111	29-G	228+89.32	234+41.76	R	℄ S.R. 110	550		
110	30-G	228+72.23	233+95.24	L	℄ S.R. 110	525		
34	31-G	936+97	937+72	R	℄ Survey	* 75		
36	32-G	955+97	956+72	R	℄ Survey	* 75		
30	33-G	896+97	897+22	L	℄ Survey			* 50
129	34-G		913+10	R	Exist U.S. 6	25		
		* For ground mounted sign protection						
					Totals to General Summary	10,362.5	1062.5	50

Note: All driveways shall conform to Std. Dwg. BP-6 Type 2 Driveway

Ⓐ APPROACH & Ⓡ REMOVAL TABLE

Sheet No.	Reference No.	Station From	Station To	Side	Drive Size Width Pav't Edge	Drive Size Width Back	Drive Size Length along ℄	203 Exist. Pav't Removed & Disposed of Under Excavation	404 2~1" Courses Asphalt Concrete	408 Bit. Prime Coat	411 Stabilized Crushed Aggregate 5"	411 Stabilized Crushed Aggregate 6"	202 Guard Rail Removed for Storage	202 Existing Structures Removed
					Lin. Ft.			Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.		Lin. Ft.	Lump
31	1-R	909+27±	910+45±	L	(Feather)		10	20						
32	2-R	916+65±	920+50±	R				80						
89	1-A	720+78		L					0.4					
89-91	3-R	720+30.6±	737+02	R									671	
90	4-R	726+60	728+35	℄				235						
90	5-R	730+20	731+95	℄				235						
91	6-R	737+64	739+17	R									153	
91	2-A	737+37		R	52	12	98					29.2		
109	3-A	220+28		L	77	12	102		7.0	50.5	17.6	9.7		
110	7-R	224+85	226+70	℄				250						
110	8-R	227+95	231+04	R									309	
110	9-R	228+30	230+15	℄				250						
110	10-R	229+50	231+50	L									200	
129	4-A	909+00	U.S. 6 Conn.	L	70	13	6		1.8	12.9	4.5			
129	5-A	909+25	U.S. 6 Conn.	R	52	12	113		18.6	134.5	45.3			
129	11-R	908+05±	909+10± Exist. U.S. 6	R				180						
129	12-R	912+10±	914+75± Exist. U.S. 6	R				95						
33	13-R		924+64.5	R								⊙7.0		Lump
					Totals carried to Extra Pav't Table			1345	27.8	197.9	113.3		1333	* Lump

⊙ 8" thick courses

* Carried to General Summary

ITEM 203 EARTHWORK SUBSUMMARY
ITEM 659 SEEDING & MULCHING SUBSUMMARY

Sheet No.	Station From	Station To	203 Excavation	203 Embankment	659 Seeding & Mulching
	AREA SOUTH OF THE MAUMEE RIVER		Cu. Yd.		Sq. Yd.
54	878+47℄US6	879+00℄US6	724	1505	986
55	880+00	886+00	2661	14,057	9310
56	887+00	893+00	22,317	26	8533
57	894+00	900+00	7057	392	8506
58	901+00	904+50	2579	5785	6657
59	905+00	909+00	1105	22,432	8820
60	910+00	915+00	6349	935	13,513
61	916+00	921+00	2825	674	12,481
62	922+00	927+00	1531	4613	17,190
63	928+00	934+00	3304	1481	17,345
64	935+00	940+48.8	2641	1569	15,854
65	941+00	946+00	4739	571	12,722
66	947+00	953+00	8109	33	17,617
67	954+00	960+00	3088	325	17,383
68	961+00	966+99.7	758	1916	18,149
69	967+50	973+00	1684	1489	13,719
70	974+00	979+00	2562	5121	17,178
71	980+00	986+00	3791	3184	20,612
72	986+50	990+00	5926	113	12,445
73	991+00	997+00	3652	2171	20,578
74	997+50	1002+00	2685	880	13,139
75	1002+50	1007+00	1732	1075	12,266
76	1008+00	1013+00	2090	2841	14,989
77	1014+00	1020+00	3295	2847	18,789
78	1021+00	1027+00	3489	5990	25,237
79	1028+00	1030+00	2008	1140	8733
80	1030+50	1033+50	3223	409	9839
81	1034+00	1037+00	3434	189	8964
82	1038+00	1043+50	4194	87	17,581
83	1044+03	1048+75	4649	66	5522
84	1049+21	1051+85	1143	9	3936
85	1052+35	1052+85	106	0	0
108	S.R. 110 X-Sect. Layout Sheet		19,220	0	See Ramp X-Sec. Sheets
112	214+00 S.R. 110	220+00 S.R. 110	641	1075	4057
113	220+50 S.R. 110	224+50 S.R. 110	854	14,122	6752
114	225+00 S.R. 110	230+00 S.R. 110	591	21,468	6127
115	230+50 S.R. 110	235+00 S.R. 110	1500	20,612	8737
116	235+50 S.R. 110	240+77 S.R. 110	468	1355	3261
118	S.R. 110 Ramp "A"		3269	51	2780
119	S.R. 110 Ramp "A"		531	10,565	5453
121	S.R. 110 Ramp "B"		7739	51	6093
123	S.R. 110 Ramp "C"		4028	630	3903
124	S.R. 110 Ramp "C"		2872	290	4613
126	S.R. 110 Ramp "D"		9172	0	3131
130	Exist. 6 Conn. 904+15-910+07		892	4952	0
143	Structure No. 7 & 9		1237	0	0
144	Structure No. 8		1021	0	0
148	Structure No. 15		460	0	0
149	Structure No. 16		1151	0	0
150	Structure No. 17		708	0	0
152	Structure No. 20		40	0	0
	SUB-TOTAL		175,850	159,096	403,509

ITEM 203 EARTHWORK SUBSUMMARY
ITEM 659 SEEDING & MULCHING SUBSUMMARY

Sheet No.	Station From	Station To	203 Excavation	203 Embankment	659 Seeding & Mulching
	AREA NORTH OF THE MAUMEE RIVER		Cu. Yd.		Sq. Yd.
47	848+00 E.B.	853+50 E.B.	4090	823	10,605
48	854+00 E.B.	860+00 E.B.	14,824	604	4974
49	852+00 W.B.	857+00 W.B.	10,976	0	11,691
50	858+00 W.B.	859+00 W.B.	4687	228	2827
51	858+29.62℄G	862+50℄US6	9608	815	3422
52	863+10℄US6	864+30℄US6	1319	6490	1622
53	865+00℄US6	867+00℄US6	72	27,132	4718
54	868+00℄US6	868+77℄US6	245	20,614	3490
88	S.R. 424 X-Sect. Layout Sheet		34,280	0	See Ramp X-Sec. Sheets
92	720+25 S.R. 424	724+00 S.R. 424	504	2858	3474
93	725+00 S.R. 424	729+00 S.R. 424	1921	18,286	8500
94	730+53 S.R. 424	734+00 S.R. 424	2131	17,972	7428
95	735+00 S.R. 424	739+00 S.R. 424	1497	8480	8378
96	739+75 S.R. 424	744+00 S.R. 424	100	25	0
98	S.R. 424 Ramp "A"		2694	2193	11,651
99	S.R. 424 Ramp "A"		3470	509	4188
101	S.R. 424 Ramp "B"		4003	65	25,667
103	S.R. 424 Ramp "C"		2416	4887	24,525
104	S.R. 424 Ramp "C"		7411	0	3584
	SUB-TOTAL		107,148	112,050	140,844

ITEM 203 - EARTHWORK SUMMARY
ITEM 659 - SEEDING & MULCHING SUMMARY

LOCATION	203 Excavation Not Including Embankment Construction	203 Embankment		659 Seeding & Mulching
	Cu. Yd.			Sq. Yd.
Area North of River	107,148	112,050		140,844
Area South of River	175,850	159,096		403,509
From Extra Pavement Table	1391			
Deduct for Sodding				1011
Total to General Summary	284,389	271,146		603,342

6408

RIGID PAVEMENT TYPICAL SECTION CALCULATIONS

* Total Length
** Cross Section Area

HENRY COUNTY
HEN-6-16.43

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

Typical Section Item Designation								(1)	(2)			(3)			(4)	(5)	(6)		(22)	(23)	(8)	(11)		
STATION S = ℄ Survey E = Eastbound W = Westbound			Station Length	Correction Factor	*(1) Total Length	(2) Average Item Width	*(1)×(2) Item Area	451 9" Reinforced Concrete Pavement	310 Subbase Grading "A" or "B" 5¼" Average	310 Subbase Grading "A" or "B" 6"	310 Subbase Grading "A" or "B" 7½"	310 Subbase 3"	310 Subbase 5" Average	310 Subbase 5¾" Average	310 Subbase 6"	304 6" Aggregate Base	301 3" Bituminous Aggregate Base, as per Plan	409 Seal Coat Cover Aggregate	409 Seal Coat Bituminous Material	301 6" Bituminous Aggregate Base, as per Plan	304 3" Aggregate Base	Special Drainage Connection Using No. 8 Aggregate	612 Standard Concrete Median	203 Subgrade Prep.	Remarks
From	To							(3)	(3)×5¼"/36	(3)×6"/36	(3)×7½"/36	(3)×3"/36	(3)×5"/36	(3)×5¾"/36	(3)×6"/36	(3)×6"/36	(3)×3"/36	(5)×0.008	(5)×0.25	(3)×6"/36	(3)×3"/36	**(5)×(1)/3	(3)	(3)	
					Lin. Ft.	Ft.	Sq. Yd.	Sq. Yd.	Cu. Yd.			Cu. Yd.				Cu. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Sq. Yd.	
TYPICAL SECTION "A"																								
852+00	855+86.48	W	386.48		386.48	24	1030.6	1030.6															1030.6	
						28	1202.4			200.4														
						12	515.3								85.0	42.0							515.3	
						5.33	228.9						31.8											
				1.0041	388.06		**0.14														18.11			
TYPICAL SECTION "B"																								
855+86.48	859+66.07	W	308.49		308.49	24	2815.3	2815.3															2815.3	
858+29.62	865+04.87	S	675.25		675.25	12	1407.6		205.3		203.2													
				TOTAL	*1055.74	4	460.2					30.1				78.2	30.1	3.8	117.3				460.2	4' Berm
855+86.48	859+66.07	W	308.49		308.49	8	312.1									52.0	26.0	2.5	78.0				312.1	8' Berm
858+29.62	858+72.27	S	42.65		42.65	5.33	207.0							33.2										also see "2-P"
				TOTAL	*351.14		**0.15															17.6			
TYPICAL SECTION "C"																								
848+00	863+00.64	E	1509.64		1509.64	24	4025.7	4025.7			671.0												4025.7	
						4	670.9						93.2			111.8	55.9	5.4	167.7				670.9	4' Berm
848+00	850+04.77	E	804.77		804.77	8	715.4									119.2	59.6	5.7	178.9				715.4	8' Berm
						5.33	476.6						66.0											also see "1-P"
				0.9966	802.03		**0.14															37.4		
TYPICAL SECTION "D"																								
866+81.87	868+64.75	S	182.88		182.88	52	1056.6	1056.6															1056.6	See 1-P, 2-P & 3-P for conc.
						56	1137.9				189.7													Median & Speed Change Lanes
						4	81.3				13.6													
TYPICAL SECTION "E"																								
865+04.87	866+81.87		177.00		177.00	48	944.0	944.0															944.0	See "3-P" for
						24	472.0			78.7														Median Quant.
						12	236.0		34.4		40.2													
TYPICAL SECTION "F" (S.R. 424 RAMPS)																								
848+00	851+92.99		392.99	1.0121	397.75	16	3207.4	3207.4															3207.4	Ramp "A"
851+92.99	852+90		97.01		97.01		1202.8																	Stationing
850+80	853+60		280.00	1.0363	290.16	6	3407.9											9.6	300.7	200.5			1202.8	Ramp "B" Sta.
849+28.92	852+10.71		281.79		281.79	17				568.0														Ramp "C"
852+10.71	858+25		614.29	1.0340	635.73																			Stationing
858+25	859+25		100.00	1.0175	101.75																			
				TOTAL	*1804.19																			
Ramp "A"			392.99	1.0265	403.40	3	616.5														51.4			
			97.01		97.01	2	411.0								68.5									
Ramp "B"			280.00	1.0704	302.23																			
Ramp "C"			281.79		281.79																			
			614.29	1.0764	661.22																			
			100.00	1.0382	103.82																			
				TOTAL	*1849.47																			
Ramp "A"			392.99	0.9977	392.09		**0.17															99.7		
			97.01		97.01																			
Ramp "B"			280.00	0.9932	278.10																			
Ramp "C"			281.79		281.79																			
			614.29	0.9935	610.30																			
			100.00	0.9967	99.67																			
				TOTAL	*1758.96																			
Adjustment for Subbase Grading "A" or "B" under Special Drainage Connector										57.0														
TYPICAL SECTION "H" (S.R. 424, RAMP "A")																								
854+75.96	856+00		124.04		124.04	34	468.6	468.6															468.6	
						38	523.7			87.3														
						3	41.3			6.9												41.3		
						12	165.4										1.3	41.4	27.6				165.4	
						9.33	128.6													10.7				
						8.33	114.8						15.9											
							**0.16														6.6			
TYPICAL SECTION "G" (S.R. 424, RAMP "A")																								
856+00	857+66.52		166.52		166.52	34	629.1	629.1															629.1	
						37	684.6			114.1														
						3	55.5			9.3												55.5		
						12	222.0										1.8	55.5	37.0				222.0	
						6.67	123.4						17.1							10.3				
							**0.32														17.8			
Sub-total									230.7	1006.0	342.4	30.1	224.0	33.2	68.5									
Sub-totals carried to Extra Pavt. Table								14,177.3	2578.1			364.8				447.1	223.5	30.1	930.5	265.1	72.4	197.2	96.8	18,450.4

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

19
731

HENRY COUNTY
HEN-6-16.

FLEXIBLE PAVEMENT TYPICAL SECTION CALCULATIONS

Typical Section Item Designation								(13) 404	(14) 402	(15) 301	(16) 310				(17) 408	(4) 304	(5) 301	(6) 409		(22) 301	(23) 304	(18) 304	(11) 612	203	(21) 409	
STATION S = ℄ Survey E = Eastbound W = Westbound			Station Length	Correction Factor	*(1) Total Length	(2) Average Item Width	(3) Item Area *(1)x(2)	1¼" Asphalt Concrete	1¼" Asphalt Concrete	8" Bituminous Aggregate Base	Subbase Using Screenings, As Per Plan				Bituminous Prime Coat	6" Aggregate Base	3" Bituminous Aggregate Base	Seal Coat		6" Bituminous Aggregate Base	3" Aggregate Base	8" Aggregate Base	Standard Concrete Median	Subbase Prep.	Cover Aggregate (3)x	Bituminous Material (3)x	Remarks
From	To										5¾" Average	6"	6¼" Average	7½"				Cover Aggregate	Bituminous Material								
								(3)x1¼/36	(3)x1¼/36	(3)x 8"/36	(3)x 5¾/36	(3)x 6"/36	(3)x6¼/36	(3)x7½/36	(3)x 0.4	(3)x 6"/36	(3)x 3"/36	(3)x0.008	(3)x 0.25	(3)x 6"/36	(3)x 3"/36	(3)x 8"/36	(3)	(3)	0.005	0.030	
					Lin. Ft.	Ft.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.				Gal.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Gal.	Cu. Yd.	Cu. Yd.		Sq. Yd.	Sq. Yd.	Cu. Yd.	Gal.	
TYPICAL SECTION "I"																										
878+59.25	880+74	S	214.75		* 214.75	48	1145.3	39.8	39.8														1145.3			See "4-P" for Conc. Median
						50 Equiv.	1193.1			265.1																
						59.33 Ave.	1415.7					236.0														
						6 Ave	143.2										11.9	1.1	35.8							
						9.17 Ave	218.8									30.5										
TYPICAL SECTION "J" & "K"																										
880+74	903+75	W	2301.00		2301.00	24	19,755.8	686.0	686.0														19,755.8			
880+74	903+00	E	2226.00		2226.00	25 Equiv.	20,580.5			4573.1																
903+75	917+90	W	1415.00		1415.00	25.33	20,850.5					3475.1														
903+00	917+66.40	E	1466.40		1466.40	4	3,292.6										274.4	26.3	823.2				3292.6			
					*7408.40	3.52 Equiv.	2,897.5									482.9										
						3.33	2,741.1							571.1												
TYPICAL SECTION "J" & "K" (8" Paved Shoulder)																										
886+89.14	895+36.42	E	847.28		847.28	8	3,604.0										300.3	28.8	901.0				3604.0			
888+60	896+15	W	755.00		755.00	7.52 Equiv.	3,387.8									564.6										
905+36.42	917+66.40	E	1229.98		1229.98	7.33	3,302.2				527.4															
905+67.73	917+90	W	1222.27		1222.27																					For Typ. Section "L" See "10-P"
					*4,054.53																					
TYPICAL SECTION "M" & "N"																										
923+21.55	998+75	S	7553.45		7553.45	24	*29,287.7	1016.9	1016.9														29,287.7			
998+75	1002+21.43		346.43	1.0110	350.24	25 Equiv.	*30,508.0			6779.6																
1002+21.43	1028+38.65		2617.22	1.0220	2674.80	25.33	*30,910.7					5151.8														
1028+38.65	1032+38.65		400.00	1.0110	404.40	8	⊙ 9,341.8								3736.7								9,341.8	74.7	2802.5	
					*10,982.89	7.42 Equiv.	⊙8,664.5										1,925.4									
Deduct for Paved Shoulders @ Intersections					- 473.33	6.67	⊙1,788.8						1,352.2													For Typ. Section "O" See "20-P"
					⊙10,509.56																					
TYPICAL SECTION "P" (S.R. 110 Ramps)																										
Ramp	"A"																									
886+30.73	887+36.73		100.00	1.0151	101.51	16	3,136.6	108.9	108.9														3,136.6			
887+36.73	889+80		243.27	1.0349	251.76	17 Equiv.	3,332.6			740.5																
Ramp	"B"					17.33	3,397.2					566.0														
887+55.00	887+99.53		44.53		44.53	6	1,176.3											9.4	294.1				1176.3			
887+99.53	892+81		481.47	1.0112	486.86	5.61 Equiv.	1,099.8													183.3						
Ramp	"C"					4.75 Equiv.	931.2														77.6					
891+24	892+42.86		118.86		118.86	2.33	456.8				73.0			94.9												
892+42.86	896+61.73		424.87	1.0112	429.63																					
Ramp	"D"																									
883+40	886+60		320.00	1.0349	331.17																					
					*1764.32																					
TYPICAL SECTION "Q & "R" (S.R. 110 Ramp "A" & "C")																										
Ramp	"A"																									
890+89.57	894+75		385.43		385.43	34	2,926.1	101.6	101.6														2,926.1			
894+75	896+21.64		146.64		146.64	38 Equiv.	3,270.4			726.8																
						38.33	3,298.9					549.8														
Ramp	"C"					12	1,032.8											8.3	258.2				1,032.8			
886+93.57	888+64		170.43		170.43	11.61 Equiv.	999.2													166.5						
888+64	889+36.07		72.07		72.07	10.75 Equiv.	925.2														77.1					
					*774.57	10.67	918.3				146.7															
						3	258.2																	258.2		
TYPICAL SECTION "S" & "T"																										
S.R.	424																									
720+25	727+87.67		762.67		762.67	24	9,539.2	331.2	331.2														9,539.2			
730+70.33	739+75		904.67		904.67	25 Equiv.	9,936.7			2,208.1																
S.R.	110					26.33	10,465.3					1744.2														
217+00	220+16.75		316.75		316.75																					
220+21.86	226+08.88		587.02		587.02																					
228+93.38	233+14.74		421.36		421.36																					
233+15.26	239+00		584.74		584.74																					
					*3577.21																					
TYPICAL SECTION "U"																										
904+14.74	909+49.08		534.43		534.43	22	1306.2	45.4	45.4														1306.2			
						23 Equiv.	1365.5			303.4																
						24.33	1444.5					240.8														
Sub-Total											747.1	11,903.7	1352.2	660.0												
Sub-Totals carried to Extra Pavement Table								2329.8	2329.8	15,596.6	14,729.0				3736.7	1084.0	586.6	73.9	2312.3	349.8	154.7	1925.4	258.2	85544.4	74.7	2802.5	

ITEM 611
APPROACH SLABS

Approach Limits		Area
From	To	Sq. Yd.
Bridge No. HEN-6-1707		
226+08.88	226+33.88	88.35
228+68.38	228+93.38	88.44
Bridge No. HEN-6-1667		
727+87.67	728+12.67	88.67
730+45.33	730+70.33	88.67
Bridge No. HEN-6-1640		
868+64.75	868+94.75	205.64
878+29.25	878+59.25	205.64
Total to General Summary		766

6408

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

20
231

HENRY COUNTY
HEN-6-16.43

Item 605 AGGREGATE DRAINS

Typical Section Designation	① Net Even Length of Typ Section in Stations	② Spacing per Sta. One Side	② Spacing per Sta. Both Sides	③ Number of Drains per Station	④ No. Drains ①×③+2 ①×③+1	⑤ Average Length of Drain (Feet)	⑥ Length of Agg. Drains ④×⑤ = ft
I	2.0		50	4	10	22.5	225
J	35.25		50	4	143	22.5	3217.5
K	14.5	25		4	59	22.5	1327.5
L	4.25	25		4	18	22.5	405
M	60.5		50	4	244	22.5	5490
O	3.0	50		2	7	22.5	157.5
P	32.0	25		4	129	20.5	2644.5
Q	4.0		50	4	18	20.5	369
R	5.25	25		4	22	20.5	451
S	27.0		50	4	110	18.0	1980
T	8.5	25		4	35	18.0	630
U	5.25	25		4	22	18.5	407
Total carried to General Summary							17,304

Ⓓ EXTRA PAVEMENT TABLE

Ref. Number	Sheet Number	202 Guard Rail Removed for Storage	203 Exist. Pav't. Removed and Disposed of under excavation	203 Subgrade Preparation	301 Bituminous Aggregate Base 3"	301 Bituminous Aggregate Base 6"	301 Bituminous Aggregate Base 8"	304 Aggregate Base 3"	304 Aggregate Base 6"	304 Aggregate Base 8"	305 8" Portland Cement Conc. Base	310 Subbase Subbase	310 Subbase Grading A or B	310 Subbase Using Screenings As Per Plan	402 1¼" Asphalt Concrete	404 0" Min. Leveling using Asphalt Conc.	404 Asphalt Concrete 1¼"	404 Asphalt Concrete 1½"	407 Tack Coat	408 Bit. Prime Coat	409 Bituminous Shoulders Seal Coat Bituminous Material	409 Bituminous Shoulders Seal Coat Cover Aggregate	411 Stabilized Crushed Aggregate	451 9" Rein. Portland Cem. Conc. Pav't.	609 Concrete Curb Type Standard 6	609 Concrete Curb Type 7	609 Concrete Curb Type 8	612 Conc. Median Std.	612 Conc. Median As per Plan	613 Traffic Dividers	Special Drainage Connection using No.8 Agg.	Aggregate Shoulders 409 Seal Coat Bituminous Material	Aggregate Shoulders 409 Seal Coat Cover Aggregate
		Lin. Ft.	Cu. Yd.	Sq. Yd.	Cu. Yd.			Cu. Yd.			Sq. Yd.	Cu. Yd.			Cu. Yd.	Cu. Yd.	Cu. Yd.		Gal.	Gal.	Gal.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Lin Ft.			Sq. Yd.	Each	Cu. Yd.	Gal	Cu. Yd.
1-P	133			2990.6	4.9	185.4		60.9	9.8			109.9	306.1								295.0	9.4		1819.6		119	138				86.0		
2-P	133			2413.0	4.2	130.6		46.5	8.3			93.0	318.1								220.0	7.1		1527.0	14.4			24.4					
3-P	132			108.9	9.1				31.3				21.4								27.2	0.9						159.9					
4-P	132																											95.4					
5-P	130			2119.5	4.2	102.0	309.1	51.4	8.0					335.3	48.3		48.3				181.8	5.8			14.3			21.2					
6-P	137			2835.4	5.8	168.3	383.9	79.1	10.6					447.1	60.0		60.0				276.9	8.9				76	135						
7-P	136			2094.1	7.7	174.3	405.6	81.7	14.1					471.0	63.3		63.3				292.2	9.3				105	155						
8-P	137			2377.0	4.2	130.8	338.2	61.4	8.0					377.3	52.8		52.8				213.8	6.8			14.2			24.4					
9-P	31&32																						321.7										
10-P	138			3105.8	82.1		487.3		152.9					494.7	73.6		73.6				246.4	7.9											
11-P	32																													41			
12-P	33																						98.7										
13-P	127			455.5					74.7	2.7		77.1		2.1				18.1		178.2											3.7	0.1
14-P	127			349.9					58.3	2.7		60.4		2.1				14.4		140.0											3.7	0.1
15-P	127			309.5					67.1	2.6		69.5		2.0				16.2		159.8											3.5	0.1
16-P	127			326.6					54.8	2.7		57.1		2.1				13.3		130.6											3.7	0.1
17-P	128			332.8					55.3	3.6		57.8		2.8				13.4		133.1											4.8	0.1
18-P	128			345.6					57.9	3.1		60.4		2.4				13.9		138.2											4.2	0.1
19-P	43			742.6			164.8							124.0	25.8		25.8																
20-P	44		4.6	417.4			32.6			61.8				42.3	4.5	8.5	28.8			115.6										86.6	2.3		
21-P	138						7.9							6.6	4.8		8.6																
22-P	134			834.5		31.8		8.2				11.5	130.0								47.7	1.5		643.9	18.6			50.9		18.6			
23-P	135			708.6		25.0		10.5				17.4	135.7								37.4	1.2		649.0				18.0					
24-P	135			315.7		9.6		4.8				9.6	43.0								14.5	0.5		257.9									
25-P	134			573.7		22.1	107.9	9.7						126.0	15.0		15.0				35.0	1.1			13.1			32.2					
26-P	135			751.5		22.9	142.0	10.3						126.9	21.1		21.1				35.9	1.1						15.2					
27-P	134			843.3		29.8	162.5	12.9						147.7	22.6		22.6				47.9	1.5			18.5			47.0					
28-P	135			809.3		25.4	152.6	11.5						137.1	22.5		22.5				30.9	1.3						19.1					
29-P	138			509.4			108.1			8.1				90.0	16.3		16.3			16.0											12.0	0.3
	150	Culvert Details									24.5						1.7		2.5														
	154	"	"								17.0						1.2		1.7														
	155	"	"								16.3						1.1		1.6														
Sub- Total			46	27,750.2	122.2	1074.9	2802.5	448.9	611.1	87.3	57.8	623.7	954.3	2939.5	430.6	8.5	462.7	89.3	5.8	1011.5	2011.6	64.3	420.4	4897.4	931	300	428	252.4	255.3	41	104.6	122.2	3.2
Sub-Totals carried from Rigid Pav't Cal.				18,450.4	≠273.5	≠265.1		72.4	447.1			364.8	2578.1								939.5	30.1			14,177.3			96.8			197.2		
Sub-Totals carried from Flexible Pav't Cal.				85,544.4	586.6	349.8	15,596.6	154.7	1084.0	1925.4				14,729.0	2329.8		2329.8			3736.7	2312.3	73.9					258.2			28025	74.7	
Sub-Totals carried from Approach Table	1333	1345															27.8			197.9			113.3									
Totals carried to General Summary	1333	* 1301		131,745.0	708.8	1424.7	18,399.1	676.0	2142.2	2012.7	57.8	988.5	3532.4	17,668.5	2760.4	8.5	2820.3	89.3	5.8	4946.1	5263.4	168.3	533.7	19,074.7	931	300	428	607.4	255.3	41	301.8	2724.7	77.9
* Carried to Earthwork Summary					20,532.6			4830.9									2918.1																
					≠ 488.6																												
					≠ As per Plan																												

246.2

(12-12-12)

Item 203 WATER

Subgrade Preparation = 131,745 sq. yd.
Volume = 131,745 × 12 ÷ 36 = 43,915

Item 310	22,189
Item 411	534
Embankment	271,146
Total Volume	337,785 cu. yd.

Item 203 Water = 337,785 × 5 ÷ 1000
= 1688.93 M. Gal.
USE: 1689 M. Gal.

Item 659 COMMERCIAL FERTILIZER

Area = Area of Items 654, 659, 660 & 667

$\frac{604,353 \text{ sq.yd.} \times 9 \times 20}{1000 \times 2000} = 54.39$ Tons

Item 304 WATER

Item 304 Water = 4831 × 5 ÷ 1000 = 24.15
USE 24 M. Gal.

Item 203 PROOF ROLLING

Subgrade Preparation Areas

Extra Area Table Less 13P to 18P & 29P	25,030.9
Rigid Pavement Table	18,450.4
Flexible Pavement Table Less Typ's S, T & U	74,699.0
	118,180.3

Proof Rolling = 118,180.3 × 1 ÷ 2000 = 59.09 Hours
USE: 59 Hours

6408

EXTRA PAVEMENT TABLE

DRAINAGE SUB-SUMMARY

HENRY COUNTY
HEN-6-16.43

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

| SHEET NUMBERS | | |

GENERAL SUMMARY

ITEM	QUAN.	UNIT	DESCRIPTION	Carried from Sheet No.
			ROADWAY	
201	Lump	Lump	Clearing and Grubbing	15
202	12	Lin. Ft.	Pipe Removed, Over 15"	21
202	86	Lin. Ft.	48" Pipe Removed for Storage	21
202	Lump	Lump	Existing Structures Removed	17
202	1333	Lin. Ft.	Guard Rail Removed for Storage	20
203	271,146	Cu. Yd.	Embankment	17
203	284,389	Cu. Yd.	Excavation not including Embankment Construction	17
203	131,745	Sq. Yd.	Subgrade Preparation	20
203	59	Hour	Proof Rolling	20
203	1089	M. Gal.	Water	20
410	200	Cu. Yd.	Traffic Compacted Surface Type C	16
604	12	Ea.	Standard Monument Assembly	8 of R/W
604	30	Ea.	Centerline Reference Monument, as per Plan	8 of R/W
606	50	Lin. Ft.	Guard Rail, Type 4, as per Plan	17
606	10,362.5	Lin. Ft.	Guard Rail, Type 4	17
606	1062.5	Lin. Ft.	Guard Rail, Type 4 Barrier Design	17
607	43,396	Lin. Ft.	Fence, Type 30	17
615	11,333	Sq. Yd.	Class A Temporary Pavement	89 & 109
615	Lump	Lump	Temporary Roads	89 & 109
616	75	Ton	Calcium Chloride	16
654	192	M. Sq. Ft.	Renovating Existing Soil	106
659	54.39	Ton	Commercial Fertilizer (12-12-12)	20
659	603,342	Sq. Yd.	Seeding and Mulching, as per Plan	17
660	518	Sq. Yd.	Sodding	21
660	493	Sq. Yd.	Sodding for Special Berm and Slope Protection, as per Plan	21
667	6916	Sq. Yd.	Jute Matting	21
202	Lump	Lump	Parcel No. 17 WL Removal of Frame Shed on Skid	
202	Lump	Lump	Parcel No. 34 AWL Removal of 2-Story frame house, 2 story frame barn, 3 frame sheds, frame outhouse	
			DRAINAGE	
601	375	Sq. Yd.	Riprap using 6" Reinforced Concrete Slab, as per Plan	21
601	78	Sq. Yd.	Crushed Aggregate Slope Protection	21
601	806	Cu. Yd.	Dumped Rock Channel Protection	21
602	88.7	Cu. Yd.	Concrete Masonry	21
603	290	Lin. Ft.	15" Conduit Type A 706.01, 706.02 or 706.08 with Class B Bedding	21
603	533	Lin. Ft.	18" Conduit Type A 706.01, 706.02 or 706.08 with Class B Bedding	21
603	155	Lin. Ft.	18" Conduit Type A 706.02 Cl. III or 706.08 with Class B Bedding	21
603	84	Lin. Ft.	21" Conduit Type A 706.02 or 706.08 with Class B Bedding	21
603	188	Lin. Ft.	24" Conduit Type A 706.02 or 706.08 with Class B Bedding	21
603	98	Lin. Ft.	27" Conduit Type A 706.02 or 706.08 with Class B Bedding	21
603	198	Lin. Ft.	30" x 19" Conduit Type A 706.04 Cl. HE-II with Class B Bedding	21
603	88	Lin. Ft.	42" Conduit Type A 706.02 with Class B Bedding	21
603	102	Lin. Ft.	48" Conduit Type A 706.02 with Class B Bedding	21
603	50	Lin. Ft.	54" Conduit Type D 706.02	21
603	192	Lin. Ft.	60" Conduit Type A 706.02 with Class B Bedding	21
603	92	Lin. Ft.	96" Conduit Type A 706.02 with Class B Bedding	21
603	148	Lin. Ft.	54" Conduit Type A 706.02 Class III with Class B Bedding	21
603	202	Lin. Ft.	60" Conduit Type A 706.02 Class V with Class B Bedding	21
603	88	Lin. Ft.	106" x 68" Conduit Type A, 905 Class HE-II with Class B Bedding	21
603	52	Lin. Ft.	121" x 77" Conduit Type A, 905 Class HE-II with Class B Bedding	21
603	184	Lin. Ft.	15'-6" x 9'-5" Conduit Type A 707.03 (1-1 gage) with Class B Bedding	21
603	179	Lin. Ft.	6" Conduit Type B with Class B Bedding	21
603	346	Lin. Ft.	8" Conduit Type B with Class B Bedding	21
603	879	Lin. Ft.	10" Conduit Type B with Class B Bedding	21
603	188	Lin. Ft.	12" Conduit Type B with Class B Bedding	21
603	352	Lin. Ft.	15" Conduit Type B with Class B Bedding	21
603	273	Lin. Ft.	21" Conduit Type B with Class B Bedding	21
603	354	Lin. Ft.	24" Conduit Type B with Class B Bedding	21
603	376	Lin. Ft.	12" Conduit Type B 706.02 Class III or 706.08 with Class B Bedding	21
603	96	Lin. Ft.	18" Conduit Type B 706.02 Class III or 706.08 with Class B Bedding	21
603	343	Lin. Ft.	21" Conduit Type B 706.02 Class III or 706.08 with Class B Bedding	21
603	100	Lin. Ft.	24" Conduit Type B 706.02 Class III or 706.08 with Class B Bedding	21
603	631	Lin. Ft.	8" Conduit Type C with Class B Bedding	21
603	110	Lin. Ft.	10" Conduit Type C with Class B Bedding	21
603	9	Lin. Ft.	21" Conduit Type C with Class B Bedding	21
603	255	Lin. Ft.	48" Conduit Type C with Class B Bedding	21
603	278	Lin. Ft.	24" Conduit Type C with Class B Bedding	21
603	258	Lin. Ft.	42" Conduit Type C 706.02 Class III with Class B Bedding	21
603	44	Lin. Ft.	12" Conduit Type D	21
603	64	Lin. Ft.	60" Conduit Type D 706.02	21
603	504	Lin. Ft.	6" Conduit Type F	21
603	268	Lin. Ft.	8" Conduit Type F	21
603	50	Lin. Ft.	10" Conduit Type F	21
603	74	Lin. Ft.	12" Conduit Type F	21
603	80	Lin. Ft.	18" Conduit Type F	21
604	6	Ea.	Standard No. 2-2-A Catch Basin	21
604	2	Ea.	Standard No. 5 Catch Basin	21
604	1	Ea.	Standard No. 6 Catch Basin	21
604	7	Ea.	Standard No. 8 Catch Basin	21
604	3	Ea.	Standard No. 2-6 Median Inlet	21
604	3	Ea.	Standard No. 1 Manhole	21
604	1	Ea.	Standard No. 2 Manhole, without Drop Pipe	21
604	1	Ea.	Standard No. 1 Manhole, modified as per Plan	21
604	2	Ea.	Standard No. 1-A Manhole, modified as per Plan	21
605	17,304	Lin. Ft.	Aggregate Drains	20
605	15,254	Lin. Ft.	6" Shallow Pipe Underdrains	21
605	200	Lin. Ft.	6" Pipe Underdrains 707.06 or 707.12, as per Plan	21
202	15	Each	Catch Basin Removed	21

GENERAL SUMMARY

DESIGNED T.H.H. | TRACED J.M.K. | CHECKED | REVIEWED | DATE | REVISED

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS
TOLEDO, OHIO

FED. ROAD DIVISION | STATE: OHIO | PROJECT

HENRY COUNTY
HEN-6-16.43

22
23.1

GENERAL SUMMARY

ITEM	QUAN	UNIT	DESCRIPTION	Carried from Sheet No.
			PAVEMENT	
301	489	Cu. Yd.	Bituminous Aggregate Base 702.01 (85-100) or 702.09, RT-12, as per Plan	20
301	20,533	Cu. Yd	Bituminous Aggregate Base 702.01(85-100) or 702.09, RT-12	20
304	4831	Cu. Yd.	Aggregate Base	20
304	24	M. Gal.	Water	20
305	58	Sq. Yd.	8" Portland Cement Concrete Base	20
310	989	Cu. Yd.	Subbase	20
310	3532	Cu. Yd.	Subbase grading A or B, As Per Plan	20
310	17,660	Cu. Yd.	Subbase using Limestone or Slag Screenings, As Per Plan	20
402	2760	Cu. Yd.	Asphalt Concrete (70-85)	20
409	2925	Gal.	Seal Coat Bituminous Material, 702.09 RT-3 or RT-10 or 702.02 MC-800 or MC-3000	20
404	2918	Cu. Yd.	Asphalt Concrete (70-85)	20
407	6	Gal.	Tack Coat, 702.04 MS-2 or RS-1 or 702.02 RC-70 or RC-250	20
408	4946	Gal.	Bituminous Prime Coat, 702.09 RT-2 or RT-3	20
409	5263	Gal.	Seal Coat Bituminous Material, as per Plan	20
409	246	Cu. Yd.	Seal Coat Cover Aggregate, No. 8	20
411	534	Cu. Yd.	Stabilized Crushed Aggregate	20
451	19,075	Sq. Yd.	9" Reinforced Portland Cement Concrete Pavement	20
609	931	Lin. Ft.	Concrete Curb Standard Type 6	20
609	300	Lin. Ft.	Concrete Curb Standard Type 7	20
609	428	Lin. Ft.	Concrete Curb Standard Type 8	20
611	706	Sq. Yd.	Reinforced Concrete Approach Slabs, T=13" as per Plan	19
612	607	Sq. Yd.	Concrete Median	20
612	255	Sq. Yd.	Concrete Median, as per Plan	20
613	41	Ea.	Traffic Dividers	20
Special	302	Cu. Yd.	Drainage Connection using No. 8 Aggregate	20
			TRAFFIC CONTROL	
620	28	Ea.	Mono-Directional Delineators, Type A-1, post mounted	159
620	247	Ea.	Mono-Directional Delineators, Type C-2, post mounted	159
620	3	Ea.	Mono-Directional Delineators, Type C-3, post mounted	159
620	10	Ea.	Mono-Directional Delineators, Type A-1, bracket mounted	159
621	14.37	Mi.	4" Edge Lines	165
621	2.68	Mi.	4" Lane Lines	165
621	1570	Lin. Ft.	8" Channelizing Lines	165
621	4100	Lin. Ft.	4" Barrier Lines	165
621	Lump	Lump	Broad Transverse Stripes	165
621	Lump	Lump	Curb and Island Marking	165
621	Lump	Lump	24" Stop Lines	165
816	204	Lin. Ft.	Single Drive Post 2 lbs per foot	
816	1458	Lin. Ft.	Single Drive Post 4 lbs per foot	157
816	126	Lin. Ft.	Structural Support 41b. Beam	157
816	585	Lin. Ft.	Structural Support 81b. Beam	157
				157
816	36	Lin. Ft.	Structural Support Steel Beam 10 B 11.5	157
816	104	Lin. Ft.	Structural Support Steel Beam 12 B 22	157
816	109	Lin. Ft.	Structural Support Steel Beam 12 WF 27	157
816	1	Ea.	Overhead Sign Support No. 1048, Design No. 6	157
816	27.6	Cu. Yd.	Concrete Foundations for Ground Mounted Sign Supports	157
816	4.1	Cu. Yd.	Concrete Foundations for Overhead Sign Supports	157
815	970	Sq. Ft	Sign Erection, Flat Sheet Type, as per Plan	157
815	970	Sq. Ft	Sign Erection, Aluminum Extrusheet Type, as per Plan	157
			STRUCTURES OVER 20 FOOT SPAN	
			Bridge No. HEN-6-1630, for Estimated Quantities, see sheet no. 175	
			Bridge No. HEN-6-1646, for Estimated Quantities, see sheet no. 182	
			Bridge No. HEN-6-1674, for Estimated Quantities, see sheet no. 194	
	Lump	Lump	Construction Layout Stakes	
	Lump	Lump	Field Office	15
614	Lump	Lump	Maintaining Traffic	

GENERAL SUMMARY

DESIGNED T.H.M. | TRACED MK | CHECKED | REVIEWED | DATE | REVISED

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS
TOLEDO, OHIO

FED. ROAD DIVISION | STATE OHIO | PROJECT

HENRY COUNTY
HEN-6-1643

HENRY COUNTY
HEN-6-16.43

NOTE: Special infield ditch constructed under previous project. Contractor is to restore ditch to existing line & grade, at no cost to the state, if disturbed during grading operations.

Begin Sheet

Sta. 845+00

End Sheet

Sta. 855+00

Begin Work
Begin Project
Sta. 848+00
E.B. Lanes

Existing temporary ditch to be filled. See S.R 424 Interchange Ramp "A" Cross Sections

Ramp "A"

Ramp "B"

L/A R/W

5' ℄ 4 FT @ 8 Rods c/c Approx. Location

See Sht. No. 27 for Ramp "A" Details

See Sht. No's. 26 & 27 for Bench Mark Data

Note: All existing trees shown on this sheet have been cut down & are listed as stumps in the quantities

For Culvert Detail
See Sht. No. 140 (1)

For Quantities & Details
See Sht. No.'s 26 & 27

℄ E.B. Lanes

6"-605

Exist. Jute Matting

4' FT @ 10' c/c

Abandon

8' FT.

5' FT.

3½' ℄ 4 FT @ 4 Rods c/c Approx. Loc.

Abandon

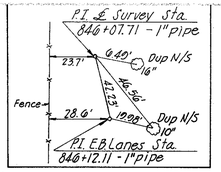
Cultivated

3%

3:1

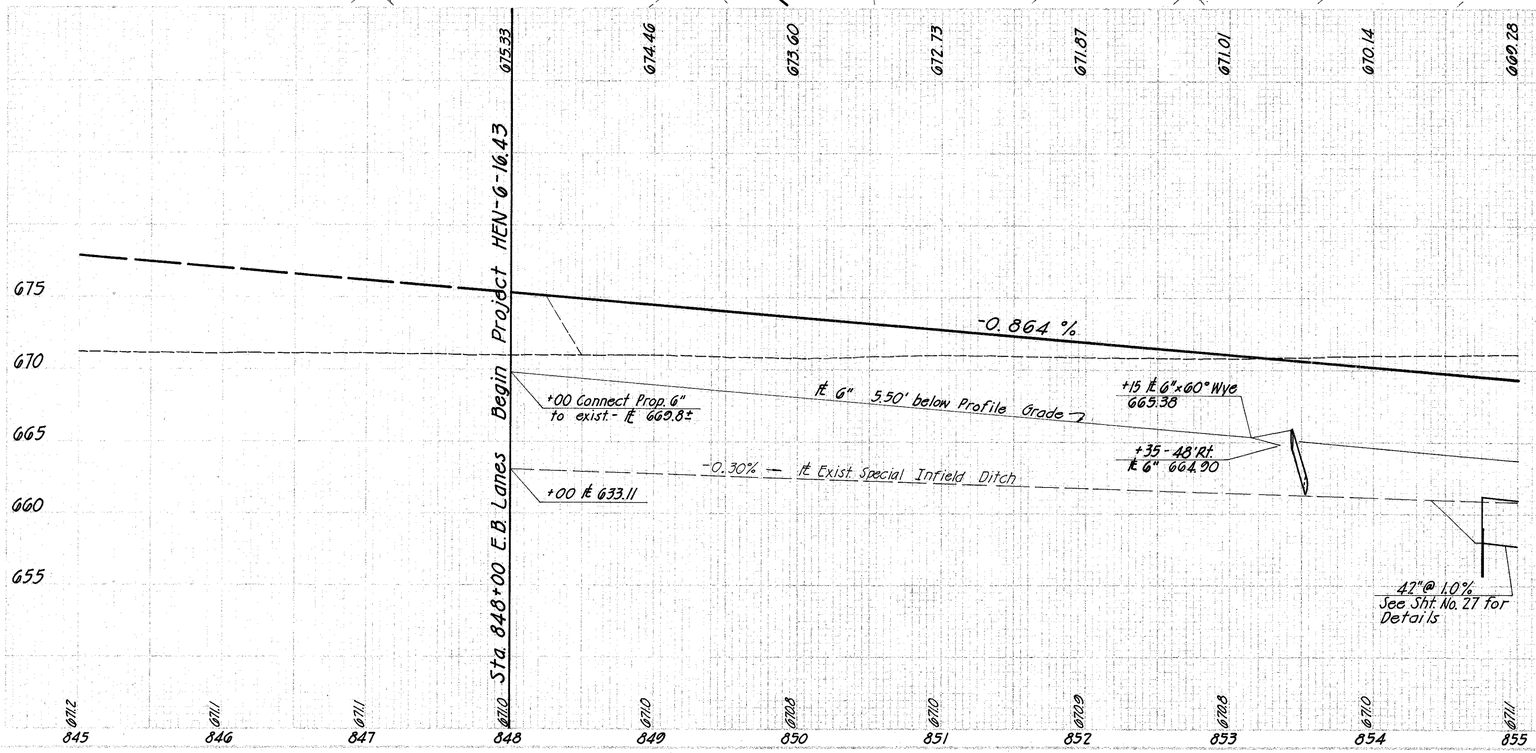
CURVE DATA
℄ EAST BOUND LANES

Δ = 61°45'00" Rt.
D_c = 1°28'00"
R_c = 3900.53'
L_c = 4210.23'
T = 2335.70'
E = 645.00'
P.C. Sta. 822+76.41 (Off Project)
P.I. Sta. 846+12.11 (Off Project)
P.T. Sta. 864+86.64



(D) DRAINAGE

Ref. No.	Station From	Station To	Side	603 6" Conduit Type F Lin. Ft.	605 6" Shallow Pipe Underdrain Lin. Ft.	667 Jute Matting Sq. Yd.	6" Bends & Branches for Underdrains
1-D	848+00	853+44	Rt.	10	572		1
2-D	853+48	855+00	Rt.		152		
3-D	853+50	854+60	Rt.			52	
	Totals			10	724	52	1

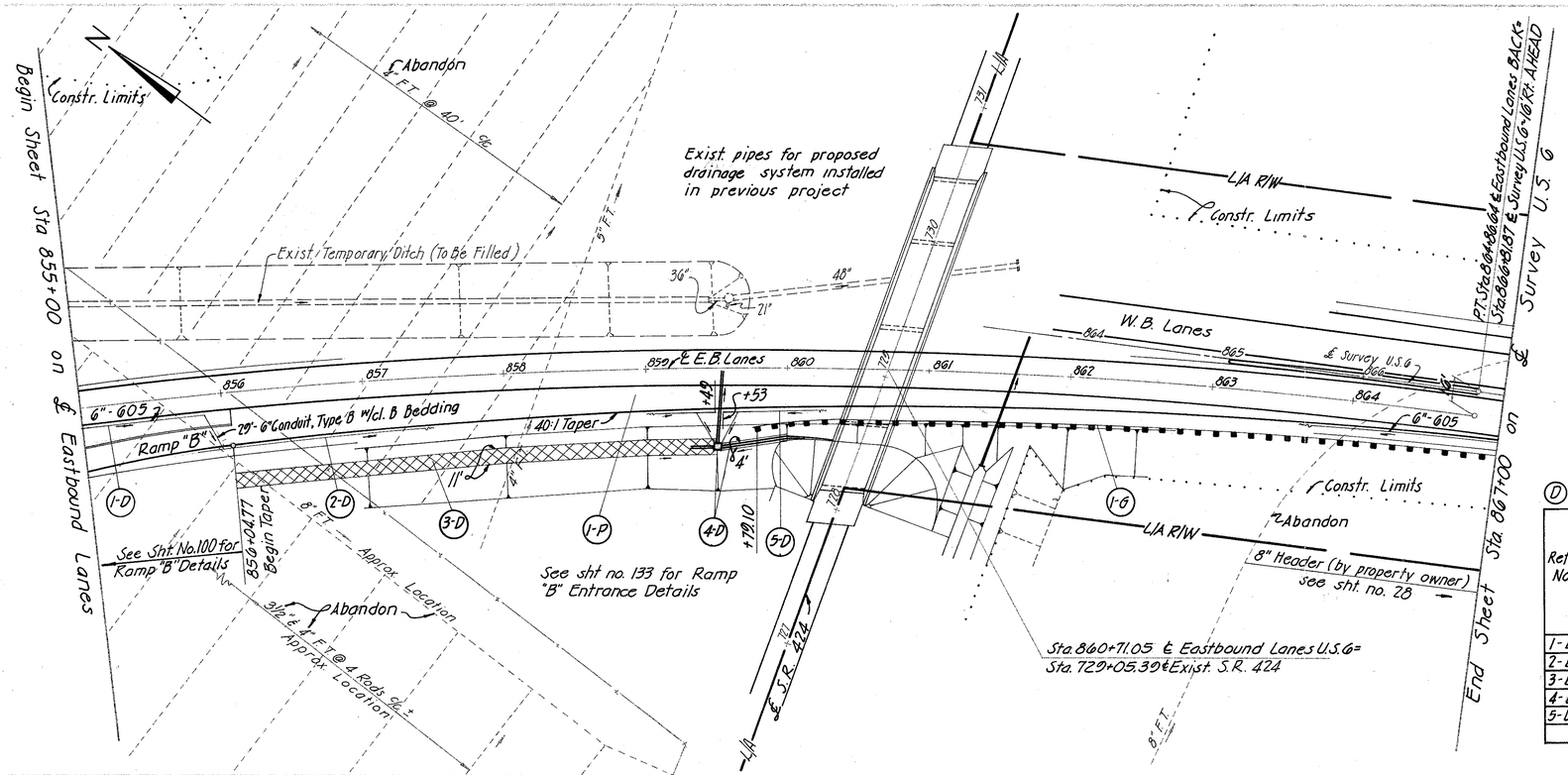


Sta. 845+00 To Sta. 855+00 on ℄ Eastbound Lanes

ROUTE DIVISION	STATE	PROJECT		
2	OHIO			

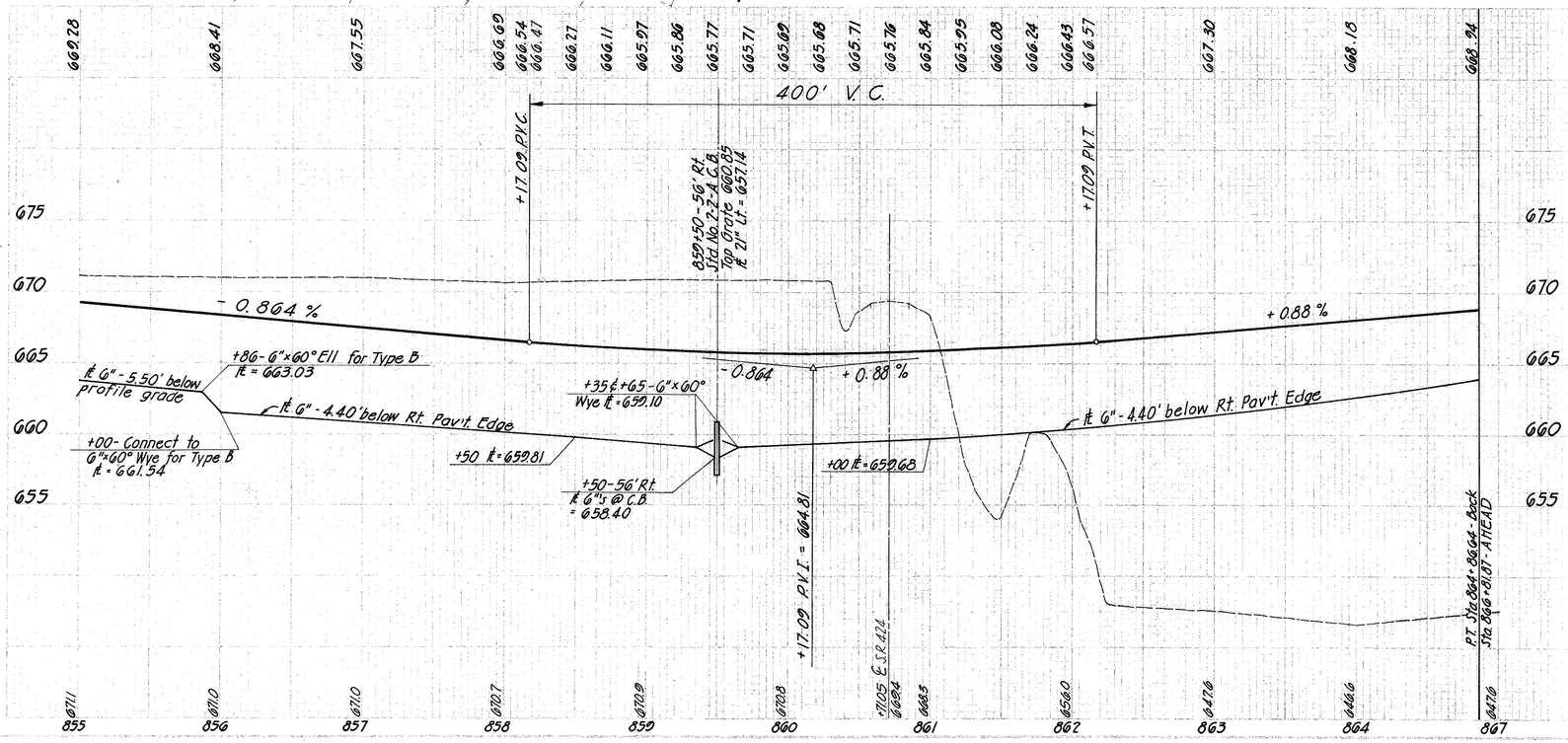
25
231

HENRY COUNTY
HEN-6-16.43



(D) DRAINAGE

Ref. No.	Station From	Station To	Side	603 6" Conduit Type B W/Cl. B Bedding Lin. Ft.	603 6" Conduit Type F Lin. Ft.	604 Std. No. 2-2-A Catch Basin Each	605 6" Shallow Pipe Underdrain Lin. Ft.	667 Jute Matting Sq. Yd.	6" Bends & Branches For Underdrains Each	6" Bends & Branches For Type B Each
1-D	855+00	856+00	Rt.	20			86			2
2-D	856+00	859+50	Rt.		10		369		1	
3-D	856+04.77	859+50	Rt.					422		
4-D	859+50	860+00	Rt.			1		22		
5-D	859+50 2-8 Lane	861+00 ℄ Survey U.S. 6	Rt.		10		562		1	
	Totals			20	20	1	1017	444	2	2



Sta. 855+00 on ℄ Eastbound Lanes To Sta. 867+00 on ℄ Survey U.S. 6

PLAN	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
GEOMETRICS PLOTTED		
GEOMETRICS CHECKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
STRUCTURES PLOTTED		
STRUCTURES CHECKED		
MISC. DIAGRAMS PLOTTED		

DESIGN	BY	DATE
CONST. LIMITS CHECKED		
PROP. LINES PLOTTED		
PROP. LINES CHECKED		
PROP. R/W PLOTTED		
PROP. R/W CHECKED		
INKED		

EXISTING	BY	DATE
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		
B. M. & REF. POINTS		

PLAN	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
TOPOGRAPHY PLOTTED		
TOPOGRAPHY CHECKED		
TOPOGRAPHY INKED		
DRAINAGE PLOTTED		

DESIGN	BY	DATE
DAM CHECKED		
MASS. INKED		

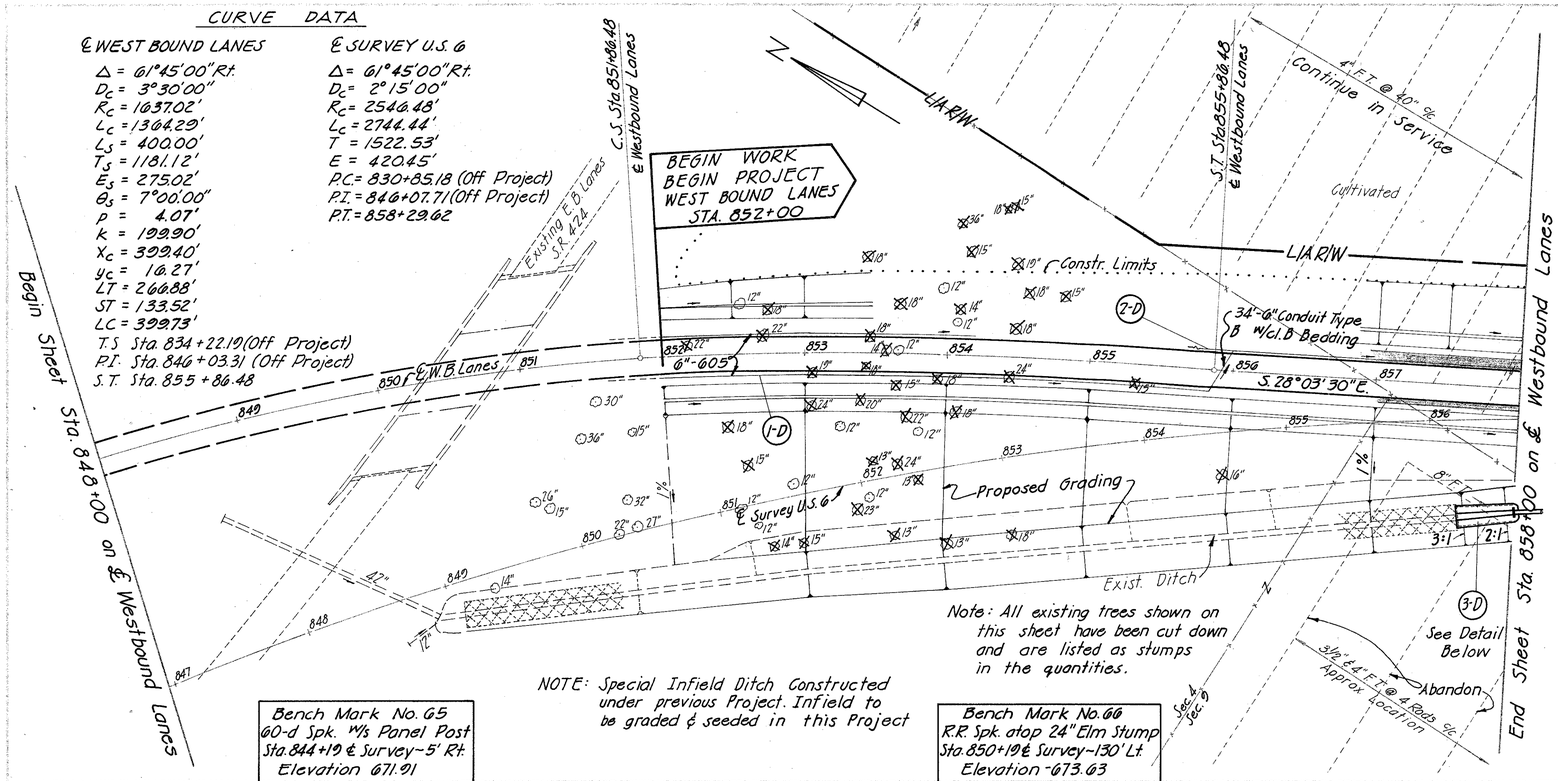
PROFILE	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
STRUCTURES PLOTTED		
STRUCTURES CHECKED		
MISC. DIAGRAMS PLOTTED		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

PROFILE	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

CURVE DATA

℄ WEST BOUND LANES	℄ SURVEY U.S. 6
Δ = 61°45'00" Rt.	Δ = 61°45'00" Rt.
D_c = 3°30'00"	D_c = 2°15'00"
R_c = 1637.02'	R_c = 2546.48'
L_c = 1764.29'	L_c = 2744.44'
L_s = 400.00'	T = 1522.53'
T_c = 1181.12'	E = 420.45'
E_s = 275.02'	P.C. = 830+85.18 (Off Project)
θ_s = 7°00.00"	P.I. = 846+07.71 (Off Project)
p = 4.07'	P.T. = 858+29.62
k = 199.90'	
X_c = 399.40'	
y_c = 16.27'	
LT = 2668.88'	
ST = 1333.52'	
LC = 3999.73'	
T.S Sta. 834+22.19 (Off Project)	
P.I. Sta. 846+03.31 (Off Project)	
S.T. Sta. 855+86.48	

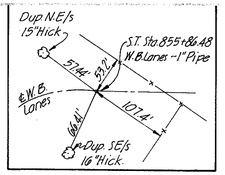


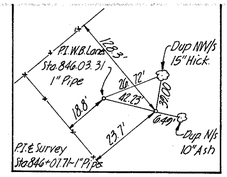
NOTE: Special Infield Ditch Constructed under previous Project. Infield to be graded & seeded in this Project

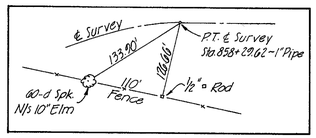
Note: All existing trees shown on this sheet have been cut down and are listed as stumps in the quantities.

Bench Mark No. G5
60-d Spk. W/s Panel Post
Sta. 844+19 ℄ Survey ~ 5' Rt.
Elevation 671.91

Bench Mark No. 66
R.R. Spk. atop 24" Elm Stump
Sta. 850+19 ℄ Survey ~ 130' Lt.
Elevation ~ 673.63

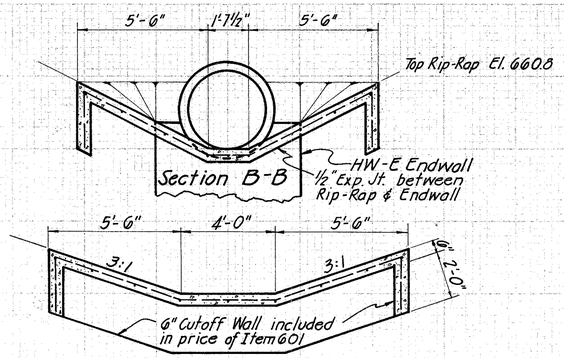




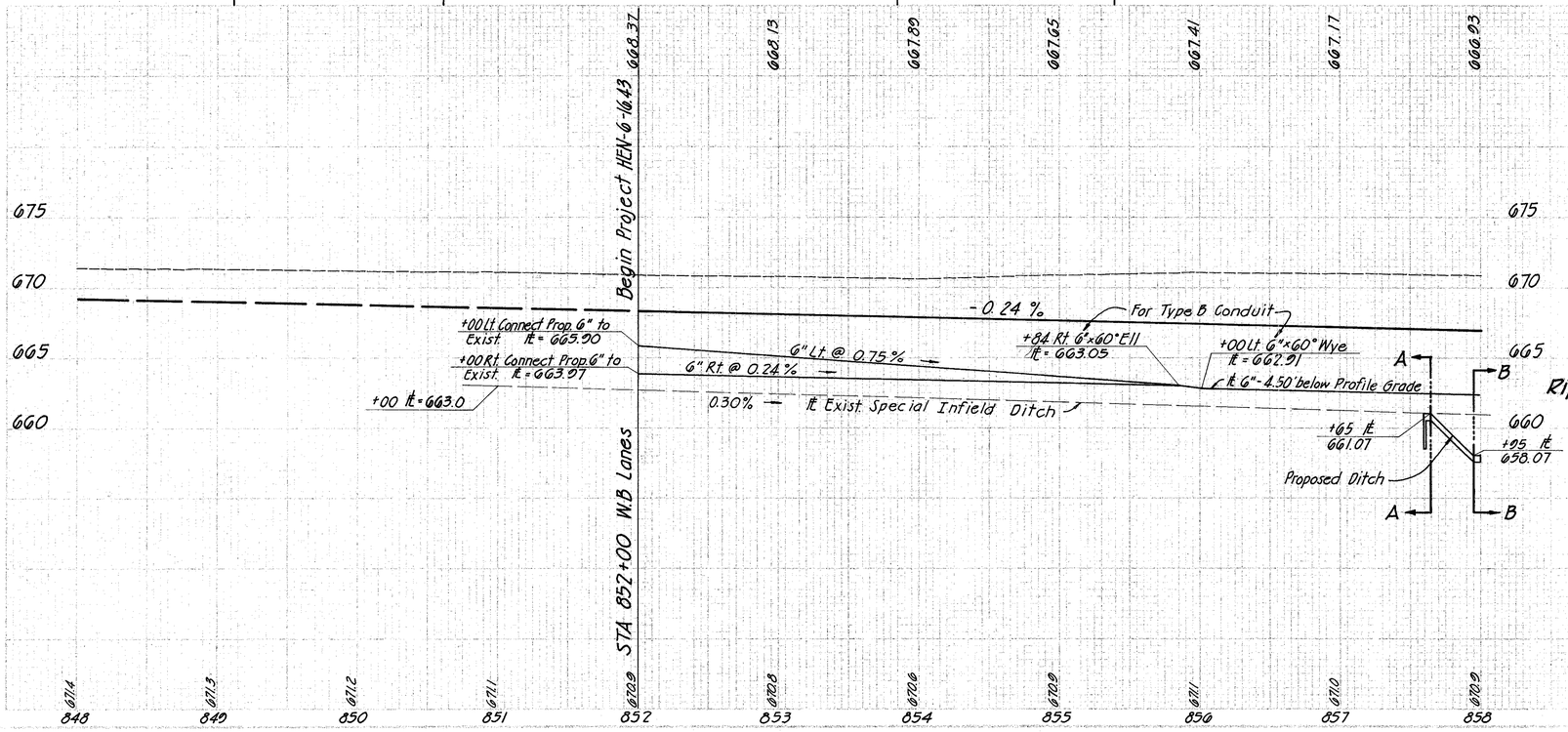


Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	601 Reinforced Concrete Rip-Rap Sq. Yd.	603 6" Conduit, Type B w/cl. B Bedding Lin. Ft.	605 6" Shallow Pipe Underdrain Lin. Ft.	6" Bends & Branches for Type B Each
1-D	852+00	856+00	Lt&Rt		34	384	2
2-D	852+00	858+00	Lt			600	
3-D	857+60	858+00	Rt.	66.6			
Totals				66.6	34	984	2



Riprap using 6" Reinforced Concrete Slab
(As Per Plan)
ITEM 601



Sta. 848+00 To Sta. 858+00 on ℄ Westbound Lanes

State	Project	
OHIO		

26
231

HENRY COUNTY
HEN-6-16.43

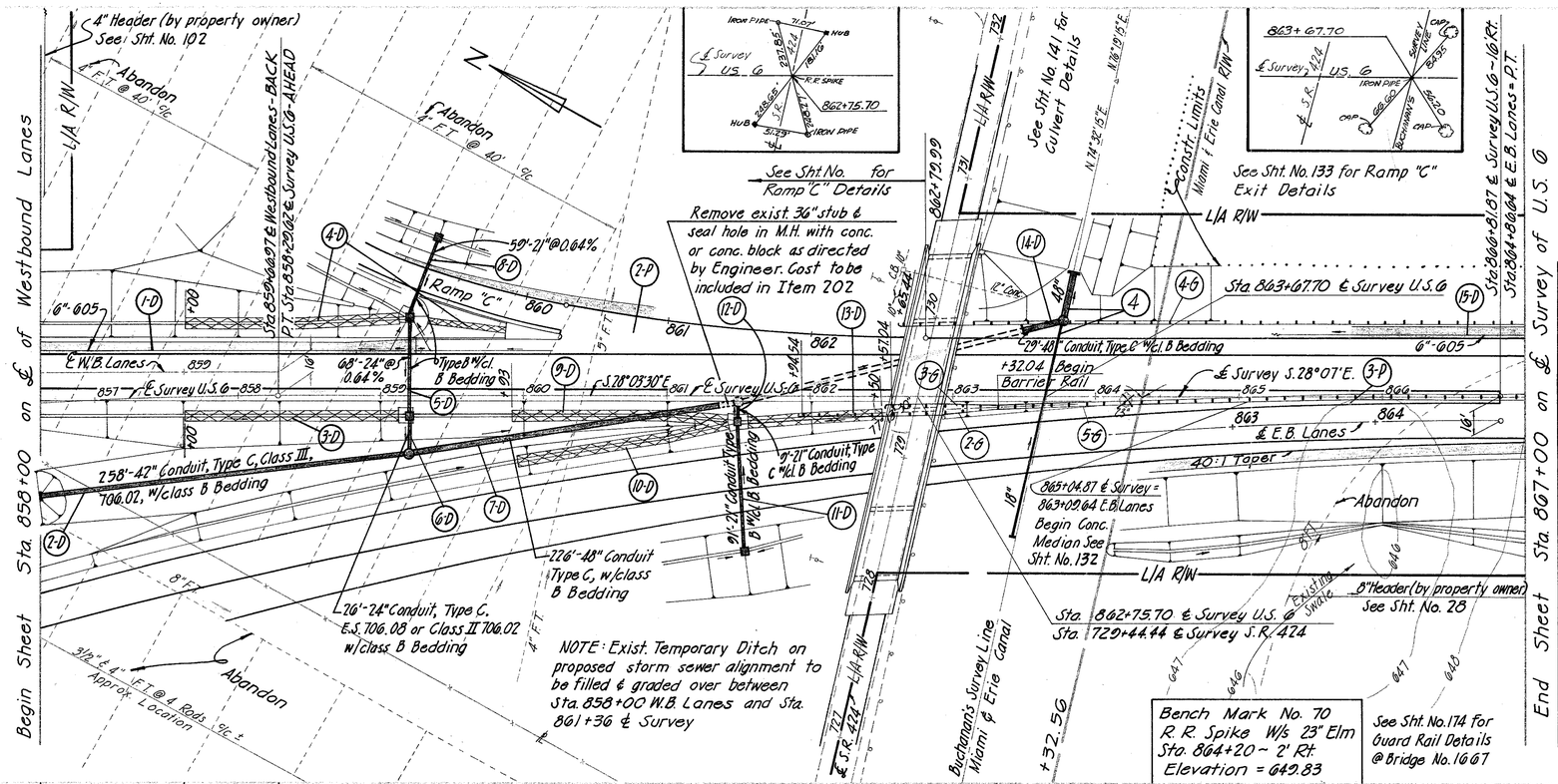
HENRY COUNTY
HEN - 6 - 10.43

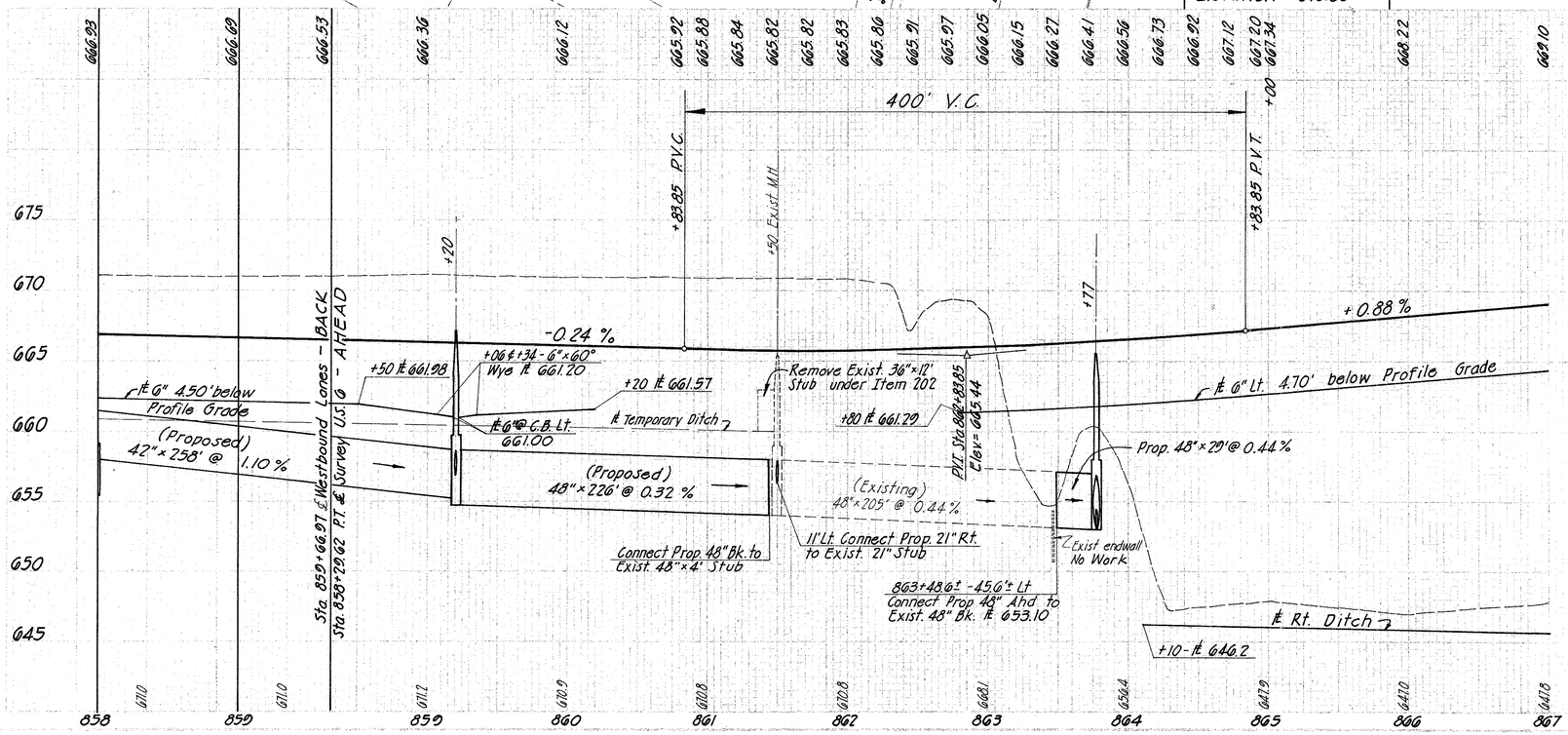
Ref. No.	6" Bends & Branches for Underdrains
	Each
1-D	2

NOTE: ℄ Survey Bearing Equation
@ Sta. 864+32.56
S. 28°03'30" E. Back =
S. 28°07'00" E. Ahead

(D) DRAINAGE

Ref. No.	Station From	Station To or At	Side	202 Pipe Removed Over 15" Lin.Ft.	202 Concrete Masonry Cu.Yd.	603 Type B Conduit w/cl. B Bedding 21"	603 Type B Conduit w/cl. B Bedding 24"	603 Type C Conduit w/cl. B Bedding 706.02 III 21"	603 Type C Conduit w/cl. B Bedding 706.02 III 24"	603 Type C Conduit w/cl. B Bedding 706.02 III 42"	603 Type C Conduit w/cl. B Bedding 706.02 III 48"	603 6" Conduit Type F	604 Catch Basins Std. No 232-A	604 Catch Basins Std. No. 5	604 Catch Basins Std. No. 8	604 Catch Basins Std. No. 2 M.H. W/o Drop	605 6" Shallow Pipe Underdrain Lin.Ft.	607 Jute Matting Sq.Yd.
				Lin.Ft.	Cu.Yd.	Lin. Ft.							Each				Lin.Ft.	Sq.Yd.
1-D	858+00 W.B. Lanes	860+20 ℄ Survey U.S.6	Lt									20					389	
2-D	858+00 W.B. Lanes	859+20 ℄ Survey U.S.6	Rt		0.76					258						1		
3-D	859+00 W.B. Lanes	859+13 ℄ Survey U.S.6	Rt															125
4-D	859+00 W.B. Lanes	859+04 ℄ Survey U.S.6	Lt															150
5-D		859+20	Lt&Rt				68							2				
6-D		859+20	Rt						26									
7-D	859+20	861+50	Rt								226							
8-D		859+25 Ramp "C"	Lt		59								1					
9-D	859+03	861+43	Rt															124
10-D	859+06	861+43	Rt															124
11-D		859+50 E.B. Lanes	Lt&Rt		91													
12-D		861+50	Rt	12			9								1			
13-D	861+57	862+50	Rt															78
14-D	863+48.6	863+77	Lt								29							
15-D	862+80	867+00	Lt														420	
	Totals			12	0.76	150	68	9	26	258	255	20	1	2	1	1	809	601





DRAINAGE DATA

858+00 W.B. Lanes
86' Rt.
Std. HW-E Endwall
℄ 42" Ahd. 658.07

859+25 Ramp "C"
23' Lt.
Std. No. 2-2-A C.B.
Top Grate 661.00
℄ Side Inlet Ahd & Bk - 660.67
℄ 21" Rt. 657.95

859+20 ℄ Survey
54' Lt.
Std. No. 5 C.B.
Top Grate 663.45
℄ 21" Lt. 657.58
℄ 24" Rt. 657.33

859+20 ℄ Survey
14' Rt.
Std. No. 5 C.B.
Top Grate 664.23
℄ 24" Lt & Rt. 656.92

859+20 ℄ Survey
40' Rt.
Std. No. 2 M.H. W/o Drop
Top Cover 667.10
℄ 24" Lt. 656.74
℄ 42" Bk. 655.24
℄ 48" Ahd. 654.74

861+50 ℄ Survey
5' Rt.
Exist. Std. No. 1-A M.H.
Exist. 21" × 4' Stub Rt 656.25
Exist. 48" × 4' Stub Bk. 654.00
Exist. 48" Ahd ℄ 654.00
Plug Hole from Exist 36"

861+50 ℄ Survey
18' Rt.
Std. No. 8 C.B.
Top Grate 663.07
℄ 21" Lt & Rt. 656.41

859+50 E.B. Lanes
56' Rt.
Std. No. 2-2-A C.B.
Top Grate 660.85
℄ Side Inlet Ahd & Bk 660.52
℄ 21" Lt. 657.14

863+77 ℄ Survey
53' Lt.
Std. No. 1-A M.H. (Mod)
Top Cover 665.55
℄ 48" Bk & Lt. 652.97
See Details Sht "141

Sta. 858+00 ℄ Westbound Lanes To Sta. 867+00 ℄ Survey U.S. 6

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28
231

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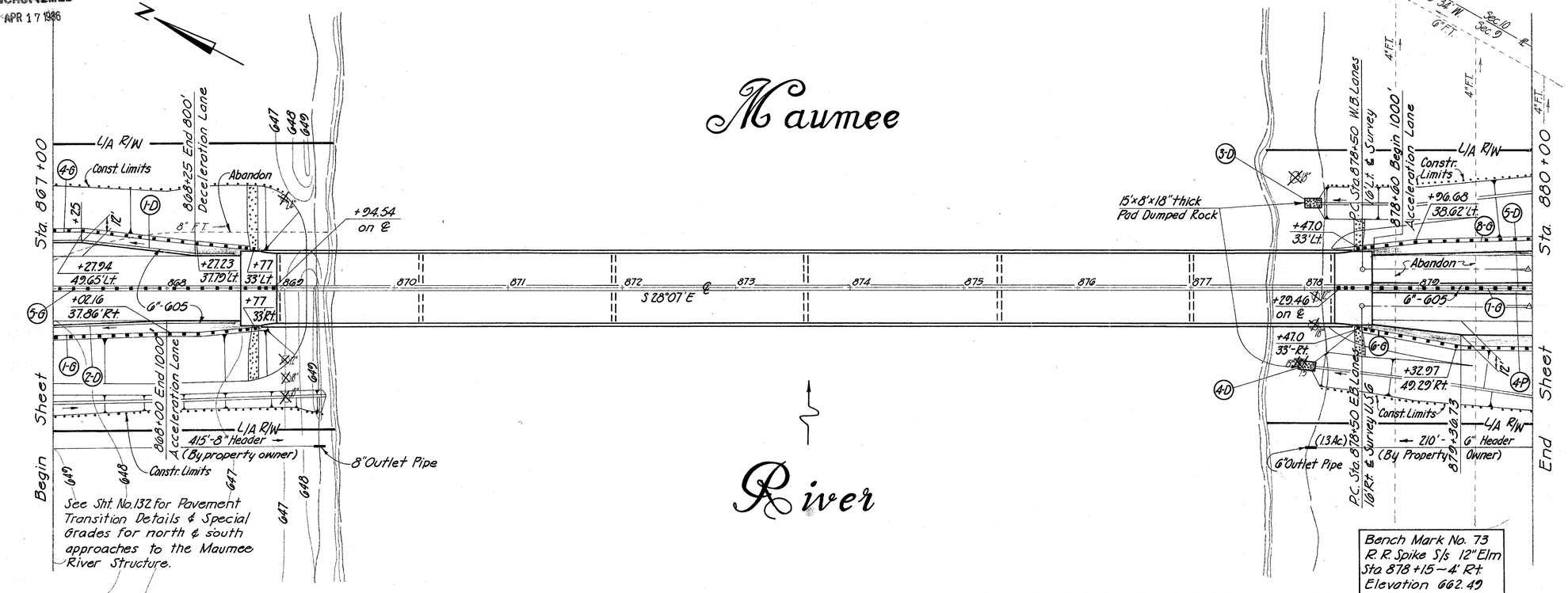
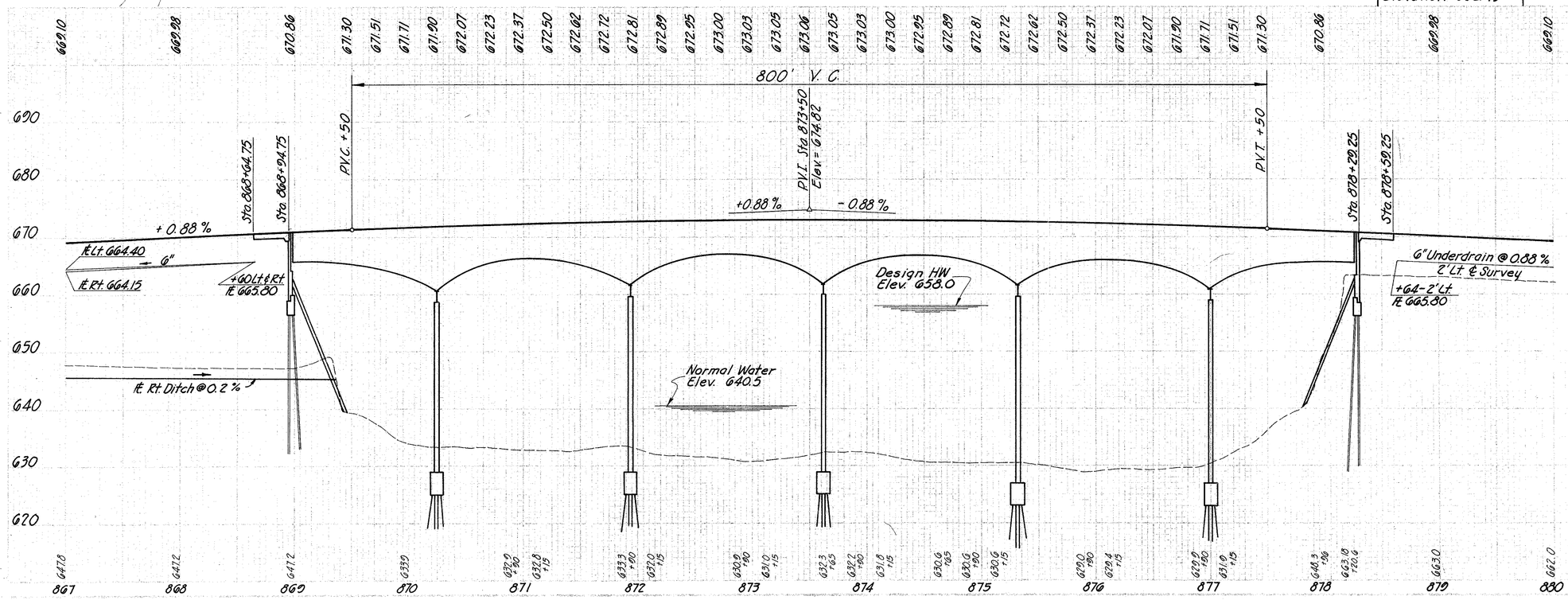
Maumee River



Bench Mark No. 73
R.R. Spike S/s 12" Elm
Sta 878+15 – 4' Rt
Elevation 662.49

Ⓓ DRAINAGE

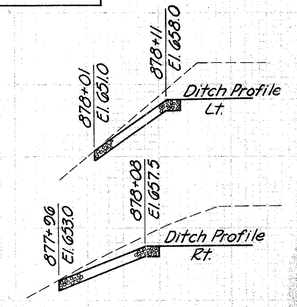
Ref. No.	Station From	Station To	Side	601 Dumped Rock Channel Protection Cu.Yd.	605 6" Shallow Pipe Underdrain Lin.Ft.
1-D	867+00	868+60	Lt.		160
2-D	867+00	868+60	Rt.		160
3-D	878+01	878+13	Lt.	6.7	
4-D	877+96	878+10	Rt.	6.7	
5-D	878+64	880+00	Lt.		136
Totals				13.4	456



PROPOSED STRUCTURE

TYPE: Six Span Semi-Continuous Haunched Steel Girder with Reinforced Concrete Deck & Sub-Structures
SPANS 127'-0", 4 @ 169'-0", 127'-0" = 930'-0"
ROADWAY: 62'-0" ℄ f 2'-0" Safety Curbs with 4'-0" Raised Median
LOAD FREQUENCY. CF-2000 (57)
SKEW: None, ALIGNMENT: Tangent
WEARING SURFACE: 1" Mono. Concrete
APPROACH SLABS: Special Design (30'-0" Long)

SCALES
Horizontal: 1" = 50'
Vertical: 1" = 10'



Sta. 867+00 To Sta. 880+00

HENRY COUNTY
HEN -6 - 16.43

℄ CURVE DATA

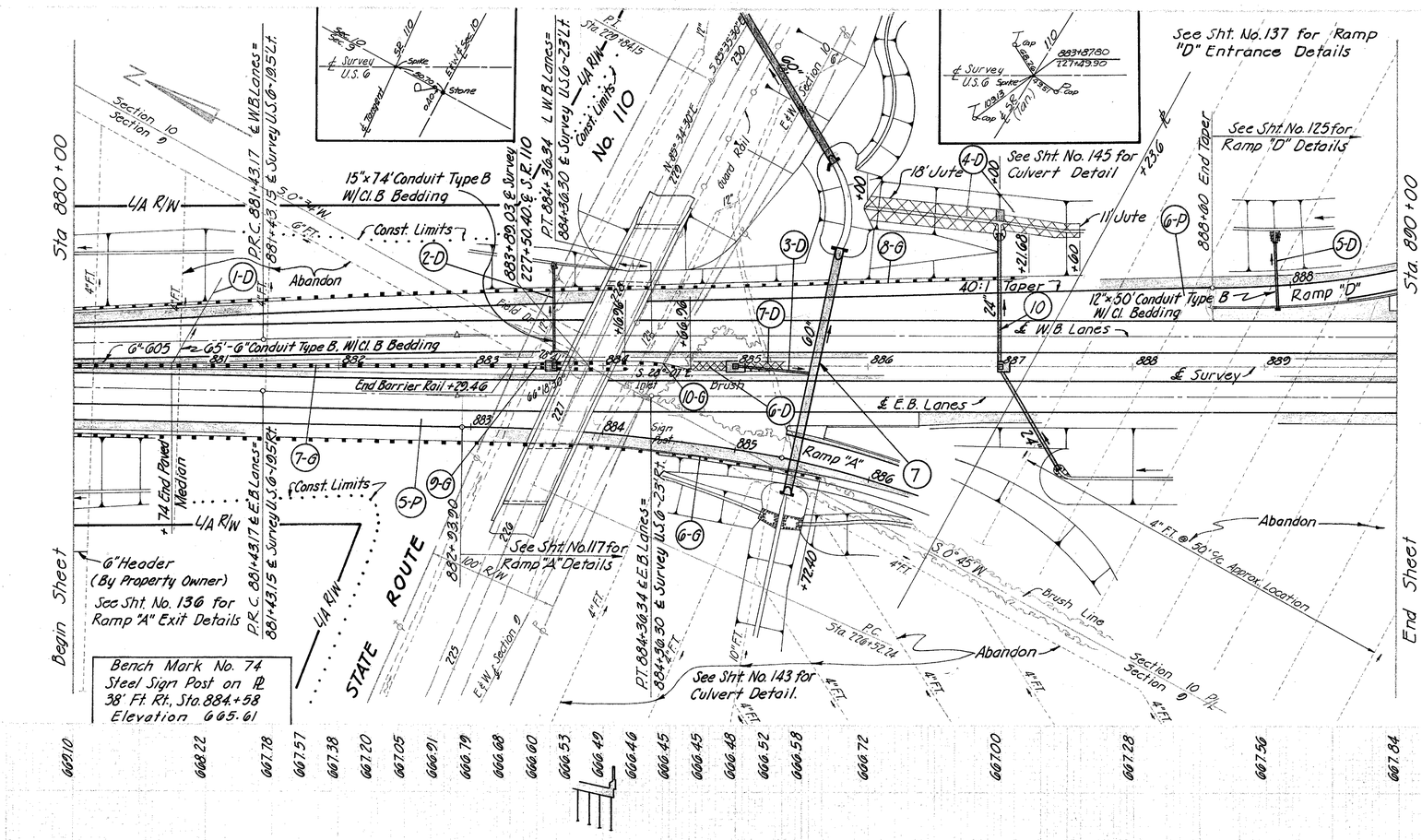
P.I. Sta. 879+96.59
Δ = 1°22'05" Rt. E.B. Lanes
Δ = 1°22'05" Lt. W.B. Lanes
Dc = 0°28'
R = 12,277.67'
L = 293.17'
T = 146.59
E = 0.86

P.I. Sta. 882+89.76
Δ = 1°22'05" Lt. E.B. Lanes
Δ = 1°22'05" Rt. W.B. Lanes
D = 0°28'
R = 12,277.67'
L = 293.17'
T = 146.59
E = 0.86'

See Sht. No. 193 for Guard Rail Details @ Bridge No. 1707

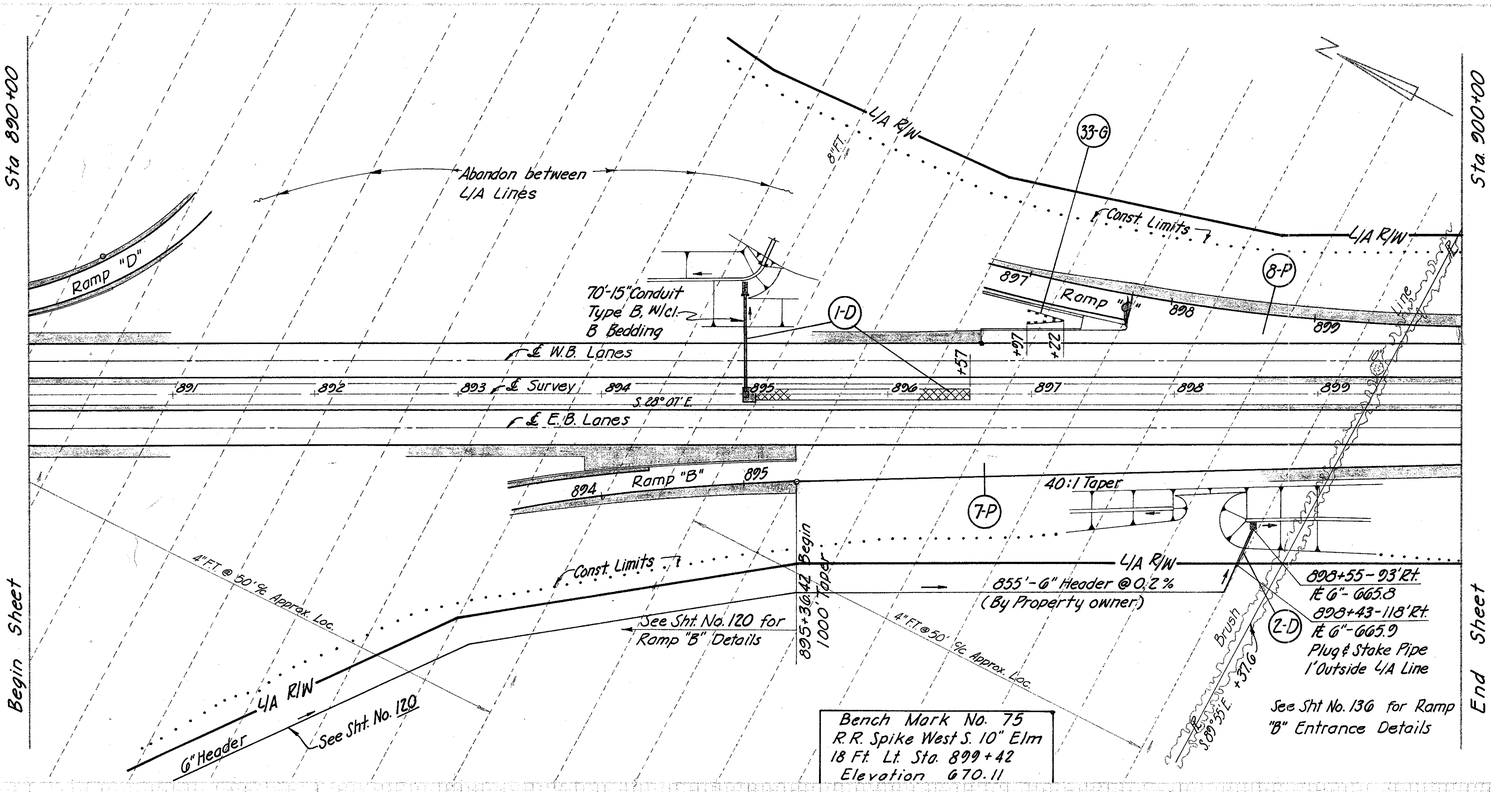
Ⓓ DRAINAGE

Ref. No.	Station From	Station To or At	Side	601 Dumped Rock Channel Protection Cu.Yd.	602 Concrete Masonry Cu.Yd.	603 Type B Conduit W/Cl. B Bedding 6" Lin. Ft.	603 Type B Conduit W/Cl. B Bedding 12" Lin. Ft.	603 Type B Conduit W/Cl. B Bedding 15" Lin. Ft.	603 6" Conduit Type F Lin. Ft.	604 Std. No. 6 Catch Basin Each	604 Std. No. 8 Catch Basin Each	605 6" Shallow Pipe Underdrain Lin.Ft.	667 Jute Matting Sq.Yd.	667 6" Bends & Branches for Type B Each
1-D	880+00	881+12	Lt			65			10			75		1
2-D				0.8	0.26			74			1			
3-D	885+00	885+53	Rt					55			1			
4-D	886+00	887+60	Lt										260	
5-D		889+10	Lt	1.3	0.23		50			1				
6-D	884+43	884+93	℄										42	
7-D	885+07	885+57	℄										42	
	Totals			2.1	0.49	65	50	129	10	1	2	75	344	1


Sta 880+00
Sta. 890+00
Begin Sheet
End Sheet
L/A R/W
Const. Limits
Abandon
15"x74' Conduit Type B W/Cl. B Bedding
6"-605 - 2-65'-6" Conduit Type B W/Cl. B Bedding
End Barrier Rail +29.46
74' End Panel Median
6" Header (By Property Owner)
See Sht. No. 136 for Ramp "A" Exit Details
See Sht. No. 117 for Ramp "A" Details
See Sht. No. 137 for Ramp "D" Entrance Details
See Sht. No. 125 for Ramp "D" Details
See Sht. No. 145 for Culvert Detail
See Sht. No. 143 for Culvert Detail.
See Sht. No. 193 for Guard Rail Details @ Bridge No. 1707
18' Jute
11' Jute
40:1 Taper
12"x50' Conduit Type B W/Cl. Bedding
℄ W/B Lanes
℄ Survey
℄ E.B. Lanes
Ramp "A"
Ramp "D"
End Taper
Brush
Brush Line
Sign Post
Inlet
Guard Rail
Fence
4" Ft. @ 50'-0" Approx. Location
Bench Mark No. 74
Steel Sign Post on ℄
38' Ft. Rt., Sta. 884+58
Elevation 665.61
STATE ROUTE
℄ Survey U.S. 6
℄ Dropped
℄ Section 10
℄ Section 9
℄ Section 10 Ext.
Spike
Stone
Cap
Pipe
Sta. 879+96.59
Sta. 882+89.76
Sta. 884+30.34
Sta. 884+36.34
Sta. 883+89.03 ℄ Survey
227+50.40 ℄ S.2.110
884+36.30 ℄ Survey U.S.6-23'Lt.
883+87.80
127+49.90
D.R.C. 881+43.17 ℄ W.B.Lanes = 881+43.15 ℄ Survey U.S.6-105'Lt.
D.R.C. 881+43.17 ℄ E.B.Lanes = 881+43.15 ℄ Survey U.S.6-105'Rt.
P.C. Sta. 726+52.24
P.T. 884+36.34 ℄ E.B. Lanes = 884+36.30 ℄ Survey U.S.6-23'Rt.
S 0° 45' W
S 0° 27' E
N 89° 34' 30" E
Δ = 1° 22' 05"
Δ = 1° 22' 05" (Lt.)
Δ = 1° 22' 05" (Rt.)
Δ = 1° 13' 13"
Δ = 0° 56' (Lt.)
Δ = 0° 56' (Rt.)
Δ = 0° 28'
R = 12,277.67'
T = 146.59'
T = 120.13'
T = 120.13' (Lt.)
T = 120.13' (Rt.)
E = 0.86'
E = 0.86' (Lt.)
E = 0.86' (Rt.)
L = 293.17'
L = 240.26'
L = 240.26' (Lt.)
L = 240.26' (Rt.)
+23.6 ℄
+21.68
+46.96
+66.96
+72.40
+120
+60
+80
+100
+40
+20
Section 10
Section 9
℄ E.W.
℄ Section 10
℄ Section 9
℄ Ramp
℄ Ramp "D"
℄ Ramp "A"
℄ Survey U.S.6
℄ Dropped
℄ Survey
℄ Cap
℄ Pipe
℄ Spike
℄ Stone
℄ Ext. Sec. 10
℄ Sec. 10
℄ Sec. 9
℄ Cap
℄ Pipe
℄ Survey U.S.6

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

HENRY COUNTY
HEN -6 - 16.43



ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	601 Dumped Rock Channel Protection Cu.Yd.	602 Concrete Masonry Cu.Yd.	603 15" Conduit Type B W/cl. B Bedding Lin.Ft.	604 Std. No 8 Catch Basin Each	667 Jute Matting Sq.Yd.	601 Crushed Agg. Slope Protection Sq.Yd.	603 6" Conduit Type F Lin.Ft.
1-D	895+00	896+57	Lt&Rt.	1.3	0.26	70	1	125		
2-D	898+43	898+55	Rt.						1.5	28
	Totals			1.3	0.26	70	1	125	1.5	28

G408

Sta. 890+00 to Sta. 900+00

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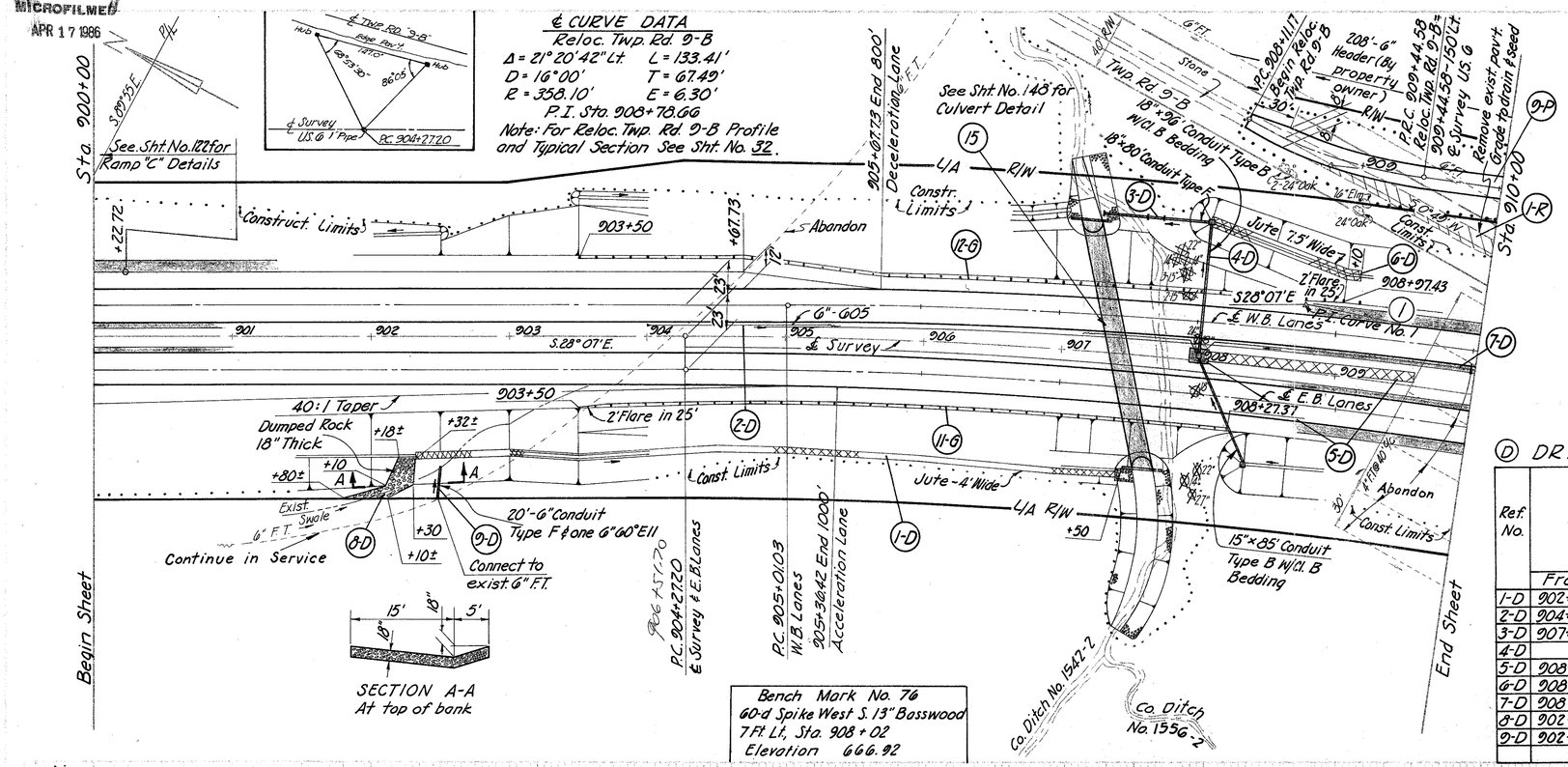


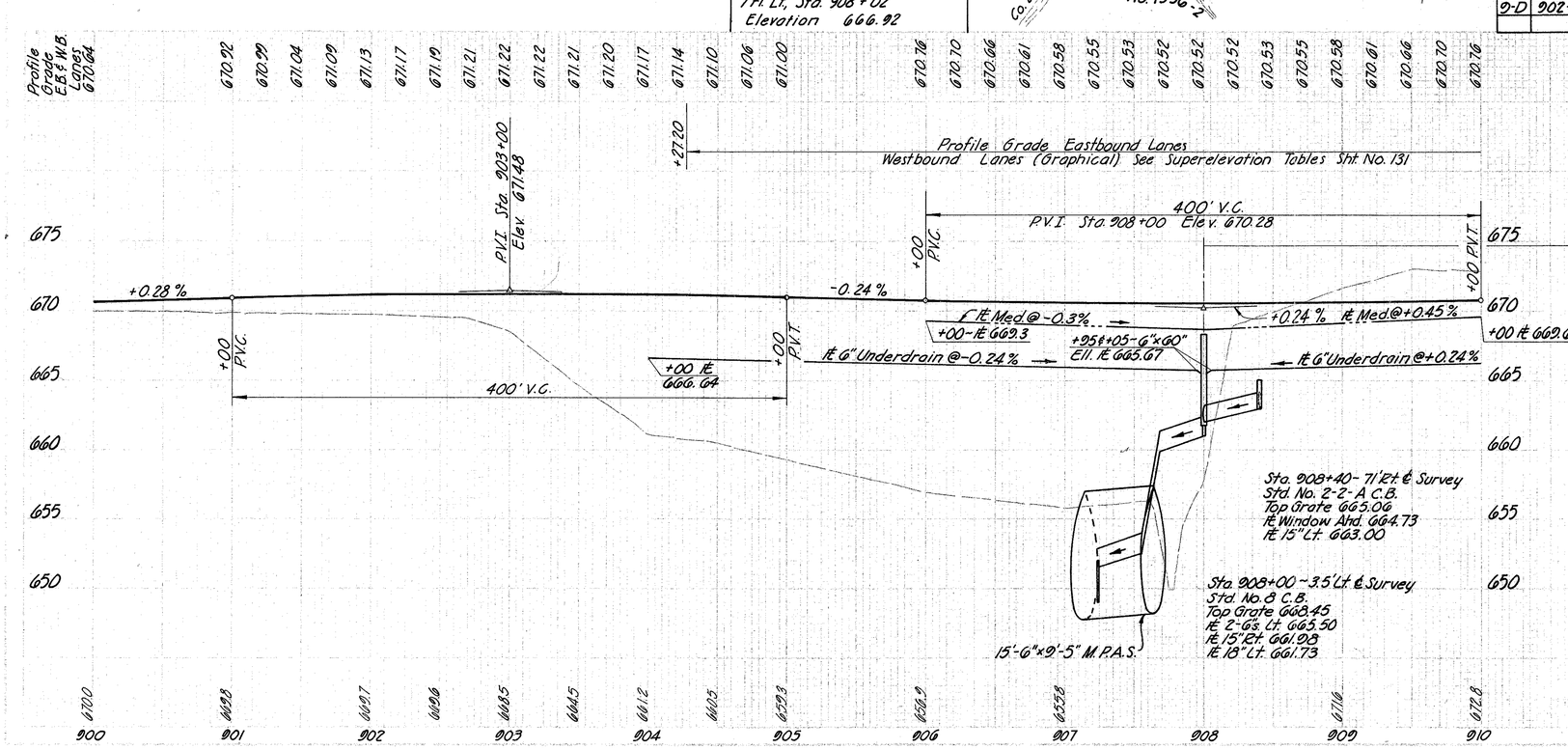
℄ CURVE DATA
W.B. Lanes, Curve No. 1
P.I. Station 908+78.06
Δ = 11° 20' 44" Rt.
D = 1° 30' 34"
R = 3795.64
L = 751.60'
T = 377.03'
E = 18.68'

℄ CURVE DATA
E.B. Lanes
P.I. Station 913+87.38
Δ = 28° 52' Rt.
D = 1° 32' 09"
R = 3730.64'
L = 1879.57'
T = 960.18'
E = 121.58'

CURVE DATA ℄ SURVEY
P.I. Sta. 914+32.66
Δ = 28° 52' Rt.
D = 1° 28'
R = 3906.52'
L = 1968.18
T = 1005.46
E = 127.32'

ⓓ DRAINAGE

Ref. No.	Station From	Station To or At	Side	602 Concrete Masonry	603 Type B Conduit W/Cl. B Bedding 706.02 III or 706.08 15"	603 Type B Conduit W/Cl. B Bedding 18"	603 Type F Conduit 6"	603 Type F Conduit 18"	604 Catch Basins Std. No. 2-2-A	604 Catch Basins Std. No. 8	605 6" Stallow Pipe Underdrain	667 Jute Matting	601 Crushed Agg. Slope Protection	601 Dumped Rock Channel Protection
				Cu. Yd.	Lin. Ft.				Each		Lin. Ft.	Sq. Yd.	Sq. Yd.	Cu. Yd.
1-D	902+30	907+45	Rt									229		
2-D	904+00	908+00	Lt				10				395			
3-D	907+23	908+00	Lt	0.30				80						
4-D		908+00	Lt			96			1					
5-D	908+00	909+57	Lt & Rt		85				1	1		125		
6-D	908+00	909+10	Lt									92		
7-D	908+00	910+00	Lt				10				195			
8-D	902+25±		Rt											33.3
9-D	902+50±		Rt				20						1.7	
	Totals			0.30	85	96	40	80	2	1	590	446	1.7	33.3



Drainage Data
100' Lt. ℄ Survey

Sta. 907+23
Std. HW-E Endwall
℄ 18" 651.52

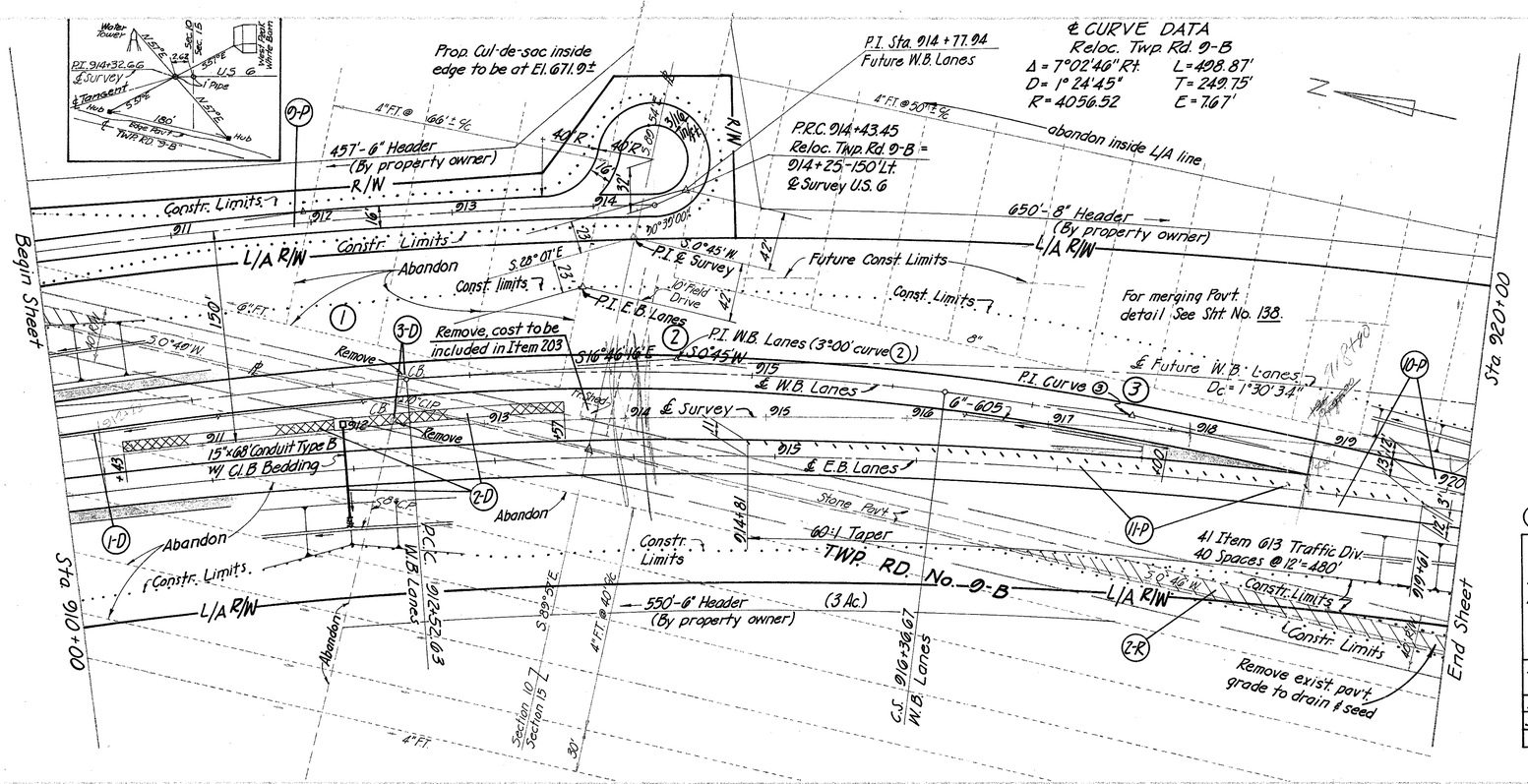
Sta. 907+55.5
18" x 30° Ell. for Type F Conduit
℄ 652.50

Sta. 907+68
18" x 30° Ell. for Type F Conduit
℄ 659.94

Sta. 908+00
Std. No. 2-2-A C.B.
Top Grate 666.60
℄ Window Abd. 666.27
℄ 18" Rt. & Bk. 660.96

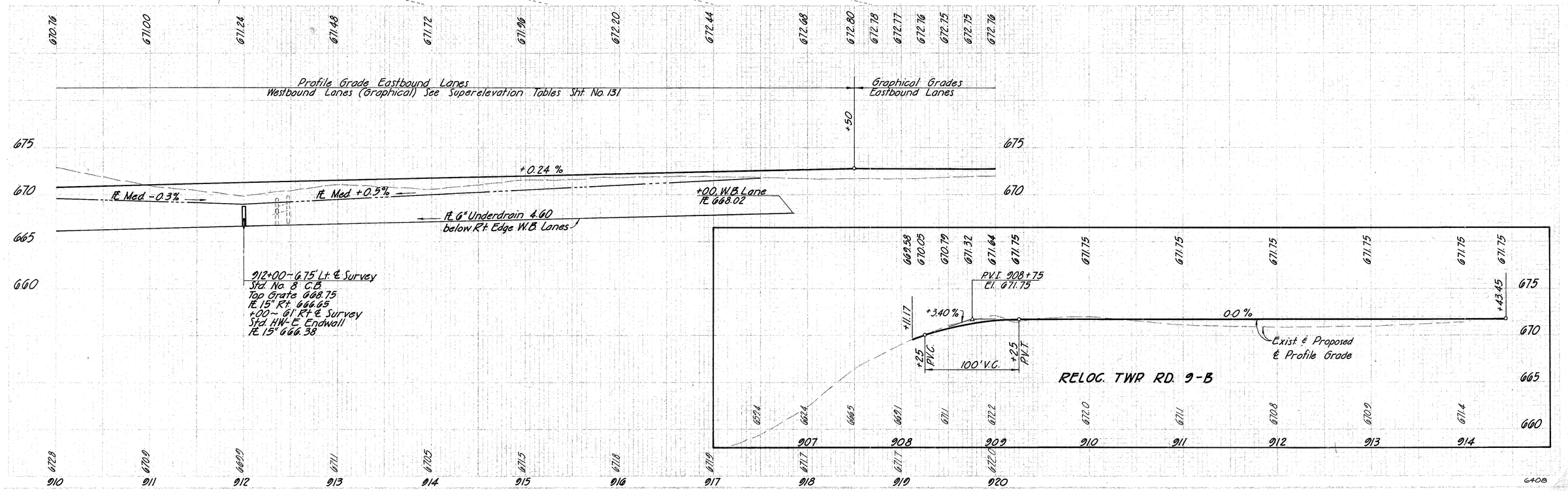
Sta. 900+00 to Sta. 910+00

6408



Ⓓ DRAINAGE

Ref No.	Station From	Station To	Side	202 Catch Basin Removed	601 Dumped Rock Channel Protection	602 Concrete Masonry	603 15" Conduit Type B w/cl. B Bedding	604 Std. No. 8 Catch Basin	605 6" Shallow Pipe Underdrain	607 Jute Matting
				Each	Cu. Yd.	Cu. Yd.	Lin. Ft.	Each	Lin. Ft.	Sq. Yd.
1-D	910+00 ℄ Survey U.S. 6	918+00 W.B. Lane	Lt&Rt						796	
2-D	910+43	913+57	Lt&Rt		1.0	0.26	68	1		250
3-D	912+36	912+46	Lt.	2						
Totals				2	1.0	0.26	68	1	796	250

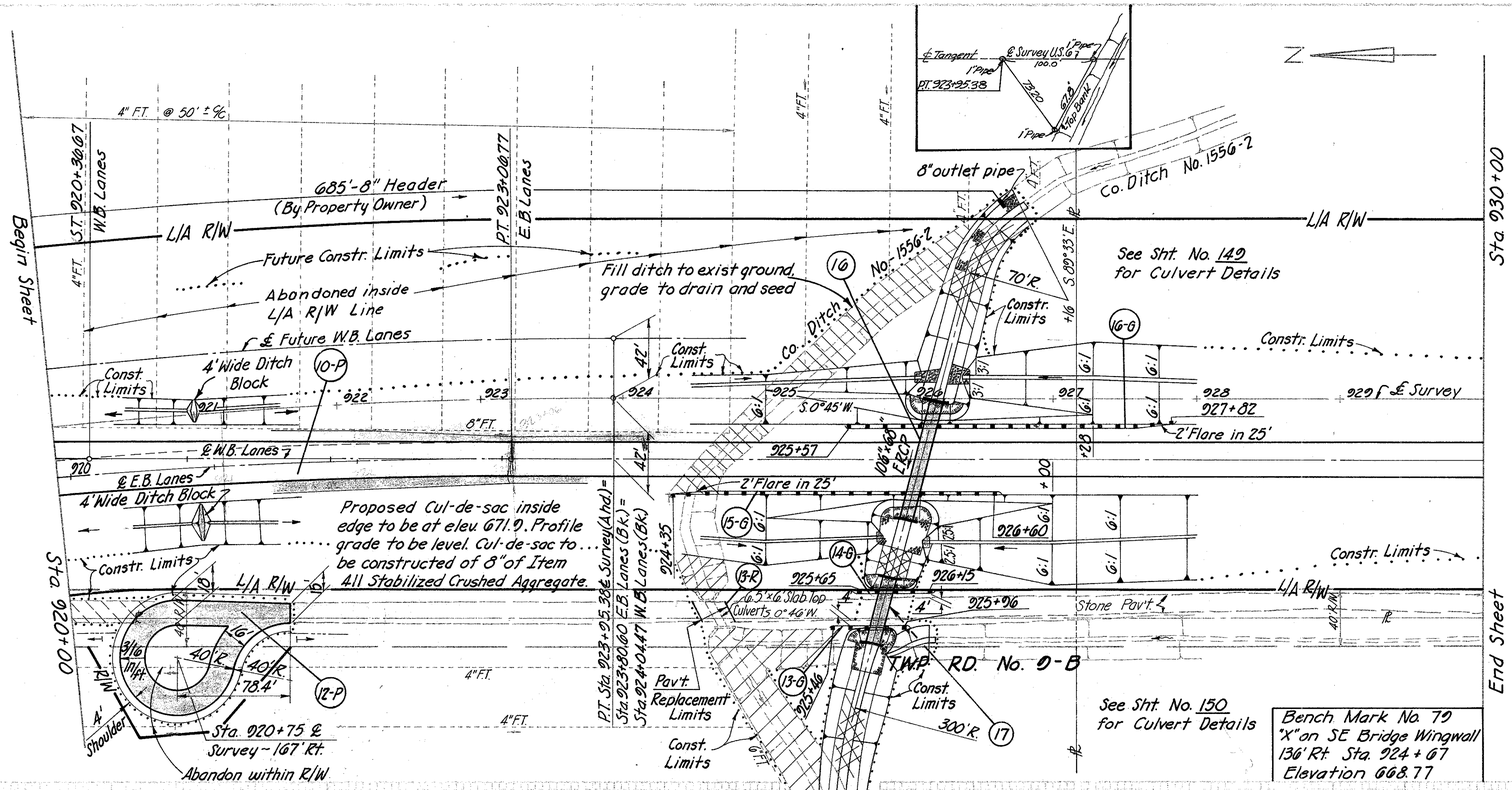


Sta. 910+00 to Sta. 920+00

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

33
231

HENRY COUNTY
HEN - 6 - 16.43



Sta. 920+00 to Sta. 930+00

PLAN	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
GEOMETRICS PLOTTED		
GEOMETRICS CHECKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
CONST. LIMITS PLOTTED		

DESIGN	BY	DATE
CONST. LIMITS CHECKED		
PROP. LINES PLOTTED		
PROP. LINES CHECKED		
PROP. R/W PLOTTED		
PROP. R/W CHECKED		
INKED		

PLAN	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
STRUCTURES PLOTTED		
STRUCTURES CHECKED		
MASS DIAGRAM PLOTTED		

DESIGN	BY	DATE
MASS. INKED		
MASS. CHECKED		

EXISTING	BY	DATE
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		
B. M. & REF. POINTS		

PLAN	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
TOPOGRAPHY PLOTTED		
TOPOGRAPHY CHECKED		
TOPOGRAPHY INKED		
DRAINAGE PLOTTED		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

PROFILE	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
UTILITIES PLOTTED		

DESIGN	BY	DATE
XSECTS CHECKED		

PROFILE	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
GRADE PLOTTED		
GRADE CHECKED		
STRUCTURES PLOTTED		
STRUCTURES CHECKED		
MASS DIAGRAM PLOTTED		

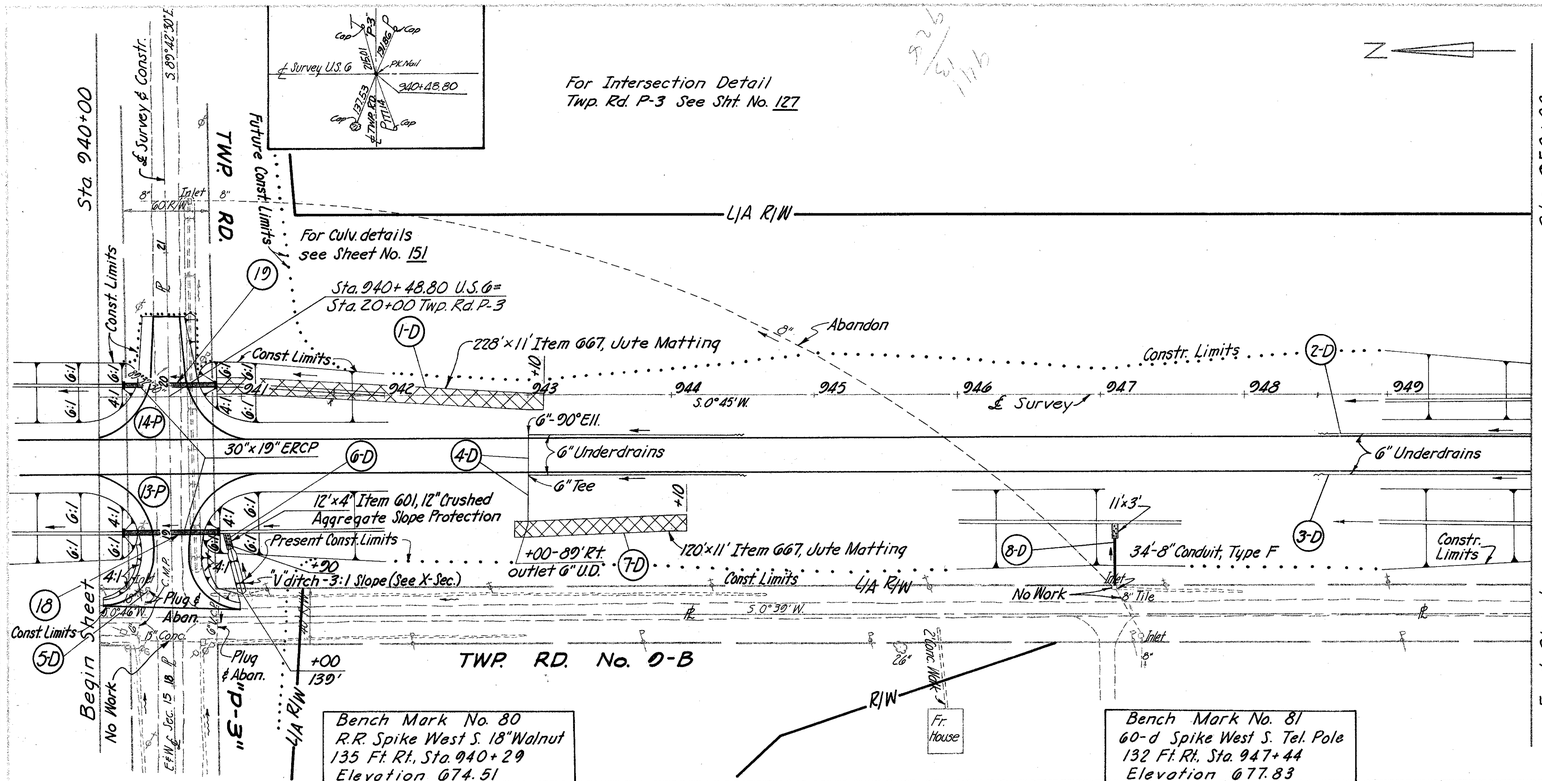
DESIGN	BY	DATE
MASS. INKED		
MASS. CHECKED		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

PROFILE	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
GRADE PLOTTED		
GRAD

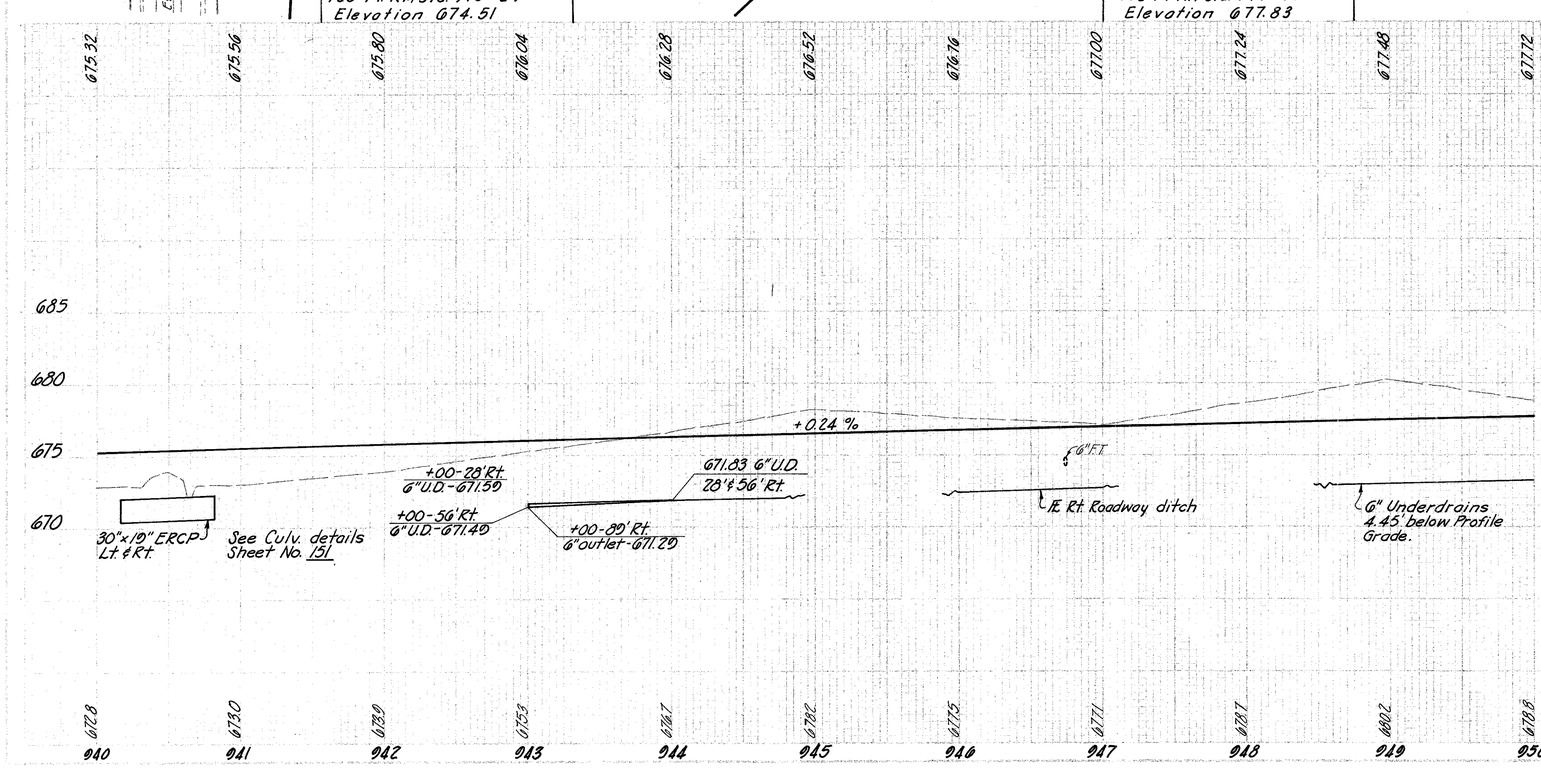
FED. ROAD DIVISION	STATE	PROJECT		35
2	OHIO			231

HENRY COUNTY
HEN -6-16.43



Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	202 Catch Basin Removed	601 Crushed Aggregate Slope Protection	603 6" Conduit Type B w/cl. B Bedding	603 Conduit Type F 6"	603 Conduit Type F 8"	605 6" Shallow Pipe Underdrains	667 Jute Matting	6" Bends & Branches for Type B
				Each	Sq. Yd.	Lin. Ft.			Lin. Ft.	Sq. Yd.	
1-D	940+82	943+10	℄							279	
2-D	943+00	950+00	Rt.						700		
3-D	943+00	950+00	Lt.						700		
4-D		943+00	Rt.			51	10				2
5-D		940+34	Rt.	1							
6-D		940+90	Rt.		5.3						
7-D	942+90	944+10	Rt.							147	
8-D		947+10	Rt.		3.7			34			
		Totals		1	9.0	51	10	34	1400	426	2



Sta. 940+00 to Sta. 950+00

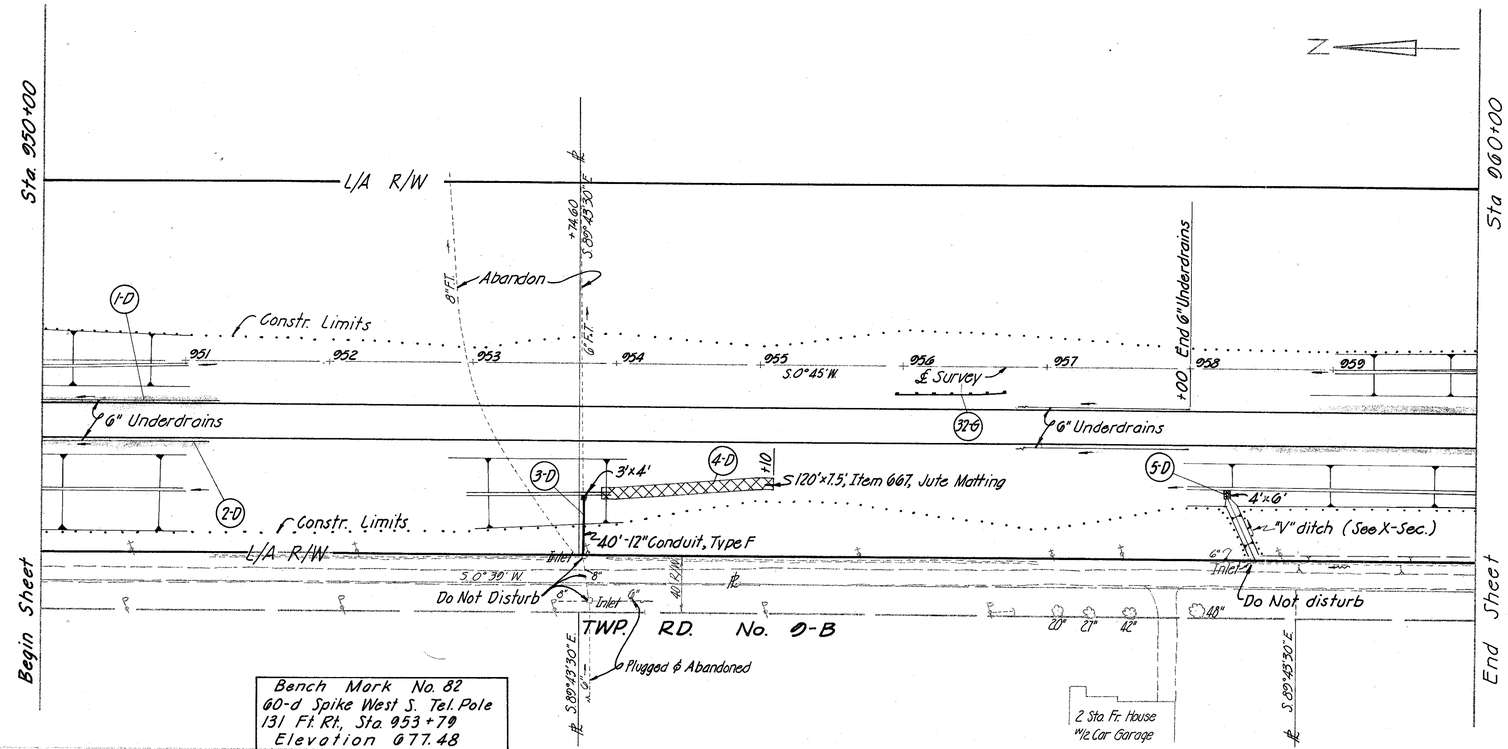
G408

PLAN: ALIGNMENT PLOTTED; ALIGNMENT CHECKED; GEOMETRICS CHECKED; DRAINAGE PLOTTED; DRAINAGE CHECKED; CONST. LIMITS PLOTTED
DESIGN: CONST. LIMITS CHECKED; PROP. LINES PLOTTED; PROP. LINES CHECKED; PROP. R/W PLOTTED; PROP. R/W CHECKED; INKED
PLAN & PROFILE: ALIGNMENT PLOTTED; ALIGNMENT CHECKED; DRAINAGE PLOTTED; DRAINAGE CHECKED; STRUCTURES PLOTTED; STRUCTURES CHECKED; MASS DIAGRAM PLOTTED
PROFILE: ALIGNMENT CUTTED; ALIGNMENT CHECKED; ALIGNMENT INKED; DRAINAGE PLOTTED; DRAINAGE CHECKED; DRAINAGE INKED; UTILITIES PLOTTED
EARTHWK: MASS DIAGRAM CHECKED; MASS DIAGRAM INKED
EARTHWK: UTILITIES CHECKED; UTILITIES INKED

FED. ROAD DESIGNATION	STATE	PROJECT	
2	OHIO		

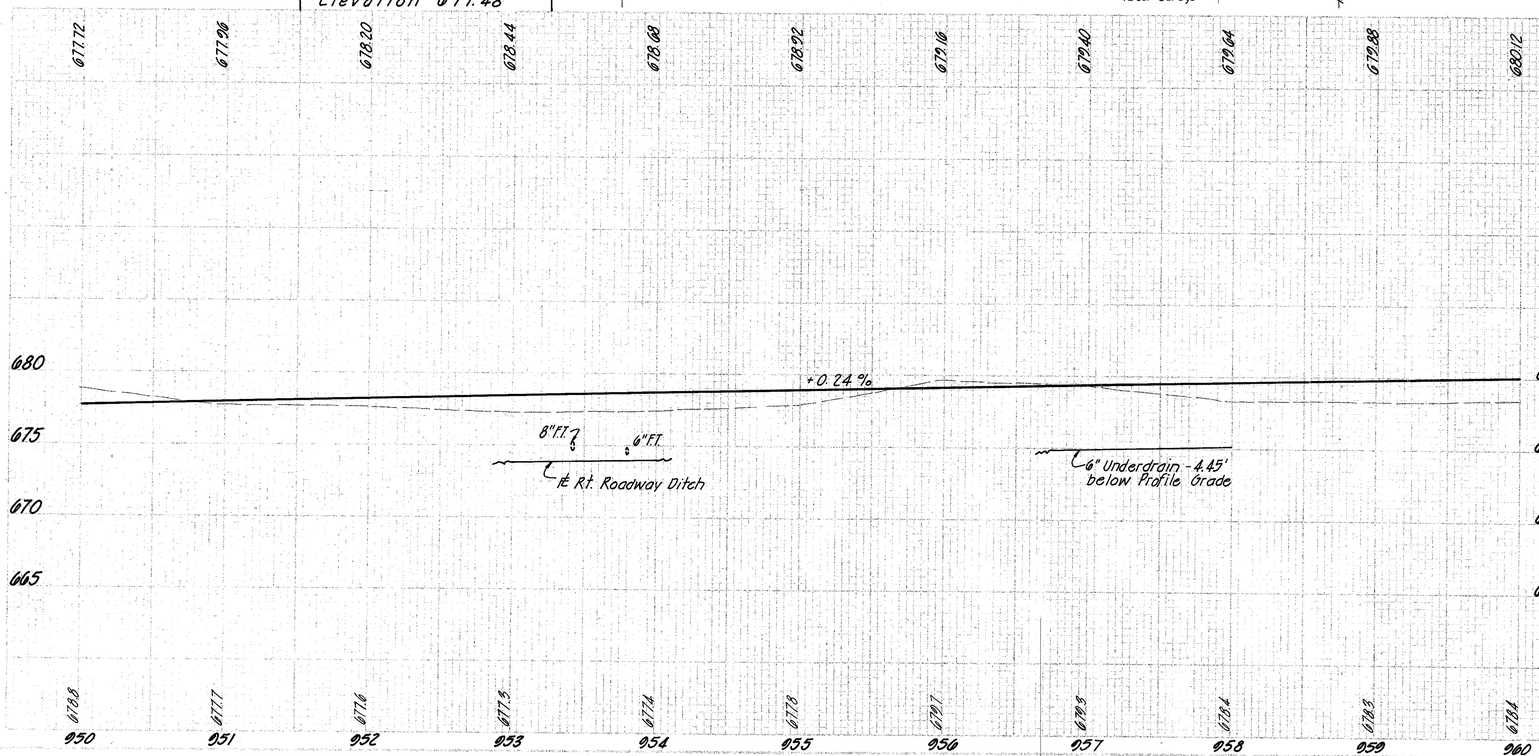
36
731

HENRY COUNTY
HEN -6 -16.43



Ⓓ DRAINAGE

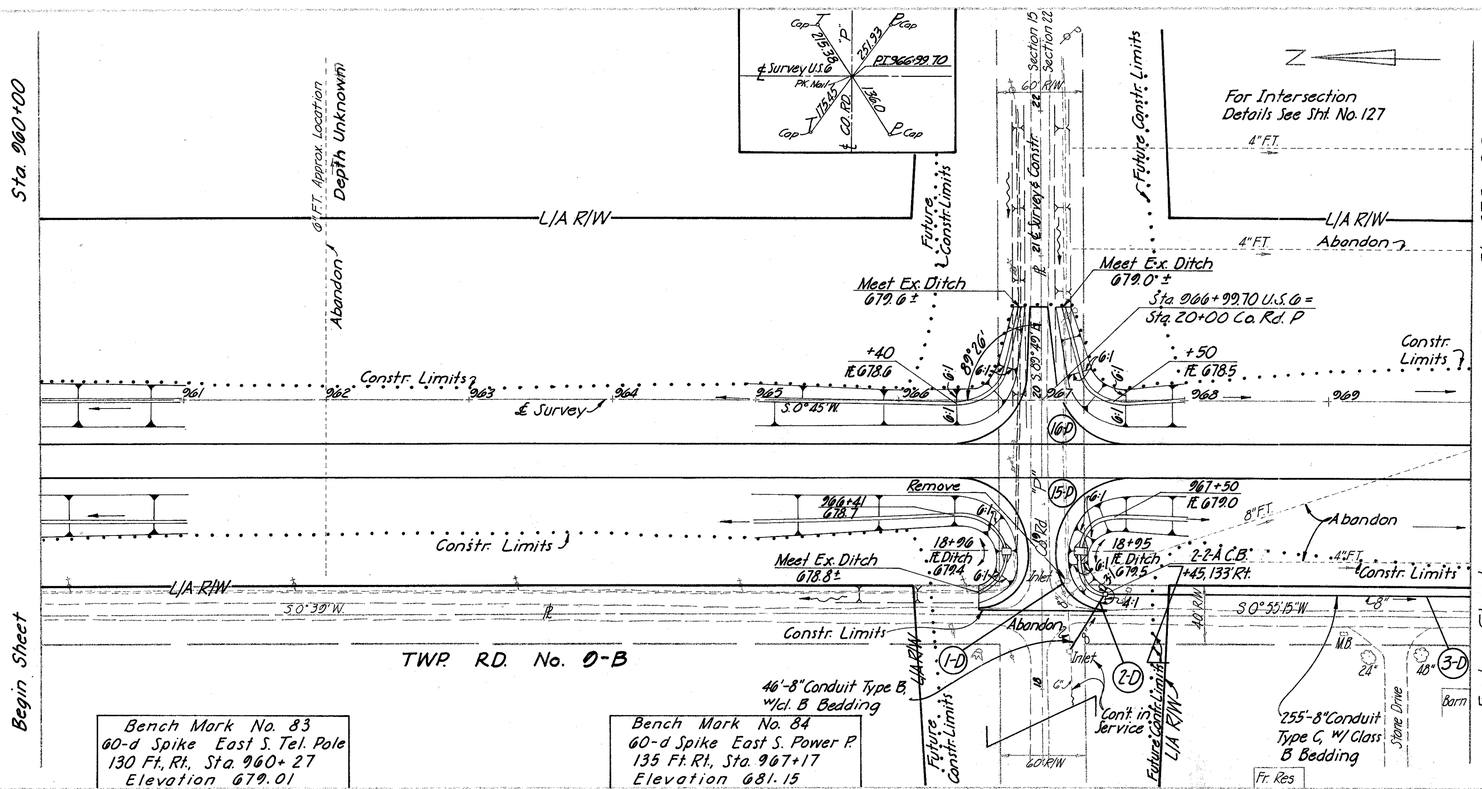
Ref. No.	Station From	Station To or At	Side	601 Crushed Aggregate Slope Protection Sq. Yd.	603 12" Conduit Type F Lin. Ft.	605 6" Shallow Pipe Underdrains Lin. Ft.	667 Jute Matting Sq. Yd.
1-D	950+00	958+00	Rt.			800	
2-D	950+00	958+00	Lt.			800	
3-D		953+79	Rt.	1.3	40		
4-D	953+90	955+10	Rt.				100
5-D		958+26	Rt.	2.7			
		Totals		4.0	40	1600	100



G4-08

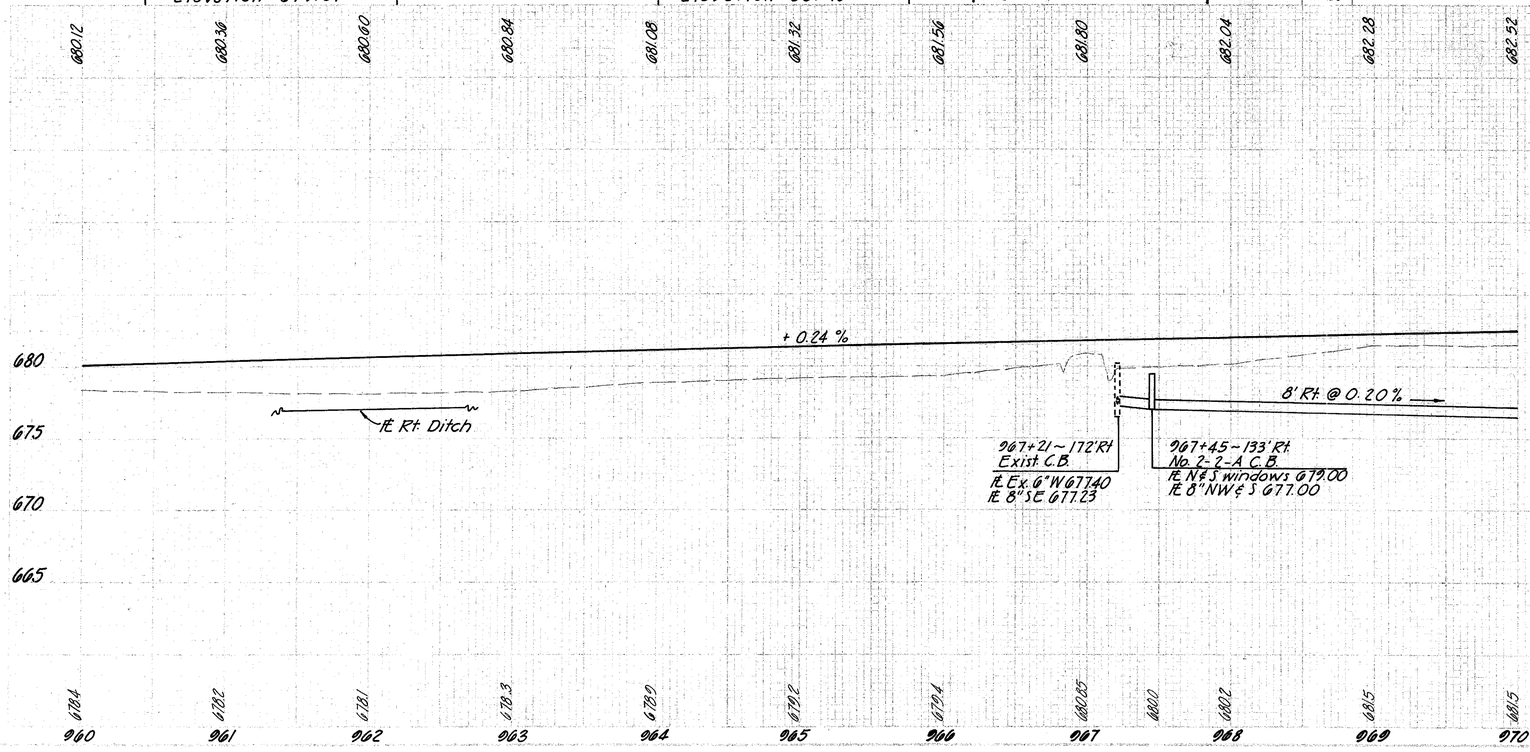
Sta 950+00 to Sta 960+00

HENRY COUNTY
HEN - 6 - 16.34



(D) DRAINAGE

Ref. No.	Station From	Station To or At	Side	202 Catch Basin Removed Each	603 Conduit w/cl. B Bedding 8" Type B Lin. Ft	603 Conduit w/cl. B Bedding 8" Type C Lin. Ft	604 Std. 2-2-A Catch Basin Each
1-D		967+18	Rt	1			
2-D	967+21	967+45	Rt		46		1
3-D	967+45	970+00	Rt			255	
Totals				1	46	255	1



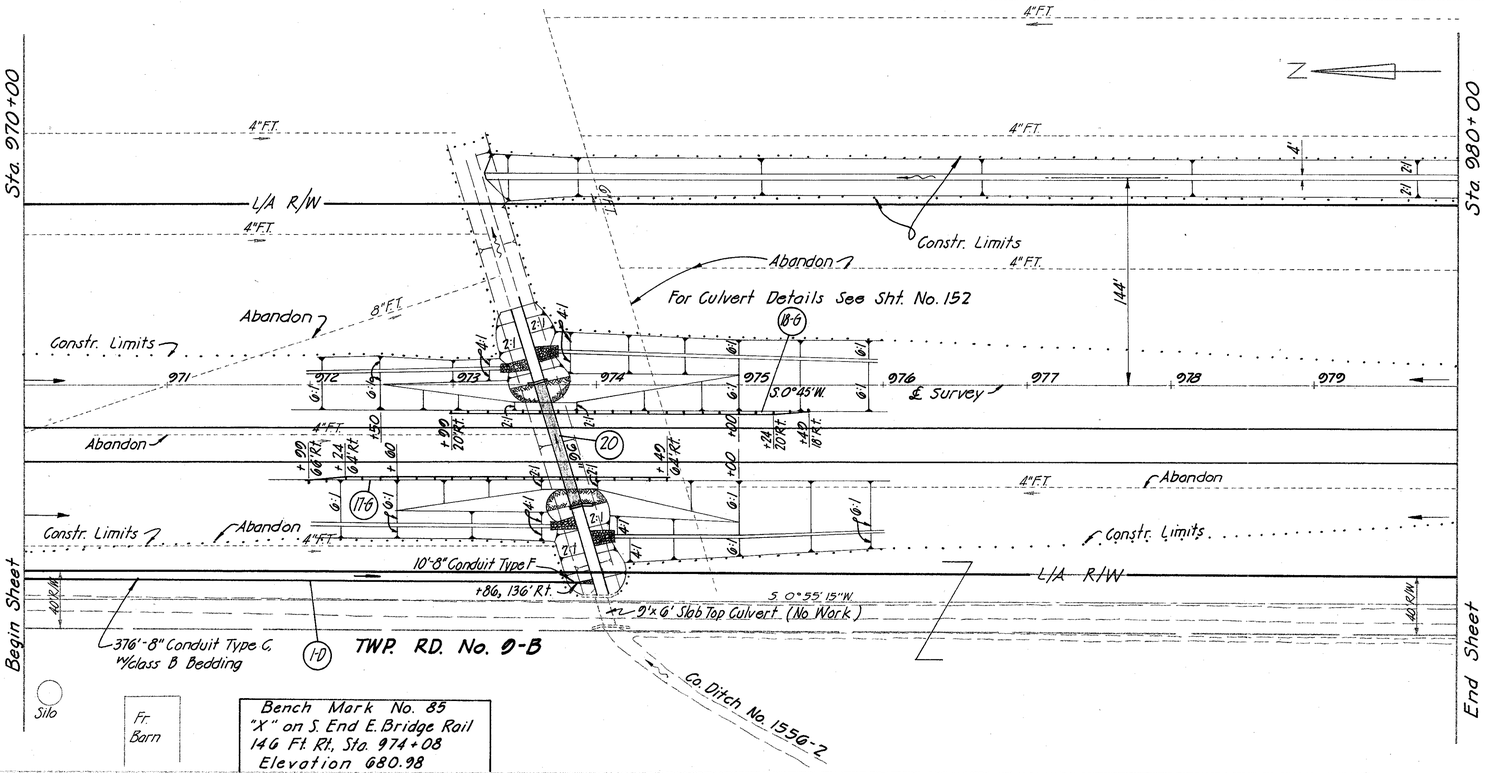
Sta. 960+00 to Sta. 970+00

6408

FED. AID DIVISION	STATE	PROJECT	
2	OHIO		

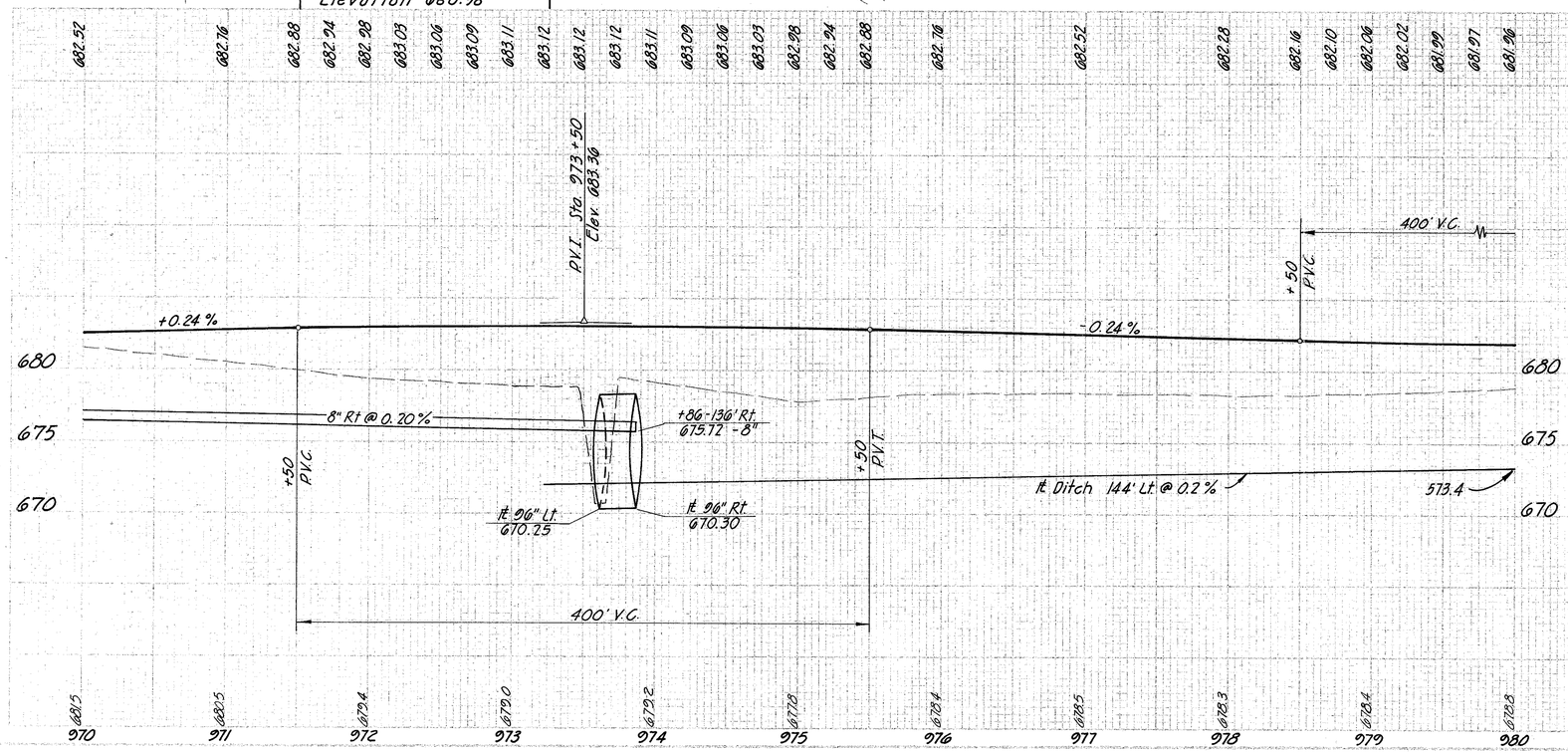
38
231

HENRY COUNTY
HEN -6-16.43



Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	603 8" Conduit Type C W/cl. B Bedding Lin. Ft.	603 8" Conduit Type F Ft.
1-D	970+00	973+86	Rt.	376	10



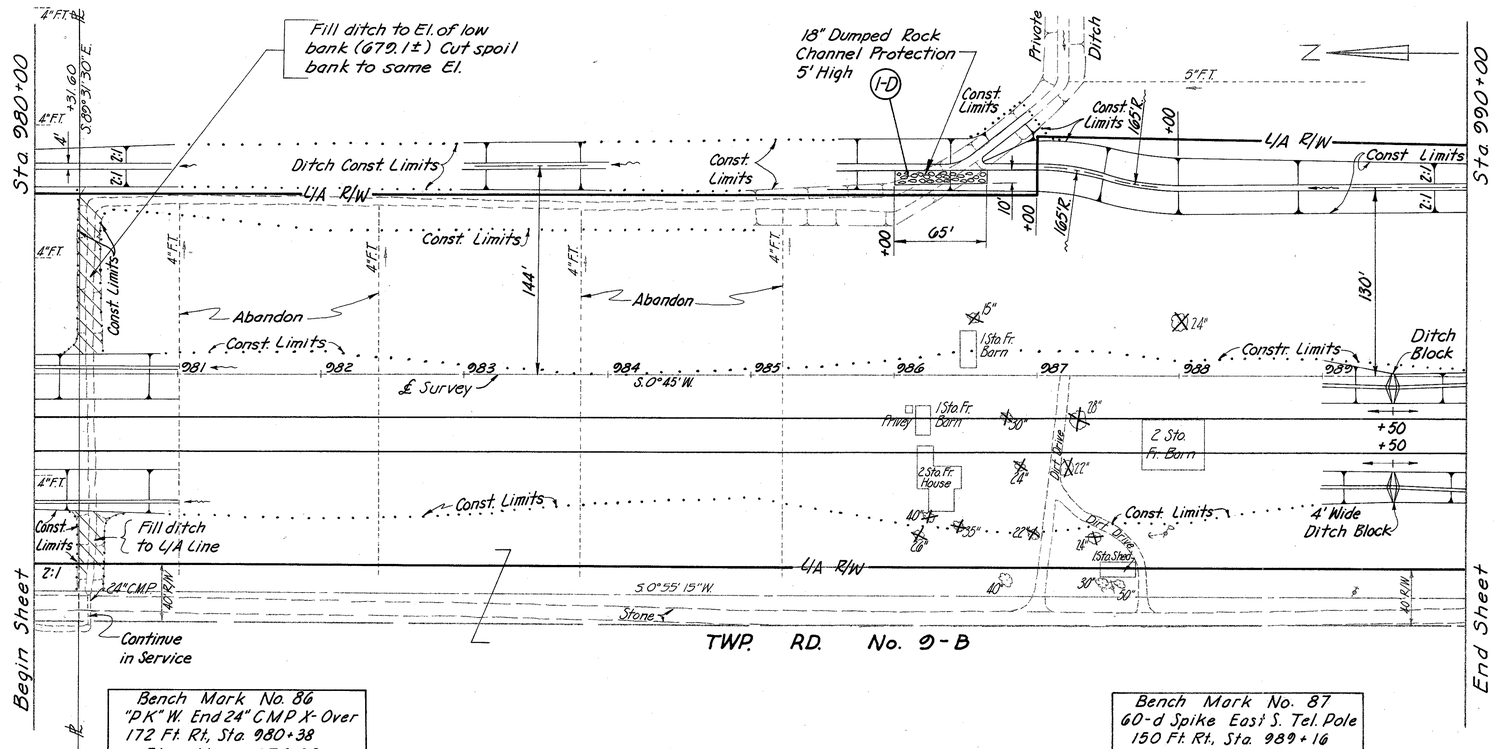
G408

Sta. 970+00 to Sta. 980+00

FED. AID PROJECT	STATE	PROJECT	
	OHIO		

HENRY COUNTY
HEN - 6 - 16.43

3e
231

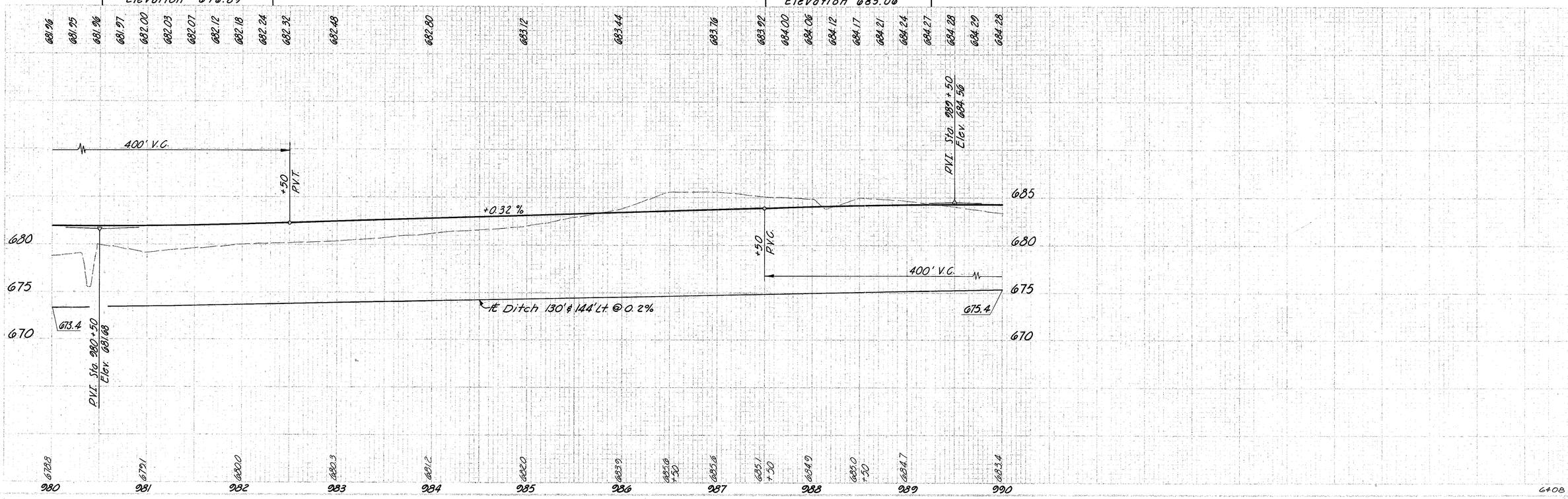


Bench Mark No. 86
"P.K." W. End 24" C.M.P. X-Over
172 Ft. Rt. Sta. 980+38
Elevation 676.89

Bench Mark No. 87
60-d Spike East S. Tel. Pole
150 Ft. Rt. Sta. 989+16
Elevation 683.06

Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	601 Dumped Rock Channel Protection Cu. Yd.
I-D	986+00	986+65	Lt.	36.1

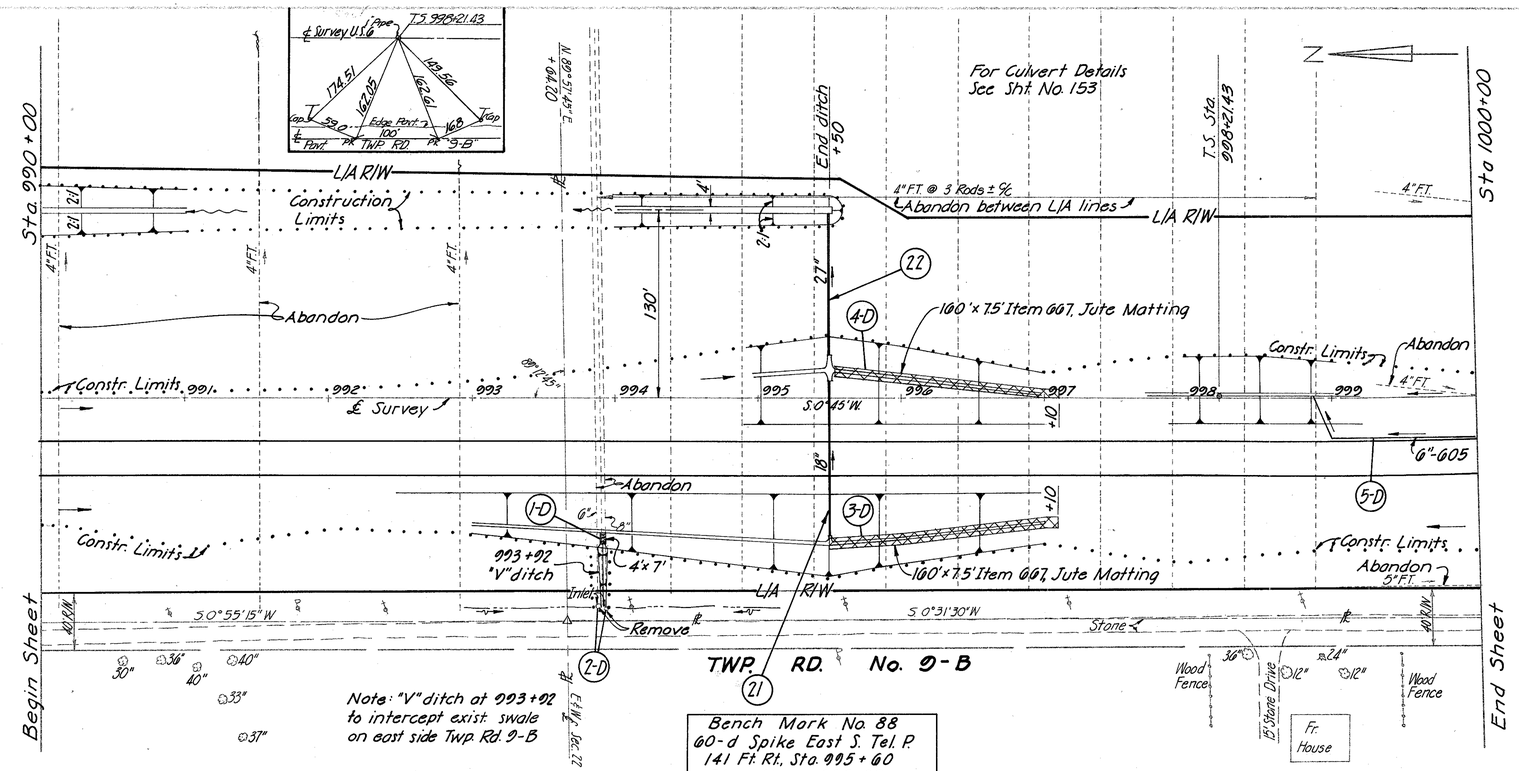


Sta. 980+00 to Sta. 990+00

6408

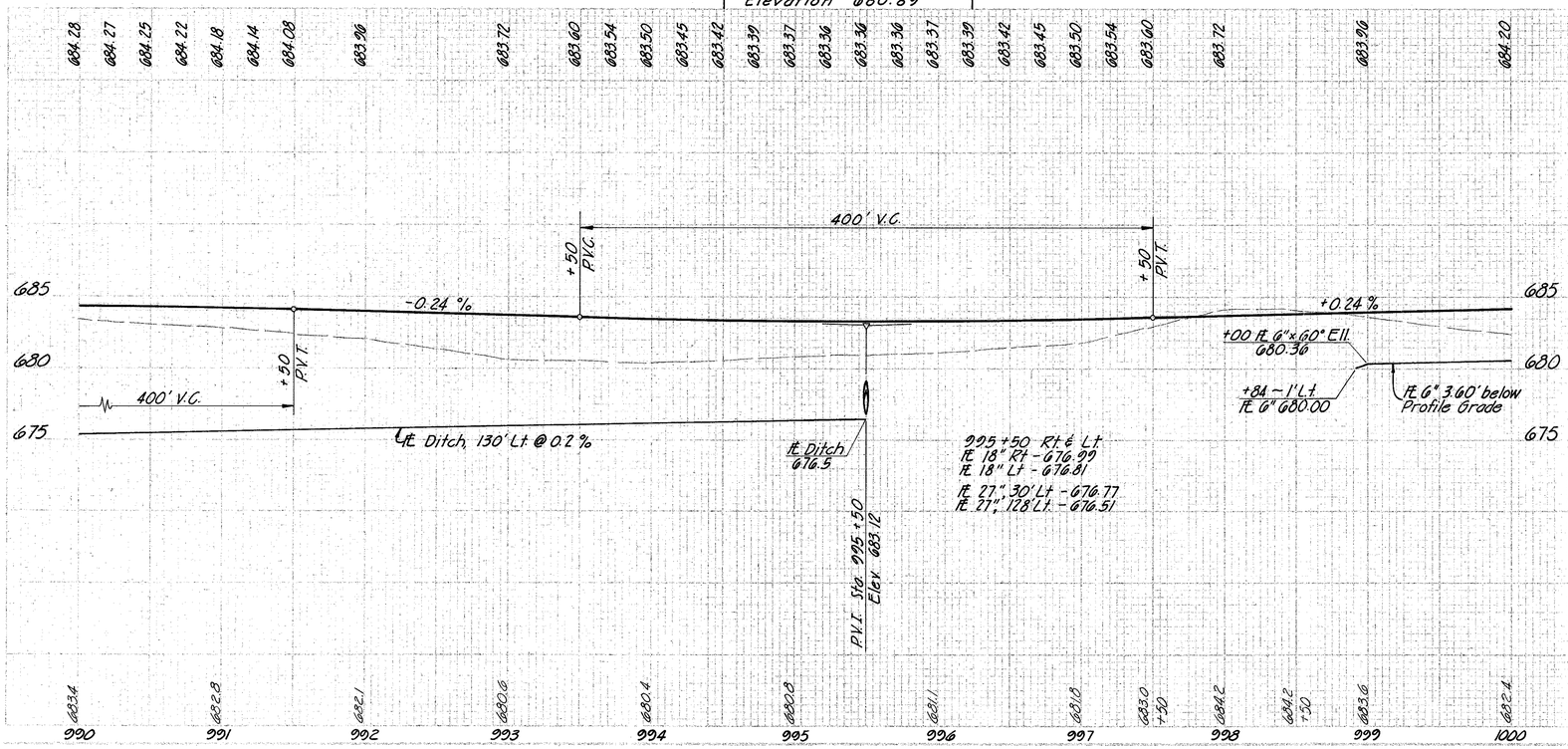
FED. ROAD DIVISION	STATE	PROJECT		40
2	OHIO			231

HENRY COUNTY
HEN-6-16.43



(D) DRAINAGE

Ref. No.	Station From	Station To	Side	202 Catch Basin Removed	601 Crushed Aggregate Slope Protection	603 6" Conduit Type F	605 6" Shallow Pipe Underdrains	607 Jute Matting	6" Bends & Branches for Underdrains
				Each	Sq.Yd.	Lin.Ft.	Lin.Ft.	Sq.Yd.	Each
1-D		993+92	Rt.		3.1				
2-D	993+87	993+93	Rt.	2					
3-D	995+50	997+10	Rt.					134	
4-D	995+50	997+10	Lt.					134	
5-D	998+84	1000+00	Lt. & Rt.			10	121		1
Totals				2	3.1	10	121	268	1



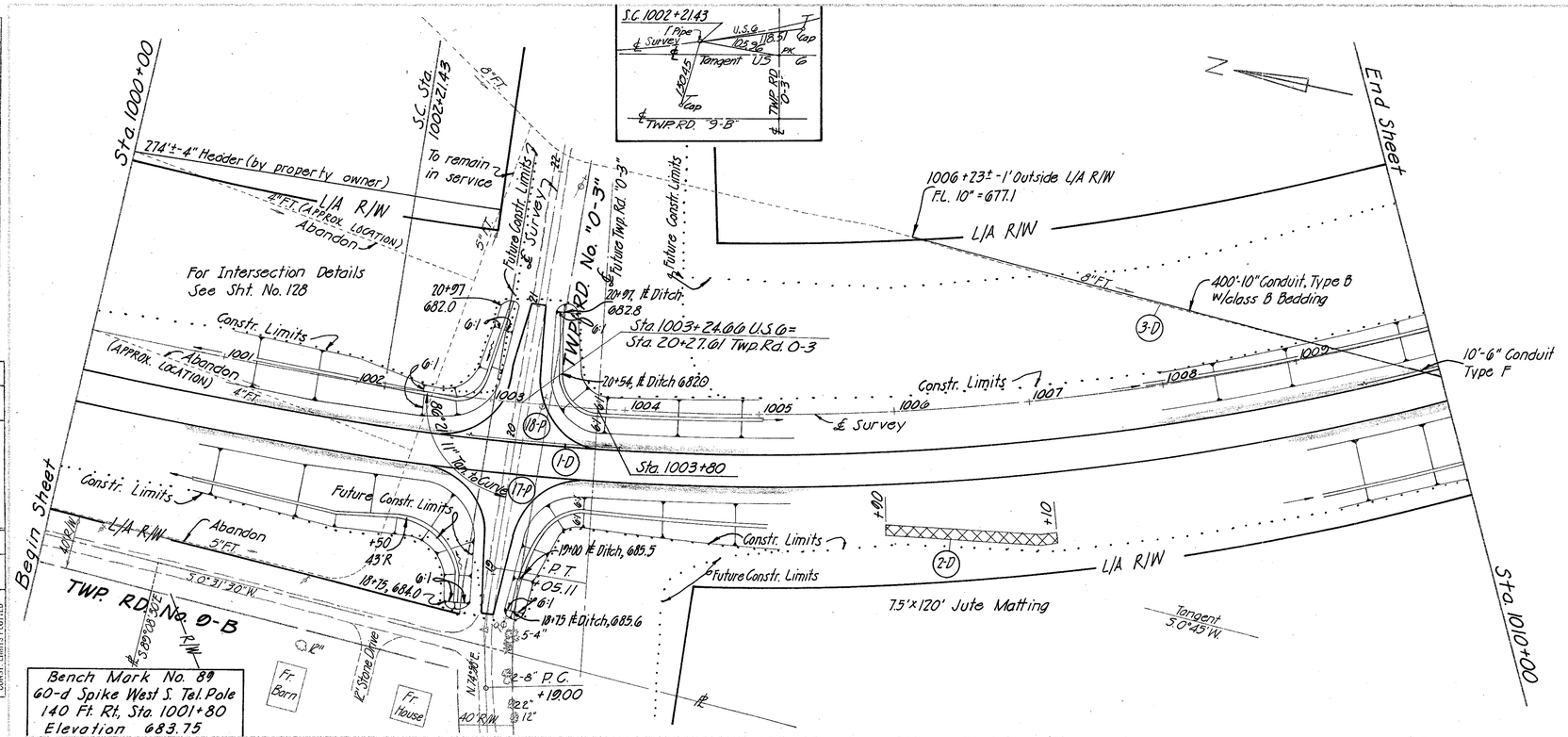
Sta. 990+00 to Sta. 1000+00

6408

P.I.D. NO. SURFACE	STATE	PROJECT		
2	OHIO			

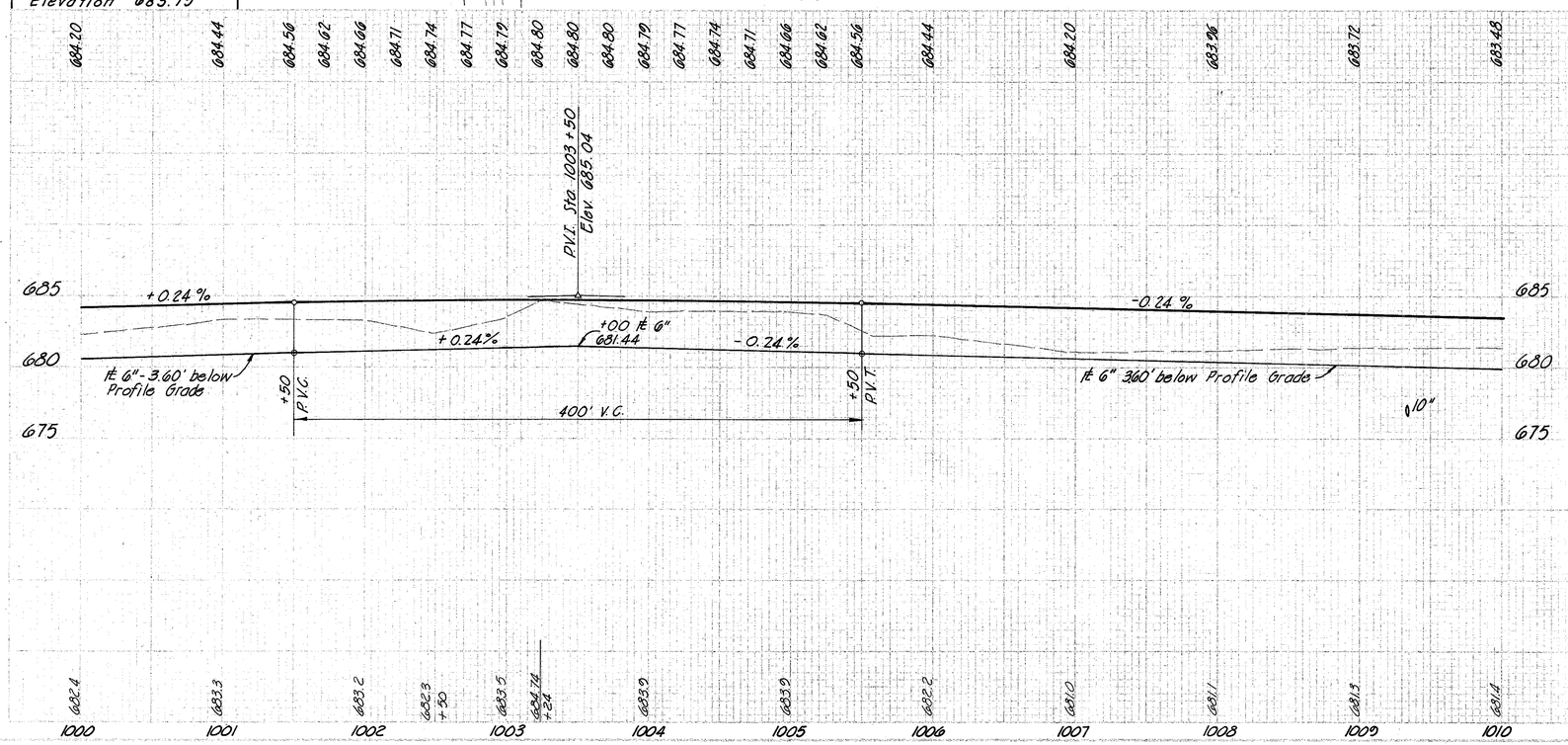
41
231

HENRY COUNTY
HEN -6 -16.43



(D) DRAINAGE

Ref. No.	Station From	Station To	Side	603 6" Conduit Type F Lin. Ft.	603 10" Conduit Type B W/cl. B Bedding Lin. Ft.	605 6" Shallow Pipe Underdrain Lin. Ft.	667 Jute Matting Sq. Yd.
1-D	1000+00	1010+00	Rt.	10		990	
2-D	1005+90	1007+10	Rt.				100
3-D	1006+23±	1010+00	Lt&Rt.		400		
Totals				10	400	990	100



6408

Sta. 1000+00 to Sta. 1010+00

PROJECT	STATE	PID NUMBER	
2	OHIO		

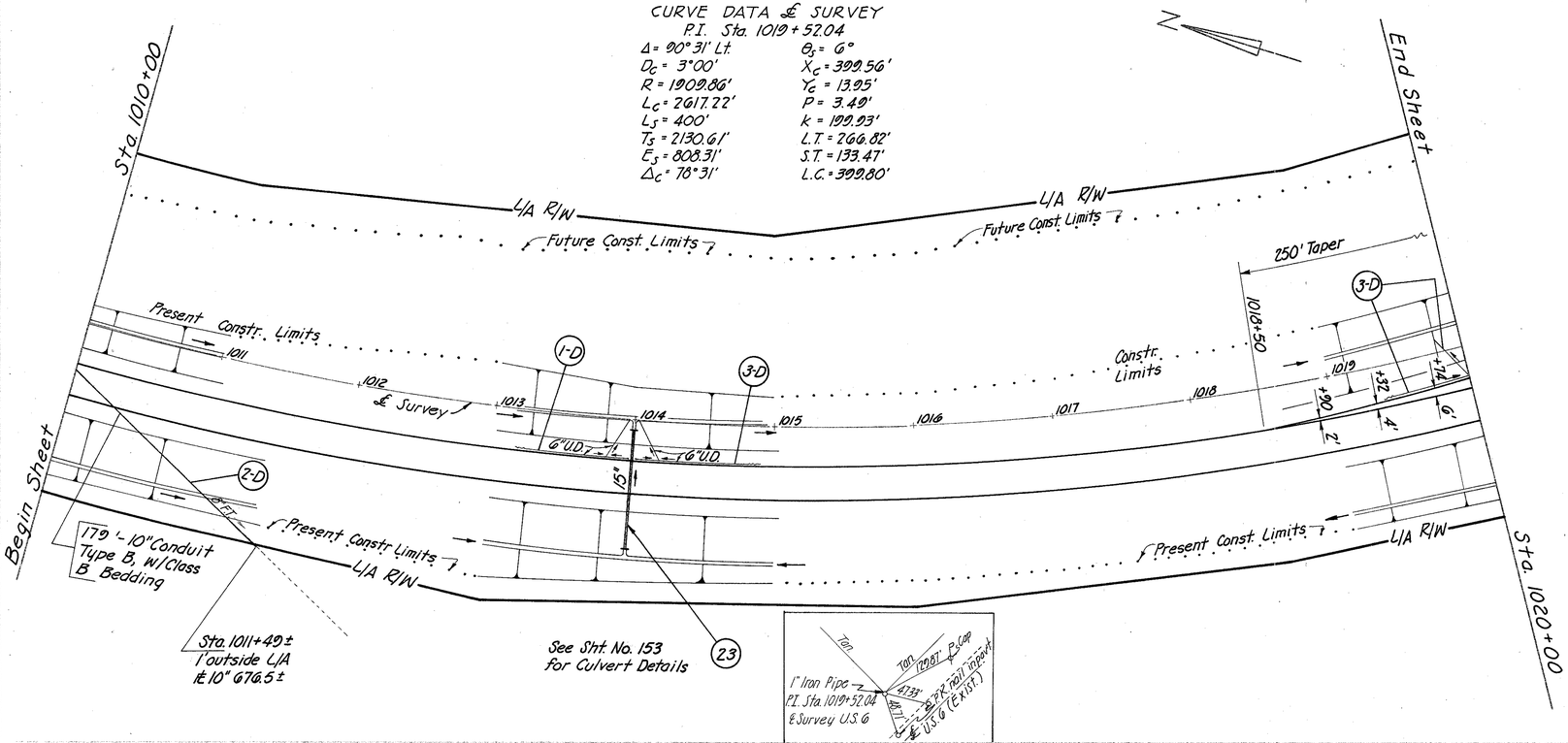
42
231

HENRY COUNTY
HEN-6-16.43

CURVE DATA & SURVEY

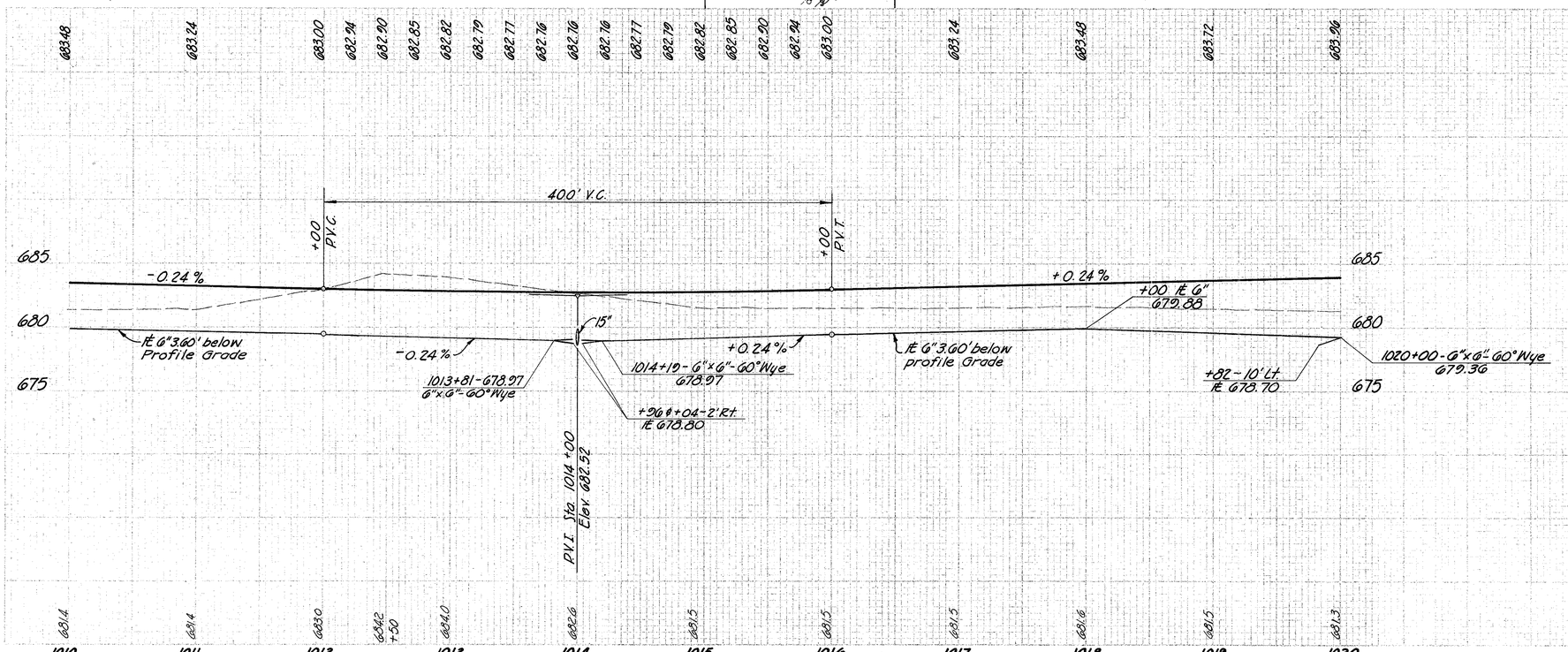
P.I. Sta. 1019+52.04

$\Delta = 90°31'$ Lt.	$\theta_s = 6°$
$D_c = 3°00'$	$X_c = 399.56'$
$R = 1909.86'$	$Y_c = 13.95'$
$L_c = 2617.22'$	$P = 3.49'$
$L_s = 400'$	$k = 199.93'$
$T_s = 2130.61'$	$L.T. = 266.82'$
$E_s = 808.31'$	$S.T. = 133.47'$
$\Delta_c = 78°31'$	$L.C. = 399.80'$



Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	603 10" Conduit Type B W/cl. B Bedding Lin. Ft.	603 6" Conduit Type F Ft.	605 6" Shallow Pipe Underdrain & 6" Bends & Branches for Underdrains Lin. Ft.	605 Each
1-D	1010+00	1013+96	Rt		10	418	1
2-D	1010+00	1011+49±	Rt	179			
3-D	1014+04	1020+00	Rt		20	644	2
Totals				179	30	1062	3

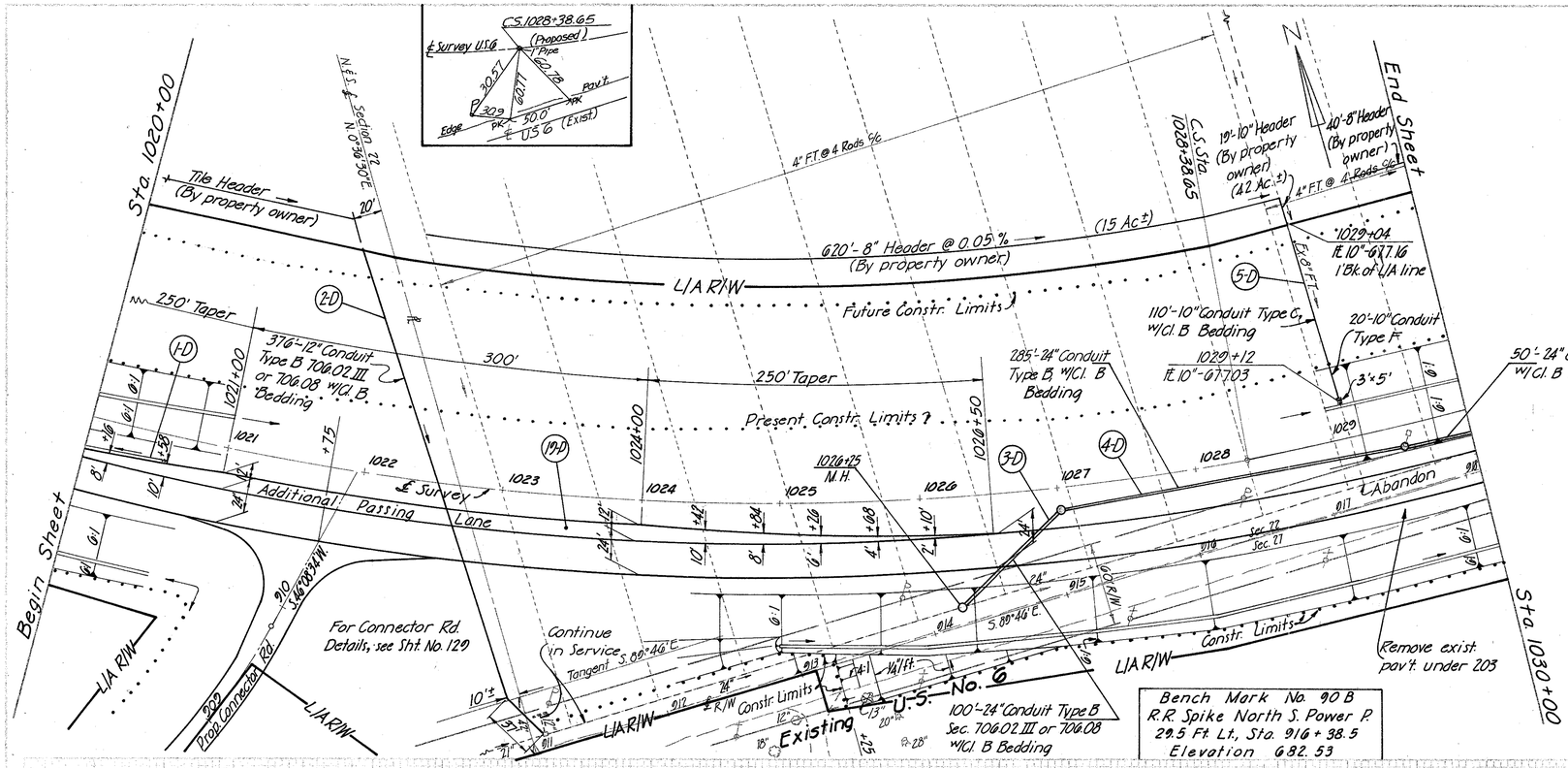


6408

Sta. 1010+00 to Sta. 1020+00

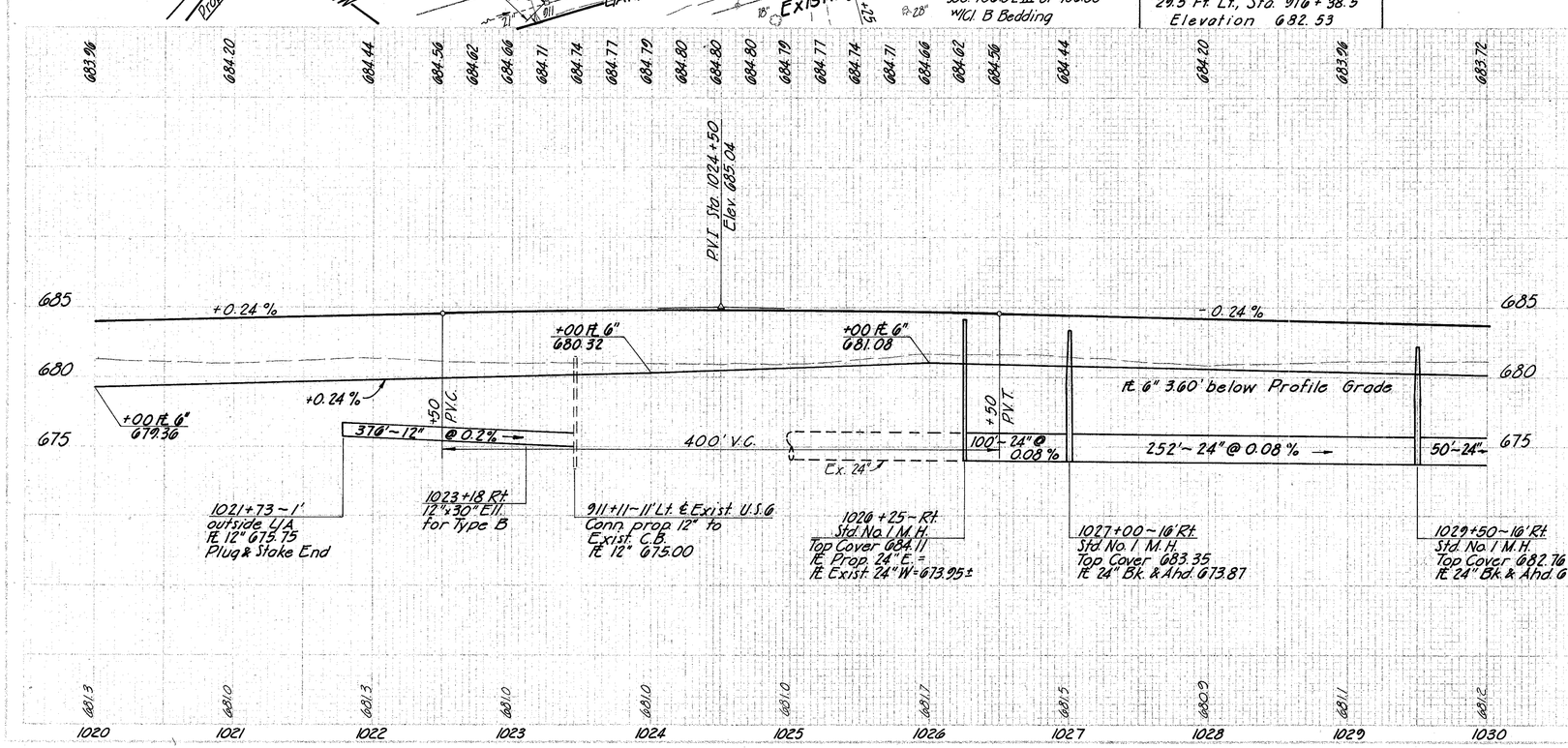
PROJECT DIVISION	STATE	PROJECT		43
2	OHIO			231

HENRY COUNTY
HEN - 6 - 16.43



(D) DRAINAGE

Ref. No.	Station From	Station To	Side	601 Crushed Aggregate Slope Protection Sq.Yd.	603 10" Conduit Type C w/Cl. B Bedding Lin. Ft.	603 10" Conduit Type F Lin. Ft.	603 Type B Conduit w/Cl. B Bedding 706.02 III or 706.08 24" Lin. Ft.	603 Type B Conduit w/Cl. B Bedding 706.02 III or 706.08 12" Lin. Ft.	603 Type B Conduit w/Cl. B Bedding 706.02 III or 706.08 24" Lin. Ft.	604 Std. No. 1 Manhole Each	605 6" Shallow Pipe Underdrains Lin.Ft.	603 12" Bends & Branches for Type B Each	603 24" Conduit Type C w/Cl. B Bedding Lin.Ft.
1-D	1020+00	1030+00	Rt.								1000		
2-D	1021+73	911+11 Exist. U.S.6	Lt.					376				1	
3-D	1026+25	1027+00	Rt.						100	2			
4-D	1027+00	1030+00	Rt.				252			1			50
5-D	1029+04	1029+12	Lt.	1.7	110	20							
	Totals			1.7	110	20	252	376	100	3	1000	1	50

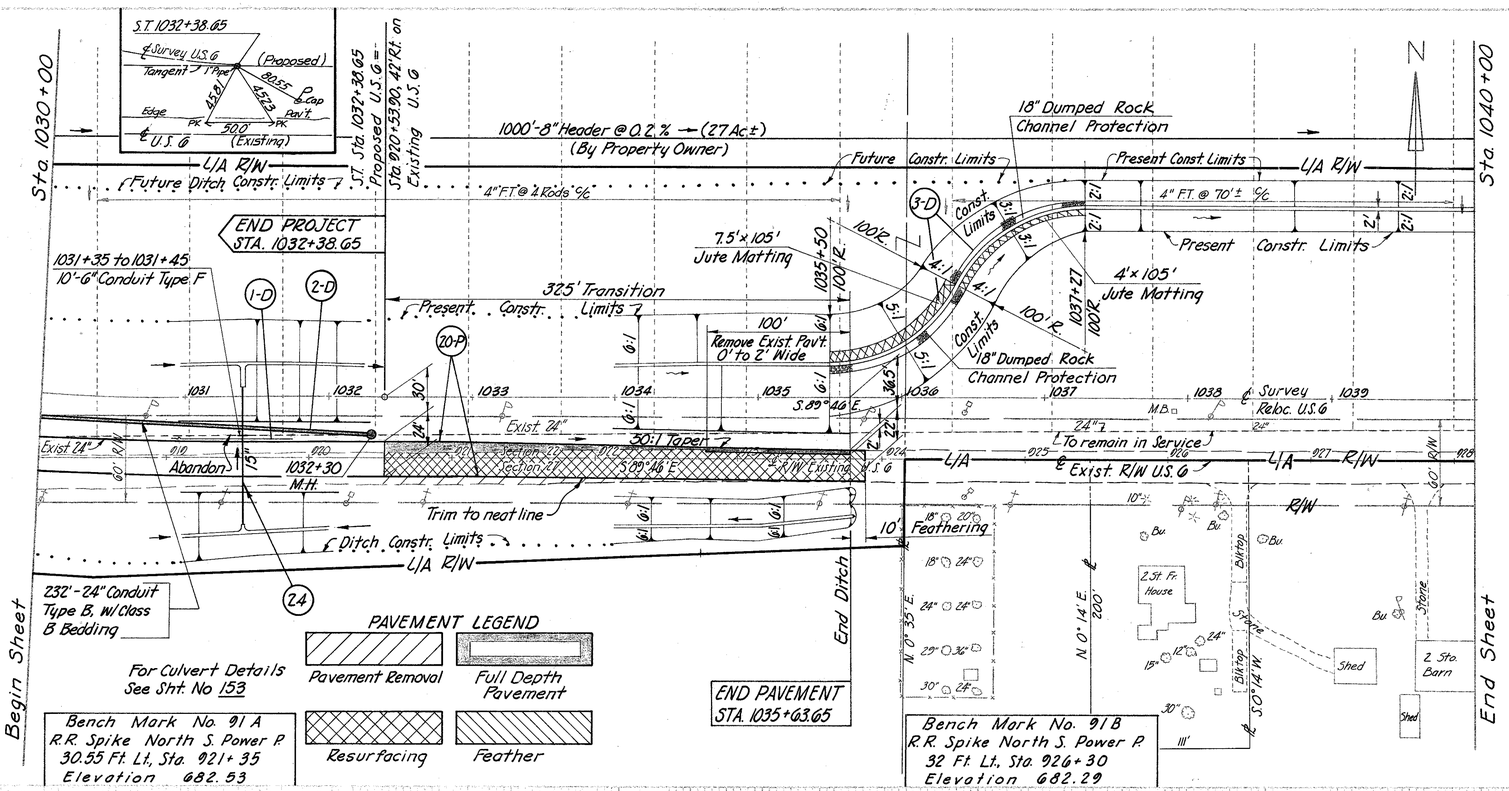


Sta. 1020+00 to Sta. 1030+00

DIST.	STATE	PROJECT		
2	OHIO			

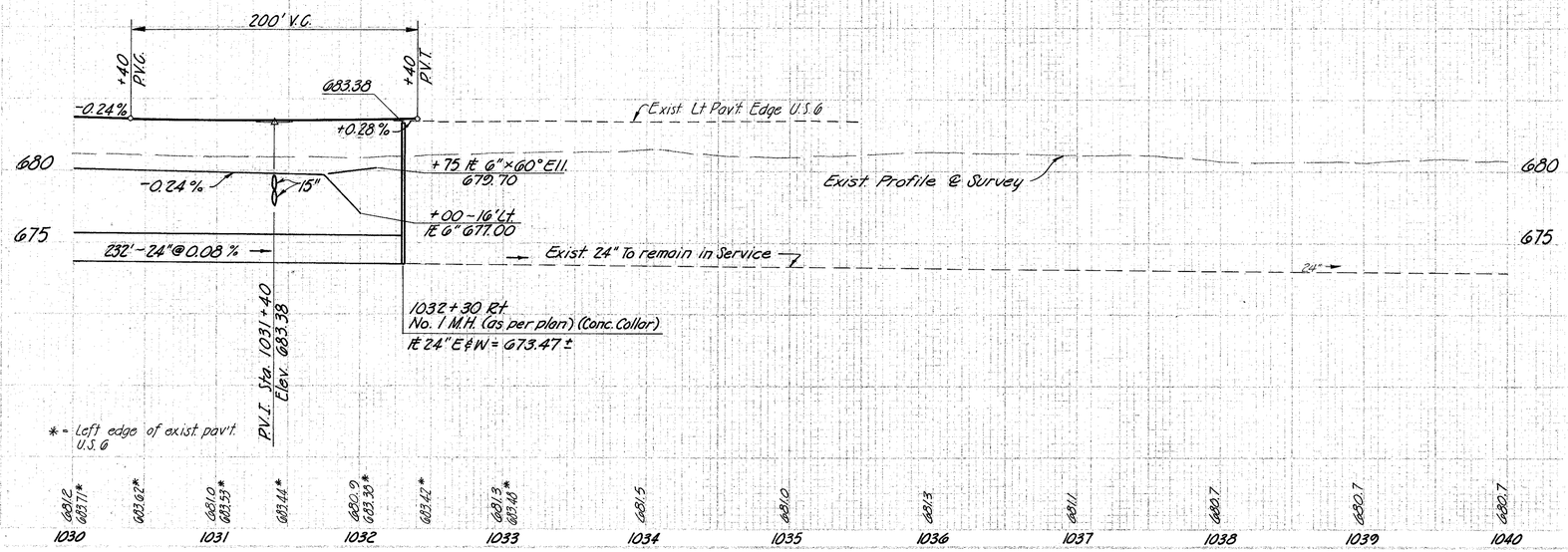
44
231

HENRY COUNTY
HEN - 6 - 16.43



Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	601 Dumped Rock Channel Protection Cu. Yd.	603 6" Conduit Type F Lin. Ft.	603 24" Conduit Type B W/Cl. B Bedding Lin. Ft.	604 Std. No. 1 Manhole as per plan Each	605 6" Shallow Pipe Underdrain Lin. Ft.	667 Jute Matting Sq. Yd.	6" Bends & Branches for Underdrains Each
1-D	1030+00	1032+00	Lt&Rt		20			202		1
2-D	1030+00	1032+30	Rt.			232	1			
3-D	1035+50	1037+27	Lt.	71.5					134	
Totals				71.5	20	232	1	202	134	1



6408

Sta. 1030+00 to Sta. 1040+00

FED. ROAD DIVISION	STATE	FED. OR STATE		45
2	OHIO			231

HENRY COUNTY
HEN - G - 16.43

Begin Sheet

Sta 1040+00

37'-8" Header (By property owner) 27± A^{cu} Ft

19'-12" Header (By property owner) 61± A^{cu} Ft

(1-D)

L/A R/W

Constr. Limits

3'x6'

2:1

24'-12" Conduit Type F

1040+38 ℄ 12" 674.6 1' back of L/A R/W

1040+38 ℄ 12" 674.5 Abandon

Con't in Service

1041 1042

Inlet

No Work

Sec. 22 / Sec. 27 L/A R/W S.89°46'E.

R/W Existing U.S.G

15"

100'-Taper exist. shoulder to meet prop. 12' shoulder

1042+25

+50

0.5%

4.1%

4.1%

(20-G)

1043+025

1043

(10-G)

1043+00

(25)

50'R

1044+90

1980'

N.0°35'E.

℄ L/A R/W

Bar. 1½ Sto. Fr. House

Bar. 1 Sto Fr. House

(21-G)

1044+00

Stone Wall

2' Flare

1044

25'

25'

Stone Pr.

1045

℄ Survey

S.89°46'E.

1046

No Work

1047

Inlet

Shrub

1 Sto. Fr. House

Shrub

Store & Gas Station

G. Pump

1048

1049

Con't. in Service

930 931 932 933 934 935 936 937 938

Asphalt Pavt.

100' Taper prop. 12' shoulder to meet exist. shoulder

Constr. Limits

R/W

2:1

100'

For Culvert Details See Sheet No. 154

P.I. 1049+11.16
Frame Bldg.
6830 PK Nail
℄ U.S.G
81.96
30.19
(Proposed)
SE 109
Cap
55.61
420'
(Existing) Brass Rod.
℄ U.S.G
19.19
43.41
Cap
937+26.15
S.89°46'E. ℄

P.I. Sta 1049+11.16 Prop. U.S.G
Δ = 2° 20' Rt.

P.I. Sta. 937+26.15
Δ = 0°07' Lt.

For Culvert Details See Sheet No. 155

Sec. 22 / Sec. 23

60' R/W

N

Asphalt Pavt. N.0°35'E.

No. 100 ROUTE

Sta. 1050+00

42'

R/W

Sec. 26 S.87°06'E.

60'

15"

Con't. in Service

No. Work

Inlet

97' Rt. ℄ Survey U.S.G

Inlet No Work

Abandon

110' Rt. ℄ Survey U.S.G

(Conc. Slab)

48"

Inlet

6" Plugged

2:1

100'

10'

S.0°43'W.

60' R/W

Sec. 27 / Sec. 26

STATE

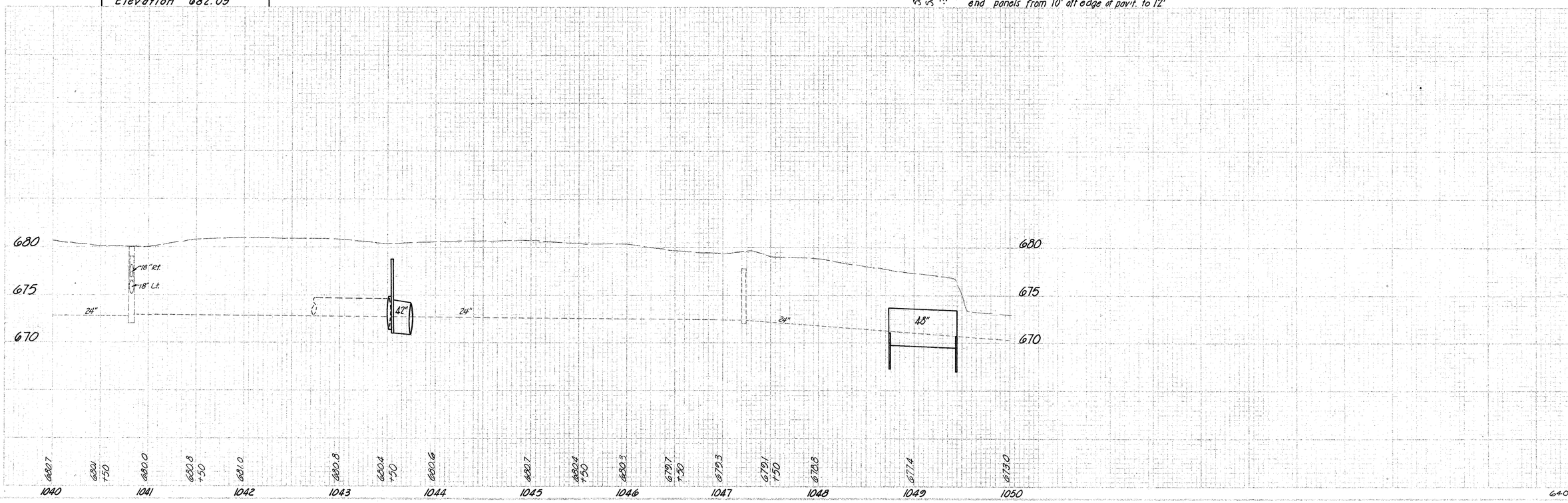
End Sheet

207.5' Rt. ℄ Survey U.S.G - flare the two end panels from 10' off edge of pavt. to 12'

Bench Mark No. 92 A
R.R. Spike North S. Power Pole
30 Ft Lt. Sta. 930 + 94.5
Elevation 682.05

(D) DRAINAGE

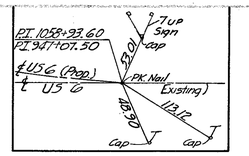
Ref No.	Station From	Station To or At	Side	601 Crushed Aggregate Slope Protection Sq. Yd.	603 12" Conduit Type F Lin. Ft.
1-D		1040+38	Lt.	2.0	24



Sta. 1040+00 to Sta. 1050+00

6408

HENRY COUNTY
HEN -6 -16.43



P.I. Sta. 1058+93.60 Prop. U.S. 6
P.I. Sta. 947+07.50 Exist. U.S. 6
Δ = 2°27' Lt.

N

Sta. 1050+00

Sta. 1060+00

END WORK
STA. 1052+60

Con't in Service

Inlet

Section 22

Section 26

60' R/W

10" C.M.P.

Inlet

Stone

4' F.T.

Con't in Service

Conc. Slab

24'

Constr. Limits

Constr. Limits

R/W

1052+60

R/W

℄ R/W Exist. U.S. 6

1051 1052 1053 1054 1055 ℄ Survey 1056 1057 1058 1059

1050 1049 1048 1047 1046 1045 1044 1043 1042 1041 1040 1039

S.87°26'E

S.89°53'E

S.89°53'E

177° 38' 00"

R/W

Begin Sheet

End Sheet

Bench Mark No. 94
60-d Spike South S Power Pole
35 Ft Lt, Sta. 1056+59
Elevation 677.86

680
675
670

36" 36" 30" 36"

1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060

Sta. 1050+00 to Sta. 1060+00

6408

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

47
231

HENRY COUNTY
HEN-6 - 16.43

Seeding	
End Width	Sq. Yd.
104	620
119	1422
137	1800
187	2033
179	2122
203	2361
222	247
222	

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
345	0		
		620	0
325	0		
		1061	7
248	4		
		835	33
203	14		
		789	130
223	56		
		963	328
297	121		
		573	254
322	153		
		149	71
0	0		

Sta. 848+50

Sta. 848+25

6'

Sta. 847+90

160 140 120 100 80 60 40 20 0 20 40 60 80 100 120

160 140 120 100 80 60 40 20 0 20 40 60 80 100

662.42
3%
6:1
3:1
18" Culvert on skewed crossing Sta. 853+50
661.36
670.57
853+50
670.9
6:1
Ramp "A" Infield Match Line
665.0
Match Line
662.86
3:1
661.51
6:1
665.0
671.01
853+00
670.8
670.72
661.82
666.0
671.87
852+00
670.9
For Ramp "A" Infield Excavation See Sht. No. 88
671.58
662.14
667.0
672.73
851+00
671.0
672.45
662.45
668.0
673.60
850+00
671.0
Ramp "A" Match Line
673.31
1.0%
667.0
Match Line
662.78
674.46
849+00
671.0
Ramp "A" Match Line
Sta. 848+00 Back
Sta. 848+00 Ahead
674.18
6:1
6:1
3%
W.B. Lanes Match Line
3:1
663.11
675.33
848+00
671.0

DESIGN — BY — DATE
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED

CROSS SECTIONS — BY — DATE
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.

CROSS SECTIONS — BY — DATE
SECTION PLOTTED — A.P.C. — 4-60
SECTION CHECKED — A.P.D. — 2-27
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED

EXISTING — BY — DATE
UTILITIES CHECKED
UTILITIES INKED

Eastbound US 6 Sta. 848+00 to Sta. 853+50

6408-4

HENRY COUNTY
HEN-6-10.43

Seeding	
End Width	Sq. Yd.
42	556
58	705
69	816
78	883
81	750
54	750
81	514
104	

W.B. Lanes Match Line
6:1
663.24
663.81
6:1
2:1
661.73
665.69
860+00
670.8
859+50
R 660.85
Ramp "B" Infield Match Line
663.37
664.22
3:1
661.2
665.97
859+00
670.9
Infield Match Line
6:1
664.57
4:1
664.24
666.69
858+00
670.7
661.9
For Ramp "B" Infield Excavation See Sht. No. 88
6:1
665.31
5:1
665.80
662.6
667.55
857+00
671.0
1"/Ft.
1"/Ft.
6:1
6:1
667.26
Type B Curb
666.07
6:1
6:1
666.67
Back Only
663.3
660.58
668.41
856+00
671.0
Slope Varies
855+00 Back & Ahead
855+00 Ahead
Ramp Match Line
668.13
0.7%
Ramp "B" Infield Match Line
Type B Curb
666.71
1%
3%
6:1
6:1
664.0
660.89
0.3%
669.28
855+00
671.1
Match Line
Ramp "B" Match Line
668.77
3:1
3%
6:1
667.1
661.20
670.14
854+00
671.0
853+50

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
677	0		
		2696	0
779	0		
		2843	19
756	10		
		2791	74
751	30		
		2622	250
665	105		
		2315	261
Sta. 855+00 Ahead		585	36
Sta. 855+00 Back		253	0
		981	0
277	0		
345	0	576	0
Sta. 853+50			

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.W.M.	11/65

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.W.M.	11/65
END AREA COMP.		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS	BY
SECTION PLOTTED	A.P.O. 6-66
SECTION CHECKED	
SECTION INKED	A.P.O. 6-21
DRAINAGE PLOTTED	
DRAINAGE CHECKED	
DRAINAGE INKED	
UTILITIES PLOTTED	

Eastbound US 6 Sta. 854+00 to Sta. 860+00

6408-A

FED. ROAD	STATE	COUNTY		49
2	OHIO			231

HENRY COUNTY
HEN-6-16.43

Seeding	
End Width	Sq. Yd.
144	
	1650
153	
	1922
193	
	2478
253	
	2983
284	
	2478
162	
	180
162	

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

10%
857+65 At 661.07
0.3%

Match Line

L/A

6:1 6:1 6:1 6:1 1% 3:1

665.17 665.34 661.27

667.17
857+00
671.0

L/A

665.41 665.58 661.58

855+84

667.41
856+00
671.1

668.23

L/A

666.55 665.66 661.88

667.65
855+00
670.9

668.92

667.24 665.90 662.17

667.89
854+00
670.8

0.24%

669.61

667.93 666.14 662.45

668.13
853+00
671.0

670.30 0.24%

6:1 6:1 6:1 6:1 Sta. 852+25 Back 1% 3:1

668.7 666.23 662.73

Sta. 852+25 Ahead & Back

E.B. Lanes Match Line

Sta. 852+50

Sta. 852+25

668.37
852+00
671.0

851+90

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
620	0		
		2374	0
662	0		
		2421	0
645	0		
		2374	0
637	0		
		2309	0
610	0		
		1157	
640	0		
		319	0
48	0		
		22	0
48	0		

DESIGN — BY — DATE
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED 1-22-M. 11/65

CROSS SECTIONS — BY — DATE
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED 1-22-M. 11/65
DRAINAGE INKED
END AREA COMP.

CROSS SECTIONS — EXISTING — BY — DATE
SECTION PLOTTED APC 2-67
SECTION CHECKED APC 2-67
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED

Westbound US 6 Sta. 852+00 to Sta. 857+00

0408-4

STA. NO.	STATE	PROJECT	
2	OHIO		

50
231

HENRY COUNTY
HEN-6-16.43

Seeding	
End Width	Sq. Yd.
104	1294
129	858+00 Ahd.
132	858+00 Bk.
144	857+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
588	81		
		2274	228
640	42		
683	0		
		2413	0
620	0		

Sta. 858+00 Ahead
Sta. 858+00 Back

Sta. 857+00

Ramp "C" Match Line

E.B. Lanes Match Line

Match Line

6:1 6:1 6:1 6:1

664.69 664.86

666.69
859+00
670.9

1"/Ft.

Slope Varies

L/A

0.24% 0.24%

6:1 6:1 6:1

664.93 665.10

666.93
858+00
670.9

1% Ahead

2:1 Back

858+00 @ 42" @ 658.07
0.0%
857+95 @ 658.07
10.0%

Westbound US 6 Sta. 858+00 to Sta. 859+00

DESIGN	—		
END AREA CHECKED			
CUT & FILL COMP.			
CUT & FILL CHECKED			
SEEDING COMP.			
SEEDING CHECKED			
QUANTITIES INKED	L.W.M.	4/26	

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.W.M.	4/26
END AREA COMP.		

EXISTING	—	
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS	BY	DATE
SECTION PLOTTED	ABC	2/27
SECTION CHECKED	A.P.D.	2/27
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

9408-4

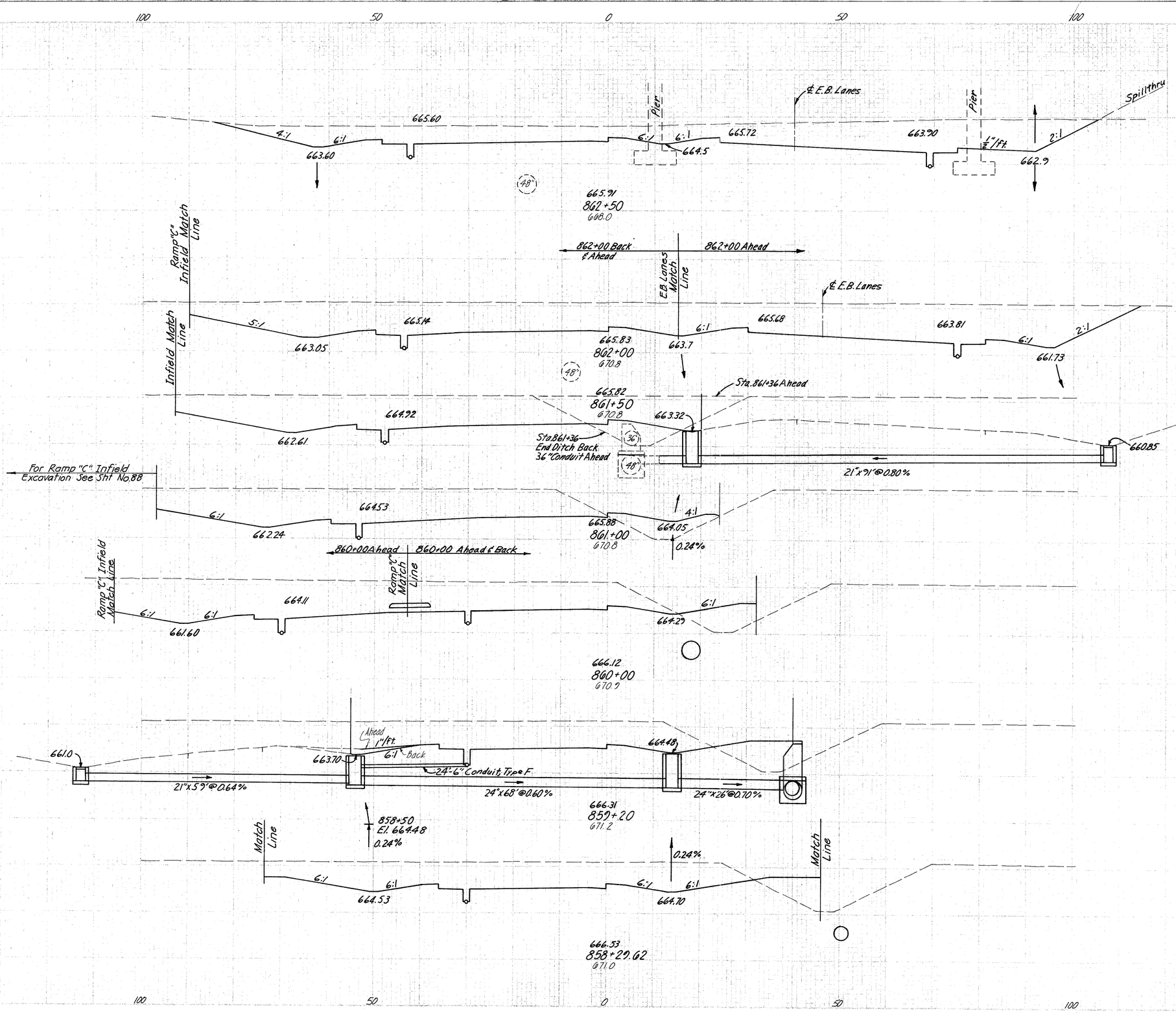
NO.	DATE	REVISION	
2			

51
231

HENRY COUNTY
HEN-0-16.43

Seeding	
End Width	Sq. Yd.
76	
	467
92	
	397
51	
	297
54	
	572
49	
	444
51	
	613
71	
	632 } for 65'
104	15

859+00 ℄ W.B.L.



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
793	0		
		1971	0
Sta. 862+00 Ahead	1335	0	
Sta. 862+00 Back	648	0	
		1273	0
Sta. 861+50 Ahead	727	0	
Sta. 861+50 Back	540	63	
		1058	120
	602	67	
		2619	248
Sta. 860+00 Ahead	812	67	
Sta. 860+00 Back	312	67	
		1087	216
Sta. 859+20 Ahead	422	79	
Sta. 859+20 Back	412	79	
		1600	231
	544	59	

CROSS SECTIONS — DESIGN	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L. ...W.W.G.	

CROSS SECTIONS — EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS — "E"	BY	DATE
SECTION PLOTTED	A.P.D.	
SECTION CHECKED	A.P.D.	2-27
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

US 6 ℄ Survey Sta. 858+29.62 to Sta. 862+50

6408-4

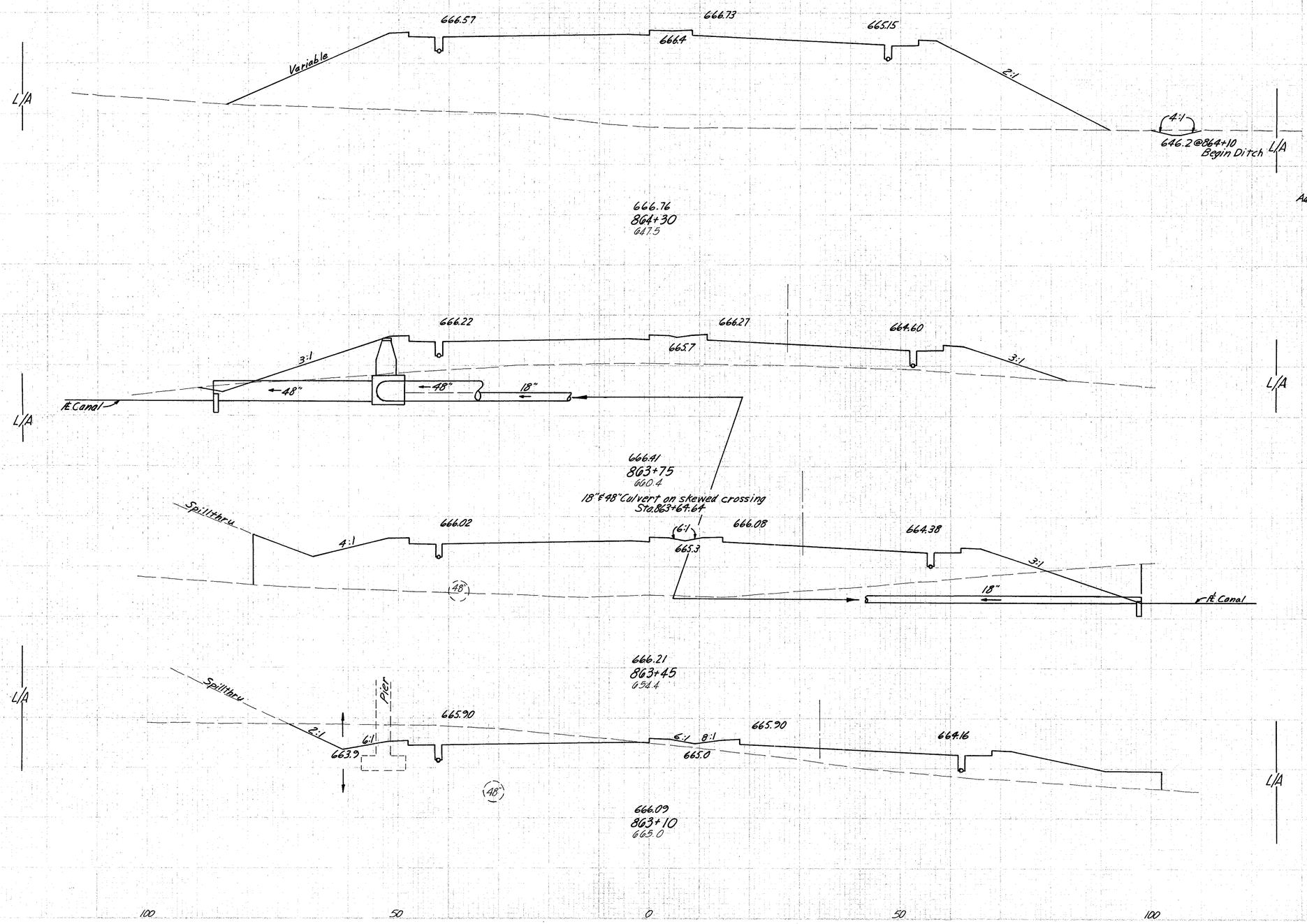
Sheet No.	State	Project
2	OHIO	

52
231

HENRY COUNTY
HEN-6-16.43

Seeding	
End Width	Sq.Yd.
133	
	703
97	
	267
63	
	224
52	
	428
76	

150 100 50 0 50 100 150



End Area		Cu.Yds.	
Cut	Fill	Cut	Fill
7	3011		
		3	0
0	3011		
		8	3813
8	732		
		46	1172
75	1378		
		171	1119
189	348		
		1091	386
Sta. 862+50	793	0	

864+30 Ahead
Add for Ditch 864+10 to 864+30
864+30 Back

DESIGN
CROSS SECTIONS
	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED		
END AREA COMP.	L.A.M.	11/66

EXISTING
CROSS SECTIONS
	BY	DATE
SECTION PLOTTED	ARC	4-20-66
SECTION CHECKED		
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

US 6 & Survey Sta. 863+10 to Sta. 864+30

6408-E

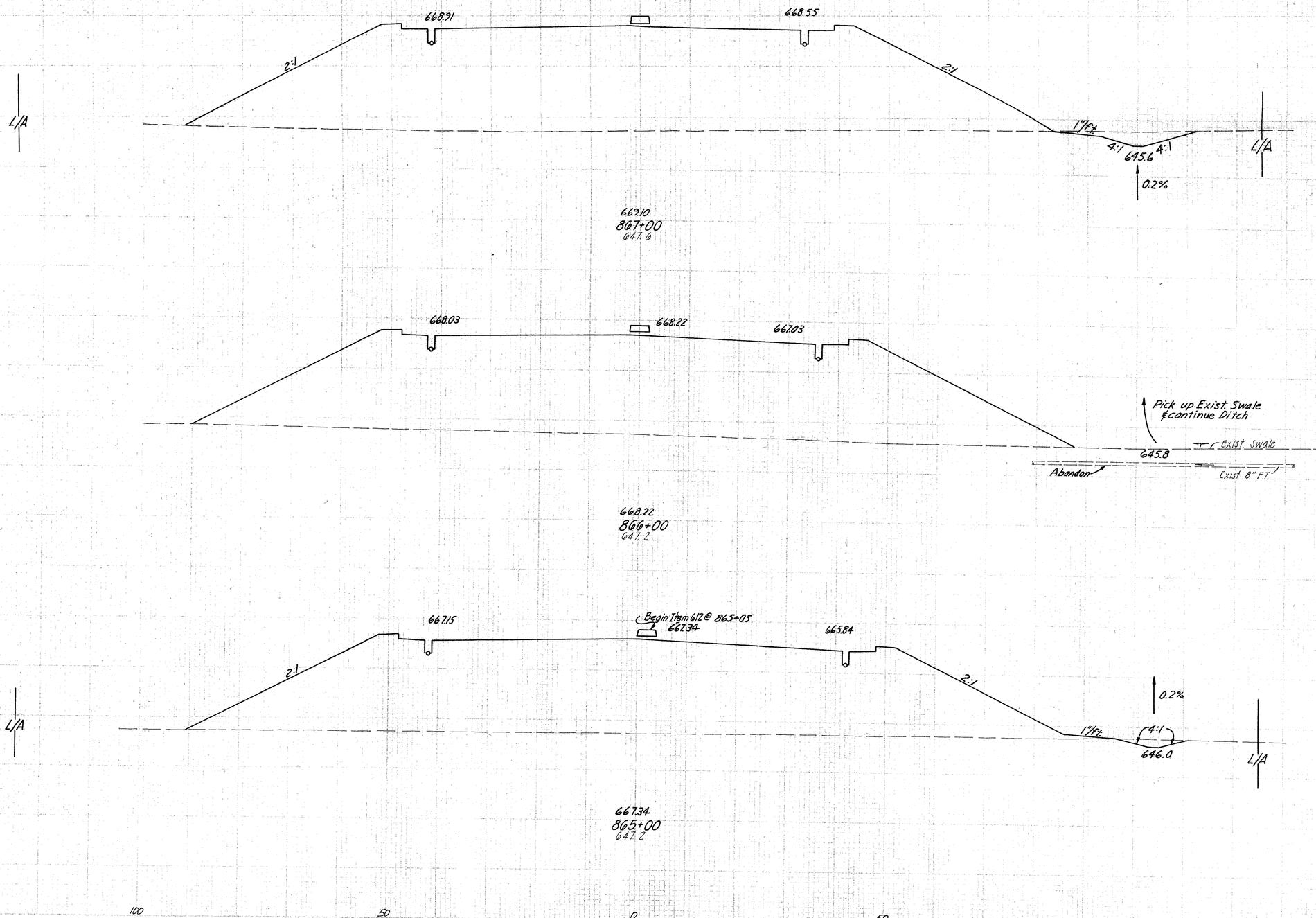
NO.	DATE	REVISED	
2	OHIO		

53
231

HENRY COUNTY
HEN-6 - 16.43

Seeding	
End Width	Sq. Yd.
165	
	1822
163	
	1772
156	
	1124
133	

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
17	2734		
		31	10036
0	2685		
		19	9809
10	2611		
		22	7288
7	3011		



DESIGN — BY — DATE
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED

CROSS SECTIONS — BY — DATE
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.

EXISTING — BY — DATE
UTILITIES CHECKED
UTILITIES INKED

CROSS SECTIONS — BY
SECTION PLOTTED — ADO
SECTION CHECKED — A.P.D. 2.27
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED

US 6 & S.R. 15 — Bk. 865, 866 — Sht. 267 — 6408-4

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL CHECKED		
CUT & FILL CHECKED		
SEEDING CHECKED		
QUANTITIES INKED	L.A.M.M.	11/86

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.A.M.M.	11/86
END AREA COMP.		

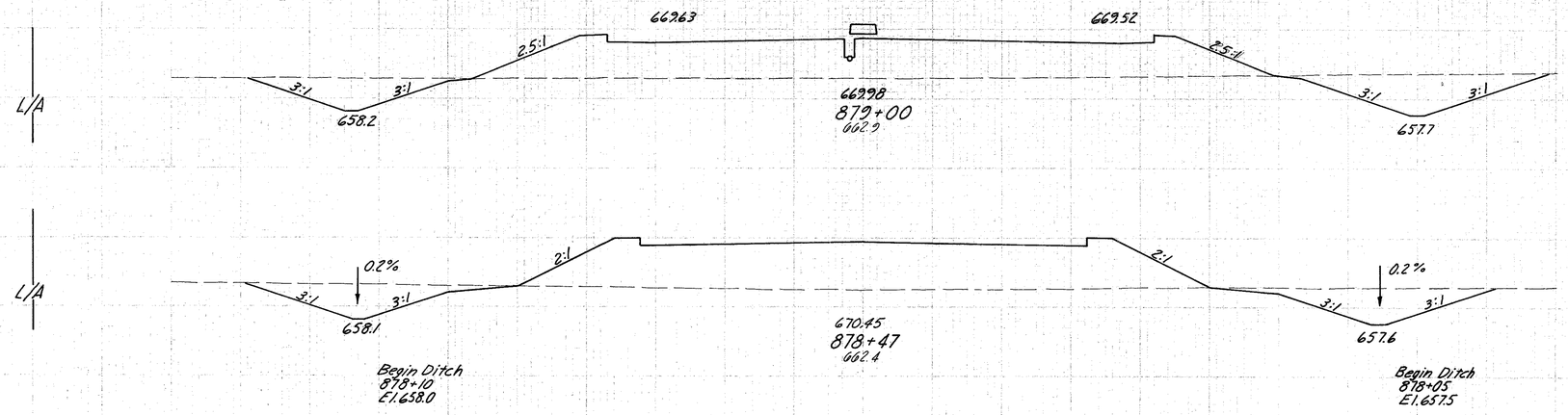
CROSS SECTIONS	BY	DATE
SECTION PLOTTED	A.P.D.	2-27
SECTION CHECKED	A.P.D.	2-27
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

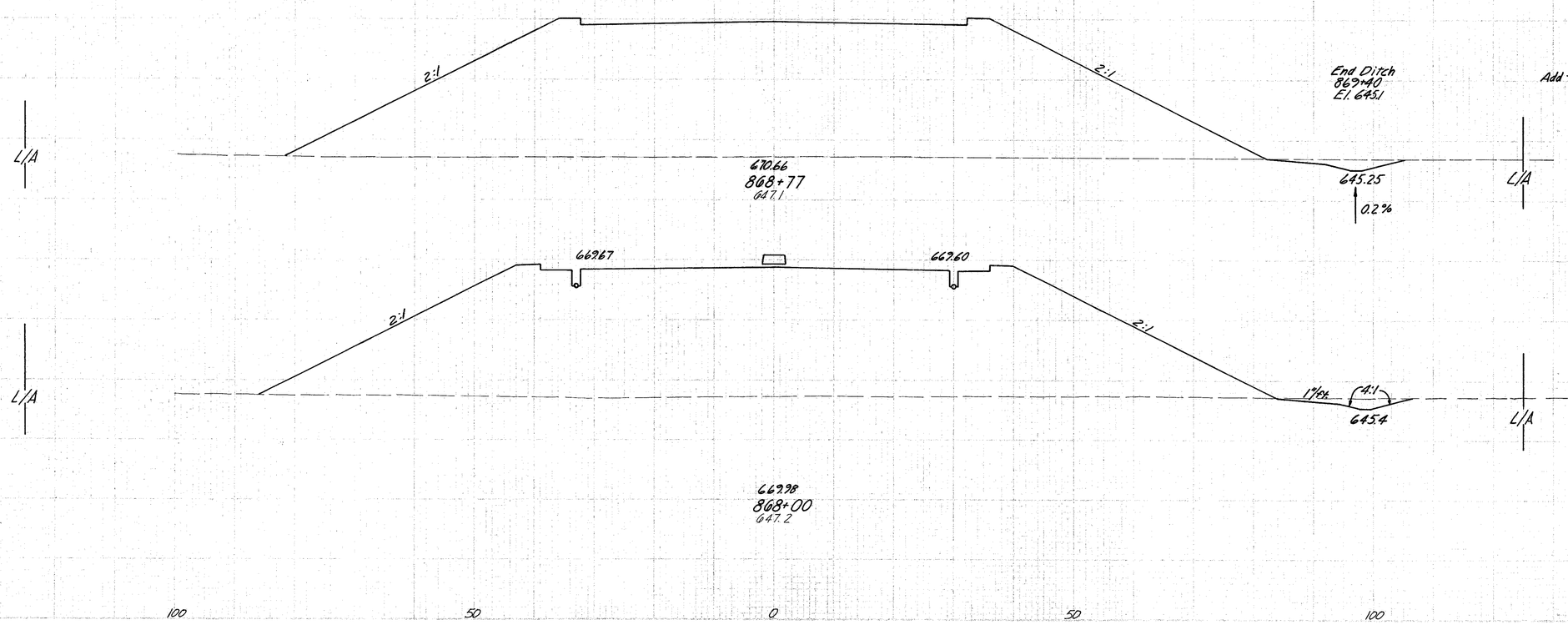
Seeding	
End Width	Sq. Yd.
160	
	986
175	
190	
	1579
179	
	1911
165	

867+00

150 100 50 0 50 100 150



STRUCTURE No.
HEN-6-16 79



Sta. 867+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
192	569		
		375	1132
190	584		
		150	
		199	373
		154	2798
10	2686	12	0
		29	7738
10	2740	50	10138
17	2734		

Add for ditches Lt. & Rt.

Add for South Spill Through

Add for North Spill Through

FED. AID PROJ.	STATE	PROJECT	
2	OHIO		

54
231

HENRY COUNTY
HEN-6-10.43

0408-4

US 6 & Survey Sta. 868+00 to Sta. 879+00

HENRY COUNTY
HEN- 6 - 16.43

886+00 Ahead | 886+00 Back & Ahead | Back & Ahead | Back Only | Ramp A Match Line

0.28 % | 4:1 | 4:1 | ½"/ft. | 4:1 | 8.1% | 1.0% | 6:1 | ½"/ft. | 6:1 | 6:1

666.43 | 664.57 | 661.4

110 Ahead
163 Back

659.0

Begin Ditch 886+00± | 885+50 | 666.23 | Infield Match Line | 1289

666.72
886+00
660.6
60" Culvert on skewed crossing Sta. 885+60

Sta. 885+00 No. 8 C.B.

666.48
885+00
661.0

665.02 | 6:1 | 661.4

End Ditch 885+20± Rt 661.0

Begin Ditch 885+60± Rt 661.0

Sta. 886+00 Ahead
Sta. 886+00 Back
Deduct for Ditch Rt. Sta. 885+20-885+60

Added Infield Earthwork Sta. 886+50± (Lt.)

69 | 542 | Spillthru | 666.25 | 663.5

5:1 | 5:1 | 662.75 | 1.8 % | 884+00 Rt 663.2

61 | 666.46
884+25
660.0

241 | Spillthru | 662.0 | 4:1 | 4:1 | 663.3

56 | 666.31
883+88
660.7

380 | 666.41 | 666.35 | Spillthru

L/A | 661.0 | 15"x74' @ 0.5 % | Sta. 883+64 No. B C.B. | 666.60 | 883+50 | 662.3 | 663.7 | SR 110 Match Line

124 | 597 | 666.62 | 666.41 | Spillthru

L/A | 659.0 | 0.2% | 666.79 | 883+00 | 661.4

91 | 1300 | 667.25 | 667.19 | 4:1 | From SR 110 Lt. Ditch

L/A | 658.8 | 667.38 | 882+00 | 659.7 | 658.3 | 4:1 | L/A

143 | 1600 | 668.13 | 668.03

4:1 | 658.6 | 658.1

145 | 668.22
881+00
659.9

End Item 612 @ 880+74

1639 | 668.98 | 668.84

150 | 1722 | 0.2% | 4:1 | 4:1 | 0.2%

3:1 | 658.4 | 669.10 | 880+00 | 662.0 | 657.9 | 4:1 | L/A

160 | 879+00 | Sta. 879+00

150 | 100 | 50 | 0 | 50 | 100 | 150

279	14						
268	24						
		-53					
		563	1006				
		220	83				
36	519						
		279	737				
165	12						
		258	22				
211	20						
		234	162				
121	210						
		127	659				
16	502						
		70	2545				
22	872						
		100	3378				
32	952						
		283	3087				
121	715						
192	569	580	2378				

CROSS SECTIONS — DESIGN

BY	DATE		
		END AREA CHECKED	
		CUT & FILL COMP.	
		CUT & FILL CHECKED	
		SEEDING COMP.	
		SEEDING CHECKED	
L.W.M.	7/16	QUANTITIES INKED	L.W.M. 7/16

CROSS SECTIONS — EXISTING

BY	DATE		
		UTILITIES CHECKED	
L.W.M.	5/16	UTILITIES INKED	L.W.M. 5/16

CROSS SECTIONS

		SECTION PLOTTED	
A.P.O.	5/16	SECTION CHECKED	A.P.O. 5/16
		SECTION INKED	
		DRAINAGE PLOTTED	
		DRAINAGE CHECKED	
		DRAINAGE INKED	
		UTILITIES PLOTTED	

STA. 880+00 TO STA. 886+00

Seeding	
End Width	Sq. Yd.
60	822
88	1072
105	1328
134	1444
126	1406
127	1278
103	1183
110	

150 100 50 0 50 100

For Ramp "C" Infield Excavation See Sht. No. 108

6:1 662.84 6:1 668.68 **893+00** 670.1 6:1 Match Line Ramp "B"

Ramp "C" Infield Match Line 0.28% 6:1 662.56 6:1 668.40 **892+00** 670.1 Match Line Ramp "B" 6:1

To Culvert 886+00 Ramp "D"

Match Line Ramp "D" 1½"/Ft. 6:1 668.12 **891+00** 670.4

Ramp "B" Infield Match Line

891+25 From Culvert 891+25 Ramp "B" 6:1

891+00 661.34 0.28%

Added Ditch Excavation Sta. 891+00 to End (Rt.)

Sta. 891+00 Ahead
Sta. 891+00 Back

Back Only Back and Ahead

Ramp "D" Infield Match Line From Ramp "D" Rt. Ditch 666.53

6:1 661.56 6:1 667.84 **890+00** 670.5 661.06

0.28%

For Ramp "B" Infield Excavation See Sht. No. 108

Sta. 890+00 Ahead
Sta. 890+00 Back

666.30

661.28 12"x50' @2.0% 667.56 **889+00** 670.6 660.78

Sta. 888+10 Ramp "D"

Sta. 889+10 Std. No. 6C.B.

For Ramp "D" Infield Excavation See Sht. No. 108

666.91

6:1 661.00 667.28 **888+00** 668.7 6:1 660.5 6:1

0.28%

Ramp "B" Infield Match Line

Sta. 888+00 Ahead
Sta. 888+00 Back

Add for ditch Sta. 887+50-888+00

0.28% 887+50 Æ 660.86

Ramp "D" Infield Match Line

Begin Ditch 887+50 Æ 660.36

Match Line Ramp "A"

666.67

4:1 662.36 6:1 667.00 **887+00** 666.7 1½"/Ft.

24" Culvert crossing Sta. 887+00

886+00

Sta. 886+00 Ahead

150 100 50 0 50 100 150

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
561	0		
		2298	0
680	0		
		2676	0
		31	
765			
815	0		
		3874	0
1277	0		
1782	0		
		5823	0
1362	0		
		4010	0
803	0		
738	0		
		140	0
		2158	0
427	0		
		1307	26
279	14		

DESIGN — BY | DATE | END AREA CHECKED | CUT & FILL COMP. | CUT & FILL CHECKED | SEEDING COMP. | SEEDING CHECKED | QUANTITIES INKED | L. and M. 11/65

CROSS SECTIONS — BY | DATE | PAVEMENT PLOTTED | PAVEMENT CHECKED | PAVEMENT INKED | DRAINAGE PLOTTED | DRAINAGE CHECKED | DRAINAGE INKED | END AREA COMP.

EXISTING — BY | DATE | UTILITIES CHECKED | UTILITIES INKED

CROSS SECTIONS — BY | SECTION PLOTTED | SECTION CHECKED | SECTION INKED | DRAINAGE PLOTTED | DRAINAGE CHECKED | DRAINAGE INKED | UTILITIES PLOTTED

PROJECT	PHASE	PROJECT	
3	CHIO		

56
231

HENRY COUNTY
HEN-6-16.43

6408

STA. 887+00 TO STA. 893+00

HENRY COUNTY
HEN - 6 - 16.43

Seeding End Width	Seeding S.Y.
121	1339
120	
	1311
116	
	1300
118	
71	
	839
80	
	1089
116	
	1661
183	
114	
60	967

150 100 50 0 50 100

670.41 — 6:1 — 6:1 — 666.8 — 0.6% — 670.64 — 900+00 — 670.0 — 670.43 — 5:1 — 5:1 — 664.7 — L/A

669.54 — 666.2 — 670.36 — 899+00 — 668.9 — 670.11 — 664.7 — 0.2% — 5:1 — 5:1 — 665.0 @ 898+50 Begin Ditch — L/A

668.62 — 665.6 — 670.08 — 898+00 — 668.3 — 669.79 — 6:1 — 667.1 End Ditch — 0.5% — L/A

Ahead Only — Back & Ahead — Ramp "C" Match Line

667.95 — 6:1 — 6:1 — 665.0 — Ahead Back — 663.80 — 897+00 — 668.5 — 669.47 — 666.6 — L/A

Match Line Ramp "C"

669.16 — 666.1 — 669.52 — 896+00 — 668.8 — L/A

From Culvert 895+25 Ramp "C"

895+25 — 6:1 — 6:1 — 663.40 — 0.28% — 895+00 — 15"x 70' @ 0.5% — Sta. 895+00 No. 8 C.B. — 669.24 — 895+00 — 669.2 — 668.70 — 0.5% — 665.6 — 1.0% — L/A

Back & Ahead — Ahead Only — Ramp "B" Match Line

Ramp "C" Infield Match Line

667.80 — 6:1 — 6:1 — 663.12 — Ahead Back — 668.96 — 894+00 — 670.0 — 6:1 — 6:1 — 664.6

893+00

150 100 50 0 50 100 150

Added Excavation Ditch Sta. 895+00 to End

Add for Ditch Rt. 898+50 to 899+00

Sta. 897+00 Ahead / Sta. 897+00 Back

Sta. 895+00 Ahead / Sta. 895+00 Back

Sta. 894+00 Ahead / Sta. 894+00 Back

Sta. 893+00

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
295	1		
		883	33
182	17		
		178	
		354	139
91	58		
		471	165
163	31		
63	20		
		354	46
128	5		
		918	7
		30	
367	0		
399	0		
		2011	0
687	0		
442	0		
		1858	0
561	0		

	BY	DATE
SECTION PLOTTED	JWC	2-23-16
SECTION CHECKED	DEB	2-24-16
SECTION INKED	JWC	2-25-16
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	2-25-16	

STA. 894+00 TO STA. 900+00

SHEET NO.	STATE	PROJECT	
C	OHIO		

58
231

HENRY COUNTY
HEN - G - 16.43

Seeding End Width	S.Y.
164	875
151	808
140	756
132	728
130	717
128	1406
125	1367
121	900+00

150 100 50 0 50 100 150

671.48 671.10 6:1 6:1 671.10 670.37
2:1 3:1 658.6 2:1 3:1 659.4 L/A L/A
904+50 660.5
671.41 671.17 671.17 670.70
3:1 3:1 659.8 6" F.T. 660.6
904+00 661.2
671.32 Begin Pipe Underdrain 671.21 671.21 670.90
4:1 2.4% 4:1 4:1 3:1 661.0 Begin Ditch 661.8 L/A
903+50 664.6
671.03 671.22 671.22 671.04
5:1 4:1 4:1 20'-6" 663.0 L/A
903+00 668.5
671.00 671.19 671.14
6:1 2.4% 5:1 4.5:1 668.1 End Ditch 664.2
902+50 669.6
0.2%
Exist Swale
670.94 671.00
668.0 0.6% 5:1 6'FT 664.3
671.13 902+00 669.7
670.73 6:1 6:1 670.75
6:1 667.4 6:1 0.2% 5:1 5:1 664.5 L/A L/A
670.92 901+00 669.8
Sta. 900+00

Deduct for ditch Left.

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
44	1248		
		150	2128
117	1050		
		227	1752
128	843		
		185	1143
		-4	
72	391		
		151	458
91	104		
		200	150
125	58		
		677	130
241	12		
295	1	993	24

DESIGN — CROSS SECTIONS — BY (DATE)
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED
L.e.d.w. 11/66

EXISTING — CROSS SECTIONS — BY (DATE)
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED
TSK 11/66 RWC 12/66 MWE 1/67

STA. 901+00 TO STA. 904+50

6408

HENRY COUNTY
HEN - 6 - 10.43

150 100 50 0 50 100

Seeding
End Width | S.Y.

190 170 ℄ Reloc. Twp. Rd. 9-B 150
2:1 3:1
669.5 671.64
Match Line
190 3:1 669.5 2:1 L/A 170 150
℄ Exist. Twp. Rd. 98
Match Line
175
1638
172
880
180
1392
178
2022
186
1972
169
925
164
904+50
0

671.77 670.57 670.58 669.38
6:1 6:1 8:1 8:1 6:1 6:1
668.6 669.15
665.28 0.36% Begin Ditch Ft 665.06
309+00 611.6
668.7@+00
671.73 670.53 670.53 669.33
2.0% Begin Ditch Ft 666.6
6:1 6:1 6:1 6:1 6:1
15"x85'@1.2%
Sta 908+40 No.2-2'-A.C.B.
Sta 908+00 No.2-2'-A.C.B.
18"x96'@0.8%
Sta 908+00 No. 8 C.B.
908+15 668.0

671.72 670.52 670.52 669.32
2:1 2:1
907+70 640.9
Sta 907+23 HW-E Endwall
653.6@+50 End Ditch
671.79 670.59 670.58 669.38
669.0
15'-4"x9'-3" Culvert on skewed crossing Sta. 907+41
654.0 End Ditch
654.1
907+00 655.8
Add for filling exist. channel

671.86 670.76 670.76 669.56
1.0% 669.3
655.0
2.4%
1.0%
906+50 Ft 654.6
2.4%
655.8
906+00 656.9

671.60 671.00 671.00 670.02
3:1 2:1 6:1 6:1 2:1 3:1
669.7
657.4 658.2
L/A L/A
905+00 659.3

100 50

	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 909+00 Ahead	524	0		
Sta. 909+00 Back	456	0		
			794	324
Add for ditch Rt. Sta. 908+40-909+00			0	
Add for ditch Lt. Sta. 908+00-908+15			27	
Sta. 908+15 Ahead	49	206		
Sta. 908+15 Back	0	206		
			23	2169
	28	2397		
			62	5424
				312
Sta. 907+00 Ahead	20	1787		
Sta. 907+00 Back	30	1787		
			89	6302
	18	1616		
			57	5495

DESIGN
CROSS SECTIONS
SECTION CHECKED
SECTIONS INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.
BY DATE

Seeding	
End Width	S.Y.
168	
2207	Add for Reloc. Twp. 9-B
9389	
1917	
175	

150 100 50 0 50 100

L/A 673.92 671.92 671.96 670.76 669.8 670.5 667.44 L/A

6:1 6:1 6:1 6:1 6:1 0.2%

915+00 671.5

℄ Reloc. Twp. Rd. 9-B

673.68 671.68 671.72 670.46 669.6 670.0 667.08

Match Line 671.75

190 170 150

914+00 670.5

673.18 671.44 671.48 670.28 669.4 669.5 666.72

671.75

913+00 671.1

10" 8"

672.47 671.21 669.0 671.24 670.04 669.2 15"x68' @0.4% 666.36

671.75

912+00 669.9

672.18 670.98 671.00 669.80 669.0 669.3 666.0

8:1 8:1

671.75

911+00 670.9

℄ Reloc. Twp. Rd. 9-B

0.2% 671.94 670.74 670.76 669.56 0.36% L/A

3:1 2:1 669.8 6:1 6:1 668.8 10:1 12:1 669.6 6:1 6:1 665.64

Match Line

671.75

2:1 669.8 3:1

190 170 150

910+00 670.8

909+00

150 100 50 0 50 100 Sta. 909+00 Ahead

STA. 910+00 TO STA. 915+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
149	49		
		620	222
186	71		
		722	241
204	59		
		470	248
50	75		
		591	181
269	23		
		1737	43
669	0		
		2209	0
524	0		

G408

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.A.M.	11/22

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.A.M.	11/22
END AREA COMP.		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS	BY	DATE
SECTION PLOTTED	JMC	12-20
SECTION CHECKED	DSG	12-21
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

FED. NO.	STATE	PROJECT
2	OHIO	

60
231

HENRY COUNTY
HEN - 6 - 16.43

HENRY COUNTY
HEN-6-16.43

Seeding End Width	S.Y.
	518
	202
	2189
	192
	2018
	182
	1967
	172
	1920
	173
	1920
	172
	1889
	168

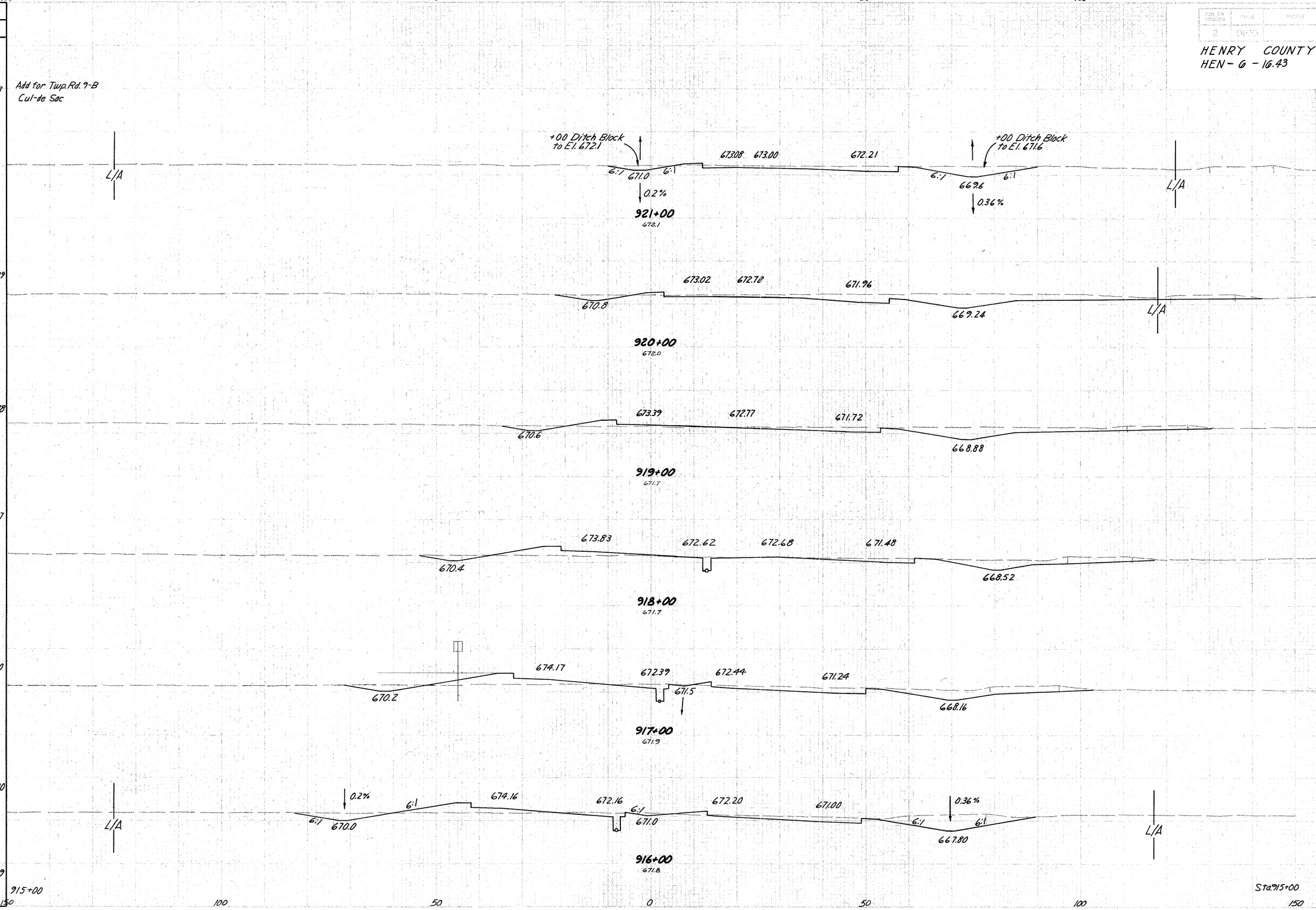
Add for Twp. Rd. 9-B
Cul-de Sac

	PAVEMENT PLOTTED		
	PAVEMENT CHECKED		
	PAVEMENT INKED		
	DRAINAGE PLOTTED		
	DRAINAGE CHECKED		
	DRAINAGE INKED	1.22.96	JWE
	END AREA COMP.		

	END AREA CHECKED		
	CUT & FILL COMP.		
	CUT & FILL CHECKED		
	SEEDING COMP.		
	SEEDING CHECKED		
	QUANTITIES INKED	1.23.96	JWE

	SECTION PLOTTED	JWE	1/22
	SECTION CHECKED	DAG	1/22
	SECTION INKED	DAG	1/22
	DRAINAGE PLOTTED		
	DRAINAGE CHECKED		
	DRAINAGE INKED		
	UTILITIES PLOTTED		

	QUANTITIES CHECKED		
	UTILITIES INKED		



End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
80	3		
		441	13
158	4		
		524	35
125	15		
		406	98
94	38		
		417	165
131	51		
		502	183
140	48		
149	49	535	180

G408

STA. 916+00 TO STA. 921+00

FED. RD. DIVISION | STATE | PROJECT

62
231

HENRY COUNTY
HEN- 6 - 16.43

Seeding End Width	S.Y.
	2333
228	
	2539
229	
	2528
226	
	2567
236	
	2550
223	
	2395
208	
202	2278

Add for Seeding After Exist Ditch is Filled

L/A

0.2%

Slope Varies from 3:1 @ 926+44 to 6:1 @ 927+28

667.6

673.64

927+00

671.8

Filled

926+44 Ahead

3:1 3:1

667.49

673.86

926+00

671.4

End Ditch 926+09 @ 667.95

0.6%

Culverts on skewed Crossings under Eastbound Lane & Twp. Rd. 9-B. & Survey Sta. 926+20

2:1 2:1

2.5:1 2.5:1

926+20 Ahead

667.64

End Ditch 925+82 @ 667.67

0.4%

673.99 673.94

6:1 6:1

668.6 668.0

925+00

668.0±

673.99 673.67

669.2 668.4

924+00

670.2

673.76 673.25

667.8 668.8

923+00

671.2

0.6% 0.4%

673.30 672.55

6:1 6:1 6:1 6:1

670.4 667.2

922+00

671.7

921+00

Sta. 921+00

Deduct for Roadway Ditches

Add for filling exist. ditch Lt. of Twp. Rd. 9-B

Add for filling exist. ditch Rt. of Twp. Rd. 9B

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
215	50		
		593	226
105	72		
		-201	
			1424
			560
		306	748
60	332		
		152	969
22	191		
		170	480
70	68		
		246	163
63	20		
80	3	265	43

6408

DATE	BY	
		END AREA CHECKED
		CUT & FILL COMP.
		CUT & FILL CHECKED
		SEEDING COMP.
		SEEDING CHECKED
1/26	LWM	QUANTITIES INKED

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		

	BY	DATE
SECTION PLOTTED	LME	1/22
SECTION CHECKED	DAG	7/22
SECTION INKED	DAG	7/21
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

STA. 922+00 TO STA. 927+00

Seeding	
End Width	S.Y.
218	
	17345
228	

150 100 50 0 50 100

L/A

0.20%

6:1 669.0 6:1

673.88
934+00
671.8

668.8 669.00

673.64
933+00
671.6

668.6 668.80

673.40
932+00
671.3

668.4 668.60

673.22
931+00
670.7

668.2 668.40

673.16
930+00
671.5

668.0 668.20

673.22
929+00
671.6

6:1 667.8 6:1

673.40
928+00
671.7

669.20

927+00

Sta. 927+00

150 100 50 0 50 100

STA. 928+00 TO STA. 934+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
99	62		
		354	222
92	58		
		344	248
94	76		
		300	309
68	91		
		363	252
128	45		
		524	167
155	45		
		654	137
198	29	765	146
215	50		

G408

SECTION PLOTTED	JMF	UTILITIES CHECKED	
SECTION CHECKED	7/20	UTILITIES INKED	
SECTION INKED	7/21		
DRAINAGE PLOTTED			
DRAINAGE CHECKED			
DRAINAGE INKED			
UTILITIES PLOTTED			

PAVEMENT PLOTTED		END AREA CHECKED	
PAVEMENT CHECKED		CUT & FILL COMP.	
PAVEMENT INKED		CUT & FILL CHECKED	
DRAINAGE PLOTTED		SEEDING COMP.	
DRAINAGE CHECKED		SEEDING CHECKED	
DRAINAGE INKED		QUANTITIES INKED	
END AREA COMP.			

DESIGN	DRAW	PROJECT	
CHKD			

63
231

HENRY COUNTY
HEN - 6 - 16.43

HENRY COUNTY
HEN- 6 - 16.43

150 100 50 0 50 100

Seeding	
End Width	S.Y.
	987 Add for Intersection
	228 Bk.
	14867
	218 934+00

66'-30"x19" Conduit
Type A, Class HE II
Sec. 706.04-8 Lt.
940+82-670.36
940+16-670.23

675.44
940+48.8 ℄ TWP. RD. "P-3"
673.83

66'-30"x19" Conduit
Type A, Class HE II
Sec. 706.04-93' Rt.
940+82-670.56
940+16-670.43

Sta. 940+48.8

Add For Twp. Rd. "P-3"

0.20%
6:1 670.2 6:1
0.20%
6:1 670.4 6:1

L/A

675.32
940+00
672.8

L/A

670.0 670.2

675.08
939+00
673.1

667.8 670.00

674.84
938+00
673.5

667.6 667.80

674.60
937+00
673.1

667.4 667.60

674.36
936+00
672.3

0.20%
6:1 667.2 6:1
0.20%
6:1 667.40 6:1

L/A

674.12
935+00
671.9

L/A

Sta. 935+00
Sta. 934+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
0	57		
		34	140
		81	134
89	91		
		389	269
121	54		
		509	156
154	30		
		541	113
138	31		
		428	194
93	74		
		324	293
82	84	335	270
99	62		

0 50 100 150

STA. 935+00 TO STA. 940+48.8

6408

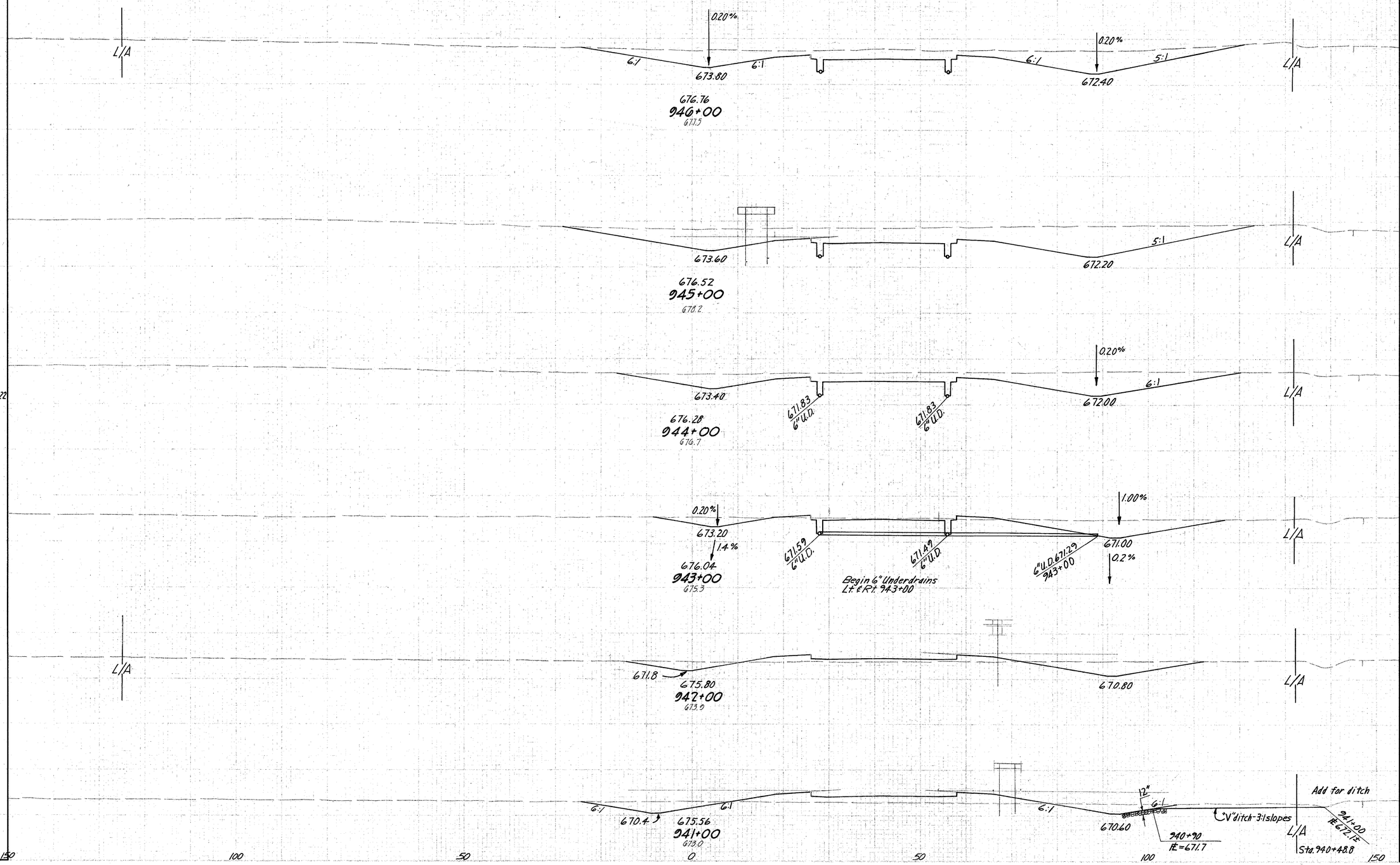
DESIGN — BY — DATE
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED

CROSS SECTIONS
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.

CROSS SECTIONS — EXISTING
SECTION PLOTTED — TEB 7/12
SECTION CHECKED — DGG 7/20
SECTION INKED — DGG 7/21
UTILITIES CHECKED
UTILITIES INKED
UTILITIES PLOTTED

Seeding	
End Width	S.Y.
	228
	1272
	230

150 100 50 0 50 100 150



End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
322	0		
		1561	0
521	0		
		1541	0
311	0		
		822	11
133	6		
		424	107
96	53		
		317	296
		3	0
75	107	71	155
0	57		

	BY	DATE
SECTION PLOTTED	JME	7
SECTION CHECKED	DGB	7/25
SECTION INKED	DGB	7/27
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		

	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	LWW	11/15

HENRY COUNTY
HEN - 6 - 16.43

6408

STA. 941+00 TO STA. 946+00

HENRY COUNTY
HEN - 6 - 16.43

Seeding	
End Width	S.Y.
225	
	17617
228	

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
116	10		
		515	26
162	4		
		704	7
218	0		
		1150	0
403	0		
		1865	0
604	0		
		1715	0
322	0		
		1080	0
261	0		
322	0	1080	0
		6408	

946+00 — Sta. 946+00

0.20% — 675.20 — 6:1 — 6:1 — 678.44 — 953+00 — 677.3

L/A

6:1 — 673.80 — 6:1 — 8" F.T.-Crosses ditch @ 953±42

673.00 — 618.20 — 952+00 — 677.6

673.60

674.80 — 677.96 — 951+00 — 677.7

6:1 — 673.40

674.60 — 677.72 — 950+00 — 678.8

4:1 — 673.20

674.40 — 677.48 — 949+00 — 680.2

4:1 — 673.00

674.20 — 677.24 — 948+00 — 678.7

6:1 — 672.80

0.20% — 674.00 — 6:1 — 6:1 — 677.00 — 947+00 — 677.1

0.20% — 6:1 — 672.60 — 8" F.T. — 8" — 947+10

8" F.T. outlets into roadway ditch @ 946±74

34'-8" Conduit, Type F

Sta. 946+00

150 100 50 0 50 100 150

STA. 947+00 TO STA. 953+00

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	LMS	1/4/62

CROSS SECTIONS	BY	DATE
SECTION PLOTTED	LMS	1/4/62
SECTION CHECKED	KJK	1/20/62
SECTION INKED	DAG	1/21/62
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

HENRY COUNTY
HEN - 6 - 16.43

Seeding	
End Width	S.Y.
222	

HENRY COUNTY
HEN - 6 - 16.43

Seeding	
End Width	S.Y.
	3283
	2 24
	14866
	222

Add for Intersection

Bk.

681.80

966+99.7 ℄ Co. Rd. "P"
680.85

Add For Co. Rd. "P"
Add For Roadway Ditches

0.30%
678.10
6:1
6:1
681.56
966+00
679.4
6:1
0.30%
678.10
6:1
L/A
L/A

677.80
681.32
965+00
679.2
677.80

0.30%
677.50
681.08
964+00
678.9
0.30%
677.50

0.20%
677.20
680.84
963+00
678.3
0.30%
677.20
L/A

677.00
680.60
962+00
678.1
677.00

0.20%
676.80
6:1
6:1
680.36
961+00
678.2
6:1
0.20%
676.80
6:1
L/A
L/A

960+00
Sta 960+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
10	23		
		47	65
		53	
		54	194
19	82		
		106	272
38	65		
		106	281
19	87		
		70	311
19	81		
		76	298
22	80		
		100	278
32	70		
47	47	146	217

6408

STA. 961+00 TO STA. 966+99.7

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED		

	BY	DATE
SECTION PLOTTED	JWE	7/8
SECTION CHECKED	DEB	7/10
SECTION INKED	JWE	7/12
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

Seeding	
End Width	S.Y.
225	

HENRY COUNTY
HEN-6-16.43

Seeding	
End Width	S.Y.
259	
	1447Z
262	
2706	
225	

150 100 50 0 50 100

2:1 673.2 2:1 L/A

673.0

672.8

672.6

672.4

2:1 672.2 2:1 L/A

0.30% 6:1 6:1 677.10 682.06 979+00 678.4 677.10 6:1 0.30%

676.80 682.28 978+00 678.3 676.80 L/A

676.50 682.52 977+00 678.5 676.50

676.20 682.76 976+00 678.4 676.20 L/A

675.90 682.98 975+00 678.8 675.90 6:1 0.30% 6:1

0.30% 675.60 683.11 974+00 678.2 6:1 Begin Ditch 974+05 El.675.6

Begin Ditch 973+67 El.675.5

96" Culvert on skewed crossing Sta.973+60.5

End Ditch 973+49 El.677.3

End Ditch 973+71 El.676.9

L/A

973+00 Sta.973+00

150 100 50 0 50 100 150

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
91	185		
		376	735
112	212		
		454	817
133	229		
		548	861
163	236		
		531	1041
12.4	326		
		420	928
103	175		
		233	739
23	224		

6408

STA. 974+00 TO STA. 979+00

DESIGN

	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.A.M.	12/64

CROSS SECTIONS

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.A.M.	1/65
END AREA COMP.		

EXISTING

CROSS SECTIONS

TE		BY	DATE
SECTION PLOTTED	4	JAE	12/64
SECTION CHECKED		WAG	12/64
SECTION INKED		DAS	1/65
DRAINAGE PLOTTED			
DRAINAGE CHECKED			
DRAINAGE INKED			
UTILITIES PLOTTED			
UTILITIES CHECKED			
UTILITIES INKED			

HENRY COUNTY
HEN - 6 - 16.43

Seeding	
End Width	S.Y.
271	
	20612
259	

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
385	96		
		1037	357
175	97		
		672	311
188	71		
		680	317
179	100		
		602	520
188	119		
		425	
137	162		
		443	606
102	165	357	648
91	185		

L/A

674.60 — 18" 2:1 — 2:1 — 170 160 150 140

683.44
980+00
683.9

6:1 — 0.30% — 680.95 — 6:1 — 6:1 — 0.30% — 680.95 — 6:1

674.40 — 170 160 150 140

683.12
985+00
682.0

680.65 — 680.65

674.20 — 170 160 150 140

682.80
984+00
681.2

0.30% — 680.35 — 0.30% — 680.35

674.0 — 170 160 150 140

682.48
983+00
680.3

1.17% — 679.18 — 1.17% — 679.18

673.8

678.00
682.18
982+00
680.0

1.18% — 1.18%

673.6

677.70
682.00
981+00
679.1

0.30% — 0.30%

Add To Fill Exist. Ditch Sta. 980+35
113' to 14 Lt. & 95' to 132' Rt.

Sta. 979+00

2:1 — 673.4 — 2:1 — L/A

6:1 — 0.30% — 677.40 — 681.96 — **980+00** — 6780 — 6:1 — 6:1 — 0.30% — 677.40 — 6:1

Sta. 980+00
Sta. 979+00

STA. 980+00 TO STA. 986+00

6408

DESIGN — CROSS SECTIONS

	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	LAK	11/66

EXISTING — CROSS SECTIONS

	BY	DATE
SECTION PLOTTED	CME	7/66
SECTION CHECKED	CBC	12/66
SECTION INKED	DGG	1/67
UTILITIES CHECKED		
UTILITIES INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

HENRY COUNTY
HEN - 6 - 16.43

Seeding		
End Width	S.Y.	
L/A		
275		
	9434	
	3011	
271	150	986+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
185	13		
		874	24
287	0		
		589	0
349	0		
		775	0
488	0		
		925	0
511	0		
		974	0
541	0		
		967	0
Sta. 986+50	503	0	
Sta. 986+00	385	96	822 89

G408

STA. 986+50 TO STA. 990+00

DESIGN
CROSS SECTIONS
EXISTING
CROSS SECTIONS

HENRY COUNTY
HEN - 6 - 16.43

Seeding	
End Width	S.Y.
229	2539
228	2789
274	
275	15250

150 100 50 0 50 100

0.24%
6:1 6:1
679.67
1.87%
683.50
997+00
681.8

0.20%
6:1 6:1
679.80
1.87%

L/A

677.73 677.93
683.37
996+00
681.1

Add For Ditch Sta. 995+00 to 995+50 Lt.

1.87% 1.87%
2:1 2:1
27"@ 995+50
0.20%
End ditch 995+50-676.50
995+50-676.80
995+00-677.32
683.37
995+00
680.1
18"@995+50
995+50-677.00
995+00-677.53
1.04%
1.07%

676.20
678.36 678.61
683.50
994+00
680.4
"V" ditch 3:1 Slopes @993+92
Add for "V" ditch Rt
8"F.T. @993+95±
C.B. 993+93
8"F.T. @993+90±
Abandon
6793
6795

676.00
679.40 679.68
683.72
993+00
680.6
1.04%

675.80
680.75 680.75
683.96
992+00
682.1
1.35%
1.07%

2:1 2:1
675.60
684.18
991+00
682.8
0.50% 0.50%
6:1 6:1 6:1 6:1
681.25 681.25

990+00

150 100 50 0 50 100

	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
	61	53		
			369	269
	138	92		
			87	
			616	394
	227	121		
Add for "V" ditch Rt			5	0
			626	506
	111	152		
			352	524
	79	131		
			354	326
	112	45		
			524	106
Sta. 991+00	171	12	659	46
Sta. 990+00	185	13		

6408

STA. 991+00 TO STA. 997+00

DESIGN — CROSS SECTIONS

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMPUTED		
SEEDING CHECKED		
QUANTITIES INKED	L.A.M.	1966

EXISTING — CROSS SECTIONS

	BY	DAY
SECTION PLOTTED	JWE	4/6
SECTION CHECKED	DEB	4/6
SECTION INKED	JWE	4/6
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

Seeding	
End Width	S.Y.
244	
	13139
229	

150 100 50 0 50 100

L/A

6:1 6:1 680.80 0.24% 684.66 686.36 6:1 680.80 0.20% 6:1

1002+00
683.2

684.44 685.64
680.56 680.60
1001+00
683.3

684.20 684.90
680.32 680.40
1000+00
682.4

683.96 684.17
680.08 Begin pipe underdrains 999+00 680.20
999+00
683.6

683.84 683.91
679.96 680.10
998+50
684.2

679.84 6:1 680.00
683.72
998+00
684.2

0.24% 0.20%
6:1 679.72 683.60 6:1 6:1 679.90 6:1
997+50
683.0

997+00

150 100 50 0 50 100 150

HENRY COUNTY
HEN - 6 - 16.43

74
231

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
63	117		
		235	370
64	83		
		222	300
56	79		
		602	156
269	5		
		465	5
233	0		
		501	0
308	0		
		444	0
172	0	216	49
61	53		

Sta. 997+50
Sta. 997+00

6408

STA. 997+50 TO STA. 1002+00

DESIGN — CROSS SECTIONS

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.S.H.	12/26
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.S.H.	1/26

EXISTING — CROSS SECTIONS

	TE	BY	DAT
SECTION PLOTTED	45	JWC	
SECTION CHECKED	225	JWC	
SECTION INKED		JWC	
DRAINAGE PLOTTED			
DRAINAGE CHECKED			
DRAINAGE INKED			
UTILITIES PLOTTED			

EXISTING — UTILITIES

	BY	DAT
UTILITIES CHECKED		
UTILITIES INKED		

Seeding	
End Width	S.Y.
	221
	7466
	227 Ahd.
	2033 Add for Intersection
	254 Bk.
	2767
	244 1002+00

150 100 50 0 50 100

L/A

8'F.T. Prop. 10" 679.39

Future ditch - Not a part of this contract

8'F.T. Prop. 10" 679.63

679.85

Future ditch for future W.B. Lane
Control elev=4.81' below profile grade to outlet stone underdrains

679.98

0.20% 6:1 684.20 686.20 6:1 0.15% 6:1 680.00 680.00

0.60%

1007+00
681.0

684.44 686.44 2.30% 680.6 682.9

0.80%

1006+00
682.2

684.66 686.66 681.2 683.7

1005+00
683.9

0.60% 684.79 686.79 681.8 684.5

1004+00
683.9

Twp. Rd. "0-3" Pav't Surface

684.80 686.80

1003+24.66 ℄ Twp. Rd. "0-3"
684.74

684.79 686.79

1003+00
683.5

684.74 686.69 6:1 6:1 6:1 681.40 681.90

1.20% 2.20%

1002+50
682.3

Add For Twp. Rd. "0-3"
Add For Roadway Ditches

Sta 1002+00

150 100 50 0 50 100 150

STA. 1002+50 TO STA. 1007+00

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
23	202		
		119	428
41	29		
		315	63
129	5		
		398	26
86	9		
		180	83
		520	94
		89	
11	36		
		31	153
23	129		
63	117	80	228

G408

FED. NO. | STATE | PROJECT
2 | OHIO |

75
231

HENRY COUNTY
HEN - 6 - 16.43

CROSS SECTIONS — DESIGN — BY | DATE
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED

CROSS SECTIONS — EXISTING — BY | DATE
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED

STATE	SHEET
OHIO	76
	231

HENRY COUNTY
HEN - 6 - 16.43

Seeding	
End Width	S.Y.
250	
	521.11
219	
	977.8
221	

End Area		Co. Yds.	
Cut	Fill	Cut	Fill
350	7		
		608	22
307	17		
		444	64
173	52		
		424	346
56	135		
		198	520
51	146		
		172	569
42	161		
		143	622
35	175	107	698
23	202		

1013+00 684.0
L/A — Future ditch-Not a part of this contract — 677.95
6:1 — 678.80 — 0.20% — 682.82 — 684.82 — 6:1 — 679.10 — 0.15% — 6:1

1012+50 684.2
L/A — 678.07
682.90 — 678.90 — 684.90 — 679.17

1012+00 683.0
L/A — 678.19
683.00 — 679.00 — 685.00 — 679.25 — L/A

1011+00 681.4
L/A — 678.43
683.24 — 679.20 — 685.24 — 679.40 — 8"FT → — prop. 10" — L/A

1010+00 681.4
678.67
683.48 — 679.40 — 685.48 — prop. 10" — 8"FT → — 679.55

1009+00 681.3
678.91
683.72 — 679.60 — 685.72 — 8"FT → — prop. 10" — 679.70

1008+00 681.1
Future ditch-Not a part of this contract — 679.15 — Ex 8"FT → — prop. 10"
6:1 — 679.80 — 0.20% — 683.26 — 685.96 — 6:1 — 679.85 — 0.15% — 6:1 — L/A

1007+00 — Sta. 1007+00

0 — 50 — 100 — 150

STA. 1008+00 TO STA. 1013+00

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL CORR.		
CUT & FILL CHECKED		
SEEDING CORR.		
SEEDING CHECKED		
QUANTITIES INKED		1-20-44 11/12

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		1-20-44 11/12
END AREA CORR.		

EXISTING	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS	BY	DATE
SECTION PLOTTED	MHE	1/12
SECTION CHECKED	RED	1/14
SECTION INKED	MHE	1/12
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

6408

NO.	STATE	PROJECT
2	OHIO	

77
231

HENRY COUNTY
HEN-6-10.43

Seeding		
End Width	S.Y.	
L/A		
246		
L/A		
	13389	
L/A		
236		
	5400	
L/A		
250		

150 100 50 0 50 100 150

1020+00 681.3
0.16% Future ditch-Not a part of this contract
675.37
0.15% 6:1 677.70 6:1 683.96 685.96 6:1 679.85 6:1 0.15%
L/A L/A

1019+00 681.5
L/A
677.85 683.72 685.72 679.70

1018+00 681.6
L/A
678.00 683.48 685.48 679.55

1017+00 681.5
L/A
678.15 683.24 685.24 679.40 L/A

1016+00 681.5
L/A
678.30 683.00 685.00 679.25 L/A

1015+00 681.5
L/A
Future ditch-Not a part of this contract
678.45 682.82 684.82 679.10 L/A

1014+00 682.6
L/A
Elev. of ditch determined by minimum cover over future x-over @ 1040+00
Future Grade 0.16%
676.33
0.15% 6:1 678.60 6:1 682.76 684.76 6:1 678.95 6:1 0.15%
15"@1014+00
L/A

Sta 1013+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
108	178		
		400	615
108	154		
		409	543
113	139		
		378	507
91	135		
		331	456
88	111		
		335	374
93	91		
		483	254
168	46		
350	7	959	98

6408

STA. 1014+00 TO STA. 1020+00

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
S. SEEDING COMP.		
SEEDING CHECKED	L.A.M.	9/16
QUANTITIES INKED	L.A.M.	9/16

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED	L.A.M.	9/16
DRAINAGE INKED	L.A.M.	9/16
END AREA COMP.		

EXISTING — CROSS SECTIONS	BY	DATE
SECTION PLOTTED	JMC	9/16
SECTION CHECKED	RES	9/16
SECTION INKED	JMC	9/16
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

Seeding	
End Width	S.Y.
L/A	
263	
	2939
266	
	2839
245	
	2872
272	
	3255
314	
	3367
	5348
L/A	
292	1022+00 Ahd.
171	1022+00 Bk
	1911
173	1021+00 Ahd.
241	1021+00 Bk
	2706
246	1020+00

150 100 50 0 50 100

0.16%
2:1
2:1
674.25
Future ditch - Not a part of this contract

6:1
0.15%
676.65
6:1

1027+00
No 1 M.H.
684.44
686.44
6:1
0.28%
679.72
6:1

Abandon Exist. 24"

L/A

1027+00
681.5

684.66
686.66
676.80

No.1 M.H.
684.11
0.28%
1026+25
680.00
1/4"/ft
0.80%
℄ 24" Ahead
673.95 ±

L/A

1026+00
681.7

684.79
686.79
676.95
6:1
0.60%
6:1
680.6

24"
L/A

1025+00
681.0

684.79
686.79
677.10
6:1
680.8
680.3

24"
Prop Swale to Exist. 12"

1024+00
681.0

684.66
686.66
677.25
6:1
680.3
679.66

12"
24" Ahead
Prop. 12"
21" Back
L/A
150 170 200

1023+00
681.0

684.44
686.44
677.40
Prop 12"

Profile Exist. U.S.6 Connector Rd. 1021+75
Add for Connector Road
1022+00
1022+50
680.2
150 170 L/A 200 230

1022+00
681.3

Add for Connector Rd.

Add for ditch excavation along prop res. drive @ 909+25, exist. U.S.6 Connection

0.16%
2:1
2:1
679.21
Future ditch - Not a part of this contract

0.15%
6:1
6:1
677.55

684.20
686.20
6:1
6:1
680.00
0.28%

1021+00
681.0

Sta. 1020+00

150 100 50 0 50 100

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
227	157		
		931	546
276	138		
		730	735
118	259		
		417	1006
107	284		
		356	1009
		C.B. 1023+40	
85	261		
		177	
		331	935
94	244		
		58	
		320	852
79	210		
108	178	346	730

6408

STA. 1021+00 TO STA. 1027+00

HENRY COUNTY
HEN-6-16.43

78
231

DESIGN — BY — DATE
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED

CROSS SECTIONS — BY — DATE
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.

EXISTING — BY — DATE
UTILITIES CHECKED
UTILITIES INKED

CROSS SECTIONS — BY
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED

Seeding	
End Width	S.Y.
261	
263	
	8733

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
203	02		
		693	269
171	83		
		606	367
156	115		
		709	504
227	157		

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.W.M.	1/4/67
END AREA COMP.		

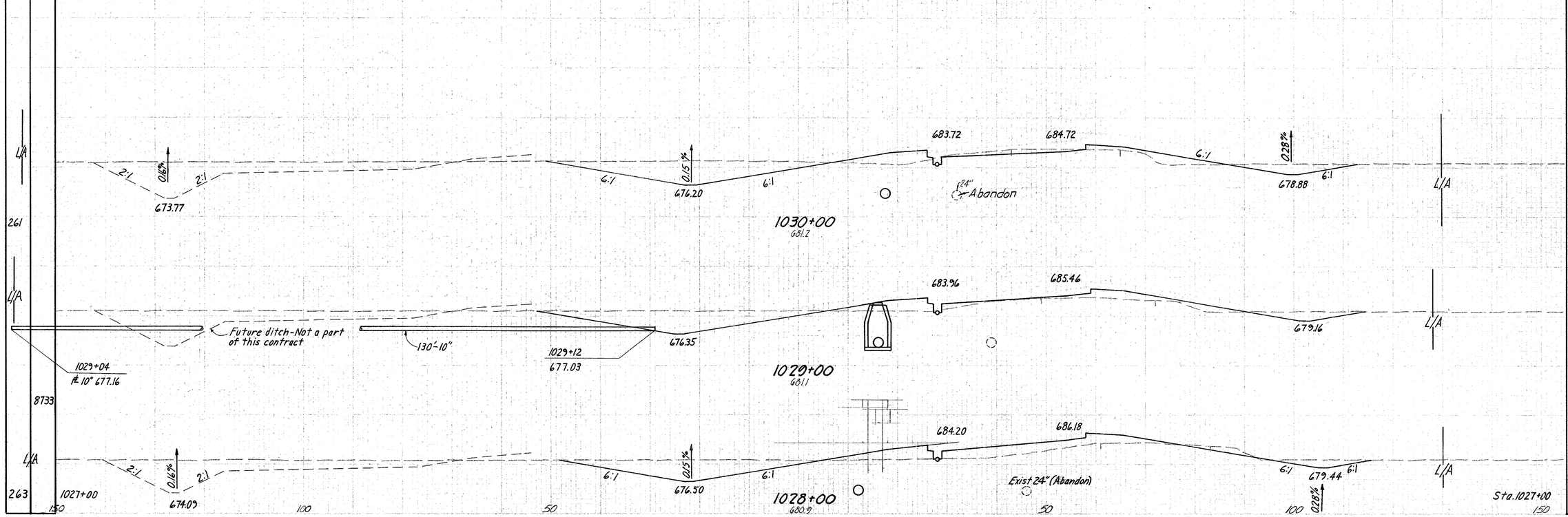
DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED		

CROSS SECTIONS — EXISTING	BY	DATE
SECTION PLOTTED	J.M.E.	1/25
SECTION CHECKED	D.E.B.	1/26
SECTION INKED	J.M.E.	1/27
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

FED. AID PROJECT	STATE	PROJECT	
2	OHIO		

79
231

HENRY COUNTY
HEN-6-16.43



STA. 1028+00 TO STA. 1030+00

6408

HENRY COUNTY
HEN-6-16.43

Seeding	
End Width	S.Y.
245	
9839	
261	

150 100 50 0 50 100

L/A

2:1 0.16% 2:1 Future ditch-Not a part of this contract
673.21

6:1 0.15% 6:1
675.67

43.9'
683.90 Prop.
683.73 Exist.
6:1 0.40% 6:1
679.33
L/A

Exist. 24"

1033+50
681.3

43.0'
683.96 Prop.
683.78 Exist.
675.75
679.13

1033+00
681.3

℄ Transitional Pav't.
42.2'
683.87 Prop.
683.67 Exist.
675.82
678.93
Exist. 24" To remain in service

1032+50
681.1

1032+30
No. 1 M.H.
Rim=683.38
683.57
683.67
675.90
678.73
L/A
℄ 24" E℄W
673.47±

1032+00
680.9

683.52
683.77
0.40%
675.97
15"@1.0% 1031+40
678.49 @ 1031+40
Prop. 24"
0.28%

1031+50
680.9

683.53
684.05
676.05
678.60

1031+00
681.0

2:1 0.16% 2:1 Future ditch-Not a part of this contract
673.69

6:1 0.15% 6:1
676.12
683.60
684.36
6:1 0.28% 6:1
678.74
L/A

1030+00
1030+50
681.0
Exist. 24" Abandon
Sta. 1030+00

150 100 50 0 50 100 150

STA. 1030+50 TO STA. 1033+50

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
239	27		
		444	44
241	20		
		435	43
228	27		
		433	43
240	19		
		446	42
242	26		
		448	54
242	32		
		432	78
225	52	585	105
203	62		

DESIGN —

CROSS SECTIONS

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.A.W.	1/24/64

	BY	DATE
SECTION PLOTTED	JWE	1-24-64
SECTION CHECKED	DEB	1-24-64
SECTION INKED	JWE	1-24-64
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

HENRY COUNTY
HEN-6-16.43

FED. NO.	STATE	PROJECT
2	OHIO	

150 100 50 0 50 100

Seeding
End Width | S.Y.

L/A
202
2228
199 Ahd.
240 Bk.
6736
245

0.16%
2:1
2:1
1037+27
672.61
1.25%

1037+00
681.1

1036+50
681.2

1036+00
681.3

47.3'
683.64 Prop.
683.54 Exist.
6:1
6:1
681.18
End ditch 1035+63
0.40%
1.25%
675.37
0.15%

1035+50
680.9

46.4'
683.71 Prop.
683.60 Exist
6:1
6:1
675.45
679.93

1035+00
681.0

45.6'
683.75 Prop.
683.62 Exist.
675.52
679.73

1034+50
681.1

℄ Transitional Pav't.
44.7'
683.74 Prop.
683.59 Exist.
6:1
6:1
679.53
0.40%
0.16%
6:1
0.15%
6:1
675.60

1034+00
681.5

1033+50

1-0"
Jute Matting
Future ditch-Not a part of this contract
Sections are radial to ditch curve
Jute Matting
Future ditch-Not a part of this contract

24"
24"
24"

L/A
L/A
L/A

Add for ditch from Sta.1035+50 to 1035+63

	End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
Sta.1037+27	162	0	162	0
Sta.1037+00	162	0		
			467	0
	343	0		
			572	0
	275	0		
			452	10
			2	
Sta.1035+50 Ahead	213	11		
Sta.1035+50 Back	228	11		
			432	35
	239	26		
			443	50
	239	28		
			452	48
Sta.1033+50	248	24	452	46
	239	27		

CROSS SECTIONS — DESIGN

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.M.M.	10/15

CROSS SECTIONS — EXISTING

	BY	DATE
SECTION PLOTTED	JMC	7/15
SECTION CHECKED	PEB	7/15
SECTION INKED	JMC	7/15
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

STA. 1034+00 TO STA. 1037+00

HENRY COUNTY
HEN-6 - 16.43

Seeding End Width	Sq Yd.		
L/A	1027	Add for Ditch	
233		1043+85	
		1043+50 680.4	
		1043+00 680.8	
	1655⁴	1042+00 681.0	
		1041+00 680.0	
		1040+00 680.7	
		1039+00 680.7	
202		1037+00	
		1038+00 680.7	

L/A 679.5-End ditch@1043+57

24" 42" Culv. See Sheet No.154

0+55 Channel ℄

L/A R/W 680.0 24"

2:1 0.16% 2:1 671.69

Add for Prop. Roadway ditch along Exist. U.S.6 1041+25-1043+57

R/W 2:1 679.6-1042+25 24"

2:1 2:1 671.85

Begin 12" Shoulder @1042+25

R/W 18" 24"

Begin tapering exist. shoulder@1041+25 to meet prop. 12' Shoulder @1042+25 Also move exist. ditch to meet prop. ditch@1042+25

672.01

R/W 24"

24"-12@ 1040+38 672.17

24"

672.33

24"

L/A 2:1 0.16% 2:1 672.49

24"

Sta. 1037+27

End Area Cut	End Area Fill	Volume Cut	Volume Fill
180	0		
		986	0
190	0		
		44	87
		646	0
159	0		
		507	0
115	0		
		472	0
140	0		
		541	0
152	0		
		569	0
155	0		
162	0	429	0

CROSS SECTIONS — DESIGN

	BY	DATE
SECTION PLOTTED		
SECTION CHECKED		
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

CROSS SECTIONS — EXISTING

	BY	DATE
SECTION PLOTTED	APC	4/62
SECTION CHECKED		
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

CROSS SECTIONS — DESIGN

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		

END AREA CHECKED 4/62
CUT & FILL CALC. 4/62
CUT & FILL CHECKED
SEEDING CALC. 4/62
SEEDING CHECKED 4/62
QUANTITIES TAKEN 4/62

STA. 1038+00 TO STA. 1043+50

FED. ROAD DIVISION	STATE	PROJECT	83
2	OHIO		231

HENRY COUNTY
HEN-6 - 16.43

Seeding			End Area		Volume	
End Width	Sq Yd		Cut	Fill	Cut	Fill
		Add for S.R.103 Ditch Lt.			13	19
		Add for ditch Sta.1048+15 to Sta.1048+87			39	0
	42	Add for Intersection				
104		1048+75 (617.7)	228	0		
		End Ditch Sta.1048+75 — 669.73 — 2:1 — 2:1 — 0.2%			R/W	
					653	0
		669.88				
		1048+00 (618.8) — House	242	0		
	5480				870	0
		670.08				
		1047+00 (619.3)	228	0		
					865	0
		670.28				
		1046+00 (680.3) — House	239	0		47
		Add for prop. shoulder along Ex. U.S.6 1043+57 to 1045+25			11	
		Add for prop. Roadway ditch along Ex. U.S.6 1044+25 to 1045+25			850	0
		1045+00	220	0		
		Meet Exist. ditch @ 1045+25 — 2:1			685	0
		670.48				
		1044+25	273	0		
		1045+00 (680.7) — House — ℄ Drive			663	0
		0+93.5 Channel ℄	192	0		
		2:1 — 680.0 — 1044+25 — Begin ditch 1044+25			R/W	
105		0.2% — 2:1 — 670.68				
		1044+03 (680.6)				

STA. 1044+03 TO STA. 1048+75

CROSS SECTIONS — DESIGN

	BY	DATE
SECTION PLOTTED		
SECTION CHECKED		
AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL INKED		
SEEDING COMP.		
SEEDING CHECKED	L.M.K.	10/66
QUANTITIES INKED	L.M.K.	10/66

CROSS SECTIONS — EXISTING

	BY	DATE
SECTION PLOTTED		
SECTION CHECKED	RCH	9/66
AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

PROJECT NUMBER	STATE	PROJECT		SHEET NO.	TOTAL SHEETS
2	OHIO			84	231

HENRY COUNTY
HEN-6 - 16.43

Seeding End Width	Seeding Sq Yd.	
98		End Ditch Sta. 1052+60
	3936	

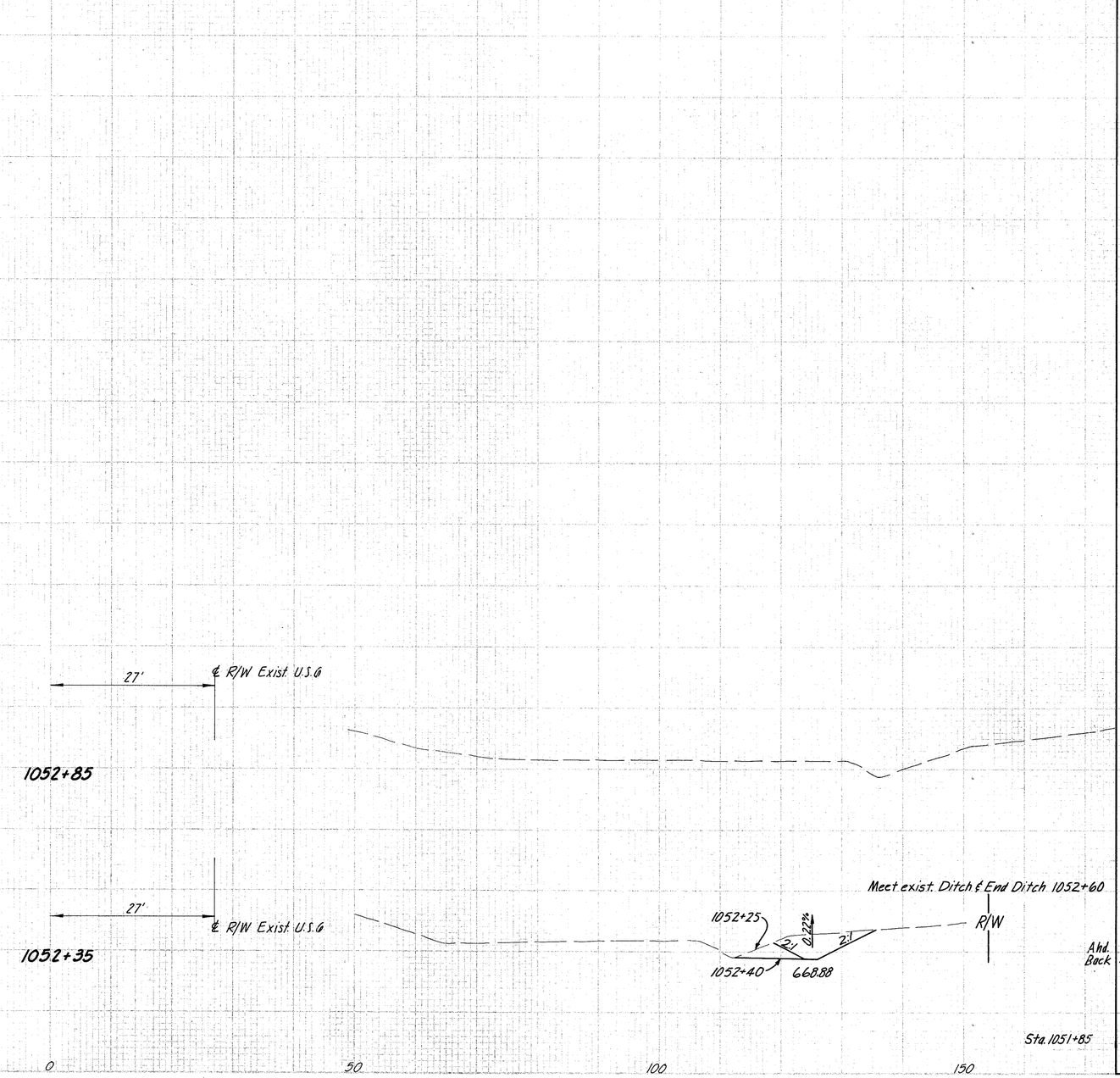
FED. AID PROJECT	STATE	COUNTY	SHEET NO.	TOTAL SHEETS
	OHIO		85	231

HENRY COUNTY
HEN-6-16.43

Seeding	
End Width	Sq Yd

CROSS SECTIONS	BY	DATE	—	DESIGN	BY	DATE
PAVEMENT PLOTTED				END AREA CHECKED		
PAVEMENT CHECKED				CUT & FILL COMP.		
AREA INTER. PLOTTED				CUT & FILL CHECKED		
DRAINAGE PLOTTED				SEEDING COMPUTED		
DRAINAGE CHECKED				SEEDING CHECKED		
DRAINAGE INKED				QUANTITIES INKED		
END AREA COMP.						

CROSS SECTIONS	BY	DATE	—	EXISTING	BY	DATE
SECTION PLOTTED	A.F.C.	3/4/64		UTILITIES CHECKED		
SECTION CHECKED				UTILITIES INKED		
SECTION INKED						
DRAINAGE PLOTTED						
DRAINAGE CHECKED						
DRAINAGE INKED						
UTILITIES PLOTTED						



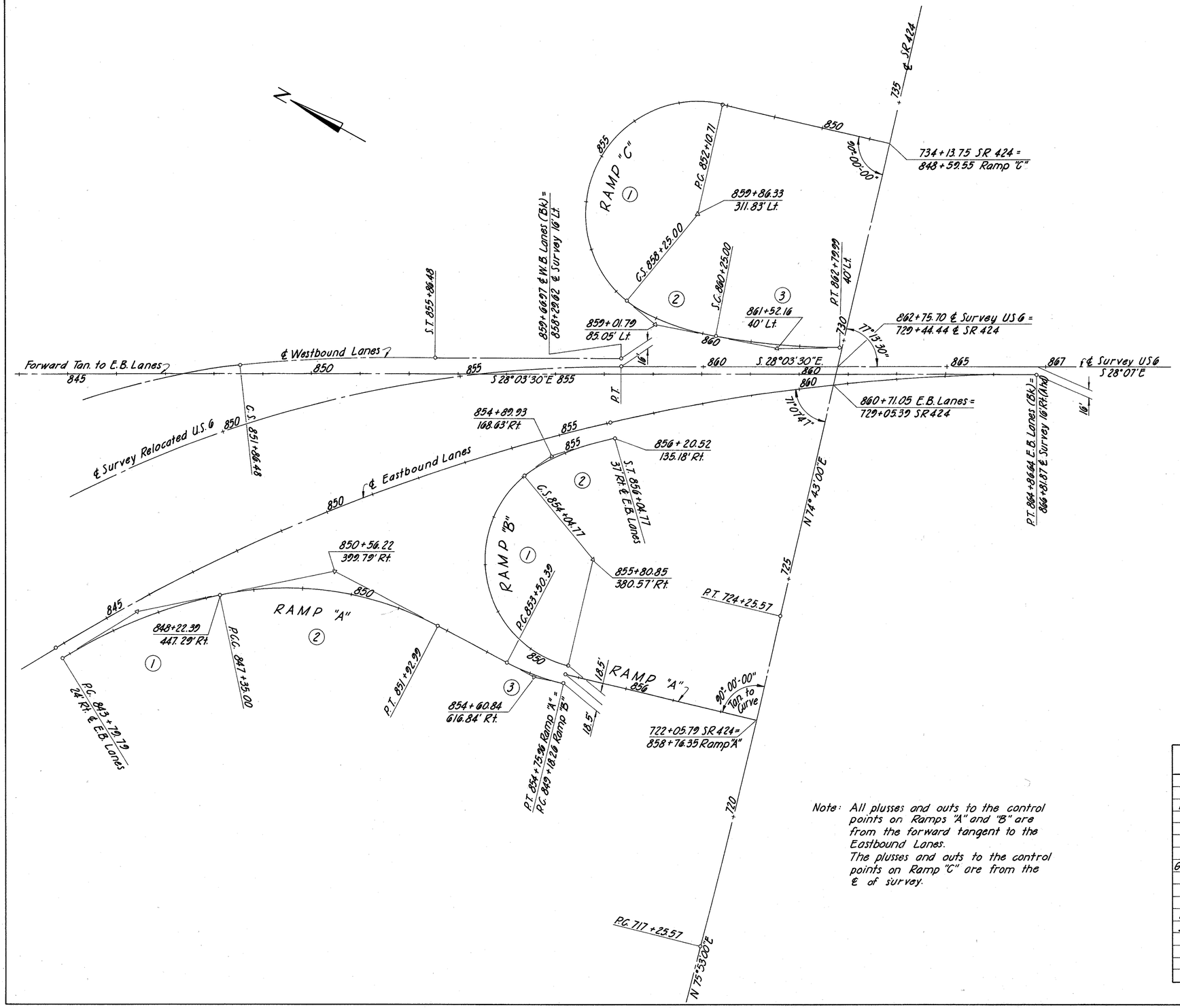
	End Area		Volume	
	Cut	Fill	Cut	Fill
Meet exist. Ditch & End Ditch 1052+60	0	0		
			25	0
Ahd.	68	0		
Back	41	0		
			81	0
Sta. 1051+85	47	0		

STA. 1052+35 TO STA. 1052+85

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

80
231

HENRY COUNTY
HEN-6-10.43



Note: All plusses and outs to the control points on Ramps "A" and "B" are from the forward tangent to the Eastbound Lanes.
The plusses and outs to the control points on Ramp "C" are from the ℄ of survey.

RAMP CURVE DATA

	Ramp "A"			Ramp "B"		Ramp "C"		
	①	②	③	①	②	①	②	③
Δ_c	19°25'06" Rt.	39°41'31" Rt.	15°06'07" Lt.	126°29'33" Rt.		153°34'34" Rt.		10°11'59" Rt.
D_c	5°28'	8°40'	12°	26°		25°		4°
R_c	1048.09'	661.11'	477.46'	220.37'		229.18'		1432.39'
L_c	355.21'	457.99'	125.57'	486.51'		614.29'		254.99'
T_c	179.33'	238.61'	63.15'					127.83'
Δ_s							29°	
θ_s or α					θ_t = 26°		θ_a = 21°	
L_s					200'		200'	
X_c					195.92'			
Y_c					29.81'			
L.T.					134.80'		126.55'	
S.T.					68.00'		77.82'	
P					7.51'			
P_a							6.08'	
K					99.32'			

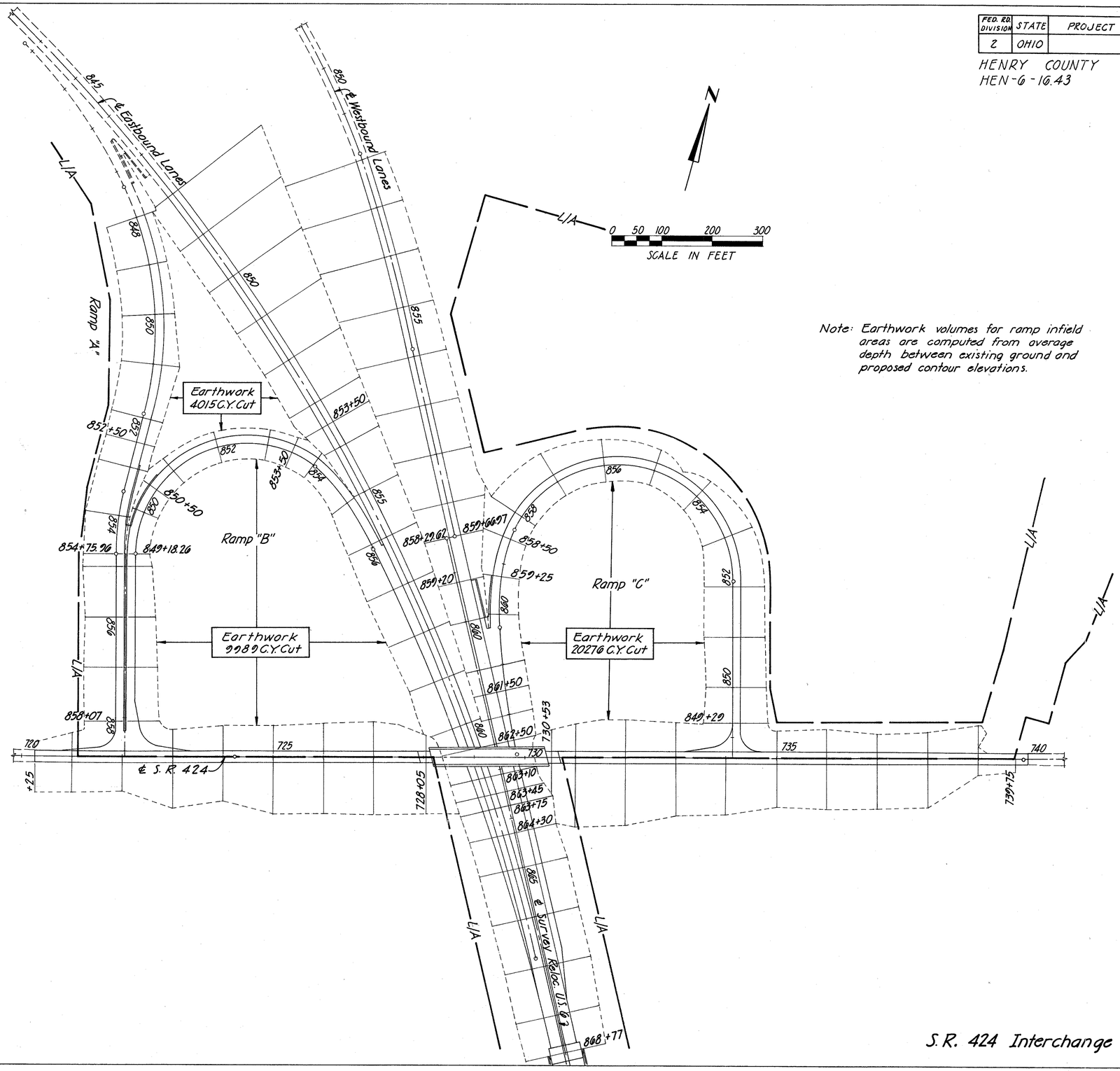
0408-5

Geometric Layout SR 424 & Reloc. US 6 Interchange

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

88
231

HENRY COUNTY
HEN-6-16.43



Note: Earthwork volumes for ramp infield areas are computed from average depth between existing ground and proposed contour elevations.

S.R. 424 Interchange

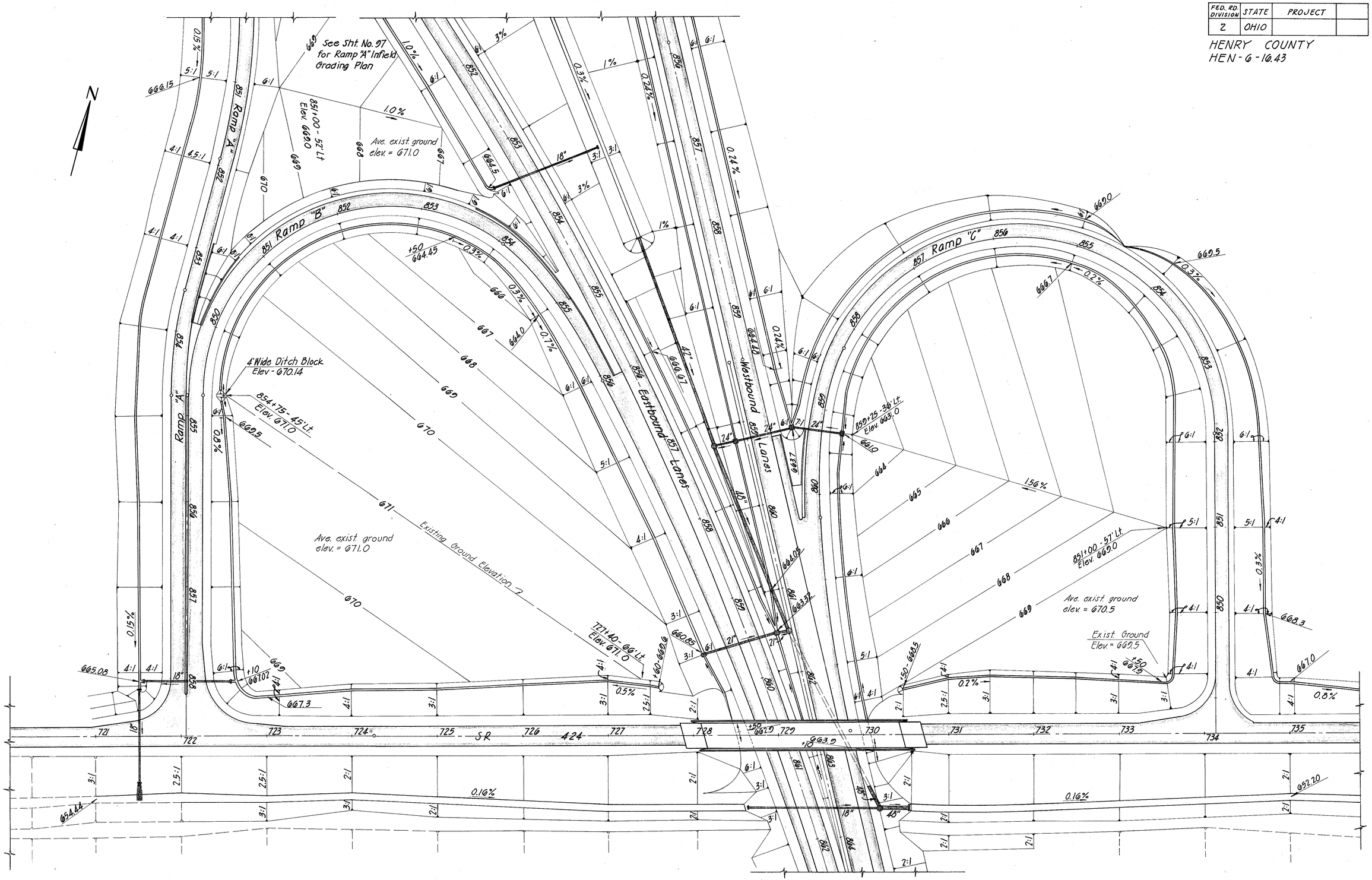
CROSS-SECTION LAYOUT

6408

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

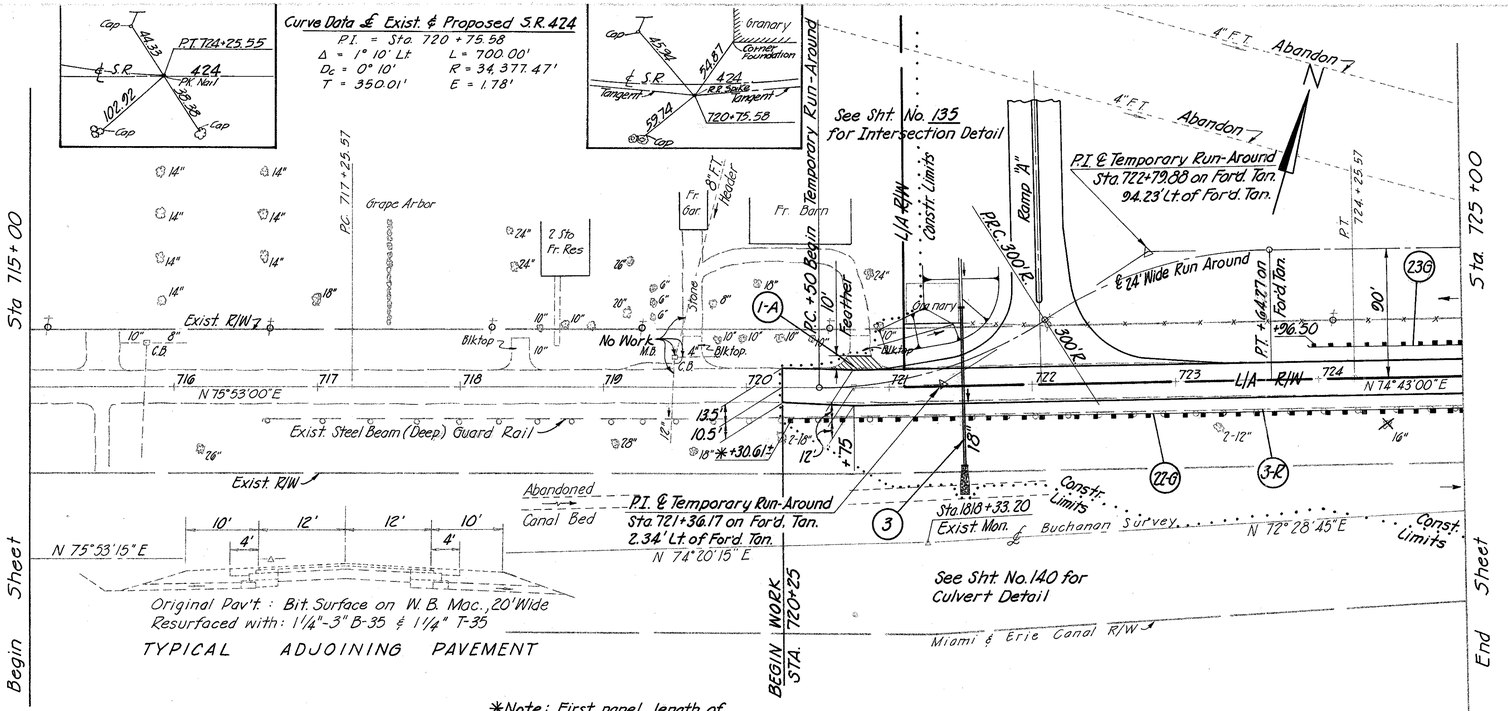
97
231

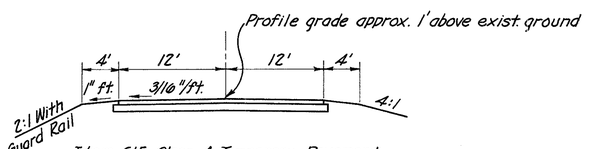
HENRY COUNTY
HEN-6-10.43



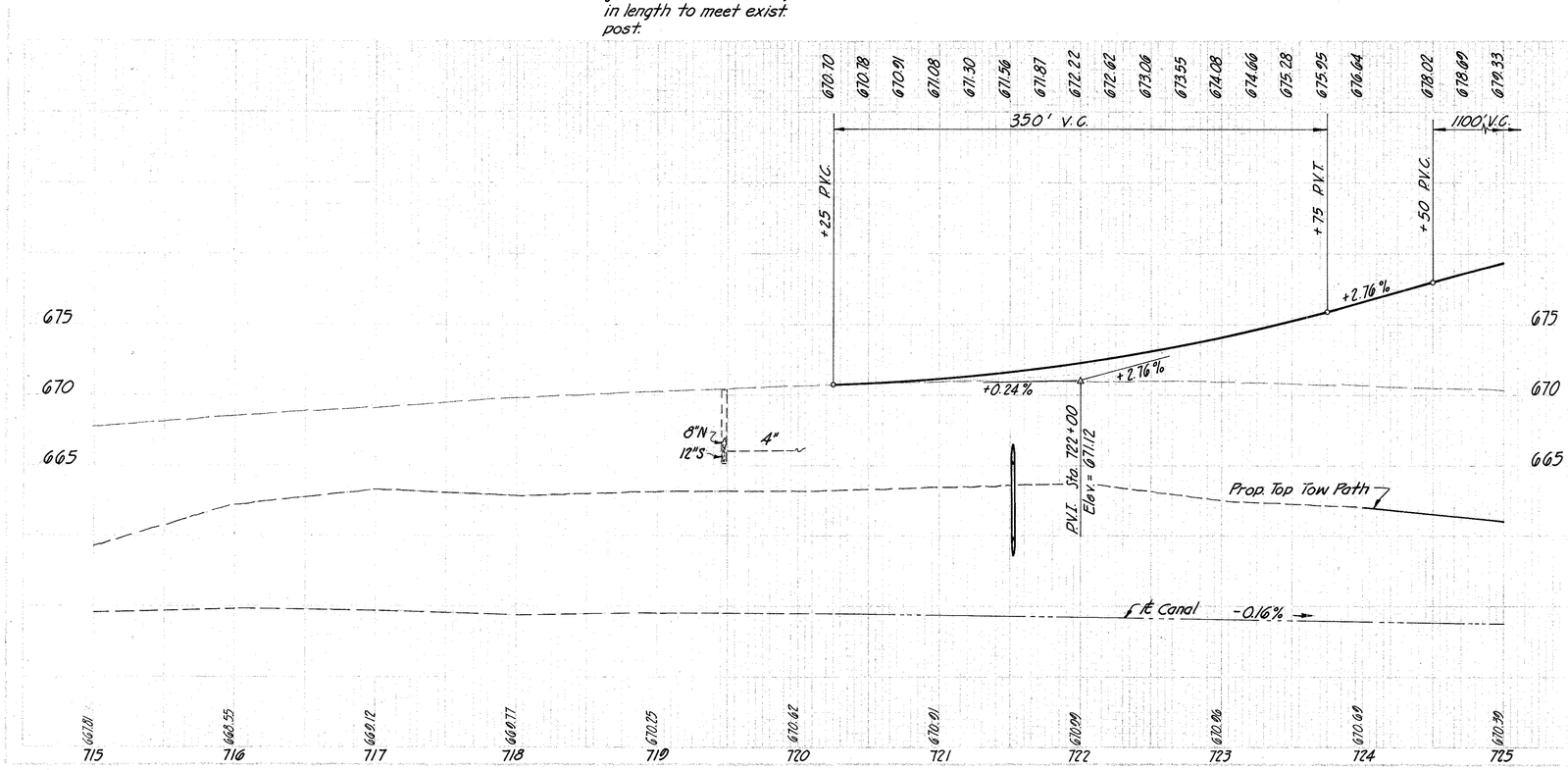
Drainage & Grading Plan SR 424 Interchange

HENRY COUNTY
HEN - 6 - 16.43





Item 615 Class A Temporary Pavement
Typical Section
Total Length = 1935 lin. ft. x 24/9 = 5160 Sq. Yd.
Item 615 Temporary Road Lump Sum



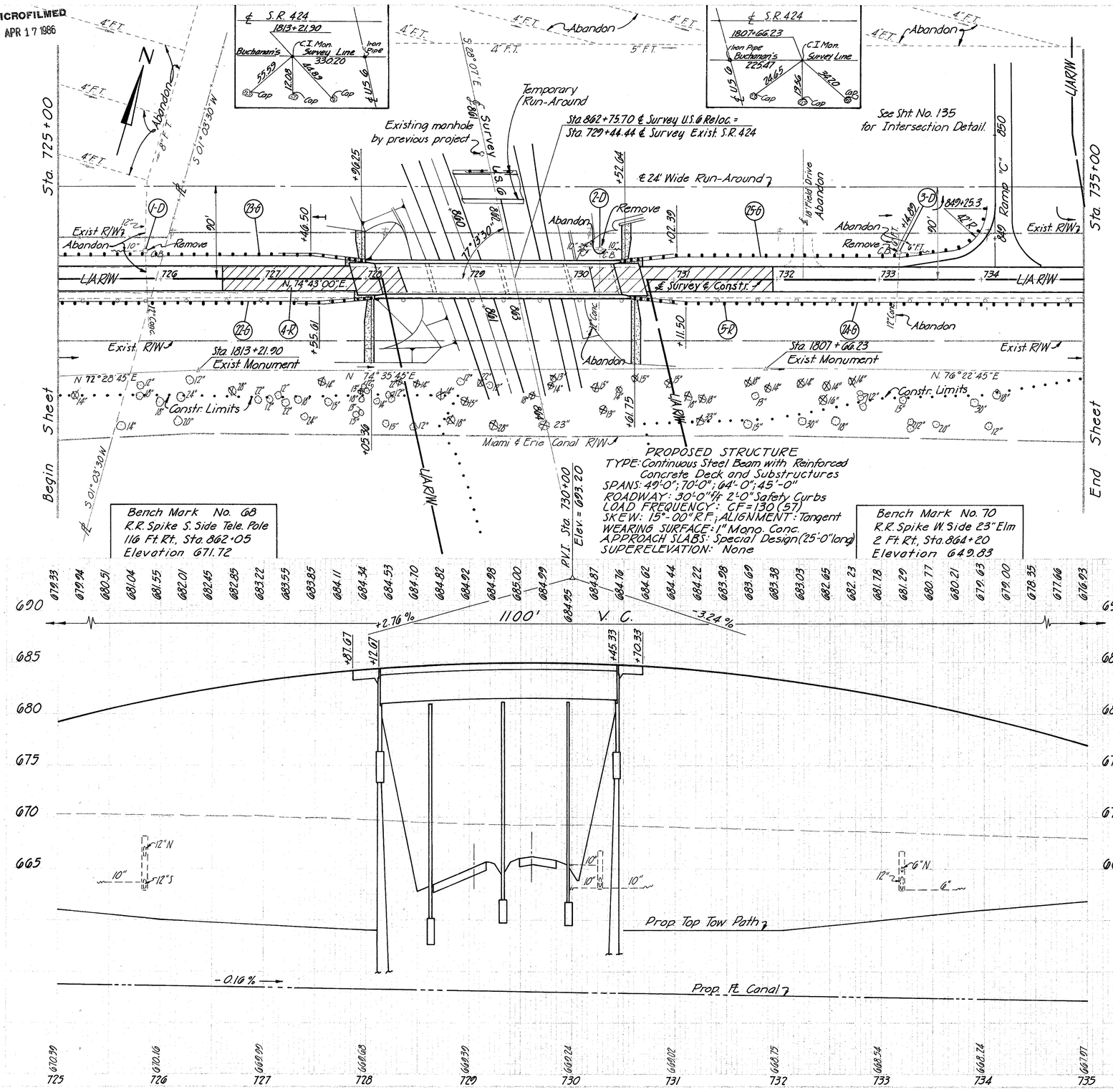
Existing S.R. 424 Sta. 715+00 TO Sta. 725+00

6408

MICROFILMED
APR 17 1986

90
231

HENRY COUNTY
HEN-6-16.43



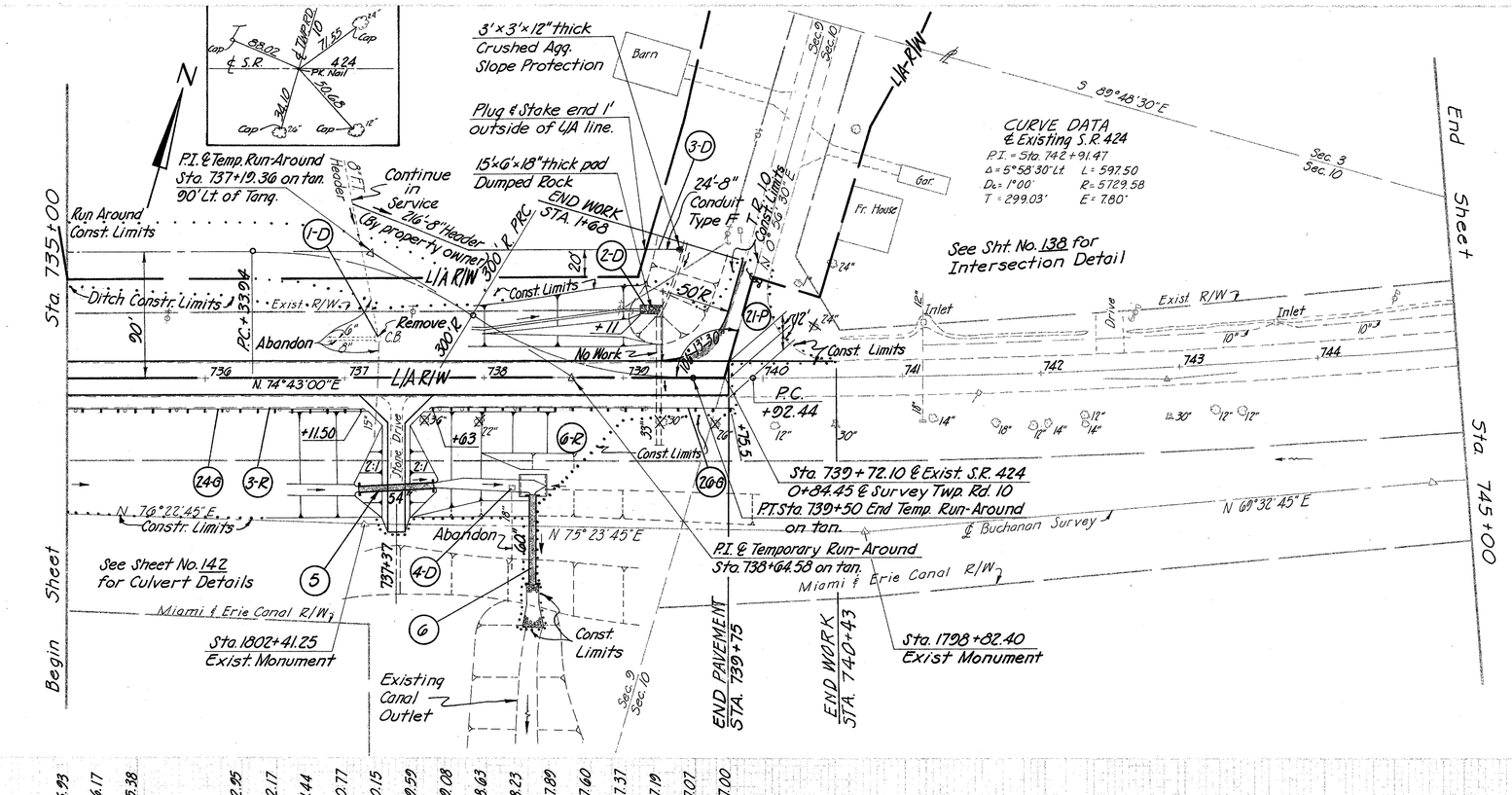
(D) DRAINAGE

Ref. No.	Station From	Station To or At	Side	202 Catch Basins Removed Each
1-D		725+84	Lt	1
2-D		730+28	Lt	1
3-D		733+19	Lt	1
Total				3

Existing S.R. 424 Sta. 725+00 TO Sta. 735+00

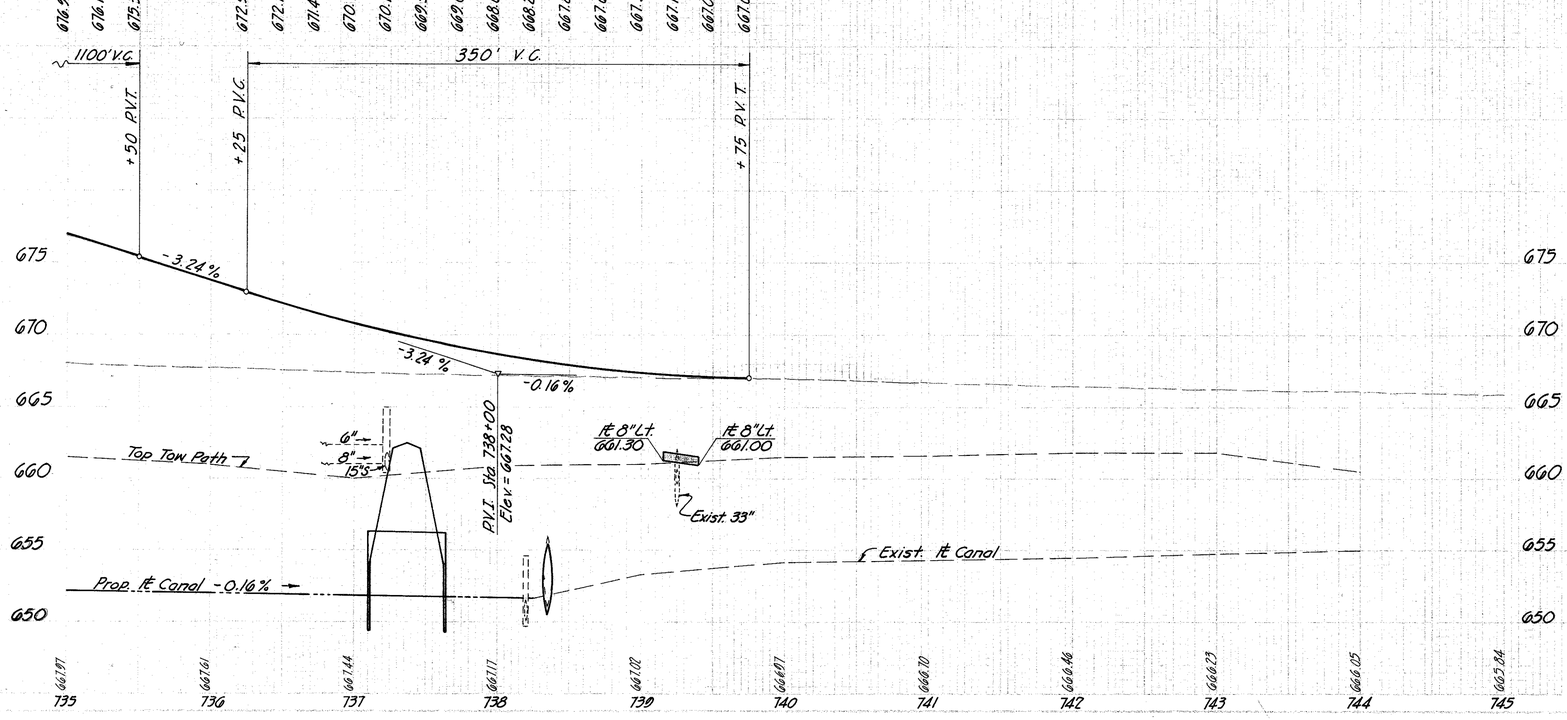
6408

HENRY COUNTY
HEN - 6 - 16.43



Ⓓ DRAINAGE

Ref. No.	Station From	Station To or At	Side	202 Catch Basin Removed Each	601 Crushed Agg. Slope Protection Sq. Yd.	601 Dumped Rock Channel Protection Cu. Yd.	603 8" Conduit Type F Lin. Ft.
1-D		737+23	Lt	1			
2-D	739+11	739+26	Lt			5	
3-D	739+16	739+42	Lt		1		24
4-D		738+21	Rt	1			
		Total		2	1	5	24



Existing S.R. 424 Sta. 735+00 to Sta 745+00

6408

FED. RD. PROJECT	STATE	PROJECT	92
2	OHIO		231

HENRY COUNTY
HEN-6-16.43

Seeding End Width	Sq. Yd.
140	1583
145	1250
80	883
79	413
20	

150 100 50 0 50 100

℄ Temporary Runaround

Infield Match Line

4:1

667.8

L/A

676.64
724+00
670.69

4:1

2:1

653.96

3:1

Infield Match Line

0.50%

4:1

4:1

667.3

674.08
723+00
670.96

2.5:1

654.12

3:1

rProfile Grade Ramp "A" +05.79

672.22
722+00
670.99

2.5:1

654.28

-655 Deduct for Ramp "A" Approach

18" Culvert crossing Sta. 721+52

L/A (+10.79)

℄ Temporary Runaround

671.08
721+00
670.91

3:1

654.44

Sta 720+80 ℄ Biktop Drive

670.66

670.70
720+25 Begin Work
670.62

0.16%

654.56

150 100 50 0 50 100 150

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill
64	506		
		235	1493
63	300		
		119	785
1	124		
		57	430
30	108		
		93	150
37	0		

	DATE
END AREA CHECKED	
CUT & FILL COMP.	
CUT & FILL CHECKED	
SEEDING COMP.	
SEEDING CHECKED	
QUANTITIES INKED	1-28-92

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.	LAD	1-28-92

	BY	DATE
UTILITIES CHECKED		
UTILITIES INKED		

	BY	DATE
SECTION PLOTTED	DGS	1-28-92
SECTION CHECKED	JJDE	1-28-92
SECTION INKED	RWF	1-28-92
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

EXISTING S.R. 424 STA 720+25 TO STA 724+00

6408

Seeding	
End Width	Sq. Yd.
717	Add for East Spill Through
626	Add for West Spill Through
145	728+05 Bk.
1785	
161	
1811	
165	
1850	
168	
1711	
140	724+00

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.C.M.	10/65

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.C.M.	10/65
END AREA COMP.		

EXISTING	BY	DA
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS	BY	DATE
SECTION PLOTTED	DEG	9/65
SECTION CHECKED	TME	9/7
SECTION INKED	RWF	10/5
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

100 50 0 50 100

℄ Temporary Runaround

729+44.44
℄ Survey U.S. 6

729+00
669.39
L/A

2:1 2.5:1 2:1

Existing structure by previous project

727+60
End Ditch
℄ 669.6
0.50%

684.38
728+05
669.08

653.31

Infield Match Line

3:1 4:1 669.3

683.22
727+00
669.90

653.48

725+84
668.8
12" N.
12"
10" Back

681.55
726+00
670.16

725+88
12"

653.64

℄ Temporary Runaround

Infield Match Line
0.50%
3:1 4:1 668.3

679.33
725+00
670.30

653.80
0.16%
2:1

Sta. 724+00

100 50 0 50 100 150

End Area Cut	End Area Fill	Cu. Yds. Cut	Cu. Yds. Fill	
			1023	Add for East Spill Through
			1350	Add for West Spill Through
163	1331			
		609	5254	
				Add for ditch Left Sta 727+00 Ahead
150	1371	29	0	
163	1371			Sta 727+00 Back
		552	4597	
135	1111			
		431	3591	
98	828			
		300	2471	
64	506			

SHEET NO.	STATE	PROJECT	
2	OHIO		

93
231

HENRY COUNTY
HEN-6-16.43

EXISTING S.R. 424 STA 725+00 TO STA 729+00

G208

HENRY COUNTY
HEN-6-16.43

150 100 50 0 50 100

Seeding

End Width	Sq. Yd.
169	
	1945
181	
	2167
209	
	2300
205	
	1016
184	

L/A

Profile Grade Ramp "C" +13.75

℄ Temporary Runaround

3.5:1

679.63
734+00
668.74

2:1

652.36

733+50± Rt 667.9

Infield Match Line

3:1

4:1 668.0

733+19

6"N 7

15"S 6"SE 7

681.78
733+00
668.54

733+16

Abandon
Sta 732+25 ℄ Stone Drive

668.50

652.52

3:1

668.2

683.38
732+00
668.75

L/A

652.68

Match Line

2.5:1

4:1 668.40

684.44
731+00
669.02

652.84

℄ Temporary Runaround

Infield Match Line

2:1

730+28

668.50

6"NW 7

15"S 10"SW 15"SE

684.75
730+53
669.24

730+27
12"

0.20%
730+50
Begin Ditch
Rt 668.50

0.16%

652.92

150 100 50 0 50 100 150

	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
	100	1067		
			441	4308
Add for ditch left			34	0
Sta 733+00 Ahead	138	1259		
Sta 733+00 Back	156	1259		
			648	5158
	194	1526		
			733	5197
	202	1604		
			275	2709
	114	1508		

EXISTING S.R. 424 STA 730+53 TO STA 734+00

6408

DESIGN

CROSS SECTIONS

	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	L.A.B.	4/24/96

EXISTING

CROSS SECTIONS

	BY	DATE
SECTION PLOTTED	DGS	4/5
SECTION CHECKED	LTAE	4/5
SECTION INKED	RWF	4/6
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

Seeding	
End Width	Sq.Yd.
	296
96	
	1244
128	
	1611
162	
	1811
164	
	1724
159	
-200	
169	

Add for 739+00 to End Work 739+75

739+00 Bk.

Deduct for Ramp "C" Approach

734+00

End Ditch Sta. 739+15 El. 663.65

℄ Temporary Runaround

℄ A

3:1

4:1

663.8

667.37

739+00

667.02

33"

Sta. 739+25

0.80%

4:1

4:1

664.6

668.63

738+00

667.17

Sta. 738+23 Exist. Outlet

657.72

60"x 64'

11%

Prop. Dr.

Sta. 737+37 ℄ Field Drive

54" Dr. Pipe

651.82

Add for drive

Sta. 737+23

665.4

6"NW

15"S

8"SW

670.77

737+00

667.44

3:1

2:1

651.88

0.16%

666.2

673.76

736+00

667.61

2.5:1

652.04

℄ Temporary Runaround

0.80%

4:1

4:1

667.0

676.93

735+00

667.97

2:1

0.16%

2:1

652.20

Sta. 734+00

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
27	18		
121	18		
		381	170
85	74		
		293	643
		65	317
73	273		
		269	1487
72	530		
		219	2439
46	787		
		270	3433
100	1067		

DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED		

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		

CROSS SECTIONS — EXISTING	BY	DATE
SECTION PLOTTED	DEC	8/6
SECTION CHECKED	ZME	8/6
UTILITIES PLOTTED	RWF	8/23
UTILITIES CHECKED		
UTILITIES INKED		

PLAN	STATE	PROJECT	
2	OHIO		95 231

HENRY COUNTY
HEN-G-16.43

EXISTING S.R. 424 STA 735+00 TO STA 739+00

6408

HENRY COUNTY
HEN-G-16.43

Seeding	
End Width	Sq. Yd.

744+00
666.05

743+00
666.23

742+00
666.46

741+00
666.70

Twp. Rd. #10

667.00
739+75 End Work
666.98

739+72.10
℄ Twp. Rd. No. 10

End Area		Cu. Yds.	
Cut	Fill	Cut	Fill
45	0		
		100	25
Sta. 739+00 Ahead			
27	18		

CROSS SECTIONS — DESIGN	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED		

CROSS SECTIONS — EXISTING	BY	DATE
SECTION PLOTTED	DSG	6/6
SECTION CHECKED	THC	6/6
SECTION INKED	RWF	6/6
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

EXISTING S.R. 424 STA 739+75 TO STA 744+00

6408

REVISION	BY	DATE
2	CHG	

HENRY COUNTY
HEN-6-16.43

PLAN — EXISTING

	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
TOPOGRAPHY PLOTTED		
TOPOGRAPHY CHECKED		
TOPOGRAPHY INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		
B. M. & REF. POINTS		

PLAN — DESIGN

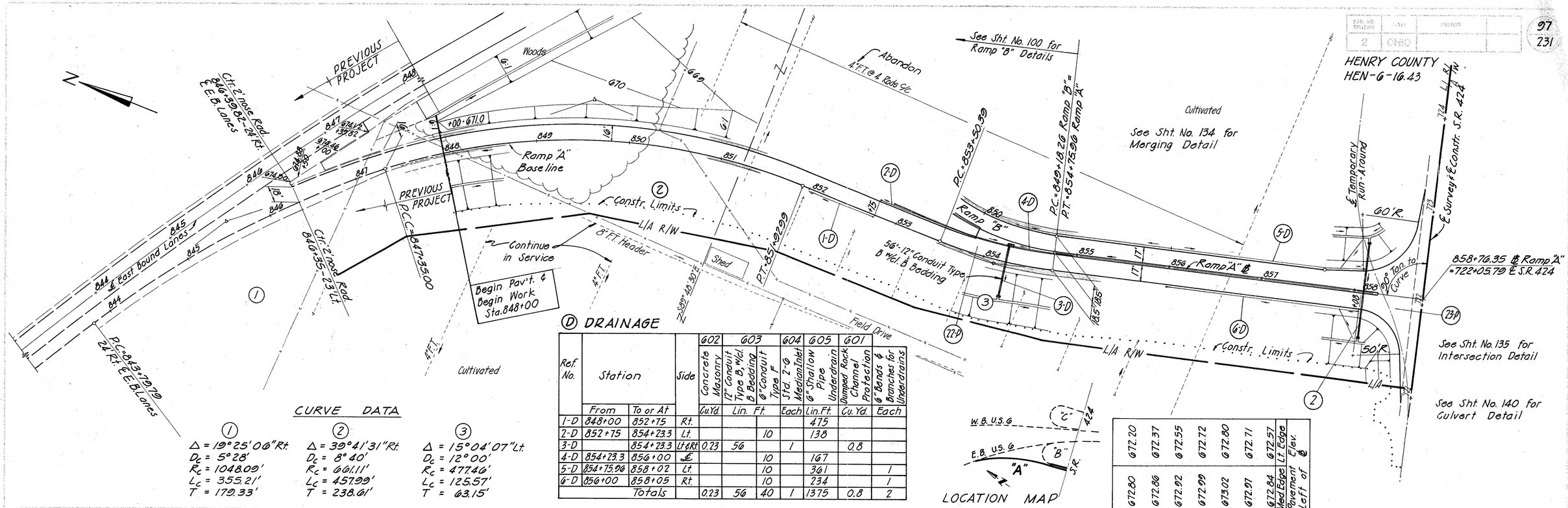
	BY	DATE
CONST. LIMITS CHECKED		
PROP. LINES PLOTTED		
PROP. LINES CHECKED		
PROP. R/W PLOTTED		
PROP. R/W CHECKED		
INKED		

PROFILE — EXISTING

	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
ALIGNMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

PROFILE — DESIGN

	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
STRUCTURES PLOTTED		
STRUCTURES CHECKED		
MASS DIAGRAM PLOTTED		



CURVE DATA

(1) Δ = 19°25'06" Rt.
D_c = 5°28'
R_c = 1048.00'
L_c = 355.21'
T = 179.33'

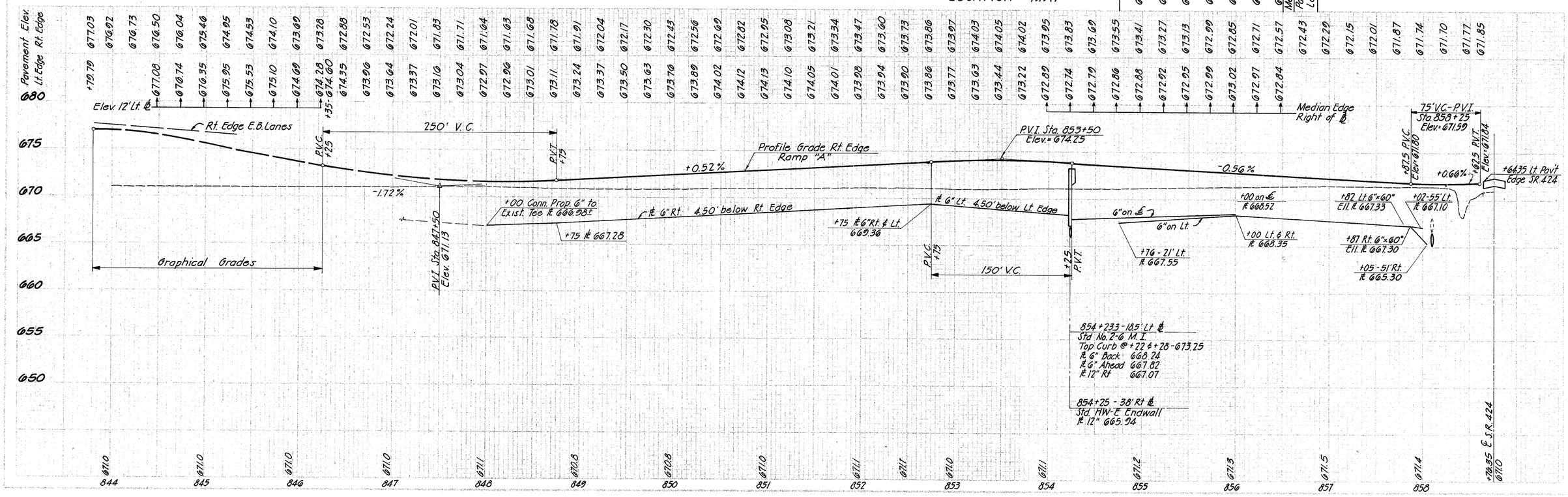
(2) Δ = 39°41'31" Rt.
D_c = 8°40'
R_c = 661.11'
L_c = 457.99'
T = 238.61'

(3) Δ = 15°04'07" Lt.
D_c = 12°00'
R_c = 477.46'
L_c = 125.57'
T = 63.15'

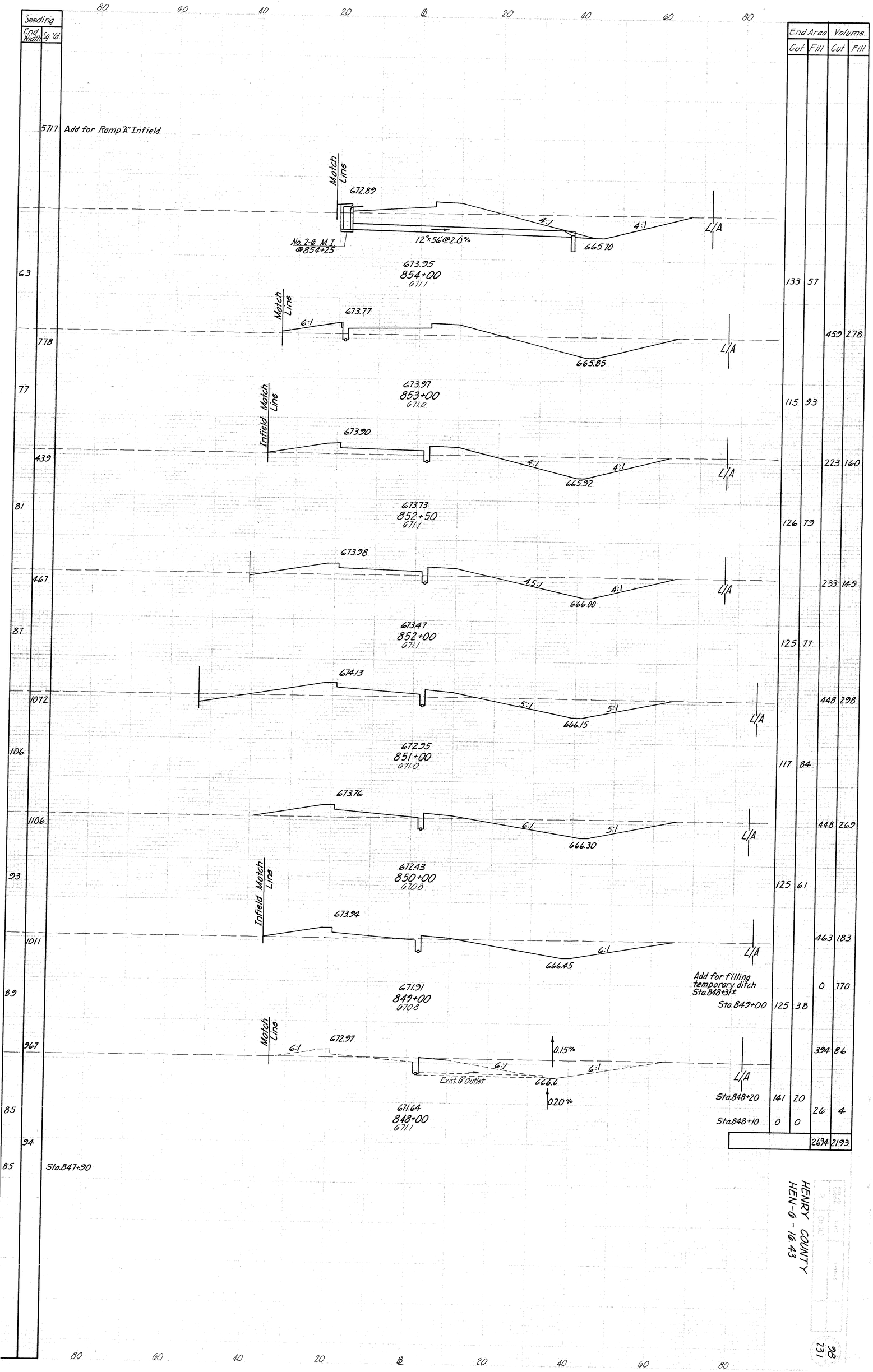
(D) DRAINAGE

Ref. No.	Station From	Station To or At	Side	602 Concrete Masonry Cu.Yd.	603 12" Conduit Type B W/cl. B Bedding Lin. Ft.	603 6" Conduit Type F Lin. Ft.	604 Std. 2-6 Median Inlet Each	605 6" Shallow Pipe Underdrain Lin.Ft.	601 Dumped Rock Channel Protection Cu. Yd.	6" Bends & Branches for Underdrains Each
1-D	848+00	852+75	Rt.					475		
2-D	852+75	854+23.3	Lt.			10		138		
3-D		854+23.3	Lt & Rt	0.23	56		1		0.8	
4-D	854+23.3	856+00	℄			10		167		
5-D	854+75.96	858+02	Lt.			10		361		1
6-D	856+00	858+05	Rt.			10		234		1
		Totals		0.23	56	40	1	1375	0.8	2

Lt. Edge	672.20	672.37	672.55	672.72	672.80	672.71	672.57
Med. Edge	672.80	672.86	672.92	672.99	673.02	672.97	672.84
Pavement Elev. Left of ℄	672.80	672.86	672.92	672.99	673.02	672.97	672.84



SR 424 INTERCHANGE RAMP "A"



HENRY COUNTY
HEN-6 - 16.43

HENRY COUNTY
HEN-6 - 16.43

End Area		Volume	
Cut	Fill	Cut	Fill
311	0	156	184
288	2	1187	4
194	26	893	52
179	30	691	104
144	38	153	31
133	57	330	134
		3470	509

Sta. 854+00

Sta. 854+75.96 Ahd.
Sta. 854+75.96 Bk.

L/A

Add SR 424 Intersection

4:1

665.09

4:1

665.25

665.40

665.55

0.15 %

4:1

665.59

4:1

671.73
858+07
671.4

18" Culvert crossing Sta. 858+10

672.29
857+00
671.5

672.85
856+00
671.3

0.80 %

673.41
855+00
671.2

854+76 Ahead

672.84

672.14

672.05

854+76 Back Ahead

673.54

854+75.96
671.1

6:1

667.05

6:1

667.9

668.7

663.5

6:1

670.14

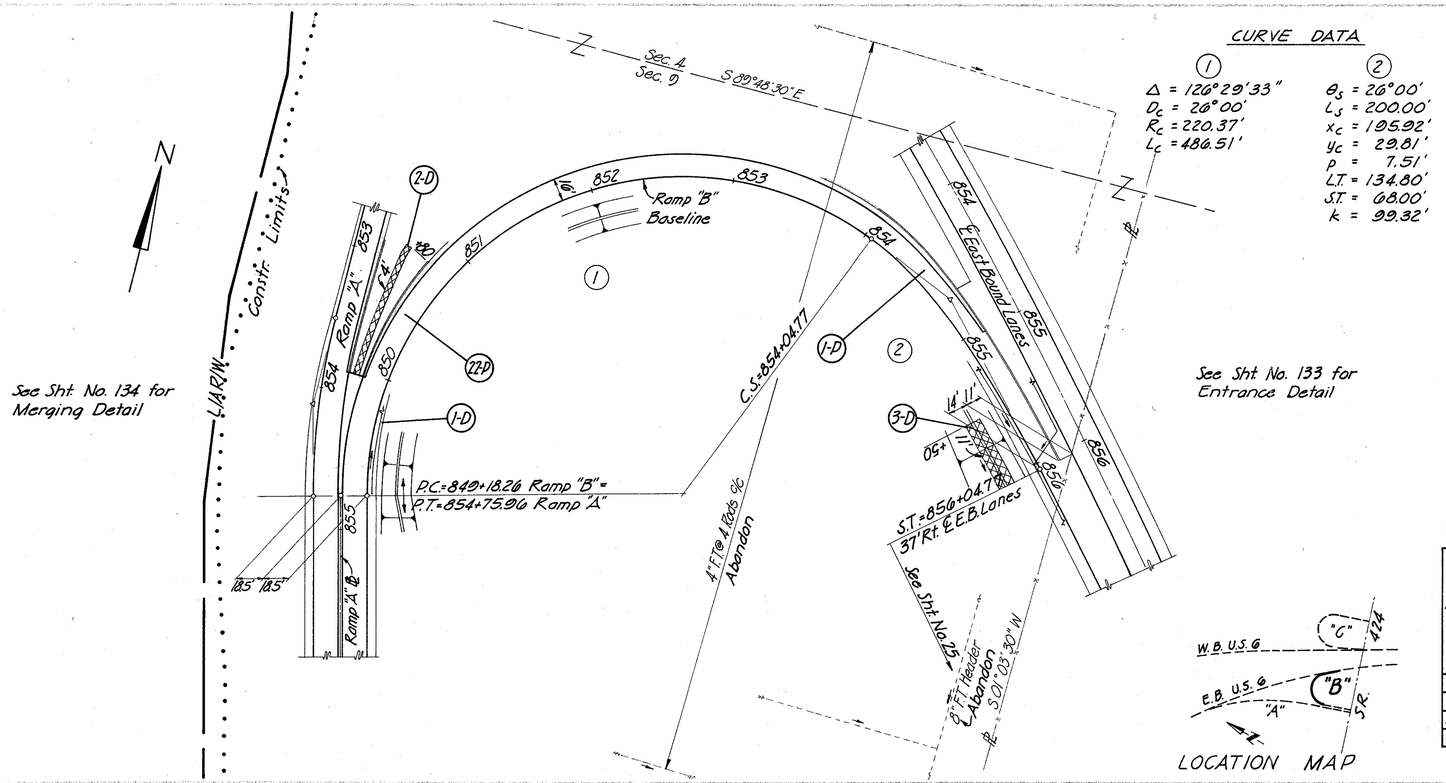
From SR 424
L+Ditch

Infield Match Line

Infield Match Line

Seeding	
End Width	16' Ag Yield
105	1248
105	1167
105	1034
235	
544	

HENRY COUNTY
HEN. -6-16.43

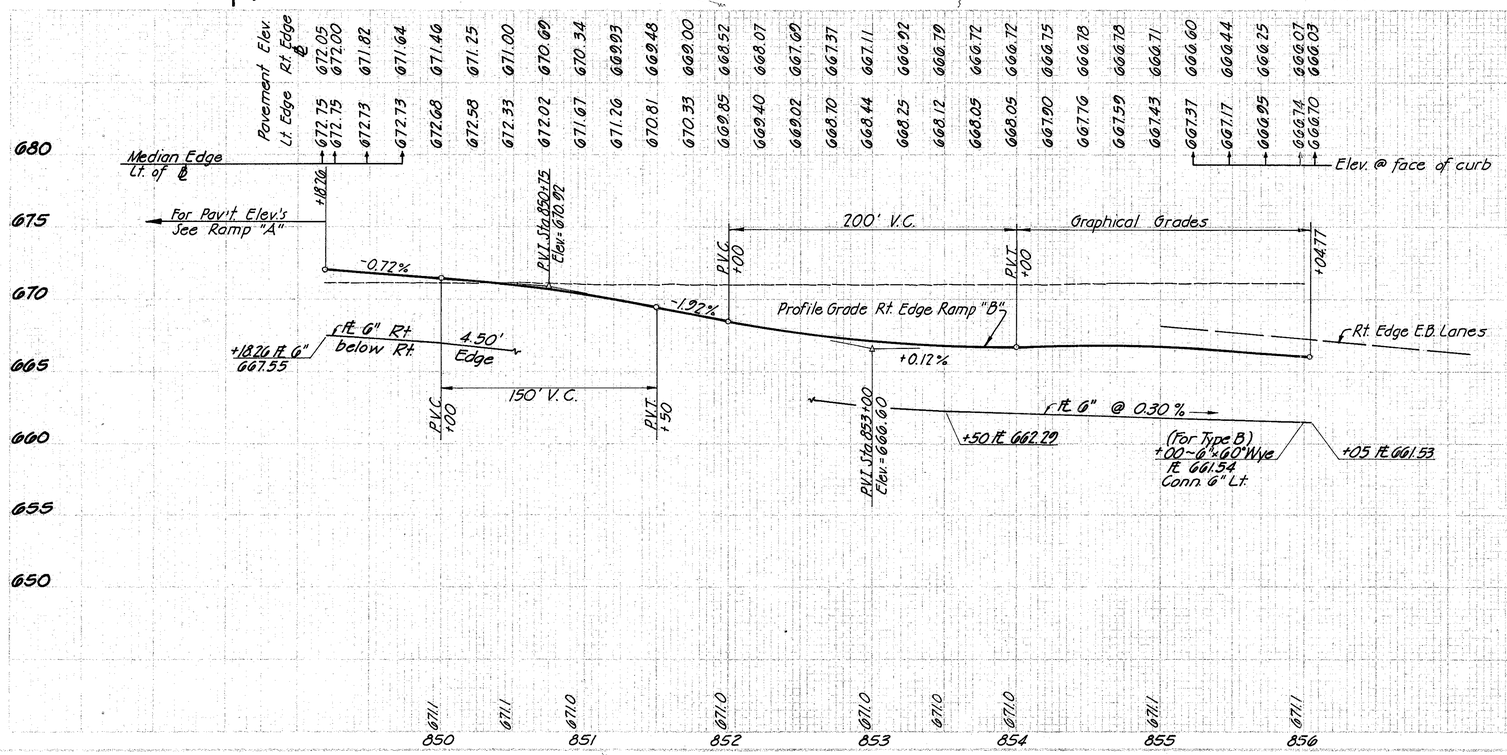


CURVE DATA

①		②	
Δ	= 126°29'33"	θ_s	= 26°00'
D_c	= 26°00'	L_s	= 200.00'
R_c	= 220.37'	x_c	= 195.92'
L_c	= 486.51'	y_c	= 29.81'
		p	= 7.51'
		L.T.	= 134.80'
		S.T.	= 68.00'
		k	= 99.32'

Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	605 6" Shallow Pipe Underdrain Lin. Ft.	667 Jute Matting Sq. Yd.	6" Bends & Branches for Type B Each
1-D	849+18.26	850+00	Rt.	682		1
2-D	849+97	850+80	Lt.		37	
3-D	855+50	856+04.77	Rt.		67	
	Totals			682	104	1



S.R. 424 INTERCHANGE RAMP "B"

End Area		Volume	
Cut	Fill	Cut	Fill
334	0	1181	0
304	0	561	0
302	0	537	0
278	0	881	0
138	0	533	11
90	6	141	17
63	12	93	19
37	8	76	18
13	4	4003	65

Sta. 850+00
Sta. 849+18.26

HENRY COUNTY
HEN 6 - 16.43

101
231

Add for Ramp "B" Infield

Infield Match Line
664.0
Match Line
664.43
666.71
855+00
671.1

664.30
668.05
6:1
666.72
854+00
671.0
Infield Match Line
668.12
6:1
0.30%
664.45
666.79
853+50
671.0

664.18
668.44
667.11
853+00
671.0

664.19
668.85
6:1
668.52
852+00
671.0
Infield Match Line
671.67
8:1

668.01
6:1
670.34
851+00
671.0

668.67
672.33
8:1
6:1
671.00
850+50
671.1

669.20
6:1
672.68
8:1
671.46
850+00
671.1

Infield Match Line
670.14
6:1
Match Line
672.74
672.05
849+18.26
671.1

Seeding		
End Area	Cut	Fill
23888	322	
26		322
32	169	
29		169
29	161	
29		322
30	328	
31		169
20	142	
16		166

S.R. 424 Interchange Ramp "B"

HENRY COUNTY
HEN - 6 - 16.43

E Survey U.S. 6
Ctr. 2' Nose Rad. - 860+22.27 - 40' Lt. E Survey U.S. 6
S 28°03'30"E
Westbound Lanes
862+75.70 E Survey U.S. 6 = 729+44.44 E S.R. 424
P.T. 862+19.99 E Survey U.S. 6
L/A
See Sht. No. 27 S.R. 424
E Survey & E Constr.
E Temp Run-Around
See Sht. No. 133 for Exit Detail
S.C. Ctr. 2' Nose Rad. 860+25.00 - 23' Lt.
4" F.T. Header
4" F.T. @ 40'-0"
C.S. - 858+25.00
7.5 Jute
Abandon
5" F.T. Header
S 89°45'30"E
Sec 2
Sec 4
PC: 852+10.71
Ramp "C" Baseline
N 15°17'00"W
8" F.T. Header
708'-6" Header (By property owner)
Abandon
225'-8" Header (By property owner)
734+13.75 ℄ S.R. 424 = 848+50.55 ℄ Ramp "C"
See Sht. No. 135 for Intersection Detail
Constr. Limits
75' Jute
254'-4" Header By property owner)
Continue in Service
50' R
20'

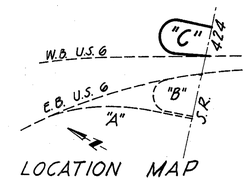
CURVE DATA

(3) Δ = 10°11'59"
D_c = 4°00'
R_c = 1432.39'
L_c = 254.99'
T = 127.83'

(2) Δ = 29°00'
L_a = 200.00'
P_a = 6.08'
T_1 = 126.55'
T_2 = 77.82'
D_1 = 4°00'
D_2 = 25°00'

(1) Δ = 153°34'31"
D_c = 25°00'
R_c = 229.18'
L_c = 614.29'

LOCATION MAP

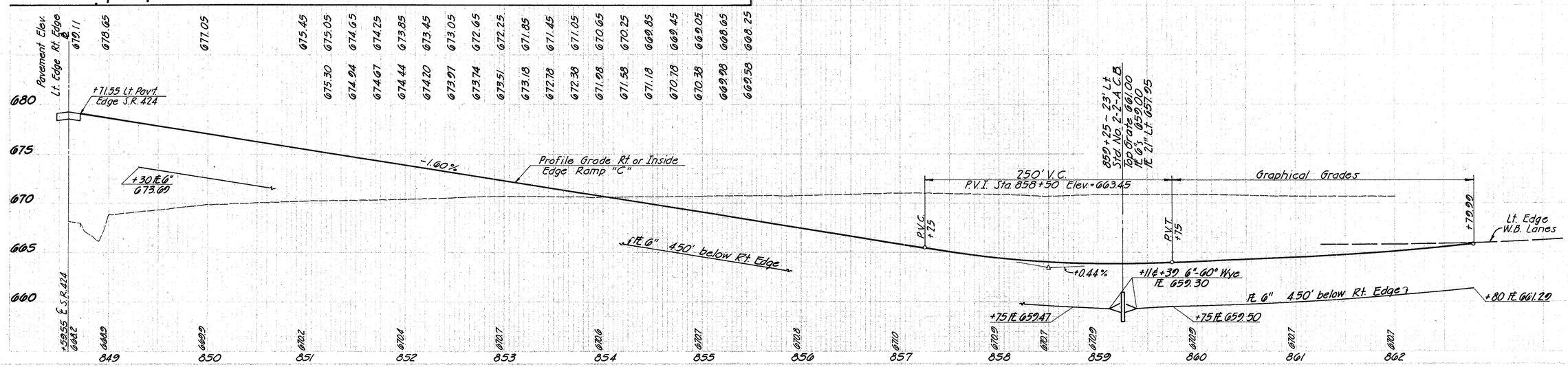


Note
Right and Left side configurations are in reference to direction of travel instead of the direction of stationing.

(D) DRAINAGE

Ref. No.	Station From	Station To	Side	603 6" Conduit Type F Lin. Ft.	605 6" Shallow Pipe Underdrains Lin. Ft.	607 Jute Matting Sq. Yd.	6" Bends & Branches for Underdrains Each
1-D	849+30	859+25	Rt.	10	1005		1
2-D	854+90	859+24	Rt.			362	
3-D	857+08	859+18	Lt.			125	
4-D	859+26	860+77	Rt.			120	
5-D	859+25	862+80	Rt.	10	366		1
Totals				20	1371	613	2

Station	849	850	851	852	853	854	855	856	857	858	859	860	861	862
Pavement Elev. Lt. Edge Rt. Edge ℄	679.11	678.65	677.05	675.45	675.05	674.65	674.25	673.85	673.45	673.05	672.65	672.25	671.85	671.45
	675.30	674.94	674.67	674.44	674.20	673.97	673.74	673.51	673.18	672.78	672.38	671.98	671.58	671.18
	670.78	670.38	669.98	669.58	669.18	668.78	668.38	667.98	667.58	667.18	666.78	666.38	667.05	667.45
	667.85	668.25	668.65	669.05	669.45	669.85	670.25	670.65	671.05	671.45	671.85	672.25	672.65	673.05
	673.45	673.85	674.25	674.65	675.05	675.45	677.05	678.65	679.11					



Station	849	850	851	852	853	854	855	856	857	858	859	860	861	862
Elev. 12' Lt. ℄	669.18	668.78	668.38	667.98	667.58	667.18	666.78	666.41	666.08	665.81	665.59	665.42	665.30	665.23
	665.21	665.22	665.27	665.33	665.40	665.10	665.21	665.32	665.42	665.52	665.62	665.73	665.83	665.93
	666.04	666.14	666.24	666.34	666.44	666.54	666.64	666.74	666.84	666.94	667.04	667.14	667.24	667.34
	667.44	667.54	667.64	667.74	667.84	667.94	668.04	668.14	668.24	668.34	668.44	668.54	668.64	668.74
	668.84	668.94	669.04	669.14	669.24	669.34	669.44	669.54	669.64	669.74	669.84	669.94	670.04	670.14

End Area		Volume	
Cut	Fill	Cut	Fill
283	0		
		813	0
156	0		
		480	20
103	11		
		341	141
81	65		
		281	407
71	155		
		237	780
57	266		
		181	1200
41	382		
		76	1301
17	608	7	1038
		2416	4887

HENRY COUNTY
HEN-6-16.43

103
231

Seeding	
End Area	Cy Yd
117127	
76	
822	
72	
861	
83	
961	
90	
1067	
102	
1128	
101	
1111	
99	
848	
116	

Add For Ramp "C" Infield

Infield Match Line

668.78 6:1 6:1 667.4

667.45 856+00 610.8

6:1 6:1 665.12

670.38 669.0

669.05 855+00 610.7

666.7 0.2%

854+75

671.98 669.5 0.3%

670.65 854+00 610.6

669.2

667.1

673.51

672.25 853+00 610.7

674.44 668.9 6:1 6:1 667.3

673.85 852+00 610.4

668.6 4:1 5:1 667.5

675.45 851+00 610.2

668.3 0.3% 4:1 4:1 667.7

677.05 850+00 609.9

4:1 4:1 667.3

678.19 849+29 608.9

Infield Match Line

0.2% 4:1 4:1 667.05

From S.R.424 Lt Ditch

To S.R.424 Lt Ditch

Add for SR 424 Interchange

S.R. 424 Interchange Ramp "C"

HENRY COUNTY
HEN-6-16.43

End Area	Volume	
Cut	Fill	Cut	Fill
500	0		
		1439	0
536	0		
541	0		
		1580	0
596	0		
		1092	0
583	0		
L/A			
		1928	0
458	0		
		1372	0
283	0		
		7411	0

Sta. 859+25 Ahd.
Sta. 859+25 Bk.
Sta. 857+00
Sta. 856+00

Match Line
Infield Match Line
Match Line
Infield Match Line

24"
Ahead 1/8"/Ft.
Back
2'+59@0.64%
859+00
℄ 663.85
858+15
℄ 661.64

664.11
860+00
6.0%
6:1
6:1
661.60

663.21
663.88
859+25
6.0%
661.00

665.42
6:1
6:1
664.0
663.88
859+25
6.0%
661.76

665.81
664.4
664.02
858+50
6.0%
662.15

667.78
6:1
6:1
665.8
664.48
858+00
6.0%
663.52

665.85
857+00
6.1%

Adj. for Area between Constr. Limits ℄ L/A Sta. 857+00 to 858+00 on Ramp "C" ℄

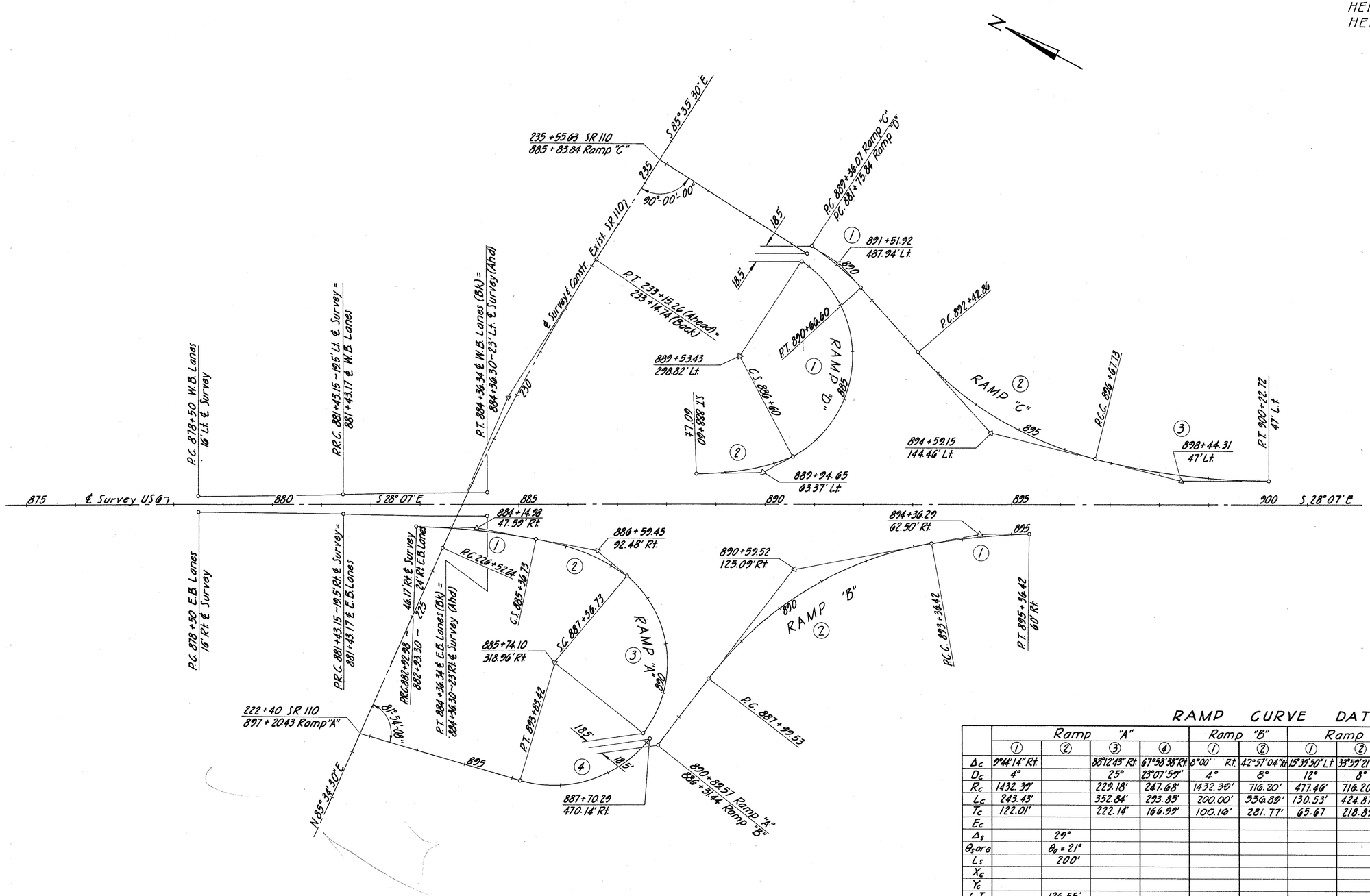
Seeding	
End Wall Sq. Yd.	
	26
	252
	35
	383
	57
	355
	71
	917
	133
	344
	96
	76

S.R. 424 Interchange Ramp "C"

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

105
231

HENRY COUNTY
HEN-G-16.43



Note: All plusses and outs to the various ramp control points shown on this sheet are from the ℄ of Survey U.S. 6

RAMP CURVE DATA

	Ramp "A"				Ramp "B"		Ramp "C"			Ramp "D"	
	①	②	③	④	①	②	①	②	③	①	②
Δ_c	9°44'14" Rt.		88°12'43" Rt.	67°58'38" Rt.	8°00' Rt.	42°57'04" Rt.	15°39'50" Lt.	33°59'21" Rt.	14°11'59" Rt.	121°02'34" Rt.	
D_c	4°		25°	25°07'59"	4°	8°	12°	8°	4°	25°	25°
R_c	1432.39'		229.18'	227.68'	1432.39'	716.20'	477.46'	716.20'	1432.39'	229.18'	
L_c	243.43'		352.84'	293.85'	200.00'	536.89'	130.53'	424.87'	354.99'	484.16	
T_c	122.01'		222.14'	166.99'	100.16'	281.77'	65.67	218.89'	178.41'	405.43'	
E_c											
Δ_s		29°									
θ_s or α		$\theta_s = 21°$									$\theta_s = 25°$
L_s		200'									200'
X_c											196.23'
Y_c											28.70'
L.T.		126.55'									134.69'
S.T.		77.82'									67.90'
P											7.22'
P_o		6.08'									
K											99.37'

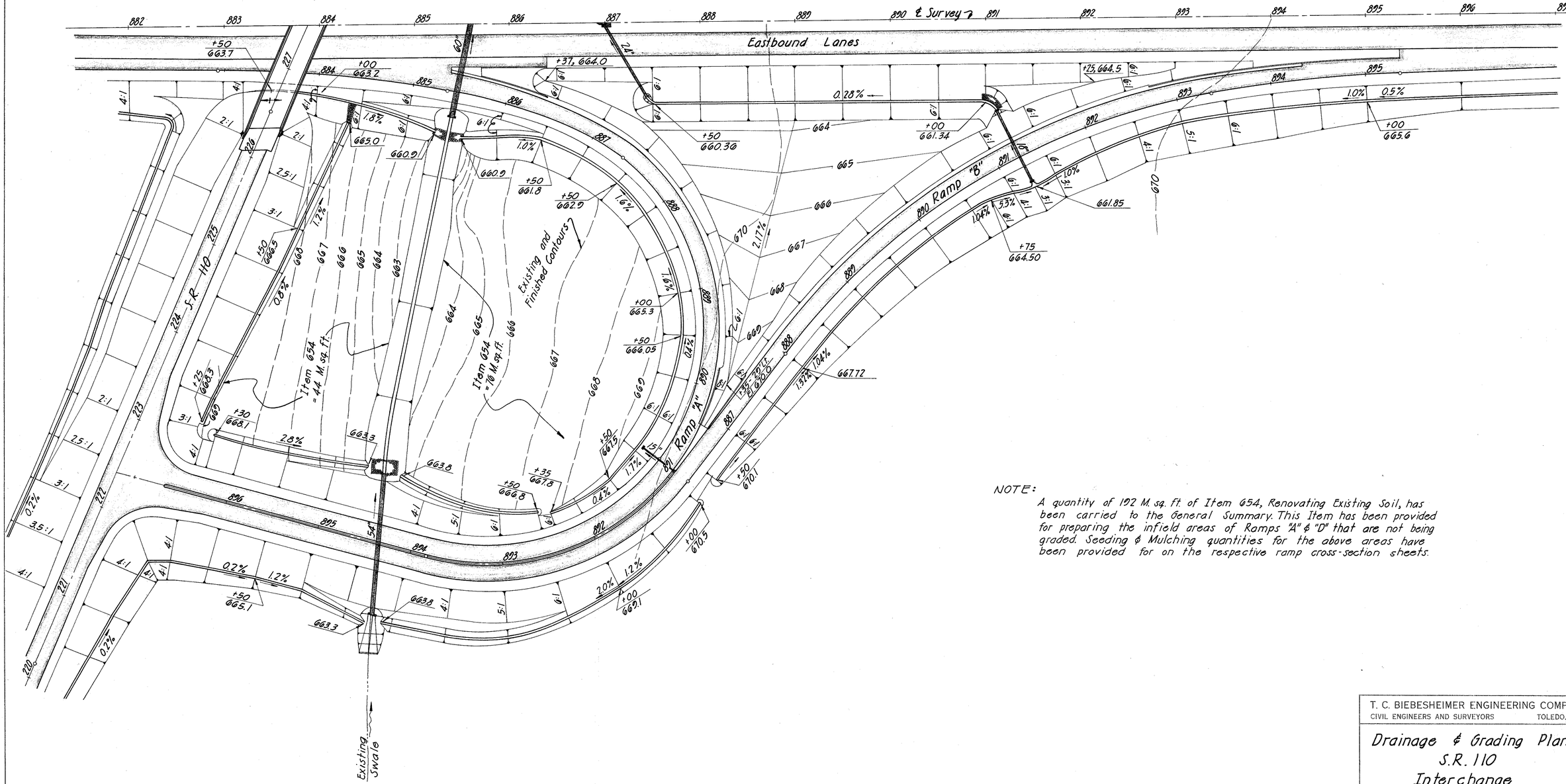
0408-5

Geometric Layout S.R. 110 & Reloc. U.S. 6 Interchange

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

100
731

HENRY COUNTY
HEN-6-16.43



NOTE:
A quantity of 192 M. sq. ft. of Item 654, Renovating Existing Soil, has been carried to the General Summary. This Item has been provided for preparing the infield areas of Ramps "A" & "D" that are not being graded. Seeding & Mulching quantities for the above areas have been provided for on the respective ramp cross-section sheets.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

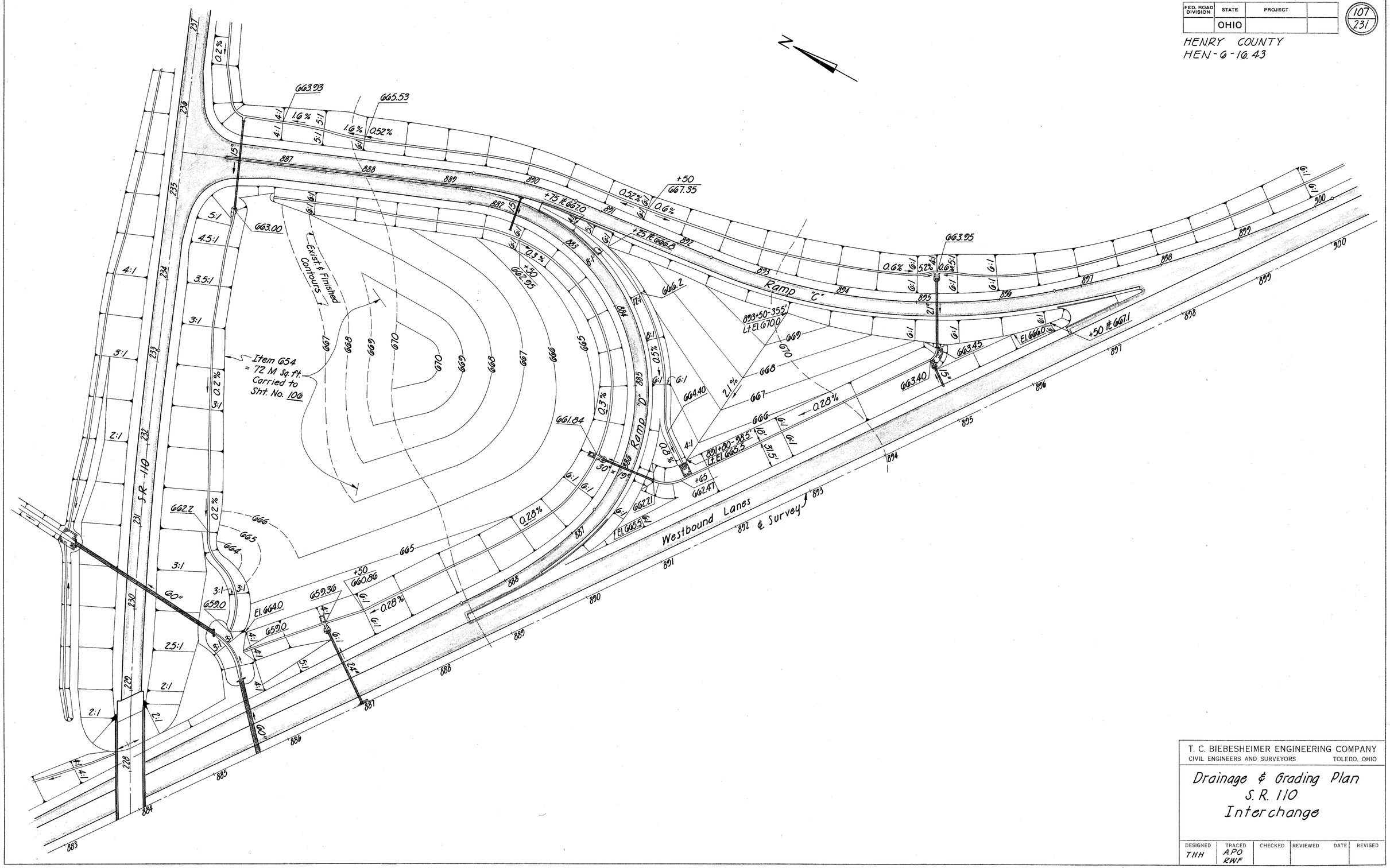
Drainage & Grading Plan S.R. 110 Interchange

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	A.P.O. MK				

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

HENRY COUNTY
HEN-6-10.43

107
231



T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

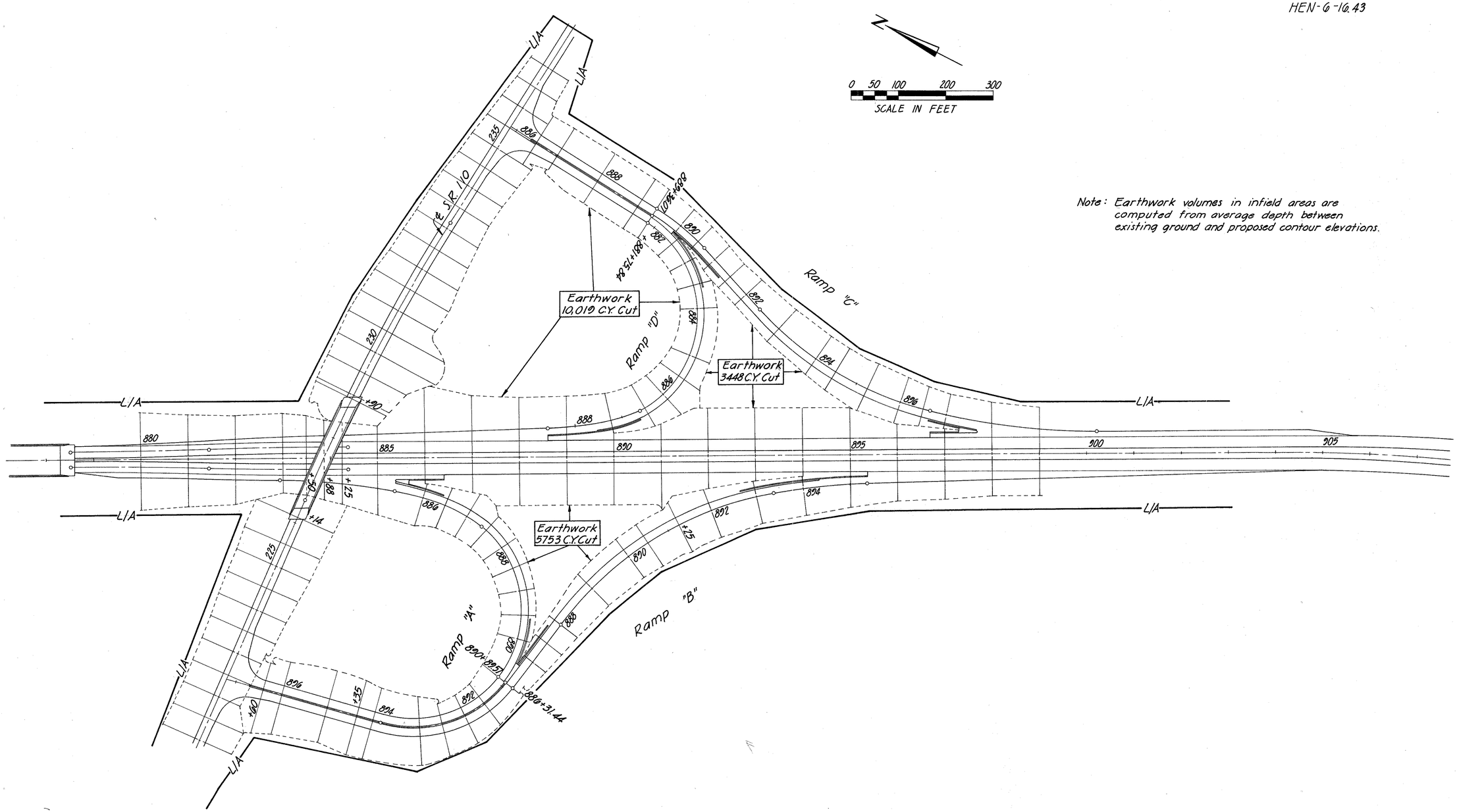
Drainage & Grading Plan S.R. 110 Interchange

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
THH	APO RWF				

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

108
231

HENRY COUNTY
HEN-6-16.43



Note: Earthwork volumes in infield areas are computed from average depth between existing ground and proposed contour elevations.

S.R. 110 Interchange
CROSS-SECTION LAYOUT PLAN

Curve Data Exist. & Proposed ℄ Survey ℄ Const.

P.I. Sta. 215+11.88

Δ = 24° 51' 30" Rt.
Dc = 4° 00'
R = 1432.40
Ls = 400'
Ts = 516.59'
Δc = 8° 51' 30"
Lc = 221.46'
Es = 39.14'
Gs = 8° 00'
P = 4.65'
K = 199.87'
Xc = 399.22'
Tc = 18.59'
L.T. = 266.94'
S.T. = 133.58'

Ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	603 12" Conduit Type "D" Lin. Ft.
1-D	220+00.85	200+50	Lt.	44
		Total		44

HENRY COUNTY
HEN-6-16.43

109
231

EXISTING T PLAN
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
ALIGNMENT INKED
TOPOGRAPHY PLOTTED
TOPOGRAPHY CHECKED
TOPOGRAPHY INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED
B. M. & REF. POINTS

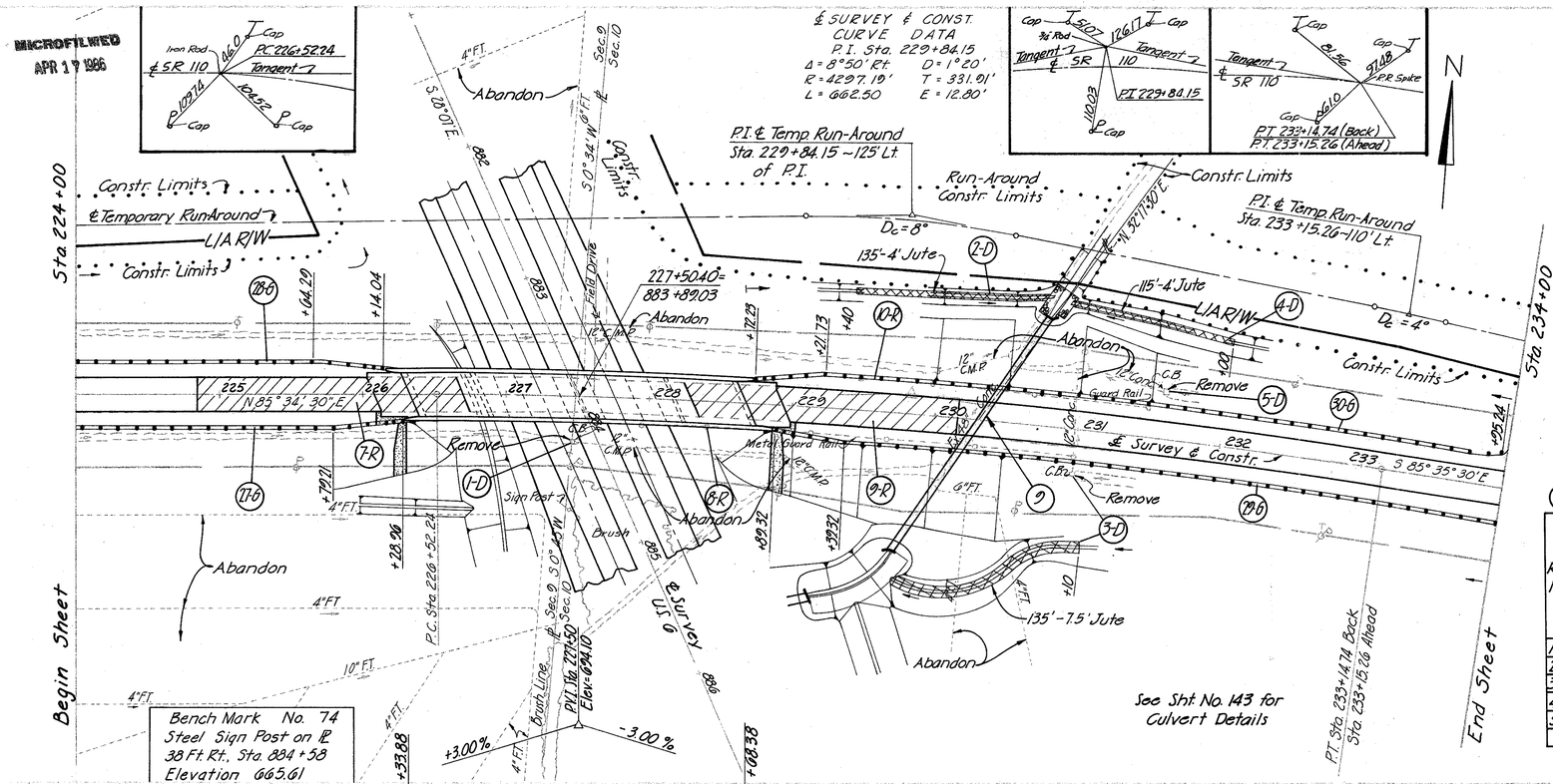
DESIGN PLAN
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
GEOMETRICS PLOTTED
GEOMETRICS CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
STRUCTURES PLOTTED
STRUCTURES CHECKED
MASS DIAGRAM PLOTTED
CONST. LIMITS CHECKED
PROP. LINES PLOTTED
PROP. LINES CHECKED
PROP. R/W PLOTTED
PROP. R/W CHECKED
CONST. LIMITS PLOTTED
CONST. LIMITS INKED

EXISTING
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
ALIGNMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
STRUCTURES PLOTTED
STRUCTURES CHECKED
MASS DIAGRAM PLOTTED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED

MICROFILMED
APR 17 1986

HENRY COUNTY
HEN - G - 10.43

PROPOSED STRUCTURE
TYPE: Continuous Steel Beam with Reinforced Concrete Deck and Substructure
SPANS: 47'-3"; 67'-0"; 67'-6"; 47'-3"
ROADWAY: 30'-0" F/f 2'-0" Safety Curbs
LOAD FREQUENCY: C.F. 400 (57)
SKEW: 25° 01' 02" R.F. ALIGNMENT: 1° 20' Curve to Rt
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: Special Design (25'-0" Long)
SUPERELEVATION: Varies



Ⓓ DRAINAGE

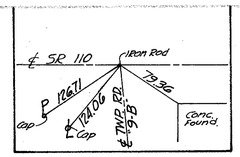
Ref. No.	Station From	Station To or At	Side	Catch Basins Removed 202 Each	Jute Matting 667 Sq. Yd.
1-D		227+48	Rt	1	
2-D	229+40	230+75	Lt		60
3-D	229+78	231+10	Rt	1	112
4-D	230+85	232+00	Lt		51
5-D		231+60	Lt	1	
		Totals		3	223

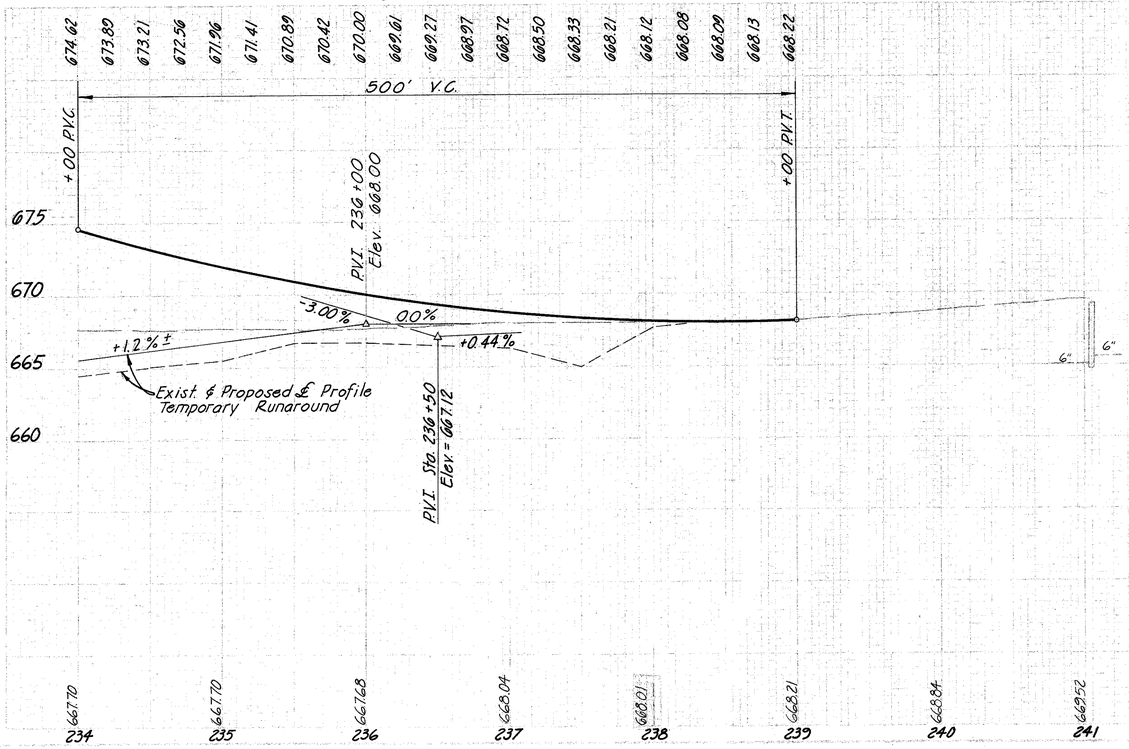
6408

Existing S.R. 110 Sta. 224+00 to Sta 234+00

HENRY COUNTY
HEN - 6 - 16.43

EXIST. & SURVEY & CONST.
CURVE DATA
P.I. Sta. 240 + 77.42
Δ = 5°09' Rt. D = 1° 24'
R = 4092.56' T = 112.52'
L = 225.00' E = 1.55'





6408

Existing S.R. 110 Sta. 234+00 to Sta. 244+00

CROSS SECTIONS — EXISTING	BY	DATE		BY	DATE
SECTION PLOTTED			UTILITIES CHECKED		
SECTION CHECKED			UTILITIES INKED		
SECTION INKED					
DRAINAGE PLOTTED					
DRAINAGE CHECKED					
DRAINAGE INKED					
UTILITIES PLOTTED					

CROSS SECTIONS — DESIGN	BY	DATE		BY	DATE
PAVEMENT PLOTTED			END AREA CHECKED		
PAVEMENT CHECKED			CUT & FILL COMP.		
PAVEMENT INKED			CUT & FILL CHECKED		
DRAINAGE PLOTTED			SEEDING COMP.		
DRAINAGE CHECKED			SEEDING CHECKED		
DRAINAGE INKED	L.W.N.	12/65	QUANTITIES INKED	L.W.N.	12/65
END AREA COMP.					

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

Seeding End Width	Sq Yd	End Area Cut	End Area Fill	Cu. Yd. Cut	Cu. Yd. Fill
132	717	73	277	126	438
126	689	63	196	103	275
122	658	49	101	102	159
115	620	61	70	106	103
108	589	53	42	102	68
104	564	57	32	102	32
99	220	53	2		
99					
				641	1075

Sta. Equation 220+21.86 Ahd.
220+16.75 Bk.

℄ Temporary Runaround
661.0
120 110 100 90
Match Line
4:1 4:1
R/W
659.7
0.20%
672.19
220+00
668.77
Start Sta. = 94.89'
4:1 4:1
665.7
0.20%
L/A

663.0
120 110 100 90
Match Line
671.23 671.04
671.23
219+50
668.86
665.8
659.8

665.0
110 100 90
Match Line
670.61 670.30
219+00
669.19
665.9
659.9
R/W
L/A

667.0
100 80
Match Line
670.20 669.70
669.96
218+50
669.36
666.0
660.0

669.0
669.98 669.26
669.65
218+00
669.54
666.1
660.1
R/W
L/A

669.6
669.98 669.02
4:1
669.56
217+50
669.64
666.2
660.2

670.17 670.2 669.00
0.20%
669.68
217+00
669.68
4:1 666.3 4:1
L/A
0.20%
R/W
4:1 660.3 4:1
Begin Ditch

Sta. 216+80

℄ Temporary Runaround
Res.
℄ Dr.
6:1
667.1
216+50
669.80

℄ Dr.
666.8
216+00
669.80

Exist. Res. Dr.
666.2
215+00
669.99

18"
6" SE
HDPE
15"
214+33
214+00
670.35
214+21

Existing S.R. No. 110 STA. 214+00 to STA. 220+00

HENRY COUNTY
HEN - 6 - 1643

112
231

6428

End Area	Cu. Yd.
Cut / Fill	Cut / Fill
31 1387	
	51 2455
30 1764	
	52 2200
26 1112	
	46 1932
24 974	
	32 1739
11 904	
	19 1580
9 802	
	110 1354
109 661	
	194 1123
100 552	
	185 856 281
22 373	
	159 602
13 277	
	854 14122

CROSS SECTIONS	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
END AREA COMP.		

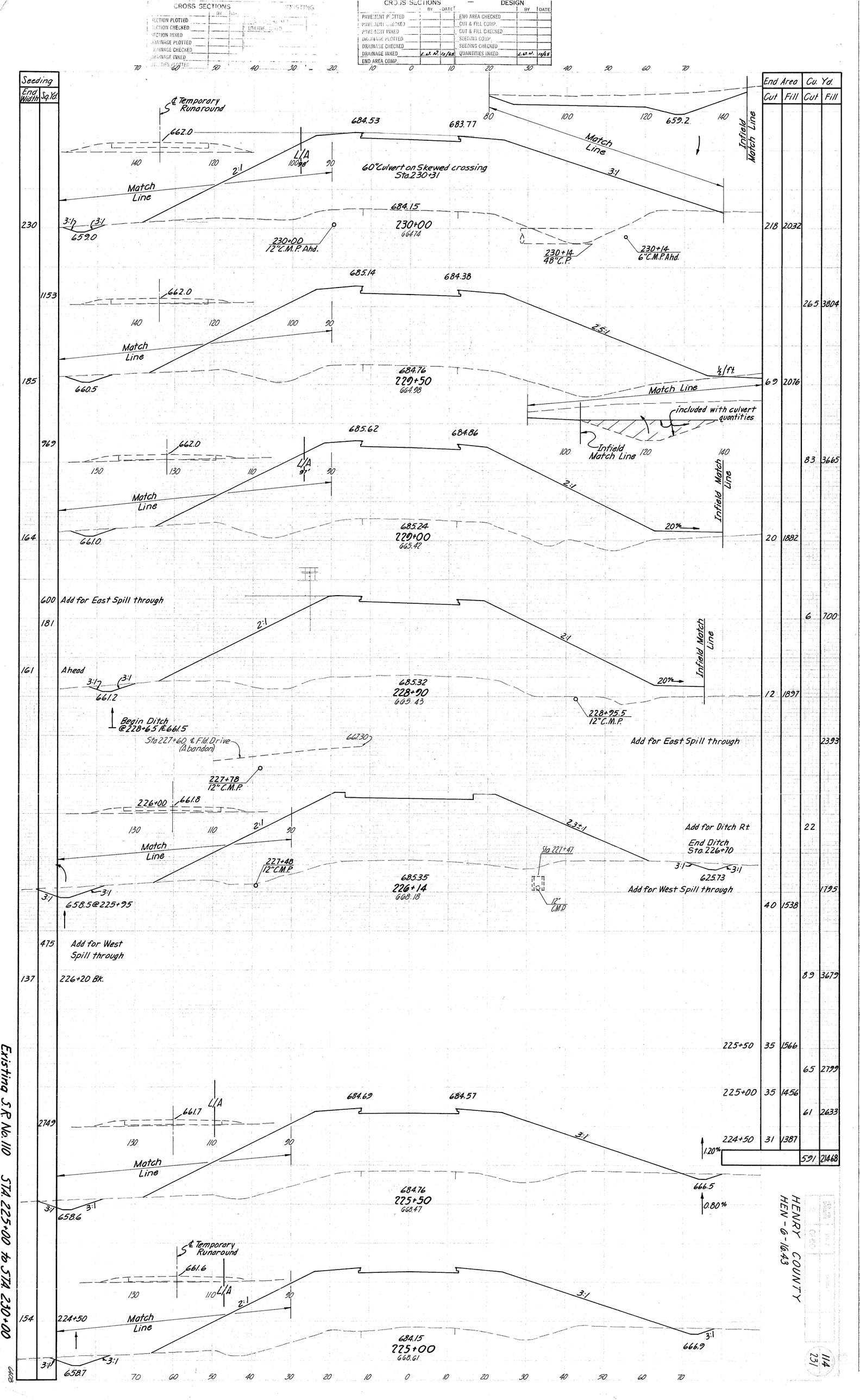
DESIGN	BY	DATE
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED		

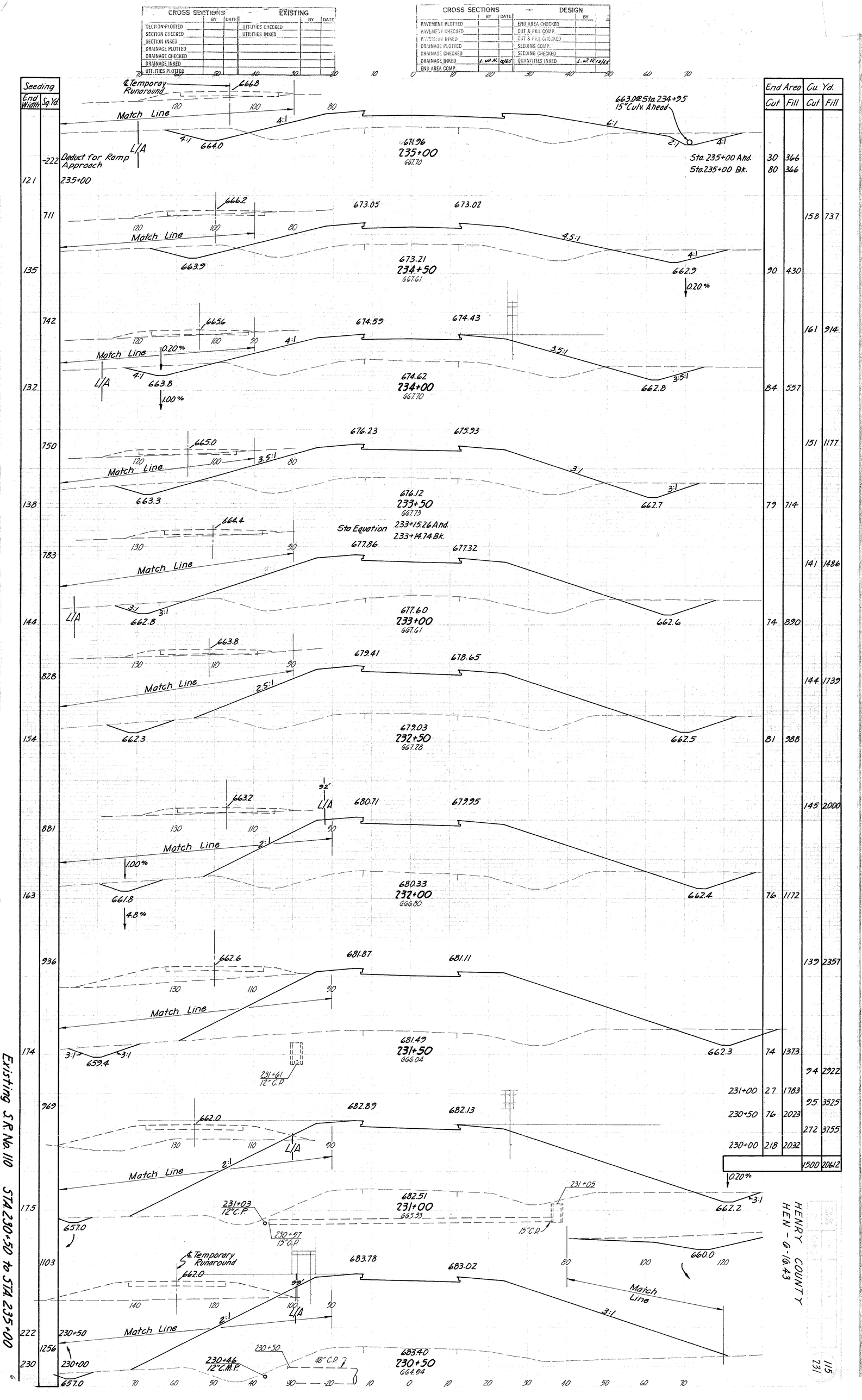
113
231

HENRY COUNTY
HEN - 6 - 16.43

Existing S.R. No. 110 STA. 220+50 to STA. 224+50

6408


CROSS SECTIONS — EXISTING
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
QUANTITIES INKED
CROSS SECTIONS — DESIGN
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED
Seeding
End Width
Sq.Yd.
End Area
Cut
Fill
Cu. Yd.
Cut
Fill
℄ Temporary Runaround
662.0
684.53
683.77
Match Line
Infield Match Line
659.2
60"Culvert on Skewed crossing Sta.230+31
684.15
230+00
664.14
230+00 12"C.M.P. Ahd.
230+14 48"C.P.
230+14 6"C.M.P.Ahd.
659.0
685.14
684.38
662.0
660.5
684.76
229+50
664.98
½/ft.
included with culvert quantities
685.62
684.86
662.0
661.0
685.24
229+00
665.42
Add for East Spill through
Ahead
661.2
Begin Ditch @228+65 @661.5
685.32
228+90
665.43
228+95.5 12"C.M.P.
Sta 227+60 ℄ Fld Drive (Abandon)
661.30
227+78 12" C.M.P.
226+00
661.8
227+48 12"C.M.P.
685.35
226+14
668.18
Sta 227+47
12' C.M.P.
Add for Ditch Rt
End Ditch Sta.226+70
625.73
Add for West Spill through
658.5@225+95
Add for West Spill through
226+20 Bk.
661.7
684.69
684.57
Match Line
666.5
684.76
225+50
668.47
658.6
℄ Temporary Runaround
661.6
224+50
Match Line
684.15
225+00
668.61
666.9
658.7
Existing S.R. No. 110 STA. 225+00 to STA. 230+00
HENRY COUNTY
HEN-6-16.43
114
231


CROSS SECTIONS EXISTING
SECTION PLOTTED
SECTION CHECKED
SECTION INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED
CROSS SECTIONS DESIGN
PAVEMENT PLOTTED
PAVEMENT CHECKED
PAVEMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
END AREA COMP.
END AREA CHECKED
CUT & FILL COMP.
CUT & FILL CHECKED
SEEDING COMP.
SEEDING CHECKED
QUANTITIES INKED
Seeding
End Width
Sq.Yd.
End Area
Cut
Fill
Cu. Yd.
Cut
Fill
Temporary Runaround
Match Line
Deduct for Ramp Approach
L/A
Sta. 235+00 Ahd.
Sta. 235+00 Bk.
663.0 @ Sta. 234+95
15" Culv. Ahead
671.96
235+00
667.10
673.21
234+50
667.61
674.62
234+00
667.70
676.12
233+50
667.73
Sta Equation
233+15.26 Ahd.
233+14.74 Bk.
677.60
233+00
667.61
679.03
232+50
667.78
680.33
232+00
666.80
681.49
231+50
666.04
682.51
231+00
665.33
683.40
230+50
664.94
231+61
12" C.P.
231+03
12" C.P.
230+97
15" C.P.
231+05
15" C.P.
230+46
12" C.M.P.
48" C.P.
0.20%
1.00%
4.8%
Existing S.R. No. 110 STA. 230+50 to STA. 235+00
HENRY COUNTY
HEN-6-16.43
115
231

CROSS SECTIONS — EXISTING	BY	DATE
SECTION PLOTTED		
SECTION CHECKED		
SECTION INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		
UTILITIES CHECKED		
UTILITIES INKED		

CROSS SECTIONS — DESIGN	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED	L.A.N.	12/15
DRAINAGE INKED		
END AREA COMP.		
END AREA CHECKED		
CUT & FILL COMP.		
CUT & FILL CHECKED		
SEEDING COMP.		
SEEDING CHECKED		
QUANTITIES INKED	I. W. R.	12/15

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

Seeding End Width	Seeding Sq.Yd.		End Area Cut	End Area Fill	Cu. Yd. Cut	Cu. Yd. Fill
		240+77 ℄ TWP. RD. No. 9-B 669.37				
		240+00 668.84				
		239+50 668.49				
		668.22 239+00 End Work 668.21	33	0		
		℄ Temporary Runaround 668.0			61	0
		668.09 238+50 668.11	33	0		
40	238+10	668.0 668.12 238+00 668.01 L/A 664.6 4:1 663.6	32	10	60	10
380		668.0 4:1 664.5 668.33 237+50 667.90 663.5 L/A	35	13	62	22
74						
517		668.0 L/A 664.4 668.72 237+00 668.04 663.4 4:1 L/A	22	53	53	61
112						
656		668.0 Match Line 90 80 70 664.3 669.27 236+50 667.85 4:1 663.3 4:1 L/A	836+50 30 66 836+00 Ahd. 59 186 836+00 Bk. 19 186 835+50 30 220 835+00 30 366		48 45 56 468	110 376 542 1355
124					83	234
622		668.0 Match Line 100 80 L/A 664.2 670.00 236+00 667.68 663.2				
100						
514		℄ Temporary Runaround 667.4 110 100 90 80 Match Line 0.70% 4:1 4:1 664.1 670.89 235+50 667.66 +55.63 ~ Ramp "C" Profile Grade				
85						
572						
121	235+00					

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

Existing S.R. No. 110 STA. 235+50 to 240+77

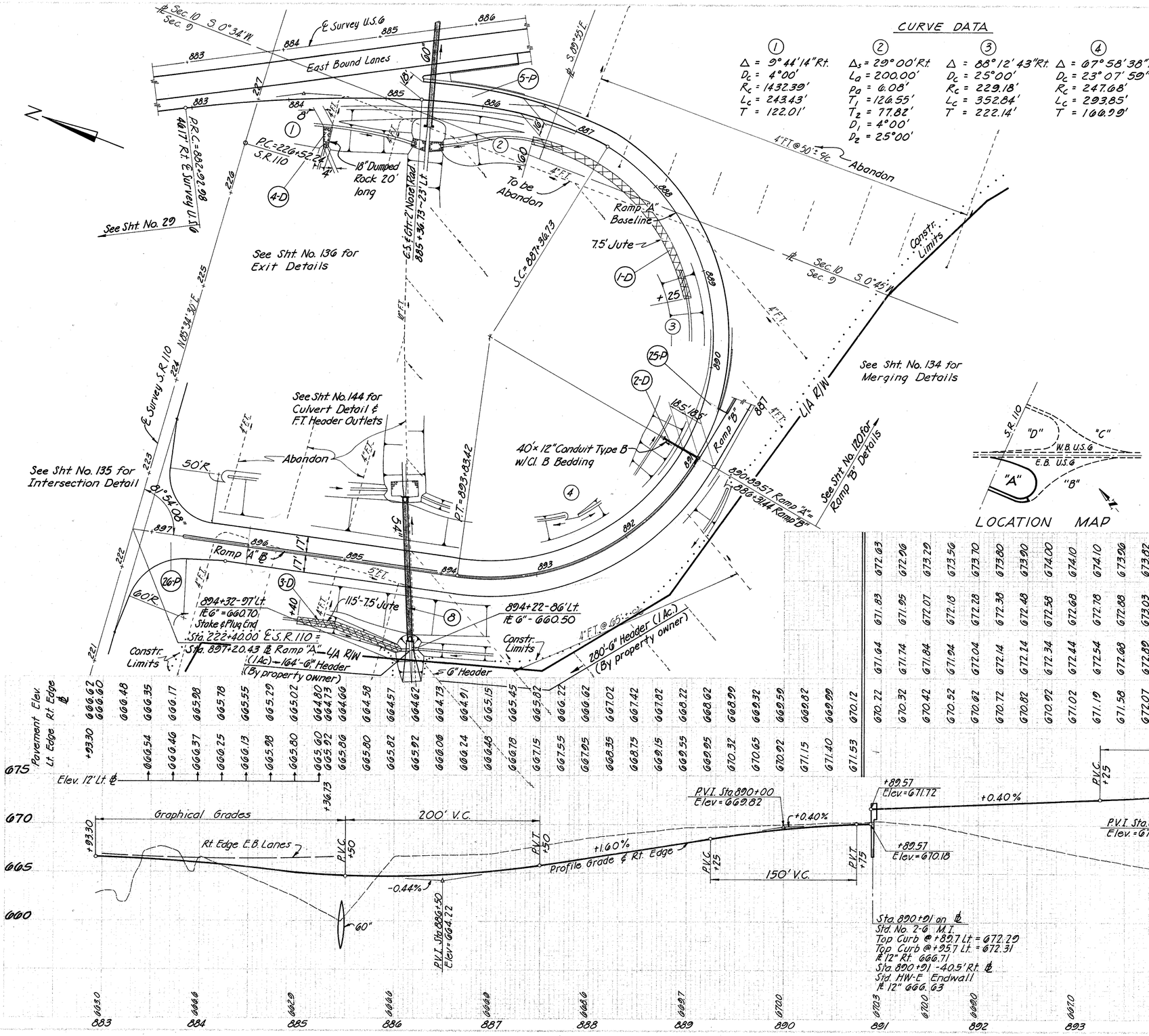
HENRY COUNTY
HEN-6-1643

116
231

HENRY COUNTY
HEN - 6 - 16.43

CURVE DATA

①	②	③	④
$\Delta = 9°44'14"$ Rt.	$\Delta_s = 29°00'$ Rt.	$\Delta = 88°12'43"$ Rt.	$\Delta = 67°58'38"$ Rt.
$D_c = 4°00'$	$L_a = 200.00'$	$D_c = 25°00'$	$D_c = 23°07'50"$
$R_c = 1432.39'$	$p_a = 6.08'$	$R_c = 229.18'$	$R_c = 247.68'$
$L_c = 243.43'$	$T_1 = 126.55'$	$L_c = 352.84'$	$L_c = 293.85'$
$T = 122.01'$	$T_2 = 77.82'$	$T = 222.14'$	$T = 160.99'$
	$D_1 = 4°00'$		
	$D_2 = 25°00'$		



Ⓓ DRAINAGE

Ref. No.	Station From	Station To or At	Side	601 Dumped Rock Channel Protection Cu. Yd.	602 Concrete Masonry Cu. Yd.	603 12" Conduit Type B w/cl. B Bedding Lin. Ft.	604 Std. No. 2-6 Median Inlet Each	667 Jute Matting Sq. Yd.
1-D	886+60	889+25	Rt.					221
2-D		890+91	Rt.	0.7	0.23	40	1	
3-D	894+25	895+40	Lt.					96
4-D		894+38	Rt.	6.7				
	Total			7.4	0.23	40	1	317

Sta.	Pavement Elev.	Rt. Edge ℄	Elev. 12' Lt. ℄	Rt. Edge E.B. Lanes	Profile Grade ℄	Rt. Median Edge	Lt. Median Edge	Lt. Edge	Profile Grade
883	+9.30	666.62				671.64	671.83	672.03	
		666.60				671.74	671.95	672.16	
884		666.48				671.84	672.07	672.29	
		666.54				671.94	672.18	672.50	
885		666.35				672.04	672.28	673.70	
		666.46				672.14	672.38	673.80	
886		666.17				672.34	672.48	673.90	
		666.37				672.44	672.58	674.00	
887		665.98				672.54	672.68	674.10	
		666.25				672.68	672.78	674.10	
888		665.78				672.88	672.88	673.96	
		666.13				673.04	673.03	673.82	
889		665.55				673.24	673.23	673.80	
		665.98				673.44	673.48	673.84	
890		665.29				673.64	673.78	673.93	673.77
		665.80				673.75	674.12	674.06	674.13
891		665.02					674.52	674.29	674.54
		665.80					674.90	674.72	675.01
892		664.80							676.46
		665.92							
893		664.73							678.41
		665.92							
894		664.66							
		666.06							
895		664.58							
		665.80							
896		664.57							
		665.82							
897		664.62							
		665.92							

S.R. 110 INTERCHANGE RAMP "A"

CROSS SECTIONS — EXISTING	BY	DATE		BY	DATE
E TRIM PLOTTED	A.P.O.	4/25/66	UTILITIES CHECKED		
SECTION PLOTTED			UTILITIES INKED		
SECTION INKED	A.P.O.	5/26/66			
QUANTITY PLOTTED					
DRAINAGE CHECKED					
DRAINAGE INKED					
UTILITIES PLOTTED					

CROSS SECTIONS — DESIGN	BY	DATE		BY	DATE
PAVEMENT PLOTTED	A.P.O.	10/5/66	END AREA CHECKED		
PAVEMENT SELECTED			CUT & FILL CHKD.		
PAVEMENT INKED			CUT & FILL CHECKED		
DRAINAGE PLOTTED			SEEDING COMP.		
DRAINAGE CHECKED			SEEDING CHECKED		
DRAINAGE INKED	L.W.M.	11/4/66	QUANTITIES INKED	L.W.M.	11/14/66
END AREA COMP.					

Seeding End Width	Seeding Sq.Yd		End Area Cut	End Area Fill	Volume Cut	Volume Fill
64		890+89.57 Ahd.				
33		890+89.57 Bk.				
		Sta.890+89.57 Ahd.	67	14		
		Sta.890+89.57 Bk.	67	0		
					287	28
388						
45		890+00	106	3		
239					203	4
41		889+50	114	2		
239					265	2
45		889+00	172	0		
261					345	0
49		888+50	200	0		
286					385	0
54		888+00	215	0		
314					416	0
59		887+50	235	0		
370					463	0
		Added Excavation For Infield (Lt)			140	
		887+00	265	0	400	2
		886+50	167	2	365	15
74		887+00				
		886+00	227	14		
364					3269	51
57		886+50				
313						
58		886+00				

S.R. 110 Interchange Ramp "A"

HENRY COUNTY
HEN 6 - 16.43

118
231

CROSS SECTIONS — EXISTING	BY	DATE		BY	DATE
SECTION PLOTTED	A.P.O.	9/26/6	UTILITIES CHECKED		
SECTION CHECKED			UTILITIES INKED		
SECTION INKED	A.P.O.	9/27/6			
DRAINAGE PLOTTED					
DRAINAGE CHECKED					
DRAINAGE INKED					
UTILITIES PLOTTED					

CROSS SECTIONS — DESIGN	BY	DATE		BY	DATE
PAVEMENT PLOTTED	A.P.O.	6/26/6	END AREA CHECKED		
PAVEMENT CHECKED			CUT & FILL COMP.		
PAVEMENT INKED			CUT & FILL CHECKED		
DRAINAGE PLOTTED			SEEDING COMP.		
DRAINAGE CHECKED			SEEDING CHECKED		
DRAINAGE INKED	L.W.H.	12/6/6	QUANTITIES INKED	L.W.H.	12/6/6
END AREA COMP.					

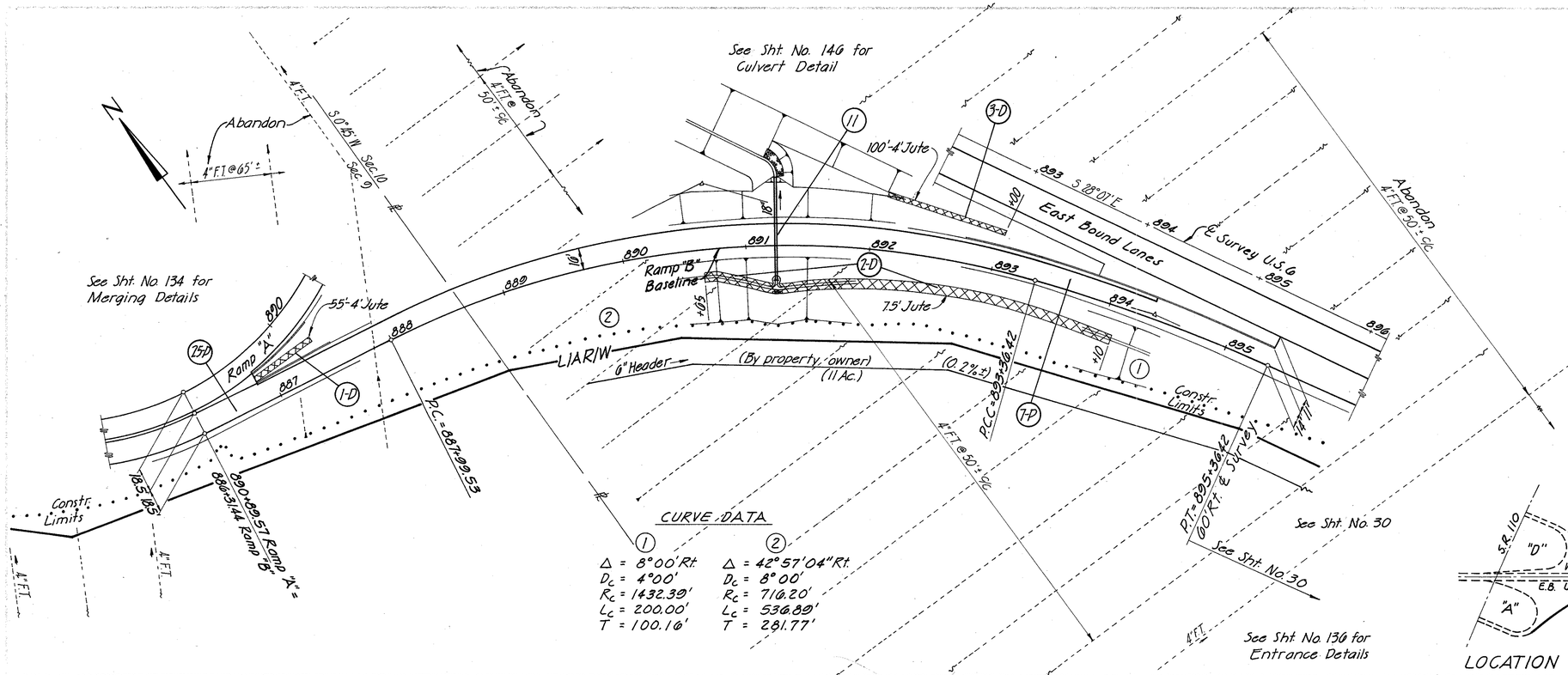
Seeding		End Area		Volume	
End Width	Sq Yd	Cut	Fill	Cut	Fill
					1063
260	Add for Ramp & S.R. 110 Intersection				
	677.24				
	From S.R. 110 Rt. Ditch				
	4:1				
	4:1				
	665.28				
	4:1				
	End Ditch Sta. 896+30±				
	668.1+30±				
135	896+40	87	614		
	669.3				
	676.46				
533				108	888
L/A					
	665.2				
	667.0				
105	896+00	58	585		
	668.3				
	0.20%				
	895+50 ft 665.1				
	1.20%				
	674.29 674.52 674.54				
1139				141	2387
L/A					
	4:1 664.5				
	4:1 4:1				
	664.2				
	Begin Ditch Sta. 894+66±				
100	895+00	18	704		
	668.7				
	673.88 673.60 673.55 673.20				
719				29	1840
	L/A 663.7				
	Begin Ditch 894+35±				
	54" Culvert on skewed crossing Sta. 894+35				
99	894+35	6	824		
	668.0				
	End Ditch Sta. 894+30±				
	673.80 673.23 673.13 672.53				
	4:1 4:1				
358				13	946
	2.00% 2.00%				
L/A	6:1 664.0 6:1 6:1 664.4 6:1				
	End Ditch Sta. 894+05±				
	2.00%				
85	894+00	14	635		
	665.2				
	674.10				
	672.68 672.44 671.02				
944	5:1 6:1			54	1954
L/A	666.5 666.0				
85	893+00	14	420		
	667.0				
	673.90 672.48 672.24 670.82				
	6:1 2.00%			23	665
408					
L/A	667.8 6:1				
	666.8				
	Begin Ditch Sta. 892+50				
	892+50	11	298	20	452
	892+00	11	190		
	891+50	27	88	35	257
62	892+50			108	113
	668.0				
	End Ditch Sta. 892+35	Sta. 890+89.57 Ahd	67	14	
	673.10				
	2.00%				
	672.24 672.04 670.62				
356					
L/A	669.1				
	667.7				
	1.20% 0.40%				
66	892+00				
	669.0				
	673.29 672.01 671.84 670.42				
	6:1				
336					
L/A	669.8				
	667.5				
55	891+50				
	670.0				
64 400	890+89.57 Ahd.			531	10565

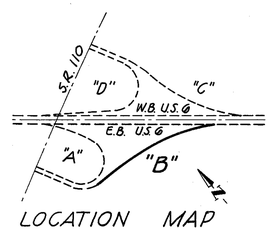
S.R. 110 Interchange Ramp "A"

HENRY COUNTY
HEN-6-16.43

119
231

HENRY COUNTY
HEN - 6 - 16.43

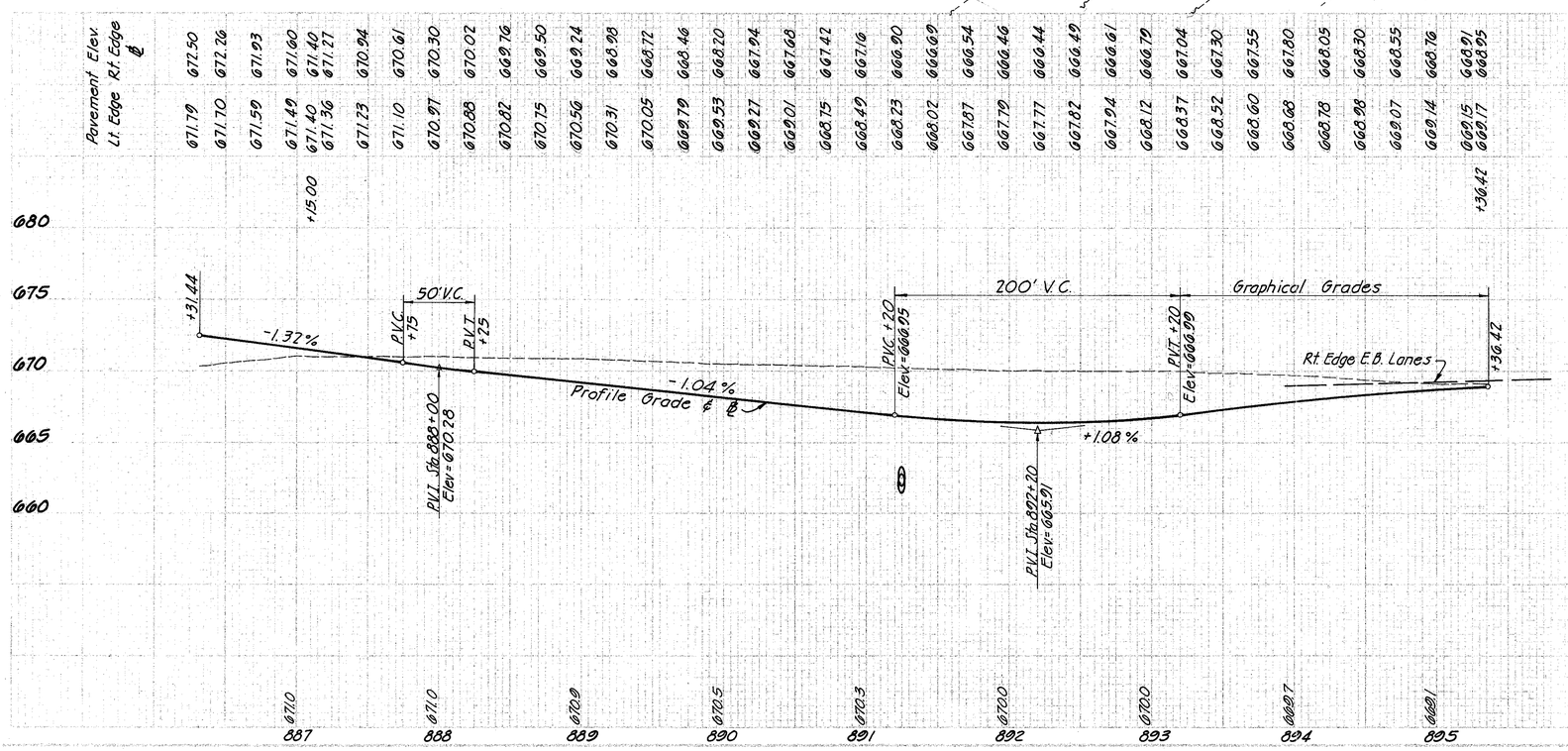




LOCATION MAP

Ⓓ DRAINAGE

Ref. No.	Station From	Station To or At	Side	GGT Jute Matting Sq. Yd.
1-D	886+87	887+42	Lt.	25
2-D	890+65	894+10	Rt.	288
3-D	892+11	893+00	Lt.	45
		Totals		358



S.R. 110 INTERCHANGE RAMP "B"

PLAN — EXISTING
ALIGNMENT PLOTTED — BY — DATE
ALIGNMENT CHECKED — DRAINAGE CHECKED — UTILITIES CHECKED
ALIGNMENT INKED — DRAINAGE PLOTTED — UTILITIES PLOTTED
TOPOGRAPHY PLOTTED — TOPOGRAPHY CHECKED — B.M.'s & REF. POINTS
TOPOGRAPHY INKED — DRAINAGE EXISTING

PLAN — DESIGN
ALIGNMENT PLOTTED — BY — DATE — CONST. LIMITS CHECKED
ALIGNMENT CHECKED — MISC. LINES PLOTTED
GEOMETRICS PLOTTED — ERSM. ALIGN. PLOTTED
DRAINAGE PLOTTED — ERSM. ALIGN. CHECKED
DRAINAGE CHECKED — CONST. LIMITS PLOTTED
CONST. LIMITS PLOTTED — INKED

PROFILE — DESIGN
ALIGNMENT PLOTTED — BY — DATE — H-SS'S — ANI CHECKED
ALIGNMENT CHECKED — INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
STRUCTURES PLOTTED
STRUCTURES CHECKED
MASS DIAGRAM PLOTTED

PROFILE — EXISTING
ALIGNMENT PLOTTED — BY — DATE — UTILITIES CHECKED
ALIGNMENT CHECKED — UTILITIES INKED
ALIGNMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
TOPOGRAPHY INKED
UTILITIES PLOTTED

CROSS SECTIONS — EXISTING	BY	DATE		BY	DATE
SECTION PLOTTED	A.P.O.	5/2/16	UTILITIES CHECKED		
SECTION CHECKED			UTILITIES INKED		
SECTION INKED	A.P.O.	5/2/16			
DRAINAGE PLOTTED					
DRAINAGE CHECKED					
DRAINAGE INKED					
UTILITIES PLOTTED					

CROSS SECTIONS — DESIGN	BY	DATE		BY	DATE
PAVEMENT PLOTTED	A.P.O.	5/2/16	END AREA CHECKED		
PAVEMENT CHECKED			CUT & FILL COMP.		
PAVEMENT INKED			CUT & FILL CHECKED		
DRAINAGE PLOTTED			SEEDING COMP.		
DRAINAGE CHECKED			SEEDING CHECKED		
DRAINAGE INKED	L.W.H.	11/16	QUANTITIES INKED	L.W.H.	11/16
END AREA COMP.					

Seeding		End Area		Volume	
End Width	SqYd	Cut	Fill	Cut	Fill
60	Bk.				
	894+00	249	0		
	669.7				
	728			1078	0
71					
	893+00	333	0		
	670.0				
	894			1446	0
90					
	892+00	448	0		
	670.0				
	788			1428	0
99					
	891+25	580	0		
	670.4				
	763			1283	0
84					
	890+50	344	0		
	670.4				
	458			592	0
81					
	890+00	295	0		
	670.5				
	872			948	0
76					
	889+00	217	0		
	670.9				
	739			630	0
57					
	888+00	123	1		
	671.0				
	306			166	5
		887+50	56	4	
				101	11
		887+00	53	8	
53				67	35
	887+50				
	670.9	886+31.44	0	19	
	267			7739	51
43					
	887+00				
	671.0				
	278				
30					
	886+31.44				
	670.6				

Match Line
668.68
667.80
1.00%
6:1
6:1
664.6
L/A

Match Line
668.12
666.79
6:1
5:1
663.6
L/A

Match Line
667.79
666.46
3.5:1
662.6
L/A

668.23
666.96
891+15 ℄ +40
6:1
2:1
6:1
1.00%
3:1
18" Culvert crossing Sta. 891+25
661.85
5.30%
L/A

Infield Match Line
890+75
℄ 664.5
662.01
667.68
6:1
664.8
L/A

662.53
668.20
665.3
L/A

670.56
669.24
6:1
666.3
L/A

670.97
670.30
667.8
L/A

Infield Match Line
671.23
670.94
6:1
668.4
L/A

Match Line Ramp "A"
671.49
671.60
6:1
669.0
6:1
L/A

Match Line Ramp "A"
671.79
672.50
6:1
Begin Ditch
886+50
℄ 670.1
L/A

80 60 40 20 ℄ 20 40 60 80

S.R. 110 Interchange Ramp "B"

HENRY COUNTY
HEN-6 - 16.43

121
231

HENRY COUNTY
HEN-6-16.43

See Sht. No. 135 for Intersection Detail

Sta. 235+55.03 ℄ S.R. 110 = Sta. 885+83.84 ℄ Ramp "C"

See Sht. No. 134 for Merging Details

See Sht. No. 137 for Exit Details

See Sht. No. 147 for Culvert Detail

See Sht. No. 125 for Ramp "D" Details

See Sht. No. 147 for Culvert Details

See Sht. No. 31

CURVE DATA

①	②	③
Δ = 15°39'50" Lt.	Δ = 33° 59' 21" Rt.	Δ = 14°11'59" Rt.
D_c = 12°00'	D_c = 8° 00'	D_c = 4°00'
R_c = 477.46'	R_c = 716.20'	R_c = 1432.39'
L_c = 130.53'	L_c = 424.87'	L_c = 354.99'
T = 65.67'	T = 218.89'	T = 178.41'

(D) DRAINAGE

Ref No.	Station From	Station To	Side	601 Dumped Rock Channel Protection Cu. Yd.	602 Concrete Masonry (C)Yd.	603 12" Conduit Type B w/C.I. B Bedding Lin. Ft.	604 Median Inlet Std No. 2-G Each	607 Jute Matting Sq.Yd.
1-D	886+90	888+10	Rt.					100
2-D	889+00 Ramp "C" Lt.	882+60 Ramp "D" Rt.						95
3-D	882+34 Ramp D Rt.	890+00 Ramp C Lt.		1.2	0.23	42	1	
4-D	882+57 Ramp D	883+32 Ramp D	Lt.					33
5-D	894+90	895+25	Rt.					29
6-D	896+90 ℄ Survey U.S.6	897+65 ℄ Survey U.S.6	Lt.					33
Totals				1.2	0.23	42	1	290

Note: Applies to Ramp "C" only
Right and Left side configurations are in reference to direction of travel instead of the direction of stationing.

LOCATION MAP

S.R. 110, "D", "C", W.B. U.S.6, E.B. U.S.6, "A", "B"

Sta.	Pov't. Elevations Lt. Edge	Rt. Edge	Median Edge	Pov't. Elevations Lt. of ℄	Med Edge	Lt. Edge	Rt. Edge	Pov't. Elevations
886	670.25	670.18						
			668.47		668.47	668.20	668.20	
887	669.38							
888	669.01							
			668.42		668.42	668.14	668.20	
889	668.71							
			668.37		668.37	668.07	668.30	
890	668.48							
			668.32		668.30	668.00	668.43	
891	668.31							
			668.24		668.17	667.76	668.56	
892	668.21							
			668.14		668.24	667.41	668.62	
893	668.17							
			668.10		668.17	667.26	668.82	
894	668.20							
			668.05				668.95	
895	668.30							
			667.90				669.08	
896	668.34							
			667.80				669.21	
897	668.47							
			668.06				669.34	
898	668.61							
			668.15				669.47	
899	668.73							
			668.48				669.60	
900	668.86							
			668.82				669.73	
901	668.99							
			669.16				669.86	
902	670.12							
			669.49				669.99	
903	670.25							
			669.83				670.12	
904	670.38							
			670.16				670.25	
905	670.51							
			670.49				670.38	
906	670.64							
			670.83				670.51	
907	670.74							
			671.17				670.64	
908	670.77							
			671.50				670.74	
909	670.73							
			671.83				670.77	
910	670.63							
			672.07				670.73	
911	670.48							
			672.10				670.63	
912	670.23							
			672.08				670.48	
913	670.03							
			671.96				670.23	
914	669.56							
			671.79				670.03	
915	669.16							
			671.56				669.56	
916	668.79							
			671.26				669.16	
917	668.49							
			670.89				668.79	
918	668.25							
			670.49				668.49	
919	668.08							
			670.12				668.25	
920	667.97							
			669.82				668.08	
921	667.93							
			669.58				667.97	
922	667.95							
			669.41				667.93	
923	668.04							
			669.30				667.95	
924	668.19							
			669.26				668.04	
925	668.33							
			669.24				668.19	
926	668.41							
			669.31				668.33	
927	668.62							
			669.41				668.41	
928	668.85							
			669.51				668.62	
929	669.07							
			669.18				668.85	
930	669.31							
			+67.73				669.07	
931	669.54							
							669.31	
932	669.77							
							669.54	
933	670.00							
							669.77	
934	670.23							
							670.00	
935	670.41							
							670.23	
936	670.51							
							670.41	
							670.51	
							Elev. 12' Lt. ℄	
	Lt. Edge	Rt. Edge		Pov't. Elevations Lt. of ℄	Med Edge	Lt. Edge	Rt. Edge	Pov't. Elevations

680 / 675 / 670 / 665 / 660

Sta. 890+00 - 18.5' Lt.
Std. No. 2-G M.I.
Top Curb @ +97 = 668.41
Top Curb @ +03 = 668.42
Ft. 12" Lt. 663.08

Sta. 882+34 - 20.5' Rt.
Ramp "D"
Std. HW-E Endwall
Ft. 12" 663.00

PVI Sta. 887+50
Elev. = 667.78

PVI Sta. 894+00
Elev. = 671.16

PVI Sta. 896+50
Elev. = 667.16

200' V.C. | 250' V.C. | 200' V.C.

-1.60% | +0.52% | -1.60% | +1.00%

Rt. Edge & Profile Grade

Graphical Grades
Edge W.B. Lanes

886 887 888 889 890 891 892 893 894 895 896 897 898 899 900

S.R. 110 INTERCHANGE RAMP "C"

CROSS SECTIONS EXISTING	BY	DATE
℄ TOPY PLOT'D	A.P.O.	5/26/65
SECTION SIDE HEAD		
SECTION INKED	A.P.O.	9/27/65
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

CROSS SECTIONS DESIGN	BY	DATE
PAVEMENT PLOTTED	A.P.O.	1/26/66
PAVEMENT CHECKED		
PAVEMENT INKED		
OPTIMUM ADJUSTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.O.N.	12/66
END AREA COMP.		

END AREA CHECKED	BY	DATE
CUT & FILL SUMM.		
CUT & FILL CHECKED		
SEEDING INKED		
SEEDING CHECKED		
QUANTITIES INKED	L.O.N.	12/66

Seeding End Width	Seeding Sq Yd	Station	Elevation	Remarks	End Area Cut	End Area Fill	Volume Cut	Volume Fill
62		891+50	670.0		100	0		
	353		669.60	669.15			186	1
			667.09	5:1				
65		891+00	669.1		101	1		
	325		669.34	668.47			199	1
			666.83	4:1				
52		890+50	669.7		114	0		
	283		669.08	667.90			232	0
			666.57	12"				
50		890+00	669.9	Sta. 890+00 ~ 18.5' Lt. Std. No. 2-6 M.I.	137	0		
	384		668.75	668.10 667.97 667.26			380	0
58		Ahd.						
87		Bk.						
		889+36.07	670.2					
				Sta. 889+36.07 Ahd.	183	0		
				Sta. 889+36.07 Bk. Only	444	0		
	345		668.56	668.24 668.17 667.76			596	0
			666.05	664.8				
85		889+00	670.5		450	0		
	944		668.17	0.52%			1519	0
			665.53	665.7				
85		888+00	670.0		370	0		
							811	22
				887+00	68	12		
	900		668.71	1.60%			105	162
			663.93	666.2 Begin Ditch				444
				Add for S.R. 110 Intersection				
77		887+00	668.0	886+50	45	163		
							4028	630
	369		669.38					
			663.22@54	15" Culvert on Skewed crossing Sta. 886+54				
				From S.R. 110 Rt. Ditch				
56		886+50	666.0					

S.R. 110 Interchange Ramp "C"

HENRY COUNTY
HEN - 6 - 16.43

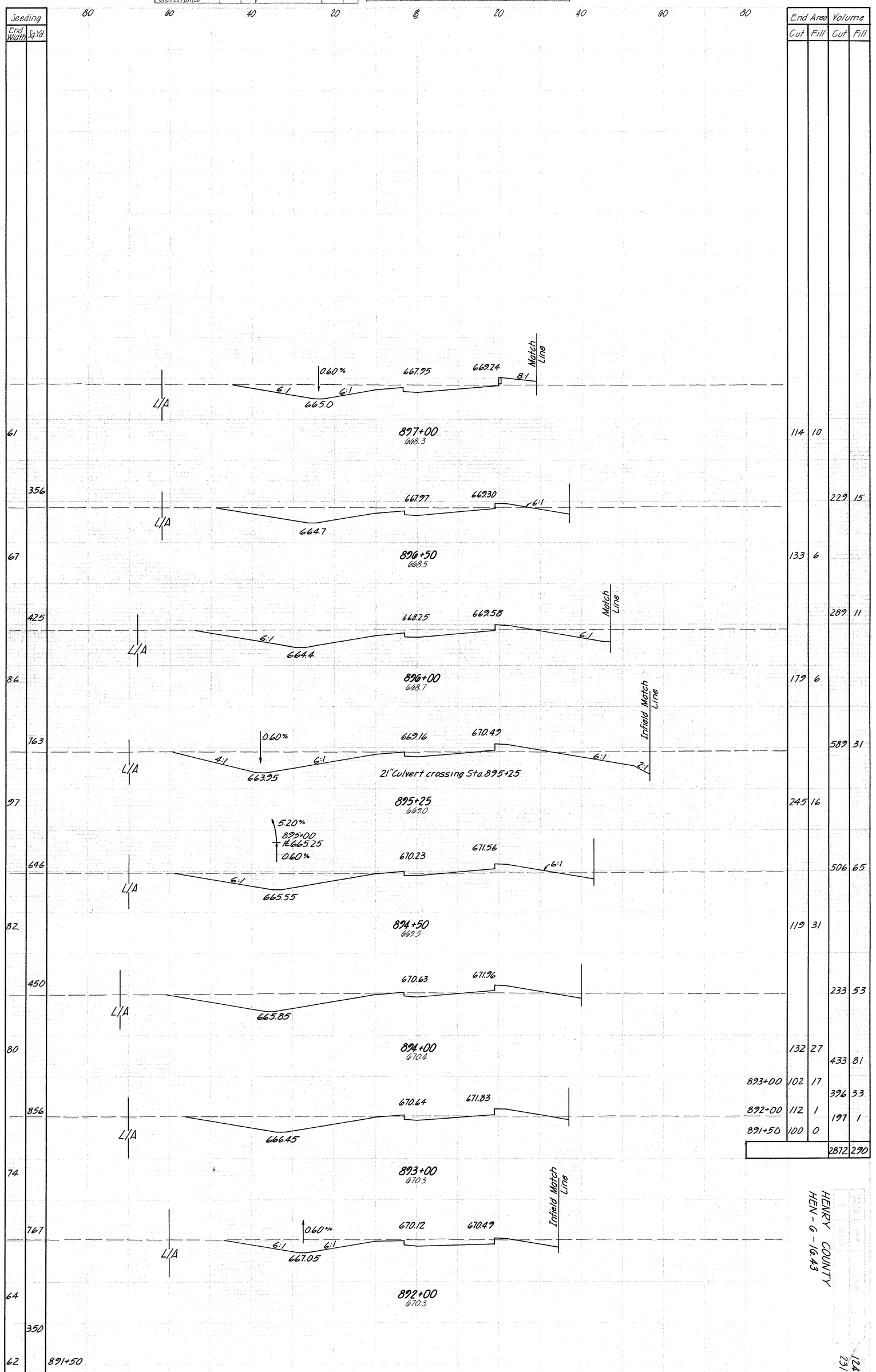
123
231

100 80 60 40 20 0 20 40 60

CROSS SECTIONS — EXISTING	BY	DATE		BY	DATE
SECTION PLOTTED	A.P.D.	9/26/15	UTILITIES CHECKED		
SECTION SIZE NED			UTILITIES INKED		
SECTION INKED	A.P.D.	9/27/15			
DRIVEWAYS PLOTTED					
DRAINAGE CHECKED					
DRAINAGE INKED					
UTILITIES PLOTTED					

CROSS SECTIONS — DESIGN	BY	DATE		BY	DATE
PAVEMENT PLOTTED	J.A.C.	5/6/16	EARTHWORK CHECKED		
PAVEMENT SIZE NED			CUT & FILL COMP.		
PAVEMENT INKED			CUT & FILL SIZE NED		
DRAINAGE PLOTTED			SEEDING COMP.		
DRAINAGE CHECKED			SEEDING CHECKED		
DRAINAGE INKED	L.W.R.	11/15	QUANTITIES INKED	L.W.R.	12/15
END AREA COMP.					

Seeding		End Area		Volume	
End Width	SqYd	Cut	Fill	Cut	Fill
61	356	114	10	229	15
67	425	133	6	289	11
86	763	179	6	589	31
97	646	245	16	506	65
82	450	119	31	233	53
80	856	132	27	433	81
		893+00 102	17	396	33
		892+00 112	1	197	1
		891+50 100	0		
74	767			287.2	29.0
64	350				
62	891+50				

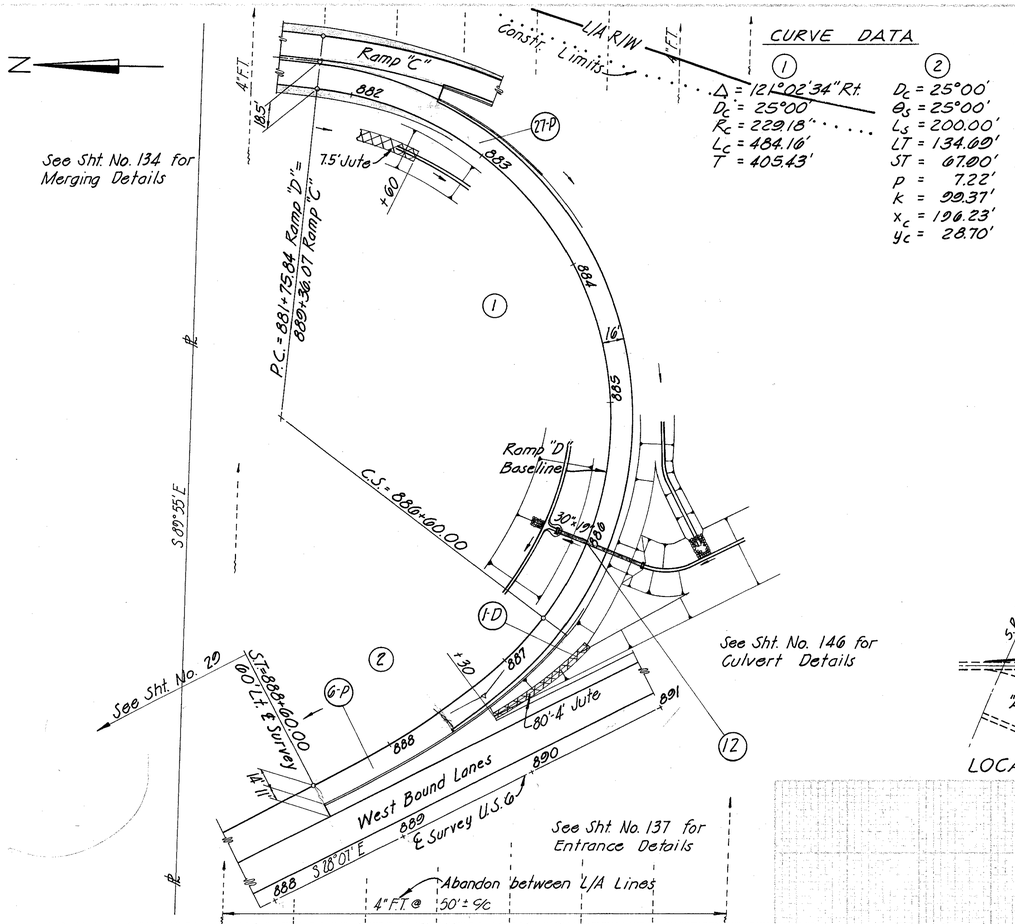


S.R. 110 Interchange Ramp "C"

HENRY COUNTY
HEN-6-16.43

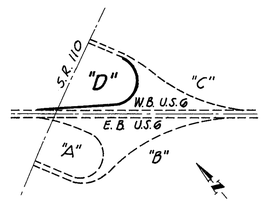
124
231

HENRY COUNTY
HEN-6-16.43



CURVE DATA

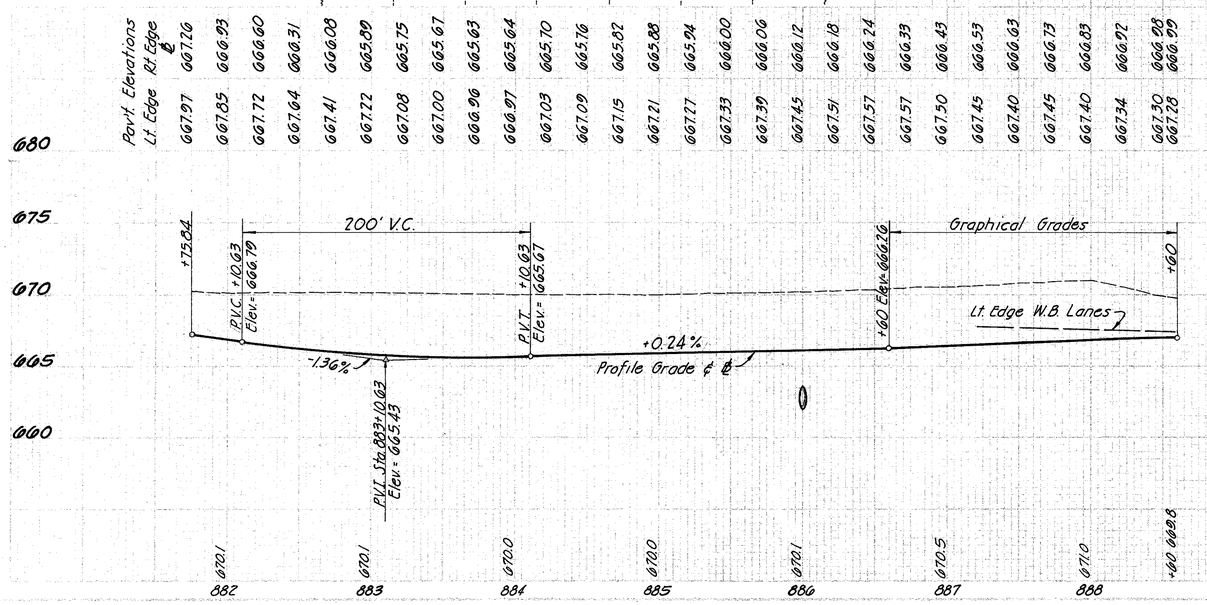
①		②	
Δ =	121°02'34" Rt.	D_c =	25°00'
D_c =	25°00'	θ_s =	25°00'
R_c =	229.18'	L_s =	200.00'
L_c =	484.16'	LT =	134.00'
T =	405.43'	ST =	67.00'
		p =	7.22'
		k =	99.37'
		x_c =	196.23'
		y_c =	28.70'



LOCATION MAP

ⓓ DRAINAGE

Ref. No.	Station From	Station To	Side	GGT Jute Matting Sq. Yd.
1-D	880+55	887+30	Lt.	36
	Totals			36



S.R. 110 INTERCHANGE RAMP "D"

PLAN
BY | DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
GEOMETRICS INKED
GEOMETRICS CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
CONST. LIMITS PLOTTED

DESIGN
BY | DATE
CONST. LIMITS CHECKED
PROP. LINES PLOTTED
PROP. LINES CHECKED
PROP. R/W PLOTTED
PROP. R/W CHECKED
INKED

EXISTING
BY | DATE
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED
B. M. & REF. POINTS

PLAN
BY | DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
STRUCTURES PLOTTED
STRUCTURES CHECKED
MASS DIAGRAM PLOTTED

DESIGN
BY | DATE
MASS & INKED
P&M CHECKED

PROFILE
BY | DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
GRADES PLOTTED
GRADES CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
STRUCTURES PLOTTED
STRUCTURES CHECKED
MASS DIAGRAM PLOTTED

EXISTING
BY | DATE
UTILITIES CHECKED
UTILITIES INKED

PROFILE
BY | DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
GRADES PLOTTED
GRADES CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
UTILITIES PLOTTED

CROSS SECTIONS — EXISTING						CROSS SECTIONS — DESIGN					
	BY	DATE		BY	DATE		BY	DATE		BY	DATE
SECTION PLOTTED	A.P.O.	5/24/23	UTILITIES CHECKED				APO	5/24/23			
SECTION [illegible]			UTILITIES PLOTTED								
SECTION [illegible]	A.P.O.	5/27/23									
DRAINAGE PLOTTED											
DRAINAGE CHECKED											
DRAINAGE INKED						DRAWING INKED	L.G.R.	12/23	UTILITIES INKED	L.G.R.	12/23
UTILITIES PLOTTED						END AREA COMP.					

Seeding		End Area		Volume	
End Width	Sq Yd	Cut	Fill	Cut	Fill
55	504	514	0	1485	0
66	397	555	0	1092	0
77	397	625	0	1091	0
				180	
66	344	554	0	936	0
58	578	456	0	1613	0
46	258	415	0	722	0
47	225	365	0	659	0
34	181	347	0	618	0
		320	0	776	0
31	247	245	0	9172	0
29					

882+50

881+75.84

Match Line

Infield Match Line

667.45 666.53 6:1 6:1 6:1 0.28% 661.56

887+25
G10.6

Match Line

667.57 666.24 661.72

886+50
G10.2

Infield Match Line

885+80 ℄ 886+20 667.45 666.12 6:1 3:1 30"x19" Culvert crossing Sta. 886+00 661.84

End Ditch
885+80±
℄ 664.0

886+00
G10.1

Added Excavation for Ditch ℄ Infield (Lt)

667.33 666.00 4:1 6:1 664.4 662.05 0.30%

885+50
G10.2

667.21 665.88 6:1 665.0 662.2

885+00
G10.0

666.97 665.64 6:1 12:1 666.2 662.5

884+00
G10.0

Infield Match Line

667.00 665.67 9:1 666.8 662.65

883+50
G09.7

Match Line Ramp "C"

667.22 665.89 8:1 662.8

883+00
G10.1

667.64 666.31 10' 0.30% 12"x42' @ 0.20% 662.95

820+00 Ramp "C" 18.5° Lt. Std. No. 2-6 M.I.

882+50
G10.0

+34 ~ 20.5' Rt. HW-E Endwall

0.30% +35 ℄ 663.00

Match Line Ramp "C"

Infield Match Line

667.97 667.26 6:1 6:1 664.3

881+75.84
G10.0

S.R. 110 Interchange Ramp "D"

HENRY COUNTY
HEN - 6 - 16.43

126
231

HENRY COUNTY
HEN - 6 - 16.43

N

Future Const. Limits
2" Bit. Mac. on 8" W.B. Mac.
TYPICAL ADJOINING PAV'T.
6'-10" ℄ 6'
Tar & Stone
4' 4'
35' R
680.40
680.85
Fence Post
966+40.72
50' R 681.66
Const. Limits
681.33
18+96.59
681.40
East Bound Lanes
966+39.49
50' R
681.66
681.30
30°45' W
20+20.60
680.90
45' Taper
END WORK
STA. 20+15.6
20+65.60
8.9°
681.78
90°28'
89°32'
18
19
℄ Survey & Constr. Co. Rd. "P"
20
21
89°15'45"
90°44'15"
P.B.
681.83
6" Tile
Sta. 18+52.4
Inlet
8" C.M.P.
Inlet
Sta. 966+99.70
= Sta. 20+00
Present Constr. Limits
681.00
681.30
681.32
18+95.40
681.60
681.40
℄ Survey U.S. 6
20+19.41
680.90
35' R
680.75
Present constr. Limits
50' R 681.93
967+60.73
50' R
681.92
967+59.50
BEGIN WORK
STA. 18+55±
Sec. Line & Twp. Rd. 9-B
Future Constr. Limits
6' Fl.
Cap
184.45
Co. Rd. "P"
Spike Sta. 31+65.5
Cap
Cap
332.8
℄ Co. RD.
Mon
Sta. 20+00
℄ TWP RD
Cap
5557
Cap
"P"
2252
Cap
4' Fl.

Future Constr. Limits
Stone
Constr. Limits
939+87.64
50' R 675.29
939+86.64
50' R 675.29
940
20+20.50
674.04
35' Taper
20+55.50
END WORK
STA. 20+65.5
2" Bit. Mac. on 10" W.B. Mac.
TYPICAL ADJOINING PAV'T.
10' ℄ 8'
4' 8'
9'
35' R
674.20
674.60
674.66
18+96.50
675.00
674.70
30°45' W
8.9°
675.41
Inlet
Cut to neat line
12'
10
℄ Survey & Constr. Twp. Rd. P-3
675.47
18
19
20
21
Sta. 18+47.50
Inlet
Tar & Stone
℄ Vit
BEGIN WORK
STA. 18+54±
Sec. Line & Twp. Rd. 9-B
35' R
673.70
674.00
674.55
18+95.50
674.65
675.10
50' R 675.59
941+11.64
℄ Survey U.S. 6
941
20+19.50
674.04
50' R 675.59
941+10.64
Sta. 940+48.80
= Sta. 20+00
Future Const. Limits
Constr. Limits
P.K. nail Sta. 5+29.8
Twp. Rd. P-3
11.06'
10.53'
Cap in Guard Rail Post
Spike Sta. 31+65.2
Spike in 24"
Twp. Rd. P-3
24.21'
65.31'
76.63'
Cap
Sta 20+00
Cap
137.53
215.01
TWP RD 9-B
P3
18.78
177.14
P.K. Nail
℄ US 6
191.86
42.48
Cap
Cap

674.59
674.89
675.19
674.65
674.16
673.99
674.32
674.37 + 47.5
674.08
673.82
673.97
18
19
20
21
680
675
670
18+55 El 674.35
+1.20 %
Sta 19+46 El 675.44
Sta 19+70 El 675.44
-2.64 %
P.V.C.
50' V.C.
P.V.T.
+55.5
El. 673.99
10' Feather
0.00 %
15" C.P.
6' C.M.P.
P.V.I. Sta. 20+25
El. 673.99

681.35
681.51
681.67
681.43
681.27
681.09
681.01
680.97
681.23 + 52.4
681.05
680.87
680.90
18
19
20
21
685
680
675
Sta. 18+55.5
El. 681.23
+0.64 %
Sta. 19+46
El. 681.80
Sta. 19+70
El. 681.80
-1.84 %
+20
P.V.C.
50' V.C.
+40
P.V.T.
Sta. 20+65
10' Feather
0.00 %
6" Tile
8" C.M.P.
8" Tile
P.V.I. Sta. 20+15
El. 680.97

TWP. RD. P-3 & CO. RD. "P"

4" Fl.

DESIGN — BY — DATE
CONST. LIMITS CHECKED
PROP. LINES PLOTTED
PROP. LINES CHECKED
PROP. R/W PLOTTED
PROP. R/W CHECKED
INKED

PLAN — BY — DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
GEOMETRICS PLOTTED
GEOMETRICS CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
CONST. LIMITS PLOTTED

EXISTING — BY — DATE
DRAINAGE CHECKED
UTILITIES PLOTTED
UTILITIES CHECKED
UTILITIES INKED
B.M. & REF. POINTS

PROFILE — BY — DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
ALIGNMENT INKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
DRAINAGE INKED
UTILITIES PLOTTED

EXISTING — BY — DATE
UTILITIES CHECKED
UTILITIES INKED

PROFILE — BY — DATE
ALIGNMENT PLOTTED
ALIGNMENT CHECKED
DRAINAGE PLOTTED
DRAINAGE CHECKED
STRUCTURES PLOTTED
STRUCTURES CHECKED
MASS DIAGRAM PLOTTED

DESIGN — BY — DATE
MASS DIAGRAM CHECKED
INKED

HENRY COUNTY
HEN - 6 - 10.43

EXISTING CURVE DATA
P.I. Sta. 18+62.17
Δ = 10°20' Rt.
D = 12°
T = 43.17'
L = 86.11'
E = 1.96'
R = 477.46
2 Story Fr. Hse.

2" Bit. Mac. on Sand Base
TYPICAL ADJOINING PAV'T.

5' ℄ 5'

4 FT.

5 FT.

N

℄ Survey

Present Constr. Limits

Future Constr. Limits

50' R
1002 + 61.41

45' Taper

50' Taper

Match Exist. Pav't.

Sec. Line & Twp. Rd. 9-8

Tar Stone

MB

18. Future Constr. Limits

Woven Wire Fence
20 ⊙ 12" ⊙ 22"

℄ S 0°31'30" W

BEGIN WORK
STA. 18+00

N 85°-18' E.

Present Constr. Limits

P.T.
19+05.11

19+27.94

Eastbound Lanes

℄ Survey & Constr. Twp. Rd. "0-3"

86°21-11" Tan.

50' Curve

1002+65.24 · 50' R

1003+80.78 50' R

END WORK
STA. 21+12.5

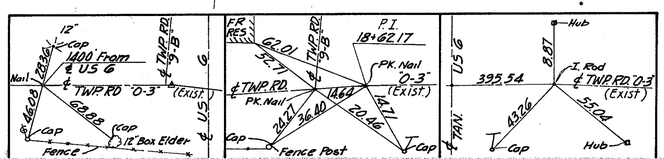
Present Constr. Limits

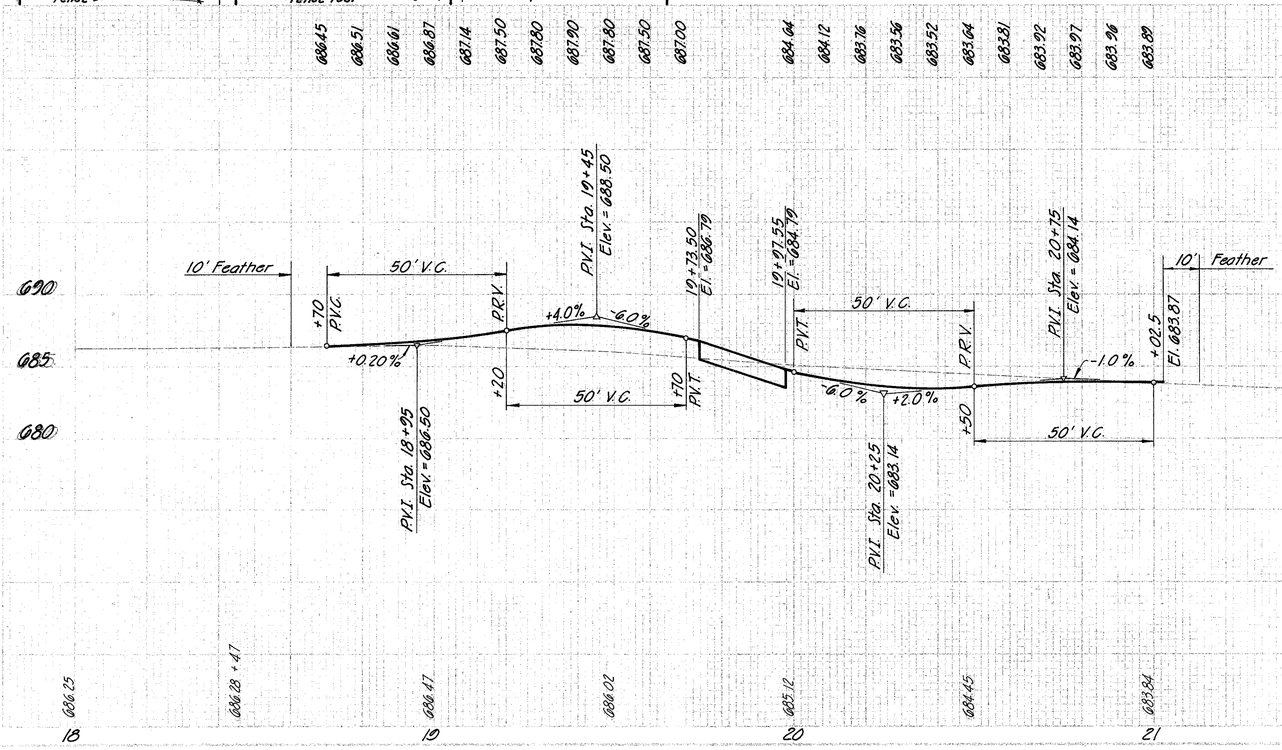
Future Constr. Limits

Sta. 1003 + 24.66 =
Sta. 20 + 27.61

1004

686.79
686.80
684.79
684.80
687.70
687.58
687.35
684.00
683.42
683.34
683.90
683.48
683.50
684.80





TWP. RD. "0-3"

EXISTING — DATE | BY | DRAINAGE CHECKED | DRAINAGE INKED | UTILITIES PLOTTED | UTILITIES CHECKED | UTILITIES INKED | B. M. & REF. POINTS
PLAN — DATE | ALIGNMENT PLOTTED | ALIGNMENT CHECKED | ALIGNMENT INKED | TOPOGRAPHY PLOTTED | TOPOGRAPHY CHECKED | TOPOGRAPHY INKED | DRAINAGE PLOTTED
DESIGN — DATE | BY | CONST. LIMITS CHECKED | PROP. LINES PLOTTED | PROP. LINES CHECKED | PROP. R/W PLOTTED | PROP. R/W CHECKED | INKED
PLAN — DATE | BY | ALIGNMENT PLOTTED | ALIGNMENT CHECKED | GEOMETRICS PLOTTED | GEOMETRICS CHECKED | DRAINAGE PLOTTED | DRAINAGE CHECKED | CONST. LIMITS PLOTTED
EXISTING — DATE | BY | UTILITIES CHECKED | UTILITIES INKED
PROFILE — DATE | BY | ALIGNMENT PLOTTED | ALIGNMENT CHECKED | ALIGNMENT INKED | DRAINAGE PLOTTED | DRAINAGE CHECKED | DRAINAGE INKED | UTILITIES PLOTTED
DESIGN — DATE | BY | MASS D. INKED | ANM CHECKED | DRAINAGE PLOTTED | DRAINAGE CHECKED | STRUCTURES PLOTTED | STRUCTURES CHECKED | MASS DIAGRAM PLOTTED

DESIGN	BY	DATE
CONST. LIMITS CHECKED		
PROF. & CROSS-SECTIONS		
PLOTTED		
CHECKED		
PLOTTED		
DRAINAGE CHECKED		
CONST. LIMITS PLOTTED		

PLAN	BY	DATE
ALIGNMENT PLOTTED		
ALIGNMENT CHECKED		
CONTOURS & S.F. CHECKED		
DRAINAGE PLOTTED		
STRUCTURES CHECKED		
DRAINAGE CHECKED		
CONST. LIMITS PLOTTED		

EXISTING	BY	DATE
DRAINAGE CHECKED		
UTILITIES CHECKED		
B. M. & REF. POINTS		

PROFILE	BY	DATE
ALIGNMENT PLOTTED		
UTILITIES PLOTTED		
DRAINAGE INKED		
TOPOGRAPHY INKED		
DRAINAGE PLOTTED		

PROFILE	BY	DATE
MASS DIAGRAM CHECKED		
INKED		
ALIGNMENT PLOTTED		
STRUCTURES PLOTTED		
STRUCTURES CHECKED		
MASS DIAGRAM PLOTTED		

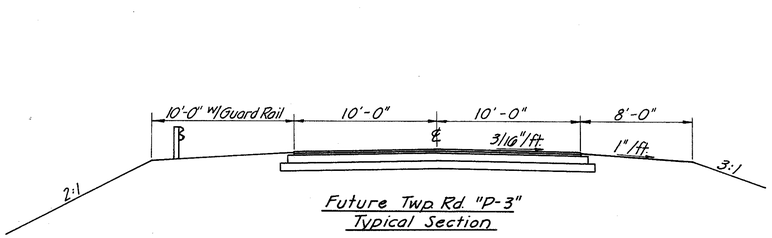
EXISTING	BY	DATE
NONE		
UTILITIES CHECKED		

PROFILE	BY	DATE
ALIGNMENT PLOTTED		
DRAINAGE INKED		
UTILITIES PLOTTED		

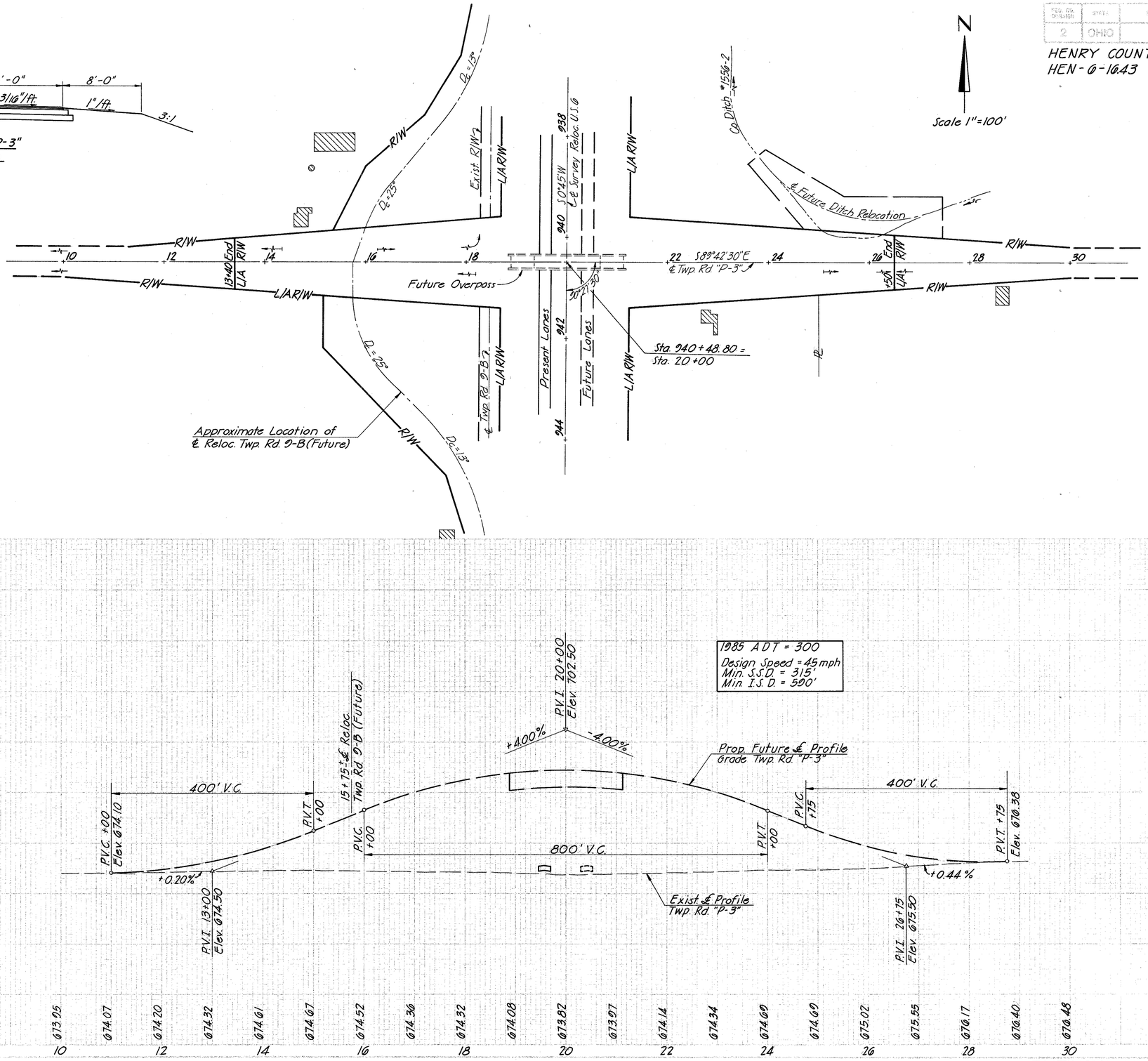
REV. CO. DIVISION	STATE	PROJECT		
2	OHIO			

128-A
231

HENRY COUNTY
HEN-6-16.43



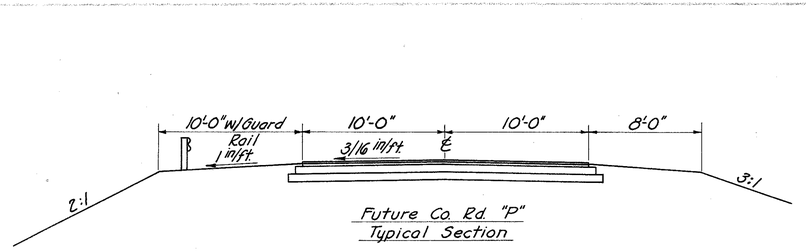
Future Twp Rd "P-3"
Typical Section



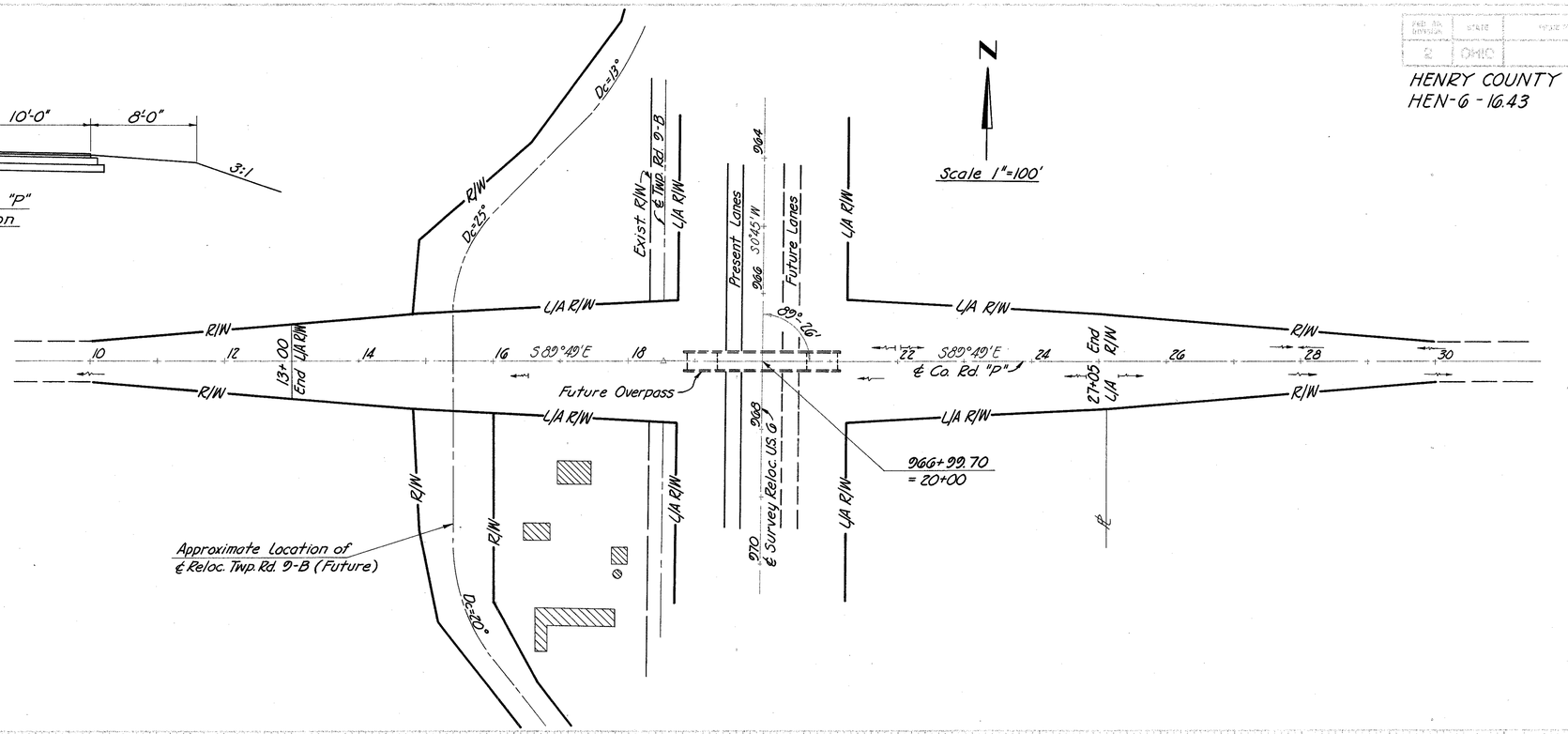
FUTURE TWP. RD. "P-3"

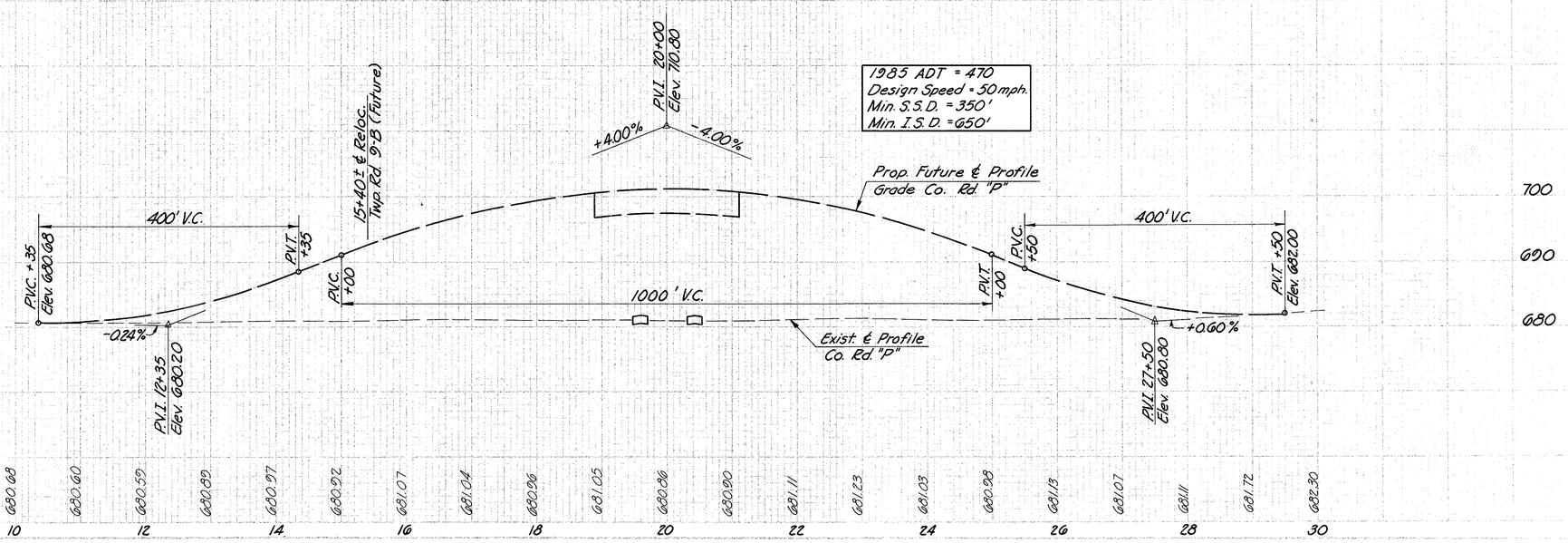
FED. AID DIVISION	STATE	PROJECT		1284
5	OHIO			231

HENRY COUNTY
HEN-6 - 16.43



Future Co. Rd. "P"
Typical Section



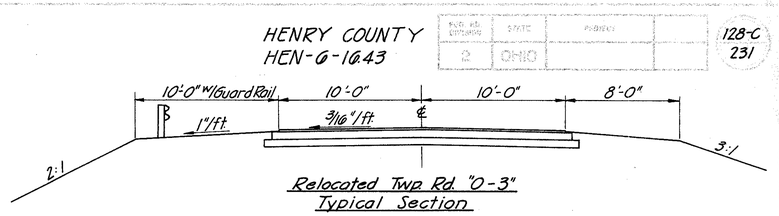


FUTURE CO. RD. "P"

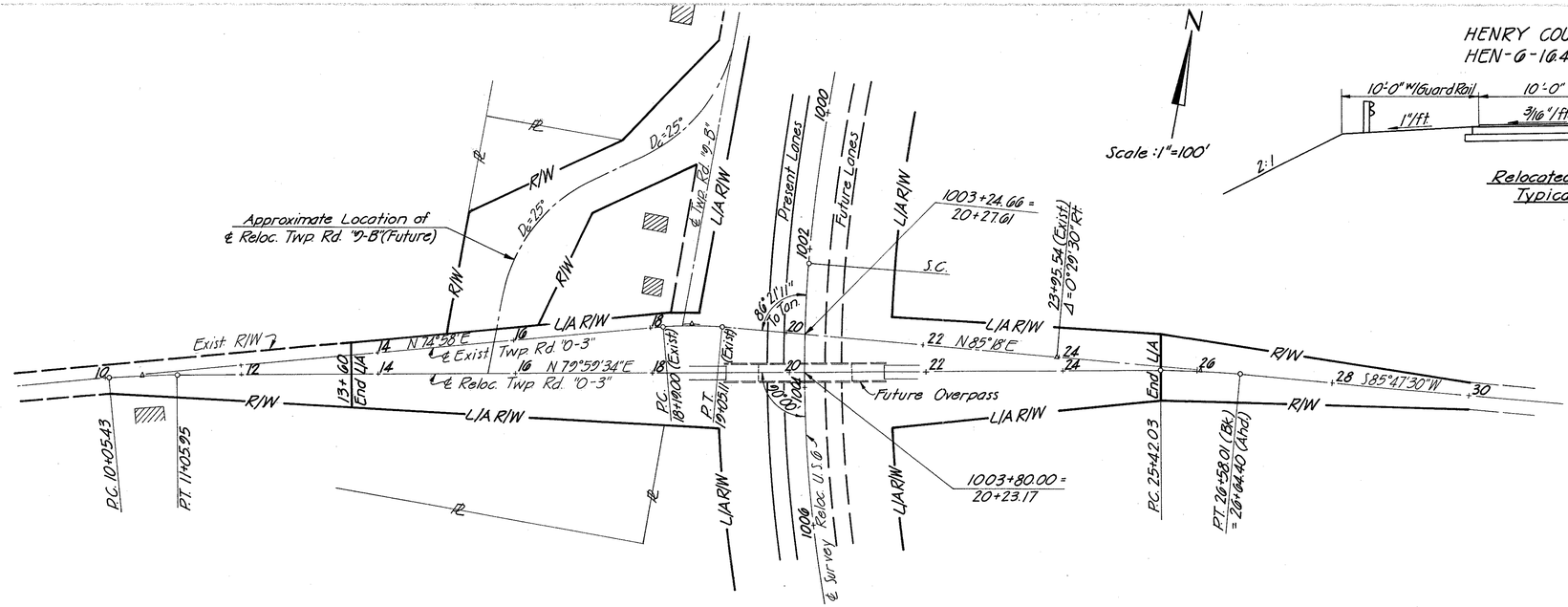
HENRY COUNTY
HEN-G-16.43

STATE RTE. SYSTEM	STATE	PROJECT		
2	OHIO			

128-C
231



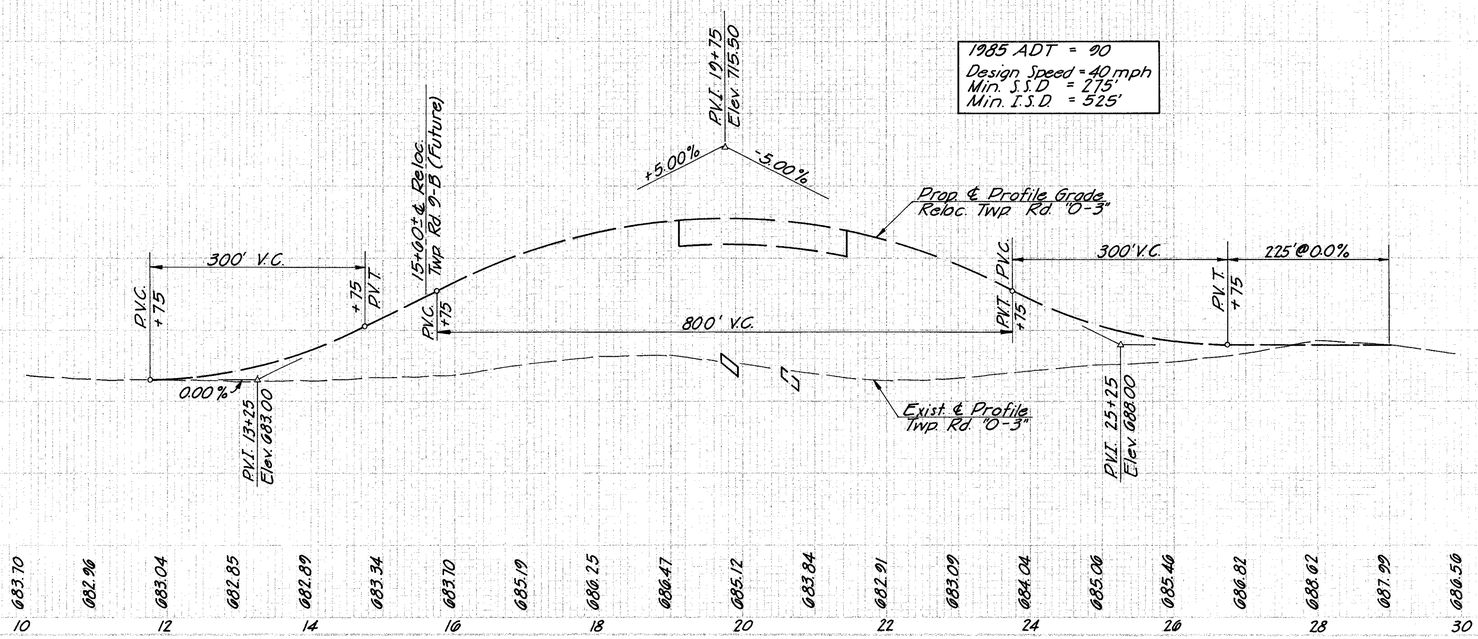
Relocated Twp Rd. "0-3"
Typical Section



Relocated Twp Rd. "0-3"
℄ Curve Data
P.I. Sta. 10+55.72
Δ = 5°01'34" Rt. T = 50.20'
D = 5°00' L = 100.52'
R = 1145.92' E = 1.10'

Existing Twp Rd. "0-3"
℄ Curve Data
P.I. Sta. 18+62.17
Δ = 10°20' Rt. T = 43.17'
D = 12°00' L = 86.11'
R = 477.46' E = 1.96'

Relocated Twp Rd. "0-3"
℄ Curve Data
P.I. Sta. 26+00.07
Δ = 5°47'56" Rt. T = 58.04'
D = 5°00' L = 115.98'
R = 1145.92 E = 1.47'



FUTURE TWP. RD. "0-3"

HENRY COUNTY
HEN - 6 - 10.43

Ⓓ DRAINAGE

Ref. No.	Station From	Station To or At	Side	603 12"Conduit Type F	603 Conduit Type B w/Cl. B Bedding 21"	603 21" 706.02 III or 706.08	604 Standard No. 2-2-A Catch Basin
				Lin. Ft.			
1-D		904+73	Lt	10			
2-D	905+25	908+68	Lt			343	1
3-D	908+68	909+91	Lt		123		
Totals				10	123	343	1

N

See Sht. No. 138 for Intersection Detail

℄ CONSTR. CURVE DATA
Exist. U.S. 6 Connection

L_s = 400' L.T. = 269.16'
D_c = 12°00' S.T. = 135.60'
θ_s = 24°00' P = 13.88'
X_c = 393.04' K = 198.84'
Y_c = 55.16'

P.I. Sta. 907+92.24 - 8' Rt. ℄ Survey
Δ = 20°01'26"
D_c = 12°00'
R = 477.46'
T = 84.29'
L_c = 166.86'
E = 7.39'

℄ Survey U.S. 6 Reloc.
Eastbound Lanes
Constr. Limits
L/A R/W
End ditch 1021+00
End ditch 909+50
343'-21" Conduit, Type B Sec. 706.02, Class III or Sec. 706.08 with Cl. B Bedding
10'-12" Conduit Type F
Begin New Pipe
Begin New Pavement
T.S. 904+14.74 - 8' Rt. ℄ R/W
S.C. 908+14.74
R/W
Continue in Service
Inlet
12" 21" Conc. 15" 8'
Constr. Limits
Do not disturb
Exist. Pav't Removal under 202
Trim to neat line
Exist. U.S. 6
Well
Barn
Begin 10' Shoulder, 905+00
Sta. 911+01.40 R.R. Spike ℄ U.S. 6 (Exist.)
N 89°55' W Mon. (Exist.)
88.02' 72.16'
N Line Fr. of SW¼ Sec. 22
N.E.S. Sec. 22
34.28' 29.09' 43.93'
Cap
4" F.T.
Sta. 1021+75 20° Tan. To Curve
N.E.S. ℄ Section 22 N. 0° 36' 30" E.
Future Constr. Limits
Present Constr. Limits
Outlet infield swale into Ex. 12" CMP, El. 678.76 Do not disturb Ex. Headwall or C.B.
90° Tan. To Curve
50' R
Prop. 12"
Abandon
Section 22
Section 27
℄ Survey & R/W Exist. U.S. 6
Exist. Pav't Removed Under 202
No Work
Stone Drive
2 Sty. Fr. House
End ditch 910+97 El. 681.0
Bench Mark No. 90A
RR Spike North S. Power Pole
30.5 Ft. Lt., Sta. 911+19
Elevation = 683.15
908+68, C.B. Ex. U.S. 6 Stationing
123'-21" Conduit Type B, w/Class B Bedding
Const'n Limits
Sec. 27
Sec. 22
Original Pav't: 3" Bit. Mac. over 8" W.B. Mac. 18' wide
Resurfaced with: 1½"-3" B-35 & 1½" T-35
TYPICAL ADJOINING PAVEMENT
4" F.T. @ 4 Rods %
3' 22' 3'
C.S. 1020+38.65
Abandon
Exist. 24" Conc. Along Exist. U.S. 6

683.76 683.83 683.94 684.07 684.23 684.42 684.64 684.88 685.16 686.03 687.19 688.35 689.08 689.13 689.13 689.03 688.84 688.55 688.16 687.66 686.38

902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917

DRIVE PROFILE 909+25

0+00 ℄ Exist U.S. 6 Conn. 690
0+21 P.V.C. El. 688.97
0+46 P.V.I. El. 688.42
0+74 P.V.C. El. 685.62
0+99 P.V.T. El. 683.12
+24 Exist Edge Pav't
℄ Exist. U.S. 6 680
-2.2% -10% 0.0%
50' V.G. 50' V.G.
0+00 0+40 0+80 1+20
685

PROFILE

+14.74 Elev. 673.74
P.V.C. 904+25
200' V.G.
P.V.T. 906+25
Prop. Profile
+1.16%
+0.24%
Exist. Profile along Prop. ℄ U.S. 6 Conn.
P.V.I. Elev. = 689.51
-6.00%
P.V.C.
P.V.T.
7.5' V.G.
Rt. Edge E.B. Lanes + 92.10
+62.5 +60 +40 +20 +10 +20 +32.5 +92.10
690 685 680 675

904+73 - ℄ 12" in ditch = 679.25
Connect 12" into Ex. C.B. ℄ 12" = 679.00
12" 15" 21" Conc.
21"x343' 21"x123' +91
℄ Exist 21" ℄
12" C.M.P. @ Hdwl
12" C.M.P. @ C.B.
℄ Exist 24" Conc. Along Exist. U.S. 6
24"
+25 Lt ℄ Prop. 21" ℄ Ex. 21" = 674.75±
P.V.I. 905+25 Elev. = 684.00
Note: Lay prop. 21" on same line & grade as Exist. 21". Cost of removing Ex 21" to be included in cost of prop. conduit Item
908+68, Ex. U.S. 6 Stationing No. 2-2-A C.B. Lt. ℄ 21" = ℄ Ex. 21" 674.4± Side ditch Inlets E & W = 678.96

683.01 683.06 683.30 683.53 683.74 683.70 683.61 683.3 683.9 +75 683.6 +40 680.3 +60 681.5 681.3 681.2 680.0

902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917

EXISTING US 6 CONNECTION STA. 901+00 TO STA. 917+00

CROSS SECTIONS — EXISTING	BY	DATE
A.P.O.	A.P.O.	11/16/65
UTILITIES CHECKED		
UTILITIES INKED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

CROSS SECTIONS — DESIGN	BY	DATE
PAVEMENT PLOTTED		
PAVEMENT CHECKED		
PAVEMENT INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED	L.O.N.	12/65
END AREA COMP.		
CUT & FILL PLOTTED		
CUT & FILL CHECKED		
SEEDING QUANT.		
SEEDING CHECKED		
QUANTITIES INKED	L.O.N.	12/65

Seeding		End Area		Volume	
End Width	Sq. Yd.	Cut	Fill	Cut	Fill
		0	478		
				5	1007
		5	476		
					308
				7	833
		3	423		
				122	748
		129	384		
				202	622
		89	289		
				126	472
		47	221		
				73	349
		32	156		
				115	437
		30	80		
		45	7	139	161
		45	7	45	7
		19	7		
		35	0	58	8
				892	4952

Sta. 905+00
Sta. 904+73 Ahd.
Sta. 904+73 Bk.
Sta. 904+15

687.99 688.47

688.65
910+07
680.9

688.64 689.20
4:1 4:1
4:1 680.2

688.93
909+50
681.0

687.80 688.90
Prop. Dr. Profile @ 909+25
L/A
680.1

Add for Drive

688.35
909+00
681.2

686.94 688.60
L/A
680.0
1/4"/ft.
679.0
No. 2-2-A C.B. @ 908+68, Ex. U.S. 6 Stationing

687.77
908+50
681.3

686.27 688.11
R/W
679.9
21"
679.4
1/4"/ft.

687.19
908+00
681.3

685.69 687.53
R/W R/W
679.8
21"
679.9

686.61
907+50
681.4

685.14 686.94
R/W R/W
679.7
21"
680.0

686.03
907+00
682.0

684.51 685.40
R/W R/W
4:1 A:1
4:1 679.5
21"
680.2

684.88
906+00
683.3

904+73
R/W 683.90 684.14 R/W
3:1 3:1
12" 15"
682.0
904+73 - Begin Ditch
Æ 12" 679.25
21"
Ahead & Back

684.07
905+00
683.6

Connect 12" into Ex. C.B. @ 904+73
Æ 12" 679.00

R/W 683.44 683.57 R/W
Begin new pav't. @ Sta. 904+14.74

683.74
904+15
683.7

Seeding Added on Sht. No. 38 for Connector Road

EXISTING U.S. 6 CONNECTION STA. 904+15 TO STA. 910+07

HENRY COUNTY
HEN-6-16.43

130
231

FED. RD DIVISION	STATE	PROJECT	
2	OHIO		

131
231

HENRY COUNTY
HEN-6-16.43

S.R. 110

U.S.6 EASTBOUND LANES

Curve with P.I. Sta. 846+12.11

Station	Lt. Edge Elev. (Profile)	Rt. Edge Elev.	Edge Speed Change Lane
848 + 00	675.33	674.18	
+25	675.11	673.96	
+50	674.89	673.74	
+75	674.68	673.53	
849 +00	674.46	673.31	
+25	674.25	673.10	
+50	674.03	672.88	
+75	673.81	672.66	
850 +00	673.60	672.45	
+25	673.38	672.23	
+50	673.17	672.02	
+75	672.95	671.80	
851 +00	672.73	671.58	
+25	672.52	671.37	
+50	672.30	671.15	
+75	672.09	670.94	
852+00	671.87	670.72	
+25	671.65	670.50	
+50	671.44	670.29	
+75	671.22	670.07	
853+00	671.01	669.86	
+25	670.79	669.64	
+50	670.57	669.42	
+75	670.36	669.21	
854+00	670.14	668.99	
+25	669.93	668.78	
+50	669.71	668.56	
+75	669.49	668.34	
855 +00	669.28	668.13	
+25	669.06	667.91	
+50	668.85	667.70	
+75	668.63	667.48	
856 +00	668.41	667.26	
+25	668.20	667.05	665.87
+50	667.98	666.83	665.68
+75	667.77	666.62	665.50
857+00	667.55	666.40	665.31
+25	667.33	666.18	665.12
+50	667.12	665.97	664.94
+75	666.90	665.75	664.75
858 +00	666.69	665.54	664.57
+25	666.47	665.32	664.38
+50	666.27	665.12	664.21
+75	666.11	664.96	664.08
859+00	665.97	664.82	663.97
+25	665.86	664.71	663.89
+50	665.77	664.62	663.83
+75	665.71	664.56	663.80
860+00	665.69	664.54	663.81
+25	665.68	664.53	663.83
+50	665.71	664.56	663.89
+75	665.76	664.61	663.97
861+00	665.84	664.69	664.08
+25	665.95	664.80	664.22
+50	666.08	664.93	664.38
+75	666.24	665.09	664.57
862 +00	666.43	665.28	664.79
+25	666.64	665.49	665.03
+50	666.86	665.71	665.28
+75	667.08	665.93	665.53
863 + 00	667.30	666.15	665.78
+25	667.52	666.37	666.03
+50	667.74	666.59	666.28
+75	667.96	666.84	666.58
864 +00	668.18	667.17	666.95
+25	668.40	667.50	667.33
+50	668.62	667.86	667.74
+75	668.84	668.20	668.11
P.T. +86.64	668.94	668.36	668.29
See Pavement Transition Detail Sheet No.132			

Curve with P.I. Sta. 913+87.38

Station	Lt. Edge Elev. (Profile)	℄ Elev.	Rt. Edge Elev.
902 + 00	671.13	671.32	671.13
+25	671.17	671.35	671.15
+50	671.19	671.32	671.14
+75	671.21	671.28	671.09
903 +00	671.22	671.23	671.04
+25	671.22	671.17	670.97
+50	671.21	671.09	670.90
+75	671.20	671.02	670.83
904 + 00	671.17	670.93	670.70
P.C. +27.20	671.13	670.83	670.53
+50	671.10	670.72	670.37
+75	671.06	670.60	670.19
905 +00	671.00	670.49	670.02
+25	670.94	670.38	669.84
+50	670.88	670.28	669.70
+75	670.82	670.21	669.62
906 +00	670.76	—	669.56
+25	670.70		669.50
+50	670.66		669.46
+75	670.61		669.41
907 +00	670.58		669.38
+25	670.55		669.35
+50	670.53		669.33
+75	670.52		669.32
908 + 00	670.52		669.32
+25	670.52		669.32
+50	670.53		669.33
+75	670.55		669.35
909 + 00	670.58		669.38
+ 25	670.61		669.41
+ 50	670.66		669.46
+ 75	670.70		669.50
910 + 00	670.76		669.56
+25	670.82		669.62
+50	670.88		669.68
+75	670.94		669.74
911 + 00	671.00		669.80
+ 25	671.06		669.86
+ 50	671.12		669.92
+ 75	671.18		669.98
912 + 00	671.24		670.04
+25	671.30		670.10
+50	671.36		670.16
+75	671.42		670.22
913 + 00	671.48		670.28
+ 25	671.54		670.34
+ 50	671.60		670.40
+ 75	671.66		670.46
914 +00	671.72		670.52
+25	671.78		670.58
+50	671.84		670.64
+75	671.90		670.70
915 + 00	671.96		670.76
+ 25	672.02		670.82
+ 50	672.08		670.88
+ 75	672.14		670.94
916 + 00	672.20		671.00
+ 25	672.26		671.06
+ 50	672.32		671.12
+ 75	672.38		671.18
917 + 00	672.44		671.24
+ 25	672.50		671.30
+ 50	672.56		671.36
+ 75	672.62		671.42
918 + 00	672.68		671.48
+ 25	672.74		671.54
+ 50	672.80		671.60
+ 75	672.78	672.26	671.66
See Pavement Transition Detail Sheet No. 138			
P.T 923+95.38	673.99	673.86	673.67
924 +00	673.99	673.87	673.68
+25	674.00	673.95	673.76
+50	674.00	674.02	673.83
+75	674.00	674.08	673.89
925 +00	673.99	674.13	673.94
+25	673.97	674.16	673.97

Full Superelevation : 1.20 Feet Maximum

Curve with P.I. Sta. 1019+52.04

Station	Lt. Edge Elev. (Profile)	℄ Elev.	Rt. Edge Elev.
998 + 00	683.72	683.91	683.72
+ 25	683.78	683.97	683.80
+ 50	683.84	684.03	683.91
+ 75	683.90	684.09	684.04
999 + 00	683.96	684.15	684.17
+ 25	684.02	684.21	684.34
+ 50	684.08	684.30	684.52
+ 75	684.14	684.43	684.71
1000 +00	684.20	684.55	684.90
+25	684.26	684.67	685.08
+50	684.32	684.79	685.26
+75	684.38	684.92	685.46
1001 + 00	684.44	685.04	685.64
+ 25	684.50	685.16	685.82
+ 50	684.56	685.28	686.00
+ 75	684.62	685.40	686.19
1002 + 00	684.66	685.51	686.36
+ 25	684.71	685.62	686.53
+ 50	684.74	685.71	686.69
+ 75	684.77	685.77	686.77
1003 + 00	684.79	—	686.79
+ 25	684.80		686.80
+ 50	684.80		686.80
+ 75	684.80		686.80
1004 + 00	684.79		686.79
+ 25	684.77		686.77
+ 50	684.74		686.74
+ 75	684.71		686.71
1005 +00	684.66		686.66
+25	684.62		686.62
+50	684.56		686.56
+75	684.50		686.50
1006 +00	684.44		686.44
+25	684.38		686.38
+50	684.32		686.32
+75	684.26		686.26
1007 + 00	684.20		686.20
+25	684.14		686.14
+50	684.08		686.08
+75	684.02		686.02
1008 +00	683.96		685.96
+ 25	683.90		685.90
+ 50	683.84		685.84
+ 75	683.78		685.78
1009 + 00	683.72		685.72
+ 25	683.66		685.66
+ 50	683.60		685.60
+ 75	683.54		685.54
1010 + 00	683.48		685.48
+ 25	683.42		685.42
+ 50	683.36		685.36
+ 75	683.30		685.30
1011 + 00	683.24		685.24
+ 25	683.18		685.18
+ 50	683.12		685.12
+ 75	683.06		685.06
1012 +00	683.00		685.00
+25	682.94		684.94
+50	682.90		684.90
+75	682.85		684.85
1013 +00	682.82		684.82
+25	682.79		684.79
+50	682.77		684.77
+75	682.76		684.76
1014 +00	682.76		684.76
+25	682.76		684.76
+50	682.77		684.77
+75	682.79		684.79
1015 +00	682.82		684.82
+25	682.85		684.85
+50	682.90		684.90
+75	682.94		684.94
1016 +00	683.00		685.00
+25	683.06		685.06
+50	683.12		685.12
+75	683.18		685.18

Full Superelevation : 2.00 Feet Maximum

Curve with P.I. Sta.1019+52.04 continued

Station	Lt. Edge Elev. (Profile)	℄ Elev.	Rt. Edge Elev.
1017 + 00	683.24		685.24
+ 25	683.30		685.30
+ 50	683.36		685.36
+ 75	683.42		685.42
1018 +00	683.48		685.48
+25	683.54		685.54
+50	683.60		685.60
+75	683.66		685.66
1019 + 00	683.72		685.72
+ 25	683.78		685.78
+ 50	683.84		685.84
+ 75	683.90		685.90
1020 +00	683.96		685.96
+25	684.02		686.02
+50	684.08		686.08
+75	684.14		686.14
1021 + 00	684.20		686.20
+ 25	684.26		686.26
+ 50	684.32		686.32
+ 75	684.38		686.38
1022 +00	684.44		686.44
+25	684.50		686.50
+50	684.56		686.56
+75	684.62		686.62
1023 +00	684.66		686.66
+25	684.71		686.71
+50	684.74		686.74
+75	684.77		686.77
1024 +00	684.79		686.79
+25	684.80		686.80
+50	684.80		686.80
+75	684.80		686.80
1025 +00	684.79		686.79
+ 25	684.77		686.77
+ 50	684.74		686.74
+ 75	684.71		686.71
1026 +00	684.66		686.66
+25	684.62		686.62
+ 50	684.56		686.56
+ 75	684.50		686.50
1027 + 00	684.44		686.44
+ 25	684.38		686.38
+50	684.32		686.32
+ 75	684.26	685.26	686.26
1028 + 00	684.20	685.10	686.18
+ 25	684.14	685.08	686.02
+ 50	684.08	684.96	685.84
+ 75	684.02	684.84	685.66
1029 +00	683.96	684.71	685.46
+ 25	683.90	684.59	685.28
+ 50	683.84	684.47	685.10
+ 75	683.78	684.35	684.92
1030 + 00	683.72	684.22	684.72
+ 25	683.66	684.10	684.54
+ 50	683.60	683.98	684.36
+ 75	683.56	683.88	684.20
1031 + 00	683.53	683.79	684.05
+ 25	683.51	683.71	683.90
+ 50	683.52	683.71	683.77
+ 75	683.53	683.72	683.69
1032 +00	683.57	683.76	683.67
+ 25	683.62	683.81	683.65
+40	683.66	683.85	683.66

U.S.6 WESTBOUND LANES

Curve with P.I. Sta. 846+03.31

Station	Lt. Edge Elev. (Profile)	℄ Elev.	Rt. Edge Elev.
C.S. 851+86.48	668.40		670.40
852 + 00	668.37		670.30
+ 25	668.31		670.14
+ 50	668.25		669.96
+ 75	668.19		669.78
853 + 00	668.13		669.61
+ 25	668.07		669.44
+ 50	668.01		669.26
+ 75	667.95		669.09
854 +00	667.89		668.92
+ 25	667.83		668.75
+ 50	667.77		668.57
+ 75	667.71		668.40
855 + 00	667.65		668.23
+ 25	667.59		668.05
+ 50	667.53	667.72	667.88
+ 75	667.47	667.66	667.71
S.T. +86.48	667.44	667.63	667.63
856 +00	667.41	667.60	667.56
+ 25	667.35	667.54	667.44
+ 50	667.29	667.48	667.32
+ 75	667.23	667.42	667.23

Curves with P.I. Sta. 908+78.06 & Sta. 914+45.30

Station	Lt. Edge Elev.	℄ Elev.	Rt. Edge Elev.
903 + 00	671.22	671.41	671.22
+25	671.26	671.41	671.22
+ 50	671.32	671.40	671.21
+ 75	671.38	671.38	671.20
904 + 00	671.41	671.35	671.17
+ 25	671.45	671.32	671.14
+ 50	671.48	671.29	671.10
+ 75	671.54	671.29	671.06
P.C. 905+01.03	671.60	671.30	671.00
+ 25	671.68	671.30	670.94
+ 50	671.73	671.30	670.88
+ 75	671.79	671.31	670.82
906 + 00	671.86	671.31	670.76
+ 25	671.89	671.31	670.70
+ 50	671.87	—	670.67
+ 75	671.82		670.62
907 + 00	671.79		670.59
+ 25	671.76		670.56
+ 50	671.73		670.53
+ 75	671.72		670.52
908 + 00	671.72		670.52
+ 25	671.72		670.52
+ 50	671.73		670.53
+ 75	671.74		670.54
909 + 00	671.77		670.57
+ 25	671.80		670.60
+ 50	671.84		670.64
+ 75	671.88		670.68
910 + 00	671.94		670.74
+ 25	672.00		670.80
+ 50	672.06		670.86
+ 75	672.12		670.92
911 + 00	672.18		670.98
+ 25	672.24		671.04
+ 50	672.30		671.10
+ 75	672.36		671.16
912 + 00	672.47		671.21
+ 25	672.64		671.27
P.C.C. + 52.63	672.84		671.33
+ 75	673.01		671.38
913 + 00	673.18		671.44
+ 25	673.37		671.50

Full Superelevation : 1.20 Feet Maximum

P.I. Sta. 908+78.06 & Sta. 914+45.30 cont'd.

Station	Lt. Edge Elev.	℄ Elev.	Rt. Edge Elev.
913 + 50	673.52	—	671.56
+ 75	673.62		671.62
914 + 00	673.68		671.68
+ 25	673.74		671.74
+ 50	673.80		671.80
+ 75	673.86		671.86
915 + 00	673.92		671.92
+ 25	673.98		671.98
+ 50	674.04		672.04
+ 75	674.10		672.10
916 + 00	674.16		672.16
+ 25	674.21		672.21
C.S. + 36.67	674.24		672.24
+ 50	674.27		672.27
+ 75	674.25		672.33
917 + 00	674.17		672.39
+ 25	674.09		672.45
+ 50	674.01		672.50
+ 75	673.92		672.56
918 + 00	673.83		672.62
+ 25	673.76		672.68
+ 50	673.66		672.74
+ 75	673.57		672.80
919 + 00	673.48		672.77

Full Superelevation : 2.00 Feet Maximum

See Pavement Transition Detail Sheet No. 138

EXISTING U.S.6 CONNECTION

Curve with P.I. Sta. 907+92.24

Station	Lt Edge Elev.	℄ Elev. (Profile)	Rt Edge Elev.
T.S 904+14.74	683.44	683.74	683.57
+ 25	683.46	683.76	683.60
+ 50	683.58	683.83	683.73
+ 75	683.75	683.94	683.90
905 + 00	683.90	684.07	684.14
+ 25	684.06	684.23	684.40
+ 50	684.23	684.42	684.65
+ 75	684.37	684.64	685.02
906 + 00	684.51	684.88	685.40
+ 25	684.65	685.16	685.80
+ 50	684.80	685.45	686.18
+ 75	684.93	685.74	686.58
907 + 00	685.14	686.03	686.94
+ 25	685.40	686.32	687.24
+ 50	685.69	686.61	687.53
+ 75	685.98	686.90	687.82
908 + 00	686.27	687.19	688.11
S.C. + 14.74	686.44	687.36	688.28
+ 25	686.56	687.48	688.39
+ 50	686.94	687.77	688.60
+ 75	687.37	688.06	688.75
909 + 00	687.80	688.35	688.90
+ 25	688.23	688.64	689.06
+ 50	688.64	688.93	689.20
+ 75	688.89	689.15	689.26
910 + 00		688.84	688.74
See Intersection Detail for Pavement Grades			

Curve with P.I. Sta. 215+11.88

Station	Lt. Edge Elev.	℄ Elev. (Profile)	Rt. Edge Elev.
217 + 00	670.17	669.68	669.00
+ 25	670.06	669.60	669.01
+ 50	669.98	669.56	669.02
+ 75	669.95	669.58	669.11
218 + 00	669.98	669.65	669.26
+ 25	670.06	669.79	669.44
+ 50	670.20	669.96	669.70
+ 75	670.38	670.20	670.01
219 + 00	670.61	670.49	670.30
+25	670.90	670.83	670.64
+50	671.23	671.23	671.04
+75	671.62	671.69	671.50
220 +00	672.07	672.19	672.00
Back +16.75	672.39	672.57	672.38
Ahead +21.86			
+25	672.45	672.64	672.45
238 + 25	667.89	668.08	667.89
+ 50	667.94	668.09	667.90
+ 75	668.03	668.13	667.92
239 +00	668.16	668.22	667.98

Curve with P.I. Sta. 229+84.15

Station	Lt Edge Elev.	℄ Elev. (Profile)	Rt Edge Elev.
225 + 00	683.96	684.15	683.96
+ 25	684.32	684.47	684.28
+ 50	684.69	684.76	684.57
+ 75	685.01	685.01	684.82
226 + 00	685.30	685.24	685.05
+08.8	685.39	685.31	685.12
+ 25	685.54	685.42	685.23
+ 33.8	685.62	685.48	685.28
+ 50	685.77	685.58	685.33
+ 75	686.00	685.70	685.39
227 + 00	686.16	685.78	685.43
+ 25	686.21	685.83	685.45
+ 50	686.23	685.85	685.47
+ 75	686.21	685.83	685.45
228 + 00	686.16	685.78	685.40
+ 25	686.08	685.70	685.32
+ 50	685.96	685.58	685.20
+ 75	685.80	685.42	685.04
229 + 00	685.62	685.24	684.86
+ 25	685.39	685.01	684.63
+ 50	685.14	684.76	684.38
+ 75	684.85	684.47	684.09
230 + 00	684.53	684.15	683.77
+ 25	684.17	683.79	683.41
+ 50	683.78	683.40	683.02
+ 75	683.35	682.97	682.59
231 + 00	682.89	682.51	682.13
+ 25	682.39	682.01	681.63
+ 50	681.87	681.49	681.11
+ 75	681.30	680.92	680.54
232 + 00	680.71	680.33	679.95
+25	680.08	679.70	679.32
+50	679.41	679.03	678.65
+75	678.70	678.33	677.96
233 + 00	677.86	677.60	677.32
Back +14.74	677.36	677.16	676.94
Ahead +15.26			
+ 25	677.04	676.87	676.67
+ 50	676.23	676.12	675.93
+ 75	675.40	675.37	675.18
234 + 00	674.59	674.62	674.43
+ 25	673.80	673.89	673.70
+ 50	673.05	673.21	673.02
+ 75	672.37	672.56	672.37

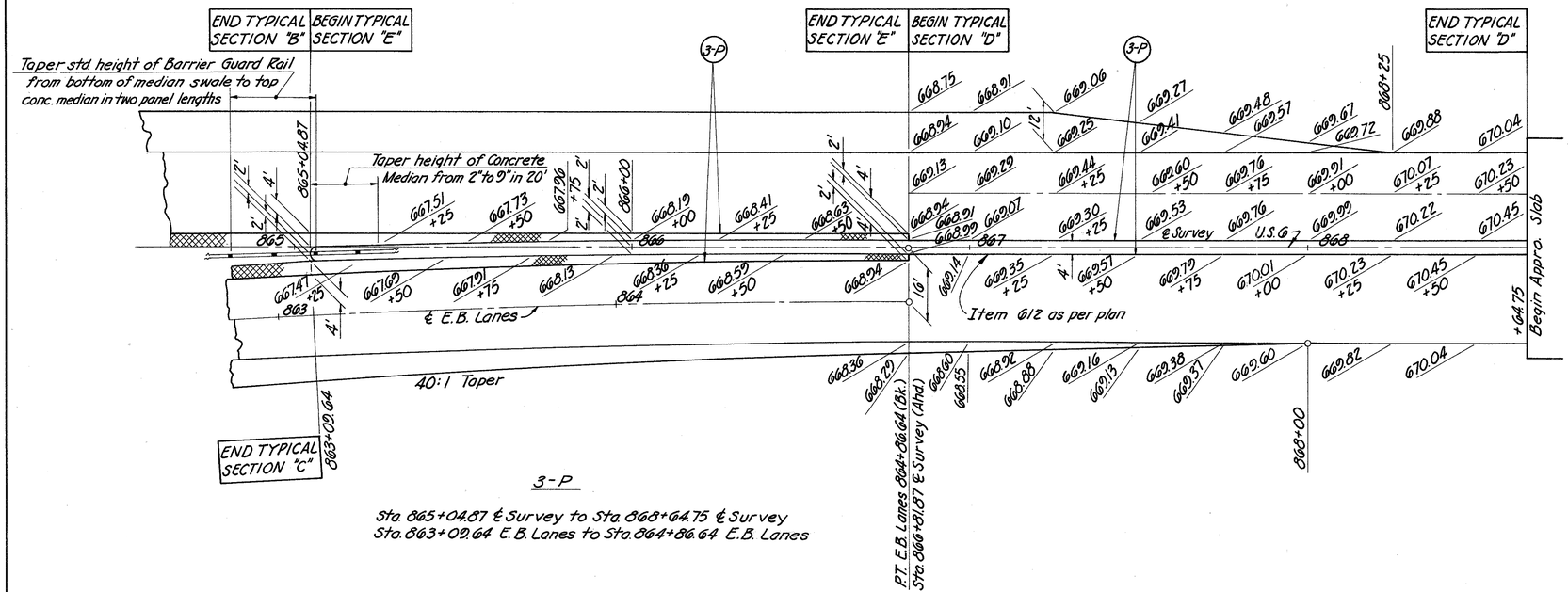
SUPERELEVATION TABLES

6408-5

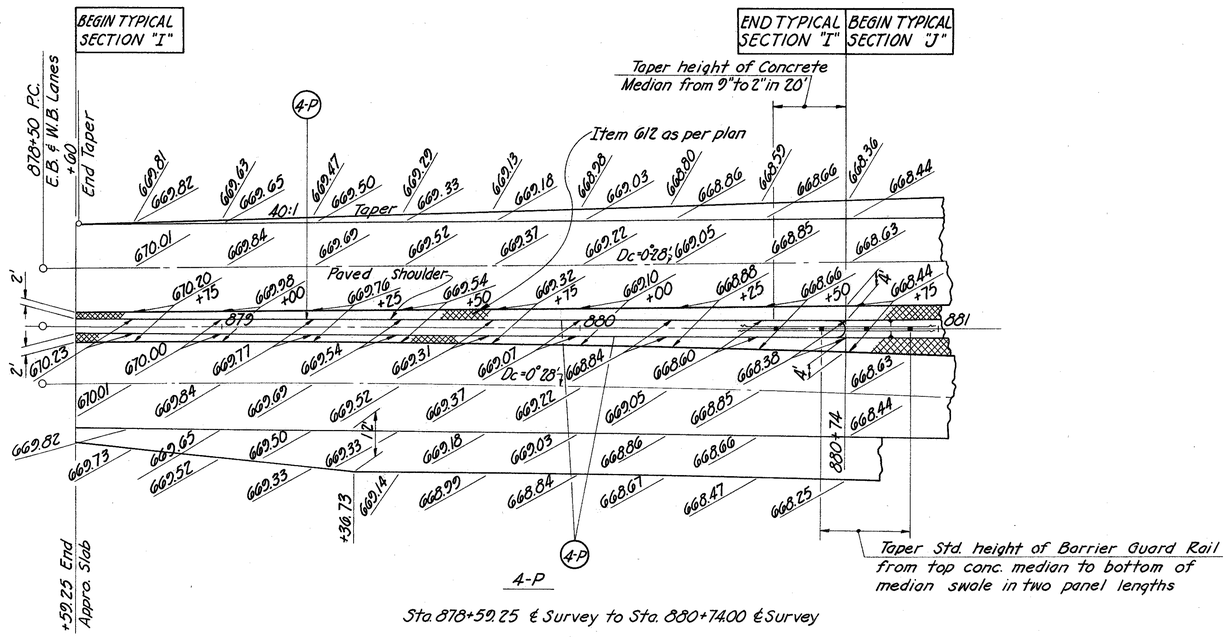
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

132
731

HENRY COUNTY
HEN-6-16.43



PAVEMENT TRANSITION DETAIL
Sta. 865+00 to 868+50±



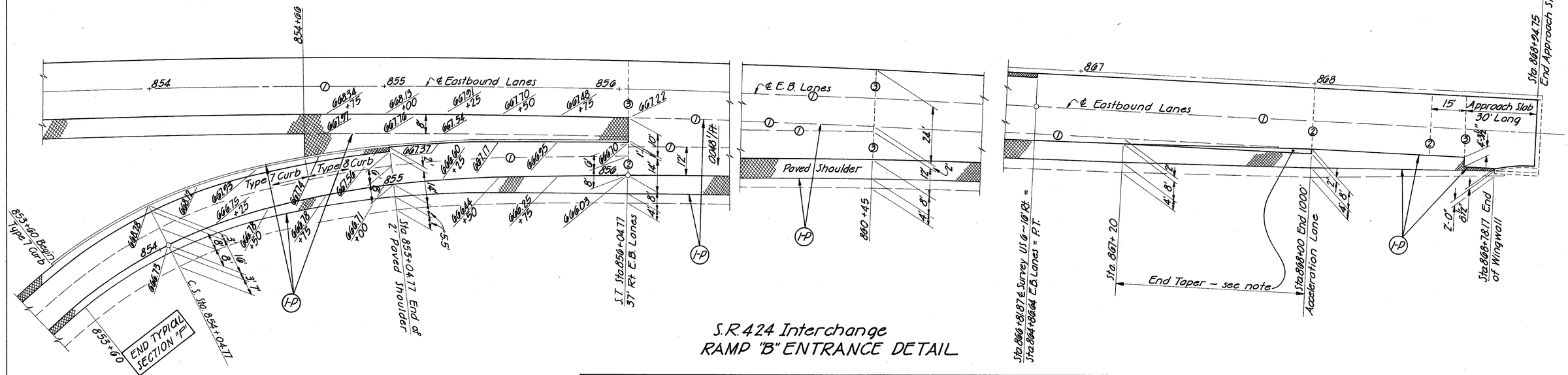
PAVEMENT TRANSITION DETAIL
Sta. 878+50 to 880+75

PAVEMENT TRANSITION DETAILS

HENRY COUNTY
HEN-6-16.43

1-P

Sta. 856+04.77 E.B. Lanes to Sta. 868+78.17 ℄ Survey
Sta. 853+60.00 Ramp "B" to Sta. 856+04.77 E.B. Lanes



S.R. 424 Interchange
RAMP "B" ENTRANCE DETAIL

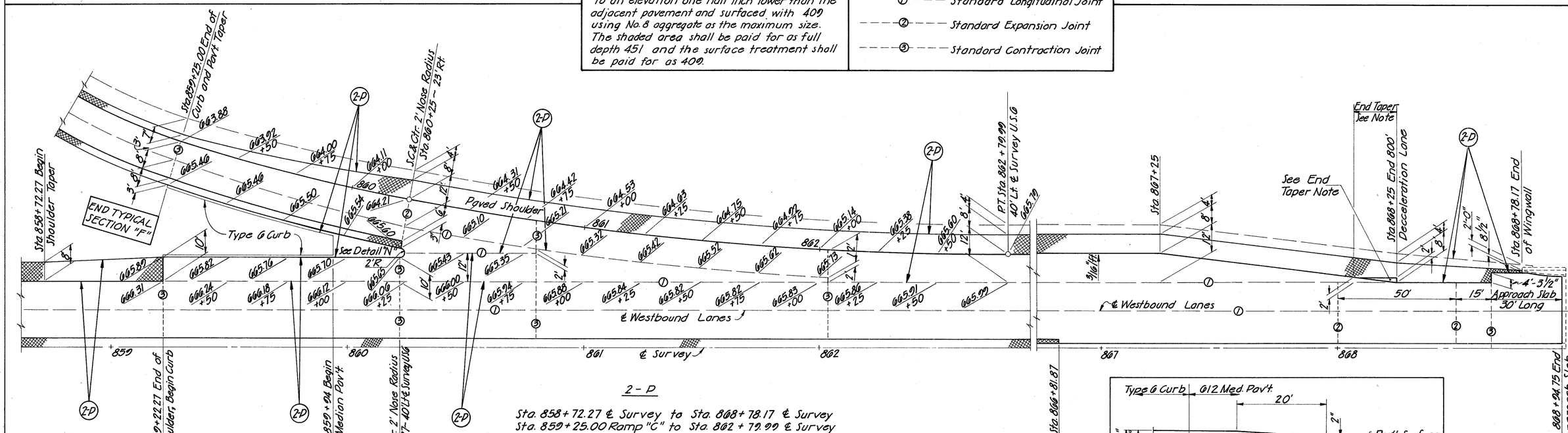
END TAPER: The shaded area indicated shall be constructed of concrete pavement to an elevation one half inch lower than the adjacent pavement and surfaced with 409 using No. 8 aggregate as the maximum size. The shaded area shall be paid for as full depth 451 and the surface treatment shall be paid for as 400.

JOINT LEGEND

- ① Standard Longitudinal Joint
- ② Standard Expansion Joint
- ③ Standard Contraction Joint

2-P

Sta. 858+72.27 ℄ Survey to Sta. 868+78.17 ℄ Survey
Sta. 859+25.00 Ramp "C" to Sta. 862+79.99 ℄ Survey



S.R. 424 Interchange
RAMP "C" EXIT DETAIL

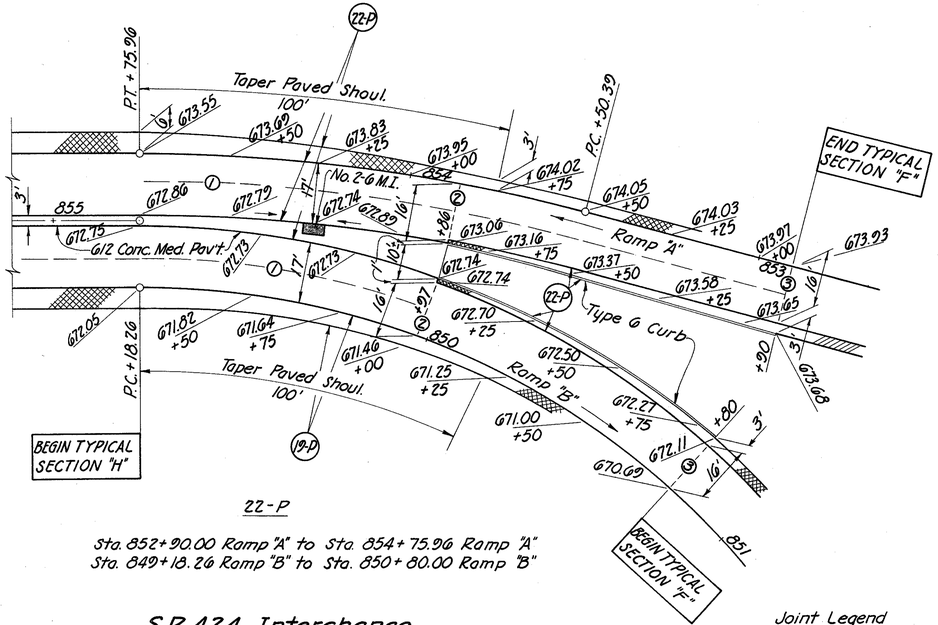
DETAIL "N"
Item 612 detail at exit nose)

S.R. 424 Ramp Entrance and Exit Details

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

134
231

HENRY COUNTY
HEN - 6 - 16.43

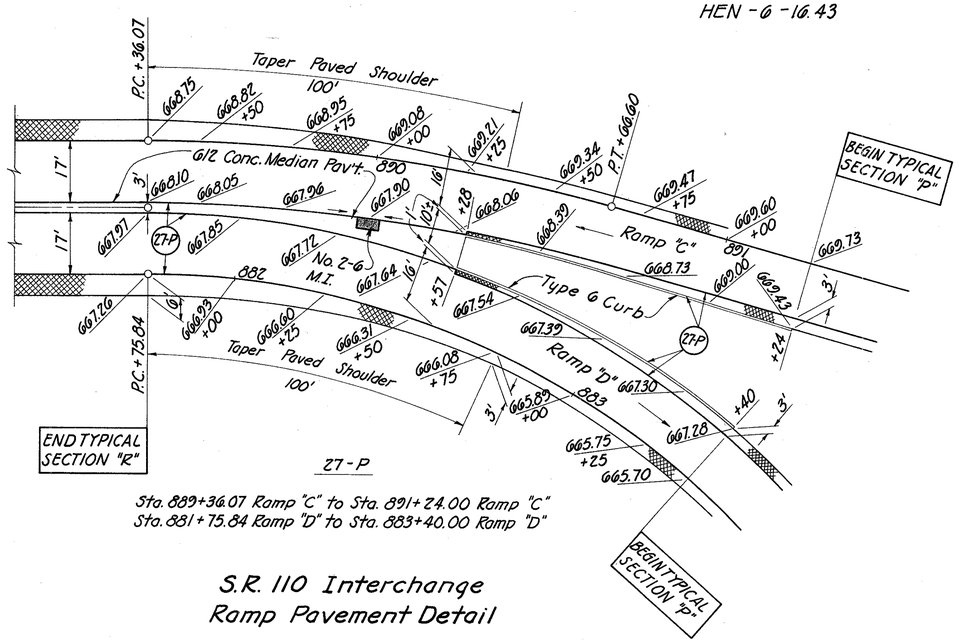


22-P

Sta. 852+90.00 Ramp "A" to Sta. 854+75.96 Ramp "A"
Sta. 849+18.26 Ramp "B" to Sta. 850+80.00 Ramp "B"

S.R. 424 Interchange
Ramp Pavement Detail

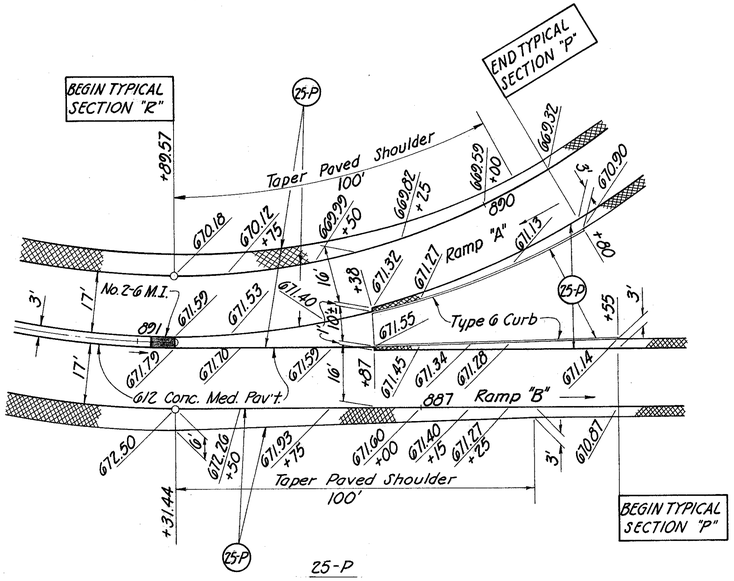
Joint Legend
① Standard Longitudinal Joint
② Standard Expansion Joint
③ Standard Contraction Joint



27-P

Sta. 889+36.07 Ramp "C" to Sta. 891+24.00 Ramp "C"
Sta. 881+75.84 Ramp "D" to Sta. 883+40.00 Ramp "D"

S.R. 110 Interchange
Ramp Pavement Detail



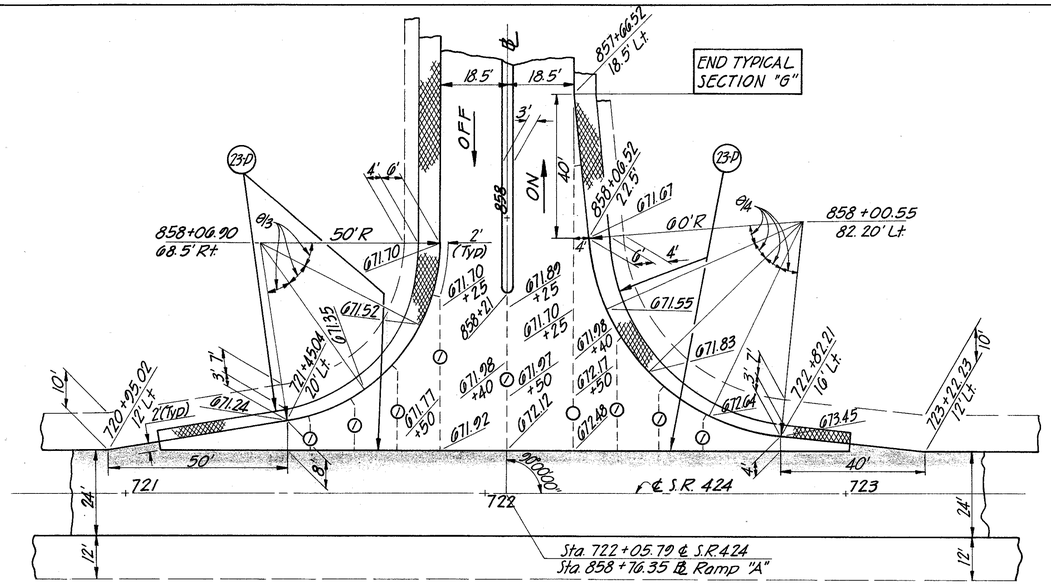
25-P

Sta. 889+80.00 Ramp "A" to Sta. 890+89.57 Ramp "A"
Sta. 886+31.44 Ramp "B" to Sta. 887+55.00 Ramp "B"

S.R. 110 Interchange
Ramp Pavement Detail

Ramp Merging Details S.R. 424 Interchange & S.R. 110 Interchange

HENRY COUNTY
HEN - 6 - 16.43



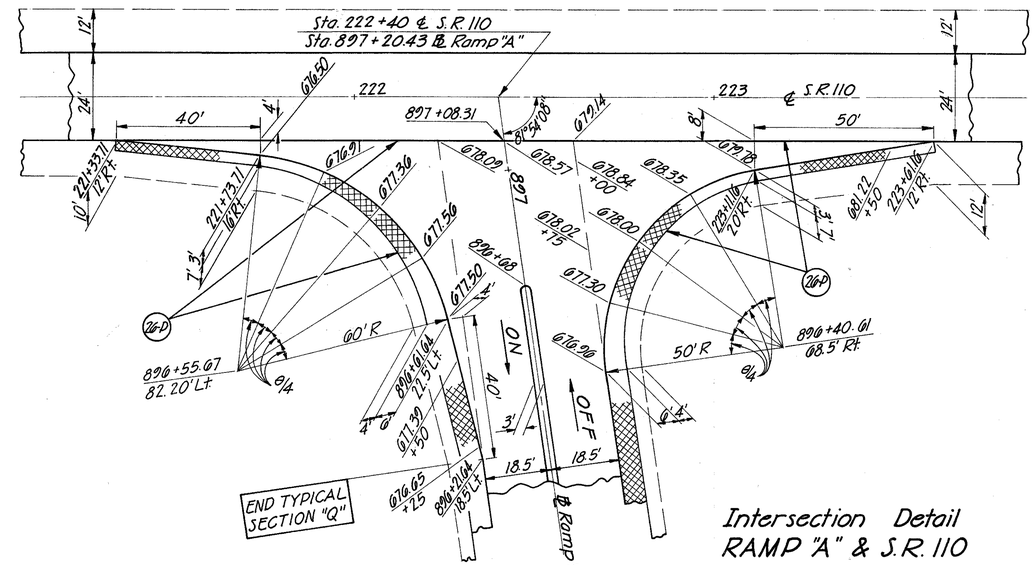
23-P

Sta. 857+66.52 Ramp "A" to Sta. 858+64.35 Ramp "A"

Intersection Detail
RAMP "A" & S.R.424

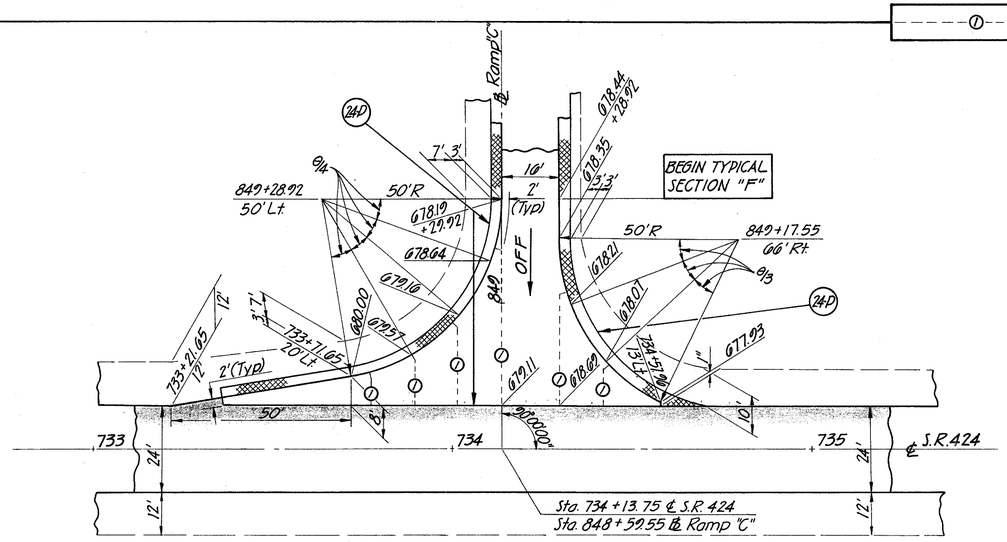
26-P

Sta. 896+21.64 Ramp "A" to Sta. 897+08.31 Ramp "A"



Intersection Detail
RAMP "A" & S.R. 110

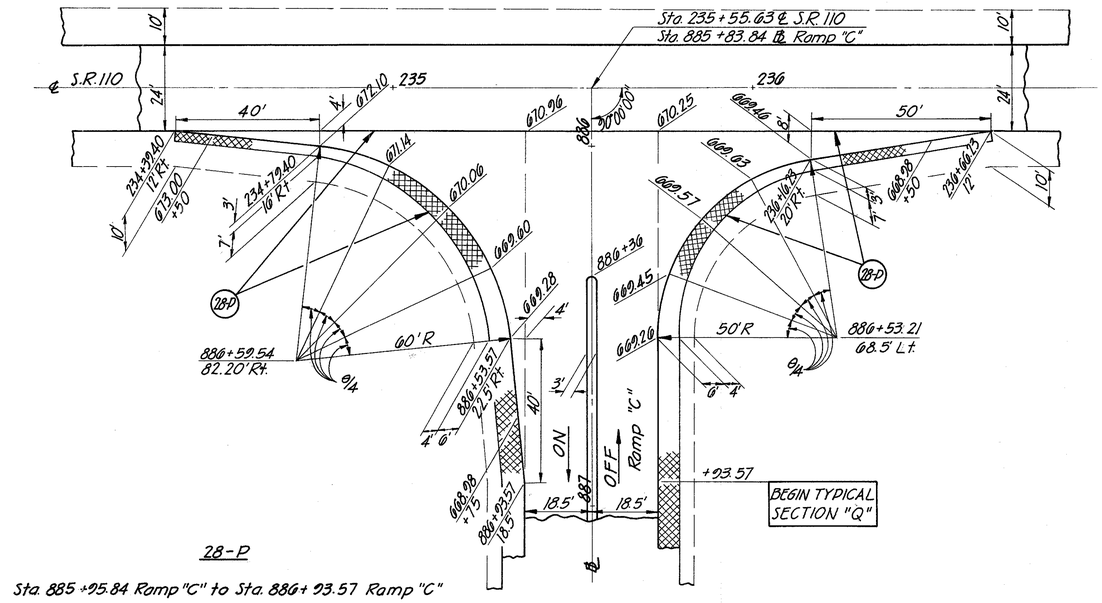
Standard Longitudinal Joint



24-P

Sta. 848+71.55 Ramp "C" to Sta. 849+28.92 Ramp "C"

Intersection Detail
RAMP "C" & S.R.424



28-P

Sta. 885+95.84 Ramp "C" to Sta. 886+93.57 Ramp "C"

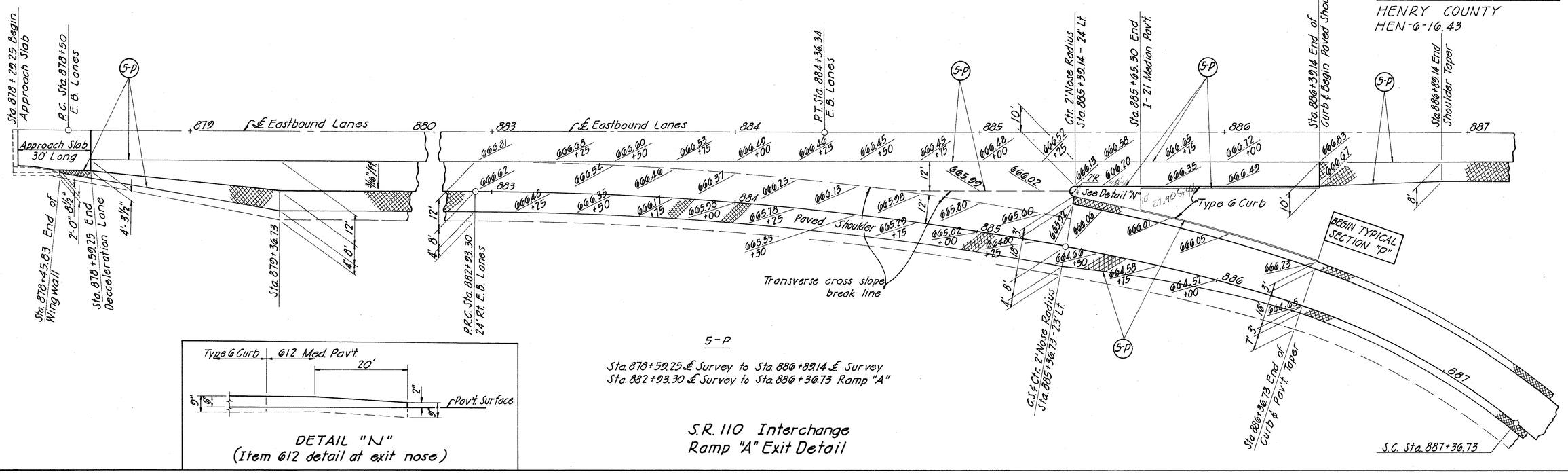
Intersection Detail
RAMP "C" & S.R. 110

Ramp Intersection Details

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

136
231

HENRY COUNTY
HEN-6-16.43

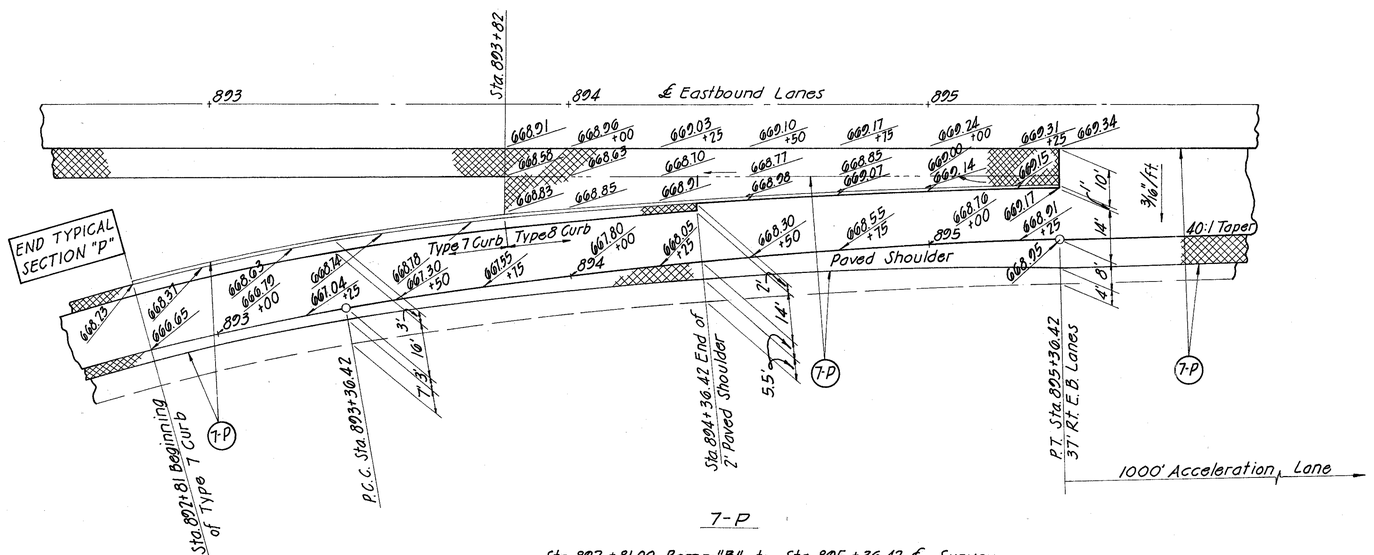


DETAIL "N"
(Item 612 detail at exit nose)

5-P

Sta. 878+59.25 ℄ Survey to Sta. 886+89.14 ℄ Survey
Sta. 882+93.30 ℄ Survey to Sta. 886+36.73 Ramp "A"

S.R. 110 Interchange
Ramp "A" Exit Detail



7-P

Sta. 892+81.00 Ramp "B" to Sta. 895+36.42 ℄ Survey
Sta. 895+36.42 ℄ Survey to Sta. 905+36.42 ℄ E.B. Lanes

S.R. 110 Interchange
Ramp "B" Entrance Detail

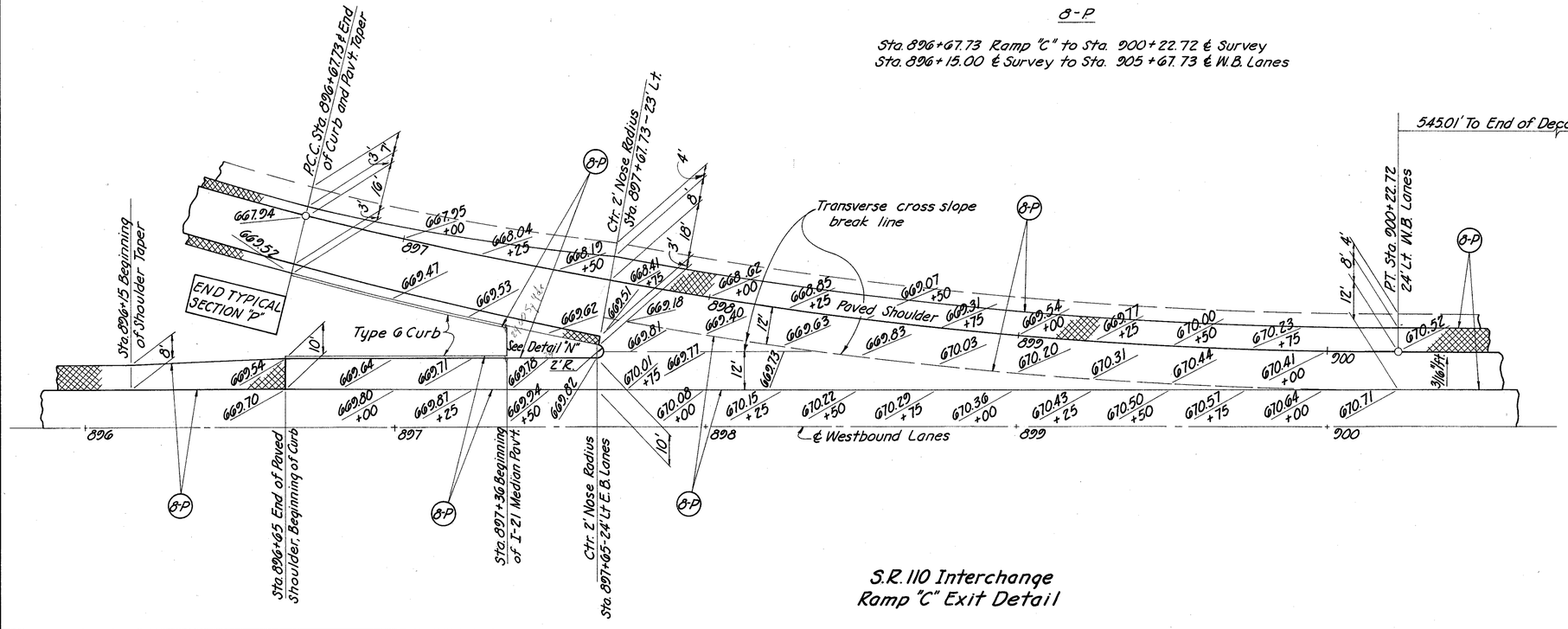
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

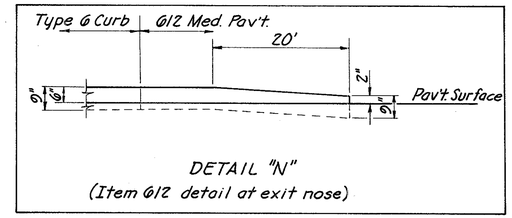
137
231

HENRY COUNTY
HEN - 6 - 16.43

8-P

Sta. 896+67.73 Ramp "C" to Sta. 900+22.72 ℄ Survey
Sta. 896+15.00 ℄ Survey to Sta. 905+67.73 ℄ W.B. Lanes



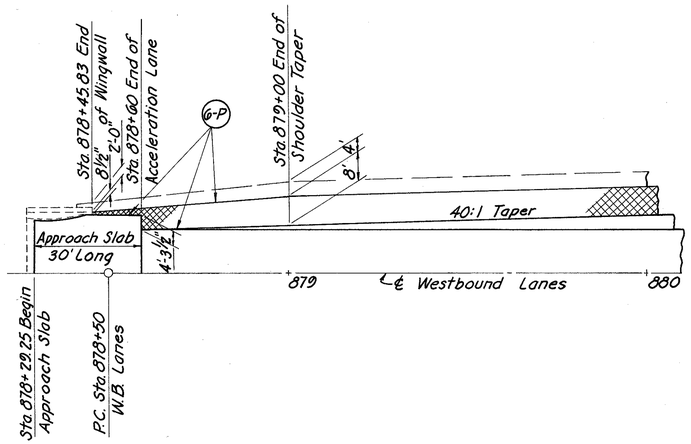


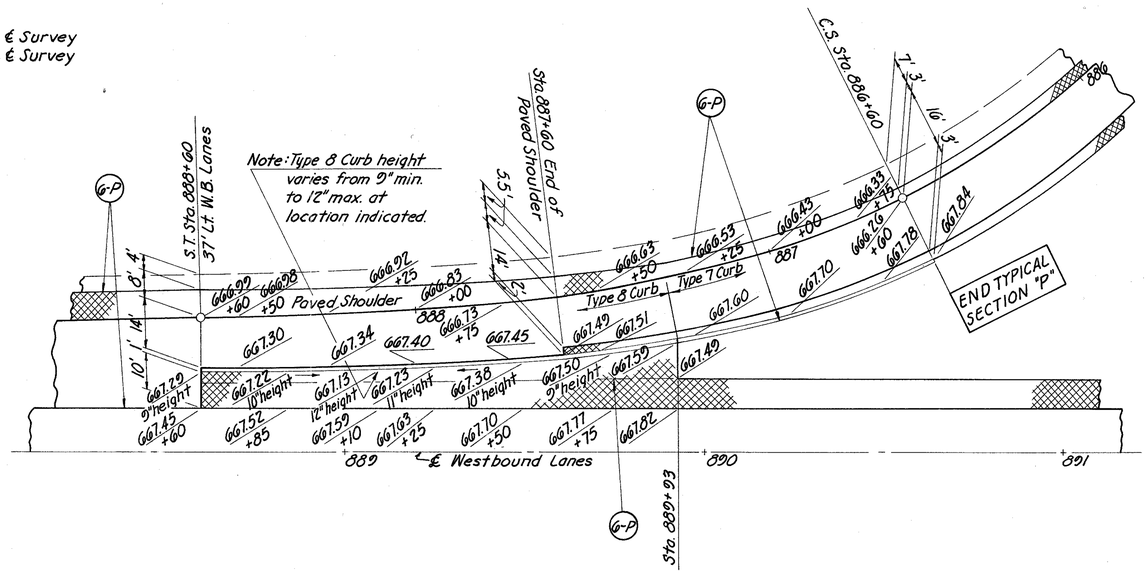
DETAIL "N"
(Item 6:12 detail at exit nose)

S.R. 110 Interchange
Ramp "C" Exit Detail

6-P

Sta. 878+59.25 ℄ Survey to Sta. 880+60.00 ℄ Survey
Sta. 860+60.00 Ramp "D" to Sta. 880+60.00 ℄ Survey





S.R. 110 Interchange
Ramp "D" Entrance Detail

S.R. 110 Ramp Entrance and Exit Details

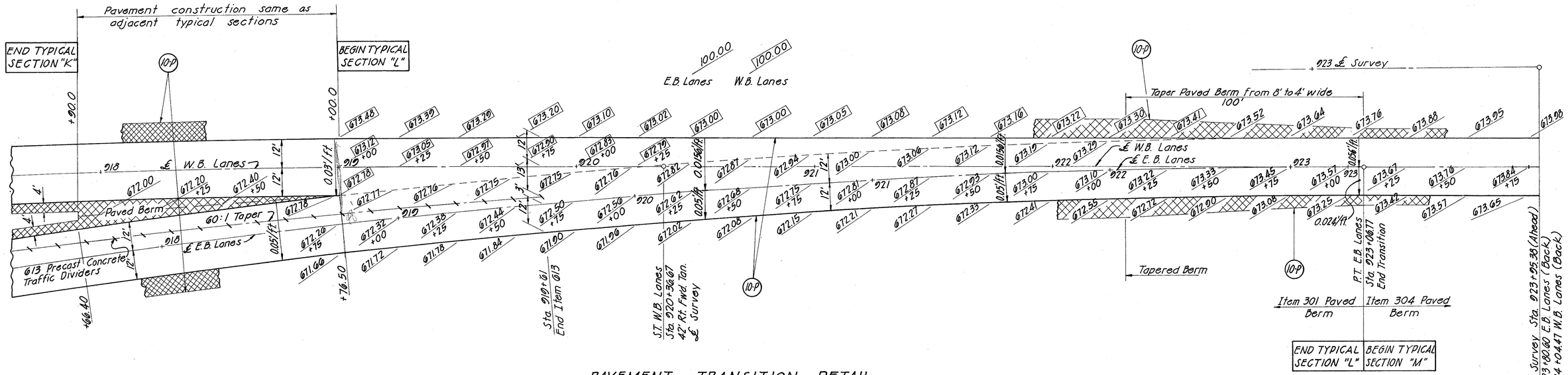
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

138
231

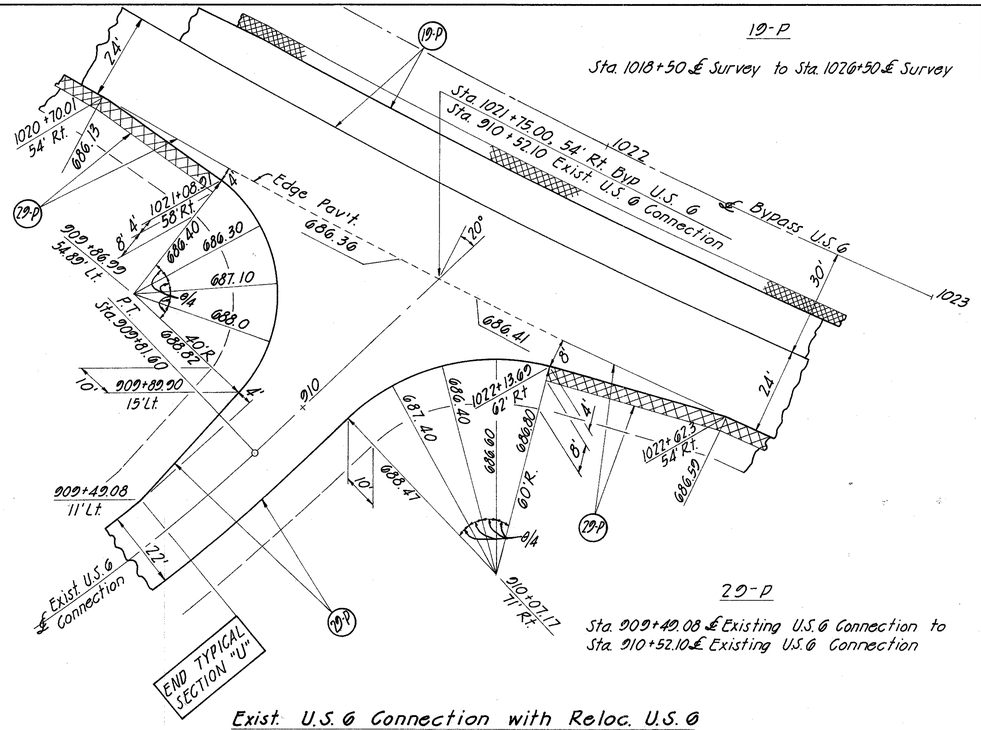
HENRY COUNTY
HEN -G -16.43

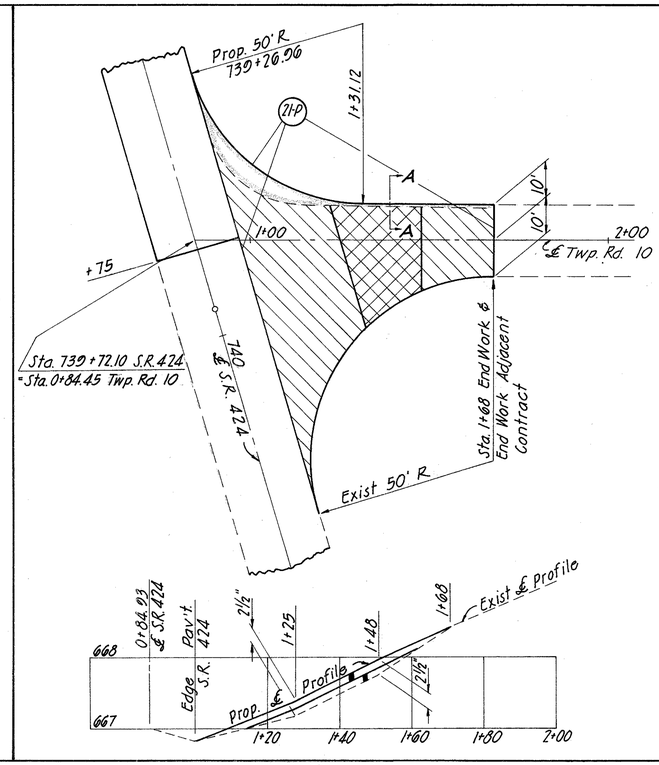
10-P

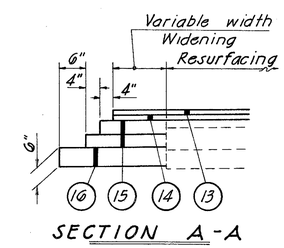
Sta. 917+90.00 ℄ W.B. Lanes to
Sta. 917+66.40 ℄ E.B. Lanes to
} Sta 923+06.77 ℄ E.B. Lanes



PAVEMENT TRANSITION DETAIL
STA. 918+00 to STA. 923+80.60







SECTION A-A

Resurfacing ℄ Feathering

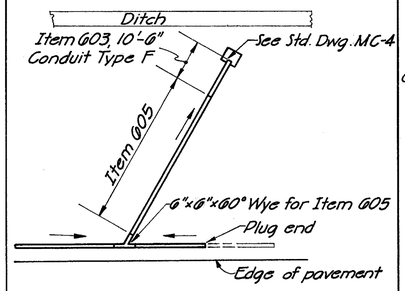
Full Depth Resurfacing

Full Depth Pavement

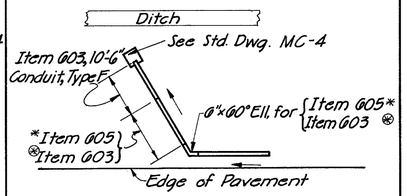
PAVEMENT LEGEND

21-P
EXISTING TWP RD #10

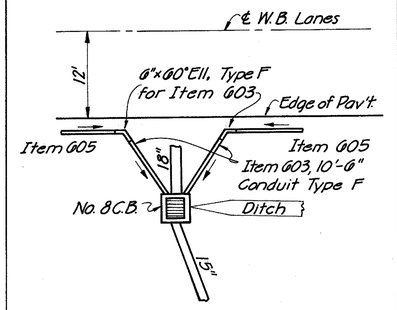
PAVEMENT DETAILS



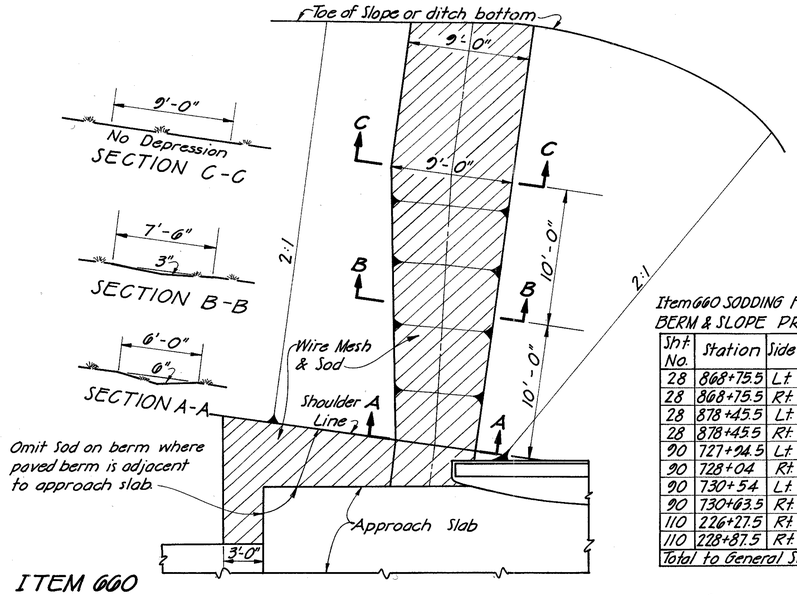
Sta. 853+35, Eastbound Lanes U.S.6
Sta. 1010+90, U.S.6
Sta. 858+00, S.R. 424 Interchange Ramp "A"
Sta. 858+05, S.R. 424 Interchange Ramp "A"



⊛ Sta. 881+12, U.S.6
* Sta. 998+84 U.S.6
* Sta. 1032+00 U.S.6



Sta. 908+00 U.S.6



Item 660 SODDING FOR SPECIAL BERM & SLOPE PROTECTION

Sht. No.	Station	Side	Location	Sq. Yd.
28	868+75.5	Lt.	U.S.6	61
28	868+75.5	Rt.	U.S.6	50
28	878+45.5	Lt.	U.S.6	30
28	878+45.5	Rt.	U.S.6	30
90	727+94.5	Lt.	S.R.424	36
90	728+04	Rt.	S.R.424	72
90	730+54	Lt.	S.R.424	44
90	730+63.5	Rt.	S.R.424	72
110	226+27.5	Rt.	S.R.110	46
110	228+87.5	Rt.	S.R.110	52
Total to General Summary				493

ITEM 660
SODDING FOR SPECIAL BERM AND SLOPE PROTECTION (As Per Plan)

Prior to placement of sod in the berm and slope, galvanized poultry fence shall be placed on the finished grade in strands which shall be at right angles to the direction of flow. Each strand shall be staked securely on the top and bottom with stakes spaced at four-foot intervals and alternated in rows four feet apart.

Stakes shall be 1"x1"x8" wood stakes and shall be perpendicular to the ground and flushed with the finished grade.

The fence shall be straight line poultry fence or equivalent with strand width of four feet, having o two inch mesh and all wires No. 20 gauge.

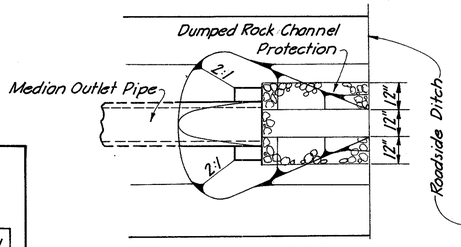
The strands of fencing shall be fastened together at twelve inch intervals by means of hog rings. The fence shall be secured to the wood stakes by metal staples.

Sod shall be laid in accordance with Construction and Material Specifications Section 660.06. Payement for all the above work shall be included in the unit price bid for "Item 660, Sodding for Speciol Berm and Slope Protection, as per Plan."

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

139
231

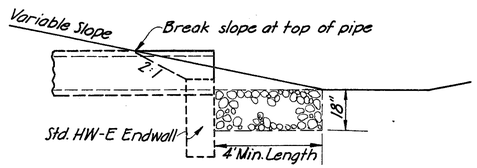
HENRY COUNTY
HEN-6-16.43



PLAN

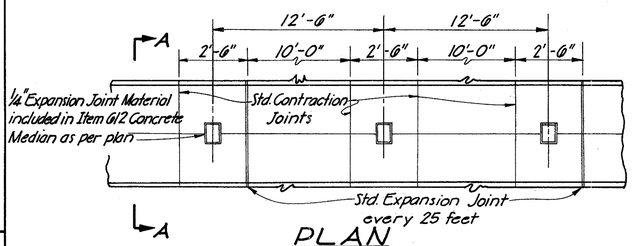
NOTES
Provide as shown except in areas where paving or dumped rock is provided for the roadway ditch.

Cost of the rock outlet treatment shall be paid for at the unit price bid for Item 601, Dumped Rock Channel Protection.

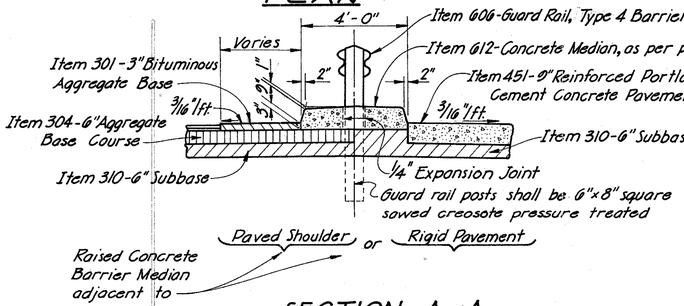


ELEVATION

TYPICAL MEDIAN OUTLET TREATMENT AT ROADSIDE DITCH

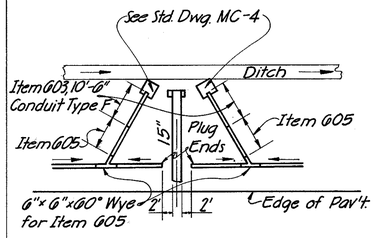


PLAN

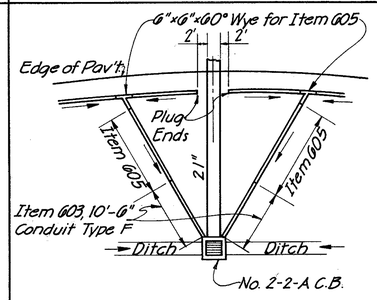


SECTION A-A

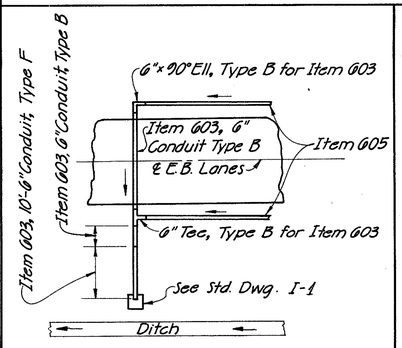
BARRIER MEDIAN DETAIL



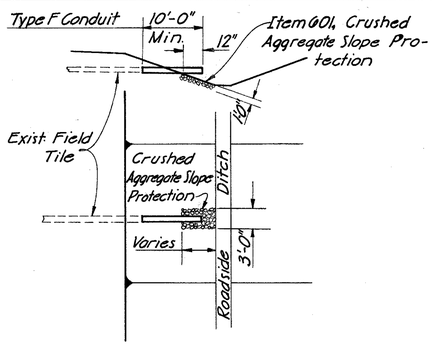
Sta. 1014+00 U.S.6



Sta. 859+20 Westbound Lanes U.S.6
Sta. 859+25 S.R. 424 Interchange Ramp "C"
Sta. 859+50 ℄ Eastbound Lanes U.S.6



Sta. 943+00 U.S.6



TYPICAL FIELD TILE OUTLET PROTECTION AT ROADSIDE DITCH

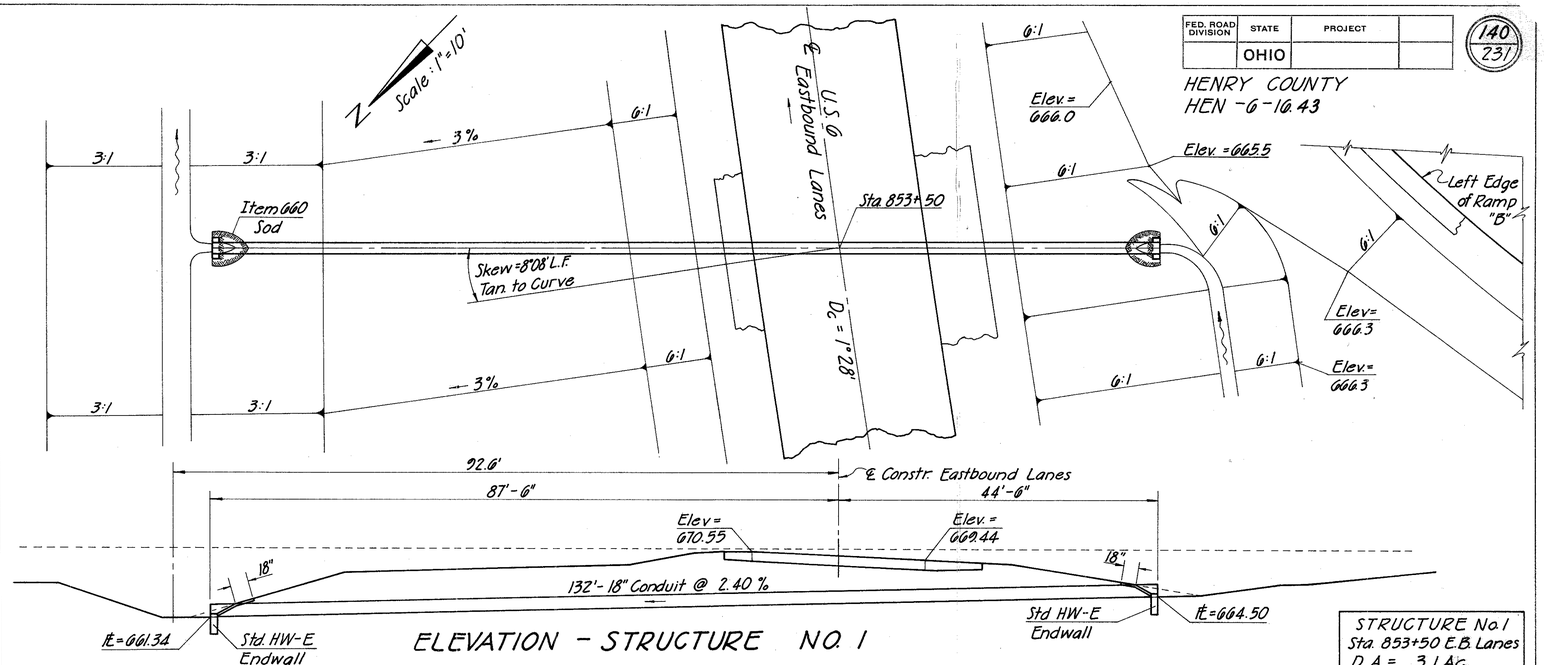
UNDERDRAIN OUTLET DETAILS

SPECIAL DETAILS

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

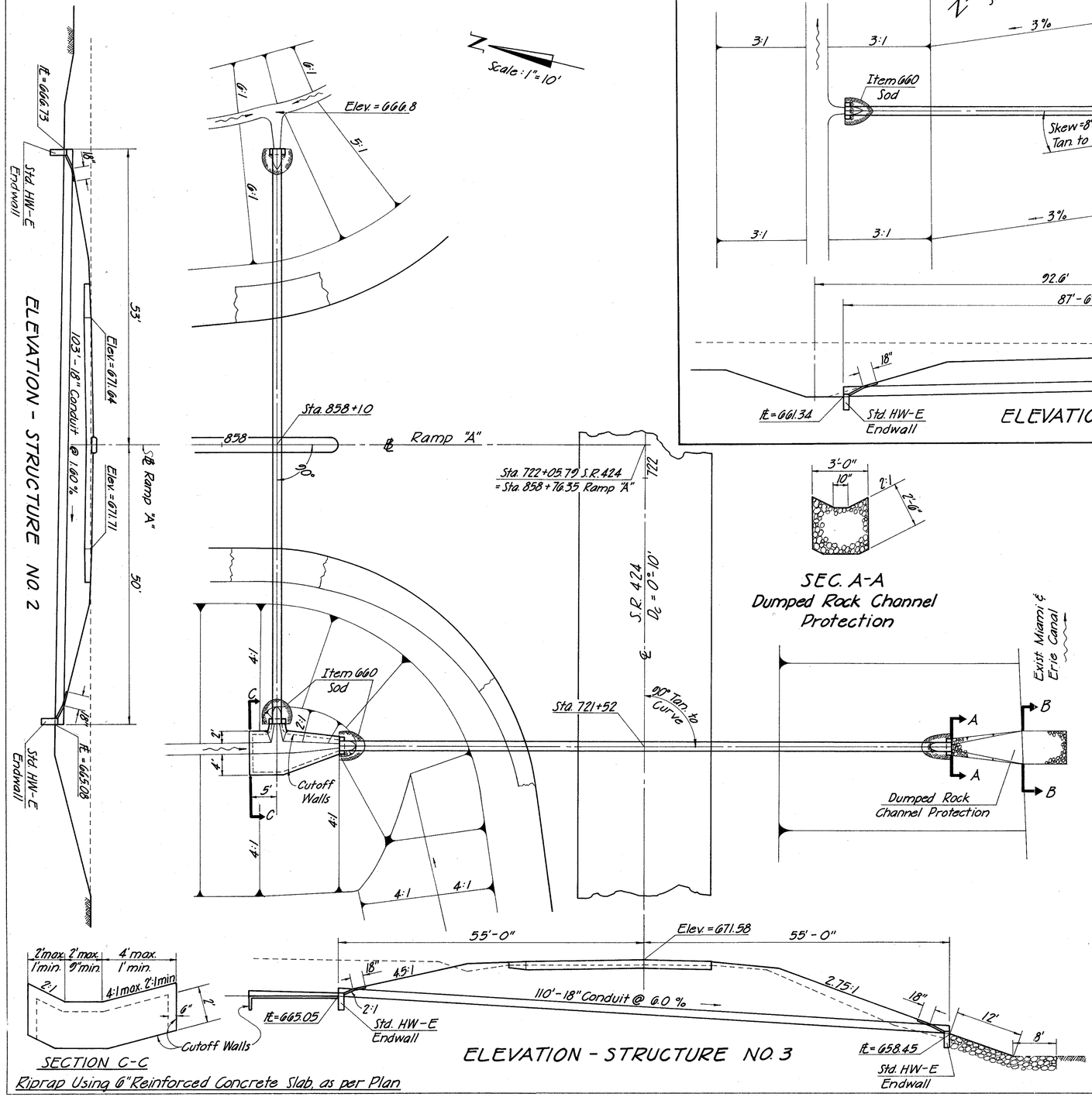
140
231

HENRY COUNTY
HEN -6-16.43



ELEVATION - STRUCTURE NO. 1

STRUCTURE No. 1
Sta. 853+50 E.B. Lanes
D.A. = 3.1 Ac.
Q_{25} = 10.1 cfs



ELEVATION - STRUCTURE NO. 2

SEC. A-A
Dumped Rock Channel Protection

SEC. B-B

SECTION C-C
Riprap Using 6" Reinforced Concrete Slab, as per Plan

ELEVATION - STRUCTURE NO. 3

STRUCTURE No. 1 QUANTITIES

ITEM	QUAN	UNIT	DESCRIPTION
602	0.60	Cu. Yd.	Concrete Masonry
603	132	Lin. Ft.	18" Conduit Type A, 706.01, 706.02 or 706.08 with Class B Bedding
660	4	Sq. Yd.	Sodding

STRUCTURE No. 2
Sta. 858+10 on Ramp "A"
D.A. = 3.1 Ac.
Q_{25} = 10.5 cfs.

STRUCTURE No. 2 QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
601	12.0	Sq. Yd	6" Reinforced Concrete Riprap, as per Plan
602	0.60	Cu. Yd.	Concrete Masonry
603	103	Lin. Ft.	18" Conduit Type A, 706.01, 706.02 or 706.08 with Class B Bedding
660	4	Sq. Yd.	Sodding

STRUCTURE No. 3
Sta. 721+52 on S.R. 424
D.A. = 13.3 Ac.
Q_{25} = 13.8 cfs

STRUCTURE No. 3 QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
601	9.9	Cu. Yd.	Dumped Rock Channel Protection
602	0.60	Cu. Yd.	Concrete Masonry
603	110	Lin. Ft.	18" Conduit Type A, 706.01, 706.02 or 706.08 with Class B Bedding
660	4	Sq. Yd.	Sodding

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CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 1 Sta. 853+50 U.S. 6
STRUCTURE No. 2 Sta. 858+10 Ramp "A"
STRUCTURE No. 3 Sta. 721+52 S.R. 424

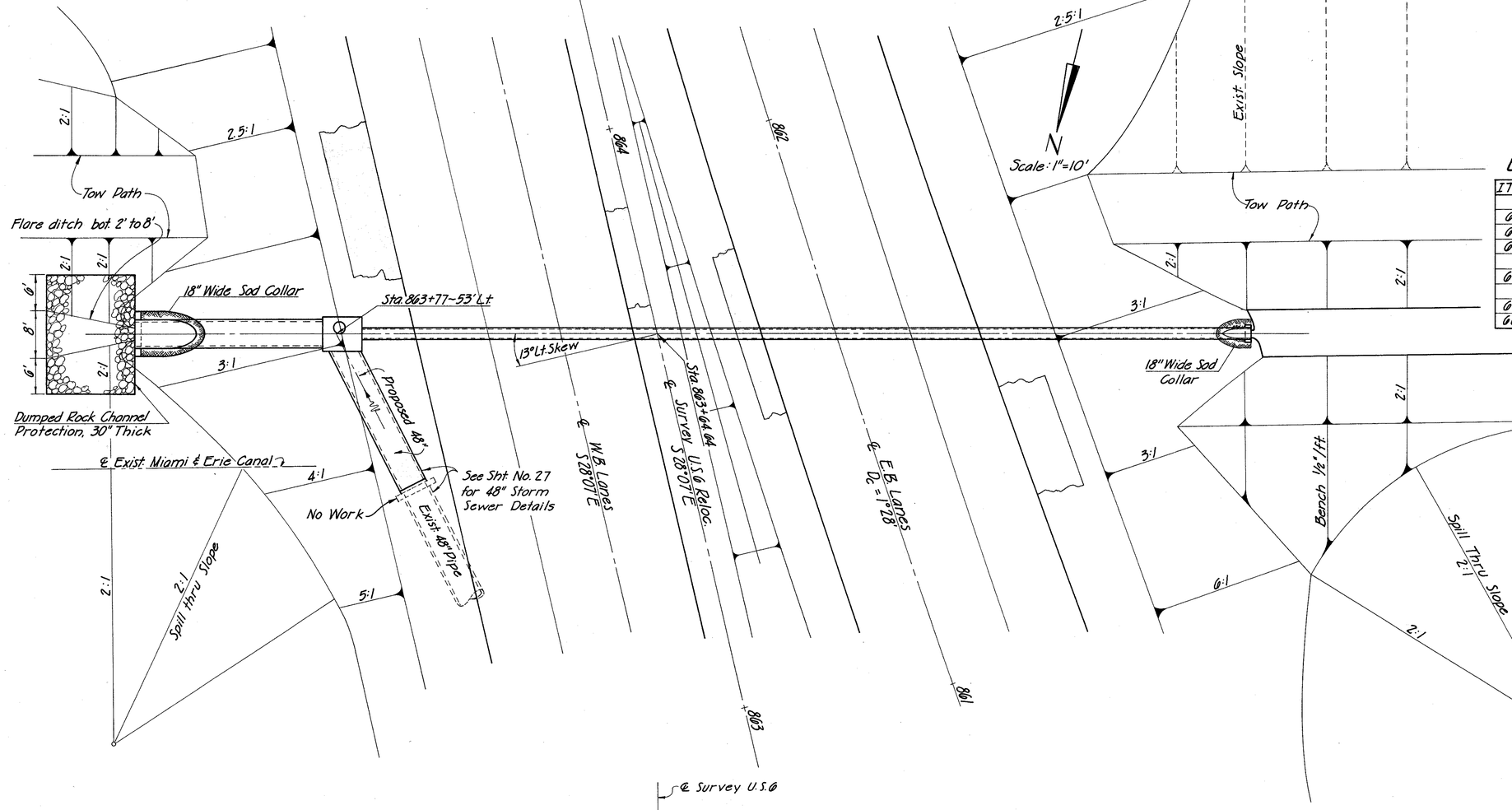
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T. H. H.	MK				

STRUCTURE No. 1, 2, & 3

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

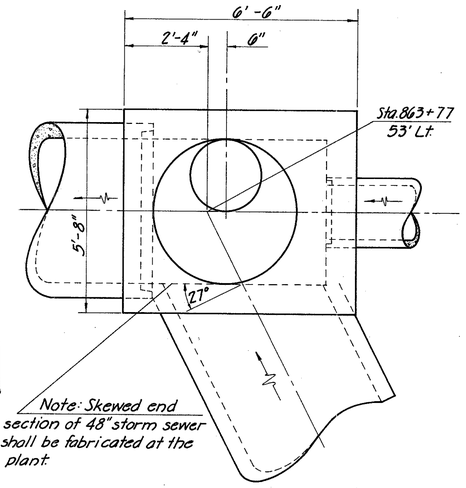
141
231

HENRY COUNTY
HEN - 6 - 16.43



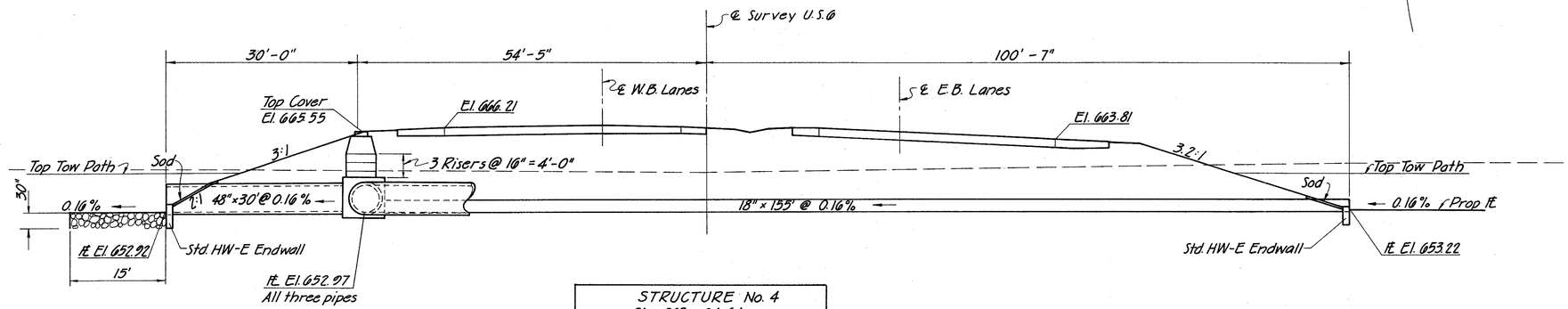
ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QUAN.	UNIT
601	Dumped Rock Channel Protection	29.7	Cu.Yd.
602	Concrete Masonry	1.16	Cu.Yd.
603	18" Conduit Type A, 706.02 Class III or 706.08 with Cl. B Bedding	155	Lin.Ft.
603	48" Conduit Type A, 706.02 with Cl. B Bedding	30	Lin.Ft.
604	Standard No. I-A M.H. Modified as per Plan	1	Each
660	Sodding	6	Sq. Yd.



PLAN VIEW

Std. M.H.-1A Manhole Modified as per Plan
Note: Modification of M.H.-1A is length of connection box & location of riser barrel. All materials and dimensions not shown here shall be as per Std. Constr. Dwg. M.H.-1A.



STRUCTURE No. 4 Sta. 863 + 64.64	
48" Pipe	18" Pipe
D.A. = 53.3 Ac.	D.A. = 13.3 Ac.
Q_{25} = 99 cfs.	Q_{25} = 13.8 cfs.

STRUCTURE No. 4
Sta. 863 + 64.64

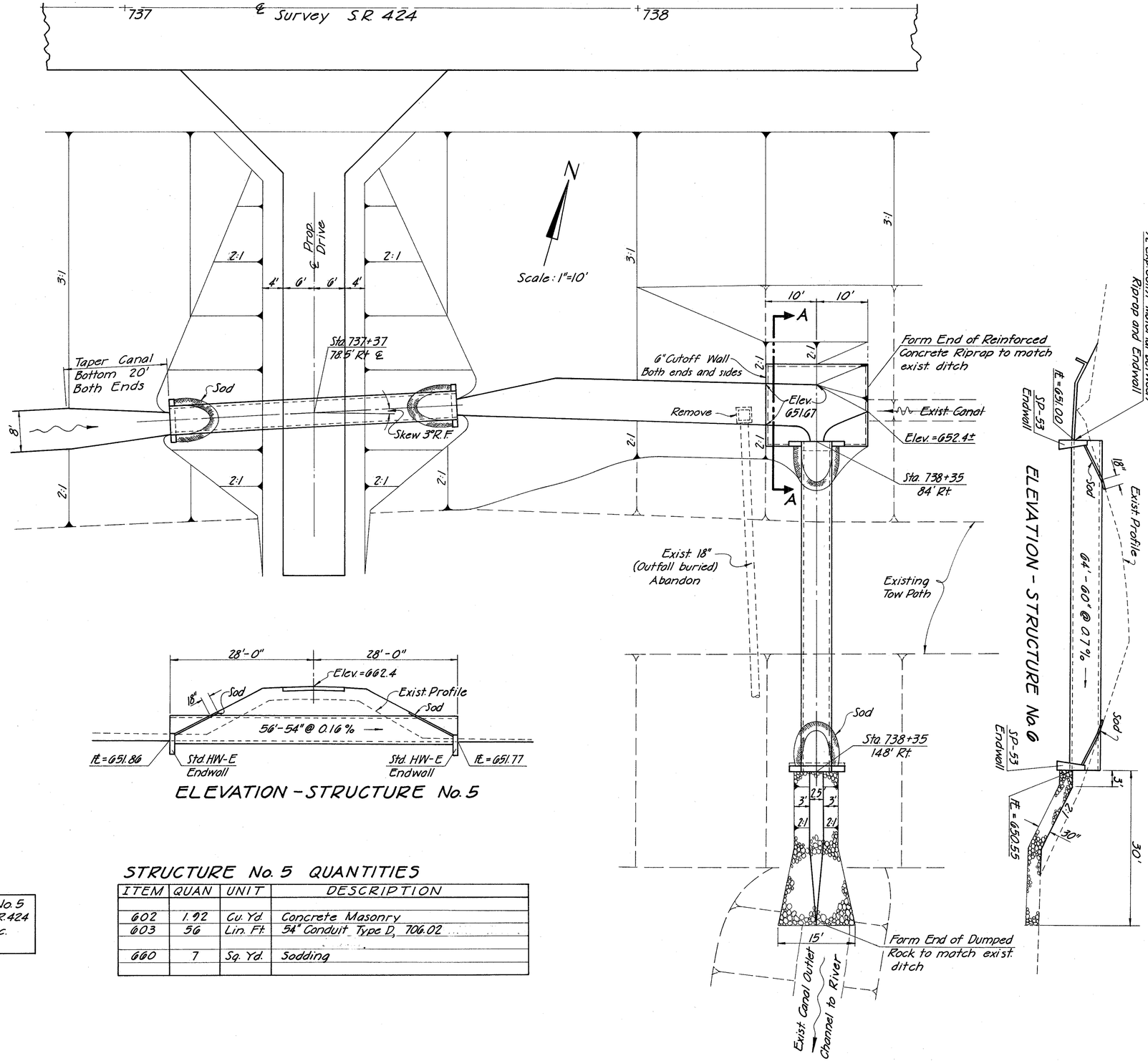
DESIGNED	TRACED			
T.H.H.	A.P.O.			

STRUCTURE No. 4 Sta. 863+64.64 U.S. 6

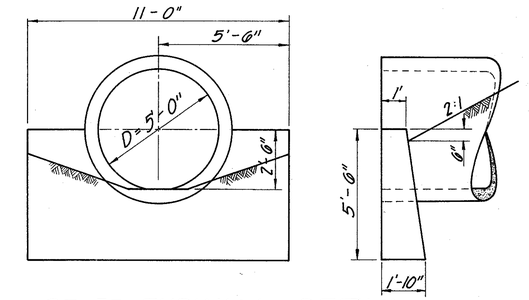
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

142
231

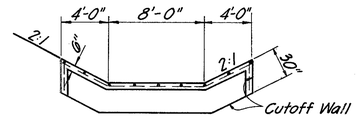
HENRY COUNTY
HEN -6-16.43



ELEVATION - STRUCTURE No. 6



SP 53 ENDWALL DETAIL



SEC. A-A

Riprap using 6" Reinforced Concrete Slab, as per Plan

Note: 6" Cut-Off Wall to be included in unit price bid for Item 601, Riprap using 6" Reinforced Concrete Slab, as per Plan.

STRUCTURE No. 6 QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
601	30	Cu. Yd.	Dumped Rock Channel Protection
601	38	Sq. Yd.	Riprap using 6" Reinforced Concrete Slab, as per Plan
602	5.1	Cu. Yd.	Concrete Masonry
603	64	Lin. Ft.	60" Conduit Type D, 706.02
660	7	Sq. Yd.	Sodding

STRUCTURE No. 6
Sta. 738+35 Rt. - S.R. 424
D.A. = 76.6 Ac.
Q_{25} = 139.5 cfs

ELEVATION - STRUCTURE No. 5

STRUCTURE No. 5 QUANTITIES

ITEM	QUAN	UNIT	DESCRIPTION
602	1.92	Cu. Yd.	Concrete Masonry
603	56	Lin. Ft.	54" Conduit Type D, 706.02
660	7	Sq. Yd.	Sodding

STRUCTURE No. 5
Sta. 737+37 Rt. S.R. 424
D.A. = 53.3 Ac.
Q_{25} = 99 cfs

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 5
Sta. 737+37 Rt. S.R. 424

STRUCTURE No. 6
Sta. 738+35 Rt. S.R. 424

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	MK				

STRUCTURE No. 5 & 6

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

143
231

HENRY COUNTY
HEN - 6 - 16.43

135.5' Ditch Relocation | 91'-0" | 111'-0"

Begin Ditch Cleanout
End Ditch Relocation

Sta. 15+00

658.0

20'

Dumped Rock Channel Protection

Sod

2:1

3:1

℄ S.R. 110

6"-30' To Join

+73.5

48" Existing Culvert

Existing Ditch

Fill to Elev. 657.5±

656.0

Exist. 12" CMP

Sta. 230+31 S.R. 110

+14 +13 +12

STRUCTURE No. 9
Sta. 230+31 S.R. 110
DA. = 145 Ac.
Q_{25} = 147 cfs

Scale: 1" = 20'

Note: Existing 48" pipe, that is to be removed for storage, is to be stored in the R/W to be picked up by State Forces.

PLAN

S.R. 110 Culv. Quantities | U.S.6 Culv. Quantities

℄ CURVE DATA
Δ = 44°-12' ±
R = 40.0' T = 16.2'
P.I. Sta. 11+38.2

Elev. 661.0

Elev. 664.0

659.0

10'±

4:1

℄ = 655.24
10+93

Elev. 661.0
Top of Bank

6" Reinforced Conc. Riprap (as per Plan)

29'-0"

Elev. 661.0
½" Exp. Joint Mat between Riprap & Endwall both ends

Sod

℄

Existing Ground

666.36

666.61

23'-0"

192'-60" @ 0.60%

℄ Survey U.S.6

666.60

15" on 60" Saddle Type Tee

666.68

99'-0"

LONGITUDINAL SECTION

Sta. 885+60 ℄ Survey U.S.6

112'-00"

9.5% Max.

10'+00

93'-0"

15" on 60" Saddle Type Tee (See Detail)

SP-53 Endwall

Existing Ditch

92'-0"

99'-0"

℄ = 657.09
9+01

℄ = 657.70
8+00

Clearance = 0'-11"

101' Ditch @ 0.60%

0.40%

Sta. 8+00

Dumped Rock Channel Protection 18" Thick

Sod

6:1

3:1

8'

666.09

662.0

20'-6"

Jute Matting
6-4 jute strips
= 21.5

Scale: 1" = 20'

Match Line
See Sheet 14

PLAN
STRUCTURE No. 7

STRUCTURE No. 7
Sta. 885+60 & Survey U.S.6
D.A. = 14.5 Ac.
Q_{25} = 14.7 cfs

STANDARD SP-53 ENDWALL
U.S.6 Culvert

111'-6"
5'-9"
60"
2'-6"
3:1

Note: For other dimensions not shown see S.R. 110 Endwall detail.

3'-6"
2:1
4'-0"
2:1
2'-0"
Dumped Rock Channel Protection

SECTION A-A

91'-0" | 683.60 | ℄ S.R. 110 | 683.79 | 111'-0"

2:1 | 3:1 | 2:1

202'-60" @ 0.60% | Existing Ground

0.6%

SP-53 Endwall

℄ = 654.3
13+64.5

℄ = 655.52
11+62.5

LONGITUDINAL SECTION
STRUCTURE No. 9

3:1
4'-0"
3:1
4'-0"
2'-4"
6"
Riprap using 6" Reinforced Concrete Slab, as per Plan.

SECTION B-B

Note: Cost of cut-off walls to be included in the unit price bid per sq. yd. for Riprap using 6" Reinforced Concrete Slab, as per Plan.

2'-9"
2'-0"
3'-3"
5'-9"
1'-0"
30°
PLAN

60"
3:1
3:1
2'-6"
3'-0"
2'-6"
ELEV.

MODIFIED SP-53 ENDWALL DETAIL
S.R. 110 Culvert

ASSEMBLE TEE AT PROJECT

1'-6"
1¾"
6"
5/16"
2'-6"
2'-0½"
15" @ 2.0%
2¼"
1'-8⅛"
5/16"
¾"
½"
4¾"
℄ = 658.53
℄ = 656.57

1'-8⅛" dia. hole in culvert to be formed at the pipe plant. No field cuts will be permitted.

Cost of saddle type tee included in price bid for Item 603, 192'-60" Conduit.

Concrete & Steel Reinforcing for saddle will be the same as specified for 15" conduit, type B.

15" ON 60" SADDLE TYPE TEE
(Sta. 9+88 ℄)

Sta. 18+57
End Ditch Cleanout

4'
2:1
2:1
+18

357' Ditch Cleanout

+17

+16

2:1
2:1
4'

Begin Ditch Cleanout
End Ditch Relocation

Sta. 15+00

See Sht. No. 156 for Channel Sections

157' Ditch Cleanout @ 0.40% | 200' Ditch Cleanout @ 0.60%

Existing Ditch Profile

℄ = 651.67
18+57

℄ = 652.30
17+00

℄ = 653.50
15+00

ESTIMATED QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
			STRUCTURE NO. 9
202	86	L.F.	48" Pipe Removed for Storage
203	301	C.Y.	Excavation not including embankment construction
601	38	C.Y.	Dumped Rock Channel Protection
602	6.34	C.Y.	Concrete Masonry
603	202	L.F.	60" Conduit Type A, 706.02 Cl. V with Cl. B Bedding
660	34	S.Y.	Sodding
			STRUCTURE NO. 7
203	936	C.Y.	Excavation not including embankment construction
601	19	C.Y.	Dumped Rock Channel Protection
602	5.68	C.Y.	Concrete Masonry
603	192	L.F.	60" Conduit Type A, 706.02 with Class B Bedding
660	32	S.Y.	Sodding
667	261	S.Y.	Jute Matting
601	196	S.Y.	Riprap using 6" Reinforced Concrete Slab, as per Plan

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 7
Sta. 885+60 U.S. 6

STRUCTURE No. 9
Sta. 230+31 S.R. 110

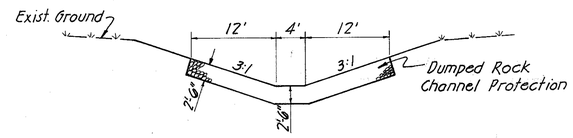
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H. J.C.O.	J.C.O.				

STRUCTURE No. 7 & 9

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

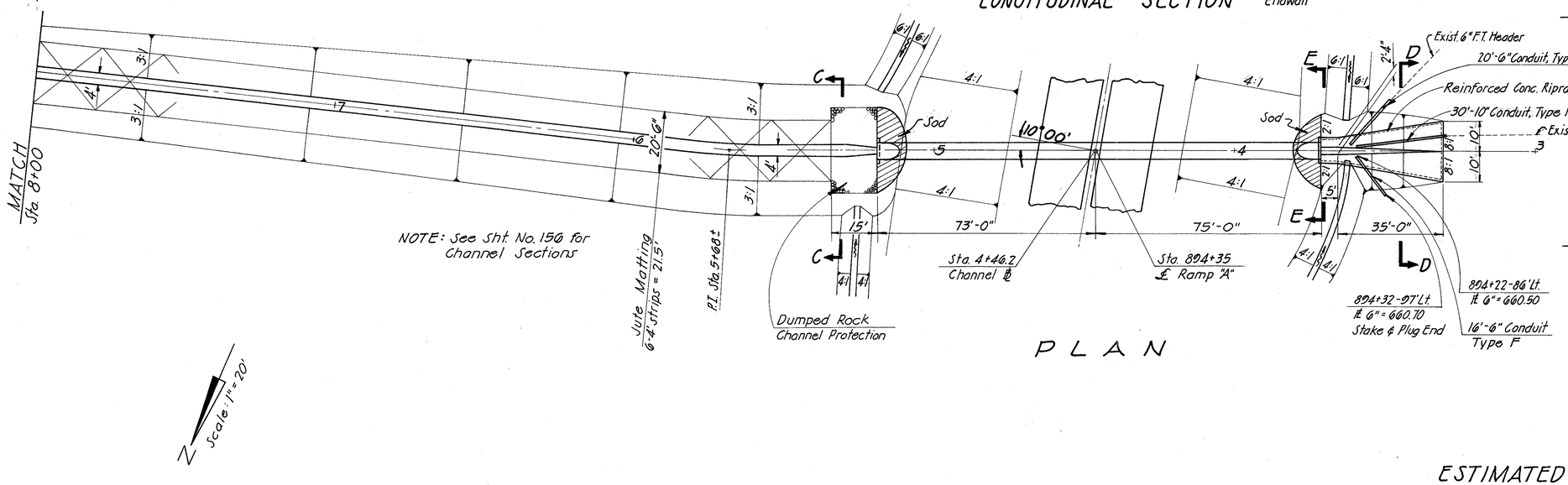
144
231

HENRY COUNTY
HEN -6-16.43

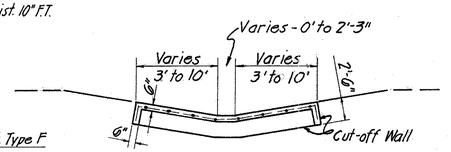


SECTION C-C

LONGITUDINAL SECTION

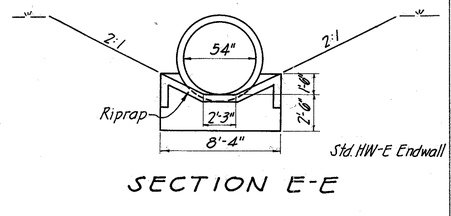


PLAN



SECTION D-D

NOTE: 6" Cut-off Wall to be included in unit price bid for Item 601, Riprap using 6" Reinforced Concrete Slab, as per plan



SECTION E-E

ESTIMATED QUANTITIES

Item	Quan.	Unit	Description
203	1021	C.Y.	Excavation not including embankment construction
601	42	C.Y.	Dumped Rock channel protection
601	62	S.Y.	Riprap using 6" reinforced concrete slab, as per plan
602	1.92	C.Y.	Concrete masonry
603	148	L.F.	54" Conduit Type A, 706.02 Class III with Class B Bedding
603	30	L.F.	10" Conduit Type F
603	36	L.F.	6" Conduit Type F
660	38	S.Y.	Sodding
607	635	S.Y.	Jute Matting

D.A. = 145 AC
Q_{25} = 147 c.f.s.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 8
STA. 804+35, Ramp A

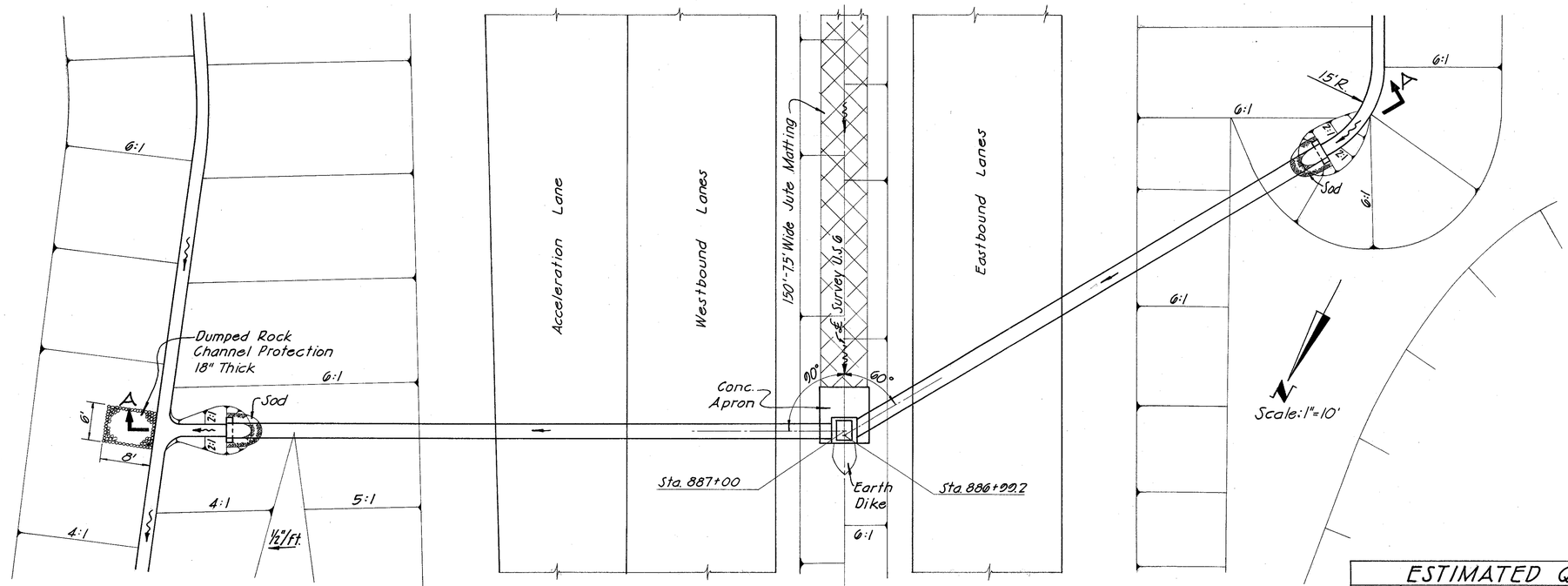
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H. J.C.O.	MK				

STRUCTURE No. 8

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

145/231

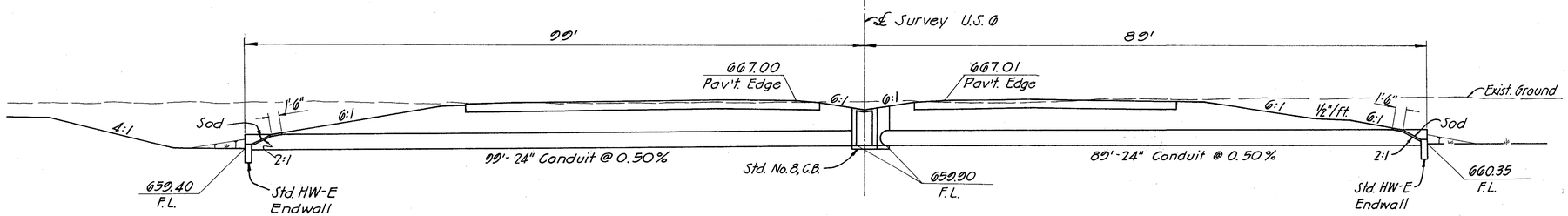
HENRY COUNTY
HEN - 6 - 16.43



ESTIMATED QUANTITIES

ITEM	DESCRIPTION	QUAN.	UNIT
601	Dumped rock channel protection	2.7	C.Y.
604	Standard No. 8 C.B.	1	Ea.
603	24" Conduit Type A, 706.02 or 706.08 with Class B Bedding	188	L.F.
602	Concrete masonry	0.82	C.Y.
660	Sodding	5	S.Y.
667	Jute matting	125	S.Y.

D.A. = 7.1 Ac
Q_{25} = 10.9 c.f.s.



SECTION A-A

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 10
Sta. 887+00-U.S. 6

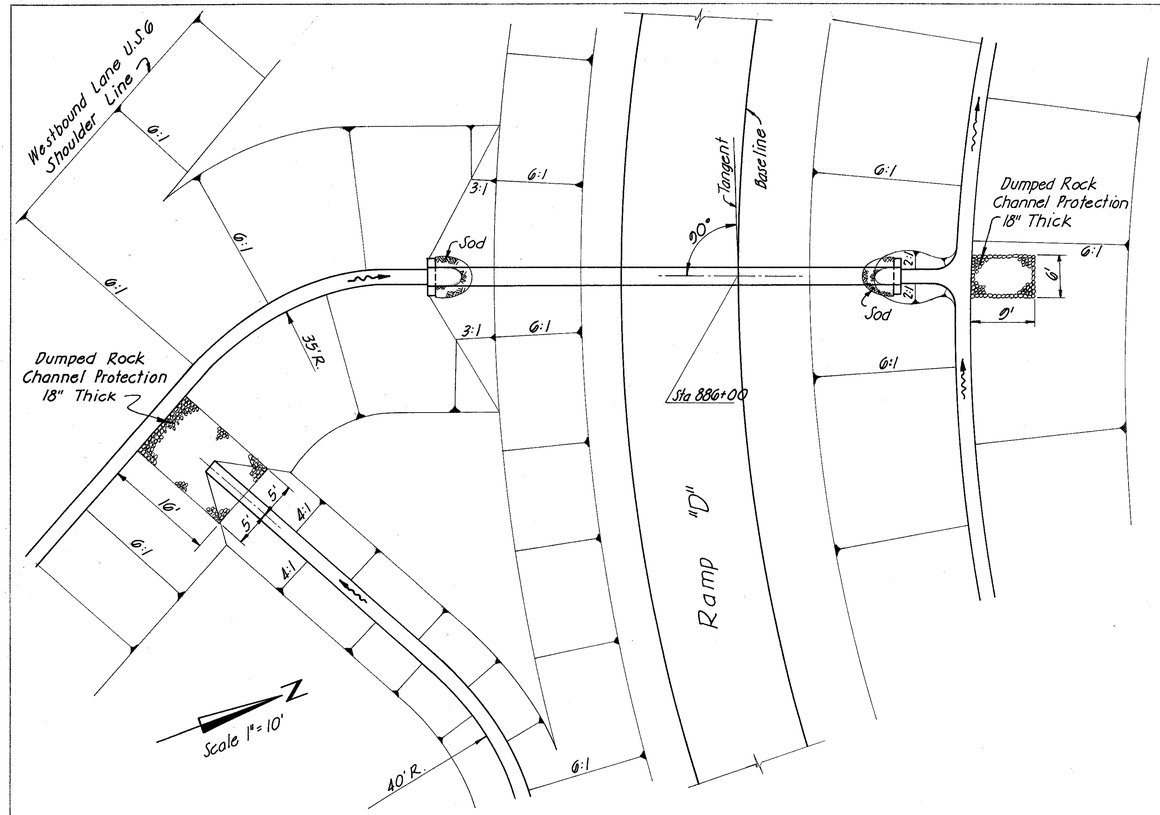
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.H.J.	MK				

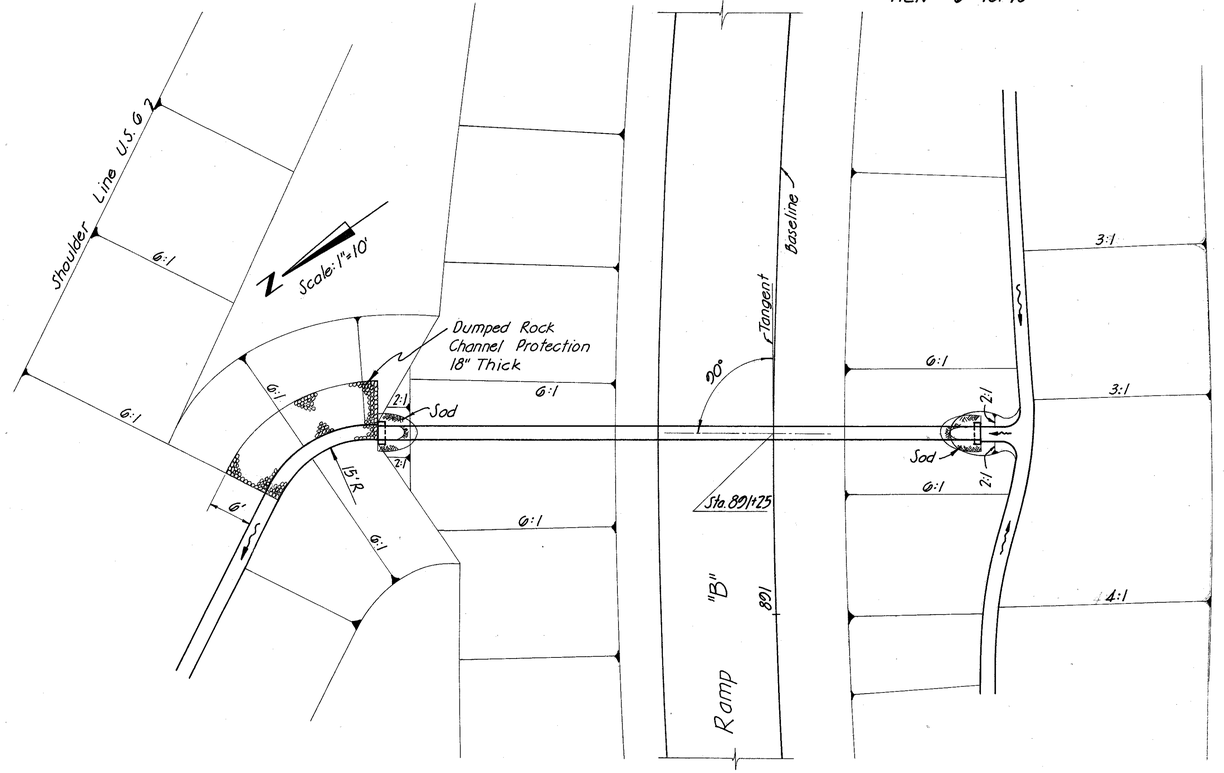
STRUCTURE No. 10

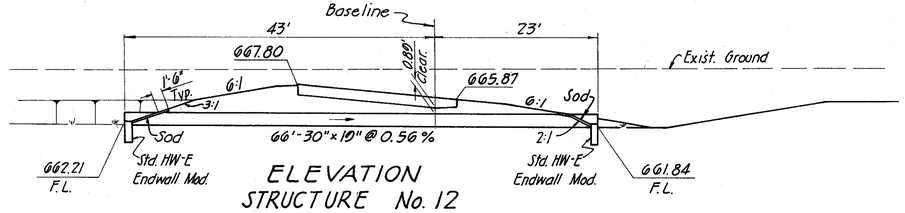
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

146
231

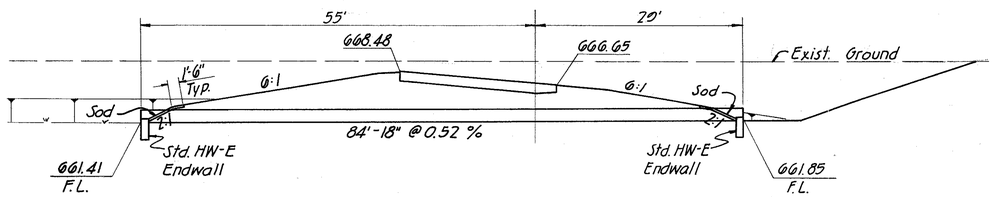
HENRY COUNTY
HEN -6-16.43



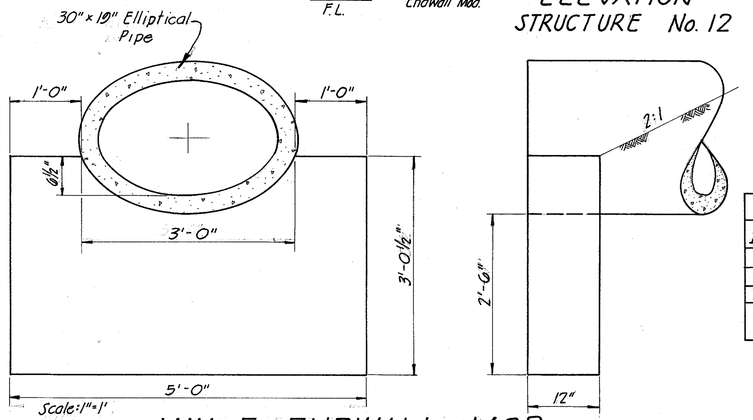




ELEVATION
STRUCTURE No. 12



ELEVATION STRUCTURE No. 11



HW-E ENDWALL MOD.

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUAN	UNIT
601	Dumped rock channel protection	12.1	C.Y.
602	Concrete masonry	1.0	C.Y.
660	Sodding	4	S.Y.
603	30" x 19" Conduit Type A, 706.04 HE-II with Class B Bedding	66	L.F.

D.A. = 6.0 AC
Q_{25} = 17.0 c.f.s.

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUAN	UNIT
601	Dumped rock channel protection	9.8	C.Y.
603	18" Conduit, Type A, 706.01, 706.02 or 706.08 with class B Bedding	84	L.F.
602	Concrete masonry	0.6	C.Y.
660	Sodding	4	S.Y.

D.A. = 3.6 AC
Q_{25} = 9.5 c.f.s.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 11 Sta. 891+25
Ramp B S.R. 110
STRUCTURE No. 12 Sta. 886+00
Ramp D S.R. 110

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.H.J.	MK				

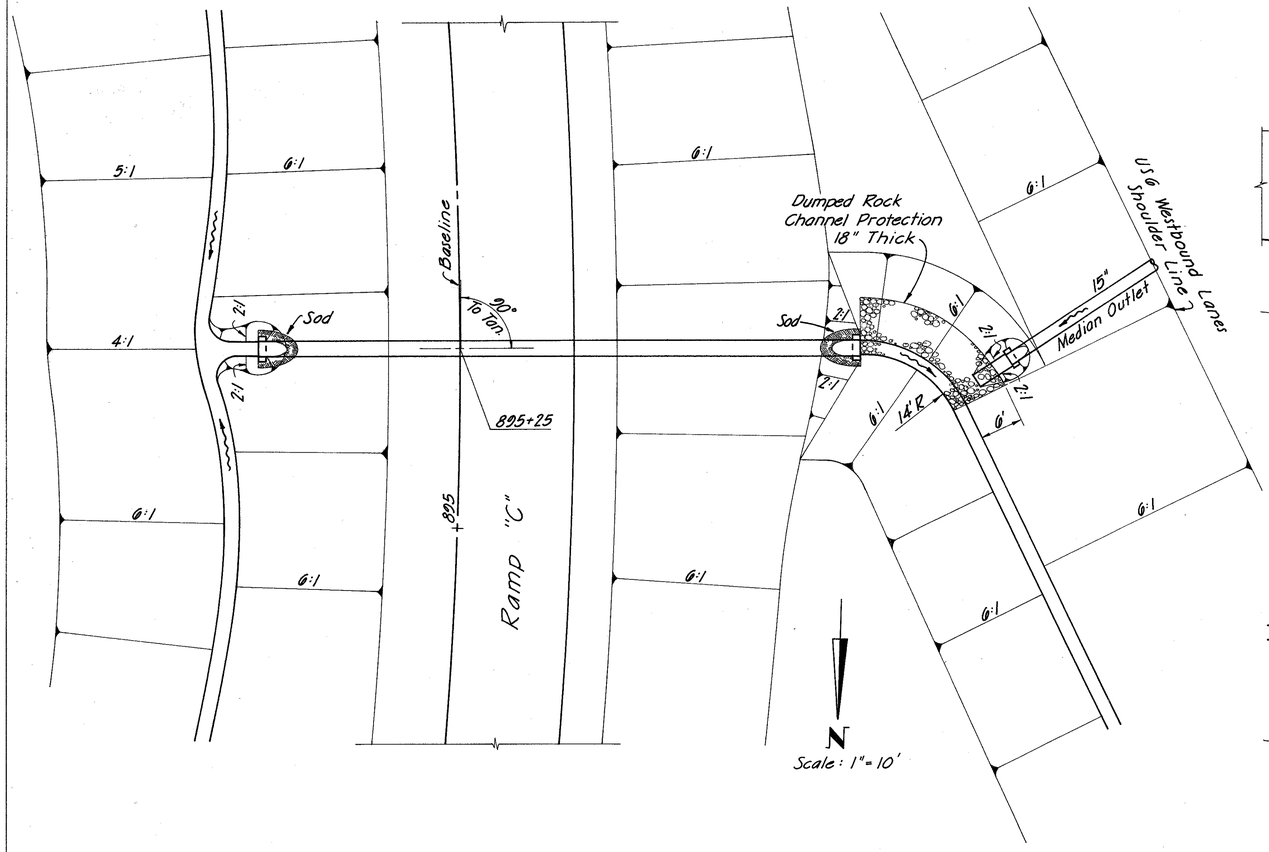
6408

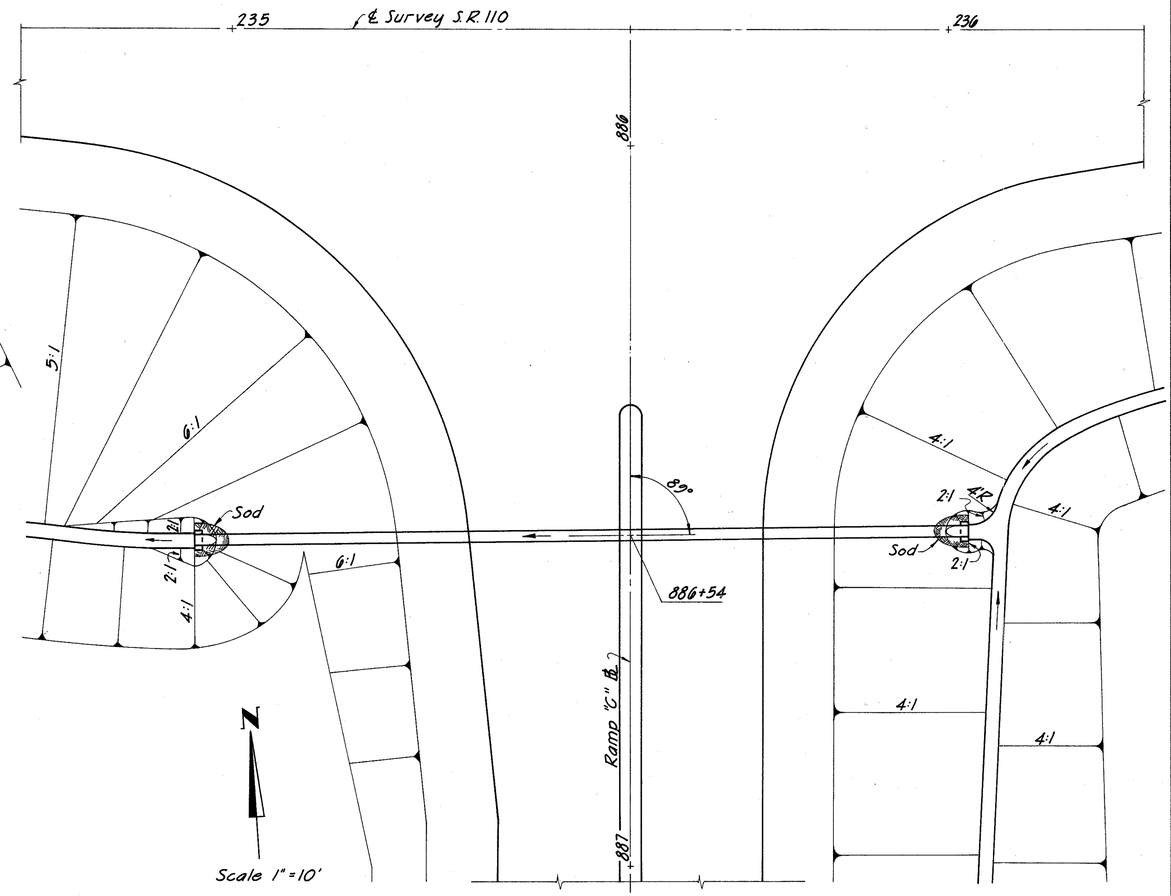
STRUCTURES No. 11 & 12

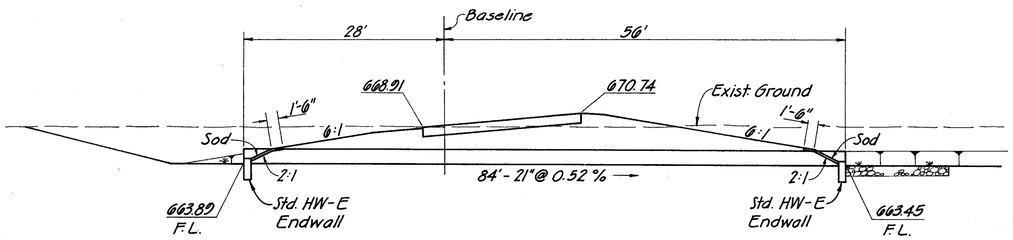
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

147
231

HENRY COUNTY
HEN - 6 - 16.43



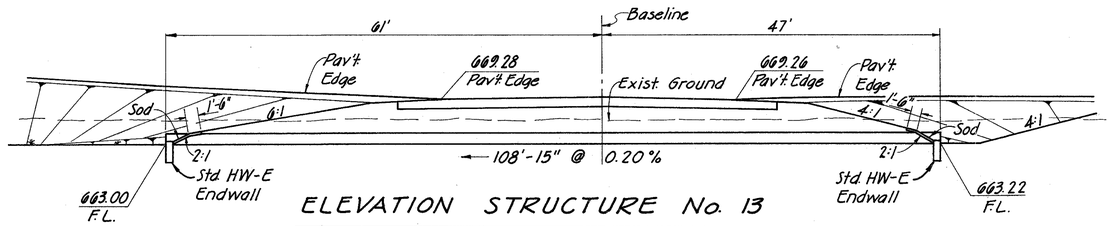




ELEVATION STRUCTURE No. 14

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUANT.	UNIT
601	Dumped Rock Channel Protection	9.4	C.Y.
602	Concrete Masonry	0.72	C.Y.
603	21" Conduit Type A, 706.02 or 706.08 with Class B Bedding	84	L.F.
660	Sodding	4	S.Y.

D.A. = 3.0 Ac
Q_{25} = 9.0 Cfs.



ELEVATION STRUCTURE No. 13

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUANT.	UNIT
603	15" Conduit Type "A", 706.01, 706.02 or 706.08 with Class B Bedding	108	L.F.
660	Sodding	3	S.Y.
602	Concrete Masonry	0.52	C.Y.

D.A. = 2.3 Ac
Q_{25} = 7.1 Cfs.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 13 Sta. 886+54
STRUCTURE No. 14 Sta. 895+25
RAMP C S.R. 110

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
WHJ	APO				

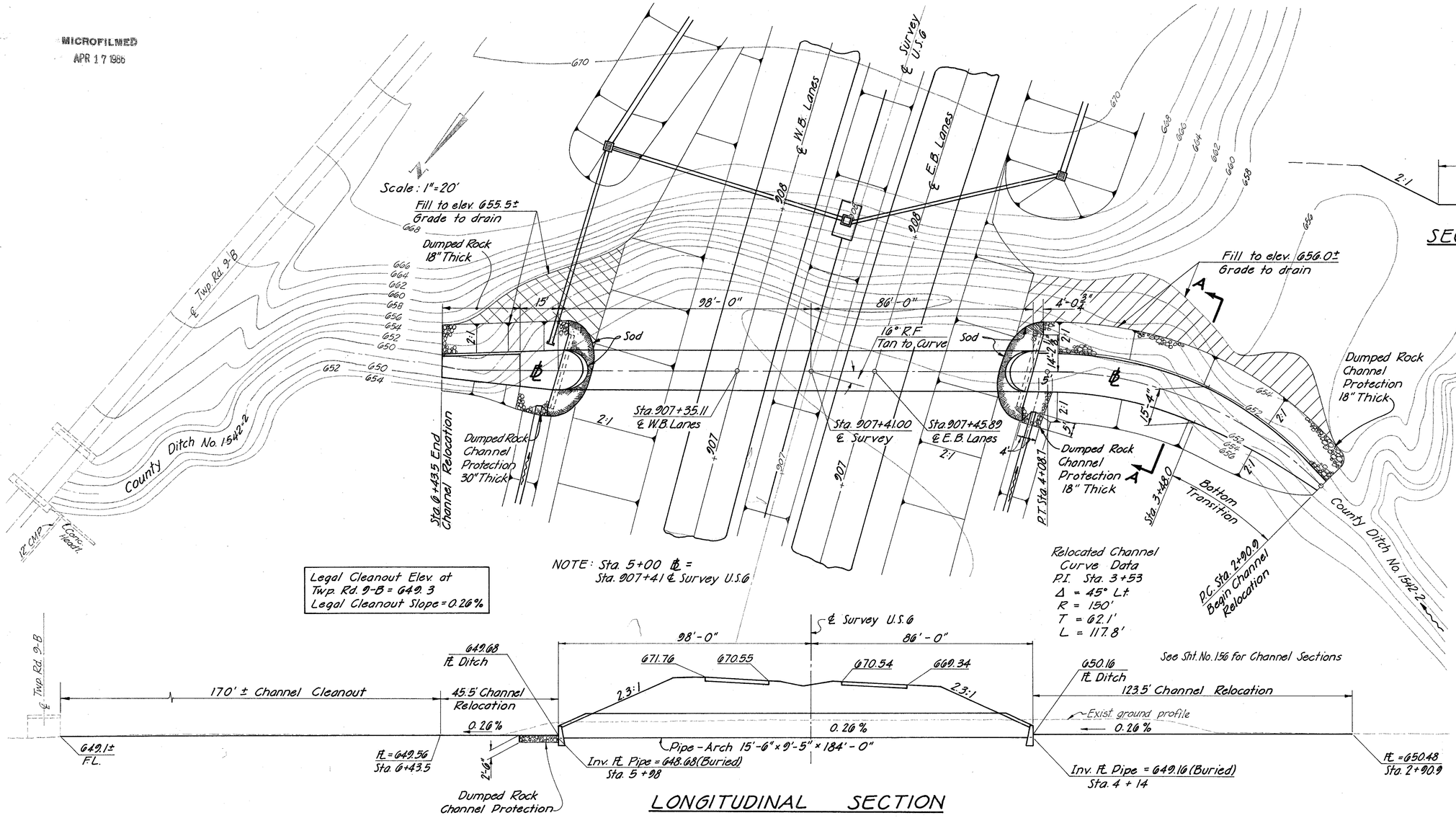
STRUCTURE No. 13 & 14

MICROFILMED
APR 17 1986

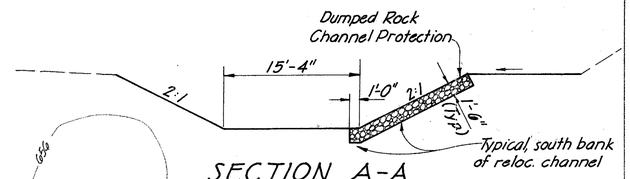
FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

148
731

HENRY COUNTY
HEN -6 -16.43

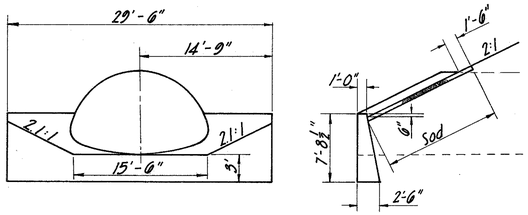


LONGITUDINAL SECTION



SECTION A-A

See Sht. No. 156 for Channel Sections



STANDARD SP-53 ENDWALL

ESTIMATED QUANTITIES

ITEM	QUANT.	UNIT	DESCRIPTION
603	184	L.F.	15'-6"x9'-5" Conduit type 'A' 707.03
			(1-1 gage) with Class B Bedding
602	22.5	C.Y.	Concrete Masonry
601	198	C.Y.	Dumped Rock Channel Protection
660	55	S.Y.	Sodding
203	460	C.Y.	Excavation not including
			embankment construction

PROPOSED STRUCTURE

TYPE: Sectional corrugated metal pipe arch 15'-6"x9'-5"x184'-0" (1-1 gage)
WATERWAY AREA: 109 sq. ft.

DRAINAGE AREA: 4696 Ac.
Q_{25} = 660 cfs.

EXISTING STRUCTURES

UPSTREAM STRUCTURE
LOCATION: On Twp Rd. P-3, 1.0mi.± west of Twp. Rd. 9-B.
TYPE: 8.5' span, Slab-top Culvert
WATERWAY AREA: 50 sq. ft.

DOWNSTREAM STRUCTURE
LOCATION: On Twp. Rd. 9-B, 0.3mi.± south of S.R. 110
TYPE: 20' span, Wood Deck on Steel Beam
WATERWAY AREA: 102 sq. ft.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 15
Sta. 907+41 U.S.6

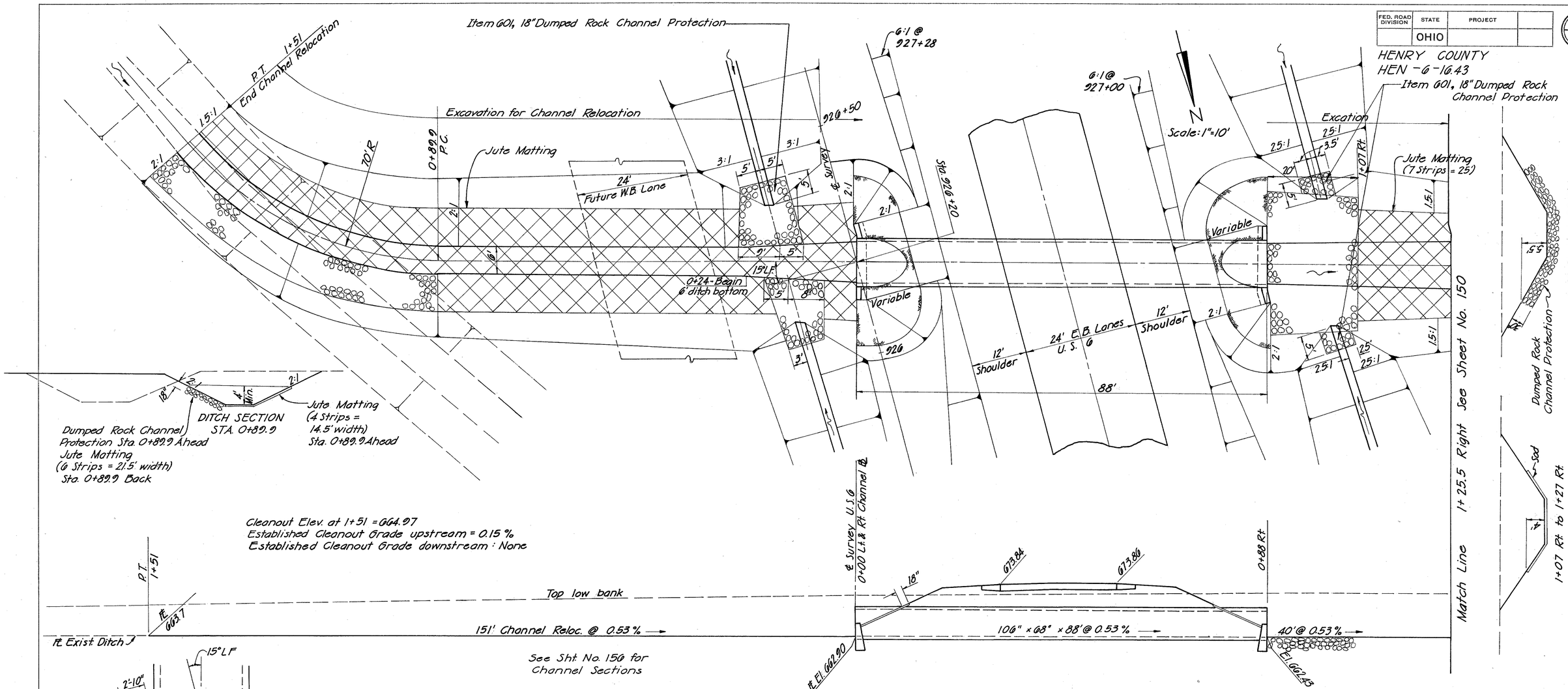
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H. J.C.O.	J.C.O.				

STRUCTURE No. 15

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

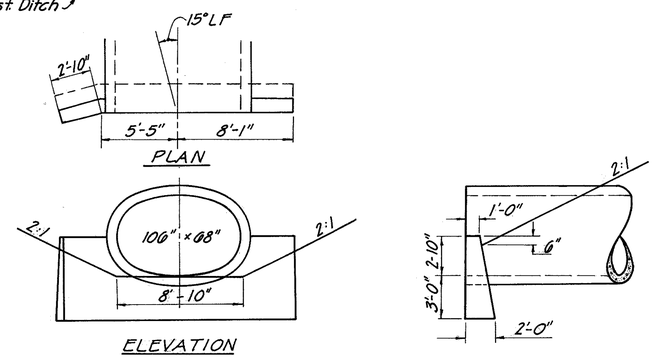
149
231

HENRY COUNTY
HEN -6 -16.43



Cleanout Elev. at 1+51 = 664.97
Established Cleanout Grade upstream = 0.15 %
Established Cleanout Grade downstream : None

Area 1st structure upstream (1,472) = 46.1 sq. ft.
Area proposed Culvert (106"x68") at 926+20 = 40.15 sq. ft.
Area 1st structure downstream (121" x 77" proposed Culvert) = 52.43 sq. ft.
Area structure under Twp. Rd. 9-B being replaced = 34.2 sq. ft.



MODIFIED SP-53 ENDWALL DETAIL

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
603	88	Lin.Ft.	106" x 68" Conduit Type A, Supp. Spec. 905, HE II
			with Class B Bedding
602	8.70	Cu.Yd.	Concrete Masonry
203	1151	Cu.Yd.	Excavation not including embankment construction
601	114	Cu.Yd.	Dumped Rock Channel Protection
660	65	Sq.Yd.	Sodding
667	375	Sq.Yd.	Jute Matting

D.A. = 606 Ac.
Q_{25} = 335 c.f.s.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 16
Sta. 926+20 U.S. 6

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.	J.M.				

STRUCTURE No. 16

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

150
231

HENRY COUNTY
HEN - 6 - 16.43

Note: 0+00 ℄ = 926+20.2 ℄ Survey
U.S. 6 Relocated
See Sheet No. 149

Match Line 1+25.5 Right See Sht. No. 149

Exist. R/W

County Ditch #1556-2

Exist. R/W

Twp. Rd. 9-B

Elt = 664.6

Elt = 664.2

Elt = 662.24

Elt = 661.96

1.5:1

34'

14.2'

15"

8" Item 305
0.1 Gal. Sq. Yd. Item 407
2½" Item 404

32'

20'

22.5'

20'

1+97.5 Rt.

2:1

Curve Data
P.I. = 2+69 Rt
Δ = 18° Lt.
R = 300'
T = 47.5'
L = 94.2

P.C. 2+21.5 Rt.

P.T. 3+15.7

1.8:1

1.6:1

6" F.T.

Jute Matting
6-4' Strips = 21.5'

SEC. A-A

1" Sod

Scale 1"=10'

D.A. = 606 Ac
Q_{25} = 335 c.f.s.

1+25.5 Rt.

1+57.5 ℄ R/W

1+77.5 Rt

10"

Sod

121" × 77" × 48' @ 0.53% —

138.2' Channel Reloc. @ 0.53% —

Top Bank

P.T. 3+15.7 Rt.

661.23

Exist. ℄ Ditch

See Sheet No. 156
for Channel Sections

Dumped Rock
Channel Protection

2'

4'

Slope Varies

1+77.5 Rt. to 1+97.5 Rt.

3.5'

Jute Matting

1+97.5 Rt. to 3+15.7 Rt.

15"℄ F.

2'-6"

6'-1"

8'-4"

PLAN

121" × 77"

10'-1"

1.5:1

1'

6"

2'-2½"

2'-2½"

0'-2½"

2'-1"

Modified SP-53 Endwall Detail

Area 1st Structure Upstream (40'), proposed 106"×68" ERCP,
Area of proposed structure (121"×77" ERCP) = 52.43 sq. ft.
Area of structure under Twp. Rd. 9-B being replaced (Slab Top Culv.) = 34.2 sq.ft.
There is no structure downstream on County Ditch # 1556-2

Item	Quantity	Unit	Description
203	708	Cu. Yd.	Excavation not including embankment construction
603	52	Lin. Ft.	121"×77" Conduit Type A, Supp. Spec. 905, HE II, W/cl. B Bedding
602	8.64	Cu. Yd.	Concrete Masonry
601	46	Cu. Yd.	Dumped Rock Channel Protection
660	65	Sq. Yd.	Sodding
305	24.5	Sq. Yd.	8" Portland Cement Concrete Base
404	1.7	Cu. Yd.	1¼" Asphalt Concrete
407	2.5	Gal.	Tack Coat applied at the rate of 0.10 gal. per sq. yd.
667	280	Sq. Yd.	Jute Matting

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 17
Twp. Rd. 9-B

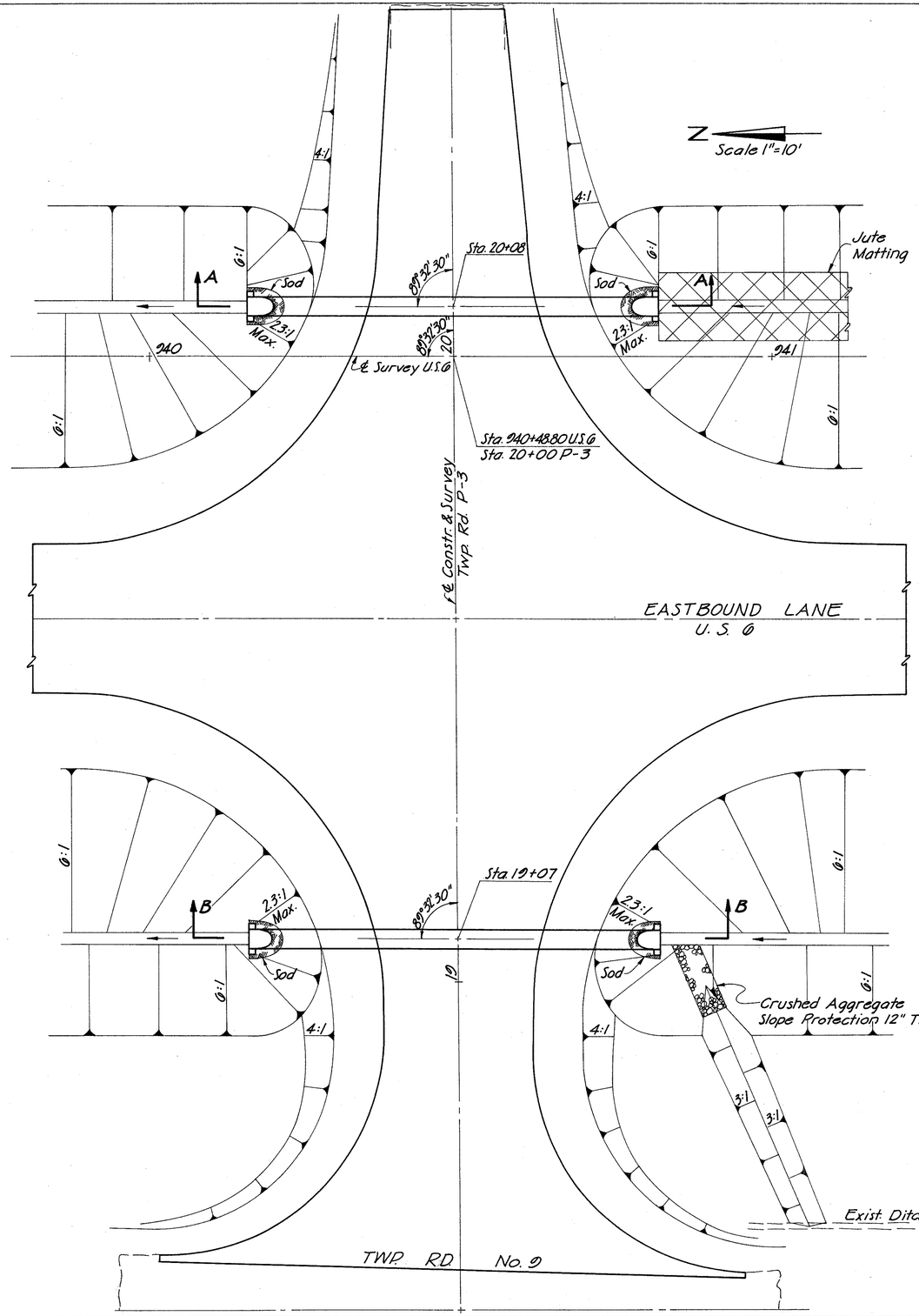
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
T.H.H.	G.L.H. JMC				

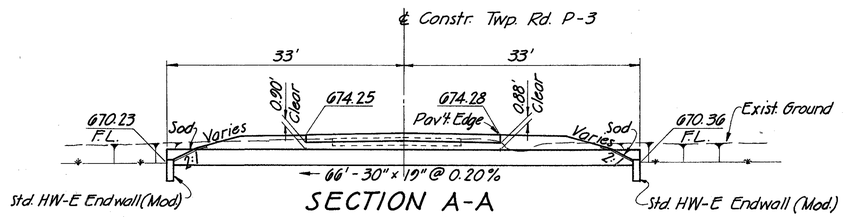
STRUCTURE No. 17

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

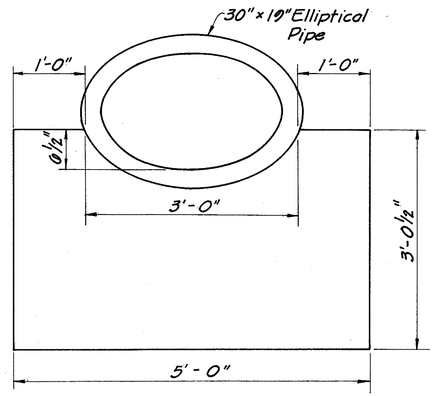
151
231

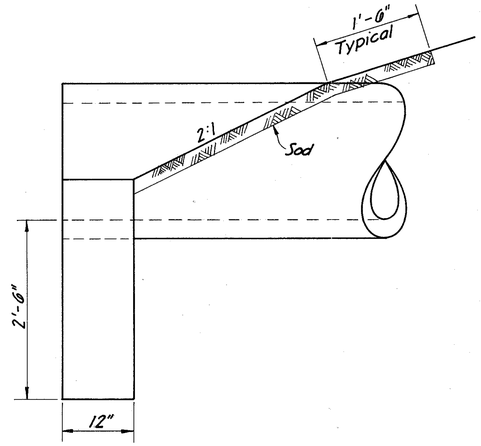
HENRY COUNTY
HEN - 6 - 16.43



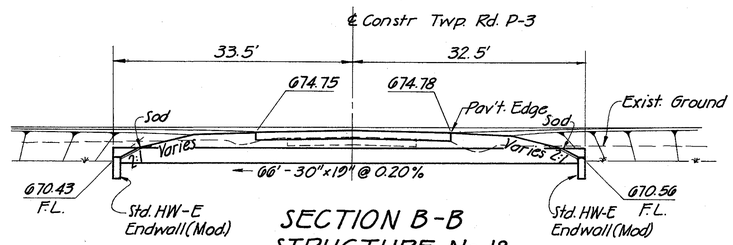


SECTION A-A
STRUCTURE No. 19





HW-E HEADWALL MOD.
Scale: 1" = 1'



SECTION B-B
STRUCTURE No. 18

STRUCTURE No. 19
D.A. = 13.0 Ac.
Q_{25} = 16.1 cfs

STRUCTURE No. 18
D.A. = 9.8 Ac.
Q_{25} = 13.1 cfs.

ESTIMATED QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
			STRUCTURE No. 19
660	4	S.Y.	Sodding
603	66	L.F.	30"x19" Conduit Type A, 706.04 HE-II with Class B Bedding
602	1.0	C.Y.	Concrete Masonry
			STRUCTURE No. 18
660	4	S.Y.	Sodding
603	66	L.F.	30"x19" Conduit Type A, 706.04 HE-II with Class B Bedding
602	1.0	C.Y.	Concrete Masonry

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 18 Sta. 19+07
STRUCTURE No. 19 Sta. 20+08
on TWP. RD. P-3

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
WHJ	APO				

STRUCTURE No. 18 & 19

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

152
231

HENRY COUNTY
HEN-6-16.43

See General Note on Skewed Culvert Ends

Item 601, 18" Dumped Rock Channel Protection

Future W.B. Lane

County Ditch #1556-2

973 ℄ Survey U.S. 6 Relocated

Slope 6:1 @ 975+00

Slope Varies

Slope 6:1 @ 972+50

Slope Varies 6:1 @ 972+60

Slope Varies 6:1 @ 975+00

Eastbound Lane

U.S. 6

12' Shoulder

24'

12' Shoulder

17° RF

92'

+86

+42

+62

+00

973+86
136' Rt

Slab Top Culv.
9.3'w, 6.1'h.

9-B

TWP. RD.

Item 601, Crushed Aggregate Slope Protection, 12" Thick

Item 601, 8" Dumped Rock Channel Protection

Prop. 8" ∅ See Sht. No. 38

N

Scale: 1" = 10'

Existing and Proposed Channel Section

℄ Survey

Low Bank

Sod

Elev. 683.12

Elev. 683.12

1'-6"

92'-96" @ 0.05%

Low Bank

0.05% Cleanout Grade

℄ 8"
675.72

℄ Exist. Ditch

℄ Exist. Ditch Bottom
670.7

670.25
℄ 96"

1'

Cleanout Elev.
671.57

670.30
℄ 96"

17° RF

3'-3"

2'-4"

8'-0"

5'-0"

PLAN

96"

4'-0"

7'-0"

1'-0"

6"

7'-0"

2'-4"

Modified SP-53 Endwall Details

D.A. = 305 Ac
Q 25 = 240 c.f.s.

ESTIMATED QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
603	92	Lin. Ft.	96" Conduit Type A, 706.02 W/cl. B Bedding
601	36	Cu. Yd.	Dumped Rock Channel Protection
602	10.74	Cu. Yd.	Concrete Masonry
660	84	Sq. Yd.	Sodding
203	40	Cu. Yd.	Excavation not including embankment
			Construction
601	3.7	Sq. Yd.	Crushed Aggregate Slope Protection

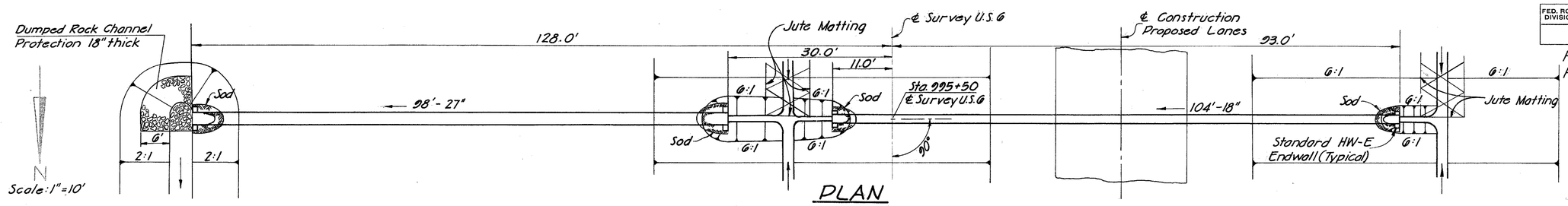
STRUCTURE No. 20
STA 973+60.5

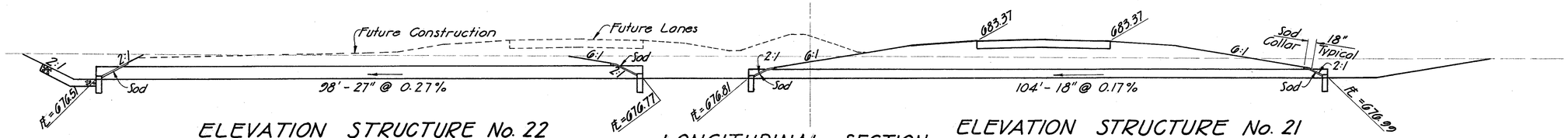
DESIGNED	TRACED				
T. H. H.	MC GLH				

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

153
231

HENRY COUNTY
HEN - G - 16.43





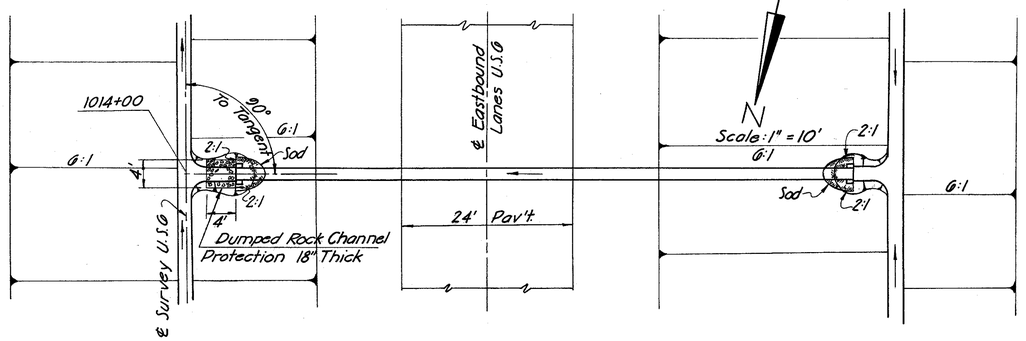
STRUCTURE No. 21 & 22

ESTIMATED QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
603	104	L.F.	18" Conduit, Type A, 706.01, 706.02 or 706.08 with Class B Bedding
603	98	L.F.	27" Conduit, Type A, 706.02 or 706.08 with Class B Bedding
602	1.54	C.Y.	Concrete Masonry
660	9	S.Y.	Sodding
601	5	C.Y.	Dumped Rock Channel Protection

STRUCTURE No. 22
Drainage Area = 7.3 Ac.
Q_{25} = 19.2 c.f.s.

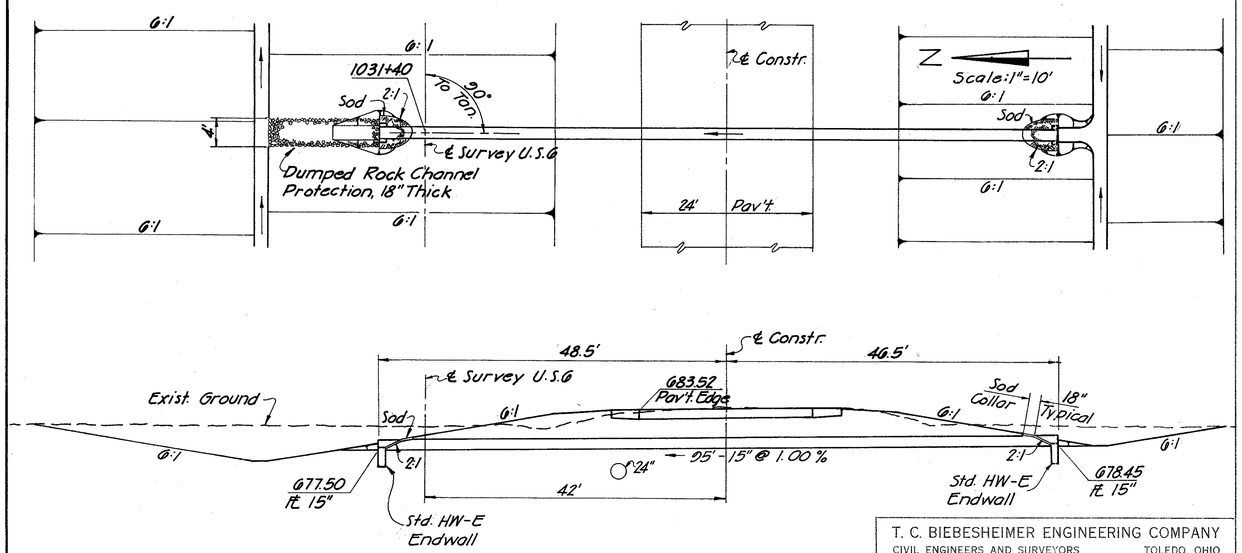
STRUCTURE No. 21
Drainage Area = 2.6 Ac.
Q_{25} = 7.1 c.f.s.



STRUCTURE No. 23 QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
601	0.9	C.Y.	Dumped Rock Channel Protection
602	0.52	C.Y.	Concrete Masonry
603	87	L.F.	15" Conduit, Type A, 706.01, 706.02 or 706.08 with Class B Bedding
660	4	S.Y.	Sodding

STRUCTURE No. 23
D.A. = 3.0 Ac.
Q_{25} = 5.4 c.f.s.



STRUCTURE No. 24 QUANTITIES

ITEM	QUAN.	UNIT	DESCRIPTION
601	3.6	C.Y.	Dumped Rock Channel Protection
602	0.52	C.Y.	Concrete Masonry
603	95	L.F.	15" Conduit, Type A 706.01, 706.02 or 706.08 with Class B Bedding
660	4	S.Y.	Sodding

STRUCTURE No. 24
D.A. = 2.7 Ac.
Q_{25} = 6.5 c.f.s.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 21 & 22
Sta. 995+50 U.S.6
STRUCTURE No. 23 Sta. 1014+00 U.S.6
STRUCTURE No. 24 Sta. 1031+40 U.S.6

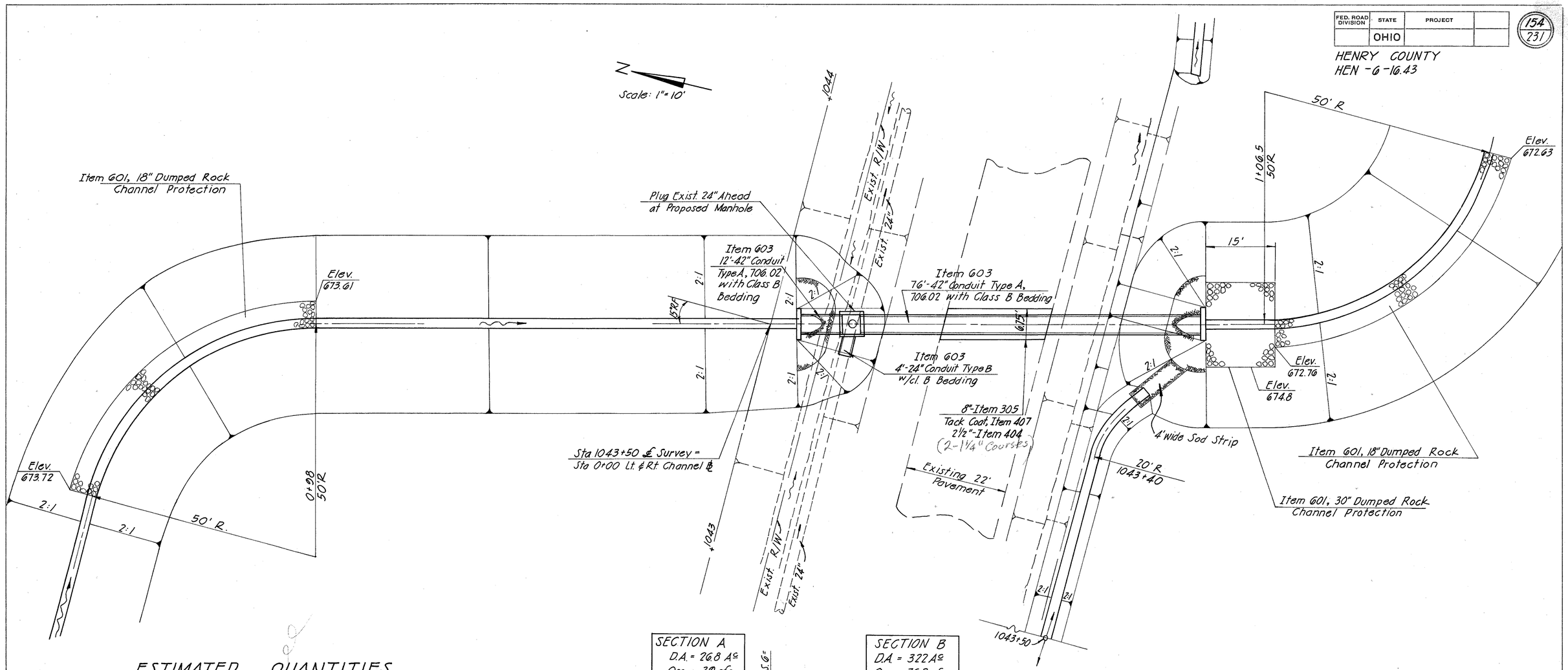
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	J.C.O.				

STRUCTURE No. 21, 22, 23, & 24

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

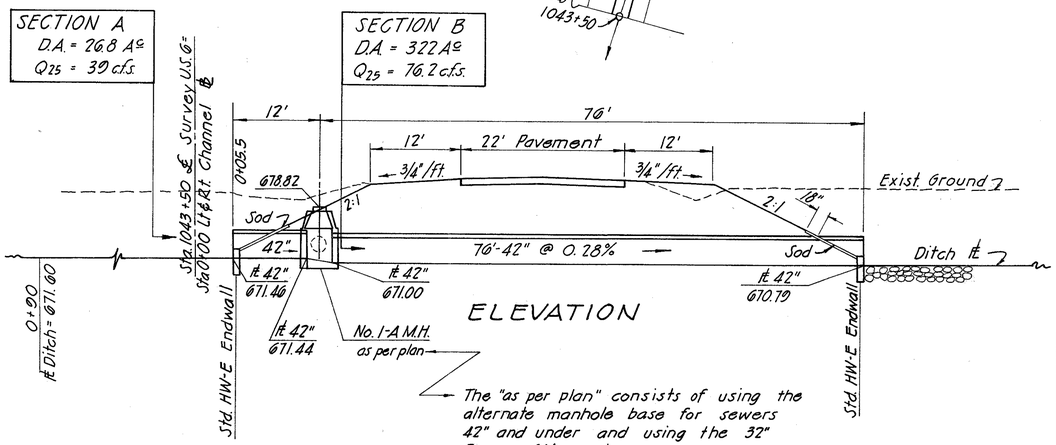
154
231

HENRY COUNTY
HEN -6 -16.43



ESTIMATED QUANTITIES

ITEM	QUAN	UNIT	DESCRIPTION
305	17	Sq. Yd.	8" Portland Cement Concrete Base
404	1.2	Cu. Yd.	1¼" Asphalt Concrete
407	1.7	Gal.	Tack Coat applied at the rate of 0.10 gal. per sq. yd.
601	75	Cu. Yd.	Dumped Rock Channel Protection
602	1.52	Cu. Yd.	Concrete Masonry
603	4	Lin. Ft.	24" Conduit, Type B, with Class B Bedding
603	88	Lin. Ft.	42" Conduit, Type A, 706.02, with Class B Bedding
604	1	Each	No. 1-A Manhole, as per plan
660	35	Sq. Yd.	Sodding



T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 25
STA. 1043+50 U.S. 6

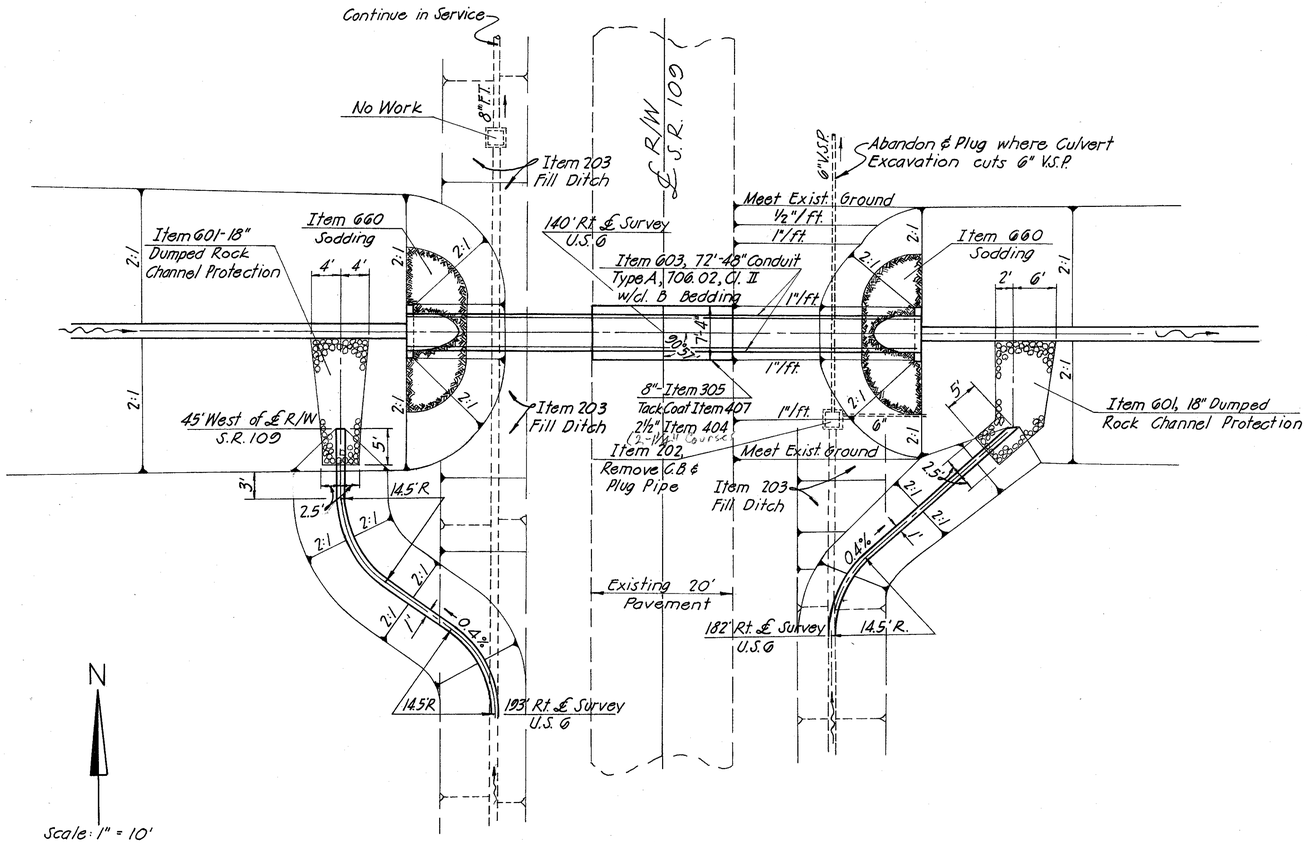
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.F.M.	G.L.H. M.K.				

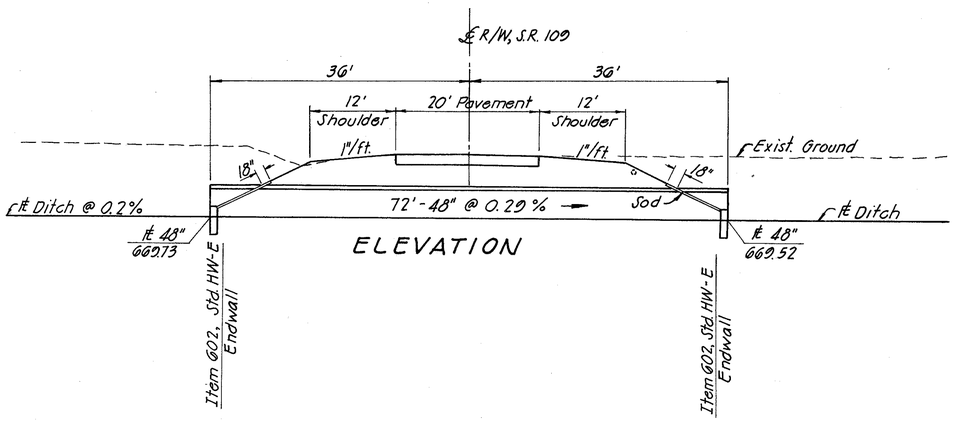
STRUCTURE No. 25

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

155
731

HENRY COUNTY
HEN - 6 - 16.43





ESTIMATED QUANTITIES

ITEM	QUAN	UNIT	DESCRIPTION
202	1	Each	Catch Basin Removed
305	16.3	Sq. Yd.	8" Portland Cement Concrete Base
404	1.1	Cu. Yd.	1½" Asphalt Concrete
407	1.6	Gal.	Tack Coat applied at the rate of 0.10 gal. per sq. yd.
601	12	Cu. Yd.	Dumped Rock Channel Protection
602	1.72	Cu. Yd.	Concrete Masonry
603	72	Lin. Ft.	48" Conduit, Type A, 706.02, with class B Bedding
660	33	Sq. Yd.	Sodding

D.A. = 322 Ac
Q_{25} = 76.2

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

STRUCTURE No. 26
S.R. 109

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.F.M	M.L. G.L.H				

STRUCTURE No. 26

SHT. NO.	STATE	PROJECT	
2	OHIO		

150
231

HENRY COUNTY
HEN-6-16.43

CROSS SECTIONS — DESIGN

	BY	DATE
SECTIONS PLOTTED		
SECTIONS INKED		
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

END AREA CHECKED
CUT & FILL CORR.
NET FILL CU. YD.
NET CUT CU. YD.
QUANTITIES BOARD

CROSS SECTIONS — EXISTING

	BY	DATE
SECTION PLOTTED		
SECTIONS INKED	LWM	11/65
DRAINAGE PLOTTED		
DRAINAGE CHECKED		
DRAINAGE INKED		
UTILITIES PLOTTED		

UTILITIES CHECKED
UTILITIES INKED

STRUCTURE No.7

	End Area Cut	Cut
655.52 11+63 Hdw'l. 664.5	245	
		636
655.94 10+94 Hdw'l. 665.0	253	
		300
9+00 Back	83	
657.09 9+00 Hdw'l. 661.5		
8+00	79	
		936

Total Cut Carried to Sht. No. 143

STRUCTURE No.8

	End Area Cut	Cut
657.70 8+00 662.0	79	
		316
658.10 7+00 662.7	92	
		359
658.50 6+00 663.2	102	
		306
5+19 Ahd.	102	
658.82 5+19 Hdw'l. 663.5		
3+71 Back	62	
659.41 3+71 Hdw'l. 664.2		
3+36	0	
		1021

Total Cut Carried to Sht. No. 144

STRUCTURE No.9

	End Area Cut	Cut
19+55 650.9	0	
		26
18+55 End Cleanout 651.7	14	
		56
652.05 17+55 653.7	17	
		61
652.58 16+55 654.1	61	
		16
653.18 15+55 654.6	69	
		21
653.78 14+55 655.3	20	
		29
654.18 14+33 656.8	69	
		25
654.32 13+64 Hdw'l. 656.1	25	
		301

Total Cut Carried to Sht. No. 143

STRUCTURE No.15

	End Area Cut	Fill	Volume Cut	Fill
Add for cleanout and shaping			50	
649.54 6+43 650.0 End Relocation & Begin Cleanout	4	0		
			17	17
649.60 6+21 650.0	38	42		
			75	65
649.68 5+98 Hdw'l. 653.5	5+98 Ahd. 137	110		
650.16 4+14 Hdw'l. 655.8	4+14 Back 143	93		
			161	123
650.24 3+80 656.1	113	100		
			99	70
650.32 3+50 652.5	65	26		
			42	23
650.39 3+25 650.1	26	23		
			16	14
650.49 2+31 650.5 Begin Relocation	0	0		
			460	312

Total Cut Carried to Sht. No. 148

Total Fill Carried to Sht. No. 59

STRUCTURE No.16

	End Area Cut	Fill	Volume Cut	Fill
3+16 Rt. 661.2	3+16	0	0		
			17	17
661.37 2+90 Rt. 661.4	2+90	35	36		
			156	122
661.60 2+50 Rt. 662.5		175	129		
			370	
661.85 2+00 Rt. 671.0		225			
	1+88	225			
			100		
				421
			65	
			708	
				560

Add for filling exist. ditch from Twp. Rd. "9-B" to 2+50 Rt.

Add for cut between Hdw'l. @ 1+75 to 1+88

Total cut carried to Sht. No. 150

Total fill carried to Sht. No. 62

STRUCTURE No.17

	End Area Cut	Fill	Volume Cut	Fill
662.23 1+27 Rt. Hdw'l. 671.9		232	0		
			98	
			368	
662.44 0+87 Rt. Hdw'l. 671.9	0+87 Ahd.	264	0		
662.90 0+01 Lt. Hdw'l. 671.7	0+01 Back	240	0		
			192	
663.03 0+24 Lt. 671.0		175	0		
			1340	
			382	
663.40 0+90 Lt. 670.9		138	120		
			94	75
663.55 1+20 Lt. 663.6		30	15		
			17	9
1+5 Lt. Begin Relocation 663.7		0	0		
			1151	
				1424

Add for shaping around Hdw'ls.

Add for filling exist ditch from 0+90 Lt. to Twp. Rd. "9-B"

Total cut carried to Sht. No. 149

Total fill carried to Sht. No. 62

CHANNEL CROSS SECTIONS

TRAFFIC CONTROL GENERAL NOTES

STRUCTURAL SIGN SUPPORT QUANTITIES

QUANTITIES FOR SS-816 STRUCTURAL BEAM SUPPORTS APPEARING IN THE SUMMARY TABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT SUPPORT LENGTHS PRIOR TO FABRICATION AND GALVANIZING OF SUPPORTS. DETAILS OF PLAN QUANTITIES AND ALTERNATE DETAILS ARE SHOWN ON SHEET NO. 162-3.

SS-816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS, AS PER PLAN

PAYMENT FOR THIS ITEM SHALL BE BASED ON PLAN DIMENSIONS (OR DIMENSIONS AS MODIFIED BY THE ENGINEER) IN LIEU OF PLAN QUANTITIES AS SPECIFIED IN SS-816.

PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.

TRAFFIC SIGN ERECTION

THE CONTRACTOR SHALL ERECT SIGN PANELS FURNISHED BY OTHERS AS NOTED ON THE SCHEMATIC SIGNING LAYOUT, SHEETS 158 THRU 161. THE PANELS SHALL BE MOUNTED ON THE BRACKETS OR BEAM SUPPORTS PROVIDED IN THE PLANS.

A SCHEDULE FOR SIGN ERECTION SHALL BE SUBMITTED TO THE DIVISION TRAFFIC ENGINEER AND THE BUREAU OF TRAFFIC, 450 EAST TOWN STREET, COLUMBUS, OHIO SIXTY (60) CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, TIME, SIGN NUMBERS AND DELIVERY POINT.

THE PRICE BID PER SQUARE FOOT FOR ITEM SS-815, SIGN ERECTION BY TYPE, AS PER PLAN, SHALL INCLUDE ALL NECESSARY MANPOWER, TOOLS AND EQUIPMENT TO ERECT THE SIGNS NOTED. ALL SIGN MATERIAL AND ACCESSORIES WILL BE FURNISHED AND TRANSPORTED TO A DESIGNATED DELIVERY POINT, ON OR NEAR THE SUBJECT PROJECT, BY OTHERS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HANDLING AND STORAGE OF THE SIGN PANELS AND ACCESSORIES FROM THE TIME OF ARRIVAL AT THE DELIVERY POINT.

ANY UNUSED MATERIALS SHALL BE DELIVERED TO THE STATE HIGHWAY GARAGE IN HENRY COUNTY, NAPOLEON, OHIO.

PROTECTIVE GUARD RAIL FOR GROUND MOUNTED SIGNS

WHERE REQUIRED, AS INDICATED ON THE PLANS, PROTECTIVE GUARD RAIL FOR GROUND MOUNTED SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE DETAIL ON SHEET NO. 157.

SIGN SUPPORT SYMBOLS

SIGN ON ONE SUPPORT ——————⊥

SIGN ON TWO SUPPORTS ——————⫫

SINGLE OVERHEAD SUPPORT STRUCTURE ——————-o-

SIGNS BACK TO BACK ON ONE SUPPORT ——————H

IDENTIFICATION OF TRAFFIC SIGNS

IDENTIFICATION OF ALL SIGNS IS BY CODE NUMBER. NUMBERS REFER TO THE SIGN DESIGN BEARING THE SAME NUMBER.

ORIENTATION OF SIGN FACES

SIGNS SHALL BE ERECTED SO THAT THE FACE OF THE SIGN IS VERTICAL AND AT A RIGHT ANGLE TO THE CENTER OF THE LANE WHICH THE SIGN SERVES EXCEPT WHERE OTHERWISE NOTED. WHERE LANES DIVIDE AND ON SHARP HORIZONTAL CURVES SIGN FACES SHALL BE PLACED PERPENDICULAR TO THE TANGENT POINT OF THE CURVE AT THE STATION LOCATION, SO AS TO BE MOST EFFECTIVE BOTH DAY AND NIGHT.

DIMENSIONS

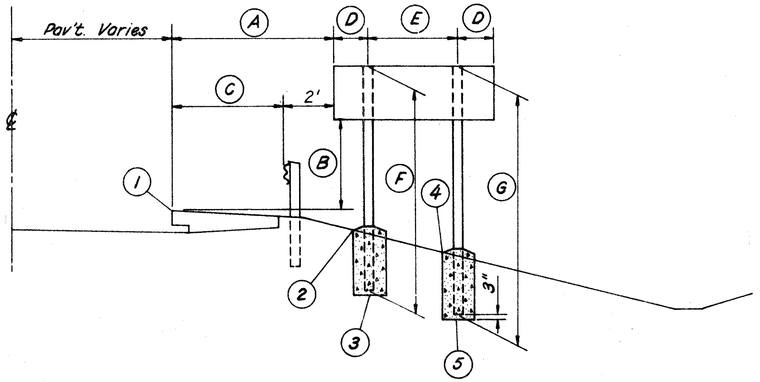
DIMENSIONS OF SIGNS ARE INDICATED ON THE PLANS WITH THE HORIZONTAL WIDTH DIMENSION SHOWN FIRST, THEN THE VERTICAL DIMENSION.

GALVANIZED SUPPORTS

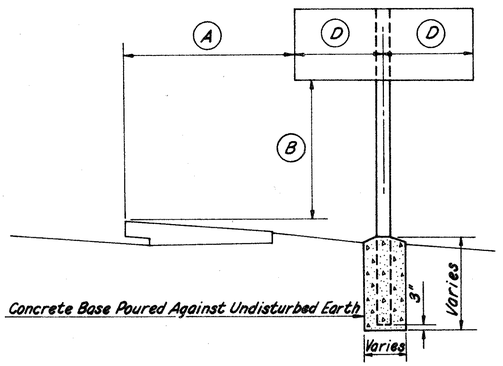
THE STRUCTURAL STEEL BEAM SUPPORTS, INCLUDING THE 4 LB. AND 8 LB. BEAM AND THE 2 LB. AND 4 LB. DRIVE POSTS SHALL BE GALVANIZED (AFTER PUNCHING) IN ACCORDANCE WITH ASTM A 123. ALL BOLTS, NUTS, PLAIN AND LOCK WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM 153, EXCEPT WHERE ALUMINUM OR STAINLESS STEEL IS REQUIRED.

OVERHEAD SIGN SUPPORTS

ALL COMPONENTS OF THE OVERHEAD SIGN SUPPORTS SS-816, SHALL BE STEEL. FOR DETAILS SEE SHEET NO. 157.



TYPICAL GROUND MOUNTED SIGN PLACEMENT DETAIL FOR TWIN POST INSTALLATION

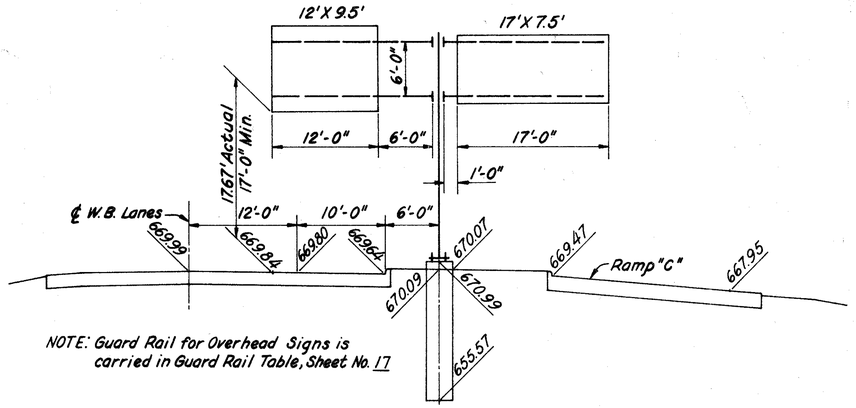


TYPICAL GROUND MOUNTED SIGN PLACEMENT DETAIL FOR SINGLE POST INSTALLATION

ESTIMATED QUANTITIES
816 No. 1048 Design No. 6 Each
816 Concrete For Overhead Sign Support 4.14 Cu.Yd.

157
231

HENRY COUNTY
HEN-6-16.43



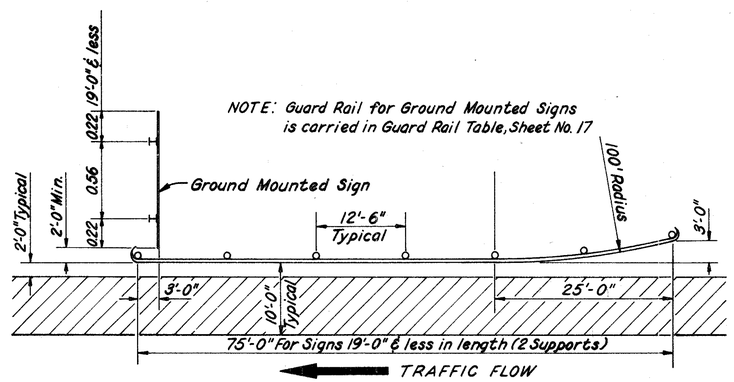
NOTE: Guard Rail for Overhead Signs is carried in Guard Rail Table, Sheet No. 17

Scale: 1/8" = 1'-0"

STA. 897+00 W.B. LANE RELOC. U.S. 6
816 No. 1048 Design No. 6

Sign: 12'X9.5' = 114 S.F.
Spacing: 0'-6", 2 at 5'-6", 0'-6"
No. of Brackets: 3
Type: Y's Height: 9'-6"

Sign: 17'X7.5' = 127.5 S.F.
Spacing: 1'-2 5/8", 2 at 7'-3 3/8", 1'-2 5/8"
No. of Brackets: 3
Type: X's Height: 7'-6"



NOTE: Guard Rail for Ground Mounted Signs is carried in Guard Rail Table, Sheet No. 17

GUARD RAIL DETAIL FOR GROUND MOUNTED SIGNS

SIGN SUMMARY

SHEET No	815 SIGN ERECTION as per Plan		816 STRUCTURAL SUPPORTS							OVERHEAD SIGN SUPPORT	CONCRETE FOR SIGN SUPPORT FOUNDATION	
	Flat Sheet Type	Aluminum Extrusheet Type	4 #/FT. S.D.P.	4 #/FT. B.	8 #/FT. B	2 #/FT. S.D.P.	10 B 11.5	12 B 22	12 WF 27	No. 1048 Design #6	Ground Mounted	Overhead Sign
	Sq. Ft.		LINEAR FEET							EACH	C.Y.	C.Y.
157		242.0								1		4.14
162	439.00	728.0	770.00	14.00	355.5		36.00	103.75	109.00		20.8	
163	531.00		688.00	112.00	229.50	204.00					6.8	
Totals to Gen. Summary	970.00	970.0	1458.0	126.00	585.00	204.00	36.00	103.75	109.00	1	27.6	4.14

6408

TRAFFIC SIGN NOTES AND DETAILS

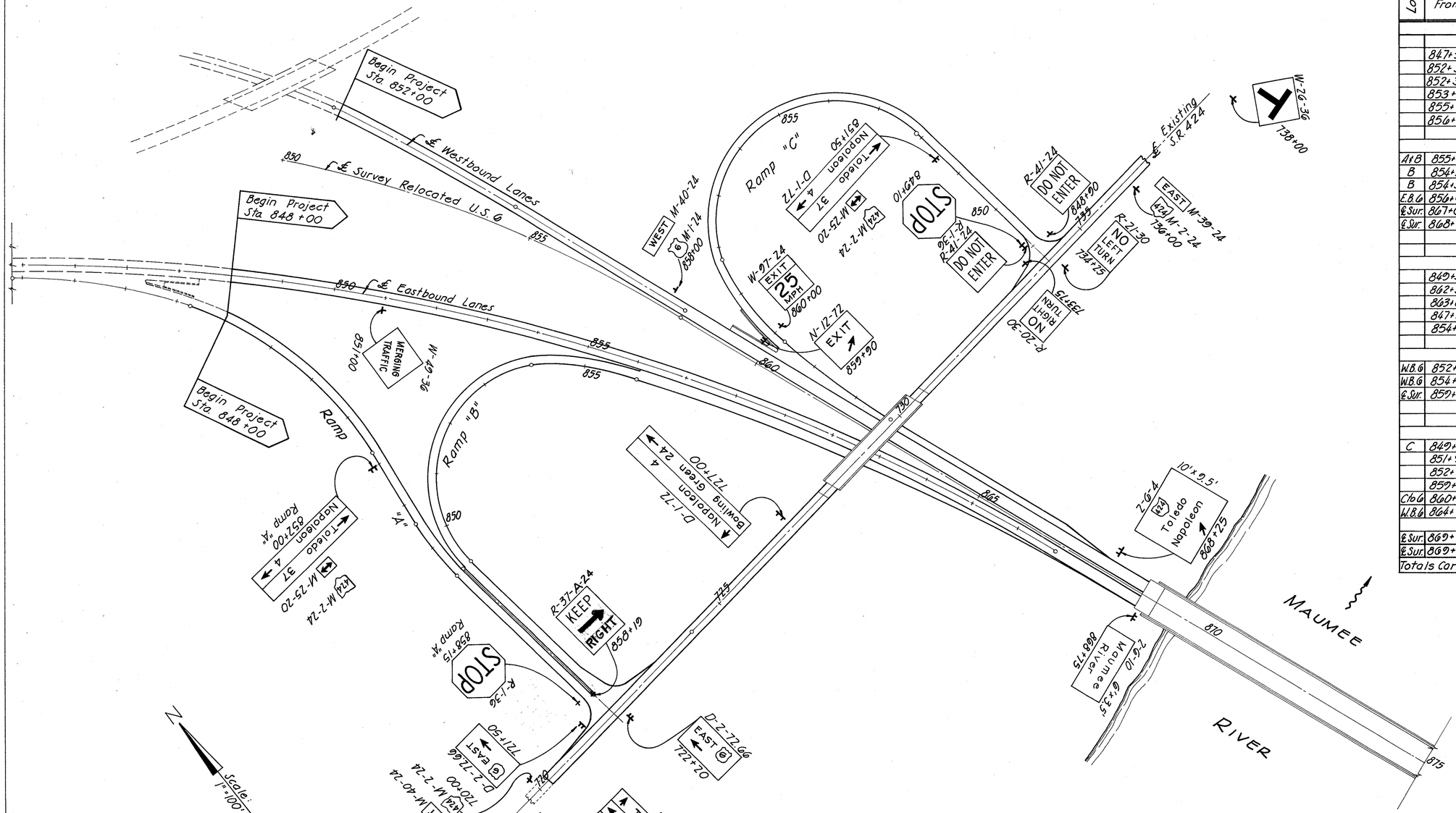
HENRY COUNTY
HEN-6-16.43

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

158
731

DELINEATOR SCHEDULE

Location	Station From	Station To	Side	Interval	Delineator Type A-1 Post Each	A-1 Brkt. Each	C-2 Post Each	C-2 Brkt. Each	C-3 Post Each	C-3 Brkt. Each
Ramp A										
	847+55	851+55	Lt.	50			9			
	852+35		Lt.	80			1			
	852+35	853+35	Rt.	100			2			
	853+75	854+55	Rt.	40			3			
	855+25		Rt.	70			1			
	856+25	858+25	Rt.	100			3			
Ramp B										
A+B	855+10	853+95	Lt.	30			18			
B	854+55		Lt.	60			1			
B	854+55	856+30	Rt.	75			2			
E.B.6	856+05	864+05	Rt.	100			9			
℄Sur.	867+00		Rt.	100			1			
℄Sur.	868+00		Rt.	100					1	
E.B.-U.S.6										
	849+50	861+50	Lt.	200	7					
	862+50		Lt.	100	1					
	863+00		Lt.	50	1					
	847+50	853+50	Rt.	200	4					
	854+50		Rt.	100	1					
W.B.-U.S.6										
W.B.6	852+60		Lt.	100	1					
W.B.6	854+60	858+60	Lt.	200	3					
℄Sur.	859+25		Lt.	200	1					
Ramp C & W.B. U.S.6										
C	849+35	851+35	Rt.	100			3			
	851+95		Rt.	60			1			
	852+25	859+45	Rt.	30			25			
	859+45	860+05	Lt.	60			2			
C.D.6	860+85	863+25 WB to	Lt.	80			4			
W.B.6	864+25	868+25	Lt.	100			5			
Str. No. Hen.-6-16.79										
℄Sur.	869+75	877+75	Lt.	200		5				
℄Sur.	869+25	877+25	Rt.	200		5				
Totals Carried to S.R.110 Schedule					19	10	90		1	



T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

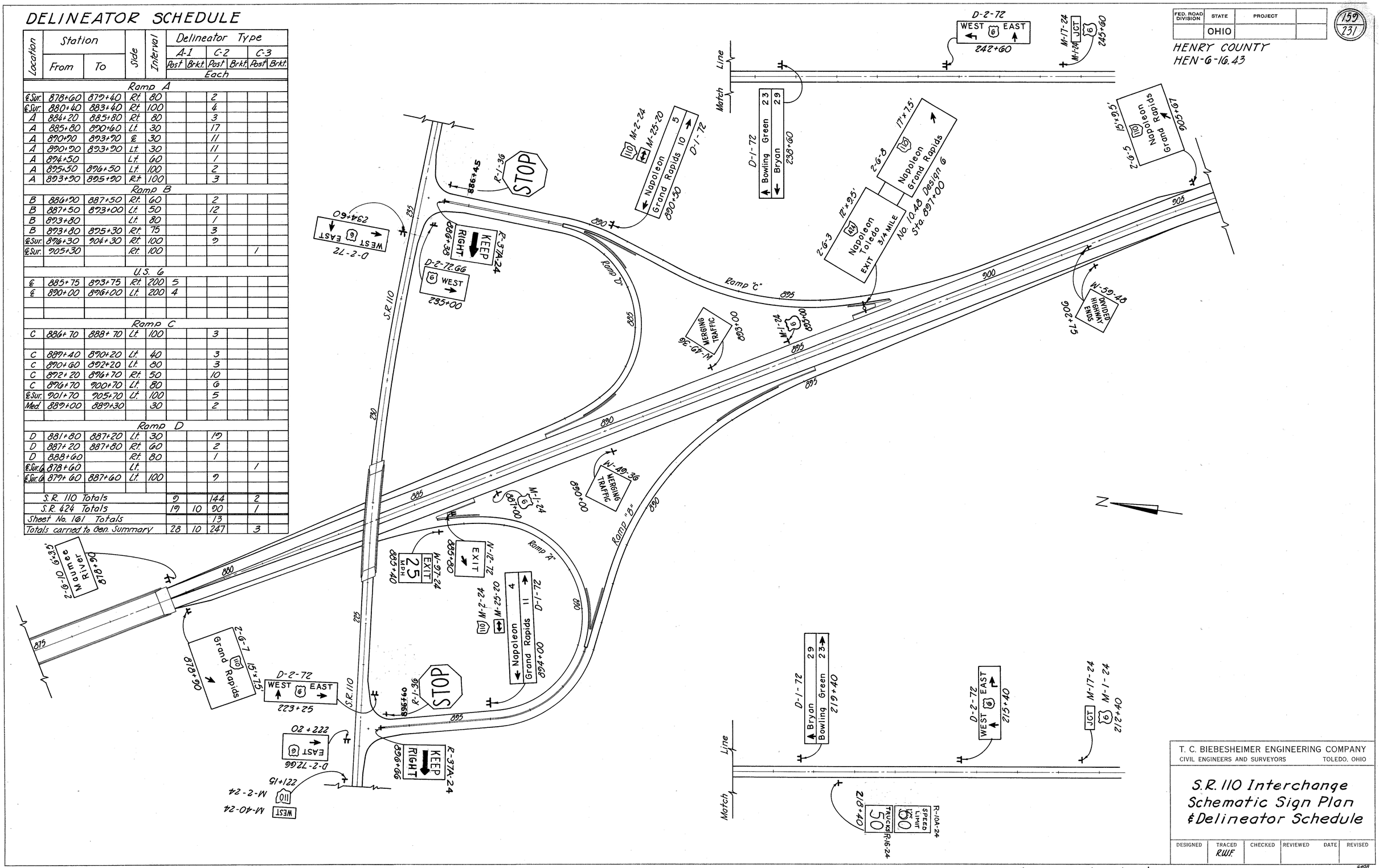
S.R. 424 Interchange
Delineator Schedule & Schematic Sign Plan

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
GWM	MK				

Delineator Schedule & Schematic Sign Plan

DELINEATOR SCHEDULE

Location	Station From	Station To	Side	Interval	Delineator Type A-1 Post	A-1 Brkt.	C-2 Post	C-2 Brkt.	C-3 Post	C-3 Brkt.
					Each					
Ramp A										
℄Sur.	878+60	879+40	Rt.	80			2			
℄Sur.	880+40	883+40	Rt.	100			4			
A	884+20	885+80	Rt.	80			3			
A	885+80	890+60	Lt.	30			17			
A	890+90	893+90	℄	30			11			
A	890+90	893+90	Lt.	30			11			
A	894+50		Lt.	60			1			
A	895+50	896+50	Lt.	100			2			
A	893+90	895+90	Rt	100			3			
Ramp B										
B	886+90	887+50	Rt.	60			2			
B	887+50	893+00	Lt.	50			12			
B	893+80		Lt.	80			1			
B	893+80	895+30	Rt.	75			3			
℄Sur.	896+30	904+30	Rt.	100			9			
℄Sur.	905+30		Rt.	100					1	
U.S. 6										
℄	885+75	893+75	Rt.	200	5					
℄	890+00	896+00	Lt.	200	4					
Ramp C										
C	886+70	888+70	Lt.	100			3			
C	889+40	890+20	Lt.	40			3			
C	890+60	892+20	Lt.	80			3			
C	892+20	896+70	Rt.	50			10			
C	896+70	900+70	Lt.	80			6			
℄Sur.	901+70	905+70	Lt.	100			5			
Med.	889+00	889+30		30			2			
Ramp D										
D	881+80	887+20	Lt.	30			19			
D	887+20	887+80	Rt.	60			2			
D	888+60		Rt.	80			1			
℄Sur.	878+60		Lt.						1	
℄Sur.	879+60	887+60	Lt.	100			9			
S.R. 110 Totals					9		144		2	
S.R. 424 Totals					19	10	90		1	
Sheet No. 161 Totals							13			
Totals carried to Gen. Summary					28	10	247		3	



FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

HENRY COUNTY
HEN-G-16.43

159
161

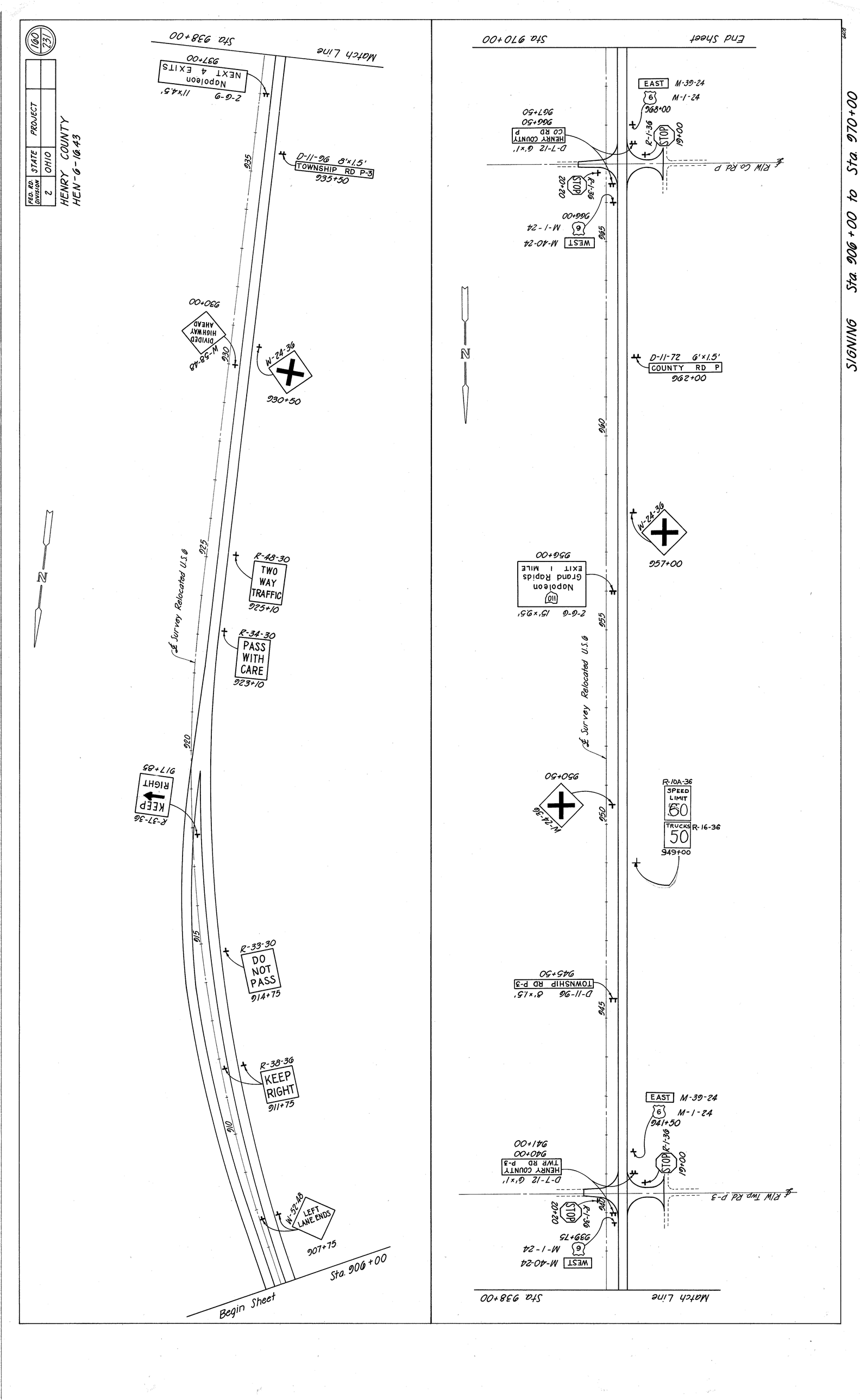
T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

S.R. 110 Interchange Schematic Sign Plan & Delineator Schedule

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
	R.W.F.				

6408

Delineator Schedule & Schematic Sign Plan


100
131
FED. RD. DIVISION 2
STATE OHIO
PROJECT
HENRY COUNTY
HEN-6-10.43
SIGNING Sta. 906+00 to Sta. 970+00
Sta. 938+00
Match Line
Sta. 970+00
End Sheet
Begin Sheet
Sta. 906+00
℄ Survey Relocated U.S.6
℄ R/W Co Rd P
℄ R/W Twp Rd P-3
N
2-G-9 11'x4.5'
Napoleon
NEXT 4 EXITS
937+00
D-11-96 8'x1.5'
TOWNSHIP RD P-3
935+50
W-58-48
DIVIDED HIGHWAY AHEAD
930+00
W-24-36
930+50
R-48-30
TWO WAY TRAFFIC
925+10
R-34-30
PASS WITH CARE
923+10
R-37-36
KEEP RIGHT
917+85
R-33-30
DO NOT PASS
914+75
R-38-36
KEEP RIGHT
911+75
W-52-48
LEFT LANE ENDS
907+75
EAST M-39-24
6 M-1-24
968+00
R-1-36
STOP
969+00
D-7-12 6'x1'
HENRY COUNTY CO RD P
967+50
STOP
R-1-36
962+00
WEST M-40-24
6 M-1-24
966+00
D-11-72 6'x1.5'
COUNTY RD P
962+00
W-24-36
957+00
110
Napoleon
Grand Rapids
EXIT 1 MILE
2-G-G 15'x9.5'
956+00
W-24-36
950+50
R-10A-36
SPEED LIMIT 50
TRUCKS 50
R-16-36
949+00
D-11-96 8'x1.5'
TOWNSHIP RD P-3
945+50
EAST M-39-24
6 M-1-24
941+50
R-1-36
STOP
940+00
D-7-12 6'x1'
HENRY COUNTY TWP RD P-3
940+00
STOP
R-1-36
939+75
WEST M-40-24
6 M-1-24

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

101
231

HENRY COUNTY
HEN-6-16.43

N

Sta 970+00

Begin Sheet

D-11-72 6'x1.5' COUNTY RD P 972+00

W-24-36 977+00

975

980

℄ Survey Relocated U.S.6

985

990

R-10A-36 SPEED LIMIT 60

R-16-36 TRUCKS 50 995+00

995

1000

W-24-36 993+25

D-11-72 6'x1.5' TOWNSHIP RD O-3 998+25

Match Line

Sta 1002+00

Match Line

Sta 1002+00

WEST M-40-24

M-1-24 1002+25

Twp Rd O-3

D-7-12 6'x1' HENRY COUNTY TWP RD O-3 1002+75 1003+75

R-1-36 STOP 20+50

1005

℄ Relocated U.S.6

D-11-72 6'x1.5' TOWNSHIP RD O-3 1008+25

1010

W-26-36 Sta 1012+00 1111+75

EAST M-39-24 M-1-24 1004+25

R-1-36 STOP 19+25

Twp Rd O-3

Match Line

Sta 1012+00

W-24-36 1013+25

1015

℄ Relocated U.S.6

D-11-72 6'x1.5' COUNTY RD O 1116+75

Match Line

Sta 1020+00

D-7-12 6'x1' HENRY COUNTY CO. RD O 1021+25 1022+35

W-30-48 W-93-12 1021+90

Match Line

Sta 1020+00

WEST M-40-24 M-1-24 1020+00

905

Co. Rd "O"

W-45-36 STOP AHEAD 904+15

M-17-24 LOCT 902+00

W-32-96 907+28

910

R-1-36 STOP 910+05

M-1-24 EAST M-39-24 912+20

℄ Exist U.S.6

915

R-36-36 THROUGH TRAFFIC KEEP RIGHT 1026+00

1025

D-11-72 6'x1.5' COUNTY RD O 1028+00

W-26-36 1030+50

1030

℄ Relocated U.S.6

N-51-24 BEGIN LIMITED ACCESS HIGHWAY 1032+38

920

N-52-24 END LIMITED ACCESS HIGHWAY 1032+38

Sta 1035+00

Match Line

DELINEATOR SCHEDULE

Location	Station From	Station To	Side	Interval	Delineator Type C-2 Post Each
C.R."O"	903+10		Rt.		1
"	904+30		Rt.		1
"	905+00	909+00	Rt.	40	11
Total					*13

* Carried to Sheet No. 159

SIGNING Sta 970+00 to Sta 1035+00

0408

GROUND MOUNTED SIGNS

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

162 / 231

HENRY COUNTY
HEN-6-16.43

* Protective Guard Rail, as per detail, is carried in Guard Rail Table, Sheet No. 17

★ Aluminum extrusheet Type

SHEET NO.	STATION	SIDE	CODE	SIZE	DIMENSIONS IN FEET A	B	C	D	E	ELEVATION 1	2	3	4	5	816 CONCRETE FOUNDATION FOR GROUND MOUNTED SIGNS DIA. IN.	DEPTH L.F.	VOL. C.Y.	816 STRUCTURAL SUPPORTS 4#/Ft. S.D.P. F	G	4# BEAM F	G	8# BEAM F	G	DIMENSIONS 10 B 11.5 F	G	12 B 22 F	G	12 WF 27 F	G	816 Sign Erection By Type As Per Plan S.F.
																		LINEAR FEET												
																		RELOCATED U.S. 6												
	851+00 E.B. Lanes	Rt.	W-49-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	858+00 W.B. Lanes	Lt.	M-40-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-3"												2
	858+00 W.B. Lanes	Lt.	M-1-24	24"X24"																										4
	859+90	Lt.	N-12-72	72"X60"	2.75	7		1'-3⅞"	3'-4¼"	665.71	666.14	662.14	666.08	662.08	12"	4.00	0.2					15'-3"	15'-3"							★ 30
	868+25	Lt.	2-6-4	120"X114"	12	7	10	2'-2⅜"	5'-7¼"	669.88	668.22	661.47	665.42	658.67	30"	6.75	2.5									24'-6"	27'-6"			★ 95
	868+75	Rt.	2-6-10	72"X42"	12	7	0.92	1'-3⅞"	3'-4¼"	670.18	664.83	660.83	663.15	659.15	12"	4.00	0.2					19'-6"	21'-3"							★ 21
	878+50	Lt.	2-6-10	72"X42"	12	7	1.05	1'-3⅞"	3'-4¼"	663.96	664.59	660.59	662.91	658.91	12"	4.00	0.2					19'-6"	21'-3"							★ 21
	878+90	Rt.	2-6-7	180"X90"	12	7	5.80	3'-3⅝"	8'-4¾"	669.60	666.28	659.53	662.92	656.17	30"	6.75	2.5									24'-3"	27'-6"			★ 112.5
	885+80	Rt.	N-12-72	72"X60"	3.75	7		1'-3⅞"	3'-4¾"	666.38	666.73	662.73	666.63	662.63	12"	4.00	0.2					15'-6"	15'-6"							★ 30
	887+00	Rt.	M-1-24	24"X24"	10	6		1'-0"							12"	4.00	0.1	12'-3"												4
	890+00	Rt.	W-49-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-6"												9
	893+00	Lt.	W-49-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-6"												9
	895+00	Lt.	M-1-24	24"X24"	10	6		1'-0"							12"	4.00	0.1	12'-3"												4
	902+75	Med.	W-59-48	48"X48"	12	6		2'-10"							12"	4.00	0.1					15'-9"								16
	902+75	Rt.	W-59-48	48"X48"	12	6		2'-10"							12"	4.00	0.1					14'-6"								16
	905+67	Lt.	2-6-5	180"X114"	12	7	10	3'-3⅜"	8'-4¾"	671.77	670.06	662.06	665.36	657.36	30"	8.00	2.9											26'-0"	30'-6"	★ 142.5
	907+75	Med.	W-52-48	48"X48"	12	6		2'-10"							12"	4.00	0.1					15'-6"								16
	907+75	Rt.	W-52-48	48"X48"	12	6	10	2'-10"							12"	4.00	0.1					15'-9"								16
	911+75	Med.	R-38-36	36"X36"	10	6		1'-6"							12"	4.00	0.1	13'-6"												9
	911+75	Rt.	R-38-36	36"X36"	10	6		1'-6"							12"	4.00	0.1	13'-9"												9
	914+75	Rt.	R-33-30	30"X36"	10	6		1'-3"							12"	4.00	0.1	13'-6"												7.5
	917+85 W.B. Lanes	Med.	R-37A-36	36"X42"	10	6		1'-6"							12"	4.00	0.1					14'-3"								10.5
	923+10	Rt.	R-34-30	30"X36"	10	6		1'-3"							12"	4.00	0.1	13'-3"												7.5
	925+10	Rt.	R-48-30	30"X36"	12	6	10	1'-3"							12"	4.00	0.1	13'-6"												7.5
	930+00	Lt.	W-58-48	48"X48"	12	6		2'-10"							12"	4.00	0.1					15'-0"								16
	930+50	Rt.	W-24-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	935+50	Rt.	D-11-96	96"X18"	12	7		1'-9⅛"	4'-5¾"	674.24	673.23	669.23	672.48	668.48	12"	4.00	0.2	13'-3"	14'-0"												★ 12
	937+00 *	Lt.	2-6-9	132"X54"	12	7	10	2'-5"	6'-2"	674.60	673.48	668.23	672.45	667.20	30"	5.25	1.9									17'-6"	18'-6"			★ 49.5
	939+75	Lt.	M-40-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-6"												2
	939+75	Lt.	M-1-24	24"X24"																										4
	940+00	Lt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	675.07	674.13	670.13	673.57	669.57	12"	4.00	0.2	12'-9"	13'-3"												6
	941+00	Rt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	675.44	674.55	670.55	673.99	669.99	12"	4.00	0.2	12'-6"	13'-3"												6
	941+50	Rt.	M-39-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-6"												2
	941+50	Rt.	M-1-24	24"X24"																										4
	945+50	Lt.	D-11-96	96"X18"	12	7		1'-9⅛"	4'-5¾"	676.64	675.63	671.63	674.88	670.88	12"	4.00	0.2	13'-3"	14'-0"												★ 12
	950+50	Lt.	W-24-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	956+00 *	Lt.	2-6-6	180"X114"	12	7	10	3'-3⅜"	8'-4¾"	679.16	677.89	669.89	676.49	668.49	30"	8.00	2.9											25'-6"	27'-0"	★ 142.5
	957+00	Rt.	W-24-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	962+00	Rt.	D-11-72	72"X18"	12	7		1'-3⅞"	3'-4¼"	680.60	679.66	675.66	679.10	675.10	12"	4.00	0.2	13'-3"	13'-9"												★ 9
	966+00	Lt.	M-40-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-6"												2
	966+00	Lt	M-1-24	24"X24"																										4
	966+50	Lt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	681.57	680.62	676.63	680.07	676.07	12"	4.00	0.2	12'-6"	13'-3"												6
	967+50	Rt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	681.85	680.91	676.91	680.35	676.35	12"	4.00	0.2	12'-6"	13'-3"												6
	968+00	Rt.	M-39-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-6"												2
	968+00	Rt.	M-1-24	24"X24"																										4
	972+00	Lt.	D-11-72	72"X18"	14	7	12	1'-3⅞"	3'-4¼"	682.98	681.71	677.71	681.15	677.15	12"	4.00	0.2	13'-6"	14'-0"												★ 9
	977+00	Lt.	W-24-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	993+25	Rt.	W-24-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	998+25	Rt.	D-11-96	96"X18"	12	7		1'-9⅛"	4'-5¾"	683.80	682.79	678.79	682.04	678.04	12"	4.00	0.2					13'-3"	14'-0"							★ 12
	1002+25	Lt.	M-40-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-6"												2
	1002+25	Lt.	M-1-24	24"X24"																										4
	1002+75	Lt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	684.68	683.46	679.46	682.90	678.90	12"	4.00	0.2	13'-0"	13'-6"												6
	1003+75	Rt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	686.80	686.18	682.18	685.62	681.62	12"	4.00	0.2	12'-3"	13'-0"												6
	1004+25	Rt.	M-39-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-0"												2
	1004+25	Rt.	M-1-24	24"X24"																										4
	1008+25	Lt.	D-11-96	96"X18"	12	7		1'-9⅛"	4'-5¾"	683.90	682.61	678.61	681.86	677.86	12"	4.00	0.2	13'-6"	14'-3"												★ 12
	1011+75	Rt.	W-26-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-6"												9
	1013+25	Lt.	W-24-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1			14'-0"										9
	1016+75	Rt.	D-11-72	72"X18"	12	7		1'-3⅞"	3'-4¼"	685.18	684.56	680.56	684.00	680.00	12"	4.00	0.2	12'-9"	13'-6"												★ 9
	1020+00	Lt.	M-40-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-6"												2
	1020+00	Lt.	M-1-24	24"X24"																										4
	1021+25	Lt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	684.26	683.04	679.04	682.48	678.48	12"	4.00	0.2	13'-0"	13'-6"												6
	1021+90	Lt.	W-30-48	48"X24"	12	8		2'-0"							12"	4.00	0.1					14'-9"								6
	1021+90	Lt.	W-93-12	12"X12"																										8
	1022+35	Rt.	D-7-12	72"X12"	12	7		1'-3⅞"	3'-4¼"	686.70	686.08	682.08	685.52	681.52	12"	4.00	0.2	12'-3"	13'-0"												1
	1023+00	Rt.	M-39-24	24"X12"	10	6		1'-0"							12"	4.00	0.1	13'-0"												2
	1023+00	Rt.	M-1-24	24"X24"																										4
	1026+00	Lt.	R-36-36	36"X42"	10	6		1'-6"							12"	4.00	0.1					13'-9"								10.5
	1028+00	Lt.	D-11-72	72"X18"	12	7		1'-3¼"	3'-4¼"	684.20	682.98	678.98	682.42	678.42	12"	4.00	0.2	13'-6"	14'-0"												★ 9
	1030+50	Lt.	W-26-36	36"X36"	12	6		2'-1½"							12"	4.00	0.1	13'-9"												9
	1032+38	Lt.	N-51-24	24"X16"	12	6		1'-0"							12"	4.00	0.1	12'-0"												2.7
	1032+38	Rt.	N-52-24	24"X16"	12	6		1'-0"							12"	4.00	0.1	12'-0"												2.7
	907+28 Co. Rd. "O"	Rt.	W-32-96	96"X48"	12	6		1'-9"	4'-6"	687.27	685.8	681.8	684.7	680.7	12"	4.00	0.2					15'-6"	16'-6"							32
	SHEET TOTALS																20.6	770.0		14.0		321.5				36.0		103.75		109.0	3000 ★ 728.0

SUPPLEMENT

SHEET NO.	STATION	SIDE	CODE	SIZE	DIMENSIONS IN FEET A	B	C	D	E	816 CONCRETE FOUNDATION FOR GROUND MOUNTED SIGNS DIA. IN.	DEPTH L.F.	VOL. C.Y.	816 STRUC. SUP. 8# BEAM DIMENSIONS F	G	816 Sign Erection By Type As Per Plan S.F.
													LINEAR FEET		
										RELOCATED U.S. 6					
	949+00	Rt.	R-104-36	36"X48"	12	7		1'-6"		12	4.0	.1	16'-0"		12
	949+00	Rt.	R-16-36	36"X36"	12	4		1'-6"							9
	995+00	Rt.	R-104-36	36"X48"	12	7		1'-6"		12	4.0	.1	16'-0"		12
	995+00	Rt.	R-16-36	36"X36"	12	4		1'-6"							9
	SHEET TOTALS											.2	34'-0"		42
	TOTALS CARRIED FORWARD											20.6	321.5		396.9 ★ 728.0
	GRAND TOTALS											20.8	355.5		438.9 ★ 728.0

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

GROUND MOUNTED SIGN SCHEDULE

6408

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
JB.	JB.				

GROUND MOUNTED SIGN SCHEDULE

GROUND MOUNTED SIGNS

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

163 / 231

HENRY COUNTY
HEN-6-16.43

★ Support assembly on top of D-1-72

ROAD	SHEET NO.	STATION	SIDE	CODE	SIZE	DIMENSIONS IN FEET A	B	C	D	E	ELEVATION 1	2	3	4	5	816 CONCRETE FOUNDATION FOR GROUND MOUNTED SIGNS DIA. IN.	DEPTH L.F.	VOL. C.Y.	816 STRUCTURAL SUPPORTS Hor.& Vert. Supports 2#/Ft.S.D.P.	4#/Ft. S.D.P. DIMENSIONS F	G	4# BEAM F	G	8# BEAM F	G	6 B 8.5 F	G	10 B 11.5 F	G	12 B 22 F	G	12 WF 27 F	G	816 Sign Erection By Type As Per Plan S. F.
																IN.	L.F.	C.Y.		LINEAR FEET															
S.R. 424, RAMP "A" AND RAMP "C"		712+00	Rt.	M-17-24	24"X12"	10	6		1'-0"							12"	4.00	0.1		13'-9"															2
		712+00	Rt.	M-1-24	24"X24"																														4
		715+00	Rt.	D-2-72.66	48"X24"	12	7		0'-10⅝"	2'-2¾"	667.61	666.7±	662.7±	666.4±	662.4±	12"	4.00	0.2	8'-0"	13'-6"	14'-0"															8
		718+00	Lt.	See Supplement																															
		719+00	Rt.	D-1-72	72"X12"	12.5	7	10.5	1'-3⅞"	3'-4¼"	670.05	668.8±	664.8±	668.1±	664.1±	12"	4.00	0.2	12'-0"	14'-6"	14'-9"															12
		719+00	Rt.	D-1-72	72"X12"																														12
		720+00	Lt	M-40-24	24"X12"	10	6		1'-0"							12"	4.00	0.1		13'-9"															2
		720+00	Lt.	M-2-24	24"X24"																														4
		721+50	Lt.	D-2-72.66	48"X24"	12	7		0'-10⅝"	2'-2¾"	671.26	679.4±	675.4±	679.4±	675.4±	12"	4.00	0.2	8'-0"	13'-6"	13'-6"															8
		722+20	Rt.	D-2-72.66	48"X24"	12	7	10	0'-10⅝"	2'-2¾"	672.35	670.92	666.92	670.02	666.02	12"	4.00	0.2	8'-0"					14'-0"	15'-0"										8
		727+00	Lt.	D-1-72	72"X12"	12	7	10	1'-3⅞"	3'-4¼"	683.03	681.37	677.37	679.61	675.61	12"	4.00	0.2	12'-0"	14'-3"	16'-0"															12
		727+00	Lt.	D-1-72	72"X12"																														12
		733+75	Lt.	R-20-30	30"X36"	11	6	8.5	1'-3"							12"	4.00	0.1		14'-6"															7.5
		734+25	Rt.	R-21-30	30"X36"	12	6	10	1'-3"							12"	4.00	0.1		14'-6"															7.5
		736+00	Rt.	M-39-24	24"X12"	12	6	10	1'-0"							12"	4.00	0.1		14'-3"															2
		736+00	Rt.	M-2-24	24"X24"																														4
		738+00	Rt.	W-26-36	36"X36"	12	6	10	1'-6"							12"	4.00	0.1				14'-3"													9
		852+00 Ramp "A"	Rt.	M-2-24	24"X24"	12	7		1'-3⅞"	3'-4¼"	673.47	672.25	668.25	671.51	667.51	12"	4.00	0.2	17'-0"	★5'-6"				17'-3"	18'-0"											4
		852+00 Ramp "A"	Rt.	M-25-20	20"X15"																														2
		852+00 Ramp "A"	Rt.	D-1-72	72"X12"																														12
		852+00 Ramp "A"	Rt.	D-1-72	72"X12"																														12
		858+15 Ramp "A"	Rt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1						15'-3"											9
		858+19 Ramp "A"	Med.	R-37A-24	24"X30"	0.5	6		1'-0"							12"	4.00	0.1		12'-3"															5
		848+90 Ramp "C"	Lt.	R-41-24	24"X24"	10	6		1'-0"							12"	4.00	0.1		12'-3"															4
		849+10 Ramp "C"	Rt.	R-1-36	36"X36"	12	6	9.5	1'-6"							12"	4.00	0.1		13'-9"															9
		849+10 Ramp "C"	Rt.	R-41-24	24"X24"																														4
		851+50 Ramp "C"	Rt.	M-2-24	24"X24"	12	7		1'-3⅞"	3'-4¼"	674.65	673.43	669.43	672.69	668.69	12"	4.00	0.2	17'-0"	★5'-6"				17'-3"	18'-0"											4
		851+50 Ramp "C"	Rt.	M-25-20	20"X15																														2.
		851+50 Ramp "C"	Rt.	D-1-72	72"X12"																														12
		851+50 Ramp "C"	Rt.	D-1-72	72"X12"																														12
		860+00 Ramp "C"	Rt.	W-97-24	24"X30"	12	6		1'-0"							12"	4.00	0.1		13'-3"															5
		212+40	Rt.	M-17-24	24"X12"	10	6		1'-0"							12"	4.00	0.1		14'-6"															2
		212+40	Rt.	M-1-24	24"X24"																														4
		215+40	Rt.	D-2-72	72"X24"	12	7		1'-3⅞"	3'-4¼"	669.0±	667.0±	663.0±	666.7±	662.7±	12"	4.00	0.2	12'-0"	14'-3"	14'-6"															12
		218+40	Lt.	See Supplement																															
		219+40	Rt.	D-1-72	72"X12"	12	7		1'-3⅞"	3'-4¼"	670.88	669.14	665.14	668.30	664.30	12"	4.00	0.2	12'-0"	14'-6"	15'-3"															12
		219+40	Rt.	D-1-72	72"X12"																														12
		221+15	Lt.	M-40-24	24"X12"	12	6	10	1'-0"							12"	4.00	0.1		14'-0"															2
		221+15	Lt.	M-2-24	24"X24"																														4
		222+20	Lt.	D-2-72.66	48"X24"	12	7	10	0'-10⅝"	2'-2¾"	677.99	676.61	672.61	675.83	671.83	12"	4.00	0.2	8'-0"	14'-0"	15'-0"															8
		223+25	Rt.	D-2-72	72"X24"	12	7	8	1'-3⅞"	3'-4¼"	680.30	678.41	674.41	677.29	673.29	12"	4.00	0.2	12'-0"	14'-0"	15'-9"															12
		235+00	Rt.	D-2-72.66	48"X24"	12	7		1'-3⅞"	3'-4¼"	671.14	669.84	665.84	669.28	665.28	12"	4.00	0.2	8'-0"					15'-0"	15'-6"											8
		234+60	Lt.	D-2-72	72"X24"											12	4.00	0.2	12'-0"	14'-0"	16'-0															12
		238+60	Lt.	D-1-72	72"X12"	12	7		1'-3⅞"	3'-4¼"	667.97	666.51	662.51	665.95	661.95	12"	4.00	0.2	12'-0"	14'-3"	14'-9"															12
		238+60	Lt.	D-1-72	72"X12"																														12
		242+60	Lt.	D-2-72	72"X24"	12	7		1'-3⅞"	3'-4¼"	669.3±	667.6±	663.6±	666.9±	662.9±	12"	4.00	0.2	12'-0"	14'-0"	14'-6"															12
		245+60	Lt.	M-17-24	24"X12"	10	6		1'-0"							12"	4.00	0.1		14'-0"															2
		245+60	Lt.	M-1-24	24"X24"																														4
		885+40 Ramp "A"	Rt.	W-97-24	24"X30"	12	6		1'-0"							12"	4.00	0.1		13'-3"															5
		894+00 Ramp "A"	Rt.	M-2-24	24"X24"	12	7		1'-3⅞"	3'-4¼"	672.53	671.50	667.50	670.94	666.94	12"	4.00	0.2	17'-0"	★5'-6"				17'-0"	17'-6"											4
		894+00 Ramp "A"	Rt.	M-25-20	20"X15"																														2
		894+00 Ramp "A"	Rt.	D-1-72	72"X12"																														12
		894+00 Ramp "A"	Rt.	D-1-72	72"X12"																														12
		896+60 Ramp "A"	Rt.	R-1-36	36"X36"	11	6	9	1'-6"							12"	4.00	0.1		13'-6"															9
		896+66 Ramp "A"	Med.	R-37A-24	24"X30"	0.5	6		1'-0"							12"	4.00	0.1		12'-3"															5
		886+38 Ramp "C"	Med.	R-37A-24	24"X30"	0.5	6		1'-0"							12"	4.00	0.1		12'-3"															5
		886+45 Ramp "C"	Rt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1		13'-6"															9
		890+50 Ramp "C"	Rt.	M-2-24	24"X24"	12	7		1'-3⅞"	3'-4¼"	669.34	668.08	664.08	667.52	663.52	12"	4.00	0.2	17'-0"	★5'-6"				17'-3"	17'-9"											4
		890+50 Ramp "C"	Rt.	M-25-20	20"X15"																														2
		890+50 Ramp "C"	Rt.	D-1-72	72"X12"																														12
		890+50 Ramp "C"	Rt.	D-1-72	72"X12"																														12
COUNTY AND TOWNSHIP ROADS		19+00 T.R. "P-3"	Rt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				14'-0"													9
		20+00 T.R. "P-3"	Lt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				14'-0"													9
		19+00 C.R. "P"	Rt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				14'-0"													9
		20+00 C.R. "P"	Lt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				14'-0"													9
		19+50 T.R. "0-3"	Rt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				13'-9"													9
		20+25 T.R. "0-3"	Lt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				14'-0"													9
		902+00 C.R. "0"	Rt.	M-17-24	24"X12"	10	6		1'-0"							12"	4.00	0.1		14'-9"															2
		902+00 C.R. "0"	Rt.	M-1-24	24"X24"																														4
		904+15 C.R. "0"	Rt.	W-45-36	36"X36"	12	6		1'-6"							12"	4.00	0.1						14'-9"											9
		910+05 C.R. "0"	Rt.	R-1-36	36"X36"	10	6		1'-6"							12"	4.00	0.1				14'-0"													9
SHEET TOTALS																		6.4	204	654.00		112.00		229.50									511.00

SUPPLEMENT

SHEET NO.	STATION	SIDE	CODE	SIZE	A	B	C	D
	718+00	Lt	R-10A-24	24"X36"	12	6		
	718+00	Lt	R-16-24	24"X24"	12	4		
	218+40	Lt	R-10A-24	24"X36"	12	6		
	218+40	Lt	R-16-24	24"X24"	12	4		
	SHEET TOTALS							
	TOTALS CARRIED FORWARD							
	GRAND TOTALS							

Hor. & Vert. Supports 2#/Ft.S.D.P.	816 CONCRETE FOUNDATION FOR GROUND MOUNTED SIGNS DIA. IN.	DEPTH L.F.	VOL. C.Y.	816 STRUC. SUP. 4#/Ft. S.D.P. DIMENSIONS F	G	816 Sign Erection By Type As Per Plan S. F.
				LINEAR FEET		
U.S. 6	12	4.0	.1	17'-0"		6
						4
	12	4.0	.1	17'-0"		6
						4
			.2	34'-0		20
			6.4	654.00		511.00
			6.8	688.00		531.00

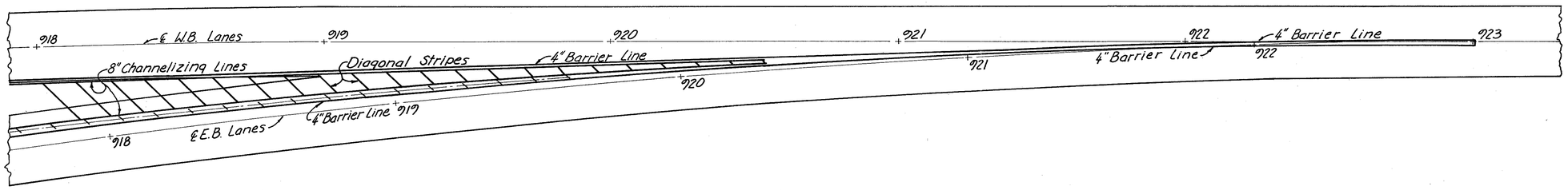
| | | | | | | | | | | | | | | | | | | |

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

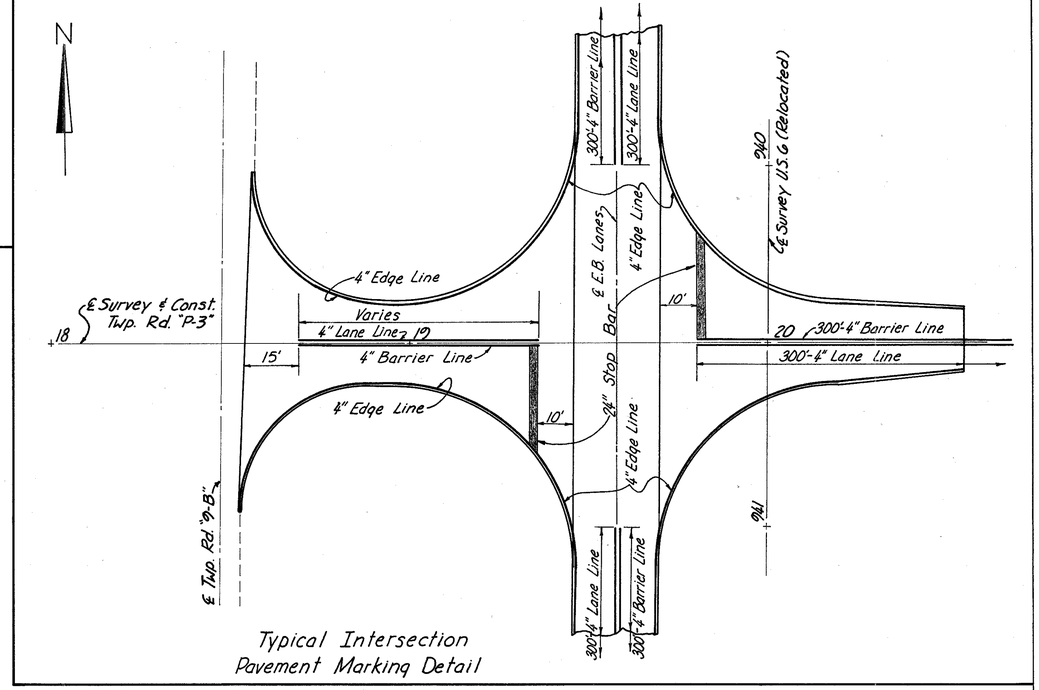
104
231

HENRY COUNTY
HEN - 6 - 16.43

N



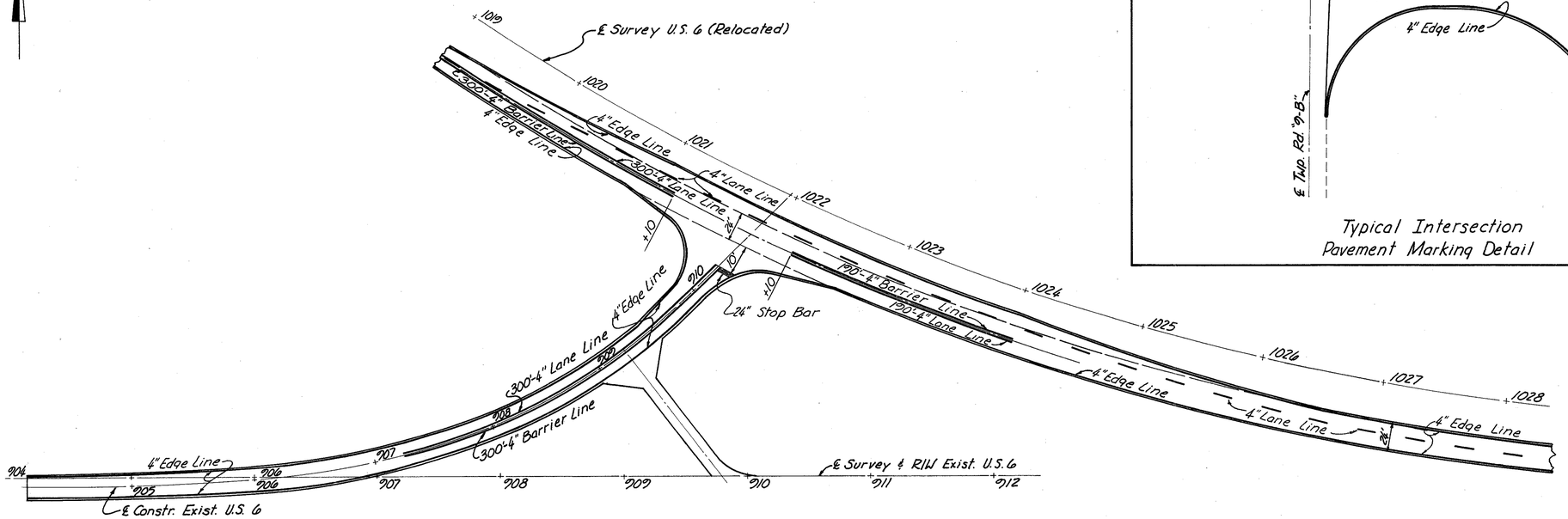
PAVEMENT MARKING
DETAIL



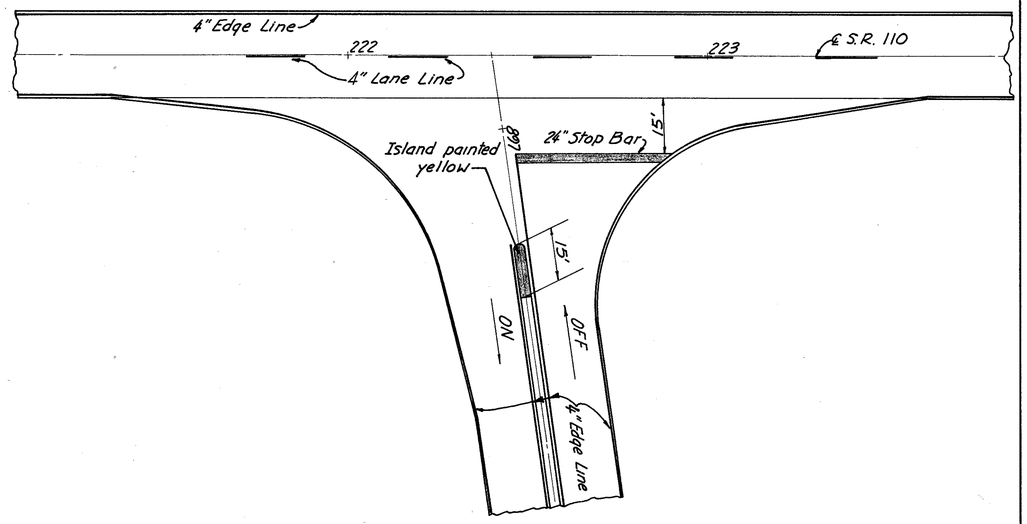
Typical Intersection
Pavement Marking Detail

N

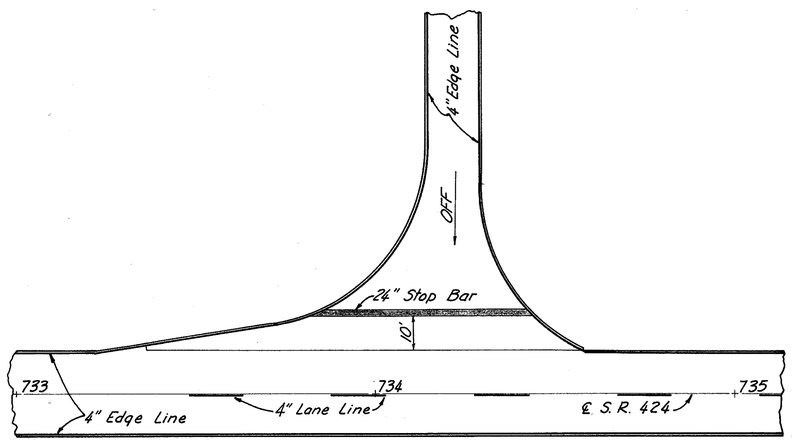
PAVEMENT MARKING DETAIL
U. S. 6 CONNECTOR
ROAD



Pavement Marking Details



Typical Ramp Intersection
Pavement Marking Detail



Pavement Marking Intersection Detail
Ramp "C" ℄ S.R. 424

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

165
231

HENRY COUNTY
HEN - 6 - 16.43

PAVEMENT MARKING SCHEDULE

Location	Side	STATION From	STATION To	4" Edge Line (Linear Feet)	4" Lane Line (Linear Feet)		8" Channel Line (Linear Feet)	Diagonal Stripes (Linear Feet)	Curb Island Marking (Linear Feet)	Barrier Line (Linear Feet)	Stop Bar (Linear Feet)
E.B.-U.S.6	Lt.	848+00	914+00	6600							
E.B.-U.S.6	Rt.	848+00	860+00	1200							
Acc. Lane E.B.-U.S.6	Rt.	856+05	878+60	2255	215		175		Lump		
Dec. Lane E.B.-U.S.6	Rt.	878+60	885+37	677	242		340	Lump	Lump		
E.B.-U.S.6	Rt.	886+40	900+00	1360							
Acc. Lane E.B.-U.S.6	Rt.	895+37	905+36	999	275		190		Lump		
E.B.-U.S.6	Rt.	905+36	923+06	1770							
W.B.-U.S.6	Lt.	852+00	859+22	722							
Dec. Lane W.B.-U.S.6	Lt.	860+25	878+60	1735	400		340	Lump	Lump		
Acc. Lane W.B.-U.S.6	Lt.	878+60	888+60	1000	285		175		Lump		
W.B.-U.S.6	Lt.	884+50	896+65	1215							
Dec. Lane W.B.-U.S.6	Lt.	897+68	905+08	800	284		350	Lump	Lump		
W.B.-U.S.6	Lt.	905+68	923+06	1738							
U.S.6	Rt.+Lt.	923+06	939+88	3364							
U.S.6	Rt.	Twp. Rd. P-3 Int.		284						Lump	Lump
U.S.6	Lt.	Twp. Rd P-3 Int.		230						Lump	Lump
U.S.6	Lt.+Rt.	941+11	966+40	5058							
U.S.6	Rt.	Co. Rd. P Int.		280						Lump	Lump
U.S.6	Lt.	Co. Rd. P Int.		250						Lump	Lump
U.S.6	Rt.+Lt.	967+60	1002+63	7006							
U.S.6	Rt.	Twp. Rd 0-3 Int.		270						Lump	Lump
U.S.6	Lt.	Twp. Rd. 0-3 Int.		273						Lump	Lump
U.S.6	Rt.	1003+75	1020+70	1695							
U.S.6	Rt.	Co. Rd. 0 Approach		1389						Lump	Lump
U.S.6	Rt.	1022+62	1035+64	1302							
U.S.6	Lt.	1003+87	1035+64	2177							
W.B.-U.S.6	Rt.	852+00	917+90	6590							
		U.S.6 - S.R. 424 Interchange Ramp A									
Exit Lane	Lt.	848+00	858+50	1050					Lump		Lump
	Rt.	848+00	S.R. 424	1133							
Entrance Lane		858+21	854+76	345							
		S.R 424	854+76	454							
		Ramp B									
	Rt.	849+18	856+05	687							
	Lt.	849+18	855+04	586							
		Ramp C									
	Rt.	S.R. 424	860+25	1096							
	Lt.	S.R. 424	860+25	1215							
		S.R. 424									
	Rt.	720+25	739+75	1950		732					
	Lt.	720+25	1+68 T.R. 10	1646							
		U.S.6 - S.R. 110 Interchange Ramp A									
Exit Lane	Rt.	885+37	S.R. 110	1232					Lump		Lump
	Lt.	885+37	896+92	1165							
Entrance Lane	Lt.	896+68	890+90	578							
	Rt.	S.R. 110	890+90	686							

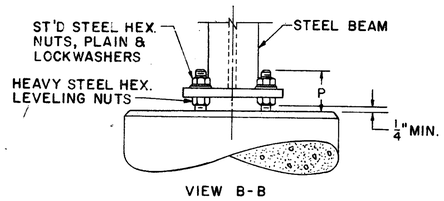
PAVEMENT MARKING SCHEDULE (CON'T.)

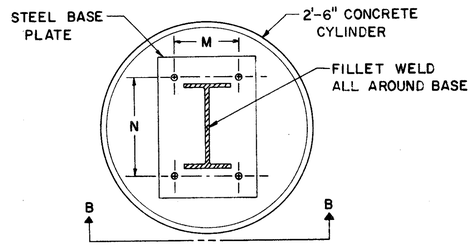
Location	Side	STATION From	STATION To	4" Edge Line (Linear Feet)	4" Lane Line (Linear Feet)		8" Channel Line (Linear Feet)	Diagonal Stripes (Linear Feet)	Curb Island Marking (Linear Feet)	Barrier Line (Linear Feet)	Stop Bar (Linear Feet)
		U.S.6 - S.R. 110 Interchange Ramp B									
	Rt.	886+31	895+37	906							
	Lt.	886+31	894+36	805							
		Ramp C									
Exit Lane	Lt.	S.R. 110	897+68	1237					Lump		Lump
	Rt.	886+11	897+68	1157							
Entrance Lane	Lt.	886+36	889+36	300							
	Rt.	S.R. 110	889+36	405							
		Ramp D									
	Rt.	881+76	888+60	684							
	Lt.	881+76	887+60	584							
		S.R. 110									
	Lt.	217+00	239+00	2100		788					
	Rt.	217+00	239+00	1646							
Transition E.B.-U.S.6	Rt.	914+00	923+00					Lump		900	
Transition W.B.-U.S.6		917+90	923+00							610	
W.B.-U.S.6	℄	852+00	916+00			2451					
E.B.U.S.6	℄	848+00	914+00			2777					
U.S.6	℄	923+00	940+00			825				300	
U.S.6	℄	941+00	966+50			1331				600	
U.S.6	℄	967+50	1002+73			1396				600	
U.S.6	℄	1003+73	1021+10			1026				600	
U.S.6	℄	1022+10	1035+64			698				190	
Co. Rd 0	℄	904+00	910+00			612				300	
TOTALS				75,886	14,137	1570				4100	
TOTALS IN MILES				14.37	2.68	0.30				0.78	

Pavement Marking Details and Schedule

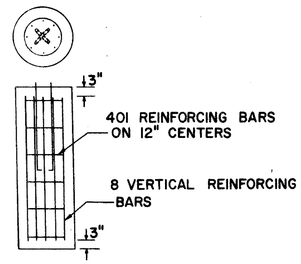
BEAM SIZE	ANCHOR BOLTS DIA.	ANCHOR BOLTS LENGTH	BASE PLATE	HOLE SIZE	DIM. M	DIM. N	DIM. P	WELD SIZE	DIM. H	DIM. W	CU. YDS. FOR 2 POST
10 B11.5	3/4"	3'-0"	7/8" x 6" x 18"	7/8"	3 1/2"	14"	3 1/2"	1/4"	5.25'	2'-6"	1.9
10 B17	1"	3'-6"	7/8" x 6" x 18"	1 1/8"	3 3/4"	14"	4 1/4"	1/4"	6.0'	2'-6"	2.2
12 B22	1"	4'-0"	1" x 9" x 19"	1 1/8"	5 1/2"	15"	4 1/4"	1/4"	6.75'	2'-6"	2.5
12 WF 27	1 1/4"	4'-0"	1" x 9" x 19"	1 3/8"	5 1/2"	15"	5 1/4"	1/4"	8.0'	2'-6"	2.9
14 WF 30	1 1/4"	4'-0"	1" x 11" x 20"	1 3/8"	7 1/2"	16"	5 1/4"	5/16"	8.25'	2'-6"	3.0
14 WF 34	1 1/4"	4'-0"	1" x 12" x 22"	1 3/8"	9"	18"	5 1/4"	5/16"	9.0'	2'-6"	3.3
16 WF 36	1 1/2"	5'-0"	1 1/4" x 14" x 23"	1 5/8"	10"	19"	6"	5/16"	9.75'	2'-6"	3.5
16 WF 40	1 1/2"	5'-6"	1 1/4" x 14" x 24"	1 5/8"	10"	20"	6"	5/16"	10.0'	2'-6"	3.6
16 WF 45	1 1/2"	6'-0"	1 1/4" x 14" x 24"	1 5/8"	10"	20"	6"	5/16"	10.5'	2'-6"	3.8
18 WF 50	1 3/4"	7'-6"	1 1/2" x 14" x 26"	1 7/8"	10"	22"	6 3/4"	5/16"	11.5'	2'-6"	4.2

MARK	TYPE	NO.	LENGTH	WEIGHT FOR 1 POST
401	101	6	7'-6"	45
402	STR.	8	5'-0"	
401	101	7	7'-6"	52
403	STR.	8	5'-9"	
401	101	8	7'-6"	61
404	STR.	8	7'-0"	
401	101	9	7'-6"	94
501	STR.	8	8'-0"	
401	101	10	7'-6"	101
502	STR.	8	8'-6"	
401	101	10	7'-6"	103
503	STR.	8	8'-9"	
401	101	11	7'-6"	145
601	STR.	8	9'-3"	
401	101	11	7'-6"	148
602	STR.	8	9'-6"	
401	101	11	7'-6"	155
603	STR.	8	10'-0"	
401	101	12	7'-6"	164
604	STR.	8	10'-6"	



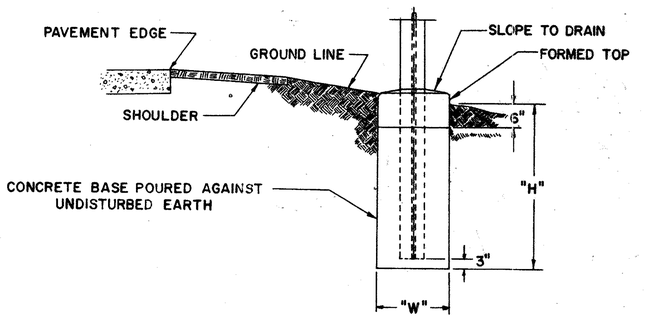


ALTERNATE ANCHOR BASE DETAILS



REINFORCING FOR ALTERNATE ANCHOR BASE

BEAM SIZE	DIM. W	DIM. H	CU. YDS. CONC. 2 POST
4# POST	1'-0"	4.0'	0.2
4# BEAM	1'-0"	4.0'	0.2
8# BEAM	1'-0"	4.0'	0.2
6 B 8.5	1'-0"	4.0'	0.2
10 B 11.5	2'-6"	5.25'	1.9
10 B 17	2'-6"	6.0'	2.2
12 B 22	2'-6"	6.75'	2.5
12 WF 27	2'-6"	8.0'	2.9
14 WF 30	2'-6"	8.25'	3.0
14 WF 34	2'-6"	9.0'	3.3
16 WF 36	2'-6"	9.75'	3.5
16 WF 40	2'-6"	10.0'	3.6
16 WF 45	2'-6"	10.5'	3.8
18 WF 50	2'-6"	11.5'	4.2



FOUNDATION DETAILS FOR EMBEDDED POSTS AND BEAMS

NOTES

PLAN QUANTITIES FOR POSTS AND STRUCTURAL SUPPORTS ARE BASED UPON THE "FOUNDATION DETAILS FOR EMBEDDED POSTS AND BEAMS".

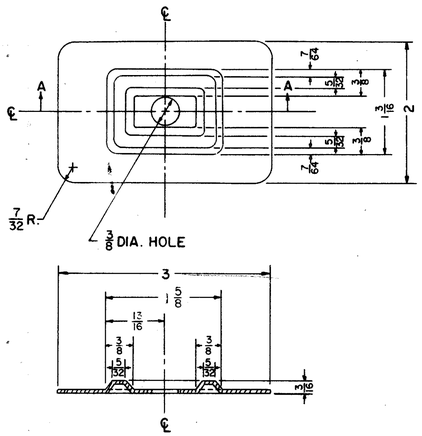
IF THE CONTRACTOR ELECTS TO USE THE METHOD SHOWN FOR "ALTERNATE ANCHOR BASE DETAILS", THE PLAN QUANTITY OF EMBEDDED BEAM ONLY WILL BE ALLOWED IN EXCHANGE AND FULL PAYMENT FOR THE BASE PLATE, ANCHOR BOLTS AND REINFORCING STEEL.

WHERE ANCHOR BASES ARE USED, THE BEAM SIZE SHALL DETERMINE THE ANCHOR BOLT AND BASE PLATE SIZE.

DEMOUNTABLE UNITS SHALL BE ATTACHED TO THE ALUMINUM PANELS WITH ALUMINUM BLIND RIVETS. CARE SHALL BE TAKEN TO INSURE THAT ALL SEGMENTS OF EACH LETTER OR SYMBOL ARE SECURELY AFFIXED TO THE BACKING. LETTERS CONTAINING REFLECTIVE UNITS SHALL BE FASTENED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

DEMOUNTABLE MARKERS OR SHIELDS SHALL BE SECURELY AFFIXED TO THE BACKING UTILIZING THE HOLES AS LOCATED ON SHEET ____.

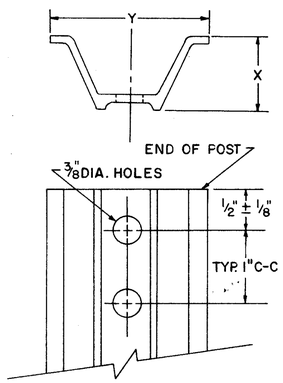
IN LIEU OF THE .040" THICK FRAME SPECIFIED IN SUPPLEMENTAL SPECIFICATION 815, THE FRAMES FOR THE REFLECTIVE UNITS IN THE SIGN OUTLINES ONLY, MAY BE .032" THICK ALUMINUM. (A.S.T.M. B209GS11A-T6)



SECTION AA

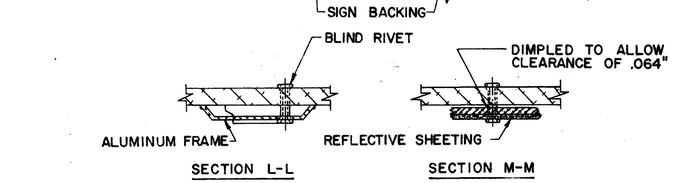
NOTE:
THE PLATE IS SYMMETRICAL ABOUT EITHER CENTERLINE.
METAL SHALL BE 16 GAUGE STEEL.
ALL DIMENSIONS ARE IN INCHES.

BEARING PLATE DETAIL

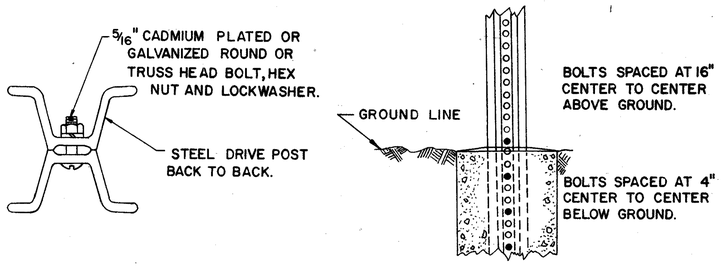


WEIGHT PER FOOT	X ± 3/32"	Y ± 1/8"
2.00 #	1 1/2"	3 1/8"
3.00 #	1 3/4"	3 1/2"
4.00 #	1 3/4"	3 1/2"

DRIVE POST DETAILS



DEMOUNTABLE LETTERS & SYMBOLS



4# AND 8# BEAM DETAILS

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

MISCELLANEOUS SIGNING ITEMS	MSI	DATE 10-29-63 8-19-64

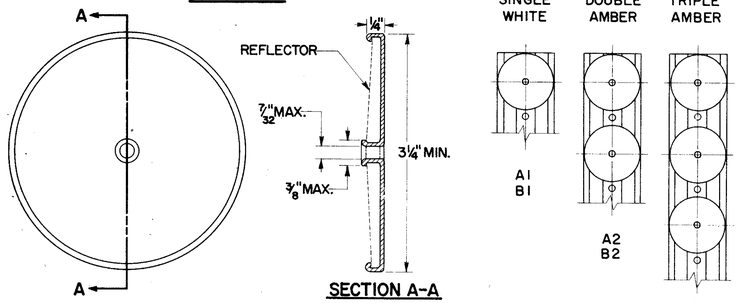
APPROVED _____
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

167
231

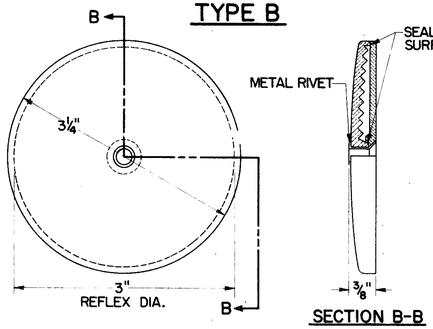
HEN-6-16.43

TYPE A



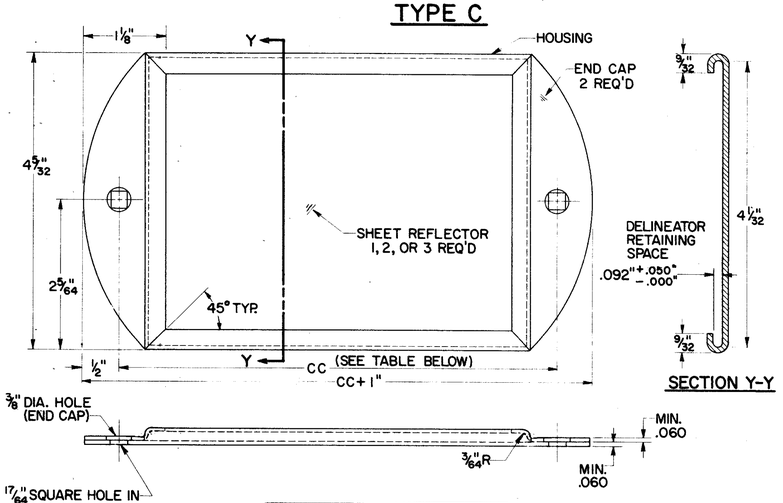
SECTION A-A

TYPE B



SECTION B-B

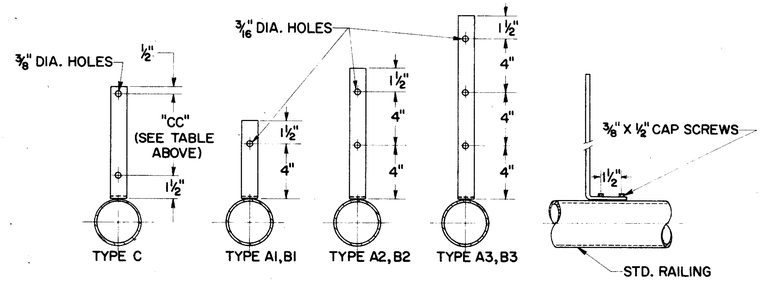
TYPE C



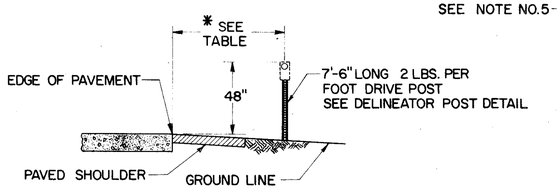
SECTION Y-Y

TYPE	DIM. CC
C1- SINGLE WHITE	6"
C2- DOUBLE AMBER	11"
C3- TRIPLE AMBER	16"

ALL BRACKETS 1/4" X 1 1/4" STAINLESS STEEL



BRIDGE RAIL BRACKET

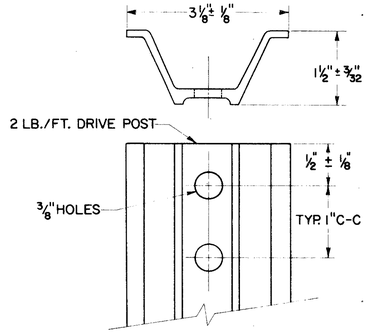


LATERAL PLACEMENT OF DELINEATORS

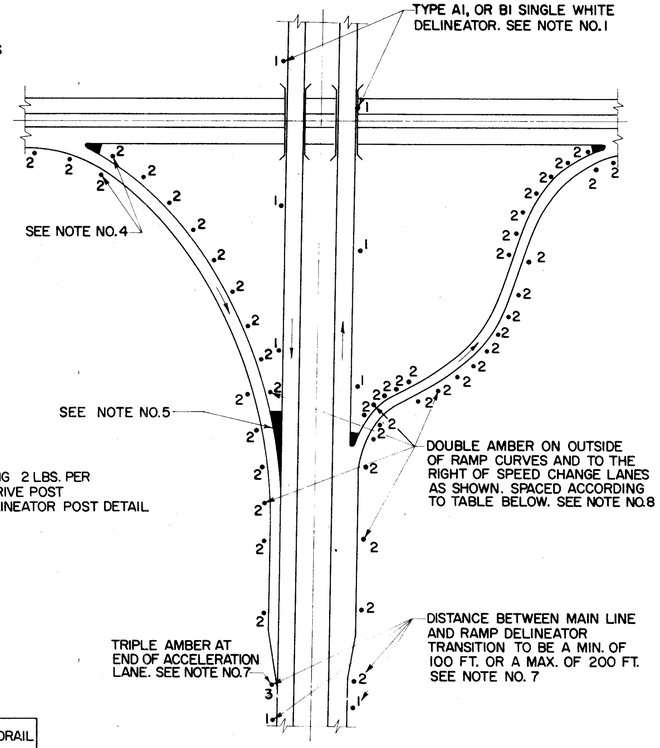
* TABLE

TYPE DELINEATOR	NO GUARDRAIL	GUARDRAIL
SINGLE WHITE	12'-6"	6" OUTSIDE
DOUBLE AMBER RIGHT SIDE	** 8'-6"	6" OUTSIDE
DOUBLE AMBER LEFT SIDE	4'-6"	6" OUTSIDE
TRIPLE AMBER	12'-6"	6" OUTSIDE

** THIS DIMENSION SHALL VARY ON SPEED CHANGE LANES TO MAINTAIN MINIMUM DISTANCE OF 2'-6" FROM EDGE OF PAVED SHOULDER.



DELINEATOR POST



TYPICAL DELINEATOR PLACEMENT

NOTES

1. TYPE A1 OR B1 DELINEATORS ON THE RIGHT OF THE THROUGH ROADWAY ARE TO BE SPACED AT 200 FT. INTERVALS THROUGHOUT, REGARDLESS OF CURVES, BEGINNING AT STA. +00, +25, +50, OR +75.
2. DELINEATORS SHALL BE FURNISHED AND ERECTED IN ACCORDANCE WITH ITEM 620, (5-1-65).
3. PAYMENT FOR SUPPORTS (DRIVEPOST OR BRACKET) SHALL BE INCLUDED IN THE UNIT PRICE BID PER EACH FOR "ITEM 620 DELINEATORS".
4. WHEN CROSSING FROM LEFT TO RIGHT OR FROM RIGHT TO LEFT ON THE RAMPS THE DELINEATORS AT THE POINT OF CROSSOVER ARE TO BE AT THE SAME STATION ON EACH SIDE.
5. NO DELINEATORS ARE TO BE PLACED IN PAVED BERM
6. WHEN RADII OF CURVE ON RAMPS REQUIRE 100' SPACING THE DELINEATORS SHALL BE PLACED ON THE RIGHT IN RELATION TO THE FLOW OF TRAFFIC.
7. RAMP DELINEATOR AT END OF ACCELERATION & BEGINNING OF DECELERATION LANES TO BE A MAXIMUM OF 5' FROM POINT OF TANGENCY AT MAIN LINE.
8. ALL RAMP DELINEATORS SHALL BE PLACED TO THE NEAREST 5' INCREMENTS, SUCH AS +05, +10, +15. +20 AND SO ON.

DELINEATOR SPACING ON RAMP HORIZONTAL CURVES

RADII, FT. FROM	RADII, FT. TO	SPACING ON CURVE	* TRANSITION SPACING	
TANGENT	1,801	100'	100'	100'
1,800	1,401	80'	100'	100'
1,400	1,001	70'	100'	100'
1,000	751	60'	100'	100'
750	551	50'	80'	100'
550	326	40'	70'	100'
325	———	30'	60'	100'

* SUCH AS 40' TO 70' TO 100' OR 100' TO 80' TO 50' OR ANY OTHER COMBINATION SHOWN ABOVE.

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OHIO DEPARTMENT OF HIGHWAYS

DELINEATOR DETAILS

620

DATE
9-25-62
10-2-63
5-24-65

APPROVED Robert L. Lomax
ENGINEER OF TRAFFIC

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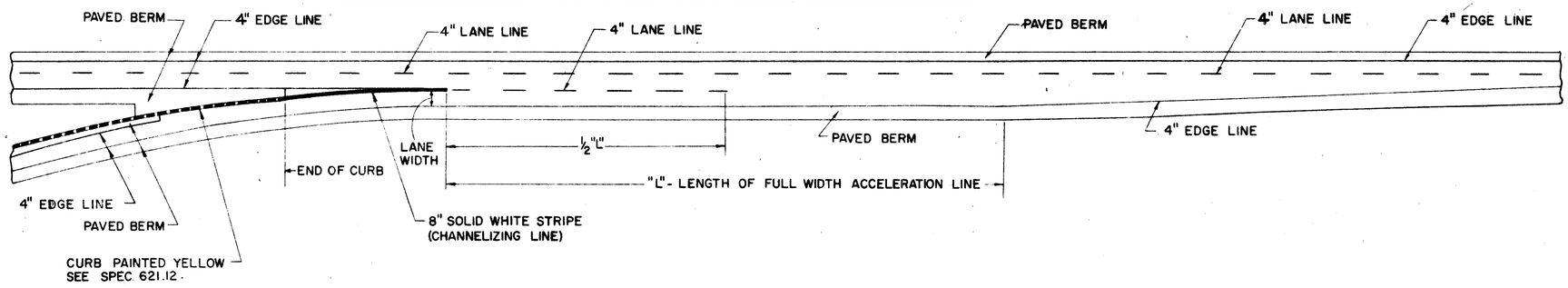
2	OHIO		

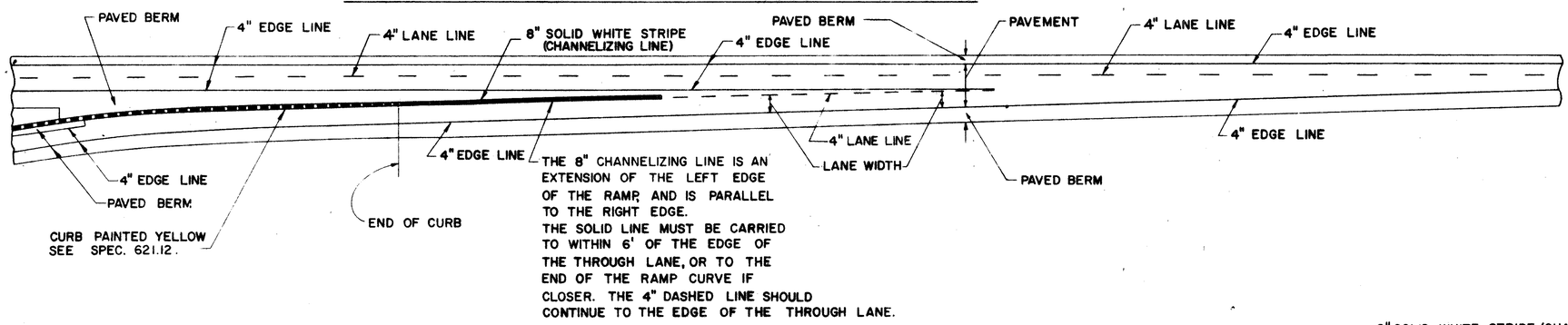
168
231

HEN-6-16.43

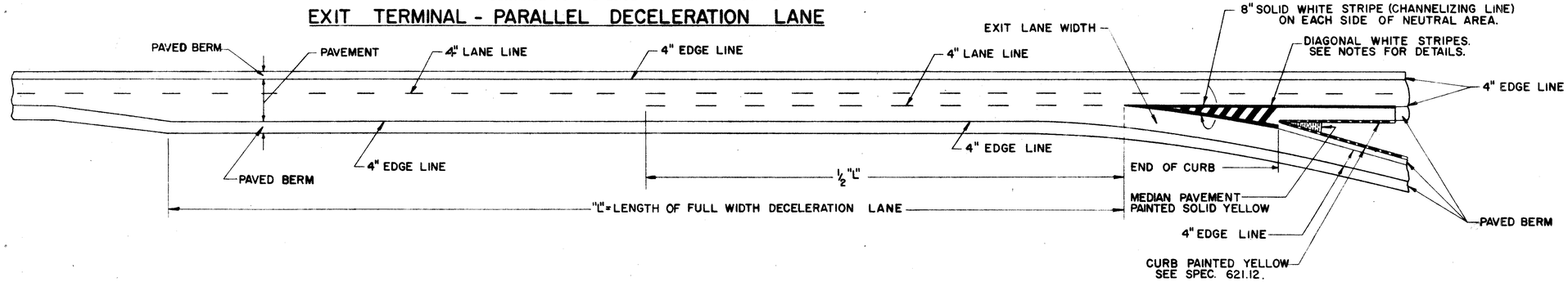
ENTRANCE TERMINAL - PARALLEL ACCELERATION LANE



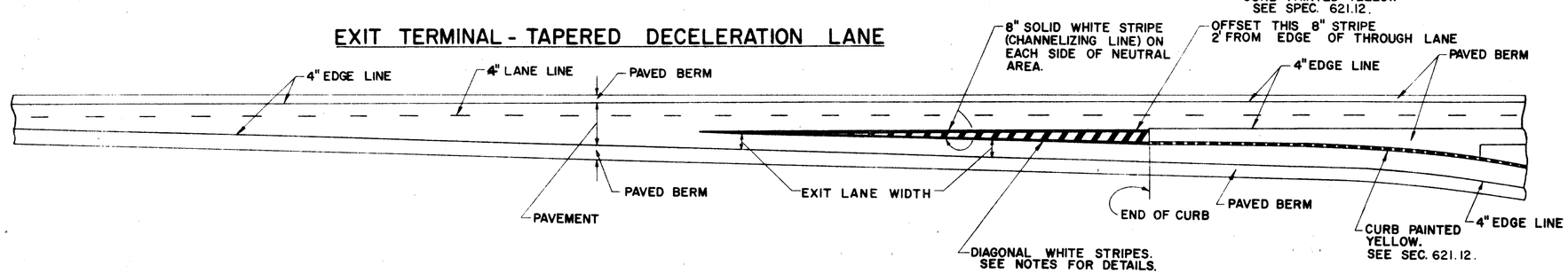
ENTRANCE TERMINAL - TAPERED ACCELERATION LANE



EXIT TERMINAL - PARALLEL DECELERATION LANE



EXIT TERMINAL - TAPERED DECELERATION LANE



NOTES

EDGE LINES SHALL BE PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO ITEM No. 621 AND DEFINED IN SECTION 621.06.

LANE LINES SHALL BE PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO ITEM No. 621 AND DEFINED IN SECTION 621.07.

CHANNELIZING LINES SHALL BE CONTINUOUS WHITE BEADED STRIPES 8" IN WIDTH PLACED IN THE LOCATIONS AS SHOWN TO CONFORM TO ITEM No. 621 AND DEFINED IN SECTION 621.09.

DIAGONAL STRIPES IN EXIT RAMP MARKINGS SHALL BE 2' WIDE WHITE BEADED STRIPES SET AT A 45° ANGLE TO THE CENTER LINE OF THE THROUGH PAVEMENT AND SLANTED IN THE DIRECTION OF THE FLOW OF TRAFFIC ON SAID PAVEMENT. SPACE BETWEEN THE 2' DIAGONAL STRIPES SHALL BE 6' AS MEASURED PARALLEL TO THE CENTER LINE OF THE THROUGH PAVEMENT. PAINT ON THE DIAGONAL STRIPES SHALL BE APPLIED AT THE RATE OF ONE GALLON TO EACH 100 SQUARE FEET AND GLASS BEADS SHALL BE APPLIED AT THE RATE OF SIX POUNDS PER GALLON OF PAINT. DIAGONAL WHITE STRIPES SHALL BE PLACED BETWEEN THE TWO 8" WHITE CHANNELIZING LINES AT EXIT RAMPS AS SHOWN TO CONFORM TO ITEM No. 621 AND DEFINED IN SECTION 621.11.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

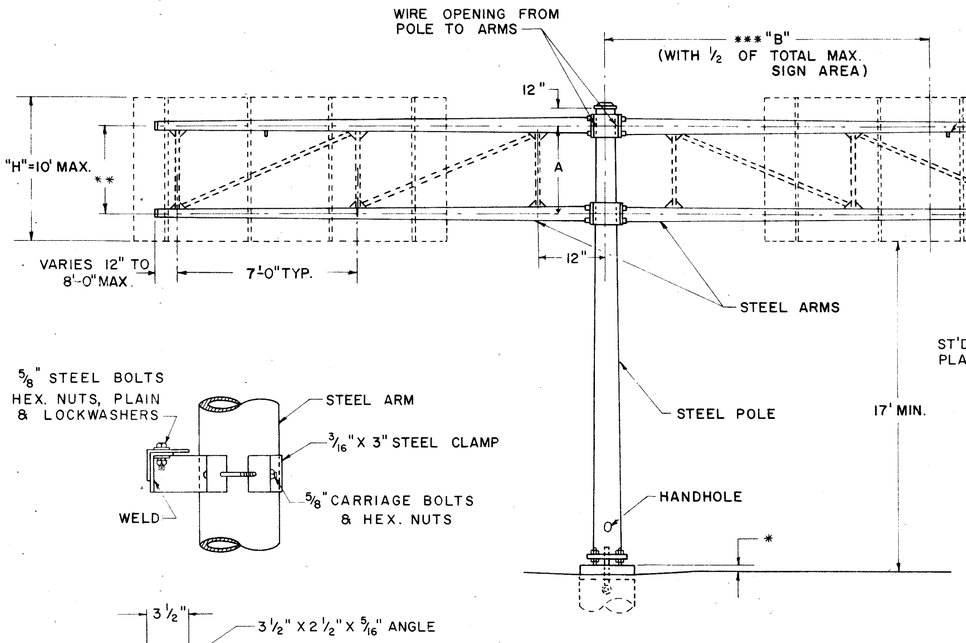
PAVEMENT MARKING	621	DATE 7-17-61 4-6-62 5-24-65

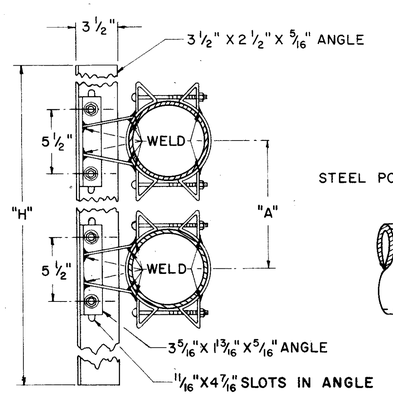
APPROVED Robert E. Lower
ENGINEER OF TRAFFIC

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HEN-6-16.43

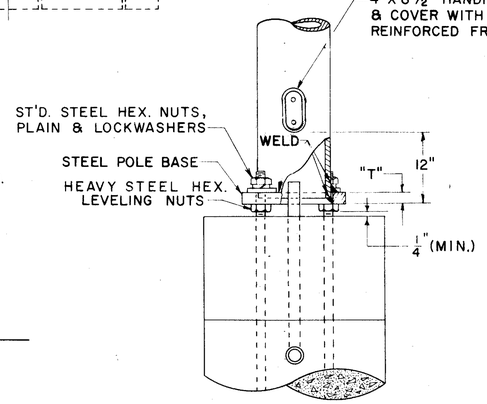
169/231

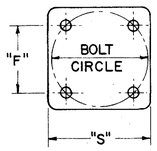




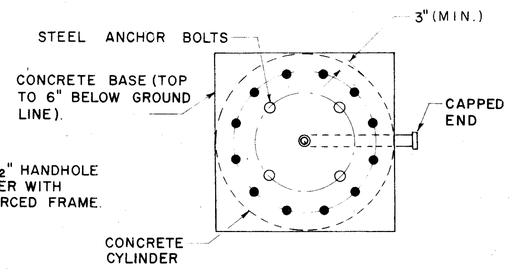
SIGN ATTACHMENT DETAIL

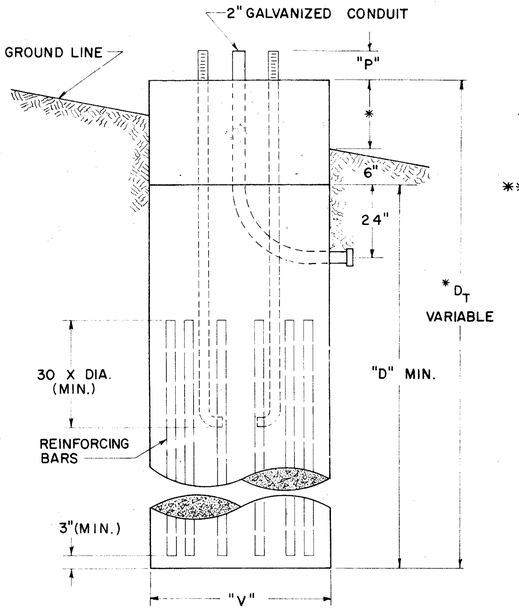
BEAM CONNECTION DETAIL





POLE DETAIL





FOUNDATION DETAIL

DESIGN NO.	POLE SIZE	* * ARM SIZE	DIM. A	DIM. *** B	DIM. "D" MIN.	DIM. F	DIM. P	DIM. S	DIM. T	BOLT CIRCLE	ANCHOR BOLT SIZE	DIM. V	MAX SIGN AREA	REINF. BARS SIZE	REINF. BARS NO.
1	3ga. 18"X 14.64"X 24'-0"	7ga., 5.7"X 4.02"X 12'-0"	4'	8'	9'	18"	8⅜"	26½"	2"	25½"	2" X 96"	3'-0"	160	¾"	12
2	3ga. 18"X 14.64"X 24'-0"	7ga., 6.9"X 4.66"X 16'-0"	4'	12'	9'	18"	8⅜"	26½"	2"	25½"	2" X 96"	3'-0"	160	¾"	12
3	0ga., 18"X 14.64"X 24'-0"	7ga., 7.5"X 5.82"X 12'-0"	4'	8'	11'	18"	9⅜"	26½"	2½"	25½"	2¼" X 108"	3'-0"	240	1"	12
4	0ga., 18"X 14.64"X 24'-0"	7ga., 8.3"X 6.06"X 16'-0"	4'	12'	11'	18"	9⅜"	26½"	2½"	25½"	2¼" X 108"	3'-0"	240	1"	12
5	0ga., 18"X 14.64"X 24'-0"	7ga., 10"X 7.2 "X 20'-0	4'	16'	11'	18"	9⅜"	26½"	2½"	25½"	2¼" X 108"	3'-0"	220	1"	12
6	2 ply 3ga., 18"X 14.5"X 25'-0"	7ga., 10"X 7.48"X 18'-0"	6'	10'	14'	18"	11¼"	26½"	3'	25½"	3" X 144"	3'-0"	360	1⅛"	12
7	2 ply 3ga., 18"X 14.5"X 25'-0"	7ga., 11"X 7.92" X 22'-0"	6'	14'	14'	18"	11¼"	26½"	3'	25½"	3" X 144"	3'-0"	360	1⅛"	12
8	2 ply 0ga., 18"X 14.5"X 25'-0"	7ga., 12.5"X 9.14"X 24'-0"	6'	14'	17'	18"	11¼"	26½"	3"	25½"	3" X 168"	3'-0"	480	1¼"	12
9	2 ply 0ga., 18"X 14.5" X 25'-0"	3ga., 12.5"X 8.58"X 28'-0"	6'	18'	17'	18"	11¼"	26½"	3"	25½"	3" X 168"	3'-0"	480	1¼"	12

NOTES

FABRICATION - ALL PORTIONS OF THE SIGN SUPPORT INCLUDING SIGN ATTACHMENTS, SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF A.S.T.M. DESIGNATIONS A-123 AND A-153. THE CONDUIT SHALL BE GALVANIZED IN ACCORDANCE WITH SEC. 625.13 AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OVERHEAD SIGN SUPPORTS FOR PAYMENT.

*FOUNDATION - THE TOP ELEVATION OF ALL FOUNDATIONS SHALL BE BUILT UP 1'-0" ABOVE THE HIGHWAY CROWN.

**ERECTION - ARMS 20' AND OVER IN LENGTH SHALL BE TRUSS TYPE USING 3" X 3" X ⅜" ANGLES WELDED TO GUSSET PLATES WITH THE INSIDE EDGES OF THE ARMS PARALLEL.

***VALUES OF "B" MAY BE EXCEEDED PROVIDED THE PRODUCT OF ACTUAL SIGN AREA TIMES THE DISTANCE FROM ℄ OF POLE TO ℄ OF SIGN DOES NOT EXCEED THE PRODUCT OF "B" TIMES ½ THE MAX. SIGN AREA.

GENERAL - THE MAX. SIGN AREA ON EACH SIDE OF THE POLE EQUALS ½ THE MAX. TOTAL AREA IN THE CHART.

MATERIAL - STEEL POLE BASES, AND FLANGES SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 30 GRADE B.
HIGH STRENGTH STEEL BOLTS SHALL CONFORM TO ASTM SPECIFICATION A 193 GRADE B 7.
AFTER FABRICATION TAPERED POLES AND ARMS SHALL HAVE A MINIMUM YIELD STRENGTH OF 48,000 PSI.

SOILS - THE FOUNDATION DETAILS SHOWN ARE FOR AVERAGE SOIL CONDITIONS (MEDIUM CLAY, CEMENTED SAND AND GRAVEL, SANDY CLAY, OR STIFF CLAY). FOR POOR SOIL CONDITIONS, INCREASE "D" MIN. BY: 50% IN DRY OR WET SAND, 60% IN SILTY CLAY, 100% IN SOFT CLAY, AND FROM 75% TO 150% IN WET SILT, DEPENDING ON QUICKSAND ACTION.

REINFORCING STEEL - REINFORCING STEEL AS SHOWN IN TABLE SHALL BE INSTALLED WHEN "D_T" EXCEEDS THE ANCHOR BOLT LENGTH BY MORE THAN 3 FT. THE COST AND PLACEMENT OF REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE FOR 816 CONCRETE FOR SIGN SUPPORT FOUNDATIONS.

DESIGN

THE DESIGN OF OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

OVERHEAD SIGN SUPPORT	816 No. 10.48	DATE 11-2-61, 1-18-62, 3-30-62, 4-18-62, 5-19-64

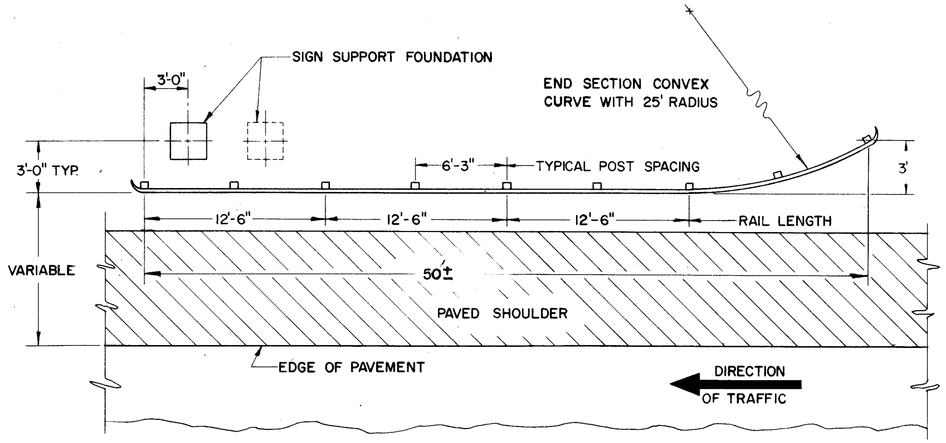
APPROVED Robert E. Cowan
ENGINEER OF TRAFFIC

OVERHEAD SIGN SUPPORT 8-1-69 No. 10.48

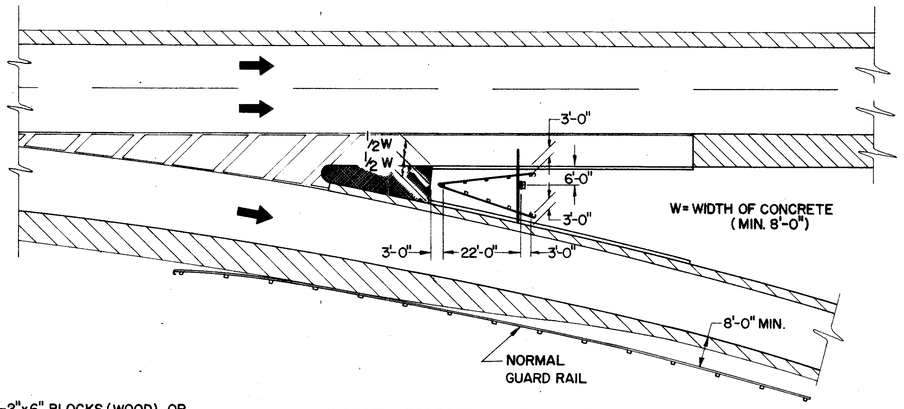
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

170
231

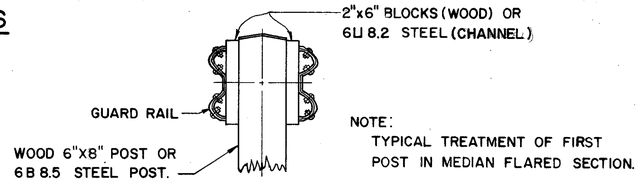
HEN - 6 - 16.43



GUARD RAIL DETAILS

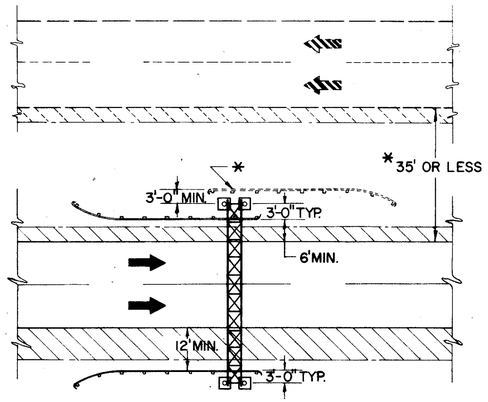


GORE INSTALLATION (TYPICAL)

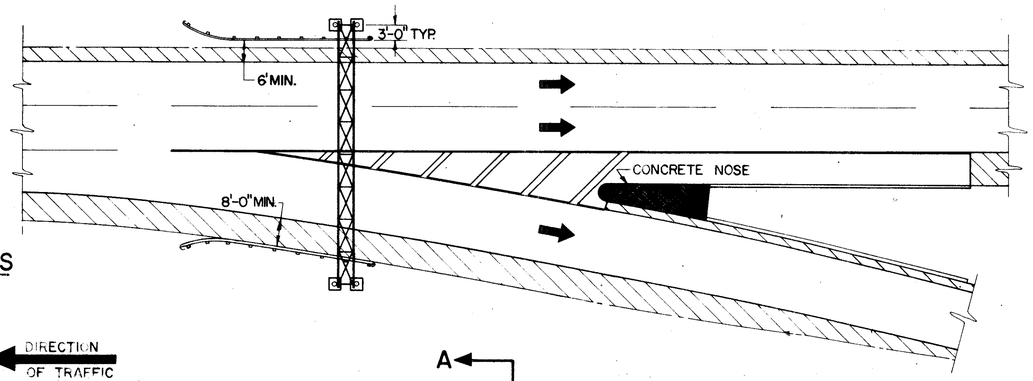


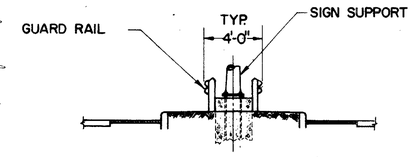
NOTE:
TYPICAL TREATMENT OF FIRST POST IN MEDIAN FLARED SECTION.

SECTION B-B

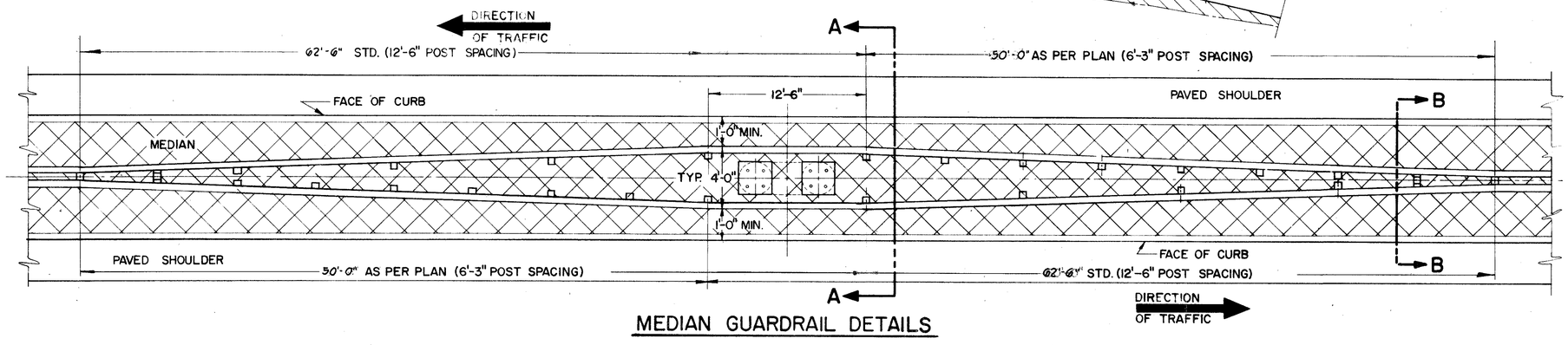


GUARD RAIL DETAILS
(SPAN TYPE)





SECTION A-A



MEDIAN GUARDRAIL DETAILS

NOTES

GENERAL

PROTECTIVE GUARD RAIL FOR OVERHEAD SIGN STRUCTURES SHALL CONFORM TO ITEM 606 AND STANDARD CONSTRUCTION DRAWING GR. 1 AND 2A.

A MIN. OF 50' OF GUARDRAIL IS REQUIRED USING 6'-3" POST SPACING. WHEN 12'-6" POST SPACING IS SPECIFIED, THE MINIMUM GUARD RAIL LENGTH SHALL BE 75'.

WHERE THE PROPOSED GUARD RAIL FLARES, IT SHALL BE CONSTRUCTED OF GUARD RAIL ELEMENTS WHICH HAVE BEEN FABRICATED TO FIT.

IN CASES WHERE NO RADII HAS BEEN SPECIFIED OR THE FABRICATED ELEMENTS DO NOT FIT THE CONDITIONS, THE TWO END POSTS OF THE FLARED SECTION SHALL BE ENCASED IN A MINIMUM THICKNESS OF 4" OF CLASS "E" CONCRETE FOR THE FULL DEPTH OF OF THE POST BELOW THE GROUND LINE. PAYMENT FOR ENCASEMENT, IF REQUIRED, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE GUARD RAIL.

ALL GUARD RAIL SHALL HAVE APPROPRIATE TERMINAL SECTIONS. FOR DETAILS SEE GR. 2A. THE GORE INSTALLATIONS NOSE SECTION SHALL BE A BARRIER TERMINAL TYPE MOUNTED ON A SINGLE POST.

DESIGN

THE DESIGN OF GUARD RAIL PROTECTION FOR OVERHEAD SUPPORTS IS IN ACCORDANCE WITH A.A.S.H.O. SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, ADOPTED JUNE 12, 1961.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS

GUARD RAIL DETAILS FOR OVERHEAD SIGN SUPPORTS	GR-7	DATE 3-10-65 6-1-65 9-21-65

APPROVED Fred C. Hasbrook
ENGINEER OF TRAFFIC

MICROFILMED
APR 17 1986

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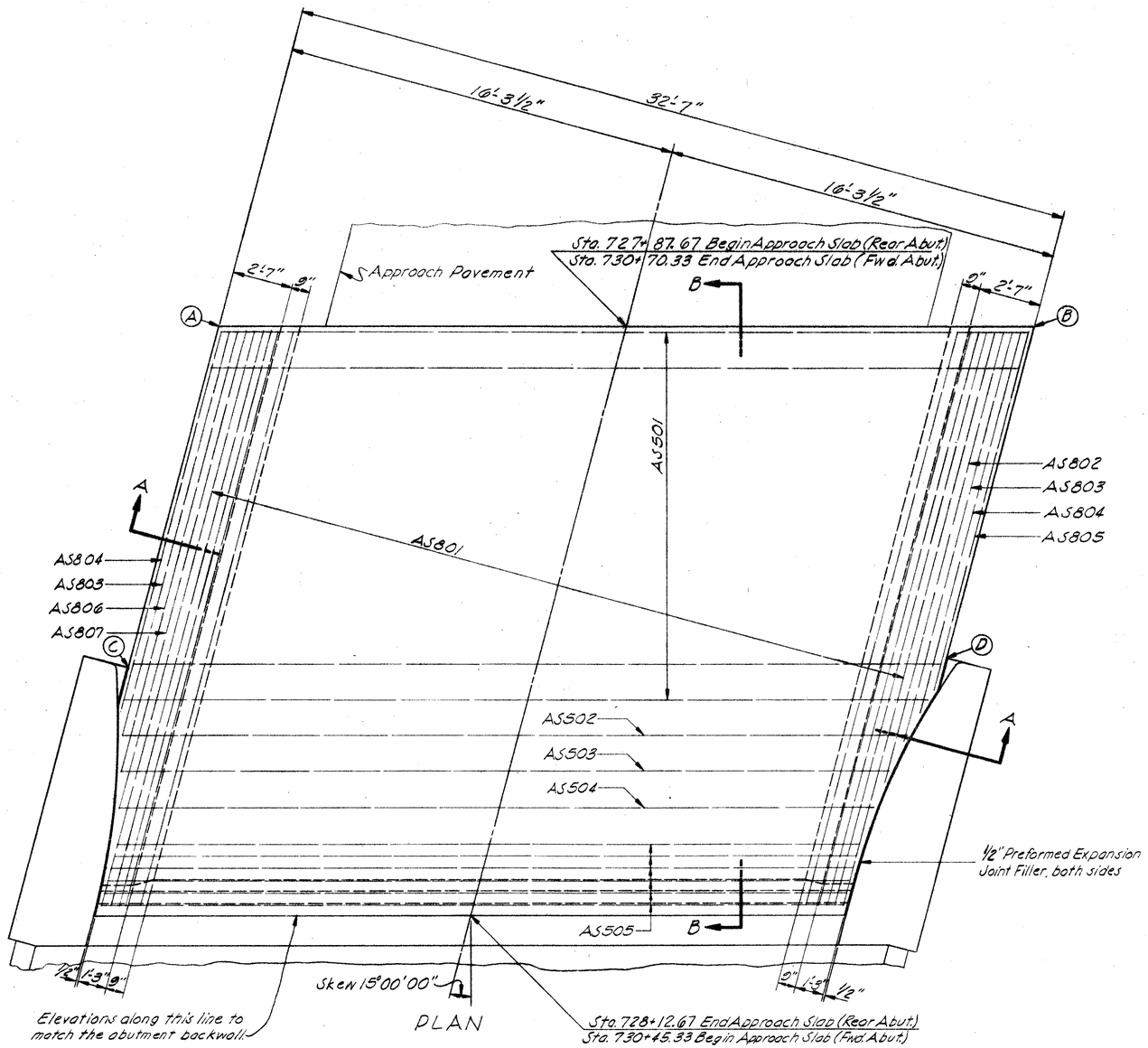
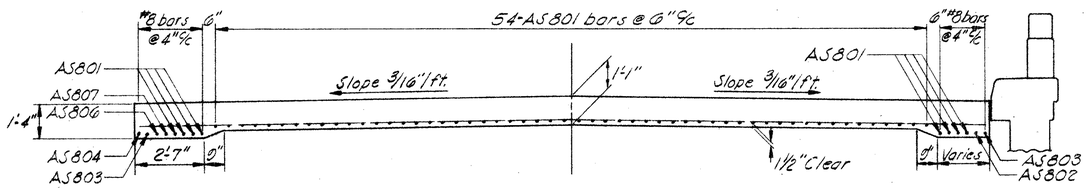
171/231

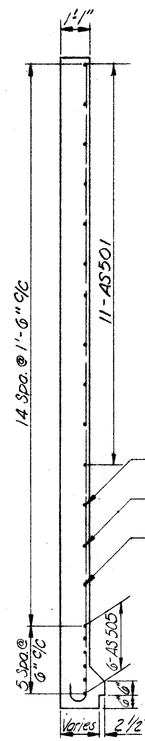
HENRY COUNTY
HEN-6-16.43



PLAN



SECTION A-A



SECTION B-B

TABLE OF ELEVATIONS

Location of Approach Slab	Elevation Point Ⓐ	Ⓑ	Ⓒ	Ⓓ
Rear	684.02	683.94	694.14	684.06
Forward	684.42	684.37	684.50	684.45

REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHP.	BENDING DIAGRAM
AS501	22	33'-4"	S	
AS502	2	32'-6"	S	
AS503	2	31'-0"	S	
AS504	2	31'-0"	S	
AS505	12	30'-0"	S	
AS801	124	25'-7"	B	AS801 24'-6"%
AS802	2	19'-3"	S	
AS803	4	17'-6"	S	
AS804	4	16'-3"	S	
AS805	2	15'-3"	S	
AS806	2	18'-9"	S	
AS807	2	20'-3"	S	

NOTES

1. Reinforcing steel quantity shown is for two approach slabs.
2. For details and data not shown, see Standard Reinforced Concrete Approach Slabs, drawing number AS-1-54, revised 8-10-65

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET . TOLEDO, OHIO

APPROACH SLAB DETAILS

Bridge No. Hen-6-1667
Proposed U.S. 6 under S.R. 424

Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.V.R	R.V.R.		J.M.	J.M.	10-13-65	

8-2-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

172
231

HENRY COUNTY
HEN-G-16.43

REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHP.
AS510	40	20'-11"	S
AS511	8	20'-0"	S
AS512	4	20'-6"	S
AS513	4	20'-4"	S
AS514	4	20'-2"	S
AS515	4	20'-0"	S
AS516	4	28'-9"	S
AS517	32	28'-7"	S
AS518	96	5'-0"	B
AS810	256	30'-7"	B
AS811	4	22'-0"	S
AS812	4	18'-0"	S
AS813	4	15'-6"	S
AS814	4	14'-0"	S

AS518 — 11½" — 3'-5" c/c

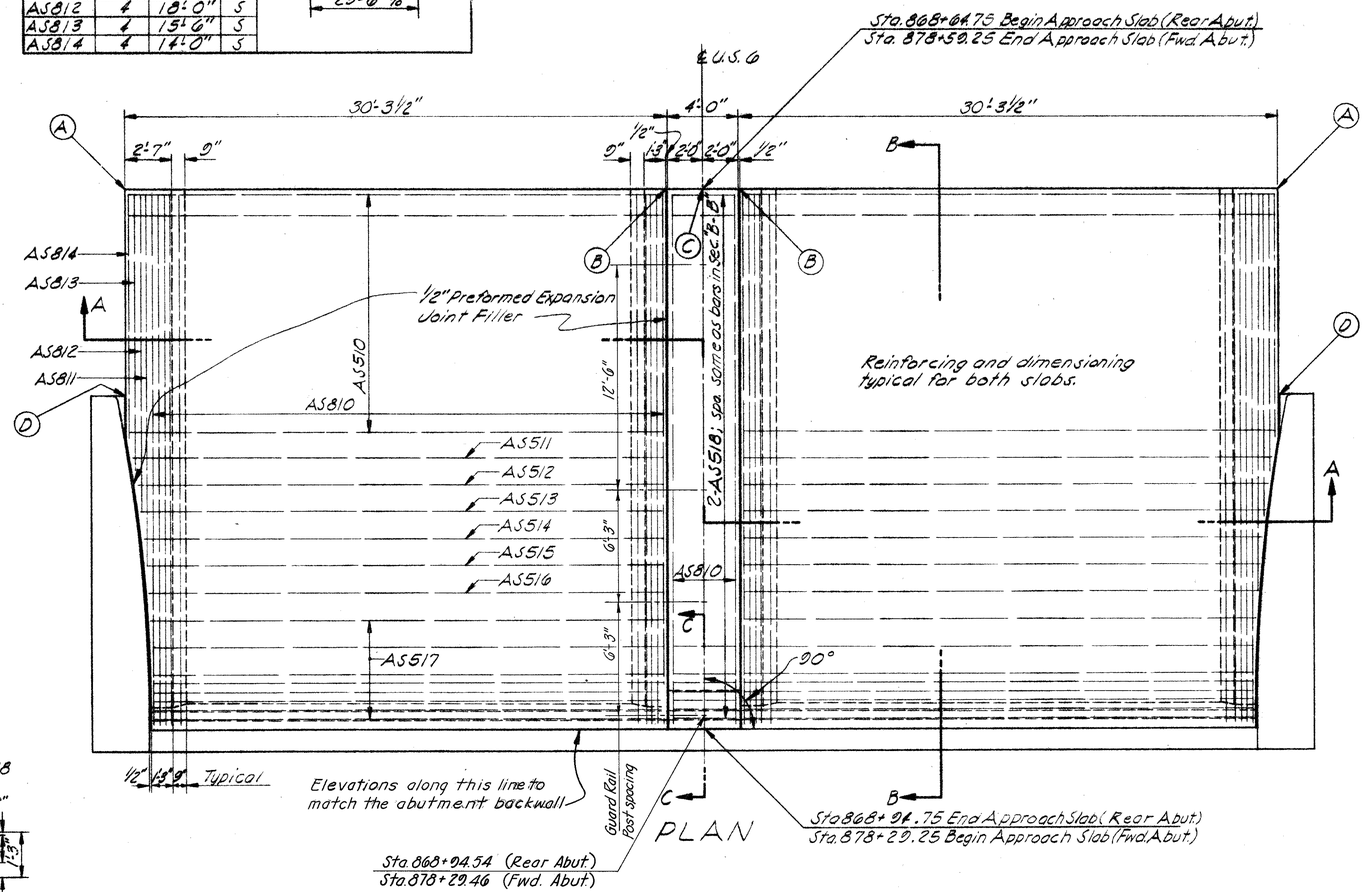
AS810 — 29'-6" c/c

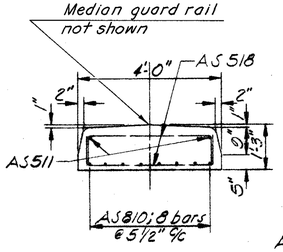
TABLE OF ELEVATIONS

Location of Approach Slab	Elevation Point Ⓐ	Ⓑ	Ⓒ	Ⓓ
Rear	670.11	670.58	671.41	670.23
Forward	669.90	670.37	671.20	670.02

NOTES

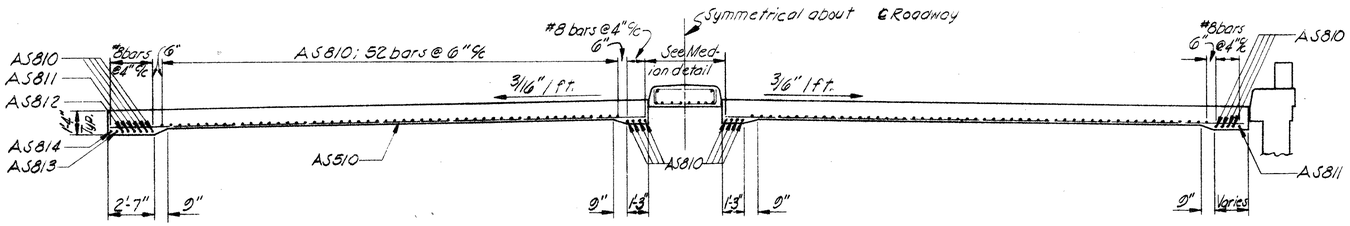
1. Reinforcing steel quantity shown is for approach slabs at both abutments.
2. For details and data not shown, see Standard Reinforced Concrete Approach Slabs, drawing number AS-1-54, revised 8-10-65
3. Median guard rail post details same as for bridge superstructure. See Superstructure Details for dimensions and other data.



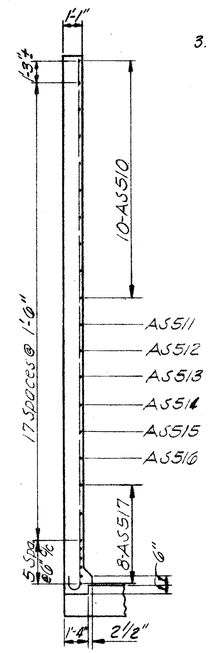


MEDIAN DETAIL

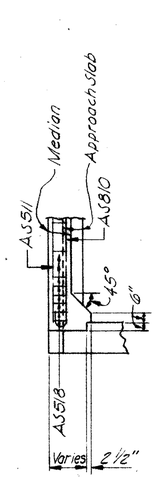
Note: Construct median after both approach slabs have been completed.



SECTION A-A



SECTION B-B



SECTION C-C

T. C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

APPROACH SLAB DETAILS

Bridge No. Hen-G-1679
Proposed US 6 over Maumee River

Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.V.R.	R.V.R.		J.M. J.G.O.	J.M.	10-13-65	

FED R.D. DIVISION	STATE	PROJECT	
2	OHIO		

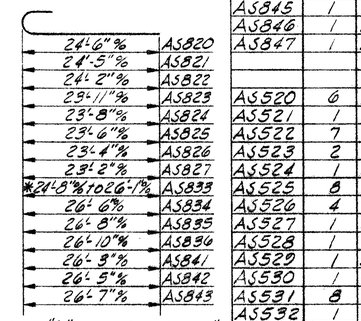
173
231

HENRY COUNTY
HEN-6-16.43

REINFORCING STEEL LIST

MARK	NO.	LENGTH	SHP	LOC
AS820	90	25'-7"	B	F&R
AS821	2	25'-6"	B	F&R
AS822	2	25'-3"	B	F&R
AS823	2	25'-0"	B	F&R
AS824	2	24'-9"	B	F&R
AS825	2	24'-7"	B	F&R
AS826	2	24'-5"	B	F&R
AS827	2	24'-3"	B	F&R
AS828	1	18'-0"	S	F
AS829	2	15'-9"	S	F&R
AS830	2	14'-0"	S	F&R
AS831	2	12'-9"	S	F&R
AS832	1	11'-6"	S	R
	2	25'-9"		
*AS833	Series of 7	27'-2" to 27'-7"	B	F&R
AS834	1	27'-7"	B	F
AS835	1	27'-9"	B	F
AS836	1	27'-11"	B	F
AS837	1	22'-9"	S	F
AS838	1	21'-0"	S	F
AS839	1	19'-6"	S	F
AS840	1	18'-6"	S	F
AS841	1	27'-4"	B	R

BENDING DIAGRAM



Note: "%" means "out to out".
* Vary by 2½" increments

MARK	NO.	LENGTH	SHP	LOC
AS842	1	27'-6"	B	R
AS843	1	27'-8"	B	R
AS844	1	21'-9"	S	R
AS845	1	20'-0"	S	R
AS846	1	18'-3"	S	R
AS847	1	17'-0"	S	R
AS520	6	32'-3"	S	R
AS521	1	32'-6"	S	R
AS522	7	33'-0"	S	F&R
AS523	2	33'-6"	S	F&R
AS524	1	34'-3"	S	R
AS525	8	35'-0"	S	R
AS526	4	6'-0"	S	F&R
AS527	1	30'-6"	S	R
AS528	1	34'-0"	S	F
AS529	1	34'-0"	S	F
AS530	1	35'-3"	S	F
AS531	8	35'-0"	S	F
AS532	1	31'-3"	S	F

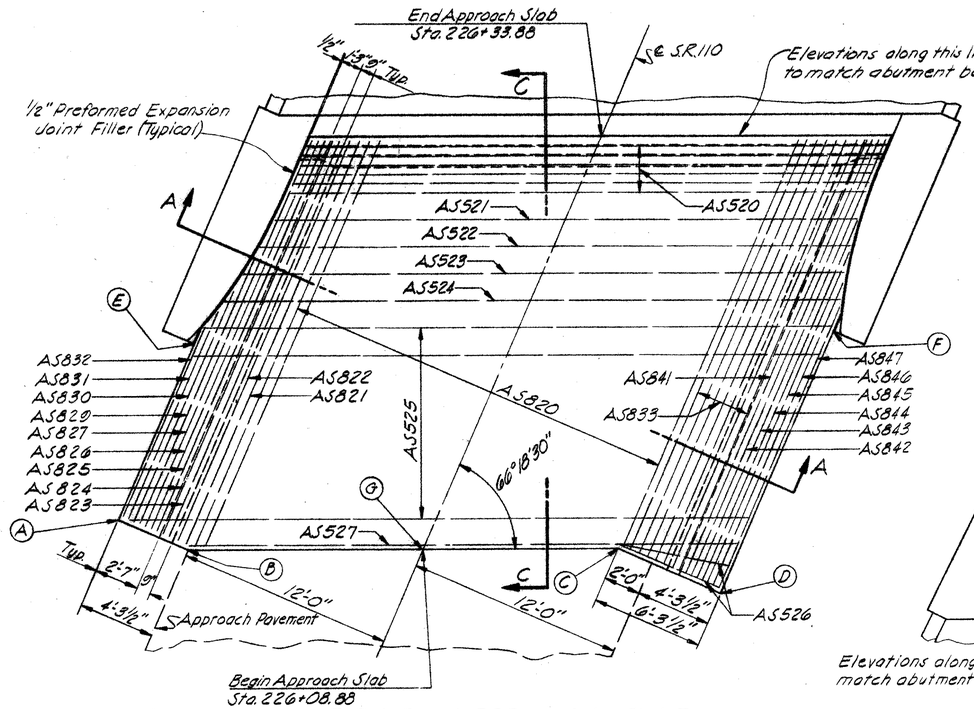
TABLE OF ELEVATIONS

Location of Approach Slab	Location Point Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ
Rear	685.36	685.31	685.18	685.08	685.48	685.20	685.31
Forward	685.85	685.65	684.86	684.72	685.27	654.81	* *

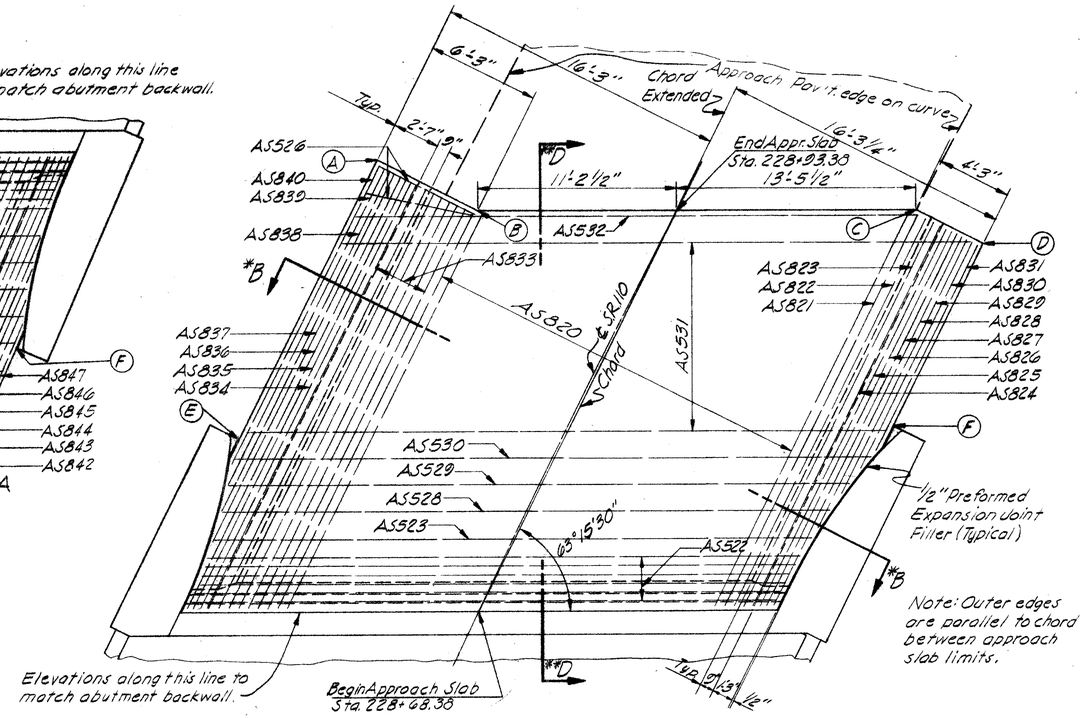
* * Elev. not required for slab of constant cross-slope

NOTES

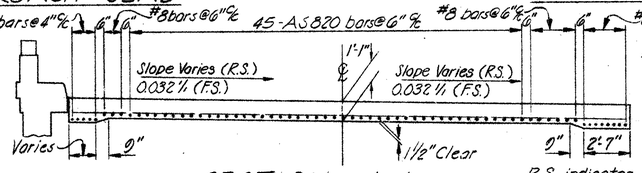
1. Reinforcing steel quantity shown is for two approach slabs.
2. In the reinforcing steel list, "F" and/or "R" indicate bars located in Forward or Rear Abutment approach slabs respectively.
3. For details and data not shown, see Standard Reinforced Concrete Approach Slabs, drawing number AS-1-54 revised 8-10-65



PLAN OF REAR APPROACH SLAB



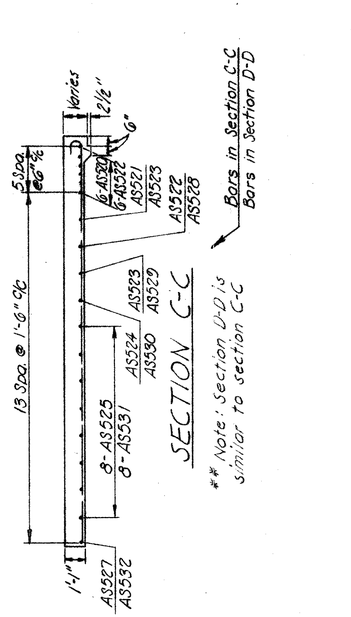
PLAN OF FORWARD APPROACH SLAB



*Note: Section B-B is similar to Section A-A

SECTION A-A

R.S. indicates Rear Approach Slab
F.S. indicates Forward Approach Slab



SECTION C-C

** Note: Section D-D is similar to section C-C

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

APPROACH SLAB DETAILS

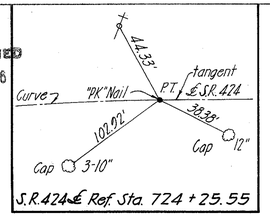
Bridge No. Hen-6-1707
Proposed U.S. 6 under SR. 110

Henry County

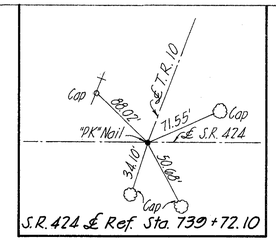
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.V.R.		JCO	J.M.	10-13-65	

8-2-65

MICROFILMED
APR 17 1996



S.R. 424 ℄ Ref. Sta. 724 + 25.55

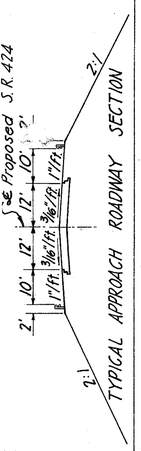


S.R. 424 ℄ Ref. Sta. 739 + 72.10

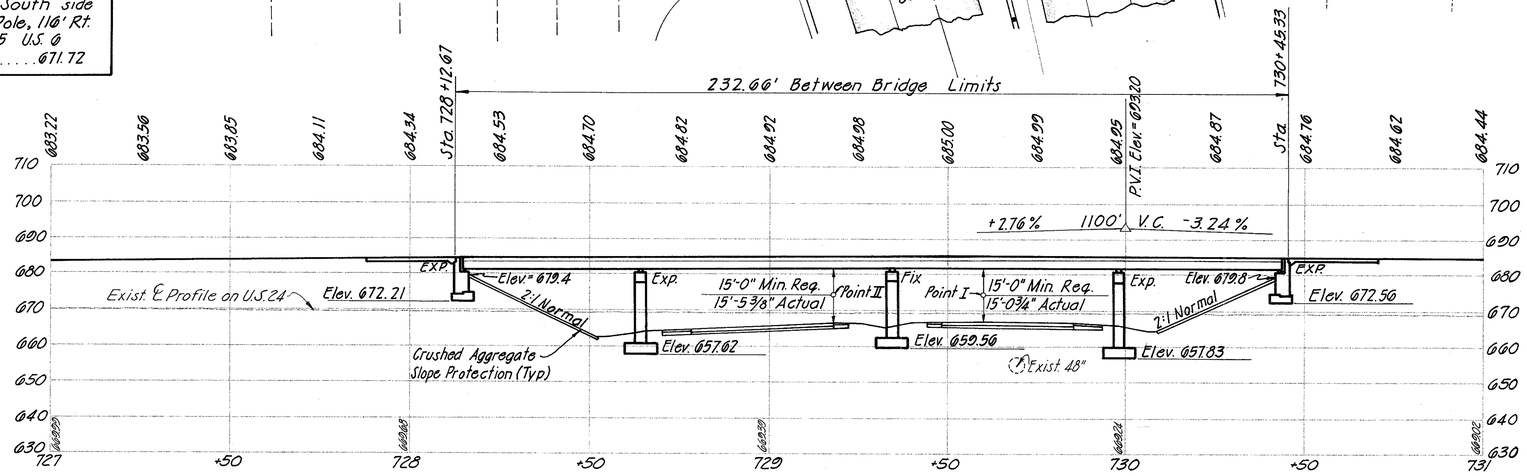
FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

174/731

HENRY COUNTY
HEN - 6 - 16.43
4.0± Miles East of Napoleon



BENCH MARK No. 68
RR Spike in South side of Telephone Pole, 116' Rt. of Sta. 862+05 U.S. 6
Elevation 671.72



PROFILE ON CENTERLINE SURVEY

B & C Vehicles
ADT = 200 (1985)

PROPOSED STRUCTURE

TYPE: Continous Steel Beam with Reinforced Concrete Deck and Substructures
SPANS: 49'-0"; 70'-0"; 64'-0"; 45'-0"
ROADWAY: 30'-0" f/f 2'-0" Safety Curbs
LOAD FREQUENCY: CF-400 (57)
SKEW: 15°-00' R.F.; ALIGNMENT: Tangent
WEARING SURFACE: 1" Mono. Conc.
APPROACH SLABS: Special Design (25'-0" long)
SUPERELEVATION: None

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

SITE PLAN

BRIDGE NO. HEN-6-1067
U.S. 6 Under S.R. 424

HENRY COUNTY Sta. 862+75.70

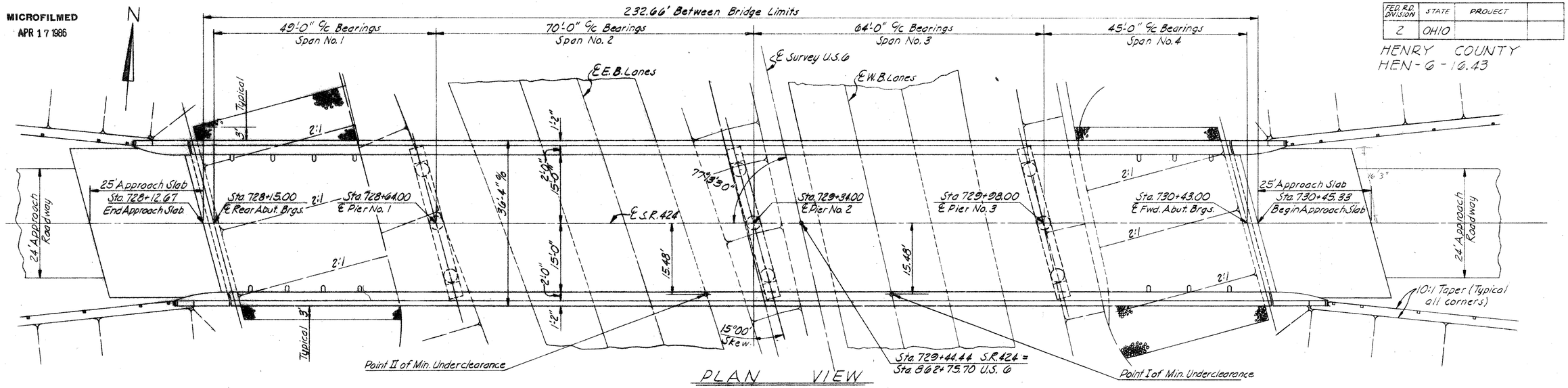
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.V.R. J.M.	J.C.O.	J.M.	10/20/95	

MICROFILMED
APR 17 1986

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

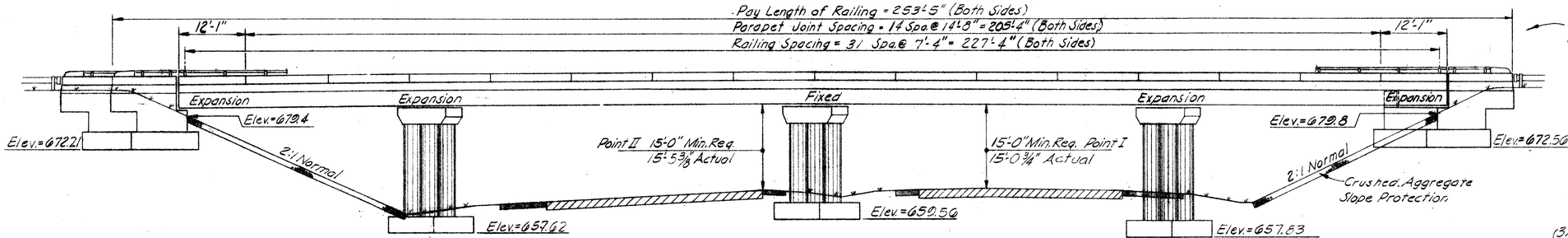
175
231

HENRY COUNTY
HEN-6-16.43



PLAN VIEW

Pay Length of Railing = 253'-5" (Both Sides)
Parapet Joint Spacing = 14 Spa. @ 14'-8" = 205'-4" (Both Sides)
Railing Spacing = 31 Spa. @ 7'-4" = 227'-4" (Both Sides)



ELEVATION

For additional details, see Corner Detail, this sheet.

GENERAL

REFERENCE shall be made to standard drawings BR-1-65, sheet 1, revised 11-24-65; FSB-1-62, revised 1-15-63; SD-1-65, Sheets 1, 2 & 3, dated 11-8-65; and to supplemental specifications 808, dated 7-14-65; 811, dated 3-29-65; 825, dated 4-22-65; 828, dated 7-21-65

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

DESIGN LOADING: CF-400 (57)

BASIC UNIT STRESSES:

Concrete Class "C" ..... 1,333 psi
Concrete Class "E" ..... 1,133 psi
Structural Steel, ASTM A-36 ..... 20,000 psi

Reinforcing Steel, ASTM A-15; A-16, A-160
Deformed, Intermediate or Hard Grade ..... 20,000 psi
Except spiral reinforcement may be
plain Structural Grade ..... 18,000 psi

EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments

NOTES

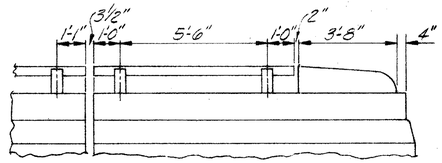
APPROACH EMBANKMENT PLACEMENT PROCEDURE: The embankment shall be placed and compacted to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments after which excavation shall be made for the abutments.

FOUNDATION BEARING PRESSURE: The pier footings are designed for a maximum bearing pressure of 2.5 tons per sq. ft and the abutment footings are designed for 2.0 tons per sq. ft.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abuts.	Piers	Superstr.	General		
503	474	Cu. Yd.	Unclassified excavation	235	239				
509	104,350	Lbs.	Reinforcing steel	7,780	26,370	70,217			
511	261	Cu. Yd.	Class "C" concrete, superstructure			261			
511	73	Cu. Yd.	Class "C" concrete, piers above footing		73				
511	76	Cu. Yd.	Class "E" concrete, pier footings		76				
511	155	Cu. Yd.	Class "E" concrete, abutments	155					
513	201,200	Lbs.	Structural steel			201,200			
514	201,200	Lbs.	Field painting of structural steel			201,200			
517	506.83	Lin. Ft.	Railing, Type 1	47.83		459.00			
518	14	Ea.	Scuppers, including supports			14			
518	32	Cu. Yd.	Porous backfill	32					
518	60	Lin. Ft.	6" perforated, helical c.m.p. including specials, 707.06	60					
518	72	Lin. Ft.	6" non-perforated helical c.m.p. 707.06	72					
601	386	Sq. Yd.	Crushed aggregate slope protection				386		
808	261	Ea.	Water-reducing, set-retarding admixture			261			
825	1,080	Sq. Yd.	Concrete surface treatment	43		1,037			
828	63	Lin. Ft.	Joint sealer			63			



CORNER DETAIL

Note: Railing dimensions are typical for all corners.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

GENERAL PLAN and ELEVATION, GENERAL NOTES & EST. QUANTITIES

Bridge No. Hen-6-1667
U.S. 6 under S.R. 424
Henry County Sta 862+75.70

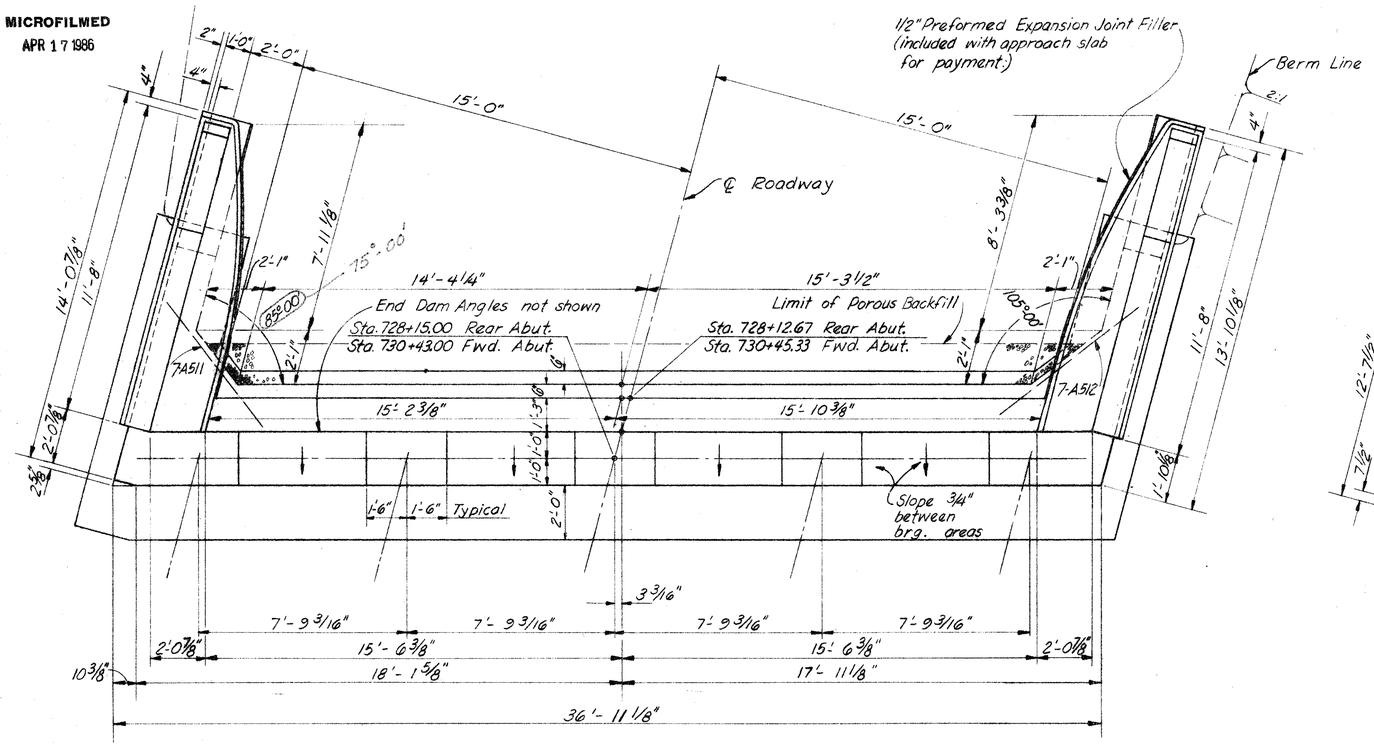
DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JCO	R.v.R.		J.M.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

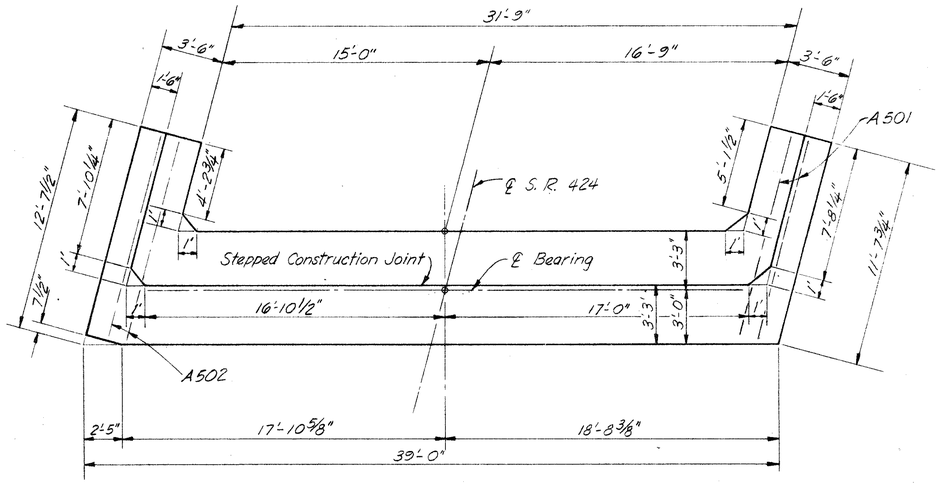
FED. RD. DIV.	STATE	PROJECT	
2	OHIO		

176
231

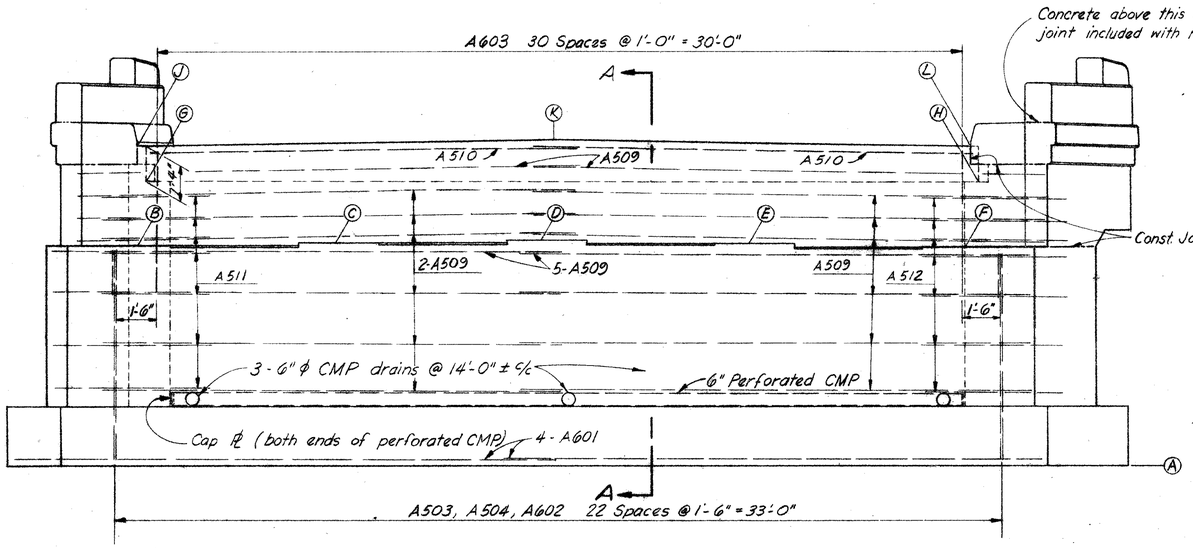
HENRY COUNTY
HEN-6-16.43



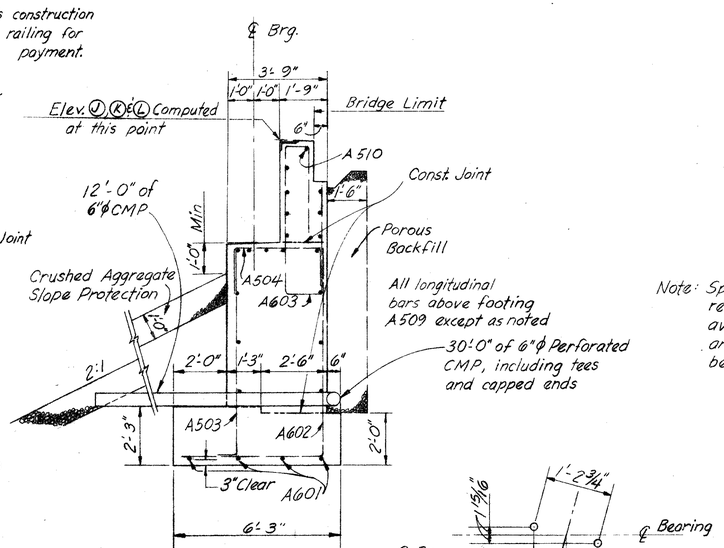
PLAN



FOOTING PLAN



ELEVATION



SECTION A-A

ANCHOR BOLT LAYOUT

TABLE OF ELEVATIONS		
LOC.	REAR ABUT.	FWD. ABUT.
A	672.21	672.56
B	680.42	680.75
C	680.52	680.86
D	680.62	680.97
E	680.49	680.84
F	680.36	680.71
G	682.91	683.24
H	682.84	683.20
J	684.25	684.58
K	684.45	684.79
L	684.19	684.54

Note: Special care shall be taken when placing reinforcing steel in bearing areas to avoid interference with the drilling of anchor rod holes. Set anchor rods before end cross frames.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

ABUTMENT DETAILS
Bridge No. Hen-6-1667
U.S. 6 Under S.R. 424

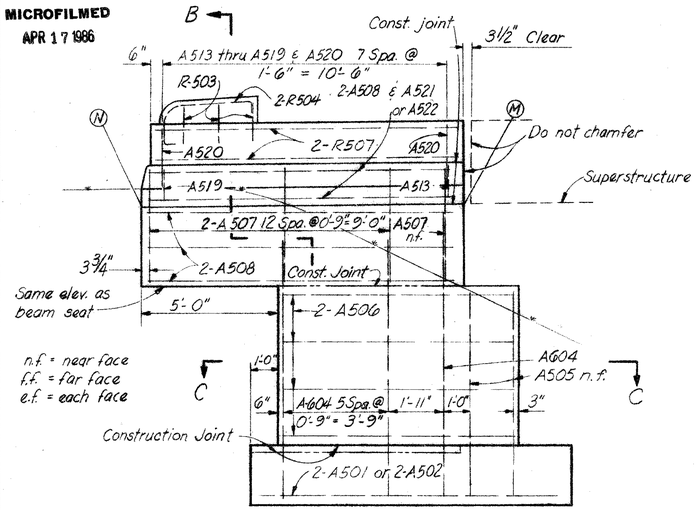
Henry County Sta. 862+75.70

DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JCO	JCO		J.M.	J.M.	10-20-65	5-24-66

MICROFILMED
APR 17 1986

FED. RD. DIV.	STATE	PROJECT		177 / 231
2	OHIO			

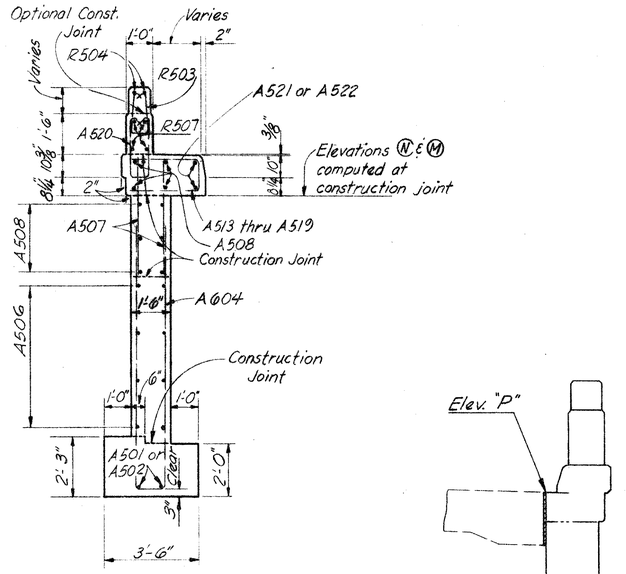
HENRY COUNTY
HEN-6-16.43



B

TYPICAL WINGWALL ELEVATION

Note: Aluminum railing not shown. For details of the railing and the parapet end post see Std. Dwg. BR-1-65, sht. no. 1 and General Plan and Elevation, Sht. no. 175

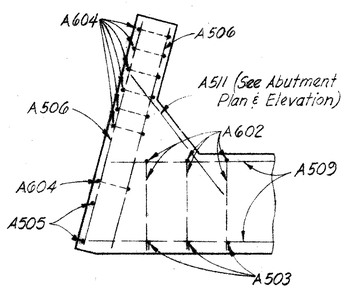


SECTION B-B

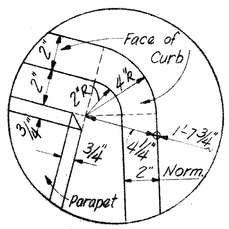
VIEW E-E

TABLE OF ELEVATIONS				
ABUT'T	WING'L	M	N	P
REAR	Left	683.50	683.36	684.06
	Right	683.57	683.44	684.14
FWD.	Left	683.89	683.80	684.50
	Right	683.85	683.75	684.45

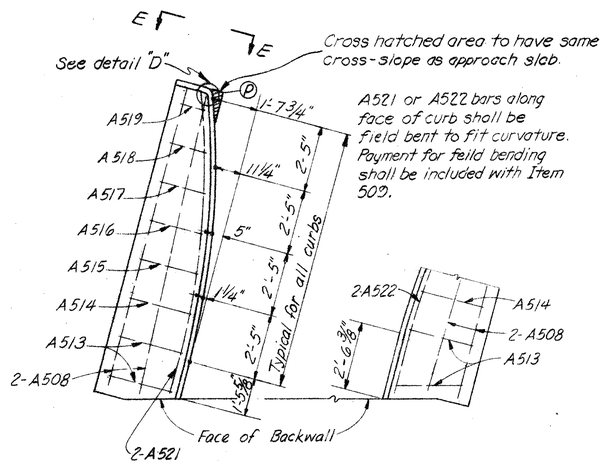
"Left" & "Right" looking up-station



SECTION C-C



DETAIL "D"

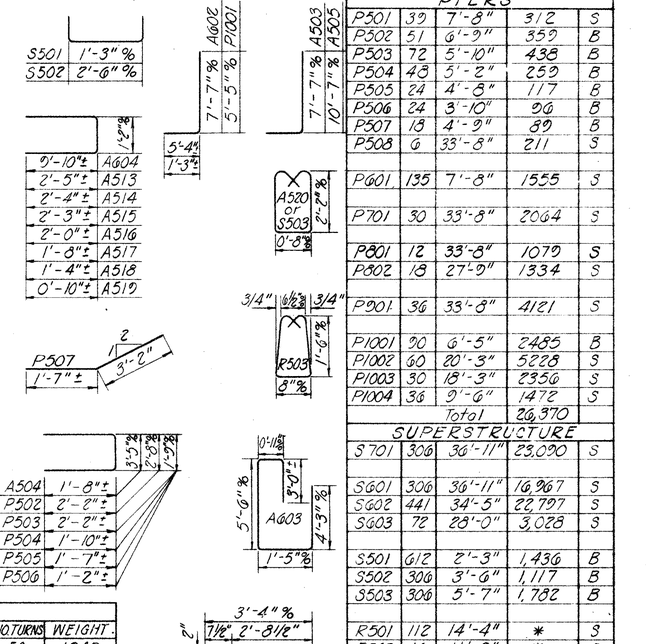


SIDEWALK PLAN

REINFORCING STEEL LIST

MARK	NO	LENGTH	WEIGHT	SHP
ABUTMENTS				
A501	4	11'-4"	47	S
A502	4	11'-8"	49	S
A503	46	8'-1"	388	B
A504	46	6'-6"	312	B
A505	8	7'-9"	65	S
A506	32	8'-6"	284	S
A507	108	4'-0"	451	S
A508	40	11'-6"	480	S
A509	72	19'-1"	1433	S
A510	4	16'-2"	67	S
A511	14	5'-9"	84	S
A512	14	6'-6"	95	S
A513	8	5'-9"	48	B
A514	4	5'-7"	23	B
A515	4	5'-5"	23	B
A516	4	4'-11"	21	B
A517	4	4'-3"	18	B
A518	4	3'-7"	15	B
A519	4	2'-7"	11	B
A520	32	5'-7"	186	B
A521	4	11'-0"	46	S
A522	4	12'-0"	50	S
A601	16	20'-3"	487	S
A602	46	12'-9"	881	B
A603	62	14'-5"	1343	B
A604	28	20'-6"	862	B
R503	12	4'-2"	*	B
R504	8	5'-4"	*	B
R505	16	11'-4"	*	S
		Total	7,769	

BENDING DIAGRAMS



SPIRAL BARS

MARK	NO.	SPIRAL PER PIER	LENGTH	PITCH	NO. TURNS	WEIGHT
SP401	6	32"	17'-6"	4½"	50	1942
SP402	3	32"	15'-6"	4½"	44	853
		Total (Included with Piers)				2795

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.

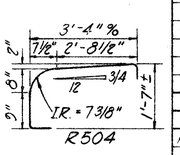
The "No. of Turns" shown is the "Length" divided by the pitch, plus 3 turns (total number of closed coils), expressed as the nearest whole number. Spiral reinforcing bars shall not have deformations but shall in other respects conform to Item 509. 1½ closed coils shall be provided at the ends of each spiral unit.

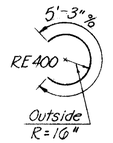
Four steel channel, tee or angle spacers, weighing approximately 0.68 lb. per lin. ft. of spacer, shall be provided for each spiral unit. They shall be equally spaced along the periphery of the coil. The No. of pounds of these spacers, based on 0.68 lb. per lin. ft., will be paid for as reinforcing steel and is included in the tabulated quantity of spiral bars.

BAR SIZE

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, A700 is a No. 7 size bar and A1014 is a No. 10 size.

MARK	NO	LENGTH	WEIGHT	SHP
PIERS				
P501	39	7'-8"	312	S
P502	51	6'-9"	359	B
P503	72	5'-10"	438	B
P504	48	5'-2"	259	B
P505	24	4'-8"	117	B
P506	24	3'-10"	96	B
P507	18	4'-9"	89	B
P508	6	33'-8"	211	S
P601	135	7'-8"	1555	S
P701	30	33'-8"	2064	S
P801	12	33'-8"	1079	S
P802	18	27'-0"	1334	S
P901	36	33'-8"	4121	S
P1001	30	6'-5"	2485	B
P1002	60	20'-3"	5228	S
P1003	30	18'-3"	2356	S
P1004	36	9'-6"	1472	S
Total			26,370	
SUPERSTRUCTURE				
S701	306	36'-11"	23,090	S
SG01	306	36'-11"	16,967	S
SG02	441	34'-5"	22,797	S
SG03	72	28'-0"	3,028	S
S501	612	2'-3"	1,436	B
S502	306	3'-6"	1,117	B
S503	306	5'-7"	1,782	B
R501	112	14'-4"	*	S
R502	16	11'-9"	*	S
Total			70,217	
Grand Total			104,356	
REPLACEMENT BARS				
RE1000	1	7'-2"	——	S
RE900	1	6'10"	——	S
RE800	1	6'-6"	——	S
RE700	2	6'-2"	——	S
RE600	3	5'-11"	——	S
RE500	1	5'-7"	——	S
RE400	1	5'-3"	——	B





* Included with railing for payment.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

ABUTMENT DETAILS and REINFORCING STEEL LIST

Bridge No. HEN-6-1667
U.S. 6 over S.R. 424
Henry County Sta. 862+75.70

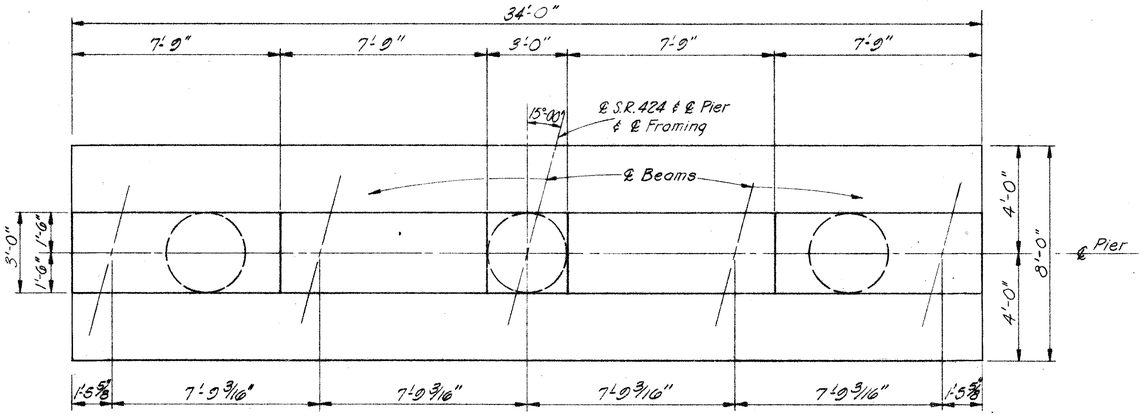
DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JCO	JCO R.W.F.		J.M.	J.M.	10-20-65	11-4-65 J.C.O.

MICROFILMED
APR 17 1986

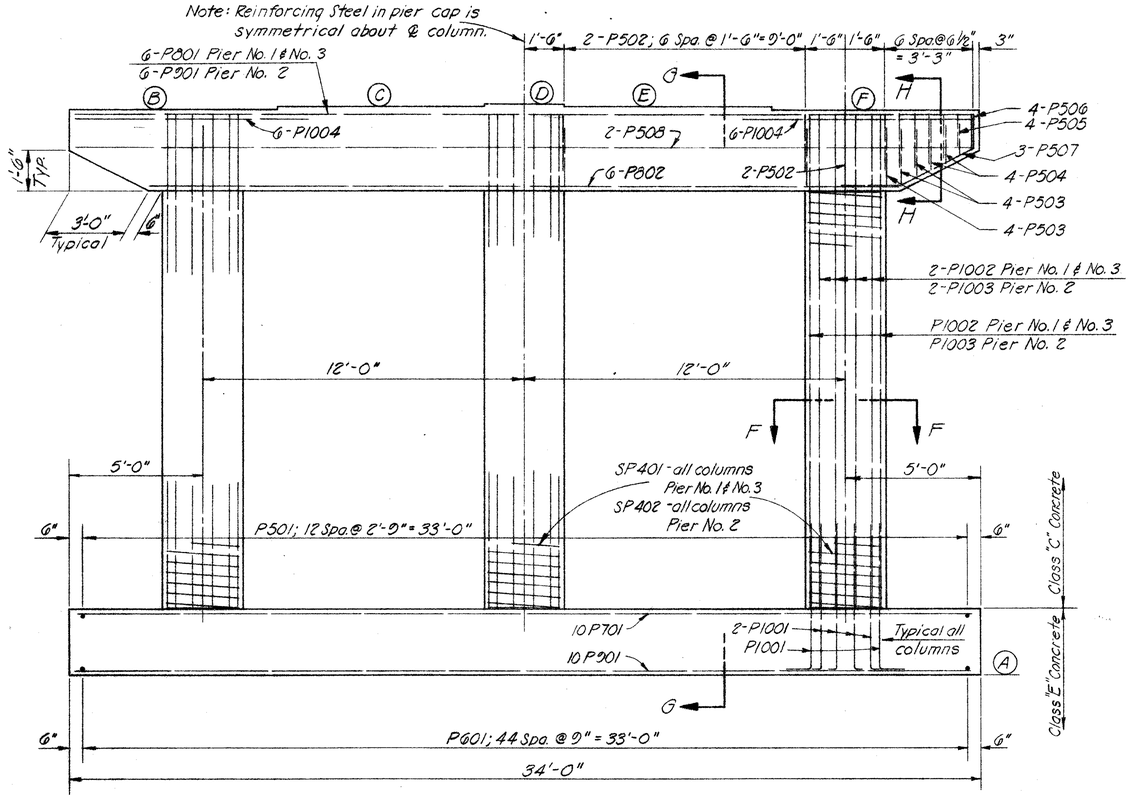
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

178
231

HENRY COUNTY
HEN-6-16.43



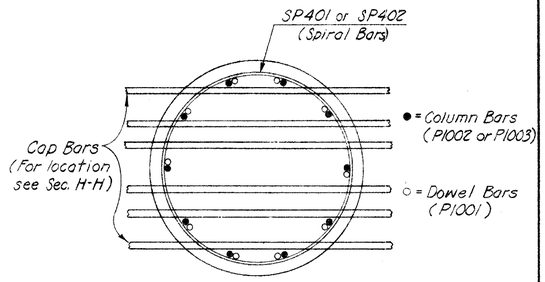
PLAN



ELEVATION

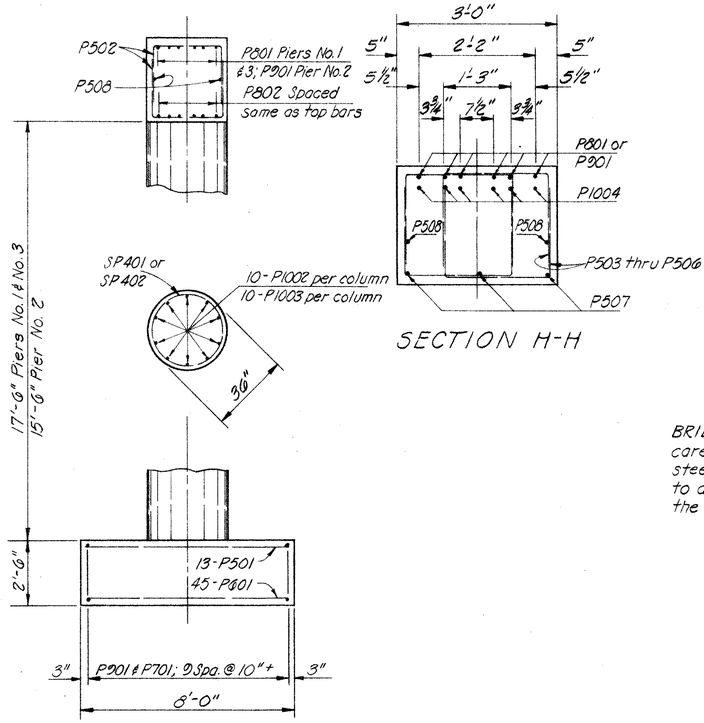
TABLE OF ELEVATIONS

Location of Pier	Elevation Point Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ
No. 1	657.62	680.62	680.75	680.88	680.77	680.66
No. 2	659.56	680.56	680.68	680.80	680.69	680.56
No. 3	657.83	680.85	680.96	681.07	680.95	680.83



COLUMN BAR PLACEMENT DETAIL

Special care shall be taken in placing the column dowels (P1001) in such a location that there will be no interference between the column and cap steel.



SECTION F-F & SECTION G-G

SECTION H-H

BRIDGE SEAT REINFORCING: Special care shall be taken in placing the reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of the anchor bar holes.

T. C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

PIER DETAILS

Bridge No. Hen-6-1667
U.S. 6 under S.R. 424
Henry County Sta. 862+75.70

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
UCO	RVR RWF		J.M.	J.M.	10-20-65	11-4-65 JC.O.

MICROFILMED
APR 17 1986

FED. RD. DIV.	STATE	PROJECT	
2	OHIO		

179
231

HENRY COUNTY
HEN-6-16.43

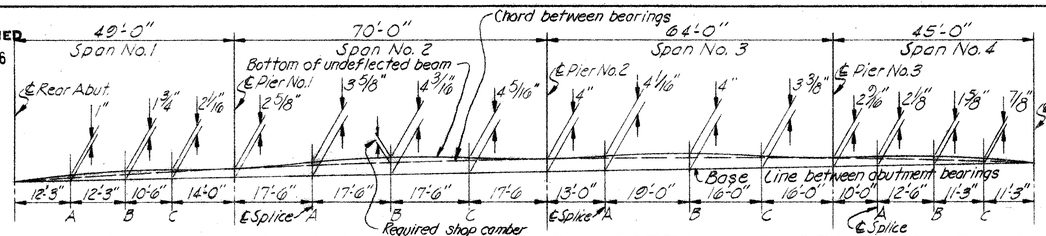


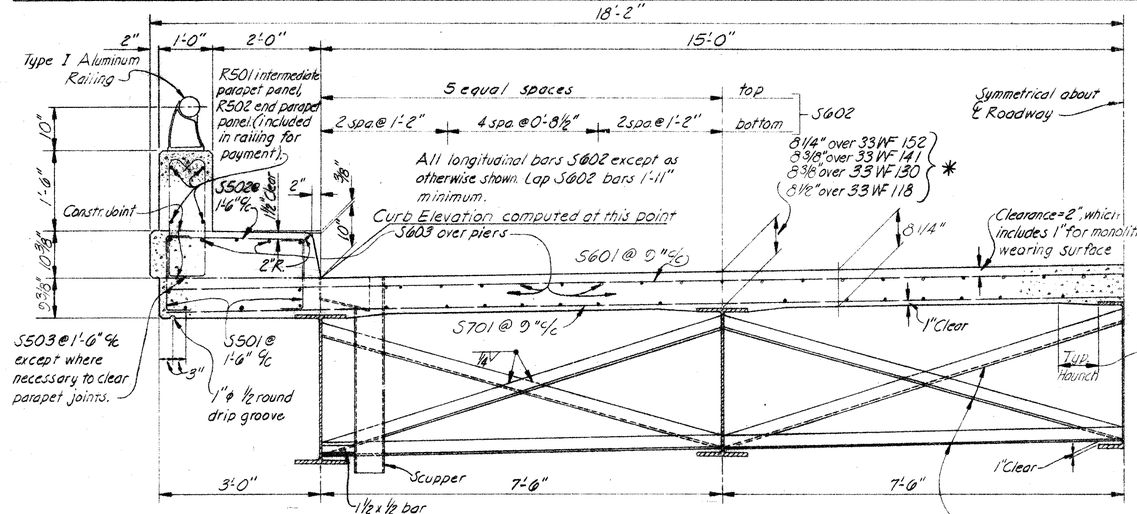
DIAGRAM SHOWING VERTICAL OFFSETS FROM BOTTOM OF BEAM TO BASE LINE

Note: At splice points the offsets are given to the deeper beam (33WF152)

DEFLECTION AND CAMBER

LOCATION	SPAN NO.1			SPAN NO.2			SPAN NO.3			SPAN NO.4		
	A	B	C	A	B	C	A	B	C	A	B	C
Deflection due to weight of Steel.	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0
Deflection due to remaining dead load.	1/8	1/8	1/16	1/4	7/16	1/4	1/8	1/4	1/8	1/16	1/8	1/16
Adjustment required for Vertical Curve.	1/8	3/16	1/8	5/16	3/8	5/16	1/4	5/16	1/4	1/8	3/16	1/8
Required Shop Camber	1/4	5/16	3/16	5/8	7/8	5/8	7/16	5/8	7/16	3/16	5/16	3/16

REFERENCE TO STANDARD DRAWINGS shall be made for the following items: SD-1-65, dated 11-8-65 sht. no. 1, End Crossframes and End Dams, sht. no. 2, Scuppers, Curb Plates and Moment Plates, sht. no 3, Splices; BR-1-65 revised 11-24-65 sht. no.1, Railing; FSB-1-62 revised 1-15-63 Bearings.



HALF TRANSVERSE SECTION

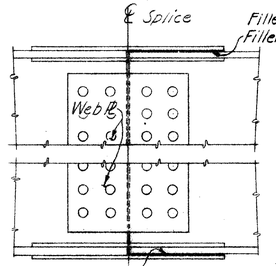
SLAB THICKNESS shown includes 1" for monolithic wearing surface.

TRANSVERSE SLAB BARS (S701 & S601) shall be placed parallel to the substructure units.

* These are the nominal dimensions. The quantity of deck concrete to be paid for shall be based upon these dimensions, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.19 of the Construction and Material Specifications.

A typical haunch width of 9" shall be used for quantity computation. However, the haunch width may vary between 6" & 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

Intermediate crossframe angles 3"x3"x5/16". Weld both sides of vertical leg and top side of horizontal leg to beam with 1/4" continuous fillet weld.



Note: For details and data not shown see Bolted Beam Splice Details for 33WF118, 33WF130 and 33WF141 as shown on Std. Dwg. SD-1-65

FILLER PLATE DETAIL AT BEAM SPLICE

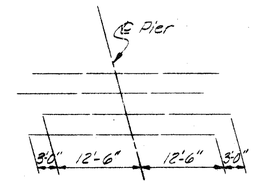
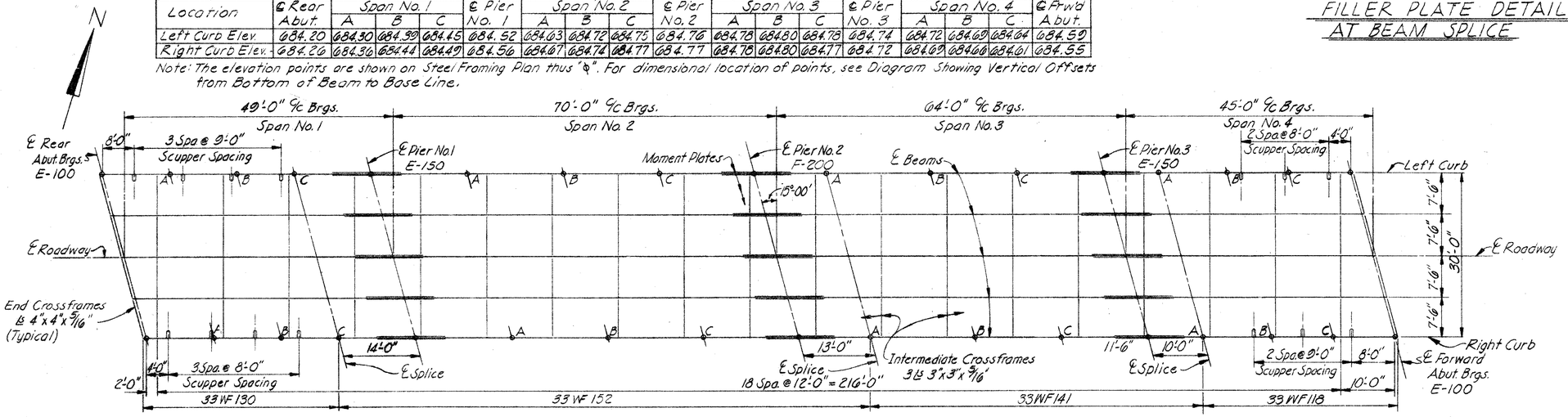


DIAGRAM SHOWING STAGGER OF S6C3 BARS OVER PIERS

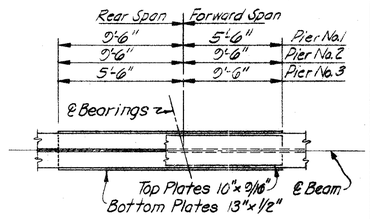
CURB ELEVATIONS BEFORE PLACEMENT OF SUPERSTRUCTURE CONCRETE

Location	℄ Rear Abut.	Span No. 1			℄ Pier No. 1	Span No. 2			℄ Pier No. 2	Span No. 3			℄ Pier No. 3	Span No. 4			℄ Frwd Abut.
		A	B	C		A	B	C		A	B	C		A	B	C	
Left Curb Elev.	684.20	684.30	684.39	684.45	684.52	684.63	684.72	684.75	684.76	684.78	684.80	684.78	684.74	684.72	684.69	684.64	684.59
Right Curb Elev.	684.26	684.36	684.44	684.49	684.56	684.67	684.74	684.77	684.77	684.78	684.80	684.77	684.72	684.69	684.66	684.61	684.55

Note: The elevation points are shown on Steel Framing Plan thus "℄". For dimensional location of points, see Diagram Showing Vertical Offsets from Bottom of Beam to Base Line.



STEEL FRAMING PLAN



MOMENT PLATE DETAIL

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
Bridge No. Hen-6-1667
U.S. 6 under S.R. 424
Henry County Sta. 862+75.70

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.C.O	R.V.R.		J.M.	J.M.	10-20-65	

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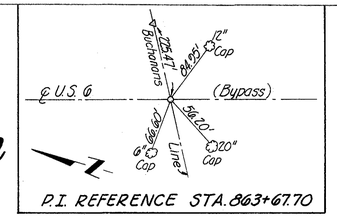
APR 17 1968

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

180
231

HENRY COUNTY
HEN-6-16.43
4.0± Miles East of Napoleon

Maumee River



BENCH MARK NO. 70
R.R. Spike in West side of 23" Elm
Sta 864+20, 2 feet Rt. of ℄ Survey
Elevation = 649.83

934.50' Between Bridge Limits

P.I. 873+50
Elev. 674.82

All piles 12 BP 53, estimated average paylengths as indicated by ▭

PROFILE ON CENTERLINE OF SURVEY

UPSTREAM BRIDGE
(3.2 Miles from Proposed Site)

DETROIT, TOLEDO AND IRONTON RAILROAD BRIDGE: NO. M-6.42
TYPE: Four Span Steel Truss
SPANS: 4 @ 160'-0"

DOWNSTREAM BRIDGE
(1.4 Miles from Proposed Site)

DETROIT, TOLEDO AND IRONTON RAILROAD BRIDGE: No. 84.27
TYPE: Nine Span steel girder with concrete deck and substructure
SPANS: 101'-3", 7@102'-6", 103'-3"

PROPOSED STRUCTURE

TYPE: Six Span Semi-Continuous Haunched Steel Girder with Reinforced Concrete Deck & Sub-Structures.
SPANS: 127'-0", 4@169'-0", 127'-0" = 930'-0"
ROADWAY: 62'-0" f/f 2'-0" Safety Curbs with 4'-0" Raised Median
LOAD FREQUENCY: CF-2000 (57)
SKEW: None, ALIGNMENT: Tangent
WEARING SURFACE: 1" Mono. Concrete
APPROACH SLABS: Special Design (30'-0" Long)

DRAINAGE AREA = 5680 Sq. Miles

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

SITE PLAN

Bridge No. HEN-6-16.79
U.S. 6 over the Maumee River
Henry County
Sta. 868+94.75 to Sta. 873+62.00

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	C.V.R. R.W.F.	J.C.O.	J.M.	12-15-65	

MICROFILMED
APR 17 1986

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

181
231

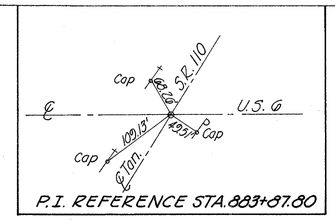
HENRY COUNTY
HEN-6-16.43
4.0± Miles East of Napoleon

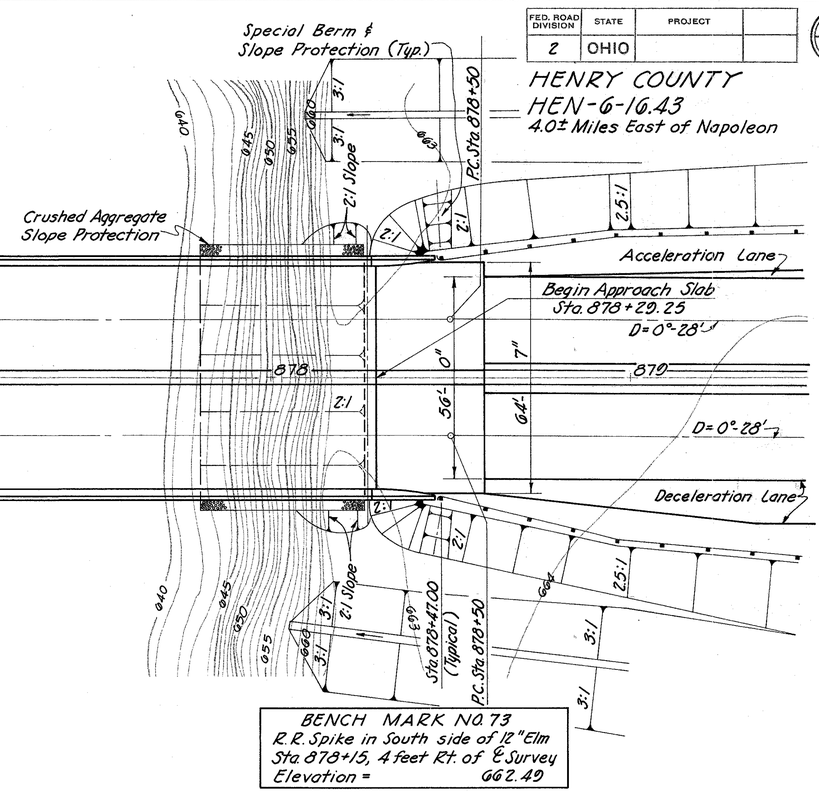
Maumee River

Sta. 873+62

Match Line and ℄ Pier No. 3

Safety Curb
Raised Median
Safety Curb
℄ Westbound Lanes
℄ Survey U.S. 6
℄ Eastbound Lanes
Expansion Joint
874 875 876 877 878 879





BENCH MARK NO. 73
R.R. Spike in South side of 12" Elm
Sta. 878+15, 4 feet Rt. of ℄ Survey
Elevation = 662.49

934.50' Between Bridge Limits

42'-0"

P.I. 873+50 Elev. = 674.82

673.06 673.05 673.03 673.00 672.95 672.89 672.81 672.72 672.62 672.50 672.37 672.23 672.07 671.90 671.71 671.51 671.30 P.T. 670.86 670.42 669.98 669.54

878+29.25

+0.88% 800' V.C. -0.88%

Fix. Exp. Fix. Exp.

3.04' Min. Clearance

1950 H.W. Elev. = 652.7 (50 year freq.)

Design H.W. Elev. = 658.0

Elev. = 661.7

Elev. = 655.71

Crushed Aggregate Slope Protection 1:1 Normal

N.W. Elev. = 640.5±

Exist. Profile on ℄ Survey

Elev. = 626.45 Elev. = 626.09 Elev. = 625.10

680 670 660 650 640 630 620 610 600

+50 +85 632.3 +90 632.2 874 +15 631.8 +40 630.8 +50 +85 630.6 +90 630.6 875 +15 630.6 +40 630.7 +50 +85 630.8 +90 630.9 876 +15 629.4 +40 629.2 +50 +85 629.5 +90 629.9 877 +15 628.0 +30 628.3 +40 634.4 +50 +85 637.8 +90 638.3 +90 643.7 878 +12 655.1 +20 660.2 +50 879 +50

48' 26' 25' 30'

All piles 12 BP 53, estimated overage paylengths as indicated by ☐

PROFILE ON CENTERLINE OF SURVEY

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

SITE PLAN
Bridge No. HEN-6-1679
U.S. 6 over the Maumee River
Sta. 873+62.00
Henry County to Sta. 878+29.25

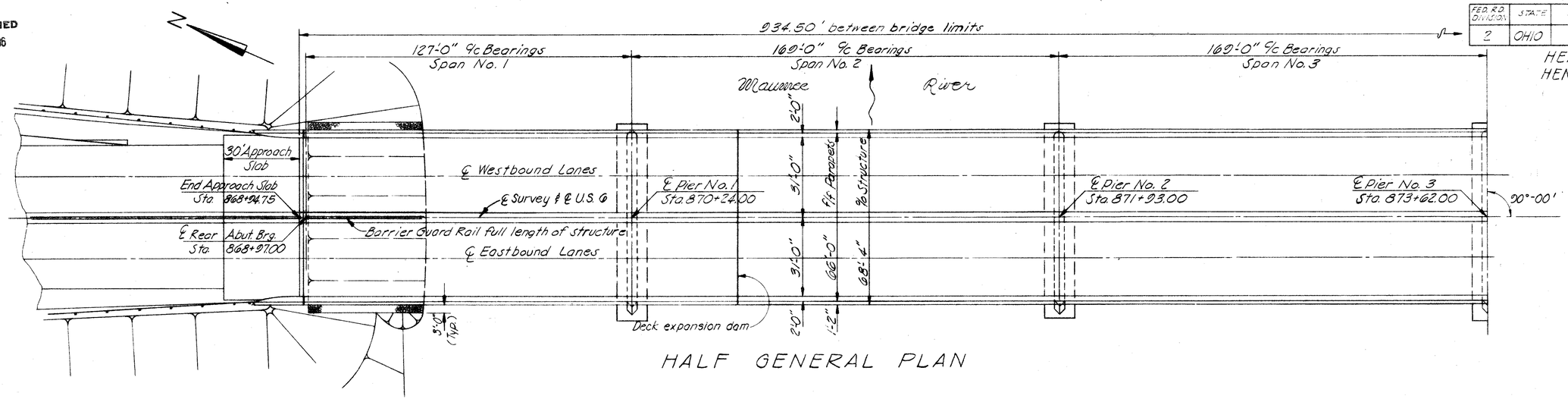
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.V.E. R.W.F	J.C.O.	J.M.	12-15-65	

MICROFILMED
APR 17 1986

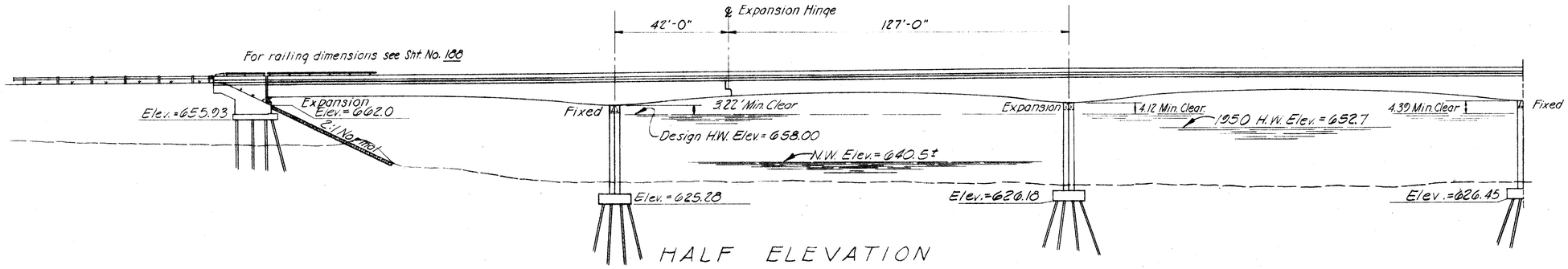
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

182
231

HENRY COUNTY
HEN-6-16.43



HALF GENERAL PLAN



HALF ELEVATION

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPRST.	GENERAL
503	1,642	Cu.Yd.	Unclassified Excavation	372	1,270		
503	Lump	Sum	Cofferdams, Cribs and Sheetings				Lump
505	Lump	Sum	First Test Pile				Lump
507	14,852	Lin.Ft.	Steel piles 12 BP53	2,040	11,012		
509	626,053	Lbs.	Reinforcing Steel	22,285	78,269	525,499	
511	2,096	Cu.Yd.	Class "C" concrete, Superstructure			2,096	
511	1,723	Cu.Yd.	Class "C" concrete, Piers above footings		1,723		
511	667	Cu.Yd.	Class "E" concrete, pier footings		667		
511	299	Cu.Yd.	Class "E" concrete, abutments	299			
512	22	Lin.Ft.	Premolded sealing strip	22			
513	3,358,000	Lbs.	Structural steel			3,358,000	
514	3,358,000	Lbs.	Field painting of structural steel			3,358,000	
517	1,942.0	Lin.Ft.	Railing, Type 1	78.67		1,063.33	
517	934.5	Lin.Ft.	Double faced, deep beam rail with steel posts & bolts			934.50	
518	112	Each	Scuppers, including supports			112	
518	74	Cu.Yd.	Porous backfill	74			
518	122	Lin.Ft.	6" perforated, helical C.M.P. including specials, 707.06	122			
518	96	Lin.Ft.	6" non-perforated helical C.M.P. 707.06	96			
601	789	Sq.Yd.	Crushed aggregate slope protection				789
808	2,096	Each	Water-reducing, set-retarding admixture			2,096	
825	7,732	Sq.Yd.	Concrete surface treatment	76		7,656	
828	232	Lin.Ft.	Joint Sealer			232	
506	Lump	Sum	First pile test load				Lump
506	1	Each	Subsequent pile test load				1

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

GENERAL PLAN & ELEVATION
ESTIMATED QUANTITIES
Bridge No. Hen-6-16.79
U.S.6 over Maumee River
Sta. 868+94.75 to Sta. 873+62.00
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.W.F. R.V.R.		J.C.O.	J.M.	12-15-65	

6808-A

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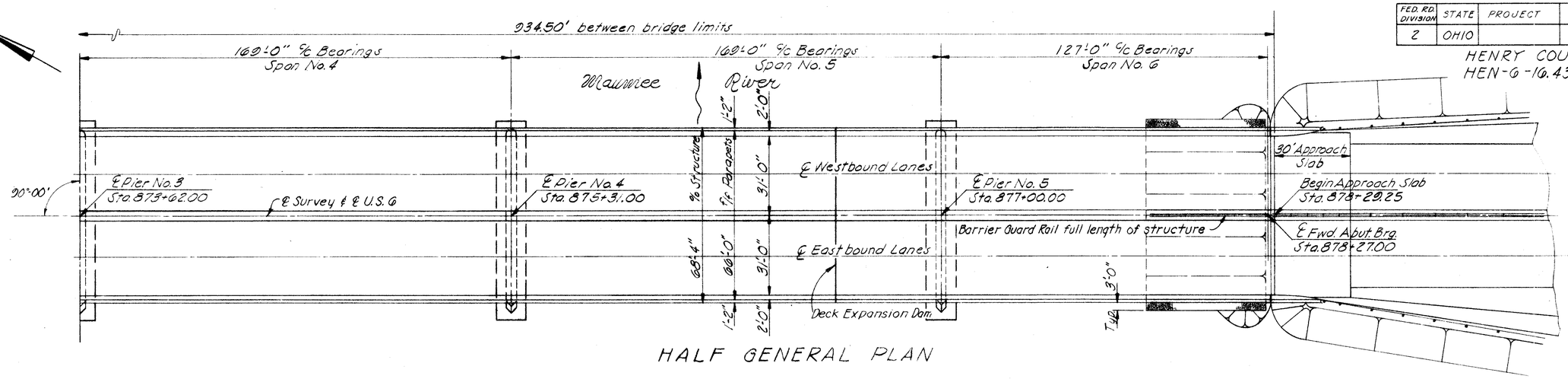
APR 17 1986

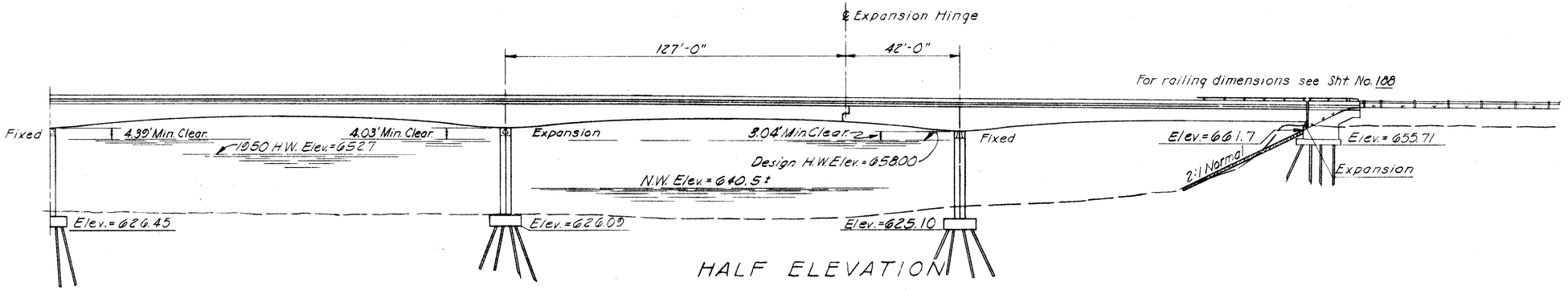
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

183
231

HENRY COUNTY
HEN-6-16.43



HALF GENERAL PLAN



HALF ELEVATION

GENERAL NOTES

REFERENCE shall be made to standard drawings BR-1-65, sheet 1, revised 11-24-65; RB-1-155 revised 2-2-59, SD-1-65, sheets 1, 2 & 3, dated 11-8-65; and to supplemental specifications 808, dated 7-14-65; 811 dated 3-29-65; 825, dated 4-22-65; 828, dated 7-21-65.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

DESIGN LOADING: CF-2,000 (57)

BASIC UNIT STRESSES:

CONCRETE CLASS "C"	1,333 psi
CONCRETE CLASS "E"	1,133 psi
STRUCTURAL STEEL, ASTM A-36	20,000 psi

REINFORCING STEEL, ASTM A-15, A-16, A-160
Deformed, Intermediate or Hard Grade — 20,000 psi
Except spiral reinforcement may be plain Structural Grade. — 18,000 psi

ERECTION PROCEDURE: Before any of the girder sections are erected, three sets of prints showing the proposed erection procedure shall be submitted to the Director for approval.

EMBANKMENT PROCEDURE: The embankment at the rear abutment shall be constructed as per note on Sht. No. 15 (General Notes, Roadway; "Embankment construction, Station 864+25 to 869+00")

EXCAVATION QUANTITY at the Rear Abutment includes the removal of fill material required for construction of the abutments.

FIRST PILE TEST LOAD shall be applied only if and where directed by the Engineer.

PILES shall be driven with a hammer energy rating of not less than 15,000 ft lbs. per blow at the rear abutment and piers No. 1 thru No. 4 and of not less than 11,000 ft. lbs. per blow at the forward abutment and pier No. 5 to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula in Sec. 507.05 is not less than the following value for a pile hammer of the indicated energy rating:

For the rear abutment and piers No. 1 thru No. 4 piles:
70 tons per pile using a 15,000 ft.lb. or greater hammer.

For the pier No. 5 and forward abutment piles:
55 tons per pile using an 11,000 ft. lb. hammer
50 tons per pile using a 15,000 ft. lb. or greater hammer.

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 50 tons per pile for all piles except for pier No. 4 in which case the design load is 40 tons per pile.

MACHINE FINISH: The concrete bridge decks shall be finished by the use of a finishing machine.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

GENERAL PLAN & ELEVATION
GENERAL NOTES
Bridge No. Hen-6-16.79
U.S. 6 over Maumee River
Sta. 873+62.00
Henry County to Sta. 878+29.25

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.W.F.		J.C.O.	J.M.	12-15-65	

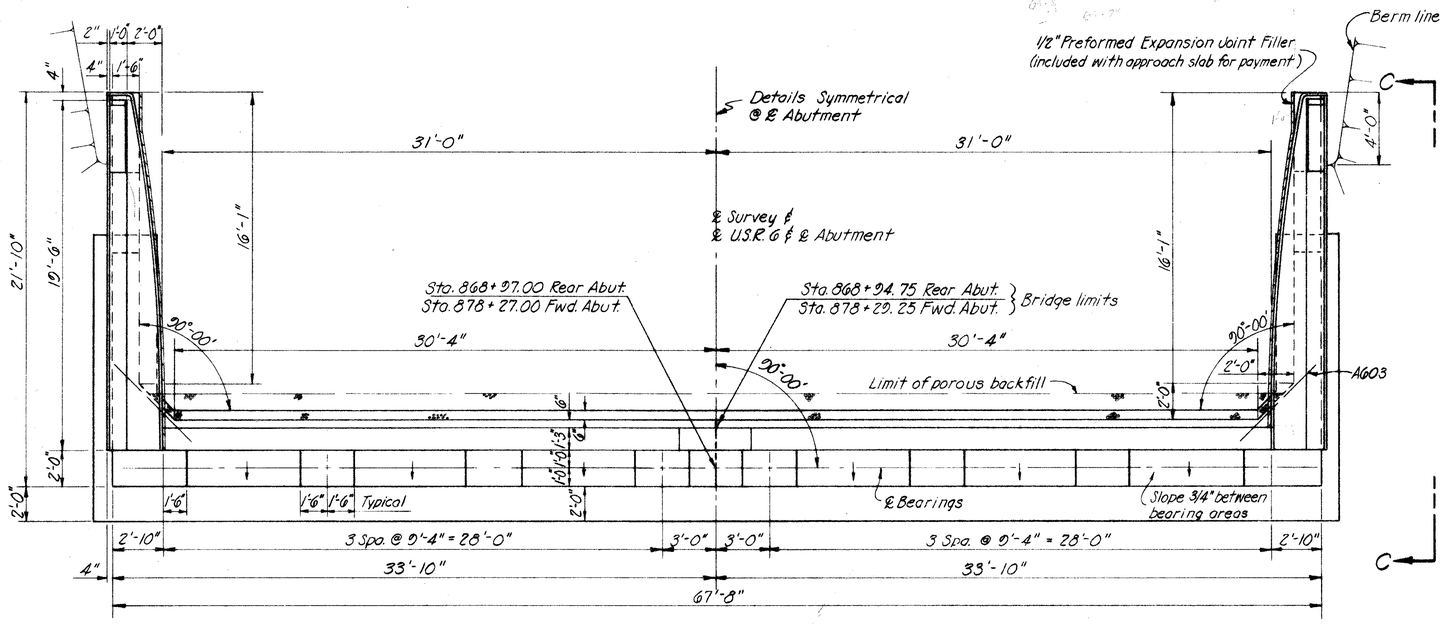
6408-16

MICROFILMED
APR 17 1986

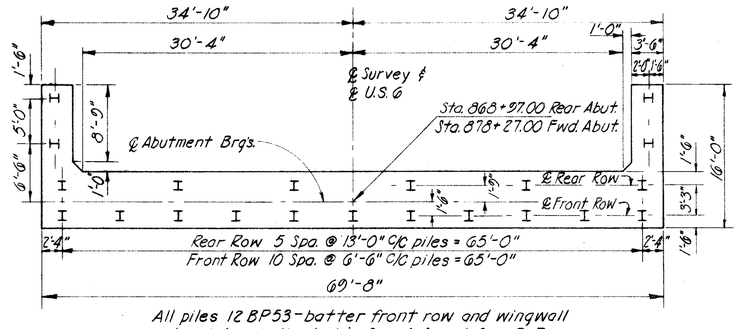
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

164/231

HENRY COUNTY
HEN-6-16.43



PLAN

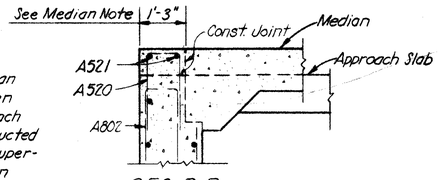


All piles 12 BP53 - batter front row and wingwall piles 1:4 as indicated in Sec. A-A and Sec. D-D.

FOOTING PLAN

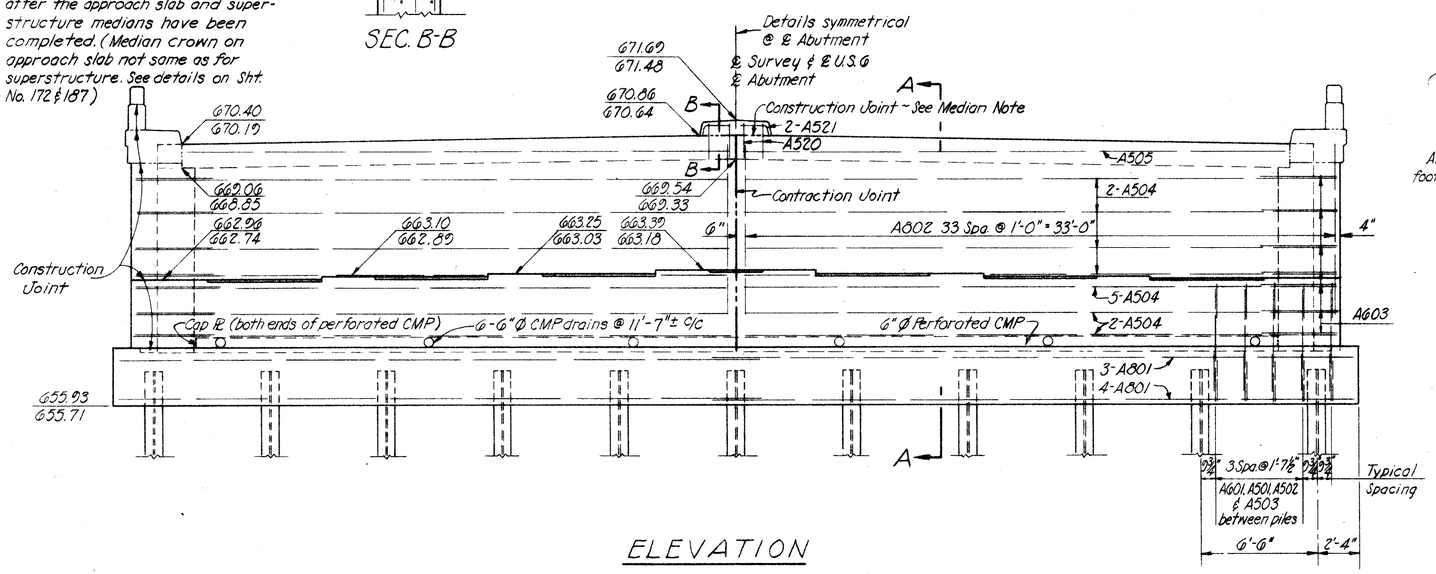
Median Note:

Backwall portion of the median shall form a transition between the superstructure and approach slab medians. It shall be constructed after the approach slab and superstructure medians have been completed. (Median crown on approach slab not same as for superstructure. See details on Sht. No. 172 & 187.)

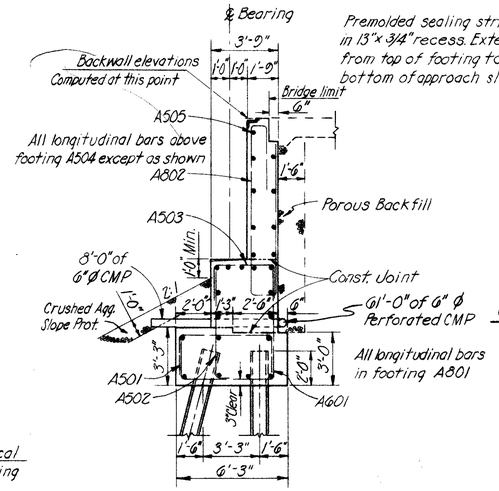


SEC. B-B

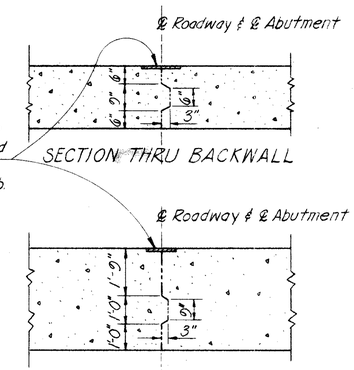
Ele v. at Rear Abut.
Ele v. at Fwd. Abut.



ELEVATION



SEC. A-A



CONTRACTION JOINT DETAILS

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

ABUTMENT DETAILS

Bridge No. Hen-6-16.79
U.S. 6 over Maumee River

Henry County

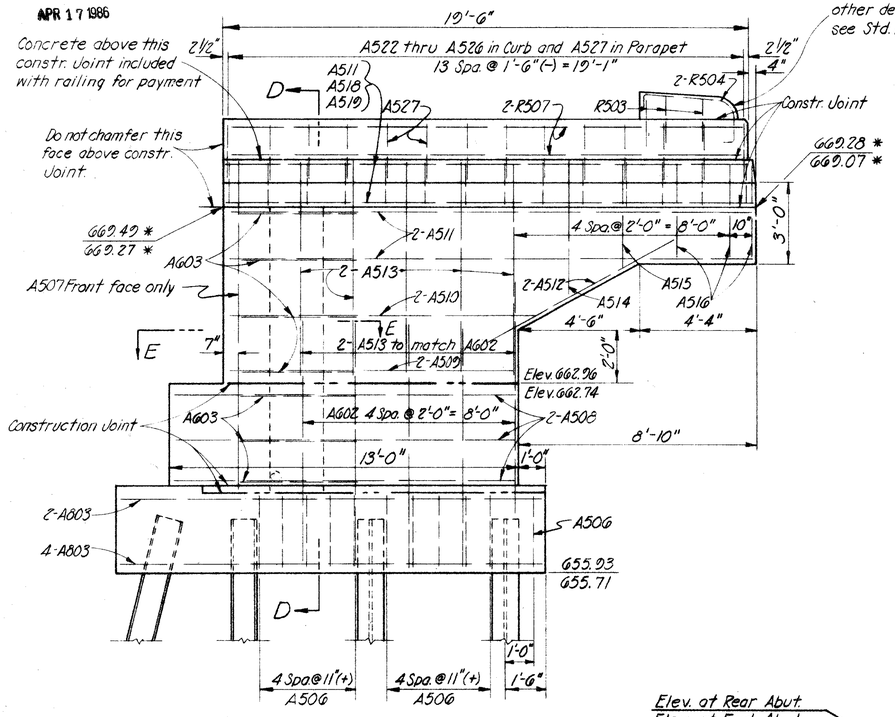
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	RWF		J.C.O.	J.M.	12-15-65	

MICROFILMED
APR 17 1986

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

185/231

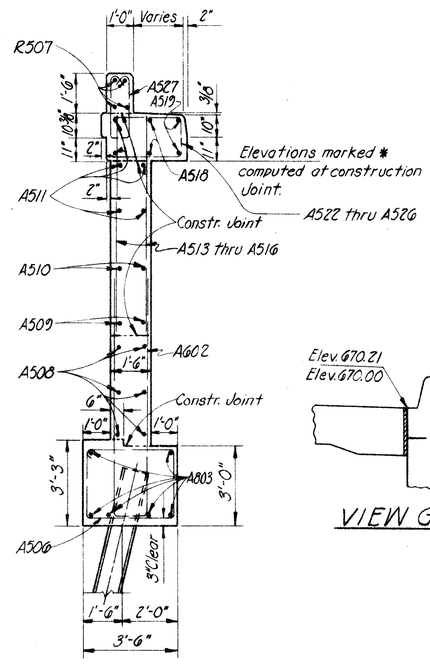
HENRY COUNTY
HEN-6-16.43



WINGWALL ELEVATION C-C

Note: Aluminum railing not shown. For details of the railing and the parapet end post see Std. Dwg. BR-1-65, Sht. No. 1 and Superstructure Details, Sht. No. 188

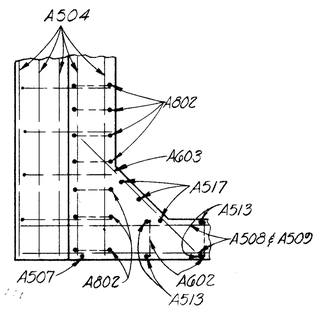
For reinforcing steel and other details of the end-post see Std. Dwg. BR-1-65



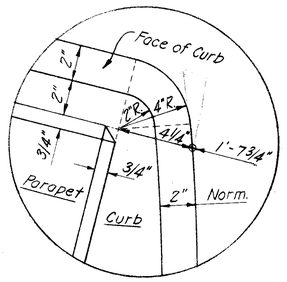
VIEW G-G

Elev. at Rear Abut.
Elev. at Fwd. Abut.

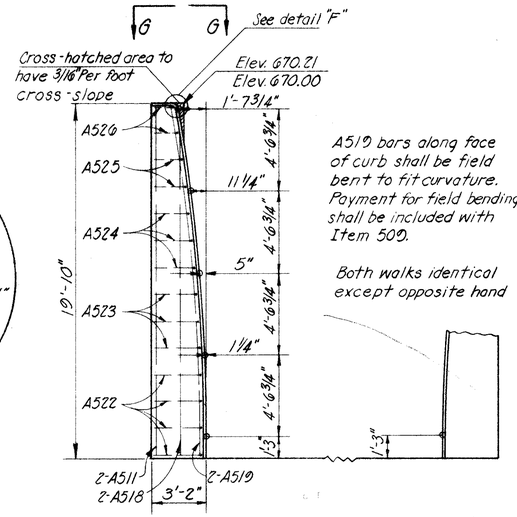
SECTION D-D



SECTION E-E



DETAIL "F"



A519 bars along face of curb shall be field bent to fit curvature. Payment for field bending shall be included with Item 509.

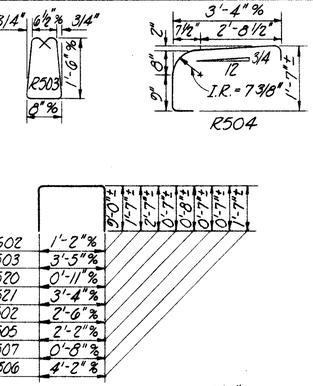
Both walks identical except opposite hand

SIDEWALK PLAN
(Parapet not shown)

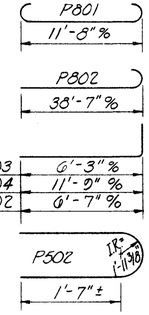
REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHP.
ABUTMENTS				
A801	28	35'-11"	2,685	S
A802	136	22'-9"	8,261	B
A803	24	15'-8"	1,004	S
A601	84	13'-11"	1,756	B
A602	20	18'-10"	567	B
A603	28	6'-6"	274	S
A501	84	8'-10"	774	B
A502	84	7'-1"	621	B
A503	84	6'-4"	555	B
A504	68	33'-6"	2,376	S
A505	4	30'-8"	128	S
A506	44	11'-11"	547	B
A507	4	12'-2"	51	S
A508	24	12'-8"	317	S
A509	8	10'-8"	89	S
A510	8	11'-8"	97	S
A511	24	19'-6"	488	S
A512	8	8'-4"	70	S
A513	40	8'-0"	334	S
A514	8	5'-0"	42	S
A515	8	4'-0"	33	S
A516	24	3'-6"	88	S
A517	12	10'-5"	130	S
A518	8	18'-0"	150	S
A519	8	19'-6"	163	S
A520	8	5'-10"	49	B
A521	4	4'-3"	18	B
A522	16	6'-2"	103	B
A523	12	5'-8"	71	B
A524	12	4'-10"	60	B
A525	8	4'-0"	33	B
A526	8	3'-0"	25	B
A527	56	5'-7"	320	B
R503	12	4'-3"	*	B
R504	8	5'-4"	*	B
R507	16	19'-2"	*	S
TOTAL			22,285	
REPLACEMENT BARS				
RE900	1	6'-10"	——	S
RE800	3	6'-6"	——	S
RE700	10	6'-2"	——	S
RE600	17	5'-11"	——	S
RE500	3	5'-7"	——	S

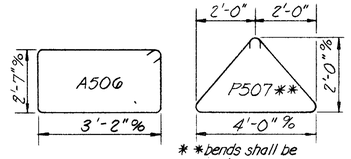
BENDING DIAGRAMS



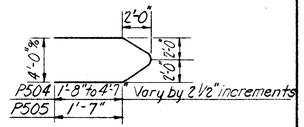
MARK	NO.	LENGTH	WEIGHT	SHP.
PIERS				
P901	85	5'-0"	1,445	S
P801	310	13'-10"	11,450	B
P802	80	39'-8"	8,473	B
P803	485	7'-2"	9,281	B
P804	240	12'-8"	8,117	B
P805	235	16'-0"	10,039	S
P601	250	22'-0"	8,261	S
P602	235	16'-0"	5,648	S
P603	10	31'-0"	466	S
P604	10	32'-6"	488	S
P605	5	33'-0"	248	S
P606	10	32'-5"	487	S
P607	10	33'-6"	503	S
P608	5	34'-6"	259	S
P501	150	31'-0"	4,850	S
P502	80	9'-4"	779	B
P503	150	32'-6"	5,085	S
P504	5 Series of 15	8'-9" to 14'-7"	913	B
P505	5	8'-7"	448	B
P506	110	7'-1"	813	B
P507	20	10'-4"	216	B
TOTAL			78,269	
SUPERSTRUCTURE				
S701	1,354	34'-4"	95,020	S
S702	1,354	32'-8"	90,408	S
S601	1,354	34'-4"	69,824	S
S602	1,354	32'-8"	66,435	S
S603	220	36'-0"	11,896	S
S604	1,120	35'-2"	59,159	S
S605	2,128	33'-0"	105,476	S
S501	2,490	2'-8"	6,942	B
S502	1,248	3'-7"	4,664	B
S503	1,248	5'-7"	7,268	B
S504	1,240	2'-7"	3,363	B
S505	624	3'-1"	2,007	B
S506	624	3'-1"	2,007	B
S507	624	1'-7"	1,030	B
R501	520	13'-0"	*	S
R502	48	10'-7"	*	S
TOTAL			525,499	
GRAND TOTAL			626,053	



* Included with railing for payment



** bends shall be made around a No. 10 bar.



BAR SIZE

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, A700 is a No. 7 size bar and A1014 is a No. 10 size.

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1100 JACKSON STREET TOLEDO, OHIO

WINGWALL DETAILS & REINFORCING STEEL LIST

Bridge No. Hen-6-1679
U.S. 6 over Maumee River
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	RWF		J.C.O.	J.M.	12-15-45	

Revised As-Built 4-16-46

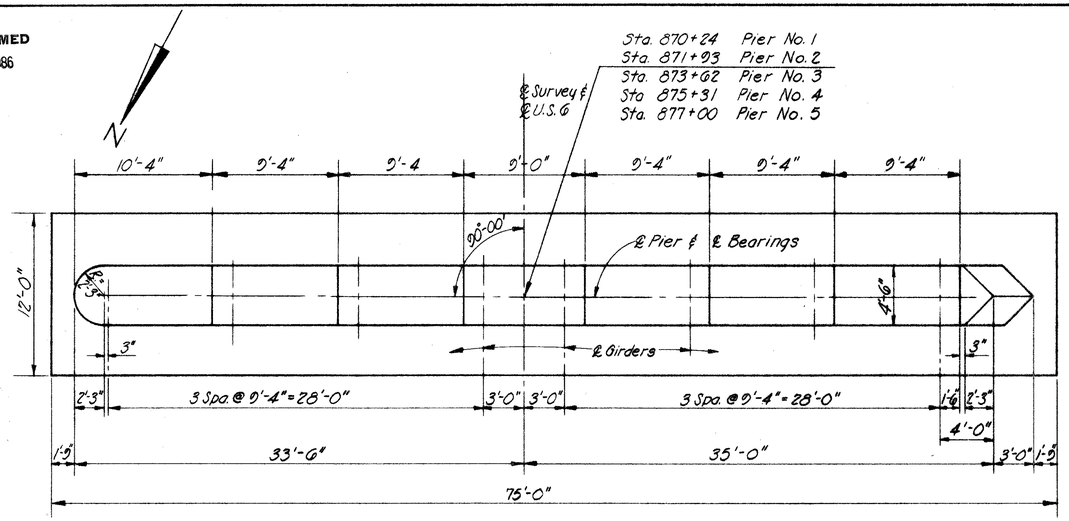
440

MICROFILMED
APR 17 1986

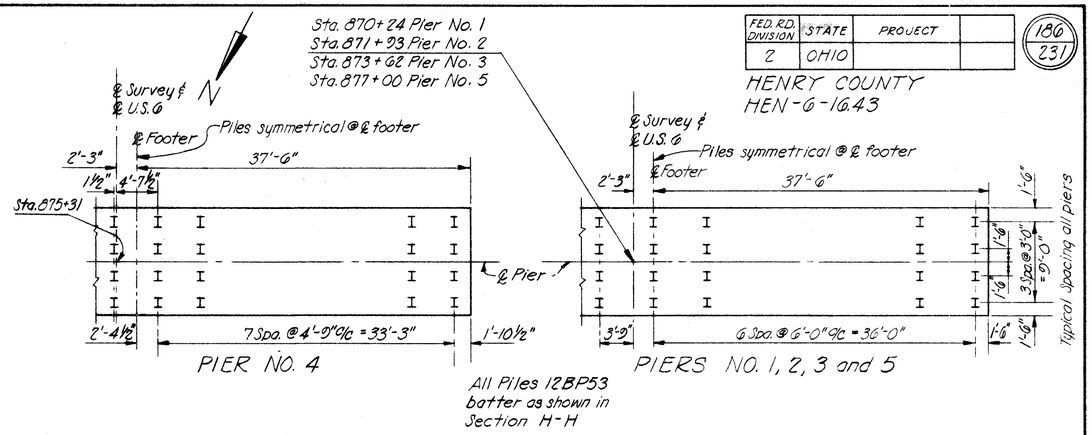
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

186/231

HENRY COUNTY
HEN-6-16.43



PLAN

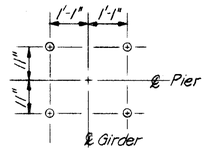


PIER NO. 4

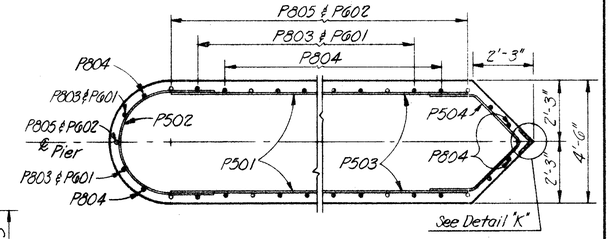
PIERS NO. 1, 2, 3 and 5

PILE LAYOUT AND HALF-PLAN OF FOOTINGS

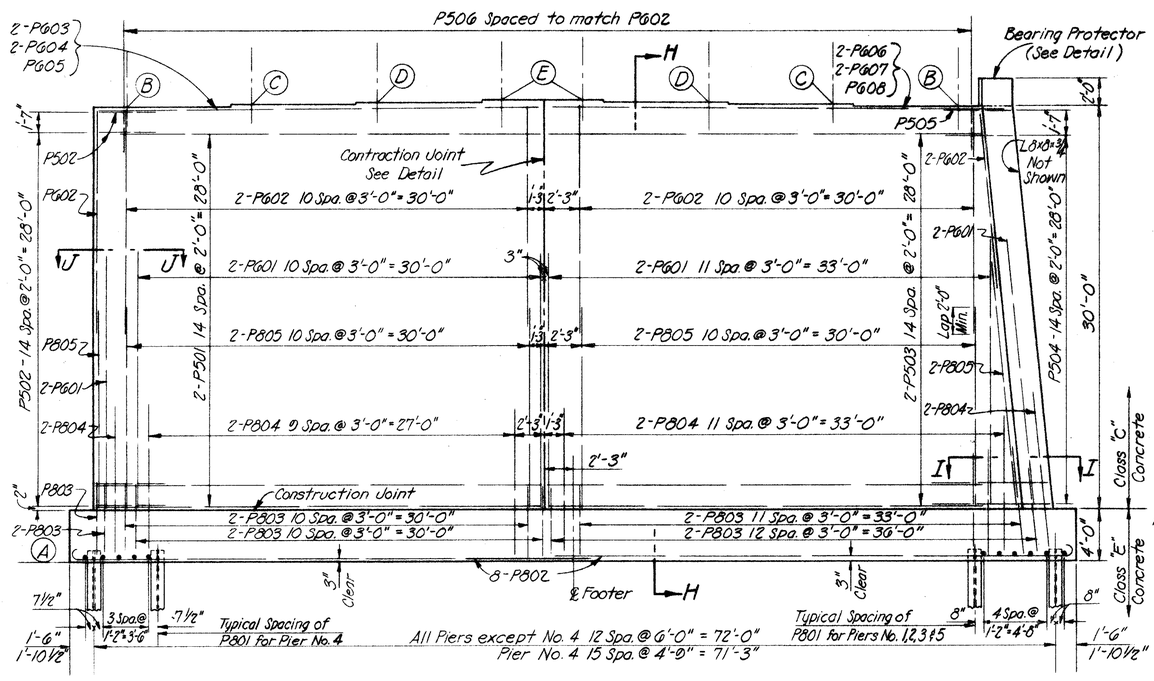
NOTE: Special care shall be taken in placing reinforcing steel in the top of the pier walls for piers No. 1, 3 & 5 so as to avoid interference with the drilling of anchor bar holes.



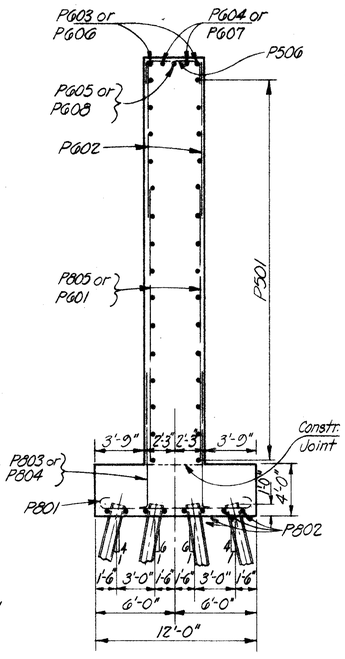
FIXED BEARING ANCHOR BAR LAYOUT



SEC. J-J SEC. I-I



ELEVATION



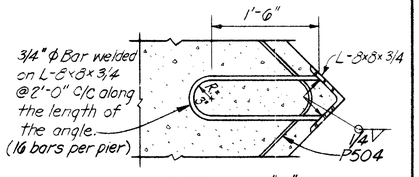
SEC. H-H

PLAN

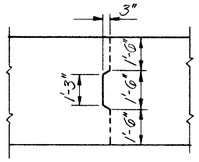
ELEVATION

BEARING PROTECTOR DETAILS

Note: Armouring of the piers (L-8×8×¾ and anchor bars) are included with Item 513, structural steel, for payment.



DETAIL "K"



CONTRACTION JOINT DETAIL

	TABLE OF ELEVATIONS				
PIER	A	B	C	D	E
No. 1	625.28	659.28	650.44	659.57	659.72
No. 2	626.18	660.18	660.32	660.47	660.62
No. 3	626.45	660.45	660.60	660.74	660.89
No. 4	626.09	660.09	660.24	660.38	660.53
No. 5	625.10	659.10	659.26	659.39	659.54

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CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

PIER DETAILS

Bridge No. Hen-6-1679

U.S. 6 over Maumee River

Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.W.F.		J.C.O.	J.M.	12-15-65	

6408-16

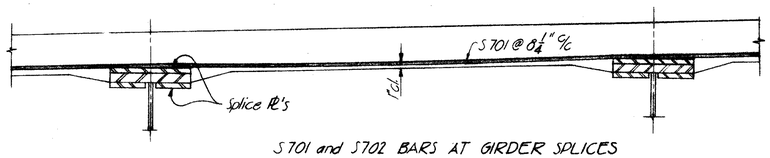
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

187
231

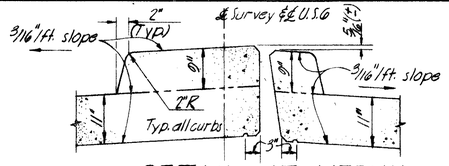
HENRY COUNTY
HEN.-6-16.43

MICROFILMED
APR 17 1986

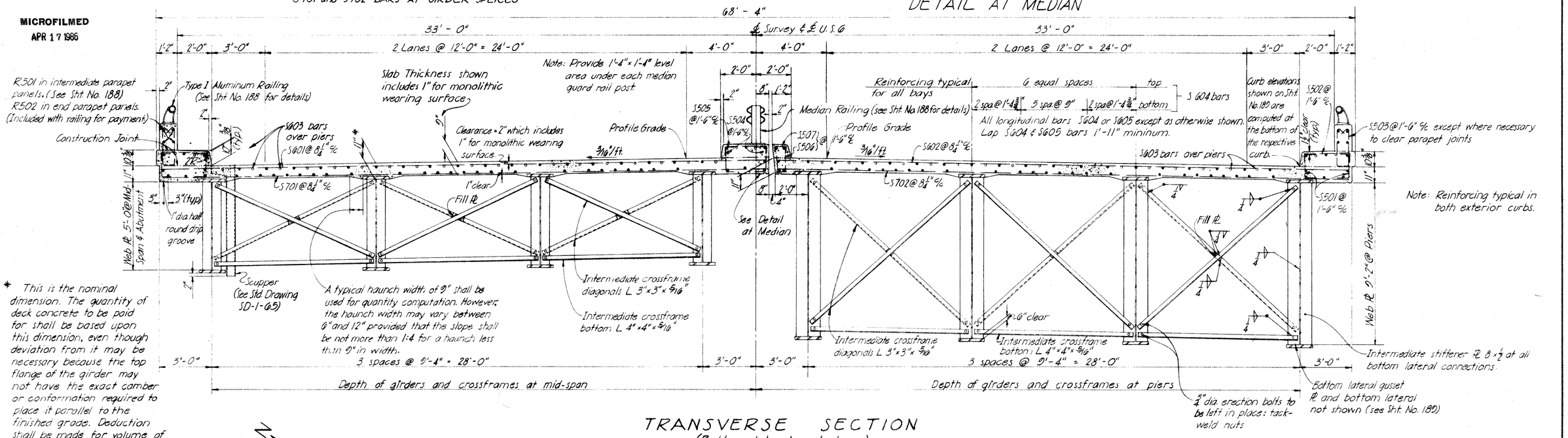
S701 & S702 bars at splices shall be placed to miss splice bolts. Bend bars to obtain 1" clearance in center of girder space.



S701 and S702 BARS AT GIRDER SPLICES



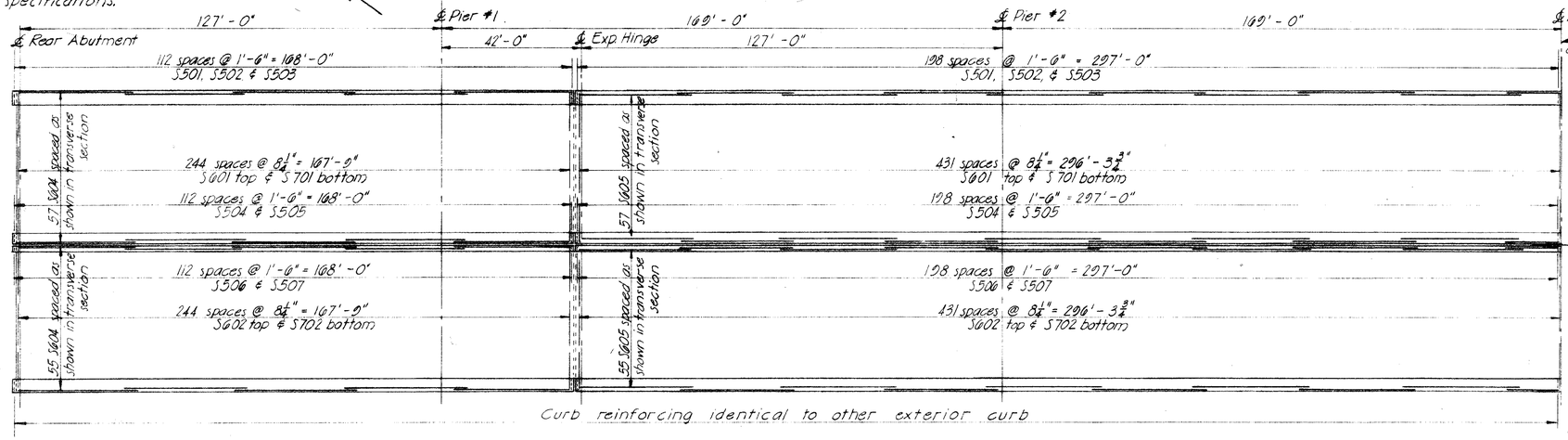
DETAIL AT MEDIAN



Note: Reinforcing typical in both exterior curbs.

* This is the nominal dimension. The quantity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the girder may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.19 of the Construction and Material Specifications.

TRANSVERSE SECTION
(Bottom laterals not shown)



HALF-PLAN SHOWING DECK REINFORCING STEEL
(S603 Bars not shown)

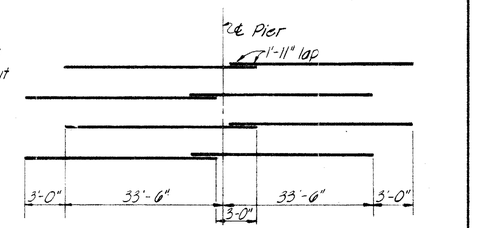


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

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CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
Bridge No. Hen-6-16.79
U.S.6 over Maumee River
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	APO		J.C.O.	J.M.	12-15-65	

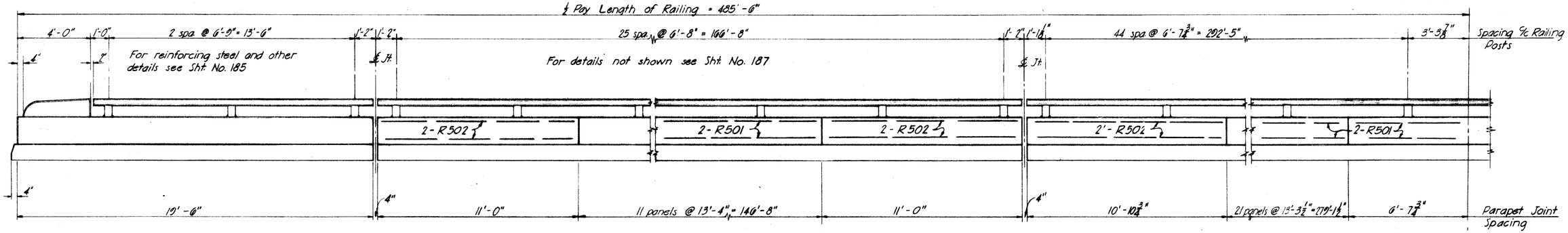
208-76

MICROFILMED
APR 17 1986

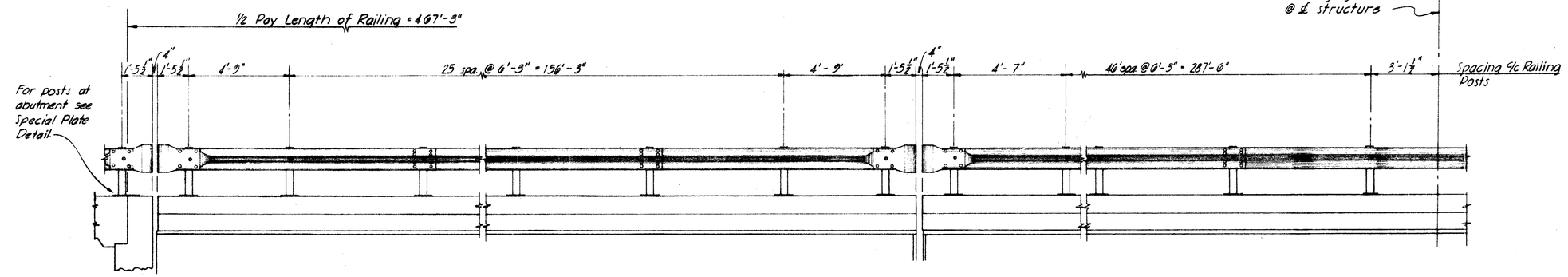
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

188
231

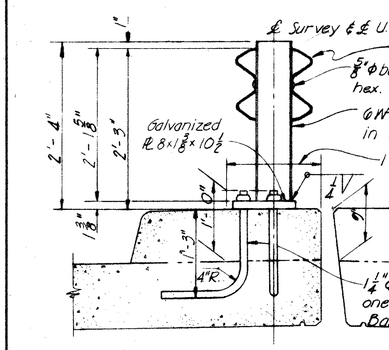
HENRY COUNTY
HEN-6-16.43



BRIDGE RAILING DETAIL



MEDIAN BARRIER RAILING DETAIL



BOTTOM PLATE DETAILS
(All plates typical except special plates at abutments.)

MEDIAN GUARD RAIL POST AND SUPPORT DETAIL

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO OHIO

SUPERSTRUCTURE DETAILS
Bridge No. Hen-6-1679
U.S. 6 over Maumee River

Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	APO		J.C.O.	J.M.	12-15-65	

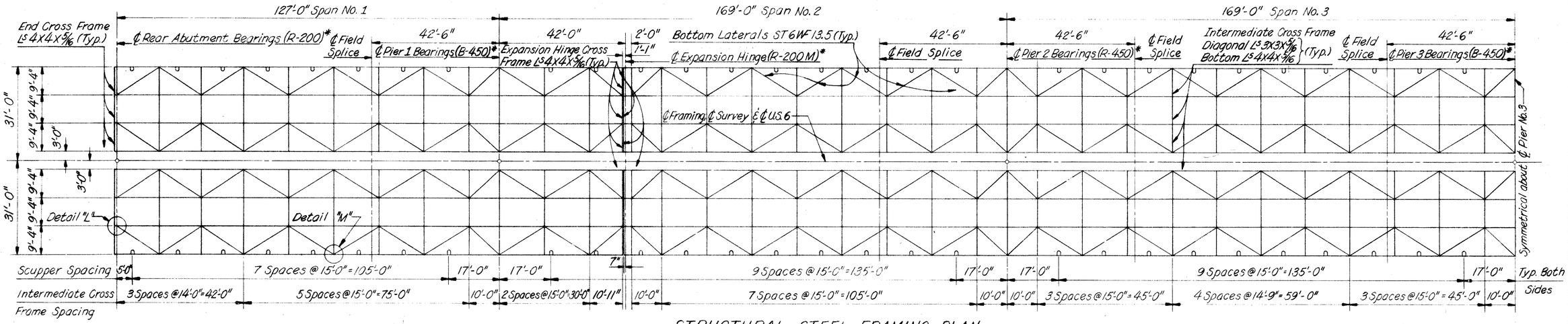
MICROFILMED
APR 17 1986

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

189
231

HENRY COUNTY
HEN-6-16.43

* For bearing details see Sheet No. 192

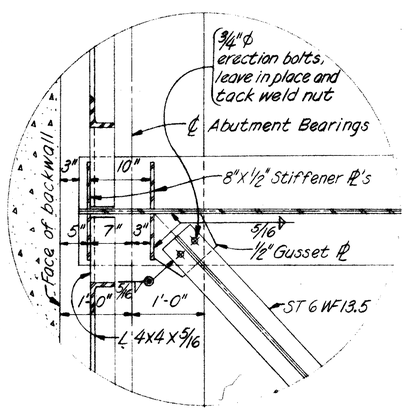


STRUCTURAL STEEL FRAMING PLAN

CURB ELEVATIONS BEFORE PLACEMENT OF SUPERSTRUCTURE CONCRETE

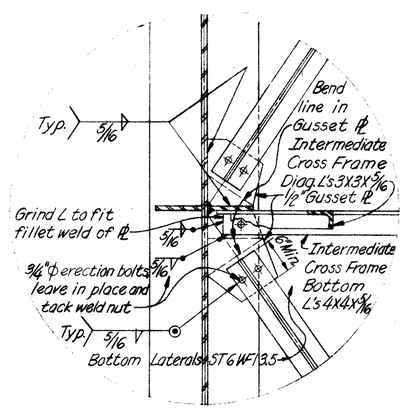
(See Transverse Section on Sheet No. 187 and Diagram of Vertical Offsets on Sheet No. 192 for location)

Location	℄ Rear Abut.	Span No. 1 A	B	C	D	E	℄ Pier No. 1	Span No. 2 A	B	C	D	E	F	G	℄ Pier No. 2	Span No. 3 A	B	C	D	E	F	G	℄ Pier No. 3	Span No. 4 A	B	C	D	E	F	G	℄ Pier No. 4	Span No. 5 A	B	C	D	E	F	G	℄ Pier No. 5	Span No. 6 A	B	C	D	E	℄ Ford Abut.
Facia Curb Elev.	670.41	670.69	670.85	671.03	671.18	671.33	671.47	671.62	671.80	671.97	672.10	672.18	672.25	672.31	672.37	672.45	672.55	672.63	672.68	672.69	672.68	672.65	672.64	672.64	672.66	672.66	672.63	672.57	672.48	672.37	672.28	672.21	672.14	672.06	671.96	671.82	671.65	671.46	671.29	671.14	670.98	670.82	670.64	670.42	670.20
Median Curb Elev.	670.87	671.08	671.29	671.47	671.63	671.78	671.92	672.07	672.25	672.41	672.53	672.63	672.70	672.76	672.82	672.89	672.99	673.07	673.12	673.13	673.12	673.10	673.09	673.09	673.10	673.10	673.07	673.02	672.92	672.82	672.73	672.66	672.58	672.50	672.40	672.27	672.09	671.90	671.74	671.59	671.43	671.26	671.08	670.87	670.65

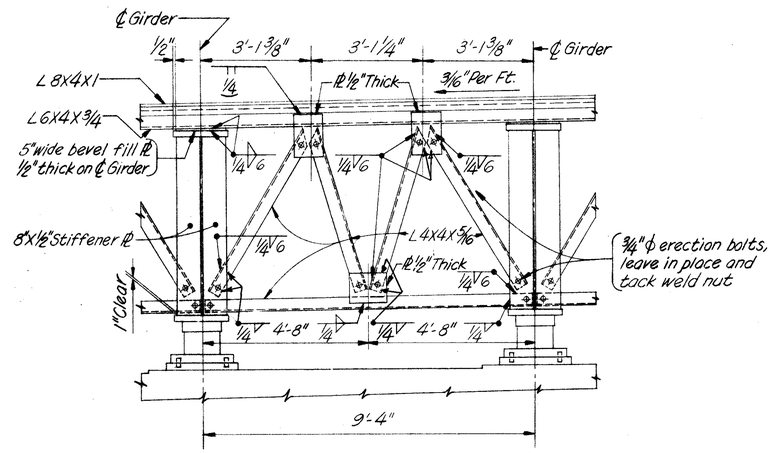


DETAIL "L"

NOTE: Bottom laterals and intermediate cross frame bottom angles are to be placed 6" above top of bottom flange (See Sheet No. 187)



DETAIL "M"



END CROSSFRAME DETAIL

See Sheet No. 187 for details of intermediate crossframes
See Sheet No. 190 for details of: expansion hinge crossframes, roadway end dams, curb plates.

See Std. Drawing SD-1-65 for scupper details.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

Bridge No. Hen-6-1679
U.S.6 over Maumee River
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	GB.		J.C.O.	J.M.	12-15-65	

6408-1C

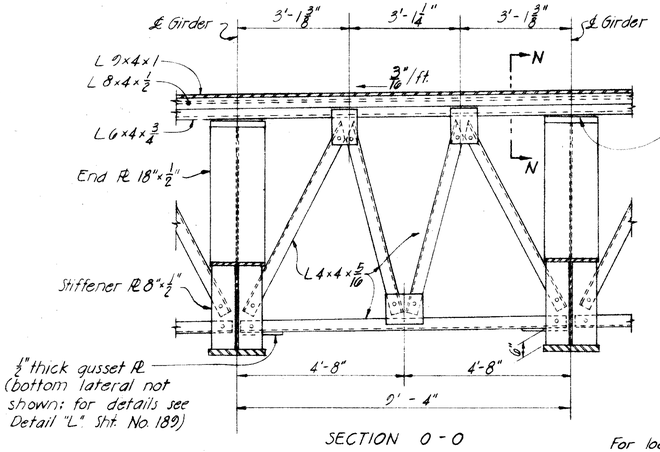
MICROFILMED
APR 17 1986

(3)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(190/231)

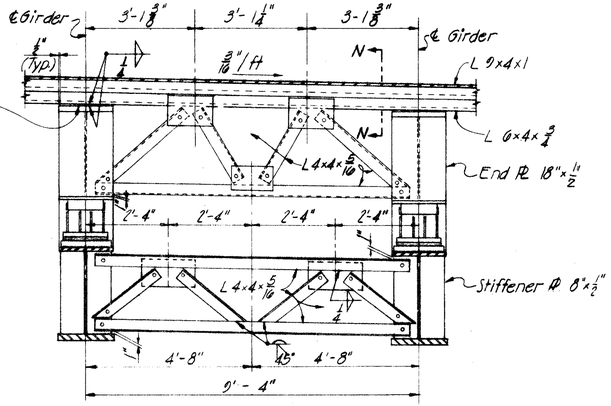
HENRY COUNTY
HEN-6-10.43



SECTION O-O

5" wide bevel fill plate ½" thick on ℄ Girder (Typical at all end dam locations.)

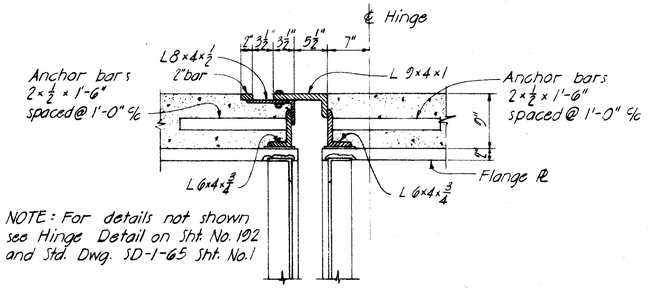
NOTE: Welding and details not indicated are same as for End Crossframe Detail, Sht. No. 189.



SECTION P-P

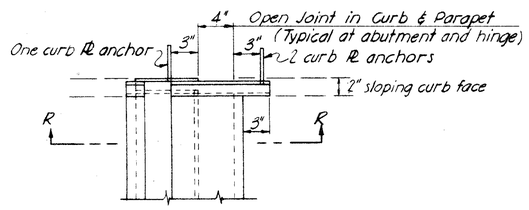
For location of Section O-O & P-P see Sht. No. 192

EXPANSION HINGE CROSSFRAMES

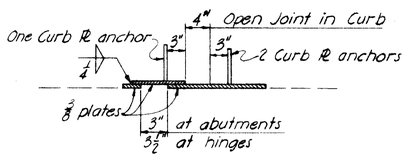


NOTE: For details not shown see Hinge Detail on Sht. No. 192 and Std. Dwg. SD-1-65 Sht. No. 1

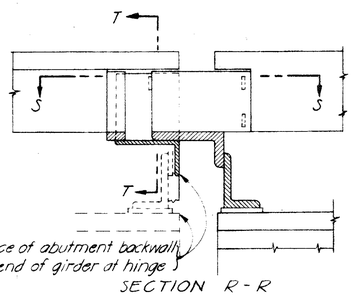
SECTION N-N
SHOWING ROADWAY END DAM
AT EXPANSION HINGE
(END DAM DETAILS AT ABUTMENTS SAME AS SHOWN IN STANDARD DRAWING SD-1-65)



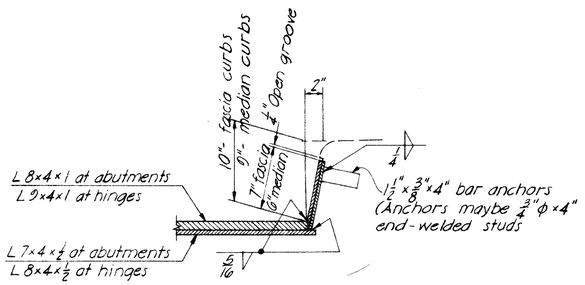
PART DECK PLAN
AT ABUTMENT
(Part deck plan at hinge similar)



SECTION S-S

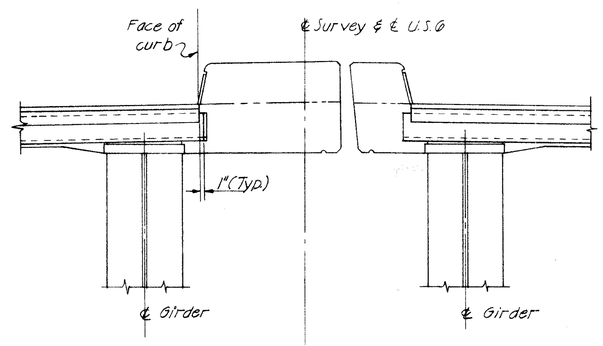


SECTION R-R



SECTION T-T

CURB PLATE DETAILS



END DAM DETAILS AT MEDIAN GIRDERS

(END DAM DETAILS AT FASCIA GIRDERS SAME AS SHOWN IN STANDARD DRAWING SD-1-65.)

T.C. BIEBESHEIMER ENGINEERING CO
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS
Bridge No. Hen-6-1679
U.S. 6 over Maumee River
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	A.P.O.		J.C.O.	J.M.	12-15-65	

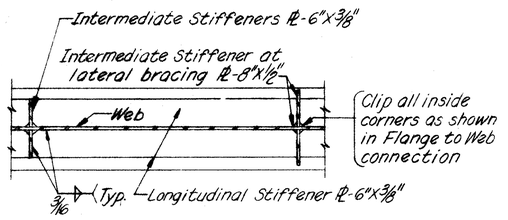
MICROFILMED
APR 17 1986

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

191/231

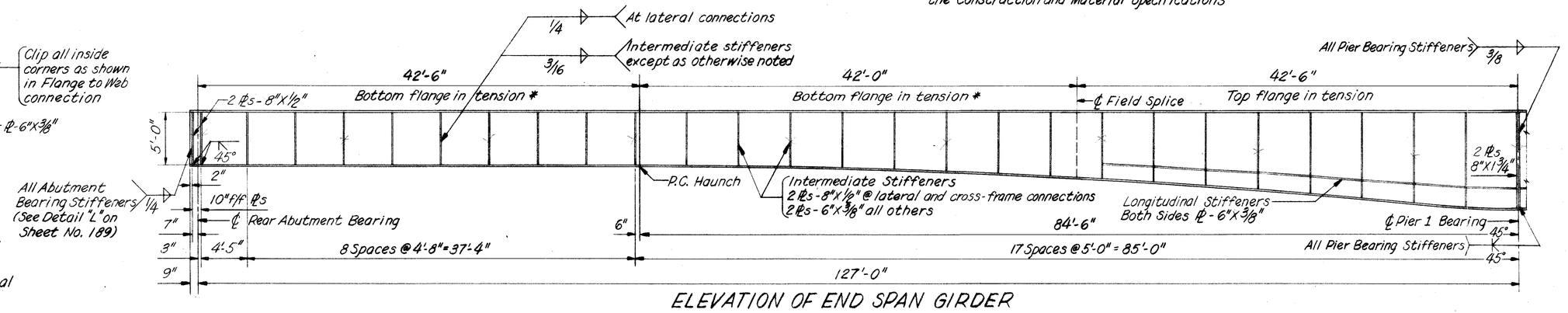
HENRY COUNTY
HEN-6-16.43

* Reference to the tension flange is made to comply with Sec. 513.15 of the Construction and Material Specifications

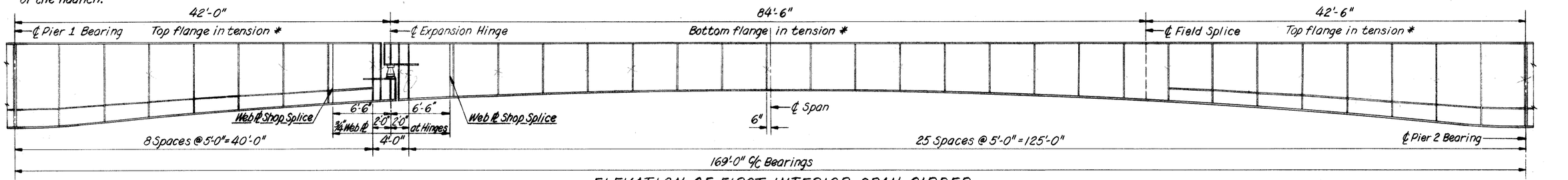


LONGITUDINAL STIFFENER DETAIL

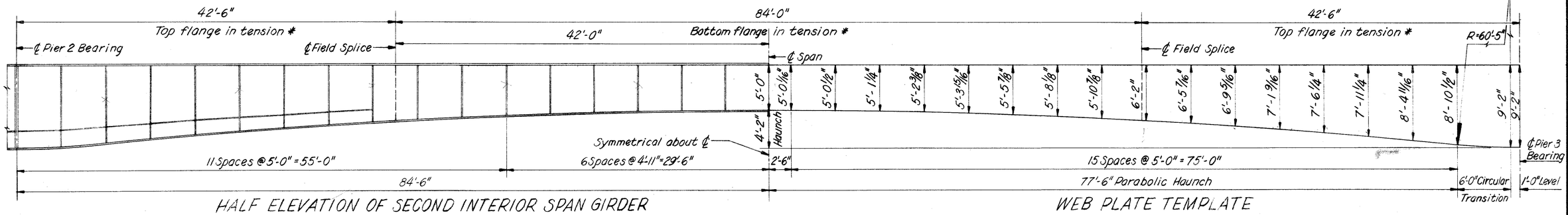
Longitudinal stiffeners shall be placed on both sides of all girders in locations indicated on girder details. Stiffeners shall be placed at 1/5 the web height, measured from the bottom of the web plate. Longitudinal stiffeners shall follow the curve of the haunch.



ELEVATION OF END SPAN GIRDER

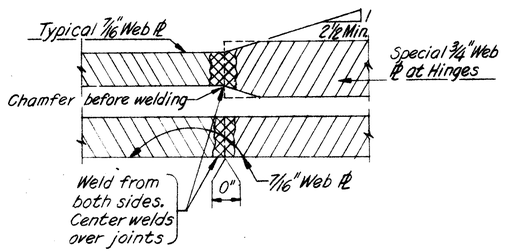


ELEVATION OF FIRST INTERIOR SPAN GIRDER

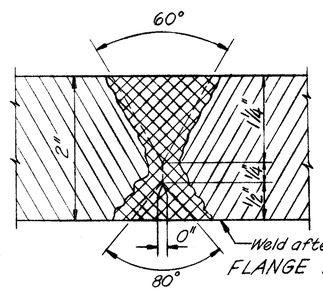


HALF ELEVATION OF SECOND INTERIOR SPAN GIRDER

WEB PLATE TEMPLATE



WEB PLATE SHOP SPLICE



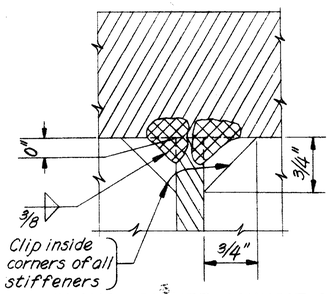
FLANGE PLATE SHOP SPLICE

ALL FULL PENETRATION WELDS shall be back-gouged and welded after welding for side.

SHOP SPLICES proposed by the fabricator shall be detailed as to their location and submitted to the Director for approval prior to ordering the material.

BUTT WELDS in girder members shall be subject to radiographic examinations as set forth by Supplemental Specification 811.

DETAILS OF WELDED JOINTS



FLANGE TO WEB CONNECTION

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

GIRDER DETAILS

Bridge No. Hen-6-1679
U.S. 6 over Maumee River
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	B.		J.C.O.	J.M.	12-15-65	

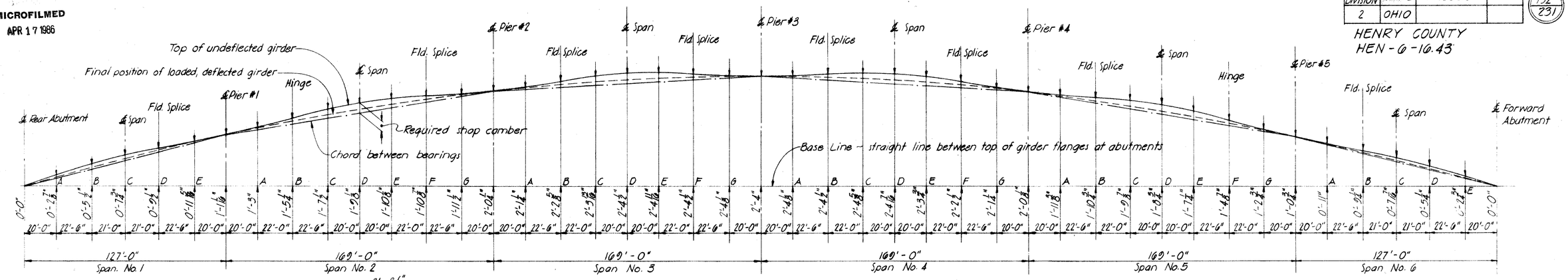
6600-16

MICROFILMED
APR 17 1986

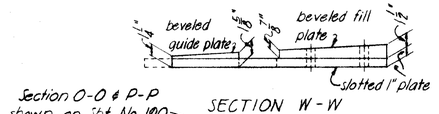
FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

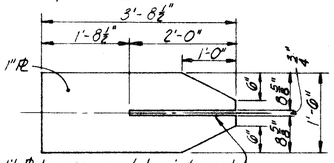
192
231

HENRY COUNTY
HEN-6-16.43



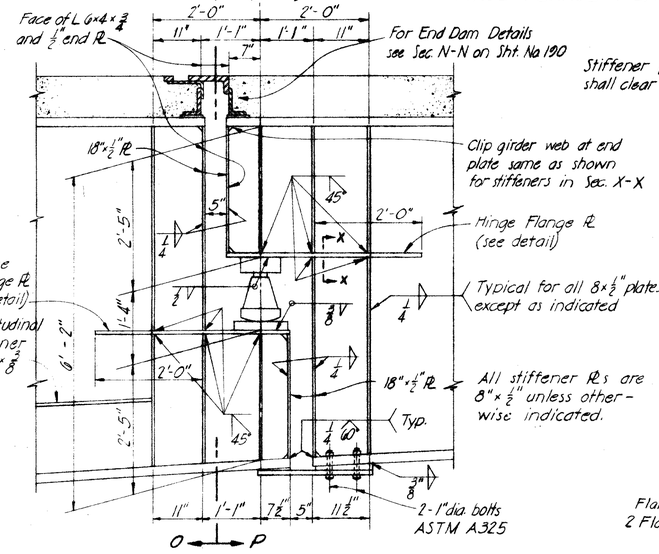
VERTICAL OFFSETS FROM TOP OF GIRDER TO BASE LINE



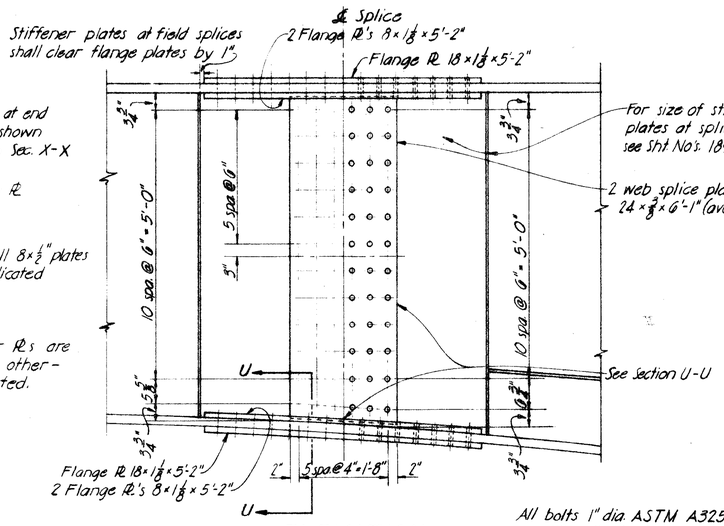


HINGE FLANGE PLATE

The bolts shall be placed with the heads on the outside face of the exterior girders and on the bottom of girder flanges.

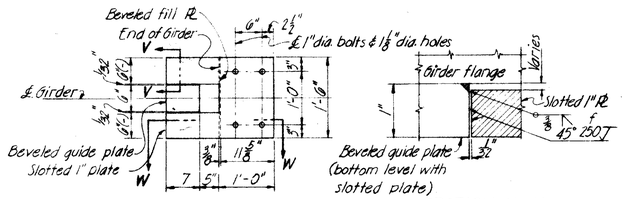


HINGE DETAIL
(¾" girder web Pl. at hinge – see Sht. No. 191)

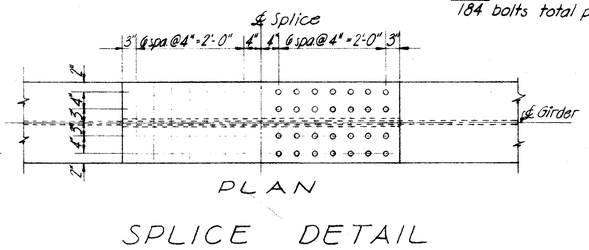


ELEVATION

All bolts 1" dia. ASTM A325
112 bolts in flange splice
72 bolts in web splice
184 bolts total per splice



SHEAR TRANSFER PLATE DETAILS



PLAN

SPLICE DETAIL

DEFLECTION AND CAMBER

LOCATION	Span No. 1			Span No. 2 & 3			Span No. 4 & 5			Span No. 6		
	B Pt. Haunch	C ℄ Span	D Splice Pt.	B ℄ Hinge	D ℄ Span	F Splice Pt.	B Splice Pt.	D ℄ Span	F ℄ Hinge	B Splice Pt.	C ℄ Span	D Pt. Haunch
Deflection due to weight of steel	1/4"	1/4"	3/16"	1/4"	7/16"	1/4"	1/4"	7/16"	1/4"	3/16"	1/4'	1/4"
Deflection due to remaining dead load	5/8"	5/8"	3/8"	1/2"	1'	1/2"	1/2"	1"	1/2"	3/8"	5/8"	5/8"
Adjustment required for vertical curve	1/4"	5/16"	5/16"	11/16"	15/16"	11/16"	11/16"	15/16"	11/16"	5/16"	5/16"	1/4"
REQUIRED SHOP CAMBER	1 1/8"	1 3/16"	7/8"	1 1/16"	2 3/8"	1 1/16"	1 1/16"	2 3/8"	1 1/16"	7/8"	1 3/16"	1 1/8"

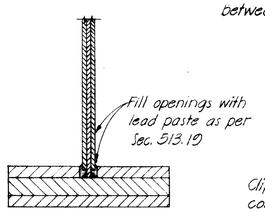
* Splice Pt. in Span No. 3 and Span No. 4

Camber reference line is a chord between adjacent substructure bearing points.

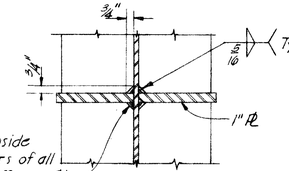
ROCKER AND BOLSTER DETAILS

BEARING LOCATION	UNIT TYPE	DIMENSIONS (inches) A	B	C	D	F	G	H	K	L	M	R	T	Y	Weight in lbs.	No. Req'd.
Abutments	R-200	3	10	3½	2¾	⅝	9	10⅜	12	24	21	10½	2¼	1 1/16	605	16
Exp. Hinges	R-200(M)*	3	12	3½	2¾	⅝	9	16	12	17	15	10½	1⅞	1 1/16	431	16
Piers #2 & #4	R-450	4	26	4	4	1	15	23⅜	17	30	27	15	4	1 15/16	1785	16
Piers #1, #3, #5	B-450	4	26	4	—	1	—	23⅜	17	30	—	—	4	1 15/16	1530	24

R – designates structural steel rocker } for additional details see Standard
B – designates structural steel bolster } Drawing RB-1-55
*(M) – designates modification of R-200 to fit the hinge application.
HINGE ROCKER [R-200(M)] shall have a finish of 1000 at the bearing surfaces between the rocker and the girder.



SECTION U-U



SECTION X-X
(Typical for both 1" Pl's)

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

Bridge No. Hen-6-16 79
U.S. 6 over Maumee River
Henry County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	A.P.O.		J.C.O.			

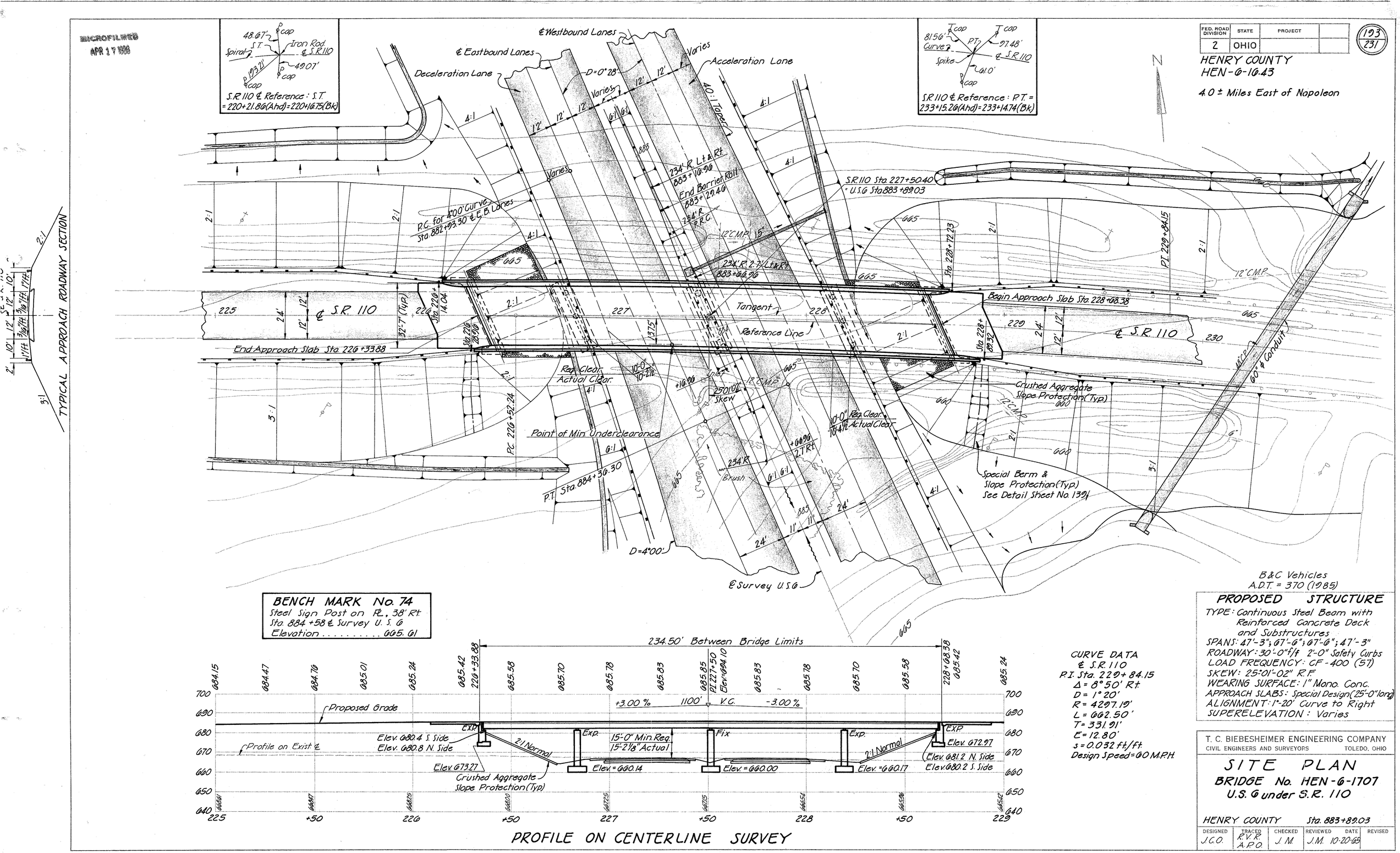
MICROFILMED
APR 17 1968

FED. ROAD DIVISION	STATE	PROJECT	
2	OHIO		

193
231

HENRY COUNTY
HEN-6-16.43

4.0 ± Miles East of Napoleon



TYPICAL APPROACH ROADWAY SECTION

BENCH MARK No. 74
Steel Sign Post on Rt., 38' Rt.
Sta. 884+58 ℄ Survey U.S. 6
Elevation 665.61

PROFILE ON CENTERLINE SURVEY

B&C Vehicles
A.D.T. = 370 (1985)

PROPOSED STRUCTURE

TYPE: Continuous Steel Beam with Reinforced Concrete Deck and Substructures
SPANS: 47'-3"; 67'-6"; 67'-6"; 47'-3"
ROADWAY: 30'-0" f/f 2'-0" Safety Curbs
LOAD FREQUENCY: CF-400 (57)
SKEW: 25°01'-02" R.F.
WEARING SURFACE: 1" Mono. Conc.
APPROACH SLABS: Special Design (25'-0" long)
ALIGNMENT: 1°-20' Curve to Right
SUPERELEVATION: Varies

CURVE DATA
℄ S.R. 110
P.I. Sta. 229+84.15
Δ = 8°50' Rt.
D = 1°20'
R = 4297.19'
L = 662.50'
T = 331.91'
E = 12.80'
s = 0.032 ft/ft.
Design Speed = 60 M.P.H.

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

SITE PLAN
BRIDGE No. HEN-6-1707
U.S. 6 under S.R. 110

HENRY COUNTY Sta. 883+89.03

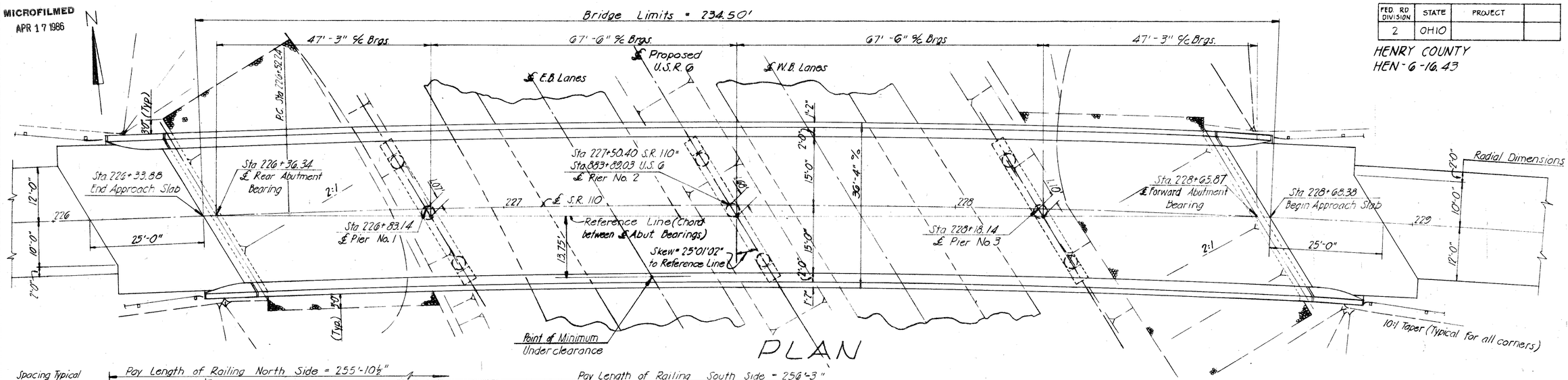
DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.C.O.	R.V.R. A.P.O.	J.M.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

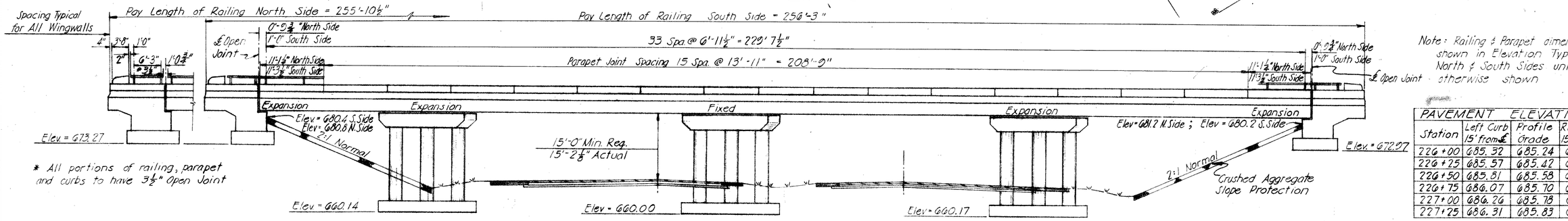
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

104/231

HENRY COUNTY
HEN-6-16.43



PLAN



* All portions of railing, parapet and curbs to have 3½" Open Joint

ELEVATION

Note: Railing & Parapet dimensions shown in Elevation Typical for North & South Sides unless otherwise shown

PAVEMENT ELEVATIONS

Station	Left Curb 15' from ℄	Profile Grade	Right Curb 15' from ℄
226+00	685.32	685.24	685.01
226+25	685.57	685.42	685.19
226+50	685.81	685.58	685.27
226+75	686.07	685.70	685.31
227+00	686.26	685.78	685.34
227+25	686.31	685.83	685.36

GENERAL

REFERENCE shall be made to standard drawings BR-1-65, sheet 1, revised 11-24-65; FSB-1-62, revised 1-15-63; SD-1-65, sheets 1, 2 & 3, dated 11-8-65; and to supplemental specifications 808, dated 7-14-65; 811 dated 3-29-65; 825, dated 4-22-65; 828, dated 7-21-65

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof

DESIGN LOADING : CF-400 (57)

BASIC UNIT STRESSES :

Concrete Class "C"	1,333 psi
Concrete Class "E"	1,133 psi
Structural Steel, ASTM A-36	20,000 psi
Reinforcing Steel, ASTM A-15, A-16, A-160	
Deformed, Intermediate or Hard Grade	20,000 psi
Except spiral reinforcement may be plain Structural Grade	18,000 psi

EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments

APPROACH EMBANKMENT PLACEMENT PROCEDURE: The embankment shall be placed and compacted to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutments. The existing pavement shall be removed as per Item 200 (For location see Sht. No. 110).

NOTES

FOUNDATION BEARING PRESSURE: The pier footings are designed for a maximum bearing pressure of 2.5 tons per sq. ft. and the abutment footings are designed for 2.0 tons per sq. ft.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Abuts.	Piers	Superstr.	General		
503	457	Cu.Yd.	Unclassified excavation	252	205				
509	102,078	Lbs.	Reinforcing steel	8,159	24,695	69,224			
511	265	Cu.Yd	Class "C" concrete, superstructure			265			
511	74	Cu.Yd	Class "C" concrete, piers above footings		74				
511	70	Cu.Yd	Class "E" concrete, pier footings		70				
511	160	Cu.Yd.	Class "E" concrete, abutments	160					
513	202,000	Lbs.	Structural steel			202,000			
514	202,000	Lbs.	Field painting of structural steel			202,000			
517	512.13	Lin.Ft.	Railing, Type 1	49.25		462.88			
518	12	Ea.	Scuppers, including supports			12			
518	37	Cu.Yd.	Porous backfill	37					
518	66	Lin.Ft.	6" perforated, helical c.m.p. including specials, 707.06	66					
518	78	Lin.Ft.	6" non-perforated helical c.m.p. 707.06	78					
601	464	Sq.Yd.	Crushed aggregate slope protection				464		
808	265	Ea.	Water-reducing, set-retarding admixture			265			
825	1,091	Sq.Yd.	Concrete surface treatment	48		1,043			
828	66	Lin.Ft.	Joint Sealer			66			

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

GENERAL PLAN & ELEVATION
GENERAL NOTES & ESTIMATED QUANTITIES
BRIDGE NO. HEN-6-1707
U.S. 6 under S.R. 110

HENRY COUNTY STA 883+89.03

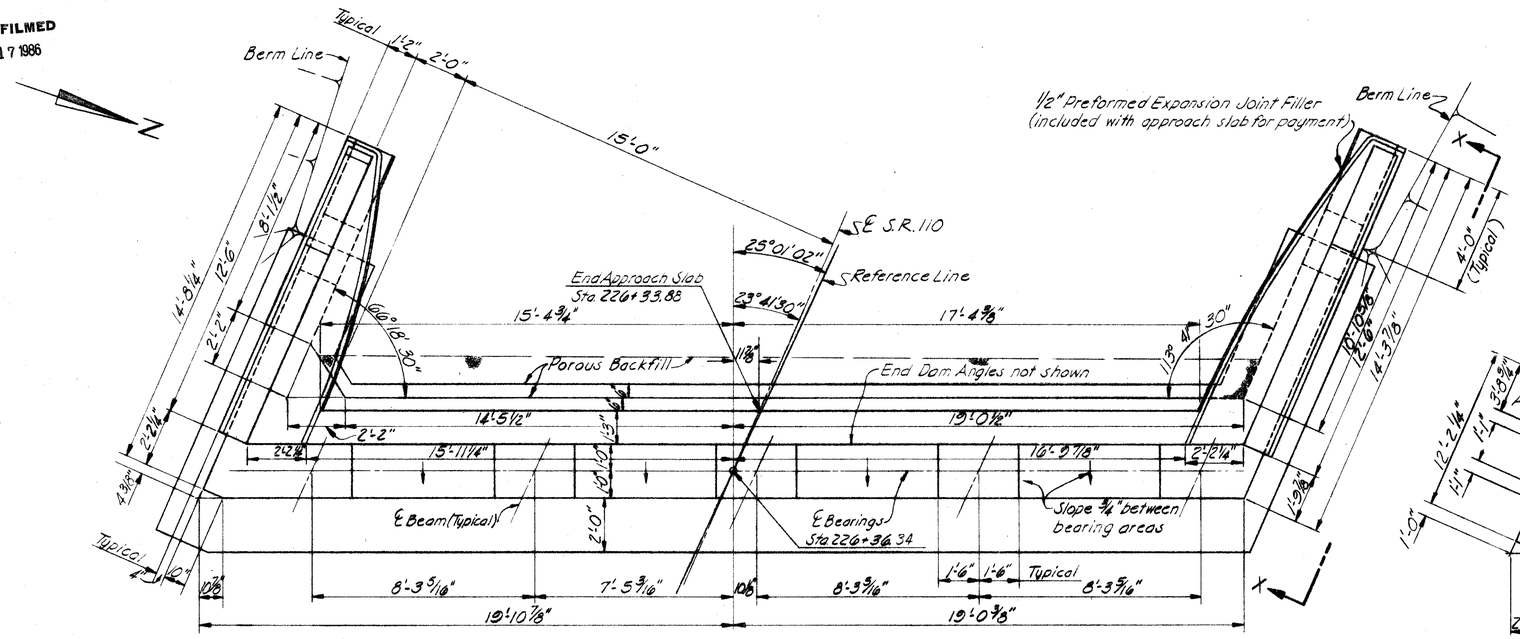
DESIGN	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	M.K.	M.K.	J.C.O.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

FED. R.D. DIVISION	STATE	PROJECT	
2	OHIO		

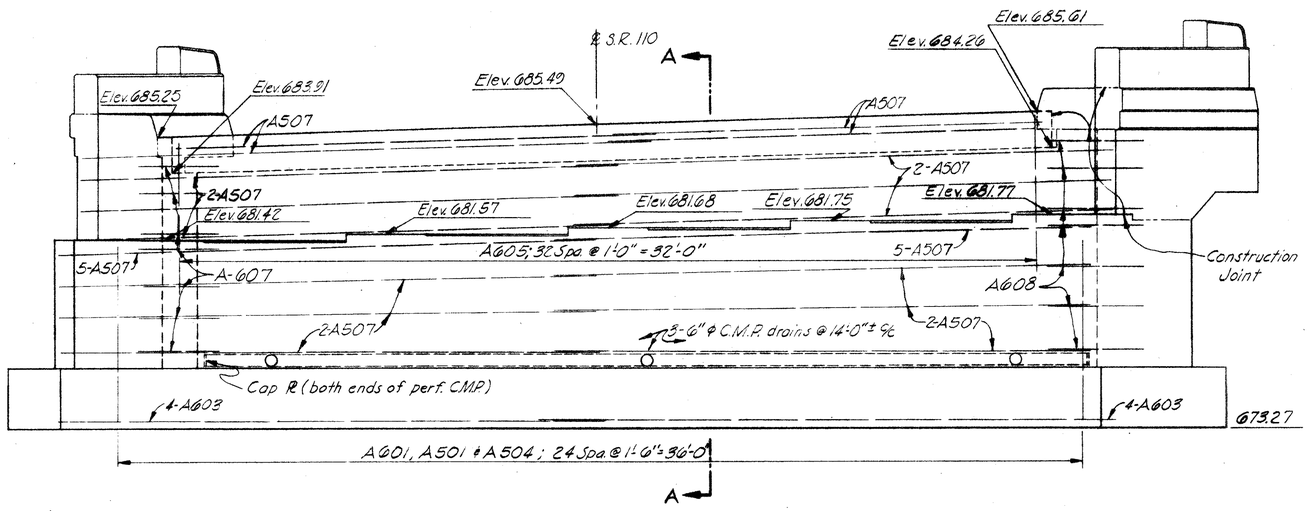
195
231

HENRY COUNTY
HEN-6-16.43

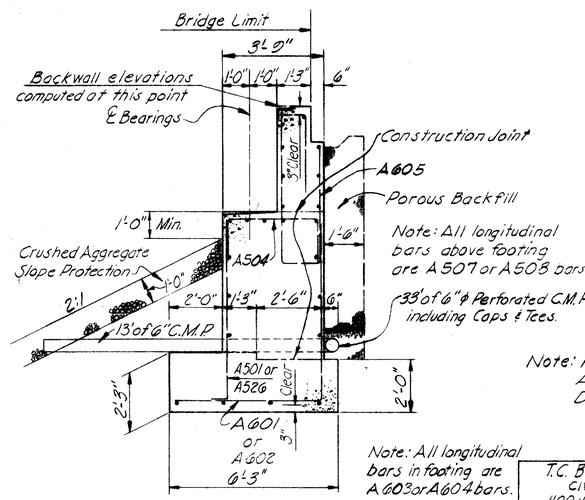


PLAN

ABUTMENT FOOTING PLAN



ELEVATION



SECTION A-A

Note: For details not shown see Forward Abutment Details or Abutment Details and Reinforcing Steel List.

Note: All longitudinal bars in footing are A603 or A604 bars.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

REAR ABUTMENT DETAILS
Bridge No. Hen-6-1707
U.S. 6 under S.R. 110

Henry County Sta 883+82.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.v.R.		J.C.O.	J.M.	10-20-65	

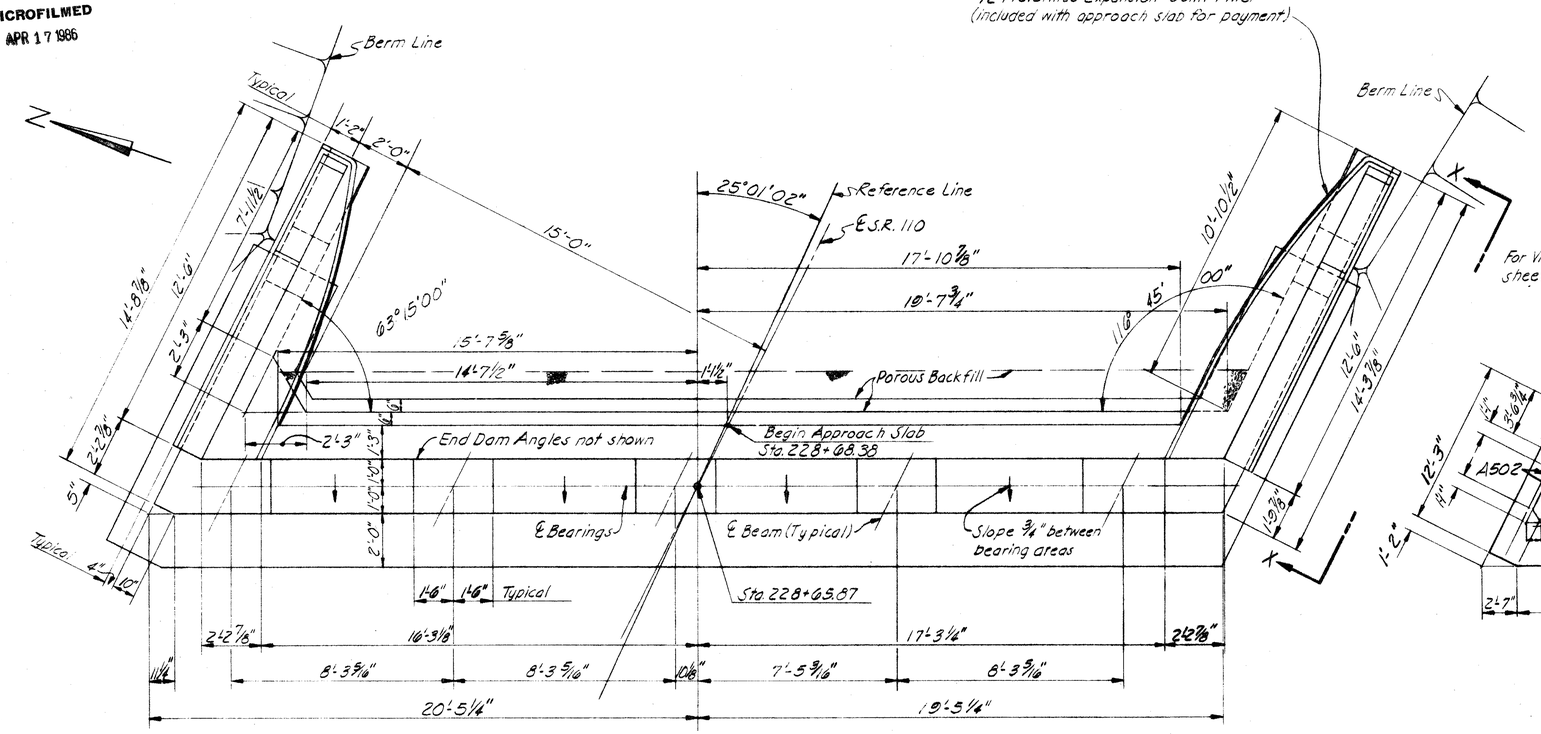
MICROFILMED
APR 17 1986

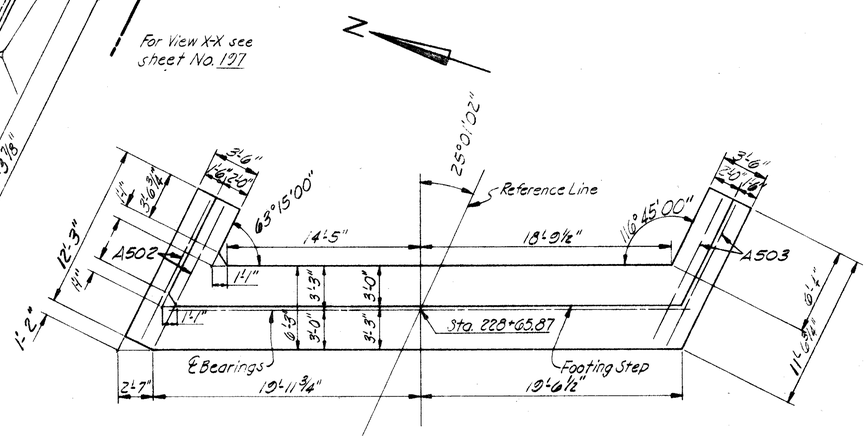
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

196/231

HENRY COUNTY
HEN-6-16.43

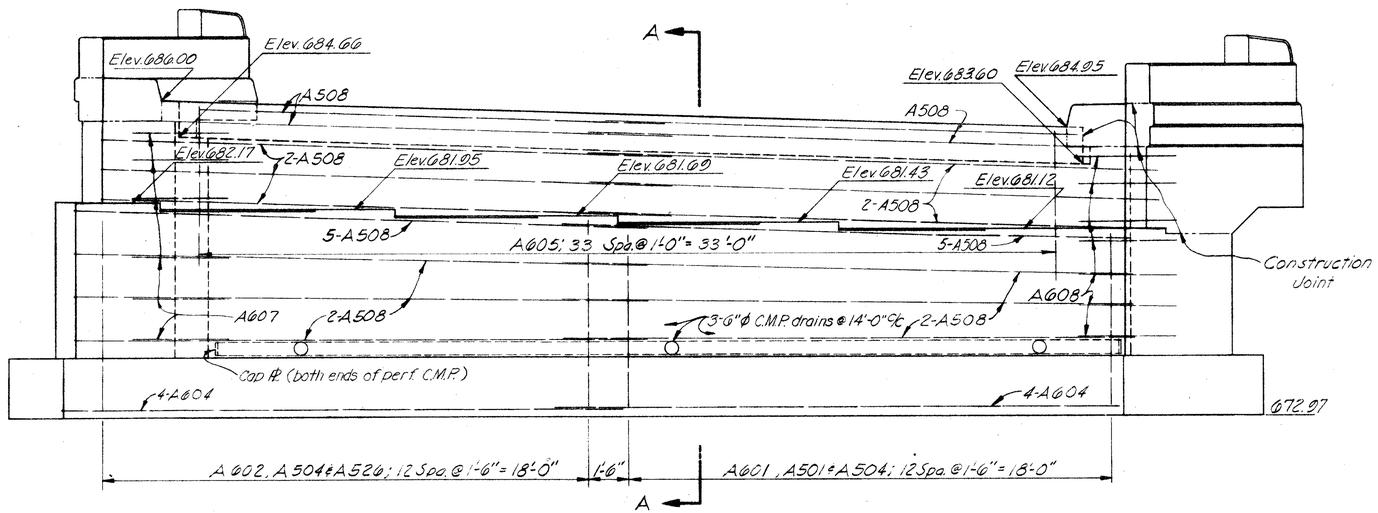
½"Preformed Expansion Joint Filler (included with approach slab for payment)



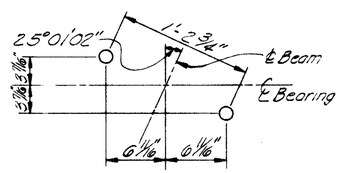


PLAN

ABUTMENT FOOTING PLAN



ELEVATION



ANCHOR BOLT LAYOUT
(TYPICAL FOR BOTH ABUTMENTS)

Note: Special care shall be taken when placing reinforcing steel in bearing areas to avoid interference with the drilling of anchor rod holes. Set anchor rods before end crossframes.

Note: For details not shown see Rear Abutment Details or Abutment Details and Reinforcing Steel List.

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

FORWARD ABUTMENT DETAILS
Bridge No. Hen-6-1707
U.S. 6 under S.R. 110

Henry County Sta. 883+89.03

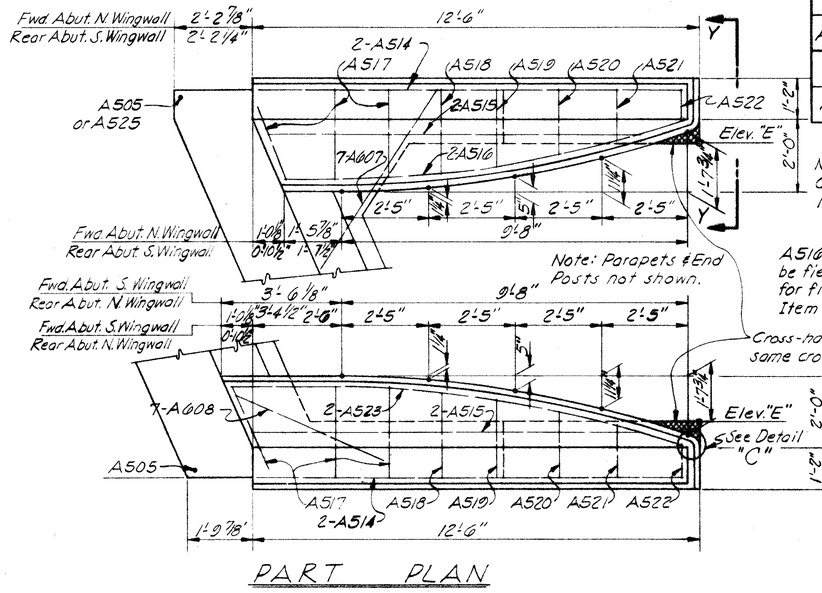
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.W.R.		J.C.O.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HENRY COUNTY
HEN-6-16.43

(197/231)

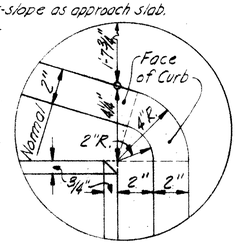


PART PLAN

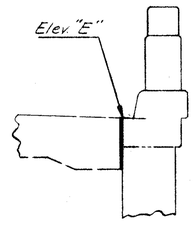
Note: Parapets & End Posts not shown.

A516 & A523 bars along face of curb shall be field bent to fit curvature. Payment for field bending shall be included with Item 509.

Cross-hatched area to have same cross-slope as approach slab.



DETAIL "C"

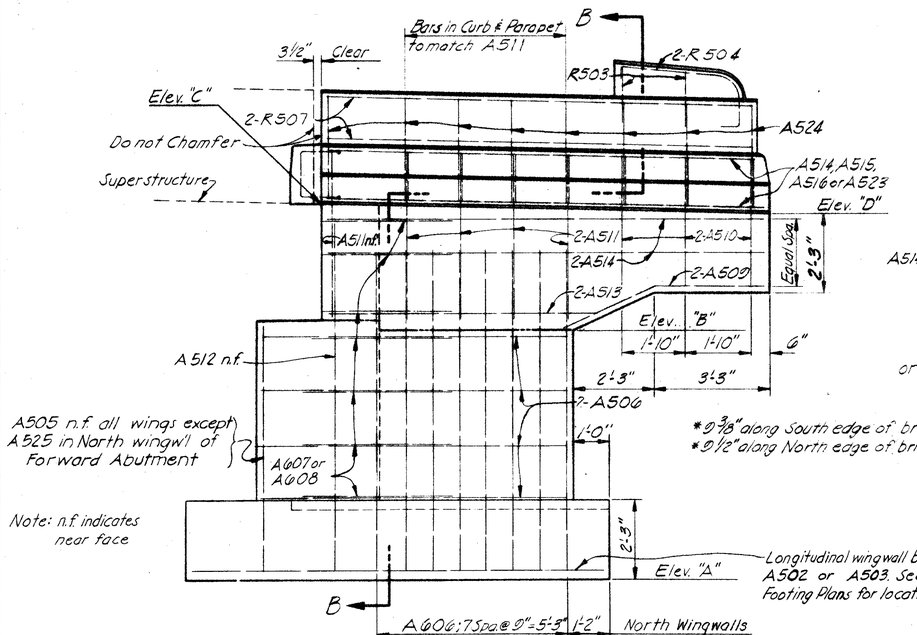


VIEW Y-Y

TABLE OF ELEVATIONS

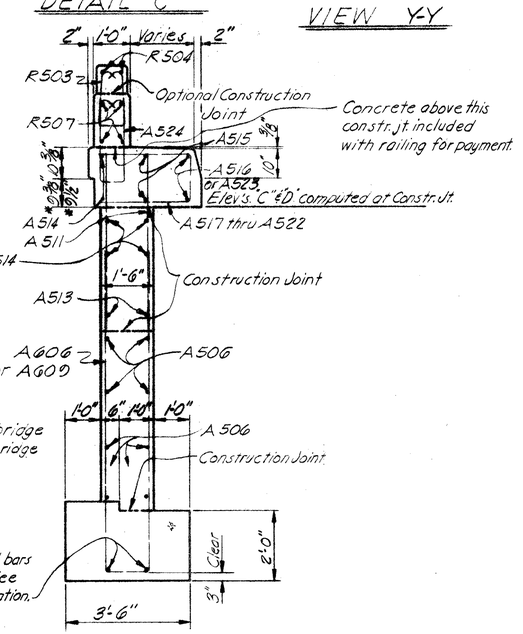
Abutment	Wingwall	Elevation Point Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
Rear	North	673.27	681.42	684.81	684.70	685.48
	South	673.27	681.13	684.47	684.41	685.20
Forward	North	672.97	681.94	685.22	685.19	685.97
	South	672.97	680.77	684.16	684.02	684.81

Note: For details of Railing and Parapet not shown, see General Plan and Elevation, and Standard Drawing No. BR-1-65, sheet No. 1



VIEW X-X

Note: View of other wingwalls Similar except for dimensions indicated in plan views



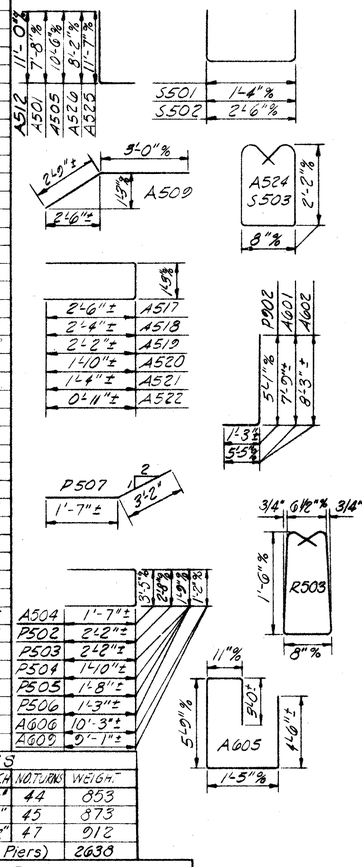
SECTION B-B

* ⌀ 3/8" along South edge of bridge
* ⌀ 1/2" along North edge of bridge

REINFORCING STEEL LIST

MARK	NO.	LENGTH	WEIGHT	SHP.
ABUTMENTS				
A501	38	8'-2"	324	B
A502	4	11'-9"	49	S
A503	4	11'-3"	47	S
A504	51	6'-4"	337	B
A505	3	7'-11"	25	B
A506	32	6-8"	223	S
A507	38	19'-9"	783	S
A508	38	20'-3"	803	S
A509	8	5'-9"	48	B
A510	24	3'-6"	88	S
A511	28	4'-3"	124	S
A512	4	11'-6"	48	B
A513	8	7'-6"	63	S
A514	24	12'-2"	305	S
A515	8	10'-9"	90	S
A516	4	11'-3"	47	S
A517	12	6'-0"	75	B
A518	4	5'-8"	24	B
A519	4	5'-4"	22	B
A520	4	4'-8"	19	B
A521	4	3'-8"	15	B
A522	4	2'-10"	12	B
A523	4	13'-0"	54	S
A524	32	5'-7"	186	B
A525	1	9'-0"	10	B
A526	13	8'-8"	118	B
R503	8	41-2"	*	B
R504	8	5'-4"	*	B
R507	16	11'-10"	*	S
A601	38	13'-0"	742	B
A602	13	13'-6"	264	B
A603	8	21'-4"	256	S
A604	8	21'-10"	262	S
A605	67	15'-0"	1,510	B
A606	16	21'-4"	513	B
A607	14	5'-9"	121	S
A608	14	4'-6"	95	S
A609	16	10'-0"	457	B
		Total	8,159	

BENDING DIAGRAMS



MARK	NO.	LENGTH	WEIGHT	SHP.
PIERS				
P501	30	6'-8"	271	S
P502	51	6'-9"	359	B
P503	48	5'-10"	292	B
P504	24	5'-2"	120	B
P505	24	4'-10"	121	B
P506	24	4'-0"	100	B
P507	18	4'-0"	80	B
P508	6	35'-8"	223	S
P601	117	6'-8"	1,172	S
P701	30	35'-0"	2,146	S
P702	18	20'-9"	1,095	S
P801	12	35'-8"	1,143	S
P901	36	35'-8"	4,366	S
P902	108	6'-1"	2,234	B
P903	36	18'-3"	2,234	S
P904	36	18'-8"	2,335	S
P905	36	19'-0"	2,326	S
P1001	36	9'-6"	1,472	S
Total			24,605	
SUPERSTRUCTURE				
S701	287	35'-8"	20,923	S
	2	8'-0"		
S702	Series of 17	to 33'-8"	1,448	S
S703	8	6'-0"	98	S
S601	287	35'-8"	15,375	S
S602	441	34'-7"	22,907	S
S603	72	27'-0"	2,920	S
	2	8'-0"		
S604	Series of 17	to 33'-8"	1,064	S
S605	8	6'-0"	72	S
S501	616	2'-4"	1,499	B
S502	308	3'-6"	1,124	B
S503	308	5'-7"	1,794	B
R501	120	13'-7"	*	S
R502	16	10'-9"	*	S
		Total	69,224	
Grand Total			102,264	

Vary by 1'-7 1/4"

Vary by 1'-7 1/4"

SPIRAL BARS

MARK	NO.	CORE DIA. & SPIRAL	LENGTH	PITCH	NO. TURNS	WEIGHT
SP401	3	32"	15'-6 1/2"	4 1/2"	44	853
SP402	3	32"	15'-11 1/4"	4 1/2"	45	873
SP403	3	32"	16'-4"	4 1/2"	47	912
Total (Included with Piers)						2638

REPLACEMENT BARS				
RE1000	1	7'-2"	——	S
RE900	1	6'-10"	——	S
RE800	1	6'-6"	——	S
RE700	2	6'-2"	——	S
RE600	3	5'-11"	——	S
RE500	1	5'-7"	——	S
RE400	1	5'-3"	——	B

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 "No. of Turns" shown 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 509. 1½ closed coils shall be provided at the ends of each spiral unit.

Four 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.

BAR SIZE

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, A700 is a No. 7 size bar and A1014 is a No. 10 size.

* Included with railing for payment

T. C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON ST. TOLEDO, OHIO

ABUTMENT DETAILS AND REINFORCING STEEL LIST
Bridge No. Hen-6-1707

U.S. 6 under S.R. 110

Henry County Sta. 883+89.03

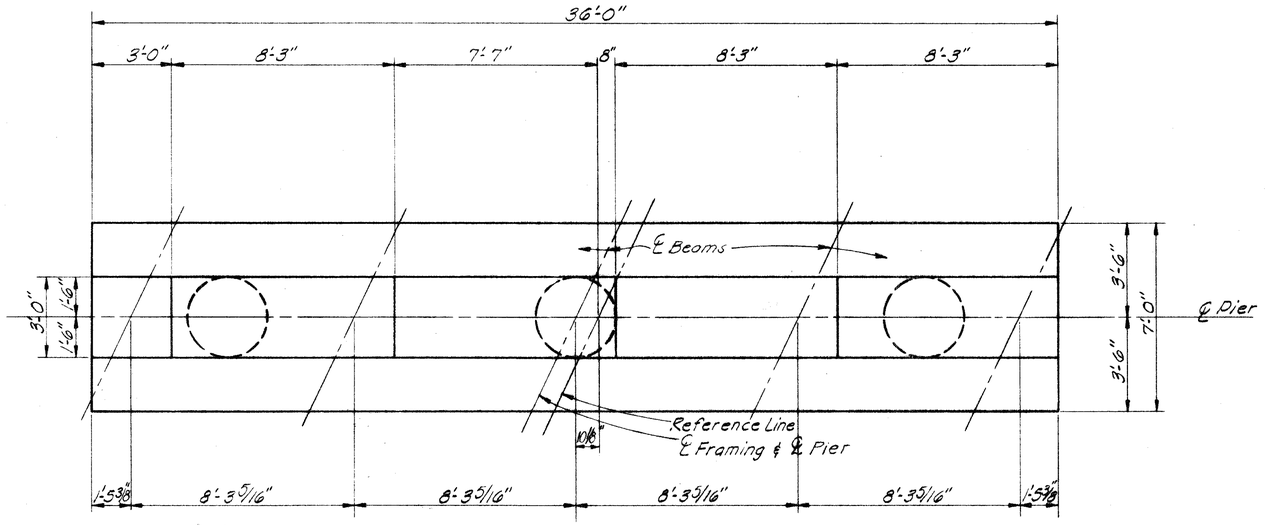
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.V.R.		J.C.Q.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	.	

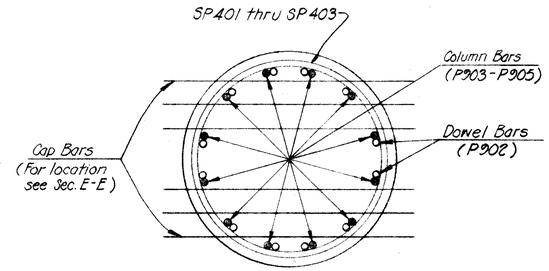
198
231

HENRY COUNTY
HEN-6-16.43



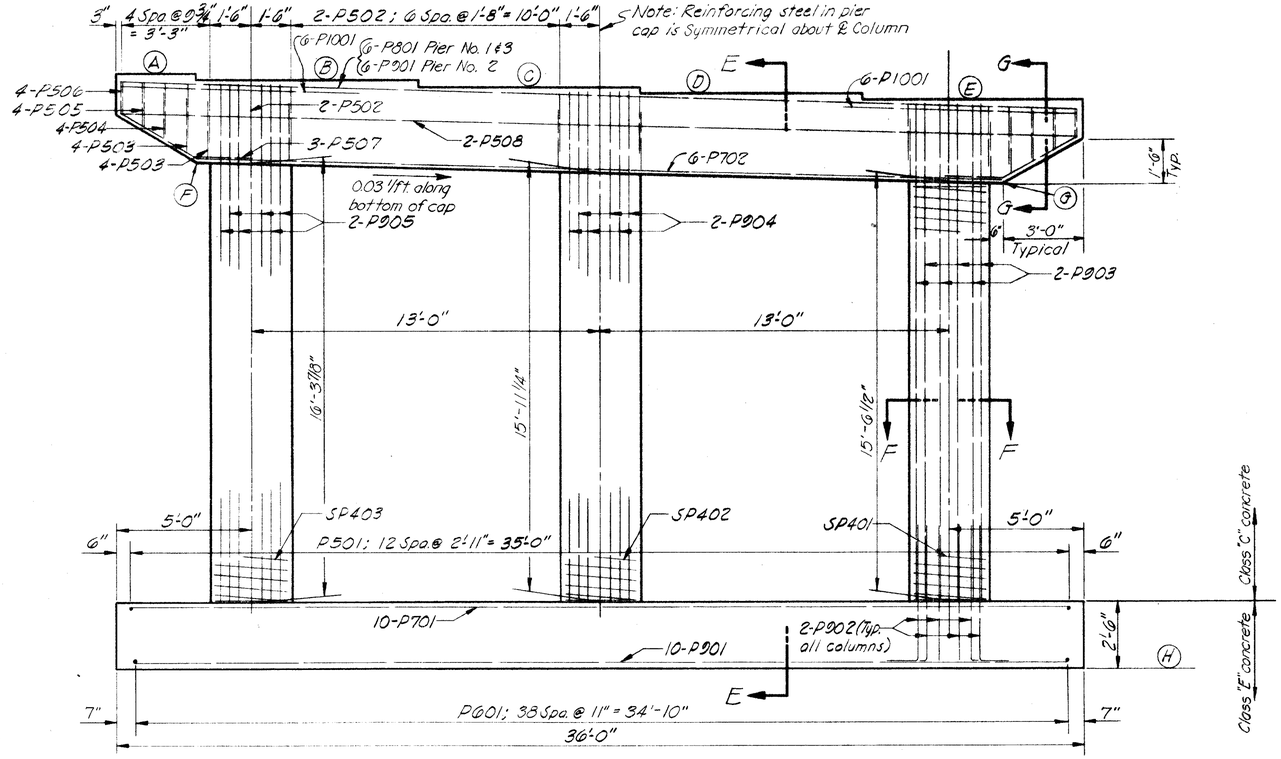
PLAN

TABLE OF ELEVATIONS								
LOCATION	Elevation Point							
	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ
Pier No. 1	682.17	682.02	681.83	681.63	681.43	679.02	678.12	660.14
Pier No. 2	682.13	681.88	681.66	681.40	681.18	678.88	677.98	660.00
Pier No. 3	682.32	682.07	681.82	681.57	681.31	679.05	678.15	660.17

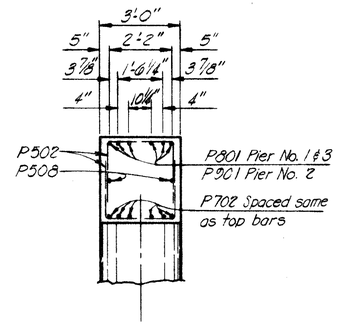


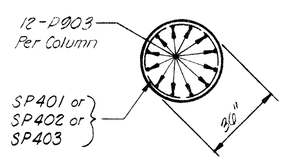
COLUMN BAR PLACEMENT DETAIL

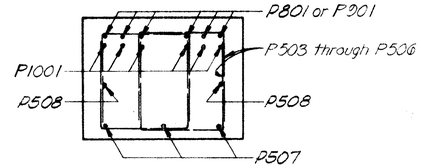
Special care shall be taken in placing the column dowels (P902) in such a location that there will be no interference between the column and cap steel.



ELEVATION

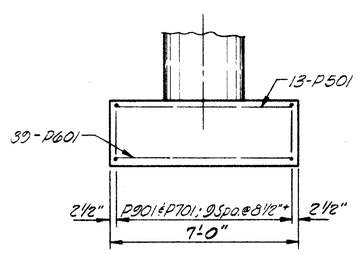






SECTION G-G

BRIDGE SEAT REINFORCING: Special care shall be taken in placing the reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of the anchor bar holes.



SECTION E-E & SECTION F-F

T. C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

PIER DETAILS
Bridge No. Hen-6-1707
U.S. 6 under S.R. 110
Henry County Sta. 883+89.03

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.V.R.		J.C.O.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

FED. RD. DIV.	STATE	PROJECT	
2	OHIO		

199/231

HENRY COUNTY
HEN-6-16.43

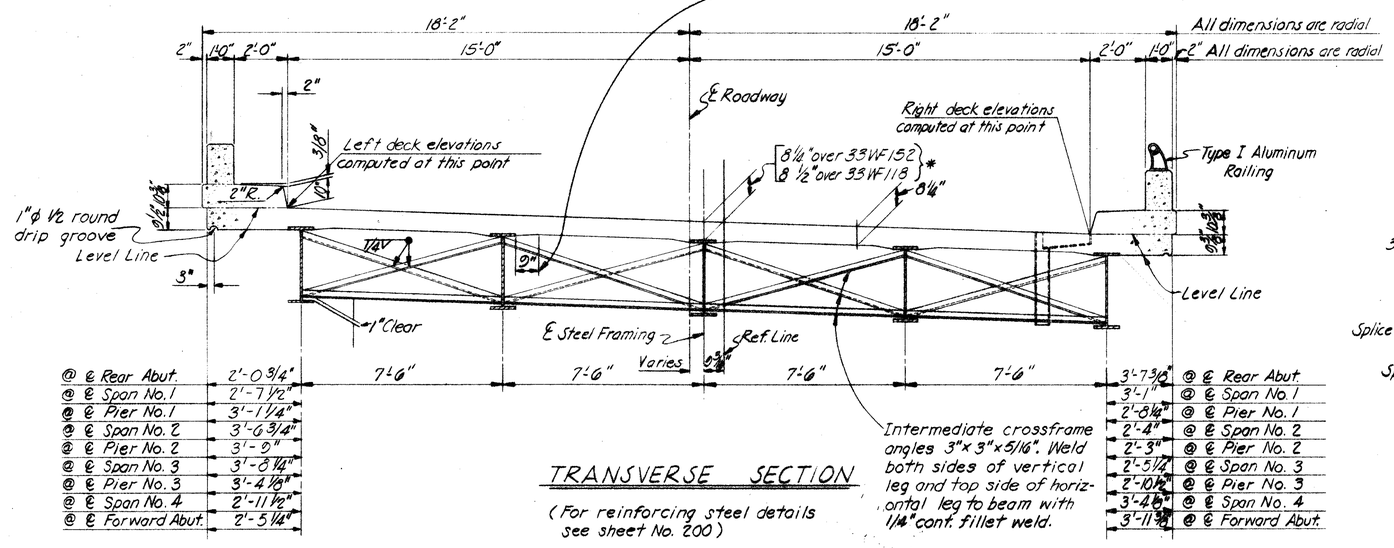
REFERENCE TO STANDARD DRAWINGS shall be made for the following items:

SD-1-65 dated 11-8-65, Sht. no. 1 End Crossframes and End Dams.
Sht. no. 2 Additional Scupper Details, Curb Plates and
Sht. no. 3 Splices Moment Plates.
FSB-1-62 revised 1-15-63 Bearings
BR-1-65 revised 11-24-65 Sht. no. 1 Railing

A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

SLAB THICKNESS shown includes 1" for monolithic wearing surface.

* These are the nominal dimensions. The quantity of deck concrete to be paid for shall be based upon these dimensions, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 511.19 of the Construction and Material Specifications.

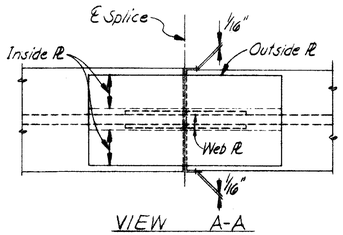


@ ℄ Rear Abut.	2'-0 3/4"
@ ℄ Span No. 1	2'-7 1/2"
@ ℄ Pier No. 1	3'-1 1/4"
@ ℄ Span No. 2	3'-6 3/4"
@ ℄ Pier No. 2	3'-9"
@ ℄ Span No. 3	3'-8 1/4"
@ ℄ Pier No. 3	3'-4 1/8"
@ ℄ Span No. 4	2'-11 1/2"
@ ℄ Forward Abut.	2'-5 1/4"

@ ℄ Rear Abut	3'-7 3/8"
@ ℄ Span No. 1	3'-1"
@ ℄ Pier No. 1	2'-8 1/4"
@ ℄ Span No. 2	2'-4"
@ ℄ Pier No. 2	2'-3"
@ ℄ Span No. 3	2'-5 1/4"
@ ℄ Pier No. 3	2'-10 1/2"
@ ℄ Span No. 4	3'-4 5/8"
@ ℄ Forward Abut.	3'-11 3/8"

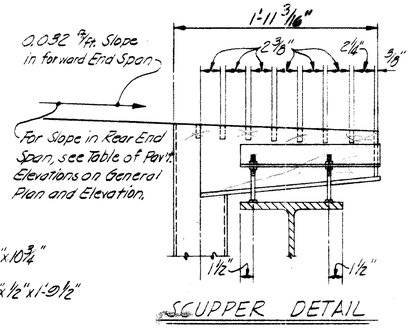
TRANSVERSE SECTION

(For reinforcing steel details see sheet No. 200)

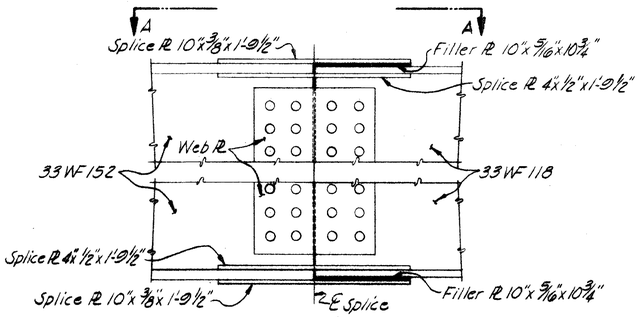


VIEW A-A

Note: For additional details see Std. Dwg. SD-1-65, Sht. No. 2.



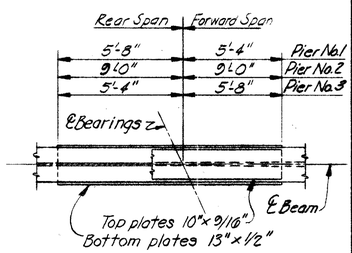
SCUPPER DETAIL



Note: For details and data not shown, see Standard Bolted Beam Splice Details for a 33WF118 as shown on Std. Dwg. SD-1-65, Sht. No. 3.

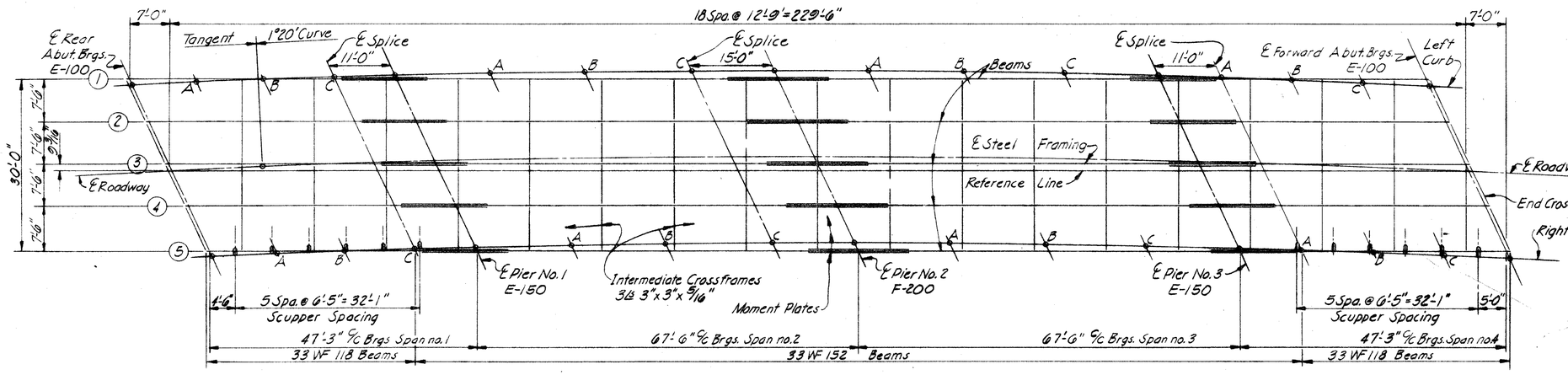
FILLER PLATE DETAIL AT BEAM SPLICE IN END SPANS

(For Splice Details in center span, see Standard Bolted Beam Splice Details for a 33WF152 as shown on Standard Drawing SD-1-65.)



MOMENT PLATE DETAIL

Note: Fascia of deck and the curb line shall follow the roadway alignment. Beams are centered on a line that is parallel to the chord between ℄ Abutment Bearings.



STEEL FRAMING PLAN

T.C. BIEBESHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

Bridge No. Hen-6-1707

U.S. 6 under S.R. 110

Henry County Sta. 883+89.03

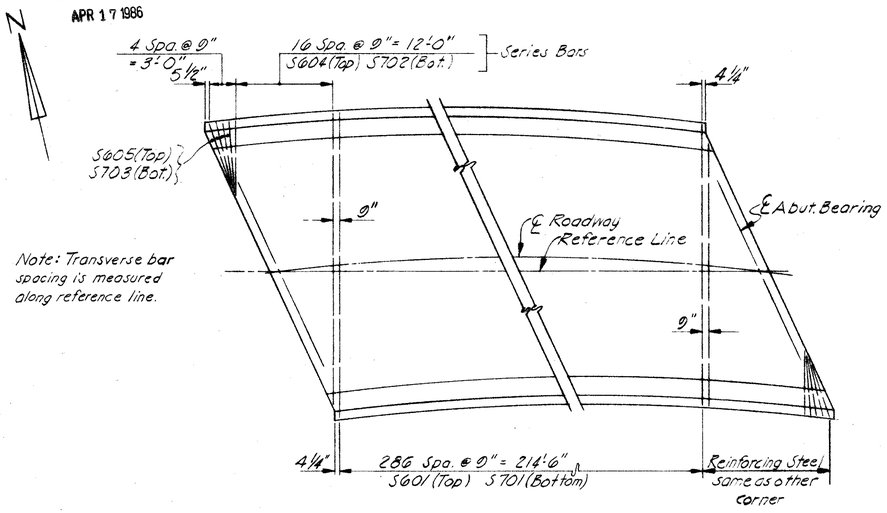
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.	R.v.R.		J.C.O.	J.M.	10-20-65	

MICROFILMED
APR 17 1986

FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

200
231

HENRY COUNTY
HEN-6-16.43



Note: Transverse bar spacing is measured along reference line.

DIAGRAM OF TRANSVERSE BARS

DEFLECTION AND CAMBER

LOCATION	END SPANS A	END SPANS B	END SPANS C	CENTER SPANS A	CENTER SPANS B	CENTER SPANS C
Deflection due to weight of steel.	0	0	0	1/16	1/8	1/16
Deflection due to remaining dead load.	1/16	1/8	1/16	3/16	3/8	3/16
Adjustment required for vertical curve.	1/8	3/16	1/8	1/4	3/8	1/4
REQUIRED SHOP CAMBER	3/16	5/16	3/16	1/2	7/8	1/2

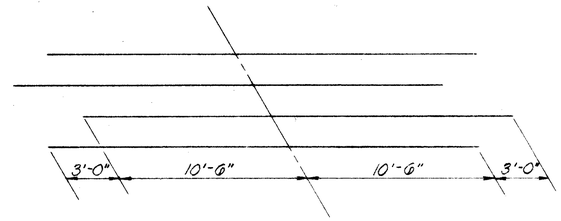


DIAGRAM SHOWING STAGGER OF S603 BARS OVER PIERS

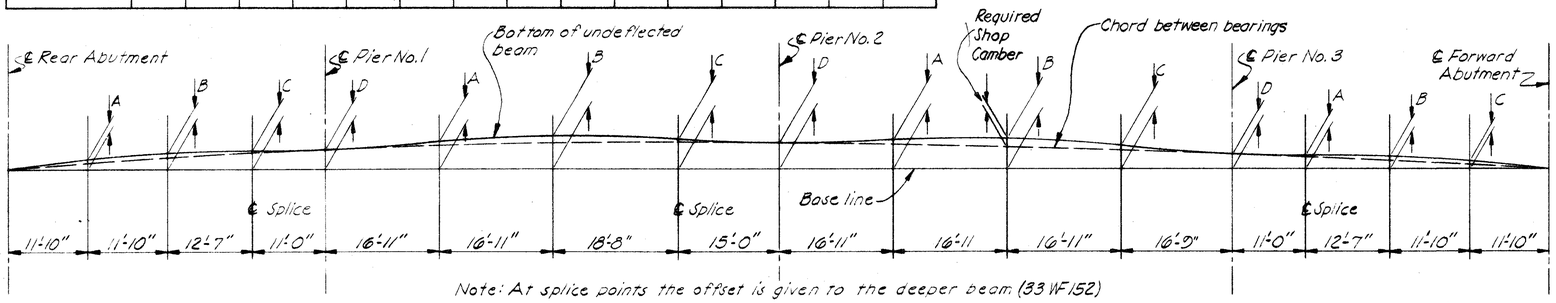
DECK ELEVATIONS BEFORE PLACEMENT OF SUPERSTRUCTURE CONCRETE

LOCATION	℄ Rear Abut.	Span No. 1 A	Span No. 1 B	Span No. 1 C	℄ Pier No. 1	Span No. 2 A	Span No. 2 B	Span No. 2 C	℄ Pier No. 2	Span No. 3 A	Span No. 3 B	Span No. 3 C	℄ Pier No. 3	Span No. 4 A	Span No. 4 B	Span No. 4 C	℄ Fwrd. Abut.
Left Curb Elev.	685.42	685.74	685.86	685.98	686.09	686.25	686.32	686.33	686.33	686.34	686.34	686.20	686.23	686.19	686.15	686.08	686.01
Right Curb Elev.	685.25	685.28	685.31	685.32	685.33	685.36	685.39	685.38	685.37	685.37	685.35	685.20	685.21	685.17	685.11	685.04	684.95

Note: The elevation points are shown on Steel Framing Plan thus: "℄". For dimensional location of point, see Diagram Showing Vertical Offsets from Bottom of Beam to Base Line.

TABLE OF VERTICAL OFFSETS

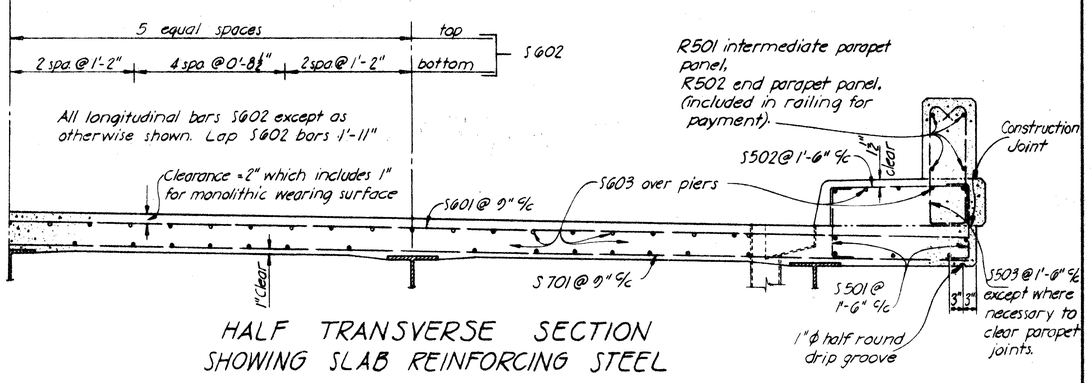
Location	Span No. 1 A	Span No. 1 B	Span No. 1 C	Pier No.1 D	Span No. 2 A	Span No. 2 B	Span No. 2 C	Pier No.2 D	Span No. 3 A	Span No. 3 B	Span No. 3 C	Pier No.3 D	Span No. 4 A	Span No. 4 B	Span No. 4 C
Beam Line ①	1 3/16	2 3/8	3 1/4	4 5/16	6"	6 9/16	6 5/16	5 7/8	5 3/4	5 7/16	4 11/16	3 5/16	2 5/8	2 1/8	1 1/8
Beam Line ②	1	2	2 3/16	3 5/16	4 3/8	4 7/8	4 3/4	4 7/16	4 1/16	4 5/16	3 1/2	2 9/16	2	1 1/16	7/8
Beam Line ③	7/8	1 5/8	1 5/8	2 1/4	3 1/16	3 1/16	3 1/16	3 1/2	3 1/16	3 1/16	3	2 3/16	1 3/4	1 1/2	1 3/16
Beam Line ④	1 1/16	1 1/4	1 3/8	1 5/8	2 3/8	2 15/16	3	2 7/8	3 1/8	3 1/4	2 5/8	1 15/16	1 9/16	1 3/8	3/4
Beam Line ⑤	9/16	1 1/16	1 1/16	1 3/8	2 1/16	2 3/4	2 7/8	2 7/8	3 1/4	3 3/8	2 13/16	2 1/16	1 3/4	1 9/16	13/16



Note: At splice points the offset is given to the deeper beam (33 WF 152)

DIAGRAM SHOWING VERTICAL OFFSETS FROM BOTTOM OF BEAM TO BASE LINE

Spacing of longitudinal slab reinforcing steel symmetrical about ℄ steel framing except for bars in and below the curbs which shall be spaced parallel to the curved facia.



HALF TRANSVERSE SECTION SHOWING SLAB REINFORCING STEEL

T.C. BIEBE SHEIMER ENGINEERING CO.
CIVIL ENGINEERS AND SURVEYORS
1100 JACKSON STREET TOLEDO, OHIO

SUPERSTRUCTURE DETAILS

Bridge No. Hen-6-1707
U.S. 6 under S.R. 110
Henry County Sta. 883+39.03

DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE	REVISED
J.M.	R.V.R.		JCO	J.M.	10-20-65	

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

HEN-6-16.43

LIBERTY & HARRISON TOWNSHIPS
HENRY COUNTY

RIGHT-OF-WAY-ONLY

HENRY COUNTY
HEN-6-16.43

201
228

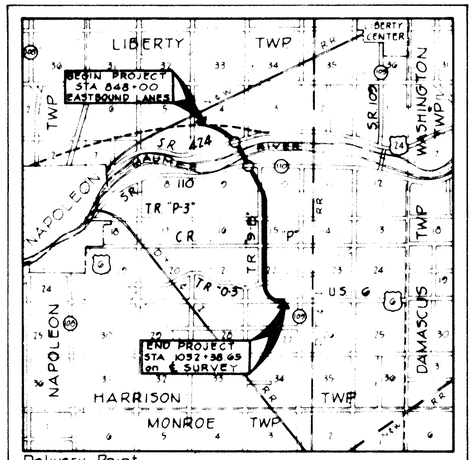
1
28

CONVENTIONAL SIGNS

Section Line		Underground Utilities	
Center Line		Trees or Stumps	indicate exist ○ remove ⊠
Property Line	#	Construction Limits	
Fence Line		Existing Right-of-Way	
Guard Rail		Right-of-Way Only	R/W
Railroads		Limited Access Right-of-Way	L/A R/W
Pole Lines	T telephone P power	Parcel Number	10WL

INDEX OF SHEETS

Title Sheet	1
Property Map	2&3
Center Line Survey Plat	4-8
Summary of Right-of-Way	9
Right-of-Way Sheets - U S 6	10-17
Right-of-Way Sheets - S R 424 Interchange	18-21
Right-of-Way Sheets - S R 110 Interchange	22-25
Cross Roads	26-28



Delivery Point
Average Haul _____ Mile

LOCATION MAP

SCALE OF MILES

Portion to be Improved
State Roads
Other Roads
Proposed Work under separate contract ------

SCALES

Plan	1" = 50'
Profile, Horizontal	1" = 50'
Profile, Vertical	1" = 5'
Cross Sections, Horizontal & Vertical	1" = 10'

LIMITED ACCESS

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

1965 SPECIFICATIONS

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 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 the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved
Date _____ Division Deputy Director

Approved
Date _____ Deputy Director of Right-of-Way

Approved
Date _____ Director of Highways

PLANS PREPARED BY:
T.C. BIEBESHEIMER ENGINEERING CO.
TOLEDO OHIO

by: T. C. Biebesheimer
Registered Professional Engineer
date: _____

STATE OF OHIO THOMAS C. BIEBESHEIMER 6253 PROFESSIONAL ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER DATE

FILE NO.	HENRY COUNTY	HEN-6-16.43
	DATE OF LETTING:	19
	CONTRACT NO.	

PROPERTY MAP

Sheet 1 of 2

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

202 / 228

2 / 28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

0 1 2 3 4 6 8 12
Scale in Hundreds of Feet

Sec. 3, T.5 N, R.7 E., Liberty Twp, Henry Co.

Sec. 4, T.5 N., R.7E., Liberty Twp, Henry Co.

Sec. 10, T.5 N, R.7 E., Harrison Twp, Henry Co.

Sec. 15, T.5 N, R.7E, Harrison Twp, Henry Co.

Sec. 9, T.5 N, R.7E, Liberty Twp, Henry Co.

Sec. 9, T.5 N, R.7E, Harrison Twp. Henry Co.

Sec. 16, T.5 N, R.7 E., Harrison Twp, Henry Co.

End Sheet

HARRISON TOWNSHIP

MAUMEE RIVER

LIBERTY TOWNSHIP

Orley F. & Frances Babcock DA.- 3.56 Ac.

Rowena McCabe DA.- 73.42 Ac.

Roy E. McCabe

Walter H. & Lula Richenberg DA.- 96.72 Ac.

BEGIN PROJECT W.B. Lanes Sta. 852+00

Exist. L/A R/W

Exist. 4A R/W

Lot No. 5

(US 24)

Roy E. McCabe (10)

4A R/W

END ACQUISITION Hen-6-1173

BEGIN ACQUISITION Sta. 864+32.56 Hen-6-16.63

(L) 6.8 Ac.±

BEGIN PROJECT E.B. Lanes + Ramp "A" Sta. 848+00

Albert Richenberg DA.- 104.89 Ac.

Stebbins Lot No. 3

Miami & Erie Canal R/W

Earl Zahrend Farm Lot No. 4

SR. 110

Audrey E. & Alice E. Baker (20)

Lloyd L. & Pamela Spears - DA.- 0.49 Ac. (14)

Robert H. & Esther Fisher (16)

Stevan Jacqueline Rapaich DA.- 0.09 Ac. (18)

Richard A. & Thelma Sheper - DA.- 0.223 Ac.

Leonhard W. & Edna M. Witte DA.- 97.4 Ac.± (22A)

B. Lucille McComb DA.- 50.506 Ac. (13)

Walter B. Crahan James Donovan III, etal (11)

(L) 10.645 Ac.±

1.0 Ac.±

James E. & Frances R. Kelly DA.- 8.43 Ac. (11A)

Walter B. Crahan James Donovan III, etal DA.- 87.064 Ac.±

(15)

C.D. 154&2

Martin Baden DA.- 37 Ac.± (17)

(L) 6 Ac.±

Ralph & Mary Helen Brown (L.E.) etal. DA.- 40 Ac.± (19)

Helen Brown & Annabelle Daso DA.- 80 Ac.± (24)

Sec. 10 Sec. 15

LRW

Sta. 925+00

T.C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

Property Map

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
Rich	Kurt	Rich			

6408-9

Property Map

PROPERTY MAP

Sheet 2 of 2

FED. ROAD DIVISION	STATE	PROJECT	
	OHIO		

203/228

3/28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

0 1 2 3 4 6 8 12
Scale in Hundred's of Feet

Sec. 15, T.5 N., R.7 E., Harrison Twp., Henry Co.

Sec. 22, T.5 N., R.7 E., Harrison Twp., Henry Co.

Sec. 27, T.5 N., R.7 E., Harrison Twp., Henry Co.

Sec. 16, T.5 N., R.7 E., Harrison Twp., Henry Co.

Sec. 21, T.5 N., R.7 E., Harrison Twp., Henry Co.

Begin Sheet

Sta. 225+00

"Ridge Road"

END ACQUISITION-SR 109 & Existing U.S. 6

END PROJECT Sta. 1032+38.65

C.D. 1556-2

C.D. 1236

C.D. 1348

C.R. 0-3

T.R. 9-B

T.R. 10

U.S. 6

4A R/W

Ralph & Mary Helen Brown — Julian Wheeler D.A. = 40 Ac.± — (21)

Latora Rennecker, et al D.A. = 20 Ac.± — (23)

Mildred Bowerman D.A. = 20 Ac.± — (25)

Clarence D. & Wonne J. Schwab D.A. = 45 Ac.± — (27)

Lawrence O Rickenberg D.A. = 80 Ac.± — (29)

Elmer & Pauline E. Dishop D.A. 28 Ac.± — (31)

Helen Brown, Ralph Brown & Annabelle Leona Brown D.A. = 80 Ac.± — (26)

Arthur G. & Nettie M. Gunter D.A. = 40 Ac.± — (28)

Paul B. & Kathleen Hammond D.A. = 4 Ac.± — (30)

Melvin C. & Florence M. Bauman D.A. = 36 Ac.± — (32)

(32A)

(32B)

Milton W. Gisler, et al D.A. = 120 Ac.± — (34)

(34A)

Julia M. Hartwick D.A. = 14.5 Ac.± — (36)

Harry G. Nichols D.A. 25 Ac.± — (40)

Henry & Emilie Bennett D.A. 25 Ac.± — (38)

Joseph Beck, et al D.A. = 91.85 Ac.± — (42)

Clarence D. & Jay Huddle D.A. = 80 Ac.± — (44)

William C. & Laura A. Barton D.A. = 154.974 Ac.± — (35)

Milford & Darlyn Joyce Rohrbaugh D.A. = 0.51 Ac. — (44)

Larry & Margaret Burch D.A. = 0.38 Ac. — (38)

Lowell & Laura M. Wingert D.A. = 0.36 Ac. — (37)

Clyde E. Barton D.A. = 18.910 Ac.± — (48)

Orley U. & Gladys Hefflinger & James F. Hefflinger D.A. = 70 Ac.± — (50)

(L) 71.2 Ac.± — (41)

(46)

(33)

(42)

(19)

(24)

(L) 71.2 Ac.±

T. C. BIEBESHEIMER ENGINEERING COMPANY
CIVIL ENGINEERS AND SURVEYORS TOLEDO, OHIO

Property Map

DESIGNED	TRACED	CHECKED	REVIEWED	DATE	REVISED
Kwb	Kwb	Kwb			

Property Map

6408-3

State of Ohio, Department of Highways

CENTER LINE SURVEY PLAT
US-6 Sec(16&43)
HENRY COUNTY
LIBERTY TOWNSHIP, R.7E., T.5N., Sec's. 3, 4, 9 & 10
HARRISON TOWNSHIP, R.7E., T.5N., Secs. 9, 10, 15, 22, 23, 26 & 27

Sheet 1 of 5

2/6

204

4/28

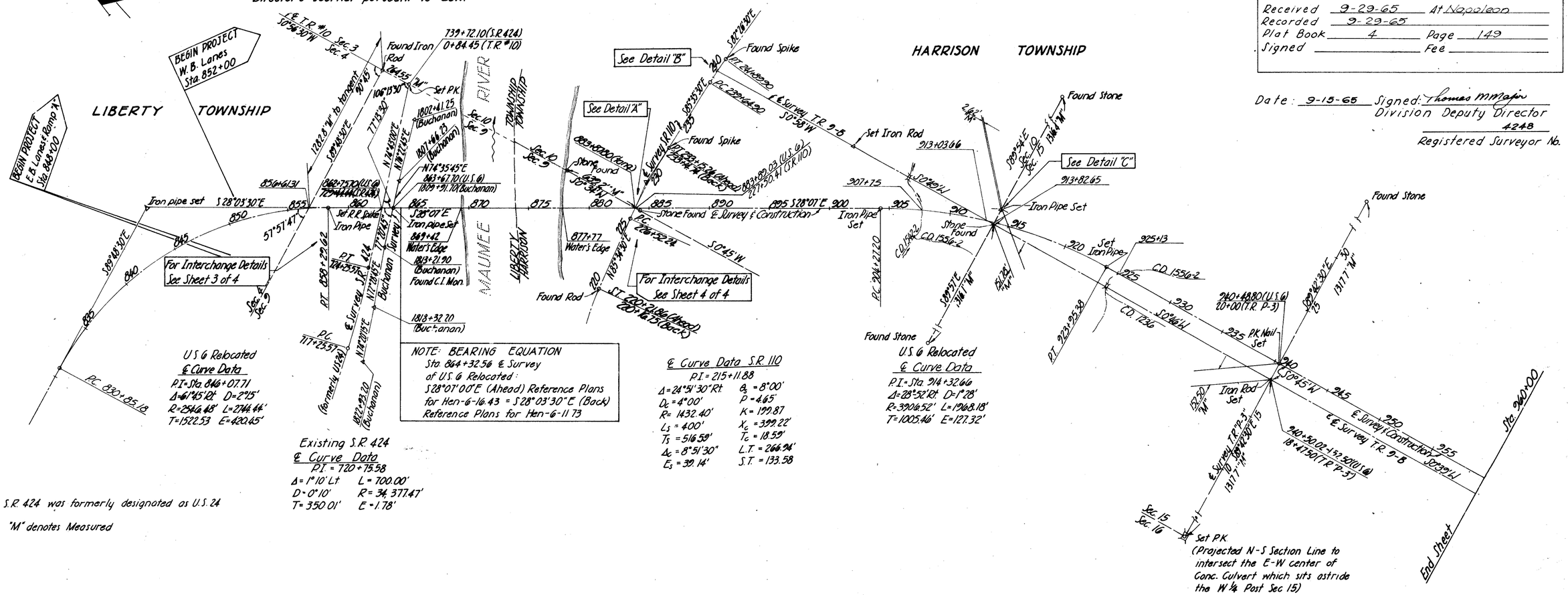
HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

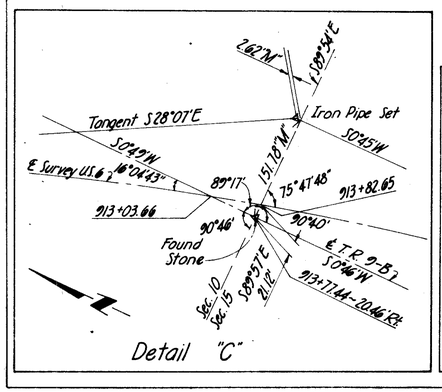
SCALE IN HUNDREDS OF FEET (0 1 2 3 4 6 8 12)

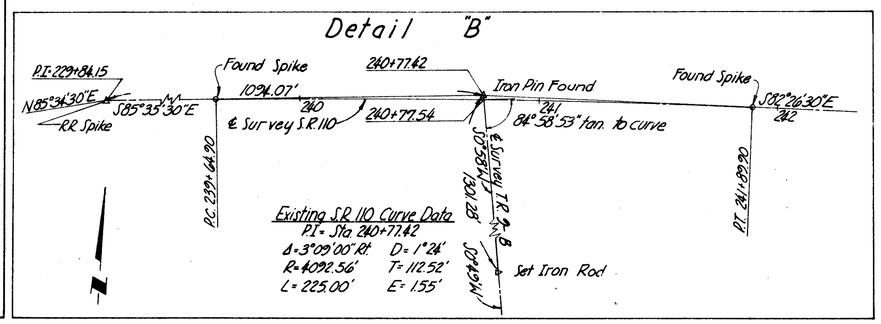
This improvement has been declared a Limited Access Highway by action of the Director of Highways and recorded in Volume 46, Page 660, of the Director's Journal pursuant to Law.

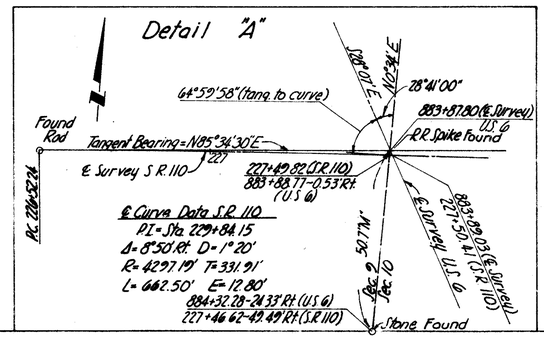
Received 9-29-65 At Napoleon
Recorded 9-29-65
Plat Book 4 Page 149
Signed _____ Fee _____

Date: 9-15-65 Signed: Thomas McMahon
Division Deputy Director
4248
Registered Surveyor No.









I hereby certify that this plat is a true delineation of a survey made by and for the Ohio Department of Highways in 1964.

Chester R. Foeller Date 9-1-65
Registered Surveyor No. 4703

Revision	Date	Description

Center Line Survey Plat

Drawn	Checked	Date
Rbh		

6408-9

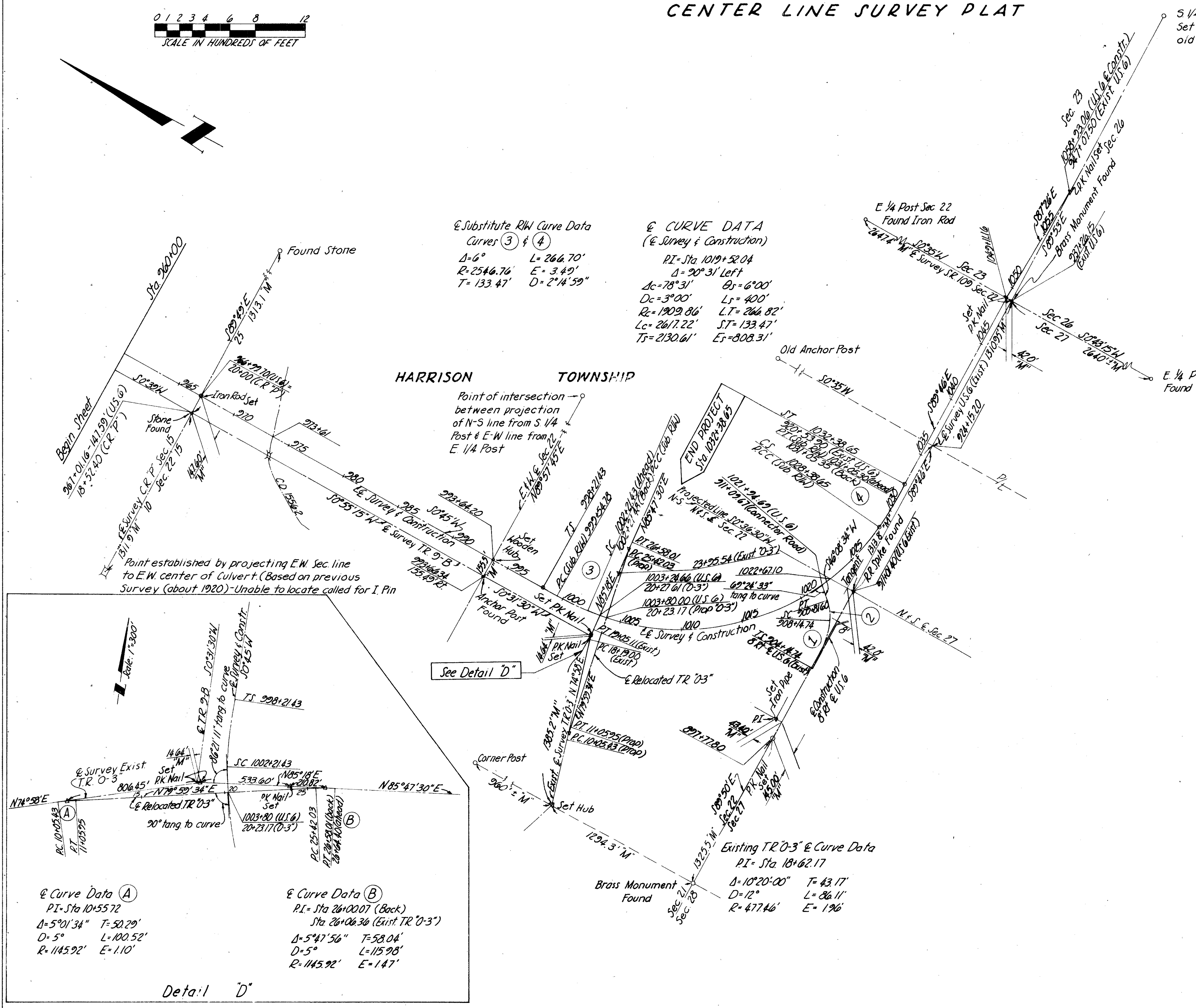
205

HENRY COUNTY
HEN.-6-16.43
LIMITED ACCESS

5/28

CENTER LINE SURVEY PLAT

Received ______________ At ______________
Recorded ______________
Plat Book ______________ Page ______________
Signed ______________ Fee ______________



Connector Road

℄ Curve Data - Curve (1)
P.I.= Sta. 907+92.24 (℄ Constr.)

Δc=44°01'26"	L.T.=269.16'
Ls=400'	S.T.=135.60
Dc=12°	p=13.88'
θs=24°	k=198.84'
Xc=393.04'	Ts=377.50'
Yc=55.16'	

℄ Curve Data - Curve (2)
P.I.= Sta. 908+99.03 (℄ Constr.)

Δ=20°01'26"	T=84.29'
D=12°	L=166.86'
R=477.46'	E=7.39'

Revision	Date	Description	
Center Line Survey Plat			
Drawn	Checked	Date	
Dah			

206

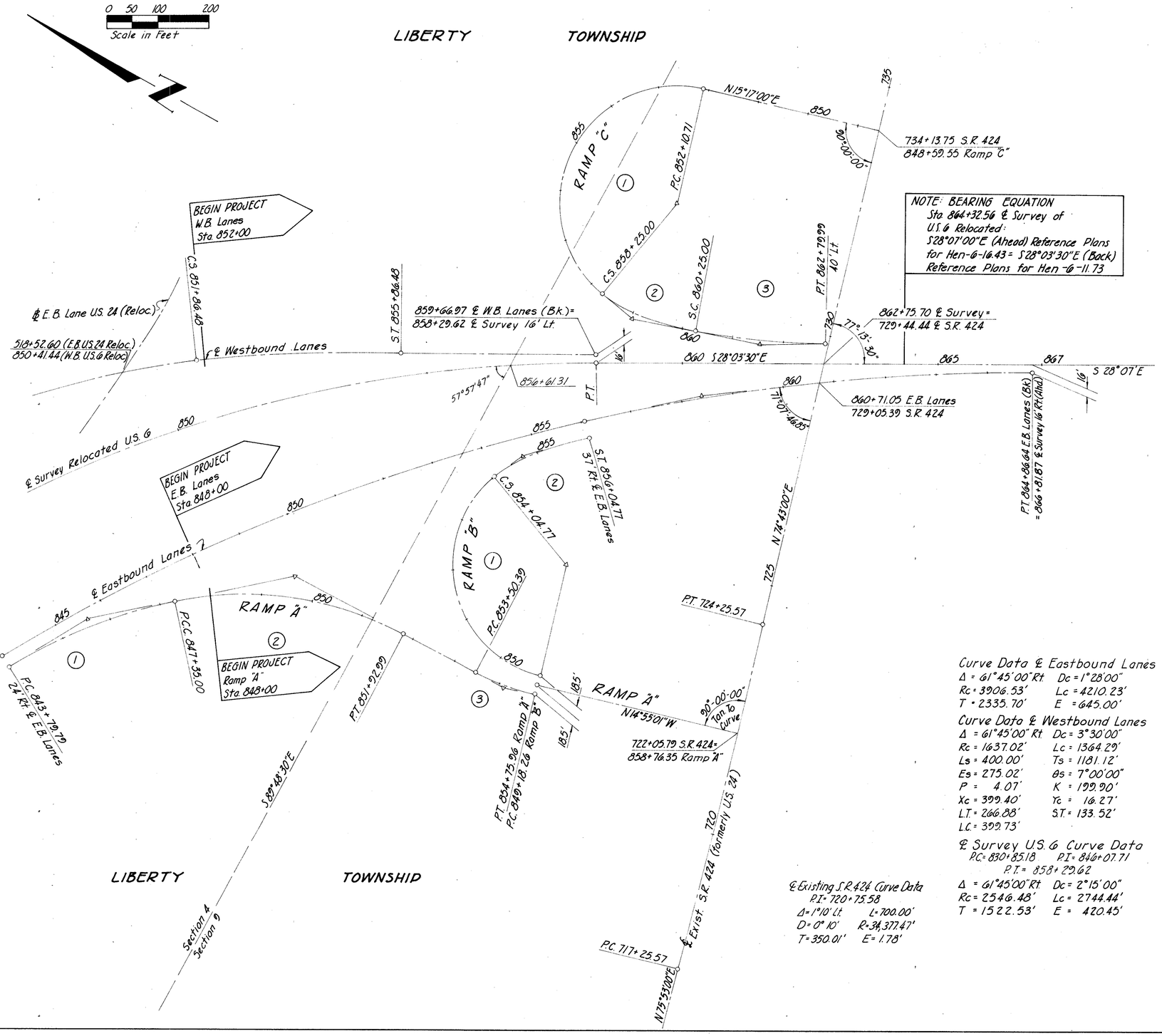
6/28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

CENTER LINE SURVEY PLAT

LIBERTY TOWNSHIP

0 50 100 200
Scale in Feet



Received _____ At _____
Recorded _____
Plat Book _____ Page _____
Signed _____ Fee _____

Curve Data ℄ Eastbound Lanes
Δ = 61°45'00"Rt Dc = 1°28'00"
Rc = 3906.53' Lc = 4210.23'
T = 2335.70' E = 645.00'

Curve Data ℄ Westbound Lanes
Δ = 61°45'00"Rt Dc = 3°30'00"
Rc = 1637.02' Lc = 1364.29'
Ls = 400.00' Ts = 1181.12'
Es = 275.02' θs = 7°00'00"
P = 4.07' K = 199.90'
Xc = 399.40' Yc = 16.27'
L.T. = 266.88' S.T. = 133.52'
L.C. = 399.73'

℄ Survey U.S. 6 Curve Data
P.C. = 830+85.18 P.I. = 846+07.71
P.T. = 858+29.62
Δ = 61°45'00"Rt Dc = 2°15'00"
Rc = 2546.48' Lc = 2744.44'
T = 1522.53' E = 420.45'

℄ Existing S.R. 424 Curve Data
P.I. = 720+75.58
Δ = 1°10' Lt. L = 700.00'
D = 0°10' R = 34,377.47'
T = 350.01' E = 1.78'

RAMP CURVE DATA

	Ramp "A"			Ramp "B"		Ramp "C"		
	①	②	③	①	②	①	②	③
Δc	19°25'06"Rt	39°41'31"Rt	15°04'07"Lt	126°29'33"Rt		153°34'31"Lt		10°11'59"Lt
Dc	5°28'	8°40'	12°	26°		25°		4°
Rc	1048.09'	661.11'	477.46'	220.37'		229.18'		1432.39'
Lc	355.21'	457.99'	125.57'	486.51'		614.29'		254.99'
Tc	179.33'	238.61'	63.15'					127.83'
Δs							29°	
Ero θo					θs = 26°		θo = 21°	
Ls					200'		200'	
Xc					195.92'			
Yc					29.81'			
L.T.					134.80'		126.55'	
S.T.					68.00'		77.82'	
P					7.51			
Pa							6.08'	
K					99.32'			

Revision	Date	Description

Center Line Survey Plat
Detail of U.S. 6 & S.R. 424 Interchange

Drawn	Checked	Date
RWF		

8408-D

CENTER LINE SURVEY PLAT

207

7
28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

Received _____ At _____
Recorded _____
Plat Book _____ Page _____
Signed _____ Fee _____

0 50 100 200
Scale in Feet

℄ Curve Data S.R. 110
P.I. = Sta. 229+84.15
Δ = 8°50' Rt D = 1°20'
R = 4297.19' T = 331.91'
L = 662.50' E = 12.80'

HARRISON TOWNSHIP

235+55.63 S.R. 110
885+83.84 Ramp "C"
S 85°35'30" E
235
90°00'00"
Exist S.R. 110 ℄ Survey & Constr.
P.T. 233+15.26 (Ahead) = 233+14.74 (Back)
P.T. 884+36.34 ℄ E.B. Lanes (Back) = 884+36.30 - 23' Rt. ℄ Survey (Ahead)
P.T. 884+36.34 ℄ W.B. Lanes (Back) = 884+36.30 - 23' Lt. ℄ Survey (Ahead)
230
185'
P.C. 889+36.07 Ramp "C"
P.C. 891+75.84 Ramp "D"
890
P.T. 890+66.60
P.C. 892+42.86
RAMP "D"
C.S. 886+60
S.T. 888+60
17.00'
RAMP "C"
P.C.C. 896+67.73
P.T. 900+22.72
47' Lt.
Section 10
Section 9
S 0°34' W
P.C. 878+50 W.B. Lanes
16' Lt. ℄ Survey
P.R.C. 881+43.15 - 19.5' Lt. ℄ Survey
= 881+43.17 ℄ W.B. Lanes
875 ℄ Survey U.S. 6
880 S 28° 07' E
885
890
895 ℄ Survey U.S. 6
900 S 28° 07' E
P.C. 878+50 E.B. Lanes
16' Rt. ℄ Survey
P.R.C. 881+43.15 - 19.5' Rt. ℄ Survey
= 881+43.17 ℄ E.B. Lanes
P.C. 886+97.24
C.S. 885+36.73
46.17' Rt. ℄ Surv.
24' Rt. E.B. Lanes
925
P.R.C. 882+92.28
882+93.30
S.C. 887+36.73
RAMP "A"
RAMP "B"
P.C.C. 893+36.42
P.T. 895+36.42
60' Rt.
S 0°45' W
Section 10
Section 9
P.C. 887+99.53
222+40 S.R. 110
897+20.43 Ramp "A"
81°45'
80°45'
P.T. 893+33.42
185'
890+89.57 Ramp "A"
886+31.44 Ramp "B"
N 85°34'30" E
HARRISON TOWNSHIP

RAMP CURVE DATA

	Ramp A				Ramp B		Ramp C			Ramp D	
	①	②	③	④	①	②	①	②	③	①	②
Δ C	9°44'14" Rt.		88°12'43" Rt.	67°50'38" Rt.	8°00'01" Rt.	42°57'04.3"	15°39'50" Rt.	33°59'21" Lt.	14°11'59" Lt.	121°02'34" Rt.	
D C	4°		25°	23°07'59"	4°	8°	12°	8°	4°	25°	25°
R C	1432.39'		229.18'	247.68'	1432.39'	716.20'	477.46'	716.20'	1432.39'	229.18'	
L C	243.43'		352.84'	293.85'	200.00'	536.89'	130.53'	424.87'	354.99'	484.16'	
T C	122.01'		222.14'	166.99'	100.16'	281.77'	65.67'	218.89'	178.41'	405.43'	
E C											
Δ S		29°									
θs or α		θa = 21°									θs = 25°
L S		200'									200'
X C											196.23'
Y C											28.70'
L.T.		126.55'									134.69'
S.T.		77.82'									67.90'
P											7.22'
Pa		6.08'									
K											99.37'

Revision Date	Description
	Center Line Survey Plat
	Detail of U.S. 6 & S.R. 110
	Interchange

Drawn	Checked	Date
RWF		

CENTER LINE SURVEY PLAT

HENRY COUNTY
HEN-G-16.43
LIMITED ACCESS

208

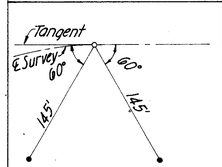
8
28

Received _____ At _____
Recorded _____
Plat Book _____ Page _____
Signed _____ Fee _____

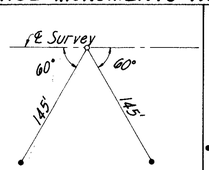
MONUMENTS WILL BE SET, IN ACCORDANCE WITH THE CONSTRUCTION PLANS, AT THE FOLLOWING STATIONS

STATION	LOCATION	ITEM 604 Standard Monument Assembly EACH	ITEM 604 Centerline Monuments EACH	REMARKS
856+61.31	℄ Survey U.S.6 (Reloc.)		1	Section Line Intersection
858+29.62	℄ Survey U.S.6 (Reloc.)		1	P.T. of Curve
863+67.70	℄ Survey U.S.6 (Reloc.)		1	Buchanan Survey Line Intersection
880+00	℄ Survey U.S.6 (Reloc.)	1		P.O.T.
884+32.28	24.33' Rt ℄ Survey U.S.6	1		Replace ¼ Corner Stone, Sec. 9 & 10
886+00	℄ Survey U.S.6 (Reloc.)		1	P.O.T.
896+00	℄ Survey U.S.6 (Reloc.)		1	P.O.T.
904+27.20	℄ Survey U.S.6 (Reloc.)		1	P.C. of Curve
913+77.44	20.46' Lt ℄ Survey U.S.6	1		Replace ¼, ¼ Corner Stone, Sec. 10 & 15
913+82.65	℄ Survey U.S.6 (Reloc.)		1	Section Line Intersection
1049+11.16	℄ Survey U.S.6 (Reloc.)	1		Section Line Intersection
1807+66.23	℄ Buchanan Survey Line		1	Replace C.I. Monument
1818+21.90	℄ Buchanan Survey Line		1	Replace C.I. Monument
720+75.58	S.R. 424 (U.S. 24)	1		P.I. of Curve
727+75.00	℄ Survey S.R. 424 (U.S. 24)	1		P.O.T.
733+00	℄ Survey S.R. 424 (U.S. 24)	1		P.O.T.
739+72.10	℄ Survey S.R. 424 (U.S. 24)	1		T.R. No. 10 ℄ Section Line Intersection
220+21.86(A)	℄ Survey S.R. 110	1		S.T. of Curve
226+00	℄ Survey S.R. 110	1		P.O.T.
229+84.15	S.R. 110		1	P.I. of Curve
233+15.26(A)	℄ Survey S.R. 110	1		P.T. of Curve
911+01.40	℄ Survey U.S.6 (Exist)	1		N & S ℄ Sections 22 & 27

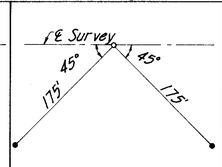
CENTERLINE REFERENCE MONUMENTS WILL BE SET, IN ACCORDANCE WITH THE CONSTRUCTION PLANS, AT THE FOLLOWING STATIONS



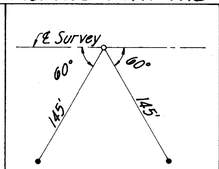
P.T. 923+95.38 (Ahead)



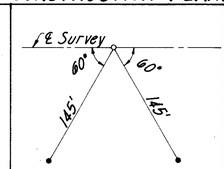
P.O.T. 935+00



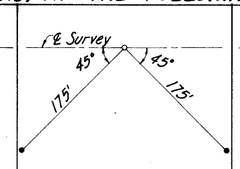
P.O.T. 940+48.80



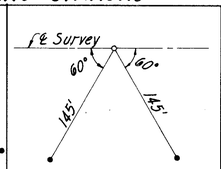
P.O.T. 945+00



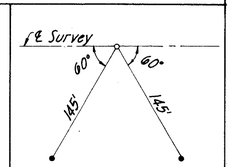
P.O.T. 955+00



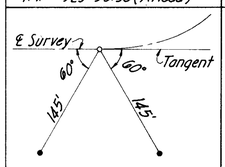
P.O.T. 966+99.70



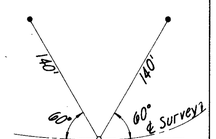
P.O.T. 975+00



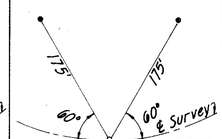
P.O.T. 985+00



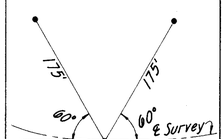
T.S. 998+21.43



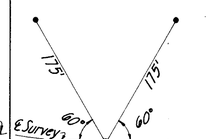
S.C. 1002+21.43



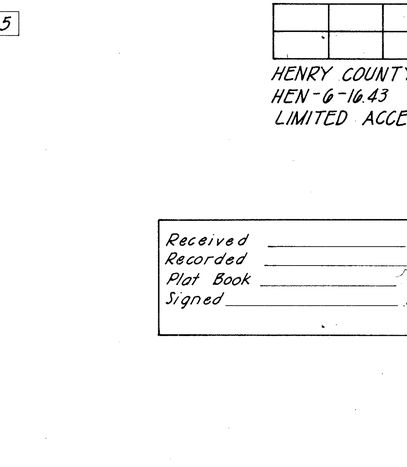
U.S.6 - Connector Road 1021+94.69



C.S. 1028+38.65



S.T. 1032+38.65



CENTERLINE REFERENCE MONUMENT OR CENTERLINE MONUMENT DETAIL

Revision	Date	Description

CENTER LINE SURVEY PLAT

Drawn	Checked	Date	

SUMMARY OF RIGHT OF WAY REQUIRED

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

209
228

9
28

TOTAL NUMBER OF OWNERS = 37

Parcel No.	OWNER	Deed Record Volume	Deed Record Page	Deed Area	To Be Acquired Land	To Be Acquired Buildings	Residue Left	Residue Right	Sheet No.	REMARKS
10 WL	Ray E. McCabe	150	473	37.4 Ac.±	2.947 Ac.	—	27.7 Ac.±	(L) 6.8 Ac.±	10,18,19	
11 WL	Walter B. Crahan, James Donovan III, et al.	135	95	11.494 Ac.±	0.849 Ac.	—	(L) 10.645 Ac.±		11,22,23	
11 T		155	36		0.703 Ac.				11,22,23	Temp. Run-around & Ditch
11A-WL		158	112	75.57 Ac.±	13.530 Ac.	—	55.94 Ac.±	(L) 6.1 Ac.±	11,23,24,25	cleanout
11A WA		176	94						11,23	Connect Field Tile
12	Lloyd L. & Renetta Spiess	173	328	0.141 Ac.±	None	—			22	
13 WL	B. Lucille McComb	153	261	50.506 Ac.±	1.256 Ac.	—	48.366 Ac.±		22,23	
13 T					1.182 Ac.	—			22,23	Ditch clean-out & construct temp. run-around
14	Robert W. Fisher	173	335	0.14 Ac.±	None	—			2	
15 WL	James E. & Frances R. Sugg	149	407	8.43 Ac.±	6.138 Ac.	—	2.292 Ac.		11,22,23	
									24,25	
16	Stevan & Jackquelene Rapaich	156	519	0.182 Ac.±	None	—			22	
17 WL	Martin Baden	166	344	37 Ac.±	0.855 Ac.	Yes	35.4 Ac.±		11,12	Frame Shed
17					0.718 Ac.				11,12	
18	Richard A. & Thelma M. Shepler	173	100	0.223 Ac.±	0.069 Ac.	—	0.154 Ac.		22,23	
18 T					0.096 Ac.				22,23	Temporary Run-around
19	Ralph & Mary Helen Brown (Life Estate)	165	516	40 Ac.±	0.147 Ac.	—	32.8 Ac.±		12	
19 WL	& Annabelle L. & Morris Daso	149	187		7.097				12	
19 X					0.062 Ac.				12	
20	Audrey E. & Alice E. Baker	143 152	574 454	1.88 Ac.±	0.241 Ac.	—	1.64 Ac.±		22	
20 T		160	224		0.373 Ac.				22	Temporary Run-around
20 WA									22	Dress Slopes
21	Julian Wheeler	145	357	40 Ac.±	0.097 Ac.	—	31.1 Ac.±		26	
21 WL					8.780 Ac.				12,26	
21 X					0.691 Ac.				26	
22	Leonhard W. & Edna M. Witte	153	548	97.4 Ac.±	0.034 Ac.	—		84.4 Ac.±	22,23	
22 WL					4.317 Ac.		(L) 1.0 Ac.±		11,22,23	
22 T					0.639 Ac.				11,22,23	Const. Drive & Temp. Run-around
22 A					0.103 Ac.				22,23	
22A-WL					7.499 Ac.				11,22,23,24	
22A-X					0.077 Ac.				23,24	
23	Latora Rennecker, et al.	157	361	20 Ac.±	0.096 Ac.	—	19.7 Ac.±		26	
23 WL					0.195 Ac.				26	
24	Helen Brown & Annabelle Daso	163	519	80 Ac.±	0.140 Ac.	—		72.3 Ac.±	12	
24 WL-1		172	200		7.046 Ac.				11,12,23	
24 WL-2					0.498 Ac.				12	
24 X					0.267 Ac.				11	
24 Y					0.231 Ac.				11	
24 Z					0.414 Ac.				12,17	
24 WA									11	install 6" Conduit
25 WL	Mildred Bowerman	145	357	20 Ac.±	8.517 Ac.	—	11.5 Ac.±		13,26	
26	Ralph Brown, Helen Brown & Annabelle Leona Brown	129	61	40 Ac.±	1.380 Ac.	—		37.8 Ac.±	12,26	
26 A					0.046 Ac.				26	
26 WL					0.771 Ac.				12,26	
27	Clarence D. & Yvonne S. Schwab	149	235	4.5 Ac.±	0.080 Ac.	—	36.2 Ac.±		27	
27 WL		173	175		8.739 Ac.				13,27	
28	Arthur G. & Nettie M. Gunter	140	241	40 Ac.±	1.905 Ac.	—		37.2 Ac.±	13,26	
28 WL					0.828 Ac.				13,26	
28 A					0.092 Ac.				26	
29	Lawrence O. Rickenberg	161	547	80 Ac.±	0.081 Ac.	—	79.6 Ac.±		27	
29 WL		171	173		0.280 Ac.				27	
30	Paul B. & Kathleen Hammond	168	293	4 Ac.±	None	—			13	
31	Elmer & Pauline E. Dishop	154	476	28 Ac.±	0.145 Ac.	—	21.6 Ac.±		28	
31 WL					6.305 Ac.				14,15,28	
32	Melvin C. & Florence M. Bauman	117	398	96 Ac.±	2.214 Ac.	—		32.8 Ac.±	13,27	
32-1		133	565		0.080 Ac.				27	
32 WL		150	343		0.938 Ac.				13,27	
32 A		152	444		1.485 Ac.			37.5 Ac.±	14,27	
32A-1					0.080 Ac.				27	
32A WL					0.937 Ac.				13,27	
32B-WL					8.530 Ac.	—	11.5 Ac.±		13,14,27	
32B-X					0.839 Ac.				14	
33	Joseph Beck, et al.	174	516	91.85 Ac.±	0.148 Ac.	—	21 Ac.±	56.88 Ac.±	28	
33 WL					13.246 Ac.				15,17,28	
33 WA-1									15	install 10" Conduit
33 WA-2									15	install 10" Conduit
33 WA-3									15	install 12" Conduit
33 A					0.570 Ac.				17	
34	Milton W. Gisler, et al.	164	286	120 Ac.±	None				14	
34A-WL					8.428 Ac.	Yes	(L) 71.2 Ac.±	40.3 Ac.±	14	2 Sto. Fr. Hse, 2 Sto. Fr. Barn, Fr.
34A-X					0.802 Ac.				14	Shed, Two 1 Sto. Fr. Barns & Privy
35 WL	William C. & Laura A. Barton	117 148	392 499	154.976 Ac.±	10.655 Ac.	—	144.3 Ac.±		15,16,17	
35 WA-1		157	222						15	Connect 10" Field Tile
35 WA-2									16	Install 12" Header Tile
36	Julia M. Hustwick	135 148 168	260 362 212	14.5 Ac.±	0.226 Ac.	—		14.3 Ac.±	14,15,28	
37	Louis L. & Lavina M. Junge	175	525	0.36 Ac.±	None	—			16	
38	Henry J. & Emilie Behnfeldt	166	402	2.5 Ac.±	1.013 Ac.	—		1.3 Ac.±	15,28	
38 WL					0.161 Ac.				15,28	
39	Larry & Margaret Busch	175	101	0.36 Ac.	None	—			16	
40	Harry G. Nichols	172	377	25 Ac.±	0.215 Ac.	—	20.1 Ac.±	3.4 Ac.±	28	
40 WL		176	64		1.236 Ac.				15,28	
		169	178							
41	Jennie M. Eisaman	133	31	1.28 Ac.±	None	—			16	
42	Clarence D. & Jay Huddle	180	446	80 Ac.±	0.295 Ac.	—		79.7 Ac.±	17	
44 WL	Bernhard William & Edna Michaelis	142 174	95 400	80.571 Ac.±	1.699 Ac.	—		78.872 Ac.	15,16,17	
46	Milford & Darlyn Joyce Rohrbaugh	174	76	0.51 Ac.±	None	—			16	
48	Clyde E. Barton	154 173	74 211	18.919 Ac.±	1.239 Ac.	—		17.680 Ac.	16	
50	Orley J., Gladys & James F. Hefflinger	173	572	70 Ac.±	0.803 Ac.	—		69.2 Ac.±	16	

NOTE: (L) denotes Landlocked property

Right-of-Way on this project (Hen. 6-16.43) is to be purchased by Bond money and no federal participation is requested.

Ownership of Utilities affected by this project is as follows:
Napoleon Municipal Electric Co., Napoleon, Ohio
Northwestern Telephone Service Co., 117 E. Clinton St. Napoleon, Ohio
Tri-County Rural Electric Cooperative, Inc. Glenwood & Park Napoleon, Ohio

Revision	Date	Description

RIGHT-OF-WAY PLAN
SUMMARY OF RIGHT-OF-WAY REQUIRED

Drawn	Checked	Date
WAH	WAH	

SUMMARY OF RIGHT-OF-WAY REQUIRED

Sec. 4, T.5N., R.7E., Liberty Township

Sec. 4, T.5N., R.7E., Liberty Township

Sec. 9, T.5N., R.7E., Liberty Township

Sec. 9, T.5N., R.7E., Liberty Township

Sec. 9, T.5N., R.7E., Liberty Township

Sec. 9, T.5N., R.7E., Harrison Township

210
228

10
28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

Sta 845+00

Begin Sheet

518+52.60 ℄ E.B. Lane U.S. 24 Reloc.
850+41.44 ℄ W.B. Lane U.S. 6 Reloc.

24' Conc. Pvt.

6'-1-3

33°

BEGIN PROJECT
W.B. Lanes
Sta 852+00

℄ W.B. Lane

℄ E.B. Lane U.S. 24

℄ Survey & Constr. U.S. 6

Exist. Ditch

42"

11"

24' Conc. Pvt.

For Ramps "A" & "B" see Sheet No. 20

Walter W. & Lula Rickenberg

For Ramp "C" See Sheet No. 21

N 01°03'30" E
L/A R/W
244.38'

Exist. L/A R/W

S 28°03'30" E
282.32'

Cultivated

4"FT @ 40'℄

Exist 4"FT @ 40'℄

N 61°56'30" E
221.62'

Constr. Limits

S 89°48'30" E

Sta 855+00

ST 855+38.48

C3 851+26.48

Constr. Limits

℄ Ramp "C"

C3 858+25.00

Sta 860+00

Match Line

Walter W & Lula Rickenberg

Roy E McCobe

Exist L/A R/W

Constr. Limits

Constr. Limits

Exist R/W

S 16°22'45" W
224.88'

1807+66.23

℄

Exist R/W

1808+20.21 - 29.47

1808+65.56 - 125'

1808+61.70 - 125'

1808+49.14 - 64.32

864+61.70 - 125'

S 28°07'E

484.30'

L/A R/W

PT. 864+88.64 ℄ E.B.
= 866+41.87 ℄ Survey

END ACQUISITION
HEN-6-11.73

+61 EPA
123'

Constr. Limits

Ohio

℄ Buchanan Survey line

123.35'

10 WL

863+67.70 U.S.6
1809+91.70

864+32.56
1809+77.49 - 63.28 Lt.

BEGIN ACQUISITION
Sta. 864+32.56
Hen-6-16.43

Exist R/W

Constr. Limits

+03 EPA
123'

Roy E McCobe (by property owner)

415'-8" Header — N 28°07'W 542.58' L/A R/W

+31 EPA
123'

Abandon

Constr. Limits

869+46
125'

Closure Line

S 61°53'W 250.00'

Walter B. Crahan & James Donovan III, et al

L 15.5 Ac±

L 1.0 Ac.±

22WL

+15 EPA
118'

S 28°07'E

403.46'

L/A R/W

Leonhard W. & Edna M. Witte

Constr. Limits

Abandon

877+65
120'

N 61°53'E 240'

22WL CONT. 4.317 Ac.
P.R.O = 0.808 Ac.

℄ Constr. Limits

+11 EPA
118'

N 28°07'W

450.02'

L/A R/W

210'-6" Header
(by property owner)

P.C. 878+50
16 Rt. ℄ L/A & Survey

Sta 880+00

End Sheet

Match Line

Walter W & Lula Rickenberg

See Sheet No. 18 for S.R. 424

S.R. 424

N 74°43'00" E

N 74°43'00" E

N 74°43'00" E

728+16.27

S 74°35'45" W

S 75°03'43" W (Back)

S 75°00'13" W (Ahead) Miami & Erie Canal

NOTE: BEARING EQUATION
Sta 864+32.56 ℄ Survey
of U.S. 6 Relocated:
S 28° 07' 00" E (Ahead) Reference Plans
for Hen.-6-16.43 = S 28° 03' 30" E (Back)
Reference Plans for Hen-6-11.73

10 WL

CONT. 2.947 AC.
P.R.O = 0.00 AC.

L 6.8 Ac.±

Item 607 Fence, type 39
1370 linear feet

* limits of fence quantity

Liberty Township

Harrison Township

Miami River

Kaumee

Earl Zahrend

ST 856+04.77
37' Rt ℄ E.B. Lanes

ST 858+29.62 ℄ Survey
859°16'57" E ℄ W.B. Lane

Ramp "B" ℄

Sec 4
Sec 9

Revision	Date	Description

RIGHT OF WAY
STA. 845+00 TO STA. 880+00

Drawn	Checked	Date	Comm. No.
D.A.H. R.W.F.			6408-9

HENRY COUNTY
HEN - 6 - 16.43
LIMITED ACCESS

Sec. 10, T. 5 N., R. 7 E., Harrison Township

Existing & Curve Data S.R. 110
P.I. = Sta. 229+84.15
Δ = 8°50' Rt. D = 1°20'
R = 4297.19' T = 331.91'
L = 662.50' E = 12.80'

(L) 15.5 Ac. ±
Walter B. Crahan & James Donovan III, etal
(11 WL) CONT. 0.849 AC.
P.R.O. = 0.358 AC.
(11 T)

(L) 1.0 Ac. ±
S 28°07'E 403.46'
L/A R/W

(22 WL)
Leonhard W. & Edna M. Witte
CONT. 4.317 AC.
P.R.O. = 0.808 AC.

(22 T)
Leonhard W. & Edna M. Witte
CONT. 7.499 AC.
P.R.O. = 0.832 AC.
(22 AWL)

James E. & Frances R. Sugg
(15 WL) CONT. 6.138 AC.
P.R.O. 1.313 AC.

Walter B. Crahan & James Donovan III, etal
(11A WL) CONT. 13.530 AC.
P.R.O. = 0.00 AC.

(L) 6.1 Ac. ±
Walter B. Crahan & James Donovan III, etal

Martin Baden.
(17) CONT. 1.0 AC.
P.R.O. = 0.0 AC.
(17 WL)

Helen Brown & Annabelle Daso
(24 WL-1) CONT. 7.046 AC.
P.R.O. = 0.225 AC.

(24 WA)
Helen Brown & Annabelle Daso
(24 WL-1) CONT. 7.046 AC.
P.R.O. = 0.225 AC.

Sec. 9, T. 5 N., R. 7 E., Harrison Township

Sec. 10, T. 5 N., R. 7 E., Harrison Township

Sec. 10, T. 5 N., R. 7 E., Harrison Township

Sec. 10, T. 5 N., R. 7 E., Harrison Township

Begin Sheet

Match Line

Match Line

End Sheet

Sta 880+00

Sta 895+00

Sta 905+00

Sta. 910+00

STATE ROUTE No. 110

TWP. RD. No. 9-B

L/A R/W

Abandon

Constr. Limits

Brush

Ramp "A" ℄

Ramp "B" ℄

Ramp "C" ℄

Ramp "D" ℄

For Ramp "A" & "B" see Sheet No. 24

For Ramp "C" see Sheet No. 25

For Ramp "D" see Sheet No. 25

See Sheet No. 22

Item 607 Fence, type 39
3361 linear feet
* limits of fence quantity

Revision	Date	Description

RIGHT OF WAY
STA. 880+00 TO STA. 910+00

Drawn	Checked	Date	Comm. No.
MC			6408-0

Sec. 10, T. 5 N., R. 7 E., Harrison Township

Sec. 15, T. 5 N., R. 7 E., Harrison Township

212/228

12/28

HENRY COUNTY
HEN-6-1643
LIMITED ACCESS

℄ CURVE DATA
P.I.-Sta. 914+32.66
Δ = 28°52'Rt D = 1°28'
R = 3906.52' L = 1968.18'
T = 1005.46' E = 127.32'

Begin Sheet Sta. 910+00

Match Line Sta. 925+00

Sec. 10, T. 5 N., R. 7 E., Harrison Township

Sec. 15, T. 5 N., R. 7 E., Harrison Township

Sec. 15, T. 5 N., R. 7 E., Harrison Township

Match Line Sta. 925+00

End Sheet Sta. 940+00

Item 607 Fence type 39
5925 linear feet
* limits of fence quantity

Revision	Date	Description

RIGHT OF WAY
STA. 910+00 TO STA. 940+00

Drawn	Checked	Date	Comm. No.
R.W.F.			6408-9

Sec. 15, T. 5 N., R. 7 E., Harrison Township

213
228

13
28

HENRY COUNTY
HEN-G-16.43
LIMITED ACCESS

Z

Sta. 940+00

Sheet

Begin

TWP. RD. No. "P-3"

Future Constr. Limits

Present Const. Limits

Exist. R/W

L/A R/W

S86°22'00"W 302.51'

941+37.80-125'
21+24.28-90'

+36 CPA
123'

For T.R. "P-3" see Sheet No. 26

Mildred Bowerman
(25 WL) CONT. 8.517 AC.
P.R.O. = 0.481 AC.

1235.76'

+60 IAPA
123'

S0°45'W

953+73.56
125'

+84 IAPA
123'

1234.90'

Clarence D. & Yvonne S. Schwab
(27 WL) CONT. 8.739 AC.
P.R.O. = 0.614 AC.

S89°43'30"E +74.60

Abandon

Constr. Limits

(25 WL)

(21 WL)

+78.80

941 942 943 944 945 946 947 948 949 950 951 952 953 954

℄ Survey & Construction

940+48.80 (U.S.G.)
20+00.00 (T.R. "P-3")

+74.60

Sta. 955+00

255.19'

940+50.02-152.50' (U.S.G.)
18+47.50 (T.R. "P-3")

TEMP. POINT OF ACCESS
(Until such time as roadway separation is completed)
℄ 40' R/W - (T.R. 9-B)
Sta. 18+46.95-88.62' Rt.

940+79.86
132.45'

941+39.86-132.35'
18+66.93-90'

946+70
151.42'

+62 IAPA
129.3

953+75.68
130.19'

+86 IAPA
128.2

+38 EPA
130.4'

Constr. Limits

Exist. R/W

N0°39'E

1235.82'

1235.28'

Inlet

18+00.00

S0°42'W

88.62'

S0°39'W

Match Line

+27 EPA
85.2'

18+46.95
88.62

18+26.95
87.23

TWP. RD. No. 9-B

Arthur G. & Nettie M. Gunter

(28)

See Sheet No. 26

℄ Future Reloc. T.R. 9-B

205.10'

2' Conc. Walk

N17°18'31"W

Fr. House

946+70
171.42'

(30)

Paul B. & Kathleen Hammon

(26 WL)

(28 WL)

Sec. 15, T. 5 N., R. 7 E., Harrison Township

Sec. 22, T. 5 N., R. 7 E., Harrison Township

Item 607 Fence type 39
5374 linear feet
* limits of fence quantity

Clarence D. & Yvonne S. Schwab
(27 WL) CONT. 8.739 AC.
P.R.O. = 0.614 AC.

N0°45'23"W 374.63'

L/A R/W

Future Const. Limits

Exist. R/W

Section 22

Section 15

Melvin C. & Florence M. Bauman
(32B WL) CONT. 8.530 AC.
P.R.O. = 0.480 AC.

S88°12'10"W 384.69'

M.O.T.

4' F.T.

966+08.46-125'
21+25.90-90'

967+88.46-125'
21+24.12-90'

S0°45'W 1234.90'

+10.5 CPA
123'

+08 IAPA
123'

S0°45'W L/A R/W 1242.54'

+86.5 CPA
123'

4' F.T. Abandoned

Sta. 950+00

Sta. 970+00

County Road "P"

For C.R. "P" see Sheet No. 27

966+99.70 (U.S.G.)
20+00.00 (C.R. "P")

(32B WL)

+69.70

+29.70

Constr. Limits

Present Const. Limits

Present Constr. Limit

Abandon

℄ Survey & Construction

TEMP. POINT OF ACCESS
(Until such time as roadway separation is completed)
℄ 40' R/W - (T.R. 9-B)
Sta. 18+53.12-88.98' Lt.

TEMP. POINT OF ACCESS
(Until such time as roadway separation is completed)
℄ 40' R/W - (T.R. 9-B)
Sta. 18+51.25-88.98' Rt.

+12 EPA
125.8'

+89 EPA
125.9

966+10.96-127.75
18+73.13-90'

967+90.97-127.86
18+71.24-90'

966+70.96
127.65'

Constr. Limits

Abandon

4' F.T.

8' F.T.

960+25
148.77'

+10 IAPA
126.8'

1235.28'

N0°39'E

Inlet

8"

L/A R/W

Exist. R/W

N0°33'15"E 1241.27'

S0°39'W

S0°33'15"W

Match Line

End Sheet

88.98'

Inlet

18+32.01
30'

18+31.26
87.96'

+32 EPA
88'

Paul B. & Kathleen Hammon

(30)

2 Sto. Fr. House
w/2 Car Garage

S89°43'30"E

Exist. R/W

N15°32'52"E

181.00'

962+00
215'

(32)

TWP. Rd. No. 0-B

Melvin C. & Florence M. Bauman

966+01.16-147.59' (U.S.G.)
18+52.40 (C.R. "P")

18+33.11
87.96'

N0°39'E 374.63'

18+32.61
30'

See Sheet No. 27

(32 WL)

(32A WL)

Future Const. Limits

Sec. 22, T.5N., R.7E., Harrison Township

Sec. 15, T. 5 N., R. 7 E., Harrison Township

Revision	Date	Description

RIGHT OF WAY
STA. 940+00 TO STA. 970+00

Drawn	Checked	Date	Comm. No.
RWF			6408-0

Sec. 22, T. 5 N., R. 7 E., Harrison Township

(L) 71.2 Ac±

214 / 228

14 / 28

HENRY COUNTY
HEN - G - 16.43
LIMITED ACCESS

Sta 970+00

Sta 985+00

Begin Sheet

Match Line

32B WL — CONT. 8.530 AC. P.R.O. = 0.480 AC.

32B-X

S 0°45'W 1242.54'

Melvin C. & Florence M. Bauman

Ditch Constr. Limits

741.00'

34A WL — CONT. 8.428 AC. P.R.O. = 0.000 AC.

34A-X

Milton W. Gisler, etal

S 0°45'W 619.24'

Ditch Constr. Limits

S 0°45'W 669.00'

Fill & Grade Area

L/A R/W

4" F.T.

8" F.T.

Abandon

Constr. Limits

8" CMP End

972+90 175'

972+90 125'

S 89°15'E 50.0'

199.5'

+50 IAPA 123'

973+61

971 972 973 974 975 976 977 978 979 980 981 982 983 984

℄ Survey & Construction

S 0°45'W.

900+31.00 125'

+31.60

+30.76 175'

+64 IAPA 123'

980+38

256.57'

973+77.17 149.60'

+74 IAPA 127.6'

975+50 150.12'

N 0°55'15"E 1241.27'

S 0°55'15"W.

+59 IAPA 129.5'

980+32.23 131.57'

Exist R/W

N 0°55'15"E 1333.84'

24"

40' R/W

16"±

86'±

Silo

Fr. Barn

TWP. RD. No. 9-B

See Sheet No. 27

973+77.17 169.60'

S 38°22'41"E 254.17' R/W

N 26°00'31"W 232.05' R/W

975+50 170.12'

32A

34

34A WL

Sec. 22, T. 5 N., R. 7 E., Harrison Township

Sec. 22, T. 5 N., R. 7 E., Harrison Township

℄ R/W CURVE DATA
PI = Sta. 1000+88.25
Δ = 6° D = 2° 14' 50"
R = 2546.76 L = 266.70'
T = 133.47 E = 3.40'

End Sheet

Match Line

Sta 985+00

Sta 1000+00

31 WL — CONT. 6.305 AC. P.R.O. = 0.320 AC.

Elmer & Pauline E. Dishop

S 1°44'57"W 662.19'

S 1°44'57"W 197.94'

+62.09 153.45'

995+60.00 150'

+60 IAPA 148'

S 38°15'07"W 41.11'

996+00 125'

+00 IAPA 123'

354.78' S 0°45'W Lines

+54.78 125'

P.C. R/W Sta 999+54.78

4" F.T. @ 3 Rods ± % To be Abandoned between L/A

+30 IAPA 155.5'

987+00.00 165'

987+00.00 125'

+02 C.P.A. 163'

+02 C.P.A. 123'

986+85 210'

986+50 175'

S 44°15'E 49.50'

987+30.53 164.47'

30.54'

Milton W. Gisler, etal

Ditch Constr. Limits

S 0°45'W 669.00'

Fill & Grade Area

Abandon

34A WL — CONT. 8.428 AC. P.R.O. = 0.000 AC.

1 Sto. Fr. Barn

Privey

2 Sto. Fr. House

2 Sto. Fr. Barn

Dirt Drive

Constr. Limits

S 0°45'W.

℄ Survey & Construction

+64.20

288.96'

993+66.06 135.49'

Remove

Abandon

+29 IAPA 132.7'

+14 IAPA 132'

+44 IAPA 132'

N 0°55'15"E 1333.84'

S 0°55'15"W.

Exist R/W

Exist. R/W

N 0°31'30"E 953.64'

S 0°31'30"W

40' R/W

TWP. RD. No. 9-B

Wood Fence

15" Stone Drive

Fr. House

Julia M. Hustwick

36

34

Item 607 Fence, type 39
6052 linear feet

* limits of fence quantity

Sec. 22, T. 5 N., R. 7 E., Harrison Township

℄ E & W ℄ of Section 22

Revision	Date	Description

RIGHT OF WAY
STA. 970+00 TO STA. 1000+00

Drawn	Checked	Date	Comm. No.
R.W.F.			G408-D

Sec. 22, T.5N., R.7E., Harrison Township

HENRY COUNTY
HEN-6-10.43
LIMITED ACCESS

215/228

15/28

℄ R/W CURVE DATA
P.I.= Sta. 1000+88.25
Δ=6° D=2°14'59"
R=2546.76' L=266.70'
T=133.47' E=3.49' (by property owner)
R=2621.76'

℄ CURVE DATA (Construction)
P.I. = Sta. 1010+52.04 - Δ=90°31' Left
Δ_c = 78°31' θ_s = 6°00'
D_c = 3°00' L_s = 400'
R_c = 1909.86' L.T. = 266.82'
L_c = 2617.22' S.T. = 133.47'
T_s = 2130.61'
E_s = 808.31'

Begin Sheet

Match Line

Sta. 1000+00

Sta. 1015+00

Sta. 1030+00

End Sheet

TEMP POINT OF ACCESS
(Until such time as roadway separation is completed)
℄ 40' R/W (T.R.-9-B)
Sta. 18+41.99-88.61' Lt.

For Relocated T.R. "0-3" see Sheet No. 28

For connector road detail, see Sheet No. 17

Existing ℄ Curve Data on Twp. Rd. No. "0-3"
Δ = 10°20' Left L = 86.11'
D = 12° R = 477.46'
T = 43.17' E = 1.96'

Item 607 Fence Type 39
5000 linear feet
* limits of fence quantity

Elmer & Pauline E. Dishop
CONT. 6.305 AC.
P.R.O. = 0.320 AC.
31WL

Julia M. Hustwick
36

Henry J. & Emilie Behnfeldt
38
38WL

Joseph Beck, etal
CONT. 13.246 AC.
P.R.O. = 0.382 AC.
33WL

William C. & Laura A. Barton
CONT. 10.655 AC.
P.R.O. = 1.447 AC.
35WL

Bernhard William & Edna Michaelis
CONT. 1.699 AC.
P.R.O. = 0.761 AC.
44WL

40WL

Ridge Road

TWP. RD. No. 0-B

Abandon

Future Constr. Limits

Constr. Limits

℄ Survey & Construction

℄ Survey & Construction U.S. 6 Reloc.

℄ Relocated T.R. "0-3"

℄ R/W

East R/W

East Rdwy.

℄ L/A R/W

Ft. barn

Ft. house

Private Drive

Tangent S 0°45' W

Tangent S 0°45' W

Sec. 22, T.5N., R.7E., Harrison Township

Sec. 22, T.5N., R.7E., Harrison Township

Sec. 27, T.5N., R.7E., Harrison Township

Revision	Date	Description

RIGHT OF WAY
STA. 1000+00 TO STA. 1030+00

Drawn	Checked	Date	Comm. No.
			6406-0

Sec. 22, T. 5 N., R. 7 E., Harrison Township

216
228

16
28

HENRY COUNTY
HEN-G-16.43
LIMITED ACCESS

END PROJECT
Sta. 1032+38.65

1031+05.30 (Ahead) P.T. of P.I.
Sta. 1031+05.35 (Ahead)

1032+38.65-160' (Reloc)
920+53.90-202'
(Exist U.S.G)

Sta 1032+38.65 = Sta 920+53.90 - 42' Right of Existing U.S. G

1031+05.30
160'

8"

+74 IAPA
158'

S87°54'35"E 250.14'

Sta 1030+00

Future Ditch Constr. Limits
4' FT @ 4 Rods ± %

35 WL CONT. 10.655 AC.
P.R.O. = 1.444 AC.

William C. & Laura A. Barton

1037' 8" Header (by property owner)

+25
170'

35 WA

+45
170'

+55
160'

+25
160'

S89°46'E 1194.70'

L/A R/W

Future Constr.

Present Constr. Limits
4' FT @ 70' ± %

+90 IAPA
158'

Present Constr. Limits

8' FT.

Abandon

35 WL CONT. 10.655 AC.
P.R.O. = 1.444 AC.

1043+84.11-156' (Reloc)
931+99.36-198'

1043+00
160'

S87°02'38"E
84.21'

L/A R/W

S 89°46'E

Louis L. & Lavina M. Junge

+82 C.P.A.
154'

Larry & Margaret Busch

37

39

Present Ditch Constr.

23'±

1½ Sto. Gar. Fr. House

Gar.

Well

Shed

Stone

1043+83.16
N 0°35'E
1930'

+96.3 E.P.A.
20'

+29.33
30'

1044+63.16

931+98.33-30'

1044

Sta 1030+00

£ R/W

1031 1032 1033 £ Survey & Construction 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043

24" Exist. 24"

S 89°46' E. To remain in service

MB

Inlet

60' R/W

910 15" 920 921 922 Section 22 Section 27 923 924 925 926 927 2096.75' 928 929+00 930 931 932 933

1105.20'

+15.20

L/A R/W

Existing U.S G

S. 89°46' E. 826.15'

+98.15

+18.15

+15.02
30'

+14.8 E.P.A.
58'

+14.83
60'

+50 IAPA
81'

Ditch Constr. Limits

N 63°47'24"W 230.34'

S87°54'05"W 565.30'

929+00
30'

N85°11'34"W 250.80'

R/W

931+50
50'

N 12°24'05"W 80.98'

931+80
125'

N89°46'W 470.00'

918+50
83'

END PAVEMENT
Sta. 1035+63.65

Bernhard William & Edna Michaelis

44 WL CONT. 1.699 AC.
P.R.O. = 0.761 AC.

Item 607 Fence, type 39
2121 linear feet

* limits of fence quantity

End L/A R/W Right
Sta. 924+15.20

N 0°35'E 200'

N 0°14'E

46

Milford & Darlyn Joyce Rohrbough

111'

S 0°14'W

2 Sto. Fr. House

Shed

2 Sto. Barn

Shed

Stone

Bu

Clyde E. Barton

Ditch Constr. Limits

END L/A R/W Left
Sta. 931+98.15

Begin Sheet

Match Line

Sta 1045+00

Sec. 27, T. 5 N., R. 7 E., Harrison Township

Sec. 22, T.5N., R.7E., Harrison Township

Sec. 23, T 5N., R. 7E., Harrison Township

N

William C. & Laura A. Barton

35

STATE ROUTE

Section 23
Section 22

P.I. Sta. 1049+11.16
Δ = 2° 20' Right

60' R/W

N 0°35'E.

S 89°46' E.

Larry & Margaret Busch

30

Jennie M. Eisaman

41

1 Sto. Fr. House

1 Sto. Fr. House

Shrub

1 Sto. Bldg.

936+96.33
30'

1045+43.16

+58.33
30'

£ Survey & Constr. 7

1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059

S 89°46' E.

Gas Pump

Inlet

24"

Shrub

Stone

Section 22
Section 27

934 935 936 937 938 Section 23 Section 22 939 940 941 942 943 944 945 946 947

826.15'

£ R/W Existing U.S G

S 89°46' E.

388.85'

S 87°26' E.

£ Survey & Construction

S 89°53' E

+58.15

+15.00

941+15
30'

936+25.80
30'

937+55.83
30'

Stone

Conc. Slab

48

50

Ditch Constr. Limits

Clyde E. Barton

N89°46'W 470.00' R/W

Inlet

Inlet

Inlet

℄ CONSTR. CURVE DATA
Exist. U.S. 6 Connection

Ls = 400' L.T. = 269.16'
Dc = 12°00' S.T. = 135.60'
Θs = 24°00' P = 13.88'
Xc = 393.04' K = 198.84'
Yc = 55.16' Ts = 377.50'

P.I. Sta. 907+92.24
Δ = 20°01'26"
Dc = 12°00'
R = 477.46'
T = 84.29'
Lc = 166.86'
E = 7.39'

N

Sec. 22, T.5N., R.7E., Harrison Twp.

See Sheet No. 15

Joseph Beck, et al
33WL CONT. 13.246 AC.
P.R.O. = 0.382 AC.

1018+50
125'
I.A.P.A.
Present Constr. Limits
N 54°17'24"W 239.93'
L/A R/W
33WL
P.T. 909+81.60
1020+75
130'
END L/A R/W
S.C. 908+14.74
907+81.34
106.53'(U.S.6 Exist)
908+14.74
65'(Conn. Rd)
N 55°58'57"E
107.42'
L/A R/W
CPA
Chord=S 57°52'15"W 137.78'
Arc=138.76'
R=477.46'
909+25
909+53.00(Conn. Rd)
N 40°25'29"W 159.03'
L/A R/W
+53 EPA
50'
33WL
+14.75 EPA
63'
N 73°50'W
65.00'
908+07.78
47.15'(Exist U.S.6)
33A
33A
BEGIN NEW PAVEMENT
T.S. 904+14.74 8' Rt. ℄ R/W
Item 607 Fence, type 30
498 linear feet
* limits of fence quantity
+14.74
30'
N 78°22'31"E 374.50'
R/W
Constr. Limits
Constr. Connector Road
℄ Survey
Exist R/W
Inlet
12"
21"
903
904
905
906
907
908
909
910
911
Sec. 22
902
S 89°50'E Sec. 27
8" W.B.
Well
Barn
Gar.
207+92.24
8' Rt.
+14.74
30'
N 76°37'54"W
87.57'
+00
50'
42
Clarence D. & Jay Huddle
N 89°50'W 601.01'
F.T.
@ 60' to 70' Spaces
Sec. 27, T.5N., R.7E., Harrison Twp.
1021+95.71
155'
L/A R/W
N 0°36'30"E
368.66'
1021+24.69 (U.S.6)
911+09.67
69°24'33"
1022
+67.10
1023
℄ Survey U.S.6 Relocated
1024
1025
1026
1027
1028
4" FT @ 4 Rods
William C. & Laura A. Barton
35WL CONT. 10.655 AC.
P.R.O. = 1.444 AC.
Arc = 520.76'
R = 1754.86'
Chord = S 74°07'21"E 587.98'
8" Header (by property owner)
Future Constr. Limits
1028+38.65
155'
4" FT @ 4 Rods
See Sheet No. 15
Present Constr. Limits
35WL
CS 1028+38.65
+02.01
30'
+27.72
(Exist U.S.6)
+01.60
30'
+01.17
30'
+01.01
50'
+27.72 Ex. 6
CPA 5'
73.08'
℄ Survey ℄ Exist R/W U.S.6
Exist R/W
Inlet
12"
5'
CPA
+10
30'
24"
CPA
+10
S 89°46'E
1105.20'
915 ℄ Abandon
916
914
1096.75'
Constr. Limits
N 81°54'48"W 292.75'
44WL
I.A.P.A.
L/A R/W
N 86°47'24"W
250.34'
+00
70'
Bernhard William & Edna Michaelis
44WL CONT. 1.699 AC.
P.R.O. = 0.761 AC.
Stone Drive
Barn
2 Sto. Fr. Hse.
72'±
Fr. 911+01.40
500'
Sec. 15, T.5N., R.7E., Harrison Twp.

925 S 0°45'W 926 927
℄ Survey ℄ Construction U.S.6 Reloc.
+16.00
Scale: 1"=50'
See Sheet No. 12
To be filled
℄ T.R. 9-B
℄ Constr. Limits
L/A R/W
Exist R/W
927+16.69
132.11' Rt.
CD # 1236
CD # 1536-2
S 0°46'W
924+45
172.03'
190.00'
926+35
172.09'
24Z
N 40°53'31"E
170.05'
N 65°51'09"W 157.80'
Helen Brown & Annabelle Daso
925+30
320'
N 0°45'E
50.0'
925+80
320'
S 0°00'33"E

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS
217
228
17
28

Revision	Date	Description

RIGHT OF WAY
U.S. 6 Connector Road

Drawn	Checked	Date	
R.W.F.			

Sec 9, T 5N, R. 7E, Liberty Township

Existing & Curve Data S.R.424
PI = Sta. 720 + 75.58
Δ = 1° 10' Lt L = 700.00
D_c = 0° 10' R = 34,377.47
T = 350.01 E = 1.78

NOTE: Granary to be removed under Project Hen. 6-11.73.

See Sheets No. 19 & 20

Abandon 4 FT

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

218
228
18
28

Walter W & Lula Rickenberg

Earl Zahrend Abandon

Grape Arbor

Fr Barn

Fr Gar

2 Sto Fr Res

Stone

Granary

Ch Lk Fence

Prop Guard Rail

Exist R/W

Bikitop

CB

Guard Rail

Prop Guard Rail

Exist R/W

Exist L/A R/W

Exist R/W

Miami & Erie Canal R/W

Earl Zahrend

Ray E Mc Cabe
CONT 2.947 AC.
PRO = 0.00 AC.

10WL

See Sheet No. 10

Sec. 9, T 5N., R. 7E., Liberty Township

Sec 9, T 5N., R 7E., Liberty Township

Sec 3, T 5N., R. 7E. Liberty Township

Walter W & Lula Rickenberg

Abandon 5 FT

See Sheets No. 19 & 21

Temporary Easement (To be acquired under Hen-6-11.73)

Constr. Limits for 24' run-around

& 24' Wide run-around

Proposed Guard Rail

Store Drive

Exist L/A R/W

Exist R/W

Top of Ditch Const Limits

Proposed Guard Rail

Guard Rail

Exist R/W

Exist Canal Outlet

State of Ohio

Miami & Erie Canal R/W

Ray E McCabe

10WL
CONT 2.947 AC
PRO = 0.00 AC

See Sheet No. 10

Sec. 9, T.5N., R. 7E., Liberty Township

Rowena McCabe

Walter W & Lula Rickenberg

Barn

Store

Garage

Fr House

Inlet

Exist R/W

Proposed Guard Rail

State of Ohio

Miami & Erie Canal R/W

Ray E McCabe

Exist & Curve Data US 12A
PI = 742 + 91.46
Δ = 5° 58' 30" Lt T = 299.02'
R = 5729.58' L = 597.50
D = 1° 00' E = 7.80'

Sec 10, T.5N., R 7E, Liberty Township

Sta 715+00 — Begin Sheet

Sta 730+00 — Match Line

Sta 730+00 — Match Line

Sta 745+00 — End Sheet

BEGIN ACQUISITION Hen-6-16.43

END ACQUISITION Hen-6-11.73

Revision	Date	Description

RIGHT OF WAY
S.R. 424 (Formerly US 24)
STA. 715+00 TO STA. 745+00

Drawn	Checked	Date	Comm. No.
RWF			6408-9

Sec. 4, T.5N., R.7E., Liberty Twp.

N

SCALE: 1"=100'

Sec. 2, T.5N., R.7E., Liberty Twp.

Curve Data ℄ Eastbound Lanes
Δ = 61°45'00"Rt Dc = 1°28'00"
Rc = 3906.53' Lc = 4210.23'
T = 2335.70' E = 645.00'

Curve Data ℄ Westbound Lanes
Δ = 61°45.00"Rt Dc = 3°30'00"
Rc = 1637.02' Lc = 1364.29'
Ls = 400.00' Ts = 1181.12'
Es = 275.02' Θs = 7°00'00"
P = 4.07' K = 199.90'
Xc = 399.40' Yc = 16.27'
LT = 266.88' ST. = 133.52
LC = 399.73'

℄ Survey U.S.6 Curve Data
P.I. = 846+07.71 P.C. = 830+85.18
P.T. = 858+29.62
Δ = 61°45'00"Rt Dc = 2°15'00"
Rc = 2546.48' Lc = 2744.44'
T = 1522.53' E = 420.45'

Earl Zahrend

Item 607 Fence, Type 39
3065 linear feet
* limits of fence quantity

Earl Zahrend

Exist S.R. 424 ℄ Data
P.I. = 720+75.58
Δ = 1°10' Lt L = 700.00'
D = 0°10' R = 34,377.47'
T = 350.01' E = 1.78'

Sec. 2, T.5 N., R.7E., Liberty Twp.

Sec. 4, T5N, R. 7E., Liberty Twp.

219
228

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS
RAMP ℄ CURVE DATA

	Ramp A			Ramp B		Ramp C		
	①	②	③	①	②	①	②	③
Δc	19°25'06"Rt	39°41'31"Rt	15°04'07"Lt	126°29'33"Rt		153°34'31"Lt		10°11'59"Lt
Dc	5°28'	8°40'	12°	26°		25°		4°
Rc	1048.09'	661.11'	477.46'	220.37'		229.18'		1432.39'
Lc	355.21'	457.99'	125.57'	486.51'		614.29		254.99'
Tc	179.33'	238.61'	63.15'					127.83'
Δs							29°	
Θs or Θa					Θs = 26°		Θa = 21°	
Ls					200'		200'	
Xc					195.92'			
Yc					29.81'			
L.T.					134.80		126.55'	
S.T.					68.00'		77.82'	
P					7.51'			
Pa							6.08'	
K					99.32'			

Ray E. McCabe
Sec. 10, T.5N., R.7E., Liberty Twp.

Walter W. & Lula Rickenberg

Rowena McCabe

Ray E. McCabe

Sec. 3, T.5N, R.7E., Liberty Twp.

Revision	Date	Description

RIGHT OF WAY
S.R. 424 (formerly U.S. 24) & Relocated U.S. 6 Interchange

Drawn	Checked	Date	Comm. No.
RWF			6408-9

220/228

20/28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

10WL See Sheet No. 10

Note: For curve data see Interchange Composite, Sheet No. 19

BEGIN PROJECT
E.B. Lanes
Sta. 848+00

℄ Survey U.S. 6

℄ Eastbound Lanes

Exist. Ditch

856+61.31

P.T. 858+29.62 ℄ Survey

Walter W. & Lula Rickenberg

Exist 48"

S 28°03'30"E

42"

48"

18"

12"

24"

4" F.T. @ 4 Rods ± Approx Location

8" F.T. Approx Location

S.T. 856+04.77

S 01°03'30"W

℄ Abandon

℄ 24' wide run-around

Exist. R/W

Exist. L/A R/W

862+75.70 U.S. 6
729+44.44 S.R. 424

Proposed L/A R/W

+16.27

860+71.05 ℄ E.B. Lanes
729+05.39 S.R. 424

+08.39
45°

725+95.00

+08.03
40°

Exist R/W

N 74°35'45"E

813+21.20

813+88.60
66.70'

813+20.78
60.49'

814+09.13
61.08' Lt.
58.12'

725+71.61 60'
813+77.63 32.03 Rt.

511.30

60'

45'

40'

Ray E. McCabe
10WL CONT. 2.947 AC.
PRO - 0.00 AC.

(L) 6.8 Ac. ±

(U.S. 24)

Ramp "A" ℄

Ramp "B" ℄

℄ To be Abandoned

3½" I. 4 F.T. @ 4 Rods ± Approx Location

P.C. Ramp "B" 849+18.70
P.T. Ramp "A" 854+25.96

IAPA 847+34
74.5 Rt.

S 50°53'20"E
326.11'

5" F.T.

P.C.C. 847+35.00

S 29°36'58"E 201.40
400 Convert existing
EPA to IAPA

Constr. Limits

S 09°46'22"E

L/A R/W

201.40

Exist.

Shed

BEGIN PROJECT
Ramp "A"
Sta. 848+00

P.I. 851+92.99

+93 IAPA
74.5

S 00°09'05"W

137.40

P.C. 853+50.39

+50.39 IAPA
74.5

S 07°13'02"E

145.27'

+75.20 IAPA
74.5

S 14°55'01"E

Constr. Limits

Exist. 360.26'

L/A R/W

855 N 14°55'01"W

856

857

Ramp "A" ℄

858

20° tangent to curve

P.R.C. 300' R

N 74°43'00"E

L/A R/W

722+05.79
858+16.35 (Ramp A")

Exist.

2-12"

S.R. 424

P.I.

P.T. 724+25.57

N 72°28'45"E

℄ Buchanan Survey

Miami & Erie Canal R/W

181+33.20

P.I. 720+75.58

Granary

12 F.F.

40'

18"

Fr. Barn

Fr. Barn

2 Sto. Fr. Res.

Exist R/W

N 15°53'00"E 720

BEGIN WORK
Sta. 720+25

460.00'

N 74°20'15"E

710

Exist R/W

Cultivated

Sec. 4, T.5 N., R.7 E., Liberty Twp.

Sec. 4
Sec. 9

Earl Zahrend

Sec. 9, T.5 N., R.7 E., Liberty Twp.

Earl Zahrend

NOTE: L/A North of Station 864+32.56 (℄ Survey U.S.6 Relocated) acquired under Hen-6-11.73

Existing
℄ Curve Data (S.R. 424)
P.C. Sta 717+25.57
Δ = 1°10' Lt. · T = 350.01'
R = 34,377.47' L = 700.00'
D = 0°10' E = 1.78'

LOCATION MAP
WB U.S 6
EB U.S 6
"A"
"B"
"C"
424
S.R.

Revision	Date	Description

Right of Way
U.S. 6 & S.R. 424 - Ramp "A" & "B"
Scale: 1" = 50'

Drawn	Checked	Date	Comm. No.
			6408-9

Sec. 4, T. 5 N, R. 7 E., Liberty Twp.

Walter W. & Lula Rickenberg

NOTE: L/A North of Station 864+32.56 (℄ Survey of U.S. 6 Relocated) acquired under Hen-6-11.73

LOCATION MAP

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS
Sec. 9, T. 5 N, R. 7 E., Liberty Twp.

221/228

21/28

Note: For Curve Data See Interchange Composite, Sheet No. 19

BEGIN PROJECT W.B. Lanes Sta. 852+00

℄ W.B. Lanes US-24

24' Conc. Pav't.

℄ E.B. Lane US 24

℄ Survey U.S. 6

Earl Zahrend

Constr. Limits

Exist. L/A R/W

Proposed L/A R/W

Convert exist. EPA to C.P.A.

Continue in Service

225'-8" Header (by property owner)

254'-4" Header (by property owner)

Abandon

℄ 24' wide run-around

Temporary Easement (To be acquired under Hen-6-11.73) Constr. Limits for run-around

Top of Ditch Constr. Limits

Stone Drive

℄ Buchanan Survey

℄ Miami & Erie Canal R/W

State of Ohio

S.R. 424 (U.S. 24)

Proposed ℄ Mc Cabe

Sec. 4, T. 5 N, R. 7 E., Liberty Twp.

Sec. 9, T. 5 N, R. 7 E., Liberty Twp.

10WL

See Sheet No. 10

Revision	Date	Description
		Right of Way U.S. 6 & S.R. 424 - Ramp "C"

Scale: 1"=50'

Drawn	Checked	Date	Comm. No.
			6408-9

U.S. 6 & S.R. 424 - Ramp "C"

Sub R/W Curve Data S.R. 110
P.C. = 211+28.65
P.T. = 218+ 3.30
R = 1910.28'

Begin Sheet

Sta. 214+00

Maumee River

Stevon & Jackquelene Ropich

Audrey E. & Alice E. Baker

Lloyd L. & Renetta Spiess

Sec. 9, T. 5N., R. 7E., Harrison Township

22WL CONT. 4.317 AC.
P.R.O. = 0.808 AC.
Leonhard W. & Edna M. Witte

See Sheet No 11 & 23

HENRY COUNTY
HEN-6-16.43
Sec. 10, T. 5N., R. 7E.
Harrison Township
L/A R/W
Walter B. Crahan
James Donovan III, et al

END L/A R/W 220+48.85 Lt.

Run-around Constr. Limits

℄ 24' Wide Run-around (Temporary)

Constr. Limits

℄ Ditch Const. Limits

℄ Survey & Constr. S.R. 110

℄ Exist R/W

L/A R/W

Exist R/W

Inlet

Metal Guard Rail

Stone Drive

Bikt. Dr.

Conc. St. Wall

Conc. Drive

Fr. Res.

Fr. Gar.

Conc. Wk.

Bldg.

Conc. Slab

Brush

Ramp "A"

PRC

Match Line

Sta 220+00

End Sheet

Sta 244+00

BEGIN WORK

For Ramp "A" & "B" see Sheet No 24

Abandon

END L/A R/W RIGHT

END L/A R/W 238+00 Lt & Rt.

END WORK Sta 239+00

℄ Survey & Constr. Curve Data
PI = 215+11.88
Δ = 24°51'30" Rt
D_c = 4°00'
R = 1432.40'
L_s = 400'
T_s = 516.59'
Δ_c = 8°51'30"
L_c = 221.46'
E_s = 39.14'
θ_s = 8°00'
P = 4.65'
K = 199.87'
X_c = 399.22'
T_c = 18.59'
L.T = 266.24'
S.T = 133.58'

℄ Survey & Construction Curve Data (S.R. 110)
PI = Sta 229+84.15
Δ = 8°50' Rt
R = 4297.19'
L = 662.50'
D = 1°20'
T = 331.91'
E = 12.80'

℄ Survey & Constr. Curve Data (S.R. 110)
PI = Sta 240+77.42
Δ = 3°09' Rt
R = 4092.56'
L = 225.00'
D = 1°24'
T = 112.52'
E = 1.55'

Sec. 10, T. 5N., R. 7E., Harrison Township

15WL CONT. 6.138 AC.
P.R.O. = 1.313 AC.
James E. & Frances R. Sugg

13WL CONT. 1.256 AC.
P.R.O. = 0.849 AC.
B. Lucille McComb

11WL CONT. 0.849 AC.
P.R.O. = 0.358 AC.
Walter B. Crahan
James Donovan III, et al

Ramp "C" & "D" see Sheet No. 25

Ramp "C" ℄

TWP. ROAD NO. 9-B

Existing R/W

Field Drive

Brick Res.

Revision | Date | Description

RIGHT OF WAY
EXISTING STATE ROUTE # 110
STA. 214+00 TO STA. 244+00

Drawn	Checked	Date	Comm. No.
MK			6408-D

223
228
23
28

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

0 50 100 200
Scale in Hundreds of Feet

See Sheet No. 22

B. Lucille McComb
S.04° 24' 30" W-18.83'

Sec. 10, T. 5 N., R. 7 E.
Harrison Twp. Henry Co.

℄ Curve Data S.R. 110
P.I. = Sta. 229+84.15
Δ = 8° 50' Rt.
R = 4297.10'
L = 662.50'
D = 1° 20'
T = 331.91'
E = 12.80'

Walter B. Crahan
James Donovan III et al

11WL CONT. 0.849 AC.
P.R.O. = 0.358 AC.

11T

13T

13WL CONT. 1.504 AC.
P.R.O. = 0.849 AC.
+15.76A

L 15.5 Ac.

11T

L 0.9 Ac.±

22WL

CONT. 6.138 AC.
PRO = 1.313 AC.

15WL

James E. & Frances K. Swan

11A WL CONT. 13.530 AC.
P.R.O. = 0.000 AC.

Run-around Constr. Limits

Constr. Limits

Exist R/W

℄ S.R. 110

P.T. 233+15.76 (Ahead)
233+14.74 (Back)

RAMP C

RAMP D

See Sheets No. 11 & 25

END L/A R/W
STA 238+00
50.81' RIGHT & LEFT

L/A R/W

4" FT @ 30'℄ Approx. Loc.

Sec. 10, T. 5 N., R. 7 E
Harrison Twp., Henry Co.

Walter B. Crahan
James Donovan III, et al

11A WL CONT. 13.530 AC.
P.R.O. = 0.000 AC.

L 0.1 AC.±

Helen Brown & Annabelle Doso
24 WL-1 CONT. 7.046 AC.
P.R.O. = 0.225 AC.

22WL CONT. 4.317 AC.
P.R.O. = 0.808 AC.

Leonhard W. & Edna M. Witte

22T

22AWL CONT. 7.499 AC.
P.R.O. = 0.832 AC.

RAMP A

RAMP B

See Sheets No. 11 & 24

Sec. 9, T. 5 N., R. 7 E.
Harrison Twp., Henry County

Run-around Constr. Limits

END L/A Left
STA 220+48.85

22 18 22A 22A-X

Item 607 Fence, type 39
4230 linear feet
* limits of fence quantity

Sec. 9, T. 5 N., R. 7 E
Harrison Twp., Henry Co.

Revision	Date	Description

RIGHT OF WAY
Relocated U.S. 6 & S.R. 110

Drawn	Checked	Date	Comm No.
Dah. Rwf.			6408-9

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

224
228

24
28

Walter B. Crahan, James Donovan III et al
(11 WL) CONT. 0.589 AC.
P.R.O. = 0.308 AC.

See Sheet No. 11 & 22

883+87.80 (U.S.6)
227+49.89-1.11 (S.R.110)

Sec. 10 / Sec. 9

S 0° 34' W
251.73'

883+43.77-24.09'

Field Drain

N 87°55'05" E 317.28'

84°18'34"

11WL Chord=S 38°45'05" W 88.16'

Arc=344.02'
Chord=S 39°31'38" E
R=409.19'
337.51'

Metal Guard Rail

883+89.03 (U.S.6) ℄
227+50.41 (T.R.110) ℄

N 87°07'48" W 234.35'

James E. & Frances R. Sugg
(15WL) CONT. 6.138 AC.
P.R.O. = 1.313 AC.

229+83.49

872.18'

S 87°55' E

Sec. line 883+88.77-0.53 (U.S.6)
℄ ℄ S.R.111) 227+49.82 (S.R.110)

28°41'00"

883+33.20

64°59'58"

883

884

49.89'

Inlet

Brush

Sign Post

285.27'

885

886

887

+23.60

℄ Survey ℄ Constr. U.S.6 Reloc.

888

889

890

891

S 28°07' E

892

893

894

895

886+47.07
142.74' (U.S.6)

Abandon Exist. Tile

884+32.28-24.33 (U.S.6)
227+46.62-49.49 (S.R.110)
884+31.83-24.09 (℄ R/W)
227+46.61-48.98 (S.R.110)

882+93.30

227+49.82 (S.R.110)
(R. ℄ ℄ S.R.110)

Arc=31.59'
R=409.19'
Chord=N 66°53'26" E
31.58'

P.C. 226+52.24

Brush Line

S 0°45' W

885+96.13

Leonhard W. & Edna M. Witte
(22 WL) CONT. 4.317 AC.
P.R.O. = 0.808 AC.

105.42'

See Sheet No. 22
For Run-around

N 85°34'30" E

225

4 FEL

723.87'

East R/W

S.R. 110

224

630.38'

N 85°34'30" E

East R/W

For Interchange see Sheet No. 23

22AWL

Abandon Exist. Tile

P.C.C. 890+89.57

P.T. 893+83.42

222+40.00 (℄ S.R.110)
897+20.43 (Ramp "A")

223

L=8°34'08"

222

221 ℄ Survey

Ramp "A" ℄

N 12°31'22" W

896

895

894

893

892

891

890

889

888

887

886

885

+20 IA/PA
603'

Ramp "B" ℄

886+31.44

N 73°59'17" W

383.15'

887+20.00
605 (U.S.6)

+86.76 IA/PA
328'

N 63°00'33" W 141.59'
6" Header
(by property owner)

889+86.76
330 (U.S.6)

891+00
245 (U.S.6)

N 52°20'40" W 219.32'
6" Header
(by property owner)

893+00
155' (U.S.6)

+00 IA/PA
153'

Constr. Limits

IA/PA

N 37°14'52" W

IA R/W

239.45'

+36.42
117'

895+36.42

4 FEL

8 FEL

+25 CPA
628.9'

+75 CPA
641'

+80 CPA
663'

EPA

EPA

6" Header

350.31'

N 51°18'35" W

280'-6" Header
(by property owner)

152.32'

885+80
665 (U.S.6)

884+80.00
643.50' (U.S.6)

884+80.00
680' (U.S.6)

884+05.00
680' (U.S.6)

884+05.00
627.37' (U.S.6)

N 0°15'35" E
52.63'

75.00'
N 28°07' W

14'

10 FEL

S.C. 887+36.73

22AX

IA R/W

N 15°58'54" W

164'-6" Header
(by property owner)

221+48.00-100'
882+37.52'-591.36 (U.S.6)

Constr. Limits

IA R/W

N 87°12'53" W 128.59'

EPA

CPA

15'

S.T. 220+21.86 (Ahead)
220+16.75 (Back)

N 04°25'30" W
75.00'

R/W

END I/A R/W RAMP

22A

Sec. 9

Sec. 10

L (6.1 Ac. ±
Walter B. Crahan, James Donovan III et al
(11A WL) CONT. 13.530 AC.
P.R.O. = 0.000 AC.

See Sheet No. 11

S 89°35' E

P/L

S 0°45' W

Helen Brown & Annobelle Daso

Sec. 10
Sec. 9

LOCATION MAP

SR 110
"D"
"C"
WB U.S.6
EB U.S.6
"A"
"B"

Leonhard W. & Edna M. Witte
(22A WL) CONT. 7.499 AC.
P.R.O. 0.832 AC.

Sec. 9, T.5N., R. 7E., Harrison Township

Revision	Date	Description

Right of Way
U.S. 6 & S.R. 110 - Ramp "A" & "B"
Scale: 1"=50'

Drawn	Checked	Date	Comm. No.
			6408-9

Sec. 10, T. 5N., R. 7E., Harrison Township

Walter B. Crahan, James Donovan III, etal
(11AWL) CONT. 13.530 AC.
P.R.O. = 0.000 AC.

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

225/228

25/28

Sec. 10, T. 5N., R. 7E., Harrison Twp.

B. Lucille McComb
(13WL)

For Run-around see Sheet No. 22

238+00
43.18'

238+00
50.81'
Exist. R/W's

238+00
50.81'
EPA

END L/A R/W
Left & Right

See Sheet No. 22

L/A R/W

S80°19'39"E
484.54'

235+55.63 (S.R. 110)
885+83.84 (Ramp "C")

S 84°36'55" E
234.50'
50'

235
234
484.74'
90°
15'
887
S 04°24'30" W
888
889
890
891
892
S 85°39'33" E
598.14'

+14.74 (B)
85'

S.R. 110

L/A R/W
228.35'

Exist. R/W's

336.23'

230+91.66
100'

S85°18'52"E
L/A R/W

Constr. Limits

S 85°35'39" E

12" Storm Sewer

12" Guard Rail

Inlet

232
564.51'
R=4297.19'
Chord = S89°27'28"E
Arc = 564.92'

232+00
50'

PT 233+15.26 (Ahead)
233+14.74 (Back)

James E. & Frances R. Sugg
(15WL) CONT. 6.138 AC.
P.R.O. = 1.313 AC.

For Interchange see Sheet No. 23

230+46.81
57.10'

231
564.51'
Chord = S89°27'28"E
Arc = 564.92'
R = 4297.19'

N86°49'44"E
218.22'

Chord = S88°45'51"W
230.18'

60"

4' F.T.

200+83.40
87.10'

234.35'

Metal Guard Rail

S87°01'45"E
Exist. R/W's

Brush

Sec. 10
Sec. 9 S0°45'W

Brush

CPA

236+40.63 (S.R. 110)
91.16'

S80°19'08"W
164.40'

L/A R/W

L. Constr. Limits

174.39'

236+40.63 (S.R. 110)
265.55'

S04°24'30"W
86.63'

889+36.07-85' (Ramp "C")
891+32.30-579.32' (U.S.G)

236+40.63 (S.R. 110)
352.28'

+38 IAPA
83'

889+36.07
Ramp "C"

S17°05'41"W

P.T. 890+66.66

323.16'

Abandon Exist. Tile between L/A Lines

P.C. 891+75.84
Ramp "D"

R=150'

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

872.18'

4' F.T.

S 89°55' E

Ramp "D"

C.S. 886+60.00

S 1°88'+00.00

30"

15"

Ramp "C"

P.C. 892+42.86

893+60.00
350' (U.S.G)

+60 IAPA
348'

S 09°52'55" W

203.04'

895+20.00
225' (U.S.G)

+20 IAPA
223'

S03°40'22"E

181.25'

P.C. 896+67.13

896+85.00
150' (U.S.G)

S15°54'58"E

189.27'

IAPA

898+70.00
110' (U.S.G)

S28°01'E 126.58'

IAPA

899+96.58
110' (U.S.G)

P.T. 900+22.72

21"

15"

& Survey & Constr. U.S.G Reloc.

S 28°01'E

Walter B. Crahan, James Donovan III, etal
(11AWL) CONT. 13.530 AC.
P.R.O. = 0.000 AC.

Sec. 10, T. 5N., R. 7E., Harrison Township

P.C. S09°55'E

LOCATION MAP

S.R. 110
"D"
"C"
WB U.S.G
EB U.S.G
"A"
"B"

Revision	Date	Description

Right of Way
U.S.G & S.R. 110-Ramp "C" & "D"
Scale: 1" = 50'

Drawn	Checked	Date	Comm. No.
			6408-9

Sec. 15, T. 5N., R. 7E. Harrison Twp.

Match Line A

℄ Survey & Constr. U.S. 6 Relocated

See Sheet No. 12 & 13

Julian Wheeler
(21WL) CONT. 8.780 AC.
P.R.O. = 0.580 AC.

Mildred Bowerman
(25WL) CONT. 8.517 AC.
P.R.O. = 0.481 AC.

Ralph Brown, Helen Brown & Annabelle Leona Brown
(26WL) CONT 0.771 AC
P.R.O. = 0.376 AC

Arthur G. & Nettie M. Gunter
(28WL) CONT. 0.828 AC.
P.R.O. = 0.376 AC.

Latora Rennecker, et al
(23WL) CONT 0.195 AC.
P.R.O. = 0.099 AC.

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

Scale: 1"=50'

TEMP. POINT OF ACCESS (Until such time as roadway separation is completed) & 40' R/W - (T.R. 9-B) Sta 18+48.23-88.20' Lt

TEMP. POINT OF ACCESS (Until such time as roadway separation is completed) & 40' R/W - (T.R. 9-B) Sta 18+46.95-88.62' Rt.

TEMP. POINT OF ACCESS & Field Dr. - Sta 25+73 59.30' Lt - 18' Wide

POINT OF ACCESS & Res Drive - Sta 15+18 58.83' Lt - 18' Wide

Mildred Bowerman
POINT OF ACCESS
& Res Drive - Sta. 23+36
73.50 Rt - 18' Wide

Item 607 Fence, type 39
1931 linear feet
* limits of fence quantity

Sec 15, T. 5N., R. 7E., Harrison Twp.

Township Road "P-3"

Revision	Date	Description

Right of Way
Township Road "P-3"
Sta 10+00 to Sta. 28+00

Drawn	Checked	Date	Comm No.
RWF			6408-9

Sec 15, T5N., R. 7E., Harrison Twp.

Sec. 22 T.5N., R. 7E., Harrison Twp.

227 / 228

HENRY COUNTY
HEN-6-16.43
LIMITED ACCESS

27 / 28

Scale 1"=50'

Constr. Limits

℄ Survey & Constr. Relocated U.S. 6

S 0°45' W

Match Line

966+01.16 - 147.59' (U.S.6)
18+52.40 (C.R. "P")

966+99.70 (U.S.6)
20+00.00 (C.R. "P")

+69.70

+29.70

See Sheet No. 13

Clarence D. & Yvonne S. Schwab
27WL CONT. 8.739 AC.
P.R.O. = 0.614 AC.

966+70.96
127.65'

966+10.96 - 127.75'
18+73.13 - 90°

967+30.96
127.68'

967+90.97 - 127.86'
18+71.24 - 90°

Melvin C. & Florence M. Bauman
32BWL CONT. 8.530 AC.
P.R.O. = 0.480 AC.

Abandon 4" F.T.

C.D. 1556-2

973+61

973+77.17
149.60'

975+50
150.12'

960+25
148.77'

20.00'

Exist R/W

1235.28'

L/A R/W

20.04'

20.02'

1241.27'

Tar & Stone

S 0°39'W

581.17'

℄ TWP. Rd. No. 9-B

P/L

88.98'

88.99'

S 0°55'15" W

172.83'

TWP. Rd. No. 9-B

TEMP. POINT OF ACCESS
(Until such time as roadway separation is completed)
℄ 40' R/W - (T.R. 9-B)
Sta. 18+53.12 - 88.98' Lt

18+33.11
87.96'

18+32.64
30'

+33 EPA
87'

18+32.01
30'

+32 EPA
88'

TEMP. POINT OF ACCESS
(Until such time as roadway separation is completed)
℄ 40' R/W - (T.R. 9-B)
Sta. 18+51.25 - 88.98' Rt

973+77.17
169.60'

960+25
168.77'

N15°32'52"E

181.00'

Δ = 45°±
Dc = 15°

962+00
215'

Future Constr. Limits ±

Future Constr. Limits

℄ & Future Reloc. T.R. 9-B

N 36°35'16" E

222.04'

963+80
345'

N 49°41'28" E

220.81'

32

Fr. Res.

65±

Fr. Barn

Barn

Silo

Sycamore

24"

48"

70'±

78'±

86'±

125'±

Melvin C. & Florence M. Bauman
32AWL CONT. 0.937 AC.
P.R.O. = 0.407 AC.

16+00
76.13'

S 0°11'00" W

278.87'

16+00
355'

S 27°57'29" E 138.38'

971+80
330'

S 38°22'41" E

254.17'

973+42
275'

N 26°00'31" W 232.95'

975+50
170.12'

Future Constr. Limits

℄ & Future Reloc. T.R. 9-B

324.85'

30+00.00
30'

Melvin C. & Florence M. Bauman
32WL CONT. 0.938 AC.
P.R.O. = 0.407 AC.

N 5°22'38" E

110.45'

14+90
180'

14+80
70'

180.62'

552.40'

852.60'

656.55'

N 87°16'16" E 373.61'

L/A R/W

S 89°40'E

371.73'

N 06°53'25" W

L/A R/W

32WL

32AWL

32A

Sec. 22, T.5N., R.7E., Harrison Twp.

Δ = 39°±
Dc = 13°

N 38°22'41" W

120.16'

N 02°59'48" W 180.28'

N 10°44'29" W 138.04'

14+90
250'

970+90
480'

Abandon 4" F.T.

8" F.T.

6" F.T.

Sec. 15, T.5N., R.7E., Harrison Twp.

+03 CPA
51.6

27+05.00
53.60'

+03 EPA
30'

295.94'

R/W

29

Sec 15
Sec 22

Inlet

Clarence D. & Yvonne S. Schwab
27WL CONT. 8.739 AC.
P.R.O. = 0.614 AC.

25+00.00
70'

Wood's

L/A R/W

S 85°14'34" E

+05.00
30'

205.66'

Barb-Wire fence

℄ Survey & Constr.

27

27+05.00
53.99'

END L/A R/W
27+05.00
Left & Right

+03 EPA
30'

+03 CPA
52'

197.41'

+05.00
30'

+08.95
30'

Exist R/W

Field Drive

25

Lawrence O. Rickenberg
29WL CONT. 0.280 AC.
P.R.O. = 0.135 AC.

29WL

S 85°32'00" W

+26.24 EPA
67.5'

POINT OF ACCESS
℄ Joint Field Drive
Sta. 25+08.24 70' Rt.
36' Wide

+08.24
70'

Item 607 Fence, type 39
2278 linear feet

* limits of fence quantity

Sec. 15, T.5N., R.7E., Harrison Twp.

Sec. 22, T.5N., R.7E., Harrison Twp.

Clarence D. & Yvonne S. Schwab
27WL CONT. 8.739 AC.
P.R.O. = 0.614 AC.

966+08.46 - 125'
21+25.90 - 90°

S 86°45'23" E 374.63'

℄ Future Constr. Limits

County Road "P"

852.60'

656.55'

636.64'

384.64'

S 87°12'10" W

Exist R/W

℄ Future Constr. Limits

℄ Survey & Constr.

Match Line

966+99.70 (U.S.6)
20+00.00 (C.R. "P")

+69.70

89°26'00"

+29.70

967+24.12 - 90°

Melvin C. & Florence M. Bauman
32BWL CONT. 8.530 AC.
P.R.O. = 0.480 AC.

32WL

32AWL

32A

27WL

29WL

CPA

L/A R/W

S 0°45'52" W

Sec. 22, T.5N., R.7E., Harrison Twp.

END L/A R/W
13+00.00
Left & Right

N 85°25'11" E

301.04'

R/W

+02 CPA
53'

+02 EPA
30'

+00
30'

13+00.00
55'

13+00.00
30'

1234.90'

L/A R/W

32-1

32A-1

County Road "P"

Sec 15
Sec 22

℄ Survey & Constr.

N 85°03'11" W

301.04'

R/W

10+00.00
30'

10+00.00
30'

Relocated Line

S 0°23'5" W

Revision	Date	Description

Right of Way
County Road "P"
Sta. 10+00 to Sta. 30+00

Drawn	Checked	Date	Comm. No.
			6408-9

County Road "P"

HENRY COUNTY
HEN-6-1643
LIMITED ACCESS

228
228

28
28

Scale: 1"=50'

Sec. 22, T.5N., R.7E., Harrison Twp.

See Sheet No. 15

TEMP. POINT OF ACCESS (Until such time as roadway separation is completed ℄ 40' R/W (T.R 9-B) Sta 18+47.99-88.61' Lt.

Elmer & Pauline E. Dishop
(31WL) CONT. 6.305 AC.
P.R.O. = 0.320 AC.

Julia M Hustwick

Henry J & Emilie Behnfeldt
(38WL) CONT. 0.161 AC. R/W
P.R.O. = 0.161 AC.

Harry G Nichols
(40WL) CONT. 1.236 AC.
P.R.O. = 0.286 AC.

Joseph Beck, et al
(33WL) CONT. 13.246 AC.
P.R.O. = 0.382 AC.

Elmer & Pauline E. Dishop
(31WL) CONT. 6.305 AC.
P.R.O. = 0.320 AC.

TWP. Rd. No. 9-B

Ridge Road

TR "0-3"

℄ Survey & Constr. Reloc. U.S. 6

℄ Relocated TR "0-3"

Future Const. Limits

Present Const. Limits

Constr. Limits

Exist R/W

L/A R/W

Brush & Trees

Ff. House

Ff. Barn

Garage Conc. Bl.

Wooden Fence

Stone Dr.

Frame Bldg.

Drive

Pond

Match Line

END L/A R/W Left & Right

(1) Radius = 497.46' Arc = 20.35'
Chord = S80°01'55"W 20.35'
(2) Radius = 497.46' Arc = 33.80'
Chord = N76°54'48"E 33.80'
(3) Radius = 477.46' Arc = 28.31'
Chord = N76°39'55"E 28.31'
(4) Radius = 477.46' Arc = 57.80'
Chord = N81°49'55"E 57.77'

℄ Curve Data (℄ Survey & Constr. U.S. 6)
P.I. = Sta 1019+52.04
Δ = 20°31' Left
Δc = 18°31' Θs = 6°00'
Dc = 3°00' Ls = 400.00'
Rc = 1909.86' LT = 266.82'
Lc = 2617.22' ST = 133.47'
Ts = 2130.61' Es = 808.31'

℄ Substitute R/W Curve Data
Δ = 6° L = 266.70'
R = 2546.76' D = 2°14'59"
T = 133.47' E = 3.49'

Existing T.R "0-3" ℄ Curve Data
P.I. = Sta 18+62.17
Δ = 10°20'00" T = 43.17'
D = 12° L = 86.11'
R = 477.46' E = 1.96'

℄ Curve Data (A)
P.I. = Sta 10+55.72
Δ = 5°01'34" T = 50.29'
D = 5° L = 100.52'
R = 1145.92' E = 1.10'

℄ Curve Data (B)
P.I. = Sta 26+00.07 (Back)
Sta 26+06.36 (Exist T.R "0-3")
Δ = 5°47'36" T = 58.04'
D = 5° L = 115.98'
R = 1145.92' E = 1.47'

Item 607 Fence, type 39
1884 linear feet
* limits of fence quantity

Sec. 22, T.5N., R.7E., Harrison Twp.

Relocated Township Road "0-3"

Revision	Date	Description

Right of Way
Township Road "0-3"
Sta 10+00 to Sta 30+00

Drawn	Checked	Date	Comm. No.
			6408.9

TE-95
400-1-63

RECEIVED
APR 17 1965

GENERAL INFORMATION

INTRODUCTION

The project consists of the construction of the USR 24-Proposed USR 6 Interchange, located at USR 24, approximately 3.5 miles east of the city of Napoleon.

Proposed grades indicates the following maximum cuts and fill embankments:

	CUTS (Max.)	FILL EMBANKMENTS (Max.)
CL Survey, USR 6	5'	24'
Westbound, USR 6	5'	-
Eastbound, USR 6	5'	5'
Ramp A	-	3'
Ramp B	5'	1'
Ramp C	7'	11'

GEOLOGY OF THE PROJECT

The project is located on a portion of the flat, glaciated Lake Plain and the flood plain of the Maumee River, where moderately deep glacial drift (on the Lake Plain) and moderately deep alluvium (in the flood plain) overlies shale and limestone bedrock, of Devonian age.

EXPLORATION

Exploratory borings were made by means of truck-mounted mechanical soil auger, between May 11 and 14, 1965.

INVESTIGATIONAL FINDINGS

Materials occurring immediately below proposed grade and in the embankment foundation areas are predominantly comprised of silt clays (A-6a and A-6b) and clays (A-7-6) generally having moisture contents in the lower portions of the plastic range.

Wet materials were encountered at stations 865+00 and 869+00.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 42 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	66	19	4	7	4	NP	NP	13	1
Coarse and fine sand	-----	A-3a	1	34	47	4	14	NP	NP	14	1
Sandy silt	A-4(4)	A-4a	11	4	28	33	24	24	7	16	5
Silt and clay	A-6(7)	A-6a	16	5	11	34	34	28	12	16	16
Silty clay	A-6(11)	A-6b	8	4	13	36	39	36	17	18	9
Clay	A-7-6(16)	A-7-6	4	2	8	39	47	47	26	21	10

Topsoil = X'= Approximate depth

Auger boring - plan view.

Auger boring plotted to vertical scale only.

Water content nearly equal to or greater than liquid limit.

Indicates a non-plastic material with a high water content.

W Free water.

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

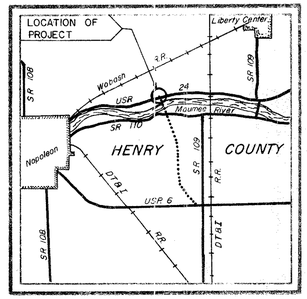
SOIL PROFILE
HENRY COUNTY
HEN-6-16.43
SUPPLEMENT

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

1/74

1/3

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



LOCATION MAP

Recon - P.D.B. - 2/26/65
Auger - L.M.D. - 5/11/65 - 5/14/65
Drafting - A.D.B. - 6/11/65

SUMMARY OF SOIL TEST DATA

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

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
CL SURVEY											
865+00	CL	0.0-2.5	0	1	6	47	46	47	23	10	A-7-6
		2.5-6.0	0	1	7	49	43	41	21	24	A-7-6
		6.0-9.0	11	0	14	48	27	25	11	25	A-6a
		9.0-11.0	66	19	4	7	4	NP	NP	13	A-1-a
		11.0-16.0	29	7	13	27	24	22	9	11	A-4a
		16.0-21.0	20	5	8	32	35	35	11	13	A-6a
		21.0-25.5	22	6	10	27	35	27	11	15	A-6a
869+00	CL	0.5-2.0	0	0	18	52	30	37	16	21	A-6b
		2.0-6.0	0	0	45	37	23	25	9	18	A-4a
		6.0-11.0	0	0	54	29	17	NP	NP	24	A-4a
		11.0-16.0	19	8	18	28	27	22	7	11	A-4a
		16.0-21.0	27	5	9	28	31	26	11	12	A-6a
		21.0-24.5	20	5	11	34	30	28	12	12	A-6a
		24.5-30.0	1	34	47	4	14	NP	NP	14	A-3a
WESTBOUND USR 6											
855+50	CL	0.4-5.0	0	4	8	38	50	51	28	22	A-7-6*
		5.0-10.0	9	5	12	35	39	37	17	16	A-6b*
		10.0-12.0	17	5	11	32	35	27	11	16	A-6a
EASTBOUND USR 6											
850+00	CL	0.5-5.0	0	3	12	38	47	38	18	23	A-6b
		5.0-9.0	6	5	12	39	38	35	16	20	A-6b
		9.0-12.0	5	5	13	43	34	27	9	15	A-4a
855+00	CL	0.5-5.0	0	2	7	39	52	56	34	23	A-7-6*
		5.0-10.0	0	6	14	33	47	36	17	15	A-6b*
		10.0-12.0	12	4	11	39	34	27	12	14	A-6a

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
RAMP A											
853+00	BL	0.5-5.0	8	6	7	35	44	42	21	17	A-7-6
		5.0-10.0	11	6	12	32	39	35	17	17	A-6b
		10.0-12.0	12	6	12	33	37	34	14	16	A-6a
858+00	BL	0.0-5.0	16	5	12	33	34	26	11	15	A-6a*
		5.0-10.0	10	5	13	35	37	35	17	14	A-6b
		10.0-12.0	8	4	10	34	44	44	24	18	A-7-6
RAMP B											
852+50	BL	0.5-5.0	20	1	5	30	44	58	33	23	A-7-6*
		5.0-9.0	21	4	10	33	32	38	17	18	A-6b*
		9.0-14.0	15	5	11	40	29	30	13	17	A-6a
RAMP C											
850+00	BL	0.6-5.0	0	3	14	34	49	43	24	21	A-7-6
		5.0-10.0	15	5	11	32	37	30	16	15	A-6b
		10.0-14.0	15	5	12	31	37	28	12	15	A-6a
		14.0-17.0	19	5	10	30	36	26	11	16	A-6a
854+00	BL	0.8-5.0	0	1	9	43	47	41	22	20	A-7-6*
		5.0-10.0	15	5	12	34	34	32	15	19	A-6a
858+50	BL	0.4-5.0	0	1	9	41	49	49	26	25	A-7-6
		5.0-10.0	15	6	12	32	35	33	15	18	A-6a*
		10.0-14.0	5	5	13	34	43	29	14	17	A-6a*
		14.0-17.0	9	4	11	36	40	26	12	15	A-6a

FF 56
2500 8-54

SOIL PROFILE

HENRY COUNTY
HEN-6-16.43
SUPPLEMENT

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

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7.4

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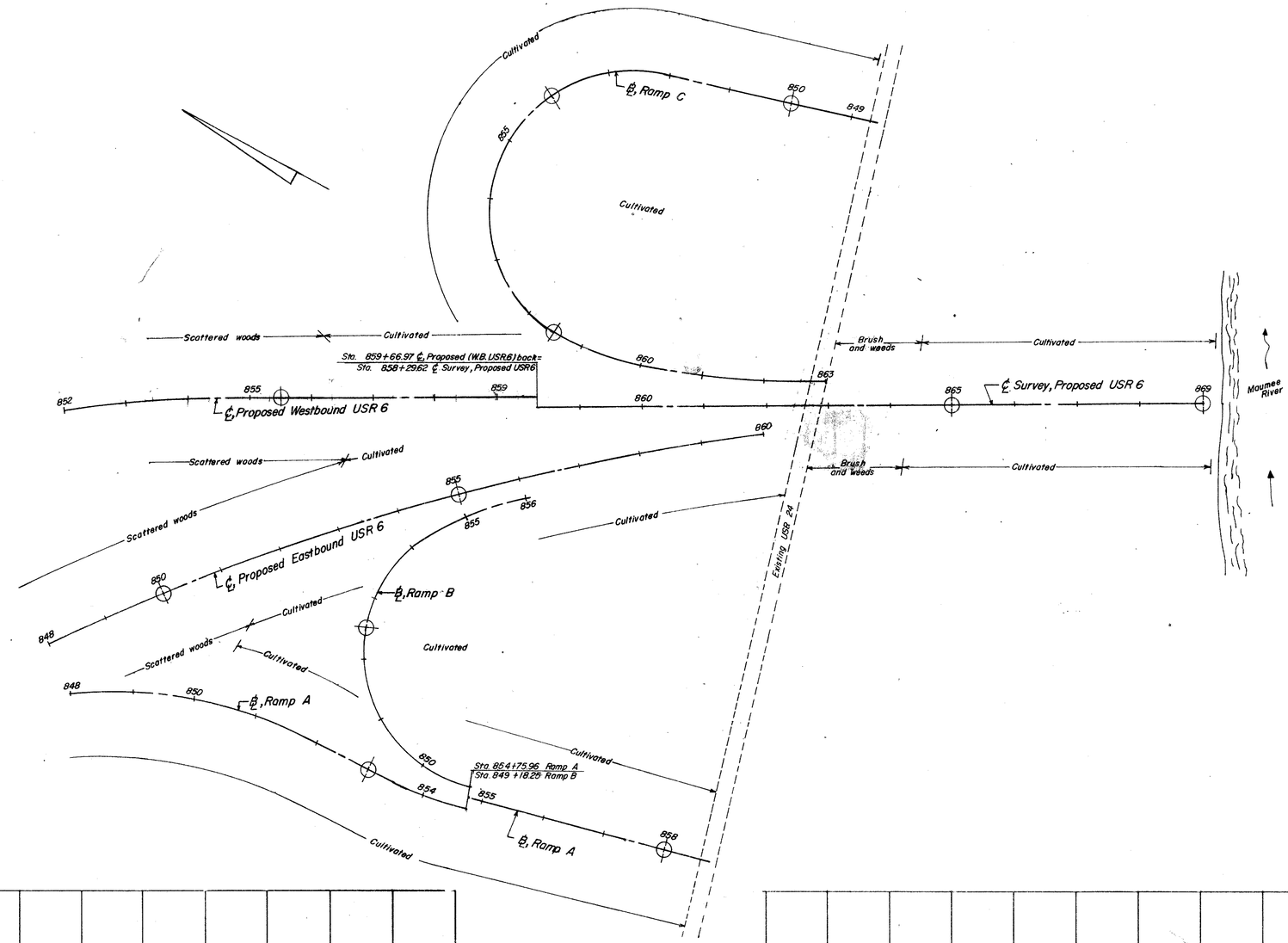


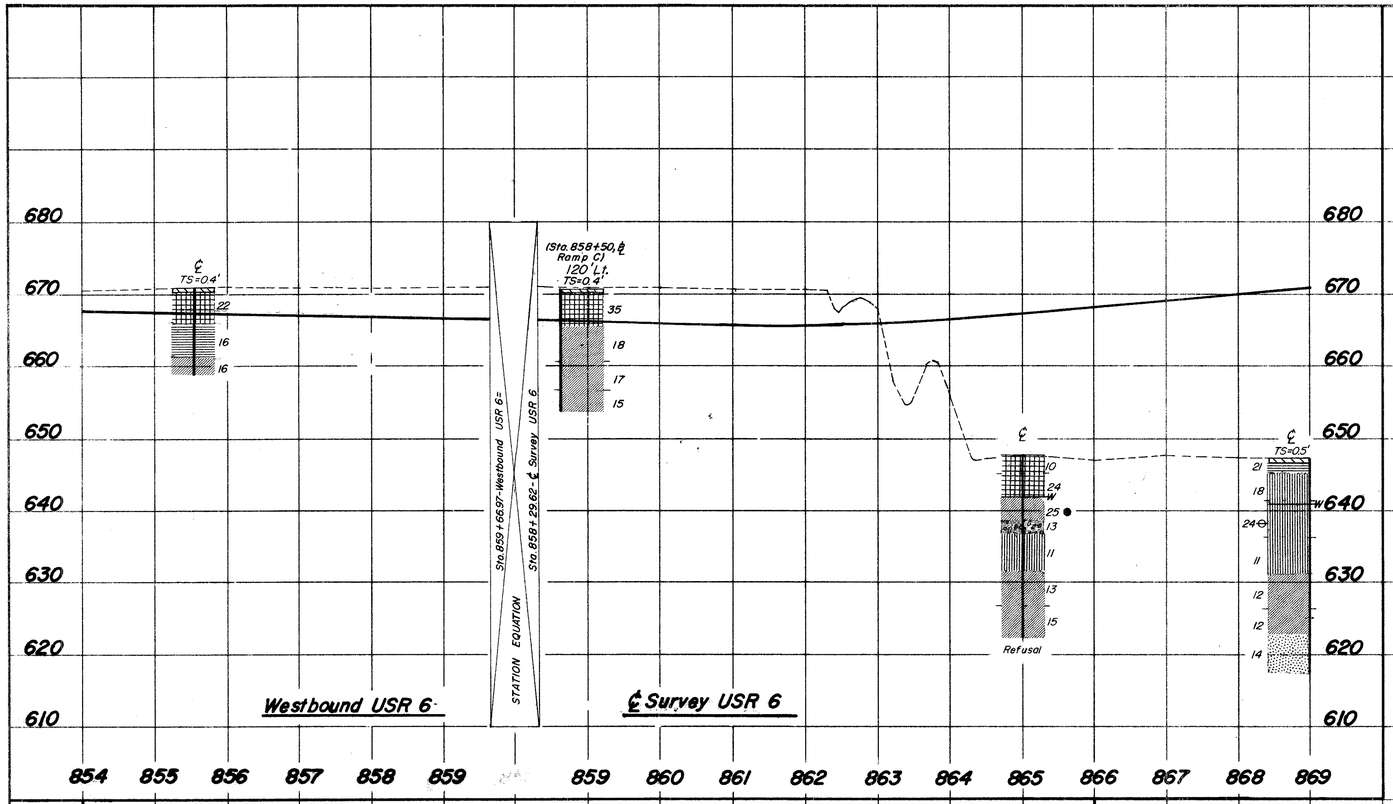
SOIL PROFILE

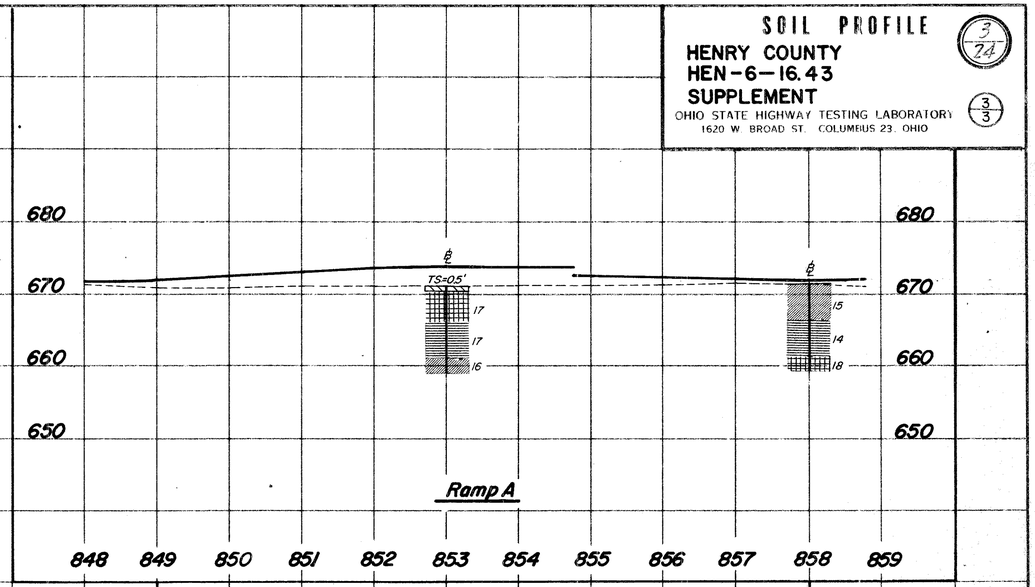
HENRY COUNTY
HEN-6-16.43
SUPPLEMENT

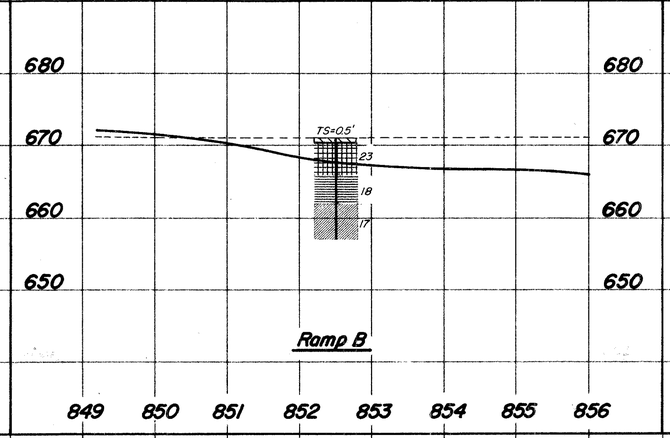
OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS 23, OHIO

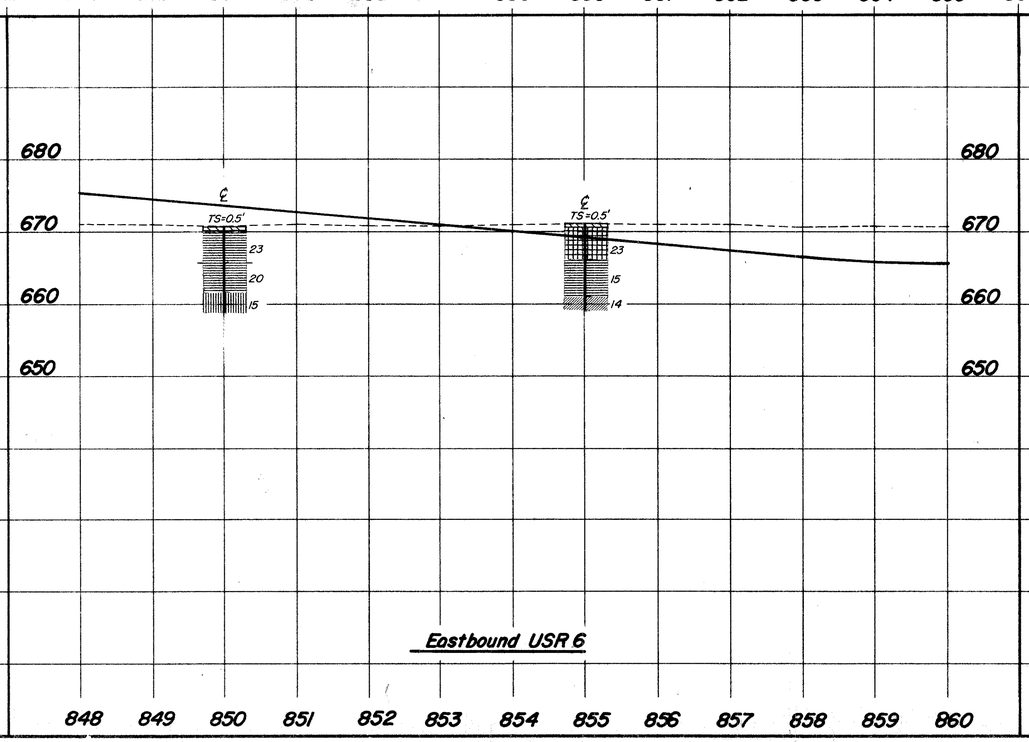
3/74

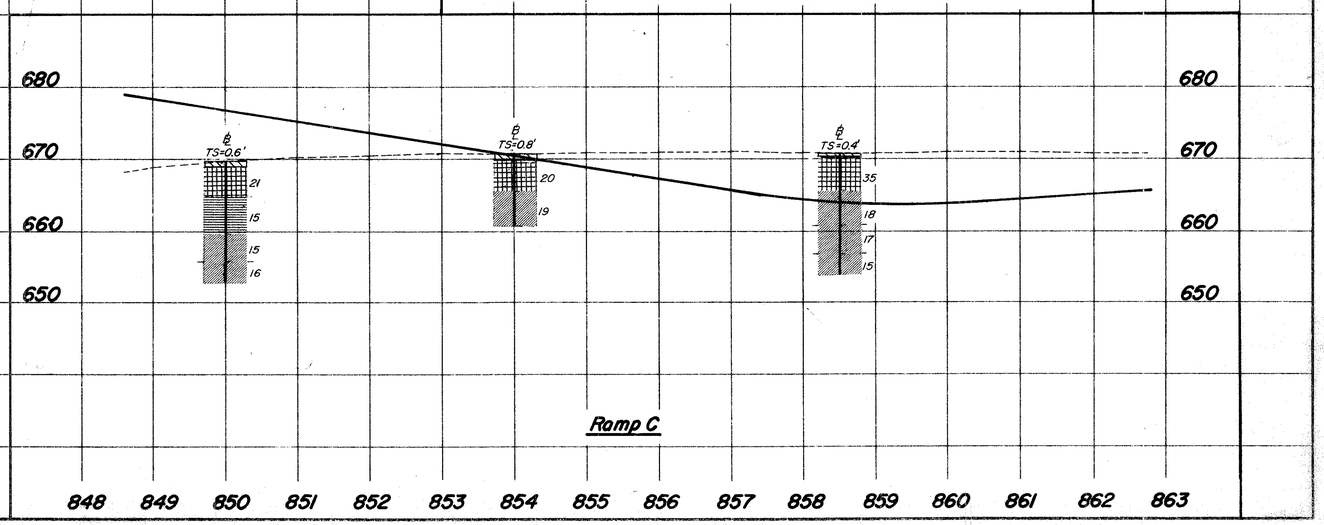
3/3











TE-93
400-1-63

MICROFILMED
APR 17 1968

GENERAL INFORMATION

INTRODUCTION

The project consists of the construction of a section of USR 6 (Napoleon By-pass), located approximately 1.9 miles east of Napoleon, beginning at the intersection of USR 24, immediately north of the Maumee River, extends southward and terminates at the intersection of existing USR 6, 0.3 miles west of SR 109.

The proposed grade indicates cuts, maximum 6 feet in depth, and fill embankments, maximum 40 feet in height.

GEOLOGY OF THE PROJECT

The alignment crosses the Maumee River and traverses the relatively flat glaciated Lake Plain Region, where moderately deep glacial-derived soils overlie bedrock, of Devonian age.

EXPLORATION

Exploratory borings were made by means of truck-mounted mechanical soil auger on August 19 and 20, 1964.

INVESTIGATIONAL DISCLOSURES

Borings disclose that materials occurring immediately below the proposed grade and in the embankment foundation areas are comprised predominantly of sand, sandy silt, and silty clays, in the A-3, A-4a, and A-6 classifications, generally having low moisture contents or moisture contents in the lower portions of the plastic range.

Wet materials, containing various amounts of organic materials, were encountered at stations 940+50, 946+70, 953+00, 960+00, 981+00, 997+00, and 1005+00.

Embankment foundation subsurface information in the vicinity of stations 865+00 to 878+00 (Maumee River) will be supplemented upon completion of the structure foundation investigations.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS — 83 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
Fine sand	A-3(0)	A-3	0	8	87	- 5 -		NP	NP	19	13
Coarse and fine sand	----	A-3a	0	5	72	13	10	NP	NP	14	6
Sandy silt	A-4(2)	A-4a	0	3	53	26	18	NP	NP	13	14
Silt	A-4(8)	A-4b	0	1	11	57	31	26	4	17	5
Silt and clay	A-6(9)	A-6a	1	4	12	36	47	31	12	17	30
Silty clay	A-6(11)	A-6b	1	3	11	29	56	36	17	17	12
Clay	A-7-6(14)	A-7-6	0	1	5	21	73	44	24	23	3
Various other materials				VISUAL CLASSIFICATION							

Sod or Topsoil=X'= Approximate depth.

Berm material.

Auger boring - plan view.

Auger boring plotted to vertical scale only.

Water content nearly equal to or greater than liquid limit.

Indicates a non-plastic material with a high water content.

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

SOIL PROFILE

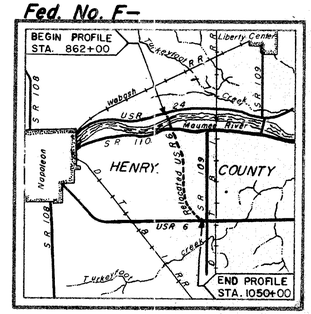
4
24

HENRY COUNTY
HEN—6—16.43

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

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

Fed. No. F—



LOCATION MAP

Recon — W.C.J. — 7/30/64
Drilling — A.J.R. — 8/19/64 — 8/20/64
Drafting — B. D. C. — 9/14/64

SUMMARY OF SOIL TEST DATA

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

STATION & OFFSET		DEPTH FROM-TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
862+20	CL	0.8-5.0	0	3	12	22	63	37	17	16	A-6b *
		5.0-11.0	0	6	12	32	50	31	11	15	A-6a *
		11.0-15.0	0	7	14	39	40	32	13	16	A-6a
863+40	CL	0.0-6.0	0	5	16	29	50	34	16	17	A-6b
		6.0-11.0	0	6	11	60	23	33	14	13	A-6a
		11.0-16.0	0	4	6	31	59	35	17	16	A-6b
		16.0-17.0	0	1	3	54	42	24	5	17	A-4b
879+00	CL	0.8-2.0	Brown Sandy Silt with Some Gravel							-	Visual
		2.0-7.0	0	8	16	31	45	31	13	14	A-6a
		7.0-11.0	0	7	3	47	43	30	12	15	A-6a
		11.0-17.0	0	6	14	32	48	27	11	14	A-6a
		17.0-20.0	0	6	13	38	43	29	12	14	A-6a
884+00	CL	0.4-3.0	8	5	14	31	42	36	15	13	A-6a *
		3.0-8.0	11	5	12	29	43	35	16	13	A-6b
		8.0-12.0	0	5	2	47	46	34	15	15	A-6a
889+50	CL	0.8-4.0	0	1	6	35	58	42	22	15	A-7-6 *
		4.0-11.0	7	6	12	34	41	33	15	15	A-6a *
899+00	CL	0.8-3.0	0	2	20	29	49	38	11	15	A-6a *
		3.0-10.0	0	4	15	29	52	39	19	20	A-6b
907+00	CL	0.8-4.0	0	3	33	32	32	28	11	9	A-6a
		4.0-9.0	0	6	11	46	43	28	11	14	A-6a
		9.0-13.0	0	6	14	31	49	32	12	15	A-6a
		13.0-17.0	13	6	11	29	41	27	11	14	A-6a
914+00	CL	0.8-3.0	0	1	1	44	54	39	18	16	A-6b *
		3.0-7.5	0	1	3	13	83	53	29	22	A-7-6
		7.5-13.0	0	7	19	30	44	31	14	14	A-6a
925+35	CL	0.8-4.0	10	9	23	24	34	27	12	10	A-6a
		4.0-8.0	6	7	14	29	44	35	17	14	A-6b
		8.0-13.0	0	6	13	36	45	31	14	14	A-6a
932+00	50'Rt	0.8-5.0	0	1	11	35	53	40	19	17	A-6b *
		5.0-11.0	0	4	11	28	57	36	17	16	A-6b
940+00	CL	0.3-5.0	0	4	47	13	36	31	8	25	A-4a *
		5.0-6.0	0	11	84	- 5 -		NP	NP	22	A-3
		6.0-11.0	0	4	5	24	67	39	19	19	A-6b
946+70	50'Rt	0.8-2.5	0	3	60	24	13	NP	NP	6	A-4a *
		2.5-9.0	0	5	57	27	11	NP	NP	21	A-4a *
		9.0-10.0	0	5	6	26	63	32	13	25	A-6a
953+00	25'Rt	0.8-2.0	0	4	63	19	14	NP	NP	6	A-3a *
		2.0-4.0	0	0	3	37	60	34	12	23	A-6a *
		4.0-7.0	0	20	78	- 2 -		NP	NP	22	A-3
		7.0-10.0	0	1	1	47	51	30	11	22	A-6a
960+00	130'Rt	0.0-3.0	0	6	62	11	21	NP	NP	15	A-3a *
		3.0-6.0	0	8	81	- 11 -		NP	NP	17	A-3a
		6.0-10.0	0	3	19	34	44	20	11	24	A-6a
		10.0-12.0	0	4	4	40	52	28	11	21	A-6a
967+12	CL	0.3-2.0	0	3	55	21	21	NP	NP	15	A-4a *
		2.0-4.0	0	2	16	26	56	37	15	28	A-6a
		4.0-11.0	0	19	79	- 2 -		NP	NP	18	A-3
973+50	CL	0.8-5.0	0	2	3	54	41	31	10	14	A-4b
		5.0-9.0	0	0	0	40	60	36	13	23	A-6a
		9.0-10.0	0	1	6	16	77	48	21	32	A-7-6
981+00	25'Rt	0.8-2.0	0	1	36	46	16	NP	NP	11	A-4a
		2.0-5.0	0	2	63	28	7	NP	NP	22	A-3a
		5.0-9.0	0	5	92	- 3 -		NP	NP	23	A-3
		9.0-11.0	0	3	15	28	54	29	11	27	A-6a
988+00	CL	0.0-4.0	0	6	83	- 11 -		NP	NP	4	A-3a *
		4.0-7.0	0	8	82	- 10 -		NP	NP	11	A-3 *
		7.0-11.0	0	4	43	42	11	NP	NP	17	A-4a
997+00	140'Rt	0.0-3.0	0	3	60	24	13	NP	NP	13	A-4a *
		3.0-5.0	0	0	13	55	32	24	6	26	A-4b
		5.0-11.0	0	1	91	- 8 -		NP	NP	19	A-3
1005+00	CL	0.0-5.0	0	2	62	22	14	NP	NP	13	A-4a *
		5.0-11.0	0	3	92	- 5 -		NP	NP	21	A-3
		11.0-12.0	Gray Sandy Silt					19	2	25	A-4a
1014+00	CL	0.6-3.0	0	3	54	20	23	NP	NP	8	A-4a *
		3.0-7.0	0	0	3	35	62	35	14	22	A-6a *
		7.0-8.5	0	0	9	43	48	28	11	18	A-6a
		8.5-12.0	0	4	94	- 2 -		NP	NP	22	A-3
1023+00	50'Rt	0.8-3.0	0	3	47	24	26	21	5	9	A-4a
		3.0-6.0	0	1	98	- 1 -		NP	NP	19	A-3
		6.0-9.0	0	1	83	- 16 -		NP	NP	22	A-3a
		9.0-11.0	Gray Silt and Clay					27	11	22	A-6a
1030+00	20'Rt	0.0-2.0	0	2	92	- 6 -		NP	NP	4	A-3 *
		2.0-4.0	0	3	8	70	19	NP	NP	19	A-4b
		4.0-9.0	0	3	93	- 4 -		NP	NP	19	A-3
		9.0-14.0	0	1	15	40	44	25	11	19	A-6a
1037+00	15'Lt	0.4-3.0	0	2	52	18	28	22	8	10	A-4a
		3.0-7.0	0	1	27	53	19	NP	NP	11	A-4b
		7.0-8.0	0	1	6	24	69	40	19	22	A-6b
		8.0-9.0	0	0	17	73	-10 -	NP	NP	20	A-3
		9.0-11.0	0	2	16	26	56	32	16	23	A-6b
1045+00	20'Rt	0.0-4.5	0	3	58	26	13	NP	NP	5	A-4a
		4.5-8.0	0	0	63	27	10	NP	NP	17	A-4a
		8.0-12.0	0	3	91	- 6 -		NP	NP	21	A-3

SOIL PROFILE

5/24

HENRY COUNTY
HEN—6—16.43

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

2/7

MICROFILMED
APR 27 1965

N

Cultivated — Cultivated — Brush — Cultivated

862 865 870 ℄ Relocated USR 6 875 880 885 890 894

River

Maumee

USR 24

SR-110

Cultivated — Cultivated — Brush — Cultivated

680 670 660 650 640 630 620

℄ TS=0.8' 16 15 16

℄ 17 13 16 17

1959 High Water Elev. 658.5'

Water elevation 639.7'

℄ TS=0.8' Brown sandy silt with some gravel 14 15 14 14 Refusal (Boulders)

℄ 13 13 15

℄ TS=0.8' 15 15

862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894

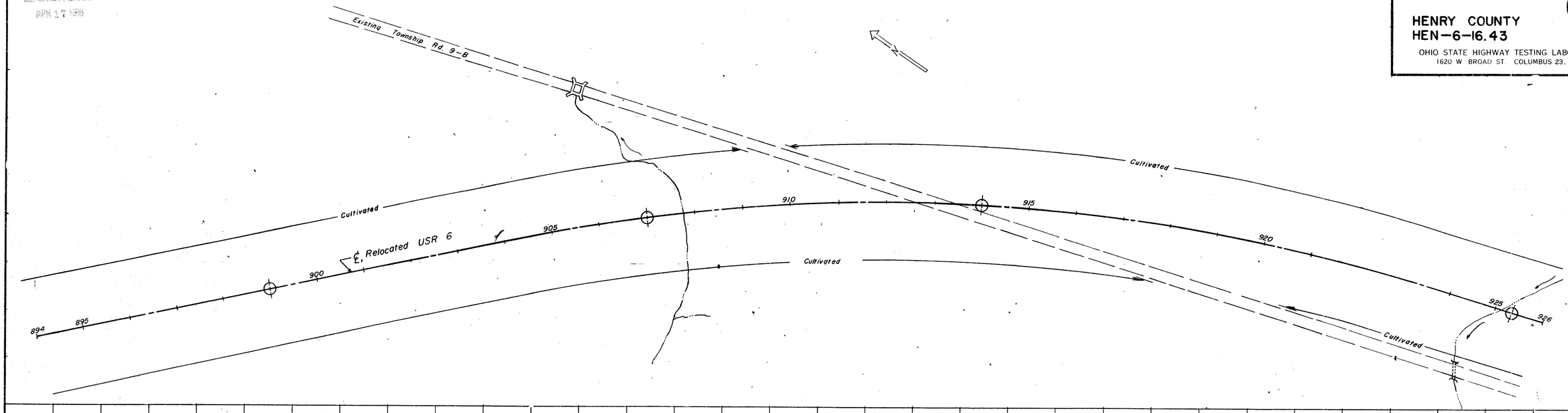
DISCONTINUED
APR 27 1981

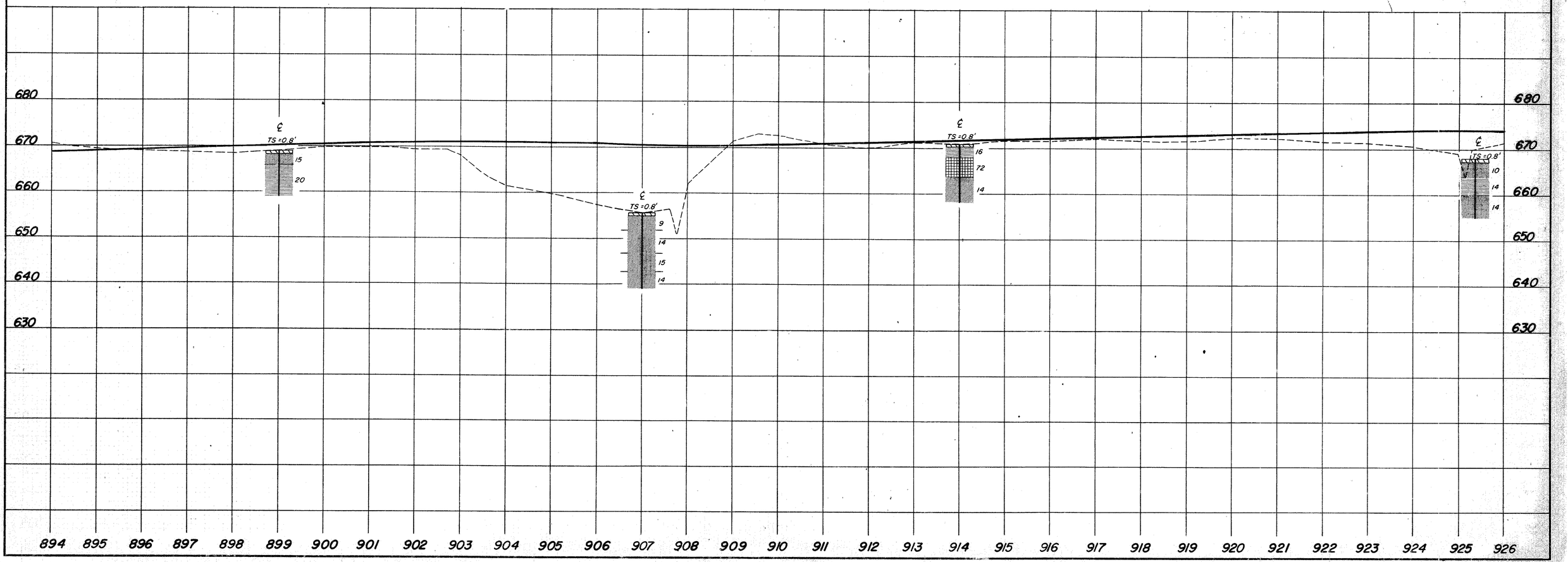
SOIL PROFILE

6/74

HENRY COUNTY
HEN-6-16.43

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





SOIL PROFILE
HENRY COUNTY
HEN-6-16.43

7/24

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

1/7

Cultivated

Cultivated

926 930 935 940 945 950 955 958

℄ Relocated USR 6

P-3

Existing Township Rd.

Existing Township Rd. 9-B

Cultivated Lawn Cultivated Lawn Cultivated Lawn

690 680 670 660

50' Rt. TS=0.8'
17
16

℄
25 Organic
22
19

50' Rt. TS=0.8'
6
21
25
Hole squeezed in at elev. 673.3

Rt. TS=0.8'
6
23
22
22

926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958

SOIL PROFILE

8/24

HENRY COUNTY
HEN-6-16.43

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

5/7

Cultivated | Cultivated | Cultivated | Cultivated | Lawn and barnyard | Cultivated

958 965 970 975 980 985 990

℄, Relocated USR 6

Township Rd. P

Existing Township Rd. 9-B

Lawn and barnyard

Cultivated | Lawn | Cultivated | Cultivated

690 680 670 660

130 Rt. — 15, 17, 24, 31

Sod=0.3' — 15, 28, 18

℄ TS=0.8' — 14, 23, 32

25' Rt. TS=0.8' — 11, 22, 23, 27

℄ — 4, 11, 17

958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990

SOIL PROFILE

HENRY COUNTY

HEN-6-16.43

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

9/24

6/7

990 995 1000 1005 1010 1015 1020 1022

Cultivated

℄, Relocated USR 6

Existing Township Rd. 9-B

Existing Township Rd. 10-3

Lawn

Cultivated

Cultivated

Cultivated

690 680 670

140' Rt.

℄

13
26
19

℄

13
21
25

℄
TS =0.6'

8
22
78
22

Hole squeezed in at elev. 678.4

990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022

SOIL PROFILE

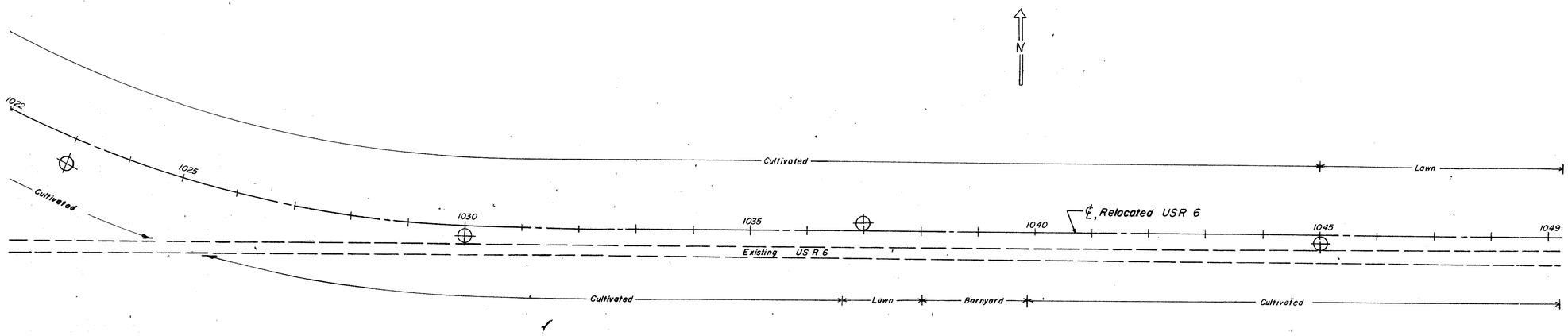
HENRY COUNTY

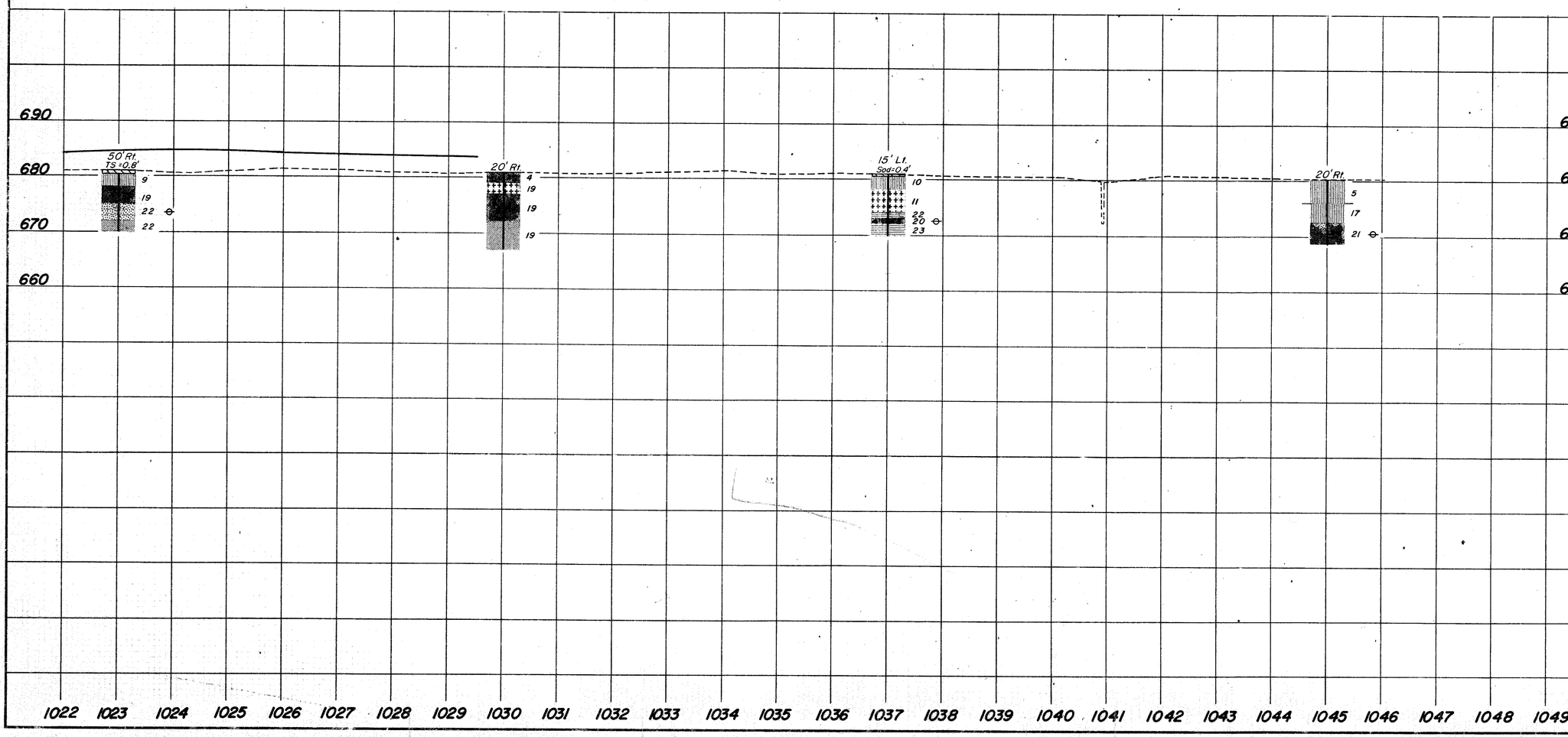
HEN-6-16.43

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

10/24

7/7





TE - 118
600 - 11 - 64

MICROFILMED
APR 27 1966

HENRY COUNTY
HEN-6-16.43

GEOLOGY OF THE SITE

The structure site is located on the glaciated, relatively flat portion of the Lake Plain Region, adjacent to the Maumee River, in an area where some thin alluvium and glacial-derived soils overlie bedrock, of Devonian age.

EXPLORATION

The exploration consisted of two drive sample borings, made between May 19 and 27, 1965, and five drive rod penetration tests, made on May 3 and 4, 1965.

INVESTIGATIONAL FINDINGS

The borings encountered unstratified intervals of moist, very stiff to hard gravelly, sandy, silty clays and medium-to very dense sandy clayey silts and occasional boulders. The borings were terminated at 56-foot depth, elevations 613 and 612 feet, after penetrating in excess of 30 feet of material requiring more than 30 blows per foot in the standard penetration test.

Rod soundings met increasing penetration resistance with increasing depth, and were terminated upon encounter with refusal to penetration at 24 and 26-foot depths, elevations 646 to 641 feet, considered to be in the hard and dense materials, as revealed by the borings.

No free water was encountered in any of the rod sounding holes.

No test penetrated to bedrock surface.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system-and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)		0.074mm (No. 200 sieve)	0.005mm

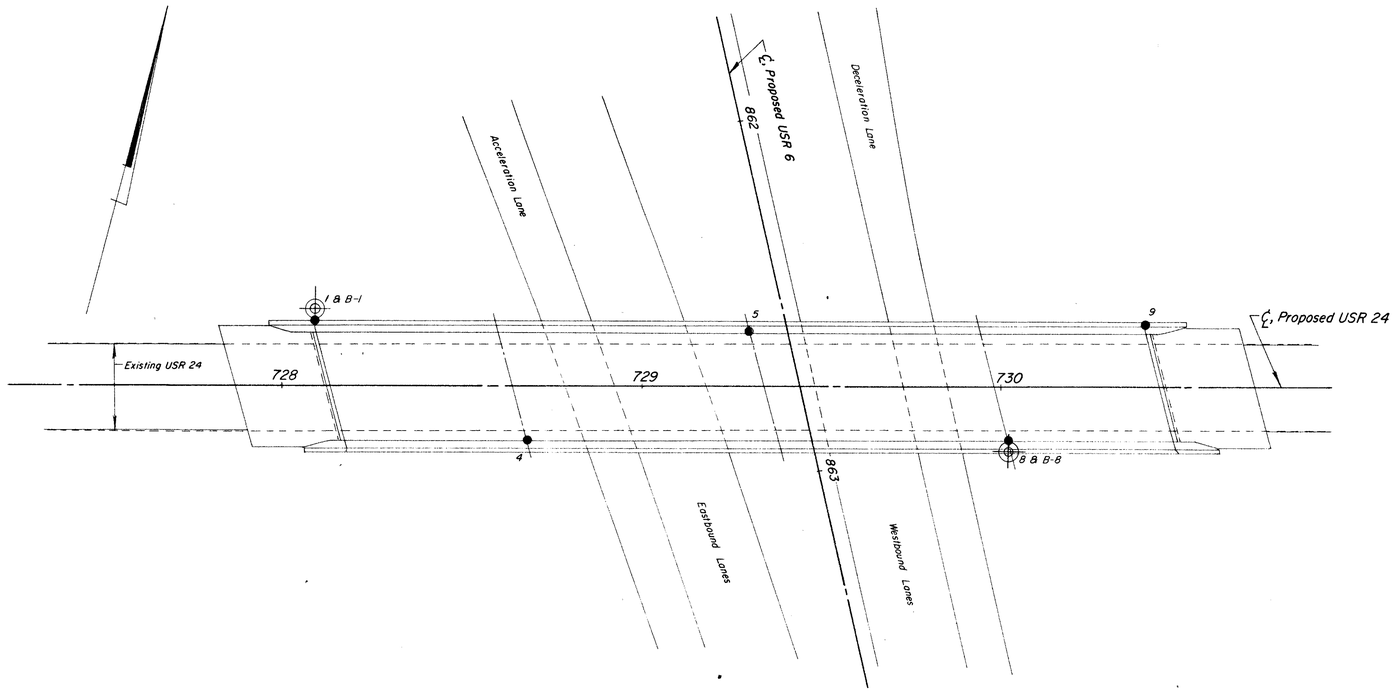
NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

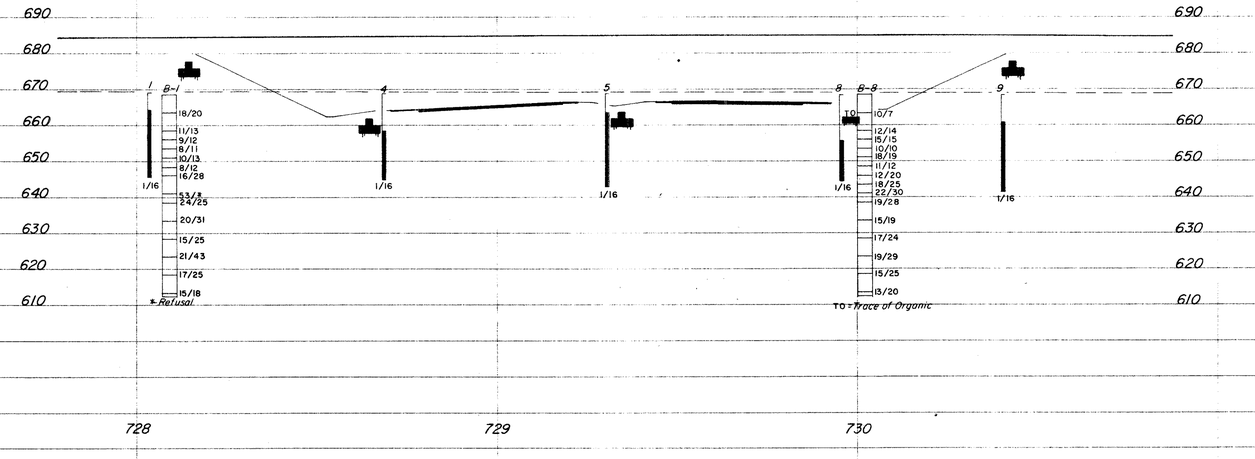
OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1667
UNDER SR 424
SEC. HEN-6-16.43

CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	6/23/65

RECOMMENDED
APR 17 1964





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1667
UNDER SR 424
SEC. HEN-6-16.43

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
R.L.C.	L.N.L.	R.D.R.	6/23/65

TE - 122
600 - 11 - 64

RECEIVED
APR 19 '66

LOG OF BORING

Date Started 5-25-65 Sampler Type SS Dia. 1 3/8"
Date Completed 5-27-65 Casing: Length 25' Dia. 3 1/2"
Boring No. B-1 Station & Offset 728+09, 21' Lt (REAR ABUTMENT)
Water Elev. ———— Surface Elev. 668.6'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
668.6	0														
	2														
	4														
663.6	6	18/20			Brownish-Gray Sandy Clay	1	7	5	13	29	46	29	11	16	
	8														
658.6	10	11/13			Brownish-Gray Sandy Clay	2	7	5	13	27	48	31	12	17	
656.1	12	9/12			Brownish-Gray Sandy Clay	3	10	5	12	29	44	28	11	17	
653.6	14														
	16	8/11			Brownish-Gray Gravelly Sandy Clay	4	16	5	12	24	43	28	11	16	
651.1	18	10/13			Gray Gravelly Sandy Silt	5	22	8	29	24	17	NP	NP	18	
648.6	20	8/12			Gray Silty Gravelly Sand	6	32	41	10	17		NP	NP	15	
646.1	22														
	24	16/28			Gray Silt and Clay	7	3	4	10	30	53	29	11	13	
643.6	26				No Sample Recovered - Boulder.										
641.1	28	53/*			Gray Silt	8	4	2	1	53	40	24	3	16	
638.6	30														
	32	24/25			Gray Sandy Silt	9	5	5	13	42	35	NP	NP	14	
	34														
633.6	36	20/31			Gray Sandy Silt	10	14	7	16	31	32	23	8	11	
	38														
628.6	40														
	42	15/25			Gray Sandy Silt	11	12	32	14	22	20	21	7	10	
	44														
623.6	46	21/43			Gray Sandy Clay	12	13	9	10	27	41	28	11	13	
	48														
618.6	50														
	52	17/25			Gray Gravelly Clay	13	11	4	5	19	61	42	19	16	
	54				BOTTOM OF BORING										
613.6															
612.6	56	15/18			Gray Silt and Clay	14	0	1	1	18	80	40	15	27	

*Refusal

LOG OF BORING

Date Started 5-19-65 Sampler Type SS Dia. 1 3/8"
Date Completed 5-20-65 Casing: Length 18' Dia. 3 1/2"
Boring No. B-8 Station & Offset 730+02, 18' Rt (FORWARD PIER)
Water Elev. ———— Surface Elev. 668.4'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
668.4	0														
	2														
	4														
663.4	6	10/7			Brownish-Gray Silty Gravelly Sand, Trace of Organic	1	31	6	33	20	10	NP	NP	15	
	8														
658.4	10	12/14			Brown Sandy Clay	2	6	5	13	27	49	33	13	16	
655.9	12	15/15			Brown and Gray Sandy Clay	3	10	6	13	41	30	32	12	18	
653.4	14														
	16	10/10			Gray Sandy Clay	4	9	5	13	38	35	31	12	16	
650.9	18	18/19			Gray Gravelly Sandy Clay	5	17	6	11	38	28	30	11	17	
648.4	20	11/12			Gray Gravelly Sandy Clay	6	V	I	S	U	A	L	28	11	15
645.9	22	12/20			Gray Sandy Clay	7	7	5	12	39	37	26	11	15	
643.4	24	18/25			Gray Silt and Clay	8	6	5	8	38	43	34	14	17	
640.9	26	22/30			Gray Gravelly Clay	9	14	5	6	42	33	32	14	18	
638.4	28														
	30	19/28			Gray Silt	10	6	4	5	72	13	NP	NP	17	
	32														
633.4	34														
	36	15/19			Gray Gravelly Sandy Silt	11	20	9	18	30	23	20	6	13	
	38														
628.4	40														
	42	17/24			Gray Gravelly Sandy Clay	12	18	7	12	33	30	27	12	14	
	44														
623.4	46	19/29			Gray Sandy Clay	13	7	7	10	38	38	29	13	13	
	48														
618.4	50														
	52	15/25			Gray Clay	14	0	2	1	38	59	49	24	24	
	54														
613.4					BOTTOM OF BORING										
612.4	56	13/20			Gray Clayey Silt	15	0	0	1	70	29	26	8	20	

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1667
UNDER SR 424
SEC. HEN-6-16.43

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
B.J.R.	R.C.	R.D.R.	6/23/65

TC-114
1000-1-64

MICROFILMED
APR 17 1968

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

674 670 666 662 658 654 650 646 642

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. ____
Station & Offset ____
Surface Elev. ____ Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition ____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 1
Station & Offset 728+09.18' LT
REAR ABUTMENT
Surface Elev. 669.1' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 4
Station & Offset 728+68.15 RT
REAR PIER
Surface Elev. 668.9 Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

666 662 658 654 650 646 642

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 5
Station & Offset 729+30.15 LT
CENTER PIER
Surface Elev. 668.9' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 8
Station & Offset 730+02.15' RT
FORWARD PIER
Surface Elev. 668.3' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 9
Station & Offset 730+40.17' LT
FORWARD ABUTMENT
Surface Elev. 668.3' Water Elev. ____
Piling ____
Hammer ____
Formula ____
Reference ____
Rod Condition GOOD

HEN-6-16.43

666 662 658 654 650 646 642

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

14
24
4
4

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

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1667
UNDER SR 424
SEC. HEN-6-16.43

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	R.H.P.	R.D.R.	6/23/65

TE - 118
600 - 11 - 64

MICROFILMED
APR 17 1967

HENRY COUNTY
HEN - 6 - 16.43

GEOLOGY OF THE SITE
The structure site is located in the relatively-flat glaciated Lake Plain Region, on the Maumee River banks and over the Maumee River, where moderately deep to deep alluvium and glacial-derived soils overlie shale bedrock, of Devonian age.

EXPLORATION
The exploration consisted of five drive sample borings and two drive sample-core borings, made between May 20 and 25, June 2 and 8, and August 11 and September 10, 1965, and two drive rod penetration tests, made on April 29 and 30, 1965.

INVESTIGATIONAL FINDINGS
The borings disclosed that sloping bedrock surface, encountered at 60-foot depth, elevation 603 feet, in the forward portion of the structure site, and 66-foot depth, elevation 567 feet in the rear portion of the structure site, is overlain by medium-stiff and stiff gravelly, sandy, silty clays and loose and extremely dense silty sand and sands, occasionally containing various amounts of organic material. Considerable amount of running sand was encountered in the borings. Borings B-1, B-5 and B-12 were discontinued at 34 to 52-foot depths, elevations 601 to 586 feet. Borings B-4 and B-8 were terminated at 56 and 66-foot depths, elevations 577 and 566 feet, after encountering bedrock surface. Borings B-9 and B-13 were terminated at 1 and 5 feet below bedrock surface, elevations 602 and 590 feet.

Rod soundings met gradual increase in penetration resistance with increase in depth and were terminated upon encountered with high resistance to penetration at 27-foot depth, elevation 636 feet, considered to be in extremely dense gravels, as revealed by Boring B-13.

No free water was observed in the rod sounding holes.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X/Y — Figures Beside the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Boulders and /or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be readily compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	0.42mm (No. 40 sieve)	0.074mm (No. 200 sieve)	0.005mm	

NOTE: Information shown by this subsurface investigation was obtained solely for the use in establishing design controls for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of this project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1679
OVER MAUMEE RIVER
SEC. HEN-6-16.43

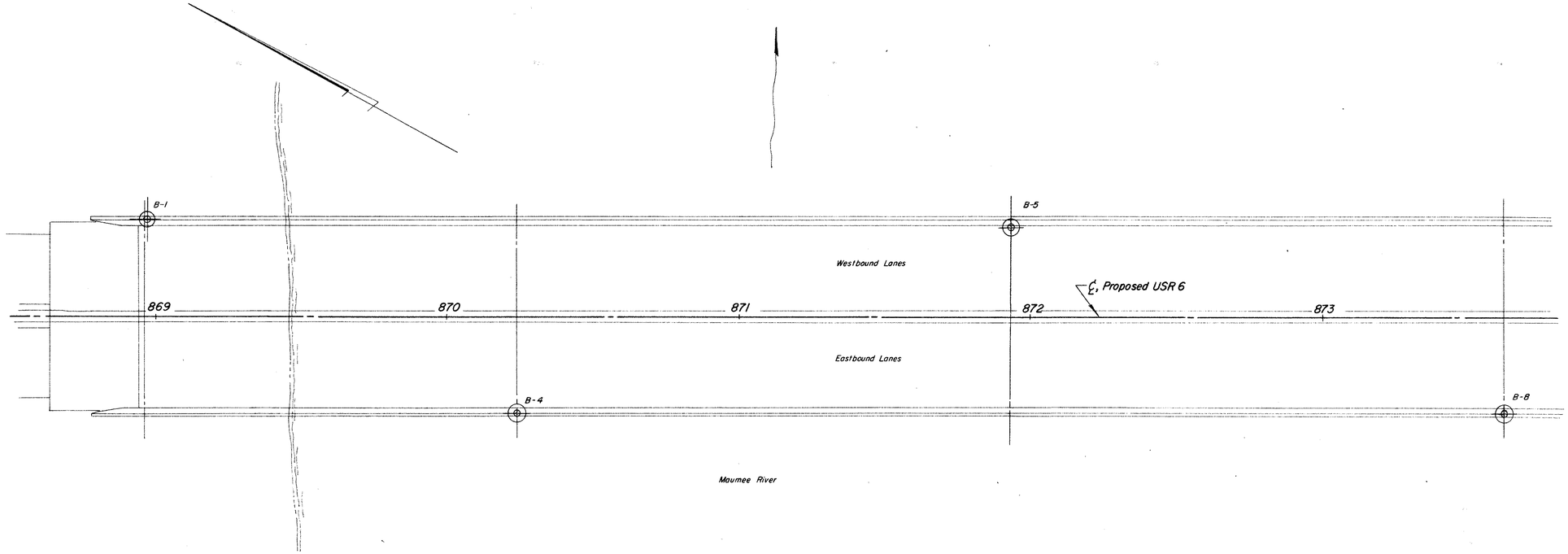
CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	9/29/65

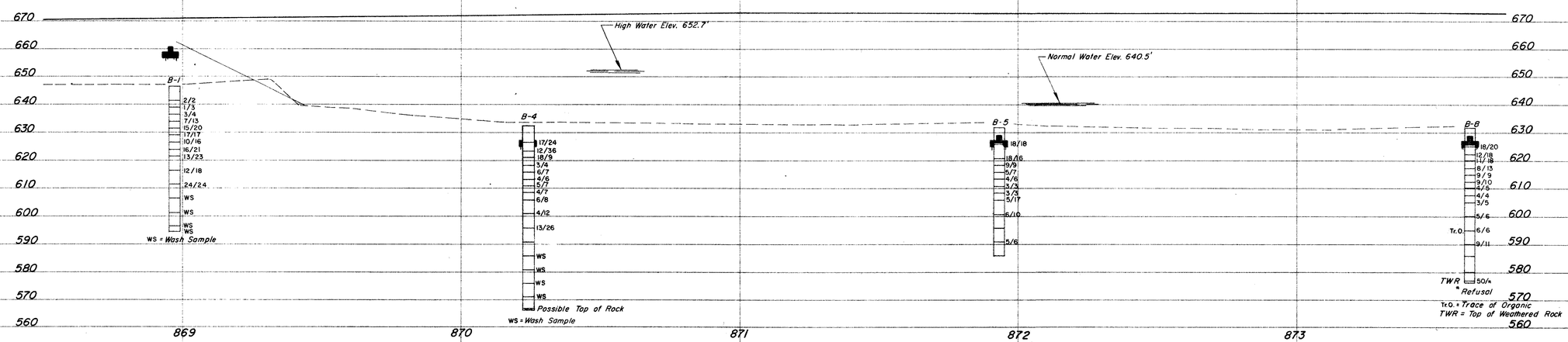
TE - 119
500 - 11 - 64

RECEIVED
APR 17 '65

HEN-6-16.43

10/24
2/6





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1679
OVER MAUMEE RIVER
SEC. HEN-6-16.43

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
R.L.C.	L.N.L.	R.D.R.	9/29/65

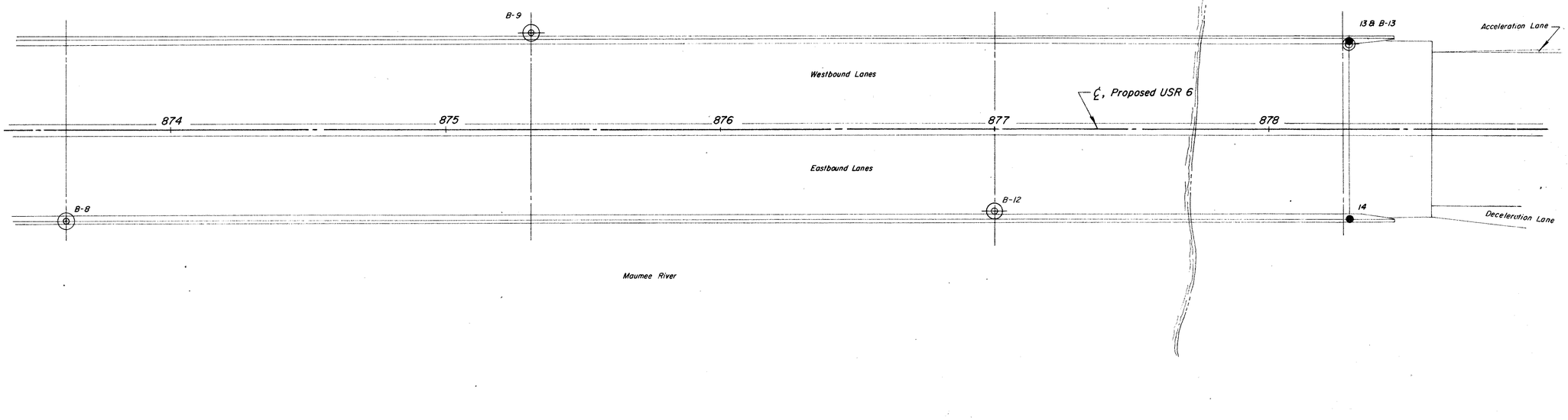
IE - 119
500 - 11 - 64

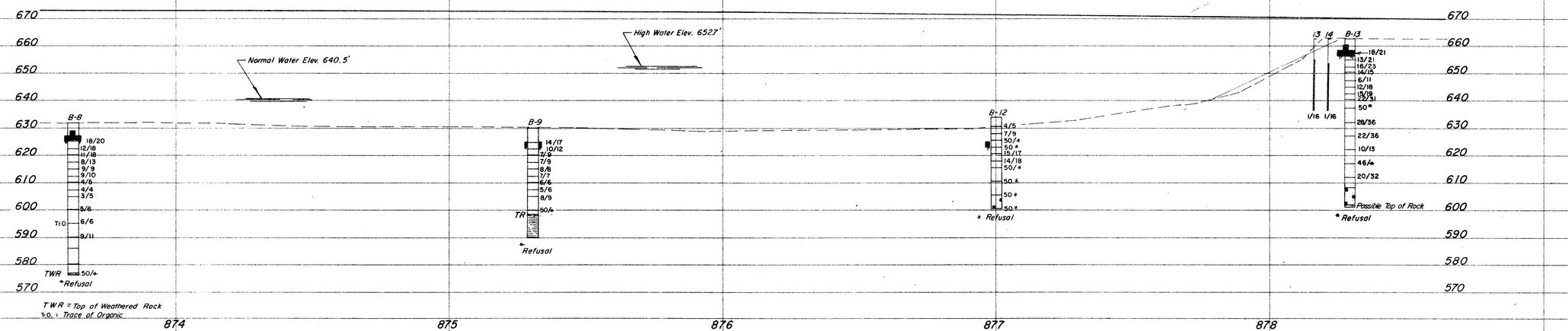
RECEIVED
APR 17 1968

17/24

3/6

HEN-6-16.43





T W R = Top of Weathered Rock
T.O. = Trace of Organic

SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1679
OVER MAUMEE RIVER
SEC. HEN-6-16.43

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
R.L.C.	L.N.L.	R.D.R.	9/29/65

TE - 122
600 - 11 - 64

MICROFILMED
APR 17 1966

LOG OF BORING

Date Started 5-20-65 Sampler Type SS Dia. 1 3/8"
Date Completed 5-25-65 Casing: Length 51' Dia. 3 1/2"
Boring No. B-1 Station & Offset 868+47, 33' Lt (REAR ABUTMENT)
Water Elev. ____ Surface Elev. 646.5'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
646.5	0														
	2														
641.5	4	2/2			Brown Sandy Silt	1	0	1	35	34	30	24	7	23	
639.0	6	1/3			Brown and Gray Silt and Clay	2	0	0	14	49	37	29	14	29	
636.5	8	3/4			Grayish-Brown Silty Gravelly Sand	3	20	12	35	14	19	NP	NP	25	
634.0	10	7/13			Gray Silty Sandy Gravel	4	49	8	20	17	15	18	4	15	
631.5	12	15/20			Gray Clayey Gravel	5	V	I	S	U	A	L		12	
629.0	14	17/17			Gray Sandy Silt	6	7	7	12	32	42	23	7	14	
626.5	16	10/16			Gray Sandy Clay	7	8	6	12	28	46	26	11	12	
624.0	18	16/21			Gray Sandy Clay	8	9	6	10	27	48	29	11	13	
621.5	20	13/23			Gray Sandy Clay	9	7	10	13	24	46	30	12	17	
	22														
616.5	24	12/18			Gray Sandy Clay	10	14	8	21	24	33	26	11	22	
611.5	26	24/24			Gray Silt and Clay	11	0	2	11	13	74	29	11	30	
606.5	28				Gray Silty Sand (Wash Sample) Sand Heaved 5' in casing	12	0	2	74	19	5	NP	NP	23	
	30														
601.5	32				Gray Sand (Wash Sample) Sand Heaved 8' in casing	13	0	28	65	-7-		NP	NP	10	
596.5	34				Gray Sand (Wash Sample) Sand Heaved 10' in casing	14	0	5	92	-3-		NP	NP	15	
594.5	36				BOTTOM OF BORING Gray Sand (Wash Sample)	15	0	15	85	-5-		NP	NP	9	

LOG OF BORING

Date Started 8-23-65 Sampler Type SS Dia. 1 3/8"
Date Completed 9-2-65 Casing: Length 75' Dia. 3 1/2"
Boring No. B-4 Station & Offset 870+24, 33' Rt. (First Pier)
Water Elev. 641.0' Surface Elev. 632.7'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
632.7	0														
	2														
	4														
626.2	6														
	8	17/24			Gray Gravelly Sandy Clay	1	19	5	15	26	35	25	11	14	
623.7	10	12/36			Gray Gravelly Clay	2	24	4	4	29	39	29	13	15	
621.2	12	18/9			Gray Sandy Silt	3	0	0	23	46	31	NP	NP	33	
618.7	14	3/4			Gray Silty Clay	4	0	1	2	9	88	45	18	31	
616.2	16	6/7			Gray Silty Clay	5	0	0	2	13	85	46	20	31	
613.7	18	4/6			Gray Clay	6	0	0	2	16	82	50	24	34	
611.2	20	5/7			Gray Clay	7	0	0	1	18	81	45	21	35	
608.7	22	4/7			Gray Silty Clay	8	0	0	1	16	83	49	17	31	
606.2	24	6/8			Gray Clayey Silt	9	0	1	7	40	52	26	9	23	
	26														
601.2	28	4/12			Gray Silt	10	0	0	6	79	15	NP	NP	22	
596.2	30	13/26			Gray Silty Sand	11	0	23	56	10	11	NP	NP	19	
591.2	32				No Sample Recovered Sand Heaved up 5.0' in Casing (Driller's Description)	V		I		S		U		A L	
	34														
	36														
586.2	38				Gray Sand, (Wash Sample) Sand Heaved 5' in casing	12	0	0	96	-4-		NP	NP	29	
	40														
581.2	42				Gray Sand, (Wash Sample) Sand Heaved in casing	13	0	98	0	-2-		NP	NP	18	
	44														
	46														
576.2	48				Gray Sand, (Wash Sample) Sand Heaved 10' in casing	14	0	26	71	-3-		NP	NP	23	
	50														
	52														
	54														
	56														
	58														
	60														
571.2	62				Gray Sand, (Wash Sample) Sand Heaved 20' in casing	15	11	19	64	-6-		NP	NP	21	
	64														
	66				BOTTOM OF BORING										
565.7	68				POSSIBLE TOP OF ROCK Shale, Weathered										

LOG OF BORING

Date Started 9-7-65 Sampler Type SS Dia. 1 3/8"
Date Completed 9-10-65 Casing: Length 55' Dia. 3 1/2"
Boring No. B-5 Station & Offset 871+93, 31' Lt. (Second Pier)
Water Elev. ____ Surface Elev. 632.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
632.0	0														
	2														
	4														
626.0	6														
	8	18/18			Gray Sandy Silt	1	11	9	14	24	42	25	10	11	
621.0	10														
	12	18/16			Gray Sandy Clay	2	8	9	12	21	50	28	13	19	
618.5	14	9/9			Gray Clay	3	0	5	7	11	77	44	22	30	
616.0	16														
	18	5/7			Gray Clay	4	0	1	1	19	79	51	28	32	
613.5	20	4/6			Gray Clay	5	0	1	1	10	88	54	30	34	
611.0	22	3/3			Gray Clay	6	0	0	0	9	91	52	28	36	
608.5	24	3/3			Gray Clay	7	0	0	0	9	91	49	26	34	
606.0	26	5/17			Gray Silty Clay	8	0	4	9	26	61	34	18	28	
	28														
601.0	30														
	32	6/10			Gray Silt and Clay	9	0	1	3	37	59	29	12	26	
596.0	34														
	36				No Sample Recovered - Boulders (Driller's Description)	V		I		S		U	A	L	
	38														
591.0	40														
	42	5/6			Gray Silty Sand, Sand Heaved 5' in casing	10	0	3	61	30	6	NP	NP	17	
	44														
586.0	46				BOTTOM OF BORING										

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1679
OVER MAUMEE RIVER
SEC. HEN-6-16.43

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	9/29/65

TE - 122
600 - 11 - 64

MICROFILMED
APR 17 1968

HEN-6-16.43

19
24
5
6

LOG OF BORING

Date Started 8-18-65 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 639.4'
Date Completed 8-20-65 | Casing: Length 60' | Dia. 3 1/2"
Boring No. B-8 | Station & Offset 873+62, 33 Rt. (Third Pier) | Surface Elev. 632.1'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
632.1	0														
	2														
	4														
625.1	6														
	8	18/20			Gray Silty Clay	1	V	I		S	U	A	L	13	
622.6	10	12/18			Gray Clayey Sand	2	V	I		S	U	A	L	14	
620.1	12														
	14	11/18			No Sample Recovered Sandy Gravel Driller's Description (Wash Sample)	V		I		S	U	A		L	
617.6	16	8/13			Gray Silty Gravelly Sand	3	23	34	17	18	8	PL = 13		16	
615.1	18	9/9			Gray Clay	4	0	0	1	16	83	49	23	31	
612.6	20	9/10			Gray Clay	5	0	1	1	21	77	52	27	31	
610.1	22	4/5			Gray Clay	6	0	0	0	36	64	54	29	34	
607.6	24	4/4			Gray Clay	7	0	1	1	13	85	51	26	36	
605.1	26	3/5			Gray Silty Clay	8	0	2	5	33	60	43	20	32	
	28														
	30														
600.1	32	5/6			Gray Silty Clay	9	0	0	1	37	62	38	17	26	
	34														
	36														
595.1	38	6/6			Gray Clayey Silt, Trace of Organic	10	0	0	1	56	43	27	10	23	
	40														
590.1	42	9/11			Gray Gravelly Silty Sand, Sand Heaved 5' in casing	11	V		I		S	U	A	L	17
586.1	46				Brown Sand Driller's Description (Sand Heaved in Casing)	V			I		S	U	A	L	
	48														
	50														
580.1	52				Brown Sand Driller's Description (Sand Heaved in Casing)	V		I		S		U		A	L
577.6					TOP OF WEATHERED ROCK										
576.6	54	50/*			**Dark-Gray Broken Weathered Shale	12	62	1	7	24	6	PL= 17		14	

*Refusal — BOTTOM OF BORING

LOG OF BORING

Date Started 8-17-65 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 639.1'
Date Completed 8-18-65 | Casing: Length 41' | Dia. 3 1/2"
Boring No. B-9 | Station & Offset 875+31, 35' Lt. (Fourth Pier) | Surface Elev. 630.1'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
630.1	0														
	2														
	4														
625.1	6	14/17			No Sample Recovered Gray Silty Clay (Driller's Description)	V		I		S		U		A	L
622.6	8	10/12			Gray Clay	1	0	3	2	15	80	48	23	29	
620.1	10	7/9			Gray Clay	2	0	1	1	26	72	53	25	32	
617.6	12	7/9			Gray Clay	3	0	1	1	27	71	51	24	26	
615.1	14	8/8			Gray Clay	4	0	0	1	25	74	53	24	29	
612.6	16	7/7			Gray Clay	5	0	0	1	49	50	55	26	32	
610.1	18	6/6			Gray Silt and Clay	6	0	1	7	32	60	35	13	23	
607.6	20	5/6			Gray Silty Clay	7	0	2	3	30	65	42	19	34	
605.1	22	8/9			Gray Silt	8	0	2	3	63	32	23	5	19	
	24														
	26														
600.1	28														
	30														
598.6	32	50/*			Gray Clayey Sandy Gravel **	9	40	10	17	21	12	PL = 15		8	
596.1	34		3.2	0.3	TOP OF ROCK Shale, black, carbonaceous, poorly fissile, medium-firm, jointed and very badly broken. Core Loss 13%										
	36														
	38		4.2	0.8											
590.1	40				BOTTOM OF BORING										

** Cobbles, gravel, and fragments. *Refusal

LOG OF BORING

Date Started 8-11-65 | Sampler Type SS | Dia. 1 3/8" | Water Elev. 640.5'
Date Completed 8-12-65 | Casing: Length 35' | Dia. 3 1/2"
Boring No. B-12 | Station & Offset 877+00, 30' Rt. (Forward Abutment) | Surface Elev. 634.0'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
634.0	0														
	2														
630.5	4	4/5			Gray Sand	1	0	26	32	28	14	PL=	14	14	
628.0	6	7/9			Gray Sandy Gravelly Clay	2	17	6	10	26	41	29	13	14	
625.5	8	50/*			Gray Gravelly Clay	3	22	3	7	19	49	32	13	18	
623.0	10	50* (0.3)			Gray Gravelly Sandy Silt	4		V	I	S	U	A	L	NP	NP	5
620.5	12	15/17			Gray Sandy Gravel	5	45	34	11	-10-		NP	NP	10	
618.0	14	14/18			Gray Silty Gravelly Sand	6	41	22	23	6	8	NP	NP	11	
615.5	16	50/*			Gray Sand	7	0	13	80	3	4	NP	NP	17	
	18														
610.5	20														
	22														
	24	50* (0.3)			Gray Silty Sand	8	0	7	74	13	6	NP	NP	15	
	26														
605.5	28														
	30	50* (0.0)			No Sample Recovered - Boulders (Driller's Description)										
	32				BOTTOM OF BORING										
600.5		50*(0.0)			No Sample Recovered - Boulders (Driller's Description)										

*Refusal

LOG OF BORING

Date Started 6-8-65 | Sampler Type SS | Dia. 1 3/8" | Water Elev.
Date Completed 6-8-65 | Casing: Length 54' | Dia. 3 1/2"
Boring No. B-13 | Station & Offset 878+29, 31' Lt (FORWARD ABUTMENT) | Surface Elev. 662.8'

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	% Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
662.8	0														
	2														
657.8	4														
	6	18/21			Brown Sandy Clay	1	6	6	13	34	41	29	13	17	
655.3	8	13/21			Brown Sandy Clay	2	8	6	12	37	37	30	14	17	
652.8	10	16/23			Brown Sandy Clay	3	0	23	14	26	37	30	14	18	
650.3	12	14/15			Grey Gravelly Sandy Clay	4	17	9	11	29	34	26	13	13	
647.8	14														
	16	6/11			Grey Gravelly Sandy Silt	5	V	I	S	U	A	L		14	
645.3	18	12/18			Grey Sandy Clay	6	14	5	10	37	34	26	11	15	
642.8	20	15/19			Grey Sandy Gravelly Clay	7	22	9	10	32	27	27	12	16	
640.3	22	22/31			Grey Silty Gravelly Sand	8	34	32	8	14	12	24	10	20	
637.8	24	50* (0.6')			Grey Clayey Sandy Gravel	9	48	39	12	6	5	PL = 15		10	
	26														
	28														
632.8	30														
	32	28/36			Grey Sandy Clay	10	12	6	10	36	36	28	12	13	
627.8	34														
	36	22/36			Grey Sandy Clay	11	11	6	12	31	40	31	13	16	
622.8	38														
	40														
	42	10/13			Grey Silt and Clay	12	0	5	9	37	49	33	14	21	
617.8	44														
	46	46/*			Grey Silty Sand	13	0	15	68	12	5	NP	NP	18	
612.8	48														
	50	20/32			Grey Silty Sand	14	0	2	79	-19-		NP	NP	19	
608.8	52														
	54														
	56		1.8	0.2	Boulders (max. 1.0' thick) cobbles, gravel, and stone fragments.										
	58														
602.8	60		2.9	2.1	POSSIBLE TOP OF ROCK										
601.8					Shale, dark gray, slightly carbonaceous, sub-fissile, medium firm, badly broken.**										

*Refusal — BOTTOM OF BORING — **Core loss 16%.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN - 6 -1679
OVER MAUMEE RIVER
SEC. HEN - 6 - 16.43

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY	DATE
S.A.J.	R.C.	R.D.R.	9/29/65

TC-114
1000-1-64

MICROFILMED
APR 17 1966

Test Location No. _____
Station & Offset _____
Surface Elev. _____ Water Elev. _____
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

667 663 659 655 651 647 643 639 635

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. _____
Station & Offset _____
Surface Elev. _____ Water Elev. _____
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. _____
Station & Offset _____
Surface Elev. _____ Water Elev. _____
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. _____
Station & Offset _____
Surface Elev. _____ Water Elev. _____
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. _____
Station & Offset _____
Surface Elev. _____ Water Elev. _____
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

655 651 647 643 639 635

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. _____
Station & Offset _____
Surface Elev. _____ Water Elev. _____
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 13
Station & Offset STA 1+29 32' LT
FORWARD ABUTMENT
Surface Elev. 662.9' Water Elev. DRY Hole Closed at El 654.9'
Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition _____

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

Test Location No. 14
Station & Offset STA 1+29 33' RT
FORWARD ABUTMENT
Surface Elev. 662.9' Water Elev. DRY Hole Closed at El 654.9'

70
74

HEN-6-1643
6/6

Piling _____
Hammer _____
Formula _____
Reference _____
Rod Condition GOOD

650 655 651 647 643 639 635

TEST ROD

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

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

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1679
OVER MAUMEE RIVER
SEC. HEN-6-16.43

DRIVE ROD PENETRATION RESISTANCE DATA

PLOTTED BY	CHECKED BY	REVIEWED BY	DATE
R.C.	L.N.L.	R.D.R.	9/29/65

MICROFILMED
APR 17 1966

HENRY COUNTY
HEN-6-16.43

GEOLOGY OF THE SITE

The structure site is located on the glaciated, relatively flat portion of the Lake Plain Region, adjacent to the Maumee River, in an area where some thin alluvium and glacial-derived soils overlie bedrock, of Devonian age.

EXPLORATION

The exploration consisted of two drive sample borings, made between May 27 and June 10, 1965, and five drive rod penetration tests, made on April 28 and 29, 1965.

INVESTIGATIONAL FINDINGS

The borings encountered unstratified intervals of moist, very stiff to hard gravelly, sandy, silty clays and medium-to extremely dense sandy clayey silts and occasional boulders. The borings were terminated at 49 and 53-foot depths, elevations 616 and 613 feet, after penetrating in excess of 30 feet of material requiring more than 30 blows per foot in the standard penetration test.

Rod soundings met increasing penetrating resistance with increasing depth, and were terminated upon encounter with refusal to penetration at 16 and 23-foot depths, elevations 652 to 642 feet, considered to be in the hard and dense materials, as revealed by the borings.

No free water was encountered in any of the rod sounding holes.

No test penetrated to bedrock surface.

LEGEND

- Auger Boring Location - Plan View.
- Press and / or Drive Sample and / or Core Boring Location - Plan View.
- Drive Rod Penetration Resistance Sounding Location - Plan View.
- Capped Pile
- Footing
- Footing on Pile
- TR — Top of Rock
- Horizontal Bar on Boring Log Indicates the Depth the Sample Was Taken.
- X Y — Figures Besjde the Boring Log in Profile Indicate the Number of Blows for Standard Penetration Test.
  X = Number of Blows for First 6 inches.
  Y = Number of Blows for Second 6 inches.
- Drive Rod Penetration Resistance Sounding Log - Profile
- Casing
- Resistance "R" < 10,000 lbs.
- Resistance "R" > 10,000 lbs.
- Z — Indicates Final Measurement of Penetration, in Inches.
- W — Indicates Free Water Elevation.
- Indicates Static Water Elevation.

SYMBOLS OF ROCK TYPES

- Coal
- Weathered Indurated Clay
- Indurated Clay
- Weathered Shale
- Shale
- Boulders and/or Cobbles
- Weathered Sandstone
- Sandstone
- Leached Dolomite
- Dolomite
- Leached Limestone
- Limestone

GENERAL INFORMATION

Drive Rod Penetration Sounding Tests

Drive rod penetration resistance tests constitute driving a 1.315-inch diameter steel rod, with a 45° cone point, into the ground, using a 122-pound drop-hammer with a free fall of five feet. At one or two-foot depth intervals, a measurement is taken to determine the amount of penetration achieved in three hammer drops. This reading is converted to an empirical value for capacity "R", in thousands of pounds (which is a measure of both the point resistance and frictional resistance on the rod), by using charts prepared by the Ohio Department of Highways, Bureau of Bridges, on the basis of correlation study of rod penetration with past performance of pile driving. For interpretation, a graph is prepared by plotting the value "R" against the depth at which the reading was taken, and connecting the plotted points. The curve so obtained reflects the density of subsurface materials in a manner that can be read by compared with data from similar tests at other locations on the structure site. From this comparison, the overall uniformity of subsurface condition may be evaluated.

Drive Sample Borings - Drive-Press Sample Borings

Drive sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. sampler, at 2-1/2 and / or 5-foot depth intervals, driven by means of a 140 - pound drop-hammer with a free fall of 30 inches. The number of blows required to drive the sampler 12 inches is considered the standard penetration test.

Drive-press sample borings are made by means of a rotary-type drill rig, employing a 2" O.D., 1-3/8" I.D. drive sampler, and 3" O.D. thin-wall press sampler. The press sampler is advanced by continuous uniform pressure, applied by the drill rig.

The boring log sheets show a graphic plot of the information obtained, including depth and elevation of the sample, number of blows for the standard penetration tests in two 6-inch increments, depth of press samples, field sample number, sample description - based on laboratory tests and the Casagrande AC classification system - and gradation, plasticity, and moisture content determinations. Results of strength and consolidation testing, if performed, appear on separate enclosures.

At depths where materials are bouldery or gravelly to the extent that the sampler can not be driven, a wash sample is procured for visual classification, in order to determine the general character of the material. These samples are not considered sufficiently representative to warrant laboratory testing.

Particle Size Definitions

Boulders	Cobbles	Gravel	Coarse Sand	Fine Sand	Silt	Clay
8"	3"	2.0mm (No. 10 sieve)	4.2mm (No. 4 sieve)	0.074mm (No. 200 sieve)	.005mm	

NOTE: Information shown on this subsurface investigation was obtained solely for the use in establishing design criteria for the project. The State of Ohio does not guarantee the accuracy of this data and it is not to be construed as a part of the plans governing construction of the project.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1707
UNDER SR 110
SEC. HEN-6-16.43

CHECKED BY	REVIEWED BY	DATE
L.N.L.	R.D.R.	6/25/65

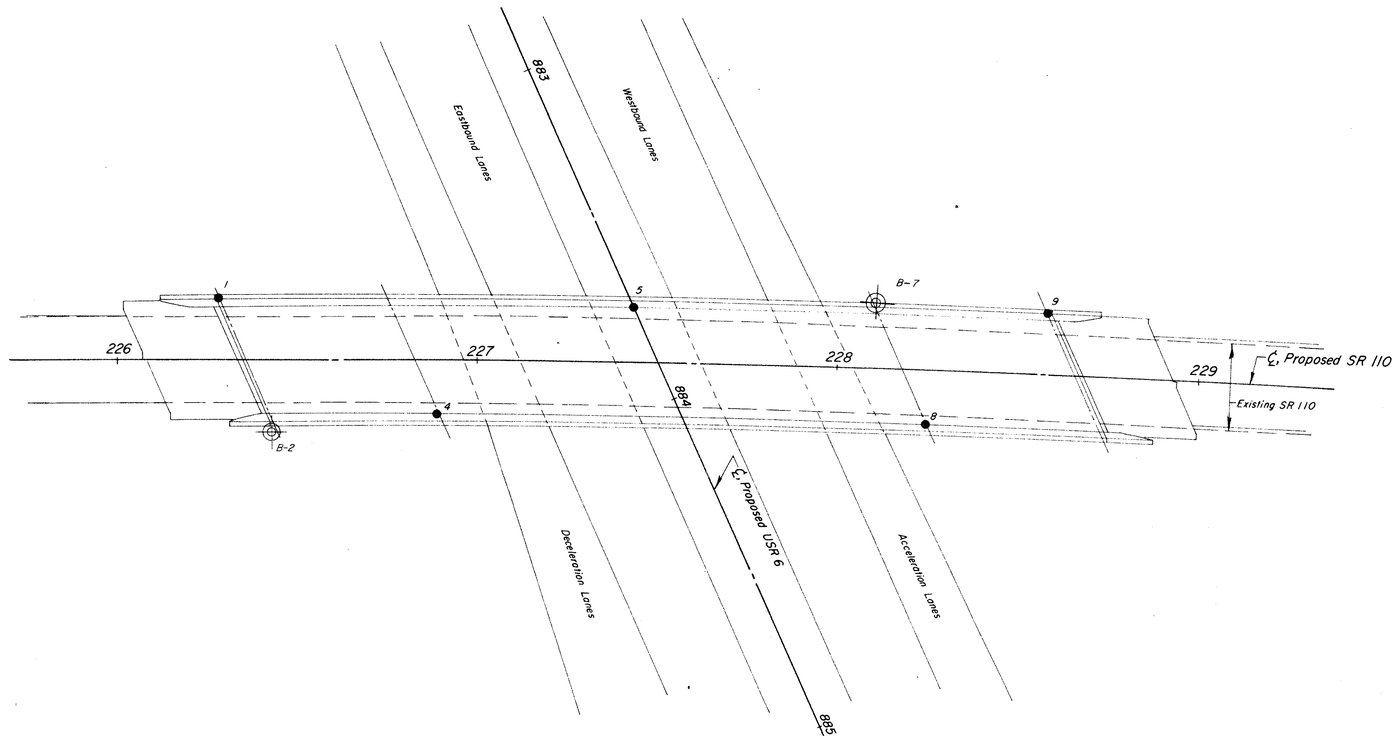
TE - 119
500 - 11 - 64

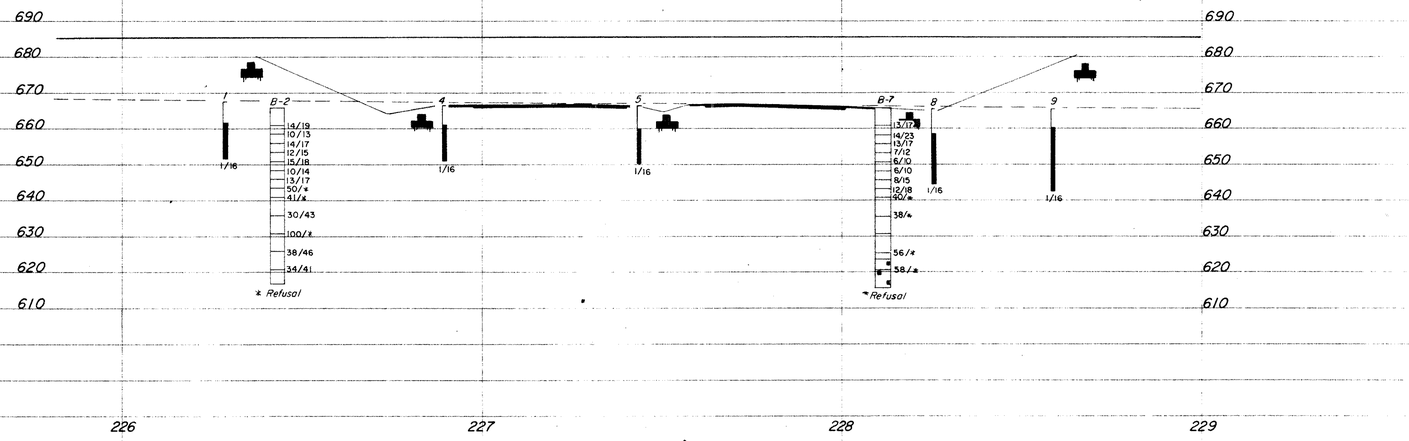
DISCONTINUED
APR 17 '70

22/24

2/4

HEN-6-16.43





SCALE: 1" = 20'

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1707
UNDER SR 110
SEC. HEN-6-16.43

PLAN AND PROFILE

DRAWN BY	CHECKED BY	REVIEWED BY	DATE
R.L.C.	L.N.L.	R.D.R.	6/25/65

TE - 122
10 - 11 - 64

ENCROACHED
APR 17 [illegible]

HEN-6-16.43

LOG OF BORING

Date Started 5-27-65 | Sampler Type SS | Dia 1 3/8" | Water Elev. ____
Date Completed 6-1-65 | Casing: Length 30' | Dia 3 1/2" | Surface Elev. 665.9
Boring No. B-2 | Station & Offset 226+43, 20' Rt (REAR ABUTMENT)

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
665.9	0														
	2														
	4														
660.9	6	14/19			Brownish-Gray Sandy Clay	1	13	5	11	33	38	30	13	16	
658.4	8	10/13			Brownish-Gray Sandy Clay	2	11	8	12	35	34	28	12	15	
655.9	10	14/17			Brown Sandy Clay	3	6	6	13	37	38	35	17	14	
653.4	12	12/15			Brown Sandy Clay	4	10	4	10	40	36	33	16	16	
650.9	14														
	16	15/18			Brown Clayey Gravelly Sand	5	30	21	11	20	18	26	11	19	
648.4	18	10/14			Gray Sandy Clay	6	13	5	12	30	40	26	11	14	
645.9	20	13/17			Gray Clayey Gravelly Sand	7	22	35	13	14	16	22	11	11	
643.4	22	50/*			Grayish-Brown Sandy Silt	8	9	8	19	46	18	NP	NP	17	
640.9	24														
	26	41/*			Gray Sandy Silt	9	0	1	42	52	5	NP	NP	15	
	28														
635.9	30	30/43			Gray Sandy Clay	10	7	6	12	33	42	26	11	12	
	32														
	34														
630.9	36	100/*			Gray Sandy Silt	11	9	7	23	46	15	NP	NP	9	
	38														
625.9	40	38/46			Gray Sandy Silt	12	14	9	27	33	17	16	5	7	
	42														
	44														
620.9	46	34/41			Gray Gravelly Sandy Silt	13	15	7	23	34	21	16	4	6	
615.9	48				BOTTOM OF BORING										

*Refusal

LOG OF BORING

Date Started 6-8-65 | Sampler Type SS | Dia 1 3/8" | Water Elev. ____
Date Completed 6-10-65 | Casing: Length 42' | Dia 3 1/8" | Surface Elev. 665.9'
Boring No. B-7 | Station & Offset 228+11, 18' Lt (FORWARD ABUTMENT)

Elev.	Depth	Std. Pen. (N)	Rec. ft.	Loss ft.	Description	Sample No.	Physical Characteristics: % Agg.	% C.S.	% F.S.	% Silt	% Clay	L.L.	P.I.	W.C.	SHTL Class.
665.9	0														
	2														
	4														
660.9	6	13/17			Brown Sandy Clay	1	9	6	12	32	41	30	11	16	
658.4	8	14/23			Brown Gravelly Sandy Clay	2	16	5	11	33	35	32	13	16	
655.9	10	13/17			Gray Sandy Clay	3	8	10	12	33	37	27	11	15	
653.4	12	7/12			Gray Sandy Clay	4	12	7	11	34	36	26	11	13	
650.9	14														
	16	6/10			Gray Gravelly Sandy Clay	5	16	15	11	26	32	27	13	16	
648.4	18	6/10			Gray Sandy Clay	6	14	11	12	33	30	24	11	17	
645.9	20	8/15			Gray Sandy Clay	7	8	6	12	39	35	27	12	16	
643.4	22	12/18			Gray Sandy Silt	8	10	7	7	43	33	25	9	14	
640.9	24														
	26	40/*			Gray Sandy Silt	9	0	5	18	72	5	NP	NP	15	
	28														
635.9	30	38/*			Gray Sandy Gravelly Silt	10	22	7	9	27	35	24	9	13	
	32														
	34														
630.9	36				Gray Sandy Gravelly Silt	11	41	7	9	28	15	19	6	5	
	38														
625.9	40	56/*			Gray Silty Sandy Gravel	12	44	16	14	17	9	16	3	8	
623.9	42														
	44														
620.9	46	58/*			Gray Sandy Silt and Stone Fragments	13	V	I	S	U	A	L		9	
	48														
	50														
612.9	52				BOTTOM OF BORING *Refusal										

Boulders, cobbles, gravel and stone fragments (max. 1.5' thick) with some gray clayey sandy silt.

OHIO DEPARTMENT OF HIGHWAYS
TESTING LABORATORY
1620 WEST BROAD STREET, COLUMBUS 23, OHIO

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1707
UNDER SR 110
SEC. HEN-6-16.43

BORING DATA

TYPED BY	CHECKED BY	REVIEWED BY
B.J.R.	R.C.	R.D.R.

MICROFILMED
APR 17 1966

Test Location No. ———
Station & Offset ———
Surface Elev. ——— Water Elev. ———
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition ———

Test Location No. ———
Station & Offset ———
Surface Elev. ——— Water Elev. ———
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition ———

Test Location No. ———
Station & Offset ———
Surface Elev. ——— Water Elev. ———
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition ———

Test Location No. 1
Station & Offset 22+8.17 L
SR 110 WEST
Surface Elev. 6[illegible] Water Elev. DRY Hole Open
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition GOOD
TEST ROD

Test Location No. 2
Station & Offset 22+18.9 RT
REAR PIER
Surface Elev. 666.6 Water Elev. DRY-Hole Open
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition GOOD
TEST ROD

Test Location No. 3
Station & Offset 22+27.43 RT
CENTER PIER
Surface Elev. 666.6 Water Elev. DRY Hole open
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition ———
TEST ROD

Test Location No. 8
Station & Offset 22B+26.15 RT
FORWARD PIER
Surface Elev. 665.3 Water Elev. DRY-Hole Open
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition GOOD
TEST ROD

Test Location No. 9
Station & Offset 22B+58.17 LT
FORWARD ABUTMENT
Surface Elev. 665.6 Water Elev. DRY Hole open
HEN-6-16.43
Piling ———
Hammer ———
Formula ———
Reference ———
Rod Condition GOOD
TEST ROD

74
4
4

675 671 667 663 659 655 651 647 643 639

10 20 30 40 50 60 70 80 90 100
Capacity "R" in Thousands of Pounds

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

STRUCTURE FOUNDATION INVESTIGATION
BRIDGE NO. HEN-6-1707
UNDER SR 110
SEC. HEN-6-16.43

DRIVE ROD PENETRATION

PLOTTED BY	CHECKED BY
R.C.	L.N.L.