STATE OF OHIO
DEPARTMENT OF HIGHWAYS

F-691(6)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	F-691(6)	

1/30

UNI-36-2.73

MICROFILMED
AUG 10 1969
GROUND PHOTO LAB

UNI-36-2.73

UNION COUNTY UNION TOWNSHIP

I-5

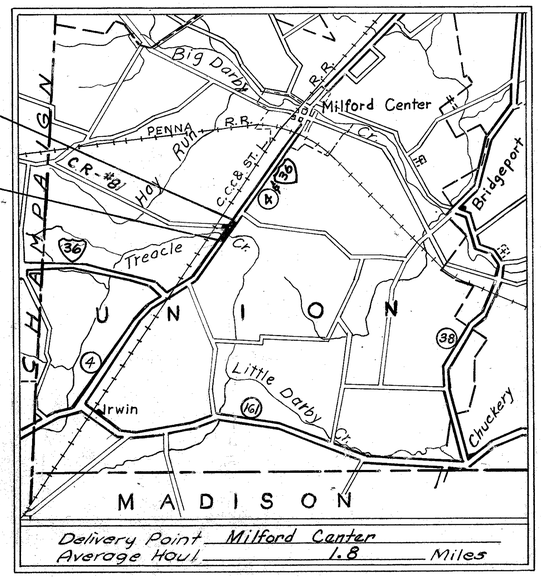
CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail - Proposed
Railroad
Pole Line
Property Line
Trees & Stumps
Existing Right of Way
Proposed Right of Way

41 — 42 — x — x — x — x — Existing — P/L — To Be Removed

END PROJECT
Sta. 158+50
S.L.M.= 3.00

BEGIN PROJECT
Sta. 144+00
S.L.M.= 2.73



Delivery Point Milford Center
Average Haul 1.8 Miles

LOCATION MAP
0 1 2 3
MILES

Portion To Be Improved
State Highways
Other Roads

INDEX of SHEETS

LINE DATA

BEGIN PROJECT - Sta. 144+00
END PROJECT - Sta 158+50
Gross Length of Project = 1450.00 Lin. Ft.
Sta. 158+40.03 Back =
Sta. 158+41.08 Ahead
Deduction for Station Equation = - 1.05 Lin. Ft.
Net Length of Project = 1448.95 Lin. Ft. or 0.274 Mile

BEGIN WORK - Sta. 142+48
END WORK - Sta. 160+02
Gross Length of Work = 1754.00 Lin. Ft.
Deduction for Station Equation = - 1.05 Lin. Ft.
= 1752.95 Lin. Ft. or 0.332 Mile

SCALE IN FEET

Plan, Profile Horizontal — 0 50 100
Profile Vertical Cross-Sections — 0 5 10
Details — 0 20 40

1965 SPECIFICATIONS

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

The right-of-way for this improvement will be provided by the State of Ohio.

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

Approved Francis Du Williams
Date 4-25-66 Division Deputy Director

Approved O. J. Abbuster
Date 5-9-66 Engineer of Bridges

Approved R. N. Richter
Date 5-10-66 Engineer of Location and Design

Approved R. E. Shultz
Date 5-9-66 Deputy Director of Design and Construction

Approved T. H. Boland
Date 5-12-66 Deputy Director of Right of Way

Approved S. W. Wilson
Date 5-12-66 Deputy Director of Planning and Programming

Approved
Date First Assistant Director

Approved R. E. Mashed
Date 5/13/66 Director of Highways

File No.	UNION COUNTY UNI-36-2.73
	Date of Letting 1966
	Contract No.

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

HW-E	6-1-65	MC-1	6-1-65	AS-1-54	8-10-65
BP-5	6-1-65	MC-3	6-1-65	CS-1-65	6-1-65
BP-6	6-1-65	MC-4	6-1-65	A-1-54	11-8-65
FACI-1	6-1-65			P-1-54	11-8-65
FACI-2	6-1-65				
GR-1	6-1-65				
GR-2A	9-1-65				
I-1	6-1-65				

SUPPLEMENTAL SPECIFICATIONS	
808	2-7-66
825	4-22-65
1001	9-2-65

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER DATE

TITLE SHEET

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

25

UNI-36-2.73

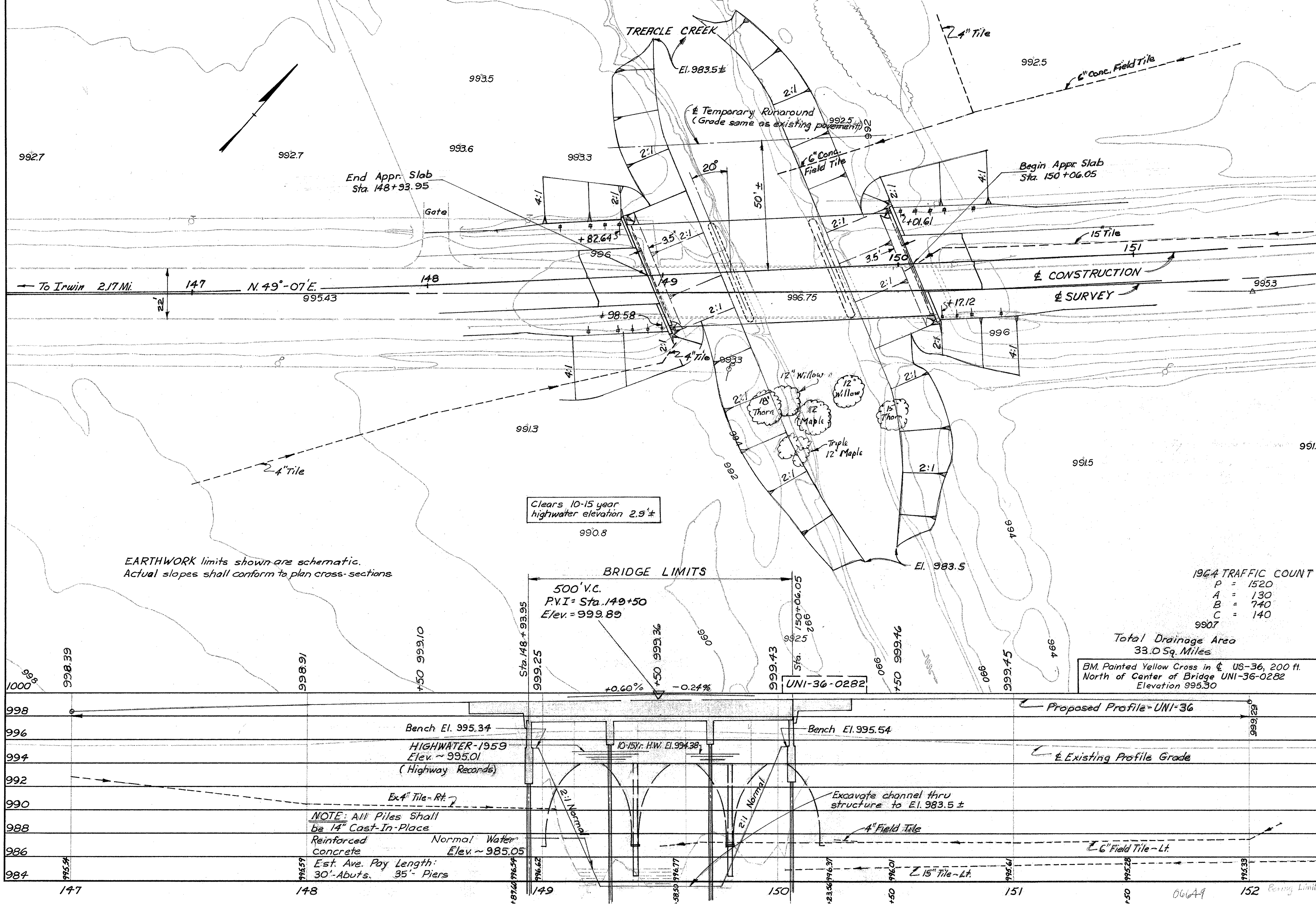
1.6 miles ± S.W. of Milford Center

EXISTING CURVE DATA

P.I. = Sta. 151+50.58
Δ = 6°-26'-30" Lt.
D = 1°-40'-43"
T = 192.08'
L = 383.75'
R = 3413.29'
E = 5.40'

PROPOSED CURVE DATA

P.I. = Sta. 151+50.58
Δ = 6°-26'-30" Lt.
D = 0°-28'
T = 690.91'
L = 1380.36'
R = 12277.67'
E = 19.42'



TREACLE CREEK
El. 983.5±
℄ Temporary Runaround (Grade same as existing pavement)
6" Conc. Field Tile
4" Tile
End Appr. Slab Sta. 148+93.95
Begin Appr. Slab Sta. 150+06.05
Gate
+82.64
+01.61
+98.58
+17.12
15" Tile
To Irwin 2.17 Mi.
N. 49°-07' E.
℄ CONSTRUCTION
℄ SURVEY
To Milford Center 1.50 Mi.
12" Willow
18" Thorn
12" Maple
15" Thorn
Triple 12" Maple
El. 983.5
Clears 10-15 year highwater elevation 2.9'±
EARTHWORK limits shown are schematic. Actual slopes shall conform to plan cross-sections.
BRIDGE LIMITS
500' V.C.
P.V.I. = Sta. 149+50
Elev. = 999.89
+0.60%
-0.24%
UNI-36-0282
Proposed Profile - UNI-36
Bench El. 995.34
Bench El. 995.54
HIGHWATER-1959 Elev. ~ 995.01 (Highway Records)
10-15 Yr. H.W. El. 994.38
℄ Existing Profile Grade
Ex 4" Tile - Rt.
Excavate channel thru structure to El. 983.5 ±
4" Field Tile
6" Field Tile - Lt.
15" Tile - Lt.
2:1 Normal
NOTE: All Piles Shall be 14" Cast-In-Place Reinforced Concrete
Normal Water Elev. ~ 985.05
Est. Ave. Pay Length: 30'-Abuts. 35'-Piers
Total Drainage Area 33.0 Sq. Miles
BM. Painted Yellow Cross in ℄ US-36, 200 ft. North of Center of Bridge UNI-36-0282 Elevation 995.30

1964 TRAFFIC COUNT

P = 1520
A = 130
B = 740
C = 140

EXISTING BRIDGE DATA

Treacle Creek - Bridge No. UNI-36-0282
TYPE: Concrete Arch (Luten)
SPAN: Clear, 36'6" ~ 38'9" ~ 36'6"
ROADWAY: 21'-10"
LOADING: H-15
SKEW: 22° Rt. Forward
ALIGNMENT: Bridge on Tangent ~ 2° Lt. Curve Forward Tangent Rear
CONDITION: Poor
DATE BUILT: 1921

PROPOSED STRUCTURE

TYPE: Continuous reinforced concrete slab with capped pile piers and abutments
SPANS: 34'-42.5'-34' c/c brgs.
ROADWAY: 44'-0" f/f guard rails
LOAD FREQUENCY: CF = 2000 (57)
SKEW: 20° R.F.
WEARING SURFACE: 1" monolithic concrete
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: 0° 28' curve left
SUPERELEVATION: None.

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. UNI-36-0282
Over TREACLE CREEK
UNION CO. USR-36
SEC. STA. 148+93.95 150+06.05
SCALE 1" = 20'

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Aerial Survey	Aerial Survey	D.H.S.	D.H.S.	R.E.J.	P.E.S.

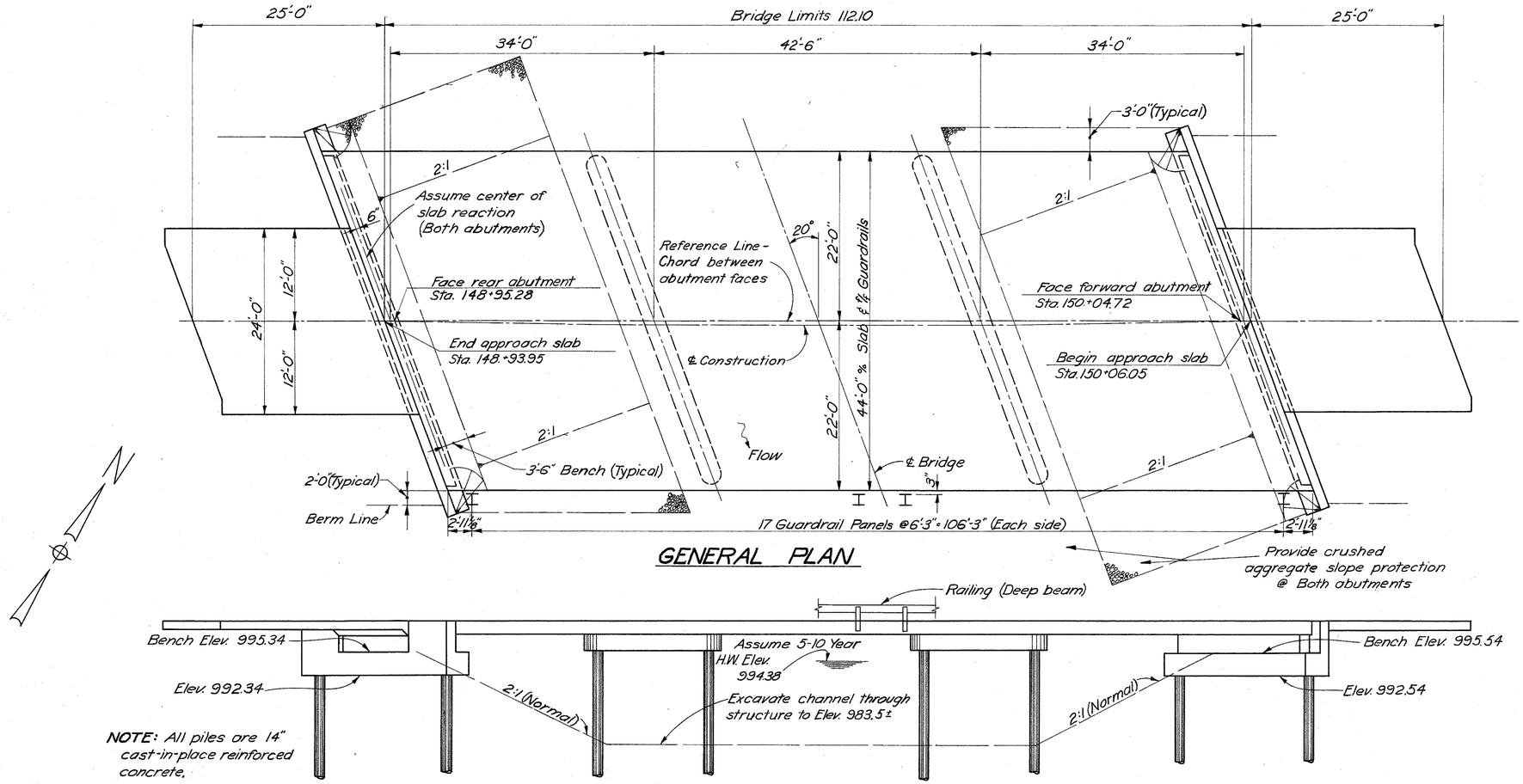
Paving Limit Sta. 148+97.75 150+05.25 BFG 4-18-66

06649

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

26/30

UNI-36-2.73



NOTE: All piles are 14" cast-in-place reinforced concrete.

GENERAL PLAN

ELEVATION

GENERAL NOTES

REFERENCE shall be made to Standard Drawings CS-1-65, dated 6-1-65, A-1-54, revised 11-8-65, P-1-54, revised 11-8-65, and to Supplemental Specifications 808, dated 2-7-66, and 825, dated 4-22-65.

DESIGN DATA:

Design Loading - CF 2000 (57)
Concrete Class C - Basic unit stress 1,333 p.s.i.
Concrete Class E - Basic unit stress 1,133 p.s.i.
Reinforcing Steel - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p.s.i.

TEMPORARY RUN-AROUND, BRIDGE:
Load frequency for bridge, CF130, with unit stresses increased 25% as per the provisions for temporary bridges in the Design Specifications for Highway Structures. Bridge width shall be 24'.

REMOVAL OF EXISTING STRUCTURE:
When no longer need to maintain traffic, the existing structure shall be removed.

EXCAVATION QUANTITY for the abutments, in addition to that outlined in Sec. 503.10, includes the removal of material bounded by the proposed bench, by the front vertical plane described in Sec. 503.10, and by the finished slope of the cut.

PILES shall be driven to a minimum bearing capacity of 30 tons per pile for the abutments, and 42 tons per pile for the piers.

PIER PILE ENCASEMENT as shown on Standard Drawing No. P-1-54 may be omitted provided that the tapered portion, if any, of all pier piles does not extend above the stream bed or the proposed surface of the ground. If the tapered portion of any pile extends above these limitations, the encasement will be required for all the pier piles. If the encasement is omitted, the pile casings shall have a thickness of metal not less than No. 7 gauge, and the painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, the painting shall extend to at least one foot below the proposed surface of the ground.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Piers	Abuts.	Gen'l	AS Built	
202	Lump	Sum	Existing structure removed				Lump		
502	Lump	Sum	Temporary runaround bridge				Lump		
503	92	Cu. Yds.	Unclassified excavation			92			
505	Lump	Sum	First test pile				Lump		
507	1110	Lin. Ft.	14" cast-in-place reinforced concrete piles		630	480			
509	78,432	Lbs.	Reinforcing steel	67,750	4,790	5,892			
511	302	Cu. Yds.	Class C concrete, superstructure and pier caps	285	17				
511	56	Cu. Yds.	Class E concrete, abutments			56			
517	224.2	Lin. Ft.	Railing (Deep beam with steel posts and bolts)	224.2					
518	20	Cu. Yds.	Porous backfill			20			
601	371	Sq. Yds.	Crushed aggregate slope protection			371			
808	302	Units	Water-reducing, Set-retarding admixture	285	17				
825	587	Sq. Yds.	Concrete surface treatment	587					

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

GENERAL PLAN & ELEVATION, NOTES & ESTIMATED QUANTITIES

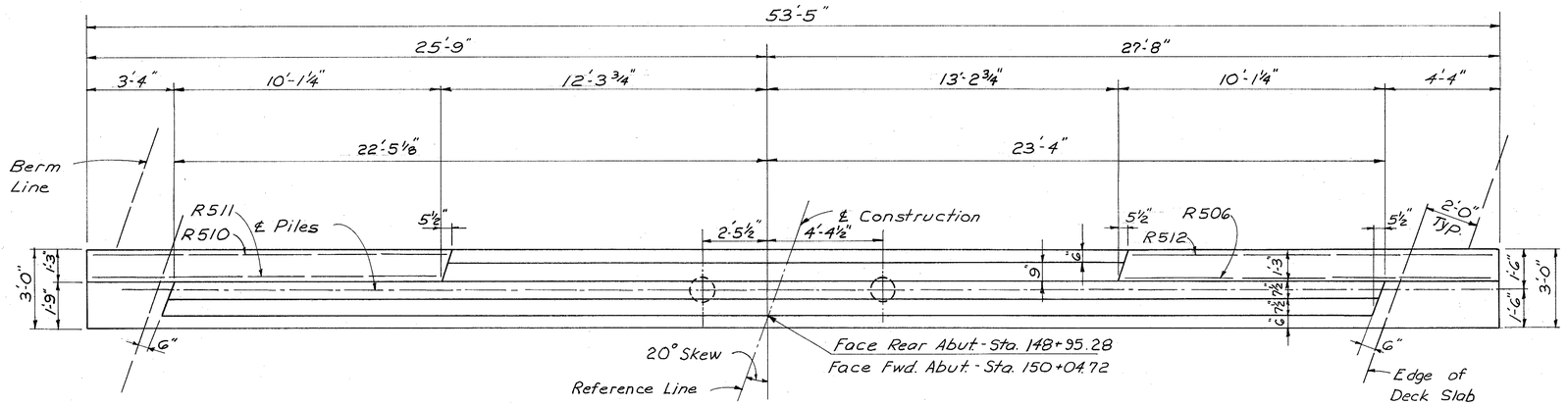
BRIDGE NO. UNI-36-0282
OVER TREACLE CREEK
UNION COUNTY
STA. 148+93.95
STA. 150+06.05

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SFC	SFC	C.E.H.	Ray	BFG	4-18-66	

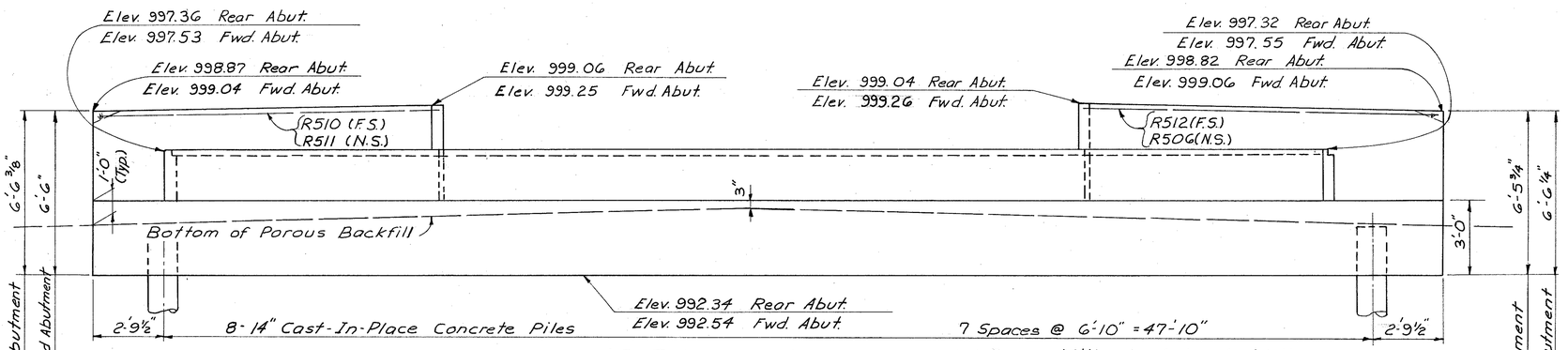
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

27/30

UNI-36-2.73

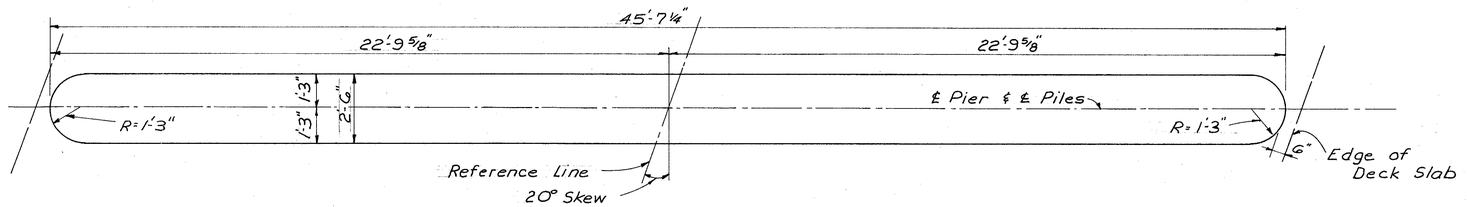


ABUTMENT PLAN

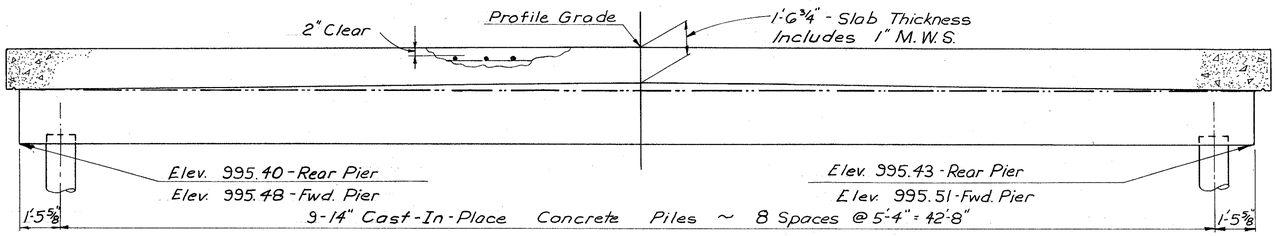


ABUTMENT ELEVATION

For additional abutment details see Standard Drawing A-1-54.



PIER PLAN



PIER ELEVATION

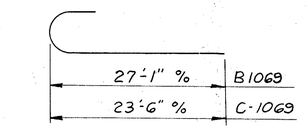
For additional pier details see Standard Drawing P-1-54.

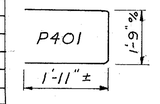
N.S. = Near Side
F.S. = Far Side

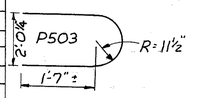
REINFORCING STEEL LIST

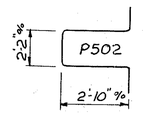
MARK	NO.	LENGTH	WEIGHT	SHP.
Superstructure				
A1069	120	39'-4"	20,310	S
B1069	38	28'-6"	4,660	B
C1069	40	24'-11"	4,289	B
D1069	19	25'-10"	2,112	S
E1069	20	18'-4"	1,578	S
F1069	88	32'-10"	12,433	S
G1069	42	17'-9"	3,208	S
H1069	44	13'-4"	2,524	S
M701	103	46'-4"	9,755	S
J601	46	22'-1"	1,526	S
K601	23	14'-0"	484	S
N601	70	46'-4"	4,871	S
Piers				
P1001	8	46'-4"	1,595	S
P901	8	43'-4"	1,179	S
P701	108	4'-0"	883	S
P501	4	43'-4"	181	S
P502	68	9'-0"	638	B
P503	8	6'-4"	53	B
P401	72	5'-5"	261	B
Abutments				
R1001	16	24'-5"	1,681	S
R801	16	27'-10"	1,189	S
R501	16	27'-4"	456	S
R502	156	6'-7"	1071	B
R503	8	23'-6"	196	S
R504	24	5'-4"	134	S
R505	34	7'-11"	280	B
R506	2	14'-0"	29	S
R507	16	5'-11"	99	S
R508	28	6'-8"	195	B
R509	28	8'-5"	246	B
R510	2	13'-4"	28	S
R511	2	13'-1"	27	S
R512	2	13'-8"	29	S
R401	64	5'-5"	232	B
Replacement Bars				
RE1001	3	7'-2"	-	S
RE901	1	6'-10"	-	S
RE801	1	6'-6"	-	S
RE701	1	6'-2"	-	S
RE601	1	5'-11"	-	S
RE501	1	5'-7"	-	S
RE401	1	5'-5"	-	B

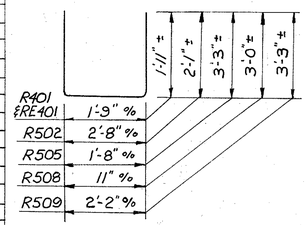
BENDING DIAGRAMS











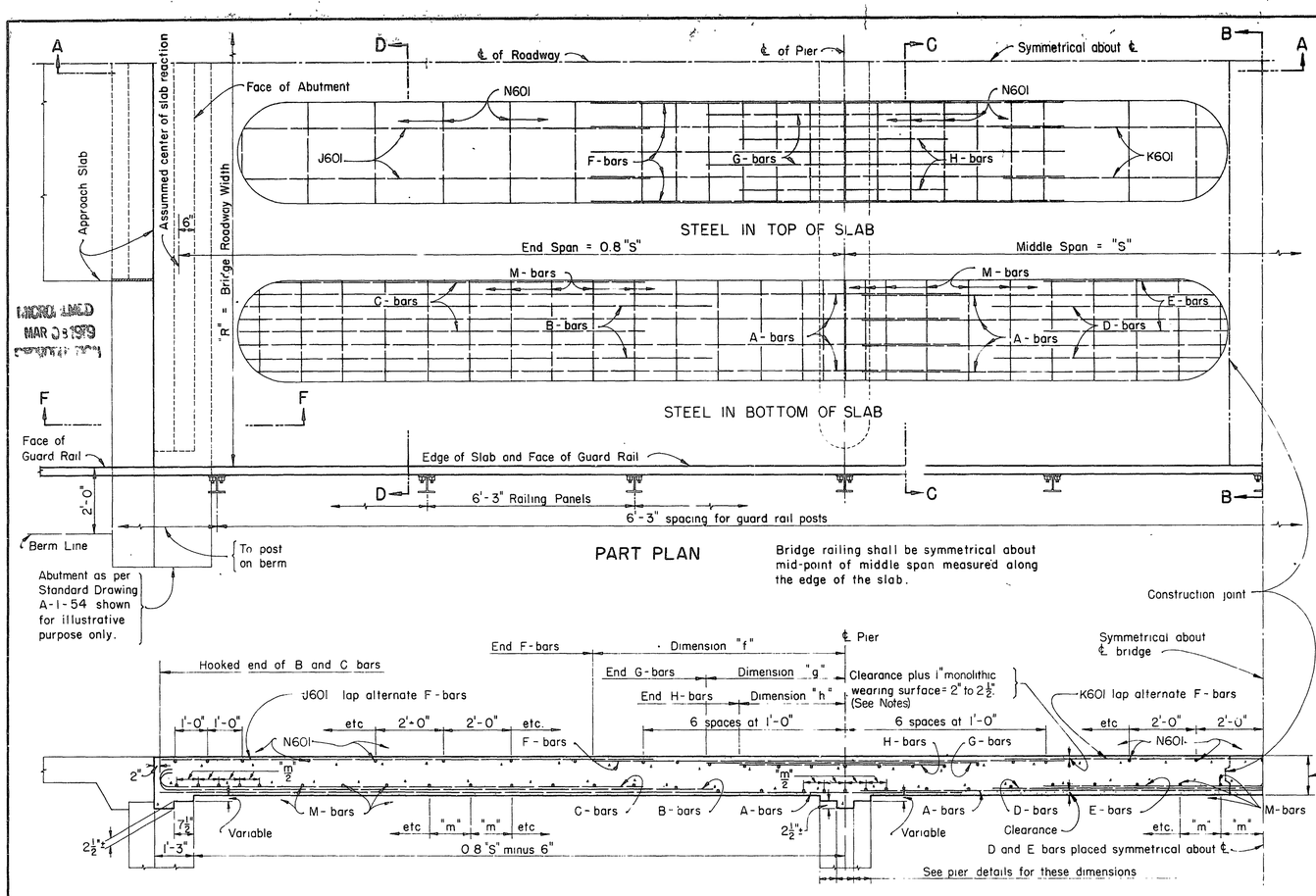
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

PIER & ABUTMENT DETAILS & REINFORCING STEEL LIST

BRIDGE NO. UNI-36-0282
OVER TREACLE CREEK

UNION COUNTY — STA. 148+93.95, 150+06.05

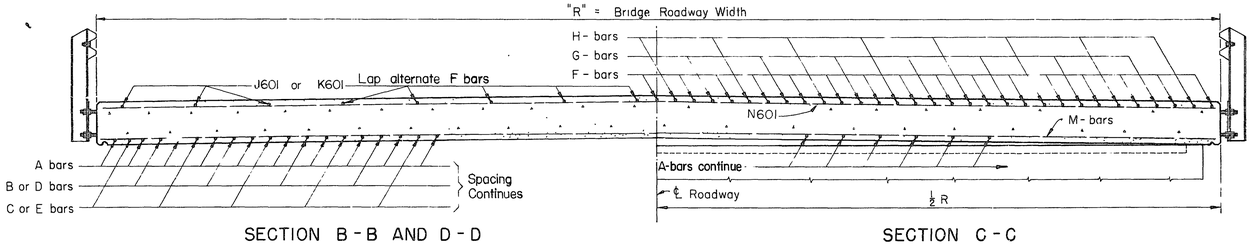
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SFC	SFC	R.D.M.	Rwg	BFG	4-18-66	



PART PLAN

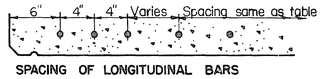
Bridge railing shall be symmetrical about mid-point of middle span measured along the edge of the slab.

SECTION A - A

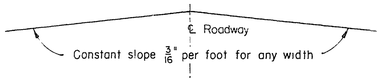


SECTION B - B AND D - D

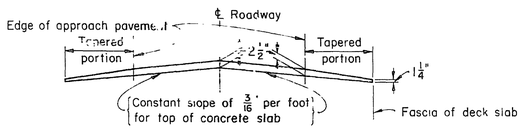
SECTION C - C



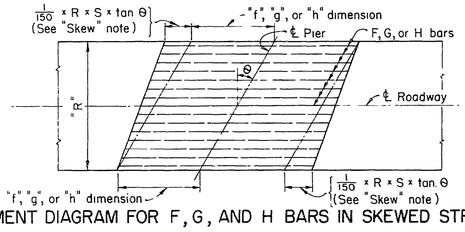
SPACING OF LONGITUDINAL BARS



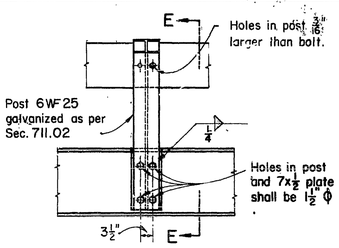
BRIDGE ROADWAY CROWN FOR MONOLITHIC WEARING SURFACE



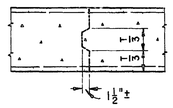
BRIDGE ROADWAY CROWN FOR BITUMINOUS WEARING SURFACE FOR BRIDGE WITHOUT SUPERELEVATION



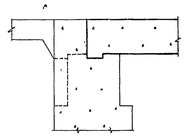
PLACEMENT DIAGRAM FOR F, G, AND H BARS IN SKEWED STRUCTURES



ELEVATION OF RAILING POST

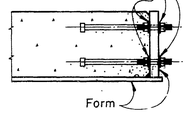


CONSTRUCTION JOINT
(See note)

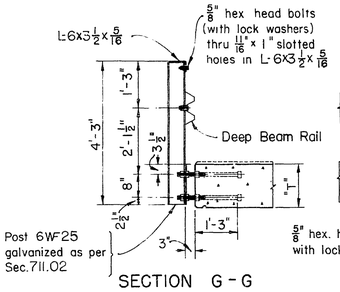


SECTION F - F

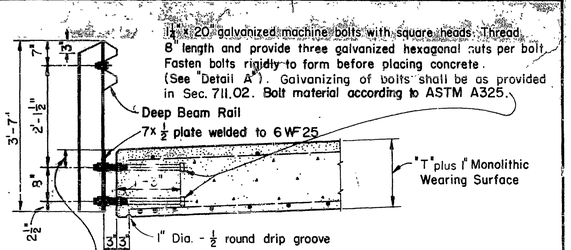
Steel washers (need not be galvanized) shall be removed with forms.



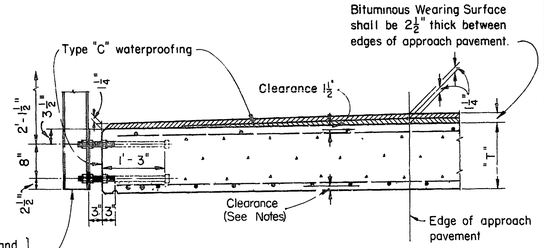
DETAIL A



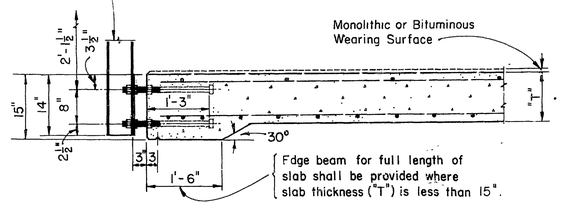
SECTION G - G



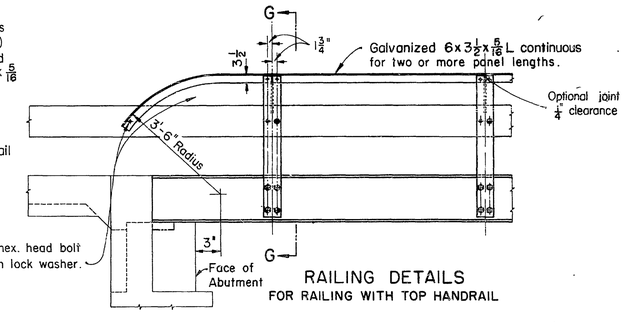
SECTION E - E
SHOWING MONOLITHIC WEARING SURFACE



SECTION E - E
SHOWING BITUMINOUS WEARING SURFACE



SECTION E - E
SHOWING DETAILS OF EDGE BEAM



RAILING DETAILS
FOR RAILING WITH TOP HANDRAIL

REVISIONS

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

STANDARD
CONTINUOUS SLAB BRIDGE
WITHOUT CURBS AND WITH HIGHWAY GUARD RAIL
MIDDLE SPAN 20 FEET TO 55 FEET
LOAD FREQUENCY:
CF = 30, CF = 130, CF = 400, CF = 2000

APPROVED: C. H. Abbentes
ENGINEER OF BRIDGES
DATE: 6-1-65

DRAWING NUMBER CS-1-65

PREPARED	TRACED	CHECKED	REVIEWED	SHEET NO. 1
RHL CEJ CFB JCM WHR	CEJ	GW MPB FHR	CSD BFG CHA AJF DHO	OF 2 SHEETS

SLAB DATA

A, B, C, D, and E bars

LOAD FREQUENCY	SPANS	"T"* in Inch	A-bars Mark	A Spcg In	A Lgth Ft-In	B-bars Mark	B Spcg In	B Lgth Ft-In	B dim "b" Ft-In	C-bars Mark	C Spcg In	C Lgth Ft-In	C dim "c" Ft-In	D-bars Mark	D Spcg In	D Lgth Ft-In	E-bars Mark	E Spcg In	E Lgth Ft-In
CF = 30	16'-20'-16'	9	A 700	14½	19-3	B 700	29	15-0	14-2	C 700	29	13-4	12-6	D 700	29	14-8	E 700	29	10-8
	18'-22.5'-18'	9½	A 701	13½	21-5	B 701	27	16-5	15-7	C 701	27	14-2	13-4	D 701	27	16-0	E 701	27	12-0
	20'-25'-20'	10¼	A 702	13½	23-7	B 702	27	17-5	16-7	C 702	27	15-5	14-7	D 702	27	17-0	E 702	27	13-0
	22'-27.5'-22'	10¾	A 703	12½	25-9	B 703	25	18-10	18-0	C 703	25	16-8	15-10	D 703	25	17-10	E 703	25	14-6
	24'-30'-24'	11½	A 804	15½	28-1	B 804	31	20-8	19-7	C 804	31	18-4	17-3	D 804	31	19-6	E 804	31	15-4
	26'-32.5'-26'	12	A 805	14	30-3	B 805	28	21-10	20-9	C 805	28	19-3	18-2	D 805	28	20-10	E 805	28	15-8
	28'-35'-28'	12¾	A 806	13	32-5	B 806	26	23-3	22-2	C 806	26	20-1	19-0	D 806	26	20-10	E 806	26	15-10
	30'-37.5'-30'	13½	A 807	12	34-7	B 807	24	24-4	23-3	C 807	24	21-4	20-3	D 807	24	22-0	E 807	24	16-10
	32'-40'-32'	14¼	A 908	14	37-0	B 908	28	26-7	25-4	C 908	28	23-4	22-1	D 908	28	23-10	E 908	28	17-10
	34'-42.5'-34'	15	A 909	13	39-2	B 909	26	27-9	26-6	C 909	26	24-4	23-1	D 909	26	24-10	E 909	26	18-6
	36'-45'-36'	16	A 910	12½	41-4	B 910	25	29-3	28-0	C 910	25	25-8	24-5	D 910	25	26-0	E 910	25	18-10
	38'-47.5'-38'	17¼	A 911	12½	43-6	B 911	25	30-4	29-1	C 911	25	26-11	25-8	D 911	25	27-6	E 911	25	19-10
	40'-50'-40'	18½	A 912	12	45-8	B 912	24	31-10	30-7	C 912	24	27-10	26-7	D 912	24	28-0	E 912	24	21-0
	42'-52.5'-42'	20	A1013	14½	48-0	B1013	29	33-6	32-1	C1013	29	29-10	28-5	D1013	29	29-6	E1013	29	22-2
	44'-55'-44'	21	A1014	14	50-2	B1014	28	35-0	33-7	C1014	28	31-1	29-8	D1014	28	30-10	E1014	28	23-0
CF = 130	16'-20'-16'	10	A 720	13	19-3	B 720	26	15-3	14-5	C 720	26	13-8	12-10	D 720	26	15-6	E 720	26	11-0
	18'-22.5'-18'	10½	A 721	12	21-5	B 721	24	16-8	15-10	C 721	24	14-5	13-7	D 721	24	16-6	E 721	24	12-0
	20'-25'-20'	11¼	A 822	15	23-9	B 822	30	18-1	17-0	C 822	30	15-10	14-9	D 822	30	17-10	E 822	30	13-4
	22'-27.5'-22'	11¾	A 823	14	25-11	B 823	28	19-7	18-6	C 823	28	17-1	[illegible]	D 823	28	18-2	E 823	28	14-4
	24'-30'-24'	12½	A 824	13½	28-1	B 824	27	21-0	19-11	C 824	27	18-4	17-3	D 824	27	19-6	E 824	27	15-10
	26'-32.5'-26'	13	A 825	12½	30-3	B 825	25	22-2	21-1	C 825	25	19-3	18-2	D 825	25	20-10	E 825	25	15-8
	28'-35'-28'	14	A 926	14½	32-8	B 926	29	23-8	22-5	C 926	29	20-11	19-8	D 926	29	22-0	E 926	29	16-4
	30'-37.5'-30'	13¾	A 927	13½	34-10	B 927	27	25-1	23-10	C 927	27	22-1	20-10	D 927	27	23-4	E 927	27	17-4
	32'-40'-32'	15½	A 928	12½	37-0	B 928	25	26-7	25-4	C 928	25	23-9	22-6	D 928	25	24-0	E 928	25	17-2
	34'-42.5'-34'	16¼	A1029	14½	39-4	B1029	29	28-5	27-0	C1029	29	24-10	23-5	D1029	29	25-2	E1029	29	18-10
	36'-45'-36'	17¼	A1030	14	41-6	B1030	28	29-9	28-4	C1030	28	25-10	24-5	D1030	28	26-0	E1030	28	18-10
	38'-47.5'-38'	18½	A1031	14	43-8	B1031	28	30-11	29-6	C1031	28	27-5	26-0	D1031	28	27-6	E1031	28	20-10
	40'-50'-40'	19¾	A1032	13½	45-10	B1032	27	32-6	31-1	C1032	27	28-6	27-1	D1032	27	29-0	E1032	27	22-0
	42'-52.5'-42'	21	A1033	13	48-0	B1033	26	33-11	32-6	C1033	26	29-9	28-4	D1033	26	30-6	E1033	26	22-2
	44'-55'-44'	22¼	A1034	12½	50-2	B1034	25	35-6	34-1	C1034	25	31-1	29-8	D1034	25	31-10	E1034	25	23-0
CF = 400	16'-20'-16'	10¾	A 740	11½	19-3	B 740	23	15-4	14-6	C 740	23	13-8	12-10	D 740	23	15-10	E 740	23	11-0
	18'-22.5'-18'	11½	A 841	14½	21-7	B 841	29	17-1	16-0	C 841	29	15-0	13-11	D 841	29	17-4	E 841	29	12-4
	20'-25'-20'	12	A 842	13	23-9	B 842	26	18-4	17-3	C 842	26	16-1	15-0	D 842	26	17-8	E 842	26	13-10
	22'-27.5'-22'	12½	A 843	12½	25-11	B 843	25	19-7	18-6	C 843	25	17-1	16-0	D 843	25	18-8	E 843	25	14-10
	24'-30'-24'	13¼	A 844	12	28-1	B 844	24	21-0	19-11	C 844	24	18-4	17-3	D 844	24	19-6	E 844	24	15-10
	26'-32.5'-26'	14¼	A 945	14	30-6	B 945	28	22-7	21-4	C 945	28	20-0	18-9	D 945	28	21-4	E 945	28	16-10
	28'-35'-28'	15	A 946	13	32-8	B 946	26	23-8	22-5	C 946	26	20-11	19-8	D 946	26	22-0	E 946	26	16-4
	30'-37.5'-30'	15¾	A 947	12	34-10	B 947	24	25-1	23-10	C 947	24	22-1	20-10	D 947	24	23-4	E 947	24	18-2
	32'-40'-32'	17	A1048	14½	37-2	B1048	29	27-3	25-10	C1048	29	24-2	22-9	D1048	29	24-4	E1048	29	18-8
	34'-42.5'-34'	17¾	A1049	13½	39-4	B1049	27	28-6	27-1	C1049	27	24-11	23-6	D1049	27	25-10	E1049	27	18-4
	36'-45'-36'	18½	A1050	13	41-6	B1050	26	29-11	28-6	C1050	26	26-3	24-10	D1050	26	26-0	E1050	26	19-10
	38'-47.5'-38'	19½	A1051	12½	43-8	B1051	25	30-11	29-6	C1051	25	26-0	24-7	D1051	25	28-6	E1051	25	20-10
	40'-50'-40'	[illegible]	A1052	12	45-10	B1052	24	32-6	31-1	C1052	24	28-6	27-1	D1052	24	29-0	E1052	24	21-0
	42'-52.5'-42'	22¼	A1053	12	48-0	B1053	24	34-4	32-11	C1053	24	30-5	29-0	D1053	24	31-6	E1053	24	23-2
	44'-55'-44'	23½	A1154	14	50-4	B1154	28	36-1	34-6	C1154	28	31-3	29-8	D1154	28	32-6	E1154	28	24-2
CF = 2000	16'-20'-16'	11¼	A 860	14	19-5	B 860	28	15-11	14-10	C 860	28	14-1	13-0	D 860	28	15-8	E 860	28	10-10
	18'-22.5'-18'	11¾	A 861	13½	21-7	B 861	27	17-3	16-2	C 861	27	15-8	14-7	D 861	27	16-10	E 861	27	13-2
	20'-25'-20'	12¼	A 862	13	23-9	B 862	26	18-1	17-0	C 862	26	16-1	15-0	D 862	26	17-4	E 862	26	13-10
	22'-27.5'-22'	13	A 863	12½	25-11	B 863	25	19-7	18-6	C 863	25	16-6	15-5	D 863	25	18-4	E 863	25	14-4
	24'-30'-24'	13¾	A 864	12	28-1	B 864	24	21-0	19-11	C 864	24	18-4	17-3	D 864	24	19-6	E 864	24	15-10
	26'-32.5'-26'	14½	A 965	14	30-6	B 965	28	22-7	21-4	C 965	28	20-0	18-9	D 965	28	21-4	E 965	28	16-10
	28'-35'-28'	15	A 966	13	32-8	B 966	26	24-0	22-9	C 966	26	21-3	20-0	D 966	26	22-0	E 966	26	17-2
	30'-37.5'-30'	15¾	A 967	12	34-10	B 967	24	25-1	23-10	C 967	24	22-1	20-10	D 967	24	23-4	E 967	24	18-2
	32'-40'-32'	17	A1068	14½	37-2	B1068	29	27-3	25-10	C1068	29	24-2	22-9	D1068	29	24-4	E1068	29	18-8
	34'-42.5'-34'	17¾	A1069	13½	39-4	B1069	27	28-6	27-1	C1069	27	24-11	23-6	D1069	27	25-10	E1069	27	18-4
	36'-45'-36'	18½	A1070	13	41-6	B1070	26	29-11	28-6	C1070	26	26-3	24-10	D1070	26	26-0	E1070	26	19-10
	38'-47.5'-38'	19½	A1071	12½	43-8	B1071	25	30-11	29-6	C1071	25	26-0	24-7	D1071	25	28-6	E1071	25	20-10
	40'-50'-40'	21	A1072	12	45-10	B1072	24	32-6	31-1	C1072	24	28-6	27-1	D1072	24	29-0	E1072	24	21-0
	42'-52.5'-42'	22¼	A1073	12	48-0	B1073	24	34-4	32-11	C1073	24	30-5	29-0	D1073	24	31-6	E1073	24	23-2
	44'-55'-44'	23½	A1174	14	50-4	B1174	28	36-1	34-6	C1174	28	31-3	29-8	D1174	28	32-6	E1174	28	24-2

F, G, and H bars; J-bars (J-601); K-bars (K-601); M-bars; N-bars (N-601)

LOAD FREQUENCY	SPANS	F-bars Mark	F Spcg In	F Lgth Ft-In	F dim "f" Ft-In	G-bars Mark	G Spcg In	G Lgth Ft-In	G dim "g" Ft-In	H-bars Mark	H Spcg In	H Lgth Ft-In	H dim "h" Ft-In	J-601 Spcg In	J-601 Lgth Ft-In	K-601 Spcg In	K-601 Lgth Ft-In	M-bars Mark	M No	M Sp "m" In	M Lgth	N-601 No	N Lgth
CF = 30	16'-20'-16'	F 700	12½	12-6	6-6	G 700	25	8-0	4-0	H 700	25	7-0	3-6	25	12-0	25	11-10	M 601	48	16		41	
	18'-22.5'-18'	F 801	15	13-9	7-1	G 801	30	8-6	4-3	H 801	30	7-6	3-9	30	13-5	30	13-0	M 601	52	16		44	
	20'-25'-20'	F 802	14	16-1	8-5	G 802	28	8-7	4-5	H 802	28	7-6	3-9	28	14-1	28	13-6	M 601	57	16		47	
	22'-27.5'-22'	F 803	12½	18-6	9-11	G 803	25	8-11	4-9	H 803	25	7-6	3-9	25	14-7	25	14-2	M 601	61	16		50	
	24'-30'-24'	F 804	12	18-8	9-9	G 804	24	9-5	5-0	H 804	24	7-6	3-9	24	16-9	24	16-0	M 601	67	16		54	
	26'-32.5'-26'	F 905	14	[illegible]	10-9	G 905	28	10-8	5-6	H 905	28	8-2	4-1	28	17-9	28	16-2	M 601	75	15		57	
	28'-35'-28'	F 906	12½	21-9	11-5	G 906	25	11-3	5-10	H 906	25	8-2	4-1	25	19-1	25	18-2	M 601	87	14		60	
	30'-37.5'-30'	F 907	12	[illegible]	12-1	G 907	24	12-1	6-5	H 907	24	8-2	4-1	24	20-5	24	18-8	M 601	91	14		63	
	32'-40'-32'	F1008	14½	24-9	12-7	G1008	29	12-9	6-7	H1008	29	8-10	4-5	29	21-11	29	19-6	M 601	104	13		67	
	34'-42.5'-34'	F1009	13½	25-2	12-9	G1009	27	13-2	6-9	H1009	27	8-10	4-5	27	23-9	27	21-6	M 601	119	12		70	
	36'-45'-36'	F1010	12½	26-7	13-6	G1010	25	13-0	6-9	H1010	25	8-10	4-5	25	25-0	25	22-8	M 601	126	12		73	
	38'-47.5'-38'	F1011	11½	27-0	13-9	G1011	23	13-11	7-1	H1011	23	8-10	4-5	23	26-9	23	24-10	M 601	132	12		76	
	40'-50'-40'	F1112	13	28-9	14-9	G1112	26	[illegible]	7-6	H1112	26	9-6	4-9	26	27-9	26	25-10	M 601	139	12		80	
	42'-52.5'-42'	F1113	12½	29-10	15-4	G1113	25	14-10	7-5	H1113	25	10-0	5-0	25	29-2	25	27-4	M 601	145	12		83	
	44'-55'-44'	F1114	11½	31-1	16-0	G1114	23	15-6	7-9	H1114	23	10-0	5-0	23	30-6	23	28-8	M 601	152	12		86	
CF = 130	16'-20'-16'	F 820	15	14-0	7-1	G 820	30	8-6	4-3	H 820	30	7-6	3-9	30	11-5	30	10-0	M 601	52	14		41	
	18'-22.5'-18'	F 821	13½	15-9	8-5	[illegible]	27	8-6	4-3	H 821	27	7-6	3-9	27	12-1	27	11-8	M 601	58	14		44	
	20'-25'-20'	F 822	12½	17-1	9-5	G 822	25	8-6	4-3	H 822	25	7-6	3-9	25	13-1	25	13-6	M 601	64	14		47	
	22'-27.5'-22'	F 923	14½	19-0	10-2	G 823	29	10-9	[illegible]	H 823	29	7-6	3-9	29	14-4	29	[illegible]	[illegible]	[illegible]	13		50	
	24'-30'-24'	F 924	13½	21-3	11-3	G 924	27	10-6	5-7	H 924	27	8-2	4-1	27	15-3	27	[illegible]	[illegible]	[illegible]	[illegible]		54	
	26'-32.5'-26'	F 925	12½	23-0	12-0	G 925	25	11-0	5-10	H 925	25	8-2	4-1	25	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]		57	
	28'-35'-28'	F 926	12	23-10	12-5	G 926	24	11-7	6-2	H 926	24	8-2	4-1	24	[illegible]	24	[illegible]	[illegible]	[illegible]	[illegible]		60	
	30'-37.5'-30'	F1027	14½	26-8	14-1	G1027	29	[illegible]	6-7	H1027	29	[illegible]	4-5	29	[illegible]	29	[illegible]	[illegible]	[illegible]	[illegible]		63	
	32'-40'-32'	F1028	13½	26-4	13-4	G1028	27	[illegible]	6-6	H1028	27	8-10	4-5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	
	34'-42.5'-34'	F1029	12½	26-9	13-7	G1029	25	12-11	6-9	H1029	25	8-10	4-5	25	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	
	36'-45'-36'	F1130	14	28-8	14-6	G1130	28	13-3	6-10	H1130	28	9-6	4-9	28	24-0	28	20-6	[illegible]	[illegible]	15		73	
	38'-47.5'-38'	F1131	13	28-10	14-8	G1131	26	13-8	7-1	H1131	26	9-6	4-9	26	25-10	26	23-0	[illegible]	[illegible]	15		76	
	40'-50'-40'	F1132	12	30-3	15-6	G1132	24	14-9	7-6	H1132	24	9-6	4-9	24	27-0	24	24-4	[illegible]	[illegible]	15		80	
	42'-52.5'-42'	F1133	11½	31-4	16-0	G1133	23	15-4	7-8	H1133	23	10-0	5-0	23	28-6	23	25-8	[illegible]	126	14		83	
	44'-55'-44'	F1134	10½	32-2	16-6	G1134	21	15-8	8-0	H1134	21	10-0	5-0	21	30-0	21	27-6	[illegible]	130	14		86	
CF = 400	16'-20'-16'	F 840	13½	16-2	8-1	G 840	27	8-6	4-3	H 840	27	7-6	3-9	27	10-5	27	7-8	M 60	[illegible]	12		41	
	18'-22.5'-18'	F 841	12½	16-2	8-8	G 841	25	8-6	4-3	H 841	25	7-6	3-9	25	11-10	25	11-4	M 60	67	12		44	
	20'-25'-20'	F 942	14	18-10	10-2	G 942	28	9-4	4-11	H 942	28	8-2	4-1	28	12-4	28	11-6	M 60	74	12		47	
	22'-27.5'-22'	F 943	13	21-9	11-10	G 943	26	9-11	5-3	H 943	26	8-2	4-1	26	12-8	26	11-6	M 601	80	12		50	
	24'-30'-24'	F 944	12½	22-6	11-10	G 944	25	10-6	5-7	H 944	25	8-2	4-1	25	14-8	25	12-6	M 601	87	12		54	
	26'-32.5'-26'	F 945	12	24-0	12-8	G 945	24	11-0	5-10	H 945	24	8-2	4-1	24	15-10	24	13-8	M 601	93	12		57	
	28'-35'-28'	F1046	14	26-7	14-0	G1046	28	11-11	6-4	H1046	28	8-10	4-5	28	16-6	28	13-8	M 701	81	15		60	
	30'-37.5'-30'	F1047	13½	27-2	14-2	G1047	27	12-11	7-0	H1047	27	8-10	4-5	27	18-4	27	15-4	M 701	91	14		63	
	32'-40'-32'	F1048	13	27-5	14-1	G1048	26	12-5	6-6	H1048	26	8-10	4-5	26	20-5	26	17-2	M 701	97	14		67	
	34'-42.5'-34'	F1049	12	28-4	14-5	G1049	24	13-3	6-9	H1049	24	8-10	4-5	24	22-1	24	18-6	M 701	103	14		70	
	36'-45'-36'	F1150	13½	29-8	15-1	G1150	27	14-1	7-5	H1150	27	9-6	4-9	27	23-5	27	19-8	M 701	116	13		73	
	38'-47.5'-38'	F1151	12½	30-10	15-8	G1151	25	14-2	7-4	H1151	25	9-6	4-9	25	24-10	25	21-0	M 701	122	13		76	
	40'-50'-40'	F1152	11½	32-0	16-6	G1152	23	14-6	7-6	H1152	23	9-6	4-9	23	26-0	23	22-10	M 701	127	13		80	
	42'-52.5'-42'	F1153	10½	32-8	16-10	G1153	21	15-1	7-8	H1153	21	9-8	4-10	21	27-8	21	24-8	M 701	133	13		83	
	44'-55'-44'	F1154	10	34-1	17-7	G1154	20	16-0	8-0	H1154	20	10-8	5-4	20	28-11	20	25-10	M 701	139	13		86	
CF = 2000	16'-20'-16'	F 860	13	17-7	8-6	G 860	26	8-6	4-3	H 860	26	7-6	3-9	26	10-0	26	5-8	M 70	48	16		41	
	18'-22.5'-18'	F 861	12	17-1	9-4	G 861	24	8-6	4-3	H 861	24	7-6	3-9	24	11-2	24	10-10	M 701	52	16		44	
	20'-25'-20'	F 962	14	20-4	10-11	G 962	28	9-1	4-8	H 962	28	8-2	4-1	28	11-7	28	10-0	M 701	57	16		47	
	22'-27.5'-22'	F 963	13	21-6	11-7	G 963	26	9-11	5-3	H 963	26	8-2	4-1	26	12-11	26	11-6	M 701	61	16		50	
	24'-30'-24'	F 964	12½	23-4	12-5	G 964	25	10-5	5-6	H 964	25	8-2	4-1	25	[illegible]	25	12-0	M 701	67	16		54	
	26'-32.5'-26'	F 965	12	24-8	13-0	G 965	24	11-0	5-10	H 965	24	[illegible]	4-1	24	15-6	24	13-0	M 701	71	16		57	
	28'-35'-28'	F1066	14	26-7	14-0	G1066	28	12-3	6-8	H1066	28	8-10	4-5	28	16-6	28	13-8	M 701	81	15		60	
	30'-37.5'-30'	F1067	13½	27-2	14-2	G1067	27	12-11	7-0	H1067	27	8-10	4-5	27	18-4	27	15-4	M 701	91	14		63	
	32'-40'-32'	F1068	13	27-5	14-1	G1068	26	12-5	6-6	H1068	26	8-10	4-5	26	20-5	26	17-2	M 701	97	14		67	
	34'-42.5'-34'	F1069	12	28-4	14-5	G1069	24	13-3	6-9	H1069	24	8-10	4-5	24	22-1	24	18-6	M 701	103	14		70	
	36'-45'-36'	F1170	13½	29-8	15-1	G1170	27	14-1	7-5	H1170	27	9-6	4-9	27	23-5	27	19-8	M 701	116	13		73	
	38'-47.5'-38'	F1171	12½	30-10	15-8	G1171	25	14-2	7-4	H1171	25	9-6	4-9	25	24-10	25	21-0	M 701	122	13		76	
	40'-50'-40'	F1172	11½	32-0	16-6	G1172	23	14-6	7-6	H1172	23	9-6	4-9	23	26-0	23	22-10	M 701	127	13		80	
	42'-52.5'-42'	F1173	10½	32-8	16-10	G1173	21	15-1	7-8	H1173	21	9-8	4-10	21	27-8	21	24-8	M 701	133	13		83	
	44'-55'-44'	F1174	10	34-1	17-7	G1174	20	16-0	8-0	H1174	20	10-8	5-4	20	28-11	20	25-10	M 701	139	13		86	

M-bars Lgth: Length = (R - 6") x secant of skew angle

N-bars Lgth: Length = (R - 6") x secant of skew angle

* Dimension "T" does not include monolithic wearing surface

QUANTITIES PER FOOT OF WIDTH / GUARD RAIL

LOAD FREQUENCY	SPANS	Concrete (Cu Yd) Mono Wearing Surface	Concrete (Cu Yd) Separate Wearing Surface	Bitum Wearing Surface (Cu. Yd.) ⊕ 2½" Thick	Bitum Wearing Surface (Cu. Yd.) 1⅞" Av★ Thick.	Type "C" Water-proofing Sq. Yds.	Reinf Steel Lbs	Guard Rail No of Full Panels Ea Side	Guard Rail Lin Ft Both Sides
CF = 30	16'-20'-16'	1.71	1.54	0.41	0.31	5.9	404	8	107
	18'-22.5'-18'	2.00	1.81	0.46	0.35	6.7	456	9	120
	20'-25'-20'	2.37	2.15	0.51	0.38	7.4	509	10	133
	22'-27.5'-22'	2.70	2.47	0.56	0.42	8.1	587	11	146
	24'-30'-24'	3.12	2.87	0.61	0.46	8.8	656	12	159
	26'-32.5'-26'	3.51	3.24	0.66	0.50	9.6	756	13	172
	28'-35'-28'	3.98	3.69	0.71	0.54	10.3	861	14	185
	30'-37.5'-30'	4.49	4.18	0.76	0.57	11.0	957	15	198
	32'-40'-32'	5.02	4.69	0.81	0.61	11.7	1081	16	211
	34'-42.5'-34'	5.59	5.24	0.86	0.65	12.4	1205	17	224
	36'-45'-36'	6.27	5.90	0.91	0.69	13.2	1318	18	237
	38'-47.5'-38'	7.10	6.71	0.96	0.72	13.9	1410	19	250
	40'-50'-40'	7.97	7.56	1.01	0.76	14.6	1536	20	263
	42'-52.5'-42'	9.00	8.57	1.06	0.80	15.4	1670	21	276
	44'-55'-44'	9.87	9.42	1.11	0.84	16.0	1814	22	289
CF = 130	16'-20'-16'	1.88	1.70	0.41	0.31	5.9	440	8	107
	18'-22.5'-18'	2.20	1.99	0.46	0.35	6.7	514	9	120
	20'-25'-20'	2.56	2.36	0.51	0.38	7.4	583	10	133
	22'-27.5'-22'	2.94	2.70	0.56	0.42	8.1	672	11	146
	24'-30'-24'	3.38	3.12	0.61	0.46	8.8	755	12	159
	26'-32.5'-26'	3.76	3.50	0.66	0.50	9.6	851	13	172
	28'-35'-28'	4.35	4.05	0.71	0.54	10.3	964	14	185
	30'-37.5'-30'	4.88	4.56	0.76	0.57	11.0	1073	15	198
	32'-40'-32'	5.44	5.10	0.81	0.61	11.7	1197	16	211
	34'-42.5'-34'	6.03	5.67	0.86	0.65	12.4	1355	17	224
	36'-45'-36'	6.74	6.36	0.91	0.69	13.2	1475	18	237
	38'-47.5'-38'	7.59	7.19	0.96	0.72	13.9	1570	19	250
	40'-50'-40'	8.49	8.07	1.01	0.76	14.6	1719	20	263
	42'-52.5'-42'	9.44	9.00	1.06	0.80	15.4	1864	21	276
	44'-55'-44'	10.43	9.97	1.11	0.84	16.0	2027	22	289
CF = 400	16'-20'-16'	1.99	1.83	0.41	0.31	5.9	503	8	107
	18'-22.5'-18'	2.36	2.18	0.46	0.35	6.7	566	9	120
	20'-25'-20'	2.72	2.51	0.51	0.38	7.4	667	10	133
	22'-27.5'-22'	3.09	2.87	0.56	0.42	8.1	752	11	146
	24'-30'-24'	3.55	3.30	0.61	0.46	8.8	830	12	159
	26'-32.5'-26'	4.10	3.83	0.66	0.50	9.6	934	13	172
	28'-35'-28'	4.62	4.33	0.71	0.54	10.3	1065	14	185
	30'-37.5'-30'	5.17	4.86	0.76	0.57	11.0	1193	15	198
	32'-40'-32'	5.91	5.59	0.81	0.61	11.7	1302	16	211
	34'-42.5'-34'	6.53	6.19	0.86	0.65	12.4	1446	17	224
	36'-45'-36'	7.18	6.82	0.91	0.69	13.2	1592	18	237
	38'-47.5'-38'	7.96	7.57	0.96	0.72	13.9	1726	19	250
	40'-50'-40'	8.98	8.57	1.01	0.76	14.6	1891	20	263
	42'-52.5'-42'	9.95	9.53	1.06	0.80	15.4	2028	21	276
	44'-55'-44'	10.98	10.53	1.11	0.84	16.0	2214	22	289
CF = 2000	16'-20'-16'	2.07	1.91	0.41	0.31	5.9	539	8	107
	18'-22.5'-18'	2.41	2.23	0.46	0.35	6.7	602	9	120
	20'-25'-20'	2.77	2.56	0.51	0.38	7.4	678	10	133
	22'-27.5'-22'	3.20	2.98	0.56	0.42	8.1	748	11	146
	24'-30'-24'	3.67	3.42	0.61	0.46	8.8	839	12	159
	26'-32.5'-26'	4.16	3.90	0.66	0.50	9.6	943	13	172
	28'-35'-28'	4.62	4.33	0.71	0.54	10.3	1069	14	185
	30'-37.5'-30'	5.17	4.86	0.76	0.57	11.0	1193	15	198
	32'-40'-32'	5.91	5.59	0.81	0.61	11.7	1302	16	211
	34'-42.5'-34'	6.53	6.19	0.86	0.65	12.4	1446	17	224
	36'-45'-36'	7.18	6.82	0.91	0.69	13.2	1592	18	237
	38'-47.5'-38'	7.96	7.57	0.96	0.72	13.9	1726	19	250
	40'-50'-40'	8.98	8.57	1.01	0.76	14.6	1891	20	263
	42'-52.5'-42'	9.95	9.53	1.06	0.80	15.4	2028	21	276
	44'-55'-44'	10.98	10.53	1.11	0.84	16.0	2214	22	289

★ Average thickness of tapered portion
⊕ Thickness for width of approach pavement

BAR SIZE is indicated in the bar mark. The first digit where three digits are used and the first two digits where four are used, indicate the bar size number. For example, A700 is a No 7 size bar and A1014 is a No 10 size.

B-bar — dimension "b" %
C-bar — dimension "c" %

GENERAL: This drawing provides design and general construction details. The project plans for each structure will show span lengths, roadway width, load frequency, skew, curve and superelevation (if any), elevations, wearing surface, substructure details, estimated quantities, reinforcing steel list and other necessary details and special notes.

DESIGN SPECIFICATIONS: This standard drawing conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated September 1, 1957, together with revisions thereof dated February 21, 1958, May 1, 1962 and December 20, 1963.

ADDITIONAL INTERIOR SPANS, similar to middle span, may be incorporated into the structure without change in slab thickness or area of reinforcing steel. In case of added spans, the project plans will show revised details and estimated quantities.

EXPANSION: Where the greatest distance between diagonally opposite corners of the superstructure, taking into account the sum of the spans, the width and the skew (if any), exceeds 175 feet, provision shall be made for expansion of the deck.

SKEW: For bridges with skew, longitudinal bars shall be placed parallel to centerline of roadway and transverse bars parallel to piers and abutments. For skews of less than 10°, longitudinal reinforcement as shown for non-skewed bridges may be used. For skews from 10° to 30°, "F", "G", and "H" bars shall be lengthened and "K" bars shortened an amount equal to $1/150 \times R \times S \times \tan\theta$. "F", "G", and "H" bars shall be placed as shown in Placement Diagram. For skew greater than 30° another type of bridge should be used.

"R" = Width of slab in feet
"S" = Length of middle span in feet
"θ" = Skew angle

SUPERELEVATION: For bridges on curves [illegible] concrete slab shall be superelevated for full width of deck at the same rate as the approach pavement. The bituminous wearing surface shall be of uniform thickness for the full width of the slab.

MONOLITHIC WEARING SURFACE shall be 1" Concrete; quantities have been computed on this basis.

RAILING: Transition between guard rail height on bridge and on approaches shall be made in a distance of 100 feet from each end of bridge.

A[illegible] upper hand rail and longer posts shall be provided if called for on the project plans.

[illegible] tabulated railing quantity is for the length of railing within the overall length of slab. The price per lineal foot of railing includes payment for guard rail, hand rail (if called for), posts, anchors, connections and galvanizing. It also includes those curved portions of the hand rail which project beyond the above stated limits.

CONCRETE shall be class "C"

CONSTRUCTION JOINTS: One construction joint in bridge slab shall be placed on transverse centerline of middle span or 1'-0" ± off transverse centerline if necessary to miss railing posts and transverse reinforcing bars. One longitudinal joint will be permitted on centerline of roadway.

REINFORCING STEEL CLEARANCE from face of concrete shall be 1½" for #11 bars, 1¼" for #9 and #10 bars and 1" for all smaller bars (The above clearances do not include monolithic wearing surface). Where two bars of different size are lapped, the clearance requirement for the larger bar shall also apply to the smaller bar.

REINFORCING STEEL: The "M" bars and "N" bars may be furnished in pairs of equal length, lapped thirty diameters at the centerline of roadway, or they may be furnished in pairs of different length in order to place the lap beyond a longitudinal construction joint at the centerline of roadway, at the option of the contractor. Determination of the pay quantity will be according to the number and length of bars as shown hereon unless otherwise called for on the project plans.

CAMBER of 1/800 of the span shall be provided in each span (in addition to that required for conformance with the profile of the highway) to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this, proper allowance shall be made for the deflection of falsework members.

TYPE "C" WATERPROOFING QUANTITY as determined from the table shall have added to it the number of sq yds on fascia of slab.

REVISIONS

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
DIVISION OF DESIGN AND CONSTRUCTION
BUREAU OF BRIDGES

STANDARD
CONTINUOUS SLAB BRIDGE
WITHOUT CURBS AND WITH HIGHWAY GUARD RAIL
MIDDLE SPAN 20 FEET TO 55 FEET
LOAD FREQUENCY:
CF = 30, CF = 130, CF = 400, CF = 2000

APPROVED: C. H. Altvater, ENGINEER OF BRIDGES
DATE: 6-1-65

DRAWING NUMBER: CS-1-65

PREPARED	TRACED	CHECKED	REVIEWED	
RHL CEJ CFB JCM WHR	CEJ	CW MPB FHR	CSD BFG CHA AJF DHO	SHEET NO 2 OF 2 SHEETS