#3079

MICROFILMED
JUL 8 1992

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO	IR-475-7(46)196	

1/72

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

WOO/LUC-475-3.86/0.00

231

IR-475-7(46)196

CITY OF MAUMEE
SPRINGFIELD TOWNSHIP
MONCLOVA TOWNSHIP
PERRYSBURG TOWNSHIP
WOOD COUNTY - LUCAS COUNTY

MICROFILMED
JUN 3 1992

DESIGN DESIGNATION

Current A.D.T. (1987)	=	39850
Design Year A.D.T. (1997)	=	45430
D.H.V.	=	4384
D	=	55%
T	=	26%
V	=	70 M.P.H.
Legal Speed	=	55 M.P.H.

CONVENTIONAL SIGNS

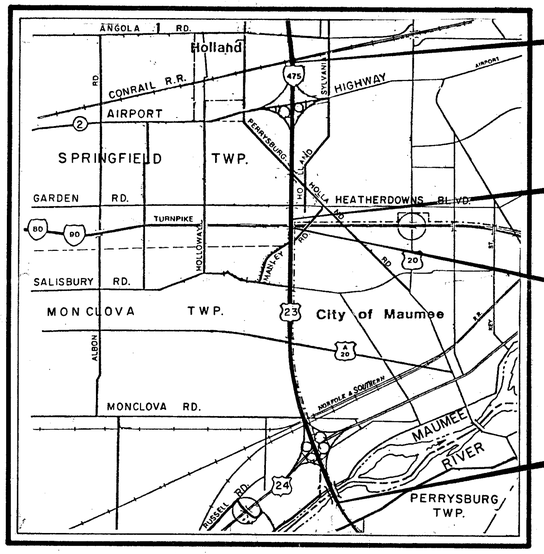
County Line
Township Line
Section Line
Corporation Line
Fence Line (existing) (proposed)
Center Line 352 353
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light
Limited Access (only) LA
Right of Way (only) RW
Limited Access & Right of Way LA & RW
Existing Right of Way
Property Line (in existing fence)
Railroad or
Guardrail (existing) (proposed)

INDEX OF SHEETS

SHEETS ADDED: 6A, 13A, 18A, 43A

LINE DATA

BEGIN PROJECT	STA.	4+64.90
COUNTY LINE	STA.	0+00.00
COUNTY LINE	STA.	478+96.20
SUSPEND PROJECT	STA.	314+64.10
RESUME PROJECT	STA.	303+64.93
END PROJECT	STA.	203+80.25
NET LENGTH OF PROJECT		268 81.68 L.F. = 5.091 MILES
BEGIN WORK	STA.	5+14.90
COUNTY LINE	STA.	0+00.00
COUNTY LINE	STA.	478+96.20
SUSPEND WORK	STA.	312+64.10
RESUME WORK	STA.	305+64.93
END WORK	STA.	203+20.00
ADD WORK (FROM SHEET 2)		20.00 L.F.
NET LENGTH OF WORK		274 11.93 L.F. = 5.192 MILES



LOCATION MAP

SCALE IN MILES
0 1 2

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan 0 100 200
Profile Horizontal 0 100 200 Vertical 0 10 20
Cross Section: Horizontal 0 Vertical 0

UNDERGROUND UTILITIES

Two Working Days
BEFORE YOU DIG
Call... 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLANS PREPARED BY
CHARLES L. BARBER & ASSOCIATES, INC.
CONSULTING ENGINEERS - TOLEDO, OHIO
Charles L. Barber 10/26/87
Date

STATE OF OHIO CHAS. LAMONT BARBER 4399 REGISTERED PROFESSIONAL ENGINEER

Project:
Date of Letting ____ 19__ Contract No.____

LIMITED ACCESS

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

1987 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 to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved R. L. Germann
Date 10-29-87 District Deputy Director of Transportation

Approved Walter J. Gestrings
Date 12-14-87 Engineer, Bureau of Bridges and Structural Design.

Approved George E. Downing
Date 1-27-88 Chief Engineer, Planning and Design

Approved Bernard B. Hunt
Date 1-27-88 Director, Department of Transportation

SUPPLEMENTAL SPECIFICATIONS			
847	10-17-83	949	9-26-86
947	10-17-83	953	8-21-80
812	11-7-83	824	10-8-82
846	11-24-86		
806	11-24-86		
906	11-24-86		
845	2-25-86		
849	12-24-85		
933	2-10-87		

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS									
AS-1-81	11-27-81	F-1	11-10-83	HW-4B	4-1-80	TC-12.30	1-20-84	TC-42.10	8-19-77
BP-5	1-11-85	F-3	5-1-76	I-3A&B	4-1-80	TC-21.20	1-20-84	TC-42.20	3-26-79
BP-7	12-6-76	GR-1	1-11-85	MC-4	7-26-76	TC-22.10	3-1-79	TC-51.10	1-20-84
EXJ-2-81	4-2-84	GR-2B	2-5-82	MC-6	1-30-84	TC-22.20	3-1-79	TC-51.11	1-20-84
BP-13	5-8-87	GR-3A	2-5-82	MC-9	1-30-84	TC-35.10	8-29-84	TC-52.10	4-3-79
CB-2-2A&B	5-1-79	GR-3B	1-21-85	HW-4A	4-1-80	TC-41.10	8-29-84	TC-52.20	4-3-79
CB-4	11-10-83	GR-4	2-5-82	MC-9A	1-11-85	TC-41.20	3-26-79	TC-72.20	2-26-82
CB-5	11-10-83	GR-4A	1-30-84	GR-3	1-21-85	TC-41.40	6-18-79	TC-61.10	4-5-82
CB-8	11-10-83	GR-7	2-5-82	HL-30.22 & HL-50.11	5-1-87	TC-41.50	3-26-79	MT-99.10	11-14-86

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

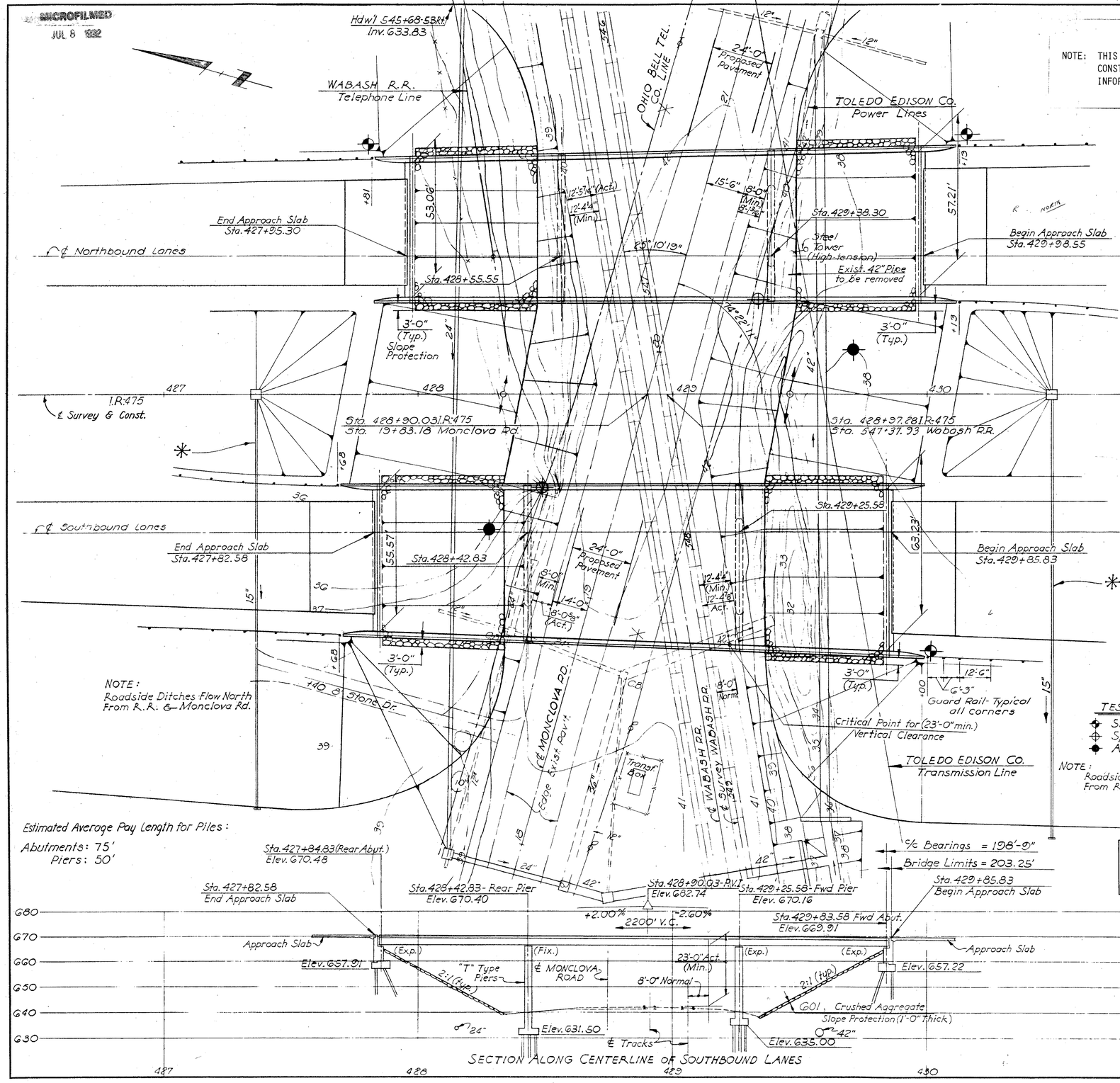
DIVISION ADMINISTRATOR DATE

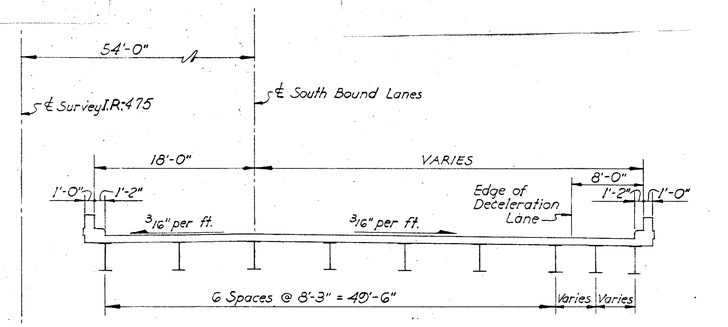
PROJECT
IR-475-7(46)126

58
72

WOO/LUC-475-3.86/0.00

NOTE: THIS PLAN SHEET FROM ORIGINAL CONSTRUCTION PLANS AND IS FOR INFORMATION ONLY.





NORMAL SECTION THRU RIGHT STRUCTURE - SOUTHBOUND.

All drainage pipes except those shown thus * are by others.

MONCLOVA ROAD
1957 Traffic: 1,440
Combination Trucks - 40
1975 Traffic: 2,194

I.R:475
1975 A.D.T.: NB. Lanes 8,247
SB. Lanes 10,109

TRAFFIC MOVEMENTS FOR WABASH R.R.
4 Trains and 4 Switching Moves Per Day Maximum Speed 40 M.P.H.

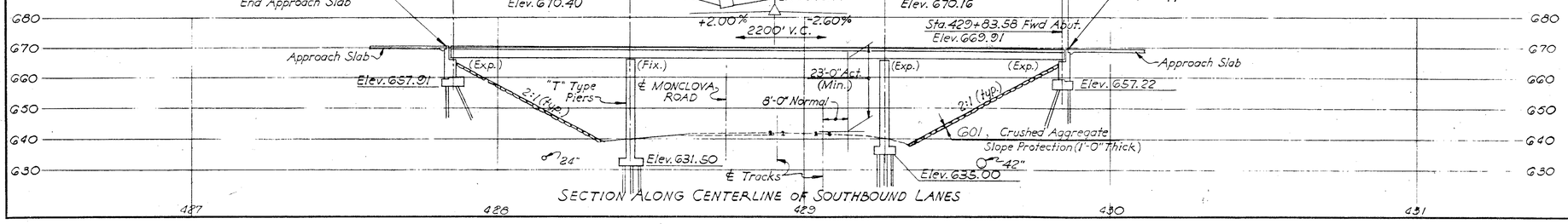
PROPOSED STRUCTURES

Type: Continuous Steel Beams with Reinforced Concrete Deck & Substructure.
Spans: Left Structure, 58'-0", 82'-9", 58'-0".
Right Structure, 58'-0", 82'-9", 58'-0".
Roadway: Varies
Load Frequency: CF=2000(1957) Adequate for AASHO alternate loading.
Skew: 0°00'00"
Wearing Surface: 1" monolithic concrete
Approach Slabs: 25'-0" long
Alignment: Tangent
Curbs: 1'-2" (each side)

TEST BORING LEGEND
- Shelby Tube Borings
- Split Barrel Borings
- Auger Borings

Estimated Average Pay Length for Piles:
Abutments: 75'
Piers: 50'

Bench Mark No. 9
R.R. Spike in ℗ Pole
Sta. 429+15 - 470' Rt.
Elev. 639.690



SECTION ALONG CENTERLINE OF SOUTHBOUND LANES

CHARLES L. BARBER & ASSOCIATES INC.
ENGINEERS • ARCHITECTS
TOLEDO, OHIO

1/6

SITE PLAN.

BRIDGE NO. LUC-475-0093 L & R

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.M.	E.W.K.		T.W.D. R.J.M	R.H.B.	Feb. 87	

ESTIMATED QUANTITIES.

ITEM	TOTAL	UNIT.	DESCRIPTION.	SUPER.	ABUT'S	GEN'L
202	Lump	Sum.	Portions of structure removed, As Per Plan			
509	509	Lb	Reinforcing steel, grade 60		509	
511	16	Cu.yd	Class "C" concrete, abutment walls.			
511	16	Cu.yd	Class "S" concrete, superstructure. (See Proposal Note).	16		
514	Lump	Sum	Field painting of existing steel, surface preparation, System "A"			
514	Lump	Sum	Field painting of existing steel, complete coat prime, System "A"			
514	Lump	Sum	Field painting of existing steel, complete coat finish, System "A"			
Special	Lump	Sum	Field painting of exist. steel, partial coat interm., Syst. "A" (See Prop. Note)			
Special	24	Each	Scupper modification	24		
516	126	Lin.ft.	Structural expansion joints including elastomeric compression seals, 5" width.	126		
516	114	Lin.ft	Structural expansion joints including elastomeric compression seals, 3½" width.	114		
Special	904	Sq.yd	Sealing of concrete surfaces (epoxy) (see Proposal Note)	822	82	
824	2657	Lb	Epoxy coated reinforcing steel, grade 60	2657		
845	2582	Sq.yd	Latex modified concrete, overlay (1¼" thick) as per plan.	2582		
845	54	Cu.yd	Latex modified concrete, overlay (variable thickness)	54		
845	5	Cu.yd	full depth repair	5		
Special	33	Each	Resetting rockers		33	

REINFORCEMENT SCHEDULE.

MARK.	NUMBER NORTHBOUND LANES NORTH AB.	NUMBER NORTHBOUND LANES SOUTH AB.	NUMBER SOUTHBOUND LANES NORTH AB.	NUMBER SOUTHBOUND LANES SOUTH AB.	TOTAL.	LENGTH	SHAPE	WEIGHT (lbs)
ABUTMENTS: (Grade 60 steel).								
A501	–	1	1	–	2	28'-6	STR	59
A502	–	1	1	–	2	23'-6	STR.	49
A503	1	1	–	2	4	30'-0	STR	125
A504	1	–	–	–	1	26-6	STR	28
A505	1	1	1	1	4	7'-9	STR	32
A506	1	1	1	1	4	5'-9	STR	24
A507	1	–	1	–	2	24'-6	STR	51
A508	1	–	–	–	1	19'-0	STR	20
A509	–	1	–	–	1	26-3	STR	27
A510	–	–	–	1	1	25'-9	STR	27
A511	–	–	1	1	2	28'-0	STR.	58
A512	–	–	–	1	1	8'-2	STR	9
						ABUTMENTS TOTAL:		509
SUPERSTRUCTURE (EPOXY COATED STEEL)								
SE701	3	12			15	30'-0	STR	920
SE702	3	–			3	27'-4	STR.	168
SE703	6	–			6	31'-7	STR	387
SE 704	–	3			3	9'-11	STR	61
SEG01	3	9			12	30'-0	STR	541
SEG02	3	–			3	27'-0	STR	122
SEG03	6	–			6	31'-3	STR	282
SEG04	–	3			3	29'-8	STR	134
SEG05	–	3			3	9'-3	STR	42
						SUPERSTRUCTURE TOTAL:		2657

QUANTITIES
CALC. BY R.M DATE 12.86
CKD. BY E.W.K DATE 1.87

GENERAL NOTES.

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO	IR-475-7(46)196	

WOO/LUC-475-3.86/0.00

55/72

202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN:
THIS ITEM SHALL INCLUDE PORTIONS OF THE ABUTMENT BACKWALL AND DECK AS SHOWN ON SHEET NO.'S 3, 4 & 5.

SPECIAL FIELD PAINTING OF EXISTING STEEL, PARTIAL COAT INTERMEDIATE, SYSTEM "A"
WORK UNDER ABOVE ITEM SHALL INCLUDE ONLY THE LAST 4'-0 OF ALL BEAMS AT EACH ABUTMENT BACKWALL AND END CROSS-FRAMES.

REFERENCE SHALL BE MADE TO STANDARD DRAWING:

EXJ-2-81 DATED 4-02-84

AND TO SUPPLEMENTAL SPEICIFICATIONS:

845 DATED 2-25-86
953 DATED 8-21-80
849 DATED 12-24-85
949 DATED 9-26-86

AND TO SUPPLEMENT:

1045 DATED 5-02-86

CONTINUOUS ELASTOMERIC COMPRESSION SEAL:
CAN BE MANUFACTURED BY: WABO-ACME WJ-500 FOR 5" WIDTH AND WJ-350 FOR 3 1/2" WIDTH; D.S. BROWN OF EQUIVALENT SIZE AND STRENGTH; OR AN APPROVED EQUAL.

THIS SYSTEM SHALL BE FURNISHED BY:

WATSON-BOWMAN & ACME CORP.
95 PINEVIEW DRIVE
AMHERST, NEW YORK 14120

D.S. BROWN
P.O. BOX 158
NORTH BALTIMORE, OHIO 45872
TELE. 419-257-3561

OR BY A MANUFACTURER THAT CAN FURNISH A SYSTEM THAT IS ACCEPTABLE TO THE DIRECTOR.

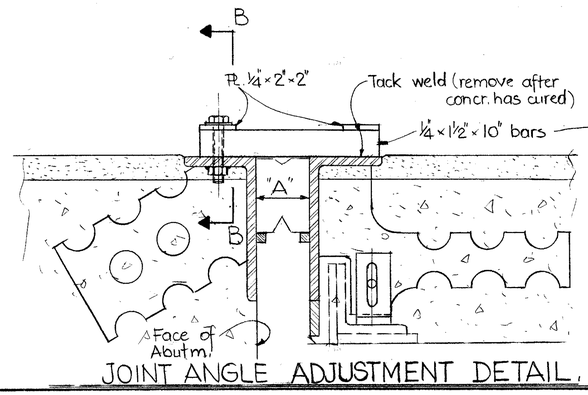
THE STRUCTURAL STEEL SHALL CONFORM TO ASTM A588 OR A36 WITH THE FOLLOWING PAINTING PROCEDURE:

A SHOP COAT OF PAINT, SYSTEM A SHALL BE APPLIED TO THE ANGLES AND RETAINER BARS. FIELD PAINT SHALL CONSIST OF THE "PARTIAL COAT INTERMEDIATE", SYSTEM A, "COMPLETE PRIME COAT", SYSTEM A, AND "COMPLETE FINISH COAT", SYSTEM A. FIELD PAINTING AS DESCRIBED IS INCLUDED WITH THE PAINTING OF EXISTING STEEL. STEEL MEMBERS SHALL BE FURNISHED IN LENGTHS AS LONG AS PRACTICABLE. AT ALL FIELD BUTT JOINTS, THEY SHALL BE RIGIDLY FASTENED TOGETHER AS REQUIRED PRIOR TO PLACING CONCRETE.

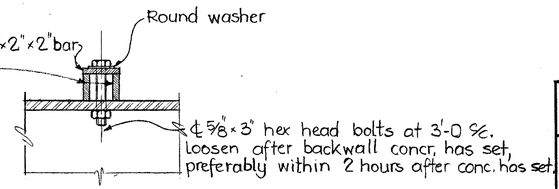
STAGE CONSTRUCTION
THE PORTIONS OF THE STRUCTURE AT THE ABUTMENTS SHALL BE CONSTRUCTED IN TWO STAGES. STAGE 1 SHALL BE CONSTRUCTED FIRST. THE EXISTING CONCRETE SHALL BE REMOVED TO THE LIMITS OF STAGE 1 REMOVAL, SEE PLAN (REMOVAL LIMITS) DETAILS, SHEET NOS.: 3, 4 AND 5. THE NEW CONCRETE SHALL BE POURED TO THE LIMITS OF STAGE 1 RECONSTRUCTION, SEE PLAN (RECONSTRUCTION) DETAILS, SHEET NOS.: 3, 4 AND 5. STAGE 2 CONCLUDES THE OPERATION.

THE SCARIFICATION OF THE CONCRETE AND THE REPLACEMENT OF THE L.M.C. OVERLAY SHALL FOLLOW THE STAGE CONSTRUCTION ON TYPICAL CROSS-SECTION DETAILS, SHEET NO. 6.

ITEM SPECIAL - RESETTING ROCKERS
RESETTING ROCKERS AT THE ABUTMENTS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SHEET 60 OF THE PLANS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR Item SPECIAL-RESETTING ROCKERS. THE PRICE SHALL BE PAYMENT IN FULL FOR ALL MATERIAL, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THIS WORK.



JOINT ANGLE ADJUSTMENT DETAIL.



SECTION B-B

For dimension "A" see "Table I", sheet 3/6

CHARLES L. BARBER & ASSOCIATES INC.
ENGINEERS • ARCHITECTS
TOLEDO, OHIO 2/6

ESTIMATED QUANTITIES, GENERAL NOTES & REINFORCEMENT SCHEDULE.

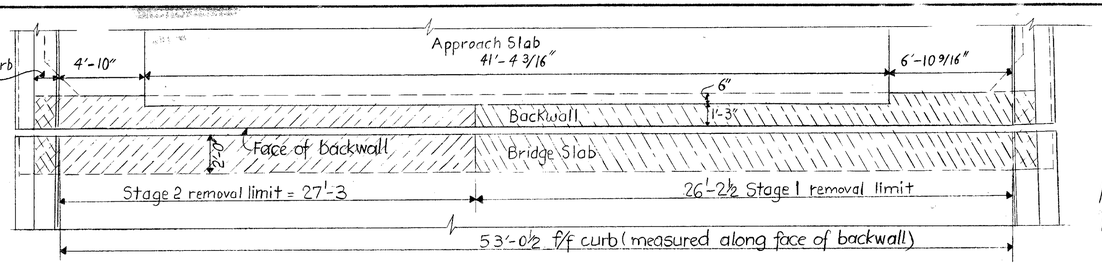
BRIDGE NO. LUC-475-0093 L & R.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.M.	E.W.K.		T.W.D R.J.M	R.H.B.	Feb 87	

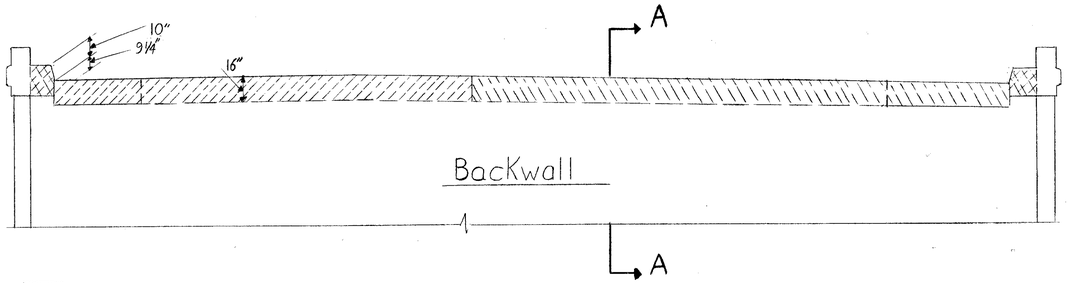
WOO/LUC-475-3.86/0.00

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO	IR-475-7(46)196	

60/72

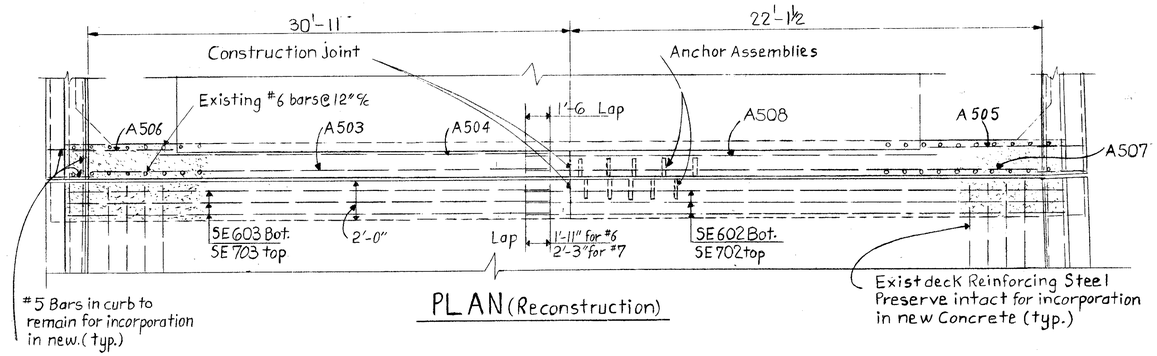


PLAN (Removal limits)

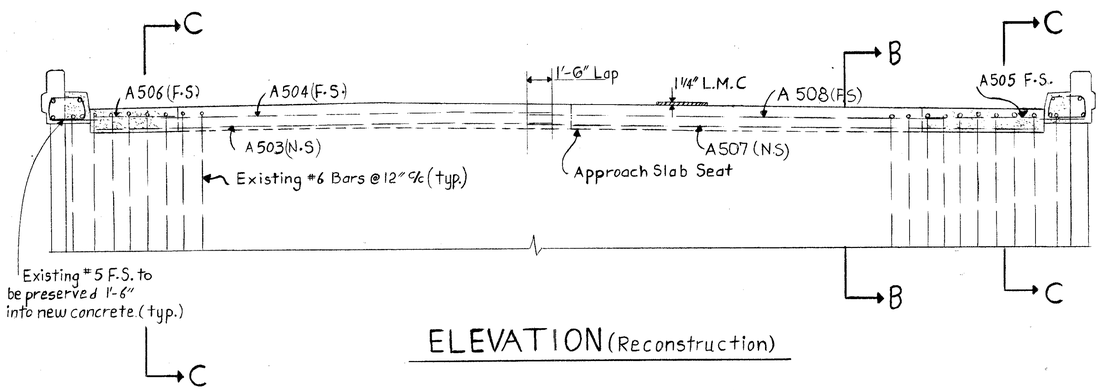


ELEVATION (Removal limits)

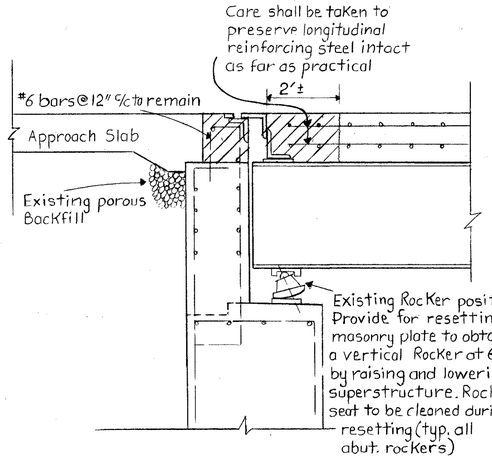
Removal limits



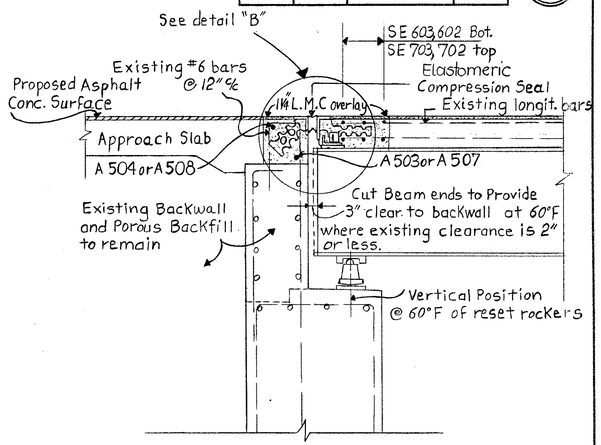
PLAN (Reconstruction)



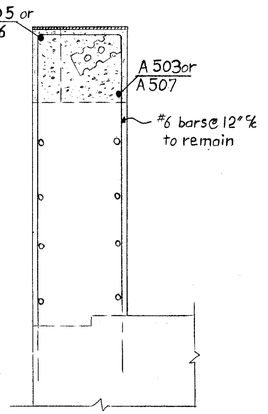
ELEVATION (Reconstruction)



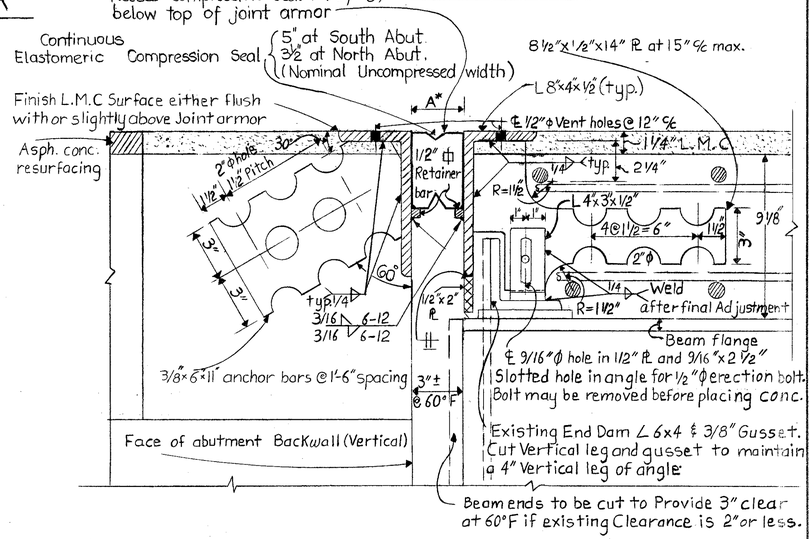
SECTION A-A



SECTION B-B



SECTION C-C



DETAIL-B
(All abutments)

* Dimension "A" Continuous Compression Seal Joint opening at time of installation Shall be determined from the following table:

TABLE I	Temp. at Time of Installation °F	20°	30°	40°	50°	60°	70°	80°	90°
	Dimension A (South Abut.)	3½"	3⅜"	3¼"	3⅛"	3"	2⅞"	2¾"	2⅝"
	Dimension A (North Abut.)	2⅜"	2¼"	2⅛"	2⅛"	2⅛"	2⅛"	2"	2"

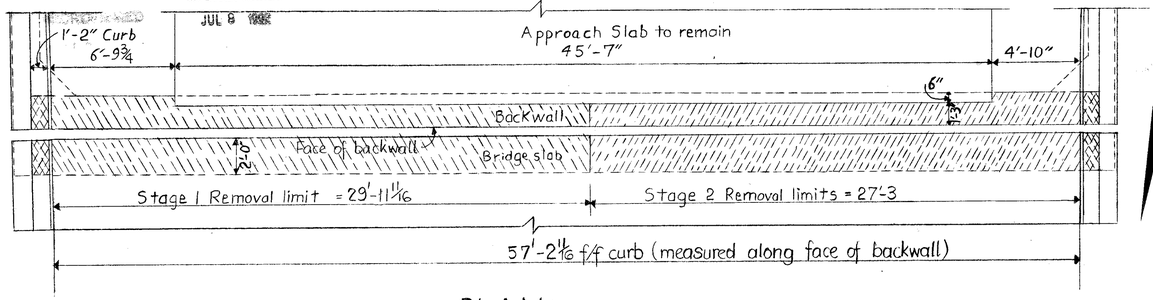
All Welding Shall conform to A.W.S and AASHTO Specifications for welded Highway and Railway Bridges

CHARLES L. BARBER & ASSOCIATES INC.
ENGINEERS • ARCHITECTS
TOLEDO, OHIO
3/6

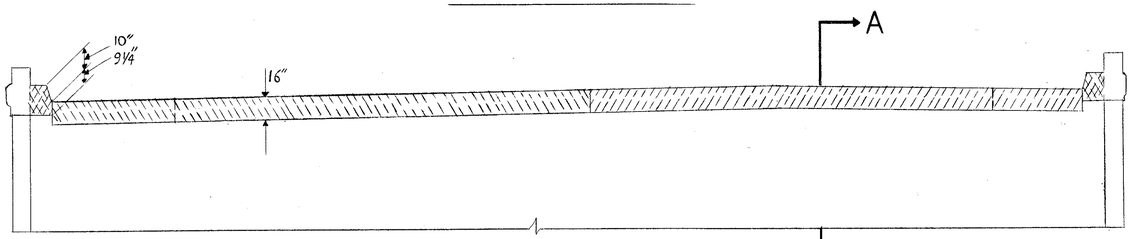
EXPANSION JOINT REPLACEMENT AT NORTH ABUTMENT NORTHBOUND STRUCTURE

BRIDGE No. LUC-475-0093 L & R.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.M.	R.M.		T.W.D R.J.M	R.H.B	Feb.87	

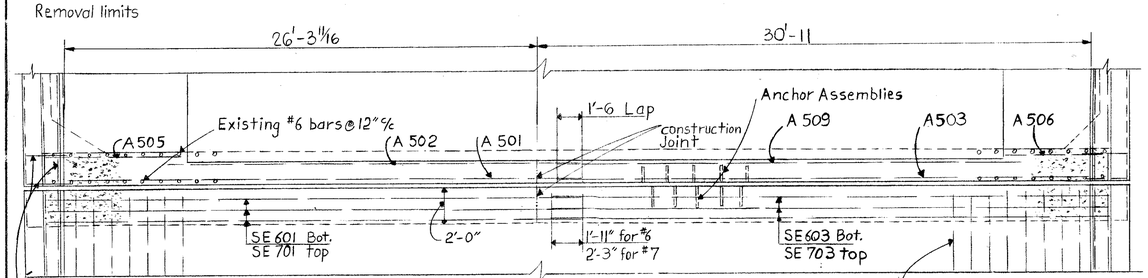


PLAN (Removal limits)

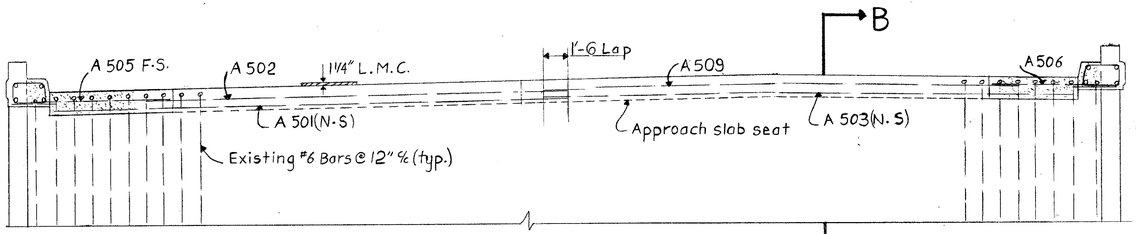


ELEVATION (Removal limits)

Removal limits

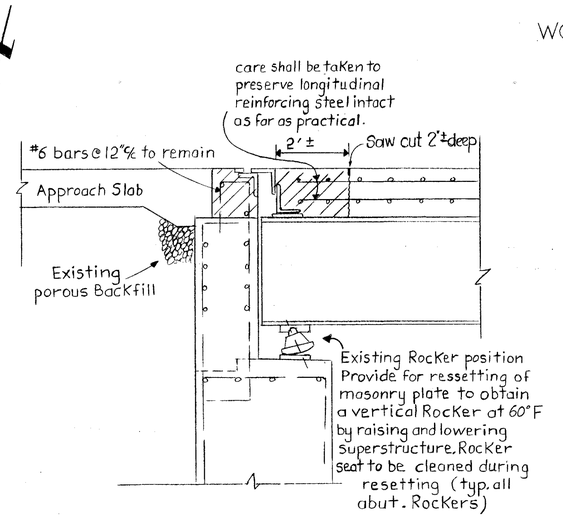


PLAN (Reconstruction)

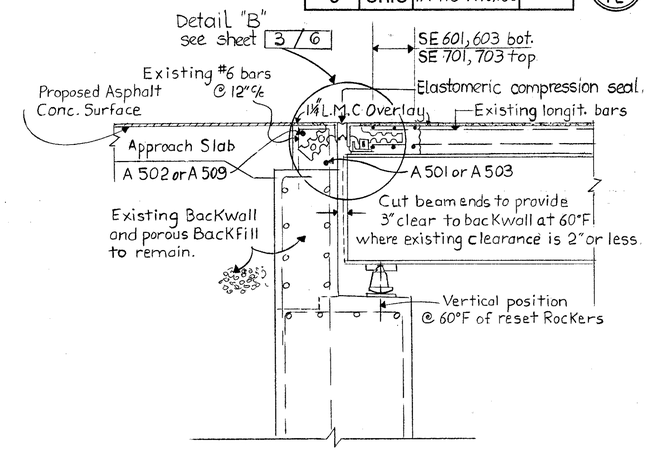


ELEVATION (Reconstruction)

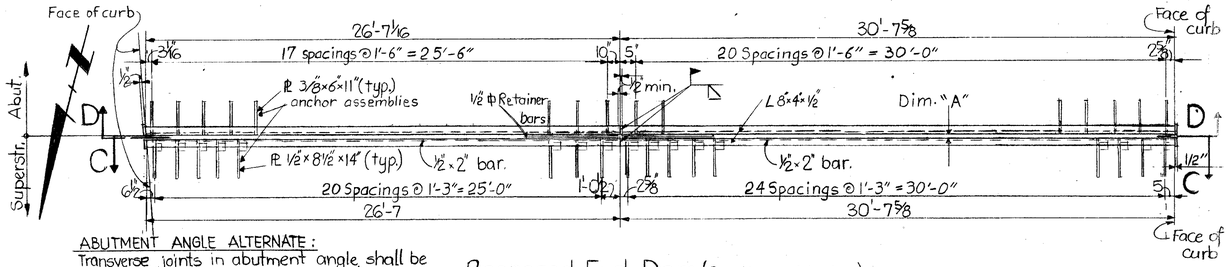
New Concrete limits



SECTION A-A

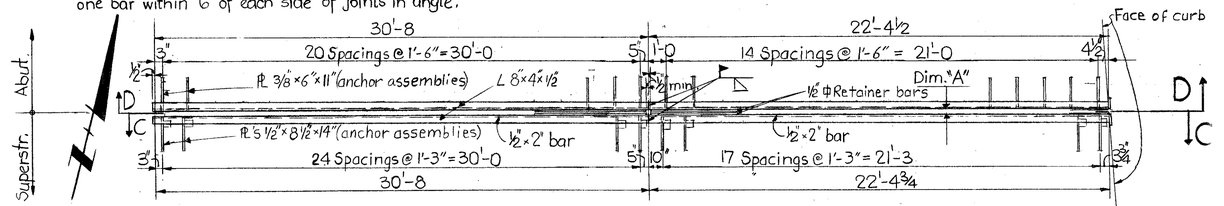


SECTION B-B



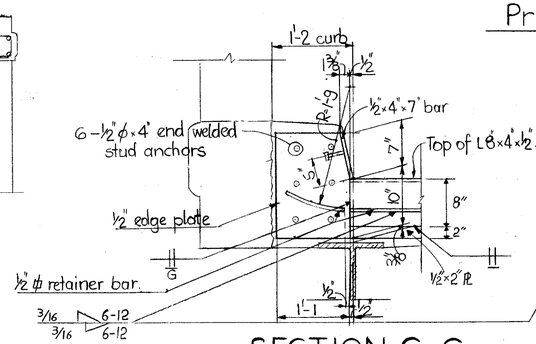
ABUTMENT ANGLE ALTERNATE:
Transverse joints in abutment angle shall be closely butted with a minimum of 6'-0 between joints. Anchor bars shall be spaced @ 1'-6 with one bar within 6" of each side of joints in angle.

Proposed End Dam (Southern Abutm.)

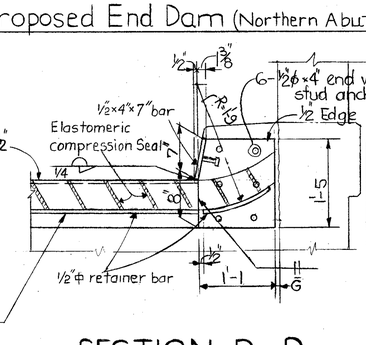


Proposed End Dam (Northern Abutm.)

For dim. 'A" see Table I, sheet 3/6



SECTION C-C



SECTION D-D

CHARLES L. BARBER & ASSOCIATES INC.
ENGINEERS • ARCHITECTS
TOLEDO, OHIO

4/6

EXPANSION JOINT REPLACEMENT AT SOUTH ABUTMENT NORTHBOUND STRUCTURE

BRIDGE No. LUC-475-0093 L.¢ R.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.M.	R.M.		T.W.D R.J.M	R.H.B.	Feb 87	

F.H.W.A. REGION	STATE	PROJECT	
5	OHIO	IR-475-7.46(1)36	

62/72

WOO/LUC-475-3.86/0.00

55'-6 3/8 f/f curb (measured along face of backwall)

Approach slab to remain

Face of backwall

Existing end dam-not shown.

Face of curb

Face of parapet.

30'-0 (Stage I)

25'-6 3/8 (Stage II)

Superstr. slab removal

℄ Southbound Lanes

18'-0

37'-9 (Stage I)

25'-6 1/4 (Stage II)

63'-3 1/4 f/f curb (measured along face of backwall)

PLAN - NORTHERN ABUTM.
(Removal Limits)

PLAN - SOUTHERN ABUTM.
(Removal Limits)

Removal Limits.

31'-2 (North Abut)
38'-11 (South Abut)

26'-8 3/8 (North Abut)
26-8 1/4 (South Abut)

Bottom of Appr. Slab

Exist. #5 bars to be preserved 1'-6 into new concrete (typ)

SECTION A-A

New concrete Limits.

Preserve all exist. curb reinf. for incorporation in new curb (typ)

A505 (Top)
A502 (Top)
A501 (Bott)
Constr. Jt.
A507 (Top)
A511 (Bott)
A506 (Top)
1'-4
1'-6 lap
SE701 (Top)
SE601 (Bott)
dim. "A"
1'-11 lap for SE604
2'-3 lap for SE701
SE701 (Top)
SE604 (Bott)

26'-0 3/8 (Stage I)

29'-6 (Stage II)

PLAN - NORTHERN ABUTMENT.
(Reconstruction)

SE701 (Top)
SE601 (Bott)
dim. "A"
1'-11 lap for SE605
2'-3 lap for SE704
1'-11
2'-3
SE704 (Top)
SE605 (Bott)
SE701 (Top)
SE601 (Bott)
A505 (Top)
1'-4
A503 Bott.
A503 (Top)
1'-6 lap
Constr. Joint
1'-6 lap.
A512 (Bott)
A510
A511
A506

33'-9 1/4 (Stage I)

29'-6 (Stage II)

PLAN - SOUTHERN ABUTMENT.
(Reconstruction)

#6 bars @ 12" c/c to remain.

Care shall be taken to preserve longitudinal reinf. steel intact as far as practical.

Saw cut 2"± deep

Appr. slab

Exist. porous backfill (to remain)

Bridge Beam

Existing Rocker Position. Provide for resetting of masonry plate to obtain a vertical rocker at 60°F. by raising & lowering the superstructure. Rocker seat to be cleaned during resetting.

SECTION B-B

Asph. concr.

Anchor Pl. 6"×3/8"×11"

A501 A503 A511 A512 Face of backwall

Detail "B"

A502 A503 A507 A510

A "G" 2@8"

3-SE701
3-SE704
3-SE601
3-SE604
3-SE605

Anchor Pl. 8 1/2"×1/2"×14"

1/4" L.M.C.

A505 or A506

A501, A503 or A511

Cut beam ends to provide 3" clear to backwall at 60°F. where exist. clearance is 2" or less.

SECTION C-C

SECTION D-D

Abut.
Superstr.
face/curb

26'-3 3/8
17 sp. @ 1'-6 = 25'-6
29'-3
19 sp. @ 1'-6 = 28'-6
L 8"×4"×1/2"
Anchor Pl. 6"×3/8"×11"
1/2" min.
Dim. "A"
1/2"ϕ retainer bar
1/2"×2" bar
anchor assemblies
PL 1/2"×4"×8" (typ)
20 sp. @ 1'-3 = 25'-0
23 sp. @ 1'-3 = 28'-9
26'-3 1/2
29'-3

PLAN - PROPOSED END DAM - NORTHERN ABUTM.

34'-0 1/8
26 sp. @ 1'-3 = 32'-6
29'-3
23 sp. @ 1'-3 = 28'-9
L 8"×4"×1/2"
Anchor assemblies
1/2"×2" bar
Dim. "A"
1/2"ϕ retainer bar
Anchor Pl. 6"×3/8"×11"
22 sp. @ 1'-6 = 33'-0
19 sp. @ 1'-6 = 28'-6
34'-0 1/4
29'-3

PLAN - PROPOSED END DAM - SOUTHERN ABUTM.

1'-2 curb

6-1/2"ϕ×4" end welded stud anchors

1/2"×4"×7" bar

Top of L 8"×4"×1/2"

Elastomeric compr. seal.

1/2"ϕ retainer bar

1/2" edge plate

6-1/2"ϕ×4" studs

Elastomeric compr. seal

Top of L 8"×4"×1/2"

PL 1/2"×2"

SECTION E-E

dim. "A"

PL 1/2"×4"×7"

1/2"ϕ×4" stud anchors

1/2"ϕ retainer bar.

Elastomeric compression seal

Face of backwall

SECTION G-G

SECTION F-F

For dimension "A" see Table I sheet 3/6

For Detail "B" see sheet 3/6

ABUTMENT ANGLE ALTERNATE:

Transverse joints in abutment angle shall be closely butted with a minimum of 6'-0 between joints. Anchor bars shall be spaced @ 1'-6 with one bar within 6" of each side of joints in angle.

CHARLES L. BARBER & ASSOCIATES INC.
ENGINEERS • ARCHITECTS
TOLEDO, OHIO

5/6

EXPANSION JOINT REPLACEMENT AT ABUTMENTS. SOUTHBOUND STRUCTURE.

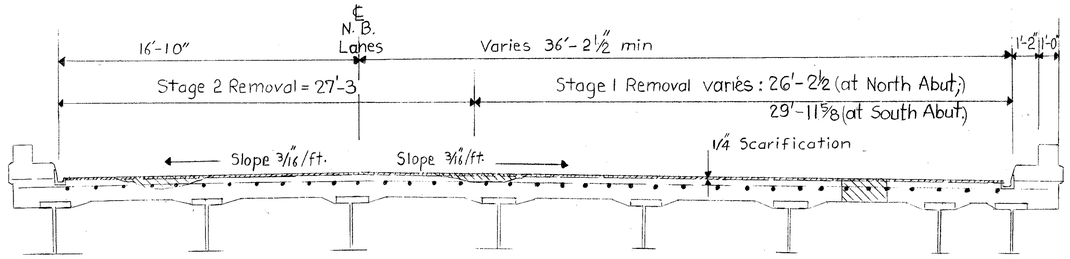
BRIDGE NO. LUC-475-0093 L & R.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.J.M	E.W.K		T.W.D R.J.M	R.H.B	Feb.87	

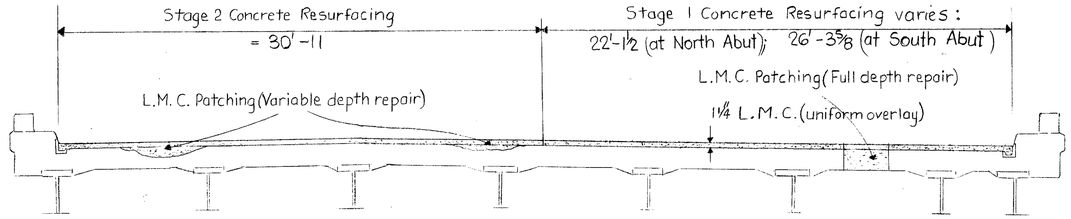
F.H.W.A. REGION	STATE	PROJECT	
5	OHIO	IR-475-7(46)136	

63/72

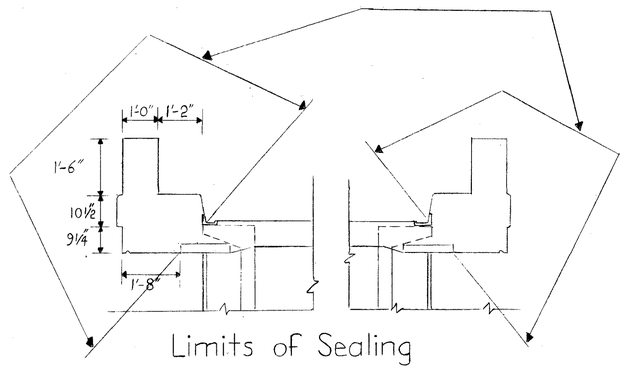
WOO/LUC-475-3.86/0.00



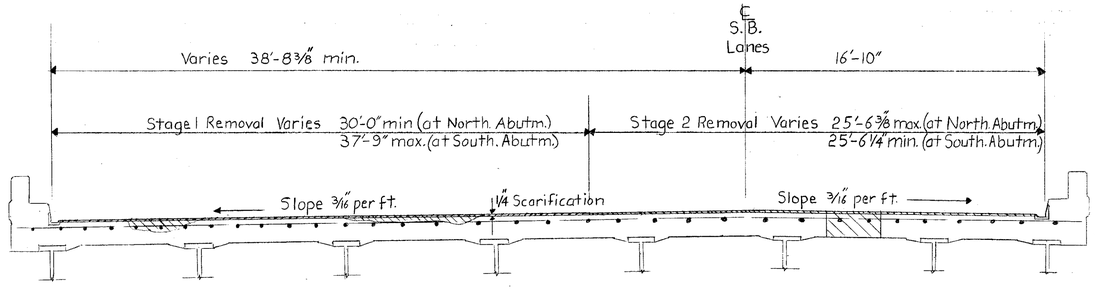
Typical Cross-Section (Concrete Removal)
Northbound Structure



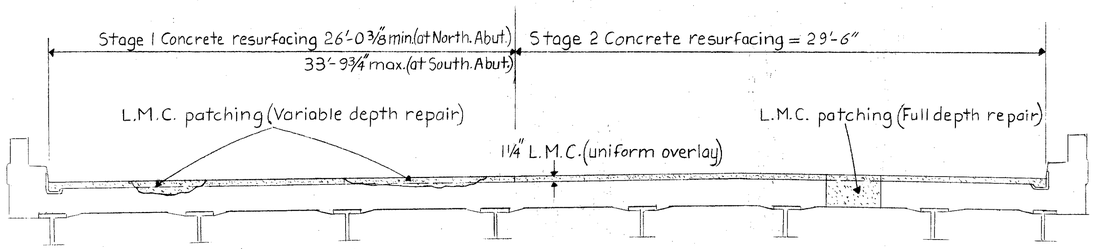
Typical Cross-Section (L.M.C. Replacement)
Northbound Structure



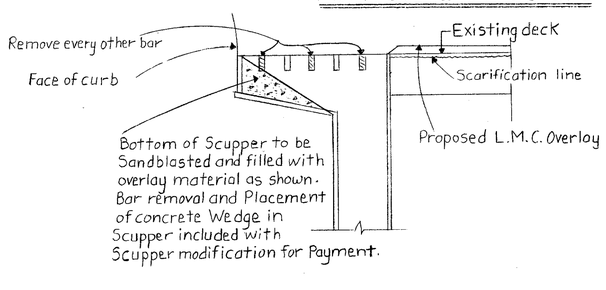
Limits of Sealing
Concrete Surfaces, Epoxy



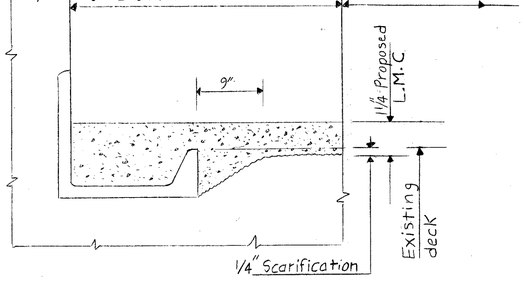
Typical Cross-Section (Concrete Removal)
Southbound Structure



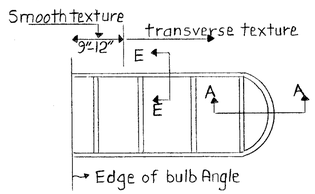
Typical Cross-Section (L.M.C. Replacement)
Southbound Structure



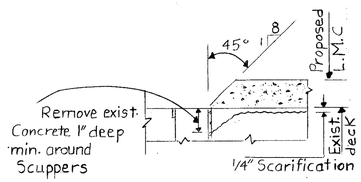
Scupper Modification



Bulb Angle Treatment



PLAN



SECTION A-A
SECTION E-E

CHARLES L. BARBER & ASSOCIATES INC.
ENGINEERS • ARCHITECTS
TOLEDO, OHIO

6/6

SUPERSTRUCTURE DECK REPAIR DETAILS NORTH & SOUTHBOUND STRUCTURE

BRIDGE No. LUC-475-0093 L. & R.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.M.	R.M.		E.W.K.	R.H.B	Feb 87	