#5056

SAN-6 -(14.61-16.02) SAN-20-14.59	OHIO
	FHWA REGION 5
F-69(14), F-73(2), ROS-0005(71)	FEDERAL PROJECT

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
SAN-6 -(14.61-16.02), SAN 20-14.59
SANDUSKY COUNTY
SANDUSKY - RILEY - GREEN CREEK TOWNSHIPS
CITY OF FREMONT

NOTE: FEDERAL No. ROS-0005(71) appearing throughout this pla shall be considered to read ROS-0005(71)

NOTE: SECTION SAN. 6/20 -(14.61-16.02)/14.59 shown throughout this plan shall be considered to read SAN-6-(14.61-16.02), SAN-20-14.59

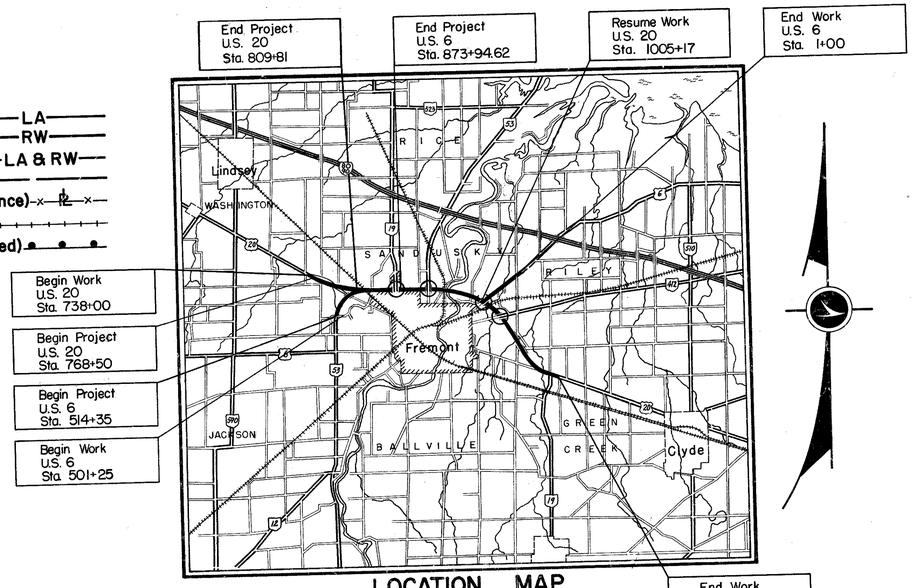
F-69 (14)
F-73 (2)
ROS-0005(71)

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



LOCATION MAP

SCALE IN MILES 0 1 2 3 4 5 6 7 8

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan 0 25' 50' 100' 200'
Profile: Horizontal, Vertical
Cross Section: Horizontal 0 1' 2' 3' 4' 5' 10', Vertical 0 1' 2' 3' 4' 5' 10'

LINE DATA

WORK

U.S. 6
Begin Work - Station 501+25
End Work - Station 1+00
Length of Work = 26,612.57 Lin. Ft. = 5.040 Miles

U.S. 20
Begin Work - Station 738+00
Suspend Work - Station 809+81
Resume Work - Station 1005+17
End Work - Station 1177+50
Deduct for Station Equation:
Sta. 1048+55.65 Bk. = Sta. 1048+84.25 Ahd. = 28.60 Lin. Ft.
Length of Work = 24,385.40 Lin. Ft. or 4.618 Miles

WORK ADDITIONS

S.R. 19 - Sta. 94+20 to Sta. 128+85 =	3465.00 Lin. Ft.
S.R. 53 - Sta. 427+51.87 to Sta. 466+00 =	3848.13 Lin. Ft.
Co. Rd. 53 - Sta. 417+00 to Sta. 427+51.87 =	1051.87 Lin. Ft.
Co. Rd. 6 - Sta. 25+73.85 to Sta. 37+00 =	1126.15 Lin. Ft.
S.R. 412 - Sta. 1+00 to Sta. 25+72.13 =	2472.13 Lin. Ft.
Co. Rd. 12 - Sta. 25+72.13 to Sta. 31+00 =	527.87 Lin. Ft.
S.R. 19 - Sta. 0+00 to 10+50 =	1050.00 Lin. Ft.

Length of Work Additions = 13,541 Lin. Ft. or 2.564 Miles

TOTAL WORK LENGTH = 26,612.57 Lin. Ft. + 24,385.40 Lin. Ft. + 13,541.15 Lin. Ft. = 64,539.12 Lin. Ft. or 12.223 Miles

PROJECT

U.S. 6
Begin Project - Station 514+35
Station Equation - Sta. 543+51.13 Bk. = Sta. 814+65.84 Ahd.
End Project - Station 873+94.62
Deduct for Bridge Nos. SAN 6-1476 Lt. & Rt. = 175.51 Lin. Ft.
Length of Project = 8669.40 Lin. Ft. = 1.641 Miles

U.S. 20
Begin Project - Station 768+50
End Project - Station 809+81
Length of Project = 4131.00 Lin. Ft. = 0.782 Miles

TOTAL LENGTH OF PROJECT = 8669.40 Lin. Ft.
+ 4131.00 Lin. Ft. = 12,800.40 Lin. Ft. or 2.424 Miles

	PROJECT	WORK
LENGTH F-69(14) =	10,575.91 L.F. OR 2.003 MI.	60,829.12 L.F. OR 11.521 MI.
LENGTH F-73(2) =	2224.49 L.F. OR 0.421 MI.	3710.00 L.F. OR 0.702 MI.

Plan Prepared By:

Ohio Department Of Transportation
District Two
Design Department

SEAL

Project: SAN. 6/20 (14.61-16.02)/14.59
Date of Letting ____ 19__, **Contract No.** ____

L.D 0300 Rev. 9-3-75

BRUNING 44.560.2974

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 of the highway to traffic, except as noted on sheet No. 2, and that provisions for the maintenance and safety of traffic will be as set forth on these plans and estimates.

Approved James L. Andrews
Date 5-23-78 District Deputy Director of Transportation

FFE Approved Robert B Pfeifer
Date 8-7-78 Engineer, Bureau of Bridges and Structural Design

Approved R.E. Gallion
Date 8-28-78 Chief Engineer, Planning and Design

Approved David L. Weer
Date 8-28-78 Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS			
844	11-8-74	S-625	1-11-74
845	6-27-77	S-713	1-11-74
		921	12-4-72
850	6-27-77	953	6-27-77
847	4-3-76		
1001	1-3-77		
848	2-23-78		

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS							
BP-3	12-6-76	I-3	11-1-77	TC 7.65	10-1-74	TC 42.20	4-1-77
BP-4	12-6-76	MC-3	6-1-73	TC 12.30	10-1-74	TC 51.10	6-2-75
BP-5	8-11-75	MC-4	7-26-76	TC 18.24	10-1-74	TC 52.10	4-1-77
CB-2-2 A/B	6-1-65	MH-1	6-12-75	TC 21.10	10-1-74	TC 52.20	4-1-77
CB-2-3 & 2-4	6-1-65	MH-3	6-12-75	TC 22.10	10-1-74	TC 51.11	6-2-75
GR-1	12-6-76	MH-5	6-12-75	TC 22.20	8-19-77	TC 61.10	8-19-77
GR-2B	12-6-76	MC-9	11-1-77	TC 31.21	8-27-76	TC 72.20	8-29-77
GR-3A	12-6-76	BP-11	1-3-75	TC 35.10	10-5-77		
GR-3B	12-6-76						
GR-4	12-6-76			TC 41.10	8-19-77		
GR-4A	7-26-76			TC 41.20	4-1-77		
GR-6	1-1-71			TC 41.50	4-1-77		
HW-4	1-1-70			TC 42.10	8-19-77		

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR ____ DATE

FHWA REGION	STATE	PROJECT	
5	OHIO		

2/114

SAN. 6/20 - (14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

SCHEMATIC PLAN

SCALE
0' 500' 1000' 2000' 3000'

BEGIN WORK-U.S.20
STA. 738+00

BEGIN PROJECT
U.S. 20
STA.768+50
F-69(14), ROS-0005(71)
S.L.M.14.59

S.L.M. 15.06 U.S.R.6
STA.538+35
END PROJECT
U.S. 20
STA.809+81
(F-73(2))

S.L.M.15.30

Begin Resurfacing

Twp. Rd. 138

Station Equation
Sta.543+51.13 U.S.R-6-Bk.
Sta.814+65.84 U.S.R.-6-Ahd.

Br.No.SAN.20-1486

Br.No.SAN-6-1506L

N & W

Muskellunge Cr.

Co.Rd. 57

S.L.M. 16.27

Fremont Corp. Line

End Resurfacing

END PROJECT U.S.6
STA.873+94.62

Br.No.SAN.6 1538R

Br.No.SAN.6-1538L

BR.NO.SAN.19-1079

STA. 866+24.62 U.S.R.6
=STA. 100+00 S.R.19

CITY OF FREMONT

STA.914.81.17 U.S.R.6
=STA.438+85.90 S.R.53

Br.No.SAN-53-1064

Br.No.SAN-6-1751

R.R.

River

Port Clinton Rd.

N & W

Sandusky

Co.Rd.176

N.River Rd.

SLM. 18.76 U.S.R.6 =
1900 U.S.R.20

RESUME WORK-U.S20
STA.1005+17
(ROS-0005(71)
F-69(14))

END WORK-U.S. 6
STA. 1+00

Sta.1003+54.76 U.S.R.6
=Sta.20+73.35 U.S.R.6

Br.No.SAN-6-1901

Br.No.SAN.20-1920R

Br.No.SAN.20-1920L

N & W R.R.

CO. RD. 198

END WORK S.R.412
BEGIN WORK CO.RD.12
STA. 25+72.13

BEGIN WORK-S.R 412
STA. 1+00

Bank Cr.

END WORK CO.RD.12
STA.31+00

Co. Rd. 12

Br.No.SAN.412-0022

END WORK CO.RD.6
STA.37+00

BEGIN WORK-CO.RD. 6
STA.25+73.85

STA.1038+71.42 U.S.R. 20
=STA.20+23.76-S.R.412

Station Equation Sta.1048+55.65 U.S.20 Bk.
= Sta.1048+84.25 U.S.20 Ahd.

END WORK U.S.20
STA.1177+50
ROS-0005(71)
F-69(14)

Co. Rd. 229

Br.No. San 20-2131

Co.Rd.20

Sta.1124+80.00 U.S.20
=Sta.0+00 S.R.19

Green Cr.

Shock Rd. & Twp. Rd. 204

Sta.1145+86.54 U.S.R. 20 BACK=
Sta.1112+66.02 U.S.R 20 AHEAD

END WORK-S.R 19
STA. 10+50

BEGIN PROJECT U.S.6
STA.514+35
F-73(2), ROS-0005(71)
S.L.M.14.61

Begin Resurfacing

Br.No.SAN.-6-1476R

Br.No.SAN.-6-1476L

Co.Rd.20

Co.Rd.57

Muskellunge Cr.

BEGIN WORK U.S.6
STA.501+25

Co. Rd. 51

To Fremont

Co.Rd.6

Sta. 428+93.67

DIRECTIONAL DETOUR

A Westbound U.S.R 6 Directional Detour, As Shown At Left, Has Been Provided To Facilitate Construction Of The U.S.R. 6 Westbound Ramp At The U.S.R. 20 Interchange. Eastbound U.S.R. 6 Shall Use The Existing Route At All Times. The Detour Shall Be In Effect No Longer Than 30 Consecutive Working Days. The Contractor Shall Notify The Engineer 10 Working Days Before Closing The U.S.R. 6 Westbound Ramp.

DESIGN DESIGNATION

CURRENT A.D.T. 13,060(1975)
DESIGN YEAR A.D.T. 31,980 (1995)
D.H.V. 4477
D(DIRECTIONAL DISTRIBUTION) 60-40
T(PERCENT B&C TRUCKS) 23%
T(DESIGNSPEED) 70 M.P.H.

SCHEMATIC PLAN

FHWA REGION	STATE	PROJECT	
5	OHIO		

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SAN 6/20(1461-16.02)/14.59

F-69(14)
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MAINTENANCE OF TRAFFIC NOTES

The Contractor shall at all times so conduct his work as to assure the least possible obstruction to traffic. He shall perform the required work so that the least inconvenience to, and the maximum safety is provided for both the Contractor and the traveling public.

In addition to the requirements of maintaining traffic as indicated in the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways" in force at the time the project is advertised for bids, the following requirements shall apply:

Two lane directional traffic shall be maintained at all times on the main line pavement except as noted below.

The left (median) lanes of main line pavement may be closed at the direction of the Engineer, when necessary, to facilitate the construction of the concrete median barrier and the median paved berms.

Should it be deemed necessary by the Engineer, due to inclement weather conditions or other hindering circumstances, to leave any minimum length of excavated trench exposed after daylight hours, same shall be protected by placing Type C steady burning barricade warning lights on drums or barricades in the open trench. The warning lights shall be placed in such a manner that they will extend a minimum of 36 inches above the edge of the existing pavement surface. Spacing of said drums or barricades shall in no case exceed 100 feet and in areas where the open trench length is less than 200 feet same shall be protected with 50 feet spacing. However, regardless of above spacing, a drum or barricade shall in all cases be placed at trenching terminal points.

No stoppage of traffic or lane restrictions shall occur without a uniformed policeman with vehicle present at each location to direct traffic.

Lane closures will only be permitted between the hours of sunrise and sunset. No lane closure will be permitted between 5:00 P.M. Friday and 8:00 A.M. Monday, or on National Holidays.

The maximum length of lane closure shall be one mile. The minimum distance between lane closures shall be one mile.

No traffic lane shall be less than 10 feet wide.

No crossovers or opposing two-way traffic will be allowed at any time on four lane divided pavement.

One lane of directional traffic will be permitted for minimum periods of time consistent with the requirements of the specifications for protection of the completed asphalt courses.

Traffic on U.S.R. 6 westbound ramp at the U.S. 20 Interchange at Station 1003+54.76 shall be detoured while the ramp is rebuilt. For details of the detour see Sheet No.2.

On two lane highways where work is to be performed, a minimum of one lane of supervised two-way traffic shall be maintained at all times during working hours. One lane of supervised two-way traffic shall include a flagman at each end of the one lane section in accordance with the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways." All traffic shall be returned to its normal pattern after completion of each workday. In all cases, on-coming traffic shall be separated from the work area by drums or cones spaced at a maximum of 50 feet apart plus all other necessary control devices as required by the Traffic Control Manual.

The limits and duration of the road closures shall be held to a minimum and in all cases shall be subject to the approval of the Engineer.

If the Contractor so elects he may submit alternate methods for the maintenance of traffic, provided the intent of the above provisions are followed and no additional inconvenience to the traveling public results therefrom. No alternate plan shall be placed into effect until approval has been granted, in writing, by the District Deputy Director.

Temporary pavement markings shall be completed on all asphalt courses exposed to traffic at the end of each days operation. Temporary pavement marking shall consist of reflective yellow or white paint markings approximately 6 inches wide by 24 inches long or reflective pressure sensitive pavement marking tape 24 inches long and shall not be less than 9 mils. or more than 16 mils. thick and shall be placed at a maximum of 40 foot intervals. The center of the lane lines shall be five inches left of the centerline of pavement. The temporary pavment marking shall be as shown in the permanent pavement marking plans as shown on sheets 106 to 114. Existing pavement markings which may conflict with the temporary pavement markings shall be removed or obliterated by a method approved by the Engineer.

The work involved in temporary marking of the asphalt courses and the removal of existing pavement marking as described above, including labor and equipment will be included for payment in the lump sum bid for 614, Maintaining Traffic.

At each ramp, an area of 175 plus or minus feet in length in the outside directional lane shall be resurfaced with the median directional lane or it shall be omitted during the time the outside directional lane is being resurfaced, to maintain access to and from ramps at interchanges. The area shall be located as directed by the Engineer to provide safe flow of traffic entering and leaving while the lanes adjacent to the 175 foot areas shall be used to provide one-lane traffic while the median lane is being resurfaced (See detail below.)

Equipment and materials to be used on the project shall be stored in accordance with Section 614.03, Maintaining Traffic.

Guard rail protection for sign supports shall be complete and in place, prior to the erection of the support. Removal of individual guard rail panels during sign support erection is acceptable provided the panels are reinstalled immediately following erection.

Erection of span type overhead supports and signs as necessary, shall be accomplished in such a manner that complete traffic stoppage on all lanes of directional roadway is not more than ten minutes in any one consecutive thirty minute period. A minimum of two-lead vehicles shall be used to pace motorist to a stop. After traffic has been stopped, one lead vehicle shall remain in the roadway to block traffic and one lead vehicle shall travel along the roadway shoulder in advance of the backup of stopped vehicles. Where stoppages occur in the vicinity of freeway entrances, the Contractor shall place flagmen on the ramps to stop traffic. Lead vehicles shall be equipped with flashing beacons, adjustable to eleven feet above the pavement, in order to provide adequate visibility to the approaching motorist. Lead vehicles and signs shall be located in accordance with details shown on Sheet No.____.

The Contractor shall provide, erect, and maintain, and subsequently remove all warning and informational signs and other traffic control devices necessary in maintaining traffic. Traffic control devices shall be set up prior to the start of construction and shall be properly maintained during the time such special conditions exist. They shall remain in place only as long as they are needed and shall be immediately removed thereafter. Where operations are performed in stages, there shall be in place only those devices that apply to the conditons present during the stage in progress. All signs with messages which do not apply during a certain period shall be covered or set aside out of the view of traffic. All signs shall be clean and legible and in accordance with the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways," edition in force at the time the project is advertised for bids. See Sheet Nos. 61, 62 & 63 for special mainterance of traffic details at various locations throughout the project.

The work limits shown on these plans are for physical construction only. The installation and operation of all traffic control and traffic control devices required by the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways shall be provided by the Contractor, whether inside or outside these work limits.

Where existing guard rail is to be removed, rebuilt or modified, no guard rail shall be removed until the new guard rail is ready to be installed. New installation shall be completed within five working days from time of removal of existing guard rail.

When heavy construction equipment is being moved on the traveled lanes from one location to another within the working limits, the equipment shall be accompanied by a trailing vehicle equipped with a flashing arrow or arrow mounted on a trailer in order to advise traffic as to which side they may pass. Flashing arrow shall conform to Supplemental Specification 844, dated 11-8-74.

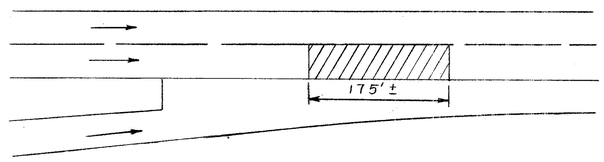
For maintaining local traffic the following items are included in the plans; "410, Traffic Compacted Surface" and "616 Calcium Chloride."

Furnishing and placing of material for the maintenance of local traffic shall be paid for as follows:

410, Traffic Compacted Surface, Type A or B	1000 Cu. Yds.
616, Calcium Chloride	20 Tons
616, Water	50 M. Gals.

The Contractor's attention is directed to the specifications relative to the control of dust and dirt and the maintenance of the roadway surface. The provisions of the specifications shall be strictly adhered to throughout the life of the project.

Payment for all of the above, except as noted, shall be included in the lump sum price bid for "614 Maintaining Traffic."



F-69(14)
F-73(2)
ROS-0005(71)

FHWA REGION	STATE	PROJECT	
5	OHIO		

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SAN 6/20(14.61-16.02)/14.59

GENERAL NOTES

FIELD OFFICE

The Contractor shall provide a suitable field office having a minimum of 300 sq. ft. of floor space and in dddition 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.

REMOVAL OF EXISTING PIPE

The removal of all existing pipe drains which would normally be removed in various excavation items shall be included for payment in the unit prices bid for the respective excavation items, unless otherwise itemized in the plans.

SEEDING

Quantities for seeding are calculated for the soil areas between lines ten (10) feet outside the work limits, as shown on the cross sections, or to the right-of-way line if such line is less than ten (10) feet from the work limits.

WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL

The following estimated quantities are to be used as directed by the Engineer for erosion and siltation control measures:

207	Temporary Seeding and Mulching	6200	Sq. Yds.
659	Water	2	M Gals.
207	Temporary Slope Drains	25	Lin. Ft.
207	Temporary Benches, Dikes, Dams and Sediment Basins	10	Cu. Yds.
659	Mowing	70	M Sq. Ft.
659	Commercial Fertilizer (12-12-12)	2.9	Tons
659	Repair Seeding and Mulching	1600	Sq. Yds.
207	Straw or Hay Bales	100	Each

EROSION CONTROL

Items 601 and 660 are 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.

CONSTRUCTION NOISE

All land uses and activities adjacent to this project may be affected by noise during construction of this project. In order to minimize any adverse construction noise impacts, any power-operated construction-type device shall not be operated during the hours of 10:00 P.M. to 6:00 A.M. In addition, any power-operated construction type device shall not be operated in such a manner that the noise created substantially exceeds the noise customarily and necessarily attendent to the reasonable and efficient performance of such equipment.

REVIEW OF DRAINAGE FACILITIES

Before any work is started on the project, and again before final acceptance by the State, representatives of the State and the Contractor shall make an inspection of the existing sewers within the work limits which are to remain in service and which may be affected by the work. The condition of the existing conduits and their appurtenances shall be determined from field observations. Records of the inspections shall be kept in writing by the State.

All new conduits, catch basins and manholes constructed as a part of the project shall be free of all foreign matter and in a clean condition before the project will be accepted by the State.

All existing sewers inspected initially by the above-mentioned parties shall be maintained and left in a condition reasonably comparable to that determined by the original inspection. Any change in the condition resulting from the Contractor's operations shall be corrected by the Contractor to the satisfaction of the Engineer.

Payment for all operations described above shall be included in the unit prices bid for the pertinent 603 conduit items of the contract.

CONTRACTION JOINTS IN PAVEMENT WIDENING

Where new portland cement concrete base pavement is placed adjacent to existing concrete pavement, contraction joints shall be provided in the new pavement so as to form a continuous joint with that in the existing pavement.

If the distance between the existing joints is greater than 17', additional contraction joints at a maximum spacing of 17' shall be placed in the new pavement.

CATCH BASINS AND INLETS REMOVED OR ABANDONED

All castings which are not to be used to replace broken castings on catch basins which are to be adjusted shall be carefully removed and stored within the right-of-way for salvage by State forces.

Payment for all of the above shall be included in the unit price bid for the pertinent 202 item.

ITEM 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.

FASTENING OF BRIDGE TERMINAL ASSEMBLIES

Bridge terminal assemblies which are to be fastened to existing concrete parapets by steel box blockouts shall be attached by means of through bolts. Expansion anchor bolts will not be permitted.

Where self-drilling anchors are permitted and are used, the holes shall be drilled with the tubular expansion shell, rather than with a bit, to insure a proper fit. The anchors shall be installed flush with the surface of concrete.

Where anchorage by expansion bolts to a deteriorated concrete surface would result in a questionable attachment through bolts shall be used instead at the discretion of the Engineer.

LOCATIONS OF GUARDRAIL

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

ITEM 202 GUARDRAIL REMOVED FOR STORAGE

Guardrail designated for salvage shall be stored on the job site as directed by the Engineer for removal by State forces. Standard terminals, posts and miscellaneous hardware shall become the property of the Contractor. 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 guardrail removal to provide proper shoulder drainage and smooth shoulder slopes where traffic or weather may have built a ridge of earth or debris under the guardrail. The graded or disturbed area shall be reseeded except, where new guardrail is to be constructed, an area under the new guardrail 3' wide, measured from one foot in front of the rail, shall not be seeded.

Payment for all of the above shall be at the unit price bid for 202 Guardrail removed for storage, measured by the linear foot to center of terminal posts.

All existing guard rail to be removed on this project consists of painted panels.

CONNECTIONS TO EXISTING PIPE

Where the plans provide for proposed conduit to be connected to, or to cross either over or under an existing sewer, it shall be the responsibility of the Contractor to locate the existing pipe both as to line and grade before he starts to lay the proposed conduit.

Payment for all operations described above shall be included in the unit price bid for the pertinent 603 conduit items.

RIGHT OF WAY

All proposed work will be performed within the existing right of way and no additional right of way will be required.

ITEM SPECIAL - ENDWALL COLLAR CONNECTOR

For details of this item refer to Sheet No. 6.

PUBLIC SAFETY

No hazard shall be left unprotected except for the actual time necessary to remove, grade 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 that the Engineer is assured of said compliance.

848, ASPHALT CONCRETE

Subsequent to the completion of plans, the asphalt concrete used on this project has been revised from items 402, 404 to supplemental specification 848. All reference to 402 and 404 appearing on the plans shall be considered to read as follows:

402 becomes 848 Asphalt Concrete Intermediate Course, Type 2
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.

Rev. 10-6-78

FHWA REGION	STATE	PROJECT	
5	OHIO		

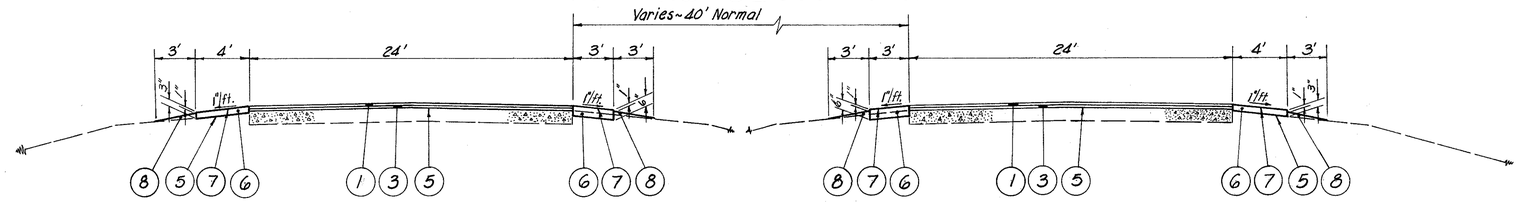
5/114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(711)

TYPICAL SECTIONS FOR PAVEMENT RESURFACING TYPE 848

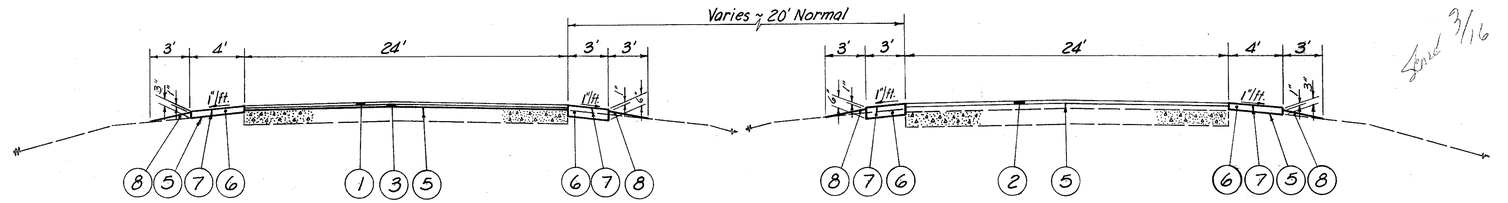
U.S.6 ~ STA. 514+35 TO STA. 873+94.62
U.S. 20 ~ STA. 769+00 TO STA. 809+81

TYPICAL SECTION "A"



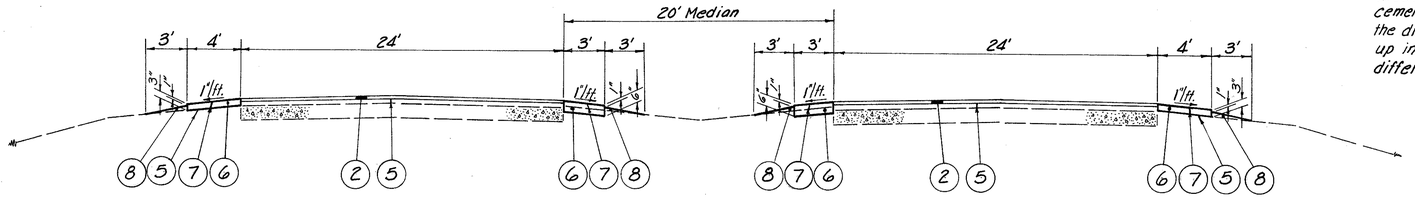
Above Typical Section Applies: U.S.6-40' Median: 814+63.89 to 873+94.62
-Variable Width Median: 516+49 to 543+51.13
U.S.20-Variable Width Median: 780+05 to 809+81

TYPICAL SECTION "B"



Above Typical Section Applies: U.S.20: 20' Median: 769+00 to 780+05
Co. Rd 20: Left Lane-Co.Rd. 20 W.B.: 772+72.50 to 19+20
Right Lane-Co.Rd. 20 E.B.: 780+05 to 19+20

TYPICAL SECTION "C"



Above Typical Section Applies: Co.Rd.20: 19+20 to 27+50

Note: It is the intent of this plan to provide 1" 848 S and 1" 848 I courses over existing portland cement concrete pavement and a 1½" 848 S course over existing bituminous concrete pavement. At those locations on mainline and ramp pavements where portland cement concrete pavement abuts bituminous concrete pavement, the difference in thickness of the proposed courses shall be made up in a length of 50'. At driveways and median crossovers, the difference shall be made up in 10'.

PAVEMENT LEGEND

(1) Item 848 1" Asphalt Concrete Surface Course, Type 1
(2) Item 848 1½" Asphalt Concrete Surface Course, Type 1
(3) Item 848 1" Asphalt Concrete Intermediate Course, Type 2
(4) Item 848 2" Asphalt Concrete Intermediate Course, Type 2
(5) Item 407, Tack Coat: 702.04 MS-2, RS-1, SS-1 OR SS-1H OR 702.02, RC-250, Applied at the Rate of 0.09 Gal. per Sq.Yd. for Pavement and 0.20 Gal. per Sq.Yd. for Shoulders.
(6) Item 301, Bituminous Aggregate Base: 702.01, AC-20 or 702.09, RT-11 or RT-12 (Thickness As Shown)
(7) Item 409, Seal Coat Using 0.008 Cu.Yds. of Seal Coat Aggregate No. 8 and 0.30 Gal. Seal Coat Bituminous Material, 702.09 RT-9 or RT-10, 702.02 MC-800 or MC-3000; 702.03, CBAE-800, or 702.04, RS-1, RS-2, CRS-1 or CRS-2, per Sq. Yd.
(8) Item 617, Compacted Aggregate

Signed 3/16

PAVEMENT RESURFACING TYPICAL SECTIONS

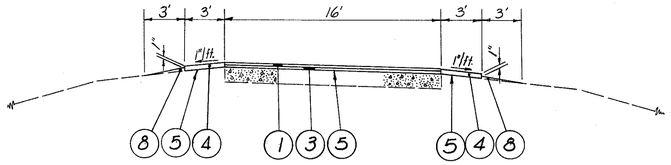
FHWA REGION	STATE	PROJECT	
5	OHIO		

6/114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

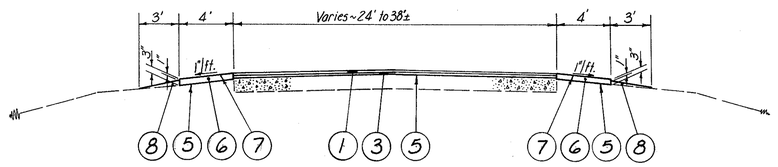
TYPICAL SECTIONS FOR PAVEMENT RESURFACING TYPE 848

TYPICAL SECTION "D"



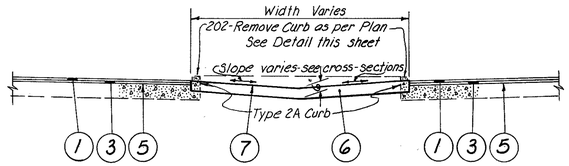
Above Typical Section Applies: Ramps "G" & "H"

TYPICAL SECTION "E"



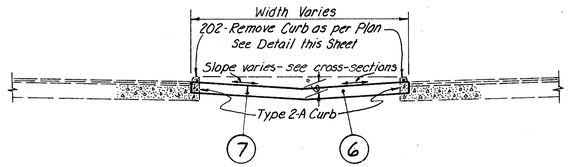
Above Typical Section Applies: U.S. 6: 514+35 to 516+49

MEDIAN DETAIL
ADJACENT TO PAVEMENT RESURFACING AREAS



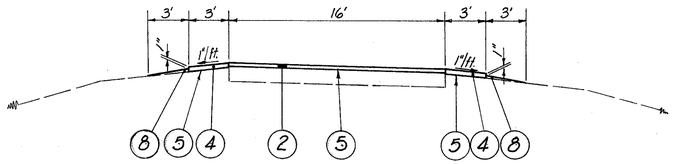
Above Details Applies: 1-R, 7-R & 8-R Details

MEDIAN DETAIL
NOT ADJACENT TO PAVEMENT RESURFACING AREAS



Above Detail Applies: 10-R, 11-R, 18-R & 19-R Details

TYPICAL SECTION "F"

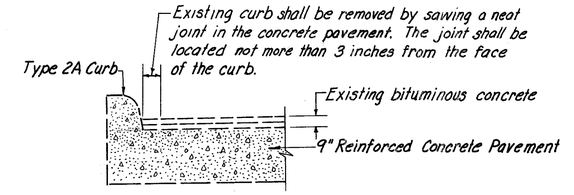


Above Typical Section Applies: All Ramps at S.R. 19 Interchange

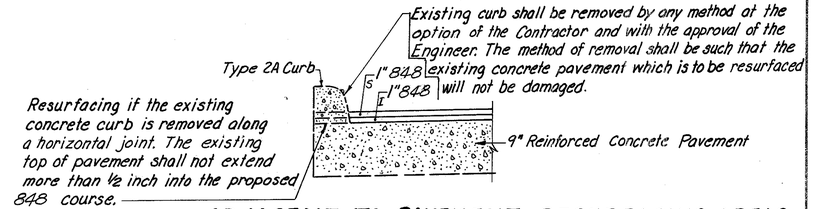
PAVEMENT LEGEND

- Paved Shoulder - See Typical Sections for Composition
- 202, Concrete Base Removed
- 1"848S on 1"848I on 9" 305 on 310
- Feather
- Feather from 2" or 1½" to 1" in distance of 50'
- 50' Butt Joint

202-CURB REMOVED AS PER PLAN

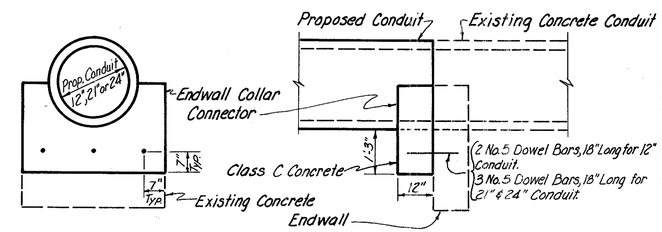


NOT ADJACENT TO PAVEMENT RESURFACING AREAS



ADJACENT TO PAVEMENT RESURFACING AREAS

ENDWALL COLLAR CONNECTOR



See Std. Drawing MC-4 for added details

~FRONT VIEW~ ~SIDE VIEW~

This item shall consist of providing for a connection where an existing conduit terminating at an endwall is to be extended. Payment for all of the above shall be included in the unit price bid for 602 Concrete Masonry

PAVEMENT RESURFACING TYPICAL SECTIONS AND CONSTRUCTION DETAILS

PAVEMENT RESURFACING CALCULATIONS

Quantities shall be under F-69(14) unless otherwise noted
@ F-73(2)

QUANTITIES
CALC BY J.C.W. DATE 9-1-77
CKD BY D.W.W. DATE 9-22-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

7/114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

STATION From	STATION To	LENGTH	WIDTH	202 WEARING COURSE REMOVED	404 ASPHALT CONCRETE COURSE 1½"	404 ASPHALT CONCRETE COURSE 1"	402 ASPHALT CONCRETE COURSE 1"	402 ASPHALT CONCRETE COURSE 2" FOR SHOULDERS	407 TACK COAT	407 COVER AGGREGATE @ 7 LBS. PER SQ. YD.	409 SEAL COAT AGGREGATE	409 SEAL COAT BITUMINOUS MATERIAL	301 BITUMINOUS AGGREGATE BASE FOR SHOULDERS	617 COMPACTED AGGREGATE	REMARKS
		FEET	FEET	SQ. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	CU. YDS.	GAL.	TON	CU. YDS.	GAL.	CU. YDS.	CU. YDS.	
U.S. 20 ~ Eastbound Lanes															
768+50	780+23	1,173													
	Pavement		24	133.33	132.83				286.92	11.16					Includes 15' feather for drive at 776+00 right
	Shoulders								100.00		6.01	225.30	83.50	18.78	
Co. Rd. 20 ~ Eastbound Lanes															
780+23	27+50	2,631.46													
	Pavement		24	133.33	284.05				631.55	24.56					
	Shoulders								218.17		15.62	585.75	234.51	50.39	
U.S. 20 ~ Eastbound Lanes															
776+54	782+25	571													
	Pavement		Varies			39.08	39.08		126.63	4.92					
	Shoulders								18.31		2.26	84.57	39.35	7.77	
U.S. 20 ~ Eastbound Lanes															
782+25	BR. No. SAN. 6-1538 R.	312.5													
	Pavement		24			250.29	224.73		810.93	31.53					
	Shoulders								264.80		19.06	714.70	286.72	61.54	Sta. 807+62 to 810+02 right included with Item 8-R
U.S. 20 ~ Westbound Lanes															
768+50	BR. NO. SAN. 6-1538 L.	450.0													
	Pavement		24	133.33		355.10	342.14		1150.52	44.74					Includes median cross-over right @ 776+00
	Shoulders								342.89		25.51	956.85	388.72	82.82	Sta. 772+72.5 to 774+50 left included with Item 1-R
Co. Rd. 20 ~ Westbound Lanes															
769+25.42	17+95	2,825.49	Varies, 24' Normal			169.13	169.13		547.97	21.31					Includes median cross-over right & 30' feather at intersection approach lt. @ 776+00
	Shoulders								210.89		13.88	520.32	201.20	44.12	Sta. 772+72.5 to 774+50 right included with Item 1-R
Co. Rd. 20 ~ Westbound Lanes															
17+95	27+50	955													
	Pavement		24	133.33	102.89				240.24	9.34					Includes median cross-over right @ 26+50
	Shoulders								80.44		5.64	211.51	83.99	18.13	
Ramp "G"															
Co. Rd. 20 E.B.	U.S. 6	1,370													
	Pavement		16			67.92	67.92		220.06	8.56					
	Shoulders							42.92	154.52					22.81	
U.S. 6 ~ Eastbound Lanes #															
514+35	538+35	2,400	Varies, 24' Normal	344.45#		155.87#	155.87		505.02#	19.64#					
	Shoulders								196.71#		11.68#	438.17#	161.46#	36.44	Sta. 516+49 to 520+00 left included with Item 7-R
															Sta. 536+18 to 538+55.5 left included with Item 8-R
U.S. 6 ~ Westbound Lanes															
514+35	535+27	2,092	Varies, 24' Normal	333.34#		108.41	108.41		351.26#	13.66#					
	Shoulders								142.18#		8.52#	319.46#	118.22#	26.61#	Sta. 516+49 to 520+00 right included with Item 7-R
Ramp "H" #															
U.S. 6 E.B.	Co. Rd. 20 W.B.	997													
	Pavement		16			60.79#	60.79#		196.96#	7.66#					
	Shoulders							37.27#	134.16#					20.04#	
U.S. 6 ~ Eastbound and Westbound Lanes															
Br. No. SAN-6-1513 L&R	874+44.62	5,866.95													
	Pavement		2@24	322.22		896.71	867.85		2,905.35	112.99					Includes turning lanes, median cross-over and drive approach into Ohio
	Shoulders								1,581.80		63.27	2,372.69	971.86	203.85	Highway Patrol Post
S.R. 19 Interchange - All Ramps															Includes entrance and exit lanes to ramps
847+50	869+12.72														
	Pavement			177.78	329.35	75.36	75.36		955.54	37.17					
	Shoulders							153.54	739.18		7.46	279.64	77.68	84.21	
SUBTOTAL					849.12	1853.59	1786.21	196.46							
TOTALS TO GENERAL SUMMARY ~ F-69(14)				1,034	2,703		1,983		11,587	307	159	5952	2368	595	
				678	325		363		1,527	41	21	758	280	83	

GUARD RAIL SUBSUMMARY

SHEET NUMBER	R.O.S. FUNDS 202 GUARD RAIL REMOVED FOR STORAGE	202 PAVED GUTTER REMOVED	606 GUARD RAIL TYPE 5	606 ANCHOR ASSEMBLY TYPE A	606 ANCHOR ASSEMBLY BARRIER DESIGN	606 ANCHOR ASSEMBLY TYPE T	606 BRIDGE TERMINAL ASSEMBLY TYPE E	606 BRIDGE TERMINAL ASSEMBLY TYPE F	606 BRIDGE TERMINAL ASSEMBLY TYPE J	203 EXCAVATION	659 SEEDING AND MULCHING
	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EACH	CU. YD.	SQ. YD.
12	2,075.0		2,175.0	2		2	2		2		
13			1,275.0	2	2	2					
14			150.0			1	1				
16	2,350.0		2,812.5	4				4			
19	1,379.0		1,362.5	4				4			
21	2,712.5		3,012.5	2		2	2		2		
TOTALS*	8,516.5		10,787.5	14	2	7	5	8	4		
F FUNDS											
12			1,250.0	4	4	4					
13		840								140	4,200
16			300.0	3		1					
18	762.5		1,337.5	6		2					
21			512.5	1	2	1					
TOTALS*	762.5	840	3,400.0	14	6	8				140	4,200

SHEET NUMBER	R.O.S. FUNDS 202 REMOVED FOR REUSE GUARD RAIL	202 REMOVED FOR REUSE BARRIER GUARD RAIL	202 REMOVED FOR REUSE BARRIER APPROACH END ASSEMBLY	606 GUARD RAIL TYPE 5 REBUILT	606 GUARD RAIL TYPE 5 BARRIER REBUILT	606 ANCHOR ASSEMBLY BARRIER REBUILT
	LIN. FT.	LIN. FT.	EACH	LIN. FT.	LIN. FT.	EACH
14	37.5	37.5	1	37.5	37.5	1
TOTALS*	37.5	37.5	1	37.5	37.5	1

*Carried to General Summary

PAVEMENT CALCULATIONS AND SUBSUMMARIES

604 Catch Basin Adjustment Table

REFERENCE NO.	SHEET NO.	STATION	LOCATION	EXISTING BASIN TYPE	ADJUSTMENT TYPE A EACH	ADJUSTMENT TYPE B EACH	ADJUSTMENT TYPE C EACH	ADJUSTMENT TYPE D EACH	CONC. PAVED GUTTER REMOVED LIN. FT.	EARTHWORK EXCAVATION CU. YDS.	EARTHWORK EMBANKMENT CU. YDS.	SEEDING & MULCHING SQ. YDS.	REMARKS
1-AD	12	776+65	℄ Baseline U.S. 20	2-2-B	1				-	*		*	
2-AD	12	780+70	℄ Baseline U.S. 20	2-2-B	1				-	*		*	
3-AD	12	776+65	54' Rt. of Baseline U.S. 20	1-2-A		1			-	8	1	236	
4-AD	12	783+00	55' Rt. of Baseline U.S. 20	1-2-A		1			-	8	1	236	
5-AD	12	9+60	55' Rt. of ℄ Sur. Co. Rd. 20	1-2-A		1			-	8	1	236	
6-AD	12	783+71	39' Lt. of ℄ U.S. 20 W.B.	2-3 with 1 window			1		50	1	9	95	
7-AD	12	788+00	15' Rt. of ℄ U.S. 20 W.B.	2-2-A with 1 window				1	20	3	2	333	Includes regrading raised earth median and ditches
8-AD	12	788+00	71' Rt. of ℄ U.S. 20 W.B.	2-2-A with 2 windows			1		20	1	6	333	
9-AD	13	799+00	19' Lt. of ℄ U.S. 20 E.B.	2-3 with 2 windows			1		20	1	6	333	
10-AD	14	831+50	℄ Survey U.S. 6	2-3 with 2 windows			1		20	1	6	333	
11-AD	14	840+00	℄ Survey U.S. 6	2-2-A with 2 windows				1	20	1	3	333	
12-AD	14	849+00	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
13-AD	14	856+00	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
14-AD	15	863+00	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
15-AD	15	872+00	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
16-AD	15	876+50	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
17-AD	15	883+25	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
18-AD	15	892+00	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
19-AD	16	902+25	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
20-AD	16	907+50	℄ Survey U.S. 6	2-2-A with 1 window			1		10	1	4	185	
21-AD	16	913+00	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	
22-AD	16	917+50	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	1	6	333	Supply new grate as per Std. Drwg. C.B. 2-2-A & B
23-AD	16	923+50	℄ Survey U.S. 6	2-2-A with 2 windows			1		20	*	*	*	
24-AD	16	923+50	70' Lt. of ℄ Sur. U.S. 6	2-3 with 1 window			1		10	1	4	185	
25-AD	16	927+00	72' Lt. of ℄ Sur. U.S. 6	2-3 with 2 windows			1		20	1	6	333	
26-AD	17	960+00	61' Lt. of ℄ Sur. U.S. 6	2-3 with 1 window				1	10	7	1	93	
27-AD	17	960+00	61' Rt. of ℄ Sur. U.S. 6	2-3 with 1 window				1	10	7	1	93	
28-AD	17	967+00	℄ Survey U.S. 6	2-4 with 1 window				1	10	1	2	185	
29-AD	17	972+00	℄ Survey U.S. 6	2-2-A with 1 window			1		10	1	4	185	
30-AD	17	977+00	℄ Survey U.S. 6	2-2-A with 1 window			1		10	1	4	185	
31-AD	17	987+50	℄ Survey U.S. 6	2-2-A with 1 window			1		10	1	4	185	
32-AD	18	992+75	℄ Survey U.S. 6	2-2-A with 1 window			1		10	1	4	185	
33-AD	18	997+25	℄ Survey U.S. 6	2-2-A with 1 window			1		10	1	4	185	
34-AD	18	1002+75	61' Lt. of ℄ Sur. U.S. 6	2-3 with 2 windows				1	-	2	6	333	
35-AD	18	1004+36	81' Rt. of ℄ Sur. U.S. 6	2-3 with 1 window			1		10	1	5	185	Includes 1 Cu.Yd. embankment for erosion correction
36-AD	18	1005+80	74' Rt. of ℄ Sur. U.S. 20	2-3 with 1 window			1		10	1	4	185	
37-AD	18	1008+21.5	67' Rt. of ℄ Sur. U.S. 20	2-4 with 1 window			1		10	1	4	222	Grade 50' along R.R. Track
38-AD	18	1008+77.5	68' Rt. of ℄ Sur. U.S. 20	2-4 with 1 window			1		10	1	6	222	Includes 2 Cu.Yds. embankment for erosion correction
39-AD	18	1014+03	℄ Survey U.S. 20	2-2-A with 2 windows			1		20	1	6	333	
40-AD	18	1018+00	℄ Survey U.S. 20	2-3 with 1 window			1		10	1	4	185	
41-AD	19	1028+00	℄ Survey U.S. 20	2-3 with 2 windows				1	20	2	6	333	
42-AD	19	1037+00	℄ Survey U.S. 20	2-2-A with 2 windows			1		20	1	6	333	Includes regrading raised earth median & ditches
43-AD	19	1042+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
44-AD	19	1047+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
45-AD	20	1052+25	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
46-AD	20	1057+25	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
47-AD	20	1065+50	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
48-AD	20	1070+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
49-AD	20	1075+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
50-AD	20	1080+00	℄ Survey U.S. 20	2-2-A with 1 Window				1	10	2	4	185	Includes 1 Cu.Yd. embankment for erosion correction
51-AD	20	1082+25	℄ Survey U.S. 20	2-2-A with 2 windows				1	20	1	3	333	
52-AD	20	1086+00	705' Rt. of ℄ Sur. U.S. 20	2-3 with 1 window				1	10	7	2	93	Includes 1 Cu.Yd. embankment for erosion correction
53-AD	20	1088+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
54-AD	20	1094+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
55-AD	20	1100+45	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
56-AD	20	1106+00	℄ Survey U.S. 20	2-2-A with 1 window			1		10	1	4	185	
57-AD	20	1111+00	725' Lt. of ℄ Sur. U.S. 20	2-3 with 1 window				1	10	7	3	93	Includes 2 Cu.Yds. embankment for erosion correction
58-AD	21	35+88	℄ Survey U.S. 20 E.B.	2-2-B	1								
59-AD	21	41+32.50	℄ Survey U.S. 20 E.B.	1-2-A		1							
TOTALS CARRIED TO GENERAL SUMMARY					3	4	41	11					

* Quantities included with regrading of ditches

Catch Basin Adjustment Types

QUANTITIES
CALC BY JGW DATE 9-6-77
CKD BY GWW DATE 9-22-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

8
114

Adjustment Type A:

Adjustment shall include: removal of top concrete slab with grate.
raising or lowering side walls of basin.
placing existing top concrete slab and grate back on the catch basin walls to new grade of ditch.

Adjustment Type B - Existing Type 1-2-A Catch Basin.

Adjustment shall include: removal and disposal of existing cast iron grate and existing precast concrete walls on each side of the grate.
casting a concrete slab as shown in detail drawing.
supplying a grate as per Std. Drwg. C.B. 2-2-A & B.
removal and disposal of a portion of the existing side walls.
placing slab with grate on the existing wall to the new grade.
grading an average of 50 feet in both directions from catch basin.
see below for detail drawing.

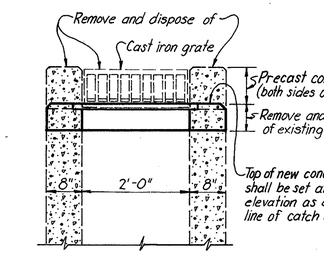
Adjustment Type C - Existing Type 2-2-A Catch Basins with 1 and 2 windows, Type 2-3 Catch Basins with 1 and 2 windows and Type 2-4 Catch Basins with 1 window.

Adjustment shall include: plugging all windows with mortar and bricks or in a manner acceptable to the Engineer.
grading an average of 50 feet in one or both directions from the catch basin depending on the number of windows plugged.

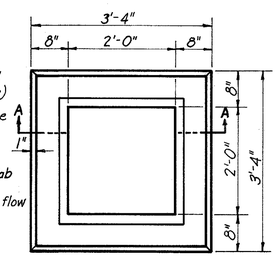
Adjustment Type D - Existing Type 2-2-A Catch Basins with 1 and 2 windows, Type 2-3 Catch Basins with 1 and 2 windows and Type 2-4 Catch Basins with 1 window.

Adjustment shall include: removal of top slab and grate.
removal and disposal of a portion of the side walls
placing existing top slab and grate back on the catch basin walls
grading an average of 50 feet in one or both directions from the catch basin depending on the number of windows eliminated.
see below for detail drawing.

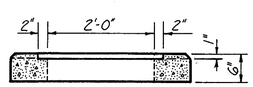
Notes: All adjustments shall include the cost of excavation, embankment, seeding and mulching, and removal and disposal of existing concrete paved gutters. The excavation, embankment and seeding and mulching quantities are approximate and are based on cross sections taken at several locations. The Engineer may vary grading distances to assure that the existing ditches will drain into the adjusted catch basins as per Standard Drawing 2-2A&B. The concrete paved gutter quantities are approximate.
See Adjustment Table for individual listing of catch basin types.



SECTION THROUGH EXISTING CATCH BASIN



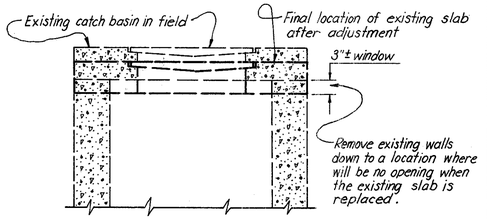
PLAN OF CONCRETE SLAB



SECTION A-A

Catch Basin Adjustment Type B

Note: New grate shall be same as used on Standard Type 2-2-B catch basin. See Standard Drwg. C.B. 2-2-A & B for details.



SECTION THROUGH EXISTING CATCH BASIN

Catch Basin Adjustment Type D

604 Catch Basin Adjustment Details

QUANTITIES	
CALC BY JCW	DATE 12-2-77
CKD BY GVW	DATE 12-23-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

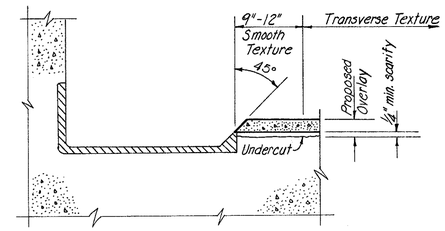
9
114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

BRIDGE REPAIR TABLE

SHEET NO.	BRIDGE NUMBER	STATION FROM	STATION TO	LOCATION	BRIDGE LENGTH	ROADWAY WIDTH	848 ASPHALT CONCRETE 2½"	516 VERTICAL EXTENSION OF STRUCTURAL EXPANSION JOINTS	SPECIAL MEMBRANE WATER-PROOFING	SPECIAL PATCHING CONCRETE BRIDGE DECKS TYPE II	SPECIAL PRESSURE RELIEF JOINT TYPE C WITH RESURF	605 AGGREGATE DRAINS
					FEET	FEET	CU. YDS.	LIN. FT.	SQ. YDS.	SQ. YDS.	LIN. FT.	LIN. FT.
13	SAN-6-1506L	529+73.04	532+24.25	U.S.6 S.B. over U.S.20 E.B.	251.21	30.00	58	122	838	15	48	40
13	SAN-6-1513 L	813+35.35	815+62.91	U.S.6 W.B.	227.56	30.00	53	88	759	20	48	80
13	SAN-6-1513 R	814+12.87	816+40.43	U.S. 6 E. B.	227.56	30.00	53	88	759	40	56	80
14	SAN-6-1538 L	826+86.75	828+86.25	U.S. 6 W. B.	199.50	30.00	46	60	665	30	48	80
14	SAN-6-1538 R	826+86.75	828+86.25	U.S. 6 E.B.	199.50	30.00	46	60	665	15	48	80
TOTALS TO BRIDGE GENERAL SUMMARY							256	418	3,686	120	248	360

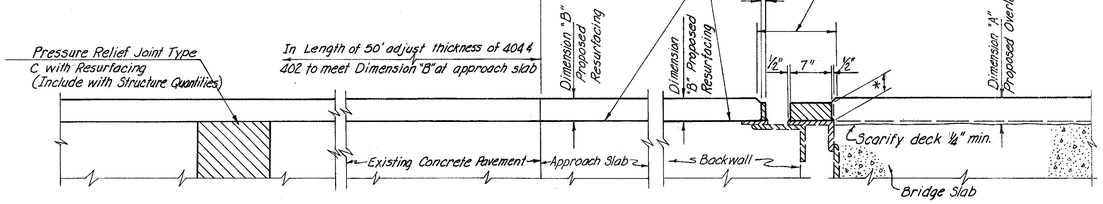
VERTICAL EXTENSION BARS shall be installed across the structure in sections sufficient to place the overlay, but not beyond the portion of the structure closed for the overlay operation.



DETAIL OF BULB ANGLE TREATMENT

BRIDGE GENERAL SUMMARY

ITEM	QUANTITY BRIDGE REPAIR	SAN-20-1486	SAN-6-1751	PROJECT TOTAL	UNIT	DESCRIPTION CODE 6706	QUANTITY F-73(2)	QUANTITY F-69(14)
202			344	344	Sq.Yds.	Concrete Median Removed		344
202			105	105	Sq.Yds.	Wearing Course Removed		105
848	256		16	272	Cu.Yds.	Asphalt Concrete Surface Course, Type 1	58	214
516	418		8	426	Lin.Ft.	Vertical Extension of Structural Expansion Joints	124	302
605	360	40		400	Lin.Ft.	Aggregate Drains	40	360
622			807	807	Lin.Ft.	Concrete Barrier for Bridge		807
510			8	8	Each	Dowel Holes	2	6
Special	3,686		224	3,910	Sq.Yds.	Membrane Waterproofing	838	3072
Special	120			120	Sq.Yds.	Patching Concrete Bridge Decks, Type II	15	105
Special	248	48		296	Lin.Ft.	Pressure Relief Joint, Type C	48	248
513			324	324	Pounds	Structural Steel	65	259
407		16		16	Gal.	Tack Coal, 702.04, SS-1, SS-1H, MS-2 or RS-1, or 702.02, RC-250		16
407		0.6		0.6	Tons	Cover Aggregate		0.6
						Design A - Latex Modified Concrete Surface Overlay, 1¼" Thick		
848		4		4	Cu.Yds.	Asphalt Concrete Surface Course, Type 1		4
516		121		121	Lin.Ft.	Vertical Extension of Structural Expansion Joints		121
845		1,061		1,061	Sq.Yds.	Latex Modified Concrete Overlay (1¼" Thick)		1,061
845		7		7	Cu.Yds.	Latex Modified Concrete Overlay (Variable Thickness)		7
845		2		2	Cu.Yds.	Full Depth Repair		2
						Design B - Low Water Low Slump Dense Concrete Overlay 1¾" Thick		
848		6		6	Cu.Yds.	Asphalt Concrete Surface Course, Type 1		6
516		121		121	Lin.Ft.	Vertical Extension of Structural Expansion Joints		121
850		1,061		1,061	Sq.Yds.	Dense Concrete Overlay (1¾" Thick)		1,061
850		7		7	Cu.Yds.	Dense Concrete Overlay (Variable Thickness)		7
850		2		2	Cu.Yds.	Full Depth Repair		2



DETAIL OF END DAM TREATMENT

* 3/4" and 7" wide bar shall be 3/4" thick for Design A & 1¼" thick for Design B.
Welding of vertical extension bars to the existing end dams shall be continuous.

Design A (Latex Modified Concrete Overlay)
Dimension "A" = 1¼"
Dimension "B" = 1"

Design B (Low Water Low Slump Dense Concrete Overlay)
Dimension "A" = 1¾"
Dimension "B" = 1½"

BRIDGE No. SAN-20-1486
Structure Data
Length: 325.02 Lin. Ft.
Roadway Width: 30'-0" f/f Curbs
Alignment: 300' Spiral, D_c = 4°
Superelevation: 0 to 0.066 ft/ft.
Approach Slabs: 25' Long

BRIDGE REPAIR DETAILS ~ SAN-20-1486

For Quantities, See Bridge General Summary at Left

GENERAL SUMMARY

CODE 6706 UNLESS OTHERWISE NOTED

All Quantities shall be under F-69(14) unless otherwise noted.

℄ F-73(2)

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCH DATE 9-1-77
CKD BY CWW DATE 9-22-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

10/114

SAN 6/20(14.61-16.02)/14.59

ITEM	SHEET NUMBER 3	4	7 FUNDS R.O.S.	F-69(14)	F-73(2)	22 "R" NUMBER 1-R	2-R	7-R	8-R	23 3-R	4-R	5-R	6-R	24 9-R	10-R	11-R	25 12-R	29 13-R	30 14-R	15-R	17-R	31 16-R	32 18-R	19-R	33	ITEM	QUANTITY FUNDS R.O.S.	F-69(14)	F-73(2)	PROJECT TOTAL	UNIT	DESCRIPTION
																											TYPE CODE Y101					~ ROADWAY ~
202																								80	202		80		80	Lin.Ft.	Curb Removed
202						260		452*	470*						125	130						450			202		965	922	1,887	Lin.Ft.	Curb Removed as per Plan
202									10*													25	186	4,069	202		4,280	10	4,290	Lin.Ft.	Curb and Gutter Removed
202						20		27*	116*						11	13						226		1,032	202		1,302	143	1,445	Sq.Yds.	Concrete Median Removed
202				840						255															202		1,095		1,095	Sq.Yds.	Paved Gutter Removed
202																	543								202		543		543	Sq.Yds.	Base Removed
202				1034	678												54								202		1088	678	1,766	Sq.Yds.	Wearing Course Removed
202			8,516.5	762.5																					202	8516.5	762.5		9,279	Lin.Ft.	Guard Rail Removed for Storage
203						68	24	166*	38*	132	38	332	95	10	49	43	284	1,023	1,721		8	262	79	808	1,622	203		6,598	204	6,802	Cu.Yds.	Excavation not Including Embankment Construction
203				140						51		100	42	476			149	2,737	284	86	110	102	9	48	445	203		4,779		4,779	Cu.Yds.	Embankment
203																	631	2,982				493			203		4,106		4,106	Sq.Yds.	Subgrade Compaction
606			10,787.5	3,400.0																					606	10,787.5	3,400		14,187.5	Lin.Ft.	Guard Rail, Type 5
606			14	14																					606	14	14		28	Each	Anchor Assembly, Type A
606			7	8																					606	7	8		15	Each	Anchor Assembly, Type T
606			2	6																					606	2	6		8	Each	Anchor Assembly, Barrier Design
606			5																						606	5			5	Each	Bridge Terminal Assembly, Type E
606			8																						606	8			8	Each	Bridge Terminal Assembly, Type F
606			4																						606	4			4	Each	Bridge Terminal Assembly, Type J
410	1,000																								410		1,000		1,000	Cu.Yds.	Traffic Compacted Surface, Type A or B
616	20																								616		20		20	Ton	Calcium Chloride
616	50																								616		50		50	MGal.	Water
622																								3,253	622		3,253		3,253	Lin.Ft.	Concrete Barrier, Type A50
622																								42	622		42		42	Lin.Ft.	Concrete Barrier, Type A50 as per Plan
																															For Additional Items Listed Under Roadway Quantities, See Sheet No 11
																															~ EROSION CONTROL ~ CODE Y005
207		6,200																							207		6,200		6,200	Sq.Yds.	Temporary Seeding and Mulching
659		2																							659		2		2	M Gals.	Water
207		25																							207		25		25	Lin.Ft.	Temporary Slope Drains
207		10																							207		10		10	Cu.Yds.	Temporary Benches, Dikes, Dams and Sediment Basins
659		70																							659		70		70	M Sq.Ft.	Mowing
659		2.9																							659		2.9		2.9	Tons	Commercial Fertilizer (12-12-12)
659		1,600																							659		1,600		1,600	Sq.Yds.	Repair Seeding and Mulching
601												3	4												601		7		7	Cu.Yds.	Rock Channel Protection, Type B, without Bedding
659				4,200		109	283	292*		1,717	711	1,750	1,006	978	242	273	1,764	7,086	6,596	691	592	1,466	416	2,122	2,735	659		34,737	292	35,029	Sq.Yds.	Seeding and Mulching
660														10											9	660		19		19	Sq.Yds.	Sodding
207		100																							207		100		100	Each	Straw or Hay Bales
																															~ DRAINAGE ~
602												0.7	0.2	0.7					0.9		0.5				602		3		3	Cu.Yds.	Concrete Masonry
603													12						27						603		39		39	Lin.Ft.	12" Conduit, Type A, 706.01 or 706.02
603												10													603		10		10	Lin.Ft.	21" Conduit, Type A, 706.02
603																								6	603		6		6	Lin.Ft.	18" Conduit, Type B, 706.01 or 706.02
603																						150		221	603		371		371	Lin.Ft.	12" Conduit, Type B
603																								12	603		12		12	Lin.Ft.	15" Conduit, Type B, 706.01 or 706.02
603																					110				603		110		110	Lin.Ft.	24" Conduit, Type B
603																				3					603		3		3	Lin.Ft.	12" Conduit, Type C, 706.01 or 706.02
603																		8		93			67	14	603		182		182	Lin.Ft.	12" Conduit, Type C
603														3											603		3		3	Lin.Ft.	15" Conduit, Type C, 706.01 or 706.02
603														56											603		56		56	Lin.Ft.	24" Conduit, Type C
603														6											603		6		6	Lin.Ft.	24" Conduit, Type C, 706.01 or 706.02
603																					.			60	603		60		60	Lin.Ft.	6" Conduit, Type F
604																		1		1			1	1	604		4		4	Each	Standard No. 2-2-B Catch Basin
604														1											604		1		1	Each	Standard No. 2-3 Catch Basin
604																				1	1			2	604		4		4	Each	Standard No. 1 Manhole
604																								3	604		3		3	Each	Standard No. I-3A Median Inlet
604																						1	1		604		2		2	Each	Standard No. 8 Catch Basin

GENERAL SUMMARY

CODE 6706 UNLESS OTHERWISE NOTED

All Quantities shall be under F69(14) unless otherwise noted.

& F-73(2)

F-69(14)
F-73(2)
ROS-0005(11)

QUANTITIES
CALC BY J.C.W. DATE 9-1-77
CKD BY G.W.H. DATE 9-22-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

11/114

SAN 6/20(14.61-16.02)/14.59

ITEM	SHEET NUMBER 3	4	7 FUNDS R.O.S.	F-69(14)	F-73(2)	8	22 "R" NUMBER 1-R	2-R	7-R	8-R	23 3-R	4-R	5-R	6-R	24 9-R	10-R	11-R	25 12-R	29 13-R	30 14-R	15-R	17-R	31 16-R	32 18-R	19-R	33	ITEM	QUANTITY FUNDS R.O.S.	F-69(14)	F-73(2)	PROJECT TOTAL	UNIT	DESCRIPTION
																												Type Code 1/101					~ DRAINAGE ~ CONTINUED
604						3																					604		3		3	Each	Catch Basin, Adjusted to grade, Type A
604						4																					604		4		4	Each	Catch Basin, Adjusted to grade, Type B
604						41																					604		41		41	Each	Catch Basin, Adjusted to grade, Type C
604						11																					604		11		11	Each	Catch Basin, Adjusted to grade, Type D
605																			108								605		108		108	Lin. Ft.	Aggregate Drains
605																		624								82	605		706		706	Lin. Ft.	6" Deep Pipe Underdrains
Special																			28							105	Special		133		133	Cu. Yds.	Drainage Connection Using No. 3 Aggregate
202															3								34	52	38		202		127		127	Lin. Ft.	Pipe Removed, 15" and Under
202																						38					202		38		38	Lin. Ft.	Pipe Removed, over 15"
202															1				1						1	1	202		4		4	Each	Catch Basin Abandoned
Special																																	
																																~ PAVEMENT ~
301				2368	280		23		51#	26#						11	10	28	91				41	35	17	307	301		2931	357	3,288	Cu. Yds.	Bituminous Aggregate Base: 702.01, AC-20 or 702.09, RT-11 or RT-12
304																		55	182				87			818	304		1,142		1,142	Cu. Yds.	Aggregate Base
305																		417	2,126								305		2,543		2,543	Sq. Yds.	9" Portland Coment Concrete Base
310																		132	466							1,016	310		1,614		1,614	Cu. Yds.	Subbase, Grading A, as per Plan
848				1983	362													12	66								848		2061	362	2,423	Cu. Yds.	Asphalt Concrete, Intermediate Course, Type 2
848				2703	325													12	66								848		2781	325	3,106	Cu. Yds.	Asphalt Concrete, Surface Course, Type 1
407				11,587	1526													42	238								407		11,867	1526	13,393	Gals.	Tack Coat: 702.04, MS-2, RS-1, SS-1, SS-1H; or 702.02, RC-250
407				307	41													14.6	834								407		405	41	446	Tons	Cover Aggregate
409				5951	758		42		92#	46#						20	18	102	333				148	63	30	1,104	409		7811	896	8,707	Gals.	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; or 702.09, RT-9 or RT-10
409				159	20		1		3#	2#						1	1	3	9				4	2	1	30	409		211	25	236	Cu. Yds.	Seal Coat Cover Aggregate No. 8
617				595	83																						617		595	83	678	Cu. Yds.	Compacted Aggregate
																																~ ROADWAY ~ CONTINUED
202			37.5																								202	37.5			37.5	Lin. Ft.	Guard Rail Removed for Reuse
202			37.5																								202	37.5			37.5	Lin. Ft.	Barrier Guard Rail Removed for Reuse
202			1																								202	1			1	Each	Barrier Approach End Assembly Removed for Reuse
606			37.5																								606	37.5			37.5	Lin. Ft.	Guard Rail, Rebuilt, Type S
606			37.5																								606	37.5			37.5	Lin. Ft.	Barrier Guard Rail, Rebuilt, Type S
606			1																								606	1			1	Each	Anchor Assembly, Barrier Design, Rebuilt
																																For Traffic Control Quantities, See Sheet No. 65
																																For Quantities for Structures over 20' Span, See Sheet No 9
614	Lump																										614	Lump	Lump	Lump	Lump	Lump	Maintaining Traffic
619		Lump																									619	Lump	Lump	Lump	Lump	Lump	Field Office
623																											623	Lump	Lump	Lump	Lump	Lump	Construction Layout Stakes

FHWA REGION	STATE	PROJECT	
5	OHIO		

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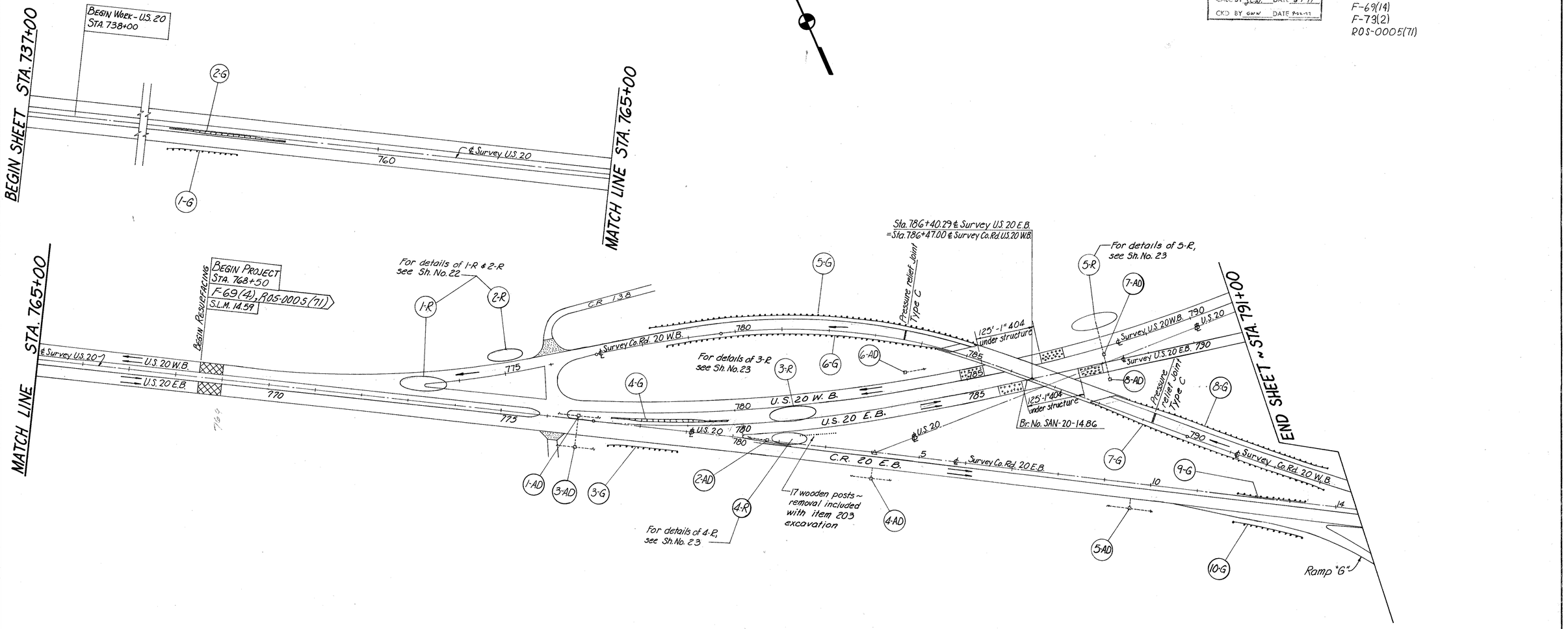
QUANTITIES
CALC BY J.C.M. DATE 6-1-77
CKD BY G.M.W. DATE 9-28-77

SAN 620(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



GUARD RAIL TABLE

REFERENCE NUMBER FUNDS R.O.S.	F	STATION FROM	STATION TO	SIDE	202 GUARD RAIL REMOVED FOR STORAGE LIN. FT.	606 GUARD RAIL TYPE 5 LIN. FT.	606 ANCHOR ASSEMBLY TYPE A EACH	606 ANCHOR ASSEMBLY BARRIER DESIGN EACH	606 ANCHOR ASSEMBLY TYPE T EACH	606 BRIDGE TERMINAL ASSEMBLY TYPE E EACH	606 BRIDGE TERMINAL ASSEMBLY TYPE J EACH	REMARKS
	1-G	755+50 ℄ U.S. 20	757+00 ℄ U.S. 20	Rt.		112.5	1		1			Face G.R. 10' from pav't. edge
	2-G*	755+50 ℄ U.S. 20	758+00 ℄ U.S. 20	Lt.		400.0		2				See Note
	3-G	777+35 ℄ U.S. 20	778+85 ℄ U.S. 20	Rt.		112.5	1		1			Face G.R. 10' from pav't. edge
	4-G*	777+35 ℄ U.S. 20	779+85 ℄ U.S. 20 E.B.	Lt.		400.0		2				See Note
5-G		778+20 ± ℄ Co. Rd. 20 W.B.	785+05 ± ℄ Co. Rd. 20 W.B.	Lt.	600.0	687.5			1		1	Face G.R. same distance from pav't. edge as existing ⑧
6-G		778+50 ± ℄ Co. Rd. 20 W.B.	784+35 ± ℄ Co. Rd. 20 W.B.	Rt.	537.5	562.5			1		1	Face G.R. same distance from pav't. edge as exist. ⑧
7-G		787+90 ± ℄ Co. Rd. 20 W.B.	793+15 ± ℄ Co. Rd. 20 W.B.	Rt.	500.0	500.0	1			1		Face G.R. same distance from pav't. edge as exist. ⑧
8-G		788+54 ± ℄ Co. Rd. 20 W.B.	793+04 ± ℄ Co. Rd. 20 W.B.	Lt.	437.5	425.0	1			1		Face G.R. same distance from pav't. edge as exist. ⑧
	9-G	11+85 ℄ Co. Rd. 20 E.B.	13+35 ℄ Co. Rd. 20 E.B.	Lt.		112.5	1		1			Face G.R. 10' from pav't. edge
	10-G	11+85 ℄ Co. Rd. 20 E.B.	13+35 ℄ Co. Rd. 20 E.B.	Rt.		112.5	1		1			Face G.R. 10' from pav't. edge
R.O.S. Totals to Guard Rail Subsummary					2,075.0	2,175.0	2		2	2	2	
F. Totals to Guard Rail Subsummary						1,250.0	4	4	4			

⑧ Except near structure, see Std. Const. Drwgs. GR-3A & GR-3B for details

*Note: Reference 2-G & 4-G. Refer to Std. Const. Drwg. GR-6 for location and placement of proposed guard rail and anchor assemblies around proposed sign supports. Distance face to face of guard rail shall be 6'-0" as detailed on Traffic Control Sheets. Also refer to Traffic Control Sheets for distance from pavement edge to face of guard rail. Do not grade median as shown on GR-6; median shall retain same slope as existing.

STA. 737+00 TO STA. 791+00

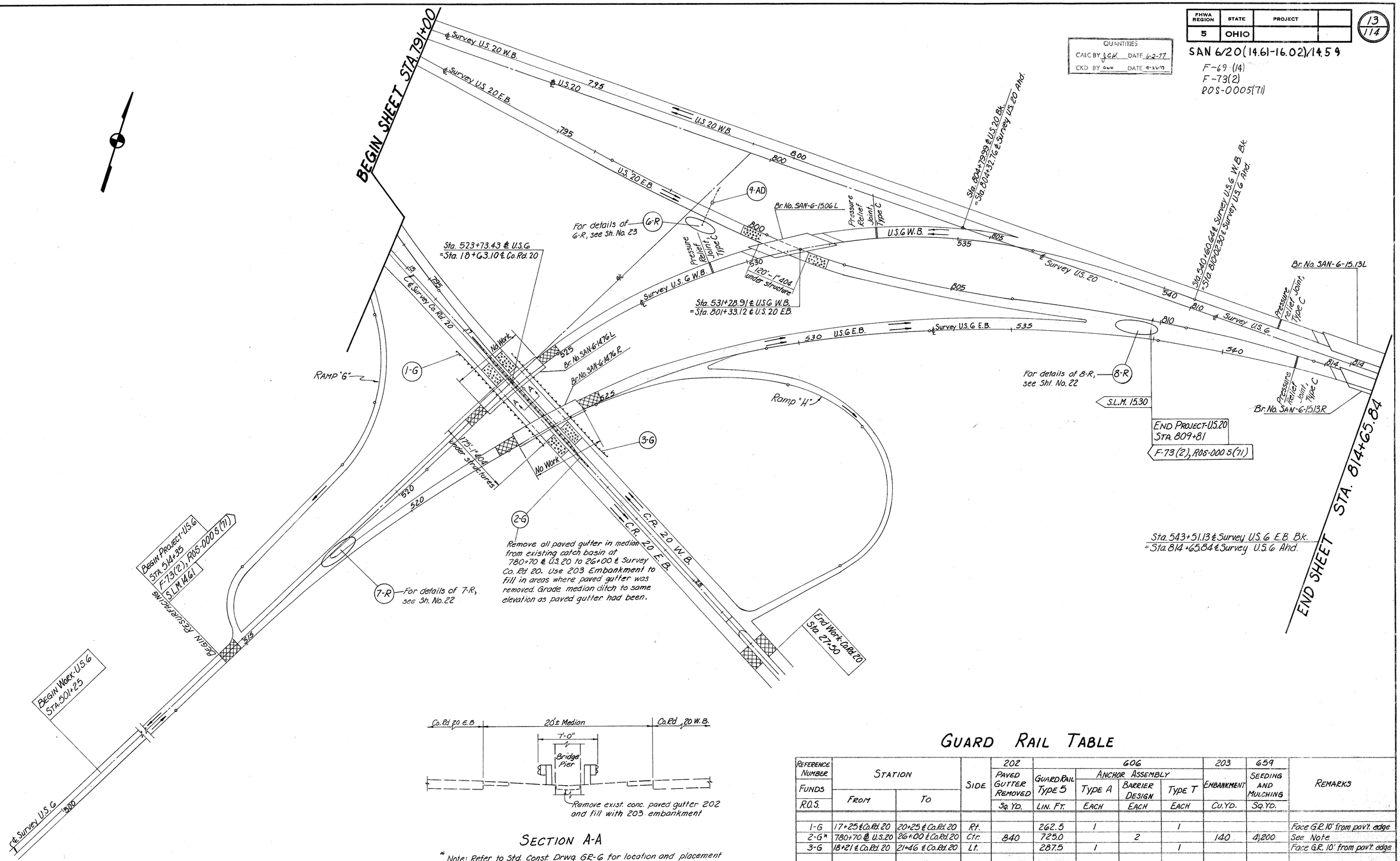
FHWA REGION	STATE	PROJECT	
5	OHIO		

13/114

SAN 6/20(14.61-16.02)/14.59

F-69-(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY GW DATE 6-2-77
CKD BY GWW DATE 9-22-77



SECTION A-A

* Note: Refer to Std. Const. Drwg. GR-6 for location and placement of proposed guard rail and anchor assemblies around existing bridge piers. Do not grade median as shown on GR-6, median shall retain same slope as existing.

GUARD RAIL TABLE

REFERENCE NUMBER / FUNDS / R.O.S.	STATION From	STATION To	SIDE	202 PAVED GUTTER REMOVED SQ. YD.	606 GUARD RAIL TYPE 5 LIN. FT.	606 ANCHOR ASSEMBLY TYPE A EACH	606 ANCHOR ASSEMBLY BARRIER DESIGN EACH	606 ANCHOR ASSEMBLY TYPE T EACH	203 EMBANKMENT CU. YD.	659 SEEDING AND MULCHING SQ. YD.	REMARKS
1-G	17+25 ℄ Co. Rd. 20	20+25 ℄ Co. Rd. 20	Rt.		262.5	1		1			Face G.R. 10' from pav't. edge
2-G*	780+70 ℄ U.S. 20	26+00 ℄ Co. Rd. 20	Ctr.	840	725.0		2		140	4,200	See Note
3-G	18+21 ℄ Co. Rd. 20	21+46 ℄ Co. Rd. 20	Lt.		287.5	1		1			Face G.R. 10' from pav't. edge
F Totals to Guard Rail Subsummary				2300					390	3600	
R.O.S. Totals to Guard Rail Subsummary					1275.0	2	2	2			

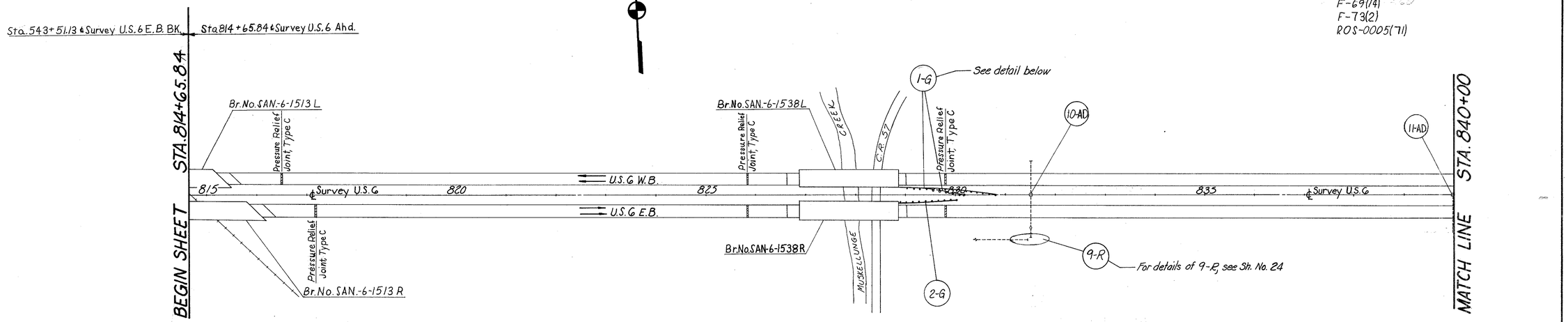
STA. 791+00 TO STA. 814+63.89

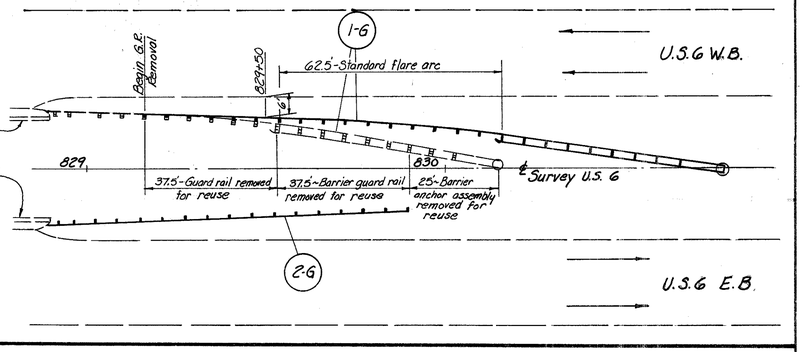
QUANTITIES
CALC BY J.C.L. DATE 6-22-77
CK BY G.E.W. DATE 9-22-77

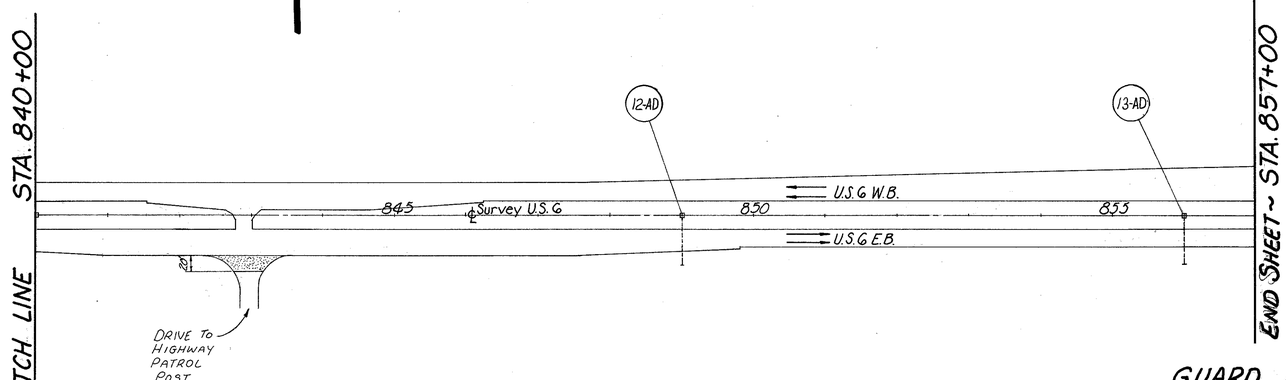
FHWA REGION	STATE	PROJECT	
5	OHIO		

14/114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)







* Item 202, Barrier Approach End Assembly Removed for Reuse.
This item shall include the careful dismantling and storage for reuse of the existing rail elements, hardware and spacer blocks. The existing posts and concrete anchor shall be removed and disposed of as directed and the holes caused by the removal of posts and anchor shall be backfilled and graded.

@ Item 606, Barrier Anchor Assembly Rebuilt.
This item shall include constructing a barrier rail anchor assembly using existing guardrail, hardware and spacer blocks salvaged under Item 202. It shall also include furnishing and placing new posts and concrete anchor as per Std. Drwg. GR-4.

GUARD RAIL TABLE

REFERENCE NUMBER / FUNDS / R.O.S.	STATION FROM	STATION TO	SIDE	202 REMOVED FOR REUSE: GUARD RAIL LIN. FT.	202 REMOVED FOR REUSE: BARRIER GUARD RAIL LIN. FT.	202 REMOVED FOR REUSE: BARRIER APPROACH END ASSEMBLY* EACH	606 GUARD RAIL: TYPE 5	606 GUARD RAIL: TYPE 5 REBUILT	606 GUARD RAIL: TYPE 5 BARRIER REBUILT	606 ANCHOR ASSEMBLY: BARRIER REBUILT@ EACH	606 ANCHOR ASSEMBLY: TYPE T EACH	606 BRIDGE TERMINAL ASSEMBLY TYPE E EACH	REMARKS
1-G	828+90± ℄ U.S.6	830+78± ℄ U.S.6	Lt.	37.5	37.5	1	62.5	37.5	37.5	1			
2-G	828+90± ℄ U.S.6	829+90± ℄ U.S.6	Rt.				87.5				1	1	
Totals to Guard Rail Subsummary				37.5	37.5	1	150.0	37.5	37.5	1	1	1	

STA. 814+63.89 TO STA. 857+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

15
114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

STA. 857+00

BEGIN SHEET

Sta. 860+74.62
City of Fremont Corporation Line ℄

End Work SR.19
Sta. 128+85

CITY OF FREMONT

105'

20'

20'

Ramp "D"

City of Fremont Corporation Line ℄

END PROJECT U.S.6
Sta. 873+94.62

S.L.M. 16.27

Ramp "C"

Exist. Conc.

Exist. Asph. Conc.

857+50

100'-1"-4.04
understructure

Sta. 866+24.62 ℄ Survey U.S.6
= Sta. 100+00.6 Survey S.R.19

14-AD

15-AD

16-AD

17-AD

U.S.6 W.B.

U.S.6 E.B.

℄ Survey U.S.6

860

865

870

875

880

885

℄ Survey U.S.6

STA. 890+00

MATCH LINE

Br. No. SAN-19-1079

Exist. Conc.

868.10

Exist. Asph. Conc.

Ramp "B"

875

Ramp "A"

870

Begin Work S.R.19
Sta. 94+20

95'

Survey S.R.19

120'

18-AD

U.S.6 W.B.

℄ Survey U.S.6

895

U.S.6 E.B.

MATCH LINE

STA. 890+00

END SHEET

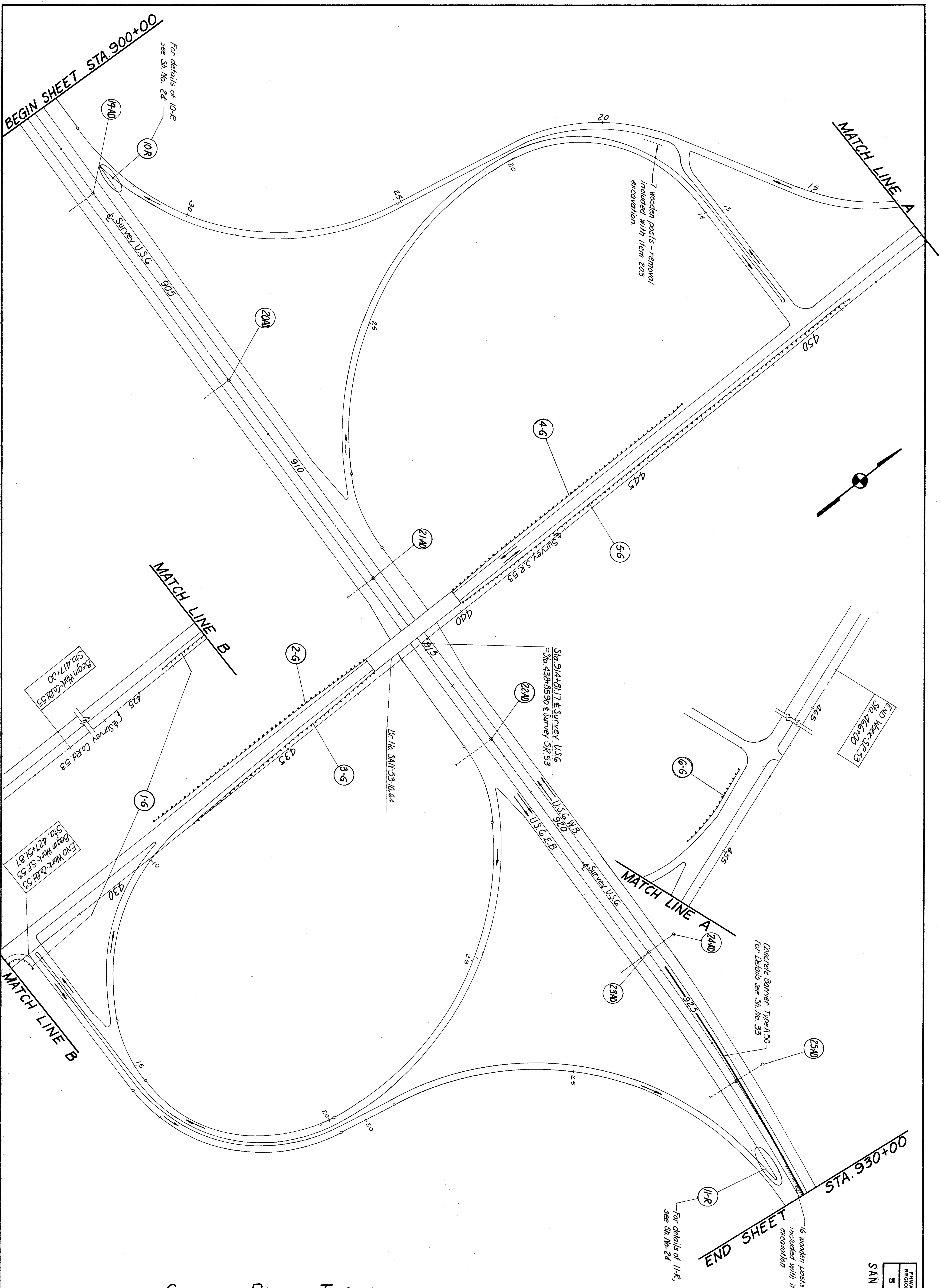
STA. 900+00

STA. 857+00 TO STA. 900+00

SAN 6/20(14.61-16.02)/14.5 9

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY SCW DATE 6-3-77
CKD BY GWW DATE 9-20-77



GUARD RAIL TABLE

REFERENCE NUMBER FUNDS R.O.S.	F	STATION FROM	TO	SIDE	202 GUARD RAIL REMOVED FOR STORAGE LIN. FT.	606 GUARD RAIL TYPE 5 LIN. FT.	ANCHOR ASSEMBLY TYPE A EACH	TYPE T EACH	BRIDGE TERMINAL ASSEMBLY, TYPE F EACH			REMARKS
	1-G	425+80 ¢ Co.Rd.53	10+50± ¢ Ramp	Rt.		150.0	1	1				Includes 50' of rad. panels @ 30' Rad. Face G.R. 10' from pav't edge
2-G		431+56 ¢ SR 53	437+56 ¢ SR 53	Lt.	562.5	575.0	1		1			Face G.R. same distance from pav't. edge as existing ⊛
3-G		432+30 ¢ SR 53	437+55 ¢ SR. 53	Rt.	512.5	500.0	1		1			Face G.R. same distance from pav't. edge as existing ⊛
4-G		440+18 ¢ SR 53	446+93 ¢ SR 53	Lt.	637.5	650.0	1		1			Face G.R. same distance from pav't edge as existing ⊛
5-G		440+17 ¢ SR 53	451+29.5 ¢ SR 53	Rt.	637.5	1,087.5	1		1			Face G.R. same distance from pav't edge as existing ⊛
	6-G	454+75 ¢ SR 53	456+75 ¢ SR 53	Lt.		150.0	2					Face G.R. 10' from pav't. edge
R.O.S. Totals to Guard Rail Subsummary					2,350.0	2,812.5	4		4			
F Totals to Guard Rail Subsummary						300.0	3	1				

⊛ Except near structure, see Std. Drwg. GR-3A for details.

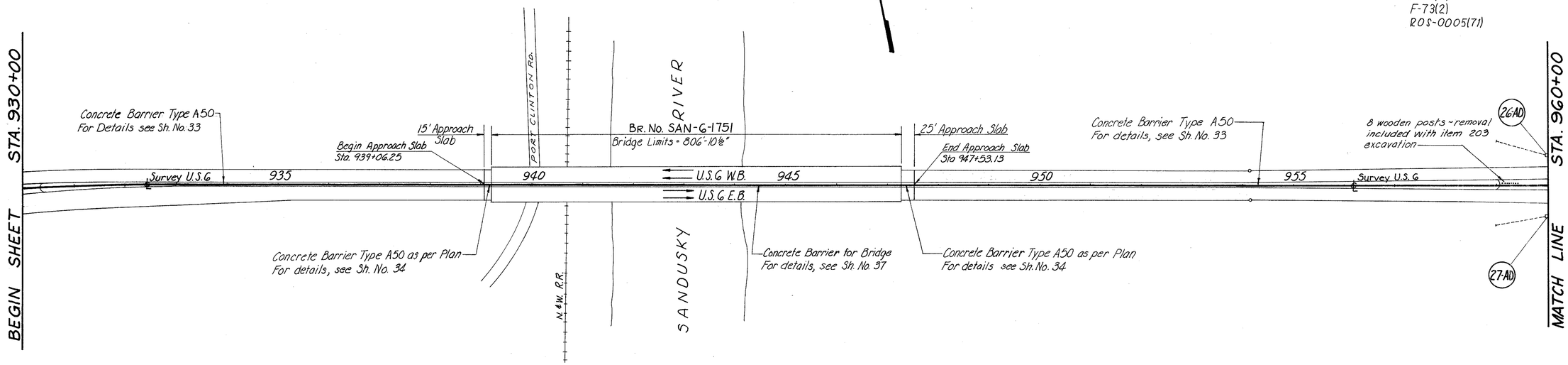
STA. 900+00 TO STA. 930+00

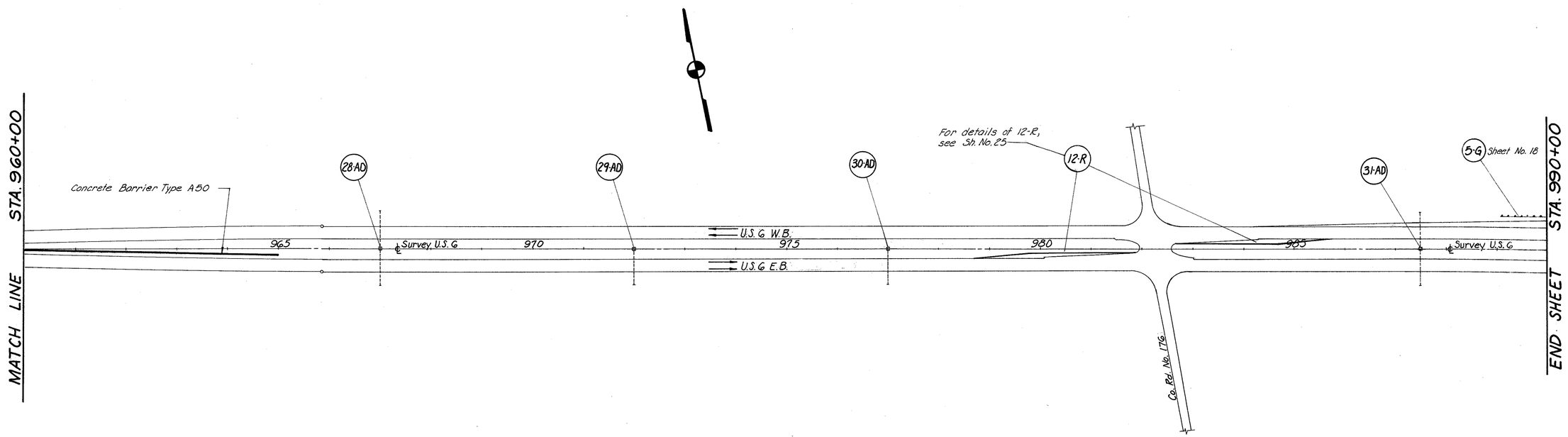
FHWA REGION	STATE	PROJECT	
5	OHIO		

17
114

SAN 6/20(14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)





STA. 930+00 TO STA. 990+00

QUANTITIES
CALC BY JEW DATE 6-6-77
CKD BY EWW DATE 9-22-77

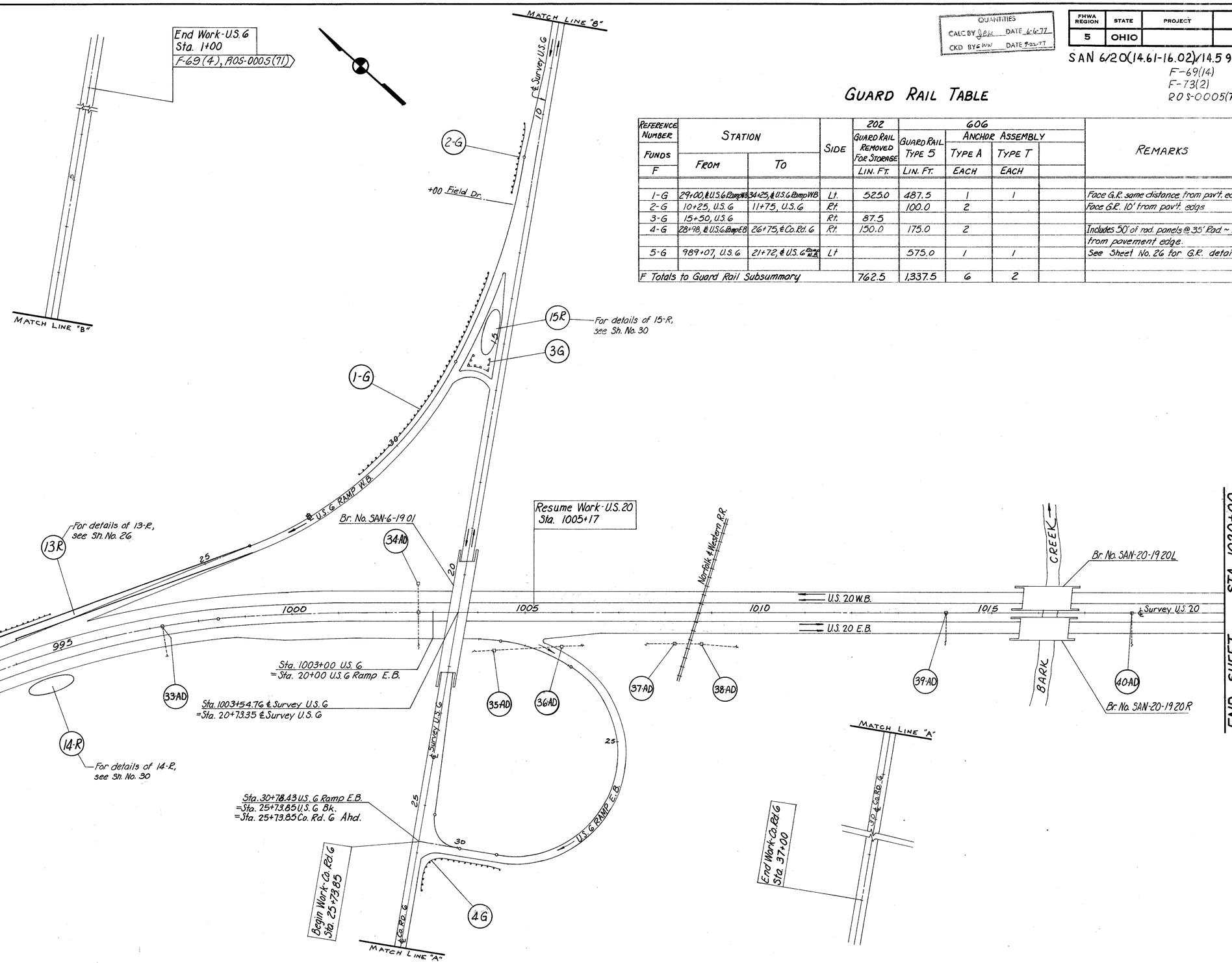
FHWA REGION	STATE	PROJECT	
5	OHIO		

18
114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

GUARD RAIL TABLE

REFERENCE NUMBER / FUNDS / F	STATION FROM	STATION TO	SIDE	202 GUARD RAIL REMOVED FOR STORAGE LIN. FT.	606 GUARD RAIL TYPE 5 LIN. FT.	606 ANCHOR ASSEMBLY TYPE A EACH	606 ANCHOR ASSEMBLY TYPE T EACH		REMARKS
1-G	29+00, ℄ U.S.6 Ramp WB	34+25, ℄ U.S.6 Ramp WB	Lt.	525.0	487.5	1	1		Face G.R. same distance from pav't. edge as existing
2-G	10+25, U.S. 6	11+75, U.S. 6	Rt.		100.0	2			Face G.R. 10' from pav't. edge
3-G	15+50, U.S. 6		Rt.	87.5					
4-G	28+98, ℄ U.S.6 Ramp EB	26+75, ℄ Co. Rd. 6	Rt.	150.0	175.0	2			Includes 50' of rad. panels @ 35' Rad. ~ Face G.R. 10' from pavement edge.
5-G	989+07, U.S. 6	21+72, ℄ U.S. 6 Ramp W.B.	Lt.		575.0	1	1		See Sheet No. 26 for G.R. details
F Totals to Guard Rail Subsummary				762.5	1,337.5	6	2		



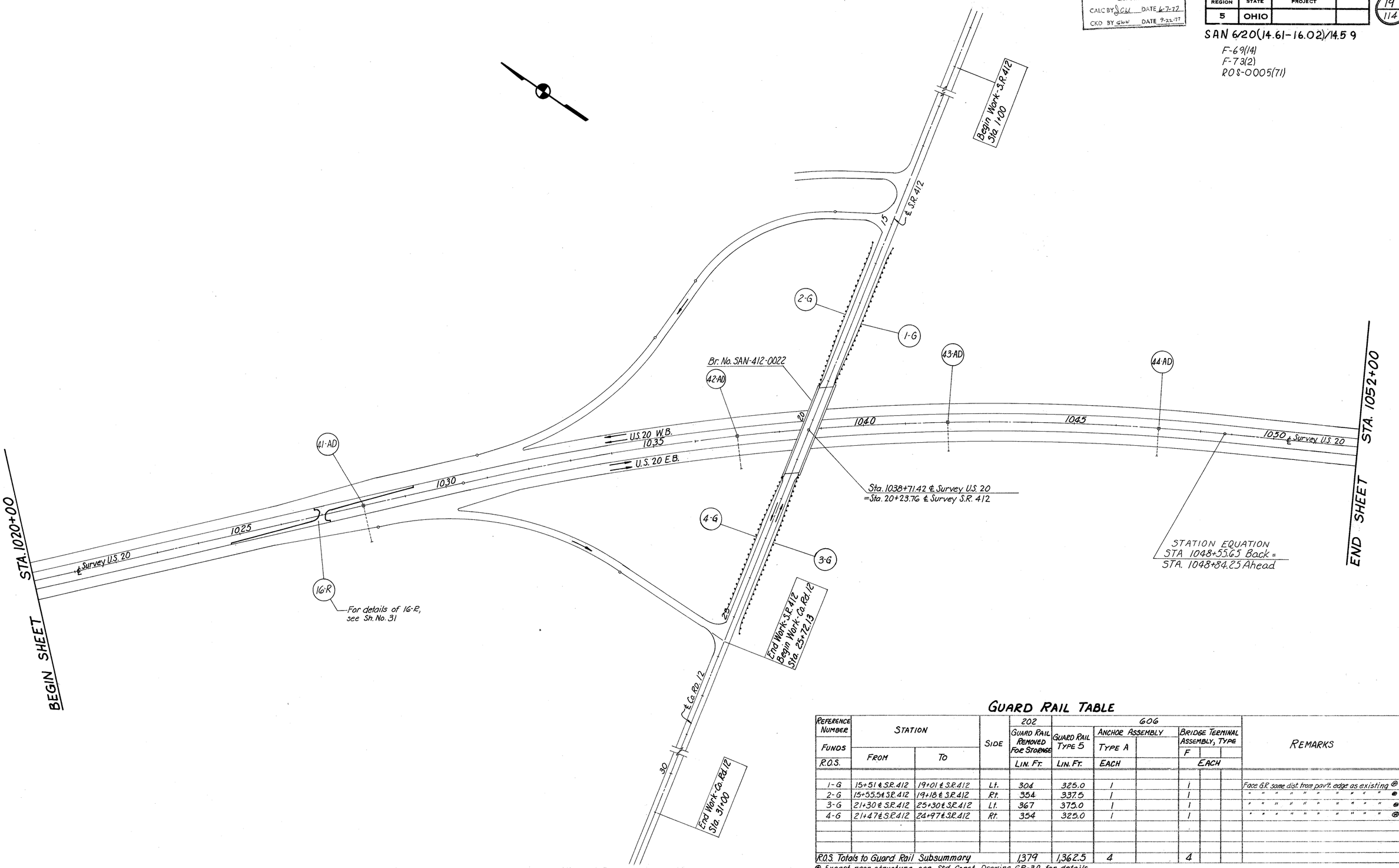
STA. 990+00 TO STA. 1020+00

QUANTITIES
CALC BY GCW DATE 6-7-77
CKD BY GWW DATE 9-22-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

19
114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



GUARD RAIL TABLE

REFERENCE NUMBER / FUNDS / R.O.S.	STATION FROM	STATION TO	SIDE	202 GUARD RAIL REMOVED FOR STORAGE LIN. FT.	606 GUARD RAIL TYPE 5 LIN. FT.	606 ANCHOR ASSEMBLY TYPE A EACH	606 BRIDGE TERMINAL ASSEMBLY, TYPE F EACH	REMARKS
1-G	15+51 ℄ S.R. 412	19+01 ℄ S.R. 412	Lt.	304	325.0	1	1	Face G.R. same dist. from pav't. edge as existing ⊛
2-G	15+55.5 ℄ S.R. 412	19+18 ℄ S.R. 412	Rt.	354	337.5	1	1	" " " " " " " " " ⊛
3-G	21+30 ℄ S.R. 412	25+30 ℄ S.R. 412	Lt.	367	375.0	1	1	" " " " " " " " " ⊛
4-G	21+47 ℄ S.R. 412	24+97 ℄ S.R. 412	Rt.	354	325.0	1	1	" " " " " " " " " ⊛
R.O.S. Totals to Guard Rail Subsummary				1,379	1,362.5	4	4	

⊛ Except near structure, see Std. Const. Drawing GR-3A for details

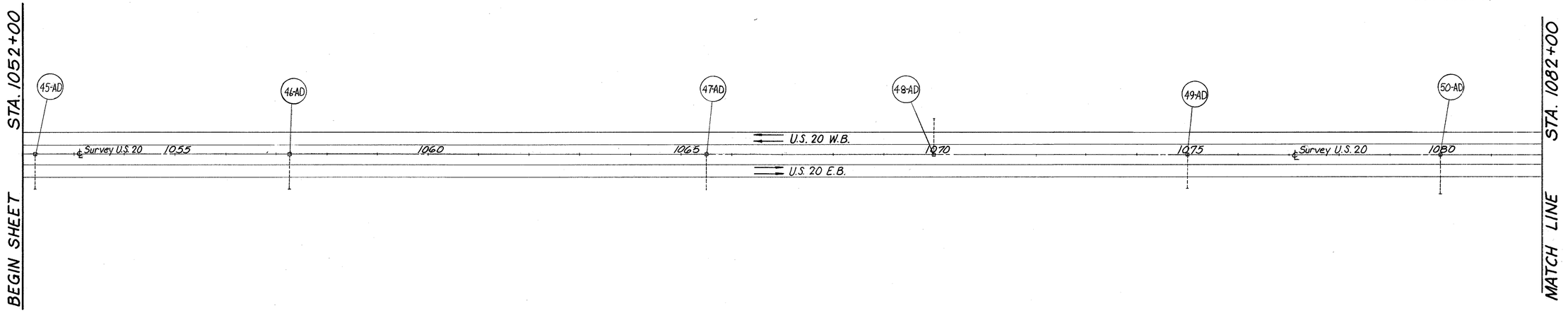
STA. 1020+00 TO STA. 1052+00

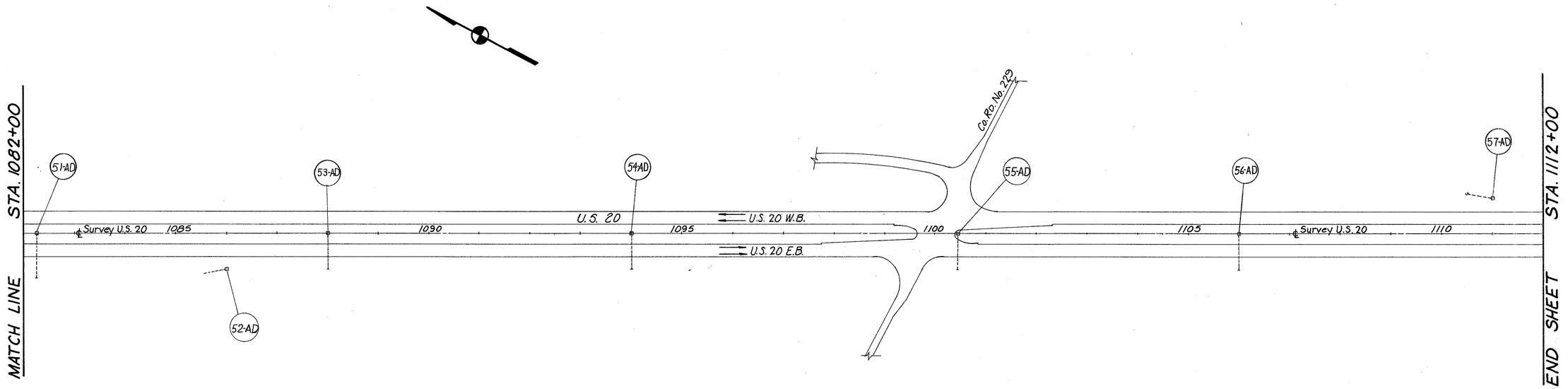
FHWA REGION	STATE	PROJECT	
5	OHIO		

20
114

SAN 6/20(14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)





STA. 1052+00 TO STA. 1112+00

QUANTITIES	
CALC BY JCH	DATE 6-8-77
CKD BY GWW	DATE 9-22-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

21
114

SAN 6/20(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

BEGIN SHEET STA. 1112+00

1115 ℄ Survey U.S. 20 W.B.

1115 ℄ Survey U.S. 20 E.B.

1120

1125

U.S. 20 W.B.

1130

1135

U.S. 20 E.B.

1125

17-R
For details of 17-R, see Sh. No. 30

Sta. 1128+15.05 U.S. 20 E.B.
= Sta. 24+12.24 Co. Rd. 20 W.B.

3-G

℄ Survey Co. Rd. 20 W.B.

25

30

4-G

1130

Br. No. SAN-20-21.31

1135

30

Sta. 1140+43.42 ℄ Survey U.S. 20 E.B. Bk.
= Sta. 35+03.13 ℄ Survey U.S. 20 E.B. Ahd.

18-R
For details of 18-R, see Sh. No. 32

5-G

58-AD

19-R
For details of 19-R, see Sh. No. 32

40

1140

35

35

1140

MATCH LINE STA. 1144+00

End Work-U.S. 20
Sta. 1177+50
(F-69(14), ROS-0005(71))

℄ Co. Rd. 204

Sta. 1124+80 U.S. 20 W.B.
= Sta. 0+00 S.R. 19

1125

℄ S.R. 19

End Work-S.R. 19
Sta. 10+50

6-G

1120

1-G

2-G

20

25

℄ Survey Co. Rd. 20 E.B.

C.R. 20 E.B.

SERVICE ROAD

20

15

C.R. 20 W.B.

15

Begin Work-Co. Rd. 20
Sta. 11+40

Sta. 1145+86.54 ℄ Survey U.S. 20 W.B. Bk.
= Sta. 1112+66.02 ℄ Survey U.S. 20 Ahd.

1115

Green

Creek

1145

STA. 1144+00

59-AD

MATCH LINE

U.S. 20 W.B. | 20'± Median | U.S. 20 E.B.
7'-0"

SECTION A-A
See note at bottom of sheet

* Note: Reference G-G, Refer to Std. Const. Drwg. G.R. 6 for location and placement of proposed guard rail and anchor assemblies around proposed sign supports. Distance face to face of guard rail shall be 7'0" as detailed on Traffic Control sheets. Also refer to Traffic Control sheets for distance from pavement edge to face of guard rail. Do not grade median as shown on G.R.-G; median shall retain same slope as existing.

GUARD RAIL TABLE

REFERENCE NUMBER FUNDS		STATION		SIDE	202	606					REMARKS
					GUARD RAIL REMOVED FOR STORAGE	GUARD RAIL TYPE 5	ANCHOR ASSEMBLY			BRIDGE TERMINAL ASSEMBLY, TYPE	
R.O.S.	F	FROM	TO				TYPE A	BARRIER DESIGN	TYPE T	E J	
					LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	
1-G		15+93.5 ℄ Co. Rd. 20 W.B.	22+56 ℄ Co. Rd. 20 W.B.	Lt.	600.0	650.0			1	1	Face G.R. same dist. fm. pav't edge as existing ⊛
2-G		16+28.5 ℄ Co. Rd. 20 W.B.	22+91 ℄ Co. Rd. 20 W.B.	Rt.	625.0	650.0			1	1	" " " " " " " " " " ⊛
3-G		24+67 ℄ Co. Rd. 20 W.B.	31+67 ℄ Co. Rd. 20 W.B.	Lt.	675.0	675.0	1			1	" " " " " " " " " " ⊛
4-G		25+16 ℄ Co. Rd. 20 W.B.	35+78.5 ℄ Co. Rd. 20 W.B.	Rt.	812.5	1,037.5	1			1	" " " " " " " " " " ⊛
	5-G	1136+75 ℄ U.S. 20 W.B.	1138+25 ℄ U.S. 20 W.B.	Lt.		112.5	1		1		Face G.R. 10' from pavement edge
	6-G *	1117+75 ℄ U.S. 20	1120+25 ℄ U.S. 20	Ctr.		400.0		2			See Note
R.O.S. Totals to Guard Rail Subsummary					2,712.5	3,012.5	2		2	2 2	
F Totals to Guard Rail Subsummary						512.5	1	2	1		

⊛ Except near structure ~ see Std. Const. Dr'w'gs GR-3A & GR-3B for details

STA. 1112+00 TO STA. 1138+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

22
114

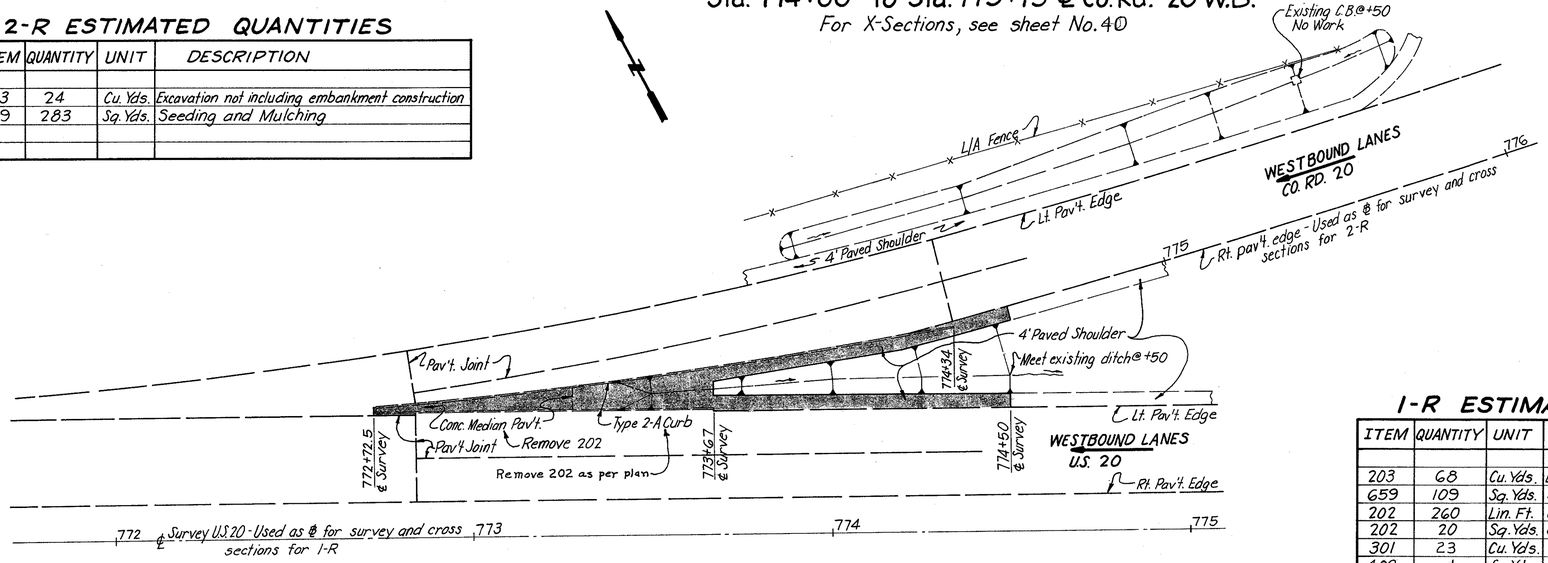
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCH DATE 6/13/77
CKD BY GWW DATE 8-5-77

2-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	24	Cu. Yds.	Excavation not including embankment construction
659	283	Sq. Yds.	Seeding and Mulching

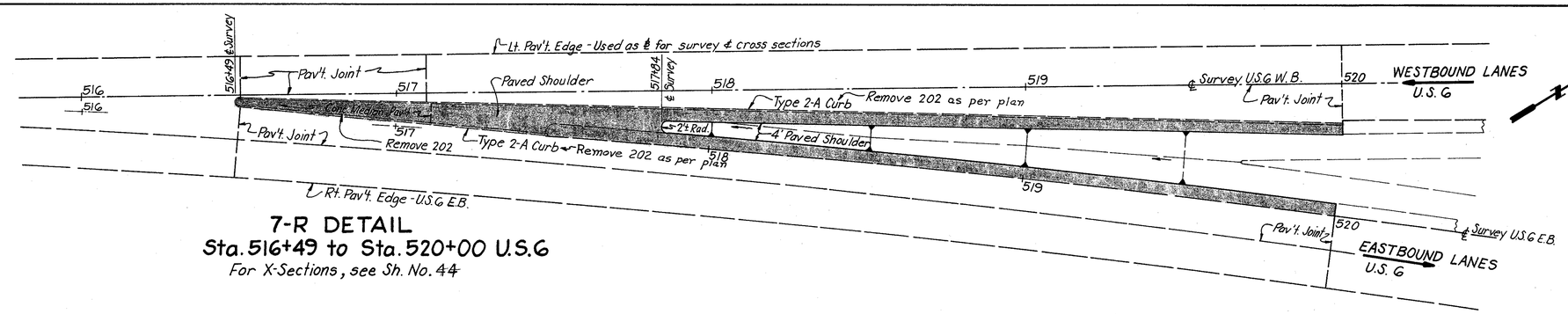
2-R DETAIL
Sta. 774+00 to Sta. 775+75 ℄ Co. Rd. 20 W.B.
For X-Sections, see sheet No. 40



1-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	68	Cu. Yds.	Excavation not including embankment construction
659	109	Sq. Yds.	Seeding and Mulching
202	260	Lin. Ft.	Curb Removed as per plan
202	20	Sq. Yds.	Concrete Median Removed
301	23	Cu. Yds.	Bituminous Aggregate Base
409	1	Cu. Yds.	Seal Coat Cover Aggregate
409	42	Gals.	Seal Coat Bituminous Material

1-R DETAIL
Sta. 772+72.5 to Sta. 774+50 ℄ Survey U.S. 20
For X-Sections, see sheet No. 40

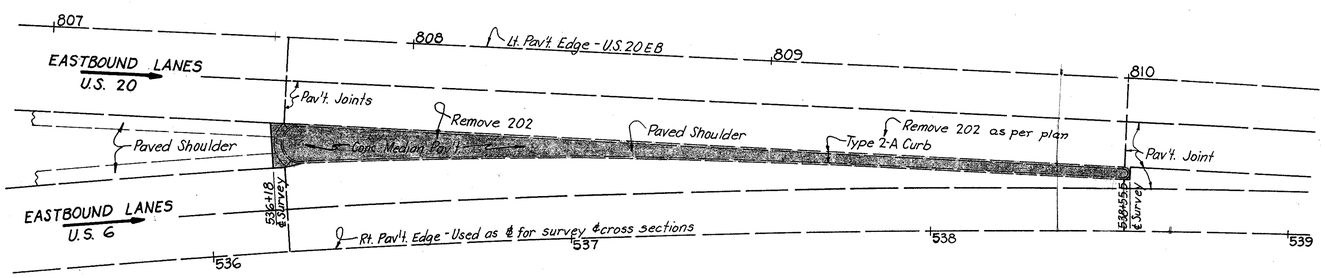


QUANTITIES
CALC BY JCH DATE 6-16-77
CKD BY GWW DATE 8-5-77

7-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	166	Cu. Yds.	Excavation not including embankment construction
659	292	Sq. Yds.	Seeding and Mulching
202	452	Lin. Ft.	Curb Removed as per plan
202	27	Sq. Yds.	Concrete Median Removed
301	51	Cu. Yds.	Bituminous Aggregate Base
409	3	Cu. Yds.	Seal Coat Cover Aggregate
409	92	Gals.	Seal Coat Bituminous Material

7-R DETAIL
Sta. 516+49 to Sta. 520+00 U.S.6
For X-Sections, see Sh. No. 44



QUANTITIES
CALC BY JCH DATE 6-17-77
CKD BY GWW DATE 8-5-77

8-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	38	Cu. Yds.	Excavation not including embankment construction
202	470	Lin. Ft.	Curb Removed as per plan
202	116	Sq. Yds.	Concrete Median Removed
202	10	Lin. Ft.	Curb and Gutter Removed
301	26	Cu. Yds.	Bituminous Aggregate Base
409	2	Cu. Yds.	Seal Coat Cover Aggregate
409	46	Gals.	Seal Coat Bituminous Material

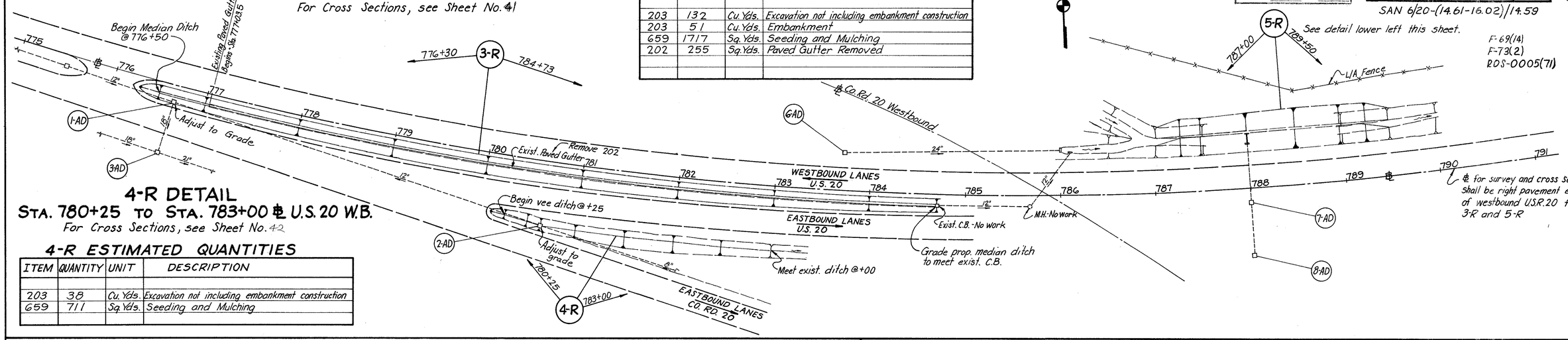
8-R DETAIL
Sta. 536+18 to Sta. 538+55.5
For X-Sections, see Sh. No. 45

1-R, 2-R, 7-R & 8-R DETAILS

3-R DETAIL
STA. 776+30 TO STA. 784+73 ℄ U.S. 20 W.B.
For Cross Sections, see Sheet No. 41

3-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	132	Cu. Yds.	Excavation not including embankment construction
203	51	Cu. Yds.	Embankment
659	1717	Sq. Yds.	Seeding and Mulching
202	255	Sq. Yds.	Paved Gutter Removed



4-R DETAIL
STA. 780+25 TO STA. 783+00 ℄ U.S. 20 W.B.
For Cross Sections, see Sheet No. 42

4-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	38	Cu. Yds.	Excavation not including embankment construction
659	711	Sq. Yds.	Seeding and Mulching

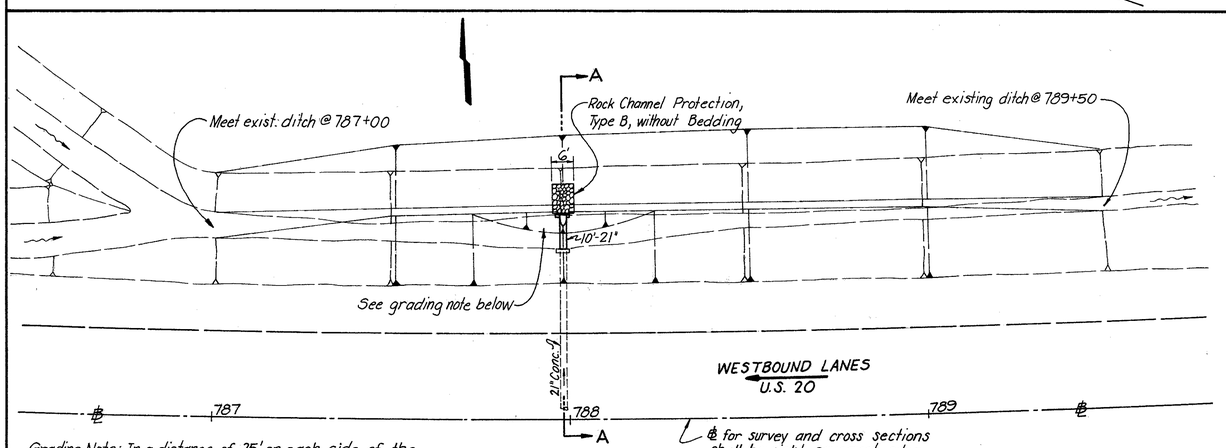
QUANTITIES
CALC BY JCW DATE 6-21-77
CKD BY GWW DATE 8-11-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

23/114

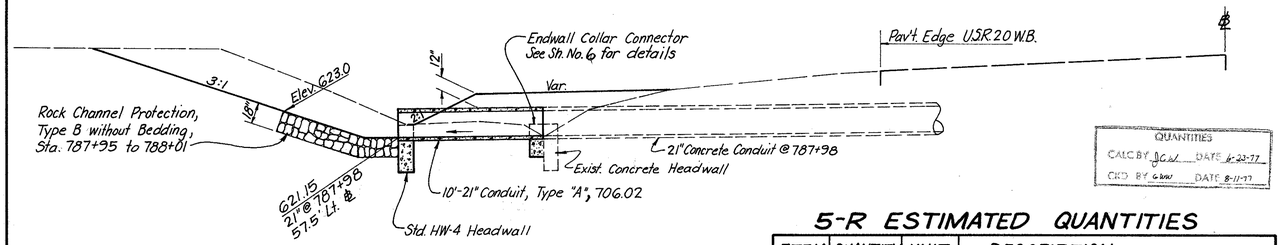
SAN 6/20-(14.61-16.02)/14.59

F-69(14)
F-73(2)
RDS-0005(71)



Grading Note: In a distance of 25' on each side of the culvert, the ditch slope shall be graded from normal slope to meet the slope at the culvert.

~ PLAN ~



SECTION A-A

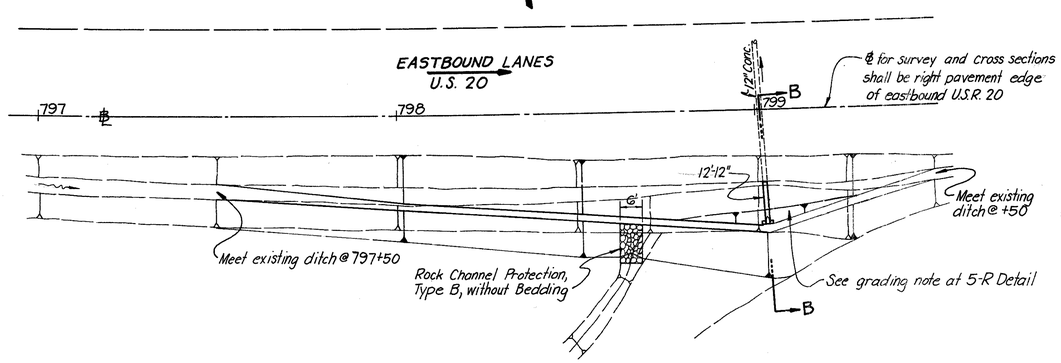
QUANTITIES
CALC BY JCW DATE 6-23-77
CKD BY GWW DATE 8-11-77

5-R ESTIMATED QUANTITIES

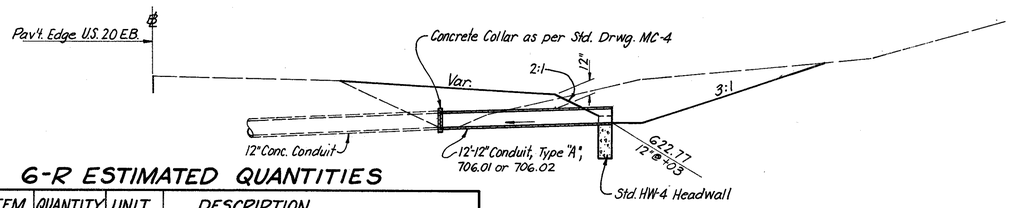
ITEM	QUANTITY	UNIT	DESCRIPTION
203	332	Cu. Yds.	Excavation not including embankment construction
203	100	Cu. Yds.	Embankment
659	1750	Sq. Yds.	Seeding and Mulching
601	2.7	Cu. Yds.	Rock Channel Protection, Type B, W/o Bedding
602	0.67	Cu. Yds.	Concrete Masonry
603	10	Lin. Ft.	21" Conduit, Type A, 706.02

5-R DETAIL
CULVERT EXTENSION AT STA. 787+98 ℄ U.S. 20
For Cross Sections, see Sheet No. 43

QUANTITIES
CALC BY JCW DATE 6-27-77
CKD BY GWW DATE 8-11-77



~ PLAN ~

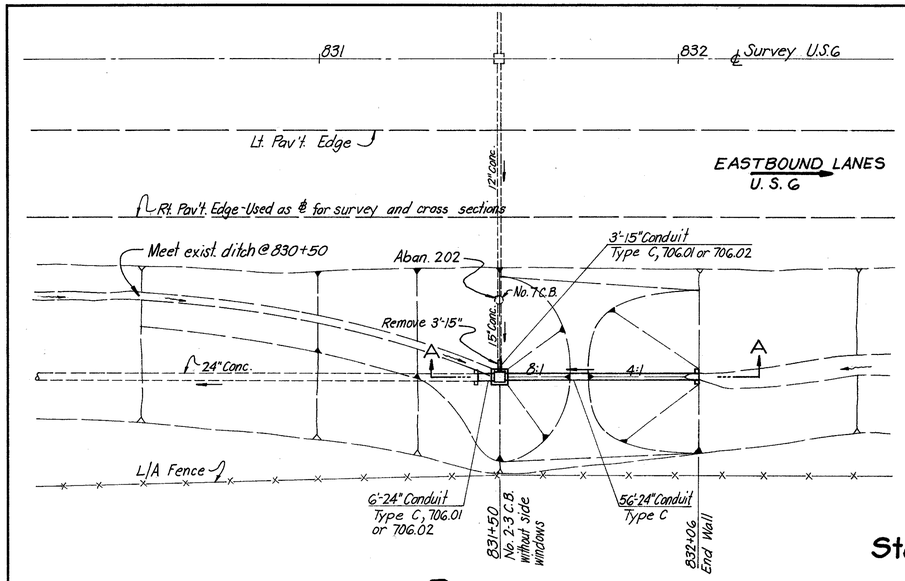


SECTION B-B

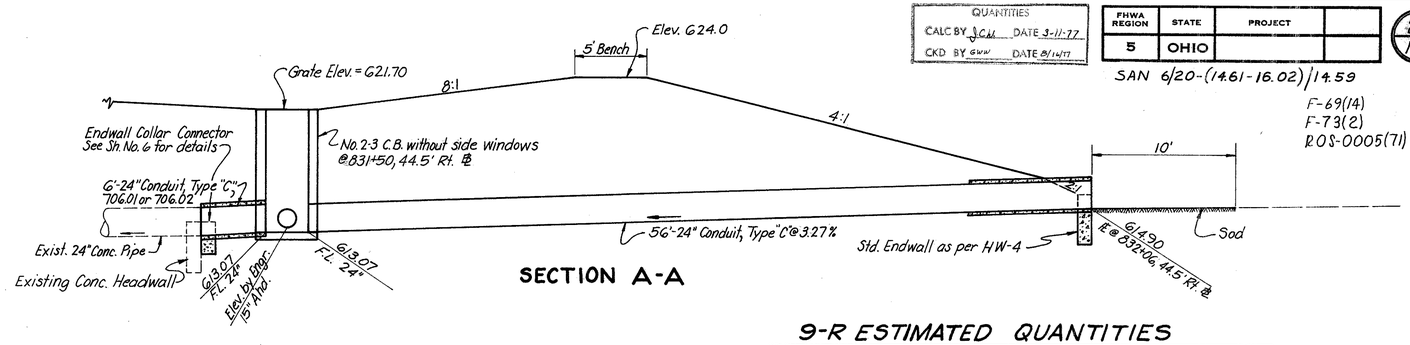
6-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	95	Cu. Yds.	Excavation not including embankment construction
203	42	Cu. Yds.	Embankment
659	1006	Sq. Yds.	Seeding and Mulching
601	3.7	Cu. Yds.	Rock Channel Protection, Type B, W/o Bedding
602	0.20	Cu. Yds.	Concrete Masonry
603	12	Lin. Ft.	12" Conduit, Type A, 706.01 or 706.02

6-R DETAIL
CULVERT EXTENSION AT STA. 799+03 ℄ U.S. 20
For Cross Sections, see Sheet No. 43



PLAN



SECTION A-A

QUANTITIES
CALC BY JCM DATE 3-11-77
CKD BY GWW DATE 8/14/77

FHWA REGION	STATE	PROJECT	
5	OHIO		

24
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

9-R ESTIMATED QUANTITIES

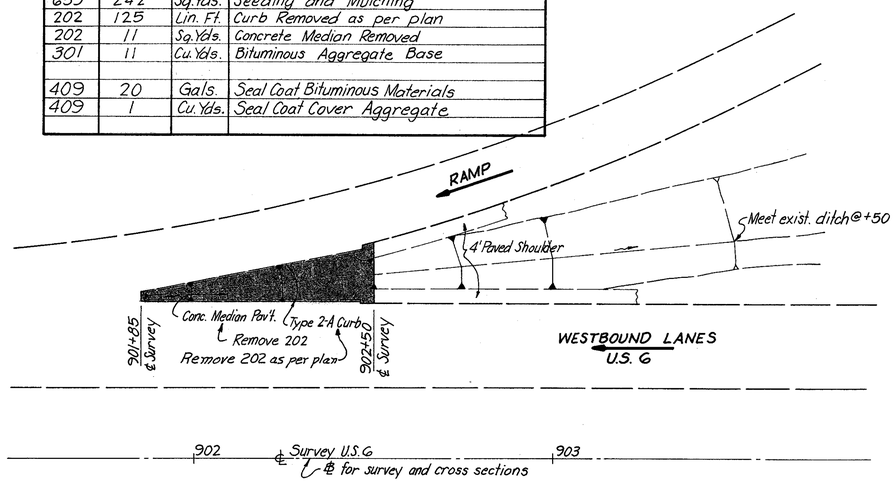
ITEM	QUANTITY	UNIT	DESCRIPTION
203	10	Cu. Yds.	Excavation not including embankment construction
203	476	Cu. Yds.	Embankment
659	978	Sq. Yds.	Seeding and Mulching
660	10	Sq. Yds.	Sodding
202	1	Each	Catch Basin Abandoned
202	3	Lin. Ft.	Pipe Removed, 15" and Under
602	0.73	Cu. Yds.	Concrete Masonry
603	3	Lin. Ft.	15" Conduit, Type C, 706.01 or 706.02
603	56	Lin. Ft.	24" Conduit, Type C
604	1	Each	Standard Type 2-3 Catch Basin
603	6	Lin. Ft.	24" Conduit Type C, 706.01 or 706.02

9-R DETAILS
Sta. 830+50 to Sta. 832+16 ℄ Survey U.S.6
For X-Sections, see Sh. No. 46

10-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	49	Cu. Yds.	Excavation not including embankment construction
659	242	Sq. Yds.	Seeding and Mulching
202	125	Lin. Ft.	Curb Removed as per plan
202	11	Sq. Yds.	Concrete Median Removed
301	11	Cu. Yds.	Bituminous Aggregate Base
409	20	Gals.	Seal Coat Bituminous Materials
409	1	Cu. Yds.	Seal Coat Cover Aggregate

QUANTITIES
CALC BY JCM DATE 8-29-77
CKD BY GWW DATE 8-16-77

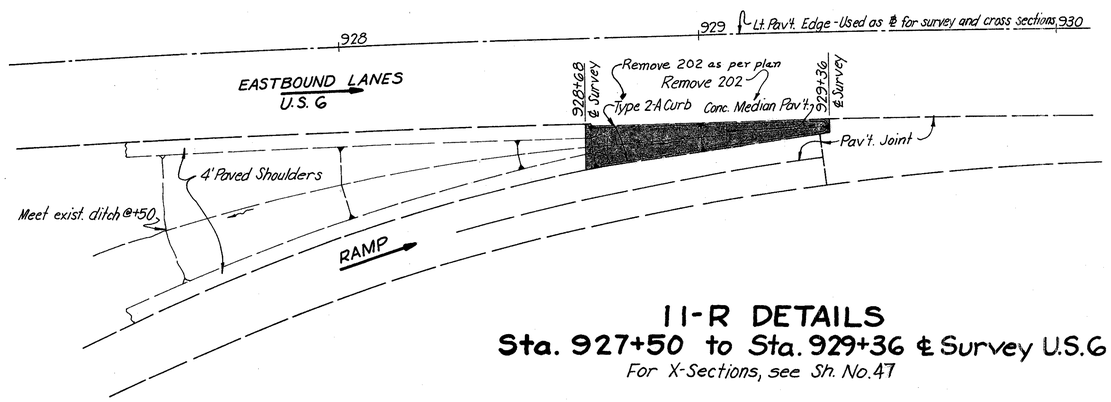


10-R DETAILS
Sta. 901+85 to Sta. 903+50 ℄ Survey U.S.6
For X-Sections, see Sh. No. 47

11-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	43	Cu. Yds.	Excavation not including embankment construction
659	273	Sq. Yds.	Seeding and Mulching
202	130	Lin. Ft.	Curb Removed as per plan
202	13	Sq. Yds.	Concrete Median Removed
301	10	Cu. Yds.	Bituminous Aggregate Base
409	18	Gals.	Seal Coat Bituminous Material
409	1	Cu. Yds.	Seal Coat Cover Aggregate

QUANTITIES
CALC BY JCM DATE 9-5-77
CKD BY GWW DATE 8-16-77



11-R DETAILS
Sta. 927+50 to Sta. 929+36 ℄ Survey U.S.6
For X-Sections, see Sh. No. 47

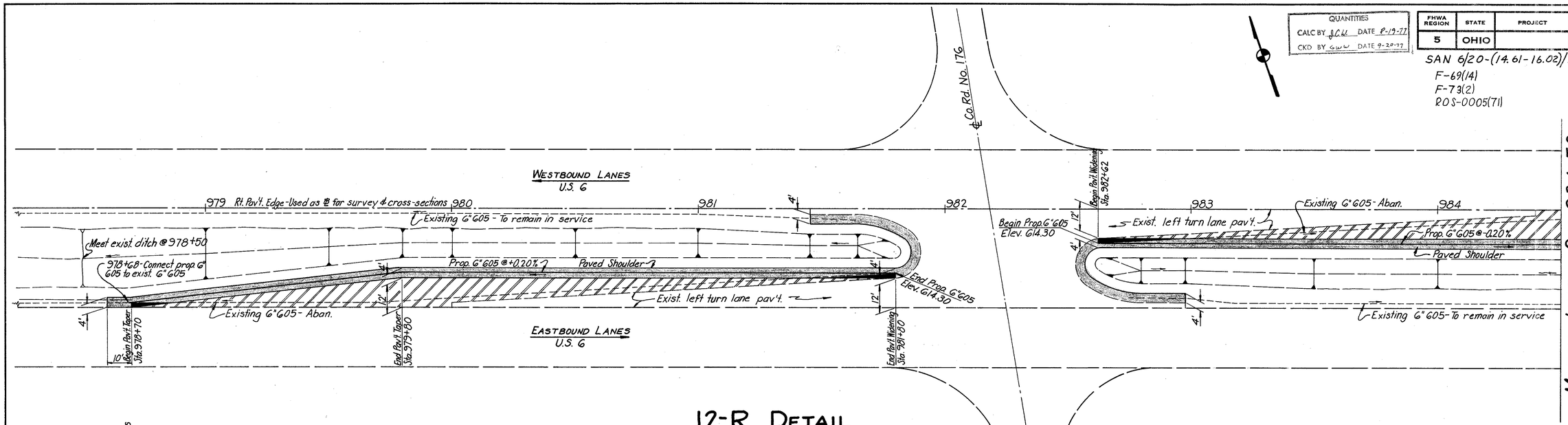
9-R, 10-R & 11-R DETAILS

QUANTITIES			
CALC BY JCL DATE 8-19-77			
CKD BY GWW DATE 9-20-77			

FHWA REGION	STATE	PROJECT	
5	OHIO		

25
114

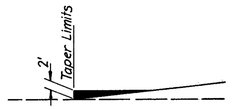
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



12-R Detail

Sta. 978+50 to Sta. 986+00

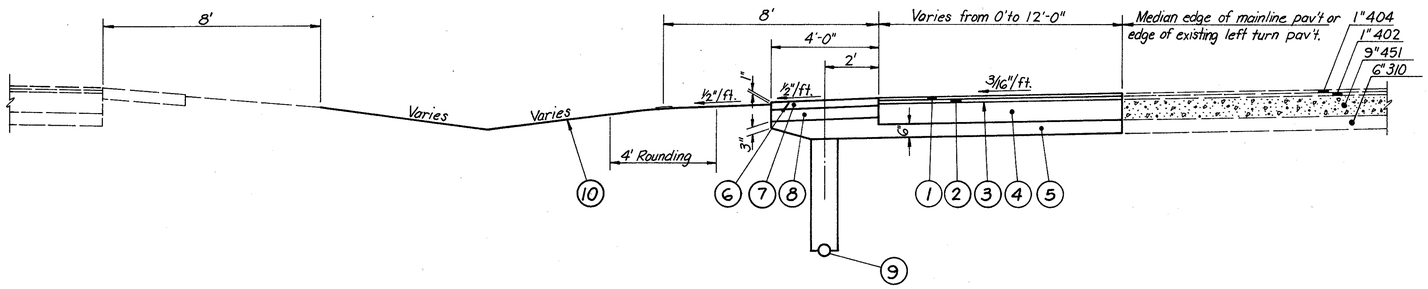
For X-Sections, see Sh. No. 48



Blackened area shall be constructed of full depth pavement as shown on construction detail below. The 404 shall be constructed to an elevation one-half (½) inch lower than the adjacent pavement and surfaced with 409. The blackened area shall be paid for as full depth 404. For additional information, see Sec. A-A, Sh. No. 29.

Taper Detail

Construction Detail



Pavement Legend

(1) Item 404, 1" Asphalt Concrete, AC-20

(2) Item 402, 1" Asphalt Concrete, AC-20

(3) Item 407, Tack Coat: 702.04, MS-2, RS-1, SS-1, SS-1H; or 702.02, RC-250, Applied at the Rate of 0.10 Gal. per Sq. Yd.

(4) Item 305, 9" Portland Cement Concrete Base

(5) Item 310, Subbase, Grading "A" as per Plan

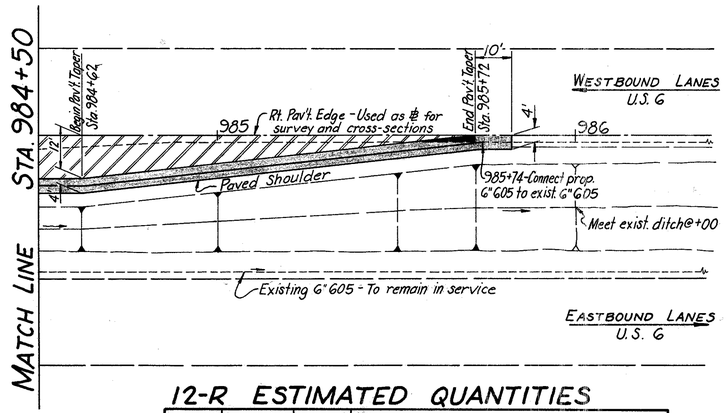
(6) Item 409, Seal Coat Using 0.008 Cu.Yds. of Seal Coat Aggregate No. 8 and 0.30 Gal. Seal Coat Bituminous Material, 702.09 RT-9 or RT-10, 702.02 MC-800 or MC-3000; 702.03, CBAE-800, or 702.04, RS-1, RS-2, CRS-1 or CRS-2, per Sq. Yd.

(7) Item 301, 3" Bituminous Aggregate Base: 702.01 or AC-20 or 702.09, RT-11 or RT-12

(8) Item 304, 6" Aggregate Base

(9) Item 605, 6" Deep Pipe Underdrains

(10) Item 659, Seeding and Mulching (See General Notes)



12-R Estimated Quantities

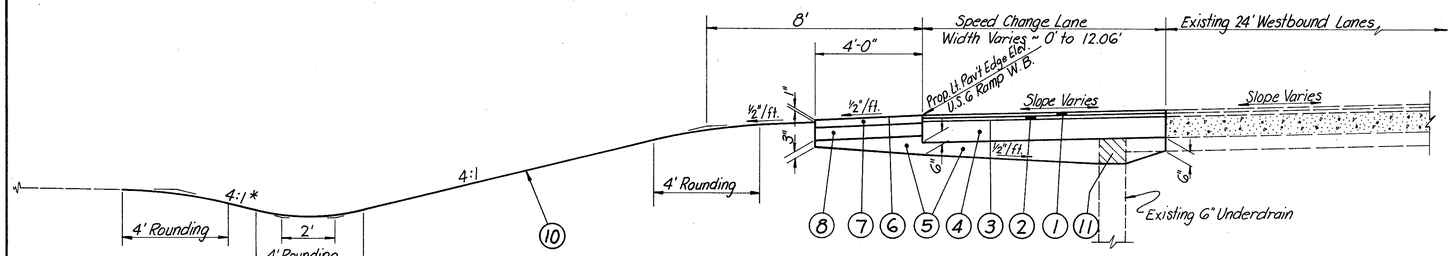
ITEM	QUANTITY	UNIT	DESCRIPTION
203	284	Cu.Yds.	Excavation not including embankment construction
203	149	Cu.Yds.	Embankment
203	631	Sq.Yds.	Subgrade Compaction
659	1764	Sq.Yds.	Seeding and Mulching
605	624	Lin.Ft.	6" Deep Pipe Underdrains
301	28	Cu.Yds.	Bituminous Aggregate Base
304	55	Cu.Yds.	Aggregate Base
305	417	Cu.Yds.	9" Portland Cement Concrete Base
310	132	Cu.Yds.	Subbase, Grading A, as per Plan
402	12	Cu.Yds.	Asphalt Concrete (AC-20)
404	12	Cu.Yds.	Asphalt Concrete (AC-20)
407	42	Gals.	Tack Coat Bituminous Material
407	14.6	Tons	Tack Coat Cover Aggregate
409	102	Gals.	Seal Coat Bituminous Material
409	3	Cu.Yds.	Seal Coat Cover Aggregate

CONSTRUCTION DETAILS ~ U.S. 6 RAMP W.B.

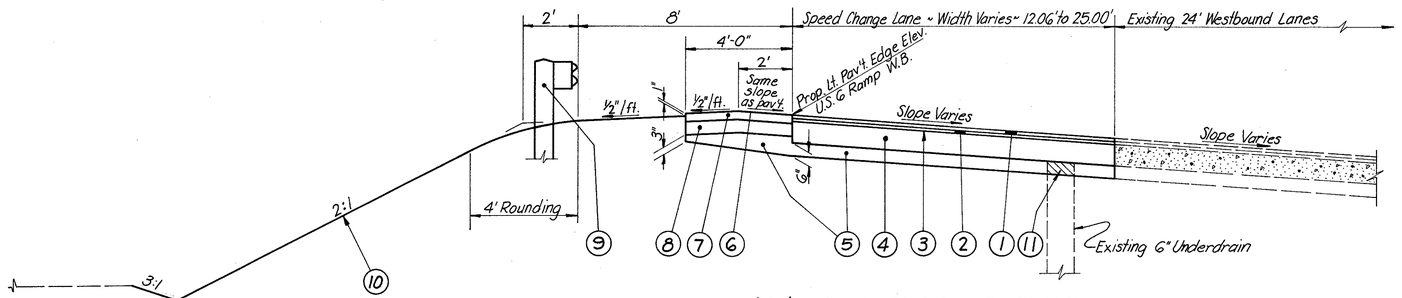
FHWA REGION	STATE	PROJECT	
5	OHIO		

26
114

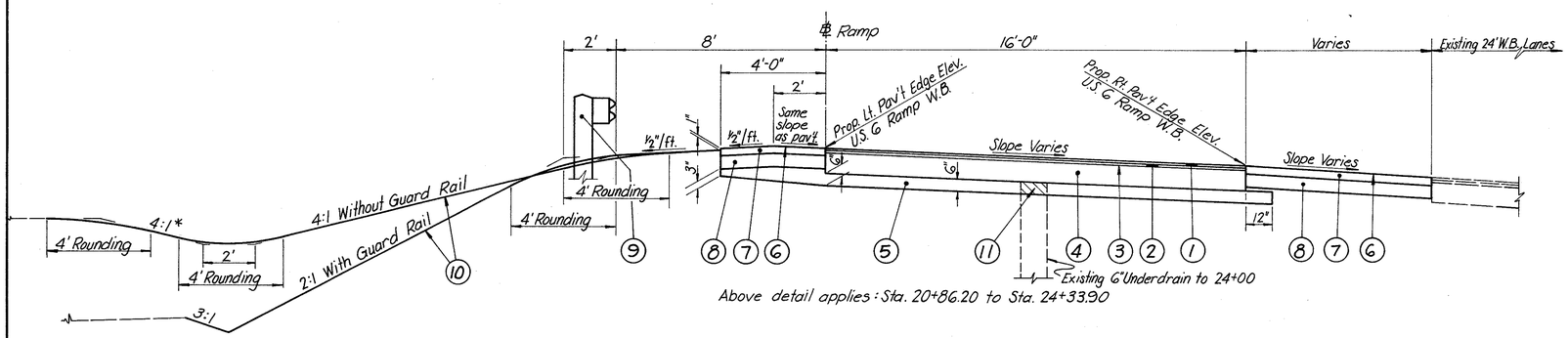
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



Above detail applies: Sta. 984+17.50 to Sta. 989+07

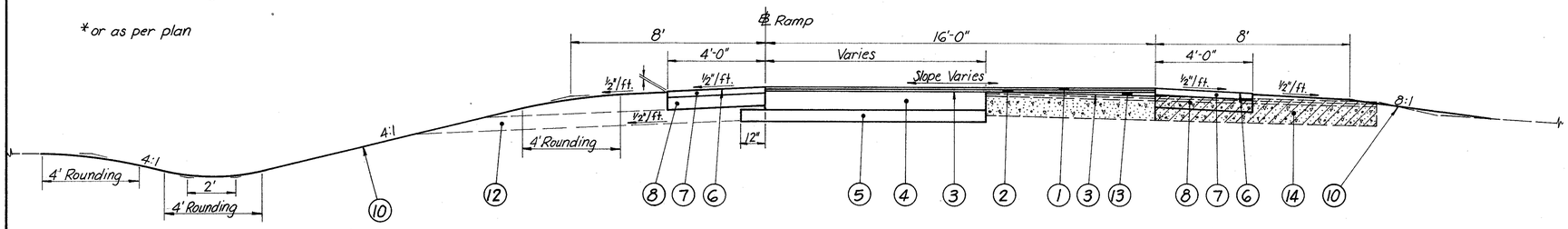


Above detail applies: Sta. 989+07 to Sta. 994+17.51



Above detail applies: Sta. 20+86.20 to Sta. 24+33.90

*or as per plan



Above detail applies: Sta. 24+33.90 to Sta. 26+28.39

PAVEMENT LEGEND

(1) Item 404, 1" Asphalt Concrete, AC-20

(2) Item 402, 1" Asphalt Concrete, AC-20

(3) Item 407, Tack Coat: 702.04 MS-2, RS-1, SS-1, SS-1H, or 702.02, RC-250, Applied at the Rate of 0.10 Gal. per Sq. Yd.

(4) Item 305, 9" Portland Cement Concrete Base

(5) Item 310, Subbase, Grading A, as per Plan

(6) Item 409, Seal Coat Using 0.008 Cu. Yds. of Seal Coat Aggregate No. 8 and 0.30 Gal. Seal Coat Bituminous Material, 702.09 RT-9 or RT-10, 702.02 MC-800 or MC-3000; 702.03, CBAE-800, or 702.04, RS-1, RS-2, CRS-1 or CRS-2, per Sq. Yd.

(7) Item 301, 3" Bituminous Aggregate Base: 702.01, AC-20 or 702.09, RT-11 or RT-12

(8) Item 304, 6" Aggregate Base

(9) Item 606, Guard Rail, Type 5

(10) Item 659, Seeding and Mulching (See General Notes)

(11) Item Special, Drainage Connection Using No. 9 Aggregate *

(12) Item 605, Aggregate Drains (See Note Below)

(13) Item 402, Variable Thickness Asphalt Concrete Preleveling Course, AC-20 (See Note in Proposal)

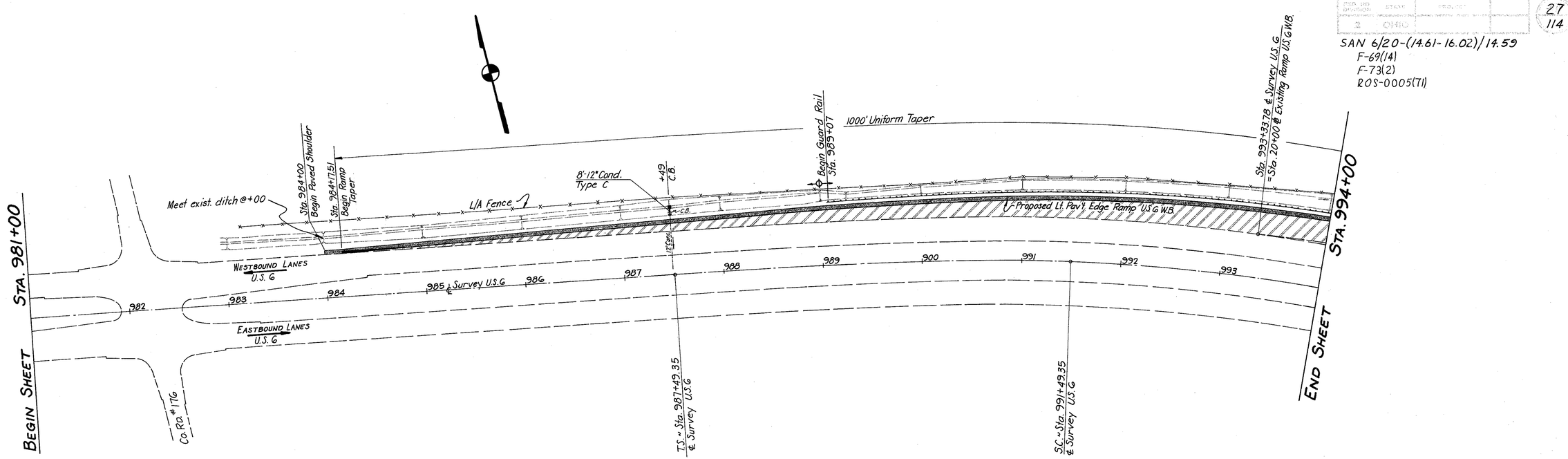
(14) Item 202, Reinforced Concrete Base Removed

* Place proposed 310 as shown, then remove a portion of this item so that the drainage connection may be placed to the configuration shown. Cost of removal shall be included with the cost of Item Special, Drainage Connection Using No. 9 Aggregate.

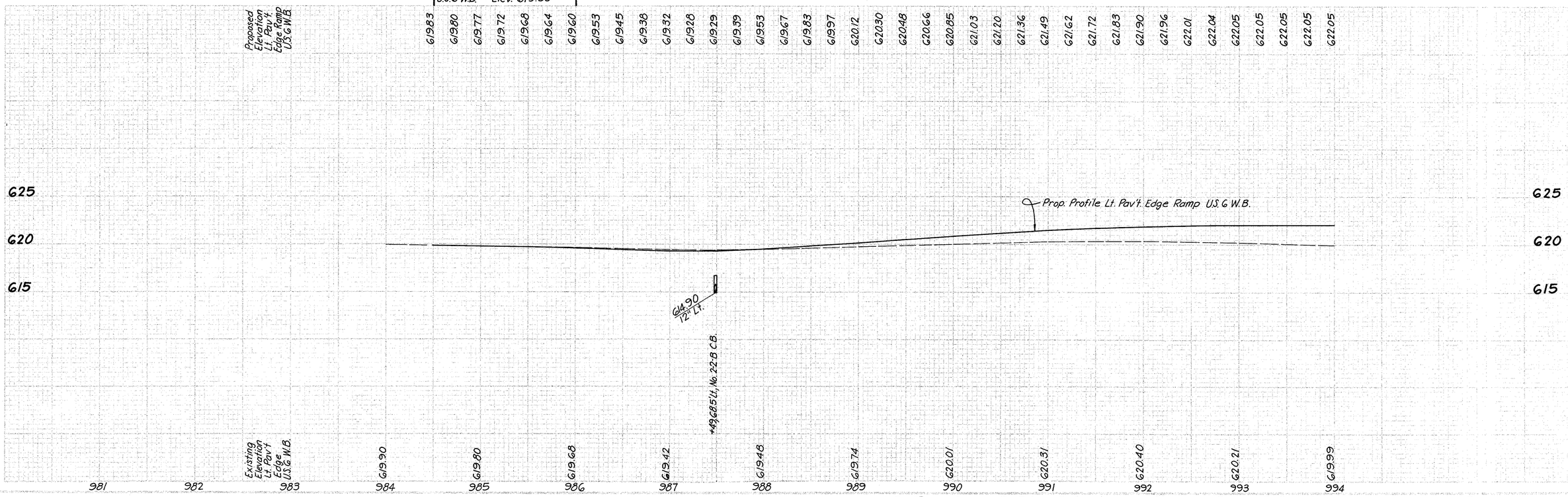
ITEM 605 AGGREGATE DRAINS

Aggregate drains shall be placed at twenty-five (25) foot intervals on the low side of the superelevated section where no pipe underdrain are located.

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



B.M. ~ Sta. 985+58
Spk. in P, 34.4' Lt. of Lt. Edge Pav't U.S.6 W.B. ~ Elev. 619.50



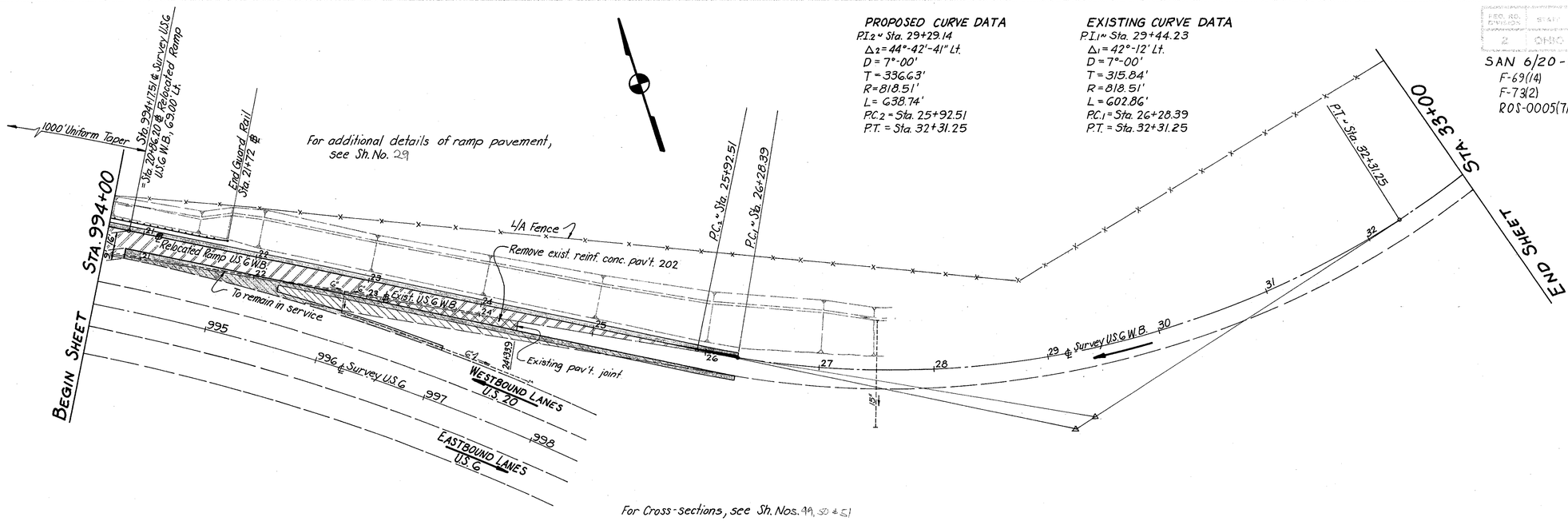
13-R ~ STA. 981+00 TO STA. 994+00 ℄ SURVEY U.S.6

FED. ROAD DIV. NO.	STATE	ROUTE NO.		28
2	OHIO			114

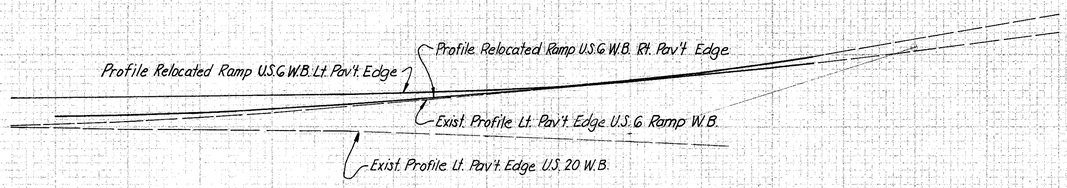
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

PROPOSED CURVE DATA
P.I.2 ~ Sta. 29+29.14
$\Delta_2 = 44°-42'-41''$ Lt.
D = 7°-00'
T = 336.63'
R = 818.51'
L = 638.74'
P.C.2 = Sta. 25+92.51
P.T. = Sta. 32+31.25

EXISTING CURVE DATA
P.I.1 ~ Sta. 29+44.23
$\Delta_1 = 42°-12'$ Lt.
D = 7°-00'
T = 315.84'
R = 818.51'
L = 602.86'
P.C.1 = Sta. 26+28.39
P.T. = Sta. 32+31.25



Station	Proposed Elevation Rt. Pav't. Edge Ramp U.S.6 W.B.	Elevation Lt. Pav't. Edge Ramp U.S.6 W.B.
994+00,	622.05	
21+00,	620.72	622.06
	620.77	622.08
	620.83	622.10
	620.91	622.12
	621.01	622.15
	621.12	622.18
	621.23	622.20
	621.37	622.22
	621.53	622.24
	621.70	622.29
	621.89	622.35
	622.07	622.43
	622.28	622.53
	622.54	622.55
	622.73	622.80
	622.95	622.96
	623.19	623.16
	623.46	623.38
	623.75	623.60
	624.09	623.85
	624.46	624.13



625
620
615

Existing Elevation Lt. Pav't. Edge

994	21	22	23	24	25	26	27	28
619.99	620.20	620.68	621.42	622.28	623.18	624.12	625.21	626.55

994+17.51 ℄ Survey U.S.6 = 20+86.20 ℄ Relocated Ramp U.S.6 W.B.

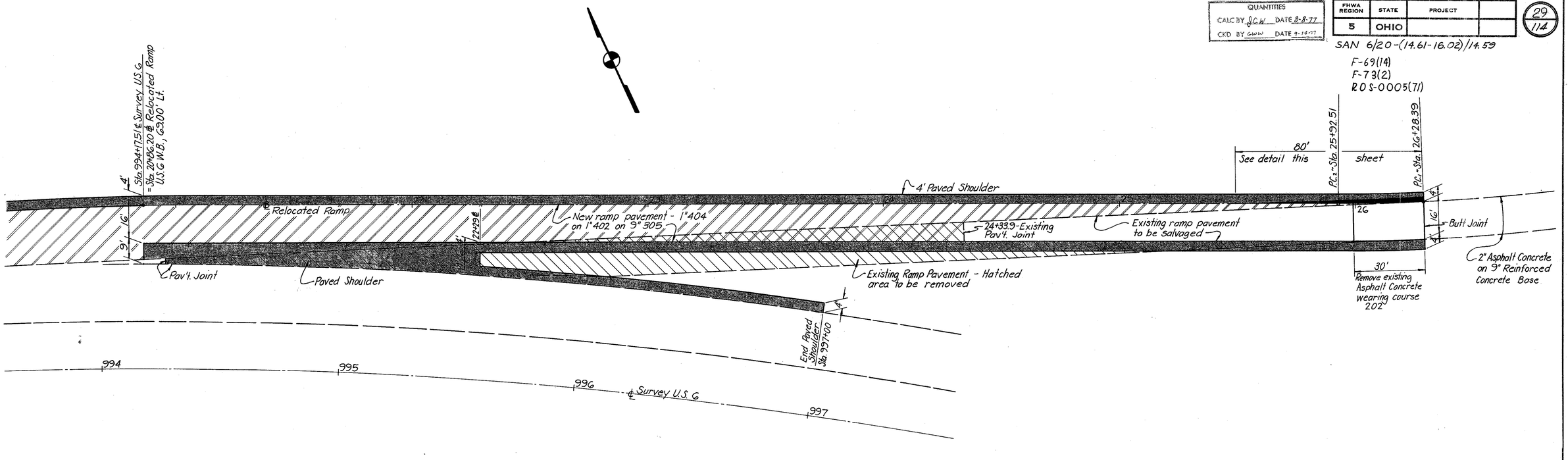
13-R ~ STA. 994+00 & SURVEY U.S.6 TO STA. 33+00 & SUR. U.S.6 RAMP W.B.

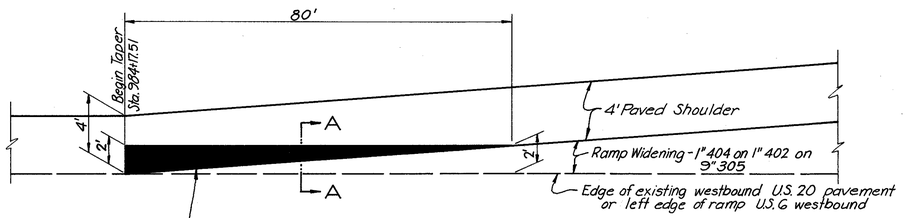
QUANTITIES	
CALC BY JCW	DATE 8-8-77
CKD BY GWW	DATE 9-14-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

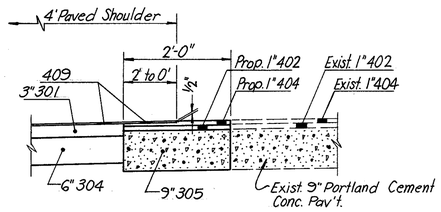
29/114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)





PLAN



SECTION A-A

RAMP TAPER DETAIL

Sta. 984+17.51 to Sta. 984+97.51 U.S.6
Sta. 25+48.39 to Sta. 26+28.39 U.S.6 Ramp W.B.

13-R ESTIMATED QUANTITIES

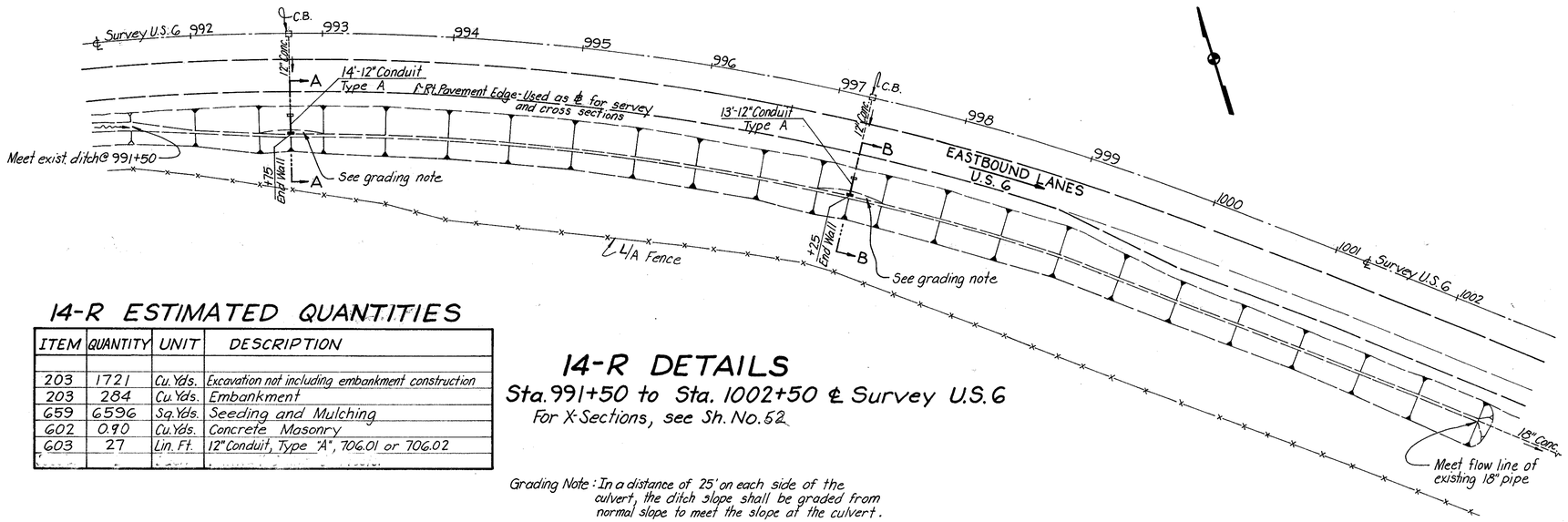
ITEM	QUANTITY	UNIT	DESCRIPTION
202	543	Sq.Yds.	Base Removed
202	54	Sq.Yds.	Wearing Course Removed
203	1023	Cu.Yds.	Excavation not including embankment construction
203	2737	Cu.Yds.	Embankment
203	2982	Sq.Yds.	Subgrade Compaction
659	7086	Sq.Yds.	Seeding and Mulching
603	8	Lin.Ft.	12" Conduit, Type C
604	1	Each	Standard No. 2-2-B C.B.
605	108	Lin.Ft.	Aggregate Drains
Special	28	Cu.Yds.	Drainage Connection
202	1	Each	Catch Basin Abandoned
301	91	Cu.Yds.	Bituminous Aggregate Base
304	182	Cu.Yds.	Aggregate Base
305	2126	Sq.Yds.	9" Portland Cement Concrete Base
310	466	Cu.Yds.	Subbase, Grading A, as per Plan
402	66	Cu.Yds.	Asphalt Concrete, AC-20
404	66	Cu.Yds.	Asphalt Concrete, AC-20
407	238	Gals.	Tack Coat
407	83.4	Tons	Cover Aggregate
409	333	Gals.	Seal Coat Bituminous Material
409	9	Cu.Yds.	Seal Coat Cover Aggregate

13-R ~ PAVEMENT DETAILS

QUANTITIES				
CALC BY J.C.W. DATE 7-12-77	FHWA REGION	STATE	PROJECT	
CKD BY G.W.W. DATE 9-2-77	5	OHIO		

30
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(11)



14-R ESTIMATED QUANTITIES

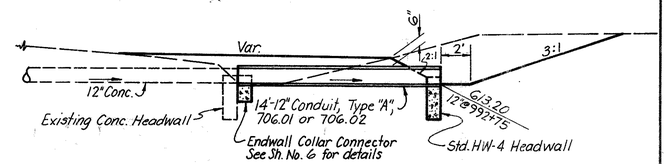
ITEM	QUANTITY	UNIT	DESCRIPTION
203	1721	Cu.Yds.	Excavation not including embankment construction
203	284	Cu.Yds.	Embankment
659	6596	Sq.Yds.	Seeding and Mulching
602	0.90	Cu.Yds.	Concrete Masonry
603	27	Lin.Ft.	12" Conduit, Type "A", 706.01 or 706.02

14-R DETAILS

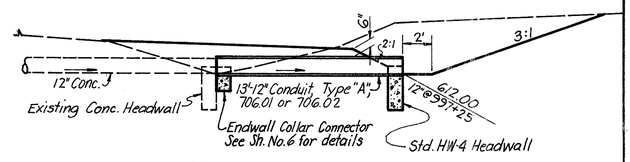
Sta. 991+50 to Sta. 1002+50 ℄ Survey U.S.6

For X-Sections, see Sh. No. 52

Grading Note: In a distance of 25' on each side of the culvert, the ditch slope shall be graded from normal slope to meet the slope at the culvert.



SECTION A-A

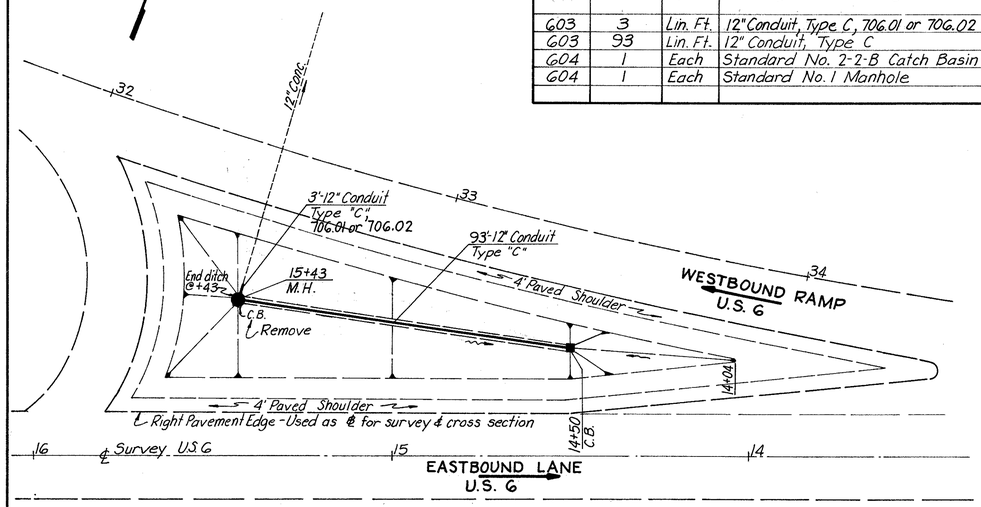


SECTION B-B

QUANTITIES
CALC BY J.C.W. DATE 7-19-77
CKD BY G.W.W. DATE 9-2-77

15-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	86	Cu.Yds.	Embankment
659	691	Sq.Yds.	Seeding and Mulching
603	3	Lin.Ft.	12" Conduit, Type C, 706.01 or 706.02
603	93	Lin.Ft.	12" Conduit, Type C
604	1	Each	Standard No. 2-2-B Catch Basin
604	1	Each	Standard No. 1 Manhole



15-R DETAILS

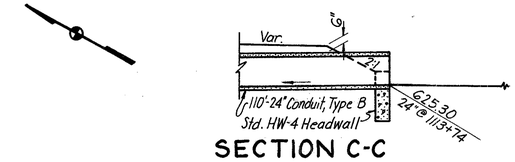
Sta. 14+04 to Sta. 15+60 ℄ Survey U.S.6

For X-Sections, see Sh. No. 53

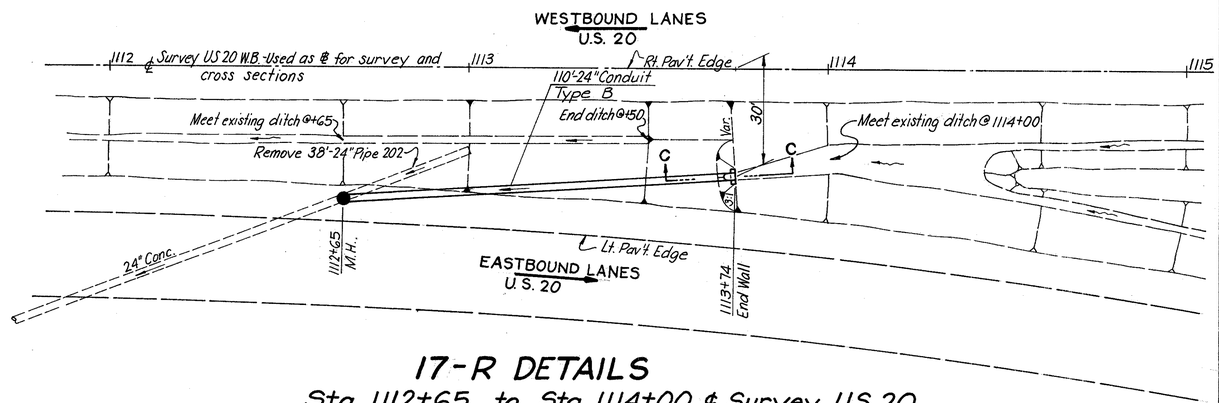
17-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	8	Cu.Yds.	Excavation not including embankment construction
203	110	Cu.Yds.	Embankment
659	592	Sq.Yds.	Seeding and Mulching
202	38	Lin.Ft.	Pipe Removed, over 15"
602	0.43	Cu.Yds.	Concrete Masonry
603	110	Lin.Ft.	24" Conduit, Type B
604	1	Each	Standard No. 1 Manhole

QUANTITIES
CALC BY J.C.W. DATE 7-22-77
CKD BY G.W.W. DATE 9-2-77



SECTION C-C



17-R DETAILS

Sta. 1112+65 to Sta. 1114+00 ℄ Survey U.S. 20

For X-Sections, see Sh. No. 54

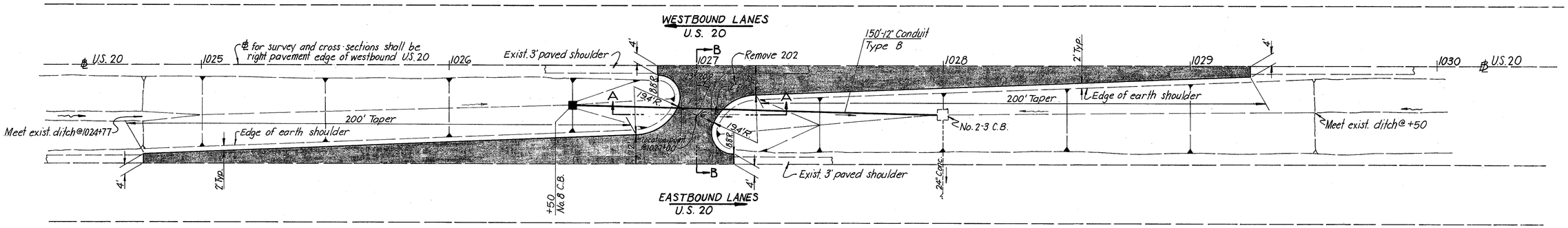
14-R, 15-R & 17-R DETAILS

QUANTITIES
CALC BY JCW DATE 7-27-77
CKD BY GWW DATE 9-30-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

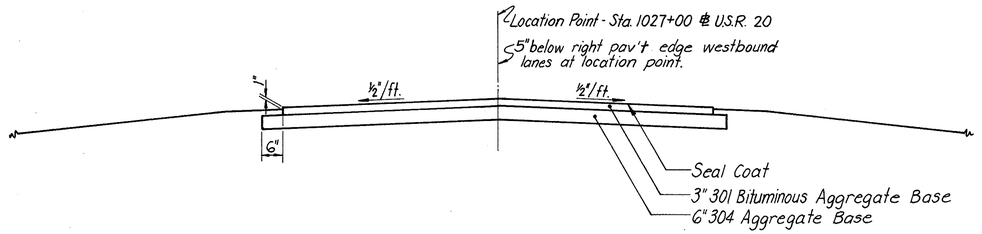
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

31
114

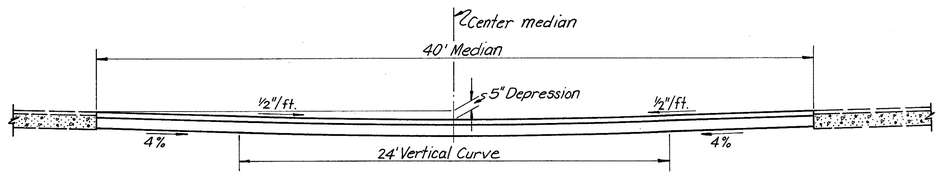


16-R ~ U-TURN MEDIAN OPENING
STA. 1027+00 U.S.R. 20

For Cross-Sections, See Sh. No. 58



SECTION A-A



SECTION B-B

16-R ESTIMATED QUANTITIES

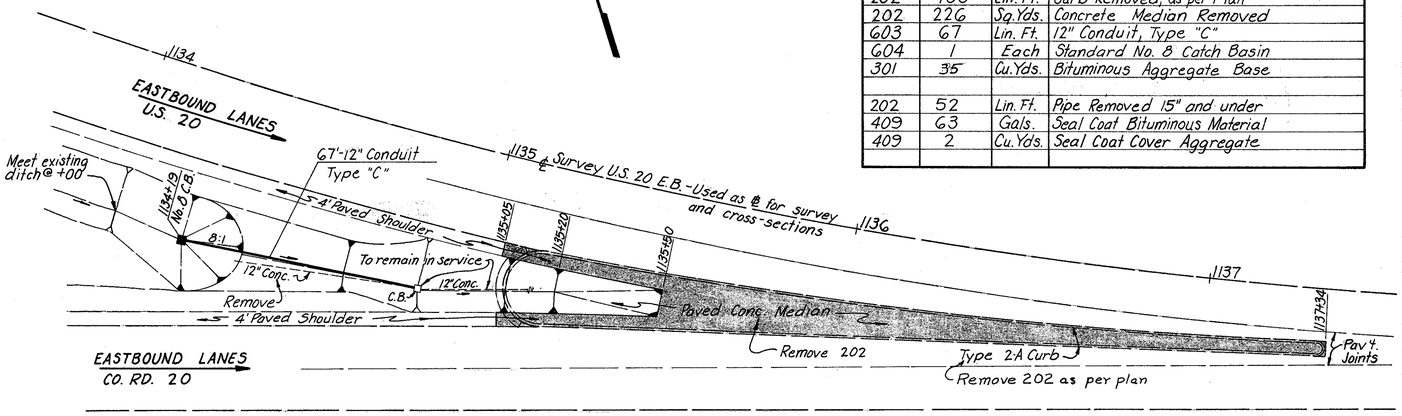
ITEM	QUANTITY	UNIT	DESCRIPTION
203	262	Cu. Yds.	Excavation not Including Embankment Construction
203	102	Cu. Yds.	Embankment
203	493	Sq. Yds.	Subgrade Compaction
659	1466	Sq. Yds.	Seeding and Mulching
603	150	Lin. Ft.	12" Conduit, Type B
604	1	Each	Standard No. 8 Catch Basin
202	34	Lin. Ft.	Pipe Removed, 15" and Under
301	41	Cu. Yds.	Bituminous Aggregate Base
304	87	Cu. Yds.	Aggregate Base
409	148	Gals.	Seal Coat Bituminous Material
409	4	Cu. Yds.	Seal Coat Cover Aggregate No. 8

16-R ~ U-TURN MEDIAN OPENING DETAILS ~ STA. 1027+00 U.S.R. 20

QUANTITIES
CALC BY JCW DATE 7-30-77
CKD BY GNW DATE 9-19-77

18-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
203	79	Cu.Yds.	Excavation not Including Embankment Construction
203	9	Cu.Yds.	Embankment
659	416	Sq.Yds.	Seeding and Mulching
202	25	Lin.Ft.	Curb and Gutter Removed
202	450	Lin.Ft.	Curb Removed, as per Plan
202	226	Sq.Yds.	Concrete Median Removed
603	67	Lin.Ft.	12" Conduit, Type "C"
604	1	Each	Standard No. 8 Catch Basin
301	35	Cu.Yds.	Bituminous Aggregate Base
202	52	Lin.Ft.	Pipe Removed 15" and under
409	63	Gals.	Seal Coat Bituminous Material
409	2	Cu.Yds.	Seal Coat Cover Aggregate



18-R DETAILS
Sta. 1134+00 to Sta. 1137+34 ℄ Survey U.S. 20 E.B.
For X-Sections see Sh. No. 55

QUANTITIES
CALC BY JCW DATE 9-27-77
CKD BY GNW DATE 9-28-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

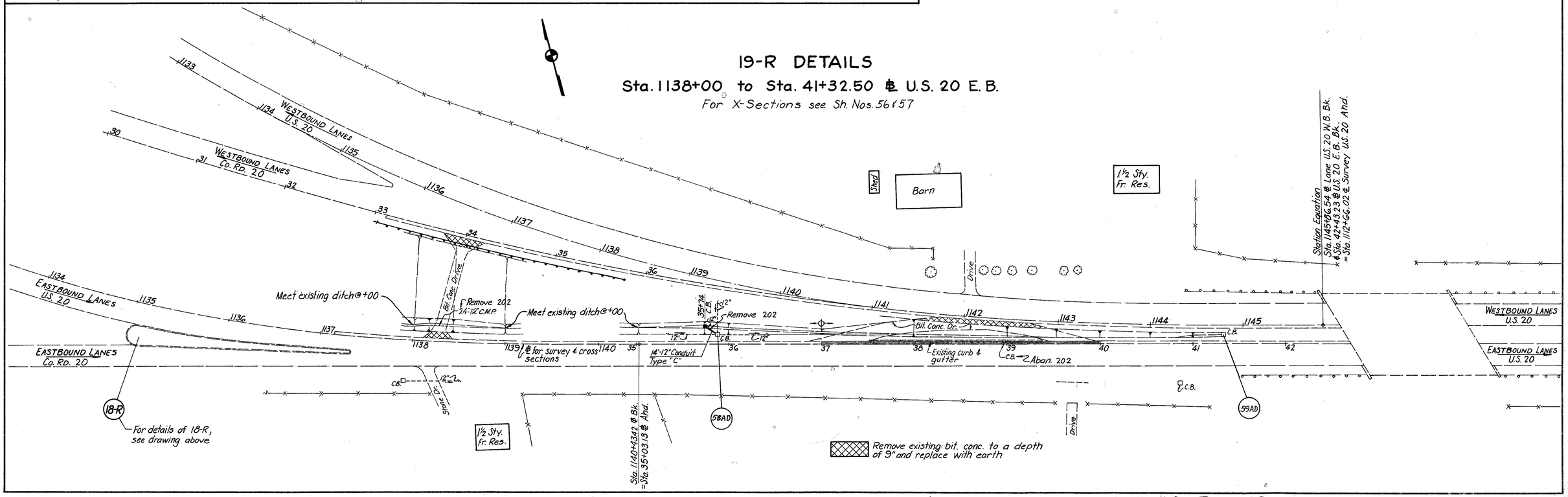
32
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

19-R ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
202	38	Lin.Ft.	Pipe Removed, 15" and Under
202	186	Lin.Ft.	Curb and Gutter Removed
202	1	Each	Catch Basin Abandoned
203	808	Cu.Yds.	Excavation not Including Embankment Construction
203	48	Cu.Yds.	Embankment
659	2122	Sq.Yds.	Seeding and Mulching
603	14	Lin.Ft.	12" Conduit, Type "C"
604	1	Each	Standard Type 2-2-B Catch Basin
301	17	Cu.Yds.	Bituminous Aggregate Base
409	1	Cu.Yds.	Seal Coat Cover Aggregate
409	30	Gal.	Seal Coat Bituminous Material

19-R DETAILS
Sta. 1138+00 to Sta. 41+32.50 ℄ U.S. 20 E.B.
For X-Sections see Sh. Nos. 56 & 57



18-R & 19-R DETAILS

CONCRETE BARRIER MEDIAN CONSTRUCTION DETAILS ~ 1 OF 2

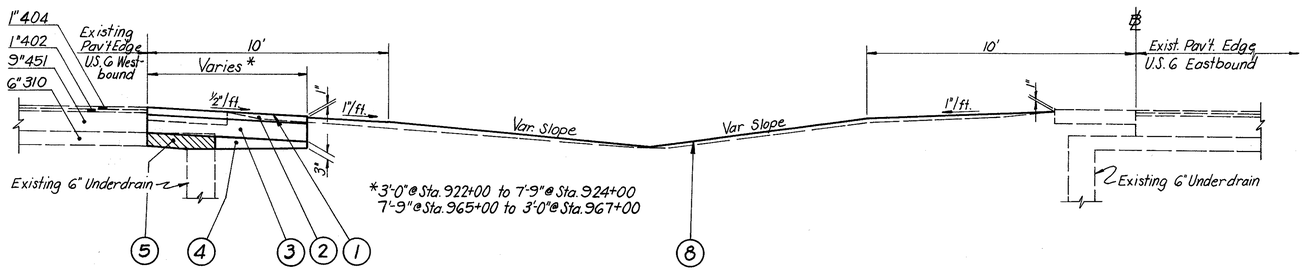
STA.922+00 TO STA.939+21.25
STA.947+28.13 TO STA.967+00

COUNTIES	
CALC BY J.C.W.	DATE 8-5-77
CKD BY G.W.W.	DATE 9-21-77

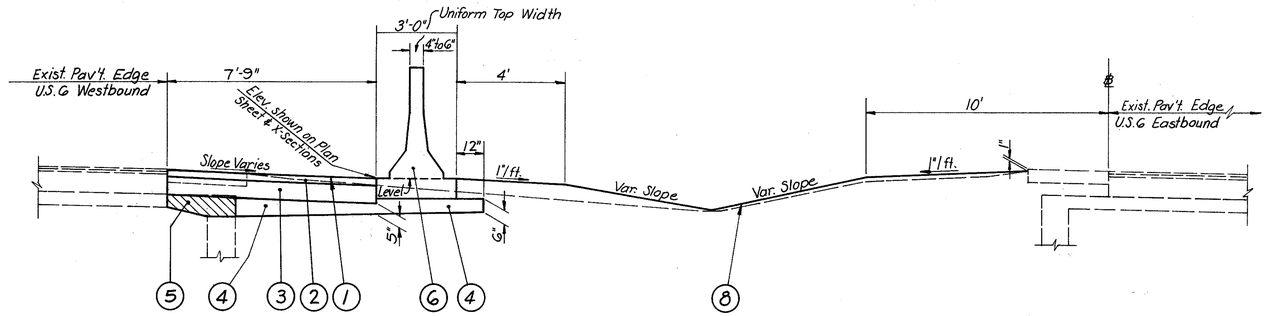
FHWA REGION	STATE	PROJECT	
5	OHIO		

33
114

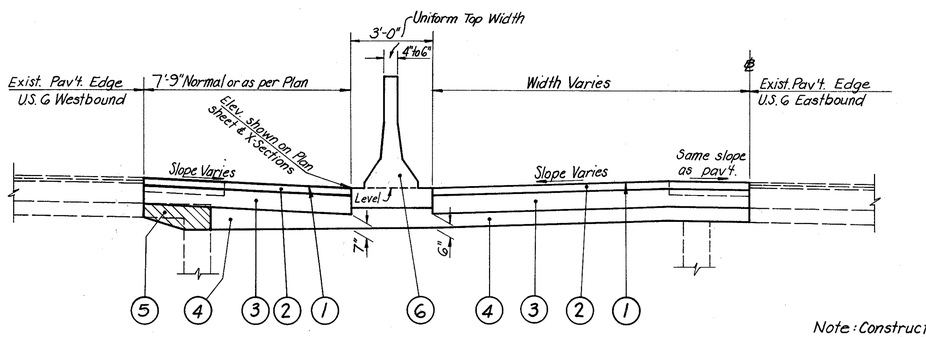
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



Above detail applies: Sta.922+00 to Sta.924+00
Sta.965+00 to Sta.967+00



Above detail applies: Sta.924+00 to Sta.926+90
Sta.961+00 to Sta.965+00



Above detail applies: Sta.926+90 to Sta.930+35
Sta.959+11 to Sta.961+00

Note: Construction details shown above shall be reversed for Sta.959+11 to Sta.961+00. Measurements for concrete barrier and shoulders shall be made from existing pavement edge, U.S.G Eastbound.

PAVEMENT LEGEND

(1) Item 409, Seal Coat Using 0.008 Cu. Yds. of Seal Coat Aggregate No. 8 and 0.30 Gal. Seal Coat Bituminous Material, 702.09 RT-9 or RT-10, 702.02, MC-800 or MC-3000; 702.03, CBAE-800, or 702.04, RS-1, RS-2, CRS-1 or CRS-2, per Sq. Yd.

(2) Item 301, 3" Bituminous Aggregate Base: 702.01, AC-20; or 702.09, RT-11 or RT-12

(3) Item 304, 8" Aggregate Base

(4) Item 310, Subbase, Grading A, as per Plan

(5) Special, Drainage Connection Using No. 9 Aggregate * (Use with Underdrains Only)

(6) Item 622, Concrete Barrier, Type A50

(7) Item 622, Concrete Barrier, Type A50 as per plan

(8) Item 659, Seeding and Mulching

(9) Item 202, 4" Concrete Median Removed

(10) Item 202, Type 2 Concrete Curb and Gutter Removed

(11) Item 202, Type 2-A Curb Removed, as per Plan

* Place proposed 310 as shown, then remove a portion of this item so that the drainage connection may be placed to the configuration shown. Cost of removal shall be included with the cost of Item Special Drainage Connection Using No. 9 Aggregate.

ESTIMATED QUANTITIES

ITEM	QUANTITY			UNIT	DESCRIPTION
	STA.922+00 TO STA.939+21.25	STA.947+28.13 TO STA.967+00	TOTAL		
202	30	50	80	Lin. Ft.	Curb Removed
202	1749	2320	4069	Lin. Ft.	Curb and Gutter Removed
202	439	593	1032	Sq. Yds.	Concrete Median Removed
203	870	752	1622	Cu. Yds.	Excavation not Including Embankment Construction
203	141	304	445	Cu. Yds.	Embankment
622	1506.25	1747.87	3253.12	Lin. Ft.	Concrete Barrier, Type A50
622	15.83	25.67	41.50	Lin. Ft.	Concrete Barrier, Type A50 as per plan
659	1417	1318	2735	Sq. Yds.	Seeding and Mulching
660	9	–	9	Sq. Yds.	Sodding
603	95	126	221	Lin. Ft.	12" Conduit, Type B
603	12	–	12	Lin. Ft.	15" Conduit, Type B, 706.01 or 706.02
603	30	30	60	Lin. Ft.	6" Conduit, Type F
604	–	1	1	Each	Standard No. 2-2-B Catch Basin
604	1	1	2	Each	Standard No. 1 Manhole
604	2	1	3	Each	Standard I-3A Median Inlet
605	–	82	82	Lin. Ft.	6" Deep Pipe Underdrains
Special	54	51	105	Cu. Yds.	Drainage Connection
202	–	1	1	Each	Catch Basin Abandoned
301	154	153	307	Cu. Yds.	Bituminous Aggregate Base
304	409	409	818	Cu. Yds.	Aggregate Base
310	500	516	1016	Cu. Yds.	Subbase, Grading A, as per Plan
409	553	551	1104	Gals.	Seal Coat Bituminous Material
409	15	15	30	Cu. Yds.	Seal Coat Cover Aggregate
603	6	–	6	Lin. Ft.	12" Conduit, Type B, 706.01 or 706.02

CONCRETE BARRIER MEDIAN CONSTRUCTION DETAILS ~ 1 OF 2

CONCRETE BARRIER MEDIAN CONSTRUCTION DETAILS - 2 OF 2

FHWA REGION	STATE	PROJECT	
5	OHIO		

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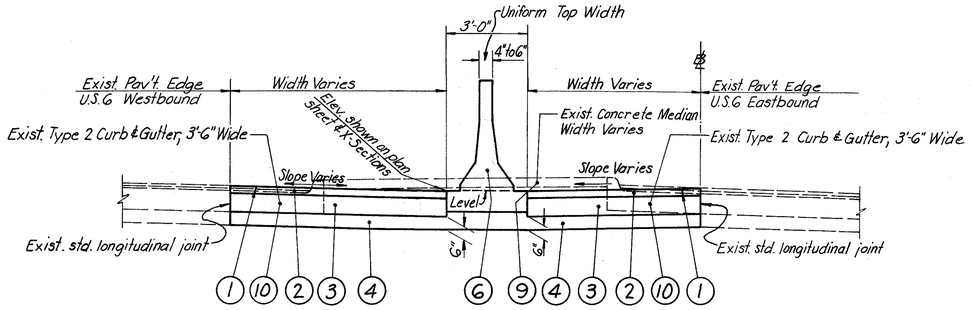
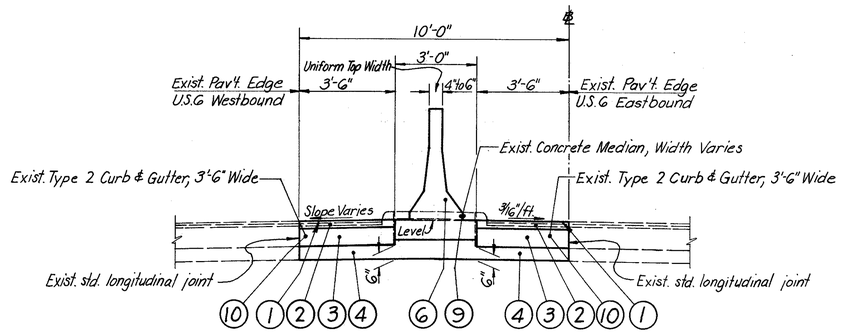
114

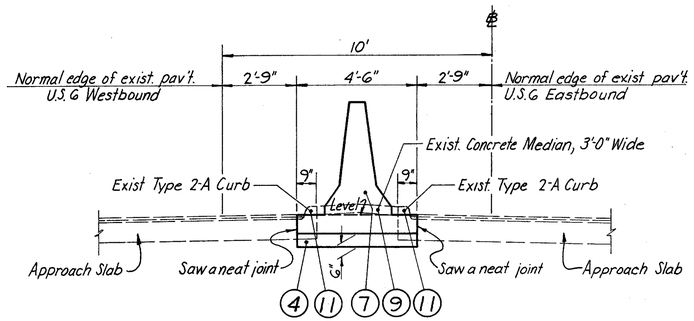
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



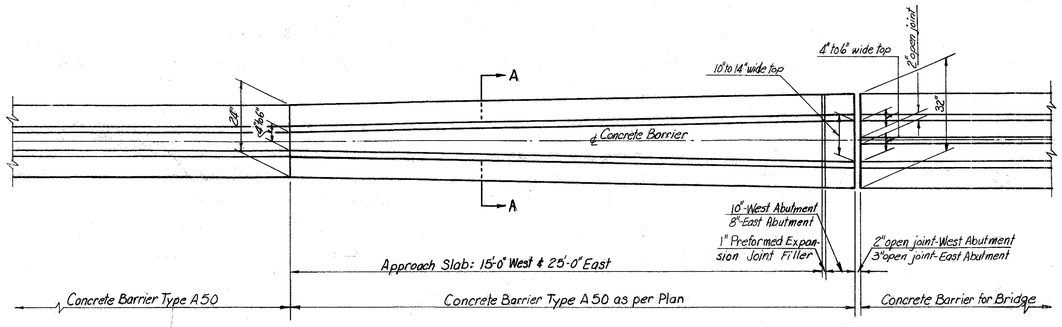
Above detail applies : Sta. 930+35 to Sta. 934+00
Sta. 954+13 to Sta. 959+11



Above detail applies : Sta. 934+00 to Sta. 939+06.25
Sta. 947+53.13 to Sta. 954+13

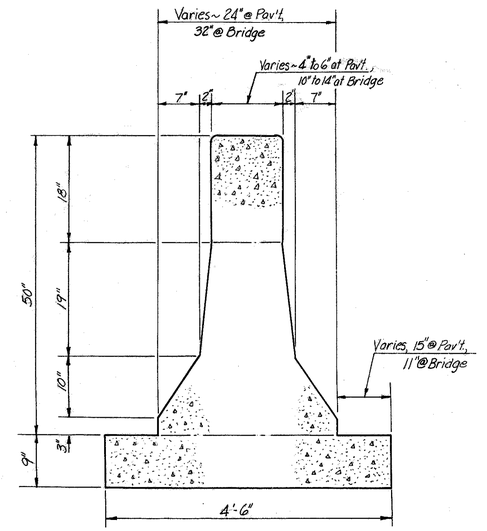


Above detail applies : Sta. 939+06.25 to Sta. 939+21.25 - West Approach Slab } Br. No. SAN-G-1751
Sta. 947+28.13 to Sta. 947+53.13 - East Approach Slab } over Sandusky River



PLAN
CONCRETE BARRIER TYPE A50 AS PER PLAN

Note: Width of top of concrete barrier used for the roadway section shall also be used for the width of top of concrete barrier on each side of the median open joint.



SECTION A-A

FHWA REGION	STATE	PROJECT		
5	OHIO			

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)


200' Taper for Paved Shoulder
Begin Paved Shoulder Sta. 922+00 ¢ Survey
Existing 3' Paved Shoulder
Begin Concrete Barrier Type A50 Sta. 924+00 ¢ Survey
20' End Terminal
Sod
No. 2-2A C.B.@ 923+50
Adjust
Survey U.S. 6
Lt. Pav't Edge ~ U.S. 6 Eastbound - Used as ¢ for survey & cross-sections.
P.C. Sta. 924+07.84 ¢ Survey
P.C. Sta. 925+04.16 ¢
Westbound Lanes U.S. 6
Eastbound Lanes U.S. 6
Concrete Barrier Type A50
Connect exist. 6" underdrains from East & West into prop. C.B. with 10'-6" Cond. Type F
926+90 ¢ Survey
20' I-3A Median Inlet
15" Conc.
4'-15" Conduit Type B, 706.01 or 706.02
No. 2-3 C.B. Remove 202
8'-15" Conduit Type B, 706.01 or 706.02
To remain in service
Existing 3' Paved Shoulder
STA. 928+00 ¢ SURVEY
MATCH LINE
929+40 ¢ Survey
20' I-3A Median Inlet
Begin Taper-Concrete Barrier Type A50 Sta. 930+00 ¢ Survey
95'-12" Conduit Type B
930+45 ¢ Survey M.H.
Connect exist. 6" underdrain into prop. M.H. with 10'-6" conduit, Type F
6'-12" Conduit Type B, 706.01 or 706.02
To remain in service
12" Conc.
Conc. Median Remove 202
Type 2 Curb & Gutter
End Taper-Concrete Barrier Type A50 Sta. 932+89.57 ¢ Survey
P.T. ~ Sta. 932+89.51 ¢ Survey U.S. 6
P.T. ~ Sta. 933+85.83 ¢
Station Equation Sta. 934+00 ¢ Survey U.S. 6 = Sta. 933+98.07 ¢
S.R. 53 EASTBOUND ENTRANCE RAMP
STA. 934+00 ¢ SURVEY
Concrete Barrier Type A50 as per Plan
Bridge No. SAN-6-17.51 over Sandusky River
Bridge Limits = 806'-10½"
Concrete Barrier for Bridge
15' Approach Slab
50'-0" 62'-6" 50'-0" 110'-0"
¢ Rear Abutment ~ 939+23.50
¢ Pier 1 ~ 939+73.50
¢ Pier 2 ~ 940+36
¢ Pier 3 ~ 940+86
Pier 4 ¢ 941+96
Begin Approach Slab Sta. 939+06.25
End Approach Slab Sta. 939+21.25
Conc. Median - Remove 202
STA 942+00 ¢ SURVEY
END SHEET

For cross-sections from Sta. 921+00 to Sta. 939+06.25, see Sheet Nos. 58 & 59

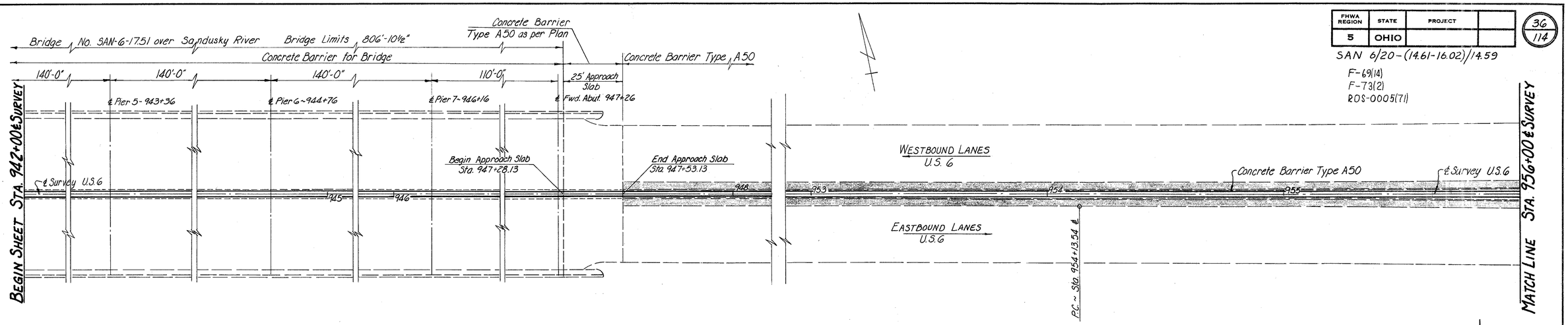
Note: Add 600.00 to all elevations shown on this sheet.

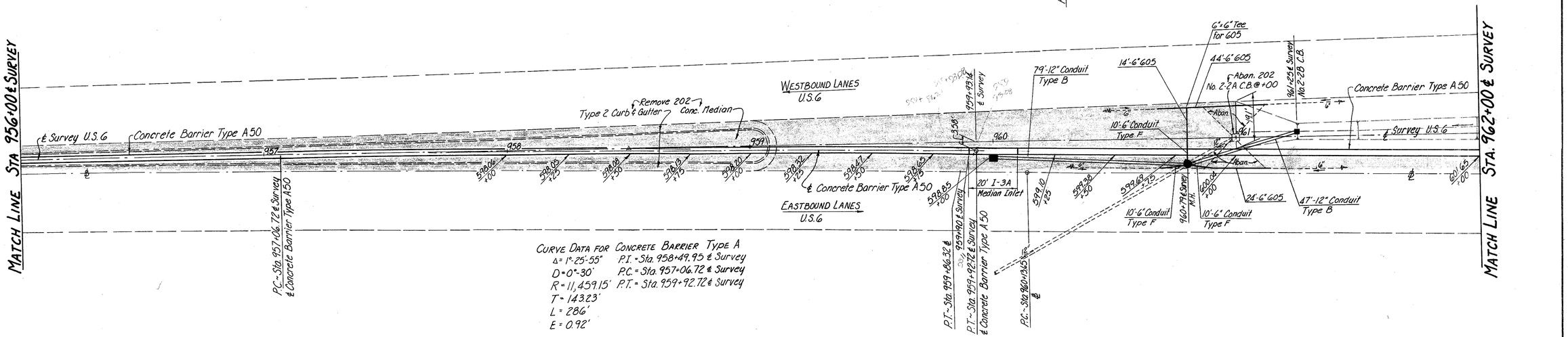
CONCRETE BARRIER MEDIAN CONSTRUCTION DETAILS ~ STA. 922+00 TO STA 942+00 ¢ SURVEY U.S. 6

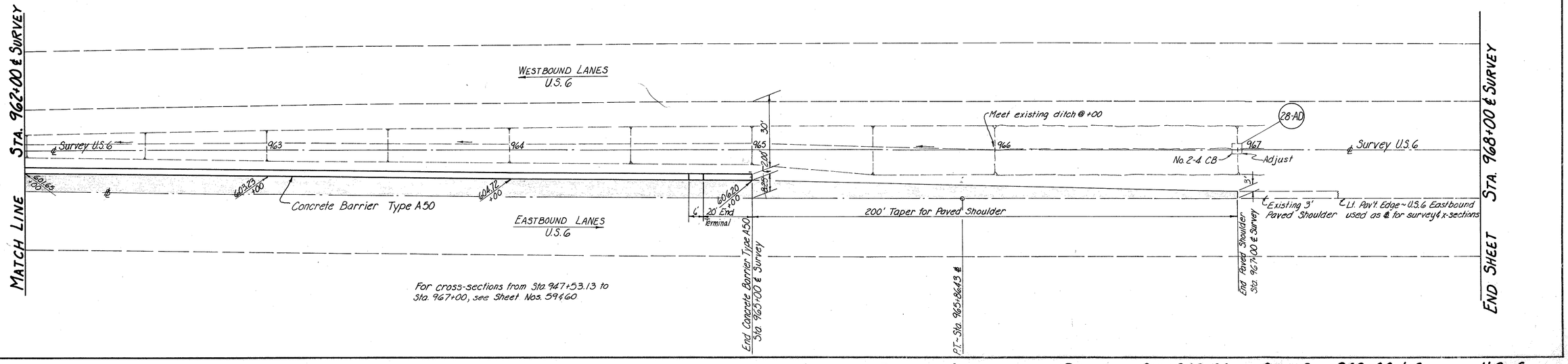
FHWA REGION	STATE	PROJECT	
5	OHIO		

36
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)







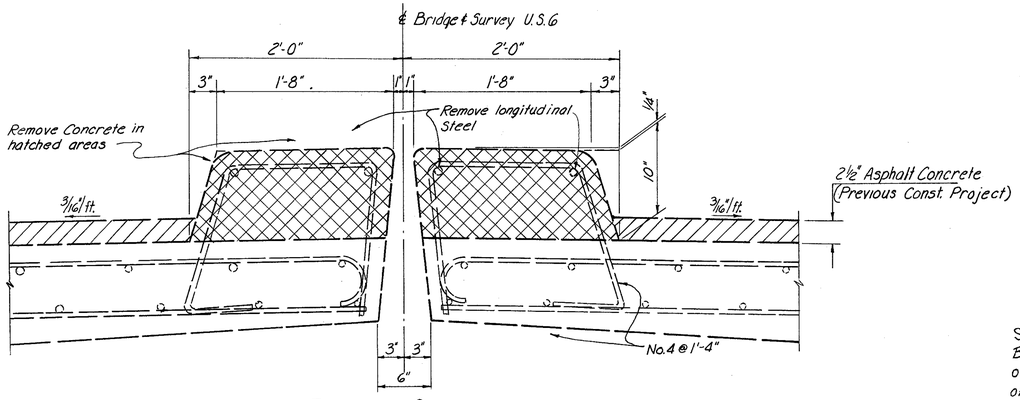
CONCRETE BARRIER CONSTRUCTION DETAILS ~ STA. 942+00 TO STA. STA. 968+00 ℄ SURVEY U.S. 6

QUANTITIES
CALC BY JCW DATE 8-4-77
CHK BY GWK DATE 9-21-77

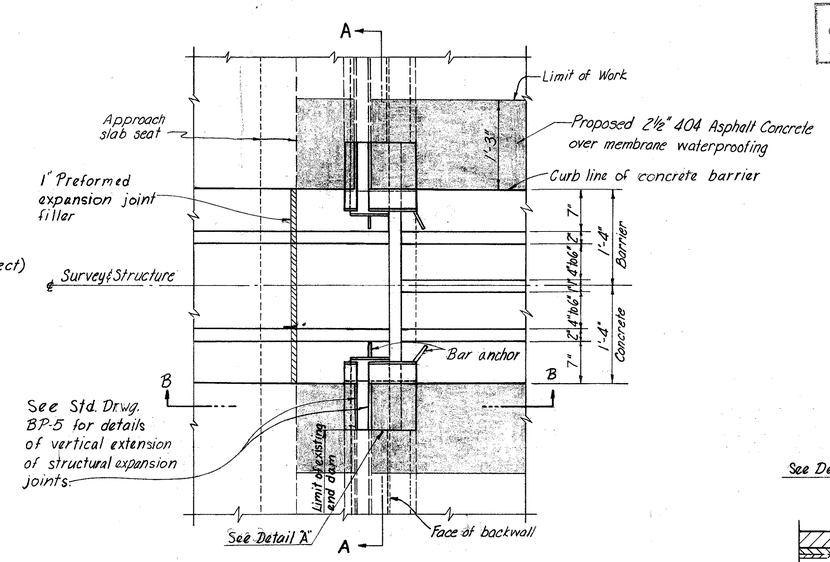
FHWA REGION	STATE	PROJECT	
5	OHIO		

37
114

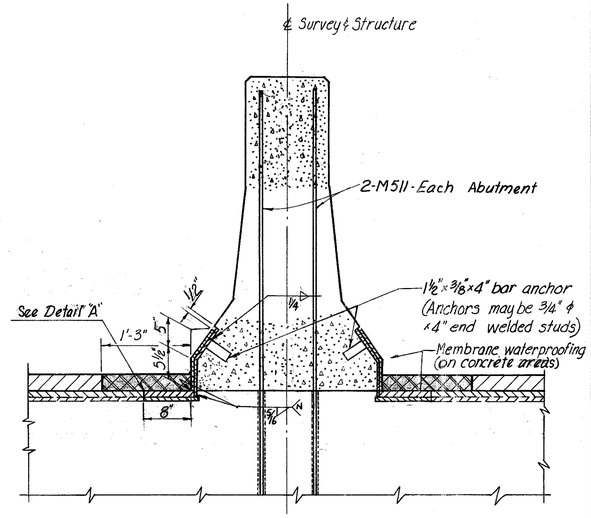
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



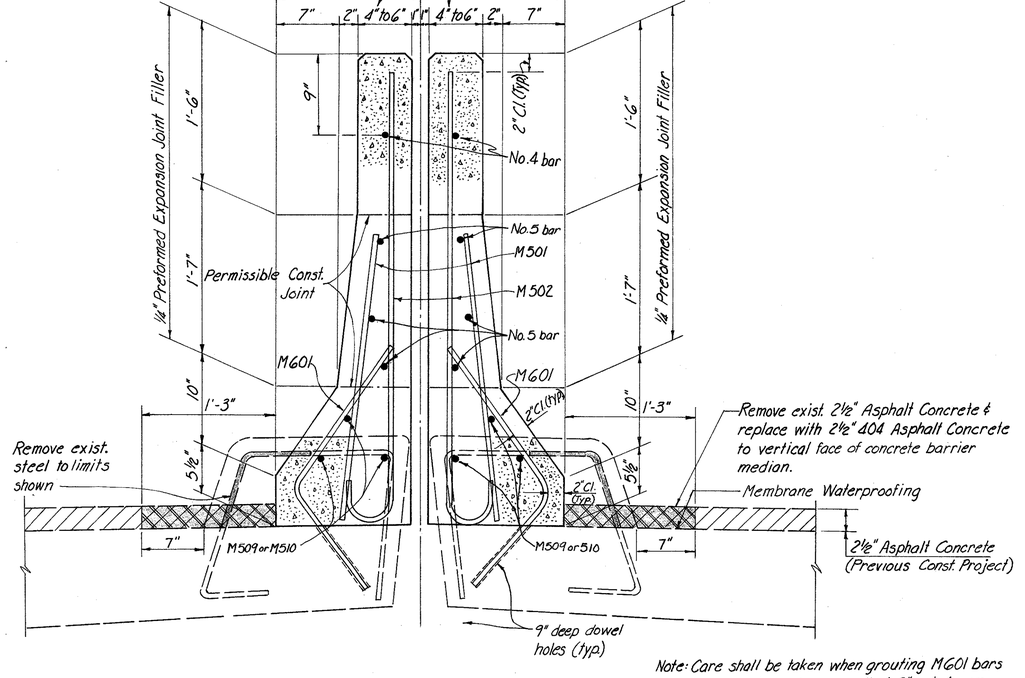
EXISTING SECTION



PLAN
PROPOSED CONCRETE BARRIER AT ABUTMENTS
WEST ABUTMENT SHOWN

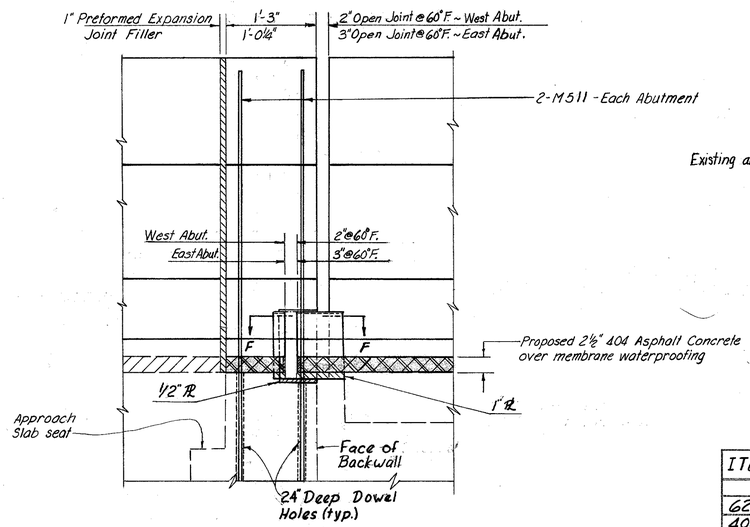


SECTION A-A

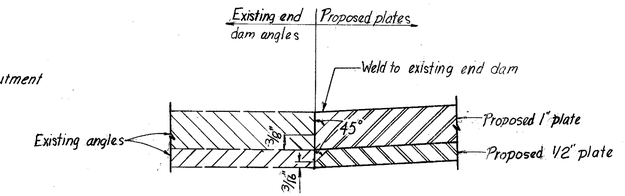


Note: Care shall be taken when grouting M601 bars in dowel holes to insure that 2" minimum cover will be provided.

PROPOSED SECTION
CONCRETE BARRIER FOR BRIDGE



SECTION B-B
See Sh. No. 38 for Section F-F



DETAIL "A"
END DAM DETAIL

ESTIMATED QUANTITIES

ITEM	QUANTITY	UNIT	DESCRIPTION
622	806.88	Lin. Ft.	Concrete Barrier for Bridge
404	16	Cu. Yds.	Asphalt Concrete (AC-20)
Special	224	Sq. Yds.	Membrane Waterproofing
202	344	Sq. Yds.	Concrete Median Removed
202	105	Sq. Yds.	Wearing Course Removed
510	8	Each	Dowel Holes
513	358	Pounds	Structural Steel
516	8	Lin. Ft.	Vertical Extension of Structural Expansion Joint

Quantities Carried to Bridge General Summary, Sh. No. 9.

CONCRETE BARRIER MEDIAN DETAILS FOR BR. NO. SAN-6-17.51

FHWA REGION	STATE	PROJECT	
5	OHIO		

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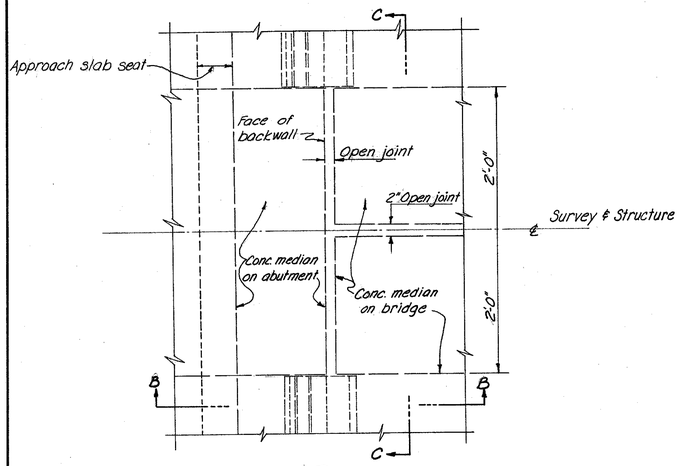
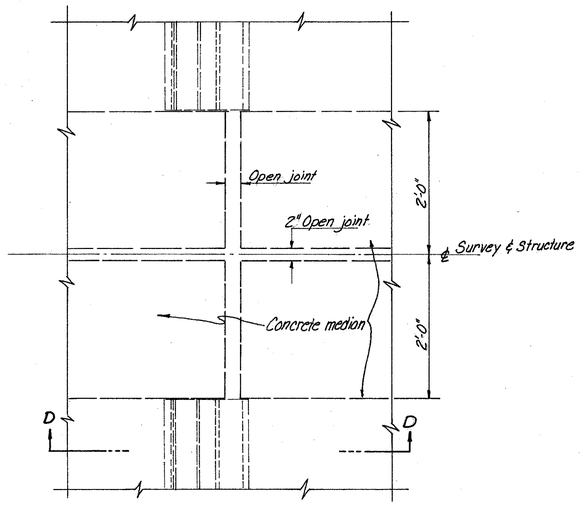
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



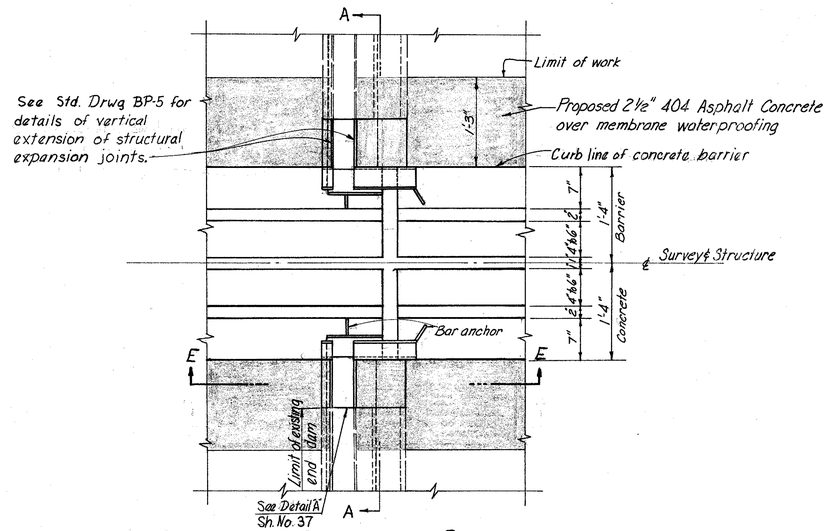
PLAN

EXISTING MEDIAN AT ABUTMENT
WEST ABUTMENT SHOWN



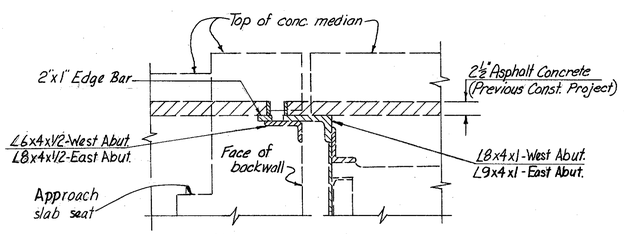
PLAN

EXPANSION JOINT AT EXISTING MEDIAN AT PIER 3

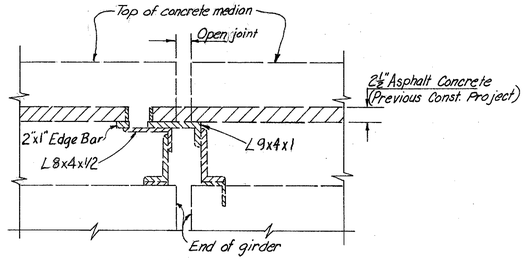


PROPOSED CONCRETE BARRIER AT PIER 3

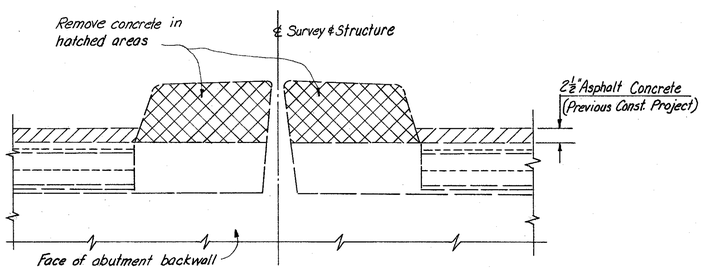
Note: For Section A-A, see sheet No 37



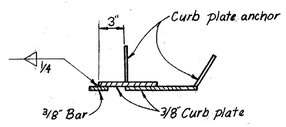
SECTION B-B



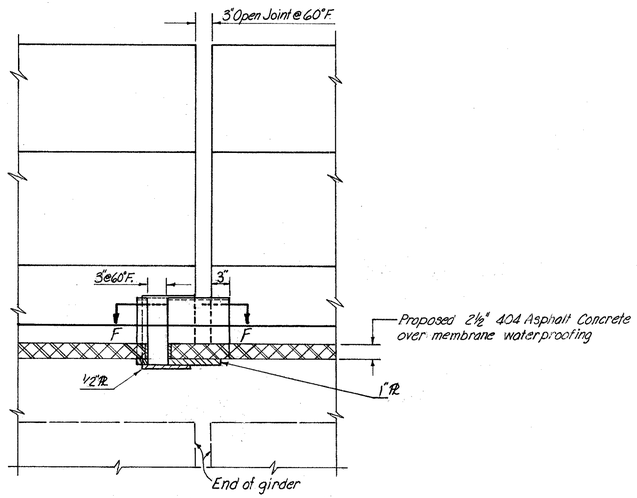
SECTION D-D



SECTION C-C



SECTION F-F



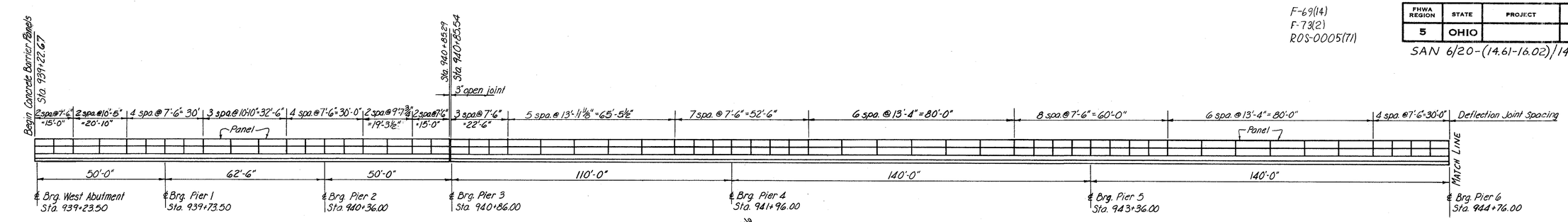
SECTION E-E

CONCRETE BARRIER MEDIAN DETAILS FOR BR. No. SAN-6-17.51

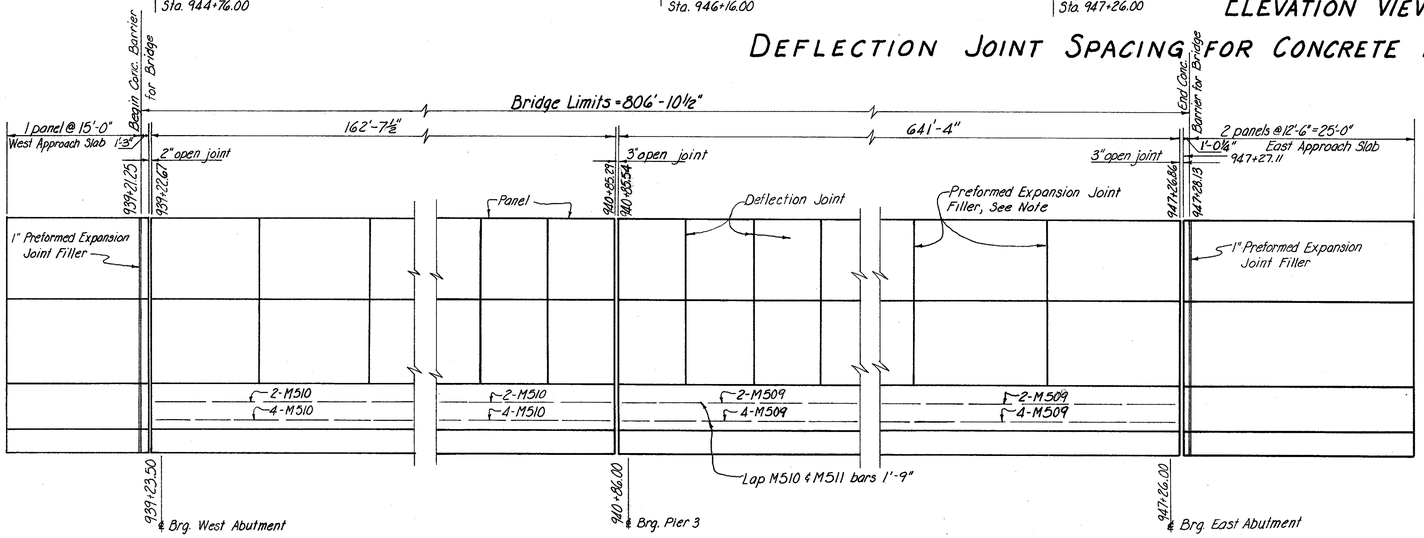
F-69(14)
F-73(2)
ROS-0005(71)

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN 6/20-(14.61-16.02)/14.59



ELEVATION VIEW
DEFLECTION JOINT SPACING FOR CONCRETE BARRIER MEDIAN

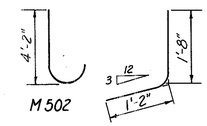


Note: Preformed joint filler may be either ¼" gray sponge rubber or gray cellular polyvinyl chloride (PVC) sponge. If rubber is used it shall meet the requirements of AASHO M153. Include with Item 622 for payment.

REINFORCING STEEL LIST

MARK	No.	LENGTH	WEIGHT	SHP.
M401	96	7'-2"	460	S
M402	4	10'-1"	27	S
M403	6	10'-6"	42	S
M404	4	9'-9"	25	S
M405	20	12'-9"	170	S
M406	36	13'-0"	313	S
M501	1,082	2'-8"	3010	S
M502	1,082	4'-9"	5,361	B
M503	288	7'-2"	2,153	S
M504	12	10'-1"	127	S
M505	18	10'-6"	197	S
M506	12	9'-3"	116	S
M507	60	12'-9"	798	S
M508	108	13'-0"	1,465	S
M509	138	29'-6"	4,246	S
M510	36	28'-5"	1,067	S
M511	8	6'-2"	52	S
M601	1,082	2'-8"	4334	B

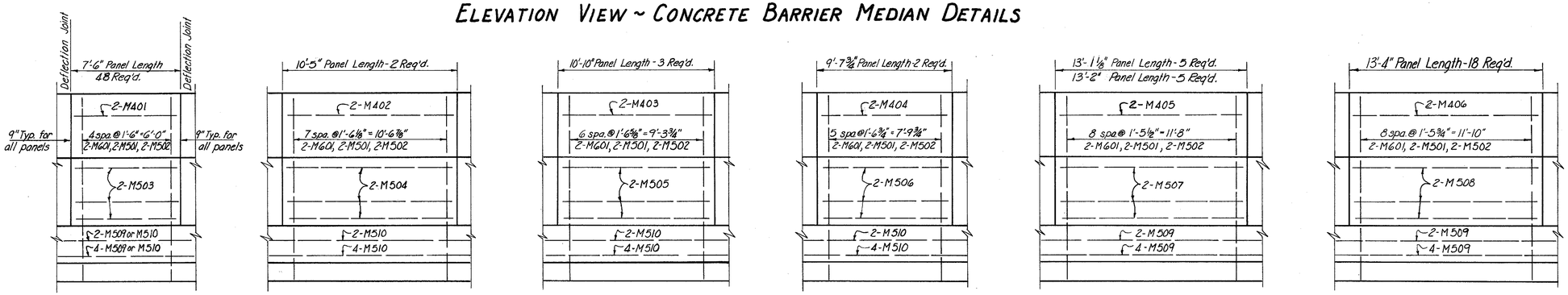
BENDING DIAGRAM



REINFORCING STEEL SAMPLES

Refer to CMS Sections 106.03, 700, 709.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structure by the additional steel, spliced in accordance with 509.08.

ELEVATION VIEW ~ CONCRETE BARRIER MEDIAN DETAILS



PANEL DETAILS ~ CONCRETE BARRIER FOR BRIDGE

CONCRETE BARRIER MEDIAN DETAILS FOR BR. No. SAN-6-17.51

X-SECTIONS 2-R ~ STA. 774+00 TO STA. 775+75

X-SECTIONS 1-R ~ STA. 772+72.5 TO STA. 774+50

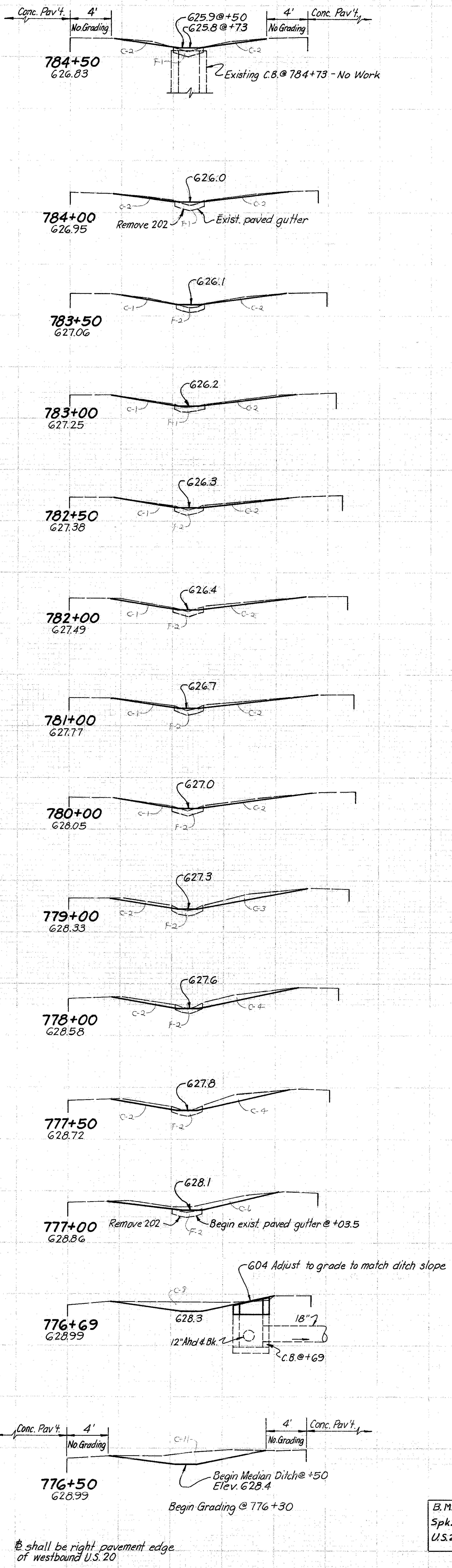
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
R05-0005(71)

QUANTITIES	
CALC BY J.C.K.	DATE 6-21-77
CKD BY GWW	DATE 8-11-77

B.M. ~ Sta. 778+23
Spk. in P 85.3' Rt. of ℄ Survey
U.S.20 ~ Elev. 629.28

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
784+73	0	0		
			1	0
784+50	4	1		
			8	2
784+00	4	1		
			7	3
783+50	3	2		
			6	3
783+00	3	1		
			6	3
782+50	3	2		
			6	4
782+00	3	2		
			11	7
781+00	3	2		
			11	7
780+00	3	2		
			15	7
779+00	5	2		
			20	7
778+00	6	2		
			11	4
777+50	6	2		
			11	4
777+00 Ahd.	6	2		
777+00 Bk.	6	0		
			8	0
776+69	8	0		
			7	0
776+50	11	0		
			4	0
776+30	0	0		
3-R Total			132	51

Station	Seeding Width	Seeding Sq. Yds.
784+71	16	
		37
	16	
		92
	17	
		95
	17	
		98
	18	
		103
	19	
		106
	19	
		217
	20	
		222
	20	
		222
	20	
		217
	19	
		103
	18	
		98
	17	
		57
	16	
		33
	15	
		17
776+30	0	
3-R Total		1717



℄ shall be right pavement edge of westbound U.S. 20

X-SECTIONS 3-R ~ STA 776+30 TO STA 784+73

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCK DATE 6-21-77
CKD BY GWW DATE 8-1-77

B.M. ~ Sta. 778+23
Spk. in ℄ 85.3' Rt. of ℄ Survey
US 20 ~ Elev. 6292.8

	783+00	782+00	781+50	781+00	780+63.7	780+50	780+25	
EXCAVATION Cu. Yds.	0	1	6	9	4	5	4	38
END AREA	2	7	14	5	2	4		
	628.33	628.57	628.70	628.83	628.94	628.97	629.03	
	6295	6297	629.8	629.90	630.0	630.1	630.1	
	C-6	C-6	C-4	C-3	C-5	C-4	C-4	
	25	25	25	25	19	16	12	199
SEEDING Width Sq. Yds.	278	139	139	89	27	39		711

4-R Total

℄ shall be right pavement edge of westbound U.S. 20

X-SECTIONS 4-R ~ STA. 780+25 TO STA. 783+00

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY GCW DATE 6-22-77
CKD BY GWW DATE 6-11-77

	End Area Cut	End Area Fill	Volume Cut	Volume Fill
797+50	0	0	5	0
798+00	10	0	17	10
798+50	31	24	34	19
798+65	18	4	9	3
799+02	16	6	22	8
799+25	8	2	8	2
799+50	0	0	0	0
G-R Total			95	42
787+00	0	0	0	0
787+50	45	10	76	30
787+98	46	9	31	9
788+50	53	25	97	33
789+00	33	9	86	18
789+50	42	10	42	10
790+00	0	0	0	0
5-R Total			332	100

X-SECTIONS G-R ~ STA. 797+50 TO STA. 799+50

X-SECTIONS 5-R ~ STA. 787+00 TO STA. 789+50

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(711)

QUANTITIES
CALC BY CW DATE 6-15-77
CKD BY CW DATE 8-8-77

B.M. ~ Sta. 516+12 - Spk in ϕ
122' Rt of Rt. Edge Pav't U.S.6
Elev. 631.53

Excavation End Area (sq. ft.)	6	24	39	35	24	21	11	14	8	2	7	166
							517+50	517+11 Ahd. Bk.		517+00	516+49	7-R Total

Seeding Warm (sq. yds.)	23	111	17	81	12	56	8	36	5	8	4	292
									517+84 Ahd.			7-R Total

X-SECTIONS 7-R ~ STA. 516+49 TO STA. 520+00

EXCAVATION	
END AREA	CU. YDS.
	2
	4
	2
	5
	3
	8
	5
	11
	7
	7
	10
	3
	12
	38
538+55.5	
536+50	
536+26	
536+18	
8-R Total	

SAN 6/20-(14.61-16.02)//14.59
F-69(14)
F-73(2)
R03-0005(71)

QUANTITIES
CALC BY JCW DATE 6-12-77
CKD BY GWW DATE 8-8-77

45
114

℄ shall be right pavement edge of eastbound U.S. 6

538+54
641.95

+55.5, End Conc. Island

End Paved Shoulder @ 155.5

538+00
646.92

537+50
645.95

537+00
645.03

536+50
644.23

536+26
643.90

Existing Conc. median begins @ +21

536+21
643.90

Begin Paved Shoulder @ 536+18

B.M. ~ Sta. 535+31
Top of Sign Post, 12' Lt. of Lt. Edge Pvmt
U.S. 6 EB ~ Elev. 644.85

X-SECTIONS 8-R ~ STA. 536+18 TO STA. 538+55.5

SAN 6/20-(14.61-16.02)-14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES	
CALC BY JCW	DATE 3-11-77
CKD BY GWW	DATE 8-16-77

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
832+16 Bk	0	0		
			0	2
832+06	1	8		
			1	207
			–	+118
831+55	0	211		
			0	39
831+50	0	214		
			1	93
831+28	3	15		
			4	11
831+00	4	6		
			4	6
830+50	0	0		
9-R Total			10	476

Station	Seeding Width	Seeding Sq. Yds.
832+50	68	
832+16 Bk.		121
832+00	68	340
831+55	68	38
831+50	68	144
831+28	50	140
831+00	40	195
830+50	30	
9-R Total		978

X-SECTIONS 9-R ~ STA. 830+50 TO STA. 832+16

X-SECTIONS 11-R ~ STA. 927+20 TO STA. 929+36

X-SECTIONS 10-R ~ STA. 901+85 TO STA. 903+50

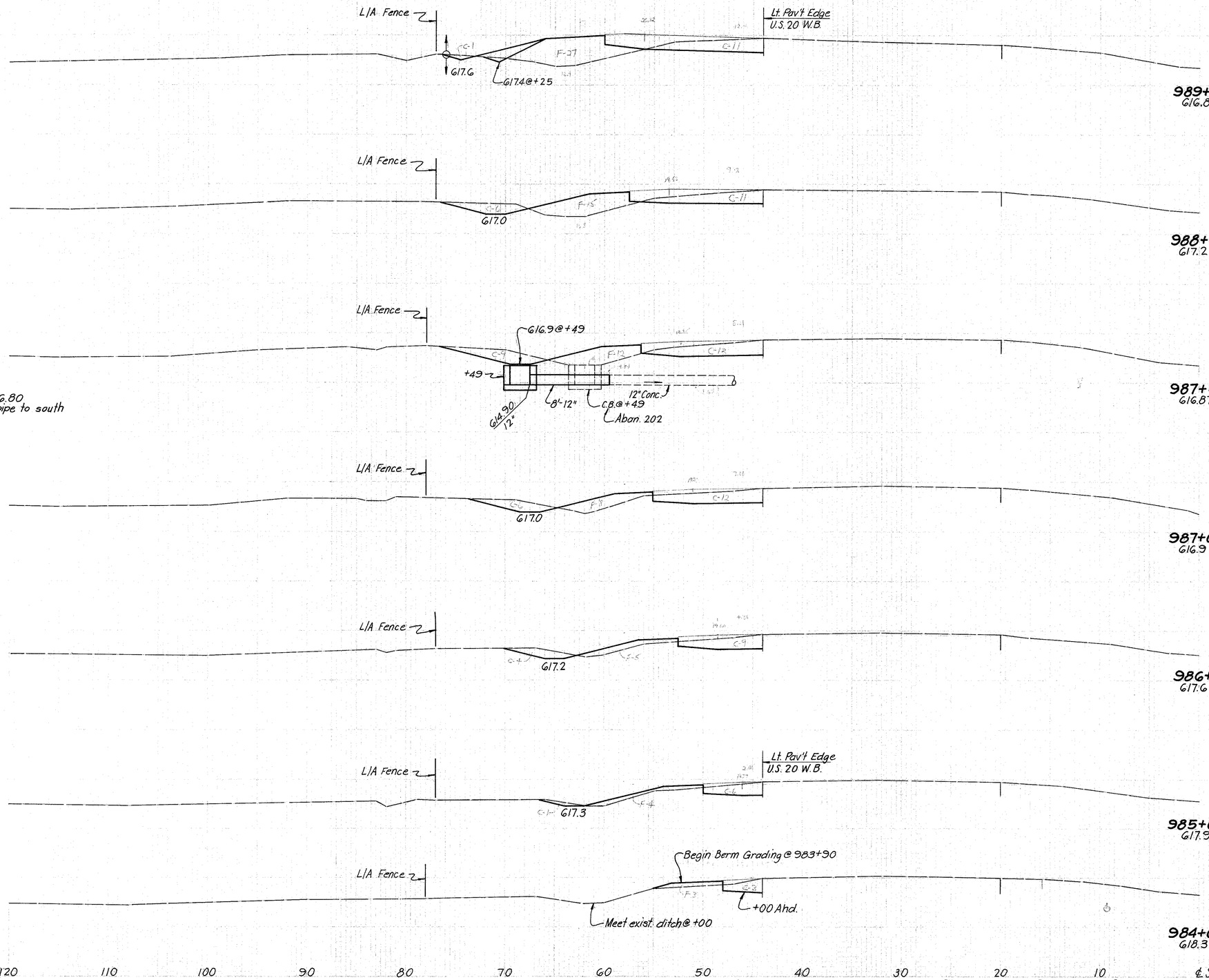
SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

X-SECTIONS 12-R ~ STA. 978+50 TO STA. 986+00

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCW DATE 8-8-77
CKD BY GWH DATE 9-14-77

120 110 100 90 80 70 60 50 40 30 20 10 ℄ Survey



196
119
22 987+49, 68.5' Lt.
Build No. 2-2-8 C.B.
Elev. Top Grate = 616.80
Connect to exist 12" pipe to south
with 8'-12" C Cond.

125 987+49, 62' Lt.
Aban. C.B. 202
272
289
311
29 984+00
32
29 983+90 Ahd.

15	12	27
20	55	79
22	17	15
24	36	26
25	21	12
27	18	8
29	57	24
32	13	5
29	37	17
	7	4
	19	13
984+00 Ahd.	3	3
984+00 Bk.	0	3
	0	1
983+90 Ahd.	0	0

120 110 100 90 80 70 60 50 40 30 20 10 ℄ Survey U.S.R.6

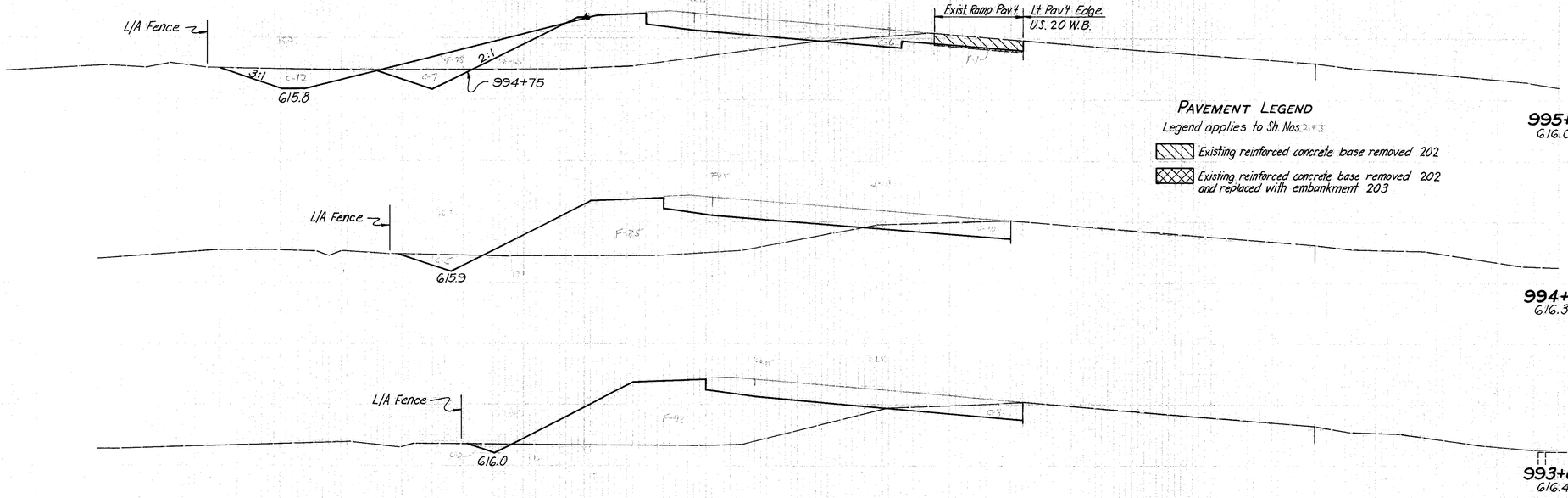
X-SECTIONS 13-R ~ STA. 984+00 TO STA. 989+00 ℄ SURVEY U.S.R 6

120 110 100 90 80 70 60 50 40 30 20 10 ℄ Survey

50
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
POS-0005(71)

QUANTITIES
CALC BY JCW DATE 8-8-77
CKD BY GWW DATE 9-14-77



PAVEMENT LEGEND

Legend applies to Sh. Nos. 21 & 23

Existing reinforced concrete base removed 202

Existing reinforced concrete base removed 202 and replaced with embankment 203

37	352			995+00	18	79
				994+75	13	66
					15	70
					41	218
24					15	85
					48	343
	266					
22					10	93
	248				36	371
21					9	100
	237				34	321
20					9	67
	206				36	181
16					10	28
	174				42	103
15				989+00	12	27

120 110 100 90 80 70 60 50 40 30 20 10 ℄ Survey U.S.R. 6

X-SECTIONS 13-R ~ STA. 990+00 TO STA. 995+00 ℄ SURVEY U.S.R. 6

X-SECTIONS 13-R ~ STA. 22+00 TO STA. 27+50 ℄ RAMP U.S. 6 W.B.

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY J.G.W. DATE 1-12-77
CKD BY G.W.W. DATE 9-1-77

End Area

Station	Cut	Fill
1002+50	20	3
1002+00	30	0
1001+00	5	2
1000+00	22	4
999+00	47	6
998+00	62	6
997+50	66	9
997+25	73	16
997+00	62	11
996+00	63	8
995+00	59	7
994+00	54	9
993+00	41	10
992+75	42	18
992+50	38	13
992+00	16	10
991+50	0	0

Volume

Cut	Fill
47	3
65	4
50	11
128	19
202	22
119	14
64	12
63	12
231	35
226	28
209	30
176	35
39	13
37	14
50	22
15	10
1721 (14-R Total)	284 (14-R Total)

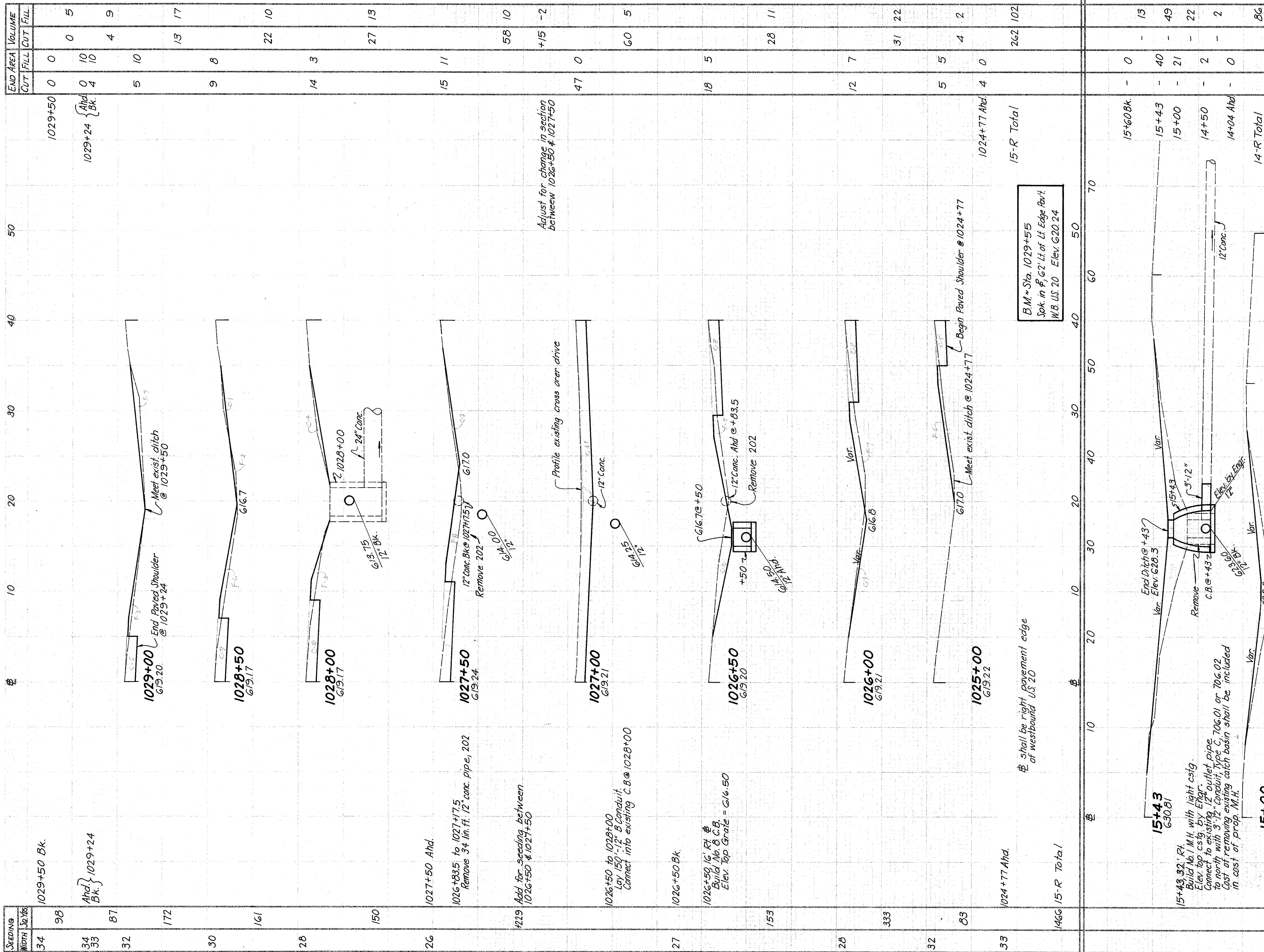
Seeding

Width	Sq. Yds.
54	295
52	556
48	550
51	594
56	639
59	328
59	163
58	163
59	644
57	628
56	617
55	600
53	147
53	149
54	278
46	245
42	
14-R Total	6596

X-Sections 14-R ~ Sta. 991+50 to Sta. 1002+50

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
R0S-0005(71)

QUANTITIES
CALC BY ___ DATE 7-19-77
CKD BY GWW DATE 9-2-77



X-SECTIONS 16-R ~ STA. 1024+77 TO STA. 1029+50 ℄ SURVEY U.S. 20

X-SEC. 15-R ~ STA 14+04 TO STA. 15+60 ℄ SUR. U.S.G

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCW DATE 7-22-77
CKD BY GWW DATE 9-2-77

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
1114+00 Bk	0	0		
			4	4
1113+74	8	8		
			4	24
1113+50	0	45		
			0	73
1113+00	0	34		
			0	4
1112+95	0	8		
			0	5
1112+65 Ahd	0	0		
16-R Total			8	110

1114+00 Bk.

1113+74, 30' Rt.
Build standard endwall for 24" conduit as per HW-4
0.43 Cu. Yds. 602 Conc. Masonry

1112+65 to 1113+74, Rt.
Lay 110' - 24" conduit, Type B

1112+65 to 1113+00, Rt.
Remove 38' - 24" conduit, 202

1112+65, 37' Rt.
Build No. 1 M.H. with Hvy. Cstg.
Elev. top cstg. by Engr.

1112+65 Ahd.

16-R Total

Seeding Width	Seeding Sq. Yds.
45	
	127
43	
	111
40	
	214
37	
	20
36	
	120
36	
	592

X-SECTIONS 17-R ~ STA. 1112+65 TO STA. 1114+00 ℄ SURVEY U.S. 20

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCW DATE 7-30-77
CKD BY GWW DATE 9-8-77

B.M. ~ Sta. 1135+16
Spk. in ℄ 28.7' Lt. of Lt. Edge Pav't.
U.S. 20 EB. ~ Elev. 632.53

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
1137+34 Bk.	3	0	0	0
	3	0	4	0
	5	0	8	0
	8	0	12	0
	13	0	20	0
1135+50 Ahd. Bk.	6	0	11	0
	13	0	7	0
1135+05 Ahd. Bk.	6	0	3	0
	0	0	3	0
	4	0	1	3
	0	20	5	6
1134+19	15	0	5	0
1134+00 Ahd.	0	0	79	9
15-R Total				

	SEEDING Width Sq. Yds.
1137+32	8
1137+00	35
1136+50	13
1136+00	20
1135+50 Bk.	15
1135+50	46
1135+20	21
1135+07	123
1134+84	33
1134+43	28
1134+35.5	35
1134+19	70
1134+00 Ahd.	41
1134+00	94
15-R Total	48
	416

℄ shall be left pavement edge of eastbound U.S. 20

1137+32 G29.82 — End Paved Shoulder @ +34

1137+00 G29.96

1136+50 G30.11

1136+00 G30.21

1135+50 Bk. G30.29 — End Vee Ditch @ +20 Elev. G32.1

1135+50 Ahd. G32.0 — +05 Ahd.

1135+20 G30.41

1135+07 G30.39 — +05 Ahd. G32.0

1134+84 G30.49 — S-C.B. @ 1134+84 — 12" Conc. Bk. — Remove 202 — 12" Conc. Ahd. — G27.08 12"

1134+43 G30.63 — Remove 202 — 12" — G27.20 12"

1134+35.5 G30.65 — Remove 202 — 12" Ahd. — Begin Vee Ditch @ 1134+36 Elev. G32.2 — G27.04 12"

1134+19 G30.68 — Var. — 1134+19 — G27.30 12" Ahd.

1134+00 Ahd. — Var.

1134+00 G30.72 — Meet exist. ditch @ +00

15-R Total

#50564

110 100 90 80 70 60 50 40 30 20 10 ℄

56
114

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCH DATE 9-27-77
CKD BY GWW DATE 9-28-77

22 35+03 Ahd.

Meet existing ditch @+00

35+03.13 Ahd.
= 1140+43.42 Bk.
629.45

35+00 0 0

1140+00
629.55

94 1138+60 Bk.

206

12' from pav't edge

0 –

Meet exist. ditch @+00

1139+00
629.80

101

4:1

C-276

1/4"/ft. slope

629.1

4:1

4:1

627.6

12" C.M.P. Bk. @+41

1138+41
629.89

302 –

276 –

175

Rt. Pav't. Edge
Co. Rd. 20 W.B.

106

1138+17 to 1138+41, Lt. ℄
Remove 24'-12" C.M. Pipe 202

Remove exist. bit. conc. drive approach to a depth of 9" and replace with earth.

4:1

Profile Asphalt Drive

1/4"/ft. slope

629.2

4:1

4:1

627.7

12" C.M.P.

1138+25.80
629.91

Remove exist. bit. conc. drive approach to a depth of 9" and replace with earth.

Add for removal of bit. conc. approaches & replacement with earth.

210 –

+12 +12

105

12' from pav't edge

109

4:1

C-197

1/4"/ft. slope

629.3

4:1

4:1

627.8

12" C.M.P. Ahd @+17

Remove 202

1137+17
630.90

197 –

209

112 1138+00 Ahd.

62 –

0 –

Meet exist. ditch @+00

1138+00
629.95

℄ shall be left pavement edge of east bound U.S. 20

B.M. ~ Sta. 1135+16
Spk. in ℄ 28.7' Lt. of Lt. Edge Pav't.
U.S. 20 EB ~ Elev. 632.53

X-SECTIONS 19-R ~ STA. 1138+00 TO STA. 1140+43.42 ℄ U.S. 20 E.B.

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES	
CALC BY JCW	DATE 9-27-77
CKD BY GWW	DATE 9-28-77

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
41+32.50	0	0		
			1	1
41+00	1	1		
			1	1
40+86	2	0		
			11	2
40+00	5	1		
			3	1
39+86	5	0		
			9	2
39+53	9	3		
			27	3
39+00	18	0		
			85 -20	4
38+00	28	2		
			63	9
37+00	6	3		
			24	11
36+00	7	3		
			7	2
35+74	8	0		
			11	0
35+00	0	0		
19-R TOTAL			808	48

38+98 Lt. ℄
Aban. C.B. 202
Plug outlet pipe.

35+74, 19' Lt. ℄
Build No. 2-2-B C.B.
Elev. Top Grate = 626.60
Connect to exist. C.B. @ 35+88
with 14'-12" C Conduit.

35+74 to 35+88
Remove 14'-12" Pipe 202

Station	Seeding Width	Seeding Sq. Yds.
41+32.50	15	
		54
41+00	15	
		24
40+86	16	
		158
40+00	17	
		26
39+86	17	
		66
39+53	19	
		118
39+00	21	
		283
38+00	30	
		261
37+00	17	
		217
36+00	22	
		29
35+88	22	
		31
35+74	18	
		160
35+03	22	
19-R TOTAL		2122

X-SECTIONS 19-R ~ STA. 35+88 TO STA. 41+32.50 ℄ U.S. 20 E.B.

CONCRETE BARRIER MEDIAN X-SECTIONS ~ STA. 921+00 TO STA. 930+00 ¢ SURVEY U.S.6

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES	
CALC BY J.C.W.	DATE 8-5-77
CKD BY GWW	DATE 9-21-77

CONCRETE BARRIER MEDIAN X-SECTIONS ~ STA. 930+45 TO STA. 959+00 ₵ SURVEY U.S. 6

SAN 6/20-(14.61-16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY JCW DATE 8-5-71
CKD BY GWW DATE 9-21-71

Station	End Area Cut	End Area Fill	Volume Cut	Volume Fill
967+00 Bk.	4	–		
			19	–
966+00	6	–		
			20	33
965+00 Ahd. / Bk.	5 / 12	18 / 16		
			46	57
964+00	13	15		
			43	65
963+00	10	20		
			39	74
962+00	11	20		
			19	35
961+50	9	18		
			8	16
961+25	9	16		
			11	9
961+00	14	4		
			17	5
960+75	23	7		
			65	10
960+00	24	–		
			54	–
959+08	8	–		
			4	–
959+00	21	–		
Total			752	304

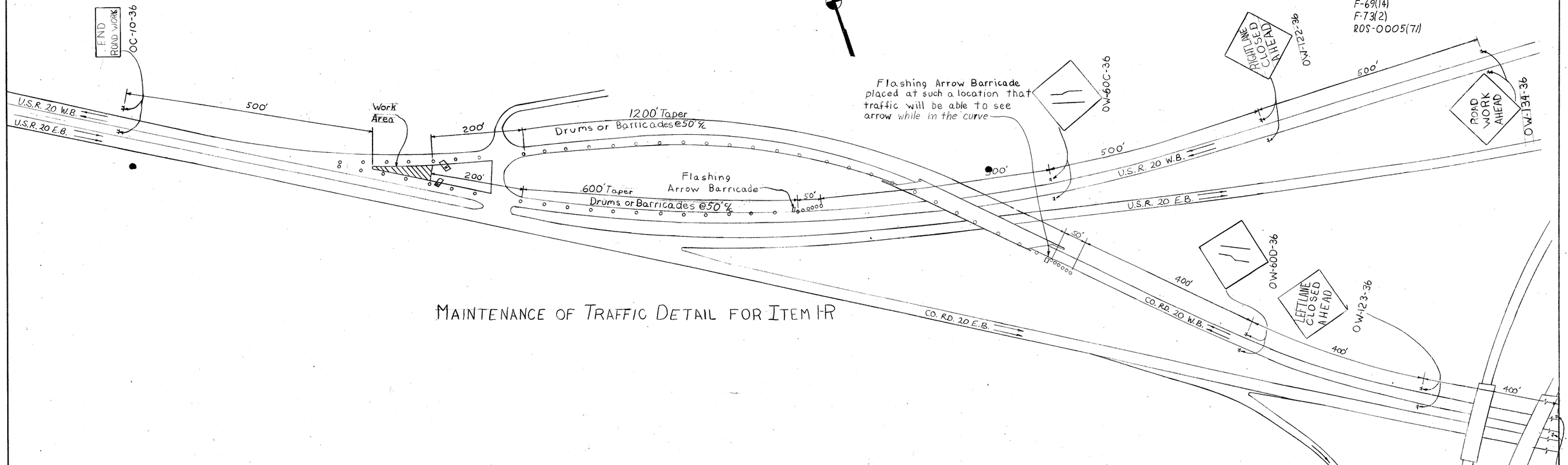
Seeding Width	Sq. Yds.
33	
	328
26	
	283
25	
	267
23	
	239
20	
	106
18	
	49
17	
	46
16	
Total	1318

CONCRETE BARRIER MEDIAN X-SECTIONS ~ STA. 959+08 TO STA. 967+00 ℄ SURVEY U.S. 6

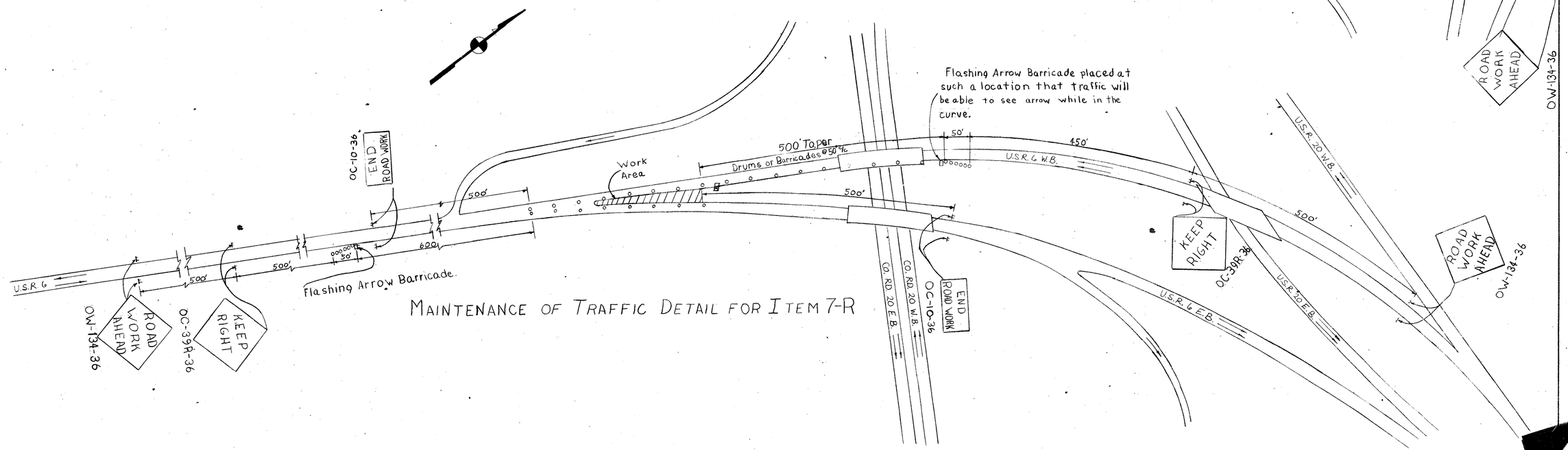
FHWA REGION	STATE	PROJECT	
5	OHIO		

61/114

SAN-6/20-(14.61-16.02/14.59
F-69(14)
F-73(2)
ROS-0005(711



MAINTENANCE OF TRAFFIC DETAIL FOR ITEM 1-R



MAINTENANCE OF TRAFFIC DETAIL FOR ITEM 7-R

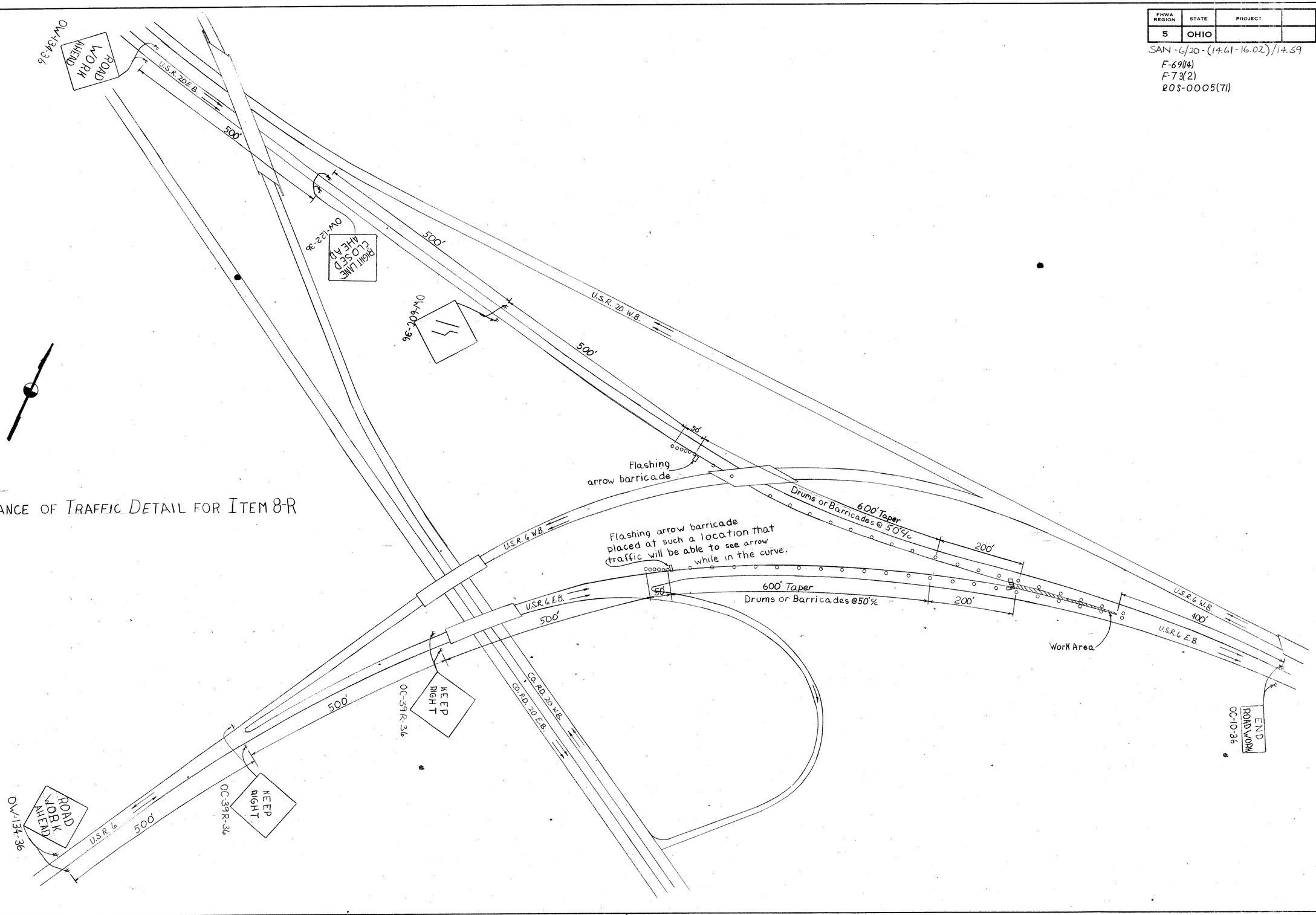
MAINTENANCE OF TRAFFIC DETAILS FOR ITEMS 1-R AND 7-R

FHWA REGION	STATE	PROJECT	
5	OHIO		

62
114

SAN - 6/20 - (14.61 - 16.02) / 14.59
F-69(14)
F-73(2)
ROS-0005(71)

MAINTENANCE OF TRAFFIC DETAIL FOR ITEM 8-R



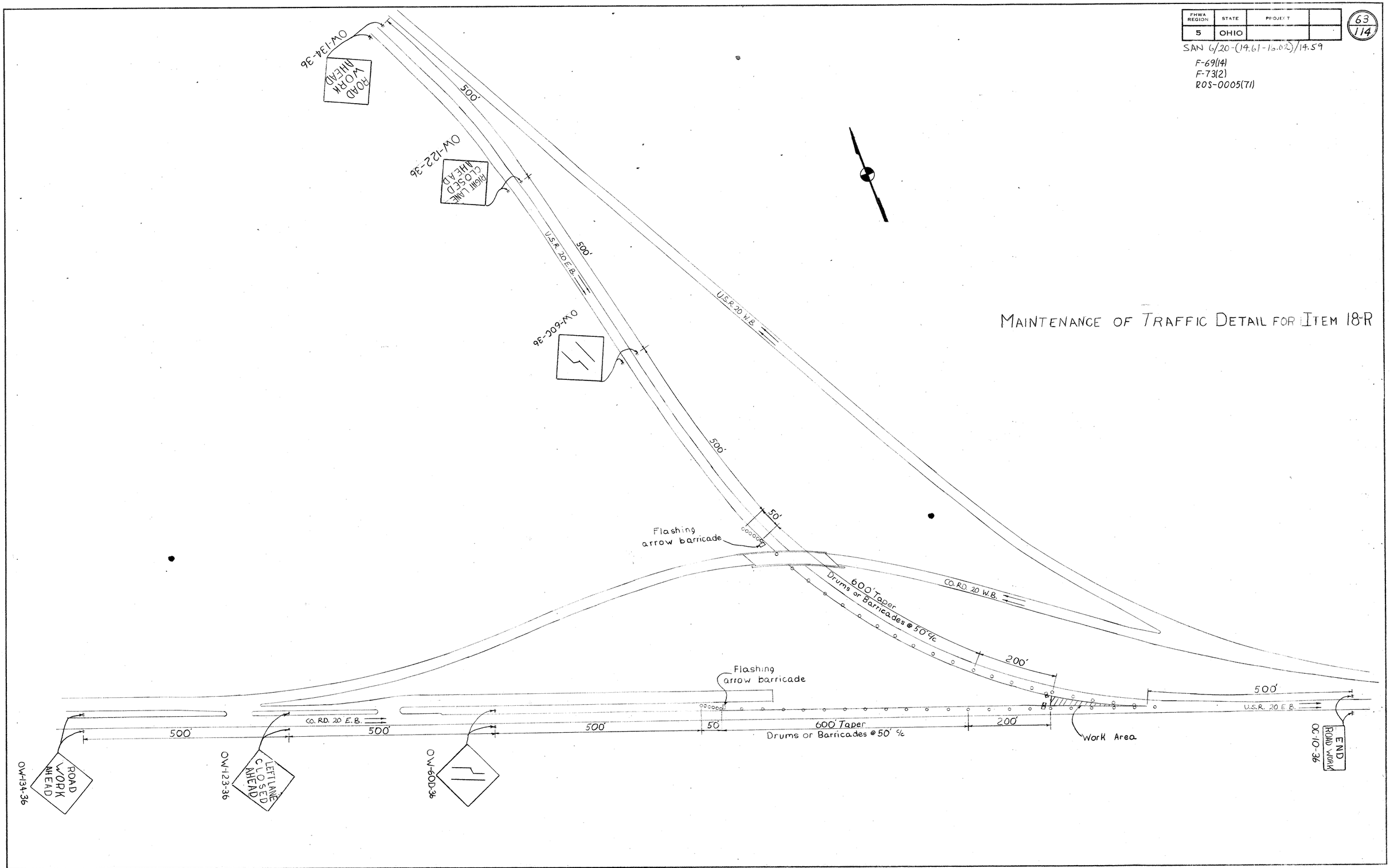
MAINTENANCE OF TRAFFIC DETAIL FOR ITEM 8-R

FHWA REGION	STATE	PROJECT	
5	OHIO		

63
114

SAN 6/20-(14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)



MAINTENANCE OF TRAFFIC DETAIL FOR ITEM 18-R

MAINTENANCE OF TRAFFIC DETAIL FOR ITEM 18-R

FHWA REGION	STATE	PROJECT	
5	OHIO		

64
114

SAN. 6/20 - (14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

TRAFFIC CONTROL GENERAL NOTES

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 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.

Basis of payment will be as follows, 202 REMOVAL OF GROUND MOUNTED SIGNS FOR STORAGE, at the contract bid price per each.

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 on 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 (if any) 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, 202 REMOVAL OF GROUND MOUNTED SIGN SUPPORTS, NO 8 POSTS AND SMALLER, at the contract bid price per each.

202 REMOVAL OF GROUND MOUNTED SIGN INSTALLATION FOR STORAGE

It is the intent of these plans to remove all existing sign installations on the main roadway, ramps and approach roadways within the work limits of this project with the exception of those signs noted in the plans and those regulatory and warning signs on city streets not being upgraded as part of this project. The quantity of ground mounted minor sign installations to be removed as specified in the plan is an estimated quantity. The amount to be paid for will be the actual number of ground mounted sign installations removed as specified or as directed by the Engineer.

Work shall consist of the removal of sign supports, signs and foundations and the disposal of surplus material.

All signs, supports and accessories 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 ground mounted sign installations will include all necessary labor and equipment required to perform the work as indicated above.

Basis of payment will be at the contract bid price per each 202 REMOVAL OF GROUND MOUNTED MAJOR SIGN INSTALLATIONS FOR STORAGE for signs forty (40) square feet or greater or 202 REMOVAL OF GROUND MOUNTED SIGN INSTALLATIONS FOR STORAGE for signs less than forty (40) square feet.

202 REMOVE OVERHEAD MOUNTED SIGNS FOR STORAGE

This work shall consist of the removal of overhead mounted signs and any associated equipment.

The signs and any associated equipment 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 approval of the Engineer.

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

Basis of payment will be at the contract unit price bid per each 202 REMOVE OVERHEAD MOUNTED SIGNS FOR STORAGE.

202 REMOVAL OF OVERHEAD SIGN SUPPORT FOR STORAGE

This work shall consist of the removal and dismantling of the span and cantilever type overhead sign supports indicated in these plans. This work shall also include removal of sign support foundations and disposal of any surplus materials.

The support and accessories removed shall be stored within the limits of the project at locations approved by the Engineer, for removal by State forces. The supports shall be clearly identified and match marked on separate components prior to dismantling and storage. The method of marking shall be approved by the Engineer.

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

Removal of the overhead mounted signs and any associated items is covered under a separate pay item.

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

Basis of payment will be at the contract price bid per each for 202 REMOVAL OF OVERHEAD SIGN SUPPORT FOR STORAGE.

844 SIGNS FURNISHED BY THE STATE

The Contractor shall submit, in triplicate, a schedule for sign erection to the Engineer at least 120 calendar days prior to the start of any scheduled erection work. The schedule shall include proposed dates, sign numbers and delivery point. The Engineer will furnish copies of the schedule to the District Traffic Engineer and to the Engineer of Design Services, 25 South Front Street, Columbus, Ohio 43215.

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 opened. Submissions shall be made to the Ohio Department of Transportation, Bureau of Design Services, 25 South Front Street, Columbus, Ohio 43215.

844 GROUND MOUNTED SUPPORTS, NO.4 POST, 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 Construction 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 total overall length of combination post.

844 REMOVE AND RE-ERECT GROUND MOUNTED SIGNS

This work shall include the removal of each sign and the re-erection on new ground mounted support(s) at the locations shown on the plans.

Basis of payment will be as follows and will include all labor, materials, equipment and incidentals necessary to perform the required work.

844 REMOVE AND RE-ERECT GROUND MOUNTED SIGNS, at the contract price bid per each, for signs less than forty (40) square feet.

SIGN BRACKETS FOR PROPOSED OVERHEAD SIGN SUPPORT

Price bid for 844 OVERHEAD SIGN SUPPORTS shall include the furnishing and installation of sign brackets, fixture support arms will not be required.

844 EXISTING SIGN PANELS REVISED WITH DEMOUNTABLE COPY

In addition to the provisions of Supplemental Specification 844.09, any single revised line of legend shall have all new copy and buttons, or all salvaged copy and buttons.

621 BROKEN LINE PAVEMENT MARKINGS

The requirements of 621.05 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.

TRAFFIC CONTROL
GENERAL SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

65
114

SAN. 6/20 - (14.61 - 16.02) / 14.59
F - 69(14)
F - 73(2)
ROS - 0005(71)

SHEET NUMBERS														F-69(14)	F-73(2)	ITEM	TOTAL	UNIT	DESCRIPTION
81	82	83	84	85	86	87	88	89	90	93	105	114							TYPE CODE G706 TRAFFIC CONTROL
										545				511	34	620	545	EACH	Delineators, Type A, Post Mounted
										36				22	14	620	36	EACH	Delineators, Type B, Post Mounted
										323				298	25	620	323	EACH	Delineators, Type C, Post Mounted
										234				195	39	620	234	EACH	Delineators, Type D, Post Mounted
										29				26	3	620	29	EACH	Delineators, Type A, Bracket Mounted
										3					3	620	3	EACH	Delineators, Type B, Bracket Mounted
452	304	288	275	288	359	221	313	414						2589	325	844	2914	SQ.FT.	Signs Erected, Flat Sheet
983	920	924	401	816	555	624	108	746						5742	335	844	6077	SQ.FT.	Signs Erected, Extru Sheet
									2					2		844	2	EACH	Existing Sign Panels, Revised With Demountable Copy
21		23		21		22					25			112		844	112	LIN.FT.	Ground Mounted Supports, No. 2 Post, Driven
89	146	81	57	99	98	81	69	93			27			760	80	844	840	LIN. FT.	Ground Mounted Supports, No. 3 Post, Driven
642	370	378	266	465	485	196	464	700			55			3641	380	844	4021	LIN. FT.	Ground Mounted Supports, No. 4 Post, Driven
14	14	15			15	29								59	28	844	87	LIN.FT.	Ground Mounted Supports, No. 4 Post, As Per Plan, Driven
53	120	101		34	92	65		36			100			492	109	844	601	LIN.FT.	Ground Mounted Supports, S4 x 7.7
						121	111							232		844	232	LIN.FT.	Ground Mounted Supports W6 x 8.5
			134	47		50								231		844	231	LIN.FT.	Ground Mounted Supports, W8 x 17
47		86	46	133		214		205			82			766	47	844	813	LIN.FT.	Ground Mounted Supports, W10 x 11.5
54	56	53		158	54									375		844	375	LIN.FT.	Ground Mounted Supports, W10 x 21
8	8	12	6	4	8	18	6	12			10			82	10	844	92	EACH	Breakaway Beam Connection
									92.4					82.9	9.5	844	92.4	CU.YD.	Concrete For Anchor Base Foundations
5.9	4.9	8.7	8.8	17.0	4.4	16.5	2.1	11.6			6.2			81.5	4.6	844	86.1	CU.YD.	Concrete For Embedded Foundations
									1					1		844	1	EACH	Overpass Structure Mounted Sign Support, Type 18.24
									1					1		844	1	EACH	Overhead Sign Support, Type 7.65, Design 6 Mod., Span 46'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 7.65, Design 6 Mod., Span 69'-0"
									1						1	844	1	EACH	Overhead Sign Support, Type 7.65, Design 6 Mod., Span 62'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 7.65, Design 6, Span 65'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 7.65, Design 6 Mod., Span 74'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 7.65, Design 6 Mod., Span 71'-0"
									1					1		844	1	EACH	Overhead Sign Support Type 7.65, Design 8 Mod., Span 78'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 7.65, Design 8 Mod., Span 79-6"
									2					2		844	2	EACH	Overhead Sign Support, Type 12.30, Design 2 Mod., Arms 20'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 12.30, Design 4 Mod., Arms 18'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 12.30, Design 4 Mod., Arms 22'-0"
									1					1		844	1	EACH	Overhead Sign Support, Type 12.30, Design 7, Arms 24'-0"
											23			23		844	23	EACH	Remove And Re-erect Ground Mounted Signs
									13					12	1	S625	13	EACH	Ground Rod
									3					3		202	3	EACH	Removal Of Ground Mounted Signs For Storage
											21			21		202	21	EACH	Removal Of Ground Mounted Sign Supports For Storage, No. 8 Posts And Smaller
									13					10	3	202	13	EACH	Remove Overhead Mounted Signs For Storage
									11					9	2	202	11	EACH	Removal Of Overhead Sign Support For Storage
									5					5		202	5	EACH	Removal Of Concrete Sign Support Foundation
									21					21		202	21	EACH	Removal Of Ground Mounted Major Sign Installation For Storage
									236					209	27	202	236	EACH	Removal Of Ground Mounted Sign Installation For Storage
												13.72	11.24	2.48		621	13.72	MILE	Edge Line
												0.98	0.81	0.17		621	098	MILE	4" Lane Line
												3.92	3.56	0.36		621	392	MILE	6" Lane Line
												0.05		0.05		621	005	MILE	Center Lines
												0.18	0.18			621	0.18	MILE	8" Channelizing Lines
												96	40	56		621	96	LIN. FT.	24" Stop Lines
												240	240			621	240	LIN. FT.	Curb Marking
												700	700			621	700	SQ.FT.	Island Marking
												4	2	2		621	4	EACH	Lane Arrows
												4	4			621	4	EACH	Railroad Symbol On Pavement
												1.42	0.91	0.51		847	1.42	MILE	6" Edge Line, 847.09
												0.50	0.39	0.11		847	0.50	MILE	8" Channelizing Lines, 847.09
												6850	5121	1729		847	6850	LIN. FT.	24" Broad Transverse Lines, 847.09

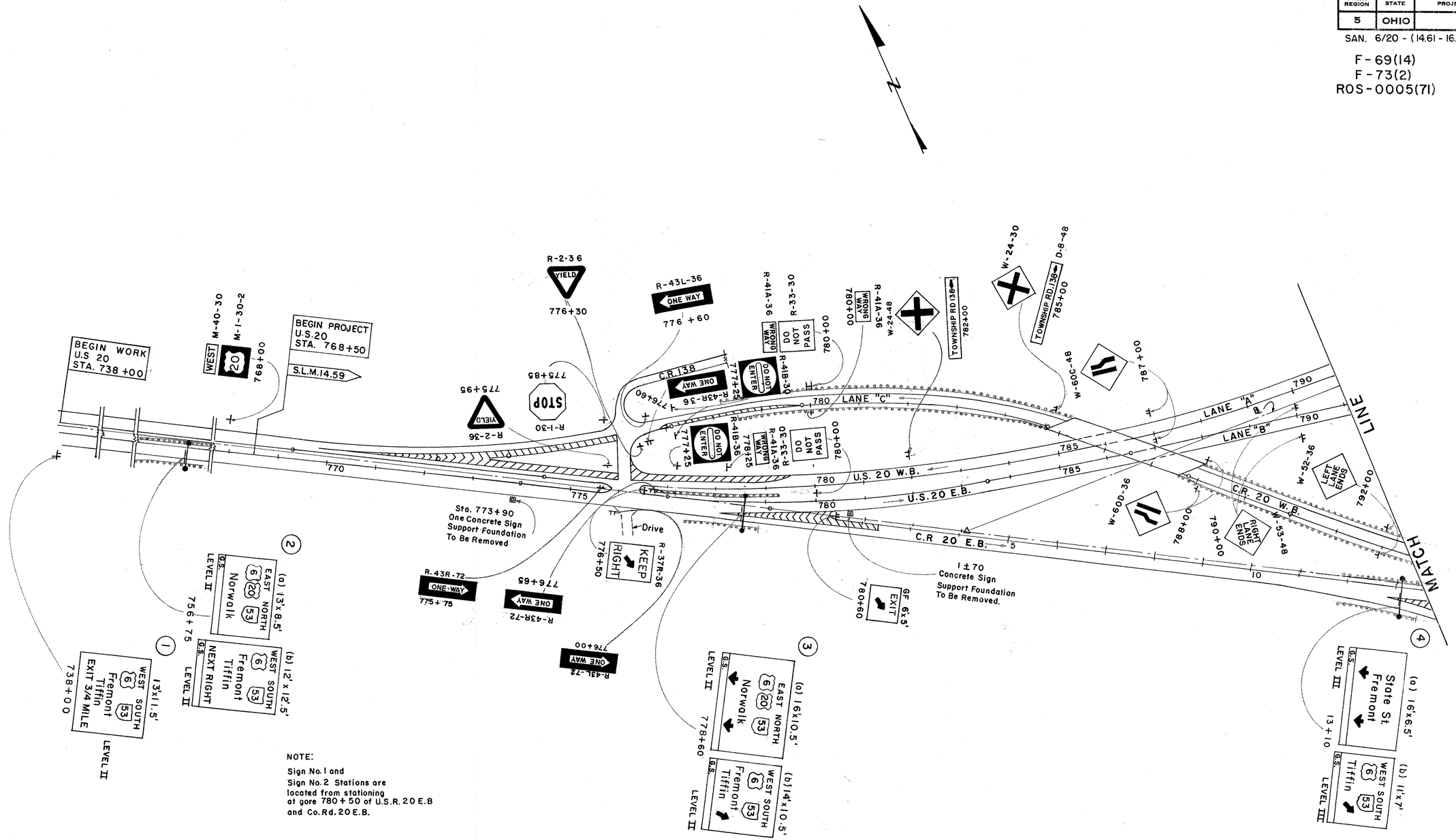
OK, WSP 5-16

FHWA REGION	STATE	PROJECT	
5	OHIO		

66
114

SAN. 6/20 - (14.61 - 16.02) / 14.59

F-69(14)
F-73(2)
ROS-0005(71)



NOTE:
Sign No. 1 and
Sign No. 2 Stations are
located from stationing
at gore 780 + 50 of U.S.R. 20 E.B
and Co.Rd. 20 E.B.

NOTE: ALL OVERHEAD SIGN SIZES
SHOWN ON PLAN SHEETS
INCLUDE 0'-6" GLARE SHIELD.
AND 0'-6" RECTANGULAR TUBE

NOTE:
For Quantities
See Sheets 81 & 91.

STA. 738+00 to STA. 791+00

INTERCHANGE U.S.6 & U.S 20

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20 - (14.61 - 16.02) / 14.59

F-69(14)
F-73(2)
ROS-0005(71)

STA. 791+00 to STA. 814+63

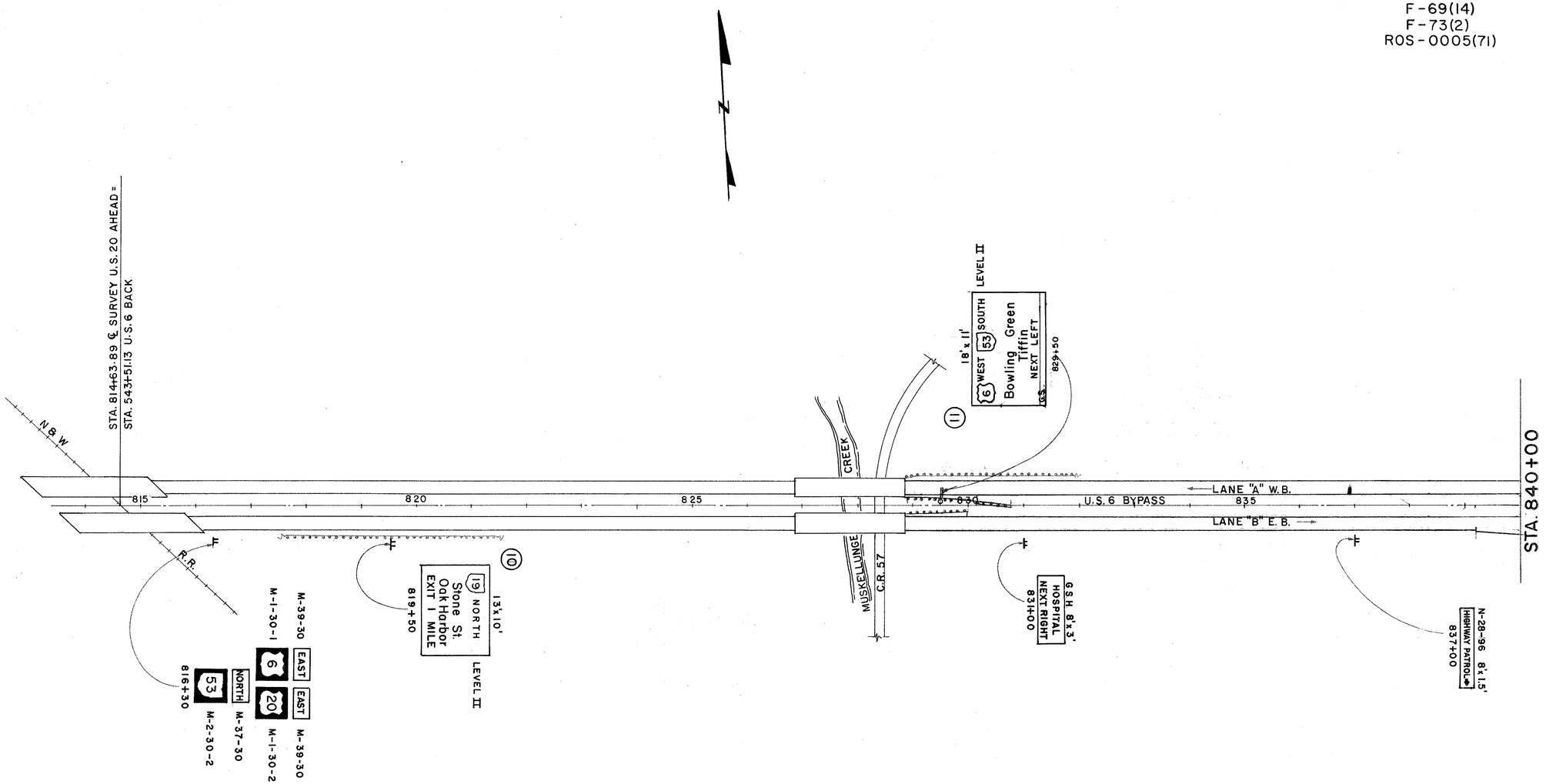
INTERCHANGE U.S. 6 & U.S. 20

FHWA REGION	STATE	PROJECT	
5	OHIO		

68
114

SAN. 6/20 - (14.61 - 16.02) / 14.59

F-69(14)
F-73(2)
ROS-0005(71)



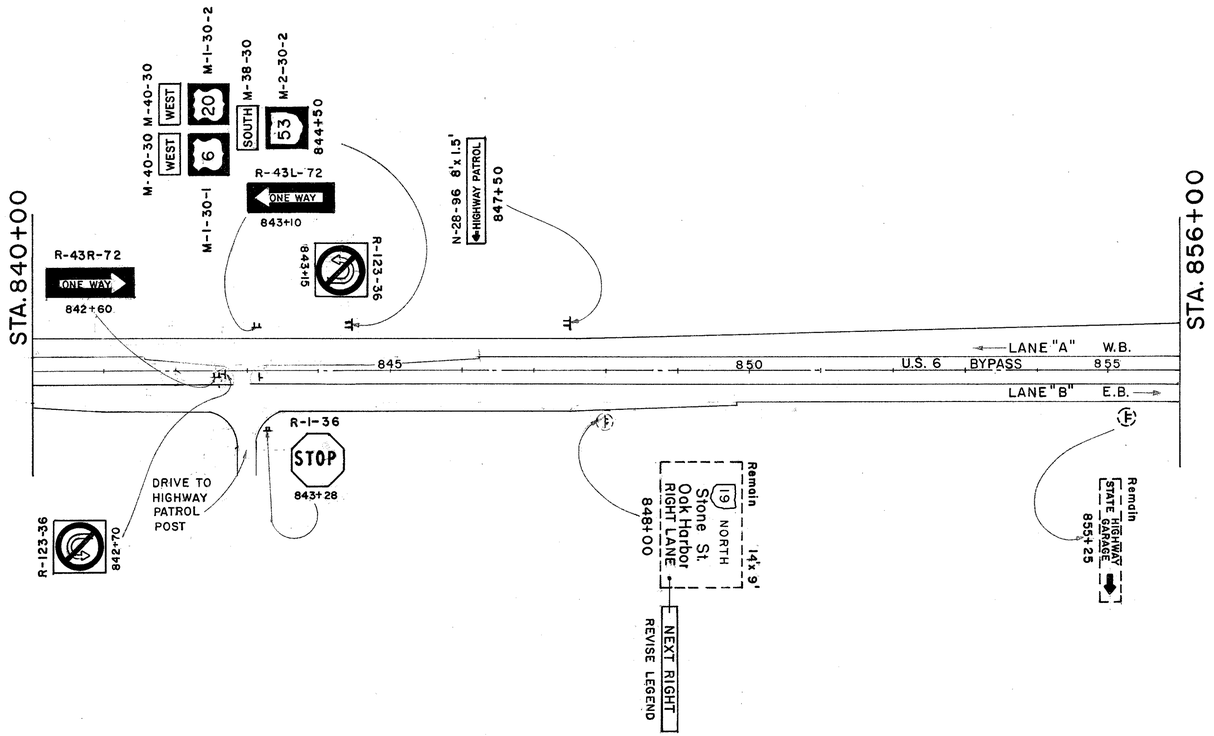
NOTE:
For Quantities
See Sheets 82 & 91

STA. 814+63.89 to STA. 840+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

69
114

SAN. 6/20 - (14.61 - 16.02)/14.59
F-69(14)
F-73(2)
ROS-0005(71)



NOTE:
For Quantities
See Sheets 82 & 91.

STA. 840+00 to STA. 856+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20 - (14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

STA. 856+00 to STA. 880+00

INTERCHANGE U.S.20 & S.R.19

FHWA REGION	STATE	PROJECT	
5	OHIO		

71
114

SAN. 6/20-(14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

NOTE:
For Quantities
See Sheets 83 & 92

STA. 880+00 to STA. 900+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

72
114

SAN. 6/20 - (14.61 - 16.02) /14.59

F-69(14)
F-73(2)
ROS-0005(71)

BEGIN SHEET STA. 900+00

Pt. Sta. 33+18.65 RAMP "A"
=Sta. 900+95.18 U.S.20

Sta. 910+75
Exist. Overhead Sign
Support. To Be Removed

END WORK S.R.53
STA. 466+00

Sta. 454+75
Exist. Overhead Sign
Support. To Be Removed

Concrete Barrier
Type A50

WESTBOUND LANES 920 U.S. 6 RELOC.
EASTBOUND LANES

918 ± 80
Exist. Conc. Foundation
To Be Removed

END WORK CO.RD.53
BEGIN WORK S.R. 53
STA. 427+51.87

BEGIN WORK
CO.RD 53
STA. 417+00

NOTE:
For Quantities
See Sheets 83, 84
85 & 92.

STA. 900+00 to STA. 930+00

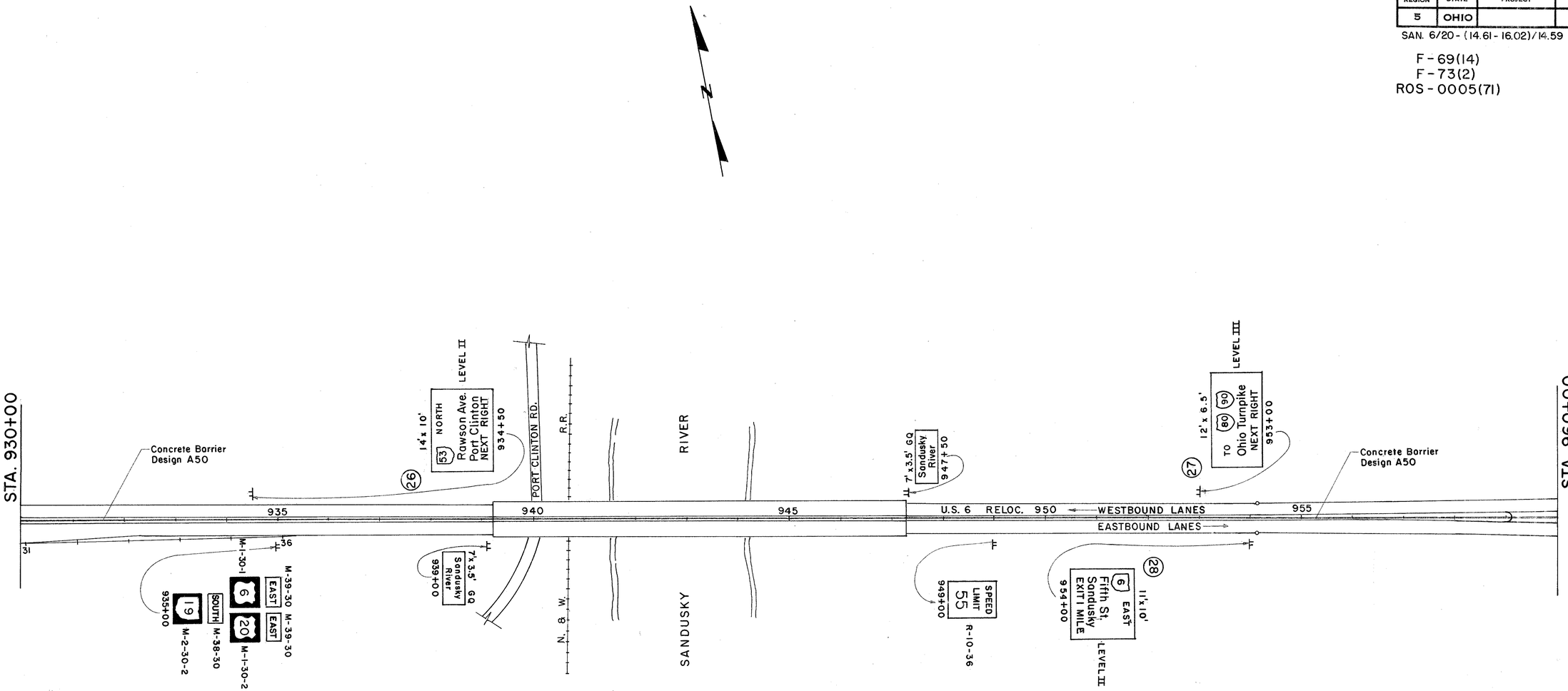
INTERCHANGE U.S. 20 & S.R. 53

FHWA REGION	STATE	PROJECT	
5	OHIO		

73
114

SAN. 6/20 - (14.61 - 16.02)/14.59

F - 69(14)
F - 73(2)
ROS - 0005(71)



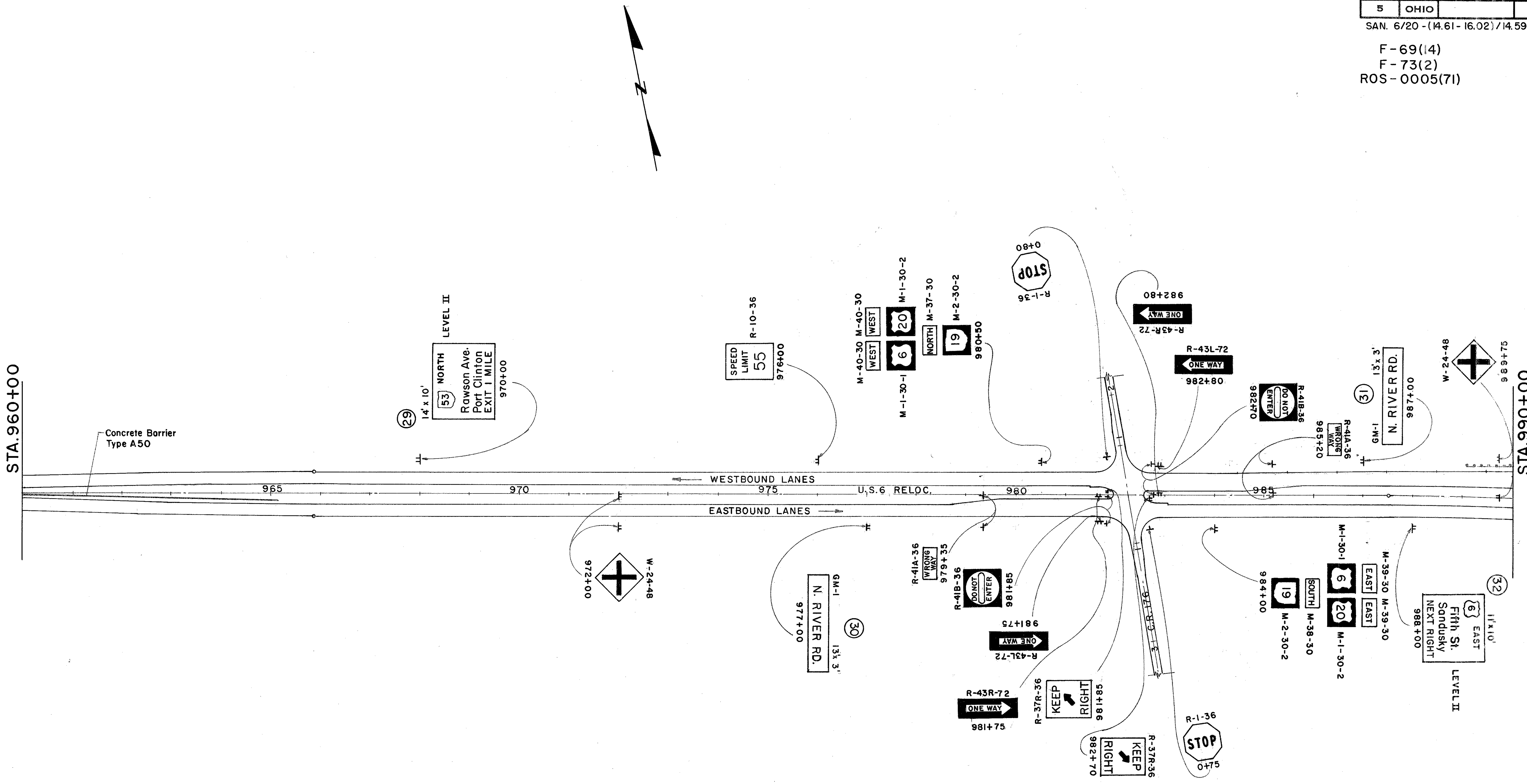
NOTE:
For Quantities
See Sheets 85 & 92

STA. 930+00 to STA. 960+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20 -(14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)



NOTE:
For Quantities
See Sheets 85,
86 & 92.

FHWA REGION	STATE	PROJECT	
5	OHIO		

75
114

SAN. 6/20-(14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

END WORK
U.S. 6
STA. 1+00

1+00

M-2-24-2
19 20 19
M-1-24-2
M-17-21 JCT. JCT. M-17-21

D-6-60 5'x2.5'
SANDUSKY 21
HURON 29

5+00

6+00

LEVEL IV
WEST NORTH
6 20 19
Toledo
NEXT LEFT
9'x6'
39

MATCH LINE "B"

MATCH LINE "B"

9+00

Fremont 1
Toledo 35
D-48 9'x4'
34

11+50

LEVEL IV
WEST NORTH
6 20 19
Toledo
G.S.
9'x6'
35

Sta. 13+80
Exist. Overhead Sign
Support, To Be Removed

U.S.R.-6

SPEED LIMIT 55 R-10-24

13+00

Remain YIELD

32+31

36
9'x6'
WEST NORTH
6 20 19
Toledo
LEVEL IV

16+00

RESUME WORK
U.S. 20
STA. 1005+17

Sta. 1003+54.76℄ Survey U.S. 20
=Sta. 20+73+35℄ Survey U.S.6

To be Removed from Bridge

RAMP "A"

Railroad Advance Warning
Symbol On Pavement@
Sta. 998+00 USR 6 &
20 E.B.

W-49R-48

999+00

STA. 990+00

U.S.R. 6

995

1000

Sta. 998+00
Exist Overhead Sign
Support, To Be Removed.

997+50

W-94-36

38
D-4A 10'x2'
D-4B 10'x4'
N-1-24-1
M-24-2
6
Fifth St.
Fremont 1
Sandusky 21
27+70
RAMP "B"

33
9'x6'
EAST SOUTH
20 19
Norwalk
G.S.
LEVEL II
(a) 11'x8.5'

24+00
REDUCED SPEED AHEAD
R-11A-24

R-43R-36
ONE-WAY
R-41B-36
30+55
R-43L-36

(b) 13'x 11'
412
State Rd.
Castalia
EXIT 1/2 MILE
G.S.
LEVEL II
1003+00

(c) 14'x 9'
6 EAST
Fifth St.
Sandusky
G.S.
LEVEL II

BEGIN WORK
CO.RD. 6
STA. 25+73.21

C.R. 6

MATCH LINE "A"

37
9'x6'
WEST NORTH
6 20 19
Toledo
NEXT LEFT
22+75 LEVEL IV

EAST M-39-24
M-1-24-1
6
24+75

R-41B-30
DO NOT ENTER
30+20
STOP
R-1-36

Remain STOP AHEAD

R-41A-36
WRONG WAY
27+70

RAMP "B"

Sta. 30+78.43℄ RAMP B
= Sta. 25+73.21℄ Survey U.S.6 BK.
=Sta. 25+73.21℄ Survey Co. Rd.6 AHD.

N&W R.R.

22+50
M.P.H.
EXIT
W-97-48

23+00
W-32-96

1005+60
GF 6'x5'
EXIT

1010

U.S. 20 BYPASS

1015

EASTBOUND LANES

WESTBOUND LANES

1005

Sta. 1005+50
Exist. Overhead Sign
Support, To Be Removed

W-94-36
1017+10

CREEK

SPEED LIMIT 55 R-10-36
1020+00

STA. 1020+00

R-10-36
SPEED LIMIT 55
1011+00

BARK

Railroad Advance Warning
Symbol On Pavement@
Sta. 1016+60 USR 20 W.B.

MATCH LINE "A"

29+00
R-10-24
SPEED LIMIT 40

R-1-30
STOP
0+45

C.R. 560

M-17-21 M-17-21
JCT. JCT.
M-1-24-1
6 20 M-1-24-2
JCT. M-17-21
19 M-2-24-2
36+00

END WORK
CO.RD. 6
STA. 37+00

NOTE:
For Quantities
See Sheets 86,
87, 92 & 93.

STA. 990+00 to STA. 1020+00

INTERCHANGE U.S. 20 & U.S. 6

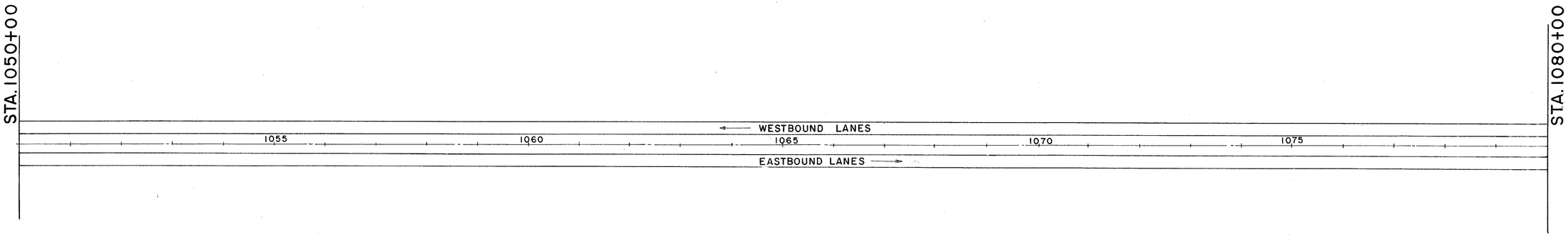
INTERCHANGE U.S.20 & S.R.412

FHWA REGION	STATE	PROJECT	
5	OHIO		

77
114

SAN. 6/20 - (14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)



STA. 1050+00 to STA. 1080+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

78
114

SAN. 6/20 - (14.61 - 16.02)/14.59

F - 69(14)
F - 73(2)
ROS - 0005(71)

STA. 1080+00

STA. 1112+00

WESTBOUND LANES

EASTBOUND LANES

U.S. 20

1085 1090 1095 1100 1105 1110

R-10-36 SPEED LIMIT 55 1089+00

M-37-30 NORTH
M-40-30 WEST
M-2-30-2 19
M-1-30-2 20
1098+65

R-1-36 STOP 0+75 C.R.229

R-43R-72 ONE WAY 1099+40

C.R. 198

0+40 C.R. 198 R-1-30 STOP

R-37R-36 KEEP RIGHT 1100+50

R-43L-72 ONE WAY 1101+10

R-41B-36 DO NOT ENTER 1101+00

R-41A-36 WRONG WAY 1103+30

47
D-11-132 11"x1.5"
D-11A-132 11"x1.5"
SANDUSKY CO. RD. 198
SANDUSKY CO.RD.229
1105+00

W-24-48 1110+00

R-41A-36 WRONG WAY 1097+00

R-41B-36 DO NOT ENTER 1099+05 RT. 1099+50 LT.

R-43L-72 ONE WAY 1098+95

R-37R-36 KEEP RIGHT 1099+50

R-1-36 STOP 0+75

09+0011

R-43R-72 ONE WAY 1100+60

R-41B-36 DO NOT ENTER 1100+50

M-1-30-2 20
M-39-30 EAST
M-38-30 SOUTH
M-2-30-2 19
1101+35

W-24-48 1090+00

46
D-11-132 11"x1.5"
D-11A-132 11"x1.5"
SANDUSKY CO. RD. 198
SANDUSKY CO.RD.229
1095+00

NOTE:
For Quantities
See Sheets 88,
93.

STA. 1080+00 to STA. 1112+00

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20 - (14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

NOTE:
For Quantities
See Sheets 88,
93.

STA. 1112+00 to STA. 1145+00

INTERSECTION U.S. 20 & CO.RD. 20

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20-(14.61-16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

NOTE:
For Quantities
See Sheets 89, 93.

STA. 1145+86 to STA. 1138+00

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P. DATE 11-25-77
CHKD BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

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114

SAN. 6/20 - (14.61 - 16.02)/14.59

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET A	B	C	D	E	844 SIGNS ERECTED BY TYPE FLAT SHEET SQ. FT.	EXTRU SHEET SQ. FT.	GROUND MOUNTED SUPPORTS NO. 2 STEEL POST LIN. FT.	NO. 3 STEEL POST LIN. FT.	NO. 4 STEEL POST LIN. FT.		S4x7.7 BEAM LIN. FT.	W10x21 BEAM LIN. FT.		BREAKAWAY BEAM CONNECTION EACH	CONCRETE FOR EMBEDDED FOUNDATIONS CU. YD.
U.S.	20																			
66	1	738+00		13'x 11.5'				21-0"	7'-0"		149.5						27-6" 25-9"		2	2.5
66	2a	756+75		13'x 8'							104.0	OVERHEAD		SPAN		SUPPORT				
66	2b			12'x 12'							144.0									
66		768+00	M-40-30	30"x 15"						3.13				14.5						
			M-1-30-2	30"x30"						6.25										
66		775+95	R-2-36	36"x36"x36"						3.90			13.0							
66		776+50	R-37R-36	36"x 48"						12.0				13.5 13.5						
66		776+65	R-43R-72	72"x 24"						12.0				12.0 12.0						
66		777+25	R-41B-36	36"x 36"						9.0				14.0						
66		775+75	R-43R-72	72"x 24"						12.0				12.0 12.0						
66	3a	778+60		16'x 10'							160.0	OVERHEAD		SPAN		SUPPORT				
	3b			14'x 10'							140.0									
66		776+00	R-43L-72	72"x 24"						12.0				12.0 12.0						
66		778+25	R-41A-36	36"x 24"						6.0				13.0						
66		780+00	R-33-30	30"x 36"						7.5				13.0						
66		780+60	GF	72"x 60"							30.0					15'-0" 15'-0"			2	0.6
66		787+00 LT. & RT.	W-60C-48	2 @ 48"x 48"						32.0				29.0 29.0						
66		790+00 LT. & RT.	W-53-48	2 @ 48"x 48"						32.0				29.0 29.0						
66		782+00	W-24-48	48"x 48"						16.0				14.5 14.5						
			D-8-48	48"x 8"						2.67										
C.	R.	20																		
66		775+85	R-1-30	30"x30"						6.25			12.5							
66		776+30	R-2-36	36"x36"x36"						3.90			13.5							
66		776+60	R-43R-36	36"x 12"						3.00			11.5							
66		776+60	R-43L-36	36"x 12"						3.00			11.5							
66		775+25 LT. & RT.	R-41B-30	2 @ 30"x 30"						12.5				13.0 13.0						
66		780+00	R-41A-36	36"x 24"						6.0										
			R-33-30	30"x36"						7.5				13.5						
66		780+00	R-41A-36	36"x 24"						6.0			13.5							
66		788+00 LT. & RT.	W-60D-36	2 @ 36"x 36"						18.0				13.5 13.5						
66		792+00 LT. & RT.	W-52-36	2 @ 36"x 36"						18.0				13.5 13.5						
66		785+00	W-24-30	30"x 30"						6.25		10.5 10.5								
			D-8-48	48"x 8"						2.67										
66	4a	12+50		16'x 6'							96.0	OVERHEAD		SPAN		SUPPORT				
	4b			11'x 6.5'							71.5									
TOTALS - TABLE 1										259.52	895.0	21.0	75.5	392.0		30'-0"	53'-3"		4	3.1

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET A	B	C	D	E	844 SIGNS ERECTED BY TYPE FLAT SHEET SQ. FT.	EXTRU SHEET SQ. FT.	GROUND MOUNTED SUPPORTS NO. 2 STEEL POST LIN. FT.	NO. 3 STEEL POST LIN. FT.	NO. 4 STEEL POST LIN. FT.	NO. 4 STEEL POST AS PER PLAN LIN. FT.	S4x7.7 BEAM LIN. FT.	W10x11.5 BEAM LIN. FT.	W10x21 BEAM LIN. FT.	BREAKAWAY BEAM CONNECTION EACH	CONCRETE FOR EMBEDDED FOUNDATIONS CU. YD.
U.S.	6	& S.R.	53																	
67		501+25	M-17-21	21"x 15"						2.19 *			13.0 *							
			M-1-24-2	24"x 24"						4.0 *										
67	5	511+00		9'x 8'				14'-0"	7'-0"		72.0 *						23'-3" 23'-0" *		2 *	2.2 *
67		513+50	M-40-24	24"x 12"						2.0 *				13.5 *						
			M-1-24-1	24"x 24"						4.0 *										
			M-38-24	24"x 12"						2.0 *										
			M-2-24-2	24"x 24"						4.0 *										
67		514+00	W-85-36	36"x 36"						9.0 *				13.5 *						
67	7	14+65 RAMP "G"	M-40-24	24"x 12"						2.0 *							11'-6" 11'-6" *		2 *	0.6 *
			M-1-24-1	24"x 24"						4.0 *										
			M-24-21	21"x 15"						2.19 *										
			M-38-24	24"x 12"						2.0 *										
			M-2-24-2	24"x 24"						4.0 *										
			M-24-21	21"x 15"						2.19 *										
			D-4-A	96"x 24"							16.0 *									
67		518+00	W-71-36	36"x 36"						9.0 *				13.5 *						
67		518+10	R-38R-36	36"x 48"						12.0 *				13.5 * 13.5						
RAMP	"G"																			
67		12+65	W-45-36	36"x 36"						9.0 *				13.5 *						
67		14+65 LT. & RT.	R-41A-36	36"x 24"						12.0 *				12.5 *	Right Side Mounted On Back Of D-4A					
67		17+15	R-1-36	36"x 36"						9.0 *				13.5 *						
			R-41B-30	30"x 30"						6.25 *										
67		17+20	R-41B-30	30"x 30"						6.25 *					14.0 *					
			R-43L-36	36"x 12"						3.00 *										
67			R-43R-36	36"x 12"						3.00 *										
LANE	"E"																			
67		522+50 LT. & RT.	R-33-30	2 @ 30"x 36"						15.0 *				13.5 * 13.5						
67		530+00 LT. & RT.	W-60D-48	48"x 48"						32.0 *				29.0 * 29.0						
67		533+75 LT. & RT.	W-52-48	48"x 48"						32.0 *				29.0 * 29.0						
TOTALS - TABLE 2										192.07	88.0		13.0	250.0	14.0	23'-0"	46'-3"		4	2.8
TOTALS - TABLE 1										259.52	895.0	21.0	75.5	392.0		30'-0"		53'-3"	4	3.1
TOTALS - TABLES 1 & 2										451.59	983.0	21.0	88.5	642.0	14.0	53'-0"	46'-3"	53'-3"	8	5.9

* QUANTITIES FOR FEDERAL NUMBER F-73(2)

TRAFFIC CONTROL - SUB SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P. DATE 11-25-77
CKD. BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

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114

SAN. 6/20 - (14.61 - 16.02)/14.59

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS						BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET SQ. FT.	EXTRU SHEET SQ. FT.	NO. 3 STEEL POST LIN. FT.	NO. 4 STEEL POST LIN. FT.		NO. 4 STEEL POST, AS PER PLAN LIN. FT.	S4x7.7 BEAM LIN. FT.		EACH	CU. YD.
LANE		"F"																	
67	6a	526+25		11'x 6.5'							71.5 *		OVERHEAD		SPAN	SUPPORT			
67	6b			11'x 7'							77.0 *								
67		527+50	W-60D-48	48"x48"						16.0 *			14.5 *						
67		528+10	GF	72"x60"							30.0 *		14.5			15'-0" *		2 *	0.6 *
																15'-0"			
RAMP		"H"																	
67		3+00	W-97-48	48"x 60"						20.0 *			15.5 *						
67		6+00	W-32-96	96"x 48"							32.0 *		15.5			14'-0" *		2 *	0.6 *
67		7+85	W-45-48	48"x 48"						16.0 *			14.5 *			14'-0"			
													14.5						
67		9+85 LT. & RT.	R-41A-36	36"x 24"						12.0 *			12.5 *			Left Side Sign Mounted On Back Of D-48			
		12+45	R-41B-30	30"x 30"						6.25 *					14.0 *				
			R-43L-48	48"x 18"						6.00 *									
			R-43R-48	48"x 18"						6.00 *									
67		12+45	R-1-36	36"x 36"						9.0 *			13.5 *						
			R-41B-30	30"x 30"						6.25 *									
C. R.		20																	
67		25+90	R-43L-48	48"x 18"						6.00 *		13.5 *							
67		26+65	R-43R-48	48"x 18"						6.00 *		13.5 *							
		24+70	M-8-24	24"x 12"						2.0 *			14.5 *						
			M-40-24	24"x 12"						2.0 *									
			M-1-24-2	24"x 24"						4.0 *									
67		9+85 Ramp "H"	M-8-24	24"x 12"						2.0 *									
			M-40-24	24"x 12"						2.0 *									
			M-1-24-2	24"x 24"						4.0 *									
			M-24-21	21"x 15"						2.19 *									
	9		D-4B	108"x 48"							36.0 *					14'-0" * 14'-0"		2 *	0.6 *
67		26+75	R-37R-24	24"x 30"						5.0 *		13.0 *							
U. S.		20 LANES "A" & "B"																	
67		791+00 LT. & RT.	W-53-48	2 @ 48"x 48"						32			29.0 29.0						
67		794+00 LT. & RT.	W-60C-48	2 @ 48"x 48"						32			29.0 29.0						
	8a	805+75		20'x 8.5'							170.0		OVERHEAD		SPAN	SUPPORT			
	8b			16'x 8.5'							136.0								
TOTALS - TABLE 1										196.69	552.5	67.0	245.5		14.0	86'-0"		6	1.8

* QUANTITIES FOR FEDERAL NUMBER F-73(2)

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS								BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET SQ. FT.	EXTRU SHEET SQ. FT.	NO. 3 STEEL POST LIN. FT.	NO. 4 STEEL POST LIN. FT.		NO. 4 STEEL POST, AS PER PLAN LIN. FT.	S4x7.7 BEAM LIN. FT.	W10x21 BEAM LIN. FT.	W12x31 BEAM LIN. FT.		EACH	CU. FT.
U. S.		20																			
68		816+30	M-39-30	30"x 15"						3.13			15.0								
			M-1-30-1	30"x 30"						6.25											
			M-39-30	30"x 15"						3.13			15.0								
			M-1-30-2	30"x 30"						6.25											
			M-37-30	30"x 15"						3.13											
			M-2-30-2	30"x 30"						6.25											
68	10	819+50		13'x 10'				14'-0"	7'-0"		130.0						26'-0" 29'-10				2.5
68	11	829+50		18'x 10.5'							189.0	Overhead Cantilever Support									
68		831+00	GSH	96"x 36"							24.0						16'-0" 17'-0"			2	0.6
68		837+00	N-28-96	96"x 18"							12.0	13.0 13.5									
U. S.		20																			
69		842+60	R-43R-72	72"x 24"						12.0			12.5 13.0								
69		842+70	R-123-36	36"x 36"						9.0			13.0								
69		843+15	R-123-36	36"x 36"						9.0			13.0								
69		843+10	R-43L-72	72"x 24"						12.0		12.5 13.0									
69		843+28	R-1-36	36"x 36"						9.0			13.0								
69		844+50	M-40-30	30"x 15"						3.13			15.0								
			M-1-30-1	30"x 30"						6.25											
			M-40-30	30"x 15"						3.13			15.0								
			M-1-30-2	30"x 30"						6.25											
			M-38-30	30"x 15"						3.13											
			M-2-30-2	30"x 30"						6.25											
69		847+50	N-28-96	96"x 18"							12.0	13.0 13.5									
TOTALS - TABLE 2										107.28	367.0	78.5	124.5				33'-0"	55'-10"		2	3.1
TOTALS - TABLE 1										196.69	552.5	67.0	245.5		14.0	86'-0				6	1.8
TOTALS - TABLES 1 & 2										303.97	919.5	145.5	370.0		14.0	119'-6"	33'-0"	55'-10"		8	4.9

TRAFFIC CONTROL - SUB SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY M.E.P. DATE 11-25-77
CKD BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

83
114

SAN. 6/20 - (14.61 - 16.02)/14.59

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844										
										SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS							BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
										FLAT SHEET	EXTRU SHEET	NO. 2 STEEL POST	NO. 3 STEEL POST	NO. 4 STEEL POST	NO. 4 STEEL POST AS PER PLAN		W10x11.5 BEAM		
					A	B	C	D	E	SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.		EACH	CU. YD.
U.	S.	20																		
70		860+60	W-49R-48	48"x 48"						16.0				14.5 14.5						
70		860+75	GN	84"x 36"							21.0			13.5 14.0						
70	12	872+25		12' x 6.5'				28'-0"	5'-0"		78.0						20'-6" 22'-3"		2	2.2
70		873+96	GN	84"x 36"							21.0			13.5 14.0						
70		875+00	W-49R-48	48"x 48"						16.0				14.5 14.5						
RAMP		"A"																		
70		865+20	R-38R-36	36"x 48"						12.0				13.0 13.0						
RAMP		"B"																		
70		868+10	W-97-48	48"x 60"						20.0				15.5 16.0						
70		867+65	R-41A-36	36"x 24"						6.0				13.5						
			N-29-24	24"x 24"						4.0										
			NP-29-24	24"x 6"						1.0										
			N-15-24	24"x 6"						1.0										
70		870+50	R-41A-36	2 @ 36"x 24"						12.0				11.5 11.5						
RAMP		"D"																		
70		866+10	R-41B-30	30"x 30"						6.25					14.5					
			R-43L-36	36"x						3.00										
			R-43R-36	36"x						3.00										
70		868+00	R-41A-36	36"x 24"						6.00				12.5						
70		868+00	R-41A-36	36"x 24"						6.00				13.5						
			N-29-24	24"x 24"						4.00										
			NP-29-24	24"x 6"						1.00										
			N-15-24	24"x 6"						1.00										
70		871+40	W-45-48	48"x 48"						16.0				14.5 14.5						
S.	R.	19																		
70		95+00	R-38R-24	24"x 30						5.0					11.5					
70		103+00	R-38R-24	24"x 30"						5.0					11.5					
70		108+00	W-85-36	36"x 36"						9.0					14.5					
70		106+00	M-37-24	24"x 12"						2.0					13.5					
			M-2-24-2	24"x 24"						4.0										
70		128+85	N-1-40	40"x 20"						5.56			11.5 11.5							
70		115+00	M-52A-108	3 @ 9'x 2.5'				14'-0"	7'-0"		67.5						21'-10" 22'-5"		2	2.2
70		101+25	W-60C-36	36"x 36"						9.0										
TOTALS - TABLE 1										173.81	187.5	23.0	51.0	262.0	14.5		86'-0"		4	4.4

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844												
										SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS										BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
										FLAT SHEET	EXTRU SHEET	NO. 2 STEEL POST	NO. 3 STEEL POST	NO. 4 STEEL POST		NO. 4 STEEL POST AS PER PLAN	S4x7.7 BEAM	W10x11.5 BEAM	W10x21 BEAM		
					A	B	C	D	E	SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.			
U.	S.	20																				
71		888+50	M-39-30	30"x 15"						3.13				14.0								
			M-1-30-1	30"x 30"						6.25												
			M-39-30	30"x 15"						3.13												
			M-1-30-2	30"x 30"						6.25												
			M-38-30	30"x 15"						3.13				14.0								
			M-2-30-2	30"x 30"						6.25												
			M-37-30	30"x 15"						3.13												
			M-2-30-2	30"x 30"						6.25												
71		889+00	GSH	96"x 36"							24.0						16'-0" 17'-0"				2	0.6
71		896+00	M-40-30	30"x 15"						3.13				14.0								
			M-1-30-1	30"x 30"						6.25												
			M-40-30	30"x 15"						3.13												
			M-1-30-2	30"x 30"						6.25												
			M-37-30	30"x 15"						3.13				14.0								
			M-2-30-2	30"x 30"						6.25												
			M-38-30	30"x 15"						3.13												
			M-2-30-2	30"x 30"						6.25												
	14	898+00		14'x 10'				30'-0"	7'-0"		140								26'-3" 26'-1"		2	2.5
U.	S.	20																				
72		905+00	W-49R-48	48"x 48"						16.0				15.0 15.0								
72		911+00	GF	72"x 60"							30						17'-0" 17'-0"				2	0.6
72	15	914+30		16'x 8.5'							136.0	OVERPASS		STRUCTURE		MOUNTED						
72	16a	915+00		13'x 8'							104.0	OVERHEAD		SPAN		SUPPORT						
	16b			13'x 10.5'							136.5											
	16c			16'x 8.5'							136.0											
72		918+80	GF	72"x 60"							30						17'-0" 17'-0"				2	0.6
72		927+00	W-49R-48	48"x 48"						16.0				15.0 15.0								
72		930+50	R-2-48	48"x 48"x 48"						6.9				15.0 15.0								
TOTALS - TABLE 2										113.94	736.5		30.0	116.0			101'-0"		52'-4"	8	4.3
TOTALS - TABLE 1										173.81	187.5	23.0	51.0	262.0		14.5		86'-0"		4	4.4
TOTALS - TABLES 1 & 2										287.75	924.0	23.0	81.0	378.0		14.5	101'-0"	86'-0"	52'-4"	12	8.7

TRAFFIC CONTROL SUB - SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P. DATE 11-23-77
CK'D BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

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114

SAN. 6/20-(14.61-16.02)/14.58

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		844 GROUND MOUNTED SUPPORTS NO.3 STEEL POST	NO.4 STEEL POST			W8x17 BEAM	W10x11.5 BEAM		BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET									
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.		EACH	CU. YD.
S.	R.	53																		
72		417+00	M-17-21	21"x 15"						2.19			13.5							
			M-1-24-1	24"x 24"						4.0										
			M-17-21	21"x 15"						2.19										
			M-1-24-2	24"x 24"						4.0										
			M-17-21	21"x 15"						2.19			13.5							
			M-2-24-2	24"x 24"						4.0										
			M-17-21	21"x 15"						2.19										
			M-2-24-2	24"x 24"						4.0										
72	17	420+00	M-52A-108	9'x 2.5'							22.5						22'-6" 23'-2"		2	2.2
			M-52A-108	9'x 2.5'				14'-0"	7'-0"		22.5									
			M-52A-108	9'x 2.5'							22.5									
72		422+00	W-47-36	36"x 36"						9.0			13.5							
72		426+50	R-10-24	24"x 30"						5.0		14.5								
72	18a	427+05		9'x 6.5'							58.5	OVERHEAD		CANTILEVER		SUPPORT				
	18b			9'x 6.5'							58.5									
72		433+00	M-37-24	24"x 12"						2.0			16.5							
			M-2-24-2	24"x 24"						4.0										
			IM-8-24	24"x 12"						2.0			16.5							
			M-2TM-24	24"x 24"						4.0										
			M-5-24-2	24"x 24"						4.0										
			M-5-24-2	24"x 24"						4.0										
72	19	437+00		12'x 6'				14'-0"	7'-0"		72.0						21'-4" 25'-7"			2.2
RAMP		"C"																		
72		10+00	R-2-48	48"x 48"x 48"						6.90		15.0 15.0								
			R-41B-36	36"x 36"						9.0										
72		12+00	R-41A-36	36"x 24"						6.0			12.5							
TOTALS - TABLE 1										80.66	256.5	44.5	86.0			46'-11"	45'-4"		2	4.4

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		844 GROUND MOUNTED SUPPORTS NO.3 STEEL POST	NO.4 STEEL POST			W8x17 BEAM	W10x11.5 BEAM		BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET									
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.		EACH	CU. YD.
RAMP		"C"																		
72	20	20+50	IM-8-30	30"x 15"				14'-0"	7'-0"	3.13						20'-9" 22'-8"			2	2.2
			M-2TM-30	30"x 30"						6.25										
			M-2-30-2	30"x 30"						6.25										
			M-27-24	24"x 18"						3.0										
			M-5-30-2	30"x 30"						6.25										
			IM-27-24	24"x 18"						3.0										
			M-5-30-2	30"x 30"						6.25										
			IM-27-24	24"x 18"						3.0										
			D-4A & D-4B	144"x 72"							72.0									
72		23+00	R-41A-36	2@ 36"x 24"						12.0			11.5 11.5							
72		29+00	W-97-48	48"x 60"						20.0			11.5 11.5							
RAMP		"F"																		
72		10+15	R-1-36	36"x 36"						9.0			13.5							
			R-41B-30	30"x 30"						6.25										
72		10+40	R-38R-36	36"x 48"						12.0			14.5 14.5							
72		12+00	R-41A-36	36"x 24"						6.0			12.5							
RAMP		"A"																		
72		17+50	R-41B-36	36"x 36"						9.0			14.5							
			R-41B-36	36"x 36"						9.0			14.5							
72		18+10	R-43L-36	36"x 12"						3.00		12.0								
		15+00	R-41A-36	2@ 36"x 36"						12.0			11.5 11.5							
RAMP		"B"																		
72		11+70	R-1-36	36"x 36"						9.0			14.5							
			R-41B-30	30"x 30"						6.25										
72		14+20	R-41A-36	36"x 24"						6.0			12.5							
72	21	20+50	IM-8-30	30"x 15"				14'-0"	7'-0"	3.13						20'-8" 22'-4"			2	2.2
			M-2TM-30	30"x 30"						6.25										
			M-2-30-2	30"x 30"						6.25										
			M-24-24	24"x 18"						3.0										
			M-5-30-2	30"x 30"						6.25										
			IM-24-24	24"x 18"						3.0										
			M-5-24-2	30"x 30"						6.25										
			IM-24-24	24"x 18"						3.0										
			D-4A & D-4B	144"x 72"							72.0									
TOTALS - TABLE 2										193.76	144.0	12.0	180.0			86'-5"			4	4.4
TOTALS - TABLE 1										80.66	256.5	44.5	86.0			46'-11"	45'-4"		2	4.4
TOTAL - TABLE 1 & 2										274.42	400.5	56.5	266.0			133'-4"	45'-4"		6	8.8

TRAFFIC CONTROL SUB-SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P. DATE 11-25-77
CK BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

85
114

SAN. 6/20 - (14.61 - 16.02)/14.59

844

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET A	B	C	D	E	SIGNS ERECTED BY TYPE FLAT SHEET SQ. FT.	EXTRU SHEET SQ. FT.	GROUND MOUNTED SUPPORTS NO.2 STEEL POST LIN. FT.	NO.3 STEEL POST LIN. FT.	NO.4 STEEL POST LIN. FT.		W8x17 BEAM LIN. FT.	W10x11.5 BEAM LIN. FT.		BREAKAWAY BEAM CONNECTION EACH	CONCRETE FOR EMBEDDED FOUNDATIONS CU. YD.
RAMP		"B" (Continued)																		
72		23+50	W-45-48	48"x 48"						16.0				14.5 14.5						
72		29+00	W-97-48	48"x 60"						20.0				15.5 15.5						
72		23+50	R-41A-36	2 @ 36"x 24"						12.0				11.5	Left Side	Sign	Mounted	On Back	Of W-	45-48
RAMP		"E"																		
72		10+50	R-38R-36	36"x 48"						12.0				14.5 14.5						
72		14+40	R-2-48	48"x48"x48"						6.90			14.5 14.5							
			R-41B-36	36"x 36"						9.0										
S.R.		53																		
72	22	441+00		9'x 6'				14'-0"	7'-0"		54.0						20'-10" 23'-11"			2.2
72		443+00	R-10-24	24"x 30"						5.0			15.0							
72	23	449+85		12'x 6'				14'-0"	7'-0"		72.0						20'-0" 21'-2"			2.2
72		431+50	R-11A-24	24"x 30"						5.0			15.0							
72		451+00	M-37-24	24"x 12"						2.0				16.0						
			M-2-24-2	24"x 24"						4.0										
			IM-8-24	24"x 12"						2.0				16.0						
			M-2TM-24	24"x 24"						4.0										
			M-5-24-2	24"x 24"						4.0										
			M-5-24-2	24"x 24"						4.0										
72	24	456+00		12'x 5.5'							66.0		OVERHEAD		CANTILEVER		SUPPORT			
72		456+20	N-29-24	24"x 24"						4.0				12.5						
			NP-29-24	24"x 6"						1.0										
			N-15-24	24"x 6"						1.0										
72		457+10	R-1-30	30"x 30"						6.25				13.0						
72		458+00	R-10-36	24"x 30"						5.0				14.0						
TOTALS - TABLE 1										123.15	192.0		98.5	132.5			85'-11"			4.4

844

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET A	B	C	D	E	SIGNS ERECTED BY TYPE FLAT SHEET SQ. FT.	EXTRU SHEET SQ. FT.	GROUND MOUNTED SUPPORTS NO.2 STEEL POST LIN. FT.	NO.3 STEEL POST LIN. FT.	NO.4 STEEL POST LIN. FT.		W6x85 BEAM LIN. FT.	W8x17 BEAM LIN. FT.	W10x11.5 BEAM LIN. FT.	W10x21 BEAM LIN. FT.	BREAKAWAY BEAM CONNECTION EACH	CONCRETE FOR EMBEDDED FOUNDATIONS CU. YD.
S.R.		53																			
72	25	461+00	M-52A-108	3 @ 9"x 2.5'				14'-0"	7'-0"		67.5							22'-3" 24'-0"		2	2.2
72		462+00	D-6-60	60"x 30"						12.5				14.5 15.0							
72		464+30	W-26-30	30"x 30"						6.25		10.5 10.5									
			D-8-48	48"x 8"						2.68											
72		466+00	M-17-21	3 @ 21"x 15"						6.57				15.5							
			M-2-24-2	24"x 24"						4.0				15.5							
			M-1-24-2	2 @ 24"x 24"						8.0											
U.S.R.		6 & 20																			
73	26	934+50		14'x 10'				14'-0"	7'-0"		140.0								25'-6" 26'-3"		2.5
73		935+00	M-39-30	30"x 15"						3.13				14.5							
			M-1-30-1	30"x 30"						6.25											
			M-39-30	30"x 15"						3.13				14.5							
			M-1-30-2	30"x 30"						6.25											
			M-38-30	30"x 15"						3.13											
			M-2-30-2	30"x 30"						6.25											
73		939+00	GQ	7'x 3.5'							24.5			15.0 16.5							
73		947+50	GQ	7'x 3.5'							24.5			15.0 16.5							
73		949+00	R-10-36	36"x 48"						12.0				16.5 17.0							
73	27	953+00		12'x 6.5'				14'-0"	7'-0"		78.0							21'-8" 24'-11"			2.2
73	28	954+00		11'x 10'				14'-0"	7'-0"		110.0								25'-7" 27'-0"		2.5
74	29	970+00		14'x 10'				14'-0"	7'-0"		140.0								25'-10" 25'-5"		2.5
74		972+00 LT & RT.	W-24-48	2 @ 48"x 48"						32.0				29.0 29.0							
74		976+00	R-10-36	36"x 48"						12.0				16.5 17.0							
74	30	977+00	GM-1	13'x 3'				30'-0"	7'-0"		39.0									2	0.7
74		979+35 LT. & RT.	R-41A-36	2 @ 36"x 24"						12.0				12.5 12.5							
74		980+50	M-40-30	30"x 15"						3.13				14.5							
			M-1-30-1	30"x 30"						6.25											
			M-40-30	30"x 15"						3.13				15.0							
			M-1-30-2	30"x 30"						6.25											
			M-37-30	30"x 15"						3.13											
			M-2-30-2	30"x 30"						6.25											
TOTALS - TABLE 2										164.28	623.5	21.0		332.0		33'-8"	46'-7"	46'-3"	157'-7"	4	12.6
TOTALS - TABLE 1										123.15	192.0		98.5	132.5				85'-11"			4.4
TOTALS - TABLES 1 & 2										287.43	815.5	21.0	98.5	464.5		33'-8"	46'-7"	132'-2"	157'-7"	4	17.0

TRAFFIC CONTROL SUB-SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES CALC BY W.E.P. DATE 11-25-77 CK'D BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

86
114

SAN. 6/20 - (14.61 - 16.02)/14.59

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		844 GROUND MOUNTED SUPPORTS							BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO.3 STEEL POST	NO.4 STEEL POST			W6x8.5 BEAM	W10x21 BEAM			
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.			LIN. FT.	LIN. FT.		EACH	CU. YD.
U.S.R.		6 ℄	20																	
74		981+75	R-43L-72	72"x24"						12.0		12.0 12.0								
74		981+75	R-43R-72	72"x24"						12.0		12.5 12.5								
74		981+85 LT. RT.	R-41B-36	2 @ 36"x36"						18.0			11.5 11.5							
74		981+85	R-37R-36	36"x48"						12.0			13.5 13.5							
C.R.		176																		
74		0+75 LT.	R-1-36	36"x36"						9.0			11.5							
74		0+80 LT.	R-1-36	36"x36"						9.0			11.5							
U.S.R.		6 ℄	20																	
74		982+70	R-37R-36	36"x48"						12.0			13.5 13.5							
74		982+70 LT.℄RT.	R-41B-36	2 @ 36"x36"						18.0			11.5 11.5							
74		982+80	R-43L-72	72"x24"						12.0		12.5 12.5								
74		982+80	R-43R-72	72"x24"						12.0		12.0 12.0								
74		984+00	M-39-30	30"x15"						3.13			14.5							
			M-1-30-1	30"x30"						6.25										
			M-39-30	30"x15"						3.13			15.0							
			M-1-30-2	30"x30"						6.25										
			M-38-30	30"x15"						3.13										
			M-2-30-2	30"x30"						6.25										
74		985+20 LT.℄RT.	R-41A-36	2 @ 36"x24"						12.0			12.5 12.5							
	31	987+00	GM-1	13'x3'				14'-0"	7'-0"		39.0					16'-3" 15'-0"			2	0.7
74	32	988+00		11'x10'	25'-9"	27'-6"		30'-0"	7'-0		110.0						27'-2" 25'-4"		2	2.5
74		989+75 LT.℄RT	W-24-48	2 @ 48"x48"						32.0			29.0 29.0							
TOTALS - TABLE 1										198.14	149.0	98.0	235.5			31'-3"	52'-6"		4	3.2

SHEET NO	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		844 GROUND MOUNTED SUPPORTS							BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO.3 STEEL POST	NO.4 STEET POST		NO.4 STEEL POST AS PER PLAN	S4 x 7.7 BEAM	W10x21 BEAM			
										SQ. FT	SQ. FT.	LIN. FT	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.		EACH	CU. YD.
U.S.R.		6 ℄	20																	
75		997+50 LT.℄RT.	W-94-36	2 @ 36" Dia.						18.0			13.5 13.5							
75		999+00	W-49R-48	48"x48"						16.0			14.5 14.5							
75	33a	1003+00		11'x8'							88.0	OVERHEAD		SPAN		SUPPORT				
	33b			13'x10.5'							136.5									
	33c			14'x8.5'							119.0									
75		1005+60	GF	72"x60"							30.0					16'-0" 16'-0"			2	0.6
75		1011+00	R-10-36	36"x48"						12.0			16.5 17.0							
75		1017+10 LT.℄RT.	W-94-36	2 @ 36" Dia.						18.0			13.5 13.5							
75		1020+00	R-10-36	36"x48"						12.0			16.5 17.0							
RAMP		"B"																		
75		22+50	W-97-48	48"x60"						20.0			15.5 16.0							
75		23+00	W-32-96	96"x48"							32.0					14'-0" 14'-0"			2	0.6
75		27+70 LT.℄RT.	R-41A-36	2 @ 36"x24"						12.0			12.5	Right Side Sign		Mounted	On Back Of D-4			
75		30+20	R-1-36	36"x36"						9.0			13.5							
			R-41B-30	30"x30"						6.25										
75		30+55	R-41B-30	30"x30"						6.25					14.5					
			R-43L-36	36"x12"						3.00										
			R-43R-36	36"x12"						3.00										
U.S.R.		6																		
75		1+00	M-17-21	21"x15"						2.19			13.5							
			M-1-24-2	24"x24"						4.0										
			M-17-21	21"x15"						2.19										
			M-1-24-2	24"x24"						4.0										
75		5+00	D-6-60	60"x30"						12.5			14.0 14.5							
TOTALS - TABLE 2										160.38	405.5		249.5		14.5	60'-0"			4	1.2
TOTALS - TABLE 1										198.14	149.0	98.0	235.5			31'-3"	53'-1"		4	3.2
TOTAL - TABLES 1 & 2										358.52	554.5	98.0	485.0		14.5	91'-3"	53'-1"		8	4.4

TRAFFIC CONTROL SUB-SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P. DATE 11-28-77
BY S.R.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20-(14.61-16.02)/14.59

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SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS								BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO.2 STEEL POST	NO.3 STEEL POST	NO.4 STEEL POST	NO.4 STEEL POST AS PER PLAN		S4 x 7.7 BEAM	W8 x 17 BEAM	W10x 11.5 BEAM		
										SQ. FT.	SQ. FT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.	EACH	CU. YD.
U.	S.R.	6																			
75	39	6+00		9'x 6'				9'-0"	7'-0"		54.0								21'-6" 20'-4"	2	2.2
75	34	9+00	D-4B	9'x 4'							36.0						16'-0" 16'-3"			2	0.6
75	35	11+50		9'x5.5'							49.5	OVERHEAD		CANTILEVER		SUPPORT					
75		13+00	R-10-24	24"x 30"						5.0			16.0								
75	36	16+00		9'x 6'				14'-0"	7'-0"		54.0								20'-6" 21'-6"		2.2
75	37	22+75		9'x 6'				14'-0"	7'-0"		54.0								21'-8" 23'-8"		2.2
75		24+75	M-39-24	24"x 12"						2.0				13.5							
			M-1-24-1	24"x 24"						4.0											
75	38	27+70 RAMP "B"	M-1-24-1	24"x 24"						4.0											
			M-24-21	21"x 15"						2.19											
			D-4A & D-4B	120"x 72"							60.0								20'-4" 21'-9"	2	2.2
75		24+00	R-11A-24	24"x 30"						5.0			13.5								
C.	R.	6																			
75		26+20	R-41B-30	30"x 30"						6.25					14.5						
			R-43R-36	36"x 12"						3.00											
			R-43L-36	36"x 12"						3.00											
75		29+00	R-10-24	24"x 30"						5.00			13.0								
75		36+00	M-17-21	21"x 15"						2.19				14.0							
			M-1-24-1	24"x 24"						4.0											
			M-17-21	21"x 15"						2.19											
			M-1-24-2	24"x 24"						4.0											
			M-17-21	21"x 15"						2.19											
			M-2-24-2	24"x 24"						4.0											
C.	R.	560																			
75		0+45	R-1-30	30"x 30"						6.25			13.0								
U.	S.R.	20																			
76		1025+00	M-40-30	30"x 15"						3.13				14.0							
			M-1-30-2	30"x 30"						6.25											
			M-37-30	30"x 15"						3.13											
			M-1-30-2	30"x 30"						6.25											
76	40	1025+75		10'x 10'				14'-0"	7'-0"		100.0							24'-4" 25'-8"		2	2.2
TOTALS - TABLE 1										83.02	407.5		55.5	41.5	14.5		32'-3"	50'-0"	171'-3"	8	11.6

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS								BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO.2 STEEL POST	NO.3 STEEL POST	NO.4 STEEL POST	NO.4 STEEL POST AS PER PLAN		S4 x 7.7 BEAM	W6 x 8.5 BEAM	W8 x 17 BEAM	W10x 11.5 BEAM	
										SQ. FT.	SQ. FT	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	CU. YD.
U.	S.R.	20																			
76		1026+54	R-123-36	36"x 36"						9.0				13.0							
76		1026+92	R-19-24	24"x 30"						5.0		11.0									
76		1027+08	R-19-24	24"x 30"						5.0		11.0									
76		1027+46	R-123-36	36"x 36"						9.0				13.0							
76		1030+00	GF	72"x 60"							30.0						16'-0" 16'-0"				2	0.6
76		1035+00	W-49R-48	48"x 48"						160.0				14.5 14.5							
RAMP		"A"																			
76		13+00	R-2-48	48"x48"x48"						6.90				15.0 15.0							
RAMP		"B"																			
76	41	15+00	M-2-24-3	30"x 24"				12'-0"	7'-0"	5.0											
			M-24-21	21"x 15"						2.19											
			D-4A & D-4B	120"x 72"							60.0								20'-10" 21'-11"	2	2.2
76		16+00 LT.+RT.	R-41A-36	2 @ 36"x 24"						12.0			12.5		Sign On Right Side Mounted On Back Of D-4						
76		17+75	R-1-36	36"x 36"						9.0				13.5							
			R-41B-30	30"x 30"						6.25											
76		17+75	R-41B-30	30"x 30"						6.25					14.5						
			R-43L-36	36"x 12"						3.00											
			R-43R-36	36"x 12"						3.00											
S.	R.	412																			
76		1+00	M-17-21	21"x 15"						2.19				13.5							
			M-1-24-2	24"x 24"						4.0											
			M-17-21	21"x 15"						2.19											
			M-1-24-2	24"x 24"						4.0											
76	45	5+50		7'x 6'				13'-0"	7'-0"		42.0								19'-2" 19'-2"		2	0.7
76		7+00	D-6-60	60"x 30"						12.5				14.0 14.5							
76		8+00	W-26-30	30"x 30"						6.25				13.5							
			D-8-48	48"x 8"						2.68											
C.	R.	190																			
76		24+00	R-1-30	30"x 30"						6.25			13.0								
S.	R.	412																			
	43	15+00		7'x 6'				14'-0"	7'-0"		42.0								20'-3" 21'-10"		2	0.7
	44	15+40		7'x 6'				14'-0"	7'-0"		42.0								19'-4" 20'-9"		2	0.7
TOTALS - TABLE 2										137.65	216.0	22.0	25.5	154.0	14.5		32'-0"	120'-6		42'-9"	10	4.9
TOTALS - TABLE 1										83.02	407.5		55.5	41.5	14.5		32'-3"		50'-0"	171'-3"	8	11.6
TOTALS - TABLE 1 & 2										220.67	623.5	22.0	81.0	195.5	29.0		64'-3"	120'-6"	50'-0"	214'-0"	18	16.5

TRAFFIC CONTROL SUB - SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.D. DATE 11-25-77
CK BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

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SAN. 6/20 - (14.61 - 16.02)/14.59

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS						BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO.3 STEEL POST	NO.4 STEEL POST				W6x8.5 BEAM		
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.				LIN. FT.	EACH	CU. YD.
S.	R.	412																	
76		18+00	R-10-24	24"x 30"						5.0		14.0							
76	42	21+75		7'x 6"				12'-6"	7'-0"		42.0						20'-6" 22'-8"	2	0.7
76		23+50	M-14-24	24"x 12"						2.0		13.5							
			M-224-3	30"x 24"						5.0									
76		24+50	M-39-24	24"x 12"						2.0		13.5							
			M-2-24-3	30"x 24"						5.0									
C.	R.																		
76		29+00	R-10-24	24"x 30"						5.0		14.5							
76		31+00	M-17-21	21"x 15"						2.19			14.0						
			M-1-24-2	24"x 24"						4.0									
			M-17-21	21"x 15"						2.19									
			M-2-24-2	24"x 24"						4.0									
			M-17-21	21"x 15"						2.19									
			M-2-24-3	24"x 24"						4.0									
U.	S. R.	20																	
78		1089+00	R-10-36	36"x 48"						12.0			16.5 17.0						
78		1090+00 LT. & RT.	W-24-48	2 @ 48"x 48"						32.0			30.0 30.0						
78	46	1095+00	D-11-132	11'x 1.5'				30'-0"	7'-0"		16.5						17'-10" 16'-5"	2	0.7
			D-11A-132	11'x 1.5'							16.5								
78		1097+00 LT. & RT.	R-41A-36	2 @ 36"x 24"						12.0			12.5 12.5						
78		1098+65	M-40-30	30"x 15"						3.13			14.5						
			M-1-30-2	30"x 30"						6.25									
			M-37-30	30"x 15"						3.13									
			M-2-30-2	30"x 30"						6.25									
TOTALS - TABLE 1										117.33	75.0	55.5	147.0				77'-7"	4	1.4

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS						BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO.2 STEEL POST	NO.3 STEEL POST	NO.4 STEEL POST			W6x8.5 BEAM		
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.			LIN. FT.	EACH	CU. YD.
U.	S. R.	20																	
78		1098+95	R-43L-72	72"x 24"						12.0				12.0 12.0					
78		1099+05	R-41B-36	36"x 36"						9.0				11.5					
78		1099+40	R-43R-72	72"x 24"						12.0				12.0 12.0					
78		1099+50	R-41B-36	36"x 36"						9.0				11.5					
78		1099+50	R-37R-36	36"x 48"						12.0				13.5 13.5					
C.	R.	198																	
78		0+40	R-1-30	30"x 30"						6.25			13.0						
C.	R.	229																	
78		0+75	R-1-36	36"x 36"						9.0				11.5					
78		0+75	R-1-36	36"x 36"						9.0				11.5					
U.	S. R.	20																	
78		1100+50	R-37R-36	36"x 48"						12.0				13.5 13.5					
78		1100+50	R-41B-36	36"x 36"						9.0				11.5					
78		1100+60	R-43R-72	72"x 24"						12.0				12.0 12.0					
78		1101+00	R-41B-36	36"x 36"						9.0				11.5					
78		1101+10	R-43L-72	72"x 24"						12.0				12.0 12.0					
78		1101+35	M-39-30	30"x 15"						3.13				14.5					
			M-1-30-2	30"x 30"						6.25									
			M-38-30	30"x 15"						3.13									
			M-2-30-2	30"x 30"						6.25									
78		1103+50 LT. & RT.	R-41A-36	2 @ 36"x 24"						12.0				12.5 12.5					
78	47	1105+00	D-11-132	11'x 1.5'				30'-0"	7'-0"		16.5						16'-10" 16'-6"	2	0.7
			D-11A-132	11'x 1.5'							16.5								
78		1110+00 LT. & RT.	W-24-48	2 @ 48"x 48"						32.0				29.0 29.0					
TOTALS - TABLE 2										195.01	33.0		13.0	316.5			33'-4"	2	0.7
TOTALS - TABLE 1										117.33	75.0		55.5	147.0			77'-7"	4	1.4
TOTALS - TABLES 1 & 2										312.34	108.0		68.5	463.5			110'-11"	6	2.1

TRAFFIC CONTROL SUB-SUMMARY

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P. DATE 11-2577
CKD BY S.A.A. DATE 12-577

FHWA REGION	STATE	PROJECT	
5	OHIO		

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SAN. 6/20 - (14.61 - 16.02)/14.59

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS						BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO. 3 STEEL POST	NO. 4 STEEL POST			S4x7.7 BEAM	W6x8.5 BEAM	W10x11.5 BEAM	
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.			LIN FT.	LIN. FT.	LIN. FT.	EACH	SQ. YD.
U. S. R.		20																		
79		1115+50 Lt & Rt	W-53-48	2 @ 48" x 48"						32.0			29.0 29.0							
79		1119+50 Lt & Rt	W-60C-48	2 @ 48" x 48"						32.0			29.0 29.0							
79		1125+00	R-10-36	36" x 48"						12.0			14.5 14.5							
79		1127+00	R-33-30	30" x 36"						7.5			13.5							
79		1135+15	GF	72" x 60"							30.0					18.0 18.0			2	0.6
79	36a	1137+00		13' x 5.5'							71.5		Overhead	Span	Support					
	36b			16' x 10'							160.0									
79		1138+15	R-1-30	30" x 30"						6.25			13.5							
			R-43R-48	48" x 18"						6.00										
			R-43L-48	48" x 18"						6.00										
79		1138+65	R-1-30	30" x 30"						6.25			13.5							
			R-43R-48	48" x 18"						6.00										
			R-43L-48	48" x 18"						6.00										
79		1140+00	M-39-30	30" x 15"						3.13			14.5							
			M-1-30-2	30" x 30"						6.25										
			M-38-30	30" x 15"						3.13										
			M-2-30-2	30" x 30"						6.25										
C. R.		20 WEST BOUND LANE																		
79		11+40	R-2-36	36" x 36" x 36"						3.9		13.5								
79		15+00	W-49L-36	36" x 36"						9.0			13.5							
C. R.		20 EAST BOUND LANE																		
79		13+20	R-37R-24	24" x 30"						5.0		13.0								
79		15+00 Lt/Rt	W-52-36	2 @ 36" x 36"						18.0			13.5 13.5							
79		18+00 Lt/Rt	W-60D-36	2 @ 36" x 36"						18.0			13.5 13.5							
79		24+50	R-33-30	30" x 36"						7.50			15.5							
U.S. R.		20																		
80	49	1143+50		11' x 6'				14'-0"	7'-0"		66.0							20'-0" 18'-9"	2	2.2
TOTALS - TABLE 1										200.16	327.5	26.5	283.0			36.0		38'-9"	4	2.8

SHEET NO.	SIGN NO.	STATION	CODE NO.	SIGN SIZE	DIMENSIONS SEE TYPICAL DETAIL DRAWING SHEET					844 SIGNS ERECTED BY TYPE		GROUND MOUNTED SUPPORTS						BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS
					A	B	C	D	E	FLAT SHEET	EXTRU SHEET	NO. 3 STEEL POST	NO. 4 STEEL POST			S4x7.7 BEAM	W6x8.5 BEAM	W10x11.5 BEAM	
										SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.			LIN FT.	LIN. FT.	LIN. FT.	EACH	SQ. YD.
U. S. R.		20																		
80	50	1116+00	D-4A	19' x 3'				14'-0"	7'-0"		57.0							19'-7" 24'-0"	2	2.2
			M-19-24	24" x 18"						3.0										
			M-2-30-2	30" x 30"						6.25										
			M-38-30	30" x 15"						3.13										
80	51	1119+00		10' x 7.5'							75.0	Overhead	Cantilever	Support						
80		1120+00	D-11A-120	10' x 1.5'							15.0	13.0 13.5								
80		1122+40	R-41A-36	36" x 24"						6.0			12.5							
80		1123+50	M-40-30	30" x 15"						3.13			14.5							
			M-1-30-2	30" x 30"						6.25										
			M-37-30	30" x 15"						3.13										
			M-2-30-2	30" x 30"						6.25										
80		1123+95	R-37R-36	36" x 48"						12.0			13.5 14.5							
80		1124+15	M-52A-108	9' x 2.5'							22.5		14.5							
80		1124+40	R-41B-36	36" x 36"						9.0			11.5							
80		1124+65	R-43L-72	72" x 24"						12.0			11.5 12.0							
80		1125+00	R-43L-72	72" x 24"						12.0			11.5 12.0							
80		1125+05	M-1-30-2	30" x 30"						6.25			14.5							
			M-25-24	24" x 18"						3.00										
			M-37-30	30" x 15"						3.13										
			M-2-30-2	30" x 30"						6.25										
			M-24-24	24" x 18"						3.0										
80		1125+30	R-41B-36	36" x 36"						9.0			11.5							
80		1125+60	M-45-42	3.5' x 5'							17.5		14.0 14.5							
80		1126+00	R-37R-36	36" x 48"						12.0			13.5 13.5							
80		1126+60	M-39-30	30" x 15"						3.13			14.0							
			M-1-30-2	30" x 30"						6.25										
80		1128+00	R-41A-36	36" x 24"						6.0			12.5							
80		1129+00	R-10-36	36" x 48"						12.0			16.5 17.0							
80		1130+00	D-11A-120	10' x 1.5'							15.0	13.0 13.5								
80		1132+00		8' x 2.5'							20.0		14.0 14.5							
80	52	1134+00	D-4A	19' x 3'				14'-0"	7'-0"		57.0							18'-0" 19'-8"	2	2.2
			M-2-30-2	30" x 30"						6.25										
			M-30-24	24" x 18"						3.0										
80	53	1138+00	GL96	8' x 7'				14'-0"	7'-0"		56.0							21'-8" 22'-6"	2	2.2
80	54	1177+50		13' x 5.5'				14'-0"	7'-0"		71.5							20'-2" 20'-0"	2	2.2
C. R.		204																		
80		0+70 Lt.	R-1-36	36" x 36"						9.0			11.5							
S. R.		19																		
80		1+00 Lt.	R-1-36	36" x 36"						9.0			11.5							
80		2+00	M-38-24	24" x 12"						2.0		13.5								
			M-2-24-2	24" x 24"						4.0										
80		4+00	2-D-1-72	6' x 2'							12.0		14.5 14.5							
80		10+50	D-6-60 (Mod)	60" x 15"						6.25			14.0 14.5							
80		6+00	M-17-21 M-21-21 M-1-24-2 M-2-24-2	21" x 15" 21" x 24" 24" x 24" 24" x 24"						4.38 8.0			13.5							
80		8+00	W-45-36	36" x 36"						9.0			11.5							
TOTALS - TABLE 2										213.03	418.5	66.5	417.0					165'-7"	8	8.8
TOTALS - TABLE 1										200.16	327.5	26.5	283.0			36.0		38'-9"	4	2.8
TOTALS - TABLES 1&2										413.19	746.0	93.0	700.0			36.0		204'-4"	12	11.6

TRAFFIC CONTROL SUB SUMMARY

QUANTITIES
CALC BY W.E.P. DATE 11-25-77
CK BY S.A.A. DATE 12-5-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

90
114

SAN. 6/20 - (14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

* QUANTITIES FOR FEDERAL NUMBER F-73(2)

OVERHEAD SIGN SUPPORT - SUB SUMMARY

SHEET NO.	LOCATION	SIGN NO.	STATION	844																	S625	
				765 DESIGN 6 MOD. 46'-0" SPAN	765 DESIGN 6 MOD. 69'-0" SPAN	765 DESIGN 6 MOD. 62'-0" SPAN	765 DESIGN 6 65'-0" SPAN	765 DESIGN 6 MOD. 74'-0" SPAN	765 DESIGN 6 MOD. 71'-0" SPAN	765 DESIGN 8 MOD. 78'-0" SPAN	765 DESIGN 8 MOD. 79'-6" SPAN			1230 DESIGN 2 MOD. 20'-0" ARMS	1230 DESIGN 4 MOD. 18'-0" ARMS	1230 DESIGN 4 MOD. 22'-0" ARMS	1230 DESIGN 7 24'-0" ARMS	OVERPASS STRUCTURE MOUNTED SIGN SUPPORT-TYPE 1824	CONCRETE FOR ANCHOR BASE FOUNDATIONS		GROUND ROD	
				EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH			EACH	EACH	EACH	EACH	EACH	CU. YD.		EACH	
66	U.S.R. 20	2	756+75	1															9.5		1	
66	U.S.R. 20	3	778+60				1												9.5		1	
66	G.R. 20	4	13+10					1											9.5		1	
67	U.S.R. 6	6	526+25			1 *													9.5 *		1 *	
67	U.S.R. 20	8	805+75							1									10.3		1	
72	U.S.R. 20	15	914+30	OVERPASS		STRUCTURE		MOUNTED										1				
72	U.S.R. 20	16	915+00		1														9.5		1	
72	S.R. 53	18	427+05											1					2.4		1	
72	S.R. 53	24	456+00													1			3.0		1	
75	U.S.R. 20	33	1003+00						1										9.5		1	
75	U.S.R. 6	35	11+50											1					2.4		1	
79	U.S.R. 20	48	1137+00								1								10.3		1	
80	U.S.R. 20	51	1119+00												1				3.0		1	
68	U.S.R. 20	11	829+50														1		4.0		1	
TOTALS - CARRIED TO GENERAL SUMMARY				1	1	1	1	1	1	1	1			2	1	1	1	1	92.4		13	

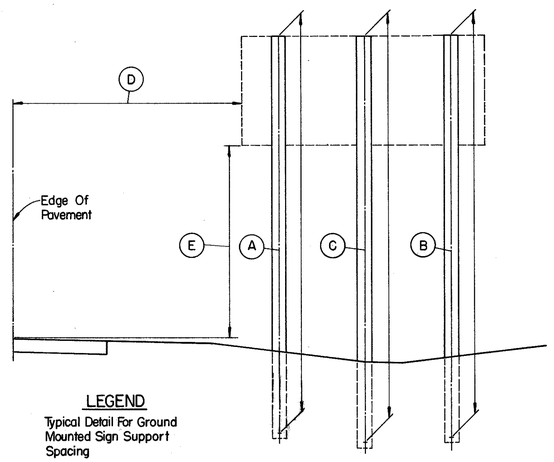
* QUANTITIES FOR FEDERAL NUMBER F-73(2)

202 - REMOVAL OF EXISTING SIGNS SUPPORTS AND FOUNDATIONS

FROM SHEET NO.	LOCATION	STATION	REMOVE OVERHEAD MOUNTED SIGNS FOR STORAGE	REMOVE OVERHEAD SIGN SUPPORT FOR STORAGE	REMOVE GROUND MOUNTED MAJOR SIGN INSTALLATION FOR STORAGE	REMOVE GROUND MOUNTED SIGN INSTALLATION FOR STORAGE	REMOVE GROUND MOUNTED SIGN FOR STORAGE	REMOVE CONCRETE SIGN SUPPORT FOUNDATION
			EACH	EACH	EACH	EACH	EACH	EACH
67	U.S.R. 20 E.B.	773±85			5	25		1
67	U.S.R. 20 E.B.	780±70						1
68	U.S.R. 6 E.B.	522+50	2 *	1 *		27 *		
68	U.S.R. 6 E.B.	528+00	1 *	1 *				
68	U.S.R. 20 W.B.	804+75	1	1				
68	U.S.R. 20 W.B.	810+00						2
70					3	3		
71						3		
70	S.R. 19 N.B.	101+25					1	
70	S.R. 19 S.B.	94+20			1	9	1	
	S.R. 19 INT. RAMP "D"	869+40					1	
					2	4		
74	U.S.R. 20 W.B.	910+75	1	1	5	42		
75	U.S.R. 20 E.B.	918±80						1
75	S.R. 53 S.B.	454+75	1	1				
78					2	4		
79						15		
80	U.S.R. 20 E.B.	998+00	1	1	1	30		
80	U.S.R. 20 E.B.	1005+50	1	1				
80	U.S.R. 6 W.B.	13+80	1	1				
82	U.S.R. 20 E.B.	1022+00	1	1	1	12		
86						11		
87	U.S.R. 20 W.B.	1135+00	1	1		27		
89	U.S.R. 20 W.B.	1115+50	2	1	1	24		
TOTALS - CARRIED TO GENERAL SUMMARY			13	11	21	236	3	5

EXISTING SIGN PANELS REVISED WITH DEMOUNTABLE COPY

FROM SHEET NO.	LOCATION	STATION	844 EXISTING SIGN PANELS REVISED WITH DEMOUNTABLE COPY EACH
69	U.S. 6 20 E.B.	848+00	1
70	U.S. 6 20 W.B.	893+00	1
TOTALS CARRIED TO GENERAL SUMMARY			2



LEGEND
Typical Detail For Ground Mounted Sign Support Spacing

SUB-SUMMARY & DETAIL DRAWINGS

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.E.P DATE 12-14-71
CKD BY S.A.A. DATE 12-16-71

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN 6/20-(14.61 - 16.02)/14.59

91
114

* QUANTITIES FOR FEDERAL NUMBER F-73(2)

620 DELINEATORS

FROM SHEET NO.	LOCATION	STATION	STATION	SIDE	INTERVAL	TYPE A		TYPE B		TYPE C		TYPE D	
						POST	BRACKET	POST	BRACKET	POST	BRACKET	POST	BRACKET
66	U.S. 20 E.B.	738+00	776+00	RT.	200	20							
66	U.S. 20 W.B.	738+00	770+00	RT.	200	17							
66	U.S. 20 E.B.	780+50	790+50	RT.	200	6							
66	U.S. 20 W.B.	780+00	790+00	RT.	200	6							
66	LANE "C"	771+60	799+60	RT.	200	13	2						
66	C.R. 20 E.B.	1+50	9+50	RT.	200	5							
66	RAMP "G"	3+50	5+00	RT.	80					3 *			
66	RAMP "G"	5+60	7+10	RT.	50					4 *			
66	RAMP "G"	7+10	8+10	LT.	50							3 *	
66	RAMP "G"	8+50	10+50	LT.	40							6 *	
66	RAMP "G"	10+80	12+00	LT.	30							5 *	
66	RAMP "G"	12+40		LT.								1 *	
66	RAMP "G"	13+10		LT.								1 *	
66	RAMP "G"	13+10	15+10	RT.						3 *			
66	RAMP "G"	15+40		RT.						6 *			
67	U.S. 20 E.B.	792+50	800+50	RT.	200	5							
67	U.S. 20 E.B.	800+50	812+50	LT.	200			7					
67	U.S. 20 W.B	792+00	814+00	Rt.	200	11	1						
67	LANE "E"	535+50	515+50	RT.	200	9 *	2 *						
67	LANE "E"	539+50	521+50	LT.	200			8 *	2 *				
67	U.S. 6 W.B.	513+50	501+50	RT.	200	7 *							
67	U.S. 6 E.B.	501+50	523+50	RT.	200	11 *	1 *						
67	LANE "F"	528+50	540+50	RT.	200	7 *							
67	LANE "F"	519+50	531+50	LT.	200			6 *	1 *				
67	RAMP "H"	0+00		RT.						1 *			
67	RAMP "H"	1+00		RT.						1 *			
67	RAMP "H"	1+80		RT.						1 *			
67	RAMP "H"	2+30	2+80	RT.	50					2 *			
67	RAMP "H"	2+80	4+30	LT.	50							4 *	
67	RAMP "H"	4+70	6+30	LT.	40							5 *	
67	RAMP "H"	6+60	10+20	LT.	30							14 *	
67	RAMP "H"	10+20		RT.						1 *			
67	RAMP "H"	10+60		RT.						1 *			
67	RAMP "H"	11+30		RT.						1 *			
67	RAMP "H"	12+30		RT.						1 *			
67	U.S. 6 W.B.	816+00	840+00	RT.	200	12	1						
67	U.S. 6 E.B.	814+00	840+00	RT.	200	13	2						
TOTALS	TABLE 1					142	9	21	3	25		39	

620 DELINEATORS

FROM SHEET NO.	LOCATION	STATION	STATION	SIDE	INTERVAL	TYPE A		TYPE B		TYPE C		TYPE D	
						POST	BRACKET	POST	BRACKET	POST	BRACKET	POST	BRACKET
69	U.S. 6 W.B.	842+00	846+00	RT.	200	3							
69	U.S. 6 E.B.	846+00	856+00	RT.	200	6							
69	U.S. 6	842+00		MED.								1	
69	U.S. 6	842+60		MED.								1	
69	RAMP "C"	847+50	855+50	RT.	200					9			
70	RAMP "C"	856+50	858+90	RT.	80					4			
70	RAMP "C"	858+90	862+40	LT.	50							8	
70	RAMP "C"	862+40		RT.						1			
70	RAMP "C"	864+20		RT.						1			
70	RAMP "C"	865+00	866+50	RT.	50					4			
70	U.S. 6 W.B.	858+00	872+00	RT.	200	8							
70	U.S. 6 E.B.	856+00		RT.		1							
70	U.S. 6 E.B	869+20	877+20	RT.	200	5							
70	RAMP "B"	860+10	865+10	RT.	100					6			
70	RAMP "B"	865+90	867+50	RT.	80					3			
70	RAMP "B"	868+00	868+50	RT.	50					2			
70	RAMP "B"	868+50	872+40	LT.	30							14	
70	RAMP "B"	872+40	873+60	RT.	30					5			
70	RAMP "B"	868+80	866+70	RT.	30					8			
70	RAMP "B"	866+30	865+50	RT.	40					2			
70	RAMP "A"	865+35		RT.						1			
70	RAMP "A"	866+35		RT.						1			
70	RAMP "A"	866+95	869+35	RT.	30					9			
70	RAMP "A"	869+95	870+55	RT.	60					2			
70	RAMP "A"	870+55	876+55	LT.	50							13	
70	RAMP "A"	876+55	878+15	RT.	80					2			
70	RAMP "A"	879+15		RT.						1			
70	RAMP "D"	866+10	868+80	RT.	30					10			
70	RAMP "D"	869+40		RT.						1			
70	RAMP "D"	870+20	871+00	RT.	80					2			
70	RAMP "D"	871+00	873+50	LT.	50							6	
70	RAMP "D"	873+50	877+50	RT.	80					6			
70	RAMP "D"	878+50	879+50	RT.	100					2			
70	S.R. 19 N.B.	84+00	92+00	RT.	200	5							
70	S.R. 19 N.B.	95+00	125+00	RT.	200	14	2						
70	S.R. 19 N.B.	125+00		RT.		1							
70	S.R. 19 S.B.	84+00	102+00	RT.	200	9	1						
70	S.R. 19 S.B.	103+00	125+00	RT.	200	12							
70	S.R. 19 S.B.	126+00		RT.		1							
TOTALS	TABLE 2					65	3			82		43	
TOTALS	TABLE 1					142	9	21	3	25		39	
TOTALS	TABLE 1 & 2	CARRIED TO SHEET NO. 93.				207	12	21	3	107		82	

DELINEATOR SUB-SUMMARIES

F-69(14)
F-73(2)
ROS-0005(71)

QUANTITIES
CALC BY W.G.P. DATE 12-14-77
CHK BY S.A.A. DATE 12-16-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN 6/20-(14.61 - 16.02)/14.59

620 DELINEATORS

FROM SHEET NO.	LOCATION	STATION	STATION	SIDE	INTERVAL	TYPE A		TYPE B		TYPE C		TYPE D	
						POST	BRACKET	POST	BRACKET	POST	BRACKET	POST	BRACKET
71	RAMP "A"	880+15	888+15	RT.	100					9			
71	RAMP "D"	880+50	882+50	RT.	100					3			
71	U.S. 6 W.B.	884+00	892+00	RT.	200	5							
71	U.S. 6 E.B.	890+00	900+00	RT.	200	6							
71	RAMP "A"	894+00	900+00	RT.	100					7			
72	RAMP "A"	9+60	12+40	RT.	40					8			
72	RAMP "A"	12+40	15+60	LT.	40							9	
72	RAMP "A"	15+60		RT.						1			
72	RAMP "A"	16+30		RT.						1			
72	RAMP "A"	17+30		RT.						1			
72	RAMP "A"	18+00	22+80	RT.	40					13			
72	RAMP "A"	23+50		RT.						1			
72	RAMP "A"	25+30		RT.						1			
72	RAMP "A"	25+30	31+80	LT.	50							14	
72	RAMP "A"	31+80	33+30	RT.	50					4			
72	RAMP "B"	12+30	14+30	RT.	100					3			
72	RAMP "B"	15+00		RT.						1			
72	RAMP "B"	15+40		RT.						1			
72	RAMP "B"	15+40	20+20	LT.	40							13	
72	RAMP "B"	20+70	28+70	LT.	50							17	
72	RAMP "B"	28+70	29+90	RT.	40					4			
72	RAMP "B"	30+60		RT.						1			
72	RAMP "B"	31+60	33+60	RT.	100					3			
72	RAMP "E"	10+30	13+30	RT.	100					4			
72	RAMP "E"	14+00		RT.						1			
72	RAMP "E"	14+40		RT.						1			
72	U.S. 6 W.B.	902+30	910+30	RT.	200	5							
72	U.S. 6 W.B.	917+00	931+00	RT.	200	8							
72	U.S 6 E.B.	919+00	929+00	RT.	200	6							
72	RAMP "C"	17+20	8+20	RT.	100					2			
72	RAMP "C"	8+90		RT.						1			
72	RAMP "C"	9+30	10+10	RT.	40					3			
72	RAMP "C"	10+10	13+70	LT	40							10	
72	RAMP "C"	13+70	20+90	RT.	40					19			
72	RAMP "C"	20+90	28+40	LT.	50							16	
72	RAMP "C"	28+40	30+00	RT.	40					5			
72	RAMP "C"	30+70		RT.						1			
72	RAMP "C"	31+70	33+70	RT.	100					3			
TOTALS	TABLE 1					30				102		79	

620 DELINEATORS

FROM SHEET NO.	LOCATION	STATION	STATION	SIDE	INTERVAL	TYPE A		TYPE B		TYPE C		TYPE D	
						POST	BRACKET	POST	BRACKET	POST	BRACKET	POST	BRACKET
72	RAMP "F"	10+40		RT.						1			
72	RAMP "F"	11+00		RT.						1			
72	RAMP "F"	12+10	12+50	RT.	40					2			
72	RAMP "D"	10+10	10+90	RT.	40					2			
72	RAMP "D"	11+60		RT.						1			
72	RAMP "D"	12+60	13+60	RT.	100					2			
72	RAMP "D"	14+30	20+30	RT.	40					17			
72	RAMP "D"	20+80		RT.						1			
72	RAMP "D"	20+80	29+80	LT.	50							19	
72	RAMP "D"	29+80	31+30	RT.	50					4			
72	RAMP "D"	32+10		RT.						1			
72	RAMP "D"	33+10	36+10	RT.	100					4			
72	S.R. 53 N.B	417+00	427+00	RT.	200	6							
72	S.R. 53 N.B.	428+00	430+00	RT.	200	2							
72	S.R. 53 N.B.	435-00	465+00	RT.	200	15	1						
72	S.R. 53 S.B.	417+00	453+00	RT.	200	18	1						
72	S.R. 53 S.B.	458+00	466+00	RT.	200	5							
73	U.S 6 W.B.	931+00	959+00	RT.	200	11	4						
73	U.S 6 E.B.	937+00	959+00	RT.	200	8	4						
74	U.S. 6 W.B.	961+00	983+00	RT.	200	12							
74	U.S. 6 E.B.	961+00	989+00	RT.	200	15							
74	RAMP "A"	984+60	989+60	RT.	100					6			
74	RAMP "A"	990+60	993+60	RT.	100					4			
74	RAMP "A"	21+25	26+25	RT.	100					6			
74	RAMP "A"	26+25	32+25	LT.	60							11	
74	RAMP "A"	33+05	33+85	LT.	80							2	
74	RAMP "A"	33+85	37+05	RT.	80					5			
74	RAMP "A"	38+05	39+05	RT.	100					2			
74	U.S. 20 W.B.	997+00	1019+00	RT.	200	12							
74	U.S. 20 E.B.	991+00	997+00	RT.	200	4							
74	U.S. 20 E.B.	1007+00	1019+00	RT.	200	7							
74	RAMP "B"	15+85	19+85	RT.	100					5			
74	RAMP "B"	20+65		RT.						1			
74	RAMP "B"	21+15		RT.						1			
74	RAMP "B"	21+55	22+75	RT.	40					4			
74	RAMP "B"	22+75	29+05	LT.	30							22	
74	RAMP "B"	29+05		RT.						1			
74	RAMP "B"	29+65	30+25	LT.	30					3			
TOTALS	TABLE 2					115	10			74		54	
TOTALS	TABLE 1					30				102		79	
TOTALS	TABLES 1 & 2 CARRIED TO SHEET NO.93.					145	10			176		133	

DELINEATOR SUB-SUMMARIES

QUANTITIES
CALC BY W.E.P. DATE 12-14-77
CKD BY S.A.A. DATE 12-16-77

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN 6/20-(14.61 - 16.02)/14.59

F-69(14)
F-73(2)
ROS-0005(71)

620 DELINEATORS

FROM SHEET NO.	LOCATION	STATION	STATION	SIDE	INTERVAL	TYPE A		TYPE B		TYPE C		TYPE D	
						POST	BRACKET	POST	BRACKET	POST	BRACKET	POST	BRACKET
75	U.S. 6 N.B.	25+35	24+15	RT.	60					3			
75	U.S. 6 N.B.	27+75	22+15	RT.	100					2			
75	U.S. 6 N.B	21+00	1+00	RT.	200	10	1						
75	U.S. 6 S.B.	1+00	7+00	RT.	200	4							
75	U.S. 6 S.B.	15+00	27+00	RT.	200	6	1						
76	U.S. 20 E.B.	1021+00	1024+90	RT.	200	3							
76	U.S. 20 E.B.	1032+00	1050+00	RT.	200	10							
76	U.S. 20 W.B.	1021+00	1024+90	RT.	200	3							
76	U.S. 20 W.B.	1033+00	1049+00	RT.	200	9							
76	U.S. 20	1026+92		MED.								1	
76	U.S. 20	1027+08		MED.								1	
76	RAMP "A"	6+85	10+85	RT.	100					5			
76	RAMP "A"	11+65		RT.						1			
76	RAMP "A"	12+15	13+15	RT.	50					3			
76	RAMP "A"	13+15	17+15	L.T.	50							9	
76	RAMP "A"	17+15	18+75	RT.	80					3			
76	RAMP "A"	19+55	23+55	RT.	40					12			
76	RAMP "B"	6+80	8+80	RT.	100					3			
76	RAMP "B"	9+60		RT.						1			
76	RAMP "B"	10+10	11+60	RT.	50					4			
76	RAMP "B"	11+60	15+10	L.T.	50							8	
76	RAMP "B"	15+10	16+70	RT.	80					2			
76	RAMP "B"	17+70		RT.						1			
76	S.R. 412 S.B.	1+50	23+50	RT.	200	10	2						
76	S.R. 412 N.B.	1+50	25+50	RT	200	12	1						
77	U.S. 20 E.B.	1052+00	1080+00	RT.	200	15							
77	U.S. 20 W.B.	1051+00	1079+00	RT.	200	15							
78	U.S. 20 E.B.	1082+00	1112+00	RT.	200	16							
78	U.S. 20 W.B.	1081+00	1111+00	RT.	200	16							
79	U.S. 20 E.B.	1114+00	1134+00	RT.	200	11							
79	U.S. 20 E.B.	1126+00	1138+00	L.T.	200			7					
79	U.S. 20 E.B.	1138+00	1146+00	RT.	200	5							
79	U.S. 20 W.B.	1113+00	1145+00	RT.	200	17							
79	U.S. 20 W.B.	1129+00	1135+00	L.T.	200			4					
79	C.R. 20 E.B.	10+55	30+55	RT.	200	11							
79	C.R. 20 W.B.	10+00	32+00	RT.	200	11	1						
79	C.R. 20 W.B.	32+00	38+00	L.T.	200			4					
80	U.S. 20 E.B.	1112+75	1122+75	RT.	200	6							
80	U.S. 20 W.B.	1113+80	1119+80	RT.	200	3	1						
TOTALS CARRIED TO SUB - SUMMARY						193	7	15		40		19	

620 DELINEATORS

SUB - TOTALS	TYPE A		TYPE B		TYPE C		TYPE D	
	POST	BRACKET	POST	BRACKET	POST	BRACKET	POST	BRACKET
From Table 2, Sheet No.91	207	12	21	3	107		82	
From Table 2, Sheet No.92	145	10			176		133	
From Table 1, Sheet No.93	193	7	15		40		19	
TOTALS-CARRIED TO GENERAL SUMMARY	545	29	36	3	323		234	
TOTALS	574		39		323		234	

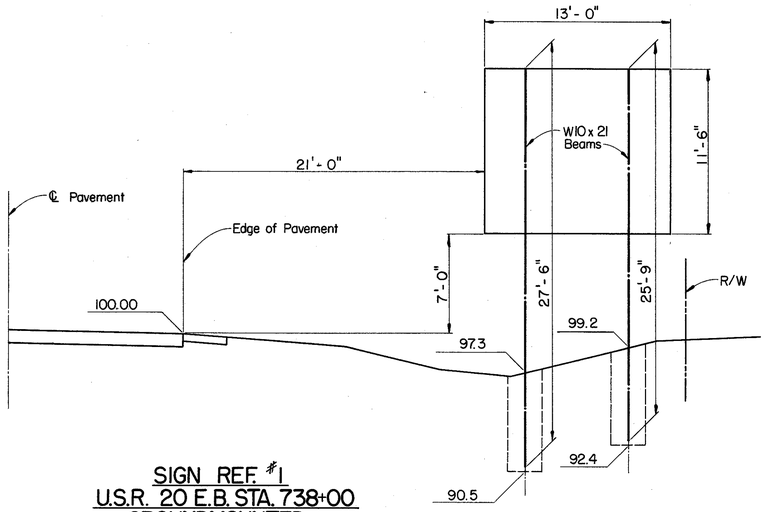
DELINEATOR SUB-SUMMARIES

F-69(14)
F-73(2)
ROS-0005(71)

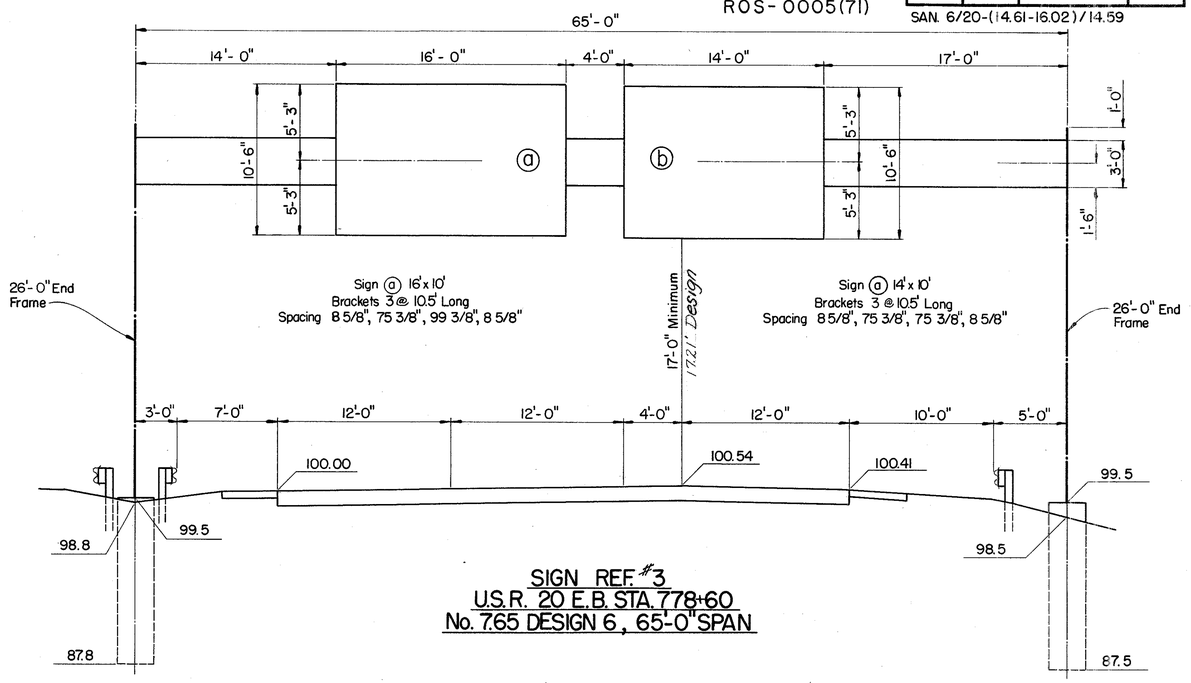
FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20-(14.61-16.02)/14.59

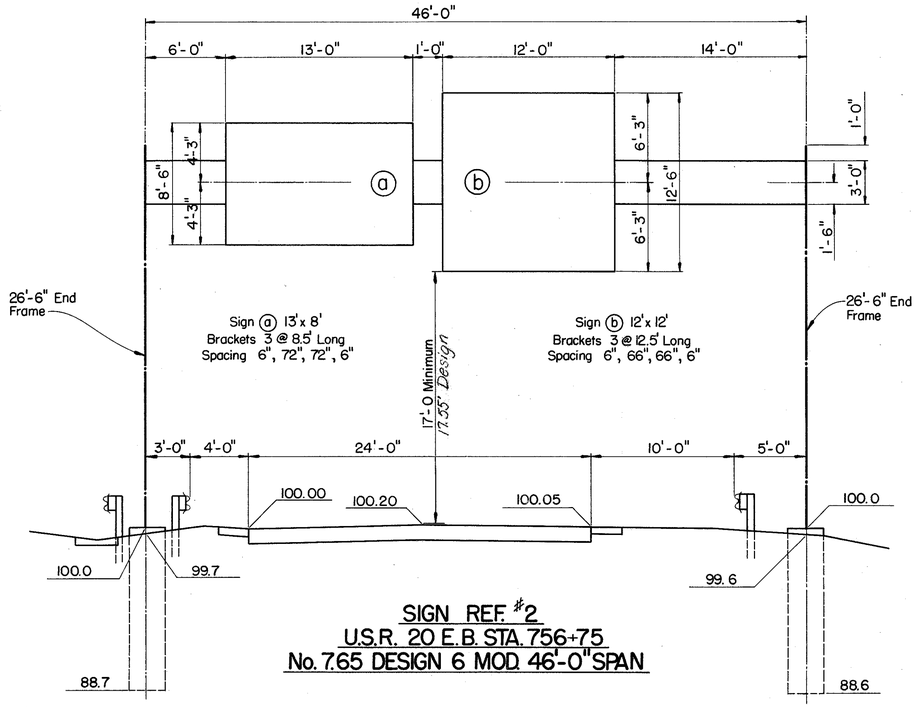
94
114



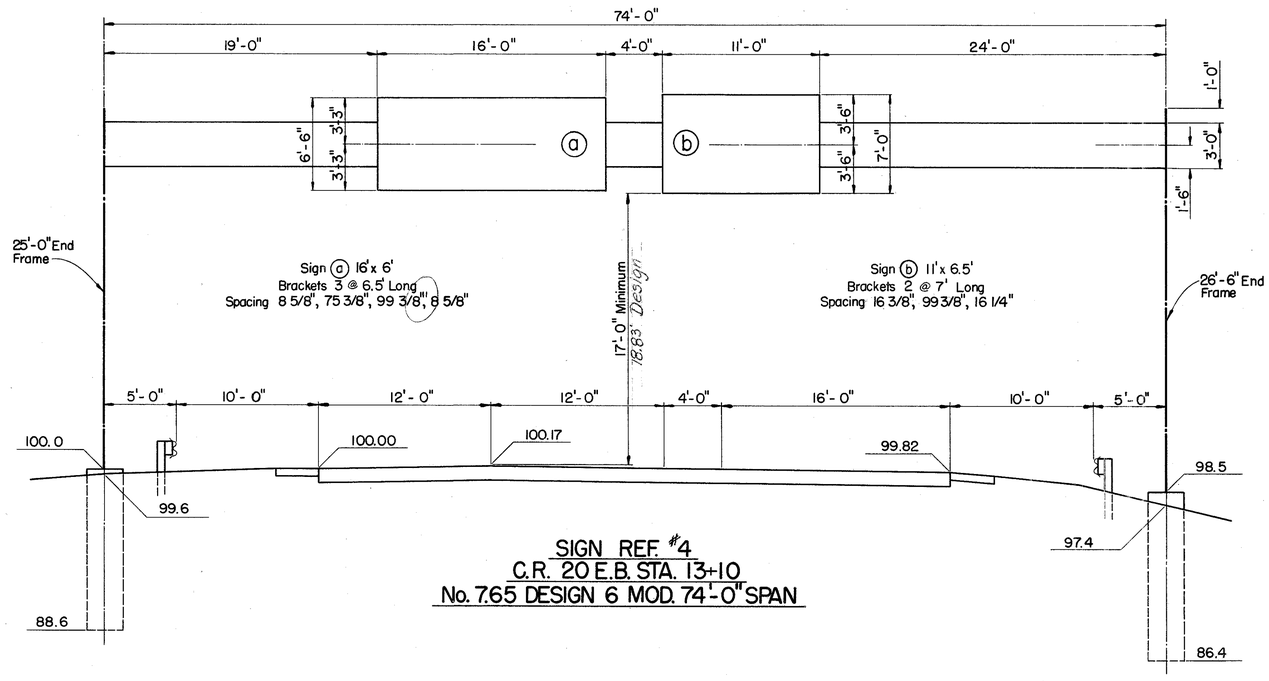
SIGN REF. #1
U.S.R. 20 E.B. STA. 738+00
GROUNDMOUNTED



SIGN REF. #3
U.S.R. 20 E.B. STA. 778+60
No. 7.65 DESIGN 6, 65'-0" SPAN



SIGN REF. #2
U.S.R. 20 E.B. STA. 756+75
No. 7.65 DESIGN 6 MOD. 46'-0" SPAN



SIGN REF. #4
C.R. 20 E.B. STA. 13+10
No. 7.65 DESIGN 6 MOD. 74'-0" SPAN

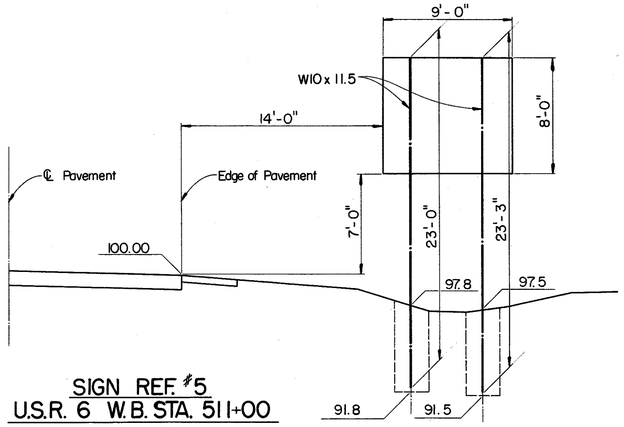
SIGN SUPPORT ELEVATION VIEWS 1 To 4

FHWA REGION	STATE	PROJECT	
5	OHIO		

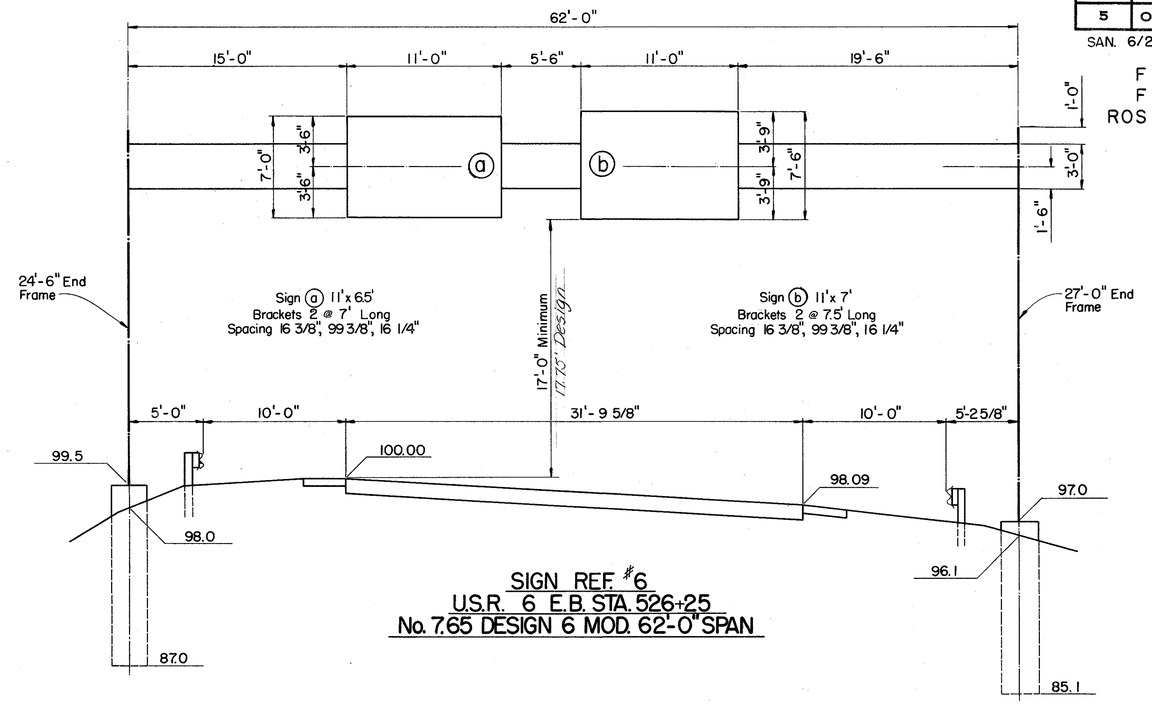
95
114

SAN. 6/20 - (14.61 - 16.02) / 14.59

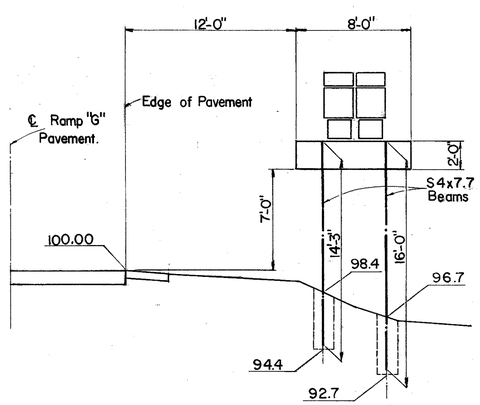
F - 69(14)
F - 73(2)
ROS - 0005(71)



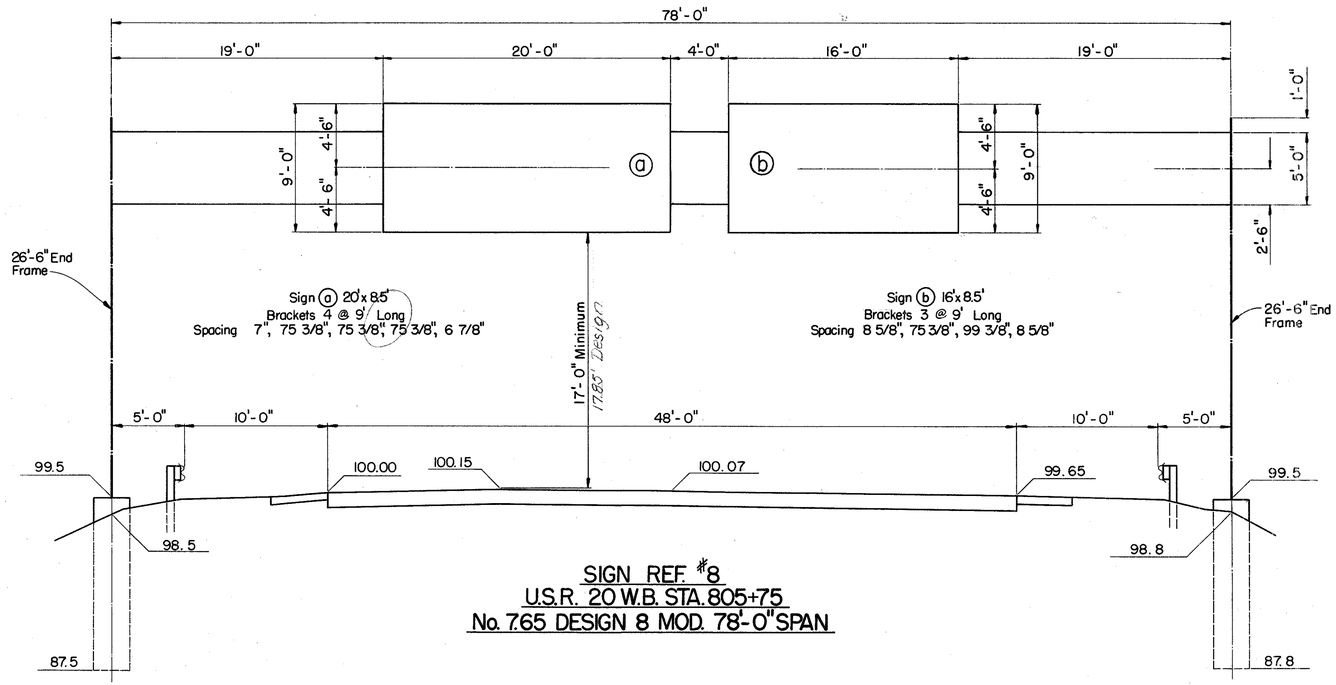
SIGN REF. #5
U.S.R. 6 W.B. STA. 511+00



SIGN REF. #6
U.S.R. 6 E.B. STA. 526+25
No. 7.65 DESIGN 6 MOD. 62'-0" SPAN



SIGN REF. #7
RAMP "G" STA. 14+65



SIGN REF. #8
U.S.R. 20 W.B. STA. 805+75
No. 7.65 DESIGN 8 MOD. 78'-0" SPAN

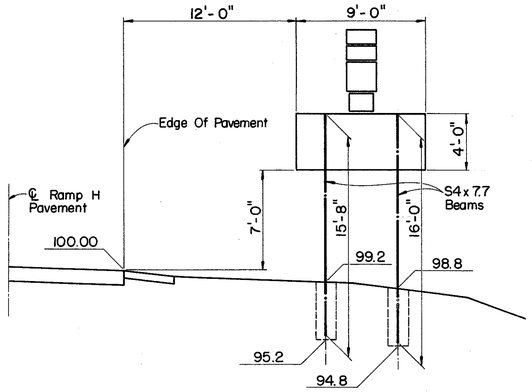
SIGN SUPPORT ELEVATION VIEWS 5 To 8

FHWA REGION	STATE	PROJECT	
5	OHIO		

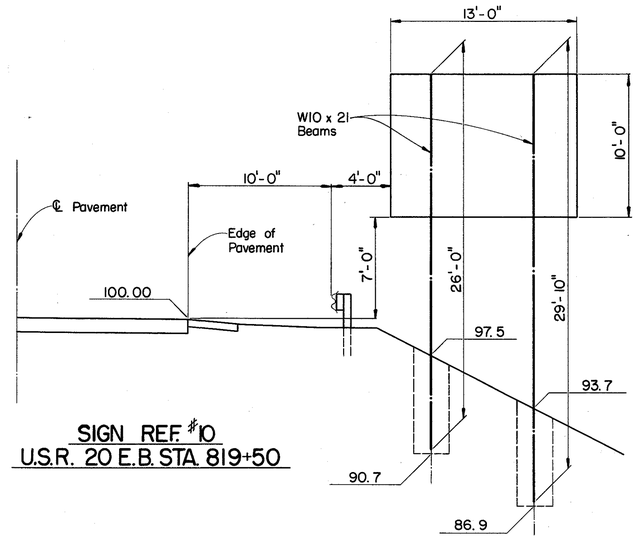
96
114

SAN. 6/20-(14.61-16.02)/14.59

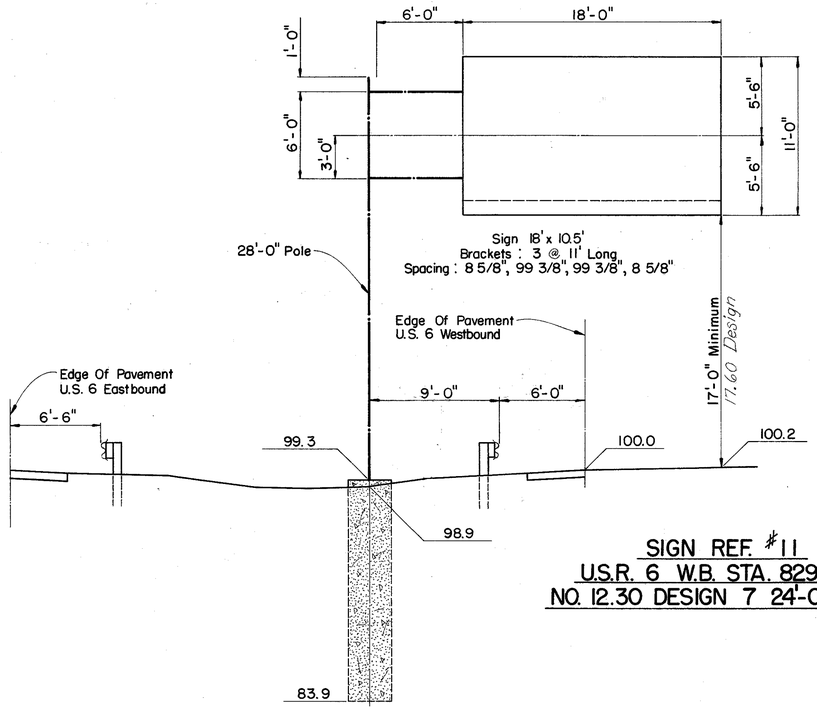
F-69(14)
F-73(2)
ROS-0005(71)



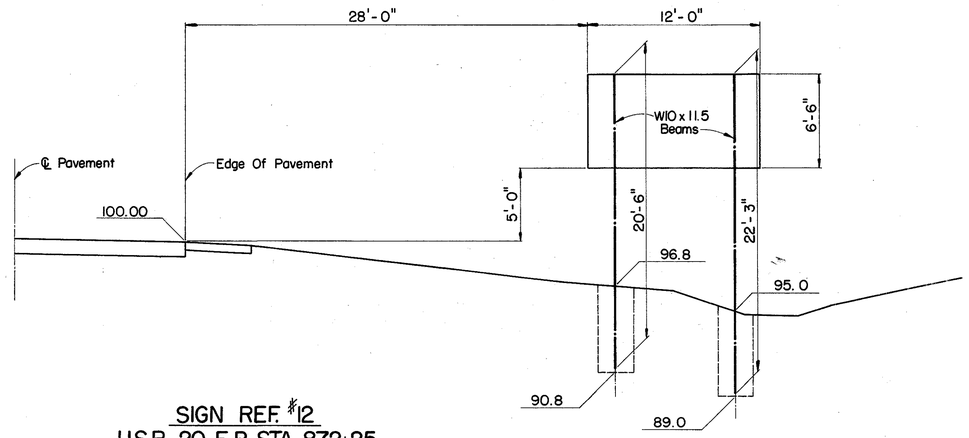
SIGN REF. # 9
RAMP "H" STA. 9+75



SIGN REF. #10
U.S.R. 20 E.B. STA. 819+50



SIGN REF. #11
U.S.R. 6 W.B. STA. 829+50
NO. 12.30 DESIGN 7 24'-0" ARMS



SIGN REF. #12
U.S.R. 20 E.B. STA. 872+25

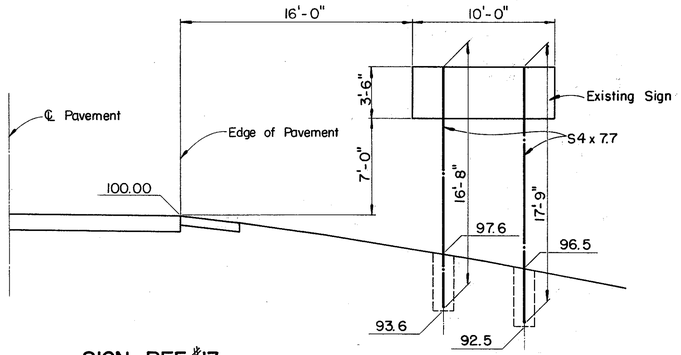
SIGN SUPPORT ELEVATION VIEWS 9 To 12

FHWA REGION	STATE	PROJECT	
5	OHIO		

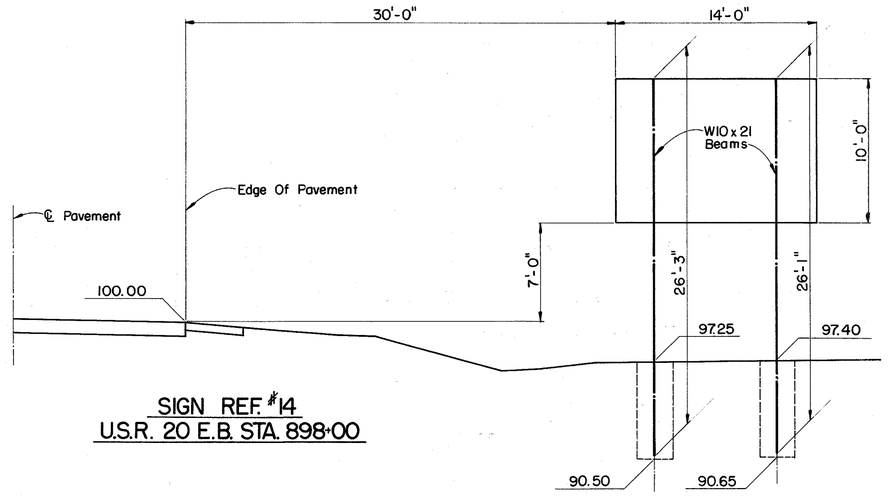
97
114

SAN. 6/20-(14.61-16.02)/14.59

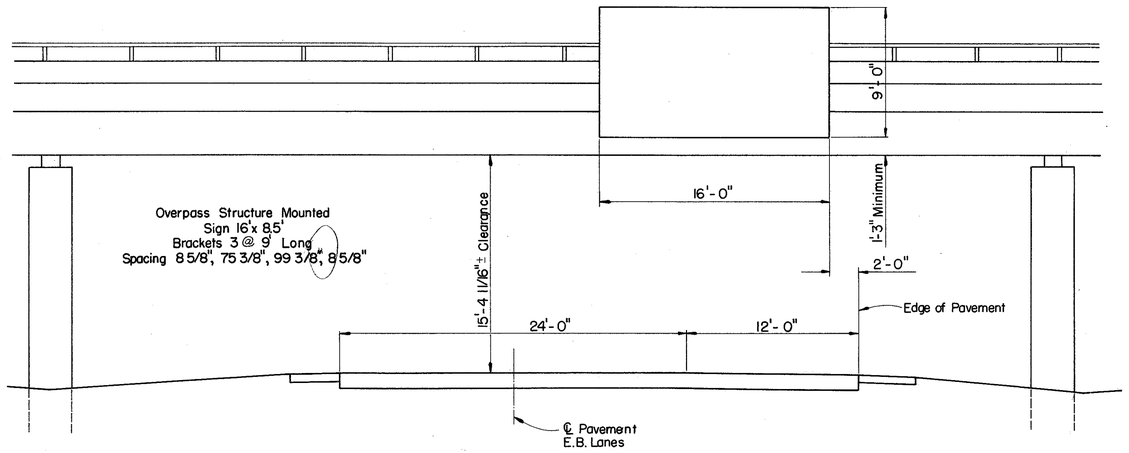
F-69(14)
F-73(2)
ROS-0005(71)



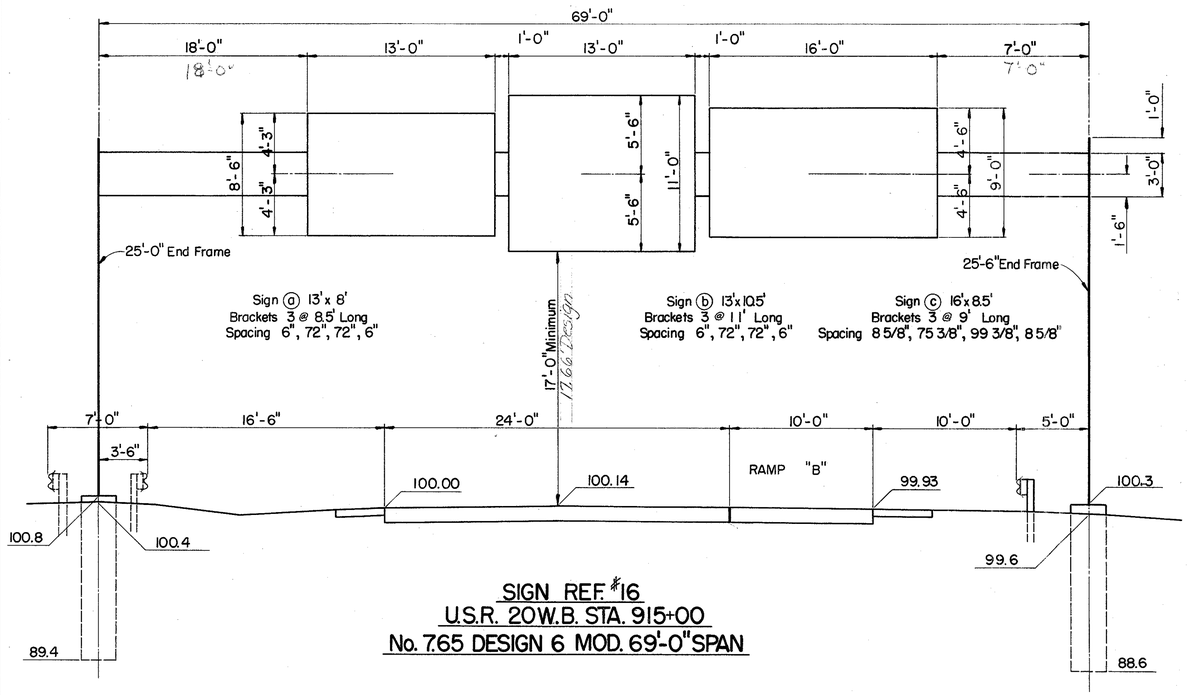
SIGN REF. #13
U.S.R. 20 W.B. STA. 883+00



SIGN REF. #14
U.S.R. 20 E.B. STA. 898+00



SIGN REF. #15
U.S.R. 20 E.B. STA. 914+30



SIGN REF. #16
U.S.R. 20 W.B. STA. 915+00
No. 7.65 DESIGN 6 MOD. 69'-0" SPAN

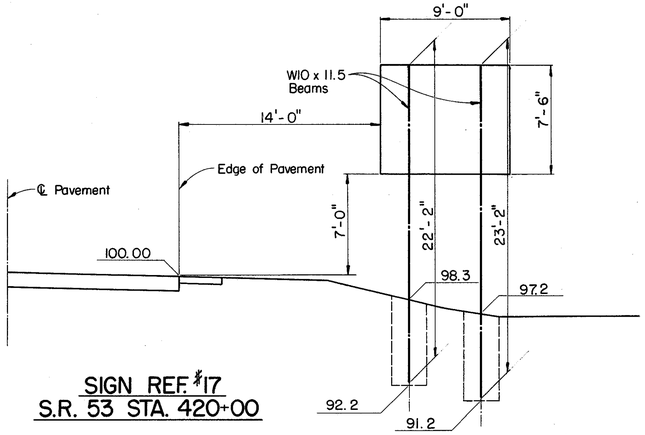
SIGN SUPPORT ELEVATION VIEWS 13 To 16

FHWA REGION	STATE	PROJECT	
5	OHIO		

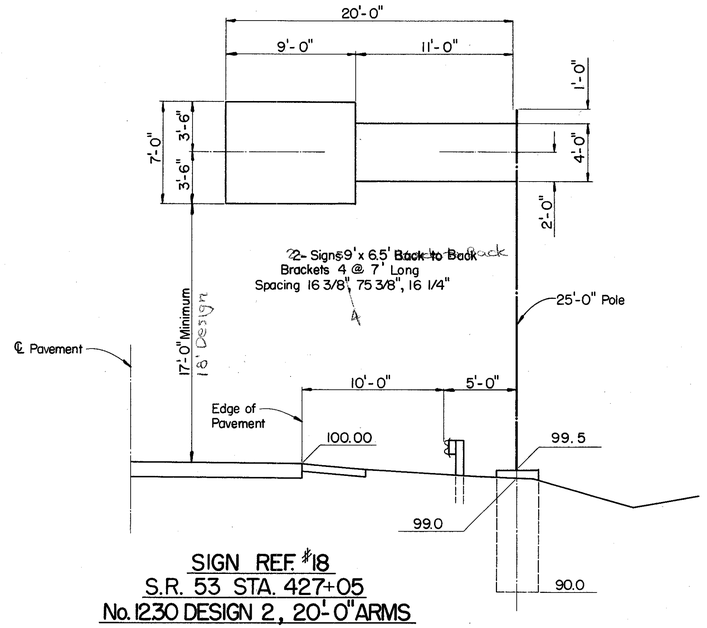
98
114

SAN. 6/20-(14.61-16.02)/14.59

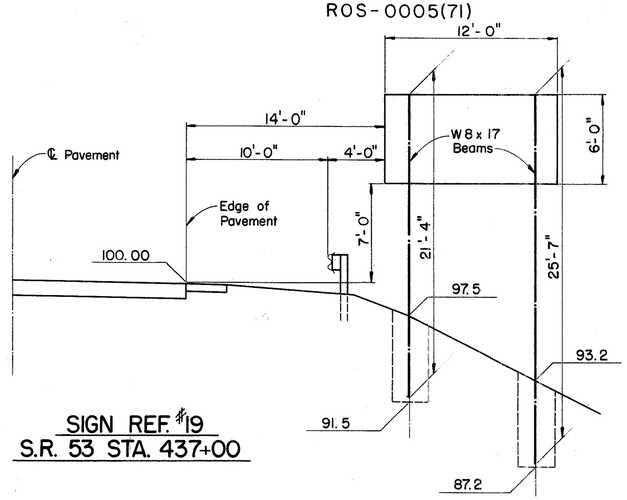
F-69(14)
F-73(2)
ROS-0005(71)



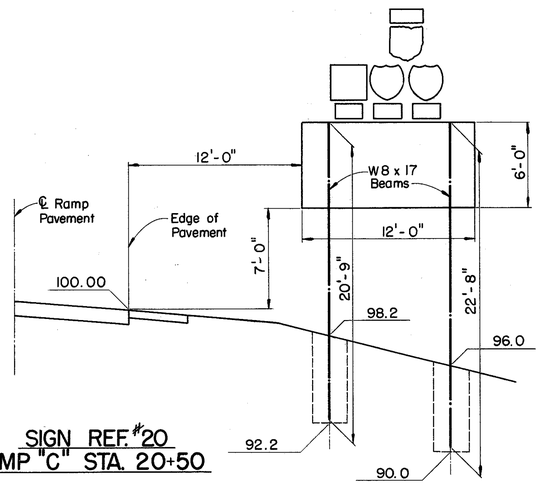
SIGN REF. #17
S.R. 53 STA. 420+00



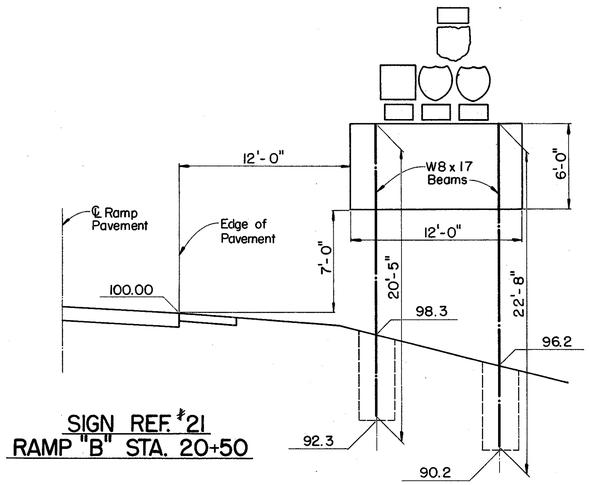
SIGN REF. #18
S.R. 53 STA. 427+05
No. 1230 DESIGN 2, 20'-0" ARMS



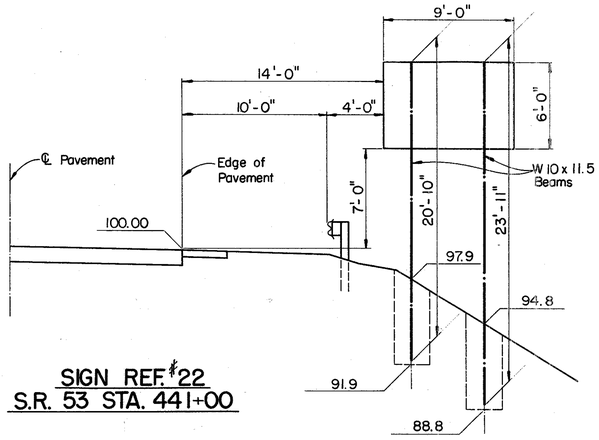
SIGN REF. #19
S.R. 53 STA. 437+00



SIGN REF. #20
RAMP "C" STA. 20+50



SIGN REF. #21
RAMP "B" STA. 20+50



SIGN REF. #22
S.R. 53 STA. 441+00

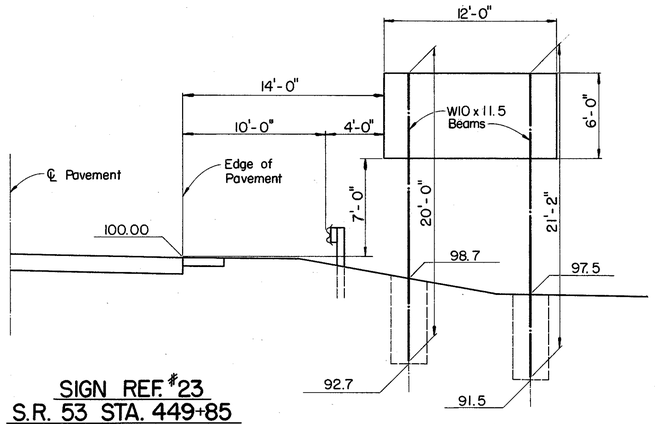
SIGN SUPPORT ELEVATION VIEWS 17 To 22

FHWA REGION	STATE	PROJECT	
5	OHIO		

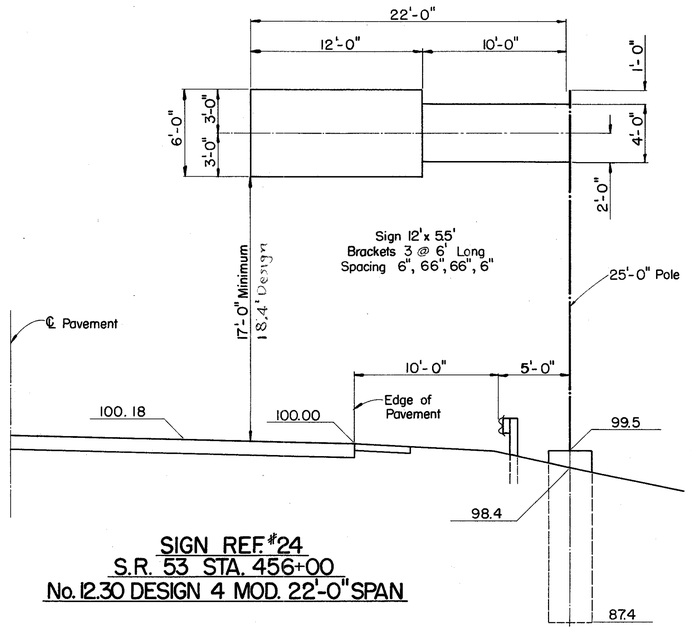
99
114

SAN. 6/20-(14.61-16.02)/14.59

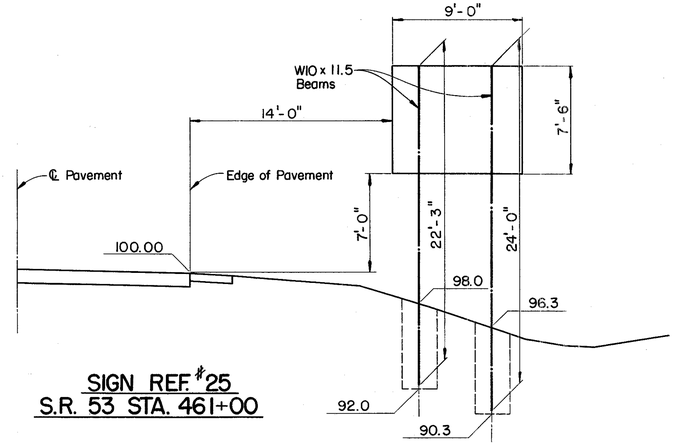
F-69(14)
F-73(2)
ROS-0005(71)



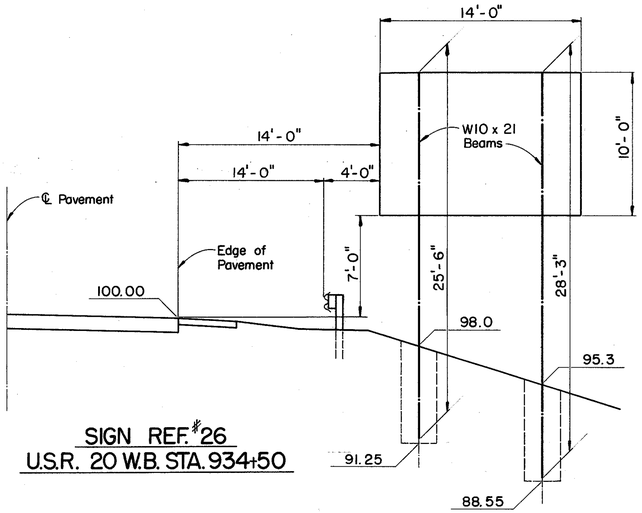
SIGN REF. #23
S.R. 53 STA. 449+85



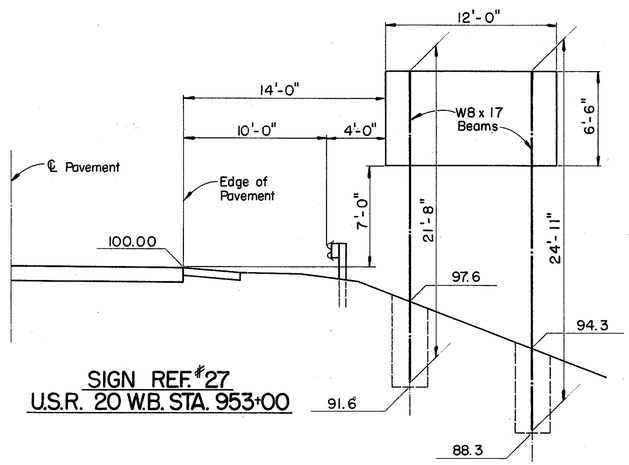
SIGN REF. #24
S.R. 53 STA. 456+00
No. 12.30 DESIGN 4 MOD. 22'-0" SPAN



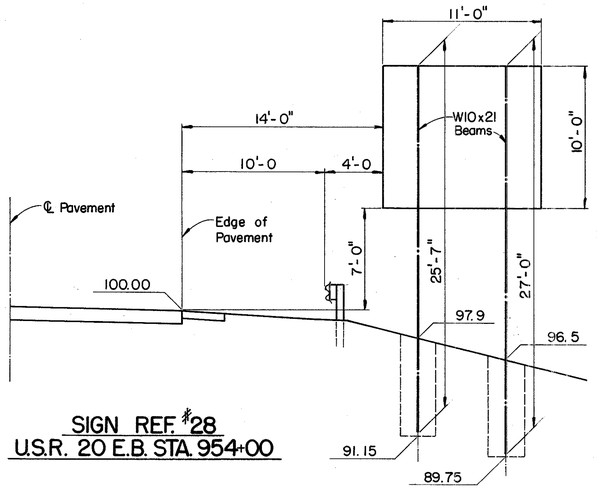
SIGN REF. #25
S.R. 53 STA. 461+00



SIGN REF. #26
U.S.R. 20 W.B. STA. 934+50



SIGN REF. #27
U.S.R. 20 W.B. STA. 953+00



SIGN REF. #28
U.S.R. 20 E.B. STA. 954+00

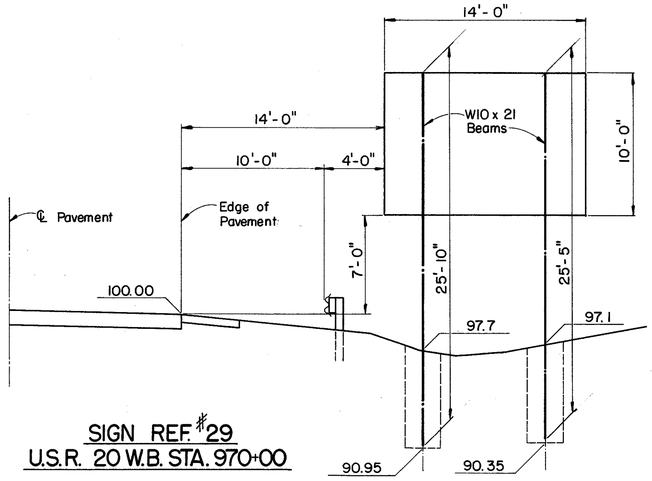
SIGN SUPPORT ELEVATION VIEWS 23 To 28

FHWA REGION	STATE	PROJECT	
5	OHIO		

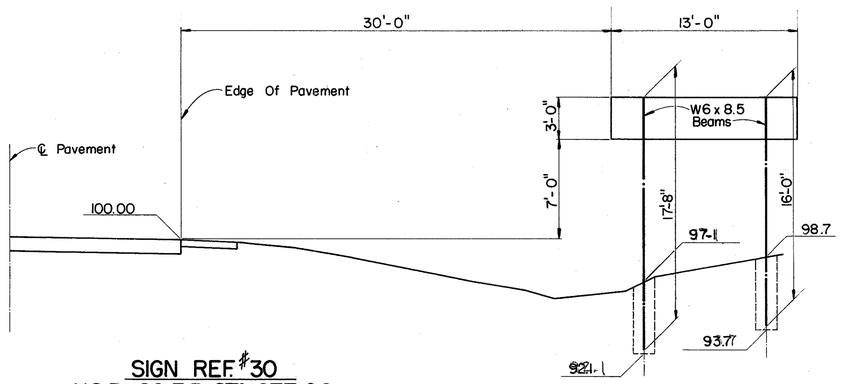
100
114

SAN. 6/20-(14.61-16.02)/14.59

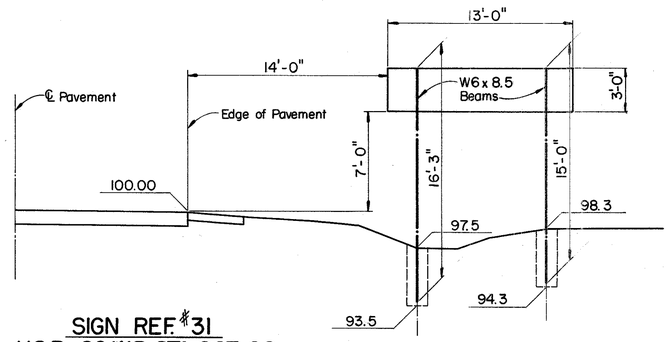
F-69(14)
F-73(2)
ROS-0005(71)



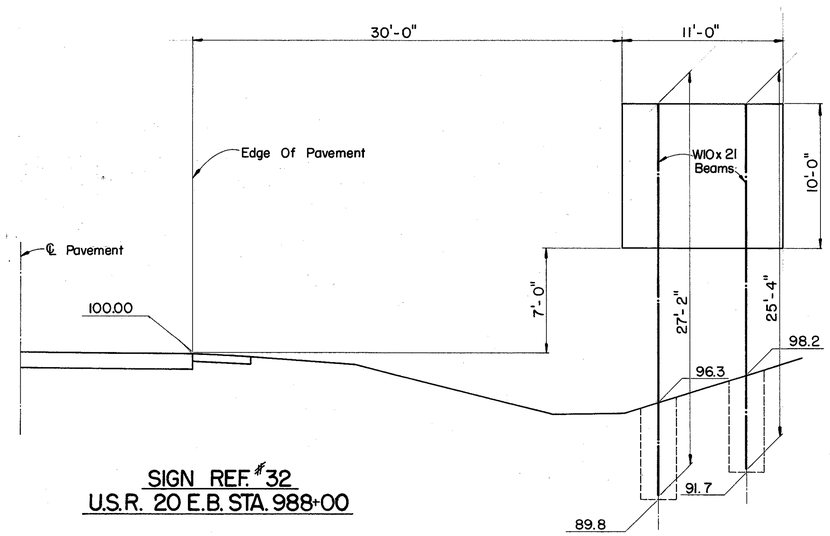
SIGN REF. #29
U.S.R. 20 W.B. STA. 970+00



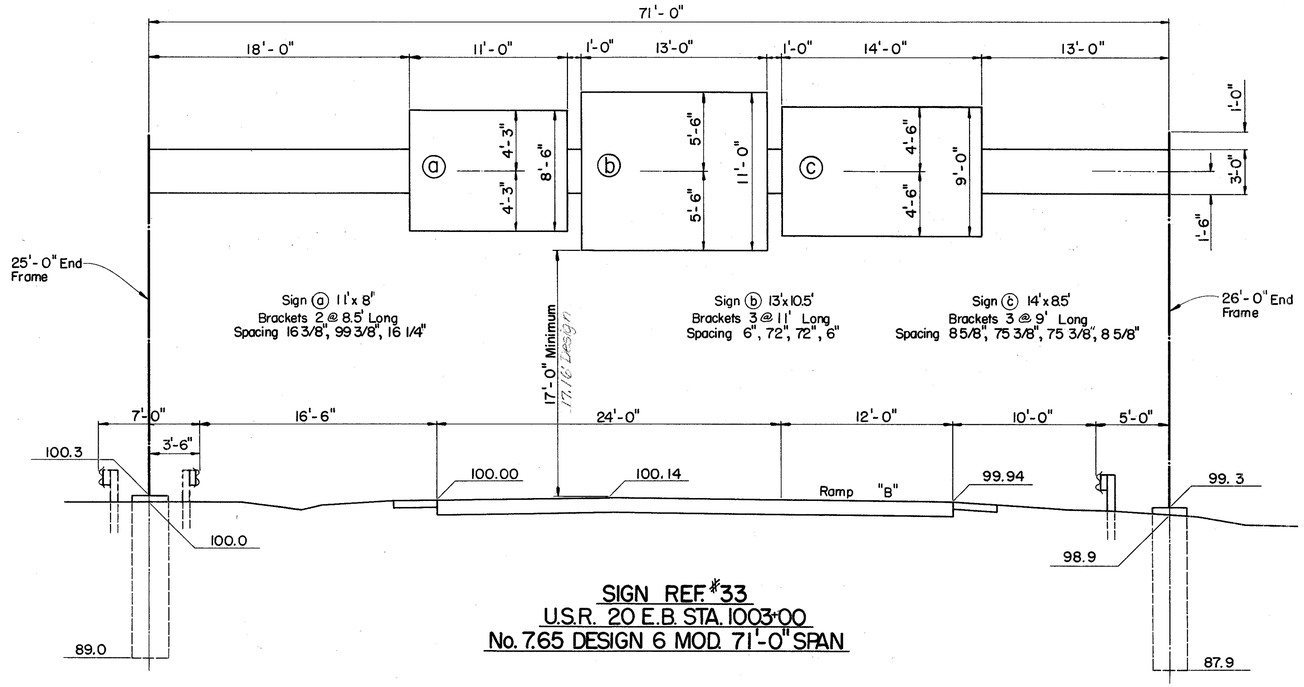
SIGN REF. #30
U.S.R. 20 E.B. STA. 977+00



SIGN REF. #31
U.S.R. 20 W.B. STA. 987+00



SIGN REF. #32
U.S.R. 20 E.B. STA. 988+00



SIGN REF. #33
U.S.R. 20 E.B. STA. 1003+00
No. 7.65 DESIGN 6 MOD. 71'-0" SPAN

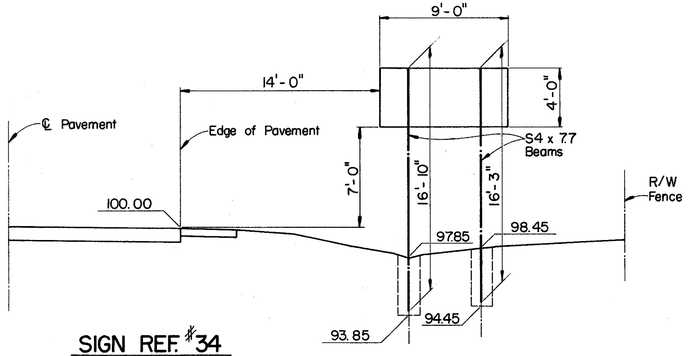
SIGN SUPPORT ELEVATION VIEWS 29 To 33

FHWA REGION	STATE	PROJECT	
5	OHIO		

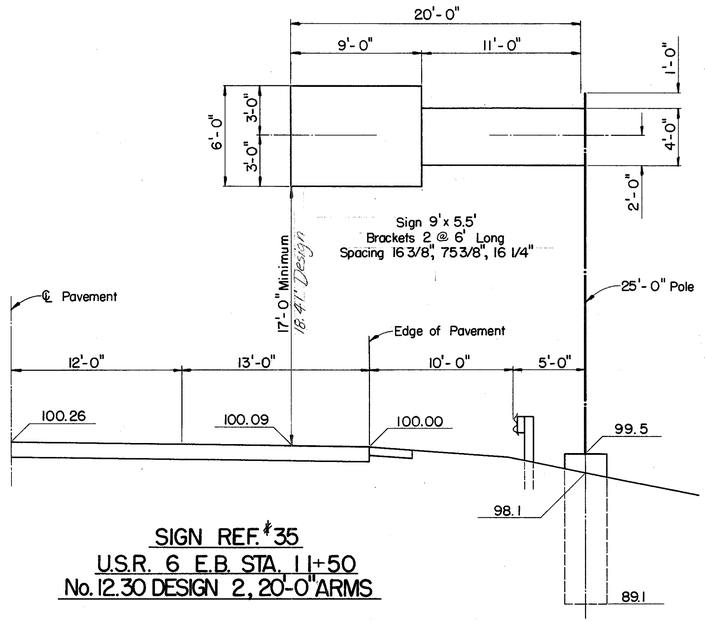
101
114

SAN. 6/20-(14.61-16.02)/14.59

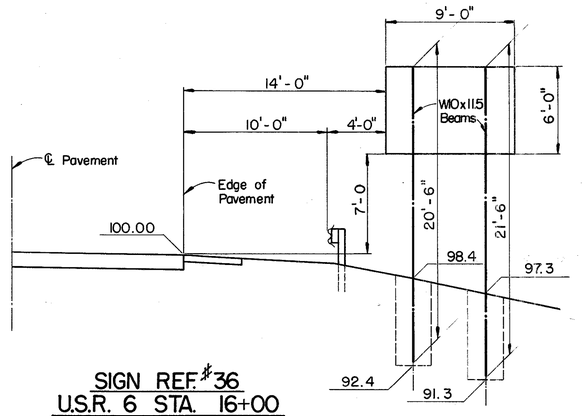
F-69(14)
F-73(2)
ROS-0005(71)



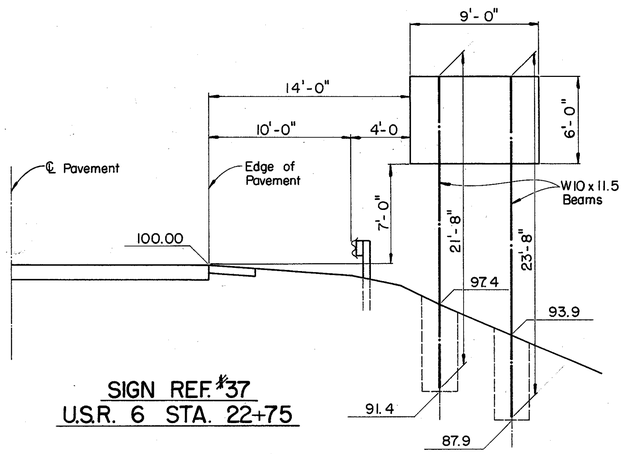
SIGN REF. #34
U.S.R. 6 STA 9+00



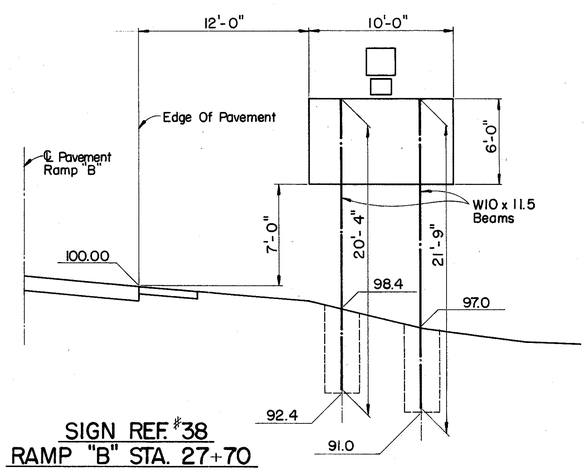
SIGN REF. #35
U.S.R. 6 E.B. STA. 11+50
No. 12.30 DESIGN 2, 20'-0" ARMS



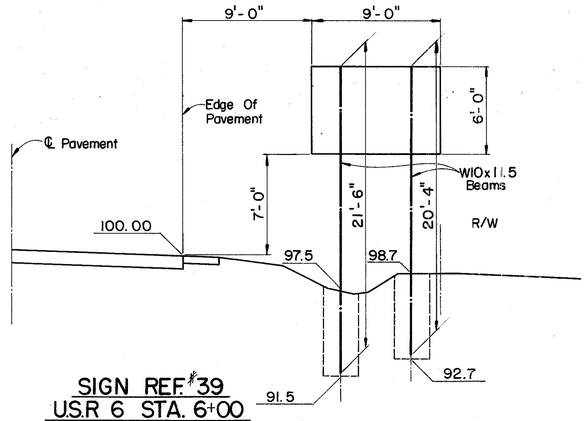
SIGN REF. #36
U.S.R. 6 STA. 16+00



SIGN REF. #37
U.S.R. 6 STA. 22+75



SIGN REF. #38
RAMP "B" STA. 27+70



SIGN REF. #39
U.S.R 6 STA. 6+00

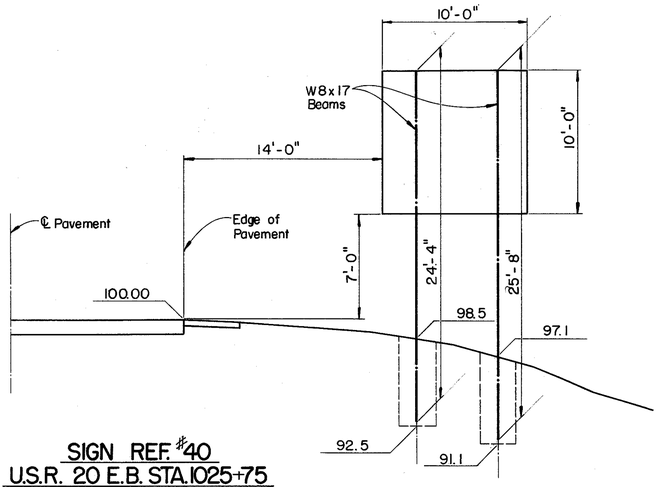
SIGN SUPPORT ELEVATION VIEWS 34 To 39

FHWA REGION	STATE	PROJECT	
5	OHIO		

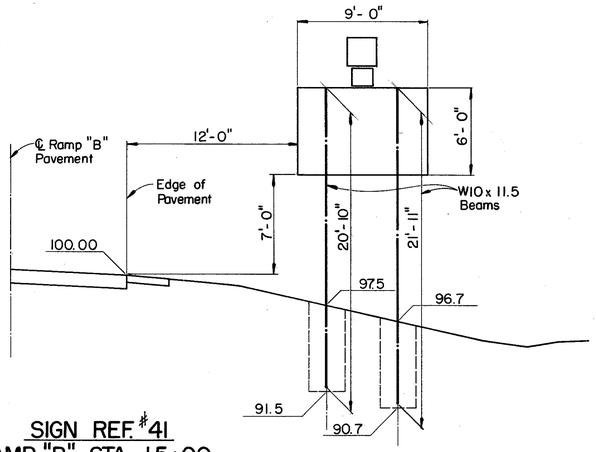
102
114

SAN. 6/20-(14.61-16.02)/14.59

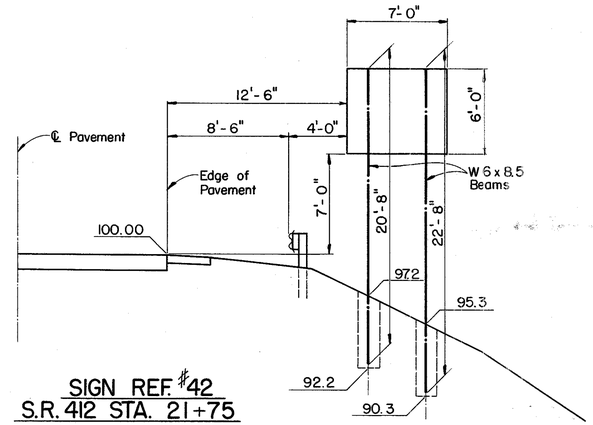
F-69(14)
F-73(2)
ROS-0005(71)



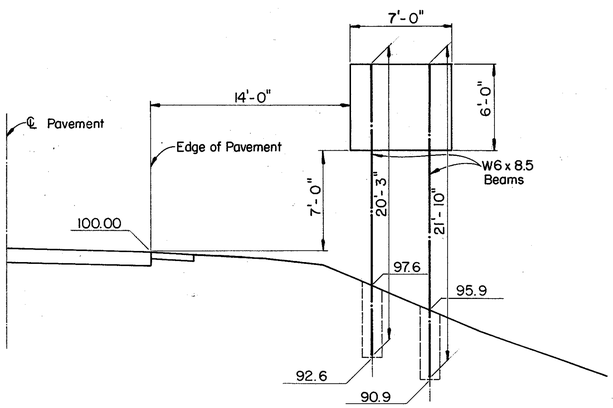
SIGN REF. #40
U.S.R. 20 E.B. STA. 1025+75



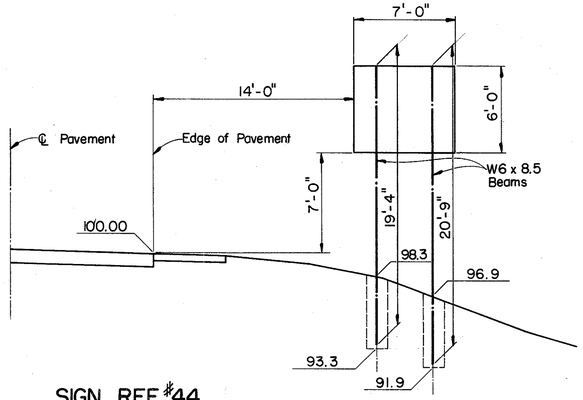
SIGN REF. #41
RAMP "B" STA. 15+00



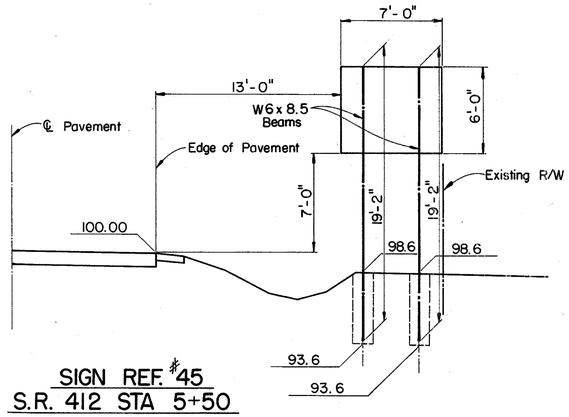
SIGN REF. #42
S.R. 412 STA. 21+75



SIGN REF. #43
S.R. 412 STA. 15+00



SIGN REF. #44
S.R. 412 STA. 15+40



SIGN REF. #45
S.R. 412 STA 5+50

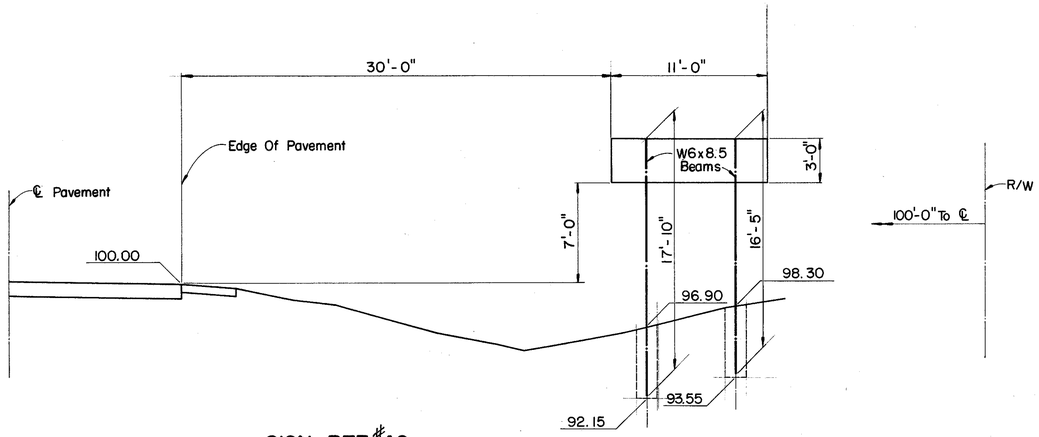
SIGN SUPPORT ELEVATION VIEWS 40 To 45

FHWA REGION	STATE	PROJECT	
5	OHIO		

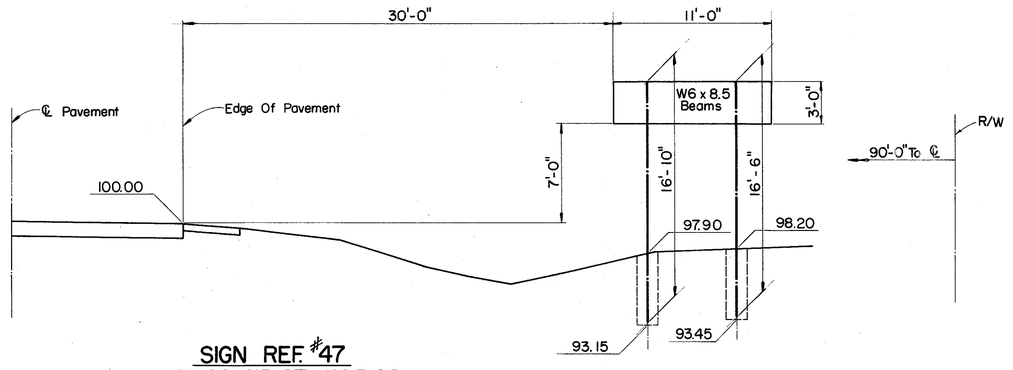
103
114

SAN. 6/20-(14.61-16.02)/14.59

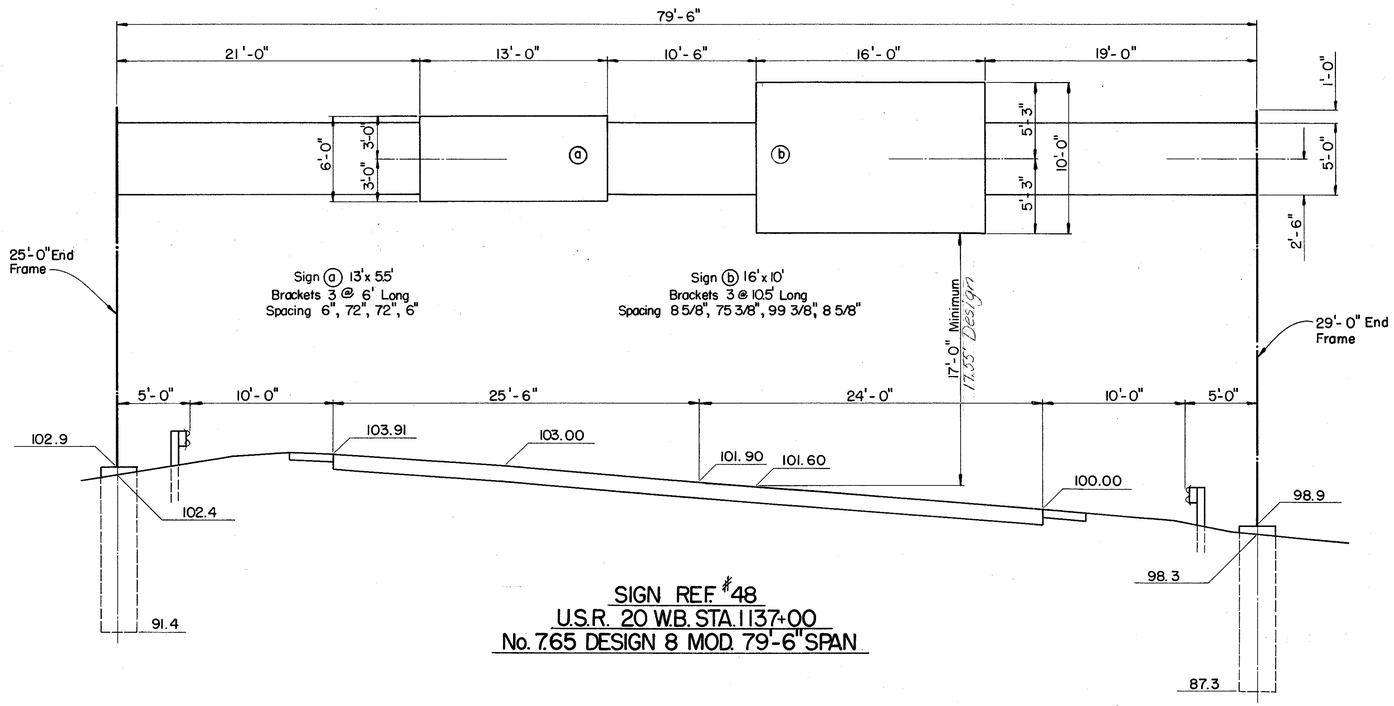
F-69(14)
F-73(2)
ROS-0005(71)



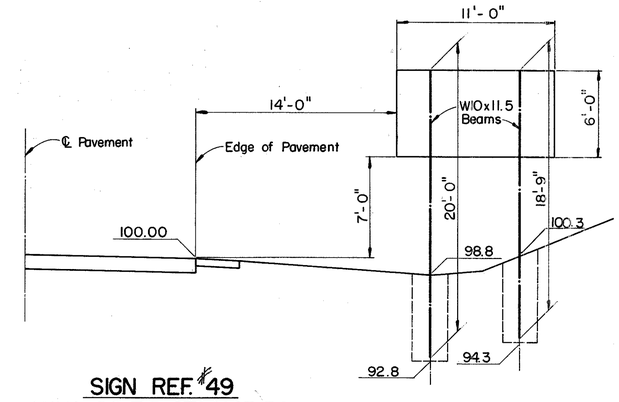
SIGN REF. #46
U.S.R. 20 E.B. STA. 1095+00



SIGN REF. #47
U.S.R. 20 W.B. STA. 1105+00



SIGN REF. #48
U.S.R. 20 W.B. STA. 1137+00
No. 7.65 DESIGN 8 MOD. 79'-6" SPAN



SIGN REF. #49
U.S.R. 20 E.B STA. 1143+50

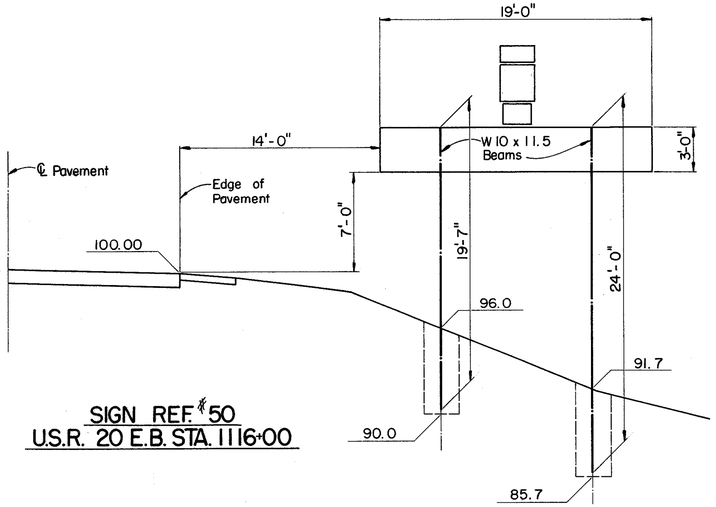
SIGN SUPPORT ELEVATION VIEWS 46 To 49

FHWA REGION	STATE	PROJECT	
5	OHIO		

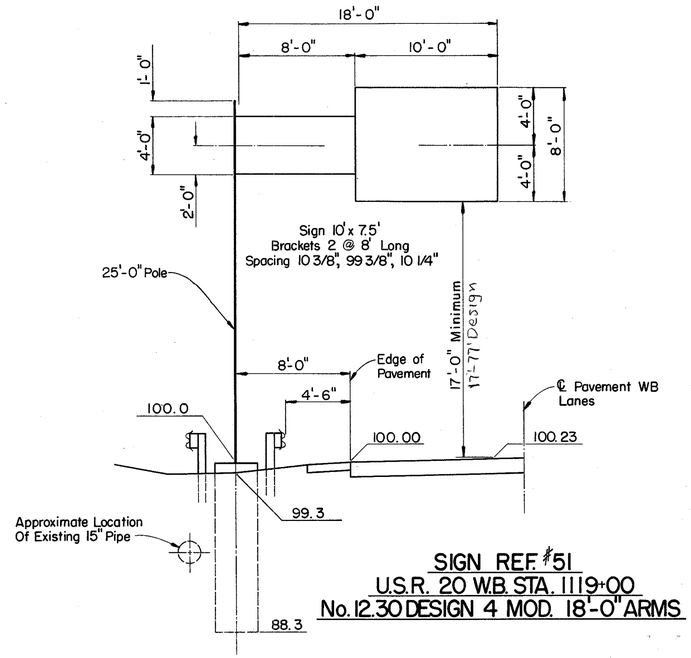
104

SAN. 6/20-(14.61-16.02)/14.59

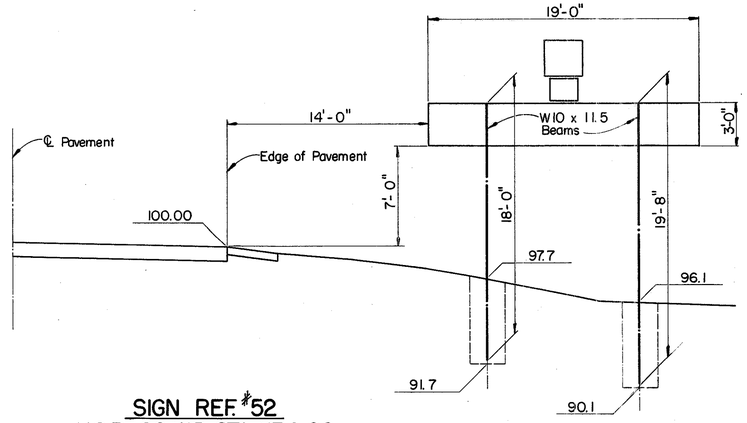
F-69(14)
F-73(2)
ROS-0005(71)



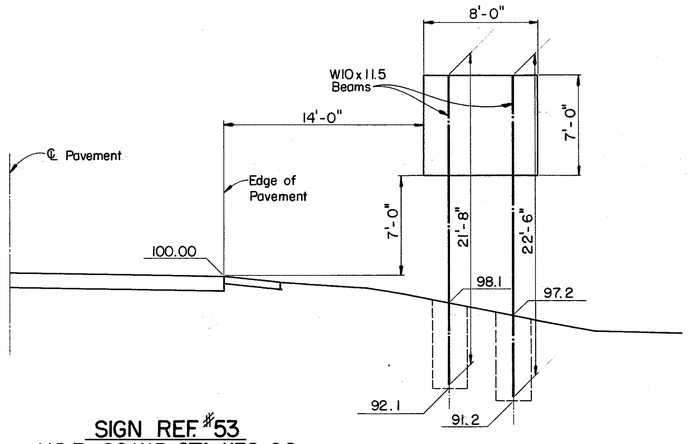
SIGN REF. #50
U.S.R. 20 E.B. STA. 1116+00



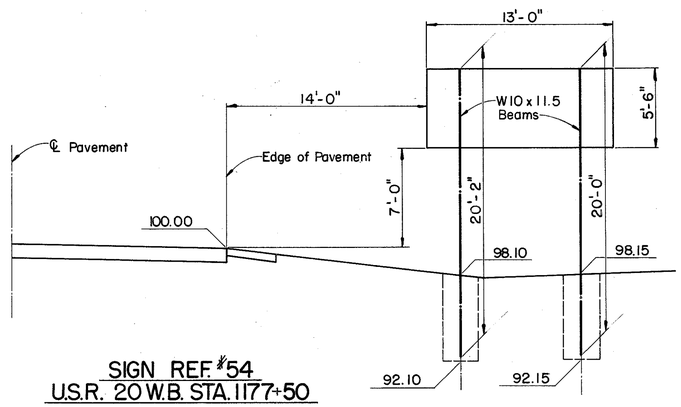
SIGN REF. #51
U.S.R. 20 W.B. STA. 1119+00
No. 12.30 DESIGN 4 MOD. 18'-0" ARMS



SIGN REF. #52
U.S.R. 20 W.B. STA. 1134+00



SIGN REF. #53
U.S.R. 20 W.B. STA. 1138+00



SIGN REF. #54
U.S.R. 20 W.B. STA. 1177+50

SIGN SUPPORT ELEVATION VIEWS 50 To 54

FHWA REGION	STATE	PROJECT	
5	OHIO		

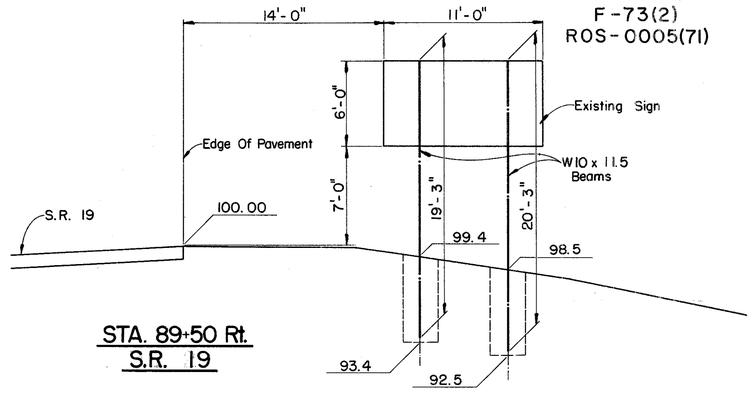
105
114

SAN. 6/20-(14.61-16.02)/14.59

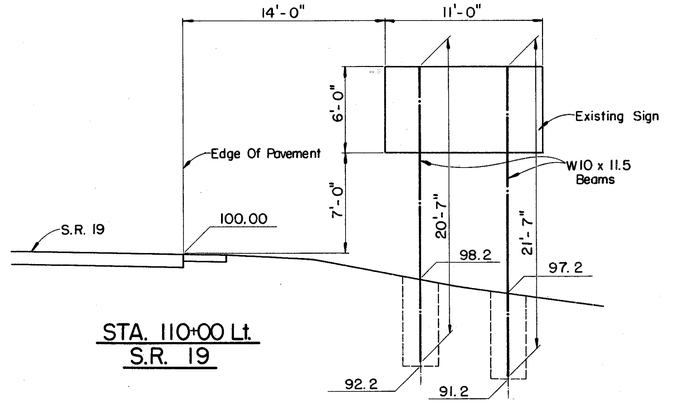
844 SIGNS REMOVED AND RE-ERECTED

SHEET NO.	ROUTE	STATION	SIDE	844											202
					GROUND MOUNTED SUPPORT										
				REMOVE AND RE-ERECT GROUND MOUNTED SIGNS	NO. 2 POST DRIVEN	NO. 3 POST DRIVEN	NO. 4 POST DRIVEN			S4 x 7.7 BEAM		W10 x 1.5 BEAM		BREAKAWAY BEAM CONNECTION	CONCRETE FOR EMBEDDED FOUNDATIONS	REMOVAL OF GROUND MOUNTED SIGN SUPPORT FOR STORAGE
				EACH	LIN. FT.	LIN. FT.	LIN. FT			LIN. FT.		LIN. FT.		EACH	CU. YD.	EACH
70	S.R. 19	89+50	Rt.	3								19'-3" 20'-3"		2	2.2	3
70	S.R. 19	96+00	Rt.	2		13.5										1
70	S.R. 19	110+00	Lt.	3								20'-7" 21'-7"		2	2.2	2
70	S.R. 19	116+00	Rt.	1	12.0 12.5											2
70	S.R. 19	120+00	Lt.	4			13.5									1
70	S.R. 19	125+50	Lt.	2		13.5										1
70	RAMP "A-B"	865+15	Lt.	2			13.5									1
70	RAMP "D"	866+15	Lt.	2			13.5									1
70	RAMP "B" U.S. 6	868+60	Rt.	1						15'-0" 15'-0"				2	.6	2
70	RAMP B	872+75	Rt.	1			14.5									1
70	U.S. 20	857+50	Rt.	1						16'-9" 17'-11"				2	.6	3
71	U.S. 20	883+00 REF. NO. 13	Lt.	1						16'-8" 17'-9"				2	.6	3
TOTALS CARRIED TO GENERAL SUMMARY				23	24.5	27.0	55.0			99'-1"		81'-8"		10	6.2	21

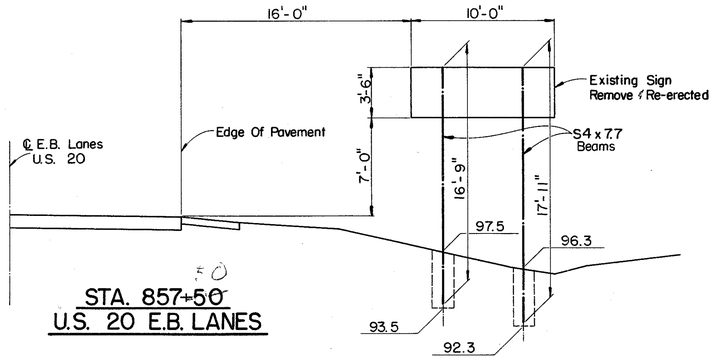
F-69(14)
F-73(2)
ROS-0005(71)



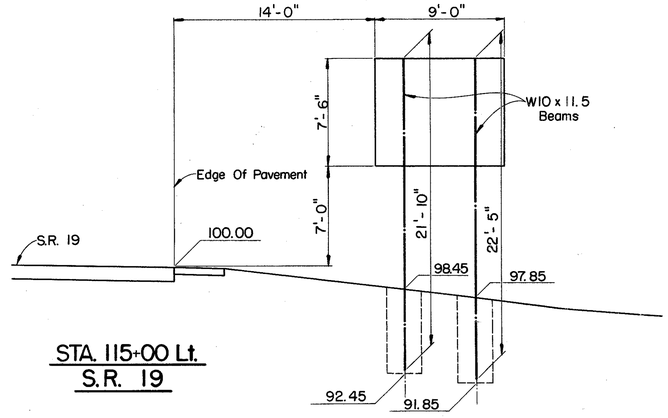
STA. 89+50 Rt.
S.R. 19



STA. 110+00 Lt.
S.R. 19



STA. 857+50
U.S. 20 E.B. LANES



STA. 115+00 Lt.
S.R. 19

SIGN SUPPORT ELEVATION VIEWS

FHWA REGION	STATE	PROJECT	
5	OHIO		

106
114

SAN 6/20 - (14.61 - 16.02) / 14.59

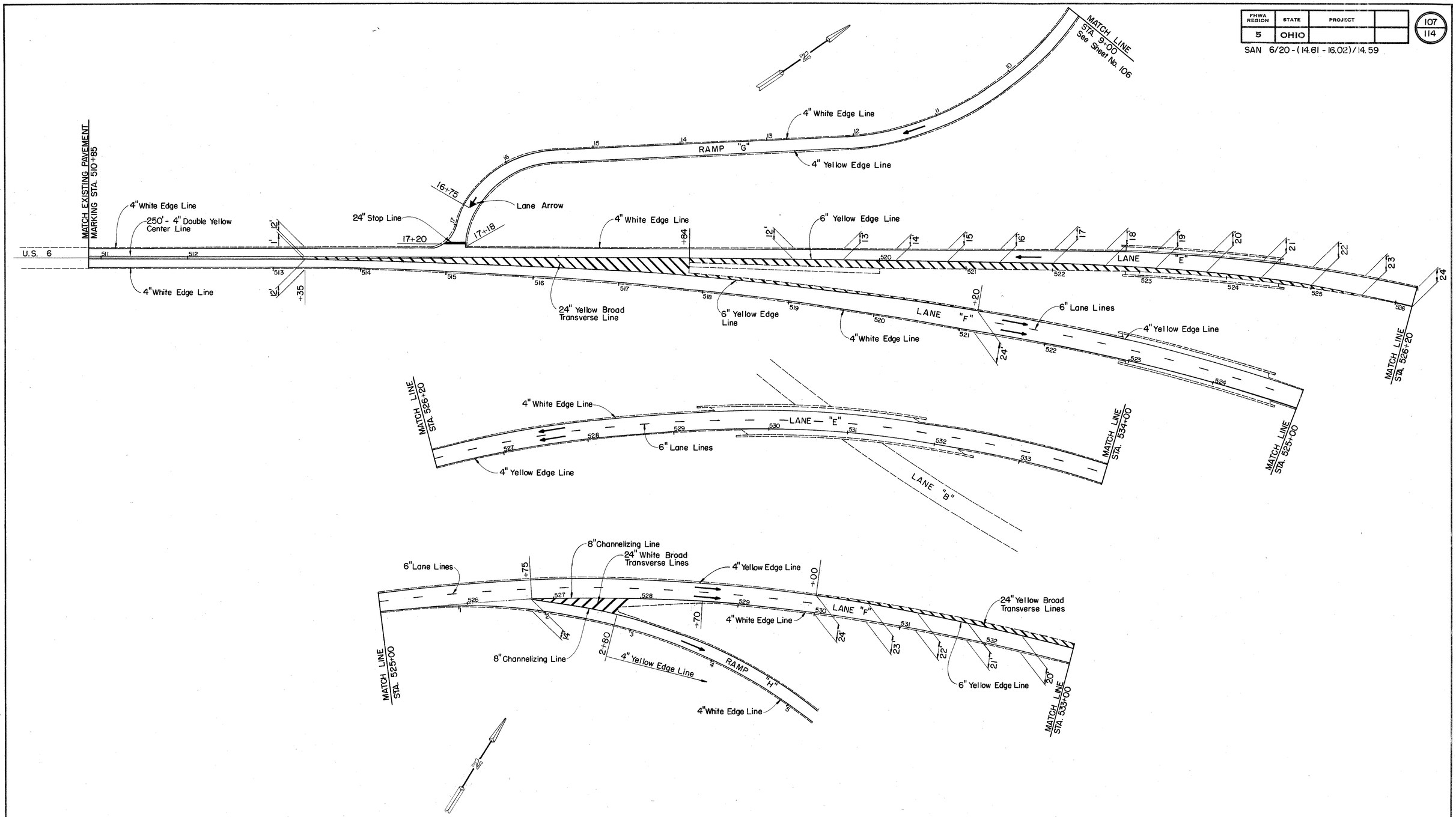
MATCH EXISTING PAVEMENT MARKING STA. 768+50
6" Lane Lines
— U.S. — 20 — W.B. —
4" White Edge Line
24" White Broad Transverse Line W/6" White Edge Line
24" Yellow Broad Transverse Line W/6" Yellow Edge Line
Co. Rd. 138
60' Spacing Typical
773+70
+68
+70
4" White Edge Line
4" Yellow Edge Line
6" Lane Lines
— U.S. — 20 — E.B. —
24" White Broad Transverse Line
24" Yellow Broad Transverse Line 12" c/c (Typical)
4" White Edge Line
6" Yellow Edge Line
LANE "C"
4" White Edge Line
4" Lane Lines
784+00
785+00
MATCH LINE STA.
4" White Edge Line
4" Yellow Edge Line
783+00
6" Lane Line
LANE "A"
6" Lane Lines
24" White Broad Transverse Line
8" Channelizing Line
6" White Edge Line
4" Yellow Edge Line
LANE — "B"
4" White Edge Line
Sta. 783+08.18 = Sta. 4+83.72 ℄ Survey County Road 20 E.B.
MATCH LINE STA. 5+25
778+30
75'-0" (Typical)
781+30
24" White Broad Transverse Line
CO. RD. 20 E.B.
8" Channelizing Line
6" White Edge Line
4" Yellow Edge Line
CO. RD. 20 E.B.
4" White Edge Line
4" Lane Lines
MATCH LINE STA. 5+25
MATCH LINE STA. 785+00
LANE "C"
4" White Edge Lines
4" Yellow Edge Lines
4" Lane Lines
MATCH LINE STA. 7+00
CO. — RD. — 20 — E.B.
4" Yellow Edge Line
4" Lane Lines
4" White Edge Line
24" White Broad Transverse Lines
8" Channelizing Line
+55
+80
6+70
14'
8" Channelizing Line
4" Yellow Edge Line
RAMP "G"
4" White Edge Line
MATCH LINE STA. 9+00
MATCH LINE STA. 21+00
4" White Edge Line
4" Yellow Edge Line
RAMP "H"
Lane Arrow
+20
24" Stop Line
12+65
+95
+45
4" Lane Lines
CO. — RD. — 20 — W.B.
4" Yellow Edge Line
CO. — RD. — 20 — E.B.
4" White Edge Line
4" Lane Lines
MATCH LINE STA. 21+00
MATCH EXISTING PAVEMENT MARKING STA. 27+50

TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

107
114

SAN 6/20 - (14.61 - 16.02) / 14.59

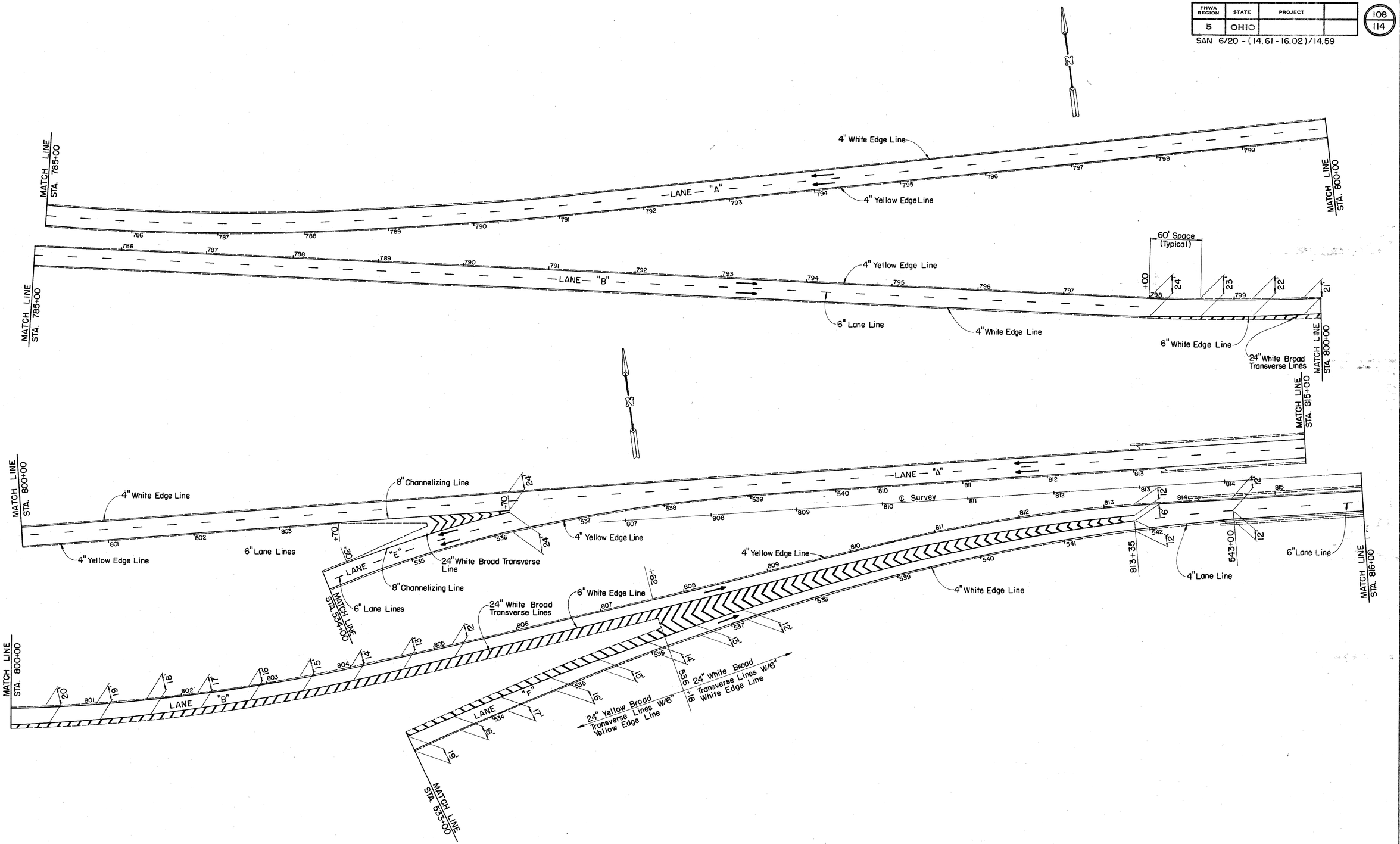


TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

108
114

SAN 6/20 - (14.61 - 16.02)/14.59

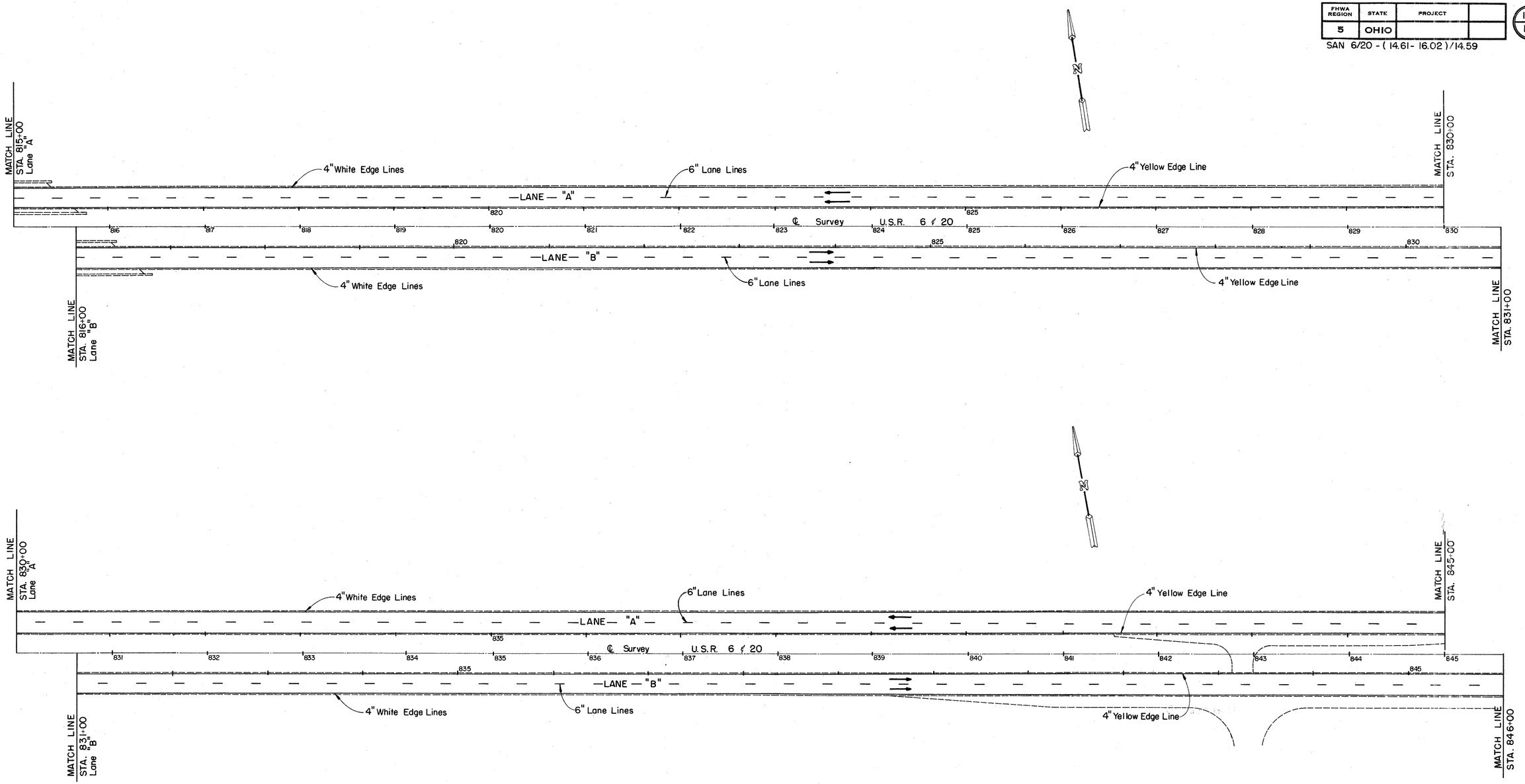


TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

109
114

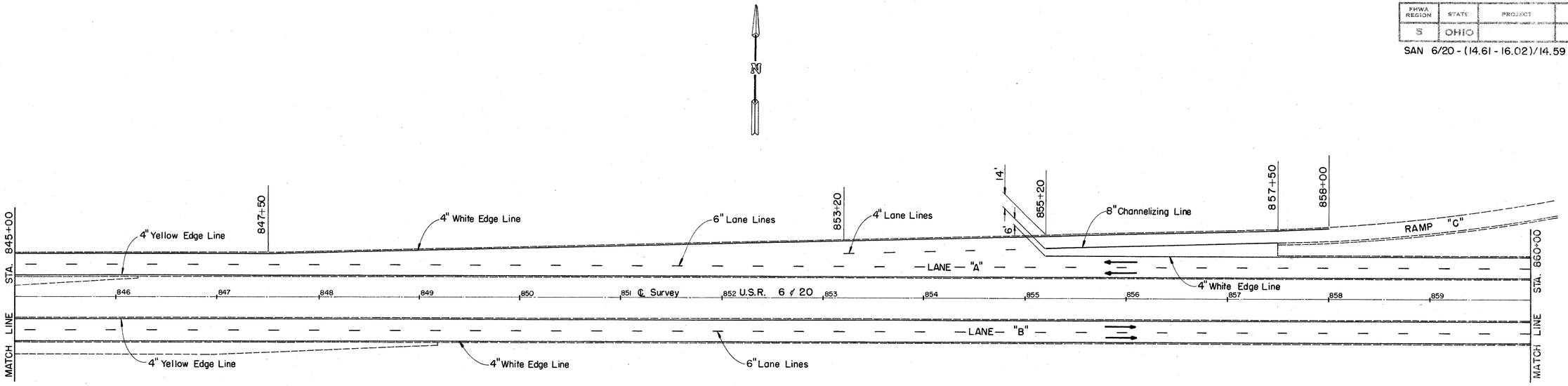
SAN 6/20 - (14.61 - 16.02) / 14.59

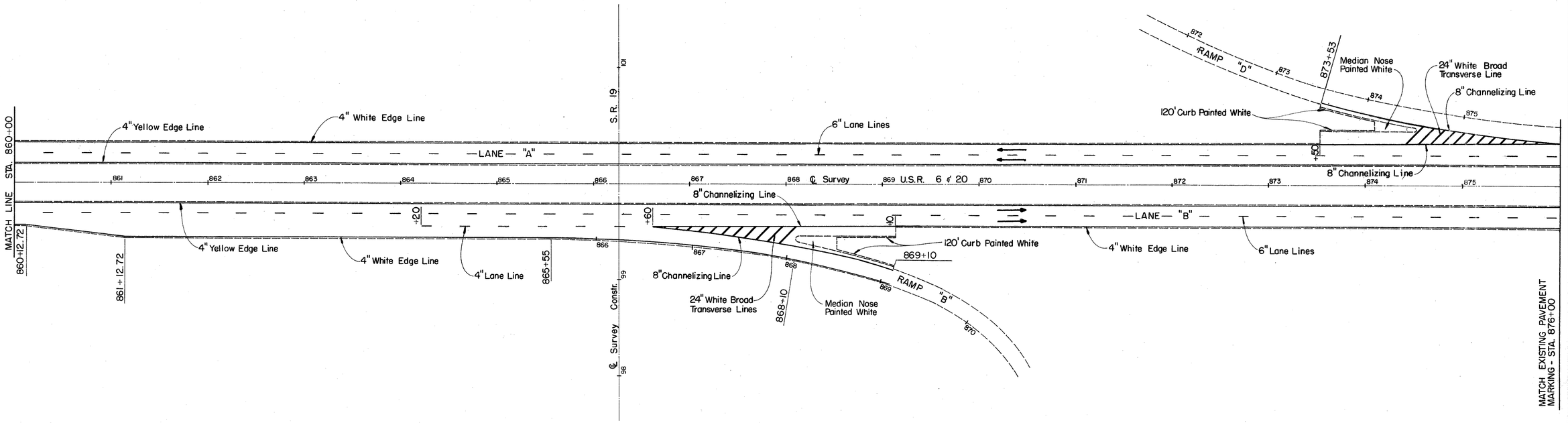


TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN 6/20 - (14.61 - 16.02)/14.59



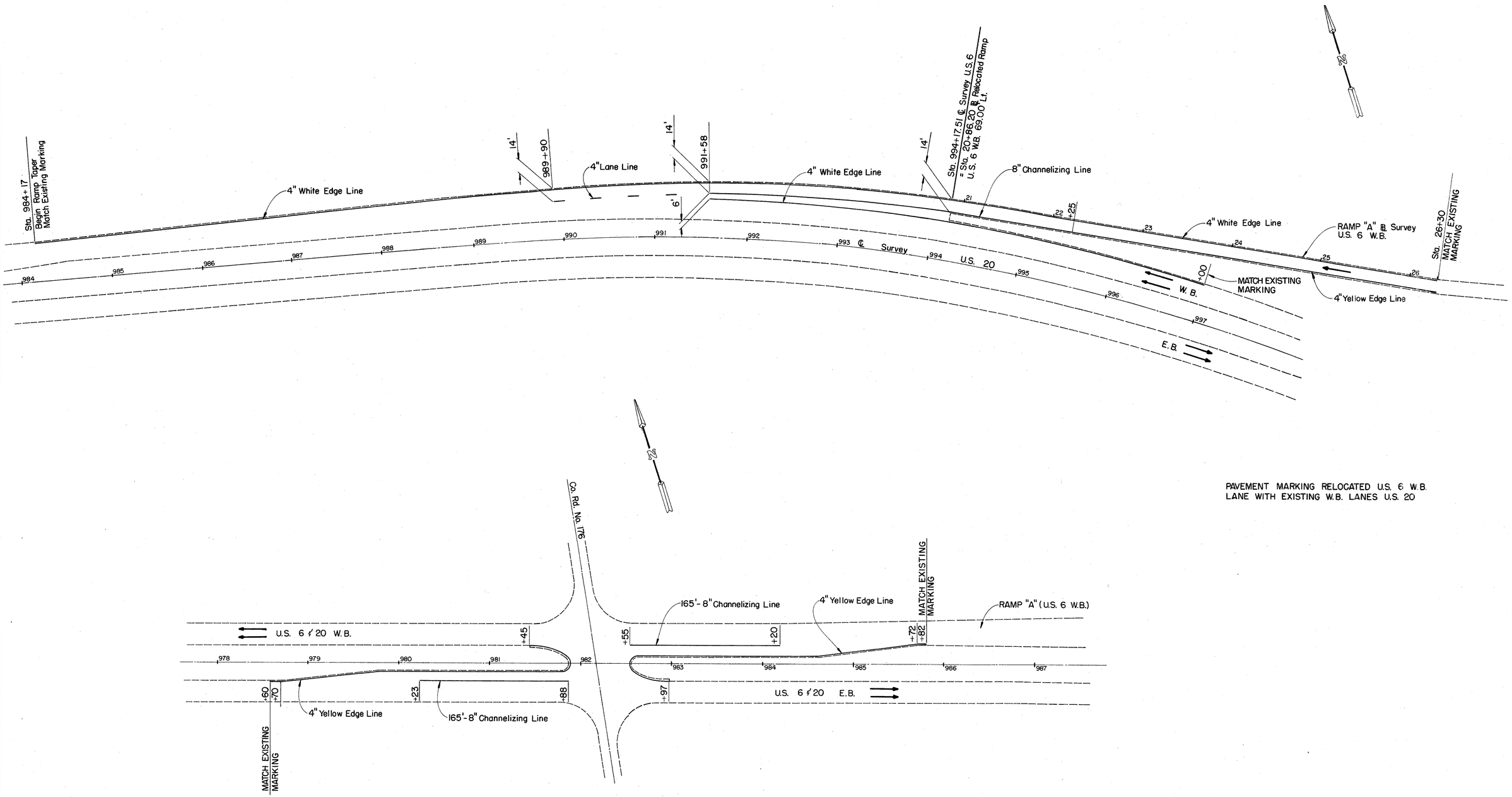


TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

111
114

SAN 6/20 - (14.61 - 16.02) / 14.59



PAVEMENT MARKING RELOCATED U.S. 6 W.B.
LANE WITH EXISTING W.B. LANES U.S. 20

TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

112
114

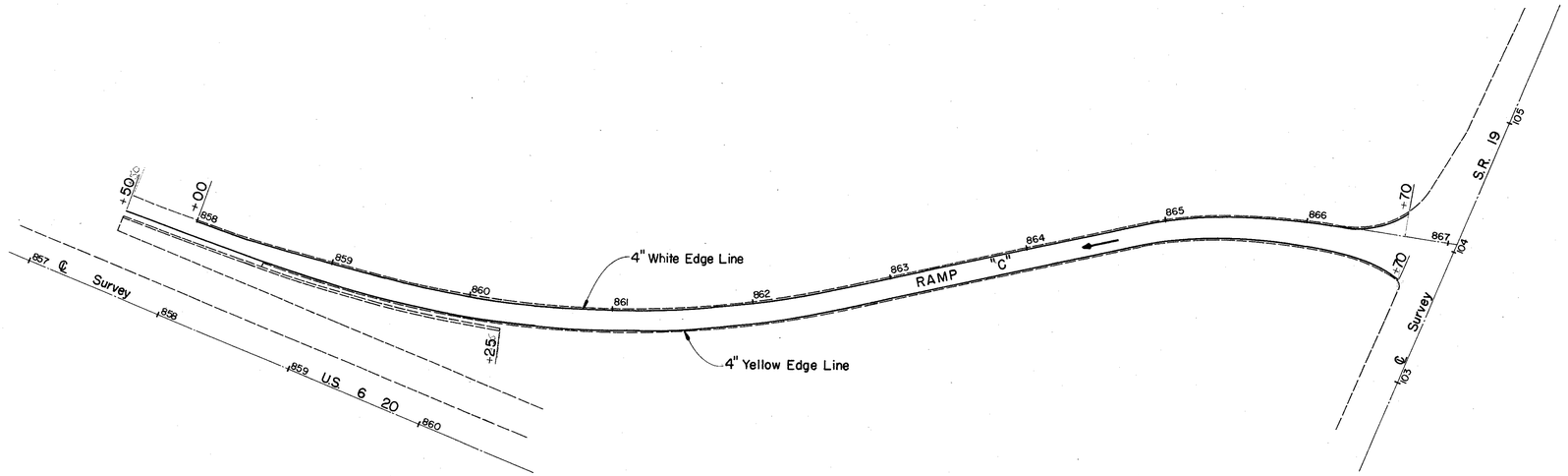
SAN 6/20 - (14.61 - 16.02) / 14.59

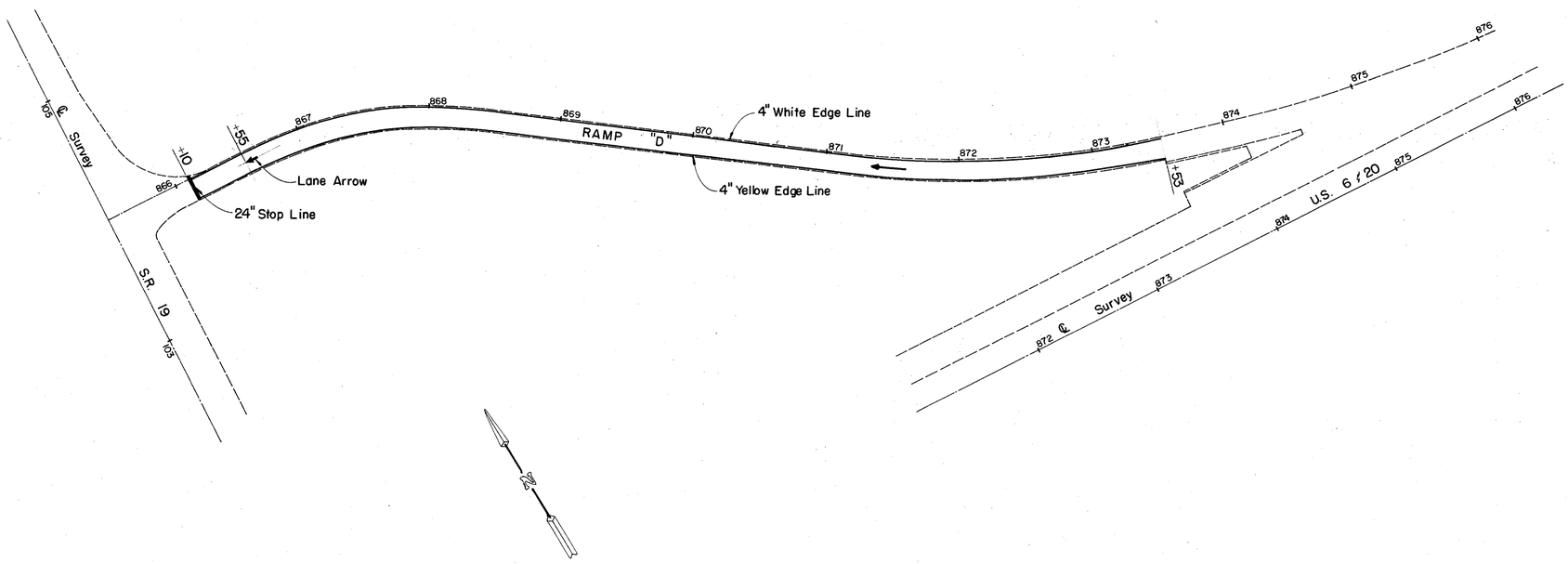
TRAFFIC CONTROL - PAVEMENT MARKING

FHWA REGION	STATE	PROJECT	
5	OHIO		

113
114

SAN 6/20-(14.61-16.02)/14.59





TRAFFIC CONTROL - PAVEMENT MARKING

QUANTITIES CALC BY W.E.P DATE 5-4-78 CKD BY S.A.A. DATE 5-16-78

F-69(14)
F-73(2)
ROS-0005(71)

FHWA REGION	STATE	PROJECT	
5	OHIO		

SAN. 6/20 (14.61 - 16.02)/14.59

114
114

TRAFFIC CONTROL PAVEMENT MARKING SUB SUMMARY

* QUANTITIES FOR FEDERAL NUMBER F-73(2)

LOCATION	FROM SHEET NO.	STATION FROM	STATION TO	621 4" WHITE EDGE LINE	621 4" YELLOW EDGE LINE	621 4" LANE LINE	621 6" LANE LINE	621 24" STOP LINE	621 LANE ARROW	621 4" CENTERLINE SOLID DOUBLE	847 8" CHANNELIZING LINE BY TYPE 621	847 8" CHANNELIZING LINE BY TYPE 847	847 6" EDGE LINE WHITE	847 6" EDGE LINE YELLOW	847 24" BROAD TRANSVERSE LINE WHITE	847 24" BROAD TRANSVERSE LINE YELLOW	621 WHITE CURB MARKING	621 WHITE ISLAND MARKING
				MILES	MILES	MILES	MILES	LIN. FT.	EACH	MILES	MILES	MILES	MILES	MILES	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.
U.S. 20	W.B.																	
Lane "A"	106	768+50	773+70	520	520		320						400		412			
Lane "A"	106	773+70	785+00	200	1130		200						955		705			
U.S. 20	E.B.																	
Lane "B"	106	768+50	778+30	980	980		980											
Lane "B"	106	778+30	785+00	335	670		670					335						
CO. RD.	20																	
E.B.	106	778+30	7+00	775	175	175						300	300		442			
E.B.	106	7+00	12+55	555	555	555												
E.B.	106	12+55	27+50	1270	1495	1495						225						
LANE "C"																		
W.B.	106	773+70	785+00	1033	100	100								1033		738		
W.B.	106	785+00	798+00	1300	1300	1300												
LANE "C"	TO CO. RD. 20																	
W.B.	106	798+00	27+50	865*	915*	915*												
RAMP "G"																		
	106 107	5+55	17+20	1168*	1163*			28*	1*			120*			110*			
U.S. 6	107	510+85	517+84	1353*						250*				898*		514*		
Lane "E"	107	517+84	526+20	836*										836*		375*		
Lane "E"	107	526+20	531+00	780*	780*		780*											
Lane "F"	107	517+84	525+00	716*	380*		380*							336*		75*		
Lane "F"	107	525+00	533+00	605*	500*		500*					195*		300*		92*		
Ramp "H"	106 107	1+85	12+65	1078*	983*			28*	1*			95*			115*			
Lane "A"	108	785+00	800+00	1500	1500		1500											
Lane "B"	108	785+00	800+00	1300	1500		1300						200		54			
Lane "A"	108	800+00	805+70	570	370		570					200						
Lane "A"	108	805+70	815+00	930	550		930											
Lane "B"	108	800+00	807+62		762								762		772			
Lane "B"	108	807+62	816+00	838	838		265						1140		1712			
Lane "E"	108	534+00	540+00	30*	600*		225*					195*			154*			
Lane "F"	108	533+00	536+18	318*										318*		294*		
Lane "A"	109	815+00	830+00	1500	1500		1500											
Lane "B"	109	816+00	830+00	1400	1400		1400											
TOTALS TABLE 1 - LIN. FT. CARRIED TO TABLE 2				22755	20666	4540	11520	56	2	250		1665	3757	3721	4476	2088		

LOCATION	FROM SHEET NO.	STATION FROM	STATION TO	621 4" WHITE EDGE LINE	621 4" YELLOW EDGE LINE	621 4" LANE LINE	621 6" LANE LINE	621 24" STOP LINE	621 LANE ARROW	621 4" CENTERLINE SOLID DOUBLE	847 8" CHANNELIZING LINE BY TYPE 621	847 8" CHANNELIZING LINE BY TYPE 847	847 6" EDGE LINE WHITE	847 6" EDGE LINE YELLOW	847 24" BROAD TRANSVERSE LINE WHITE	847 24" BROAD TRANSVERSE LINE YELLOW	621 CURB MARKING WHITE	621 ISLAND MARKING WHITE	621 RAILROAD SYMBOL ON PAVEMENT
				MILES	MILES	MILES	MILES	LIN. FT.	EACH	MILES	MILES	MILES	MILES	MILES	LIN. FT.	LIN. FT.	LIN. FT.	SQ. YD.	EACH
Lane "A"	109	830+00	845+00	1500	1500		1500												
Lane "B"	109	830+00	845+00	1500	1500		1500												
Lane "A"	110	845+00	860+00	730	1500		1500												
Lane "B"	110	845+00	860+00	1500	1500		1500												
Ramp "C"	110	847+50	858+00	1050		200					230								
Lane "A"	110	860+00	876+00	1350	1600		1600					250							
Lane "B"	110	860+00	876+00	702	1600		1600					250							
Ramp "B"	110	860+12	869+10	898		240						250			154		120	350	
Ramp "D"	110	873+53	876+00									247			132		120	350	
Ramp "A"	112	865+15	877+15	1200	1200														
Ramp "B"	112	869+10	873+68	458	458														
	112	869+04	865+15	389	389			20	1										
Ramp "C"	112	850+00	866+70	870	870														
Ramp "D"	112	866+10	873+53	743	743			20	1										
U.S. 6 20																			
E.B.	111	978+60	981+88		392						165								
W.B.	111	982+55	985+82		392						165								
W.B.	111	991+58	997+00	542															
RAMP "A"	(U.S. 6 W.B. LANE)																		
	111	984+17	994+17	1000		168					259								
RAMP "A"	(U.S. 6 W.B. LANE)																		
	111	20+86	26+30	544	405						139								
U.S. 20																			
E.B.	75	998+00																	2
W.B.	75	1016+60																	2
TOTALS TABLE 2 - LIN. FT.				14976	14049	608	9200	40	2		958	997			286		240	700	4
TOTALS TABLE 1 - LIN. FT.				22755	20666	4540	11520	56	2	250		1665	3757	3721	4476	2088			
TOTALS TABLES 1 & 2				37731	34715	5148	20720	96	4	250	958	2662	3757	3721	4762	2088	240	700	4
				72446									7478		6850				
				5280		5280	5280			5280	5280	5280	5280						
TOTAL CARRIED TO GENERAL SUMMARY				13.72		0.98	3.92	96	4	0.05	0.18	0.50	1.42		6850		240	700	4

PAVEMENT MARKING SUB SUMMARY