INDEX OF SHEETS

STATE STANDARDS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

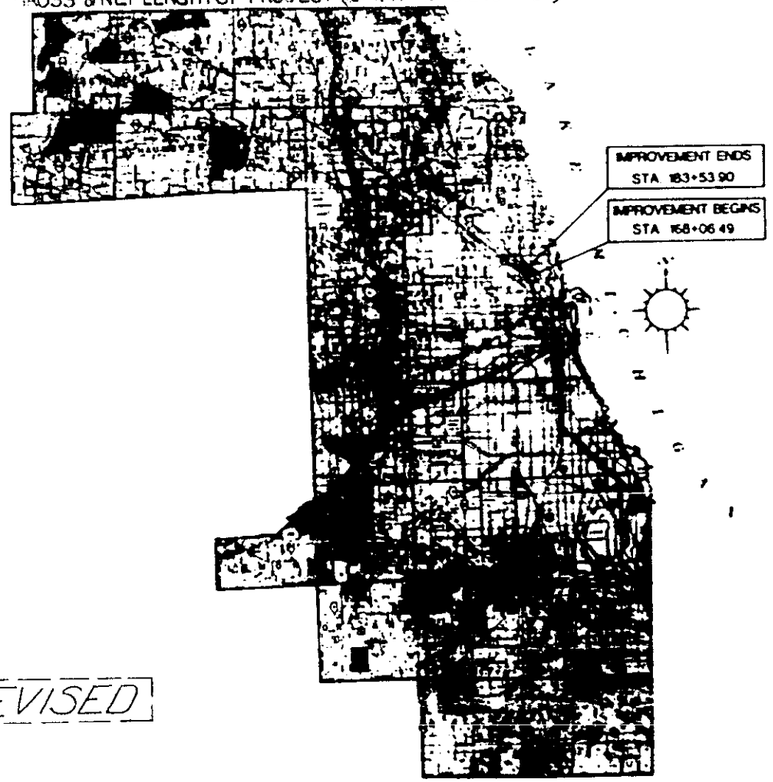
F. A. I. ROUTE 94 SECTION 1976-135-BR
PROJECT IR-94-2(125)47

BEARING DEVICE AND DECK JOINT REPLACEMENT AND INCIDENTAL STRUCTURAL REPAIRS

JOHN F. KENNEDY EXPRESSWAY W. WABANSIA AVENUE TO W. CORTLAND STREET

COOK COUNTY
P-91-172-76

GROSS & NET LENGTH OF IMPROVEMENT: 1547.41 LIN. FT. = 0.293 MILES
GROSS & NET LENGTH OF PROJECT (1547.41 FT. = 0.293 MILE)



ORIGINAL SECTION NUMBER
0505.3-1H

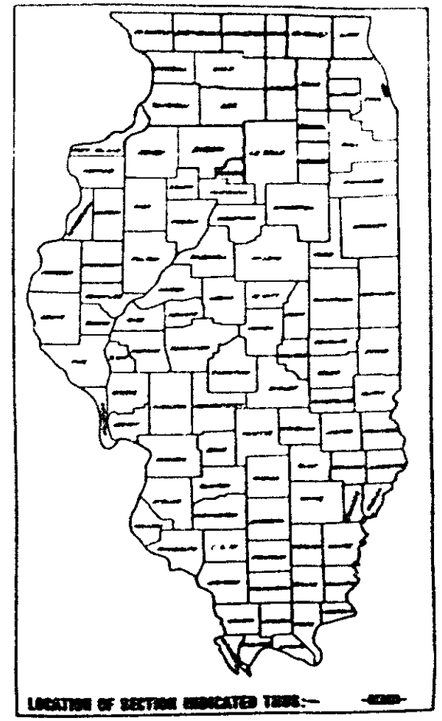
PREPARED AND RECOMMENDED BY

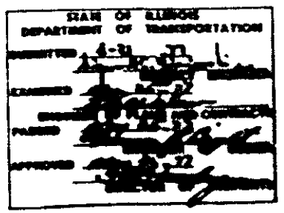
HOWARD, NEEDLES, TAMMEN & BERGENDOFF

CONSULTING ENGINEERS

CHICAGO

AS REVISED





0-129

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

0-129

Let. 11-18-77
Rev. 12-23-77

CONTRACT NO. 32709

COOK COUNTY SECTION 1976-135-BR F. A. ROUTE 94 As Revised 11-20-78 L.W.

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 94	1976 135 BR	COOK	FEDERAL AID PROJECT NO	
FED. ROAD DIST. NO. 7		ILLINOIS		

GENERAL NOTES

DESIGN SPECIFICATIONS: American Association of State Highway and Transportation Officials Standard Specifications for Highway Bridges, 1973 with 1974, 1975 and 1976 revisions, and State of Illinois Department of Transportation Bridge Manual specifications current to March, 1976.

CONSTRUCTION SPECIFICATIONS: State of Illinois Standard Specifications for Road and Bridge Construction, Adopted July 1, 1976 and Special Provisions thereto.

DESIGN LOADING: Design loads are calculated dead loads of existing structure and AASHTO HS20-44 live load.

DIMENSIONS: It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials. All dimensions given are at 50°F.

STRUCTURAL STEEL: Structural steel for replacement bearing seats and their accessories shall conform to AASHTO designation M183. Calculated weight of this structural steel = 5,470 pounds.

PAINTING: The basic lead silico chromate paint system shall be used for shop and field painting of structural steel.

NOTATION: Piers designated as "5(N)" or "24(S)", etc., indicate the line of bearings on the North side of Pier 5 or the South side of Pier 24, respectively.

FIELD WELDING: Field welding of permanent accessories will be permitted where shown on the plans. Field welding of temporary construction accessories to the top flange of beams for a distance equal to one-fourth the span length each way from the pier supports or to the bottom flange will not be permitted. Field welding in other areas will be permitted only when approved by the engineer.

EXPANSION BOLTS: Expansion bolts shall consist of self-drilling expansion anchors and ¾"x12" hooked bolts.

JACKING GIRDERS: At locations where the superstructure must be raised to permit work to proceed, all girders situated between adjacent longitudinal deck joints and on each side of the pier shall be lifted and lowered simultaneously and uniformly to prevent overstressing the crossframes, diaphragms, deck slab and jacks.

REINFORCEMENT BARS: Reinforcement bars shall have a clear cover of 1½ inches to the surface of concrete.. All bar dimensions are out to out. All bar spacing is center to center of bars. Hooks and bends shall conform to the CRSI Manual of Standard Practice.

UNIT STRESSES:
Structural steel: f_s=20,000 psi
Reinforcing steel: f_s=20,000 psi, Grade 40
Concrete: f_c=1,400 psi

EXISTING STRUCTURE PLANS
Plans of the existing structure are on file at the Illinois Department of Transportation, Division of Highways, District 1, 1600 Plaza Drive, Schaumburg, Illinois 60172 and will be made available to the Contractor.

SEQUENCE OF CONSTRUCTION

Stage 1 - Substructure and Miscellaneous Superstructure
1. Reconstruct the bridge seat on the north side of Pier 17.
2. Tighten or replace all loose and/or missing nuts or bolts in structural steel connections and weld the cross frame connection plates to the connection angles at the east concrete fascia girder of Pier 17.
3. Replace and regrout all missing or loose anchor bolts which are to be utilized in the modified structure.
4. Remove all unsound concrete from the ends of the prestressed concrete beams and apply an epoxy sealer to the surfaces as specified in the Special Provisions.
5. Remove all unsound concrete from the substructure elements and restore the surfaces with pneumatically placed concrete.
6. Repair all cracks in the substructure elements with an epoxy concrete adhesive.
7. Clean all dirt and debris from the bridge seats and apply an epoxy sealer to all exposed substructure surfaces.

Stage 2 - Southeastbound Lanes 3 and 4
1. Remove and replace all existing sliding plate expansion bearing devices which support the structure carrying southeastbound Lanes 3 and 4 with elastomeric bearing devices.
2. Reroute two lanes of southeastbound traffic onto the reversible lanes and close southeastbound Lanes 3 and 4, the Armitage Avenue entrance ramp and the North Avenue exit ramp.
3. Remove all existing transverse deck expansion devices and adjacent deck concrete and place new concrete at transverse deck joints in southeastbound Lanes 3 and 4.
4. Cure concrete for seven days after it has taken its initial set or until it has attained a breaking strenght of 650 pounds per scuare inch.
5. Install neoprene deck expansion devices in transverse deck joints in southeastbound Lanes 3 and 4.
6. Open southeastbound Lanes 3 and 4, the Armitage Avenue entrance ramp and the North Avenue exit ramp to traffic.

Stage 3 - Southeastbound Lanes 1 and 2
1. Remove and replace all existing sliding plate expansion bearing devices which support the structure carrying southeastbound Lanes 1 and 2 with elastomeric bearing devices.
2. Reroute two lanes of southeastbound traffic onto the reversible lanes and close southeastbound Lanes 1 and 2.
3. Remove all existing transverse deck expansion devices and adjacent deck concrete and place new concrete at transverse deck joints in southeastbound Lanes 1 and 2.
4. Cure concrete for seven days after it has taken its initial set or until it has attained a breaking strength of 650 pounds per square inch.
5. Install neoprene deck expansion devices in transverse deck joints in southeastbound Lanes 1 and 2.
6. Open southeastbound traffic Lanes 1 and 2 to traffic.

Stage 4 - Northwestbound Lanes 3 and 4
1. Remove and replace all existing sliding plate expansion bearing devices which support the structure carrying northwestbound Lanes 3 and 4 with elastomeric bearing devices.
2. Reroute two lanes of northwestbound traffic onto the reversible lanes and close northwestbound Lanes 3 and 4, the North Avenue entrance ramp and the Armitage Avenue exit ramp.
3. Remove all existing transverse deck expansion devices and adjacent deck concrete and place new concrete at transverse deck joints in northwestbound Lanes 3 and 4.
4. Cure concrete for seven days after it has taken its initial set or until it has attained a breaking strength of 650 pounds per square inch.
5. Install neoprene deck expansion devices in transverse deck joints in northwestbound Lanes 3 and 4.
6. Open northwestbound Lanes 3 and 4, the North Avenue entrance ramp and the Armitage Avenue exit ramp to traffic.

Stage 5 - Northwestbound Lanes 1 and 2
1. Remove and replace all existing sliding plate expansion bearing devices which support the structure carrying northwestbound Lanes 1 and 2 with elastomeric bearing devices.
2. Reroute two lanes of northwestbound traffic onto the reversible lanes and close northwestbound Lanes 1 and 2.
3. Remove all existing transverse deck expansion devices and adjacent deck concrete and place new concrete at transverse deck joints in northwestbound Lanes 1 and 2.
4. Cure concrete for seven days after it has taken its initial set or until it has attained a breaking strength of 650 pounds per square inch.
5. Install neoprene deck expansion devices in transverse deck joints in northwestbound Lanes 1 and 2.
6. Open northwestbound Lanes 1 and 2 to traffic.

Stage 6 - Reversible Lanes
1. Remove and replace all existing sliding plate expansion bearing devices which support the structure carrying the reversible lanes with elastomeric bearing devices.
2. Close the reversible lanes.
3. Remove all existing transverse deck expansion devices and adjacent deck concrete and place new concrete at transverse deck joints in the reversible lanes.
4. Cure concrete for seven days after it has taken its initial set or until it has attained a breaking strength of 650 pounds per square inch.
5. Install neoprene deck expansion devices in transverse deck joints in the reversible lanes.
6. Open the reversible lanes.

Stage 7 - Painting and Clean-Up
1. Clean and paint all existing low profile fixed bearings and all paint surfaces which were damaged during the performance of the work.
2. Remove all debris and construction equipment from the structure and work site and restore the work site to its original condition.

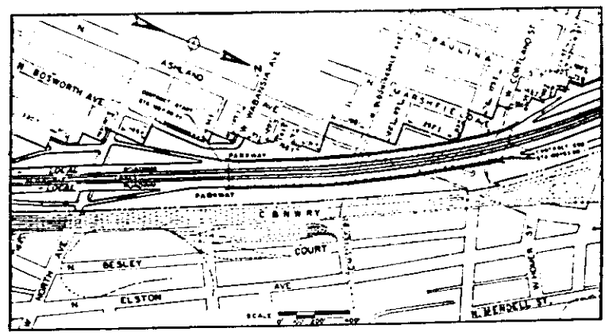
Notes:
Performance of steps 4 through 7 of Stage 1 work may be continued during Stages 2 through 6; however, all repair of concrete beam ends shall be completed prior to replacing the bearing device under the concrete beam.

Lowering concrete bridge seats and the removal and replacement of bridge seats on steel cross girders is included in the work to be performed in Step 1 of Stages 2 through 6.

SUMMARY OF QUANTITIES

CODE NO	ITEM	UNIT	TOTAL QUANTITY
501026	Expansion Bolts ¾ inch diameter	Each	24
504003	Class X Concrete	Cu.Yd.	275
507023	Structural Steel Removal	Pound	2,760
507001	Furnishing and Erecting Structural Steel	Pound	5,490
509004	Cleaning and Painting	Lump Sum	1
512001	Reinforcement Bars	Pound	23,860
X64601	Engineer's Field Office, Type A	CAL MO.	21
Z10184	Concrete Deck Removal	Cu.Yd.	297
XZ1395	Jacking Existing Structure, Less Than 10 Feet	Each	106
XZ1396	Jacking Existing Structure, More Than 10 Feet	Each	15
* Z10391	Sealing Bridge Concrete Girder	Sq.Yd.	3,490
XZ1090	Neoprene Expansion Joint, 2 Inch	Lin.Ft.	3,924
XZ1093	Neoprene Expansion Joint, 4 Inch	Lin.Ft.	124
X04206	Traffic Control and Protection	Lump Sum	1
* Z10597	Repair Concrete Structures	Sq. Ft.	2260
* XZ1397	Epoxy Sealer	Sq. Yd.	11,450
X50109	Removing Existing Sliding Plate Bearings	Each	669
X50302	Furnishing and Installing Elastomeric Bearings, Type I	Each	651
X50304	Furnishing and Installing Elastomeric Bearings, Type III	Each	18
* XZ1398	Repair of Cracks	Lin.Ft.	2,140
XZ1100	Traffic Signals		

* Non participating



LOCATION MAP

I hereby certify that this plan and specification was prepared by me or under my direct personal supervision and that I am a duly registered Structural Engineer under the laws of the State of Illinois.

Signed Donald L. Crawford Donald L. Crawford, P. E.

Date March 25, 1977 Illinois Reg. No. 81-3179

STATE OF ILLINOIS DONALD L. CRAWFORD 81-3179 CHICAGO, ILL. REGISTERED STRUCTURAL ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, QUANTITIES AND LOCATION MAP

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

NO.	DATE	REVISION	BY

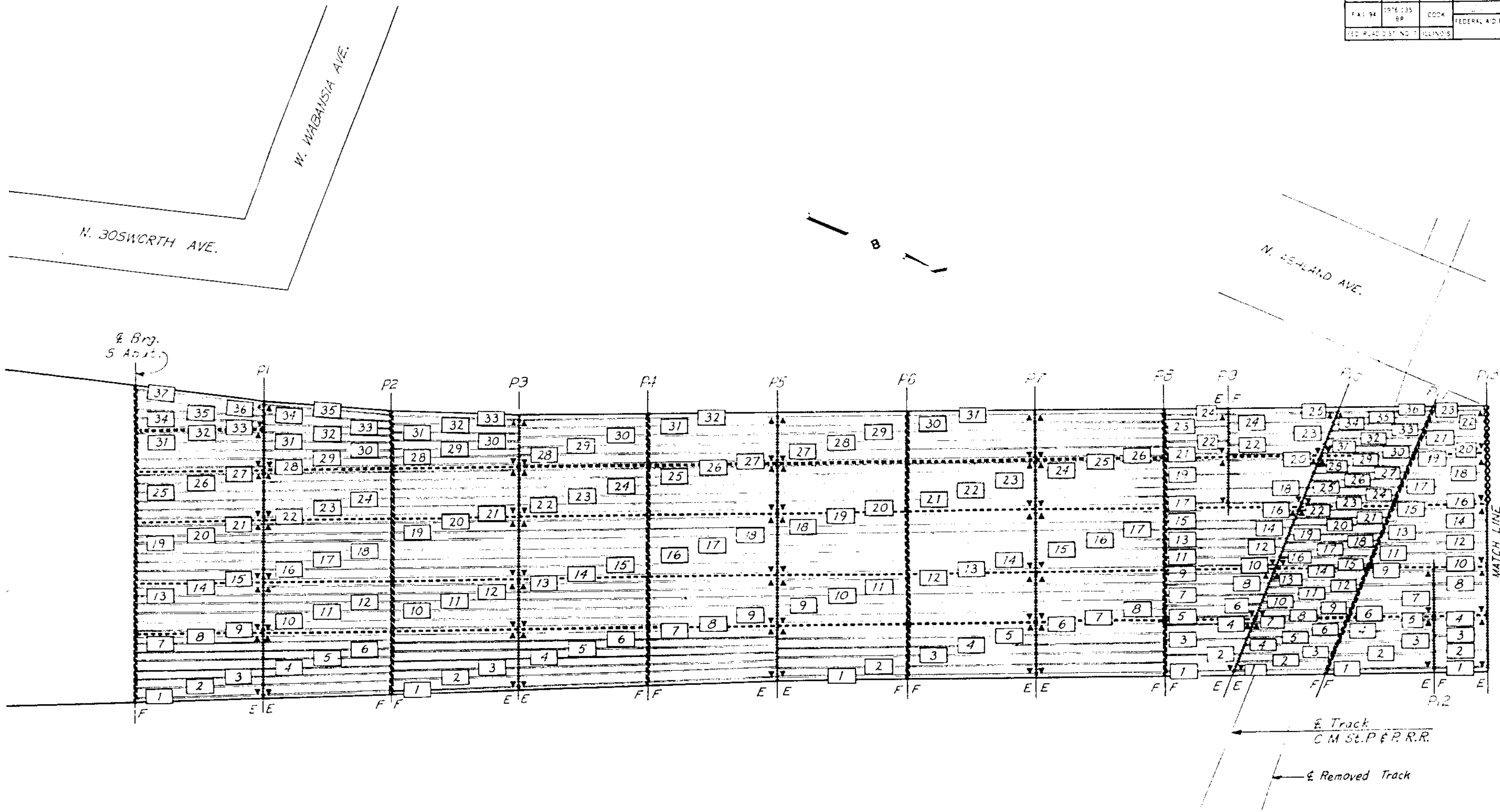
Rev 6-6-77

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO | HNTB

MADE P.C.A. DATE 1-19-77 CHECKED _____ DATE _____

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976-135 BP	COOK	[illegible]	3
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 3 OF 6 SHEETS



Legend:

P10 pier designation
E existing expansion bearing designation
F existing fixed bearing designation.
[1] concrete girder designation
Pier — designates location of side retainer for all replacement bearings except for Types III. See sheets 5 thru 8.
- - - - designates existing ½" P.J.F. longitudinal deck joint.
designates expansion deck joint (N.E.J. 2").
designates expansion deck joint (N.E.J. 4").
designates fixed deck joint (N.E.J. 2").

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN
SOUTH ABUTMENT TO PIER 13

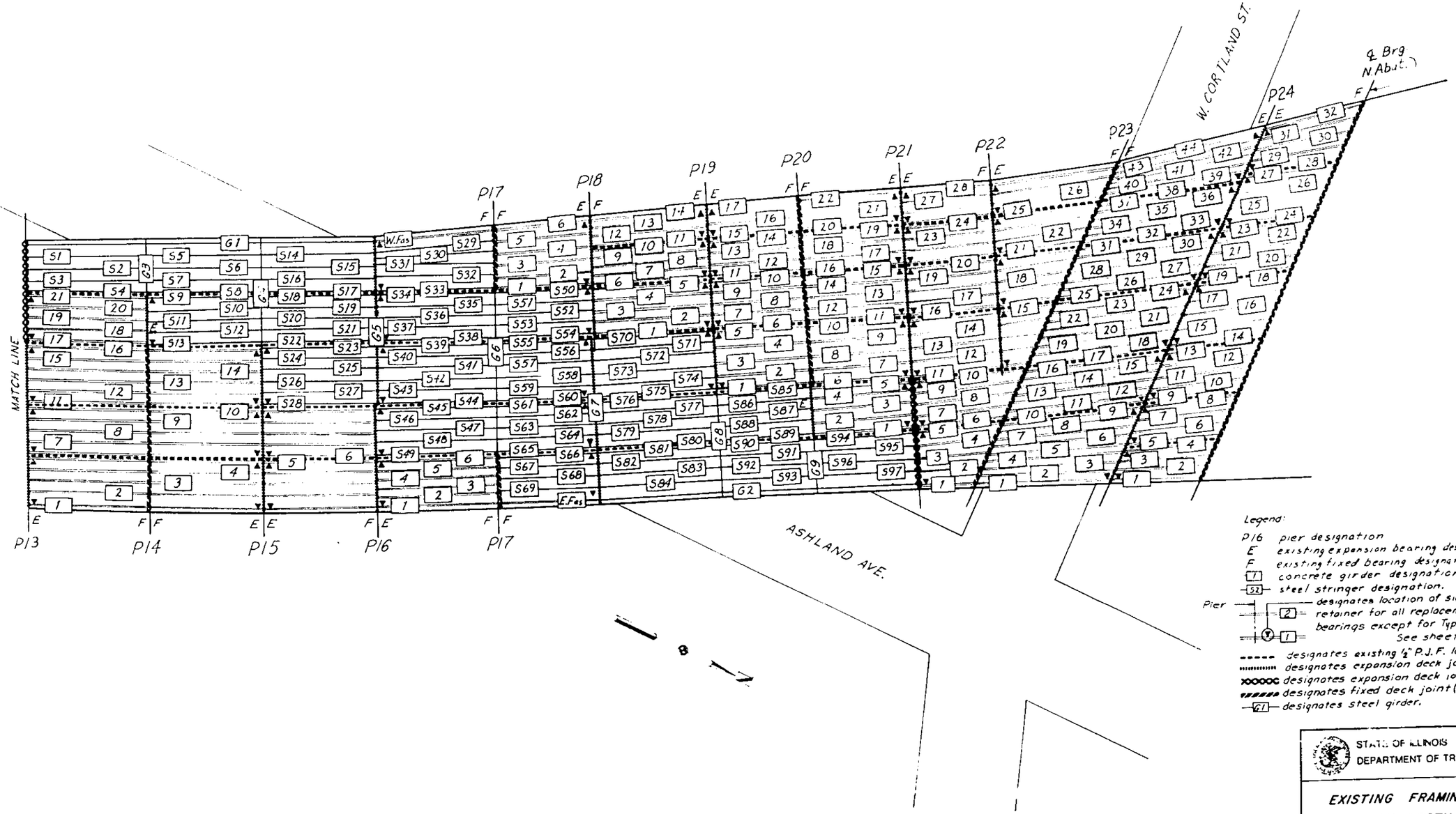
JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE RaL DATE 1-19-77 CHECKED CGL DATE 2-4-77

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976 135 BM	COOK	---	---
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 42 OF 26 SHEETS



Legend:

P16 pier designation
E existing expansion bearing designation
F existing fixed bearing designation
[1] concrete girder designation
-(S2)- steel stringer designation.
Pier — [2] — designates location of side retainer for all replacement bearings except for Types III. See sheets 5 thru 8.
----- designates existing ½" P.J.F. longitudinal deck joint
designates expansion deck joint (N.E.J. 2").
XXXXX designates expansion deck joint (N.E.J. 4").
designates fixed deck joint (N.E.J. 2").
-[G1]- designates steel girder.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING FRAMING PLAN PIER 13 TO NORTH ABUTMENT

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

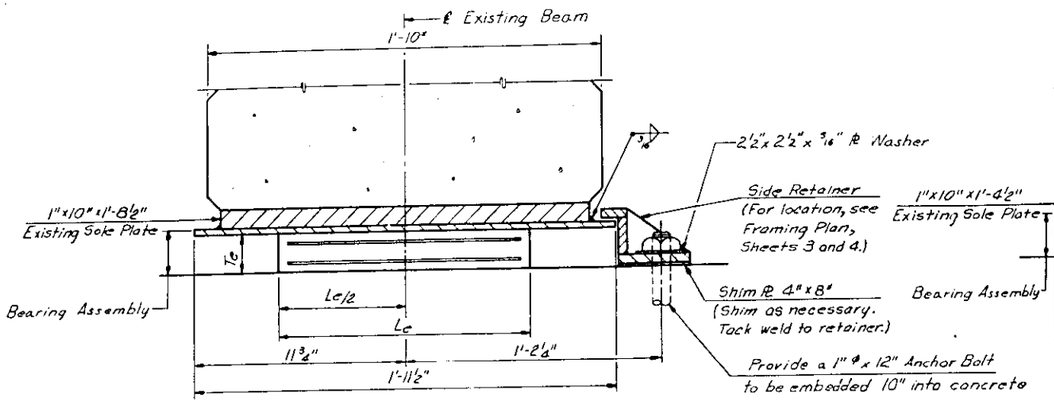
NO.	DATE	REVISION	BY

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO
HNTB

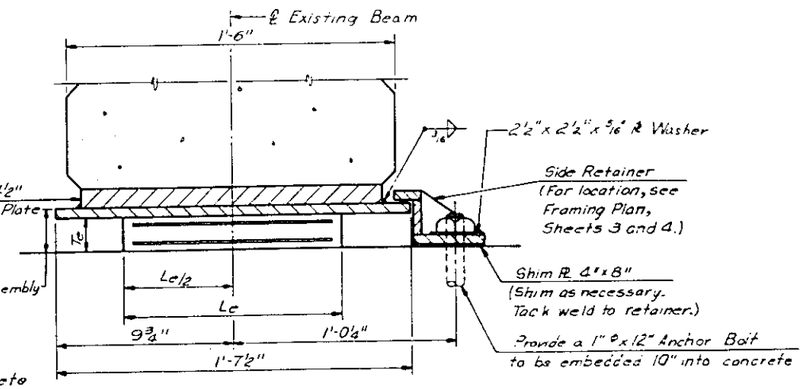
MADE Rad DATE 12-15-76 CHECKED CJL DATE 2-4-77

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 94	1976.135 BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO		

SHEET NO 5 OF 26 SHEETS

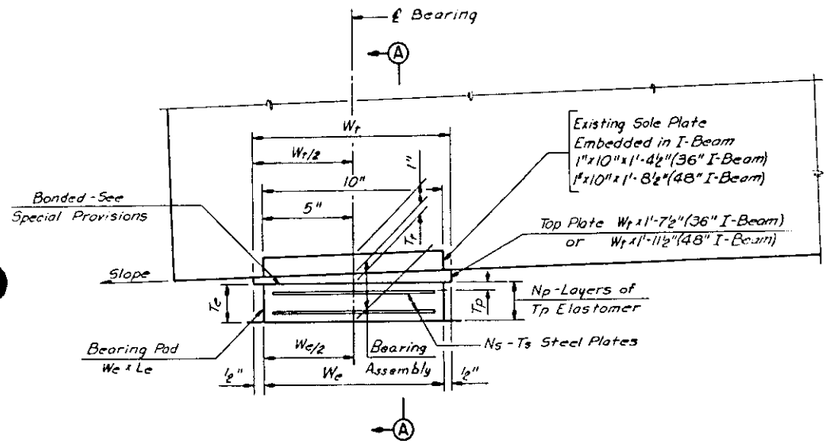


BEARINGS UNDER 48" P.P.C. I-BEAMS

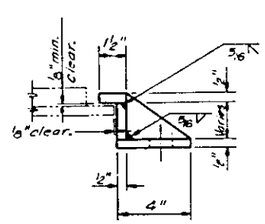


BEARINGS UNDER 36" P.P.C. I-BEAMS

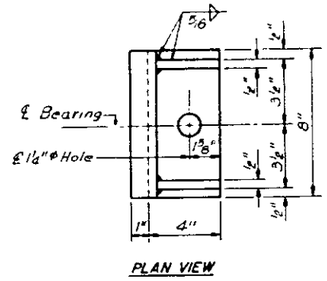
SECTION A-A



SIDE VIEW



END VIEW



PLAN VIEW

SIDE RETAINER

Note: Cost of side retainers, complete and in place, including anchor bolts, nuts and washers shall be incidental to Furnishing and Installing Elastomeric Bearings, Type I.

TABLE OF DIMENSIONS - TYPE I ELASTOMERIC EXPANSION BEARINGS

We	Le	Series	Tp	Np	Ts	Ns	Te
7"	12"	a	¾"	3	3/32"	2	1⅜"
8"	15"	a	¾"	4	1/8"	3	1⅞"
9"	12"	a	¾"	3	3/32"	2	1⅜"
9"	12"	b	¾"	4	3/32"	3	1⅝"
10"	14"	a	¾"	3	1/8"	2	1⅝"
10"	14"	b	¾"	4	1/8"	3	1⅞"
10"	14"	c	¾"	4	1/8"	3	2⅛"
10"	14"	d	¾"	5	1/8"	4	2⅜"
10"	14"	e	¾"	6	1/8"	5	2⅞"

Tp denotes thickness of each elastomeric layer.
Np denotes number of elastomeric layers.
Ts denotes thickness of each steel plate.
Ns denotes number of steel plates.

Notes:
Work this sheet with sheet no. 6.
All existing anchor bolts shall be cut at concrete surface.
Top plate shall be placed such that the bottom of the plate is level.
The replacement bearings shown on this sheet are Type I Elastomeric Bearings.

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE P.C.A. DATE 1-14-77 | CHECKED R.a.l. DATE 3-15-77

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC EXPANSION REPLACEMENT BEARINGS UNDER CONCRETE I-BEAMS

JOHN F. KENNEDY EXPRESSWAY
W. WANSIA AVENUE TO
W. CORTLAND STREET

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976-135 BR	COOK	FEDERAL AID PROJECT NO.	
FED. ROAD DIST. NO. 7	ILLINOIS			

SHEET NO. 6 OF 26 SHEETS

PIER	BEAM	W_θ	L_θ	SERIES	TOP PLATE T1	TOP PLATE W1	TOP PLATE SLOPE	NO. REQ'D.	REMARKS
1(S)	1-32,34,36,37	10"	14"	b	1/2"	11"	2.3%	35	②
	33,35	10"	14"	d	3/8"	11"	2.3%	2	
1(N)	1-35	10"	14"	c	1"	11"	3.6%	35	①
3(S)	1-28,31-33	10"	14"	b	1/2"	11"	2.1%	31	②
	29	10"	14"	d	1 3/8"	11"	2.1%	1	
	30	10"	14"	d	11/16"	11"	2.1%	1	
3(N)	1-28,30-32	10"	14"	c	7/8"	11"	2.1%	31	①
	29	10"	14"	d	1 3/8"	11"	2.1%	1	
5(S)	1-3,6-32	10"	14"	b	1/2"	11"	1.5%	30	②
	4	10"	14"	c	3/4"	11"	1.5%	1	①
	5	10"	14"	d	1 1/8"	11"	1.5%	1	
5(N)	1,5,8-15,17-24,27-31	10"	14"	b	1/2"	11"	2.3%	23	②
	3,6,7,25,26	10"	14"	c	3/4"	11"	2.3%	5	①
	2	10"	14"	c	3/4"	11"	2.3%	1	①
	4	10"	14"	d	1 1/8"	11"	2.3%	1	
	16	10"	14"	c	7/8"	11"	2.3%	1	①
7(S)	1-31	10"	14"	b	1/2"	11"	0.0%	31	②
7(N)	1-5,8-15,17-24,27-31	10"	14"	b	1/2"	11"	1.3%	26	②
	16	10"	14"	c	3/4"	11"	1.3%	1	①
	6,7,25,26	10"	14"	c	3/4"	11"	1.3%	4	①
9(S)	17-21,23,24	9"	12"	a	3/8"	10"	0.0%	7	
	22	9"	12"	a	11/16"	10"	0.0%	1	
10(S)	1	9"	12"	a	3/8"	10"	0.0%	1	
	2	9"	12"	a	3/8"	10"	0.0%	1	①
	3-12,19-25	10"	14"	c	1/2"	11"	0.0%	17	
	13-16	10"	14"	c	1/2"	11"	0.0%	4	①
	17,18	10"	14"	a	1/2"	11"	0.0%	2	①
10(N)	1-36	9"	12"	b	5/16"	10"	0.0%	36	
12(S)	1-7	10"	14"	c	1/2"	11"	0.0%	7	
	8,9	9"	12"	a	3/8"	10"	0.0%	2	①
13(S)	1,4,6,9	9"	12"	a	1/4"	10"	0.0%	4	
	2,8	9"	12"	a	1/4"	10"	0.0%	2	
	3,7,21-23	9"	12"	a	3/8"	10"	0.0%	5	
	19,20	9"	12"	a	3/8"	10"	0.0%	2	①
	10	10"	14"	c	1/2"	11"	0.0%	1	①
	11-18	10"	14"	c	1/2"	11"	0.0%	8	
13(N)	1-21	10"	14"	b	1/2"	11"	0.0%	21	②
15(S)	1-4,6-16	10"	14"	b	1/2"	11"	1.6%	15	②
	5	10"	14"	c	5/8"	11"	1.6%	1	
15(N)	1-10	10"	14"	b	1/2"	11"	0.8%	10	②
16(N)	1,2,4-6 W.Fascia	10"	14"	b	1/2"	11"	1.2%	6	②
	3	10"	14"	c	5/8"	11"	1.1%	1	①
18(S)	1-6	10"	14"	b	1/2"	11"	2.8%	6	
	E.Fascia	8"	15"	a	1/2"	9"	2.5%	1	
19(S)	4,5,8,9,13	10"	14"	b	1/2"	11"	3.2%	5	②
	1-3,6,7,10,11,14	10"	14"	c	5/8"	11"	3.2%	8	
	12	10"	14"	c	3/4"	11"	3.2%	1	
19(N)	3,6-17	10"	14"	b	1/2"	11"	2.7%	13	
	1,5	10"	14"	b	1"	11"	2.7%	2	
	2,4	10"	14"	b	1 1/4"	11"	2.7%	2	
21(S)	2,3-20,22	10"	14"	b	7/16"	11"	3.5%	20	
	1	10"	14"	b	1"	11"	3.6%	1	
	21	10"	14"	b	1/2"	11"	3.6%	1	
21(N)	1-3,6-8,11-28	10"	14"	b	1/2"	11"	2.7%	24	
	4,5	10"	14"	b	7/16"	11"	2.7%	2	
	9,10	10"	14"	b	1/2"	11"	2.7%	2	②
22(N)	11-16	7"	12"	a	1 1/4"	8"	3.3%	6	
	17-20	9"	12"	b	3/8"	10"	2.9%	4	
	21-23	10"	14"	b	1/2"	11"	2.7%	3	
	24-28	10"	14"	b	1/2"	11"	2.6%	5	②
24(S)	1,5	10"	14"	c	3/8"	11"	3.7%	2	①
	2	10"	14"	c	7/16"	11"	3.7%	1	①
	3,9,13,17	10"	14"	c	1"	11"	3.8%	4	①
	4,10,16	10"	14"	d	3/8"	11"	3.8%	3	
	6	10"	14"	d	5/16"	11"	3.8%	1	
	7,8,11,12,14,15,18	10"	14"	b	1/2"	11"	3.5%	7	②
	19	10"	14"	c	3/8"	11"	3.5%	1	①
	20-23,26,27,29,30,33,35,38,39,41-43	10"	14"	c	1/2"	11"	3.4%	15	②③
	24,25	10"	14"	c	1"	11"	3.8%	2	②
	28	10"	14"	c	7/16"	11"	3.7%	1	②
	31	10"	14"	e	1"	11"	3.6%	1	
	32,34,36,44	10"	14"	c	3/8"	11"	3.7%	4	②
	37	10"	14"	e	3/8"	11"	3.6%	1	
	40	10"	14"	e	1/16"	11"	3.6%	1	
24(N)	1-7	9"	12"	b	3/8"	11"	2.4%	7	
	8-11	10"	14"	b	1/2"	11"	2.3%	4	
	12-16	10"	14"	b	1/2"	11"	2.2%	5	
	17,22,24,26	10"	14"	b	1/2"	11"	2.0%	9	
	23	10"	14"	b	1 3/8"	11"	2.0%	1	
	27	10"	14"	b	1 1/2"	11"	1.6%	1	
	28	10"	14"	b	1/2"	11"	2.5%	1	
	29	10"	14"	b	1 1/16"	11"	2.6%	1	
	30	10"	14"	b	7/8"	11"	2.7%	1	
	31-32	10"	14"	b	1/2"	11"	3.0%	2	

Remarks:

① *The air temperature at time of setting the elastomeric bearings shall be between 110°F and -10°F.*

② *The air temperature at time of setting the elastomeric bearings shall be between 90°F and 10°F.*

③ *Grind the existing concrete bearing seat by 1/4".*

Notes:

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to installation and ordering of materials.

Remove the existing bearing device including base plate, shim plates and lead plate from the beams shown in the charts at the locations shown in the charts prior to installation of new elastomeric bearings unless noted otherwise.

Work this sheet with sheet No.5.

All of the beams shown in the charts are 48" PPC I Beams except those which are supported by Pier 10(N). These are 36" PPC I-Beams

All of the beams shown in the charts require a Type I Elastomeric Bearing

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO
HNTB

MADE P.G.A. DATE 1.19.77 CHECKED R.L. DATE 3-15-77

NO.	DATE	REVISION	BY

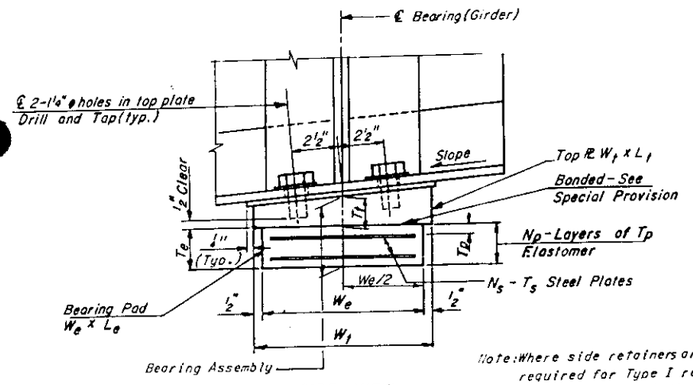
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE FOR REPLACEMENT BEARINGS UNDER CONCRETE I-BEAMS

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

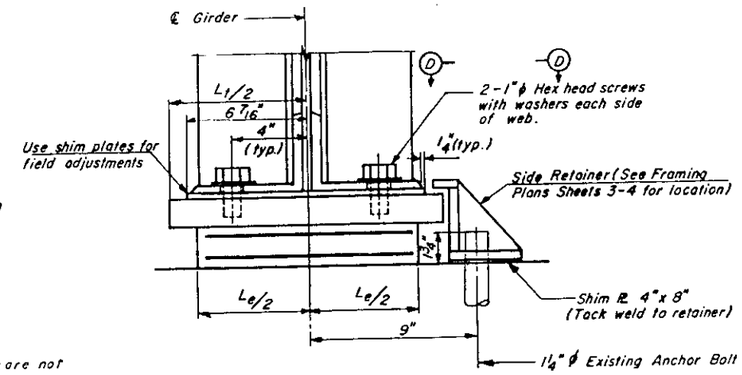
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 94	1976-135-BR	COOK	26	7
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO		

SHEET NO 7 OF 26 SHEETS



SIDE VIEW

Note: Where side retainers are not required for Type I replacement bearings, the existing anchor bolts shall be cut at concrete surface.



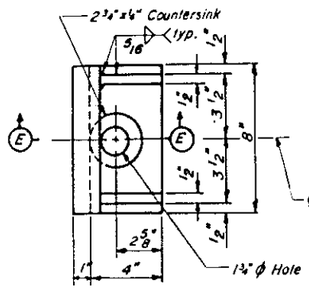
END VIEW

TYPE I ELASTOMERIC EXPANSION BEARING

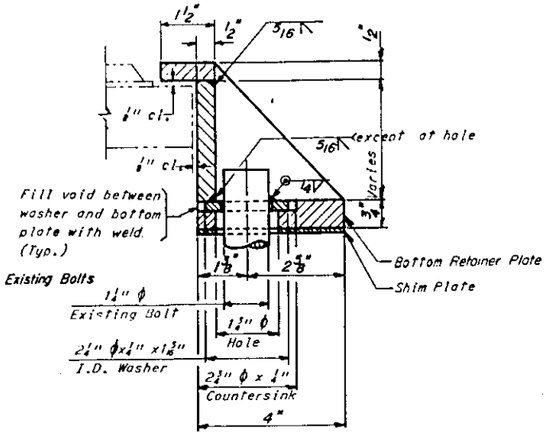
Pier	Girder	T_e	W_e	L_e	T_p	N_p	T_s	N_s	T_f	W_f	L_f	Slope	No Reqd
15(N)	S23-S28	2¼"	9"	12"	⅜"	5	3/32"	4	1⅝"	10"	15"	1.4 %	6
16(N)	S45-S49	2¼"	9"	12"	⅜"	5	3/32"	4	1⅝"	10"	15"	1.7 %	5
18(S)	S50-S54	1 13/16"	7"	12"	⅜"	4	3/32"	3	2 1/16"	8"	15"	2.0 %	5
19(S)	S70-S75	2¼"	9"	12"	⅜"	5	3/32"	4	1⅝"	10"	15"	2.5 %	6

SCHEDULE

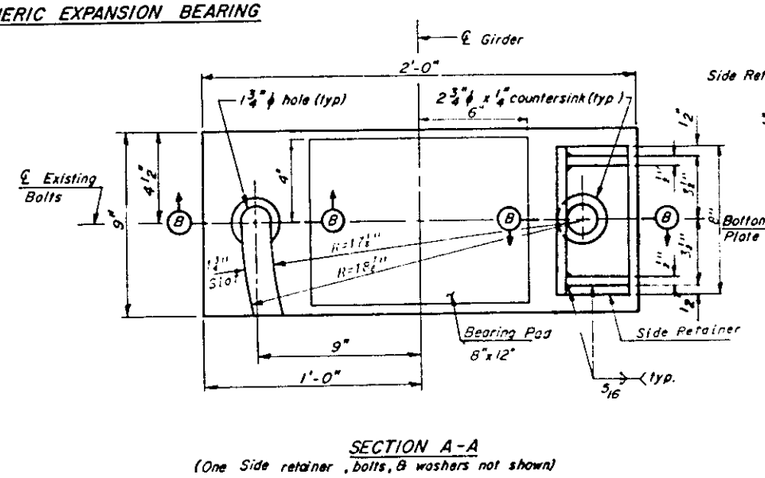
Note:
Cost of side retainers complete and in place, hex head screws, lead plates, shims, and washers shall be incidental to "FURNISHING AND INSTALLING ELASTOMERIC BEARINGS TYPE I" or "..... TYPE III" respectively.



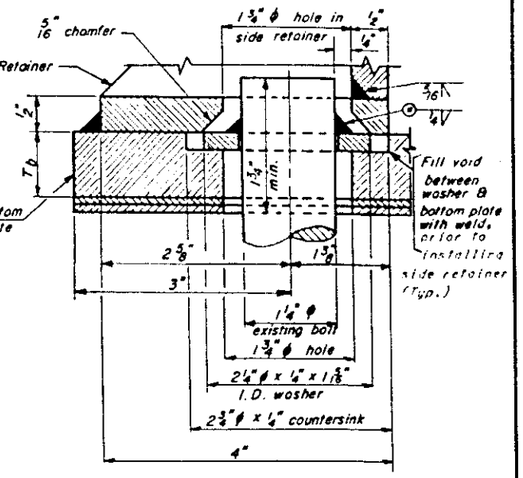
VIEW D-D
(Bolt and washer not shown)



SECTION E-E



SECTION A-A
(One Side retainer, bolts, & washers not shown)



SECTION B-B

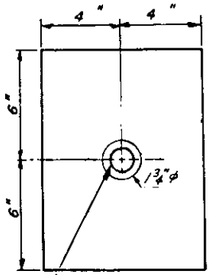
Pier	Girder	T_f	W_f	Slope	T_b	No. Reqd	*Grind
13(N)	S1, S3	1 3/16"	13"	0.7%	1½"	2	¼"
	S4	1 3/16"	13"	0.7%	1⅜"	1	⅜"
	S2	1⅛"	13"	0.7%	1⅛"	1	½"
14(N)	S9	1⅛"	12"	0.9%	1⅜"	1	¼"
	S10	1⅛"	12"	0.9%	1⅜"	1	¼"
	S11	1⅛"	12"	0.9%	1⅛"	1	⅜"
	S12, S13	1⅛"	12"	0.9%	1½"	2	¼"
20(S)	S85-S89	1 1/16"	12"	2.8%	1"	5	¼"
21(S)	S94, S95, S97	1 1/16"	13"	2.9%	1"	3	¼"
	S96	1 1/16"	13"	2.9%	1"	1	¼"

*Grind existing concrete bearing seat by the amount shown.

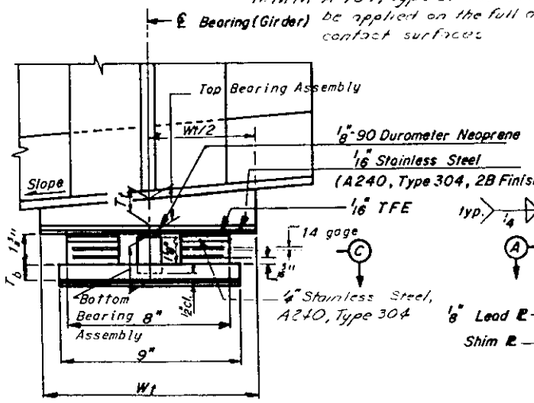
SCHEDULE

Notes:
Each Type I replacement bearing shall be provided with two ¼" field adjusting shims as shown in addition to all other plates.
Each Type III replacement bearing shall be provided with two ⅛" field adjusting shims of the dimensions of the bottom plate in addition to all other plates. Slots are not required.

Remove each existing bearing device (including sole plate, sliding plate, masonry plate, shim plate, and lead plate) where a new bearing device is to be installed.

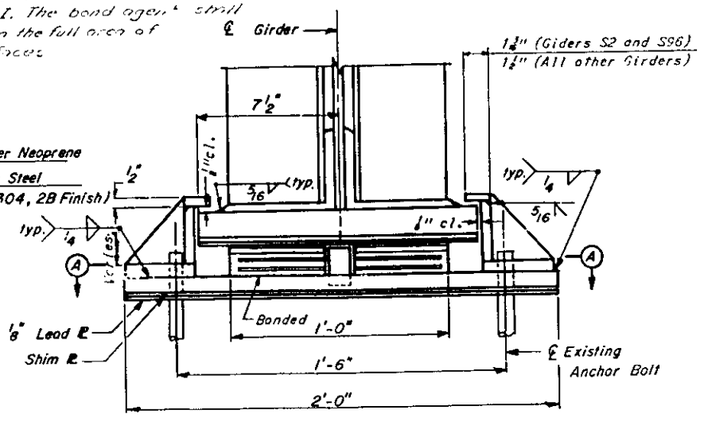


SECTION C-C



SIDE VIEW

Note: The 1/16" TFE sheet shall be bonded directly to the top steel laminate sheet with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Spec. MMM A-134, Type I. The bond agent shall be applied on the full area of contact surfaces.



END VIEW

TYPE III ELASTOMERIC EXPANSION BEARING

The ⅛" Lead Plate for the Type III replacement bearing shall have the same plan dimensions as the bottom plate. Slots are not required.

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC EXPANSION REPLACEMENT BEARINGS UNDER STEEL BEAMS ON CONCRETE CAPS

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

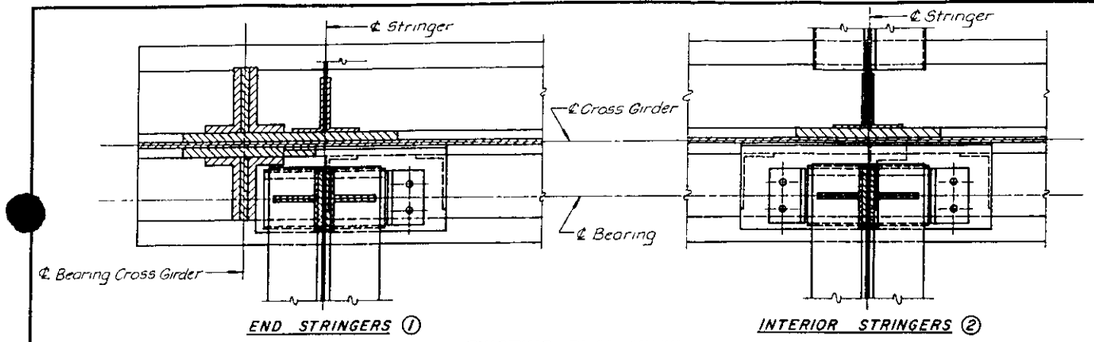
HOWARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO
HNTB

MADE CGL DATE 1-20-77 CHECKED P.C.A. DATE 3-14-77

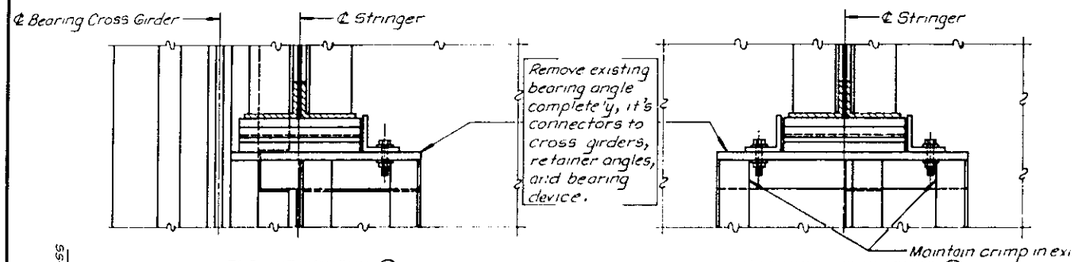
Rev 7/12/77 JJR

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 94	1976 135-BR	COOK	26	5
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

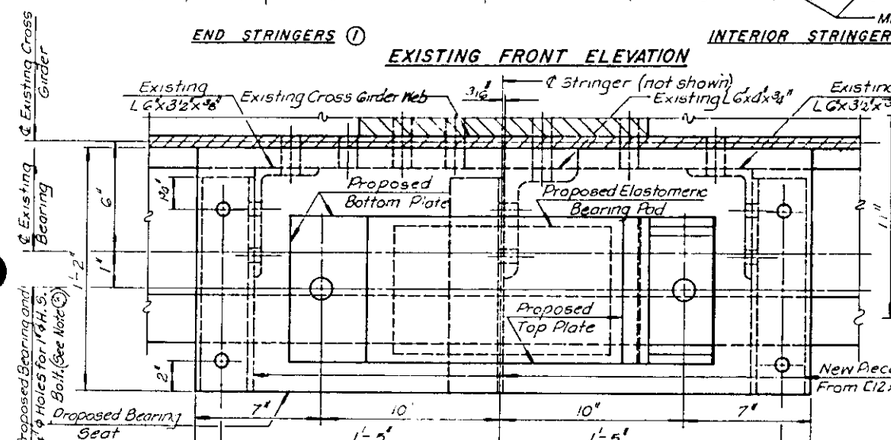
SHEET NO. 5 OF 26 SHEETS

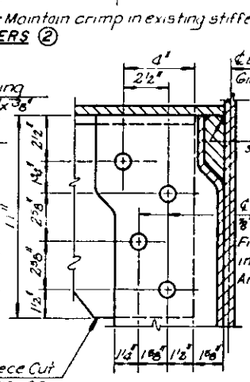


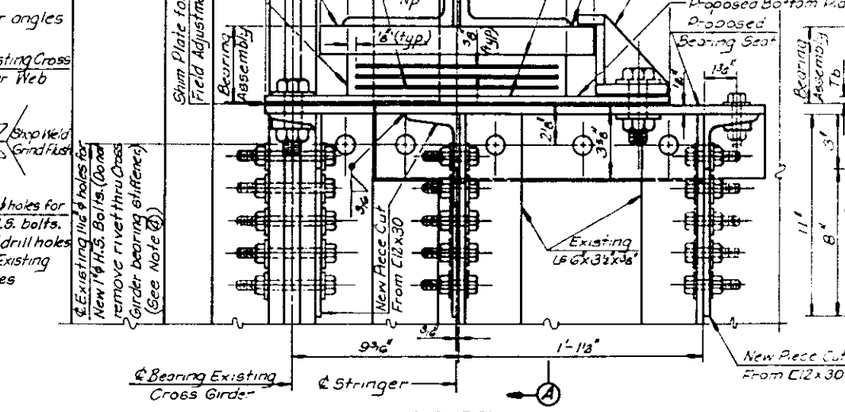
EXISTING PLAN VIEW

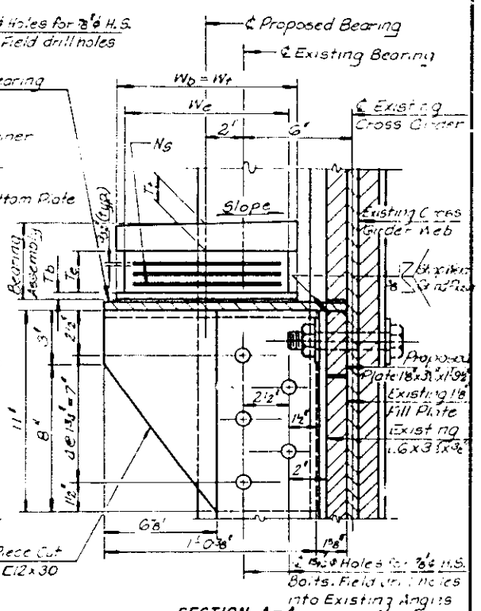


EXISTING FRONT ELEVATION

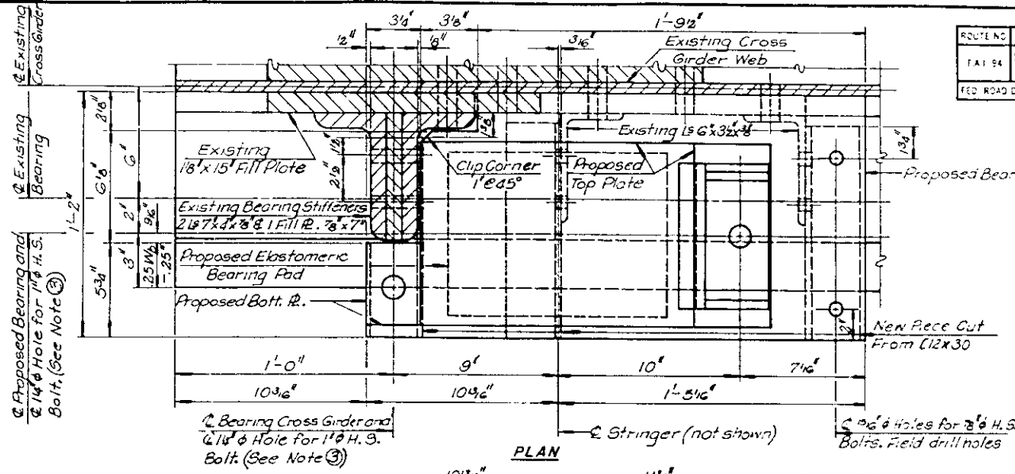


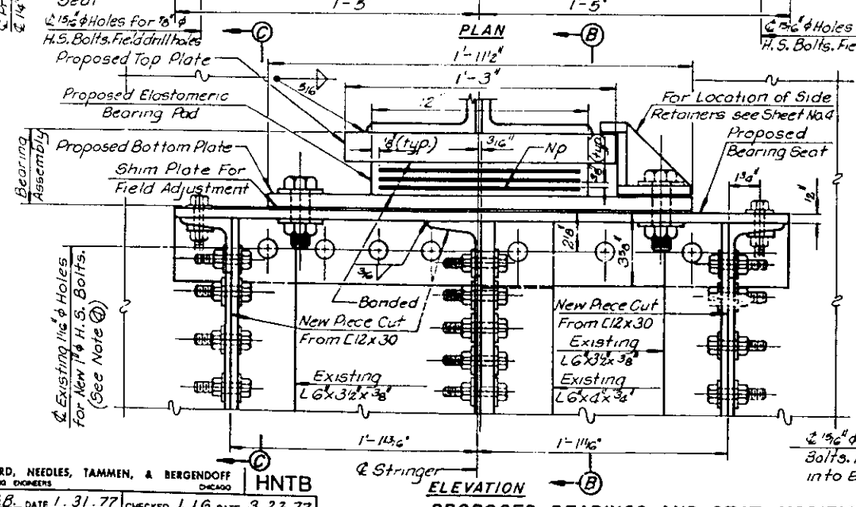


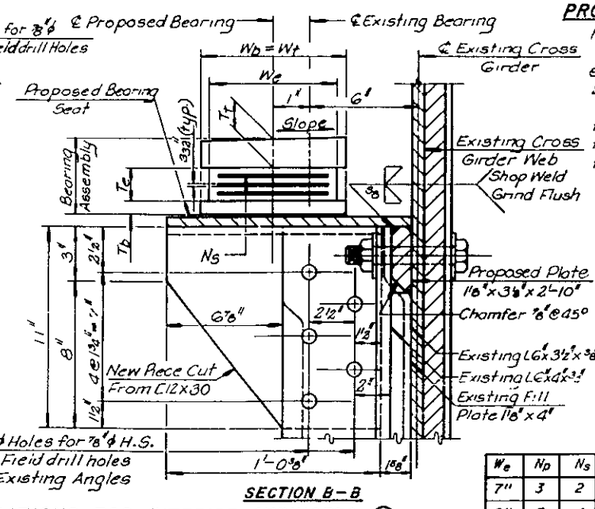




PROPOSED BEARINGS AND SEAT MODIFICATIONS FOR END STRINGERS ①







We	Np	Ns
7"	3	2
9"	5	4

PROPOSED BEARINGS AND SEAT MODIFICATIONS FOR INTERIOR STRINGERS ②

Notes:

The replacement bearings shown on this sheet are Type I Elastomeric Expansion Bearings.

Down hand weld proposed top plates to ends of stringers S29 thru S43, S56 thru S59, and S67 thru S69 with 5/16" fillet weld.

① "End Stringers" includes S44 at Cross Girder G5, and S55 at Cross Girder G7.

② "Interior Stringers" includes S29 thru S43 at Cross Girder G5 and S56 thru S69 at Cross Girder G7.

Each replacement bearing shall be provided with two ⅞" field adjusting shims of the dimensions of the bottom plate, in addition to all other plates.

③ Holes in bearing seat to be drilled in the field after bearing device is installed.

④ Exact location of bolt holes shall be field verified before bearing seats are drilled.

For dimensions of side retainer, see Sheet 5.

Proposed Bearing Seat shall bear on existing bearing stiffener angles L6"x4"x⅜" and 6"x3½"x⅜".

SCHEDULE

GIRDER	STRINGER	NO. REQ'D.	We	Wb=Wt	Te	Ts	Tf	SLOPE
G5	S44	1	9"	10"	2¼"	⅜"	1⅛"	1.9%
	S29-S43	15	9"	10"	2¼"	⅜"	1⅛"	1.9%
G7	S55	1	7"	8"	1½"	⅜"	1⅛"	2.0%
	S60-S66	7	7"	8"	1½"	⅜"	1⅛"	2.0%
	S56-S59 S67-S69	7	9"	10"	2¼"	5/16"	1⅜"	2.0%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC EXPANSION REPLACEMENT BEARINGS UNDER STEEL BEAMS ON STEEL GIRDERS

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

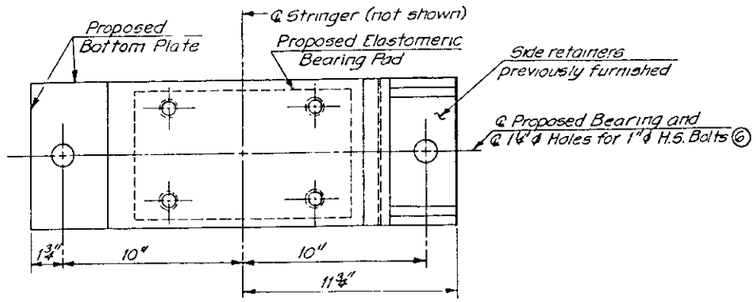
NO.	DATE	REVISION	BY

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO
HNTB

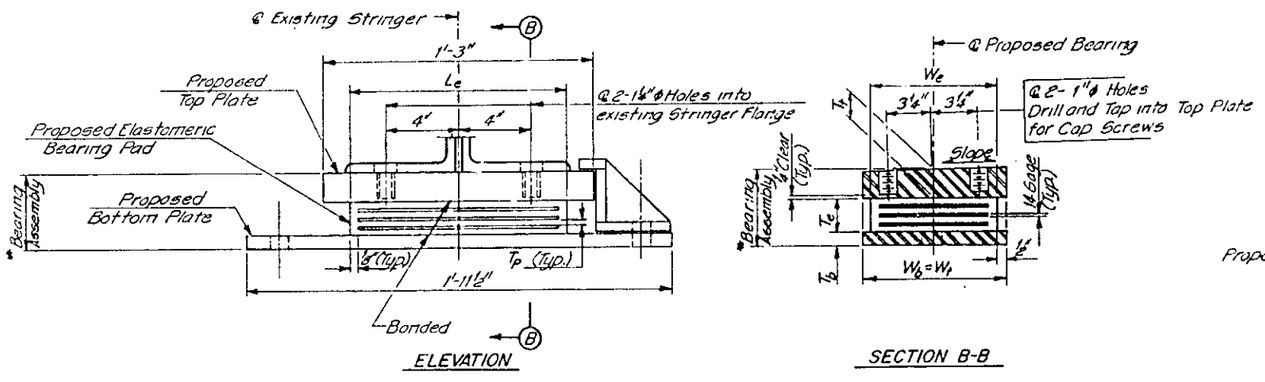
B.S.B. DATE 1.31.77 CHECKED J.J.G. DATE 3.22.77

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976.135 BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS		FEDERAL AID PROJECT NO. I-IR-94-2(202)I	

SHEET NO. 8A OF 26 SHEETS

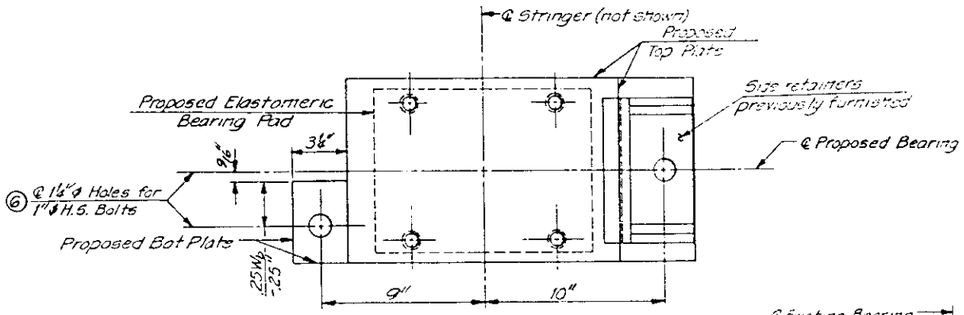


PLAN

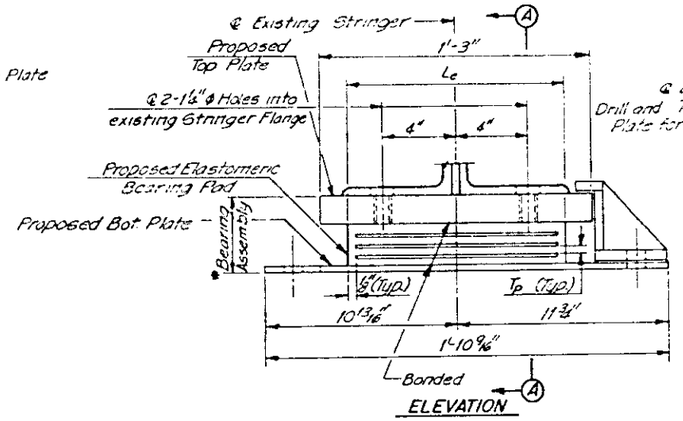


ELEVATION

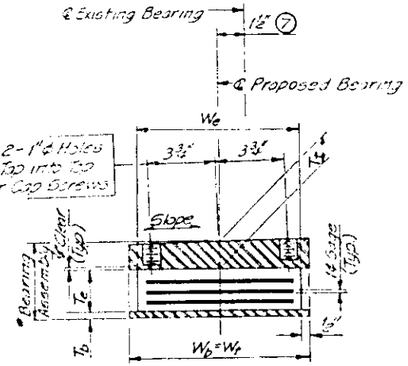
SECTION B-B



PLAN



ELEVATION



SECTION A-A

PROPOSED BEARINGS FOR INTERIOR STRINGERS ②

PROPOSED BEARINGS FOR END STRINGERS ①

SCHEDULE

CROSS GIRDER	PIER	STRINGERS	NO. REQ'D.	We	Le	Wb = Wt	Tp	Te	Tb	Tt	SLOPE %	⑤ INSTAL. TEMP.
G5	16	534-538	5	9"	11"	10"	3/8"	1 3/4"	5/16"	1 15/16"	1.9	-2° to 102°
G5	16	③539-544	6	9"	11"	10"	3/8"	1 3/4"	5/16"	1 15/16"	1.9	-2° to 102°
G7	18	555, 560	2	9"	11"	10"	5/16"	1½"	9/16"	1 5/16"	2.0	-8° to 108°
G7	18	556-559	4	9"	11"	10"	5/16"	1½"	9/16"	1 5/16"	2.0	-8° to 108°
G7	18	566	1	9"	11"	10"	5/16"	1½"	7/16"	1 3/16"	2.0	-6° to 106°
G7	18	567-569	3	9"	11"	10"	5/16"	1½"	7/16"	1 3/16"	2.0	-3° to 103°

Notes:

①"End Stringers" include 544 at Cross Girder G5 and 555 at Cross Girder G7.

②"Interior Stringers" include all stringers not included as "End Stringers."

③ Holes in bearing seat to be drill in the field after bearing device is installed.

⑤ Temperature at time of installation must be within the interval shown (F°).

⑥ For all stringers except 539 thru 544: Holes in bottom plate shall be drilled in the field to match the holes in the previously installed bearing seat. Bottom plate holes will not necessarily lie on the Proposed ℄ Bearing.

⑦ This 1½" dimension replaces the 2" dimension shown on sheet No. 8 of the origiral repair plans.

Four cap screws are required for each of the 21 bearing devices shown in the "Schedule".

* The bearing assembly height is based on dimensions taken by IDOT Dist. 1 and recorded October 10, 1978. The contractor is to field verify bearing assembly heights prior to ordering material.

Bearing assemblies shown on this sheet are to supercede bearing assemblies shown on sheet 8.

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE G.W.H. DATE 10-13-78 | CHECKED ____ DATE ____

NO.	DATE	REVISION	BY

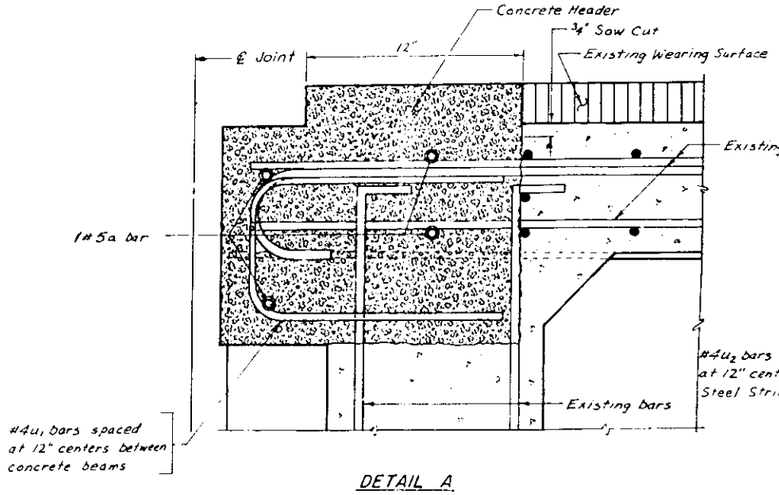
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELASTOMERIC EXPANSION REPLACEMENT BEARINGS UNDER STEEL BEAMS ON STEEL GIRDERS

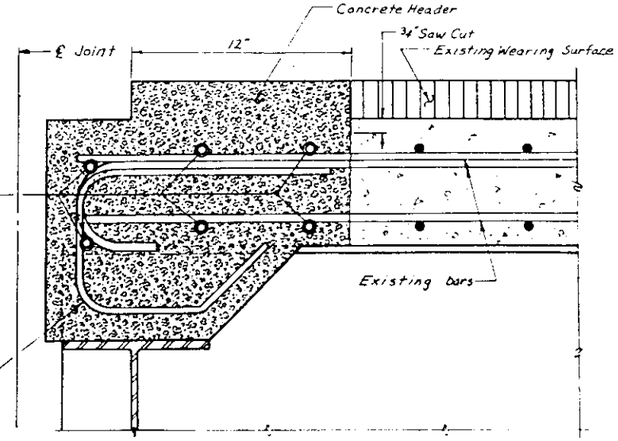
JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 94	1976.135 BR	COOK	--	7
FED. ROAD DIST. NO. 7 ILLINOIS		FEDERAL AID PROJECT NO.		

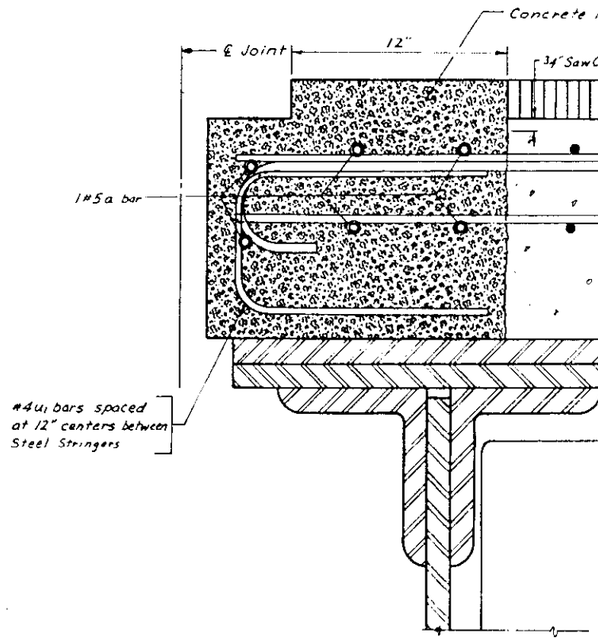
SHEET NO. 7 OF 26 SHEETS



DETAIL A



DETAIL B



DETAIL C

Note:

Use Concrete shall be bonded to Old Concrete in accordance with A.C.I. 501.13(a)(2).

Existing longitudinal deck slab reinforcement exposed during the modification of the expansion joint shall be cleaned and remain in place. Existing transverse deck slab reinforcement exposed during the modification of the expansion joint shall be cut at a distance of 2 feet from each gutter line. That portion of reinforcement that remains embedded in the concrete curb shall be cleaned and left in place, and the remainder of the cut reinforcement shall be disposed of away from the job site.

● existing transverse bar to remain.

[cut] indicates portion of structure to be removed and replaced by Class X Concrete.

For expansion devices, see Sheets 10 and 11.

Work this sheet with Sheets 10 and 11.

Concrete Headers shall be placed from Gutter Line to Gutter Line on the roadway surface and not on the curbs, medians and parapets.

BILL OF MATERIALS

MARK	NO.	SIZE	LENGTH	SHAPE
a_1	4	#5	13'-4"	——
a_2	32	#5	23'-8"	——
a_3	284	#5	26'-9"	——
a_4	100	#5	29'-8"	——
a_5	8	#5	35'-4"	——
a_6	4	#5	37'-2"	——
a_7	8	#5	26'-9"	——
a_8	8	#5	31'-3"	——
a_9	8	#5	27'-0"	——
a_{10}	16	#5	29'-0"	——
a_{11}	16	#5	28'-6"	——
a_{12}	8	#5	32'-2"	——
a_{13}	12	#5	30'-7"	——
a_{14}	4	#5	14'-0"	——
a_{15}	4	#5	38'-0"	——
a_{16}	8	#5	16'-4"	——
a_{17}	8	#5	17'-3"	——
a_{18}	10	#5	30'-3"	——
a_{19}	8	#5	16'-6"	——
a_{20}	8	#5	18'-4"	——
a_{21}	8	#5	27'-8"	——
a_{22}	8	#5	30'-11"	——
a_{23}	8	#5	23'-6"	——
a_{24}	16	#5	31'-10"	——
a_{25}	8	#5	35'-10"	——
a_{26}	4	#5	1'-5"	——
u_1	2984	#4	3'-0"	⊏
u_2	343	#4	2'-10"	⊏

ITEM	UNIT	QUANTITY
Class X Concrete	Cu. Yds	275
Reinforcement Bars	Pounds	23,562

SCHEDULE FOR PLACEMENT OF REINFORCEMENT BARS

	Southbound Lanes			Reversible Lanes	Northbound Lanes			No. u_1	No. u_2	Detail
Pier	Exterior	Center	Interior		Interior	Center	Exterior			
1(S)	4-1	4-2	4-3	4-4	4-3	-	4-5	127	-	A
1(N)	4-6	-	4-3	4-4	4-3	-	4-5	128	-	A
3(S)	4-7	-	4-3	4-4	4-3	-	4-8	115	-	A
3(N)	4-7	-	4-3	4-4	4-3	-	4-8	116	-	A
5(S)	4-3	-	4-3	4-4	4-3	-	4-9	112	-	A
5(N)	4-3	-	4-3	4-4	4-3	-	4-9	113	-	A
7(S)	4-3	-	4-3	4-4	4-3	-	4-3	113	-	A
7(N)	4-3	-	4-3	4-4	4-3	-	4-3	113	-	A
9(S)	4-3	-	4-3	-	-	-	-	48	-	A
9(N)	4-3	-	4-3	-	-	-	-	47	-	A
10(S)	4-10	-	4-11	4-12	4-11	-	4-10	129	-	A
10(N)	4-10	-	4-11	4-12	4-11	-	4-10	118	-	A
12(S)	-	-	-	-	4-3	-	4-3	47	-	A
12(N)	-	-	-	-	4-3	-	4-3	48	-	A
13(S)	4-3	-	4-3	4-4	4-3	-	4-3	122	-	A
13(N)	4-3	-	4-3	4-4	4-3	-	4-3	122	-	A
14(S)	-	-	4-3	-	-	-	-	23	-	A
14(N)	-	-	5-3	-	-	-	-	-	37	B
15(S)	-	-	-	4-4	4-3	-	4-3	72	-	A
15(N)	-	-	-	6-4	4-3	-	4-3	47	29	AB
16(S)	6-13	-	6-3	6-4	4-3	-	4-3	125	-	A
16(N)	6-13	-	5-3	6-4	6-3	-	4-3	22	105	AB
18(S)	4-15	-	4-3	6-4	6-3	-	6-3	34	100	AB
18(N)	4-14	4-2	4-3	6-4	6-3	-	6-3	127	-	AC
19(S)	4-16	4-2	4-3	6-4	-	-	-	56	27	AB
19(N)	4-16	4-2	4-3	4-4	-	-	-	85	-	A
20(S)	-	-	-	-	6-3	-	-	-	27	B
20(N)	-	-	-	-	4-3	-	-	23	-	A
21(S)	4-17	4-2	4-3	4-4	4-3	-	6-18	110	28	AB
21(N)	4-17	4-2	4-3	4-4	4-3	-	4-18	133	-	A
22(S)	4-19	4-2	4-3	4-4	-	-	-	84	-	A
22(N)	4-19	4-2	4-3	4-4	-	-	-	84	-	A
24(S)	4-23 4-26	4-24	4-24	4-25	4-22	4-21	4-20	165	-	A
24(N)	4-23	4-24	4-24	4-25	4-22	4-21	4-20	176	-	A

Interpretation:

Exterior, Center, and Interior refer to the sections of deck slab between the edge of bridge and the adjacent longitudinal joint in the roadway, between adjacent longitudinal joints in the roadway, and between the longitudinal joint in the roadway and the adjacent joints in the roadway, and between the longitudinal joint in the roadway and the adjacent joints in the median respectively. The number to the left of the dash is the longitudinal joint in the median respectively. The number to the left of the dash is the number of transverse reinforcement bars required. The number to the right of the dash is the bar mark subscript for the transverse "u" bar. For example: 4-3 indicates that four a_3 bars are required.

The numbers under u_1 and u_2 are the total number of "u" type bars required at the pier location.

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

CODE Rel DATE 1-20-77 CHECKED CGL DATE 3-14-77

NO.	DATE	REVISION	BY

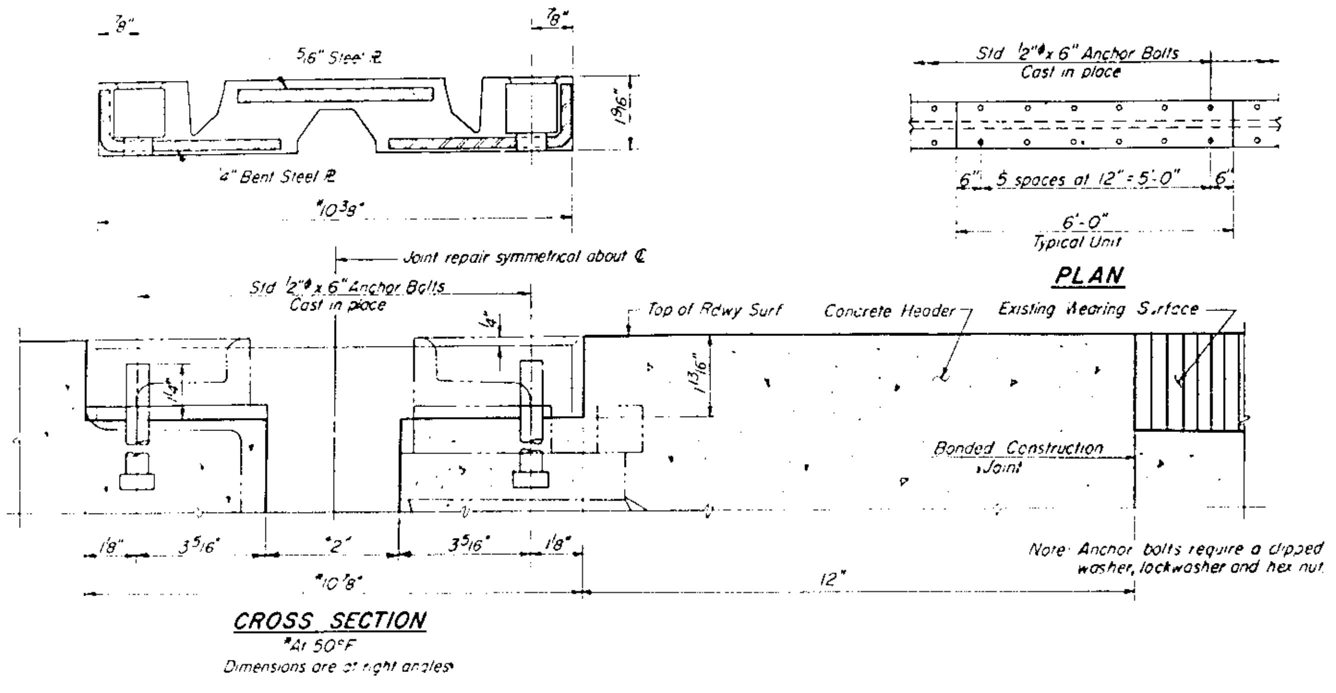
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXPANSION DECK JOINT MODIFICATIONS

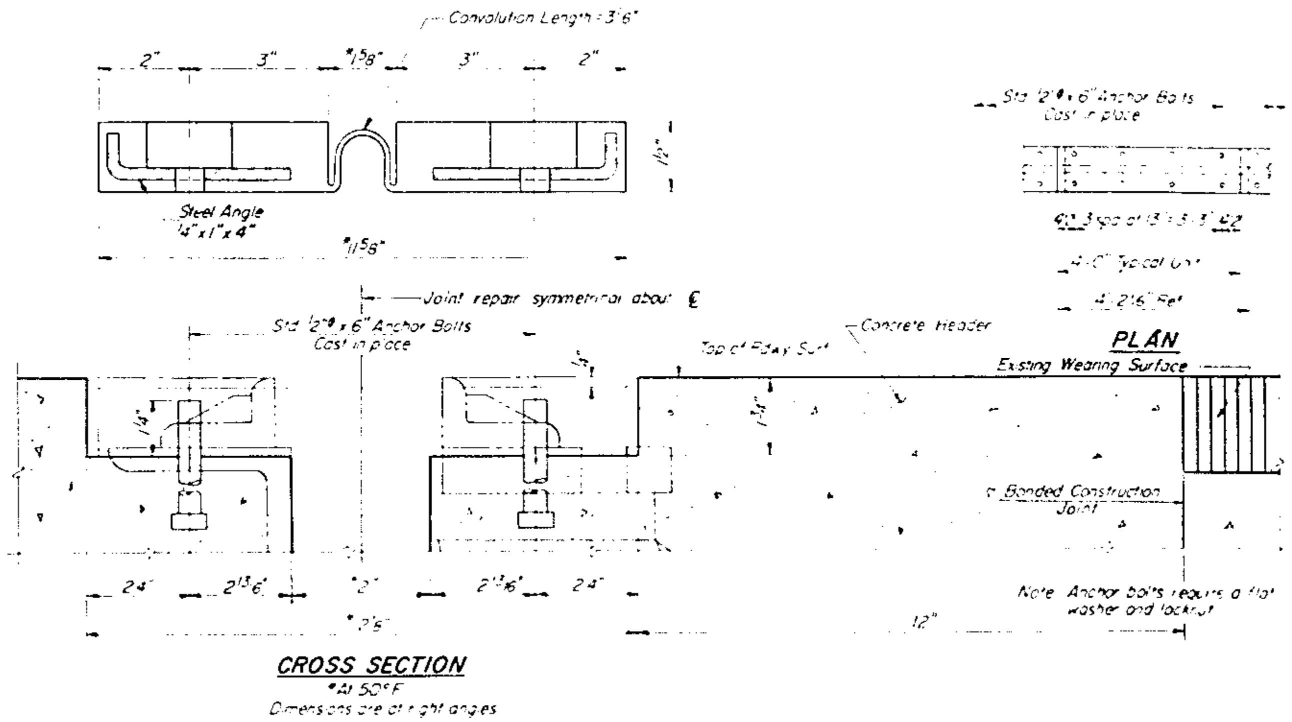
JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976-135-BR	COOK	[illegible]	[illegible]
FED. ROAD DIST. NO. 7	ILLINOIS		FEDERAL AID PROJECT NO.	

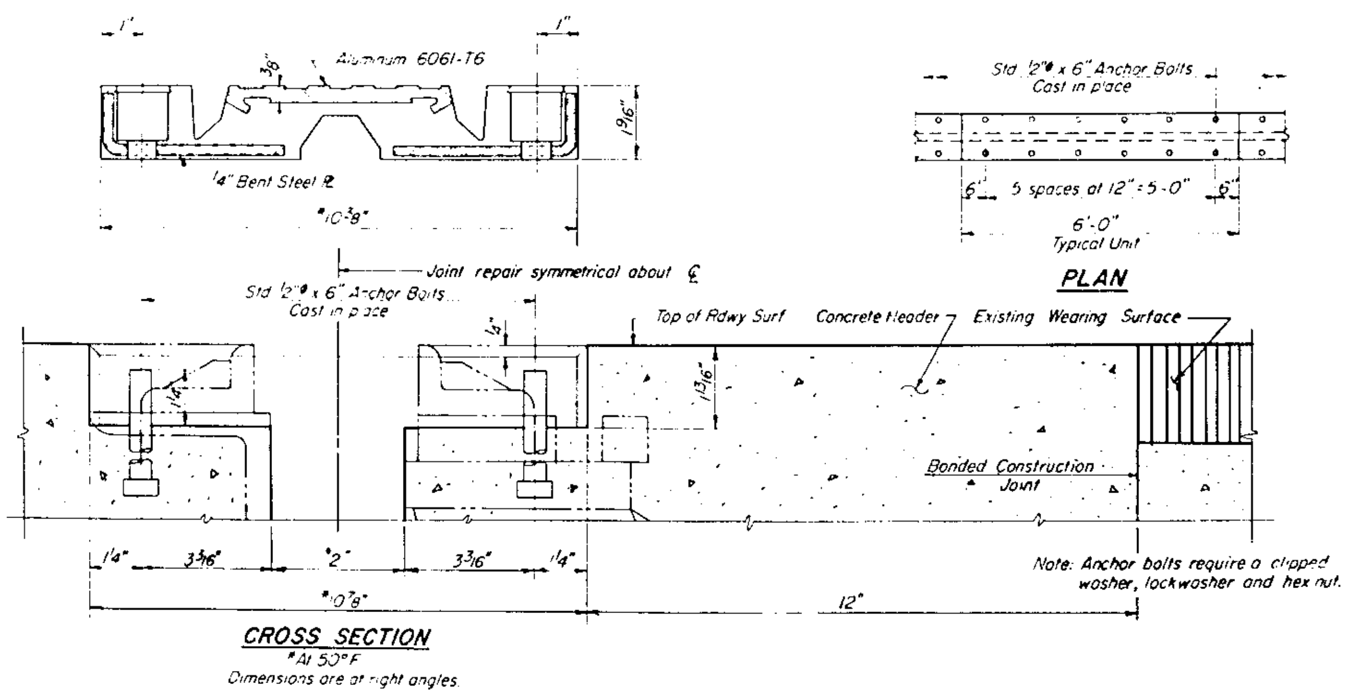
SHEET NO. 10 OF 26 SHEETS



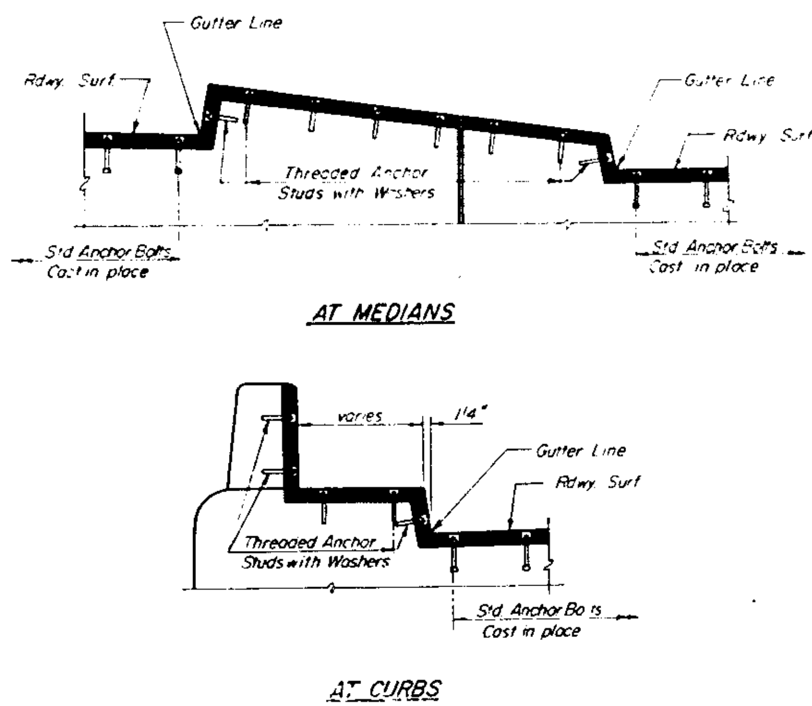
TRANSFLEX MODEL 200A
(Structural Rubber Products Co.)



FEL-SPAN MODEL T-30
(Fel-Pro Building Products Inc.)



WABOFLEX MODEL SR 2
(Watson-Bowman Associates Inc.)



TYPICAL END TREATMENTS

Notes:

[illegible]

Joint [illegible] shall be adjusted in accordance with Article 503.07(e) of the [illegible] when the deck is [illegible] at an ambient temperature other than 50°F.

For [illegible] joint modification, see Sheet [illegible].

All existing structural steel at expansion joints is shown in phantom lines and is to be removed.

Concrete Headers shall be placed from Gutter Line to Gutter Line on the roadway surface and not on the curbs, medians and parapets.

Neoprene Expansion Joints shall be installed at the locations shown on Sheets 3 and 4.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NEOPRENE EXPANSION JOINTS (2")
EXPANSION DECK JOINTS

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

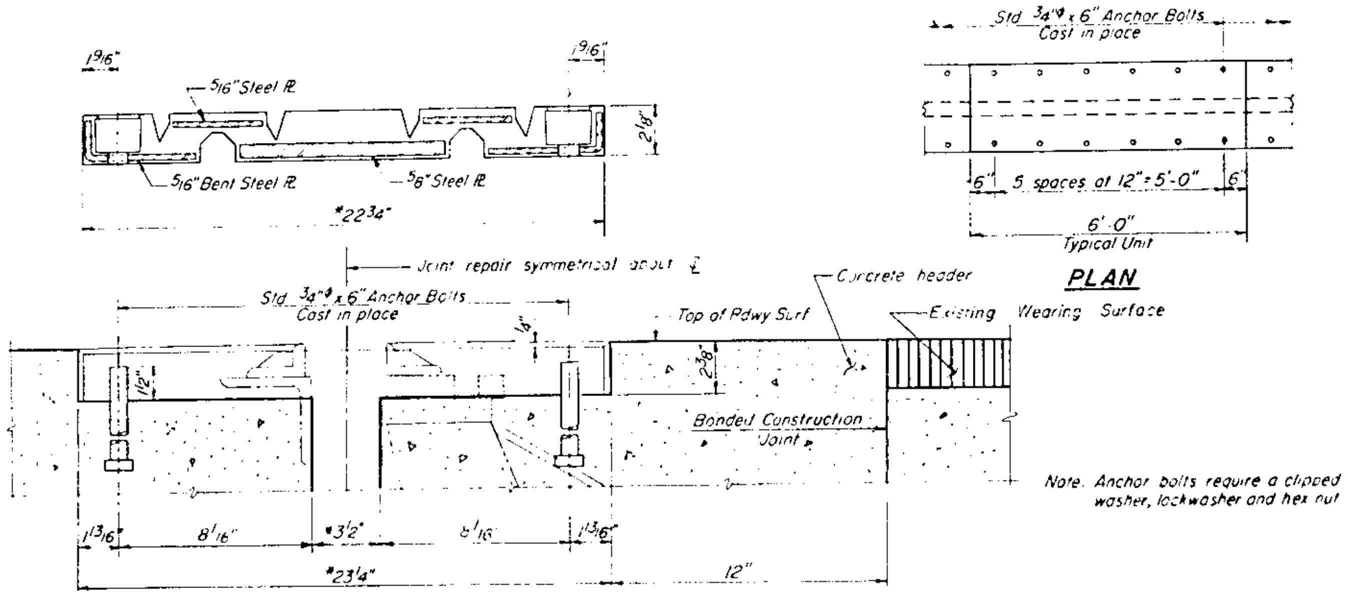
NO.	DATE	REVISION	BY

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF — CONSULTING ENGINEERS — CHICAGO — HNTB

MADE Ral DATE 1-19-77 CHECKED CGL DATE 3-14-77

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I 94	1976 135 BR	COOK	[illegible]	[illegible]
FED ROAD DIST NO. 7		ILLINOIS	FEDERAL AID PROJECT NO	

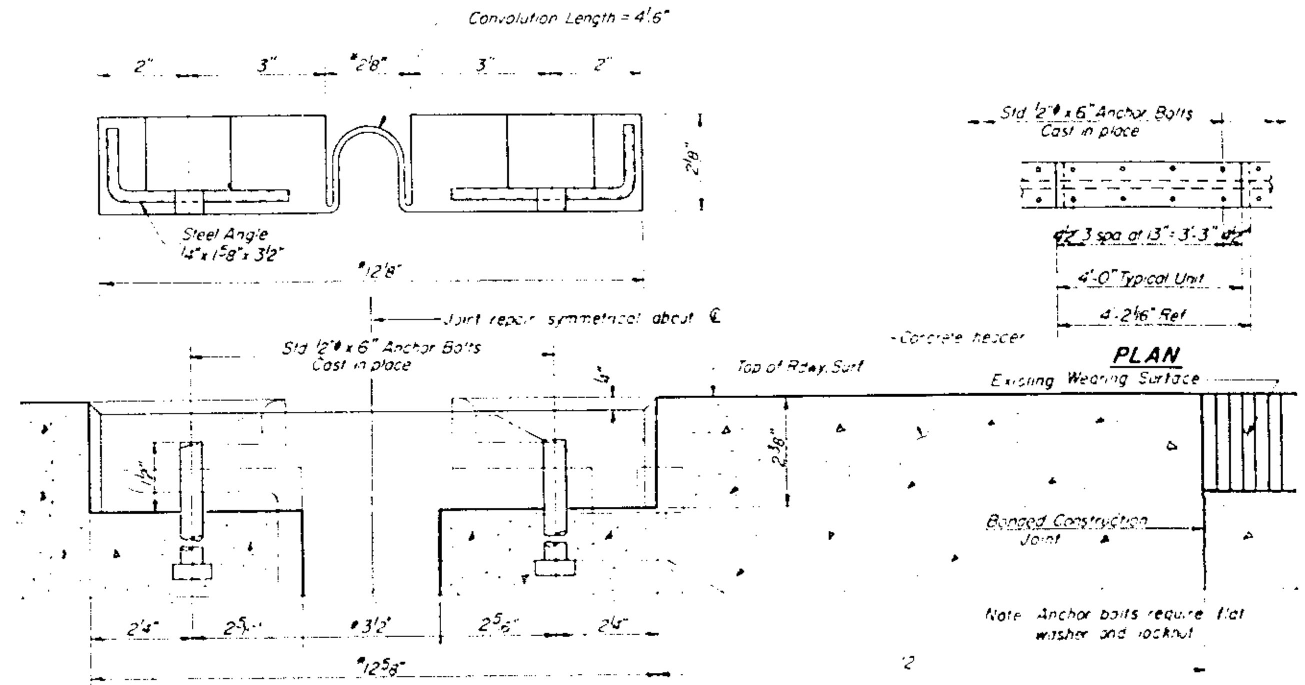
SHEET NO 11 OF 26 SHEETS



CROSS SECTION
*At 50°F
Dimensions are at right angles

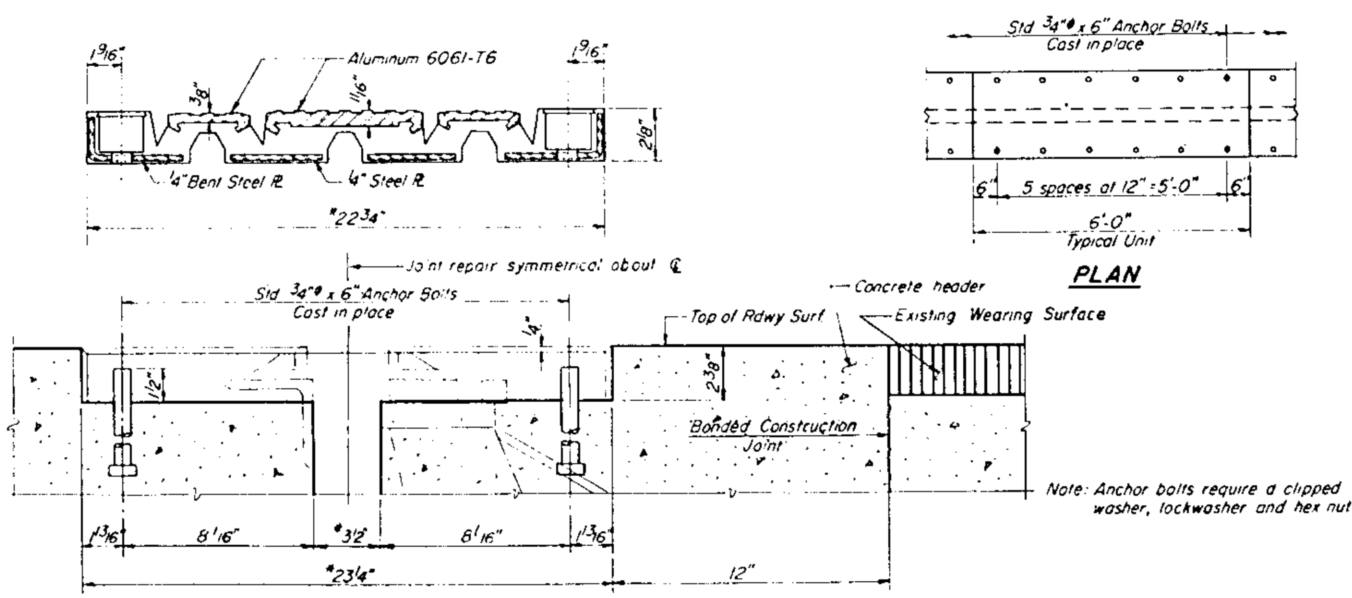
TRANSFLEX MODEL 400A
(Structural Rubber Products Co.)

Convolution Length = 4½"



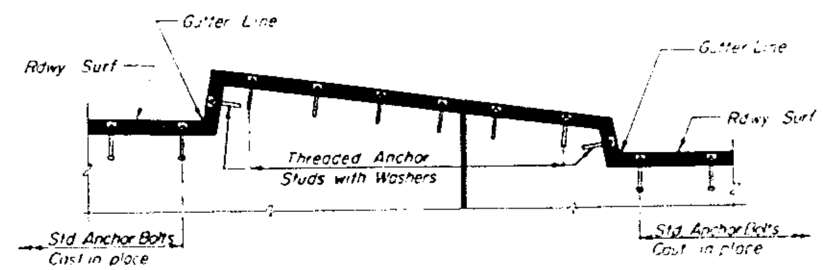
CROSS SECTION
*At 50°F
Dimensions are at right angles

FEL-SPAN MODEL T-40
(Fel-Pro Building Products Inc.)

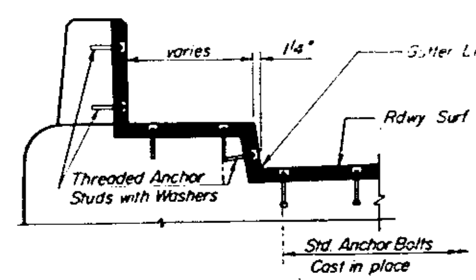


CROSS SECTION
*At 50°F
Dimensions are at right angles

WABOFLEX MODEL SR 4
(Watson-Bowman Associates Inc.)



AT MEDIANS



AT CURBS

TYPICAL END TREATMENTS

[illegible]

[illegible] Sheet [illegible].

[illegible] shall be adjusted in accordance with Article [illegible] of the S.P. [illegible] when the deck is [illegible] at an ambient temperature other than 50°F.

[illegible] joint modifications, see Sheet [illegible].

All existing structural steel of [illegible] joints is shown by phantom lines and is to be removed.

Concrete headers shall be placed from Gutter Line to Gutter Line on the roadway surface and not on the curbs, medians and parapets.

Neoprene Expansion Joints shall be installed at the locations shown on Sheets 3 and 4.

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE RAL DATE 1-19-77 CHECKED C.G.L. DATE 3-14-77

NO.	DATE	REVISION	BY

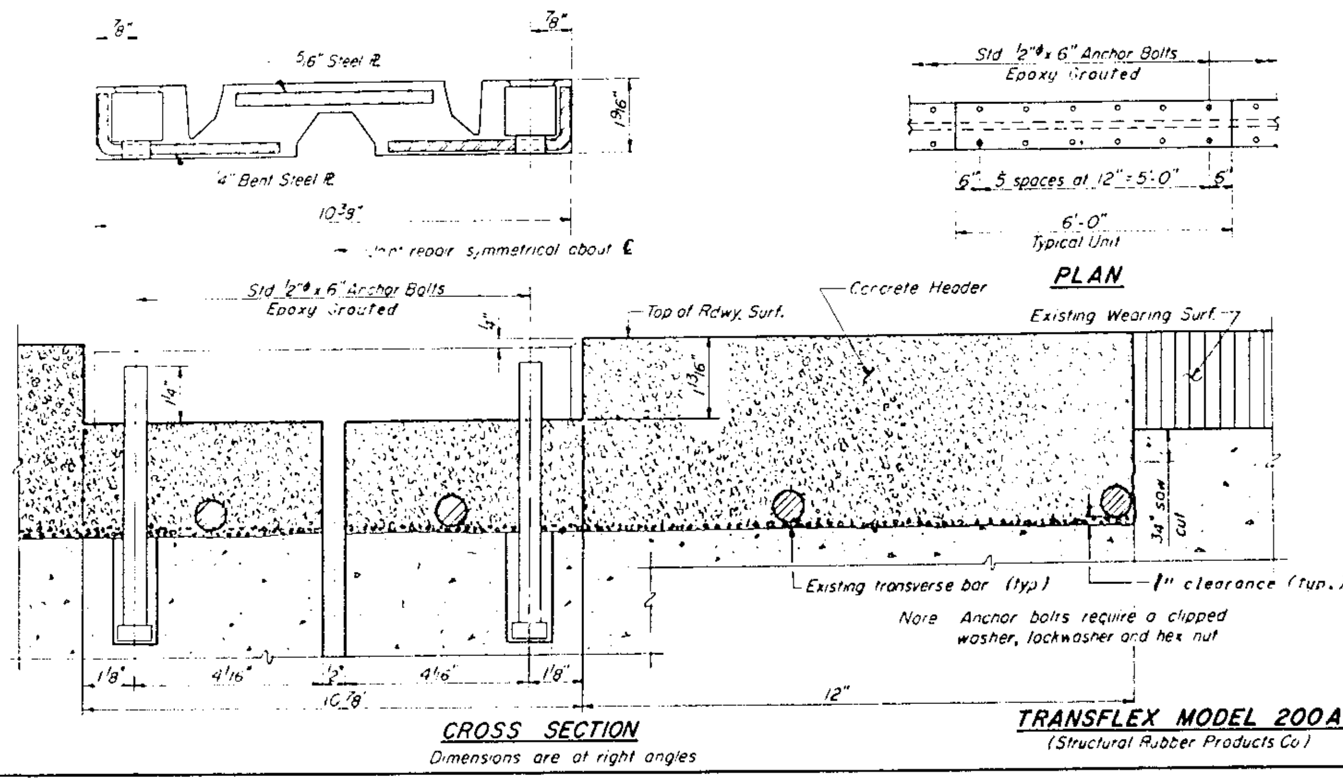
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NEOPRENE EXPANSION JOINTS (4")
EXPANSION DECK JOINTS

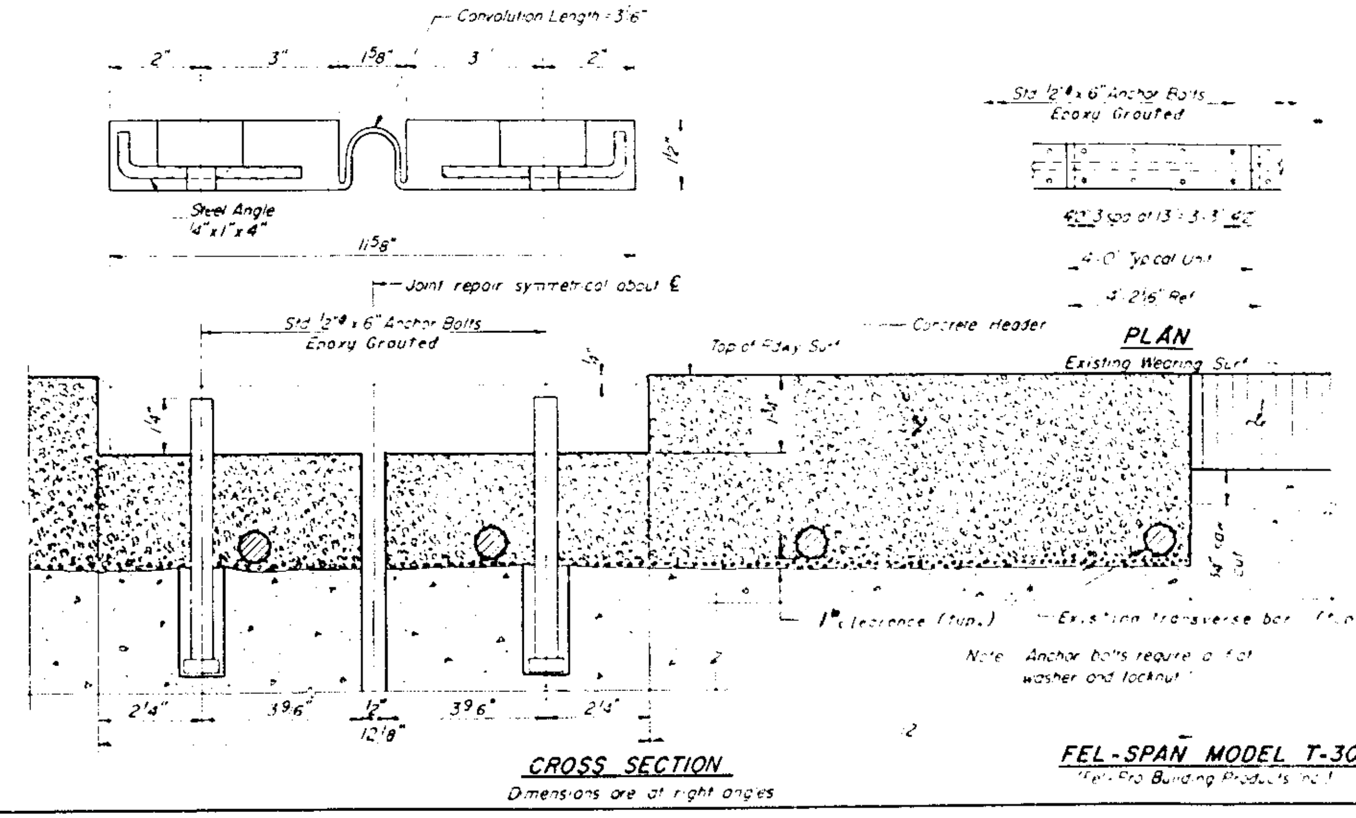
JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976-135 BR	COOK	[illegible]	[illegible]
FED. ROAD DIST. NO. 7		ILLINOIS	FEDERAL AID PROJECT NO.	

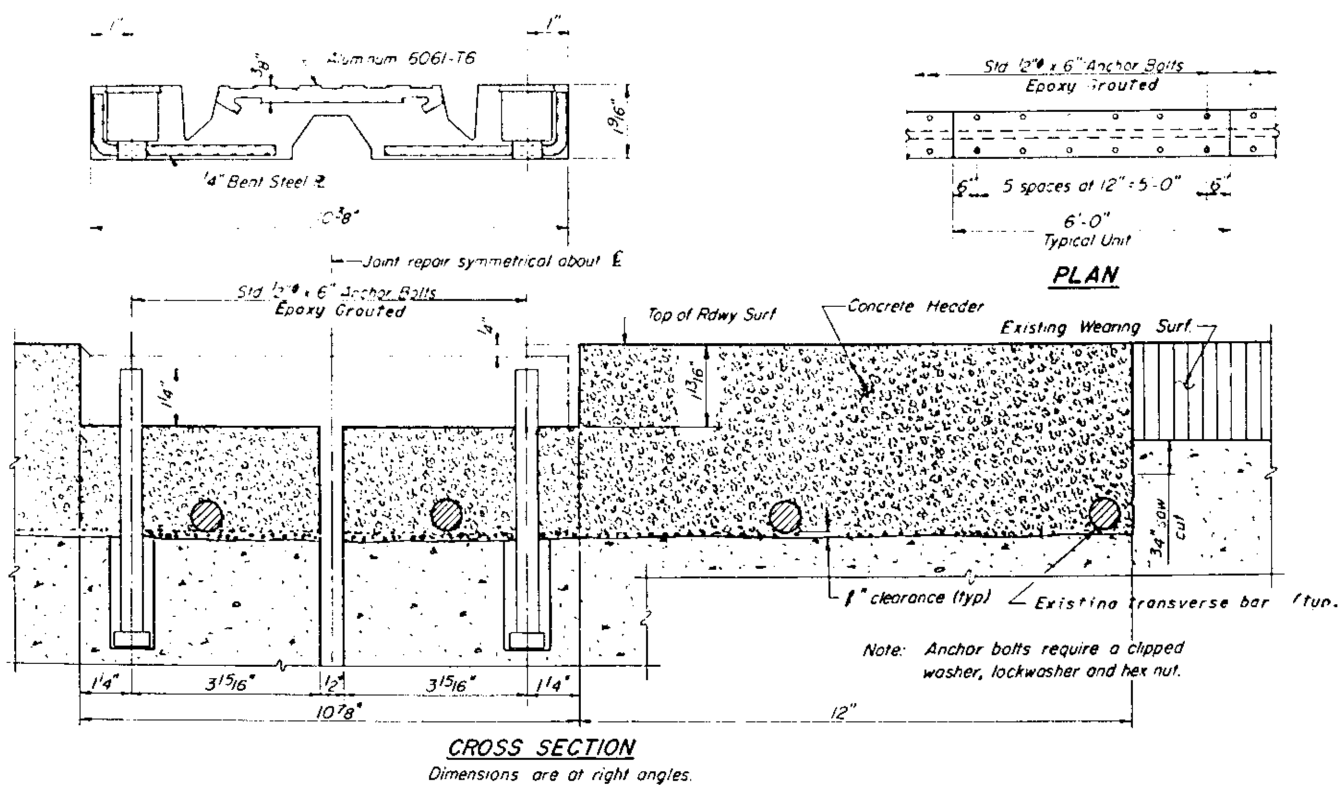
SHEET NO. 12 OF 26 SHEETS



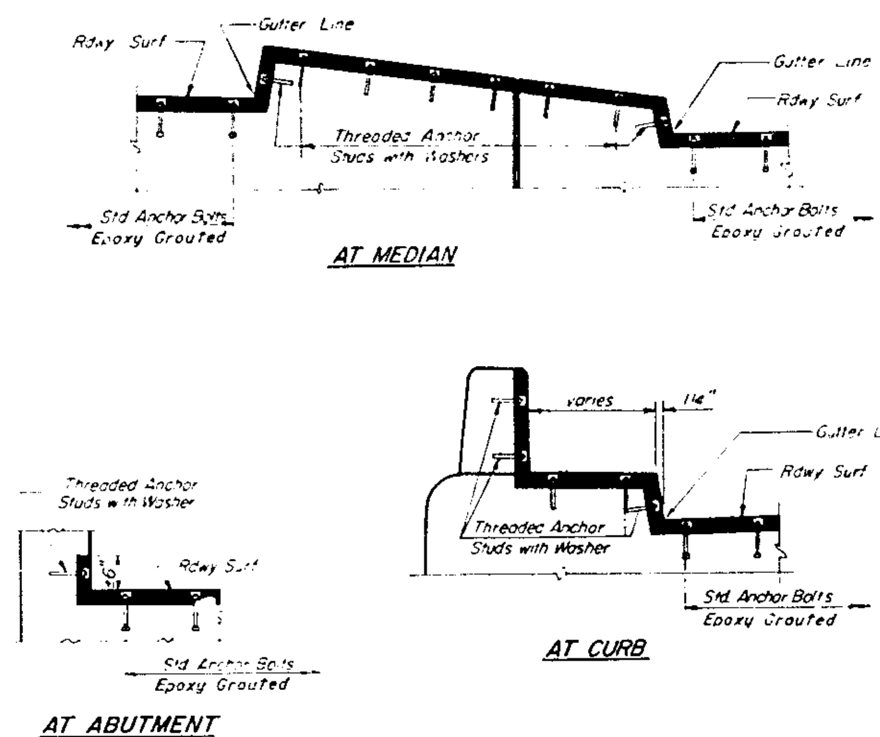
TRANSFLEX MODEL 200A
(Structural Rubber Products Co.)



FEL-SPAN MODEL T-30
(Fel-Pro Building Products Inc.)



WABOFLEX MODEL SR 2
(Watson-Bowman Associates Inc.)



TYPICAL END TREATMENTS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NEOPRENE EXPANSION JOINTS (2")

FIXED DECK JOINTS

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

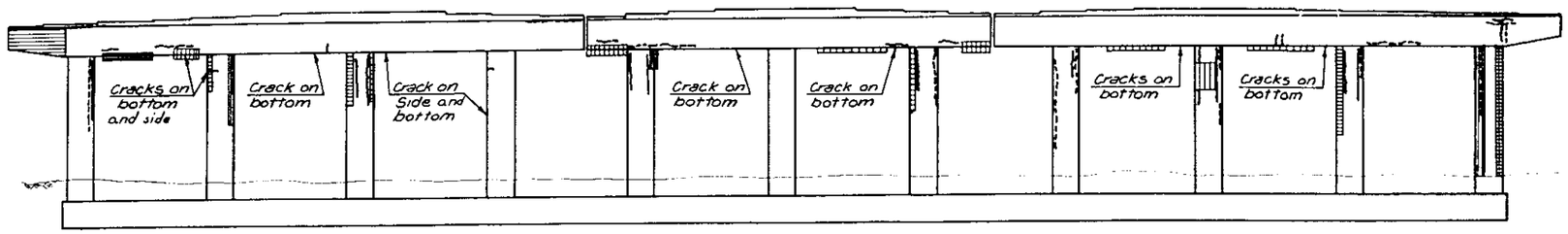
NO.	DATE	REVISION	BY

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF — CONSULTING ENGINEERS — CHICAGO — HNTB

MADE Ral DATE 1-14-77 | CHECKED C.G.L. DATE 3-14-77

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 94	1978-135-BR	COOK	26	13
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO		

SHEET NO 13 OF 26 SHEETS

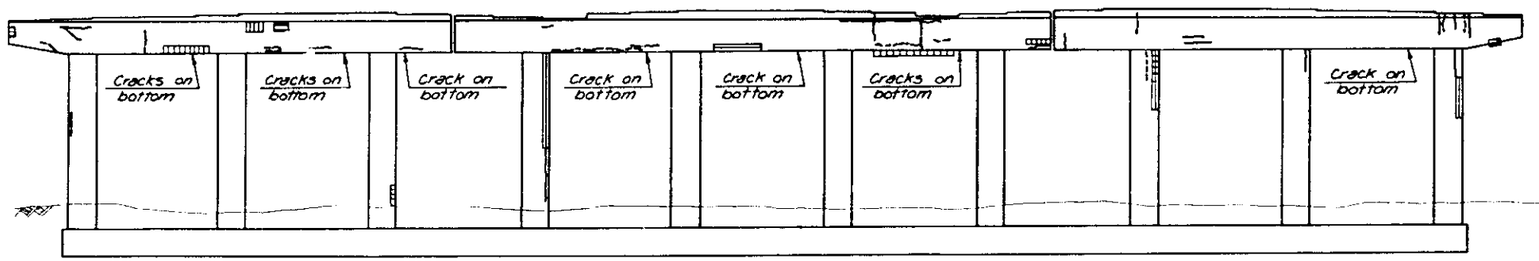


SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 1

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft	230
Repair of Cracks	Lin Ft	317
Epoxy Sealer	Sq Yds	433

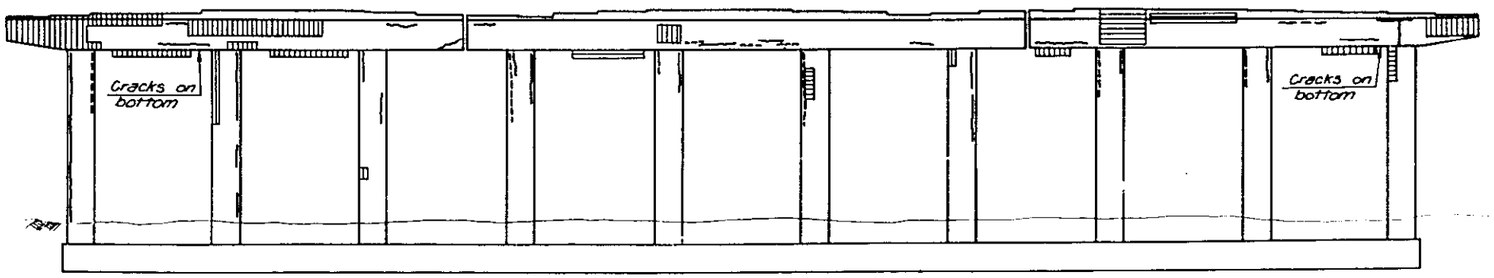


SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 2

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft	70
Repair of Cracks	Lin Ft	94
Epoxy Sealer	Sq Yds	435



SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 3

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft	201
Repair of Cracks	Lin Ft	209
Epoxy Sealer	Sq Yds	456

LEGEND

indicates south face cracks to be repaired.
indicates north face cracks to be repaired.
indicates south face surface areas to be repaired.
indicates north face surface areas to be repaired.

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS
PIERS 1, 2 AND 3

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

NO.	DATE	REVISION	BY

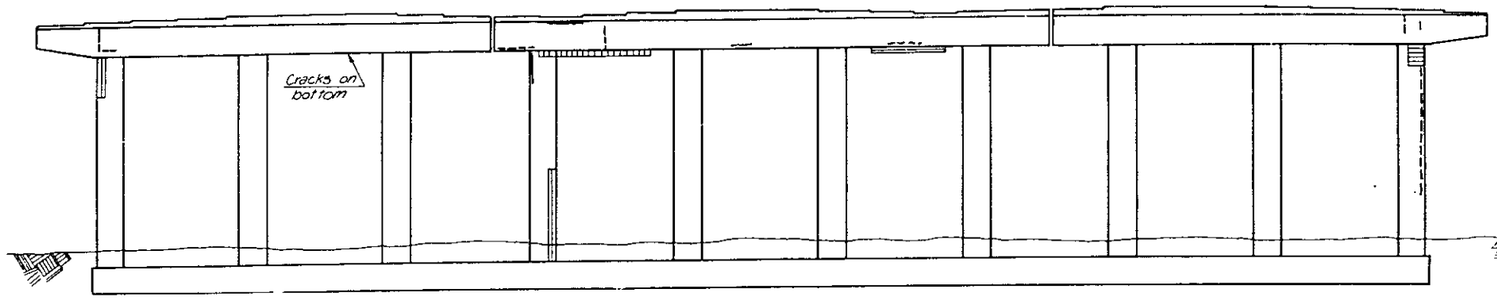
Rev. 6-6-77

HARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

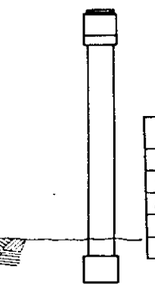
MADE DRS DATE 1-3-77 CHECKED BSB DATE 2-7-77

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976 135-BR	COOK	--	--
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 14 OF 26 SHEETS



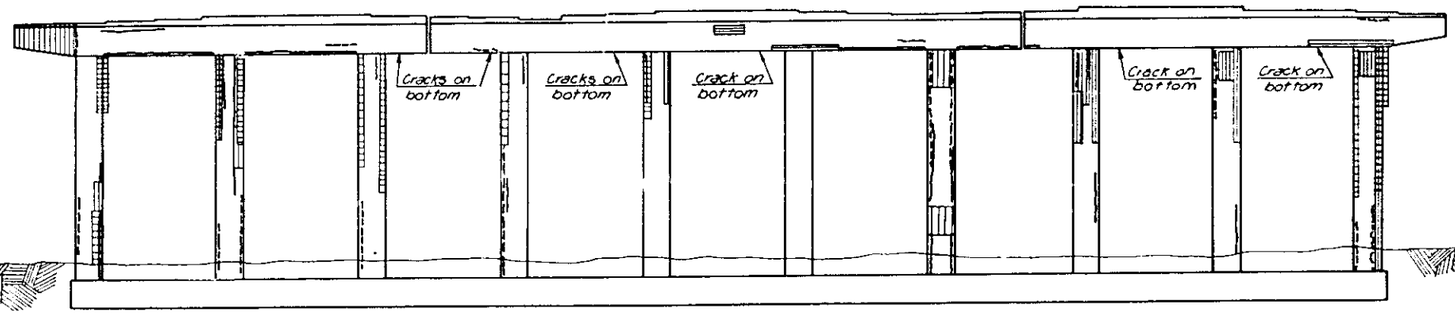
SOUTH SIDE VIEW



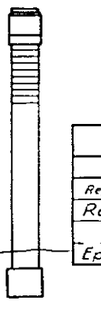
EAST SIDE VIEW

PIER 4

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	39
Repair of Cracks	Lin. Ft.	88
Epoxy Sealer	Sq. Yds.	478



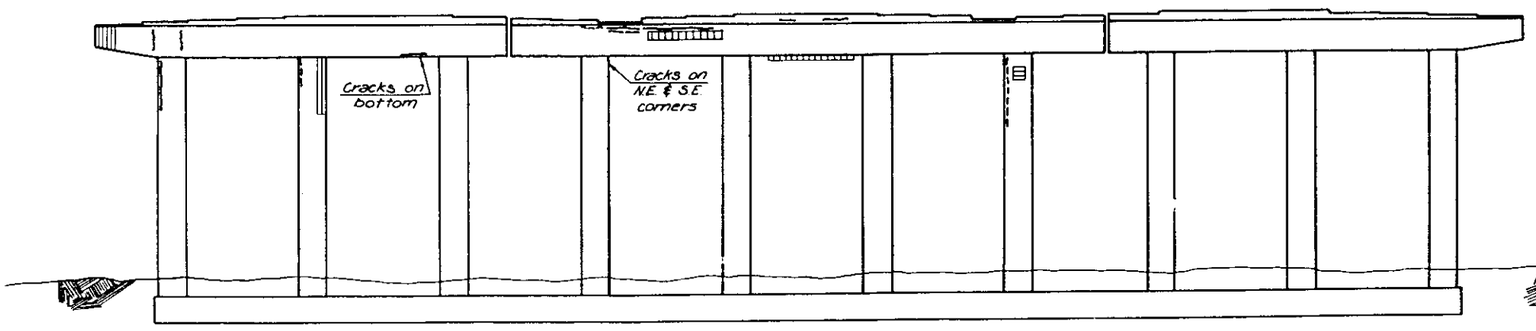
SOUTH SIDE VIEW



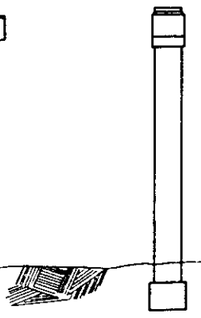
EAST SIDE VIEW

PIER 5

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	269
Repair of Cracks	Lin. Ft.	237
Epoxy Sealer	Sq. Yds.	495



SOUTH SIDE VIEW



EAST SIDE VIEW

PIER 6

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	27
Repair of Cracks	Lin. Ft.	46
Epoxy Sealer	Sq. Yds.	513

Note: For Legend See Sheet 13

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS

PIERS 4, 5 AND 6

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

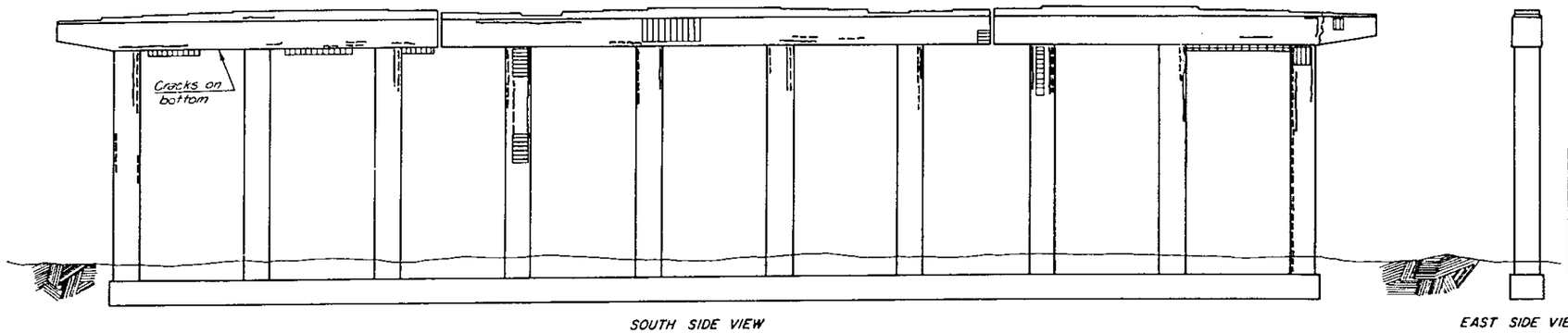
Rev 6-6-77

HARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO
HNTB

MADE DRS DATE 1-3-77 CHECKED BSB DATE 2-11-77

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976-135-BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 15 OF 26 SHEETS

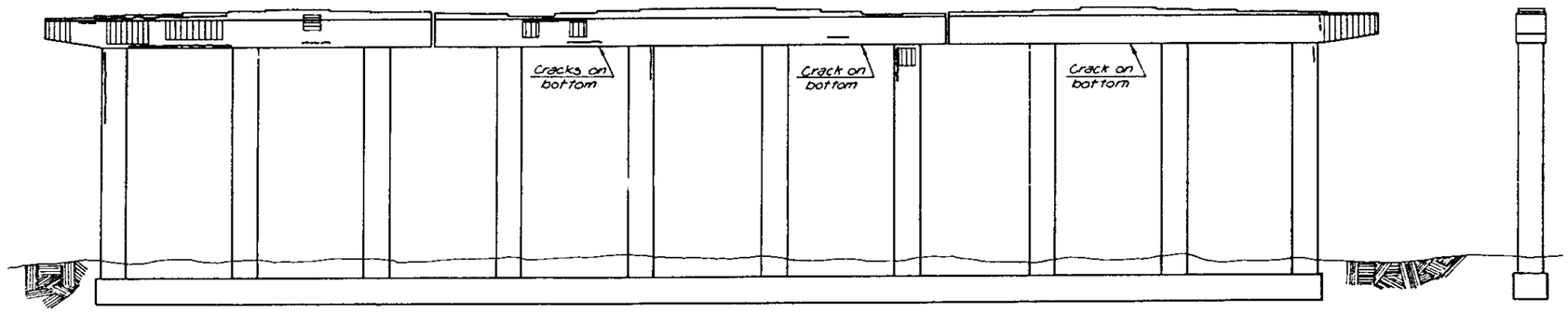


SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 7

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	66
Repair of Cracks	Lin. Ft.	221
Epoxy Sealer	Sq. Yds.	521

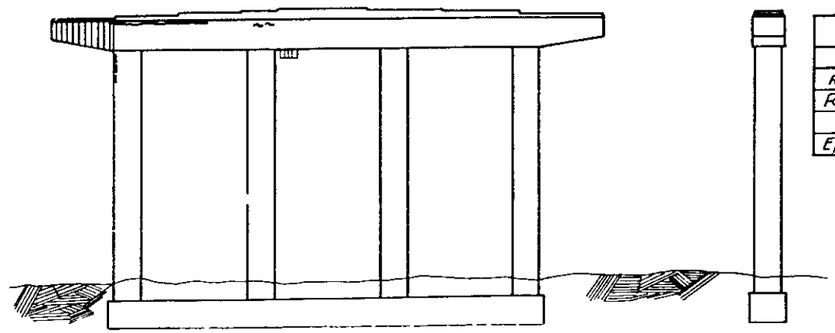


SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 8

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	44
Repair of Cracks	Lin. Ft.	74
Epoxy Sealer	Sq. Yds.	529



SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 9

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	16
Repair of Cracks	Lin. Ft.	15
Epoxy Sealer	Sq. Yds.	208

Note: For Legend See Sheet 13

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

HARD, NEEDLES, TAMMEN, & BERGENDOFF ENGINEERS CHICAGO | HNTB

MADE DRS DATE 1-3-77 | CHECKED BSB DATE 2-14-77

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

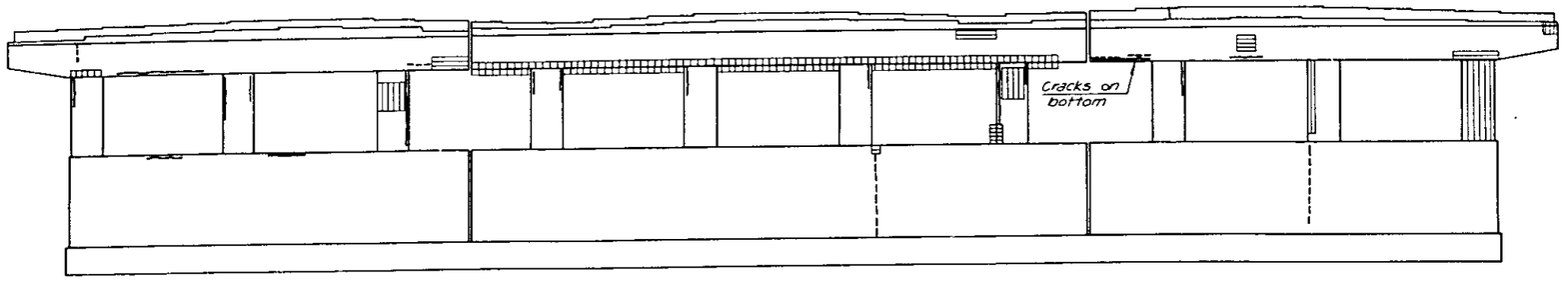
SUBSTRUCTURE REPAIRS
PIERS 7, 8 AND 9

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

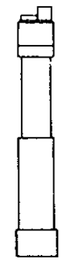
Rev. 6-6-77

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976 135 BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 16 OF 26 SHEETS



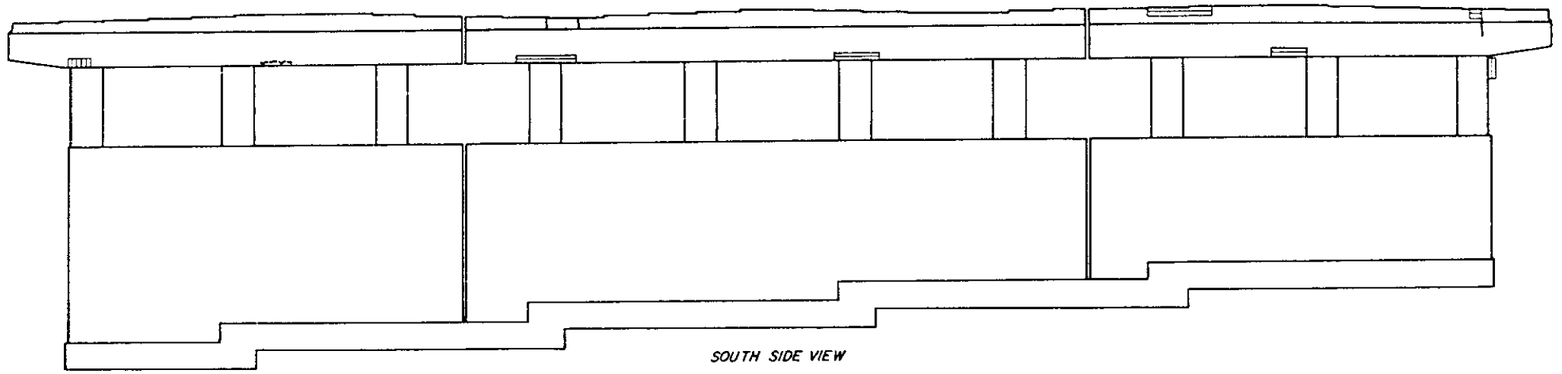
SOUTH SIDE VIEW



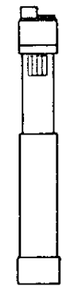
EAST SIDE VIEW

PIER 10

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	156
Repair of Cracks	Lin Ft	119
Epoxy Sealer	Sq Yds	757



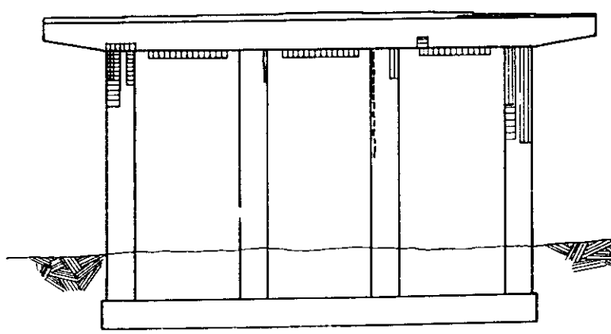
SOUTH SIDE VIEW



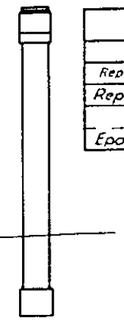
EAST SIDE VIEW

PIER 11

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft	25
Repair of Cracks	Lin Ft	7
Epoxy Sealer	Sq Yds	1062



SOUTH SIDE VIEW



EAST SIDE VIEW

PIER 12

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft	70
Repair of Cracks	Lin Ft	22
Epoxy Sealer	Sq Yds	209

Note: For Legend See Sheet 13

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS

PIERS 10, 11 AND 12

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

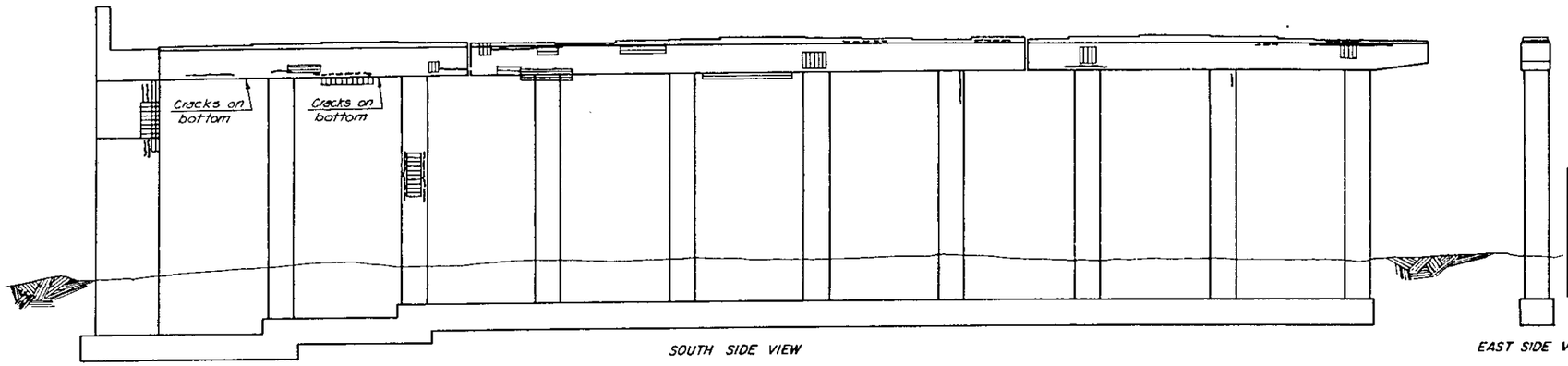
Rev. 2-6-77

HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE DRS DATE 1-3-77 CHECKED BSS DATE 2-16-77

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 94	1976-135-BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 17 OF 26 SHEETS

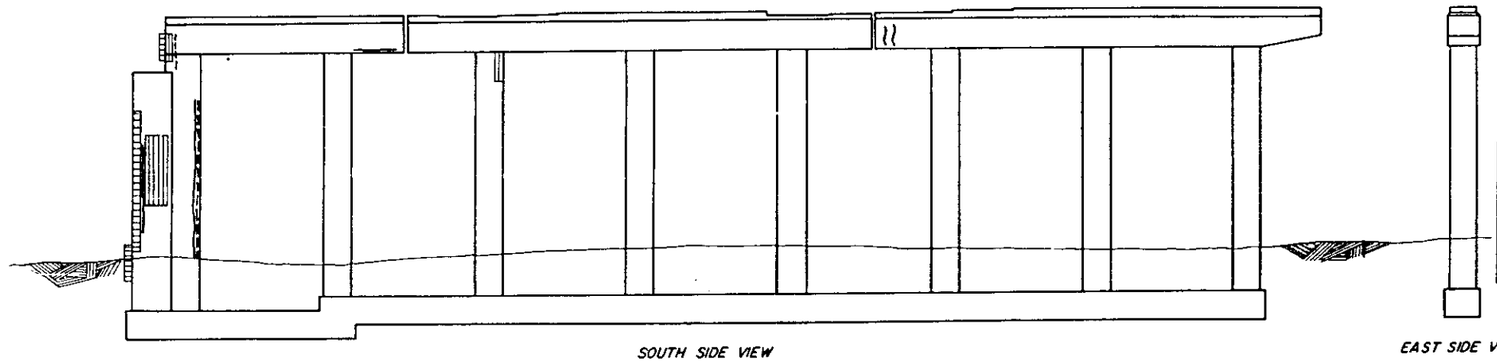


SOUTH SIDE VIEW

EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft.	79
Repair of Cracks	Lin Ft	89
Epoxy Sealer	Sq Yds	583

PIER 13

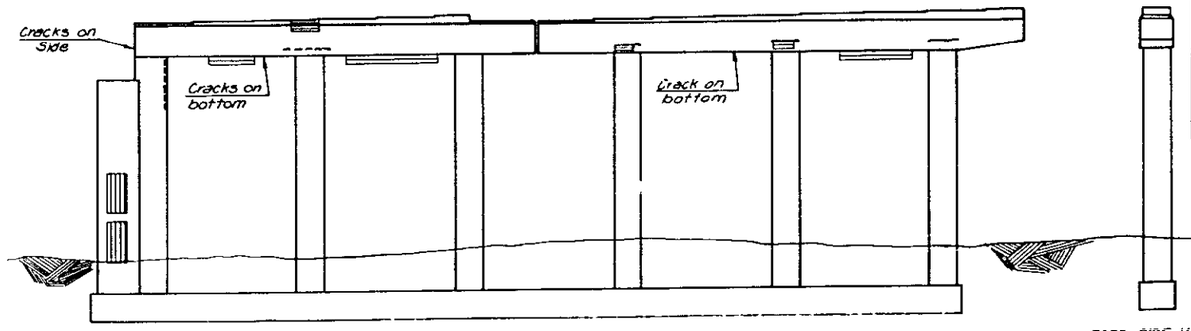


SOUTH SIDE VIEW

EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft.	48
Repair of Cracks	Lin Ft.	40
Epoxy Sealer	Sq Yds	431

PIER 14



SOUTH SIDE VIEW

EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft.	31
Repair of Cracks	Lin Ft	24
Epoxy Sealer	Sq Yds	321

PIER 15

Note: For Legend See Sheet 13

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS
PIERS 13, 14 AND 15

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

Rev. 6-6-77

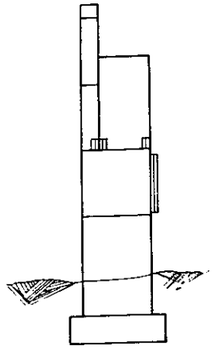
NO.	DATE	REVISION	BY

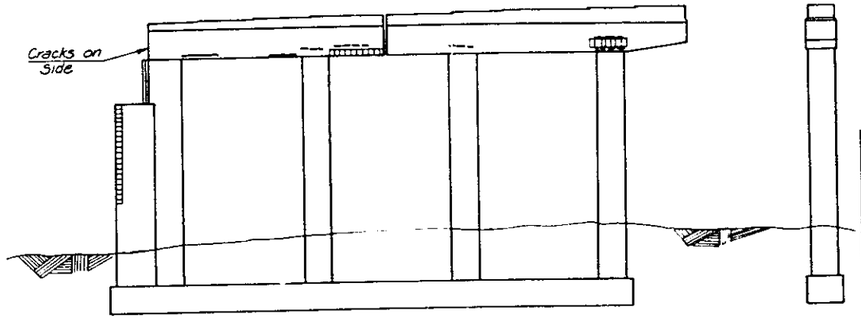
HOWARD, NEEDLES, TAMMEN, & BERGENDOFF CHICAGO ENGINEERS | HNTB

MADE ERS DATE 1-3-77 CHECKED BSB DATE 2-15-77

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 94	1976.135 BR	COOK	[illegible]	[illegible]
FED. ROAD DIST. NO. 7	ILLINOIS		FEDERAL AID PROJECT NO.	

SHEET NO. 18 OF 26 SHEETS



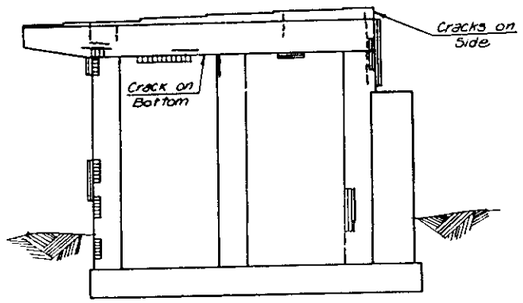


SOUTH SIDE VIEW

EAST SIDE VIEW

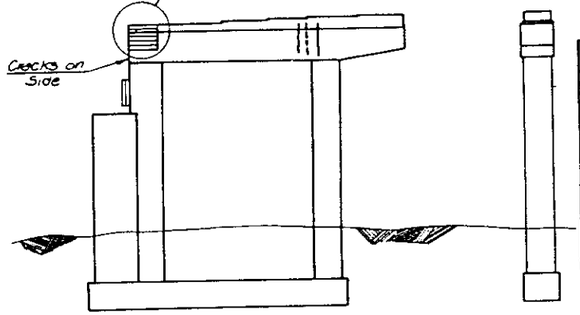
QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft.	53
Repair of Cracks	Lin Ft	36
Epoxy Sealer	Sq Yds	25.5

PIER 16



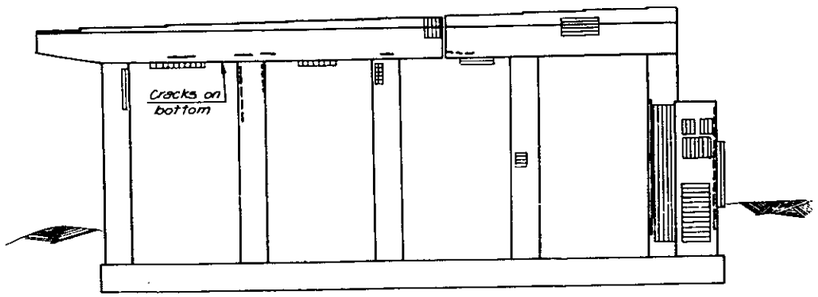
SOUTH SIDE VIEW

PIER 17



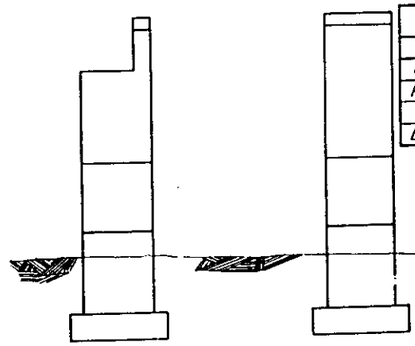
EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Expansion Bolts 4 3/4 Ø	Each	24
Class X Concrete	Cu Yds	0.65
Reinforcement Bars	Pounds	40
Jacking Existing Structure, >10'	Each	1
Repair Concrete Structures	Sq Ft.	51
Repair of Cracks	Lin Ft	34
Epoxy Sealer	Sq Yds	23.9



SOUTH SIDE VIEW

PIER 18



EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq Ft.	80
Repair of Cracks	Lin Ft.	57
Epoxy Sealer	Sq Yds	27.4

Note. For Legend See Sheet 13

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

WARD, NEEDLES, TAMMEN, & BERGENDOFF
CONSULTING ENGINEERS CHICAGO
HNTB

MADE RAL DATE 1-14-77 CHECKED BSB DATE 3-11-77

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

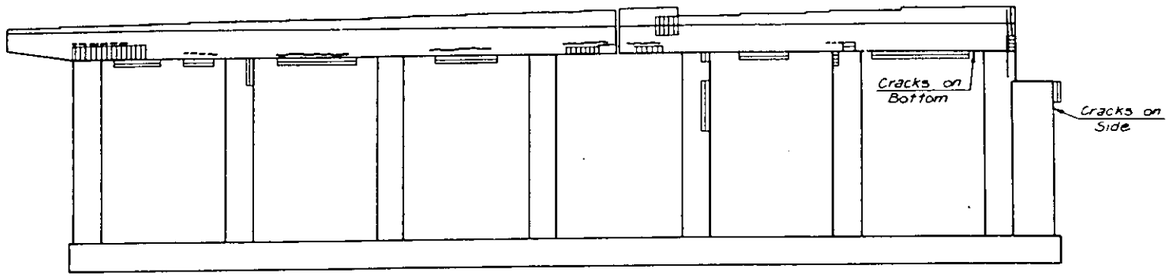
SUBSTRUCTURE REPAIRS
PIERS 16, 17 AND 18

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

Rev 6-6-77

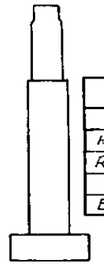
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976 135 BR	COOK	[illegible]	3
FED. ROAD DIST. NO. 7	ILLINOIS	FEDERAL AID PROJECT NO.		

SHEET NO. 19 OF 26 SHEETS



SOUTH SIDE VIEW

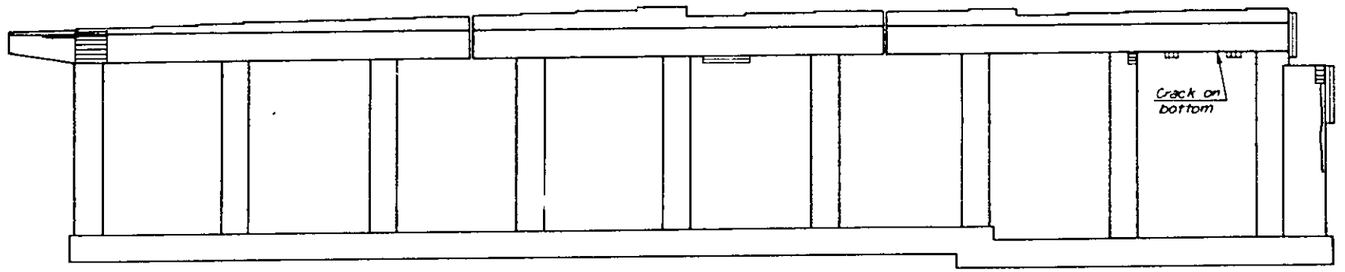
PIER 19



EAST SIDE VIEW

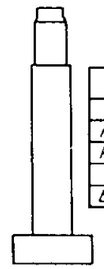
QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	155
Repair of Cracks	Lin. Ft.	51
Epoxy Sealer	Sq. Yds.	314

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.



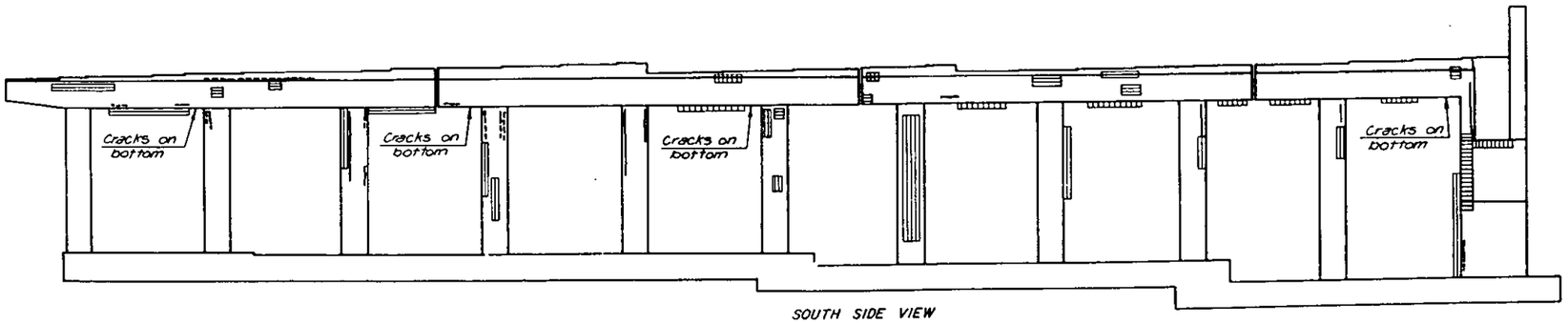
SOUTH SIDE VIEW

PIER 20



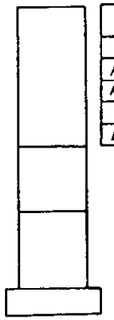
EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	59
Repair of Cracks	Lin. Ft.	24
Epoxy Sealer	Sq. Yds.	390



SOUTH SIDE VIEW

PIER 21



EAST SIDE VIEW

QUANTITIES		
ITEM	UNIT	QUANTITY
Repair Concrete Structures	Sq. Ft.	239
Repair of Cracks	Lin. Ft.	129
Epoxy Sealer	Sq. Yds.	498

Note. For Legend See Sheet 13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS

PIERS 19, 20 AND 21

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

Rev. 6-6-77

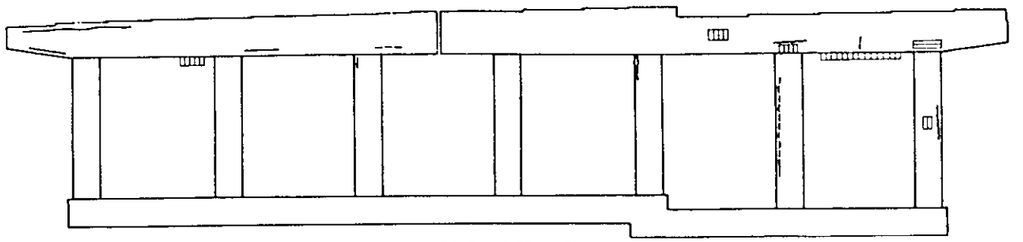
NO.	DATE	REVISION	BY

HARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE RAL DATE 1-10-77 CHECKED CGL DATE 3-21-77

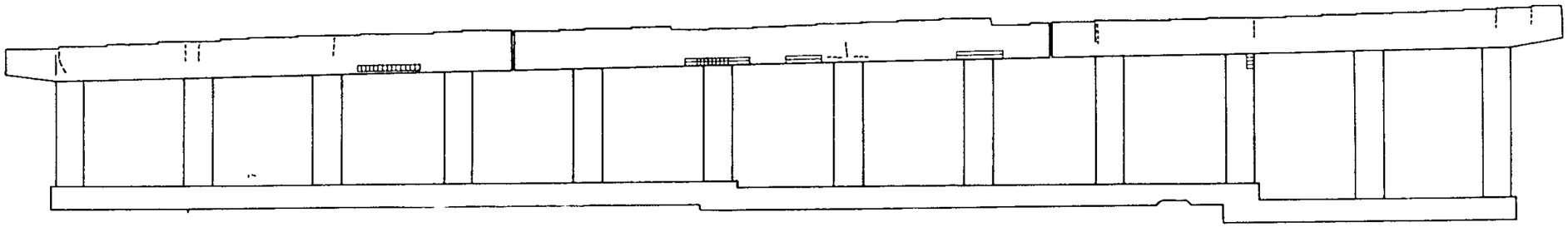
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 94	1976 135 BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS		FEDERAL A'D PROJECT NO.	

SHEET NO. 20 OF 26 SHEETS



SOUTH SIDE VIEW

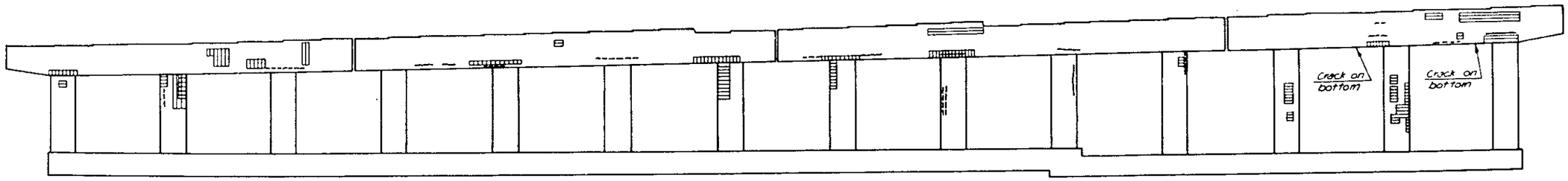
PIER 22



SOUTH SIDE VIEW

EAST SIDE VIEW

PIER 23



SOUTH SIDE VIEW

PIER 24

Note. For Legend See Sheet 13

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.

QUANTITIES

ITEM	UNIT	PIER 22	PIER 23	PIER 24
Repair Concrete Structures	Sq.Ft.	35	36	154
Repair of Cracks	Lin. Ft	38	46	73
Epoxy Sealer	Sq. Yds	276	500	743

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS

PIERS 22, 23 AND 24

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

NO.	DATE	REVISION	BY

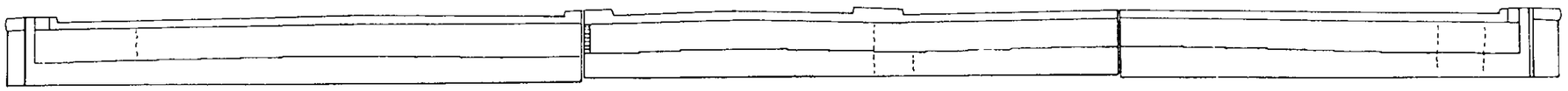
Rev 4-6-77

HARD, NEEDLES, TAMMEN, & BERGENDOFF CONSULTING ENGINEERS CHICAGO | HNTB

MADE RAL DATE 1-10-77 | CHECKED CGL DATE 3-21-77

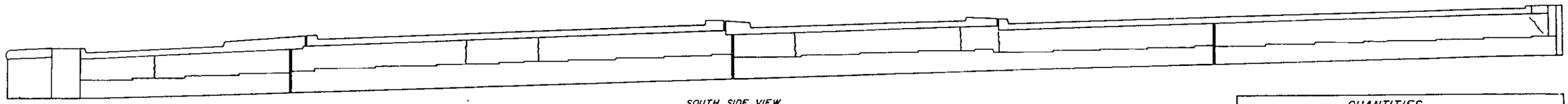
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 94	1976 135 BR	COOK		
FED. ROAD DIST. NO. 7	ILLINOIS		FEDERAL AID PROJECT NO.	

SHEET NO. 21 OF 26 SHEETS



NORTH SIDE VIEW

SOUTH ABUTMENT

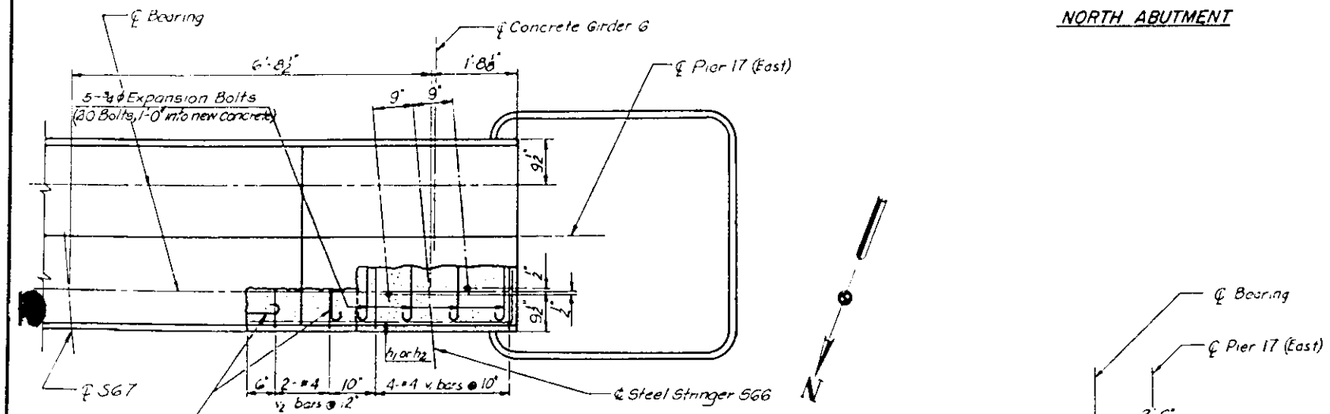


SOUTH SIDE VIEW

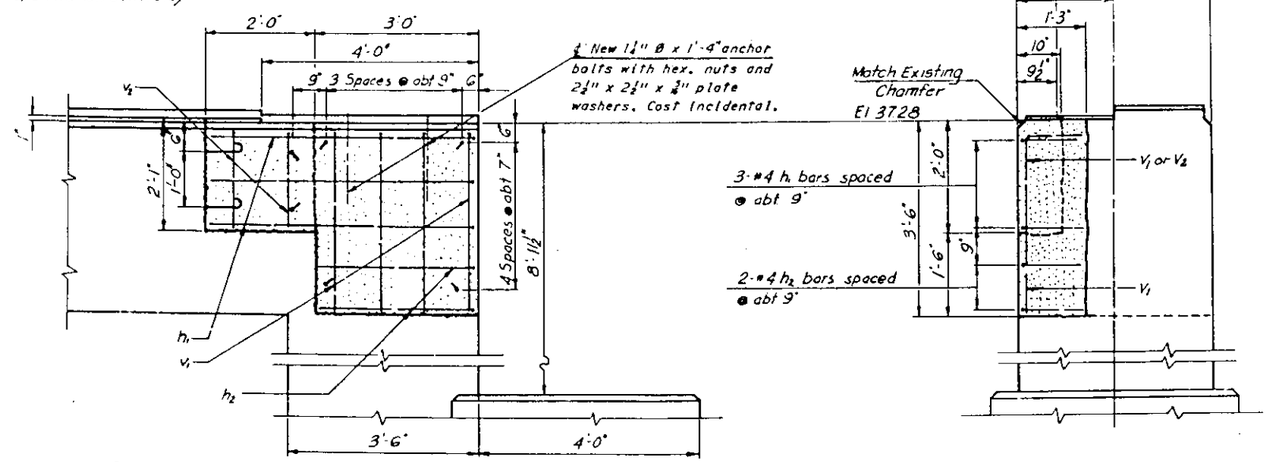
NORTH ABUTMENT

QUANTITIES			
ITEM	UNIT	N ABUT	S ABUT
Repair Concrete Structures	Sq Ft	0.0	4
Repair of Cracks	Lin Ft	30	20
Epoxy Sealer	Sq Yds	209	231

Note: The quantities, Repair Concrete Structures and Repair of Cracks, were determined from a field survey conducted in November, 1976. The actual areas to be repaired shall be as directed by the Engineer. Only those areas that have been authorized for repair by the Engineer will be measured for payment.



CAP BEAM PLAN



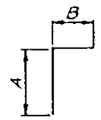
NORTH ELEVATION (LOOKING SOUTH)

SIDE VIEW

BAR LIST

Mark	No.	Length	A	B
h₁	3	5'-11"	4'-10"	1'-1"
h₂	2	3'-11"	2'-10"	1'-1"
v₁	4	4'-5"	3'-4"	1'-1"
v₂	2	2'-6"	1'-10"	8"

All bars are No. 4



Notes:
Cross girder G6 is not shown.
For quantities see sheet 18.
[redacted] indicates portion of structure to be removed (cost incidental to "REPAIR CONCRETE STRUCTURES") and replaced by Class X concrete.
Existing reinforcement is not shown. It shall be cleaned and remain in place.

Note: For Legend See Sheet 13.

HARD, NEEDLES, TAMMEN, & BERGENDOFF CHICAGO HNTB

MADE R.A.L. DATE 1-14-77 CHECKED P.C.A. DATE 3-16-77

PIER 17 STRINGER SUPPORT REPAIR

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

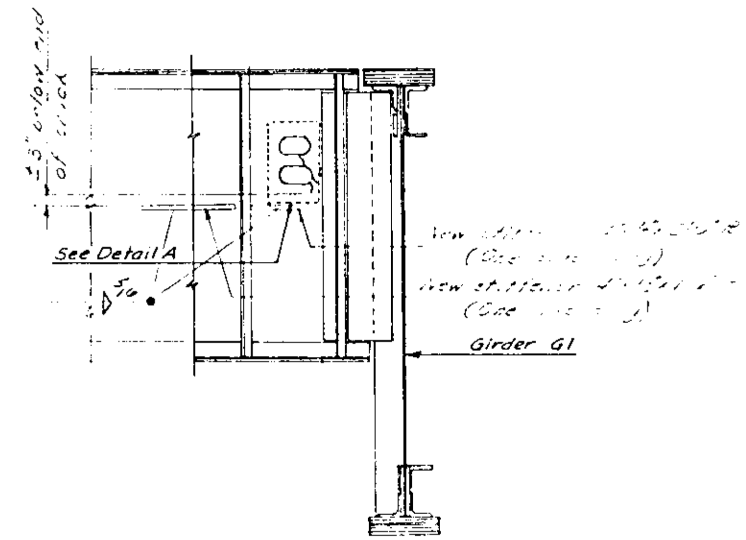
SUBSTRUCTURE REPAIRS
ABUTMENTS & STRINGER SUPPORT
AT PIER 17

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

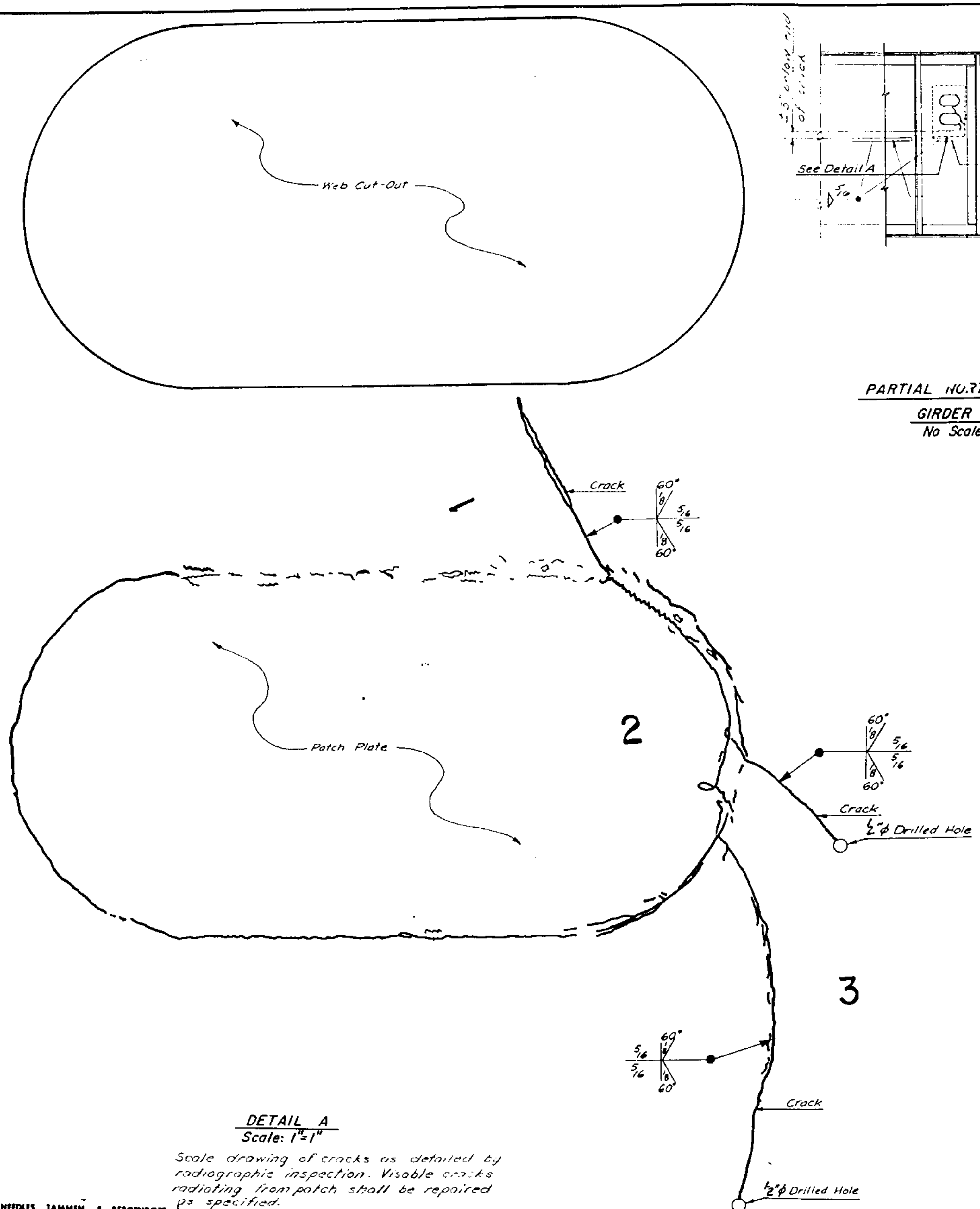
Rev. 6-6-77

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F A I 94	1976 135 BR	COOK		[illegible]
FED ROAD DIST NO 7		ILLINOIS	FEDERAL AID PROJECT NO	

SHEET NO 23 OF 26 SHEETS



PARTIAL NORTH ELEVATION
GIRDER G4
No Scale



DETAIL A
Scale: 1"=1"

Scale drawing of cracks as detailed by radiographic inspection. Visable cracks radiating from patch shall be repaired as specified.

Note: The [illegible] of Cross Girder G4 shall be repaired in accordance with the details shown on this sheet and as further specified below:

1. Close southbound Ashland Avenue lane 1 and maintain closure [illegible]

2. Drill a 1/2 inch diameter hole through the web plate at the extreme end of each crack, [illegible]

[illegible]

4. Preheat the web plate to 200°F, in the area being repaired and deposit weld in the gouges prepared in Step 3. An E7018 low hydrogen electrode, 1/8 inch in diameter shall be used for this work and a minimum of two passes shall be required to complete the repair. A minimum reinforcement will be permitted but no undercutting or overlap will be allowed.

5. Repeat Steps 3 and 4 on the north side of the girder. The initial root weld made from the south side of the girder shall be gouged prior to commencing to weld on the north side.

6. [illegible]

7. Clean and paint all painted surfaces that were damaged during the performance of this work. Cleaning and painting shall be done in accordance with the Special Provisions.

[illegible]

The Contractor is advised that this work will be done while traffic is utilizing Ashland Avenue and the Kennedy Expressway and that all precautions shall be taken to prevent damage from occurring to both property and life.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS GIRDER G4 REPAIR

JOHN F. KENNEDY EXPRESSWAY
W. WABANSIA AVENUE TO
W. CORTLAND STREET

NO.	DATE	REVISION	BY

[illegible]ARD, NEEDLES, TAMMEN, & BERGENDOFF CHICAGO HNTB
MADE G.E. DATE 3/11/77 CHECKED DLC DATE 3-18-77

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3	GENERAL PLAN - SOUTH PORTION
4	GENERAL PLAN - NORTH PORTION
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[illegible]	PROPOSED PROFILES
7	BORING DATA
8	DECK PLAN
9	DECK REINFORCEMENT PLAN SPANS 1,2 & 3
10	DECK REINFORCEMENT PLAN SPANS 4,5 & 6
11	DECK REINFORCEMENT PLAN SPANS 7,8,9 & 10
12	DECK REINFORCEMENT PLAN SPANS 11,12 & 13
13	DECK REINFORCEMENT PLAN SPANS 14,15 & 16
14	DECK REINFORCEMENT PLAN SPANS 17 & 18
15	DECK REINFORCEMENT PLAN SPANS 19,20 & 21
16	DECK REINFORCEMENT PLAN SPANS 22 & 23
17	DECK REINFORCEMENT PLAN SPANS 24 & 25
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21	CONCRETE DIAPHRAGM SCHEDULE
22	FRAMING PLAN SPANS 1,2 & 3
23	FRAMING PLAN SPANS 4,5 & 6
24	FRAMING PLAN SPANS 7,8,9 & 10
25	FRAMING PLAN SPANS 11,12 & 13
26	FRAMING PLAN SPANS 14,15 & 16
27	FRAMING PLAN SPANS 17 & 18
28	FRAMING PLAN SPANS 19,20 & 21
29	FRAMING PLAN SPANS 22 & 23
30	FRAMING PLAN SPANS 24 & 25
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32	DETAILS OF 48" PRECAST PRESTRESSED CONCRETE I-BEAMS
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36	BEARING DETAILS
37	STEEL STRINGER DETAILS
38	STEEL STRINGER SCHEDULE
39	ELEVATION OF FASCIA GIRDER G1
40 & 41	PART-ELEVATION OF FASCIA GIRDER G1 ELEVATION OF FASCIA GIRDER G2
[illegible] 45 INCL.	PART-ELEVATION OF FASCIA GIRDER G2
46	ELEVATION OF CROSS GIRDER G3 & G9
47	ELEVATION OF CROSS GIRDER G4 & G8
48	ELEVATION OF CROSS GIRDER G5 & G7
49	PART-ELEVATION OF CROSS GIRDER G5 & G7
50	ELEVATION OF CROSS GIRDER G6
51	BRACING FOR GIRDER G1 & G2
52	BRACING FOR CROSS GIRDERS G5, G6 & G7
53	BRACING FOR CROSS GIRDERS G4 & G8
54	BEARING DETAILS
55 & 56	EXPANSION GUARD DETAILS
57 & 58	METAL HANDRAIL EAST ELEVATION
59 & 60	METAL HANDRAIL WEST ELEVATION
61	METAL HANDRAIL DETAILS
62	METAL HANDRAIL DETAILS & NAME PLATES
63	STEEL PLATE BEAM GUARD RAIL
64	STEEL PLATE BEAM GUARD RAIL DETAILS
65	ELECTRIC CONDUITS
66 & 67	HANDHOLE DETAILS
68	ELECTRIC GROUNDING DETAILS
69 TO 71 INCL.	DECK DRAINAGE DETAILS
72	FOUNDATION PLAN - SOUTH PORTION
73	FOUNDATION PLAN - NORTH PORTION
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75	SOUTH ABUTMENT
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77	NORTH ABUTMENT & DETAILS
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APPROVED AS TO SEWER ALTERATIONS AND ADDITIONS

CHIEF ENGINEER OF SEWERS

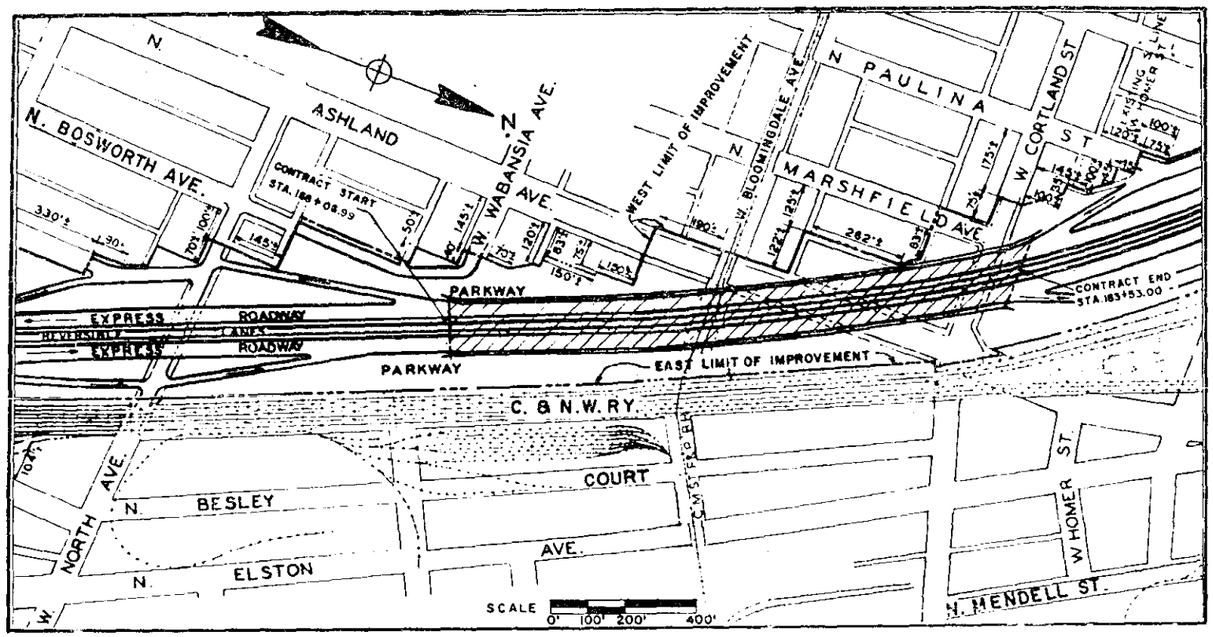
DEPUTY FOR SEWERS

STATE OF ILLINOIS
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY

PLANS FOR

F.A.I. 2 SECTION 0505.3-IH PROJECT I-02-2(68)
GRADE SEPARATION
WABANSIA AVENUE TO CORTLAND STREET



NET LENGTH OF IMPROVEMENT = 1546.01 FEET
NET LENGTH OF IMPROVEMENT = 0.293 MILES

PREPARED FOR
THE CITY OF CHICAGO
BY

ALFRED BENESCH AND ASSOCIATES
CONSULTING ENGINEERS

PLANS APPROVED
BY THE STATE DIVISION OF HIGHWAYS

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89 & 90	PIER 8
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133	MARSHFIELD AVE. CROSS SECTIONS AND PAVEMENT DETAILS
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135	SPECIAL MANHOLES, FRAMES AND LIDS
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CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
DATE JULY 29 1958
APPROVED Edward L. Reiter — CHIEF SUBWAY AND SUPERHIGHWAY ENGINEER
APPROVED [signature] — ASST. CHIEF ENGINEER
APPROVED Dirk Van Gorp — CHIEF ENGINEER
APPROVED [signature] — COMMISSIONER

THE DEPARTMENT OF
PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
APPROVED [redacted] 19[redacted]
CHIEF HIGHWAY ENGINEER
APPROVED [redacted] 19[redacted]
DIRECTOR

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
APPROVED [redacted]
DIVISION ENGINEER — DATE

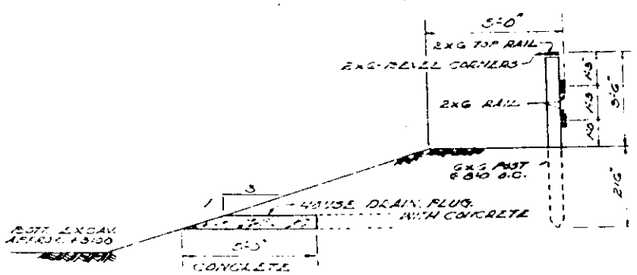
P648

SUMMARY OF QUANTITIES

SECTION 0505.3-1H

ITEM NO	UNIT	QUANTITY	DESCRIPTION
1	CU. YDS.	5,100	FECIAL EXCAVATION
2	CU. YDS.	2,850	CLASS A EXCAVATION FOR STRUCTURES
3	CU. YDS.	27,500	UNCLASSIFIED EXCAVATION
4	C.U. YDS.	275	POROUS GRANULAR EMBANKMENT
5	LIN. FT.	4,242	FURNISHING CONCRETE PILES
6	LIN. FT.	4,242	DRIVING CONCRETE PILES
7	EACH	4	CONCRETE TEST PILES
8	LIN. FT.	180	FURNISHING CREOSOTED PILES (OVER 35 FT.)
9	LIN. FT.	180	DRIVING TIMBER PILES
10	CU. FT.	105,000	CAISSON CONCRETE
11	CU. YDS.	13,900	CLASS X CONCRETE
12	LBS	3,323,000	REINFORCEMENT BARS
13	LIN. FT	2,041	FURNISHING & ERECTING 36 INCH PRECAST PRESTRESSED CONCRETE I-BEAMS
14	LIN. FT.	38,215	FURNISHING & ERECTING 48 INCH PRECAST PRESTRESSED CONCRETE I-BEAMS
15	LBS.	2,425,000	ERECTING STRUCTURAL STEEL
16	LBS.	140,000	FURNISHING & ERECTING MISC. STRUCTURAL STEEL
17	LBS.	104,000	FURNISHING & ERECTING LOW ALLOY STRUCTURAL STEEL
18	LBS.	18,000	FURNISHING & ERECTING BRONZE BEARING PLATES
19	LIN. FT.	3,150	FURNISHING & ERECTING METAL HANDRAIL
20	LIN. FT.	3,075	STEEL PLATE BEAM GUARD RAIL, SPECIAL
21	EACH	2	NAME PLATES
22	EACH	65	CAST IRON SCUPPERS
23	LIN. FT.	2,150	WROUGHT IRON PIPE, 6-INCH
24	LIN. FT.	12,500	3½-INCH ASBESTOS-CEMENT CONDUITS, WITH HANGERS
25	EACH	27	HANDHOLE FRAMES & LIDS
26	LUMP SUM	1	STEEL CONDUITS AND LIGHTING SYSTEM GROUNDING
27	SQ. YDS.	2,325	PORTLAND CEMENT CONCRETE BASE COURSE, 9-INCH
28	SQ. YDS.	1,975	PORTLAND CEMENT CONCRETE PAVEMENT 8-INCH
29	SQ. FT.	18,800	PORTLAND CEMENT CONCRETE SIDEWALK

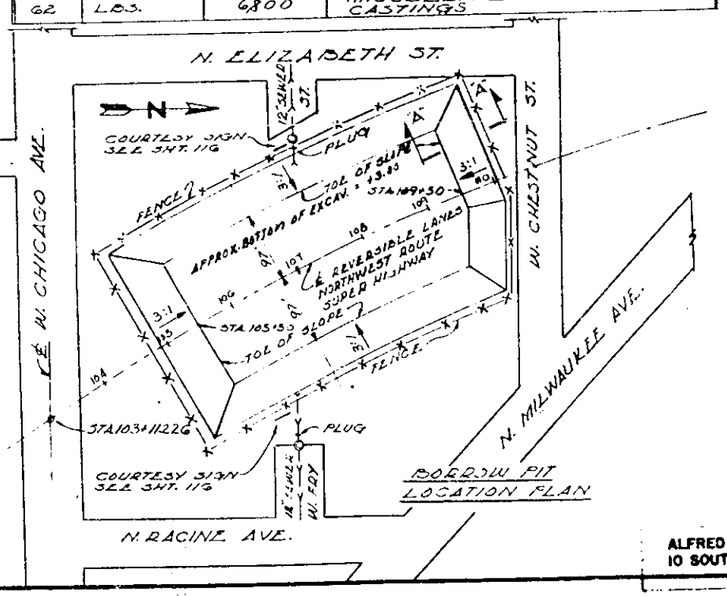
ITEM NO	UNIT	QUANTITY	DESCRIPTION
30	LIN. FT	1,560	CONCRETE CURB AND GUTTER, TYPE 3
31	LIN. FT	510	CONCRETE CURB, TYPE 4
32	SQ. FT	310	LONGITUDINAL CURB EXPANSION JOINTS
33	GALS	235	BITUMINOUS MATERIALS (PRIME COAT)
34	TONS	140	BITUMINOUS CONCRETE BINDER COURSE
35	TONS	130	BITUMINOUS CONCRETE SURFACE COURSE, FINE DENSE-GRADED AGGREGATE TYPE, SUB-CLASS I-II
36	SQ. YDS	80	PAVEMENT REPLACEMENT, ENTIRE
37	LIN. FT	15	STORM SEWERS, TYPE 1, 18-INCH
38	LIN. FT	35	STORM SEWERS, TYPE 2, 8-INCH
39	LIN. FT	2,625	STORM SEWERS, TYPE 2, 12-INCH
40	LIN FT	230	STORM SEWERS, TYPE 2, 15-INCH
41	LIN. FT	155	STORM SEWERS, TYPE 2, 18-INCH
42	LIN FT	165	STORM SEWERS, TYPE 2, 21-INCH
43	LIN FT	430	STORM SEWERS, TYPE 2, 24-INCH
44	LIN. FT	410	STORM SEWERS, TYPE 2, 30-INCH
45	LIN. FT	130	STORM SEWERS, TYPE 2, 48-INCH
46	CU. YDS.	400	TRENCH BACKFILL
47	EACH	9	MANHOLES, TYPE A, 4 FT. DIA.
48	EACH	2	MANHOLES, TYPE A, 3 FT. DIA.
49	EACH	21	CATCH BASINS, TYPE A, 4 FT. DIA.
50	EACH	5	INLET ASSEMBLIES WITH TYPE 4 GRATE AND BEND
51	EACH	1	SPECIAL MANHOLE, TYPE 1
52	EACH	1	SPECIAL MANHOLE, TYPE 2
53	EACH	7	MANHOLES TO BE ADJUSTED
54	EACH	6	CATCH BASINS TO BE ADJUSTED
55	EACH	1	INLETS TO BE ADJUSTED
56	EACH	3	MANHOLES TO BE RECONSTRUCTED
57	EACH	1	FILLING EXISTING INLETS
58	LIN. FT.	2,675	CHAIN LINK FENCE
59	CU. YDS.	3350	CRUSHED STONE SURFACE COURSE, TYPE A
60	SQ. YDS.	2000	SLOPE WALL
61	SQ. YDS.	350	SODDING
62	LBS.	6800	MISCELLANEOUS IRON CASTINGS



SECTION A-A

NOTE:

THE COST OF FURNISHING, ERECTING AND MAINTAINING THE SIGNS AND WOOD FENCE AROUND THE EXCAVATED AREA, AND THE COST OF PLUGGING HOUSE DRAINS AND SEWERS ENCOUNTERED DURING EXCAVATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CU. YD. FOR CAISSON EXCAVATION.



BORROW PIT LOCATION PLAN

GENERAL NOTES

SPECIFICATIONS

DESIGN OF STRUCTURE IN ACCORDANCE WITH A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1953 EDITION.

PRECAST PRESTRESSED CONCRETE I BEAM DESIGN IN ACCORDANCE WITH BUREAU OF PUBLIC ROADS CRITERIA FOR PRESTRESSED CONCRETE BRIDGES, 1954 EDITION.

CONSTRUCTION, MATERIALS AND FABRICATION SHALL CONFORM TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" OF THE STATE OF ILLINOIS AND SUPPLEMENTS THERETO.

FOUNDATIONS

CAISSONS SHALL BE FOUNDED ON HARD CLAY HAVING A SAFE BEARING VALUE OF 12,000 LBS. PER SQ. FT. MATERIAL IN BOTTOM OF CAISSON HOLES SHALL BE TESTED FOR UNCONFINED COMPRESSIVE STRENGTH AND SHALL BE APPROVED BY THE ENGINEER BEFORE CONCRETE IS PLACED IN CAISSONS. SEE SPECIAL PROVISIONS

THE CONTRACTOR SHALL DRIVE 2 CONCRETE TEST PILES IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE CONCRETE PILES

CONCRETE

CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT FOR PRECAST CONCRETE I-BEAMS.

ALL CONCRETE SHALL BE CAST IN PLACE EXCEPT FOR THE PRECAST PRESTRESSED CONCRETE I-BEAMS

THE CONCRETE FLOOR SLABS SHALL BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SHOWN ON THE PLANS AND SPECIFIED IN THE SPECIAL PROVISIONS. FINISHING OF THE FLOOR SLABS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

ALL CORNERS SHALL BE CHAMFERED ¾" UNLESS OTHERWISE SHOWN OR NOTED ON PLANS.

ALL REINFORCEMENT SHALL HAVE 2" MIN. PROTECTIVE COVERING UNLESS OTHERWISE SHOWN OR NOTED ON PLANS.

FOR GENERAL NOTES REGARDING PRECAST PRESTRESSED CONCRETE I BEAMS SEE SHEET No 32.

STRUCTURAL STEEL

ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A7 EXCEPT THE M.B. PLATES OF FASCIA GIRDERS G1 AND G4 WHICH SHALL CONFORM TO THE REQUIREMENTS OF ASTM A373 AND STEEL FOR THE EXPANSION PLATES AND BARS OF THE EXPANSION DEVICES WHICH SHALL BE LOW-ALLOY STRUCTURAL STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A242.

ALL SHOP CONNECTIONS FOR STRUCTURAL STEEL SHALL BE RIVETED EXCEPT AS SHOWN OR NOTED ON PLANS. ALL FIELD CONNECTIONS SHALL BE HIGH STRENGTH BOLTS EXCEPT THE FIELD SPLICE OF THE FASCIA GIRDERS G1 & G2 WHICH SHALL BE RIVETED.

ALL RIVETS SHALL BE ¾" IN ⅞" HOLES UNLESS OTHERWISE NOTED ON THE PLANS AND ALL BOLTS SHALL BE ¾" IN ⅞" HOLES IN GIRDERS G1, G2 & G4 TO G8 INCLUSIVE. BOLTS AND RIVETS IN GIRDERS G3 & G9 SHALL BE ⅞" IN 1⅛" HOLES. SEE SPECIAL PROVISIONS FOR HOLES THAT MUST BE SUBPUNCHED AND REAMED WHILE ASSEMBLED

ALL STEEL SHALL BE MILL AND SHOP INSPECTED BY THE CITY OF CHICAGO BEFORE PAINTING. ALL UNITS THAT ARE REQUIRED TO BE SHOP ASSEMBLED FOR REAMING SHALL BE INSPECTED BEFORE AND AFTER REAMING WHILE FULLY ASSEMBLED

CAST STEEL AND BRONZE BEARING PLATES SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIAL PROVISIONS

THE CONTRACTOR FOR SECTION 0505.3-1HF SHALL FURNISH AND APPLY 1 SHOP COAT RED LEAD PAINT TO ALL STRUCTURAL STEEL & CAST STEEL IN THE SPANS OVER ASHLAND AVE THE CONTRACTOR FOR SECTION 0505.3-1H SHALL FURNISH AND APPLY 1 SHOP COAT OF RED LEAD PAINT TO ALL OTHER STRUCTURAL STEEL.

THE CONTRACTOR FOR SECTION 0505.3-1H SHALL FURNISH AND APPLY 2 FIELD COATS OF ALUMINUM PAINT TO ALL STRUCTURAL STEEL AND CAST STEEL

THE CONTRACTOR FOR SECTION 0505.3-1HF ALL FURNISH ANCHOR BOLTS SETTING PLANS AND SETTING DIAGRAMS FOR THE EXPANSION DEVICES FOR THE SPANS OVER ASHLAND AVE.

STEEL EXPANSION DEVICES AT PIERS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 511.12(d) OF THE STANDARD SPECIFICATIONS. ALL BEARING ASSEMBLIES SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 511.13 OF THE STANDARD SPECIFICATIONS.

SECTION 0505.3-1HF

ITEM NO	UNIT	QUANTITY	DESCRIPTION
1	LBS	2,363,000	FURNISHING STRUCTURAL STEEL
2	LBS	36,000	FURNISHING & ERECTING LOW ALLOY STRUCTURAL STEEL
3	LBS	22,000	FURNISHING CAST STEEL
4	LBS	4,000	FURNISHING BRONZE BEARING PLATES

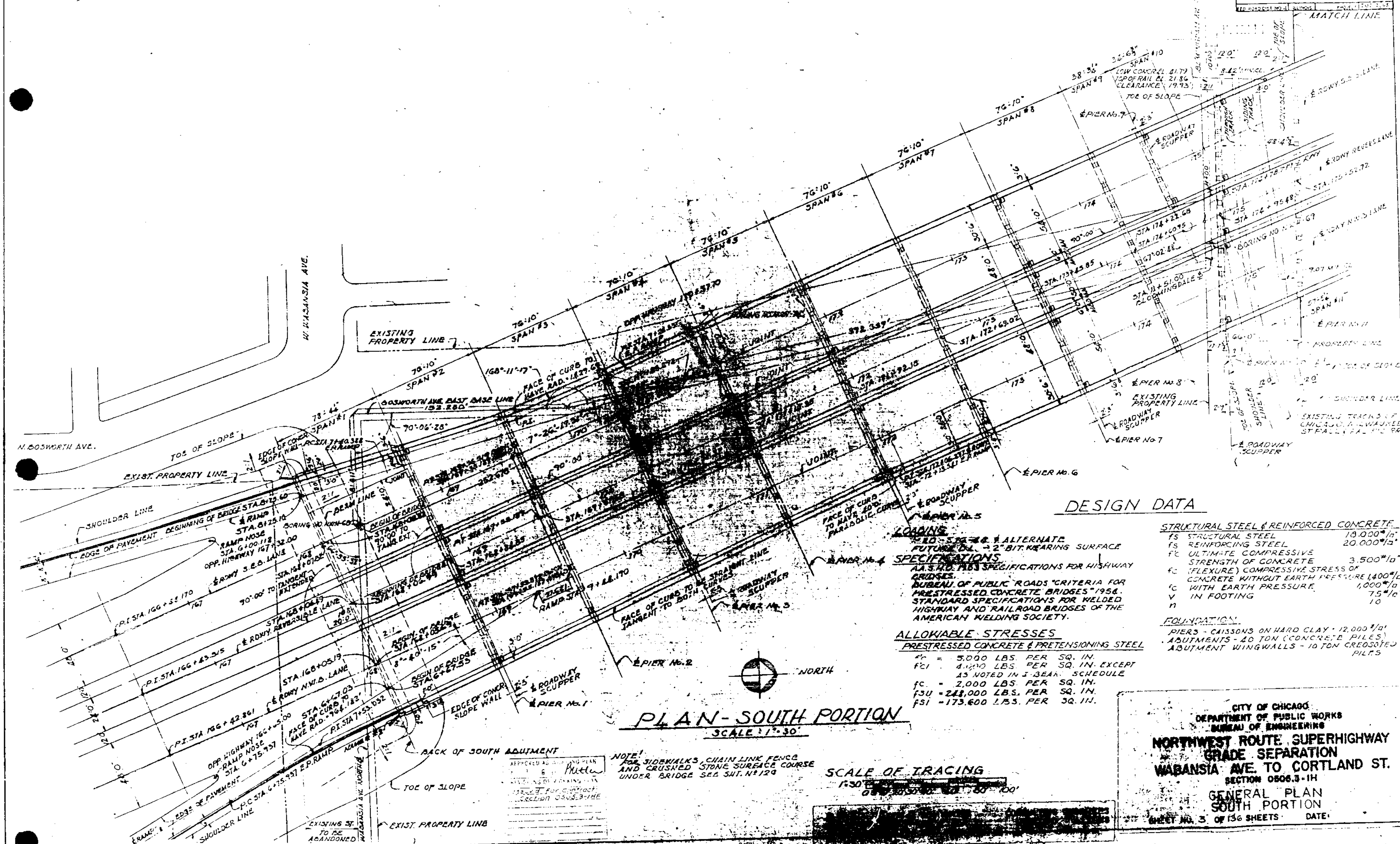
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

GENERAL NOTES & QUANTITIES

SHEET NO. 2 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS



PLAN - SOUTH PORTION

SCALE: 1" = 30'

NOTE!
FOR SIDEWALKS, CHAIN LINK FENCE AND CRUSHED STONE SURFACE COURSE UNDER BRIDGE SEE SHT. Nº 129

SCALE OF TRACING
1" = 30' 0 30 60 80 100'

APPROVED AS WORKING PLAN ... 6 ... Mittler
REVISIONS OF WORKING PLAN
Issued for contract Section 0505.3-1HE

[redacted]

DESIGN DATA

LOADING
H20-S16-44 & ALTERNATE
FUTURE D.L. = 2" BIT. WEARING SURFACE

SPECIFICATIONS
A.A.S.H.O. 1953 SPECIFICATIONS FOR HIGHWAY BRIDGES.
BUREAU OF PUBLIC ROADS "CRITERIA FOR PRESTRESSED CONCRETE BRIDGES" 1954.
STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILROAD BRIDGES OF THE AMERICAN WELDING SOCIETY.

ALLOWABLE STRESSES
PRESTRESSED CONCRETE & PRETENSIONING STEEL
f'c = 5,000 LBS. PER SQ. IN.
f'ci = 4,000 LBS. PER SQ. IN. EXCEPT AS NOTED IN I-BEAM SCHEDULE
fc = 2,000 LBS. PER SQ. IN.
fsu = 248,000 LBS. PER SQ. IN.
fsi = 173,600 LBS. PER SQ. IN.

STRUCTURAL STEEL & REINFORCED CONCRETE

fs	STRUCTURAL STEEL	18,000#/□"
fs	REINFORCING STEEL	20,000#/□"
f'c	ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE	3,500#/□"
fc	(FLEXURE) COMPRESSIVE STRESS OF CONCRETE WITHOUT EARTH PRESSURE	1,400#/□"
fc	WITH EARTH PRESSURE	1,000#/□"
v	IN FOOTING	75#/□"
n		10

FOUNDATION
PIERS - CAISSONS ON HARD CLAY = 12,000#/□'
ABUTMENTS - 40 TON (CONCRETE PILES)
ABUTMENT WINGWALLS - 10 TON CREOSOTED PILES

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0506.3-1H

GENERAL PLAN
SOUTH PORTION

SHEET NO. 3 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	4
STA.		TO STA.		
FED. ROAD DIST. NO. 5	ILLINOIS		PROJECT	

CURVE "E" S.E. BOUND	CURVE "E" REVERSIBLE LANES	CURVE "E" N.W. BOUND
Δ = 1°-33'-43"	Δ = 1°-33'-43"	Δ = 1°-33'-43"
D = 0°-15'-02"	D = 0°-15'-02"	D = 0°-15'-04"
R = 22,869.908'	R = 22,869.908'	R = 22,821.908'
T = 311.764'	T = 311.722'	T = 311.068'
L = 622.784'	L = 623.3956'	L = 622.099'
E = 2.120'	E = 2.125'	E = 2.120'
S = 0.0125	S = 0.0125	S = 0.0125

CURVE "F" S.E. BOUND	CURVE "F" REVERSIBLE LANES	CURVE "F" N.W. BOUND
Δ = 28°-41'-08"	Δ = 28°-41'-08"	Δ = 28°-41'-08"
D = 1°-35'-00"	D = 1°-33'-45"	D = 1°-32'-33"
R = 3,618.793'	R = 3,666.783'	R = 3,714.783'
T = 925.8941'	T = 937.5675'	T = 949.841'
L = 1,811.7193'	L = 1,835.7450'	L = 1,859.780'
E = 116.423'	E = 117.967'	E = 119.511'
S = 0.0125	S = 0.0125	S = 0.0125

PLAN OF BASE LINES & ROADWAY CENTER LINES

SCALE: 1" = 100'

PLAN - NORTH PORTION

SCALE: 1" = 30'

SCALE OF TRACING
1" = 30'
0 5 10 20 30 40 60 80 100

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

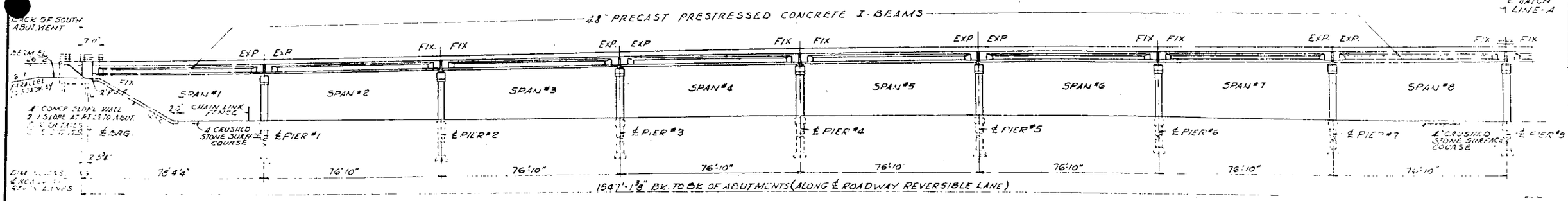
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

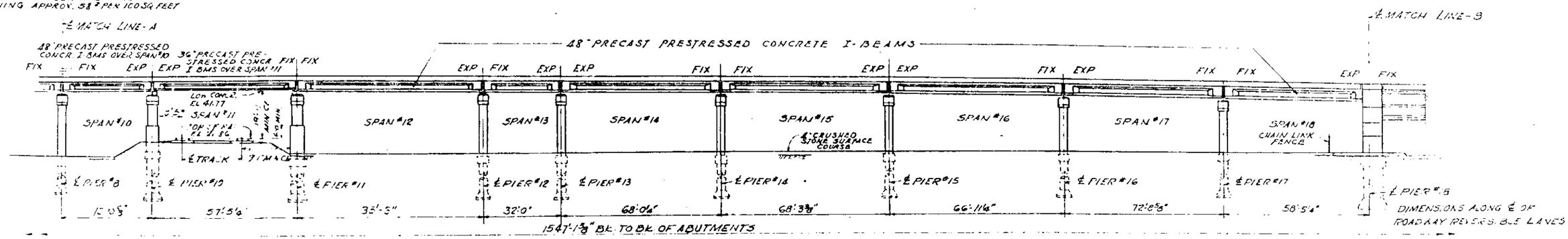
GENERAL PLAN
NORTH PORTION

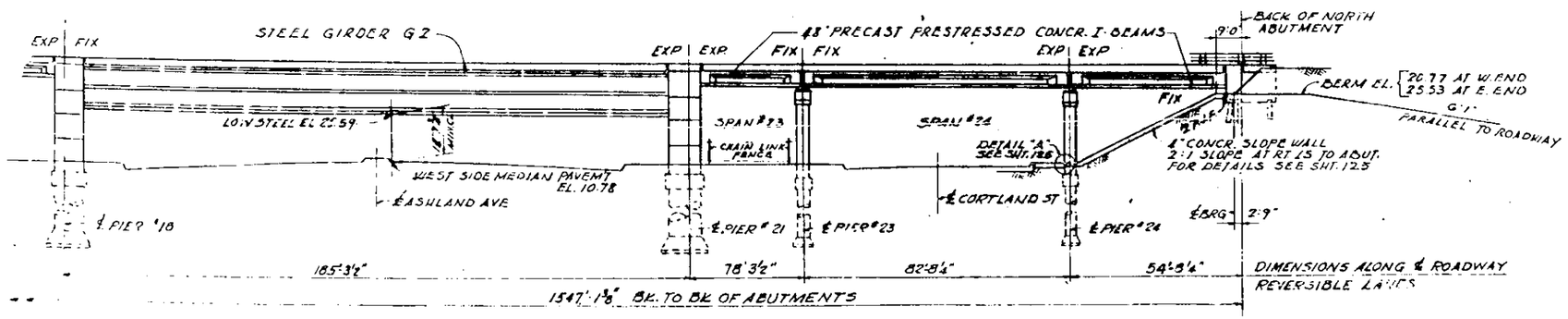
SHEET NO. 4 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA12	0506.3-1H	COOK	136	5
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	T-32-2(68)	



NOTE "A"
REINFORCED WITH WELDED WIRE FABRIC 6"x6" MESH N°4 WIRE WEIGHING APPROX. 58# PER 100 SQ FEET





EAST ELEVATION OF STRUCTURE

SCALE : 1" = 20'-0"

NORTH

SCALE OF TRACING
1" = 20'
0' 5' 10' 20' 40'

Issued for Contract
Section 0506.3-1H

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

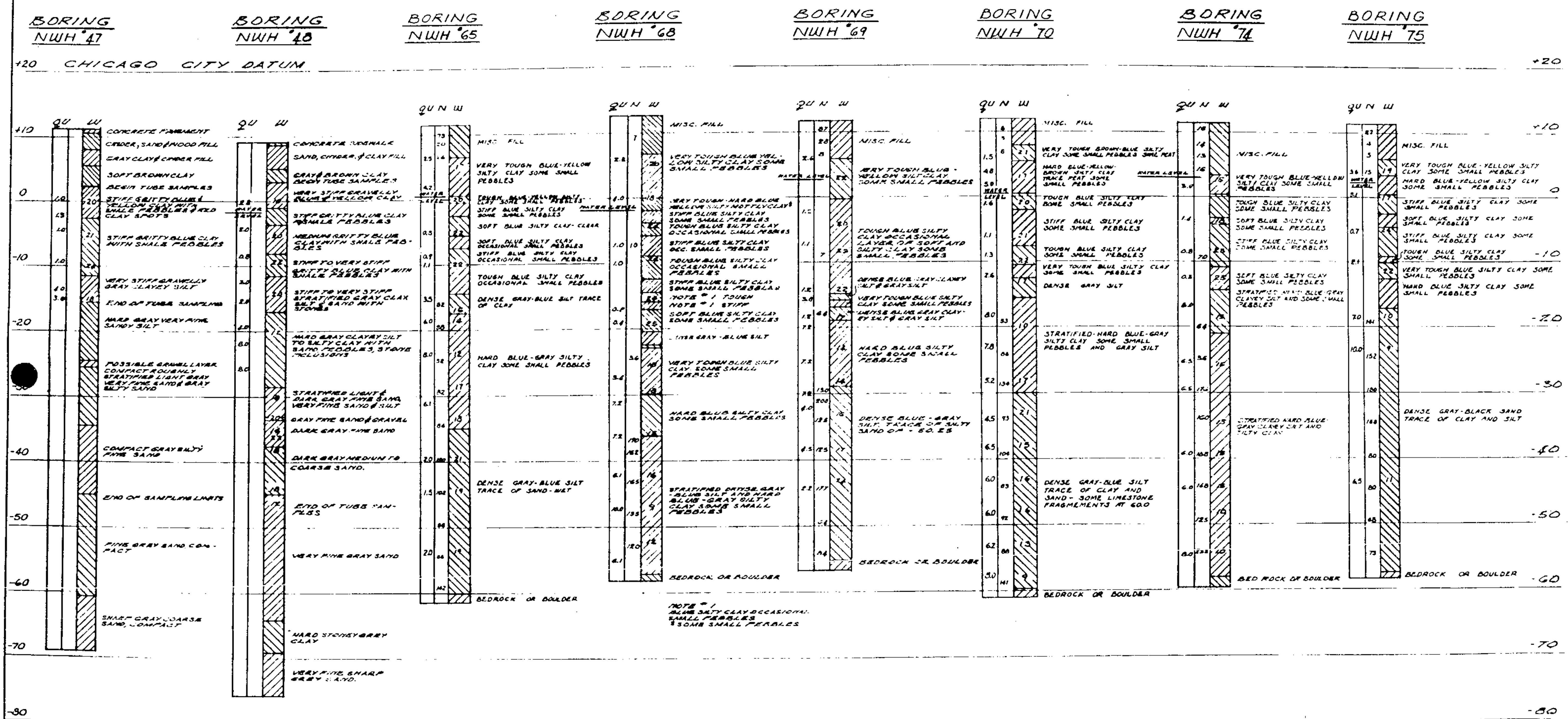
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0506.3-1H

EAST ELEVATION

SHEET NO. 5 OF 136 SHEETS DATE:

FA.I. 2 05053-IH COOK 136 7

SOIL TEST BORINGS



NOTE!
FIGURES IN COLUMNS MARKED "N" INDICATE NUMBERS OF BLOWS REQUIRED TO DRIVE SAMPLING PIPE ONE FOOT USING 140 LB. WEIGHT FALLING 30 INCHES.
FIGURES IN COLUMNS MARKED "QU" INDICATE UNCONFINED COMPRESSIVE STRENGTH IN TONS PER SQ.FT.
FIGURES IN COLUMNS MARKED "W" INDICATE WATER CONTENT IN PER CENT OF DRY WEIGHT.
BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK
FOR LOCATION OF BORINGS SEE SHEET 3 & 4

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

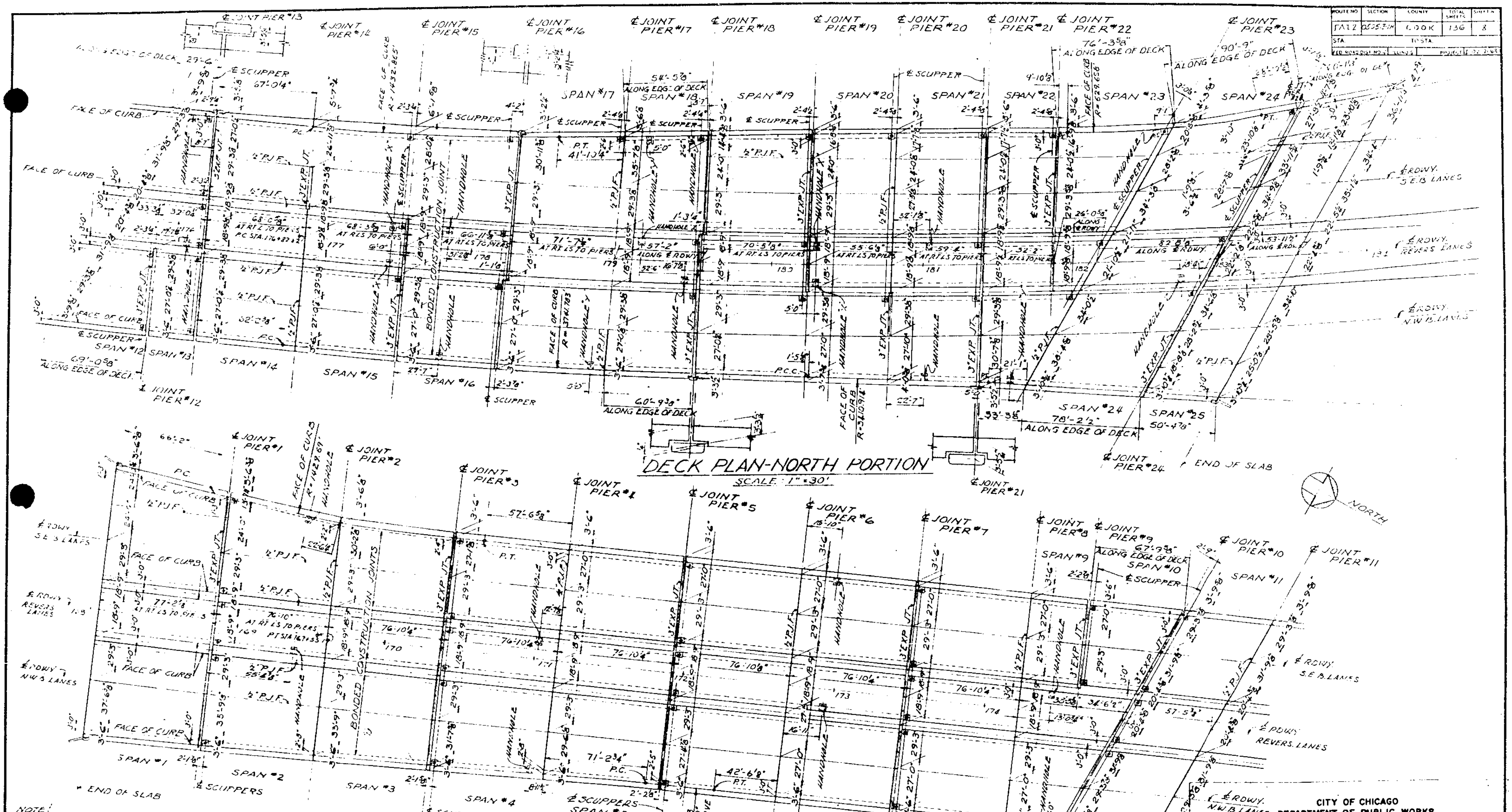
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

BORING DATA

SHEET NO. 7 OF 136 SHEETS DATE:



NOTE:
ALL DISTANCES ARE MEASURED HORIZONTALLY
EDGE OF DECK TO BE A STRAIGHT LINE BETWEEN JOINTS
FOR DETAILS OF EXPANSION JOINTS SEE SHEETS 55 AND 56.
FOR DETAILS OF HANDRAIL ANCHORS SEE SHT. 30
FOR DETAIL OF ELEC. CONC. HANGER ANCHORS SEE SHT. 67
FOR DETAILS OF SCUPPERS SEE SHEETS 69, 70 AND 71

FOR STEEL PLATE BEAM GUARD RAIL ANCHORAGE DETAILS SEE SHEET 64.
FOR DETAILS OF HANDHOLES AND LIGHT STANDARD ANCHORAGE SEE SHEETS 66 AND 67.
DIMENSIONS GIVEN FROM ℄ OF JOINT TO ℄ OF HANDHOLES ARE DIMENSIONS ALONG ℄ OF HANDRAIL AND ℄ OF STEEL PLATE BEAM GUARD RAIL.

SCALE OF TRACING
1" = 30'
0 5' 10' 20' 30' 40' 60' 80' 100'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

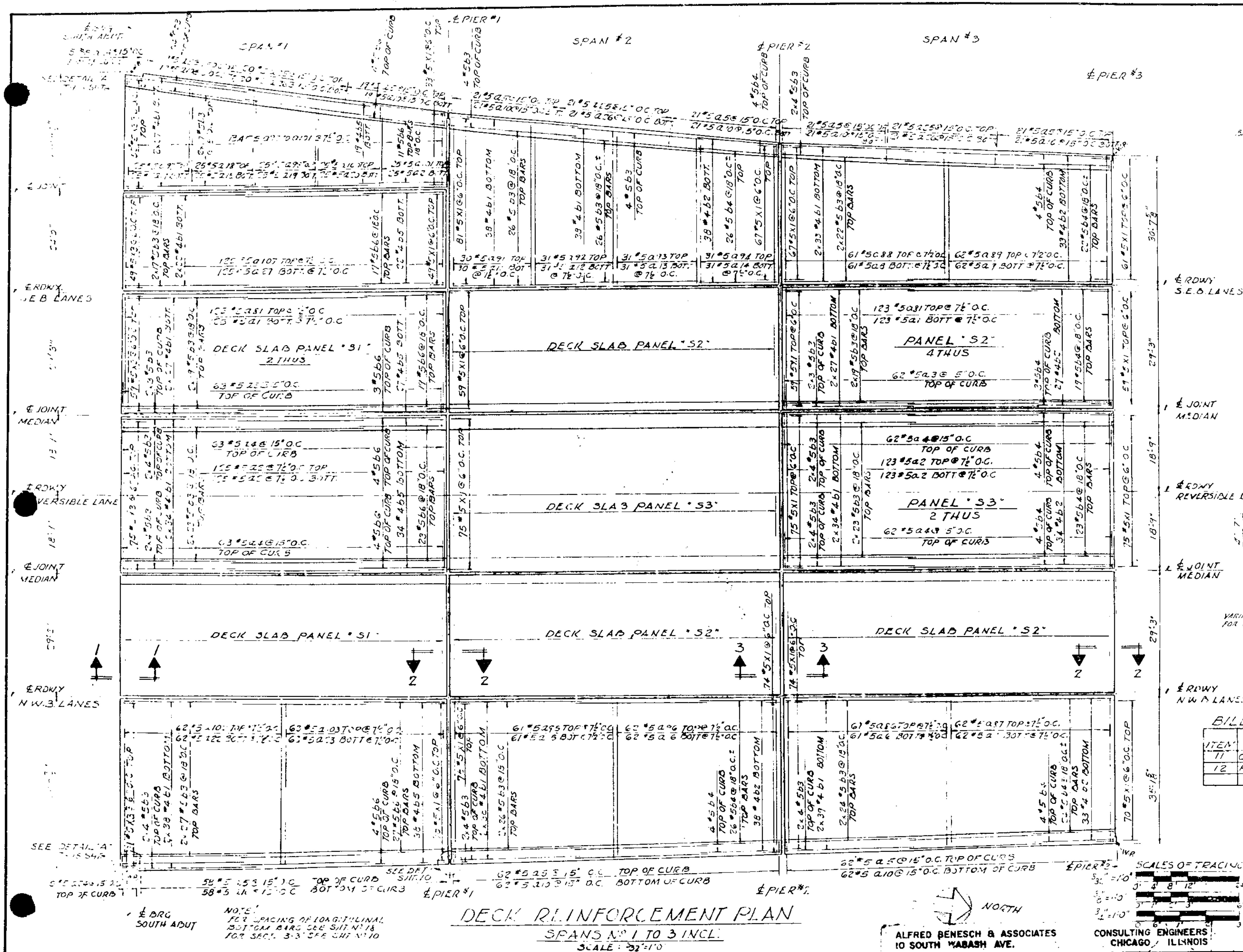
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

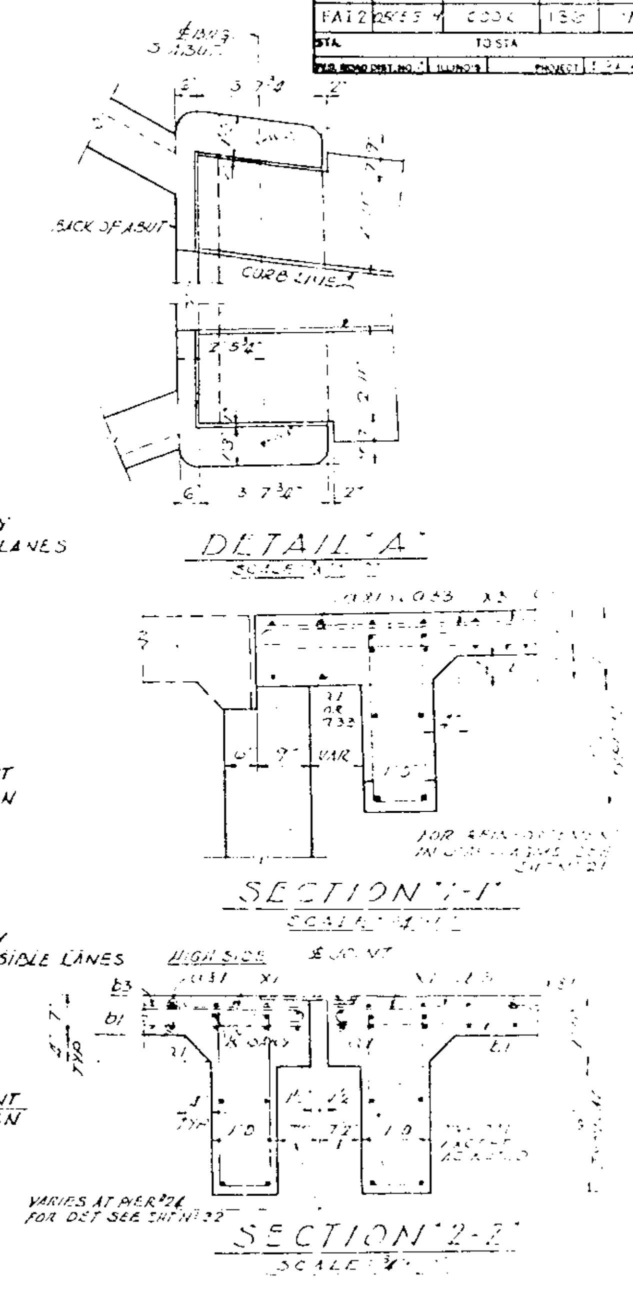
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1-H

DECK PLAN

SHEET NO. 8 OF 136 SHEETS DATE:





BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #1	SPAN #2	SPAN #3
11	CLASS "X" CONCRETE	[illegible]	[illegible]	374.3	[illegible]
12	REINFORCEMENT BARS	LB.	[illegible]	[illegible]	[illegible]

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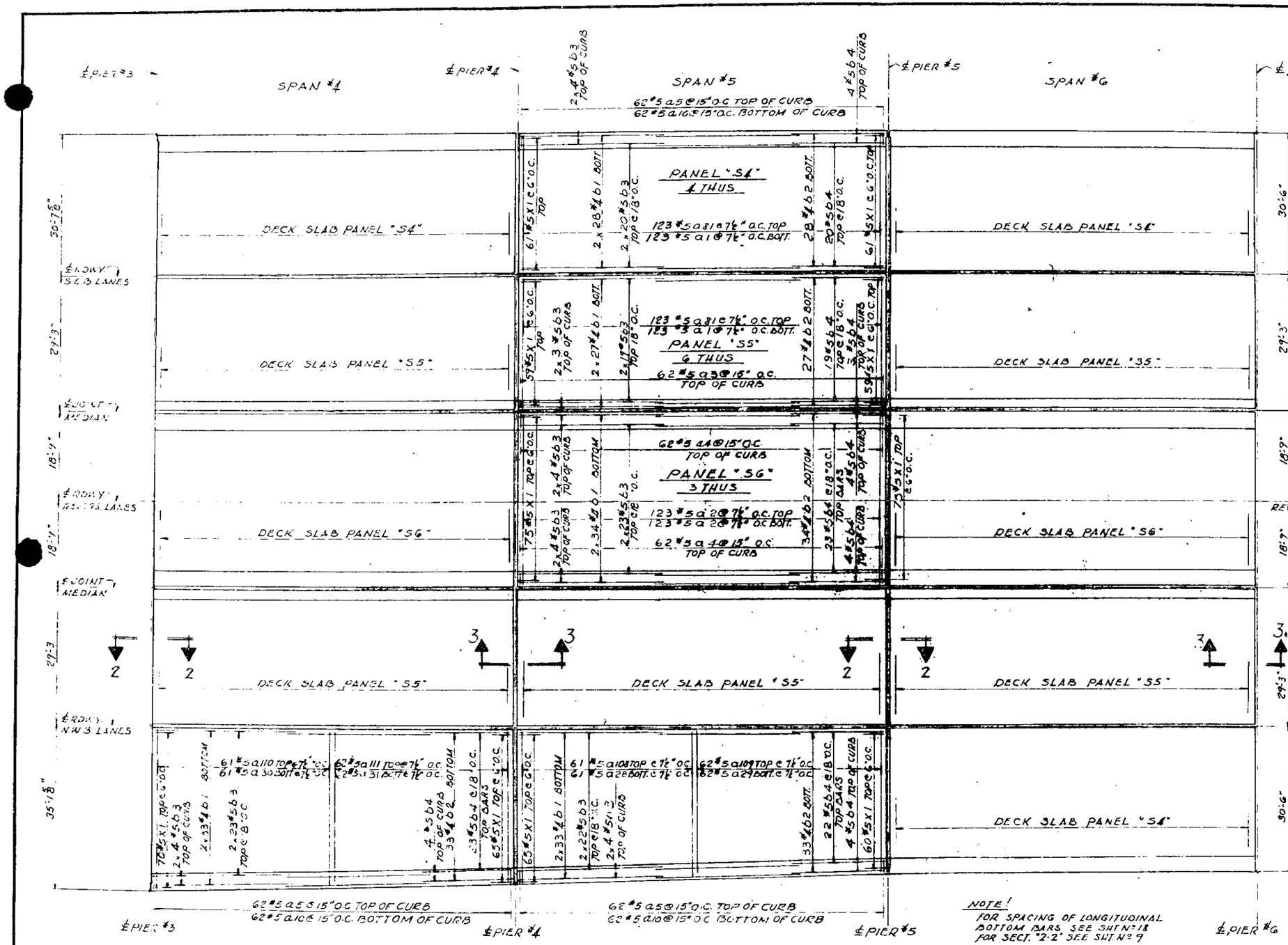
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-I H

DECK REINFORCEMENT PLAN
SPANS 1 TO 3

SHEET NO. 9 OF 136 SHEETS DATE:

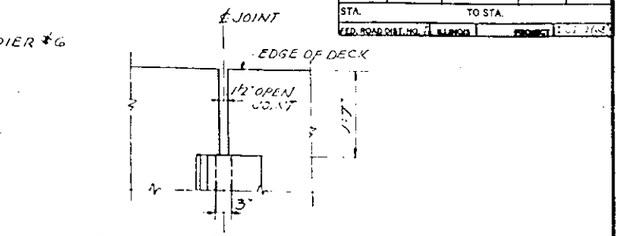
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3 IH	COOK	136	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



DECK REINFORCEMENT PLAN

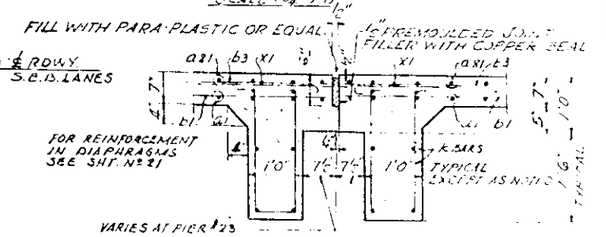
SPANS Nº 4 TO 6 INCL.

SCALE: 3/32" = 1'-0"



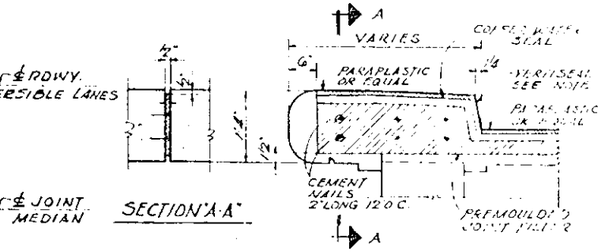
TYPICAL DETAIL AT END OF EXP. JT

SCALE: 3" = 1'-0"



SECTION 3-3

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



SECTION "A-A"

CURB DETAIL AT FIXED PIER

SCALE: 3" = 1'-0"

NOTE:
SEAL VERTICAL CURB JOINT WITH BLACK COLD APPLIED JT. SEALER "VERTISEAL" OR EQUAL.

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN 4	SPAN 5	SPAN 6
11	CLASS "X" CONCRETE	CU. YD.	352.3	348.0	344.5
12	REINFORCEMENT BARS	LBS.	66,869	65,185	69,205

NOTE!
FOR SPACING OF LONGITUDINAL BOTTOM BARS SEE SHT Nº 18
FOR SECT. "2-2" SEE SHT Nº 9

SCALES OF TRACING
3/32" = 1'-0"
3/4" = 1'-0"

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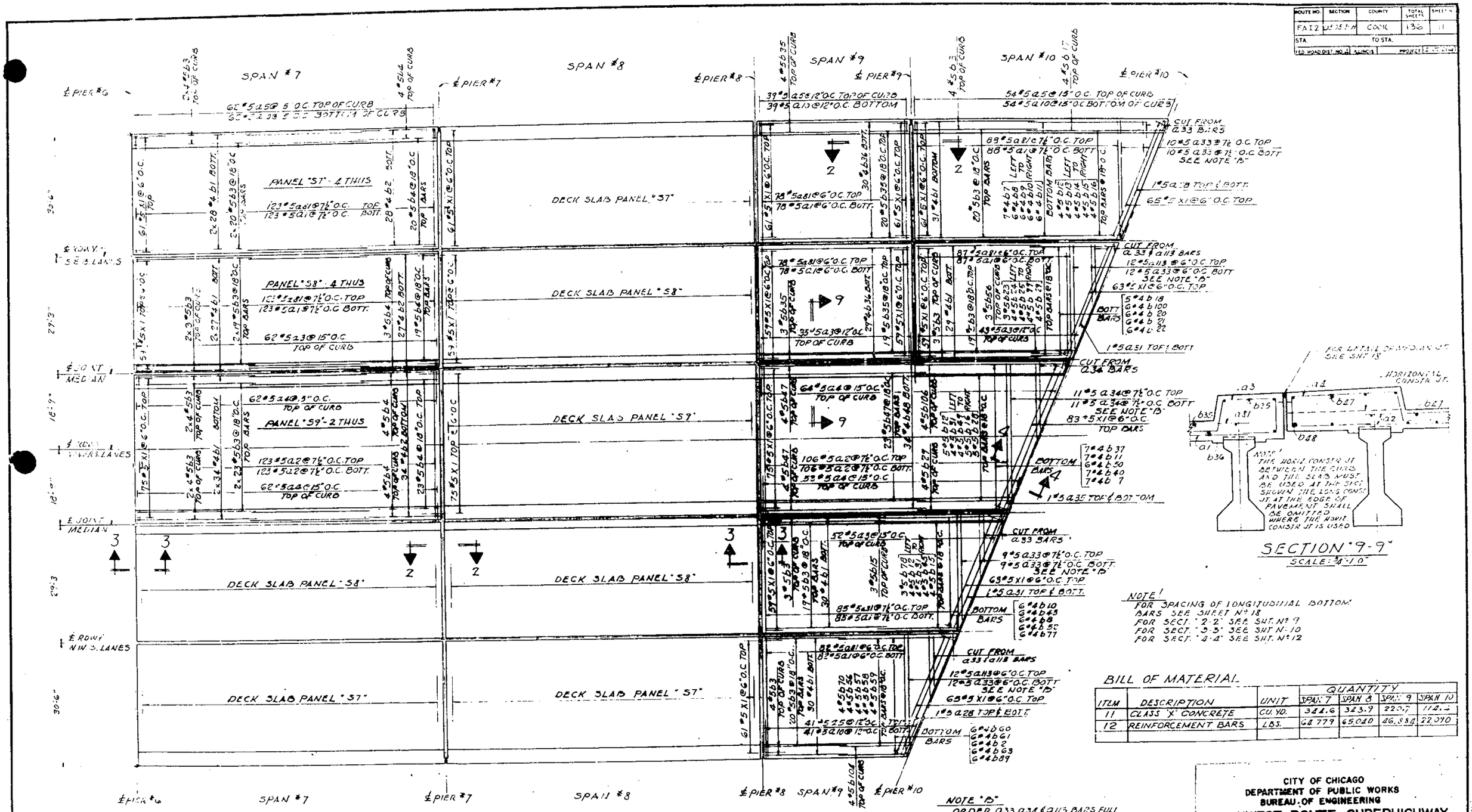
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

DECK REINFORCEMENT PLAN SPANS 4 TO 6

SHEET NO. 10 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	11
STA.	TO STA.			
F.A.I. ROAD DIST. NO. 61 ILLINOIS		PROJECT		



DECK REINFORCEMENT PLAN

SPANS #7 TO 10 INCL.

SCALE: ¾"-1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN 7	SPAN 8	SPAN 9	SPAN 10
11	CLASS "X" CONCRETE	CU. YD.	342.6	343.9	220.7	114.2
12	REINFORCEMENT BARS	LBS.	68 779	65,040	46,884	22,090

SCALE OF TRACING

3/32"-1'-0" 0' 4' 8' 12' 24'

¾"-1'-0" 0' 2' 1' 2' 3'

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BUREAU OF ENGINEERING

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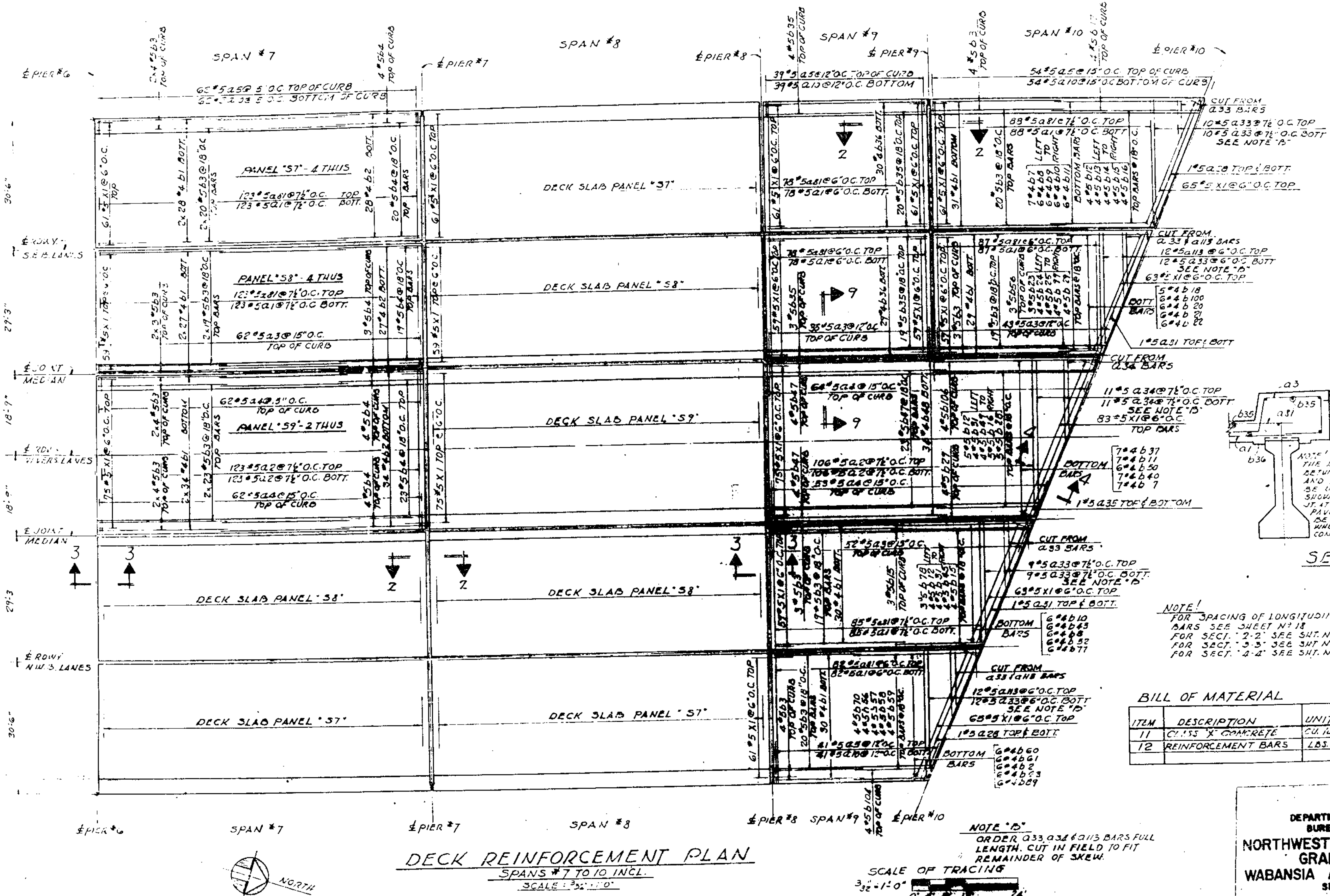
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

DECK REINFORCEMENT PLAN
SPANS 7 TO 10

SHEET NO. 11 OF 136 SHEETS DATE:

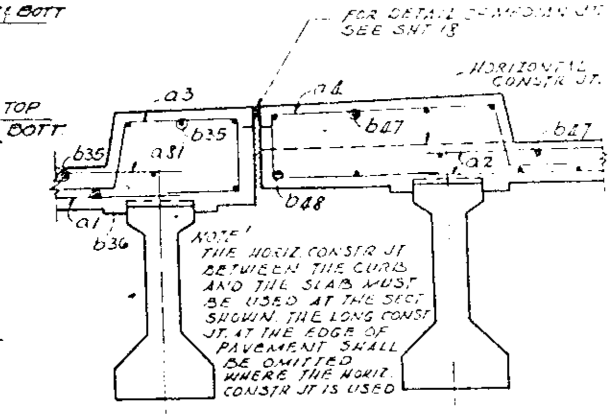
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-H	COOK	136	11



DECK REINFORCEMENT PLAN

SPANS #7 TO 10 INCL.

SCALE: 3/32" = 1'-0"



SECTION "9-9"

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

NOTE!
FOR SPACING OF LONGITUDINAL BOTTOM
BARS SEE SHEET Nº 18
FOR SECT. "2-2" SEE SHT. Nº 9
FOR SECT. "3-3" SEE SHT. Nº 10
FOR SECT. "4-4" SEE SHT. Nº 12

NOTE "B"
ORDER a33, a34 & a113 BARS FULL LENGTH. CUT IN FIELD TO FIT REMAINDER OF SKEW.

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN 7	SPAN 8	SPAN 9	SPAN 10
11	CLASS "X" CONCRETE	CU. YD.	344.6	343.9	220.7	114.4
12	REINFORCEMENT BARS	LBS.	64,779	65,040	46,884	22,090

SCALE OF TRACING
3/32" = 1'-0"
3/4" = 1'-0"

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CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

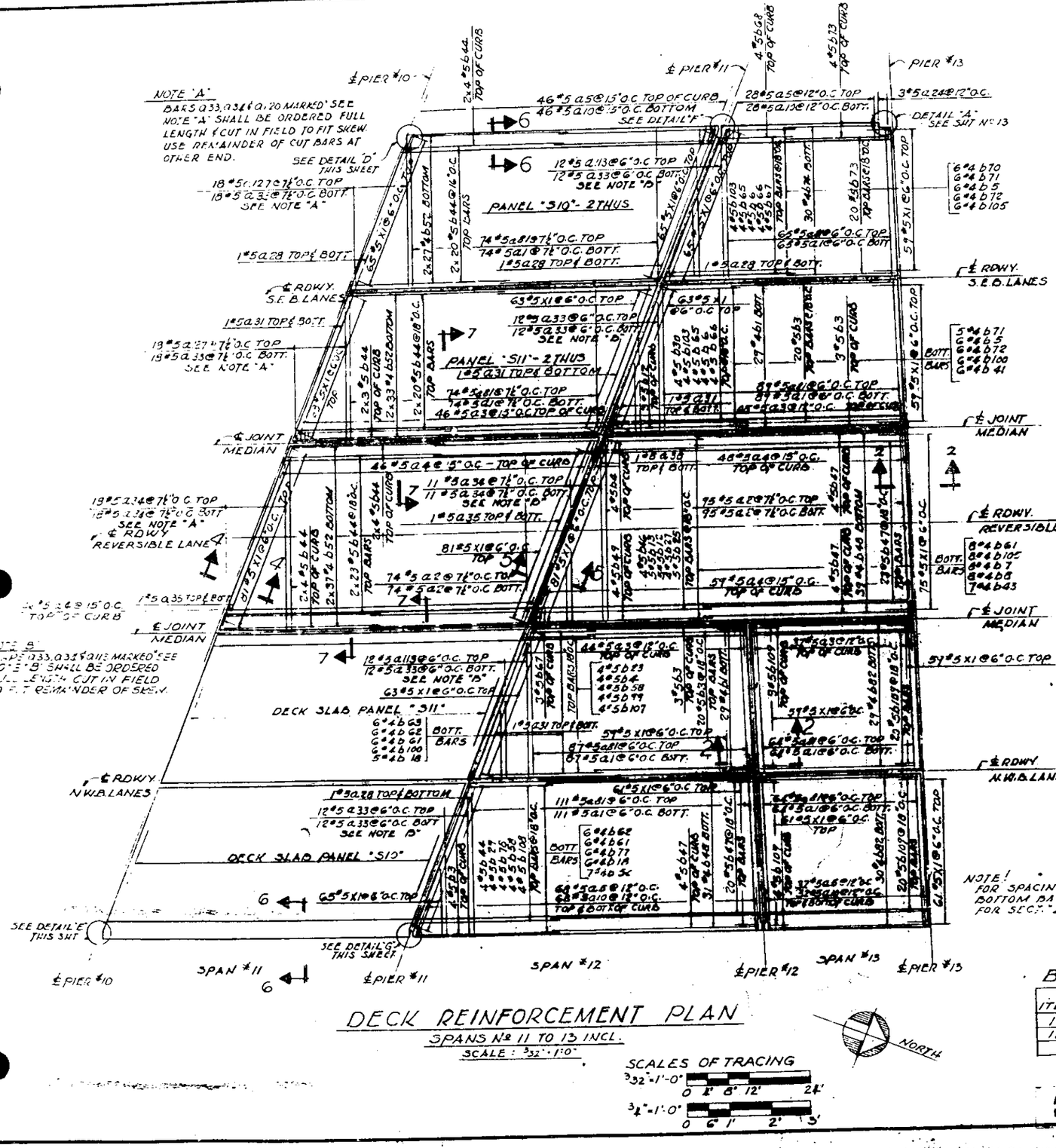
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

DECK REINFORCEMENT PLAN
SPANS 7 TO 10

SHEET NO. 11 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3, M	COOK	136	12
STA.		10 STA.		
FED. ROAD DIST. NO. 1	ILLINOIS		PROJECT	



DECK REINFORCEMENT PLAN

SPANS Nº 11 TO 13 INCL.

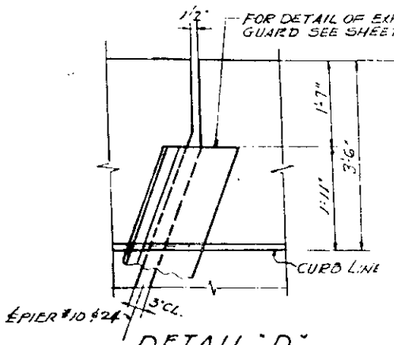
SCALE : 3/32" : 1'-0"

SCALES OF TRACING

3/32"-1'-0" 0 2' 8' 12' 24'

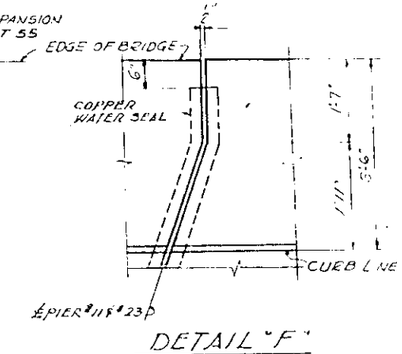
3/4"-1'-0" 0 6" 1' 2' 3'

NOTE!
FOR SPACING OF LONGITUDINAL BOTTOM BARS SEE SHT. Nº 18
FOR SECT. '2-2' SEE SHT. Nº 7



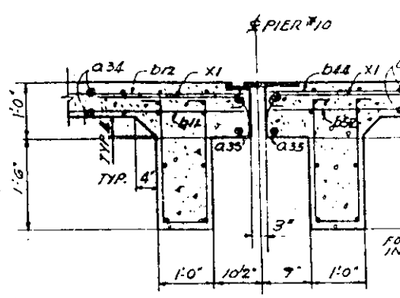
DETAIL 'D'
DETAIL 'E' SIMILAR

SCALE : 3/4" : 1'-0"



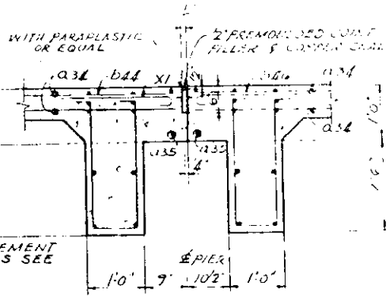
DETAIL 'F'
DETAIL 'G' SIMILAR

SCALE 3/4" : 1'-0"



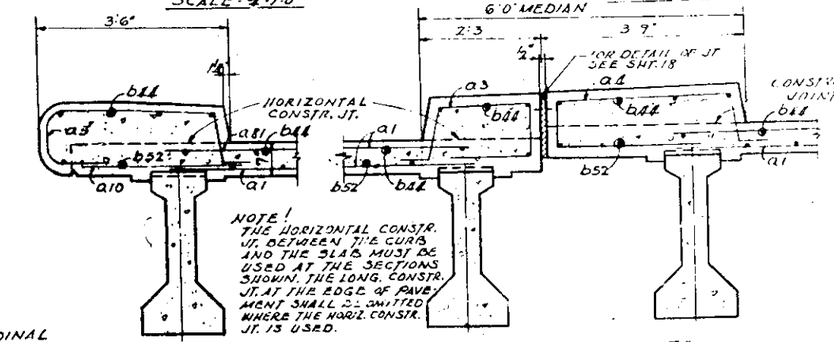
SECTION '4-4'

SCALE : 3/4" : 1'-0"



SECTION '5-5'

SCALE 3/4" : 1'-0"



SECTION '6-6'

SCALE : 3/4" : 1'-0"

SECTION '7-7'

SCALE : 3/4" : 1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #11	SPAN #12	SPAN #13
11	CLASS X CONCRETE	CU. YD.	259.3	245.7	54.8
12	REINFORCEMENT BARS	LBS.	49,961	53,881	12,761

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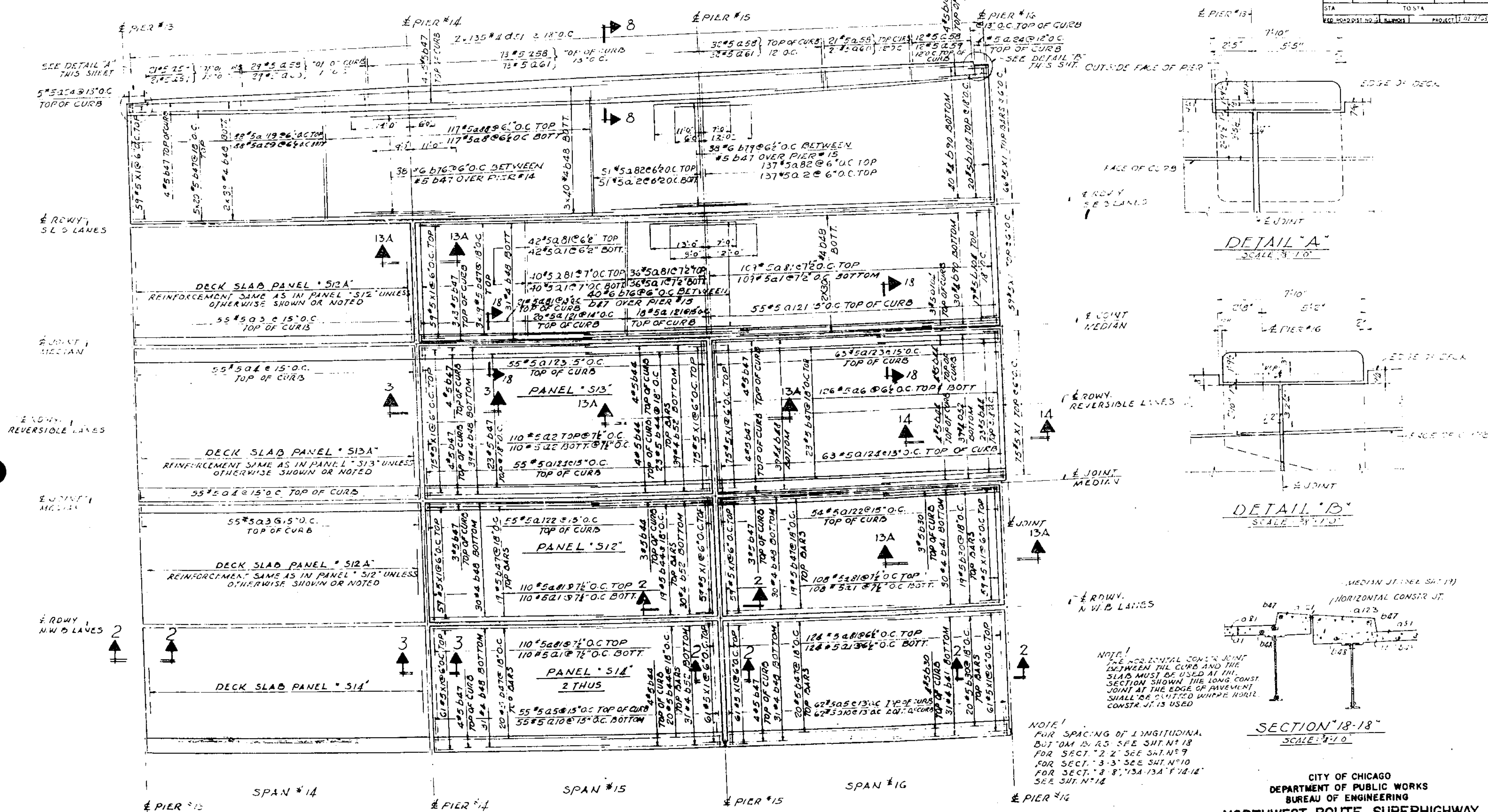
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1-H

DECK REINFORCEMENT PLAN
SPANS 11 TO 13

SHEET NO. 12 OF 136 SHEETS DATE:



NOTE!
FOR SPACING OF LONGITUDINAL BOTTOM BARS SEE SHT. Nº 18
FOR SECT. "2-2" SEE SHT. Nº 9
FOR SECT. "3-3" SEE SHT. Nº 10
FOR SECT. "8-8", "13A-13A" & "14-14" SEE SHT. Nº 14

DECK REINFORCEMENT PLAN

SPANS Nº 14 TO 16 INCL.

SCALE: 3/32"=1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY		
			SPAN #14	SPAN #15	SPAN #16
11	CLASS "X" CONCRETE	CU.YD.	305.8	305.0	288.5
12	REINFORCEMENT BARS	LBS.	61,842	62,370	62,044

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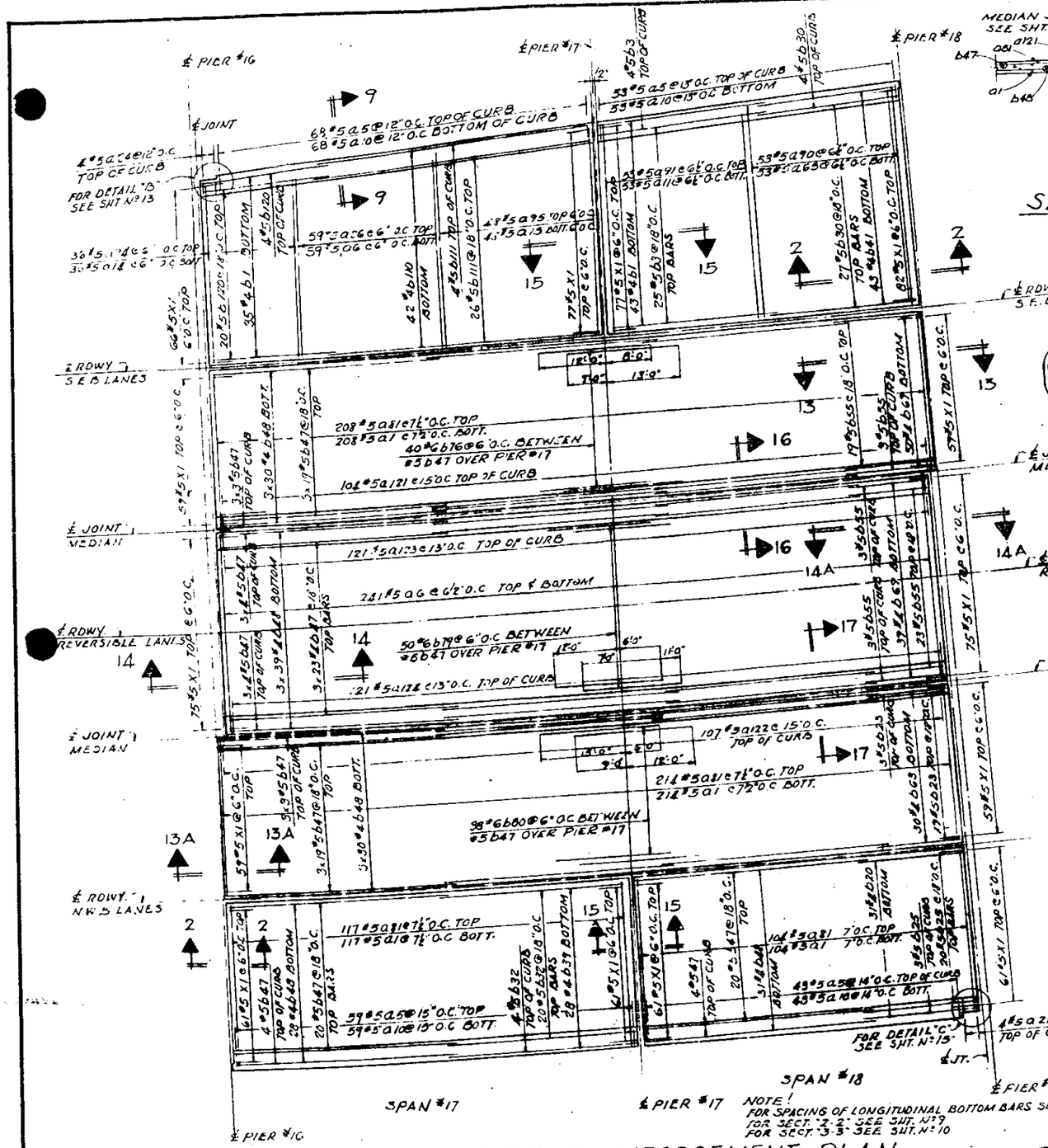
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

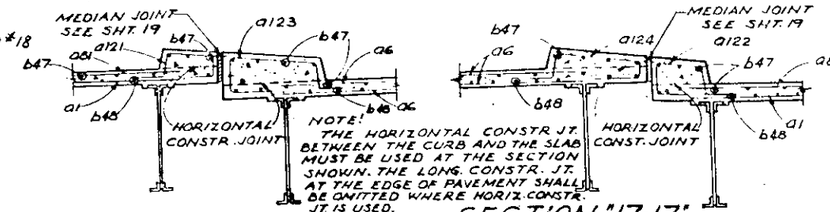
DECK REINFORCEMENT PLAN
SPANS 14 TO 16

SHEET NO. 13 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3 I-H	COOK	136	14
STA.	TO STA			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	1 02 2(4)	

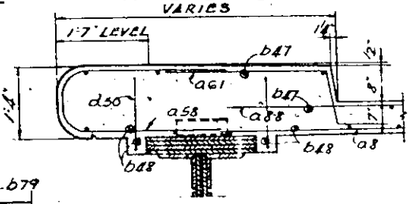


DECK REINFORCEMENT PLAN
SPANS Nº 17 & 18
SCALE: 3/32"=1'-0"

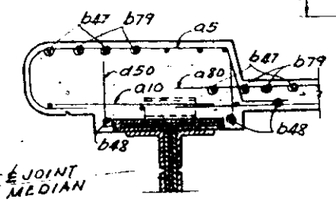


SECTION "16-16"
SCALE: 3/8"=1'-0"

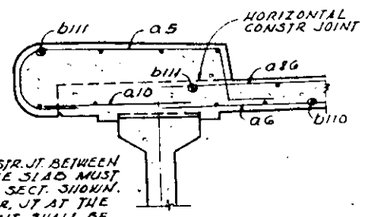
SECTION "17-17"
SCALE: 3/8"-1'-0" VARIES



SECTION "8-8"
SCALE: 3/4"=1'-0"

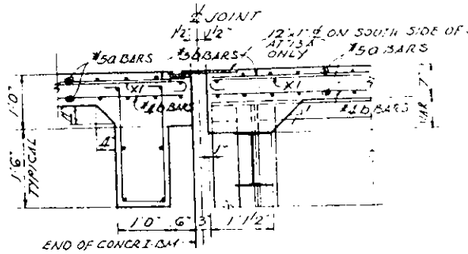


SECTION "8A-8A"
SCALE: 3/4"=1'-0"

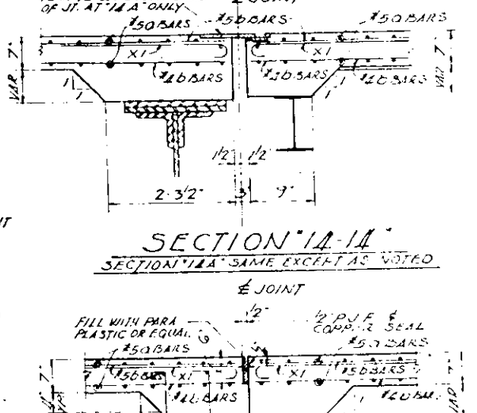


NOTE!
THE HORIZ. CONSTR. JT. BETWEEN THE CURB AND THE SLAB MUST BE USED AT THE SECT. SHOWN. THE LONG. CONSTR. JT AT THE EDGE OF PAVEMENT SHALL BE OMITTED WHERE THE HORIZ. CONSTR. JT. IS USED.

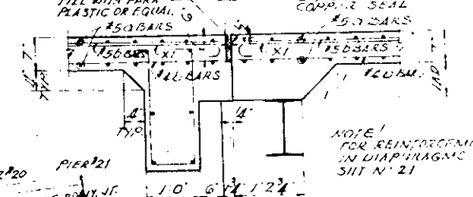
SECTION "9-9"
SCALE: 3/4"=1'-0"



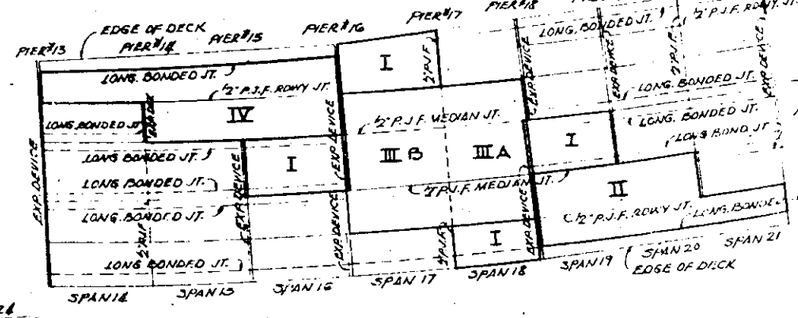
SECTION "13-13"
SECTION "13A" SAME EXCEPT AS NOTED



SECTION "14-14"
SECTION "14A" SAME EXCEPT AS NOTED



SECTION "15-15"
SCALE: 3/4"=1'-0"



PLAN OF POURING SCHEDULE
1"=50'-0"

NOTE!
CONCRETE IN AREAS DESIGNATED AS UNIT I SHALL BE PLACED BEFORE PLACING CONCRETE IN UNITS II, III, OR IV. CONCRETE IN UNITS II, III A, III B & IV SHALL BE PLACED SIMULTANEOUSLY. CONCRETE IN UNITS II, III A, III B & IV SHALL BE PLACED IN SUCH A MANNER AND AT SUCH A RATE THAT WHEN THE ENTIRE CONCRETE IN EACH UNIT HAS BEEN PLACED THE CONCRETE IN THE PREVIOUSLY PLACED UNIT IS STILL PLASTIC THUS IF THE UNITS ARE COMPLETED IN A MANNER AS ORDERED THE CONCRETE IN UNIT II MUST REMAIN PLASTIC UNTIL THE CONCRETE IN UNIT III A HAS BEEN PLACED; THE CONCRETE IN UNIT III A MUST REMAIN PLASTIC UNTIL THE CONCRETE IN UNIT III B HAS BEEN PLACED AND THE CONCRETE IN UNIT III B MUST REMAIN PLASTIC UNTIL THE CONCRETE IN UNIT IV HAS BEEN PLACED.

SCALES OF TRACING
3/8"=1'-0" 0 6" 1' 2' 3'
3/32"=1'-0" 0 4' 8' 12' 24'

NORTH

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #17	QUANTITY SPAN #18
11	CLASS "X" CONCRETE	CU YD	308.9	254.4
12	REINFORCEMENT BARS	LBS.	68,442	54,943

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10 SOUTH WABASH AVE.
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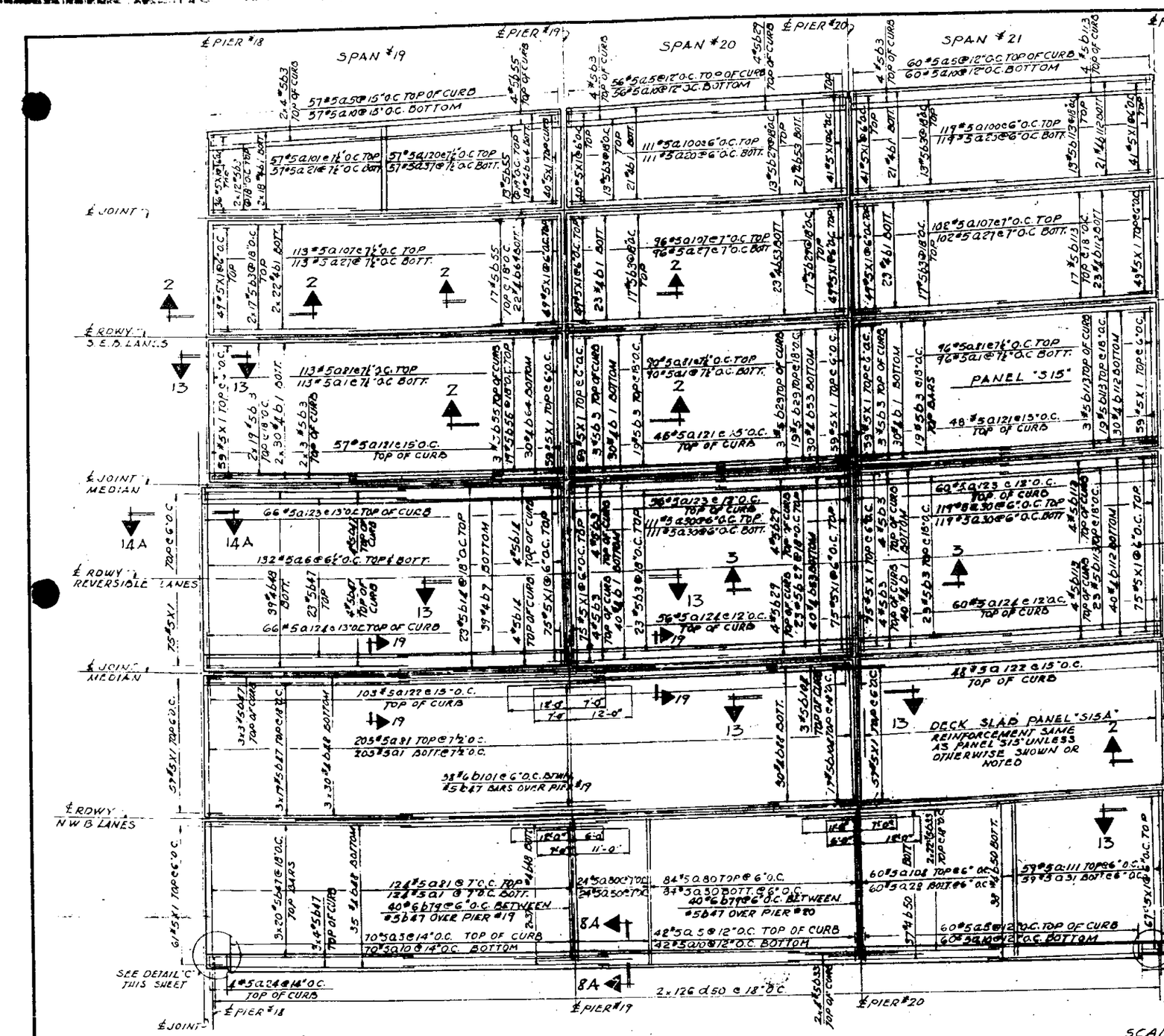
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1 H

DECK REINFORCEMENT PLAN
SPANS 17 & 18

SHEET NO. 14 OF 136 SHEETS DATE:

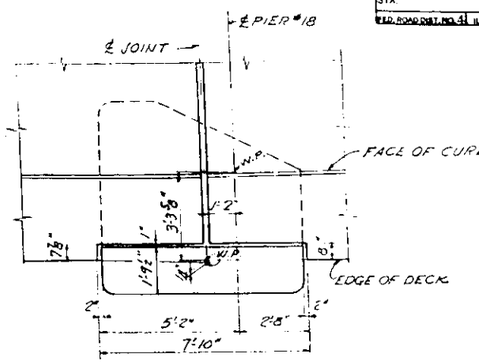
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA12	0505.3H	COOK	136	15
STA.	TO STA			
FED. ROAD DIST. NO. 9	ILLINOIS	PROJECT	I 02 2(43)	



DECK REINFORCEMENT PLAN

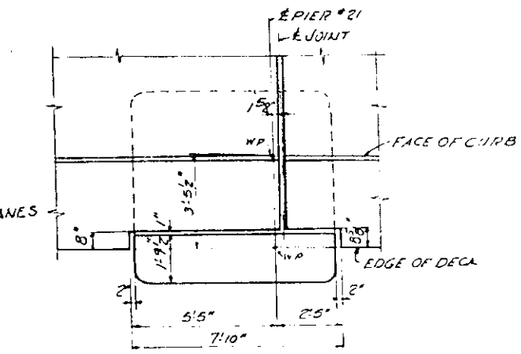
SPANS № 19 TO 21 INCL.

SCALE: 3/32" 1'-0"



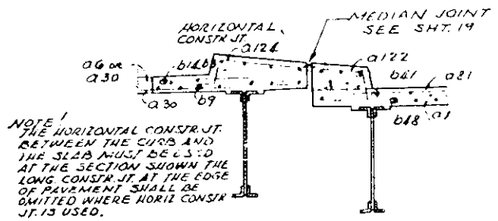
DETAIL "C"

SCALE: 3/8" 1'-0"



DETAIL "D"

SCALE: 3/8" 1'-0"



SECTION "19-19"

SCALE: 3/8" 1'-0"

NOTE! FOR SPACING OF LONGITUDINAL BOTTOM BARS SEE SHT. № 18 FOR SECT. "2-2" SEE SHT. № 9 FOR SECT. "3-3" SEE SHT. № 10 FOR SECT. "13-13" "14A-14A" "8A-8A" SEE SHT № 14

NOTE! THE HORIZONTAL CONSTR. JT. BETWEEN THE CURB AND THE SLAB WHICH OCCURS AT THE SECTION SHOWN THE LONG. CONSTR. JT. AT THE EDGE OF PAVEMENT SHALL BE OMITTED WHERE HORIZ. CONSTR JT. 13 USED.

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #19	SPAN #20	SPAN #21
11	CLASS "X" CONCRETE	C.U.YD	316.1	267.9	300.3
12	REINFORCEMENT BARS	LBS.	69,136	56,702	63,140

SCALES OF TRACING

3/32" = 1'-0" 0 4 8 16 24'

NORTH 3/8" = 1'-0" 0 1' 2' 3' 6'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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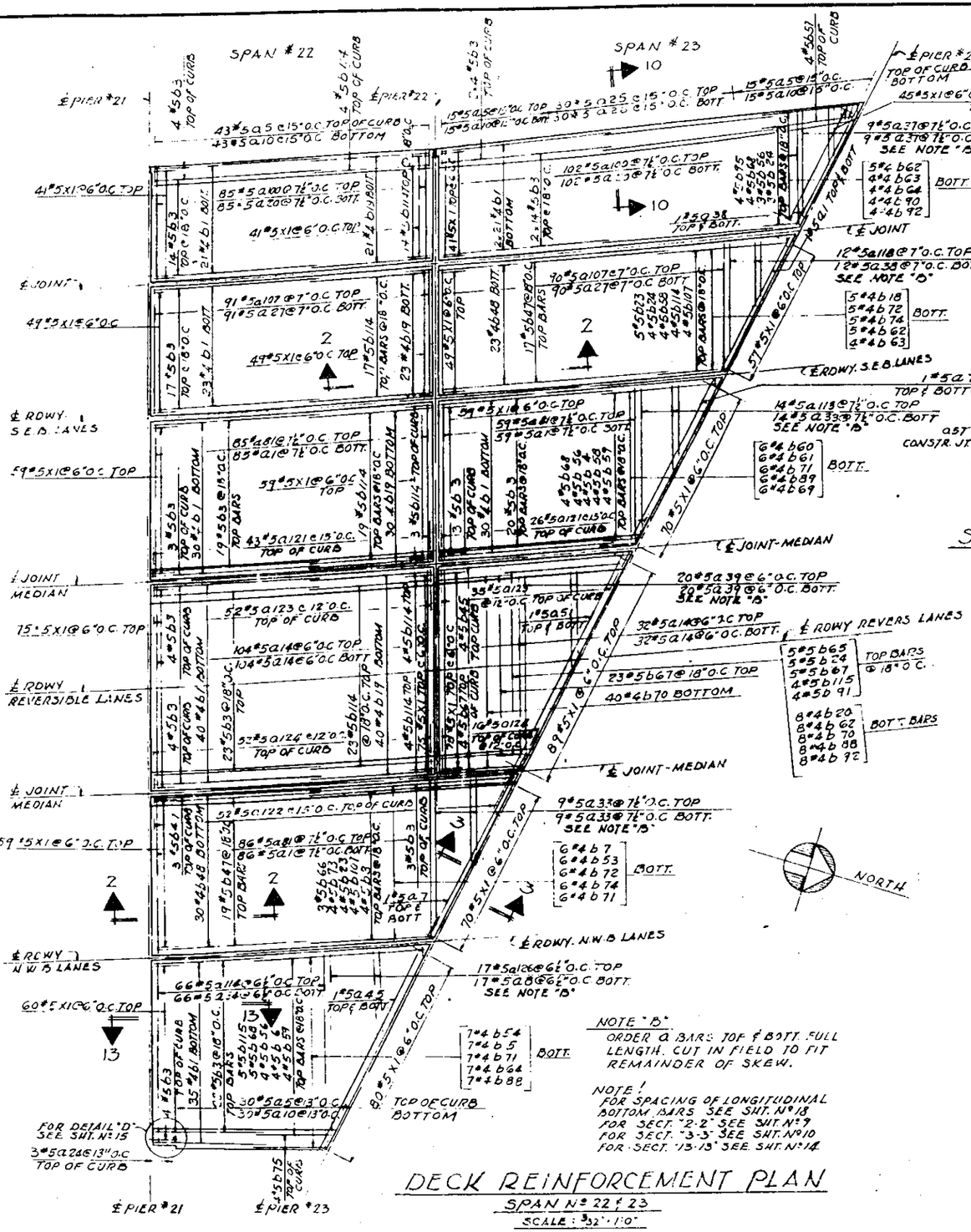
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

DECK REINFORCEMENT PLAN
SPANS 19 TO 21

SHEET NO. 15 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3 H	COOK	136	16
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I 90 2(65)	



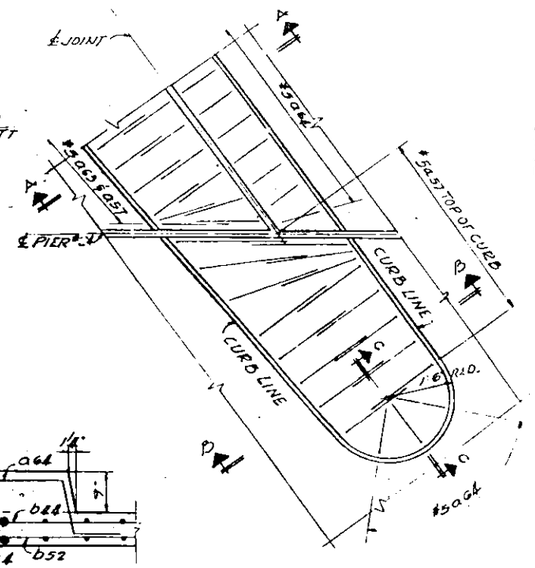
DECK REINFORCEMENT PLAN

SPAN N° 22 & 23

SCALE : 3/32" = 1'-0"

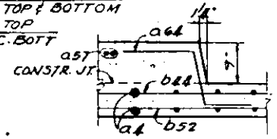
NOTE "B"
ORDER a BARS TOP & BOTT. FULL LENGTH. CUT IN FIELD TO FIT REMAINDER OF SKEW.

NOTE !
FOR SPACING OF LONGITUDINAL BOTTOM BARS SEE SHT. N° 18
FOR SECT. "2-2" SEE SHT. N° 7
FOR SECT. "3-3" SEE SHT. N° 10
FOR SECT. "13-13" SEE SHT. N° 14



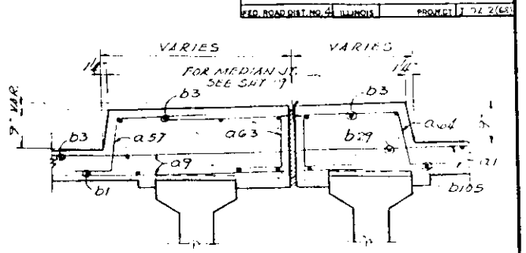
DETAIL "A"

SCALE : 2"-1'-0"



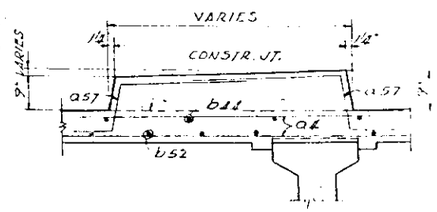
SECTION "C-C"

SCALE : 1"-1'-0"



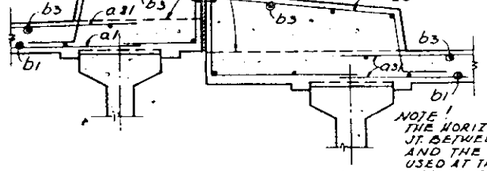
SECTION "A-A"

SCALE : 3/4"-1'-0"



SECTION "B-B"

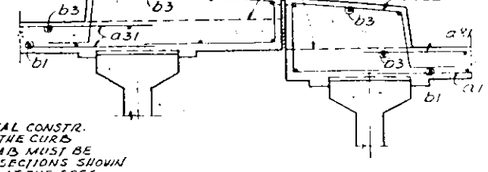
SCALE : 3/4"-1'-0"



SECTION "11-11"

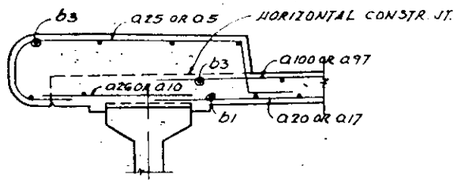
SCALE : 3/4"-1'-0"

NOTE !
THE HORIZONTAL CONSTR. JT. BETWEEN THE CURB AND THE SLAB MUST BE USED AT THE SECTIONS SHOWN. THE LONG. JT. AT THE EDGE OF PAVEMENT SHALL BE OMITTED WHERE THE HORIZ. CONSTR. JT. IS USED



SECTION "12-12"

SCALE : 3/4"-1'-0"



SECTION "10-10"

SCALE : 3/4"-1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #22	QUANTITY SPAN #23
11	GLASS "X" CONCRETE	CU. YD.	248.7	169.1
12	REINFORCEMENT BARS	LBS.	57 833	32 963

SCALES OF TRACING

1/2" = 1'-0" (0, 1', 2', 3', 5')

3/32" = 1'-0" (0, 4', 8', 12', 24')

3/4" = 1'-0" (0, 6", 1', 2', 3')

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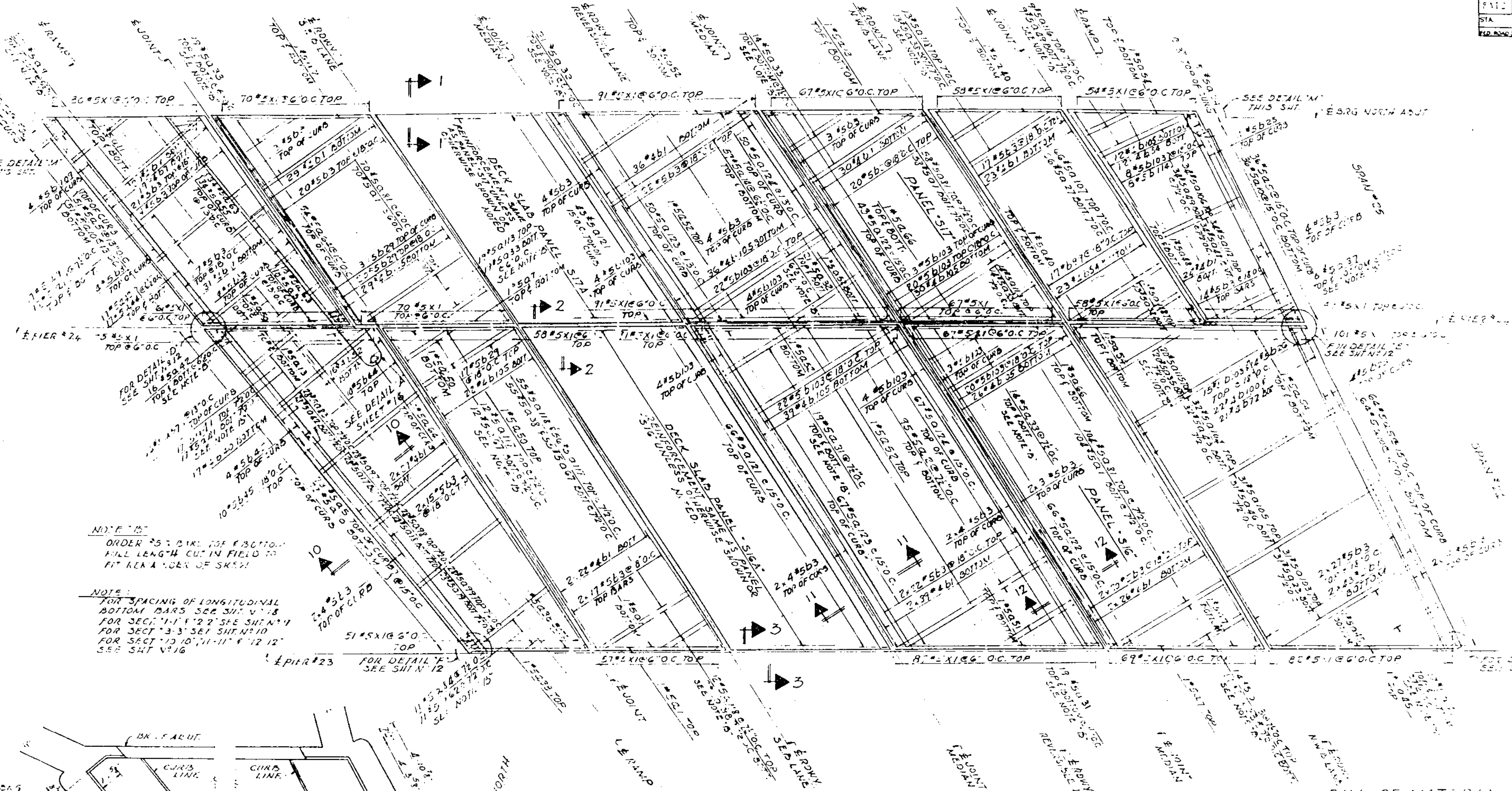
SECTION 0505.3-1-H

DECK REINFORCEMENT PLAN
SPANS 22 & 23

SHEET NO. 16 OF 136 SHEETS DATE:



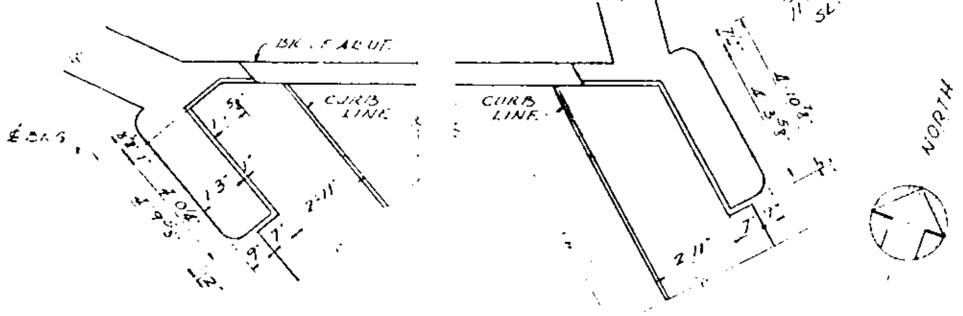
NOTE "B"
ORDER #5 BARS TOP & BOTTOM FULL LENGTH CUT IN FIELD TO FIT REMAINDER OF SKEW

NOTE:
FOR SPACING OF LONGITUDINAL BOTTOM BARS SEE SHT. Nº 18
FOR SECT. "1-1" & "2-2" SEE SHT. Nº 9
FOR SECT. "3-3" SEE SHT. Nº 10
FOR SECT. "10-10", "11-11" & "12-12" SEE SHT. Nº 16

DECK REINFORCEMENT PLAN

SPANS Nº 24 & 25

SCALE 3/32" = 1'-0"



DETAIL "M"

SCALE 3/8" = 1'-0"

SCALES OF TRACINGS

3/8" = 1'-0" 0 1' 2' 3' 6'

3/32" = 1'-0" 0 4' 8' 12' 24'

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	[illegible]	
11	CLASS "X" CONCRETE	CU. YD.	[illegible]	[illegible]
12	REINFORCEMENT BARS	LBS.	[illegible]	[illegible]

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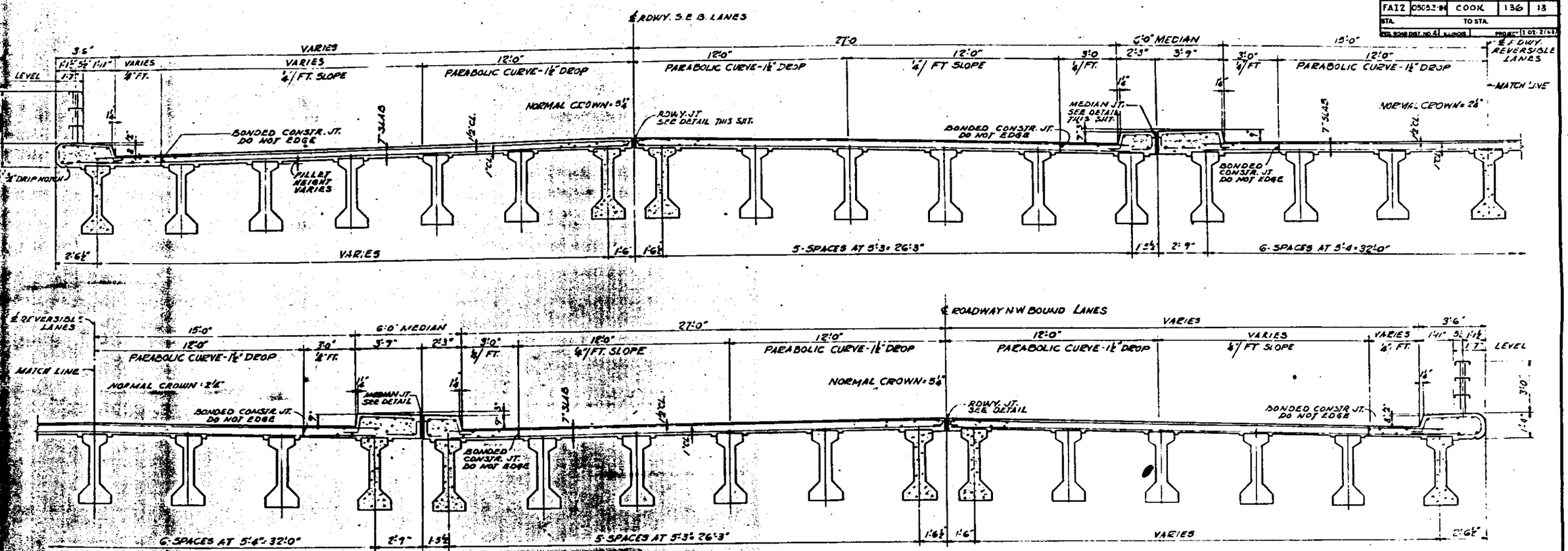
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

DECK REINFORCEMENT PLAN
SPANS 24 & 25

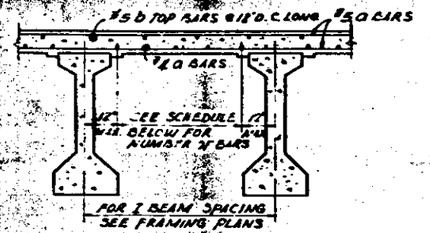
SHEET NO. 17 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0508.2-IH	COOK	136	18
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I 02-2(43)	



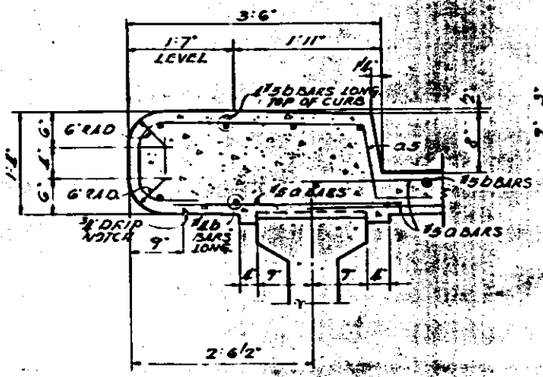
TYPICAL SECTION ON TANGENT

SCALE: ¾"=1'-0"



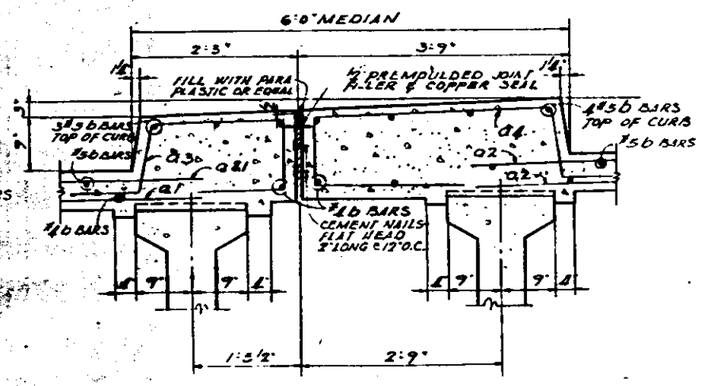
TYPICAL DETAIL OF SLAB

LONGITUDINAL BOTTOM BAR SCHEDULE	
I-BEAM SPACING	NO OF LONG. BARS @ 10" CTES
4'-4" TO 4'-6"	4
4'-7" TO 5'-4"	5
5'-5" TO 6'-2"	6
6'-3" TO 7'-0"	7
7'-1" TO 7'-10"	8
7'-11" TO 8'-6"	9



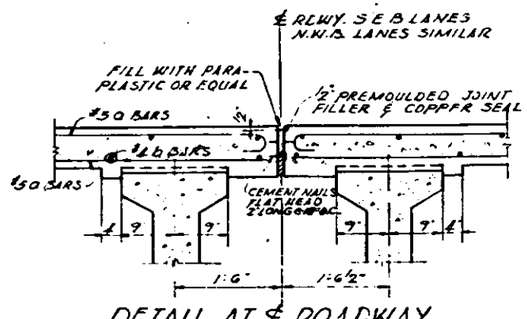
TYPICAL CURB DETAIL

SCALE: 1"=1'-0"



DETAIL OF MEDIAN ON TANGENT

SCALE: 1"=1'-0"



DETAIL AT ℄ ROADWAY

SCALE: 1"=1'-0"

SCALES OF TRACING

¾"=1'-0" 0 6" 1' 2' 4' 6' 8'

1"=1'-0" 0 3" 6" 9" 1' 2' 3'

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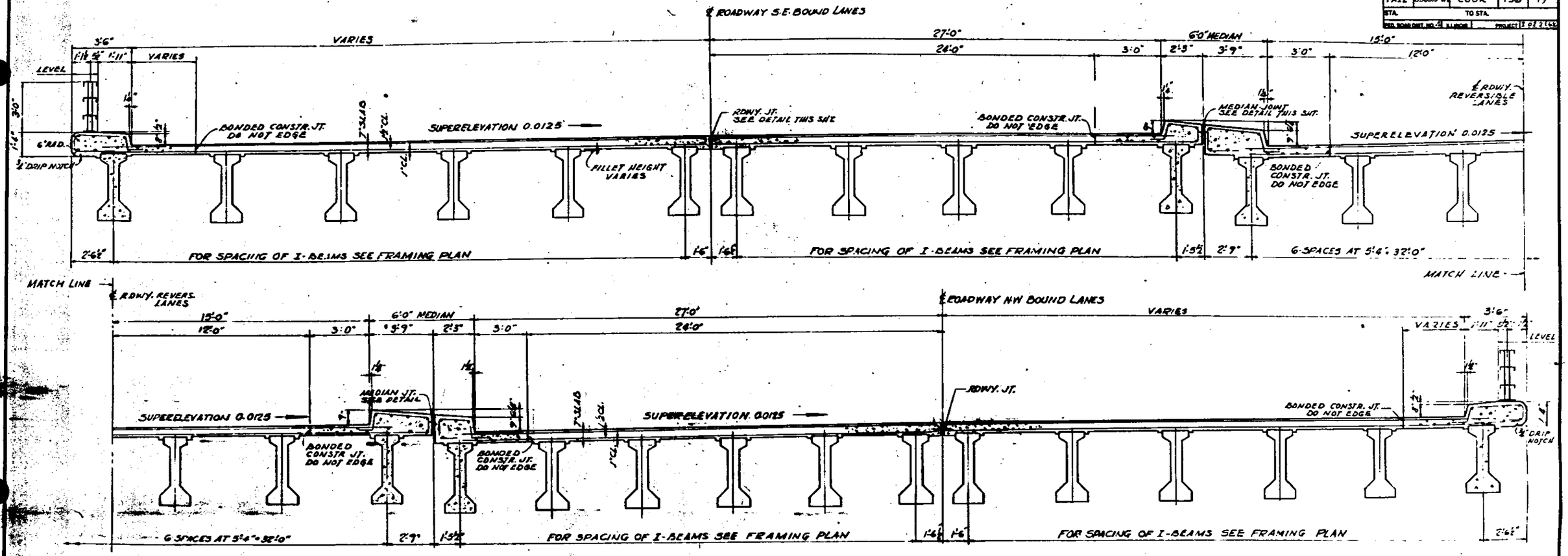
SECTION 0508.3-IH

TYPICAL CROSS SECTIONS

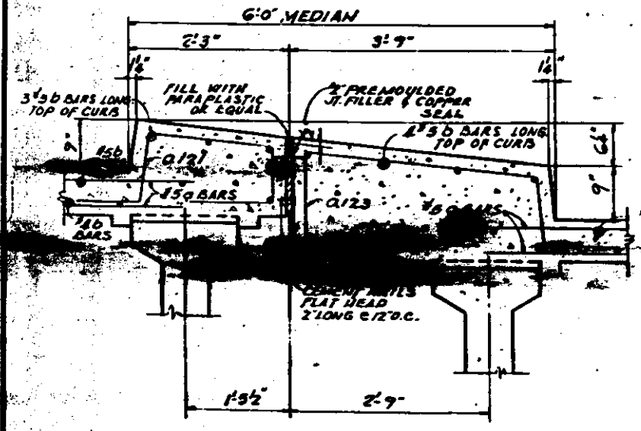
SHEET NO. 18 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0606.3-1H	COOK	136	19
STA.		TO STA.		



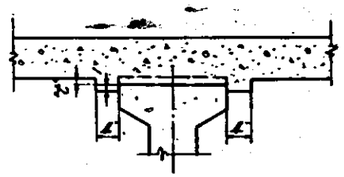
TYPICAL SECTION ON CURVE

SCALE: 3/8"-1'-0"



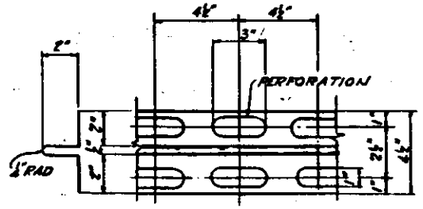
DETAIL AT WEST MEDIAN ON CURVE

SCALE: 1" = 1'-0"



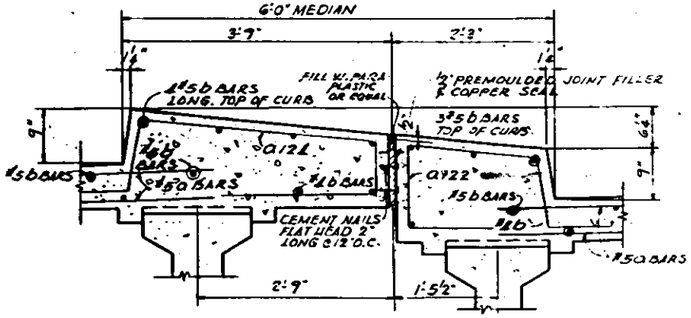
STANDARD FILLET DETAIL

AFTER ALL PRECAST PRESTRESSED BEAMS HAVE BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT INTERVALS NOT TO EXCEED 10FT. FROM THESE ELEVATIONS SUBTRACT THE INCREMENT OF DEFLECTIONS FOR THESE POINTS, DETERMINED FROM THE D.L. DEFLECTIONS DIAGRAM. THE ELEVATIONS SO ATTAINED SUBTRACTED ALGEBRAICALLY FROM THE THEORETICAL GRADE ELEVATIONS MINUS THE THICKNESS OF THE SLAB EQUAL THE DIMENSION "E". A POSITIVE VALUE OF "E" EQUALS THE FILLET HEIGHT ABOVE THE TOP OF THE BEAM. A NEGATIVE VALUE OF "E" EQUALS THE IMBEDMENT OF THE BEAM ABOVE THE THEORETICAL BOTTOM OF SLAB ELEVATION



DETAIL OF COPPER WATERSEAL

SCALE: 3" = 1'-0"



DETAIL AT EAST MEDIAN ON CURVE

SCALE: 1" = 1'-0"

SCALES OF TRACING

3/8" = 1'-0"

1" = 1'-0"

3" = 1'-0"

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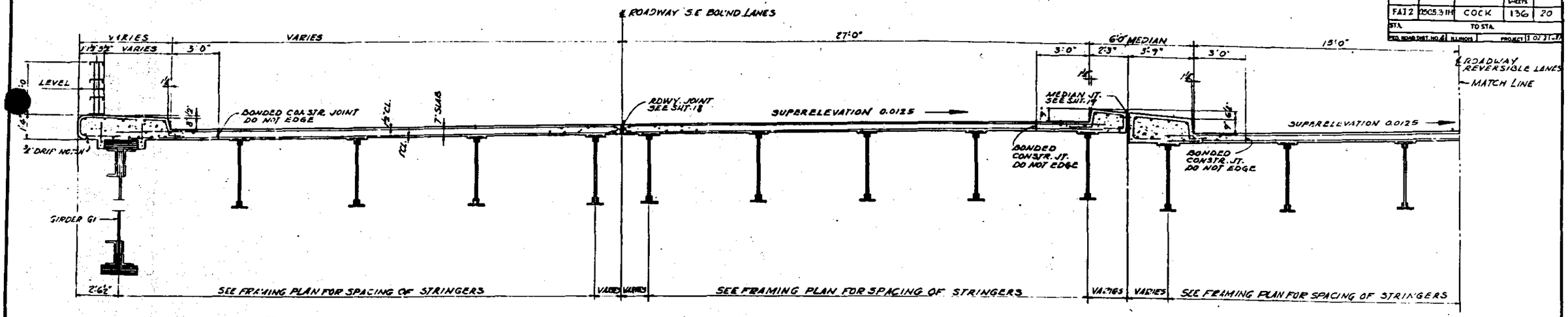
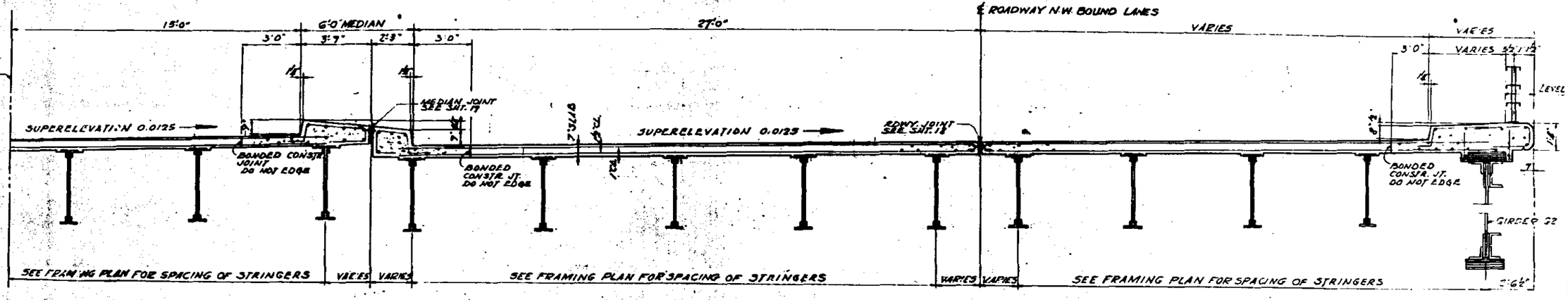
SECTION 0606.3-1H

TYPICAL CROSS SECTIONS

SHEET NO. 19 OF 136 SHEETS DATE:

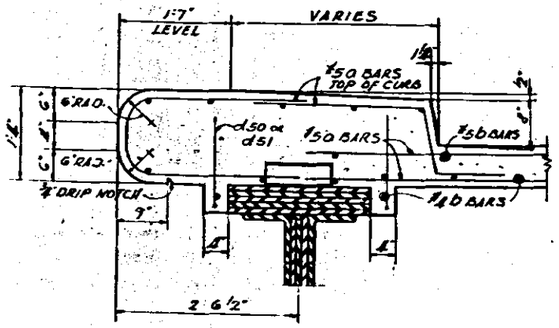
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3 IH	COOK	136	20
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		





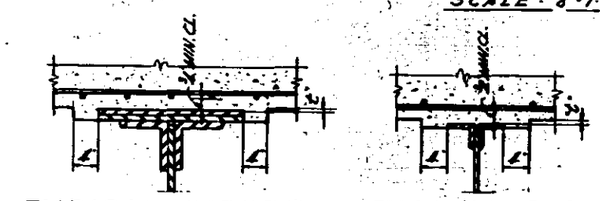
TYPICAL SECTION OVER ASHLAND AVE.

SCALE: ⅜"-1'-0"



TYPICAL CURB DETAIL

SCALE: 1"-1'-0"



TYPICAL GIRDER TYPICAL STRINGER

METHOD OF DETERMINING FILLET HEIGHTS "E"

AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT INTERVALS NOT TO EXCEED 10 FEET. FROM THESE ELEVATIONS SUBTRACT THE INCREMENT OF DEFLECTION FOR THESE POINTS DETERMINED FROM THE D.L. DEFLECTION DIAGRAMS. THE ELEVATIONS SO ATTAINED, SUBTRACTED FROM THE THEORETICAL GRADE ELEVATIONS MINUS FLOOR THICKNESS, EQUAL THE FILLET HEIGHTS "E" ABOVE TOP OF BEAM.

SCALES OF TRACING

⅜"=1'-0" 0 1 2 3 6'

1½"=1'-0" 0 3' 6' 1' 1' 2'

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10 SOUTH WACKER DRIVE
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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SECTION 0505.3-IH

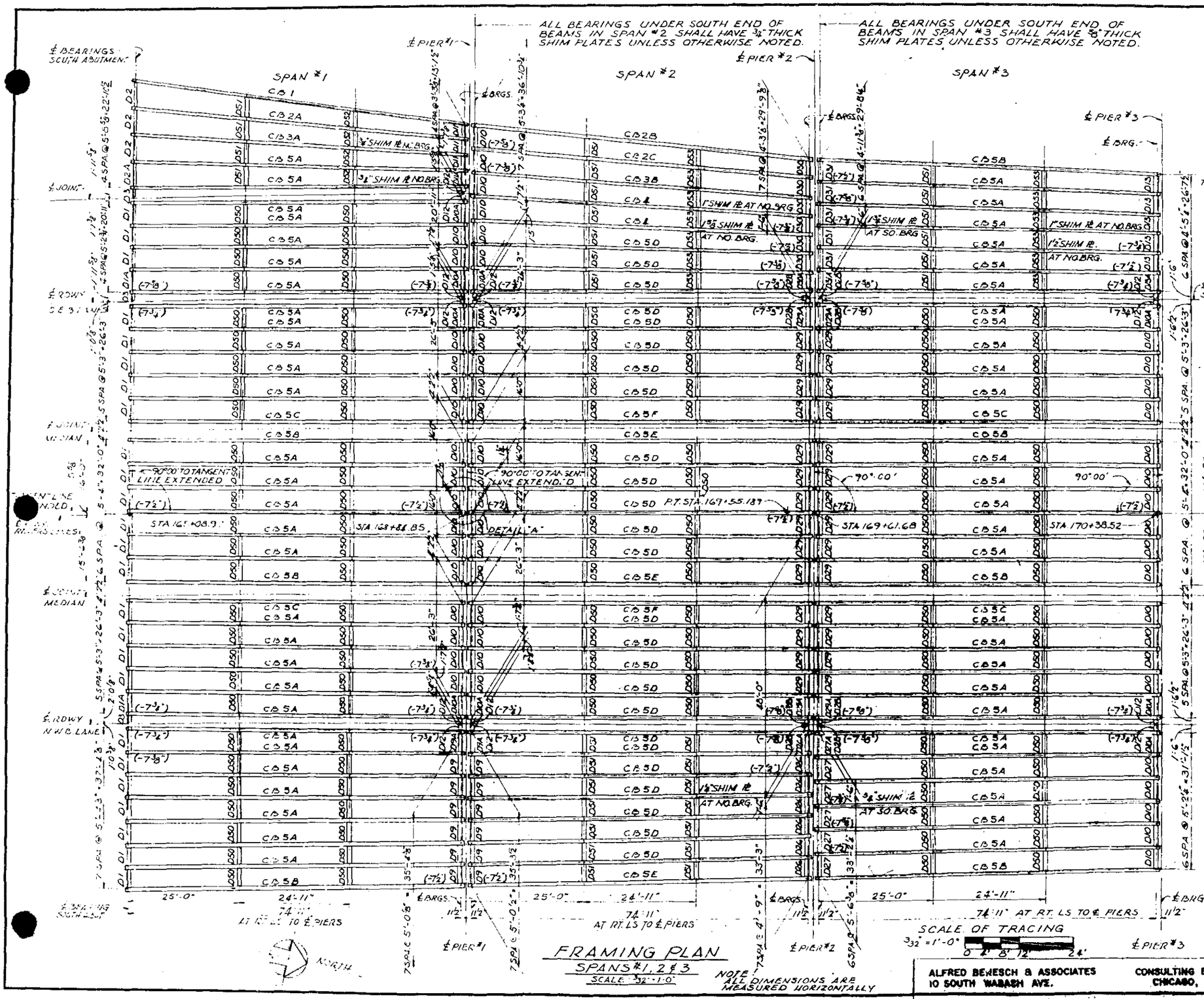
TYPICAL CROSS SECTIONS

SHEET NO. 20 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0606.3-1H	COOK	136	22
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		

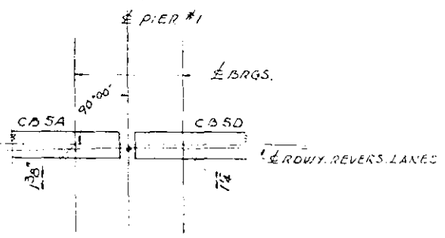
ALL BEARINGS UNDER SOUTH END OF BEAMS IN SPAN #2 SHALL HAVE 3/8" THICK SHIM PLATES UNLESS OTHERWISE NOTED.

ALL BEARINGS UNDER SOUTH END OF BEAMS IN SPAN #3 SHALL HAVE 5/8" THICK SHIM PLATES UNLESS OTHERWISE NOTED.



FRAMING PLAN
SPANS #1, 2 & 3
SCALE 3/32" = 1'-0"

NOTE! ALL DIMENSIONS ARE MEASURED HORIZONTALLY

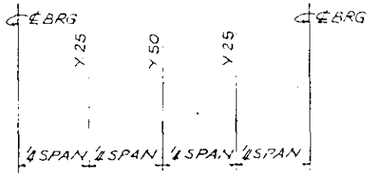


DETAIL "A"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #1	SPAN #2	SPAN #3
1	48" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN. FT.	2834.7	2681.4	2527.2

NOTE!
FIGURES IN BRACKETS (-7'2") INDICATE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT ℄ OF BEARING.
TOPS OF ALL OTHER BEAMS SHALL BE 7¼" BELOW TOP OF SLAB AT ℄ OF BEARINGS UNLESS OTHERWISE NOTED.
FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 36



D.L. DEFLECTION DIAGRAM
WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSIONS

BEAM MARK	Y DIMENSION Y 25	Y 50	BEAM MARK	Y DIMENSION Y 25	Y 50
CB2A, CB3A, CB4, CB3B	5/16	3/8	CB1, CB2B	5/8	7/8
CB3A, CB5D, CB2C	5/16	3/8	CB5B, CB5E	5/8	7/8
CB5C, CB5F	7/16	5/8			

SCALE OF TRACING
3/32" = 1'-0"
0 4' 8' 12' 24'

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10 SOUTH WABASH AVE.
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SECTION 0606.3-1H

FRAMING PLAN
SPANS 1, 2 & 3

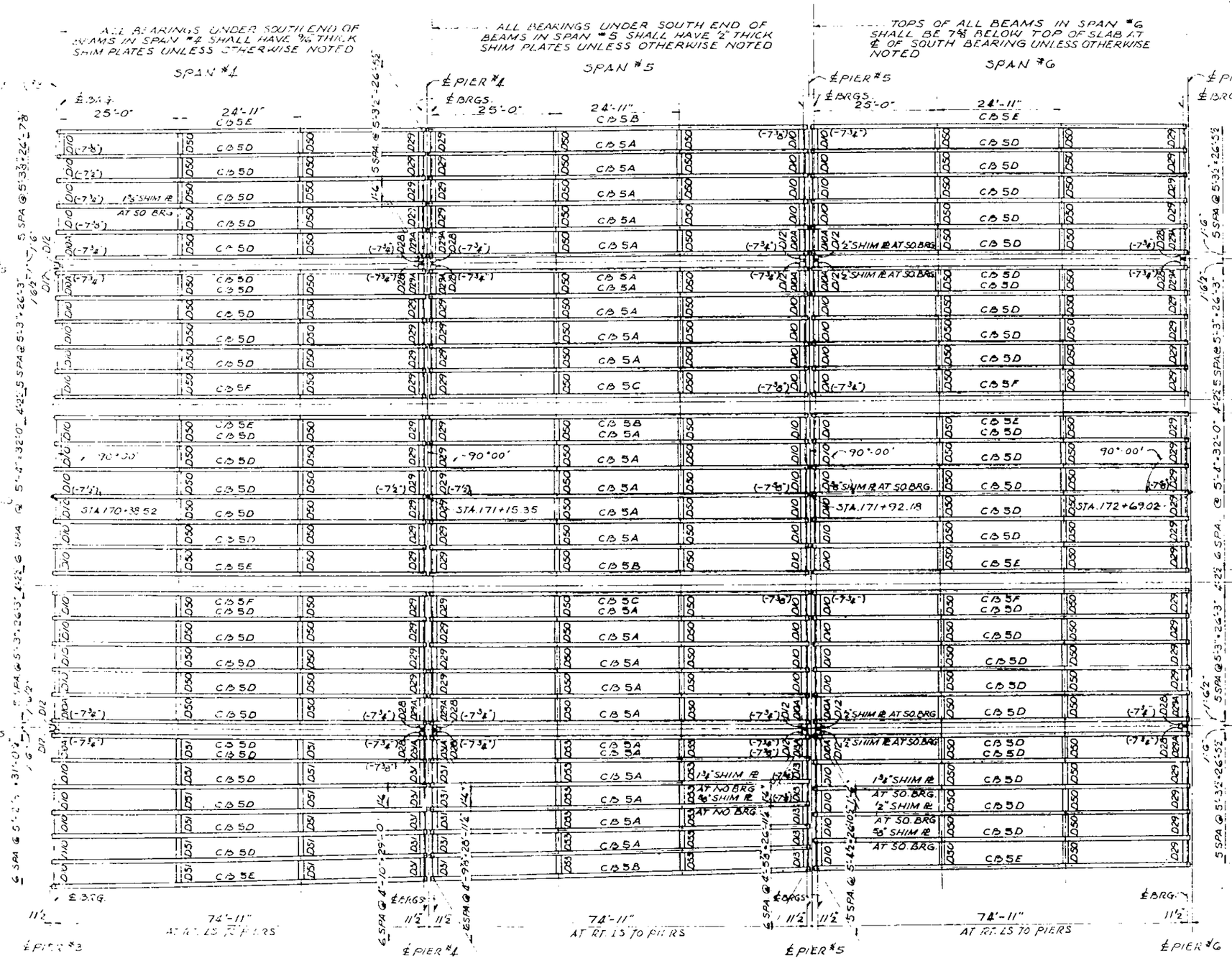
SHEET NO. 22 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3 IH	COOK	136	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT NO.		

ALL BEARINGS UNDER SOUTH END OF BEAMS IN SPAN #4 SHALL HAVE ⅝" THICK SHIM PLATES UNLESS OTHERWISE NOTED

ALL BEARINGS UNDER SOUTH END OF BEAMS IN SPAN #5 SHALL HAVE ½" THICK SHIM PLATES UNLESS OTHERWISE NOTED

TOPS OF ALL BEAMS IN SPAN #6 SHALL BE 7⅝" BELOW TOP OF SLAB AT ℄ OF SOUTH BEARING UNLESS OTHERWISE NOTED



FRAMING PLAN
SPANS #4, 5 & 6
SCALE: 3/32"=1'-0"

NOTE!
ALL DIMENSIONS ARE MEASURED HORIZONTALLY

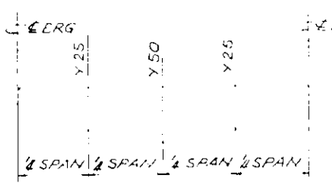
SCALE OF TRACING
3/32" = 1'-0"
0 4' 8' 12' 24'

NORTH

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #4	SPAN #5	SPAN #6
18	48" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN FT	2450.7	2450.7	2374.1

NOTE!
FIGURES IN BRACKETS (-7¼") INDICATE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT ℄ OF BEARING.
TOPS OF ALL OTHER BEAMS SHALL BE 7¼" BELOW TOP OF SLAB AT ℄ OF BEARINGS UNLESS OTHERWISE NOTED.
FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 36.



D.L. DEFLECTION DIAGRAM
WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSIONS

BEAM MARK	"Y" DIMENSION Y 25	Y 50	BEAM MARK	"Y" DIMENSION Y 25	Y 50
CB 5A, CB 5D	5/16	3/8	CB 5B, CB 5E	5/8	7/8
CB 5C, CB 5F	7/16	5/8			

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10 SOUTH WABASH AVE.
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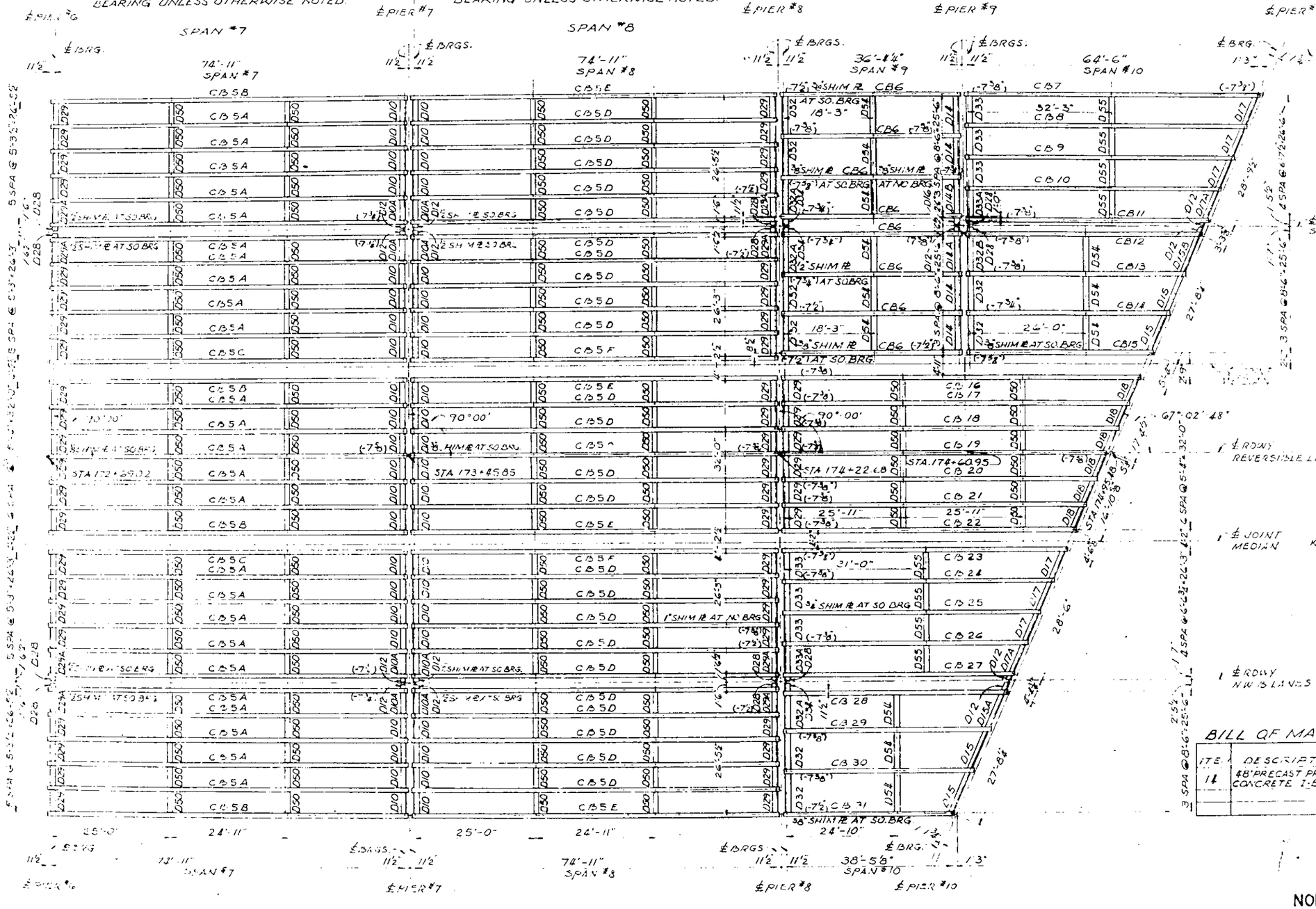
SECTION 0505.3-IH

FRAMING PLAN
SPANS 4, 5 & 6

SHEET NO. 23 OF 136 SHEETS DATE:

TOPS OF ALL BEAMS IN SPAN #7 SHALL BE 7½" BELOW TOP OF SLAB AT ℄ OF SOUTH BEARING UNLESS OTHERWISE NOTED.

TOPS OF ALL BEAMS IN SPAN #8 SHALL BE 7½" BELOW TOP OF SLAB AT ℄ OF SOUTH BEARING UNLESS OTHERWISE NOTED.



D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED T-BEAM NOT INCLUDED

TABLE OF Y DIMENSIONS

BEAM MARK	Y DIMENSION Y 25	Y 50	BEAM MARK	Y DIMENSION Y 25	Y 50
CB6, CB5, CB5A	1/16	1/16	CB21, CB22	5/16	7/16
CB5B, CB5C, CB17, CB24, CB25	1/8	1/8	CB7	3/8	1/2
CB10, CB5E, CB26	1/8	3/16	CB5D, CB5F	7/16	5/8
CB9, CB9, CB12, CB, C	3/16	1/4	CB5B, CB5E	5/8	3/4
CB20, CB23	1/4	5/16	CB16	3/4	1
CB5A, CB5D, CB13, CB19	1/4	3/8			

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN 7	SPAN 8	SPAN 9	SPAN 10
1	48" PRECAST PRESTRESSED CONCRETE T-BEAMS	LIN. FT	2374.1	23[illegible]	[illegible]	[illegible]

FRAMING PLAN

SPANS #7, 8, 9 & 10

SCALE: 32'-1'-0"

SCALE OF TRACING 32" = 1'-0"

0 4' 8' 12' 24'

NOTE: ALL DIMENSIONS ARE MEASURED HORIZONTALLY

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

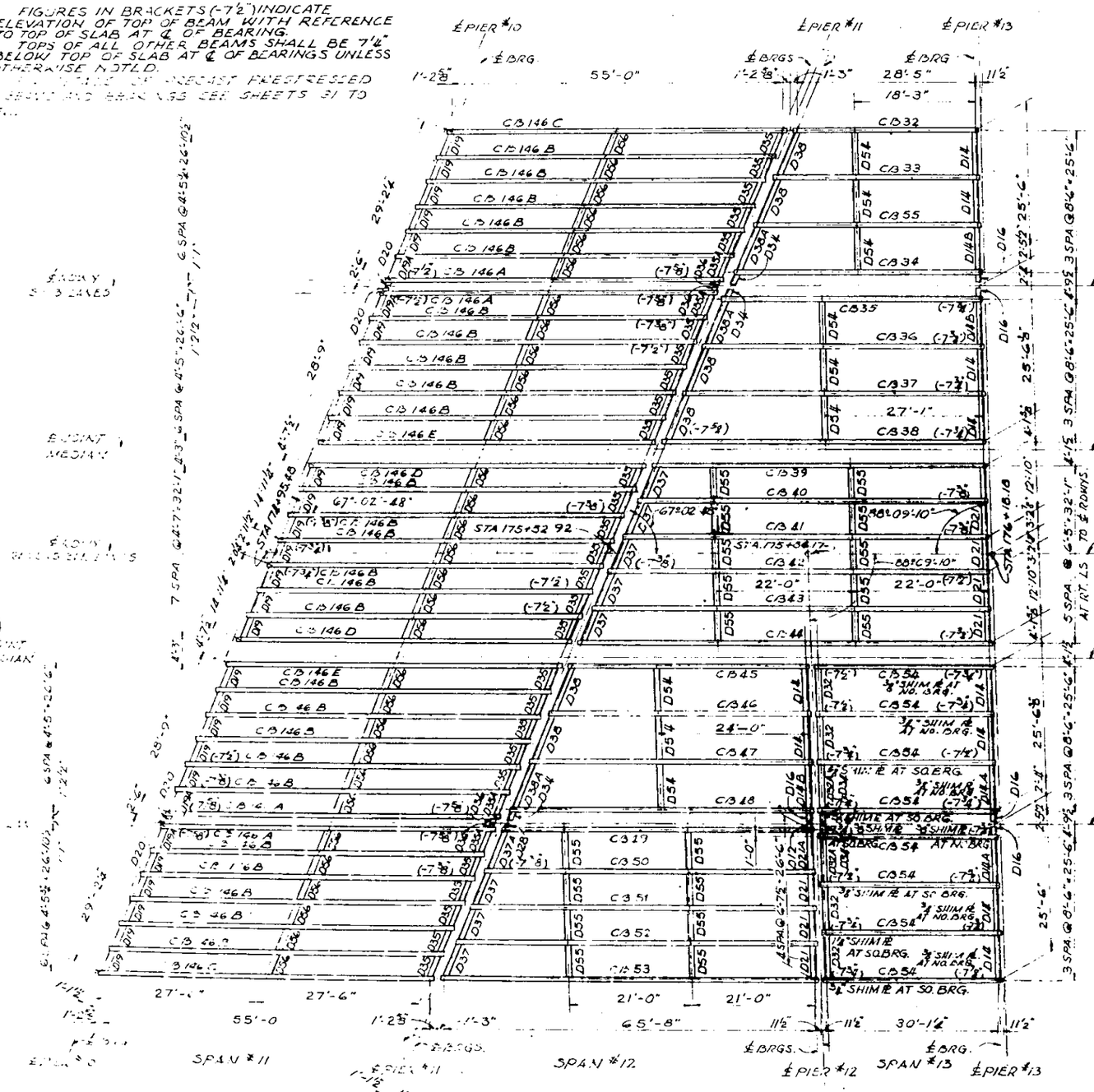
FRAMING PLAN SPANS 7, 8, 9 & 10

SHEET NO. 24 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	25
STA.	TO STA.			
FED. ROAD DIST. NO. - ILLINOIS		PROJECT	I 90 2(163)	

NOTE!

FIGURES IN BRACKETS (-7½") INDICATE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT ℄ OF BEARING.
TOPS OF ALL OTHER BEAMS SHALL BE 7¼" BELOW TOP OF SLAB AT ℄ OF BEARINGS UNLESS OTHERWISE NOTED.
FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 34.

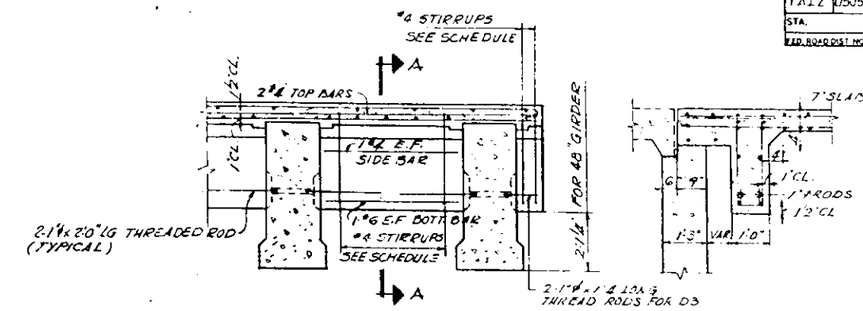


FRAMING PLAN

SPANS № 11 TO 13 INCL.
SCALE: ½"=1'-0"

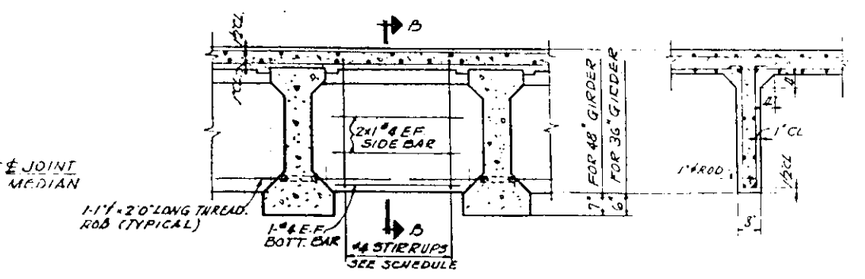
NOTE!
ALL DIMENSIONS ARE MEASURED HORIZONTALLY

SCALES OF TRACING
1/32"=1'-0"
1/2"=1'-0"



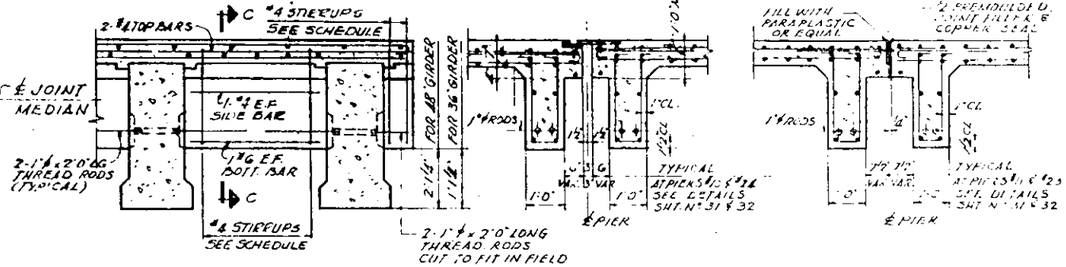
DETAIL OF DIAPHRAGMS AT ABUTMENTS SECTION "A-A"

SCALE: "2"=1'-0"



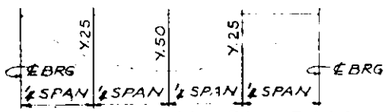
TYPICAL INTERIOR DIAPHRAGMS SECTION "B-B"

SCALE: ½"=1'-0"



℄ RDWY. N.W.B. LANES — TYPICAL BEARING DIAPHRAGM — SECT. C-C AT EXP. JOINT — SECT. C-C AT ℄ JOINT

NOTE: FOR REINFORCING BAR MARKS SEE DIAPHRAGM SCHEDULE SHT. № 21



D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	"Y" DIMENSION Y.25	Y.50	BEAM MARK	"Y" DIMENSION Y.25	Y.50
CB 32 TO 35 INCL. CB 45, CB 54	1/16	1/16	CB 146 B CB 39, CB 42	1/4	5/16
CB 36 CB 46 TO 48 INCL.	1/8	1/8	CB 146 C CB 146 E, CB 43	1/4	3/8
CB 37 CB 49, CB 50	1/8	3/16	CB 146 D CB 53	3/8	1/2
CB 38, CB 146 A CB 40, CB 41 CB 51, CB 52	3/16	1/4	CB 44	1/2	3/4

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #11	SPAN #12	SPAN #13
13	36" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN FT	2041.0		
14	#8 PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN FT		1229.6	254.0

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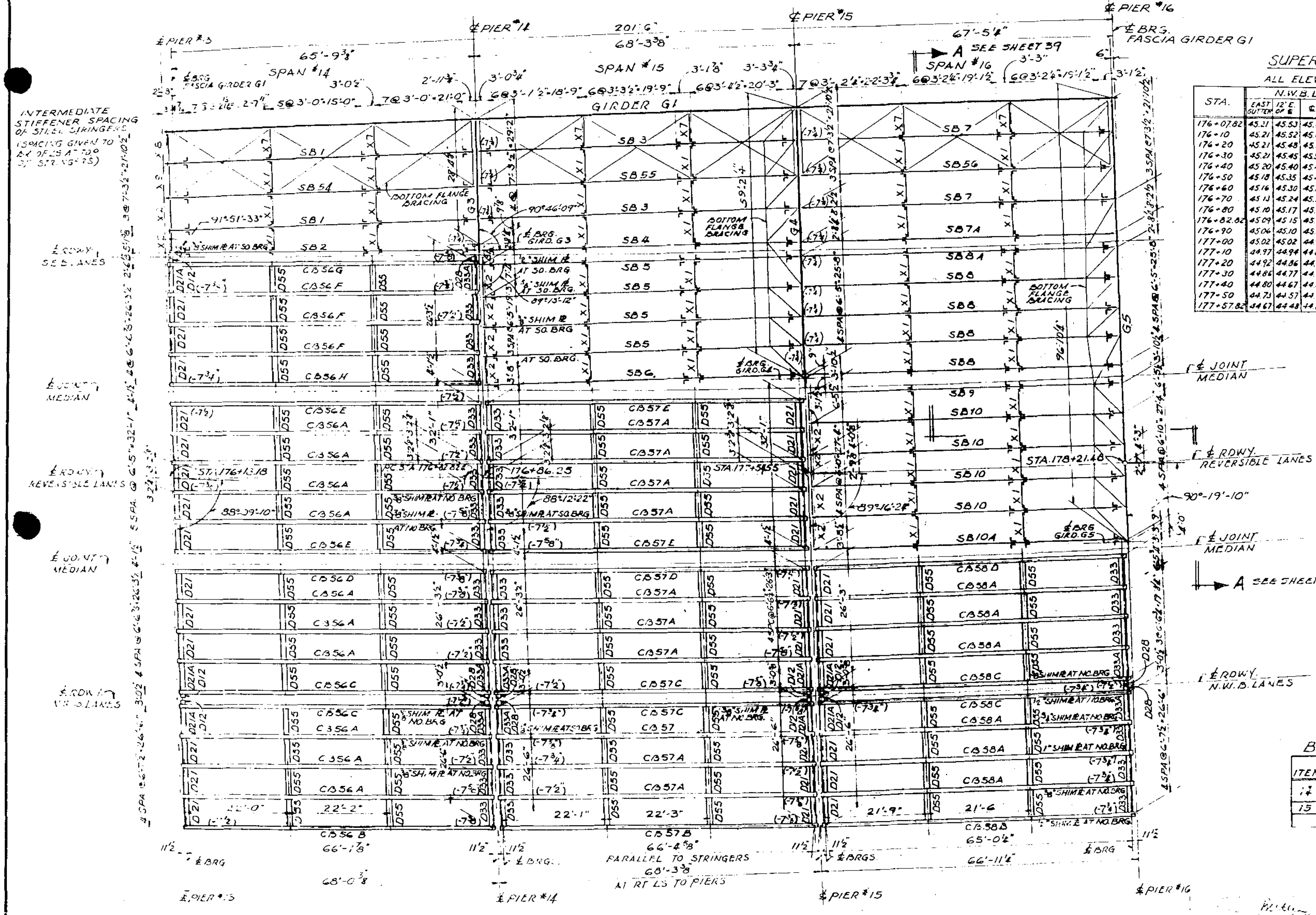
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

FRAMING PLAN
SPANS 11, 12 & 13

SHEET NO. 25 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA12	0505.3-1H	COOK	136	26
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS		PROJECT	I 02 2(C8)



FRAMING PLAN

SPANS Nº 14, 15 & 16

SCALE: 3/32" = 1'-0"

SCALE OF TRACING 3/32" = 1'-0"

NOTE! ALL DIMENSIONS ARE MEASURED HORIZONTALLY

SUPERELEVATION TRANSITION

ALL ELEVATIONS ARE ON TOP OF ROADWAY

STA.	N.W.B. LANES					REVERS. LANES					S.E.B. LANES				
	EAST GUTTER	12' E. OF ℄	℄	12' W. OF ℄	WEST GUTTER	EAST GUTTER	12' E. OF ℄	℄	12' E. OF ℄	WEST GUTTER	EAST GUTTER	12' E OF ℄	℄	12' W. OF ℄	WEST GUTTER
176+07.82	45.21	45.53	45.65	45.53	45.21	45.46	45.53	45.65	45.53	45.46	45.21	45.53	45.65	45.53	45.21
176+10	45.21	45.52	45.64	45.52	45.20	45.46	45.52	45.64	45.52	45.45	45.21	45.52	45.64	45.52	45.20
176+20	45.21	45.48	45.59	45.46	45.16	45.43	45.48	45.59	45.46	45.40	45.21	45.48	45.59	45.46	45.16
176+30	45.21	45.45	45.53	45.40	45.11	45.40	45.45	45.53	45.40	45.34	45.21	45.45	45.53	45.40	45.11
176+40	45.20	45.40	45.47	45.34	45.05	45.36	45.40	45.47	45.34	45.28	45.20	45.40	45.47	45.34	45.05
176+50	45.18	45.35	45.40	45.27	44.99	45.32	45.35	45.40	45.27	45.21	45.18	45.35	45.40	45.27	[illegible]
176+60	45.16	45.30	45.33	45.19	44.92	45.27	45.30	44.33	45.19	45.14	45.16	45.30	45.33	45.19	[illegible]
176+70	45.13	45.24	45.25	45.11	44.86	45.22	45.24	45.25	45.11	45.06	45.13	45.24	45.25	45.11	[illegible]
176+80	45.10	45.17	45.16	45.03	45.78	45.16	45.17	45.16	45.03	44.98	45.10	45.17	45.16	45.03	[illegible]
176+82.82	45.09	45.15	45.14	45.00	44.75	45.14	45.15	45.14	45.00	44.95	45.09	45.15	45.14	[illegible]	44.75
176+90	45.06	45.10	45.08	44.94	44.69	45.09	45.10	45.08	44.94	44.89	45.06	45.10	45.08	44.94	[illegible]
177+00	45.02	45.02	44.98	44.84	44.61	45.02	45.03	44.98	44.84	44.79	45.02	45.03	44.78	44.84	44.61
177+10	44.97	44.94	44.88	44.74	44.51	44.95	44.94	44.88	44.74	44.69	44.97	44.94	44.88	44.74	44.51
177+20	44.92	44.86	44.78	44.63	44.41	44.87	44.86	44.78	44.63	44.59	44.92	44.86	44.79	44.63	44.41
177+30	44.86	44.77	44.67	44.52	44.31	44.79	44.77	44.67	44.52	44.48	44.86	44.77	44.67	44.52	44.31
177+40	44.80	44.67	44.55	44.41	44.20	44.70	44.67	44.55	44.41	44.37	44.80	44.51	44.55	44.41	[illegible]
177+50	44.73	44.57	44.43	44.28	44.09	44.60	44.57	44.43	44.28	44.25	44.73	[illegible]	[illegible]	[illegible]	[illegible]
177+57.82	44.67	44.48	44.33	44.18	44.00	44.52	44.48	44.33	44.18	44.15	[illegible]	[illegible]	44.33	[illegible]	[illegible]

NOTE!

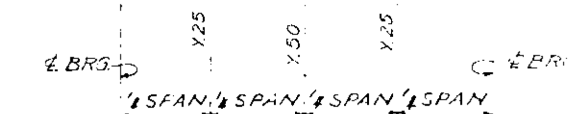
TOPS OF ALL CONCRETE I-BEAMS SHALL BE 7 1/4" BELOW TOP OF SLAB AT ℄ OF BEARINGS AND TOPS OF ALL STEEL STRINGERS [illegible] BE 6 3/4" BELOW TOP OF SLAB AT [illegible] UNLESS OTHERWISE NOTED THUS (-7 1/2) [illegible]

GIRDER G1 IS PERPENDICULAR TO PIERS

ALL STEEL STRINGERS ARE PERPENDICULAR TO CROSSGIRDERS OR PIERS UNLESS OTHERWISE SHOWN OR NOTED

FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 36

FOR DETAILS OF STEEL STRINGERS AND GIRDERS SEE SHEETS 37 TO 54



D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	"Y" DIMENSION		BEAM MARK	"Y" DIMENSION	
	Y.25	Y.50		Y.25	Y.50
CB56C, CB57C, CB58C	3/16	1/4	CB56E, CB57E, CB58B	3/8	1/2
CB56A, CB57A, CB58A	1/4	5/16	CB56B, CB57B	7/16	9/16
CB56D, CB57D, CB58D	1/4	3/8			

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #14	QUANTITY SPAN #15	QUANTITY SPAN #16
14	48" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN FT.	1425.5	1089.3	666.7
15	ERECTING STRUCTURAL STEEL	LBS.	223,000		

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CONSULTING ENGINEERS
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BUREAU OF ENGINEERING

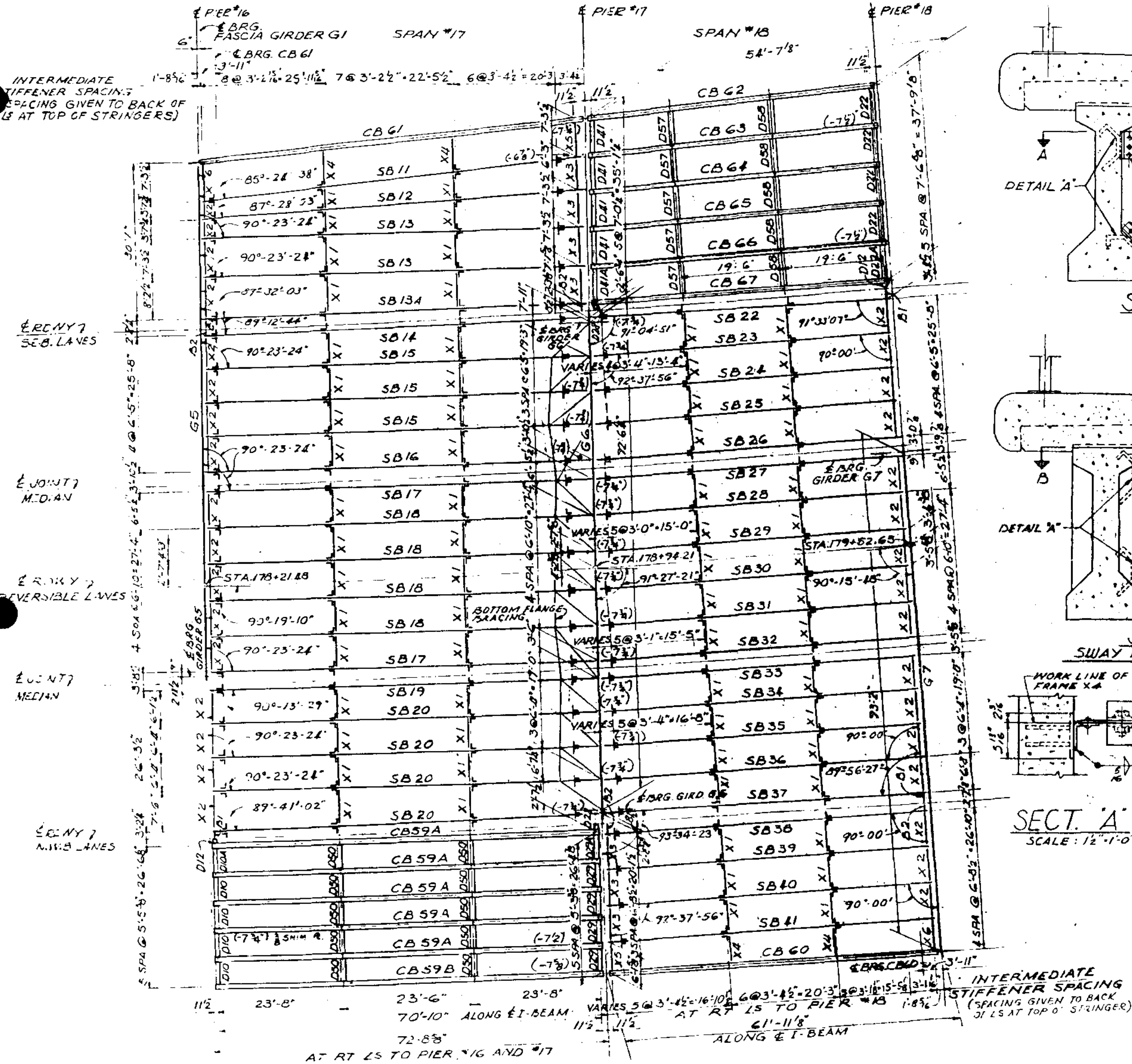
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

FRAMING PLAN
SPANS 14, 15 & 16

SHEET NO. 26 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	05053-1H	COOK	136	27
STA.	TO STA.			



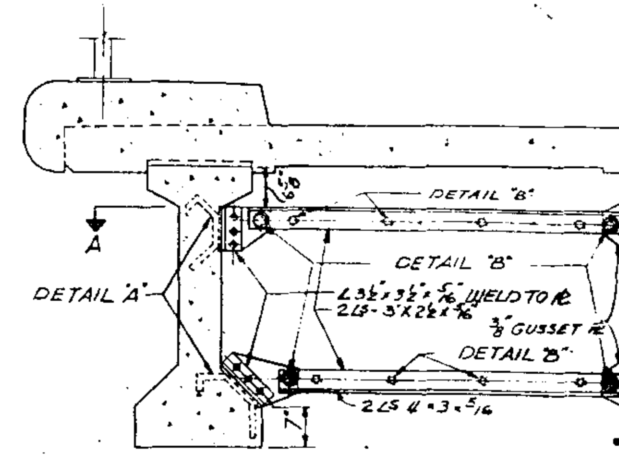
FRAMING PLAN

SPANS Nº 17 & 18

SCALE: 3/32" = 1'-0"

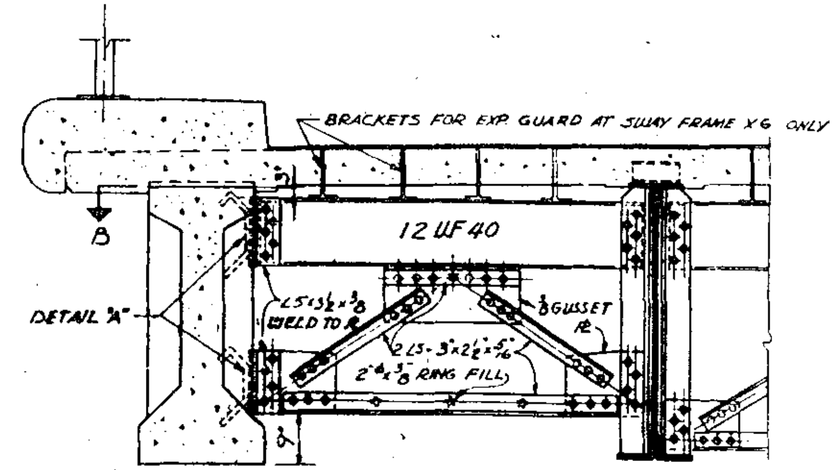
NOTE! ALL DIMENSIONS ARE MEASURED HORIZONTALLY

SCALE OF TRACING 3/32" = 1'-0" 0 4' 8' 12' 24'



SWAY FRAME "X4"

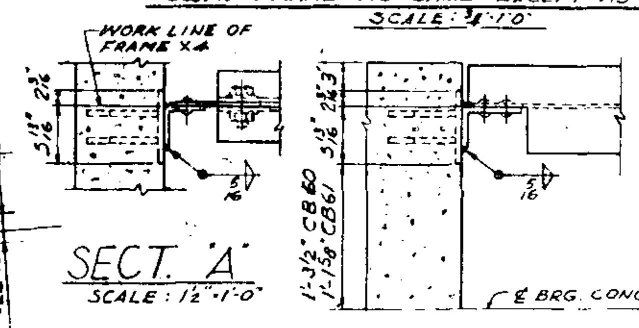
SCALE: 3/4" = 1'-0"



SWAY FRAME "X5"

SWAY FRAME "X6" SAME EXCEPT AS NOTED

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

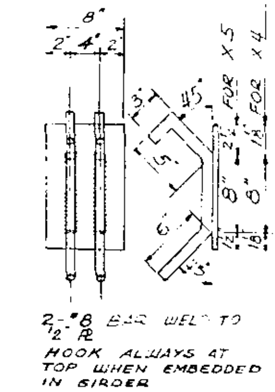


SECT. "A"

SCALE: 1 1/2" = 1'-0"

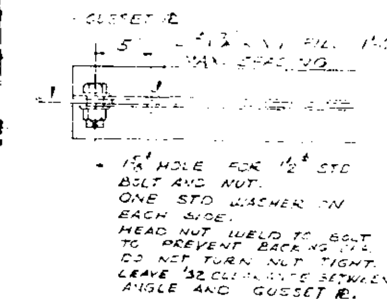
SECT. "B"

SCALE: 1 1/2" = 1'-0"



DETAIL "A"

SCALE: 1 1/2" = 1'-0"



DETAIL "B"

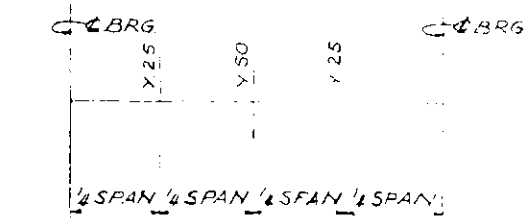
SCALE: 1 1/2" = 1'-0"

NOTE!

TOPS OF ALL CONCRETE I-BEAMS ... 7 1/4" BELOW TOP OF SLAB ... TOPS OF ALL STEEL STRINGERS SHALL BE ... BELOW TOP OF SLAB AT ... UNLESS OTHERWISE NOTED THUS: (-7 1/2) ON FRAMING PLAN.

FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 36.

FOR DETAILS OF STEEL STRINGERS AND GIRDERS SEE SHEETS 37 TO 54.



D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	"Y" DIMENSION Y 25	Y 50	BEAM MARK	"Y" DIMENSION Y 25	Y 50
CB63 to CB67 INCL.	1/8	1/8	CB 60	1/4	3/8
CB 62	3/16	1/4	CB 61	5/16	7/16
CB 59A	1/4	5/16	CB 59B	7/16	3/4

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #17	SPAN #18
14	45 PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN. FT.	504.8	359.7
15	ERECTING STRUCTURAL STEEL	LBS.	[illegible]	

CITY OF CHICAGO
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BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION

WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

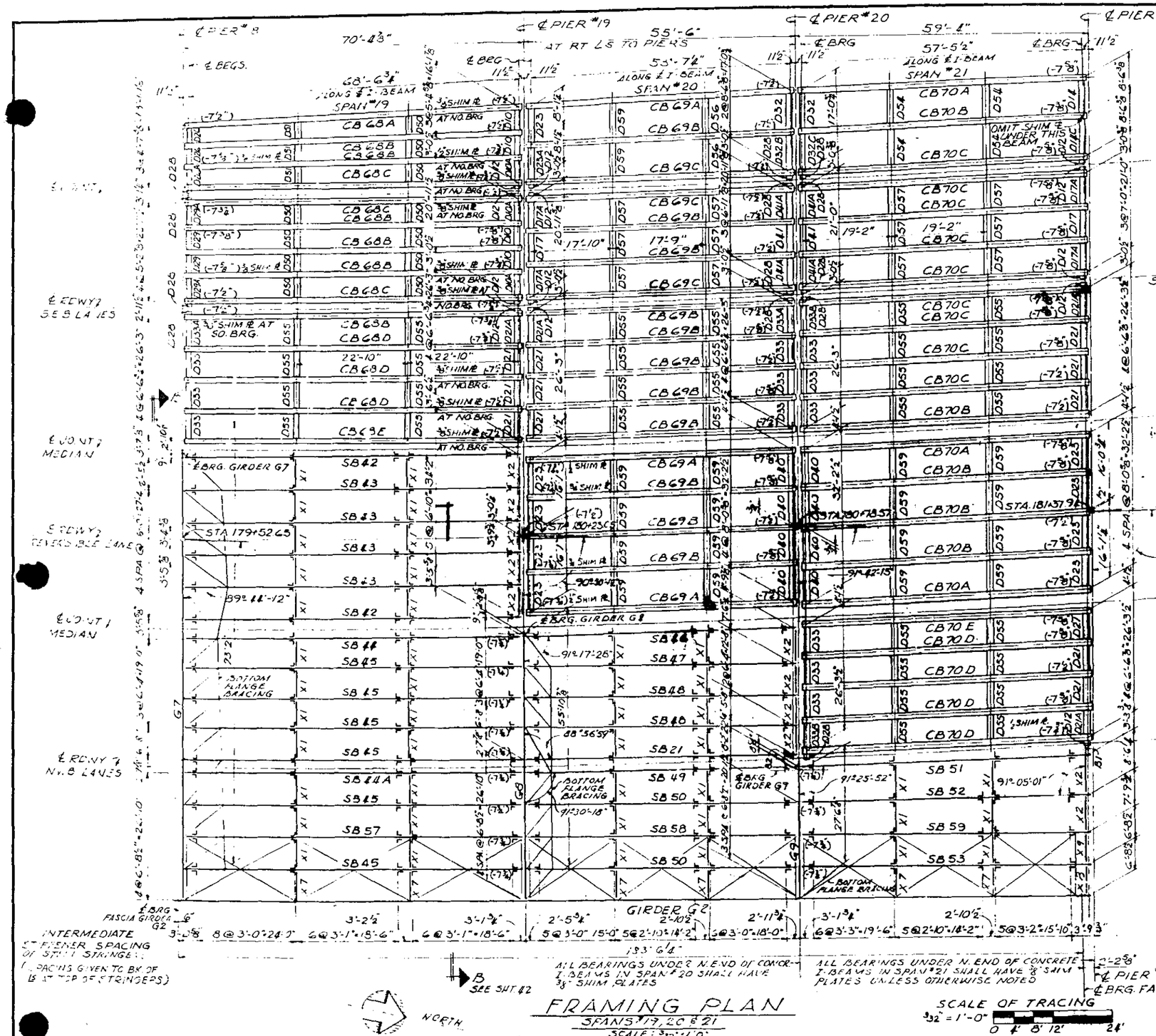
FRAMING PLAN
SPANS 17 & 18

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 27 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3 IH	COOK	136	28
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT: 92 2 68		



FRAMING PLAN
SPANS 19, 20 & 21
SCALE: 3/32" = 1'-0"

NOTE!
ALL DIMENSIONS ARE MEASURED HORIZONTALLY

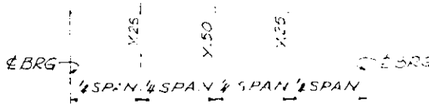
SCALE OF TRACING
3/32" = 1'-0"
0 4' 8' 12' 24'

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #19	SPAN #20	SPAN #21
14	48" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN. FT.	982.3	939.3	1301.7
15	ERECTING STRUCTURAL STEEL	LBS.		833,000	

NOTE!
GIRDER G2 IS PERPENDICULAR TO PIERS
ALL STEEL STRINGERS ARE PERPENDICULAR TO CROSSGIRDERS OR PIERS
UNLESS OTHERWISE SHOWN OR NOTED.
TOPS OF ALL CONCRETE I-BEAMS ARE SET BELOW TOP OF SLAB AT ℄ BEARINGS AS FOLLOWS:
OF ALL STEEL STRINGERS UNLESS OTHERWISE NOTED THUS [illegible]
OF SLAB AT ℄ BEARINGS UNLESS OTHERWISE NOTED THUS [illegible]

FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 36.
FOR DETAILS OF STEEL STRINGERS AND PLATE GIRDERS SEE SHEETS 37 TO 54



D.L. DEFLECTION DIAGRAM
WEIGHT OF PRESTRESSED I-BEAMS NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	"Y" DIMENSION Y25	Y50	BEAM MARK	"Y" DIMENSION Y25	Y50
CB69C	1/8	1/8	CB68D	1/4	3/8
CB69B, CB70C, CB70D	1/8	3/16	CB68E	3/8	1/2
CB68C, CB69A, CB70B, CB70E	3/16	1/4	CB68A	7/16	5/8
CB68B, CB70A	1/4	5/16			

CITY OF CHICAGO
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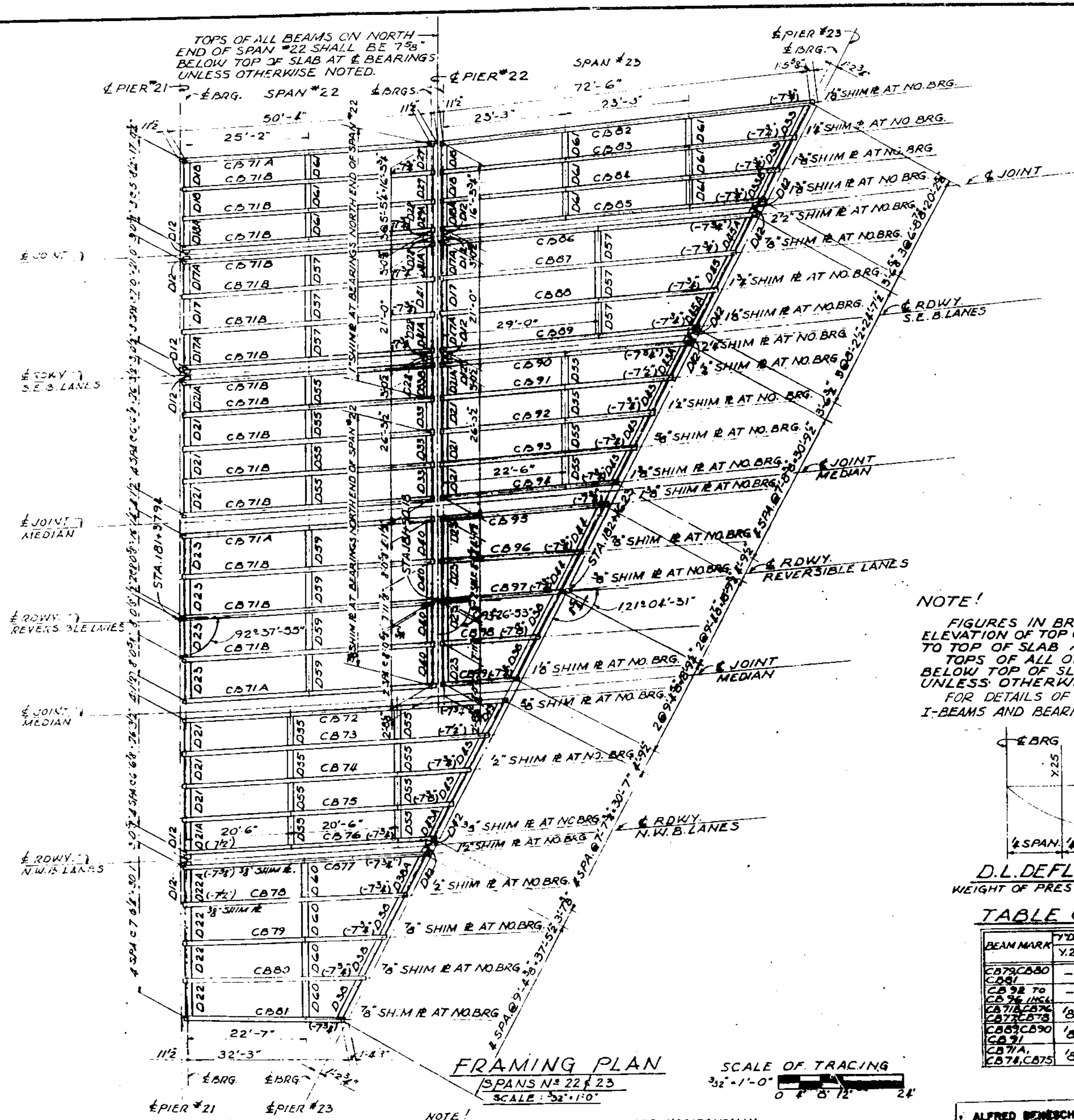
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

FRAMING PLAN
SPANS 19, 20 & 21

SHEET NO. 28 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

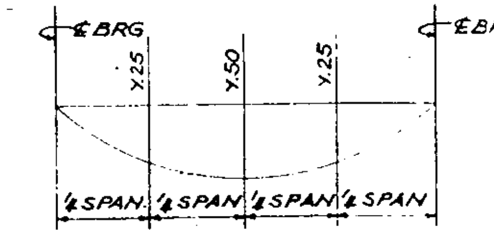


NOTE!

FIGURES IN BRACKETS (-7½) INDICATE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT ℄ OF BEARING.

TOPS OF ALL OTHER BEAMS SHALL BE 7¼" BELOW TOP OF SLAB AT ℄ OF BEARINGS UNLESS OTHERWISE NOTED.

FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEETS 31 TO 36.



D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	"Y" DIMENSION Y.25	Y.50	BEAM MARK	"Y" DIMENSION Y.25	Y.50
CB79, CB80, CB81	–	1/16	CB85, CB86, CB88	1/8	3/16
CB92 TO CB96 INCL.	–	1/16	CB73, CB87	3/16	1/4
CB71B, CB76, CB77, CB78	1/8	1/8	CB84	1/4	5/16
CB89, CB90, CB91	1/8	1/8	CB72, CB83	5/16	3/8
CB71A, CB74, CB75	1/8	3/16	CB82	1/2	3/4

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #22	SPAN #23
14	48" PRECAST PRESTRESSED CONCRETE I BEAMS	LIN FT	[illegible]	[illegible]

SCALE OF TRACING 3/32" = 1'-0" 0 4' 8' 12' 24'

NOTE! ALL DIMENSIONS ARE MEASURED HORIZONTALLY

ALFRED BENESCH & ASSOCIATES 10 SOUTH WABASH AVE. CONSULTING ENGINEERS CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-IH

FRAMING PLAN
SPANS 22 & 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0605.3H	COOK	136	30
STA.	TO STA.			
F.A.I. ROAD SYST. NO.	NUMBER	PROJECT		

NOTE!

FIGURES IN BRACKETS (-7½") INDICATE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT ℄ OF BEARING. TOPS OF ALL OTHER BEAMS SHALL BE 7¼ BELOW TOP OF SLAB AT ℄ OF BEARINGS UNLESS OTHERWISE NOTED.

FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEET 31 TO 36.

D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	Y DIMENSION		BEAM MARK	Y DIMENSION	
	Y.25	Y.50		Y.25	Y.50
CB134, CB135 CB139 to CB144 INCL	—	1/8	CB106, CB107 CB109, CB110	3/8	1/2
CB130, CB131, CB132A, CB134A CB137, CB138B CB145	1/8	1/8	CB111, CB113 CB114, CB115	3/8	1/2
CB129, CB132B, CB133	1/8	3/16	CB117, CB118 CB119A, CB120	3/8	1/2
CB136B CB138A	1/8	3/16	CB101 to CB104 INCL CB112A, CB116A	7/16	9/16
CB128	3/16	1/4	CB	9/16	3/4
CB126	1/4	3/8	CB127	5/8	7/8
CB105, CB109, CB119B CB121 to CB125 INCL	5/16	7/16	CB112B, CB116B	13/16	1 1/16
			CB100	1 1/8	1 1/2

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #24	QUANTITY SPAN #25
14	48" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN FT	3608.8	1679.4

FRAMING PLAN

SPANS #24 & 25

SCALE: 3/32"-1'-0"

NOTE!
ALL DIMENSIONS ARE MEASURED HORIZONTALLY

SCALE OF TRACING

3/32"=1'-0"

0 4' 8' 12' 24'

ALFRED BENESCH & ASSOCIATES
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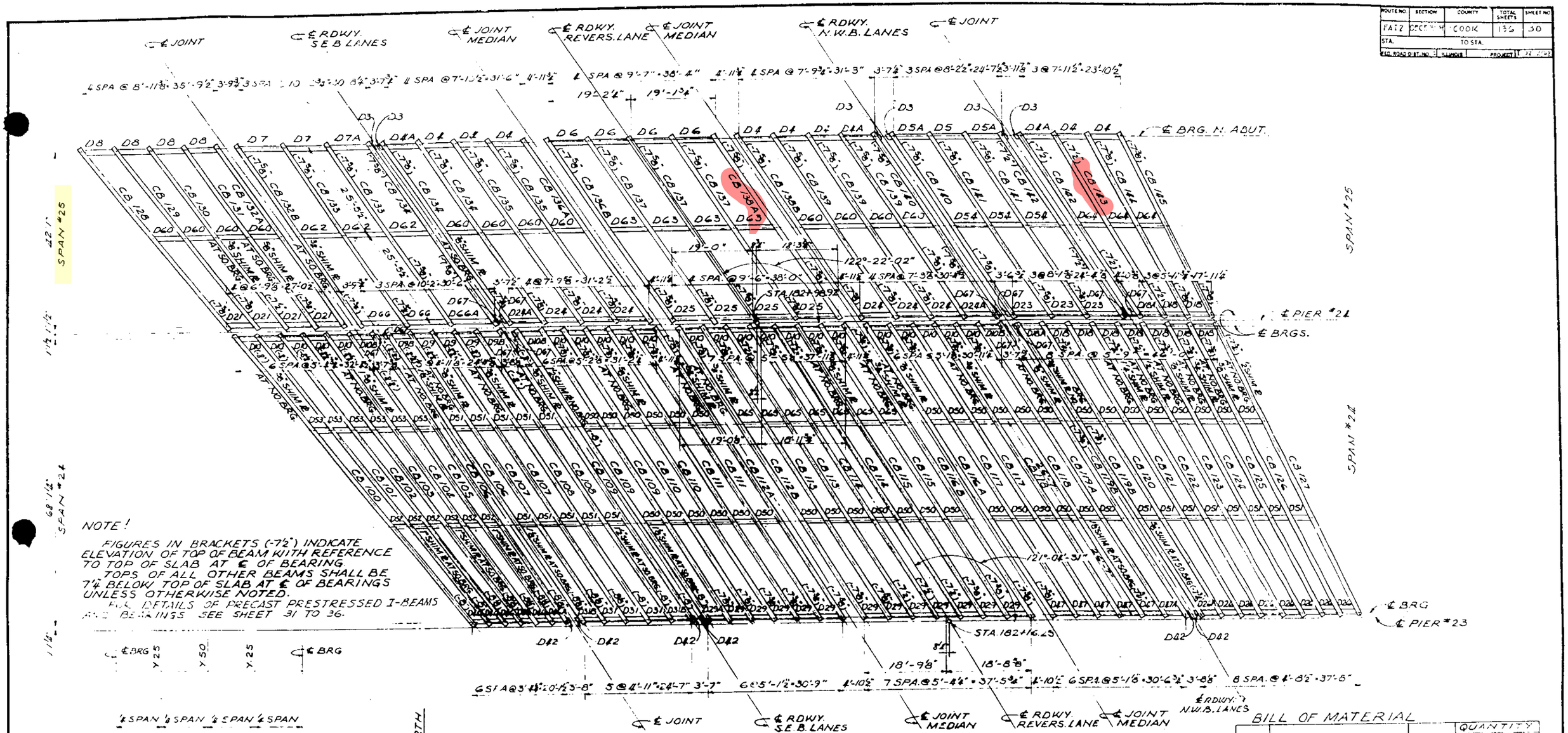
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0605.3-1H

FRAMING PLAN
SPANS 24 & 25

SHEET NO. 30 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	[illegible]	COOK	136	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



NOTE!

FIGURES IN BRACKETS (-7½") INDICATE ELEVATION OF TOP OF BEAM WITH REFERENCE TO TOP OF SLAB AT ℄ OF BEARING. TOPS OF ALL OTHER BEAMS SHALL BE 7¼ BELOW TOP OF SLAB AT ℄ OF BEARINGS UNLESS OTHERWISE NOTED.

FOR DETAILS OF PRECAST PRESTRESSED I-BEAMS AND BEARINGS SEE SHEET 31 TO 36.

¼ SPAN ¼ SPAN ¼ SPAN ¼ SPAN

D.L. DEFLECTION DIAGRAM

WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

TABLE OF "Y" DIMENSION

BEAM MARK	Y DIMENSION Y.25	Y.50	BEAM MARK	Y DIMENSION Y25	Y50
CB134, CB135 CB159 TO CB165 INCL	—	⅛	CB106, CB107 CB109, CB110	3/8	½
CB130, CB131, CB132A CB132A	⅛	⅛	CB111, CB113 CB114, CB115	3/8	½
CB137, CB138B CB138	⅛	⅛	CB117, CB118 CB1194, CB120	3/8	½
CB129, CB132B, CB133	⅛	3/16	CB101 TO CB104 INCL CB112A, CB116A	7/16	9/16
CB136B CB136A	⅛	3/16	CB	9/16	⅝
CB128	3/16	¼	CB127	⅝	⅞
CB126	¼	⅜	CB112B, CB116B	13/16	1 1/16
CB105, CB108, CB111 & CB121 TO CB125 INCL	5/16	7/16	CB100	1⅛	1½

FRAMING PLAN

SPANS #24 & 25

SCALE: 3/32" = 1'-0"

NOTE!
ALL DIMENSIONS ARE MEASURED HORIZONTALLY

SCALE OF TRACING
3/32" = 1'-0"
0 4' 8' 12' 24'

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY SPAN #24	SPAN #25
14	48" PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN. FT	3608.8	1679.4

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
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BUREAU OF ENGINEERING

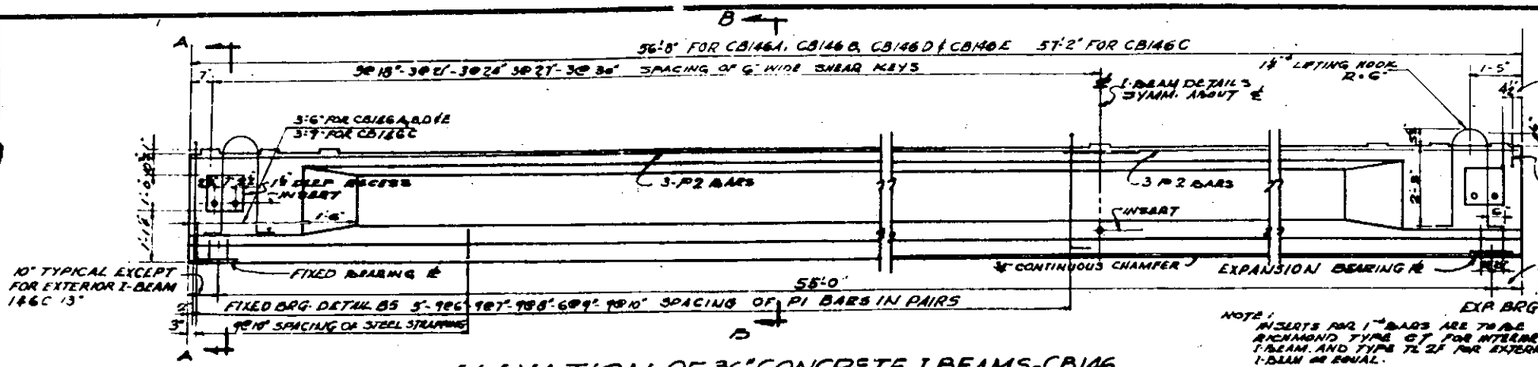
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

FRAMING PLAN
SPANS 24 & 25

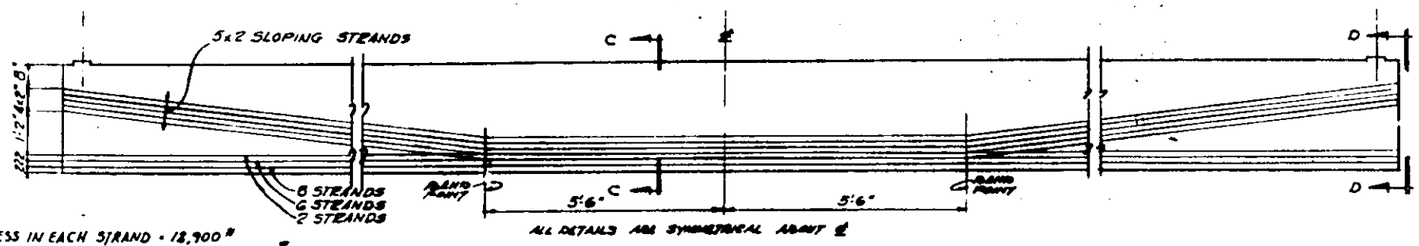
SHEET NO. 30 OF 136 SHEETS DATE

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
RAL 2	0505.3-IH	COOK	136	31
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT NO.	



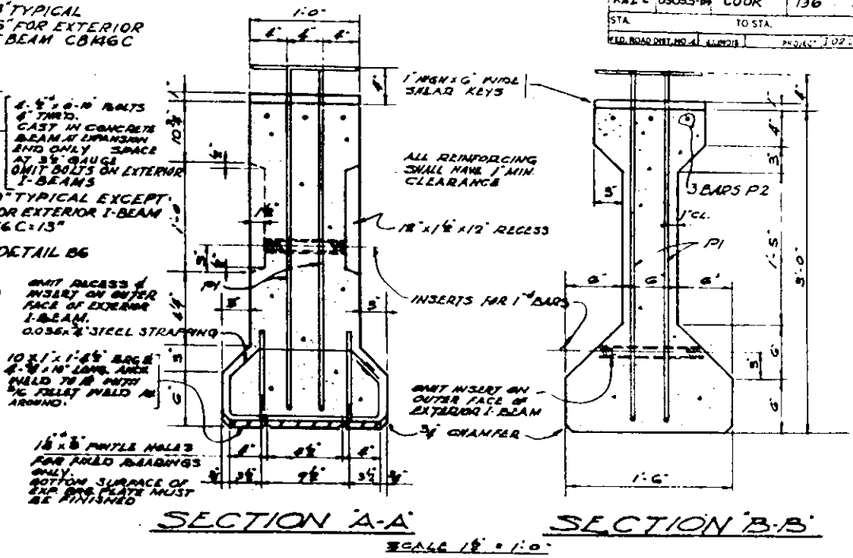
ELEVATION OF 36" CONCRETE I BEAMS-CB146

SCALE: 1/2" = 1'-0" (36 REQUIRED)



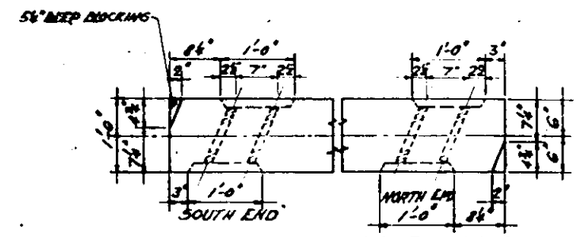
INITIAL STRESS IN EACH STRAND = 18,900#
TOTAL INITIAL PRESTRESSING FORCE = 491400#

DETAILS OF PRESTRESSING STEEL FOR 36" CONCRETE I BEAMS-CB146



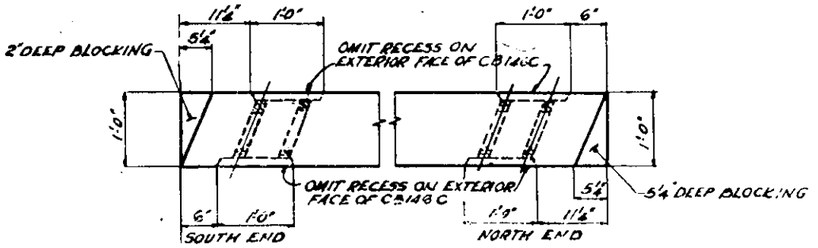
SECTION 'A-A' SECTION 'B-B'

SCALE 1/2" = 1'-0"



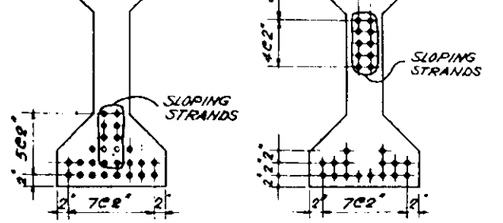
TYPICAL TOP PLAN AT ENDS OF INT. I-BEAMS

SCALE 1"=1'-0"



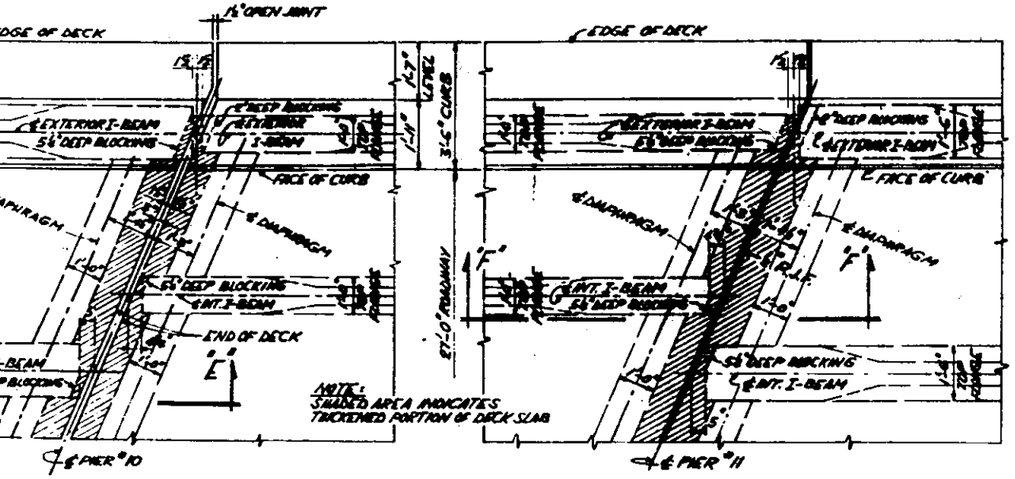
TOP PLAN AT ENDS OF EXTERIOR I-BEAMS

SCALE: 1"=1'-0"



SECT. 'C-C' SECT. 'D-D'

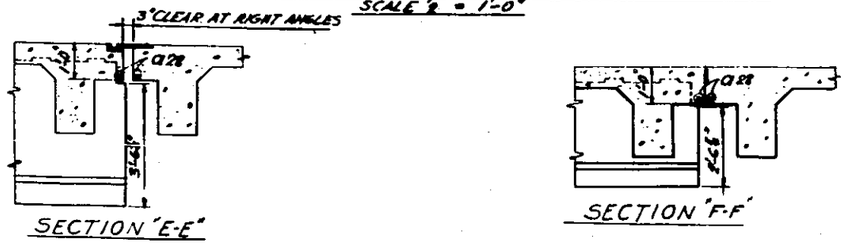
SCALE 1"=1'-0"



EXPANSION JOINT FIXED JOINT

PARTIAL PLAN OF DECK ON PIERS "10 & "11

SCALE 1/2" = 1'-0"



SECTION 'E-E' SECTION 'F-F'

BAR SCHEDULE

C TOP, D, B FRONT, TYPE B

MARK	SIZE	TYPE	LENGTH	A	B	C	D	E	F	H	K
P1	#5	B	4'-6"	0'-8	5'-2	0'-8					
P2	#6		29'-0"								

CITY OF CHICAGO
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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

DETAILS OF 36" PRECAST PRESTRESSED CONCRETE I-BEAMS

SHEET NO. 31 OF 136 SHEETS DATE:

SCALES OF TRACING
1/2"=1'-0" 0 6" 1' 2' 3' 4' 5' 6'
1"=1'-0" 0 3' 6" 9" 1' 2' 3'
1 1/2"=1'-0" 0 3' 6" 9" 1' 2'

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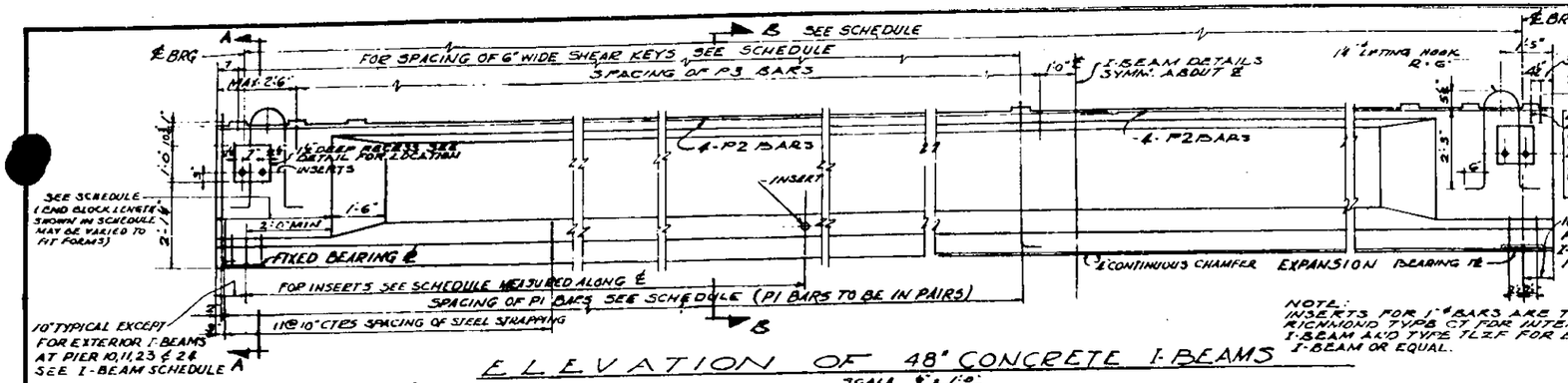
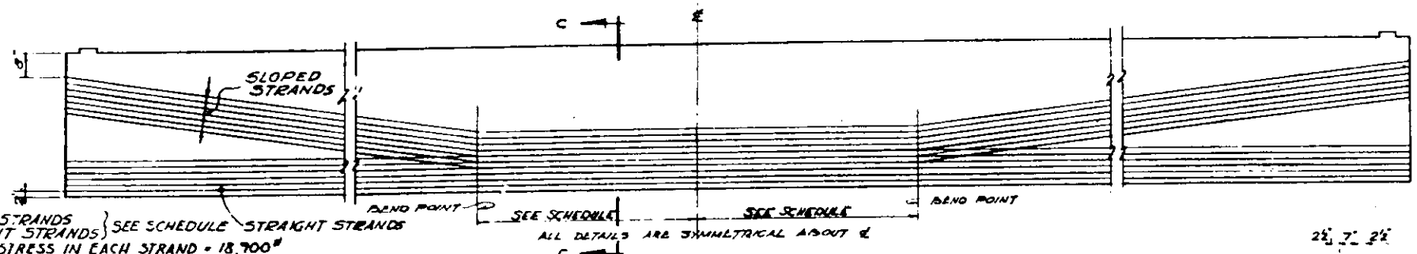
CHICAGO, ILLINOIS



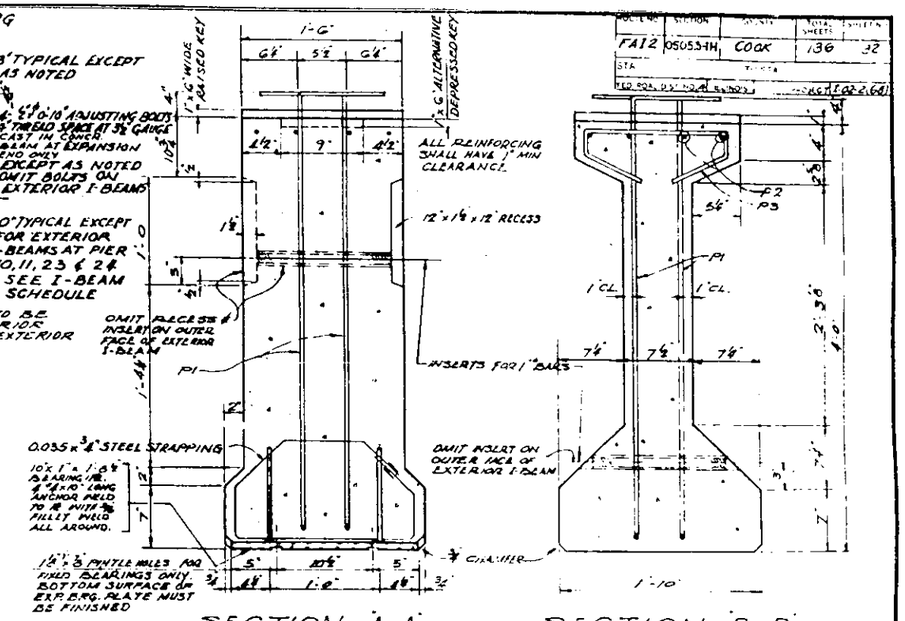
ELEVATION OF 48" CONCRETE I-BEAMS

SCALE ½" = 1'-0"



SLOPING STRANDS } SEE SCHEDULE
STRAIGHT STRANDS } STRAIGHT STRANDS
INITIAL STRESS IN EACH STRAND = 18,700#
TOTAL INITIAL PRESTRESSING FORCE SEE SCHEDULE

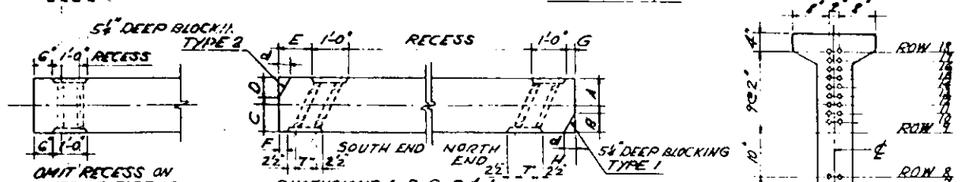
DETAILS OF PRESTRESSING STEEL FOR 48" CONCRETE I-BEAMS



SECTION A-A

SECTION B-B

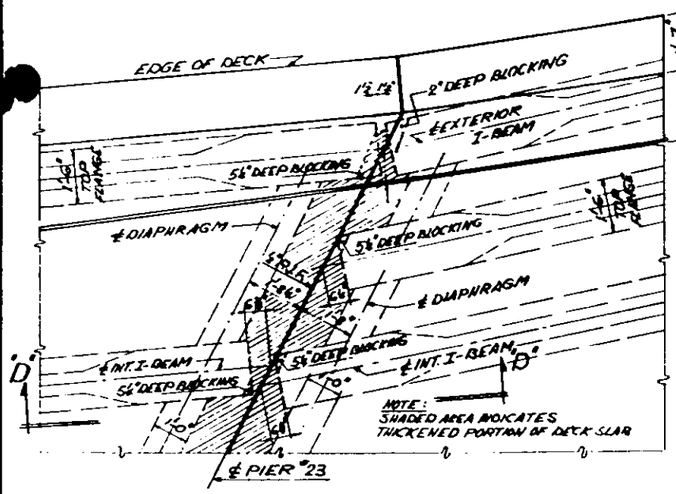
SCALE ½" = 1'-0"



TYPICAL TOP PLAN — TOP PLAN OF GIRDERS AT PIERS "10, 11, 23 & "24

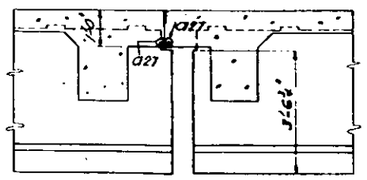
DETAILS AT END OF I-BEAMS

I-BEAM NUMBER	RECESS E	F	G	H	OMIT RECESS ON OUTSIDE FACE OF	2" DEEP BLOCKING ON OUTSIDE FACE OF
CB7 TO CB31	6"	6"	3"	10½"	CB7 & CB31	CB31
CB32 TO CB53	10½"	3"	6"	6"	CB32 & CB53	CB32
CB55	10½"	3"	6"	6"		
CB72 TO CB99	6"	6"	3"	12½"	CB81 & CB82	CB81
CB100 TO CB127	12½"	3"	3"	14"	CB100 & CB127	CB100 & CB127
CB128 TO CB145	14"	3"	3"	15"	CB128 & CB145	CB128

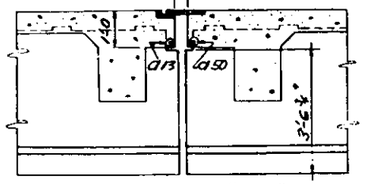


PARTIAL PLAN OF DECK ON PIERS "23 & "24

SCALE ½" = 1'-0"



SECTION D-D



SECTION E-E

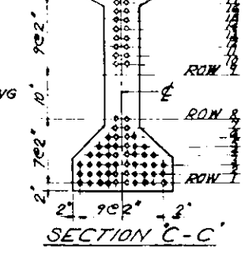
STEEL STRAPPING SHALL HAVE fs = 10,000 LBS/SQ IN (2800 LBS) AND SHALL BE FASTENED WITH FASTENER TO DEVELOP THE SAME STRENGTH OF 2100 LBS.

IN LIEU OF THE RAISED SHEAR KEYS FOR THE 48" DEEP I BEAMS ONLY, THE CONTRACTOR MAY PROVIDE DEPRESSED SHEAR KEYS AS SHOWN IN SECTION "A-A" AT SAME SPACING SHOWN IN SCHEDULE FOR RAISED KEYS.

SCALES OF TRACING

½" = 1'-0" 0 6" 1' 2' 3' 4' 5' 6'

1½" = 1'-0" 0 3" 6" 9" 1' 2'



SECTION C-C

ALL STRANDS SYMM. ABOUT ℄
FOR NUMBER OF STRANDS SEE SCHEDULE
STRANDS SHOWN THUS ● ARE PRESENT IN ALL I-BEAMS
STRANDS SHOWN THUS ○ ARE SLOPED STRANDS

BAR SCHEDULE

TYPE A — TYPE B

MARK	SIZE	TYPE	LENGTH	B	C	D	E	F	H	K
P1	#5	B	5'-6"	0'-8"	1'-1"	1'-6"				
P2	#6	STRAIGHT CONTINUOUS (LAP 1'-6" AT SPLICES)								
P3	#5	A	3'-11"	0'-7"	0'-2½"	1'-6"	0'-2½"	0'-7"	0'-2½"	

SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION REGARDING MATERIALS, PRESTRESSING EQUIPMENT AND OPERATIONS, CONSTRUCTION AND HANDLING METHODS, AND OTHER REQUIREMENTS FOR THE PRECAST PRESTRESSED CONCRETE I-BEAMS.

STEEL FOR LIFTING HOOK SHALL BE DEFORMED BARS OF STRUCTURAL OR INTERMEDIATE GRADE BILLET STEEL.

NOTES

PRECAST PRESTRESSED CONCRETE I-BEAMS ARE DESIGNED IN ACCORDANCE WITH THE A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1953, AND THE CRITERIA FOR PRESTRESSED CONCRETE BRIDGES, 1954, OF THE BUREAU OF PUBLIC ROADS.

PRESTRESSING STRANDS SHALL CONSIST OF UNCOATED SEVEN WIRE STRANDS WHICH HAVE A NOMINAL DIAMETER OF ⅜" AND A CROSS SECTIONAL AREA OF 0.1089 SQUARE INCHES.

ALL REINFORCING STEEL, PRESTRESSING STRANDS, LIFTING HOOKS, INSERTS, BEARING PLATES AND OTHER ITEMS WHICH ARE CAST INTO THE PRECAST CONCRETE I-BEAMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR "FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS."

PRESTRESSED CONCRETE I-BEAMS SHALL BE LIFTED ONLY BY THE LIFTING HOOKS PROVIDED IN THE TOP FLANGES AT THE ENDS OF THE BEAMS.

CONTRACT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 12	0505.3-1H	COOK	136	32
STA.	TO STA.			

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

DETAILS OF 48" PRECAST PRESTRESSED CONCRETE I-BEAMS

SHEET NO. 32 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-IH	COOK	136	33

48" DEEP PRECAST PRESTRESSED CONCRETE I-BEAM SCHEDULE

I-BEAM NUMBER	QUANTITY	LENGTH ℄ BRG	END BLOCK LENGTH	INSERT NORTH	INSERT SOUTH	SPACING OF 6" WIDE SHEAR KEYS	BLOCKING OF FLANGES NORTH BRG TYPE	A	B	d	BLOCKING OF FLANGES SOUTH BRG TYPE	C	D	d	P1 BARS	STRANDS STRAIGHT	STRANDS SLOPED	STRANDS TOTAL	STRANDS TOTAL FORCE#	BEND POINT FROM ℄	BEARING TYPE NORTH	BEARING TYPE SOUTH	REMARKS
CB 1	1	75'-7"	3'-1½"	25'-2"	25'-2"	5@48"-3@60"									5-16@6-18@8-21@10"	32	8	40	756000	7'-6"	B1	B2	SEE NOTE "A"
CB 2	3	75'-3"	3'-5½"	25'-1"	25'-1"	5@48"-3@60"									5-16@6-18@8-21@10"	32	8	40	756080	7'-6"	B1	B2	SEE NOTE "B"
CB 3	2	75'-1"	3'-4½"	25'-0"	25'-0"	5@48"-3@60"									5-16@6-18@8-12@10-7@12"	32	8	40	756000	7'-6"			SEE NOTE "A"
CB 4	2	75'-0"	3'-4½"	25'-1"	25'-1"	5@48"-3@60"									5-16@6-18@8-12@10-7@12"	32	8	40	756000	7'-6"	B2	B1	SEE NOTE "A"
CB 5	254	74'-11"	3'-3½"	25'-0"	25'-0"	5@48"-3@60"									5-16@6-18@8-12@10-7@12	32	8	40	756000	7'-6"			SEE NOTE "B"
CB 6	8	36'-4"	3'-0"	18'-1"	18'-3"	2@20"-30-36"-42"-48"									16@5-6@6-6@7-6@8-2@10"	10	6	16	302400	3'-8"	B3	B4	
CB 7	1	64'-6"	3'-1"	32'-3"	32'-3"	30"-2@36"-2@42"-48"-2@60	1	12"	16"	6½"					5-24@6-6@7-6@8-15@10"	22	8	30	567000	6'-6"	B1	B2	SEE NOTE "A"
CB 8	1	61'-8"	3'-2"	29'-5"	32'-3"	30"-2@36"-2@42"-2@48"-60	1	10¾"	7¼"	3"					5-24@6-6@7-12@8-7@12"	26	8	34	642600	6'-3"	B1	B2	SEE NOTE "A"
CB 9	1	58'-11"	2'-3½"	26'-8"	32'-3"	30"-2@36"-2@42"-3@48"	1	10¾"	7¼"	3"					5-24@6-6@7-10@8-2@10"	22	8	30	567000	6'-0"	B1	B2	SEE NOTE "A"
CB10	1	56'-1"	3'-4½"	23'-10"	32'-3"	30"-2@36"-42"-48"-54"-60"	1	10¾"	7¼"	3"					5-32@6-7@8-6@10-2@13"	18	8	26	491400	5'-8"	B1	B2	SEE NOTE "A"
CB11	1	55'-3"	3'-5½"	21'-0"	32'-3"	30"-2@36"-2@42"-48"-60"	1	10¾"	7¼"	3"					5-17@6-12@7-6@8-6@10-2@12	14	6	20	378000	5'-5"	B1	B2	SEE NOTE "A"
CB12	1	52'-0"	3'-4"	26'-0"	26'-0"	4@20"-3@30"-36-40-45"	1	10¾"	7¼"	3"					21@5-11@6-11@8-2@9"	18	8	26	491400	5'-3"	B1	B2	SEE NOTE "A"
CB13	1	48'-5"	3'-0½"	22'-5"	26'-0"	3@20"-3@30"-36"-40"-45"	1	10¾"	7¼"	3"					25@5-11@6-11@8-2@9"	18	8	26	491400	4'-11"	B1	B2	SEE NOTE "A"
CB14	1	44'-9"	3'-2½"	18'-7"	26'-0"	2@20"-3@30"-36"-40"-45"	1	10¾"	7¼"	3"					21@5-11@6-13@8"	18	8	26	491400	4'-6"	B3	B4	SEE NOTE "A"
CB15	1	41'-2"	3'-5"	15'-2"	26'-0"	2@20"-2@30"-36-42"-48	1	10¾"	7¼"	3"					21@5-13@6-6@8-2@10"	10	6	16	302400	4'-2"	B3	B4	SEE NOTE "A"
CB16	1	77'-5"	3'-0½"	26'-7"	25'-11"	2@36"-42-2@48"-54-3@60	1	10¾"	7¼"	3"					5-17@6-12@8-6@9-11@10-2@12"	30	10	40	756000	7'-10"	B1	B2	SEE NOTE "A"
CB17	1	75'-1"	3'-4½"	23'-5"	25'-11"	2@30"-2@42"-48"-54"-3@60	1	10¾"	7¼"	3"					5-17@6-6@7-6@8-6@9-6@10-12@12	30	10	40	756000	7'-7"	B1	B2	SEE NOTE "B"
CB18	1	72'-10"	3'-3"	21'-0"	25'-11"	30"-42"-48"-2@56"-3@60"	1	10¾"	7¼"	3"					5-20@6-14@8-6@10-12@12	30	10	40	756000	7'-4"	B1	B2	
CB19	1	70'-7"	3'-1½"	18'-9"	25'-11"	36"-2@42"-48"-54"-3@60"	1	10¾"	7¼"	3"					5-13@6-6@7-6@8-6@9-6@10-12@12	30	10	40	756000	7'-1"	B1	B2	
CB20	1	68'-4"	3'-0"	16'-6"	25'-11"	30"-36"-42"-48"-54"-3@60"	1	10¾"	7¼"	3"					5-11@6-6@7-6@8-6@9-6@10-10@12	26	8	34	642600	6'-11"	B1	B2	
CB21	1	66'-1"	3'-4½"	14'-3"	25'-11"	2@30"-36"-48"-54"-3@60"	1	10¾"	7¼"	3"					5-14@6-6@8-6@9-6@10-10@12-15	22	8	30	567000	6'-8"	B1	B2	
CB22	1	63'-10"	3'-3"	12'-0"	25'-11"	2@30"-36"-42"-48"-3@60"	1	10¾"	7¼"	3"					5-16@6-6@7-6@8-6@10-10@12-15	18	8	26	491400	6'-6"	B1	B2	
CB23	1	62'-1"	3'-4½"	31'-1"	31'-0"	30"-2@36"-2@42"-48"-54"-60	1	10¾"	7¼"	3"					5-14@6-6@7-6@8-5@10-6@12-14	18	8	26	491400	6'-3"	B1	B2	
CB24	1	59'-3"	3'-5½"	28'-3"	31'-0"	30"-2@36"-2@42"-2@48"-54	1	10¾"	7¼"	3"					5-26@6-6@7-[illegible]	22	8	30	567000	6'-0"	B1	B2	
CB25	1	55'-6"	3'-1"	25'-6"	31'-0"	30"-36"-2@42"-48"-54"-60"	1	10¾"	7¼"	3"					5-25@6-13@8-6@10-2@12"	18	8	26	491400	5'-9"	B1	B2	
CB26	1	53'-9"	3'-2½"	22'-9"	31'-0"	30"-36"-2@42"-2@48"-54	1	10¾"	7¼"	3"					5-18@6-6@7-12@8-6@9-2@10"	18	8	26	491400	5'-6"	B1	B2	
CB27	1	50'-11"	3'-3½"	19'-11"	31'-0"	2@30"-36"-42"-3@48"	1	10¾"	7¼"	3"					5-16@6-6@7-18@8-2@12"	14	6	20	378000	5'-2"	B1	B2	
CB28	1	49'-3"	3'-5½"	24'-7"	24'-8"	3@20"-3@30"-36"-42"-48"	1	10¾"	7¼"	3"					25@5-11@6-6@7-6@8-2@10"	14	6	20	378000	5'-0"	B1	B2	
CB29	1	45'-8"	3'-2"	21'-0"	24'-8"	2@20"-3@30"-36"-42"-48"	1	10¾"	7¼"	3"					21@5-11@6-6@7-6@8-2@9"	18	8	26	491400	4'-8"	B1	B2	
CB30	1	42'-0"	3'-4"	17'-4"	24'-8"	20"-3@30"-36"-42"-48"	1	10¾"	7¼"	3"					17@5-11@6-6@7-8@8"	18	8	26	491400	4'-3"	B3	B4	SEE NOTE "A"
CB31	1	38'-5"	3'-0½"	15'-9"	24'-8"	20"-2@30"-36"-42"-48"	1	2"	16"	6½"					11@5-11@6-6@7-8@8-9"	10	6	16	302400	3'-11"	B3	B4	SEE NOTE "B"
CB32	1	28'-5"	3'-0½"	15'-3"	10'-2"	20"-2@30"-2@36"					2	2"	16"	6½"	11@5-17@6-2@9"	10	4	14	264600	2'-11"	B3	B4	SEE NOTE "A" SEE NOTE "B"
CB33	1	32'-4"	3'-0"	18'-3"	14'-1"	20"-2@30"-42"-48"					2	10¾"	7¼"	3"	11@5-5@6-6@7-9@8"	10	6	16	302400	3'-4"	B3	B4	
CB34	1	40'-1"	3'-4½"	18'-3"	21'-8"	2@30"-2@36"-42"-48"					2	10¾"	7¼"	3"	13@5-12@6-6@7-6@8-2@9"	10	6	16	302400	4'-1"	B3	B4	
CB35	1	42'-3"	3'-5½"	27'-1"	15'-2"	20"-3@30"-36"-42"-48"					2	10¾"	7¼"	3"	17@5-11@6-6@7-6@3-2@9"	14	6	20	378000	4'-4"	B3	B4	
CB36	1	46'-1"	3'-4½"	27'-1"	19'-0"	2@20"-3@30"-36"-42"-48"					2	10¾"	7¼"	3"	21@5-11@6-6@7-6@8-2@10"	18	8	26	491400	4'-8"	B1	B2	
CB37	1	50'-0"	3'-4"	27'-1"	22'-11"	3@20"-3@30-36"-42"-48"					2	10¾"	7¼"	3"	25@5-11@6-6@7-9@8"	22	8	30	567000	5'-1"	B1	B2	
CB38	1	53'-10"	3'-3"	27'-1"	25'-9"	3@20"-4@30"-36"-42"-48"					2	10¾"	7¼"	3"	25@5-16@6-6@7-6@8-2@9"	18	8	26	491400	5'-5"	B1	B2	
CB39	1	55'-9"	3'-2½"	22'-0"	11'-9"	30"-2@36"-42"-48"-54"-60"					2	10¾"	7¼"	3"	5-24@6-13@8-6@10-2@12"	18	8	26	491400	5'-8"	B1	B2	
CB40	1	58'-6"	3'-2"	22'-6"	14'-8"	30"-2@36"-2@42"-3@48"					2	10¾"	7¼"	3"	5-24@6-6@7-15@8-2@10"	22	8	30	567000	5'-11"	B1	B2	
CB41	1	61'-7"	3'-1½"	22'-0"	17'-7"	30"-2@36"-2@42"-2@48-60					2	10¾"	7¼"	3"	5-24@6-6@7-12@8-6@10-2@12	26	8	34	642600	6'-3"	B1	B2	
CB42	1	64'-6"	3'-1"	22'-0"	20'-6"	2@30"-2@36"-3@42"-48"-60					2	10¾"	7¼"	3"	5-29@6-12@7-6@8-8@10"	30	10	40	756000	6'-6"	B1	B2	
CB43	1	67'-5"	3'-0½"	22'-0"	23'-5"	20-2@30"-2@36"-2@42"-3@48					2	10¾"	7¼"	3"	11@5-24@6-6@7-20@8-9"	30	10	40	756000	6'-9"	B1	B2	
CB44	1	70'-4"	3'-0"	22'-0"	26'-4"	3@30"-2@36"-3@42"-48"-60"					2	10¾"	7¼"	3"	19@5-9@6-11@7-6@8-6@10-2@12	30	10	40	756000	7'-1"	B1	B2	SEE NOTE "B"
CB45	1	48'-3"	3'-5½"	24'-0"	[illegible]	20"-3@30"-36"-2@42"					2	10¾"	7¼"	3"	17@5-11@6-12@7-2@10"	10	6	16	302400	4'-3"	B3	B4	
CB46	1	44'-1"	3'-4½"	28'-0"	20'-1"	2@20"-3@30"-36"-42"-48"					2	10¾"	7¼"	3"	21@5-11@6-6@7-9@8"	18	8	26	491400	4'-7"	B3	B4	
CB47	1	48'-0"	3'-4"	28'-0"	24'-0"	3@20"-3@30"-36"-42"-48"					2	10¾"	7¼"	3"	25@5-11@6-6@7-6@8-2@10"	18	8	26	491400	5'-0"	B1	B2	
CB48	1	51'-10"	3'-3"	24'-0"	27'-10"	4@20"-3@30"-36"-42"-48"					2	10¾"	7¼"	3"	29@5-11@6-6@7-9@8"	18	8	26	491400	5'-5"	B1	B2	

STRANDS LOCATION AT ℄ (ROW) and STRANDS LOCATION AT END (ROW)

I-BEAM NUMBER	℄ 1	℄ 2	℄ 3	℄ 4	℄ 5	℄ 6	℄ 7	℄ 8	℄ 16	℄ 18	END 1	END 2	END 3	END 4	END 5	END 6	END 7	END 8	END 9	END 10	END 11	END 12	END 13	END 14	END 15	END 16	END 17	END 18
CB 1	10	10	10	8	2						10	8	8	6											2	2	2	2
CB 2	10	10	10	8	2						10	8	8	6											2	2	2	2
CB 3	10	10	10	8	2						10	8	8	6											2	2	2	2
CB 4	10	10	10	8	2						10	8	8	6											2	2	2	2
CB 5	10	10	10	8	2						10	8	8	6											2	2	2	2
CB 6	8	2	2	2	2						8	2							2	2	2							
CB 7	10	10	8	2							8	8	6										2	2	2	2		
CB 8	10	10	10	4							8	8	8	2									2	2	2	2		
CB 9	8	8	8	2	2	2					8	8	6										2	2	2	2		
CB10	8	10	4	2	2						8	8	2										2	2	2	2		
CB11	10	8	2								8	6											2	2	2			
CB12	8	8	4	2	2	2					8	8	2										2	2	2	2		
CB13	8	8	2	2	2	2	2				8	8	2										2	2	2	2		
CB14	8	8		2	2	2	2	2			8	8		2									2	2	2	2		
CB15	8	2	2	2	2						8	2							2	2	2							
CB16	10	10	10	8	2						8	8	8	6								2	2	2	2	2		
CB17	10	10	10	8	2						8	8	8	6								2	2	2	2	2		
CB18	10	10	10	8	2						8	8	8	6								2	2	2	2	2		
CB19	10	10	10	8	2						8	8	8	6								2	2	2	2	2		
CB20	10	10	10	4							8	8	8	2									2	2	2	2		
CB21	10	10	8	2							8	8	6										2	2	2	2		
CB22	10	10	4	2							8	8	2										2	2	2	2		
CB23	10	10	4	2							8	8	2										2	2	2	2		
CB24	8	8	8	2	2	2					8	8	6										2	2	2	2		
CB25	8	10	4	2	2						8	8	2										2	2	2	2		
CB26	8	8	4	2	2	2					8	8	2										2	2	2	2		
CB27	10	8	2								8	6											2	2	2			
CB28	10	8	2								8	6										2	2	2				
CB29	8	8		2	2	2	2	2			8	8		2									2	2	2	2		
CB30	8	8		2	2	2	2	2			8	8		2									2	2	2	2		
CB31	8	2	2	2	2						8	2							2	2	2							
CB32	6	2	2	2					2		6	2							2	2						2		
CB33	8	2	2	2	2						8	2							2	2	2							
CB34	8	2	2	2	2						8	2							2	2	2							
CB35	8	6	2	2	2						8	6										2	2	2				
CB36	10	10	4	2							8	8	2										2	2	2	2		
CB37	8	8	6	2	2	2	2				8	8	6										2	2	2	2		
CB38	8	8	4	2	2	2					8	8	2										2	2	2	2		
CB39	8	8	4	2	2	2					8	8	2										2	2	2	2		
CB40	8	8	8	2	2	2					8	8	6										2	2	2	2		
CB41	8	8	10	4	2	2					8	8	8	2									2	2	2	2		
CB42	8	8	10	8	2	2	2				8	8	8	6								2	2	2	2	2		
CB43	10	10	10	8	2						8	8	8	6								2	2	2	2	2		
CB44	10	10	10	8	2						8	8	8	6								2	2	2	2	2		
CB45	8	2	2	2	2						8	2							2	2	2							
CB46	8	8		2	2	2	2	2			8	8		2									2	2	2	2		
CB47	8	8	2	2	2	2	2				8	8	2										2	2	2	2		
CB48	8	8	4	2	2	2					8	8	2										2	2	2	2		

NOTE "A":
BEAMS ON FRAMING PLANS WITH A LETTER ADDED AT END OF BEAM MARK NUMBER ARE SAME AS THOSE SHOWN IN SCHEDULE ABOVE FOR NUMBER WITHOUT LETTER. FOR BEARING ARRANGEMENTS AND VARIATIONS OF END OVERHANGS AND LOCATION OF ADJUSTMENT BOLTS FROM TYPICAL DETAILS SHOWN ON SHEET Nº 32 SEE "SUPPLEMENTARY I-BEAM DATA" TABLE ON SHT Nº 36.

NOTE "B"
PROVIDE INSERTS IN CONCRETE I BEAM FOR ELECTRICAL HANDHOLE
FOR LOCATION AND DETAILS OF HANDHOLE SEE SHEETS 65, 66 & 67

TABLE OF CONCRETE STRENGTH AT TIME OF INITIAL STRESS

BEAM MARK	MIN. f'ci	BEAM MARK	MIN. f'ci	BEAM MARK	MIN. f'ci
CB1 TO CB17 INCL.	4005	CB45 TO CB58 INCL.	4000	CB101 TO CB124 INCL.	4400
CB18 & CB19	4200	CB59, CB68	4200	CB125 TO CB145 INCL.	4000
CB20 TO CB41 INCL.	4000	CB60 TO CB67 INCL.	4200	CB146	4200
CB42, CB43 & CB44	4200	CB69 TO CB100 INCL.	4000		

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

CONCRETE I-BEAM SCHEDULE

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

DATE:

48" DEEP PRECAST PRESTRESSED CONCRETE I-BEAM SCHEDULE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.5-H	COOK	136	34

STA. TO STA.

FED. ROAD DIST. NO. 4 ILLINOIS PROJECT I 02 2[illegible]

I-BEAM NUMBER	QUANTITY	LENGTH ¢ BRG	END BLOCK LENGTH	INSERT NORTH	INSERT SOUTH	SPACING OF 4" WIDE SHEAR KEYS	BLOCKING OF GIRDER FLANGES NORTH BRG TYPE	A	B	d	SOUTH BRG TYPE	C	D	d	P1 BARS
CB49	1	53'-7"	3'-1½"	21'-0"	11'-7"	2@30"-36"-42"-48"-56"-60"					2	10¾"	7¼"	3"	5-23@6"-13@8"-6@10"-2@13"
CB50	1	56'-7"	3'-1½"	21'-0"	14'-7"	2@30"-36"-2@42"-3@48"					2	10¾"	7¼"	3"	5-23@6"-6@7"-21@8
CB51	1	59'-7"	3'-1½"	21'-0"	17'-7"	30"-2@36"-2@42"-2@48"-60"					2	10¾"	7¼"	3"	5-24@6"-6@7"-12@8"-8@10"
CB52	1	62'-8"	3'-2"	21'-0"	20'-5"	2@30"-2@36"-2@42"-3@48"					2	10¾"	7¼"	3"	7@5"-24@6"-6@7"-21@8"
CB53	1	65'-3"	3'-2"	21'-0"	23'-3"	2@30"-2@36"-2@42"-2@48"-60"					2	2"	16"	6½"	7@5"-24@6"-6@7"-12@8"-8@10"
CB54	8	30'-1"	3'-4½"			20"-30"-2@36"-40"									11@5"-12@6"-5@8"-2@9"
CB55	1	36'-[illegible]"	3'-5"	18'-5"	17'-11"	20"-3@30"-42"-48"					2	10¾"	7¼"	3"	11@5"-10@6"-6@7"-6@8"-2@9"
CB56	21	66'-2"	3'-5"	22'-0"	22'-0"	2@30"-2@36"-2@42"-2@48"-60"									7@5"-24@6"-6@7"-12@8"-6@10"-2@12"
CB57	16	66'-5"	3'-0½"	22'-1"	22'-1"	2@30"-2@36"-2@42"-2@48"-60"									7@5"-24@6"-6@7"-12@8"-6@10"-2@12
CB58	10	65'-0"	3'-4"	21'-9"	21'-9"	2@30"-2@36"-2@42"-2@48"-54"									7@5"-24@6"-6@7"-12@8"-6@9"-2@11
CB59	6	70'-10"	3'-3"	23'-8"	23'-8"	36"-2@42"-48"-54"-3@60"									5-13@6"-6@7"-6@8"-6@9"-6@11"-4@12"-2@16"
CB60	1	57'-1"	3'-4½"			2@30"-36"-2@42"-2@48"-54"									5-23@6"-6@7"-12@8"-8@9"
CB61	1	68'-1"	3'-4½"			6@20"-4@30"-2@36"-42"-48"									31@5"-27@6"-6@7"-9@8"
CB62	1	52'-8"	3'-2"	19'-6"	13'-8"	20"-2@30"-2@36"-2@42"-54"									17@5"-12@6"-12@7"-6@9"-2@12"
CB63	1	53'-0"	3'-4"	19'-6"	14'-0"	20"-2@30"-2@36"-2@42"-54"									17@5"-12@6"-12@7"-9@9"
CB64	1	53'-4"	3'-0"	19'-6"	14'-4"	20"-2@30"-2@36"-2@42"-54"									17@5"-12@6"-12@7"-9@9"
CB65	1	53'-8"	3'-2"	19'-6"	14'-8"	20"-2@30"-2@36"-42"-48"-54"									17@5"-12@6"-6@7"-6@8"-6@9"-2@11"
CB66	1	54'-0"	3'-4"	19'-6"	15'-0"	20"-2@30"-2@36"-42"-48"-54"									17@5"-12@6"-6@7"-6@8"-9@9"
CB67	1	54'-3"	2'-11½"	19'-6"	15'-3"	20"-2@30"-2@36"-42"-48"-54"									17@5"-12@6"-6@7"-6@8"-9@9"
CB68	14	68'-6"	3'-1"	22'-10"	22'-10"	20"-2@30"-2@36"-2@42"-2@48"-54"									11@5"-24@6"-6@7"-12@8"-6@9"-2@11"
CB69	17	53'-7"	3'-1½"	17'-10"	17'-10"	3@20"-4@30"-36"-2@42"									25@5"-16@6"-12@7"-2@10"
CB70	22	57'-6"	3'-1"	19'-2"	19'-2"	4@20"-4@30"-36"-42"-48"									29@5"-16@6"-6@7"-6@8"-2@9"
CB71	18	50'-8"	3'-0"	25'-2"	25'-2"	3@20"-3@30"-36"-42"-48"									25@5"-11@6"-6@7"-9@8"
CB72	1	65'-1"	3'-4½"	24'-1"	20'-6"	2@30"-2@36"-2@42"-2@48"-54"	1	13"	5"	3"					7@5"-24@6"-6@7"-12@8"-9@9"
CB73	1	61'-7"	3'-1½"	20'-7"	20'-6"	30"-2@36"-2@42"-48"-54"-60"	1	13"	5"	3"					5-24@6"-6@7"-6@8"-6@9"-6@10"-2@11"
CB74	1	58'-1"	3'-4½"	17'-1"	20'-6"	30"-2@36"-2@42"-3@48"	1	13"	5"	3"					5-24@6"-6@7"-18@8"-2@10"
CB75	1	54'-7"	3'-1½"	13'-7"	20'-6"	30"-36"-2@42"-2@48"-54"	1	13"	5"	3"					5-18@6"-6@7"-12@8"-6@9"-3@10"
CB76	1	51'-1"	3'-4½"	10'-1"	20'-6"	2@30"-36"-42"-2@48"-54"	1	13"	5"	3"					5-16@6"-6@7"-12@8"-6@9"-2@10"
CB77	1	49'-5"	3'-0½"	26'-10"	22'-7"	3@20"-2@30"-36"-42"-48"	1	13"	5"	3"					25@5"-11@6"-6@7"-6@8"-2@10"
CB78	1	45'-1"	3'-4½"	22'-6"	22'-7"	2@20"-3@30"-36"-42"-48"	1	13"	5"	3"					21@5"-11@6"-6@7"-8@8"
CB79	1	40'-10"	3'-3"	18'-3"	22'-7"	2@20"-2@30"-36"-42"-48"	1	13"	5"	3"					15@5"-11@6"-6@7"-6@8"-2@10"
CB80	1	36'-7"	2'-7½"	14'-3"	22'-7"	20"-3@30"-42"-48"	1	13"	5"	3"					11@5"-10@6"-6@7"-6@8"-2@10"
CB81	1	32'-3"	2'-11½"	9'-5"	22'-7"	20"-30"-36"-42"-48"	1	4"	14"	8"					5@5"-11@6"-6@7"-6@8"-2@9"
CB82	1	72'-6"	3'-1"	26'-0"	23'-3"	2@30"-36"-2@42"-48"-54"-2@60"	1	5"	13"	8"					13@5"-13@6"-6@7"-6@8"-6@9"-4@10"
CB83	1	69'-5"	3'-0½"	22'-11"	23'-3"	2@30"-2@36"-42"-48"-54"-2@60"	1	13"	5"	3"					13@5"-12@6"-6@7"-6@8"-6@9"-4@10"
CB84	1	66'-3"	3'-5½"	19'-7"	23'-3"	3@30"-36"-2@42"-48"-54"-60"	1	13"	5"	3"					13@5"-11@6"-12@7"-6@8"-6@9"-6@10"-2@12"
CB85	1	63'-2"	3'-5"	15'-5"	23'-3"	2@30"-36"-42"-2@48"-2@60"	1	13"	5"	3"					13@5"-13@6"-12@8"-12@10"-2@12"
CB86	1	61'-6"	3'-1"	32'-6"	27'-0"	4@20"-2@30"-2@36"-42"-2@48"	1	13"	5"	3"					23@5"-17@6"-6@7"-12@8"-2@10"
CB87	1	57'-9"	3'-2½"	28'-9"	27'-0"	2@20"-30"-3@36"-42"-48"-54"	1	13"	5"	3"					15@5"-18@6"-6@7"-6@8"-9@9"
CB88	1	54'-0"	3'-4"	25'-0"	27'-0"	20"-2@30"-2@36"-2@48"-54"	1	13"	5"	3"					11@5"-17@6"-12@8"-6@9"-2@11"
CB89	1	50'-3"	3'-5½"	21'-3"	27'-0"	20"-3@30"-2@36"-42"-54"	1	13"	5"	3"					11@5"-22@6"-6@7"-6@9"-2@11"
CB90	1	48'-7"	3'-1½"	26'-1"	22'-6"	2@20"-2@30"-2@36"-42"-54"	1	13"	5"	3"					9@5"-22@6"-6@7"-6@9"-2@12"
CB91	1	45'-1"	3'-4½"	22'-7"	22'-6"	3@30"-2@36"-42"-48"	1	13"	5"	3"					7@5"-22@6"-6@7"-6@8"-2@10"
CB92	1	41'-6"	3'-1"	19'-0"	22'-6"	30"-3@36"-42"-48"	1	13"	5"	3"					7@5"-18@6"-6@7"-6@8"-2@10"
CB93	1	38'-0"	3'-4"	15'-6"	22'-6"	20"-30"-2@36"-42"-48"	1	13"	5"	3"					5@5"-17@6"-6@7"-9@8"
CB94	1	34'-6"	3'-1"	12'-0"	22'-6"	2@30"-36"-42"-48"	1	13"	5"	3"					7@5"-11@6"-6@7"-6@8"-2@10"
CB95	1	32'-3"	3'-5½"			20"-30"-36"-42"-48"	1	13"	5"	3"					11@5"-6@6"-6@7"-6@8"-2@9"
CB96	1	28'-0"	3'-4"			20"-24"-30"-36"-42"	1	13"	5"	3"					5@5"-15@6"-6@7"-2@9"

I-BEAM NUMBER	STRANDS STRAIGHT	SLOPED	TOTAL	TOTAL FORCE#	STRANDS LOCATION AT ¢ ROW 1	2	3	4	5	6	7	8	16	18
CB49	14	6	20	378000	10	8	2							
CB50	22	8	30	567000	8	8	8	2	2	2				
CB51	22	8	30	567000	8	10	8	2	2					
CB52	26	8	34	642600	8	10	10	4	2					
CB53	22	8	30	567000	10	10	8	2						
CB54	10	4	14	264600	6	2	2	2					2	
CB55	10	6	16	302400	8	2	2	2	2					
CB56	30	8	38	718200	10	8	8	8	2	2				
CB57	30	8	38	718200	10	8	8	8	2	2				
CB58	30	8	38	718200	10	8	8	8	2	2				
CB59	30	10	40	756000	10	10	10	8	2					
CB60	18	8	26	491400	8	10	4	2	2					
CB61	30	8	38	718200	10	8	8	8	2	2				
CB62	14	6	20	378000	10	8	2							
CB63	18	8	26	491400	8	8	4	2	2	2				
CB64	18	8	26	491400	8	8	4	2	2	2				
CB65	18	8	26	491400	8	8	4	2	2	2				
CB66	18	8	26	491400	8	8	4	2	2	2				
CB67	18	8	26	491400	8	8	2	2	2	2	2			
CB68	32	8	40	756000	8	10	10	8	2	2				
CB69	26	6	32	604800	6	6	6	6	6	2				
CB70	30	8	38	718200	8	6	8	8	2	2	2	2		
CB71	20	8	28	529200	8	8	2	2	2	2	2	2		
CB72	20	8	28	529200	10	10	4	4						
CB73	26	8	34	642600	8	8	10	4	2	2				
CB74	22	8	30	567000	8	8	8	2	2	2				
CB75	18	8	26	491400	8	8	4	2	2	2				
CB76	14	6	20	378000	10	8	2							
CB77	16	4	20	378000	8	6	2	2					2	
CB78	18	8	26	491400	8	8		2	2	2	2	2		
CB79	16	4	20	378000	8	6	2	2					2	
CB80	10	6	16	302400	8	2	2	2	2					
CB81	10	4	14	264600	6	2	2	2					2	
CB82	30	10	40	756000	10	10	10	8	2					
CB83	30	10	40	756000	10	10	10	8	2					
CB84	28	10	38	718200	10	8	8	8	2	2				
CB85	22	8	30	567000	10	10	8	2						
CB86	22	8	30	567000	8	10	8	2	2					
CB87	22	8	30	567000	8	8	10	2	2					
CB88	20	8	28	629200	8	8	2	2	2	2	2	2		
CB89	14	6	20	323000	8	8	2	2						
CB90	14	6	20	378000	8	6	2	2	2					
CB91	14	6	20	378000	8	6	2	2	2					
CB92	10	6	16	302400	8	2	2	2	2					
CB93	10	6	16	302400	8	2	2	2	2					
CB94	10	4	14	264600	6	2	2	2					2	
CB95	10	4	14	264600	6	2	2	2					2	
CB96	10	4	14	264600	6	2	2	2					2	

I-BEAM NUMBER	STRANDS LOCATION AT END ROW 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	BEND POINT FROM ¢	BEARING TYPE NORTH	SOUTH	REMARKS
CB49	8	6											2	2	2				5'-6"	B1	B2	
CB50	8	8	6										2	2	2	2			5'-10"	B1	B2	
CB51	8	8	6										2	2	2	2			6'-2"	B1	B2	
CB52	8	8	8	2									2	2	2	2			6'-5"	B1	B2	
CB53	8	8	6										2	2	2	2			6'-7"	B1	B2	SEE NOTE "A"
CB54	6	2							2	2						2			3'-1"	B3	B4	SEE NOTE "A"
CB55	8	2							2	2	2								3'-8"	B3	B4	
CB56	10	8	6	6											2	2	2	2	6'-8"	B2	B1	SEE NOTE "A"
CB57	10	8	6	6											2	2	2	2	6'-8"	B1	B2	[illegible]
CB58	10	8	6	6											2	2	2	2	6'-6"	B2	B1	SEE NOTE [illegible]
CB59	8	8	8	6								2	2	2	2	2			7'-1"	B2	B1	SEE NOTE [illegible]
CB60	8	8	2												2	2	2	2	6'-0"	B1	B2	[illegible]
CB61	10	6	6	6										2	2	2	2	2	7'-2"	B2	B1	[illegible] SH. 27
CB62	8	6												2	2	2			5'-3"	B1	B2	SEE NOTE "B"
CB63	8	8	2												2	2	2	2	5'-3"	B1	B2	
CB64	8	8	2												2	2	2	2	5'-4"	B1	B2	
CB65	8	8	2												2	2	2	2	5'-4"	B1	B2	
CB66	8	8	2												2	2	2	2	5'-5"	B1	B2	
CB67	8	8	2										2	2	2	2			5'-6"	B1	B2	
CB68	8	8	8	6	2										2	2	2	2	6'-10"	B1	B2	ADJUST BOLTS AT [illegible]
CB69	6	6	6	4	4											2	2	2	5'-4"	B2	B1	SEE NOTE "A" SEE NOTE "B"
CB70	8	6	8	8											2	2	2	2	5'-9"	B1	B2	SEE NOTE "B"
CB71	8	8	2	2											2	2	2	2	5'-0"	B2	B1	ADJUST BOLTS [illegible]
CB72	8	8	2	2											2	2	2	2	6'-7"	B2	B1	
CB73	8	8	8	2									2	2	2	2			6'-3"	B2	B1	
CB74	8	8	6										2	2	2	2			5'-10"	B2	B1	
CB75	8	8	2										2	2	2	2			5'-6"	B2	B1	
CB76	8	6											2	2	2				5'-2"	B2	B1	
CB77	8	6												2	2	2			5'-0"	B2	B1	
CB78	8	8		2									2	2	2	2			4'-7"	B2	B1	
CB79	8	6										2	2			2			4'-2"	B4	B3	
CB80	8	2							2	2	2								3'-8"	B4	B3	
CB81	6	2							2	2						2			3'-4"	B4	B3	SEE NOTE "A"
CB82	8	8	8	6								2	2	2	2	2			7'-3"	B2	B1	SEE NOTE "A" SEE NOTE "B"
CB83	8	8	8	6								2	2	2	2	2			7'-0"	B2	B1	
CB84	8	8	6	6								2	2	2	2	2			6'-8"	B2	B1	
CB85	8	8	6										2	2	2	2			6'-4"	B2	B1	
CB86	8	8	6										2	2	2	2			6'-3"	B2	B1	
CB87	8	8	6										2	2	2	2			5'-10"	B2	B1	
CB88	8	8	2	2									2	2	2	2			5'-5"	B2	B1	
CB89	8	6										2	2	2					5'-1"	B2	B1	
CB90	8	6										2	2	2					4'-11"	B2	B1	
CB91	8	6										2	2	2					4'-6"	B2	B1	
CB92	8	2								2	2	2							4'-3"	B4	B3	
CB93	8	2								2	2	2							3'-11"	B4	B3	
CB94	6	2							2	2						2			3'-6"	B4	B3	
CB95	6	2							2	2						2			3'-3"	B4	B3	
CB96	6	2							2	2						2			2'-10"	B4	B3	

NOTE "A"
BEAMS ON FRAMING PLANS WITH LETTER ADDED AT END OF BEAM MARK NUMBER ARE SAME AS THOSE SHOWN IN SCHEDULE ABOVE FOR NUMBER WITHOUT LETTER. FOR BEARING ARRANGEMENTS AND VARIATIONS OF END OVERHANGS AND LOCATION OF ADJUSTMENT BOL'S FROM TYPICAL DETAILS SHOWN ON SHEET Nº 32 SEE "SUPPLEMENTARY I-BEAM DATA TABLE" ON SHT. Nº 36

NOTE "B"
PROVIDE INSERTS IN CONCRETE I BEAM FOR ELECTRICAL HANDHOLE
FOR LOCATION AND DETAILS OF HANDHOLE SEE SHEETS 65, 66 & 67

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

CONCRETE I BEAM SCHEDULE

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 34 OF 136 SHEETS DATE:

48" DEEP PRECAST PRESTRESSED CONCRETE I-BEAM SCHEDULE

Route No.	Section	County	Total Sheets	Sheet No.
FAI 2	0505.3-1H	COOK	136	35

STA. TO STA.

I-Beam Number	Quantity	Length ℄ Brg	End Block Length	Insert North	Insert South	Spacing of 2" Wide Shear Keys	North Brg Type	A	B	d	South Brg Type	C	D	d	P1 Bars	Strands Straight	Sloped	Total	Total Force#
CB97	1	23'8"	3'2"			3@30"-36"	1	13"	5"	3"					2-7@5"-16@6"-2@8"	10	4	14	264600
CB98	1	19'4"	3'0"			30"-2@36"	1	13"	5"	3"					2-7@5"-12@6"-2@8"	10	4	14	264600
CB99	1	15'1"	2'4½"			20"-2@30"	1	13"	5"	3"					2-5@5"-12@6"	10	4	14	264600
CB100	1	87'7"	3'1½"	29'2"	29'2"	2@36"-2@42"-2@48"-54"-3@60"	1	1"	17"	10½"	2	7"	11"	7"	5-20@6"-GPT-12@8"-GPT-5@10"-10@12"-3@15"	30	10	40	756000
CB101	1	86'5"	3'0½"	28'10"	28'10"	2@36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-20@6"-GPT-12@8"-GPT-5@10"-13@12"	30	16	46	869400
CB102	1	85'2"	3'5"	28'5"	28'5"	2@36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-20@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB103	1	84'0"	3'4"	28'0"	28'0"	2@36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-17@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB104	1	82'11"	3'3½"	27'8"	27'8"	2@36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-17@6"-GPT-12@8"-GPT-5@10"-12@12"	30	16	46	869400
CB105	1	81'9"	3'2½"	27'3"	27'3"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-3@15"	30	16	46	869400
CB106	2	80'9"	3'2½"	26'11"	26'11"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-13@12"	30	16	46	869400
CB107	2	80'8"	3'7"	26'11"	26'11"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-13@12"	30	16	46	869400
CB108	2	80'7"	3'1½"	26'10"	26'10"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-13@12"	30	16	46	869400
CB109	3	80'6"	3'1"	26'10"	26'10"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-[illegible]	30	16	46	869400
CB110	2	80'5"	3'0½"	26'10"	26'10"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB111	2	80'4"	3'0"	26'9"	26'9"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB112	2	80'3"	3'5½"	26'9"	26'9"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB113	2	80'2"	3'5"	26'9"	26'9"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB114	2	80'1"	3'4½"	26'8"	26'8"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB115	2	80'0"	3'4"	26'9"	26'8"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@15"	30	16	46	869400
CB116	2	79'11"	3'3½"	26'8"	26'8"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@16"	30	16	46	869400
CB117	2	79'10"	3'3"	26'7"	26'7"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@16"	30	16	46	869400
CB118	2	79'9"	3'2½"	26'7"	26'7"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@16"	30	16	46	869400
CB119	3	79'8"	3'2"	26'7"	26'7"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-10@12"-2@16"	30	16	46	869400
CB120	1	77'2"	3'5"	26'5"	26'5"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-12@12"	30	16	46	869400
CB121	1	75'3"	3'2"	26'3"	26'3"	36"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-13@6"-GPT-12@8"-GPT-5@10"-12@12"	30	16	46	869400
CB122	1	78'2"	3'5"	26'1"	26'1"	30"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-12@6"-GPT-12@8"-GPT-5@10"-12@12"	30	16	46	869400
CB123	1	77'8"	3'2"	25'11"	25'11"	30"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-12@6"-GPT-12@8"-GPT-5@10"-12@12"	30	16	46	869400
CB124	1	77'3"	3'5½"	25'9"	25'9"	24"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-11@6"-GPT-12@8"-GPT-5@10"-12@12"	30	16	46	869400
CB125	1	76'9"	3'2½"	25'7"	25'7"	24"-3@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-11@6"-GPT-12@8"-GPT-5@10"-12@12"	30	10	40	756000
CB126	1	76'3"	3'5½"	25'5"	25'5"	24"-2@42"-2@48"-54"-3@60"	1	11½"	6½"	4"	2	12"	6"	4"	5-11@6"-GPT-12@8"-GPT-5@10"-10@12"-15"	30	10	40	756000
CB127	1	75'0"	3'3"	25'3"	25'3"	24"-2@42"-2@48"-54"-3@60"	1	1"	17"	10½"	2	4½"	13½"	9"	5-11@6"-GPT-12@8"-GPT-5@10"-10@12"-15"	30	10	40	756000
CB128	1	56'1"	3'4½"	28'0½"	28'0½"	4@20"-30"-3@36"-2@45"					2	1"	17"	10½"	23@5"-18@6"-12@8"-2@10"	18	8	26	491400
CB129	1	54'9"	3'2½"	27'4½"	27'4½"	4@20"-30"-3@36"-42"-48"					2	11½"	6½"	4"	23@5"-18@6"-GPT-6@8"-2@10"	18	8	26	491400
CB130	1	53'5"	3'0½"	26'8½"	26'8½"	4@20"-2@30"-3@36"-42"-48"					2	11½"	6½"	4"	23@5"-17@6"-GPT-8@8"	18	8	26	491400
CB131	1	52'2"	3'5"	26'1"	26'1"	3@20"-30"-3@36"-42"-48"					2	11½"	6½"	4"	19@5"-18@6"-GPT-9@8"	18	8	26	491400
CB132	2	51'0"	3'4"	25'6"	25'6"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@10"	18	10	28	529200
CB133	2	50'11"	3'3½"	25'5½"	25'5½"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@10"	18	10	28	529200
CB134	3	50'10"	3'3"	25'5"	25'5"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@10"	18	10	28	529200
CB135	2	50'9"	3'2½"	25'4½"	25'4½"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@6"-12@6"-GPT-6@8"-2@10"	18	10	28	529200
CB136	2	50'8"	3'2"	25'4"	25'4"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@10"	18	10	28	529200
CB137	3	50'7"	3'1½"	25'3½"	25'3½"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@9"	18	10	28	529200
CB138	2	50'6"	3'1"	25'3"	25'3"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@9"	18	10	28	529200
CB139	3	50'5"	3'0½"	25'2½"	25'2½"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@6"-12@6"-GPT-6@8"-2@9"	18	8	26	491400
CB140	2	50'4"	3'0"	25'2"	25'2"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-6@8"-2@9"	18	8	26	491400
CB141	2	50'3"	3'5½"	25'1½"	25'1½"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-8@8"	18	8	26	491400
CB142	2	50'2"	3'5"	25'1"	25'1"	3@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	25@5"-12@6"-GPT-8@8"	18	8	26	491400
CB143	1	47'3"	3'5½"	26'7½"	26'7½"	2@20"-30"-3@36"-42"-48"					2	11½"	6½"	4"	15@5"-18@6"-GPT-7@8"	18	8	26	491400
CB144	1	49'3"	3'6½"	24'1½"	24'1½"	2@20"-2@30"-2@36"-42"-48"					2	11½"	6½"	4"	15@5"-17@6"-GPT-9@8"	18	8	26	491400
CB145	1	46'5"	3'0½"	23'2½"	23'2½"	2@20"-2@30"-2@36"-42"-48"					2	1"	17"	10½"	15@5"-17@6"-GPT-6@8"-2@9"	18	8	26	491400

I-Beam Number	℄ Row 1	2	3	4	5	6	7	8	16	18	End Row 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Bend Point from ℄	Bearing Type North	Bearing Type South	Remarks
CB97	6	2	2	2					2		6	2							2	2						2			2'5"	B4	B3	
CB98	6	2	2	2					2		6	2							2	2						2			2'0"	B4	B3	
CB99	6	2	2	2					2		6	2							2	2						2			1'7"	B4	B3	
CB100	10	10	10	8	2						8	8	8	6								2	2	2	2	2			8'10"	B1	B2	SEE NOTE "A"
CB101	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'9"	B1	B2	
CB102	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'7"	B1	B2	
CB103	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'6"	B1	B2	
CB104	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'5"	B1	B2	
CB105	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'3"	B1	B2	
CB106	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'2"	B1	B2	
CB107	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'2"	B1	B2	
CB108	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'2"	B1	B2	
CB109	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'2"	B1	B2	
CB110	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB111	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB112	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB113	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB114	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB115	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB116	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	SEE NOTE "B"
CB117	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB118	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB119	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'1"	B1	B2	
CB120	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			8'0"	B1	B2	
CB121	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			7'11"	B1	B2	
CB122	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			7'11"	B1	B2	
CB123	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			7'10"	B1	B2	
CB124	10	8	10	8	4	2	2	2			8	6	8	6	2				2	2	2	2	2	2	2	2			7'10"	B1	B2	
CB125	10	10	10	8	2						8	8	8	6								2	2	2	2	2			7'9"	B1	B2	
CB126	10	10	10	8	2						8	8	8	6								2	2	2	2	2			7'9"	B1	B2	
CB127	10	10	10	8	2						8	8	8	6								2	2	2	2	2			7'6"	B1	B2	SEE NOTE "A"
CB128	8	8	2	2	2	2	2				8	8	2										2	2	2	2			5'3"	B2	B1	SEE NOTE "B"
CB129	8	8	2	2	2	2	2				8	8	2										2	2	2	2			5'6"	B2	B1	
CB130	8	8	2	2	2	2	2				8	8	2										2	2	2	2			5'4"	B2	B1	
CB131	8	8	2	2	2	2	2				8	8	2										2	2	2	2			5'3"	B2	B1	
CB132	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB133	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB134	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB135	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB136	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB137	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB138	8	8	2	2	2	2	2	2			8	8	2									2	2	2	2	2			5'1"	B2	B1	
CB139	8	8		2	2	2	2	2			8	8		2									2	2	2	2			5'1"	B2	B1	
CB140	8	8		2	2	2	2	2			8	8		2									2	2	2	2			5'0"	B2	B1	
CB141	8	8		2	2	2	2	2			8	8		2									2	2	2	2			5'0"	B2	B1	
CB142	8	8		2	2	2	2	2			8	8		2									2	2	2	2			5'0"	B2	B1	
CB143	8	8		2	2	2	2	2			8	8		2									2	2	2	2			4'11"	B2	B1	
CB144	8	8		2	2	2	2	2			8	8		2									2	2	2	2			4'10"	B2	B1	
CB145	8	8		2	2	2	2	2			8	8		2									2	2	2	2			4'9"	B2	B1	SEE NOTE "A"

NOTE "A"
BEAMS ON FRAMING PLANS WITH A LETTER ADDED AT END OF BEAM MARK NUMBER ARE SAME AS THOSE SHOWN IN SCHEDULE ABOVE FOR NUMBER WITHOUT LETTER. FOR BEARING ARRANGEMENTS AND VARIATIONS OF END OVERHANGS AND LOCATION OF ADJUSTMENT BOLTS FROM TYPICAL DETAILS SHOWN ON SHEET Nº 32 SEE "SUPPLEMENTARY I-BEAM DATA TABLE" ON SHT. Nº 36.

NOTE "B"
PROVIDE INSERTS IN CONCRETE I BEAM FOR ELECTRICAL HANDHOLE.
FOR LOCATION AND DETAILS OF HANDHOLE SEE SHEETS 65, 66 & 67

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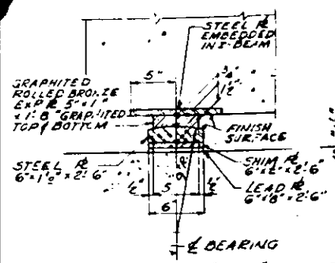
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

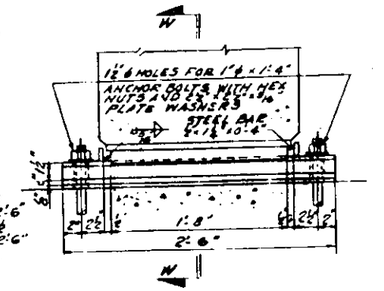
CONCRETE I-BEAM SCHEDULE

SHEET NO. 55 OF 136 SHEETS DATE:

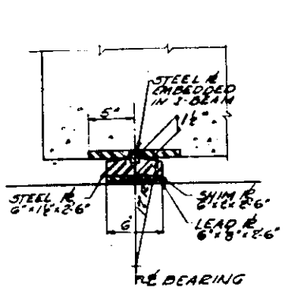
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0606.3-1H	COOK	136	36
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I-90 2(61)	



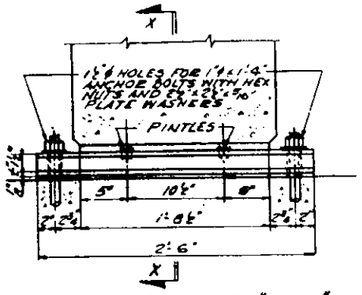
SECTION "W-W"



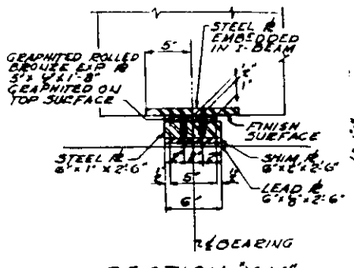
EXPANSION BEARING "B1"



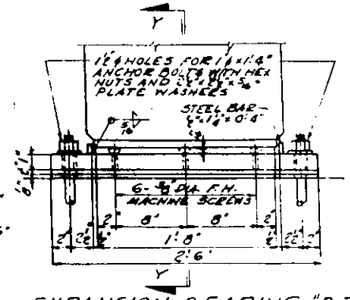
SECTION "X-X"



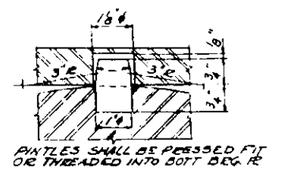
FIXED BEARING "B2"



SECTION "Y-Y"



EXPANSION BEARING "B3"



PINTLE SHALL BE PRESSED FIT OR THREADED INTO BOTT. BRG. PL.

PINTLE DETAIL

SECTION U-U

EXPANSION BEARING "B5"

SECTION V-V

FIXED BEARING "B6"

SECTION Z-Z

FIXED BEARING "B4"

NOTE!
SHIMPLATES TO BE USED ONLY WHEN REQUIRED. SEE FRAMING PLANS FOR LOCATION AND THICKNESS OF SHIMPLATES.

SUPPLEMENTARY I-BEAM DATA

MARK	ARG. TYPE NO.	ARG. TYPE SO.	END OVERHANG NORTH	END OVERHANG SOUTH	END BLOCK LGTH NORTH	END BLOCK LGTH SOUTH	LOCATION OF ADJ. BOLTS NORTH	LOCATION OF ADJ. BOLTS SOUTH	REMARKS
CB2A	B1	B2							
CB2B, CB2C	B2	B1							
CB3A	B1	B2							
CB3B	B2	B1							
CB5A, CB5B	B1	B2							
CB5C	B1	B2							
CB5D, CB5E	B2	B1							
CB5F	B2	B1							
CB7			13½"	10"	3'-4½"	3'-1"			
CB8							3"	3"	
CB9							3"	3"	
CB10							3"	3"	
CB11							3"	3"	
CB12							3"	3"	
CB13							3"	3"	
CB14							3"	3"	
CB15							3"	3"	
CB31			13½"	10"	3'-4"	3'-0½"			
CB32			10"	13½"	3'-0½"	3'-4"			
CB53			10"	13½"	3'-2"	3'-4½"			
CB54							3"	3"	
CB5GF, CB5G							3"	3"	
CB5GH							3"	3"	
CB60			10"	2'-2½"	3'-4½"	5'-4½"			
CB61			2'-0½"	10"	5'-4½"	3'-4½"			
CB700, CB70E							3"	3"	
CB81			15"	10"	3'-4½"	2'-11½"			
CB82			15"	10"	3'-4"	3'-1"			
CB100			16½"	13"	3'-5"	3'-4½"			
CB127			16½"	16"	3'-5½"	3'-5"			
CB128			10"	16½"	3'-4½"	3'-5"			
CB145			10"	16½"	3'-0½"	3'-7"			

NOTE!
ALL DIMENSIONS OR DETAILS NOT SHOWN ARE SAME AS SHOWN IN CONCRETE I-BEAM SCHEDULE FOR BEAM OF SAME NUMBER

SCALE OF TRACING
1½"=1'-0"
0 3" 6" 9" 1' 2' 3'

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GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0606.3-1H
BEARING DETAILS
SHEET NO. 36 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 12	0505.5-1H	COOK	136	37
STA.	TO STA.			
FED. ROAD DIST. NO. 5	ILLINOIS	PROJECT		

SHEAR CONNECTOR SPACING, SEE SCHEDULE

PANEL "A" PANEL "B" PANEL "C" PANEL "D" MAX. 6" SPACING PANEL "D" PANEL "C" PANEL "B" PANEL "A"

SEE WEB SPLICE DETAIL BELOW FOR DISTANCE ℄ OF BRG TO ℄ OF CROSS GIRDER, SEE SCHEDULE

ELEVATION

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

SEE BEARING DETAILS THIS SHEET

TYPICAL INTERMEDIATE STIFFENER

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

WEB SPLICE

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

2" ϕ HOLE IN 1" STRAP AT ℄ STIFFENER VARY TO FIT STIFFENER SPACING

13" x 1" STRAP PLATE

VARIES SEE GIRDER DETAILS

2 L'S SAME SIZE AS GIRDER STIFF. ANGLE

STRINGER WEB

GIRDER STIFF. ANGLE

GIRDER WEB

FOR DETAIL OF BRACING SEE SHEETS 52-53

GIRDERS G4 & G8 AS SHOWN
GIRDERS G3, G6 & G9 SIMILAR

(FOR CONNECTIONS AT GIRDERS G5 & G7 SEE SHEET 38)

TYPICAL STRINGER-GIRDER CONNECTION GIRDERS G3, G4, G6, G8 & G9

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

SECTION C-C

SCALE: 1 1/2" = 1'-0"

TYPICAL INTERMEDIATE SWAY FRAME X1

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

BEARING STIFFENER

SEE SHEETS FOR EXP. GUARD AT SWAY FRAME X2 ONLY

TYPICAL SWAY FRAME X2

(CONNECTIONS ARE SAME EXCEPT AS NOTED)

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

DETAIL A

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

NOTE:
FOR FLANGE ANGLES, COVER PLATES, WEB PLATE, RIVET SPACING, SHEAR CONNECTOR SPACING SEE SHT 38
FOR STIFFENER ANGLE SPACING, LOCATION OF SWAY FRAMES & SHIM PLATES SEE FRAMING PLANS, SHEETS 26 TO 28.

SECTION W-W
TYPICAL EXPANSION BEARING FOR STEEL STRINGERS AT PIERS 13, 14, 15, 16, 18, 19, 20 & 21

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

FIRST COVER PL SECOND COVER PL (IF ANY)

HALF OF BOTTOM COVER PLATE

1 3/4" ϕ HOLES FOR 1 1/4" x 1'-4" ANCHOR BOLTS WITH HEX. NUTS AND 2" x 2" x 5/16" PLATE WASHERS

STEEL PL 6" x 1" x 1'-1 1/2"
STEEL PL 6" x 2" x 1'-10"
SHIM PL 6" x ℓ x 1'-10"
LEAD PL 6" x 1/8" x 1'-10"

SECTION V-V

PINTLES SHALL BE PRESSED FIT OR THREADED TO THE BOTTOM BEARING PLATE.

PINTLE DETAIL

TYPICAL FIXED BEARING-STEEL STRINGERS @ PIER 17

SCALES OF TRACING

3/8" = 1'-0"
3/4" = 1'-0"
1 1/2" = 1'-0"

Issued for Contract Section 0505.5-1HF

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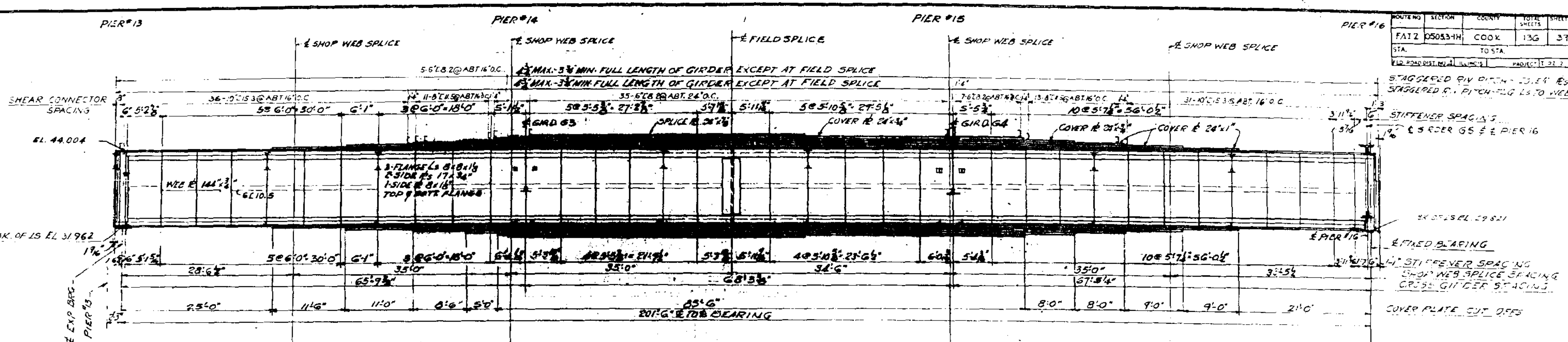
SECTION 0505.5-1H

STEEL STRINGER DETAILS

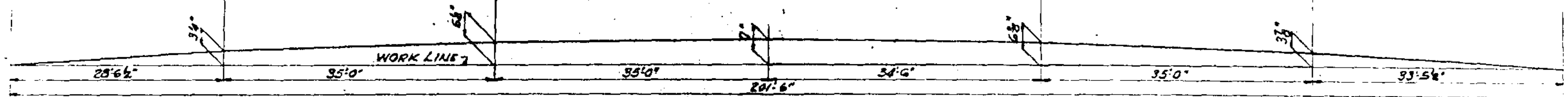
SHEET NO. 37 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA1Z	0508.3-1H	COOK	136	39



ELEVATION OF FASCIA-GIRDER G1

SCALE: 1/8"=1'-0"

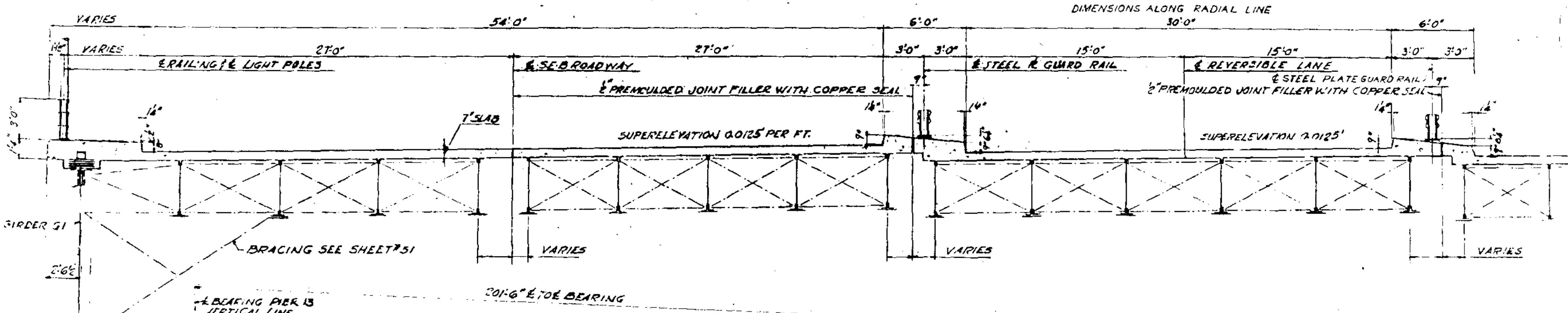


CAMBER-DIAGRAM

NO SCALE

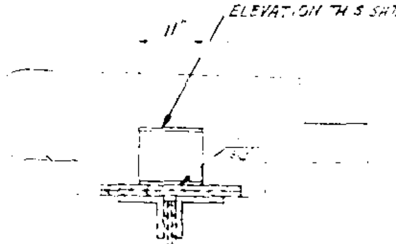
GIRDER CAMBERED FOR D.L. DEFLECTION & FOR VERTICAL CURVE

NOTE:
ALL DIMENSIONS SHOWN ARE PARALLEL TO WORK LINE. END STIFFENERS & STIFFENERS AT CROSS-GIRDERS ARE VERTICAL. ALL OTHER STIFFENERS ARE AT RIGHT ANGLES TO WORK LINE



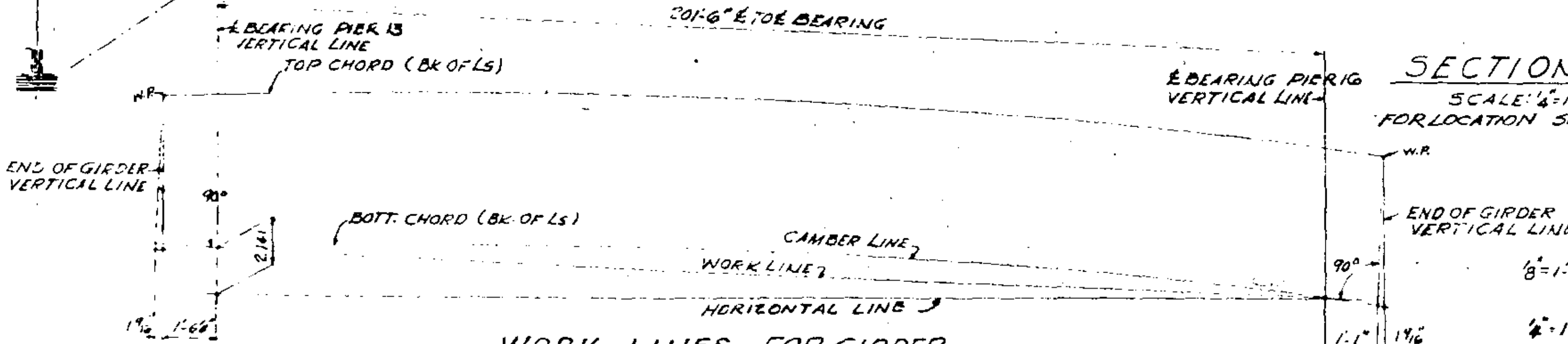
SECTION A-A

SCALE: ¼"=1'-0"
FOR LOCATION SEE SHEET 26



SHEAR CONNECTOR DETAIL

SCALE ¼"=1'-0"



WORK LINES FOR GIRDER

NO SCALE

SCALES OF TRACING
1/8"=1'-0"
¼"=1'-0"

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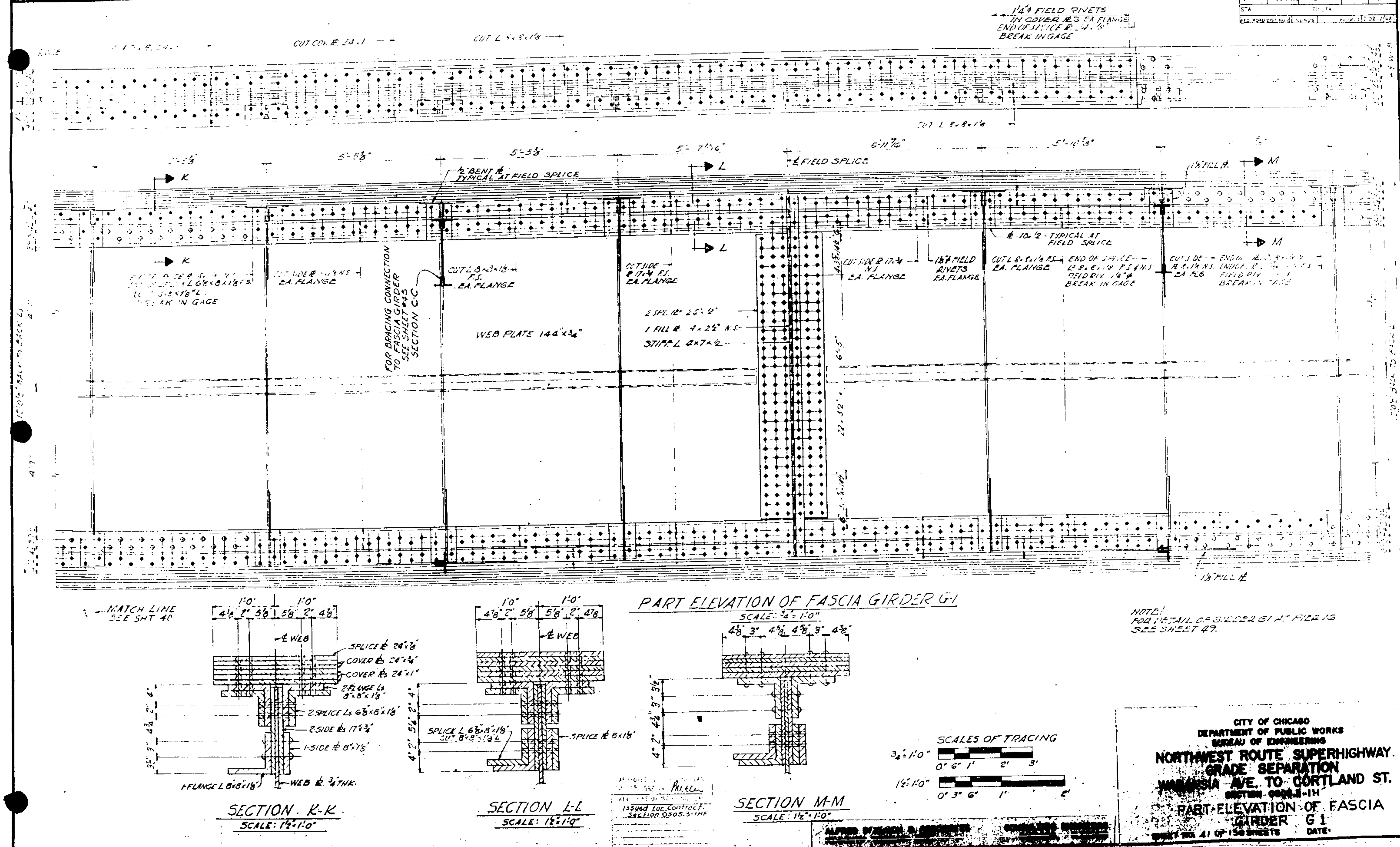
SECTION 0508.3-1H

ELEVATION OF FASCIA GIRDER G1

SHEET NO. 39 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA12	0505.3-IH	COOK	156	41



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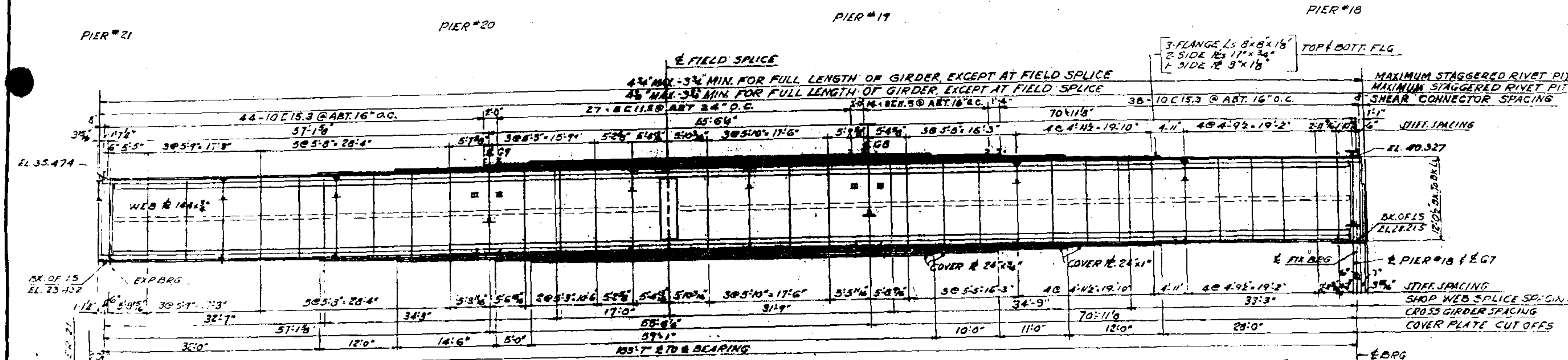
SECTION 0505.3-IH

PART ELEVATION OF FASCIA GIRDER G1

SHEET NO. 41 OF 156 SHEETS DATE:

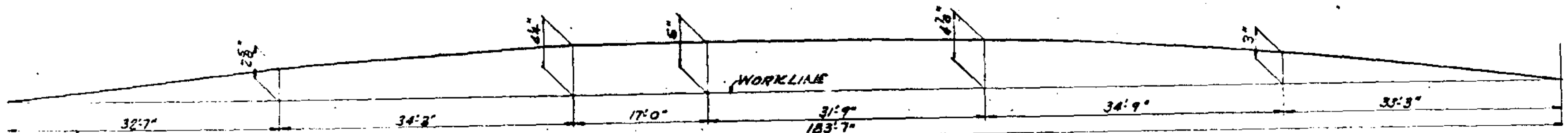
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	42



ELEVATION OF FASCIA GIRDER G2

SCALE: ⅛" = 1'-0"

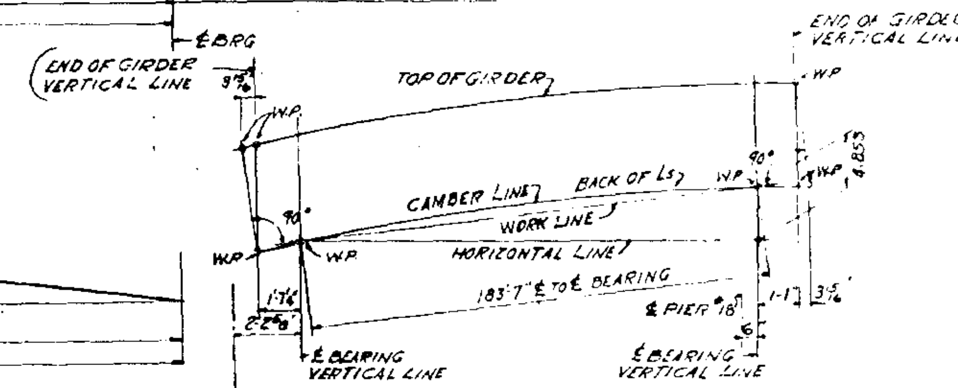
NOTE
ALL DIMENSIONS SHOWN ARE PARALLEL TO WORK LINE. END STIFFENERS & STIFFENERS AT CROSS-GIRDERS ARE VERTICAL. ALL OTHER STIFFENERS ARE AT RIGHT ANGLES TO WORK LINE.



CAMBER-DIAGRAM

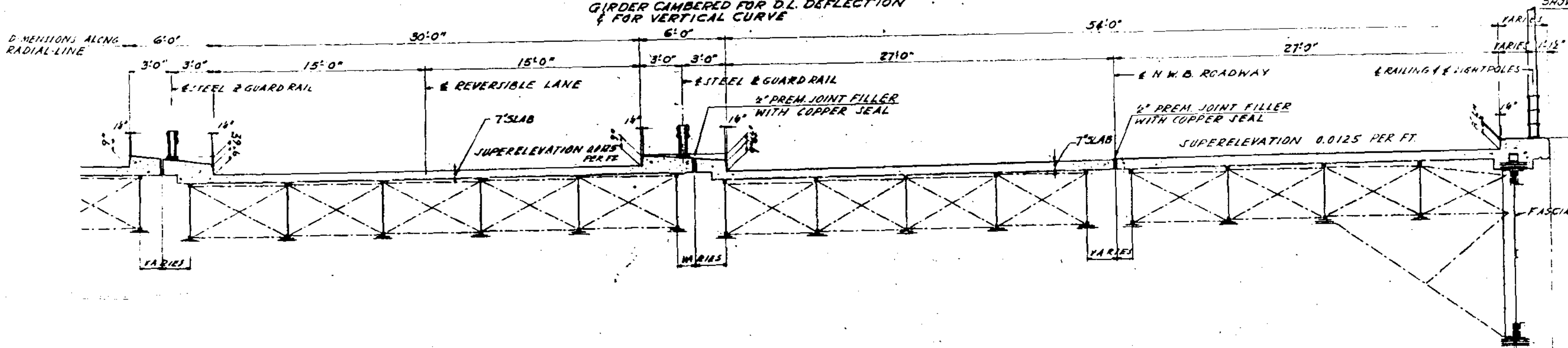
NO SCALE

GIRDER CAMBERED FOR D.L. DEFLECTION & FOR VERTICAL CURVE



WORK LINES FOR GIRDER G-2

NO SCALE
SHOWN IN POSITION



NOTE:-
FOR SHEAR CONNECTOR DETAILS SEE TYPICAL DETAIL ON SHT. 39.

SECTION B-B

SCALE ¼" = 1'-0"

FOR LOCATION SEE SHEET #28

SCALES OF TRACING
⅛" = 1'-0"
¼" = 1'-0"

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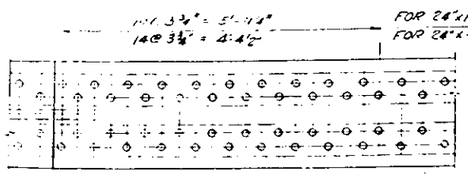
SECTION 0505.3-1H

ELEVATION OF FASCIA GIRDER G-2

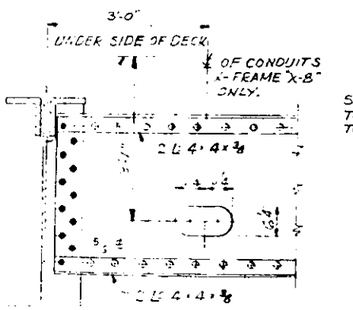
SHEET NO. 42 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	05053-1H	COOK	136	43
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I 02 2(68)	



DETAIL AT END OF COVERPLATES

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



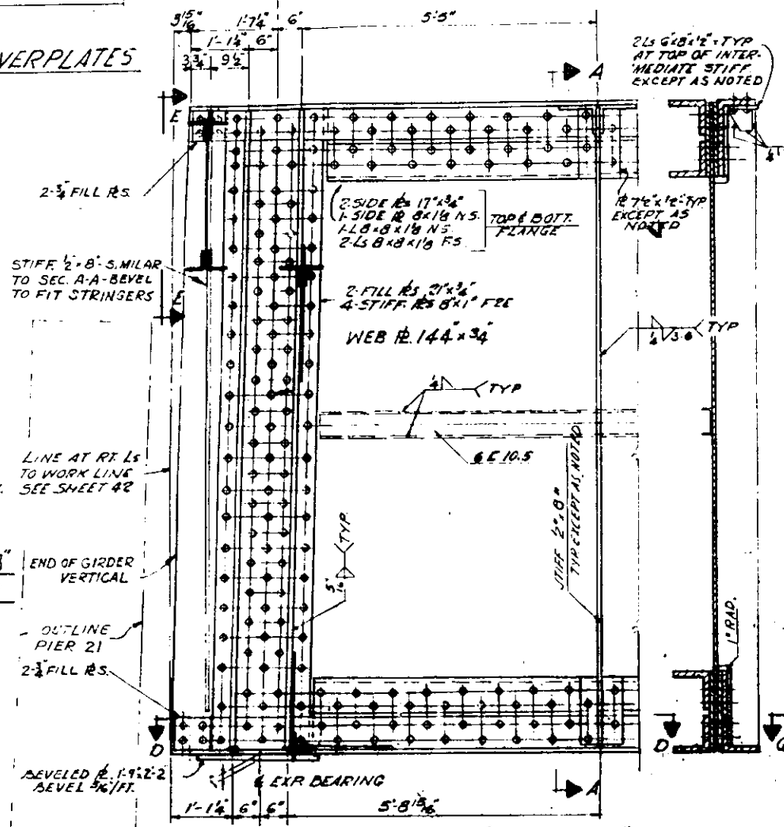
NOTE:- SEE SHT. 55 FOR COMPLETE ELEV.

VIEW E-E

TYPICAL-CROSS FRAME "X8"

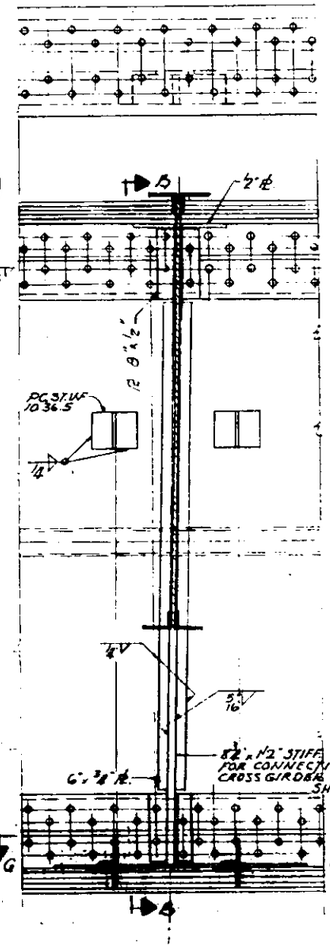
CROSS FRAME "X9"-SIMILAR

SCALE 3/4" = 1'-0"



ELEVATION OF FASCIA GIRDER AT PIER #21

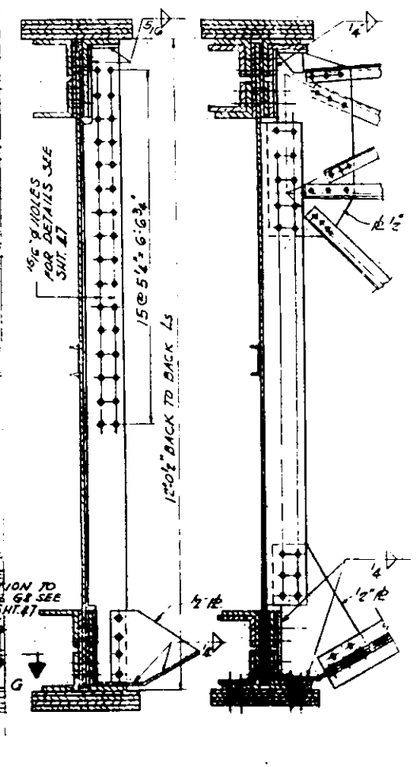
SCALE: 3/4" = 1'-0"



SECTION A-A

ELEVATION AT ℄ GIRDER G8

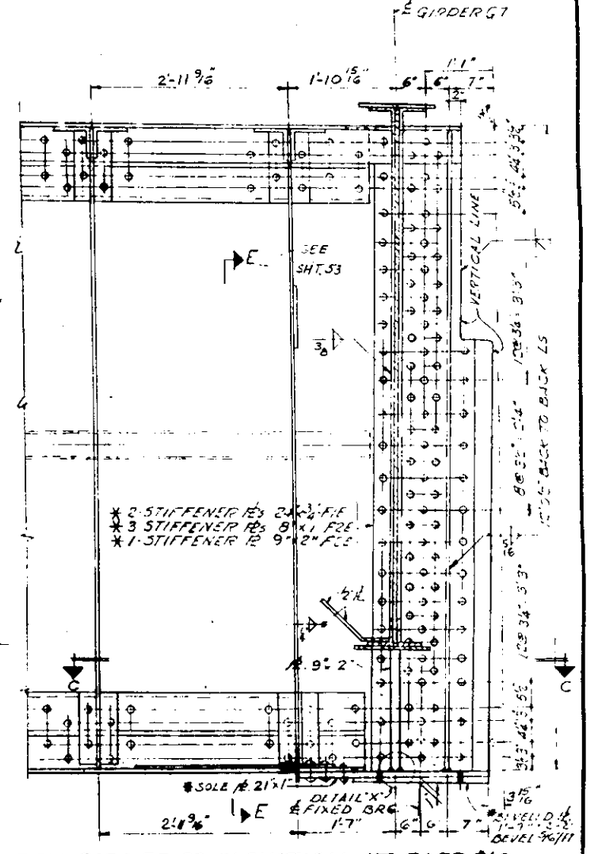
SCALE: 3/4" = 1'-0"



SECTION B-B

SECTION H-H

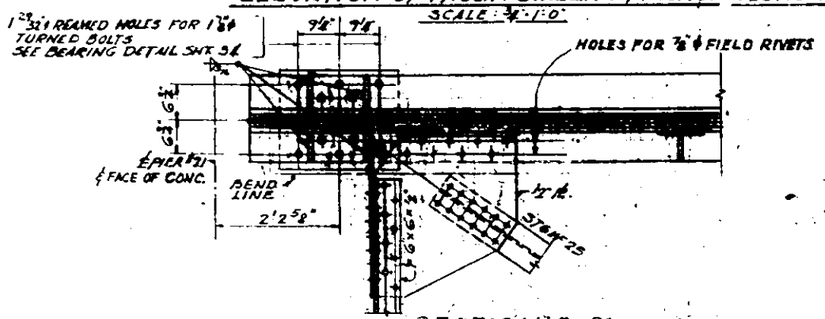
FOR LOCATION SEE SHT. 44



FASCIA GIRDER G2 ELEVATION AT PIER #18

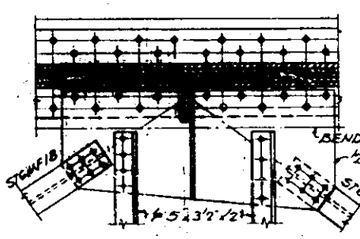
SCALE 3/4" = 1'-0"

FOR SECTION "C-C" SEE SHT #47



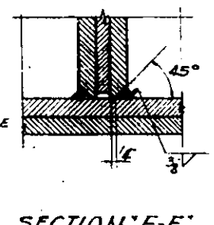
SECTION "D-D"

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



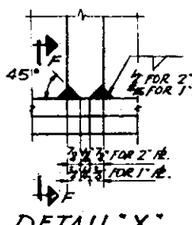
SECTION "G-G"

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



SECTION "F-F"

SCALE: 3"=1'-0"



DETAIL "X"

SCALE: 3"=1'-0"

NOTE!
RIVETS FOR GIRDER G2 TO BE 7/8" EXCEPT AS NOTED
* MATERIAL MARKED THUS TO BE LOW ALLOY STRUCT. STEEL CONFORMING TO A.S.T.M A 242

SCALE OF TRACING

3/4"=1'-0"

0 1 2 3'

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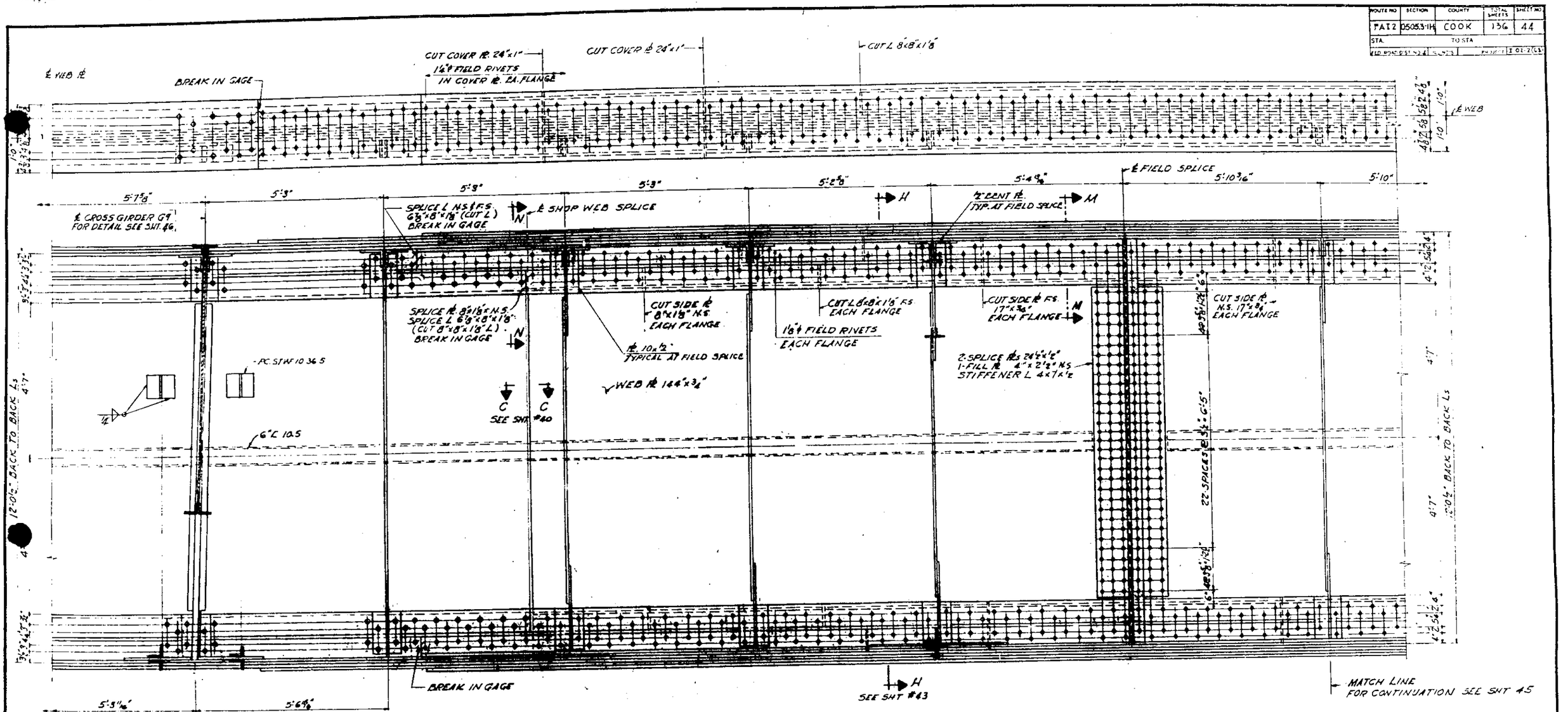
WABANSIA AVE. TO CORTLAND ST.
SECTION 05053-1H

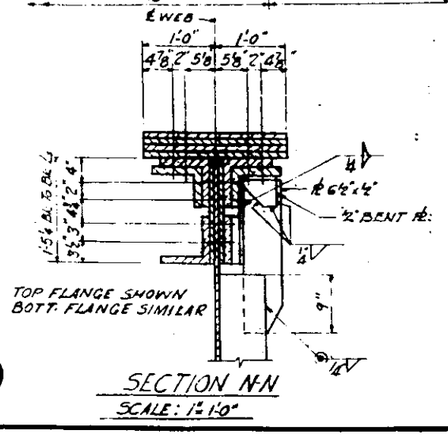
PART ELEVATION OF FASCIA GIRDER G2

SHEET NO. 43 OF 136 SHEETS DATE:

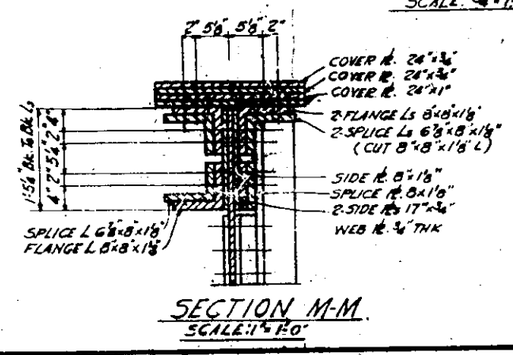
[illegible] & ASSOCIATES CONSULTING ENGINEERS
[illegible] AVE. CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	05053-1H	COOK	136	44
STA.		TO STA		
FED. ROAD DIST. NO. 4	ILL. FED. AID PROJECT			





SECTION N-N
SCALE: 1½"=1'-0"



SECTION M-M
SCALE: 1½"=1'-0"

PART ELEVATION OF FASCIA GIRDER G-2
SCALE: ⅜"=1'-0"

SCALES OF TRACING

⅜"=1'-0" 0" 6" 1' 2' 3'

1"=1'-0" 0" 3" 6" 9" 1' 2'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WACKER DRIVE
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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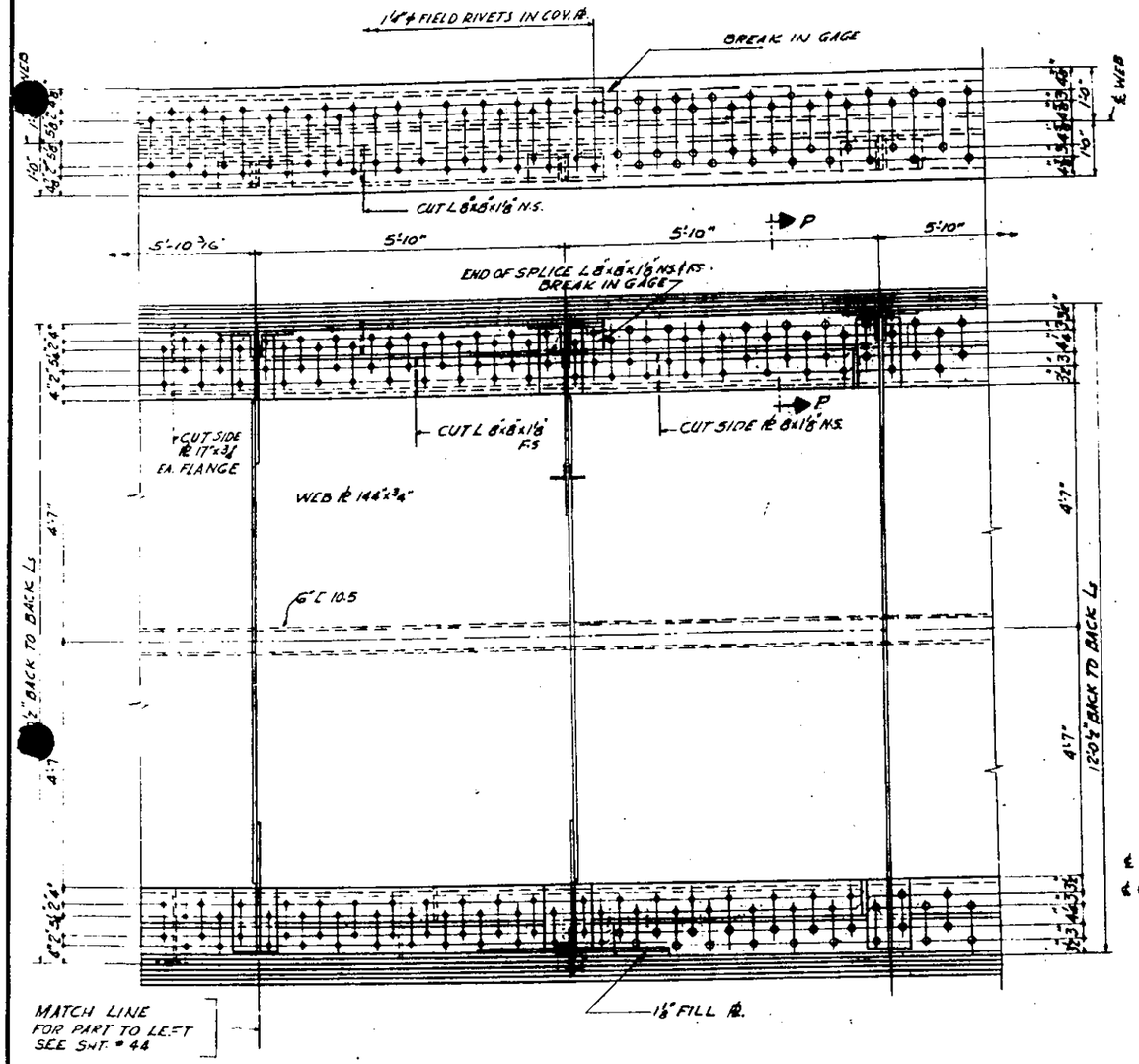
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 05053-1H

PART ELEVATION OF FASCIA GIRDER G2

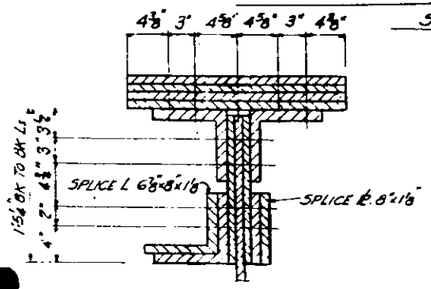
SHEET NO. 44 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0506.3-1H	COOK	136	45
STA.	TO STA.			
FED. ROAD DIST. NO. 9	ILLINOIS	FAI. PROJECT	102-3(68)	



PART ELEVATION OF FASCIA GIRDER G2

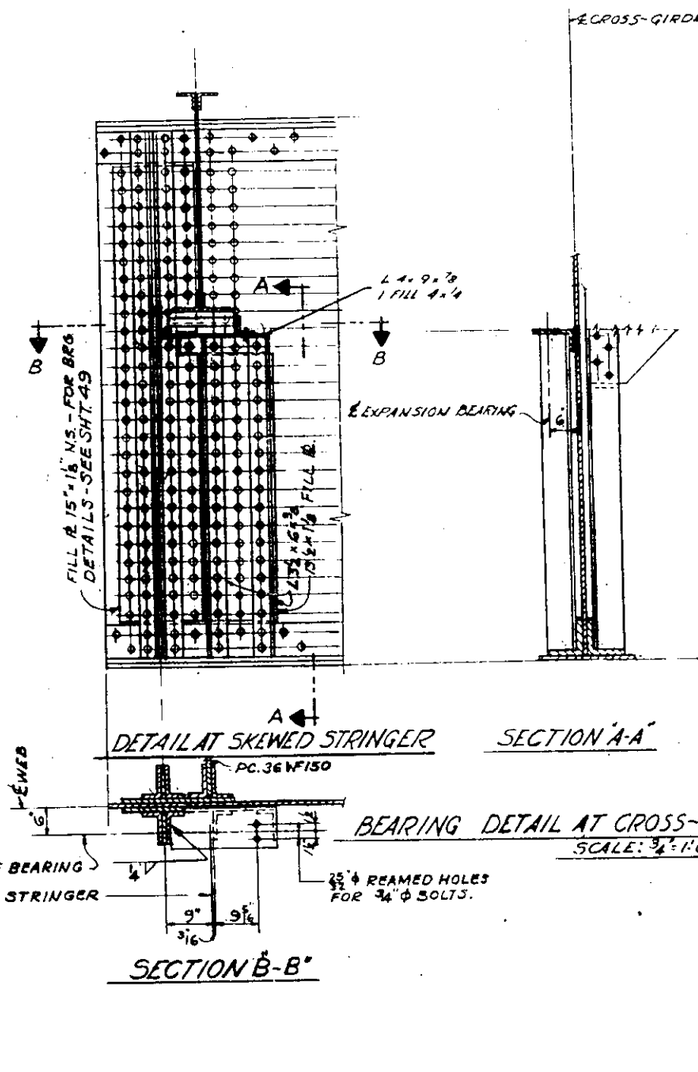
SCALE: 3/4" = 1'-0"



SECTION P-P

SCALE: 1 1/2" = 1'-0"

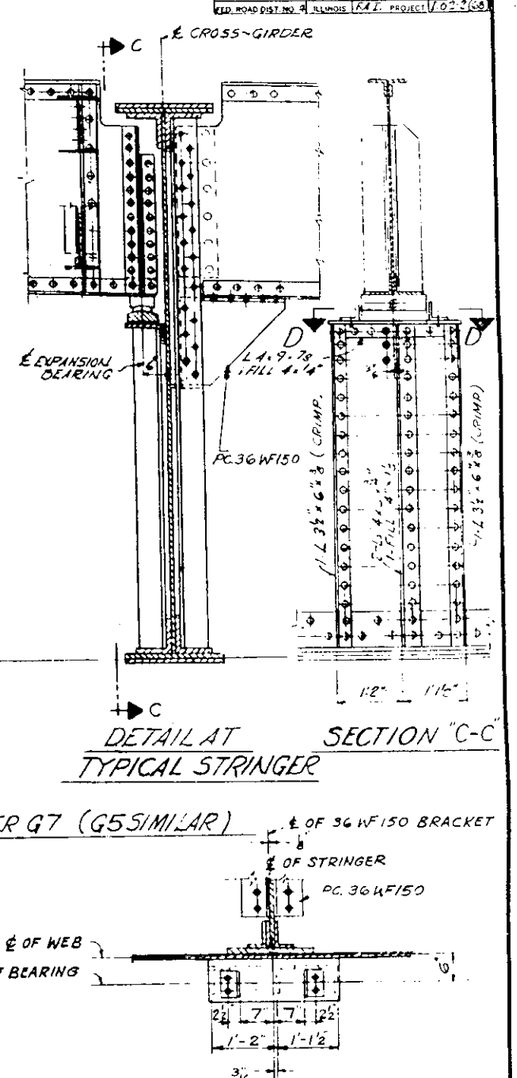
FOR BRACING CONNECTION TO FASCIA GIRDER. SEE SHEET # 43 SECTION H-H



SECTION B-B

BEARING DETAIL AT CROSS-GIRDER G7 (G5 SIMILAR)

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



SECTION D-D

SCALES OF TRACING

3/4" = 1'-0" 0' 6" 1' 2' 3'

1 1/2" = 1'-0" 0' 3" 6" 1' 2'

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CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

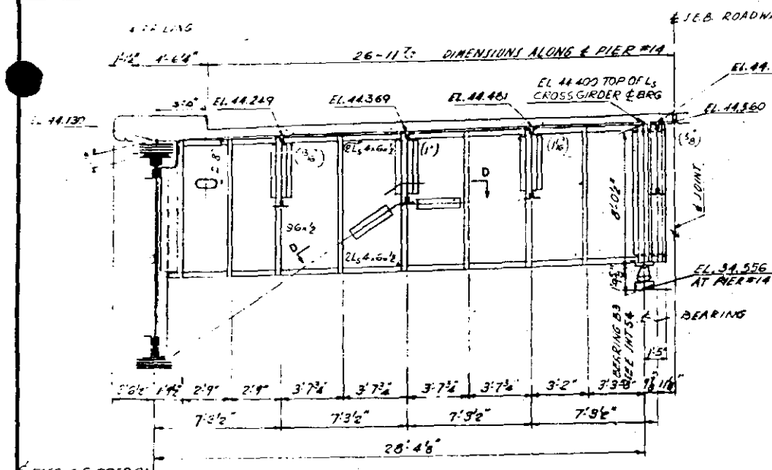
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

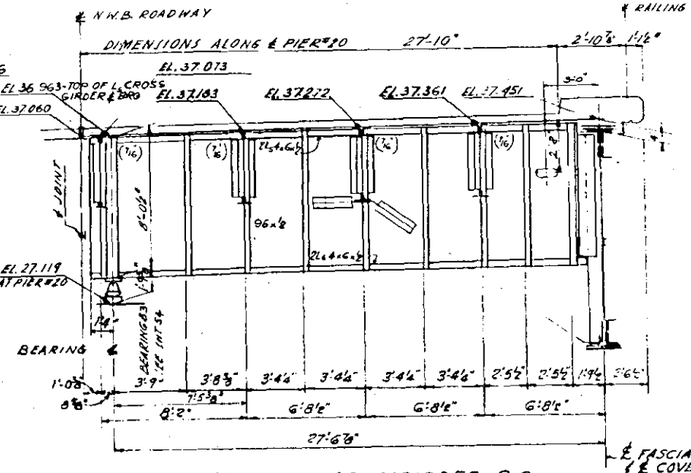
SECTION 0506.3-1H

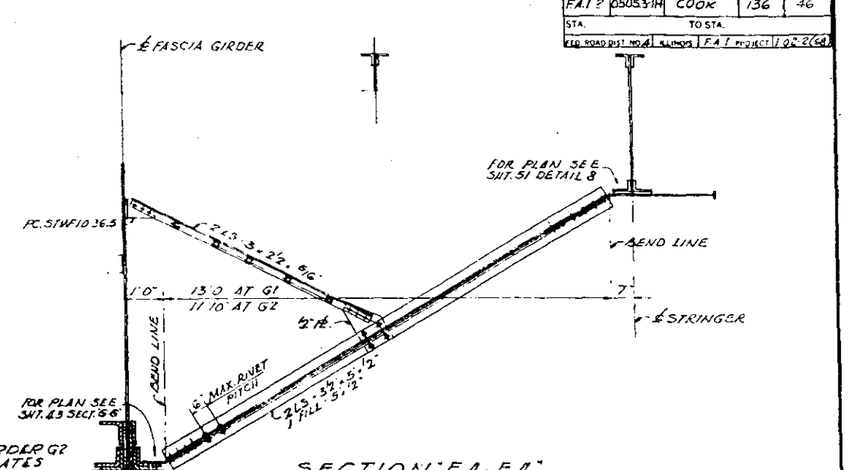
PART ELEVATION OF FASCIA GIRDER G2

SHEET NO. 45 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. ?	0505.3-1H	COOK	136	46
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	F.A.I. PROJECT	02-2(60)	

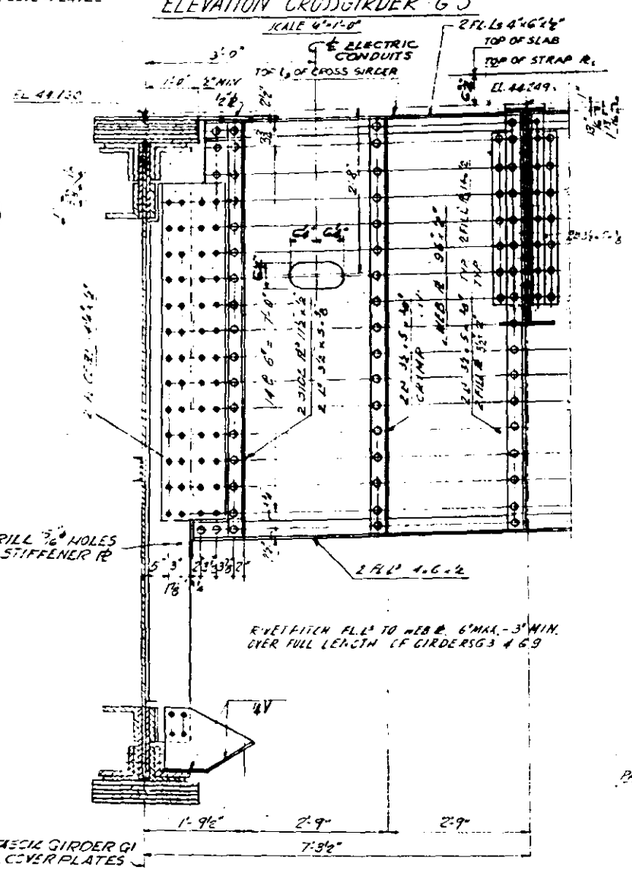






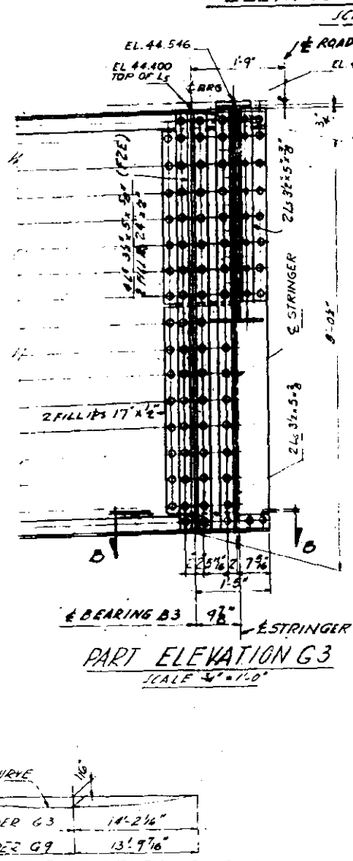
SECTION "E4-E4"
SCALE: 2"=1'-0"
SECTION "E5-E5" SIMILAR

ELEVATION CROSSGIRDER G3
SCALE 4"=1'-0"

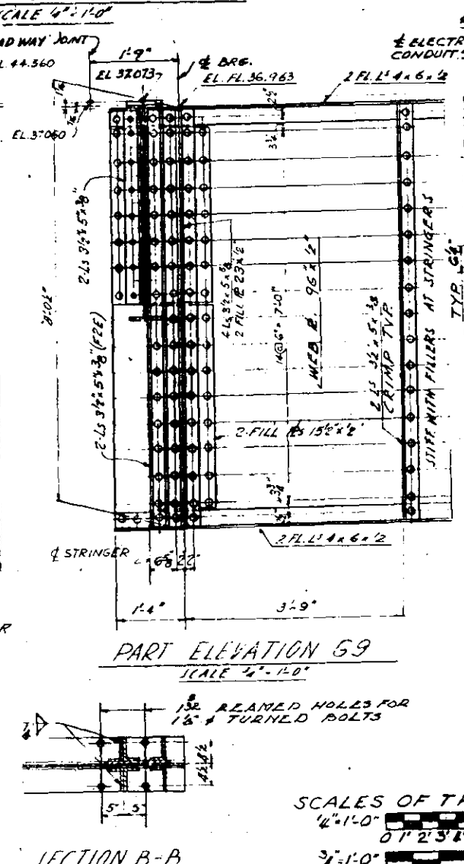


PART ELEVATION CROSSGIRDER G3
SCALE ¾"=1'-0"

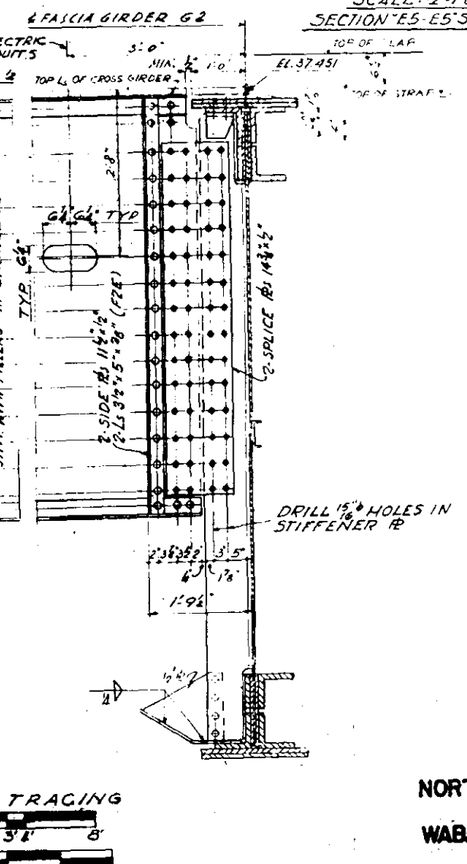
ELEVATION CROSSGIRDER G9
SCALE 4"=1'-0"



PART ELEVATION G3
SCALE ¾"=1'-0"



PART ELEVATION G9
SCALE ¾"=1'-0"



SECTION B-B
SCALE ¾"=1'-0"

DEAD LOAD DEFLECTION DIAGRAM
NO SCALE
NOTE: NO SHOP CAMBER

SCALES OF TRACING
4"=1'-0" 0 1' 2' 3' 4' 8'
¾"=1'-0" 0 6" 1' 2' 3'

NOTE:
ALL ELEVATIONS AT STRINGERS ARE AT BEGIN THEORETICAL ELEVATION OF TOP OF CONCRETE SLAB AND ARE GIVEN ON TOP OF 1" STRAP PLATE AT ℄ CROSS GIRDERS
VERTICAL DIMENSIONS SHOWN THUS (2) IN ELEVATION OF GIRDERS ARE FROM TOP OF STRINGERS TO TOP OF CROSS GIRDER
ALL RIVETS ⅞" ℄ HOLES UNLESS NOTED.
FIELD HOLES FOR STRINGER CONNECTIONS 1⅛"℄

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CHICAGO, ILLINOIS
CONSULTING ENGINEERS

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BUREAU OF ENGINEERING

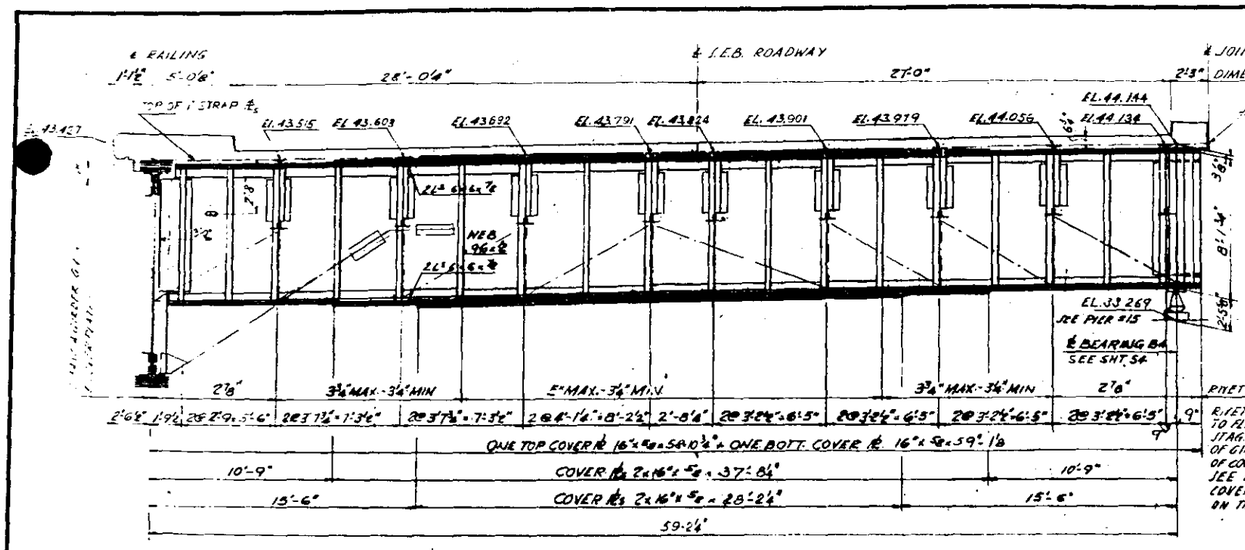
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

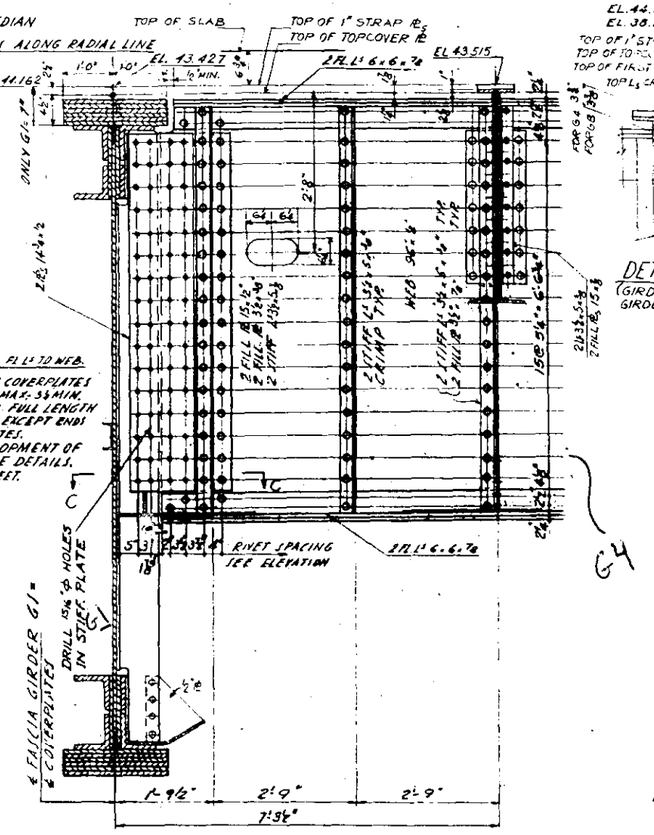
ELEVATION OF CROSSGIRDER G3 & G9

SHEET NO. 46 OF 136 SHEETS DATE:

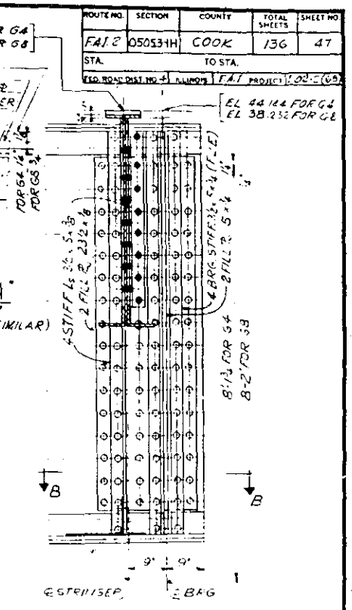
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	050531-1H	COOK	136	47
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	FAI PROJECT	202-(69)	

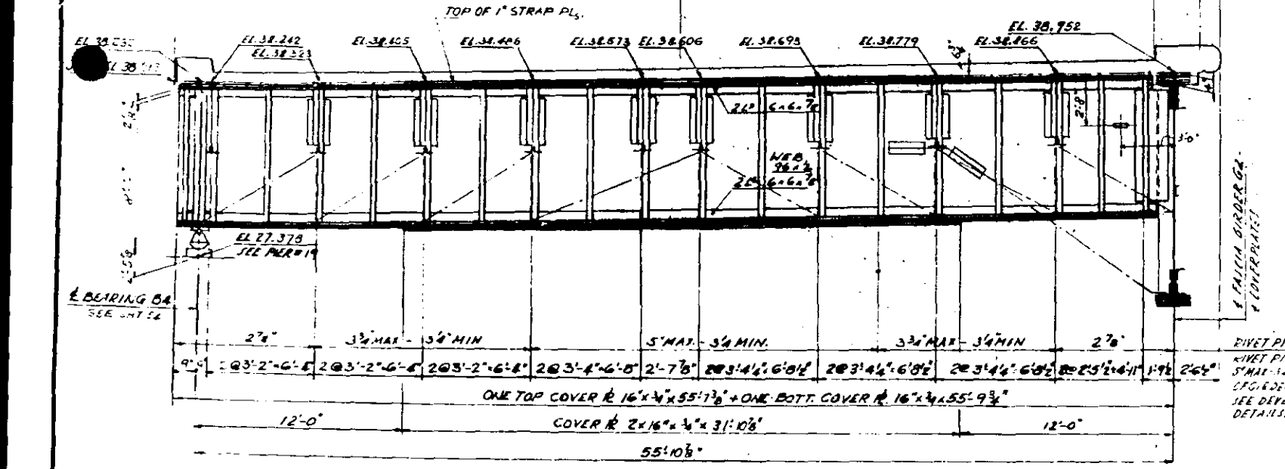


ELEVATION CROSSGIRDER G4
SCALE 6"=1'-0"

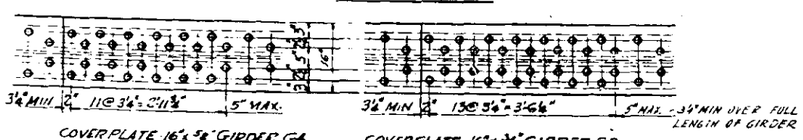


PART ELEVATION CROSSGIRDER G4
CONN. CRO. GIRDER G8 WITH FASCIA GIRDER G2 SIMILAR
SCALE 4"=1'-0"

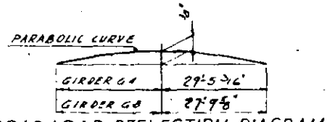




ELEVATION CROSSGIRDER G8
SCALE 6"=1'-0"

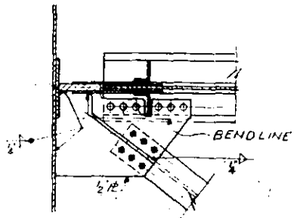


DEVELOPMENT OF COVERPLATE DETAILS.
COVERPLATE C.T. OFF DIMENTIONS SEE ELEVATION OF CROSSGIRDER
SCALE ¾"=1'-0"

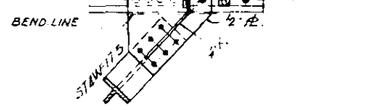


DEAD LOAD DEFLECTION DIAGRAM
NO SCALE

CAMBER GIRDER IN SHOP FOR DEAD LOAD SHOWN



SECTION C-C
SCALE ¾"=1'-0"



SECTION B-B
SCALE ¾"=1'-0"

NOTES:...

ALL ELEVATIONS AT STRINGERS ARE 6¾" BELOW THEORETICAL ELEVATION OF TOP OF CONCRETE SLAB AND ARE GIVEN TO TOP OF 1" STRAP PLATE AT ℄ OF CROSSGIRDER.

RIVETS ⅞" ⌀ HOLES 13/16" ⌀ UNLESS OTHERWISE NOTED.

SCALES OF TRACING

½"=1'-0" 0 1' 2' 3' 4' 8'

¾"=1'-0" 0 2' 1' 2' 3'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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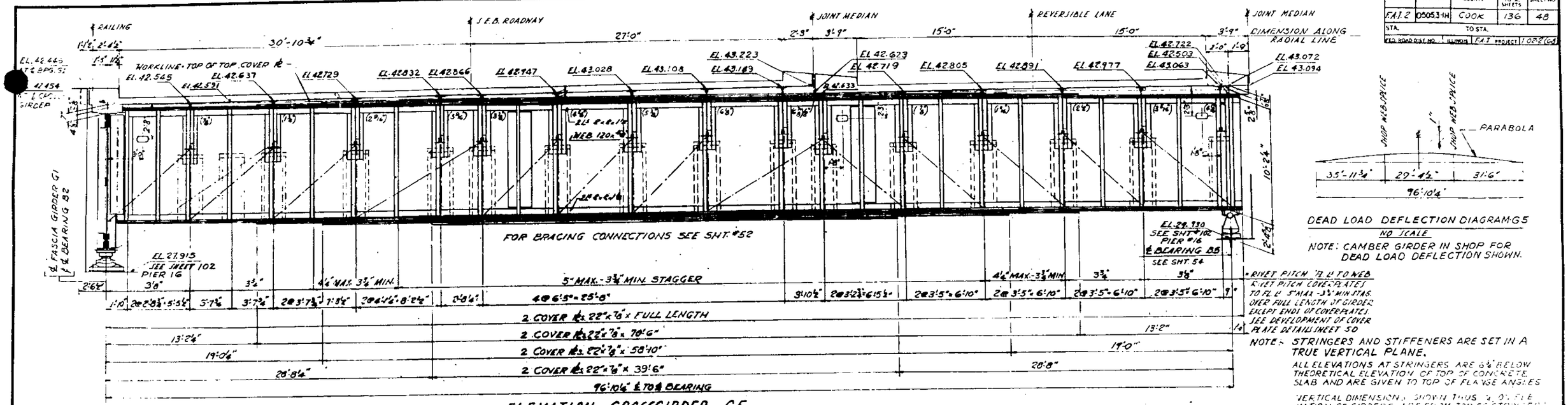
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

ELEVATION OF CROSSGIRDER G4 & G8

SHEET NO. 47 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 2	05053-1H	COOK	136	48
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	F.A.I. PROJECT	1022(64)	



ELEVATION CROSSGIRDER G5

SCALE 4"=1'-0"

DEAD LOAD DEFLECTION DIAGRAM-G5

NO SCALE

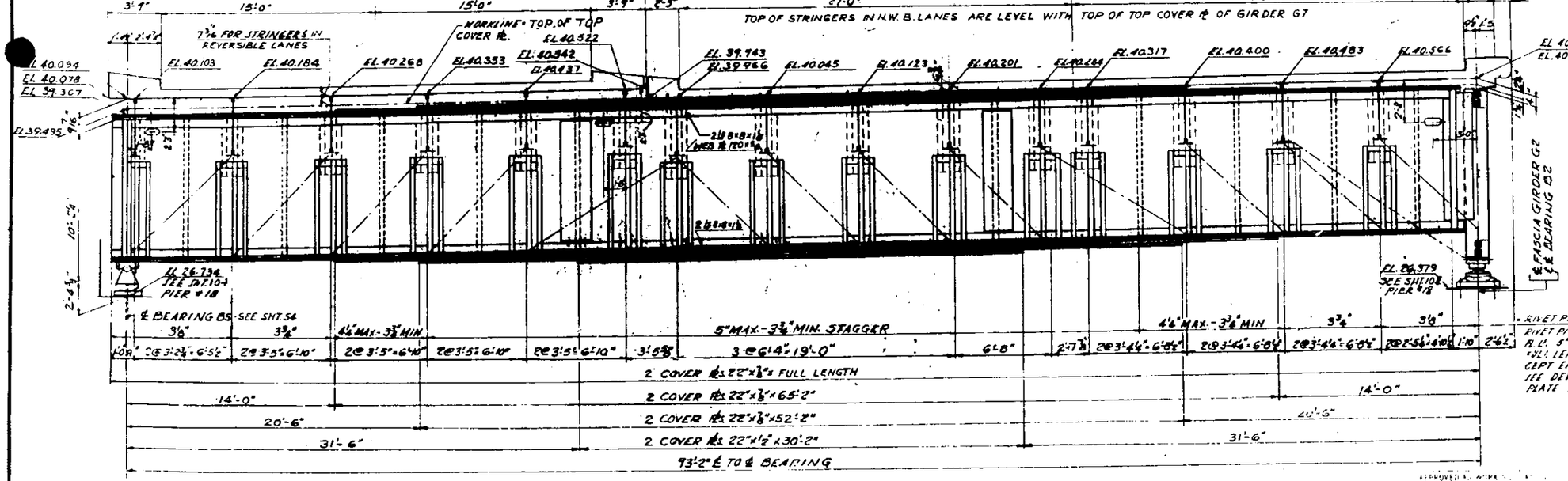
NOTE: CAMBER GIRDER IN SHOP FOR DEAD LOAD DEFLECTION SHOWN.

NOTE: STRINGERS AND STIFFENERS ARE SET IN A TRUE VERTICAL PLANE.

ALL ELEVATIONS AT STRINGERS ARE 6⅜" BELOW THEORETICAL ELEVATION OF TOP OF CONCRETE SLAB AND ARE GIVEN TO TOP OF FLANGE ANGLES

VERTICAL DIMENSIONS SHOWN THUS ⅞ ON ELEVATION OF GIRDERS ARE FROM TOP OF STRINGERS TO TOP OF TOP COVER PL OF CROSS GIRDER.

INTERMEDIATE STIFFENERS SHALL EACH CONSIST OF ONE 6"x4"x¾" L ON SOUTH FACE ONLY OF GIRDER G5 AND ON NORTH FACE ONLY OF GIRDER G7.



ELEVATION CROSSGIRDER G7

SCALE 4"=1'-0"

DEAD LOAD DEFLECTION DIAGRAM-G7

NO SCALE

NOTE: CAMBER GIRDER IN SHOP FOR DEAD LOAD DEFLECTION SHOWN.

NOTE: ALL RIVETS IN G5 AND G7 SHALL BE 1"ϕ IN 1⅛"ϕ HOLES

SCALES OF TRACING

¼"=1'-0" 0 1' 2' 3' 4' 8'

APPROVED AS WORKING PLAN

CITY OF CHICAGO
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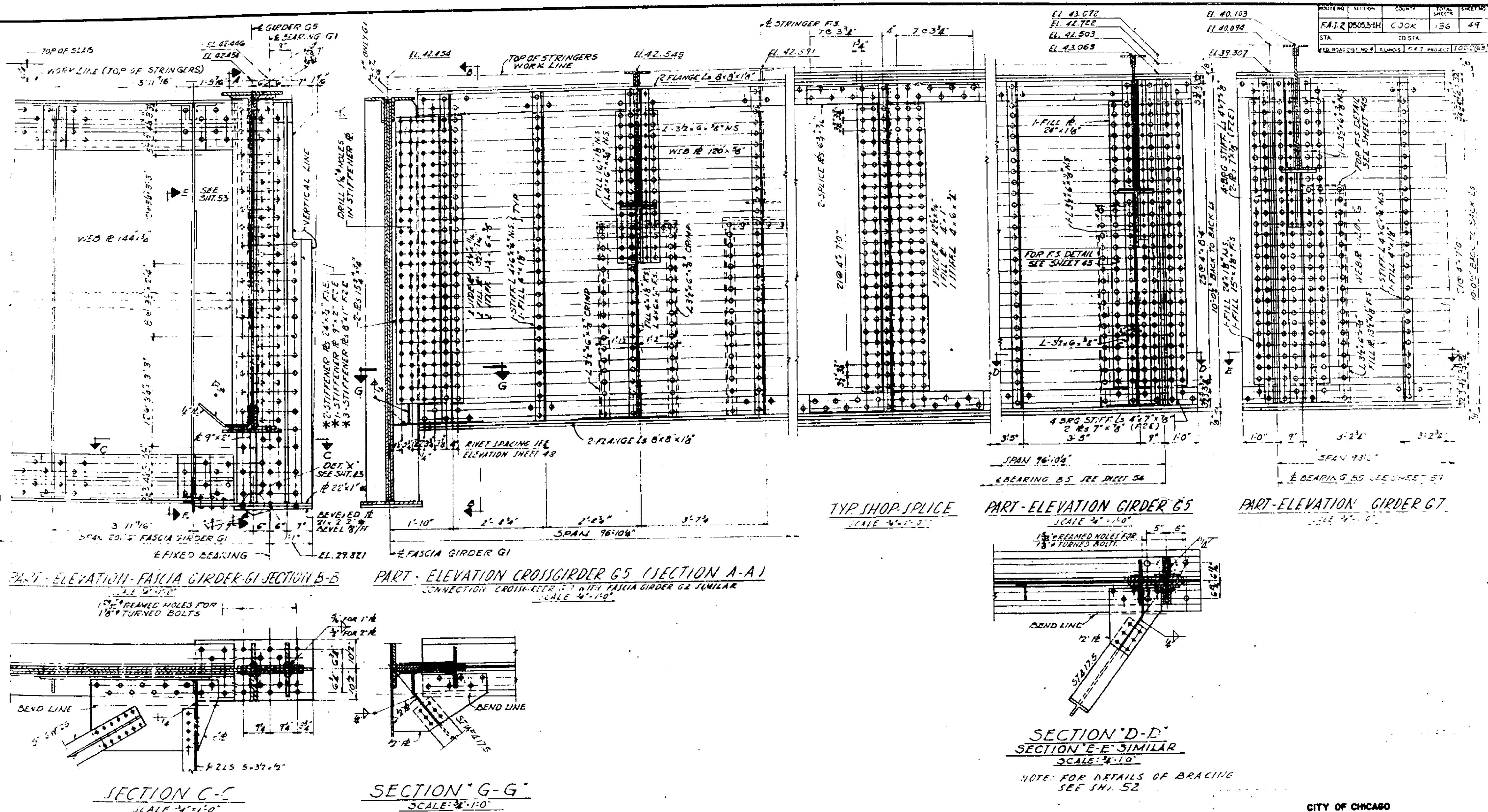
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 05053-1H

ELEVATION OF CROSSGIRDER G5 & G7

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 48 OF 136 SHEETS DATE:



NOTE!
RIVETS FOR GIRDER G1, G5 & G7 TO BE 1" ⌀ EXCEPT AS NOTED
* MATERIAL MARKED THUS TO BE LOW ALLOY STRUCTURAL STEEL CONFORMING TO A.S.T.M. A 242
FOR DEVELOPMENT OF COVERPLATE DETAILS SEE SHEET #50
INTERMEDIATE STIFFENERS SHALL EACH CONSIST OF ONE 6x4x3/4 L ON SOUTH FACE ONLY OF GIRDER G5 AND ON NORTH FACE ONLY OF GIRDER G5

SCALE OF TRACING
3/4"-1'-0"
0 6" 1' 2' 3'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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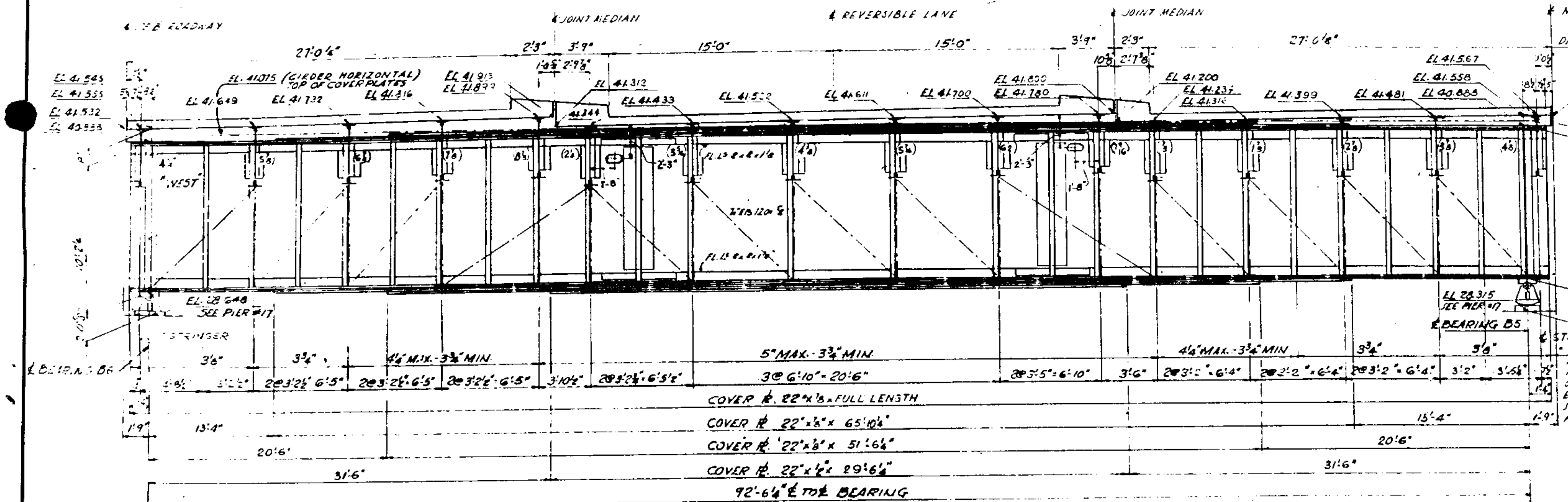
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

PART-ELEVATION OF CROSSGIRDER G5 & G7

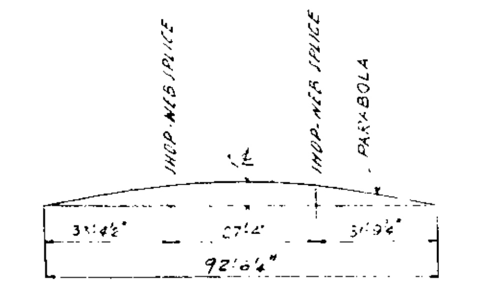
SHEET NO. 49 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 2	0505.3-1H	COOK	136	50



ELEVATION CROSSGIRDER G6

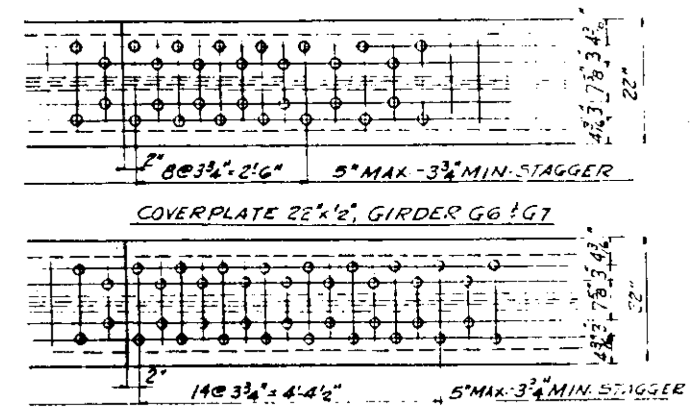
SCALE ¼"=1'-0"



DEAD LOAD DEFLECTION DIAGRAM

NO SCALE

NOTE: CAMBER GIRDER IN SHOP FOR DEAD LOAD DEFLECTION SHOWN.



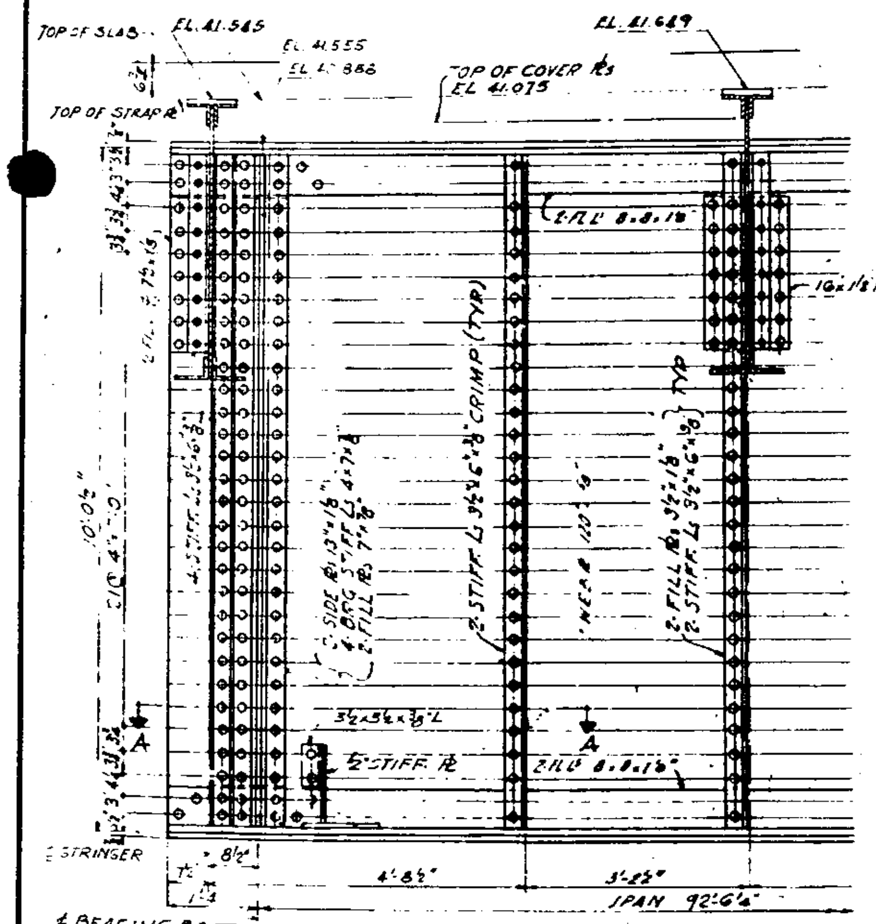
COVERPLATE 22"x½" GIRDER G6 & G7

COVERPLATE 22"x⅞" GIRDER G5

DEVELOPMENT OF COVERPLATE DETAILS

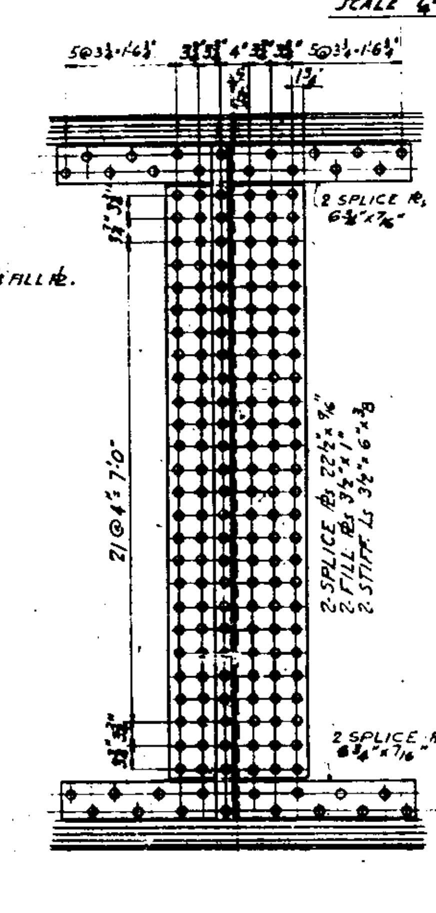
COVERPLATE CUT OFF DIMENSIONS SEE ELEVATION OF CROSSGIRDERS

SCALE ¾"=1'-0"



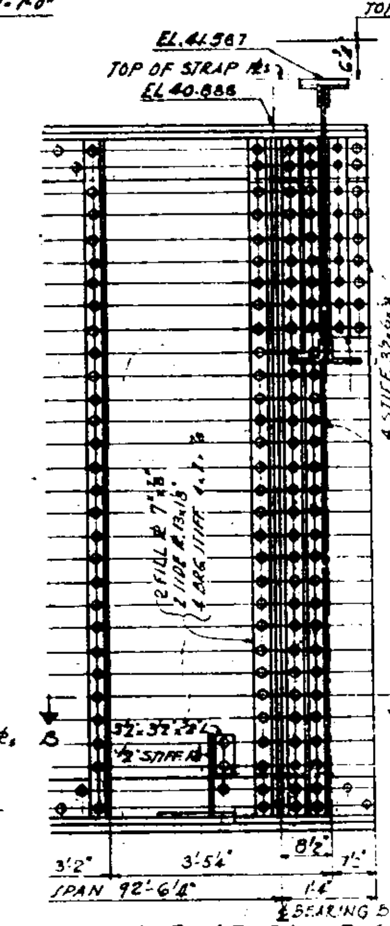
PART-ELEVATION-CROSSGIRDER G 6

SCALE ¾"=1'-0"



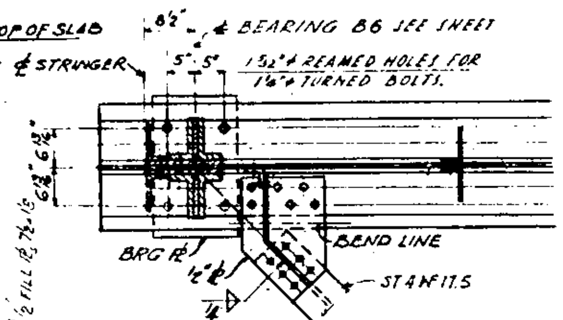
SHOP-SPLICE

SCALE ¾"=1'-0"



PART-ELEVATION G6

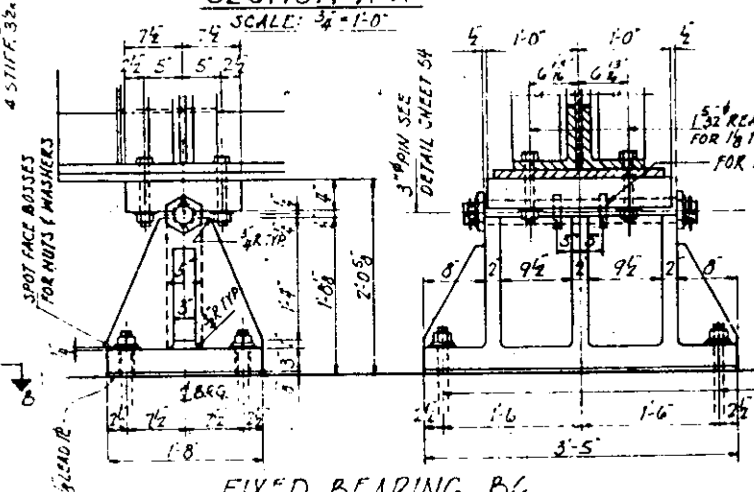
SCALE ¾"=1'-0"



SECTION A-A

SCALE: ¾"=1'-0"

SECTION B-B SIMILAR



FIXED BEARING B6

SCALE: 1"=1'-0"

FOR OTHER BEARING DETAILS SEE SHEET 54

NOTE:

VERTICAL DIMENSIONS SHOWN THUS ... OF GIRDERS ARE FROM TOP OF STRINGERS TO TOP OF CROSS GIRDER.

ALL ELEVATIONS AT STRINGERS ARE 6¼" BELOW THEORETICAL ELEVATION OF TOP OF CONCRETE SLAB AND ARE GIVEN TO TOP OF 1" STRAP PLATE AT ℄ CROSSGIRDER.

ALL RIVETS ⅞"ϕ, HOLES 15/16"ϕ UNLESS NOTED. FIELD HOLES FOR STRINGER CONNECTIONS 1 1/16"ϕ

SCALES OF TRACING

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

ELEVATION OF CROSSGIRDER G6

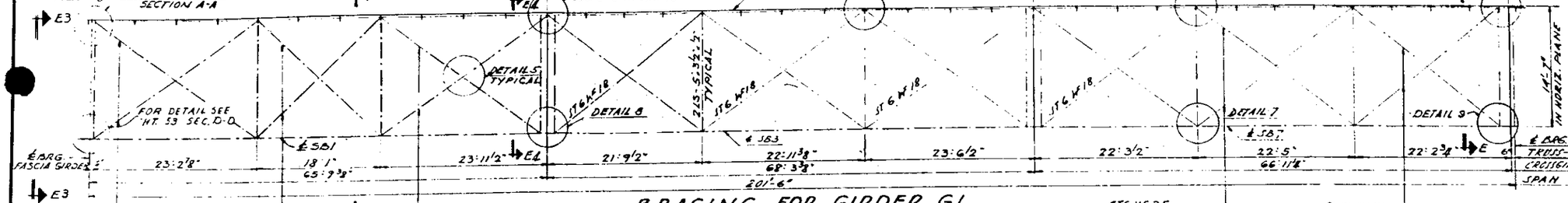
SHEET NO. 50 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

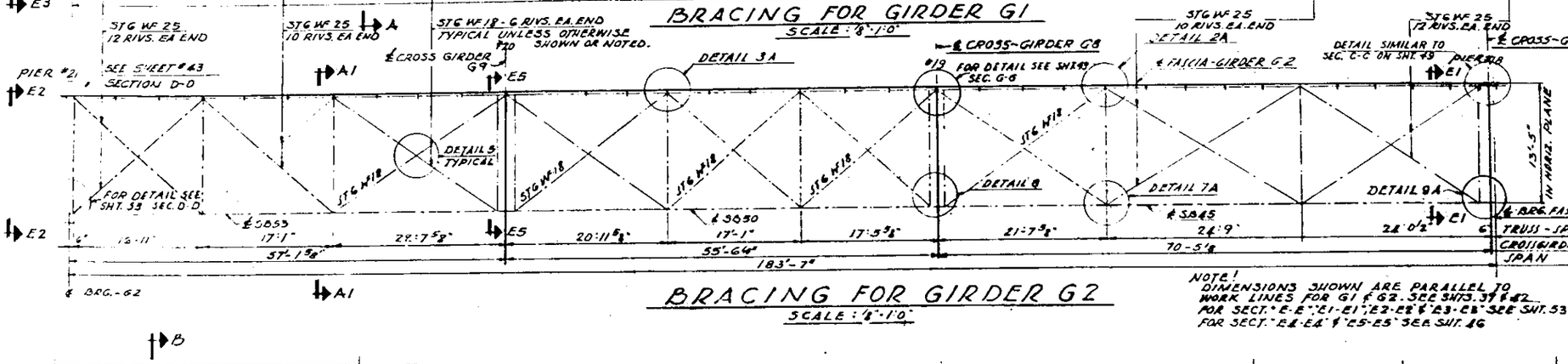
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	05053-IH	COOK	136	51
STA.	TO STA.			

FED. ROAD DIST. NO. 4 ILLINOIS | FAI PROJECT 102 2(66)



BRACING FOR GIRDER G1

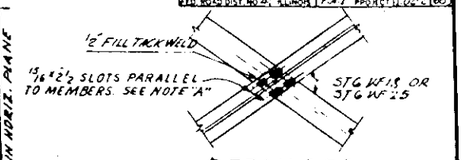
SCALE: 1/8"-1'0"



BRACING FOR GIRDER G2

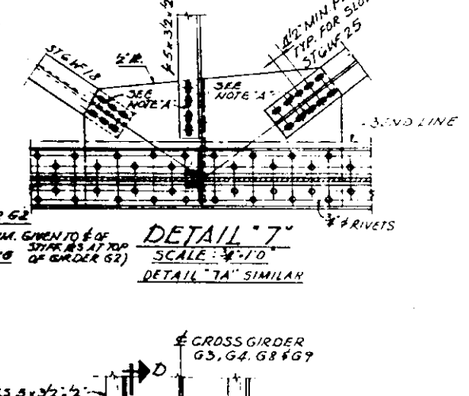
SCALE: 1/8"-1'0"

NOTE!
DIMENSIONS SHOWN ARE PARALLEL TO WORK LINES FOR G1 & G2. SEE SHTS. 37 & 42.
FOR SECT. "E-E", "E1-E1", "E2-E2" & "E3-E3" SEE SHT. 53
FOR SECT. "E4-E4" & "E5-E5" SEE SHT. 46



DETAIL "5"

SCALE: 1 1/2"-1'0"



DETAIL "7"

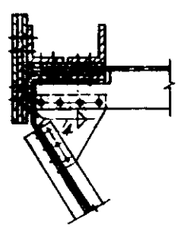
SCALE: 1"-1'0"

DETAIL "7A" SIMILAR

DETAIL "2"

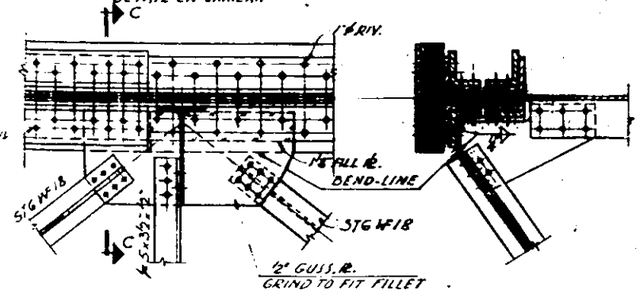
SCALE: 1"-1'0"

DETAIL "2A" SIMILAR



SECTION "B-B"

SCALE: 1"-1'0"



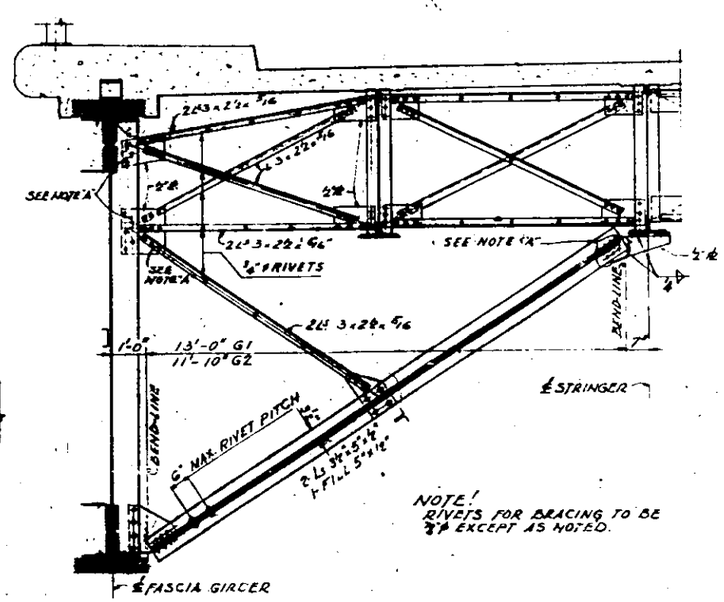
DETAIL "3"

DETAIL "3A" SIMILAR

SCALE: 1"-1'0"

SECTION "C-C"

SCALE: 1"-1'0"

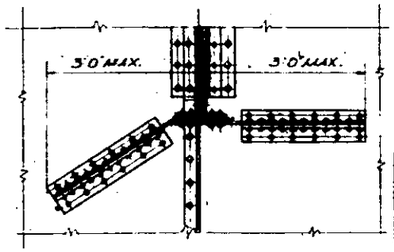


TYPICAL SECTION "A-A"

SECTION "A1-A1" SIMILAR

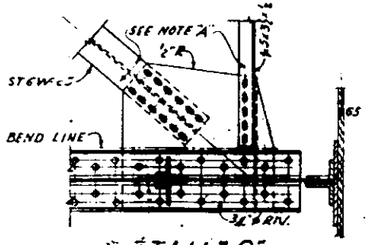
SCALE: 1/2"-1'0"

NOTE!
RIVETS FOR BRACING TO BE 7/8" ϕ EXCEPT AS NOTED.



SECTION "D-D"

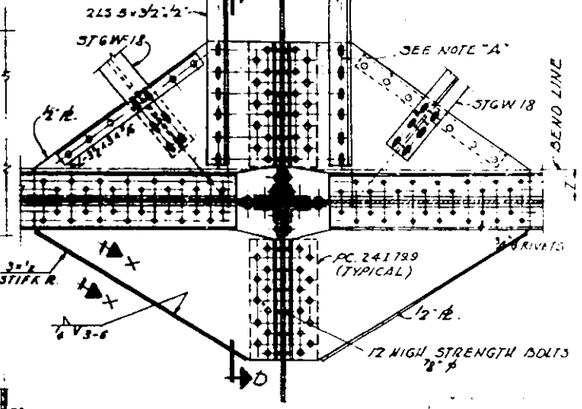
SCALE: 1"-1'0"



DETAIL "9"

DETAIL "9A" SIMILAR

SCALE: 1"-1'0"



DETAIL "8"

SCALE: 1"-1'0"

SECTION "X-X"

(ENLARGED)

SCALES OF TRACING

1/2"-1'-0" 0 8 12 16'

1/2"-1'0" 0 1 2 3 4

3/4"-1'-0 0 2 1 2 3'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CHICAGO, ILLINOIS
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BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0605.3-IH

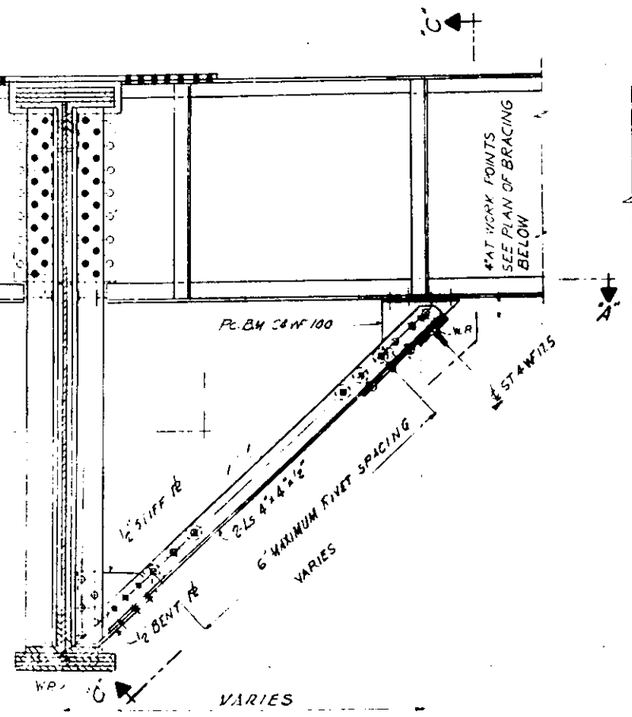
BRACING FOR GIRDER G1 & G2

SHEET NO. 51 OF 136 SHEETS DATE:

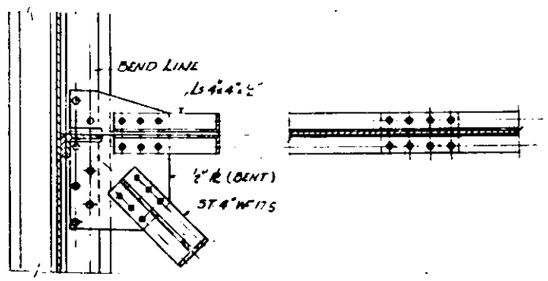
NOTE "A"
PROVIDE 13/16" x 2 1/2" SLOTTED HOLES IN GUSSET PLATES, 13/16" ϕ HOLES IN STIFFENER RS AND LS FOR 7/8" ϕ BOLTS.
PROVIDE 13/16 x 2 1/2" SLOTTED HOLES IN GUSSET PLATES, 15/16" ϕ HOLES IN STIFFENER RS AND LS FOR 1" ϕ BOLTS.
TIGHTEN NUTS FINGER TIGHT WHEN STEEL IS ERECTED. AFTER SLAB HAS BEEN POURED NUTS SHALL BE LOOSENED AND THEN TIGHTENED AS REQUIRED BY SPECIFICATIONS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0605.3-1H	COOK	136	52
STA		TO STA		
FED. ROAD DIST. NO.	ILLINOIS	FAI PROJECT		

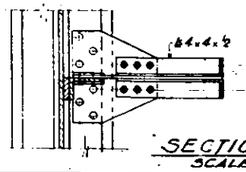
℄ CROSS-GIRDER G6
BRACING FOR CROSS-GIRDER G5 & G7 SIMILAR)



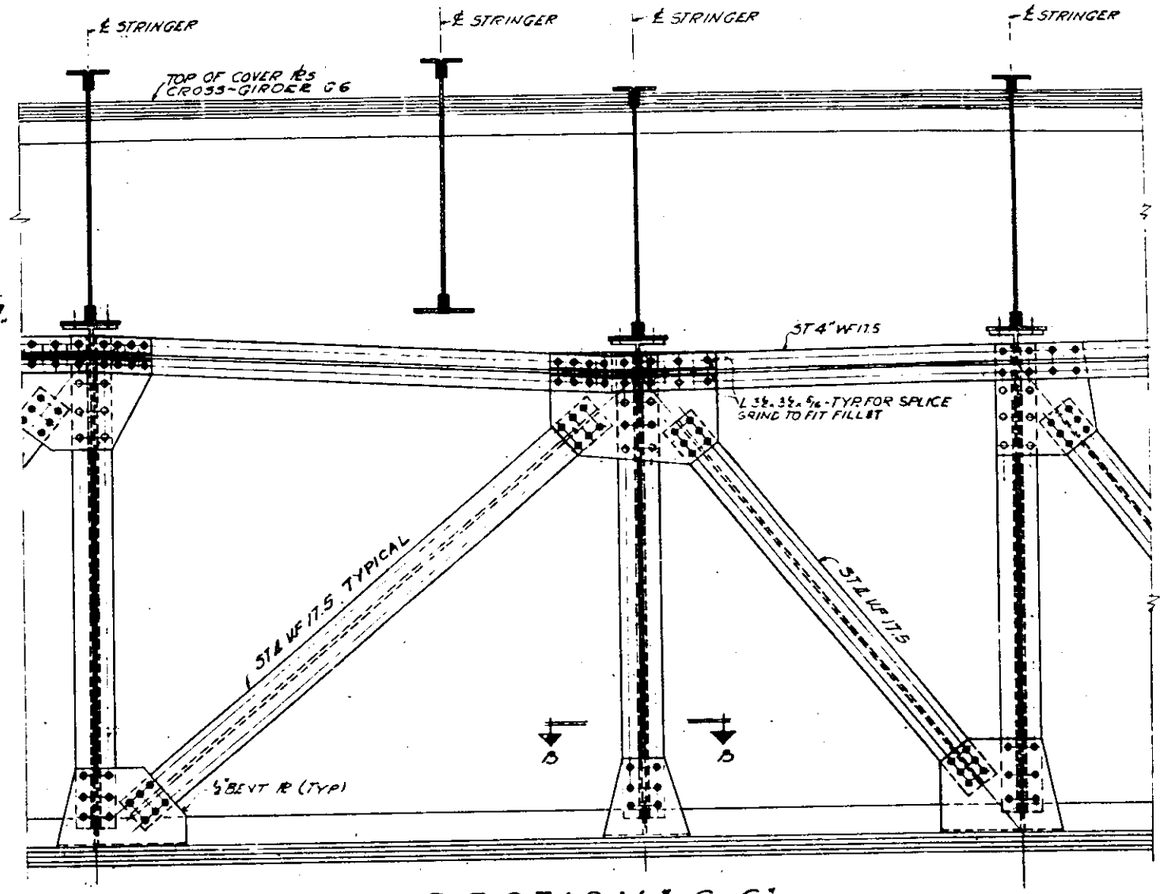
PARTIAL ELEVATION - BRACING AT STRINGERS
SCALE: 3/4" = 1'-0"



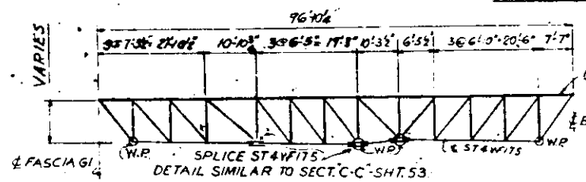
SECTION "A-A"
SCALE: 3/4" = 1'-0"



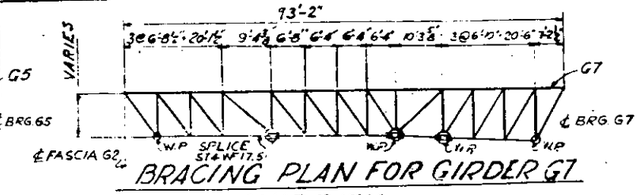
SECTION "B-B"
SCALE: 3/4"



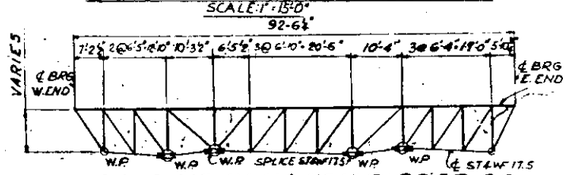
SECTION "C-C"
SCALE: 3/4" = 1'-0"



BRACING PLAN FOR GIRDER G5
SCALE: 1" = 15'-0"

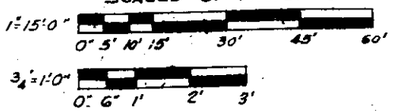


BRACING PLAN FOR GIRDER G7
SCALE: 1" = 15'-0"



BRACING PLAN FOR GIRDER G6
SCALE: 1" = 15'-0"

SCALES OF TRACING



Issued for Contract: Section 0605.3-1HF

NOTE:
RIVETS FOR BRACING TO BE ⅞ ϕ EXCEPT AS NOTED

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BUREAU OF ENGINEERING

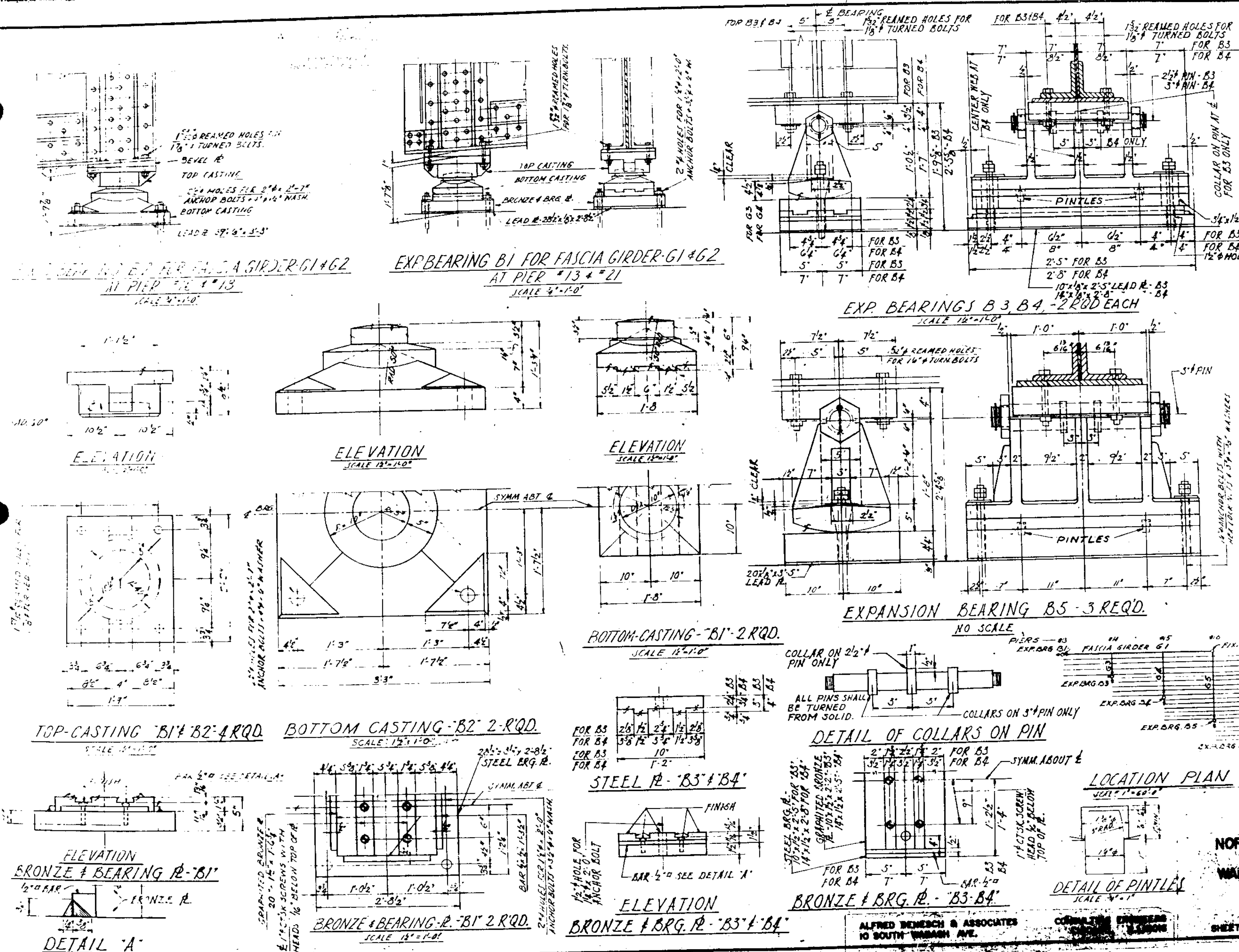
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

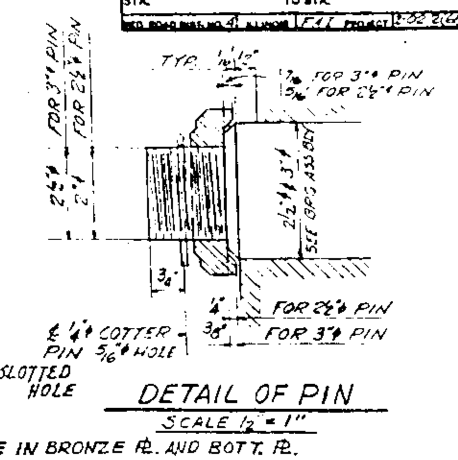
SECTION 0605.3-1H

BRACING FOR CROSS-GIRDERS G5-G6 & G7

SHEET NO. 52 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA12	0505.3-1H	COOK	136	54
STA.	TO STA.			
FED. ROAD DIST. NO. 4 ILLINOIS	FAI PROJECT I-02-2(4)			





NOTES:

ALL CASTINGS SHALL BE A.S.T.M. A27, GRADE 65-35, FULLY ANNEALED, EXCEPT CASTINGS FOR FASCIA GIRDER G1 & G2 WHICH SHALL BE A.S.T.M. A148, GRADE 90-60, FULLY ANNEALED.

THE BRONZE EXPANSION BEARING PLATES SHALL BE MADE FROM CAST BRONZE ALLOY PLATES, A.S.T.M. B22, ALLOY E, AND SHALL CONTAIN RECESSED GRAPHITE INSERTS TO PROVIDE LUBRICATION.

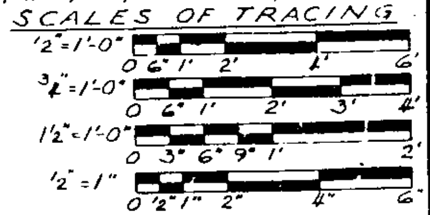
ALL PINS FOR CASTINGS SHALL BE FORGED AND SHALL BE A.S.T.M. A235, CLASS F.

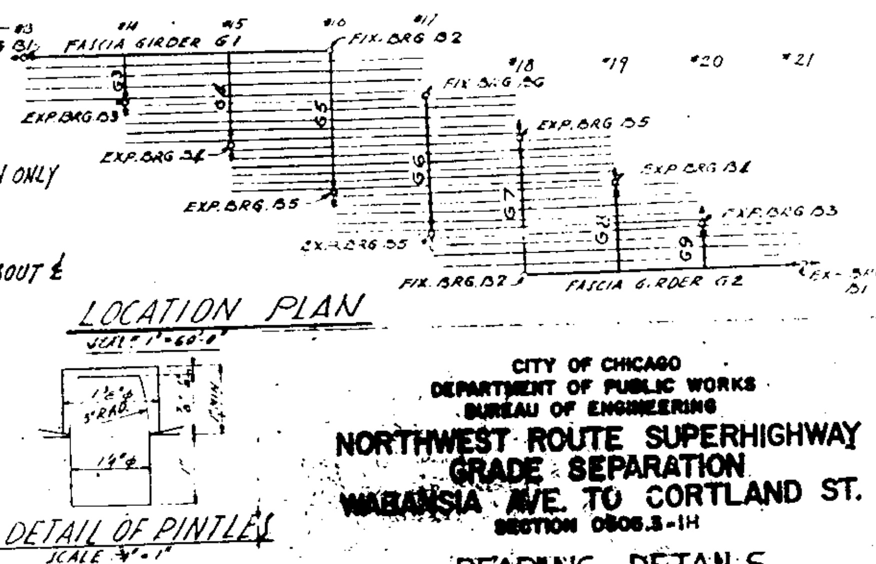
ALL STEEL SHALL BE STRUCTURAL STEEL A.S.T.M. A7, EXCEPT AS OTHERWISE NOTED.

ANCHOR BOLTS TO BE 1 1/4" WITH HEX. LOCK NUTS AND 3" x 3/8" WASHERS EXCEPT AS NOTED.

SPACE BETWEEN ANCHOR BOLTS AND HOLES IN BOTTOM CASTINGS AND BEARING PLATES TO BE FILLED WITH MOLTEN LEAD. FOR ADDITIONAL REQUIREMENTS SEE SPECIAL PROVISIONS.

FOR BEARING B6 SEE SHEET 50.





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10 SOUTH WABASH AVE.

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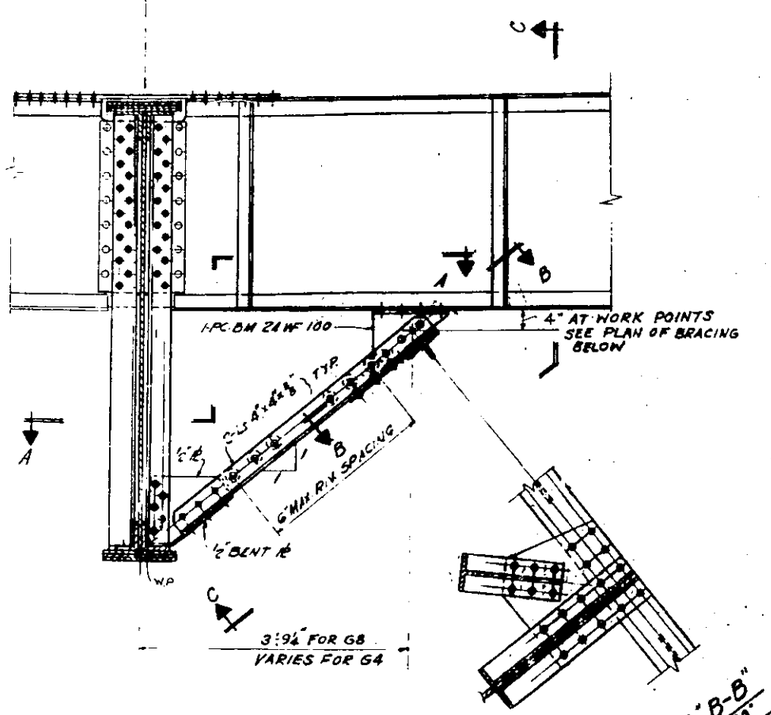
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

BEARING DETAILS

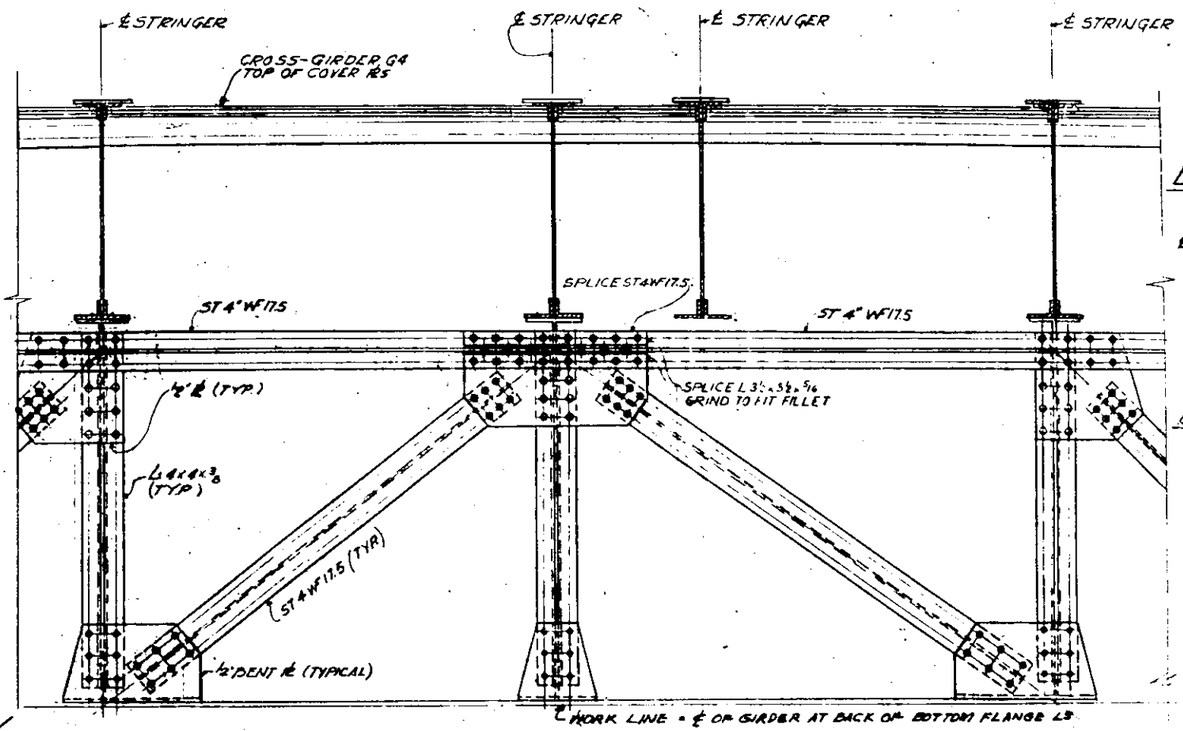
SHEET NO. 54 OF 136 SHEETS DATE:

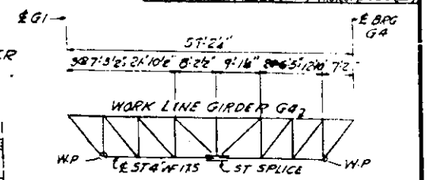
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	53
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	F.A.I. PROJECT	102-2(68)	

℄ CROSS-GIRDER G4
CROSS-GIRDER G8 SIMILAR

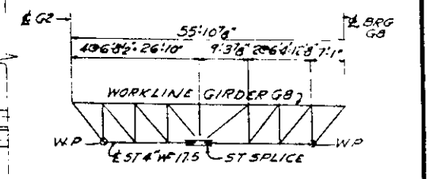


SECTION "B-B"
SCALE: ¾"=1'-0"

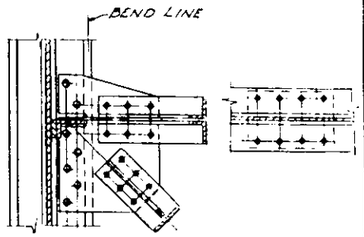




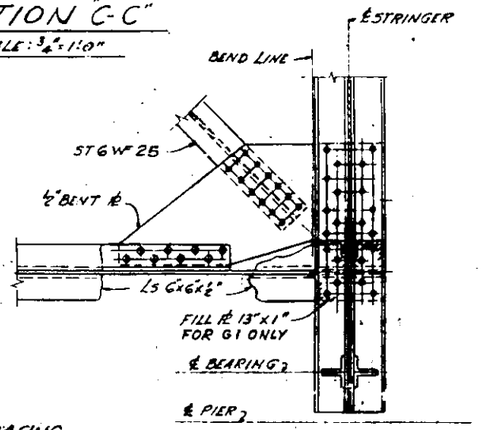
BRACING PLAN FOR GIRDER G4
SCALE: 1"=15'-0"



BRACING PLAN FOR GIRDER G8
SCALE: 1"=15'-0"



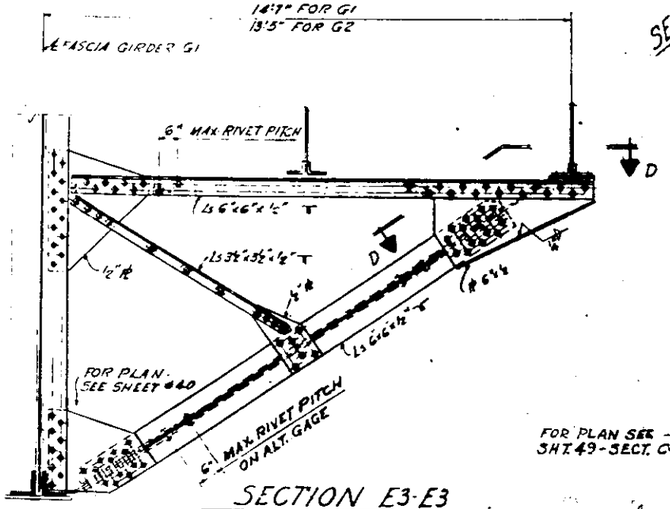
SECTION "C-C"
SCALE: ¾"=1'-0"



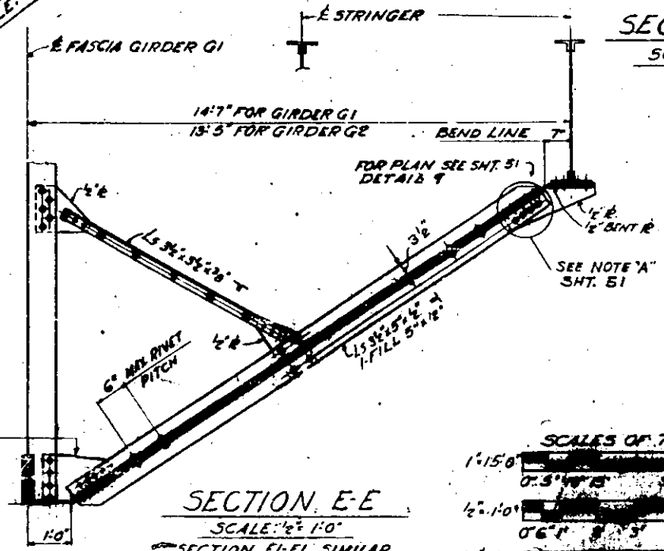
SECTION "A-A"
SCALE: ¾"=1'-0"

NOTE: RIVETS FOR BRACING TO BE ⅞"ϕ
EXCEPT AS NOTED

14'-7" FOR G1
13'-5" FOR G2



SECTION E3-E3
SCALE: ½"=1'-0"
SECTION E2-E2 SIMILAR
FOR LOCATION SEE SHEET #51



SECTION E-E
SCALE: ½"=1'-0"
SECTION E1-E1 SIMILAR
FOR LOCATION SEE SHEET #51

SCALES OF TRACING
1"=15'-0"
½"=1'-0"
¾"=1'-0"

SECTION D-D
SCALE: ¾"=1'-0"

Issued for Contract
Section 0505.3-1HE

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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

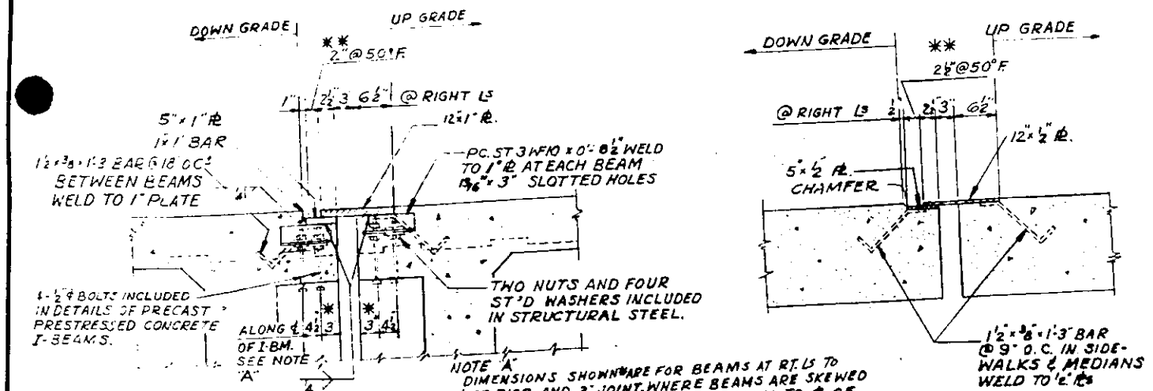
SECTION 0505.3-1H

BRACING FOR
CROSS-GIRDER G4 & G8

ALFRED BENESCH & ASSOCIATES, CONSULTING ENGINEERS
10 SOUTH WABASH AVE. CHICAGO, ILLINOIS

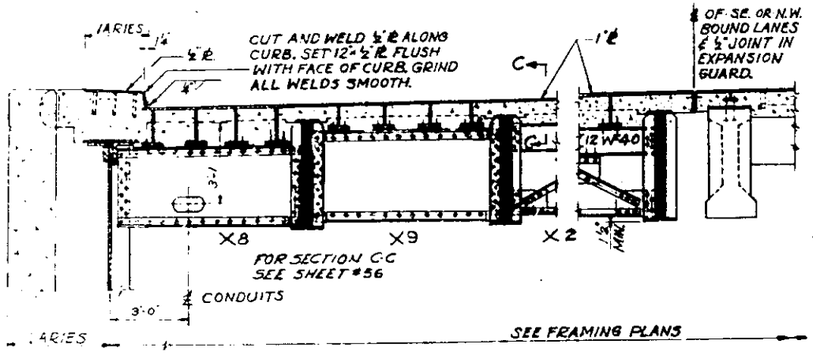
SHEET NO. 53 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI2	0505.3IH	COOK	136	55
STA.	TO STA.			
FED. ROAD DIST. NO 4	ILLINOIS	PROJECT	E 07 2 (61)	

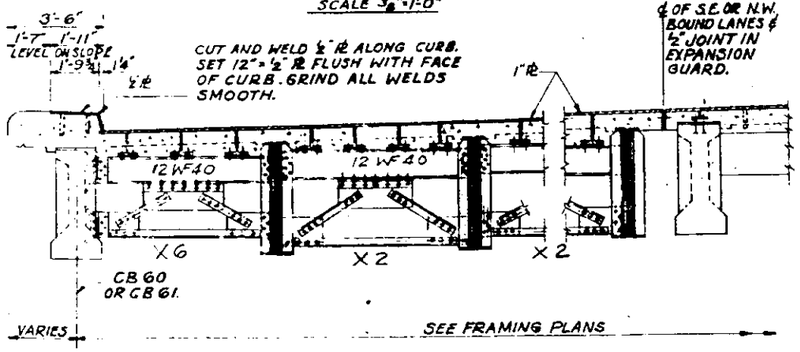


SECTION "A-A"
SCALE 1"=1'-0"

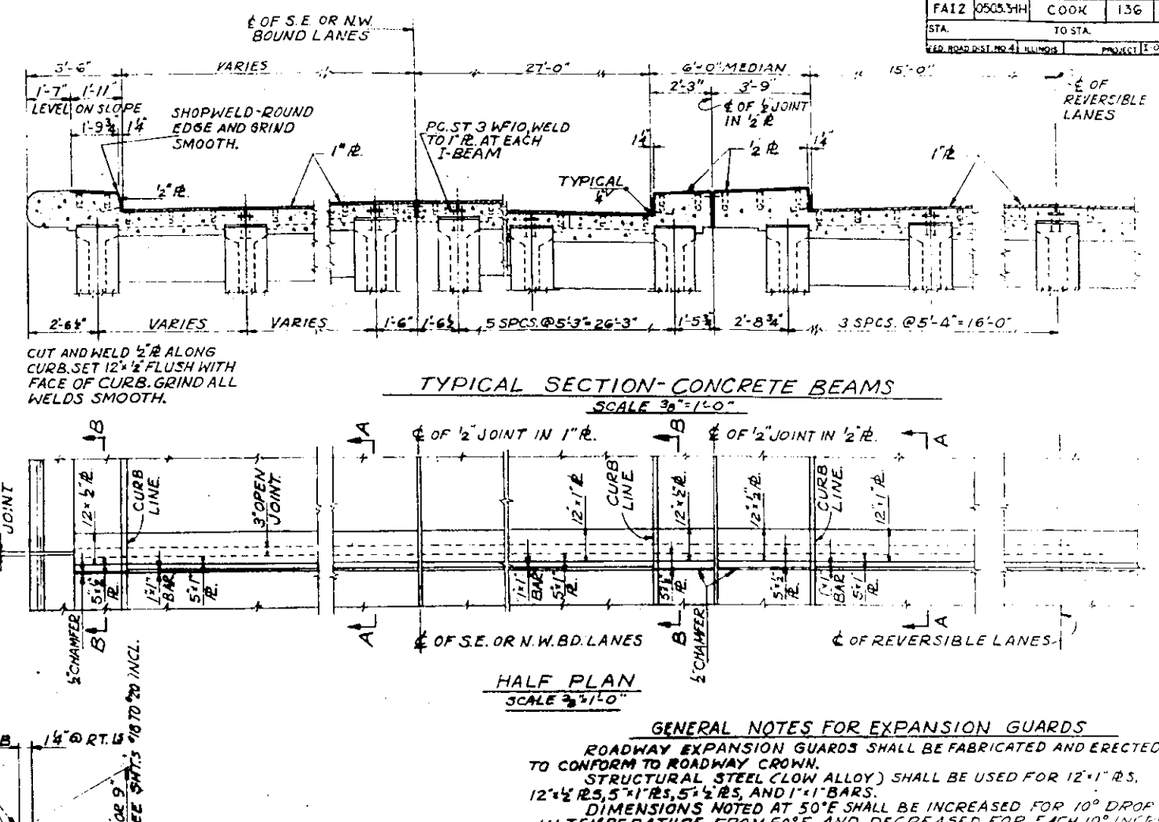
SECTION "B-B"
SCALE 1"=1'-0"



TYPICAL SECTION-STEEL GIRDERS
G-2 @ PIER 21 - G-1 @ PIER 13 SIMILAR
SCALE ⅜"=1'-0"



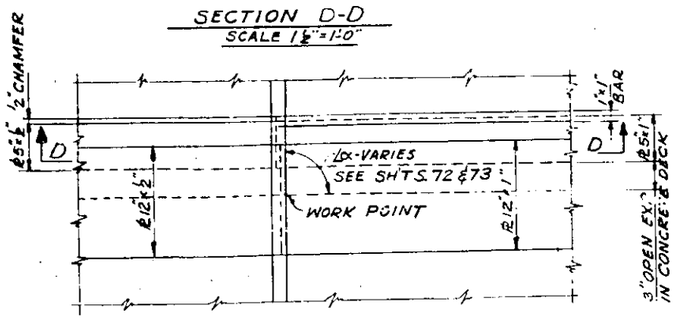
TYPICAL SECTION-STEEL STRINGERS
AT PIER 16 - CB 61 - SIMILAR AT CB 60
SCALE ⅜"=1'-0"



TYPICAL SECTION-CONCRETE BEAMS
SCALE ⅜"=1'-0"

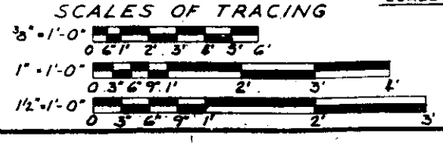
HALF PLAN
SCALE ⅜"=1'-0"

SECTION D-D
SCALE 1½"=1'-0"



TYPICAL CURB DETAIL
SCALE 1½"=1'-0"

SCALES OF TRACING



GENERAL NOTES FOR EXPANSION GUARDS

ROADWAY EXPANSION GUARDS SHALL BE FABRICATED AND ERECTED TO CONFORM TO ROADWAY CROWN.

STRUCTURAL STEEL (LOW ALLOY) SHALL BE USED FOR 12"x1" PLS, 12"x½" PLS, 5"x1" PLS, 5"x½" PLS, AND 1"x1" BARS.

DIMENSIONS NOTED AT 50°F SHALL BE INCREASED FOR 10° DROP IN TEMPERATURE FROM 50°F, AND DECREASED FOR EACH 10° INCREASE IN TEMPERATURE FROM 50° F. ACCORDING TO TABLE SHOWN.

ASSEMBLE IN SHOP FOR INSPECTION.

ALL SURFACES INACCESSIBLE AFTER ERECTION SHALL RECEIVE TWO SHOP COATS OF RED LEAD PAINT EXCEPT PORTIONS EMBEDDED IN CONCRETE.

EXPANSION GUARD AT ENDS OF STRUCTURAL STEEL SPANS INCLUDING STRUCTURAL STEEL (LOW ALLOY) AND STRUCTURAL STEEL (CARBON) SHALL BE FURNISHED UNDER SECTION 0505.3-1HF AND INSTALLED UNDER SECTION 0505.3-1H, ESTIMATED WEIGHT IS 26,730 LBS. STRUCTURAL STEEL (LOW ALLOY) AND 19,940 LBS.. STRUCTURAL STEEL (CARBON).

EXPANSION GUARD AT THE ENDS OF ALL CONCRETE SPANS SHALL BE FURNISHED AND INSTALLED UNDER SECTION 0505.3-1H, ESTIMATED WEIGHT IS 103,120 LBS., STRUCTURAL STEEL (LOW ALLOY), AND 9,270 LBS. STRUCTURAL STEEL (CARBON).

THE RAISED PATTERN FOR THE ANTI-SKID SURFACE OF THE EXPANSION PLATES MAY BE ROLLED INTO THE PLATE AT THE MILL OR IT MAY BE APPLIED IN THE SHOP BY WELDING.

CORRECTIONS FOR TEMPERATURE

EXPANSION JOINT LOCATION	** CORRECTION
PIERS 1, 3, 5, 7, 10, 14, 15, 16, 19, 20 & 23	1/8"
PIERS 13 & 21	3/16"
PIERS 9, 12 & 18	1/4"

** AMOUNT TO INCREASE 2" & 2½" DIMENSIONS SHOWN AT 50°F FOR EACH 10° DROP IN TEMPERATURE OR DECREASE FOR EACH 10° INCREASE IN TEMPERATURE.

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10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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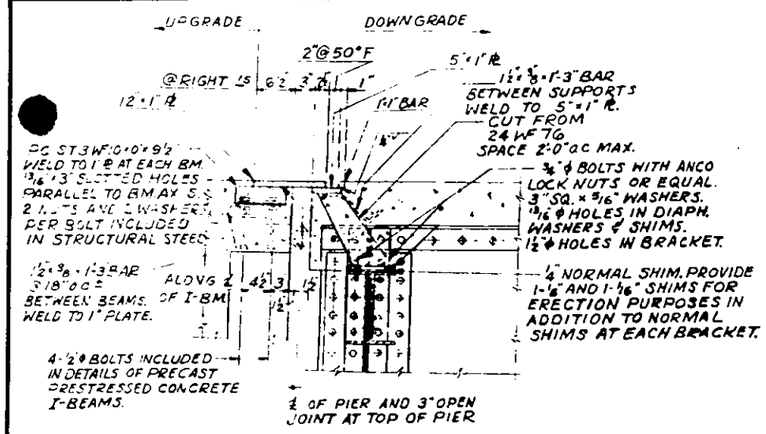
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

EXPANSION GUARD DETAILS

SHEET NO. 55 OF 136 SHEETS DATE:

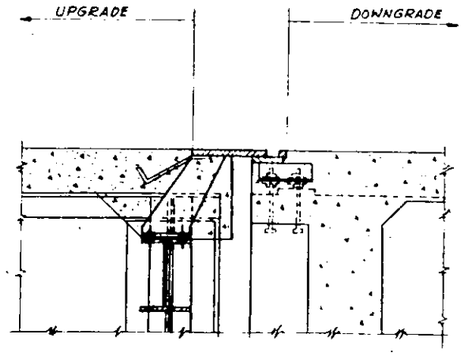
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0506.3-1H	COOK	136	56
STA.	TO STA.			
FED. ROAD PROJ. NO.	ILLINOIS	PROJECT		



SECTION D-D

TYPICAL FOR ALL CONCRETE TO STEEL STRINGERS

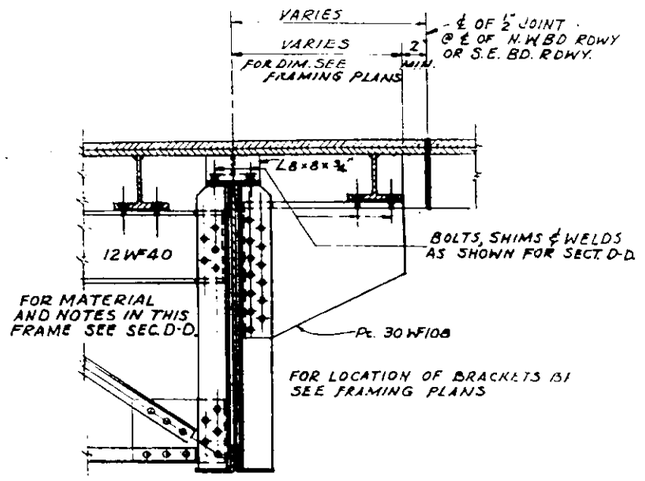
SCALE 1"=1'-0"



NOTE:
FOR MATERIAL AND DIMENSIONS SEE SECTION D-D

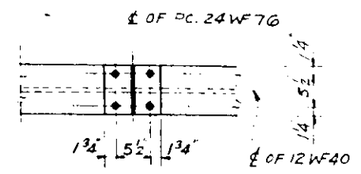
TYPICAL FOR ALL STEEL TO CONCRETE I-BEAMS

SCALE 1"=1'-0"



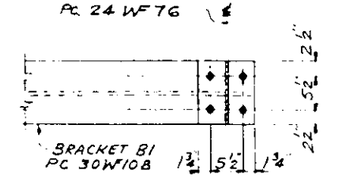
TYPICAL DETAIL BRACKET B1

SCALE 1"=1'-0"



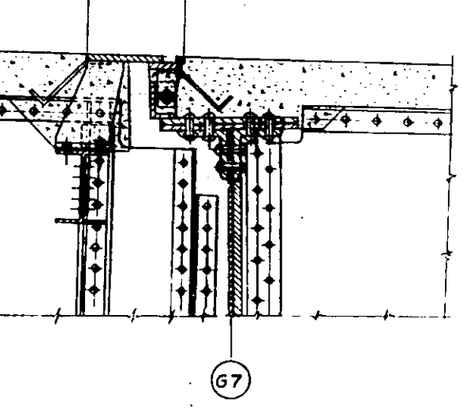
HOLES FOR SUPPORTS ON END FRAMES-X2 AND X6

SCALE 1"=1'-0"



HOLES FOR BRACKET B1

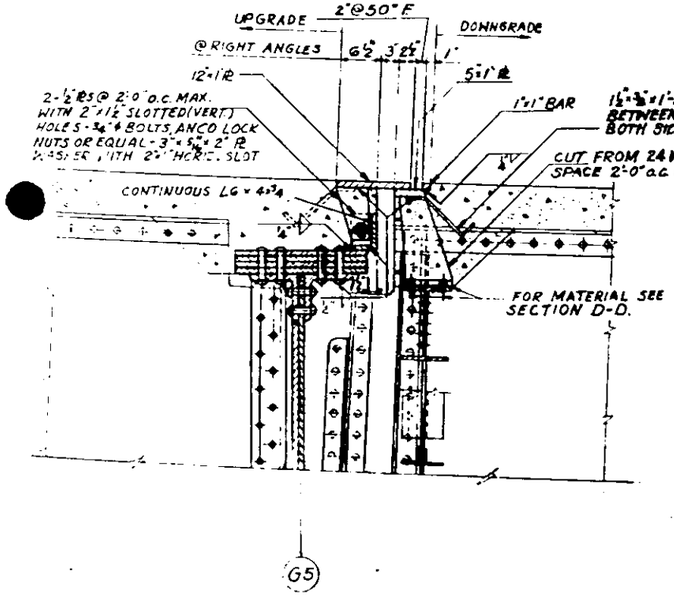
SCALE 1"=1'-0"



NOTE:
FOR MATERIAL AND DIMENSIONS SEE TYPICAL SECTION AT GIRDER 5.

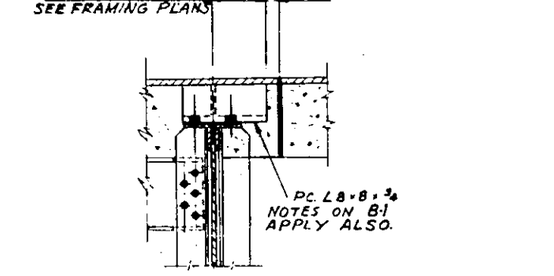
TYPICAL SECTION AT GIRDER 7

SCALE 1"=1'-0"



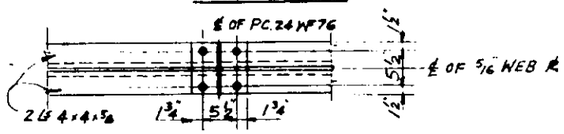
TYPICAL SECTION AT GIRDER 5

SCALE 1"=1'-0"



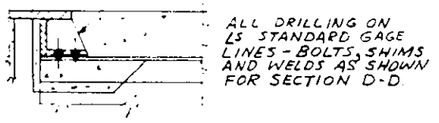
TYPICAL DETAIL BRACKET B2

SCALE 1"=1'-0"



HOLES FOR SUPPORTS ON END FRAMES-X8 AND X9

SCALE 1"=1'-0"



TYPICAL FOR SUPPORT BRACKETS B1 AND B2

SCALE 1"=1'-0"

Issued for Contract
Section 0506.3-1HF

SCALE OF TRACING
1"=1'-0"
0 3" 6" 9" 1' 2' 3'

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10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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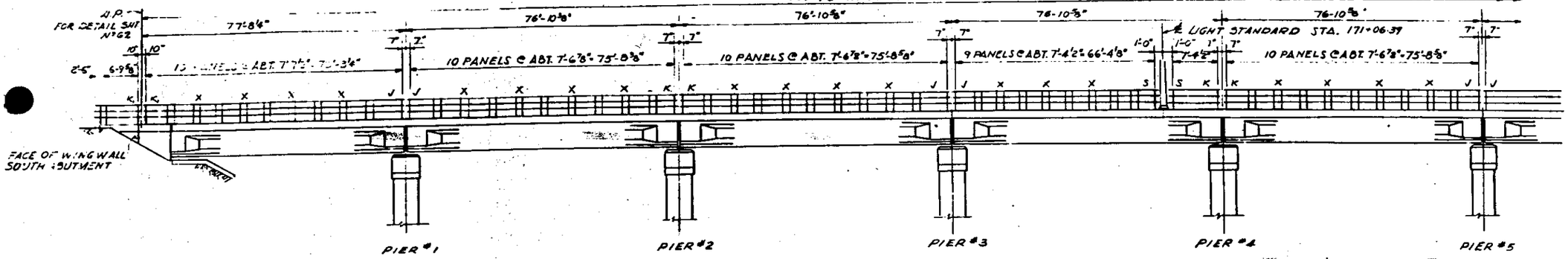
SECTION 0506.3-1H

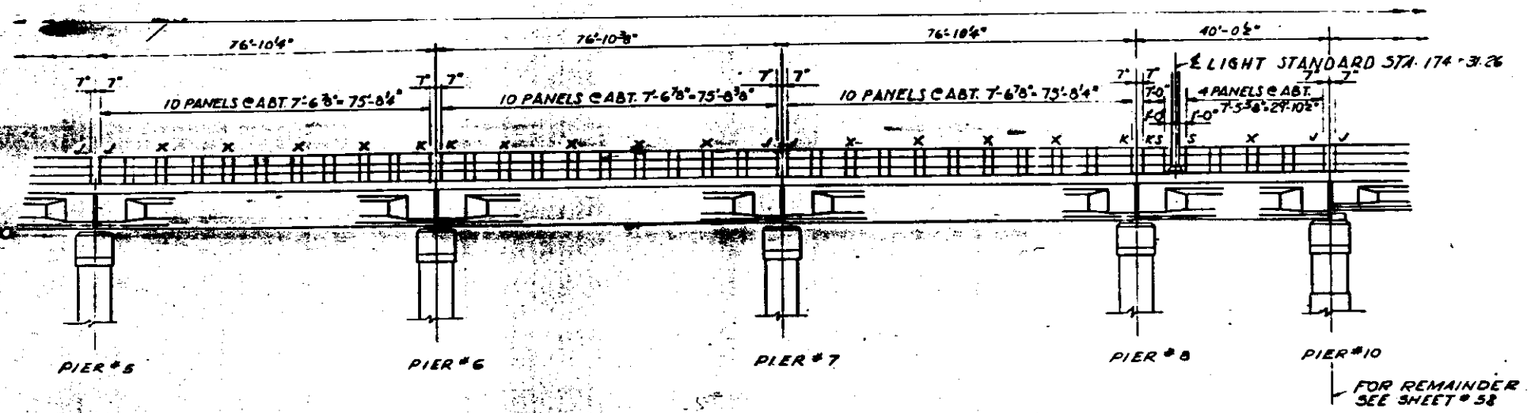
EXPANSION GUARD DETAILS

SHEET NO. 56 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 2	0506.3 IH	COOK	136	57
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I-02-2(18)	

1499'-7⅛" W.P. TO W.P. OF ABUTMENTS





FOR REMAINDER SEE SHEET #58

NORTH

RAILING EAST ELEVATION

SCALE: 1"=15'

SCALE OF TRACING

1"=15'

0 5' 10' 15' 30' 45' 60'

NOTE!

ALL DIMENSIONS ARE HORIZONTAL AND NOT TRUE DIMENSIONS ALONG SURFACE OF THE BRIDGE.
FOR DETAILS OF METAL HANDRAIL SEE SHEETS 61 AND 62.

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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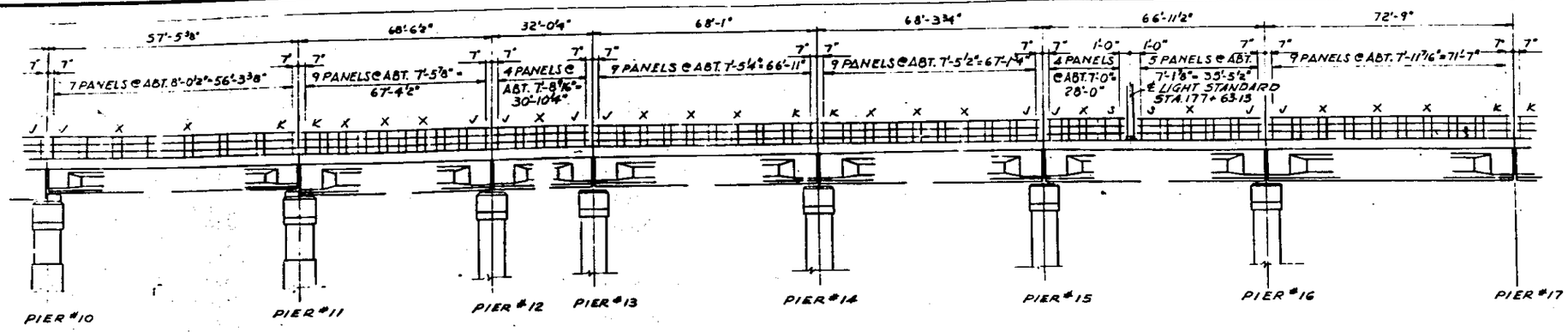
SECTION 0506.3-1H

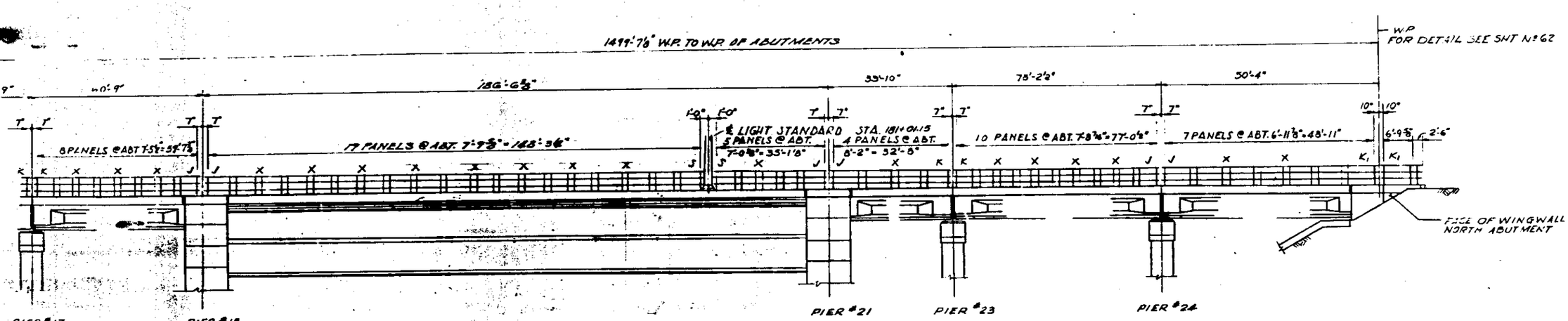
METAL HANDRAIL EAST ELEVATION

SHEET NO. 57 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 2	0606.3-1H	COOK	136	58
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



FOR REMAINDER SEE SHEET # 57



NORTH

RAILING EAST ELEVATION

SCALE: 1" = 15'

SCALE OF TRACING

1" = 15'

0 5' 10' 15' 30' 45' 60'

NOTE!

ALL DIMENSIONS ARE HORIZONTAL AND NOT TRUE DIMENSIONS ALONG SURFACE OF THE BRIDGE.

FOR DETAILS OF METAL HANDRAIL SEE SHEETS G1 AND G2.

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10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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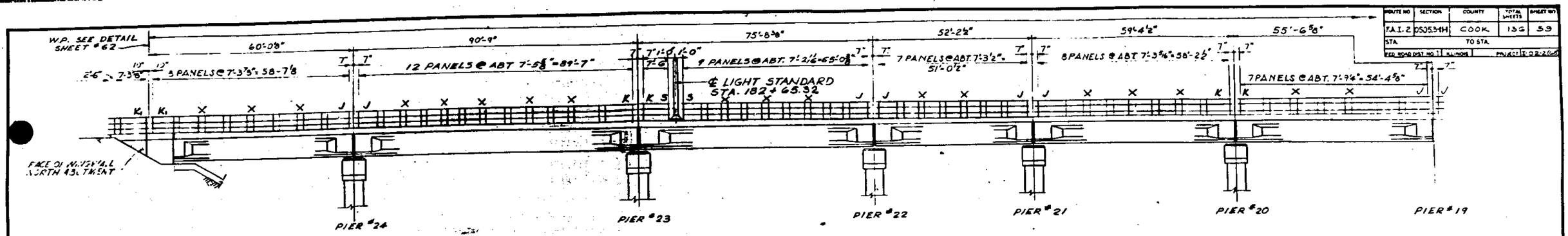
SECTION 0606.3-1H

METAL HANDRAIL EAST ELEVATION

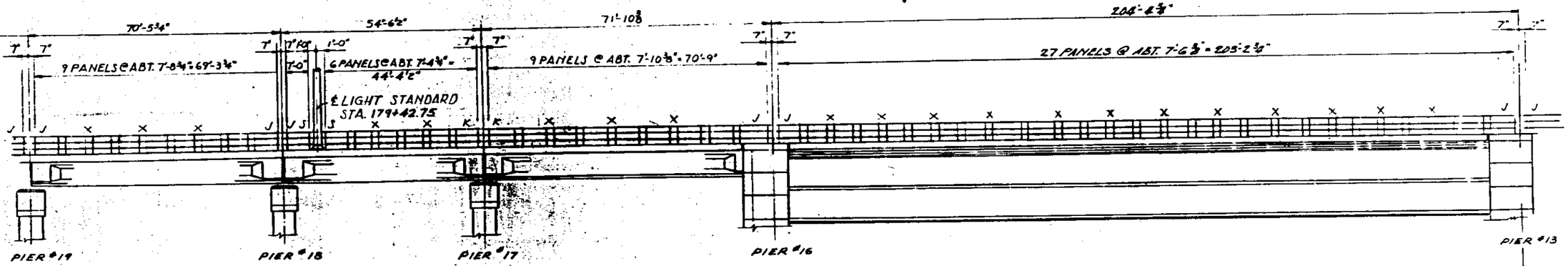
SHEET NO. 58 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 2	0505.3-1H	COOK	136	59
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS		PROJECT	R-22-2(60)



NORTH

1604'-7⅜" N.P. TO N.P. OF ABUTMENTS



FOR REMAINDER SEE SHEET #60

RAILING WEST ELEVATION

SCALE: 1" = 15'

SCALE OF TRACING.

1" = 15'

0 5' 10' 15' 30' 45' 60'

NOTE!

ALL DIMENSIONS ARE HORIZONTAL AND NOT TRUE DIMENSIONS ALONG SURFACE OF THE BRIDGE.
FOR DETAILS OF METAL HANDRAIL SEE SHEETS 61 AND 62.

ALFRED BENESCH & ASSOCIATES
90 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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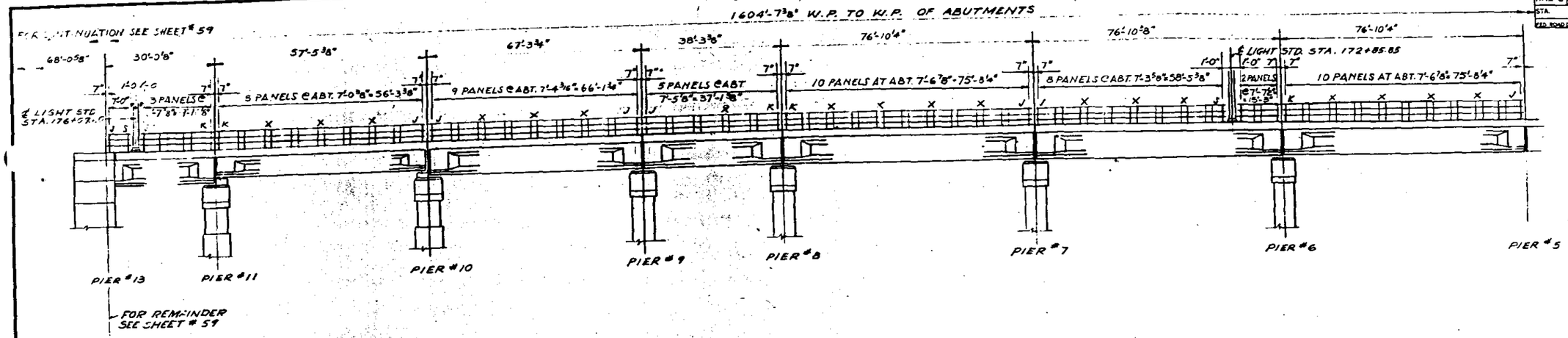
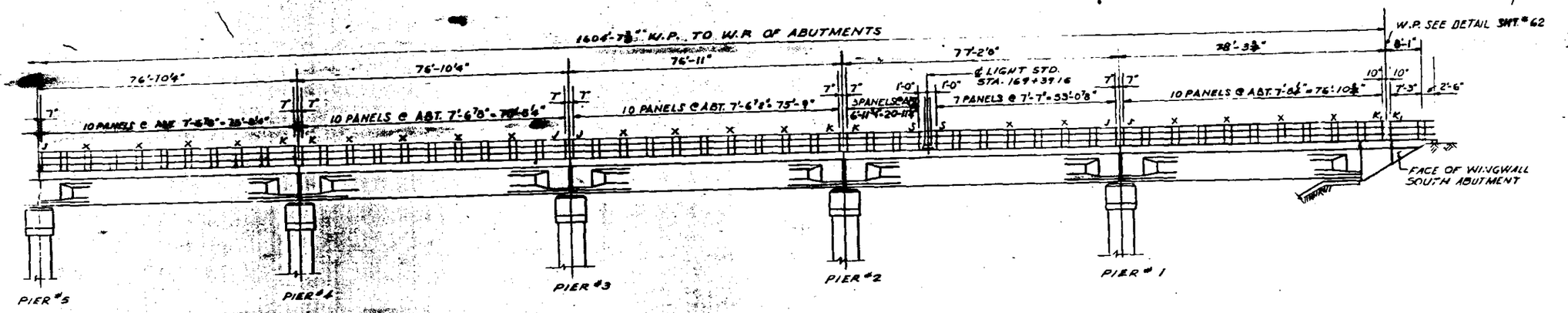
SECTION 0505.3-1H

METAL HANDRAIL WEST ELEVATION

SHEET NO. 59 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 2	0505.3-IH	COOK	136	60
STA.	TO STA.			
FED. ROAD DIST. NO. 2	ILLINOIS	PROJECT	1-02-2(68)	





RAILING WEST ELEVATION

SCALE: 1" = 15'

SCALE OF TRACING

1" = 15' 0 5' 10' 15' 30' 45' 60'

NOTE!
ALL DIMENSIONS ARE HORIZONTAL AND NOT TRUE DIMENSIONS ALONG SURFACE OF THE BRIDGE.
FOR DETAILS OF METAL HANDRAIL SEE SHEETS 61 AND 62.

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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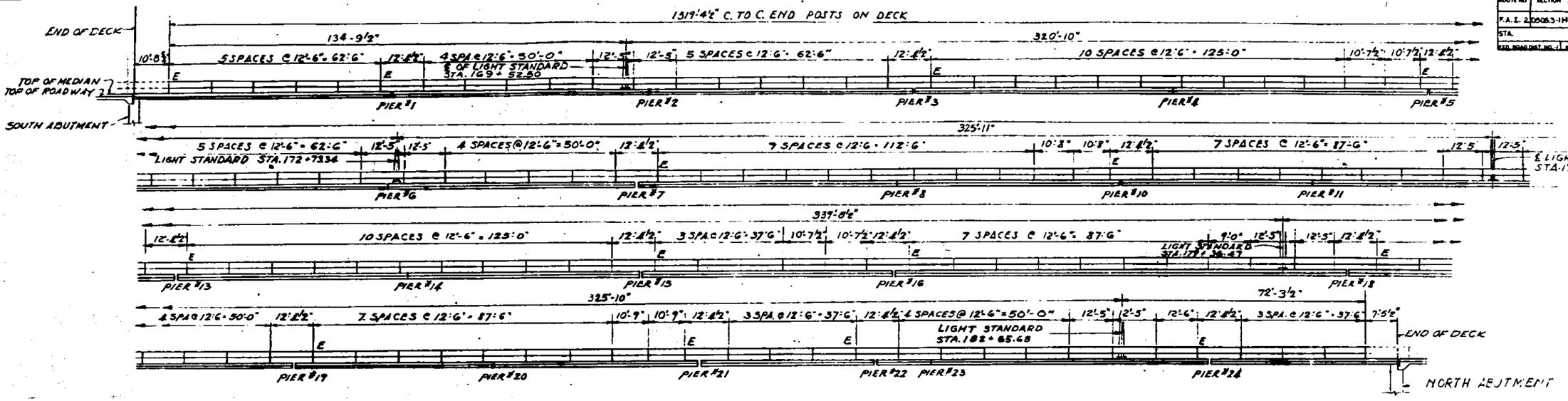
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-IH

METAL HANDRAIL WEST ELEVATION

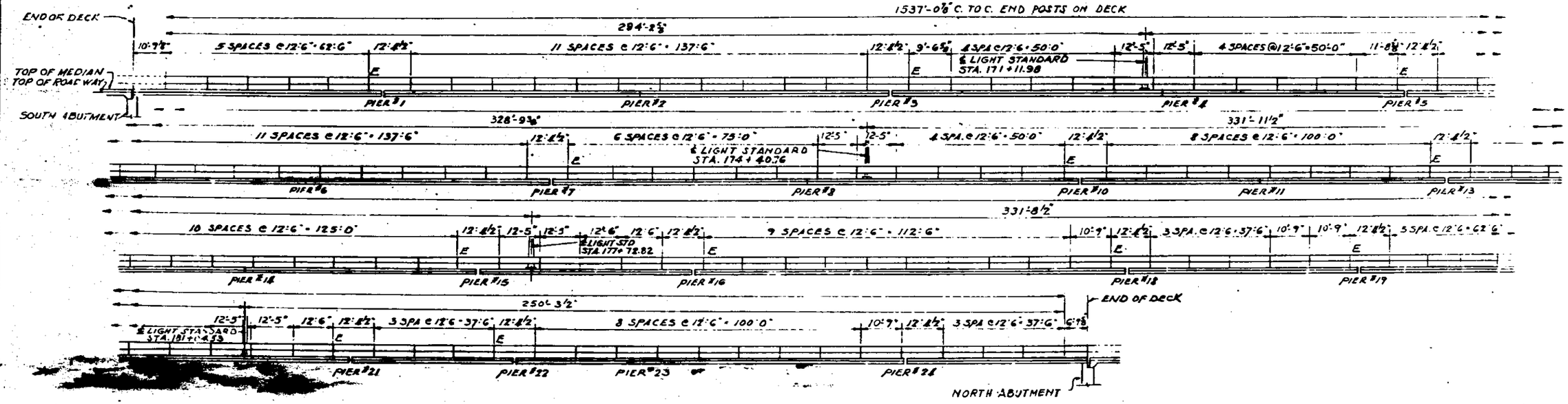
SHEET NO. 60 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 2	0508.3-1H	COOK	156	63
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



ELEVATION OF STEEL PLATE BEAM GUARD RAIL, SPECIAL, FOR EAST MEDIAN

SCALE 1" = 15'-0"



ELEVATION OF STEEL PLATE BEAM GUARD RAIL SPECIAL, FOR WEST MEDIAN

SCALE 1" = 15'-0"

NOTE!
ALL DIMENSIONS ARE HORIZONTAL AND NOT TRUE DIMENSIONS ALONG SURFACE OF THE BRIDGE.
FOR DETAILS OF GUARD RAIL SEE SHT. 64

NORTH

SCALE OF TRACING
1" = 15'

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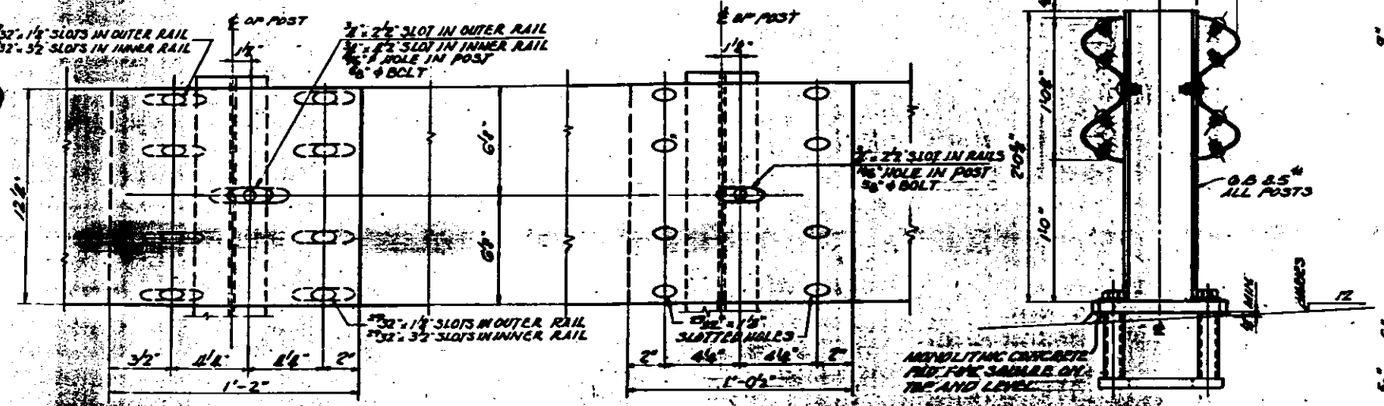
WABANSIA AVE. TO CORTLAND ST.
SECTION 0508.3-1H

STEEL PLATE BEAM GUARD RAIL

SHEET NO. 63 OF 156 SHEETS DATE:

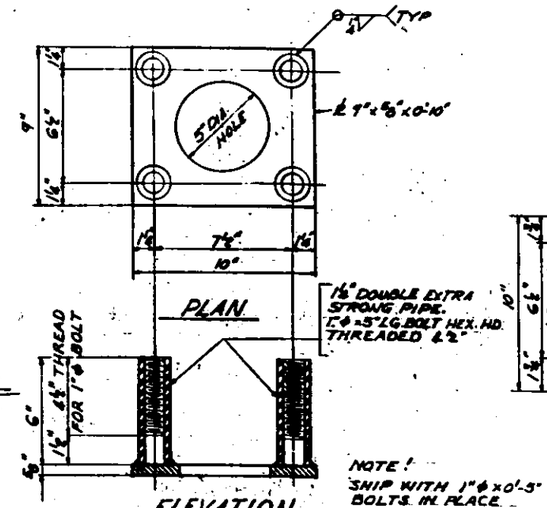
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0606.3-1H	COOK	136	64
STA.	TO STA.			
FED ROAD DIST NO 4	ILLINOIS	PROJECT 11-02 3(63)		



DETAIL AT POST "E"
SCALE: 3"=1'-0"

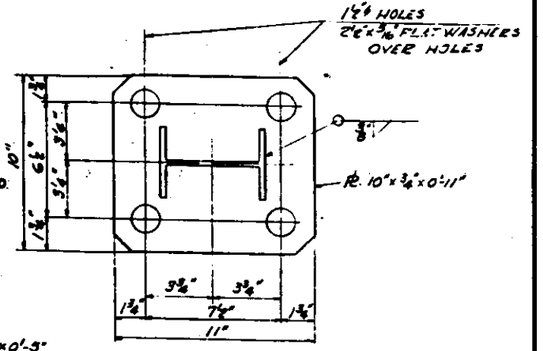
DETAIL AT TYPICAL POST
SCALE: 3"=1'-0"

TYPICAL SECTION
STEEL PLATE BEAM
GUARD RAIL SPECIAL
SCALE: 1½"=1'-0"

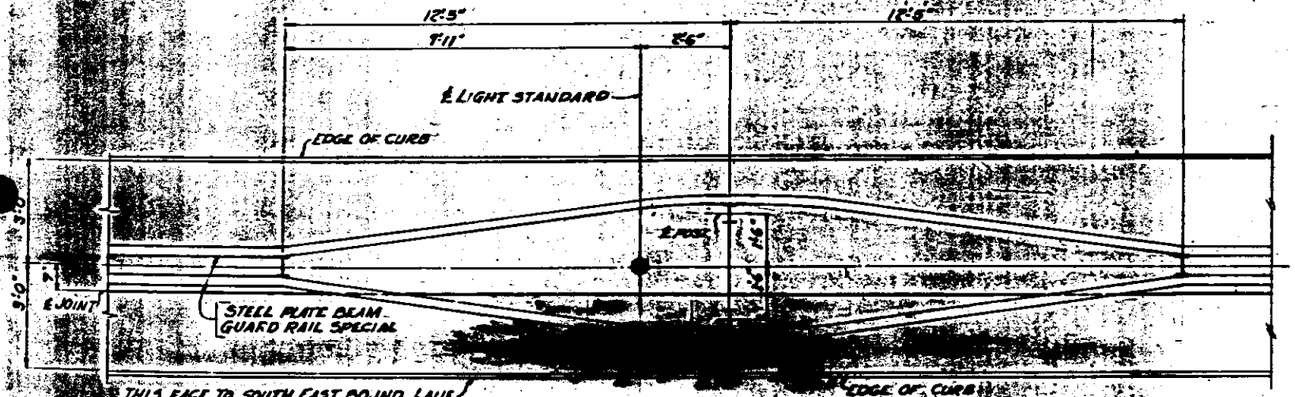


ELEVATION
ANCHOR DETAIL
SCALE: 3"=1'-0"

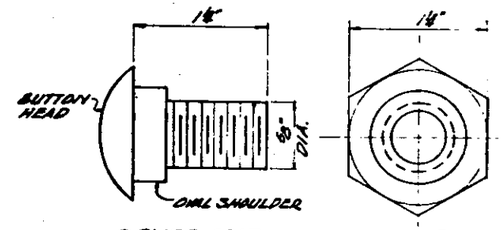
NOTE!
SNIP WITH 1"Ø x 0'-3" BOLTS IN PLACE



RAIL POST BASE PLATE
SCALE 3"=1'-0"



DETAIL OF GUARD RAIL AT LIGHT STANDARDS
SCALE: ½"=1'-0"



SPLICE BOLT
NUT

NOTE! POST BOLT SIMILAR EXCEPT LENGTH

SPLICE BOLT AND NUT DETAIL
NOT TO SCALE

NOTE
THE COST OF THE ADDITIONAL POSTS AT THE LIGHT STANDARDS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR STEEL PLATE BEAM GUARD RAIL, SPECIAL. - ITEM N° 20

SCALES OF TRACING

½"=1'-0"
1"=6"
3"=1'-0"

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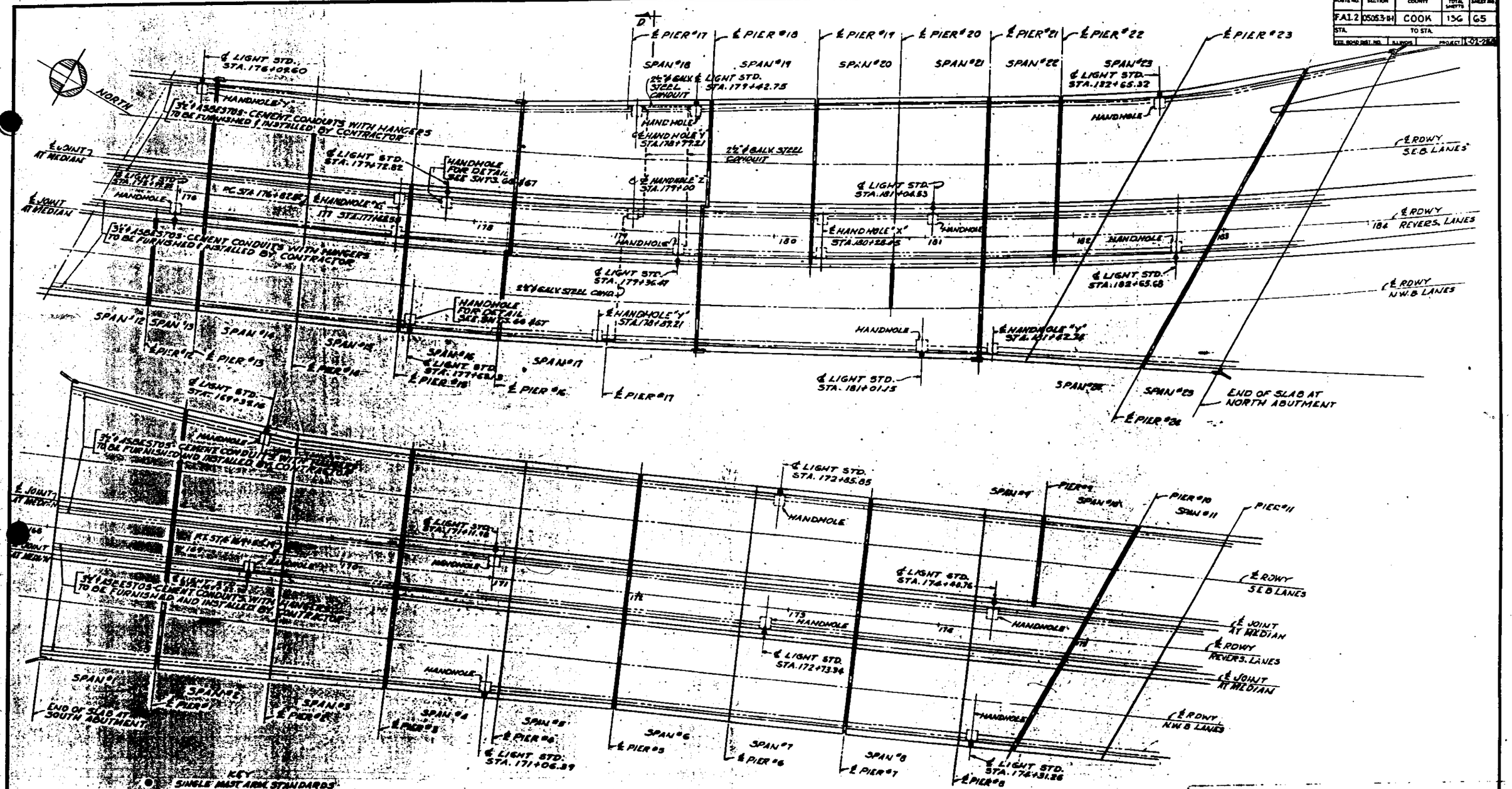
WABANSIA AVE. TO CORTLAND ST.
SECTION 0606.3-1H

STEEL PLATE BEAM GUARD RAIL DETAILS

SHEET NO. 64 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.2	0606.3-1H	COOK	136	65
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT	1-91-2(6)	



KEY
- SINGLE MAST ARM STANDARDS MOUNTED ON BRIDGE
- DOUBLE MAST ARM STANDARDS MOUNTED ON BRIDGE

ELECTRICAL CONDUIT PLAN
SCALE: 1"=30'-0"

NOTE:
FOR DETAILS OF HANDHOLES & CONDUIT HANGERS, SEE SHEET 66, 67 AND 68.
SEE SHEET 68 FOR SECTION D-D

SCALE OF TRACING
1"=30'
0 30' 60' 100'

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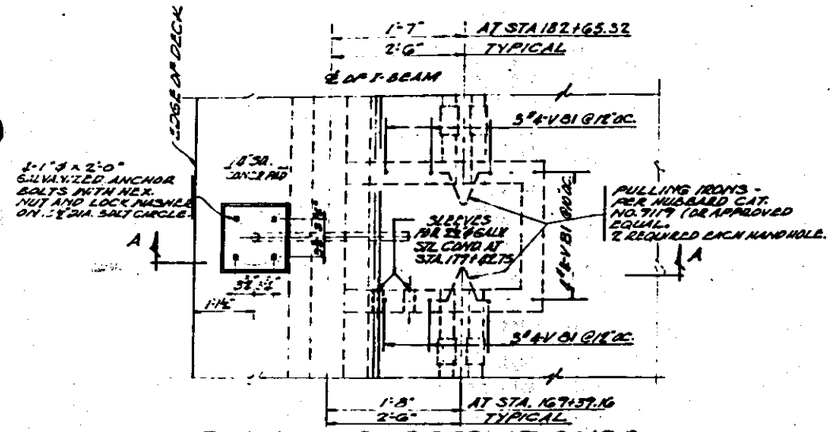
KILBOURN AVE. TO CORTLAND ST.
SECTION 0606.3-1H

ELECTRIC CONDUITS

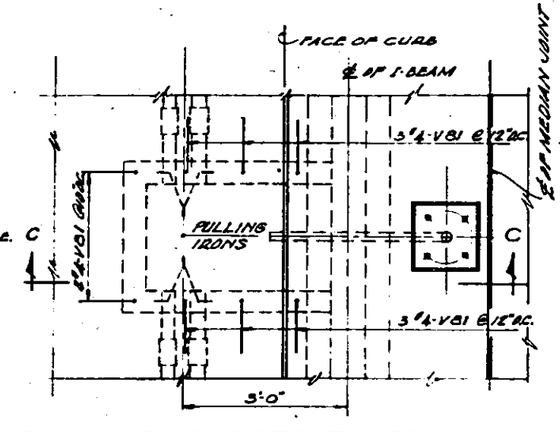
SHEET NO. 65 OF 136 SHEETS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3-IH	COOK	136	GG
STA.	TO STA.			
FED. ROAD DIST. NO. 9	ILLINOIS	PROJECT	I-90 2(48)	



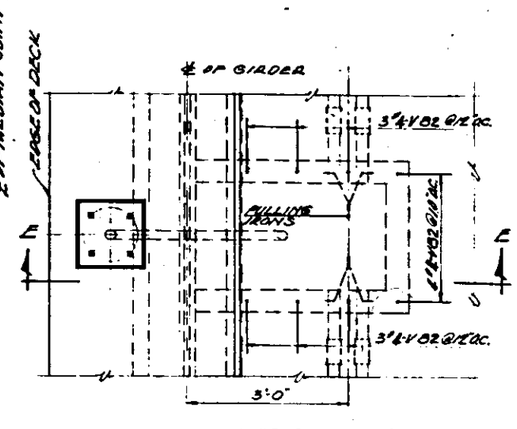
PLAN OF LIGHT STD. AT CURB OVER CONCRETE I-BEAMS

SCALE ¼"=1'-0"



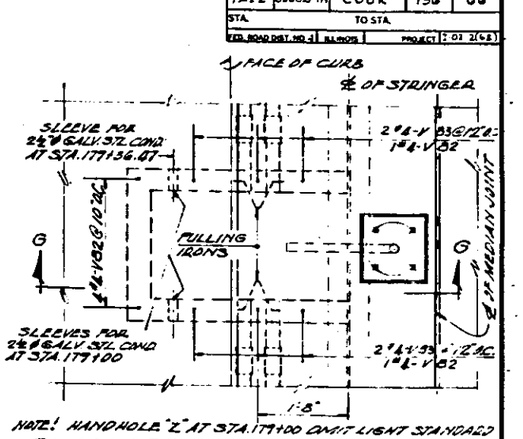
PLAN OF LIGHT STD. AT MEDIAN OVER CONCRETE I-BEAMS

SCALE ¼"=1'-0"



PLAN OF LIGHT STD. AT CURB OVER STEEL GIRDER

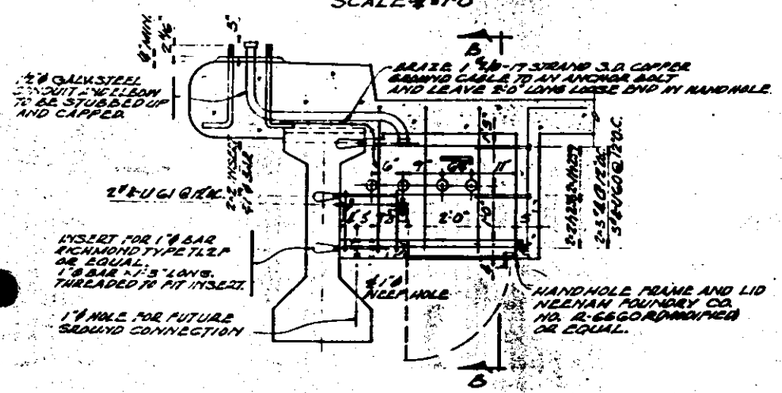
SCALE ¼"=1'-0"



NOTE! HANDHOLE "E" AT STA. 177+00 OMIT LIGHT STANDARD

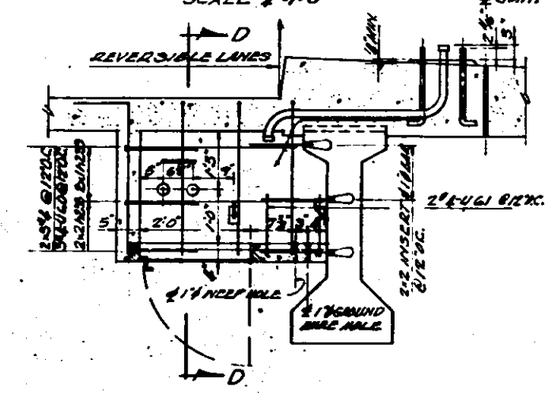
PLAN OF LIGHT STD. AT MEDIAN OVER STEEL STRINGER

SCALE ¼"=1'-0"



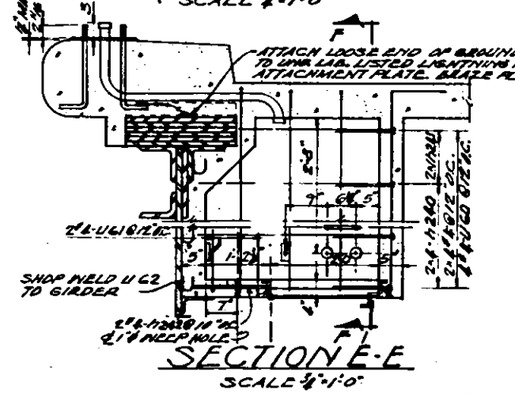
SECTION A-A

SCALE ¼"=1'-0"



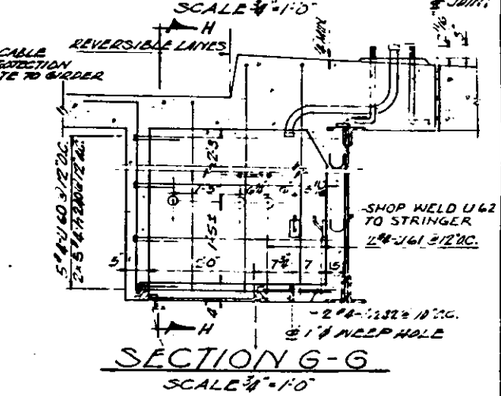
SECTION C-C

SCALE ¼"=1'-0"



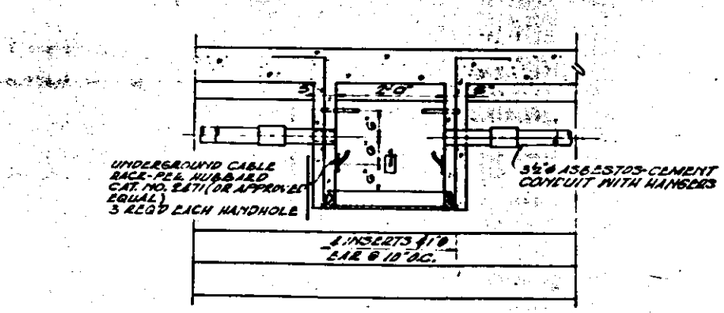
SECTION E-E

SCALE ¼"=1'-0"



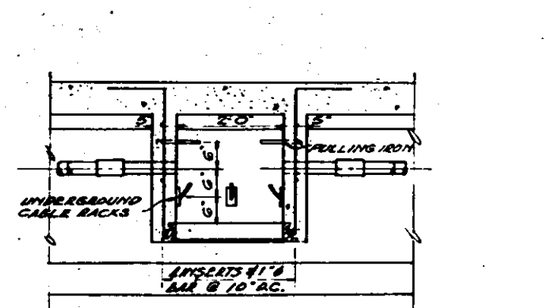
SECTION G-G

SCALE ¾"=1'-0"



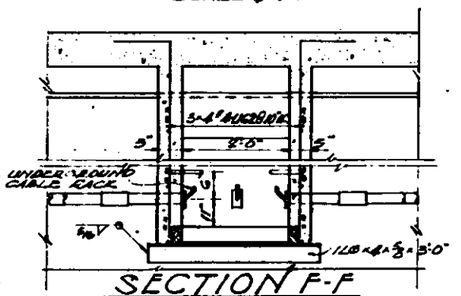
SECTION B-B

SCALE ¾"=1'-0"



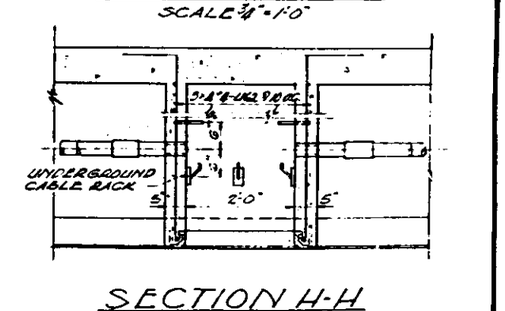
SECTION D-D

SCALE ¾"=1'-0"



SECTION F-F

SCALE ¾"=1'-0"



SECTION H-H

SCALE ¾"=1'-0"

SCALES OF TRACING

¾"=1'-0"

0 6" 1' 2' 3'

NOTE!
LIGHT STANDARD ANCHOR BOLTS, PULLING IRONS, CABLE RACKS, AND SLEEVES FOR 2½" ℄ GALV. STEEL CONDUIT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS X CONCRETE - ITEM 11
1½" ℄ GALVANIZED STEEL CONDUIT, GROUNDING CABLES AND ATTACHMENT PLATE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LUMP SUM FOR STEEL CONDUIT AND LIGHTING SYSTEM GROUNDING - ITEM 26
HANDHOLE FRAME AND LID - ITEM 25.
ALL LIGHT STANDARDS BY OTHERS.
FOR LOCATION OF LIGHT STANDARDS SEE SHEET G8.
FOR DETAIL OF CONDUIT HANGER AND HANDHOLE "X" & "Y" SEE SHEET 87

ALFRED BENESCH & ASSOCIATES
10 SOUTH WACKER AVE. CHICAGO, ILLINOIS

CITY OF CHICAGO
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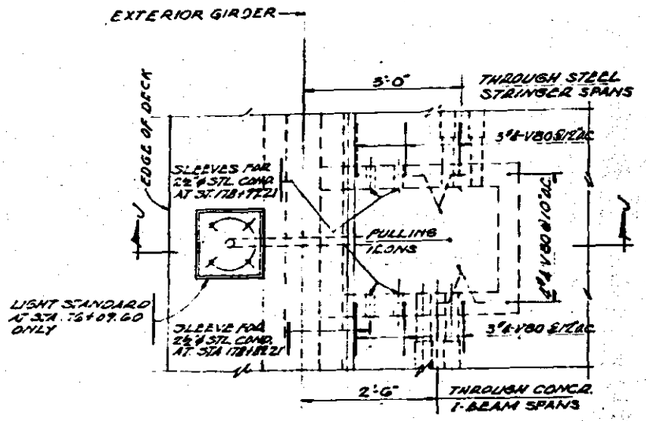
SECTION 0505.3-IH

HANDHOLE DETAILS

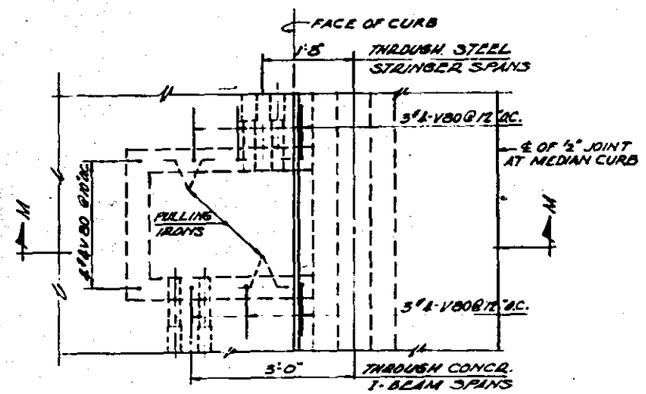
SHEET NO. GG OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 2	0505.3-1H	COOK	136	67
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	II-02-2(6&8)	



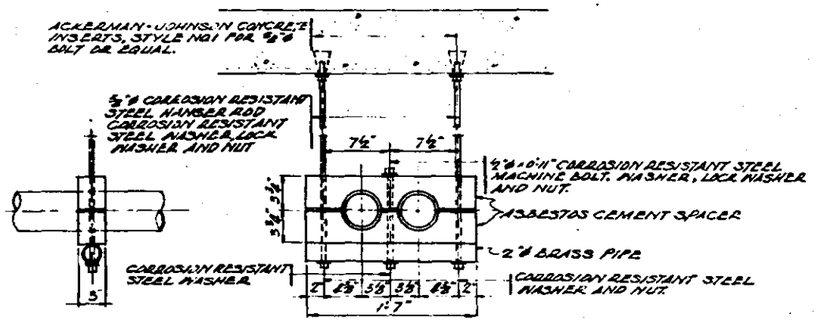
PLAN OF HANDHOLE "Y" AT CURB

SCALE ¾"=1'-0"



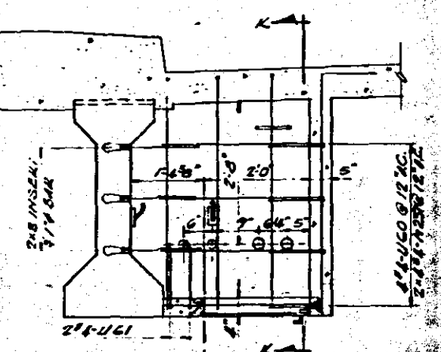
PLAN OF HANDHOLE "X" AT MEDIAN

SCALE ¾"=1'-0"



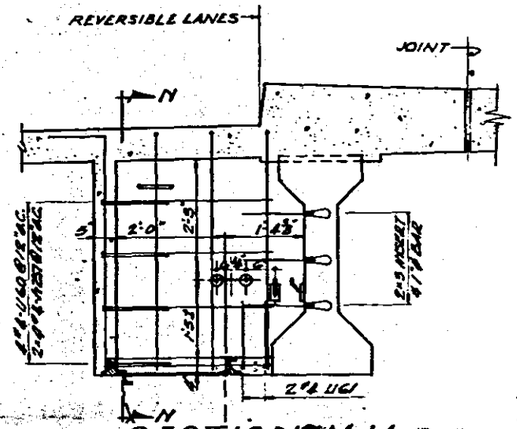
DETAIL OF 3½"ϕ CONDUIT HANGER

SCALE 1½"=1'-0"



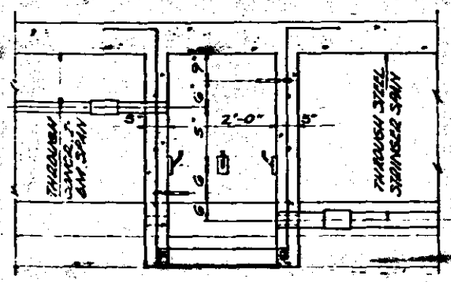
SECTION J-J

SCALE ¾"=1'-0"



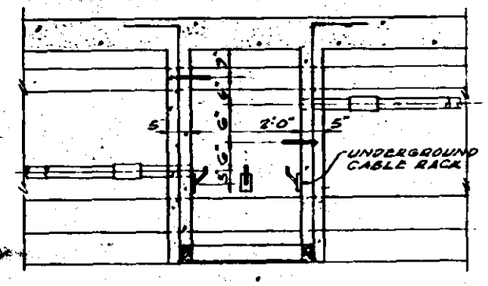
SECTION M-M

SCALE ¾"=1'-0"



SECTION K-K

SCALE ¾"=1'-0"



SECTION N-N

SCALE ¾"=1'-0"

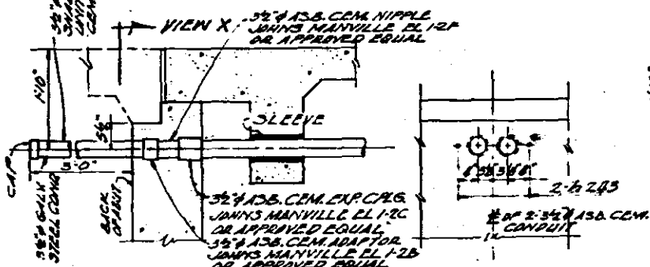
SCALES OF TRACING

¾"=1'-0" 0 6" 1' 2' 3'

1½"=1'-0" 0 3" 6" 9" 1' 2'

NOTE-FOR 3½"ϕ ASBESTOS-CEMENT CONDUIT WITH HANGERS

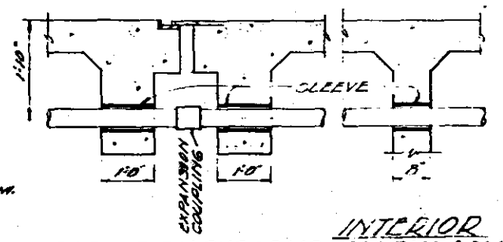
1. CONDUIT HANGERS TO BE SPACED AT 4'-0" CTRS.
2. HOLES IN BRASS PIPE AND SPACER TO BE DRILLED ¼" LARGER IN DIAMETER THAN HANGER ROD OR BOLT.
3. CLEAR DISTANCE BETWEEN INSERTS AND ANY REINFORCEMENT BAR TO BE NOT LESS THAN 1½" IN ANY DIRECTION. INSERTS TO BE PLACED SO THAT CLEAR DISTANCE BETWEEN HANGERS AND DIAPHRAGMS OR SWAY FRAMES IS NOT LESS THAN 1½".
4. HANGER ROD TO BE CUT FLUSH WITH NUT. PEEN, CENTER PUNCH, OR SPOT WELD AT THREAD LINE TO PREVENT NUT FROM TURNING.
5. NO PART OF THE CONDUIT ASSEMBLY SHALL EXTEND BELOW THE BOTTOM FLANGE OF ADJACENT STRINGERS.
6. EXPANSION COUPLINGS, JOHNS-MANVILLE ASBESTOS-CEMENT EL 1-2C OR APPROVED EQUAL, SHALL BE LOCATED DIRECTLY BELOW EXPANSION DEVICES IN CONCRETE DECK SLABS.
7. HANGERS, SPACERS, BRASS PIPES, CONDUITS, EXPANSION COUPLINGS, COUPLINGS, INSERTS, CONDUIT SLEEVES, ADAPTERS, 3½"ϕ GALV. STEEL CONDUITS, AND CAP SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAR FOOT FOR 3½"ϕ ASBESTOS CEMENT CONDUIT WITH HANGERS.
8. FOR GENERAL PLAN OF ELECTRICAL CONDUITS SEE SHEET 65.



SECT. THROUGH ABUT. VIEW X

DETAIL OF CONDUITS THROUGH ABUTMENT

SCALE ¾"=1'-0"



INTERIOR BEARING DIAPHRAGMS DIAPHRAGM

DETAIL OF CONDUIT SLEEVES THROUGH DIAPHRAGMS

SCALE ¾"=1'-0"

NOTE!
FOR LOCATION OF LIGHT STANDARDS SEE PLAN OF ELECTRICAL CONDUITS SHEET 65
FOR TYPICAL HANDHOLE DETAILS SEE SHEET 66

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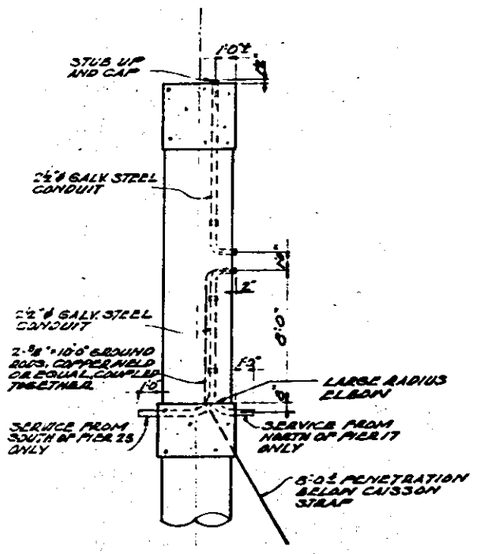
SECTION 0505.3-1H

HANDHOLE DETAILS

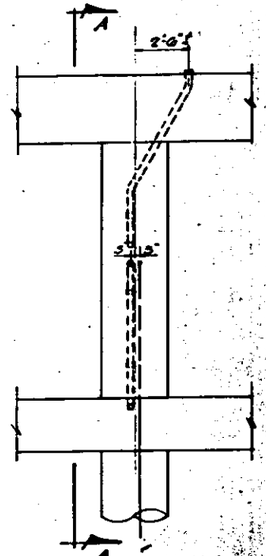
SHEET NO. 67 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0503.1-IH	COOK	136	68
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS		PROJECT	8-02-2(68)



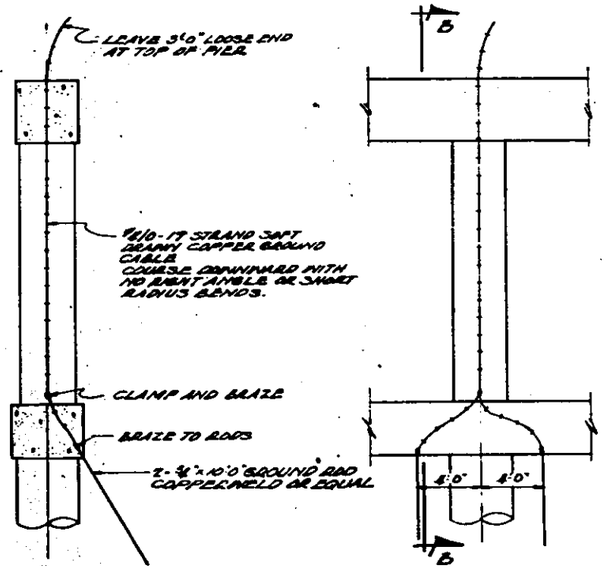
SECTION A-A



ELEVATION

TYPICAL CONDUIT LAYOUT FOR SERVICE CABINET AT PIERS 17 & 23

SCALE ½"=1'-0"

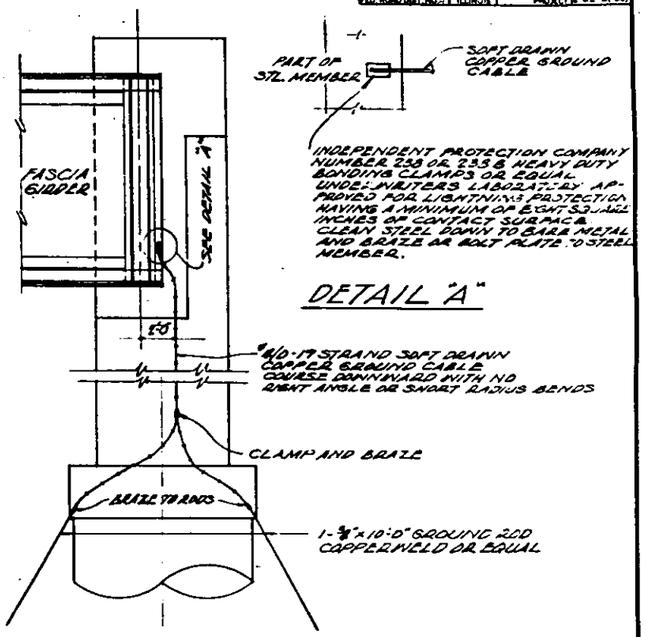


SECTION B-B

ELEVATION

DETAIL OF GROUNDING AT PIERS 2 & 4

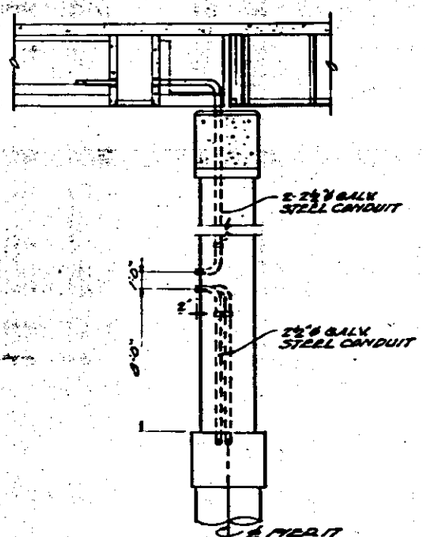
SCALE ½"=1'-0"



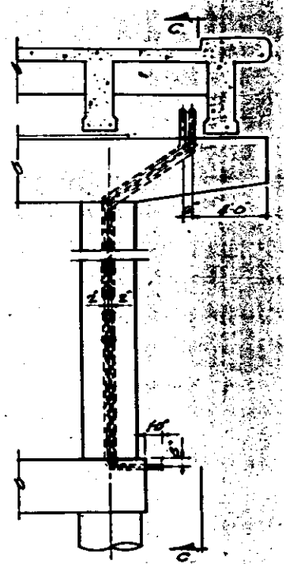
DETAIL "A"

DETAIL OF GROUNDING AT PIERS 16 & 18

SCALE ½"=1'-0"

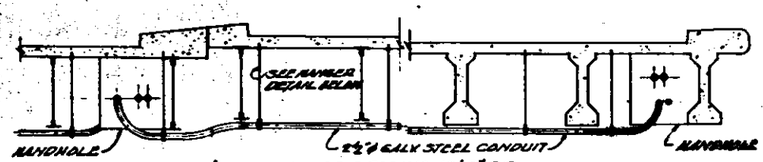


SECTION C-C



ELEVATION

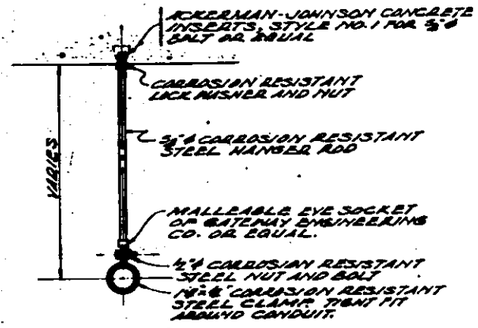
DETAIL OF SERVICE ENTRANCE FOR SUPERHIGHWAY LIGHTING AT PIER 17



NOTE! MAX. HANGER SPACING 10'-0" O.C.

SECTION D-D

SCALE ½"=1'-0"



DETAIL OF 2½"ø CONDUIT HANGER

SCALE 1½"=1'-0"

NOTE!
2½"ø GALVANIZED STEEL CONDUIT, GROUNDING CABLES, GROUND RODS, CONCRETE INSERTS AND 2½"ø CONDUIT HANGERS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LUMP SUM FOR STEEL CONDUIT AND LIGHTING SYSTEM GROUNDING - ITEM 26
FOR LOCATION OF GROUNDINGS AT PIER 2 SEE SHEET 81
FOR LOCATION OF GROUNDINGS AT PIER 4 SEE SHEET 84 AND 85.
FOR PIER 16 SEE SHEET 102
FOR PIER 18 SEE SHEET 104
FOR LOCATION OF SERVICE CABINET AND SERVICE ENTRANCE AT PIER 17 SEE SHEET 103
FOR LOCATION OF SERVICE CABINET AT PIER 22 SEE SHEET 111.
FOR SECTION D-D SEE SHEET 65.

SCALE OF TRACING
1½"=1'-0"
0 1 2 3 4 5 6'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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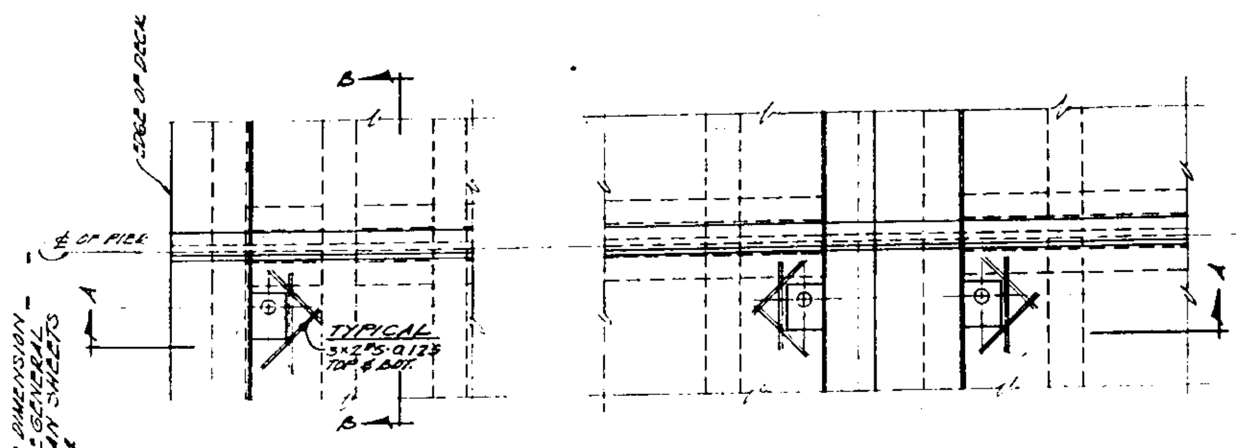
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0503.3-IH

ELECTRIC GROUNDING DETAILS

SHEET NO. 63 OF 136 SHEETS DATE:

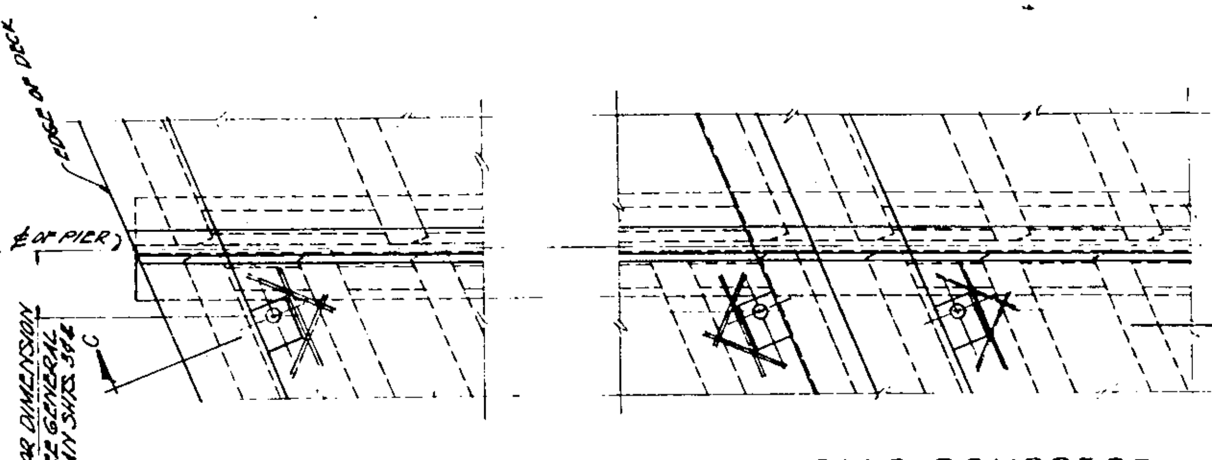
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAIZ	0505.3-1H	COOK	136	69
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	I-02-2(68)



EXTERIOR SCUPPER INTERIOR SCUPPERS

TYPICAL PART PLAN OF SCUPPERS

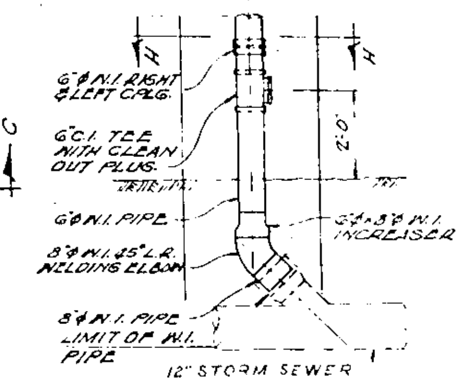
SCALE 1/4"=1'-0"



EXTERIOR SCUPPER INTERIOR SCUPPERS

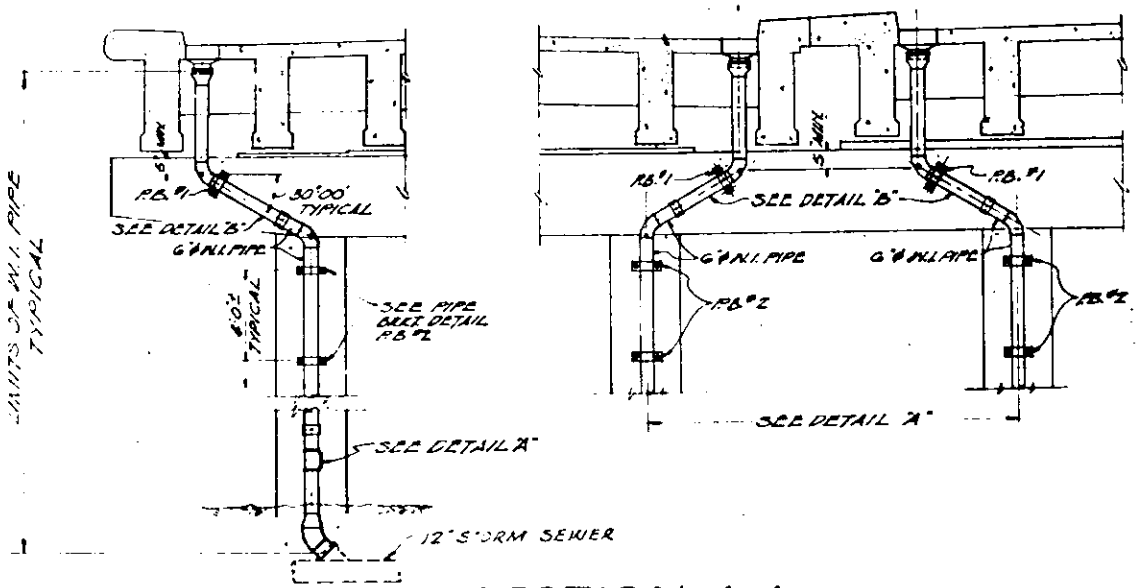
TYPICAL PART PLAN OF SCUPPERS AT SKEWED PIERS

SCALE 1/4"=1'-0"



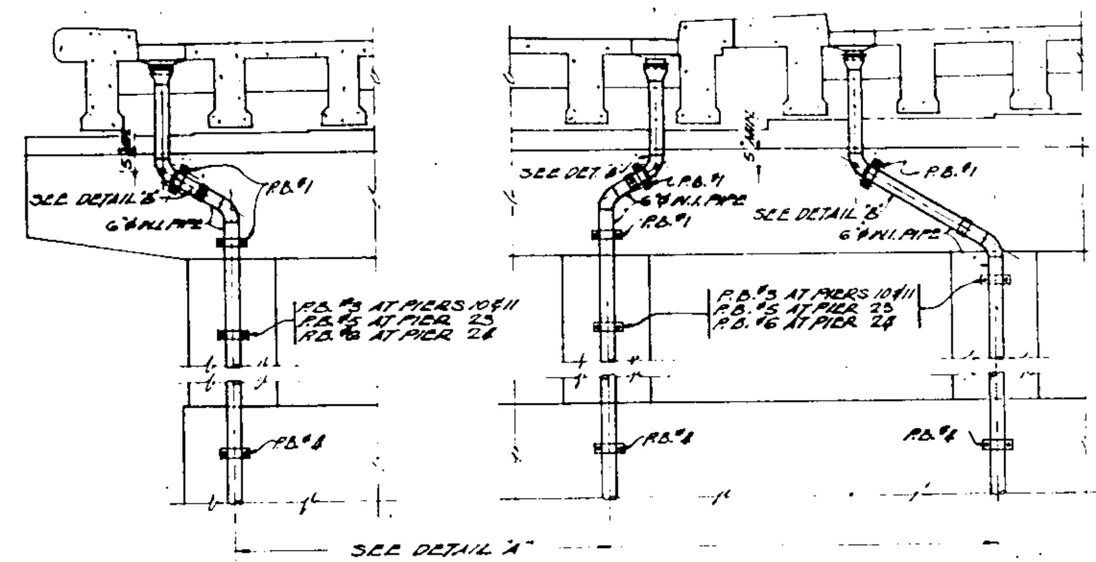
DETAIL "A"

SCALE 1/2"=1'-0"



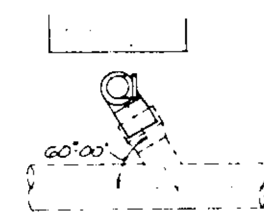
SECTION A-A

SCALE 1/4"=1'-0"



SECTION C-C

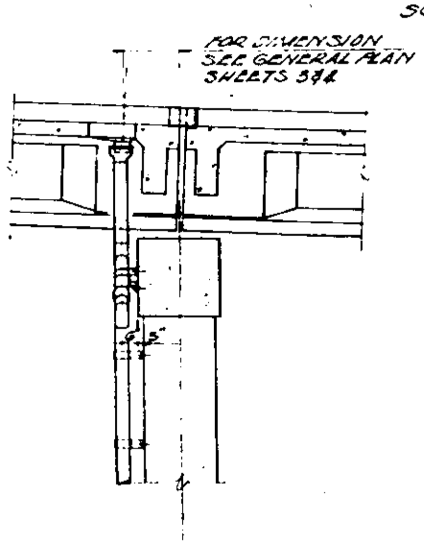
SCALE 1/4"=1'-0"



SECTION H-H

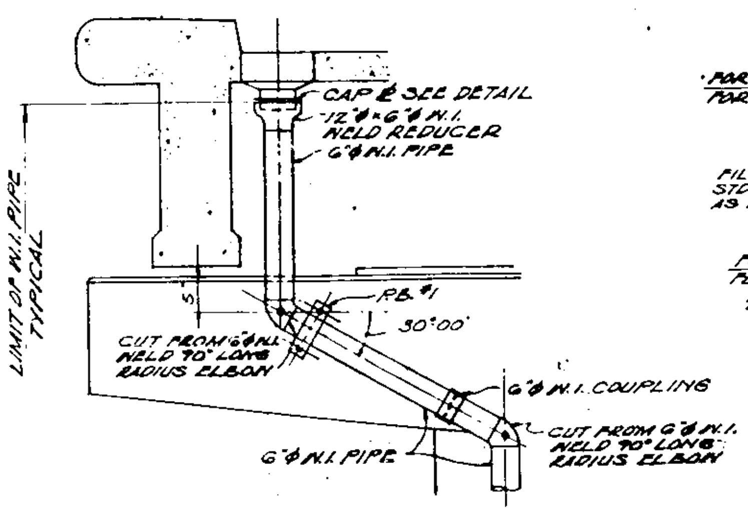
SCALE 1/2"=1'-0"

NOTE!
CAP PLATES, PIPE BRACKETS AND FITTINGS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAR FOOT OF WROUGHT IRON PIPE; 6-INCH - ITEM 23.
FOR EXACT LOCATION OF SCUPPERS SEE GENERAL PLAN SHEETS 3 & 4.
FOR ADDITIONAL SCUPPER DRAINAGE DETAILS SEE SHEETS 70 & 71.



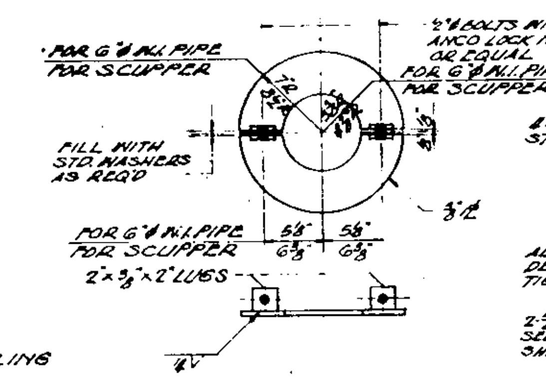
SECTION B-B

SCALE 1/4"=1'-0"



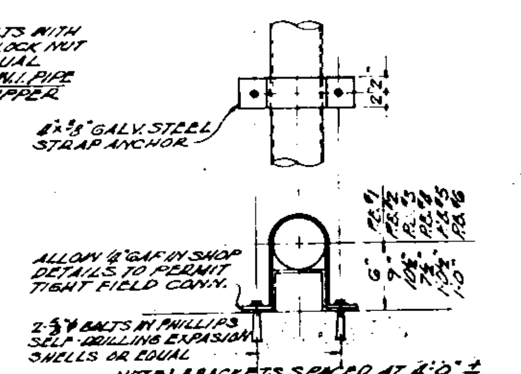
DETAIL B

SCALE 1/2"=1'-0"



CAP PLATE DETAIL

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



NOTE! BRACKETS SPACED AT 4'-0" ±

PIPE BRACKET DETAIL

SCALE 1"=1'-0"

SCALES OF TRACING

1/4"=1'-0" 0 1' 2' 4' 8'

1/2"=1'-0" 0 6" 1' 2' 4'

1"=1'-0" 0 3" 6" 9" 1' 2' 3'

1 1/2"=1'-0" 0 3" 6" 9" 1' 2'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

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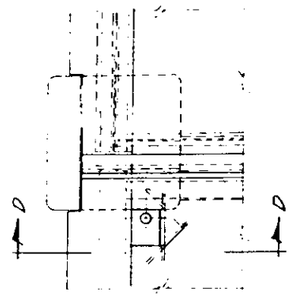
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

DECK DRAINAGE DETAILS

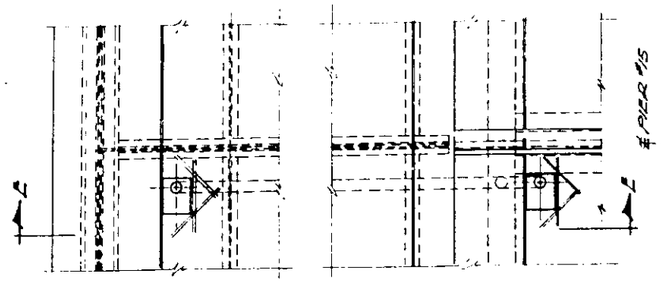
SHEET NO. 69 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	70
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I 02 2(062)	



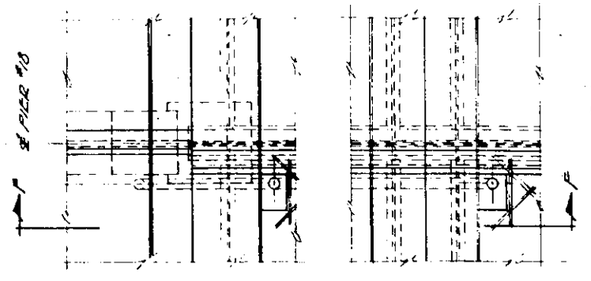
PART PLAN OF SCUPPER AT PIER #13 ALONG WEST CURB OF SO. EAST BOUND LANES

SCALE 1/4"=1'-0"



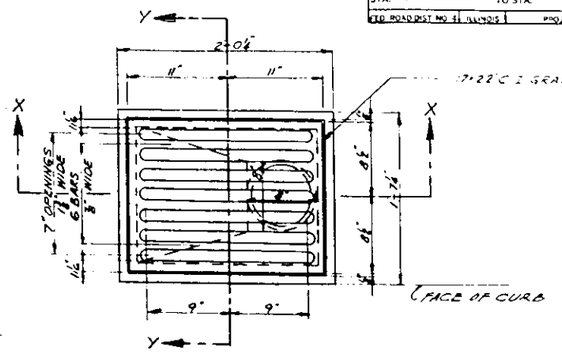
PART PLAN OF SCUPPERS AT GIRDER G4 AND PIER #15

SCALE 1/4"=1'-0"



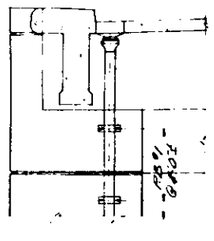
PART PLAN OF SCUPPER AT GIRDER G7

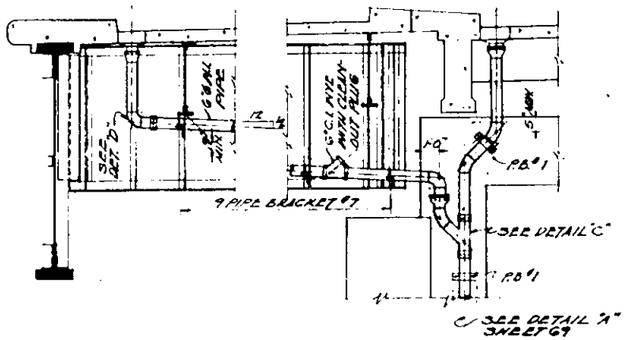
SCALE 1/4"=1'-0"

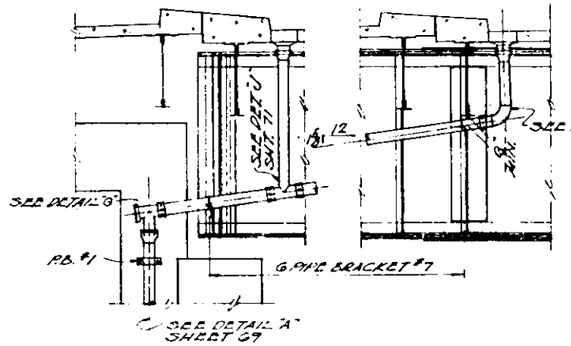


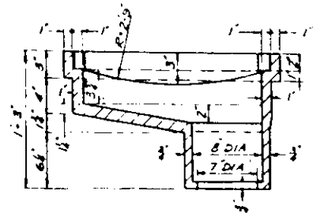
PLAN

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



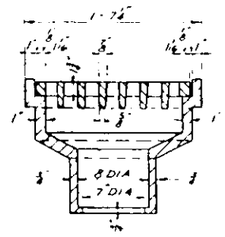






SECTION X-X

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

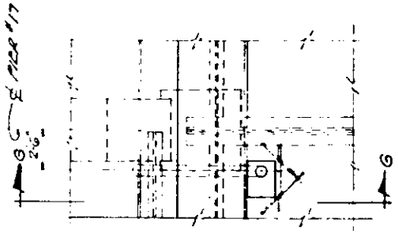


SECTION Y-Y

SCALE 1"=1'-0"

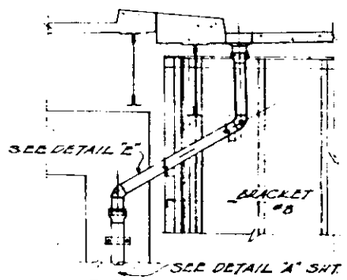
SECTION D-D

SCALE 1/4"=1'-0"



PART PLAN OF SCUPPER AT PIER #19 ALONG WEST CURB OF N.W.E. LANES

SCALE 1/4"=1'-0"

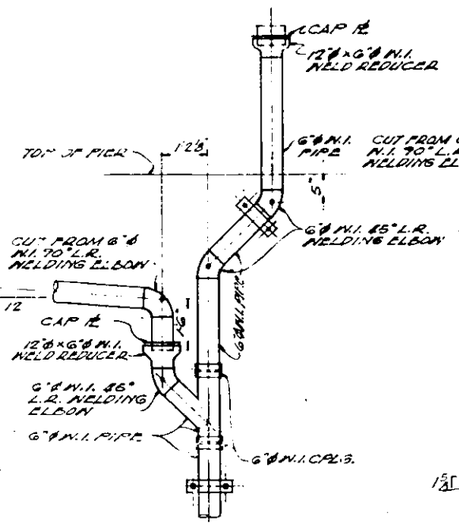


SECTION G-G

SCALE 1/4"=1'-0"

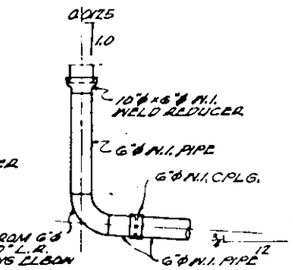
SECTION E-E

SCALE 1/4"=1'-0"



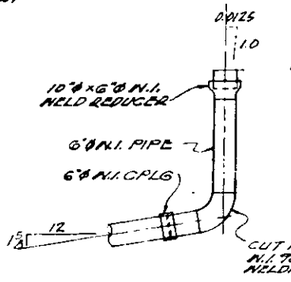
DETAIL 'C'

SCALE 1/2"=1'-0"



DETAIL 'D'

SCALE 1/2"=1'-0"

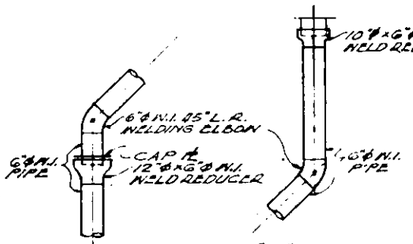


DETAIL 'F'

SCALE 1/2"=1'-0"

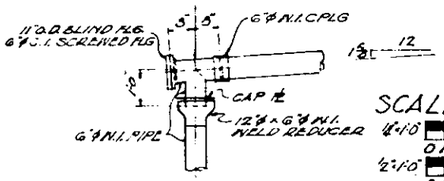
SECTION F-F

SCALE 1/4"=1'-0"



DETAIL 'E'

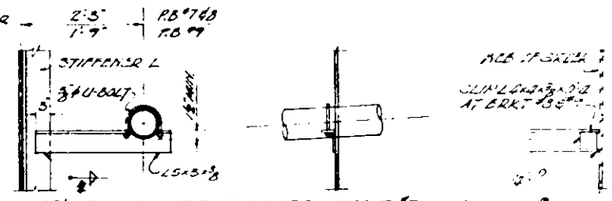
SCALE 1/2"=1'-0"



DETAIL 'G'

SCALE 1/2"=1'-0"

CAST IRON SCUPPER



NOTE: WELD BRACKET TO STIFFENER L AT BRKT #7 ONLY

DETAIL OF PIPE BRACKET #7, 8 & 9

SCALE 1/2"=1'-0"

NOTE:
FOR EXACT LOCATION OF SCUPPERS SEE GENERAL PLAN SHEETS 3 & 4
FOR ADDITIONAL SCUPPER DRAINAGE DETAILS SEE SHEETS G9 & 71.

SCALES OF TRACING

1"=10'
0 1' 2' 4' 8'
1/2"=10'
0 2' 6' 1' 2' 4'
1"=5'
0 3' 6' 9' 1' 2' 5'
1 1/2"=10'
0 3' 6' 9' 1' 2'

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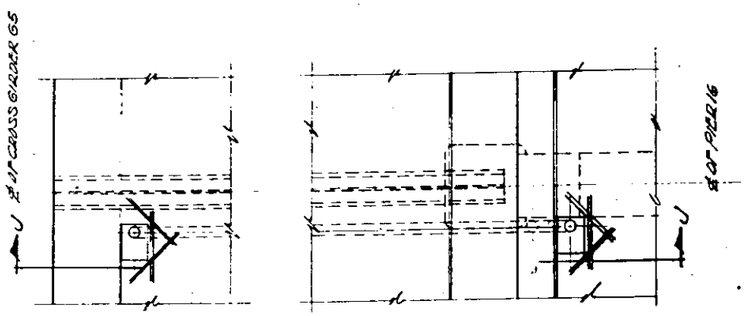
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

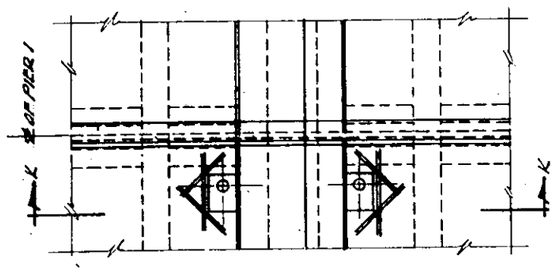
DECK DRAINAGE DETAILS

SHEET NO. 70 OF 136 SHEETS DATE:

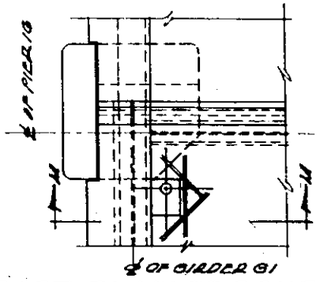
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	71
STA.	TO STA.			
FED. ROAD DIST. NO 41	ILLINOIS	PROJECT	I 02 2(67)	



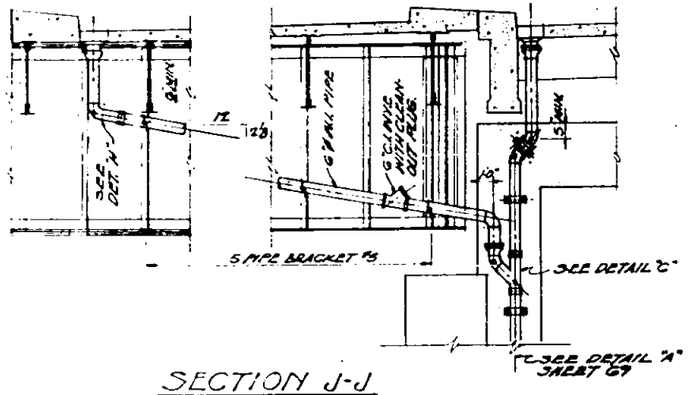
PART PLAN OF SCUPPERS AT GIRDER G5
SCALE 1/4"=1'-0"



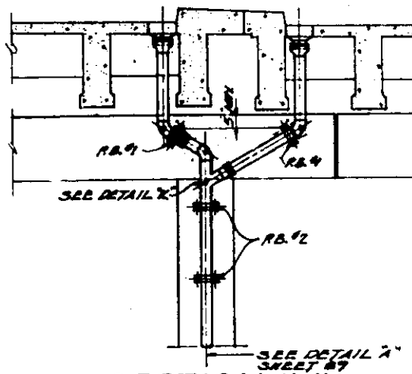
PART PLAN OF SCUPPERS AT MEDIAN AT PIER 1
SCALE 1/4"=1'-0"



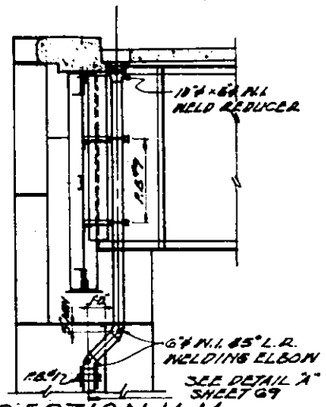
PART PLAN OF SCUPPER AT GIRDER G1 AND PIER 16



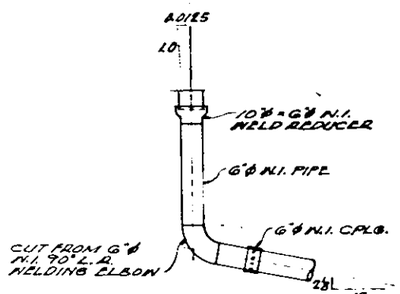
SECTION J-J
SCALE 1/2"=1'-0"



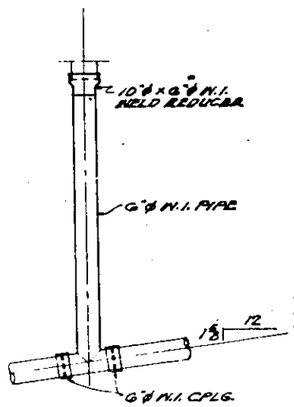
SECTION K-K
SCALE 1/2"=1'-0"



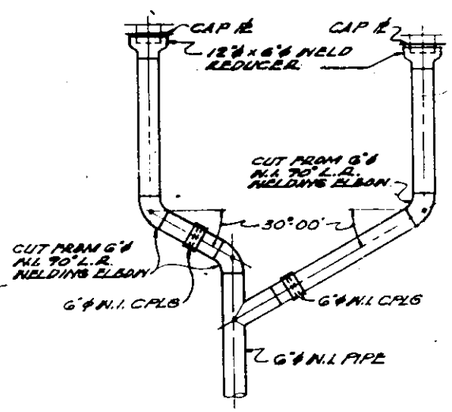
SECTION M-M
SCALE 1/2"=1'-0"



DETAIL 'H'
SCALE 1/2"=1'-0"



DETAIL 'J'
SCALE 1/2"=1'-0"



DETAIL 'K'
SCALE 1/2"=1'-0"

NOTE:
FOR EXACT LOCATION OF SCUPPERS SEE GENERAL PLAN SHEETS 3 & 4.
FOR ADDITIONAL SCUPPER DRAINAGE DETAILS SEE SHEETS G7 & 70

SCALES OF TRACING
1/4"=1'-0" 0 1' 2' 3' 4' 8'
1/2"=1'-0" 0 6" 1' 2' 3' 4' 5'

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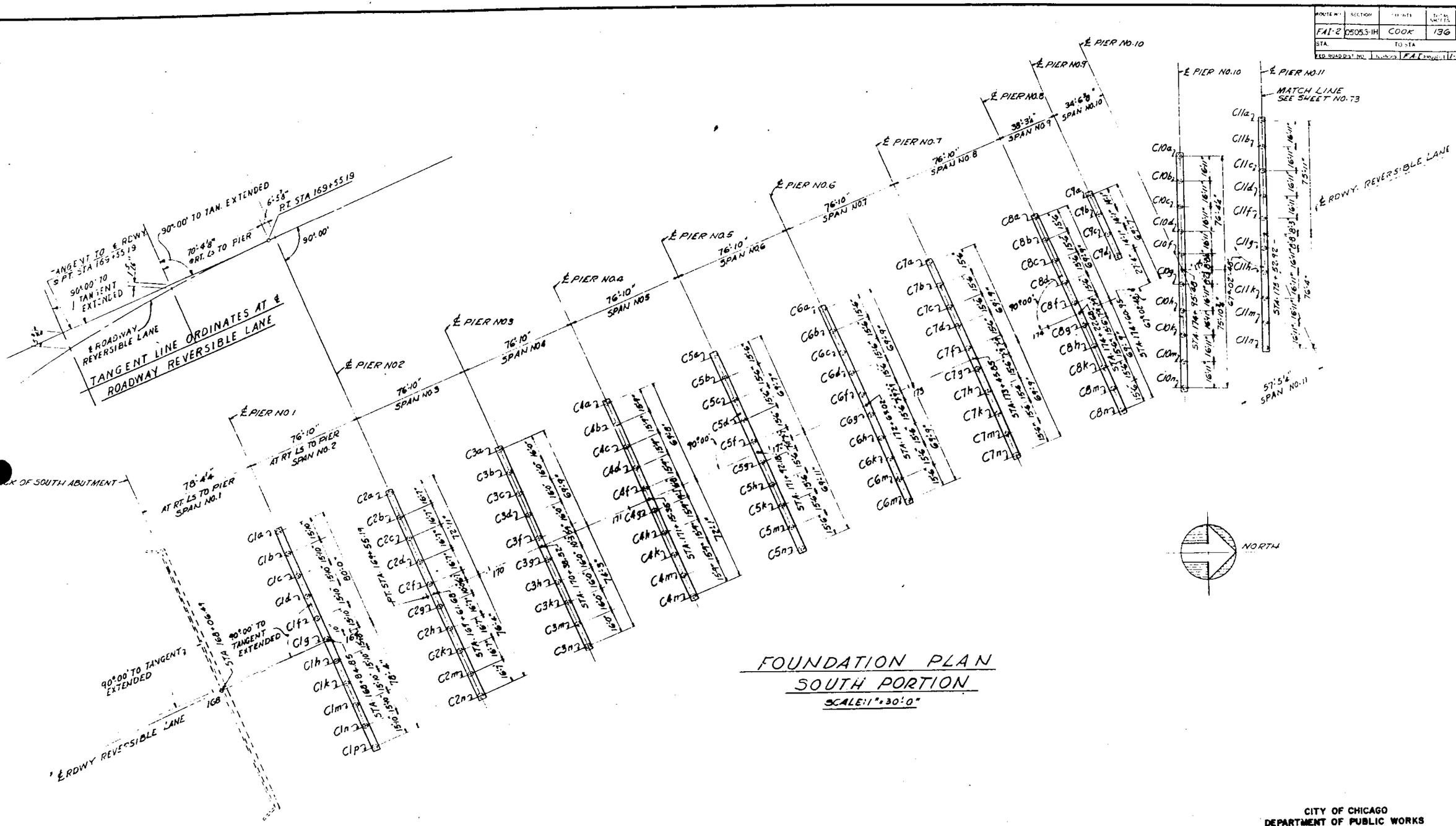
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

DECK DRAINAGE DETAILS

SHEET NO. 71 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-1H	COOK	136	72
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FAI ROUTE	1-90-2, 3, 4	



FOUNDATION PLAN
SOUTH PORTION

SCALE: 1" = 30'-0"

SCALE OF TRACING
1"=30'
0' 5' 10' 20' 30' 40' 60' 80' 100'

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NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

FOUNDATION PLAN
SOUTH PORTION

SHEET NO. 72 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-2	0505.3-1H	COOK	136	73
STA.	TO STA.			
FED. ROAD DIST. NO. 11	ILLINOIS	PROJECT	I-13-2(68)	

DETAIL "A"
(ENLARGED)

TANGENT LINE ORDINATES AT ℄
ROADWAY REVERSIBLE LANE
SCALE: 1"=50'-0"

FOUNDATION PLAN
NORTH PORTION
SCALE: 1" 30'-0"

SCALES OF TRACING
1" 50'
1"=30'

NORTH

CITY OF CHICAGO
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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

FOUNDATION PLAN
NORTH PORTION

SHEET NO. 73 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

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CHICAGO, ILLINOIS

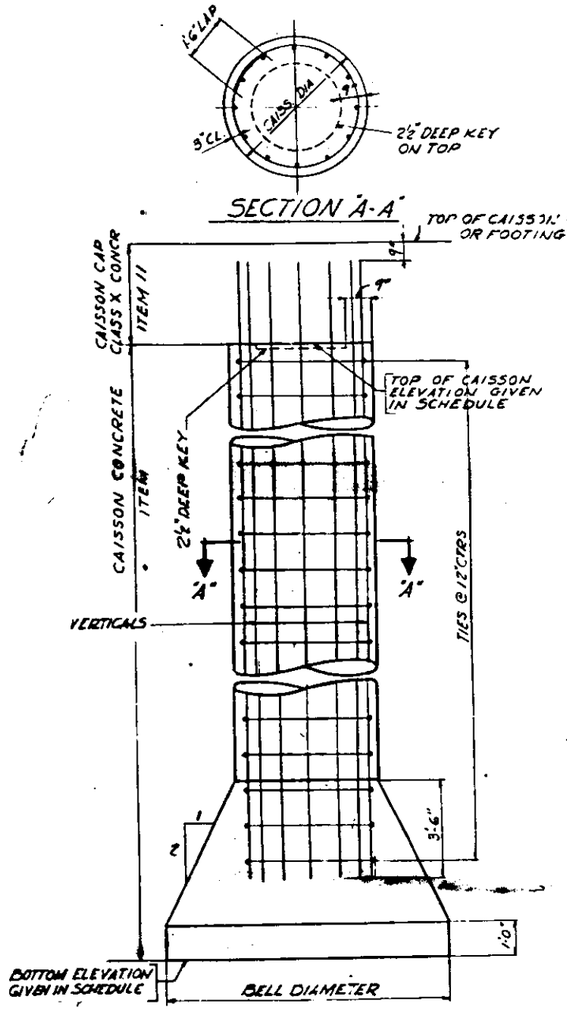
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3-IH	COOK	136	74
STA.	TO STA			
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	F.C.2-3(69)

CAISSON SCHEDULE

MARK	TOP ELEV	BOTT. ELEV	CAISSON DIA	BELL DIA	REINFORCING VERTICALS	REINFORCING TIES @ CTRS	ITEM CAISSON CONCRETE (CU. FT.)
C1a	+7.10	-35.00	3'-6"	8'-0"	10 # 10 C1	40" @ 6 1	525
C1b				7'-9"	10 # 10 C2	41" @ 6 1	512
C1c				7'-9"	10 # 10 C2	41" @ 6 1	512
C1d				8'-0"	10 # 10 C1	40" @ 6 1	525
C1f				7'-6"	10 # 10 C3	41" @ 6 1	500
C1g				7'-6"	10 # 10 C3	41" @ 6 1	500
C1h				7'-6"	10 # 10 C3	41" @ 6 1	500
C1k				8'-0"	10 # 10 C1	40" @ 6 1	525
C1m				7'-9"	10 # 10 C2	41" @ 6 1	512
C1n				7'-9"	10 # 10 C2	41" @ 6 1	512
C1p	+7.10			8'-0"	10 # 10 C1	40" @ 6 1	525
C2a	+7.03			8'-0"	10 # 10 C1	40" @ 6 1	525
C2b				7'-9"	10 # 10 C2	41" @ 6 1	512
C2c				8'-0"	10 # 10 C1	40" @ 6 1	525
C2d				8'-0"	10 # 10 C1	40" @ 6 1	525
C2f				7'-9"	10 # 10 C2	41" @ 6 1	512
C2g				7'-9"	10 # 10 C2	41" @ 6 1	512
C2h				8'-0"	10 # 10 C1	40" @ 6 1	525
C2k				8'-0"	10 # 10 C1	40" @ 6 1	525
C2m				7'-9"	10 # 10 C2	41" @ 6 1	512
C2n	+7.03	-35.00		8'-0"	10 # 10 C1	40" @ 6 1	525
C3a	+7.08	-30.00		8'-0"	10 # 10 C4	35" @ 6 1	677
C3b				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C3c				8'-0"	10 # 10 C4	35" @ 6 1	677
C3d				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C3f				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C3g				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C3h				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C3k				8'-0	10 # 10 C4	35" @ 6 1	677
C3m				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C3n	+7.08			8'-0"	10 # 10 C4	35" @ 6 1	677
C4a	+7.03			8'-0"	10 # 10 C4	35" @ 6 1	676
C4b				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C4c				8'-0"	10 # 10 C4	35" @ 6 1	676
C4d				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C4f				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C4g				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C4h				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C4k				8'-0"	10 # 10 C4	35" @ 6 1	676
C4m				7'-9"	10 # 10 C5	36" @ 6 1	AGA
C4n	+7.03	-30.00		8'-0"	10 # 10 C4	35" @ 6 1	676
C5a	+7.05	-26.00		8'-0"	10 # 10 C6	31" @ 6 1	438
C5b				7'-9"	10 # 10 C7	32" @ 6 1	425
C5c				8'-0"	10 # 10 C6	31" @ 6 1	438
C5d				8'-0"	10 # 10 C6	31" @ 6 1	438
C5f				7'-9"	10 # 10 C7	32" @ 6 1	425
C5g				7'-9"	10 # 10 C7	32" @ 6 1	425
C5h				8'-0"	10 # 10 C6	31" @ 6 1	438
C5k				8'-0"	10 # 10 C6	31" @ 6 1	438
C5m				7'-9"	10 # 10 C7	32" @ 6 1	425
C5n	+7.05			8'-0"	10 # 10 C6	31" @ 6 1	438
C6a	+6.84			8'-0"	10 # 10 C8	31" @ 6 1	436
C6b				7'-9"	10 # 10 C6	31" @ 6 1	423
C6c				8'-0"	10 # 10 C8	31" @ 6 1	436
C6d				8'-0"	10 # 10 C8	31" @ 6 1	436
C6f				7'-9"	10 # 10 C6	31" @ 6 1	423
C6g				7'-9"	10 # 10 C6	31" @ 6 1	423
C6h				8'-0"	10 # 10 C8	31" @ 6 1	436
C6k				8'-0"	10 # 10 C8	31" @ 6 1	436
C6m				7'-9"	10 # 10 C6	31" @ 6 1	423
C6n	+6.84			8'-0"	10 # 10 C8	31" @ 6 1	436
C7a	+7.00			8'-0"	10 # 10 C6	31" @ 6 1	438
C7b				7'-9"	10 # 10 C7	32" @ 6 1	425
C7c				8'-0"	10 # 10 C6	31" @ 6 1	438
C7d				8'-0"	10 # 10 C6	31" @ 6 1	438
C7f				7'-9"	10 # 10 C7	32" @ 6 1	425
C7g				7'-9"	10 # 10 C7	32" @ 6 1	425
C7h				8'-0"	10 # 10 C6	31" @ 6 1	438
C7k				8'-0"	10 # 10 C6	31" @ 6 1	438
C7m				7'-9"	10 # 10 C7	32" @ 6 1	425
C7n	+7.00			8'-0"	10 # 10 C6	31" @ 6 1	438
C8a	+7.03	-26.00	3'-6"	7'-9"	10 # 10 C9	32" @ 6 1	392

MARK	TOP ELEV	BOTT ELEV	CAISSON DIA	BELL DIA	REINFORCING VERTICALS	REINFORCING TIES @ CTRS	ITEM CAISSON CONCRETE (CU. FT.)
C8b	+7.03	-26.00	3'-6"	6'-9"	10 # 10 C9	32" @ 6 1	382
C8c				7'-0"	10 # 10 C9	32" @ 6 1	392
C8d				7'-6"	10 # 10 C9	32" @ 6 1	413
C8f				7'-6"	10 # 10 C9	32" @ 6 1	413
C8g				7'-6"	10 # 10 C9	32" @ 6 1	413
C8h				7'-6"	10 # 10 C9	32" @ 6 1	413
C8k				7'-9"	10 # 10 C7	31" @ 6 1	425
C8m				7'-0"	10 # 10 C9	32" @ 6 1	392
C8n	+7.03			7'-3"	10 # 10 C9	32" @ 6 1	402
C9a	+7.06			6'-3"	10 # 10 C9	32" @ 6 1	365
C9b				5'-9"	10 # 10 C9	32" @ 6 1	351
C9c				5'-9"	10 # 10 C9	32" @ 6 1	351
C9d	+7.06		3'-6"	6'-0"	10 # 10 C9	32" @ 6 1	358
C10a	+7.09		3'-9"	8'-6"	12 # 11 C10	39" @ 6 1	592
C10b				8'-3"	12 # 11 C11	39" @ 6 1	578
C10c				8'-0"	12 # 11 C12	39" @ 6 1	564
C10d				8'-6"	12 # 11 C10	39" @ 6 1	592
C10f				8'-0"	12 # 11 C12	39" @ 6 1	564
C10g				7'-9"	12 # 11 C13	40" @ 6 1	552
C10h				8'-6"	12 # 11 C10	39" @ 6 1	592
C10k				8'-3"	12 # 11 C11	39" @ 6 1	578
C10m				8'-0"	12 # 11 C12	39" @ 6 1	564
C10n	+7.09			8'-3"	12 # 11 C11	39" @ 6 1	578
C11a	+3.48			8'-6"	12 # 11 C14	41" @ 6 1	466
C11b	+3.48			8'-3"	12 # 11 C15	41" @ 6 1	452
C11c	+5.48			8'-6"	12 # 11 C16	41" @ 6 1	888
C11d	+5.48			8'-3"	12 # 11 C16	41" @ 6 1	496
C11f	+7.48			8'-3"	12 # 11 C16	41" @ 6 1	496
C11g	+7.48			8'-3"	12 # 11 C16	41" @ 6 1	496
C11h	+9.48			9'-0"	12 # 11 C19	43" @ 6 1	564
C11k	+9.48			8'-6"	12 # 11 C20	41" @ 6 1	532
C11m	+11.48			8'-3"	12 # 11 C21	41" @ 6 1	540
C11a	+11.48		3'-9"	8'-0"	12 # 11 C22	41" @ 6 1	569
C12a	+7.06		3'-6"	6'-6"	10 # 10 C9	32" @ 6 1	375
C12b				6'-3"	10 # 10 C9	32" @ 6 1	365
C12c				6'-3"	10 # 10 C9	32" @ 6 1	365
C12d	+7.06		3'-6"	6'-9"	10 # 10 C9	32" @ 6 1	382
C13a	+3.58		10'-0	8'-0"	14 # 11 C23	41" @ 6 1	2291
C13b	+3.58		3'-6	7'-3"	14 # 11 C25	41" @ 6 1	362
C13c	+5.58			7'-6"	14 # 11 C25	41" @ 6 1	397
C13d	+7.07			7'-6"	14 # 11 C25	41" @ 6 1	416
C13f				6'-9"	14 # 11 C24	41" @ 6 1	383
C13g				7'-6"	14 # 11 C25	41" @ 6 1	422
C13h				7'-9"	14 # 11 C26	41" @ 6 1	426
C13k				7'-0"	14 # 11 C25	41" @ 6 1	592
C13m				6'-9"	14 # 11 C24	41" @ 6 1	383
C13n	+7.09		3'-6	7'-3"	10 # 10 C9	32" @ 6 1	402
C14a	+5.91		8'-0"	8'-0"	12 # 11 C28	41" @ 6 1	1649
C14b	+5.91		3'-6	7'-6"	10 # 10 C9	32" @ 6 1	400
C14c	+7.21			7'-6"	10 # 10 C9	32" @ 6 1	418
C14d				7'-6"	10 # 10 C9	32" @ 6 1	418
C14f				8'-3"	12 # 11 C28	41" @ 6 1	455
C14g				8'-6"	12 # 11 C28	41" @ 6 1	453
C14h				7'-9"	12 # 11 C29	41" @ 6 1	427
C14k	+7.21		3'-6	8'-3"	12 # 11 C28	41" @ 6 1	453
C15a	+7.21		6'-0"	9'-6"	12 # 11 C30	41" @ 6 1	1722
C15b			3'-6"	7'-6"	10 # 10 C9	32" @ 6 1	418
C15c				6'-0"	10 # 10 C9	32" @ 6 1	880
C15d				8'-3"	10 # 10 C9	32" @ 6 1	456
C15f				8'-0"	10 # 10 C9	32" @ 6 1	440
C15g	+7.21		3'-6"	8'-3"	10 # 10 C8	31" @ 6 1	454
C16a	+6.72	26.00	10'-0"	12'-0"	16 # 11 C18	52" @ 6 1	2718
C16b	+7.13	20.00	8'-0"	8'-0"	12 # 11 C31	26" @ 6 1	1472
C16c			3'-6	8'-0"	10 # 10 C32	25" @ 6 1	381
C16d				8'-0"	10 # 10 C32	25" @ 6 1	381
C16f	+7.13	20.00		8'-0"	10 # 10 C32	25" @ 6 1	381
C17a	+7.11	26.00		7'-3"	10 # 10 C9	32" @ 6 1	403
C17b	+7.11	26.00	3'-6	6'-9"	10 # 10 C9	32" @ 6 1	383
C17c	+7.11	26.00	8'-0"	8'-0"	12 # 11 C31	26" @ 6 1	1775
C17d	+7.12	20.00	8'-0"	8'-0"	12 # 11 C32	26" @ 6 1	1543
C17f	+7.12	20.00	3'-6"	8'-0"	10 # 10 C9	32" @ 6 1	429
C18a	+7.11	20.00	3'-6"	7'-9"	10 # 10 C9	32" @ 6 1	368

MARK	TOP ELEV	BOTT ELEV	CAISSON DIA	BELL DIA	REINFORCING VERTICALS	REINFORCING TIES @ CTRS	ITEM CAISSON CONCRETE (CU. FT.)
C18b	+7.11	-20.00	3'-6"	7'-3"	10 # 10 C36	26" @ 6 1	345
C18c			3'-6"	7'-3"	10 # 10 C36	26" @ 6 1	345
C18d			3'-6"	7'-9"	10 # 10 C35	26" @ 6 1	368
C18f	+7.11		8'-0	8'-0"	32 # 11 C31	26" @ 6 4	1471
C18g	+7.13		10'-0"	13'-0"	40 # 11 C31	26" @ 6 3	2263
C19a	+7.22		3'-6"	8'-0"	10 # 10 C32	26" @ 6 1	382
C19b				7'-6"	10 # 10 C38	26" @ 6 1	357
C19c				7'-6"	10 # 10 C38	26" @ 6 1	357
C19d				8'-3"	10 # 10 C37	25" @ 6 1	396
C19f				8'-3"	10 # 10 C37	25" @ 6 1	396
C19g			3'-6"	7'-3"	10 # 10 C38	26" @ 6 1	346
C19h	+7.86		8'-0"	10'-0"	32 # 11 C31	26" @ 6 4	1425
C20a	+6.98		3'-6"	7'-6"	10 # 10 C35	26" @ 6 1	355
C20b				7'-3"	10 # 10 C35	26" @ 6 1	343
C20c				7'-6"	10 # 10 C35	26" @ 6 1	355
C20d				7'-6"	10 # 10 C35	26" @ 6 1	355
C20f				6'-9"	10 # 10 C35	26" @ 6 1	323
C20g	+6.93			7'-6"	10 # 10 C35	26" @ 6 1	355
C20h	+6.85			8'-3"	10 # 10 C39	24" @ 6 1	365
C21a	+5.46		3'-6"	7'-3"	10 # 10 C40	23" @ 6 1	329
C21b	+5.46		8'-3"	8'-0"	32 # 11 C41	28" @ 6 4	1335
C21c	+7.06		3'-6"	7'-6"	10 # 10 C35	26" @ 6 1	344
C21d				7'-6"	10 # 10 C35	26" @ 6 1	334
C21f				7'-6"	10 # 10 C35	26" @ 6 1	334
C21g				7'-6"	10 # 10 C35	26" @ 6 1	344
C21h	+7.06			6'-9"	10 # 10 C39	27" @ 6 1	325
C21k	+5.56			6'-9"	10 # 10 C42	26" @ 6 1	310
C21m	+5.56			7'-6"	10 # 10 C42	26" @ 6 1	341
C21n	+5.56			7'-3"	10 # 10 C42	26" @ 6 1	353
C22a	+7.06			7'-3"	10 # 10 C43	27" @ 6 1	306
C22b	+7.06			8'-6"	10 # 10 C43	28" @ 6 1	296
C22c	+5.56		8'-0"	10'-0"	32 # 11 C44	28" @ 6 3	1879
C22d	+5.77			8'-3"	10 # 10 C35	26" @ 6 1	355
C22f				7'-6"	10 # 10 C35	26" @ 6 1	333
C22g				7'-6"	10 # 10 C35	26" @ 6 1	333
C22h				7'-6"	10 # 10 C35	26" @ 6 1	333
C22k				7'-6"	10 # 10 C35	26" @ 6 1	333
C22m				6'-0"	10 # 10 C40	25" @ 6 1	285
C22n				6'-9"	10 # 10 C40	28" @ 6 1	278
C23a				7'-6"	10 # 10 C40	28" @ 6 1	292
C23b				7'-6"	10 # 10 C40	28" @ 6 1	349
C23c				7'-6"	10 # 10 C40	28" @ 6 1	332
C23d				7'-6"	10 # 10 C40	28" @ 6 1	332
C23f				7'-6"	10 # 10 C40	28" @ 6 1	324
C23g				7'-6"	10 # 10 C40	28" @ 6 1	332
C23h				8'-0"	10 # 10 C45	29" @ 6 1	309
C23k				7'-6"	10 # 10 C40	28" @ 6 1	309
C23m				8'-0"	10 # 10 C45	29" @ 6 1	341
C24a				6'-9"	10 # 10 C45	28" @ 6 1	323
C24b				7'-0"	10 # 10 C46	28" @ 6 1	291
C24c				7'-0"	10 # 10 C46	28" @ 6 1	291
C24d				7'-6"	10 # 10 C46	28" @ 6 1	291
C24f				7'-6"	10 # 11 C41	28" @ 6 5	373
C24g				7'-6"	10 # 11 C46	28" @ 6 5	365
C24h				7'-6"	10 # 11 C41	28" @ 6 5	373
C24k				7'-6"	10 # 11 C41	28" @ 6 5	365
C24m				6'-9"	10 # 11 C41	28" @ 6 5	351
C24n				6'-9"	12 # 11 C41	28" @ 6 5	351
C25a				6'-9"	12 # 11 C41	28" @ 6 5	365
C25b				6'-9"	12 # 11 C41	28" @ 6 5	373
C25c				6'-9"	12 # 11 C41	28" @ 6 5	351
C25d				6'-9"	12 # 11 C47	23" @ 6 5	335
C25f				6'-9"	12 # 11 C47	23" @ 6 5	349
C25g				6'-9"	12 # 11 C47	23" @ 6 5	349
C25h				6'-3"	12 # 11 C47	23" @ 6 5	342
C25k	+6.29	-20.00	8'-0"	6'-6"	12 # 11 C47	23" @ 6 5	349



TYPICAL CAISSON DETAILS

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
10	CAISSON CONCRETE	CU. FT.	104,562
12	REINFORCEMENT BARS	LBS.	487,244

NOTE
THE ELEVATION OF THE BOTTOM OF CAISSON MAY BE RAISED OR LOWERED AS DETERMINED BY THE ENGINEER, IN ORDER TO OBTAIN A MATERIAL HAVING THE REQUIRED SAFE BEARING VALUE.

ALFRED BENESCH & ASSOCIATES — CONSULTING ENGINEERS — CHICAGO, ILLINOIS

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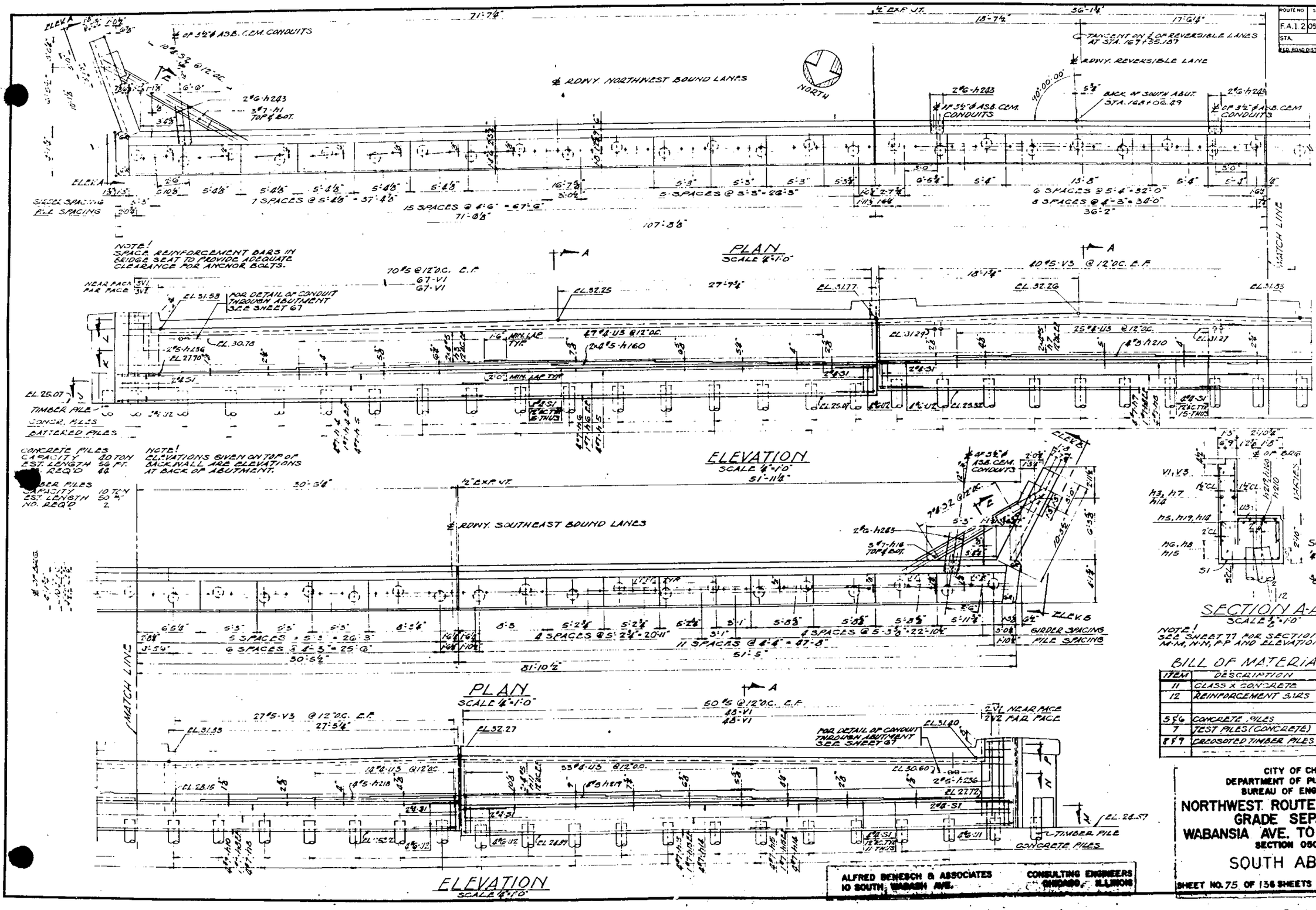
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

CAISSON SCHEDULE

SHEET NO. 74 OF 136 SHEETS — DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I 2	0505.3-1H	COOK	136	75
STA.	TO STA.			
FED. ROAD DIST. NO. 5	ILLINOIS	PROJECT	I-02-2 (5B)	



BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS X CONCRETE	CU.YD	155.6
12	REINFORCEMENT BARS	LBS	17453.
5&6	CONCRETE PILES	LIN. FT.	2532
7	TEST PILES (CONCRETE)	EACH	
8&9	CREOSOTED TIMBER PILES	LIN. FT.	10

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10 SOUTH WABASH AVE.
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CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

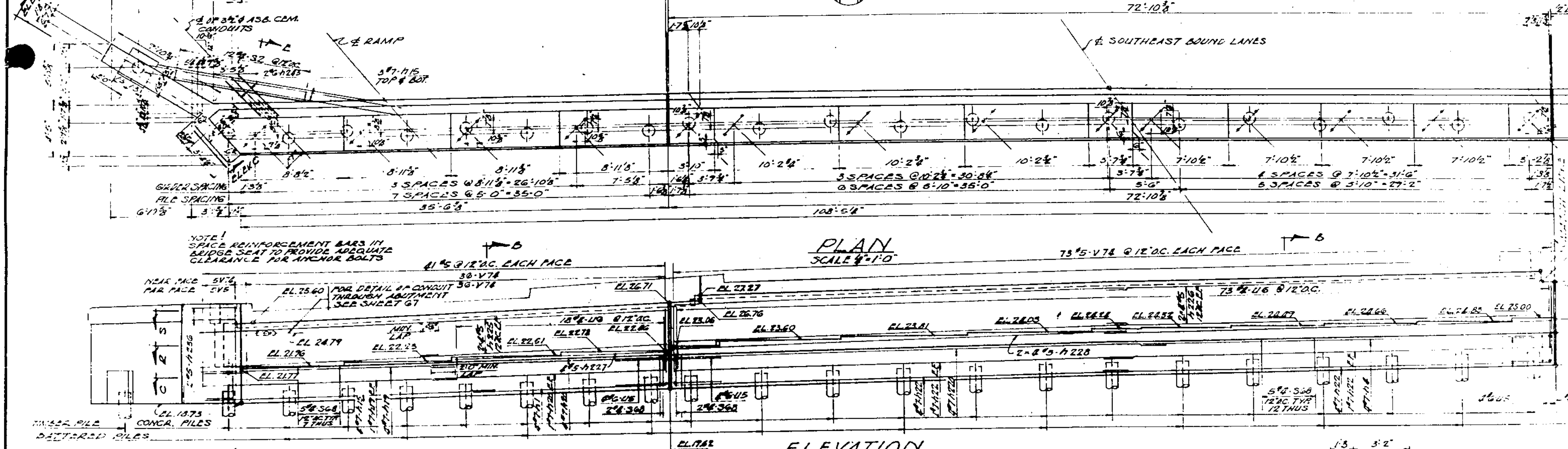
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

SOUTH ABUTMENT

SHEET NO. 75 OF 136 SHEETS DATE:

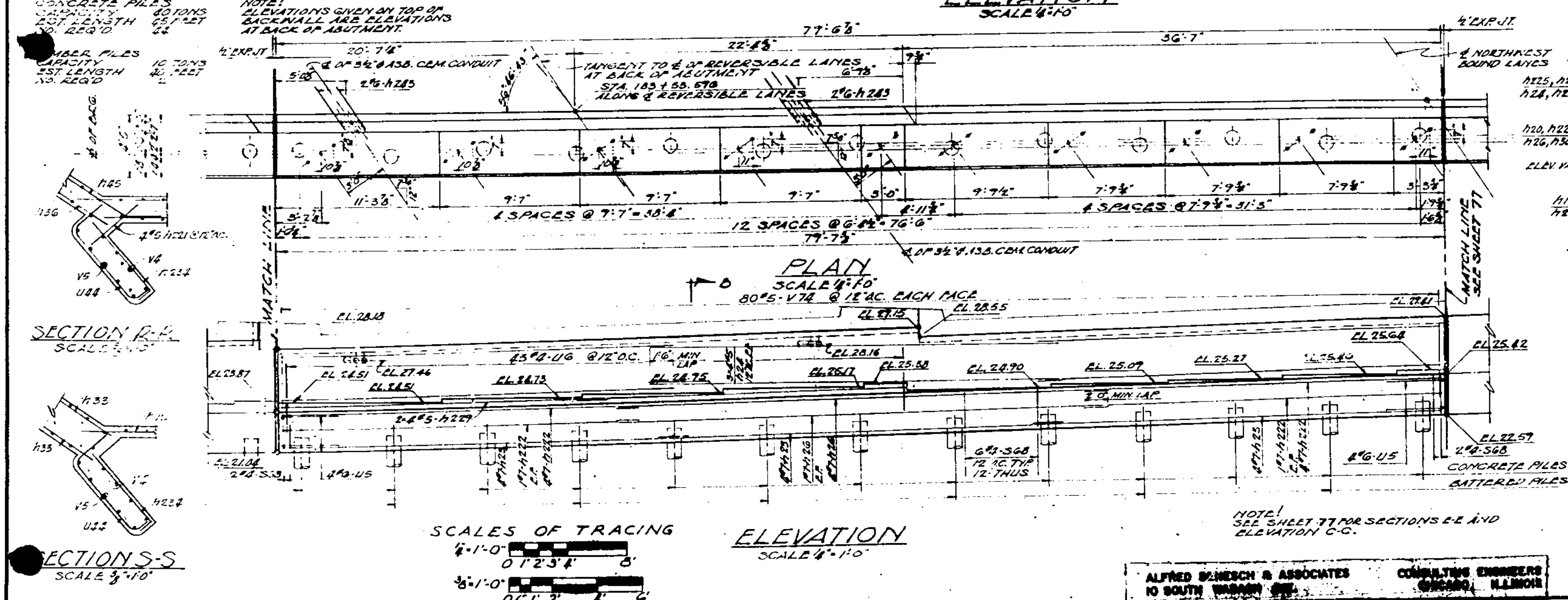
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 2	0505.3-1H	COOK	136	76
STA.				
FED. ROAD DIST. NO. 4			PROJECT I-02-2(68)	

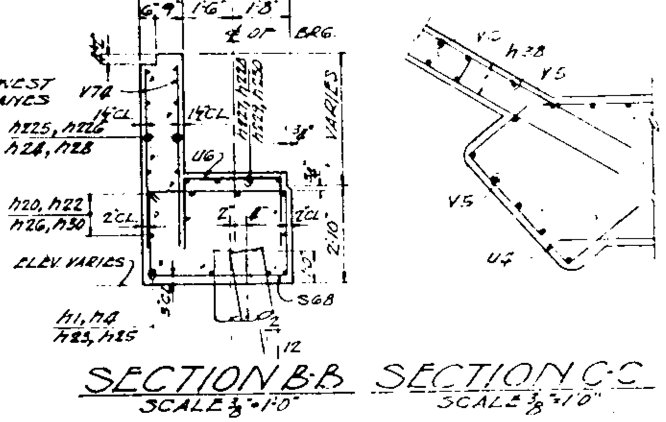


CONCRETE PILES
CAPACITY 40 TONS
EST. LENGTH 45 FEET
NO. REQ'D. 44

TIMBER PILES
CAPACITY 10 TONS
EST. LENGTH 40 FEET
NO. REQ'D. 2

NOTE!
ELEVATIONS GIVEN ON TOP OF BACKWALL ARE ELEVATIONS AT BACK OF ABUTMENT.





NOTE!
SEE SHEET 77 FOR SECTIONS E-E AND ELEVATION C-C.

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS X CONCRETE	CU. YD.	190.7
12	REINFORCEMENT BARS	LBS.	16,97[illegible]
5 & 6	CONCRETE PILES	LIN. FT.	[illegible]
7	TEST PILES (CONCRETE)	EACH	[illegible]
8 & 9	CREOSOTED TIMBER PILE	LIN. FT.	80

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BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505:3-1H

NORTH ABUTMENT

SHEET NO. 76 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-2	0606.3-1H	COOK	136	77
STA.	TO STA.			

PLAN
SCALE 1/4"=1'-0"

ELEVATION
SCALE 1/4"=1'-0"

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

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

SOUTH ABUTMENT WING WALLS

ELEVATION D-D
SCALE 3/8"=1'-0"

ELEVATION C-C
SCALE 3/8"=1'-0"

NORTH ABUTMENT WING WALLS

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

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

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

SECTION M-M SIMILAR OPPOSITE HAND

SECTION N-N SIMILAR SECTIONS R-R SIMILAR OPPOSITE HAND

SECTION P-P SIMILAR SECTION L-L SIMILAR OPPOSITE HAND.

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

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

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

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

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

SCALES OF TRACING
1/4"=1'-0"
3/8"=1'-0"
3/4"=1'-0"

NOTE!
SPACE REINFORCEMENT BARS IN BRIDGE SEAT TO PROVIDE ADEQUATE CLEARANCE FOR ANCHOR BOLTS.

NOTE!
ELEVATIONS GIVEN ON TOP OF BACKWALL ARE ELEVATIONS AT BACK OF ABUTMENT.

NOTE!
SEE SHEET 78 FOR PLAN AND ELEVATION OF SOUTH ABUTMENT.
SEE SHEET 79 FOR PLAN AND ELEVATION OF NORTH ABUTMENT.
SEE SHEET 78 FOR SECTION E-E.

CITY OF CHICAGO
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NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

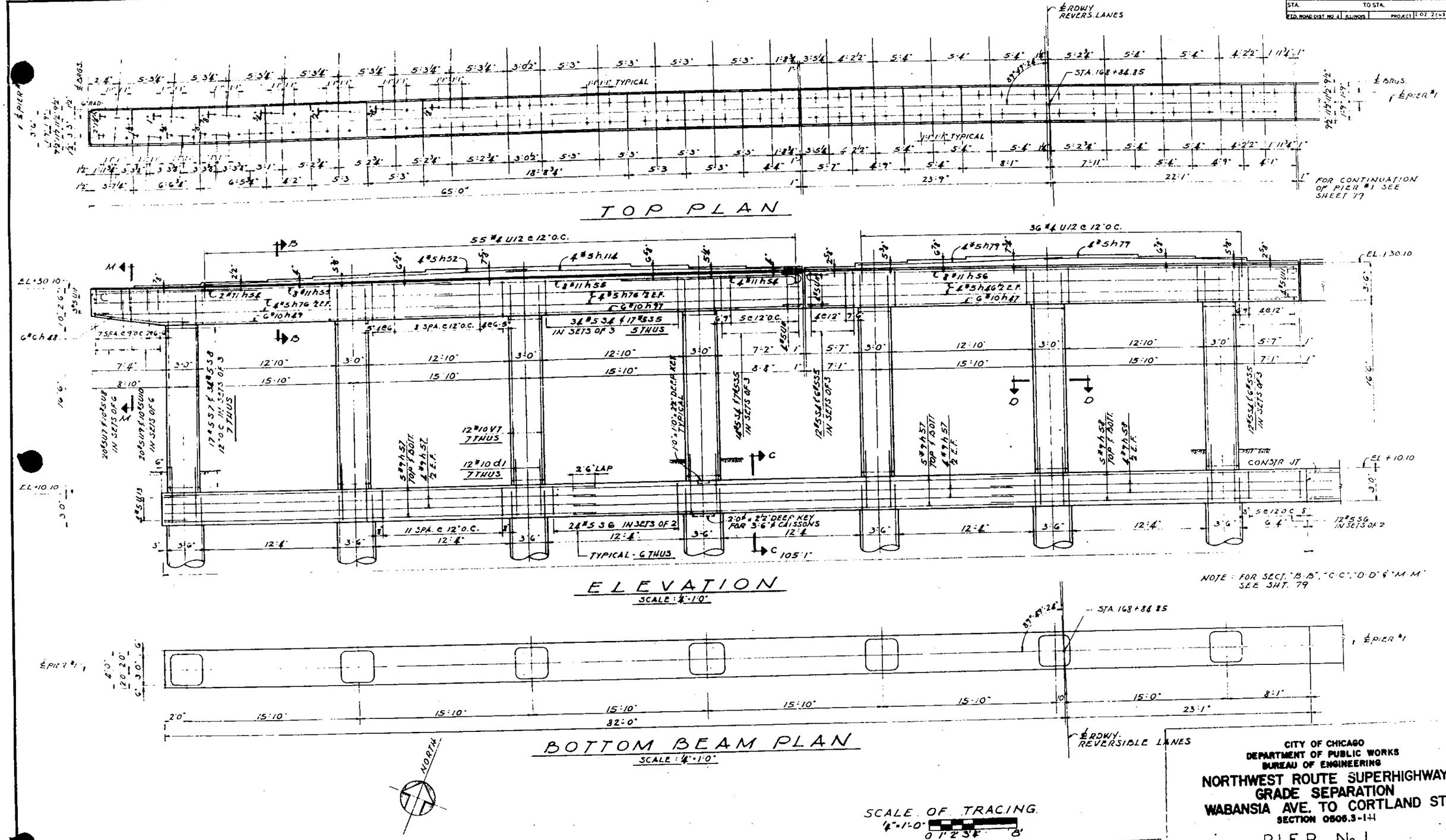
SECTION 0606.3-1H

NORTH ABUTMENT AND DETAILS.

SHEET NO. 77 OF 136 SHEETS DATE:

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAIZ	0505.3-1H	COOK	136	78
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	I 02 2(43)



TOP PLAN

ELEVATION
SCALE: 1/4"=1'-0"

BOTTOM BEAM PLAN
SCALE: 1/4"=1'-0"

SCALE OF TRACING
1/4"=1'-0"
0 1' 2' 3' 4' 8'

ALFRED BZNERCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

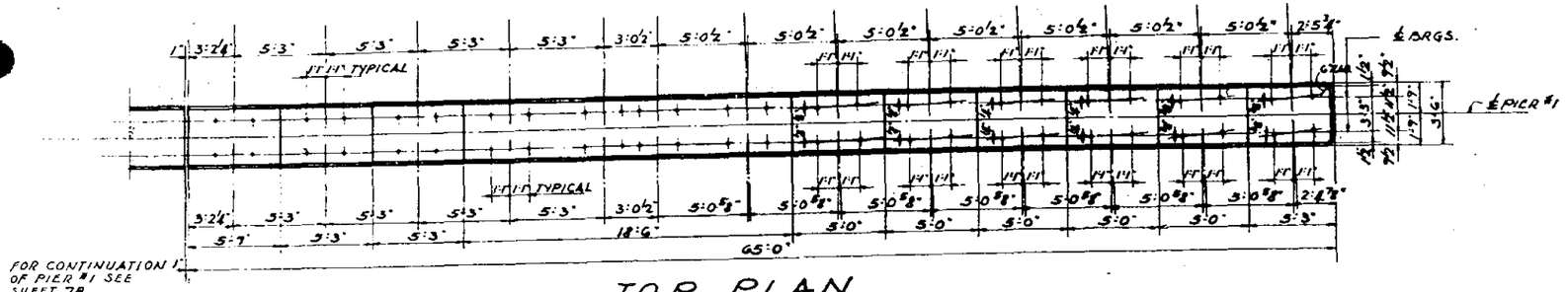
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

PIER No. 1

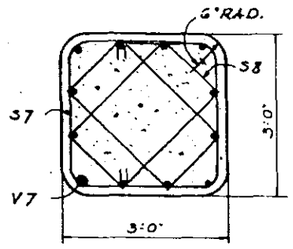
SHEET NO. 78 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAIZ	0505.3H	COOK	136	79
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	E-02 2(68)



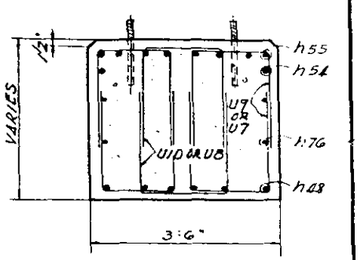
FOR CONTINUATION OF PIER #1 SEE SHEET 78

TOP PLAN



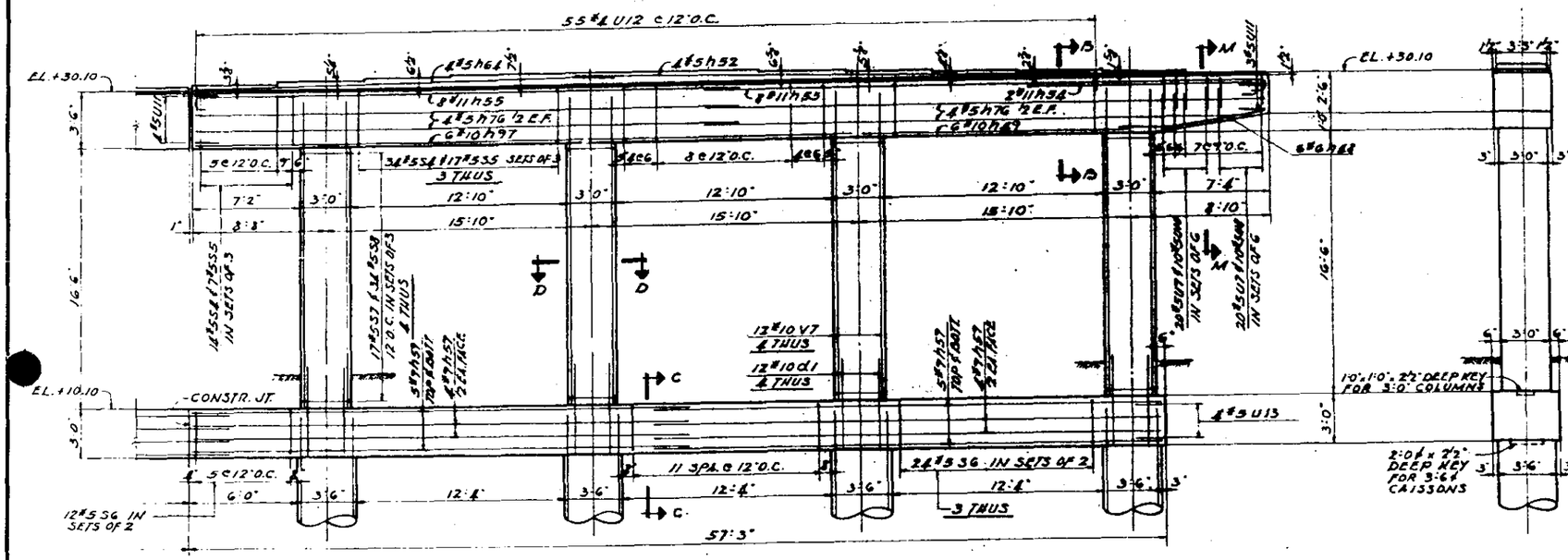
SECTION "D-D"

SCALE: ¾"=1'-0"



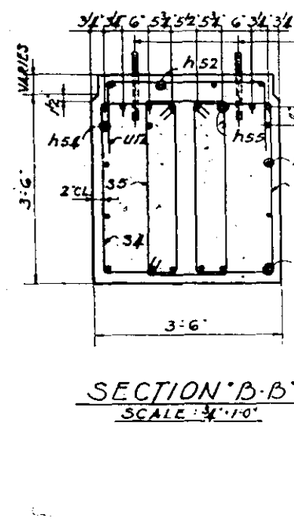
SECTION "M-M"

SCALE: ¾"=1'-0"



ELEVATION

SCALE: ¼"=1'-0"

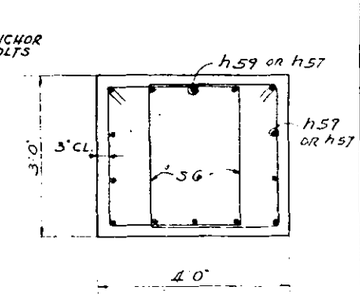


END VIEW

SCALE: ¼"=1'-0"

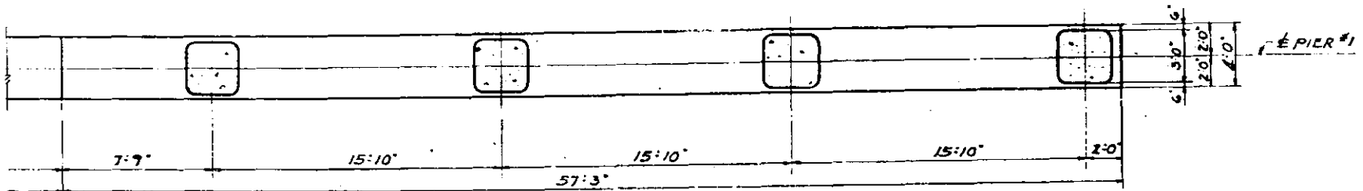
SECTION "B-B"

SCALE: ¾"=1'-0"



SECTION "C-C"

SCALE: ¾"=1'-0"



BOTTOM BEAM PLAN

SCALE: ¼"=1'-0"

NORTH

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU.YD	219.3
12	REINFORCEMENT BARS	LBS	51,998

SCALES OF TRACING

¼"=1'-0" 0 1 2 3 4' 6'

¾"=1'-0" 0 6" 1' 2' 3'

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NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

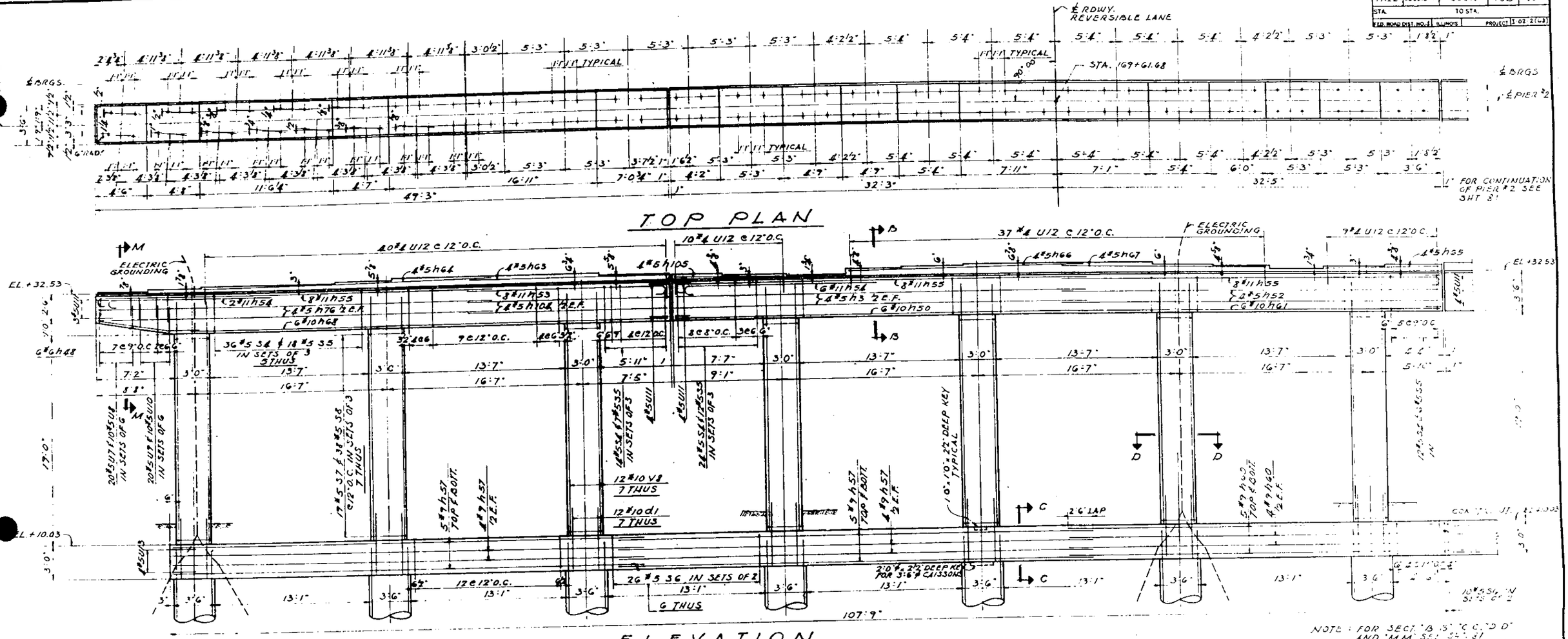
SECTION 0505.3-1H

PIER No. 1

SHEET NO. 79 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAIZ	0505.3-H	COOK	136	80
STA.	TO STA.			
FED. ROAD DIST. NO. 5	ILLINOIS	PROJECT		

TOP PLAN



ELEVATION
SCALE: 1/4"=1'0"

BOTTOM BEAM PLAN
SCALE: 1/4"=1'0"

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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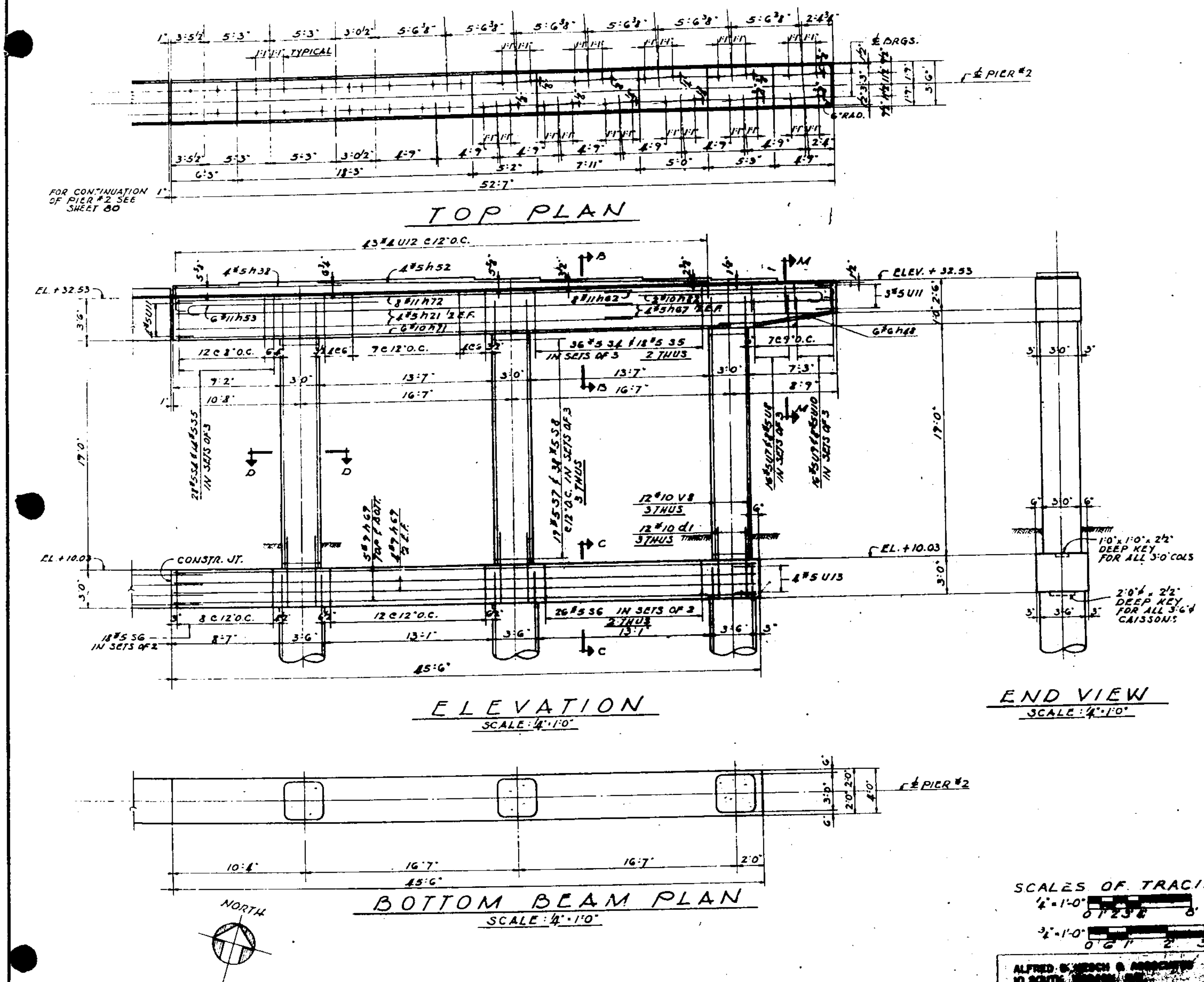
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-H

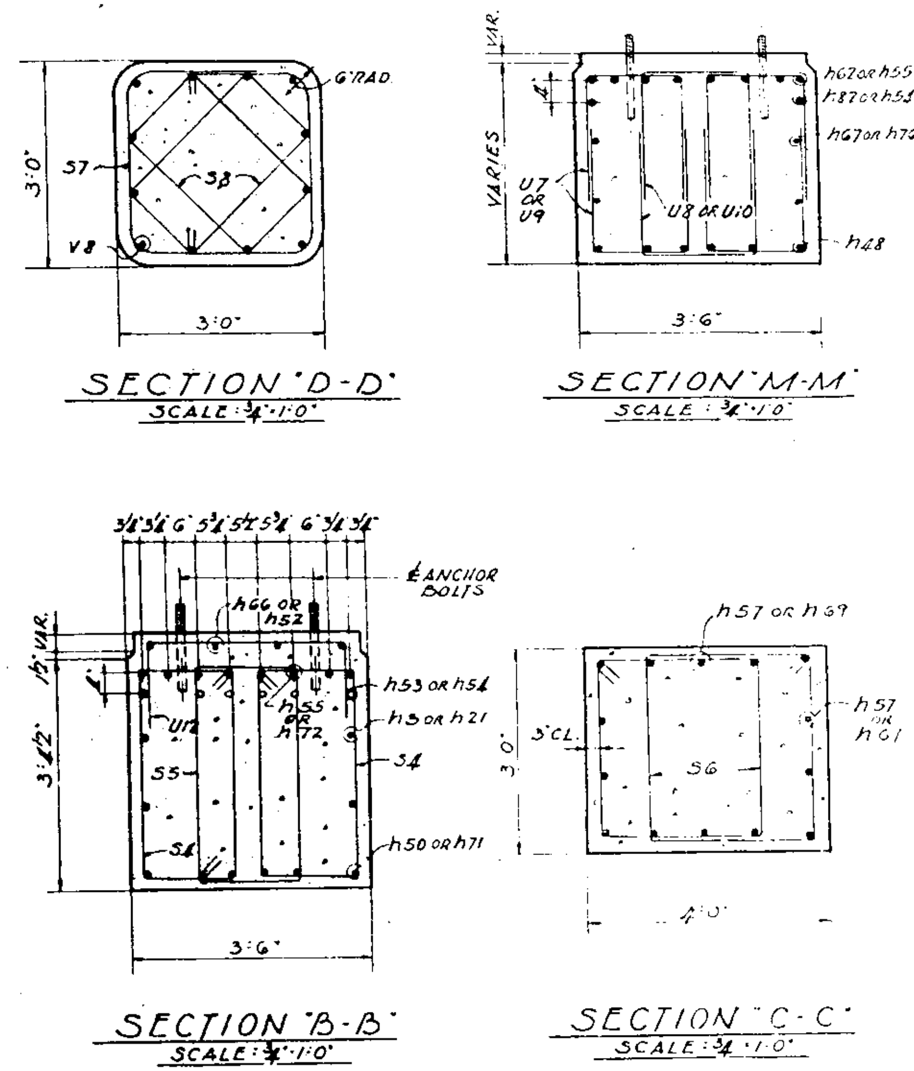
PIER NO. 2

SHEET NO. 80 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 12	0505.31H	COOK	136	81

STA. TO STA.





BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	212.2
12	REINFORCEMENT BARS	LBS.	51,756

SCALES OF TRACING

1/4"=1'-0"

3/4"=1'-0"

ALFRED ... & ASSOCIATES, 10 SOUTH ... CONSULTING ENGINEERS

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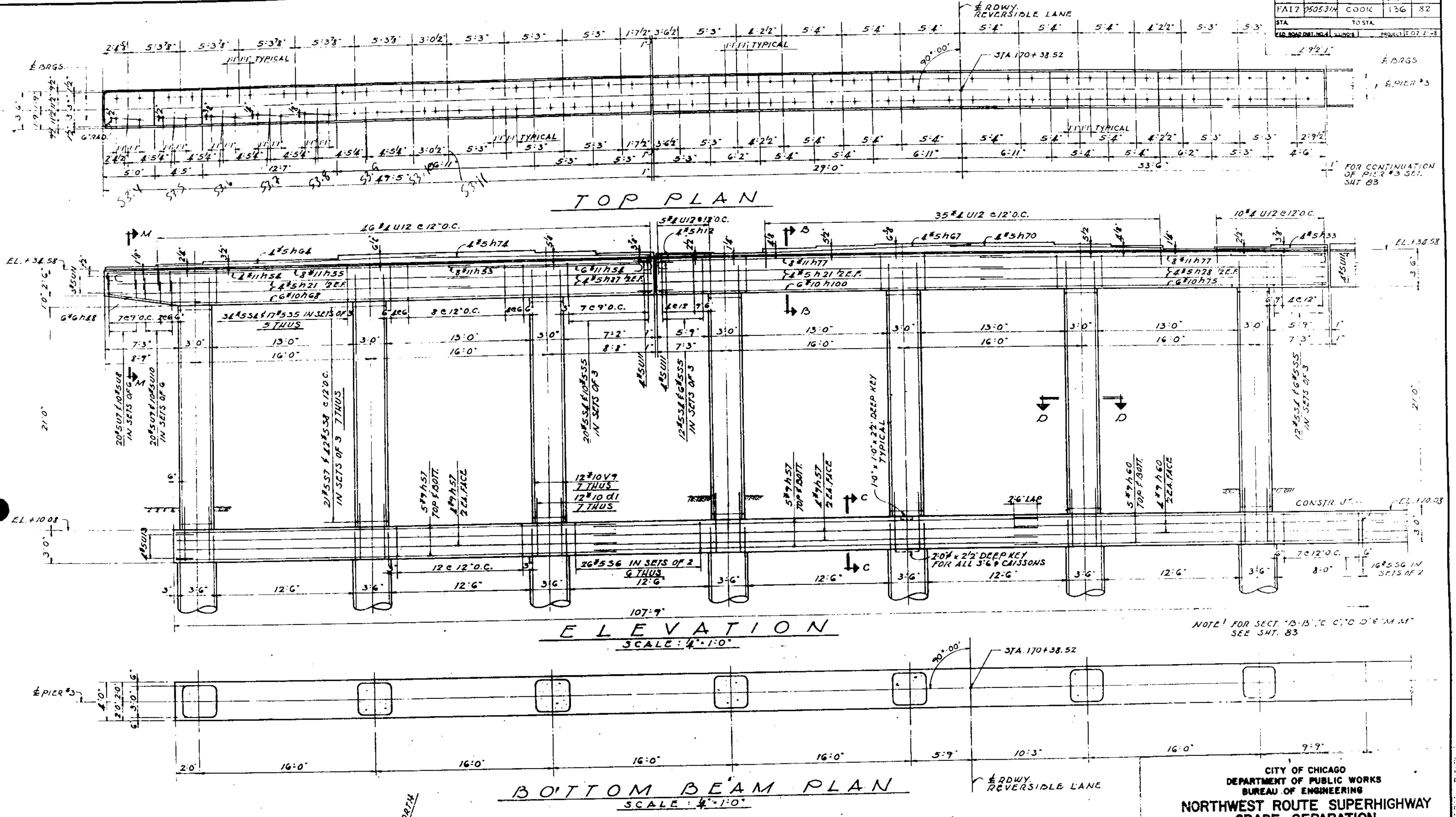
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

PIER No. 2

SHEET NO. 81 OF 136 SHEETS DATE:



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 7	0505.3 I-H	COOK	136	82

SCALE OF TRACING ¼"=1'-0"

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CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

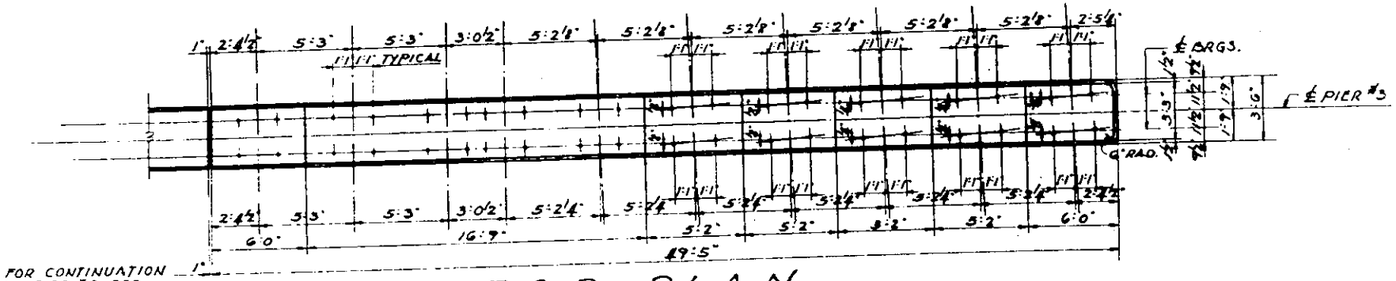
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-I-H

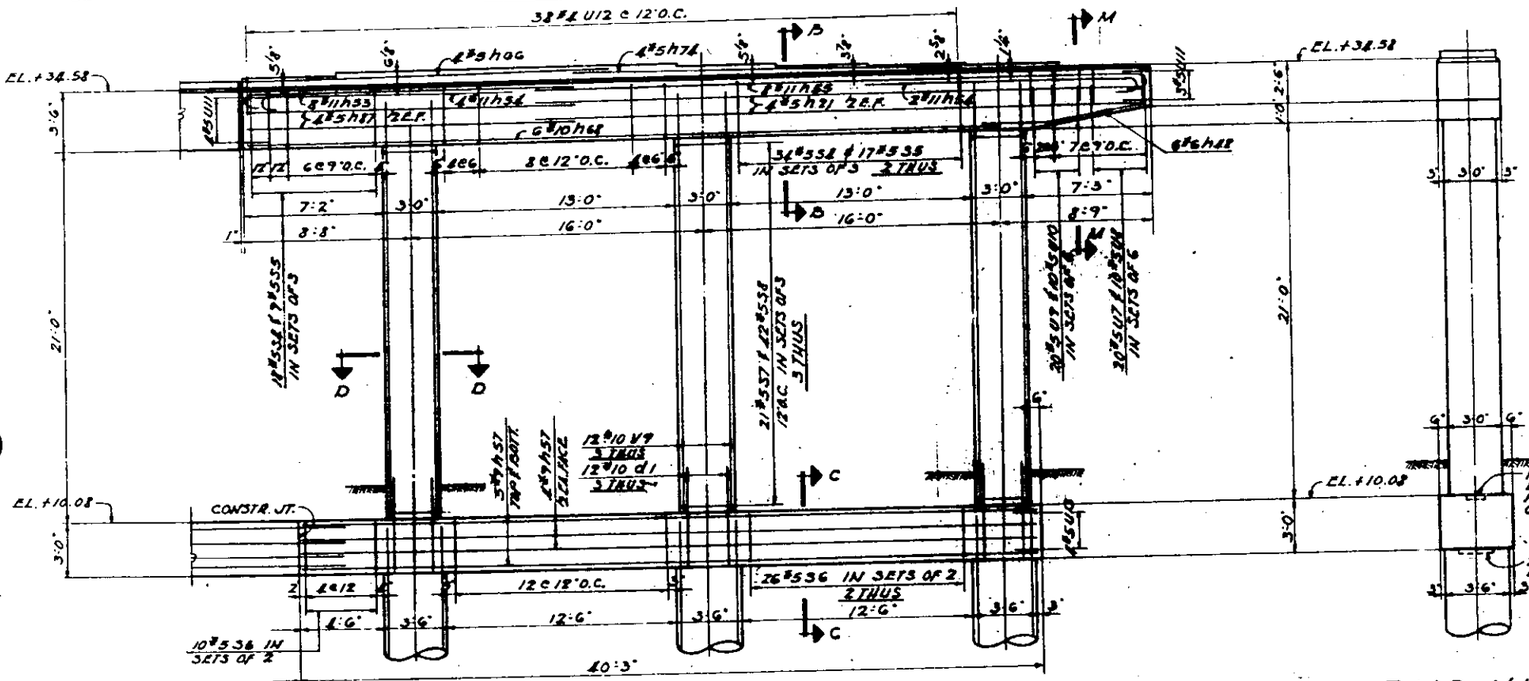
PIER No. 3

SHEET NO. 82 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3-H	COOK	136	83
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I 07 2(61)	

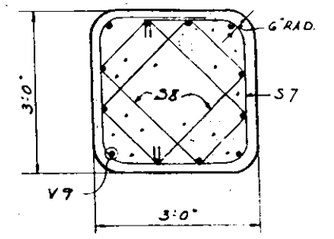


TOP PLAN

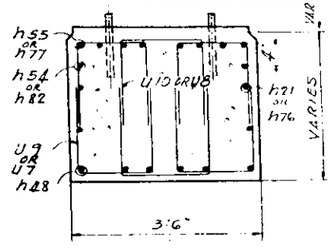


ELEVATION
SCALE: ¼"=1'-0"

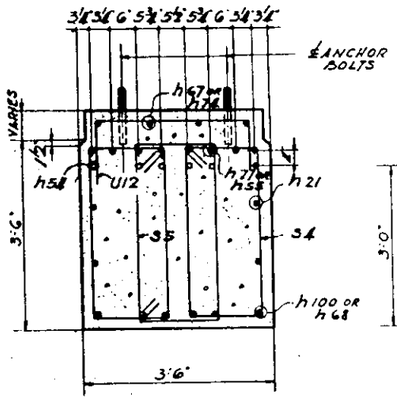
END VIEW
SCALE: ¼"=1'-0"



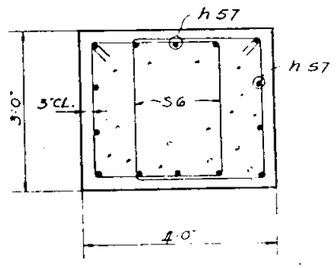
SECTION "D-D"
SCALE: ¾"=1'-0"



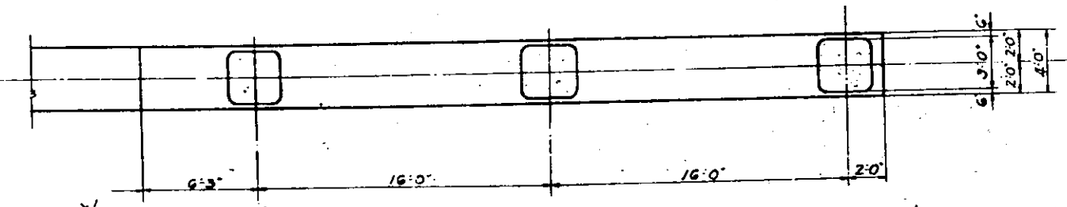
SECTION "M-M"
SCALE: ¾"=1'-0"



SECTION "B-B"
SCALE: ¾"=1'-0"



SECTION "C-C"
SCALE: ¾"=1'-0"



BOTTOM BEAM PLAN
SCALE: ¼"=1'-0"

NORTH

SCALES OF TRACING
¼"=1'-0"
¾"=1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU YD	212.9
12	REINFORCEMENT BARS	LBS	52,200

CITY OF CHICAGO
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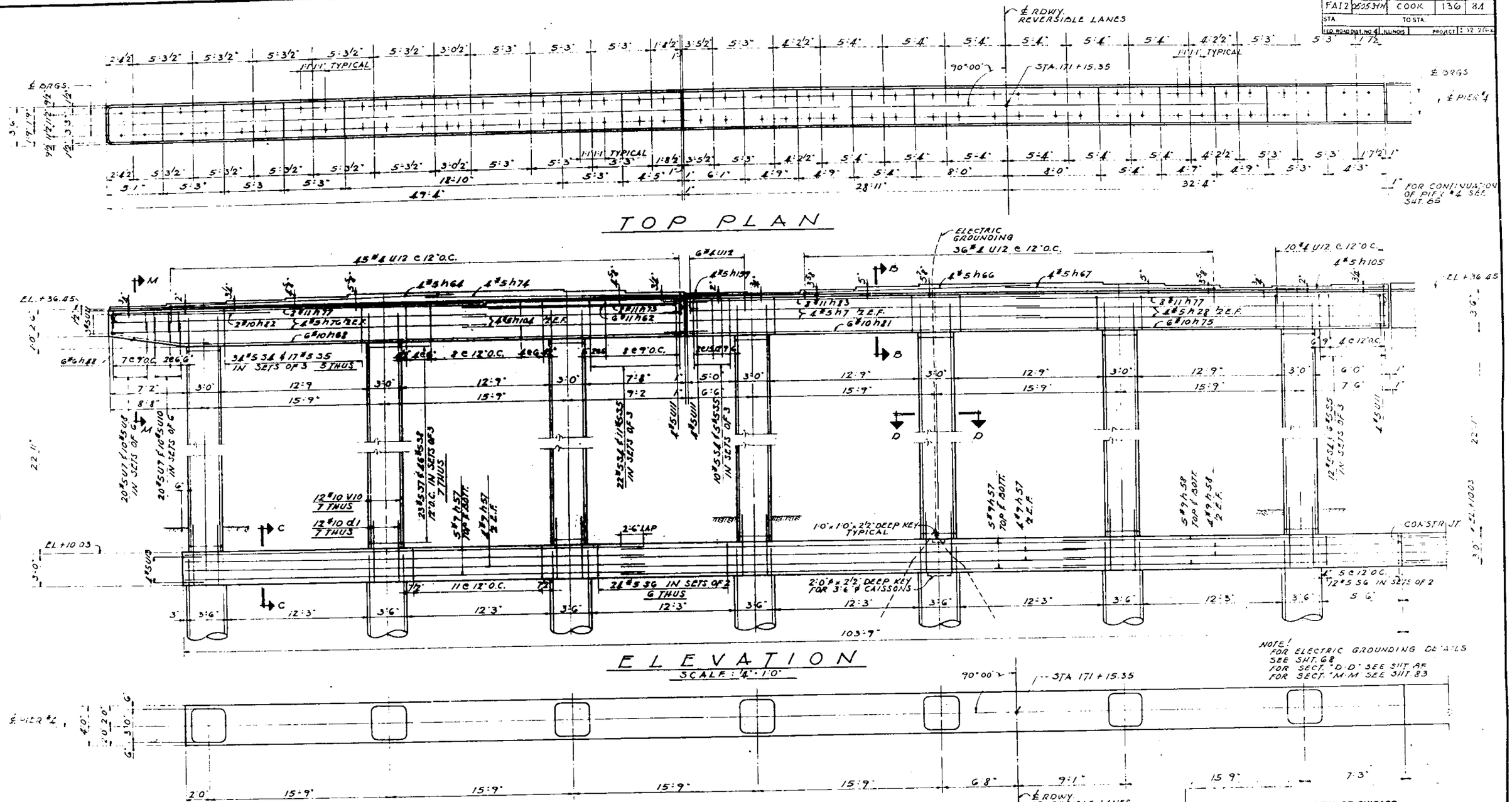
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

PIER No. 3

SHEET NO. 83 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3HH	COOK	136	84
STA.	TO STA.			
FED. ROAD DIST. NO. 6	ILLINOIS	PROJECT		



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BUREAU OF ENGINEERING

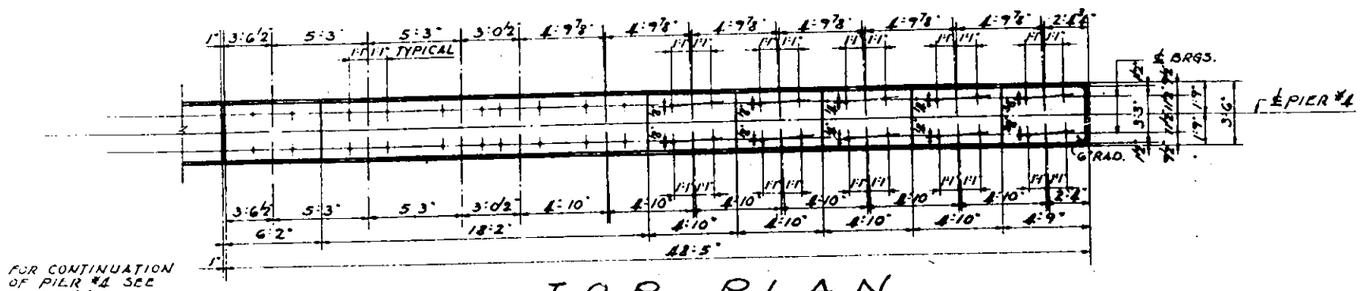
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

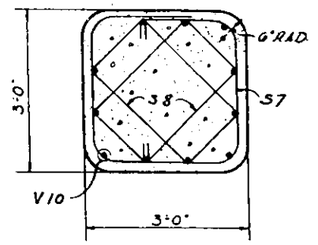
PIER No. 4

SHEET NO. 84 OF 136 SHEETS DATE:

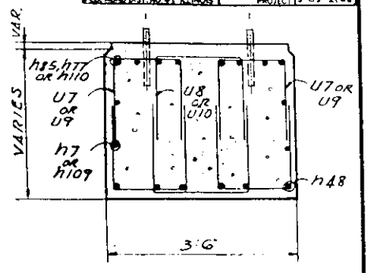
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3-H	COOK	136	85
STA.		TO STA		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	I 07 2(6)



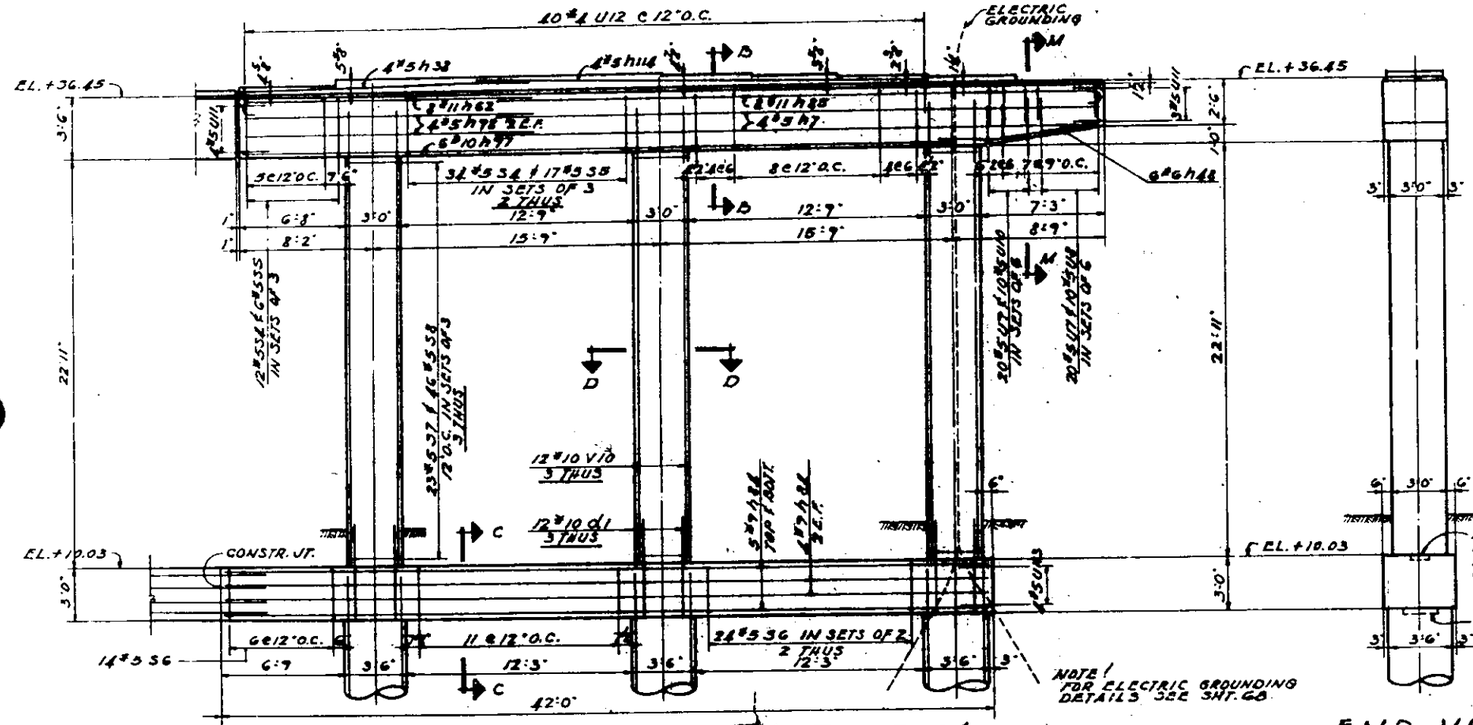
TOP PLAN



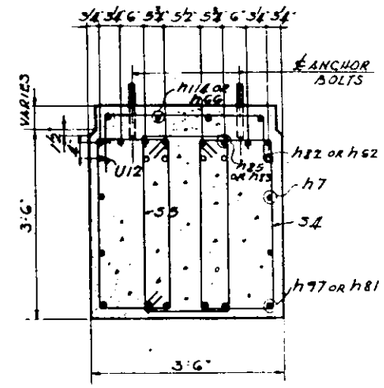
SECTION "D-D"
SCALE: 3/4"=1'-0"



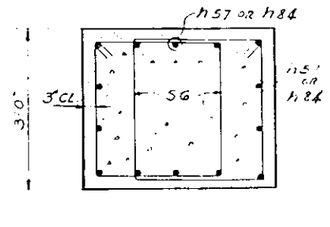
SECTION "M-M"
SCALE: 3/4"=1'-0"



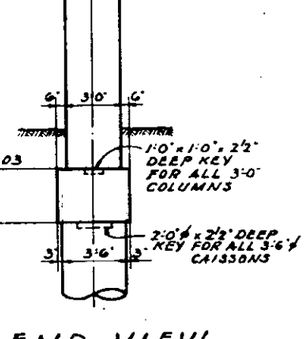
ELEVATION
SCALE: 1/4"=1'-0"



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



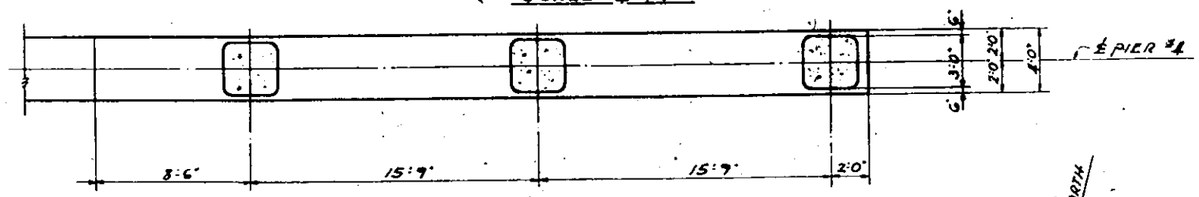
SECTION "C-C"
SCALE: 3/4"=1'-0"



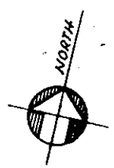
END VIEW
SCALE: 1/4"=1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	216.7
12	REINFORCEMENT BARS	LBS.	52,620



BOTTOM BEAM PLAN
SCALE: 1/4"=1'-0"



SCALES OF TRACING

1/4"=1'-0" 0 1 2 3 4 .6

3/4"=1'-0" 0 1 2 3

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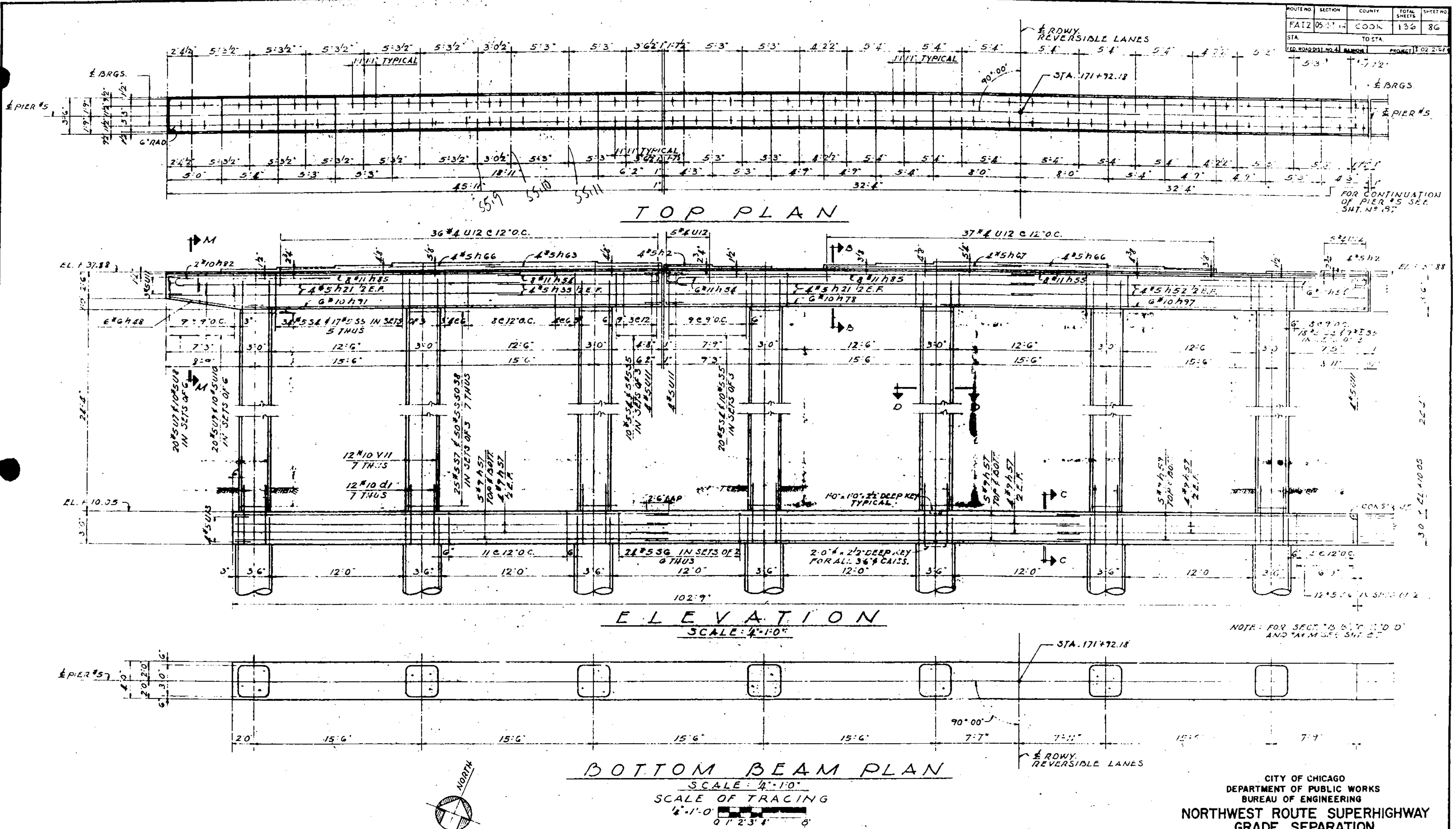
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-H

PIER No. 4

SHEET NO. 85 OF 136 SHEETS DATE:



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	86

CITY OF CHICAGO
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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

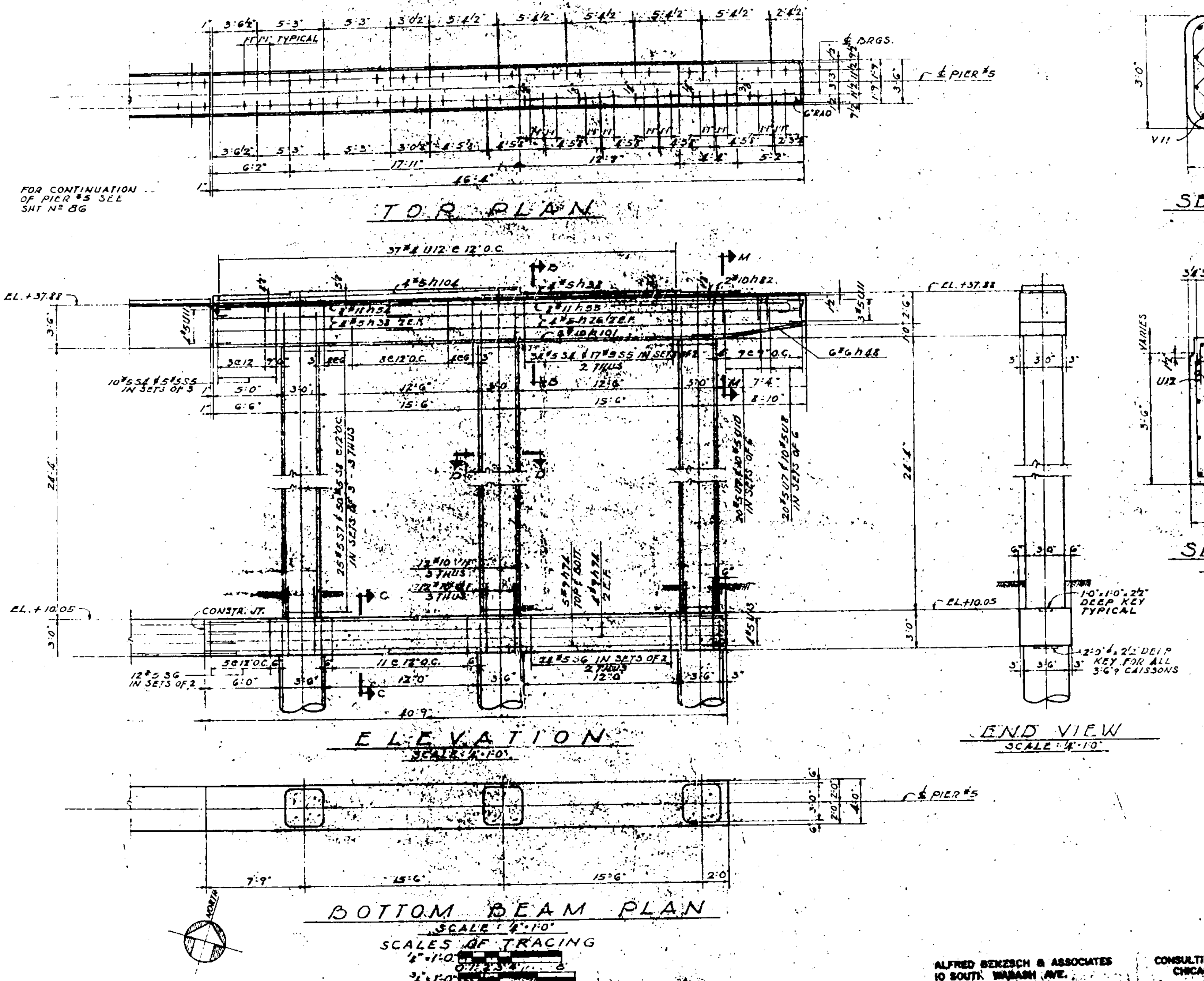
PIER No. 5

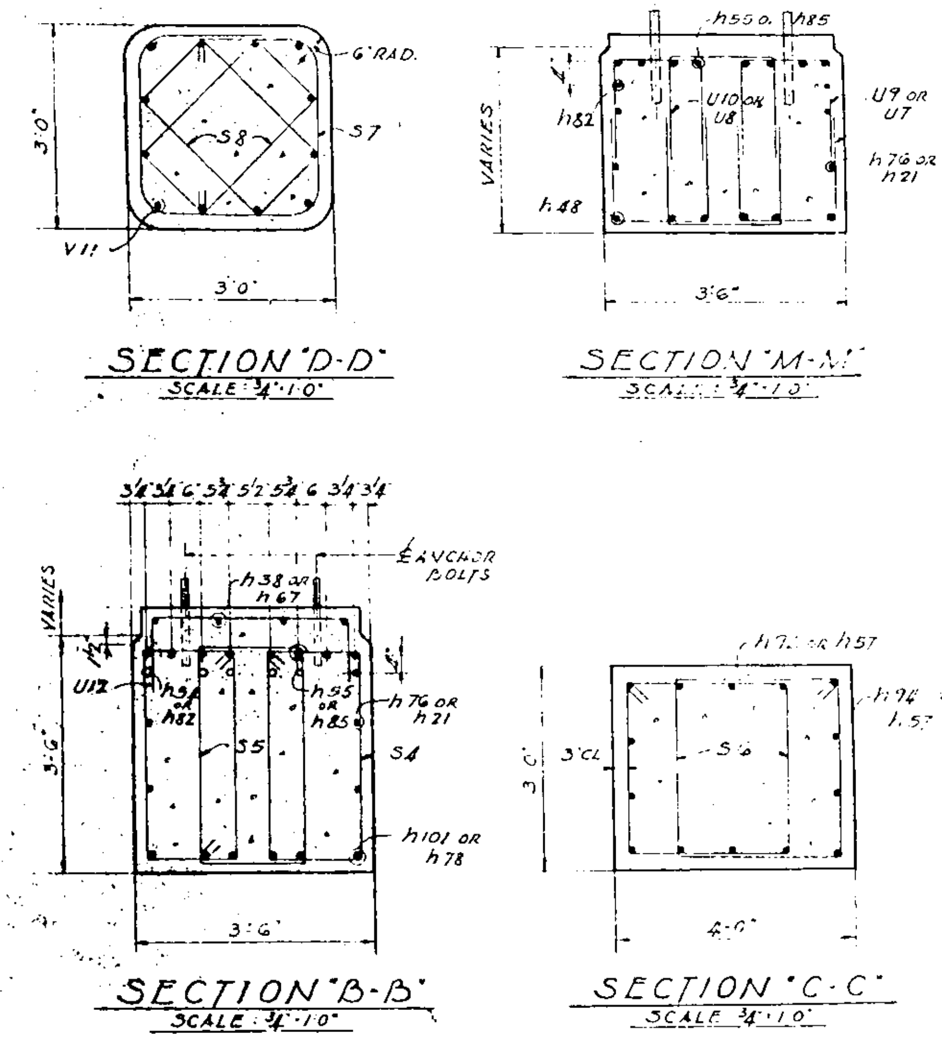
ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 86 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	87
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	I 02 2(-3)





BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	218.4
12	REINFORCEMENT BARS	LBS.	54 102

CITY OF CHICAGO
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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

PIER No. 5

ALFRED BENZSCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 87 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3-1H	COOK	136	88
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		

PIER SYMMETRICAL ABOUT THIS ℄ — ℄ ROWY. REVERSIBLE LANES

STA. 172+69.02 AT PIER #6
STA. 173+45.85 AT PIER #7

TOP PLAN

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

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

ELEVATION
SCALE: 1/4"=1'0"

NOTE! FOR SECT. "M-M" SEE SHT. 87

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

END VIEW
SCALE: 1/4"=1'0"

BOTTOM BEAM PLAN
SCALE: 1/4"=1'0"

NORTH

SCALES OF TRACING
1/4"=1'-0"
3/4"=1'0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY PIER #6	QUANTITY PIER #7
11	CLASS "X" CONCRETE	CU. YD.	222.8	224.7
12	REINFORCEMENT BARS	LBS.	54,852	55,240

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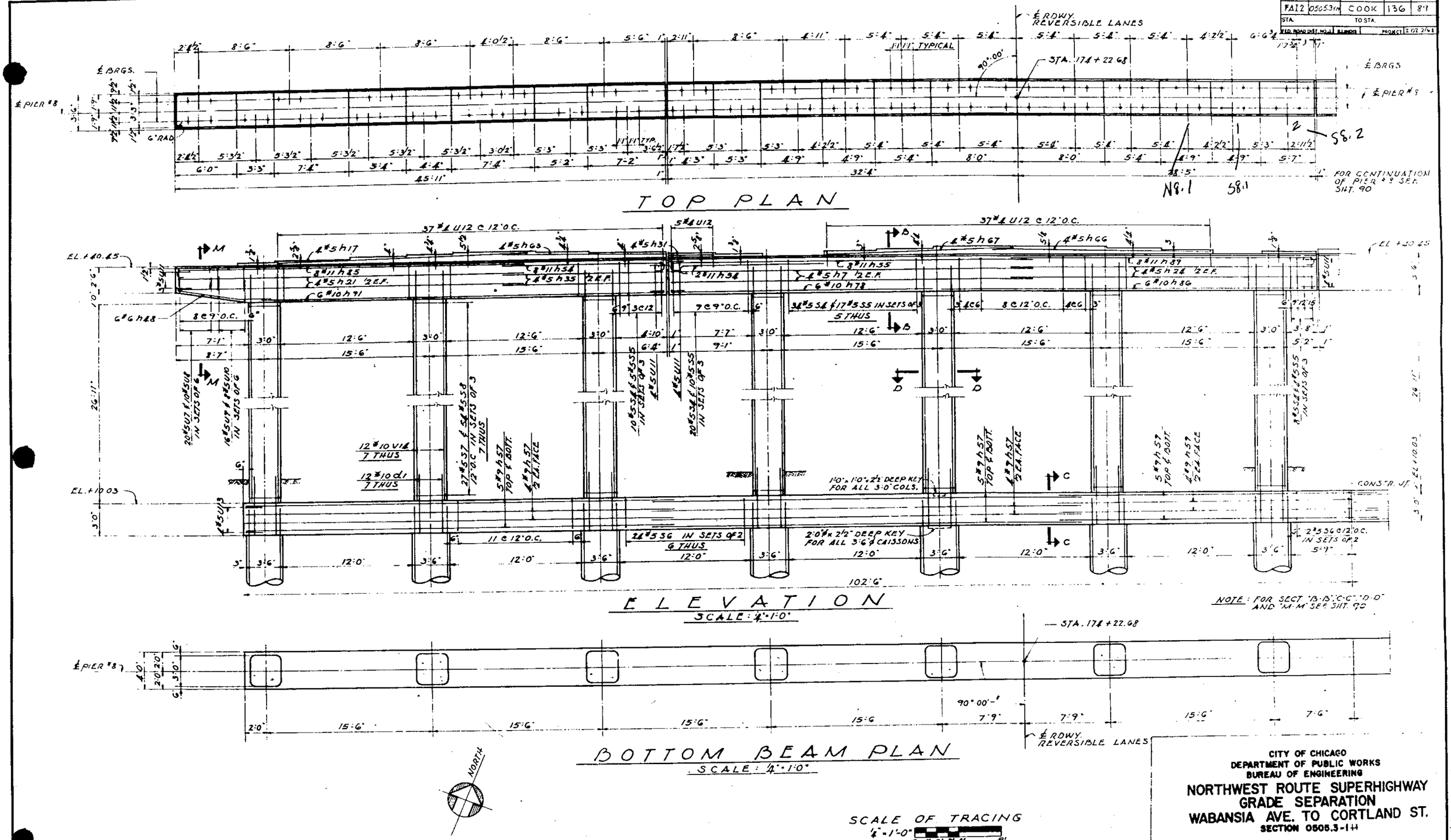
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

PIER No. 6 & 7

SHEET NO. 88 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3H	COOK	136	89
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	E 02 2761	



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CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

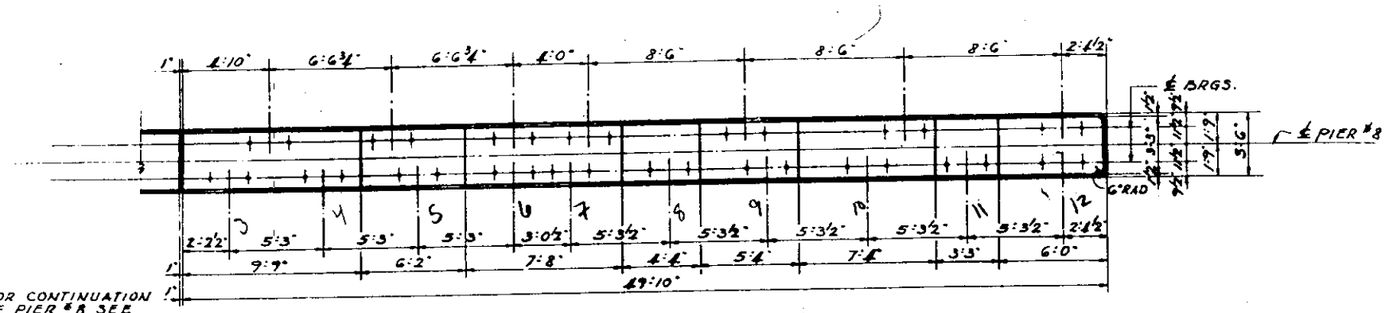
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

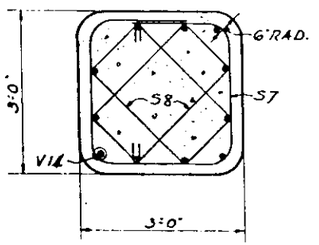
PIER No. 8

SHEET NO. 89 OF 136 SHEETS DATE:

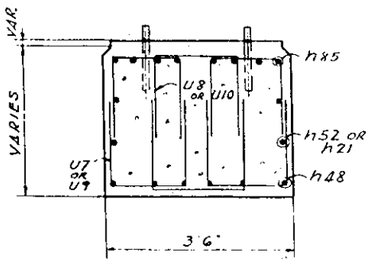
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA12	0505.3-1H	COOK	136	90
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	F.02.2(68)



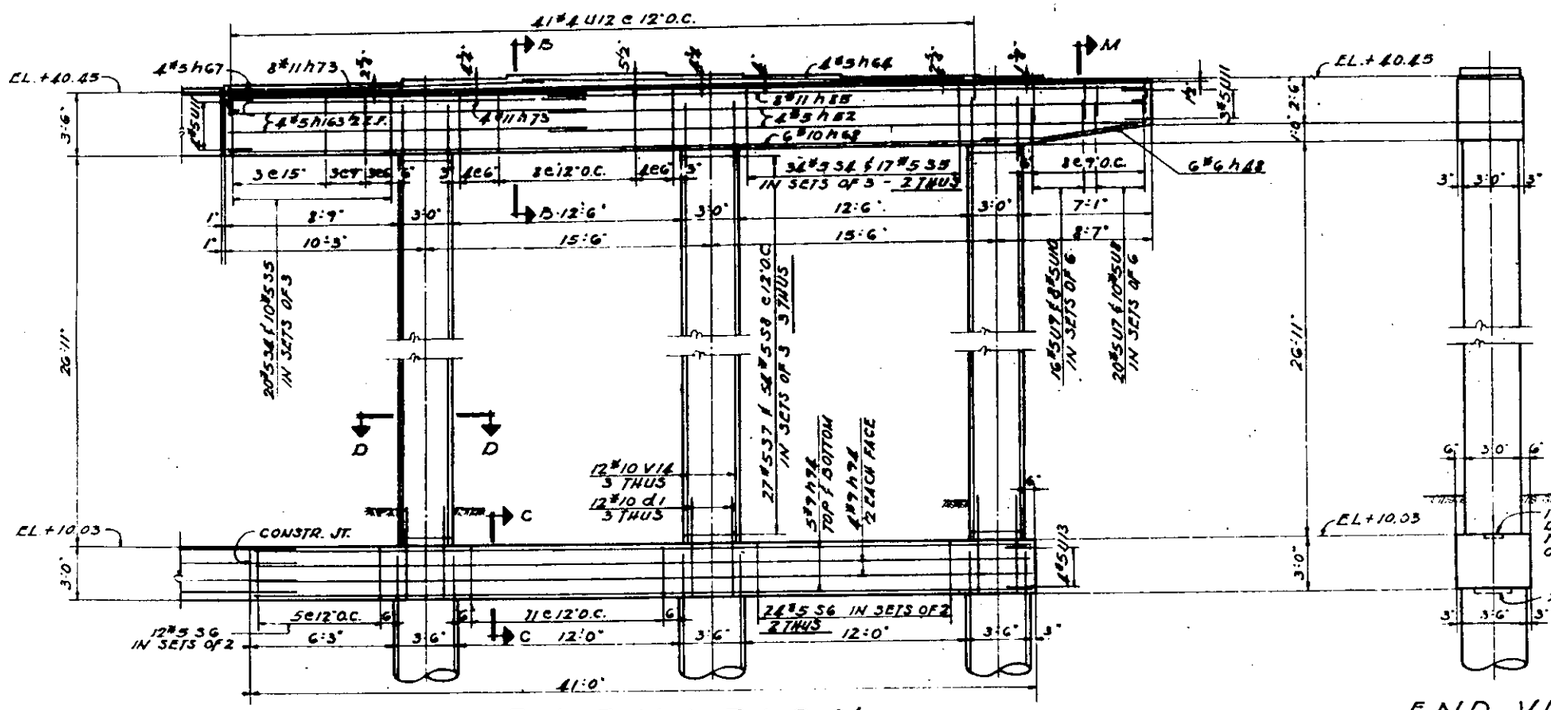
TOP PLAN



SECTION "D-D"
SCALE: ¾"=1'0"

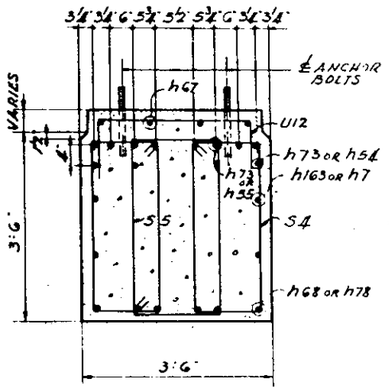


SECTION "M-M"
SCALE: ¾"=1'0"

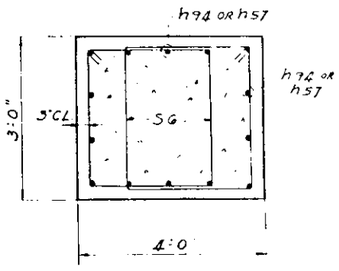


ELEVATION
SCALE: ¼"=1'0"

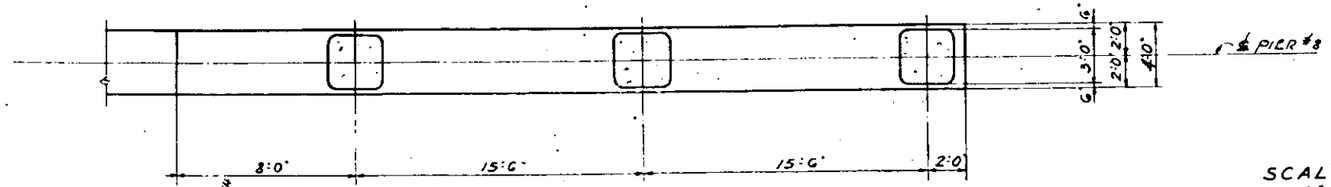
END VIEW
SCALE: ¼"=1'0"



SECTION "B-B"
SCALE: ¾"=1'0"



SECTION "C-C"
SCALE: ¾"=1'0"



BOTTOM BEAM PLAN
SCALE: ¼"=1'0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU YD	226.4
12	REINFORCEMENT BARS	LBS	55,196

SCALES OF TRACING
¼"=1'-0" 0 1' 2' 3' 4' 8'
¾"=1'-0" 0 6" 1' 2' 3'

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10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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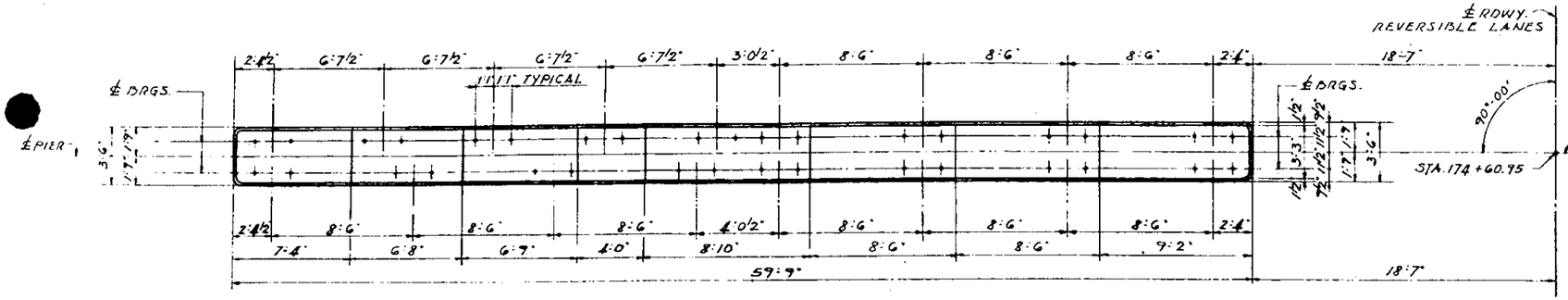
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

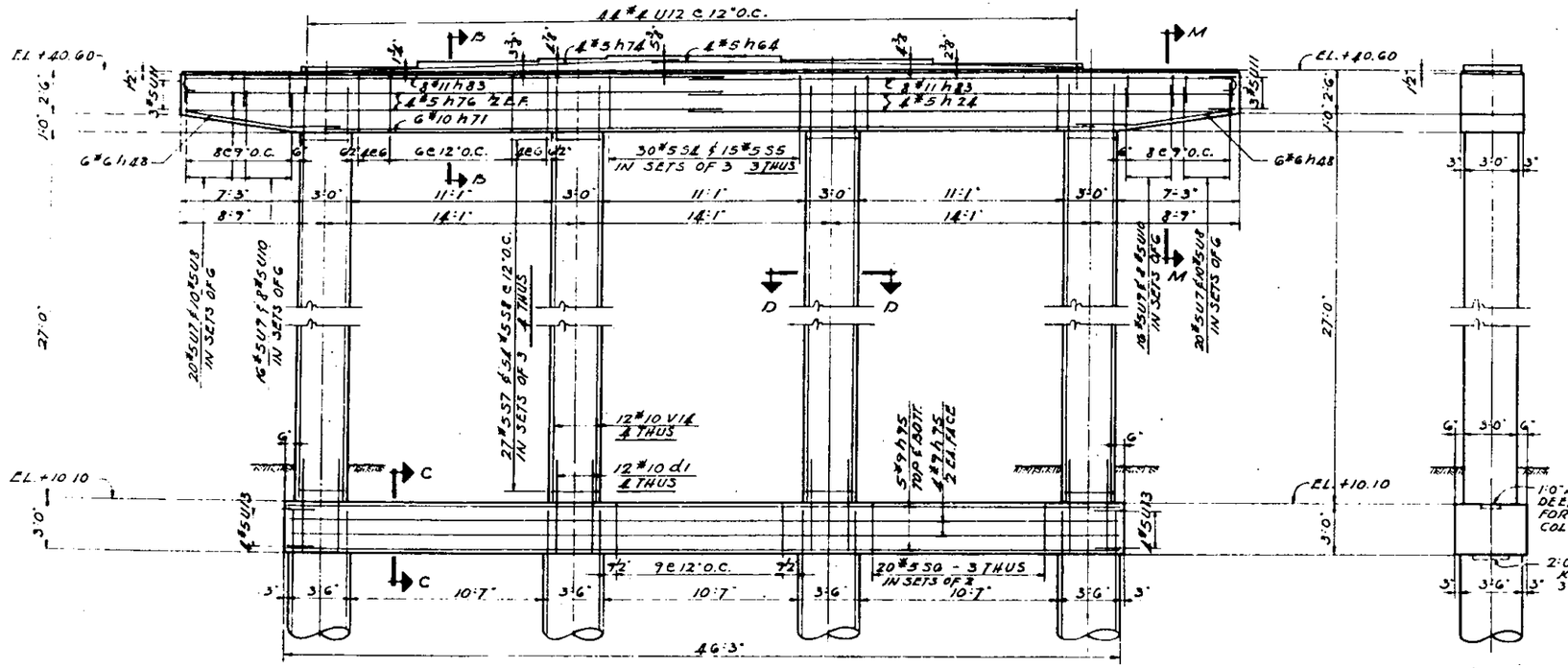
PIER No. 8

SHEET NO. 90 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3-1H	COOK	136	91
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		

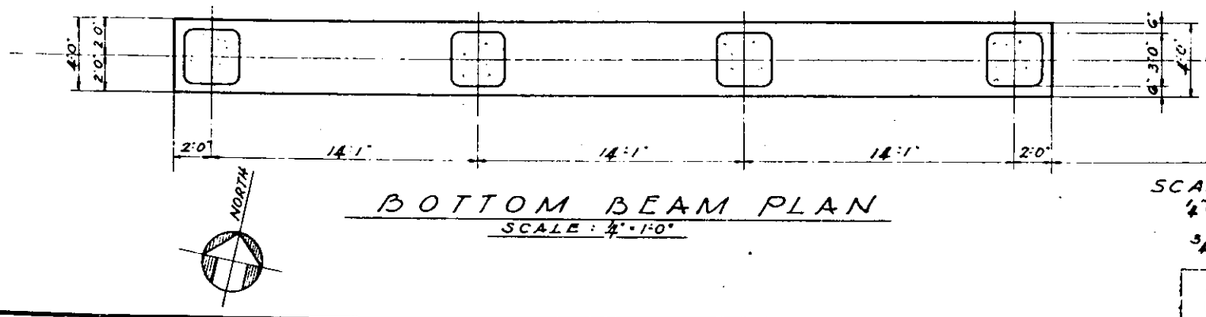


TOP PLAN

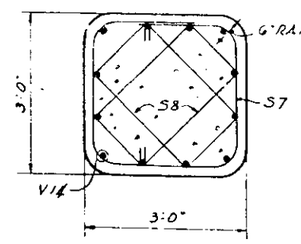


ELEVATION
SCALE: 1/4" = 1'-0"

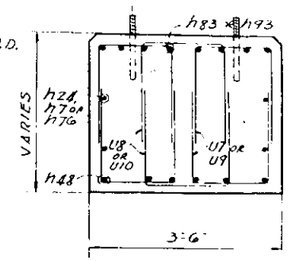
END VIEW
SCALE: 1/4" = 1'-0"



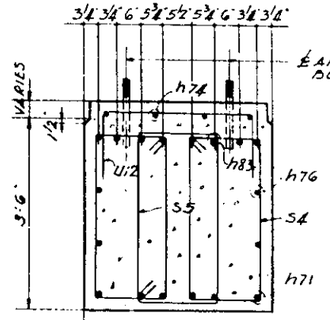
BOTTOM BEAM PLAN
SCALE: 1/4" = 1'-0"



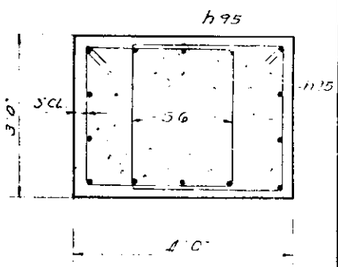
SECTION "D-D"
SCALE: 3/4" = 1'-0"



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



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



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

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU YD	83.5
12	REINFORCEMENT BARS	LBS.	20,371

SCALES OF TRACING
1/4"-1'-0"
3/4"-1'-0"

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

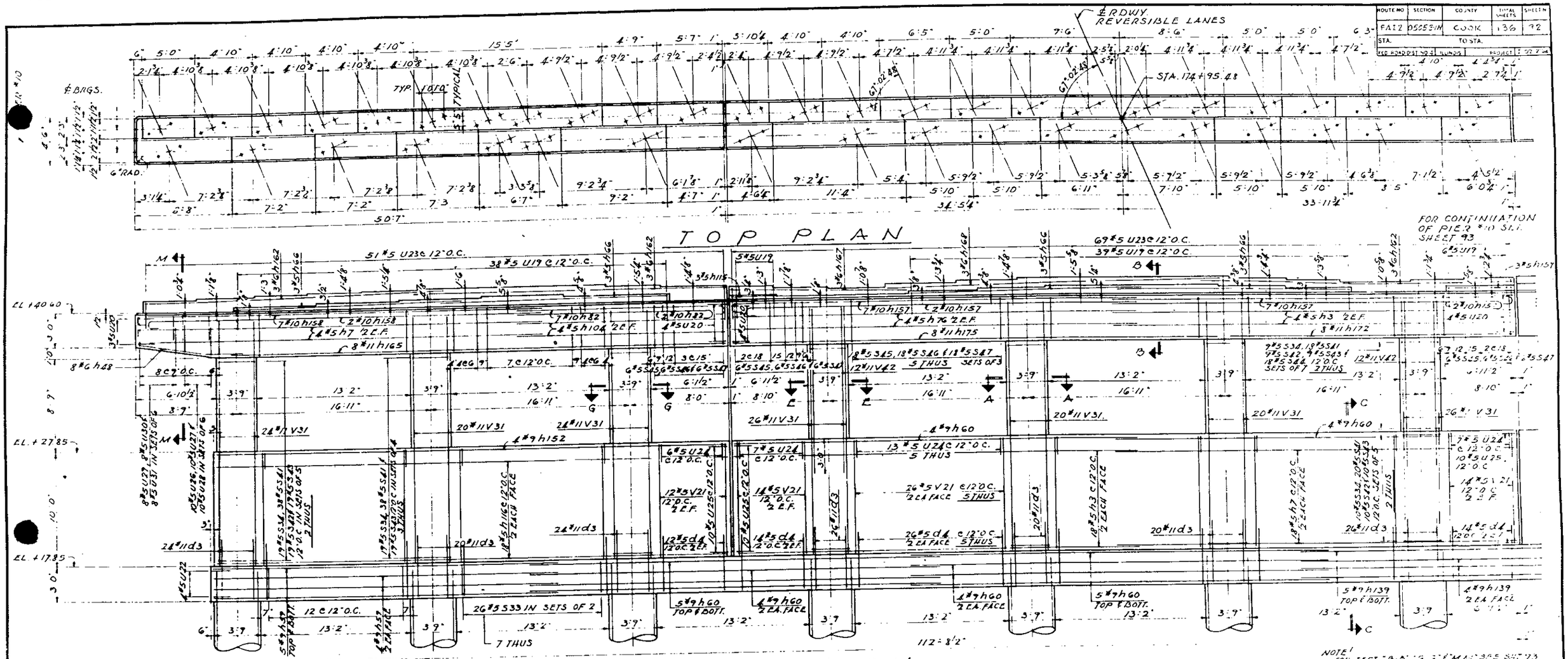
SECTION 0505.3-1H

PIER No. 9

SHEET NO. 91 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3-1H	COOK	136	92
STA.	TO STA.			
FED. ROAD DIST. NO. 9	ILLINOIS	PROJECT		

TOP PLAN



ELEVATION

SCALE: ¼" = 1'-0"

BOTTOM BEAM PLAN

SCALE: ¼" = 1'-0"

NORTH

SCALE OF TRACING
¼" = 1'-0"
0 1' 2' 3' 4' 8'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

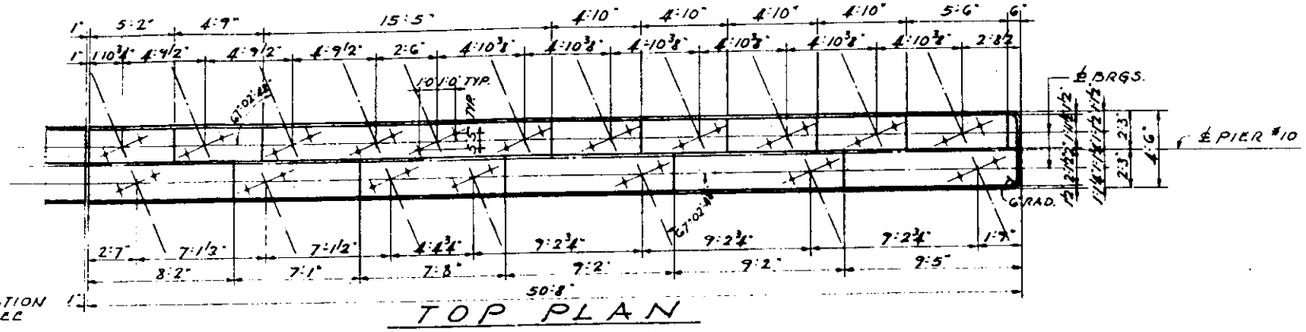
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

PIER No. 10

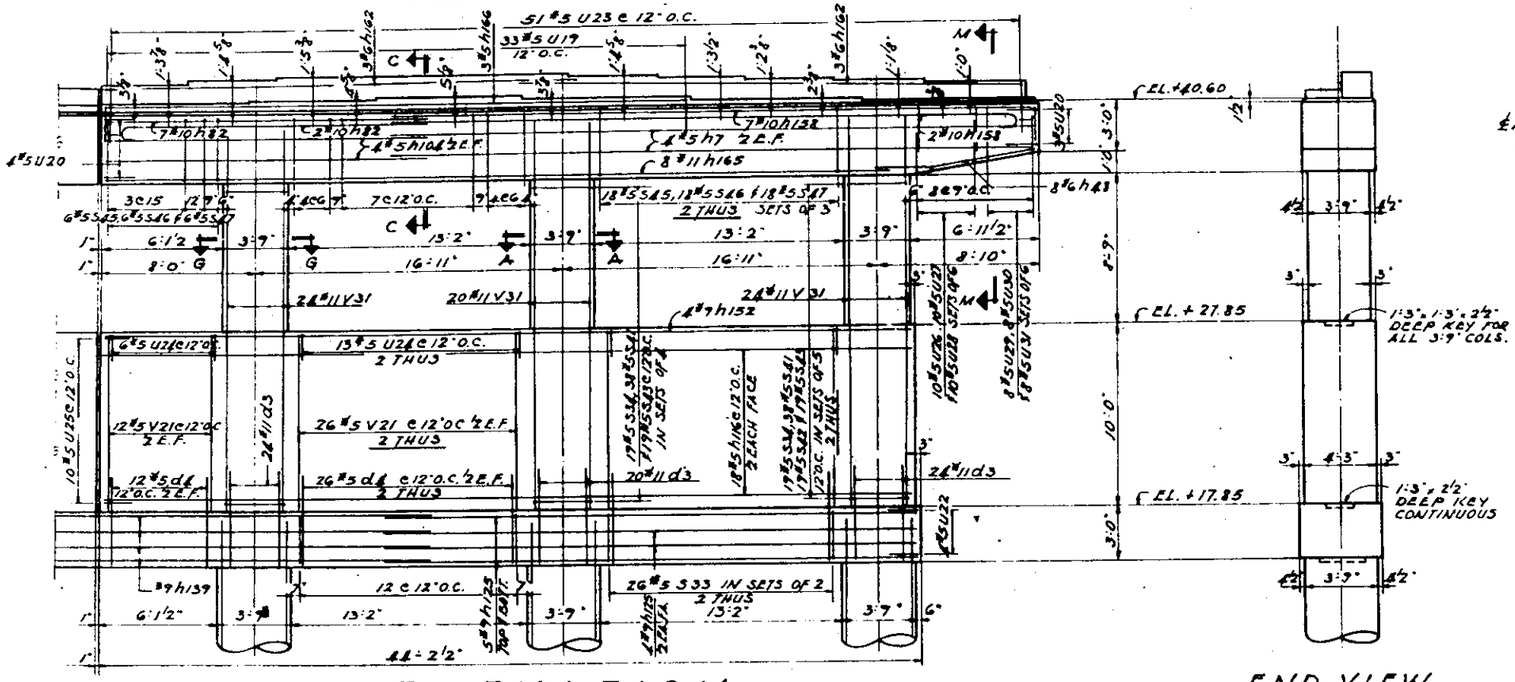
SHEET NO. 92 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0505.3 IM	COOK	136	93
STA	TO STA.			
FED HIGHWAY DIST NO. 4	ILLINOIS		PROJECT	



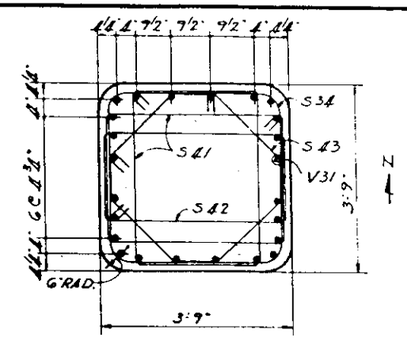
FOR CONTINUATION OF PIER #10 SEE SHEET 92

TOP PLAN



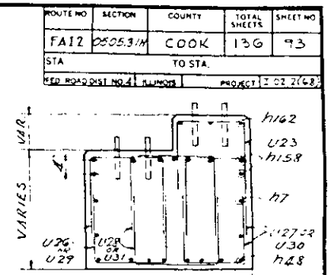
ELEVATION

SCALE : ¼" = 1'-0"



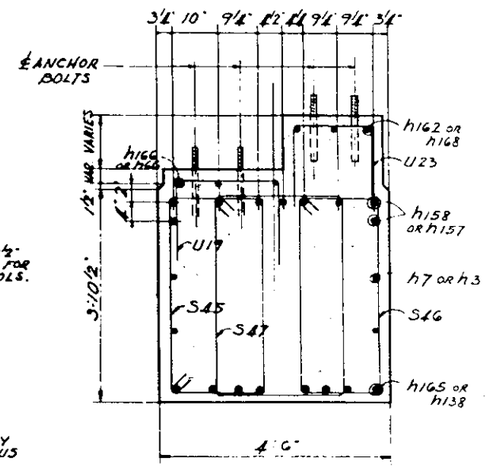
SECTION "G-G"

SCALE : ¾" = 1'-0"



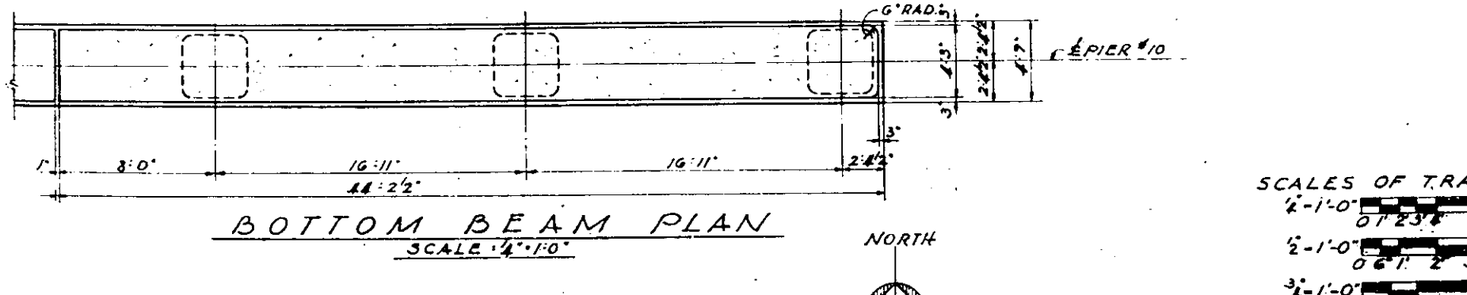
SECTION "M-M"

SCALE : ½" = 1'-0"



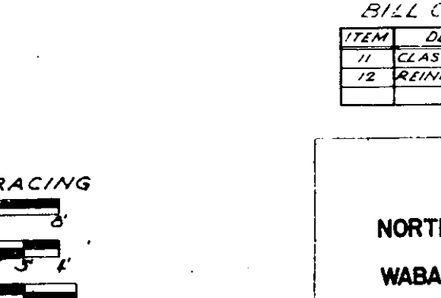
SECTION "B-B"

SCALE : ¾" = 1'-0"



BOTTOM BEAM PLAN

SCALE : ¼" = 1'-0"



END VIEW

SCALE : ¼" = 1'-0"

NORTH

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU YD	506.6
12	REINFORCEMENT BARS	LBS	93,586

SCALES OF TRACING

¼"-1'-0" 0 1' 2' 3' 4' 0'

½"-1'-0" 0 6" 1' 2' 3' 4'

¾"-1'-0" 0 6" 1' 2' 3'

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NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

PIER No. 10

SHEET NO. 93 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.31H	COOK	136	94
STA.	TO STA.			
FED. ROAD DIST. NO. 5	ILLINOIS	PROJECT		

TOP PLAN

ELEVATION
SCALE : 4" = 1'-0"

BOTTOM BEAM PLAN
SCALE : 4" = 1'-0"

NORTH

SCALE OF TRACING
4" = 1'-0"
0 1' 2' 3' 4' 8'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

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DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

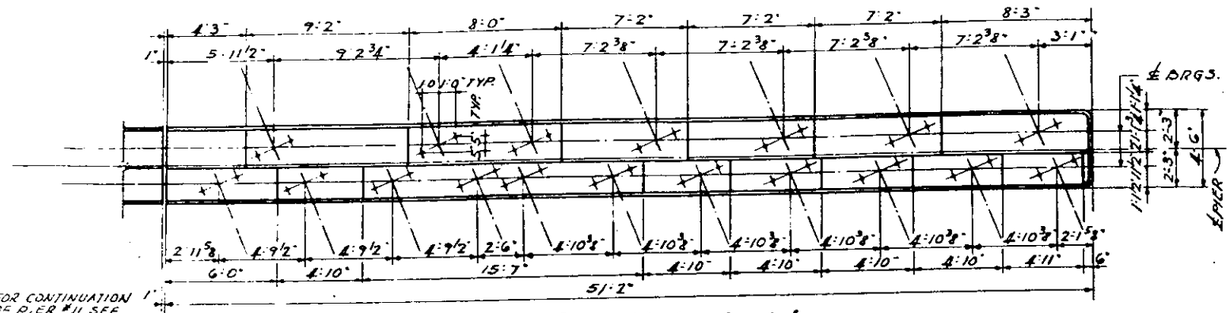
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1 H

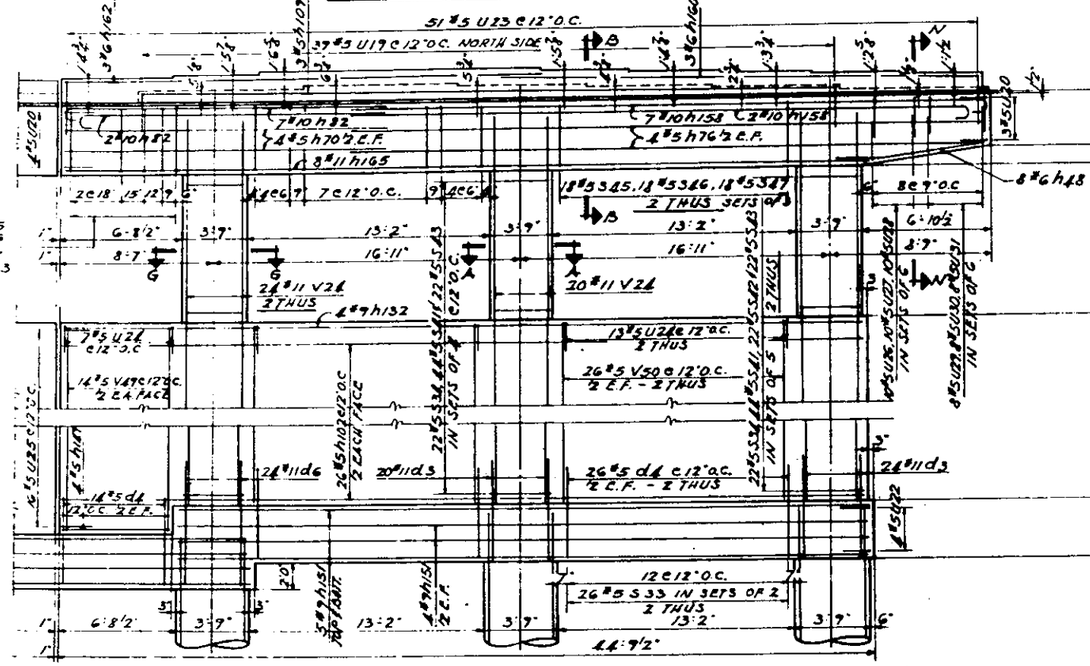
PIER No. 11

SHEET NO. 94 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3H	COOK	136	95
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT		



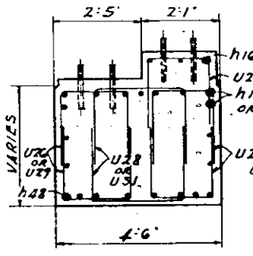
TOP PLAN



ELEVATION

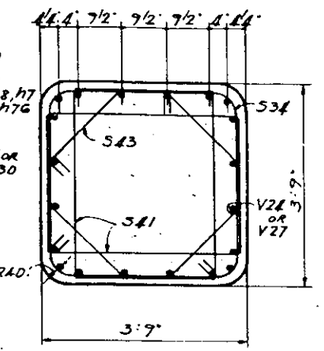
SCALE: ¼"-1'-0"

NOTE! FOR SECT "G-G" SEE SHT. 93



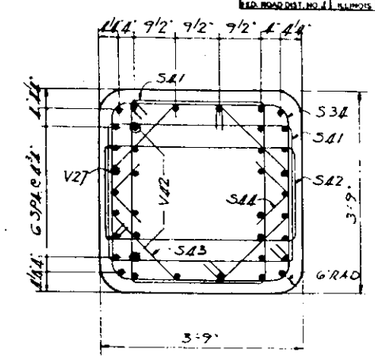
SECTION "N-N"

SCALE: ½"-1'-0"



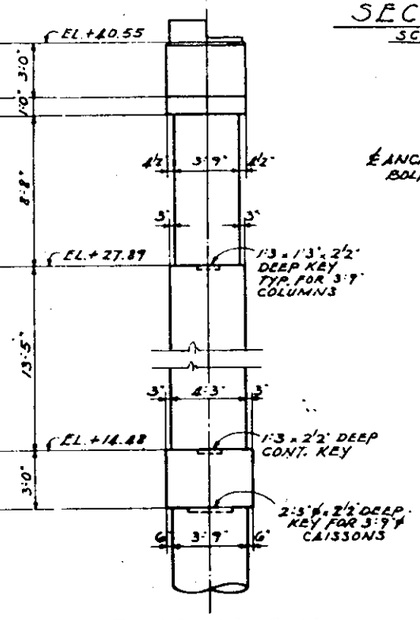
SECTION "A-A"

SCALE: ¾"-1'-0"



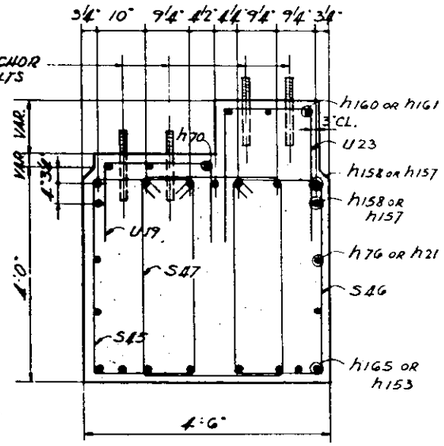
SECTION "E-E"

SCALE: ¾"-1'-0"



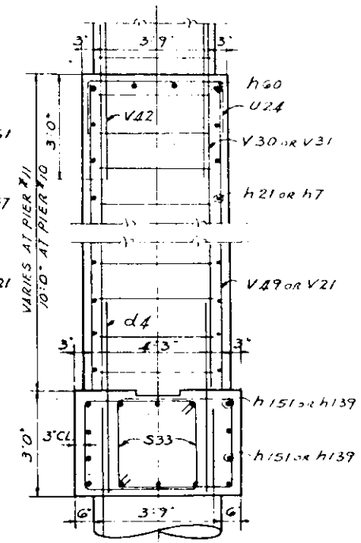
END VIEW

SCALE: ¼"-1'-0"



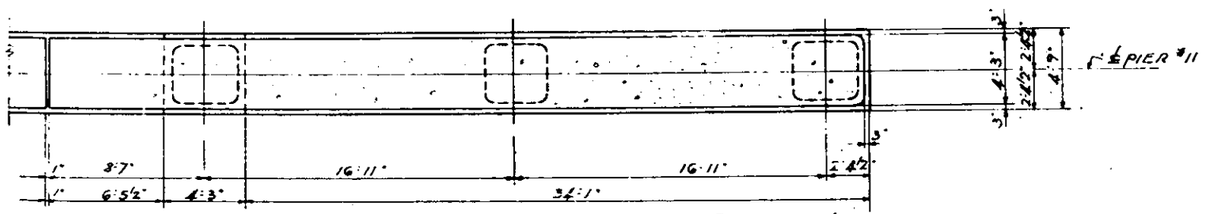
SECTION "B-B"

SCALE: ¾"-1'-0"



SECTION "C-C"

SCALE: 1½"-1'-0"



BOTTOM BEAM PLAN

SCALE: ¼"-1'-0"

NORTH

SCALE OF TRACING

¼"-1'-0"

½"-1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD	682.5
12	REINFORCEMENT BARS	LBS	111,090

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10 SOUTH WABASH AVE.
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BUREAU OF ENGINEERING

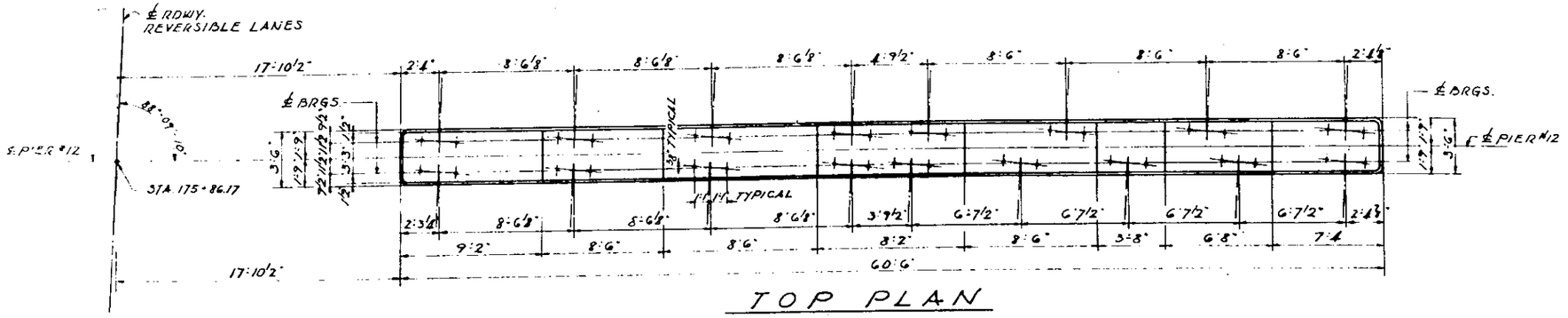
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

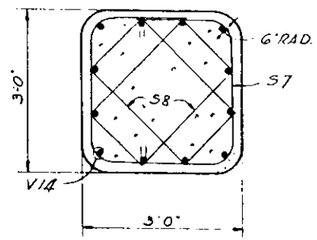
PIER No. 11

SHEET NO. 95 OF 136 SHEETS DATE:

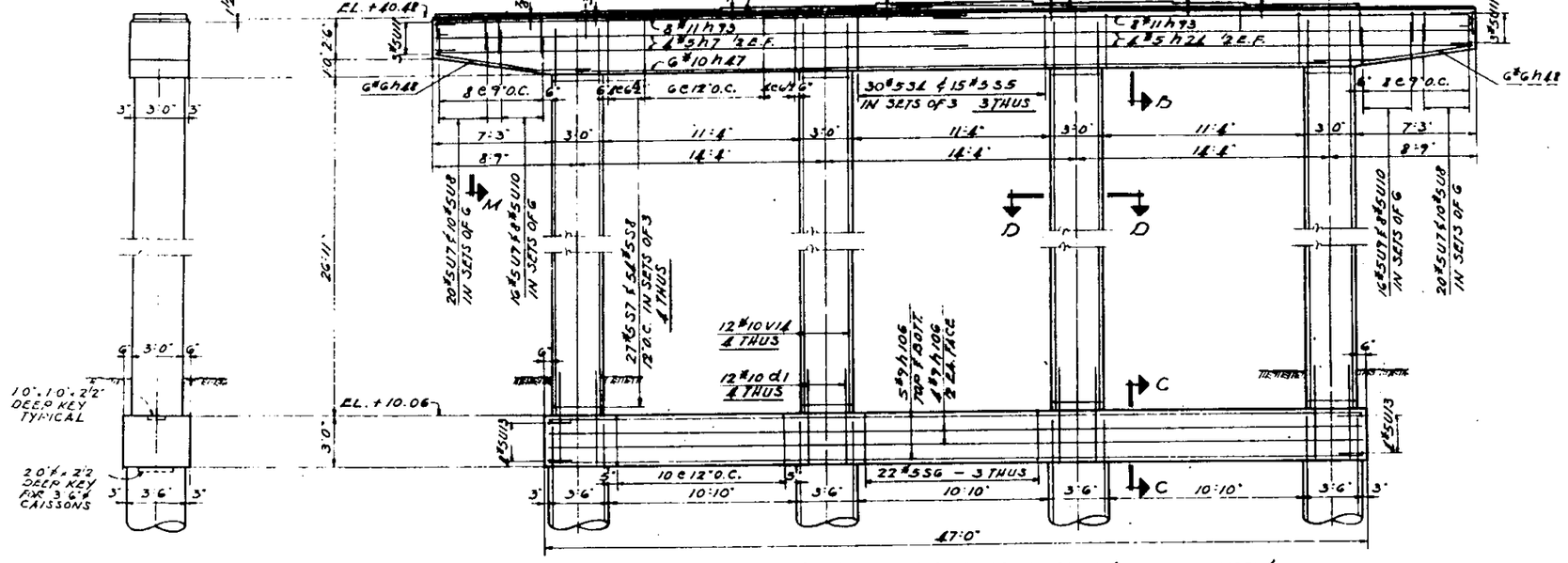
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-2	0505.31H	COOK	136	96
STA.		TO STA.		
FED. ROAD DIST. NO. 9	ILLINOIS	PROJECT		



TOP PLAN



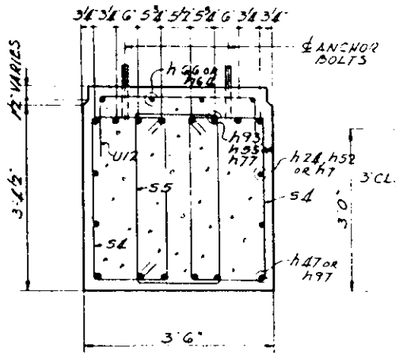
SECTION "D-D"
SCALE: ¾" = 1'-0"



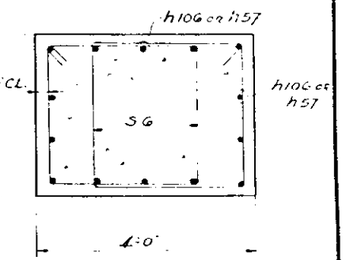
END VIEW

ELEVATION
SCALE: ¼" = 1'-0"

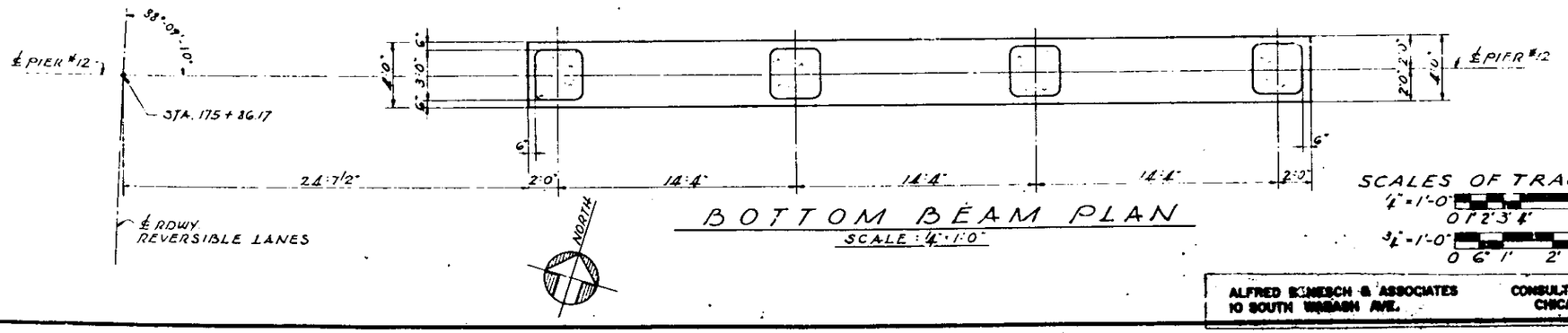
NOTE!
FOR SECT. "M-M" SEE SHT. N° 91



SECTION "B-B"
SCALE: ¾" = 1'-0"



SECTION "C-C"
SCALE: ¾" = 1'-0"



BOTTOM BEAM PLAN
SCALE: ¼" = 1'-0"

SCALES OF TRACING
¼" = 1'-0"
0 1' 2' 3' 4' 8'
¾" = 1'-0"
0 6" 1' 2' 3'

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU YD	541
12	REINFORCEMENT BARS	LBS	20,263

ALFRED BENESCH & ASSOCIATES
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NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

PIER No. 12

SHEET NO. 96 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-IH	COOK	136	97
STA.		TO STA.		
STA. ROAD DIST. NO. 1 ILLINOIS			PROJECT	

TOP PLAN

ELEVATION
SCALE: 4'-1'-0"

BOTTOM BEAM PLAN
SCALE: 4'-1'-0"

NOTE!
FOR SECT "E-E" "F-F" "G-G" "R-R" & "U" SEE SHT. 98
FOR SECT "D-D" "C-C" "D-D" "U" SEE SHT. NO. 96
FOR SECT "Q-Q" SEE SHT. NO. 99

NORTH

SCALE OF TRACING
4"=1'-0"
0 1' 2' 3' 4' 8'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

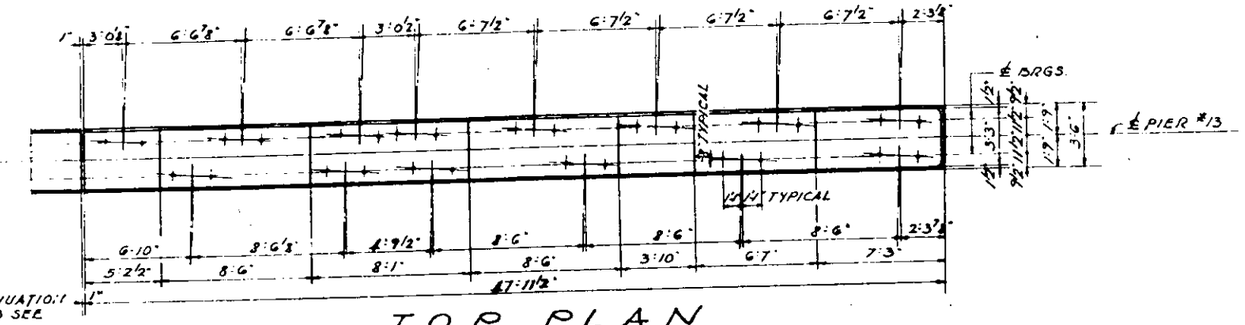
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

PIER No. 13

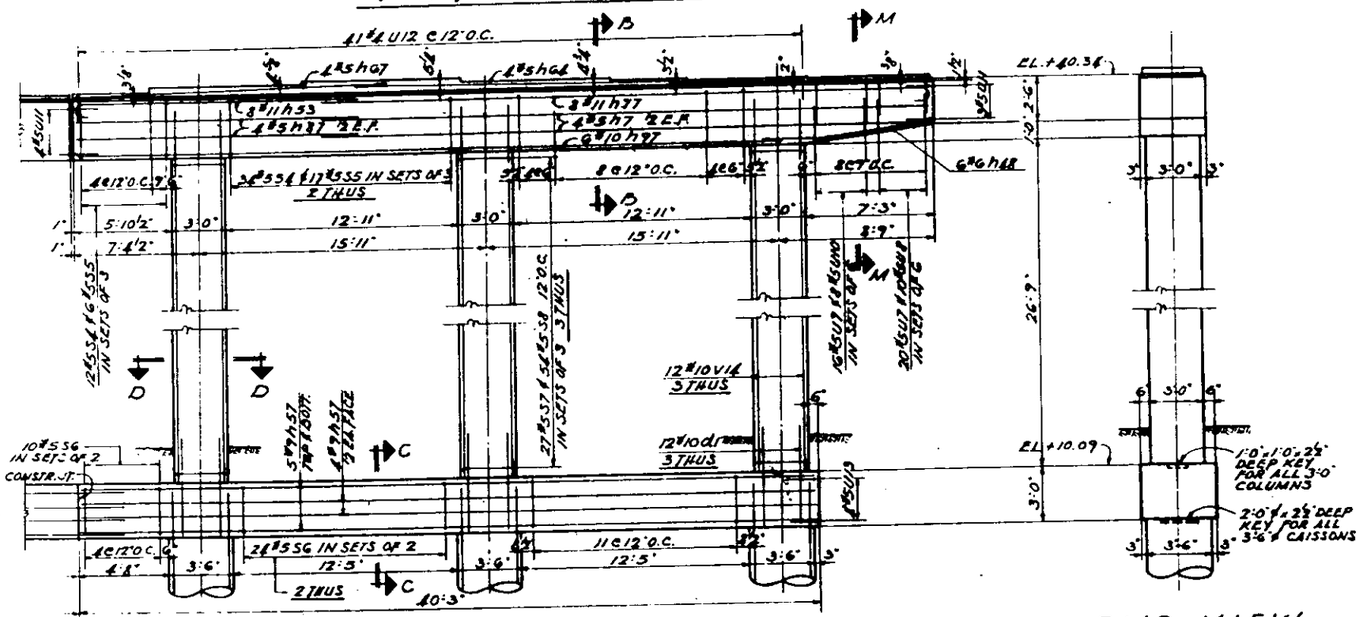
SHEET NO. 97 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-1H	COOK	136	98
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I-90-2 (6A)	



FOR CONTINUATION OF PIER #13 SEE SHEET 97

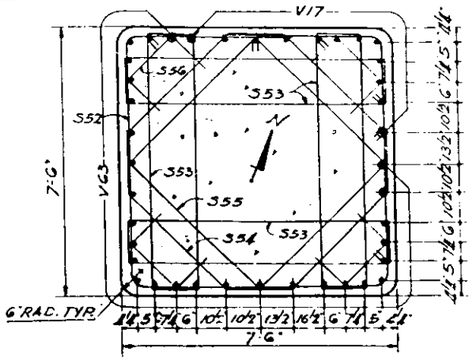
TOP PLAN



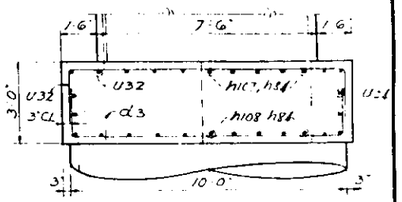
NOTE! FOR SECT. "B-B" "C-C" & "D-D" SEE SHT. 96
FOR SECT. "M-M" SEE SHT. 85

ELEVATION
SCALE: ¼"=1'-0"

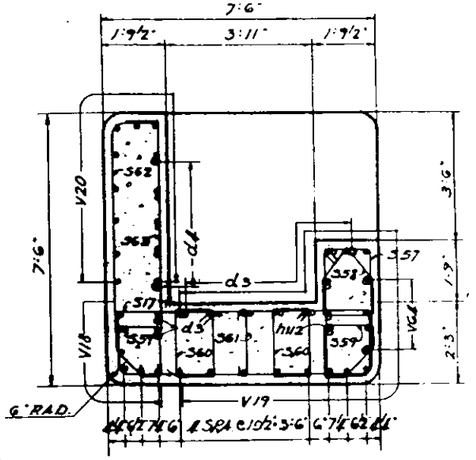
END VIEW
SCALE: ¼"=1'-0"



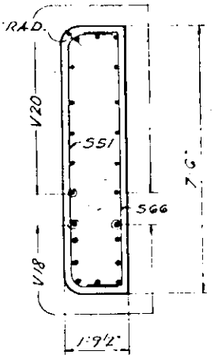
SECTION "E-E"
SCALE: ½"=1'-0"



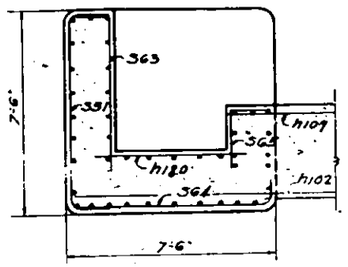
SECTION "R-R"
SCALE: ⅜"=1'-0"



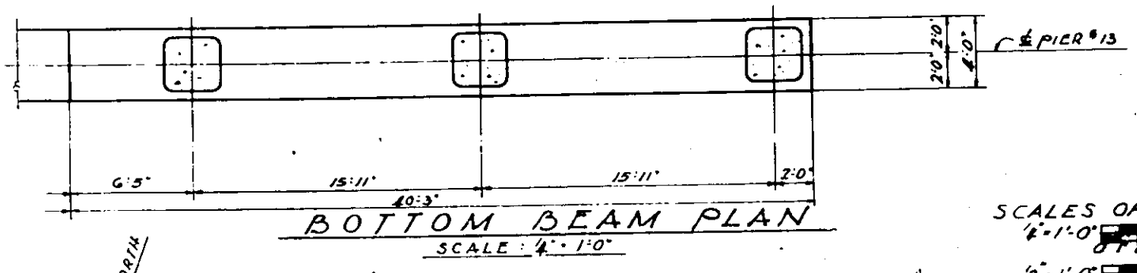
SECTION "G-G"
SCALE: ½"=1'-0"



SECTION "F-F"
SCALE: ½"=1'-0"



SECTION "U"
SCALE: ½"=1'-0"



BOTTOM BEAM PLAN
SCALE: ¼"=1'-0"

NORTH

SCALES OF TRACING
¼"=1'-0"
½"=1'-0"
¾"=1'-0"

Issued for Contract Section 0505.3-1HF

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "A" CONCRETE	CU YD	292.0
12	REINFORCEMENT BARS	LBS	67,648

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

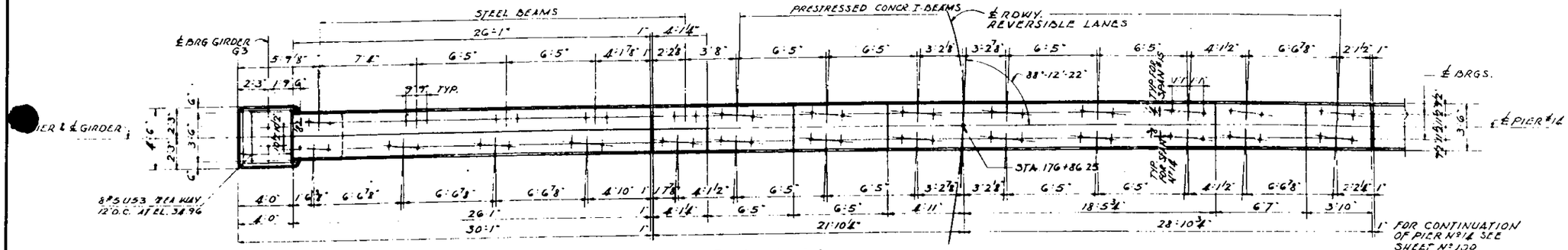
SECTION 0505.3-1H

PIER No. 13

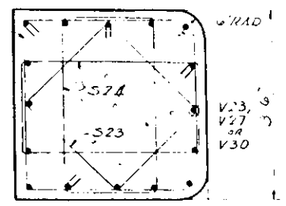
SHEET NO. 98 OF 136 SHEETS DATE:

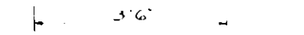
ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0606.3-1H	COOK	136	99
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

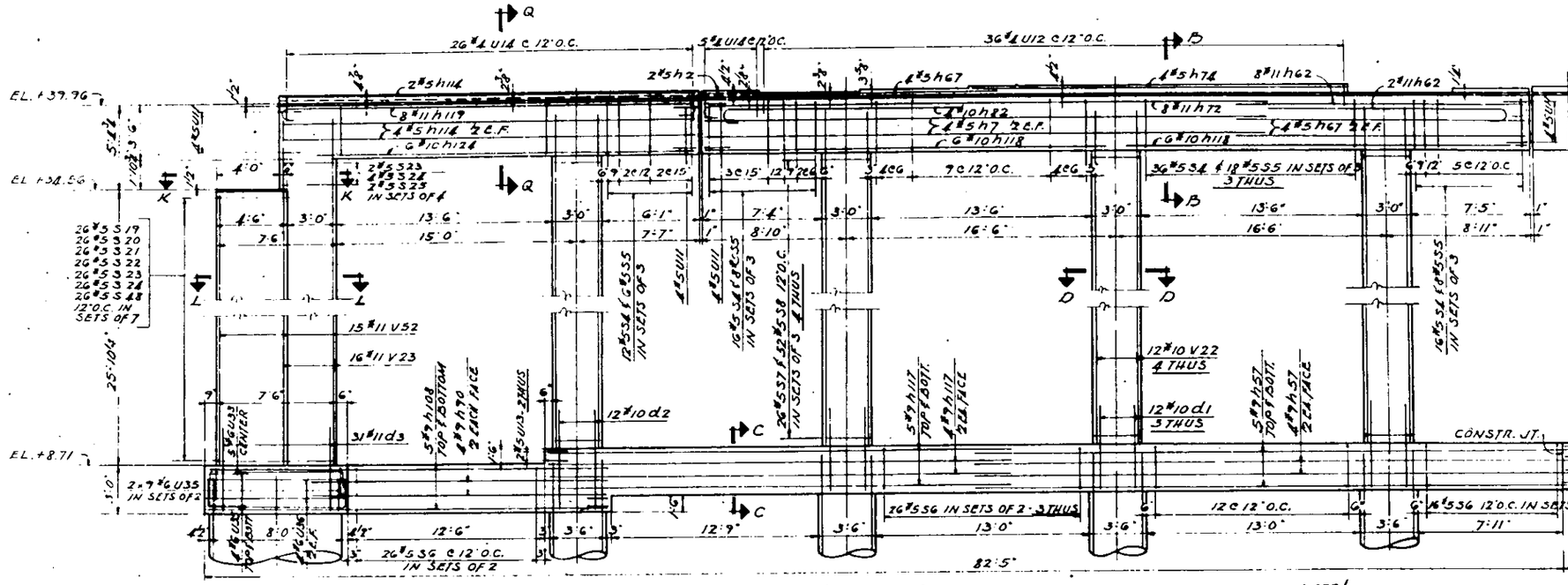


TOP PLAN

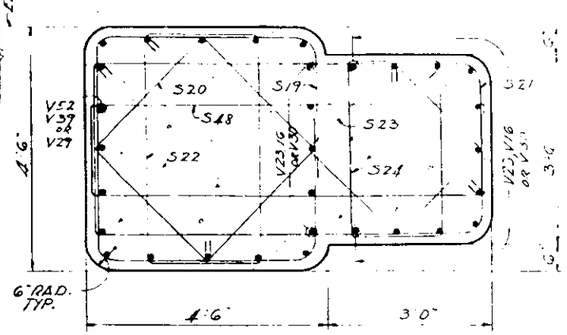




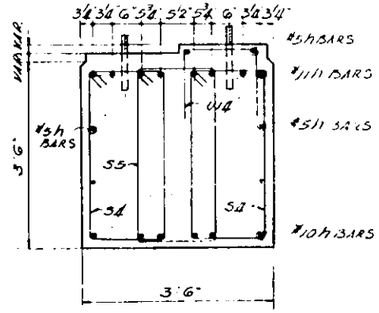
SECTION "K-K"
SCALE: 1"=1'-0"



BOTTOM BEAM PLAN
SCALE: 1/4"=1'-0"



SECTION "L-L"
SCALE: 1"=1'-0"



SECTION "Q-Q"
SCALE: 1"=1'-0"

ELEVATION
SCALE: 1/4"=1'-0"

NOTE! FOR SECT. "B-B", "C-C", "D-D" & "P-P" SEE SHT. 100

SCALES OF TRACING
3/4"=1'-0"
1/4"=1'-0"

ALFRED BENESCH & ASSOCIATES
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
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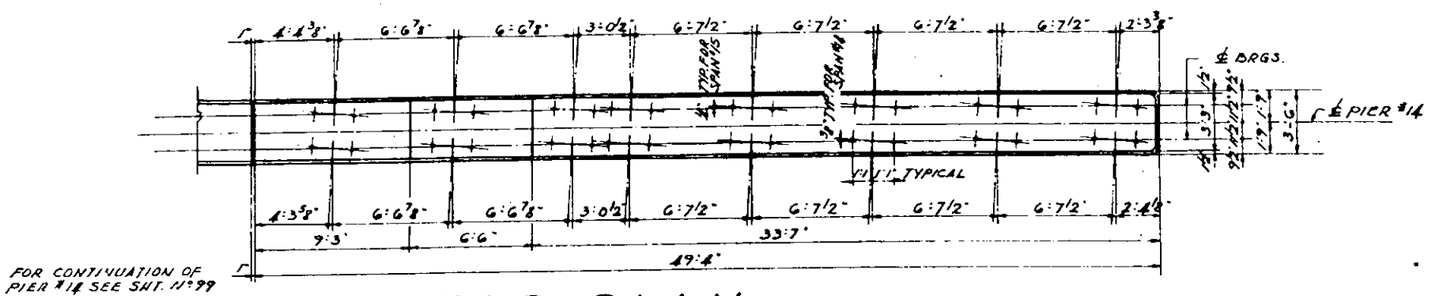
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0606.3-1H

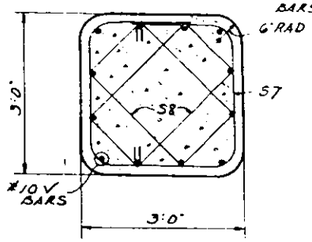
PIER No. 14

SHEET NO. 99 OF 136 SHEETS DATE:

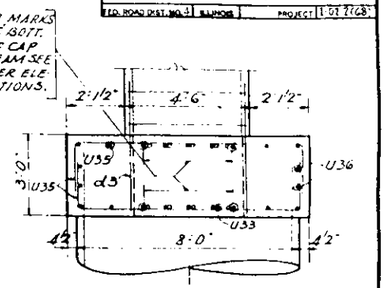
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA1-2	0505.3-1H	COOK	136	100
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		



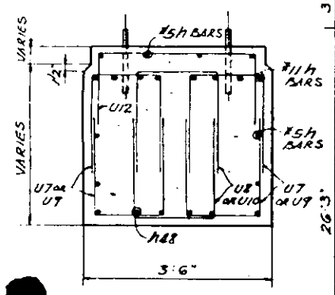
TOP PLAN



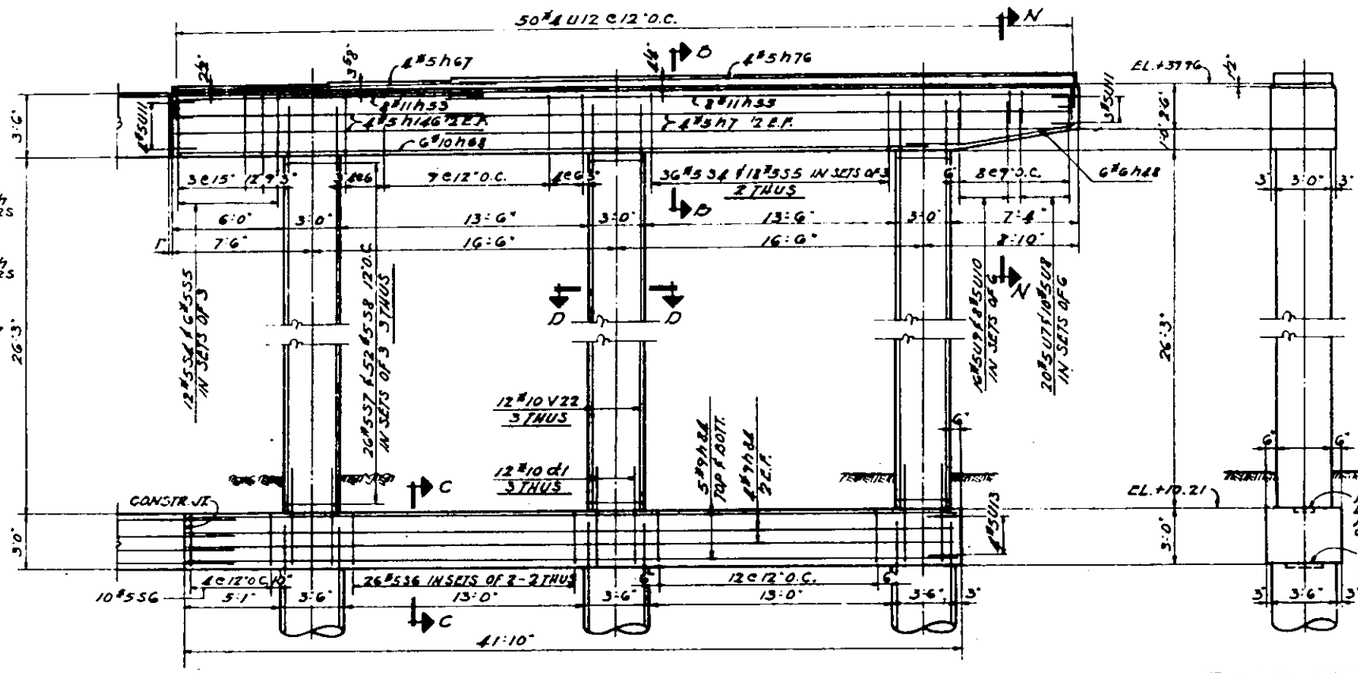
SECTION "D-D"
SCALE: 3/4"=1'0"



SECTION "P-P"
SCALE: 1/2"=1'0"

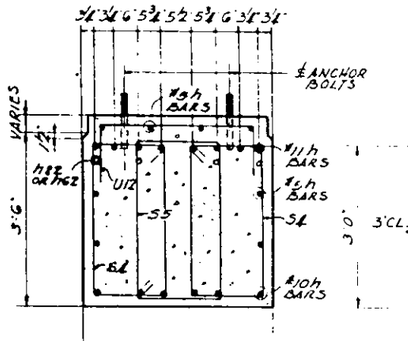


SECTION "N-N"
SCALE: 3/4"=1'0"

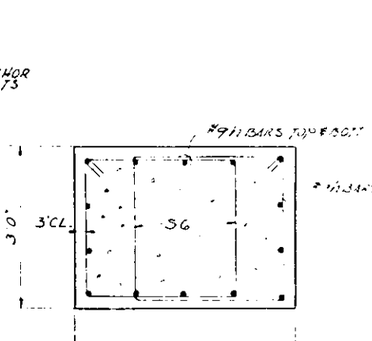


ELEVATION
SCALE: 1/4"=1'0"

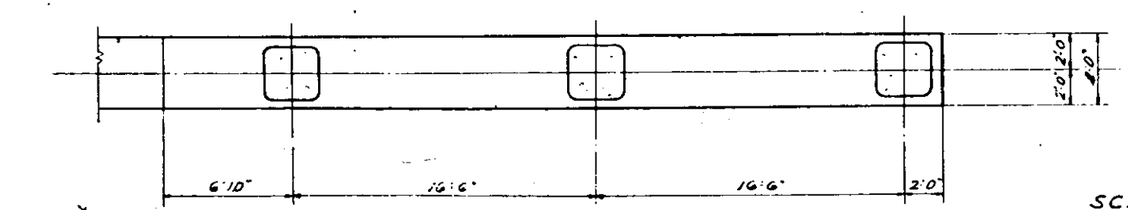
END VIEW
SCALE: 3/4"=1'0"



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



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



BOTTOM BEAM PLAN
SCALE: 1/4"=1'0"

NORTH

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "A" CONCRETE	CU YD	2122
12	REINFORCEMENT BARS	LBS	51,280

SCALES OF TRACING
1/2"=1'-0" 0 1' 2' 3' 4' 8'
3/4"=1'-0" 0 6" 1' 2' 3'

Issued for Contract Section 0505.3-1H

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
10 SOUTH [illegible] CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

PIER No. 14

SHEET NO. 100 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-1H	COOK	136	101
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		

TOP PLAN

ELEVATION
SCALE: 1/4" = 1'-0"

END VIEW

BOTTOM BEAM PLAN
SCALE: 1/4" = 1'-0"

NOTE! ALL BEAMS IN SPAN #15 ARE CONCR. I-BEAMS

NOTE! FOR SECT. "K-K", "L-L" & "Q-Q" SEE SHT. 99
FOR SECT. "B-B", "C-C", "D-D", "N-N" & "P-P" SEE SHT. 100

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD	163.2
12	REINFORCEMENT BARS	LBS	39,497

SCALE OF TRACING
1/4" = 1'-0"

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

PIER No. 15

SHEET NO. 101 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3 1H	COOK	136	102
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	

STEEL STRINGERS

PRESTRESSED CONCR. I-BEAMS

TOP PLAN

SECTION "F-F"
SECTION "T-T" OPP. HAND
SCALE: 1"=1'-0"

ELEVATION
SCALE: 1/4"=1'-0"

SECT. "E-E"
SECT. "R-R" OPP. HAND
SCALE: 1/2"=1'-0"

SECTION "H-H"
SECTION "S-S" OPP. HAND
SCALE: 1/2"=1'-0"

NOTE! FOR SECT. "K-K", "L-L", "Q-Q" SEE SHT. 99
FOR SECT. "B-B", "C-C", "D-D", "N-N" & "P-P" SEE SHT. 100

BOTTOM BEAM PLAN
SCALE: 1/4"=1'-0"

SCALES OF TRACING
1"=1'-0"
1/2"=1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	157.0
12	REINFORCEMENT BARS	LBS.	38 893

Issued for Contract Section 0505.3-1HF

ALFRED BENESCH & ASSOCIATES
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CHICAGO, ILLINOIS

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BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

PIER No. 16

SHEET NO. 102 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-2	0505.3-1H	COOK	136	103
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		

TOP PLAN

ELEVATION

SCALE : 1/4"-1'-0"

BOTTOM BEAM PLAN

SCALE : 1/4"-1'-0"

SCALE OF TRACING 1/2"-1'-0"

NOTE!
FOR SECT. 'C-C', 'D-D', 'N-N' & 'P-P' SEE SHT. 100
FOR SECT. 'B-B', 'K-K', 'L-L' & 'M-M' SEE SHT. 101

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS 'X' CONCRETE	CU. YD	140.5
12	REINFORCEMENT BARS	LBS.	34,329

ALFRED BENESCH & ASSOCIATES
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NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

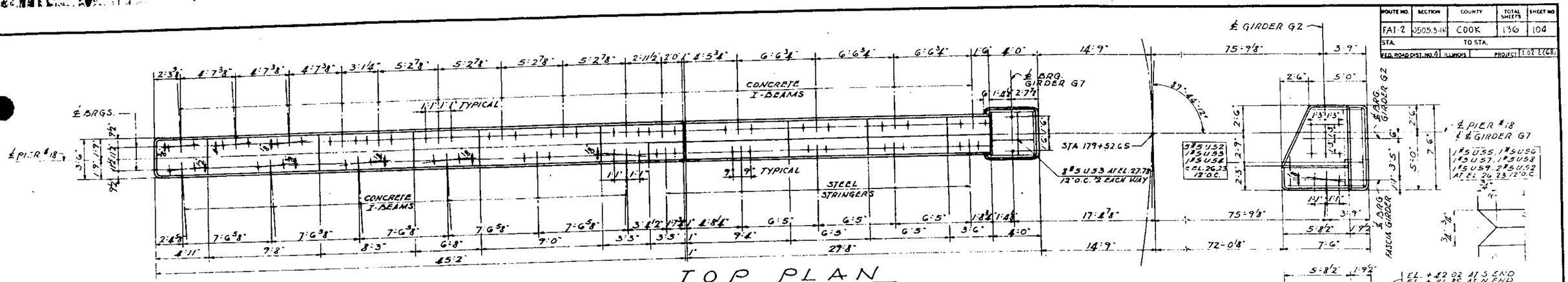
SECTION 0505.3-1H

PIER No. 17

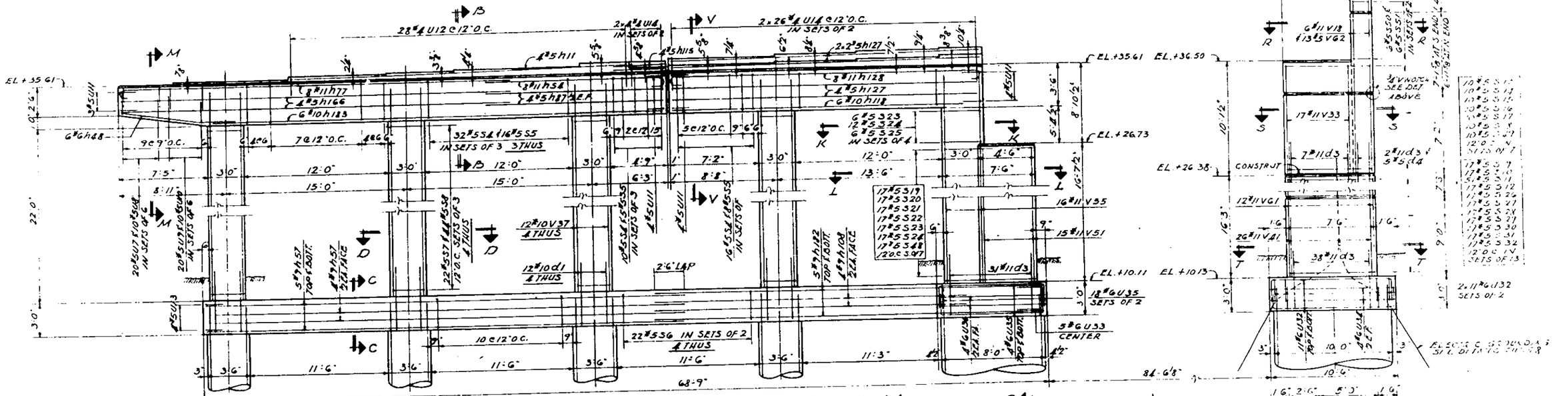
SHEET NO. 103 OF 136 SHEETS . DATE:

Issued for contract letting on 0505.3-1HF

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-2	0505.3-1H	COOK	136	104
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	I 02 2(268)	

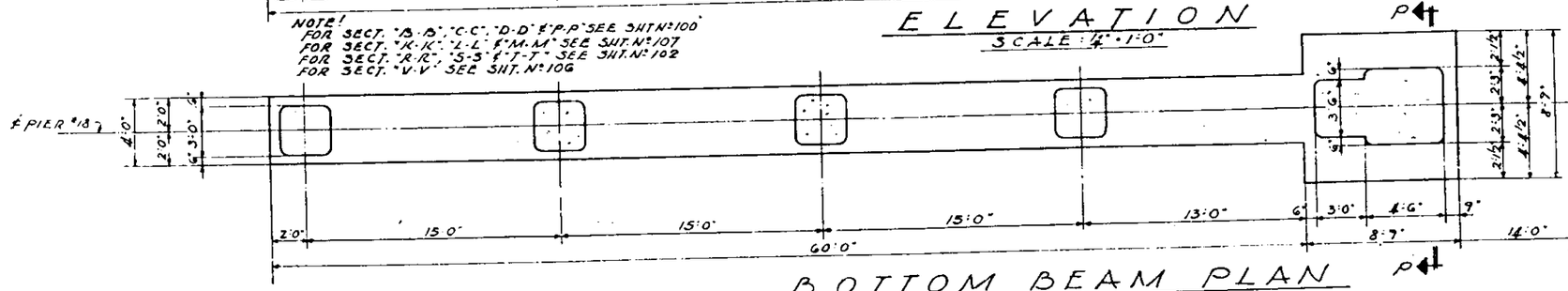


TOP PLAN



ELEVATION
SCALE: 4" = 1'-0"

NOTE!
FOR SECT. "B-B", "C-C", "D-D" & "P-P" SEE SHT. N° 100
FOR SECT. "K-K", "L-L" & "M-M" SEE SHT. N° 107
FOR SECT. "R-R", "S-S" & "T-T" SEE SHT. N° 102
FOR SECT. "V-V" SEE SHT. N° 106



BOTTOM BEAM PLAN
SCALE: 4" = 1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	175.0
12	REINFORCEMENT BARS	LBS.	40,881

NORTH

Issued for Contract Section 0505.3-1HF

SCALE OF TRACING
1/4" = 1'-0"
0 1 2 3 4' 8'

ALFRED BENESCH & ASSOCIATES
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CHICAGO, ILLINOIS

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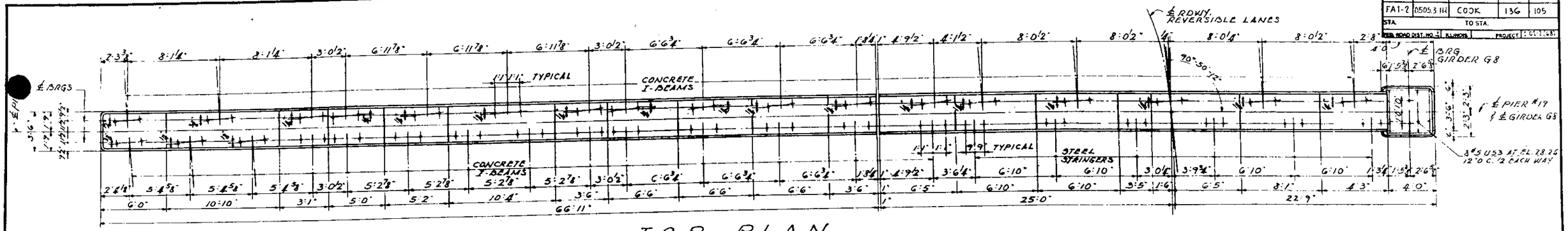
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

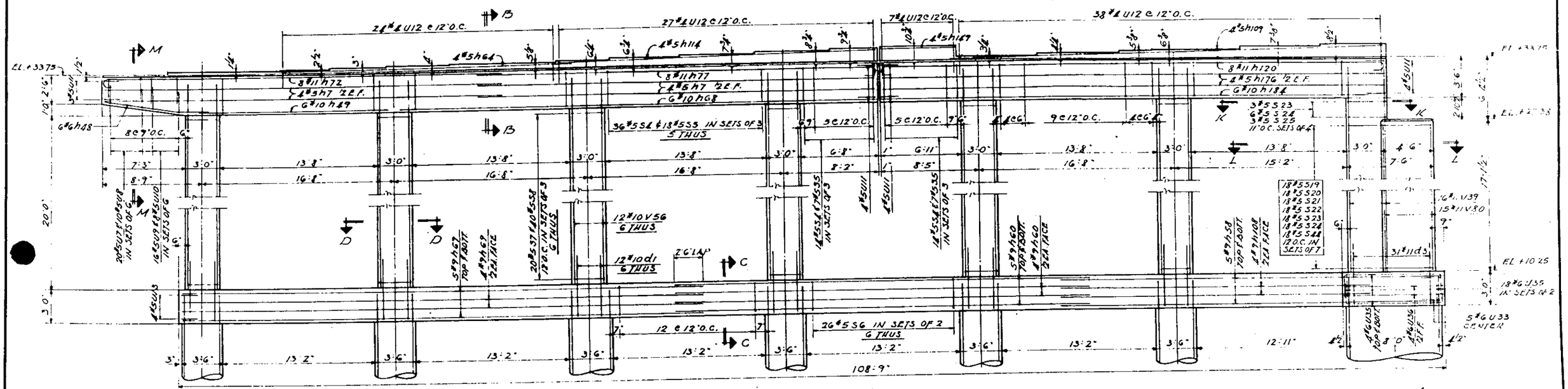
PIER No. 18

SHEET NO. 104 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA1-2	0505.3 IH	COOK	136	105
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



TOP PLAN



NOTE!
FOR SECT. 'B-B' 'C-C' 'D-D' & 'P-P' SEE SHT. No. 100
FOR SECT. 'K-K' 'L-L' & 'M-M' SEE SHT. No. 107

ELEVATION
SCALE: 4" = 1'-0"

BOTTOM BEAM PLAN
SCALE: 4" = 1'-0"

NORTH

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS 'X' CONCRETE	CU. YD	168.8
12	REINFORCEMENT BARS	LBS.	39,699

Issued for Contract Section 0505.3-IHF

SCALE OF TRACING
4" = 1'-0"
0 1' 2' 3' 4' 8'

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CHICAGO, ILLINOIS

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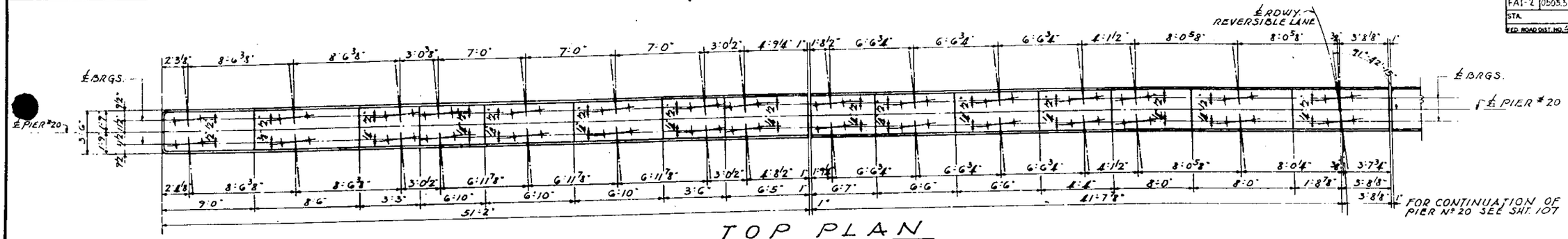
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-IH

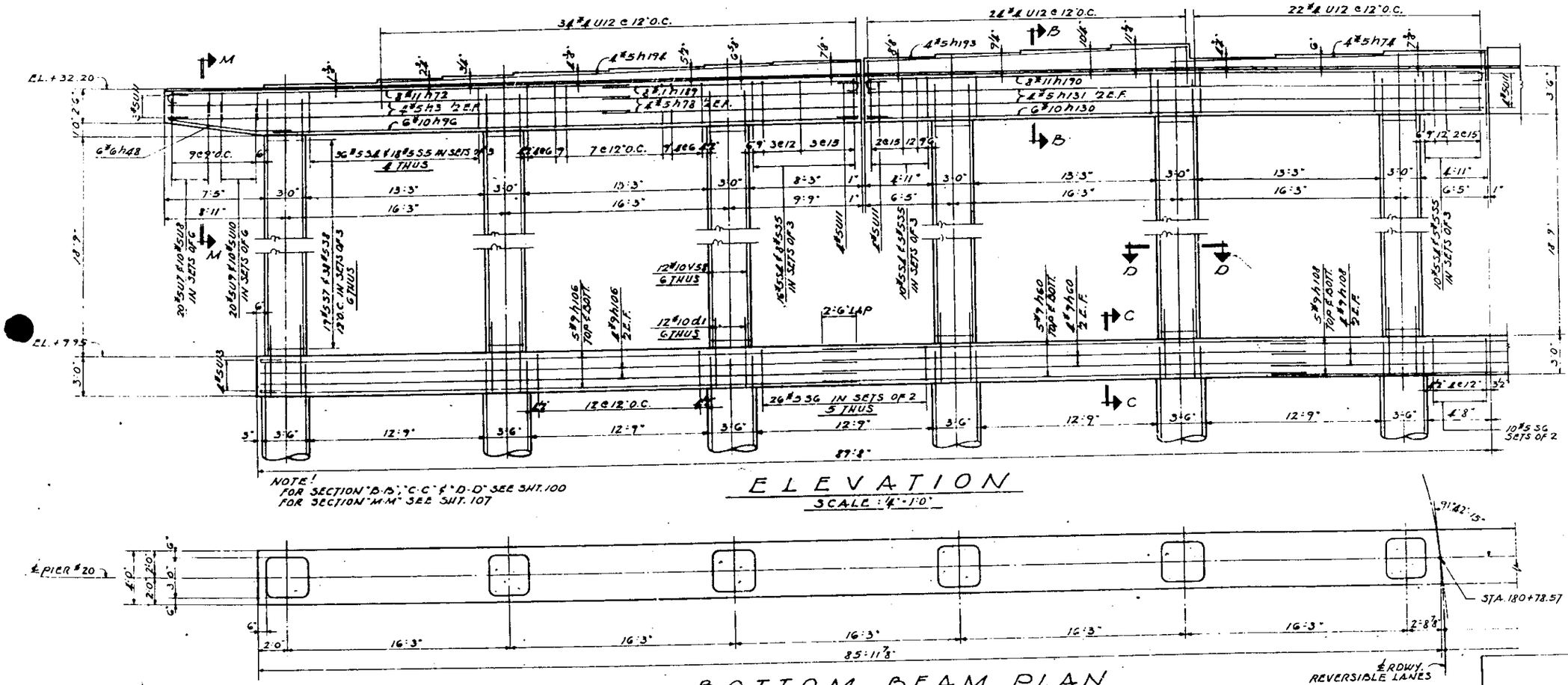
PIER No. 19

SHEET NO. 105 OF 136 SHEETS DATE:

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-2	0505.3-1H	COOK	136	106
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	1.02.2768	

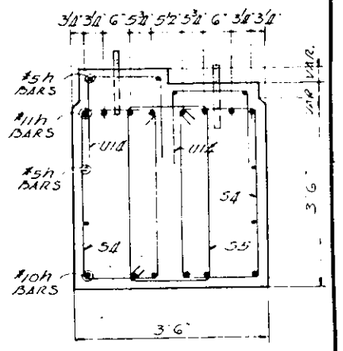


TOP PLAN



ELEVATION
SCALE: 1/4"=1'-0"

BOTTOM BEAM PLAN
SCALE: 1/4"=1'-0"



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

NORTH

Issued for Contract Section 0505.3-1HF

SCALES OF TRACING
3/4"=1'-0"
1/4"=1'-0"

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CONSULTING ENGINEERS

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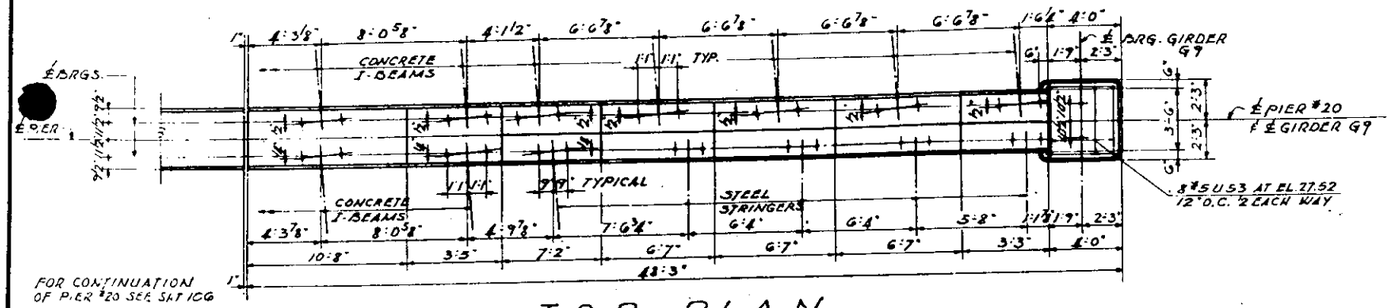
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

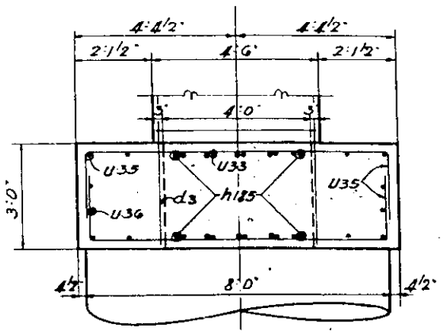
PIER No. 20

SHEET NO. 106 OF 136 SHEETS DATE:

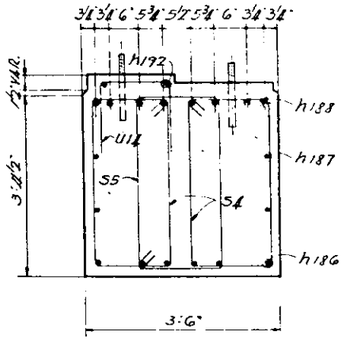
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FA1-2	0505.3-1H	COOK	136	107
STA.		TO STA.		
FED. ROAD DIST. NO. 5	ILLINOIS	PROJECT	FAP 216(5)	



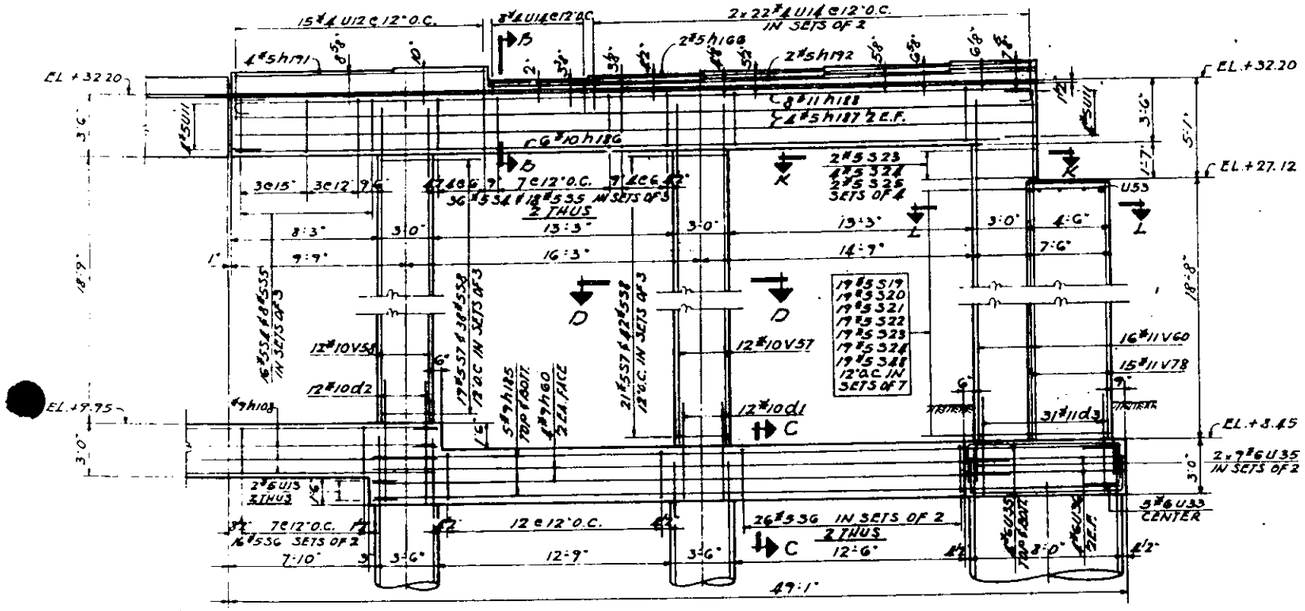
TOP PLAN



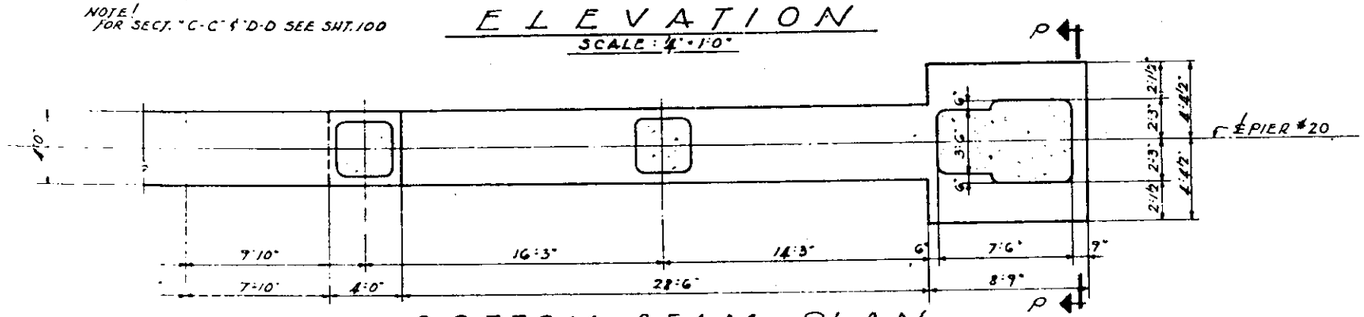
SECTION "P-P"
SCALE: ½"=1'-0"



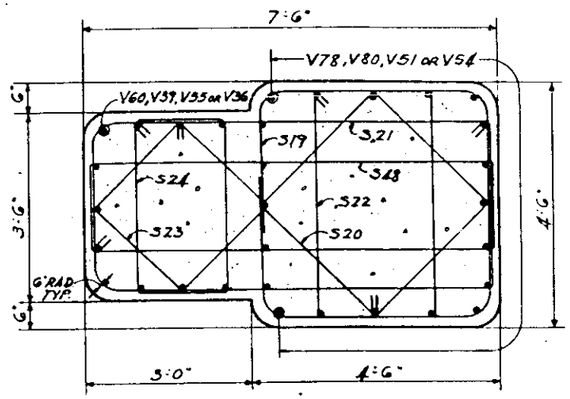
SECTION "B-B"
SCALE: ¾"=1'-0"



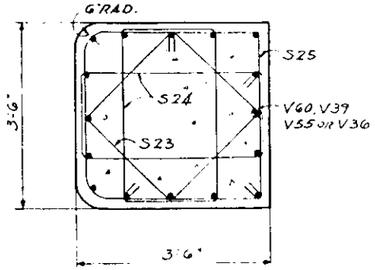
ELEVATION
SCALE: ¼"=1'-0"



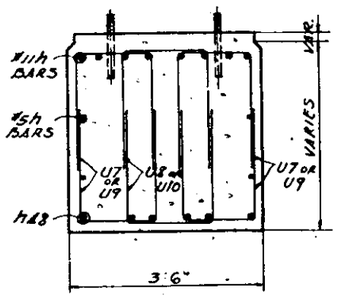
BOTTOM BEAM PLAN
SCALE: ¼"=1'-0"



SECTION "L-L"
SCALE: ¾"=1'-0"



SECTION "K-K"
SCALE: ¾"=1'-0"



SECTION "M-M"
SCALE: ¾"=1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	212.0
12	REINFORCEMENT BARS	LBS.	49,534

SCALES OF TRACING
¼"=1'-0"
¾"=1'-0"

Issued for Contract: Section 0505.3-1HF

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

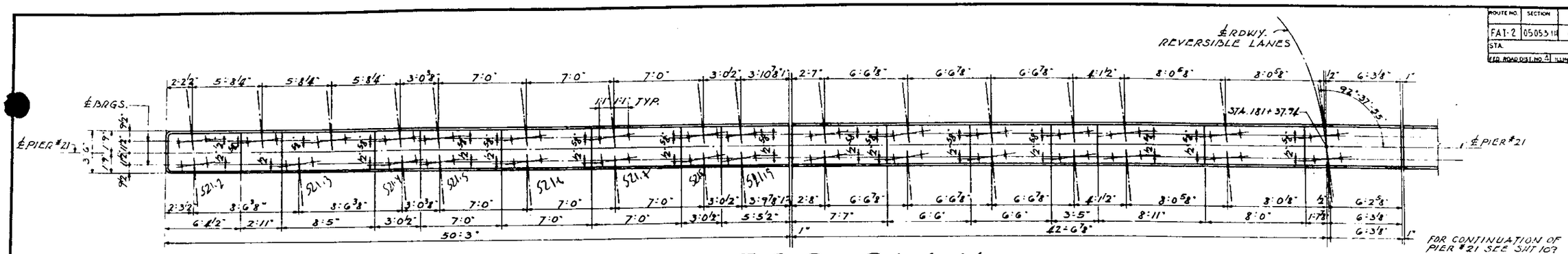
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

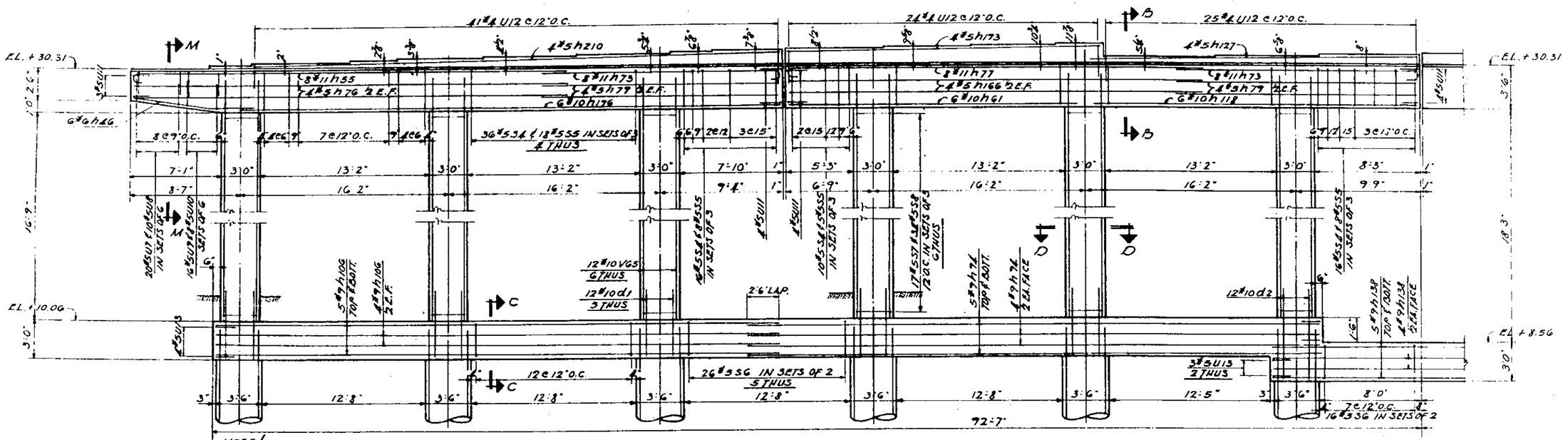
PIER No. 20

SHEET NO. 107 OF 136 SHEETS DATE:

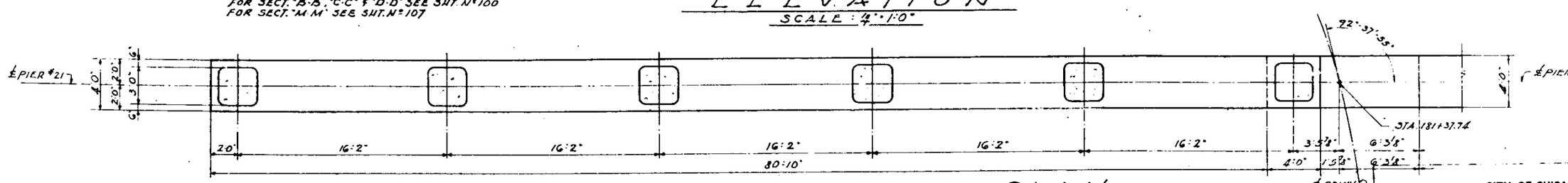
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3 H	COOK	136	108
STA.	TO STA.			
FED. ROAD DIST. NO. 2	ILLINOIS	PROJECT	I 90 (2/68)	



TOP PLAN



ELEVATION
SCALE : 4" = 1'-0"



BOTTOM BEAM PLAN
SCALE : 4" = 1'-0"

NORTH

Issued for Contract Section 0505.3-IHF

SCALE OF TRACING
4" = 1'-0"
0 1' 2' 3' 4' 8'

ALFRED BENESCH & ASSOCIATES
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CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
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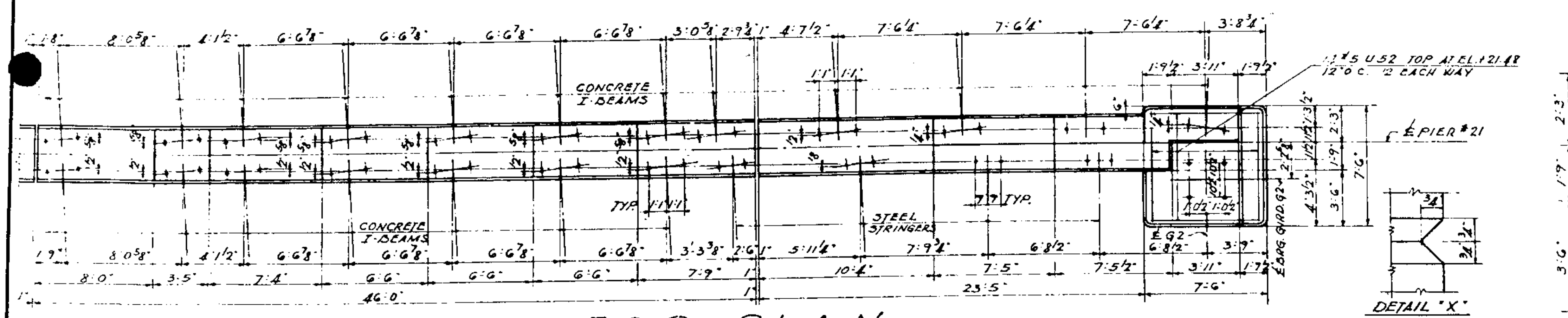
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-IH

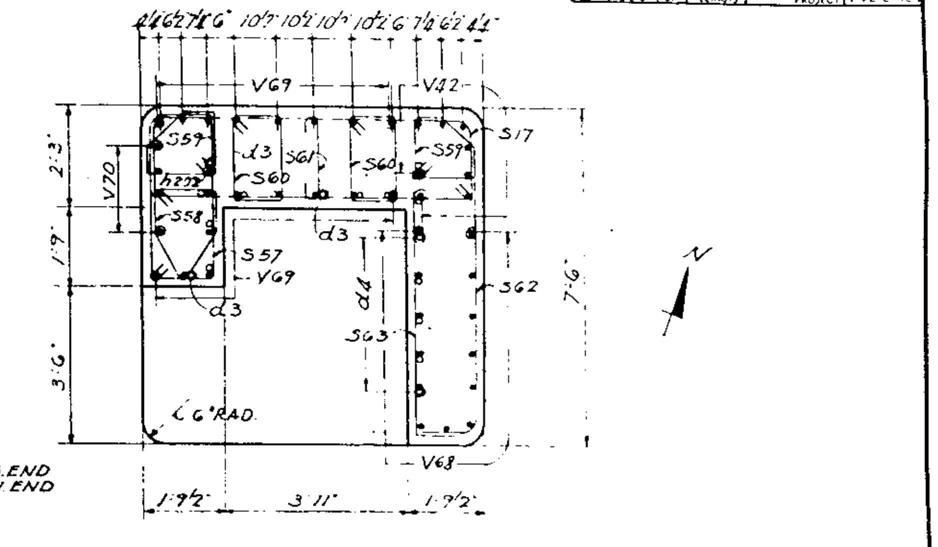
PIER No. 21

SHEET NO. 108 OF 136 SHEETS DATE:

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-1H	COOK	136	109

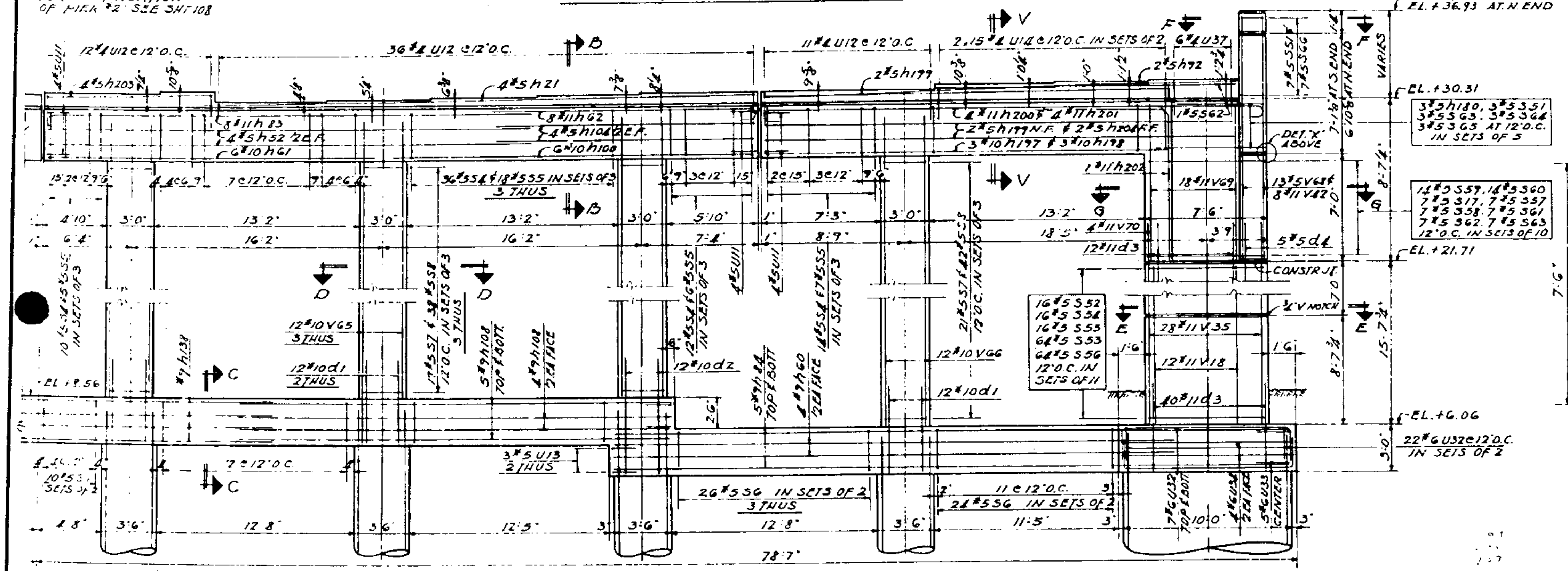


TOP PLAN



SECTION "G-G"

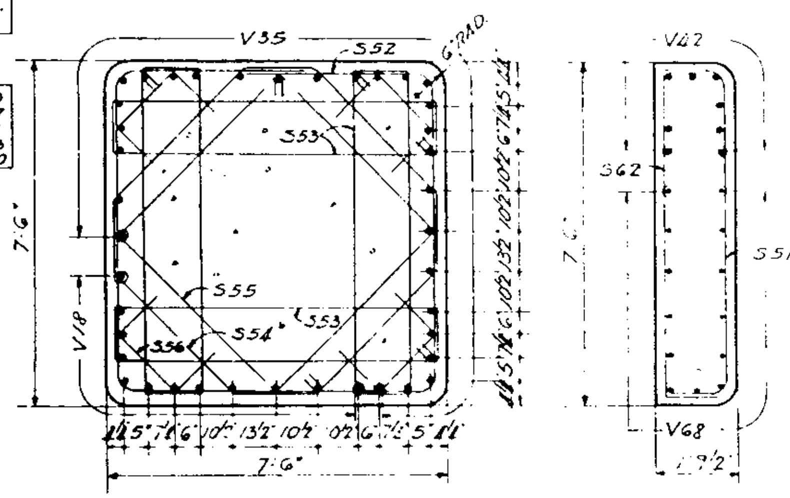
SCALE: ½"-1'0"



NOTE!
FOR SECT. "B-B", "C-C" & "D-D" SEE SHT. 100
FOR SECT. "R-R" SEE SHT. 98
FOR SECT. "V-V" SEE SHT. 106

ELEVATION

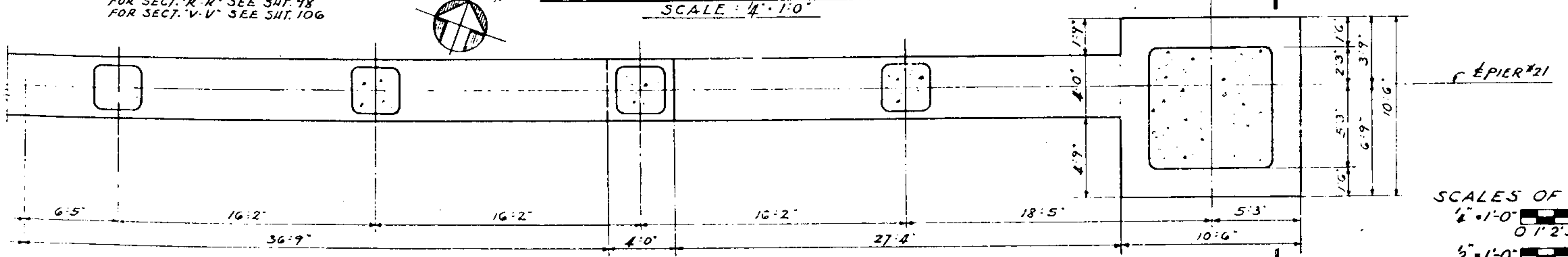
SCALE: ¼"-1'0"



SECTION "E-E"

SCALE: ½"-1'0"

SECTION "F-F"



BOTTOM BEAM PLAN

SCALE: ¼"-1'0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	277.2
12	REINFORCEMENT BARS	LBS.	63,480

Issued for Contract Section 0505.3-1HF

SCALES OF TRACING

¼"=1'-0"

½"=1'-0"

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.

CONSULTING ENGINEERS
CHICAGO, ILLINOIS

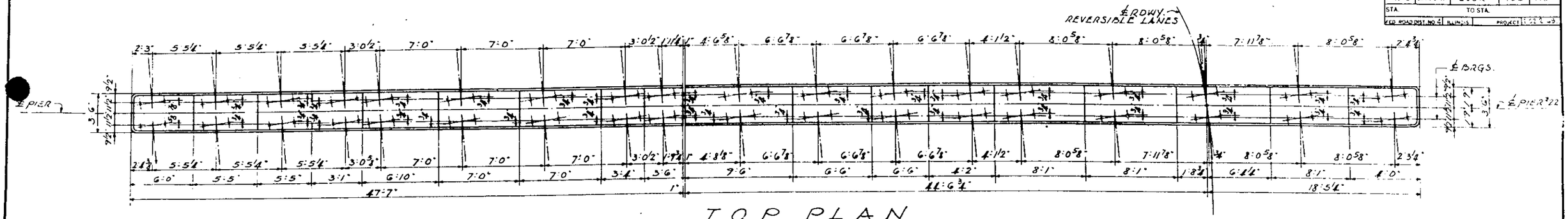
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

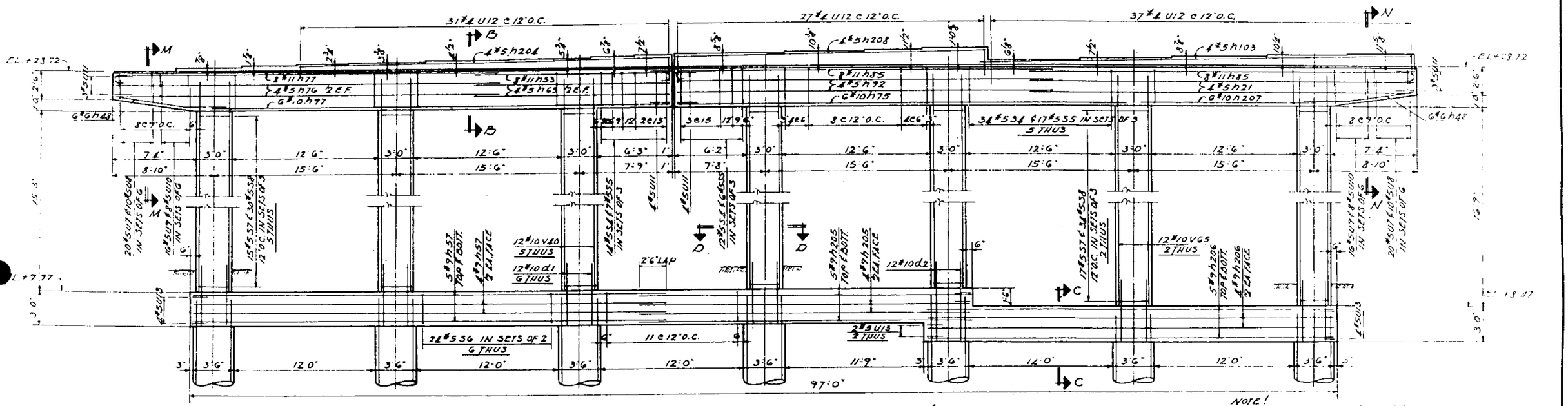
PIER No. 21

SHEET NO. 109 OF 136 SHEETS DATE:

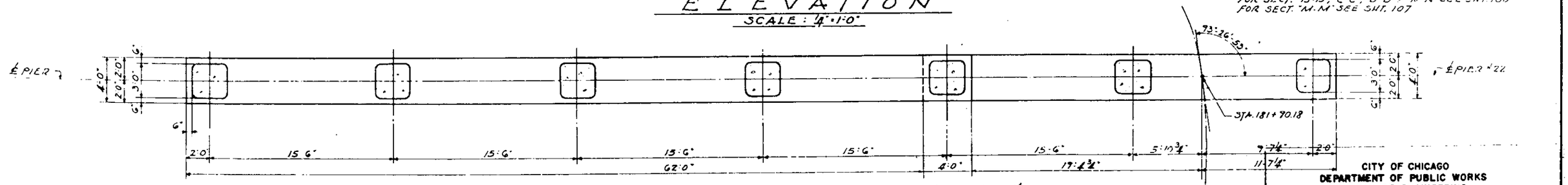
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-1H	COOK	136	110
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT		



TOP PLAN



ELEVATION
SCALE: 4"=1'-0"



BOTTOM BEAM PLAN
SCALE: 4"=1'-0"

NOTE!
FOR SECT. "B-B", "C-C", "D-D", "E-E", "M-M", "N-N" SEE SHT. 100
FOR SECT. "M-M" SEE SHT. 107

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD.	136.5
12	REINFORCEMENT BARS	LBS.	31,793

NORTH

SCALE OF TRACING
4"=1'-0"
0 1 2 3 4 8'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

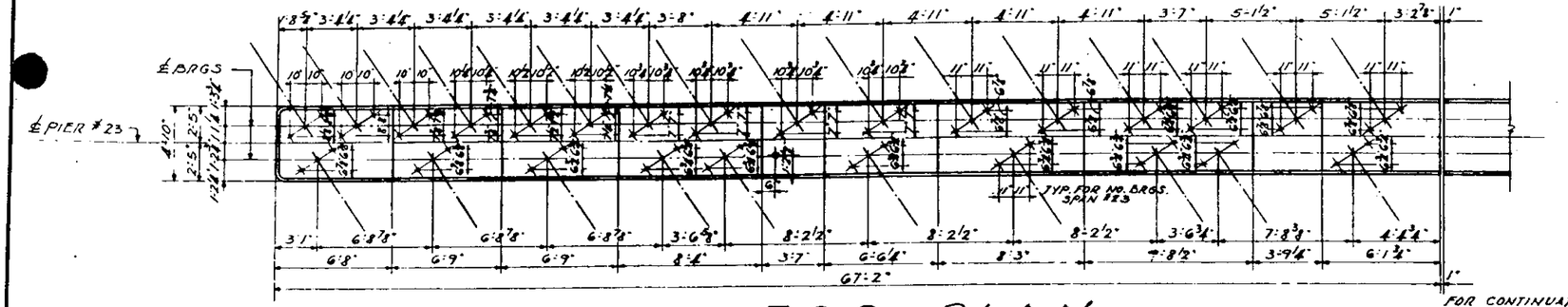
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

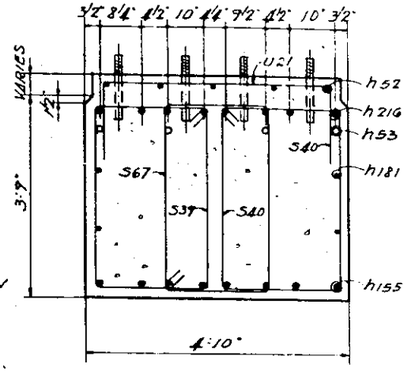
PIER No: 22

SHEET NO. 110 OF 136 SHEETS DATE:

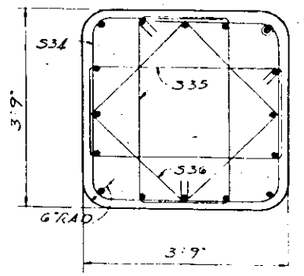
FED. ROAD DIST. NO. 8	ILLINOIS	PROJECT F 02 2(48)	
STA.	TO STA.		
FAI 2	0505.3 IH	COOK	136	111
FED. ROAD DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.



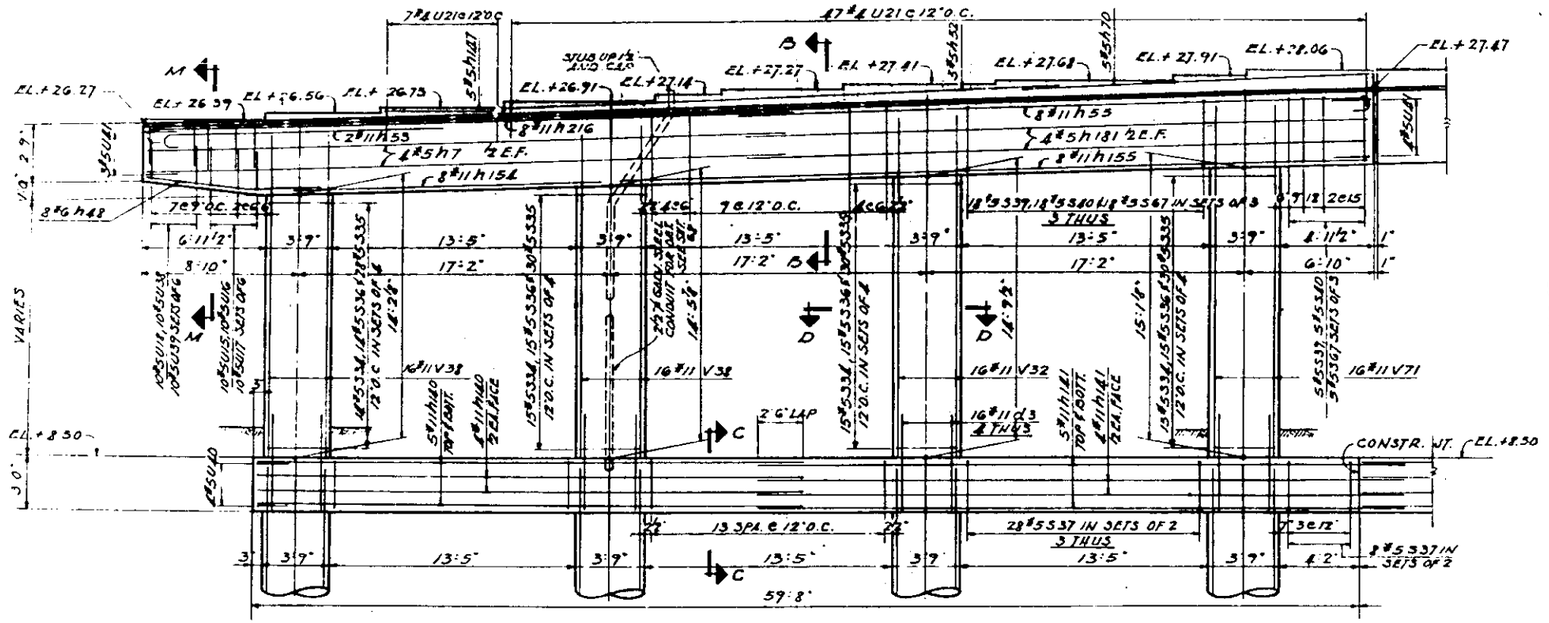
TOP PLAN



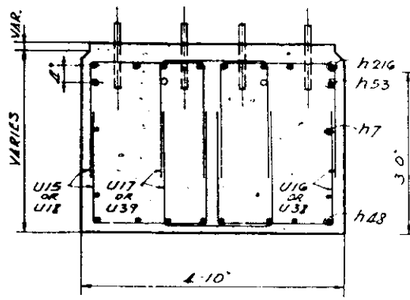
SECTION "B-B"
SCALE: 3/4"=1'-0"



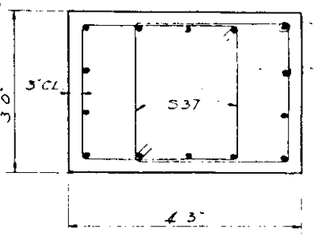
SECTION "D-D"
SCALE: 3/4"=1'-0"



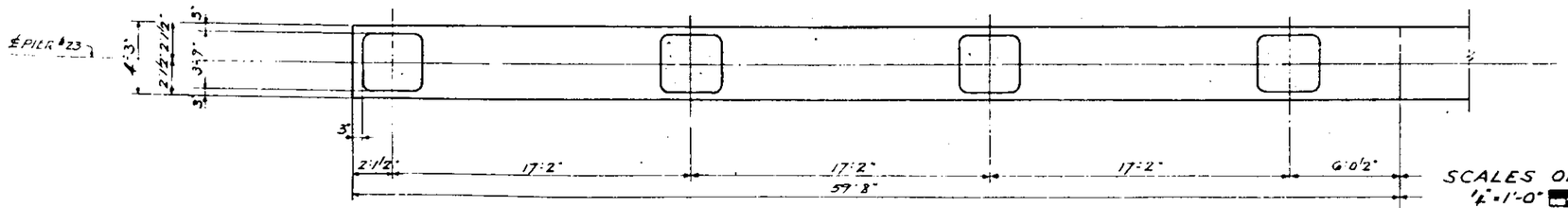
ELEVATION
SCALE: 1/4"=1'-0"



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



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



BOTTOM BEAM PLAN
SCALE: 1/4"=1'-0"

NORTH

SCALES OF TRACING
1/4"=1'-0"
3/4"=1'-0"

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

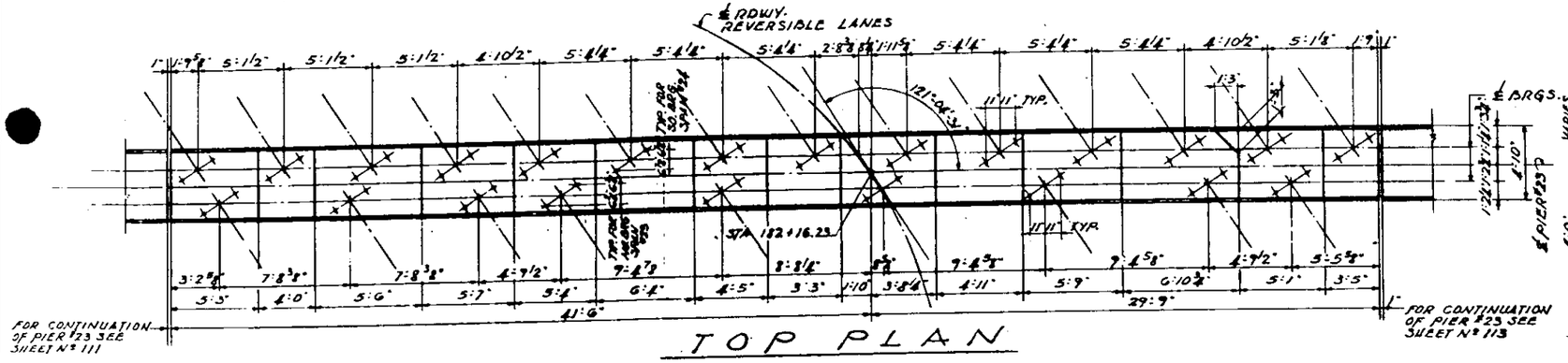
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-IH

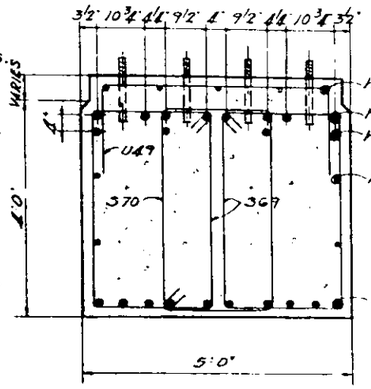
PIER No. 23

SHEET NO. 111 OF 136 SHEETS DATE

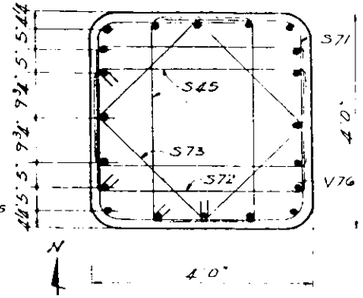
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA1-2	05053-1H	COOK	136	112
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS		PROJECT	



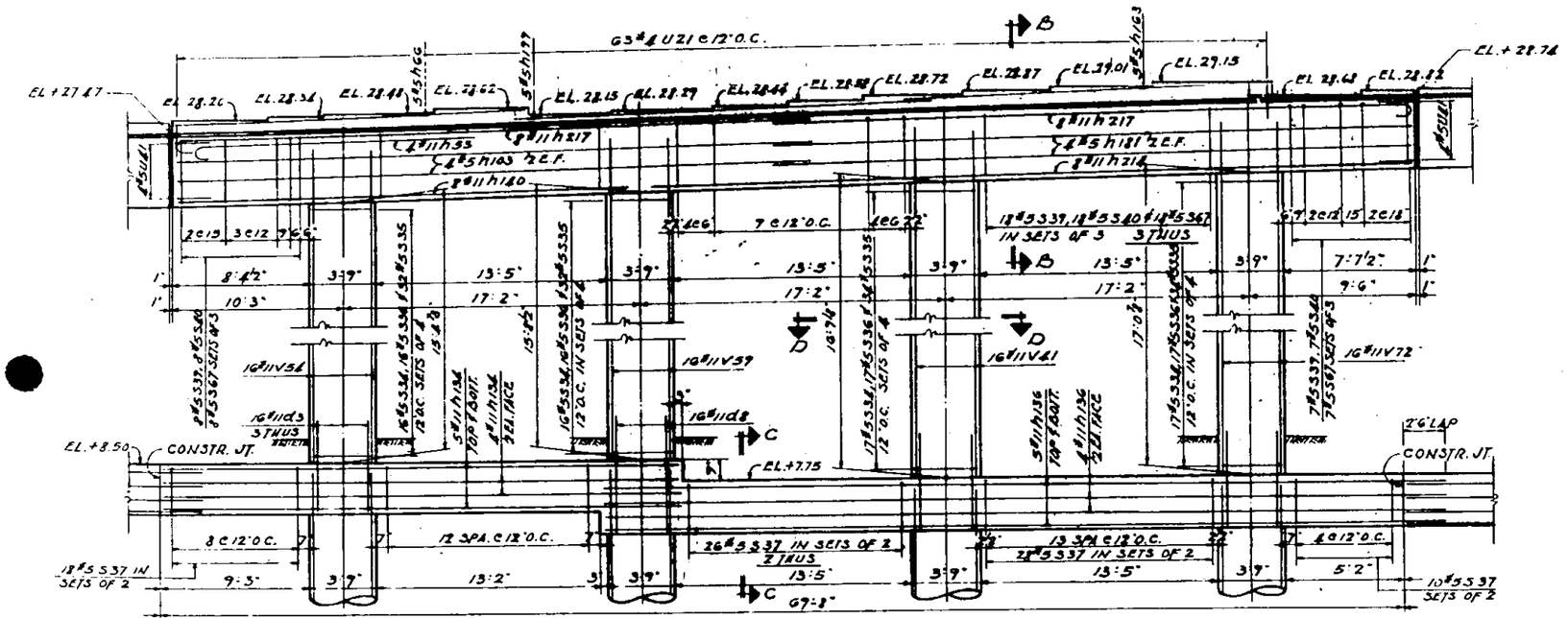
TOP PLAN



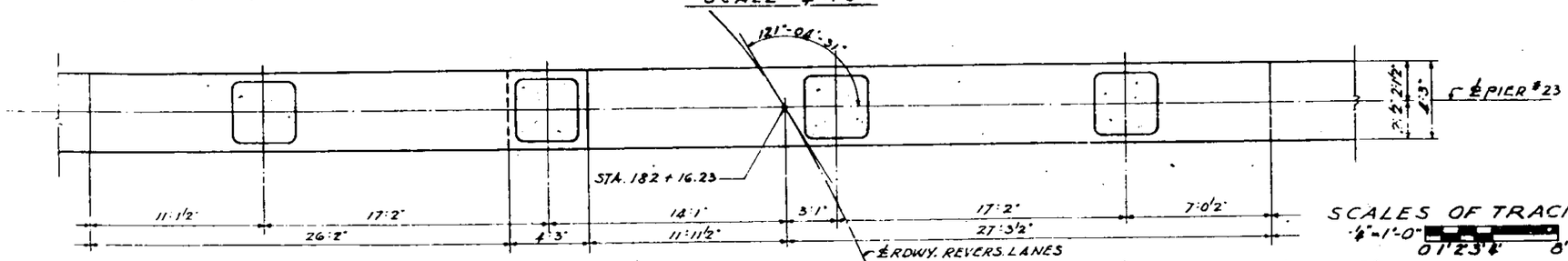
SECTION "B-B"
SCALE: 3/4"-1'-0"



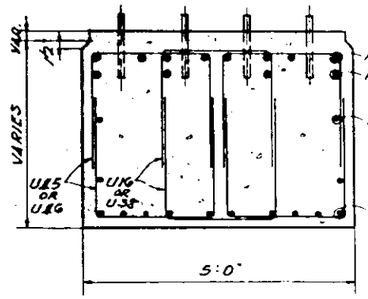
SECTION "D-D"
SCALE: 3/4"-1'-0"



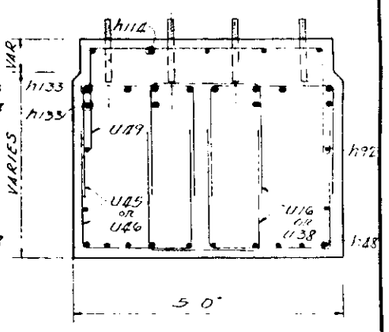
ELEVATION
SCALE: 1/4"-1'-0"



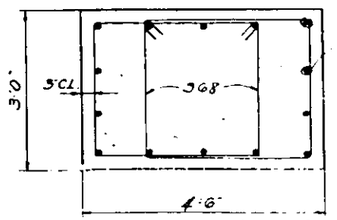
BOTTOM BEAM PLAN
SCALE: 1/4"-1'-0"



SECTION "M-M"
SCALE: 3/4"-1'-0"



SECTION "N-N"
SCALE: 3/4"-1'-0"



SECTION "C-C"
SCALE: 3/4"-1'-0"

SCALES OF TRACING
1/4"=1'-0"
3/8"=1'-0"

ALFRED BENEDICK & ASSOCIATES
10 SOUTH WABASH AVE. CHICAGO, ILLINOIS
CONSULTING ENGINEERS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

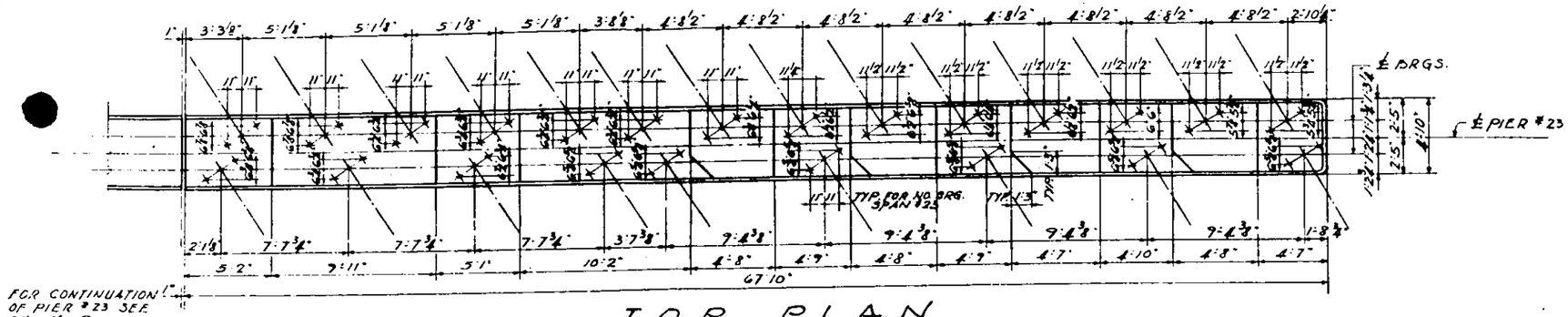
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0506.3-1H

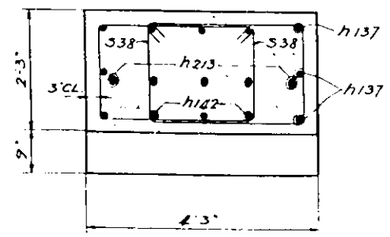
PIER No. 23

SHEET NO. 112 OF 136 SHEETS DATE:

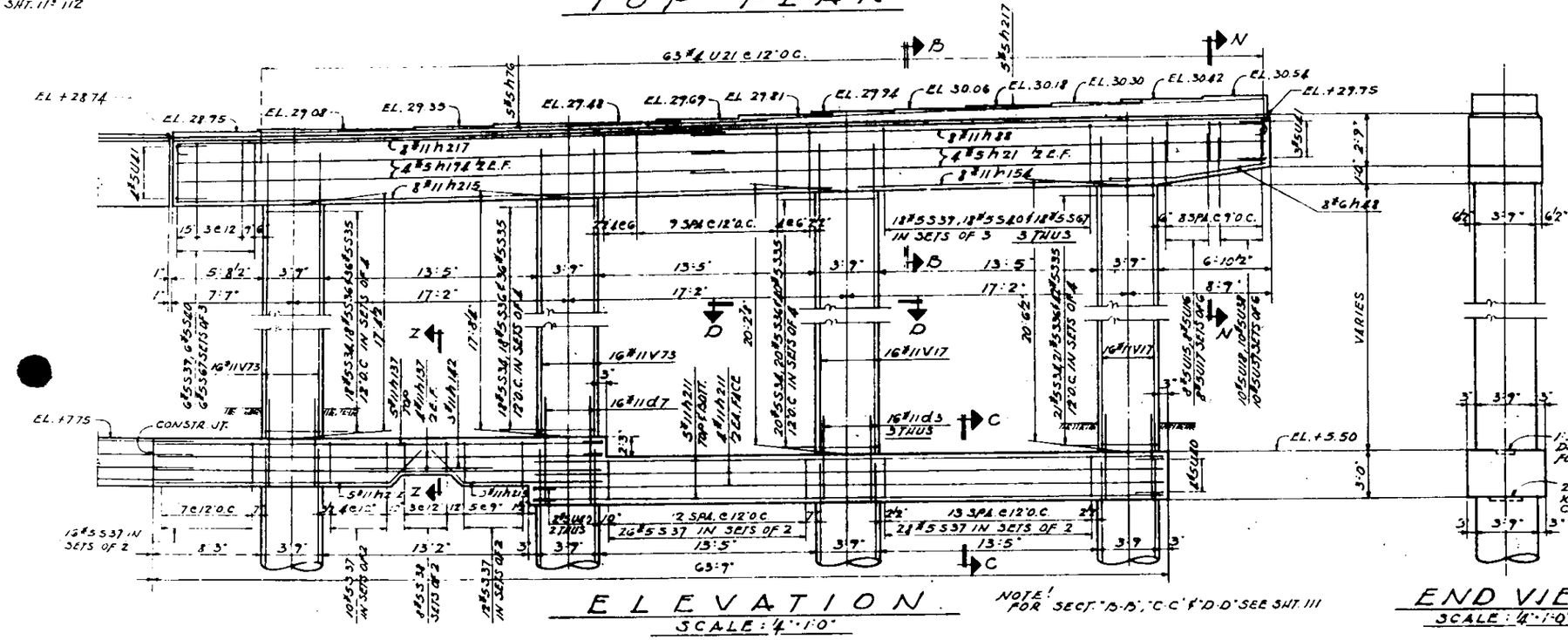
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 2	0505.3 IH	COOK	136	113
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT		



TOP PLAN



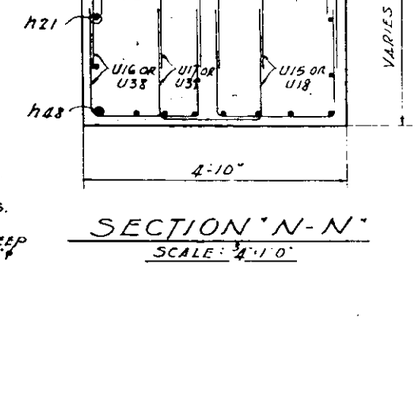
SECTION "Z-Z"
SCALE: 1/4"-1'-0"



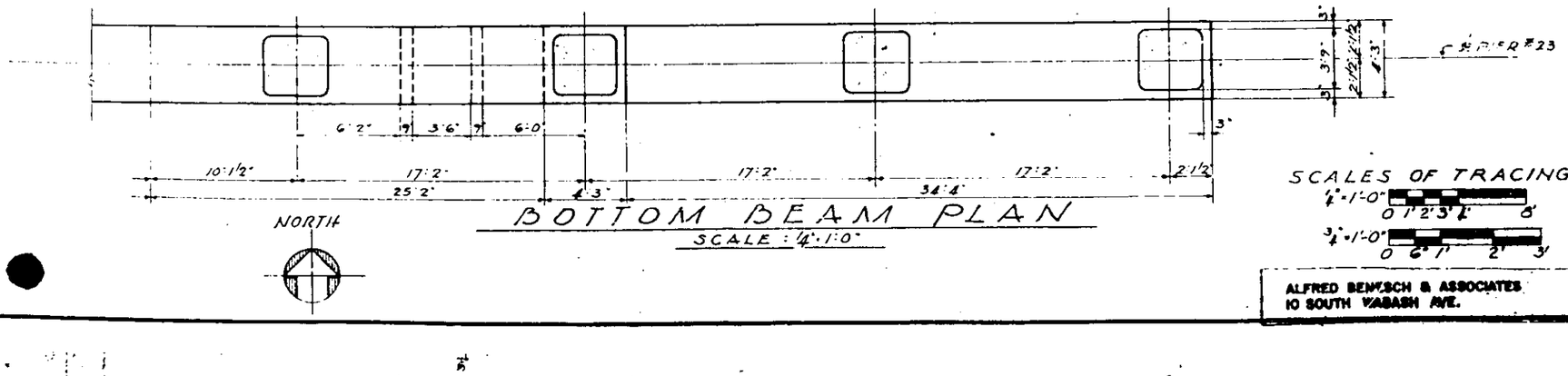
ELEVATION
SCALE: 1/4"-1'-0"

NOTE! FOR SECT. "B-B", "C-C" & "D-D" SEE SHT. 111

END VIEW
SCALE: 1/4"-1'-0"



SECTION "N-N"
SCALE: 1/4"-1'-0"



BOTTOM BEAM PLAN
SCALE: 1/4"-1'-0"

SCALES OF TRACING
1/4"-1'-0" 0 1' 2' 3' 4' 8'
3/4"-1'-0" 0 6" 1' 2' 3'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

BILL OF MATERIAL

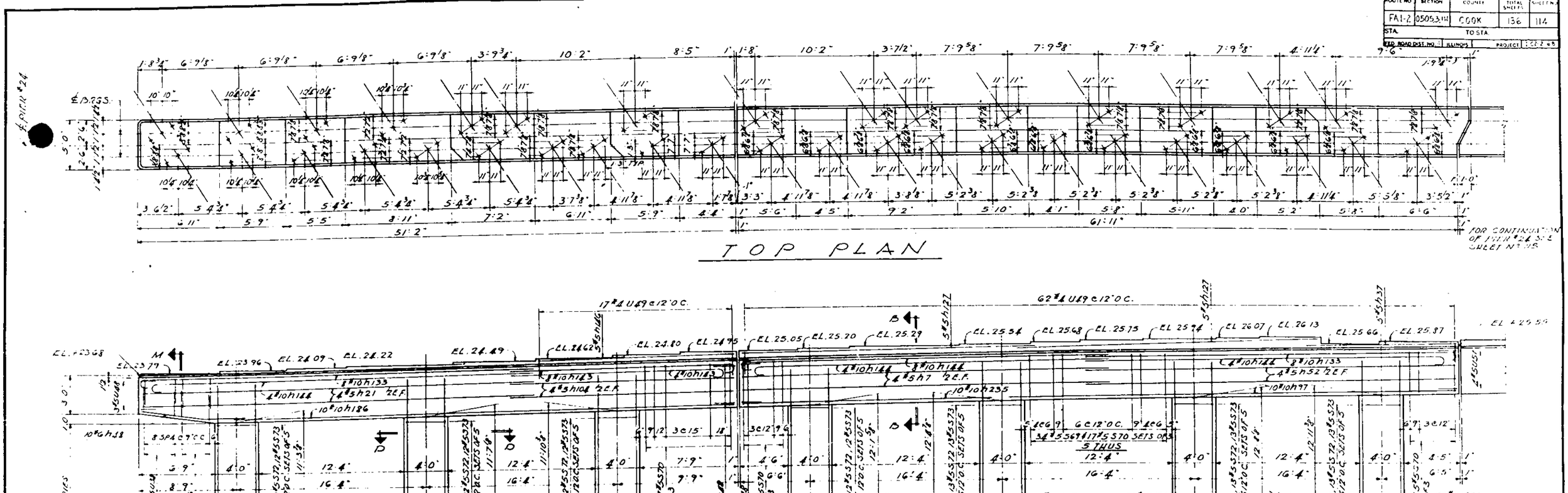
ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD	346.4
12	REINFORCEMENT BARS	LBS.	86,038

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-IH

PIER No. 23

SHEET NO. 113 OF 136 SHEETS DATE:

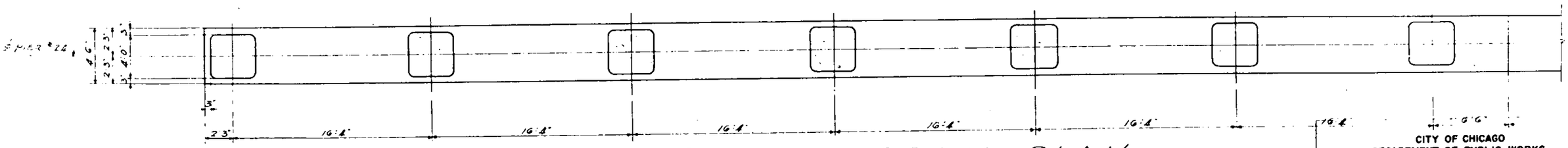
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-2	0505.3-1H	COOK	136	114
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



TOP PLAN

NOTE!
FOR SECT. 'B-B', 'C-C', 'D-D' & 'M-M' SEE SHT. No. 112

ELEVATION
SCALE: 1/4" = 1'-0"



BOTTOM BEAM PLAN
SCALE: 1/4" = 1'-0"

NORTH

SCALE OF TRACING
1/4" = 1'-0"
0 1' 2' 3' 4' 8'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

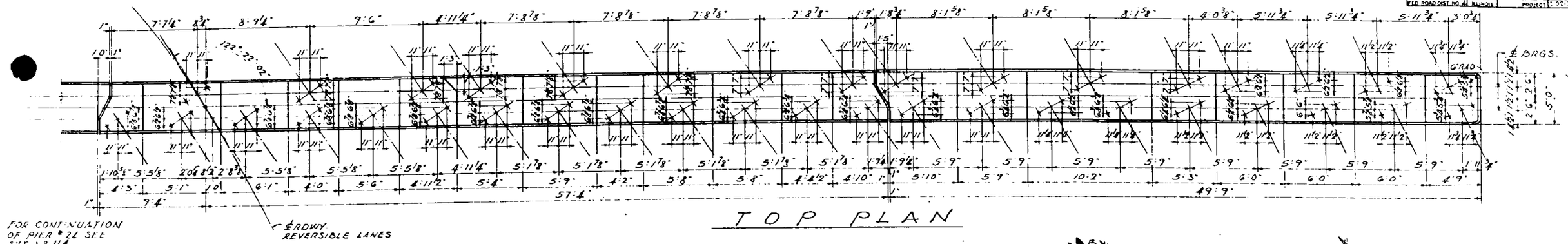
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0505.3-1H

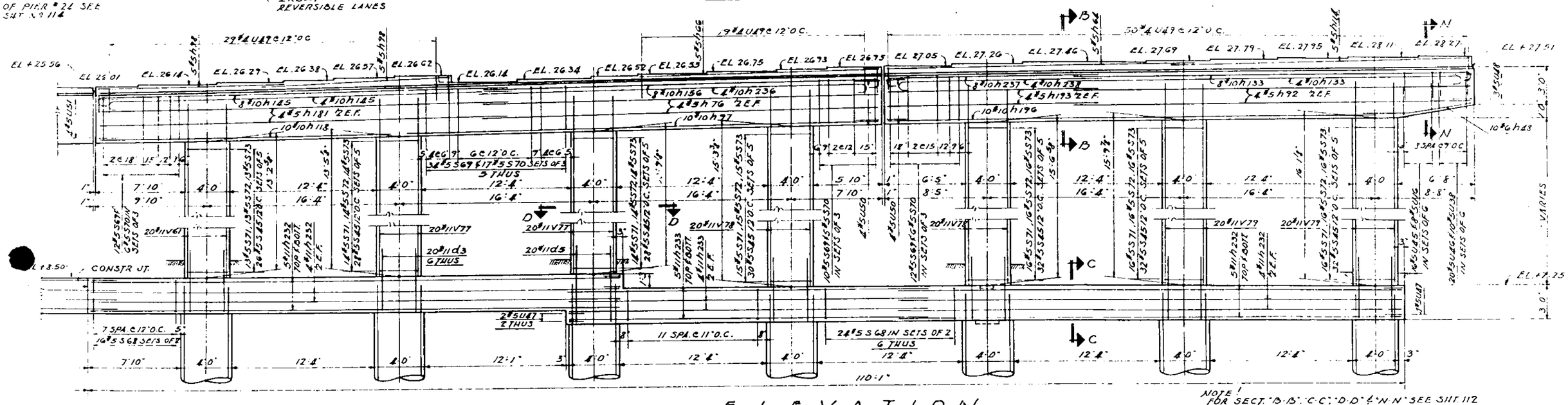
PIER No. 24

SHEET NO. 114 OF 136 SHEETS DATE:

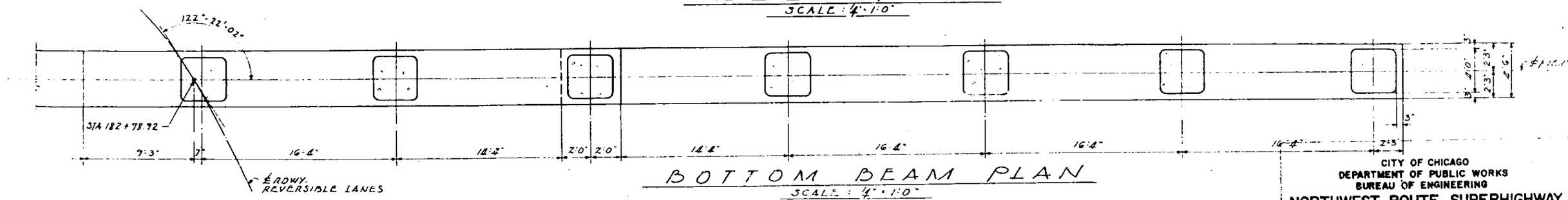
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI 2	0506.3-H	COOK	136	115
STA.	TO STA.			
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT	98-2(68)	



TOP PLAN



ELEVATION
SCALE: 4" = 1'-0"



BOTTOM BEAM PLAN
SCALE: 4" = 1'-0"

BILL OF MATERIAL

ITEM	DESCRIPTION	UNIT	QUANTITY
11	CLASS "X" CONCRETE	CU. YD	405.9
12	REINFORCEMENT BARS	LBS.	102,812

NORTH

SCALE OF TRACING
4" = 1'-0"
0 1' 2' 3' 4' 8'

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

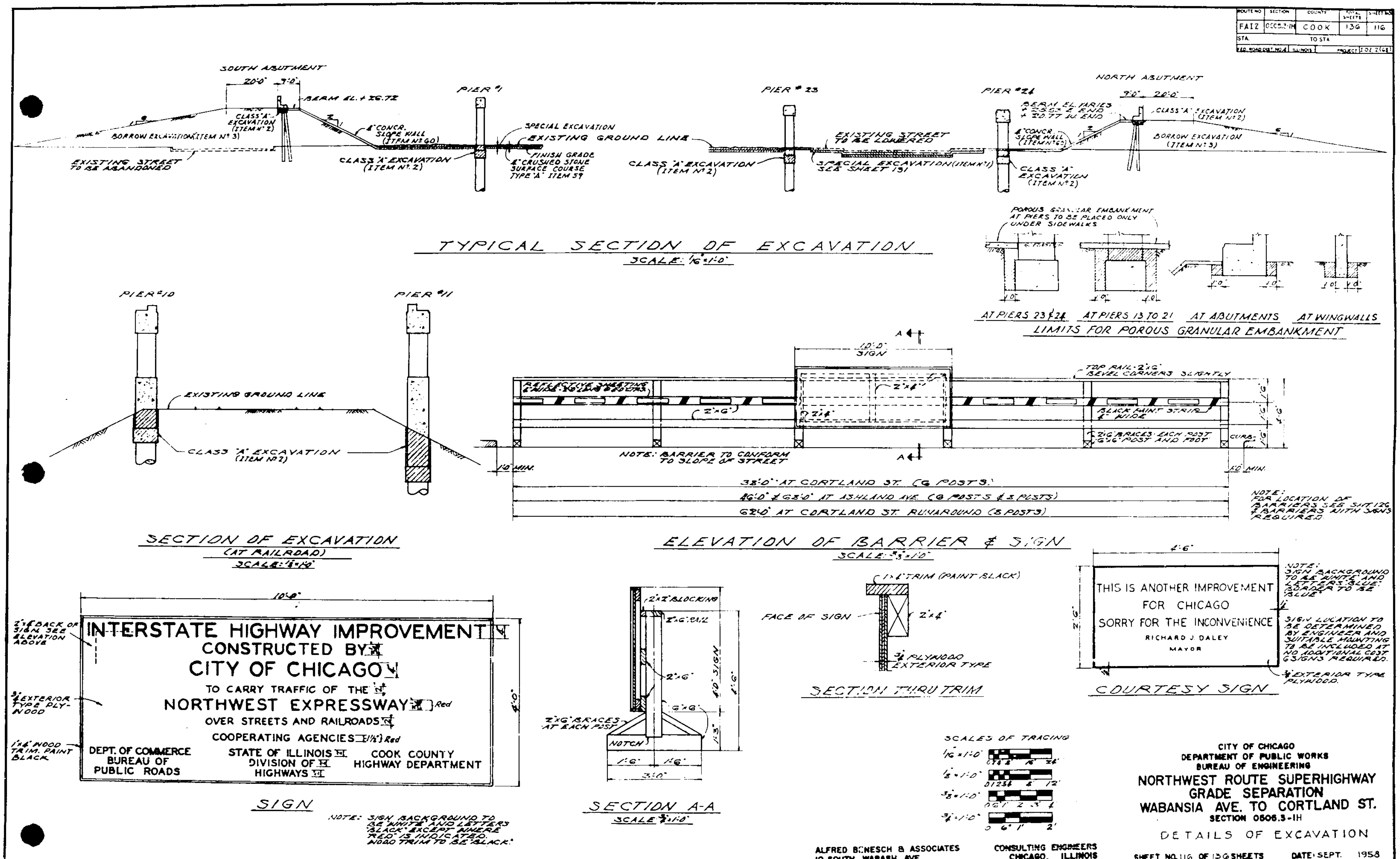
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

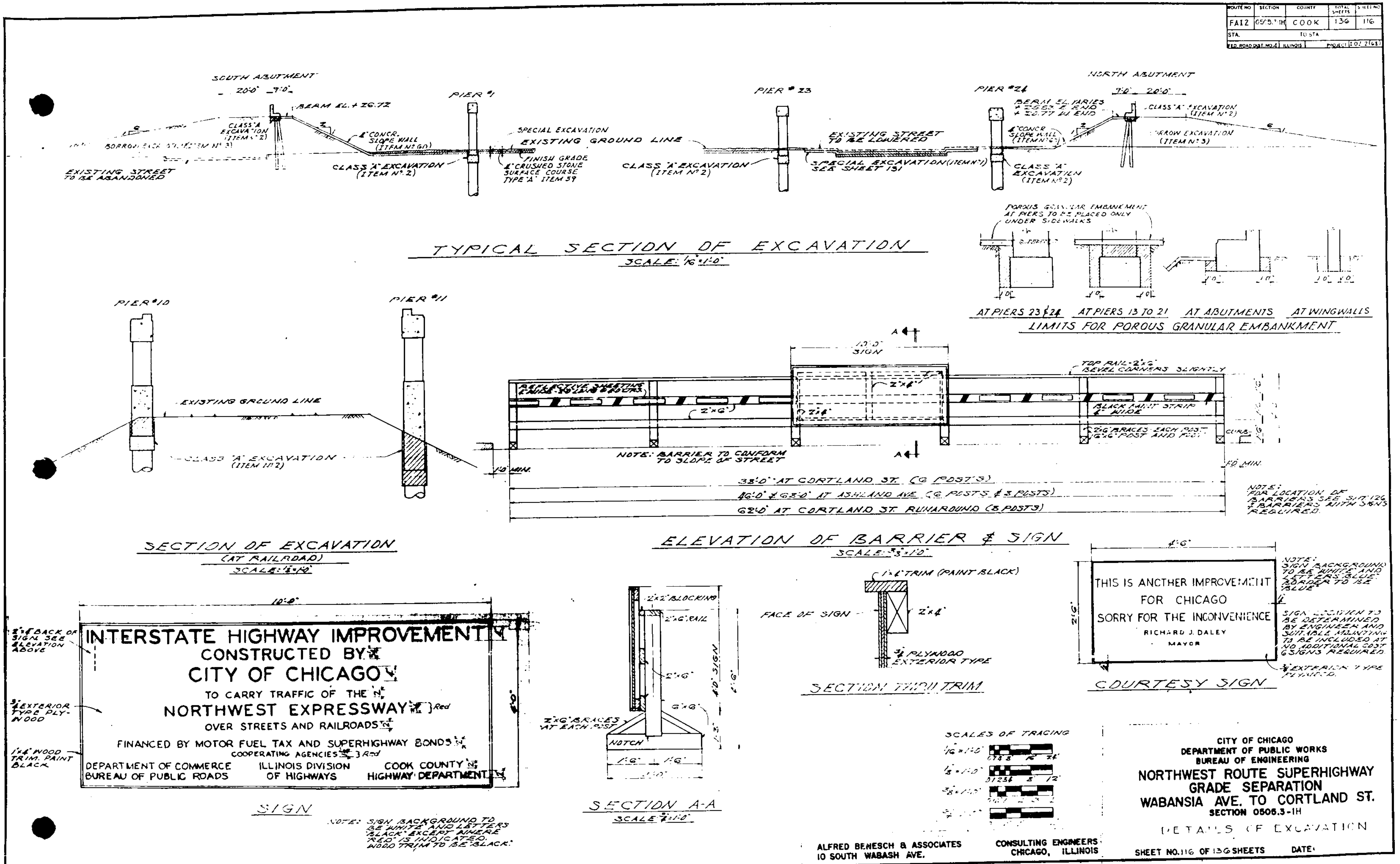
NORTHWEST ROUTE SUPERHIGHWAY GRADE SEPARATION WABANSIA AVE. TO CORTLAND ST.

SECTION 0506.3-1H

PIER No. 24

SHEET NO. 115 OF 136 SHEETS DATE:


FAIZ
COOK
136
116
SOUTH ABUTMENT
BERM EL. + 26.72
CLASS "A" EXCAVATION (ITEM N° 2)
BORROW EXCAVATION (ITEM N° 3)
EXISTING STREET TO BE ABANDONED
4" CONCR. SLOPE WALL (ITEM N° 60)
CLASS "A" EXCAVATION (ITEM N° 2)
PIER #1
SPECIAL EXCAVATION
EXISTING GROUND LINE
FINISH GRADE
4" CRUSHED STONE SURFACE COURSE TYPE "A" ITEM 59
PIER # 23
EXISTING STREET TO BE LOWERED
SPECIAL EXCAVATION (ITEM N° 1) SEE SHEET 131
PIER #24
NORTH ABUTMENT
4" CONCR. SLOPE WALL
CLASS "A" EXCAVATION (ITEM N° 2)
BORROW EXCAVATION (ITEM N° 3)
TYPICAL SECTION OF EXCAVATION
SCALE: 1/16" = 1'-0"
POROUS GRANULAR EMBANKMENT AT PIERS TO BE PLACED ONLY UNDER SIDEWALKS
AT PIERS 23 & 24
AT PIERS 13 TO 21
AT ABUTMENTS
AT WINGWALLS
LIMITS FOR POROUS GRANULAR EMBANKMENT
PIER #10
PIER #11
EXISTING GROUND LINE
CLASS "A" EXCAVATION (ITEM N° 2)
SECTION OF EXCAVATION
(AT RAILROAD)
10'-0" SIGN
TOP RAIL - 2"x6" BEVEL CORNERS SLIGHTLY
BLACK PAINT STRIP 4" WIDE
2"x6" BRACES EACH POST
6"x6" POST AND FOOT
NOTE: BARRIER TO CONFORM TO SLOPE OF STREET
38'-0" AT CORTLAND ST. (6 POSTS)
46'-0" & 62'-0" AT ASHLAND AVE. (6 POSTS & 8 POSTS)
62'-0" AT CORTLAND ST. RUNAROUND (8 POSTS)
NOTE: FOR LOCATION OF BARRIERS SEE SHT. 126 & BARRIERS WITH SIGNS REQUIRED.
ELEVATION OF BARRIER & SIGN
INTERSTATE HIGHWAY IMPROVEMENT
CONSTRUCTED BY
CITY OF CHICAGO
TO CARRY TRAFFIC OF THE
NORTHWEST EXPRESSWAY
OVER STREETS AND RAILROADS
COOPERATING AGENCIES
DEPT. OF COMMERCE BUREAU OF PUBLIC ROADS
STATE OF ILLINOIS DIVISION OF HIGHWAYS
COOK COUNTY HIGHWAY DEPARTMENT
SIGN
NOTE: SIGN BACKGROUND TO BE WHITE AND LETTERS BLACK EXCEPT WHERE RED IS INDICATED. WOOD TRIM TO BE BLACK.
2"x2" BLOCKING
2"x6" RAIL
6"x6"
2"x6" BRACES AT EACH POST
NOTCH
SECTION A-A
1"x2" TRIM (PAINT BLACK)
FACE OF SIGN
3/4" PLYWOOD EXTERIOR TYPE
SECTION THRU TRIM
THIS IS ANOTHER IMPROVEMENT
FOR CHICAGO
SORRY FOR THE INCONVENIENCE
RICHARD J. DALEY
MAYOR
COURTESY SIGN
NOTE: SIGN BACKGROUND TO BE WHITE AND LETTERS BLUE. BORDER TO BE BLUE.
SIGN LOCATION TO BE DETERMINED BY ENGINEER AND SUITABLE MOUNTING TO BE INCLUDED AT NO ADDITIONAL COST. 6 SIGNS REQUIRED.
3/4" EXTERIOR TYPE PLYWOOD
SCALES OF TRACING
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.5-1H
DETAILS OF EXCAVATION
ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS
SHEET NO. 116 OF 136 SHEETS
DATE: SEPT. 1958

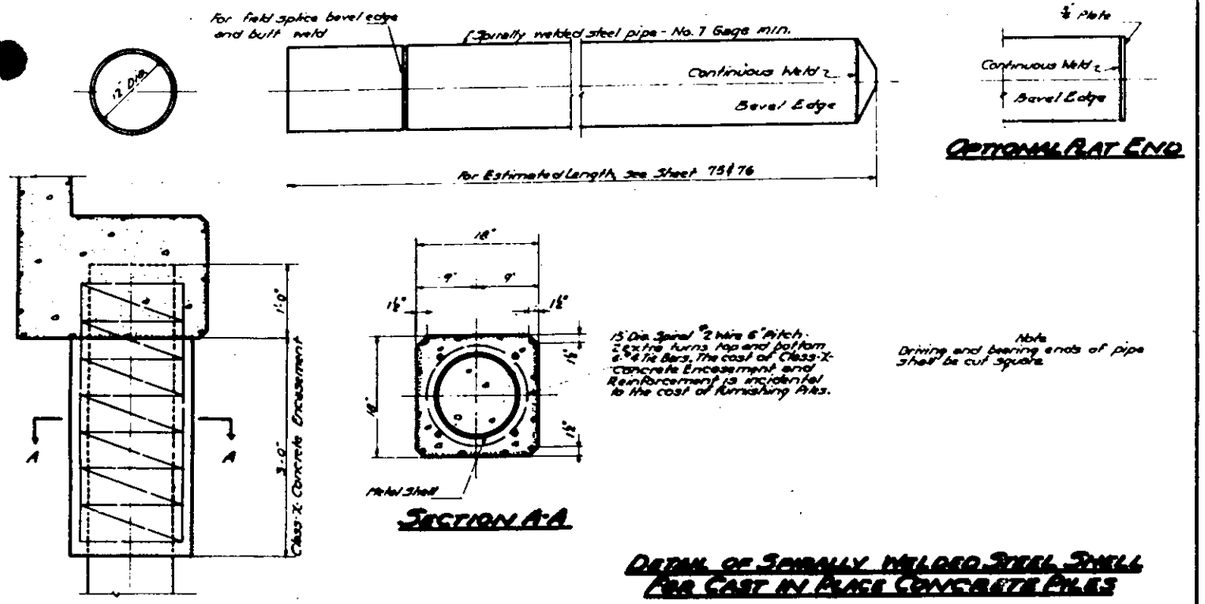


FAI 2
0505.3-1H
COOK
136
116
SOUTH ABUTMENT
20'-0"
9'-0"
BEAM EL. + 26.72
PIER #1
PIER # 23
PIER #24
NORTH ABUTMENT
CLASS 'A' EXCAVATION (ITEM Nº 2)
BORROW EXCAVATION (ITEM Nº 3)
EXISTING STREET TO BE ABANDONED
4" CONCR. SLOPE WALL (ITEM Nº 60)
CLASS 'A' EXCAVATION (ITEM Nº 2)
SPECIAL EXCAVATION
EXISTING GROUND LINE
FINISH GRADE
4" CRUSHED STONE SURFACE COURSE TYPE 'A' ITEM 59
EXISTING STREET TO BE LOWERED
SPECIAL EXCAVATION (ITEM Nº 1) SEE SHEET 131
TYPICAL SECTION OF EXCAVATION
SCALE: 1/16"=1'-0"
POROUS GRANULAR EMBANKMENT AT PIERS TO BE PLACED ONLY UNDER SIDEWALKS
AT PIERS 23 & 24
AT PIERS 13 TO 21
AT ABUTMENTS
AT WINGWALLS
LIMITS FOR POROUS GRANULAR EMBANKMENT
PIER #10
PIER #11
EXISTING GROUND LINE
CLASS 'A' EXCAVATION (ITEM Nº 2)
SECTION OF EXCAVATION
(AT RAILROAD)
SCALE: 1/8"=1'-0"
SIGN
TOP RAIL-2"x6" BEVEL CORNERS SLIGHTLY
REFLECTIVE SHEETING 4" WIDE-30 LIN. IN. GROUPS
BLACK PAINT STRIP 4" WIDE
2"x6" BRACES EACH POST 6"x6" POST AND FOOT
NOTE: BARRIER TO CONFORM TO SLOPE OF STREET
1'-0" MIN.
38'-0" AT CORTLAND ST. (6 POSTS)
46'-0" & 63'-0" AT ASHLAND AVE. (6 POSTS & 8 POSTS)
62'-0" AT CORTLAND ST. RUNAROUND (8 POSTS)
NOTE: FOR LOCATION OF BARRIERS SEE SHT. 126 & BARRIERS WITH SIGNS REQUIRED.
ELEVATION OF BARRIER & SIGN
SCALE: 3/8"=1'-0"
10'-0"
INTERSTATE HIGHWAY IMPROVEMENT
CONSTRUCTED BY
CITY OF CHICAGO
TO CARRY TRAFFIC OF THE
NORTHWEST EXPRESSWAY
OVER STREETS AND RAILROADS
FINANCED BY MOTOR FUEL TAX AND SUPERHIGHWAY BONDS
COOPERATING AGENCIES
DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS
ILLINOIS DIVISION OF HIGHWAYS
COOK COUNTY HIGHWAY DEPARTMENT
2"x4" BACK OF SIGN SEE ELEVATION ABOVE
3/4" EXTERIOR TYPE PLYWOOD
1"x4" WOOD TRIM. PAINT BLACK
SIGN
NOTE: SIGN BACKGROUND TO BE WHITE AND LETTERS BLACK EXCEPT WHERE RED IS INDICATED. WOOD TRIM TO BE BLACK.
2"x2" BLOCKING
2"x6" RAIL
2"x6" BRACES AT EACH POST
NOTCH
SECTION A-A
SCALE: 1"=1'-0"
1"x4" TRIM (PAINT BLACK)
FACE OF SIGN
2"x4"
3/4" PLYWOOD EXTERIOR TYPE
SECTION THRU TRIM
THIS IS ANOTHER IMPROVEMENT FOR CHICAGO
SORRY FOR THE INCONVENIENCE
RICHARD J. DALEY
MAYOR
COURTESY SIGN
NOTE: SIGN BACKGROUND TO BE WHITE AND LETTERS BLUE. BORDER TO BE BLUE.
SIGN LOCATION TO BE DETERMINED BY ENGINEER AND SUITABLE MOUNTING TO BE INCLUDED AT NO ADDITIONAL COST. 6 SIGNS REQUIRED.
3/4" EXTERIOR TYPE PLYWOOD
SCALES OF TRACING
CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H
DETAILS OF EXCAVATION
ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS
SHEET NO. 116 OF 136 SHEETS
DATE:

ABUTMENT PILES

PILING TO BE USED AT THE ABUTMENTS SHALL BE ANY OF THE VARIOUS KINDS SHOWN BELOW

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 2	0505.3-1H	COOK	136	117
STA.		TO STA.		
FED. ROAD DIST. NO. 4	ILLINOIS	PROJECT I. 02 2 (68)		

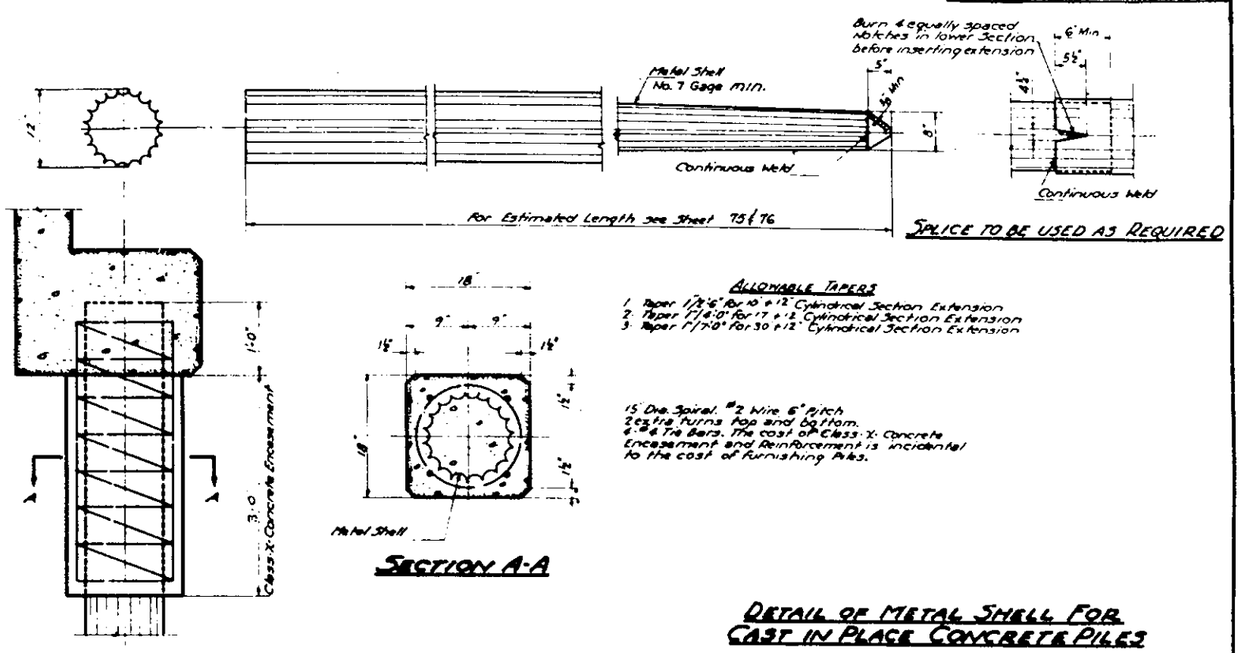


SECTION A-A

DETAIL OF SPIRALLY WELDED STEEL SHELL FOR CAST IN PLACE CONCRETE PILES

OPTIONAL FLAT END

Note
Driving and bearing ends of pipe shall be cut square.



SPLICE TO BE USED AS REQUIRED

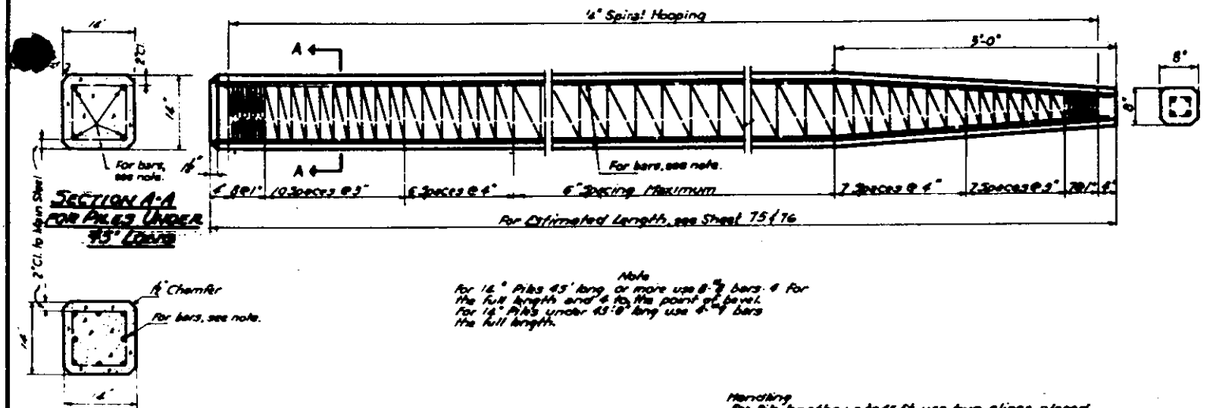
SECTION A-A

ALLOWABLE TAPERS

1. Taper 1"/2'-6" for 10" ø 12" Cylindrical Section Extension
2. Taper 1"/4'-0" for 17" ø 12" Cylindrical Section Extension
3. Taper 1"/7'-0" for 30" ø 12" Cylindrical Section Extension

15" Dia. Spiral. #2 Wire 6" Pitch. 2 extra turns top and bottom. 6 #6 Tie Bars. The cost of Class 'X' Concrete Encasement and Reinforcement is incidental to the cost of Furnishing Piles.

DETAIL OF METAL SHELL FOR CAST IN PLACE CONCRETE PILES



SECTION A-A FOR PILES UNDER 45' LONG

SECTION A-A FOR PILES 45' OR MORE

Note
For 14" Piles 45' long or more use 8-#8 bars. 4 For the full length and 4 to the point of bend. For 14" Piles under 45'-0" long use 4-#7 Bars the full length.

Handling
For Pile lengths up to 45 Ft. use two slings placed at a distance of 0.21 L from each end.
For Piles longer than 45 Ft. use three slings placed at a distance of 0.12L from each end and at third point of pile.
"L" Over all length of pile to be handled

DETAIL OF PRECAST CONCRETE PILES

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

NORTHWEST ROUTE SUPERHIGHWAY
GRADE SEPARATION
WABANSIA AVE. TO CORTLAND ST.
SECTION 0505.3-1H

ABUTMENT PILES

ALFRED BENESCH & ASSOCIATES
10 SOUTH WABASH AVE.
CONSULTING ENGINEERS
CHICAGO, ILLINOIS

SHEET NO. 117 OF 136 SHEETS DATE: