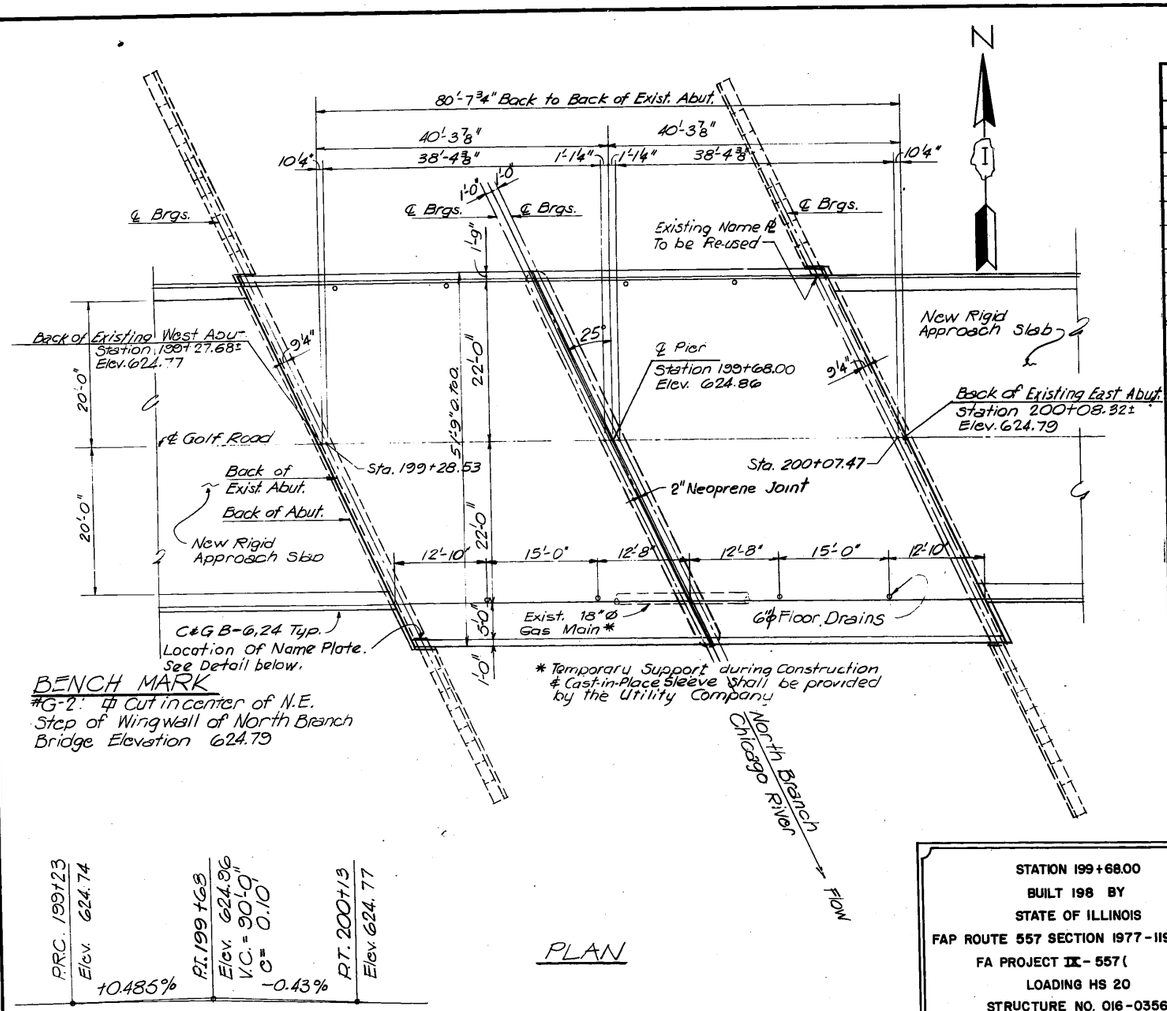
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-557	1977-119 W & RS	COOK	150	79
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		

SHEET NO. 1
13 SHEETS



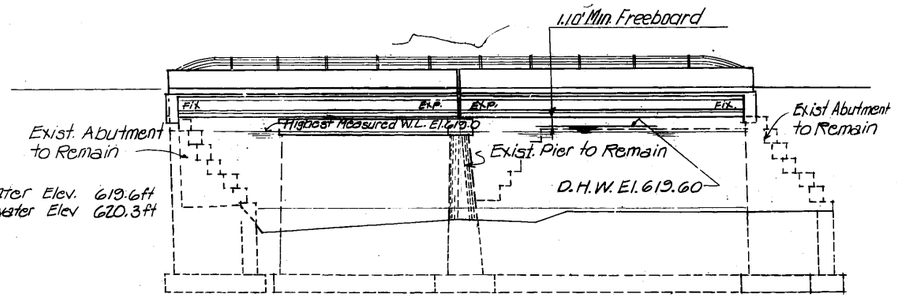
PLAN

BENCH MARK
#G-2: ⊡ Cut in center of N.E. Step of Wingwall of North Branch Bridge Elevation 624.79

PROFILE OF GOLF ROAD

STATION 199+68.00
BUILT 198 BY
STATE OF ILLINOIS
FAP ROUTE 557 SECTION 1977-119-W & RS
FA PROJECT IX-557( )
LOADING HS 20
STRUCTURE NO. 016-0356

NAME PLATE
(SEE STD. 2113)



SOUTH ELEVATION

DESIGNED BY R.K.
DRAWN BY V.K.
CHECKED BY T.H.
APPROVED BY Z.B.

NELSON OSTROM BASKIN BERMAN & ASSOC., INC.
CONSULTING ENGINEERS CHICAGO, ILLINOIS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
CONCRETE REMOVAL	CU. YD.		28.8	28.8
EXPANSION BOLTS 3/4 INCH	EACH		348	348
STRUCTURE EXCAVATION	CU. YD.		55	55
FLOOR DRAINS	EACH	8		8
PROTECTIVE COAT	SQ. YD.	513		513
CLASS X CONCRETE	CU. YD.	166.4	45.5	211.9
FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	LIN. FT.	634		634
ALUMINUM RAILING, TYPE L	LIN. FT.	79		79
REINFORCEMENT BARS	POUND	15,170	4,250	19,420
REINFORCEMENT BARS (EPOXY COATED)	POUND	20,360		20,360
NAME PLATES	EACH			1
NEOPRENE EXPANSION JOINT 2"	LIN. FT.	58		58
REPAIR CONCRETE STRUCTURES	SQ. FT.		22	22
EPOXY CRACK SEALING	LIN. FT.		112	112
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	16		16

GENERAL NOTES

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.

EXPANSION BOLTS SHALL CONSIST OF APPROVED EXPANSION ANCHORS, PROVIDING MINIMUM CERTIFIED PROOF LOAD = 4,080 LBS., AND 3/4" ø × 12" HOOKED BOLTS.

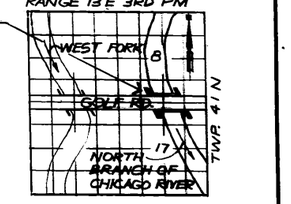
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 or M-53 GRADE 60.

THE BACK FACE OF NEW ABUTMENT PORTION SHALL BE WATERPROOFED ACCORDING TO ARTICLE 503.11 OF STANDARD SPECIFICATIONS.

BRIDGE NO.
016-0356

Proposed New Super Structure Station 199+68.00. Concrete Deck Slab with Precast "I" Beams on Existing Piers and Abutments, Two Simple Spans, 25° Skew, to Replace Existing Superstructure. Repair of Substructure is Included

EXISTING BRIDGE
Two-Span Conc. T-Beam Bridge built in 1928-Section 584 B
56'-8" o.to o.; 80'-7" bk.to bk. Abuts.



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area 92.2 sq.mi. Low Grade Elev. 624.2 @ Stat. 201+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Existing	Opening Sq. Ft. Prop.	Nat. H.W. El.	Head - Ft. Existing	Head - Ft. Prop.	Headwater El. Existing	Headwater El. Prop.
Design	50	1255	674	726	619.6	0	0	619.6	619.6
Base	100	1430	721	773	620.3	0	0	620.3	620.3
Max. Calc.	500	1840		782	621.3		0		621.3

DESIGN DATA

LOADING
HS 20-44 Plus 25psf Future Wearing Surface
Design Specifications - AASHTO 1977. Interim Specs. 1978-1979-1980
Load Factor Design - Superstructure

DESIGN STRESSES
f'c = 3,500 psi
Fy = 60,000 psi (Reinf. bars)
fc = 1,400 psi } substructure
fs = 24,000 psi }
n = 9

Precast Prestressed Units
fs = 270,000 psi (Prestressing Steel)
fsi = 189,000 psi
f'c = 5,000 psi
f'ci = 4,000 psi
pi = 28,900 lbs per strand

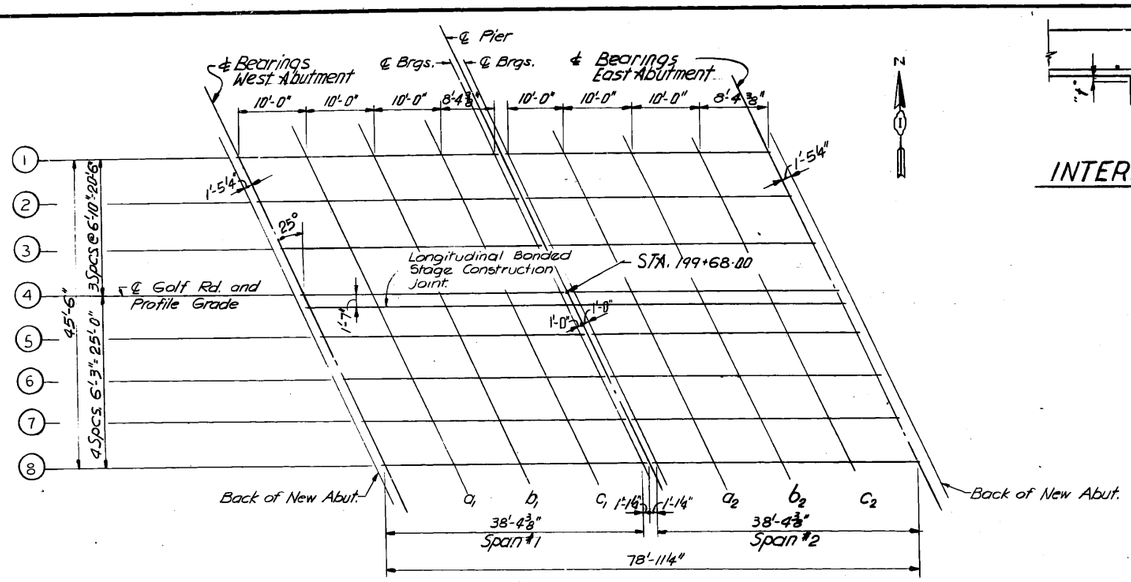
"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT 'AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.'"

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Bridges and Structures

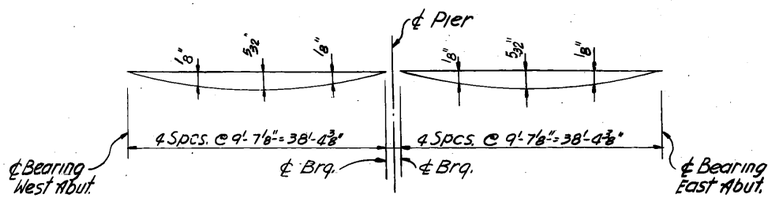
STATE OF ILLINOIS ZEVEL BERMAN 2092 CHICAGO REGISTERED STRUCTURAL ENGINEER

ZEVEL BERMAN
REGISTERED STRUCTURAL ENGINEER
STATE OF ILLINOIS NO. 2092
DATE FEB. 1, 1983

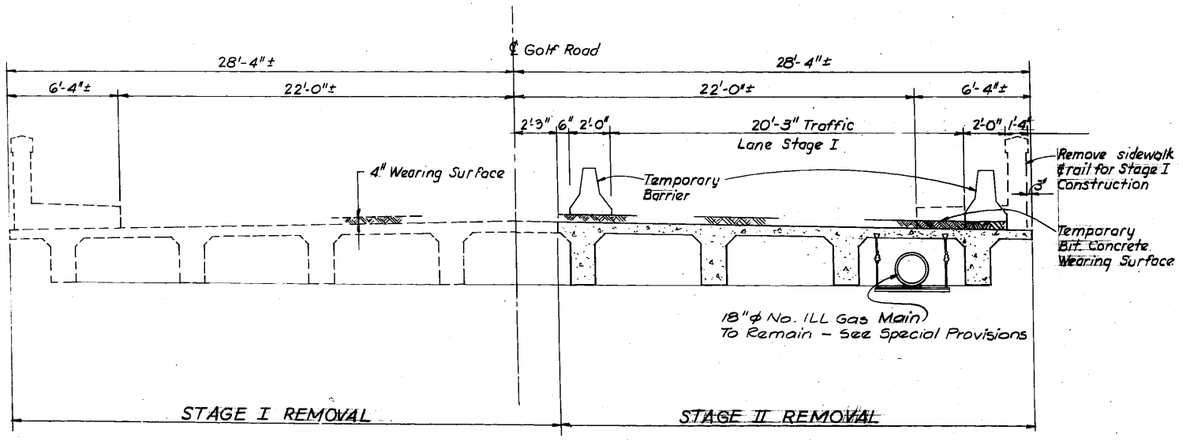
GENERAL PLAN & ELEVATION
RECONSTRUCTION
GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983



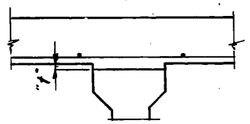
PLAN



DEAD LOAD DEFLECTION DIAGRAM



EXISTING DECK SECTION
(LOOKING EAST)



INTERIOR GIRDERS

METHOD OF DETERMINING FILLET HEIGHTS

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

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
557	COOK	120	80

SHEET NO. 2
13 SHEETS

		STATION	OFFSET	SPAN 1 ELEV	DEFL	ADJ ELEV		STATION	OFFSET	SPAN 2 ELEV	DEFL	ADJ ELEV
B1	BK. W. ABUT.	19917.3866	20.4999	624.394	0.000	624.394	B1	℄ PIER	19958.4407	20.4999	624.529	0.000	624.529
	℄ BRG. W. ABUT.	19918.9727	20.4999	624.402	0.000	624.402		℄ E. BRG. PIER	19959.5440	20.4999	624.531	0.000	624.531
	a1	19928.9727	20.4999	624.449	0.009	624.458		a2	19969.5440	20.4999	624.537	0.009	624.546
	b1	19938.9727	20.4999	624.486	0.013	624.499		b2	19979.5440	20.4999	624.533	0.013	624.546
	c1	19948.9727	20.4999	624.513	0.008	624.521		c2	19989.5440	20.4999	624.519	0.008	624.527
	℄ W. BRG. PIER	19957.3373	20.4999	624.528	0.000	624.528		℄ BRG. E. ABUT.	19997.9087	20.4999	624.500	0.000	624.500
	℄ PIER	19958.4407	20.4999	624.529	0.000	624.529		BK. E. ABUT.	19999.4948	20.4999	624.495	0.000	624.495
B2	BK. W. ABUT.	19920.5780	13.6666	624.516	0.000	624.516	B2	℄ PIER	19961.6271	13.6666	624.640	0.000	624.640
	℄ BRG. W. ABUT.	19922.1591	13.6666	624.524	0.000	624.524		℄ E. BRG. PIER	19962.7305	13.6666	624.641	0.000	624.641
	a1	19932.1591	13.6666	624.568	0.009	624.577		a2	19972.7305	13.6666	624.644	0.009	624.653
	b1	19942.1591	13.6666	624.602	0.012	624.614		b2	19982.7305	13.6666	624.637	0.012	624.649
	c1	19952.1591	13.6666	624.626	0.008	624.634		c2	19992.7305	13.6666	624.619	0.008	624.627
	℄ W. BRG. PIER	19960.5237	13.6666	624.639	0.000	624.639		℄ BRG. E. ABUT.	20001.0951	13.6665	624.597	0.000	624.597
	℄ PIER	19961.6271	13.6666	624.640	0.000	624.640		BK. E. ABUT.	20002.6812	13.6666	624.592	0.000	624.592
B3	BK. W. ABUT.	19923.7594	6.8333	624.639	0.000	624.639	B3	℄ PIER	19964.8135	6.8333	624.749	0.000	624.749
	℄ BRG. W. ABUT.	19925.3455	6.8333	624.646	0.000	624.646		℄ E. BRG. PIER	19965.9169	6.8333	624.749	0.000	624.749
	a1	19935.3455	6.8333	624.687	0.009	624.696		a2	19975.9169	6.8333	624.749	0.009	624.758
	b1	19945.3455	6.8333	624.718	0.012	624.730		b2	19985.9169	6.8333	624.739	0.012	624.751
	c1	19955.3455	6.8333	624.739	0.008	624.747		c2	19995.9169	6.8333	624.718	0.008	624.726
	℄ W. BRG. PIER	19963.7101	6.8333	624.748	0.000	624.748		℄ BRG. E. ABUT.	20004.2815	6.8333	624.693	0.000	624.693
	℄ PIER	19964.8135	6.8333	624.749	0.000	624.749		BK. E. ABUT.	20005.8676	6.8333	624.688	0.000	624.688
B4	BK. W. ABUT.	19926.2458	0.0000	624.760	0.000	624.760	B4	℄ PIER	19967.9999	0.0000	624.857	0.000	624.857
	℄ BRG. W. ABUT.	19928.5315	0.0000	624.767	0.000	624.767		℄ E. BRG. PIER	19969.1033	0.0000	624.857	0.000	624.857
	a1	19938.5315	0.0000	624.805	0.008	624.813		a2	19979.1033	0.0000	624.854	0.008	624.862
	b1	19948.5315	0.0000	624.832	0.012	624.844		b2	19989.1033	0.0000	624.840	0.012	624.852
	c1	19958.5315	0.0000	624.850	0.007	624.857		c2	19999.1033	0.0000	624.816	0.007	624.823
	℄ W. BRG. PIER	19966.3955	0.0000	624.857	0.000	624.857		℄ BRG. E. ABUT.	20007.4679	0.0000	624.789	0.000	624.789
	℄ PIER	19967.9999	0.0000	624.857	0.000	624.857		BK. E. ABUT.	20009.0540	0.0000	624.783	0.000	624.783
	LONG. BD. CONSTR. JT.							LONG. BD. STAGE CONSTR. JT					
	BK. W. ABUT.	19927.6841	-1.5832	624.739	0.000	624.739		℄ PIER	19968.7382	-1.5832	624.833	0.000	624.833
	℄ BRG. W. ABUT.	19928.2702	-1.5832	624.745	0.000	624.745		℄ E. BRG. PIER	19969.8416	-1.5832	624.833	0.000	624.833
	a1	19938.2702	-1.5832	624.782	0.008	624.790		a2	19979.8416	-1.5832	624.828	0.008	624.836
	b1	19948.2702	-1.5832	624.809	0.012	624.821		b2	19989.8416	-1.5832	624.814	0.012	624.826
	c1	19959.2702	-1.5832	624.826	0.007	624.833		c2	19999.8416	-1.5832	624.790	0.007	624.797
	℄ W. BRG. PIER	19967.6249	-1.5832	624.832	0.000	624.832		℄ BRK. E. ABUT.	20008.2062	-1.5832	624.761	0.000	624.761
	℄ PIER	19968.7382	-1.5832	624.833	0.000	624.833		BK. E. ABUT.	20009.7923	-1.5832	624.755	0.000	624.755
B5	BK. W. ABUT.	19929.8602	-6.2498	624.675	0.000	624.675	B5	℄ PIER	19970.9143	-6.2498	624.760	0.000	624.760
	℄ BRG. W. ABUT.	19931.4464	-6.2498	624.681	0.000	624.681		℄ E. BRG. PIER	19972.0177	-6.2498	624.760	0.000	624.760
	a1	19941.4464	-6.2498	624.716	0.008	624.724		a2	19982.0177	-6.2498	624.753	0.008	624.761
	b1	19951.4464	-6.2498	624.741	0.011	624.752		b2	19992.0177	-6.2498	624.737	0.011	624.748
	c1	19961.4464	-6.2498	624.755	0.007	624.762		c2	20002.0177	-6.2498	624.710	0.007	624.717
	℄ W. BRG. PIER	19969.8110	-6.2498	624.760	0.000	624.760		℄ BRG. E. ABUT.	20010.3823	-6.2498	624.680	0.000	624.680
	℄ PIER	19970.9143	-6.2498	624.760	0.000	624.760		BK. E. ABUT.	20011.9584	-6.2498	624.673	0.000	624.673
B6	BK. W. ABUT.	19932.7774	-12.4998	624.589	0.000	624.589	B6	℄ PIER	19973.8258	-12.4998	624.662	0.000	624.662
	℄ BRG. W. ABUT.	19934.3608	-12.4998	624.595	0.000	624.595		℄ E. BRG. PIER	19974.9321	-12.4998	624.661	0.000	624.661
	a1	19944.3608	-12.4998	624.627	0.008	624.635		a2	19984.9321	-12.4998	624.652	0.008	624.660
	b1	19954.3608	-12.4998	624.649	0.011	624.660		b2	19994.9321	-12.4998	624.632	0.011	624.643
	c1	19964.3608	-12.4998	624.660	0.007	624.667		c2	20004.9321	-12.4998	624.603	0.007	624.610
	℄ W. BRG. PIER	19972.7254	-12.4998	624.662	0.000	624.662		℄ BRG. E. ABUT.	20013.2968	-12.4998	624.570	0.000	624.570
	℄ PIER	19973.8258	-12.4998	624.662	0.000	624.662		BK. E. ABUT.	20014.8829	-12.4998	624.563	0.000	624.563
B7	BK. W. ABUT.	19935.6891	-18.7498	624.502	0.000	624.502	B7	℄ PIER	19976.7432	-18.7498	624.563	0.000	624.563
	℄ BRG. W. ABUT.	19937.2752	-18.7498	624.508	0.000	624.508		℄ E. BRG. PIER	19977.8466	-18.7498	624.562	0.000	624.562
	a1	19947.2752	-18.7498	624.537	0.008	624.545		a2	19987.8466	-18.7498	624.550	0.008	624.558
	b1	19957.2752	-18.7498	624.555	0.011	624.566		b2	19997.8466	-18.7498	624.527	0.011	624.538
	c1	19967.2752	-18.7498	624.564	0.007	624.571		c2	20007.8466	-18.7498	624.494	0.007	624.501
	℄ W. BRG. PIER	19975.6398	-18.7498	624.563	0.000	624.563		℄ BRG. E. ABUT.	20016.2112	-18.7498	624.460	0.000	624.460
	℄ PIER	19976.7432	-18.7498	624.563	0.000	624.563		BK. E. ABUT.	20017.7973	-18.7498	624.453	0.000	624.453
B8	BK. W. ABUT.	19938.6035	-24.9998	624.414	0.000	624.414	B8	℄ PIER	19979.6576	-24.9998	624.463	0.000	624.463
	℄ BRG. W. ABUT.	19940.1896	-24.9998	624.419	0.000	624.419		℄ E. BRG. PIER	19980.7610	-24.9998	624.462	0.000	624.462
	a1	19950.1896	-24.9998	624.445	0.010	624.455		a2	19990.7610	-24.9998	624.446	0.010	624.456
	b1	19960.1896	-24.9998	624.461	0.013	624.474		b2	20000.7610	-24.9998	624.421	0.013	624.434
	c1	19970.1896	-24.9998	624.467	0.008	624.475		c2	20010.7610	-24.9998	624.385	0.008	624.393
	℄ W. BRG. PIER	19978.5542	-24.9998	624.464	0.000	624.464		℄ BRG. E. ABUT.	20019.1256	-24.9998	624.350	0.000	624.350
	℄ PIER	19979.6576	-24.9998	624.463	0.000	624.463		BK. E. ABUT.	20020.7117	-24.9998	624.343	0.000	624.343

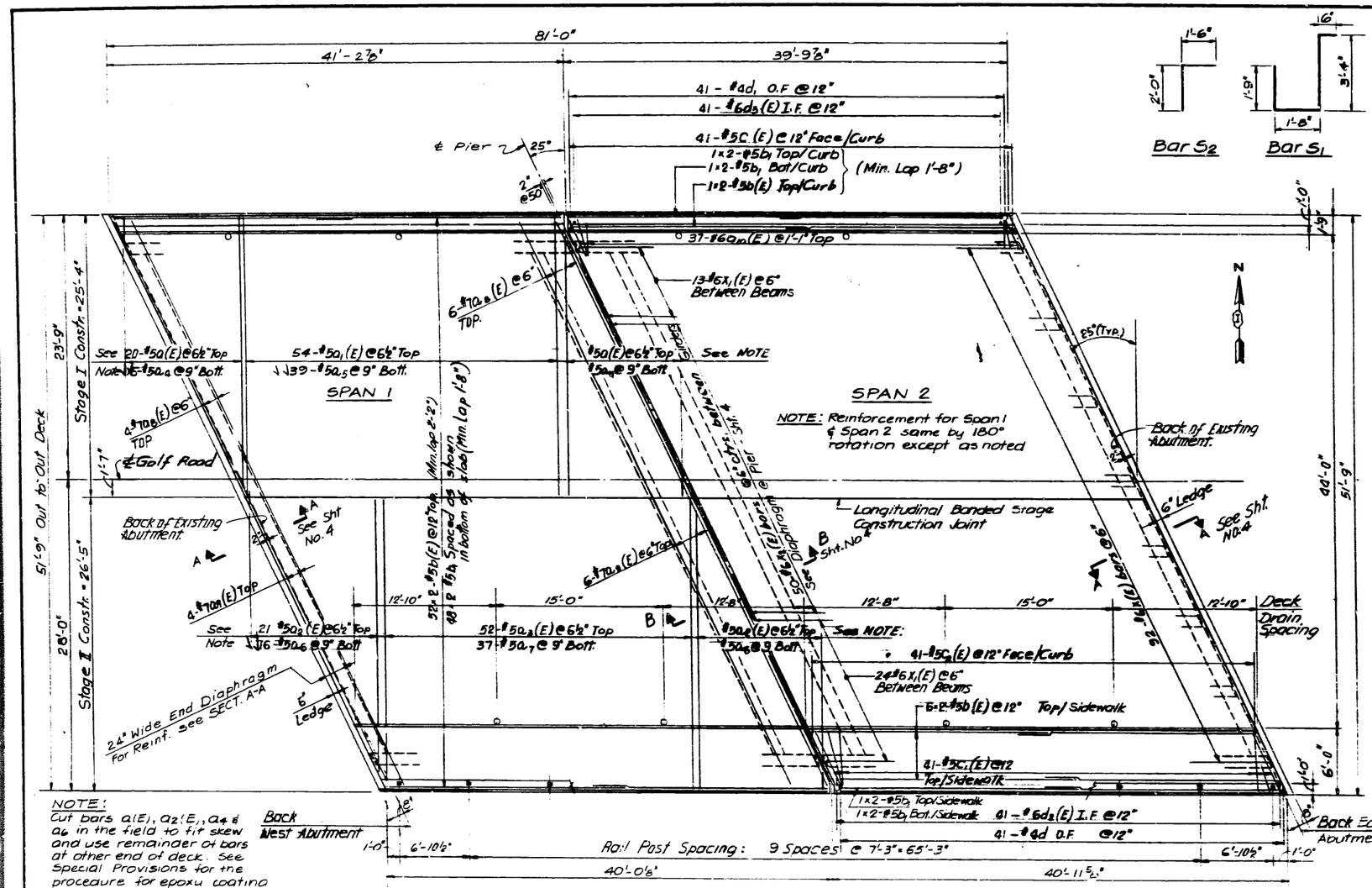
NOTE: Elevations given are to top of Slab. The theoretical top of slab elevations for beam №8 are based on the Extension of the 3/16 in. per foot crown to the ℄ of the beam.

DECK ELEVATIONS
GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983

DESIGNED BY R.K.
DRAWN BY D.L.
CHECKED BY B.C.O.
APPROVED BY Z.B.

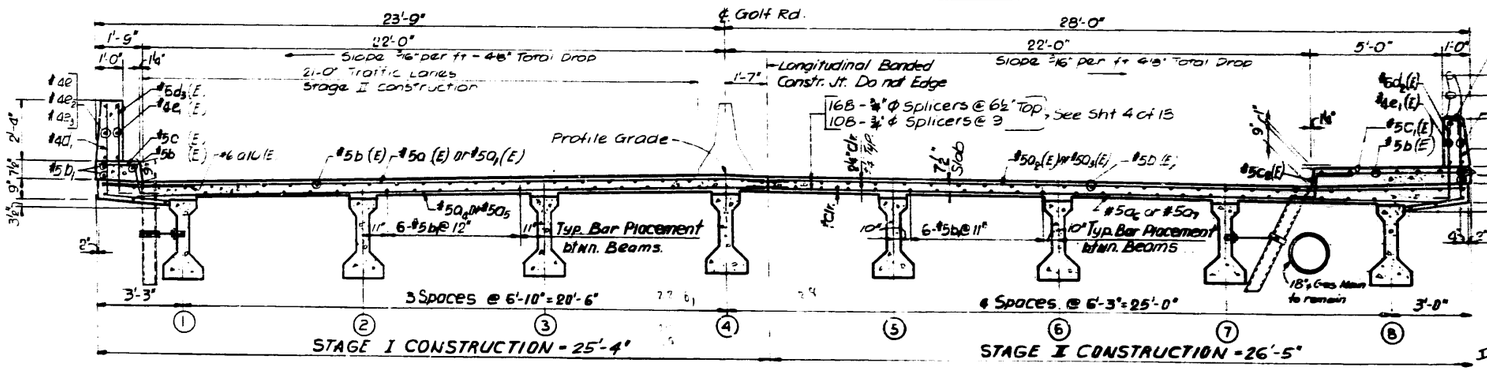
NELSON OSTROM BASKIN BERMAN & ASSOC., INC.
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
557	1977-119 W&RS	COOK	150	81
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		13 SHEETS



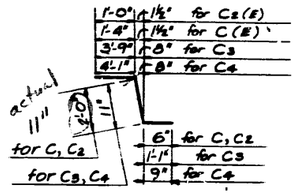
NOTE:
Cut bars $a(E)$, $a_2(E)$, a_4 & a_6 in the field to fit skew and use remainder of bars at other end of deck. See Special Provisions for the procedure for epoxy coating of cut reinforcement bars

DECK PLAN

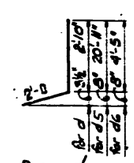


DECK SECTION (LOOKING EAST)

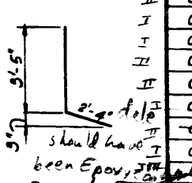
Bar S_2 Bar S_1



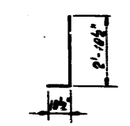
Bar C (E), C_2(E)
Bar C_3, C_4



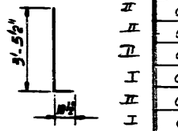
Bar d
Bar d5
Bar d6



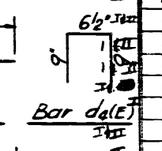
Bar d_1



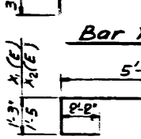
Bar d_2(E)



Bar d_3(E)



Bar X(E) Bar d_4(E)



Bar X_1(E) & X_2(E)

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
a (E)	40	#5	26'-4"	—
a_1(E)	108	#5	26'-10"	—
a_2(E)	42	#5	27'-5"	—
a_3(E)	104	#5	25'-11"	—
a_4	30	#5	25'-10"	—
a_5	78	#5	25'-10"	—
a_6	32	#5	26'-11"	—
a_7	76	#5	24'-11"	—
a_8	20	#7	27'-9"	—
a_9	20	#7	28'-7"	—
a_{10}(E)	74	#6	4'-0"	—
b (E)	256	#5	21'-1"	—
b_1	208	#5	21'-1"	—
C (E)	82	#5	2'-3"	⌐
C_1 (E)	82	#5	5'-7"	—
C_2(E)	82	#5	2'-3"	⌐
C_3	4	#6	6'-10"	⌐
C_4	4	#6	6'-10"	⌐
d	82	#4	4'-10"	L
d_1	82	#4	5'-9"	L
d_2(E)	82	#6	3'-9"	L
d_3(E)	82	#6	4'-5"	L
d_4(E)	20	#4	2'-0½"	L
d5	2	#6	22'-11"	⌐
d6	2	#6	6'-5	⌐
e	12 12 24	#4	13'-2"	—
e_1(E)	12 15 27	#4	13'-2"	—
e_2	3 3 6	#4	12'-8"	—
e_3(E)	I 3	#4	12'-10"	—
e_4(E)	I 3	#4	13'-6"	—
e_5	3 3 6	#4	13'-6"	—
e_6(E)	3	#4	13'-0"	—
m	12	#4	6'-9"	—
m_1	4	#4	4'-8"	—
m_2	8	#4	6'-2"	—
m_3	4	#4	28'-9"	—
m_4	4	#4	27'-7"	—
m_5	2	#6	28'-9"	—
m_6	2	#6	27'-7"	—
m_7	42	#6	5'-8"	—
m_8	12	#6	5'-0"	—
m_9	30	#6	6'-3"	—
m_{10}	10	#6	4'-4"	—
m_{11}	4	#6	3'-9"	—
m_{12}	6	#6	6'-2"	—
m_{13}	2	#4	4'-9"	—
m_{14}	4	#4	1'-3"	—
S1	72	#4	7'-3"	⌐
S2	72	#4	3'-6"	⌐

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
X (E)	184	#6	8'-0"	—
X_1 (E)	74	#6	8'-9"	⌐
X_2 (E)	100	#6	8'-11"	⌐

ITEM	UNIT	QUANT
Class "X" Concrete	cu. Yd	166.4
Reinforcement Bars	Lbs	15170
Reinf. Bars (Epoxy Coated)	Lbs	20360
Protective Coat	Sq. Yd.	513

NOTE
Work this Sheet with Sheets No. 4 & 5 of 13

Note
I a_8 E 40 #5 27'-4"
II a_9 E 40 #5 28'-7"

38 I
42 I

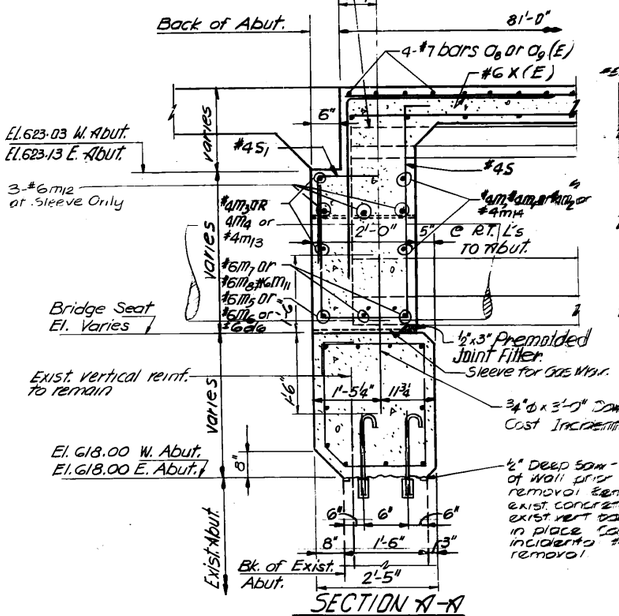
DECK SLAB PLAN

GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE FEB 1, 1983

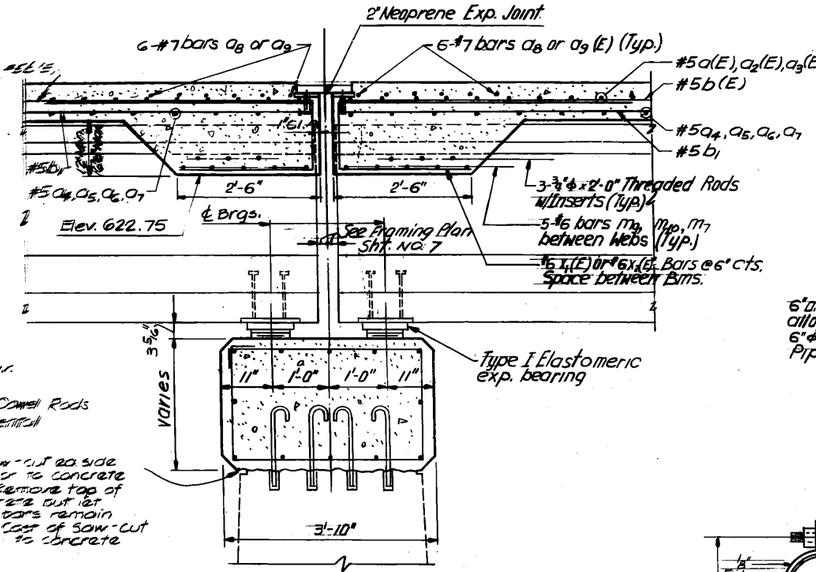
557	1977-119 W & RS	COOK	150	82
FED. ROAD DIST. NO. 7	ILLINOIS	PRINCIPAL ROUTE	FED. PROJECT	

SHEET NO. 4
13 SHEETS

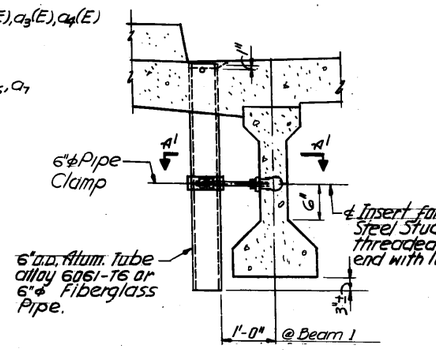
Pour diaphragm flush with top of beam. Concrete in slab above the line shall be placed not less than 45 minutes nor more than 90 minutes after diaphragm has been poured.



SECTION A-A
AT ABUTMENT



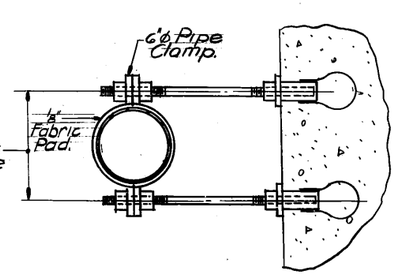
SECTION B-B
AT PIER

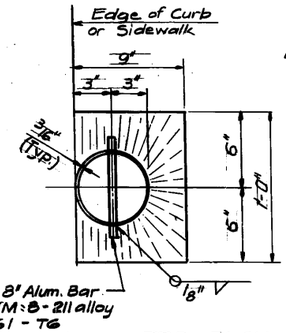


NOTES:

Fiberglass pipe shall conform to ASTM D2996 Designation code RTRP-11RE-5112. Pipe with class C or F liner are acceptable.
The surface of the Fiberglass pipe shall be free of bond inhibiting agent.
Pipe clamp and steel stud bolts shall be painted with Red Lead for first coat and two coats of Aluminum Paint.

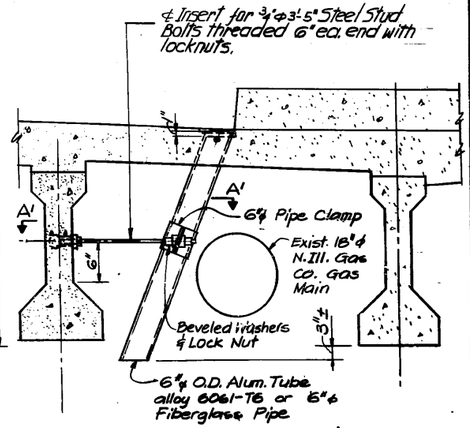
FLOOR DRAIN DETAIL AT CURB



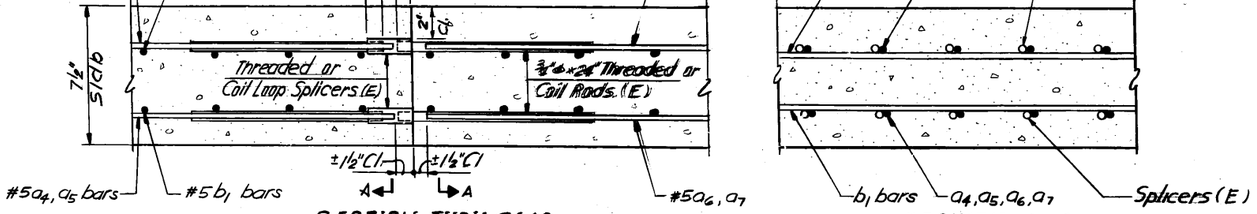


SECTION A'-A'

TOP PLAN
SHOWN FOR ALUM. TUBE
(Fiberglass Pipe Similar)



FLOOR DRAIN DETAIL AT SIDEWALK



SECTION THRU SLAB

SECTION A-A

SPLICER NOTES

STEEL SPLICER (COUPLER) ASSEMBLY SHALL BE OF AN APPROVED TYPE AND SHALL DEVELOP IN TENSION AT LEAST 125 PERCENT OF THE YIELD STRENGTH OF THE SPLICED REINFORCEMENT BARS.
STEEL SPLICER RODS SHALL BE OF MINIMUM 60 KSI YIELD STRENGTH, THREADED OR COILED FULL LENGTH AND HAVE EFFECTIVE TENSILE STRESS AREA EQUAL OR GREATER THAN THAT OF THE SPLICED REINFORCEMENT BARS.
SPLICER RODS SHALL EXTEND MINIMUM 1-1/2 INCHES INTO THE COUPLERS.
ALL REINFORCEMENT BARS SHALL BE SPLICED AND TIED TO THE SPLICER RODS.
SPLICER (COUPLER) ASSEMBLY IN THE SLAB SHALL BE EPOXY COATED IN ACCORDANCE WITH THE REQUIREMENTS FOR REINFORCEMENT BARS.
OTHER SYSTEMS OF SIMILAR DESIGN MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL SHALL BE BASED ON CERTIFIED TEST RESULTS FROM AN APPROVED TESTING LABORATORY THAT THE PROPOSED SPLICER (COUPLER) ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENTS:

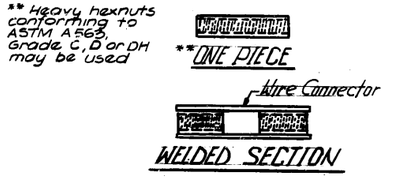
1. MINIMUM CAPACITY (TENSION IN KIPS) = 1.25 x FY x A_t
2. MINIMUM *PULL-OUT STRENGTH (TENSION IN KIPS) = 1.25 x FS_{ALLOW} x A_t

WHERE FY = YIELD STRENGTH OF SPLICED REINFORCEMENT BARS IN K.S.I.
$FS_{ALLOW.}$ = ALLOWABLE TENSILE STRESS IN SPLICED REINFORCEMENT BARS IN KSI (SERVICE LOAD)
A_t = TENSILE STRESS AREA OF SPLICED REINFORCEMENT BARS
* 28 DAY CONCRETE

VALUE FOR #5 BAR LAP WITH 3/4" Ø SPLICER (COUPLER) x 2'-0" SPLICER RODS — MIN. CAPACITY=23.0 KIPS-TENSION; MIN. PULL-OUT STRENGTH=9.2 KIPS-TENSION

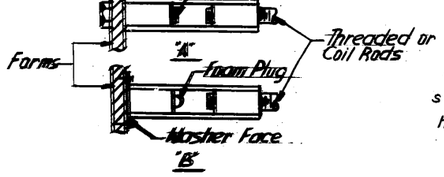
COST INCIDENTAL TO REINF. BARS OR REINF. BARS EPOXY COATED.

SPLICER DETAILS



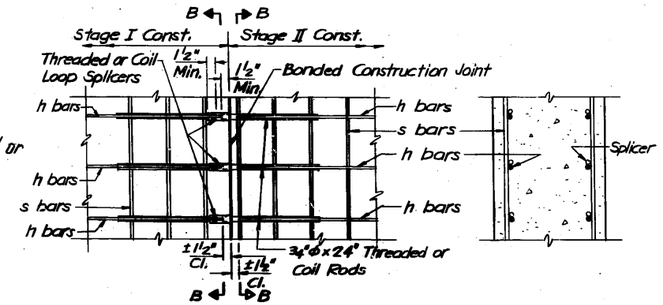
WELDED SECTION

SPLICER ALTERNATIVES



INSTALLATION AND SETTING METHODS

"A": Set splicer by means of a template bolt.
"B": Set splicer by nailing to wood forms or cementing to steel forms.
(E) Indicates Epoxy Coating, See Special Provisions



SECTION THRU ABUTMENTS AND PIERS
No Epoxy Coating Required

SECTION B-B

Work this Sheet with Sheet No. 3 of 13

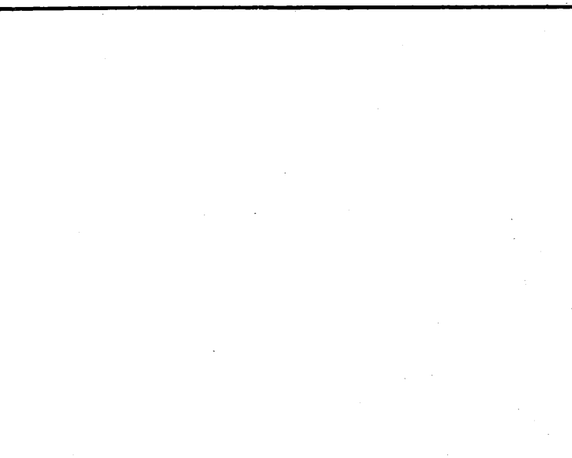
DESIGNED BY V.K.
DRAWN BY V.K.
CHECKED BY T.W.
APPROVED BY Z.B.

NELSON OSTROM BASKIN BERMAN & ASSOC., INC.
CONSULTING ENGINEERS — CHICAGO, ILLINOIS

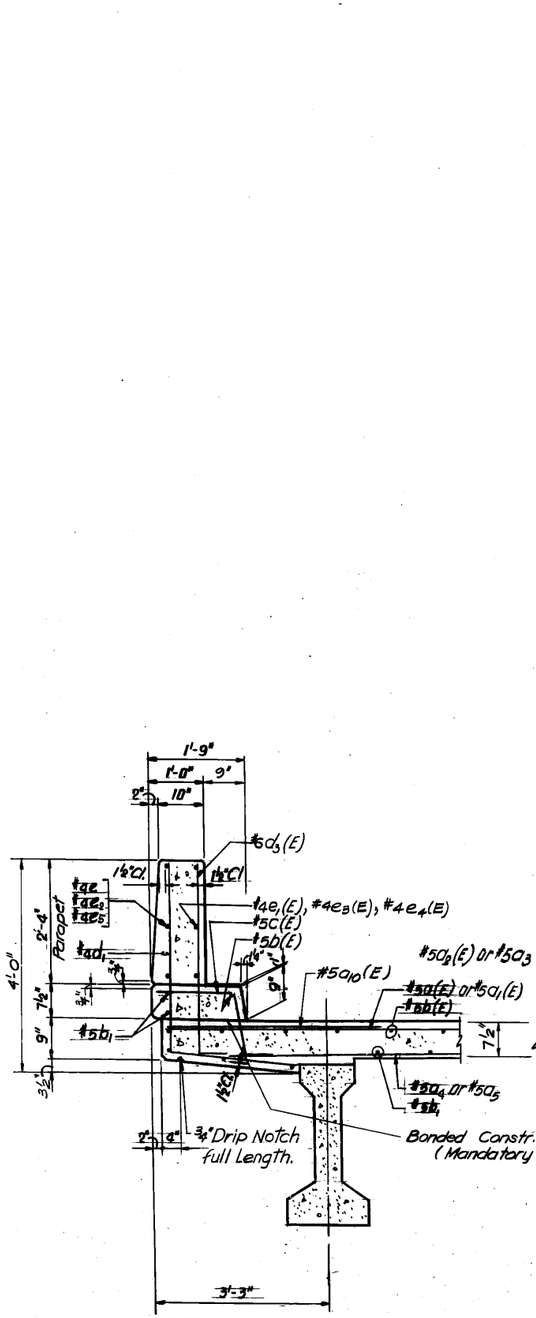
DECK DETAILS
GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983

COUNTY NO.	SECTION	COUNTY	FEDERAL PROJECT NO.	SHEET NO.
580	1977-119 W & RS	COOK	???	93
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		

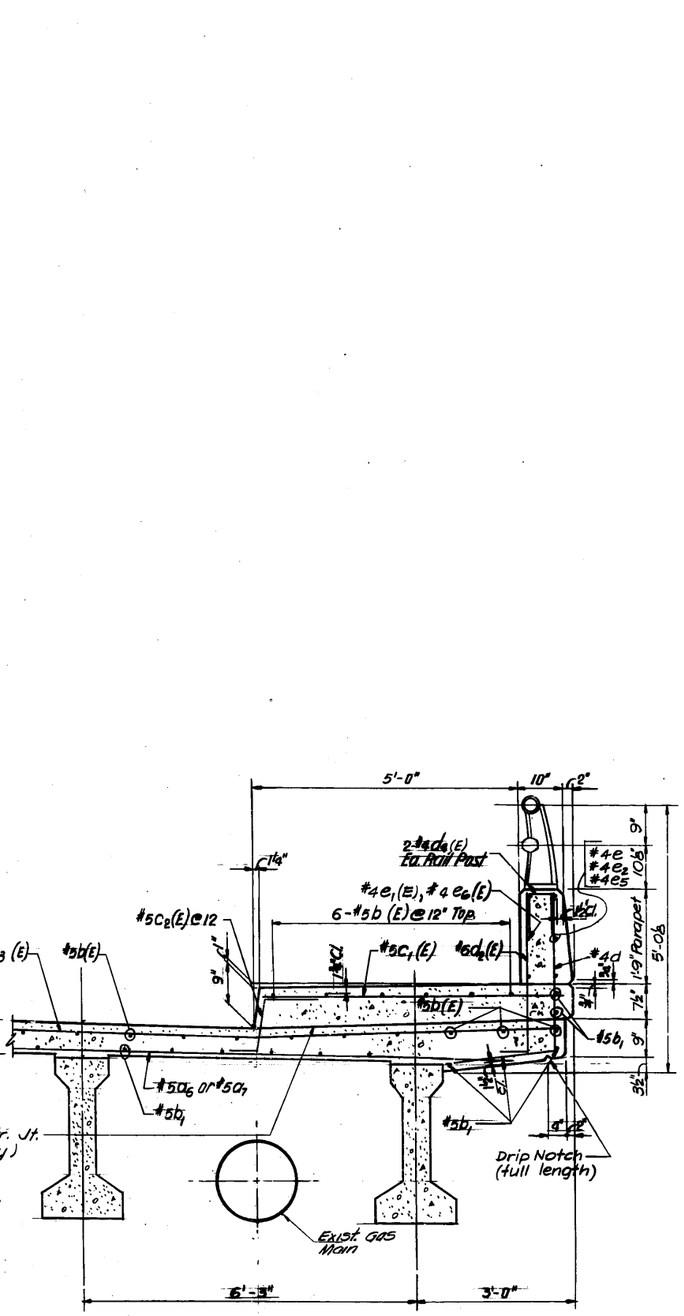
SHEET NO. 5
15 SHEETS



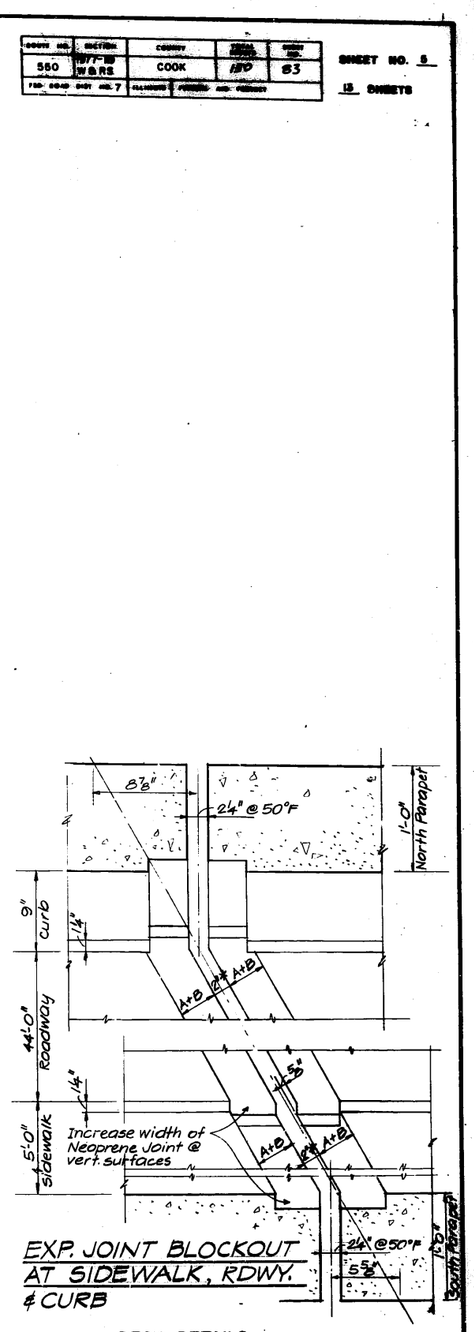
PARAPET JOINT DETAILS



NORTH PARAPET SECTION



SOUTH PARAPET AND SIDEWALK SECTION



EXP. JOINT BLOCKOUT AT SIDEWALK, RDWY. & CURB

DECK DETAILS

GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER

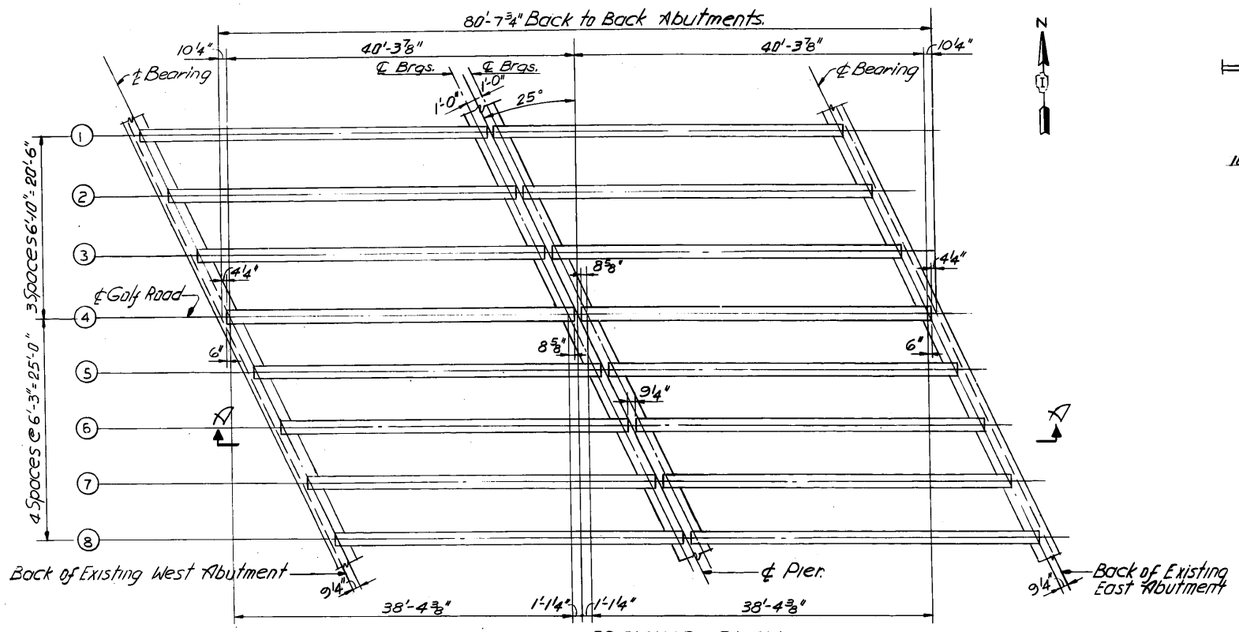
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983

DESIGNED BY _____
DRAWN BY _____
CHECKED BY _____
APPROVED BY _____

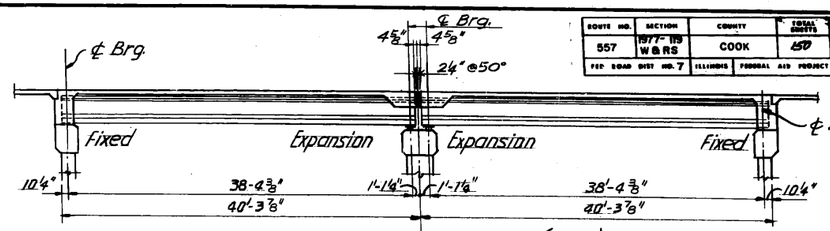
NELSON OSTROM BASKIN BERMAN & ASSOC., INC.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
557	1977-119 W & RS	COOK	150	86
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		

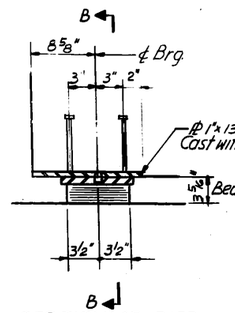
SHEET NO. 8
13 SHEETS



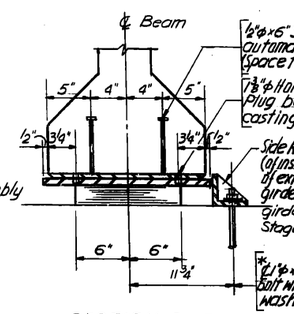
FRAMING PLAN



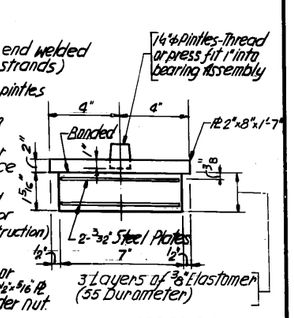
SECTION A-A (TYP)



SECTION AT PIER



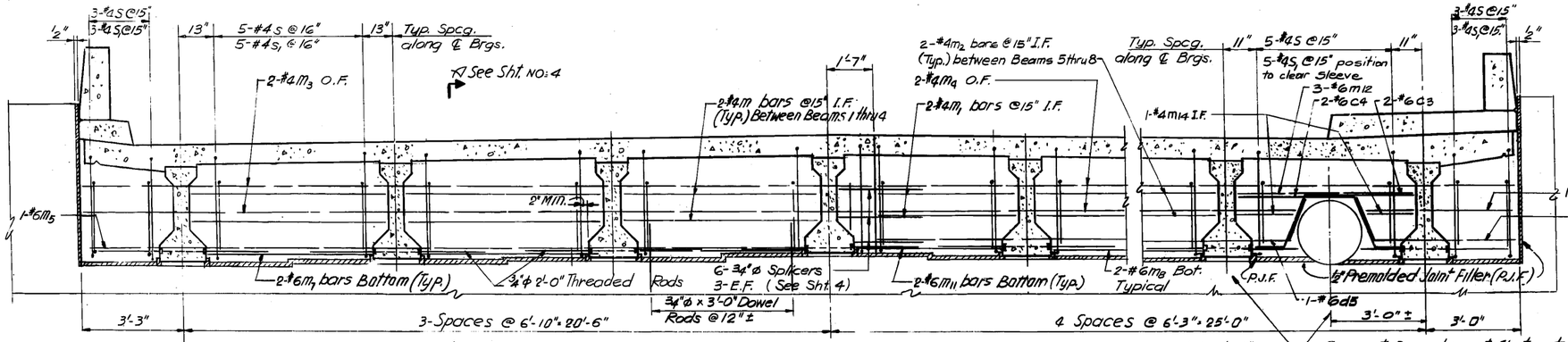
SECTION B-B



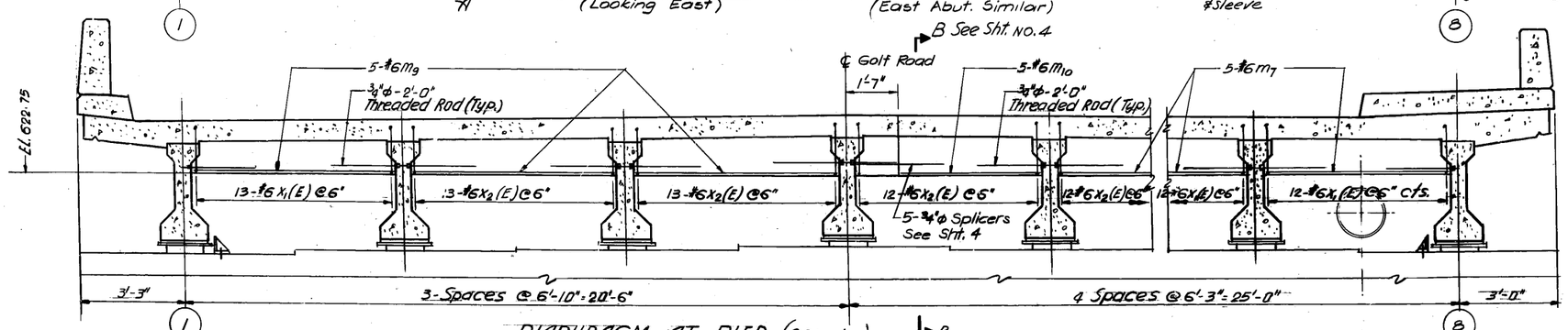
BEARING ASSEMBLY

TYPE I ELASTOMERIC EXP. BRG

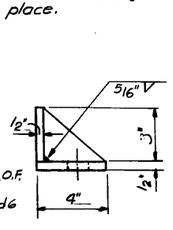
Note: Shim plates shall not be placed under Bearing Assembly.



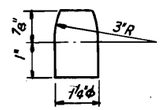
DIAPHRAGM AT ABUTMENT (West Abut. Shown) (East Abut. Similar)
(Looking East)



DIAPHRAGM AT PIER (2 Req'd.)



SIDE RETAINER



PINTLE

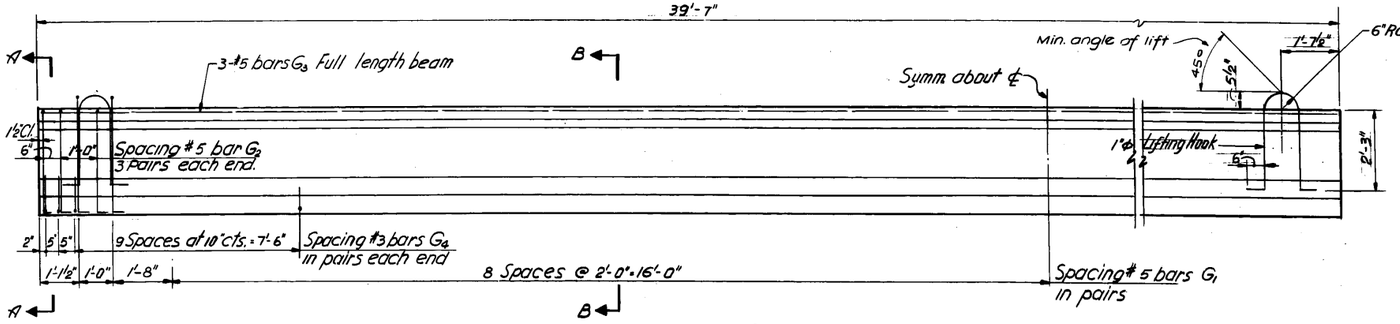
Note: After beams have been erected holes at expansion bearings shall be drilled and anchor bolts grouted in place.

Note: For Bill of Materials See Sheet No 3 of 13.

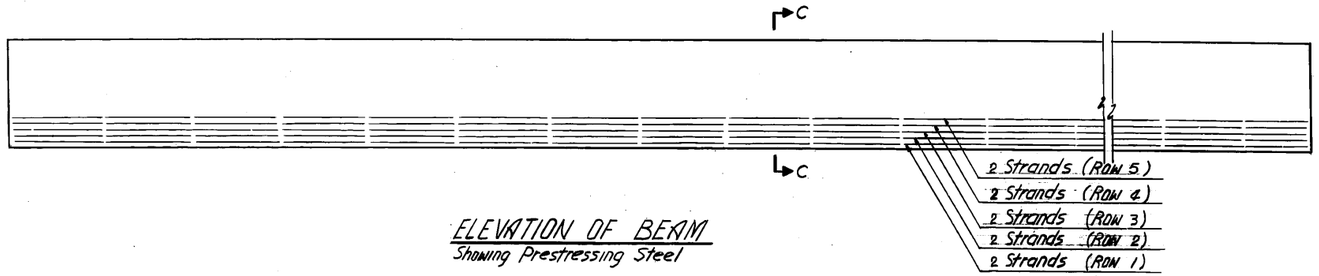
FRAMING PLAN & DIAPHRAGM DETAILS
GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983

2-1

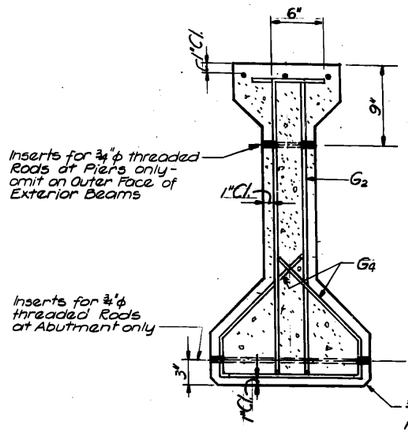
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
557	1977-119	COOK	13	9
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		13 SHEETS



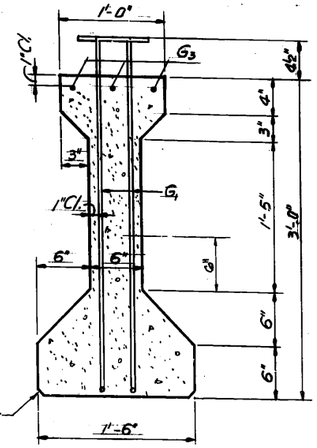
ELEVATION OF BEAM (16 Required)
Showing Reinforcement & Dimensions



ELEVATION OF BEAM
Showing Prestressing Steel

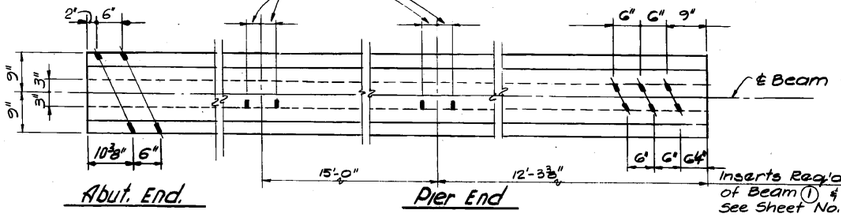


SECTION A-A

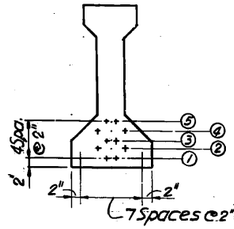


SECTION B-B

Inserts Req'd in Beams ② & ⑦
See Threaded Insert Location Plan



THREADED INSERT LOCATION



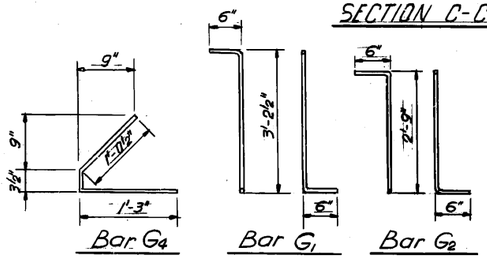
SECTION C-C

*BAR LIST

Bar	NO.	Size	Length	Shape
G_1	42	#5	4'-2½"	7L
G_2	12	#5	3'-9"	7L
G_3	3	#5	39'-3"	—
G_4	48	#3	2'-7"	L

*For one beam only.

Place strands symmetrically about ℄ Beam.



BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 36"	Lin. ft.	634

NOTES:
All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressed Concrete I-Beams, 36 In."

Prestressing Steel shall have a nominal diameter of ½" and a minimum gross sectional area of 0.153 sq. in.
Inserts for ¾"ϕ threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.
Steel for lifting hooks shall be non-deformed bars.
f_y = 40,000 psi

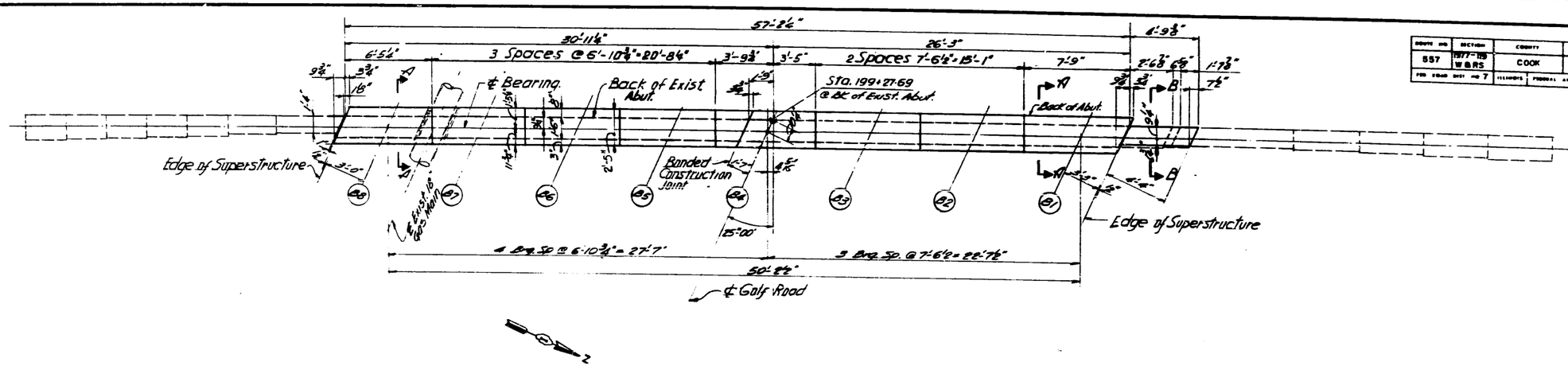
DESIGNED BY E.K.
DRAWN BY V.K.
CHECKED BY T.H.
APPROVED BY Z.B.

NELSON OSTROM BASKIN BERMAN & ASSOC., INC.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

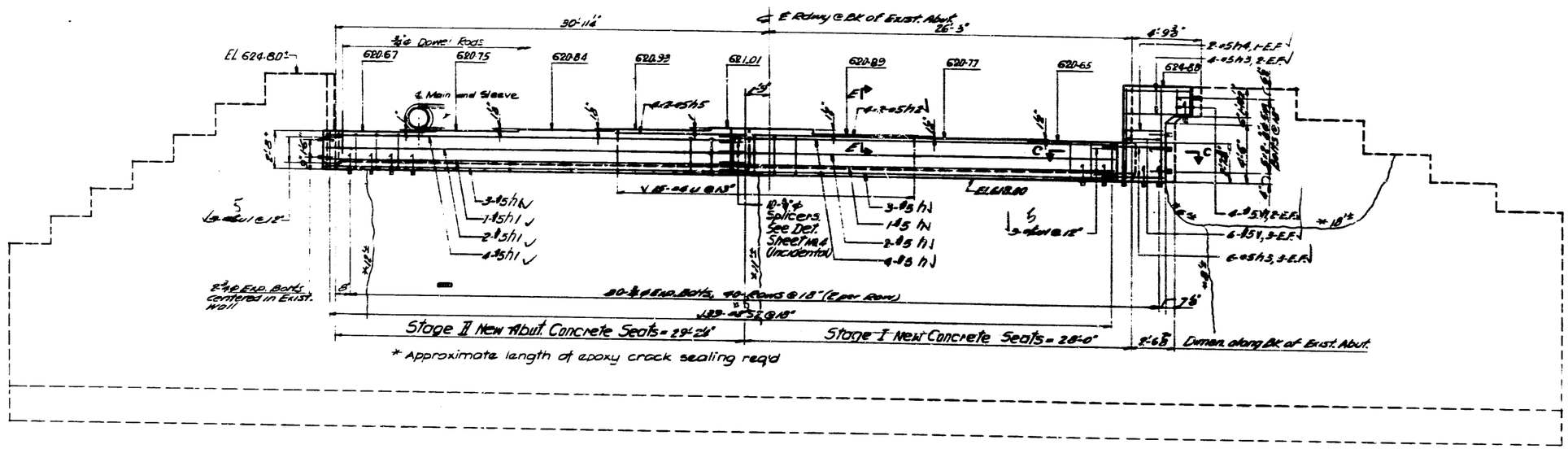
P.P.C. GIRDER DETAILS
GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER
FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
557	1977-119 W & RS	COOK	150	88
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT		

SHEET NO. 10
13 SHEETS

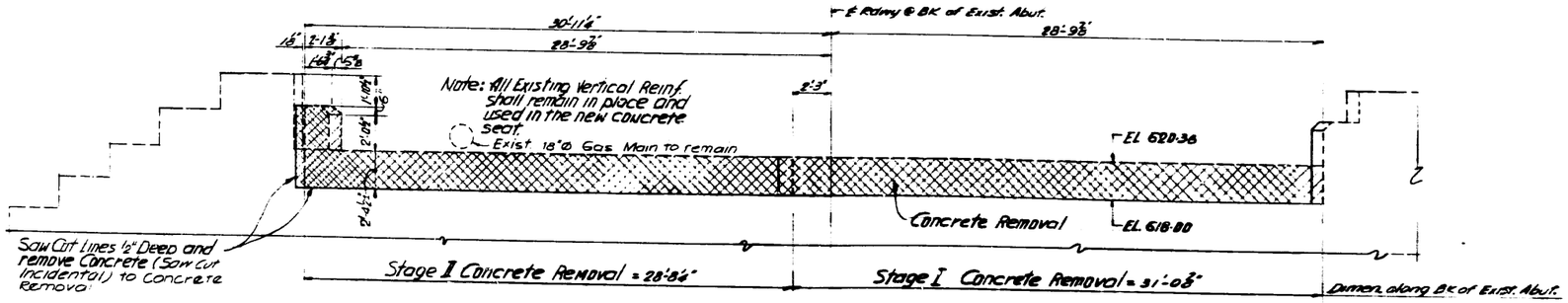


PLAN ABUTMENT SEATS



ELEVATION ABUTMENT SEAT

LOOKING WEST



PARTIAL ELEVATION OF ABUTMENT

Showing Concrete Removal

Work this Sheet with Sheet No.

DESIGNED BY P.E.
DRAWN BY V.E.
CHECKED BY T.W.
APPROVED BY E.C.O.

NELSON OSTROM BASKIN BERMAN & ASSOC. INC.
CONSULTING ENGINEERS CHICAGO, ILLINOIS

WEST ABUTMENT DETAILS

GOLF ROAD
OVER
NORTH BRANCH OF CHICAGO RIVER

FAP ROUTE 557 SECTION 1977-119-W & RS
COOK COUNTY
STATION 199+68.00
DATE: FEB. 1, 1983