6-L

S

MICROFILMED SEP 10 1991

I-480-4(9)163
Proj 783 (83)

FHWA REGION	STATE	PROJECT	
5	OHIO	I-480-4(9)163	

1/500

CUYAHOGA COUNTY
CUY-480-10.39

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

CUY-480-10.39

Sheets 313, 373, 398, 403, 404, 406, 407, 408, 409, 411, 458, & 472 revised 1-5-84 EBL

CUYAHOGA COUNTY

CITY OF CLEVELAND
CITY OF BROOKLYN

GRADE SEPARATIONS WITH THE CONSOLIDATED RAIL CORPORATION AND THE BALTIMORE AND OHIO RAILROAD COMPANY

CONVENTIONAL SIGNS

Center Line	Existing Sewer
Existing R/W	Proposed Sewer
Proposed R/W	Existing Manhole
Limited Access Line —LA—	Proposed Manhole
Temporary R/W —T—	Existing Catch Basin
Work Agreement Line	Proposed Catch Basin
Property Line —PL—	Manhole Abandoned
Original Lot Line O.L. 78 / O.L. 79	Catch Basin Abandoned
Water Line —W—	Guard Rail (Existing) (Proposed)
Water Valve	Retaining Wall (Existing) (Proposed)
Water Hydrant	Fence (Existing) (Proposed)
Gas Line —G—	Trees
Gas Valve	Railroad
Telephone Underground —T—	
Electric Underground —E—	
Power Pole	
Light Pole	
Telephone Pole	

INDEX OF SHEETS

Sheets 31 & 32 deleted

Title Sheet	1	Detention Basin Access Rd.	102-103
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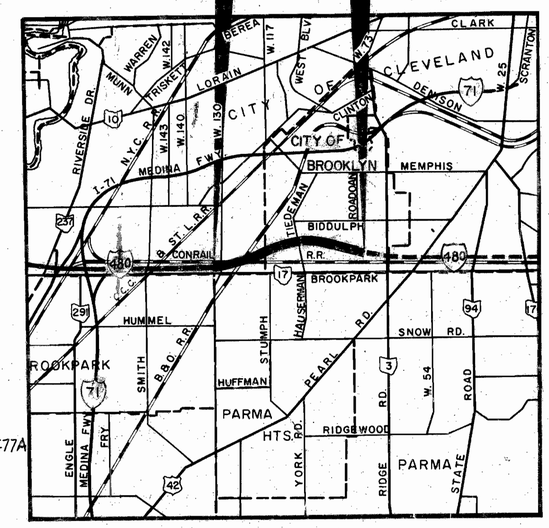
BEGIN PROJECT
STA. 573+50
S.L.M. 10.39

END PROJECT
STA. 698+50
S.L.M. 12.75



LINE DATA

	CLEVELAND	BROOKLYN	TOTAL
BEGIN PROJECT	573+50.00	616+15.52	573+50.00
END PROJECT	616+15.52	698+50.00	698+50.00
LENGTH OF PROJECT	4265.52 L.F. 0.808 Mi.	8234.48 L.F. 1.559 Mi	12500.00 L.F. OR 2.367 Mi
ADDITIONAL WORK			
I-480 STA. 484+00.00 TO STA. 573+50.00	8950.00 L.F.		8950.00 L.F.
STA. 698+50.00 TO STA. 700+00.00		150.00 L.F.	150.00 L.F.
W130th ST. STA. 48+00.00 TO STA. 64+90.00	1690.00 L.F.		1690.00 L.F.
TIEDEMAN RD. STA. 42+80.00 TO STA. 82+00.00		3920.00 L.F.	3920.00 L.F.
IDLEWOOD DR. STA. 8+75.00 TO STA. 21+63.21		1288.21 L.F.	1288.21 L.F.
SOUTHWOOD DR. STA. 7+25.00 TO STA. 12+75.00		550.00 L.F.	550.00 L.F.
LENGTH OF WORK	14,905.52 L.F. OR 2.823 Mi	14,142.69 L.F. OR 2.679 Mi	29,048.21 L.F. OR 5.502 Mi

FILE NUMBER	CUYAHOGA COUNTY CUY-480-10.39
	DATE OF LETTING
	CONTRACT NUMBER

00384

SUPPLEMENTAL SPECIFICATIONS	
NUMBER	DATE
803	5-27-83
843	10-25-76
847	4-3-76
848	2-17-83
939	6-28-82
934	1-1-69
948	2-19-74
839	11-25-70
936	4-19-82
824	10-8-82
836	3-12-75
845	3-2-81
849	10-19-81
953	8-21-80

LOCATION MAP

0 1 2 3
SCALE OF MILES

Portion To Be Improved
State Routes
U.S. Routes
Interstate Routes
City Streets
To Be Improved Under Separate Contract

SCALE

PLAN	0 50	1" = 50'
PROFILE: HORIZ.	0 50	1" = 50'
VERT.	0 10-20	1" = 10' / 1" = 20'
CROSS SECTIONS	0 10	1" = 10'
PAVEMENT DETAILS	0 20	1" = 20'

"LIMITED ACCESS"

This improvement is especially designed for thru traffic and has been declared a Limited Access Highway or Freeway by action of the Director of Transportation, in accordance with the provisions of Sec. 5511.02 of The Revised Code of Ohio.

1983 SPECIFICATIONS

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

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

Approved Joseph L. Stamps
Date 3/15/83 Director of Public Service, City of Cleveland

Approved Martin A. Gallik
Date 3-16-83 District Deputy Director of Transportation

Approved Robert B. Pfeifer
Date 6-6-83 Engineer, Bureau of Bridges and Structural Design

Approved Wayne H. Kauble
Date 6-6-83 Chief Engineer, Planning and Design

Approved Warren J. Smith
Date 6-6-83 Director, Department of Transportation

STANDARD			CONSTRUCTION		DRAWINGS			
BP-1	6-1-65		GR-5	2-5-82	MH-1	6-12-75	TC 7.65 3-1-79	TC 42.20 3-26-79
BP-2	12-6-76	CB-3A	HW-3	6-1-65	MH-3	6-12-75	TC 9.30 4-24-80	TC 51.10 3-20-79
BP-3	12-6-76	CB-4	HW-4A	4-1-80	MH-5	6-12-75	TC 12.30 6-10-81	
BP-4	7-16-81	CB-5	HW-4B	4-1-80	MH-2	6-12-75	TC 16.20 3-1-79	TC 52.10 4-3-79
BP-5	7-16-81	CB-6			HL-1	9-6-73	TC 18.26 5-31-79	TC 52.20 4-3-79
BP-6	6-1-65	CB-458A	5-1-79		HL-2	7-27-73	TC 21.10 5-24-79	TC 61.10 4-5-82
BP-7	12-6-76		I-3 A&B	4-1-80	HL-3	7-27-73	TC 21.20 5-31-79	TC 71.10 4-9-81
BP-9	12-6-76		MC-9A	5-1-81	HL-4	1-21-76	TC 21.40 3-1-79	TC 72.20 2-26-82
BP-10	1-3-75	F-1	5-1-76		LA-1	6-1-79	HL-5	9-6-73 TC 22.10 3-1-79
		F-3	5-1-76		LA-2	6-1-79	HL-6	3-22-77 TC 22.20 3-1-79 TC 81.20 4-8-80
		F-5	5-1-76		MC-1	6-13-69	HL-7	1-21-76 TC 31.21 3-6-79 TC 82.10 4-11-79
TS-EXJ-2-81	9-1-81	F-6	5-1-76		MC-3	6-1-73	HL-8	1-21-76 TC 32.10 3-8-79 TC 83.10 4-18-79
BR-1	5-29-79				MC-4	7-26-76	HL-9	3-22-77 TC 32.11 3-21-79 TC 83.20 4-18-79
AS-1-81	11-27-81	GR-6	2-5-82		MC-5	6-12-75	HL-10	6-1-79 TC 33.10 10-5-77
SD-1-69	6-12-69	GR-1	2-5-82		MC-6	6-1-65	HL-11	6-1-79 TC 41.10 12-23-81 TC 85.20 4-18-79
RB-1-55	2-2-59	GR-2B	2-5-82		MC-7	10-15-76	HL-12	4-6-73 TC 41.20 3-26-79
		GR-3	2-5-82		MC-9	11-1-77	HL-15	1-21-76
CB 2-2-A&B	5-1-79				MC-10	5-1-76	HL-16	4-6-73 TC 41.50 3-26-79
CB2-3&2-4	5-1-79	GR-4	2-5-82		MC-11	8-1-78	HL-19	3-22-77 TC 42.10 8-19-79
CB2-5&2-6	5-1-79	GR-4A	2-5-82		MH-4	6-12-75	HL-22	11-9-77

NOTE:
Project Designation CUY-80 Appearing Throughout This Plan Shall Be Considered To Read CUY-480.

PLANS PREPARED BY
ALDEN E. STILSON & ASSOCIATES
CONSULTING ENGINEERS
75 PUBLIC SQUARE
CLEVELAND, OHIO
FOR
STATE OF OHIO

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

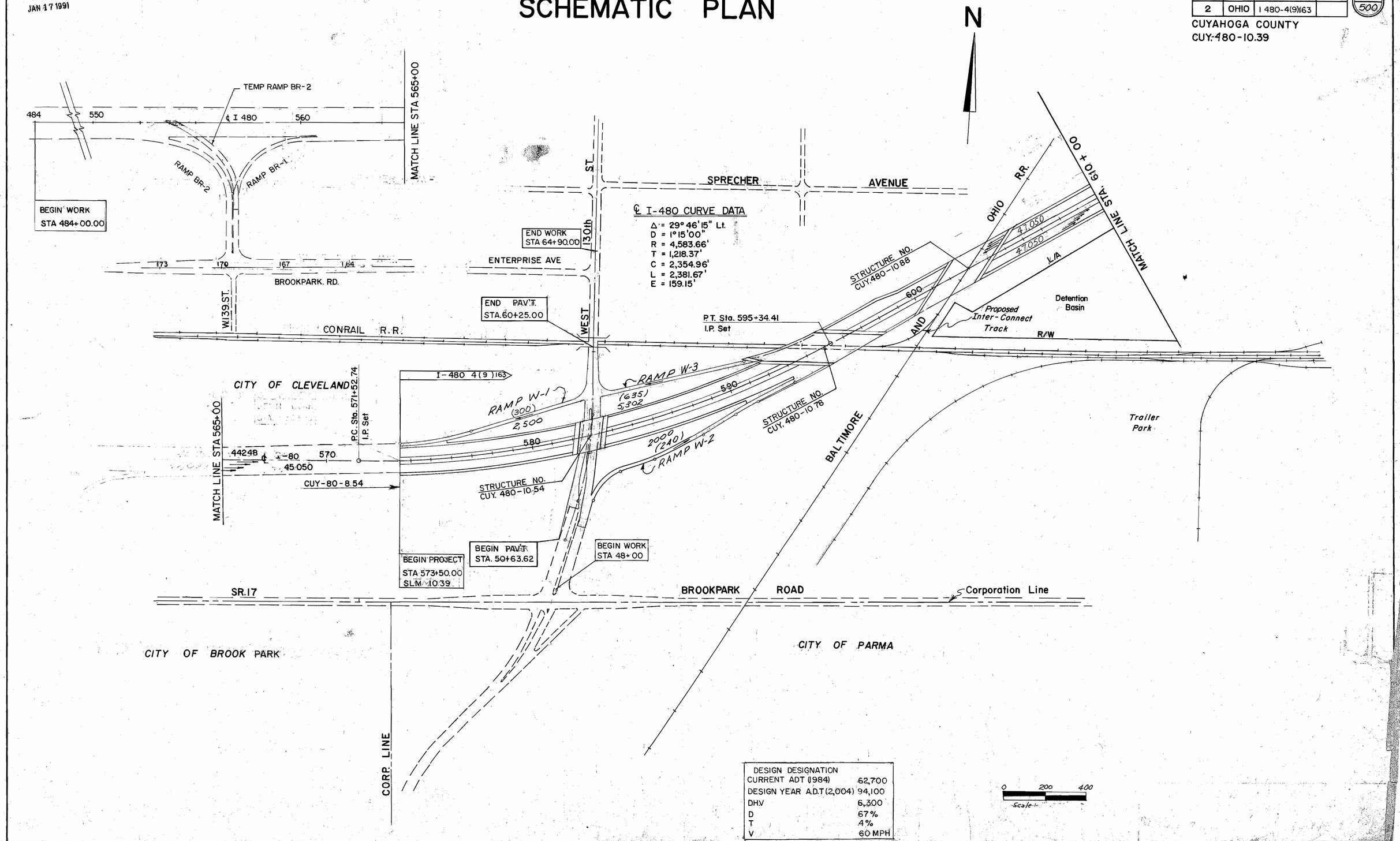
MICROFILMED
JAN 17 1991

SCHEMATIC PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	I 480-4(9)163	

2/500

CUYAHOGA COUNTY
CUY-480-10.39



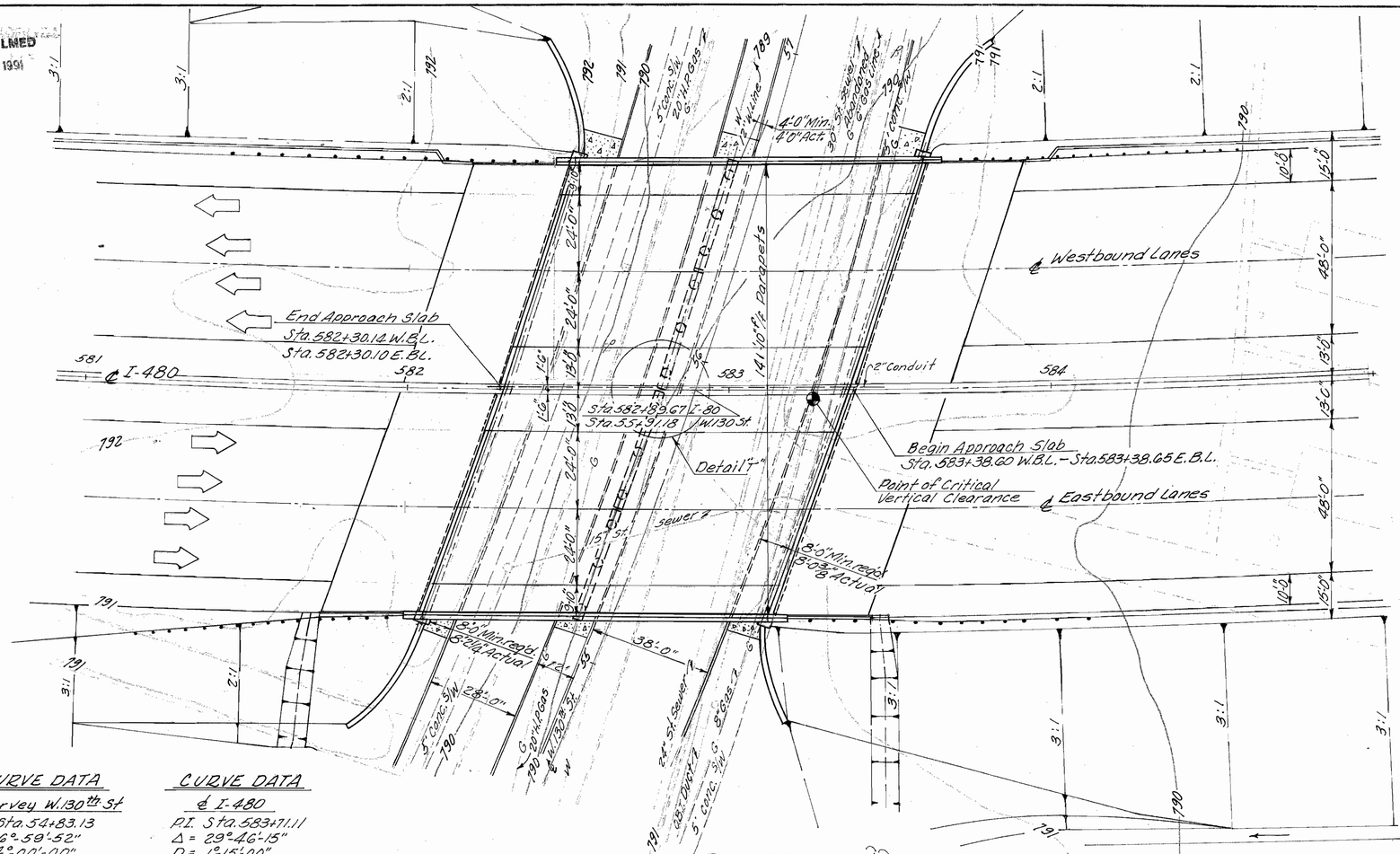
DESIGN DESIGNATION	
CURRENT ADT (1984)	62,700
DESIGN YEAR A.D.T (2,004)	94,100
DHV	6,300
D	67%
T	4%
V	60 MPH

MICROFILMED
JAN 17 1991

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

312/500

CUYAHOGA COUNTY
CUY.-480-10.39



PLAN

NOTES

W.B.L. indicates West Bound Lanes.
E.B.L. indicates East Bound Lanes.

Reference Chord is a line between ℄ of abutment bearings. Sta. 582+32.49 to Sta. 583+36.24.

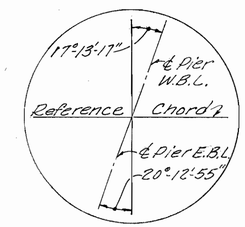
TRAFFIC ESTIMATE

Design Year 1990
Total A.D.T. 93,396

PROPOSED STUCTURE

Type: Continuous steel beam with reinforced concrete deck and substructure.
Spans: 47.141' & 56.611' ℄ Brg. E.B.L. along ℄ I-80
Roadway: 141'-8" f/f Parapets of BR-1 (Mod.) Railings with Conc. Barrier Median

Loading: C.F-2000 (1957), adequate for AASHO alternate loading.
Wearing Surface: 1 1/4" Latex Modified Concrete
Skew: 17°13'-17" and 20°12'-55" left forward with respect to Reference Chord.
Alignment: 1°15'-00" Curve left.
Superelevation: 0.03 ft/ft
Approach Slabs: AS-1-81 (30'-0" long).



DETAIL "T"

CURVE DATA

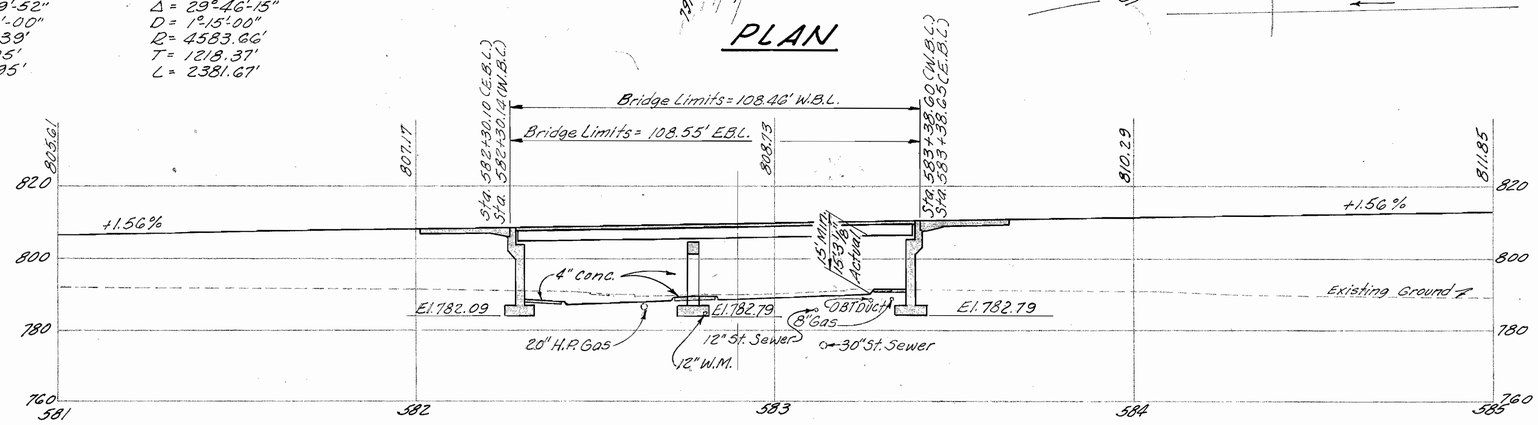
℄ Survey W.130th St.

P.I. Sta. 54+83.13
Δ = 16°59'-52"
D = 4°00'-00"
R = 1432.39'
T = 214.05'
L = 424.95'

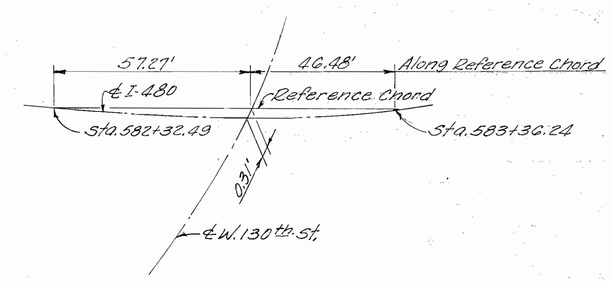
CURVE DATA

℄ I-480

P.I. Sta. 583+71.11
Δ = 29°46'-15"
D = 1°15'-00"
R = 4583.66'
T = 1218.37'
L = 2381.67'



PROFILE ALONG ℄ I-480



LAYOUT DIAGRAM

Note: Earthwork limits shown are schematic. The actual slopes shall conform to plan cross-sections.

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

1/20

SITE PLAN
BRIDGE No. CUY-480 1054
I-480 OVER WEST 130TH STREET

CUYAHOGA COUNTY STA. 582+30.10 STA. 583+38.65
Scale: 1" = 20'

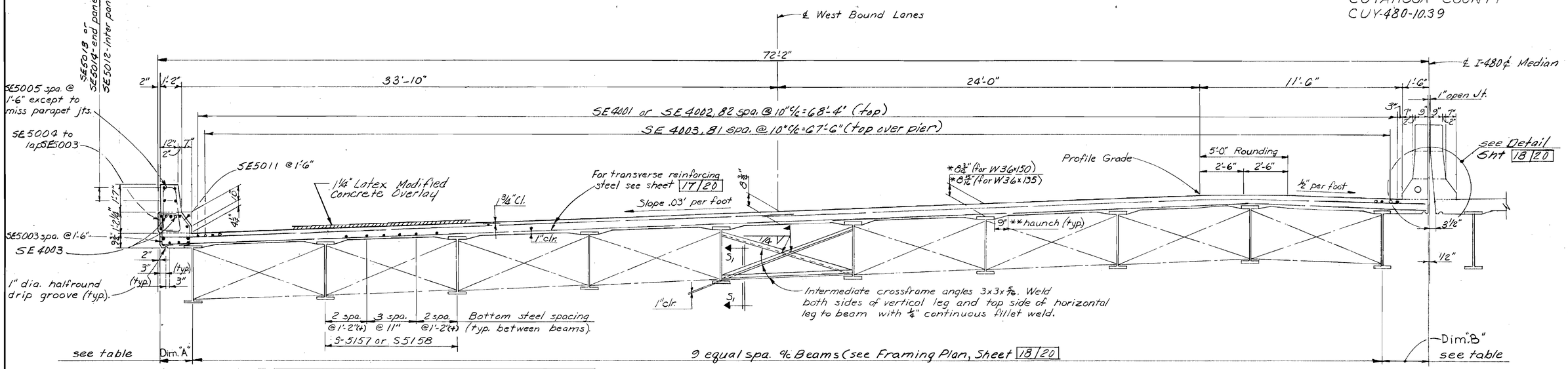
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PHB	R.J.P.	R.T.	SBP	G.W.M.	11/10/71	

Note: All longitudinal steel shall be S5157 or S5158 except as otherwise noted.

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

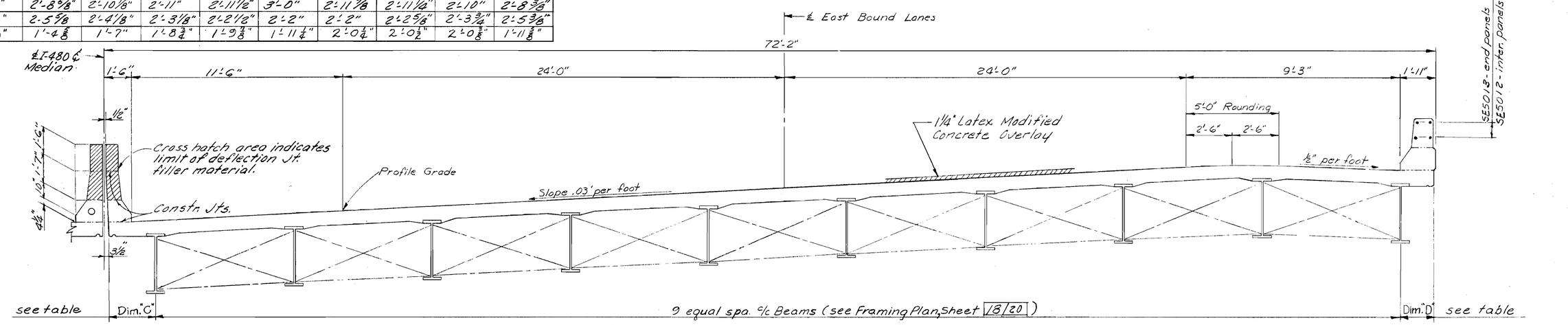
327/500

CUYAHOGA COUNTY
CUY-480-10.39



TRANSVERSE SECTION ~ WEST BOUND LANES

TABLE OF SLAB CANTILEVERS									
Location	℄ Brg. W. Abut	.25 pt.	.50 pt.	℄ Splice.	℄ Brg. Pier	.25 pt.	.50 pt.	.75 pt	℄ Brg. E. Abut.
Dim. "A"	1'-6 3/4"	1'-5 5/8"	1'-5 1/2"	1'-5 1/2"	1'-5 5/8"	1'-6 5/8"	1'-8 1/8"	1'-10 1/4"	2'-0 3/4"
Dim. "B"	2'-8 5/8"	2'-10 1/8"	2'-11"	2'-11 1/2"	3'-0"	2'-11 7/8"	2'-11 1/4"	2'-10"	2'-8 3/8"
Dim. "C"	2'-5 5/8"	2'-4 1/8"	2'-3 1/8"	2'-2 1/2"	2'-2"	2'-2"	2'-2 5/8"	2'-3 3/4"	2'-5 3/8"
Dim. "D"	1'-4 5/8"	1'-7"	1'-8 3/4"	1'-9 7/8"	1'-11 1/4"	2'-0 1/4"	2'-0 1/2"	2'-0 5/8"	1'-11 3/8"



TRANSVERSE SECTION ~ EAST BOUND LANES

Details, dimensions, and reinforcing not shown oppsite hand to W.B. Lanes.

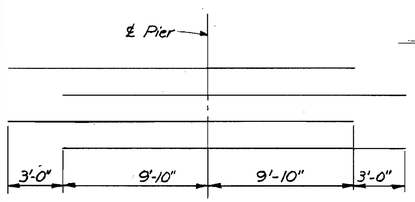


DIAGRAM SHOWING STAGGER of SE4003 BARS OVER PIERS

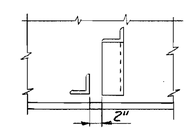
NOTES:

*This is the nominal dimension. The quanity of deck concrete to be paid for shall be based upon this dimension, even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

**A typical haunch width of 9" shall be used for computing quantity of concrete. However the haunch width may vary between 6" and 12"

Field bending of transverse slab steel to be included in item 509 for payment.

Longitudinal reinforcing steel shall be field cut as necessary to avoid interference with scuppers.



SECTION ~ S1 - S1

For additional notes and details see sheets 17 & 18/20

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

16/20

SUPERSTRUCTURE DETAILS

BRIDGE No. CUY-480-1054
I-480 over WEST 130th STREET
STA. 582+30.10
CUYAHOGA COUNTY STA. 583+38.65

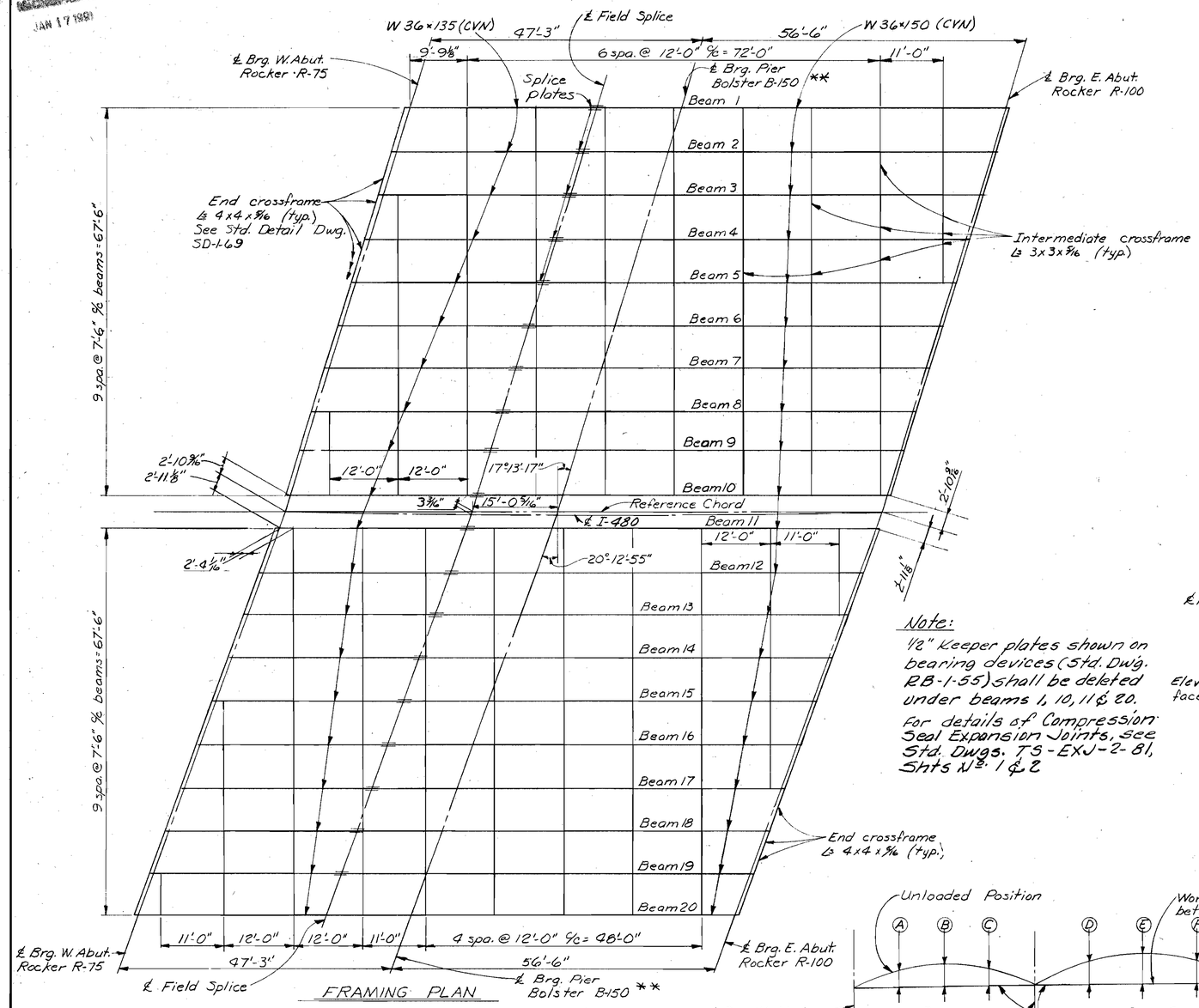
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PHB	DW		SBP	G.W.M.	11/15/71	

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

329/500

CUYAHOGA COUNTY
CUY-480-10.39

MICROFILMED
JAN 17 1991

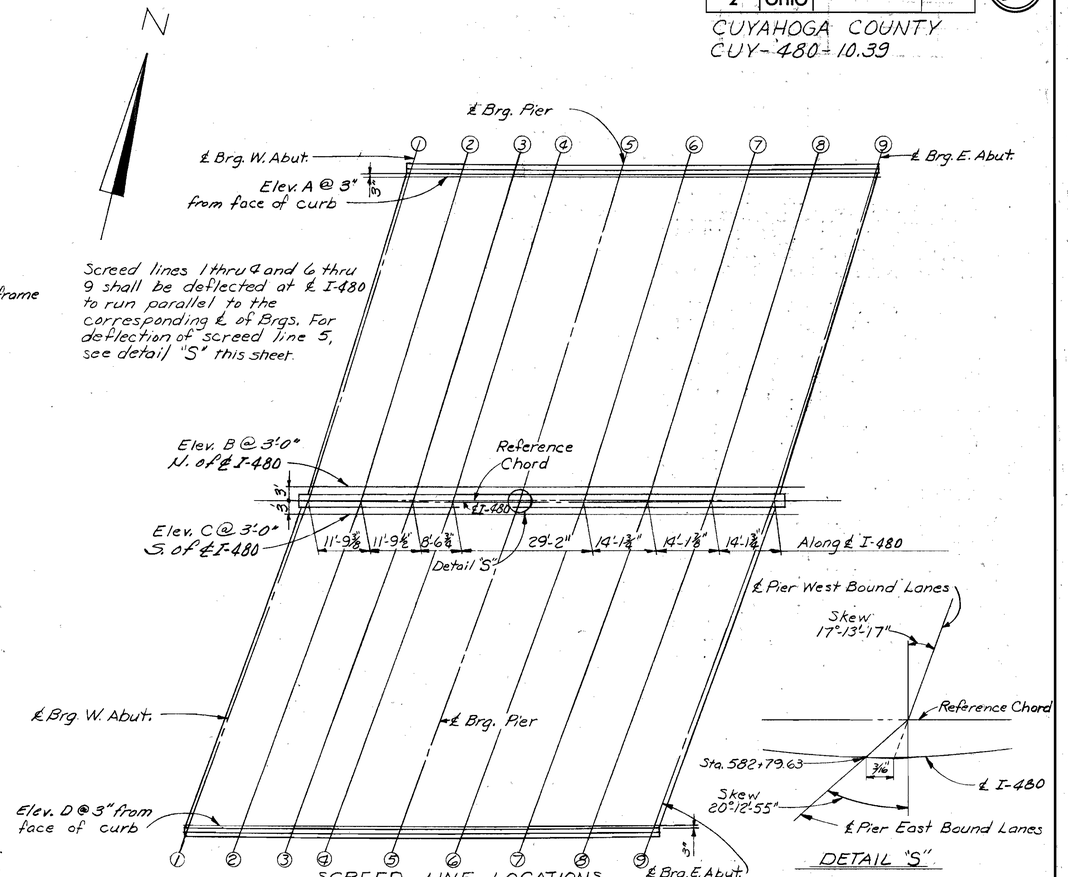


FRAMING PLAN

Note:

1/2" Keeper plates shown on bearing devices (Std. Dwg. RB-1-55) shall be deleted under beams 1, 10, 11 & 20.

For details of Compression Seal Expansion Joints, see Std. Dwgs. TS-EXJ-2-81, Shts Nos. 1 & 2



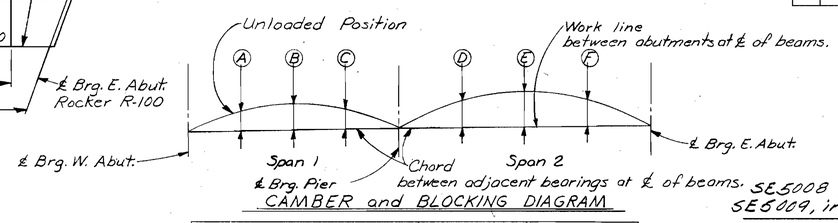
SCREED LINE LOCATIONS

DETAIL "S"

TABLE of SCREED ELEVATIONS

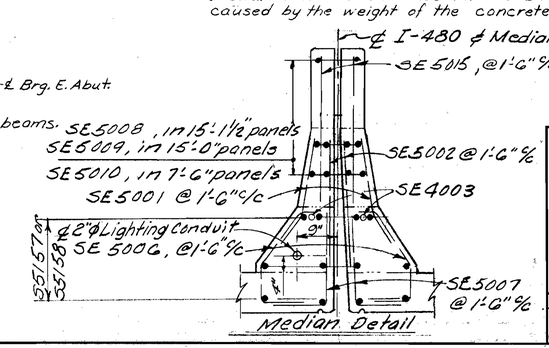
	1	2	3	4	5	6	7	8	9
A	806.19	806.38	806.57	806.70	806.94	807.17	807.41	807.63	807.83
B	807.34	807.53	807.72	807.85	808.08	808.31	808.55	808.76	808.96
C	807.25	807.44	807.62	807.76	807.99	808.22	808.45	808.67	808.87
D	808.43	808.62	808.80	808.93	809.15	809.38	809.61	809.82	810.02

The elevations shown in the table above, are those which are required before concrete is placed. Proper allowance has been made for the Dead Load deflections caused by the weight of the concrete.



CAMBER and BLOCKING DIAGRAM

DEFLECTION and CAMBER	Span 1			Span 2		
	¼ Pt.	½ Pt.	Splice	¼ Pt.	½ Pt.	¾ Pt.
All beams	A	B	C	D	E	F
Defl. due to wt. of steel	0	0	0	1/16	7/16	11/16
Defl. due to remaining D.L.	1/8	1/8	1/16	3/16	3/8	1/4
Adj. req'd. for curvature	0	0	0	0	0	0
Req'd. shop camber	1/8	1/8	1/16	1/4	7/16	5/16



Median Detail

NOTES:

All intermediate crossframes shall be normal to beams.

For field splice details see Sheet 17/20

For additional notes and details see sheets 16 & 17/20

** Refer to Std. Dwg. RB-1-55 for detail dimensions of Bolster B-150 except that the "k" dimension shall be 13" instead of 11½".

ALDEN E. STILSON & ASSOCIATES, LIMITED
CONSULTING ENGINEERS
COLUMBUS, OHIO

18/20

SUPERSTRUCTURE DETAILS

BRIDGE No. CUY-480-1054
I-480 over WEST 130th STREET
STA. 582+30.10
CUYAHOGA COUNTY STA. 583+38.65

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PHB	DW		SBP	G.W.M.	11/15/11	