STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
HAS-22-(15.03-18.91)
HARRISON COUNTY
CADIZ, ARCHER & GREEN TOWNSHIPS

OHIO	1/65
FHWA REGION 5	
F-31 (2)	FEDERAL PROJECT

HAS-22-(15.03-18.91)

F-31 (2)

MICROFILMED JUL 13 1987

MICROFILMED DEC 31 1985

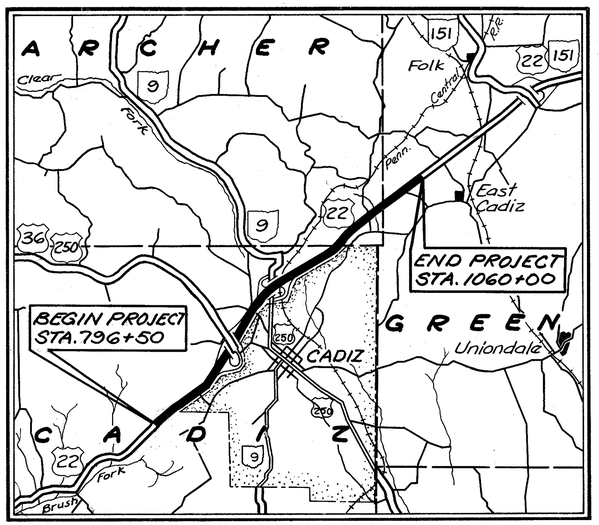
CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (existing) (proposed)
Center Line 352 353
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light.

Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA & RW
Existing Right of Way
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)

INDEX OF SHEETS

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LOCATION MAP

SCALE IN MILES 0 1 2 3 4

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan 0' 100' 200'

Cross Section: Horizontal 0' 5' 10' Vertical 0' 5' 10'

LINE DATA

Begin Project Sta. 796+50
End Project Sta. 1060+00
Equation: Sta. 1013+25.70 Bk. = Sta. 1011+67.06 Ah. Add 158.64 Lin. Ft.
Net Length of Project 26,508.64 Lin. Ft. or 5.020 Miles
Add For Approaches & Work:
Sta. 795+00 To Sta. 796+50: 150.00 Lin. Ft.
Sta. 1060+00 To Sta. 1061+05: 105.00 Lin. Ft.
U.S.R. 250
Sta. 502+81.47 To Sta. 509+42.96 661.49 Lin. Ft.
S.R. 9
Sta. 112+45 To Sta. 128+61: 1,616.00 Lin. Ft.
2,532.49 Lin. Ft. = 0.479 Miles
Net Length of Work: 29,041.13 Lin. Ft. = 5.500 Miles

Plan Prepared By:

SEAL

1977 SPECIFICATIONS

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

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 C. Clark Street
Date 3-15-78 District Deputy Director of Transporation

Approved Robert B Pfeifer
Date 4-12-78 Engineer, Bureau of Bridges and Structural Design

Approved R. E Bartlett
Date 6-8-78 Chief Engineer, Planning and Design

Approved David S Wier
Date 6-9-78 Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS			
		837	12-7-72
808	1-1-71	848	2-23-78
844	11-8-74		
845 ✓	6-27-77		
850 ✓	6-27-77		
921	12-4-72		
953 ✓	6-27-77		
1001	1-3-77		

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-5	8-11-75	MC-3	6-1-73	TC-52.10	4-1-77		
BP-11	1-3-75	TC-7.65	10-1-74	TC-52.20	4-1-77		
		TC-21.10	10-1-74	TC-61.10	8-19-77		
GR-1	12-6-76	TC-22.10	10-1-74	TC-71.10	12-1-75		
GR-2B	12-6-76	TC-22.20	8-19-77	TC-72.20	8-29-77		
GR-3	12-6-76	TC-35.10	10-5-77				
GR-3A	12-6-76	TC-41.10	8-19-77	SD-1-69	6-12-69		
GR-3B	12-6-76	TC-41.20	4-1-77				
GR-4	12-6-76	TC-41.50	4-1-77				
GR-4A	7-26-76	TC-42.10	8-19-77				
GR-5	1-1-71	TC-42.20	4-1-77				
GR-6	1-1-71	TC-51.10	6-2-75				
		TC-51.11	6-2-75				

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

Project: HARRISON COUNTY HAS-22-(15.03-18.91)
Date of Letting 19, Contract No.

LD0300 Rev. 9-3-75

BROWNING 44-560-29724

SCHEMATIC LAYOUT

DEC 31 1985

FHWA REGION	STATE	PROJECT	
5	OHIO		

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HAS-22-(15.03-18.91)

SCALE 0' 500' 1000'

BEGIN PROJECT STA. 796+50 S.L.M. 15.03

F-31 (2)

P.C. Sta. 801+43.32

P.T. Sta. 807+26.65

N 42° 25' 05" E

105 L.F. Feather Length

BEGIN WORK STA. 795+00

Bridge No. HAS-22-1664 aka HAS-250-1763

Ca. Rd. 2

U.S. 250

Ramp "B"

Ramp "A"

P.I. Sta. 890+20.38
Δ = 21° 41' Rt.
Dc = 2° 00'
Ls = 300.00'
R = 2864.79'
E = 53.39'
L = 784.17'
T = 698.89'

BEGIN WORK U.S.R. 250 STA. 902+81.47

Ca. Rd. 11

N 36° 35' 05" E

Ramp "C"

Ramp "D"

Ca. Rd. 29

Ca. Rd. 10

N 58° 16' 05" E

END WORK U.S.R. 250 STA. 909+42.96

T.S. Sta. 883+21.49

S.C. Sta. 886+21.49

C.S. Sta. 894+05.66

S.T. Sta. 897+05.66

Bridge Nos HAS-22-1717 L & R

R.C. 533

MATCH LINE STA. 914+00

Cadiz Corporation Line

VILLAGE OF CADIZ

P.I. Sta. 804+35.24
Δ = 5° 50' Lt.
Dc = 1° 00'
R = 5729.58'
E = 7.43'
L = 583.33'
T = 291.92'

DESIGN DESIGNATION
1978 ADT = 3,660
1998 ADT = 12,120
DHV = 1818
D = 67%
T = 13%
V = 70 MPH

Bridge Nos HAS-22-1738 L & R

Bridge No. HAS-22-1738 S.R.

Bridge Nos HAS-22-1749 L & R

BEGIN WORK S.R. 9 STA. 112+45

S.R. 9

Ramp "F"

Ramp "E"

Ramp "G"

Ramp "H"

END WORK S.R. 9 STA. 128+61

MATCH LINE STA. 914+00

Penn R.R.

U.S. 250

Bridge No. HAS-22-1753 S.R.

Bridge No. HAS-22-1753 L & R

P.C. Sta. 931+79.53

P.T. Sta. 943+19.43

P.I. Sta. 937+50.00
Δ = 5° 42' Rt.
Dc = 0° 30'
T = 570.47'
L = 1140.00'
R = 11459.16'

T.S. Sta. 964+74.33

S.C. Sta. 967+74.33

Warren Moore Airstrip

Moore Rd.

C.S. Sta. 985+02.25

S.T. Sta. 988+02.25

P.I. Sta. 976+83.35
Δ = 40° 33' 30" Lt.
Dc = 2° 00'
Ls = 300.00'
R = 2864.79'
Es = 190.99'
Ls = 1727.92'
Ts = 1209.02'

N 63° 58' 05" E

N 23° 24' 35" E

T.S. Sta. 992+52.75

S.C. Sta. 995+52.75

Cadiz Corporation Line

P.I. Sta. 1001+37.75
Δ = 28° 46' Rt.
Dc = 2° 00'
Ls = 300.00'
R = 2864.79'
Es = 94.06'
Ls = 1138.33'
Ts = 885.00'

Sta. 1013+25.70 Bk. = Sta. 1011+67.06 Ah.

Co. Rd. 51

C.S. Sta. 1006+91.08

S.T. Sta. 1009+91.08

EQUATION (ADD 158.64')

N 52° 10' 35" E

105 L.F. Feather Length

END PROJECT STA. 1060+00 S.L.M. 20.05

F-31 (2)

END WORK STA. 1061+05

SCHEMATIC LAYOUT

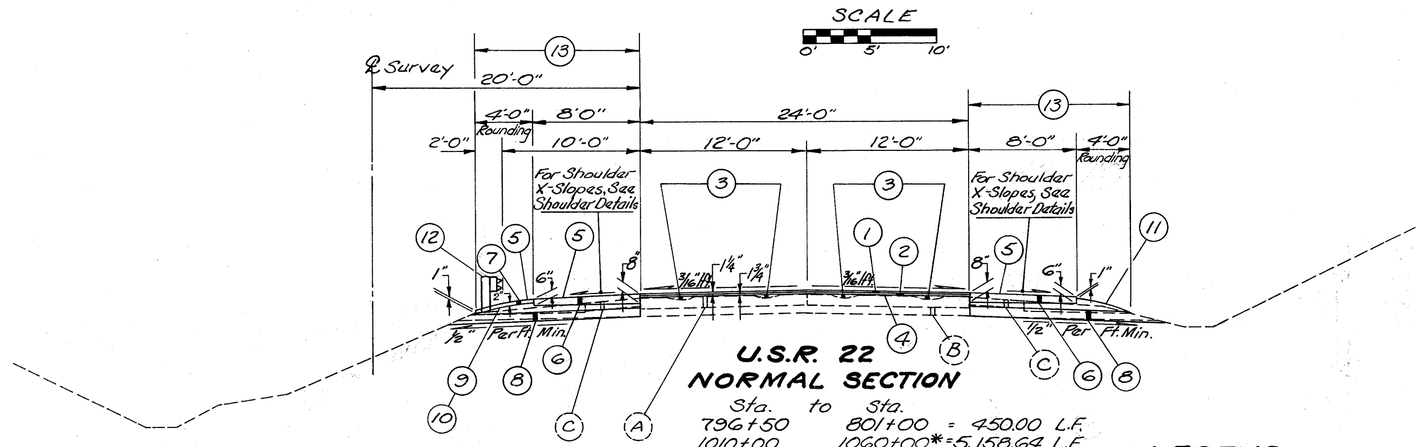
FHWA REGION	STATE	PROJECT	
5	OHIO		

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HAS-22-(15.03-18.91)

TYPICAL SECTIONS

TYPE 848
TYPE CODE 6706



U.S.R. 22
NORMAL SECTION

Sta.	to	Sta.	
796+50		801+00	= 450.00 L.F.
1010+00		1060+00*	= 5,158.64 L.F.
		TOTAL	5608.64 L.F.

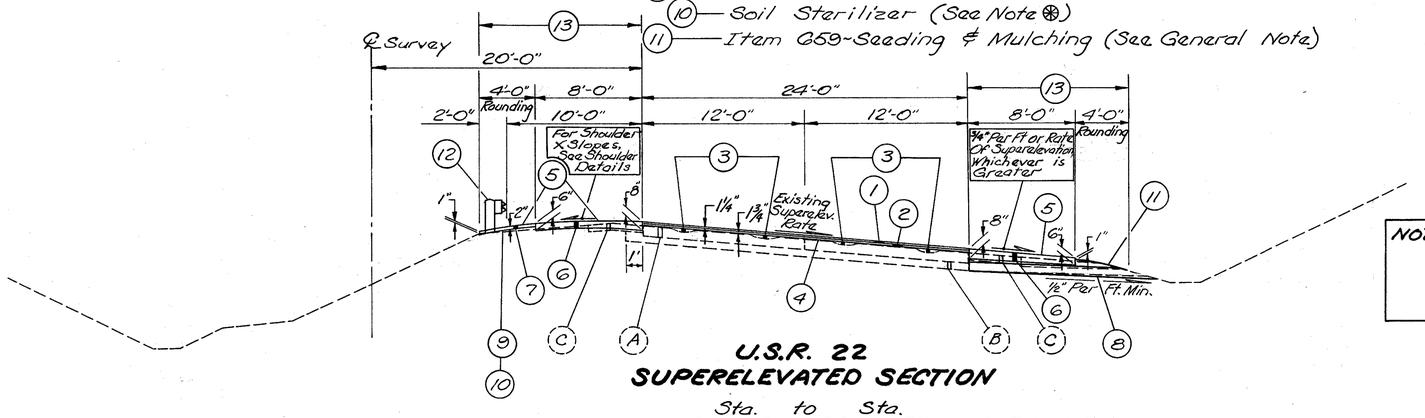
EQUATION
*Sta. 1013+25.70 Bk. = Sta. 1011+67.06 Ah. (Add 158.64')

~ LEGEND ~

(1) Item 848 - 1¼" Asphalt Concrete, Surface Course, type 1
(2) Item 848 - 1¾" Asphalt Concrete, Intermediate Course, type 2
(3) Item 848 - 0" Minimum Asphalt Concrete, Intermediate Course, type 1
(4) Item 407 - Tack Coat; 702.04, SS-1, SS-1H, MS-2 or RS-1; or 702.02, RC-250 Applied at the Rate of 0.10 Gal. Per Sq. Yd. and Cover Aggregate
(5) Item 409 - Seal Coat, Using 0.008 Cu. Yds. No. 8 Cover Aggregate Per Sq. Yd. and Bituminous Material; 702.02, MC-800 or MC-3000; 702.03, CBAE-800; 702.04, RS-1, RS-2, CRS-1 or CRS-2; 702.09, RT-9, RT-10 @ 0.30 Gal. Per Sq. Yd.
(6) Item 301 - Bituminous Aggregate Base; 702.01, AC-20; or 702.09, RT-11 or RT-12
(7) Item 848 - Asphalt Concrete, Surface Course, type 1, As Per Plan (See General Note, Sheet No. 14)
(8) Item 605 - Aggregate Drains (See General Note)
(9) Item 408 - Prime Coat (See Note ⊛)
(10) Soil Sterilizer (See Note ⊛)
(11) Item 659 - Seeding & Mulching (See General Note)
(12) Item 606 - Guard Rail, Type 5
(13) Item 203 - Linear Grading (See General Note, Sheet No. 14)

~ EXISTING LEGEND ~

(A) Existing 9" Reinforced Concrete
(B) Existing Subbase
(C) Existing Stabilized Aggr. Shoulders



U.S.R. 22
SUPERELEVATED SECTION

Sta.	to	Sta.	
801+00		801+43.92	= 43.92 L.F.
1009+91.08		101+00	= 8.92 L.F.
		TOTAL	52.84 L.F.

NOTE ⊛ : See General Note Pertaining to Item 848 Asphalt Concrete Surface Course type 1, As Per Plan For Prime Coat And Soil Sterilizer Specifications And Application Rates.

NOTE: For Shoulder Details & Existing Superelevation Rates, See Sheet No. 6.

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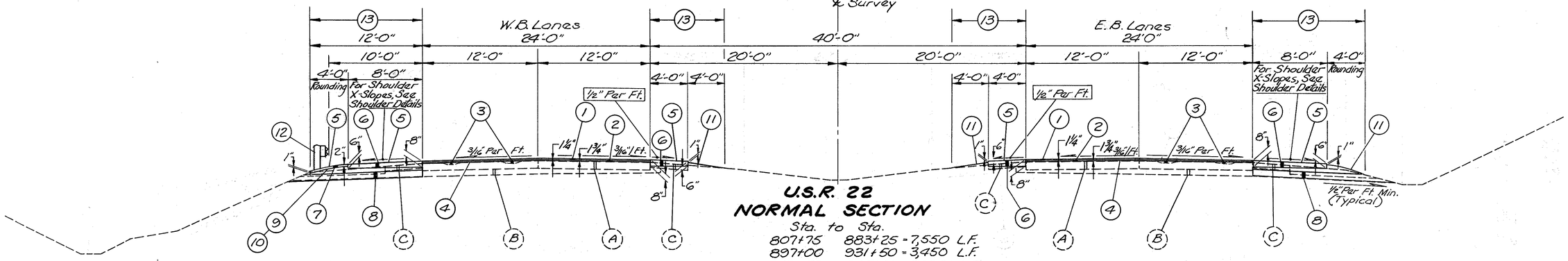
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HAS-22 (15.03-18.91)

TYPICAL SECTIONS

TYPE 848
TYPE CODE 6706

SCALE
0' 5' 10'



U.S.R. 22
NORMAL SECTION

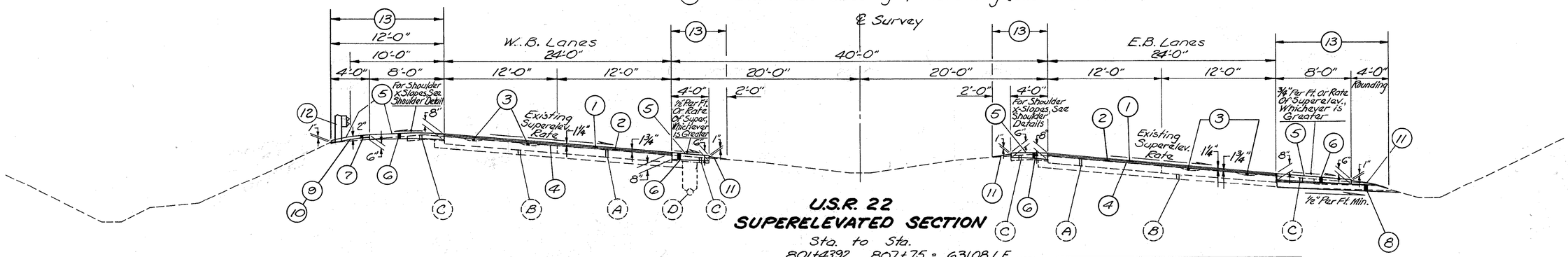
Sta.	to Sta.	
807+75	883+25	= 7,550 L.F.
897+00	931+50	= 3,450 L.F.
943+50	965+00	= 2,150 L.F.
987+75	992+75	= 500 L.F.
	TOTAL	13,650 L.F.

~LEGEND~

(1) Item 484 - 1 1/4" Asphalt Concrete, Surface Course, type 1
(2) Item 484 - 1 3/4" Asphalt Concrete, Intermediate Course, type 2
(3) Item 484 - 0" Minimum Asphalt Concrete, Intermediate Course, type 1
(4) Item 407 - Tack Coat; 702.04, SS-1, SS-1H, MS-2 or RS-1; or 702.02, RC-250 Applied at the Rate of 0.10 Gal. Per Sq. Yd and Cover Aggregate
(5) Item 409 - Seal Coat Using 0.008 Cu. Yds. No 8 Cover Aggregate Per Sq. Yd. and Bituminous Material; 702.02, MC-800 or MC-3000; 702.03, CBAE-800; 702.04, RS-1, RS-2, CRS-1 or CRS-2; 702.09, RT-9, RT-10 @ 0.30 Gal. Per Sq. Yd.
(6) Item 301 - Bituminous Aggregate Base; 702.01, AC-20; or 702.09, RT-11 or RT-12.
(7) Item 484 - Asphalt Concrete, Surface Course, type 1, As Per Plan (See General Note, Sheet No. 14)
(8) Item 605 - Aggregate Drains (See General Note)
(9) Item 408 - Prime Coat (See Note ⊛)
(10) Soil Sterilizer (See Note ⊛)
(11) Item 659 - Seeding & Mulching (See General Note)
(12) Item 606 - Guard Rail, Type 5
(13) Item 203 - Linear Grading (See General Note Sheet No. 14)

~EXISTING LEGEND~

(A) Existing 9" Reinforced Concrete
(B) Existing Subbase
(C) Existing Stabilized Aggr. Shoulders
(D) Existing 6" Pipe Underdrain



U.S.R. 22
SUPERELEVATED SECTION

Sta.	to Sta.	
801+43.92	807+75	= 631.08 L.F.
883+25	897+00	= 1,375.00 L.F.
931+50	943+50	= 1,200.00 L.F.
965+00	987+75	= 2,275.00 L.F.
992+75	1009+91.08	= 1,716.08 L.F.
	TOTAL	7,197.16 L.F.

NOTE ⊛: See General Note Pertaining to Item 848 Asphalt Concrete Surface Course Type 1, As Per Plan For Prime Coat And Soil Sterilizer Specifications And Application Rates.

NOTE: For Shoulder Details & Existing Superelevation Rates, See Sheet Nos. 6 & 7.

TYPICAL SECTIONS

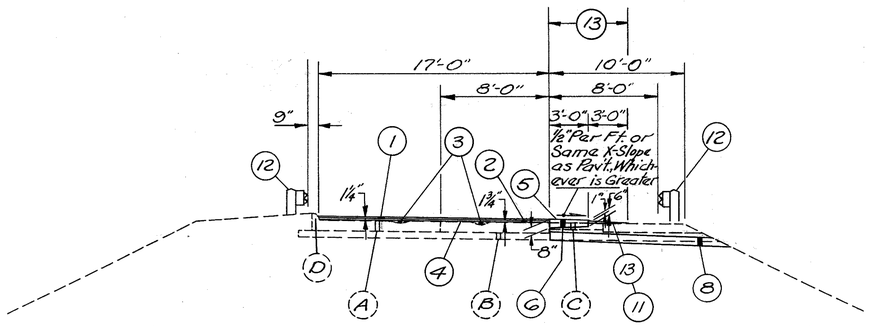
FHWA REGION	STATE	PROJECT	
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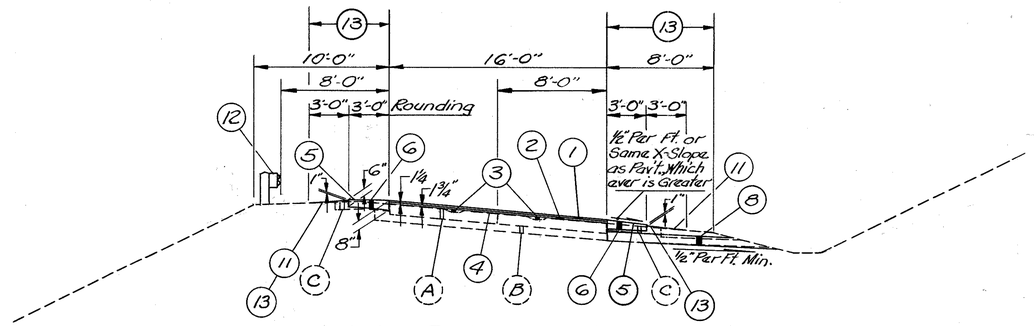
HAS-22-(15.03-18.91)

TYPE 484
TYPE CODE 6706

SCALE
0' 5' 10'



INTERCHANGE RAMPS
WITH CURBS



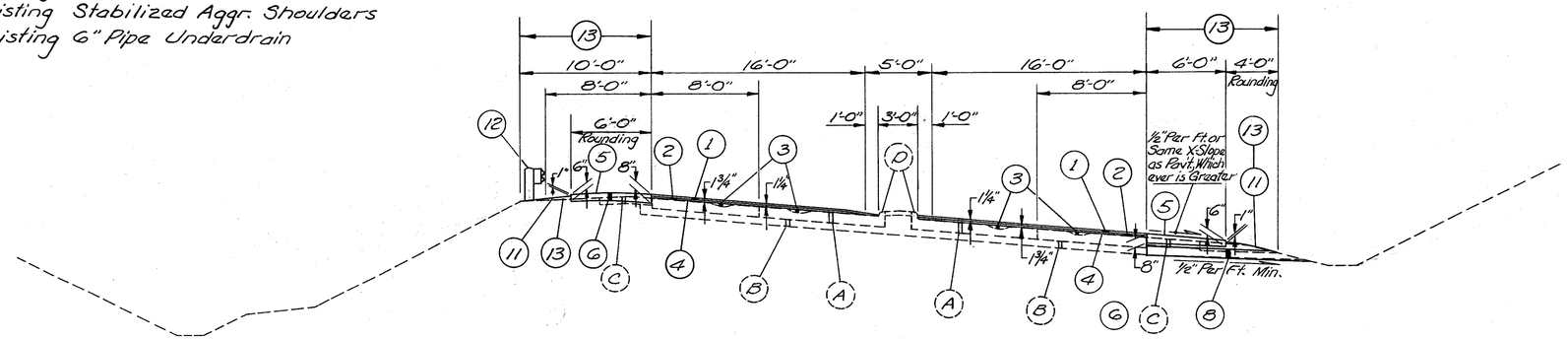
INTERCHANGE RAMPS
WITHOUT CURBS

~ LEGEND ~

(1) Item 484 1¼" Asphalt Concrete, Surface Course, type 1
(2) Item 484 1¾" Asphalt Concrete, Intermediate Course, type 2
(3) Item 484 0" Minimum Asphalt Concrete, Intermediate Course, type 1
(4) Item 407 Tack Coat; 702.04, SS-1, SS-1H, MS-2 or RS-1; or 702.02, RC-250 Applied at the Rate of 0.10 Gal. Per Sq. Yd. and Cover Aggregate.
(5) Item 409 Seal Coat, Using 0.008 Cu. Yds. No. 8 Cover Aggregate Per Sq. Yd. and Bituminous Material; 702.02, MC-800 or MC-3000; 702.03, CBAE-800; 702.04, RS-1, RS-2, CRS-1 or CRS-2; 702.09, RT-9, RT-10 @ 0.30 Gal. Per Sq. Yd.
(6) Item 301 Bituminous Aggregate Base; 702.01, AC-20; or 702.09 RT-11 or RT-12
(8) Item 605 Aggregate Drains (See General Note)
(11) Item 659 Seeding & Mulching (See General Note)
(12) Item 606 Guard Rail, Type 5
(13) Item 203 Linear Grading (See General Note, Sheet No. 14)

~ EXISTING LEGEND ~

(A) Existing 9" Reinforced Concrete
(B) Existing Subbase
(C) Existing Stabilized Aggr. Shoulders
(D) Existing 6" Pipe Underdrain

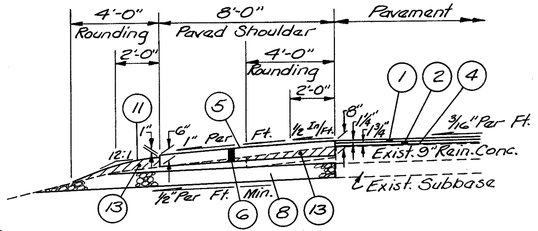


INTERCHANGE RAMPS
TWO-WAY

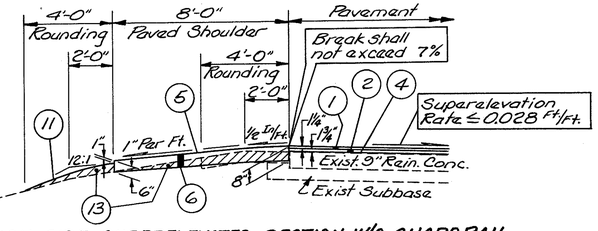
RAMP TYPICAL SECTIONS

OUTSIDE SHOULDER DETAILS W/O GUARDRAIL

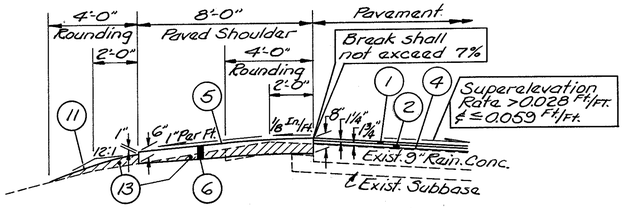
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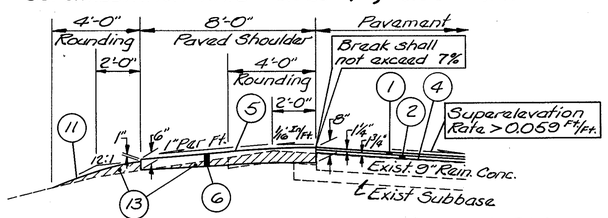
(I) ~ NORMAL SECTION W/O GUARDRAIL



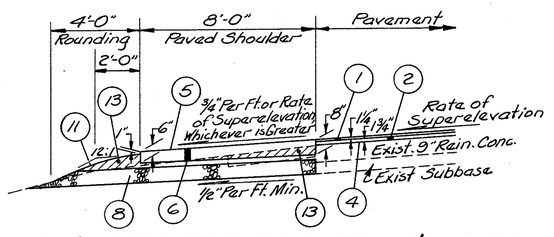
(II) ~ HIGH SIDE ~ SUPERELEVATED SECTION W/O GUARDRAIL
SUPERELEVATION RATE ≤ 0.028 FT/FT.



(III) ~ HIGH SIDE ~ SUPERELEVATED SECTION W/O GUARDRAIL
SUPERELEVATION RATE > 0.028 FT/FT, ≤ 0.059 FT/FT.



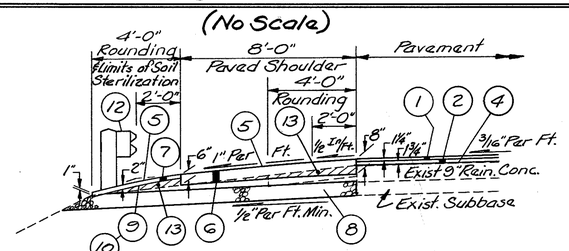
(IV) ~ HIGH SIDE ~ SUPERELEVATED SECTION W/O GUARDRAIL
SUPERELEVATION RATE > 0.059 FT/FT.



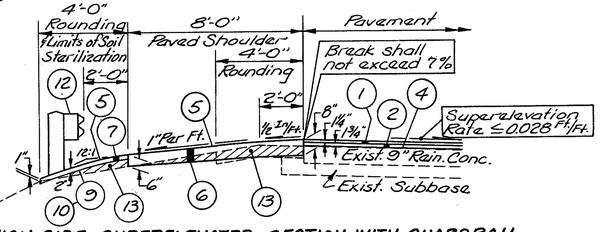
(V) ~ LOW SIDE ~ SUPERELEVATED SECTION W/O GUARDRAIL

OUTSIDE SHOULDER DETAILS WITH GUARDRAIL

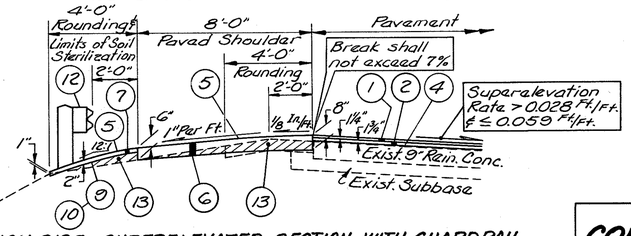
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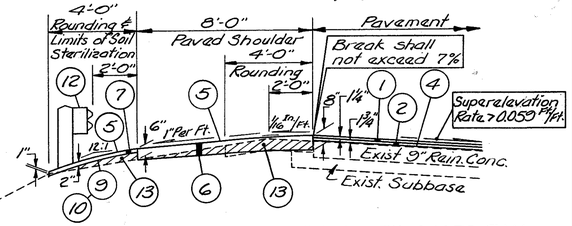
(I) ~ NORMAL SECTION WITH GUARDRAIL



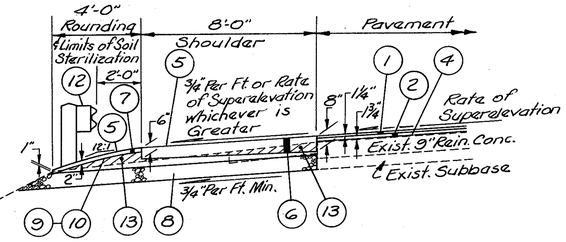
(II) ~ HIGH SIDE ~ SUPERELEVATED SECTION WITH GUARDRAIL
SUPERELEVATION RATE ≤ 0.028 FT/FT.



(III) ~ HIGH SIDE ~ SUPERELEVATED SECTION WITH GUARDRAIL
SUPERELEVATION RATE > 0.028 FT/FT, ≤ 0.059 FT/FT.



(IV) ~ HIGH SIDE ~ SUPERELEVATED SECTION WITH GUARD RAIL
SUPERELEVATION RATE > 0.059 FT/FT.



(V) ~ LOW SIDE SUPERELEVATED SECTION WITH GUARDRAIL

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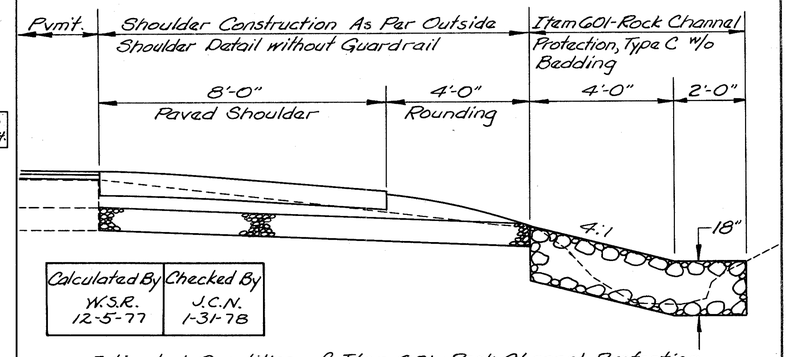
HAS-22-(15.03-18.91)

OUTSIDE SHOULDERS

WESTBOUND				EASTBOUND			
LOCATION		OUTSIDE SHOULDER DETAIL No.	MAX. RATE OF SUPER-ELEVATION	LOCATION		OUTSIDE SHOULDER DETAIL No.	MAX. RATE OF SUPER-ELEVATION
FROM	TO			FROM	TO		
796+50	801+00	I	NORMAL SECTION	796+50	800+75	I	NORMAL SECTION
801+00	809+75	V	0.032 Ft/Ft.	800+75	801+75	II	0.028 Ft/Ft.
809+75	810+50	II	0.028 Ft/Ft.	801+75	806+75	III	0.032 Ft/Ft.
810+50	814+50	III	0.0483 Ft/Ft.	806+75	808+00	II	0.028 Ft/Ft.
814+50	815+25	II	0.028 Ft/Ft.	808+00	883+25	I	NORMAL SECTION
815+25	883+25	I	NORMAL SECTION	883+25	885+00	V	0.0417 Ft/Ft.
883+25	884+25	II	0.028 Ft/Ft.	885+00	895+00	V	0.064 Ft/Ft.
884+25	885+75	III	0.059 Ft/Ft.	895+00	896+75	V	0.0417 Ft/Ft.
885+75	894+25	IV	0.064 Ft/Ft.	896+75	931+50	I	NORMAL SECTION
894+25	895+75	III	0.059 Ft/Ft.	931+50	943+50	V	0.016 Ft/Ft.
895+75	897+00	II	0.028 Ft/Ft.	943+50	964+75	I	NORMAL SECTION
897+00	931+50	I	NORMAL SECTION	964+75	965+75	II	0.028 Ft/Ft.
931+50	943+50	II	0.016 Ft/Ft.	965+75	967+50	III	0.059 Ft/Ft.
943+50	965+00	I	NORMAL SECTION	967+50	985+25	IV	0.064 Ft/Ft.
965+00	966+50	V	0.0417 Ft/Ft.	985+25	987+00	III	0.059 Ft/Ft.
966+50	986+00	V	0.064 Ft/Ft.	987+00	988+00	II	0.028 Ft/Ft.
986+00	987+75	V	0.0417 Ft/Ft.	988+00	992+75	I	NORMAL SECTION
987+75	991+25	I	NORMAL SECTION	992+75	994+25	V	0.0417 Ft/Ft.
991+25	992+50	II	0.028 Ft/Ft.	994+25	1008+00	V	0.064 Ft/Ft.
992+50	994+00	III	0.059 Ft/Ft.	1008+00	1009+75	V	0.0417 Ft/Ft.
994+00	1007+25	IV	0.064 Ft/Ft.	1009+75	1060+00	I	NORMAL SECTION
1007+25	1008+75	III	0.059 Ft/Ft.				
1008+75	1010+00	II	0.028 Ft/Ft.				
1010+00	1060+00	I	NORMAL SECTION				

LEGEND: ▨ ~ Item 203 ~ Linear Grading
For Pavement Items Legend See Sheet Nos 3 & 4

CORRECTION OF FALSE DITCH CONDITION



Calculated By	Checked By
W.S.R. 12-5-77	J.C.N. 1-31-78

Estimated Quantities of Item 601-Rock Channel Protection, Type C without Bedding have been provided to restore and protect eroded portions of Roadway Ditches at the following locations:

U.S. 22, Eastbound ~ Sta. 952+00± to Sta. 954+50±: (250 L.F.±)
Vol. = 250 L.F. x 6' x 1.5' x 1 C.F./27 C.Y. = 83 C.Y.

U.S. 22, Westbound ~ Sta. 952+00± to Sta. 952+25±:
Sta. 955+50± to Sta. 957+50±: (225 L.F.±)
Vol. = 225 L.F. x 6' x 1.5' x 1 C.F./27 C.Y. = 75 C.Y.

In addition to the above, the following Estimated Quantity has been provided to be used as directed by the Engineer.
Vol. = 200 L.F. x 6' x 1.5 x 1 C.F./27 C.Y. = 67 C.Y.

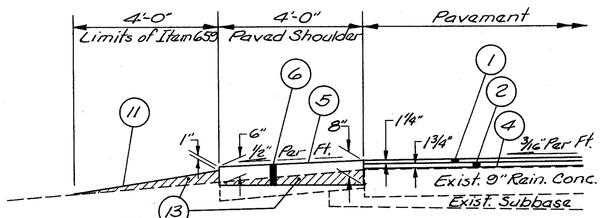
Total (Carried to General Summary) = 225 C.Y.

FHWA REGION	STATE	PROJECT	
5	OHIO		

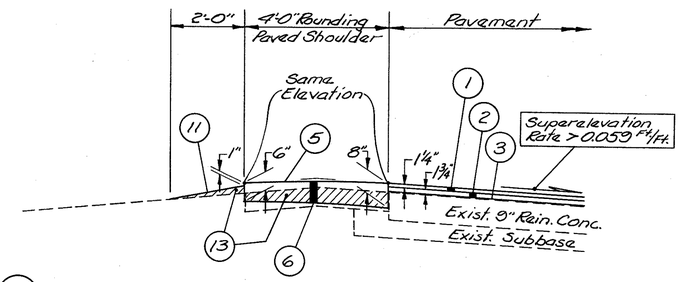
HAS-22-(1503-18.91)

MEDIAN SHOULDER DETAILS

(No Scale)

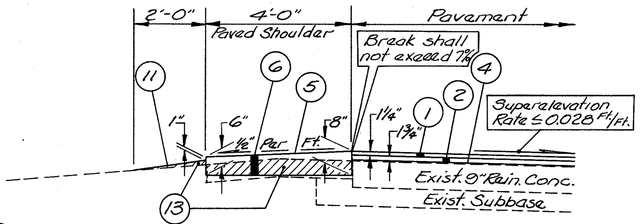


(I) NORMAL SECTION



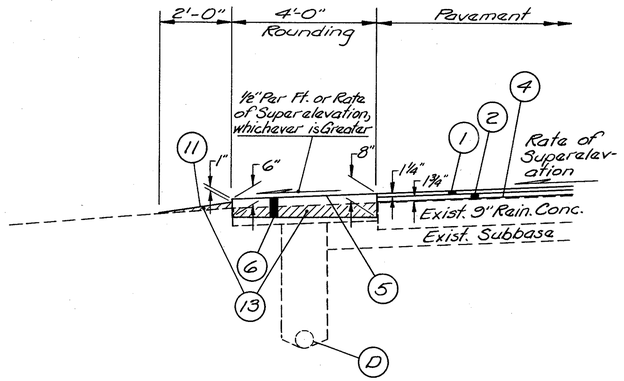
(IV) HIGH SIDE-SUPERELEVATED SECTION

SUPERELEVATION RATE > 0.059 Ft/Ft.

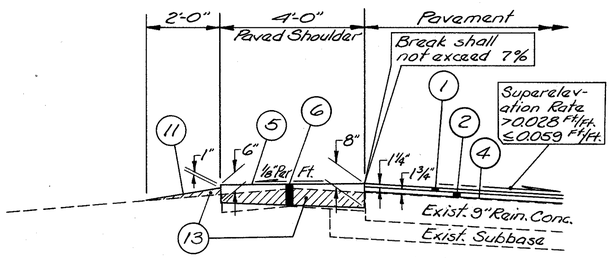


(II) HIGH SIDE-SUPERELEVATED SECTION

SUPERELEVATION RATE ≤ 0.028 Ft/Ft.



(V) LOW SIDE-SUPERELEVATED SECTION



(III) HIGH SIDE-SUPERELEVATED SECTION

SUPERELEVATION RATE > 0.028 Ft/Ft. ≤ 0.059 Ft/Ft.

MEDIAN SHOULDERS

WESTBOUND				EASTBOUND			
LOCATION		MEDIAN SHOULDER DETAIL No.	MAX. RATE OF SUPER-ELEVATION	LOCATION		MEDIAN SHOULDER DETAIL No.	MAX. RATE OF SUPER-ELEVATION
FROM	TO			FROM	TO		
814+75	883+25	I	NORMAL SECTION	809+90	883+25	I	NORMAL SECTION
883+25	885+00	V	0.041 Ft/Ft.	883+25	884+25	II	0.028 Ft/Ft.
885+00	895+25	V	0.064 Ft/Ft.	884+25	886+00	III	0.059 Ft/Ft.
895+25	897+00	V	0.041 Ft/Ft.	886+00	894+25	IV	0.064 Ft/Ft.
897+00	931+50	I	NORMAL SECTION	894+25	896+00	III	0.059 Ft/Ft.
931+50	943+50	V	0.016 Ft/Ft.	896+00	897+00	II	0.028 Ft/Ft.
943+50	964+75	I	NORMAL SECTION	897+00	931+50	I	NORMAL SECTION
964+75	965+75	II	0.028 Ft/Ft.	931+00	943+50	II	0.016 Ft/Ft.
965+75	967+50	III	0.059 Ft/Ft.	943+50	965+00	I	NORMAL SECTION
967+50	985+25	IV	0.064 Ft/Ft.	965+00	966+50	V	0.041 Ft/Ft.
985+25	986+75	III	0.059 Ft/Ft.	966+50	986+25	V	0.064 Ft/Ft.
986+75	988+00	II	0.028 Ft/Ft.	986+25	987+75	V	0.041 Ft/Ft.
988+00	998+00	I	NORMAL SECTION	987+75	992+50	I	NORMAL SECTION
998+00	1002+00	FILL IN BETWEEN W.B. & E.B. PAV'T. WITH 8"-301		992+50	993+50	II	0.028 Ft/Ft.
				993+50	995+25	III	0.059 Ft/Ft.
				995+25	998+00	IV	0.064 Ft/Ft.
				998+00	1002+00	FILL IN BETWEEN W.B. & E.B. PAV'T. WITH 8"-301	

LEGEND: ▨ ~ Item 203 ~ Linear Grading

For Pavement Items Legend See Sheet Nos 3 & 4

Calc. By: W.S.R. Date: 11-22-77
Chkd By: J.C.N. Date: 1-18-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

8/65

HAS-22-(15.03-18.91)

CALCULATION OF PAVEMENT RESURFACING QUANTITIES

STATION FROM	STATION TO	LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	LANE	ITEM 407 TACK COAT @ 0.10 GAL./S.Y. GALS.	ITEM 407 COVER AGGREGATE @ 7 LBS./S.F. TONS	ITEM 403 THICKNESS AVG. INCHES	ITEM 403 O" MIN. ASPHALT CONCRETE CU. YDS.	ITEM 402 THICKNESS INCHES	ITEM 402 ASPHALT CONCRETE CU. YDS.	ITEM 404 THICKNESS INCHES	ITEM 404 ASPHALT CONCRETE CU. YDS.
MAINLINE PAVEMENT													
795+45	796+24	79	24	211	TWO LANE SECTION	21	0.7	0.75	4.4	——	——	$\frac{0+2.25}{2}$=1.125	6.6
796+24	796+50	26	24	69		7	0.2	0.75	1.4	$\frac{1.00+1.75}{2}$=1.375	2.7	1.25	2.4
796+50	801+43.92	493.92	24	1317		132	4.6	0.75	27.4	1.75	64.0	1.25	45.7
801+43.92	807+89.02	645.10	$\frac{24+41.5}{2}$=32.75	2,347		235	8.2	0.75	48.9	1.75	114.1	1.25	81.5
TWO LANE SECTION TOTALS (WEST PORTION)						**395**	**13.7**		**82.1**		**180.8**		**136.2**
807+89.02	814+64.19	675.17	$\frac{18+24}{2}$=.19	1425	WESTBOUND LANES	143	5.0	0.75	29.7	1.75	69.3	1.25	49.5
814+64.19	907+90.12	9325.93	24	24,869		2,487	87.0	0.75	518.1	1.75	1,208.9	1.25	863.5
907+90.12	908+25.12	35	24	93		9	0.3	0.75	1.9	$\frac{1.75+1.5}{2}$=1.625	4.2	1.25	3.2
908+25.12	908+60.12	35	24	93		9	0.3	0.75	1.9	$\frac{1.5+1.25}{2}$=1.375	3.6	1.25	3.2
908+60.12	910+98.04	BR. Nº HAS 22-1717 L				USR 22 OVER CO.RD. 11 (FOR QUANTITIES, SEE SHEET Nº 53)							
910+98.04	911+33.04	35	24	93		9	0.3	0.75	1.9	$\frac{1.25+1.5}{2}$=1.375	3.6	1.25	3.2
911+33.04	911+68.04	35	24	93		9	0.3	0.75	1.9	$\frac{1.5+1.75}{2}$=1.625	4.2	1.25	3.2
911+68.04	919+82.74	814.70	24	2173		217	7.6	0.75	45.3	1.75	105.6	1.25	75.4
919+82.74	920+17.74	35	24	93		9	0.3	0.75	1.9	$\frac{1+1.75}{2}$=1.375	3.6	1.25	3.2
920+17.74	920+52.74	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{2.25+1.5}{2}$=1.875	4.9
920+52.74	921+84.30	BR. Nº HAS 22-1738 L				USR 22 OVER RR. SPUR (FOR QUANTITIES, SEE SHEET Nº 50)							
921+84.30	922+19.30	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{1.5+2.25}{2}$=1.875	4.9
922+19.30	922+54.30	35	24	93		9	0.3	0.75	1.9	$\frac{1+1.75}{2}$=1.375	3.6	1.25	3.2
922+54.30	925+91.52	337.22	24	899		90	3.1	0.75	18.7	1.75	43.7	1.25	31.2
925+91.52	926+26.52	35	24	93		9	0.3	0.75	1.9	$\frac{1+1.75}{2}$=1.375	3.6	1.25	3.2
926+26.52	926+61.52	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{2.25+1.5}{2}$=1.875	4.9
926+61.52	927+97.06	BR. Nº HAS 22-1749 L				USR 22 OVER SR 9 (FOR QUANTITIES, SEE SHEET Nº 50)							
927+97.06	928+72.02	74.96	24	200		20	0.7	0.75	4.2	——	——	1.5	8.3
928+72.02	929+65.20	BR. Nº HAS 22-1753 L				USR 22 OVER R.R. SPUR (FOR QUANTITIES, SEE SHEET Nº 50)							
929+65.20	930+00.20	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{1.5+2.25}{2}$=1.875	4.9
930+00.20	930+35.20	35	24	93		9	0.3	0.75	1.9	$\frac{1+1.75}{2}$=1.375	3.6	1.25	3.2
930+35.20	1001+98.57	7,163.37	24	19,102		1,910	66.9	0.75	398.0	1.75	928.6	1.25	663.3
WESTBOUND LANES TOTAL						**4,975**	**173.9**		**1,036.8**		**2,386.1**		**1,736.4**
1001+98.57	1008+63.23	664.66	$\frac{50+28}{2}$=.37	2,732	TWO LANE SECTION	273	9.6	0.75	56.9	1.75	132.8	1.25	94.9
1008+63.23	1011+67.06	1013+25.70 BK = 1011+67.06 AH	462.47	24	1,233	123	4.3	0.75	25.7	1.75	60.0	1.25	42.8
1011+67.06	1060+00	4,832.94	24	12,888		1,289	45.1	0.75	268.5	1.75	626.5	1.25	447.5
1060+00	1060+26	26	24	69		7	0.2	0.75	1.4	$\frac{1.75+1}{2}$=1.375	2.7	1.25	2.4
1060+26	1061+05	79	24	211		21	0.7	0.75	4.4	——	——	$\frac{2.25+0}{2}$=1.125	6.6
TWO LANE SECTION TOTALS (EAST PORTION)						**1,713**	**59.9**		**356.9**		**822.0**		**594.2**
807+89.02	908+70.82	10,081.80	24	26,885	EASTBOUND LANES	2,688	94.1	0.75	560.1	1.75	1,306.9	1.25	933.5
908+70.82	909+05.82	35	24	93		9	0.3	0.75	1.9	$\frac{1.75+1.5}{2}$=1.625	4.2	1.25	3.2
909+05.82	909+40.82	35	24	93		9	0.3	0.75	1.9	$\frac{1.5+1.25}{2}$=1.375	3.6	1.25	3.2
909+40.82	911+24.74	BR. Nº HAS 22-1717 R				USR 22 OVER CO.RD. 11 (FOR QUANTITIES, SEE SHEET Nº 53)							
911+24.74	911+59.74	35	24	93		9	0.3	0.75	1.9	$\frac{1.25+1.5}{2}$=1.375	3.6	1.25	3.2
911+59.74	911+94.74	35	24	93		9	0.3	0.75	1.9	$\frac{1.5+1.75}{2}$=1.625	4.2	1.25	3.2
911+94.74	920+01.70	806.96	24	2,152		215	7.5	0.75	44.8	1.75	104.6	1.25	74.7
920+01.70	920+36.70	35	24	93		9	0.3	0.75	1.9	$\frac{1.75+1}{2}$=1.375	3.6	1.25	3.2
920+36.70	920+71.70	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{2.25+1.5}{2}$=1.875	4.9
920+71.70	922+03.26	BR. Nº HAS. 22-1738 R				USR 22 OVER R.R. SPUR (FOR QUANTITIES, SEE SHEET Nº 50)							
922+03.26	922+38.26	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{1.5+2.25}{2}$=1.875	4.9
922+38.26	922+73.26	35	24	93		9	0.3	0.75	1.9	$\frac{1+1.75}{2}$=1.375	3.6	1.25	3.2
922+73.26	925+52.28	279.02	24	744		74	2.6	0.75	15.5	1.75	36.2	1.25	25.8
925+52.28	925+87.28	35	24	93		9	0.3	0.75	1.9	$\frac{1.75+1}{2}$=1.375	3.6	1.25	3.2
925+87.28	926+22.28	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{2.25+1.5}{2}$=1.875	4.9
926+22.28	927+57.82	BR. Nº HAS 22-1749 R				USR 22 OVER SR 9 (FOR QUANTITIES, SEE SHEET Nº 50)							
927+57.82	928+49.38	91.56	24	244		24	0.9	0.75	5.1	——	——	1.5	10.2
928+49.38	929+42.56	BR. Nº HAS 22-1753 R				USR 22 OVER R.R. SPUR (FOR QUANTITIES, SEE SHEET Nº 50)							
929+42.56	929+77.56	35	24	93		9	0.3	0.75	1.9	——	——	$\frac{1.5+2.25}{2}$=1.875	4.9
929+77.56	930+12.56	35	24	93		9	0.3	0.75	1.9	$\frac{1+1.75}{2}$=1.375	3.6	1.25	3.2
930+12.56	1001+98.57	7,186.01	24	19,163		1,916	67.1	0.75	399.2	1.75	931.5	1.25	665.4
EASTBOUND LANES TOTAL						**5,025**	**175.8**		**1,047.5**		**2,409.2**		**1,754.8**

CALCULATION OF PAVEMENT RESURFACING QUANTITIES

STATION FROM	STATION TO		LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	LANE	ITEM 407 TACK COAT @ 0.10 GAL./S.Y. GALS.	ITEM 407 COVER AGGREGATE @ 7 LBS./S.F. TONS	ITEM 403 THICKNESS AVG. INCHES	ITEM 403 O" MIN. ASPHALT CONCRETE CU. YDS.	ITEM 402 THICKNESS INCHES	ITEM 402 ASPHALT CONCRETE CU. YDS.	ITEM 404 THICKNESS INCHES	ITEM 404 ASPHALT CONCRETE CU. YDS.
MAINLINE INTERSECTIONS														
CO. RD 29	MEDIAN		Plainim. Area 370 S.Y. + Calc. Area 167 S.Y. = 537 S.Y.			MAINLINE INTERSECTIONS	54	1.9	0.75	11.2	1.75	26.1	1.25	18.7
	S.C. LANE		[(½×100×12)+(12×272)] ×⅛ = 429 S.Y.				43	1.5	——	——	1.75	20.9	1.25	14.9
937+90±	FEATHERING		PLANIMETERED AREA = 200 S.Y.				20	0.7	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	8.3
MOORE	MEDIAN		PLANIMETERED AREA = 499 S.Y.				50	1.8	0.75	10.4	1.75	24.3	1.25	17.3
ROAD	FEATHERING	LT.	PLANIMETERED AREA = 164 S.Y.				16	0.6	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	6.8
974+10±		RT.	PLANIMETERED AREA = 156 S.Y.				16	0.6	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	6.5
CO. RD 51	FEATHERING	LT.	PLANIMETERED AREA = 227 S.Y.				23	0.8	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	9.5
1019+50		RT.	PLANIMETERED AREA = 180 S.Y.				18	0.6	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	7.5
MAINLINE INTERSECTION TOTALS							240	8.5		21.6		71.3		89.5
MAINLINE PAVEMENT RESURFACING TOTALS							12,348	431.8		2,544.9		5,869.4		4,311.1
USR 250 INTERCHANGE PAVEMENT														
0+12.21	0+60.50		PLANIMETERED AREA = 162 S.Y.			RAMP "A"	16	0.6	0.75	3.4	1.75	7.9	1.25	5.6
0+60.50	5+49.49		488.99	16	869		87	3.0	0.75	18.1	1.75	42.3	1.25	30.2
5+49.49	5+59.49		10	$\frac{16+17.5}{2}$=16.75	19		2	0.1	0.75	0.4	1.75	0.9	1.25	0.7
5+59.49	6+59.49 = 889+33.42 US 22		100	$\frac{17.5+20.5}{2}$=19	211		21	0.7	0.75	4.4	1.75	10.3	1.25	7.3
888+07.42	889+33.42		126	$\frac{0+10.5}{2}$=5.25	74		7	0.3	0.75	1.5	1.75	3.6	1.25	2.6
6+59.49	10+17.31		357.82	$\frac{34+12}{2}$=23	914	S.C. LANE & EXIT TERM.	91	3.2	0.75	19.0	1.75	44.4	1.25	31.7
10+17.31	11+07.05 = 893+75 US 22		89.74	12	120		12	0.4	0.75	2.5	1.75	5.8	1.25	4.2
893+75	894+75		100	$\frac{12+0}{2}$=6	67		7	0.2	0.75	1.4	1.75	3.2	1.25	2.3
RAMP "A" TOTALS (W. BOUND EXIT)							243	8.5		50.7		118.4		84.6
868+50	870+75 = 0+00 RAMP "B"		225	$\frac{0+12}{2}$=6	150	S.C. LANE ENTRANCE TERM.	15	0.5	0.75	3.1	1.75	7.3	1.25	5.2
0+00	2+89.97		289.97	12	387		39	1.4	0.75	8.1	1.75	18.8	1.25	13.4
2+89.97	3+43.07		53.10	$\frac{12+18.5}{2}$=15.25	90		9	0.3	0.75	1.9	1.75	4.4	1.25	3.1
3+43.07	4+43.07		100	$\frac{14.5+17.5}{2}$=16	178		18	0.6	0.75	3.7	1.75	8.6	1.25	6.2
4+43.07	7+75		331.93	16	590		59	2.1	0.75	12.3	1.75	28.7	1.25	20.5
7+75	8+00		25	$\frac{16+36}{2}$=25	69		7	0.2	0.75	1.5	1.75	3.4	1.25	2.4
8+00	11+71.61		371.61	34	1404		140	4.9	0.75	29.3	1.75	68.2	1.25	48.8
11+71.61	12+54.21		PLANIMETERED AREA = 427 S.Y.			RAMP "B"	43	1.5	0.75	8.9	1.75	20.8	1.25	14.8
CO.RD. 2 INTERSECT @ 7+98.84			PLANIMETERED AREA = 180 S.Y.				18	0.6	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	7.5
RAMP "B" TOTALS (W. BOUND ENTRANCE)							348	12.1		68.8		160.2		121.9
867+00	868+00		100	$\frac{0+12}{2}$=6	67	S.C. LANE & EXIT TERM.	7	0.2	0.75	1.4	1.75	3.2	1.25	2.3
868+00 USR 22 = 0+00 RAMP "C"	2+57.66		257.66	12	344		34	1.2	0.75	7.2	1.75	16.7	1.25	11.9
2+57.66	3+54.30 RAMP "C" = 871+60.46		96.64	$\frac{12+36}{2}$=23	247		25	0.9	0.75	5.2	1.75	12.0	1.25	8.6
871+60.46	872+86.46		126	$\frac{10.5+0}{2}$=5.25	74		7	0.3	0.75	1.5	1.75	3.6	1.25	2.6
3+54.30	4+29.66		75.36	$\frac{20.5+17.5}{2}$=19	159	RAMP "C"	16	0.6	0.75	3.3	1.75	7.7	1.25	5.5
4+29.66	4+39.66		10	$\frac{17.5+16}{2}$=16.75	19		2	0.1	0.75	0.4	1.75	0.9	1.25	0.7
4+39.66	8+56.40		416.74	16	741		74	2.6	0.75	15.4	1.75	36.0	1.25	25.7
8+56.40	9+60.88		104.48	17	197		20	0.7	0.75	4.1	1.75	9.6	1.25	6.9
RAMP "C" TOTALS (E. BOUND EXIT)							185	6.6		38.5		89.7		64.2
USR 250 506+32.53	506+57.53		25	24	67	USR 250 CROSSROAD	7	0.2	0.75	1.4	$\frac{0+1.75}{2}$=0.875	1.6	$\frac{0+1.25}{2}$=0.625	1.2
506+57.53	508+22.96		165.43	24	441		44	1.5	0.75	9.2	1.75	21.4	1.25	15.3
508+22.96	509+42.96 = 0+00 RAMP "D"		120	$\frac{24+30}{2}$=27	360		36	1.3	0.75	7.5	1.75	17.5	1.25	12.5
CO.RD. 2 INTERSECT. @ 507+50			PLANIMETERED AREA = 159 S.Y.				16	0.6	——	——	——	——	$\frac{3+0}{2}$=1.5 AVG.	6.6
0+00 RAMP "D"	2+21.73		221.73 × $\frac{235.33}{229.18}$ = 227.94	$\frac{30+37}{2}$=33.5	886	RAMP "D"	89	3.1	0.75	18.5	1.75	43.1	1.25	30.8
2+21.73	4+24		221.73 × $\frac{247.68}{229.18}$ = 239.63	2+17=34	905		91	3.2	0.75	18.9	1.75	44.0	1.25	31.4
4+24	8+18.89		394.89	17	746		75	2.6	0.75	15.5	1.75	36.3	1.25	25.9
8+18.89	9+18.89		100	$\frac{17.5+14.5}{2}$=16	178		18	0.6	0.75	3.7	1.75	8.6	1.25	6.2
9+18.89	9+72		53.11	$\frac{18.5+12}{2}$=15.25	90		9	0.3	0.75	1.9	1.75	4.4	1.25	3.1
9+72	13+87.99		415.99	12	555		55	1.9	0.75	11.6	1.75	27.0	1.25	19.3
13+87.99 = 882+00 USR 22	884+25		225	$\frac{12+0}{2}$=6	150		15	0.5	0.75	3.1	1.75	7.3	1.25	5.2
USR 250 CROSSROAD & RAMP "D" TOTALS							455	15.8		91.3		211.2		157.5
USR 250 INTERCHANGE PAVT. RESURFACING TOTALS							1231	43.0		249.3		579.5		428.2

ABOVE PAVEMENT RESURFACING QUANTITIES CARRIED TO SUMMARY ON SHEET Nº 9

PLANIMETERED AREAS ARE FROM SHEET NºS 46 & 47

PAVEMENT RESURFACING CALCULATIONS

Calc. By: W.S.P. Date: 11-23-77
Ck'd By: R.E.M. Date: 1-3-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS -22-(15.03-18.91)

9/65

CALCULATION OF PAVEMENT RESURFACING QUANTITIES

STATION FROM	STATION TO	LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	LANE	ITEM 407 TACK COAT @ 0.10 GAL./S.Y. GALS.	ITEM 407 COVER AGGREGATE @ 7 LBS./S.F. TONS	ITEM 403 THICKNESS INCHES	ITEM 403 0" MIN. ASPHALT CONCRETE CU. YDS.	ITEM 402 THICKNESS INCHES	ITEM 402 ASPHALT CONCRETE CU. YDS.	ITEM 404 THICKNESS INCHES	ITEM 404 ASPHALT CONCRETE CU. YDS.
SR 9 INTERCHANGE PAVEMENT													
0+12	0+56.10	PLANIMETERED AREA= 289 S.Y.			RAMP "E"	29	1.0	0.75	6.0	1.75	14.0	1.25	10.0
0+56.10	2+32.43	176.33	2×17=34	666		67	2.3	0.75	13.9	1.75	32.4	1.25	23.1
2+32.43	6+82.09	449.66 − 471.97	392.33 − 359.33	1806		181	6.3	0.75	37.6	1.75	87.8	1.25	62.7
6+82.09	10+98.69	416.60	17	787		79	2.8	0.75	16.4	1.75	38.3	1.25	27.3
10+98.69	11+98.69 = 925+33.19 US22	100	(17.05+20.5)/2=19	211		21	0.7	0.75	4.4	1.75	10.3	1.25	7.3
925+33.19	924+07.19	126	(10.5+0)/2=5.25	74		7	0.3	0.75	1.5	1.75	3.6	1.25	2.6
11+98.69	12+51.16 = 925+91.52 = US 22	52.47	(34+17.68)/2=25.84	151		15	0.5	0.75	3.1	1.75	7.3	1.25	5.2
925+91.52	926+26.52	35	(17.68+12.86)/2=15.27	59		6	0.2	0.75	1.2	1.75+1/2=1.375	2.3	1.25	2.1
926+26.52	926+49	22.48	(12.86+12)/2=12.43	31.05+31.41 = 62		6	0.2	0.75	1.3	——	——	2+25+1.5/2=1.875	3.3
926+72.56	928+08.10	BR Nº HAS 22-1749 L				U.S.R. 22 OVER S.R.9 (FOR QUANTITIES, SEE SHEET Nº 50)							
928+08.10	928+78.39	70.29	12	94	S.C. LANE & EXIT TERMINAL	9	0.3	0.75	2.0	——	——	1.5	3.9
928+78.39	929+71.57	BR Nº HAS 22-1753 L				U.S.R. 22 OVER R.R. SPUR (FOR QUANTITIES SEE SHEET Nº 50)							
929+71.57	930+00.20	28.63	12	38		4	0.1	0.75	0.8	——	——	1.5+2.25/2=1.875	2.0
930+00.20	930+35.20	35	(12+7.78)/2=9.89	38		4	0.1	0.75	0.8	1+1.75/2=1.375	1.5	1.25	1.3
930+35.20	931+00	64.80	(7.78+10)/2=8.89	28		3	0.1	0.75	0.6	1.75	1.4	1.25	1.0
RAMP "E" TOTALS (W. BOUND EXIT)						431	14.9		89.6		198.9		151.8
914+25	916+50 = 0+00 RAMP "E"	225	(0+12)/2=6	150	S.C. LANE ENTRANCE TERM.	15	0.5	0.75	3.1	1.75	7.3	1.25	5.2
0+00	1+80.63	180.63	12	241		24	0.8	0.75	5.0	1.75	11.7	1.25	8.4
1+80.63	2+43.72	63.09	(12+18.5)/2=15.25	107		11	0.4	0.75	2.2	1.75	5.2	1.25	3.7
2+43.72	3+05.76	62.04	(14.5+17.3)/2=15.90	110		11	0.4	0.75	2.3	1.75	5.3	1.25	3.8
3+05.76	3+40.76	35	(17.3+18.07)/2=17.69	69	RAMP "F"	7	0.2	0.75	1.4	1.75+1/2=1.375	2.6	1.25	2.4
3+40.76	3+75.76	35	(18.07+18.85)/2=18.46	72		7	0.3	0.75	1.5	——	——	2.25+1.5/2=1.875	3.7
3+75.76	5+07.58	BR. Nº HAS 22-1738 SR				RAMP "F" OVER R.R. SPUR (FOR QUANTITIES SEE SHEET Nº 50)							
5+07.58	5+42.58	35	(19.63+16)/2=17.82	69		7	0.2	0.75	1.4	——	——	1.5+2.25/2=1.875	3.6
5+42.58	5+77.58	35	16	62		6	0.2	0.75	1.3	1+1.75/2=1.375	2.4	1.25	2.2
5+77.58	8+20.28	242.70	16	431		43	1.5	0.75	9.0	1.75	21.0	1.25	15.0
8+20.28	8+30.28	10	(16+17.5)/2=16.75	19		2	0.1	0.75	0.4	1.75	0.9	1.25	0.7
8+30.28	9+30.28	100	17	189		19	0.7	0.75	3.9	1.75	9.2	1.25	6.6
RAMP "F" TOTALS (W. BOUND ENTRANCE)						152	5.3		31.5		65.6		55.3
924+75.	925+52.28	77.28	(01+92.7)/2=4.64	40	S.C. LANE & EXIT TERMINAL	4	0.1	0.75	0.8	1.75	1.9	1.25	1.4
925+52.28	925+87.28	35	(92.7+12)/2=10.64	41		4	0.1	0.75	0.9	1.75+1/2=1.375	1.6	1.25	1.4
925+87.28	926+11.24	23.96	12	32		3	0.1	0.75	0.7	——	——	2.25+1.5/2=1.875	1.7
926+11.24	927+46.78	BR. Nº HAS 22-1749 R				U.S.R. 22 OVER SR 9 (FOR QUANTITIES SEE SHEET Nº 50)							
927+46.78	928+43.01	96.23	12	128		13	0.5	0.75	2.7	——	——	1.5	5.4
928+43.01	929+36.19	BR. Nº HAS 22-1753 R				U.S.R. 22 OVER R.R. SPUR (FOR QUANTITIES SEE SHEET Nº 50)							
929+36.19	929+77.56	41.37	12	55		6	0.2	0.75	1.2	——	——	1.5+2.25/2=1.875	2.9
929+77.56	930+12.56	35	(12+12.39)/2=12.2	47		5	0.2	0.75	1.0	1+1.75/2=1.375	1.8	1.25	1.7
930+12.56	931+49.45 = 614.09 RAMP "G"	136.89	(12.39+14)/2=13.2	353		35	1.2	0.75	7.4	1.75	17.2	1.25	12.3
931+49.45	932+75.45	126	(10.5+0)/2=5.25	74		7	0.3	0.75	1.5	1.75	3.6	1.25	2.6
5+69.09	6+69.09	100	(10.5+11.75)/2=19	211		21	0.7	0.75	4.4	1.75	10.3	1.25	7.3
6+69.09	9+95	325.91	17	616		62	2.2	0.75	12.8	1.75	29.9	1.25	21.4
9+95	13+23.80	328.80 − 355.34	347.68 − 325.18 = 22.5	2×17=34	1342	134	4.7	0.75	28.0	1.75	65.3	1.25	46.6
13+23.80	14+28.48	104.68	2×17=34	395		40	1.4	0.75	8.2	1.75	19.2	1.25	13.7
14+28.48	14+63.48	35	2×17=34	132		13	0.5	0.75	2.8	1.75+1/2=1.375	5.1	1.25	4.6
14+63.48	14+98.48	35	2×17=34	132	RAMP "G"	13	0.5	0.75	2.8	——	——	2.25+1.5/2=1.875	6.9
14+98.48	15+71.52	BR. Nº HAS 22-1753 SR				RAMP "G" OVER R.R. SPUR (FOR QUANTITIES SEE SHEET Nº 50)							
15+71.52	16+06.52	35	2×17=34	132		13	0.5	0.75	2.8	——	——	1.5+2.25/2=1.875	6.9
16+06.52	16+41.52	35	2×17=34	132		13	0.5	0.75	2.8	1+1.75/2=1.375	5.1	1.25	4.6
16+41.52	17+44.44	102.92	2×17=34	389		39	1.4	0.75	8.1	1.75	18.9	1.25	13.5
17+44.44	17+88.82	PLANIMETERED AREA= 300 S.Y.				30	1.1	0.75	6.3	1.75	14.6	1.25	10.4
RAMP "G" TOTALS (E. BOUND EXIT)						455	16.2		95.2		194.5		165.3

PLANIMETERED AREAS ARE FROM SHEET Nº 47

CALCULATION OF PAVEMENT RESURFACING QUANTITIES

STATION FROM	STATION TO	LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	LANE	ITEM 407 TACK COAT @ 0.10 GAL./S.Y. GALS.	ITEM 407 COVER AGGREGATE @ 7 LBS./S.F. TONS	ITEM 403 THICKNESS INCHES	ITEM 403 0" MIN. ASPHALT CONCRETE CU. YDS.	ITEM 402 THICKNESS INCHES	ITEM 402 ASPHALT CONCRETE CU. YDS.	ITEM 404 THICKNESS INCHES	ITEM 404 ASPHALT CONCRETE CU. YDS.
SR 9 INTERCHANGE PAVEMENT (CONTINUED)													
0+00	1+10	110	17	208	RAMP "H"	21	0.7	0.75	4.3	1.75	10.1	1.25	7.2
1+10	3+48.49	238.49	16	424		42	1.5	0.75	8.8	1.75	20.6	1.25	14.7
3+48.49	3+58.49	10	(16+17.5)/2=16.75	19		2	0.1	0.75	0.4	1.75	0.9	1.25	0.7
3+58.49	5+30.05	171.56	(17.5+14.5)/2=16	305		31	1.1	0.75	6.4	1.75	14.8	1.25	10.6
5+30.05	5+83.67	53.62	(18.5+12)/2=15.25	91	S.C. LANE ENTRANCE TERM.	9	0.3	0.75	1.9	1.75	4.4	1.25	3.2
5+83.67	6+70.01	86.34	12	115		12	0.4	0.75	2.4	1.75	5.6	1.25	4.0
6+70.01 BK = 937+75 AH.	940+00	225	(12+0)/2=6	150		15	0.5	0.75	3.1	1.75	7.3	1.25	5.2
RAMP "H" TOTALS (E. BOUND ENTRANCE)						132	4.6		27.3		63.7		45.6
SR 9 INTERCHANGE PAV'T. RESURFACING TOTALS						1170	41.0		243.6		522.7		418.0
ABOVE PAVEMENT RESURFACING QUANTITIES CARRIED TO SUMMARY ON THIS SHEET													

SUMMARY OF PAVEMENT RESURFACING QUANTITES

LOCATION	ITEM 407 TACK COAT GALS.	ITEM 407 COVER AGGREGATE TONS	ITEM 403 "0" MINIMUM ASPHALT CONCRETE CU. YDS.	ITEM 402 ASPHALT CONCRETE CU. YDS.	ITEM 404 ASPHALT CONCRETE CU. YDS.
MAINLINE	12,348	431.8	2,544.9	5,869.4	4,311.1
USR 250 INTERCHANGE	1,231	43.0	249.3	579.5	428.2
SR 9 INTERCHANGE	1,170	41.0	243.6	522.7	418.0
TOTALS	14,749	516	3,038	6,972	5,157

QUANTITIES CARRIED TO GENERAL SUMMARY

PAVEMENT RESURFACING CALCULATIONS

QUANTITIES	
Calculated by	Checked by
W.S.R. 12-2-77	R.E.M. 12-7-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

10/65

HAS-22-(15.03-18.91)

CALCULATION OF MAINLINE OUTSIDE SHOULDER QUANTITIES

STATION FROM	STATION TO	LANE	ITEM 409 SEAL COAT LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	BIT. MAT'L @ 0.30 GAL/S.Y. GAL.	COVER AGGREGATE @ 0.008 C.Y./S.Y. CU. YDS.	ITEM 301 BITUMINOUS AGGREGATE BASE LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	AVG. THICK IN.	BITUMINOUS AGGREGATE BASE CU. YDS.
MAINLINE OUTSIDE SHOULDERS												
795+45	807+89.02	TWO LANE SECTION	1,244.02	2 X 8 = 16 (BOTH SIDES)	2,212	663	17.7	SAME AS ITEM 409		2,212	7	430.0
807+89.02	868+50	WESTBOUND LANES	6,060.98	8	5,388	1616	43.1	" " " "		5,388	7	1,047.6
868+50	874+20.81		RAMP "B" SPEED CHANGE LANE, INCLUDED IN USR 250 INTERCHANGE QUANTITIES									
874+20.81	874+75		54.19	$\frac{4+18}{2}=11$	66	20	0.5	SAME AS ITEM 409		66	7	12.9
874+75	888+07.42		1,332.42	8	1,184	355	9.5	" " " "		1,184	7	230.3
888+07.42	889+00		92.58	$\frac{8+10}{2}=9$	93	28	0.7	92.58	$\frac{8+2.45}{2}=5.23$	54	7	10.5
889+00	889+35.42		———	———	———	———	———	35.42	$\frac{12.45+3}{2}=7.73$	30	8	6.8
889+35.42	894+75		RAMP "A" SPEED CHANGE LANE, INCLUDED IN USR 250 INTERCHANGE QUANTITIES									
894+75	908+45.78		1,370.78	8	1,218	366	9.8	SAME AS ITEM 409		1,218	7	236.9
908+45.78	910+85.66		BR. NO. HAS-22-1717 L, USR 22 OVER CO. RD. 11 (SEE SHEET Nº 53)									
910+85.66	914+25		339.34	8	302	90	2.4	SAME AS ITEM 409		302	7	0.5
914+25	918+96.08		RAMP "F" SPEED CHANGE LANE, INCLUDED IN S.R. 9 INTERCHANGE QUANTITIES									
918+96.08	919+53		56.92	$\frac{4+18}{2}=11$	70	21	0.6	SAME AS ITEM 409		70	7	13.5
919+53	920+48.00		95.00	8	84	25	0.7	" " " "		84	7	16.4
920+48.00	921+79.56		BR. NO. HAS-22-1738L, USR 22 OVER R.R. (SEE SHEET Nº 50)									
921+79.56	924+07.19		227.63	8	202	61	1.6	SAME AS ITEM 409		202	7	39.3
924+07.19	925+18		110.81	$\frac{8+10}{2}=9$	111	33	0.9	110.81	$\frac{8+0.93}{2}=4.47$	55	7	10.7
925+18	925+35.19		———	———	———	———	———	17.19	$\frac{10.93+3}{2}=6.97$	13	8	3.0
925+35.19	931+00		RAMP "E" SPEED CHANGE LANE, INCLUDED IN S.R. 9 INTERCHANGE QUANTITIES									
931+00	973+72±		4,272	8	3,797	1,139	30.4	SAME AS ITEM 409		3,797	7	738.4
973+72±	974+00±		MOORE ROAD PAVEMENT									
974+00±	1001+98.57		2,798.57	8	2,488	746	19.9	SAME AS ITEM 409		2,488	7	483.7
1001+98.57	1011+67.06 BK =1013+25.70 AH	TWO LANE SECTION	1,127.13	2 X 8 = 16 (BOTH SIDES)	2,004	601	16.0	" " " "		2,004	7	389.6
1011+67.06	1061+05		4,937.94 − 84.00 C.R.51 = 4,853.94	2 X 8 = 16 (BOTH SIDES)	8,629	2,589	69.0	" " " "		8,629	7	1,677.9
807+89.02	835+00	EASTBOUND LANES	2,710.98	8	2,410	723	19.3	" " " "		2,410	7	468.6
835+00	836+00		100	$\frac{8+6}{2}=7$	78	23	0.6	" " " "		78	7	15.1
836+00	837+70		170	6	113	34	0.9	" " " "		113	7	22.0
837+70	838+78		WESTERN CONNECTION PAVEMENT									
838+78	867+00		2,822	8	2,508	753	20.1	SAME AS ITEM 409		2,508	7	487.8
867+00	871+58.46		RAMP "C" SPEED CHANGE LANE, INCLUDED IN USR 250 INTERCHANGE QUANTITIES									
871+58.46	871+73.50		———	———	———	———	———	15.04	$\frac{3+10.75}{2}=6.88$	11	8	2.6
871+73.50	872+86.46		112.96	$\frac{10+8}{2}=9$	113	34	0.9	112.96	$\frac{0.75+8}{2}=4.38$	55	7	10.7
872+86.46	876+80		393.54	8	350	105	2.8	SAME AS ITEM 409		350	7	68.0
876+80	877+28.16		48.16	$\frac{18+4}{2}=11$	59	18	0.5	" " " "		59	7	11.5
877+28.16	884+25		RAMP "D" SPEED CHANGE LANE, INCLUDED IN USR 250 INTERCHANGE QUANTITIES									
884+25	909+53.34		2,528.34	8	2,247	674	18.0	SAME AS ITEM 409		2,247	7	437.0
909+53.34	911+39.22		BR. NO. HAS-22-1717 R, USR 22 OVER CO. RD. 11 (SEE SHEET Nº 53)									
911+39.22	920+76.44		937.22	8	833	250	6.7	SAME AS ITEM 409		833	7	162.0
920+76.44	922+08.00		BR. NO. HAS-22-1738R, USR 22 OVER R.R. SPUR (SEE SHEET Nº 50)									
922+08.00	924+75		267.00	8	237	71	1.9	SAME AS ITEM 409		237	7	46.2
924+75	931+47.45		RAMP "G" SPEED CHANGE LANE, INCLUDED IN S.R. 9 INTERCHANGE QUANTITIES									
931+47.45	931+65		———	———	———	———	———	17.55	$\frac{3+10.8}{2}=6.9$	13	8	3.0
931+65	932+75.45		110.45	$\frac{10+8}{2}=9$	110	33	0.9	110.45	$\frac{0.8+8}{2}=4.4$	54	7	10.5
932+75.45	935+88		312.55	8	278	83	2.2	SAME AS ITEM 409		278	7	54.0
935+88	936+26.19		38.19	$\frac{18+5}{2}=11.5$	49	15	0.4	" " " "		49	7	9.5
936+26.19	940+00		RAMP "H" SPEED CHANGE LANE, INCLUDED IN S.R. 9 INTERCHANGE QUANTITIES									
940+00	974+09±		3,409	8	3,030	909	24.2	SAME AS ITEM 409		3,030	7	589.2
974+09±	974+31±		MOORE ROAD PAVEMENT									
974+31_	1001+98.57		2,767.57	8	2,460	738	19.7	SAME AS ITEM 409		2,460	7	478.4
MAINLINE OUTSIDE SHOULDER TOTALS						12,816	341.9			42,581		8,224.1

ABOVE SHOULDER QUANTITIES CARRIED TO SUMMARY ON SHEET Nº 11

CALCULATION OF MEDIAN SHOULDER & CROSS-OVER QUANTITIES

STATION FROM	STATION TO	LANE	LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	ITEM 409 SEAL COAT BITUMINOUS MATERIAL @ 0.30 GAL/S.Y. GALS.	ITEM 409 SEAL COAT COVER AGGREGATE @ 0.008 C.Y./S.Y. CU. YDS.	ITEM 301 AVERAGE THICKNESS INCHES	ITEM 301 BITUMINOUS AGGREGATE BASE CU. YDS.
814+74.19	837+09±	WESTBOUND LANES	2,234.81	4	993	298	7.9	7	193.1
837+09±	838+37±		WESTERN CONNECTION INTERSECTION						
838+37±	908+70.96		7,033.96	4	3,126	938	25.0	7	607.9
908+70.96	911+10.84		BR. NO. HAS-22-1717 L, USR 22 CO. RD. 11 (SEE SHEET Nº 53)						
911+10.84	920+56.89		946.05	4	420	126	3.4	7	81.8
920+56.89	921+88.45		BR. NO. HAS-22-1738L, USR 22 OVER R.R. SPUR (SEE SHEET Nº 50)						
921+88.45	926+51.93		463.48	4	206	62	1.7	7	40.1
926+51.93	927+89.21		BR. NO. HAS-22-1749L, USR 22 OVER S.R. 9 (SEE SHEET Nº 50)						
927+89.21	928+65.98		76.77	4	34	10	0.3	7	6.6
928+65.98	929+60.76		BR. NO. HAS-22-1753L, USR 22 OVER R.R. SPUR						
929+60.76	973+63±		4,402.24	4	1,957	587	15.7	7	380.4
973+63±	975+04±		MOORE ROAD INTERSECTION						
975+04±	998+00		2,296	4	1,020	306	8.2	7	198.4
998+00	1001+98.57	TRANSITION 4 TO 2 LANE	398.57	$\frac{20+2}{2}=11$	487	146	3.9	8	108.3
809+89.35	837+70±	EASTBOUND LANES	2,780.65	4	1,236	371	9.9	7	240.3
837+70±	838+18±		WESTERN CONNECTION INTERSECTION						
838+18±	909+28.16		7,110.16	4	3,160	948	25.3	7	614.5
909+28.16	911+14.04		BR. NO. HAS-22-1717R, USR 22 OVER CO. RD. 11 (SEE SHEET Nº 53)						
911+14.04	920+67.55		953.51	4	424	127	34	7	82.4
920+67.55	921+99.11		BR. NO. HAS-22-1738R, USR 22 OVER R.R. SPUR (SEE SHEET Nº 50)						
921+99.11	926+29.85		430.74	4	191	57	1.5	7	37.2
926+29.85	927+67.13		BR. NO. HAS-22-1749 R, USR 22 OVER S.R. 9						
927+67.13	928+53.24		86.11	4	38	11	0.3	7	7.4
928+53.24	929+46.42		BR. NO. HAS-22-1753 R, USR 22 OVER R.R. SPUR (SEE SHEET Nº 50)						
929+46.42	973+08±		4,361.58	4	1,938	582	15.5	7	376.9
973+08±	974+57±		MOORE ROAD INTERSECTION						
974+57±	998+00		2,343	4	1,041	312	8.3	7	202.5
861+75		MEDIAN CROSS-OVERS	PLANIMETERED AREA OF MEDIAN CROSSOVER = 283 SQ. YDS.		283	85	2.3	8	62.9
898+50					283	85	2.3	8	62.9
951+25					283	85	2.3	8	62.9
MEDIAN SHOULDER & MEDIAN CROSS OVER TOTALS					17,120	5,136	137.2		3,366.5

ABOVE SHOULDER QUANTITIES CARRIED TO SUMMARY ON SHEET Nº 11

NOTE: The Profile Correction table indicates stations and average depth of 402 Asphalt Concrete material to be added for profile correction. When 402 Asphalt Concrete correction is completed it shall conform to the original profile grade line of the project. An estimated amount of 37 Cu.Yds. for the Eastbound Lane and 25 Cu.Yds. for the Westbound Lane has been carried to the General Summary for this Work.

PROFILE CORRECTION

STATION	LANE	AVERAGE DEPTH MEDIAN EDGE	AVERAGE DEPTH ℄	AVERAGE DEPTH OUTSIDE EDGE	AVE. THICKNESS	ITEM 402 CU.YDS.
823+00	EASTBOUND	0'	0'	0'		
+25		0.04'	0.15'	0.15'		
+50		0.13'	0.16'	0.02'		
+75		0.05'	0.08'	0.08'		
824+00		0'	0'	0'		
					.0573'	5.1
959+50		0'	0'	0'		
+75		0.07'	0.15'	0.18'		
960+00		0.23'	0.25'	0.30'		
+25		0.11'	0.20'	0.25'		
+50		0'	0'	0'		
					.1160'	10.3
972+50		0'	0'	0'		
+75		0'	0'	0.05'		
973+00		0.25'	0.21'	0.20'		
+25		0.46'	0.38'	0.37'		
+50		0.28'	0.30'	0.28'		
+75		0.12'	0.18'	0.11'		
974+00		0.01'	0.02'	0.08'		
+25		0'	0'	0'		
					.1375'	21.4
TOTAL EAST BOUND						36.8
822+50	WESTBOUND	0'	0'	0'		
+75		0.01'	0.04'	0.14'		
823+00		0.02'	0.11'	0.31'		
+25		0.04'	0.24'	0.43'		
+50		0.09'	0.29'	0.38'		
+75		0.07'	0.16'	0.07'		
824+00		0'	0'	0'		
					.1143'	15.2
959+50		0'	0'	0'		
+75		0.04'	0'	0'		
960+00		0.04'	0'	0'		
+25		0.04'	0'	0'		
+50		0.03'	0'	0.02'		
+75		0'	0'	0.05'		
961+00		0'	0'	0'		
					.0119'	1.1
972+75		0'	0'	0'		
973+00		0'	0.03'	0.04'		
+25		0.09'	0.06'	0.20'		
+50		0.26'	0.15'	0.31'		
+75		0.19'	0.13'	0.19'		
974+00		0'	0'	0'		
					.0916'	8.2
TOTAL WEST BOUND						24.5
TOTAL EAST & WEST BOUND						61.3

QUANTITIES CARRIED TO GENERAL SUMMARY

QUANTITIES	
Calculated by W.S.R. 12-5-77	Checked by J.C.N. 1-5-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

11/65

HAS-22-(15.03-18.91)

CALCULATION OF RAMP SHOULDER QUANTITIES

STATION FROM	STATION TO	RAMP	SIDE	LENGTH LIN. FT.	WIDTH FT.	AREA SQ. YDS.	ITEM 409 SEAL COAT BITUMINOUS MATERIAL @ 0.30 GAL/S.Y. GALS.	ITEM 409 SEAL COAT COVER AGGREGATE @ 0.008 C.Y./S.Y. CU. YDS.	ITEM 301 AVG. THICKNESS INCHES	ITEM 301 BITUMINOUS AGGREGATE BASE CU. YDS.
USR 250 INTERCHANGE RAMP SHOULDERS										
USR 250 501+99.44	RAMP "A" 0+60.50	RAMP "A" & S.C. LANE	LT	70.32	3	23	7	0.2	7	4.6
0+60.50	5+59.49		LT	498.99	3	166	50	1.3	7	32.3
5+59.49	6+59.49		LT	100	$\frac{3+6}{2}$ = 4.5	50	15	0.4	7	9.7
6+59.49	11+07.05 BK = 893+75 AH		LT	447.56	6	298	90	2.4	7	58.0
893+75	894+75		LT	100	$\frac{6+8}{2}$ = 7	78	23	0.6	7	15.1
USR 250 502+71	RAMP "A" 0+30.10		LT/RT	23.53	3	8	2	0.1	7	1.5
0+30.10	5+49.49		RT	519.39	3	173	52	1.4	7	33.7
5+49.49	5+59.49		RT	10	$\frac{3+1.5}{2}$ = 2.25	3	1	0.1	7	0.5
RAMP "A" (WESTBOUND EXIT) TOTALS						799	240	6.5		155.4
868+50	870+75 BK = 0+00 AH	S.C. LANE & RAMP "B"	LT	225	$\frac{8+6}{2}$ = 7	175	53	1.4	7	34.0
0+00	3+43.07		LT	343.07	6	229	69	1.8	7	44.5
3+43.07	4+43.07		LT	100	$\frac{6+3}{2}$ = 4.5	50	15	0.4	7	9.7
4+43.07	7+38		LT	294.93	3	98	29	0.8	7	19.1
7+38	8+28		LT	COUNTY ROAD Nº 2 INTERSECTION PAVEMENT						
8+28	12+23.57		LT	395.57	3	132	40	1.1	7	25.6
12+23.57	USR 250 502+13.47		LT/RT	54.98	3	18	6	0.2	7	3.6
4+43.07	4+53.07		RT	10	$\frac{1.5+3}{2}$ = 2.25	3	1	0.1	7	0.5
4+53.07	11+71.61		RT	718.54	3	240	72	1.9	7	46.6
11+71.61	USR 250 503+47.55		RT	81.68	3	27	8	0.2	7	5.3
RAMP "B" (WESTBOUND ENTRANCE) TOTALS						972	293	7.9		188.9
867+00	868+00 BK = 0+00 AH	S.C. LANE & RAMP "C"	RT	100	$\frac{8+6}{2}$ = 7	78	23	0.6	7	15.1
0+00	3+54.30		RT	354.30	6	236	71	1.9	7	45.9
3+54.30	4+54.30		RT	100	$\frac{6+3}{2}$ = 4.5	50	15	0.4	7	9.7
4+54.30	9+60.88		RT	506.58	3	169	51	1.4	7	32.8
4+29.66	4+39.66		LT	10	$\frac{1.5+3}{2}$ = 2.25	3	1	0.1	7	0.5
4+39.66	8+56.40		LT	416.74	3	139	42	1.1	7	27.0
RAMP "C" (EASTBOUND EXIT) TOTALS						675	203	5.5		131.0
USR 250 506+39.41	509+42.96 BK = 0+00 AH	USR 250 CROSSROAD	RT	303.55	6	202	61	1.6	7	39.3
USR 250 506+25.65	507+02		LT	76.35	6	51	16	0.4	7	9.9
USR 250 507+02	CO. RD. 2 20+42		LT	53	6	35	11	0.3	7	6.9
CO. RD. 2 20+42	USR 250 508+08		LT/RT	58	6	39	12	0.3	7	7.5
508+08	509+42.96 BK = 0+00 AH		LT	134.96	6	40	27	0.7	7	17.5
0+00	0+13.32	RAMP "D" & S.C. LANE	LT	13.32	6	9	3	0.1	7	1.7
0+13.32	2+21.73		LT	$\frac{100 \times 55^{\circ}25'59''}{22^{\circ}55'06''}$ = 241.87	6	161	48	1.2	7	31.3
2+21.73	4+24.00		LT	$\frac{202.27 \times 266.18}{234.93}$ = 229.18	6	157	47	1.3	7	30.2
0+00	4+24		RT	424.00	6	283	85	2.3	7	55.0
4+24	8+18.89		RT	394.89	3	132	39	1.1	7	25.6
8+18.89	9+18.89		RT	100	$\frac{3+6}{2}$ = 4.5	50	15	0.4	7	9.7
9+18.89	13+87.89 BK = 882+00 AH		RT	469	6	313	94	2.5	7	60.8
882+00	884+25		RT	225	$\frac{6+8}{2}$ = 7	175	53	1.4	7	34.0
USR 250 CROSS-ROAD & RAMP "D" (EASTBOUND ENT.) TOTALS						1,647	511	13.6		329.4
USR 250 INTERCHANGE RAMP SHOULDER TOTALS						4,093	1,247	33.5		804.7

ABOVE SHOULDER QUANTITIES CARRIED TO SUMMARY ON THIS SHEET

CALCULATION OF RAMP SHOULDER QUANTITIES

STATION FROM	STATION TO	RAMP	SIDE	LENGTH LIN. FT.	WIDTH FT	AREA SQ. YDS.	ITEM 409 SEAL COAT BITUMINOUS MATERIAL @ 0.30 GAL/S.Y. GALS.	ITEM 409 SEAL COAT COVER AGGREGATE @ 0.008 C.Y./S.Y. CU. YDS.	ITEM 301 AVG. THICK. INCHES	ITEM 301 BITUMINOUS AGGREGATE BASE CU. YDS.
S.R. 9 INTERCHANGE RAMP SHOULDERS										
S.R. 9 118+51.50	RAMP "E" 0+56.10	RAMP "E" & S.C. LANE	RT	74	6	49	15	0.4	7	9.6
0+56.10	2+32.43		RT	176.33	6	118	35	0.9	7	22.9
2+32.43	6+82.09		RT	449.66 × $\frac{330.82}{295.82}$ = 506.25	6	338	101	2.7	7	65.6
S.R. 9 119+74.50	RAMP "E" 0+53.50		LT/RT	64	6	43	13	0.3	7	8.3
0+53.50	6+82.09		LT	628.59	6	419	126	3.4	7	81.5
6+82.09	10+98.69		LT	416.60	3	139	42	1.1	7	27.0
10+98.69	11+98.69		LT	100	$\frac{3+6}{2}$ = 4.5	50	15	0.4	7	9.7
11+98.69	13+09.01 BK = 926+49.00 AH		LT	110.32	$\frac{6+8}{2}$ = 7	86	26	0.7	7	16.7
926+49	926+77.68		LT	28.68	8	25	8	0.2	7	5.0
926+77.68	928+14.96		LT	BR. NO. HAS-22-1749 L, USR 22 OVER S.R. 9 (SEE SHEET Nº 50)						
928+14.96	928+80.84		LT	65.88	8	59	18	0.5	7	11.4
928+80.84	929+75.62		LT	BR. NO. HAS-22-1753 L, USR 22 OVER R.R. SPUR (SEE SHEET Nº 50)						
929+75.62	931+00		LT	124.38	8	111	33	0.9	7	21.5
RAMP "E" (WESTBOUND EXIT) TOTALS						1437	432	11.5		279.2
914+25	916+50 BK = 0+00 AH	S.C. LANE & RAMP "F"	LT	225	$\frac{8+6}{2}$ = 7	175	53	1.4	7	34.0
0+00	3+75.76		LT	375.76	6	251	75	2.0	7	48.7
3+75.76	5+07.58		LT	BR. NO. HAS-22-1738 SR, RAMP "F" OVER R.R. SPUR (SEE SHEET 50)						
5+07.58	5+32.58		LT	25	$\frac{6+3}{2}$ = 4.5	13	4	0.1	7	2.4
5+32.58	9+30.28		LT	397.70	3	133	40	1.1	7	25.8
5+31	8+20.28		RT	289.28	3	96	29	0.8	7	18.8
8+20.28	8+30.28		RT	10	$\frac{3+1.5}{2}$ = 2.25	3	1	0.1	7	0.5
RAMP "F" (WESTBOUND ENTRANCE) TOTALS						671	202	5.5		130.2
924+75	926+04.10	S.C. LANE & RAMP "G"	RT	129.10	8	115	34	0.9	7	22.3
927+04.10	927+41.38		RT	BR. NO. HAS-22-1749 R, RAMP "G" OVER S.R. 9 (SEE SHEET Nº 50)						
927+41.38	928+38.38		RT	97	8	86	26	0.7	7	16.8
928+38.38	929+31.56		RT	BR. NO. HAS-22-1753 R, RAMP "G" OVER R.R. SPUR (SEE SHEET Nº 50)						
929+31.56	929+65 BK = 3+90 AH		RT	33.44	8	30	9	0.2	7	5.8
3+90	5+69.09		RT	179.09	$\frac{8+6}{2}$ = 7	139	42	1.1	7	27.1
5+69.09	6+69.09		RT	100	$\frac{6+3}{2}$ = 4.5	50	15	0.4	7	9.7
6+69.09	9+95		RT	325.91	3	109	33	0.9	7	21.1
9+95	14+28.48		RT	433.48	6	289	87	2.3	7	56.2
14+28.48	14+98.48		RT	70	$\frac{6+6.83}{2}$ = 6.42	50	15	0.4	7	9.7
14+98.48	15+71.52		RT	BR. NO. HAS-22-1753 SR, RAMP "G" OVER R.R. SPUR (SEE SHEET Nº 50)						
15+71.52	16+41.52		RT	70	$\frac{6.83+6}{2}$ = 6.42	50	15	0.4	7	9.7
16+41.52	17+44.44		RT	102.92	6	69	21	0.5	7	13.3
17+44.44	S.R. 9 127+72.82		LT/RT	66.88	6	45	13	0.4	7	8.7
9+95	13+23.80		LT	$\frac{328.62 \times 295.18}{361.88}$ = 268.18	6	255	76	2.0	7	49.5
13+23.80	14+28.48		LT	104.68	6	70	21	0.6	7	13.6
14+28.48	14+92.64		LT	64.16	$\frac{6+6.83}{2}$ = 6.42	46	14	0.4	7	8.9
14+92.64	15+65.68		LT	BR. NO. HAS-22-1753 SR, RAMP "G" OVER R.R. SPUR (SEE SHEET Nº 50)						
15+65.68	16+41.52		LT	75.84	$\frac{6.83+6}{2}$ = 6.42	54	16	0.4	7	10.5
16+41.52	17+47.69		LT	106.17	6	71	21	0.6	7	13.8
17+47.69	S.R. 9 128+99.27		LT	73.30	6	49	15	0.4	7	9.5
RAMP "G" (EASTBOUND EXIT) TOTALS						1,577	473	12.6		306.2
0+00	4+30.05	S.C. LANE & RAMP "H"	LT	430.05	3	143	43	1.2	7	27.9
4+30.05	5+30.05		RT	100	$\frac{3+6}{2}$ = 4.5	50	15	0.4	7	9.7
5+30.05	6+70.01 BK = 937+75 AH		RT	139.96	6	93	28	0.8	7	18.1
937+75	940+00		RT	225	$\frac{6+8}{2}$ = 7	175	53	1.4	7	34.0
1+10	3+48.49		LT	238.49	3	80	24	0.6	7	15.5
3+48.49	3+58.49		LT	10	$\frac{3+1.5}{2}$ = 2.25	3	1	0.1	7	0.5
RAMP "H" (EASTBOUND ENTRANCE) TOTALS						544	164	4.5		105.7
S.R. 9 INTERCHANGE RAMP SHOULDER TOTALS						4,229	1,271	34.1		821.3

ABOVE SHOULDER QUANTITIES CARRIED TO SUMMARY ON THIS SHEET

SUMMARY OF SHOULDER QUANTITIES

LOCATION	ITEM 409 BITUMINOUS MATERIAL GALS.	ITEM 409 COVER AGGREGATE CU. YD.	ITEM 301 BITUMINOUS AGGREGATE BASE CU. YD.
MAINLINE OUTSIDE SHOULDER	12,816	341.9	8,224.1
MEDIAN SHOULDER & MEDIAN CROSS-OVER	5,136	137.2	3,366.5
USR 250 INTERCHANGE	1,247	33.5	804.7
S.R. 9 INTERCHANGE	1,271	34.1	821.3
TOTALS	20,470	547.	13,217.

QUANTITIES CARRIED TO GENERAL SUMMARY

SHOULDER CALCULATIONS

QUANTITIES	
Calculated by W.S.E. 12-15-77	Checked by R.E.M. 1-24-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

12/65

HAS 22-(15.03-18.91)

LINEAR GRADING, METHOD 2 & ASPHALT CONCRETE SHOULDER TREATMENT

GUARD RAIL REF. Nº	LOCATION From	LOCATION To	SIDE	LENGTH Lin. Ft.	Item 203 Linear Grading Method 2, As Per Plan Station	Item 404 WIDTH Ft.	Item 404 AREA Sq.Yds.	Item 404 THICKNESS In.	Item 404 Asphalt Concrete Shoulder Treatment As Per Plan Cu.Yds.	Item 408 Prime Coat @0.5 Gal/S.Y. Gals.	Item 409 Seal Coat Bituminous Material @0.3 Gal/S.Y. Gals.	Item 409 Cover Aggregate @0.008 Cu.Yd/S.Y. Cu.Yds.
1	822+51	830+51	Lt.	800	8.00	4	356	2	19.8	178	107	2.8
2	824+14	836+01.5	Rt.	1,187.5	11.88	4	528	2	29.3	264	158	4.2
3	833+50	837+75	Lt.	425	4.25	4	189	2	10.5	94	57	1.5
4	856+75	870+50	Rt.	1,375	13.75	4	611	2	34.0	306	183	4.9
5	857+12.5	867+62.5	Lt.	1,050	10.50	4	467	2	25.9	233	140	3.7
6	874+12.5	876+37.5	Rt.	225	2.25	4	100	2	5.6	50	30	0.8
10	877+28	882+37	Rt.	509	5.09	4	226	2	12.6	113	68	1.8
13	881+50	883+50	Rt.	200	2.00	4	89	2	4.9	44	27	0.7
16	899+25	908+25	Lt.	900	9.00	4	400	2	22.2	200	120	3.2
17	904+94.4	909+44.4	Rt.	450	4.50	4	200	2	11.1	100	60	1.6
19	910+93.2	914+18.2	Lt.	325	3.25	4	144	2	8.0	72	43	1.2
21	911+58.1	913+64.35	Rt.	206.25	2.06	4	92	2	5.1	46	28	0.7
23	919+42.8	920+67.8	Rt.	125	1.25	4	56	2	3.1	28	17	0.4
29	925+33.2	926+68.1	Lt.	134.9	1.35	4	60	2	3.3	30	18	0.5
31	921+89.6	923+14.6	Lt.	125	1.25	4	56	2	3.1	28	17	0.4
33	922+20.7	925+86.2	Rt.	365.5	3.66	4	162	2	9.0	81	49	1.3
34	927+54.2	928+17.7	Rt.	63.5	0.64	4	28	2	1.6	14	8	0.2
36	928+36.0	928+62.0	Lt.	26.0	0.26	4	12	2	0.6	6	3	0.1
37	929+48.5	931+49.5	Rt.	201.0	2.01	4	89	2	5.0	45	27	0.7
43	930+02.8	948+21.6	Lt.	1818.75	18.19	4	808	2	44.9	404	243	6.5
44	938+45	967+61.5	Rt.	912.5	9.13	4	406	2	22.5	203	122	3.2
45	960+35.25	967+75	Rt.	743.75	7.44	4	331	2	18.4	165	99	2.6
46	964+50	967+26	Lt.	275	2.75	4	122	2	6.8	61	37	1.0
47	978+16	985+50	Rt.	750	7.50	4	333	2	18.5	167	100	2.7
48	979+00	984+85	Lt.	575	5.75	4	256	2	14.2	128	77	2.0
49	992+00	992+37.5	Lt.	37.5	0.38	4	17	2	0.9	8	5	0.1
50	1001+37.5	1017+73	Lt.	1,800	18.00	4	800	2	44.4	400	240	6.4
51	1002+26	1016+68	Rt.	1,587.5	15.88	4	706	2	39.2	353	212	5.6
52	1024+03.3	1033+22	Rt.	918.75	9.19	4	408	2	22.7	204	123	3.3
53	1024+00	1033+50	Lt.	950	9.50	4	422	2	23.5	211	127	3.4
54	1039+02.5	1047+77.5	Rt.	875	8.75	4	389	2	21.6	194	117	3.1
55	1039+15	1048+02.5	Lt.	887.5	8.88	4	394	2	21.9	197	118	3.2
56	1051+00	1056+50	Lt.	550	5.50	4	244	2	13.6	122	73	2.0
57	1051+28	1057+03	Rt.	575	5.75	4	256	2	14.2	128	77	2.0
TOTAL QUANTITIES					219.54				542.0	4877	2,930	77.8
					Carried To Summary This Sheet				Above Quantities Carried To General Summary			

CALCULATION OF ITEM 203 - LINEAR GRADING, METHOD 1

DESCRIPTION OF CALCULATION			LOCATION From	LOCATION To	CORRECTIONS LIN. FT.	Linear Grading Method 1 As Per Plan LIN. FT.	STATIONS
Gross Length (One Direction)			795+45	1061+05		26,560.00	
Add For Equation			1083+25.70 Ahd.	1071+67.06 Ahd.	+158.64	+158.64	
					SUBTOTAL	26718.64	
Double For Both Directions (E. Bound & W. Bound)					2 x 26,718.64 =	53,437.28	
Deduct For Bridge No's	HAS 22-17.17 L		908+45.78	910+85.66	239.88		
	HAS 22-17.17 R		909+53.34	911+39.22	185.88		
	HAS 22-17.38 L		920+48.00	921+79.56	131.56		
	HAS 22-17.38 R		920+76.44	922+08.00	131.56		
	HAS 22-17.49 L		926+77.68	928+14.96	137.28		
	HAS 22-17.49 R		926+04.10	927+41.38	137.28		
	HAS 22-17.53 L		928+80.84	929+72.62	91.78		
	HAS 22-17.53 R		928+38.38	929+31.56	93.18		
TOTAL Deduction For Bridges					1,151.40 =	-1,151.40	
Deduct For Inter-sections	West Conn.	E.B.	837+70±	838+78±	108		
	Moore Road	W.B.	973+72±	974+00±	28		
		E.B.	974+09±	974+31±	22		
	Co. Rd. #51	W.B.	1019+18±	1020+09±	91		
		E.B.	1018+76±	1019+53±	77		
TOTAL Deduction For Intersections					326 =	-326	
					SUBTOTAL	5,959.88	
Convert Units From Lin. Ft. To Stations					1 Station / 100 L.F. x 5,959.88		59.60
Deduct Item 203 Linear Grading, Method 2 Quantity							-219.54
ITEM 203 - LINEAR GRADING, METHOD 1					TOTAL QUANTITY		300.06

CALCULATION OF ITEM 203 - LINEAR GRADING, METHOD 3

DESCRIPTION OF CALCULATION			LOCATION From	LOCATION To	CORRECTIONS LIN. FT.	Linear Grading Method 3 As Per Plan LIN. FT.	STATIONS
Gross Length	West Bound Lanes		814+74.19	1001+98.57		19,724.38	
	East Bound Lanes		809+89.35	1001+98.57		19,209.22	
					SUBTOTAL	37,933.60	
Deduct For Bridge No's	HAS-22-17.17 L		908+70.96	911+10.84	239.88		
	HAS-22-17.17 R		909+28.16	911+14.04	185.88		
	HAS-22-17.38 L		920+56.89	921+88.45	131.56		
	HAS-22-17.38 R		920+67.55	921+99.11	131.56		
	HAS-22-17.49 L		926+65.93	927+89.21	137.28		
	HAS-22-17.49 R		926+29.85	927+67.13	137.28		
	HAS-22-17.53 L		928+65.98	929+60.76	94.78		
	HAS-22-17.53 R		928+38.24	929+46.92	93.18		
TOTAL Deduction For Bridges					1,151.40 =	1,151.40	
Deduct For Inter-sections	Western Connection	W.B.	837+09±	838+37±	128		
		E.B.	837+70±	838+18±	48		
	Moore Road	W.B.	973+63±	975+04±	141		
		E.B.	973+08±	974+57±	149		
TOTAL Deduction For Intersections					466 =	-466	
					SUBTOTAL	36,316.20	
Convert Units From Lin. Ft. To Stations					1 Station / 100 LF x 36,316.20		363.16
ITEM 203 - LINEAR GRADING, METHOD 3					TOTAL QUANTITY		363.16

CALCULATION OF ITEM 203, LINEAR GRADING METHOD 5

STATION From	STATION To	ROAD	SIDE	LENGTH Lin. Ft.	Linear Grading Method 5 As Per Plan Lin. Ft.	Stations
U.S.R. 250 INTERCHANGE						
503+47.55	503+89.80	U.S.R. 250	Rt.	42.25	42	
502+71	503+67.72		Lt.	96.72	97	
20+42	22+33	Co. Rd. 2	Rt.	191	191	
20+42	23+00		Lt.	258	258	
U.S.R. 250 INTERCHANGE TOTAL					588	5.88
S.R. 9 INTERCHANGE						
112+45.5	118+51.5	S.R. 9	Rt.	606	606	
119+74.5	127+23.75		Rt.	749.25	749	
113+50	126+86		Rt.	1336	1336	
S.R. 9 INTERCHANGE TOTAL					2,691	26.91
ITEM 203 Linear Grading Method 5 As Per Plan TOTAL					3,279	32.79

SUMMARY OF ITEM 203 - LINEAR GRADING

ITEM Nº	DESCRIPTION	TOTAL STATIONS
203	Linear Grading, Method 1 As Per Plan	300
203	Linear Grading, Method 2 As Per Plan	220
203	Linear Grading, Method 3 As Per Plan	363
203	Linear Grading, Method 4 As Per Plan	115
203	Linear Grading, Method 5 As Per Plan	33
QUANTITIES ABOVE CARRIED TO GENERAL SUMMARY		

CALCULATION OF ITEM 203 - LINEAR GRADING, METHOD 4

STATION From	STATION To	Ramp or Road	SIDE	LENGTH Lin. Ft.	Linear Grading Method 4 As Per Plan Lin. Ft.	Station
U.S.R. 250 INTERCHANGE						
U.S.R. 250 501+99.44	Ramp A 0+60.30	Ramp "A"	Lt.	70.32	70	
0+60.5	0+59.49		Lt.	598.99	599	
U.S.R. 250 502+71	Ramp A 0+30.10		Lt./Lt.	23.53	24	
0+30.10	5+59.49		Rt.	529.39	529	
RAMP "A" (W. Bound Exit) TOTAL					1,222	12.22
3+43.07	7+38	Ramp "B"	Lt.	394.93	395	
8+28	12+23.57		Lt.	395.57	396	
12+23.57	U.S.R. 250 502+73.48		Lt./Rt.	54.98	55	
4+43.07	11+71.61		Rt.	728.54	729	
11+71.61	U.S.R. 250 503+47.55		Rt.	81.68	82	
RAMP "B" (W.B Entrance) TOTAL					1,657	16.57
3+54.30	9+60.88	Ramp "C"	Rt.	606.58	607	
4+29.66	8+56.40		Lt.	426.74	427	
RAMP "C" (E. Bound Exit) TOTAL					1,034	10.34
U.S.R. 250 506+39.41	309+42.96 Ah. = 0+00 Ah.	U.S.R. 250 Cross Road	Rt.	303.55	304	
U.S.R. 250 506+23.65	507+02		Lt.	76.35	76	
507+02	Co. Rd. 2 20+42		Lt.	53	53	
Co. Rd. 2 20+42	U.S.R. 250 508+08		Rt./Lt.	58	58	
508+08	509+42.96 Ah. = 0+00.00 Ah.		Lt.	134.96	135	
0+00	2+21.73		Lt.	221.73	222	
2+21.73	4+24.00		Lt.	202.27 + 32.73 = 235	235	
0+00	9+18.89		Rt.	918.89	919	
U.S.R. 250 Cross Road & Ramp "D" (E.B. Ent.) TOTAL					2,002	20.02
U.S.R. 250 INTERCHANGE TOTAL					5,915	59.15
S.R. 9 INTERCHANGE						
S.R. 9 118+51.5	Ramp E 0+56.10	Ramp "E"	Rt.	74	74	
0+56.10	2+32.43		Rt.	176.33	176	
2+32.43	6+82.09		Rt.	449.66 + 330.83 - 1506.28 = 274.21	506	
S.R. 9 119+74.5	Ramp E 0+23.50		Rt./Lt.	64	64	
0+53.50	11+98.69		Lt.	1,145.19	1,145	
RAMP "E" (W Bound Exit) TOTAL					1,965	19.65
Rt 43.72	3+75.76	Ramp "F"	Lt.	132.04	132	
5+07.58	9+30.28		Lt.	422.70	423	
5+31	8+30.28		Rt.	299.28	299	
RAMP "F" (W. Bound Entrance) TOTAL					854	8.54
5+69.09	14+98.48	Ramp "G"	Rt.	929.39	929	
15+71.32	17+44.44		Rt.	172.92	173	
17+44.44	S.R. 9 127+72.82		Rt./Lt.	66.88	67	
9+95	13+23.80		Lt.	328.80 x 244.48 - 391.88 x 237.76 = 382	382	
13+23.80	14+92.64		Lt.	168.84	169	
15+65.68	17+47.69		Lt.	182.01	182	
17+47.69	S.R. 9 128+98.27		Lt.	73.30	73	
RAMP "G" (E. Bound Exit) TOTAL					1,975	19.75
0+00	5+30.05	Ramp "H"	Rt.	530.05	530	
1+10	3+58.49		Lt.	248.49	248	
RAMP "H" (E Bound Entrance) TOTAL					778	7.78
S.R. 9 INTERCHANGE TOTAL					5,572	55.72
ITEM 203 - LINEAR GRADING METHOD 4, As Per Plan TOTAL					11,487	114.87

CALCULATIONS

Calc. By: J.C.N. Date: 1-11-78
Chkd. By: W.S.K. Date: 1-12-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

13/65

HAS-22-(15.03-18.91)

659 ~ SEEDING AND MULCHING

MAINLINE ~ OUTSIDE SHOULDERS

Total Length of Shoulders = 53,017.28 L.F.
Deduct for Length of Bridges = 1,142.40 L.F.
Deduct for Guard Rail = 22,455.00 L.F.
29,419.88 L.F. × 4.0' ÷ 9 = 13,075.5 Sq. Yds.

MAINLINE ~ MEDIAN

Total Length of Normal Sections = 27,134.00 L.F.
Deduct for Length of Bridges 1,142.40 L.F.
25,991.60 L.F. × 4.0' ÷ 9 = 11,551.8 Sq. Yds.
Total Length of Superelevated Sections = 10,750.00 L.F.
10,750.00 L.F. × 2.0' ÷ 9 = 2,388.9 Sq. Yds.

RAMP "A"

1,195.74 L.F. × 3.0' ÷ 9 = 398.6 Sq. Yds.
84.0 L.F. × 5.0' ÷ 9 = 46.7 Sq. Yds.

RAMP "B"

1,598.77 L.F. × 3.0' ÷ 9 = 532.9 Sq. Yds.
55.0 L.F. × 5.0' ÷ 9 = 30.6 Sq. Yds.

RAMP "C"

1,016.62 L.F. × 3.0' ÷ 9 = 338.9 Sq. Yds.
66.0 L.F. × 5.0' ÷ 9 = 36.7 Sq. Yds.

RAMP "D"

1,539.98 L.F. × 1.0' ÷ 9 = 1,171.1 Sq. Yds.
448.0 L.F. × 3.0' ÷ 9 = 149.3 Sq. Yds.
60.0 L.F. × 5.0' ÷ 9 = 33.3 Sq. Yds.

RAMP "E"

1,449.20 L.F. × 1.0' ÷ 9 = 166.0 Sq. Yds.
416.6 L.F. × 3.0' ÷ 9 = 138.7 Sq. Yds.
89.0 L.F. × 5.0' ÷ 9 = 49.4 Sq. Yds.

RAMP "F"

798.74 L.F. × 3.0' ÷ 9 = 266.2 Sq. Yds.
53.0 L.F. × 5.0' ÷ 9 = 29.4 Sq. Yds.

RAMP "G"

409.0 L.F. × 3.0' ÷ 9 = 136.3 Sq. Yds.
91.0 L.F. × 5.0' ÷ 9 = 50.6 Sq. Yds.
1,549.31 L.F. × 4.0' ÷ 9 = 688.6 Sq. Yds.
Deduct Area Under Guard Rail: 750.0 L.F. × 3.0' ÷ 9 = -250.0 Sq. Yds.
625.5 Sq. Yds. → 625.5 Sq. Yds.

RAMP "H"

735.49 L.F. × 3.0' ÷ 9 = 245.2 Sq. Yds.
172.0 L.F. × 5.0' ÷ 9 = 95.6 Sq. Yds.
Add For Removal of Exist. Med. X-Overs (From Sh. Nº 48) 1,364.0 Sq. Yds.

MEDIAN CROSS SECTIONS

(From Sheet Nº 41) Sta. 880+25 to Sta. 883+13 = 807.0 Sq. Yds.
(From Sheet Nº 42) Sta. 911+75 to Sta. 914+75 = 809.0 Sq. Yds.

TOTAL SEEDING = 33,350.3 Sq. Yds.

ITEM 659 ~ COMMERCIAL FERTILIZER

$\frac{33,350.3 \text{ Sq. Yds} \times 9 \times 20}{2,000 \times 1,000} = 3.00 \text{ Tons}$

ITEM 659 ~ AGRICULTURAL LIMING

$\frac{33,350.3 \text{ Sq. Yds.} \times 9 \times 100}{2,000 \times 1,000} = 15.01 \text{ Tons}$

PRESSURE RELIEF JOINTS

	STATION LOCATION WESTBOUND	STATION LOCATION EASTBOUND	ITEM SPECIAL PRES. RELIEF JOINTS Type "C" to Resurfacing ROADWAY WESTBOUND (LIN. FT.)	ITEM SPECIAL PRES. RELIEF JOINTS Type "C" to Resurfacing ROADWAY EASTBOUND (LIN. FT.)	ITEM 605 AGGREGATE DRAINS (For Pres. Relief Joints Only) WESTBOUND Outside Shoulder (LIN. FT.)	WESTBOUND Median Shoulder (LIN. FT.)	EASTBOUND Median Shoulder (LIN. FT.)	EASTBOUND Outside Shoulder (LIN. FT.)
2-LANE	804+75		28.1		15		—	
4-LANE DIVIDED	815+25	814+90	24.1	24.1	16	16	16	16
	825+50	824+90	24.1	24.1	16	16	16	16
	835+75	834+90	24.1	24.1	16	16	16	16
	846+00	846+00	24.1	24.1	16	16	16	16
	856+25	856+20	24.1	24.1	16	16	16	16
	866+50	866+20	24.1	24.1	16	16	16	16
	876+50	876+20	24.1	24.1	16	16	16	16
	887+00	886+20	24.1	24.1	—	16	—	16
	897+00	896+20	24.1	24.1	—	16	—	16
	907+43	908+26	24.1	24.1	16	16	16	16
	919+61	919+78	24.1	24.1	14	16	16	16
	930+82	930+53	26.3	40.1	14	16	16	12
	941+00	941+50	24.1	24.1	—	16	—	16
	951+00	952+50	24.1	24.1	16	16	16	16
	962+50	963+50	24.1	24.1	16	16	16	16
	973+25	975+00	24.1	24.1	16	—	16	—
	985+50		24.1		16	—		—
	996+50	996+50	24.1	24.1	—	12	—	16
2-LANE	1007+50		28.5		—		14	
	1016+00		24.1		14		14	
	1026+00		24.1		14		14	
	1036+00		24.1		15		15	
	1046+00		24.1		14		14	
	1056+00		24.1		14		14	
	Subtotals 2-Lane		177.1		86		85	
	Subtotals 4-Lane Divided		436.0	425.7	220	252	208	252
	TOTALS		1048.1		1103			
			Carried to General Summary		Carried to Item 605 ~ Aggr. Drain Summary, This Sheet			

CONCRETE GUTTER REMOVAL

ITEM 202 Portion of 6" Concrete Gutter Removed

LOCATION	WESTBOUND Outside Shoulder 8×4÷9=3.6 Sq. Yd.	WESTBOUND Median Shoulder 4×4÷9=1.8 Sq. Yd.	EASTBOUND Median Shoulder 4×4÷9=1.8 Sq. Yd.	EASTBOUND Outside Shoulder 8×4÷9=3.6 Sq. Yd.
814+72	3.6			3.6
814+72	3.6	1.8	1.8	3.6
819+53	3.6	1.8	1.8	3.6
824+54	3.6	1.8	1.8	3.6
829+69	3.6	—	—	—
834+55	3.6	—	—	—
948+50	3.6	1.8	1.8	3.6
953+50	3.6	1.8	1.8	3.6
958+50	3.6	1.8	1.8	3.6
986+00	3.6	—	1.8	—
991+00	3.6	1.8	1.8	3.6
999+75	—	—	—	3.6
1004+45	—	—	—	3.6
1009+40	—	—	—	3.6
Subtotal	39.6	12.6	14.4	39.6

TOTAL = 106.2 Sq. Yds.

ITEM 605 - AGGREGATE DRAINS

WESTBOUND LOCATION From	To	Number of Drains Each	Average Length Lin. Ft.	Item 605 Aggregate Drains Lin. Ft.	EASTBOUND LOCATION From	To	Number of Drains Each	Average Length Lin. Ft.	Item 605 Aggregate Drains Lin. Ft.
MAINLINE									
795+45	801+00	22	14.5	319.0	795+45	800+75	21	14.5	304.5
801+00	801+43.92	2	14.5	29.0	800+75	801+43.92	3	14.5	43.5
801+43.92	815+25	56	15.5	868.0	801+43.92	808+00	26	15.5	403.0
815+25	883+25	272	15.5	4,216.0	808+00	883+25	301	15.5	4,665.5
883+25	897+00	55	15.5	852.5	883+25	896+75	54	15.5	837.0
897+00	931+50	138	15.5	2,139.0	896+75	931+50	139	15.5	2,154.5
931+50	943+50	48	15.5	744.0	931+50	943+50	48	15.5	744.0
943+50	965+00	86	15.5	1,333.0	943+50	964+75	85	15.5	1,317.5
965+00	987+75	91	15.5	1,410.5	964+75	988+00	93	15.5	1,441.5
987+75	991+25	14	15.5	217.0	988+00	992+75	19	15.5	294.5
991+25	1010+00	75	15.5	1,162.5	992+75	1009+75	68	15.5	1,054.0
1010+00	1061+05	105	14.5	1,522.5	1009+75	1061+05	106	14.5	1,537.0
SUBTOTAL				14,813.0	SUBTOTAL				14,796.5

TOTAL MAINLINE = 29,609.5 Lin. Ft.

CROSSROADS & RAMPS

LOCATIONS	Number of Drains Each	Average Length Lin. Ft.	Item 605 Aggregate Drains Lin. Ft.
U.S. 250	11	13.5	148.5
RAMP "A"	12	13.5	162.0
RAMP "B"	19	13.5	256.5
RAMP "C"	12	13.5	162.0
RAMP "D"	35	13.5	472.5
RAMP "E"	43	13.5	580.5
RAMP "F"	20	13.5	270.0
RAMP "G"	38	13.5	513.0
RAMP "H"	13	13.5	175.5

ITEM 605 - AGGREGATE DRAIN SUMMARY

Mainline	29,609.5 Lin. Ft.
U.S. 250	148.5 Lin. Ft.
Ramp "A"	162.0 Lin. Ft.
Ramp "B"	256.5 Lin. Ft.
Ramp "C"	162.0 Lin. Ft.
Ramp "D"	472.5 Lin. Ft.
Ramp "E"	580.5 Lin. Ft.
Ramp "F"	270.0 Lin. Ft.
Ramp "G"	513.0 Lin. Ft.
Ramp "H"	175.5 Lin. Ft.
@ Pressure Relief Joints	1103.0 Lin. Ft.
TOTAL	= 33,453.0 Lin. Ft.

TRAFFIC DIVIDER REMOVALS

LOCATIONS	From	To	Item 202 Precast Traffic Dividers Removed Each	Item 403 Asphalt Concrete Cu. Yd.
Mainline	805+85	807+82	34	[2.20 S.F. × 2/12 ÷ 27] 34 = 0.5
Ramp "B"	8+31	12+00	31	[2.20 S.F. × 2/12 ÷ 27] 31 = 0.4
Ramp "D"	0+00	2+02	20	[2.20 S.F. × 2/12 ÷ 27] 20 = 0.3
Mainline	999+49	1006+52	88	[2.20 S.F. × 2/12 ÷ 27] 88 = 1.2
TOTALS			173	2.4

EARTHWORK SUMMARY

LOCATION From	To	ITEM 203 Excavation Cu. Yd.	Embankment Cu. Yd.
880+25	883+12.25	0	246
911+75	914+75	7	184
983+44	985+24	88	0
TOTALS		95	432

SUBGRADE COMPACTION

LOCATIONS	Item 203 Subgrade Compaction Sq. Yd.
Under Paved Shoulders	68,023
Pav't. Replacement (983+44 to 985+24	480
TOTAL	68,503

ALL QUANTITIES THIS SHEET CARRIED TO GENERAL SUMMARY

CALCULATIONS

GENERAL NOTES

FHWA REGION	STATE	PROJECT	
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HAS-22-(15.03-18.91)

FIELD OFFICE:
The Contractor shall provide a suitable field office having a minimum of 400 Sq.Ft. of floor space and in addition to the requirements of Item 619, he shall provide and maintain sanitary provisions as per 107.06. All the above is included in the lump sum price bid for Item 619, Field Office.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS:
The rounded corners shown on the typical sections, apply to all cross sections even though otherwise shown on these plans.

ESTIMATED QUANTITIES:
Specific locations and usage of estimated quantities set up on this plan to be used "as directed by the Engineer" shall be made a matter of record by incorporation into the final change order governing completion of this project. Estimated quantities of materials shall not be ordered for delivery to the project unless authorized by the Engineer.

ALIGNMENT AND PROFILE:
The work proposed by this project is for the resurfacing of the existing pavement. The alignment of the existing pavement will not be changed and the profile of the proposed surface will be similar to that of the existing pavement except that it will be raised an amount equal to the thickness of the resurfacing course or courses specified in these plans except for the areas shown on sheet No. 10 where extra material has been provided for profile correction.

TRENCH FOR PAVED SHOULDER:
Trench excavation for paved shoulder construction shall be performed only on one side of the pavement at a time. The open trench shall be adequately maintained and protected with drums or barricades at all times. Placement of proposed 301 Bituminous aggregate base shall follow as closely as possible behind the excavation operations. The length of 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.

ITEM 848~ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, AS PER PLAN:
A 4 Ft. width adjacent to the outside paved shoulder in guard rail areas shall be paved with a 2" compacted course of Item 848 Asphalt Concrete as shown on the Typical Sections and Outside Shoulder Details.

Prior to placing this material a soil sterilizer using one of the following brands shall be applied at the rate recommended by the manufacturer: 1.) Paraquat C.L. by Ortho ; 2) Pramitol 25 E by Ciba-Geigy; 3.) Krovar by Diamond Shamrock or approved equal.

Item 408 Prime Coat using 702.02, MC-30 or MC-70; 702.03, primer 20; or 702.09, RT-2 or RT-3 shall be applied at the rate of 0.5 gal./sq.yd. prior to placing the 848 Asphalt Concrete.

After the 848 has been placed and compacted, the surface shall be treated with Items 409 Bituminous Material and Cover Aggregate as per the mainline shoulder treatment.

Holes for guard rail posts shall then be bored and posts installed. The disturbed area around each post shall then be backfilled with 848 and surface treated with 409 as before.

Payment for all the above described work, including furnishing and application of soil sterilizer, shall be included in the unit price bid per cubic yard for Item 848 ~Asphalt Concrete Surface Course type1 , as per plan with the following exceptions:

Prime coat shall be paid for at the unit price bid for Item 408~Prime Coat; and Surface Treatment shall be paid for at the unit price bid for the respective 409 Seal Coat Bituminous Material and Cover Aggregate Items.

ITEM 203~LINEAR GRADING, AS PER PLAN:
This work shall include all excavation and embankment required to construct paved shoulders, median cross-overs, asphalt concrete shoulder treatment in specified areas, and grading beyond paved shoulders in accordance with the typical sections, plan details, calculations and as specified herein.

Any excess turf, material build-up or excavated material shall be removed and disposed of by the Contractor or wasted over fill slopes at the direction of the Engineer.

Payment for this work will be made under the appropriate linear grading items as follows:

1.) Item 203~Linear Grading, method 1~ this item shall apply to mainline and speed change lane outside shoulder areas without guardrail and asphalt concrete shoulder treatment.

2.) Item 203~Linear Grading, method 2~ this item shall apply to mainline and speed change lane outside shoulder areas with guardrail and asphalt concrete shoulder treatment.

3.) Item 203~Linear Grading, method 3~ this item shall apply to all mainline median shoulder areas and shall include all excavation and embankment required to construct median cross-overs and to remove and/or obliterate existing median cross-overs where specified on the plan sheets. (See Note on sheet No. 48)

4.) Item 203~Linear Grading, method 4~ this item shall apply to all ramps, cross-roads, or intersecting roads where paved shoulders are being constructed.

5.) Item 203~Linear Grading, method 5~ this item shall apply to all cross-roads & intersecting roads where guardrail only is being constructed. This item shall consist of grading the existing shoulder between the pavement edge and the shoulder breakpoint and removing excess turf and material in the vicinity of the guardrail to provide a positive slope away from the pavement. A slope of approximately 1" per Ft. shall be provided in these areas. The Engineer shall determine the need for this item during construction and shall non-perform this item in any areas where it is not necessary.

The method of measurement shall be considered as one station per 100 linear Ft. measured separately for Eastbound and Westbound lanes and for each ramp, cross-road, or intersecting road paved shoulder area and for each cross-road or intersecting road guardrail construction area.

Payment for all of the above described work shall be included in the unit price bid per station for the appropriate method of Item 203~Linear Grading, as per plan.

ITEM 605 AGGREGATE DRAINS:
Aggregate drains shall be placed at fifty (50) foot intervals on each side of normal crowned sections and at twenty-five (25) foot intervals on the low side only of superelevated sections, except where Item 605 Pipe Underdrains have been provided.

LOCATION OF GUARDRAIL:
The location of guardrail runs as shown in these plans are subject to adjustment to assure that the planned installations will afford maximum protection for traffic.

PUBLIC SAFETY:
No hazard shall be left unprotected except for the actual time necessary to remove, grade, install asphalt concrete shoulder protection (where specified) and reinstall guard rail in a continuous operation. The removal of all guard rail shall at all times be as directed by the Engineer. No guard rail shall be removed until the replacement material is on the site, ready for installation. Failure to comply with this requirement shall be deemed sufficient cause to order work suspended on this project until such time the Engineer is assured of said compliance.

GUARD RAIL REMOVED FOR STORAGE
Guard rail designated for removal on this project shall be carefully dismantled and the salvageable rail elements stored on the project for removal by State forces. All posts, blocks, bolts, damaged rail and other material not considered salvageable shall be disposed of as directed. All post holes shall be carefully filled and tamped and the site cleaned and restored.

Site restoration will include grading of the shoulder in the area of the guard rail removal to provide proper shoulder drainage and smooth shoulder slopes where traffic or weather may have built a ridge of earth and debris under the guard rail. The graded or disturbed area shall be reseeded except where new guard rail is to be constructed, an area under the new guard rail 3' wide, measured from one foot in front of the rail (for centered under guard rail, barrier design) shall not be seeded.

Payment for all of the above shall be at the unit price bid for 202 Guard rail removed for storage or 202 Guard rail, barrier design, removed for storage, measured by the linear foot center to center of terminal posts or center of bridge connection splices.

GUARD RAIL OVER CULVERTS:
When sufficient post depth is not available due to a culvert, the guard rail posts directly over the culvert shall not be driven but set in holes. If the distance between the ground line and the top of the culvert is less than 3 Ft., the post shall be encased in a minimum of 4" thickness of Class C concrete for the full depth of the post. Payment for the above shall be included in the unit price bid for Item 606, Guard Rail, Type 5 or Item 606 Guard Rail, Type 5, Barrier Design.

GENERAL NOTES

Calculated By	Checked By
W.S.R. 1-24-78	E.E.H. 1-25-78

FHWA REGION	STATE	PROJECT	
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MAINTAINING TRAFFIC:

~ U.S.R. 22:

Two-way traffic shall be maintained at all times, except that one-way traffic will be permitted in two lane sections for minimum periods of time, consistent with the specifications for protection of completed asphalt concrete surface courses.

At least one lane of traffic shall be maintained in each direction in the four lane section. Temporary cross-over roads shall be provided as shown on sheet Nos. 16 thru. 20, during reconstruction of decks on bridge Nos. HAS-22-17.17 L&R. The length of restricted traffic zones in the remainder of the four lane section shall be kept to a minimum, consistent with the specification requirements for the protection of the work items which necessitate the restriction.

~ RAMPS:

Ramp traffic shall be maintained at all times, by use of portions of existing and resurfaced pavement, existing and overlayed portions of bridge decks, and temporary roadways on the existing shoulders surfaced with 410 aggregate and stabilized with 616 Calcium Chloride.

The limits and duration of use of temporary roadways shall be held to an absolute minimum and in all cases shall be subject to the approval of the Engineer.

The following estimated quantities have been included in the General Summary for the above purposes:

Item 410 ~ Traffic compacted surface, Type A or B	150	C.Y.
Item 616 ~ Water	3	M. Gal.
Item 616 ~ Calcium Chloride	3	Tons

Particular care shall be exercised during construction of the concrete deck overlays, on Bridge Nos. Has-22-17.38 SR (Ramp "F") and Has-22-17.53 SR (Ramp "G"), so as to minimize impacts of traffic on the bridge decks by means of signs, flagmen, trooper with patrol car and other means as directed by the Engineer.

~ GENERAL:

In addition to the requirements of Item 614 and Sh. Nos. 21 thru 22, a uniformed special duty State Highway Patrolman and an official patrol car with emergency flashers operating shall be provided at the approach end of any portion of work, excluding resurfacing and deck replacement, which closes a lane to traffic during working hours or at other locations as requested by the Engineer. Arrangements and payments by the contractor for special duty Patrol services may be made by contacting the Ohio Highway Patrol, 660 East Main Street, Columbus Ohio, Telephone 466-2660.

The following estimated quantities have been included in the General Summary:

Item Special ~ Trooper with Patrol Car ..... 450 Hrs.

To direct traffic through this construction project, temporary pavement marking shall be used. The Contractor shall at all times provide positive lane delineation where the existing lines have been obliterated due to paving operations. The material used for delineation shall be in accordance with the note in the proposal and shall consist of two reflectorized plastic discs 6" in diameter or 6" square placed in tandem, or 12"x4" tape. The marks shall be located on the final center, lane, or channelizing line locations and spaced at 20'-0" for center and channelizing lines and 30'-0" for lane lines. No traffic will be permitted on new 402, 403, or 404 material until the positive lane delineation is in place. The marks shall be yellow, where yellow lines are indicated in the plans, and white where white lines are indicated. When the 404 surface course is being constructed the discs, when used shall be placed prior to the final rolling.

Except as noted, payment for all the above shall be included in the lump sum bid for Item 614 ~ Maintaining Traffic.

TACK COAT:

The Tack Coat operation shall be as determined at a pre-construction conference, as per 407.05 and application rates shall not exceed 0.10 gal per sq. yd..

FEATHERING:

The new surface shall be feathered to meet the existing pavement, at the beginning and end of the project in accordance with Standard Drawing BP-5 and Details on Sheet No. 49

310 SUBBASE GRADING "A" AS PER PLAN:

Material for this Item shall meet the requirements of grading "A" of 310.02 after all operations of placing and compacting have been completed.

NON-PERFORMANCE OF PRESSURE RELIEF JOINTS:

If a full width (= 24 Ft.), full depth rigid pavement removal and flexible replacement occurs within 500 feet of a proposed pressure relief joint, that pressure relief joint shall be non-performed.

ITEM SPECIAL ~ PRESSURE RELIEF JOINTS, TYPE C, WITH RESURFACING:

Items 405 or 921 as shown on standard drawing BP-11 shall be placed immediately upon removal of the existing pavement.

PREVIOUS CONSTRUCTION PLANS:

The following construction plans are available for reference by contacting the District 11 Office in New Philadelphia, Ohio.

HAS-22-15.09
HAS/JEF-22-18.97/0.00

ITEM 606-BRIDGE TERMINAL ASSEMBLY, TYPE J, MODIFIED AS PER PLAN:

This Item shall conform to the provisions of Standard Drawing GR-38, except that one additional encased post shall be placed midway between the first post and the bridge parapet regardless of the panel length.

ITEM 202-PORTIONS OF 6" CONCRETE GUTTER REMOVED:

This Item shall consist of the full depth removal of all portions of existing transverse concrete gutters within the limits of the new paved shoulder. Portions of concrete gutter beyond the limits of the new paved shoulder shall not be disturbed.

Any voids resulting from the removal of the concrete gutter shall be backfilled to the bottom of the new paved shoulder in accordance with the provisions of 203.

Payment for all of the above work shall be included in the unit price bid for Item 202 ~ Portions of 6" Concrete Gutter Removed.

EROSION CONTROL:

Item 601 is provided in the plans for erosion control. Rock or turf of a stable nature will not be removed in order to place any of these items. The Engineer shall check and non-perform quantities or adjust locations and quantities for these items where indicated by field conditions during construction.

SEEDING:

Quantities for seeding are calculated for the soil areas between the work limits, as shown on the typical sections and median cross-sections.

848, ASPHALT CONCRETE:

Subsequent to the completion of the Plans, the asphalt concrete used on this Project has been revised from Items 402, 403, and 404. To Supplemental Specification 848. All reference to 402, 403, and 404 appearing on the plans shall be considered to read a follows:

402 becomes 848 Asphalt concrete Intermediate Course, type 2
403 becomes 848 Asphalt concrete Intermediate Course, type 1
404 becomes 848 Asphalt concrete Surface Course, type 1

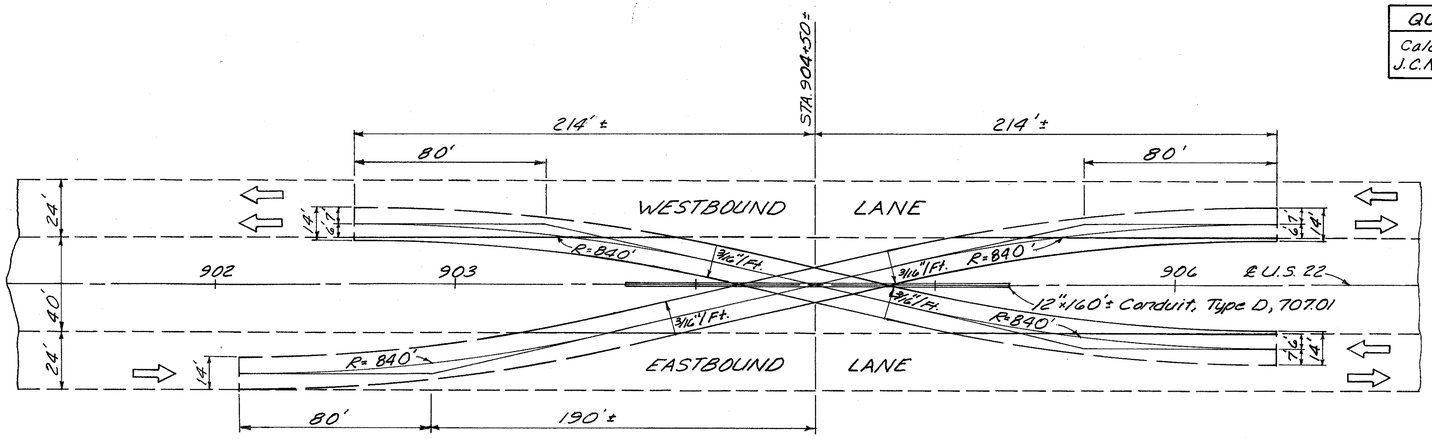
On this project, Item 848, Table 2-2, properties of mixtures shall be for HEAVY Traffic volumes.

QUANTITIES	
Calc. By: J.C.N. 1-17-78	Checked By: REM. 2-2-78

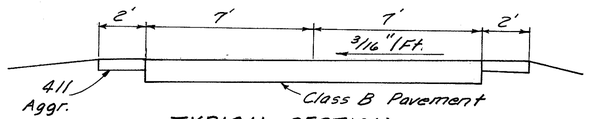
FHWA REGION	STATE	PROJECT	
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TEMPORARY CROSS-OVER AT WEST END OF BRIDGE Nº'S HAS-22-1717 L & R



TYPICAL SECTION OF TEMPORARY PAVEMENT

The following items have been entered in the General Summary.

Item 615- Temporary Pavement, Class B -- 1400 Sq. Yd.
Item 615- Temporary Roads ---------- Lump Sum

TRAFFIC MAINTENANCE NOTE

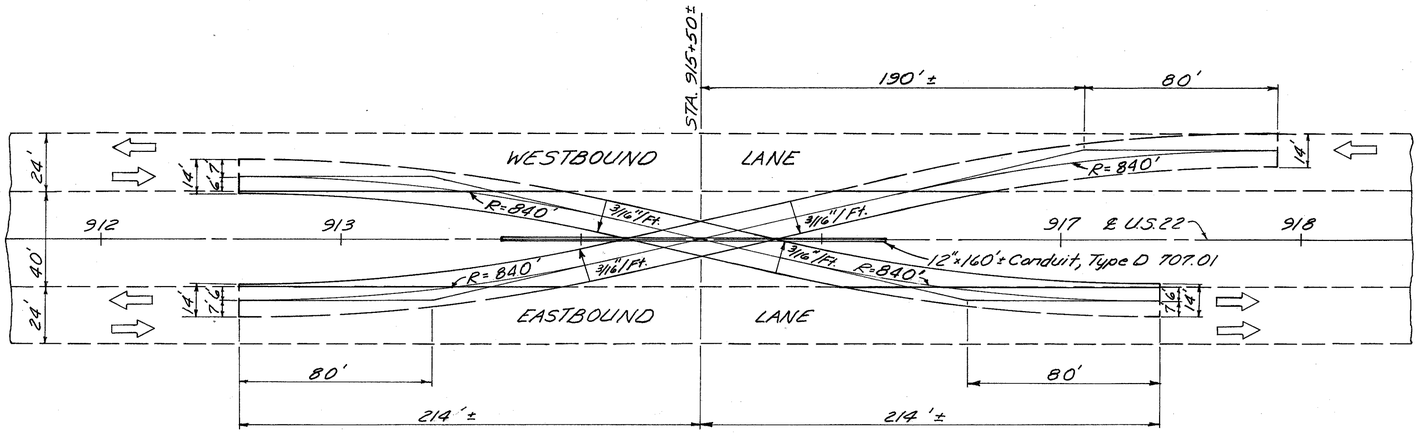
In addition to the requirements of the Ohio Manual of Uniform Traffic Control Devices, the contractor shall erect signs in accordance with the requirements shown on sheets 17 thru 20, for directing traffic across median. Signs shall be erected either, 6 feet from the edge of the pavement, one (1) foot from the edge of shoulder, or one (1) foot behind rail (whichever is farther from the pavement) at a minimum height of five (5) feet above the edge of Pavement. Supports shall be driven a minimum of 4'.

All signs for median cross-overs shown on sheets 17 thru 20, will be furnished to the contractor by the State. Any replacements needed will also be furnished by the State and the cost deducted from the final estimate. The signs for the cross-overs shall be erected on supports furnished by the contractor as indicated on sheets 17 thru 20.

All signs with supports not listed on the plan shall be supported by methods as approved by the Engineer. When traffic is changed from one pair of lanes to the other the cross-over signs and supports shall be removed and re-set at locations shown on the plan. When signs furnished by the State are no longer needed they shall be returned to the State Highway Garage on S.R. 9 north of Cadiz. Any signs not returned will be charged to the contractor and the cost deducted from the final estimate.

Traffic control shown on these sheets are considered as minimum treatment and additional treatment may be required by the Engineer. If the traffic experience indicates the need for additional warning, signals, lights and signs they shall be provided consistent with the requirements of Item 614 Maintaining Traffic.

The payment for providing all traffic control, including the erecting, maintaining, removing, reseting of lights, signs and sign supports, and final removal and delivery to the garage of all signs furnished by the State; shall be included in the lump sum bid for Item 614, Maintaining Traffic. No additional payment will be made for re-erection of signs lost due to vandalism or accidents.



TEMPORARY CROSS-OVER AT EAST END OF BRIDGE Nº'S HAS-22-1717 L & R

NOTE

1. The 2Ft. paved berm shall be 6" of 411 material.

   Payment for the Aggr. berm and subsequent removal shall be included in the lump sum bid price for Item 615 - Temporary Roads.

2. Payment for the temporary 12" corrugated metal pipe shall be included in the lump sum bid price for Item 615- Temporary Roads.

3. The traffic shall be channelized in accordance with "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, current edition, latest revision."

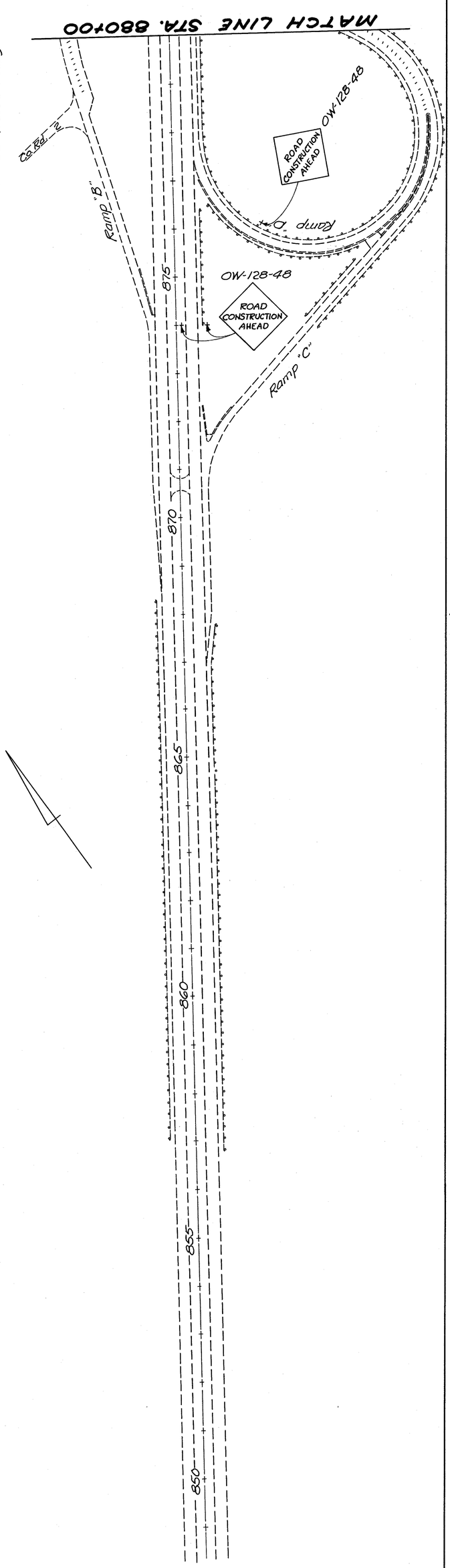
TRAFFIC MAINTENANCE PLAN

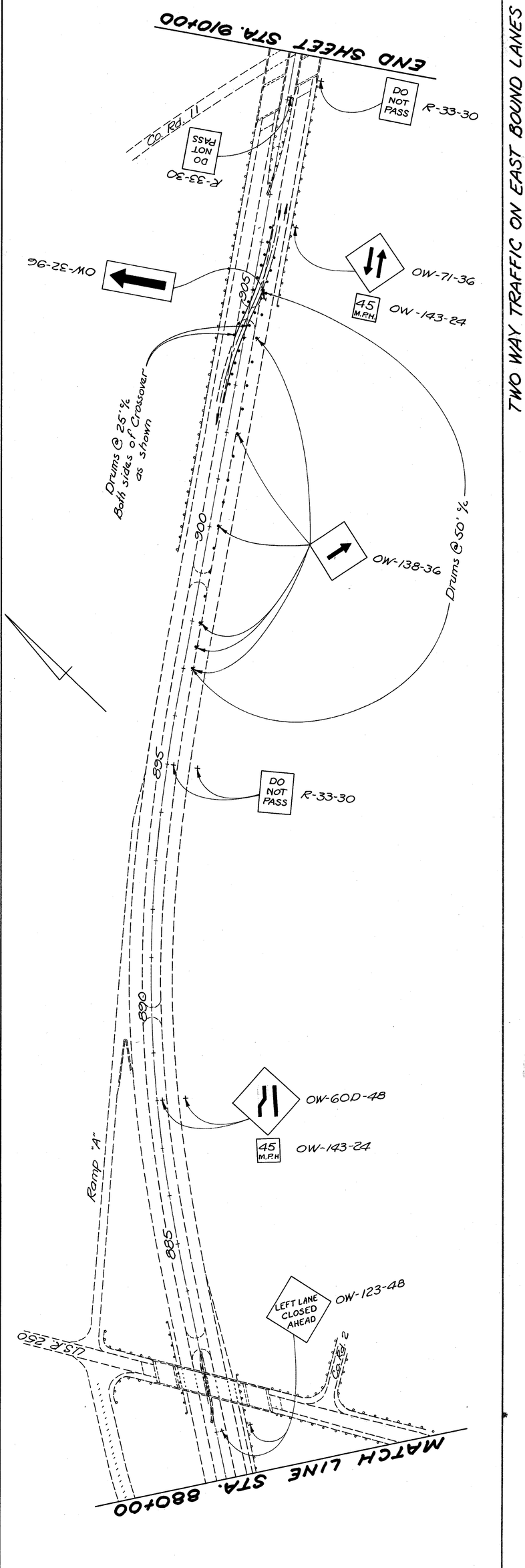
17
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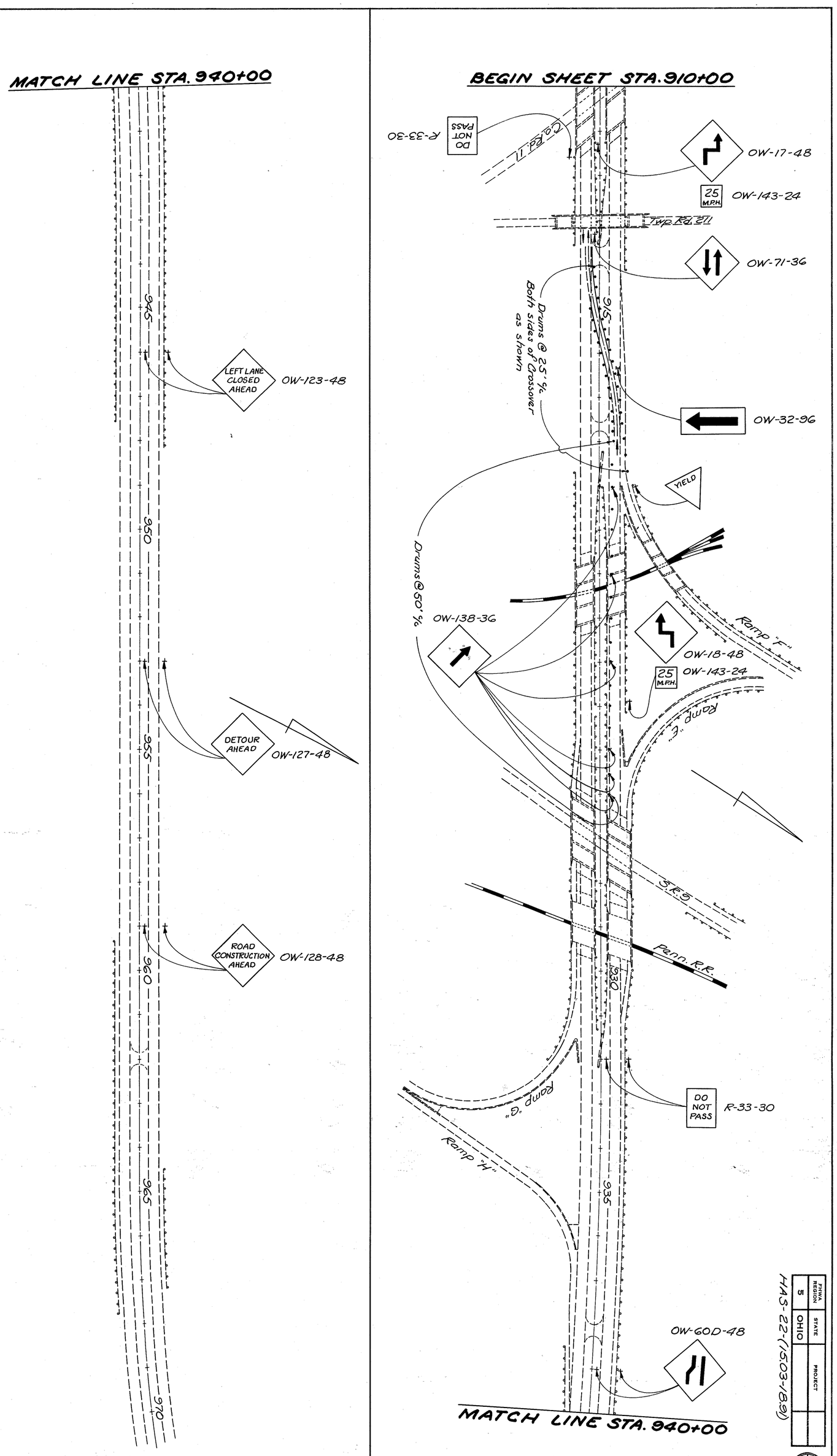
FHWA REGION	STATE	PROJECT
5	OHIO	

HAS-22-(1503-189)

TWO WAY TRAFFIC ON EAST BOUND LANES







TWO WAY TRAFFIC ON EAST BOUND LANES

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(5503)/89)

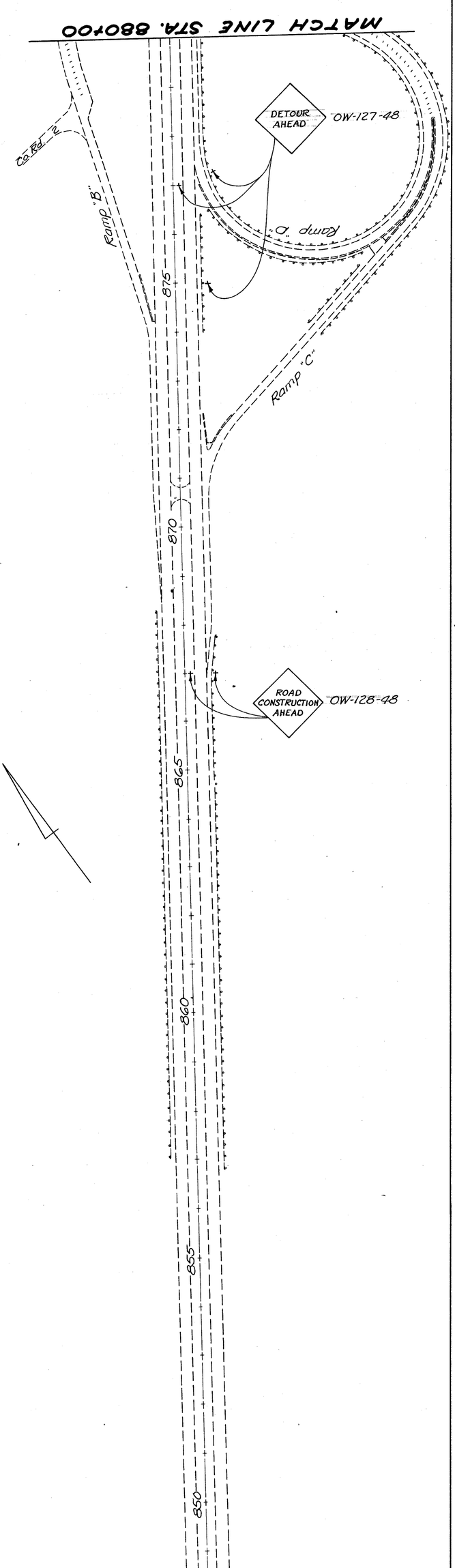
18/65

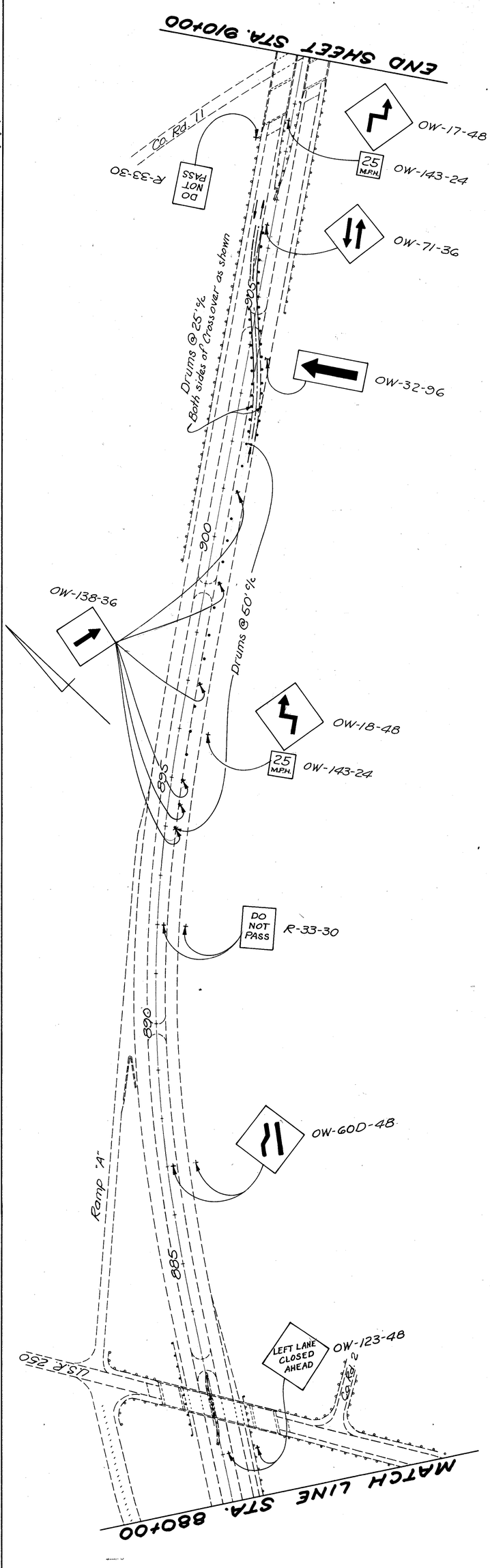
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FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(1503-189)

TWO WAY TRAFFIC ON WEST BOUND LANES





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20/65

BEGIN SHEET STA. 910+00

R-33-30

DO NOT PASS

OW-71-36

OW-143-24

45 M.P.H.

OW-138-36

Drums @ 25'/c

Drums @ 50'/c

R-2-36

YIELD

Ramp "F"

Ramp "E"

R-33-30

DO NOT PASS

OW-600-48

OW-143-24

45 M.P.H.

OW-123-48

LEFT LANE CLOSED AHEAD

S.R.5

Penn. R.R.

Ramp "G"

Ramp "H"

MATCH LINE STA. 940+00

Twp. Rd. 211

Co. Rd. 11

OW-32-96

Drums @ 25'/c Both sides of Crossover as shown

Drums @ 50'/c

910

915

920

925

930

935

MATCH LINE STA. 940+00

OW-128-48

ROAD CONSTRUCTION AHEAD

945

950

955

960

965

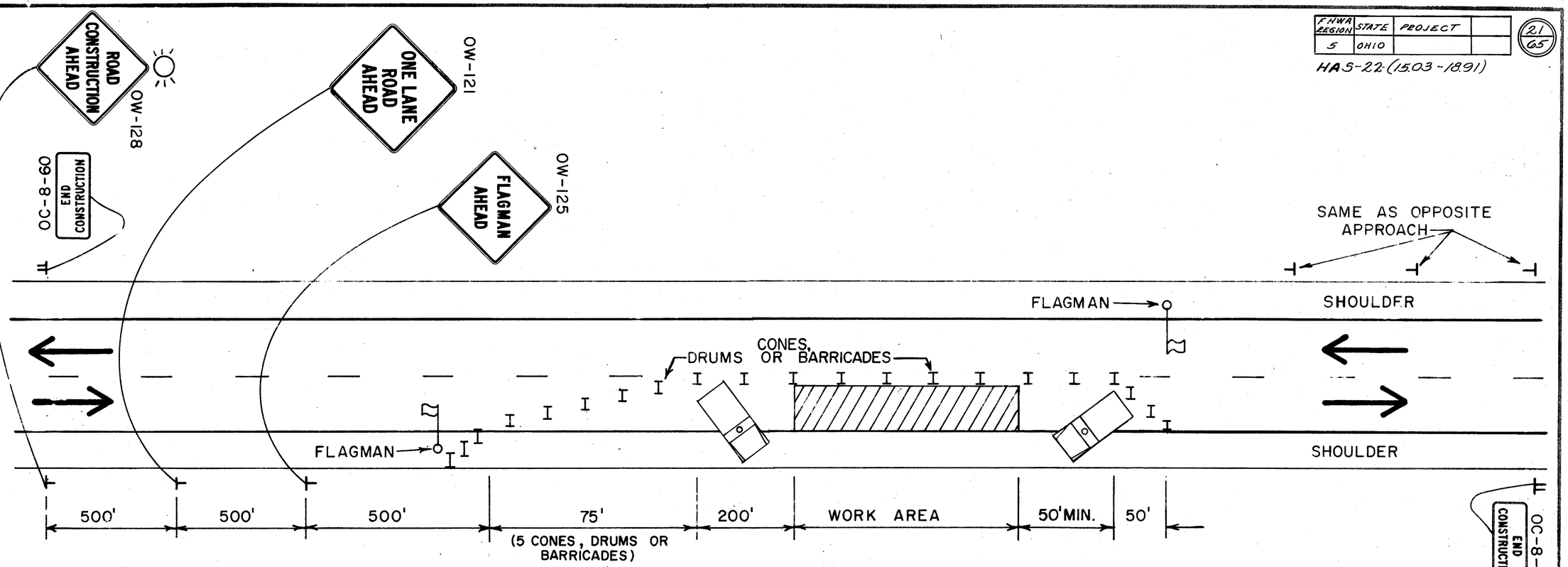
970

TWO WAY TRAFFIC ON WEST BOUND LANES

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(15.03-18.91)

21/65



GENERAL NOTES

1. FLAGMEN SHALL BE USED TO CONTROL TRAFFIC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. FLAGMAN SHALL COMMUNICATE WITH EACH OTHER AT ALL TIMES AS DESCRIBED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES IN THE SECTION "FLAGMAN CONTROL". FLAGMEN STATIONS SHALL BE ADEQUATELY ILLUMINATED FOR NIGHT-TIME OPERATIONS BY USE OF A 175 WATT MINIMUM LUMINAIRE.

2. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS FOR THE FIRST 1000 FEET OF THE WORK AREA AND AT A MAXIMUM OF 100 FEET FOR THE BALANCE OF THE WORK AREA. CONES MAY BE SUBSTITUTED FOR BARRICADES OR STEEL DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.

3. SEVERAL SMALL WORK SITES CLOSE TOGETHER SHALL BE COMBINED INTO ONE WORK AREA TO MAKE A CLOSURE NOT MORE THAN 2000 FEET LONG INCLUDING TAPERS. CLOSURES MORE THAN 2000 FEET MAY BE APPROVED BY THE ENGINEER. THE MINIMUM LENGTH BETWEEN CLOSURES SHALL BE 2000 FEET. ONLY ONE SIDE OF THE ROAD SHALL BE CLOSED IN ANY ONE WORK AREA.

4. THE WORK TRUCKS SHOWN AT EACH END OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THESE TRUCKS SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCKS SHOWN WHEN APPROVED BY THE ENGINEER.

5. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN, IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.

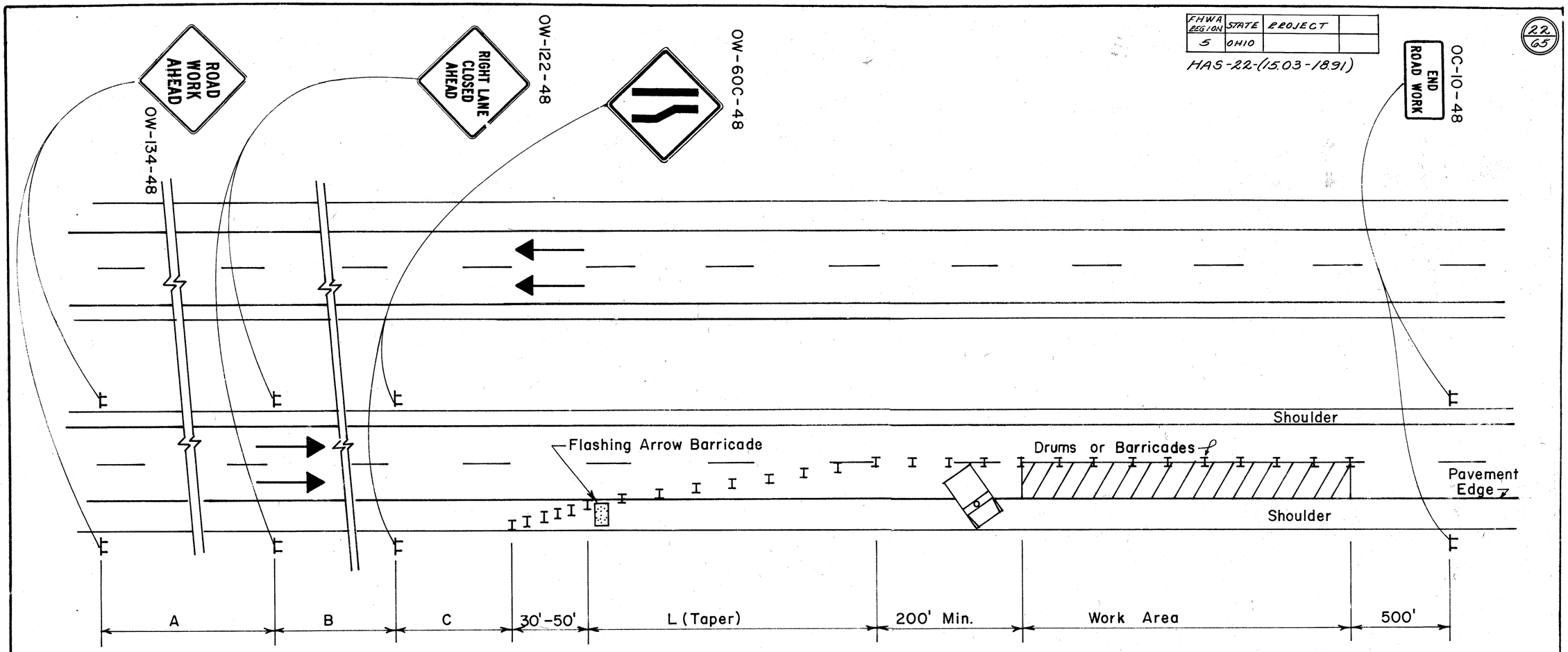
6. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER IN ADVANCE OF THE WORK AREA AND 200' CENTER TO CENTER WITHIN THE WORK AREA.

OHIO DEPARTMENT OF TRANSPORTATION

FLAGMEN CLOSING I LANE OF A 2 LANE HIGHWAY	DATE 4/77
DR GBD	CK. RLB

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(15.03-18.91)



GENERAL NOTES

1. THIRTEEN (13) DRUMS OR BARRICADES SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. FIVE (5) CHANNELIZING DEVICES SHALL BE USED TO FORM THE TAPER ON THE SHOULDER. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS FOR THE FIRST 1000 FEET OF THE WORK AREA AND AT A MAXIMUM OF 100 FEET FOR THE BALANCE OF THE WORK AREA. CONES MAY BE SUBSTITUTED FOR THE BARRICADES OR STEEL DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.

2. WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY, "OW-123-48" SIGNS SHALL BE SUBSTITUTED FOR "OW-122-48" SIGNS AND THE OW-60D SIGNS SHALL BE SUBSTITUTED FOR THE OW-60C SIGNS.

3. THE WORK TRUCK SHOWN AT THE BEGINNING OF THE WORK AREA SHALL BE IN PLACE AND UNOCCUPIED WHENEVER MEN ARE WORKING WITHIN THE WORK AREA. THIS TRUCK SHALL BE MOVED FROM THE PAVEMENT WHENEVER WORKMEN ARE NOT IN THE WORK AREA. OTHER PROTECTIVE DEVICES MAY BE USED IN LIEU OF THE WORK TRUCK SHOWN WHEN APPROVED BY THE ENGINEER.

5. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. MAXIMUM SPACING SHALL BE 50' CENTER TO CENTER IN ADVANCE OF THE WORK AREA AND 200' CENTER TO CENTER WITHIN THE LIMITS OF THE WORK AREA.

DISTANCE	A	B	C	L
URBAN	200	200	200	425
MAJOR STANDARD	500	500	500	600
FREEWAY AND EXPRESSWAY	2600	1600	1000	720

OHIO DEPARTMENT OF TRANSPORTATION

CLOSING ONE LANE OF A FOUR LANE DIVIDED HIGHWAY

DATE 4/77

DR. GRD CK. RLB.

GENERAL SUMMARY

Calculated By	Checked By
W.S.R. 2-1-78	R.E.M. 2-2-78

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAS-22-(15.03-18.91)

23/65

ITEM	SHEET NUMBER	ITEM	TOTAL QUANT.	UNIT	DESCRIPTION
					ROADWAY (TYPE CODE 6706)
202	45: 1,145	202	1,145	Lin.Ft.	Curb Removed
202	43: 480	202	480	Sq.Yds.	Pavement Removed
202	45: 13	202	13	Sq.Yds.	Concrete Median Pavement Removed
202	13: 106	202	106	Sq.Yds.	Portions Of 6" Concrete Gutter Removed
202	13: 173	202	173	Each	Precast Traffic Dividers Removed
202	38: 33,334	202	33,334	Lin.Ft.	Guard Rail Removed For Storage
202	38: 188	202	188	Lin.Ft.	Guard Rail, Barrier Design, Removed For Storage
203	13: 95	203	95	Cu.Yds.	Excavation, Not Including Embankment Construction
203	13: 432	203	432	Cu.Yds.	Embankment
203	13: 68,503	203	68,503	Sq.Yds.	Subgrade Compaction
203	12: 300	203	300	Sta.	Linear Grading, Method 1, As Per Plan
203	12: 220	203	220	Sta.	Linear Grading, Method 2, As Per Plan
203	12: 363	203	363	Sta.	Linear Grading, Method 3, As Per Plan
203	12: 115	203	115	Sta.	Linear Grading, Method 4, As Per Plan
203	12: 33	203	33	Sta.	Linear Grading, Method 5, As Per Plan
410	15: 150	410	150	Cu.Yds.	Traffic Compacted Surface, Type A or B
606	38: 33,033	606	33,033	Lin.Ft.	Guard Rail, Type 5
606	38: 603	606	603	Lin.Ft.	Guard Rail, Type 5, Barrier Design
606	38: 49	606	49	Each	Anchor Assembly, Type A
606	38: 6	606	6	Each	Anchor Assembly, Type A, Barrier Design
606	38: 23	606	23	Each	Anchor Assembly, Type T
606	38: 7	606	7	Each	Bridge Terminal Assembly, Type A
606	38: 16	606	16	Each	Bridge Terminal Assembly, Type D
606	38: 10	606	10	Each	Bridge Terminal Assembly, Type J
606	38: 4	606	4	Each	Bridge Terminal Assembly, Type J, Modified As Per Plan.
615	16: 1400	615	1400	Sq.Yds.	Temporary Pavement, Class B
615	16: Lump	615	Lump	Lump	Temporary Roads
616	15: 3	616	3	M.Gal.	Water
616	15: 3	616	3	Tons.	Calcium Chloride
					EROSION CONTROL (TYPE CODE Y-005)
601	6: 225 / 31: 32	601	257	Cu.Yds.	Rock Channel Protection, Type C, Without Bedding
659	13: 33,350	659	33,350	Sq.Yds.	Seeding And Mulching
659	13: 3.00	659	3.00	Ton	Commercial Fertilizer (12-12-12)
659	13: 15.01	659	15.01	Ton	Agricultural Liming

GENERAL SUMMARY

Calculated By	Checked By
W.S.R. 2-1-78	R.E.M. 2-2-78

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAS-22-(15.03-18.91)

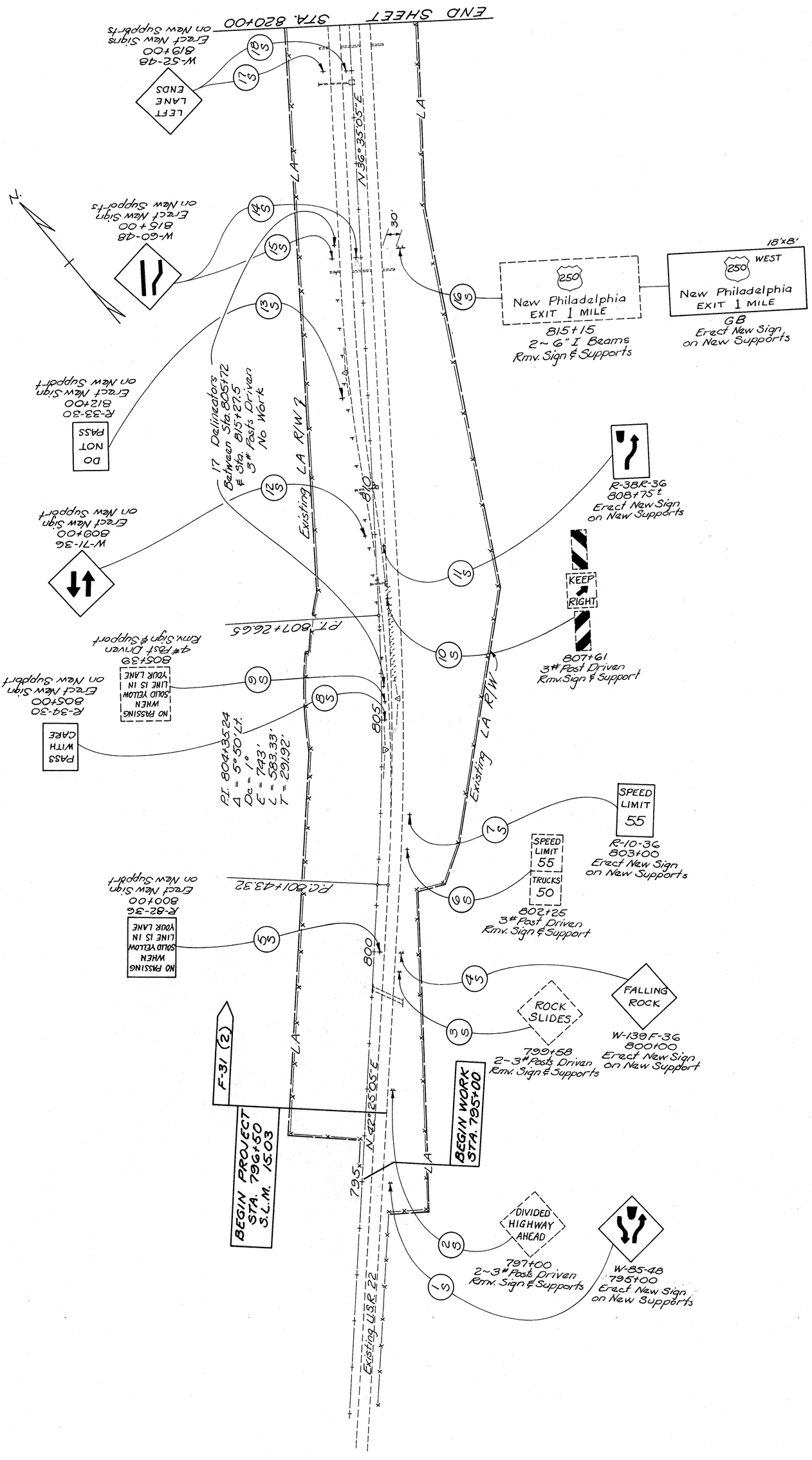
24/65

ITEM	SHEET NUMBER	ITEM	TOTAL QUANT.	UNIT	DESCRIPTION
					PAVEMENT (TYPE CODE 670G)
301	11: 13,217; 43: 128	301	13,345	Cu.Yds.	Bituminous Aggregate Base, 702.01, AC-20; or 702.09, RT-11 or RT-12
310	43: 88	310	88	Cu.Yds.	Subbase, Grading A, As Per Plan
310	44: 50	310	50	Cu.Yds.	Subbase
402	9: 6,972; 10: 61	848	7,033	Cu.Yds.	Asphalt Concrete, Intermediate Course, type 2
403	9: 3,038; 13: 2	848	3,040	Cu.Yds.	Asphalt Concrete, Intermediate Course, type 1
404	9: 5,157	848	5,157	Cu.Yds.	Asphalt Concrete, Surface Course, type 1
404	12: 542	848	542	Cu.Yds.	Asphalt Concrete, Surface Course, type 1, As Per Plan
407	9: 14,749	407	14,749	Gal.	Tack Coat: 702.04, SS-1, SS-1H, MS-2 or RS-1; or 702.02, RC-250
407	9: 516	407	516	Tons.	Cover Aggregate
408	12: 4,877	408	4,877	Gal.	Bituminous Prime Coat; 702.02, MC-30 or MC-70; 702.03, Primer 20; or 702.09, RT-2 or RT-3
409	11: 20,470; 12: 2,930	409	23,400	Gal.	Seal Coat Bituminous Material; 702.02, MC-800 or MC-3000; 702.03, CBAE-800; 702.04, RS-1, RS-2, CRS-1 or CRS-2; 702.09, RT-9 or RT-10
409	11: 547; 12: 78	409	625	Cu.Yds.	Seal Coat Cover Aggregate No. 8
605	13: 33,453; 44: 800	605	34,253	Lin.Ft.	Aggregate Drains
609	31: 170	609	170	Lin.Ft.	Asphalt Concrete Curb, Type 1
Spec.	43: 1000	Special	1000	Sq.Yds.	Partial Depth Pavement Joint Repair
Spec.	44: 300	Special	300	Sq.Yds.	Full Depth Rigid Pavement Removal And Flexible Replacement
Spec.	13: 1,048	Special	1,048	Lin.Ft.	Pressure Relief Joints, Type C
					TRAFFIC CONTROL (TYPE CODE 670G)
202	61: 13	202	13	Each	Removal Of Ground Mounted Major Signs For Storage
202	61: 83; 62: 46; 63: 48	202	177	Each	Removal Of Ground Mounted Signs For Storage
202	61: 12	202	12	Each	Removal Of Ground Mounted Sign Supports, Beams Larger Than No. 8 Post
202	61: 91; 62: 33; 63: 25	202	149	Each	Removal Of Ground Mounted Sign Supports No. 8 Posts And Smaller
620	61: 12	620	12	Each	Delineators, Type D
621	65: 2072	621	20.72	Miles	Edge Lines
621	65: 023	621	0.23	Miles	4" Lane Lines
621	65: 7.18	621	7.18	Miles	6" Lane Lines
621	65: 1.71	621	1.71	Miles	Center Lines
621	65: 1,344	621	1,344	Lin.Ft.	Channelizing Lines
621	65: 575	621	575	Lin.Ft.	24" Broad Transverse Lines
621	65: 110	621	110	Lin.Ft.	24" Stop Lines
621	65: 3	621	3	Each	Lane Arrows
844	61: 753; 62: 195; 63: 205	844	1,153	Sq.Ft.	Signs, Flat Sheet
844	61: 1,991; 62: 163; 63: 104	844	2,258	Sq.Ft.	Signs, Extrusheet
844	61: 287; 62: 210; 63: 61	844	558	Lin.Ft.	Ground Mounted Supports, No. 3 Post, Driven
844	61: 1,303; 62: 181; 63: 181	844	1,665	Lin.Ft.	Ground Mounted Supports, No. 4 Post, Driven
844					
844	62: 16	844	16	Lin.Ft.	Ground Mounted Supports, No. 4 Post, As Per Plan, Driven
844	61: 70; 63: 95	844	165	Lin.Ft.	Ground Mounted Supports, S4 x 7.7
844	62: 65	844	65	Lin.Ft.	Ground Mounted Supports, W6 x 8.5
844	62: 44	844	44	Lin.Ft.	Ground Mounted Supports, W8 x 17
844	61: 50; 63: 113	844	163	Lin.Ft.	Ground Mounted Supports, W10 x 11.5
844	61: 300	844	300	Lin.Ft.	Ground Mounted Supports, W10 x 21
844	61: 247	844	247	Lin.Ft.	Ground Mounted Supports, W12 x 31
844	61: 12; 62: 2; 63: 10	844	24	Each	Breakaway Beam Connection
844	61: 31.7; 62: 3.6; 63: 8.1	844	43.4	Cu.Yds.	Concrete For Embedded Foundations
844	61: 20.1	844	20.1	Cu.Yds.	Concrete For Anchor Base Foundations
844	61: 2	844	2	Each	Overhead Sign Support Type 765, Design 6 Modified, 6.1' Span
					STRUCTURES OVER 20 FT. SPAN
					Bridge No. HAS-22-1717 L&R, SEE Sheet No. 53
					Bridge Nos. HAS-22-1738 L&R; HAS-22-1738 S.R.
					Bridge Nos. HAS-22-1749 L&R (SEE SHEET NO. 51
					Bridge No. HAS-22-1753 L&R; HAS-22-1753 S.R.
	10: 450	Special	450	Hrs.	Trooper with Patrol Car
	11: Lump	614	Lump		Maintaining Traffic
	10: Lump	619	Lump		Field Office
		623	Lump		Construction Layout Stakes

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(15.03-18.91)

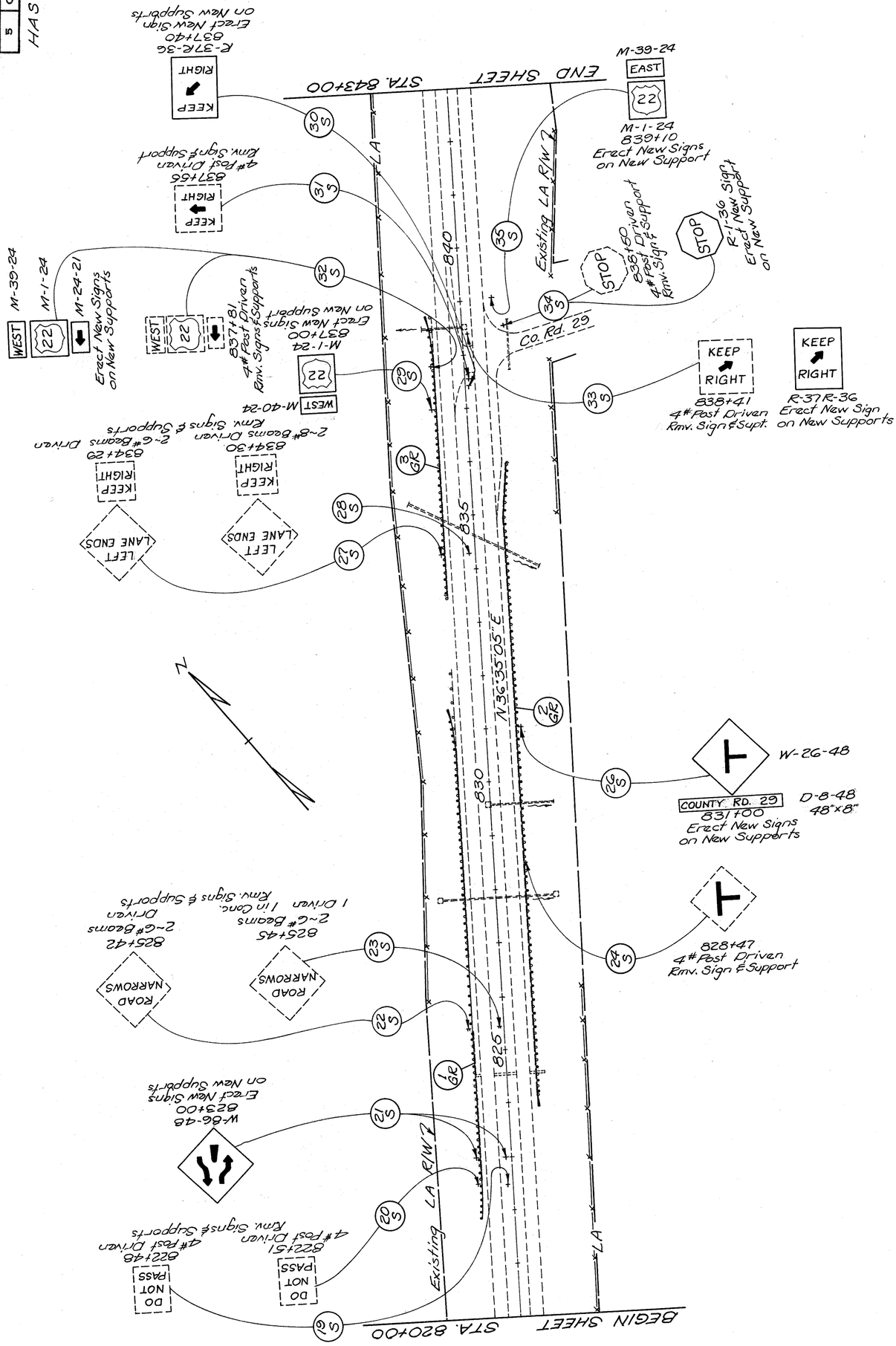
STA. 795+00 TO STA. 820+00



FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(15.03-1.89)

STA. 820+00 TO STA. 843+00



FHWA REGION	STATE	PROJECT	
5	OHIO		

27/65

HAS-22-(15.03-18.91)

STA. 843+00 TO STA. 866+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

28/65

HAS-22-(15.03-18.91)

BEGIN SHEET STA. 866+00

STA. 866+00 TO STA. 898+00

END SHEET STA. 898+00

Sta. 866+00

Begin Taper 868+50

End Taper 870+75

Begin Ramp "B" 870+00

P.C. 2+89.97

P.T. 3+54.77

Existing LA R/W

Ramp "B"

Ramp "A"

Ramp "C"

Ramp "D"

Co. Rd. #2

U.S.R. 250

N 36° 35' 05" E

870 875 880 885 890 895

W-49E-48 Erect New Sign on New Supports

INERGE 877+00 Post Driven Rmv. Sign & Support

R-2-48 New Sign Erect New Support on New Support

YIELD

3+40 4# Post Driven Rmv. Sign & Support

W-49E-48 Erect New Sign on New Supports

W-37-48 Erect New Sign on New Supports 3+70

4# Post Driven 874+00 Rmv. Sign & Support

MERGE

W-49E-48 Erect New Sign on New Supports

WEST R-2 6+29 4# Post Driven Rmv. Sign & Support

7+51 2-4# Post Driven Rmv. Sign & Supports

R-1-30 Erect New Sign on New Supports

STOP

M-6-24

M-24-21

Dearsville

D-1-72 Erect New Signs on New Supports

LOAD LIMIT REDUCED 50% Wt. in Kips

HARRISON 2 COUNTY

7+55 2-3# Post Driven Rmv. Sign & Supports

R-1-30 Erect New Sign on New Support 11+80

4# Post Driven Rmv. Sign & Support

M-6-24 Erect New Sign on New Support

New Philadelphia 33

2-4# Post Driven Rmv. Signs & Supports

Erect New Signs on New Support R-41B-30

ONE WAY R-43R-36

ENTER R-41B-30

R-43E-36

0+39 4# Post Driven Rmv. Signs & Support

0+49 4# Post Driven Rmv. Signs & Support

M-40-24 M-2-24(3) M-24-21

D-4-A 4+00 Erect New Signs on New Supports

STOP AHEAD

W-45-36 6+00 Erect New Sign on New Support

EXIT

GF 888+00 Erect New Sign on New Supports

EXIT 888+50 2-8# Beams Driven Rmv. Sign & Supports

4+36 4# Post Driven Rmv. Sign & Support

WRONG WAY R-41A-36 4+00 Erect New Signs on New Supports

3+00 4# Post Driven Rmv. Sign & Support

Erect New Signs on New Supports

0+39 4# Post Driven Rmv. Signs & Support

Erect New Signs on New Supports

M-39-24 Erect New Signs on New Support

M-1-24 M-1-24(3) 886+00 Erect New Signs on New Supports

M-39-24 Erect New Signs on New Support

8# Beam Driven Rmv. Signs & Support

888+72

SPEED LIMIT 55 TRUCKS 50

Cadiz EXIT ¾ MILE

Scio Cadiz EXIT ¾ MILE

6# Beam Driven Rmv. Signs & Supports 891+97

4# Post Driven Rmv. Signs & Supports

Erect New Signs on New Supports

Sta. 892+85.26 P.C. Ramp "A" 10+12.36

End Ramp "A" 11+07.05 Begin Taper 893+75

End Taper 894+75

18'x8' WEST 250 New Philadelphia

GE 895+00 Erect New Sign on New Supports

ST. 897+05.66

6+00 6# Beam Driven Rmv. Sign & Supports

SPEED LIMIT 55

End New Sign on New Supports 898+00

P.I. 890+20.38 Δ = 21°41' Rt. Dc = 2° Ls = 300' Es = 53.39' Lt = 784.17' T = 698.89'

C.S. 894+05.66

Cadiz EXIT ¾ MILE

Sta. 883+21.49 End Ramp "D" 88+00

Begin Taper 883+68.49

Sta. 4+24.00 Ramp "C" 916+08.8 End Ramp "C" 609+42.96 U.S. 250

P.C. 0+00 Ramp "D"

P.T. 2+21.73

Sta. 0+38.62 P.T. 10+38.62

R.P. 7+66.62

Ramp "A" 11+07.05

Begin Taper 883+68.49

End Taper 884+75

Begin Taper 868+50

End Taper 870+75

Begin Ramp "B" 870+00

Begin Taper 870+00

End Taper 871+00

Sta. 872+00

3-8# Beams in Conc. Rmv. Sign & Supports

18'x8'

GE

New Philadelphia

EAST 250 WEST

Stubenville Cadiz

EAST 250

E.B. Lanes 14'x8'

GE

870+00 Erect New Signs on New Overhead Support

WRONG WAY R-41A-36 Erect New Signs on New Supports

6+78 4# Post Driven Rmv. Signs & Sup.

8+80 4# Post Driven Rmv. Sign & Support

YIELD

KEEP RIGHT

W-32-96 Erect New Sign on New Supports

0+25 3-4# Post Driven Rmv. Signs & Supports

1+25 3-4# Post Driven Rmv. Sign & Supports

R-38E-36 Erect New Sign on New Support

2+26 2-4# Post Driven Rmv. Signs & Supports in Conc.

8+02 Erect New Sign on New Supports

HARRISON 2 COUNTY M-6-24

Dearsville

LOAD LIMIT REDUCED 50% Wt. in Kips

HARRISON 2 COUNTY

Cadiz 12%

Ramp "B" 5%

Ramp "A" 5%

Ramp "C" 4.29%

Ramp "D" 5%

Existing LA R/W

LA

5 GR 4 GR 5a GR 6 GR 12 GR 13 GR

43 S 44 S 45 S 47 S 50 S 51 S 52 S 53 S 54 S

250A S 250B S 250C S 250D S

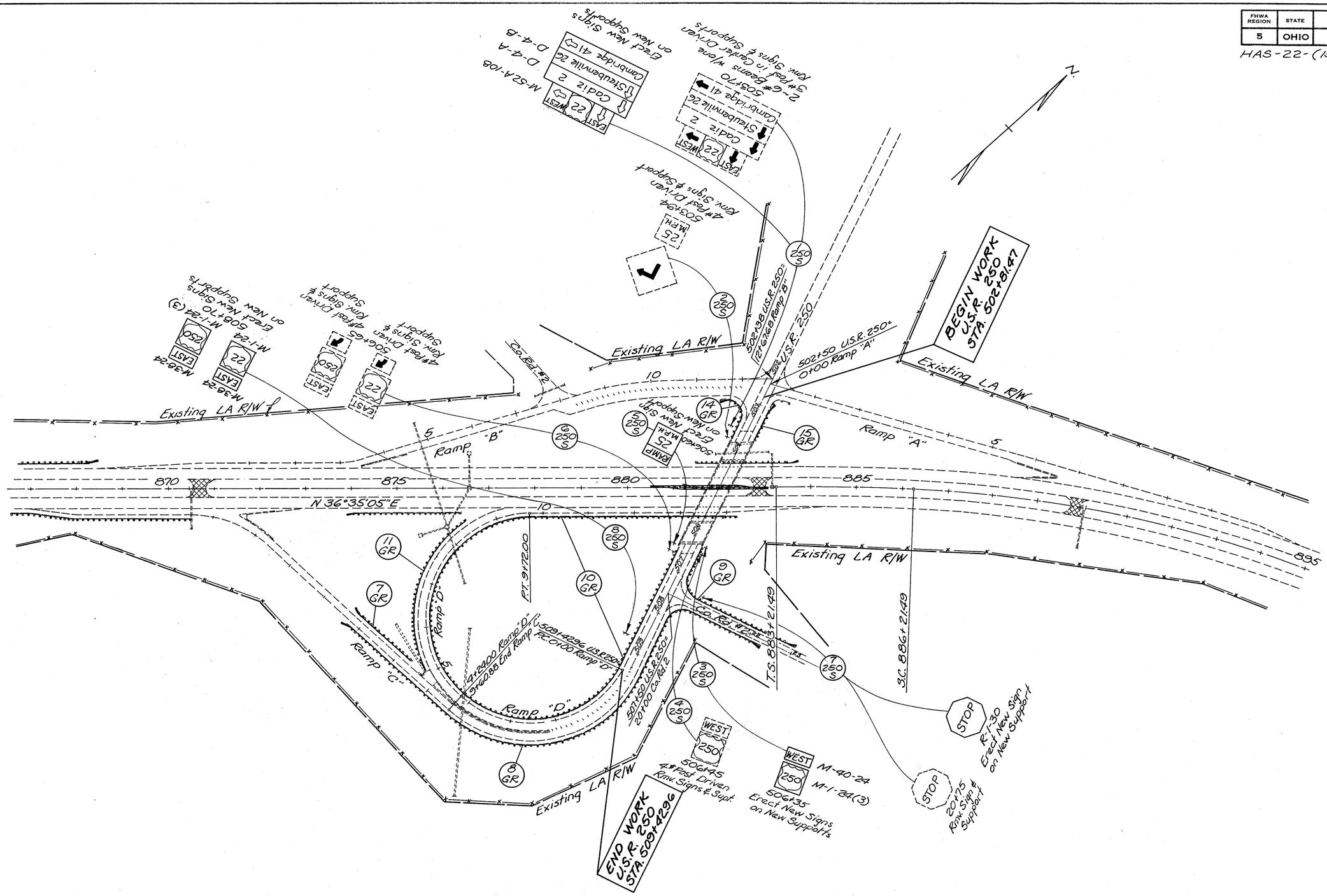
LEGEND (Applies to all plan sheets)

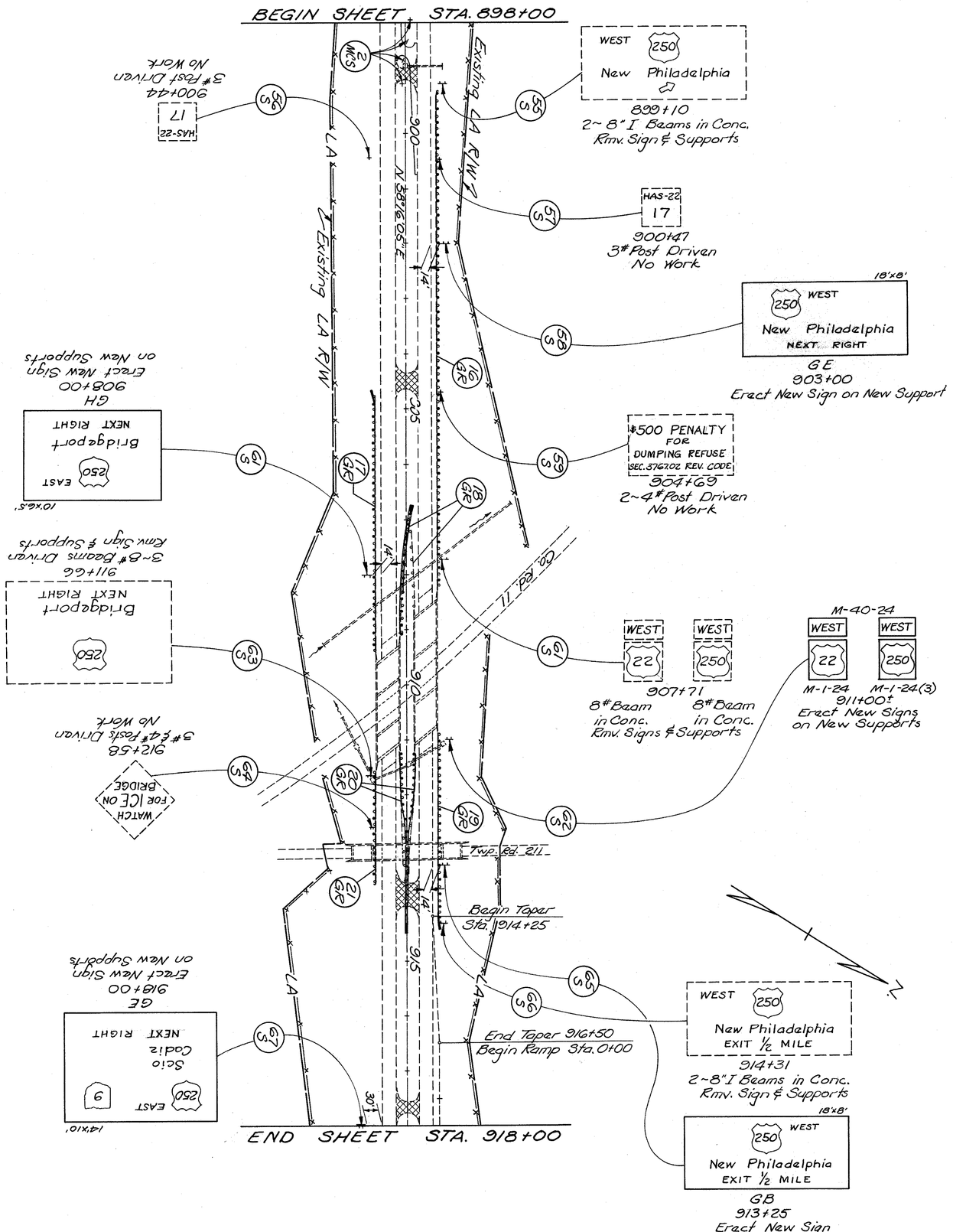
▨ – Existing median cross-over to be removed and/or obliterated. (See notes on sheet No. 14 & 48)

FHWA REGION	STATE	PROJECT	
5	OHIO		

29/65

HAS-22-(15.03-18.91)


N
BEGIN WORK U.S.R. 250 STA. 502+81.47
Existing LA R/W
502+38 U.S.R. 250" 12"x16" Ramp "B"
502+50 U.S.R. 250" 0+00 Ramp "A"
Ramp "A"
Ramp "B"
Ramp "C"
Ramp "D"
Existing LA R/W
Existing LA R/W
Existing LA R/W
Existing LA R/W
Co. Rd. #22
Co. Rd. #22
Ft. 9+72.00
T.S. 8+83.00
S.C. 8+86.00
2+49
2+49
Ramp "D" 4+24.00 End Ramp "D" 0+40.86
509+42.96 U.S.R. 250 P.C. 0+00 Ramp "D"
507+50 U.S.R. 250 20+00 Co. Rd. 2
502+45 4" Post Driven Rmv. Signs & Supt.
M-40-24
M-1-24(3)
506+35 Erect New Signs on New Supports
STOP
R1-30 Erect New Sign on New Support
STOP
20+75 Rmv. Sign & Support
END WORK U.S.R. 250 STA. 509+42.96
M-38-24
M-1-24
503+70 Erect New Signs on New Supports
504+65 4" Post Driven Rmv. Signs & Support
503+94 4" Post Driven Rmv. Signs & Support
M-52A-108
Erect New Signs on New Supports
2-6" Beams w/one 3" Post in Center Driven Rmv. Signs & Supports
Steubenville 2
Cadiz 2
Cambridge 41
Cambridge 22
WEST
EAST
22
250
250S
25
M.P.H.
RAMP
14 GR
15 GR
11 GR
7 GR
10 GR
9 GR
8 GR
8 250S
6 250S
5 250S
4 250S
3 250S
2 250S
1 250S
870
875
880
885
895
N 36°-35'-05" E
10
5
5
5



STA. 898+00 TO STA. 918+00

DISTRICT REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(1503-1891)

30
65

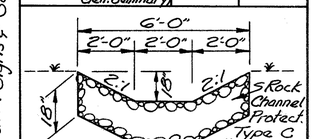
FHWA REGION	STATE	PROJECT	
5	OHIO		

31/65

HAS - 22 - (15.03-18.91)

CURB & EROSION CONTROL

Ref. No.	LOCATION		Item 609 Asphalt Concrete Curb Type 1 *	Item 601 Rock Ch. Protection Type C w/o Bed.
	From	To	Lin. Ft.	Cu. Yds.
1-AC	928+34	928+62	28	
2-AC	930+01	931+43	142	
R.C.P.	931+43	931+80		32
TOTALS	(Carried to Gen. Summary)		170	32



SECTION THRU R.C.P.

* NOTE: The Type 1 asphalt concrete curb shall be constructed with the face of the curb located directly beneath the face of the new Type 5 Guardrail

BEGIN SHEET STA. 918+00

END SHEET STA. 948+00

STA. 918+00 TO STA. 948+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

32/65

HAS-22-(15.03-18.91)

S.R. 9 INTERCHANGE

FHWA REGION	STATE	PROJECT	
5	OHIO		

33/65

HAS - 22 - (15.03-18.91)

N.

BEGIN SHEET STA. 948+00

END SHEET STA. 975+00

LA

Existing LA R/W

950 955 960 965 970

45 GR

46 GR

3 MCS

94 S

953+41
3# Post Driven
No Work
HAS-22
18

95 S

953+41
3# Post Driven
No Work
HAS-22
18

96 S

966+89
Rmv. Sign & Support

W-24-48
Erect New Sign
on New Supports

P.I. 976+83.35
Δ = 40°33'30" Lt.
Dc = 2°
Ls = 300'
Es = 190.99'
Lc = 1727.92'
Ts = 1209.08'

T.S. 964+74.33

S.C. 967+74.33

97 S

973+63
4# Post Driven
Rmv. Sign & Support

KEEP RIGHT

R-37R-36
973+55
Erect New Sign
on New Supports

98 S

973+58
4# Post Driven
Rmv. Sign & Supt.

R-1-36
Erect New Sign
on New Support

STOP

99 S

974+50
Rmv. Sign & Support

100 S

R-37R-36
974+60
Erect New Sign
on New Supports

101 S

R-1-36

STOP

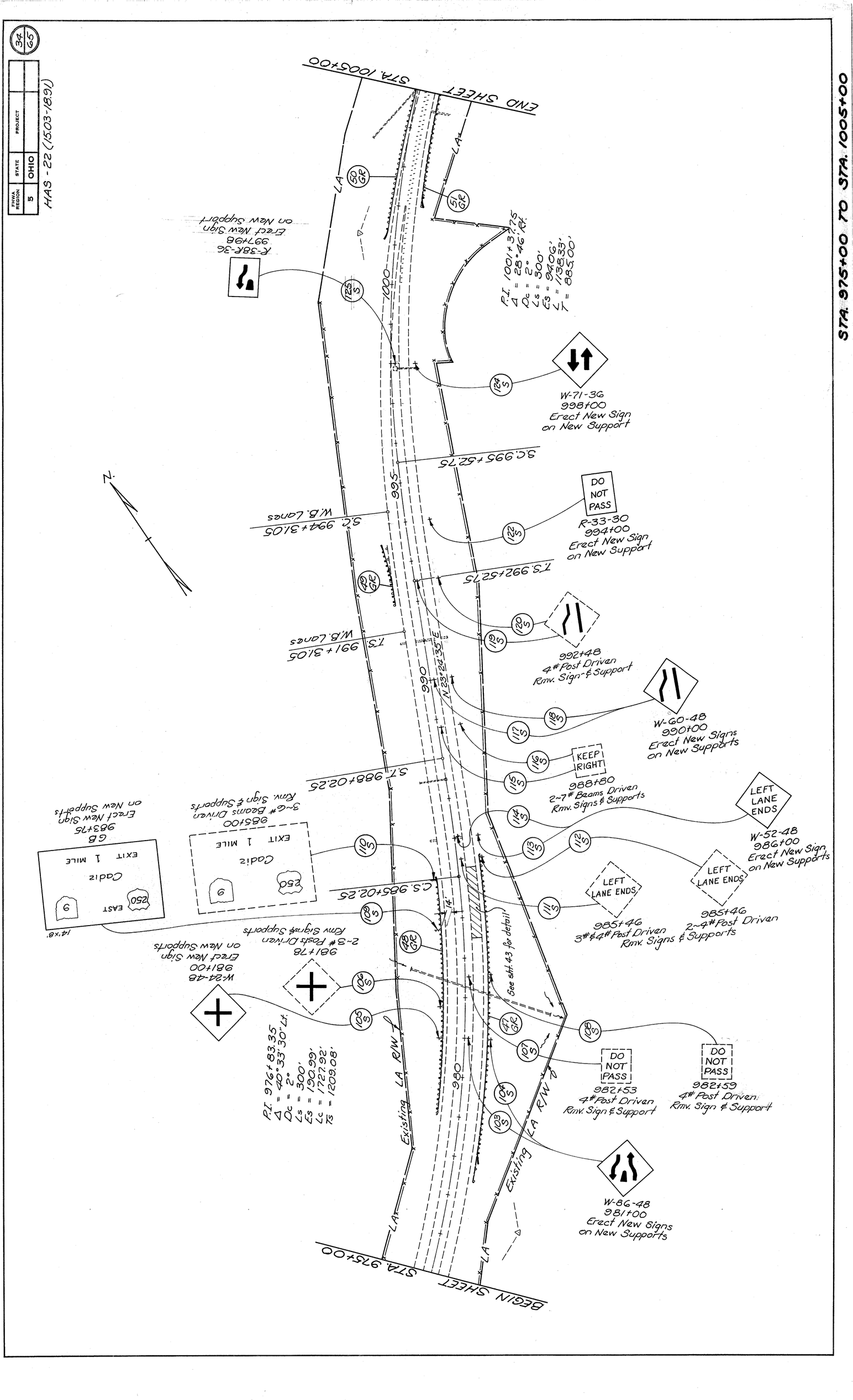
974+41
Erect New Sign
on New Support

102 S

STOP

974+50
Rmv. Sign & Support

STA. 948+00 TO STA. 975+00


FHWA REGION 5
STATE OHIO
PROJECT
HAS - 22 (1503-1891)
34
65
STA. 975+00 TO STA. 1005+00
END SHEET STA. 1005+00
BEGIN SHEET STA. 975+00
LA
Existing LA R/W
P.I. 1001+37.75
Δ = 28°46' Rt.
Dc = 2°
Ls = 300'
Es = 94.06'
Lc = 138.33'
T = 885.00'
P.I. 976+83.35
Δ = 40°33'30" Lt.
Dc = 2°
Ls = 300'
Es = 190.99'
Lc = 1727.92'
Ts = 1209.08'
See sht 43 for detail
N23°24'35"E
14'
1000
995
990
985
980
S.C. 995+52.75
C.S. 985+02.25
S.T. 988+02.25
T.S. 992+52.75
S.C. 994+31.05
W.B. Lanes
T.S. 991+31.05
W.B. Lanes
50 GR
51 GR
125 S
124 S
122 S
49 GR
120 S
119 S
118 S
117 S
116 S
115 S
114 S
113 S
112 S
111 S
110 S
109 S
48 GR
108 S
47 GR
107 S
106 S
105 S
104 S
103 S
F-38F-36
997+98
Erect New Sign
on New Support
W-71-36
998+00
Erect New Sign
on New Support
DO NOT PASS
R-33-30
994+00
Erect New Sign
on New Support
992+48
4# Post Driven
Rmv. Sign & Support
W-60-48
990+00
Erect New Signs
on New Supports
KEEP RIGHT
988+80
2-7# Beams Driven
Rmv. Signs & Supports
LEFT LANE ENDS
W-52-48
986+00
Erect New Sign
on New Supports
LEFT LANE ENDS
985+46
3#&4# Post Driven
Rmv. Signs & Supports
LEFT LANE ENDS
985+46
2-4# Post Driven
Rmv. Signs & Supports
DO NOT PASS
982+53
4# Post Driven
Rmv. Sign & Support
DO NOT PASS
982+59
4# Post Driven
Rmv. Sign & Support
W-86-48
981+00
Erect New Signs
on New Supports
2-3# Posts Driven
Rmv. Signs & Supports
981+78
W-24-48
981+00
Erect New Sign
on New Supports
3-6# Beams Driven
Rmv. Sign & Supports
985100
EXIT 1 MILE
Cadiz
250
9
14'x8'
G-8
983+75
Erect New Sign
on New Supports
EXIT 1 MILE
Cadiz
250
9
EAST
N

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(1503-18.91)

35
65

STA. 1005+00

CS. 1005+69.38 W.B. Lanes

Existing LA R/W ℄

S.T. 1008+69.38 W.B. Lanes

STA. 1009+97.23 W.B. Lanes

STA. 1013+25.70 Bk. =
STA. 1011+67.06 Ah.

50 GR

1010

1015

1020

N 52°10'35" E

1025

1030

STA. 1035+00

BEGIN SHEET

CS 1006+91.08

LA

80 1+80 0.1 S.

126 S

HAS-22 19

3# Post Driven
1005+40
No Work

P.I 1001+37.75
Δ = 28°46' Rt.
Dc = 2°
Ls = 300'
Es = 94.06'
L = 1138.33'
T = 885.00'

127 S

PASS WITH CARE
R-3-30
1007+10
Erect New Sign
on New Support

51 GR

128 S

W-24-36

COUNTY RD. 51
1012+00
Erect New Sign
on New Support

D-8-48
48"x8"

130 S

3# Post Driven
1013+32
Rmv. Sign & Support

129 S

131 S

1012+90
2-8# Beams Driven
Rmv. Sign & Supports

W-85-48
1013+00
Erect New Sign
on New Supports

132 S

DO NOT PASS
1016+85
4# Post Driven
Rmv. Sign & Support

DO NOT PASS
R-33-30
1018+00
Erect New Sign
on New Support

R-1-30
Erect New Sign
on New Support

STOP

1019+32
4# Post Driven
Rmv. Sign & Supt.

STOP

135 S

C.L. 51

137 S

HARRISON 51 COUNTY
LOAD LIMIT REDUCED 50% NOV. 1ST TO APR. 15TH

1019+83
3# Post Driven
No Work

N

W-24-36

COUNTY RD. 151
D-8-48
48"x8"
1026+74
3# Post Driven
Rmv. Sign & Support
Erect New Sign
on New Support

138 S

LA

53 GR

52 GR

Existing LA R/W ℄

END SHEET

134 S

1019+06
3# Post Driven
No Work

HARRISON 51 COUNTY
LOAD LIMIT REDUCED 50% NOV. 1ST TO APR. 15TH

LS 2.2

136 S

STOP

1019+48
3# Post Driven
Rmv. Sign & Support

STOP

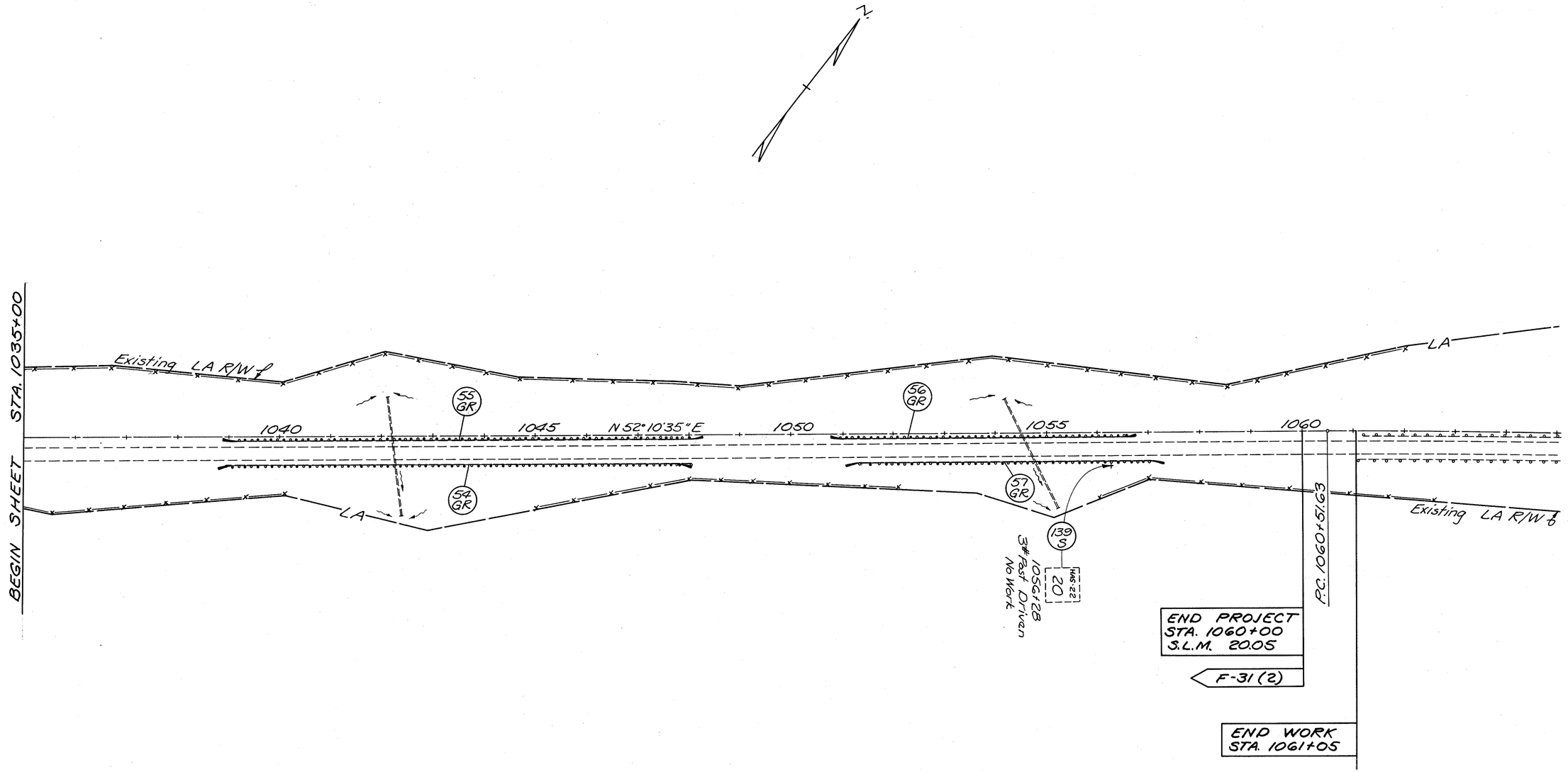
R-1-30
Erect New Sign
on New Support

STA. 1005+00 TO STA. 1035+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

36/65

HAS-22-(15.03-18.91)



STA. 1035+00 TO STA. 1065+00

QUANTITIES	
Calculated by	Checked by
W.S.R. 11-2-77	R.E.M. 12-7-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22 (15.03-18.91)

37/65

REF. №	SHEET № PLAN	SHEET № DETAIL	LOCATION FROM	LOCATION TO	SIDE & or ℄	202 Guard Rail Removed For Storage Lin. Ft.	202 Guard Rail Barr. Des. Removed For Storage Lin. Ft.	606 - GUARD RAIL Guard Rail Type S Lin. Ft.	Guard Rail Type S Barrier Design Lin. Ft.	Anchor Assy Type A Ea.	Anchor Assy Type A Barr. Design Ea.	Anchor Assy Type T Ea.	Flare LENGTH	Flare № POSTS	Flare Off Set To Last Post	Flare № Posts in Circ. Sec.	Bridge Terminal Assembly Type D Ea.	Bridge Terminal Assembly Type J Ea.	Bridge Terminal Assembly Type J Modf. Ea.	Bridge Terminal Assembly Type A Ea.
MAINLINE - OUTSIDE SHOULDERS																				
1	26		821+88.5	822+51	Lt.			50				1	62.5	10	4.74	10				
	26		822+51	830+51	Lt.	662.5		800												
	26		830+51	831+38.5	Lt.	87.5		62.5		1			87.5	14	8.53	10				
	26		831+38.5	832+13.5	Lt.	75														
2	26		823+89	824+14	Rt.					1										
	26		824+14	835+89	Rt.	1175		1175												
	26		835+89	836+01.5	Rt.	12.5						1								
3	26		833+50	833+62.5	Lt.	12.5						1								
	26		833+62.5	837+75	Lt.	412.5		412.5												
	26		837+75	838+75	Lt.	100		75		1			100	16	10.42	10				
4	27	27&28	856+50	856+75	Rt.					1										
	27	27&28	856+75	867+75	Rt.	1100		1100												
	28		867+75	870+50	Rt.			262.5				1								
5	27		857+00	857+12.5	Lt.	12.5														
	27		857+12.5	857+25	Lt.	12.5						1								
	27	27&28	857+25	867+62.5	Lt.	1037.5		1037.5												
	28		867+62.5	868+50	Lt.	62.5		62.5		1			87.5	14	8.53	10				
6	28		873+87.5	874+12.5	Rt.	12.5				1										
	28		874+12.5	876+25	Rt.	212.5		212.5												
	28		876+25	876+37.5	Rt.	12.5						1								
13	28		881+50	881+93.75	Lt.			31.25				1								
	28		881+93.75	883+43.75	Lt.	150		150												
	28		883+43.75	883+75	Lt.			6.25		1										
16	30		899+25.3	908+25.3	Lt.	900		887.5				1								1
17	30		904+69.4	904+94.4	Rt.	12.5				1										
	30		904+94.4	909+44.4	Rt.	450		450												1
19	30		910+93.2	914+18.2	Lt.	325		325												1
	30		914+18.2	914+43.2	Lt.					1										
21	30		911+58.1	913+64.35	Rt.	200		193.75				1								1
23	31		918+67.8	919+17.8	Rt.	50														
	31		919+17.8	919+42.8	Rt.	25				1										
	31		919+42.8	920+67.8	Rt.	125		125											1	
24	31		919+50	920+25	Lt.	75														
31	31		921+89.6	923+14.6	Lt.	125		125											1	
	31		923+14.6	923+39.6	Lt.	25				1										
	31		923+39.6	924+14.6	Lt.	75														
33	31		922+20.7	925+86.2	Rt.	287.5		365.5											1	1
34	31		927+54.2	928+17.7	Rt.	63.5		63.5											1	1
36	31		928+36.0	928+62.0	Lt.	26.0		26.0											1	1
43	31&33		930+02.8	948+46.6	Lt.	1812.5		1818.75		1									1	
	31		938+20	938+45	Rt.					1										
44	31		938+45	947+49	Rt.	900		900												
	31		947+49	947+61.5	Rt.							1								
45	33		959+35.3	960+35.3	Rt.	100		75		1			100	16	10.42	10				
	33		960+35.3	962+29	Rt.			193.75												
	33		962+29	967+75	Rt.	550		537.5				1								
46	33		964+50	967+26	Lt.	275		262.5				1								
	33		967+26	967+51	Lt.					1										
47	34		977+41	977+91	Rt.	50														
	34		977+91	978+16	Rt.	25				1										
	34		978+16	985+50	Rt.	750		737.5				1								
48	34		979+00	984+60	Lt.	550		537.5				1								
	34		984+60	985+10	Lt.			25		1										
49	34		992+00	992+37.5	Lt.	37.5		25				1								
	34		992+37.5	993+50	Lt.	112.5		87.5		1			112.5	18	12.32	10				
50	34&35		1001+12.5	1001+50	Lt.			12.5		1										
	34&35		1001+50	1017+73	Lt.	1787.5		1787.5												
	35		1017+73	1017+98	Lt.					1										
51	34		1002+01	1002+26	Rt.	25				1										
	34&35		1002+26	1016+68	Rt.	1587.5		1587.5												
	35		1016+68	1016+93	Rt.	25				1										
	35		1023+03.3	1024+03.3	Rt.	81.25		75		1			100	16	10.42	10				
52	35		1024+03.3	1033+22	Rt.	918.75		918.75												
	35		1033+22	1033+47	Rt.					1										
53	35		1023+75	1033+50	Lt.	975		950		1										
	35		1033+50	1033+75	Lt.					1										
54	36		1038+77.5	1039+02.5	Rt.	12.5				1										
	36		1039+02.5	1047+77.5	Rt.	875.0		875												
	36		1047+77.5	1048+02.5	Rt.	25				1										
55	36		1038+90	1039+15	Lt.					1										
	36		1039+15	1048+02.5	Lt.	887.5		887.5												
	36		1048+02.5	1048+27.5	Lt.					1										
56	36		1050+75	1051+00	Lt.					1										
	36		1051+00	1056+50	Lt.	550		550												
	36		1056+50	1056+75	Lt.	12.5				1										
57	36		1051+03	1051+28	Rt.					1										
	36		1051+28	1057+03	Rt.	575		575												
	36		1057+03	1057+28	Rt.					1										
TOTAL MAINLINE OUTSIDE SHOULDERS						21,414.5		21,417.5		34		15					6	3		4

(Quantities Carried To Sheet № 38)

GUARD RAIL SUMMARY

QUANTITIES	
Calculated by	Checked by
W.S.E. 11-3-77	R.E.M. 12-7-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

38/65

HAS 22-(15.03-18.91)

REF. Nº	SHEET Nº PLAN	SHEET Nº DETAIL	LOCATION FROM	LOCATION TO	SIDE & or ℄	202 Guard Rail Removed For Storage Lin. Ft.	202 Guard Rail Barr. Des. Removed For Storage Lin. Ft.	606 Guard Rail Type 5 Lin. Ft.	606 Guard Rail Type 5 Barrier Design Lin. Ft.	Anchor Ass'y Type A Ea.	Anchor Ass'y Type A Barr. Design Ea.	Anchor Ass'y Type T Ea.	Flare Length	Flare Nº Posts	Flare Off Set To Last Post	Flare Nº Posts in Circ. Sec.	Bridge Terminal Assembly Type D Ea.	Bridge Terminal Assembly Type J Ea.	Bridge Terminal Assembly Type J Mod. Ea.	Bridge Terminal Assembly Type A Ea.
MEDIAN																				
	28		868+75	870+00	Med.			100		1			125	20	8.30	5				
5A	28		870+00	870+50	Med.			37.5				1								
12	28	40	880+50	883+06.3	Med.	150	50	412.5			2		See Detail							
18	30	39	906+73.4	909+10.9	Med.	350	37.5	87.5	125		1		150	24	18.00	10				1
20	30	40	911+24.5	914+61.3	Med.	400	25	602.25			1		See Detail							2
22	31	39	918+17.3	920+54.8	Med.	350	37.5	87.5	125		1		150	24	18.00	10	1			
32	31	39	922+01.6	926+17.1	Med.	800		187.5	228				See Detail				2			
35	31		927+85.0	928+46.2	Med.	94.25		94.25					Continuous G.R. Between Bridge (Both Road ways)				2	2		
42	31	39	929+66.6	932+14.5	Med.	362.5	37.5	87.5	125		1		150	24	18.00	10	1			
TOTAL MEDIAN						2506.75	187.5	1696.5	603	1	6	1					6	2		3
U.S.R. 250 INTERCHANGE																				
RAMP "C"																				
7	28		6+62.5	6+87.5	Lt.	12.5				1										
	28		6+87.5	8+25	Lt.	137.5		125				1								
8	28		6+62.5	6+87.5	Rt.	12.5				1										
	28		6+87.5	9+60.88	Rt.	273.38		273.38												
TOTAL RAMP "C"						435.88		398.38		2		1								
RAMP "D"																				
8	28		0+00	4+24.0	Lt.	501.62		501.62												
10	28		0+00	U.S.R. 22 882+12	Rt.	1395		1395												
	28		U.S.R. 22 882+12	U.S.R. 22 882+37	Rt.			12.5				1								
11	28		5+09.5	5+34.5	Lt.	12.5				1										
	28		5+34.5	8+39.5	Lt.	325		325				1								
TOTAL RAMP "D"						2234.12		2234.12		1		2								
U.S.R. 250 Cross Road																				
8	28		Co. Rd. 2 22+33	509+12.96	Rt./Lt.	375		350		1										
9	28		506+38.01	Co. Rd. 2 23+00	Lt.	362.5		337.5		1										1
10	28		506+63.10	509+42.96	Rt.	280		280												1
14	28		RAMP B 1+40	503+91.05	Rt.	125		100		1										1
15	28		RAMP A 0+68	502+81.47	Rt./Lt.	37.5														
	28		502+81.47	503+68.97	Lt.	87.5		62.5		1										1
TOTAL U.S.R. 250 Cross Road						1267.5		1130		4										4
TOTAL U.S.R. 250 INTERCHANGE						3937.5		3762.5		7		3								4

REF. Nº	SHEET Nº PLAN	SHEET Nº DETAIL	LOCATION FROM	LOCATION TO	SIDE & or ℄	202 Guard Rail Removed For Storage Lin. Ft.	202 Guard Rail Barr. Des. Removed For Storage Lin. Ft.	606 Guard Rail Type 5 Lin. Ft.	606 Guard Rail Type 5 Barrier Design Lin. Ft.	Anchor Ass'y Type A Ea.	Anchor Ass'y Type A Barr. Design Ea.	Anchor Ass'y Type T Ea.	Flare Length	Flare Nº Posts	Flare Off Set To Last Post	Flare Nº Posts in Circ. Sec.	Bridge Terminal Assembly Type D Ea.	Bridge Terminal Assembly Type J Ea.	Bridge Terminal Assembly Type J Mod. Ea.	Bridge Terminal Assembly Type A Ea.
S.R.9 INTERCHANGE																				
RAMP "F"																				
25	31		2+50	3+68	Lt.	112.5		100				1						1		
26	31		3+01	3+64	Rt.	62.5														
27	31		5+15	6+61	Rt.	150		125			1									1
28	31		5+22	9+30.28	Lt.	408.28		408.28												1
TOTAL RAMP "F"						733.28		633.28			1	1						2	1	
RAMP "E"																				
28	31		0+41	6+82.09	Rt.	716.72		716.72												
29	31		0+46	13+25	Lt.	1237.5		1237.5												1
TOTAL RAMP "E"						1954.22		1954.22												1
RAMP "G"																				
			3+73	5+98	Rt.	225		225												1
37	31		5+98	6+10.5	Rt.	12.5						1								
	31		6+10.5	6+35.5	Rt.	25														
38	31		12+49.2	12+74.2	Rt.						1									
	31		12+74.2	14+86.7	Rt.	212.5		212.5												1
39	31		12+71.5	12+96.5	Lt.	12.5						1								
	31		12+96.5	14+78	Lt.	187.5		187.5												1
40	31		15+77.5	17+02.5	Lt.	125		125												1
	31		17+02.5	17+27.5	Lt.	25					1									
41	31		15+86.1	17+11.1	Rt.	125		125												1
	31		17+11.1	17+23.6	Rt.	12.5						1								
TOTAL RAMP "G"						975		875			2		3						2	3
S.R.9 CROSS ROAD																				
28	32		112+45.5	113+08	Rt.			37.5			1									
	32		113+08	RAMP E 0+41	Rt.	600		600												
29	32		RAMP E 0+46	122+30	Rt.	312.5		312.5												
	32		122+30	126+98.8	Rt.			468.75												
	32		126+98.8	127+23.8	Rt.						1									
30	32		113+50	113+75	Lt.	25					1									
	32		113+75	122+61	Lt.	875		875												
	32		122+61	126+61	Lt.			400												
	32		126+61	126+86	Lt.															
TOTAL S.R.9 Cross Road						1812.5		2693.75			4									
TOTAL S.R.9 INTERCHANGE						5475		6156.25			7		4						4	5

Above Quantities Carried To Guard Rail Summary This Sheet

GUARD RAIL SUMMARY

ITEM Nº	DESCRIPTION	UNITS	LOCATIONS: MAIN LINE OUT SIDE SHOULDER	MAIN LINE MEDIAN	U.S.R. 250	S.R. 9	TOTALS
202	Guard Rail Removed For Storage	Lin. Ft.	21,414.5	2,506.75	3937.5	547.5	33,334
202	Guard Rail, Barrier Design, Removed For Storage	Lin. Ft.		187.5			188
606	Guard Rail, Type 5	Lin. Ft.	21,417.5	1,696.5	3,762.5	6,156.25	33033
606	Guard Rail, Type 5, Barrier Design	Lin. Ft.		603.0			603
606	Anchor Assembly, Type A	Each	34	1	7	7	49
606	Anchor Assembly, Type A, Barrier Design	Each		6			6
606	Anchor Assembly, Type T	Each	15	1	3	4	23
606	Bridge Terminal Assembly, Type D	Each	6	6		4	16
606	Bridge Terminal Assembly, Type J	Each	3	2		5	10
606	Bridge Terminal Assembly, Type J, Modified As Per Plan	Each			4		4
606	Bridge Terminal Assembly, Type A	Each	4	3			7

TOTALS CARRIED TO GENERAL SUMMARY, SHEET Nº 23

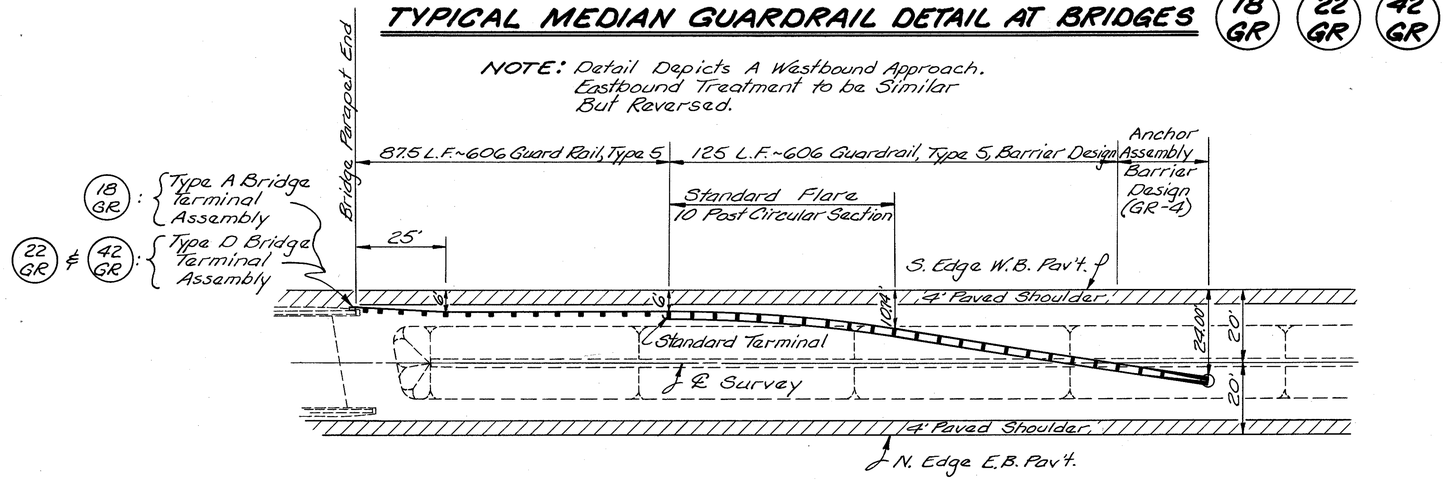
FHWA REGION	STATE	PROJECT	
5	OHIO		

39/65

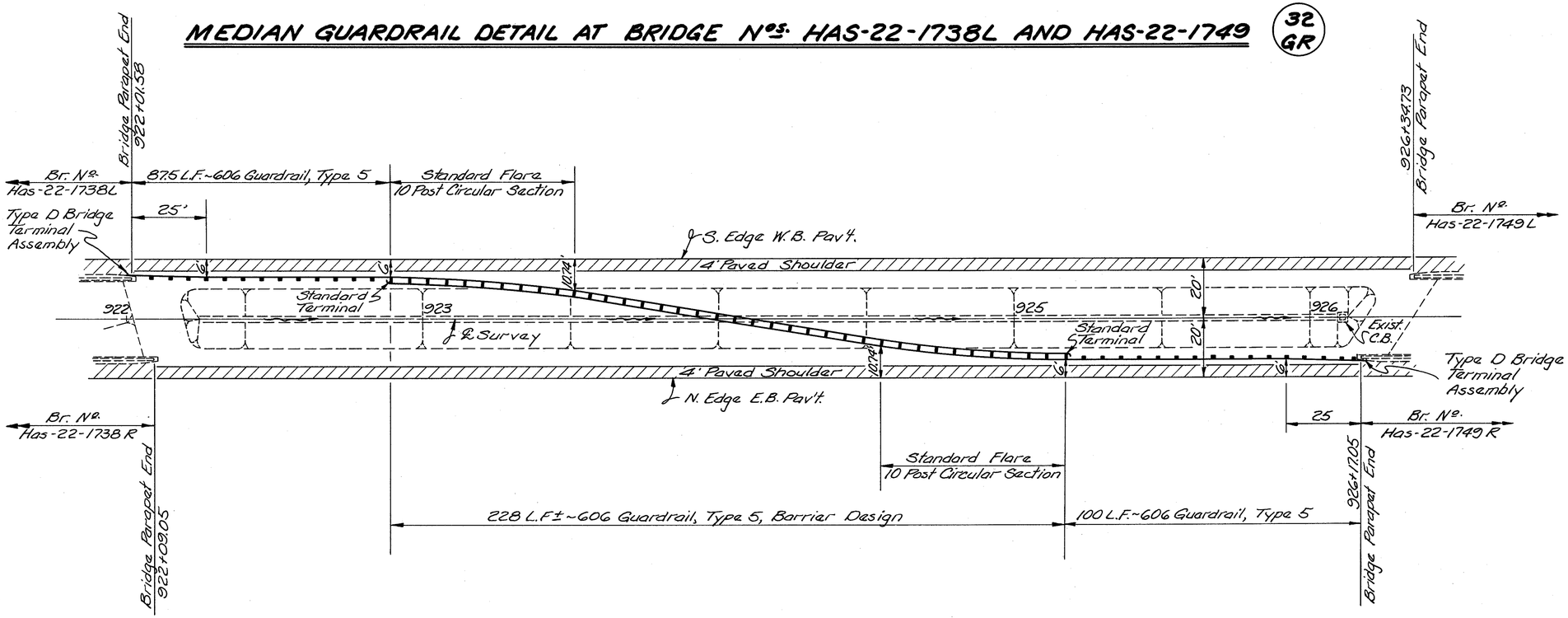
HAS-22-(15.03-18.91)

TYPICAL MEDIAN GUARDRAIL DETAIL AT BRIDGES (18 GR) (22 GR) (42 GR)

NOTE: Detail Depicts A Westbound Approach. Eastbound Treatment to be Similar But Reversed.



MEDIAN GUARDRAIL DETAIL AT BRIDGE Nos. HAS-22-1738L AND HAS-22-1749 (32 GR)



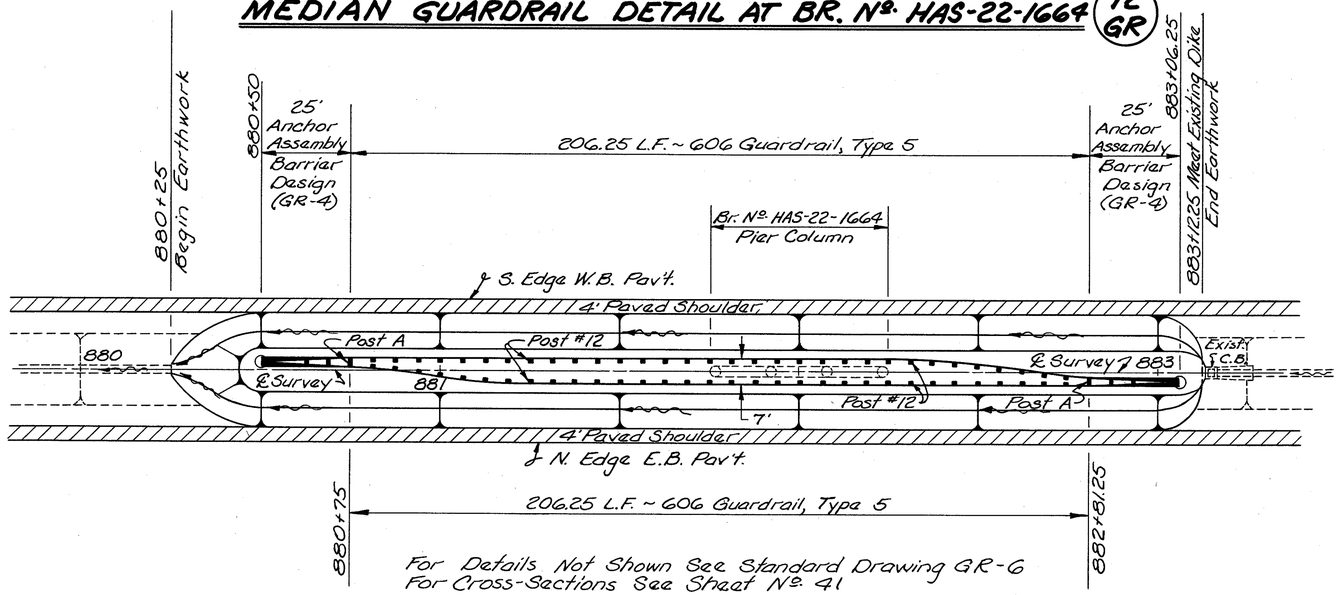
MEDIAN GUARDRAIL DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

40/65

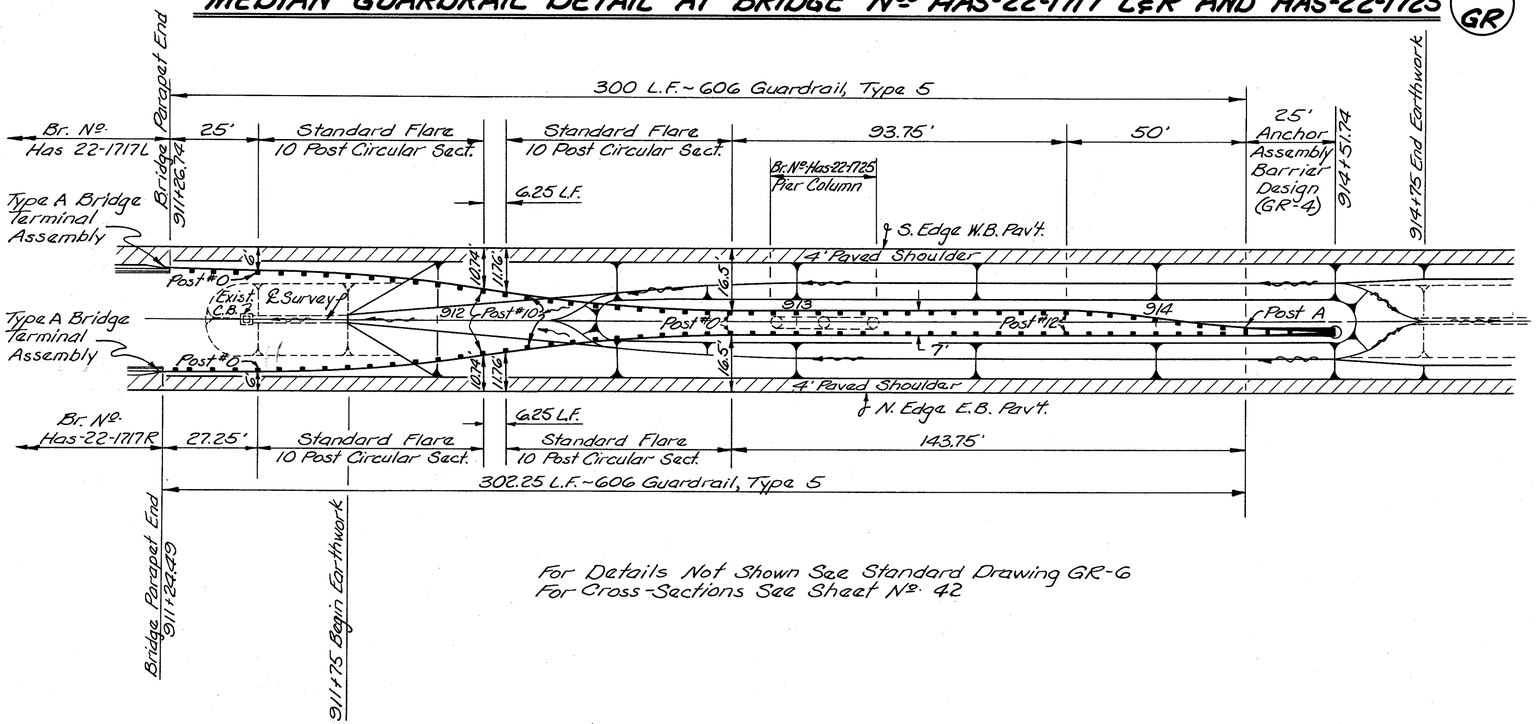
HAS-22-(15.03-18.91)

MEDIAN GUARDRAIL DETAIL AT BR. Nº. HAS-22-1664 (12 GR)



For Details Not Shown See Standard Drawing GR-6
For Cross-Sections See Sheet Nº. 41

MEDIAN GUARDRAIL DETAIL AT BRIDGE Nºs HAS-22-1717 L&R AND HAS-22-1725 (20 GR)



For Details Not Shown See Standard Drawing GR-6
For Cross-Sections See Sheet Nº. 42

PLOTTING & END AREAS		QUANTITIES	
By: E.E.H. 11-23-77	Checked By: R.E.M. 12-13-77	Calculated By: E.E.H. 11-23-77	Checked By: R.E.M. 12-14-77

41
65

HAS-22-(15.03-18.91)

40 30 20 10 ℄

105
100

North Edge Eastbound Pav't.

12:1 6.5:1 F-16 6.5:1 12:1
F-1 102.2 102.2

881+75
102.70

6.5:1 6.5:1
F-25
101.9 101.9

881+50
102.35

6:1 6:1
F-31
101.5 101.5

881+25
102.00

6.5:1 6.5:1
F-40
101.1 101.1

881+00
101.55

6.6:1 6.6:1
F-39
100.7 100.7

880+75
101.15

North Edge Eastbound Pav't.

12:1 6.6:1 6.6:1 12:1
F-37
100.3 100.3

880+50
100.78

BEGIN EARTHWORK & SEEDING 880+25

40 30 20 10 ℄

Seeding Width	Seeding S.Y.	End Area Fill	Cu. Yds. Emb.
	72		16
26		17	
	72		19
26		25	
	72		26
26		31	
	74		33
27		40	
	78		37
29		39	
	81		35
29		37	
	40		17
0		0	

40 30 20 10 ℄

END EARTHWORK & SEEDING 883+12.25

105
100

F-1 12:1 6.5:1 F-14 6.5:1 F-1 12:1
North Edge Eastbound Pav't.
104.1 104.1

883+00
104.57

F-1 F-1
F-14
103.8 103.8

882+75
104.21

F-1 F-1
F-14
103.4 103.4

882+50
103.85

F-1 F-1
F-13
103.0 103.0

882+25
103.48

6.5:1 6.5:1 12:1
F-18
102.6 102.6
North Edge Eastbound Pav't.

882+00
103.08

Embankment 246 C.Y.
Seeding 807 S.Y.

Quantities Carried To Sheet No. 13

Seeding Width	Seeding S.Y.	End Area Fill	Cu. Yds. Emb.
0		0	
	20		4
29		16	
	79		15
28		16	
	75		15
26		16	
	72		14
26		15	
	72		15
26		18	

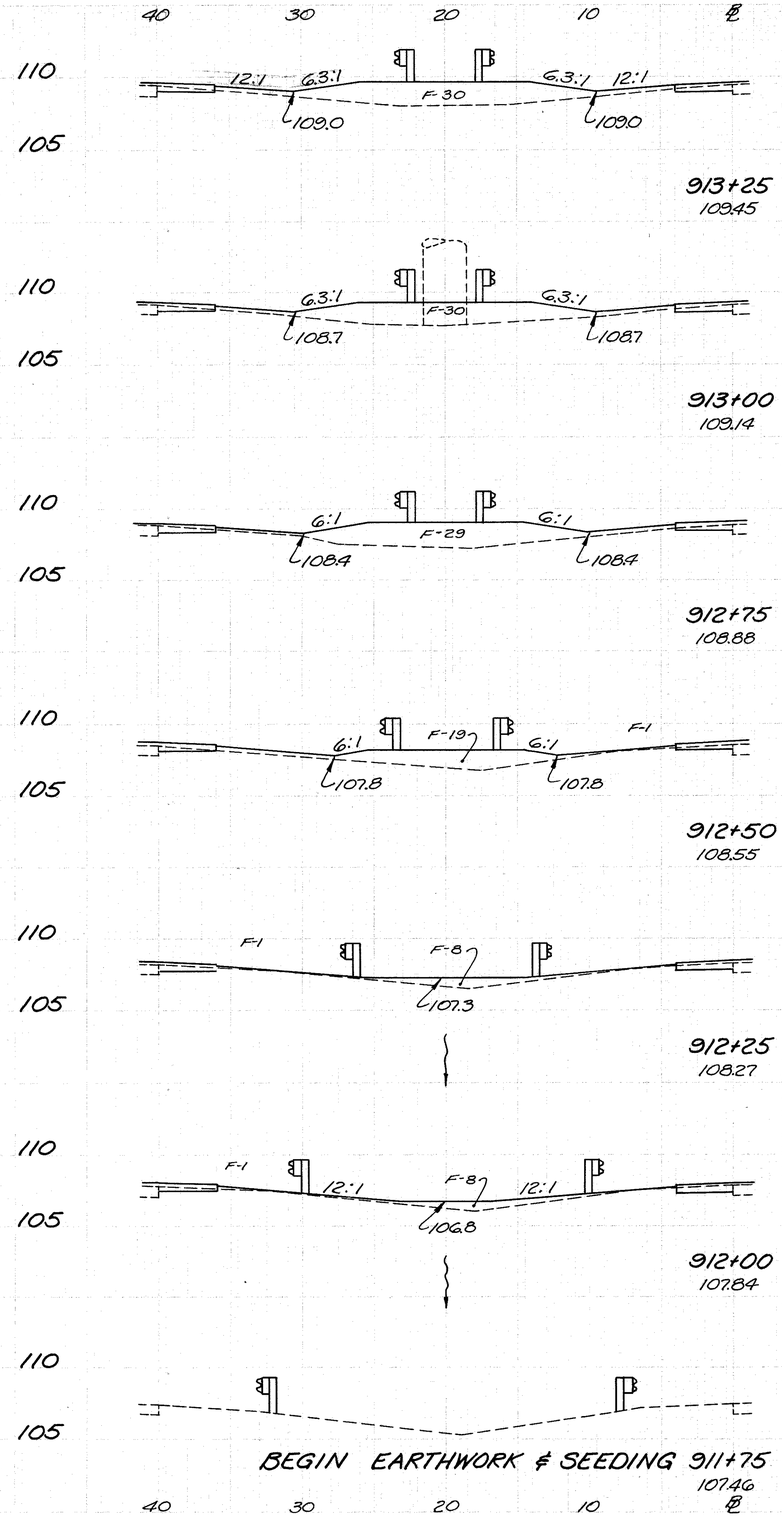
40 30 20 10 ℄

MEDIAN CROSS SECTIONS STA. 880+25 TO STA. 883+12.25

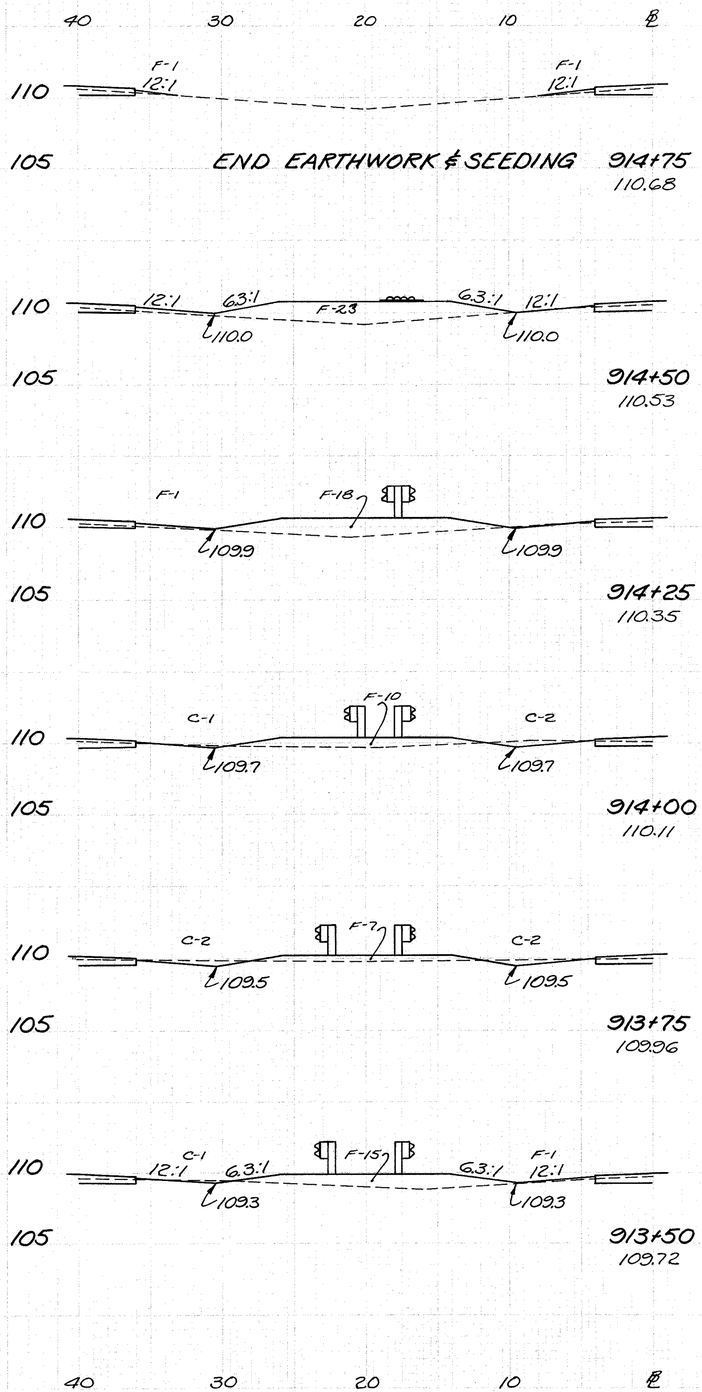
PLOTTING & END AREAS		QUANTITIES	
By:	Checked By	Calculated By:	Checked By:
E.E.H. 11-28-77	R.E.M. 12-13-77	E.E.H. 11-28-77	R.E.M. 12-14-77

42
65

HAS-22-(15.03-18.91)



Seeding		End Area		Cu. Yds.	
Width	S.Y.	Cut	Fill	Exc.	Emb.
	72			1	21
26		0	30		
	72			0	28
26		0	30		
	72			0	27
26		0	29		
	72			0	23
26		0	20		
	72			0	13
26		0	9		
	72			0	8
26		0	9		
	36			0	4
0		0	0		



Seeding		End Area		Cu. Yds.	
Width	S.Y.	Cut	Fill	Exc.	Emb.
0		0	0		
	40			0	11
29		0	23		
	81			0	19
29		0	19		
	76			3	13
26		3	10		
	72			3	8
26		4	7		
	72			2	11
26		1	16		

Seeding 809 S.Y.
Excavation 7 C.Y.
Embankment 186 C.Y.

Quantities Carried To Sheet No. 13

PARTIAL DEPTH PAVEMENT REPAIR

ITEM SPECIAL ~ PARTIAL DEPTH PAVEMENT JOINT REPAIR

This item shall consist of partial depth removal of deteriorated pavement and its replacement with asphalt concrete in accordance with the note in the proposal.

The following estimated quantity has been included in the general summary to be used as directed by the engineer.

ITEM SPECIAL ~ PARTIAL DEPTH PAVEMENT REPAIR					
STATION		Approx. Length of 12' Wide Lane			
		WEST BOUND		EAST BOUND	
		Travel Lane	Passing Lane	Passing Lane	Travel Lane
From	To	Lin. Ft.	Lin. Ft.	Lin. Ft.	Lin. Ft.
795+45	807+89.02	1,244.02	———	———	1,244.02
807+89.02	814+74.19	685.17	———	685.17	685.17
814+74.19	1001+98.57	18,724.38	18,724.38	18,724.38	18,724.38
1001+98.57	1061+05	5906.43	———	———	5906.43
Add For Equation: 1013+25.70 Bk = 1011+67.06 Ah		+158.64	———	———	+158.64
Deduct For Bridges	HAS-22-1717	-235.80	-235.80	-181.80	-181.80
	HAS-22-1738	-191.56	-191.56	-131.56	-131.56
	HAS-22-1749	-133.64	-133.64	-133.64	-133.64
	HAS-22-1753	-91.46	-91.46	-91.46	-91.46
Net Totals		26,066.18	18,071.92	18,871.09	26,180.18
Total Length of 12' Lane		89,189.37 Lin. Ft.			

∴ Approximate Nº of Transverse Joints (12' Wide) in Mainline Pavement = 89,190 L.F. x 1 Joint / 60 L.F. = 1,487 Joints

Estimate 30% of Transverse Joints in need of repair and average size of transverse Joint repair to be 6' x 3':
∴ Est. partial depth repair Quantity for Transverse Joints = 0.30 x 1,487 Joints x 6' x 3' x 1 S.Y. / 9 S.F. = 892.2 Use 900 Sq. Yds.

Approx. Length of Longitudinal Joint in Mainline Pav't.:
= 1,244.02 + 685.17 + 2(18,724.38) - 652.46 (W.B. Bridges) - 538.46 (E.B. Bridges) + 5906.43 + 158.64 = 44,252.10 L.F.
Estimate 2% of above in need of repair avg. size 1' wide: ∴ Est. partial depth repair Quantity for Long. Joints = .002 x 44,252.10' x 1' x 1 S.Y. / 9 S.F. = 100 Sq. Yds.

∴ Estimated total quantity of Item Special ~ Partial Depth Pavement Repair = 900 + 100 = 1000 Sq. Yds. Carried to General Summary. See proposal note for description of this Item.

QUANTITIES	
Calculated By	Checked By
J.C.N. 1-12-78	W.S.R. 1-19-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

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HAS-22-(15.03-18.91)

PAVEMENT REPLACEMENT DETAIL

B.M. ~ South Edge of Existing East Bound Pav't. Stencil Sta. 983+00 Assumed Elevation 100.00

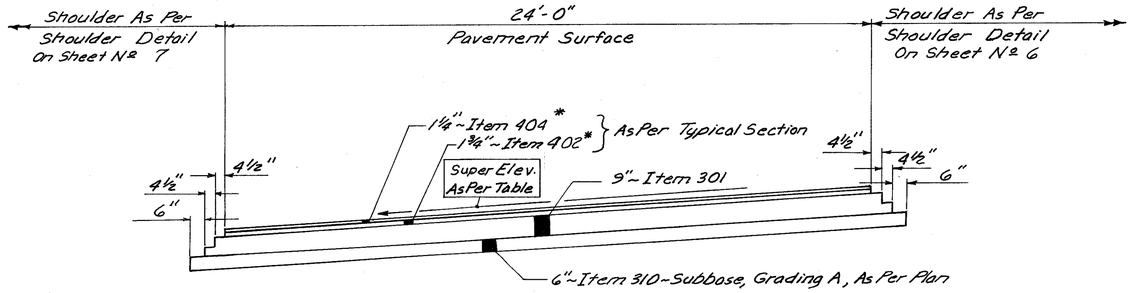
SUPERELEVATION TABLE EASTBOUND LANE				COMMENTS
Station	Left Edge	℄ Pav't.	Right Edge	
983+25	98.18	98.95	99.72	Exist. Pav't.
+44 ®	97.96	98.73	99.50	
+50	97.89	98.66	99.43	
+75	97.60	98.37	99.14	Replacement Pavement
984+00	97.29	98.06	98.83	
+25	96.97	97.74	98.51	
+50	96.64	97.41	98.18	
+75	96.30	97.07	97.84	
985+00	95.94	96.71	97.48	
+24 ®	95.59	96.31	97.02	Exist. Pav't.
+25	95.58	96.30	97.01	
+50	95.20	95.86	96.52	

These elevations represent the surface of the 301 Bituminous Aggregate Base course prior to placing Items 404 and 402 and are intended to restore the original profile grade prior to Resurfacing.

® ~ Meet Existing Pavement.

PAVEMENT REPLACEMENT							
Location		Length	Surface Width	202 Pavement Removed	203 Excavation Not Including Embankment Construction	301 Bituminous Aggregate Base	310 Subbase, Grading A, As Per Plan
From	To	Lin. Ft.	Lin. Ft.	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.
983+44	985+24	180	24	480	88.3	127.5	88.3
TOTAL				480	88.3	128	88

Above Quantities Carried to General Summary Except For Item 203 ~ Excavation Which is Carried to Sheet Nº 13



TYPICAL SECTION FOR PAVEMENT REPLACEMENT
Sta. 983+44 to Sta. 985+24, E.B. Lane

* Items 404 & 402 Are Included in Resurfacing Calculations, On Sheet Nº 8

PAVEMENT DETAILS

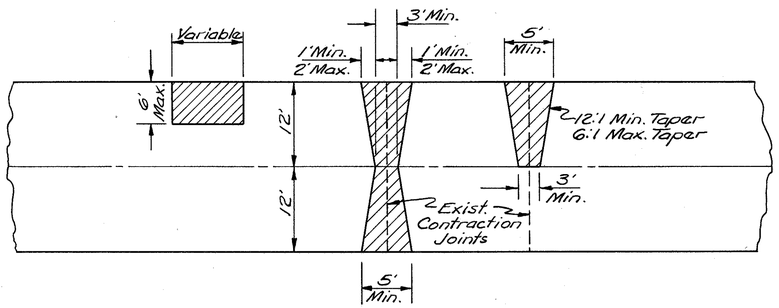
FHWA REGION	STATE	PROJECT	
5	OHIO		

44
65

HAS-22-(15.03-18.91)

Calculated By	Checked By
W.S.R. 1-11-78	R.E.M. 1-30-78

FULL DEPTH RIGID PAVEMENT REMOVAL & FLEXIBLE REPLACEMENT



PAVEMENT REMOVAL DETAIL

ITEM SPECIAL - FULL DEPTH RIGID PAVEMENT REMOVAL AND FLEXIBLE REPLACEMENT

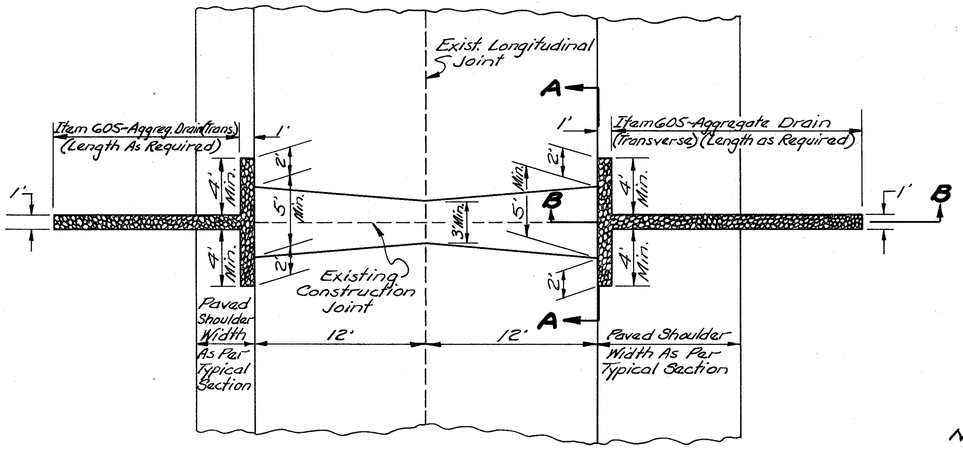
This Item shall consist of the full depth removal of deteriorated existing rigid pavement and its replacement with Item 301, in areas designated by the Engineer, in accordance with the note in the proposal.

Full depth repair areas shall be located and marked with paint by the Engineer prior to the start of the work. The limits of areas to be repaired may be adjusted at the direction of the Engineer. Rectangular patches may be used where they best fit the deteriorated areas.

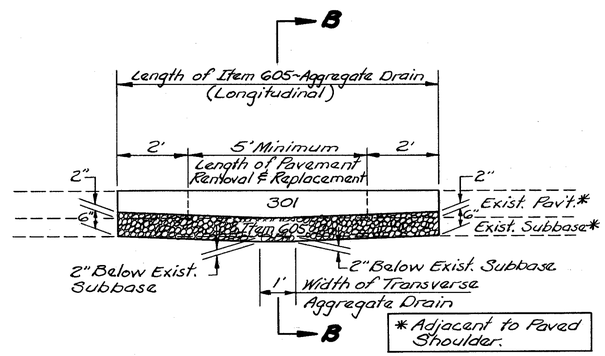
If unsuitable subbase is encountered in areas of full depth pavement, the Engineer may require its removal and replacement with Item 310 - Subbase, Payment for which shall include any necessary excavation.

The following Estimated Quantities have been included in the General Summary for the above purposes:

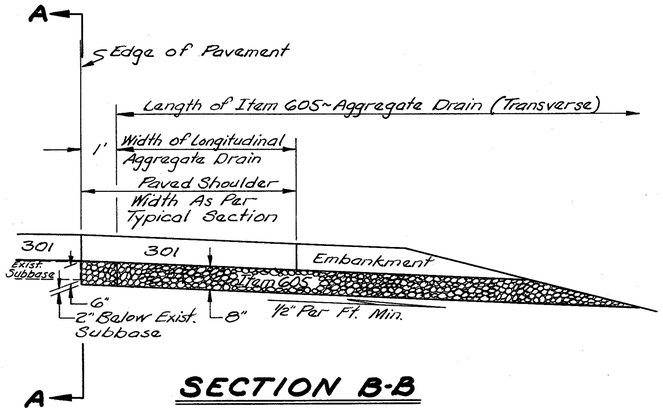
ESTIMATED QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER					
ITEM No.	DESCRIPTION	W. BOUND	E. BOUND	TOTAL	QUANTITIES CARRIED TO GENERAL SUMMARY
Special	Full Depth Rigid Pavement Removal and Flexible Replacement	180 Sq. Yds.	120 Sq. Yds.	300 Sq. Yds.	
310	Subbase	30 Cu. Yds.	20 Cu. Yds.	50 Cu. Yds.	



PLAN



SECTION A-A



SECTION B-B

NOTES: Longitudinal aggregate drains shall extend two (2) feet beyond the ends of each full depth rigid pavement removal and flexible replacement.

Transversvse aggregate drains shall be constructed at each full depth rigid pavement removal and flexible replacement.

The cost of 301 material and embankment over the longitudinal and transversa aggregate drains shall be included in the unit price bid for Item 605 - Aggregate Drains.

ESTIMATED QUANTITIES - ITEM 605 AGGREGATE DRAINS (For Flexible Replacement Areas Only)		
Type of Drain	W. Bound	E. Bound
Longitudinal	205 L.F.	145 L.F.
Transverse	250 L.F.	200 L.F.
Subtotals	455 L.F.	345 L.F.
TOTAL	800 L.F.	
CARRIED TO GENERAL SUMMARY		

FLEXIBLE REPLACEMENT & DRAINAGE DETAILS

PAVEMENT DETAILS

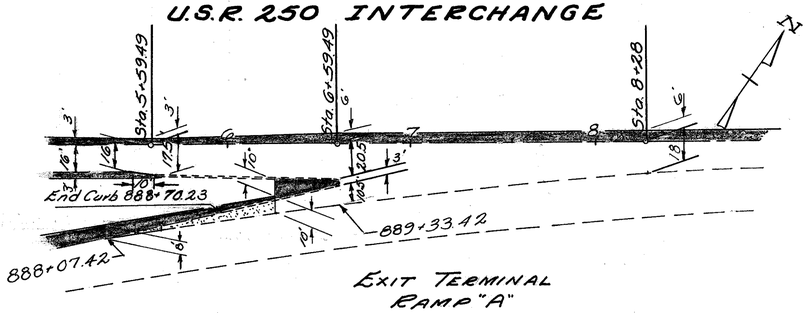
FHWA REGION	STATE	PROJECT	
5	OHIO		

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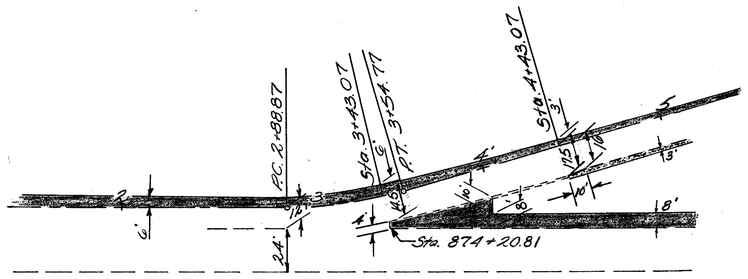
HAS 22 (15.03 - 18.91)

QUANTITIES	
Calculated by	Checked by
R.E.M. 1-9-78	W.S.E. 1-24-78

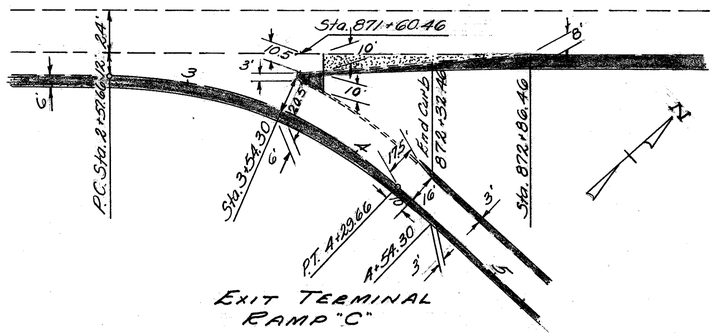
U.S.R. 250 INTERCHANGE



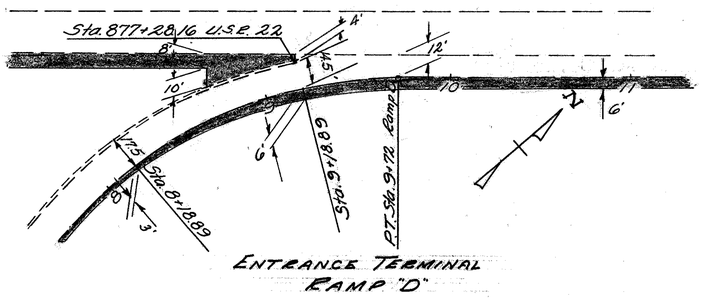
EXIT TERMINAL
RAMP "A"



ENTRANCE TERMINAL
RAMP "B"

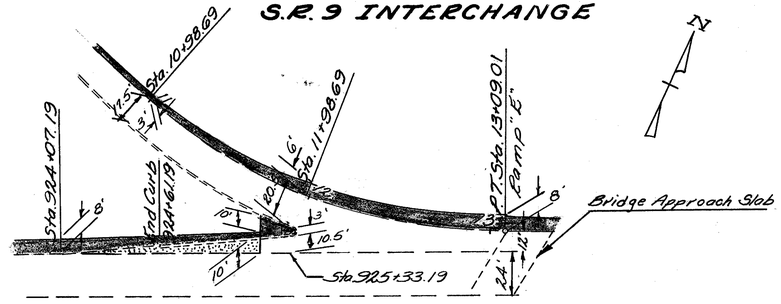


EXIT TERMINAL
RAMP "C"

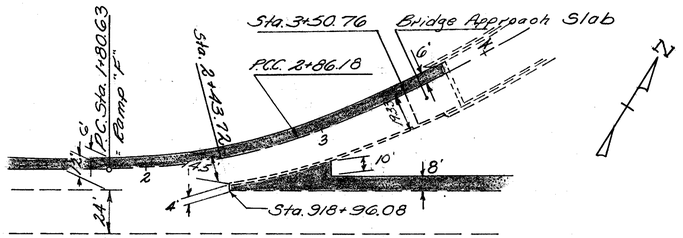


ENTRANCE TERMINAL
RAMP "D"

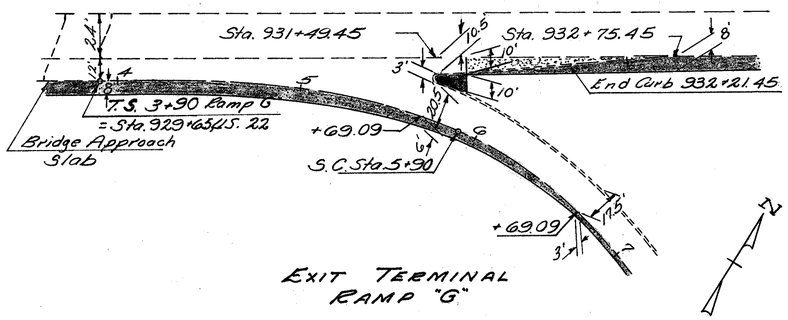
S.R. 9 INTERCHANGE



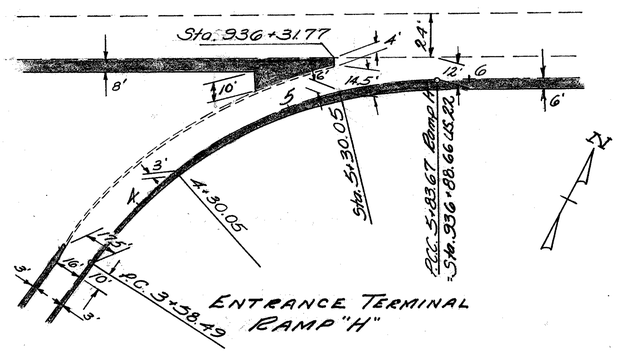
EXIT TERMINAL
RAMP "E"



ENTRANCE TERMINAL
RAMP "F"



EXIT TERMINAL
RAMP "G"



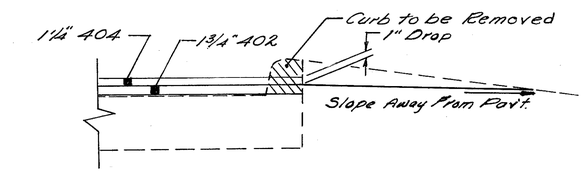
ENTRANCE TERMINAL
RAMP "H"

CURB AND MEDIAN PAVEMENT REMOVALS

INTERCHANGE	RAMP	FROM	TO	ITEM 202 Curb Removed Lin. Ft.	ITEM 202 Concrete Median Pav't. Removed Sq. Yd's.
U.S.R. 250	A	888+70.23	6+59.49	69'	4
		5+59.49	6+59.49	100'	
	B	3+43.07	4+43.07	100'	
	C	3+54.30	878+32.46	75'	3
		3+54.30	4+29.66	75'	
	D	8+18.89	9+18.89	100'	
S.R. 9	E	924+61.19	11+98.69	72'	3
		10+98.69	11+98.69	100'	
	F	2+43.72	3+50.76	107'	
	G	5+69.09	932+21.45	75'	3
		5+69.09	6+69.09	100'	
	H	3+58.49	5+30.05	172'	
TOTALS				1145	13
				Quantities Carried To General Summary	

NOTE:

ALL DIMENSIONS ARE TO THE BACK OF CURB WHERE CURB IS INDICATED. EXISTING CURB IS STD. TYPE 2-A AND SHALL BE REMOVED SO AS TO PROVIDE A FLUSH SURFACE WITH THE ADJACENT PAVEMENT. PRIOR TO RESURFACING AS SHOWN IN THE DETAIL BELOW. AREAS OF CURB AND CONCRETE MEDIAN PAVEMENT REMOVAL SHALL BE GRADED, SEEDED AND LEFT IN A NEAT CONDITION AS DIRECTED BY THE ENGINEER. COST OF GRADING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS 202: CURB REMOVED OR CONCRETE MEDIAN PAVEMENT REMOVED. SEEDING AND MULCHING SHALL BE MEASURED AND PAID FOR AS ITEM 659 - SEEDING AND MULCHING.



RAMP TERMINAL SHOULDER TREATMENT LEGEND

ITEM 409 SEAL COAT AGGREGATE AND BITUMINOUS MATERIAL ON ITEMS 404 AND 402 (ITEMS 404 AND 402 ARE MAINLINE PAVEMENT QUANTITIES, ITEMS 409 ARE MAINLINE SHOULDER QUANTITIES)

8" ITEM 301 BITUMINOUS AGGREGATE BASE (MAINLINE SHOULDER QUANTITY)

ITEM 409 SEAL COAT, COVER AGGREGATE AND BITUMINOUS MATERIAL ON ITEM 301 BITUMINOUS AGGREGATE BASE AS PER TYPICAL SECTIONS (MAINLINE AND RAMP SHOULDER QUANTITIES)

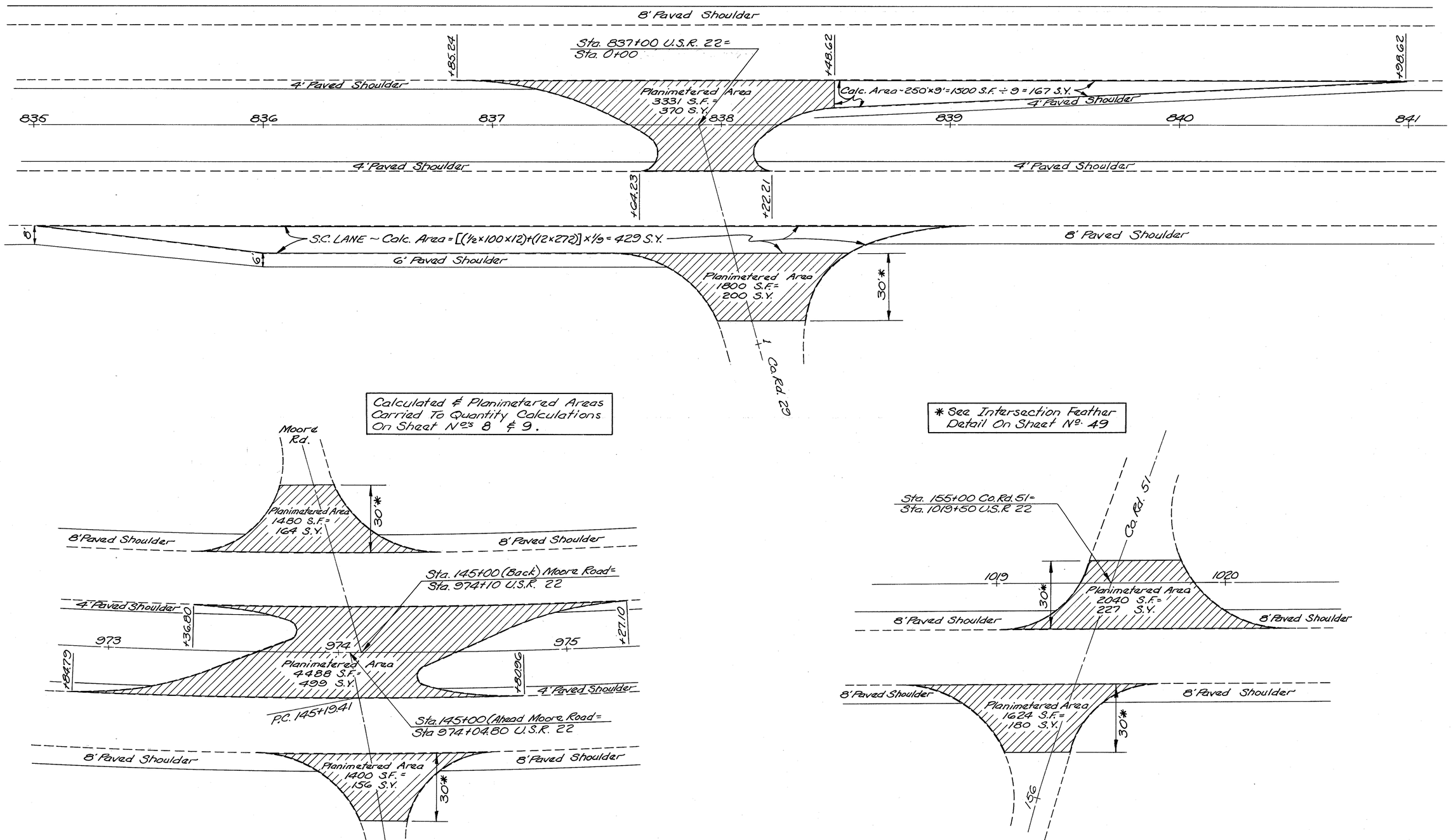
RAMP TERMINAL DETAILS

Calculated By	Checked By
R.E.M. 11-17-77	W.S.R. 11-21-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

HAS-22-(15.03-1891)

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PAVEMENT DETAILS

Calculated by	Checked by
R. E. M.	W. S. R.
11-17-77	11-21-77

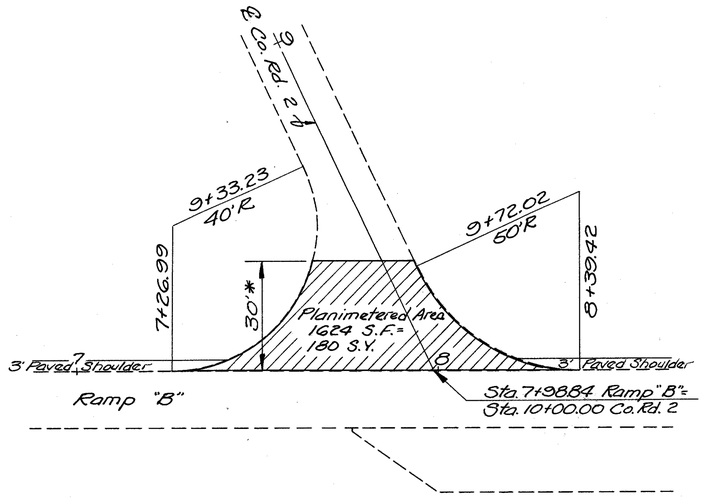
FHWA REGION	STATE	PROJECT	
5	OHIO		

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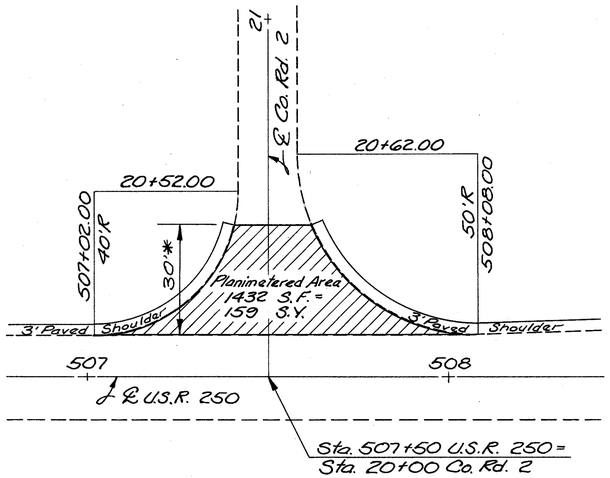
HAS-22-(15.03-18.91)

SCALE: 0' 20' 40'

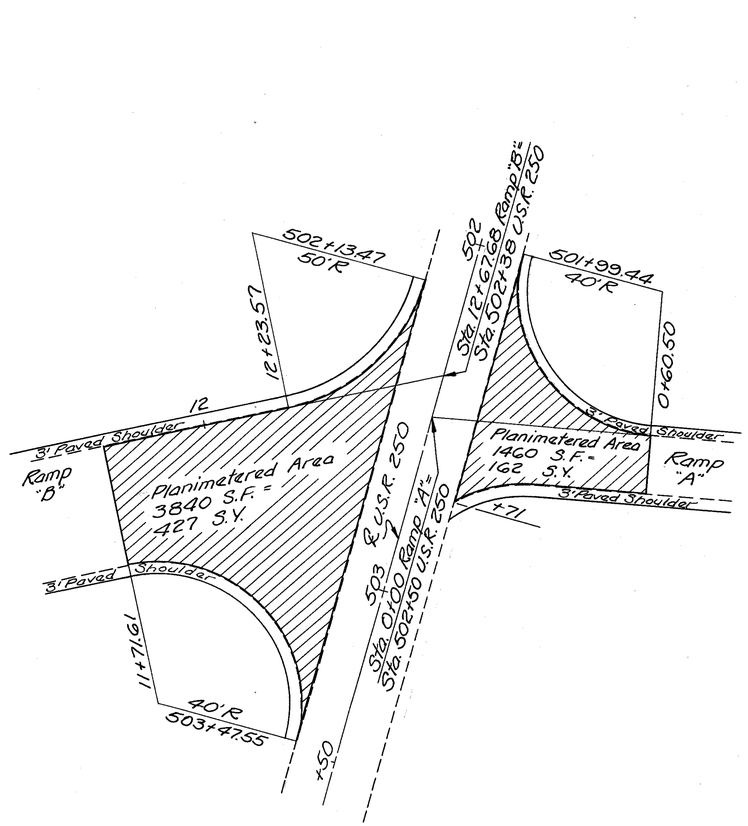
* See Intersection Feather Detail On Sheet No. 49



RAMP "B" & CO. RD. 2

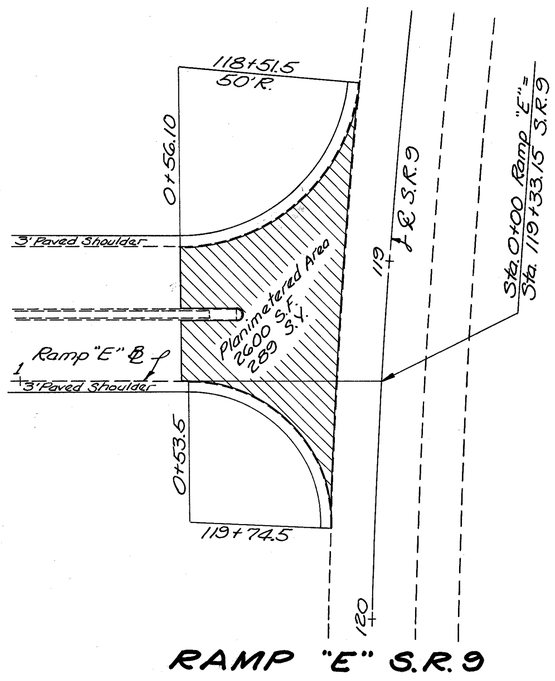


U.S.R. 250 & CO. RD. 2

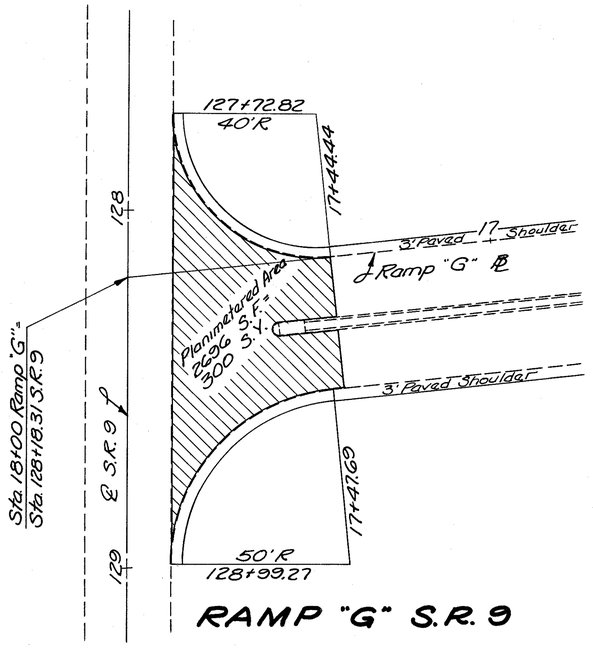


U.S.R. 250 WITH RAMPS "A" & "B"

Planimetered Areas Carried To Quantity Calculations On Sheet Nos 8 & 9.



RAMP "E" S.R. 9



RAMP "G" S.R. 9

PAVEMENT DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

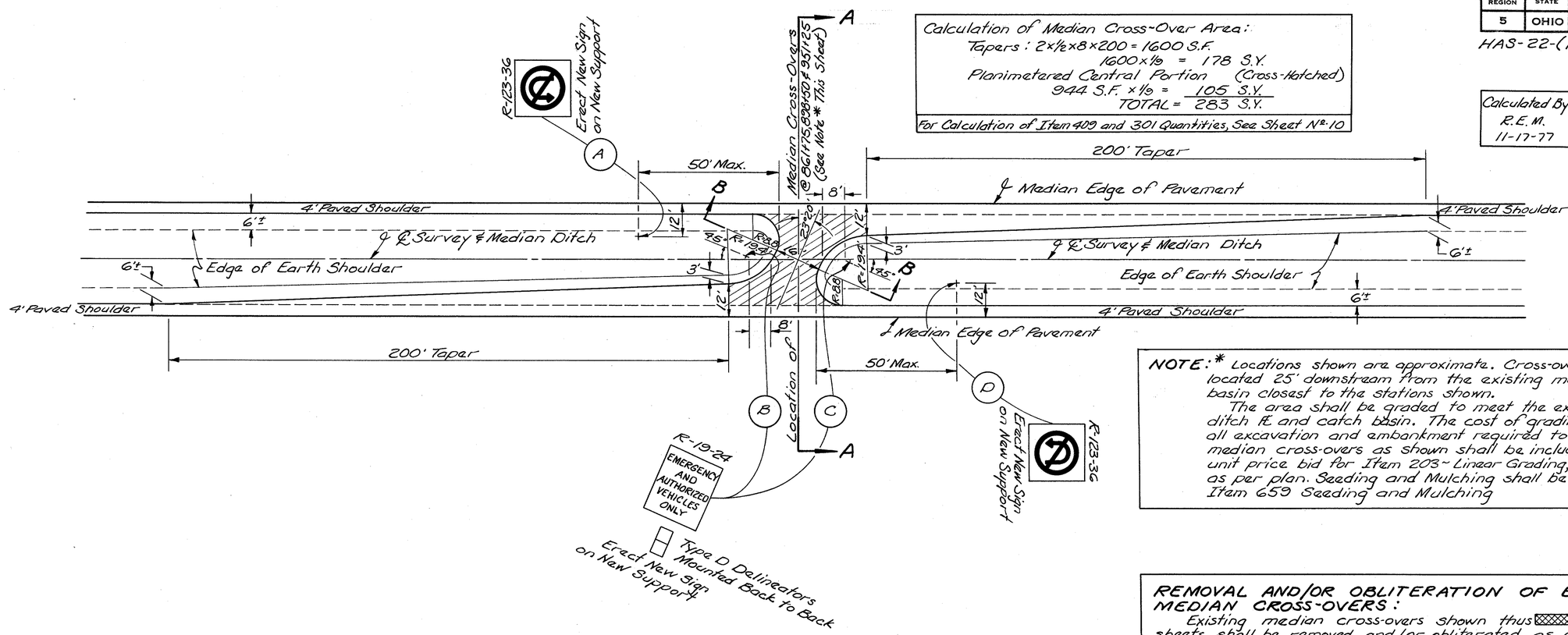
48/65

HAS-22-(15.03-18.91)

Calculated By	Checked By
R.E.M. 11-17-77	W.S.R. 11-21-77

Calculation of Median Cross-Over Area:
Tapers: 2 x ½ x 8 x 200 = 1600 S.F.
1600 x 1/9 = 178 S.Y.
Planimetered Central Portion (Cross-Hatched)
944 S.F. x 1/9 = 105 S.Y.
TOTAL = 283 S.Y.

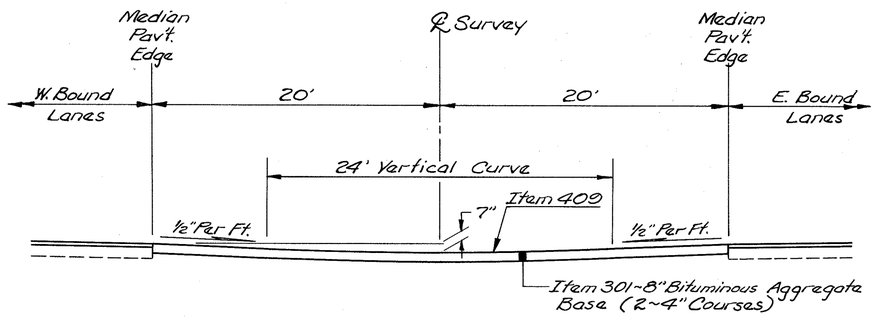
For Calculation of Item 409 and 301 Quantities, See Sheet No. 10



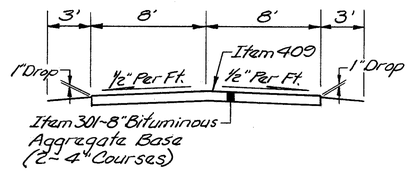
NOTE: * Locations shown are approximate. Cross-overs shall be located 25' downstream from the existing median catch basin closest to the stations shown.
The area shall be graded to meet the existing median ditch ℄ and catch basin. The cost of grading, including all excavation and embankment required to construct median cross-overs as shown shall be included in the unit price bid for Item 203 ~ Linear Grading, Method 3, as per plan. Seeding and Mulching shall be paid for as Item 659 Seeding and Mulching

REMOVAL AND/OR OBLITERATION OF EXISTING MEDIAN CROSS-OVERS:
Existing median cross-overs shown thus ▨ on the plan sheets shall be removed and/or obliterated as directed by the Engineer, in accordance with the General Note pertaining to linear grading on Sheet No. 14. These areas shall be graded to drain and seeded. Payment for all of the above, except seeding, shall be included in the unit price bid for Item 203 ~ Linear Grading, Method 3, as per plan. Seeding shall be measured and paid for as Item 659 ~ Seeding and Mulching. The following estimated seeding quantity has been carried to the Seeding calculations on Sheet No. 13.

Item 659 ~ Seeding & Mulching 1364 S.Y.



SECTION A-A



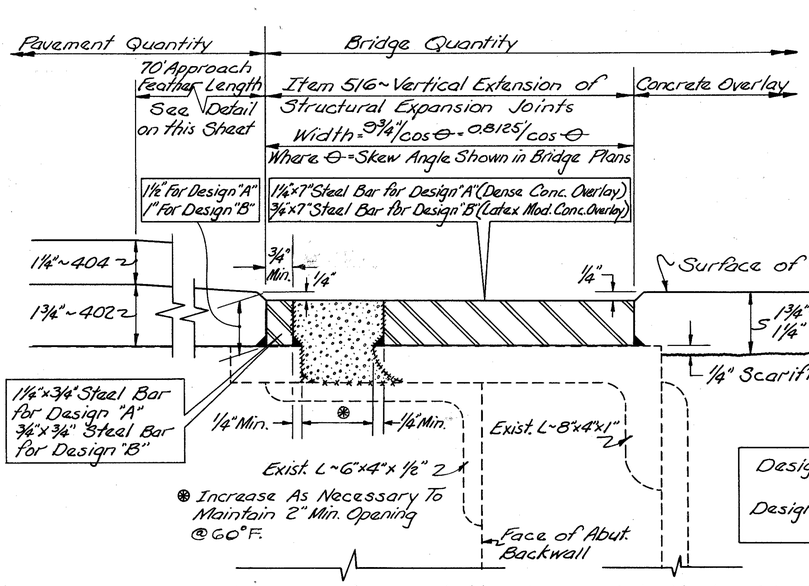
SECTION B-B

MEDIAN CROSS-OVER AND TRAFFIC CONTROL DETAILS

FHWA REGION	STATE	PROJECT	
5	OHIO		

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HAS-22-(15.03-18.91)



~ LEGEND ~

~ Continuous ¼" Fillet Weld

~ Item 516 ~ Joint Sealer, Hot Applied. Bridge Deck Waterproofing Membrane Materials Meeting The Requirements Of 705.01 May Be Used.

~ Surface Thus Indicated Shall Be Sandblasted And Wiped Clean. Joints Shall Be Filled Before Rust Forms. If Any Rust Forms, Before The Joint Can Be Filled, Surfaces Shall Be Resandblasted.

~ Bond To Surface Thus Indicated Shall Be Prevented By Use Of Foil Or Other Suitable Bond-Breaker Barrier Satisfactory To The Engineer. Care Shall Be Taken Not To Displace Barrier When Placing Joint Sealer.

Cost Of Sandblasting and Cleaning Steel And Furnishing And Placing Bond Breaking Barrier And Joint Sealer Shall Be Included In the Contract Unit Price Bid for Item 516 Joint Sealer, Hot Applied.

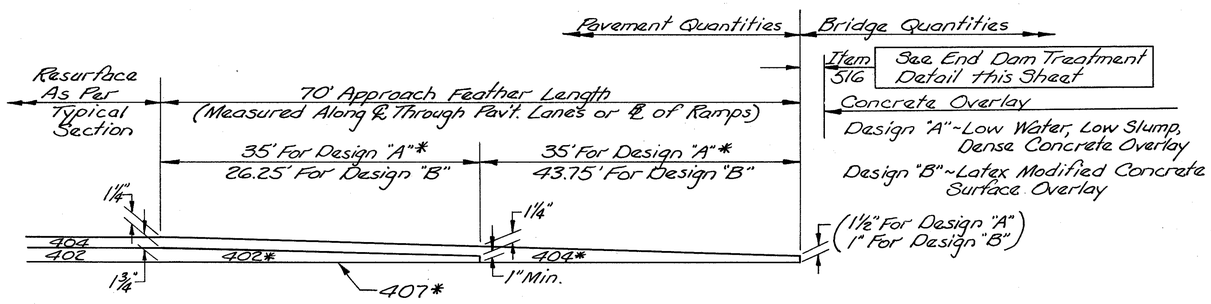
Design "A" ~ Low Water Low Slump Dense Concrete Overlay

Design "B" Latex Modified Concrete Surface Overlay

Vertical extension bars shall be placed only in the lane(s) closed to traffic immediately preceeding the overlay operation.

END DAM TREATMENT DETAILS

(The End Dam Treatment Detail Above Does Not Apply to BR. Nos. HAS-22-1717 L&R For End Dam Treatment At BR. Nos. HAS-22-1717 L&R, See Sheet No. 55)

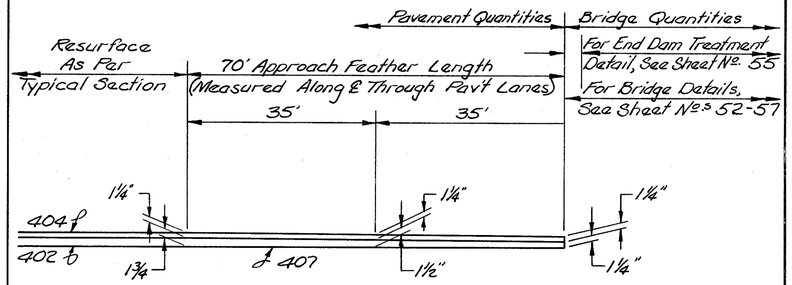


* NOTE: Quantity Calculations For Resurfacing Items Within The Limits of The 70' Approach Feather Length are Based Upon Design "A".

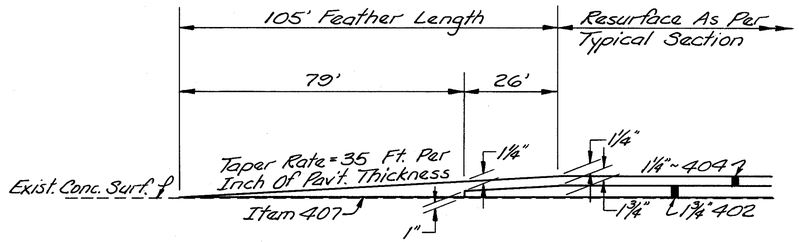
No Scale

APPROACH FEATHER DETAIL AT BRIDGE Nos

HAS-22-1738 L&R, HAS-22-1738 S.R. HAS-22-1749 L&R, HAS-22-1753 L&R HAS-22-1753 S.R.
For Approach Feather Detail @ BR. Nos. HAS-22-1717 L&R, See Upper Right, This Sheet

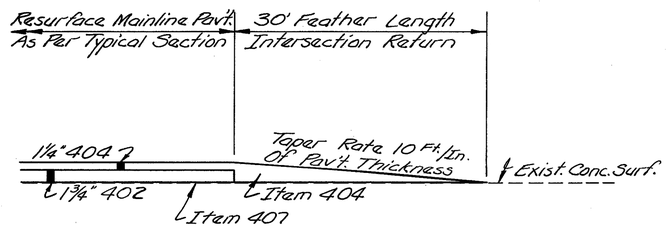


APPROACH FEATHER DETAIL AT BR. Nos. HAS-22-1717 L&R



No Scale

PAVEMENT TRANSITION DETAIL AT EACH END OF PROJECT



No Scale

INTERSECTION FEATHER DETAIL

MISCELLANEOUS DETAILS

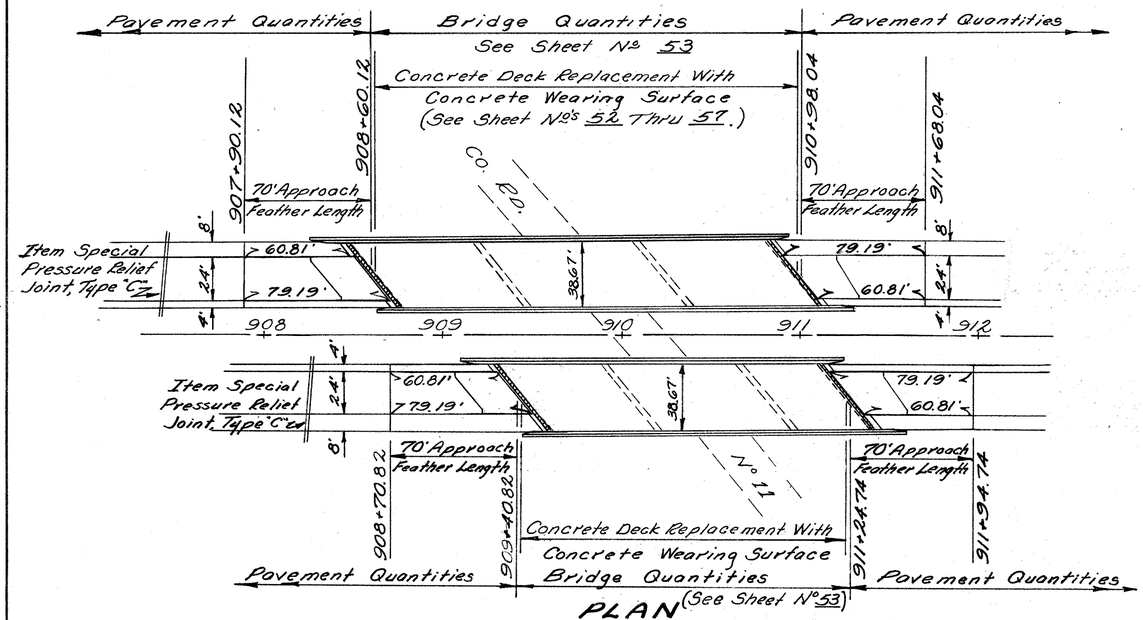
Revised 7-12-78 DWJ

QUANTITIES	
Calculated by W.S.R. 10-6-77	Checked by J.J.N. 1-12-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

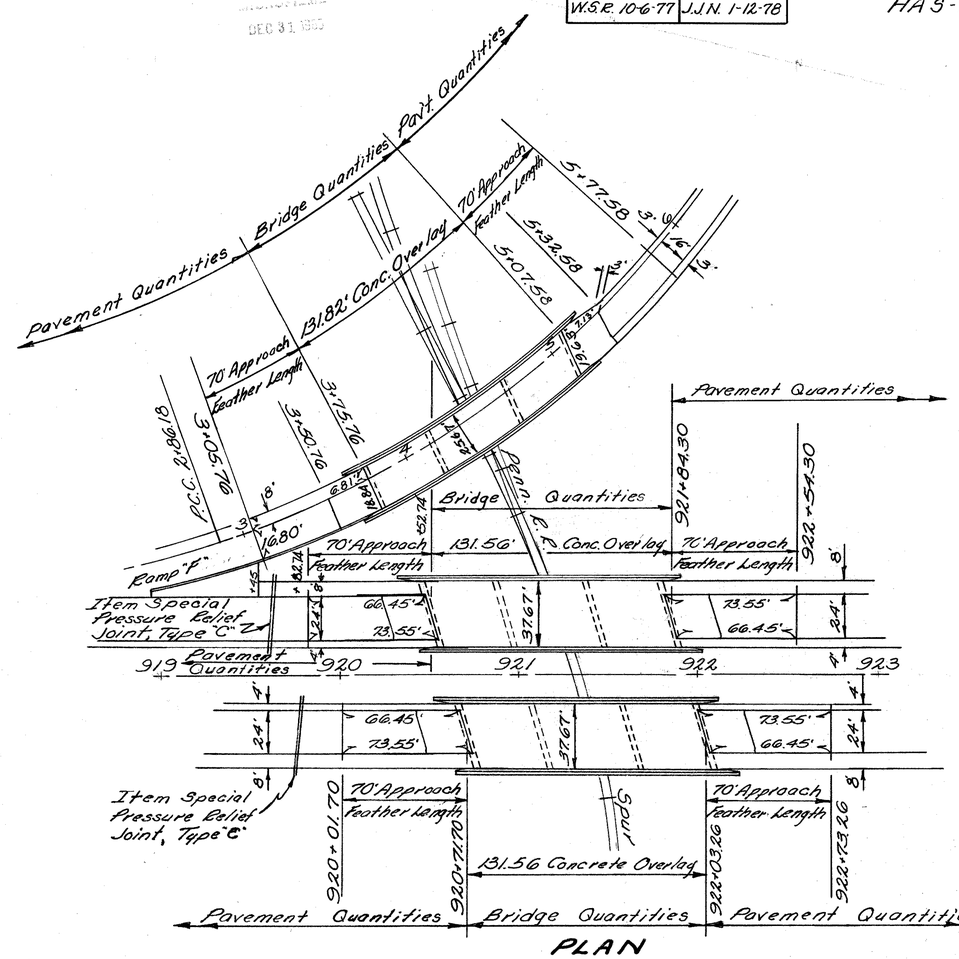
50/65

HAS-22-(15.03-18.91)



PLAN (See Sheet N° 53)

Bridge N° HAS-22-1717 L/R - (Skew 40° R.F.)



PLAN

Bridge N° HAS-22-1738 L/R & HAS-22-1738 S.R. (Ramp "F")

(Skew 16°30' R.F.) (Skew 10° L.F. Rel. to C.H. Between Abut. Faces)

CALCULATION OF BRIDGE QUANTITIES (CARRIED TO SHEET N° 51)

BRIDGE N°	ROADWAY	LOCATION From	LOCATION To	CONCRETE OVERLAY LENGTH	CONCRETE OVERLAY WIDTH	CONCRETE OVERLAY AREA	DESIGN "A" ITEM 850 Full Depth Repair		Dense Concrete Overlay (Variable Thickness)	Dense Concrete Overlay (1 1/2" Thick)	END DAM TREATMENT ITEM 516 Joint Sealer, Hot Applied	Vertical Extension of Structural Expansion Joints	DESIGN "B" ITEM 845 Full Depth Repair		Latex Modified Concrete Overlay (Variable Thickness)	Latex Modified Concrete Overlay (1 1/4" Thick)	FOR BRIDGE DETAILS SEE SHEET N°'S
				Lin. Ft.	Ft.	Sq. Yds.	Cu. Yds.		Cu. Yds.	Sq. Yds.	Lin. Ft.	Lin. Ft.	Cu. Yds.		Cu. Yds.	Sq. Yds.	
HAS 22-1717 L	US 22/ W.B.	908+60.12	910+98.04	235.80	37.67	987.0	For Concrete Deck Replacement Quantities, See Sheet N° 53										52-57
HAS 22-1717 R	US 22/ E.B.	909+40.82	911+24.74	181.80	37.67	760.9	For Concrete Deck Replacement Quantities See Sheet N° 53										
HAS 22-1738 L	US 22/ W.B.	920+52.74	92.1+84.30	191.56	37.67	550.7	1.22		19.42	550.7			1.22		19.42	550.7	49 & 50
HAS 22-1738 R	US 22/ E.B.	920+71.70	922+03.26	131.56	37.67	550.7	1.22		6.67	550.7			1.22		6.67	550.7	
HAS 22-1738 SR	Ramp F	3+75.76	5+07.58	131.82	25.67	376.0	1.22		9.33	376.0			1.22		9.33	376.0	
HAS 22-1749 L	US 22/ W.B.	926+61.52	927+97.06	133.64	49.67	737.5	8.51		15.92	737.5	116.5	116.5	8.51		15.92	737.5	49 & 51
HAS 22-1749 R	US 22/ E.B.	926+22.28	927+55.82	133.64	49.67	737.5	4.86		22.33	737.5	116.5	116.5	4.86		22.33	737.5	
HAS 22-1753 L	US 22/ W.B.	928+72.02	929+65.20	91.46	49.67	504.8	.94		27.75	504.8	105.4	105.4	.94		27.75	504.8	
HAS 22-1753 R	US 23/ E.B.	928+49.38	929+42.56	91.46	49.67	504.8	4.72		7.50	504.8	105.4	105.4	4.72		7.50	504.8	
HAS 22-1753 SR	Ramp G	14+98.48	15+71.52	71.40	25.83 & 47.66	378.1	4.72		11.67	378.1	96.5	96.5	4.72		11.67	378.1	
TOTAL BRIDGE QUANTITIES							27.41		120.59	4340.1	540.3	540.3	27.41		120.59	4340.1	

NOTE:
PREPARATION OF EXISTING DECK FOR CONCRETE OVERLAY

THIS WORK SHALL CONFORM TO THE NOTE IN THE SUPPLEMENTAL SPECIFICATIONS, EXCEPT THAT IF ANY REINFORCING STEEL IS DAMAGED DURING SURFACE PREPARATION AND SCARIFICATION OF THE DECK SURFACE, THE CONTRACTOR SHALL REPAIR SAID DAMAGE AT NO ADDITIONAL EXPENSE TO THE STATE.

NO TRAFFIC SHALL BE PERMITTED ON ANY PORTION OF THE DECK WHICH HAS BEEN MACHINE SCARIFIED.

NOTE: FOR APPROACH FEATHER AND END DAM TREATMENT DETAILS SEE SHEET N° 49

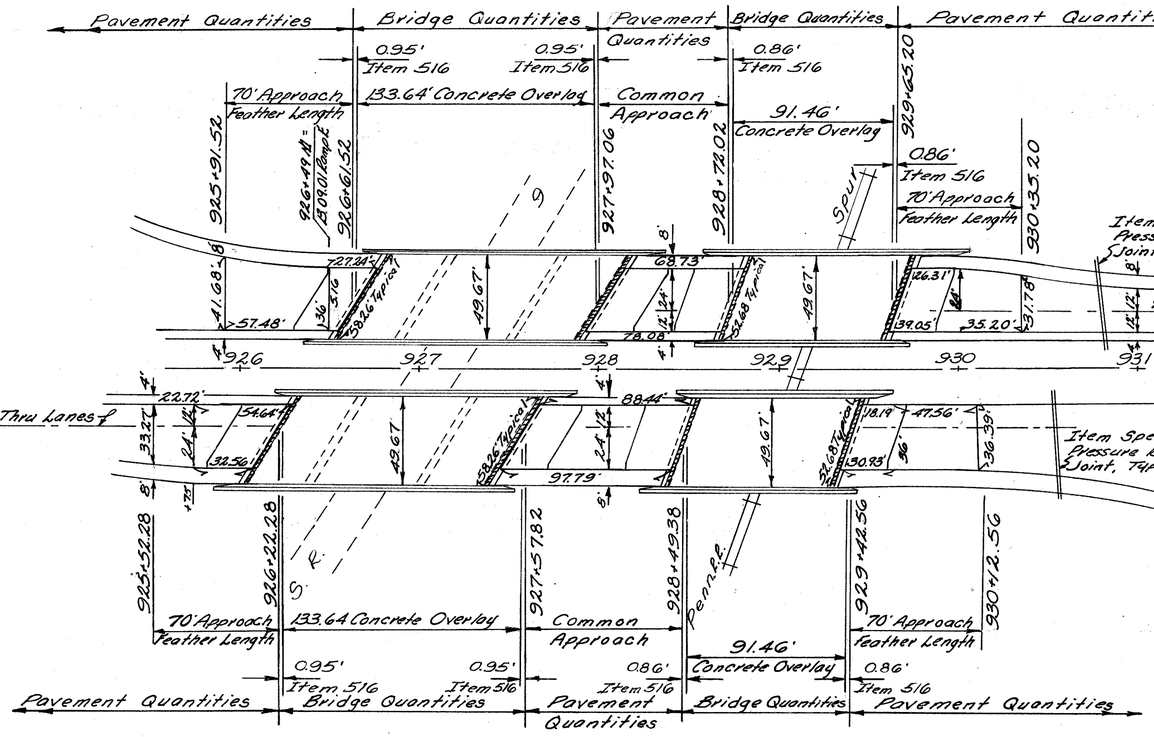
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DEC 31 1985

QUANTITIES	
Calc. By: J.C.N. 1-30-78	Checked By: W.S.R. 1-31-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

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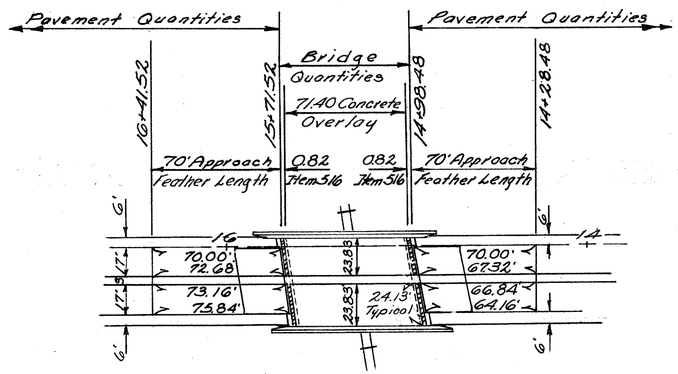
HAS-22-(15.03-18.91)



PLAN

Bridge N°s HAS-22-1749 ℄
(Skew = 31°31' L.F.)

Bridge N°s HAS 22-1753 ℄
Skew = 19°29' L.F.



PLAN

Bridge N° HAS 22-1753 SR (Ramp "G")
(Skew = 8°58' R.F.)

NOTE: For Approach Feather And End Dam Treatment Details See Sheet N° 49

NOTE:
Preparation of Existing Deck For Concrete Overlay
This Work shall Conform to the note in the Supplemental Specifications, except that if any reinforcing steel is damaged during surface preparation and scarification of the deck surface, the contractor shall repair said damage at no additional expense to the State.
No traffic shall be permitted on any portion of the deck which has been machine scarified.

BRIDGE GENERAL SUMMARY

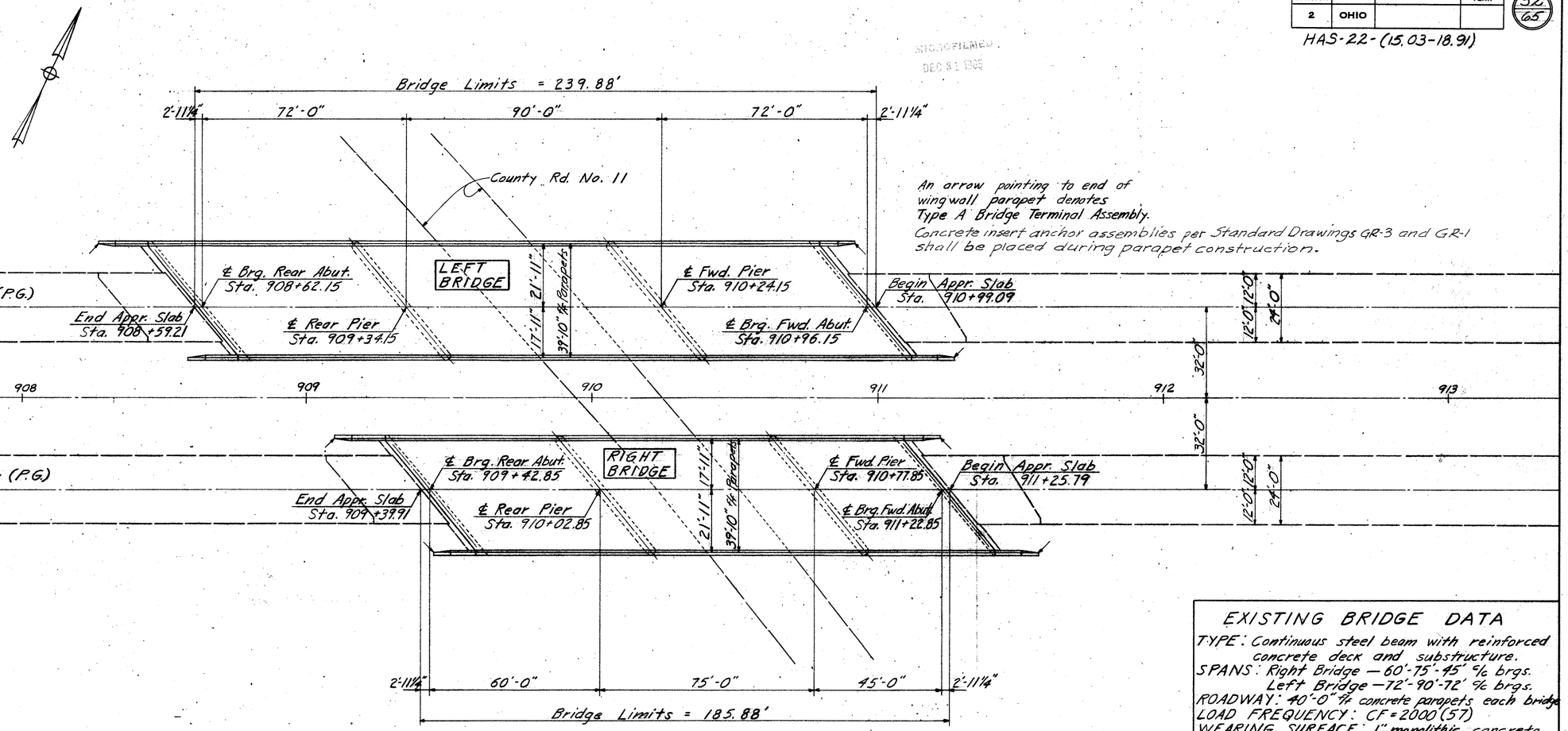
QUANTITIES FROM SHEET N°50		PRIMARY FUNDS	ITEM	GRAND TOTAL	UNIT	DESCRIPTION
540		540	516	540	Lin. Ft.	Joint Sealer, Hot Applied
540		540	516	540	Lin. Ft.	Vertical Extension of Structural Expansion Joints
						DESIGN "A"
27.4		27.4	850	27.4	Cu. Yds.	Full Depth Repair
						Dense Concrete Overlay (Variable Thickness)
121		121	850	121	Cu. Yds.	
4341		4341	850	4341	Sq. Yds.	Dense Concrete Overlay (1¼" Thickness)
						DESIGN "B"
27.4		27.4	845	27.4	Cu. Yds.	Full Depth Repair
						Latex Modified Concrete Overlay (Variable Thickness)
121		121	845	121	Cu. Yds.	
4341		4341	845	4341	Sq. Yds.	Latex Modified Concrete Overlay (1¼" Thick)

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
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HAS-22-(15.03-18.91)

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An arrow pointing to end of wingwall parapet denotes Type A Bridge Terminal Assembly.
Concrete insert anchor assemblies per Standard Drawings GR-3 and GR-1 shall be placed during parapet construction.

EXISTING BRIDGE DATA

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: Right Bridge — 60'-75'-45' ℄ brgs.
Left Bridge — 72'-90'-72' ℄ brgs.
ROADWAY: 40'-0" ℄ concrete parapets each bridge
LOAD FREQUENCY: CF = 2000(57)
WEARING SURFACE: 1" monolithic concrete
SKEW: 40° R.F.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent

PROPOSED STRUCTURE

TYPE: Continuous steel beam with reinforced concrete deck and substructure.
SPANS: Right Bridge — 60'-75'-45' ℄ brgs.
Left Bridge — 72'-90'-72' ℄ brgs.
ROADWAY: 39'-10" ℄ parapets each bridge.
LOADING: HS20-44 & Alternate Military Load, Case II.
WEARING SURFACE: Monolithic concrete
SKEW: 40° R.F.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Tangent
DECK PROTECTION METHOD: Epoxy coated reinforcing steel.

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STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

GENERAL PLAN

BRIDGE NOS. HAS-22-17.17 L & R
OVER COUNTY RD. NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Dist. II	Dist. II		Dist. II			
ULH	ULH		JJN			

Revised 7-12-78 DWI

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

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HAS-22-(15.03-18.91)

ESTIMATED QUANTITIES

ITEM	RIGHT BRIDGE	LEFT BRIDGE	TOTAL	UNIT	DESCRIPTION
202	271	344	615	Cu.Yd.	Portions of structure removed as per plan
509	29,433	37,771	67,204	Lbs.	Reinforcing steel
513			Lump	Sum	Raising, supporting and lowering existing beams
510	4	3	7	Each	Dowel holes
511	249	321	570	Cu.yd.	Class C concrete, superstructure (See Proposal Note *111)
511	10	10	20	Cu.yd.	Class C concrete, abutments
513	6200	8300	14500	Lbs.	New structural steel
514	6200	8300	14500	Lbs.	Painting new structural steel
516	101	101	202	Lin.ft.	Hot applied joint sealer
518	6	6	12	Each	Scuppers
808	249	321	570	Units	Chemical admixture for concrete, Type A, B or D
837			Lump	Sum	Surface preparation
837			Lump	Sum	Complete coat prime painting
837			Lump	Sum	Complete coat finish painting
Special	32,557	41,997	74,554	Lbs.	Epoxy coated reinforcing steel (See Proposal Note *112)

GENERAL NOTES

WORK REQUIRED: 1. Remove existing superstructure and railing as per plan.
2. Remove existing abutment wingwalls as per plan.
3. Raise and shim existing steel beams.
4. Clean existing steel and apply prime paint coats to new and existing steel.
5. Install new superstructure, railing, and abutment concrete.
6. Apply finish paint coat to new and existing structural steel.

DESIGN DATA:
Concrete Class C - unit stress 1200 psi for superstructure (see Proposal Note *111).
unit stress 1333 psi for substructure.
Structural Steel - ASTM A36 - unit stress 20,000 psi.
Reinforcing Steel - ASTM A615, A616, or A617 - unit stress 20,000 psi.
Deck Protective Method - Epoxy coated reinforcing steel, top mat only.
Monolithic wearing surface thickness is assumed to be 1".

REFERENCE shall be made to Standard Drawings:
SD-1-69 Dated 6-12-69
and to Supplemental Specifications:
808 Dated 1-1-71
837 Dated 12-7-72

MAINTENANCE OF TRAFFIC: Two lanes of traffic with a minimum horizontal width of 26'-0" and a minimum vertical clearance of 13'-8" shall be maintained on county road #11 at all times.

END DAMS AND SCUPPERS: Steel bar stock utilized for end dams and scuppers may be any weldable grade of low or mild carbon steel available commercially. This material is to be excluded from the requirements of 501.07 for test reports.

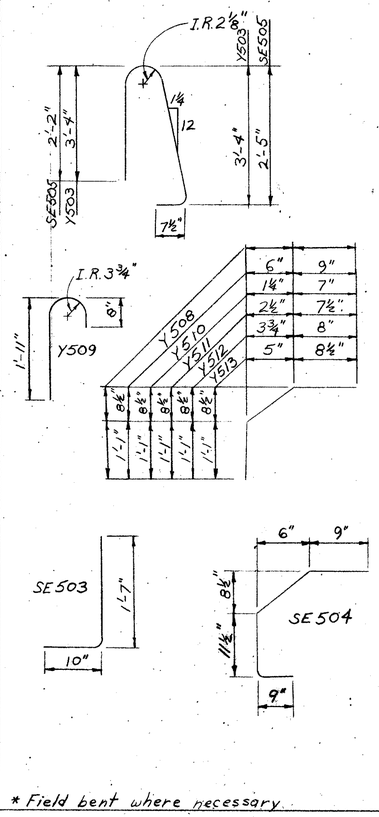
PORTIONS OF STRUCTURE REMOVED: Cost of removing existing scuppers, bulb angle, curb plates, and railing shall be included in the unit price bid for Item 202 Portions of structure removed as per plan.

DECK TEXTURING: The deck surface shall be textured transversely to profide a relatively uniform pattern of grooves spaced at approximately 3/4" centers. Grooves shall be approximately 0.15 inches deep and 0.10 inches wide. A strip of surface 3 to 12 inches wide adjacent to curbs shall not be textured.

REINFORCING STEEL LIST

HAS-22-1722 Right

MARK	NO.	LENGTH	WEIGHT	SHP.
ABUTMENT				
Y501	4	3'-6"	15	S
Y502	38	3'-2"	125	S
Y503	32	7'-4"	245	B
Y507	20	15'-8"	327	S*
Y508	32	2'-7"	87	B
Y509	4	2'-9"	12	B
Y510	4	2'-4"	10	B
Y511	4	2'-4"	10	B
Y512	4	2'-5"	10	B
Y513	3	2'-6"	8	B
Y514	20	14'-7"	304	S*
SUPERSTRUCTURE				
S601	239	41'-4"	14,838	S
S602	2 Series of 45	39'-7" to 6'-10"	3,138	S
S603	14	6'-0"	126	S
S501	357	27'-4"	10,178	S
Superstructure, epoxy coated				
SE601	239	41'-4"	14,838	S
SE602	2 Series of 45	39'-7" to 6'-10"	3,138	S
SE603	14	6'-0"	126	S
SE501	56	27'-4"	1,596	S
SE503	244	2'-4"	594	B
SE504	244	3'-2"	806	B
SE505	244	5'-3"	1,336	B
SE506	16	15'-8"	261	S
SE507	64	7'-2"	478	S
SE508	48	14'-8"	734	S
SE401	364	27'-2"	6,606	S
SE403	102	30'-0"	2,044	S



* Field bent where necessary.

HAS-22-1722 Left

MARK	NO.	LENGTH	WEIGHT	SHP.
ABUTMENT				
Y501	3	3'-6"	11	S
Y502	36	3'-2"	119	S
Y503	29	7'-4"	222	B
Y504	20	13'-4"	278	S*
Y505	10	17'-2"	179	S*
Y506	10	14'-5"	150	S*
Y508	29	2'-7"	78	B
Y509	4	2'-9"	12	B
Y510	4	2'-4"	10	B
Y511	4	2'-4"	10	B
Y512	4	2'-5"	10	B
Y513	2	2'-6"	6	B
SUPERSTRUCTURE				
S601	325	41'-4"	20,177	S
S602	2 Series of 45	39'-7" to 6'-10"	3,138	S
S603	14	6'-0"	126	S
S502	459	27'-8"	13,245	S
Superstructure, epoxy coated				
SE601	325	41'-4"	20177	S
SE602	2 Series of 45	39'-7" to 6'-10"	3,138	S
SE603	14	6'-0"	126	S
SE502	72	27'-8"	2078	S
SE503	316	2'-4"	769	B
SE504	316	3'-2"	1044	B
SE505	316	5'-3"	1,730	B
SE507	80	7'-2"	598	S
SE508	72	14'-8"	1102	S
SE509	16	12'-8"	211	S
SE402	468	27'-5	8,571	S
SE404	102	36'-0"	2,453	S

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF MAINTENANCE

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ESTIMATED QUANTITIES, GENERAL NOTES, AND REINFORCING STEEL LIST
BRIDGE NO. HAS-22-1717 L&R
OVER COUNTY RD. NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Dist. 11	Dist. 11	Dist. 11	Dist. 11			
JLO	JLO	JLO	JJN			

Revised 7-12-78 DW

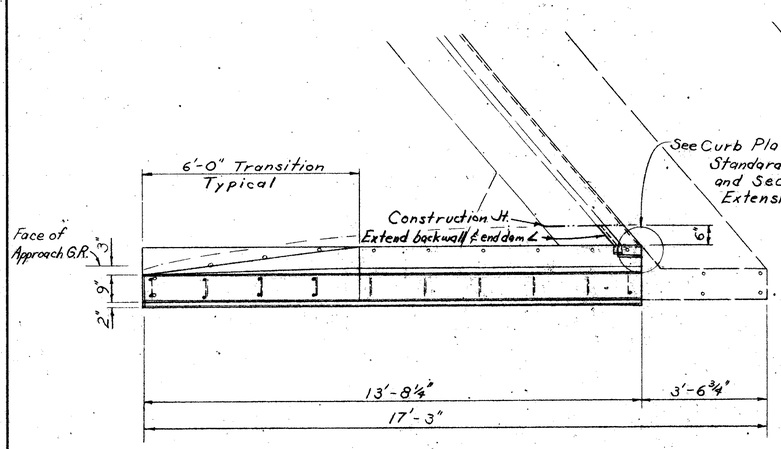
SUPERSEDED DEC 31 1985

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

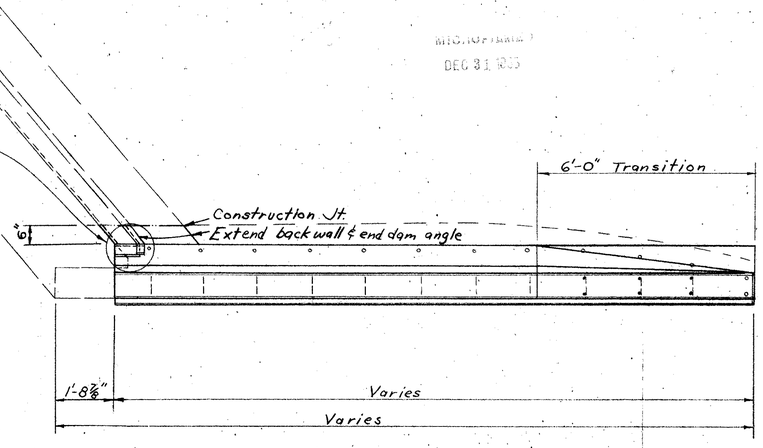
54/65

HAS-22-(15.03-18.91)

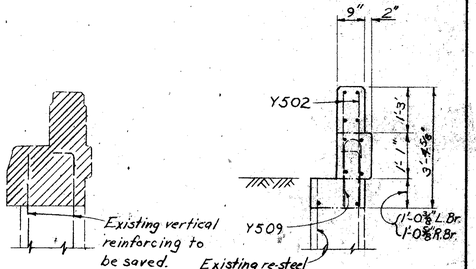
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TYPICAL WING WALL PLAN
(all reinforcement not shown)



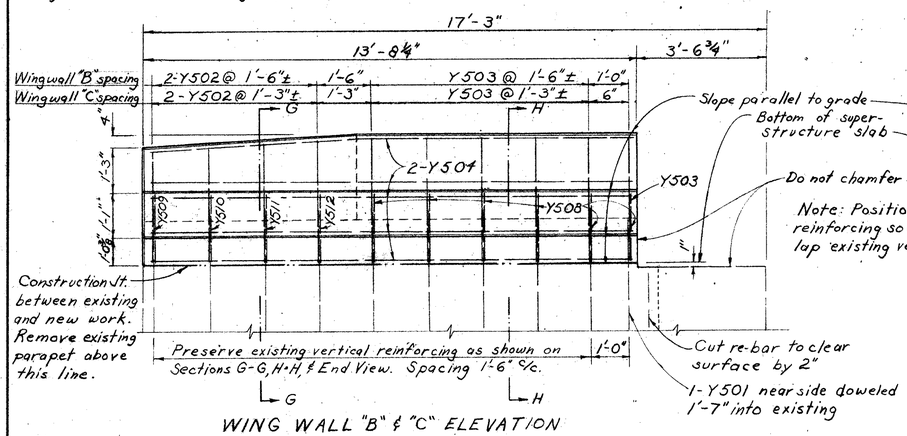
TYPICAL WING WALL PLAN
(all reinforcement not shown)



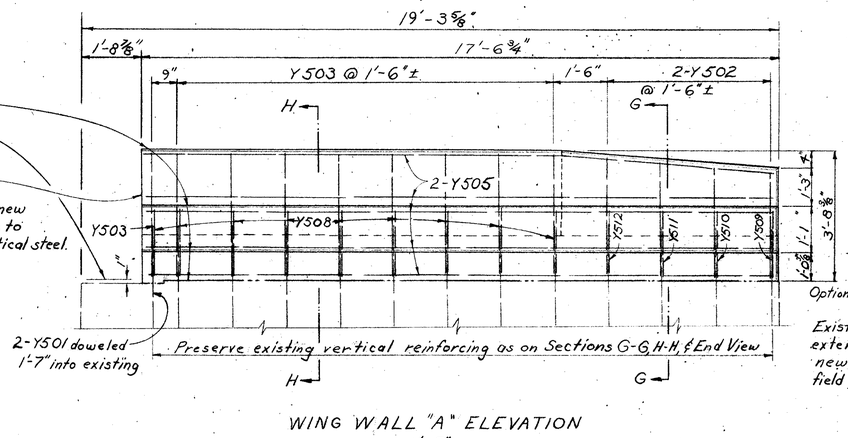
PART OUTLINE OF EXISTING WING
Shaded area to be removed

END VIEW

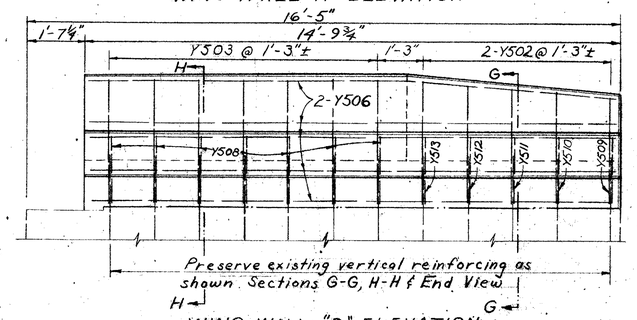
Note: Spacing of reinforcement of wingwall "C" similar to wingwall "D".



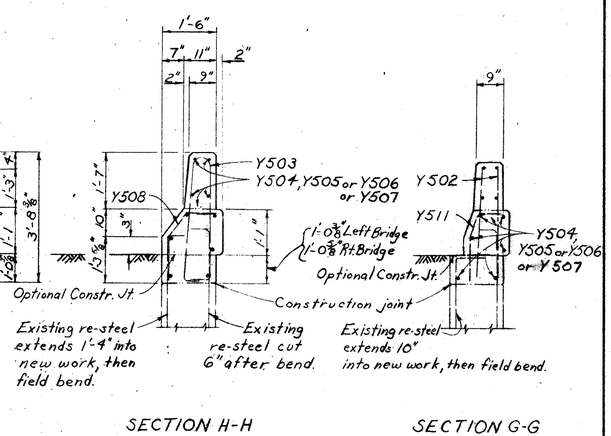
WING WALL "B" & "C" ELEVATION



WING WALL "A" ELEVATION



WING WALL "D" ELEVATION



SECTION H-H

SECTION G-G

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF MAINTENANCE

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ABUTMENT DETAILS

BRIDGE NO. HAS-22-1717 L
OVER COUNTY RD. NO. 11

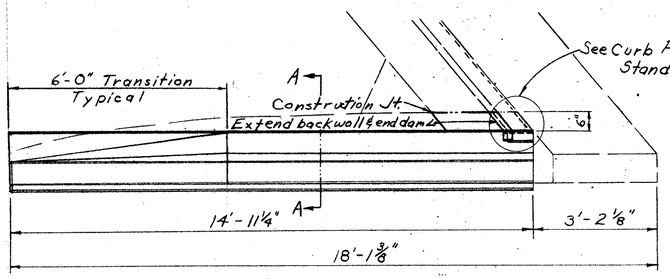
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JJN	JLO	JLO	JJN			

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

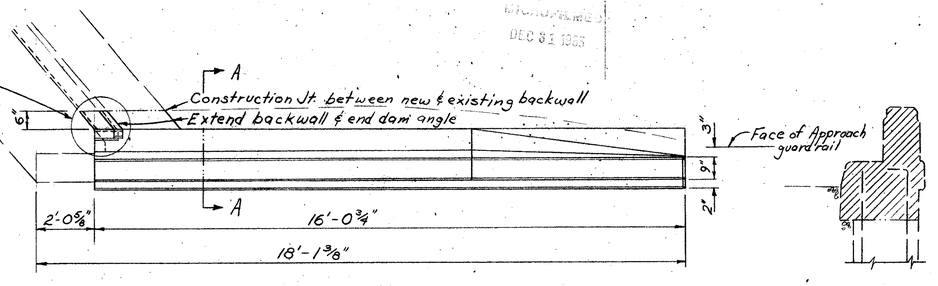
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HAS-22-(15.03-18.91)

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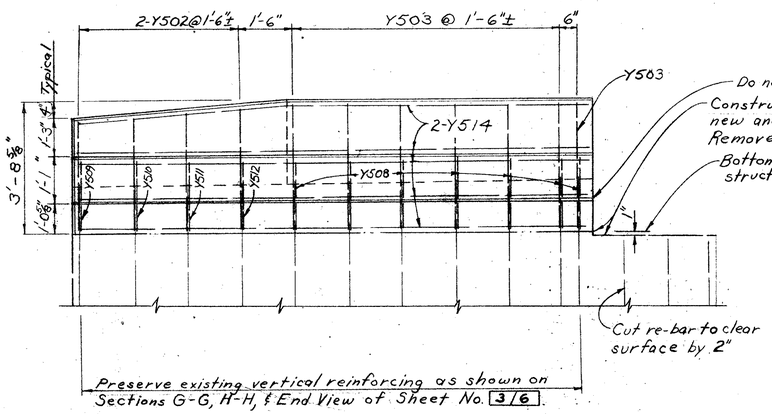
TYPICAL WINGWALL PLAN
(all reinforcement not shown)



TYPICAL WING WALL PLAN
(all reinforcement not shown)

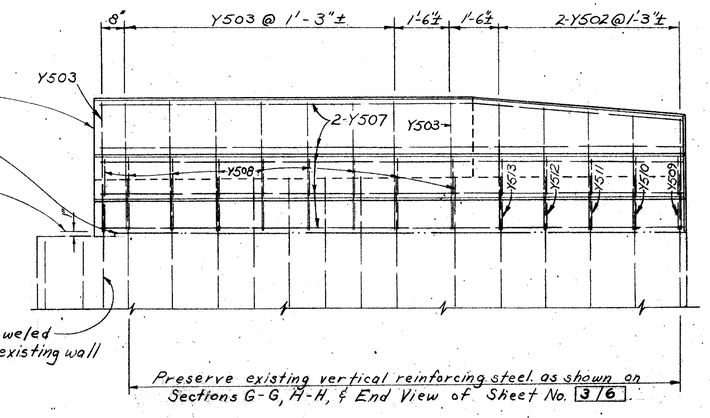
SECTION A-A SHOWING EXISTING
Shaded area to be removed

Note: For detailed section views of new work see Sheet No. 3/6

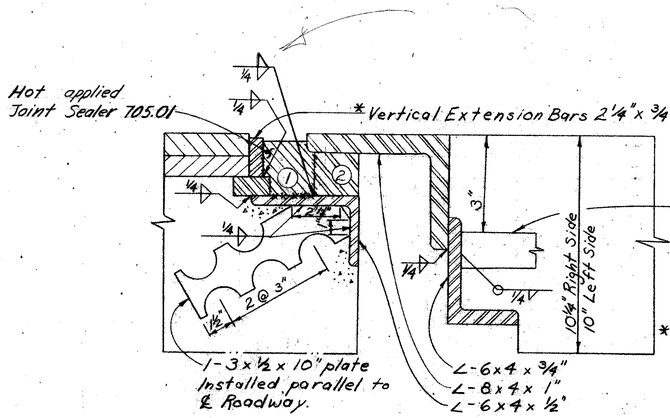


LEFT FORWARD & RIGHT REAR WINGWALL ELEVATION

Note: Spacing of Reinforcing steel is for Left Forward Wingwall only. Spacing of Right Rear Wing wall is as for Left Rear Wing wall. New reinforcing steel should be positioned to lap existing vertical re-steel, where ever possible.



RIGHT FORWARD & LEFT REAR WINGWALL ELEVATION



SECTION OF END DAM EXTENSION
Showing Superstructure End Finish
(not to scale)

* Vertical extension bars are included in 513 for payment for these two decks only.

KEY
① Item 516, Hot applied joint sealer
*② Vertical Extension Bar 2½" x 2½"

Surfaces indicated thus shall be sandblasted and wiped clean. Joint shall be filled before rust forms: If rust forms, surfaces shall be re-sandblasted.

***** Bond to this surface shall be prevented by use of foil or other suitable bond-breaker barrier satisfactory to the Engineer. Care shall be taken not to displace barrier when placing joint sealer.

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STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF MAINTENANCE

ABUTMENT DETAILS

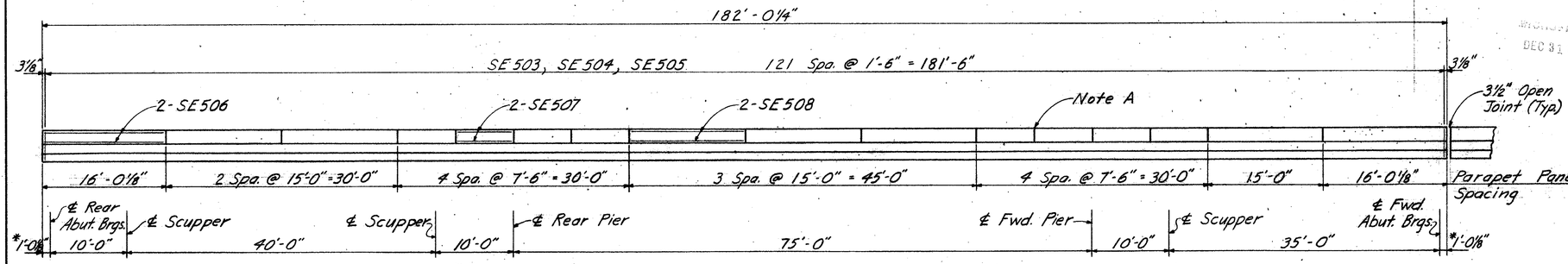
BRIDGE NO. HAS-22-1717 R
OVER COUNTY RD. NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JJN	JLO		JJN			

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

56/65

HAS-22-(15.03-18.91)



RAILING ELEVATION
(Right Bridge)

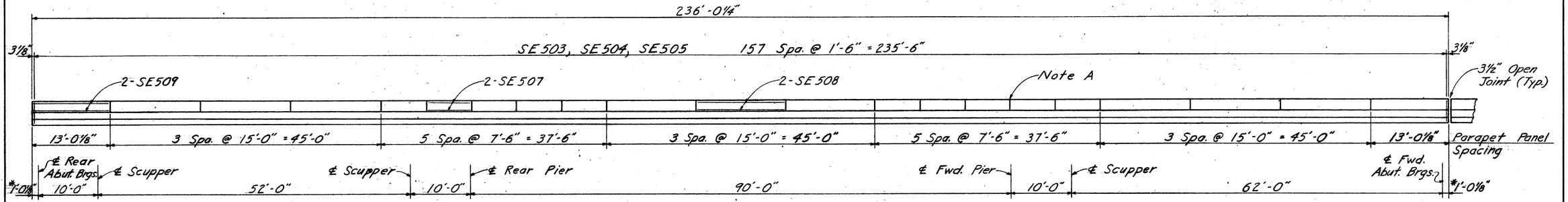
*Distances shown are measured from end of parapet to center line of abutment bearing along curb line.

Note A: Provide ¼" gray sponge expansion joint filler in deflection joints. Include cost with Item 511 Class C concrete, superstructure.

Preformed expansion joint filler in the railing parapet deflection joints may be either ¼" gray sponge rubber or ¼" gray cellular polyvinyl chloride (PVC) sponge. If rubber is used it shall meet the requirements of AASHTO M-153.

Quantities of concrete and reinforcing steel for railing shall be included with their appropriate Item under either Abutments or Superstructure for payment.

Concrete parapets above upper construction joint shall be placed in alternate sections by the use of bulkheads. Closing sections shall be placed after removal of bulkheads and after placement of expansion joint filler. Exposed edges of the filler shall be flush with the surface of concrete and shall be free of mortar.

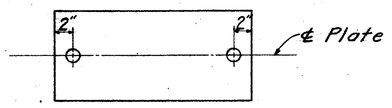


RAILING ELEVATION
(Left Bridge)

BEARING SHIM PLATES		
RIGHT BRIDGE		
Location	‡Plate size	◈Holes required?
Rear Abut.	2½" × 8" × 19"	Yes
Rear Pier	2½" × 10" × 22"	Yes
Fwd. Pier	2½" × 10" × 22"	Yes
Fwd. Abut.	2½" × 8" × 19"	Yes
LEFT BRIDGE		
Location	‡Plate size	◈Holes required?
Rear Abut.	2½" × 10" × 19"	No
Rear Pier	2½" × 17" × 25"	Yes
Fwd. Pier	2½" × 17" × 25"	No
Fwd. Abut.	2½" × 10" × 19"	No

‡Total thickness of plates required at each bearing is 2½". The minimum plate thickness used shall be ½".

◈All holes shall be 15/8" ø.



TYPICAL DETAIL SHOWING LOCATION OF HOLES IN PLATES FOR RIGHT BRIDGE

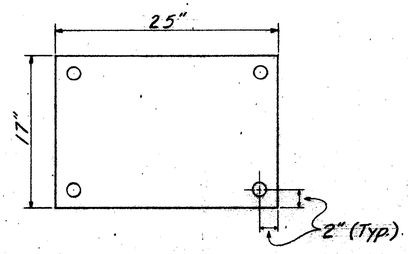


PLATE FOR REAR PIER OF LEFT BRIDGE

NOTES ON SHIMMING

Bearing shim plates shall be placed on top of existing sheet lead and under the lower bearing plate. At bearing locations where there are anchors, the beams shall be raised to a height that will permit installation of shims over anchors.

Steel bar stock used for bearing shim plates may be any weldable grade of low or mild carbon steel available commercially.

New plain bars 1¼"ø × 3" long shall be welded to the existing bearing anchor bars at all bearing locations on the right bridge. The weld shall be a complete penetration weld.

Anchor bolts for bolsters on the rear pier of the left bridge shall be cut off 3½" above the bridge seat. Nuts and washers shall be removed and saved. New threaded lengths of bolt 1¼"ø × 4" long shall then be welded to the existing anchor bolts by a complete penetration weld. New bolts shall be threaded the same as the existing anchor bolts and shall be AST.M A307. After shims are installed and beams lowered, anchors shall be rebolted.

At bearing locations where there are no bearing anchors, shim plates shall be welded to the lower bearing plate and shall be welded to each other if multiple plates are used. Plates shall be welded on a minimum of three sides with a minimum length of weld of 3" on each side welded. Type of weld to be made shall be a ¼" groove weld.

All work pertaining to shimming the beams except raising the beams shall be included with Item 513 for payment.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

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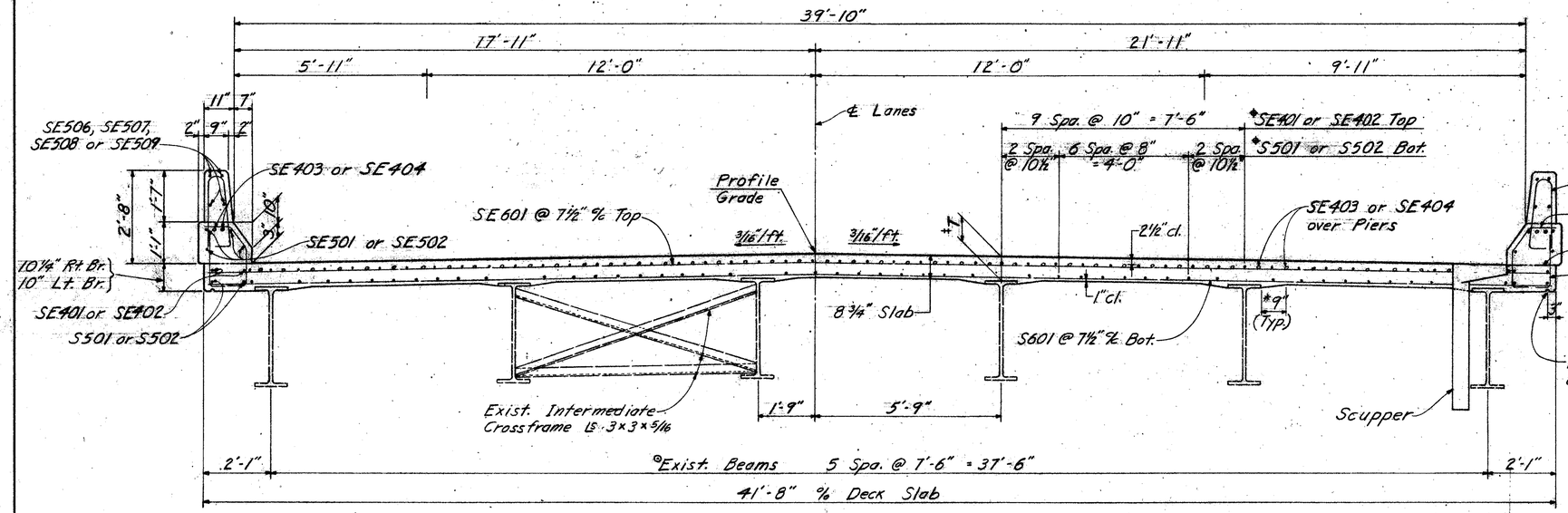
SUPERSTRUCTURE DETAILS

BRIDGE NOS. HAS-22-1717 L & R
OVER COUNTY RD. NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DSH	DSH		DSH			
ULH	ULH		JJN			

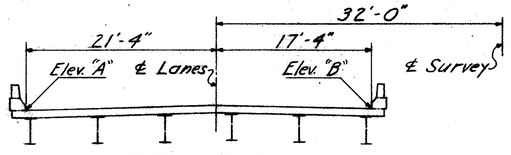
FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

HAS-22-(15.03-18.91)

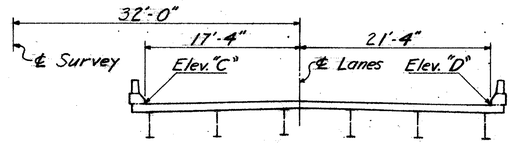


TYPICAL TRANSVERSE SECTION

(Section shown is for Right Bridge looking ahead on Stationing. The same section applies to Left Bridge looking back on Stationing.)



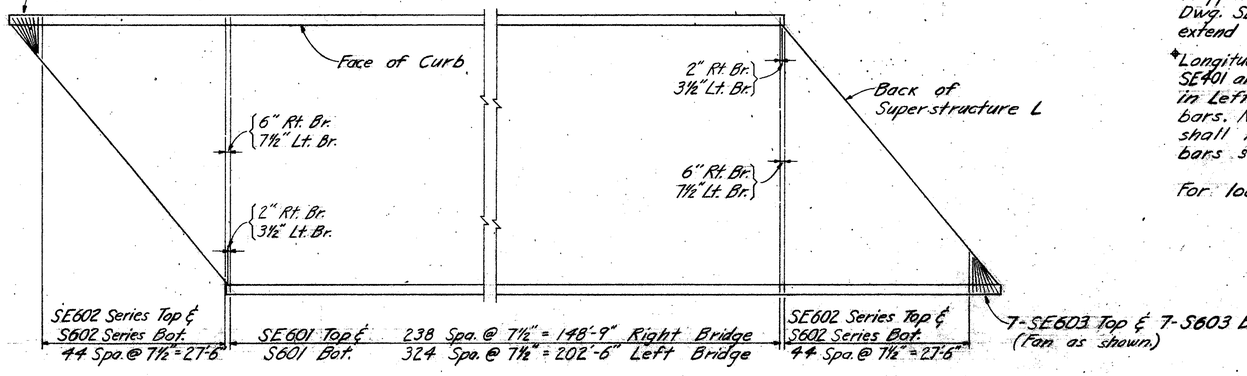
LEFT BRIDGE



RIGHT BRIDGE

*SCREED ELEVATIONS				
LOCATION	LEFT BRIDGE		RIGHT BRIDGE	
	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"
℄ Brg. Rear Abut.	1251.99	1252.55	1253.33	1253.76
¼ Pt.	1252.29	1252.84	1253.57	1254.00
½ Pt.	1252.58	1253.13	1253.81	1254.24
¾ Pt.	1252.84	1253.39	1254.03	1254.46
℄ Brg. Rear Pier	1253.08	1253.64	1254.24	1254.67
¼ Pt.	1253.46	1254.01	1254.55	1254.98
½ Pt.	1253.82	1254.38	1254.85	1255.28
¾ Pt.	1254.14	1254.70	1255.12	1255.55
℄ Brg. Fwd. Pier	1254.45	1255.01	1255.38	1255.81
¼ Pt.	1254.75	1255.31	1255.56	1255.99
½ Pt.	1255.04	1255.60	1255.74	1256.17
¾ Pt.	1255.30	1255.85	1255.90	1256.34
℄ Brg. Fwd. Abut.	1255.55	1256.10	1256.07	1256.50

*Screed elevations are top of concrete deck elevations required before the concrete is placed.



PLAN OF TRANSVERSE DECK REINFORCING STEEL

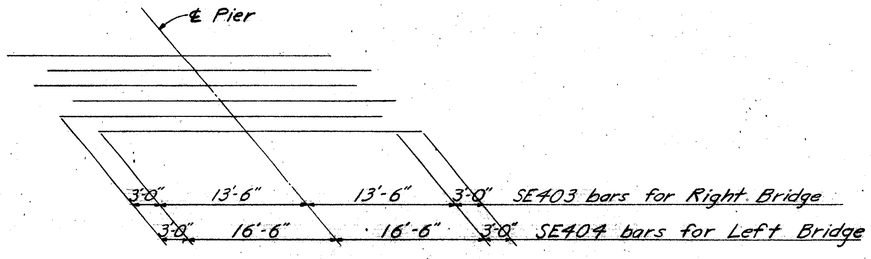


DIAGRAM SHOWING STAGGER OF SE403 AND SE404 BARS OVER PIERS

NOTES

*A 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.

°Existing beams are 36 WF 170 in Span 1, 36 WF 194 in Span 2, and 36 WF 150 in Span 3 of the Right Bridge. Existing beams in all three spans of the Left Bridge are 36 WF 230 beams.

‡The distance shown from top of deck slab to top of steel beam is the design dimension denoted as "T." Values of "T" for the Right Bridge are as follows:

9⅛" over 36 WF 170
8¾" over 36 WF 194
9⅜" over 36 WF 150

The value of "T" for the Left Bridge over the 36 WF 230 beams is 8¾". The quantity of deck concrete to be paid for shall be based on the dimension "T," 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.

Scuppers shall be in accordance with Std. Dwg. SD-1-69 except scupper pipes shall extend 8" below the bottom of the beams.

♦Longitudinal bars in Right Bridge are SE401 and S501 bars. Longitudinal bars in Left Bridge are SE402 and S502 bars. Number 4 bars in longitudinal lines shall lap 1'-5" minimum and number 5 bars shall lap 1'-8" minimum.

For location of scuppers see sheet 5/6.

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUREAU OF BRIDGES

SUPERSTRUCTURE DETAILS

BRIDGE NOS. HAS-22-17.17 L&R OVER COUNTY RD. NO. 11

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
Dist. 11 ULH	Dist. 11 ULH		Dist. 11 JJN			

TRAFFIC CONTROL NOTES

FHWA REGION	STATE	PROJECT	
5	OHIO		

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HAS-22-(15.03-18.91)

GENERAL:

Existing traffic control signs shall be maintained at all times on either existing, temporary or the new supports.

The contractor shall stake the approximate location of all sign assemblies. These locations will be reviewed by the Engineer, the District Traffic Engineer and the Contractor and Final locations determined at that time.

IDENTIFICATION OF TRAFFIC SIGNS:

Sign legends are shown opposite each location on the plan sheets. Size of existing supports are shown beside the sign legends. The number of ground mounted sign supports are indicated as follows:

Signs on one support –
Signs on two supports =
Signs on three supports ≡

ITEM 844 ~ SIGNS, BY TYPE:

Sign face background material shall be Type F reflective sheeting. The proposed background color and legend type shall be shown on each layout shop drawing submitted for review in accordance with 844.04. All traffic control signs shall be in accordance with Supplemental Specification 844, the plans, and the Ohio Manual of Uniform Traffic Control Devices, current Edition, latest revision.

ITEM 202 ~ REMOVAL OF GROUND MOUNTED SIGNS FOR STORAGE:

This work shall consist of the removal of ground mounted signs as shown on the plans.

All signs removed shall be stored within the limits of the project at locations approved by the Engineer for removal by State forces.

To assure maintenance of adequate traffic control at all times, no signs shall be removed without the approval of the Engineer.

Payment for removal of signs will include all necessary labor and equipment required to perform the required work as indicated above.

(1.) Basis of payment will be as follows for signs Forty (40) square feet or greater:
202 Removal of Ground Mounted Major Signs for Storage, at the contract bid price per each.

(2) Basis of payment will be as follows for all other signs:
202 Removal of Ground Mounted Signs for Storage, at the contract bid price per each.

ITEM 202 ~ REMOVAL OF GROUND MOUNTED SIGN SUPPORTS FOR STORAGE:

This item of work shall consist of the removal of ground mounted sign supports and foundations as indicated in the plans.

All ground mounted sign supports to be removed under this item shall remain the property of the State and shall be stored within the project for removal by State forces.

The work shall include the removal of supports in such a manner as to avoid bending, twisting or other deformation damage. The foundations shall be removed to a minimum of one foot below the ground surface, backfilling, restoration and disposal of surplus material will also be included in this work.

Basis of payment will be as follows which price will include all labor and equipment necessary to perform the required item of work:

(1.) 202 Removal of Ground Mounted Sign Supports, No 8 Post and smaller, at the contract bid price per each.

(2.) 202 Removal of Ground Mounted Sign Supports, Beams Larger Than No 8 Posts, at the contract bid price per each.

ITEM 844 ~ ALTERNATE DESIGNS FOR SIGN SUPPORTS:

If the contractor desires to furnish alternate design(s) or materials for sign supports, the alternate design(s) shall be submitted to the State at least 21 days prior to opening of bids. The bidder will be notified as to acceptance or rejection of alternate design at least 7 days before bids are to be open. Submissions shall be made to the Ohio Department of Transportation, Bureau of Design Services, 25 South Front Street, Columbus, Ohio 43215.

ITEM 844 ~ GROUND MOUNTED SUPPORTS, No 4 POSTS, AS PER PLAN:

This work shall consist of the furnishing, assembly and installation of two (2) No. 2 drive posts (No 4 post) in combination with a square welded or seamless galvanized tubular post extension spliced to the top of the No 4 post. Details are shown on Standard Drawing TC-41.50.

Square tubular post material shall conform to ASTM A 570 Grade B.

Work shall include all labor, materials, equipment, tools, and hardware necessary to perform the required work.

Basis of payment will be for 844 Ground Mounted Supports, No 4 Post, as per plan, per linear foot measured by the total overall length of combination post.

ITEM 621 BROKEN LINE PAVEMENT MARKINGS

The Requirements of 621.05 and supplemental specification 847.03 shall be modified for application of broken lines. The lines shall be applied in a 40-foot cycle consisting of a 10 foot dash and a 30 foot space between dashes. The table in 621.05 for the application rate of traffic paint for broken lines shall be revised to read 4 gallons for a 4-inch line width and 6 gallons for a 6 inch line width per mile of line.

SIGN WORK KEY

A ERECT NEW SIGN(S) ON NEW SUPPORT(S)
B REMOVE EXISTING SIGN(S) AND SUPPORT(S)
C ERECT NEW SIGN(S) ON NEW OVERHEAD SUPPORT
D NO WORK REQUIRED

QUANTITIES	
Calculated by	Checked by
W.S.R. 12-28-77	J.C.N. 1-6-78

5	OHIO		

59
65

HAS-22-(15.03-18.91)

SHEET No.	REF. No.	WORK EQUIRED	STATION	NEW SIGN DESCRIPTION CODE	MINIMUM SUPPORT DESIGN	ESTIMATED NEW SUPPORT LENGTHS LT.	CTR.	RT.	202 REMOVE G.M. MAJOR SIGNS FOR STORAGE EACH	REMOVE G.M. SIGN SUPPORTS >N3B POSTS EACH	REMOVE G.M. SIGN FOR STORAGE EACH	REMOVE G.M. SIGN SUPPORTS ≤N3B POSTS EACH	844 SIGNS, FLAT SHEET Sq.Ft.	SIGN, EXTRUSHEET Sq.Ft.	G.M. SUPPORT No 3 POST Lin.Ft.	G.M. SUPPORT No 4 POST Lin.Ft.	G.M. SUPPORT S 4x7.7 Lin.Ft.	G.M. SUPPORT W 10x11.5 Lin.Ft.	G.M. SUPPORT W 10x21 Lin.Ft.	G.M. SUPPORT W 12x31 Lin.Ft.	BREAKAWAY BEAM CONNECTION FOR CONCRETE EMBEDDED FOUNDATIONS EACH	CONCRETE FOR FOUNDATIONS Cu.Yd.	OVERHEAD SIGN TYPE 7.65 DESIGN 6 NO. 6 1.5 SPAN EACH	CONCRETE FOR ANCHOR BASE FOUNDATIONS Cu.Yd.	620 DELINEATORS TYPE D EACH
MAIN LINE																									
25	1-S	A	795+00	W-85-48	2-#4	17.2		18.2			1	2	16.0			35.4									
	2-S	B	797+00								1	2													
	3-S	B	799+58								1	2													
	4-S	A	800+00	W-139-F-36	1-#4		16.0						9.0			16.0									
	5-S	A	800+00	R-82-36	1-#4		15.0						10.5			15.0									
	6-S	B	802+25								2	1													
	7-S	A	803+00	R-10-36	2-#4	15.0		15.3					12.0			30.3									
	8-S	A	805+00	R-34-30	1-#4		14.0						7.5			14.0									
	9-S	B	805+39								1	1													
	10-S	B	807+61								3	1													
	11-S	A	808+75	R-38-R-36	2-#4	16.0		16.3					12.0			32.3									
	12-S	A	809+00	W-71-36	1-#4		16.4						9.0			16.4									
	13	A	812+00	R-33-30	1-#4		15.3						7.5			15.3									
	14	A	815+00	W-60-48	2-#4	17.2		16.8					16.0			34.0									
	15	A	815+00	W-60-48	2-#4	16.6		17.6					16.0			34.2									
	16	A-B	815+15	GE 18'x8'	2-W12x31	30.0		27.0	1	2				144.0						57.0		2	3.0			
	17	A	819+00	W-52-48	2-#4	15.8		16.8					16.0			32.6									
	18	A	819+00	W-52-48	2-#4	15.8		15.3					16.0			31.1									
26	19	B	822+48								1	1													
	20	B	822+51								1	1													
	21	A	823+00	2-W-86-48	2-#4	16.2/16.0		16.5/15.8					32.0			64.5									
	22	B	825+42								1	2													
	23	B	825+45								1	2													
	24	B	828+47								1	1													
	25	DELETED																							
	26	A	831+00	W-26-48, D-8-48	2-#4	16.1		17.7					18.67			33.8									
	27	B	834+29								2	2													
	28	B	834+30								2	2													
	29	A	837+00	M-40-24, M-1-24	1-#3		15.1						6.0		15.1										
	30	A	837+40	R-37 R-36	2-#4	14.5		15.0					12.0			29.5									
	31	B	837+55								1	1													
	32	A-B	837+81	M-39-24, M-1-24, M 24-21	1-#4		16.0				3	1	8.19			16.0									
	33	A-B	838+41	R 37 R-36	2-#4	15.5		14.5			1	1	12.0			30.0									
	34	A-B	838+50	R-1-36	1-#4		13.0				1	1	9.0			13.0									
	35	A	839+10	M-39-24, M-1-24	1-#3		15.1						6.0		15.1										
27	36	A-B	845+32	W-26-48, D-8-48	2-#4	16.3		16.6			1	1	18.67			32.9									
	37	D	846+42																						
	38	D	846+42																						
	39	B	856+66						1			3													
	40	A	862+00	GE, 18'x8'	2-W12x31	27.0		31.5						144.0						58.5			3.0			
	41	A-B	864+02	M-40-24, M-1-24	1-#3		15.1				2	1	6.0		15.1										
	42	B	865+08						1	2															
28	43	C	870+00	GE, 14'x8' & GE, 18'x8'	OH Sup Ports 7.65, Des. 6									256.0										1	9.9
	44	B	872+00						1			3													
	45	A-B	874+00	W-49 R-48	2-#4	16.3		16.9			2	1	16.0			33.2									
	46	A-B	877+00	W-49 E-48	2-#4	16.3		16.9			2	1	16.0			33.2									
	47	A	886+00	M-39-24, M-1-24, M-39-24, M-1-24 (2)	1-#3, 1-#3	15.1		16.6					13.0		31.7										
	48	A	888+00	G F, 6'x5'	2-S 4x7.7	18.3		18.3						300				36.6				2	0.5		
	49	B	888+50								1	2													
	50	B	888+72								2	1													
	51	A-B	891+91	GB, 14'x10'	2-W12x31	34.5		36.0	1			3		140.0						70.5		2	4.5		
	52	A	895+00	GE, 18'x8'	2-W10x21	22.5		19.5						144.0					42.0			2	2.5		
	53	B	897+97								4	2													
	54	A	898+00	R-10-36	2-#4	16.0		16.5					12.0			32.5									

TRAFFIC CONTROL QUANTITIES

SIGN WORK KEY

A ERECT NEW SIGN(S) ON NEW SUPPORT(S)
B REMOVE EXISTING SIGN(S) AND SUPPORT(S)
C ERECT NEW SIGN(S) ON NEW OVERHEAD SUPPORT
D NO WORK REQUIRED

QUANTITIES	
Calculated by W.S.R. 12-29-77	Checked by J.C.N. 1-7-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

60
65

HAS-22-(15.03-18.91)

SHEET No.	REF. No.	WORK REQUIRED	STATION	NEW SIGN DESCRIPTION CODE	MINIMUM SUPPORT DESIGN	ESTIMATED NEW SUPPORT LENGTHS LT.	CTR.	RT.	202 REMOVE G.M. MAJOR SIGNS FOR STORAGE EACH	202 REMOVE G.M. SIGN SUPPORTS ≥ No 8 POSTS EACH	202 REMOVE G.M. SIGN FOR STORAGE EACH	202 REMOVE G.M. SIGN SUPPORT ≤ No 8 POSTS EACH	844 SIGNS FLAT SHEET Sq. Ft.	844 SIGN EXTRUSHEET Sq. Ft.	844 G.M. SUPPORT No 3 POST LIN. FT.	844 G.M. SUPPORT No 4 POST LIN. FT.	844 G.M. SUPPORT S 4 x 7.7 LIN. FT.	844 G.M. SUPPORT W 10 x 11.5 LIN. FT.	844 G.M. SUPPORT W 10 x 21 LIN. FT.	844 G.M. SUPPORT W 12 x 31 LIN. FT.	BREAKAWAY BEAM CONNECTION EACH	CONCRETE FOR EMBEDDED FOUNDATIONS Cu. Yd.	OVERHEAD SUPP. TYPE 7.65 DESIGN 6 OR 13 EACH	CONCRETE FOR ANCHOR BASE FOUNDATIONS Cu. Yd.	620 DELINEATORS TYPE D EACH
30	55	B	899+10						1	2															
	56	D	900+44																						
	57	D	900+44																						
	58	A	903+00	G.E. 18'×8'	2-W12×31	29.5		33.0						144.0						60.5		3.0			
	59	D	904+69																						
	60	B	907+71								4	2													
	61	A	908+00	G.H. 10'×6.5'	2-W10×11.5	23.3		26.3						65.0				49.6				2.2			
	62	A	911+00	M-40-24, M-1-24, M-40-24, M-1-24 (3)	1-#3, 1-#3	15.0		15.5					13.0		30.5										
	63	B	911+66						1			3													
	64	D	912+58																						
	65	A	913+25	G.B. 18'×8'	2-10×21	25.5		21.5						144.0					47.0			2.5			
	66	B	914+31						1	2															
	67	A	918+00	G.E. 14'×10'	2-W10×21	26.3		22.8						140.0					49.1		2	2.5			
31	68	D	920+53																						
	69	D	920+67																						
	70	A-B	922+97	W-49 R-48	2-#4	17.2		17.7			2	1	16.0			34.9									
	71	B	923+76						1			3													
	72	B	924+03								2	1													
	73	A	924+75	G.E. 14'×10'	2-W10×21	26.5		25.0						140.0					51.3			2.5			
	74	B	925+00						1		2	3													
	75	B	925+54								2	1													
	76	B	926+34								2	1													
	77	C	926+40	G.E. 18'×8' & G.E. 17'×6'	O.H. SUPPORT 7.65 DES 6									246.0									1	10.2	
	78	D	929+79																						
	79	D	930+00																						
	80	B	931+03						1	2															
	81	B	931+79								1	2													
	82	B	932+24								2	1													
	83	A	932+25	G.F. 6'×5'	2-54×7.7	16.3		16.4						30.0				32.9			2	0.5			
	84	A-B	934+12	W49 R-48	2-#4	18.0		18.7			2	1	16.0			36.7									
	85	A	935+00	G.H. 14'×8'	2-W10×21	25.5		29.8						112.0					55.3			2.5			
	86	D	935+97																						
	87	A-B	936+60	R-2-48	2-#3	15.8		16.2			1	1	6.9		32.0										
	88	B	939+02						1	2	2														
	89	B	940+26								2	1													
	90	A	942+00	M 39-24, M-1-24	1-#3		15.6						6.0		15.6										
	91	B	944+00								2	1													
	92	A	947+45	R-10-36	2-#4	16.0		16.5					12.0			32.5									
33	93	D	953+41																						
	94	D	953+41																						
	95	A-B	966+89	W-24-48	2-#4	16.8		18.0			1	1	16.0			34.8									
	96	A-B	973+58	R-1-36	1-#4		13.0				1	1	9.0			13.0									
	97	A	973+55	R-37 R-36	2-#4	14.5		15.0					12.0			29.5									
	98	B	973+63								1	1													
	99	B	974+50								1	1													
	100	A	974+60	R-37 R-36	2-#4	15.0		14.8					12.0			29.8									
	101	A	974+41	R-1-36	1-#4		13.0						9.0			13.0									
	102	B	974+50								1	1													
34	103	A	981+00	W-86-48	2-#4	16.0		15.8					16.0			31.8									
	104	A	981+00	W-86-48	2-#4	17.5		18.7					16.0			36.2									
	105	A	981+00	W-24-48	2-#4	17.5		18.7					16.0			36.2									
	106	B	981+78								1	2													
	107	B	982+53								1	1													
	108	B	982+59								1	1													

TRAFFIC CONTROL QUANTITIES

SIGN WORK KEY :

A ~ Erect New Sign(s) on New Support(s)
B ~ Remove Existing Sign(s) and Supports(s)
C ~ Erect New Sign(s) on New Overhead Support
D ~ No Work Required

QUANTITIES
Calculated by: W.S.R. 12-30-77 | Checked by: J.C.N. 1-7-78

FHWA REGION	STATE	PROJECT	
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SHEET Nº	REF. Nº	WORK REQUIRED	STATION	NEW SIGN DESCRIPTION CODE	MINIMUM SUPPORT DESIGN	ESTIMATED NEW SUPPORT LENGTHS LT.	CTR.	RT.	202 REMOVE G.M. MAJOR SIGNS FOR STORAGE EACH	REMOVE G.M. SIGN SUPPORTS >Nº8 POSTS EACH	REMOVE G.M. SIGNS FOR STORAGE EACH	REMOVE G.M. SIGN SUPPORTS ≤ Nº8 POSTS EACH	844 SIGNS FLAT SHEET SQ.FT.	SIGNS EXTRUSHEET SQ.FT.	G.M. SUPPORT Nº3 POST LIN.FT.	G.M. SUPPORT Nº4 POST LIN.FT.	G.M. SUPPORT S4x7.7 LIN.FT.	G.M. SUPPORT W10x11.5 LIN.FT.	G.M. SUPPORT W10x21 LIN.FT.	G.M. SUPPORT W12x31 LIN.FT.	BREAKAWAY BEAM CONNECTION EACH	CONCRETE FOR EMBEDDED FOUNDATIONS CU.YD.	OVERHEAD SUPPORT TYPE 7.65 DESIGN MOD. GT-1 SIGN EACH	CONCRETE FOR ANCHOR BASE FOUNDATIONS CU.YD.	620 DELINEATORS TYPE D EACH
34	109	A	983+75	GB, 14'x8'	2-W10x21	25.5		29.8						112.0					55.3		—	2.5			
	110	B	985+00						1			3													
	111	B	985+46								1	2													
	112	B	985+46								1	2													
	113	A	986+00	W-52-48	2-#4	16.6		16.8					16.0			33.4									
	114	A	986+00	W-52-48	2-#4	16.0		15.8					16.0			31.8									
	115	B	988+80								1	2													
	116	B	988+80								1	2													
	117	A	990+00	W-60-48	2-#4	15.8		15.6					16.0			31.4									
	118	A	990+00	W-60-48	2-#4	17.0		17.2					16.0			34.2									
	119	B	992+48								1	1													
	120	B	992+48								1	1													
	121	DELETED																							
	122	A	994+00	R-33-30	11-#4		15.0						7.5			15.0									
	123	DELETED																							
34	124	A	998+00	W-71-36	11-#4		17.1						9.0			17.1									
34	125	A	997+98	R-38R-36	2-#3	13.0		13.0					12.0		26.0										
35	126	D	1005+40																						
	127	A	1007+10	R-34-30	1-#4		15.5						7.5			15.5									
	128	A	1012+00	W-24-36, D-8-48	11-#4		17.4						11.67			17.4									
	129	B	1012+90								1	2													
	130	B	1013+32								1	1													
	131	A	1013+00	W-85-48	2-#4	17.6		18.6					16.0			36.2									
	132	A-B	1016+85	R-33-30	1-#4		15.5				1	1	7.5			15.5									
	133	DELETED																							
	134	D	1019+06																						
	135	A-B	1019+32	R-1-30	1-#3		13.5				1	1	6.25		13.5										
	136	A-B	1019+48	R-1-30	1-#3		13.5				1	1	6.25		13.5										
	137	D	1019+85																						
35	138	A-B	1026+74	W-24-36, D-8-48	1-#4		17.8				1	1	11.67			17.8									
36	139	D	1056+28																						
		TOTAL MAINLINE SIGNS							13	12	83	91	668.27	1991.0	208.1	1218.9	69.5	49.6	300.0	246.5	12	31.7	2	20.1	
		MEDIAN CROSS-OVER SIGNS (See Sheet Nº 48 For Median Cross-Over Sign Placement Details)																							
27	1-MCS-A	A	861+19	R-123-36	1-#4		14.0						9.0			14.0									
	1-MCS-B	A	861+57	R-19-24	1-#3		13.0						5.0		13.0										2
	1-MCS-C	A	861+93	R-19-24	1-#3		13.0						5.0		13.0										2
27	1-MCS-D	A	862+31	R-123-36	1-#4		14.0						9.0			14.0									
30	2-MCS-A	A	897+94	R-123-36	1-#4		14.0						9.0			14.0									
	2-MCS-B	A	898+32	R-19-24	1-#3		13.0						5.0		13.0										2
	2-MCS-C	A	898+68	R-19-24	1-#3		13.0						5.0		13.0										2
30	2-MCS-D	A	899+06	R-123-36	1-#4		14.0						9.0			14.0									
33	3-MCS-A	A	950+69	R-123-36	1-#4		14.0						9.0			14.0									
	3-MCS-B	A	951+07	R-19-24	1-#3		13.0						5.0		13.0										2
	3-MCS-C	A	951+43	R-19-24	1-#3		13.0						5.0		13.0										2
33	3-MCS-D	A	951+81	R-123-36	1-#4		14.0						9.0			14.0									
		TOTAL MEDIAN CROSS-OVER SIGNS											84.0		78.0	84.0									12
		TOTAL MAINLINE & MEDIAN CROSS-OVER SIGNS (CARRIED TO GENERAL SUMMARY ON SHEET Nº 24)							13	12	83	91	752.27		286.1	1302.9	69.5	49.6		246.5					
													753	1991.0	287	1303	70	50	300.0	247	12	31.7	2	20.1	12

TRAFFIC CONTROL QUANTITIES

SIGN WORK KEY

A ERECT NEW SIGN(S) ON NEW SUPPORT(S)
B REMOVE EXISTING SIGN(S) AND SUPPORT(S)
C ERECT NEW SIGN(S) ON NEW OVERHEAD SUPPORT
D NO WORK REQUIRED

QUANTITIES	
Calculated by	Checked by
J.C.N. 1-3-78	W.S.B. 1-5-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

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SHEET No.	REF. No.	WORK REQUIRED	STATION	NEW SIGN DESCRIPTION CODE	MINIMUM SUPPORT DESIGN	ESTIMATED NEW SUPPORT LENGTHS LT.	CTR.	RT.	202 REMOVE G.M. MAJOR SIGNS FOR STORAGE EACH	202 REMOVE G.M. SIGN SUPPORT >#8 POSTS EACH	202 REMOVE G.M. SIGN FOR STORAGE EACH	202 REMOVE G.M. SIGN SUPPORT ≤#8 POSTS EACH	844 SIGNS FLAT SHEET Sq. Ft.	844 SIGN EXTRUSHEET Sq. Ft.	844 G.M. SUPPORT #2 3 POST LIN. FT.	844 G.M. SUPPORT #3 4 POST LIN. FT.	844 G.M. SUPPORT #4 4 POST AS PER PLAN LIN. FT.	844 G.M. SUPPORT S 4×7.7 LIN. FT.	844 G.M. SUPPORT W 10×11.5 LIN. FT.	844 G.M. SUPPORT W 10×21 LIN. FT.	844 G.M. SUPPORT W 12×31 LIN. FT.	844 G.M. SUPPORT W 6×8.5 LIN. FT.	844 G.M. SUPPORT W 8×17 EACH	844 CONCRETE FOR EMBEDDED FOUNDATIONS Cu. Yd.	844 BREAKAWAY B.F.M. CONNECTION EACH
U.S.R. 250 INTERCHANGE																									
U.S.R. 250 Cross Road																									
29	1-250S	A-B	503+70	M-32A-108, D-4A, D-4B	2-W8×17	19.8		24.0			4	2		94.5									43.8	2.2	
	2-250S	B	503+94								2	1													
	3-250S	A	506+35	M-40-24, M-1-24 (3)	1-#3		15.5				2	1	7.0		15.5										
	4-250S	B	506+45																						
	5-250S	A	506+60	W-98-48	2-#4	17.5		18.5					20.0			36.0									
	6-250S	B	506+65								6	2													
	7-250S	A-B	90+75 CL #2	E-1-30	1-#3		14.5				1	1	6.25		14.5										
	8-250S	A	508+70	M-38-24, M-1-24, M-38-24, M-1-24 (3)	1-#3, 1-#4	15.4		17.4					13.0		32.8										
TOTAL U.S.R. 250 Cross Road											15	7	46.25	94.5	62.8	36							43.8	2.2	
RAMP "A"																									
28	1-250AS	A-B	0+39	R-43L-36, R-43E-36, R-41B-30	1-#4		16.4				2	1	12.25				16.4								
	2-250AS	A-B	0+49	R-1-36, R-41B-30	1-#4		14.8				2	1	15.25			14.8									
	3-250AS	B	3+00 Lt.								1	1													
	4-250AS	B	3+00 Lt.								1	1													
	5-250AS	A	4+00 Lt.	R-41A-36	1-#4		13.3						6.0			13.3									
	6-250AS	A	4+00 Lt.	R-41A-36	1-#4		13.5						6.0			13.5									
	7-250AS	A	4+00	M-40-24, M-2-24(3), M-24-21, D-4A (2-3) 2-W6×8.5		12.5		15.5					9.19	36.0								28.0		0.7	2
	8-250AS	B	4+86								1	1													
	9-250AS	A	6+00	W-45-36	1-#4		15.7						9.0			15.7									
TOTAL RAMP "A"											7	5	57.69	36.0		57.3	16.4					28.0		0.7	2
RAMP B																									
28	1-250BS	A-B	3+40	E-2-48	2-#3	16.0		15.5			1	1	6.9		30.5										
	2-250BS	B	6+29								2	1													
	3-250BS	A-B	7+51	E-1-30	1-#3		16.0				1	2	6.25		16.0										
	4-250BS	A-B	7+55	M-6-24, M-24-21, D-1-72	2-#3	13.5		12.7			3	2	12.19		26.2										
	5-250BS	B	8+00								2	1													
	6-250BS	A	8+02	M-6-24	1-#3		14.1						4.0		14.1										
	7-250BS	A-B	11+80	E-1-30	1-#3		13.8				1	1	6.25		13.8										
	8-250BS	A-B	11+89	M-6-24	1-#3		13.7				1	1	4.0		13.7										
	9-250BS	B	12+14								3	2													
TOTAL RAMP "B"											14	11	39.59		114.3										
RAMP "C"																									
28	1-250CS	A	3+70	W-97-48	2-#4	16.8		17.0					20.0			33.0									
	2-250CS	A-B	6+78 Lt.	R-41A-36	1-#4		14.3				1	1	6.0			14.3									
	3-250CS	A-B	6+78 Rt.	E-41A-36	1-#4		14.0				1	1	6.0			14.0									
TOTAL RAMP "C"											2	2	32.0			61.3									
RAMP "D"																									
28	1-250DS	B	0+25								4	3													
	2-250DS	A-B	1+25	W-32-96	2-W6×8.5	19.7		17.5			1	3		32.0								37.2		0.7	
	3-250DS	A-B	2+26	E-38R-36	2-#4	13.0		13.0			2	1	12.0			26.0									
	4-250DS	B	8+80								1	1													
	5-250DS	A	9+25	E-2-48	2-#3	15.7		16.7					6.9		32.4										
TOTAL RAMP "D"											8	8	18.9	32.0	32.4	26.0						37.2		0.7	
TOTAL USR 250 INTERCHANGE (Carried To General Summary Sheet 24)											46	33	194.43	162.5	209.5	180.6	16.4					65.2	43.8		
													195	163	210	181	16.					65.	44.	3.6	2

TRAFFIC CONTROL QUANTITIES

SIGN WORK KEY

A ERECT NEW SIGN(S) ON NEW SUPPORT(S)
B REMOVE EXISTING SIGN(S) AND SUPPORT(S)
C ERECT NEW SIGN(S) ON NEW OVERHEAD SUPPORT
D NO WORK REQUIRED

QUANTITIES	
Calculated by J.C.N. 1-5-78	Checked by W.S.E. 1-6-78

REGION	STATE	PROJECT		
5	OHIO			

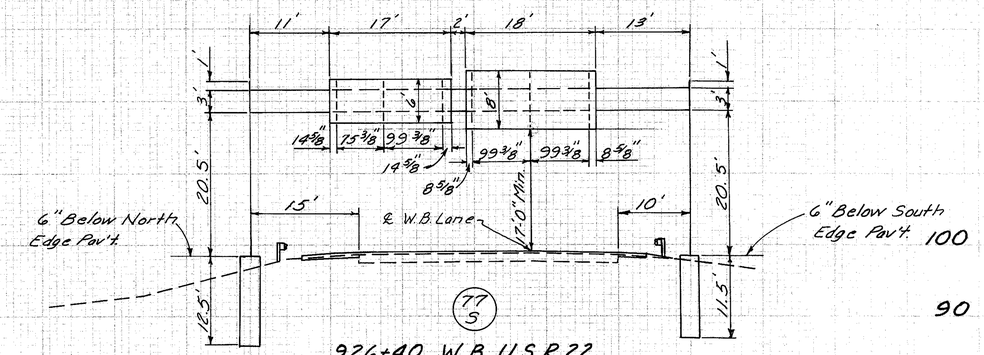
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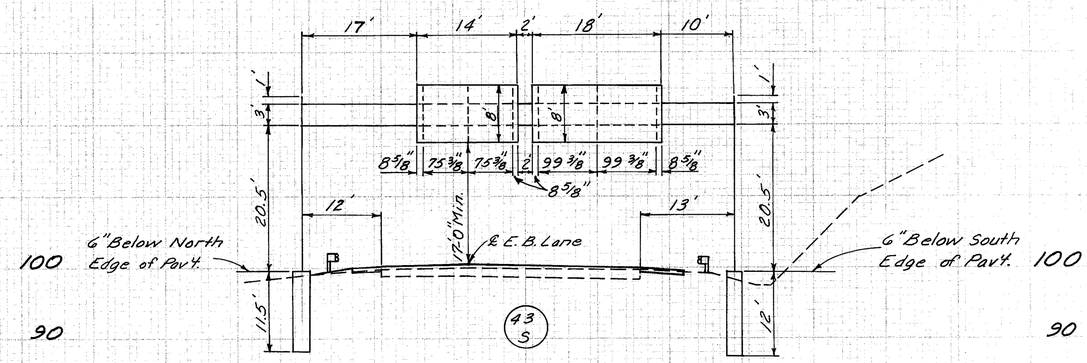
SHEET Nº	REF. Nº	WORK REQUIRED	STATION	NEW SIGN DESCRIPTION CODE	MINIMUM SUPPORT DESIGN	ESTIMATED NEW SUPPORT LENGTHS LT.	CTR.	RT.	202 REMOVE & M. MAJOR SIGNS & STORAGE EACH	202 REMOVE & M. SIGN SUPPORT > Nº 8 POSTS EACH	202 REMOVE & M. SIGN FOR STORAGE EACH	202 REMOVE & M. SIGN SUPPORT ≤ Nº 8 POSTS EACH	844 SIGNS FLAT SHEET Sq. Ft.	844 SIGN EXTRUSHEET Sq. Ft.	844 G.M. SUPPORT Nº 3 POST LIN. FT.	844 G.M. SUPPORT Nº 4 POST LIN. FT.	844 G.M. SUPPORT Nº 4 POST PER PLAN LIN. FT.	844 G.M. SUPPORT S 4×7.7 LIN. FT.	844 G.M. SUPPORT W 10×11.5 LIN. FT.	844 G.M. SUPPORT W 10×21 LIN. FT.	844 G.M. SUPPORT W 12×31 LIN. FT.	844 G.M. SUPPORT W 6×8.5 LIN. FT.	844 BREAKAWAY BEAM CONNECTION EACH	844 CONCRETE FOR EMBEDDED FOUNDATIONS CU. YD.
S.R. 9 INTERCHANGE																								
S.R. 9 CROSS ROAD																								
32	1-9S	D	112+50																					
	2-9S	D	113+61																					
	3-9S	D	115+39																					
	4-9S	D	116+69																					
	5-9S	B	119+08								4	1												
	6-9S	A-B	119+16	2-D-1-96, M-25-21, M-24-21, M-2-24, M-1-24(2)	2-W10×11.5			17.1			6	2	13.38	24.0					36.2				2	2.2
	7-9S	A-B	119+24	2-D-1-96, 2-M-24-21, M-1-24, M-1-24(2)		19.1		17.1			6	2	13.38	24.0					36.2				2	2.2
	8-9S	A-B	119+64	2-M-50-66	2-S4×7.7	17.3		18.4			2	2	22.0					35.7					2	0.5
	9-9S	D	121+00																					
	10-9S	D	123+92																					
	11-9S	D	125+72																					
	12-9S	A-B	127+82	M-50-66	2-S4×7.7	15.7		14.8			1	2	11.0					30.5					2	0.5
	13-9S	B	128+25								4	1												
	14-9S	B	128+30								6	2												
	15-9S	A-B	128+61	D1-96, M-24-21, M-1-24, M-39-24	2-S4×7.7						4	2	8.2	12.0				28.9					2	0.5
	16-9S	D	129+99																					
	17-9S	D	130+78																					
	18-9S	D	131+88																					
TOTAL S.R. 9 CROSS ROAD											33	14	67.96	60				95.1	72.4				10	5.9
RAMP "E"																								
31	1-9ES	A-B	0+34	R-41B-30, R-1-36	1-#4			16.3			2	1	15.25				16.3							
	2-9ES	A-B	0+49	R-37R-24	1-#3			14.4			2	1	5.0		14.4									
	3-9ES	A-B	2+59	R-41A-36	1-#4			14.5			1	1	6.0				14.5							
	4-9ES	A	9+00	R-41A-36	1-#4			12.3					6.0				12.3							
	5-9ES	A	9+00	R-41A-36	1-#4			14.5					6.0				14.5							
	6-9ES	A	12+00	W-97-48	2-#4	17.3		16.3					20.0				33.6							
TOTAL RAMP "E"											5	3	58.25		14.4		91.2							
RAMP "F"																								
31	1-9FS	A-B	918+98	R-2-48	2-#3	16.3		15.7			1	1	6.9		32.0									
	2-9FS	B	8+96								1	1												
	3-9FS	B	8+96								1	1												
TOTAL RAMP "F"											3	3	6.9		32.0									
RAMP "G"																								
31	1-9GS	A	5+73	W-97-48	2-#4	16.3		17.3					20.0				33.6							
	2-9GS	A-B	7+51	R-41A-36	1-#4			13.9			1	1	6.0				13.9							
	3-9GS	A-B	7+51	R-41A-36	1-#4			12.1			1	1	6.0				12.1							
	4-9GS	D	8+23																					
	5-9GS	A-B	16+30	R-41A-36	1-#4			13.8			1	1	6.0				13.8							
	6-9GS	A	17+47	R-37R-24	1-#3			14.3					5.0		14.3									
	7-9GS	A-B	17+65	R-1-36, R-41B-30,	1-#4			16.1			2	1	15.25				16.1							
	8-9GS	B	17+58								2	1												
	9-9GS	A	13+50	D-48, M-24-21, M-25-21, M-1-24, M-2-24	2-W10×11.5	19.1		21.1					13.38	44.0					40.2				2.2	
TOTAL RAMP "G"											7	5	71.63	44.0	14.3		89.5		40.2				2.2	
													204.74		60.7	180.7		95.1	112.6					
TOTAL S.R. 9 INTERCHANGE (CARRIED TO GENERAL SUMMARY SHEET Nº 2A)											48	25	205	104	61	181		95	113				10	8.1

TRAFFIC CONTROL QUANTITIES

HAS-22-(15.03-18.91)



926+40 W.B. U.S.R. 22
SUPPORT TYPE 7.65
DESIGN N°6 MOD. 61' SPAN
24.5' - 24.5' END SHAFTS



870+00 E.B. U.S.R. 22
SUPPORT TYPE 7.65
DESIGN N°6 MOD. 61' SPAN
24.5' - 24.5' END SHAFTS

OVERHEAD SIGN ELEVATIONS

QUANTITIES	
Calculated by W.S.R. 1-11-78	Checked by J.C.N. 1-12-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

65/65

HAS-22 (15.03-18.91)

ITEM 621 PAVEMENT MARKING

STATION From	STATION To	LANES	SIDE	4" EDGE LINES White LIN. FT.	4" EDGE LINES Yellow LIN. FT.	4" EDGE LINES TOTAL LIN. FT.	6" LANE LINES LIN. FT.	4" LANE LINES LIN. FT.	8" CHANNELIZING LINES LIN. FT.	24" BROAD TRANSV. LINES LIN. FT.	4" CENTER LINES SINGLE DASHED LIN. FT.	4" CENTER LINES LT. DASHED/RT. SOLID LIN. FT.	4" CENTER LINES LT. SOLID/RT. DASHED LIN. FT.	4" CENTER LINES DOUBLE SOLID LIN. FT.	24" STOP LINE LIN. FT.	LANE ARROWS EACH
MAINLINE																
795+45	796+75	TWO LANE SECTION W.B. LANES	Lt.&Rt.	260		260										
			Ctr.								130					
796+75	805+75		Lt.&Rt.	1,800		1,800										
			Ctr.									900				
805+75	807+90		Lt.&Rt.	430		430										
			Ctr.											430*		
807+90	814+75		Lt.&Rt.	685	685	1,370										
814+75	1002+00		Lt.&Rt.	18,725	18,725	37,450										
			Ctr.				18,725									
1002+00	1006+52		Lt.&Rt.	904		904										
			Ctr.											904*		
1006+52	1013+25.70 Bk =1011+67.06 Ah		Lt.&Rt.	1,347		1,347										
			Ctr.										674			
1013+25.70 Bk =1011+67.06 Ah	1018+57		Lt.&Rt.	1,380		1,380										
			Ctr.										690			
1018+57	1020+00		County Rd #51 Intersection - No Pavement Marking Required													
1020+00	1061+05	E.B. LANES	Lt.&Rt.	8,210		8,210										
			Ctr.								4,105					
807+90	999+50		Lt.&Rt.	19,160	19,160	38,320										
			Ctr.				19,160									
999+50	1002+00		Lt.&Rt.	250		250								250⊗		
MAINLINE TOTALS				53,151	38,570	91,721	37,885				4,235	900	1,364	1,584		
U.S.R. 250 INTERCHANGE																
0+12.21	6+27	Ramp "A" f.SC Lane	Lt.&Rt.	637	620	1,257										
0+22			Full Width												35	
0+82			Ctr.													1
6+27	8+52		Gore						147	295						
8+33.21 Ramp A -891+20	892+48		Rt.					128								
1+44.97	2+89.97		Rt.					145								
2+89.97	4+00	Ramp "B" f.SC Lane	Lt.&Rt.	110		110			110							
4+00	7+75		Lt.&Rt.	375	375	750										
7+75	8+30		Rt.	61		61										
8+30	12+54.21		Lt.&Rt.	872		872										
	12+12		Ctr.											382⊗		
12+12			Ctr. Comb. Lane												36	
1+54	3+08	Ramp "C" f.SC Lane	Lt.					154								
3+08	3+68		Gore						128	70						
3+68	9+60.88		Lt.&Rt.	593	593	1,186										
506+32.53	509+42.96 =0+00 Ramp D	U.S.R. 250	Lt.&Rt.	620		620										
			Ctr.											310		
0+00	2+21.73	Ramp "D" f.SC Lane	Lt.&Rt.	477		477										
			Ctr.											239⊗		
2+21.73	4+24		Ctr.&Rt.	202	219	421										
4+24	8+70		Lt.&Ctr.	235	219	454										
8+70	9+72		Lt.&Rt.	446	477	923										
9+72	11+80		Lt.	102		102			106							
								208								
U.S.R. 250 INTERCHANGE TOTALS				4,730	2,503	7,233		635	791	365				931	71	1

* Dual Double Yellow On Same Alignment As Existing Concrete Traffic Dividers Which Are To Be Removed.

⊗ Double Yellow On Same Alignment As Existing Concrete Traffic Dividers Which Are To Be Removed.

ITEM 621 - PAVEMENT MARKING

STATION From	STATION To	LANES	SIDE	4" EDGE LINES White LIN. FT.	4" EDGE LINES Yellow LIN. FT.	4" EDGE LINES TOTAL LIN. FT.	6" LANE LINES LIN. FT.	4" LANE LINES LIN. FT.	8" CHANNELIZING LINES LIN. FT.	24" BROAD TRANSV. LINES LIN. FT.	4" CENTER LINES SINGLE DASHED LIN. FT.	4" CENTER LINES LT. DASHED/RT. SOLID LIN. FT.	4" CENTER LINES LT. SOLID/RT. DASHED LIN. FT.	4" CENTER LINES DOUBLE SOLID LIN. FT.	24" STOP LINE LIN. FT.	LANE ARROWS EACH
S.R. 9 INTERCHANGE																
0+12	6+82.09	Ramp "E" f.SC Lane	Lt.&Ctr.	693	671	1,364										
			Gre.&Rt.	757	671	1,428										
0+40			Full Width Lt. Lane												19	
1+00			Ctr. Lt. Lane													1
6+82.09	11+83		Lt.&Rt.	501	528	1,029										
11+83	12+60		Gore						156	94						
12+60	14+C.2 = 927+99		Rt.					202								
0+90	1+80.63		Rt.					91								
1+80.93	3+00	Ramp "F" f.SC Lane	Lt.&Rt.	119		119			120							
3+00	9+30.28		Lt.&Rt.	630	641	1,271										
2+55 = 928+32	5+00		Lt.					245								
5+00	5+85		Gore						175	116						
5+85	9+95	Ramp "G" f.SC Lane	Lt.&Rt.	410	439	849										
9+95	17+88.82		Lt.&Ctr.	879	796	1,675										
			Ctr.&Rt.	817	789	1,606										
17+01			Ctr. Rt. Lane													1
17+61															20	
0+00	4+88	Ramp "H" f.SC Lane	Lt.&Rt.	488	497	985										
4+88	5+83.67		Lt.&Rt.	96		96			102							
5+83.67	6+27.67		Lt.					44								
S.R. 9 INTERCHANGE TOTALS				5,390	5,032	10,422		582	553	210					39	2
TOTALS (Carried To General Summary)			Lin. Ft.	63,271	46,105	109,376	37,885	1,217	1,344	575	4,235	900	1,364	2,515	110	3
			Miles	109,376 L.F. x 1 Mile/5280 L.F. = 20.72 Miles			7.18 Mi.	0.23 Mi.			90142 L.F. x 1 Mile / 5,280 L.F. = 1.71 Miles					

GENERAL NOTES:

All Work Performed Under Item 621 Shall Conform To The "Ohio Manual of Uniform Traffic Control Devices For Street And Highway" Current Edition, Latest Revision, Unless Otherwise Shown On The Plans.

PAVEMENT MARKING