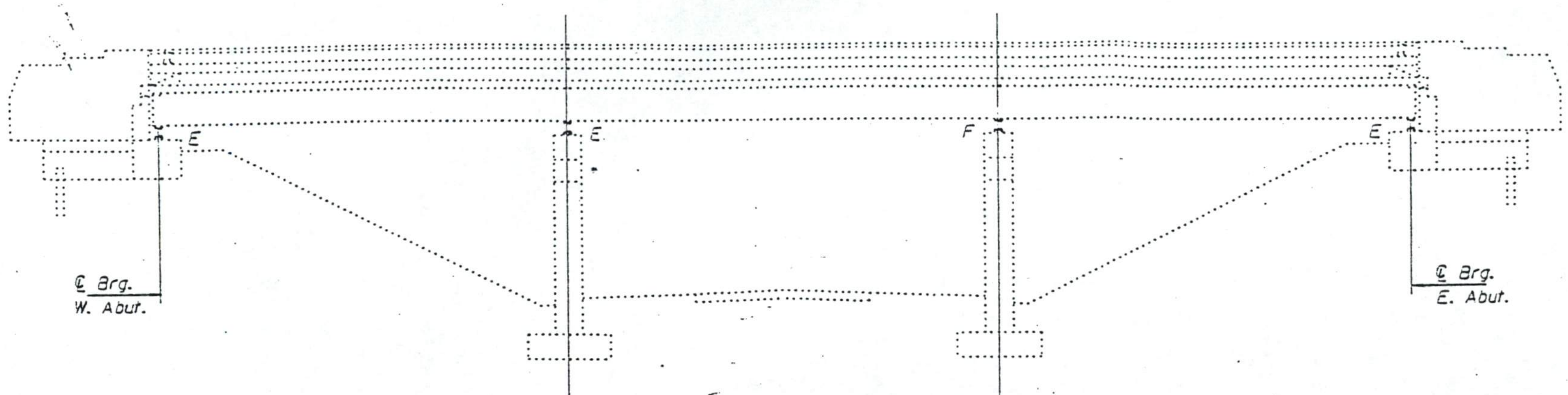
092-0010 & -0011

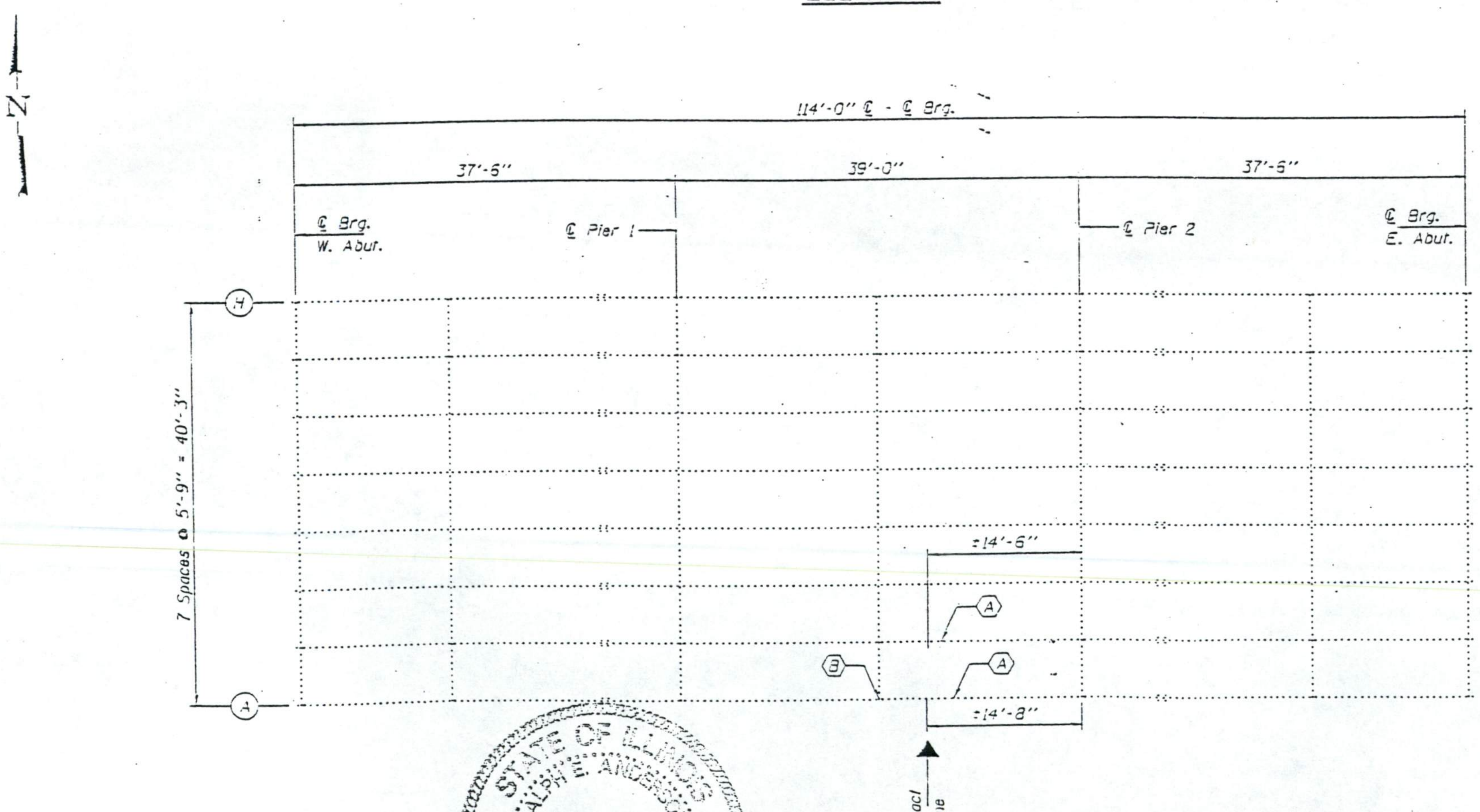
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74		VERMILION		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
2 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION



PLAN

(A) Straighten existing beam.
(B) Replace bottom clip angle.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36. unless otherwise noted.

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$"ϕ. open holes $\frac{13}{16}$"ϕ. unless otherwise noted.

After the new beam is in its final position and/or beam straightening operations have been completed. the Engineer in the field shall check to see that the top flange is tight against the slab. If not. the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

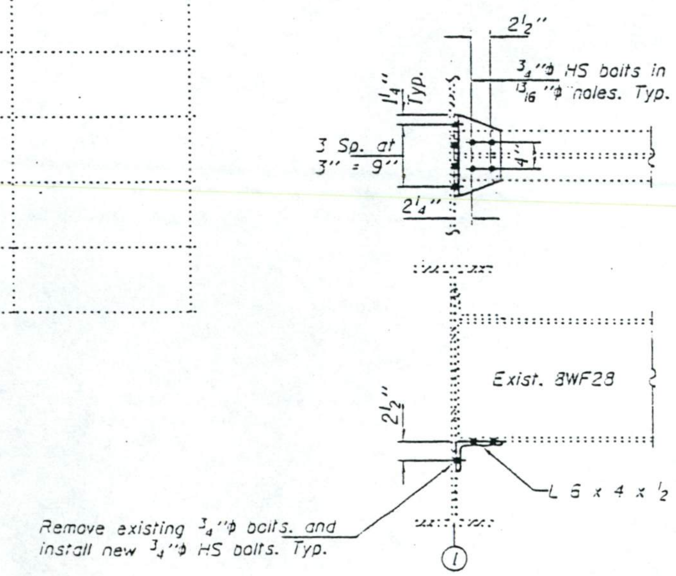
Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work. however. the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Structural Steel Repair.

The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Gray. Munsell No. 5B 7/1. See Special Provision "Cleaning and Painting New Metal Structures".

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Grind existing nicks. gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Cost included with Beam Straightening. Any cracks that cannot be removed by grinding approximately $\frac{1}{4}$" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition.



REPAIR B
CLIP ANGLE REPLACEMENT

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	20
Beam Straightening	L.S.	1

STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER
Expires 11-30-06

DESIGNED	
CHECKED	Victor H. Velez
DRAWN	baliva
CHECKED	VHU

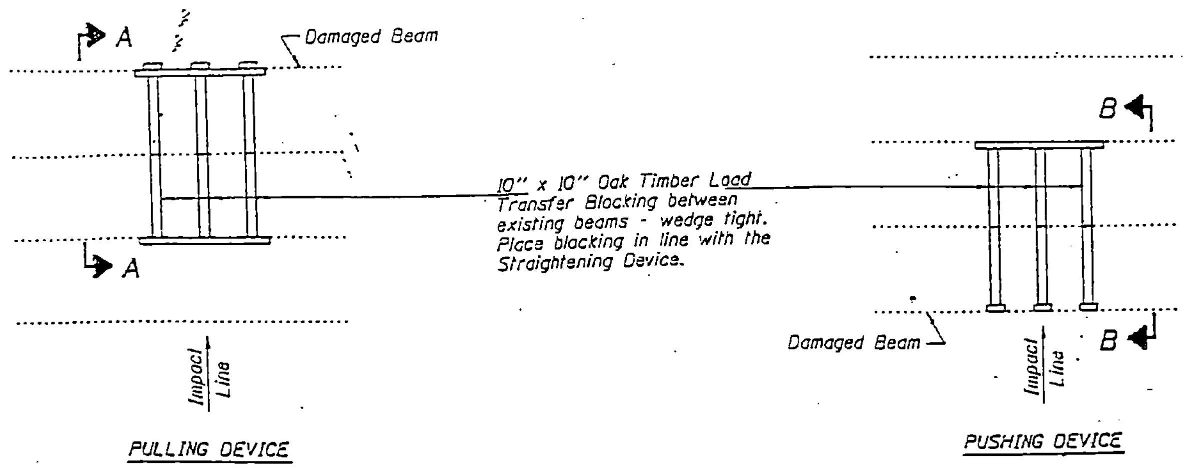
EXAMINED John A. Morris
ENGINEER OF STRUCTURAL SERVICES

PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PLAN AND ELEVATION
FAI 74 OVER G STREET
VERMILION COUNTY
SN 092-0010 (EB)

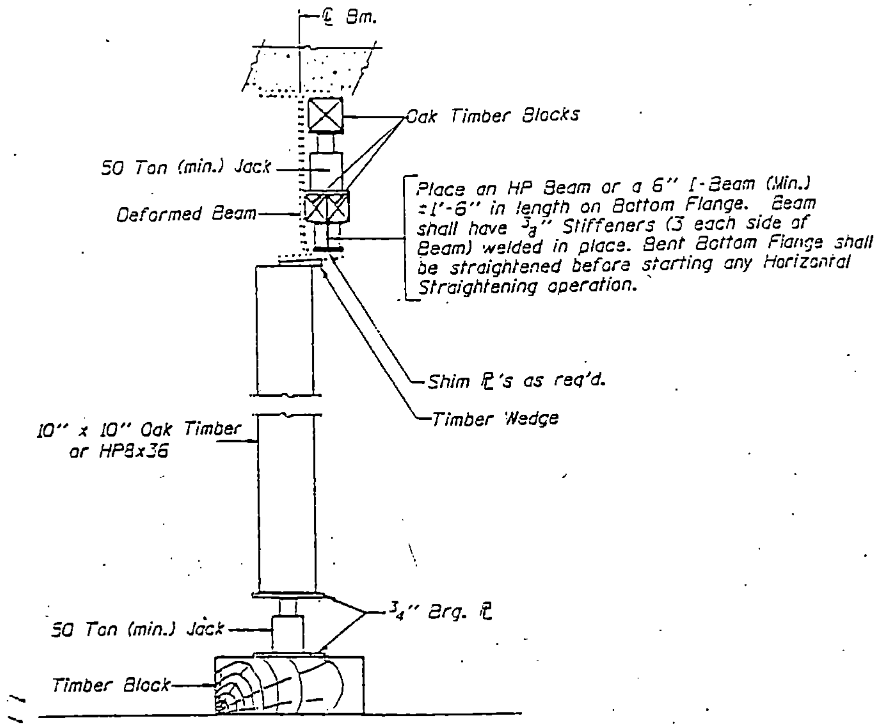
DL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



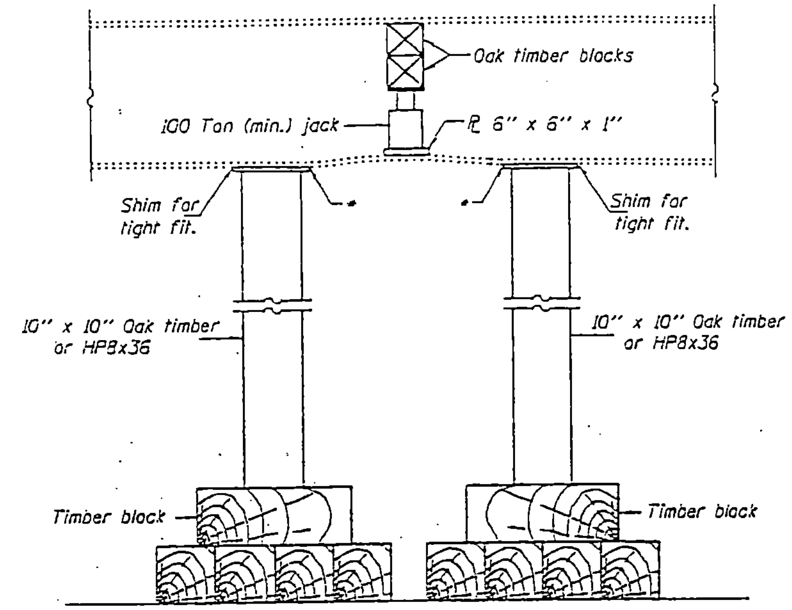
PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

Straightening force shall be maintained on all load transfer blocking during beam straightening.



SUGGESTED VERTICAL STRAIGHTENING DETAIL

(To correct flange rotation.)

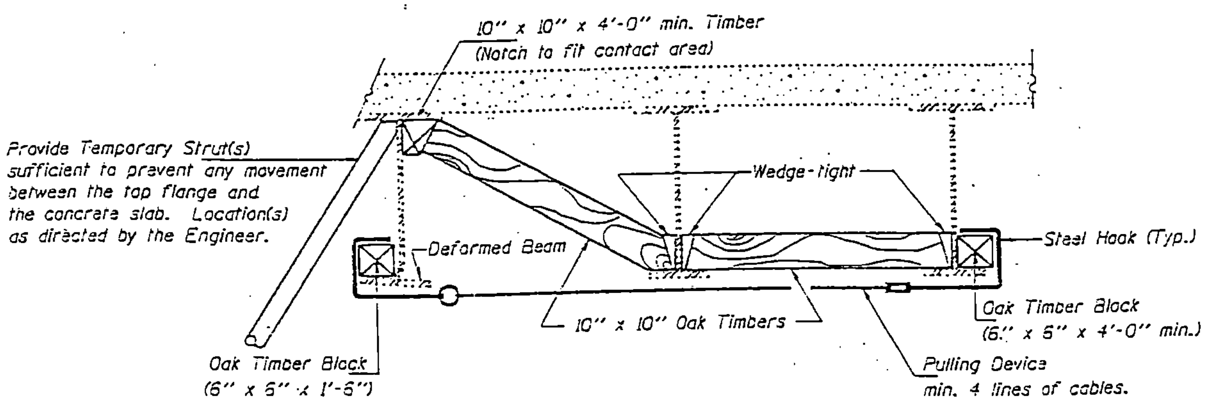


SUGGESTED VERTICAL STRAIGHTENING DETAIL

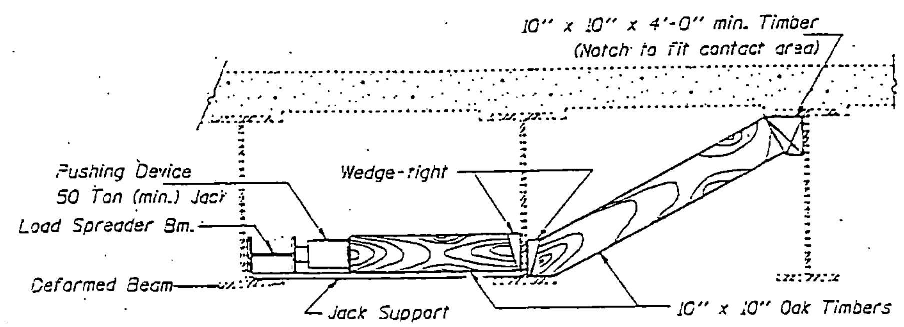
(To correct localized vertical flange deformations.)

* Edge of plate shall line up with edge of deformation.

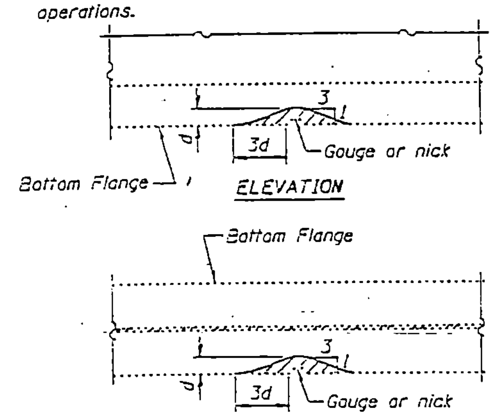
Notes:
Braces and jack assembly shall be placed on same side of web.
Bent bottom flange shall be straightened before starting and horizontal straightening operations.



SECTION A-A

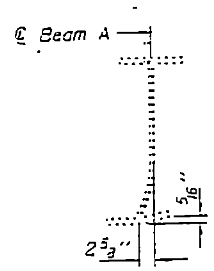


SECTION B-B



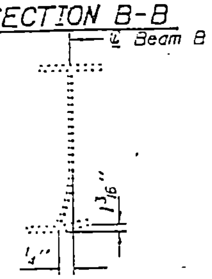
GRINDING DETAIL

Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Cost included with Beam Straightening. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition.



EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking East)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 20'-0".



EXISTING DEFORMATION TO BE STRAIGHTENED

(Looking East)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 5'-3".

DESIGNED	JSB
CHECKED	VHV
DRAWN	baliva
CHECKED	JSB VHV

December 17, 2004
EXAMINED John A. Morris — ENGINEER OF STRUCTURAL SERVICES
PASSED Ralph E. Anderson — ENGINEER OF BRIDGES AND STRUCTURES

REP-1 12-14-2004

REPAIR DETAILS
FAI 74 OVER G STREET
VERMILION COUNTY
SN 092-0010 (EB)

#90388 #37 11-5-99 FAI 74 Vermilion Co. SEC (92-11HB-3)BR I & R #37

S.N. 092-0010 & -0011

37

99.9%
11-15-2000

FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(92-11HB-3)BR	VERMILION	41	1

D-95-046-91

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 3
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 5

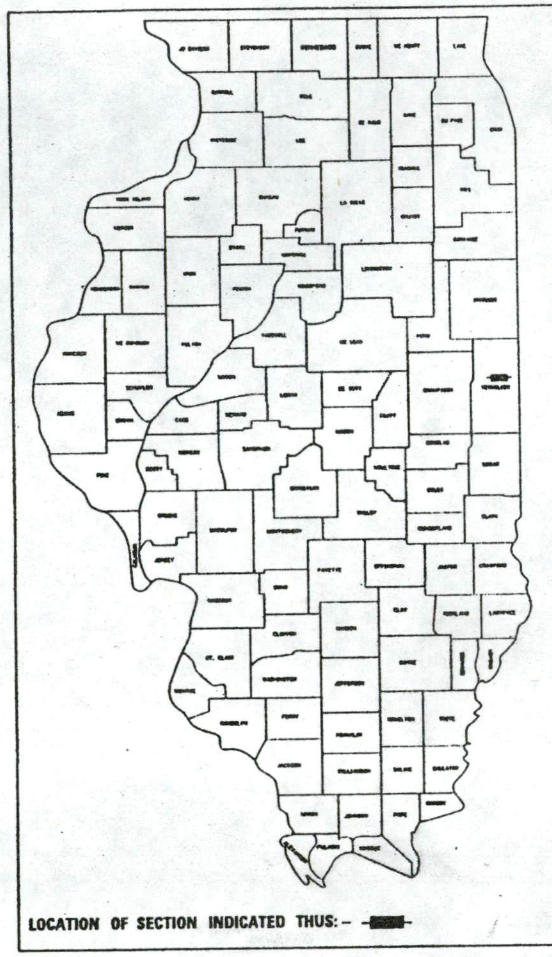
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

SCALES:
- PLAN 1:500
- PROFILE HORIZ. 1:500
- PROFILE VERT. 1:100
- CROSS SECTIONS 1:200 HORIZONTAL 1:100 VERTICAL

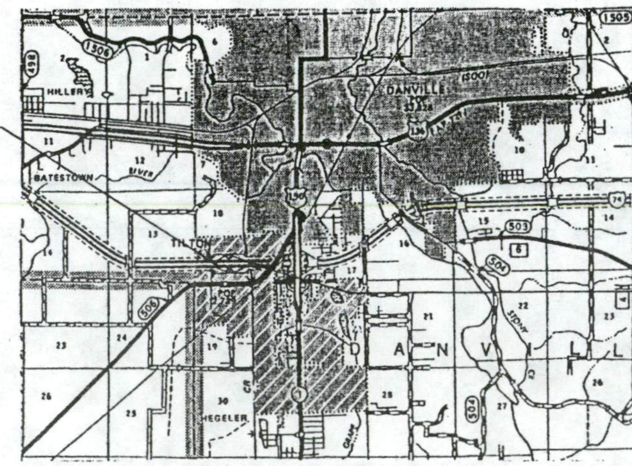
F.A.I. ROUTE 74 (I-74)
SECTION (92-11HB-3)BR
VERMILION COUNTY
PROJECT IM-74-6(141) 213

C-95-132-91

BRIDGE DECK REPLACEMENT



LOCATION OF SECTION INDICATED THUS:



PROJECT IM-74-6( )214
SECTION (92-11HB-3)BR
BEGINS STATION 344+168.056

PROJECT IM-74-6( )214
SECTION (92-11HB-3)BR
ENDS STATION 344+281.920

T. 19 N.

R. 11 W.

N

SCALE: MILES / FEET / KILOMETERS

PROJECT ENGINEER: BRIAN TRYGG

LIAISON CONTACT: KEVIN KNOEPFEL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/6 19 99
H.L. Forbes
DISTRICT ENGINEER

October 1, 19 99
Bill [signature]
ENGINEER OF DESIGN AND ENVIRONMENT

October 1, 19 99
James [signature]
DIRECTOR, DIVISION OF HIGHWAYS

STATE OF ILLINOIS REGISTERED PROFESSIONAL ENGINEER
JAMES K. CLINARD
NUMBER 41793

James K. Clinard
11-5-94
Exp 11-30-95

TOLL FREE J.U.L.I.E. TELEPHONE NO.
1-800-892-0123
DANVILLE TOWNSHIP

TOTAL LENGTH OF SECTION & PROJECT = 113.86 METERS = 0.12 KILOMETERS
NET LENGTH OF SECTION & PROJECT = 113.86 METERS = 0.12 KILOMETERS

CONTRACT NO. 90388 092-0010(EB) 0011(WB)

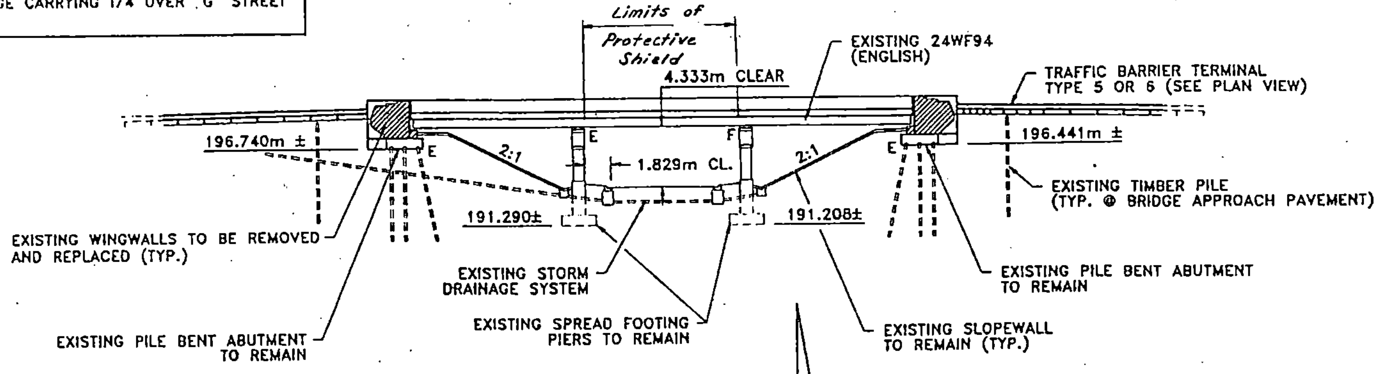
5-194

B.M. 4436-3 CHISELED "□" ON TOP OF THE S.W. WING OF THE WESTBOUND BRIDGE CARRYING I74 OVER "G" STREET ELEV.= 199.870

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	41	21
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

* (92-11HB-3)BR

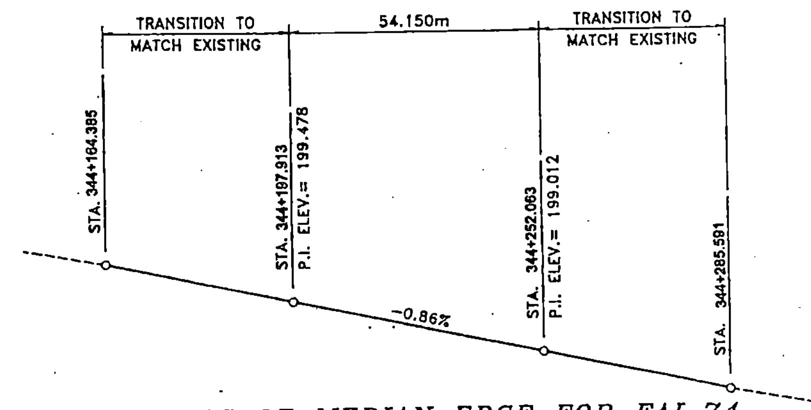
SHEET 1 OF 16



ELEVATION

STATION 344+224.988
RE-BUILT 200_ BY
STATE OF ILLINOIS
FAI RT. 74 SEC (92-11HB-3)BR
F.A. PROJ. ________
LOADING MS18 & ALT
STR. NO. *

NAME PLATE
STD. 515001
*092-0010 EASTBOUND
092-0011 WESTBOUND

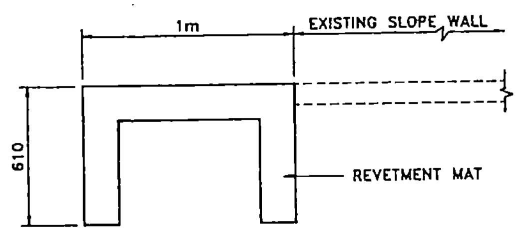


PROFILE OF MEDIAN EDGE FOR FAI 74
NOT TO SCALE

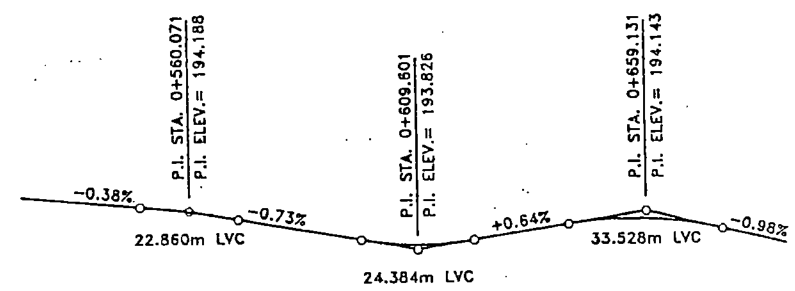
EXISTING STRUCTURE:
STRUCTURE NO. 092-0010 (E.B.) & 092-0011 (W.B.) THREE SPAN CONTINUOUS BRIDGE, 24WF (ENGLISH) BEAMS & REINFORCED CONCRETE DECK. PILE SUPPORTED CONCRETE OPEN ABUTMENTS AND THREE COLUMN CONCRETE PIERS ON SPREAD FOOTINGS. STRUCTURE LENGTH 35.865m BACK TO BACK OF ABUTMENTS. STRUCTURE WIDTH 11.887m FACE TO FACE OF SAFETY WALKS. (BUILT 1964)

REMOVE AND REPLACE EXISTING DECK, WINGWALLS, AND BEARINGS AT ABUTMENTS. THE EXISTING STRUCTURAL STEEL AND SUBSTRUCTURE WILL BE INCORPORATED IN THE NEW WORK. CONSTRUCTION SHALL BE STAGED.

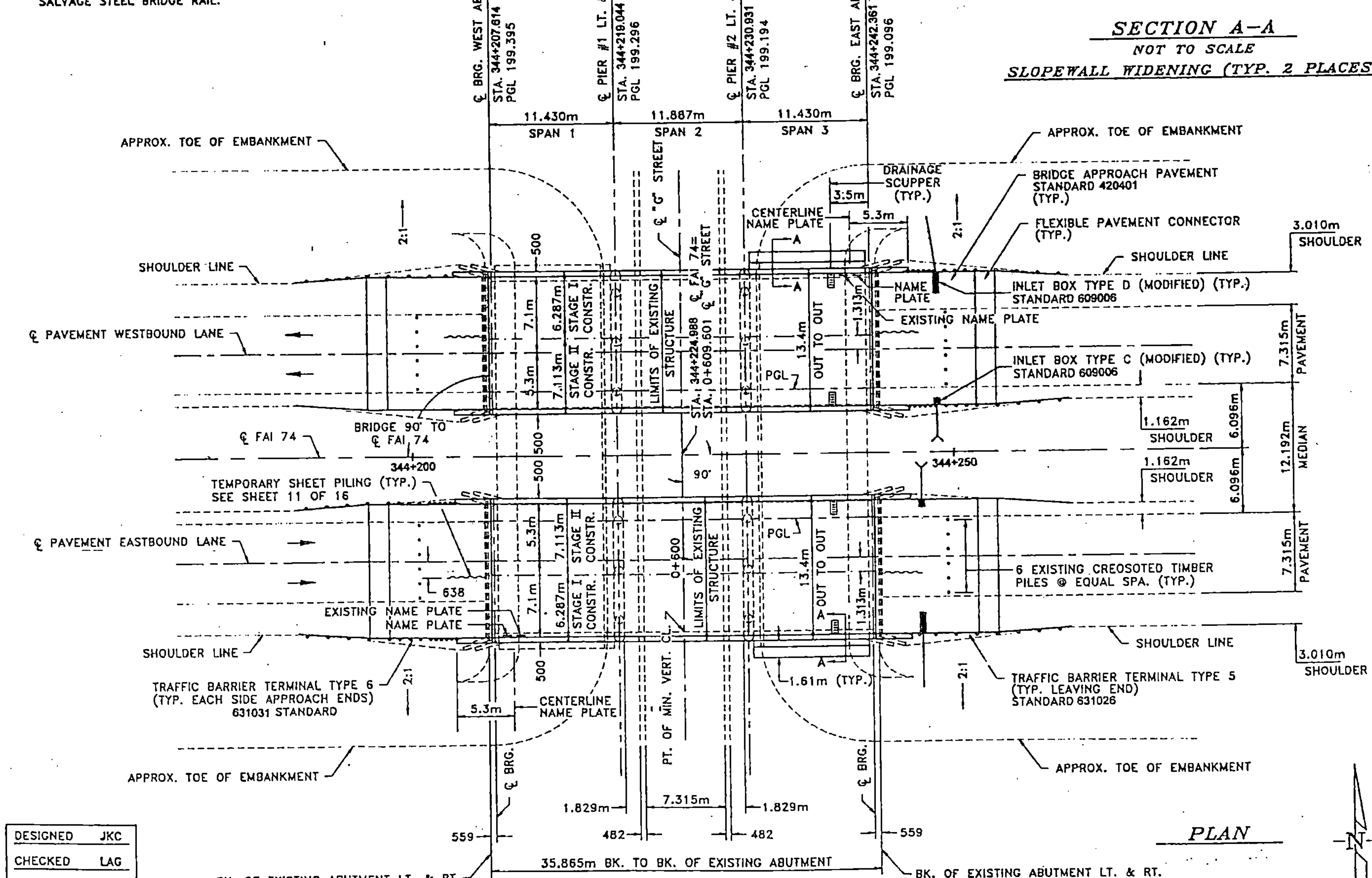
SALVAGE STEEL BRIDGE RAIL.



SECTION A-A
NOT TO SCALE
SLOPEWALL WIDENING (TYP. 2 PLACES)



EXISTING PROFILE OF CROWN FOR "G" STREET
NOT TO SCALE
(TAKEN FROM EXISTING PLANS)



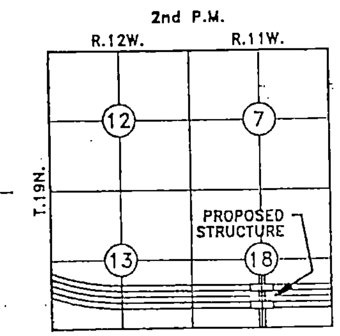
PLAN

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS LICENSED STRUCTURAL ENGINEER JAMES K. CLINARD NUMBER 4655
11-3-94
Exp 11-30-96

SEE SHEET 2 FOR GENERAL NOTES AND TOTAL BILL OF MATERIALS



LOCATION SKETCH
NOT TO SCALE

SEISMIC DATA
S.P.C. A
A = 0.048g
S = 1.2

DESIGN SPECIFICATIONS
1992 AASHTO & 1993 INTERIMS AND 1983 SEISMIC RETROFITTING GUIDLINES FOR HIGHWAY BRIDGES FHWA/RD-83-007

LOADING MS18 & ALT.
ALLOW 1.2kN/m² FOR FUTURE WEARING SURFACE

NEW CONSTRUCTION DESIGN STRESSES
f'c= 24 MPa
fs= 138 MPa (NEW STRUCTURAL STEEL M270 GR 250)
fy= 400 MPa (REINF.)

OLD CONSTRUCTION DESIGN STRESSES
fc= 9.65 MPa
fs= 138 MPa (REIN.)
fs= 138 MPa (STRUCTURAL STEEL)

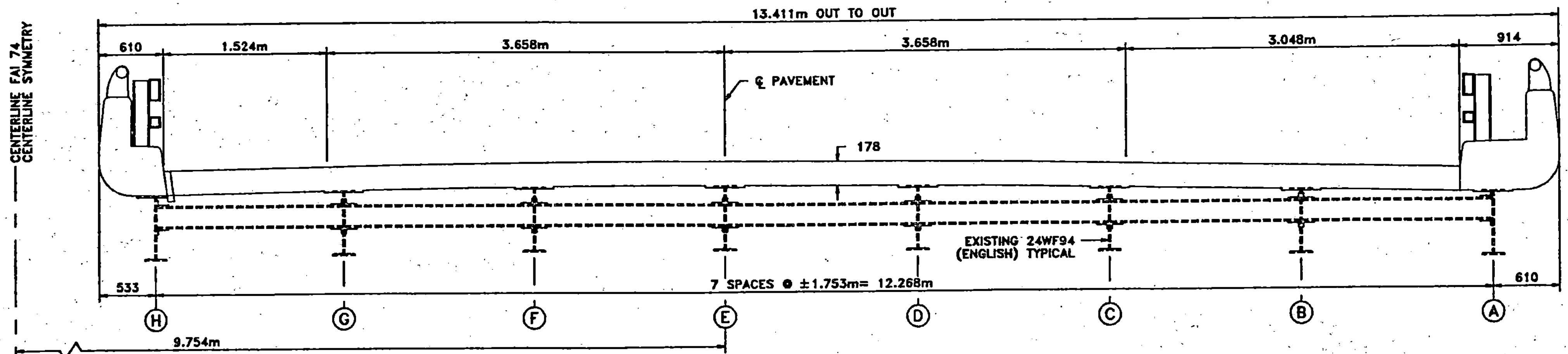
PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

GENERAL PLAN & ELEVATION
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

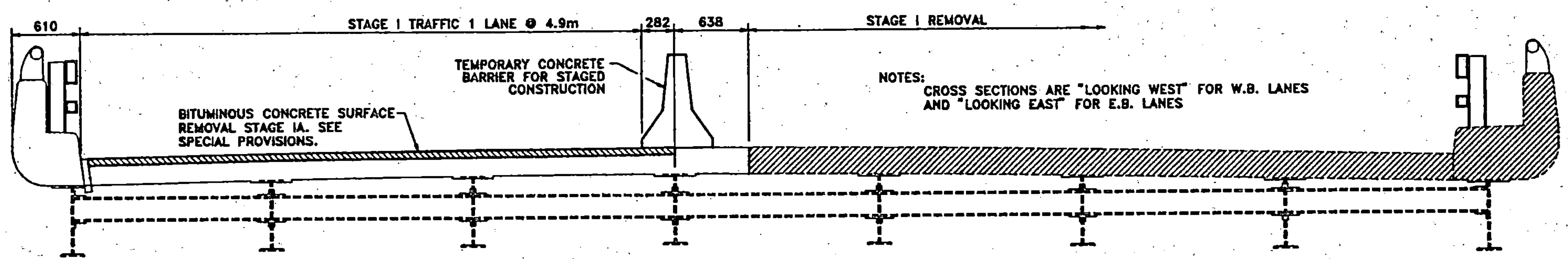
11014.00Y-1

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	22
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

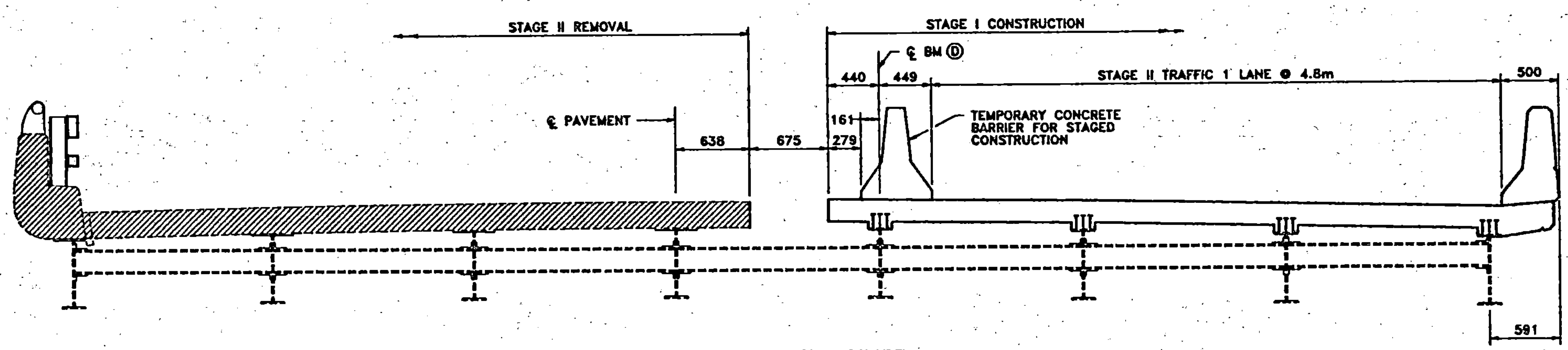
• (92-11HB-3)BR



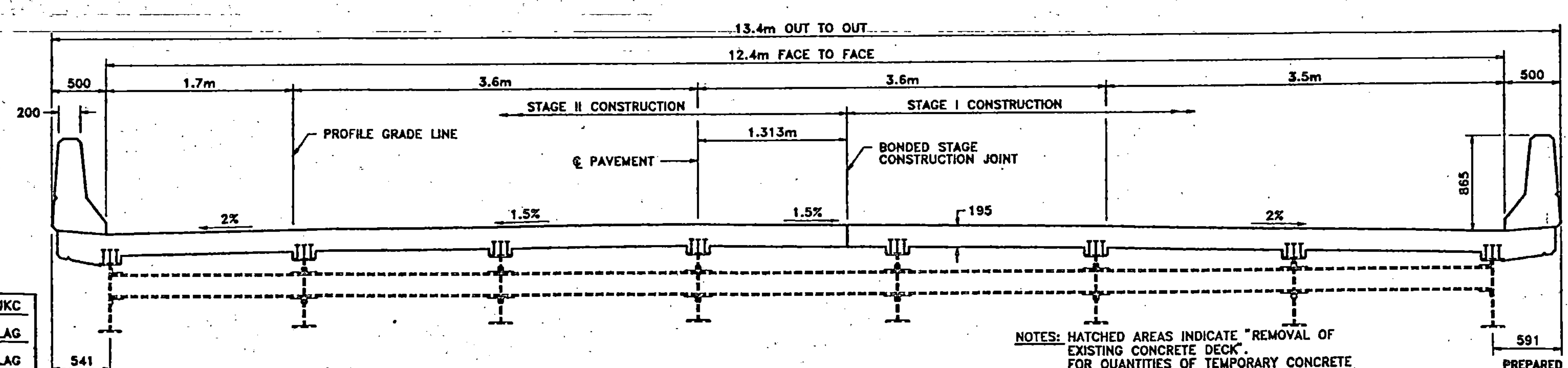
EXISTING CROSS SECTION



STAGE I TRAFFIC



STAGE II TRAFFIC



PROPOSED CROSS SECTION

NOTES: HATCHED AREAS INDICATE "REMOVAL OF EXISTING CONCRETE DECK".
FOR QUANTITIES OF TEMPORARY CONCRETE BARRIER SEE ROADWAY PLANS.
REMOVAL OF EXISTING RAIL IS INCIDENTAL TO "REMOVAL OF EXISTING CONCRETE DECK".

GENERAL NOTES

ALL NEW STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M 300, TYPE 1.

FIELD PAINTING OF STRUCTURAL STEEL SHALL BE DONE UNDER A SEPARATE PAINTING CONTRACT.

PRIOR TO POURING THE NEW CONCRETE FOR THE DECK, ALL LOOSE RUST, LOOSE MILL SCALE, AND ALL OTHER LOOSE, DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE PORTIONS OF FLANGES OF BEAMS OR GIRDERS IN CONTACT WITH CONCRETE. THE REMOVAL SHALL BE ACCOMPLISHED WITH APPROPRIATE POWER HAND TOOLS. COST SHALL BE INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

1. FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
3. ALL DIMENSIONS ARE IN MILLIMETERS (mm), EXCEPT AS NOTED.
4. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31M, M42M, OR M53M GRADE 400.
5. CLEAN AND RELOCATE EXISTING NAME PLATE ADJACENT TO NEW PLATE. COST INCLUDED WITH NAME PLATES.
6. THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHOULD TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.
7. A BRONZE TABLET OF THE TYPE SHOWN ON STANDARD 667101 SHALL BE PLACED ON THE PROPOSED STRUCTURE AS DIRECTED BY THE ENGINEER. THE BENCH MARK ELEVATION WILL BE ESTABLISHED AND MARKED BY THE STATE.

TOTAL BILL OF MATERIAL

QUANTITY	UNIT	SUPERSTR	SUBSTR	TOTAL
CONCRETE REMOVAL	m^3	---	32.5	32.5
JACK AND REMOVE EXISTING BEARINGS	EACH	32	---	32
REMOVAL OF EXISTING CONCRETE DECK	EACH	2	---	2
STRUCTURE EXCAVATION	m^3	---	103	103
BONDED PREFORMED JOINT SEAL, 50 mm	m	53.2	---	53.2
CONCRETE SUPERSTRUCTURE	m^3	233.1	7.0	240.1
PROTECTIVE COAT *	m^2	1057	---	1057
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	32	---	32
CONCRETE STRUCTURES	m^3	---	57.4	57.4
FURNISHING AND ERECTING STRUCTURAL STEEL	kg	5735	---	5735
STUD SHEAR CONNECTORS	EACH	7360	---	7360
PROTECTIVE SHIELD	m^2	347	---	347
REINFORCEMENT BARS, EPOXY COATED	kg	34770	5320	40090
TEMPORARY SHEET PILING	m^2	---	31	31
NAME PLATES	EACH	2	---	2
BRIDGE DECK GROOVING **	m^2	1280	---	1280
DRAINAGE SCUPPERS	EACH	4	---	4
FABRIC FORMED CONCRETE REVETMENT MAT	m^2	---	24	24
PERMANENT BENCH MARK	EACH	---	1	1

* INCLUDES DECK AREA OF 872 m^2
** INCLUDES BRIDGE APPROACH PAVEMENT

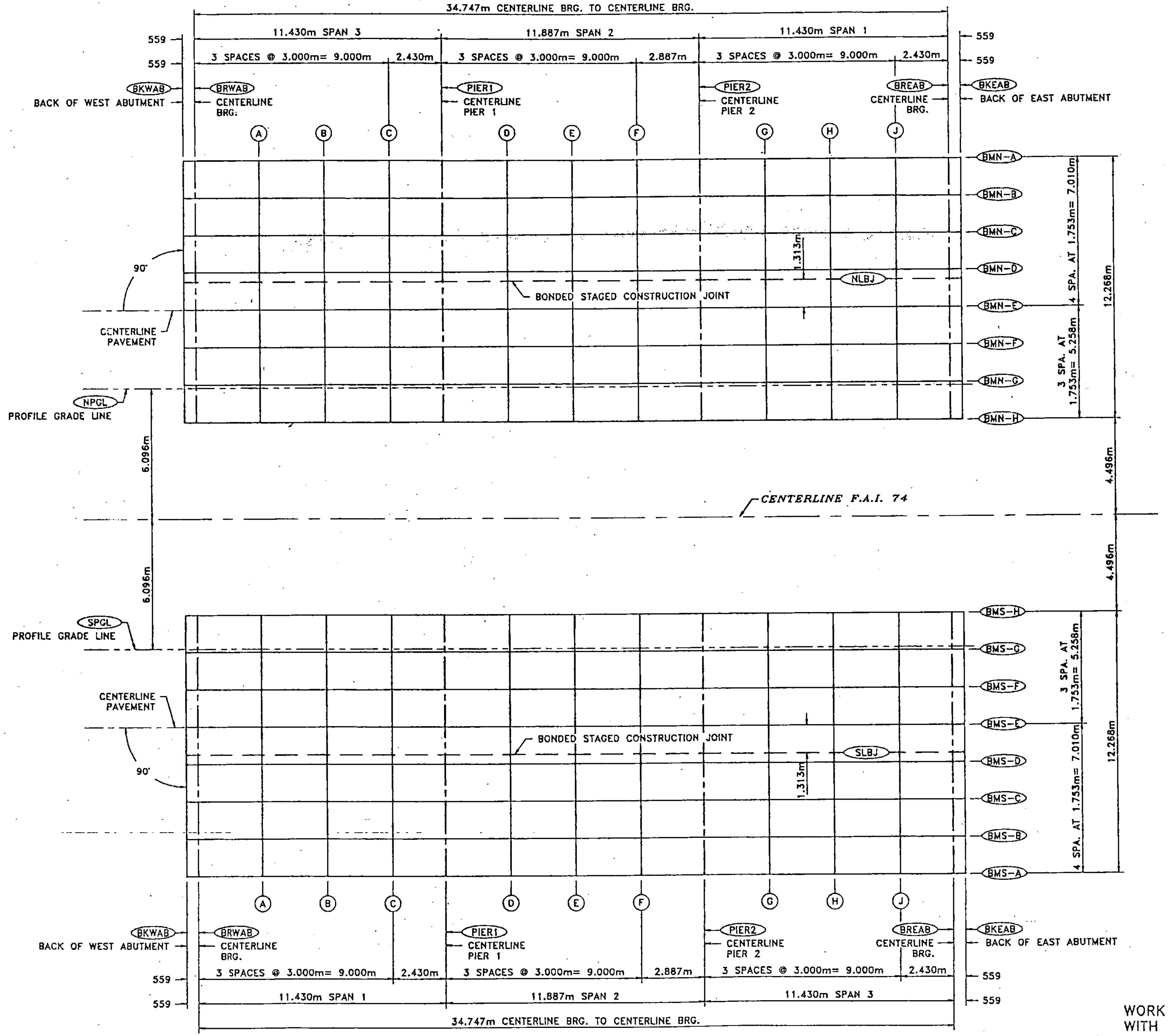
DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

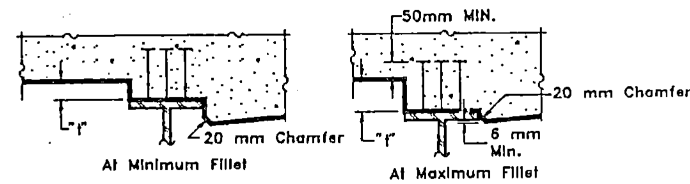
CONSTRUCTION STAGING SECTIONS
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	23
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

• (92-11HB-3)BR

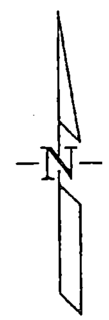


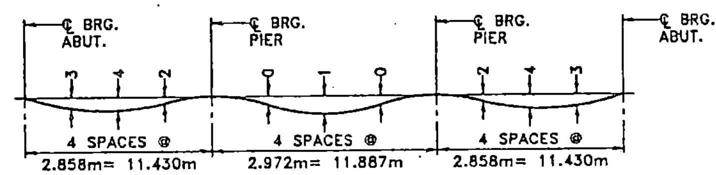
DECK ELEVATIONS



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown sheets 4 & 5 of 16. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown 4 & 5 of 16, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS





DEAD LOAD DEFLECTION DIAGRAM

INCLUDES WEIGHT OF CONCRETE DECK AND ALL SUPERIMPOSED DEAD LOADS EXCEPT FUTURE WEARING SURFACE

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 4 & 5 of 16.
All dimensions are in millimeters (mm) except as noted.
All elevations are in meters.

WORK THIS SHEET
WITH SHEETS 4 & 5 OF 16

PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

DECK ELEVATIONS
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	41	24
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

* (92-11HB-3)BR

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-A
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-16.764	199.331	199.331
BRWAB	57626.694	-16.764	199.326	199.326
A	57629.694	-16.764	199.300	199.304
B	57632.694	-16.764	199.275	199.279
C	57635.694	-16.764	199.249	199.251
PIER1	57638.124	-16.764	199.228	199.228
D	57641.124	-16.764	199.202	199.202
E	57644.124	-16.764	199.176	199.177
F	57647.124	-16.764	199.150	199.150
PIER2	57650.011	-16.764	199.126	199.126
G	57653.011	-16.764	199.100	199.102
H	57656.011	-16.764	199.074	199.078
J	57659.011	-16.764	199.048	199.051
BREAB	57661.441	-16.764	199.027	199.027
BKEAB	57661.999	-16.764	199.022	199.022

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-B
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-15.011	199.366	199.366
BRWAB	57626.694	-15.011	199.361	199.361
A	57629.694	-15.011	199.336	199.339
B	57632.694	-15.011	199.310	199.314
C	57635.694	-15.011	199.284	199.286
PIER1	57638.124	-15.011	199.263	199.263
D	57641.124	-15.011	199.237	199.237
E	57644.124	-15.011	199.211	199.212
F	57647.124	-15.011	199.186	199.186
PIER2	57650.011	-15.011	199.161	199.161
G	57653.011	-15.011	199.135	199.137
H	57656.011	-15.011	199.109	199.113
J	57659.011	-15.011	199.083	199.086
BREAB	57661.441	-15.011	199.062	199.062
BKEAB	57661.999	-15.011	199.058	199.058

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-C
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-13.259	199.401	199.401
BRWAB	57626.694	-13.259	199.396	199.396
A	57629.694	-13.259	199.370	199.374
B	57632.694	-13.259	199.344	199.348
C	57635.694	-13.259	199.318	199.321
PIER1	57638.124	-13.259	199.298	199.298
D	57641.124	-13.259	199.272	199.272
E	57644.124	-13.259	199.246	199.247
F	57647.124	-13.259	199.220	199.220
PIER2	57650.011	-13.259	199.195	199.195
G	57653.011	-13.259	199.169	199.172
H	57656.011	-13.259	199.144	199.148
J	57659.011	-13.259	199.118	199.121
BREAB	57661.441	-13.259	199.097	199.097
BKEAB	57661.999	-13.259	199.092	199.092

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-D
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-11.506	199.427	199.427
BRWAB	57626.694	-11.506	199.422	199.422
A	57629.694	-11.506	199.396	199.400
B	57632.694	-11.506	199.371	199.375
C	57635.694	-11.506	199.345	199.347
PIER1	57638.124	-11.506	199.324	199.324
D	57641.124	-11.506	199.298	199.298
E	57644.124	-11.506	199.272	199.273
F	57647.124	-11.506	199.246	199.246
PIER2	57650.011	-11.506	199.222	199.222
G	57653.011	-11.506	199.196	199.198
H	57656.011	-11.506	199.170	199.174
J	57659.011	-11.506	199.144	199.147
BREAB	57661.441	-11.506	199.123	199.123
BKEAB	57661.999	-11.506	199.118	199.118

SCREED INFORMATION FOR BEAM OR GIRDER = SLBJ
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-11.067	199.434	199.434
BRWAB	57626.694	-11.067	199.429	199.429
A	57629.694	-11.067	199.403	199.407
B	57632.694	-11.067	199.377	199.381
C	57635.694	-11.067	199.351	199.353
PIER1	57638.124	-11.067	199.330	199.330
D	57641.124	-11.067	199.305	199.305
E	57644.124	-11.067	199.279	199.280
F	57647.124	-11.067	199.253	199.253
PIER2	57650.011	-11.067	199.228	199.228
G	57653.011	-11.067	199.202	199.205
H	57656.011	-11.067	199.177	199.181
J	57659.011	-11.067	199.151	199.154
BREAB	57661.441	-11.067	199.130	199.130
BKEAB	57661.999	-11.067	199.125	199.125

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-E
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-9.754	199.453	199.453
BRWAB	57626.694	-9.754	199.449	199.449
A	57629.694	-9.754	199.423	199.426
B	57632.694	-9.754	199.397	199.401
C	57635.694	-9.754	199.371	199.373
PIER1	57638.124	-9.754	199.350	199.350
D	57641.124	-9.754	199.324	199.324
E	57644.124	-9.754	199.299	199.300
F	57647.124	-9.754	199.273	199.273
PIER2	57650.011	-9.754	199.248	199.248
G	57653.011	-9.754	199.222	199.225
H	57656.011	-9.754	199.196	199.200
J	57659.011	-9.754	199.170	199.174
BREAB	57661.441	-9.754	199.149	199.149
BKEAB	57661.999	-9.754	199.145	199.145

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-F
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-8.001	199.427	199.427
BRWAB	57626.694	-8.001	199.422	199.422
A	57629.694	-8.001	199.396	199.400
B	57632.694	-8.001	199.371	199.375
C	57635.694	-8.001	199.345	199.347
PIER1	57638.124	-8.001	199.324	199.324
D	57641.124	-8.001	199.298	199.298
E	57644.124	-8.001	199.272	199.273
F	57647.124	-8.001	199.246	199.246
PIER2	57650.011	-8.001	199.222	199.222
G	57653.011	-8.001	199.196	199.198
H	57656.011	-8.001	199.170	199.174
J	57659.011	-8.001	199.144	199.147
BREAB	57661.441	-8.001	199.123	199.123
BKEAB	57661.999	-8.001	199.118	199.118

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-G
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-6.248	199.401	199.401
BRWAB	57626.694	-6.248	199.396	199.396
A	57629.694	-6.248	199.370	199.374
B	57632.694	-6.248	199.344	199.348
C	57635.694	-6.248	199.318	199.321
PIER1	57638.124	-6.248	199.298	199.298
D	57641.124	-6.248	199.272	199.272
E	57644.124	-6.248	199.246	199.247
F	57647.124	-6.248	199.220	199.220
PIER2	57650.011	-6.248	199.195	199.195
G	57653.011	-6.248	199.169	199.172
H	57656.011	-6.248	199.144	199.148
J	57659.011	-6.248	199.118	199.121
BREAB	57661.441	-6.248	199.097	199.097
BKEAB	57661.999	-6.248	199.092	199.092

SCREED INFORMATION FOR BEAM OR GIRDER = SPGL
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-6.154	199.399	199.399
BRWAB	57626.694	-6.154	199.395	199.395
A	57629.694	-6.154	199.369	199.372
B	57632.694	-6.154	199.343	199.347
C	57635.694	-6.154	199.317	199.319
PIER1	57638.124	-6.154	199.296	199.296
D	57641.124	-6.154	199.270	199.270
E	57644.124	-6.154	199.245	199.246
F	57647.124	-6.154	199.219	199.219
PIER2	57650.011	-6.154	199.194	199.194
G	57653.011	-6.154	199.168	199.171
H	57656.011	-6.154	199.142	199.146
J	57659.011	-6.154	199.116	199.120
BREAB	57661.441	-6.154	199.095	199.095
BKEAB	57661.999	-6.154	199.091	199.091

SCREED INFORMATION FOR BEAM OR GIRDER = BMS-H
****

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKWAB	57626.135	-4.496	199.366	199.366
BRWAB	57626.694	-4.496	199.361	199.361
A	57629.694	-4.496	199.336	199.339
B	57632.694	-4.496	199.310	199.314
C	57635.694	-4.496	199.284	199.286
PIER1	57638.124	-4.496	199.263	199.263
D	57641.124	-4.487	199.237	199.237
E	57644.124	-4.478	199.211	199.212
F	57647.124	-4.469	199.185	199.185
PIER2	57650.011	-4.460	199.160	199.160
G	57653.011	-4.469	199.134	199.137
H	57656.011	-4.478	199.109	199.113
J	57659.011	-4.487	199.083	199.086
BREAB	57661.441	-4.494	199.062	199.062
BKEAB	57661.999	-4.496	199.058	199.058

Note: The stationing, S, shown in the tables on this sheet are incorrect. To obtain the correct stationing, S_c, please use the following Station Equation.

$$S_c = S + 286{,}580.920$$

PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

DECK ELEVATIONS (EASTBOUND)
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

11014.00Y-1

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	25
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

• (92-11HB-3)BR

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-A

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	16.764	199.331	199.331
BRVAB	57626.694	16.764	199.326	199.326
A	57629.694	16.764	199.300	199.304
B	57632.694	16.764	199.275	199.279
C	57635.694	16.764	199.249	199.251
PIER1	57638.124	16.764	199.228	199.228
D	57641.124	16.764	199.202	199.202
E	57644.124	16.764	199.176	199.177
F	57647.124	16.764	199.150	199.150
PIER2	57650.011	16.764	199.126	199.126
G	57653.011	16.764	199.100	199.102
H	57656.011	16.764	199.074	199.078
J	57659.011	16.764	199.048	199.051
BREAB	57661.441	16.764	199.027	199.027
BKEAB	57661.999	16.764	199.022	199.022

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-B

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	15.011	199.366	199.366
BRVAB	57626.694	15.011	199.361	199.361
A	57629.694	15.011	199.336	199.339
B	57632.694	15.011	199.310	199.314
C	57635.694	15.011	199.284	199.286
PIER1	57638.124	15.011	199.263	199.263
D	57641.124	15.011	199.237	199.237
E	57644.124	15.011	199.211	199.212
F	57647.124	15.011	199.186	199.186
PIER2	57650.011	15.011	199.161	199.161
G	57653.011	15.011	199.135	199.137
H	57656.011	15.011	199.109	199.113
J	57659.011	15.011	199.083	199.086
BREAB	57661.441	15.011	199.062	199.062
BKEAB	57661.999	15.011	199.058	199.058

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-C

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	13.259	199.401	199.401
BRVAB	57626.694	13.259	199.396	199.396
A	57629.694	13.259	199.370	199.374
B	57632.694	13.259	199.344	199.348
C	57635.694	13.259	199.318	199.321
PIER1	57638.124	13.259	199.298	199.298
D	57641.124	13.259	199.272	199.272
E	57644.124	13.259	199.246	199.247
F	57647.124	13.259	199.220	199.220
PIER2	57650.011	13.259	199.195	199.195
G	57653.011	13.259	199.169	199.172
H	57656.011	13.259	199.144	199.148
J	57659.011	13.259	199.118	199.121
BREAB	57661.441	13.259	199.097	199.097
BKEAB	57661.999	13.259	199.092	199.092

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-D

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	11.506	199.427	199.427
BRVAB	57626.694	11.506	199.422	199.422
A	57629.694	11.506	199.396	199.400
B	57632.694	11.506	199.371	199.375
C	57635.694	11.506	199.345	199.347
PIER1	57638.124	11.506	199.324	199.324
D	57641.124	11.506	199.298	199.298
E	57644.124	11.506	199.272	199.273
F	57647.124	11.506	199.246	199.246
PIER2	57650.011	11.506	199.222	199.222
G	57653.011	11.506	199.196	199.198
H	57656.011	11.506	199.170	199.174
J	57659.011	11.506	199.144	199.147
BREAB	57661.441	11.506	199.123	199.123
BKEAB	57661.999	11.506	199.118	199.118

SCREED INFORMATION FOR BEAM OR GIRDER = NLBJ

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	11.066	199.434	199.434
BRVAB	57626.694	11.066	199.429	199.429
A	57629.694	11.066	199.403	199.407
B	57632.694	11.066	199.377	199.381
C	57635.694	11.066	199.351	199.354
PIER1	57638.124	11.066	199.330	199.330
D	57641.124	11.066	199.305	199.305
E	57644.124	11.066	199.279	199.280
F	57647.124	11.066	199.253	199.253
PIER2	57650.011	11.066	199.228	199.228
G	57653.011	11.066	199.202	199.205
H	57656.011	11.066	199.177	199.181
J	57659.011	11.066	199.151	199.154
BREAB	57661.441	11.066	199.130	199.130
BKEAB	57661.999	11.066	199.125	199.125

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-E

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	9.754	199.453	199.453
BRVAB	57626.694	9.754	199.449	199.449
A	57629.694	9.754	199.423	199.426
B	57632.694	9.754	199.397	199.401
C	57635.694	9.754	199.371	199.373
PIER1	57638.124	9.754	199.350	199.350
D	57641.124	9.754	199.324	199.324
E	57644.124	9.754	199.299	199.300
F	57647.124	9.754	199.273	199.273
PIER2	57650.011	9.754	199.248	199.248
G	57653.011	9.754	199.222	199.225
H	57656.011	9.754	199.196	199.200
J	57659.011	9.754	199.170	199.174
BREAB	57661.441	9.754	199.149	199.149
BKEAB	57661.999	9.754	199.145	199.145

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-F

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	8.001	199.427	199.427
BRVAB	57626.694	8.001	199.422	199.422
A	57629.694	8.001	199.396	199.400
B	57632.694	8.001	199.371	199.375
C	57635.694	8.001	199.345	199.347
PIER1	57638.124	8.001	199.324	199.324
D	57641.124	8.001	199.298	199.298
E	57644.124	8.001	199.272	199.273
F	57647.124	8.001	199.246	199.246
PIER2	57650.011	8.001	199.222	199.222
G	57653.011	8.001	199.196	199.198
H	57656.011	8.001	199.170	199.174
J	57659.011	8.001	199.144	199.147
BREAB	57661.441	8.001	199.123	199.123
BKEAB	57661.999	8.001	199.118	199.118

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-G

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	6.248	199.401	199.401
BRVAB	57626.694	6.248	199.396	199.396
A	57629.694	6.248	199.370	199.374
B	57632.694	6.248	199.344	199.348
C	57635.694	6.248	199.318	199.321
PIER1	57638.124	6.248	199.298	199.298
D	57641.124	6.248	199.272	199.272
E	57644.124	6.248	199.246	199.247
F	57647.124	6.248	199.220	199.220
PIER2	57650.011	6.248	199.195	199.195
G	57653.011	6.248	199.169	199.172
H	57656.011	6.248	199.144	199.148
J	57659.011	6.248	199.118	199.121
BREAB	57661.441	6.248	199.097	199.097
BKEAB	57661.999	6.248	199.092	199.092

SCREED INFORMATION FOR BEAM OR GIRDER = NPGL

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	6.154	199.399	199.399
BRVAB	57626.694	6.154	199.395	199.395
A	57629.694	6.154	199.369	199.372
B	57632.694	6.154	199.343	199.347
C	57635.694	6.154	199.317	199.319
PIER1	57638.124	6.154	199.296	199.296
D	57641.124	6.154	199.270	199.270
E	57644.124	6.154	199.245	199.246
F	57647.124	6.154	199.219	199.219
PIER2	57650.011	6.154	199.194	199.194
G	57653.011	6.154	199.168	199.171
H	57656.011	6.154	199.142	199.146
J	57659.011	6.154	199.116	199.120
BREAB	57661.441	6.154	199.095	199.095
BKEAB	57661.999	6.154	199.091	199.091

SCREED INFORMATION FOR BEAM OR GIRDER = BMN-H

LINE	STATION	OFFSET (m)	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
BKVAB	57626.135	4.496	199.366	199.366
BRVAB	57626.694	4.496	199.361	199.361
A	57629.694	4.496	199.336	199.339
B	57632.694	4.496	199.310	199.314
C	57635.694	4.496	199.284	199.286
PIER1	57638.124	4.496	199.263	199.263
D	57641.124	4.496	199.237	199.237
E	57644.124	4.496	199.211	199.212
F	57647.124	4.496	199.186	199.186
PIER2	57650.011	4.496	199.161	199.161
G	57653.011	4.496	199.135	199.137
H	57656.011	4.496	199.109	199.113
J	57659.011	4.496	199.083	199.086
BREAB	57661.441	4.496	199.062	199.062
BKEAB	57661.999	4.496	199.058	199.058

Note: The stationing, S, shown in the tables on this sheet are incorrect. To obtain the correct stationing, S_c, please use the following Station Equation.

$$S_c = S + 286,580.920$$

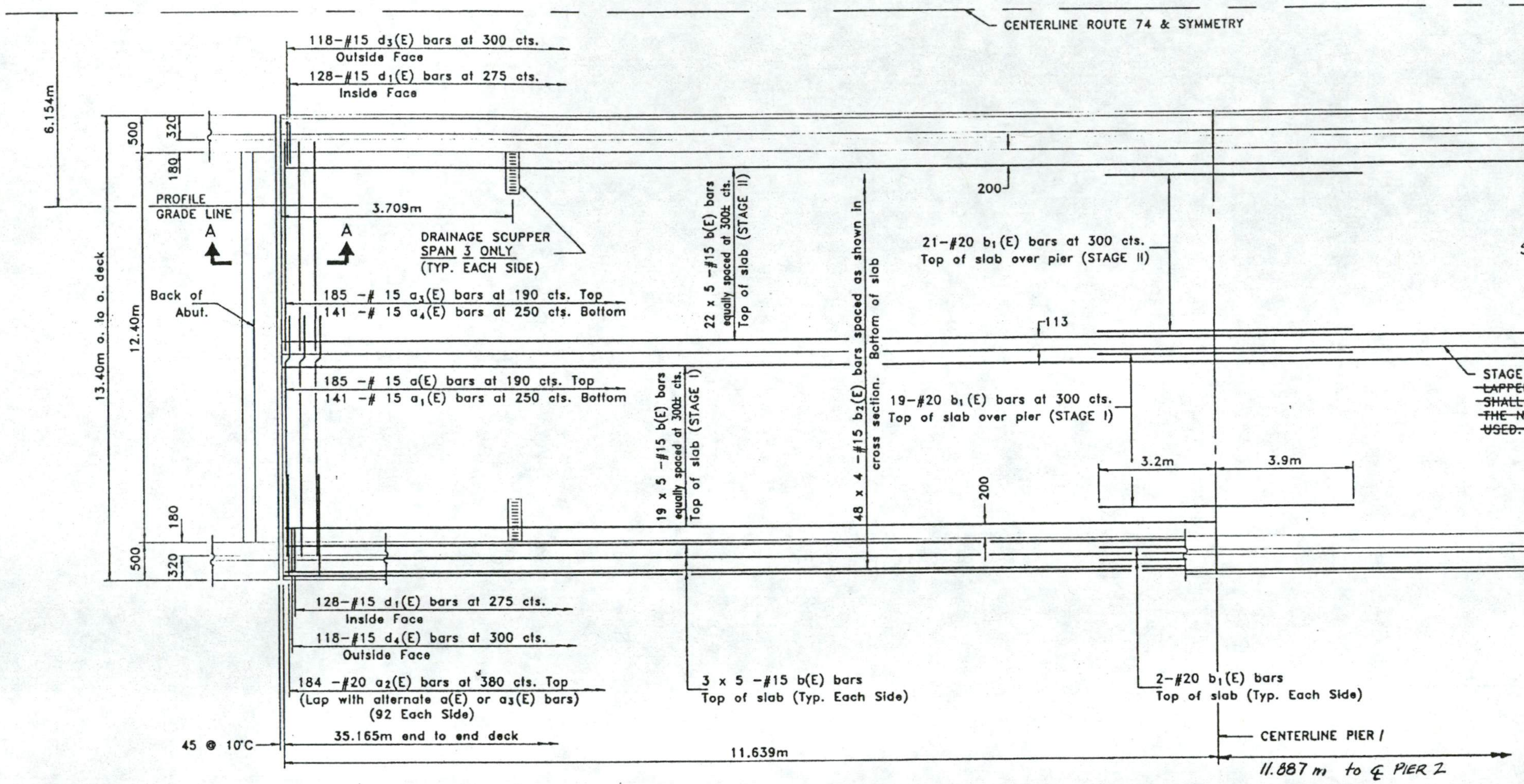
PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

DECK ELEVATIONS (WESTBOUND)
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

11014.00Y-1

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	26
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

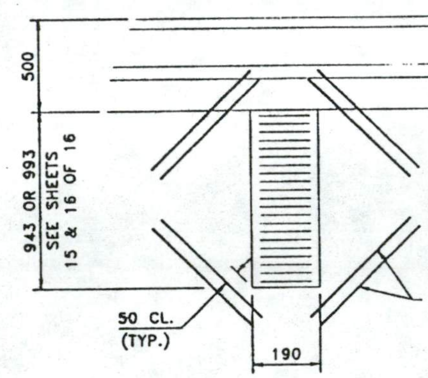
• (92-11HB-3)BR



HALF PLAN

NOT TO SCALE

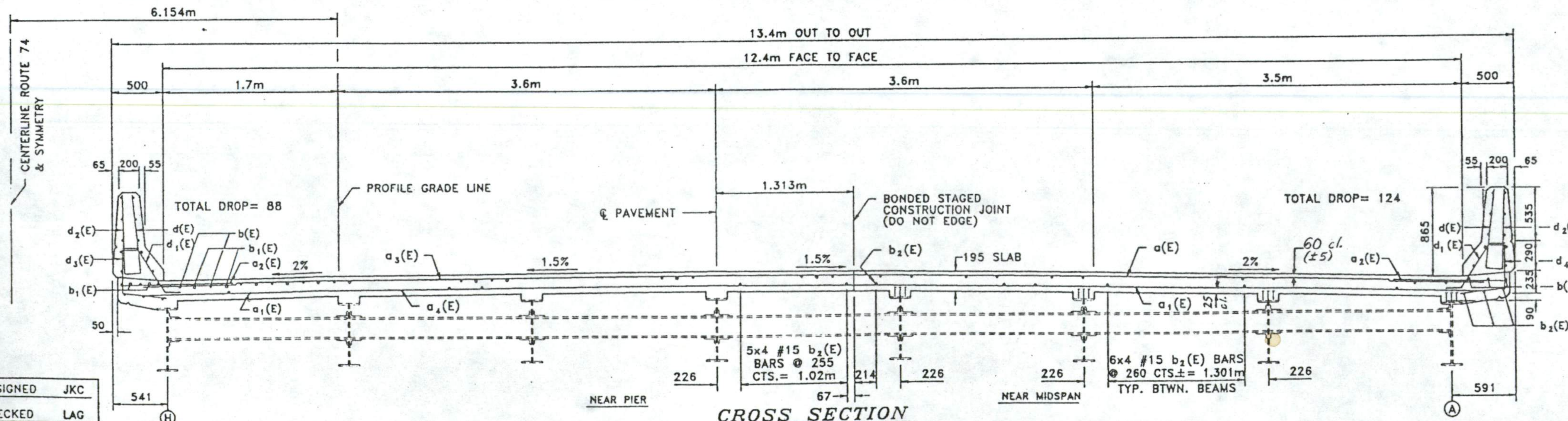
MIN. LAP #15 BAR= 640



FOR DETAILS OF DRAINAGE SCUPPER SEE SHEETS 15 & 16

PLAN – DRAINAGE SCUPPER

NOT TO SCALE



CROSS SECTION

NOT TO SCALE

(LOOKING EAST FOR EASTBOUND)

(LOOKING WEST FOR WESTBOUND)

Notes: See Sheet #7 of 16 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#15 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet # 7 of 16 for parapet reinforcement.
All dimensions are in millimeters (mm) except as noted.

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS

SUPERSTRUCTURE PLAN
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

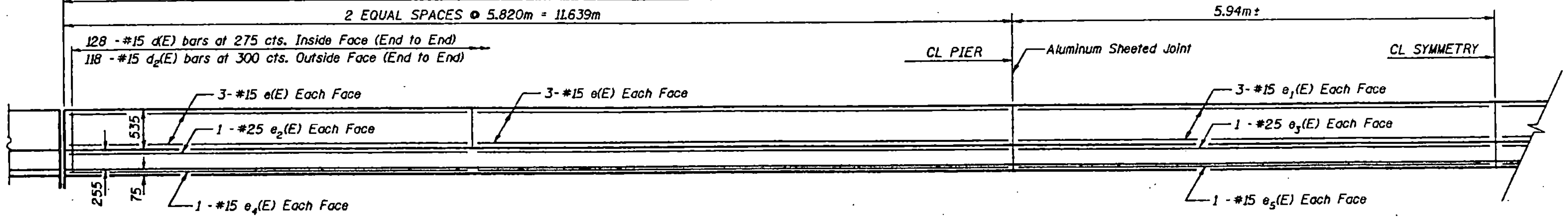
11014.00Y-1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

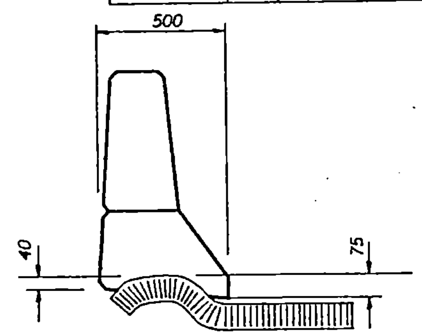
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	27

• (92-1HB-3)BR

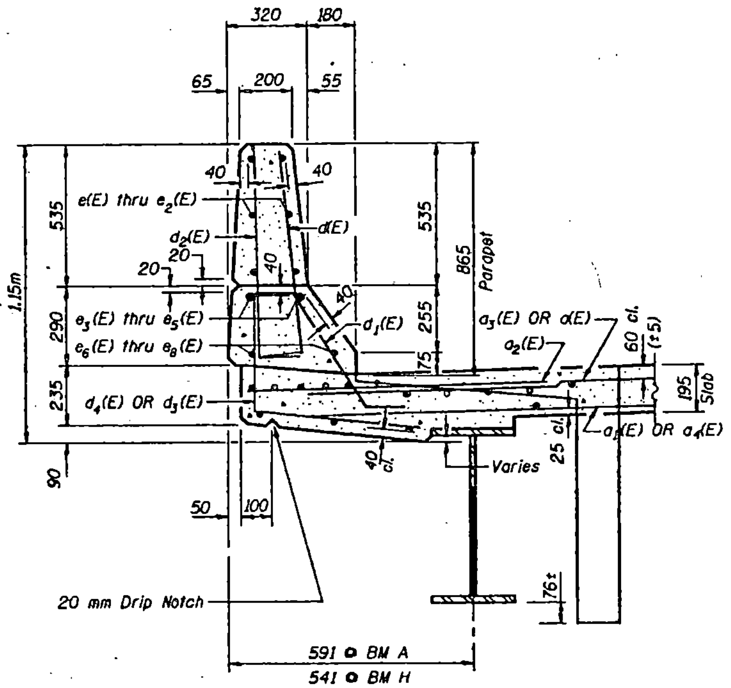
SHEET NO. 7
16 SHEETS



INSIDE ELEVATION OF PARAPET

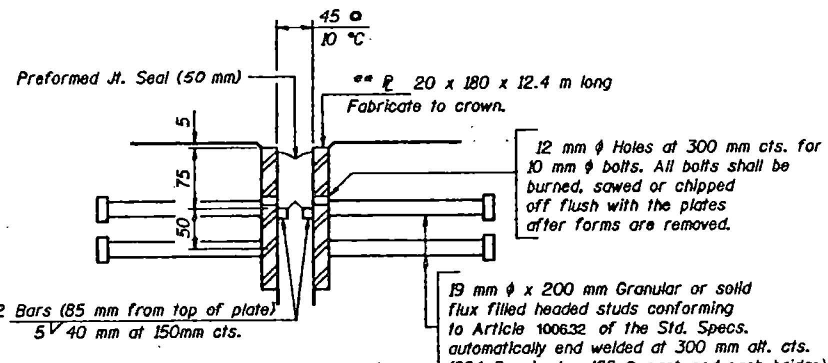


END OF SEAL TREATMENT



SECTION THRU PARAPET

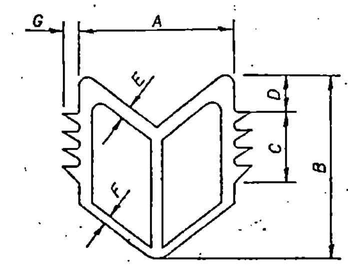
JOINT SIZE	Expansion Length	Max. Movement	Dimensions A	B	C	D	E	F	G
25	0 m-18 m	32	25	34	13	6	3	2	2
38	18 m-27 m	41	38	51	19	10	5	3	3
50	27 m-46 m	60	51	68	25	13	6	4	4
64	46 m-61 m	76	64	85	32	16	8	5	5
76	61 m-85 m	102	76	102	38	19	10	6	6
102	85 m-110 m	127	102	120	74	13	5	5	5

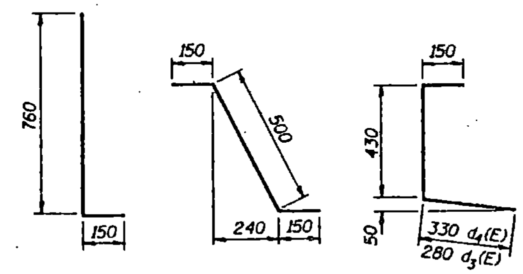


DETAIL A

** Furnish in segments of 6 m maximum length. Maximum space between installed segments shall be 5 mm. Seal space with Silicone Sealant suitable for Structural Steel.

BONDED PREFORMED JOINT SEAL





BARS d(E) & d2(E)   BAR d1(E)   BAR d3(E) & d4(E)

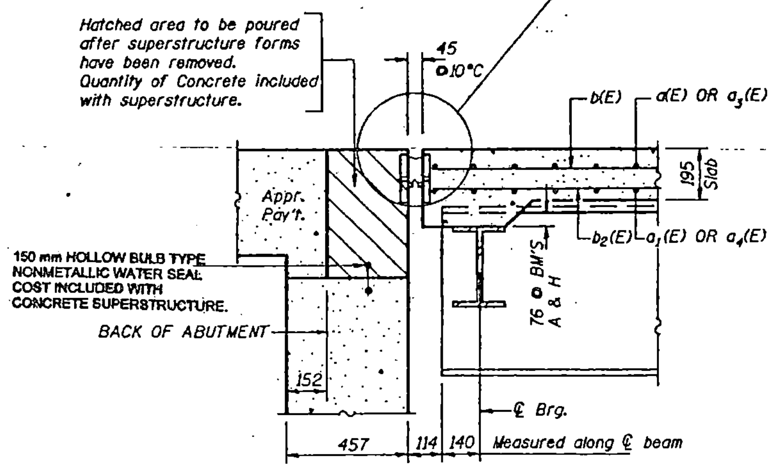
2- SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length (m)	Shape
a(E)	370	#15	6.84	——
a1(E)	282	#15	6.68	——
a2(E)	368	#20	1.20	——
a3(E)	370	#15	7.00	——
a4(E)	282	#15	6.85	——
a5(E)	32	#15	0.61	——
b(E)	470	#15	7.56	——
b1(E)	176	#20	7.10	——
b2(E)	384	#15	9.29	——
d(E)	512	#15	0.91	
d1(E)	512	#15	0.80	
d2(E)	472	#15	0.91	
d3(E)	236	#15	0.86	[
d4(E)	236	#15	0.91	[
e(E)	96	#15	5.74	——
e1(E)	48	#15	5.86	——
e2(E)	16	#25	11.56	——
e3(E)	8	#25	11.80	——
e4(E)	16	#15	11.56	——
e5(E)	8	#15	11.80	——
Reinforcement Bars, Epoxy Coated			kg	34770
* Concrete Superstructure			m^3	240.1

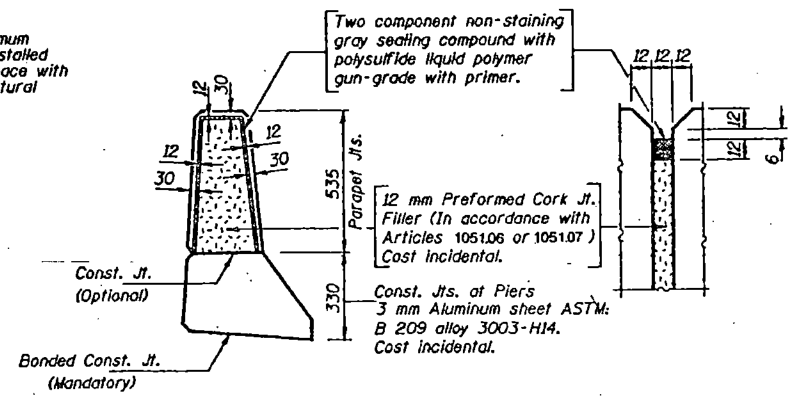
Reinforcement bars designated (E) shall be epoxy coated.

* Includes $7m^3$ from abutment backwall.

Work this sheet with sheet 6.



SECTION A-A



PARAPET JOINT DETAILS

Note:
All dimensions are in millimeters (mm) except as noted.

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

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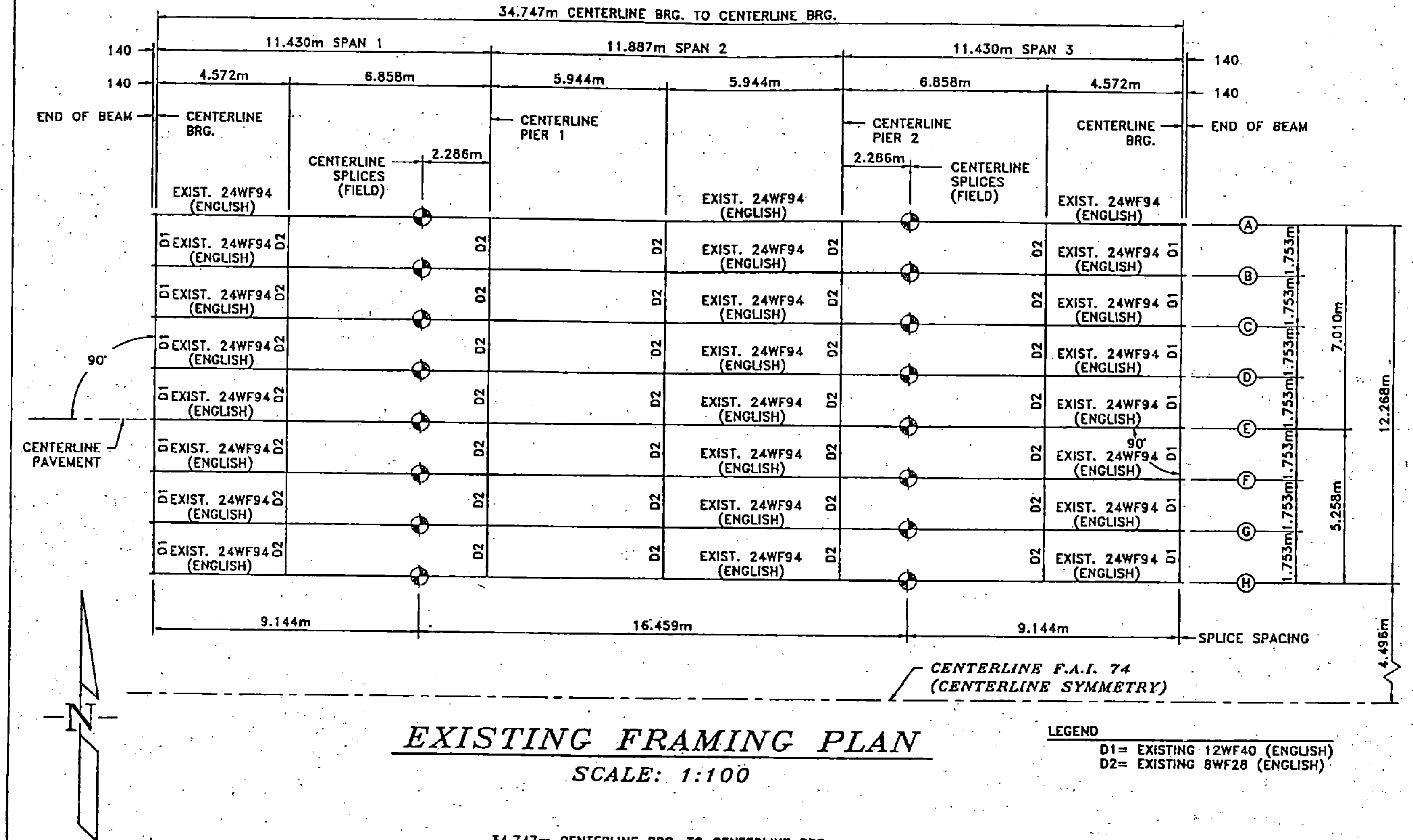
PERU ILLINOIS MORRIS

SUPERSTRUCTURE DETAILS
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-1HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (E.B.) & 092-0011 (W.B.)

11014.00Y-1



EXISTING FRAMING PLAN

SCALE: 1:100

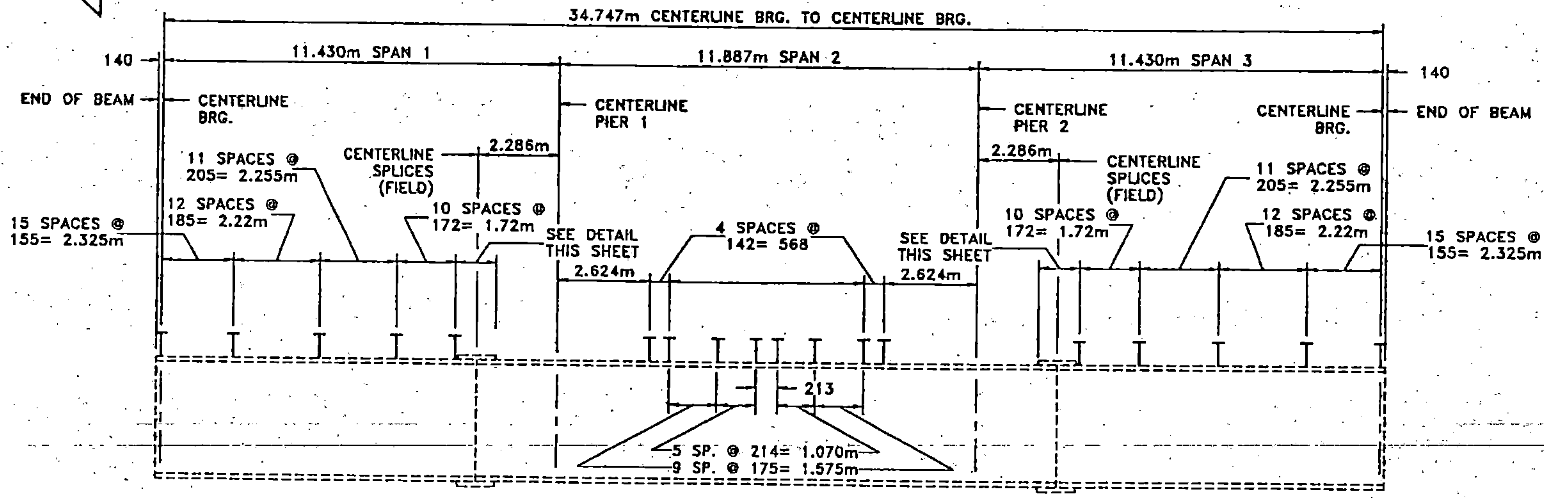
LEGEND
D1= EXISTING 12WF40 (ENGLISH)
D2= EXISTING 8WF28 (ENGLISH)

INTERIOR GIRDER MOMENT TABLE

	0.4 SPAN 1 OR 0.6 SPAN 3	PIER 1 OR 2	0.5 SPAN 2
Is (10^6 mm^4)	1120	1120	1120
Ic(n) (10^6 mm^4)	3840	--	3840
Ic(3n) (10^6 mm^4)	2676	--	2676
Ss (10^3 mm^3)	3630	3630	3630
Sc(n) (10^3 mm^3)	6247	--	6247
Sc(3n) (10^3 mm^3)	5501	--	5501
℄ (kN/m)	10.40	13.76	10.40
M ℄ (kN·m)	107	177	43
fs ℄ non-comp (MPa)	29.48	48.76	11.85
S ℄ (kN/m)	3.36	--	3.36
Ms ℄ (kN·m)	39	--	25
fs ℄ comp (MPa)	7.09	--	4.54
M ℄ (kN·m)	252	117	224
M (IMP)(kN·m)	76	35	66
fs (℄+Imp)(MPa)	52.50	41.87	46.42
fs (total) (MPa)	89.07	90.63	62.81
VR (kN)	171	--	170

INTERIOR GIRDER REACTION TABLE

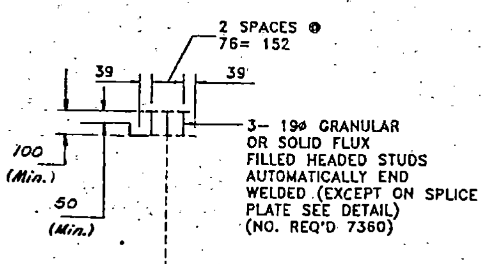
		ABUTS	PIERS
R℄	(kN)	63.2	175.2
R℄	(kN)	138.9	161.8
Imp	(kN)	41.7	48.6
R (TOTAL)	(kN)	243.8	385.6

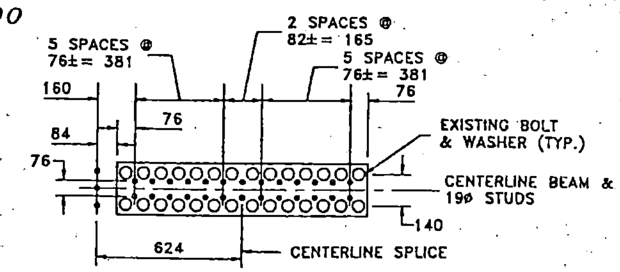


BEAM ELEVATION FOR STUD SHEAR CONNECTORS

SCALE: 1:100

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total).
Ic(n) and Sc(n) are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
Ic(3n) and Sc(3n) are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads.
VR is the maximum Live Load + Impact shear range in span.





SHEAR CONNECTOR AT SPLICE PLATE

(SPAN 1 SHOWN)

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EXISTING FRAMING PLAN
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

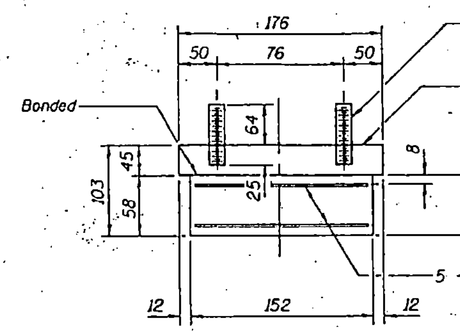
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	29

SHEET NO. 9
16 SHEETS

• (92-1IHB-3)BR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

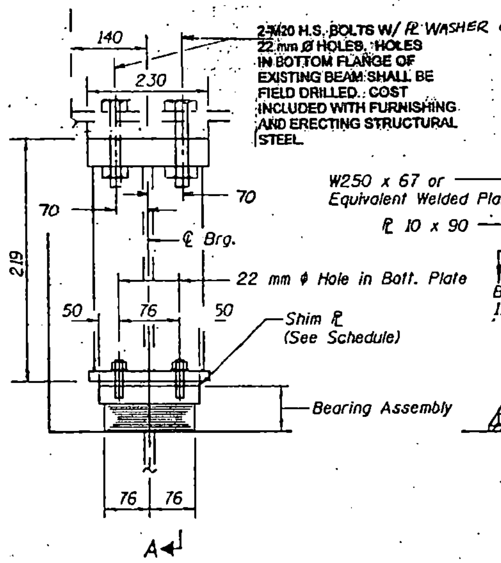
TYPE I ELASTOMERIC EXP. BRG. WEST ABUTMENT



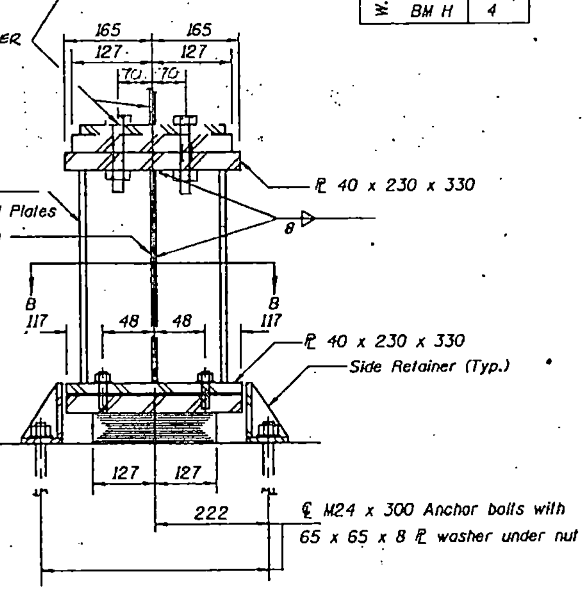
BEARING ASSEMBLY

230x330 SHIM PLATE SCHEDULE	LOCATION	SHIM PLATE THK.
W. ABUT. EASTBOUND	BM A	4
	BM B	6
	BM C	4
	BM D	0
	BM E	10
	BM F	3
	BM G	9
	BM H	11
W. ABUT. WESTBOUND	BM A	6
	BM B	12
	BM C	8
	BM D	12
	BM E	18
	BM F	4
	BM G	8
	BM H	4

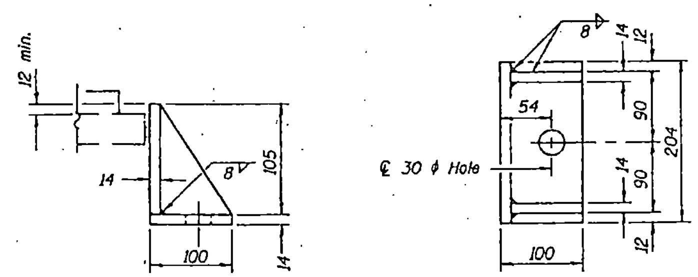
Note: Shim plates shall not be placed under Bearing Assembly.



ELEVATION AT ABUT.



SECTION A-A

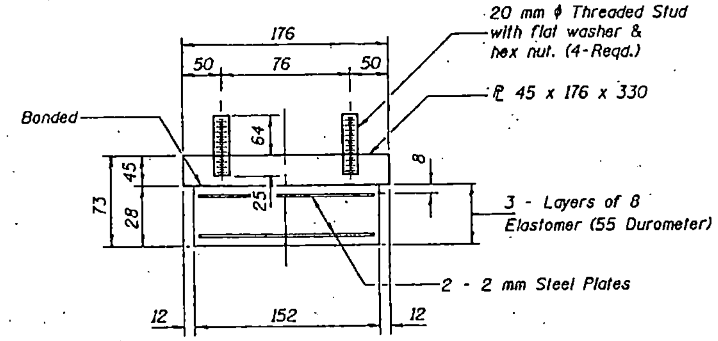


SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

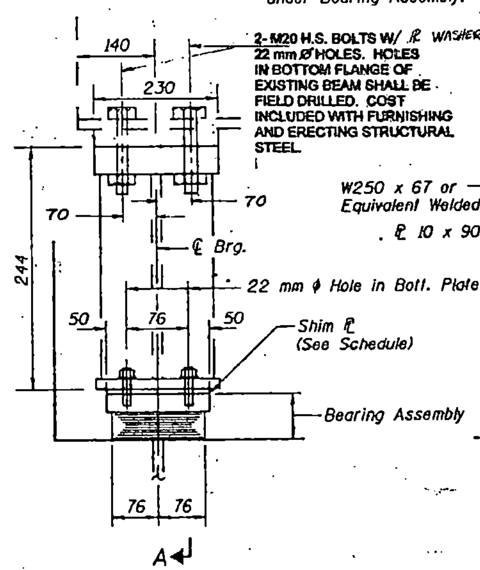
TYPE I ELASTOMERIC EXP. BRG. EAST ABUTMENT



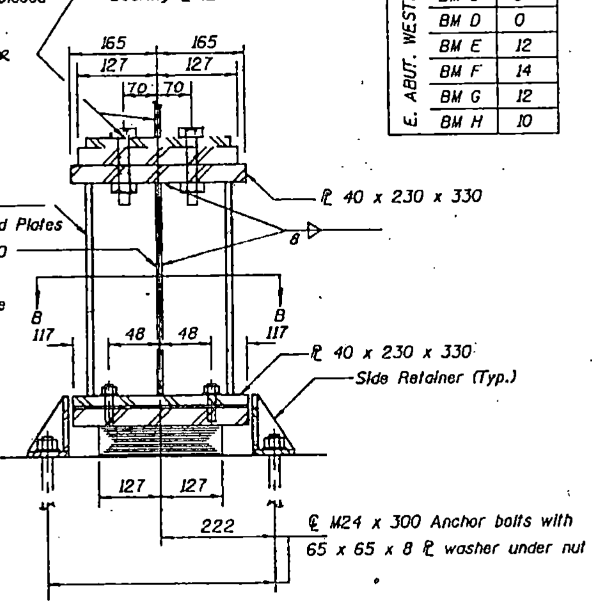
BEARING ASSEMBLY

230x330 SHIM PLATE SCHEDULE	LOCATION	SHIM PLATE THK.
E. ABUT. EASTBOUND	BM A	16
	BM B	20
	BM C	18
	BM D	12
	BM E	22
	BM F	12
	BM G	16
	BM H	16
E. ABUT. WESTBOUND	BM A	16
	BM B	18
	BM C	9
	BM D	0
	BM E	12
	BM F	14
	BM G	12
	BM H	10

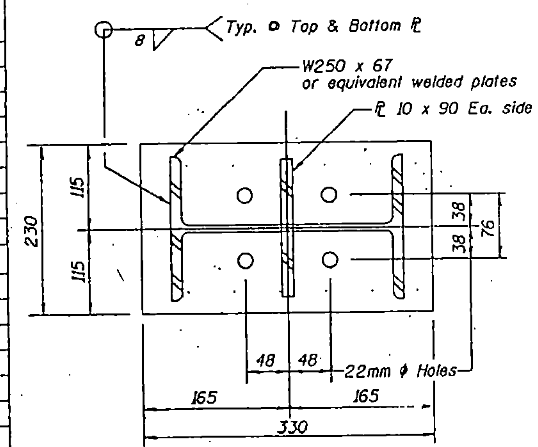
Note: Shim plates shall not be placed under Bearing Assembly.



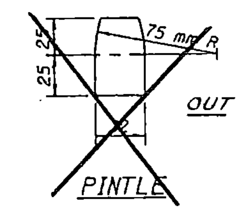
ELEVATION AT ABUT.



SECTION A-A



SECTION B-B



BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	32
Furnishing And Erecting Structural Steel *	kg	2520

* Includes steel assembly above type I bearing assembly.

JACK AND REMOVE EXISTING BEARING PROCEDURE

1.) The Contractor shall submit plans for jacking, for approval by the Engineer, prior to commencing any work at the bearings. The minimum jack capacity = 20 KN
2.) Jacking and removing the existing bearings shall be done after deck removal is completed and before the new deck is placed.
3.) All beams at each bearing line may be lifted simultaneously, or if lifted individually, the maximum lift shall be 4 mm.
4.) The new bearings shall be placed and jacks lowered before the new deck is placed.

Notes: See sheet #12 for Anchor Bolt installation.
All dimensions are in millimeters (mm) except as noted.

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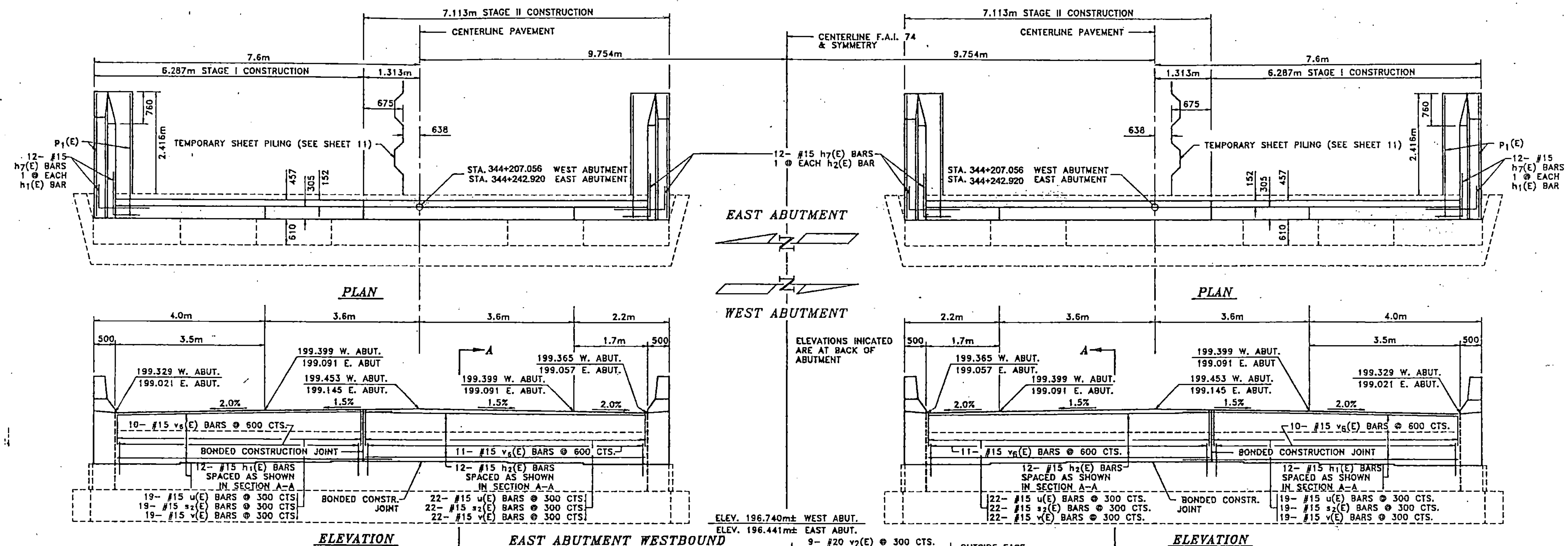
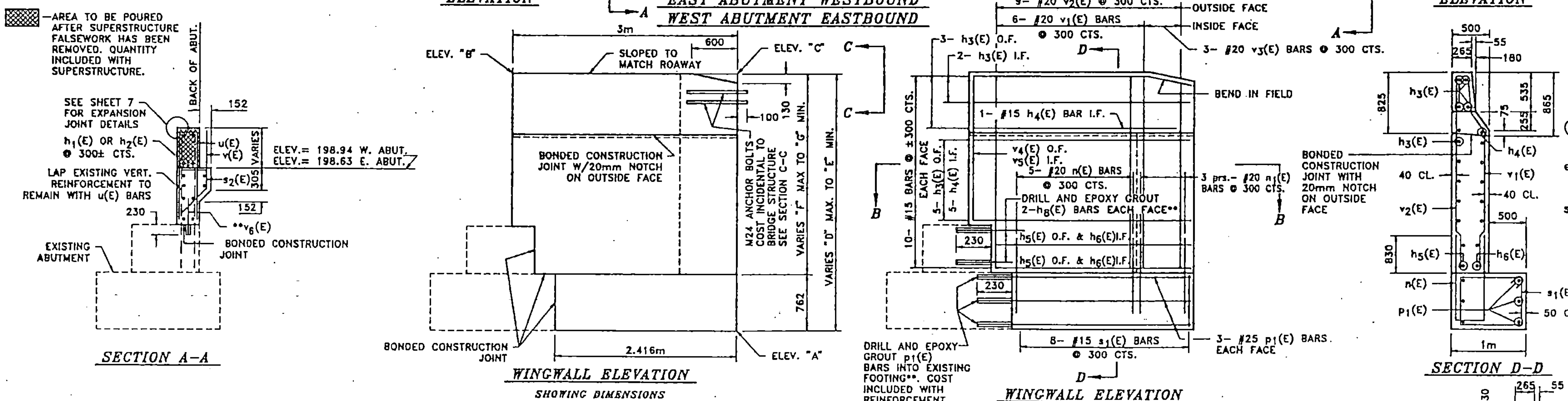
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

BEARING DETAILS
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-1IHB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (E.B.) & 092-0011 (W.B.)

11014.00Y-1





WING WALL ELEVATIONS & DIMENSIONS							
LOCATION	ELEV. "A"	ELEV. "B"	ELEV. "C"	"D"	"E"	"F"	"G"
WESTBOUND							
N.W.	196.740m±	200.191m	200.217m	3.477m	3.451m	2.715m	2.689m
S.W.	196.740m±	200.227m	200.253m	3.513m	3.487m	2.751m	2.725m
N.E.	196.441m±	199.889m	199.863m	3.448m	3.422m	2.686m	2.660m
S.E.	196.441m±	199.925m	199.899m	3.484m	3.458m	2.722m	2.696m
EASTBOUND							
N.W.	196.740m±	200.227m	200.253m	3.513m	3.487m	2.751m	2.725m
S.W.	196.740m±	200.191m	200.217m	3.477m	3.451m	2.715m	2.689m
N.E.	196.441m±	199.925m	199.899m	3.484m	3.458m	2.722m	2.696m
S.E.	196.441m±	199.889m	199.863m	3.448m	3.422m	2.686m	2.660m

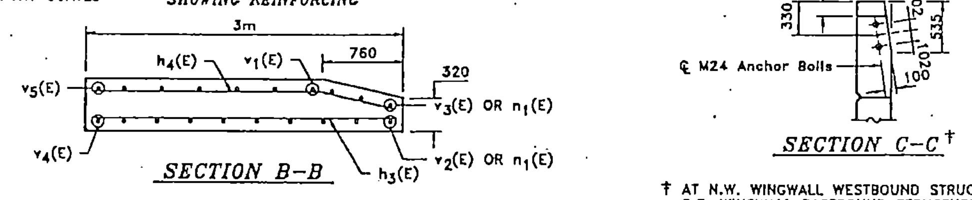
MAXIMUM SOIL PRESSURE= 81 MPa

NOTES:

**EPOXY GROUT #25 BARS IN 32mm DIAMETER x 230mm MINIMUM DRILLED HOLES.

EPOXY GROUT #15 BARS IN 22mm DIAMETER x 230mm MINIMUM DRILLED HOLES.

THE GROUT AND THE METHOD OF APPLICATION SHALL BE APPROVED BY THE DEPARTMENT.

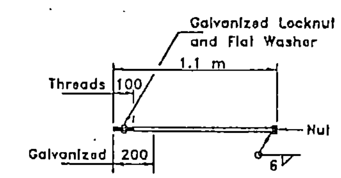


† AT N.W. WINGWALL WESTBOUND STRUCTURE AND S.E. WINGWALL EASTBOUND STRUCTURE ONLY

Reinforcement bars designated (E) shall be epoxy coated.

All dimensions are in millimeters (mm) except as noted.

For bar bending details and bill of materials see sheet 11.



M24 ANCHOR BOLT†

ABUTMENT DETAILS

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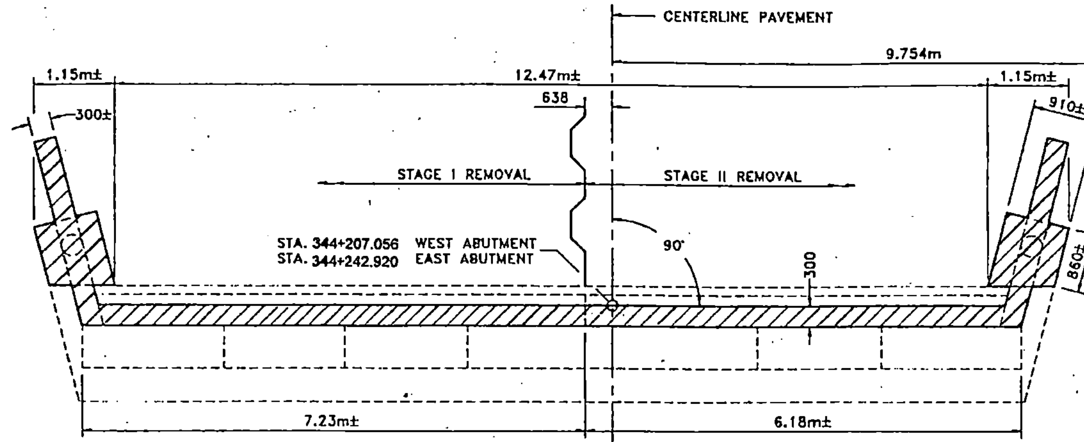
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

ABUTMENT DETAILS
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	•	VERMILION	41	31
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJECT		

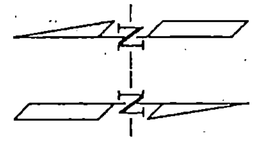
• (92-11HB-3)BR



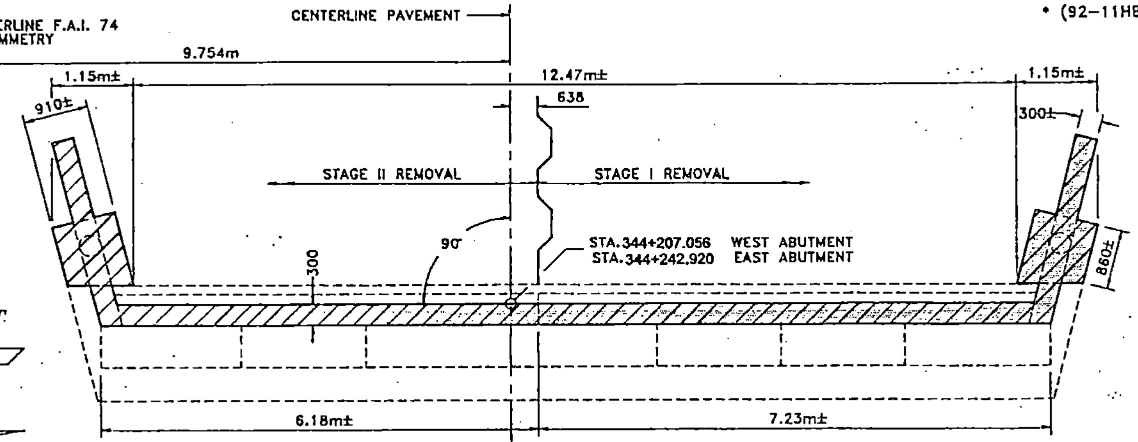
PLAN

CENTERLINE F.A.I. 74 & SYMMETRY

EAST ABUTMENT



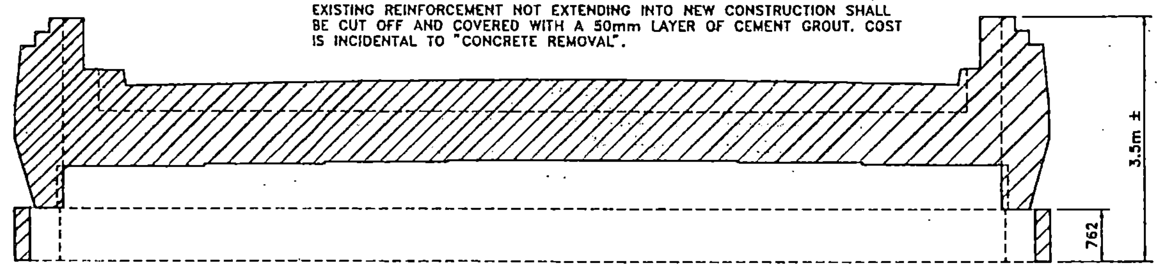
WEST ABUTMENT



PLAN

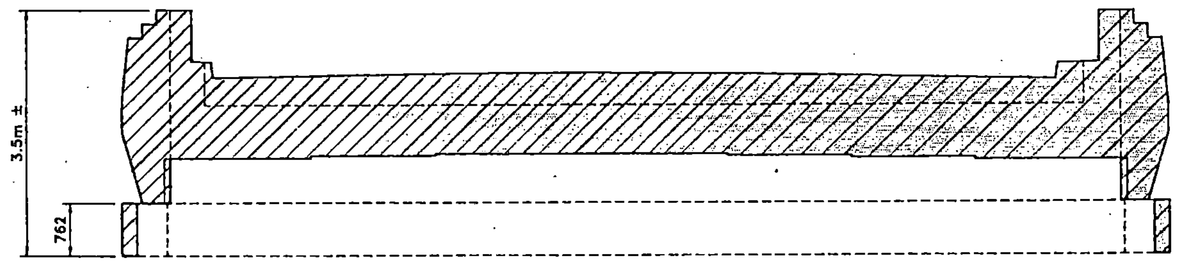
CONCRETE REMOVAL- EXISTING REINFORCEMENT EXTENDING INTO NEW CONSTRUCTION SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO NEW CONSTRUCTION. COST IS INCIDENTAL TO "CONCRETE REMOVAL".

EXISTING REINFORCEMENT NOT EXTENDING INTO NEW CONSTRUCTION SHALL BE CUT OFF AND COVERED WITH A 50mm LAYER OF CEMENT GROUT. COST IS INCIDENTAL TO "CONCRETE REMOVAL".



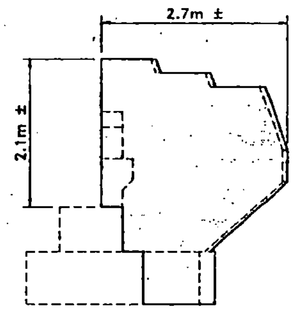
ELEVATION

EAST ABUTMENT WESTBOUND
WEST ABUTMENT EASTBOUND

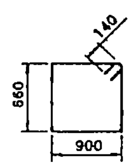


EAST ABUTMENT EASTBOUND
WEST ABUTMENT WESTBOUND

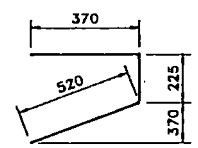
ELEVATION



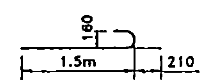
WINGWALL ELEVATION



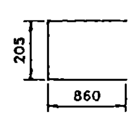
BARS s_1(E)



BARS s_2(E)

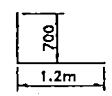


BAR n_1(E)

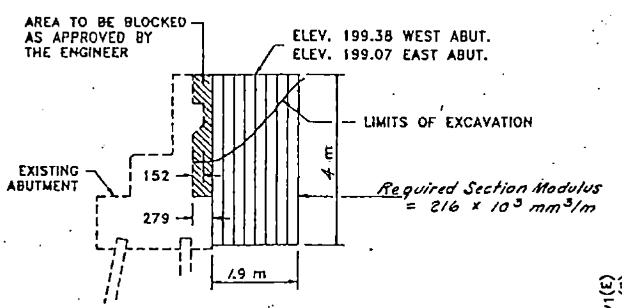


BAR u(E)

BAR n(E)

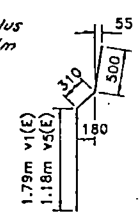


BAR h_7(E)

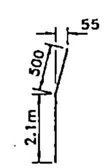


TEMPORARY SHEET PILING DETAIL

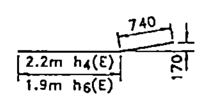
"IF THE CONTRACTOR CHOOSES TO ALTER THE TEMPORARY CANTILEVER SHEET PILING DESIGN REQUIREMENTS SHOWN ON THE PLANS FOR LESSER DESIGN REQUIREMENTS, THEN FULL DESIGN SUBMITTALS WITH THE REQIRED SEALS WILL BE EXPECTED BY THE DEPARTMENT FOR REVIEW AND APPROVAL."



BAR v_1(E) & v_5(E)



BAR v_3(E)



BAR h_4(E) & h_6(E)

BILL OF MATERIAL
(4) ABUTMENTS

Bar	No.	Size	Length (m)	Shape
h_1(E)	48	#15	6.4	
h_2(E)	48	#15	6.57	
h_3(E)	80	#15	2.92	
h_4(E)	48	#15	2.94	
h_5(E)	16	#15	2.62	
h_6(E)	16	#15	2.64	
h_7(E)	96	#15	1.9	
h_8(E)	32	#15	0.46	
n(E)	40	#20	3.42	
n_1(E)	48	#20	1.71	
p_1(E)	48	#25	2.6	
s_1(E)	64	#15	3.4	
s_2(E)	164	#15	1.115	
u(E)	164	#15	1.925	
v(E)	164	#15	0.65	
v_1(E)	48	#20	2.6	
v_2(E)	72	#20	2.6	
v_3(E)	24	#20	2.6	
v_4(E)	8	#20	1.96	
v_5(E)	8	#20	1.99	
v_6(E)	84	#15	0.46	
Structure Excavation			m^3	103
Concrete Structure			m^3	57.4
Reinforcement Bars, Epoxy Coated			kg	5320
Concrete Removal			m^3	32.5

PREPARED BY
CHAMLIN & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
PERU ILLINOIS MORRIS

ABUTMENT DETAILS
&
CONCRETE REMOVAL
FAI ROUTE 74 OVER "G" STREET
FAI ROUTE 74 SEC. (92-11HB-3) BR
STA. 344+224.988 (FAI 74)
STA. 0+609.601 ("G" STREET)
VERMILION COUNTY
SN 092-0010 (EB.) & 092-0011 (W.B.)

11014.00Y-1

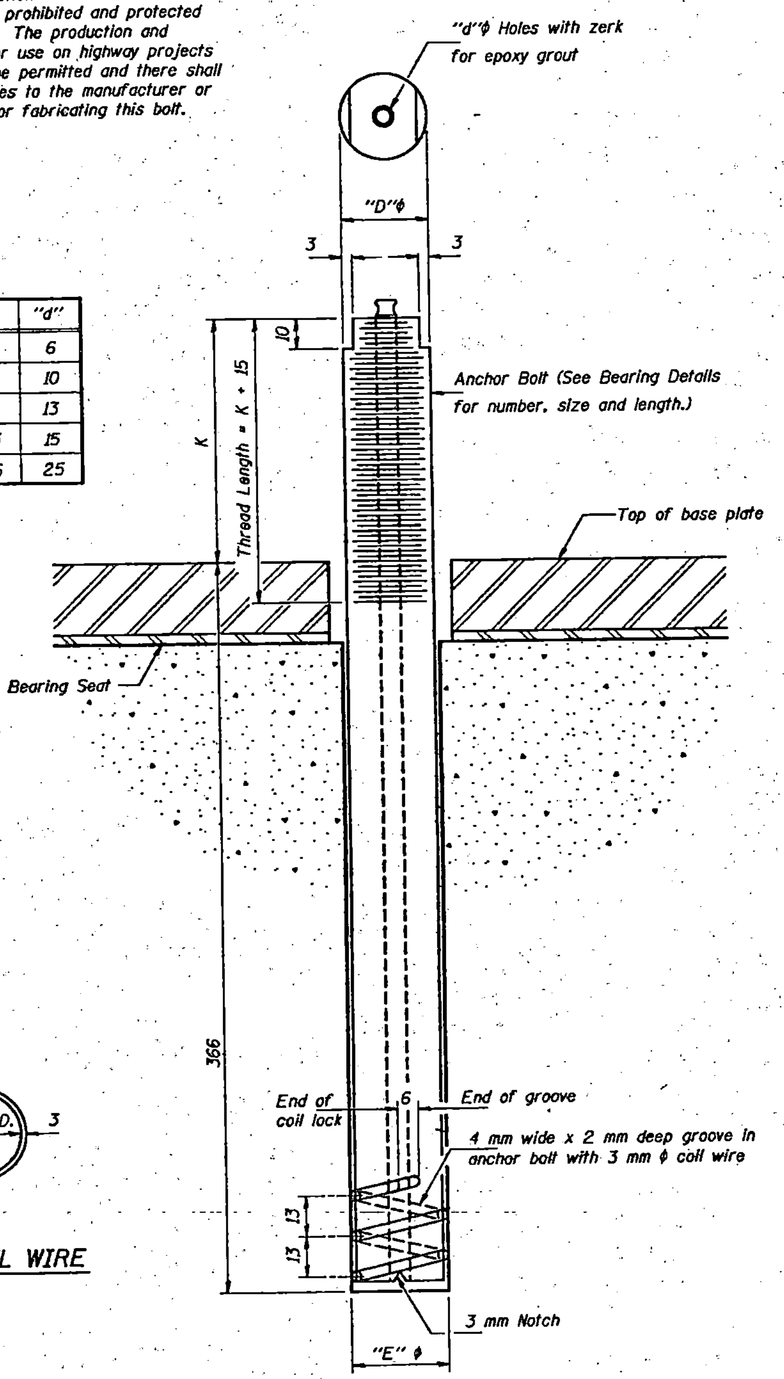
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	41	32
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
16 SHEETS
*(92-11HB-3)BR

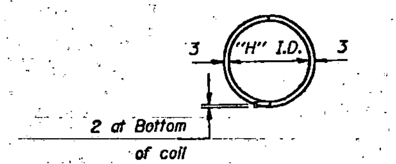
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



ILLINOIS COIL-LOCK ANCHOR BOLT



PLAN-COIL WIRE

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519. Grade 1026. CW and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed. The epoxy grout shall be a two-component, epoxy resin bonding system comforming to ASTM C 881. Type I. Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abutment	A307

ASTM F 1554 (Fy = 724 MPa), ASTM A 449 and AASHTO M 314 (Fy = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

All dimensions are in millimeters (mm) except as noted.

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

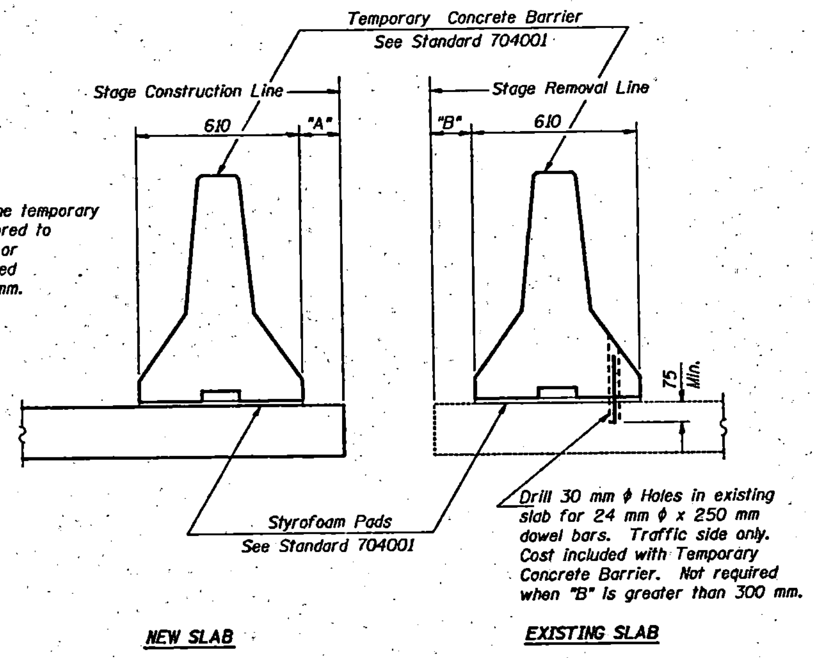
ABB-1 (M) 4-30-99

ANCHOR BOLT DETAILS
F.A.I. RT. 74 OVER "G" STREET
F.A.I. RT. 74 SEC. (92-11HB-3)BR
VERMILION COUNTY
STATION 344+224.988

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FAI 74	*	VERMILION	41	33	SHEET NO. 13 / 16 SHEETS

*92-11HB-3)BR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTIONS THRU SLAB

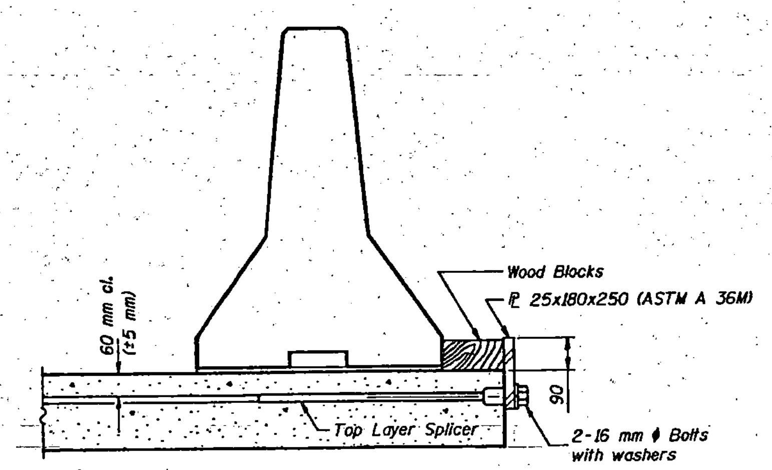
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 25x180x250 steel ℙ to the top layer of couplers with 2-16 mm ϕ bolts screwed to coupler at approximate ℄ of each 3 m barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 25x180x250 steel ℙ to the concrete slab with 2-16 mm ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each 3 m barrier panel.

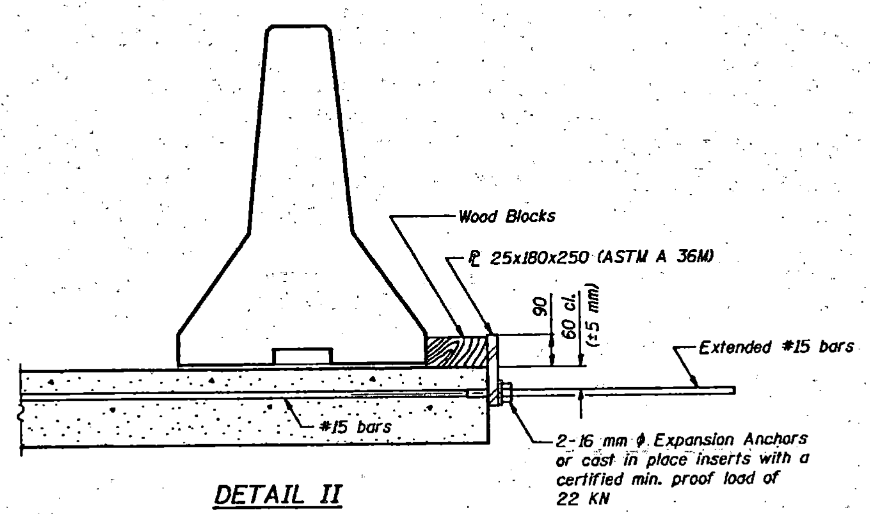
Cost of anchorage included with Temporary Concrete Barrier.

All dimensions are in millimeters (mm) except as noted.



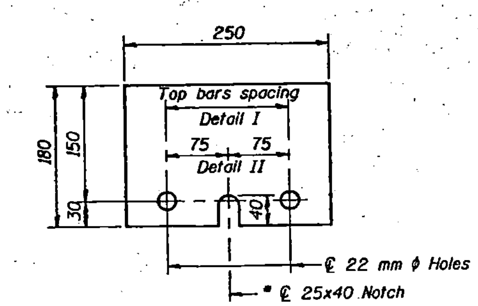
DETAIL I

The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



ℙ 25x180x250

* Required only with Detail II

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

R-27 (M) 4-30-99

TEMPORARY CONCRETE BARRIER
F.A.I. RT. 74 OVER "G" STREET
F.A.I. RT. 74 SEC. (92-11HB-3)BR
VERMILION COUNTY
STATION 344+224.988

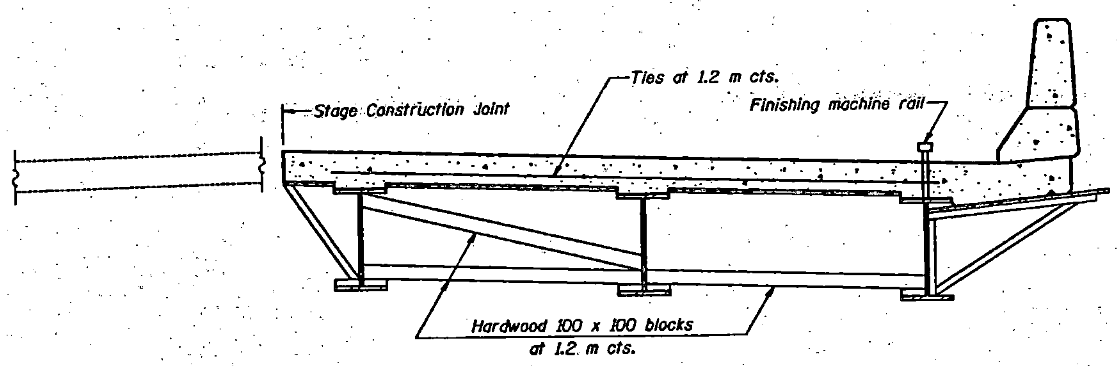
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	41	34

*92-11HB-3)BR

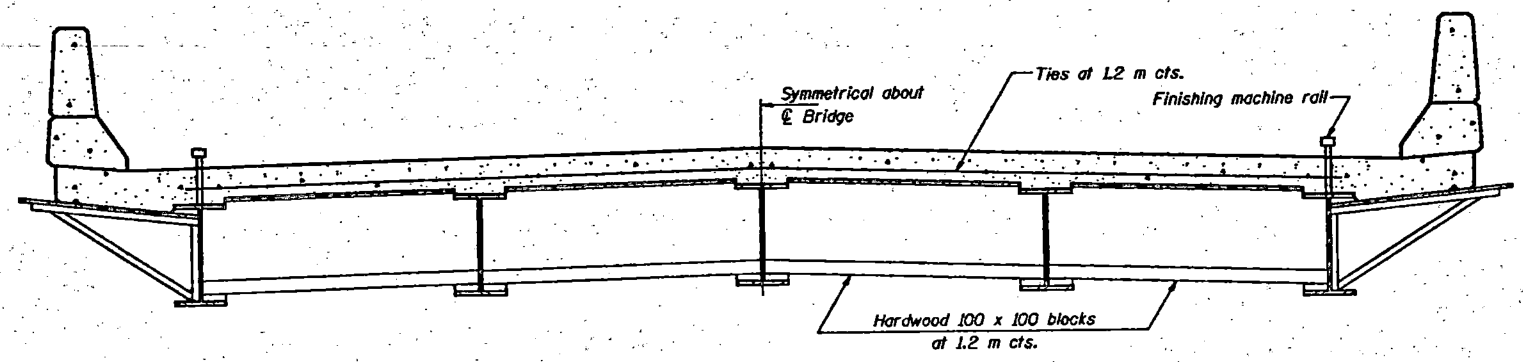
SHEET NO. 14
16 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

When cantilever forming brackets are used, the work shall be done according to Article 503.06, except as modified below and in the details shown on this sheet.
The finishing machine rails shall be placed on the top flange of the exterior beams.
The beams or girders supporting cantilever forming brackets shall be tied together at 1.2 m intervals.
For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR
STAGE CONSTRUCTION



FORM BRACES FOR
STANDARD CONSTRUCTION

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

SB-1 (M) 4-30-97

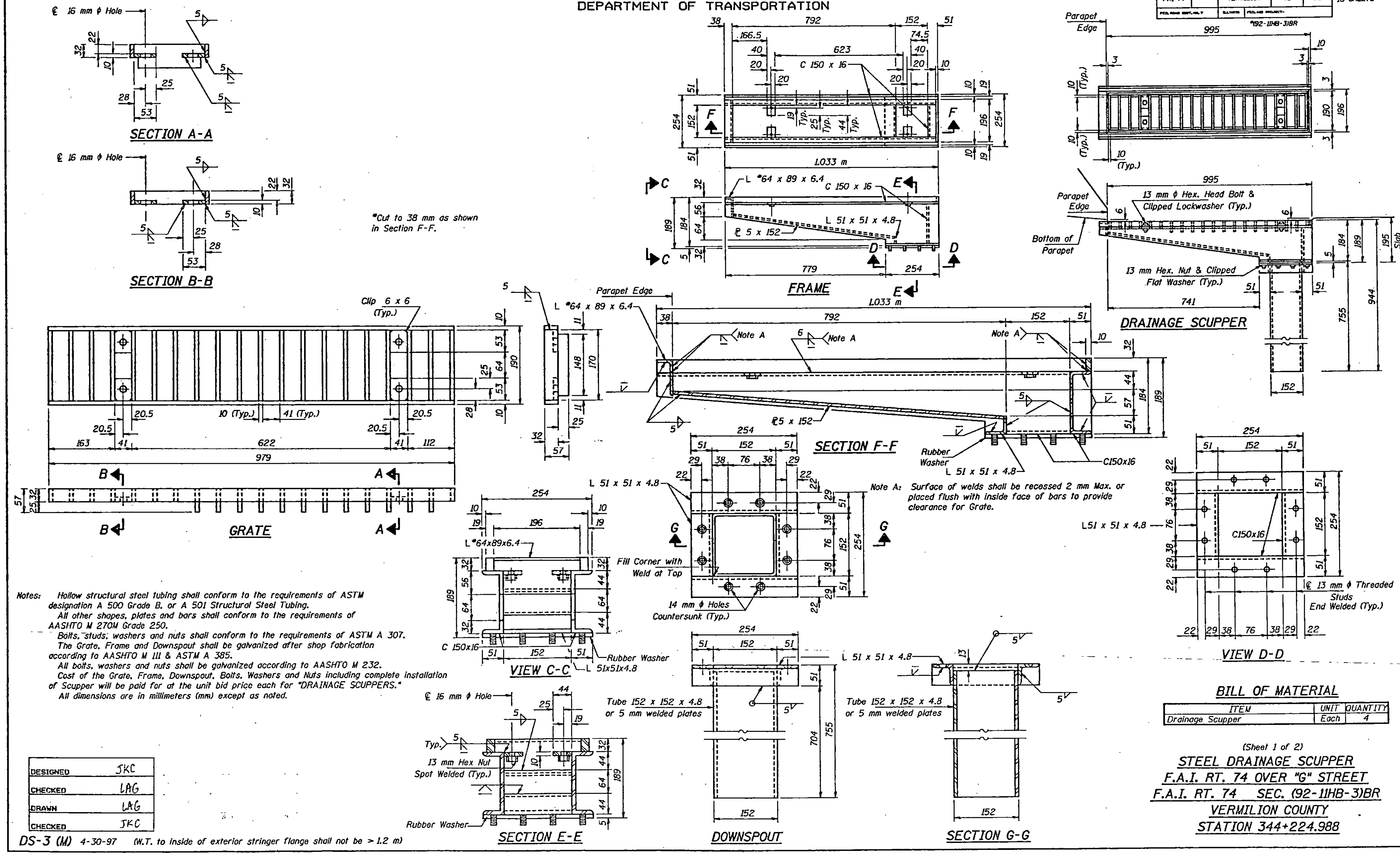
CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W690 BEAMS AND SMALLER
F.A.I. RT. 74 OVER "G" STREET
F.A.I. RT. 74 SEC. (92-11HB-3)BR
VERMILION COUNTY
STATION 344+224.988

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	41	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

*(92-11HB-3)BR

SHEET NO. 15
16 SHEETS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes: Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500 Grade B, or A 501 Structural Steel Tubing.
All other shapes, plates and bars shall conform to the requirements of AASHTO M 270M Grade 250.
Bolts, studs, washers and nuts shall conform to the requirements of ASTM A 307.
The Grate, Frame and Downspout shall be galvanized after shop fabrication according to AASHTO M 111 & ASTM A 385.
All bolts, washers and nuts shall be galvanized according to AASHTO M 232.
Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper will be paid for at the unit bid price each for "DRAINAGE SCUPPERS."
All dimensions are in millimeters (mm) except as noted.

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

DS-3 (M) 4-30-97 (W.T. to inside of exterior stringer flange shall not be > 1.2 m)

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper	Each	4

(Sheet 1 of 2)

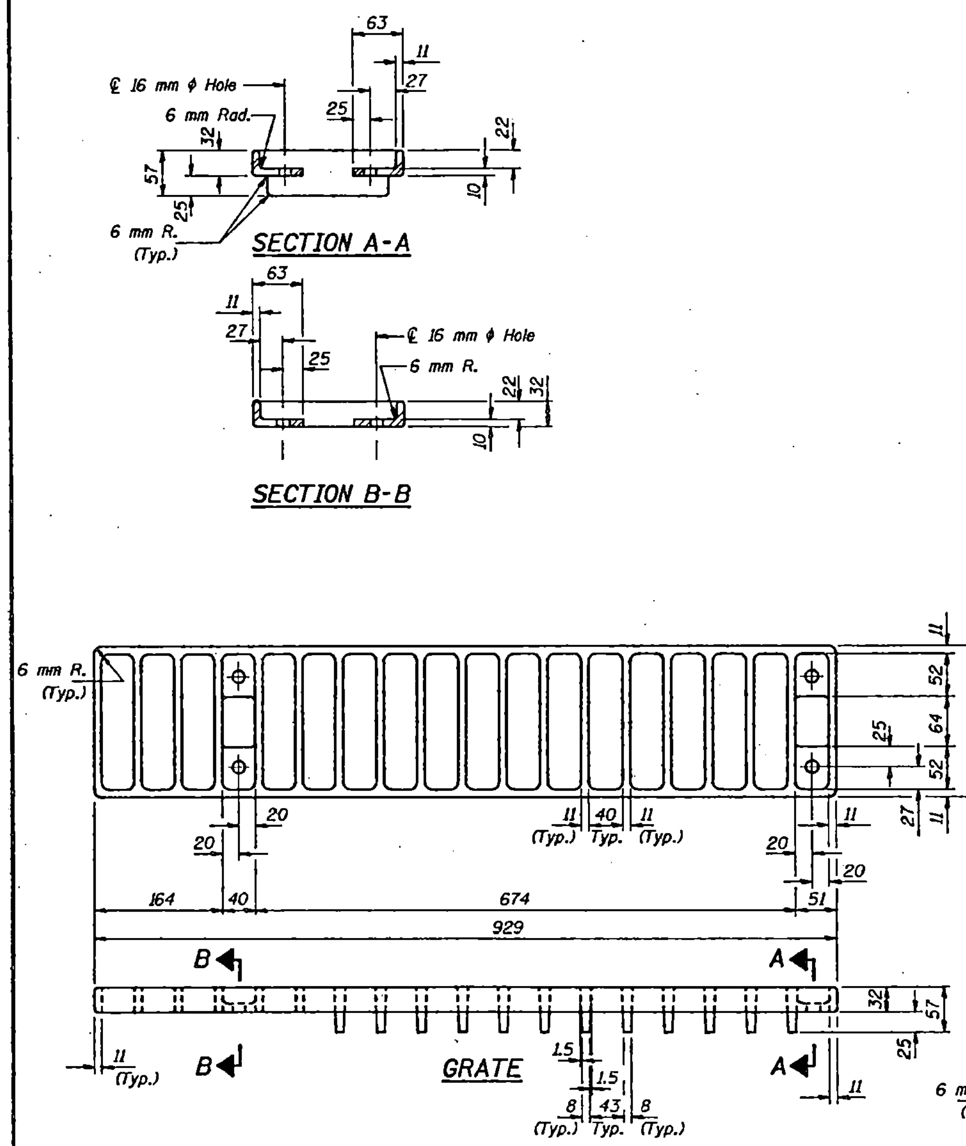
STEEL DRAINAGE SCUPPER
F.A.I. RT. 74 OVER "G" STREET
F.A.I. RT. 74 SEC. (92-11HB-3)BR
VERMILION COUNTY
STATION 344+224.988

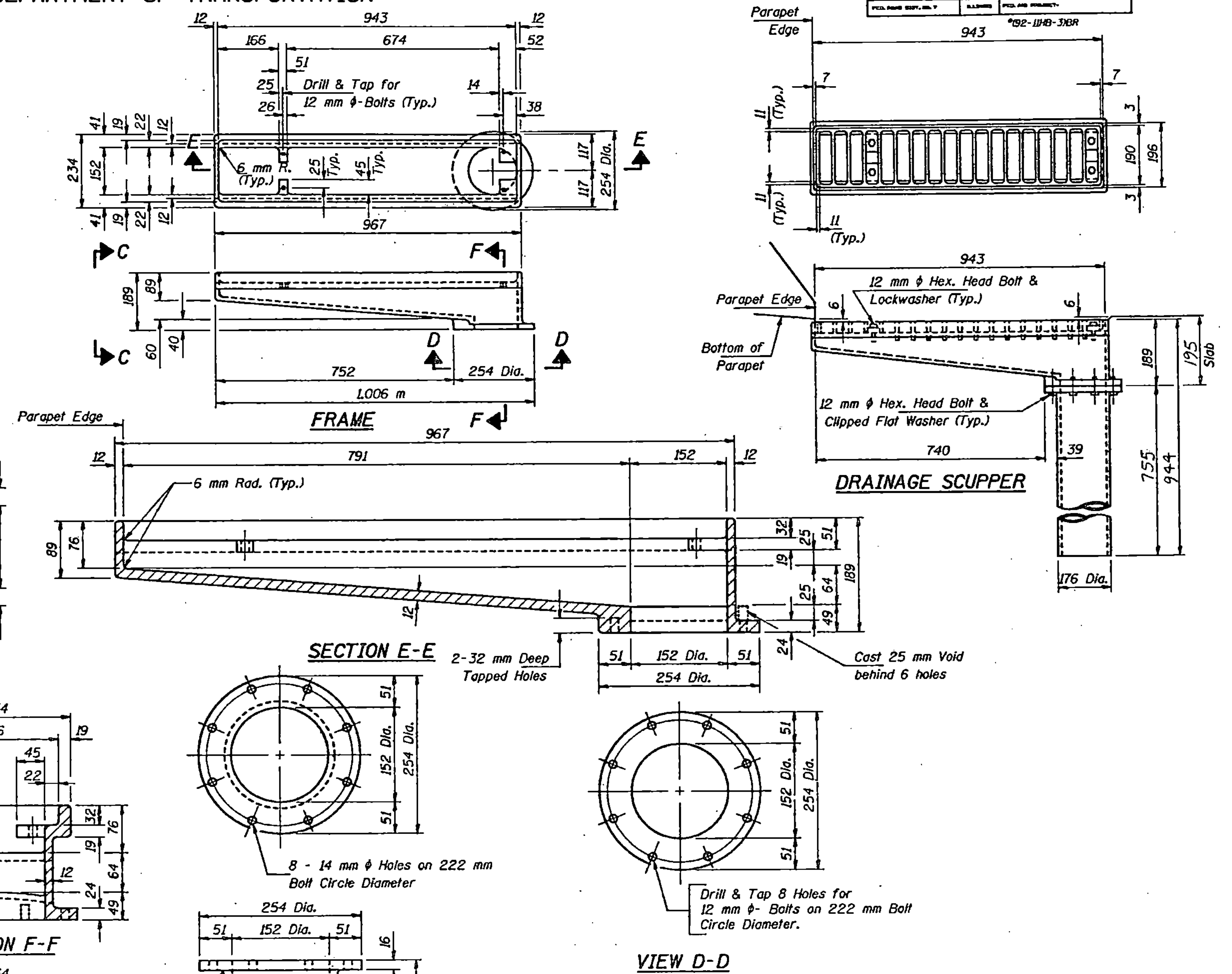
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

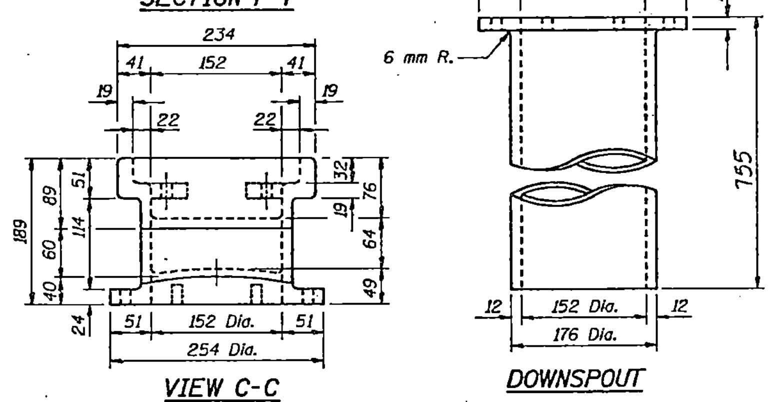
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 74	*	VERMILION	41	36

SHEET NO. 16
16 SHEETS

*(92-11HB-3)BR







Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 30.
Bolts and washers shall conform to the requirements of ASTM A 307.
All bolts and washers shall be galvanized according to AASHTO M 232.
As an alternate bolts and washers may be stainless steel.
Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper will be paid for at the unit bid price each for "DRAINAGE SCUPPERS."
The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.
All dimensions are in millimeters (mm) except as noted.

DESIGNED	JKC
CHECKED	LAG
DRAWN	LAG
CHECKED	JKC

DS-4 (M) 4-30-99 (W.T. to inside of exterior stringer flange shall not be > 1.2 m)

(Sheet 2 of 2)

ALTERNATE-CAST IRON DRAINAGE SCUPPER
F.A.I. RT. 74 OVER "G" STREET
F.A.I. RT. 74 SEC. (92-11HB-3)BR
VERMILION COUNTY
STATION 344+224.988

VERMILION SEC 92 (11RS, 11BR, 11VB-BR, 11VB-1-BR) I & R JUNE 21, 1991 # 307

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	165	1
F.H.W.A. REG.	ILLINOIS	PROJECT		

*92(11RS,11BR,11VB-BR,11VB-1-BR)

D-95-026-89

95%
7-16-94

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID INTERSTATE HIGHWAY

FOR INDEX OF SHEETS, SEE SHEET NO. 5
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 7-11 (INCL.)

SCALES: PLAN; PROFILE HOR.; PROFILE VERT.; CROSS-SECTIONS

F.A.I. ROUTE 74, SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR)

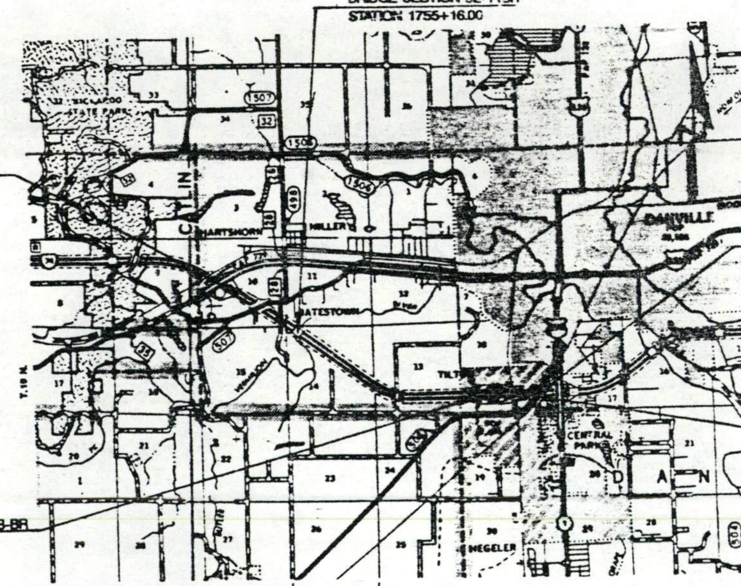
VERMILION COUNTY

C-95-067-90

INTERSTATE RESURFACING AND BRIDGE REHABILITATION

BRIDGE SECTION 92-11BR
STATION 1755+16.00

SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR)
BEGINS STATION 1716+00



SECTION 92(11RS, 11BR, 11VB-BR, 11VB-1-BR)
ENDS STATION 1906+00

BRIDGE SECTION 91-11VB-1-BR
STATION 1900+80.59

BRIDGE SECTION 92-11VB-BR
STATION 1877+01.73

SCALE: 1"=1 MILE

PROJECT ENGINEER: PAUL KOEHLER

SQUAD LEADER: DON CRAUN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 25 19 91
J. D. Brown
DISTRICT ENGINEER
EXAMINED 19 91
Gary D. Gould
ENGINEER OF PLANS AND CONTRACTS
PASSED
D. W. Weaver
ENGINEER OF DESIGN
APPROVED 19 91
Ralph C. Wehner
DIRECTOR, DIVISION OF HIGHWAYS

~~U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION~~
~~APPROVED~~
~~DIVISION ADMINISTRATOR DATE~~

DESIGN DESIGNATION
1630 (13) INTERSTATE 6.13(COMP.-6)

CONTRACT NO. 90165

TOTAL & NET LENGTH OF SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR) = 19,200.00FEET = 3.63 MILES

TOLL FREE J.U.L.I.E. TELEPHONE NO.
1-800-892-0123

DANVILLE TOWNSHIP

MJF

VERMILION COUNTY SECTION* F.A.I. ROUTE 74
*92(11RS,11BR,11VB-BR,11VB-1-BR)

VOID

5-161

092-0010(EB) 0011(WB)

FOR INDEX OF SHEETS— SEE SHEET. 4

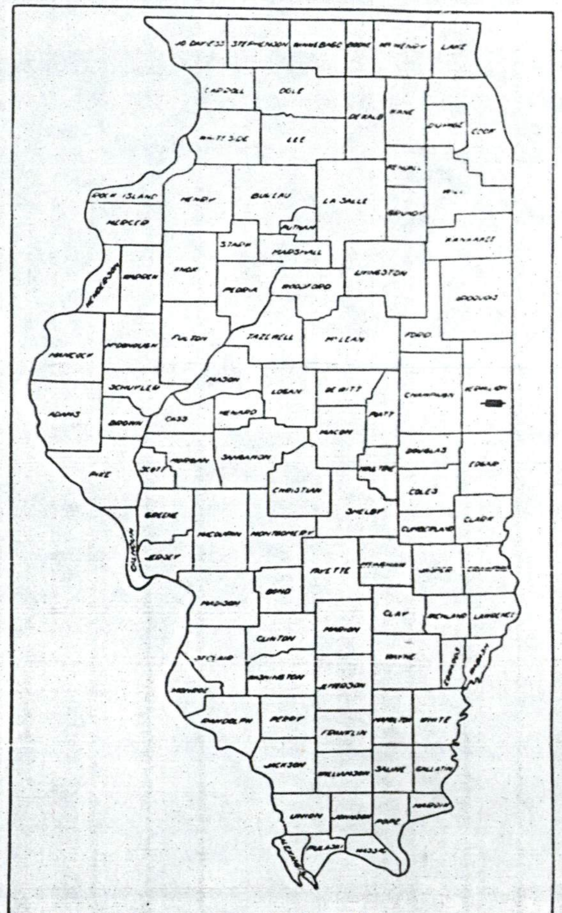
FOR SUMMARY OF QUANTITIES - SEE SHEET 4

FEDERAL AID ROUTE NO	SEC	COUNTY	TOTAL SHEETS	SHEET NO
FAI 74	92-11HB-3	VERMILION	42	1
FED ROAD DIST NO 7	ILLINOIS	PROJECT 1-74-6(39)216		

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY

SCALES
- PLAN 1 INCH 100 FT
- PROFILE. HOR 1 INCH 100 FT
- PROFILE. VERT 1 INCH 10 FT
- CROSS SECTIONS 1 INCH 5 FT

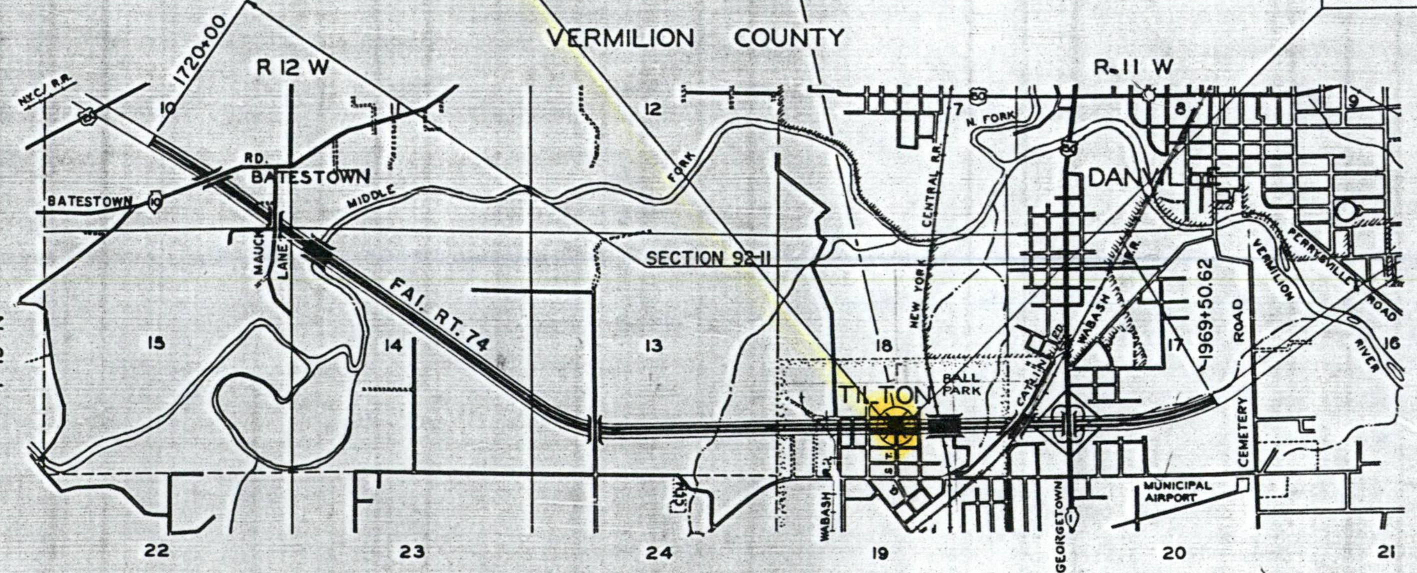
F.A.I. ROUTE 74, SECTION 92-11HB-3
VERMILION COUNTY
PROJECT 1-74-6(39)216



PROJECT 1-74-6(39)216
SEC. 92-11HB-3
BEGINS STA. 1890+61.75

SECTION 92-11HB-3 INCLUDES TWIN 3 SPAN STEEL BEAM GRADE SEPARATION STRUCTURES SPANS 37'-6", 39'-0" & 37'-6". WITH 39'-0" REINFORCED CONCRETE ROADWAYS AND 1'-0" CURB & 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS & ABUTMENTS AT STATION 1891+20.58

PROJECT 1-74-6(39)216
SEC. 92-11HB-3
ENDS STA. 1891+79.41



APPROVED
FOR STRUCTURAL ADEQUACY ONLY
W.E. Baumann 9-17-62
Engineer of Bridge & Traffic Structures

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED August 16, 1962
DISTRICT ENGINEER
EXAMINED October 9, 1962
ENGINEER OF ROAD PLANS AND CONTRACTS
PASSED October 9, 1962
ENGINEER OF DESIGN
APPROVED October 9, 1962
CHIEF HIGHWAY ENGINEER
APPROVED October 9, 1962
DIRECTOR

5-36

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED
DIVISION ENGINEER
DATE

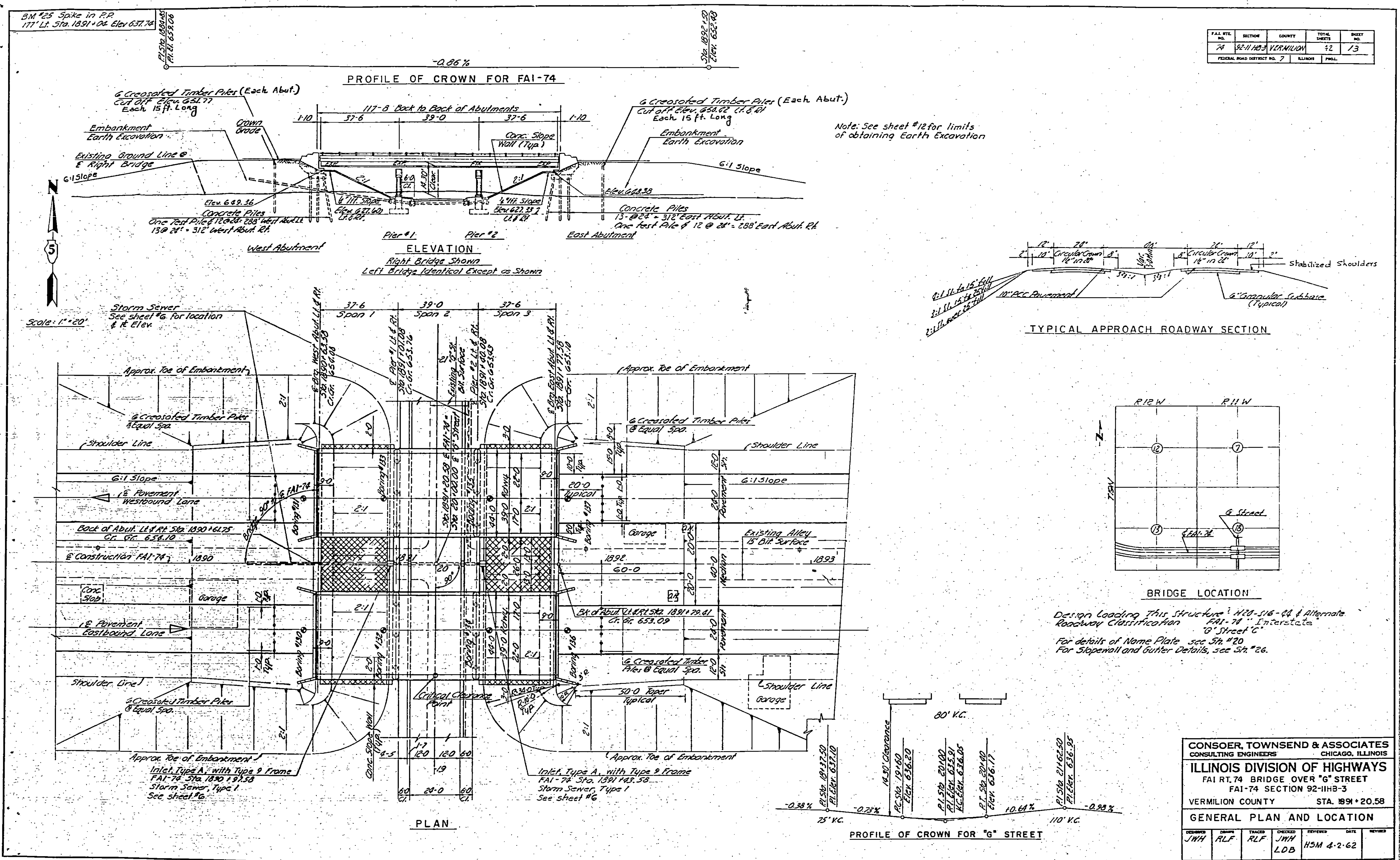
PLANS PREPARED BY
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
360 EAST GRAND AVE.
CHICAGO, ILL.

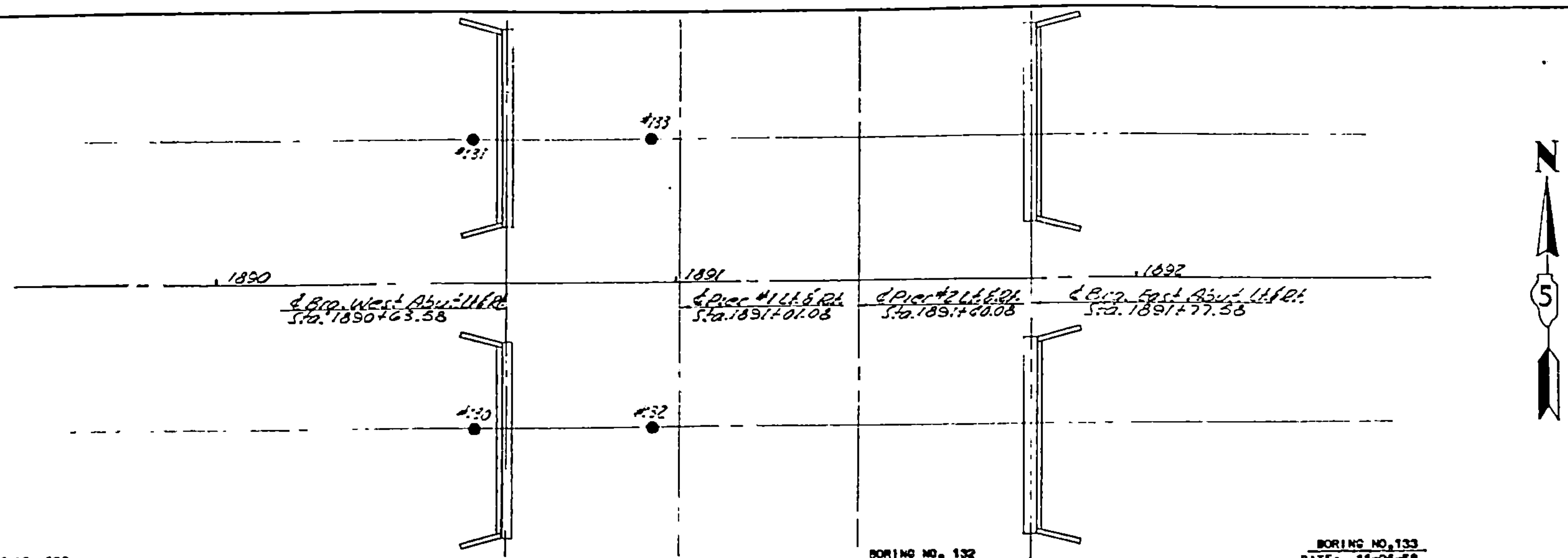
JOB NO 22721

FAI ROUTE 74. SECTION 92-11 HB-3. VERMILION COUNTY. 1-74-6(39)216

NET LENGTH OF SECTION = 117.66 FEET = 0.022 MILES
NET LENGTH OF PROJECT = 117.66 FEET = 0.022 MILES

VERMILION COUNTY SECTION 92-11 HB-3 F.A.I. ROUTE 74


BM #25 Spike in P.P. 177' Lt. Sta. 1891+04 Elev 631.74
-0.86%
PROFILE OF CROWN FOR FAI-74
6 Creosoted Timber Piles (Each Abut.)
117-8 Back to Back of Abutments
Embankment
Earth Excavation
Existing Ground Line @ ℄ Right Bridge
6:1 Slope
Crown Grade
Conc. Slope Wall (Typ.)
Concrete Piles
Pier #1
Pier #2
West Abutment
East Abutment
ELEVATION
Right Bridge Shown
Left Bridge Identical Except as Shown
Note: See sheet #12 for limits of obtaining Earth Excavation
Scale: 1" = 20'
Storm Sewer
See sheet #6 for location & ℞ Elev.
Approx. Toe of Embankment
Shoulder Line
6:1 Slope
℄ Pavement Westbound Lane
℄ Construction FAI-74
Garage
℄ Pavement Eastbound Lane
Existing Alley 15' Bit. Surface
Critical Clearance Point
Inlet, Type A, with Type 9 Frame
Storm Sewer, Type 1
See sheet #6
50-0 Taper Typical
PLAN
TYPICAL APPROACH ROADWAY SECTION
Stabilized Shoulders
10" PCC Pavement
6" Granular Subbase (Typical)
R12W
R11W
T19N
G Street
BRIDGE LOCATION
Design Loading This Structure: H20-S16-44 & Alternate
Roadway Classification FAI-74 "Interstate" "G" Street "C"
For details of Name Plate see Sh. #20
For Slopewall and Gutter Details, see Sh. #26.
80' V.C.
75' V.C.
110' V.C.
PROFILE OF CROWN FOR "G" STREET
F.A.I. RTE. NO. 74 SECTION 92-11HB-3 COUNTY VERMILION TOTAL SHEETS 42 SHEET NO. 13
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI-74 SECTION 92-11HB-3
VERMILION COUNTY STA. 1891+20.58
GENERAL PLAN AND LOCATION
JWH RLF RLF JWH LDB HSM 4-2-62



F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-IIHB-3	VERMILION	42	14
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

BORING NO. 130
DATE: 12-1-58
GROUND ELEVATION: +636.6'

+636.6' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
35.6	1	10	-	0.3	TOP SOIL & MISC. FILL BLACK-LOOSE (M)
34.6					
33.6	2	8	2.2	0.5	CLAY-SOME SILT-TRACE OF SAND-BROWN-VERY TOUGH (M)
32.6					
31.6	3	14	-	0.8	SILT-SOME SAND & CLAY BROWN-MED. DENSE (W)
30.6					
29.6	4	14	1.0	1.7	
28.6					
27.5					
26.6					SILT-SOME CLAY-& SAND-TRACE OF GRAVEL-RED & BROWN-DENSE (M)
25.6	5	56	-	1.6	
24.6					
[illegible]					
[illegible]					
23.1	6	114	-	0.8	SILT-SOME CLAY & SAND TRACE OF GRAVEL-RED & BROWN-VERY DENSE (D)
22.1					
21.6					
20.6	7	130	-	0.8	
19.6					

END OF BORING

NO WATER ENCOUNTERED WHILE SAMPLING & AFTER BORING

BORING NO. 131
DATE: 11-26-58
GROUND ELEVATION: +636.8'

+636.8' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
35.8	1	7	-	0.7	CLAY & SILT-SOME ORGANIC MATERIAL-DARK BROWN-TOUGH (M)
34.8					
33.8	2	9	-	0.3	CLAY-SOME SILT-TRACE OF SAND & GRAVEL-BROWN-TOUGH (M)
32.8					WATER LEVEL: +632.8' AFTER BORING
31.8	3	10	-	0.8	SILT-SOME SAND & CLAY-TRACE OF GRAVEL BROWN-MED. DENSE (M)
30.8					
29.8	4	27	3.3	1.0	
28.8					WATER LEVEL: +629.3' WHILE SAMPLING
27.8					
26.8					
25.8	5	128	-	1.0	SILT-SOME CLAY & SAND-TRACE OF GRAVEL RED & BROWN-VERY DENSE (D)
24.8					
24.3					
23.3	6	137	-	0.8	
22.3					

END OF BORING

BORING NO. 132
DATE: 12-1-58
GROUND ELEVATION: +637.3'

+637.3' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
36.3	1	6	-	0.3	BLACK-TOP SOIL-LOOSE (M)
35.3					
34.3	2	9	1.8	1.1	CLAY-SOME SILT-TRACE OF SAND-BROWN & BLACK TOUGH (SLIGHTLY ORG.) (M)
33.3					
32.3	3	12	2.2	1.0	SILT-SOME CLAY-TRACE OF SAND & GRAVEL-BROWN-MED. DENSE (M)
31.3					WATER LEVEL: +630.3' AFTER BORING
30.3	4	14	1.5	1.1	SILT-SOME SAND & CLAY-TRACE OF GRAVEL BROWN-MED. DENSE (W)
29.3					
28.3					
27.3					
26.3	5	41	5.6	0.9	
25.3					SILT-SOME CLAY & SAND-TRACE OF GRAVEL RED & BROWN-VERY DENSE (M)
24.8					
23.8	6	98	10.8	1.0	
22.8					
22.3					
21.3	7	41	9.5	0.9	
20.3					
[illegible]					
[illegible]					
18.8	8	168	-	0.7	SILT-SOME CLAY & FINE SAND-GRAY-VERY DENSE (D)
17.8					
[illegible]					
[illegible]	9	100+	-	0.3	
[illegible]					

END OF BORING

BORING NO. 133
DATE: 11-26-58
GROUND ELEVATION: +637.6'

+637.6' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
36.6	1	8	-	0.4	CLAY-SOME SILT-TRACE OF SAND & ORGANIC MATERIAL-DARK BROWN-STIFF (M)
36.1					
35.6					
34.6	2	12	-	0.6	SILT-SOME SAND & CLAY TRACE OF GRAVEL-BROWN MED. DENSE (W)
33.6					
32.6	3	10	0.7	0.8	
31.6					WATER LEVEL: +632.6' AFTER BORING
30.6	4	11	-	1.3	
29.6					WATER LEVEL: +629.6' WHILE SAMPLING
28.6					
27.6					
26.6	5	37	4.3	1.5	SILT-SOME CLAY-TRACE OF SAND & GRAVEL-RED & BROWN-VERY DENSE (M)
25.6					
[illegible]					
[illegible]					
24.1	6	111	10.7	0.8	
23.1					SILT-SOME CLAY & SAND TRACE OF GRAVEL-RED & BROWN-VERY DENSE (D)
22.6					
21.6	7	152	-	0.6	
20.6					

END OF BORING

BORING	STATION	OFFSET
130	1890+57.6'	32' R
131	1890+57.6'	32' L
132	1890+95.6'	32' R
133	1890+95.6'	32' L

GENERAL NOTES

1950 CHICAGO BUILDING CODE SOIL CLASSIFICATIONS ARE USED.

E : ELEVATION
S : SAMPLE NUMBERS
PR : PENETRATION IN BLOWS PER FOOT OF 140 POUNDS HAMMER FALLING 30 INCHES
QU : UNCONFINED COMPRESSIVE STRENGTH-T/SQ.FT.
R : RECOVERY IN FEET
SS : SPLIT SPOON-SIZE: 2"O.D. SIZE: 1 3/8" I.D.
M : MOIST
D : DRY
W : WET

*LOGS PREPARED BY
SOIL TESTING SERVICES, INC.
1827 N. HARLEM AVE.
CHICAGO, 35, ILL.

WATER LEVELS INDICATED ON THE BORING LOGS ARE THE LEVELS MEASURED IN THE BORING AT THE TIMES INDICATED. IN PERVIOUS SOILS, THE INDICATED ELEVATIONS ARE CONSIDERED RELIABLE GROUND WATER LEVELS. IN IMPERVIOUS SOILS, THE ACCURATE DETERMINATION OF GROUND WATER ELEVATIONS IS NOT POSSIBLE IN EVEN SEVERAL DAYS OBSERVATION, AND ADDITIONAL EVIDENCE ON GROUND WATER ELEVATIONS MUST BE SOUGHT.

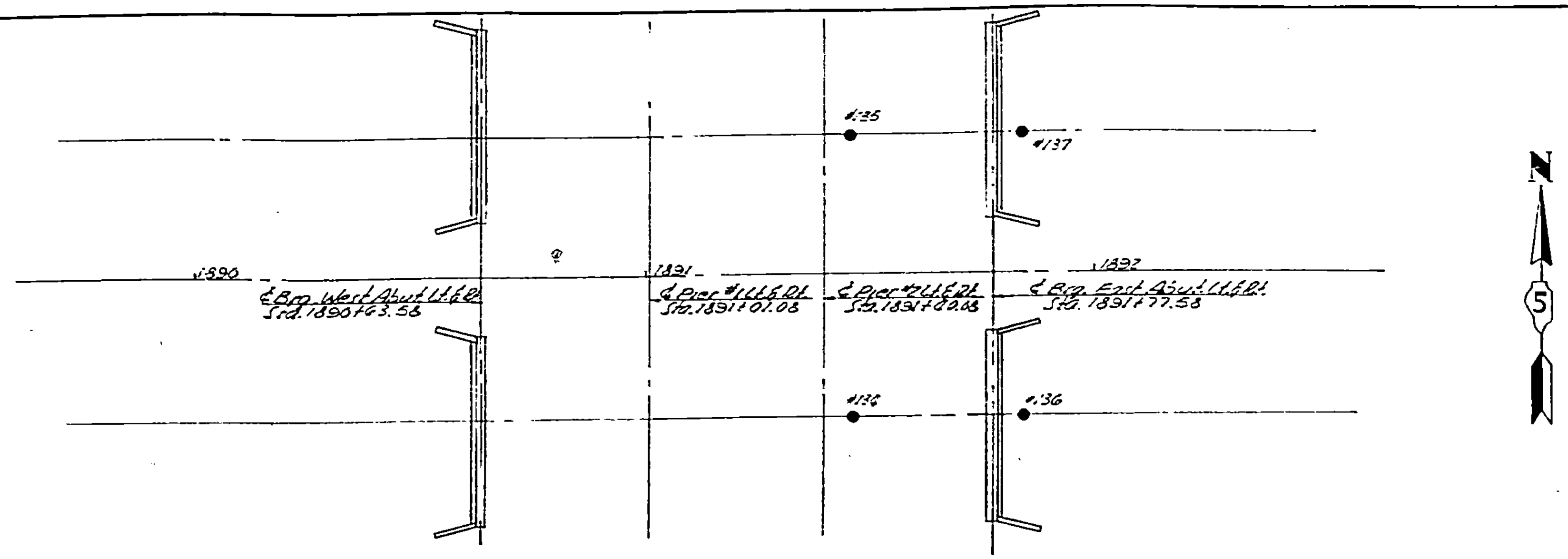
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 OVER "G" STREET
FAI-74 SECTION 92-IIHB-3
VERMILION COUNTY STA. 1891 + 20.58

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH			L.D.B.	H.S.M.	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
74	92-IIHB-3	VERMILION	42	15
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



BORING NO. 134
DATE: 11-24/26-58
GROUND ELEVATION: +636.3'

+636.3 GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
35.3	1	7	-	0.6	DARK BROWN TOP SOIL LOOSE (M)
34.3					
33.3	2	7	-	0.5	CLAY & SILT-TRACE OF SAND & ORGANIC MATERIAL-DARK BROWN-TOUGH
32.3					WATER LEVEL +631.3' AFTER BORING
31.3	3	7	-	0.6	
30.3					SILT-SOME SAND & CLAY-TRACE OF GRAVEL-BROWN-LOOSE (M TO W)
29.3	4	9	1.5	6.0	
28.3					
27.3					
26.3					SILT-SOME CLAY & SAND-TRACE OF GRAVEL-RED & BROWN-VERY DENSE (M)
25.3	5	51	10.5	0.8	
24.3					
[illegible]					
[illegible]					
22.8	6	37	10.8	0.7	SILT-SOME CLAY & SAND-TRACE OF GRAVEL RED & BROWN-VERY DENSE (D)
21.8					
21.3					
20.3	7	55	9.9	0.7	
19.3					
[illegible]					
[illegible]					
18.1	8	122	-	0.3	SILT-SOME CLAY & FINE SAND-GRAY-VERY DENSE (M)
17.3					
16.3					
15.8	9	128	-	0.3	
14.8					

END OF BORING

BORING NO. 135
DATE: 11-24-58
GROUND ELEVATION: +637.4'

+637.4' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
36.4	1	6	-	0.4	DARK BROWN TOP SOIL-LOOSE (M)
35.4					
34.4	2	8	1.4	0.5	CLAY-SOME SILT-TRACE OF SAND-BROWN-TOUGH (M)
33.4					
32.4	3	17	-	0.7	
31.4					SILT-SOME SAND-&-CLAY-TRACE OF GRAVEL BROWN-MED.DENSE (M)
30.4	4	21	1.2	0.8	
29.4					
28.4					
27.4					
26.4	5	43	3.7	1.4	SILT-SOME CLAY-TRACE OF SAND & GRAVEL-BROWN-DENSE (M)
25.4					
24.9					
23.9	6	116	-	1.4	
22.9					SILT-SOME CLAY & SAND-TRACE OF GRAVEL RED & BROWN-VERY DENSE (D)
22.4					
21.4	7	115	-	0.8	
20.4					

END OF BORING

NO WATER ENCOUNTERED WHILE SAMPLING, AFTER BORING & 24 HRS. AFTER BORING

BORING NO. 136
DATE: 11-26-58
GROUND ELEVATION: +635.4'

+635.4' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
34.4	1	3	-	0.5	BLACK TOP SOIL-LOOSE (M)
33.4					
32.4	2	14	-	0.3	SILT-SOME CLAY-TRACE OF SAND & ORGANIC MATERIAL-DARK BROWN-MED.DENSE (M)
31.4					
30.4	3	17	-	0.8	WATER LEVEL +629.4' AFTER BORING
29.4					
28.4	4	20	0.93	1.0	SILT-SOME FINE SAND-& CLAY-BROWN-MED. DENSE (M)
27.4					
26.4					
25.4					
24.4	5	15	4.2	1.1	SILT-SOME CLAY & SAND TRACE OF GRAVEL-VERY DENSE (M)
23.4					
[illegible]					
[illegible]					
21.9	6	110	-	0.9	
20.9					SILT-SOME CLAY & SAND-TRACE OF GRAVEL RED & BROWN-VERY DENSE (D)
20.4					
19.4	7	150+	-	-	
18.4					

END OF BORING

BORING NO. 137
DATE: 11-25/26-58
GROUND ELEVATION: +635.3'

+635.3' GROUND SURFACE

E	S	PR	QU	R	CLASSIFICATION
34.3	1	8	-	0.7	BLACK TOP SOIL-LOOSE (M)
33.3					
32.3	2	8	-	0.7	CLAY & SILT-TRACE OF SAND & ORGANIC MATTER BROWN-STIFF (M)
31.3					WATER LEVEL +631.3' AFTER BORING
30.3	3	15	-	0.7	
29.3					
28.3	4	19	-	0.8	SILT-SOME SAND & CLAY TRACE OF GRAVEL-BROWN MED.DENSE (M)
27.3					
26.3					
25.3					
24.3	5	40	-	1.3	SILT-SOME CLAY & SAND TRACE OF GRAVEL-BROWN DENSE (M)
23.3					
23.0					
[illegible]					
22.1	6	249	-	0.7	
21.3					SILT-SOME CLAY & SAND TRACE OF GRAVEL-RED & BROWN-VERY DENSE (D)
20.3					
19.3	7	195	-	0.8	
18.3					

END OF BORING

BORING	STATION	OFFSET
134	1891+45.6	32'R
135	1891+45.6	32'L
136	1891+83.6	32'R
137	1891+83.6	32'L

*LOGS PREPARED BY
SOIL TESTING SERVICES, INC.
1827 N. HARLEM AVE.
CHICAGO, 35, ILL.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

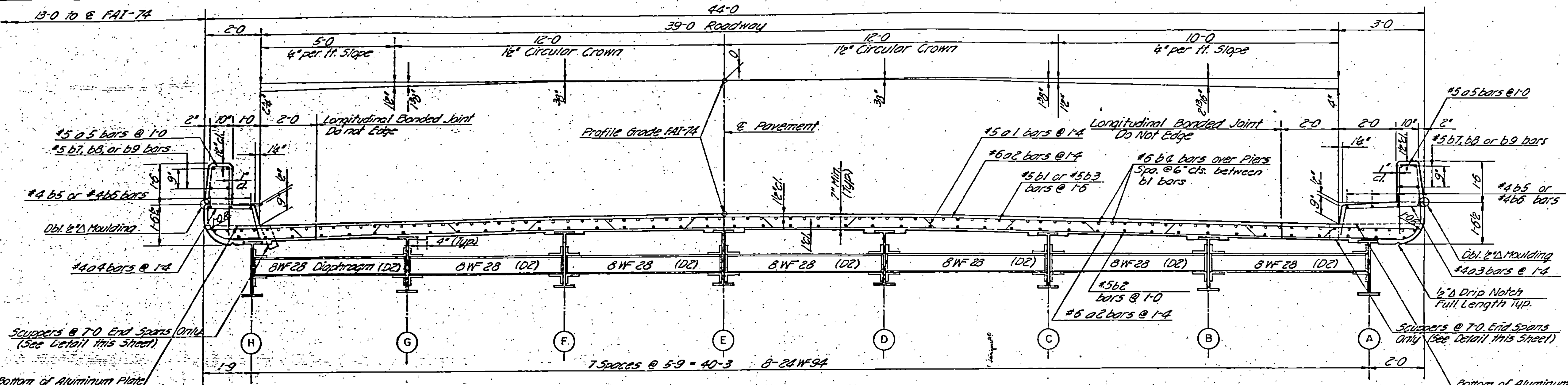
ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 OVER "G" STREET
FAI 74 SECTION 92-IIHB-3
VERMILION COUNTY STA. 1891 + 20.58

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JWH			L.D.B.	H.S.M.	4·2·62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	17
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



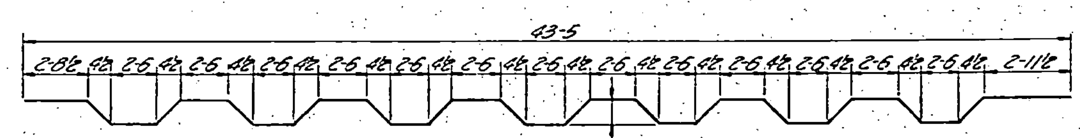
TYPICAL DECK SECTION
(Right Bridge shown - Left Bridge Identical by 180° Rotation)

BAR SCHEDULE					
Bar	No.	Size	Length	Spacing	Shape
a1	174	5	45-9	1-6	
a2	344	6	42-0	1-4	
a3	176	4	3-7	1-4	
a4	176	4	2-7	1-4	
a5	468	5	7-4	1-0	
a6	8	4	20-6	As Shown	
b1	120	5	19-4	1-5	
b2	258	5	39-0	1-0	
b3	120	5	40-0	1-6	
b4	232	6	13-0	As Shown	
b5	56	4	19-6	As Shown	
b6	28	4	20-0	As Shown	
b7	32	5	8-8	As Shown	
b8	96	5	9-5	As Shown	
b9	48	5	12-8	As Shown	
x1	156	4	5-8	1-0	

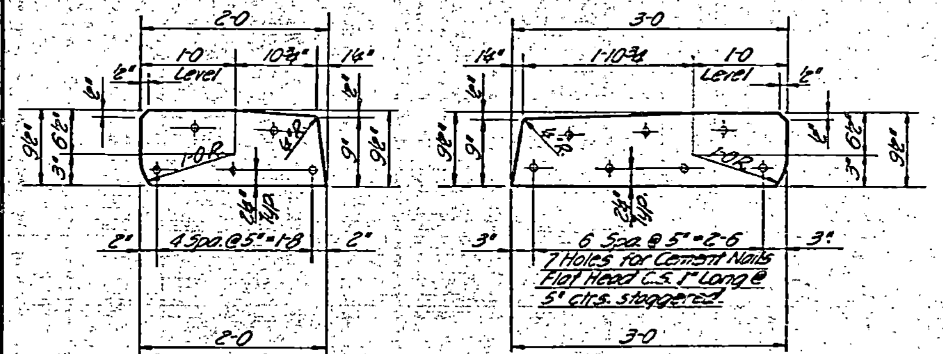
SUPERSTRUCTURE QUANTITIES		
Class X Concrete	286.4	Cu. Yds.
Reinforcement Bars	60,430	Lbs.
PROTECTIVE COAT	1260	SQ. YD.

Note: Quantities shown are for both structures.

Cost of Aluminum Plates used in Construction Joints and Aluminum Scuppers shall be included in the Unit Price bid for Class "X" Concrete.



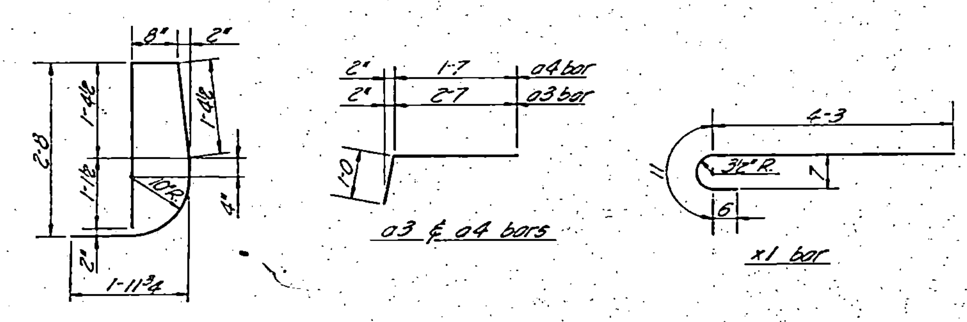
a1 bar



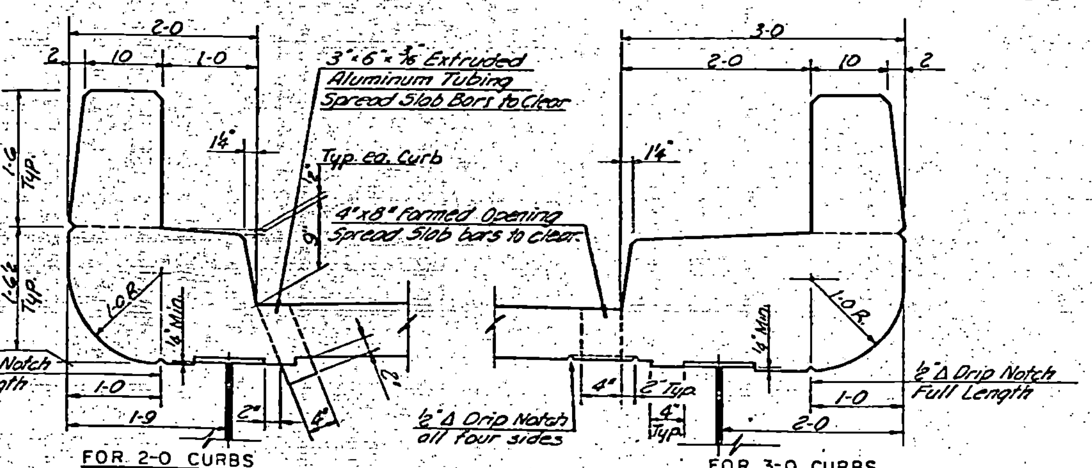
FOR 2-0 CURBS (4 Required)

FOR 3-0 CURBS (4 Required)

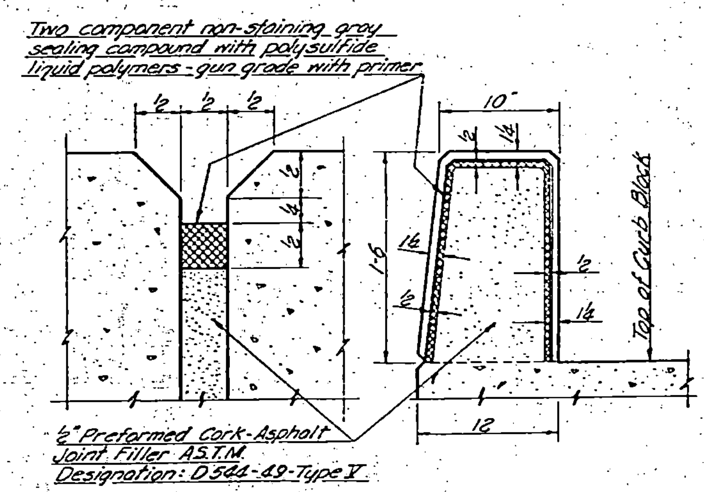
ALUMINUM PLATE DETAILS
(For Location of Plates, see Sheet No. 16)



BENDING DIAGRAMS
(All bar dimensions are out to out)



CURB & SCUPPER DETAILS



DETAIL OF JOINT IN PARAPET - TYPE HANDRAIL

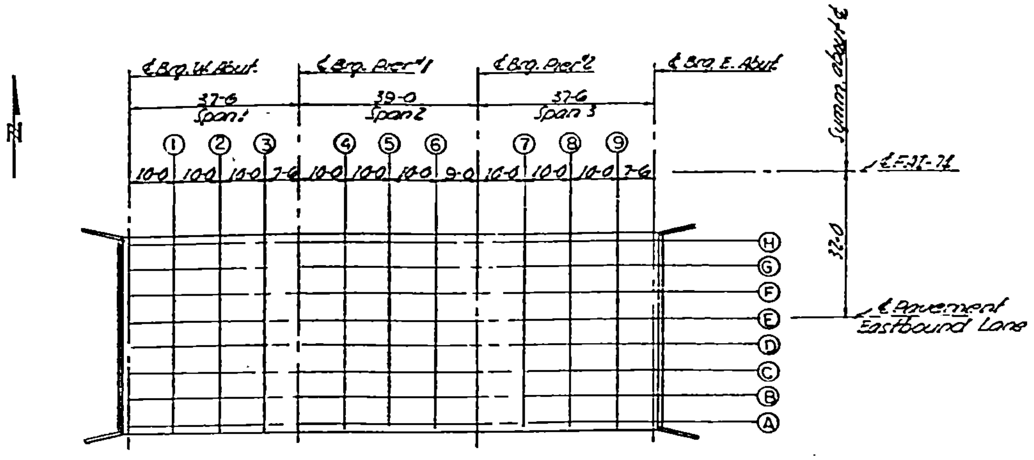
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI-74 SECTION 92-11HB-3
VERMILION COUNTY — STA. 1891+20.58

SUPERSTRUCTURE DETAILS

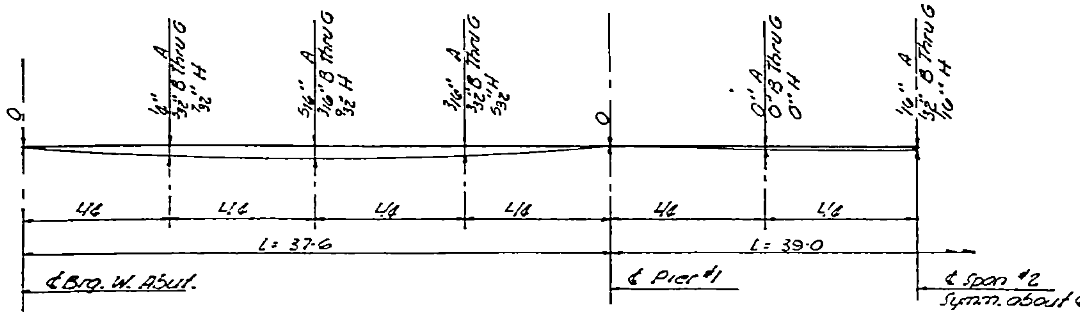
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	DS	DS	JWH LDB	HSM	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-IIHB-3	VERMILION	42	18
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



PLAN

Right Bridge shown
Left Bridge Identical - Symm. about ℄ F.A.I. 74



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of Concrete only)

Note: The above deflections are not for use in the field if the Engineer is working from the Theoretical Grade Elevations Adjusted for Dead Load Deflections.

SPAN 1					
GRID LINE	BEAM	STATION	OFFSET	THEOR. ELEV.	ADJUSTED ELEV.
℄ Brg. W. Abut.	A	1890+63.58	23.000	653.751	653.751
	B		17.250	653.850	653.850
	C		11.500	653.970	653.970
	D		5.750	654.053	654.053
	E		0	654.084	654.084
	F		5.750	654.053	654.053
	G		11.500	653.970	653.970
	H		17.250	653.855	653.855
①	A	1890+73.58	23.000	653.665	653.686
	B		17.250	653.764	653.776
	C		11.500	653.884	653.896
	D		5.750	653.967	653.979
	E		0	653.998	654.010
	F		5.750	653.967	653.979
	G		11.500	653.884	653.896
	H		17.250	653.769	653.788
②	A	1890+83.58	23.000	653.579	653.604
	B		17.250	653.678	653.692
	C		11.500	653.798	653.812
	D		5.750	653.881	653.895
	E		0	653.912	653.926
	F		5.750	653.881	653.895
	G		11.500	653.798	653.812
	H		17.250	653.683	653.705
③	A	1890+93.58	23.000	653.493	653.504
	B		17.250	653.592	653.598
	C		11.500	653.712	653.718
	D		5.750	653.795	653.801
	E		0	653.826	653.832
	F		5.750	653.795	653.801
	G		11.500	653.712	653.718
	H		17.250	653.597	653.606

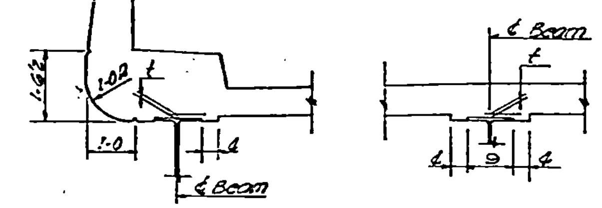
SPAN 2					
GRID LINE	BEAM	STATION	OFFSET	THEOR. ELEV.	ADJUSTED ELEV.
℄ Brg. Pier #1	A	1891+01.08	23.000	653.428	653.428
	B		17.250	653.527	653.527
	C		11.500	653.647	653.647
	D		5.750	653.730	653.730
	E		0	653.762	653.762
	F		5.750	653.730	653.730
	G		11.500	653.647	653.647
	H		17.250	653.533	653.533
④	A	1891+11.08	23.000	653.342	653.343
	B		17.250	653.441	653.442
	C		11.500	653.561	653.562
	D		5.750	653.644	653.645
	E		0	653.676	653.677
	F		5.750	653.644	653.645
	G		11.500	653.561	653.562
	H		17.250	653.447	653.448
⑤	A	1891+21.08	23.000	653.256	653.260
	B		17.250	653.355	653.357
	C		11.500	653.475	653.477
	D		5.750	653.558	653.560
	E		0	653.590	653.592
	F		5.750	653.558	653.560
	G		11.500	653.475	653.477
	H		17.250	653.361	653.365
⑥	A	1891+31.08	23.000	653.170	653.171
	B		17.250	653.269	653.270
	C		11.500	653.389	653.390
	D		5.750	653.472	653.473
	E		0	653.504	653.505
	F		5.750	653.472	653.473
	G		11.500	653.389	653.390
	H		17.250	653.275	653.276

SPAN 3					
GRID LINE	BEAM	STATION	OFFSET	THEOR. ELEV.	ADJUSTED ELEV.
℄ Brg. Pier #2	A	1891+40.08	23.000	653.093	653.093
	B		17.250	653.192	653.192
	C		11.500	653.312	653.312
	D		5.750	653.395	653.395
	E		0	653.426	653.426
	F		5.750	653.395	653.395
	G		11.500	653.312	653.312
	H		17.250	653.197	653.197
⑦	A	1891+50.08	23.000	653.007	653.022
	B		17.250	653.106	653.115
	C		11.500	653.226	653.235
	D		5.750	653.309	653.318
	E		0	653.340	653.349
	F		5.750	653.309	653.318
	G		11.500	653.226	653.235
	H		17.250	653.111	653.124
⑧	A	1891+60.08	23.000	652.921	652.942
	B		17.250	653.020	653.034
	C		11.500	653.140	653.154
	D		5.750	653.223	653.237
	E		0	653.254	653.268
	F		5.750	653.223	653.237
	G		11.500	653.140	653.154
	H		17.250	653.025	653.048
⑨	A	1891+70.08	23.000	652.835	652.852
	B		17.250	652.934	652.944
	C		11.500	653.054	653.064
	D		5.750	653.137	653.147
	E		0	653.168	653.178
	F		5.750	653.137	653.147
	G		11.500	653.058	653.068
	H		17.250	652.939	652.954
℄ Brg. E. Abut.	A	1891+77.58	23.000	652.771	652.771
	B		17.250	652.869	652.869
	C		11.500	652.989	652.989
	D		5.750	653.073	653.073
	E		0	653.104	653.104
	F		5.750	653.073	653.073
	G		11.500	652.989	652.989
	H		17.250	652.875	652.875

RIGHT AND LEFT BRIDGES						
TABLE OF ELEVATIONS FOR TOP OF BEAMS						
Beam \ Location	℄ Brg. W. Abut.	℄ Splice Span #1	℄ Brg. Pier 1	℄ Brg. Pier 2	℄ Splice Span #3	℄ Brg. E. Abut.
A	653.126	652.868	652.803	652.468	652.404	652.146
B	653.225	652.967	652.902	652.567	652.502	652.244
C	653.345	653.087	653.022	652.687	652.622	652.366
D	653.428	653.170	653.105	652.770	652.706	652.448
E	653.459	653.201	653.137	652.801	652.737	652.479
F	653.428	653.170	653.105	652.770	652.706	652.448
G	653.345	653.087	653.022	652.687	652.622	652.366
H	653.230	652.972	652.908	652.572	652.508	652.250

Note: Top of Beam elevations refer to top of WF (not top of Splice) after steel erection and before concrete deck is placed. These elevations are theoretical and do not include deflections due to weight of structural steel.

Note: THEORETICAL ELEVATION is the Theoretical top of Slab Elevation.
ADJUSTED ELEVATION is the Theoretical top of Slab Elevation adjusted for the concrete Dead Load Deflection.
OFFSET is the right angle offset from ℄ Pavement (Beam E)



FILLET DETAILS

METHOD FOR DETERMINING FILLET HEIGHT "t"

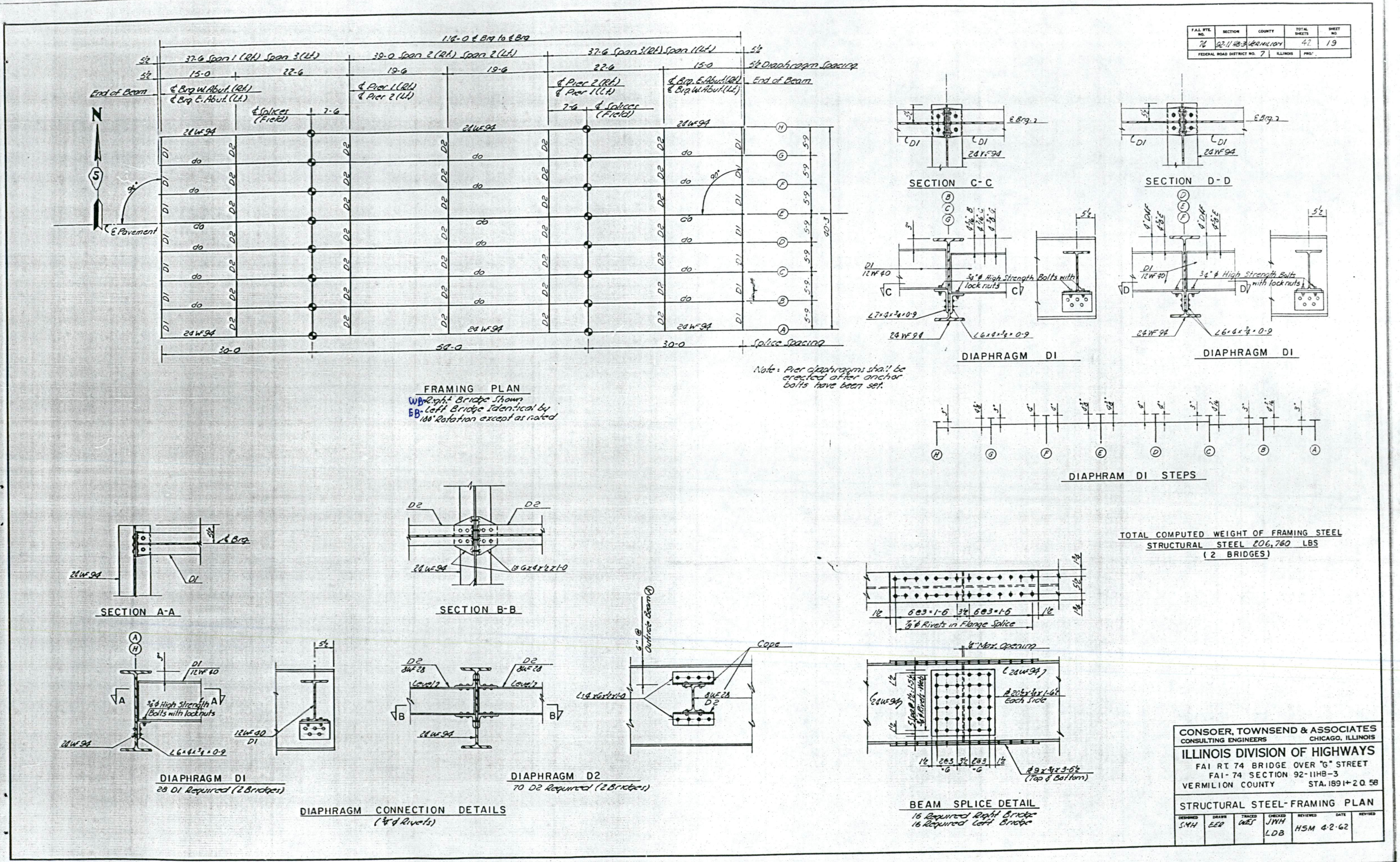
After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on this sheet, minus floor thickness equals the fillet heights above top of beams.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI - 74 SECTION 92-IIHB-3
VERMILION COUNTY — STA. 1891+20.58

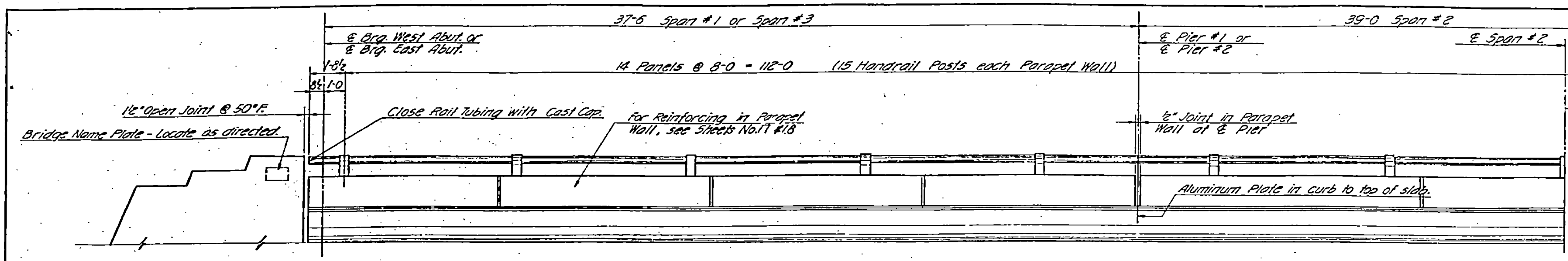
SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RLF	RLF	WES	JWH LDB	HSM	4-2-62	



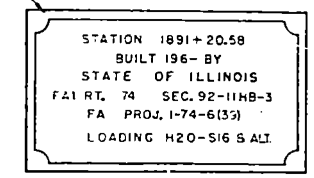
F.A.I. RTE. NO. 74 | SECTION 92-11HB-3 | COUNTY VERMILION | TOTAL SHEETS 42 | SHEET NO. 19
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS
118-0 ℄ Brg to ℄ Brg
37-6 Span 1 (Rt) Span 3 (Lt)
39-0 Span 2 (Rt) Span 2 (Lt)
37-6 Span 3 (Rt) Span 1 (Lt)
5½ Diaphragm Spacing
End of Beam
℄ Brg W. Abut. (Rt)
℄ Brg E. Abut. (Lt)
℄ Pier 1 (Rt)
℄ Pier 2 (Lt)
℄ Pier 2 (Rt)
℄ Pier 1 (Lt)
℄ Brg E. Abut. (Rt)
℄ Brg W. Abut. (Lt)
℄ Splices (Field)
℄ Pavement
N
5
24 WF 94
do
D1
D2
40-3
5-9
30-0
58-0
30-0
Splice Spacing
Note: Pier diaphragms shall be erected after anchor bolts have been set.
FRAMING PLAN
WB-Right Bridge Shown
EB-Left Bridge Identical by 180° Rotation except as noted
SECTION C-C
SECTION D-D
℄ Brg. 2
¾" ϕ High Strength Bolts with lock nuts
DIAPHRAGM D1
12 WF 40
DIAPHRAM D1 STEPS
TOTAL COMPUTED WEIGHT OF FRAMING STEEL
STRUCTURAL STEEL 206,760 LBS
(2 BRIDGES)
SECTION A-A
SECTION B-B
DIAPHRAGM D1
28 D1 Required (2 Bridges)
DIAPHRAGM D2
70 D2 Required (2 Bridges)
8 WF 28
DIAPHRAGM CONNECTION DETAILS
(¾" ϕ Rivets)
6" @ Outside Beam A
Cope
⅞" ϕ Rivets in Flange Splice
⅛" Max. opening
BEAM SPLICE DETAIL
16 Required Right Bridge
16 Required Left Bridge
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI-74 SECTION 92-11HB-3
VERMILION COUNTY STA. 1891+20.58
STRUCTURAL STEEL-FRAMING PLAN
DESIGNED SMH | DRAWN EER | TRACED WES | CHECKED JWH LDB | REVIEWED HSM | DATE 4-2-62

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	20
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		

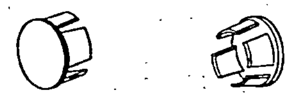


HANDRAIL ELEVATION
(Rt. Bridge shown - Lt. Bridge identical.)

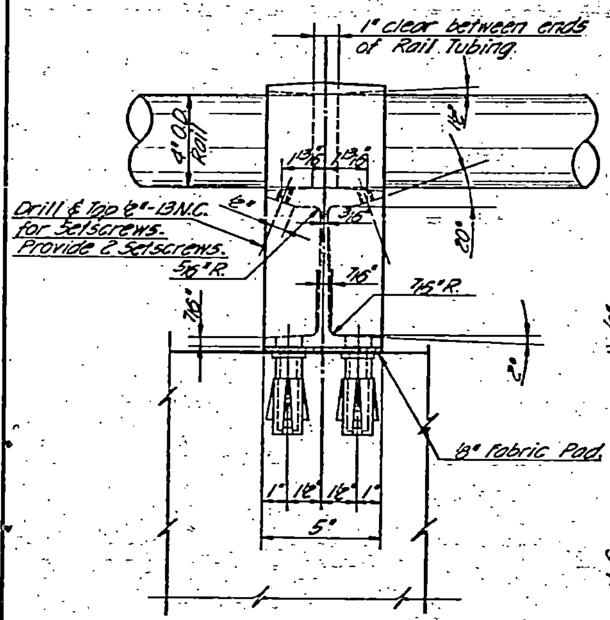
Brass or bronze name plate, Illinois Highway Standard No. 2113 (included with Plans).



ELEVATION
BRIDGE NAME PLATE
(Provide 2)

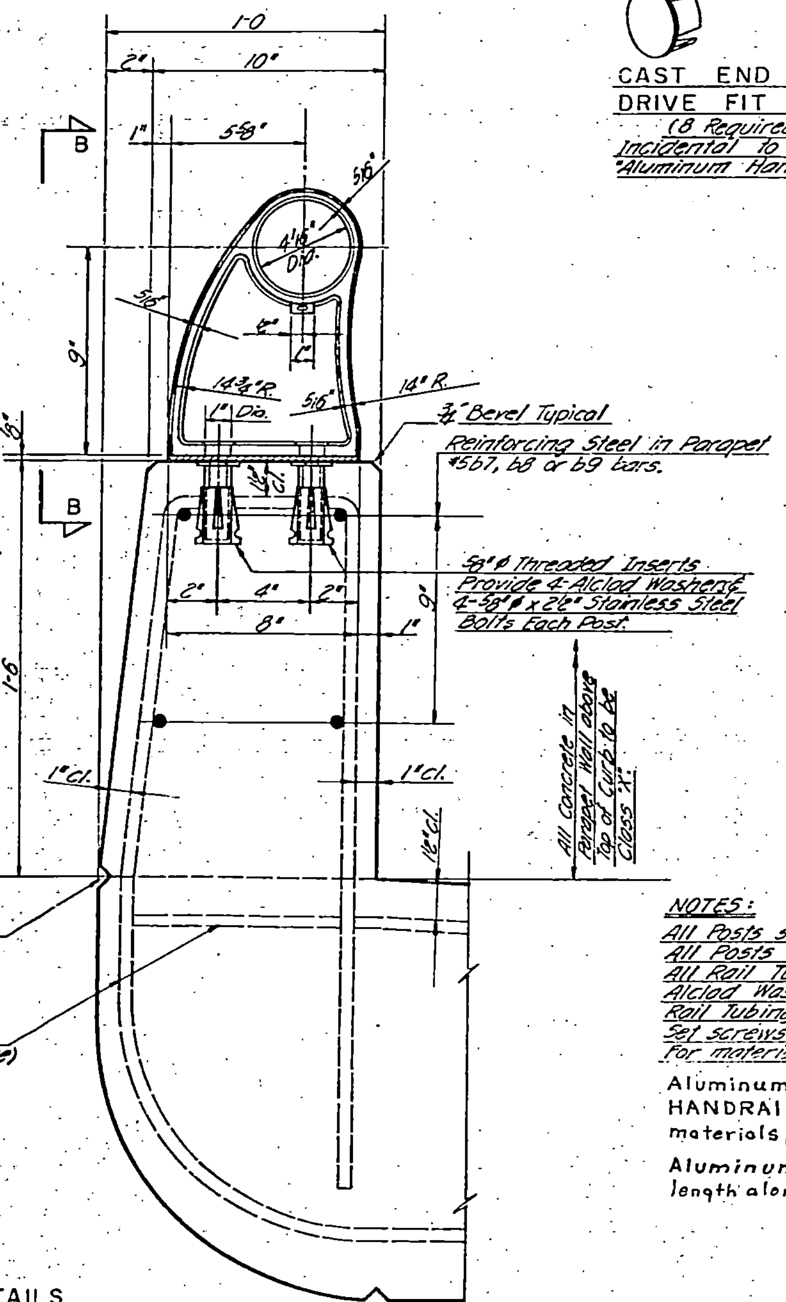


CAST END CAPS
DRIVE FIT TYPE
(8 Required)
Incidental to Item "Aluminum Handrail."

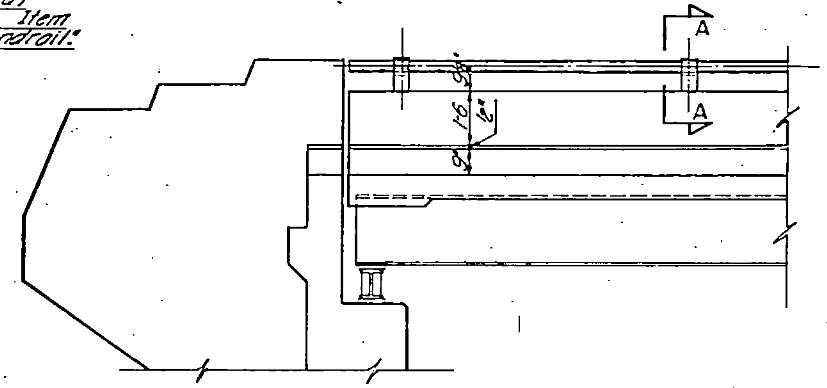


VIEW B-B

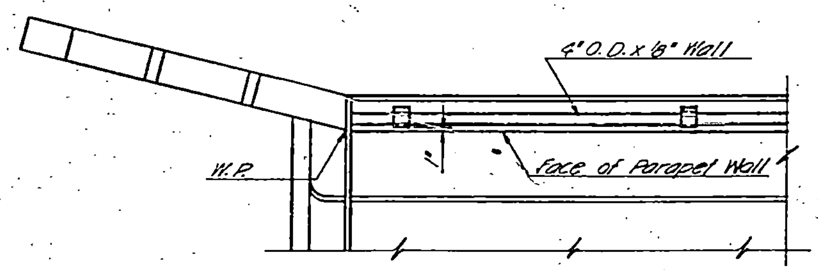
RAIL POST DETAILS



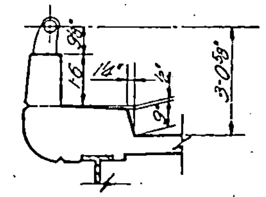
SECTION A-A



ELEVATION - END POST



PLAN - END POST



SECTION THRU CURB

BILL OF MATERIAL		
Item	Unit	Quantity
Aluminum Handrail	Lin.Ft.	462

Note: Quantities Shown for 2 Bridges

Note: Parapet Wall Panel Details on Sheet No.16. Parapet Joint Details on Sheet No.17. Expansion Detail on Sheet No.21.

NOTES:
All Posts shall be placed normal to parapet.
All Posts shall be of Aluminum conforming to A.S.T.M. Specification B-108 alloy SG-70B-T6.
All Rail Tubing shall of Aluminum conforming to A.S.T.M. Specification B-235 alloy GS-11A-T6.
Alclad Washers shall be made from sheet conforming to A.S.T.M. Specification B-209 alloy clad CG-42A-T4.
Rail Tubing may be cut to random lengths.
Set screws shall be of Aluminum conforming to A.S.T.M. Specification B-211 alloy CG-42A-T4.
For material composition of Prefabricated Pad, see Art. 54.9 (f). (Bearings & Anchorage of the Standard Specifications.)

Aluminum handrail will be paid for at the contract unit price per lineal foot for ALUMINUM HANDRAIL - TYPE D, measured as specified, which price shall be payment in full for all materials, fabrication, transportation and erection.

Aluminum handrail shall be measured in lineal feet. The length paid for shall be the overall length along the top longitudinal railing member through all posts and gaps.

ALUMINUM HANDRAIL
TYPE - "D"

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CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT.- 74 BRIDGE OVER "G" STREET
FAI -74 SECTION 92-11HB-3
VERMILION COUNTY STA. 1891+20.58

HANDRAIL DETAILS

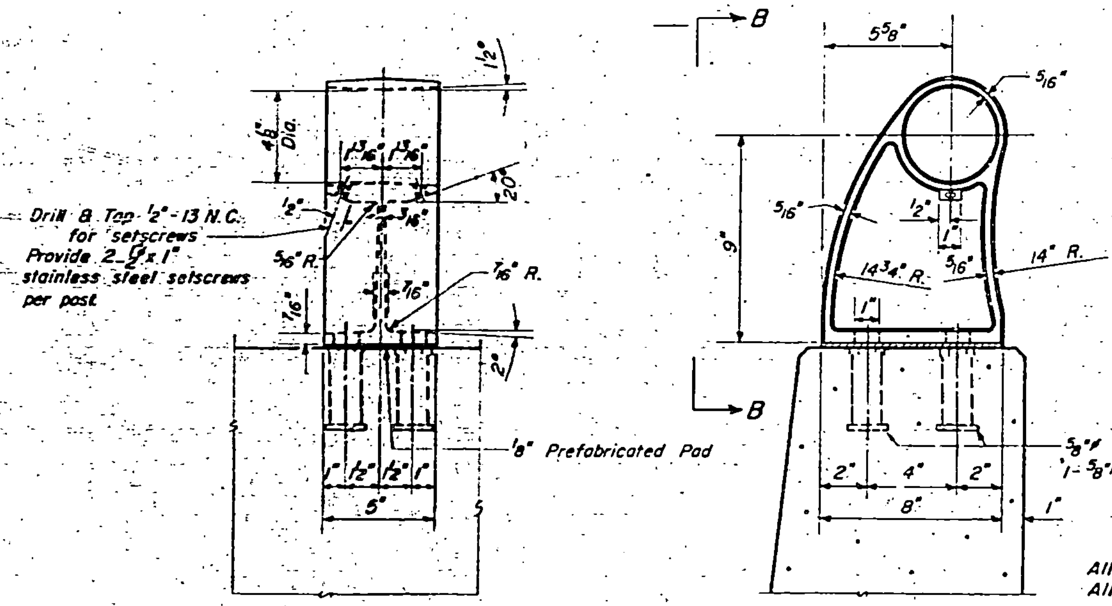
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
SMH	DS	DS	JWH LOB	HSM 4-2-62	

Rev. 11-14-62 TRM — Added two notes pertaining to Aluminum Handrail. Changed note to random lengths. Chg'd ALT. D to TYPE D.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

74	92-11HB-3	VERMILION	42	20A

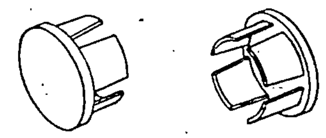
SHEET NO / SHEETS



VIEW B-B

SECTION A-A

RAIL POST DETAILS



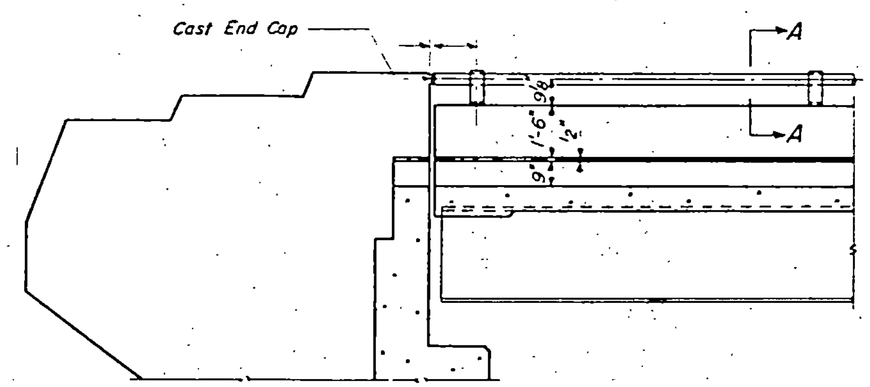
CAST END CAP

DRIVE FIT TYPE
8-Required
Galvanize to A.S.T.M. A-153.
Incidental to item "Metal Handrail".

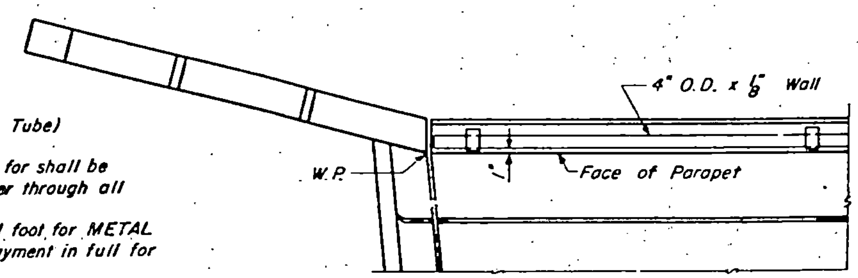
⅝"⌀ Threaded Inserts. Provide 1- Stainless Steel Washer and 1- ⅝"⌀ x 2" Stainless Steel Bolt with each Insert
4 - Required each post
Inserts shall be cast in place.

NOTES

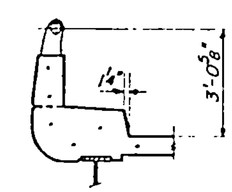
All Posts shall be placed normal to parapet.
All Posts shall be malleable cast iron conforming to A.S.T.M. A-47, Grade 35018, galvanized to A.S.T.M. A-153.
All Rail Tubing shall conform to A.S.T.M. A-53, Grade B, (Pipe or Tube) galvanized to A.S.T.M. A-120.
Metal handrail shall be measured in lineal feet. The length paid for shall be the overall length along the top longitudinal railing member through all posts and gaps.
Metal handrail will be paid for at the contract unit price per lineal foot for METAL HANDRAIL TYPE "E" measured as specified, which price shall be payment in full for all materials, fabrication, transportation, and erection.
If any of the galvanizing coat is damaged or removed during erection, the affected area shall be painted with one coat of zinc paint in accordance with Military Specification MIL-P-26915 Type I, air-dry cure.
Rail Tubing may be cut to random lengths.
For material composition of Prefabricated Pad, see Art 54.9 (f), (Bearing and Anchorage), of the Standard Specifications.
Galvanized railing shall not be painted.



ELEVATION - END POST



PLAN - END POST



SEC. THRU CURB

BILL OF MATERIAL

Item	Unit	Quantity
METAL HANDRAIL	Lin. Ft.	462

TYPE - "E"
METAL HANDRAIL

F.A.I. 74 SECTION 92-11HB-3

VERMILION COUNTY STA. 1891+20.58

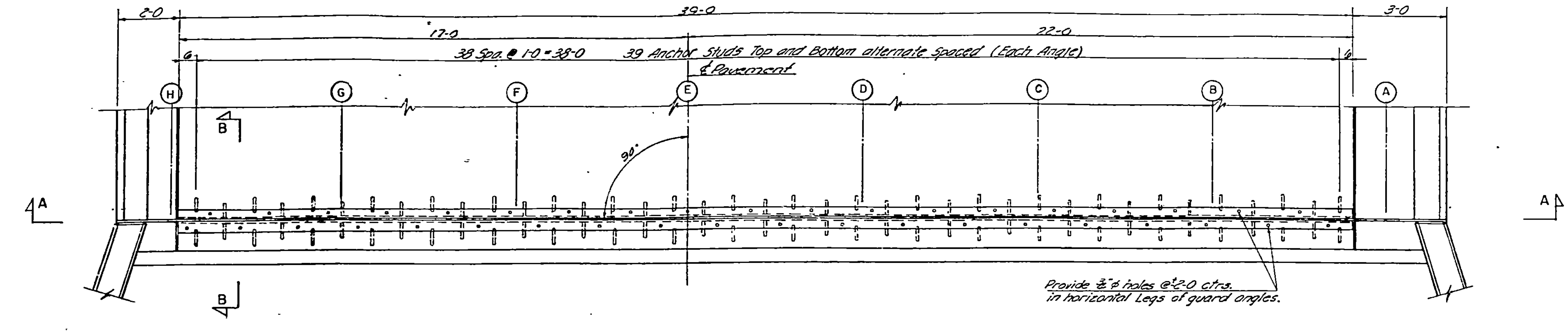
DESIGNED	
CHECKED	
DRAWN	Wm. M. Best
CHECKED	

EXAMINED
PASSED
APPROVED

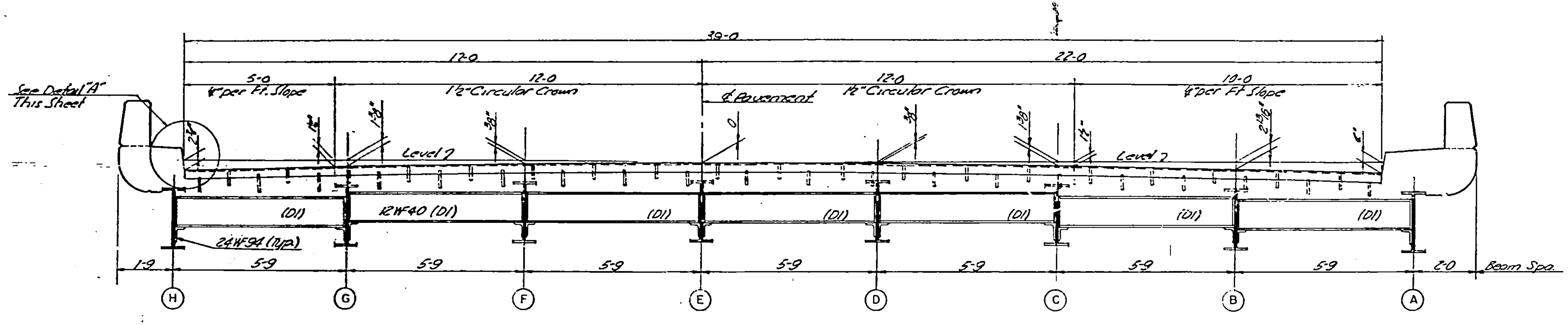
R-14 Drawn 11-2-62

Rev. 11-14-62 Added "TYPE E" to note on TRM METAL HANDRAIL. Changed ALT. E to TYPE E.

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	21
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	



PLAN

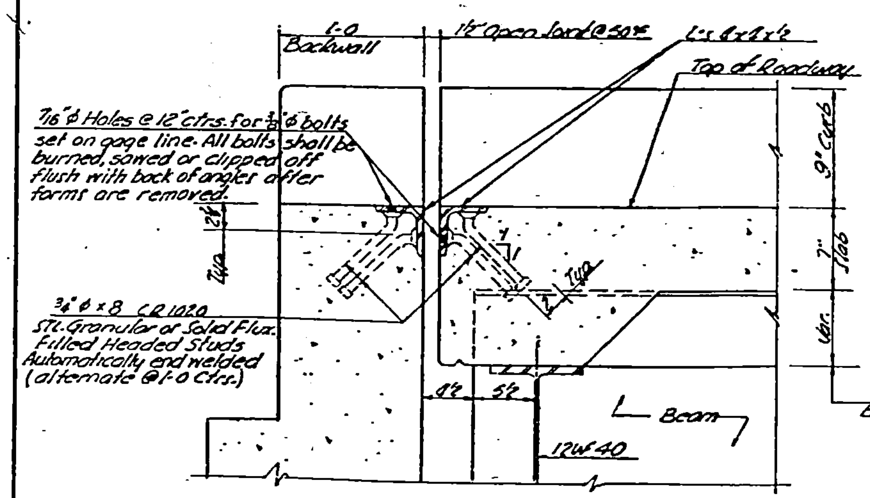


SECTION A-A

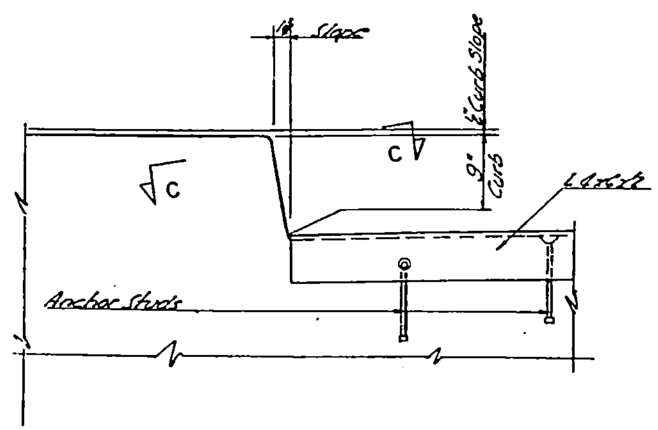
EXPANSION JOINT DETAIL

4 Required (2 Bridges)
Right Bridge West Abutment Shown
Left Bridge Identical by 180° Rotation

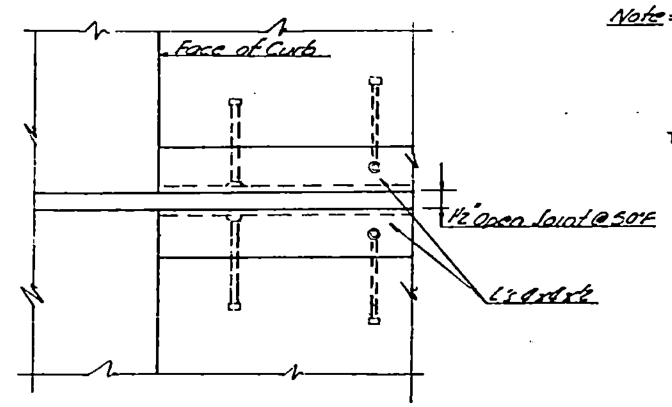
Note: Anchor studs shall be field bent to clear beams where required.



SECTION B-B



DETAIL "A"



SECTION C-C

Note: All 3/4"φ x 8 CR 1020 Stl. Granular or Solid Flux Filled Headed Studs Automatically End Welded shall be included in the unit price bid for "Furnishing and Erecting Structural Steel."

TOTAL COMPUTED WEIGHT OF JOINT DEVICES
STRUCTURAL STEEL 4,320 LBS.
(2 BRIDGES)

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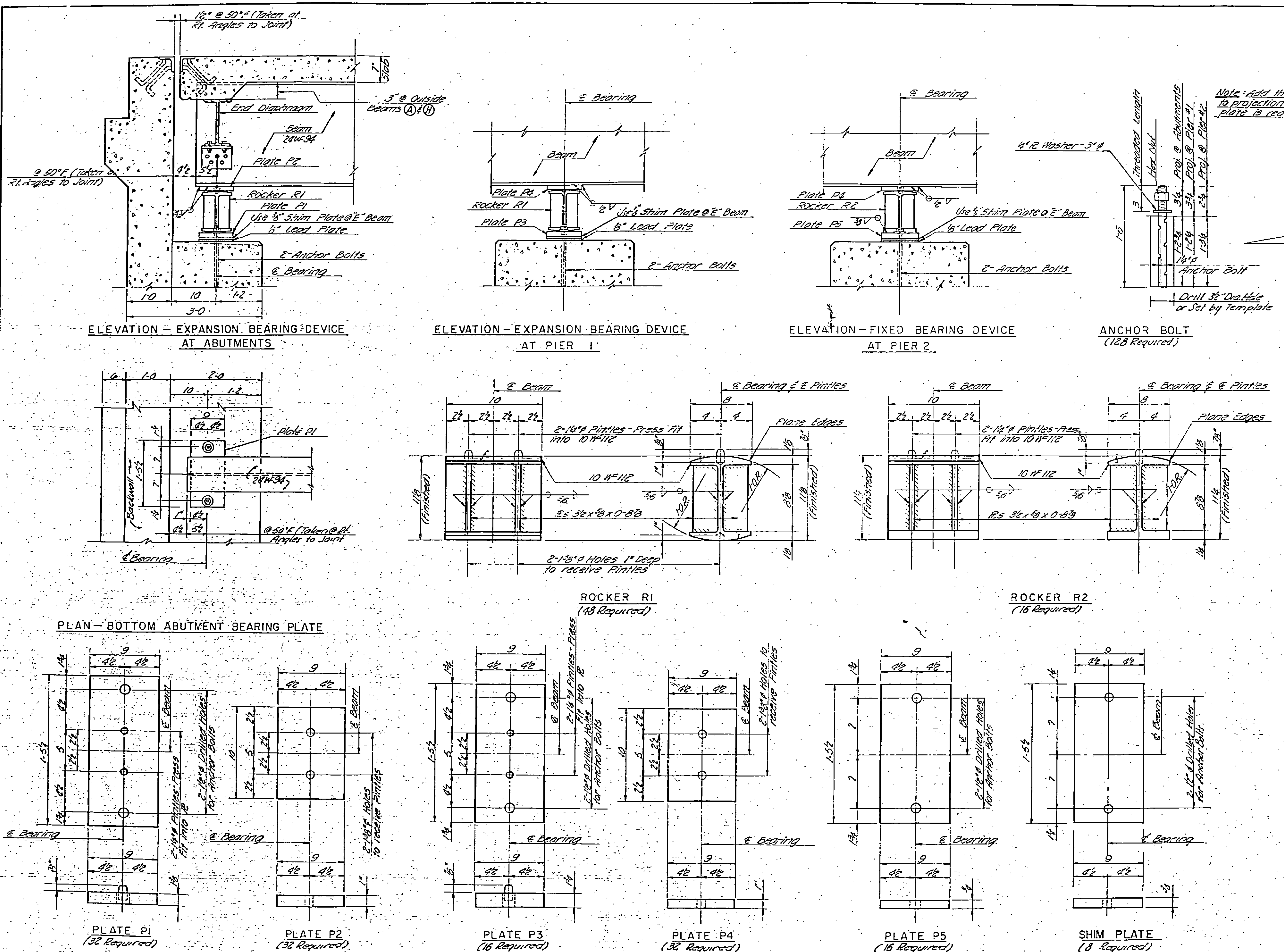
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI-74 SECTION 92-11HB-3
VERMILION COUNTY — STA 1891+20.58

STRUCTURAL STEEL JOINT DEVICES

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
SMH	WES	WES	JWH LDB	HSM	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	22
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



TOTAL COMPUTED WEIGHT OF BEARING DEVICES
STRUCTURAL STEEL 15,010 LBS
(2 BRIDGES)

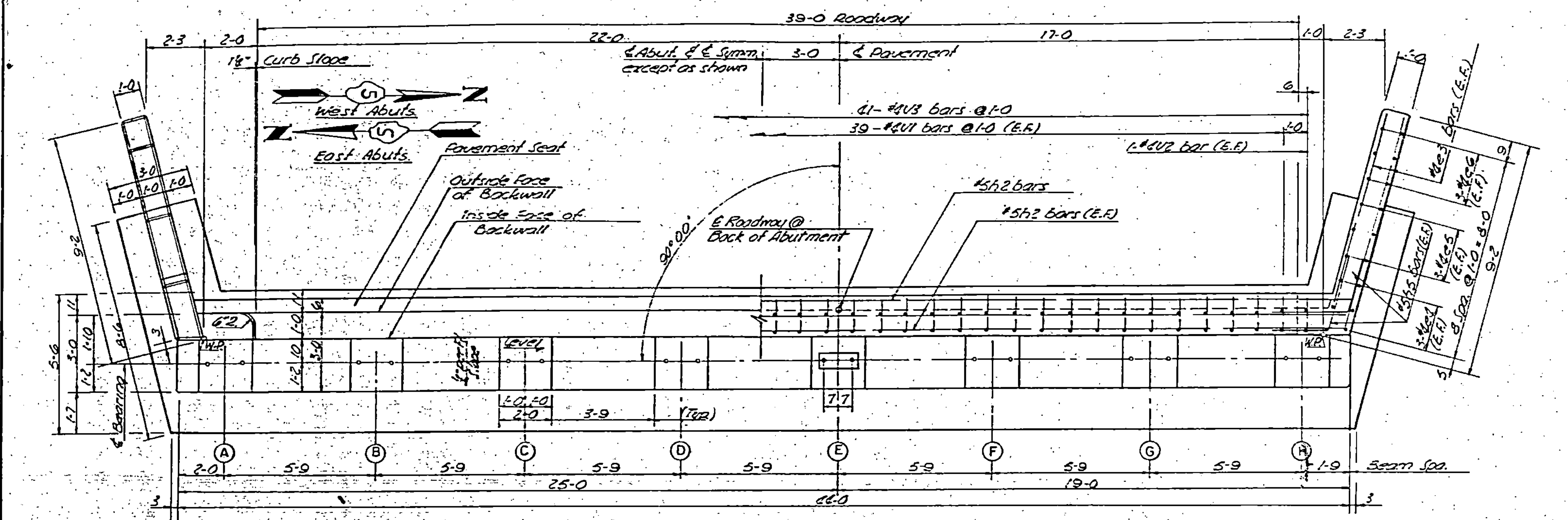
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI - 74 SECTION 92-11 HB-3
VERMILION COUNTY — STA. 1891+20.58

STRUCTURAL STEEL BEARING DEVICES

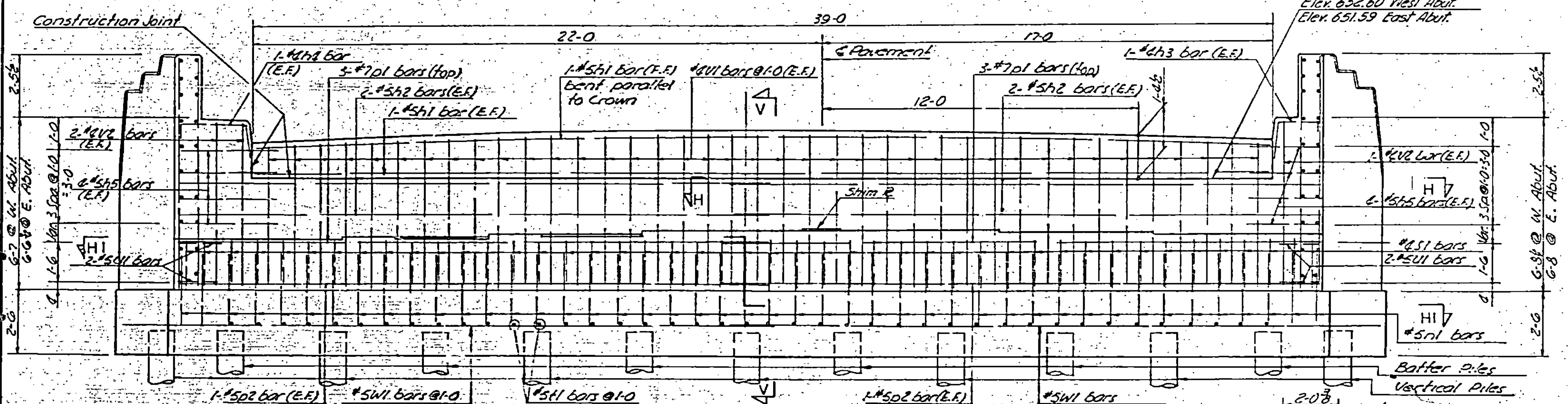
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JT	EER	DS & WES	JWH LDB	HSM	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	23
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



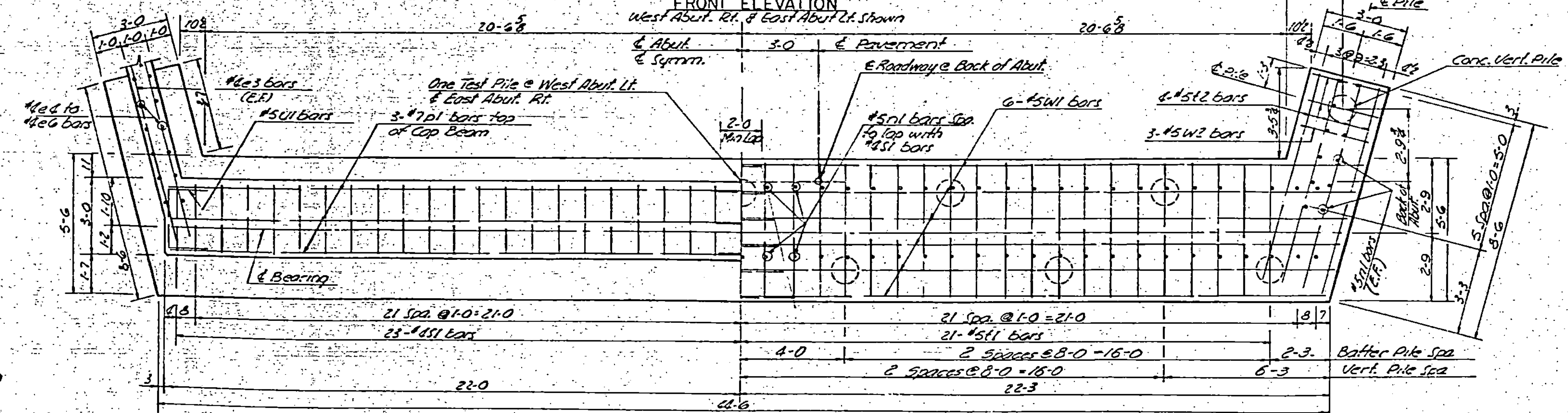
HALF PLAN

HALF SECTION H-H

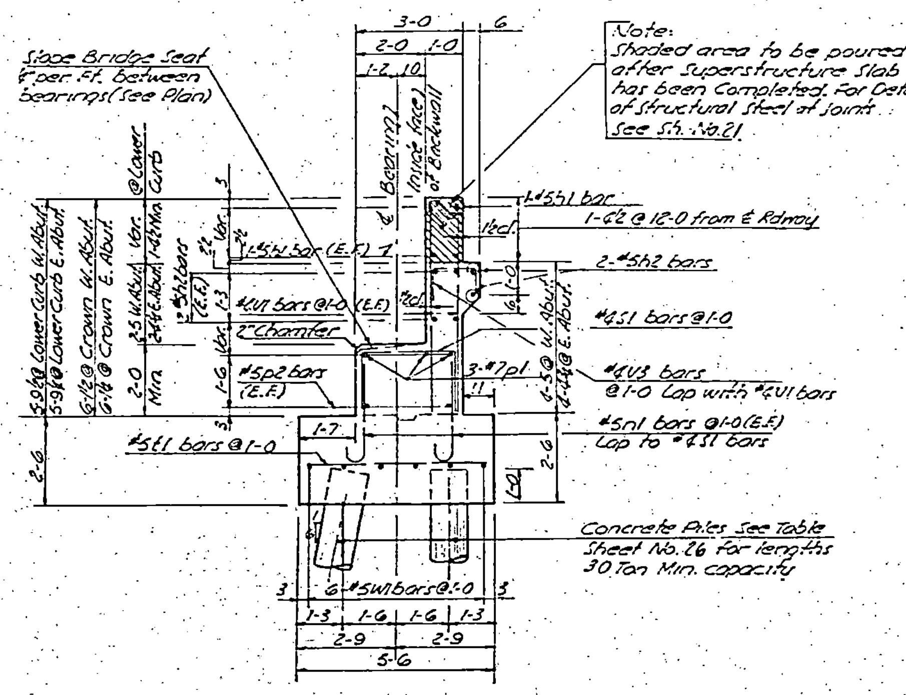


FRONT ELEVATION

West Abut. Rt. & East Abut. Lt. Shown



SECTION H1-H1



SECTION V-V

NOTE: For Bar Schedule & Abutment Quantities, See Sheet 26

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS

FAI RT.-74 BRIDGE OVER "G" STREET

FAI-74 SECTION 92-11 HB3

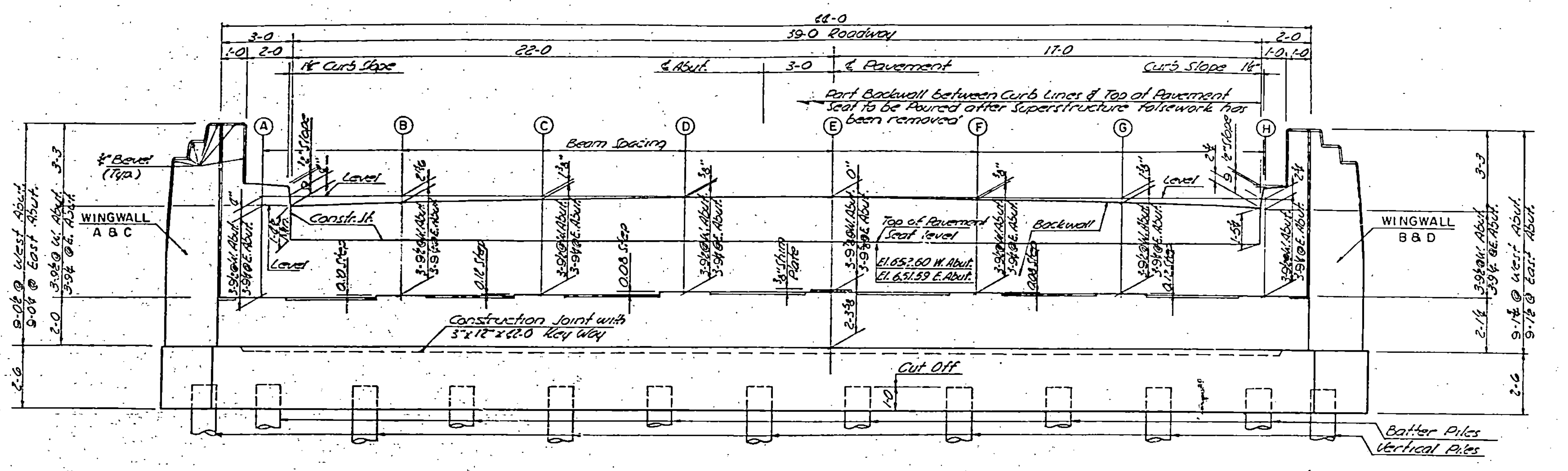
VERMILION COUNTY — STA.1691+20.58

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	WES	JWH. LOB	HSM	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	24

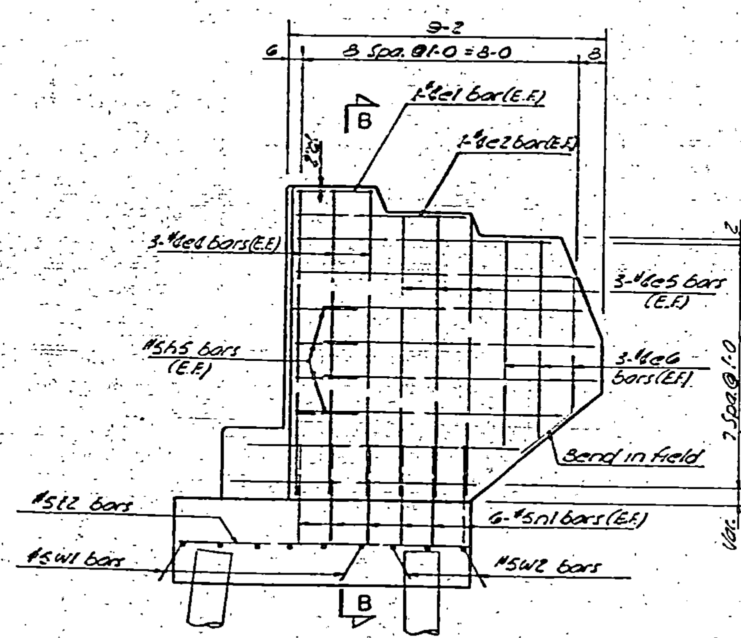
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.



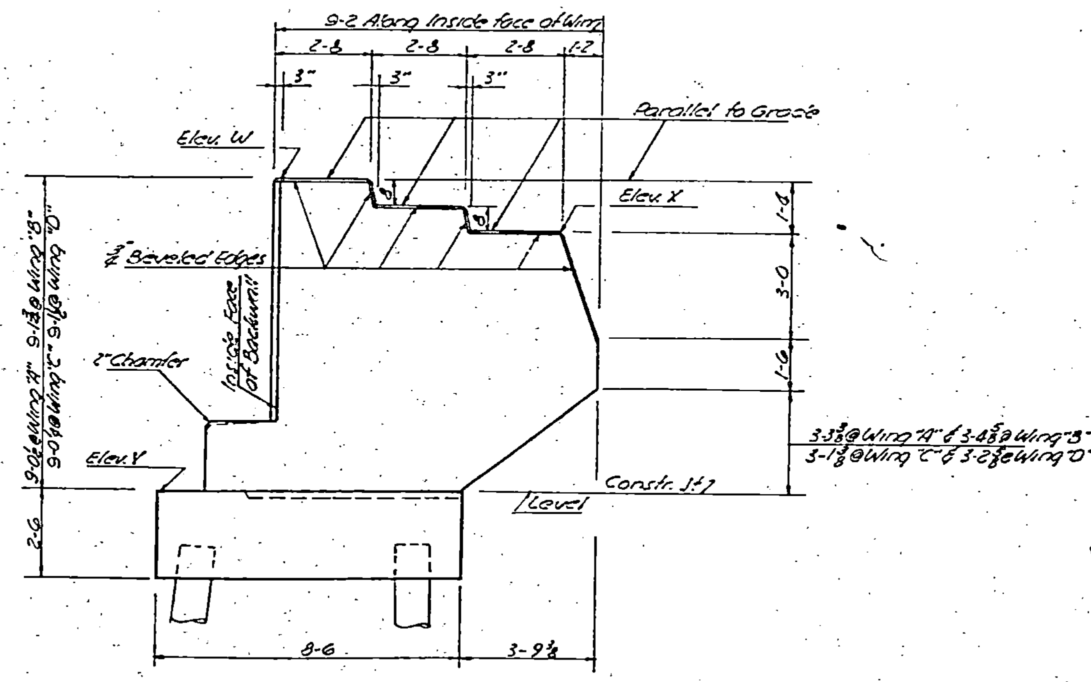
ELEVATION

Note: West Abutment Rt. & East Abutment Lt. Shown.
West Abutment Lt. opposite hand West Abut. Rt.
East Abutment Rt. opposite hand East Abut. Lt.

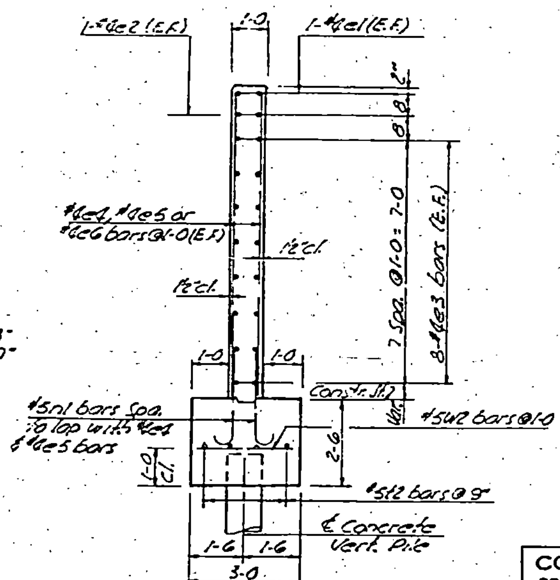
Note: All heights of Backwalls shown at Inside Face of Backwall



WINGWALL REINFORCING



WINGWALL SIDE ELEVATION



SECTION B-B

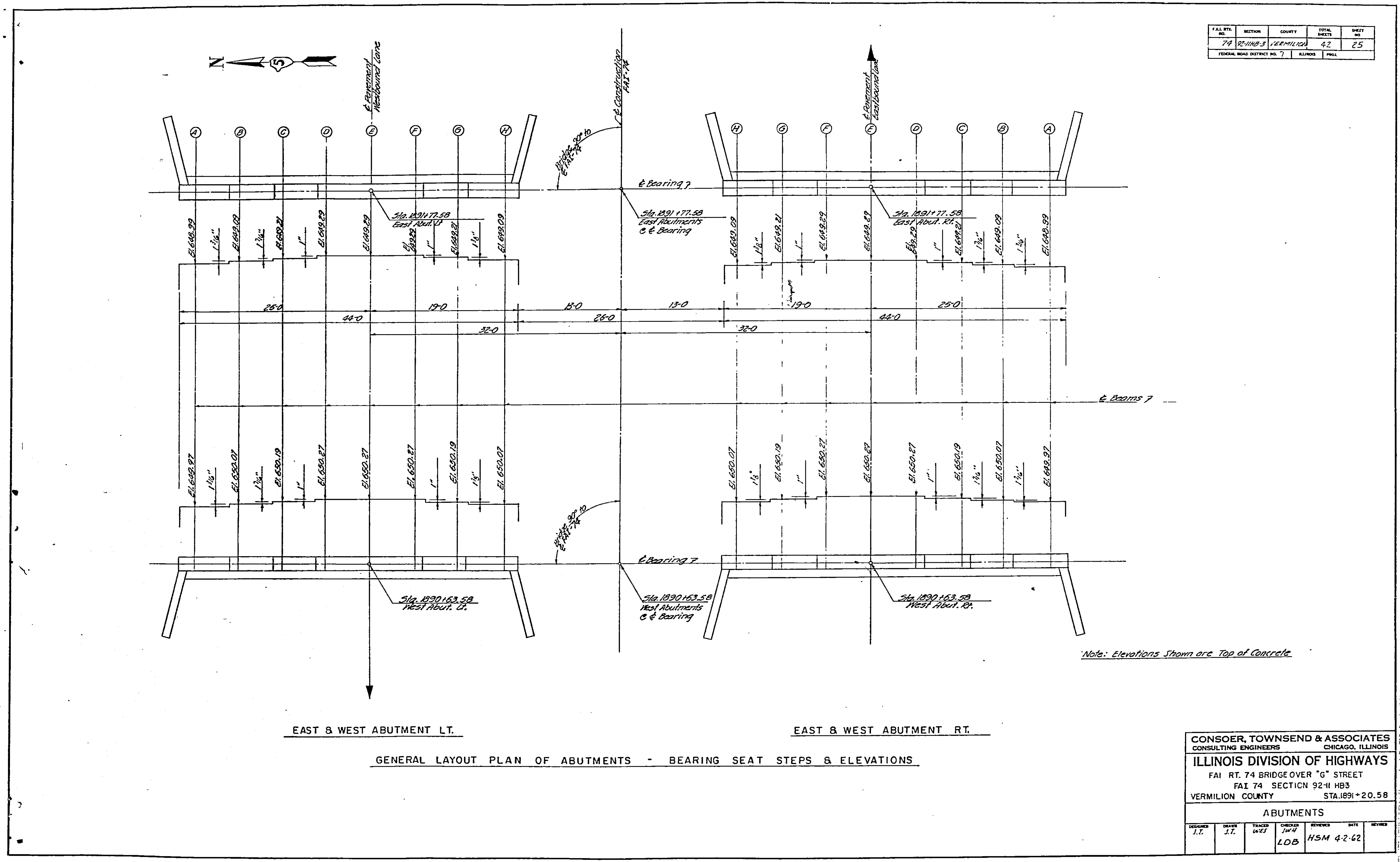
NOTE: For Bar Schedule & Abutment Quantities See Sheet 26

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT.-74 BRIDGE OVER "G" STREET
FAI-74 SECTION 92-11 HB-3
VERMILION COUNTY — STA. 1891+20.58

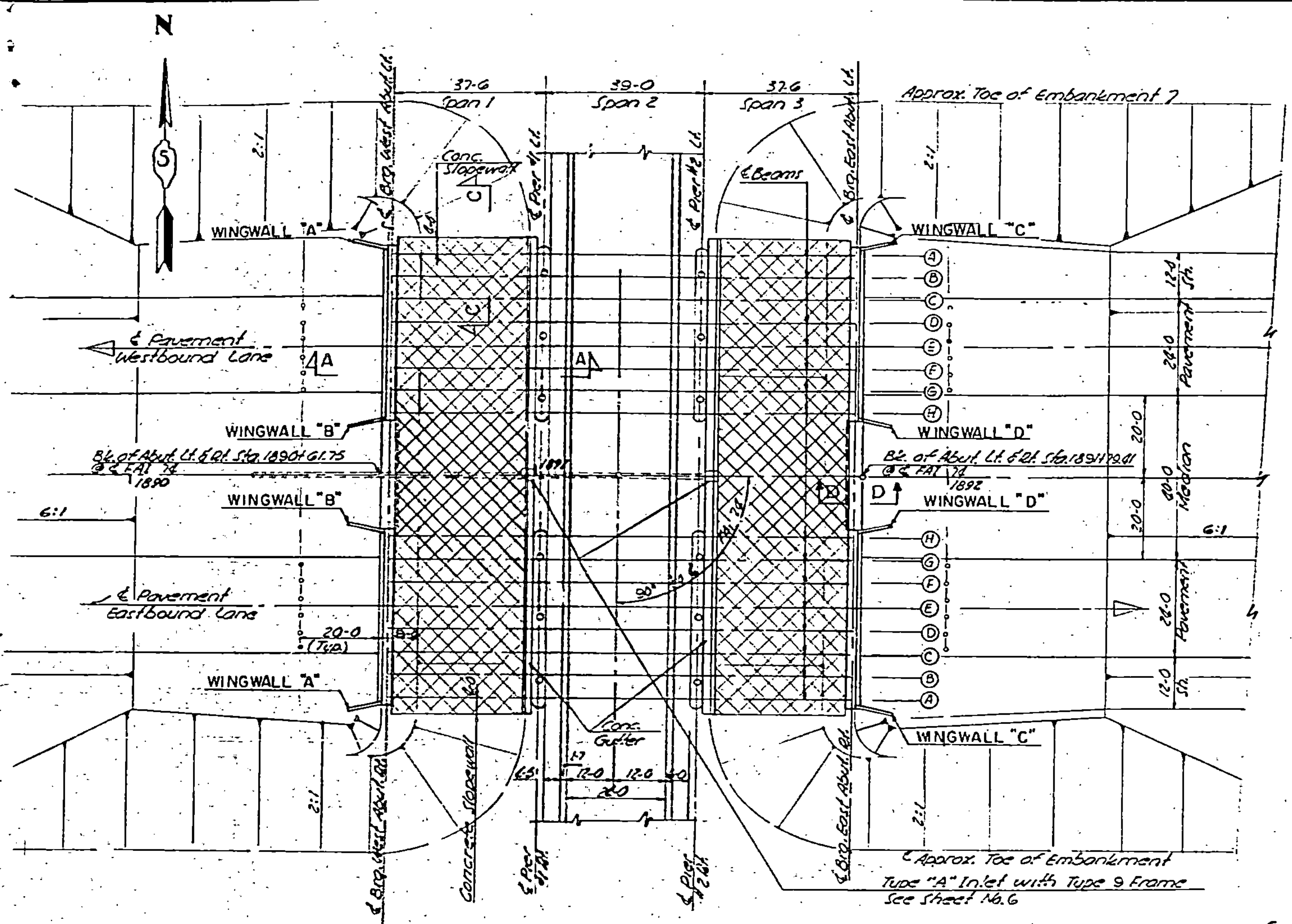
ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	WES	SWH LDB	HSM	4-2-62	

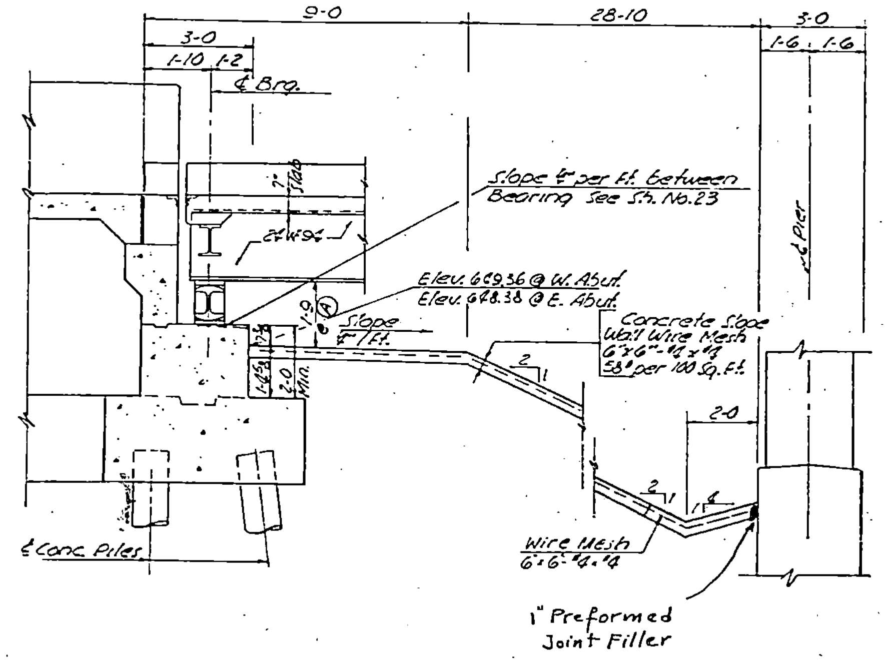


F.A.I. RTE. NO. 74
SECTION 92-11HB-3
COUNTY VERMILION
TOTAL SHEETS 42
SHEET NO. 25
FEDERAL ROAD DISTRICT NO. 7
ILLINOIS
N
5
℄ Pavement Westbound Lane
℄ Construction FAI-74
℄ Pavement Eastbound Lane
Bridge 90° to ℄ FAI-74
℄ Bearing 7
Sta. 1891+77.58 East Abut. Lt.
Sta. 1891+77.58 East Abutments C ℄ Bearing
Sta. 1891+77.58 East Abut. Rt.
℄ Beams 7
Sta. 1890+63.58 West Abut. Lt.
Sta. 1890+63.58 West Abutments C ℄ Bearing
Sta. 1890+63.58 West Abut. Rt.
Note: Elevations Shown are Top of Concrete
EAST & WEST ABUTMENT LT.
EAST & WEST ABUTMENT RT.
GENERAL LAYOUT PLAN OF ABUTMENTS - BEARING SEAT STEPS & ELEVATIONS
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER "G" STREET
FAI 74 SECTION 92-11 HB3
VERMILION COUNTY
STA. 1891+20.58
ABUTMENTS
DESIGNED J.T.
DRAWN J.T.
TRACED W.E.S.
CHECKED J.W.H. L.O.B.
REVIEWED HSM
DATE 4-2-62

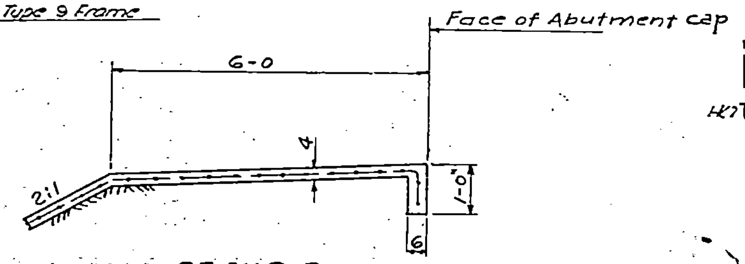
F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	26
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



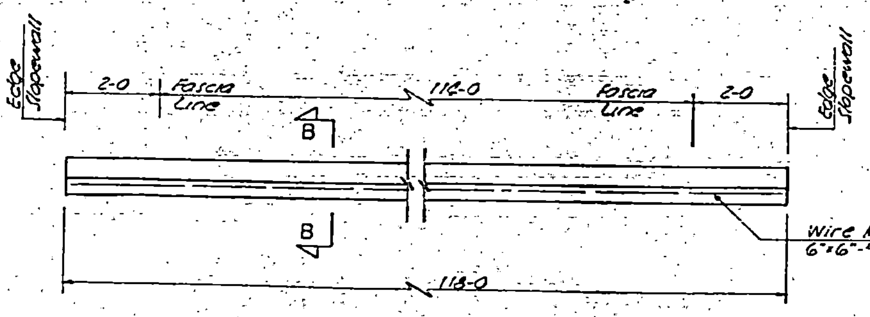
PLAN OF ABUTMENTS & CONCRETE GUTTER



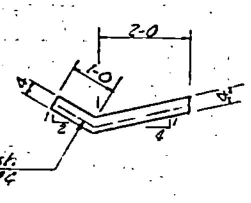
SECTION A-A



SEC. D-D

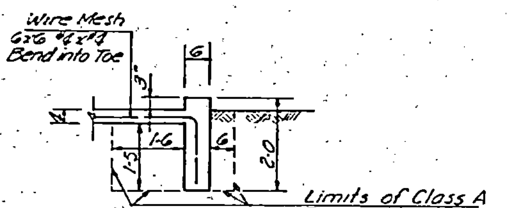


LONGITUDINAL SECTION



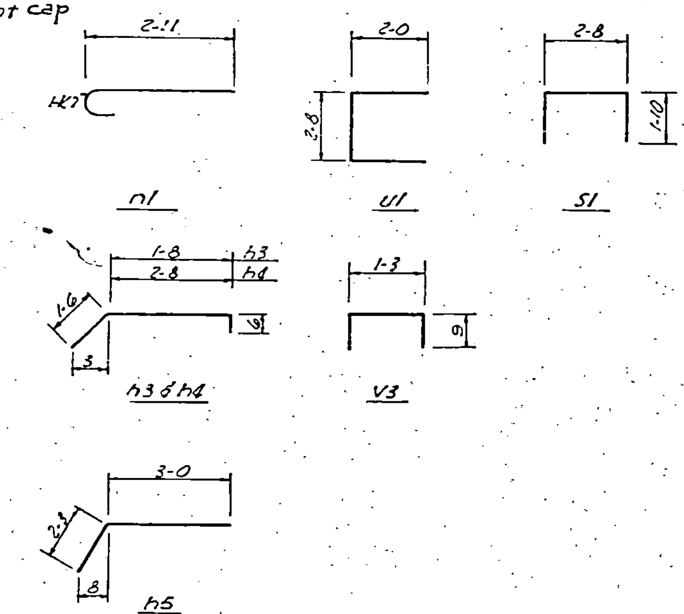
SECTION B-B

GUTTER



SECTION C-C

EDGE OF SLOPEWALL



BENDING DIAGRAMS
(All bar dimensions are Out to Out)

BAR SCHEDULE					
Bar	No.	Size	Length	Spacing	Shape
W1	48	5	26-6	1-0	——
W2	24	5	2-6	1-0	——
t1	164	5	5-0	1-0	——
t2	32	5	6-0	9	——
n1	456	5	3-6	As Shown	
p1	24	7	23-0	As Shown	——
p2	16	5	23-0	As Shown	——
U1	16	5	6-8	As Shown	
S1	180	4	6-4	As Shown	
h1	12	5	38-9	As Shown	——
h2	48	5	22-9	As Shown	——
h3	8	4	3-8	As Shown	
h4	8	4	4-8	As Shown	
h5	64	5	5-3	1-0	
V1	312	4	5-7	1-0	——
V2	24	4	6-6	As Shown	——
V3	164	4	2-9	1-0	
e1	16	4	2-6	As Shown	——
e2	16	4	5-0	As Shown	——
e3	128	4	7-9	1-0	——
e4	48	4	8-9	1-0	——
e5	48	4	8-1	1-0	——
e6	48	4	6-0	1-0	——

ABUTMENT QUANTITIES	
Class X Concrete	190.5 Cu. Yds.
Reinforcement Bars	11,520 Lbs.
Class A Excavation	52 Cu. Yds.
The above quantities are for four Abutments	

* Slope Wall 1,026 Sq. Yd.

* Note: Quantity for Slope Wall includes Slope Wall Gutter

ESTIMATED LENGTHS & QUANTITIES OF PILES		
West Abutment Lt.	12 @ 24' =	288 Lin. Ft.
West Abutment Rt.	13 @ 24' =	312 Lin. Ft.
East Abutment Lt.	13 @ 24' =	312 Lin. Ft.
East Abutment Rt.	12 @ 24' =	288 Lin. Ft.
Total		1200 Lin. Ft.
Test Piles (One Test Pile @ West Abut. Lt. & East Abut. Rt.)		

TABLE OF ELEVATIONS

Abutments	Berm Elev.	Bottom of Footing	Crown Elev. @ & Inside Fa. of Brwall	Wingwall A & C W	X	Y	Wing	Wingwall B & D W	X	Y	Wing	Bearing Seat Elev. (Top of Concrete) A	B	C	D	E	F	G	H
West Abut. Lt. & Rt.	649.36	645.47	654.09	657.01	655.75	667.97	A	652.12	655.86	667.97	B	649.97	650.07	650.19	650.27	650.27*	650.27	650.19	650.07
East Abut. Lt. & Rt.	648.38	644.69	653.09	656.01	654.61	666.99	C	656.12	654.72	666.99	D	648.99	649.09	649.21	649.29	649.29*	649.29	649.21	649.09

* Use ⅛" Shim Plate

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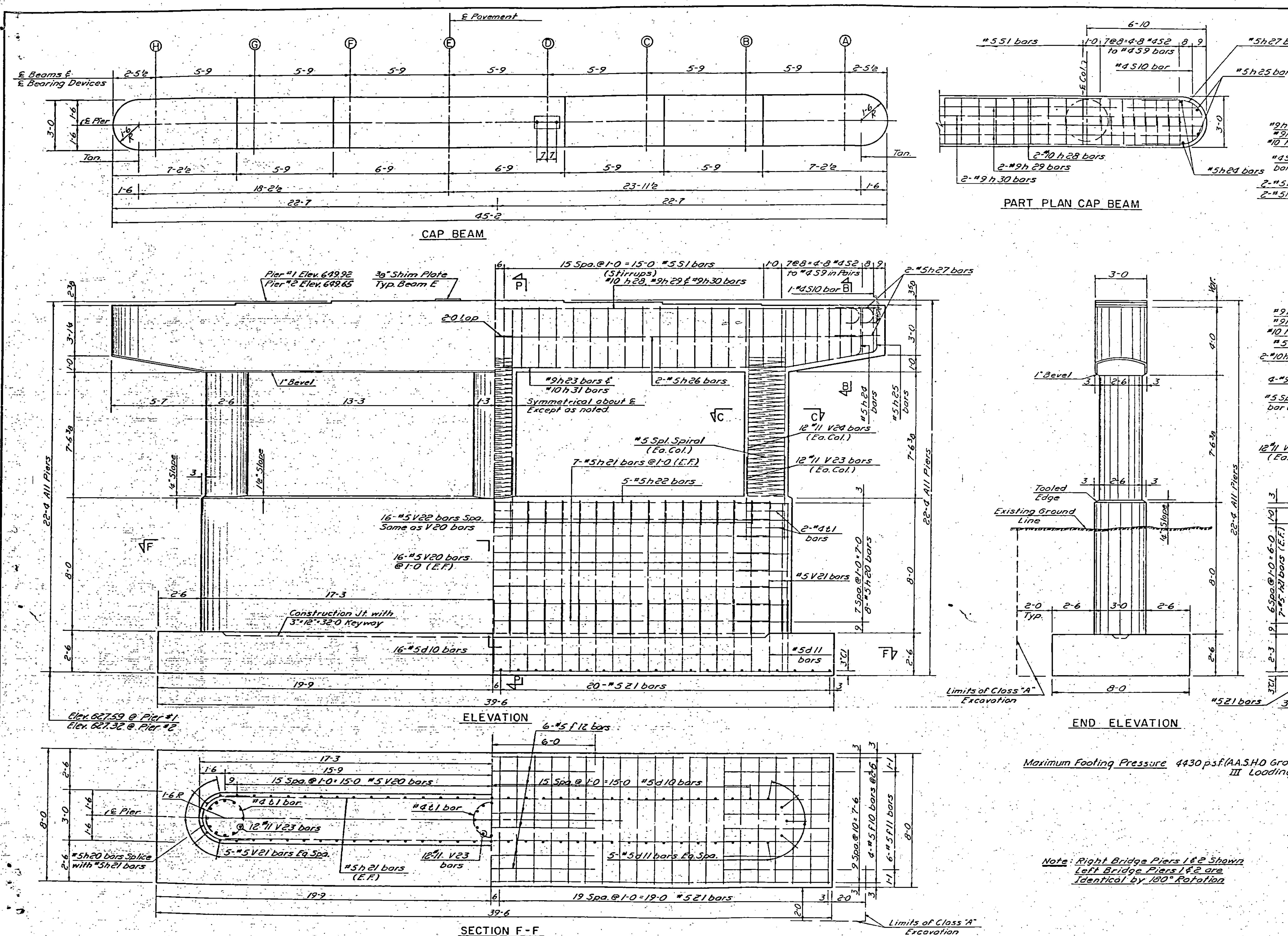
ILLINOIS DIVISION OF HIGHWAYS
FAI RT-74 BRIDGE OVER "G" STREET
FAI - 74 SECTION 92-11 HB3
VERMILION COUNTY STA. 1891+20.58

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	WES	JWH LDB	HSM	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	27
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PROJ.		



Maximum Footing Pressure 4430 p.s.f. (A.A.S.H.O. Group III Loading)

Note: Right Bridge Piers 1 & 2 Shown. Left Bridge Piers 1 & 2 are Identical by 180° Rotation

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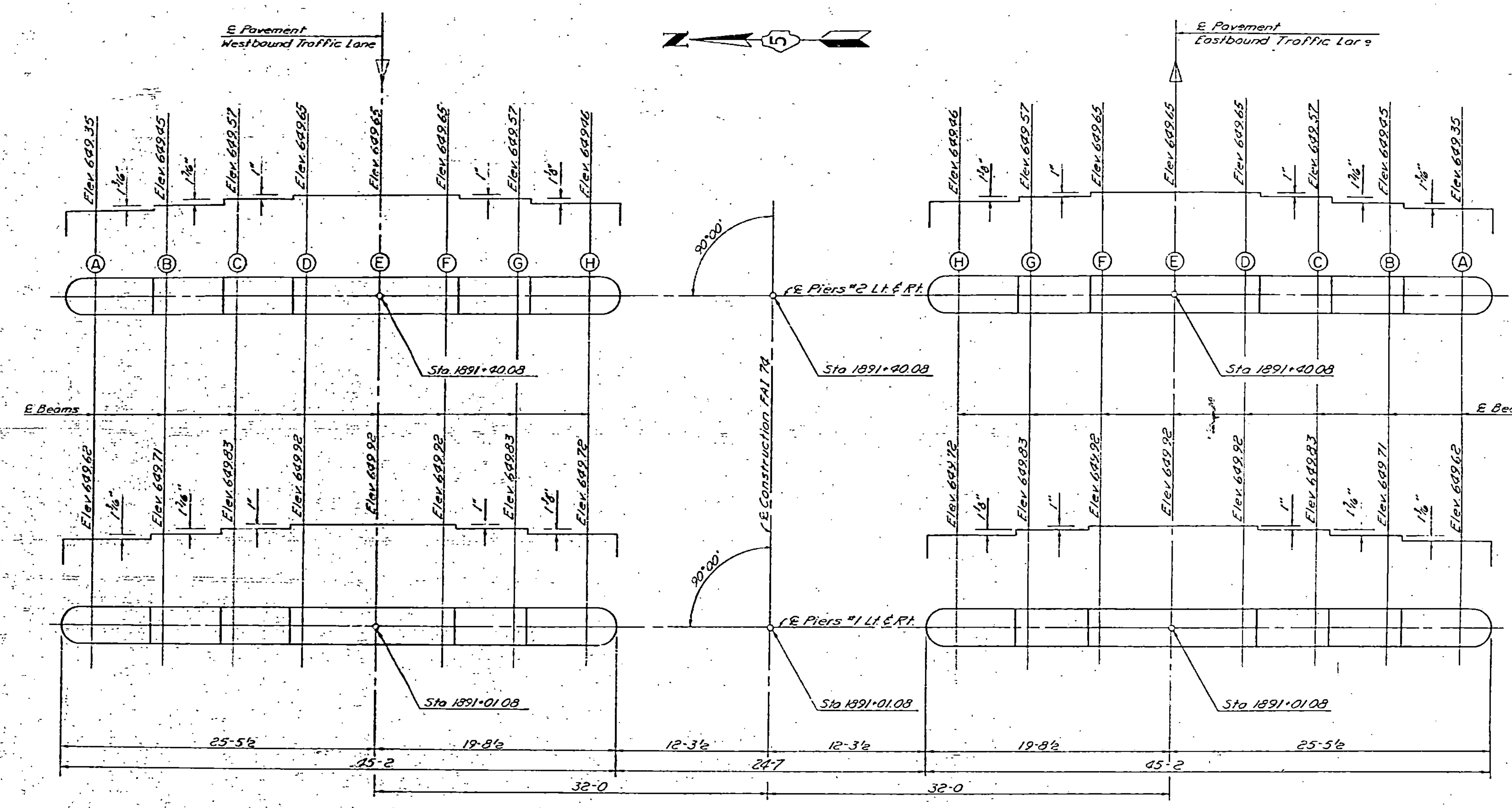
ILLINOIS DIVISION OF HIGHWAYS

FAI RT 74 BRIDGE OVER "G" STREET
FAI - 74 SECTION 92-11HB-3
VERMILION COUNTY STA. 1891 + 20.58

PIER DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EER	EER	JEL	JWH LDB	HSM	4-2-62	

F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	28
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	



Note: Elevations Shown are Top of Concrete

PIERS 1 & 2 LT.

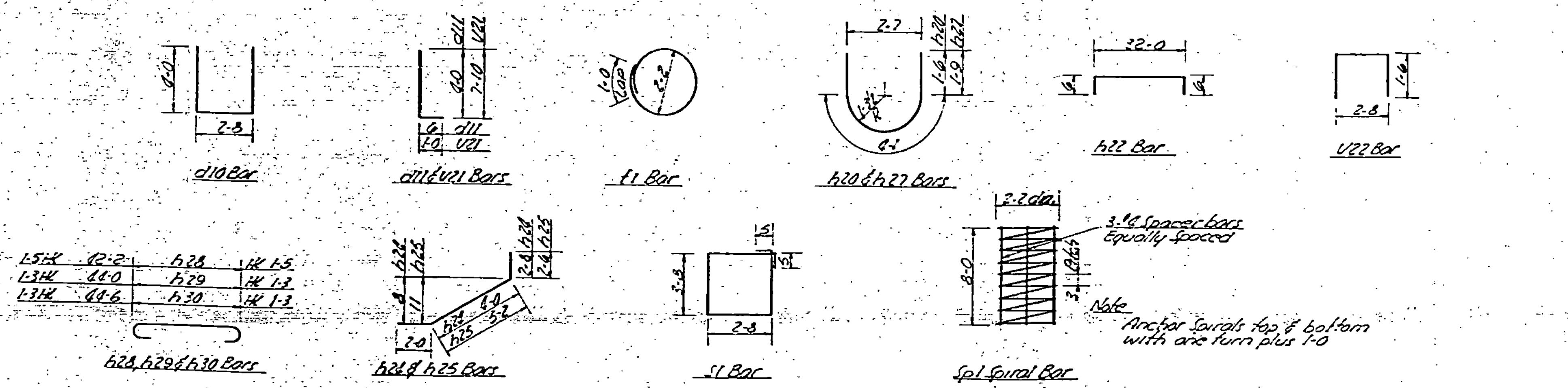
PIERS 1 & 2 RT.

GENERAL LAYOUT OF PIERS - BEARING SEAT STEPS & ELEVATIONS

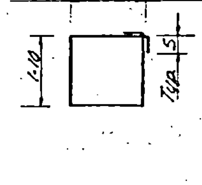
BAR SCHEDULE						
Piers	Bar	No.	Size	Length	Spacing	Shape
All	f10	16	5	39-0	As Shown	
	f11	48	5	6-0	As Shown	
	f12	24	5	12-0	As Shown	
	z1	160	5	7-6	1-0	
	d10	124	5	10-8	1-0	
	d11	40	5	4-6	Eq. Spa.	
	v20	208	5	7-3	1-0	
	v21	40	5	3-10	Eq. Spa.	
	v22	128	5	5-8	1-0	
	v23	144	11	6-0	Eq. Spa.	
	v26	144	11	11-0	Eq. Spa.	
	t1	26	4	7-10	As Shown	
	h20	66	5	7-1	1-0	
	h21	56	5	33-0	1-0	
	h22	20	5	33-0	As Shown	
	h23	16	9	34-0	As Shown	
	h24	16	5	6-8	As Shown	
	h25	16	5	9-8	As Shown	
	h26	16	5	22-1	As Shown	
	h27	16	5	7-7	As Shown	
	h28	8	10	65-0	As Shown	
	h29	8	9	66-6	As Shown	
	h30	8	9	67-0	As Shown	
	h31	8	10	34-0	As Shown	
	s1	128	5	13-6	As Shown	
	s2-s10	*	4	*	8	
All	Sp1	12	5	*	As Shown	

PIER QUANTITIES		
Class X Concrete	355.1	Cu. Yds.
Reinforcement Bars	36,780	Lbs.
Class A Excavation	750	Cu. Yds.

Note: Quantities Shown are for 6 Piers
* See Bending Diagrams



Total Length		Bar	No.
11-10	3-8	s2	Cut 16
11-8	3-7	s3	Cut 16
11-4	3-5	s4	Cut 16
11-2	3-4	s5	Cut 16
11-0	3-3	s6	Cut 16
10-8	3-1	s7	Cut 16
10-6	3-0	s8	Cut 16
10-2	2-10	s9	Cut 16
10-0	2-9	s10	Cut 8



s2 to s10 Bars

BENDING DIAGRAMS
All bar dimensions are Out to Out

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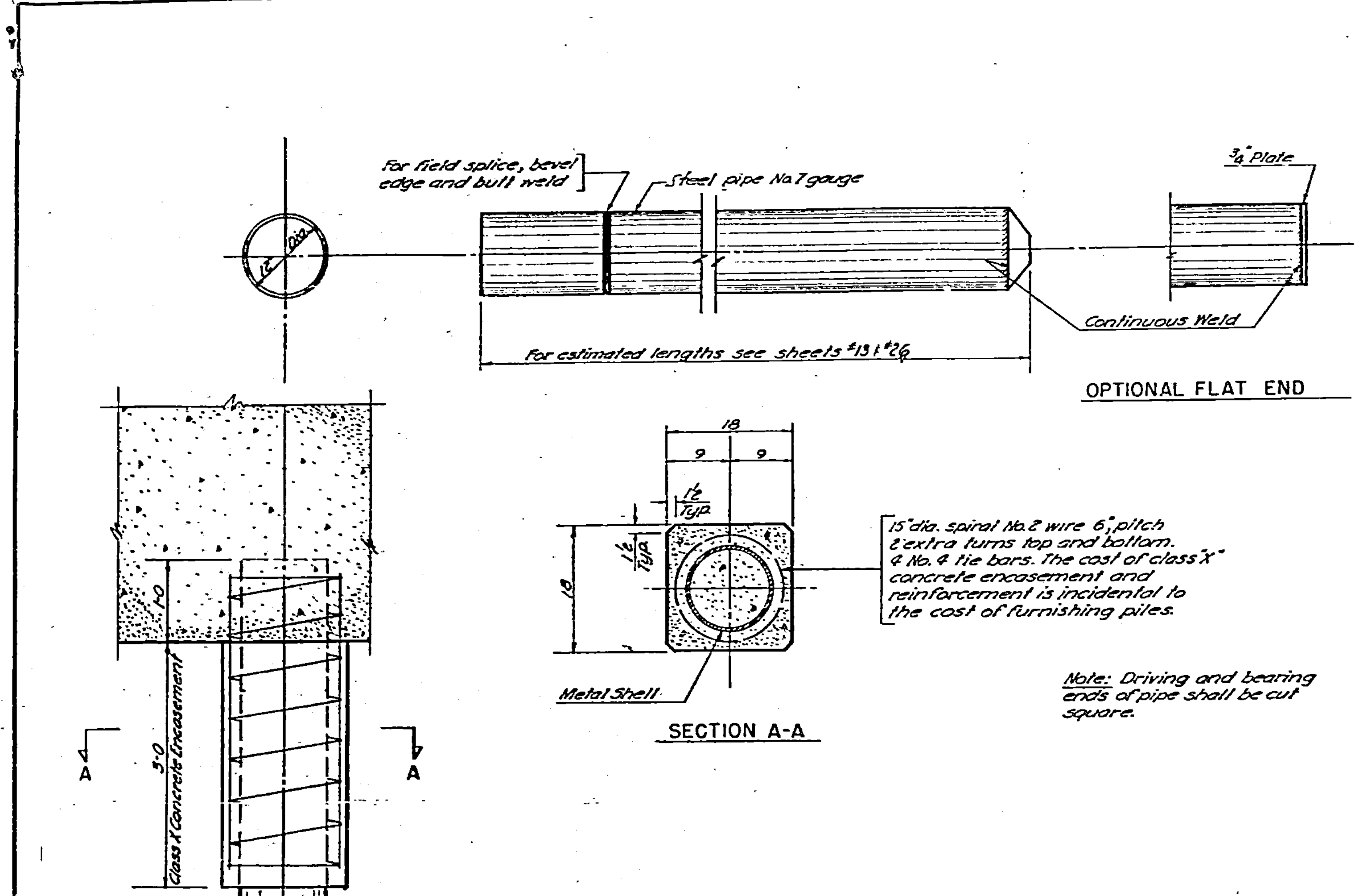
FAI-74 SECTION 92-11HB-3
VERMILION COUNTY STA. 1891 + 20.58

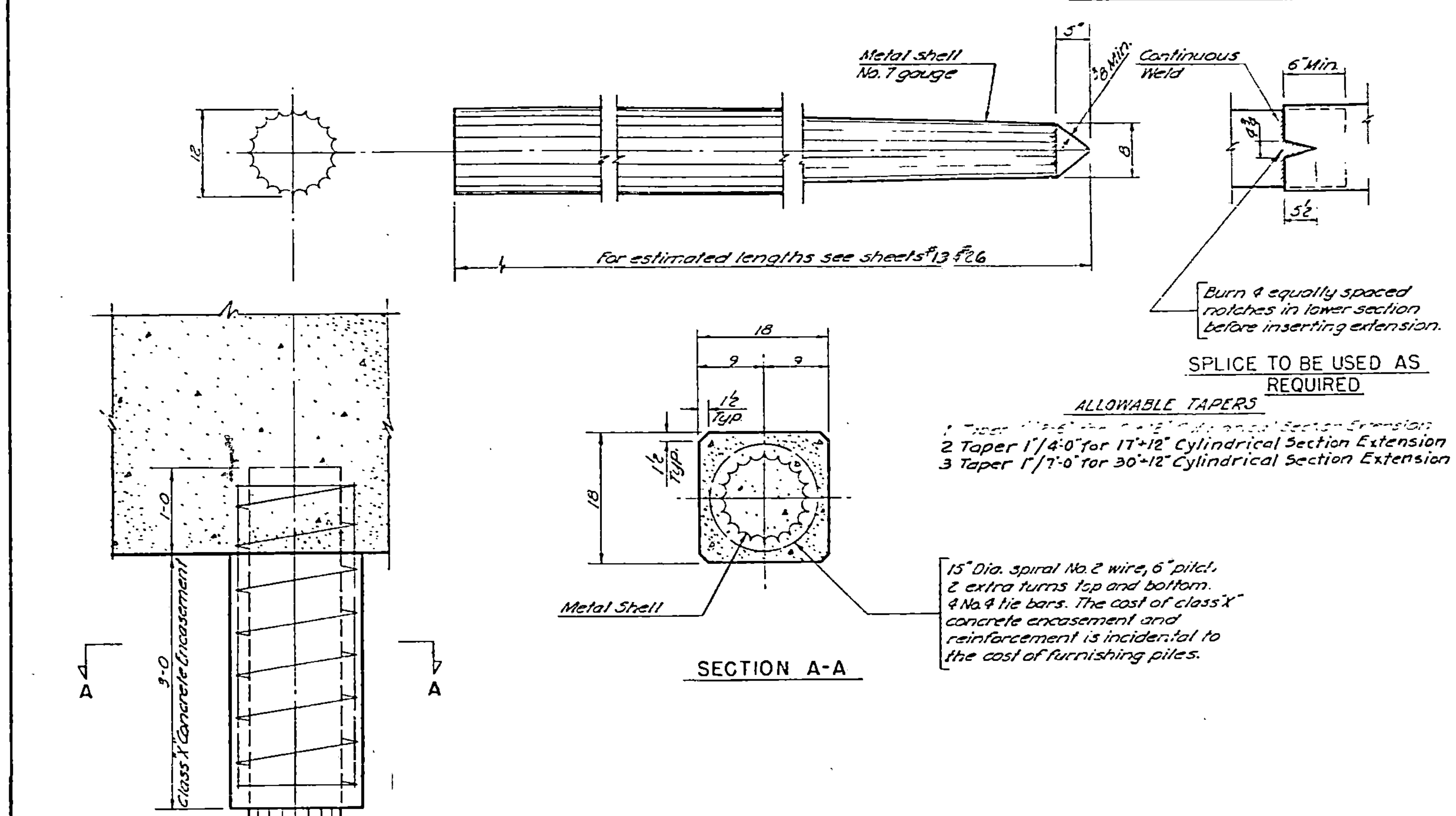
PIER DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EER	EER	WES	LDB	HSM	4-2-62	

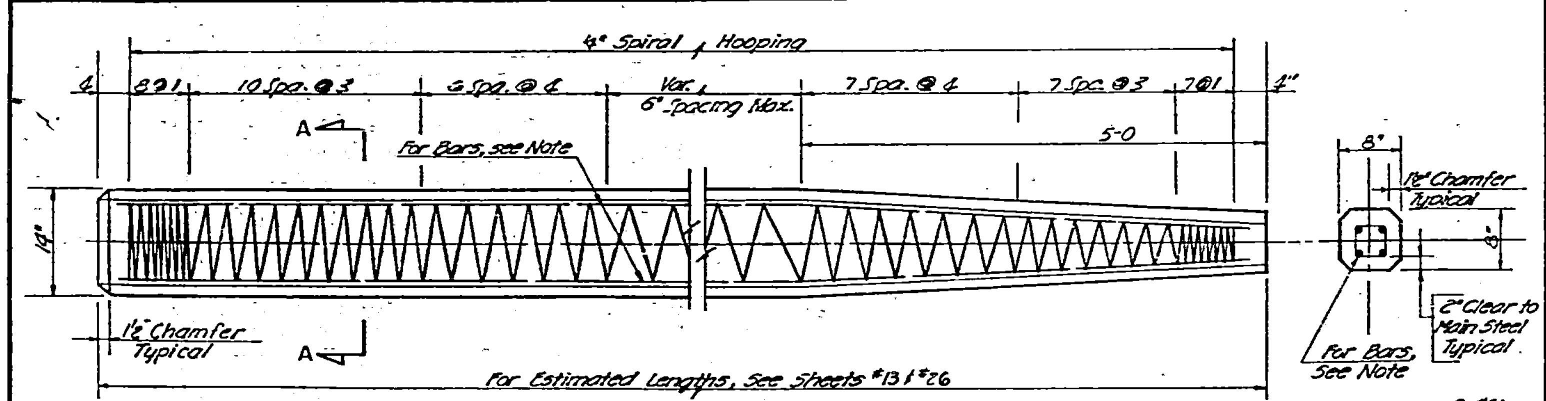
F.A.I. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11HB-3	VERMILION	42	29
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PROJ.	



DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



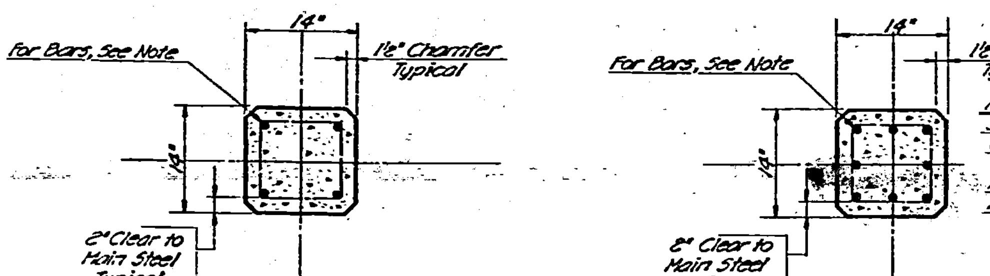
DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



DETAIL OF PRECAST CONCRETE PILES

Note: For 14" Piles 45' long or longer, use 8-#8 bars (4 for the full length & 4 to the point of bevel). For 14" Piles under 45' long, use 4-#9 bars for the full length.

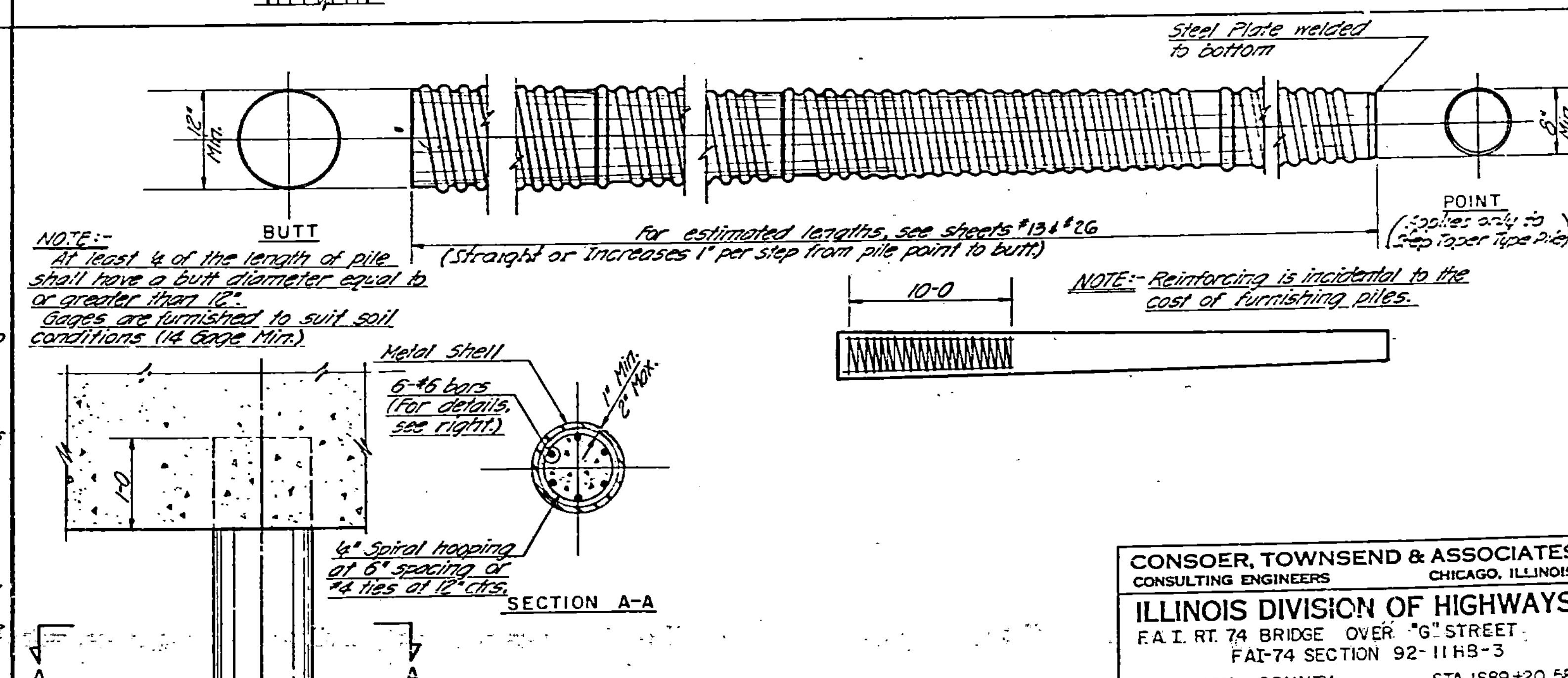
Handling: For pile lengths up to 45 ft. use two slings placed at a distance of 0.21L* from each end. For pile lengths longer than 45 ft. use three slings placed at a distance of 0.12L* from each end and at midpoint of pile.



SECTION A-A FOR PILES UNDER 45' LONG

SECTION A-A FOR PILES 45' OR LONGER

* L = Overall length of pile to be handled.



DETAIL OF MANDREL DRIVEN STRAIGHT OR STEP-TAPER PILES FOR CAST IN PLACE CONCRETE PILES

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FAI-74 SECTION 92-11HB-3
VERMILION COUNTY — STA 1589+20.58

PILE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GEE	GEE	WES	JWH LDB	HSM	4-2-62	