

106

03-06-2020 LETTING ITEM 106

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

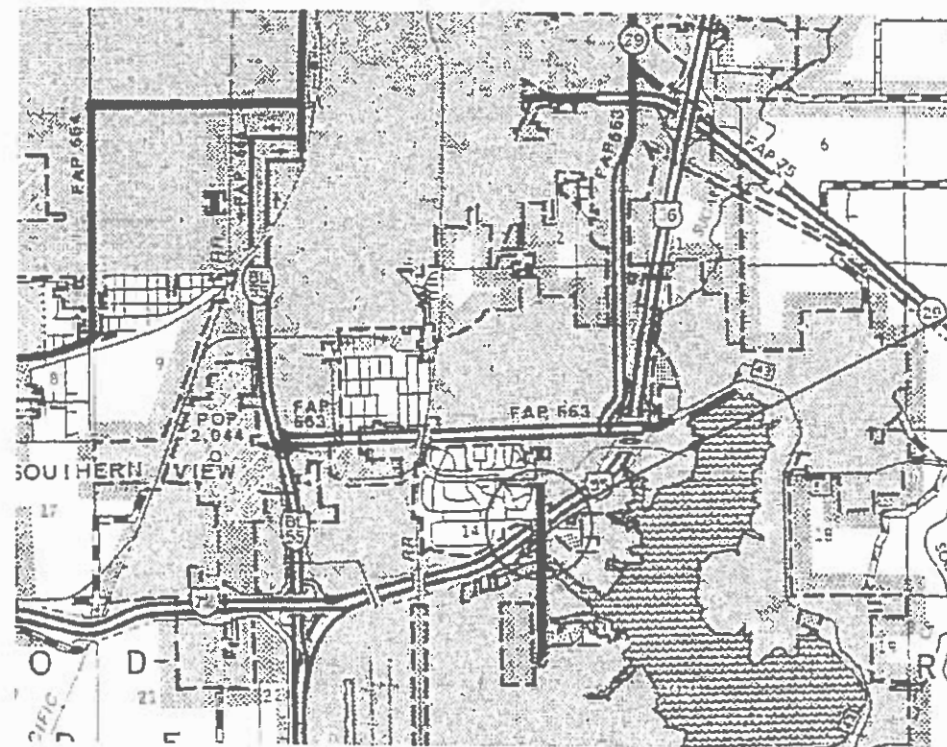
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-3-2) FNC	SANGAMON	8	1
CONTRACT NO. 72L64				

FOR INDEX OF SHEETS, SEE SHEET NO. 2

# PROPOSED CONTRACT MAINTENANCE

FAI ROUTE 55 (I-55/72, US 36)  
SECTION (84-3-2) FNC  
PROJECT (STATE)  
SAFETY FENCE INSTALLATION  
SANGAMON COUNTY

C-96-049-20



PROJECT LOCATION  
SH 064-0092  
W LAKE SHORE DR OVER I-55  
0.5 MI SW OF STEVENSON INT.



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811

PROJECT ENGINEER: BRANDON DUDLEY - (217) 785-9290

GROSS LENGTH = 222 FT. = 0.04 MILE  
NET LENGTH = 222 FT. = 0.04 MILE

CONTRACT NO. 72L64

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED Dec 11 2019

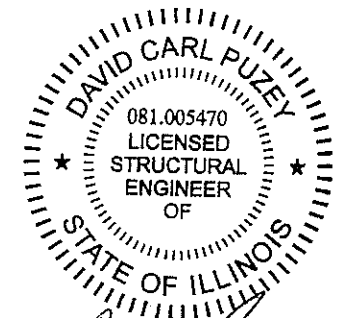
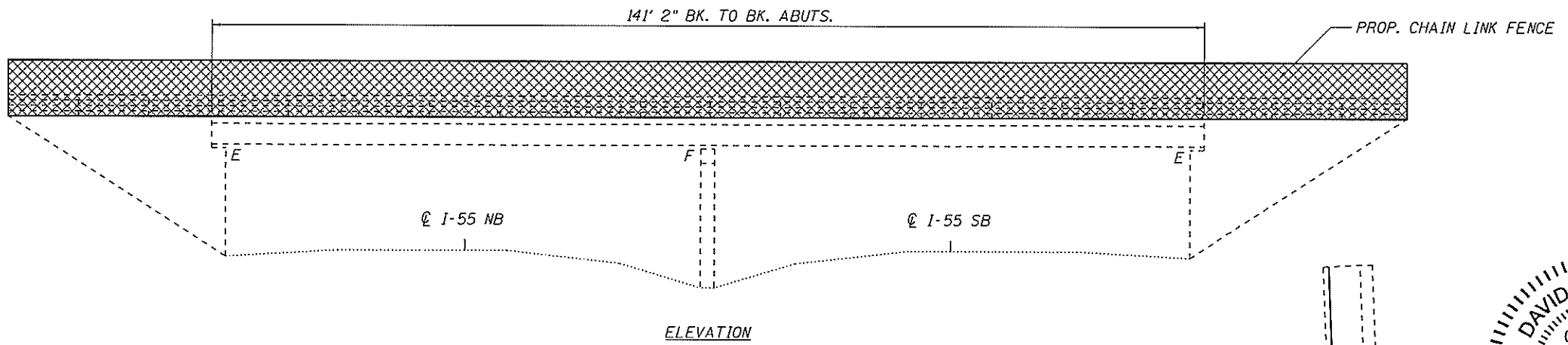
[Signature] REGIONAL ENGINEER

[Signature] ENGINEER OF DESIGN AND ENVIRONMENT

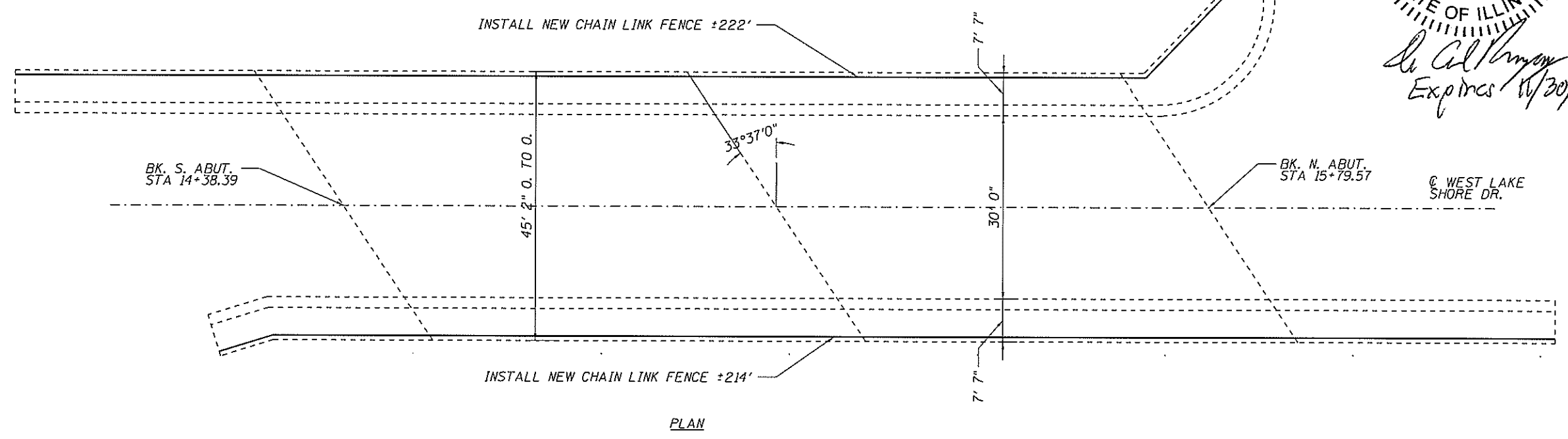
[Signature] DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS





*David Carl Puzey* 1/28/2020  
 Expires 11/30/2020



TOTAL BILL OF MATERIAL (084-0092)

ITEM	UNIT	QUANTITY
Chain Link Fence (Special)	Foot	436

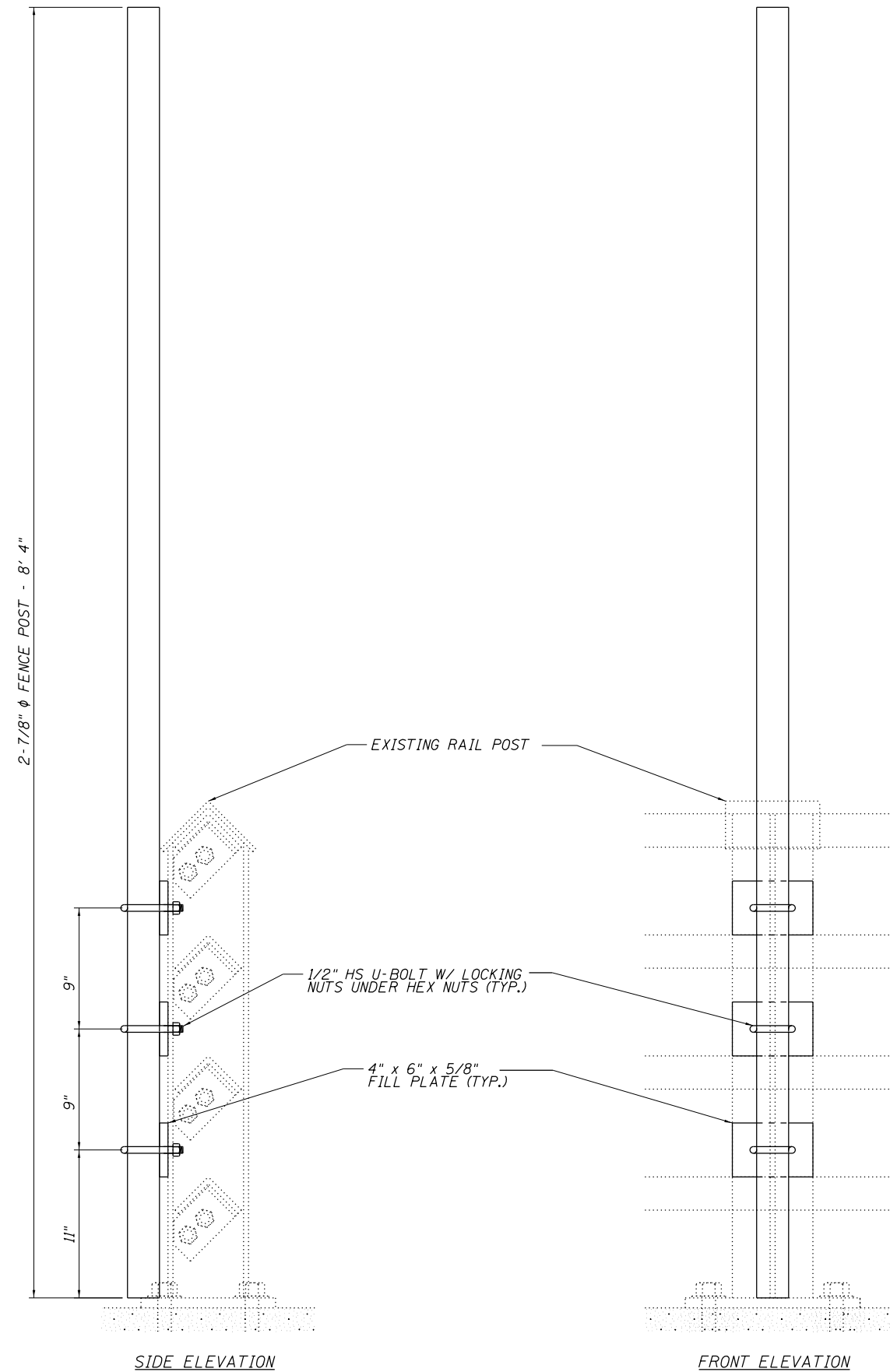
**STRUCTURE GENERAL NOTES:**

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

SEE SPECIAL PROVISIONS FOR FENCING REQUIREMENTS.

MODEL: Default  
 FILE NAME: \\central\id\OPERATIONS\Bridges\Bridges\084-0092 - 0810092 - fenceplan.elect.dwg

USER NAME = dwdlybm	DESIGNED - <i>BMS</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				BRIDGE PLAN & ELEVATION SN 084-0092				F.A.I. RTE. = 55	SECTION = (84-3-2) FNC	COUNTY = SANGAMON	TOTAL SHEETS = 8	SHEET NO. = 3
PLOT SCALE = 100.0000' / in.	CHECKED - <i>JHU</i>	REVISED -									SCALE:	SHEET	OF	SHEETS	STA.
PLOT DATE = 12-10-2019	DATE =	REVISED -													



SIDE ELEVATION

FRONT ELEVATION

MODEL: Default  
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USER NAME = dudleybm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 12/10/2019	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CHAIN LINK FENCE POST MOUNTING DETAIL  
 SN 084-0092**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-3-2) FNC	SANGAMON	8	4
CONTRACT NO. 72L64				
ILLINOIS FED. AID PROJECT				



BM #72 - West Cap Bolt on Fire Hydrant  
N.E. Corner Rita Rd. and West Lake Drive  
Elev. 588.92

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

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
84-3HB-3	Sanjamon	42	10	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT I-55-3(16) 93				

SHEET 1 OF 13

GENERAL NOTES

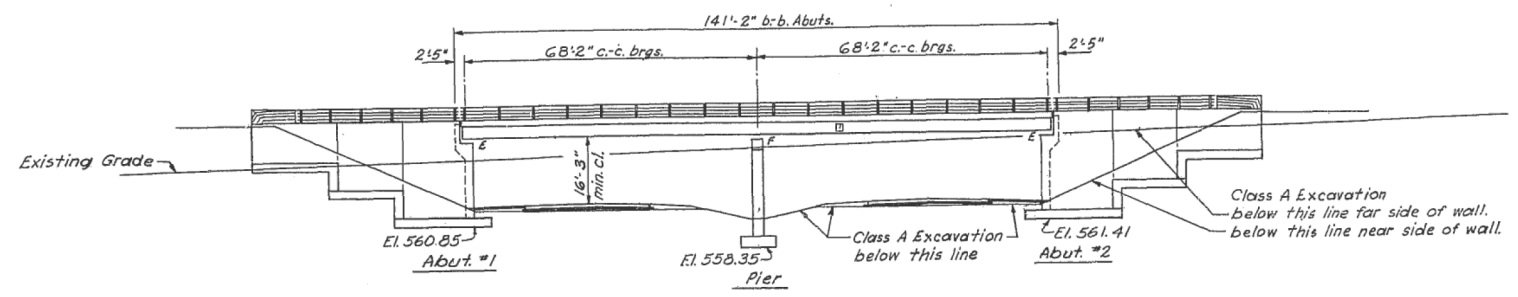
Class X Concrete shall be used throughout except in handrail end posts. Handrail Concrete shall be used in the handrail end posts. The concrete floor slab shall be finished in accordance with Art. 51.19 of the Standard Specifications, and shall be poured in one continuous operation between construction joints. Rivets 3/4"  $\phi$ , open holes 13/16"  $\phi$ , unless noted.

All holes for splices shall be punched 11/16"  $\phi$  and reamed to proper size (13/16"  $\phi$  in web and 15/16"  $\phi$  in flange) with all stringers assembled in the shop in proper position. Leave assembled in shop for inspection.

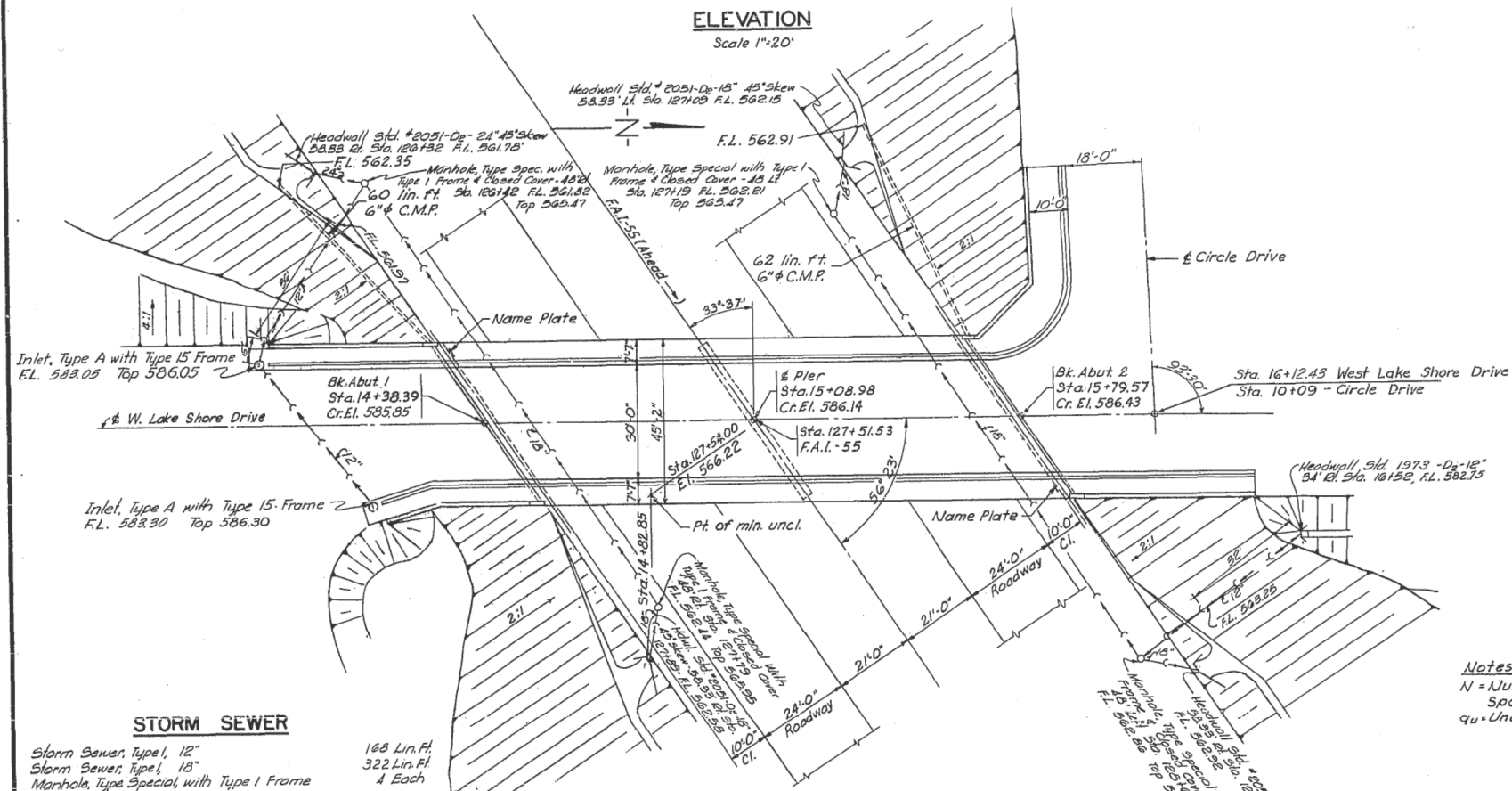
All rockers, bolsters, bearing plates, fill plates, lead plates, pintles, and anchor bolts shall be fabricated and set in accordance with Art. 51.15 of the Standard Specifications, and are included in the quantity of Structural Steel.

Anchor bolts shall be set before riveting diaphragms over supports. Except as otherwise provided, all Structural Steel shall receive one (1) shop coat of red lead paint and two (2) field coats of aluminum paint. See Art. 56.1 through 56.5 inclusive, of the Standard Specifications.

The aggregate for the Class X Concrete used in the barrier shall be free from chert, flint, limonite, lignite, and soft sandstone.



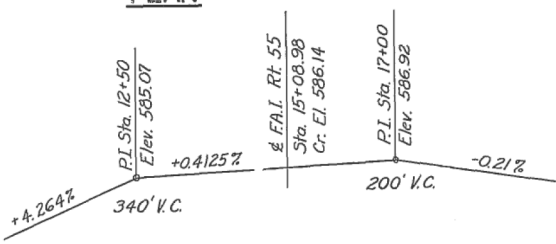
ELEVATION  
Scale 1"=20'



STORM SEWER

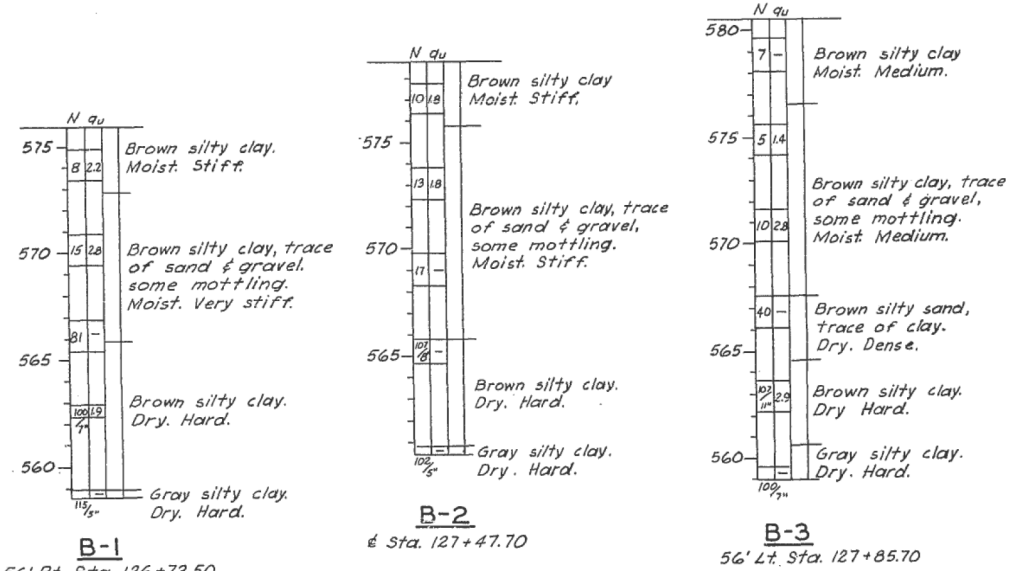
Storm Sewer, Type 1, 12" 168 Lin. Ft.  
Storm Sewer, Type 1, 18" 322 Lin. Ft.  
Manhole, Type Special, with Type 1 Frame & Closed Cover 4 Each  
Inlet, Type A, with Type 15, Frame 2 Each  
Class X Concrete (Headwall) 7.3 Cu. Yds.  
Reinforcement Bars 250 lbs.  
Storm Sewer, Type 1, 24" 14 Lin. Ft.  
Trench Backfill 3 Cu. Yds.

PLAN



PROFILE ALONG WEST LAKE DRIVE

PROFILE ALONG F.A.I. RT. 55  
@ Median Edge of Pavement



Notes:  
N = Number of blows required to drive a 1 1/8" I.D. Split Spoon Sampler by means of a 140# weight falling 30"  
qu = Unconfined compressive strength, of the soil in tons/sq. ft.

TOTAL BILL OF MATERIAL

ITEM	SUPER	SUB	TOTAL
Class X Concrete	Cu. Yds. 2001	682.4	882.5
Handrail Concrete	Cu. Yds. 2.3	-	2.3
Reinforcement Bars	Lbs. 35,610	81,730	117,340
Furnishing & Erecting Structural Steel	Lbs. 206,560	-	206,560
Furnishing & Erecting Metal Handrail	Lin. Ft. 915	-	915
Name Plates	Ea. -	-	2
Class A Excavation for Structures	Cu. Yds. -	2034	2034
Corrugated Metal Pipe, 6 inch	Lin. Ft. -	-	122
Perforated Corrugated Metal Pipe, 6 inch Lin. Ft.	-	310	310
Porous Granular Backfill	Cu. Yds. -	51	51
Portland Cement Concrete Sidewalk (6")	Sq. Ft. 1556	-	1556

LETTERING FOR NAME PLATE

STATION 127+51.53  
BUILT 196 BY  
STATE OF ILLINOIS  
F.A.I. RT. 55 SEC. 84-3HB-3  
F.A. PROJ. I-55-3(16)  
LOADING H20-S16

DESIGN STRESSES

$f_c = 1,400$  p.s.i. (Super & Piers)  
 $f_c = 1,000$  p.s.i. (Abuts.)  
 $f_s = 20,000$  p.s.i. (Reinf.)  
 $f_s = 18,000$  p.s.i. (Struct.)  
 $v = 75$  p.s.i. (Footings)  
 $n = 10$   
Design Footing Pressure  
Ave. = 2.1 Ton/sq. ft.  
Max. = 2.9 Ton/sq. ft.  
Loading H20-S16-44  
with 207sq. ft. Future W.S.

GENERAL PLAN & ELEVATION  
WEST LAKE DRIVE OVER FED AID INTERSTATE  
PROJECT I-55-3(16) 93  
F.A.I. ROUTE 55 SEC. 84-3HB-3  
SANGAMON COUNTY  
STATION 127+51.53

JENKINS, MERCHANT & NANKIVIL  
CONSULTING ENGINEERS  
SPRINGFIELD, ILLINOIS

HANSON, COLLINS & RICE  
CONSULTING ENGINEERS  
SPRINGFIELD, ILLINOIS



DESIGNED R.E.G.	EXAMINED	19
CHECKED M.J.R.	PASSED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN T.E.B.	APPROVED	ENGINEER OF BRIDGE
CHECKED M.J.R.		CHIEF HIGHWAY ENGINEER

USER NAME = dudleybm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/10/2019	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 084-0092  
(FOR INFORMATION ONLY)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-3-2) FNC	SANGAMON	8	5
CONTRACT NO. 72L64				
ILLINOIS FED. AID PROJECT				

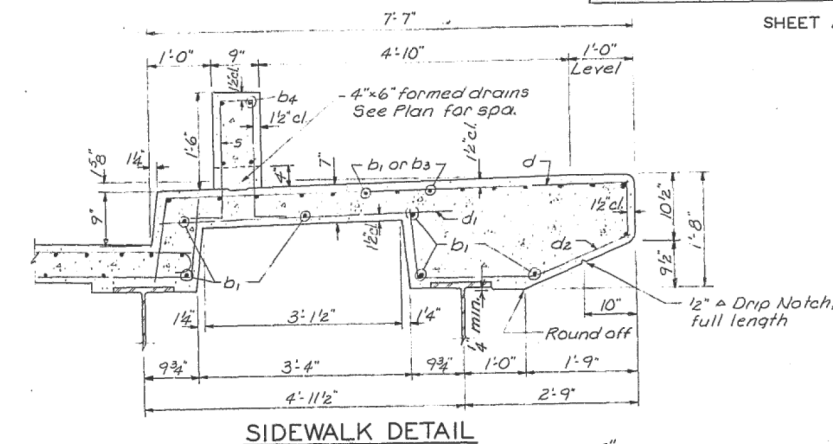
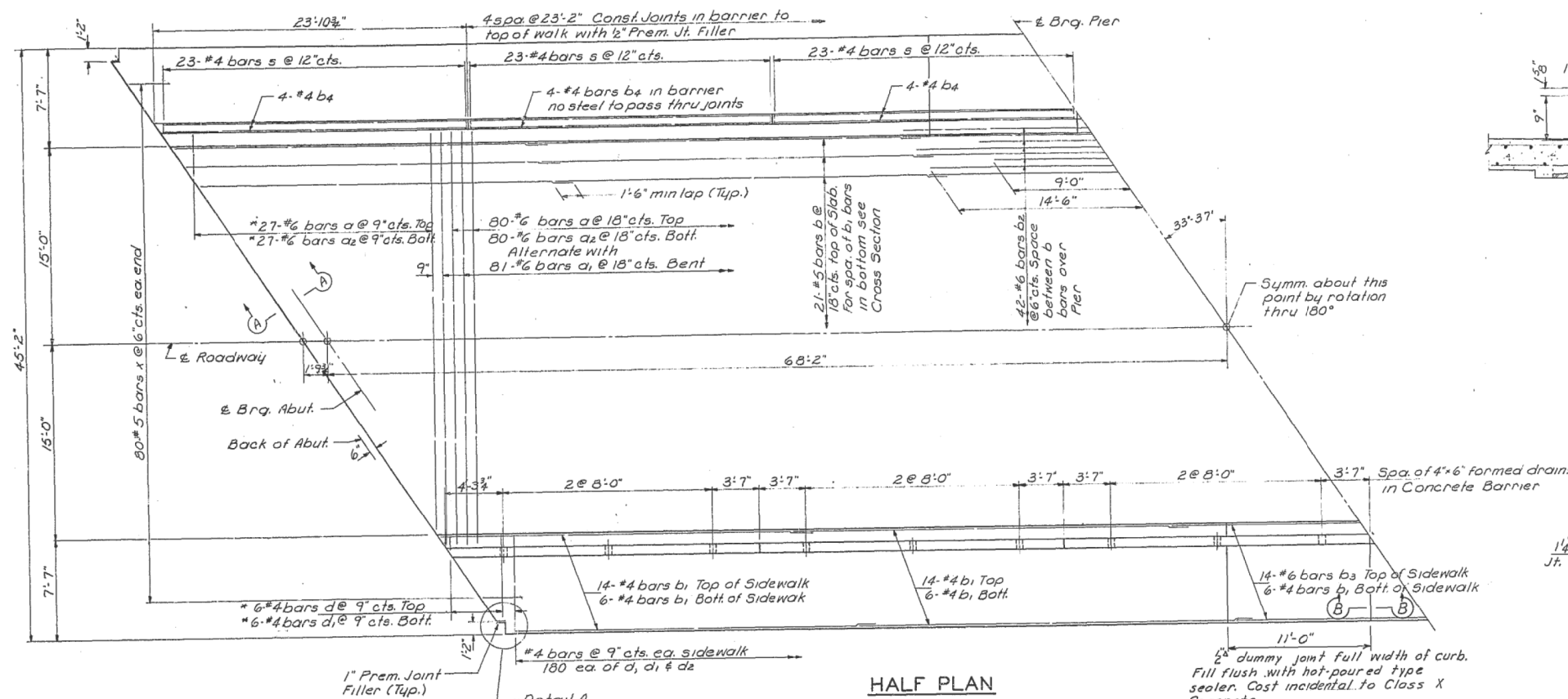
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STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

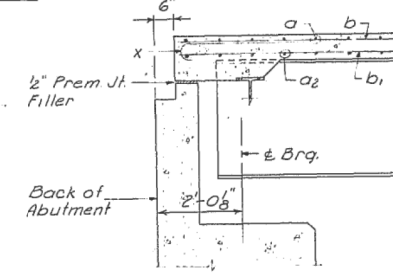
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAI RI 55	84-3HB-3	Sangamon	42	11
FED. ROAD DIST. NO. 7			ILLINOIS PROJECT	

SHEET 2 OF 13

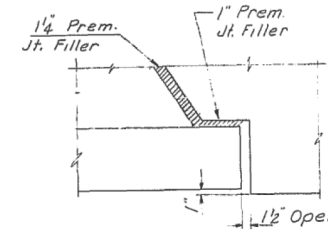
\* Note: Order a, a<sub>2</sub>, d & d<sub>1</sub> bars full length. Cut in field to fit skew & use the remainder of the bar at the opposite end.



SECTION B-B



SECTION A-A

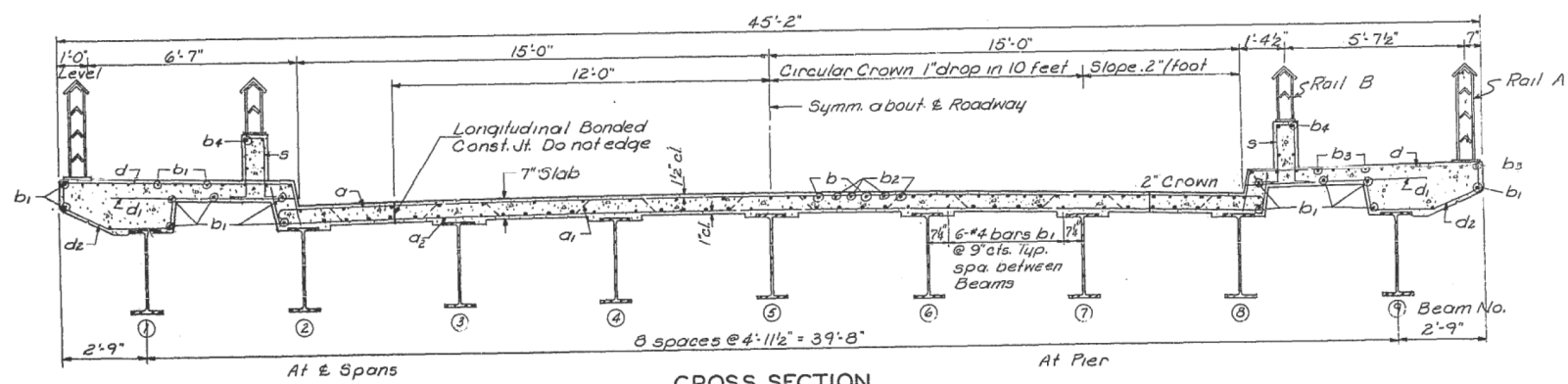


DETAIL A

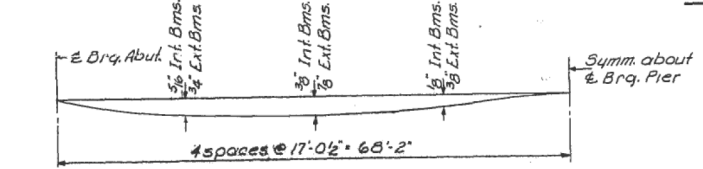
BILL OF MATERIAL  
SUPERSTRUCTURE

BAR NO.	SIZE	LENGTH	SHAPE
a	107	3/8	31'-1"
a <sub>1</sub>	81	3/8	34'-5"
a <sub>2</sub>	107	3/8	33'-3"
b	105	#5	29'-2"
b <sub>1</sub>	362	#4	29'-2"
b <sub>2</sub>	42	#6	23'-6"
b <sub>3</sub>	28	#6	29'-2"
b <sub>4</sub>	48	#4	22'-11"
d	372	#4	8'-11"
d <sub>1</sub>	372	#4	4'-6"
d <sub>2</sub>	360	#4	4'-3"
s	276	#4	5'-0"
x	160	#5	4'-1"
Class X Concrete			Cu. Yds. 191.7
Reinforcement Bars			Lbs. 34,180
Structural Steel			Lbs. 206,560

Note: All rockers, bolsters, bearing plates, fill plates, lead plates, pintles, anchor bolts and plate washers are included in the quantity of Structural Steel. Est. Weight = 72,710 Lbs.



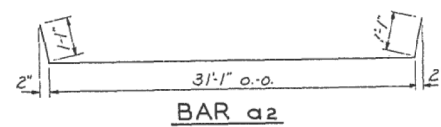
CROSS SECTION



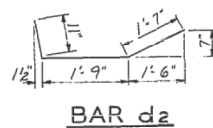
DEAD LOAD DEFLECTION DIAGRAM

DESIGNED	REA.	EXAMINED	
CHECKED	M.J.Q.	PASSED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN	D.J.M.	APPROVED	ENGINEER OF BRIDGE
CHECKED	M.J.Q.		CHIEF HIGHWAY ENGINEER

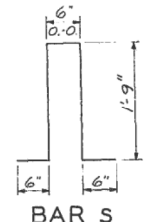
METHOD OF DETERMINING FILLET HEIGHTS "d"  
After all Structural Steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 feet. From these elevations subtract the increment of deflection for these points, determined from the Dead Load Deflection Diagram. The elevations so attained, subtracted from the theoretical grade elevations, minus floor thickness, equals the fillet heights "d" above top of beam.



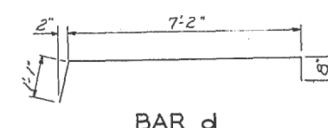
BAR a<sub>2</sub>



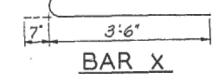
BAR d<sub>2</sub>



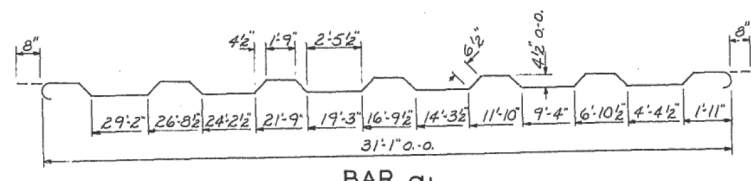
BAR S



BAR d



BAR X



BAR a<sub>1</sub>

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 084-0092  
(FOR INFORMATION ONLY)

USER NAME = dudleybm	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 12/10/2019	CHECKED -	REVISED -
	DATE -	REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

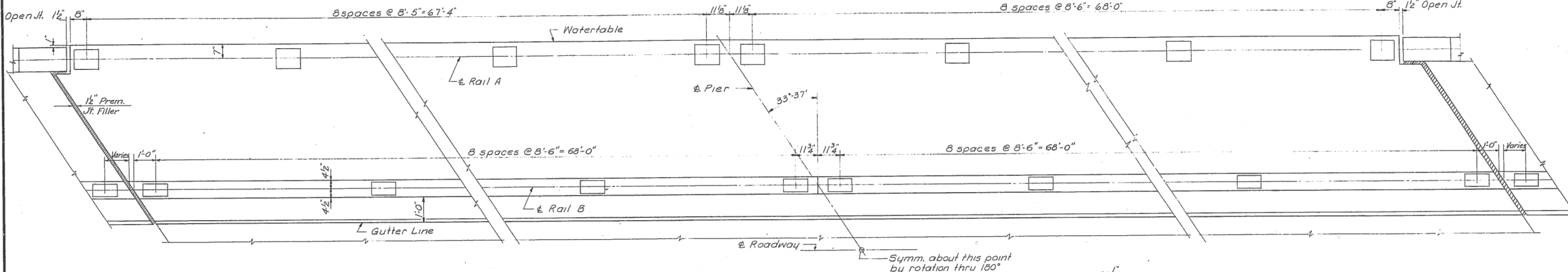
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-3-2) FNC	SANGAMON	8	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 72L64	

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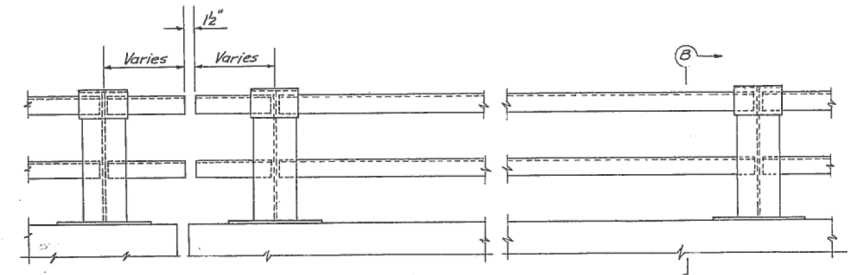
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RT. 55	3HB-3	Sangamon	42	13
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				

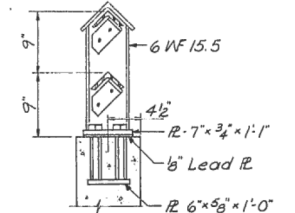
SHEET 4 OF 13



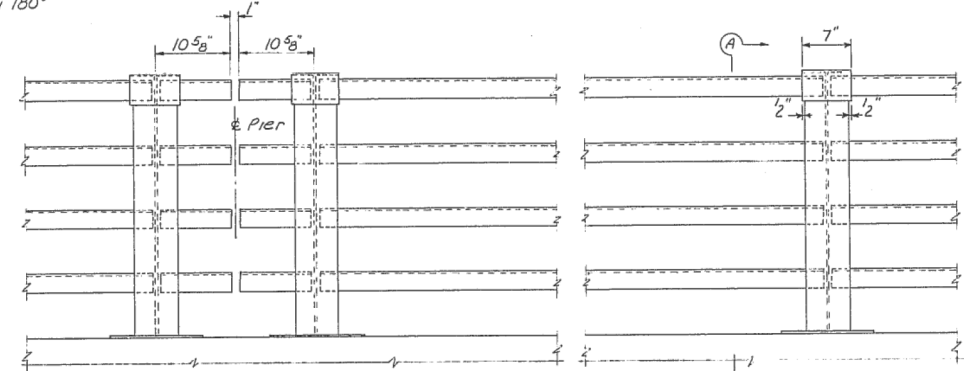
PLAN-WEST CURB



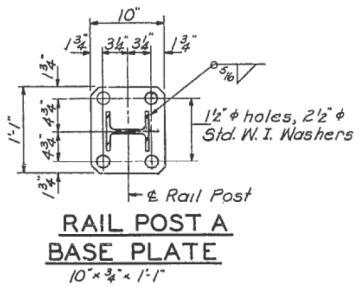
PART ELEVATION-RAIL B



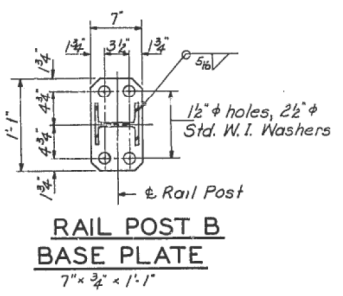
SECTION B-B  
Rail Post B



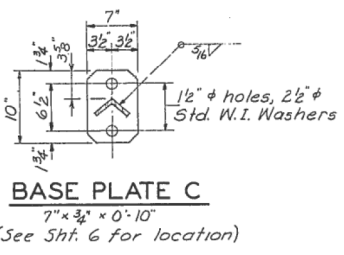
PART ELEVATION-RAIL A



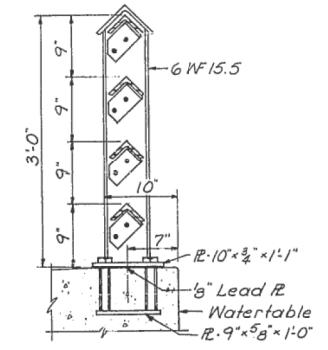
RAIL POST A  
BASE PLATE



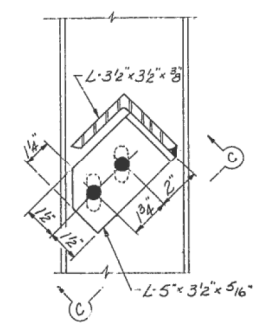
RAIL POST B  
BASE PLATE



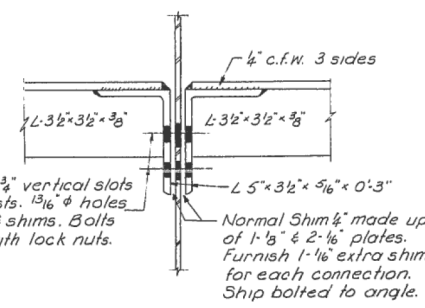
BASE PLATE C  
7" x 3/4" x 0'-10"  
(See Sht. 6 for location)



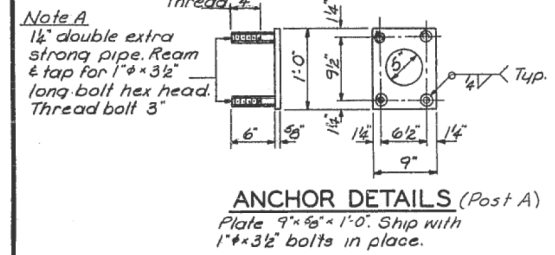
SECTION A-A  
Rail Post A



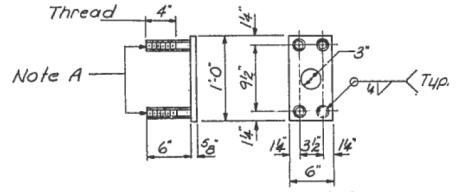
TYPICAL CONNECTION



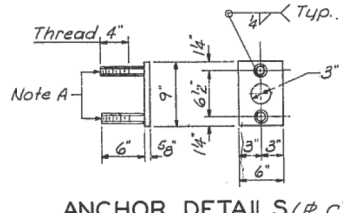
VIEW C-C



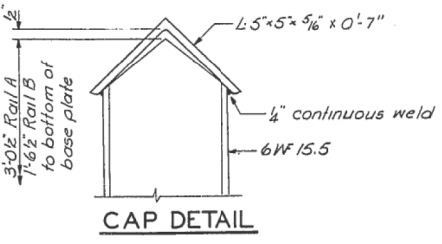
ANCHOR DETAILS (Post A)  
Plate 9" x 5/8" x 1'-0". Ship with 1" x 3 1/2" bolts in place.



ANCHOR DETAILS (Post B)  
Plate 6" x 5/8" x 1'-0". Ship with 1" x 3 1/2" bolts in place.



ANCHOR DETAILS (R C)  
Plate 6" x 5/8" x 0'-9". Ship with 1" x 3 1/2" bolts in place.



CAP DETAIL

BILL OF MATERIAL

* Furnishing & Erecting Metal Handrail	Lin. Ft.	915
* Includes	435 lin. ft. Rail A	
	480 lin. ft. Rail B	

HANDRAIL DETAILS  
WEST LAKE DRIVE OVER FED. AID INTERSTATE

F.A.I. ROUTE 55 SEC. 84-3HB-3  
SANGAMON COUNTY  
STATION 127+51.53

Note: Item Furnishing & Erecting Metal Handrail includes both the two angle & the four angle rail.

Work this Sheet with Sheet Nos. 5 & 6

NOTE: Furnish one 1/8" and two 1/16" shims for 50% of the rail posts.

DESIGNED	REG	EXAMINED	19
CHECKED	M.J.P.	PASSED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN	D.J.M.	APPROVED	ENGINEER OF BRIDGE
CHECKED	M.J.P.		CHIEF HIGHWAY ENGINEER

USER NAME	= dudleybm
PLOT SCALE	= 100,0000' / in.
PLOT DATE	= 12/10/2019

DESIGNED	-	REVISED	-
DRAWN	-	REVISED	-
CHECKED	-	REVISED	-
DATE	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 084-0092  
(FOR INFORMATION ONLY)

SCALE: SHEET OF SHEETS STA. TO STA.

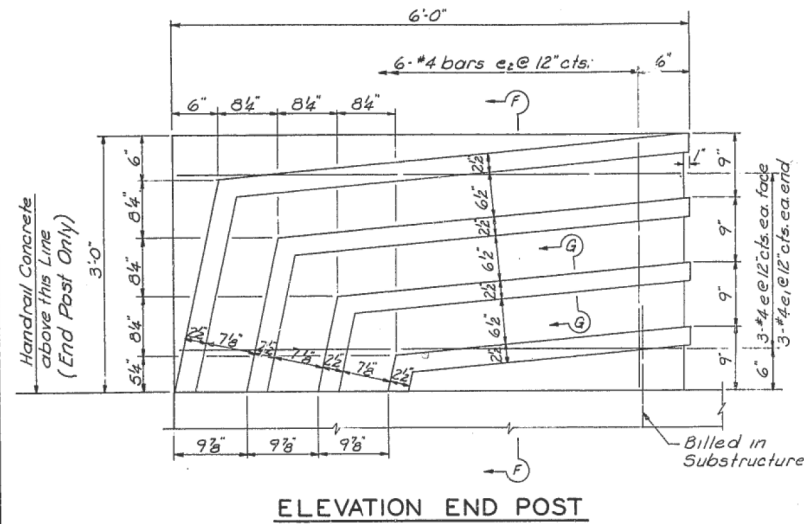
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-3-2) FNC	SANGAMON	8	7
CONTRACT NO. 72L64				
ILLINOIS FED. AID PROJECT				

MODEL: Default  
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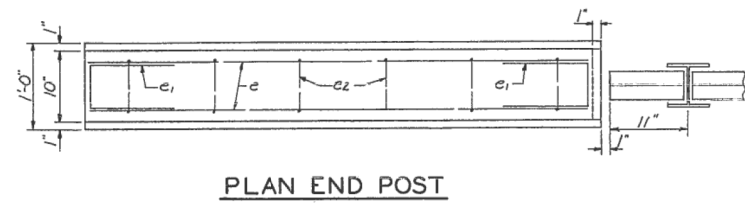
STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. RT. 55	84-3HB-3	Sangamon	42	14
ILLINOIS PROJECT				

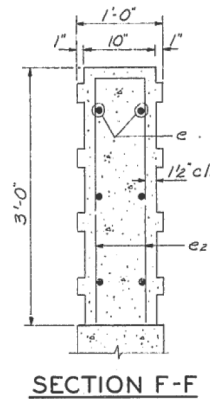
SHEET 5 OF 13



ELEVATION END POST



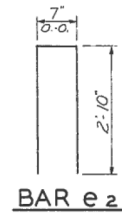
PLAN END POST



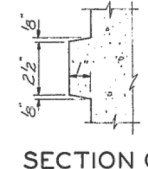
SECTION F-F

**BILL OF MATERIAL**

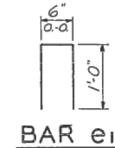
BAR NO.	SIZE	LENGTH	SHAPE
e	#4	5'-8"	—
e1	#4	2'-6"	□
e2	#4	6'-3"	□
Handrail Concrete Cu Yds			2.3
Reinforcement Bars Lbs.			230



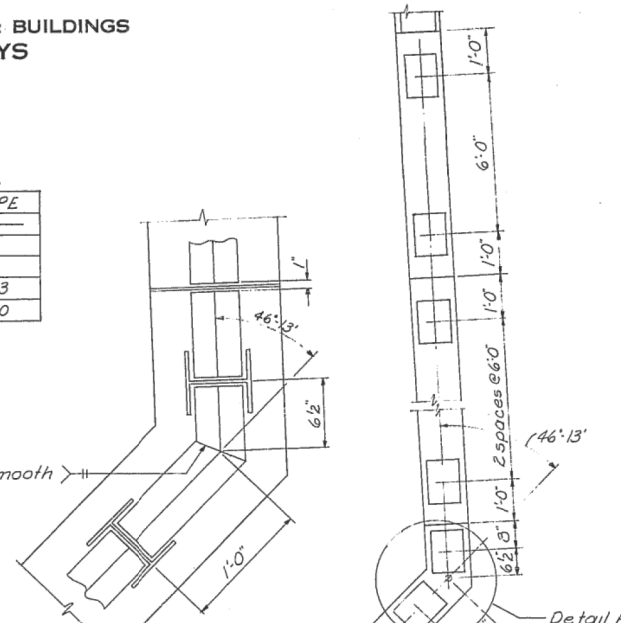
BAR e2



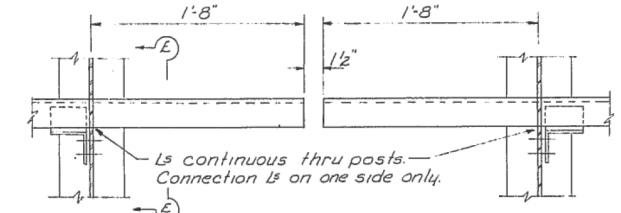
SECTION G-G



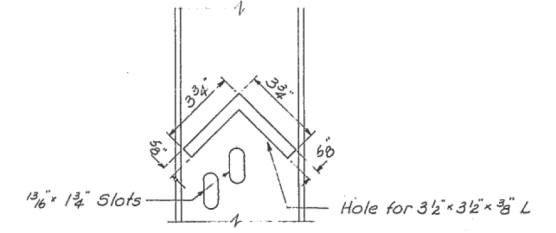
BAR e1



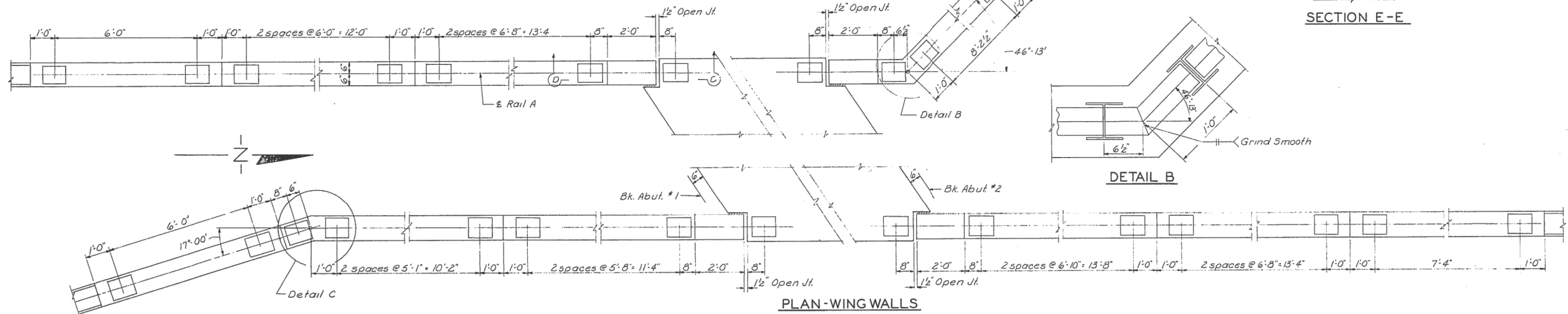
DETAIL A



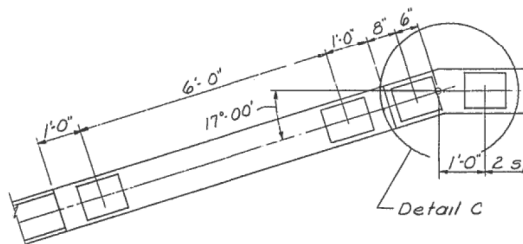
SECTION D-D



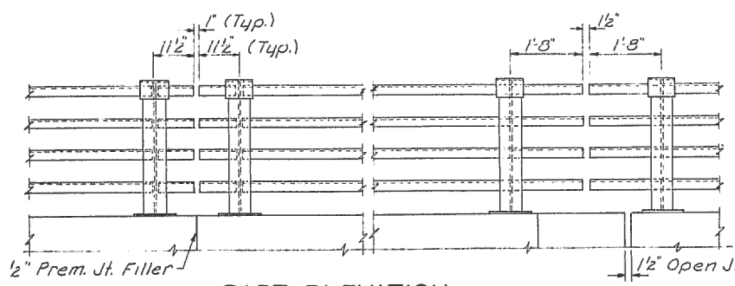
SECTION E-E



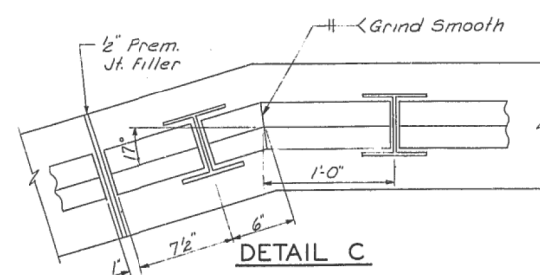
PLAN-WING WALLS



Detail C



PART ELEVATION



DETAIL C

Note:  
Work this Sheet with Sheet No. 4

HANDRAIL DETAILS  
WEST LAKE DRIVE OVER FED.AID INTERSTATE  
F.A.I. ROUTE 55 SEC. 84-3HB-3  
SANGAMON COUNTY  
STATION 127+51.53

DESIGNED <i>REG.</i>	EXAMINED	19
CHECKED <i>M.J.R.</i>	PASSED	ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
DRAWN <i>D.J.M.</i>	APPROVED	ENGINEER OF DESIGN
CHECKED <i>M.J.R.</i>		CHIEF HIGHWAY ENGINEER

USER NAME = dudleybm	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/10/2019	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS, SN 084-0092  
(FOR INFORMATION ONLY)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(84-3-2) FNC	SANGAMON	8	8
CONTRACT NO. 72L64				
ILLINOIS FED. AID PROJECT				

MODEL: Default  
FILE NAME: \\CENTRALDB\OPERATIONS\Bridges\Bridges\CAD\72L64 - 0840092 - fncdrg\brshs\sheet.dgn