~~BRIDGE~~ CONTRACT No. B-8877

INDEX

PROJECT	STRUCTURE	TYPE	SPAN	OVER	STATION	CONTRACT NO.
I-65-3(163)109	I-65-110-5694	CONT. COMP. STEEL BM. BRIDGES	2 SPANS 72'-6", 75'-6" SKEW 1° 22' 59" RT.	I-65 OVER RAYMOND ST.	262+60.88 I-65 10+00.68 PROP. RAYMOND ST.	B-8877

SHEET NO.	SHEET DESIGNATION	SUBJECT	B.P.R. APPROVAL
1	ONE SHEET	INDEX AND TITLE SHEETS	
2	BRIDGE SHEET	SOIL BORINGS	
3	S1	LAYOUT	
4	S2	GENERAL PLAN	
5	S3	BENTS NO. 1 S.B. & NO. 3 N.B. BENTS NO. 3 S.B. & NO. 1 N.B.	
6	S4	WINGWALL DETAILS	
7	S5	BENT NO. 2 S.B. & N.B.	
8	S6	FRAMING PLAN	
9	S7	SHOE & SPLICE DETAILS	
10	S8	STEEL BEAM DETAILS	
11	S9	SUPERSTRUCTURE	
12	S10	SUPERSTRUCTURE DETAILS	
13	S11	SCREED DATA	
14	ONE SHEET	SUMMARY	
12A	S10A	DETAILS - C.T.I.P.C. OVERLAY AND EXP. JT. TYPE B58	

STATE OF INDIANA
INDIANA STATE HIGHWAY COMMISSION

BRIDGE PLANS
FOR SPANS OVER 20 FEET
ON
INTERSTATE ROAD NO. 65 SECTION 3
I-PROJECT NO. 65-3 (66)109 P.E. PHASE 1
(81)109 P.E. FINAL PHASE
(32)109 R/W
(163)109 CONSTR.
OVER
RAYMOND STREET

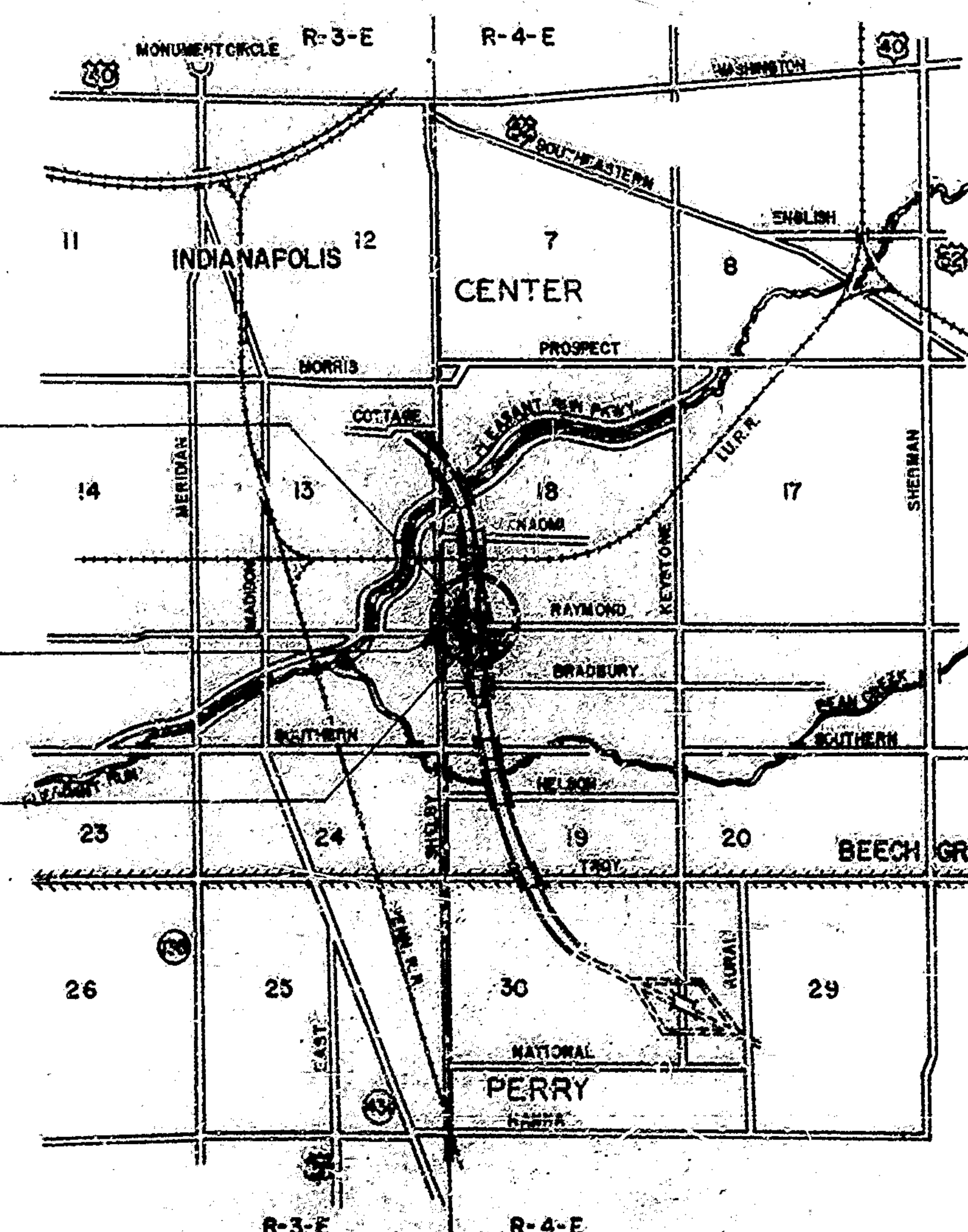
BEGINNING AT A POINT 102.26' SOUTH OF THE NORTH LINE OF SECTION 19, T-15-N, R-4-E AND RUNNING IN A NORTHERLY DIRECTION A DISTANCE OF 151.50' TO A POINT 49.24' NORTH OF THE NORTH LINE OF SECTION 19, T-15-N, R-4-E, IN CENTER TOWNSHIP, MARION COUNTY.

ROADWAY LENGTH: 0.000 MI.
BRIDGE LENGTH: 0.030 MI.
TOTAL LENGTH: 0.030 MI. MAX. GRADE=1.04 %

END STRUCTURE
LIMITS STA. 263+38.13

STRUCTURE I-65-110-5694
2 SPANS 72'-6", 75'-6"
SKEW 1° 22' 59" RT.
CONTINUOUS COMPOSITE STEEL BEAM BRIDGES
℄ STA. 262+60.88 I-65
STA. 10+00.68 ℄ PROPOSED RAYMOND ST.

BEGIN STRUCTURE
LIMITS STA. 261+86.63



REVISIONS	
DATE	SHEET NO.
5-1-72	1 thru 12, 14, 15, 16, 17, 18, 19, 20, 21, 23; Added 15A, 16A, 20A, 23A, 23B, 23C, 23D, 23E.
1-30-73	1, 4, 5, 10, 11, 12, 14, 15, 23c Delete 23
3-5-73	Project Designation changed from I-65-3(53)109 to I-65-3(163)109.
8-3-73	1, 3, 4, 5, 10, 11, 12, 13, 14; Added 12A

INDIANA STATE HIGHWAY COMMISSION
STANDARD SPECIFICATIONS DATED 1971
TO BE USED WITH THESE PLANS.

BRIDGES OVER 20' SPAN

PUBLIC ROADS REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3(163)109	1970	1	23

INDEX CONTINUED
STANDARD DRAWINGS

SHEET NO.	SHEET DESIGNATION	SUBJECT	B.P.R. APPROVAL	ADOPTED "A" REVISION "R"
15	BRIDGE STD. C1	STANDARD MISCELLANEOUS DETAILS		R-5-1-72
15A	BRIDGE STD. C3	STANDARD MISCELLANEOUS DETAILS		R-6-1-72
16	BRIDGE STD. D	CASTING DETAILS ROADWAY DRAINS	6-16-72	R-1-1-72
	BRIDGE STD. F	ROADWAY DRAIN OUTLET DETAILS		
	BRIDGE STD. GR	TYPICAL BEAM GUARD RAIL DETAILS		
	BRIDGE STD. H	TYP. DETAILS OF THICK. PAVEMENT & LOC. TOE OF SL. AROUND END BENTS		
	BRIDGE STD. H	TYP. DETAILS OF THICK. PAVEMENT & LOCATING TOE OF SLOPE		
	BRIDGE STD. H2	CONT. STEEL BEAM—TYP. APPROACH DETAILS—TWIN STRUCTURES		
	BRIDGE STD. H3	ST. BEAM & R.C. GIRDER—TYP. APPROACH DETAILS—TWIN STRUCTURES		
	BRIDGE STD. H21	CONT. STEEL BEAM—TYP. APPROACH DETAILS—TWO LANE STRUCTURES		
16A	BRIDGE STD. [illegible]	BRIDGE LIGHTING DETAILS	1-17-72	R-8-2-71
	BRIDGE STD. M2	MISCELLANEOUS APPROACH DETAILS		
	BRIDGE STD. M3	MISCELLANEOUS APPROACH DETAILS		
	BRIDGE STD. M4	R.C. BRIDGE APPROACH TURNOUT DETAILS—12'-6" SHOULDERS		
	BRIDGE STD. M5	SLOPEWALL AND DRAINAGE DETAILS		
	BRIDGE STD. [illegible]	STANDARD CONCRETE RAIL DETAILS		
	BRIDGE STD. [illegible]	PRESTRESSED CONCRETE TYPE I-BEAMS		
	BRIDGE STD. [illegible]	PRESTRESSED COMPOSITE BOX BEAMS WIDE		
	BRIDGE STD. P210	TOLERANCES FOR FABRICATION OF PRESTRESSED BEAMS		
17	BRIDGE STD. [illegible]	ALUMINUM BRIDGE RAILINGS	7-22-71	R-3-1-71
18	BRIDGE STD. [illegible]	ALUMINUM BRIDGE RAILING DETAILS	7-22-71	R-3-1-71
19	BRIDGE STD. [illegible]	STEEL BRIDGE RAILING	7-22-71	R-3-1-71
20	BRIDGE STD. [illegible]	STEEL BRIDGE RAILING DETAILS	7-22-71	R-3-1-71
20A	BRIDGE STD. [illegible]	MISCELLANEOUS DETAILS	1-17-72	R-8-2-71
	BRIDGE STD. T SHEET A	STANDARD TEMPORARY BRIDGE		
	BRIDGE STD. T SHEET B	STANDARD TEMPORARY BRIDGE		
	ROAD STD. SHEET A	STANDARD PAVEMENT JOINTS		
	[illegible] SHEET M	MISCELLANEOUS APPROACH DETAILS		
21	ROAD STD. SHEET MB2	MISCELLANEOUS STANDARDS	5-7-72	R-1-8-72
22	ROAD STD. SHEET MB1	MISCELLANEOUS STANDARDS	4-25-69	[illegible]
23	ROAD STD. SHEET B	STD. PVMT. JOINTS		[illegible]
23A	ROAD STD. SHEET MD	MISCELLANEOUS STANDARDS	7-3-71	R-3-1-71
23B	ROAD STD. SHEET MC	MISCELLANEOUS STANDARDS	7-2-71	R-3-4-71
	ROAD STD. SHEET ME	MISCELLANEOUS STANDARDS		
23C	ROAD STD. SHEET ME2	MISCELLANEOUS STANDARDS	11-22-72	R-10-2-72
	ROAD STD. SHEET MF	MISCELLANEOUS STRUCTURE STANDARDS		
	ROAD STD. SHEET MG	MISCELLANEOUS STRUCTURE STANDARDS		
	ROAD STD. SHEET MH	MISCELLANEOUS PRIVATE DRIVE STANDARDS		
	ROAD STD. SHEET MI	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MJ	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MK	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MN	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MP	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MP1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MQ	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MR	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MR1	MISCELLANEOUS STANDARDS		
23D	ROAD STD. SHEET S	MISCELLANEOUS STANDARDS CENTER DITCH INLETS	8-25-69	R-8-5-69
	ROAD STD. SHEET S1	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET MT	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD. SHEET	MISCELLANEOUS STANDARDS		
	ROAD STD.	STANDARD STRUCTURE CONNECTIONS FOR EXTENSION		
	ROAD STD.	STANDARD REINF. CONC. BOX CULVERTS		
	ROAD STD.	STANDARD REINF. CONC. BOX CULVERTS—SK. END & WING DETAILS		
	ROAD STD.	STANDARD REINF. CONC. CULVERTS—SLAB TOP TYPE (W.F.)		
	ROAD STD.	STANDARD REINF. CONC. CULVERTS—SLAB TOP TYPE (U.F.)		
	ROAD STD. SHEET GR	STANDARD GUARD RAIL		
23E	ROAD STD. SHEET GR2	BEAM GUARD RAIL SHEET		A-F-2-71
	ROAD STD.	STANDARD REINF. CONCRETE ARCH—12' SPAN		
	ROAD STD.	STANDARD HEADWALLS		
	ROAD STD.	STANDARD STRUCTURAL PLATE ARCH		
	ROAD STD.	CONCRETE WINGS FOR STD. STRUCTURAL PLATE ARCHES		
	ROAD STD.	STANDARDS FOR SUPER-ELEVATION		
	ROAD STD. SHEET 1 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 2 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3 DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET 3A DETOURS	STANDARD DETOUR SIGNS		
	ROAD STD. SHEET			

TRAFFIC DATA		
A.D.T. (1970)		39,?00 V.P.D.
A.D.T. (1991 PROJECTED)		71,100 V.P.D.
D.H.V. (1991 PROJECTED)		7,170 V.P.D.
TRUCKS		D.H.V. 8% A.D.T. 14%
DESIGN SPEED		60 M.P.H.
ACCESS CONTROL		FULL

PRELIMINARY PLANS PREPARED BY
GANNETT FLEMING CORDDRY & CARPENTER, INC.
INDIANAPOLIS, INDIANA

SUBMITTED FOR APPROVAL: DATE 10-15-1963
James R. Madara
PHASE I-P.E. GANNETT FLEMING CORDDRY & CARPENTER, INC.

JAMES R. MADARA REGISTERED No. 11674 STATE OF INDIANA PROFESSIONAL ENGINEER

FINAL PLANS PREPARED BY
BOYD E. PHELPS, INC.
INDIANAPOLIS & MICHIGAN CITY, IND.

BY [illegible]
DATE Nov. 13, 1969

L. D. TAYLOR JR. No. 6359

APPROVED 1-12-70
[illegible]
CHIEF HIGHWAY ENGINEER—INDIANA STATE HIGHWAY COMMISSION

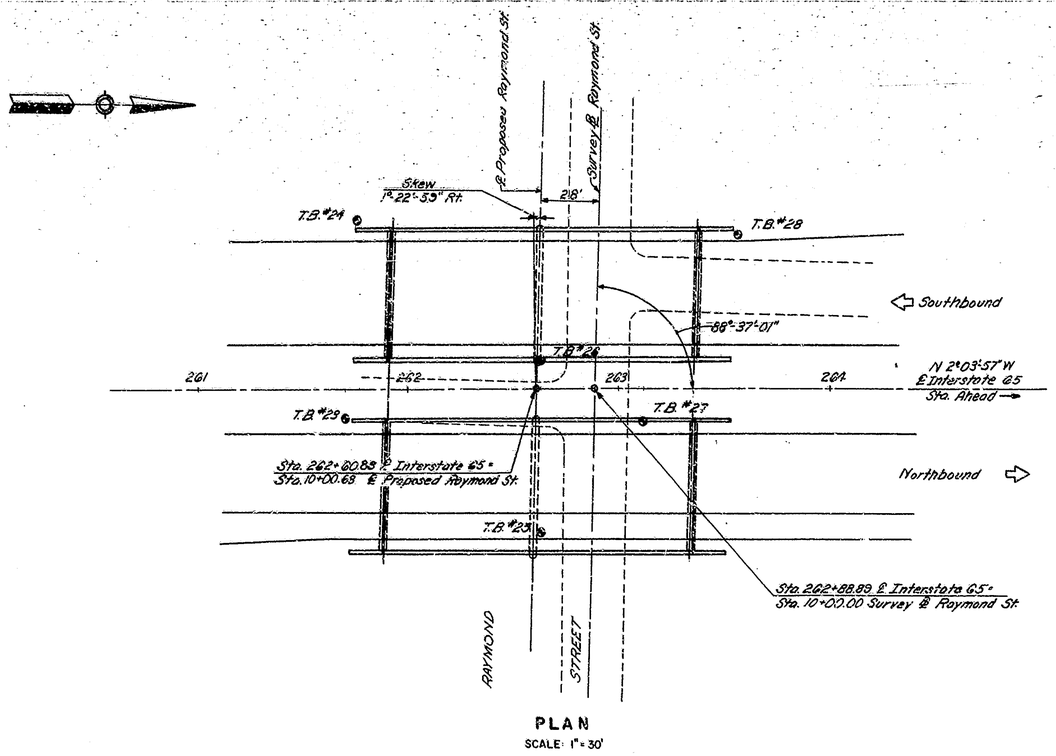
12/15/69
RECOMMENDED FOR APPROVAL
[illegible]
ENGINEER OF BRIDGES
INDIANA STATE HIGHWAY COMMISSION

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED:
DIVISION ENGINEER DATE

BRIDGE FILE: I-65-110-5694

5-1-72 BKL/WFB/
1-30-73 RWN/WFB
3-3-73 JWW/SOM/D.L.

DESIGN CONTROL SECTION NO.	COUNTY	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3(63)109	1970	2	23



PLAN

SCALE: 1" = 30'

NOTE:- ▼ Denotes Ground Water Table
N Indicates the number of blows required to drive a 1⅜" I.D., 2" O.D. Split Spoon Sampler 6" by means of a 140# Weight Falling 30". The Sample elevation shown indicates the top of each 18" Sample.

See Article 102.05 of the Specifications regarding test pit data.

BORING NO.	T. B. # 23				T. B. # 24				T. B. # 25				T. B. # 26				T. B. # 27				T. B. # 28			
STATION	261+70				261+77				262+63				262+63				263+12				263+57			
OFFSET	13' Rt.				77' Lt.				65 Rt.				13' Lt.				15' Rt.				70' Lt			
GROUND ELEV.	729.5				729.6				730.0				730.1				730.6				730.6			
	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION	SAMPLE No.	EL.	N	DESCRIPTION
730		729.5		Ground Level		729.6		Ground Level		730.0		Ground Level		730.1		Ground Level		730.6		Ground Level		730.6		Ground Level
		729.1		Blacktop & brick (fill)		729.1		Topsoil		729.7		Topsoil		729.6		Brown moist soft sandy clay loam (topsoil)		730.2		Concrete for 0.4'		729.1		Brown moist soft sandy clay loam (topsoil)
	1	728.0	2/12/9		1	728.1	3/4/5	Brown moist medium stiff sandy clay loam	1	728.2	3/4/5	Brown moist medium stiff to soft sandy clay loam	1	728.6	5/5/7	Brown moist very stiff sandy clay	1	728.1	3/12/16		1	728.1	3/4/4	
	2	728.5	2/2/2	Brown moist soft sandy clay	2	727.6	3/2/4		2	727.0	2/2/3		2	727.6	4/4/5	Brown moist very stiff silty clay with little sand	2	726.6	7/9/9	Brown moist medium dense to dense sand	2	726.6	3/15/16	Brown moist loose to medium dense sand and fine to medium gravel with thin layers of clay
	3	726.0	2/2/4		3	727.1	3/4/5	Brown moist medium dense fine sand	3	726.3	6/4/6		3	727.3	6/7/9		3	722.1	6/7/13		3	722.1	2/3/9	
						726.6								727.6				718.6				718.6		
	4	716.0	4/4/4	Brown moist loose to medium dense sand with some gravel Not at 13.5'	4	726.1	3/4/6		4	716.5	2/4/8	Brown moist medium dense sand with some medium to fine gravel	4	716.6	7/13/15	Brown moist dense sand and fine gravel Medium dense at 16.5	4	717.1	14/15/15	Brown moist to wet dense sand and fine to medium gravel	4	717.1	14/18/18	Gray moist very stiff to hard sandy clay with layers of sand and fine to medium gravel
	5	711.0	3/4/8		5	711.1	4/6/8	Gray dry very stiff silty clay loam	5	711.5	6/5/8		5	711.6	6/8/8		5	712.1	11/12/12		5	712.1	2/14/17	
										708.8				708.6				708.6						
	6	706.0	4/6/10	Gray dry very stiff silty clay loam (hardpan)	6	706.1	5/7/9		6	706.3	6/9/11	Gray dry stiff to very stiff silty clay loam (hardpan)	6	706.6	6/8/8		6	707.1	9/14/16	Gray moist very stiff to hard sandy clay with trace of fine to medium gravel	6	707.1	3/14/16	
720																								
	7	702.0	4/12/13	Hard at 28.5	7	701.1	4/9/9	Brown moist very stiff Sandy clay with little fine to medium gravel	7	701.5	4/6/10		7	701.6	8/9/11	Gray moist very stiff to hard sandy clay with layers of sand	7	702.1	8/14/18		7	702.1	14/17/17	
		699.5		End of boring		699.6		End of boring		700.0		(hardpan) End of boring						700.6		End of boring		700.6		End of boring
710				DEPTH OF BORING 30'-0"				DEPTH OF BORING 30'-0"				DEPTH OF BORING 30'-0"								DEPTH OF BORING 30'-0"				DEPTH OF BORING 30'-0"
													8	694.6	6/9/11									
													9	693.6	6/9/10									
700													10	692.6	6/10/10									
													11	691.6	6/7/10									
														690.6		End of boring								
690																DEPTH OF BORING 50'-0"								
680																								

Rev. 5-1-72 Note,

Rev. 3-5-73 Project Designation changed from I-65-3(63)109 to I-65-3(163)101.

November 6, 1981

FINAL PLANS PREPARED BY
BOYD E. PHELPS, INC.
INDIANAPOLIS & MICHIGAN CITY, IND.
BY L. D. Phelps
DATE Dec. 15, 1969

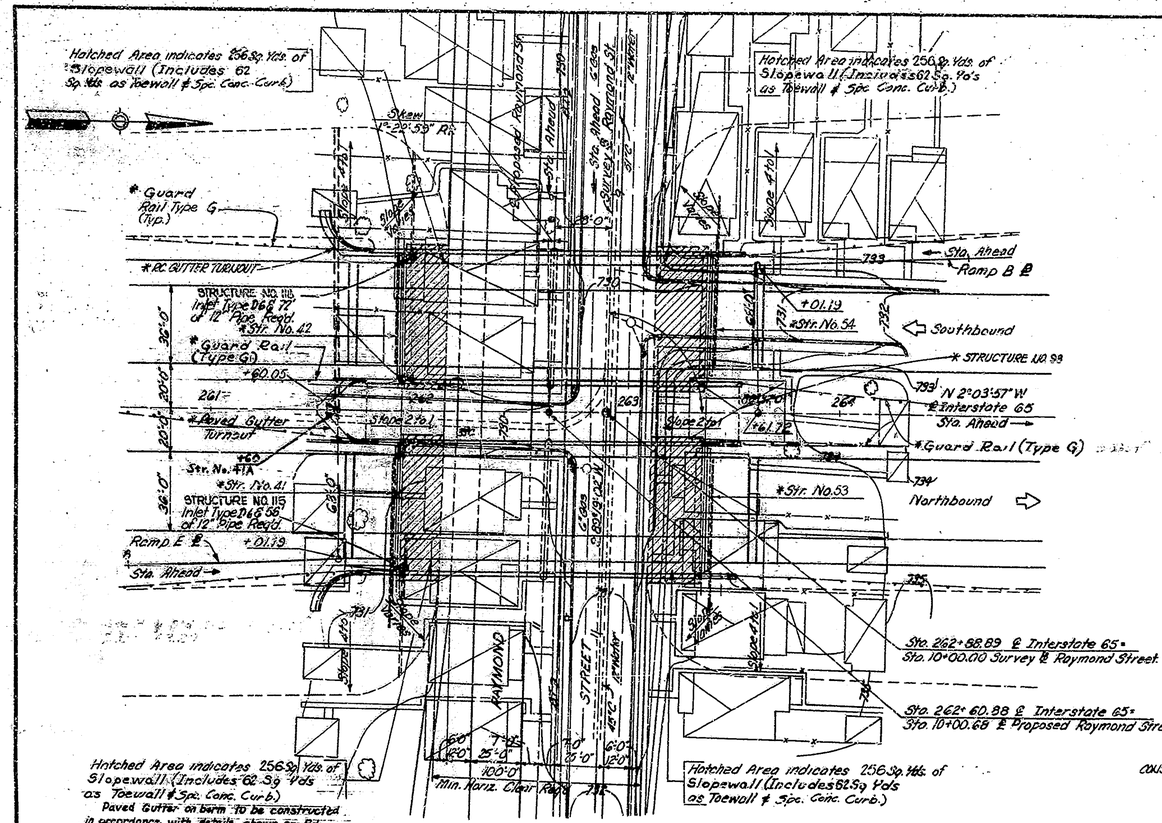
JAMES R. MASSA REGISTERED No. 11674 STATE OF INDIANA PROFESSIONAL ENGINEER

SOIL BORINGS

SCALES: HORIZ. 1" = 30', VERT. 1" = 10'

RECOMMENDED FOR APPROVAL James R. Massa 11-19-69
CHASE I-P.E. GANNETT FLEMING CORDDRY & CARPENTER, INC

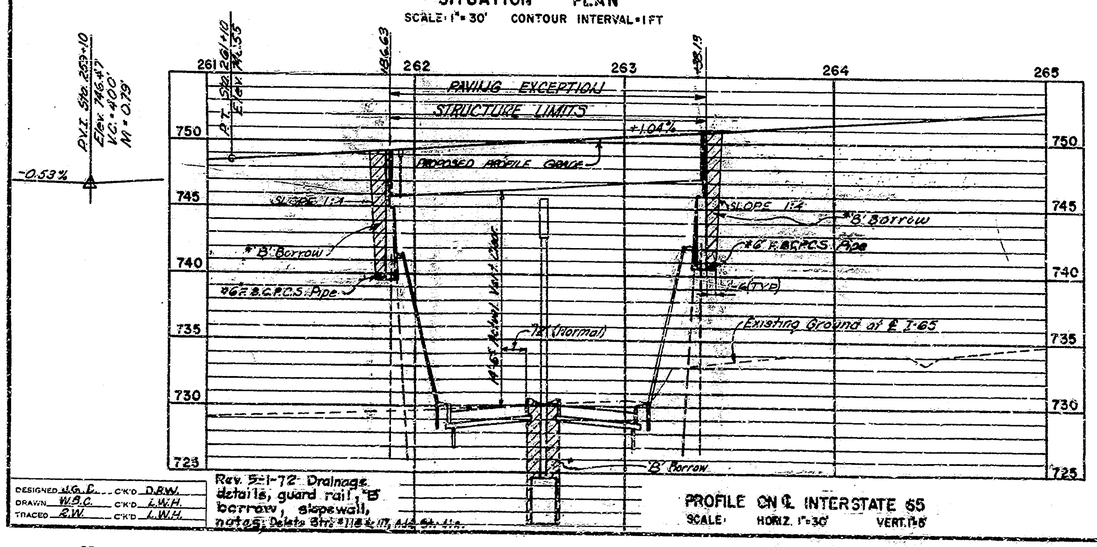
PROJECT:- I-65-3(63)109
BRIDGE CONTRACT NO. 8-887E
BRIDGE FILE:- I-65-110-5694



* Indicates Items in Road Quantities

SITUATION PLAN

SCALE: 1" = 30' CONTOUR INTERVAL = 1FT



PROFILE ON ℄ INTERSTATE 65

SCALE: HORIZ. 1"=30' VERT. 1"=5'

DESIGNED J.G.L. CK'D D.B.W.
DRAWN W.S.C. CK'D L.W.H.
TRACED R.W. CK'D L.W.H.

Rev. 5-1-72 Drainage details, guard rail, "B" borrow, slopewall, notes; Delete Str. #118 & #17, Add 6A, 6B.

REV. 8-3-73 Paved Gutter Note.

November 6, 1961

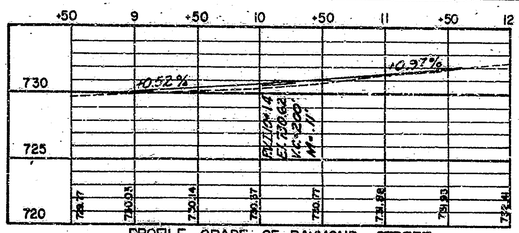
Rev. 2-5-72 Project Designation changed from I-65-3(33)109 to I-65-3(163)109.

20" Maple
30.36'
30.10' 35.77' P.W.P.
P.W.P. 374-608B
152-608B

(P.K.N.F.)
STATION EE-7
(Sta. 17+78.59 Raymond St. 'S' Line)
B152225.70N
3683T5.34E

S.E. Cor. Top of C.B. Inl.
32.55'
23.62' 24.34'
P.W.P. P.W.P.

(P.K.N.F.)
STATION EE-33
(Sta. 10+05.76 Raymond St. 'S' Line)
B152176.49N
3676O2.56E



PROFILE GRADE OF RAYMOND STREET

SCALES HORIZ. 1"= 50' VERT. 1"= 5'

BRIDGES OVER 20' SPAN					
PUR. ROAD SYS. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3 (163)109	1970	3	23

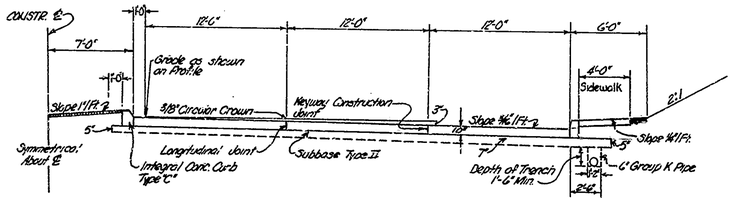
PUBLIC UTILITIES OWNERSHIP

Indianapolis Water Company	- 1220 Waterway Avenue Indianapolis, Indiana
Citizens Gas and Coke Utility	- 2020 North Meridian St. Indianapolis, Indiana
Indianapolis Power & Light Co.	- 25 Monument Circle Indianapolis, Indiana
Indiana Bell Telephone Co	- 240 North Meridian St. Indianapolis, Indiana
Board of Sanitary Commissioners	- City-County Building Room 2541 Indianapolis, Indiana

Note: PROTECT SEWERS IN PLACE

See Road Plan & Profile sheets for R/W lines, Bench Marks, Property Owners, Section, Township & Range.

This is structure Number 5 on Road Project I-65-3(33)109 C
Present Structure: None.



TYPICAL SECTION RAYMOND STREET AT BRIDGE

SCALE: ¾" = 1'-0"

LAYOUT
CONTINUOUS COMPOSITE STEEL BEAM BRIDGES

2 SPANS - 72'-6", 75'-6"
SKEW 1°-22'-59" RIGHT
58'-6" ROADWAY, 3" CURBS
I-65 OVER RAYMOND STREET

INDIANA STATE HIGHWAY COMMISSION

MARION COUNTY

SCALE:- AS NOTED

SUBMITTED FOR APPROVAL:- James R. Madara 10-13-68
PHASE I-RE. GANNETT FLEMING CORDDRY & CARPENTER, INC.
DRAWING:- S1 OF S11
PROJECT:- I-65-3(163)109
~~BRIDGE~~ CONTRACT NO. 8-8822
BRIDGE FILE:- I-65-110-5694

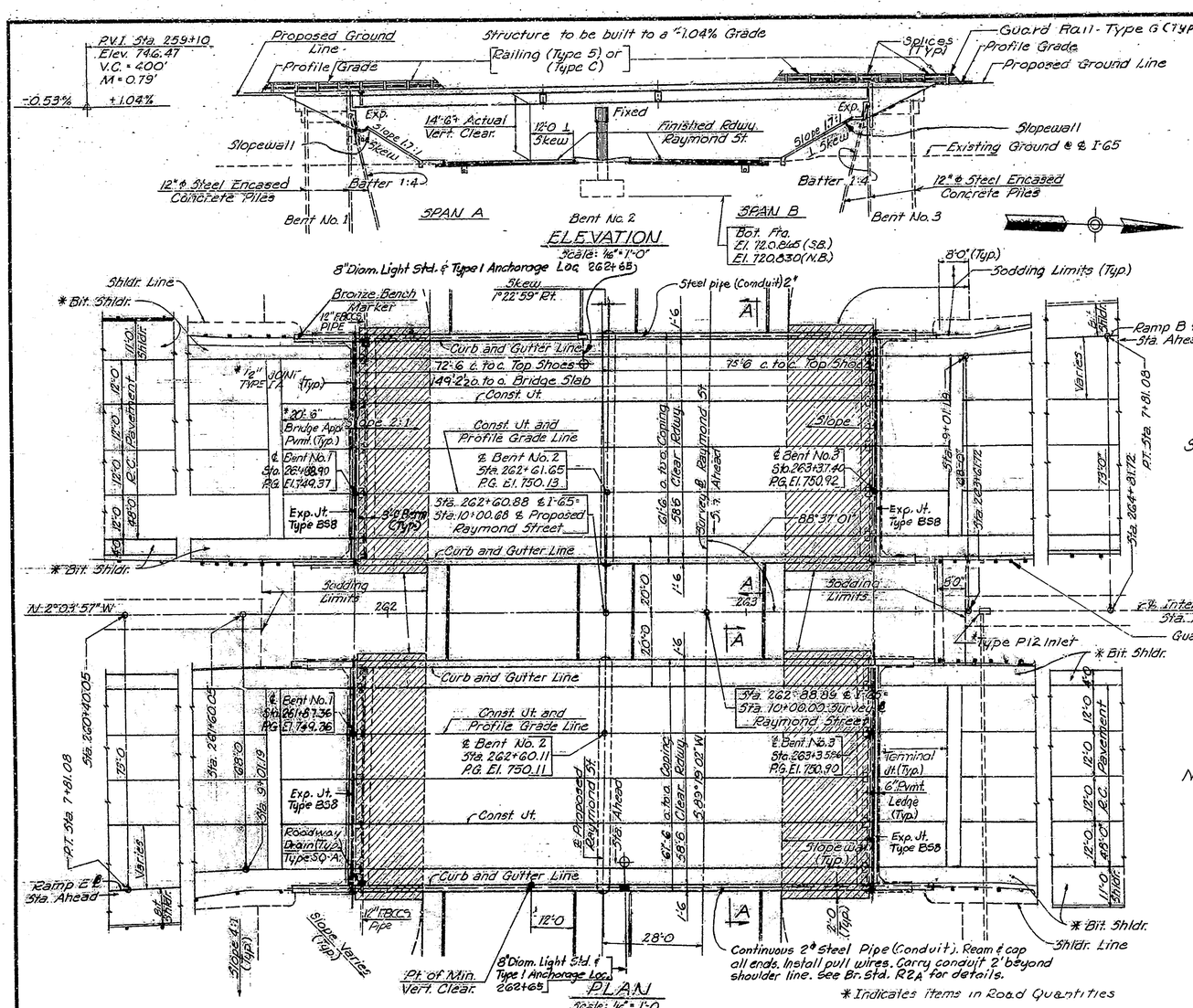
FINAL PLANS PREPARED BY
BOYD E. PHELPS, INC.
INDIANAPOLIS & MICHIGAN CITY, IND.
BY L. D. Taylor
DATE Nov. 15, 1972

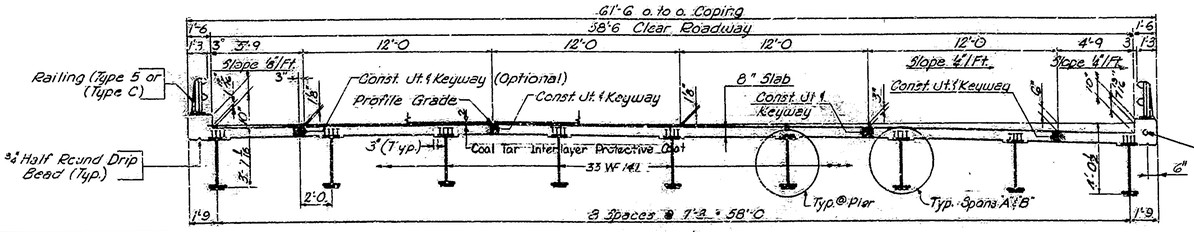
JAMES R. MADARA REGISTERED No. 11674 STATE OF INDIANA PROFESSIONAL ENGINEER

PROJECT NO.	LET	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-65	3	23	I-65-110-5694

5-1-72 Brk. Jurg.
8-3-73 dMyson r.o.c.

BRIDGES OVER 20' SPAN					
PUB. ROAD REQ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3 (103)109	1970	1	23





GENERAL NOTES

No present structure at proposed bridge site.
Depth of footings to be extended if found necessary. See art. 206.11 (c) of specifications.
Piles shall have minimum bearing value shown on detail drawings. Determine pile lengths by articles of specifications 701
For details of steel encased concrete piles see Bridge Standard C 1, and applicable articles in the specifications.
Piles shall be driven to elevation necessary to obtain desired bearing.
Reinforcing steel covering shall be 2 inches in top and 1 inch minimum in bottom of floor slabs, 3 inches in footing except bottom steel which shall be 4 inches, and 2 inches in all other parts unless noted.
Concrete in footings to be Class "B".
Concrete in end bents and interior bent caps to be Class "A"
Concrete in superstructure to be Class "C."
Concrete in bent columns, steel encased concrete piles, and headwalls to be Class "A."
Continuous concrete pours shall be required between construction joints as shown on detail plans.

Bevel forms ¾ inch under coping; and chamfer exposed edges 1 inch unless noted.
Construct slopewall at locations as shown on layout.
Tolerance in position of pile head, maximum 2 inches in end bents.
All railing to be constructed perpendicular to grade.
See special provisions for items included in this contract.
Waterproof backs of mudwalls and wingwalls, in accordance with Art. 702.20 of the Specifications.
For pay items covering this structrue, see "Bridge Summary"

4 standard type SQA roadway drains to be placed as shown on this drawing.
For future light post installation See Br. Std. R 2A. Two 8" diameter light pole required. Coping offsets to be constructed in accordance with Br. Std. R2A.
Only the top of caps at Bents 1 & 3 and the front face of mudwalls, to be sealed in accordance with Article 702.20 of the Specifications.

LIST OF STANDARD DRAWINGS

Bridge	Purpose	Road	Purpose
C 1	splicing pile shells, reinforcing bar notes,	MB2	Slopewall Details.
		MB4	Drainage Details
C3	Notch in Slab, Type I A Joint, Constr. Jt. type A		
D	Roadway Drain Type SQ-A	MC	Type S Inlet casting
Be1 & Be2	Aluminum railing details	MD	Type D inlet
Bes1 & Be4	Steel railing details	ME2	Metal End Sections.
R2A	Type 1 method for 8" light post.	S	Inlet "P12"
S1	Drainage details at end of Bridge	GR4	Protective Earth Barriers

DESIGN DATA

Designed for HS 20-44 loading in accordance with 1969 A.A.S.H.O. specifications. Main carrying members checked for special loading which consists of 2 - 24,000 lb. axle loads spaced 4'-0" apart. Dead Load: Actual load plus 35 lbs. per square foot of roadway to provide for future wearing surface.

FINAL PLANS PREPARED BY
BOYD E. PHELPS, INC.
INDIANAPOLIS & MICHIGAN CITY, IND.
BY L. D. Seyfang
DATE Nov. 15, 1969

No. 6899 STATE OF INDIANA REGISTERED PROFESSIONAL ENGINEER

GENERAL PLAN
CONTINUOUS COMPOSITE STEEL BEAM BRIDGES
2 SPANS - 72'-6", 75'-6"
SKEW 1°-22'-59" RIGHT
58'-6" ROADWAY, 3" CURBS
I-65 OVER RAYMOND STREET

INDIANA STATE HIGHWAY COMMISSION
MARION COUNTY

SCALE:- AS NOTED

SUBMITTED FOR APPROVAL: James R. Madara 10-13-69
PHASE I OF HANNETT FLEMING CORDRY & CARPENTER, INC.
DRAWING: S2 OF S11
PROJECT:- I-65-3(103)109
~~BRIDGE~~ CONTRACT NO:- B-8873
BRIDGE FILE:- I-65-110-5694

JAMES R. MADARA REGISTERED No. 11874 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED WGB	CK'D DRW
DRAWN W.B.C.	CK'D L.W.H.
TRACED W.B.C.	CK'D L.W.H.

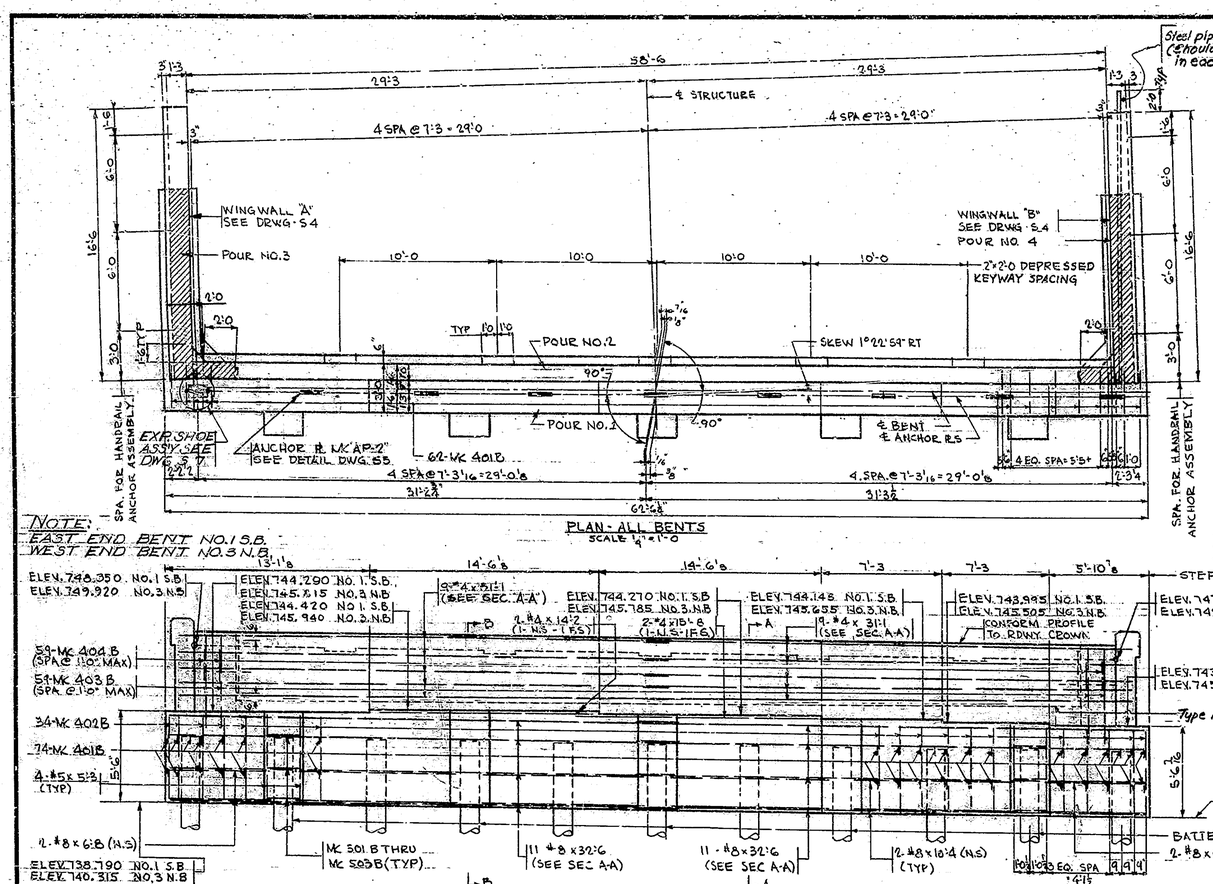
Rev. 1-30-73 Std. Drwgs., Lighting
Rev. 5-1-72 Slopewall, Slab, Berm, Std. drwgs., Notes:
REV. 8-3-73 - Lighting, Notes, Overlay

Rev. 3-5-73 Project Designation changed from I-65-3(103)109 to I-65-3(103)109.

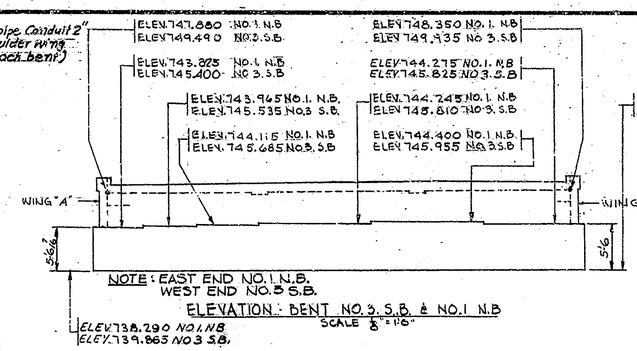
PROJECT NO	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(103)109	I-65	4	23	I-65-110-5694

5-1-72 B.K./W.G.
1-30-73 W.G./D.W.I
8-3-73 J.W./S.D.M./D.L.

BRIDGES OVER 20' SPAN					
PUB ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3 (163)109	1970	5	23



PLAN - ALL BENTS
SCALE 1/8" = 1'-0



NOTE: EAST END NO. 1 N.B.
WEST END NO. 3 S.B.

ELEVATION - BENT NO. 3 S.B. & NO. 1 N.B
SCALE 3/8" = 1'-0"

ELEV. 738.290 NO. 1 N.B
ELEV. 739.865 NO. 3 S.B.

ELEV. 738.775 NO. 1 N.B
ELEV. 740.325 NO. 3 S.B.

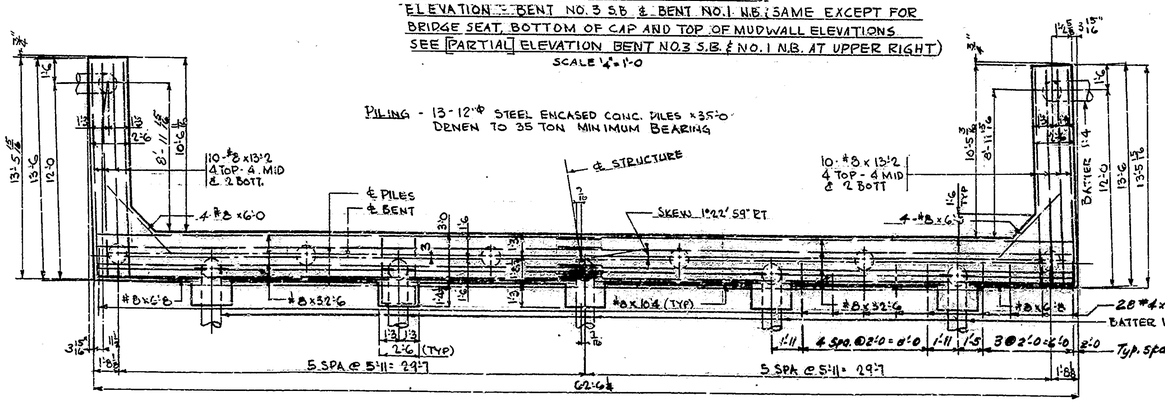
NOTE:
WEST END NO. 1 N.B.
EAST END NO. 3 S.B.

BILL OF MATERIALS (ONE BENT ONLY)

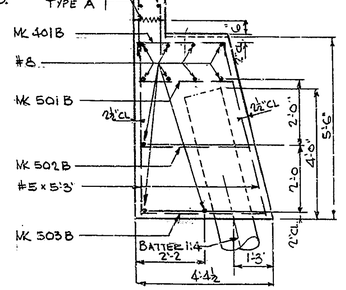
SIZE OR MK	NO. PCS	LENGTH	WEIGHT
#8	22	32'-6	
#8	20	13'-2	
#8	8	10'-4	
#8	4	6'-8	
#8	12	6'-0	
TOTAL #8			3096 #
501-B	5	8'-0	
502-B	5	9'-2	
503-B	5	10'-2	
#5	20	16'-2	
#5	20	9'-10	
#5	34	6'-9	
#5	26	5'-5	
#5	20	5'-3	
TOTAL #5			1181#
#4	28	3'-0	
401-B	136	3'-8	
402-B	34	14'-0	
403-B	59	12'-0	
404-B	59	3'-11	
405-B	34	3'-2	
406-B	16	7'-6	
#4	18	31'-1	
#4	2	14'-2	
#4	2	15'-8	
TOTAL #4			1900#
TOTAL REINFORCING			6177#
CONCRETE			
CLASS "A" POUR NO. 1			48.1
NO. 2			9.9
NO. 3			5.2
NO. 4			5.2
TOTAL CLASS "A" Substr.			88.9 C.Y.
MISCELLANEOUS			
ANCHOR PLATES MK "AP-2"			9 EACH
Steel pipe Conduit 2"			18.5 LF.
RAILING TYPE 5 OR C			33.0 L.F.
13-12"ϕ STEEL ENCASED CONC. PILES x 35'-0"			455.0 L.F.

NOTE:
EAST END BENT NO. 1 S.B.
WEST END BENT NO. 3 N.B.

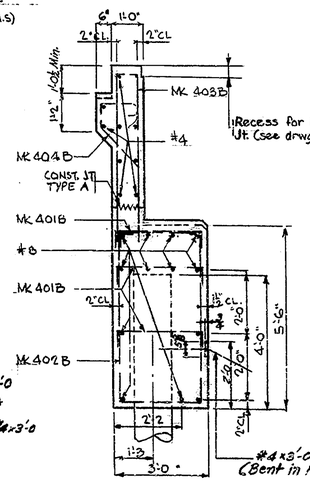
ELEVATION - BENT NO. 1 S.B & BENT NO. 3 N.B.
ELEVATION - BENT NO. 3 S.B & BENT NO. 1 N.B. (SAME EXCEPT FOR BRIDGE SEAT, BOTTOM OF CAP AND TOP OF MUDWALL ELEVATIONS. SEE [PARTIAL] ELEVATION BENT NO. 3 S.B. & NO. 1 N.B. AT UPPER RIGHT)
SCALE 1/4" = 1'-0



PILING PLAN - ALL BENTS
SCALE 1/4" = 1'-0"



SECTION "B-B"
SCALE 1/2" = 1'-0



SECTION A-A"
SCALE 1/2" = 1'-0

NOTES:

CROSS HATCHED AREA INDICATES LIMITS OF HORIZONTAL CONSTRUCTION JOINT AT TOP OF CAP UNDER WINGWALL. SEE DRWG. S 4 FOR WINGWALL DETAILS & REINFORCING BAR DETAILS.
FOR REINFORCING BAR NOTES SEE BRIDGE STD. C1
MUDWALL POUR NO. 2, 3 & 4 TO BE MADE WHEN SUPERSTRUCTURE IS MADE.
SEE DRAWING S6 FOR GENERAL NOTES.
ANCHOR PLATES MK "AP1" TO BE PRESET IN CONCRETE. SEE DETAIL DWG. S 5.
DO NOT BACKFILL ABOVE BRIDGE SEAT 3 OF END BENT 3 UNTIL SUPERSTRUCTURE IS SET.

BENTS NO. 1 S.B. & NO. 3 N.B.
BENTS NO. 3 S.B. & NO. 1 N.B.

INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED

Nov. 18, 1969

SUBMITTED FOR APPROVAL: K. D. Taylor

DRAWING S 3 OF S 11
PROJECT:- I-65-3(163)109
~~BRIDGE~~ CONTRACT NO. I-8877
BRIDGE FILE:- I-65-110-5694

L. D. TAYLOR JR. REGISTERED No. 6699 PROFESSIONAL ENGINEER STATE OF INDIANA

DESIGNED JGB	CK'D DRW
DRAWN RNB	CK'D EGP
TRACED	CK'D

REV. 8-3-73 Mudwall Details, B58 Exp.Jt.
Rev. 5-1-72 Constr. Jt. type A, Fieldbent bars, Notes;

5-1-72 BKL/WFG
8-3-73 JJM/SDW/DL

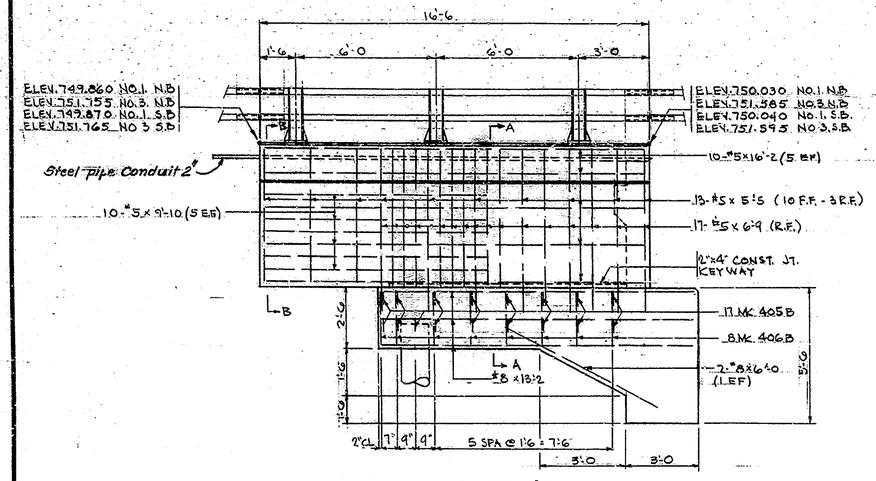
November 6, 1961

Rev. 3-5-73 Project Designation Changed from I-65-3(32)109 to I-65-3(163)109.

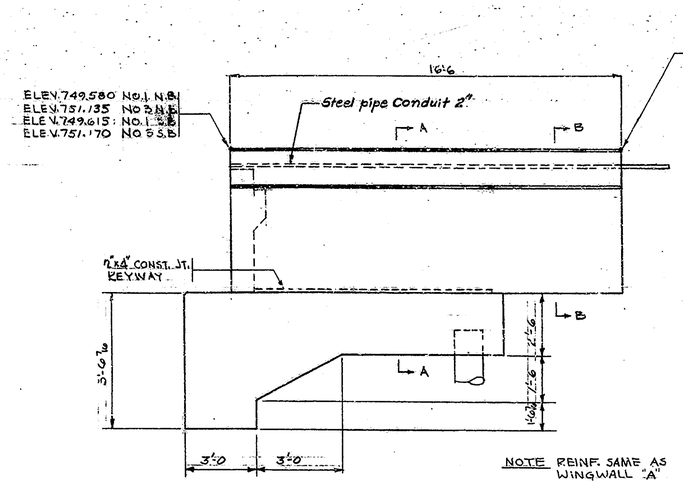
PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-05	5	23	I-65-110-5694

BRIDGES OVER 20' SPAN

PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3 (163)109	1970	6	23

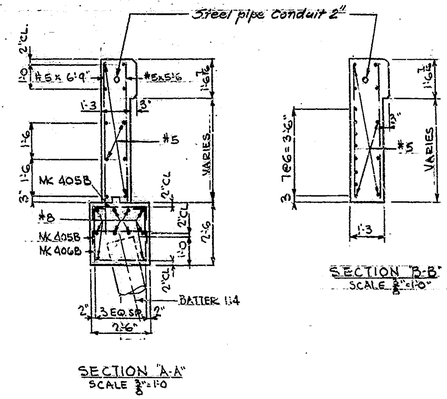


WING WALL "A"
SCALE 3/8" = 1'-0



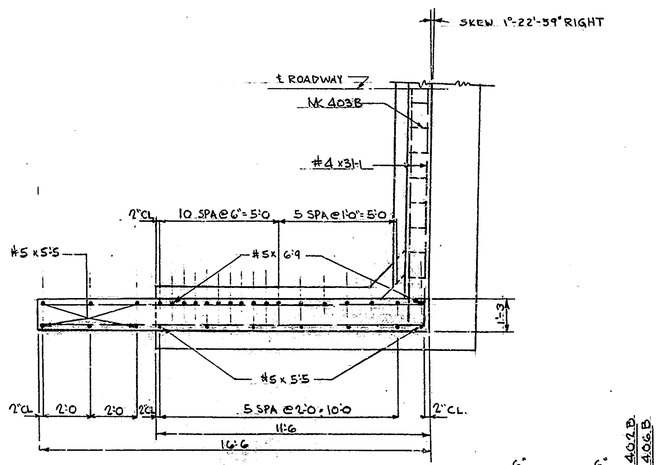
NOTE REINF. SAME AS WINGWALL "A"

WING WALL "B"
SCALE 3/8" = 1'-0"

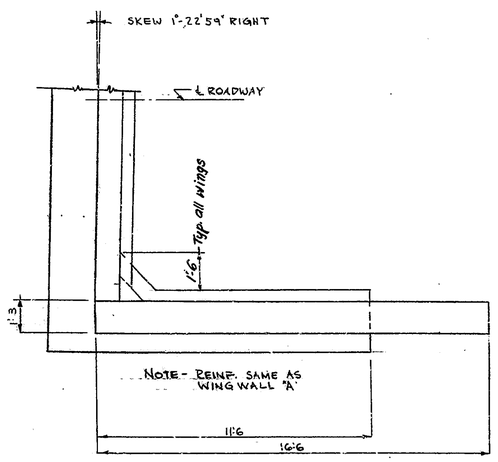


SECTION "A-A"
SCALE 3/8" = 1'-0

SECTION "B-B"
SCALE 3/8" = 1'-0

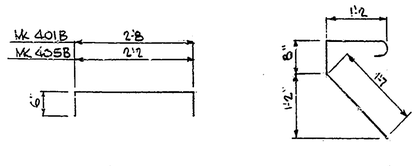


PLAN SECTION - WINGWALL "A"
SCALE 3/8" = 1'-0"

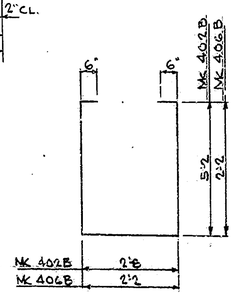


PLAN SECTION - WINGWALL "B"
SCALE 3/8" = 1'-0

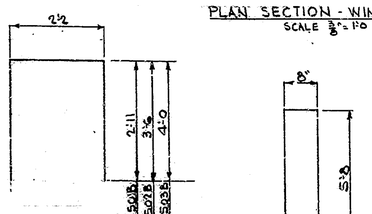
NOTES:
See drawing S.3 for additional details and Bill of Materials.



MK 401B x 3'-8
MK 405B x 3'-2
MK 404B x 3'-11



MK 402B x 14'-0
MK 406B x 1'-6



MK 501B x 8'-0
MK 502B x 9'-2
MK 503B x 10'-4

MK 403B x 14'-0

WINGWALL DETAILS

INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED

SUBMITTED FOR APPROVAL:- L. D. Taylor Jr. Nov. 18, 1969

DRAWING S-4 OF S11
PROJECT:- I-65-3(163)109
~~BRIDGE~~ CONTRACT NO. B-8877
BRIDGE FILE:- I-65-110-5694

L. D. TAYLOR, JR. REGISTERED No. 6898 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED JGB C'K'D DRW
DRAWN RNB C'K'D ECF
TRACED ____ C'K'D ____

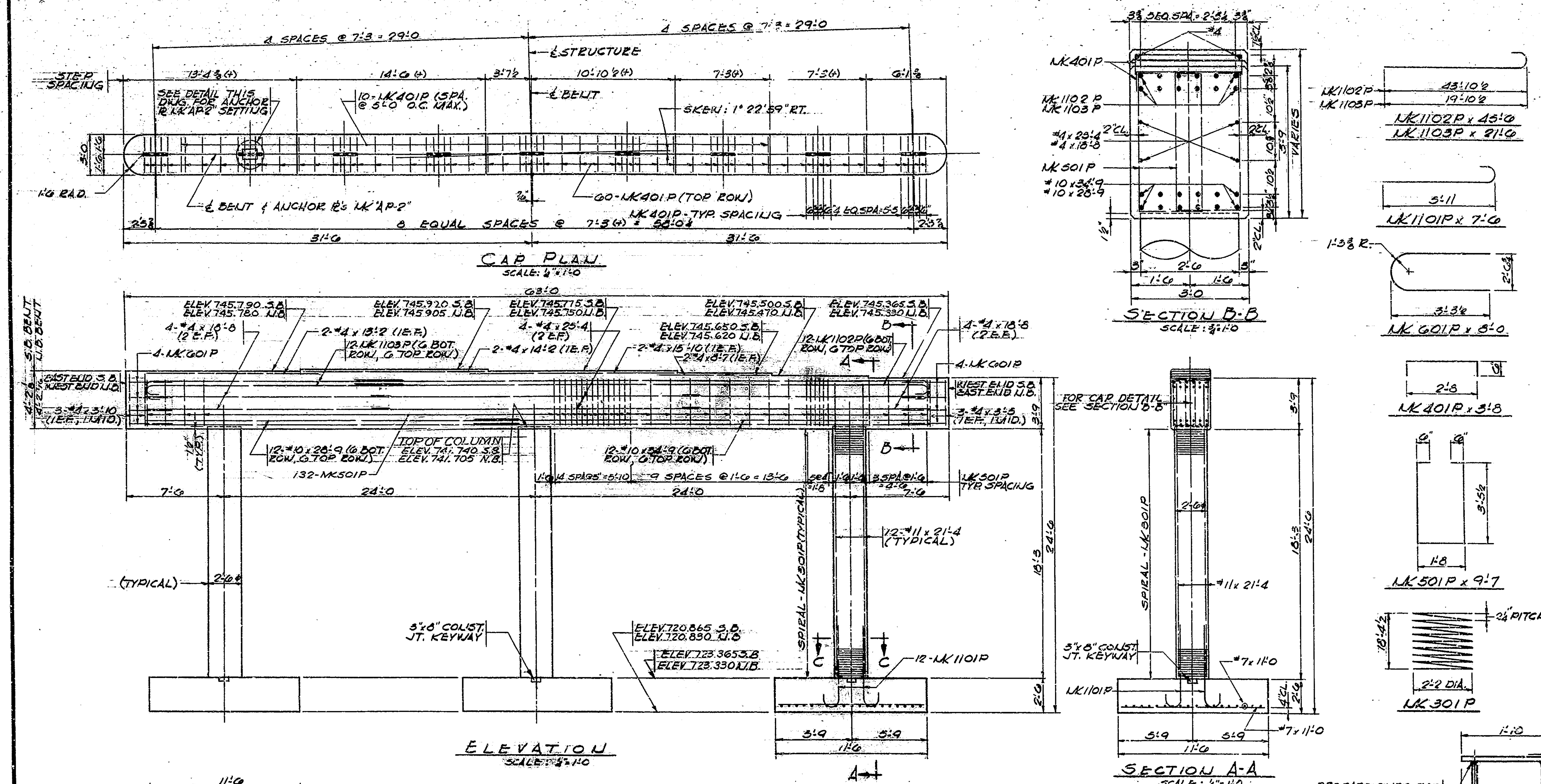
Rev. 5-1-72 Steel pipe Conduit 2", Note:

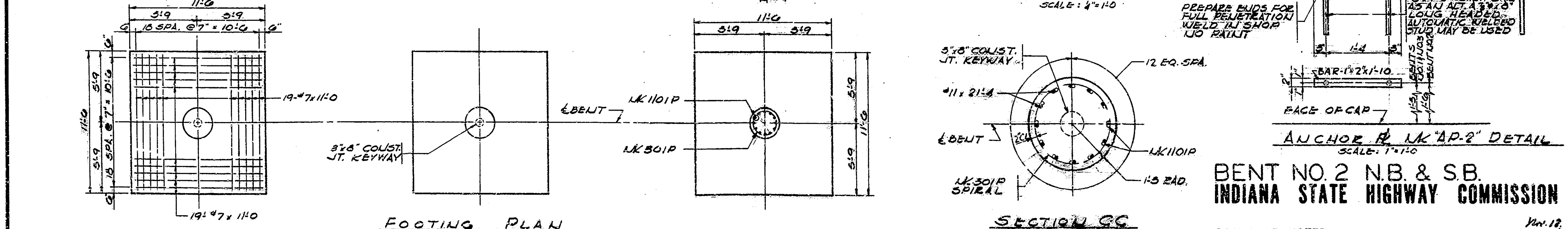
November 6, 1961

Rev. 3-5-73 Project Designation changed from I-65-3(33)109 to I-65-3(163)109

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE:
I-65-3(163)109	I-65	6	23	I-65-110-5694

5-1-72 BKL/WFG





BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I65-3 (163)109	1970	7	23

BILL OF MATERIALS
ONE BENT ONLY

SIZE OR NK	NO. PCS.	LENGTH	WEIGHT
1101P	36	7'-6	
1102P	12	45'-6	
1103P	12	21'-6	
#11	36	21'-4	
TOTAL		#11	9,786#
#10	12	34'-9	
#10	12	28'-9	
TOTAL		#10	3,279#
#7	114	11'-0	
TOTAL		#7	2,563#
601P	8	8'-0	
TOTAL		#6	96#
501P	132	9'-7	
TOTAL		#5	1,319#
401P	70	3'-8	
#4	4	25'-4	
#4	8	18'-8	
#4	2	15'-10	
#4	2	14'-2	
#4	2	13'-2	
#4	2	8'-7	
#4	3	3'-10	
#4	3	3'-5	
TOTAL		#4	423#
301P	3	18'-4½	
TOTAL #3 SPIRALS			897#
TOTAL REINFORCING			18,363#
CONCRETE			
CLASS "A" (CAP) Substr.			28.6 C.Y.
CLASS "A" (Column) Substr.			10.0 C.Y.
Total Class "A" Substr.			38.6 C.Y.
CLASS "B" IN FOOTING			36.7 C.Y.
MISCELLANEOUS			
ANCHOR PLATES NK AP-2			9

MAX. SOIL BEARING PRESSURE = 2.5 TONS/SQ.FT

NOTES:
1. FOR REINFORCING BAR NOTES SEE BRIDGE STANDARD C1.
2. ANCHOR PLATE "NK AP-2" TO BE PRESET IN CONCRETE.
3. SEE DRAWING S2 FOR GENERAL NOTES.

BENT NO. 2 N.B. & S.B.
INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED

Nov. 18, 1969

SUBMITTED FOR APPROVAL:- L.D. Taylor Jr.

DRAWING:- S5 OF S11
PROJECT:- I65-3(163)109
~~BRIDGE~~ CONTRACT NO. B-8877
BRIDGE FILE:- I65-110-5694

L. D. TAYLOR, JR. REGISTERED No. 6899 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED	E.C.F.	CK'D	C.D.H.
DRAWN	W.O.M.	CK'D	E.C.F.
TRACED		CK'D	

Rev. 3-1-72 Note, Bill of Matl's.

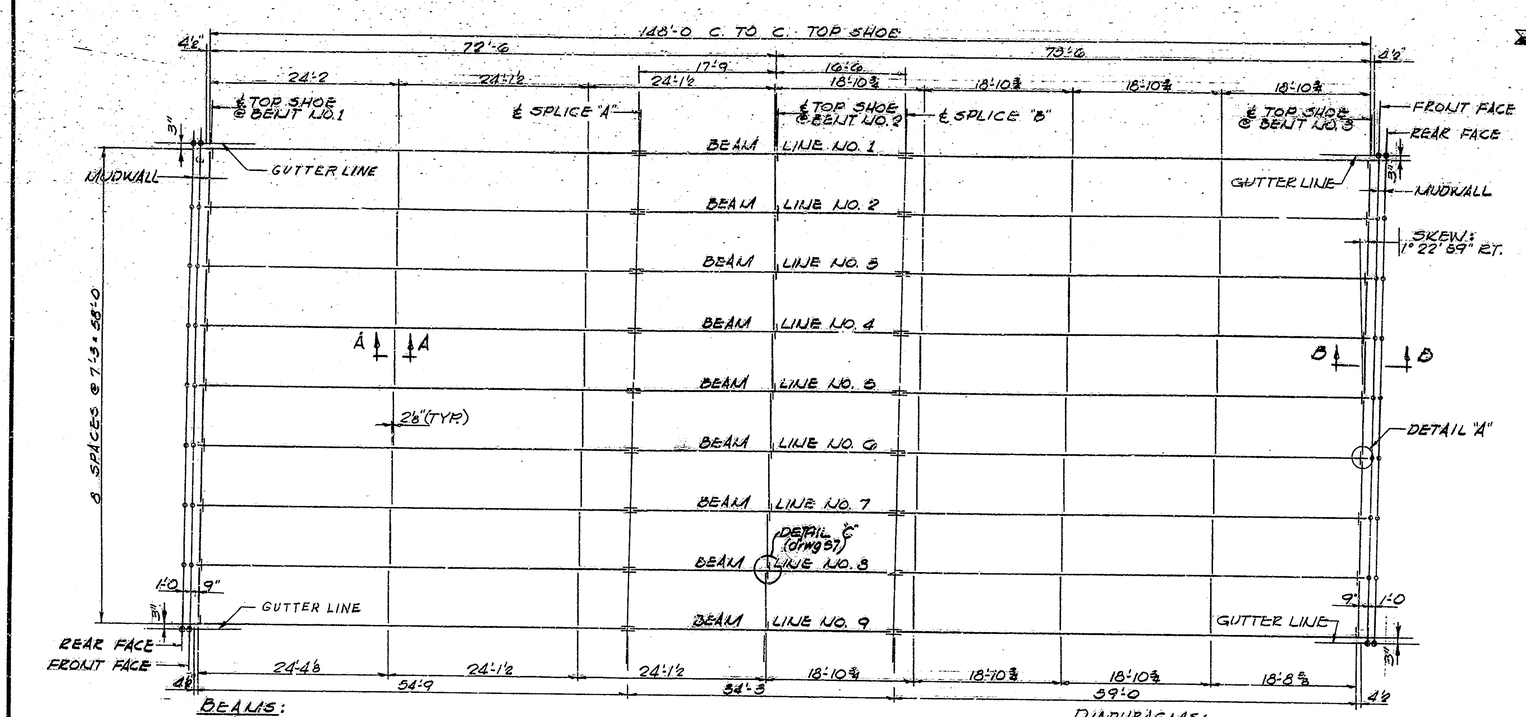
5-1-72 WFG/BKL

November 6, 1961

Rev. 3-5-73. Project Designation changed from I-65-3(33)109 to I-65-3(163)109.

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-65	7	23	I-65-110-[illegible]

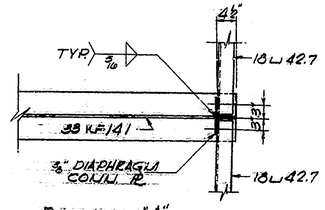
BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3 (163)109	1970	8	23



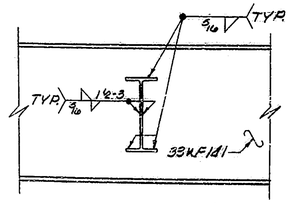
BEAMS:
ALL BEAMS 33 WF 141

FRAMING PLAN
SCALE: ⅛" = 1'-0

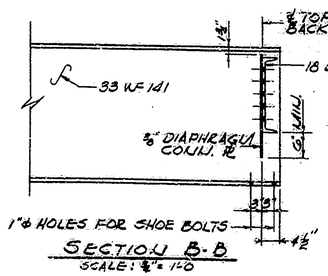
DIAPHRAGMS:
INTERIOR - 18 WF 45
EXTERIOR - 18 L 42.7



DETAIL "A"
SCALE: ¾" = 1'-0



SECTION A-A
SCALE: ¾" = 1'-0



SECTION B-B
SCALE: ¾" = 1'-0

TABLE OF MUDWALL ELEVATIONS

BEAM LINE NO.		NORTHBOUND W. GUTTER	2	3	4	5	6	7	8	E. GUTTER	SOUTHBOUND W. GUTTER	2	3	4	5	6	7	8	E. GUTTER
BENT NO. 1	FRONT F.	749.205	749.275	749.335	749.325	749.260	749.178	749.050	748.900	748.750	748.785	748.930	749.080	749.200	749.250	749.345	749.350	749.285	749.215
	REAR F.	749.195	749.265	749.325	749.315	749.250	749.165	749.040	748.890	748.740	748.775	748.920	749.070	749.190	749.270	749.335	749.340	749.275	749.200
BENT NO. 3	FRONT F.	750.760	750.830	750.890	750.880	750.815	750.750	750.625	750.455	750.305	750.330	750.485	750.635	750.755	750.835	750.900	750.908	750.840	750.765
	REAR F.	750.770	750.840	750.900	750.890	750.825	750.740	750.615	750.445	750.315	750.350	750.495	750.645	750.765	750.845	750.910	750.915	750.855	750.780

Materials as listed on shop drawings which do not require mill test reports may be changed from that shown on the contract plans subject to approval. The material specification shall be given on the shop drawings if different than that on contract plans. See Art. 711.07 of the specifications.

DATA USED FOR DESIGN AND DETAILS

LIVE LOAD ----- H 520-44 LOADING WITH IMPACT AND DISTRIBUTION OF LOADS IN ACCORDANCE WITH 1969 AASHO SPECIFICATIONS CHECKED FOR SPECIAL LOADING CONSISTING OF 2-24,000 POUND AXLES SPACED 4'-0 APART.

DEAD LOAD ----- ACTUAL WEIGHT PLUS 35 POUNDS PER SQ. FT. OF ROADWAY TO PROVIDE FOR FUTURES WEARING SURFACE.

SLAB ----- DESIGNED FOR 16,000 POUND WHEEL PLUS IMPACT AND WITH 1" WEARING SURFACE.

ALLOWABLE STRESSES: TO BE IN ACCORDANCE WITH 1969 AASHO SPECIFICATIONS.

GENERAL NOTES

HIGH STRENGTH BOLTS SHALL BE USED IN THE ASSEMBLY OF STRUCTURAL STEEL.

1. H.S. BOLTS ARE ⅞ ⌀, OPEN HOLES 15/16 UNLESS NOTED.
2. HOLES IN ALL MEMBERS CONNECTING TOP SHOES TO BEAM FLANGES SHALL BE 1" ⌀ BOLTS CONNECTING BEAM FLANGE TO TOP SHOE SHALL EXTEND INTO TOP SHOE A MINIMUM OF 1".
3. HOLES FOR BEAM SPLICES SHALL BE SUBPUNCHED OR SUBDRILLED AND REAMED TO SIZE WHILE ASSEMBLED. SEE ARTICLE 711.24 OF THE SPECIFICATIONS.
4. THE SHOP PLANS SHALL INDICATE WHETHER REAMING IS TO BE DONE IN SHOP OR FIELD. IF SHOP REAMING OR DRILLING IS USED THE BEAMS SHALL BE ASSEMBLED IN ACCORDANCE WITH THE L.O. LOAD CAMBER AND REAMING DIAGRAM, DWG. 38.

4A. ALL FIELD SPLICES ARE OPTIONAL (EXCEPT AS NOTED) SUBJECT TO "REGULATIONS PERTAINING TO THE MOVEMENT OF OVER LENGTH CONCRETE AND STEEL BEAMS ON STATE HIGHWAYS" AS STATED IN SUPPLEMENT No. 2 TO GENERAL LETTER No. 19-71 DATED 4-19-71. SHOP PLANS SHALL INDICATE WHICH SPLICES THE CONTRACTOR INTENDS TO ELIMINATE AND ALSO MEANS OF TRANSPORTATION (WEATHER BY RAIL OR OVER STATE HIGHWAYS).

5. THE SHOP DETAILS SHALL SHOW A PLAN OF MATCHMARKING FOR ALL REAMED PIECES.
6. ALL SPLICE PLATES TO BE REMOVED, CLEANED, AND DEBURRED AFTER REAMING. SPLICE PLATES SHALL NOT EXTEND BEYOND THE END OF BEAM AFTER BOLTING FOR SHIPMENT.
7. FLANGE SPLICE BARS SHALL HAVE PLANED OR ROLLED EDGES AND HOLES IN BARS SHALL BE SUBDRILLED AND REAMED OR DRILLED FULL SIZE WHILE ASSEMBLED.
8. BEAMS MUST BE CAMBERED TO A SMOOTH CURVE. CAMBER MUST BE CHECKED WHILE BEAMS ARE SUPPORTED IN SUCH A WAY AS TO HAVE NO BENDING MOMENT IN DIRECTION OF CAMBER.
10. PAINTING STRUCTURAL STEEL: ALL PAINT SHALL BE IN ACCORDANCE WITH CURRENT HIGHWAY SPECIFICATIONS. SHOP AND FIELD COAT: BASIC LEAD SILICO CHROMATE. SEE SPECIAL PROVISIONS. NO PRINT ON ANCHOR PLATES OR SHEAR CONNECTORS.
11. THE CONTRACTOR SHALL PREPARE DETAILED WORKING OR SHOP DRAWINGS TO ENABLE HIM TO FABRICATE, ERECT, AND CONSTRUCT ALL PARTS OF THE WORK IN CONFORMITY WITH THE ENGINEER'S DRAWINGS AND SPECIFICATIONS AND SHALL SUBMIT FIVE (5) COPIES OF THESE TO THE ENGINEER. SEE ART. 711.04 OF SPECIFICATIONS.
12. AS SOON AS THE ENGINEER HAS APPROVED THE FIELD WELDS, ALL WELDS AND ANY SURFACE FROM WHICH THE SHOP COAT HAS BEEN OMITTED OR BECOMES WORN OFF OR OTHERWISE HAS BECOME DEFECTIVE SHALL BE CLEANED OF ALL CAKED PAINT OR ANY FOREIGN MATTER AND COMPLETELY COVERED WITH ONE COAT OF SHOP PAINT.
14. ALL STRUCTURAL STEEL SHALL CONFORM TO A.S.T.M. A36.
15. SHIMS BETWEEN BEAMS AND TOP SHOES MAY BE BUILT-UP. NO SHIMS SHALL BE LESS THAN ⅛" IN THICKNESS.
16. THE WEIGHT OF HIGH STRENGTH BOLTS IS NOT INCLUDED IN THE ESTIMATED WEIGHT OF STRUCTURAL STEEL. THE COST OF THESE BOLTS SHALL BE INCLUDED IN THE COST OF THE STRUCTURAL STEEL.
17. STRUCTURAL STEEL FOR WELDING MAY BE FLAME CUT IF THE FLAME CUTTING EQUIPMENT IS MECHANICALLY GUIDED. HAND FLAME CUTTING SHALL BE USED ONLY WHEN APPROVED AND THE SURFACE IS FURTHER TREATED BY MILLING, GRINDING, OR CHIPPING AND GRINDING.
18. DIAPHRAGM CONNECTIONS TO BEAMS MAY BE BOLTED IN LIEU OF FIELD WELDED CONNECTIONS. IF THE CONTRACTOR ELECTS TO USE CONNECTIONS OTHER THAN SHOWN IN THE CONTRACT PLANS HE SHALL SUBMIT DETAILS TO THE ENGINEER FOR APPROVAL. HE SHALL ASSUME FULL RESPONSIBILITY FOR LAYOUT OF ALL DIAPHRAGM CONNECTIONS AND FOR THE ACCURACY OF ALL FITTED PARTS. NO INCREASE IN PAY WEIGHT WILL BE PERMITTED.
19. ESTIMATED WEIGHT OF STRUCTURAL STEEL: (ONE STRUCTURE ONLY) — A36 272,400 #

FRAMING PLAN
INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED

March 18, 1969

SUBMITTED FOR APPROVAL:- L.D. Taylor

DRAWING:- S6 OF S11

PROJECT:- I65-3(163)109

~~BRIDGE~~ CONTRACT NO. B-8877

BRIDGE FILE:- I65-110-5694

L. D. TAYLOR JR. REGISTERED No. 6899 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED WGB C'K'D DRW
DRAWN W.O.M. C'K'D E.C.E.
TRACED ____ C'K'D ____

Rev. 5-1-72 Gen. Notes, Allow Stresses, Detail 8; Rev. 1-30-73 Gen. Notes

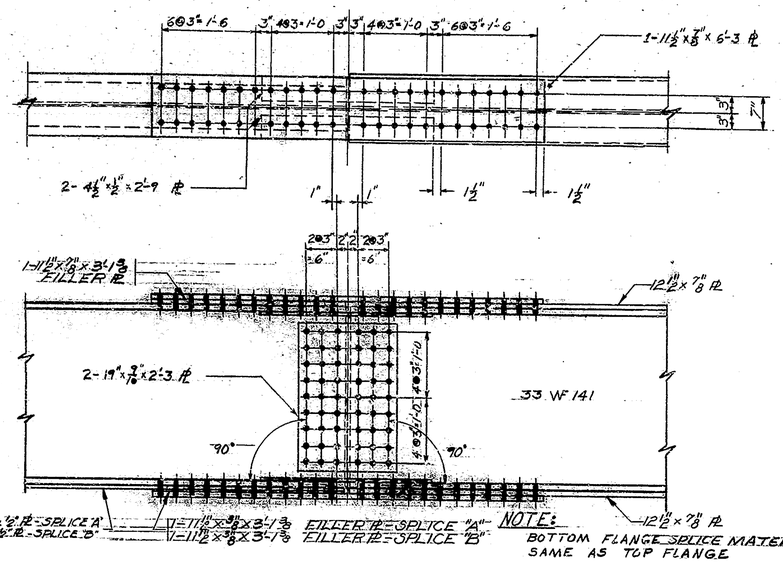
5-1-72 MW/EWH
1-30-73 WFG/EWH

November 6, 1961

Rev. 3-5-73 Project Designation changed from I-65-3(33)109 to I-65-3(163)109.

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-65	6	23	I-65-110-5694

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I65-3 (103)109	1970	9	23

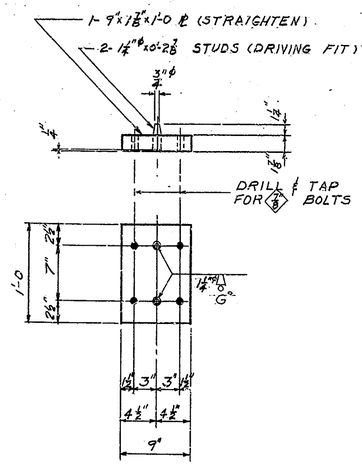


12½"x 1'-2" PL = SPLICE 'A'
12½"x 8'-2" PL = SPLICE 'B'

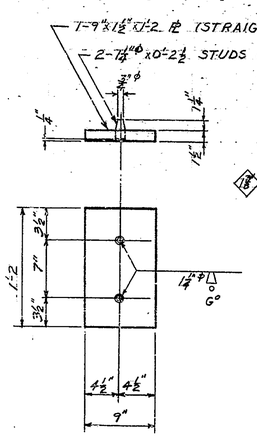
V=11⅞"x⅞"x3'-1⅜" FILLER PL = SPLICE "A"
V=11⅞"x⅞"x3'-1⅜" FILLER PL = SPLICE "B"

NOTE:
BOTTOM FLANGE SPLICE MATERIAL SAME AS TOP FLANGE

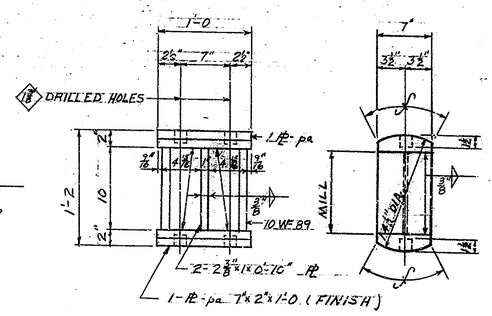
TYPICAL SPLICE DETAIL
SCALE 1"=1'-0



TOP SHOE
BENTS NO. 1 & NO. 3



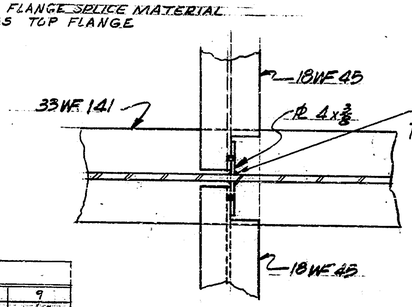
EXPANSION PLATE
BENTS NO. 1 & NO. 3



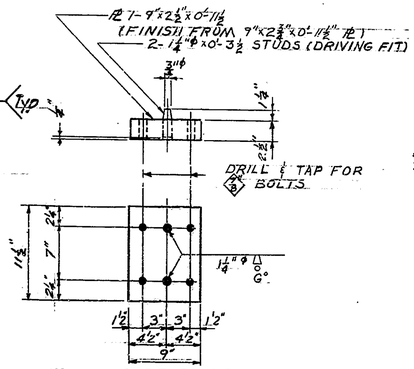
EXPANSION SHOE
BENTS NO. 1 & NO. 3

TABLE OF SHIMS									
	BM. LINE	1	2	3	4	5	6	7	8	9
I-65	BENT #1	1/16"	1 3/8"	9/16"	12"	1 1/2"	12"	12"	12"	12"
	BENT #2	9/16"	1 3/8"	9/16"	12"	1 1/2"	12"	12"	12"	12"
	BENT #3	9/16"	1 3/8"	9/16"	12"	1 1/2"	12"	12"	12"	12"
S.R.	BENT #1	12"	12"	12"	12"	1 11/16"	12"	12"	1 3/8"	12"
	BENT #2	12"	12"	12"	12"	1 11/16"	12"	9/16"	1 3/8"	12"
	BENT #3	12"	12"	12"	12"	1 11/16"	12"	9/16"	1 3/8"	12"

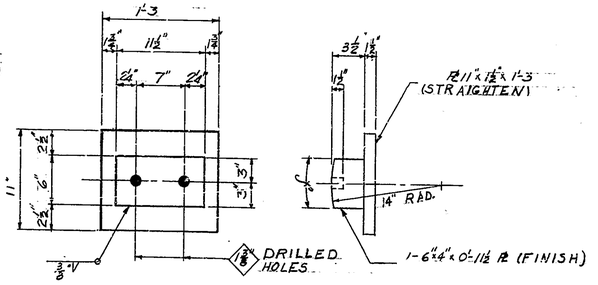
NOTE:
SHIMS BETWEEN BEAMS AND TOP SHOES MAY BE BUILT UP. NO SHIMS SHALL BE LESS THAN ⅛" IN THICKNESS.



DETAIL "C"

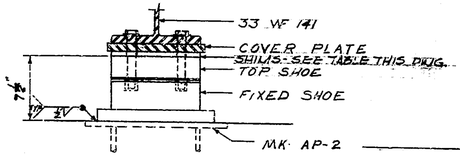


TOP SHOE
BENT. NO. 2

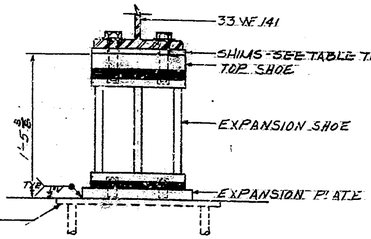


FIXED SHOE - BENT NO. 2

NOTES:
1. FOR GENERAL NOTES SEE DWG. S6.
2. ALL MATERIALS TO BE A.S.T.M. A36 UNLESS OTHERWISE NOTED.
3. CURVED SURFACES OF SHOES TO BE MACHINED AFTER WELDMENTS HAVE BEEN COMPLETED.
4. SEE DWG. S6 FOR LOCATION OF DETAIL "C"



FIXED SHOE ASSEMBLY
BENT NO. 2



EXPANSION SHOE ASSEMBLY
BENTS NO. 1 & NO. 2

SHOE AND SPLICE DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE:- 1½" = 1'-0 UNLESS NOTED

SUBMITTED FOR APPROVAL:- L.D. Taylor

DRAWING:- S7 OF S11
PROJECT:- I65-3(103)109
~~BRIDGE~~ CONTRACT NO. B-8877
BRIDGE FILE:- I65-110-5694

April 1, 1969

L.D. TAYLOR, JR. REGISTERED No. 6899 STATE

DESIGNED JGB	C'K'D DRW
DRAWN CDH	C'K'D DRW
TRACED	C'K'D

Rev. 5-1-72 Shoe Dim., Detail "C", Notes, Splice.

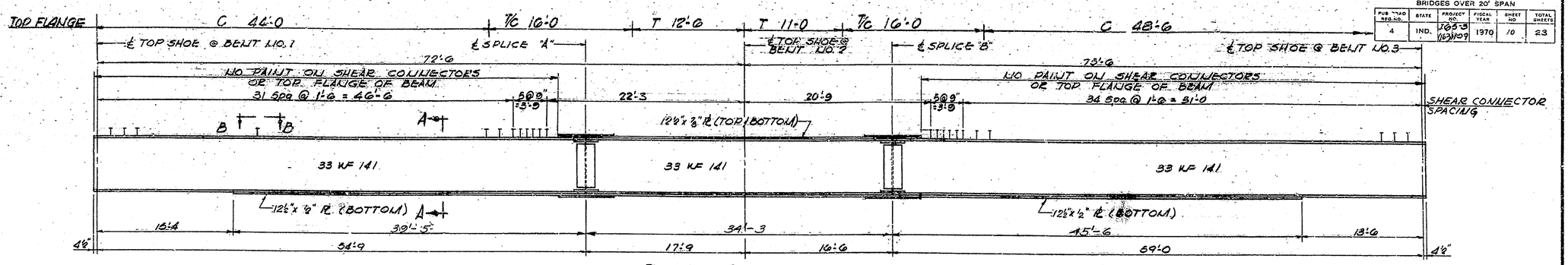
November 6, 1961

Rev. 3-5-73 Project Designation changed from I-65-3(33)109 to I-65-3(103)109.

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(103)109	I-65	9	23	I-65-110-5694

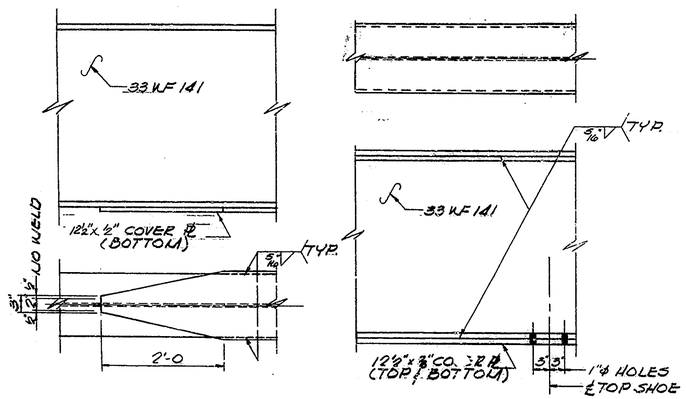
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	165-3 (163)109	1970	10	23

BRIDGES OVER 20' SPAN

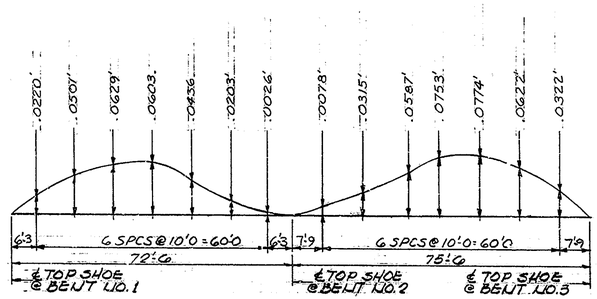


BEAM ELEVATION
SCALE: HORIZ. - 3/32"=1'-0
VERT. - N/O SCALE

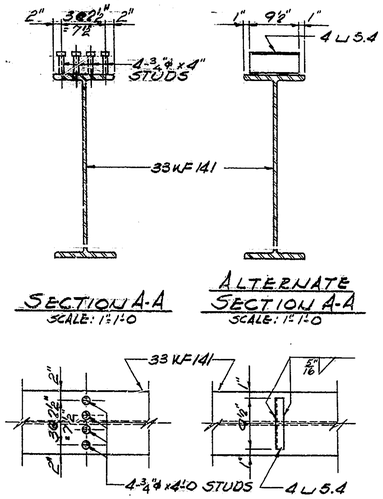
T - TENSION
C - COMPRESSION
T/C - TENSION & COMPRESSION.

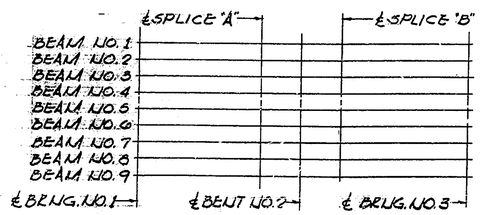


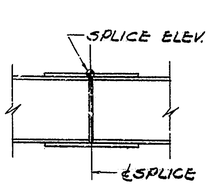
TYPICAL COVER PLATE WELDING DETAILS
SCALE: 1"=1'-0



DEAD LOAD DEFLECTION DIAGRAM
SCALE: HORIZ. - 1/16"=1'0
VERT. - 1"=1'0







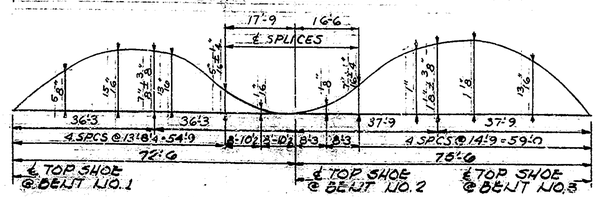
	BEAM NO.	1	2	3	4	5	6	7	8	9
N.B.	SPLICE "A"	749.210	749.280	749.340	749.335	749.260	749.180	749.080	749.005	748.950
	SPLICE "B"	749.370	749.060	749.700	749.695	749.625	749.540	749.410	749.260	749.110
S.B.	SPLICE "A"	748.785	748.930	749.080	749.205	749.285	749.360	749.355	749.290	749.215
	SPLICE "B"	749.145	749.290	749.440	749.565	749.665	749.710	749.715	749.650	749.580

SPLICE ELEVATIONS
NO SCALE

Splice elevations are with falsework removed and cutting steel deadload only. Top of beam splice plates shall be adjusted to the above elevations before bolting field splices.

Structural Steel shall be erected using sufficient full size drift pins to permit placement of bolts without damage thereto and to facilitate setting splices to grade. At the time of erection, not less than 50 percent of the holes in any connection shall be filled with bolts. The bolts shall not be tightened more than snug tight at this stage. Any drifting required shall be only such that will draw the parts into position but not sufficient to enlarge the holes or distort the metal. Unfair holes shall be reamed or drilled.

The shop plans shall indicate whether reaming or drilling is to be done in shop or field. If shop reaming or drilling is used the beams shall be assembled in accordance with no load camber and reaming diagram. If the beams are shop reamed or drilled, full size drift pins shall be used in erection.



NO LOAD CHAMBER & REAMING DIAGRAM
SCALE: HORIZ. 1/16"=1'0"
VERT. FULL SIZE

NOTES:
1. FOR SPLICE DETAIL SEE DRAWING S7.
2. THE CONTRACTOR MAY USE WELDED CHANNELS OR (3/4ø) WELDED STUDS AS ALTERNATE SHEAR CONNECTORS. IF USED THEY SHALL HAVE EQUIVALENT SHEAR VALUES AND THE PROPOSED SIZE AND SPACING SUBMITTED FOR APPROVAL.
3. FOR GENERAL NOTES SEE DRWG. S2.

STEEL BEAM DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED

SUBMITTED FOR APPROVAL:- L. D. Taylor Jr.

Nov. 18, 1969

DRAWING:- S8 OF S11

PROJECT:- I65-3(163)109

~~BRIDGE~~ CONTRACT NO. B-8877

BRIDGE FILE:- I65-110-5694

L. D. TAYLOR JR. REGISTERED No. 6209 PROFESSIONAL ENGINEER

DESIGNED JGB	CK'D DRW
DRAWN W.O.M.	CK'D ECE
TRACED	CK'D

REV. 8-3-73 Notes
Rev. 5-1-72 Shear Conn., Notes. Rev. 1-30-73 Note

November 6, 1961

Rev. 5-5-73 Project Designation Changed from I-65-3(33)109 to I-65-3(163)109.

PROJECT NO:	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-65	10	23	I-65-110-5694

5-1-72 MISC. NOTES
1-30-73 SHEAR CONN. NOTES
8-3-73 W/N/SDM/O.L.

BRIDGES OVER 20' SPAN

PUB. ROAD REQ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3(163)109	1970	11	25

149'-2½ O. TO O. OF COPING
22 SPACES @ 6'-6" = 143'-0 (RAILING POST SPACING)

3'-1½ | 13" | 3'-6 | ROADWAY DRAIN-TYPE "SO-A" (YES (TYP.) FOR 3 B DRAIN LOCATION SEE DWG. S.2.

183-I.M.4015

2-#5 x 21'-5 (1 TOP, 1 BOTT.)

1-#5 x 29'-5 (BOTT.)
1-#5 x 25'-10 (TOP)

CONST. JOINT

149'-2½ O. TO O. BRIDGE SLAB
354 SPACES @ 5" = 147'-6
354-#5 x 31'-8 (BOTT.)
354-#5 x 27'-10 (TOP)
℄ STRUCTURE

354-#5 x 3'-5 (BOTT.)
354-#5 x 35'-0 (TOP)

116-#3 x 14'-10 (SEE SECTION A-A FOR LOCATION)
LAP 1'-6 MIN. (NO PAYMENT FOR LAP)

CONST. JOINT

2-#5 x 8'-5 (1 TOP, 1 BOT.)

2-#5 x 7'-4 (1 TOP, 1 BOT.)
2-#5 x 24'-7 (1 TOP, 1 BOT.)
2-#5 x 41'-10 (1 TOP, 1 BOT.)

CONST. JOINT

1-#5 x 29'-5 (BOTT.)
1-#5 x 33'-0 (TOP.)

CONST. JOINT

2-#5 x 8'-5 (1 TOP, 1 BOT.)

CORNER DETAIL "A"

2-#5 x 41'-10 (1 TOP, 1 BOT.)
2-#5 x 24'-7 (1 TOP, 1 BOT.)
2-#5 x 7'-4 (1 TOP, 1 BOT.)

CORNER DETAIL "B"

149.2 L.F. Steel pipe Conduit 2"

℄ BENT NO. 2

183-I.M.4015

22 SPACES @ 6'-6" = 143'-0 (RAILING POST SPACING)

72'-3 | 12'-0 | 24'-0 | 12'-0 | 35'-6 | 3'-0 | 146 LF. 4" GUIDE RAIL (SEE SECTION A-A FOR LOCATION)

2-#5 x 8'-5 (1 TOP, 1 BOT.)

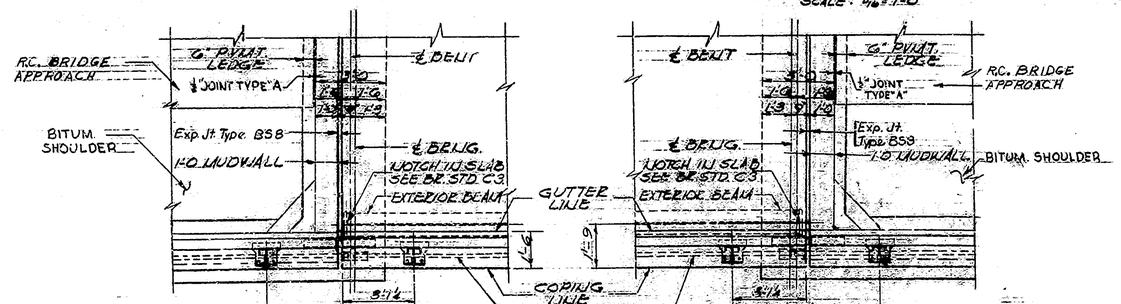
1-#5 x 29'-5 (BOTT.)
1-#5 x 33'-0 (TOP.)

CORNER DETAIL "B"

66'-0 SPA. @ 2'-0" CL. TYPICAL SPACING FOR I.M.4015

U.B. SUPERSTRUCTURE PLAN (S.B. BY 180° ROTATION)

SCALE: 1/8" = 1'-0



See Drwg. S10A for Overlay & Exp. Joint Type BS8 Details

1'-2" | 1'-6" | 4½"

I.M.4015 x 3'-5

NOTES:
1. FOR BILL OF MATERIAL, SCHEDULE OF POURS, AND SECTIONS A-A, B-B, & ROADWAY DRAIN DETAIL SEE DWG. S10.
2. SEQUENCE OF POURS TO BE MADE IN ORDER OF POUR NUMBERS. P.C.C. SUPERSTRUCTURE CONSTRUCTION JOINTS ARE OPTIONAL EXCEPT AS NOTED AND POURS MAY BE MADE CONTINUOUS PROVIDED THE POUR TERMINATES AT A CONSTRUCTION JOINT INDICATED ON THE PLANS. SEE DWG. S-10.
3. THE CONTRACTOR MAY CHANGE THE WIDTHS OF POURS, SEQUENCE OF POURS OR LOCATION OF THE CONSTRUCTION JOINTS SUBJECT TO THE APPROVAL OF THE ENGINEER.
4. FOR ADDITIONAL SUPERSTRUCTURE NOTES SEE DWG S-10

SUPERSTRUCTURE
INDIANA STATE HIGHWAY COMMISSION

SCALE: AS NOTED

SUBMITTED FOR APPROVAL: K.D. Taylor Jan. 18, 1969

DRAWING 39 OF 511

PROJECT: I-65-3(163)109

~~BRIDGE~~ CONTRACT NO. B-8877

BRIDGE FILE: I-65-110-5694

L.D. TAYLOR ENGINEER

DESIGNED IGB CK'D DRW
DRAWN K.O.M. CK'D E.C.F.
TRACED CK'D

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-65	11	23	I-65-110-5694

5-1-72 BKL/WEG/JWW
1-30-73 JUW/WEG/JWH
8-3-73 JUW/SDM/DL

Rev. 5-1-72 Steel pipe Conduit 2", Reinf.

Rev. 1-30-73 Details "A", "B"

November 6, 1961

Rev. 3-5-73 Project Designation changed from I-65-3(93) 109 to I-65-3(163) 109.

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	165-5 (16) 109	1970	12	23

61'-6 O. TO O. OF COPING
58'-6 CLEAR ROADWAY
1'-6 | 7'-3 | 3" | 5'-9 | 12'-0 | 12'-0 | 11'-9 ℄ STRUCTURE | 12'-0 | 12'-0 | 4'-9 | 3" | 1'-6

Smooth finish under Post's
Aluminum Caulking Compound of approved type
SLOPE 6"/FT.
2" RADIUS
#5 x 27'-10 (TOP)
#5 x 31'-5 (BOTT)
8" SLAB
PROFILE GRADE
#3 x 148'-10 @ 6" O.C.
#4 x 38'-2 @ 6" O.C.
#4 x 38'-2 @ 1'-6 O.C.
#5 x 35'-0 (TOP)
#5 x 31'-5 (BOTT)
SLOPE 4"/FT.
SLOPE 4"/FT.
ALUMINUM RAILING TYPE S OR STEEL RAILING TYPE C
MK 4015
Steel pipe Conduit 2"
#4 x 38'-2
Deck Drain (Typ.) See Drwg. S10A
1/2" HALF ROUND DRIP BEAD
1'2" "V" CONST. JT.
18 WF 42.7 (TYP.)
1'2" "V" CONST. JT.
4" (±) TYP.
1'-8" "V" CONST. JT.
18 WF 45 (TYP.)
1" x 2" "V" CONST. JT.
33 WF 141 (TYP.)
7'-3
*DIMENSION "A" TO BE EQUAL ± 1"
1'-9
8 SPACES @ 7'-3 = 58'-0
1'-9

SHOWING END DIAPHRAGMS — SHOWING INTERIOR DIAPHRAGMS

SECTION A-A
SCALE: 3/8"=1'-0

℄ TOP SHOE @ BENT NO. 1	℄ TOP SHOE @ BENT NO. 2	℄ TOP SHOE @ BENT NO. 3	
40'-11 3/16 S.B. 40'-11 1/2 N.B.	108'-2 1/16 S.B. 108'-3 N.B.		1'-6
POUR NO. 1AL	POUR NO. 2AL		5'-3
41'-0 1/16 S.B. 41'-2 1/16 N.B.	108'-1 9/16 S.B. 108'-0 7/16 N.B.		12'-0
POUR NO. 1L	POUR NO. 2L		12'-3
41'-2 S.B. 41'-2 1/16 N.B.	108'-0 1/2 S.B. 108'-0 7/16 N.B.		24'-0
POUR NO. 1	POUR NO. 2		24'-0
41'-3 3/4	107'-10 3/4		12'-3
POUR NO. 1R	POUR NO. 2R		12'-0
41'-2 1/16 S.B. 41'-2 N.B.	108'-0 1/16 S.B. 108'-0 1/2 N.B.		5'-3
POUR NO. 1AR	POUR NO. 2AR		1'-6
72'-6	75'-6		
41'-1 1/16 S.B. 41'-0 1/2 N.B.	108'-1 7/16 S.B. 108'-1 3/4 N.B.		

39'-6 CLEAR ROADWAY — 61'-6 O. TO O. COPING

SCHEDULE OF POURS
NO SCALE

24'-0
1" 2" 3" 4" 5" 6" 7" 8" 9" 10" 11" 12" 13" 14" 15" 16" 17" 18" 19" 20" 21" 22" 23" 24"
0 1/16 1/8 3/16 1/4 5/16 3/8 7/16 1/2 9/16 5/8 11/16 3/4 13/16 7/8 15/16 1 1 1/16 1 1/8 1 3/16 1 1/4 1 5/16 1 3/8 1 7/16 1 1/2
B. Crown in 24" Section

PAVEMENT OFFSET

See Drwg S10A for Overlay & Exp. Joint Type BSB Details

1/2" JOINT: TYPE 1A
℄ TOP SHOE ℄ BACK OF 1/2"
NOTCH IN SLAB SEE BR. STD. C3
9"
1'-0
PAVEMENT LEDGE
REAR FACE OF MUDWALL
BSB EXP. JT. (SEE DRWG S10A)
CONFORM TO CROWN
10" MIN.
33 WF 141
8" ℄
18 ⌴ 42.7
TROWEL SMOOTH AND COVER WITH ONE LAYER OF LBD. WT. ROOFING FELT
6'-2 VARIES
Type 'A' Constr. Jt.
1'-3
9"
1'-0
5'-6
3'-0

SECTION B-B
SCALE: 3/4"=1'-0

C
1'-0
2
1'-0
Slope 1"/ft (TYP.)
GUTTER LINE
COPING LINE
1'-6
ROADWAY DRAIN TYPE S.D.A.
18"
1'-6 15/16
2
1'-0
6" ℄ C.I. SOIL PIPE x 2'-6
5" 5" 1'-3 3/4
33 WF 141
1" MAX.
C

PLAN — SECTION "GC"

ROADWAY DRAIN DETAIL
SCALE 3/4"=1'-0

BILL OF MATERIAL
ONE STRUCTURE ONLY

SIZE	COMMD.	P.C.S.	LENGTH	WEIGHT
#5		4	41'-10	
#3		354	35'-0	
#5		1	33'-0	
#5		7/6	31'-5	
#5		2	29'-3	
#5		354	27'-10	
#5		1	25'-10	
#5		4	24'-7	
#5		4	7'-4	
TOTAL # 5				47,091#
MK 4019		366	3'-5	
#4	E	584	38'-2	
TOTAL # 4				15,725#
#3		116	148'-10	
TOTAL # 3				6402#
TOTAL REINFORCING				69,303#
CONCRETE				
CLASS 'C'			N.B.	S.B.
POUR NO. 1			25.3 C.Y.	25.3 C.Y.
POUR NO. 1L			12.9 C.Y.	12.6 C.Y.
POUR NO. 1AL			9.5 C.Y.	9.6 C.Y.
POUR NO. 1R			12.6 C.Y.	12.9 C.Y.
POUR NO. 1AR			8.7 C.Y.	9.2 C.Y.
POUR NO. 2			55.2 C.Y.	55.2 C.Y.
POUR NO. 2L			33.3 C.Y.	32.8 C.Y.
POUR NO. 2AL			24.8 C.Y.	24.8 C.Y.
POUR NO. 2R			32.8 C.Y.	33.3 C.Y.
POUR NO. 2AR			22.8 C.Y.	24.8 C.Y.
TOTAL CLASS 'C'			226.9 C.Y.	230.2 C.Y.
CAST IRON				
⊛ Cast Iron drain pipe 6"				160#
Cast Iron Grates, Basins & Fittings - 2 Type SD-A Drains:				316#
MISCELLANEOUS				
RAILING TYPE S OR TYPE C				298 GLF.
Steel pipe Conduit 2"				143.2 L.F.

BILL OF MATERIAL FOR ONE LIGHT POLE

601B	4	3'-8	
602B	10	4'-6	
Total No. 6			204#

Anchor Bolts MK AR 22 | 4 Each

⊛ Extra Heavy.

NOTES:
1. SEE DRAWING S 9 FOR LOCATION OF SECTION A-A B-B AND C-C AND FOR NOTES ON CONCRETE POURS.
2. FOR REINFORCING BAR NOTES, SEE BR. STD. C 1.
3. FOR REINFORCING BAR DETAILS, SEE DRAWING S 9
4. FOR RAILING DETAILS SEE BRIDGE STD. BR. 1, 2, 3, & 4
5. AFTER STRUCTURAL STEEL HAS BEEN ERECTED CONCRETE FORMS SHALL NOT BE BLOCKED AGAINST THE EXPANSION END OF THE STEEL IN MAKING ANY POURS ADJACENT TO STEEL SPANS.
6. SEE DRAWING S 1 FOR GENERAL NOTES.
7. WELDED DEFORMED STEEL WIRE FABRIC MAY BE USED IN PLACE OF #3 BARS IN TOP OF THE SLAB.
8. FOR LOCATION OF FUTURE 8" DIAM. LIGHT STANDARDS SEE DRWG. S2.

SUPERSTRUCTURE DETAILS
INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED
Nov. 15 1969
SUBMITTED FOR APPROVAL:- L. D. Taylor
DRAWING:- S10 OF S11
PROJECT:- I65-3(163)109
~~BRIDGE~~ CONTRACT NO. B-8877
BRIDGE FILE:- I65-110-5694

L. D. TAYLOR JR. No. 9 REGISTERED ENGINEER

DESIGNED JCB C'K'D DRW
DRAWN W.O.U. C'K'D ECF
TRACED ____ C'K'D ____

REV 8-3-73 Conc. details, BSB Exp Jt. Deck drain, Note, Bill of Mat.
Rev. 5-1-72 Reinf., Slab, B. of Mtls., Notes: Rev 1-30-73 Pav. Off.

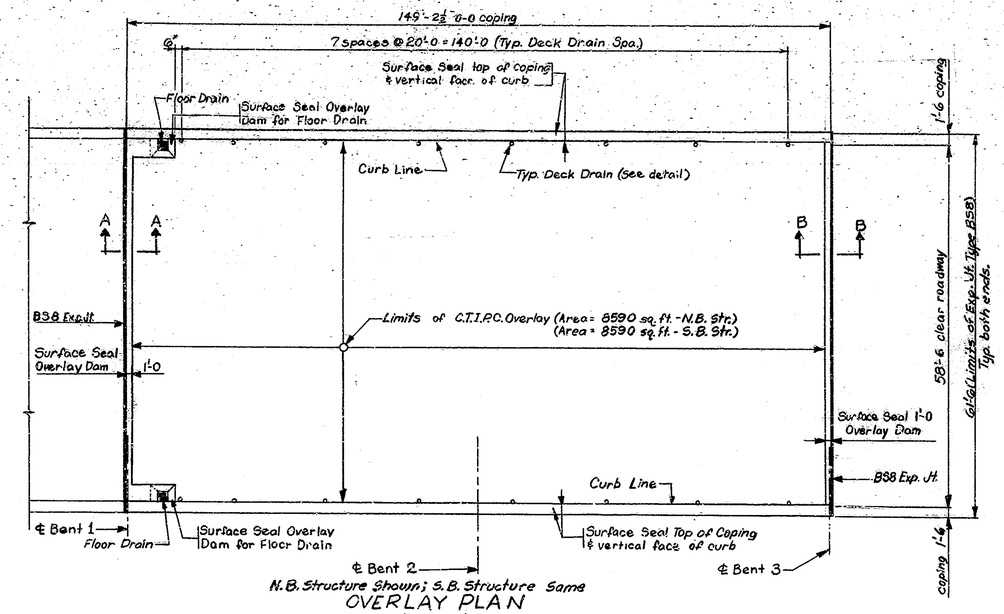
5-1-72 BKG/WFG/TRW
1-30-73 JJW/WFG/RWH
8-3-73 JJW/SDM/DL

November 6, 1961

Rev 5-5-73 Project Designation changed from I-65-3(163)109 to I-65-3(163)109

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(163)109	I-65	12	23	I-65-110-5694

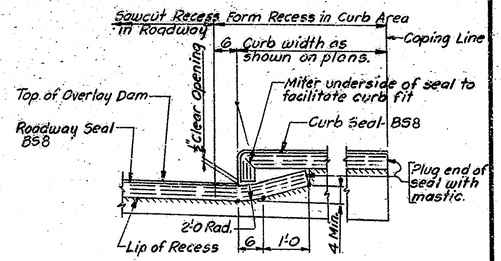
FEDERAL ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3 (163)109	1974	12A	23



N.B. Structure Shown; S.B. Structure Same

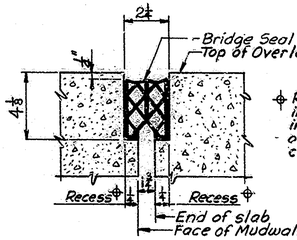
OVERLAY PLAN

No Scale



TYP. B5 JOINT INSTALLATION AT 8" CURBS ⧫⧫

⧫⧫ At Overlay Dams, curb height will be 2 inches less than shown on floor details.



⧫ Recess shall be sawcut in roadway and formed in curb areas. See details of joint installation at curbs.

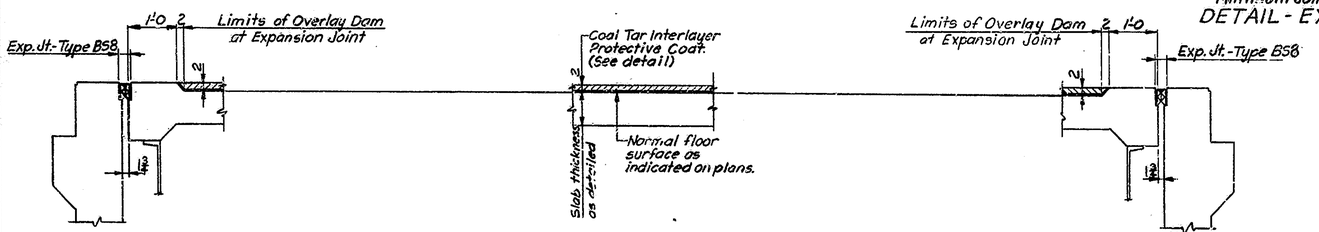
BILL OF MATERIALS
FOR BOTH N.B. AND S.B. STRUCTURES

Coal Tar Interlayer Protective Coat	1 Lump Sum
Bituminous Mixture for Approaches	210 Tons
Deck Drains	32 Ea.
Surface Seal	1656 Sq. Ft.
Expansion Joint - Type B58	264 Lin. Ft.

Size of Seal	=	3x3
Minimum Joint Width	=	1"
Maximum Joint Width	=	2"
Minimum Joint Width at Installation	=	1"
Minimum Joint Depth at Installation	=	3"

DETAIL - EXP. JOINT-TYPE B58

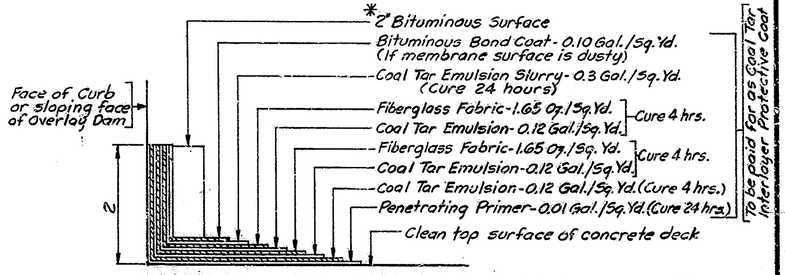
*Bit. Surface to be paid for as "Bituminous Mixture for Approaches" and shall consist of:
170#/Sq.Yd. Hot Asphaltic Concrete Surface Type B
OVER 50#/Sq.Yd. Hot Asphaltic Conc. Surface Type D
or
170#/Sq.Yd. Hot Asphaltic Emulsion Surface Type III
OVER 50#/Sq.Yd. Hot Asphaltic Emulsion Surface Type IV



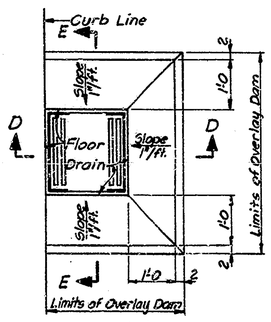
SECTION A-A

TYP. SECTION THRU FLOOR

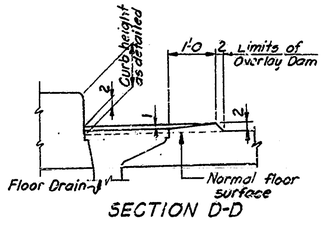
SECTION B-B



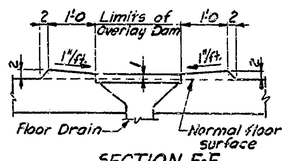
DETAIL - COAL TAR INTERLAYER PROTECTIVE COAT



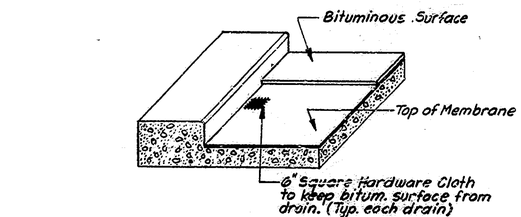
OVERLAY DAM AT FLOOR DRAINS PLAN



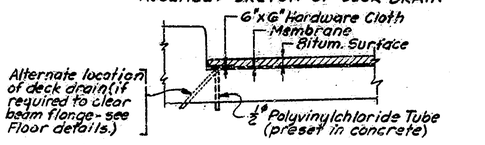
SECTION D-D



SECTION E-E



ASSEMBLY SKETCH OF DECK DRAIN



DECK DRAIN DETAIL

NOTES:
Work this drawing with floor details.
Overlay Dams at ends of floor slab and adjacent to floor drains shall be poured monolithic with the slab.
Surface seal the top surface of all overlay dams, the exposed vertical face of all curbs and the top surface of curbs, walks and medians, where applicable. See Overlay Plan.

DESIGNED WH 7-27-73 C'K'D
DRAWN SDM 8-3-73 C'K'D
TRACED C'K'D

DETAILS - C.T.I.P.C. OVERLAY AND EXP. JOINT-TYPE B58

INDIANA STATE HIGHWAY COMMISSION

SCALE:- No Scale

DATE:- AUGUST 3, 1973

Robert W. Bettge
ASSISTANT ENGINEER OF BRIDGE DESIGN

DRAWING:- S10A OF S11 SHEET:- 12A OF 23

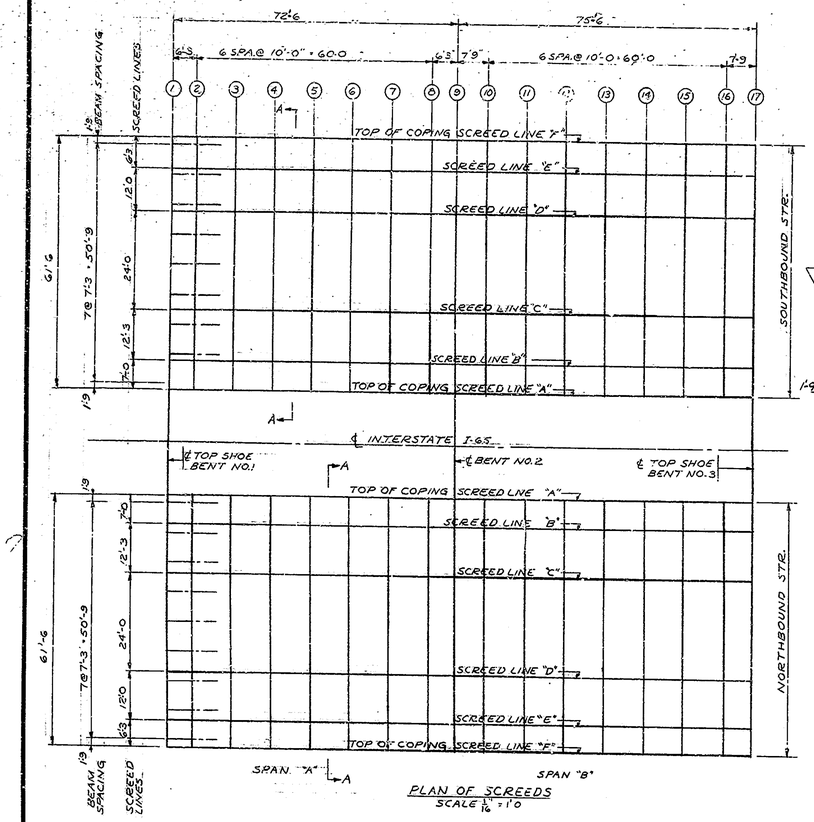
PROJECT:- I-65-3(163)109

CONTRACT NO. B-8877

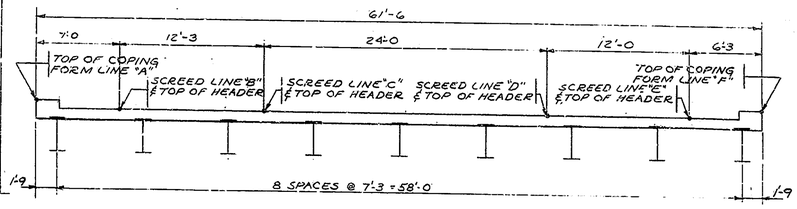
BRIDGE FILE:- I65-110-5694

ROBERT W. BETTGE REGISTERED No. 6403 STATE OF INDIANA PROFESSIONAL ENGINEER

BRIDGES OVER 20' SPAN					
PUB. ROAD REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	I-65-3(63)109	1970	13	23



PLAN OF SCREEDS
SCALE 1/16" = 1'-0



SECTION "A-A"
SCALE 3/16" = 1'-0

GENERAL PROCEDURE

1. AFTER ALL STEEL HAS BEEN ERECTED AND WELDING COMPLETED, ADJUST SUPERSTRUCTURE LONGITUDINALLY SO THAT DIMENSION "C" FROM THE ℄ OF TOP SHOE TO THE FACE OF MUDWALL AT BENT NO.1 IS EQUAL TO THE DIMENSION "C" FROM THE ℄ OF TOP SHOE TO THE FACE OF MUDWALL AT BENT NO.3. WELD THE FIXED SHOES AT BENT NO.2 TO THE ANCHOR PLATES.
2. WITH THE SUPERSTRUCTURE IN ADJUSTED POSITION CALLED FOR IN NOTE 1, ADJUST THE EXPANSION PLATE UNDER EACH EXPANSION SHOE AT BENTS NO.1 & NO.3 IN ACCORDANCE WITH DIMENSION "A" IN TABLE 1 FOR THE PREVAILING TEMPERATURE. NOTE THAT DIMENSION "A" IS ALWAYS THE DISTANCE FROM A VERTICAL LINE THROUGH THE ℄ OF TOP SHOE IN A DIRECTION AWAY FROM THE FIXED SHOE.
3. WELD THE EXPANSION PLATES TO ANCHOR PLATES ON BENT NO.2 & BENT NO.3.
4. AFTER THE SHOES ARE SET TAKE ELEVATIONS AT ALL SCREED POINTS ON TOP OF THE ADJACENT BEAM ENTER THESE ELEVATIONS IN THE TABLE OF ELEVATIONS. SUBTRACT THESE ELEVATIONS FROM THE TABULATED ELEVATIONS AND USE THE RESULTING DIMENSION AS THE HEIGHT FOR SETTING THE SCREED OR COPING FORM ABOVE THAT POINT ON THE BEAMS. THIS DIMENSION REMAINS CONSTANT REGARDLESS OF HOW MUCH OR IN WHAT ORDER THE CONCRETE IS POURED. DO NOT SET SCREEDS OR COPING FORMS BY LEVELING.
5. NO CONCRETE IN THE FLOOR IS TO BE POURED UNTIL THE ABOVE OPERATIONS ARE COMPLETE.

TABLE NO. 1
DIMENSION "A" (INCHES)

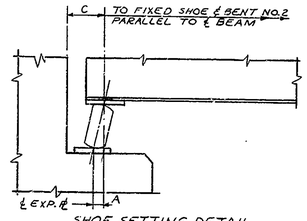
TEMPERATURE	0°	20°	40°	60°	80°	100°	120°
BENT NO. 1	13/16	3/4	5/8	1/2	3/8	1/4	3/16
BENT NO. 3	7/8	3/4	5/8	1/2	3/8	1/4	1/8

NOTES

1. PLAN OF SCREEDS SHOWS LOCATION OF SCREEDS.
2. TABLE OF ELEVATIONS SHOWS DATA FOR SETTING SCREEDS & COPING FORMS SO THAT THE SLAB AND COPING WILL BE AT THE FINAL GRADE ELEVATIONS AFTER ALL CONCRETE HAS BEEN PLACED AND FORMS HAVE BEEN REMOVED.
3. SEE DRAWING S-6 FOR GENERAL NOTES.

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
SOUTHBOUND	A	℄ ELEVATION TOP OF COPING FORM	750.050	750.135	750.265	750.385	750.485	750.575	750.655	750.740	750.800	750.890	751.020	751.150	751.270	751.375	751.465	751.540	751.585
		ELEVATION TOP OF EXTERIOR BEAM																	
		DISTANCE TOP OF EXT. BEAM TO TOP COPING																	
	B	ELEVATION TOP OF SCREED	⊕749.275	749.360	749.490	749.610	749.710	749.800	749.880	749.965	750.025	750.115	750.245	750.375	750.495	750.600	750.690	750.765	750.815
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	C	ELEVATION TOP OF SCREED	⊕749.375	749.460	749.590	749.710	749.810	749.900	749.980	750.065	750.125	750.215	750.345	750.475	750.595	750.700	750.790	750.865	750.910
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	D	ELEVATION TOP OF SCREED	⊕749.130	749.215	749.350	749.465	749.565	749.655	749.735	749.820	749.885	749.970	750.100	750.230	750.350	750.455	750.545	750.620	750.670
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	E	ELEVATION TOP OF SCREED	⊕748.880	748.970	749.100	749.220	749.320	749.405	749.485	749.515	749.635	749.725	749.850	749.985	750.105	750.210	750.300	750.375	750.420
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	F	ELEVATION TOP OF COPING FORM	749.620	749.705	749.840	749.935	750.055	750.145	750.225	750.310	750.375	750.460	750.590	750.720	750.840	750.945	751.035	751.110	751.160
		ELEVATION TOP OF EXTERIOR BEAM																	
		DISTANCE TOP OF EXT. BEAM TO TOP COPING																	
NORTHBOUND	A	℄ ELEVATION TOP OF COPING FORM	750.040	750.130	750.260	750.380	750.480	750.565	750.645	750.730	750.790	750.885	751.015	751.145	751.265	751.370	751.460	751.535	751.580
		ELEVATION TOP OF EXTERIOR BEAM																	
		DISTANCE TOP OF EXT. BEAM TO TOP COPING																	
	B	ELEVATION TOP OF SCREED	⊕749.265	749.350	749.485	749.600	749.700	749.790	749.870	749.955	750.015	750.105	750.235	750.365	750.485	750.590	750.680	750.755	750.805
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	C	ELEVATION TOP OF SCREED	⊕749.355	749.445	749.575	749.695	749.795	749.880	749.960	750.050	750.110	750.200	750.325	750.460	750.580	750.685	750.775	750.850	750.895
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	D	ELEVATION TOP OF SCREED	⊕749.100	749.190	749.320	749.435	749.540	749.625	749.705	749.795	749.855	749.945	750.070	750.200	750.325	750.430	750.520	750.590	750.640
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	E	ELEVATION TOP OF SCREED	⊕748.850	748.935	749.045	749.155	749.285	749.375	749.415	749.540	749.600	749.690	749.820	749.950	750.070	750.175	750.265	750.340	750.385
		ELEVATION TOP OF BEAM																	
		DISTANCE TOP OF BEAM TO TOP OF SCREED																	
	F	ELEVATION TOP OF COPING FORM	749.580	749.670	749.810	749.915	750.020	750.105	750.185	750.275	750.335	750.425	750.550	750.685	750.805	750.910	751.000	751.070	751.120
		ELEVATION TOP OF EXTERIOR BEAM																	
		DISTANCE TOP OF EXT. BEAM TO TOP COPING																	

⊕ Elevations uncorrected for 2" concrete dams at ends of Slab.



SHOE SETTING DETAIL
BENT NO.1 & NO.3

DESIGNED JGB C'K'D DRW
DRAWN G.W.E. C'K'D ECF
TRACED C'K'D

REV 8-3-73 Screed Elevations

8-3-73 JJW/SDM/DL

SCREED DATA
INDIANA STATE HIGHWAY COMMISSION

SCALE:- AS NOTED

Nov. 17, 1969

SUBMITTED FOR APPROVAL:- L. D. Fry

DRAWING:- S11 OF S11
PROJECT:- I-65-3(63)109
~~BRIDGE~~ CONTRACT NO. B-8877
BRIDGE FILE:- I-65-110-5694

STATE OF INDIANA REGISTERED No. 6719 PROFESSIONAL ENGINEER

November 6, 1961

Rev. 3-5-73 Project Description changed from I-65-3(39)109 to I-65-3(63)109.

PROJECT NO.	LINE	SHEET NO.	TOTAL SHEETS	FILE
I-65-3(63)109	I-65	13	23	I-65-110-5694

BRIDGE FILE

N.B. STRUCTURE

S.B. STRUCTURE

STRUCTURE QUANTITIES

ITEM	CONCRETE CLASS A (f'c 4500 psi) SUBSTR. CU. YDS.	CONCRETE CLASS A (f'c 4500 psi) SUPERSTR CU. YDS.	CONCRETE CLASS "B" ABOVE FTG. CU. YDS.	CONCRETE CLASS "B" IN FTG. CU. YDS.	CONCRETE RAILING CLASS F CU. YDS.	CONCRETE RAILING CLASS F LIN. FT.	REINFORCING STEEL (196 STD. WTS) #11 LBS.	#10 LBS.	#8 LBS.	#7 LBS.	#6 LBS.	#5 LBS.	#4 LBS.	#3 LBS.	#3 FOR SPIRALS ** LBS.	TOTALS LBS.	PILES STEEL H-SECTION NO./LIN. FT.	PILES CONCRETE NO./LIN. FT.	CAST IRON DRAIN PIPE 4" ø LBS.	RAILING TYPE D OR C LIN. FT.	STRUCTURAL STEEL *** LBS.	B BORROW CU. YDS	ANCHOR PLATES MK-AP2 EACH	ANCHOR BOLTS MKAR22 EACH	STEEL PIPE CONDUIT 2" LIN. FT.	CAST IRON BASINS GRATES & FITTINGS LBS.	EXP. JT. TYPE 536 LIN. FT.
SUBSTRUCTURE																												
BENT NO. 1	68.4															6,177	15/455			33.0		69	9			18.5		
BENT NO. 2	38.6			36.7												18,369						182	9					
BENT NO. 3	68.4															6,177	15/455			33.0		69	9			18.5		
SUPERSTRUCTURE																												
SPANS A'&B'		248.8														69,306			100	298.6	272,400					149.2	384	132
SUB TOTALS	175.4	248.8		36.7												100,029	30/910		100	364.6	272,400	320	27			186.2	384	132
SUBSTRUCTURE																												
BENT NO. 1	68.4															6,177	13/455			33.0		69	9			18.5		
BENT NO. 2	38.6			36.7												18,369						182	9					
BENT NO. 3	68.4															6,177	13/455			33.0		69	9			18.5		
SUPERSTRUCTURE																												
SPANS A'&B'		248.7														69,306			100	298.6	272,400					149.2	384	132
SUB TOTALS	175.4	248.7		36.7												100,029	26/910		100	364.6	272,400	320	27			186.2	384	132
LIGHT POST																180								.8				
SPLICE BARS																												
Reinf. Steel for Approach Structures																												
Reinf. Steel for R.C. Bridge Approaches																												
Reinf. Steel for Lip Gutter, Pvmt., Tapers, etc.																												
TOTALS	350.8	497.5		73.4												200,230	52/1820		200	729.2	544,800	640	54	8	372.4	768	264

BRIDGES OVER 20' SPAN

PUB. ROAD PROJ. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
4	IND.	165-3(63)109	1970	14	23

SUMMARY

ITEM	DESCRIPTION	UNIT	QUANTITIES BRIDGE	QUANTITIES FILE	TOTALS
1	Concrete, Class C Superstructure	Cu. Yds.	497.5		
2	Concrete, Class A Substructure	Cu. Yds.	350.8		
3	Concrete, Class B above Footings	Cu. Yds.			
4	Concrete, Class B in Footings	Cu. Yds.	73.4		
5	Concrete Railing				
6	Reinforcing Steel	Pounds	200,230		
7	Structural Steel	Lump Sum	1		
8	Concrete Structural Members	Lump Sum			
9	Anchor Plates (MK-AP2)	Each	54		
10	Bronze Plates	Pounds			
11	Cast Iron Drain Pipe 6"ø	Pounds	200		
12	Cast Iron, Grates, Basins and Fittings	Pounds			
13	Railing (Type B or C)	Lin. Ft.	729.2		
14	Timber Piles Furnished, Untreated	Lin. Ft.			
15	Timber Piles Driven, Untreated	Lin. Ft.			
16	Timber Piles Furnished, Treated	Lin. Ft.			
17	Timber Piles Driven, Treated	Lin. Ft.			
18	Pile Shells Furnished 8. Driven (")	Lin. Ft.			
19	Steel Piles Furnished & Driven (12"#)	Lin. Ft.	1820		
20	Furnishing Equipment for Driving Piles	Lump Sum			
21	Wet Excavation	Cu. Yds.			
22	Foundation Excavation(Unclassified)	Cu. Yds.	433		
23	Waterway Excavation	Cu. Yds.			
24	Channel Excavation	Cu. Yds.			
25	Borrow	Cu. Yds.			
26	B Borrow for Structure Backfill	Cu. Yds.			
27	B Borrow	Cu. Yds.			
28	Expansion Joint, Preformed (")	Lin. Ft.			
29	Concrete Pavement, Reinforced Cement (")	Sq. Yds.			
30	(Type) Compacted Aggregate for Base				
31	Subbase	Cu. Yds.			
32	Removal of Present Structure	Each			
33	Temporary Bridge and Approaches	Lump Sum			
34	Construction Signs, (Type A)	Each			
35	Construction Signs, (Type B)	Each			
36	Standard Barricades (Type A)	Each			
37	Standard Barricades (Type B)	Each			
38	It/W Markers	Each			
39	Slopewall	Sq. Yds.	1024		
40	Riprap	Sq. Yds.			
41	Concrete, Class A in Structures	Cu. Yds.			
42	Sodding	Sq. Yds.			
43	Mulched Seeding	Sq. Yds.			
44	Anchor Rods (MK-AR	Each			
45					
46	Inlets Type PIER	Each	1		
47	Inlets Type DG	Each	2		
48	F.B.C.C.S. PIPE 12" 16 Gage	Lin Ft.	226		
49	Culvert End Sections 12"	Each	3		
50	Steel Pipe conduit 2"	Lin. Ft.	372.4		
51	Anchor Bolts KAR22	Each	8		
52	Cast Iron Basins, Grates & Fittings	Lbs.	768		
53	Expansion Joint -Type 536	Lin. Ft.	264		
54	Coal Tar Interlayer Protective Coat	Lump Sum	1		
55	Bituminous Mixture for Approaches	Tons	210		
56	Deck Drains	Each	32		
57	Surface Seal	Sq. Ft.	1656		
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APPROACH STRUCTURES

STRUCT. NO.	LOCATION	DESCRIPTION SIZE	DESCRIPTION KIND	LENGTH LIN. FT.	CONCR. CL.A IN STRS. CU. YDS.	REINF. STEEL LBS.	B BORROW FOR STR. BACKFILL CU. YDS.	PIPE END SEC. EACH	REMARKS
115	261+91 RT. LINE I-65		INLET TYPE DG ø						
		12"	F.B.C.C.S. PIPE A	56					1-CULVERT END SECTION REQD.
118	261+95 LT. LINE I-65		INLET TYPE DG ø						
		12"	F.B.C.C.S. PIPE	72					1-CULVERT END SECTION REQD.
21A	281+60 ℄ I-65		INLET TYPE PIER						
		12"	F.B.C.C.S. PIPE	148					1-CULVERT END SECTION & 2-14°30' BEND REQD.
				TOTALS					Total of Reinforcing Steel Carried to "Structure Quantities"

JUNE 1, 1969

BARRICADES, BARRIERS, TRAFFIC SIGNS AND LIGHTS

ITEM	UNIT	QUANITY	ASSEMBLY	BRIDGE	FILE	TOTALS
CONSTRUCTION SIGNS TYPE A	EACH		Signs XW-1			
			Signs XW-2			
			Signs XW-3			
			Signs XW-2			
			Signs W-4B, W-35A (20 M.P.H.)			
			Torches			
STANDARD BARRICADES TYPE A	EACH		Barricades (Type A)			
			Signs XR-1			
			Signs M-20A			
			Lanterns			
STANDARD BARRICADES TYPE B	EACH		Barricades (Type B)			
			Signs XR-1			
			Lanterns			
CONSTRUCTION SIGNS TYPE B	EACH		Signs W-11			
			Signs W-35A			
			Torches			
SUITABLE BRIDGE BARRIERS	EACH	*	Suitable Barriers			
		*	Lanterns or Torches			
CONSTRUCTION IDENTIFICATION SIGNS	EACH	*	Signs XM-6			
		*	Signs XM-7			
		*	Signs XM-8			

@ Extra Heavy

NOTES:
For Test Bar Samples See Bridge Standard C1.
* Not a Pay Item. Place as directed by the Engineer.
"W-35A" safe speed to be determined by the Engineer.
Directional, Advisory or Warning Signs shall be right hand or left hand as the location of the sign requires.

NOTES:
** Weight of Spirals includes weight of 1½ extra turns top and bottom. Spacers and 1½ turns of tape included in cost of Spiral.
*** The weight of structural steel is approximate only, and it shall be the Contractor's responsibility to determine the weight on which he bases his bid.
@@@ Borrow included in Road Quantities

SUMMARIZED GWE C'K'D S.C.F.
TRACED G.W.E. C'K'D S.C.F.
REV. 8-3-73 Item 1,2 Added Items 53 thru 57
Rev. 5-1-72 Items 1,2,46,11,46,47,48,49, ; Deleted 20 ; Added 12,50,51,52 Rev 1-30-73 Item #6, #51.
Rev. 3-5-73 Project Designation changed from I-65-3(63) to I-65-3(63)109.

5-1-72 TAM/RDS/WKG
1-30-73 JJW/RWH/WKG
8-3-73 dmy/SDM/DC

SUMMARY
INDIANA STATE HIGHWAY COMMISSION

Nov. 18, 1969

SUBMITTED FOR APPROVAL

PROJECT: 165-3(063)109
CONTRACT NO: B-8877
BRIDGE FILE: 165-110-5694

I-65-110-5694

ND STR