

78228

VARIOUS

#117

06-17-11 LETTING ITEM 117

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	D9 SAFETY 2011-1	VARIOUS	165	1
ILLINOIS			CONTRACT NO. 78228	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

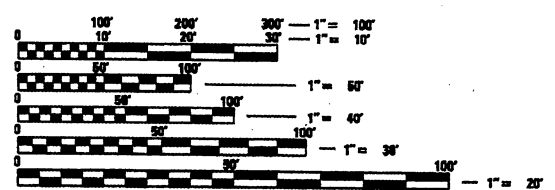
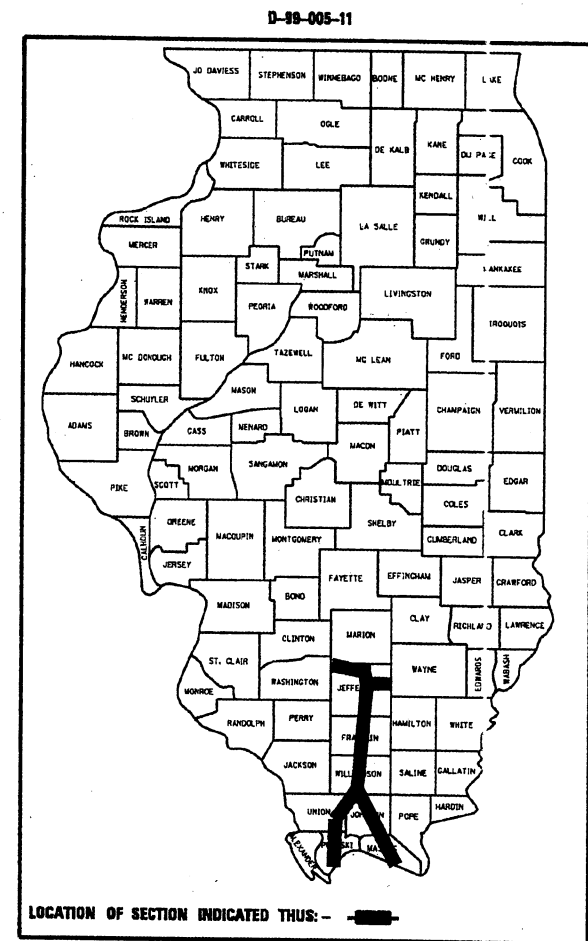
ROUTE VARIOUS
SECTION D9 SAFETY 2011-1
PROJECT HSIP-000S(851)
SAFETY PROJECT
COUNTIES VARIOUS

C-99-007-11

CENTER PIER PROTECTION

- JOHNSON COUNTY
2 LOCATIONS
- MASSAC COUNTY
1 LOCATION
- PULASKI COUNTY
3 LOCATIONS
- UNION COUNTY
3 LOCATIONS
- WILLIAMSON COUNTY
7 LOCATIONS
- FRANKLIN COUNTY
1 LOCATION

100%
03-13-2013

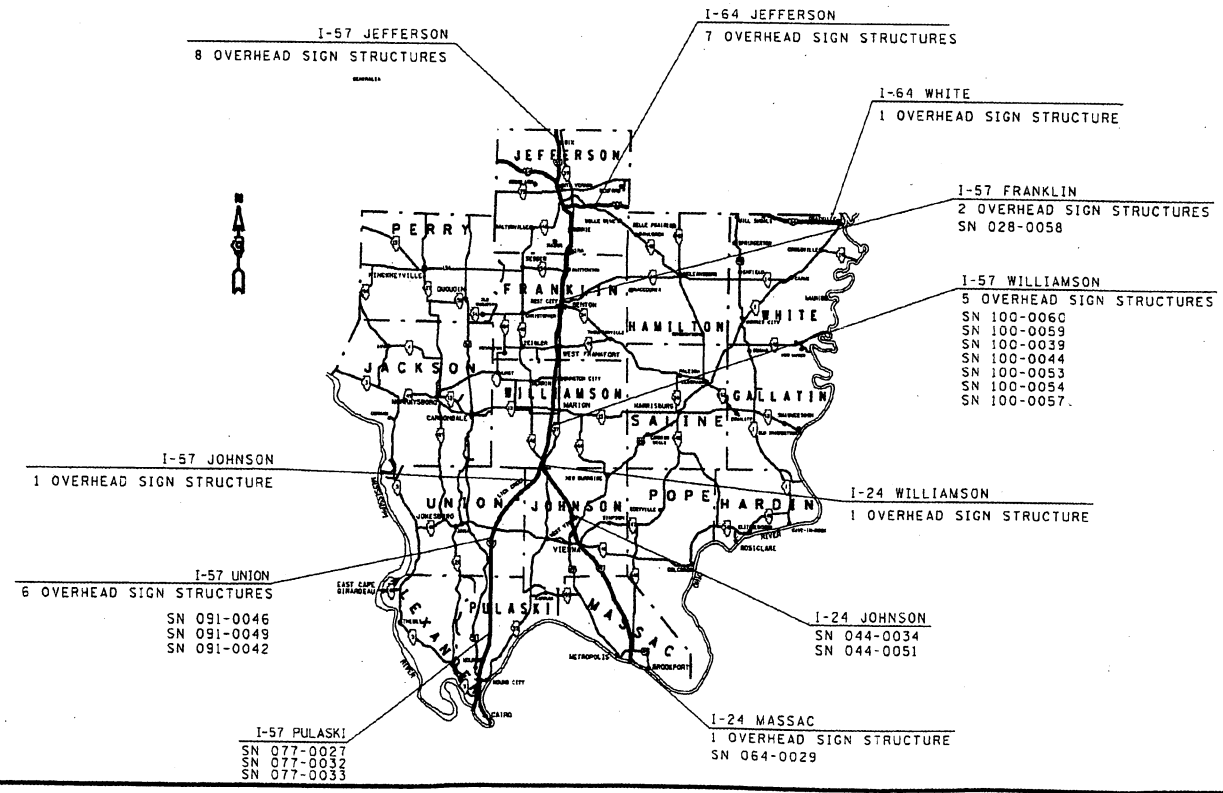


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: CHARLES STEIN
DESIGNER: GEORGE SHEPARD

CONTRACT NO. 78228 100-0057



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

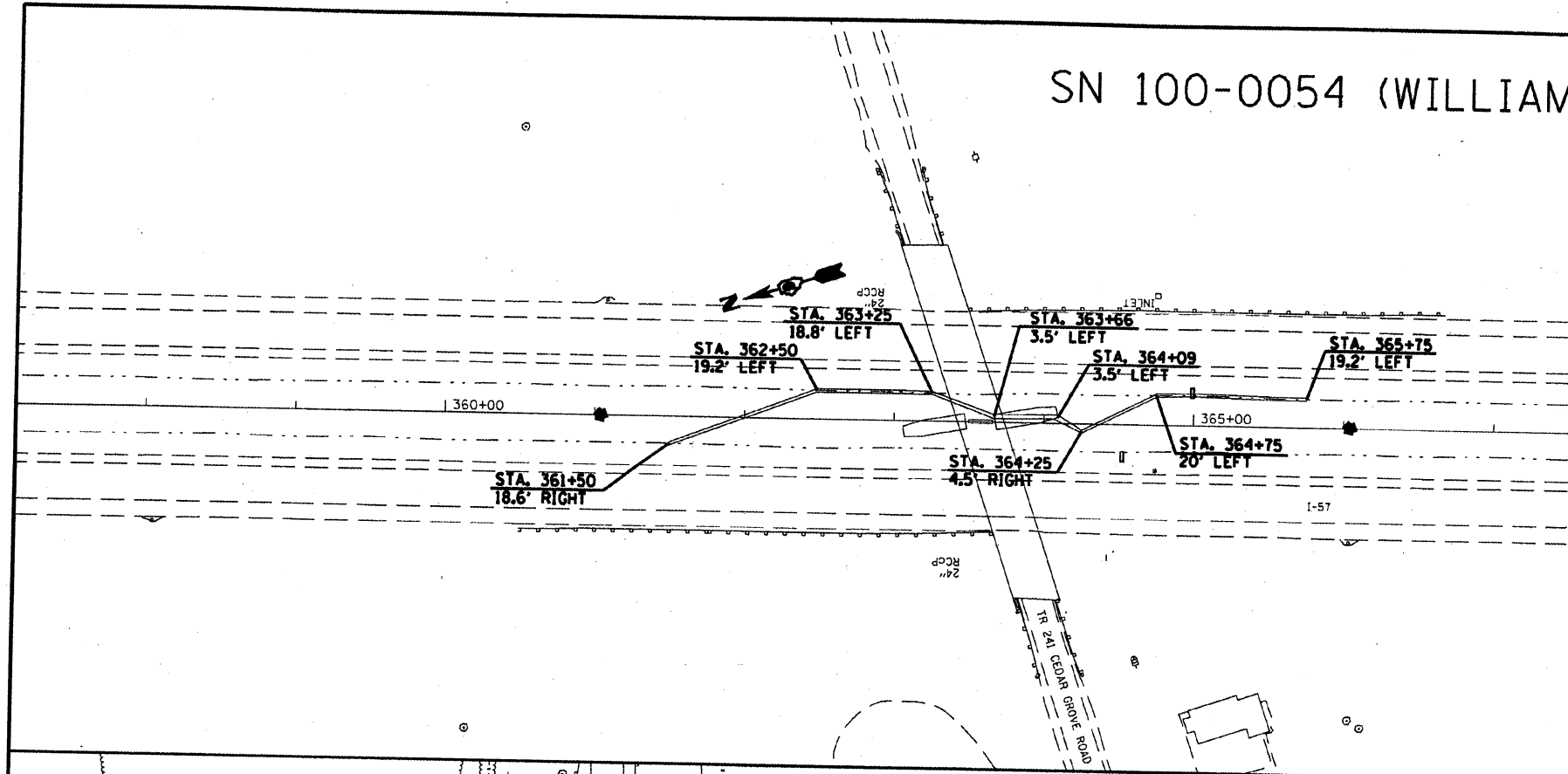
SUBMITTED March 17, 2011
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13, 2011
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2011
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

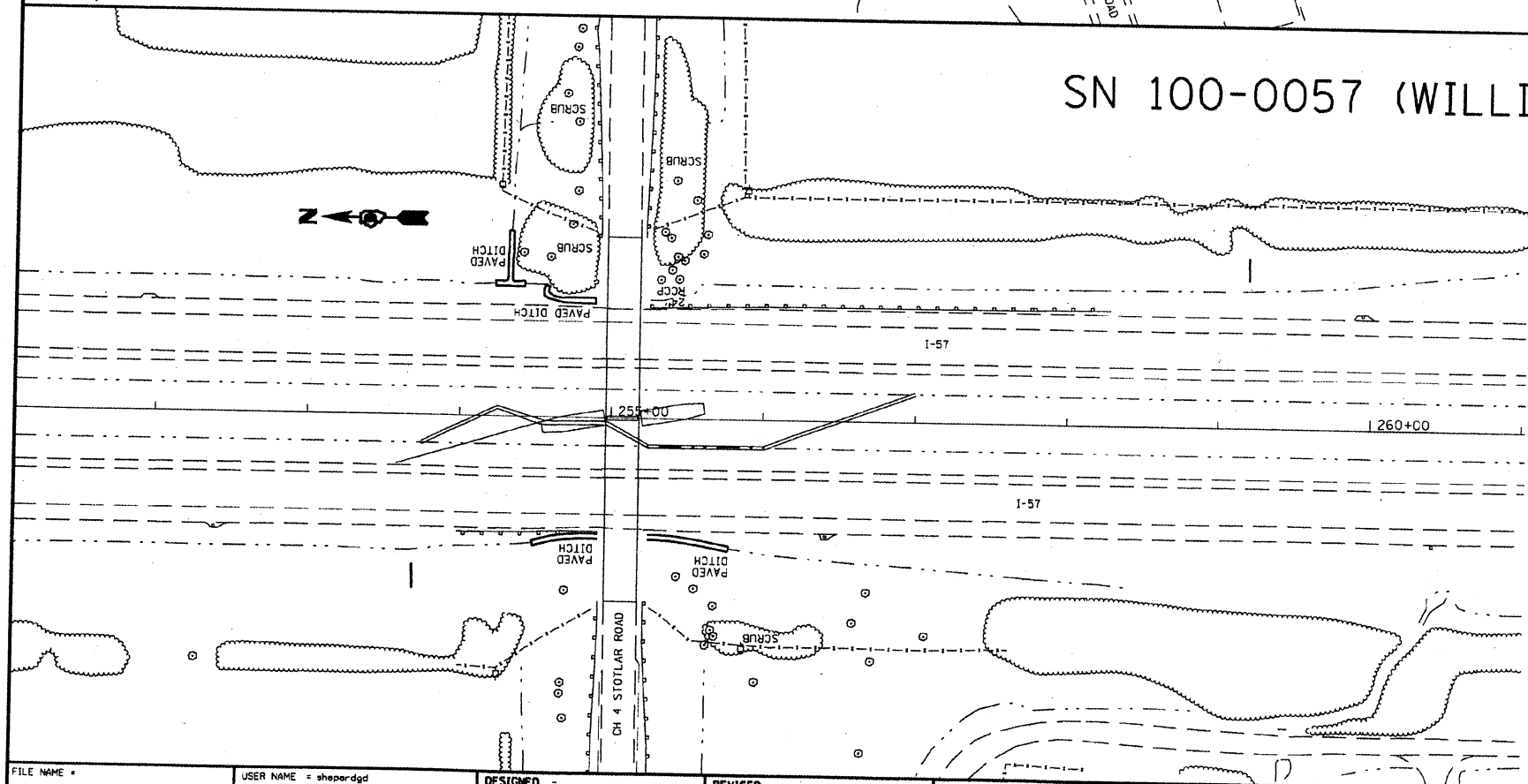
PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

SN 100-0054 (WILLIAMSON COUNTY)



STATION	EXISTING FLOWLINE		PROPOSED FLOWLINE	
	LEFT DITCH	RIGHT DITCH	LEFT DITCH	RIGHT DITCH
361+50	493.73	493.68	493.73	493.68
361+75	493.58	493.47	493.58	493.54
362+00	493.43	493.24	493.43	493.41
362+25	493.27	493.07	493.27	493.27
362+50	493.13	492.91	493.13	493.13
362+75	493.15	493.01	493.08	NA
363+00	493.25	493.11	493.03	NA
363+25	493.02	493.00	492.97	NA
363+50	492.79	492.75	492.92	NA
363+75	492.81	492.78	492.87	NA
364+00	492.86	492.96	492.87	492.96
364+25	492.78	492.88	492.73	492.88
364+50	492.68	492.78	492.58	492.78
364+75	492.44	492.64	492.44	492.64
365+00	492.22	492.50	492.22	492.50
365+25	492.26	492.37	492.26	492.37
365+50	492.33	492.23	492.33	492.23
365+75	492.12	491.97	492.12	491.97

SN 100-0057 (WILLIAMSON COUNTY)



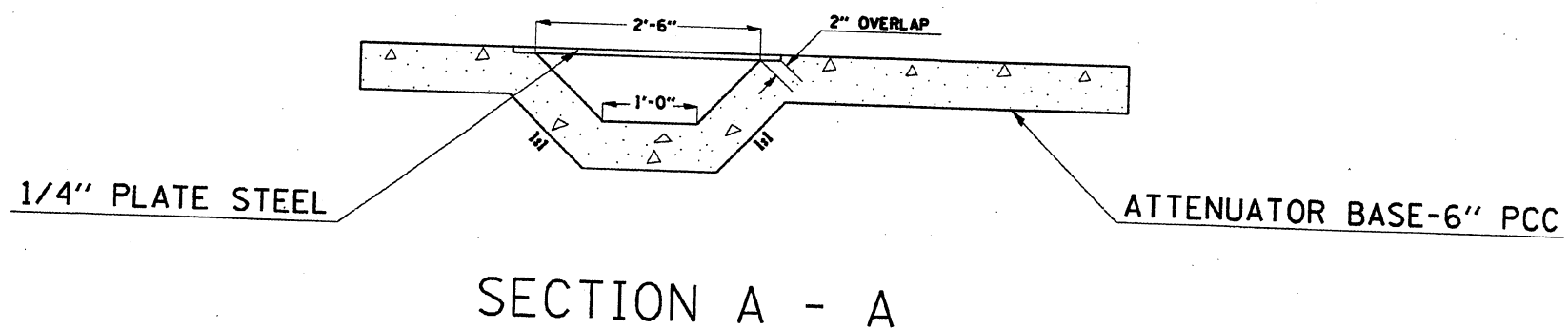
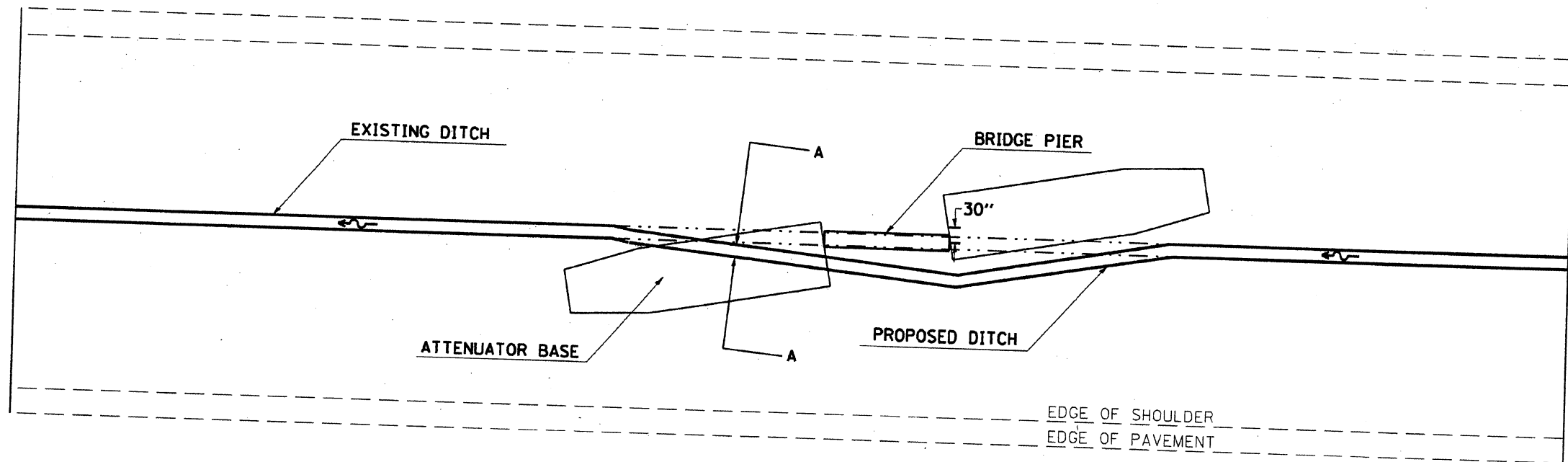
STATION	EXISTING FLOWLINE		PROPOSED FLOWLINE	
	LEFT DITCH	RIGHT DITCH	LEFT DITCH	RIGHT DITCH
253+75	418.56	418.36	418.56	418.36
254+00	418.72	418.52	418.73	418.50
254+25	418.85	418.49	418.91	418.64
254+50	419.15	418.70	419.08	418.77
254+75	419.30	418.91	419.26	418.91
255+00	419.43	419.12	419.43	418.13
255+25	419.54	419.32	NA	418.34
255+50	419.64	419.49	NA	418.55
255+75	419.77	419.68	NA	418.77
256+00	420.05	419.98	419.98	418.98
256+25	420.22	420.19	420.17	420.19
256+50	420.39	420.39	420.36	420.39
256+75	420.56	420.60	420.54	420.60
257+00	420.73	420.80	420.73	420.80

FILE NAME =	USER NAME = shepardgd	DESIGNED -	REVISED -
c:\p\work\p1\dot\shepardgd\10239675\78220-shr-plan.dgn		DRAWN -	REVISED -
PLOT SCALE = 1/8" = 1' / IN.		CHECKED -	REVISED -
PLOT DATE = 3/21/2011		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PIER PROTECTION PLAN SHEETS

SCALE: _____	SHEET NO. _____ OF _____ SHEETS	STA. _____ TO STA. _____	F.A. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			VAR	09 SAFETY 2011-1	VARIOUS	165	17
CONTRACT NO. 78228						ILLINOIS FED. AID PROJECT	



THIS DETAIL APPLIES TO STRUCTURE NUMBERS:

100-0060	100-0057
100-0044	100-0054
100-0039	077-0027
044-0051	077-0032
044-0034	064-0029

FILE NAME =	USER NAME = shepardgd	DESIGNED -	REVISD -
c:\pwork\p\idat\shepardgd\02239675\78228-sh-tr-main.dgn		DRAWN -	REVISD -
	PLOT SCALE = 1/32" = 1" / IN.	CHECKED -	REVISD -
	PLOT DATE = 3/4/2011	DATE -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT DETAILS

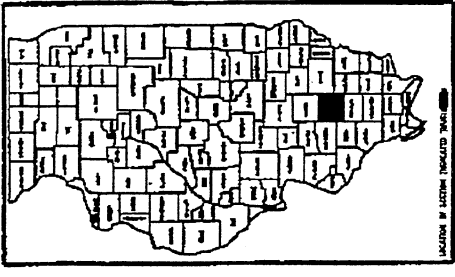
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNT	TOTAL SHEETS	SHEET NO.
VAR	D9 SAFETY 2011-1	VARIOUS	165	38
			CONTRACT NO. 78228	
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

F.A.I. ROUTE 57
 D9 DECK DRAIN EXT 2010-1
 WILLIAMSON COUNTY
 CONTRACT NO. 78198
 SHEET 1 OF 12

D-99-054-10



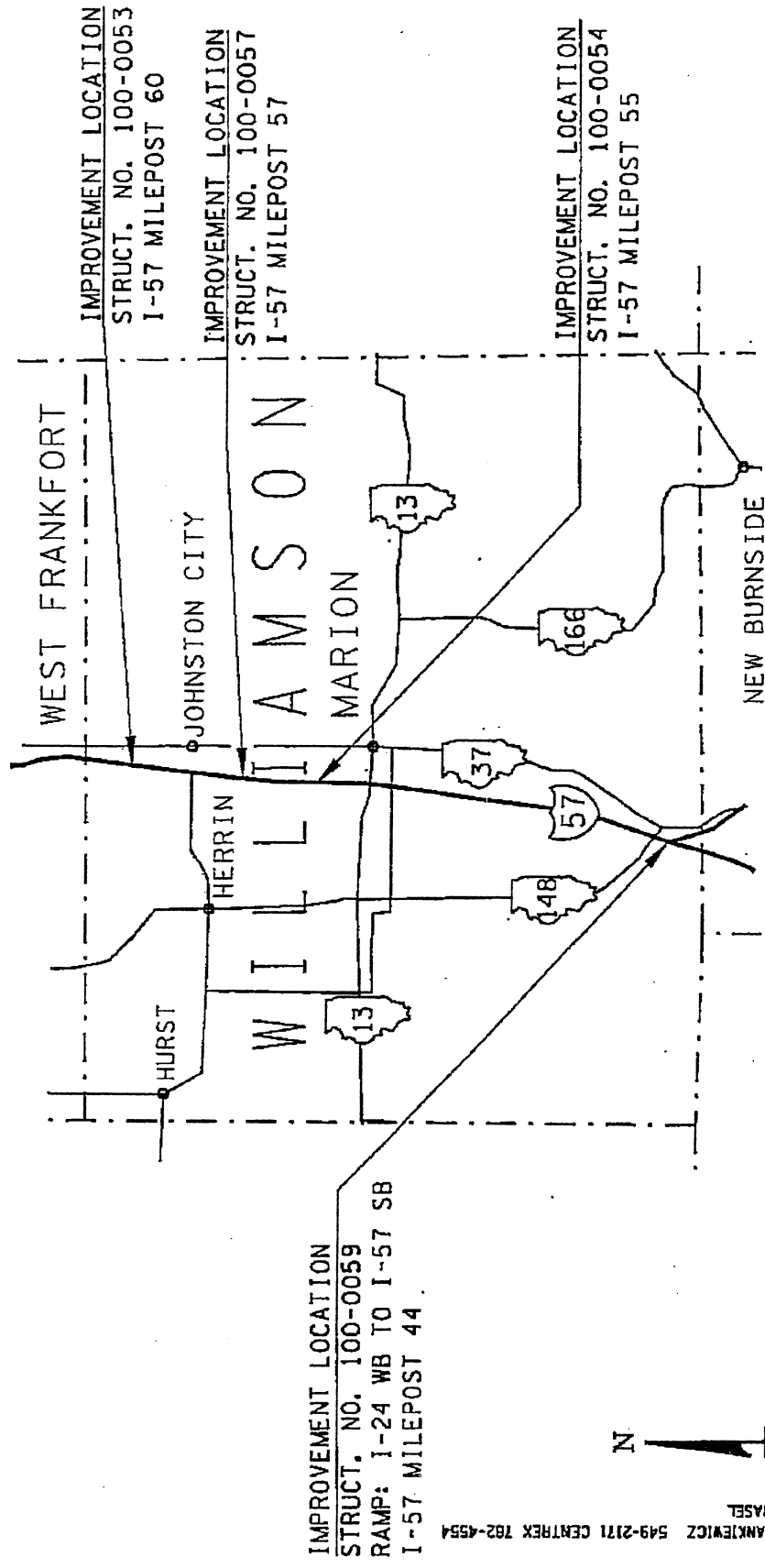
PROPOSED
 HIGHWAY PLANS

F.A.I. ROUTE 57
 SECTION D9 DECK DRAIN EXT 2010-1
 WILLIAMSON COUNTY

TOWNSHIPS:
 HERRIN
 WEST MARION
 SOUTHERN

C-99-055-10

100%
10-19-2010



PROJECT ENGINEER, JOE ZDANKIEWICZ 549-2171 CENTREX 762-4554
 SOUND LEADER, RICHARD BRASEL

FOR SIGNATURE SHEET, SEE SHEET NO. 2
 FOR INDEX OF SHEETS, SEE SHEET NO. 3
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 5

CONTRACT NO. 78198

JULIE 1-800-892-0123

SUMMARY OF QUANTITIES

		100% STATE			
		CONSTRUCTION TYPE CODE: SFTY-2A			
		WILLIAMSON COUNTY			
		RURAL	URBAN	RURAL	RURAL
CODE NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	100-0053	100-0054
				100-0057	100-0059
50300100	FLOOR DRAINS	EACH	16		16
50300530	FLOOR DRAIN EXTENSION	EACH	8	0	0
67100100	MOBILIZATION	L. SUM	1	0.3	0.4
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L. SUM	1		1
X0321468	PLUG EXISTING DECK DRAINS	EACH	32	8	12
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SO. YD.	2.7		2.7

BRIDGE DATA

100-0053

TR 23 (STIRITZ ROAD)
OVER INTERSTATE 57
INVENTORY RATING: HS 17.3
OPERATING RATING: HS 26.2
2006 ADT: 1750

100-0054

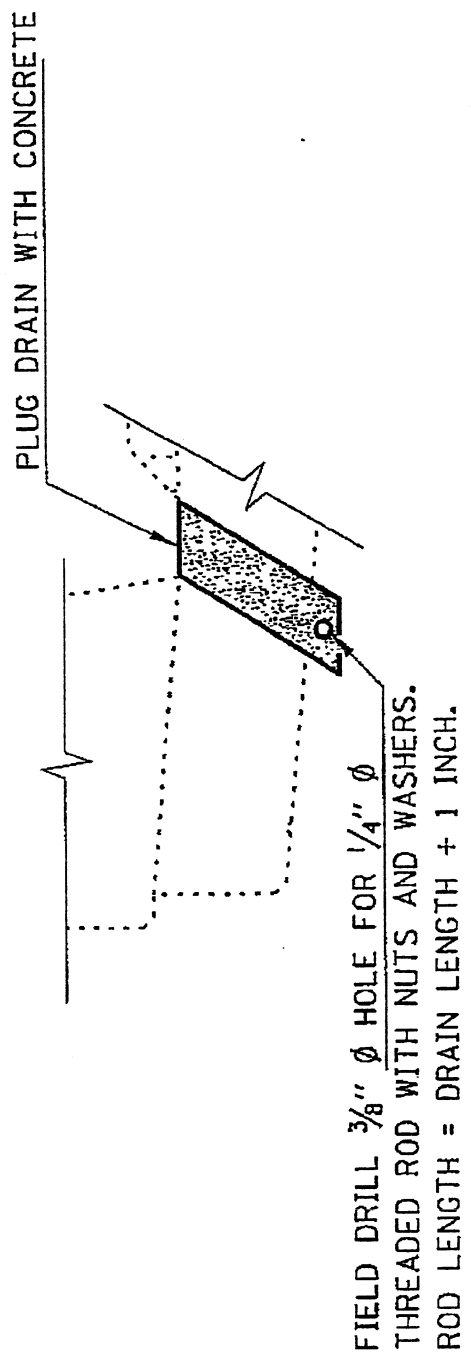
TR 241 (CEDAR GROVE ROAD)
OVER INTERSTATE 57
INVENTORY RATING: HS 16.1
OPERATING RATING: HS 24.7
2006 ADT: 1900

100-0057

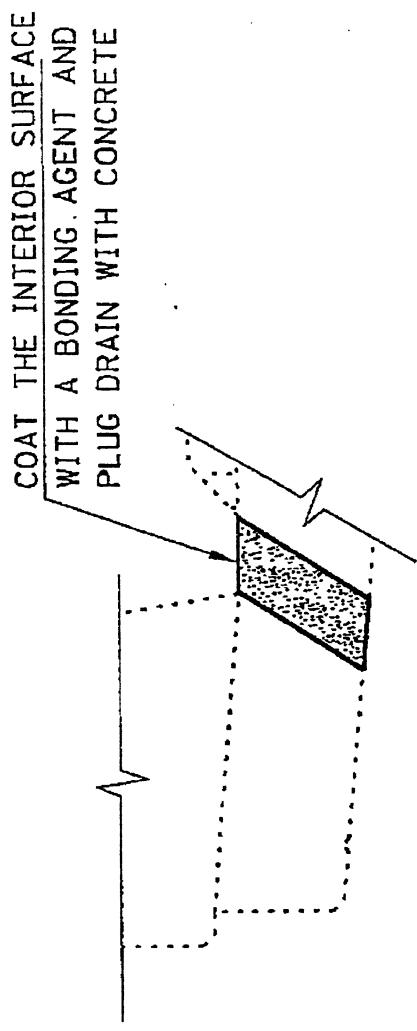
CH 4 (STOTLAR ROAD)
OVER INTERSTATE 57
INVENTORY RATING: HS 21.7
OPERATING RATING: HS 32.8
2006 ADT: 3600

100-0059

INTERSTATE 24 EXIT 44A
OVER INTERSTATE 57
INVENTORY RATING: HS 27.8
OPERATING RATING: HS 42.8
2006 ADT: 150



ALUMINUM DRAIN



FORMED DRAIN OPENING

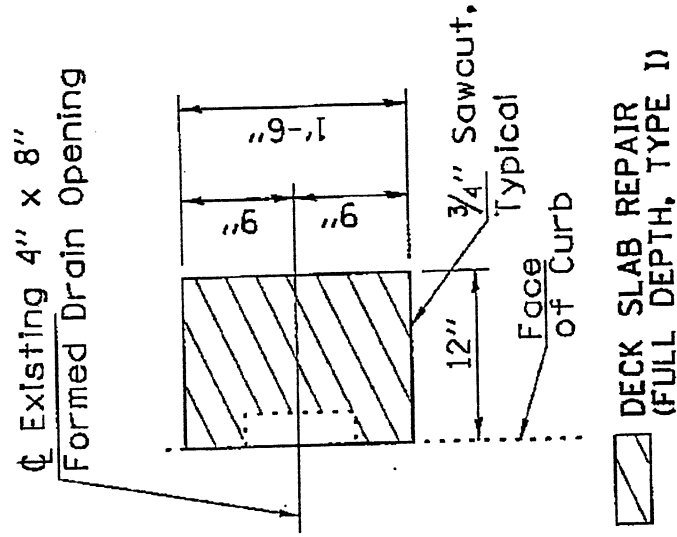
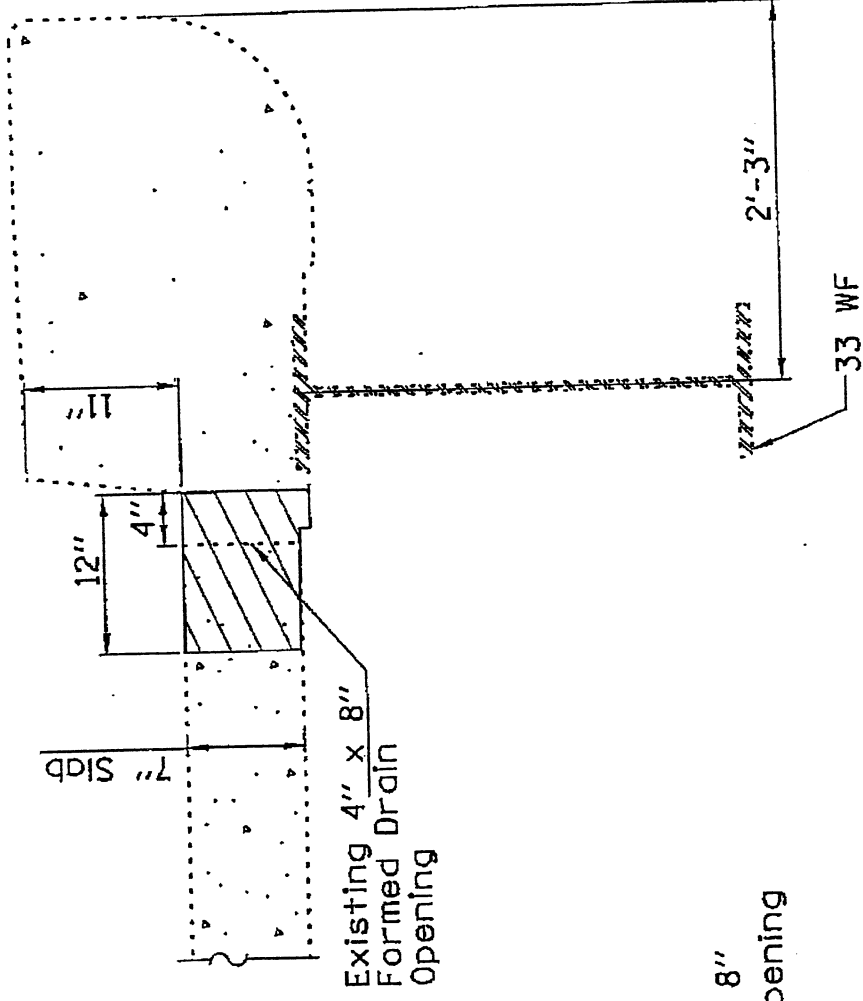
ELIMINATE DRAINS LOCATED WITHIN 10 FEET OF FACE OF ABUTMENTS AND PIERS.

TYPICAL DRAIN ELIMINATION DETAIL

Notes:

Any time that holes in bridge deck are open, they shall be covered with metal plates capable of carrying the full weight of an errant vehicle. Plates shall be placed directly on the concrete deck. Projections above the roadway surface greater than 1" are not permitted except for heads of bolts.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.



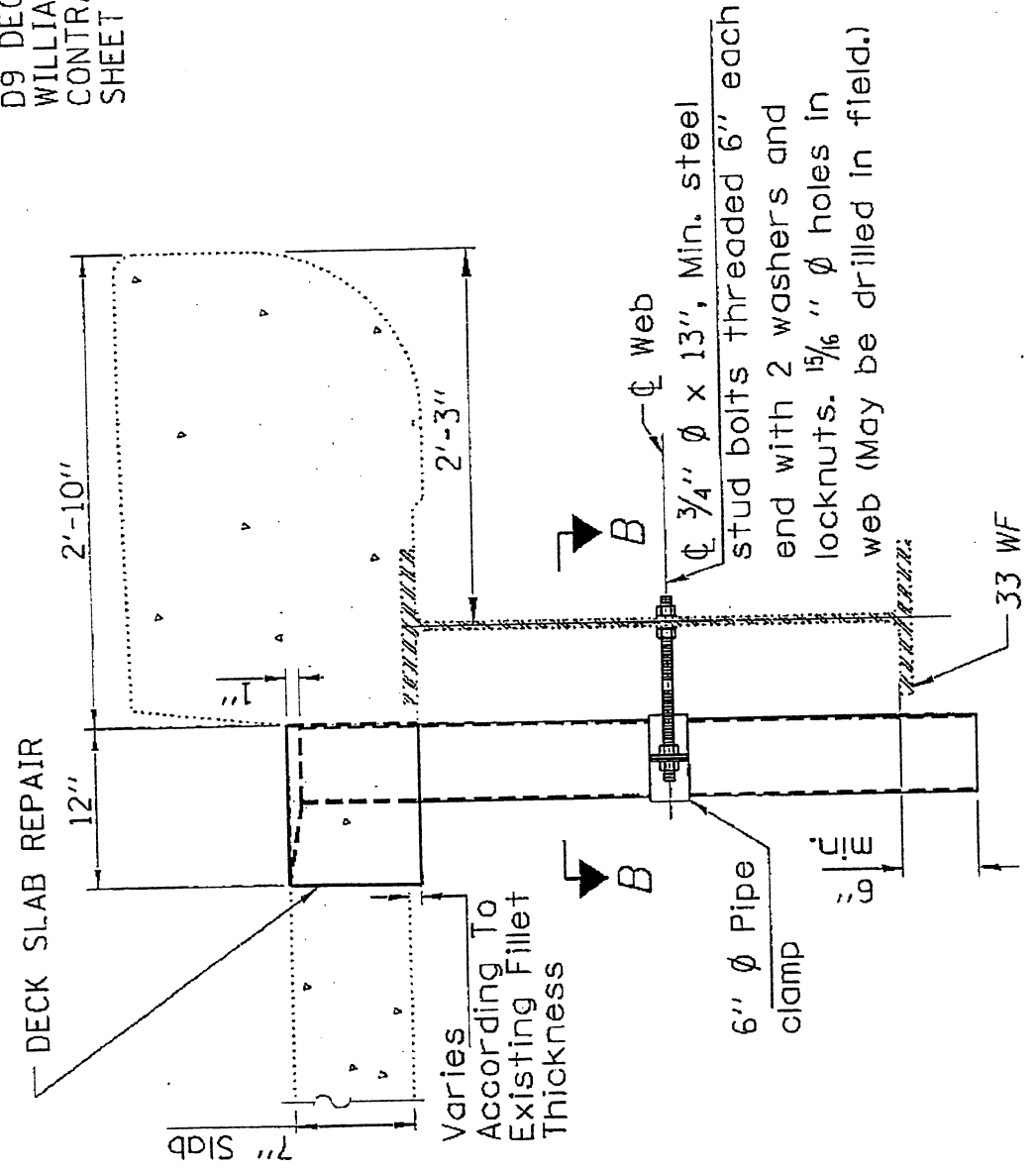
DECK SLAB REPAIR
 (FULL DEPTH, TYPE I)

TOP PLAN

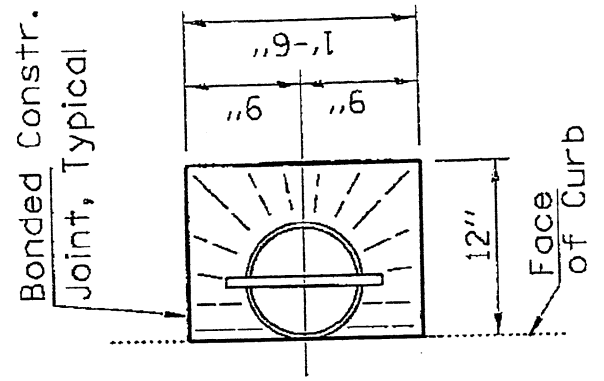
SECTION AT EXISTING DRAIN

SPAN	FLOOR DRAIN (EACH)
EAST	4
CENTER	8
WEST	4
TOTAL	16

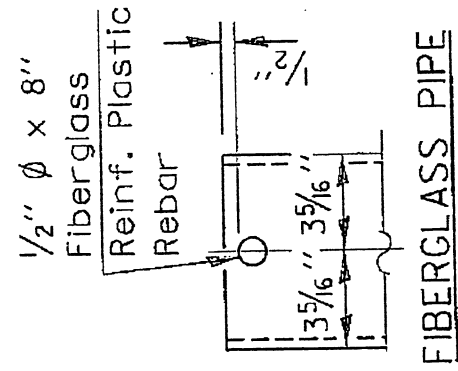
FLOOR DRAIN DETAIL
 100-0057



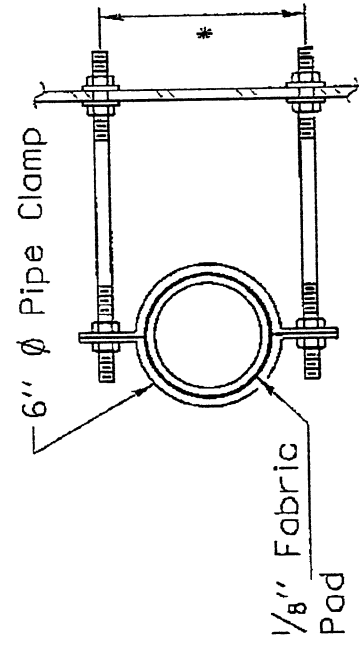
SECTION AT DRAIN



TOP PLAN

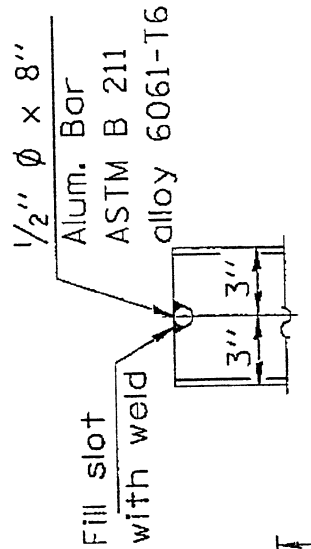


FIBERGLASS PIPE

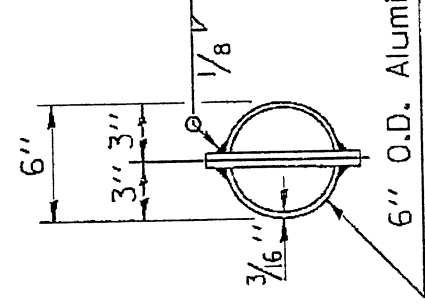


* Dimension as required by Pipe Clamp

SECTION B-B



ALUMINUM TUBE



TOP PLAN

(Showing Aluminum Tube)

Notes:

Drains shall be located clear of all diaphragms. The Contractor has the option of using aluminum tube or fiberglass pipe.

Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

FLOOR DRAIN DETAIL

100-0057

100-0057

100-0057

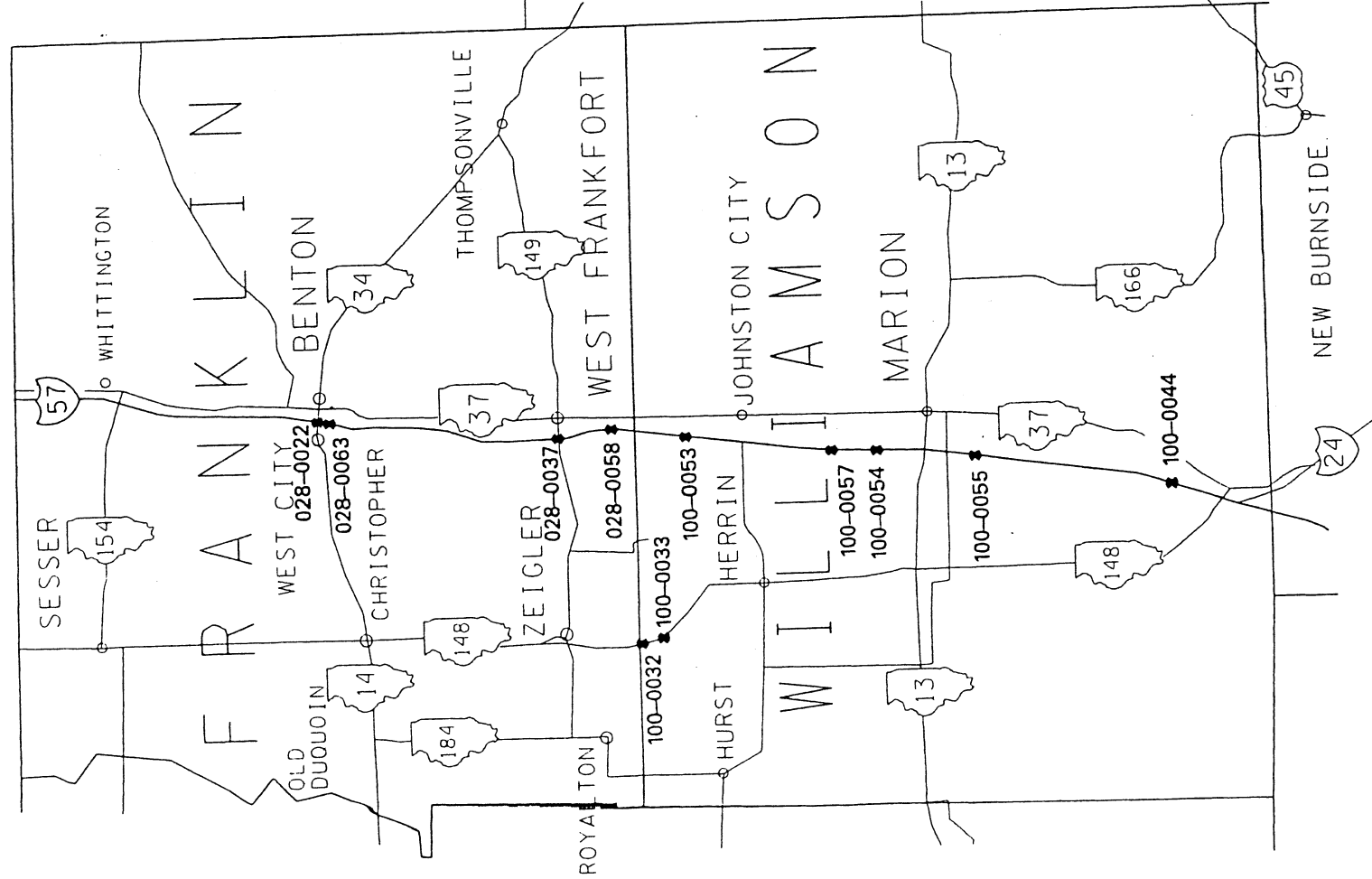
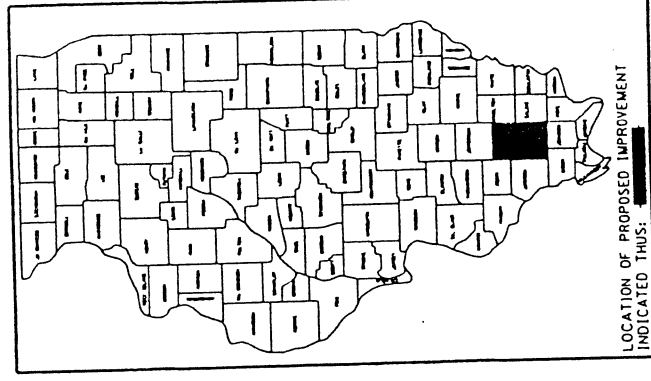
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS DISTRICT 9 VARIOUS ROUTES BRIDGE JOINT REPLACEMENT FRANKLIN & WILLIAMSON COUNTIES

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS		FRANKLIN WILLIAMSON	7	1

FED. ROAD DIST. NO. 7 ILLINOIS DAY LABOR 06F908

BRIDGE JOINT REPLACEMENT



PROJECT ENGINEER: LARRY PICHE PHONE: (618) 649-2171
AD LEADER: RITA GAUTNEY CENTREX: 782-4554

FOR INDEX OF SHEETS, SEE SHEET NO. 2.
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3.

JULIE 1-800-892-0123

DAY LABOR PROJECT NO. 06F908

PREPARED BY: *[Signature]* DISTRICT OPERATIONS ENGINEER

EXAMINED BY: *[Signature]* DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: *[Signature]* DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: *[Signature]* DISTRICT ASSISTANT REGIONAL ENGINEER

APPROVED: *[Signature]* JUN 30 1985
[Signature] DEPUTY DIRECTOR OF HIGHWAYS,
 REGIONAL ENGINEER

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 51	.	FRANKLIN WILLIAMSON	7	4
FED. ROAD DIST. NO. 7 ILLINOIS		DAY LABOR 06F908		
• BRIDGE JOINT REPLACEMENT				

EXISTING JOINTS TO BE REPLACED

STRUCTURE	FACILITY CARRIED	FEATURE CROSSED	EXISTING JOINT TYPE	MEASURED WIDTH "X" ADJ. TO 50°	LENGTH (FOOT)
028-0022	IL 14	I-57	Preformed	W 2" E 2 1/8"	82 82
028-0039	IL 149	I-57	Preformed	2 1/8" 2 1/8"	80 80
028-0058	TR 403	I-57	Preformed	1 1/2"	30
028-0063	WEBSTER	I-57	Pourable	W 1 7/8" E 1 1/8"	36 36
100-0032	IL 148	Big Muddy River	Neoprene	S PIER 2" N PIER 3 1/2"	36 36
100-0033	IL 148	Pond Creek	Preformed	2 1/8" 2 1/8"	35 35
100-0044	FAS 1900	I-57	Preformed	E PIER 2" W PIER 1 3/4"	32 32
100-0053	TR 23	I-57	Preformed	W 1 3/8" E 1 3/8"	32 32
100-0054	TR 241	I-57	Pourable	1 7/16" 1 7/16"	30 30
100-0055	WESTMINSTER	I-57	Preformed	1" 1"	30 30
100-0057	CH 4	I-57	Open	W 1/4" E 7/8"	34 34
TOTAL					940

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

SECTION	SEC.	COUNTY	SHEET
FAI RT 57 XI-2 HB	58	WILLIAMSON	9 40

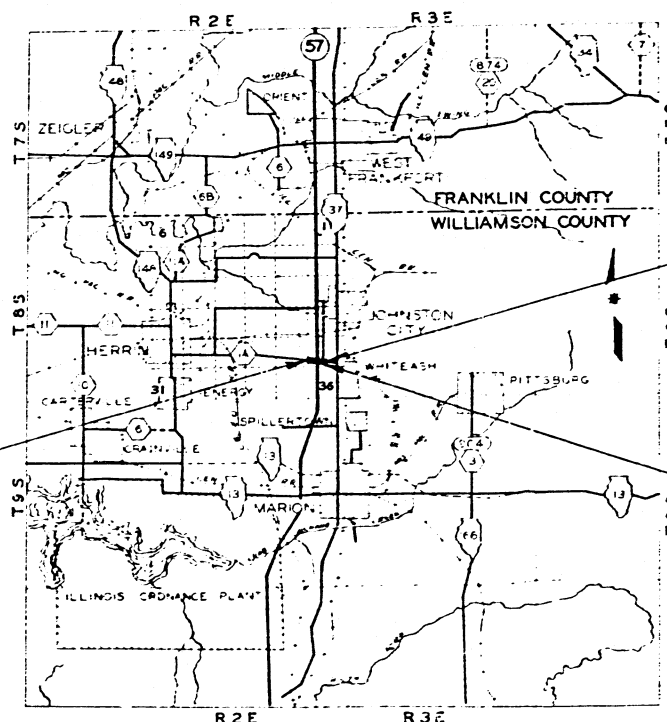
SCALES { PLAN 1 INCH = 100 FT.
 PROFILE HOR. 1 INCH = 100 FT.
 PROFILE VERT. 1 INCH = 10 FT.
 CROSS SECTIONS 1 INCH = 10 FT.

F.A.I. ROUTE 57
 SECTION XI-5HB, 5HF
 WILLIAMSON COUNTY
 PROJECT 1-57-2(19) 58

NOTE: THIS SECTION COMBINED
 WITH SECTION [XI-4HB-1, 4HB-2
 XI-4HF-1, 4HF-2



LOCATION OF SECTION INDICATED THUS: —



PROPOSED IMPROVEMENT ENDS
 STA. 21+00

PROPOSED IMPROVEMENT BEGINS
 STA. -(1+50)

SECTION XI-5HB INCLUDES CONSTRUCTION OF A
 4 SPAN CONTINUOUS I-BEAM
 GRADE SEPARATION STRUCTURE
 SPANS 2 @ 43'-7" & 2 @ 75'-4"
 241'-6" B. TO B. ABUTMENTS
 STA. 10+00 = 255+07.00 (F.A.I. 57)
 NOT INCLUDED IN THIS SECTION IS THE
 FURNISHING, FABRICATING, SHOP PAINTING AND
 DELIVERY OF THE STRUCTURAL STEEL
 SECTION XI-5HF INCLUDES:-
 FURNISHING FABRICATING, SHOP PAINTING AND
 DELIVERY OF THE STRUCTURAL STEEL F.O.B.
 MISSOURI PACIFIC R-2 SIDING AT JOHNSTON CITY.

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

SUBMITTED: _____
 EXAMINED: June 2, 1961
 PASSED: June 2, 1961
 APPROVED: June 2, 1961
 APPROVED: June 3, 1961

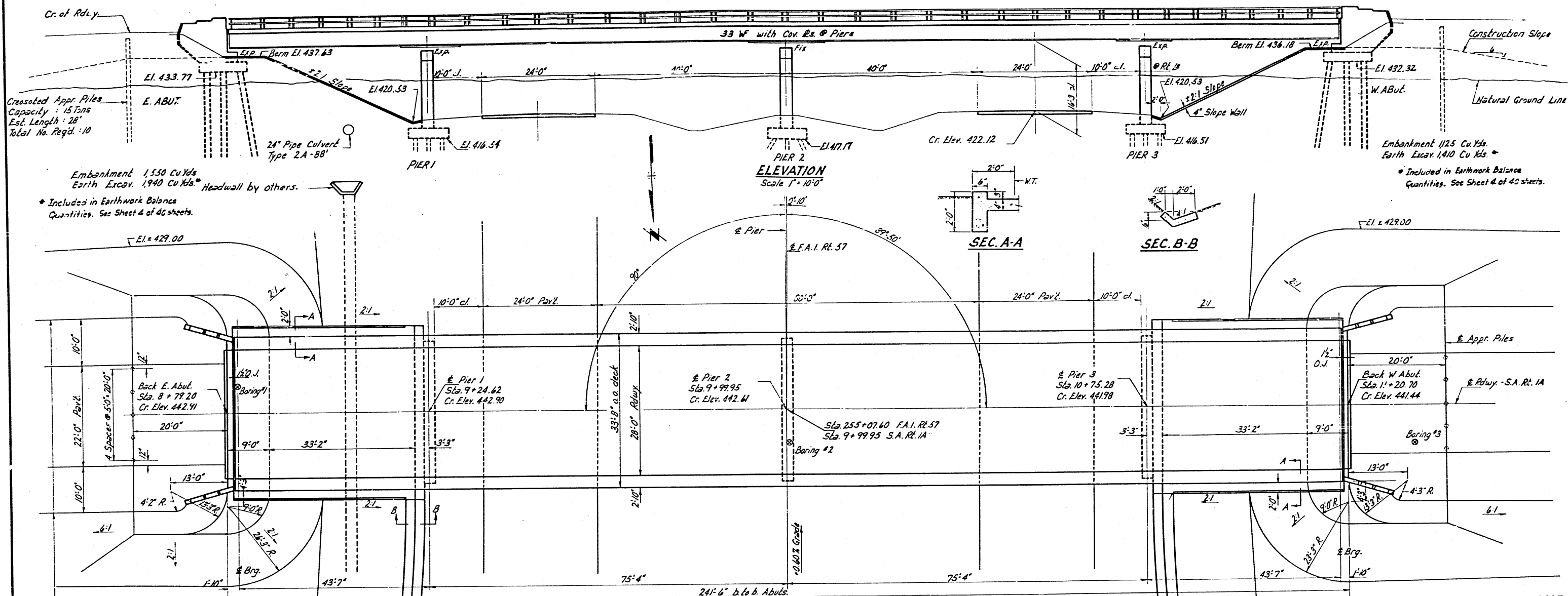
9-42

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED: _____
 DIVISION ENGINEER

DATE: _____

LAYOUT
 APPROXIMATE SCALE 1" = 3 MILES
 NET LENGTH = 2250.00 FT. = 0.426 MILE



Embankment 1,550 Cu.Yds.
Earth Excav. 1,940 Cu.Yds. * Headwall by others.
* Included in Earthwork Balance Quantities. See Sheet 4 of 40 sheets.

Embankment 1,125 Cu.Yds.
Earth Excav. 1,410 Cu.Yds. *
* Included in Earthwork Balance Quantities. See Sheet 4 of 40 sheets.

GENERAL NOTES

Class X Concrete shall be used throughout.
The Concrete floor slab shall be finished in accordance with Article 51.19 of the Standard Specifications.
Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, #4 wires weighing 58# per 100 sq.ft. Cut off wall is included in quantity of slope wall.
Coarse aggregate which is to be used in end posts must be absolutely free of chert, limonite, lignite and soft sandstone.
Rivets 3/4", Open holes 1 1/2", unless noted.
Railings shall be adjusted to true alignment after curbs have been poured.
All bolsters, rockers, bearing plates, lead plates, shim plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications and are included in quantity of Structural Steel. Est. Wt. 9000 Lbs.
All steel handrail posts shall be vertical.
Expansion guards shall be fabricated and erected in accordance with Article 51.13(d) of the Standard Specifications and are included in quantity of Structural Steel.
Except as otherwise provided all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.

PLAN

Scale 1" = 10'-0"
Handrail shall be painted according to Article 55.3 of the Standard Specifications.
All paint shall be furnished and applied by the Contractor.

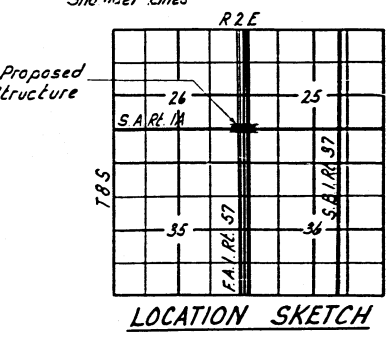
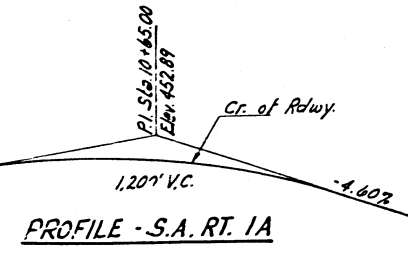
The Contractor shall drive one concrete test pile in permanent location at E. Abutment and one timber test pile in the vicinity of Pier 3, as directed by the Engineer before ordering remainder of piles.

TOTAL BILL OF MATERIAL - SEC. XI-5HB

Item	Super	Sub	Total
Class A Excavation for Struct.		141	141
Erecting Structural Steel	226,680		226,680
Class X Concrete	230.7	225.4	456.1
Metal Handrail	478		478
Pipe Culverts Type 2A-24"			88
Reinforcement Bars	41,110	16,810	57,920
Crescoted Piles		940	940
Test Piles (Timber)		1	1
Concrete Piles		677	677
Test Piles (Concrete)		1	1
Name Plates		2	2
Slope Wall		423	423
Section XI-5HB Furnishing Structural Steel			226,680

DESIGN STRESSES
fc = 1,400 p.s.i. Super f Sub
fs = 75 p.s.i. Pier Footings
fs = 20,000 p.s.i. Reint.
fs = 18,000 p.s.i. Struct.
n = 10
LOADING H20-S16-44

PRJ. I-57-2(19) 5B
GENERAL PLAN & ELEVATION
S.A. RT. 1A OVER
F.A.I. RT. 57 SEC. XI-5HB(F)
WILLIAMSON COUNTY
STA. 255+07.60



STA. 255+07.60
BUILT 196 BY
STATE OF ILLINOIS
F.A.I. RT. 57 SEC. XI-5HB
LOADING H20-S16
NAME PLATE
See Std. 2113

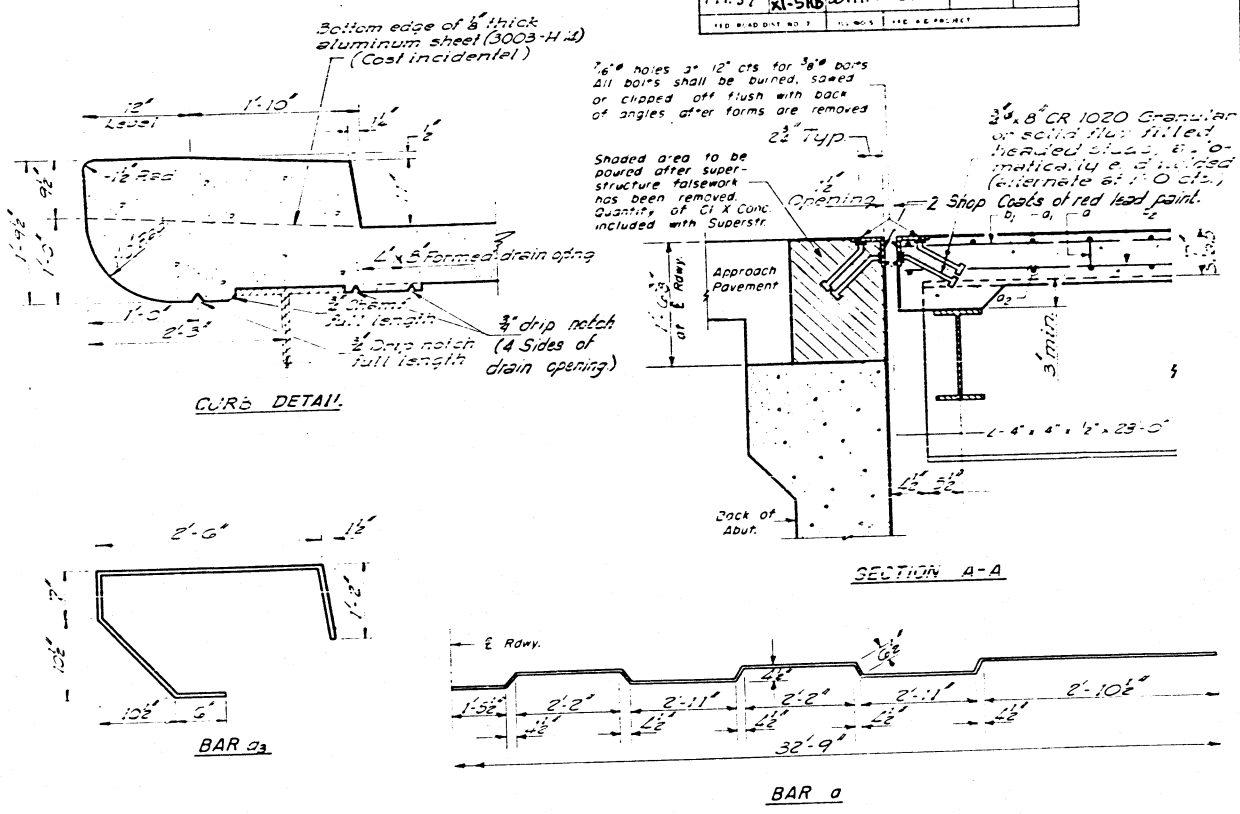
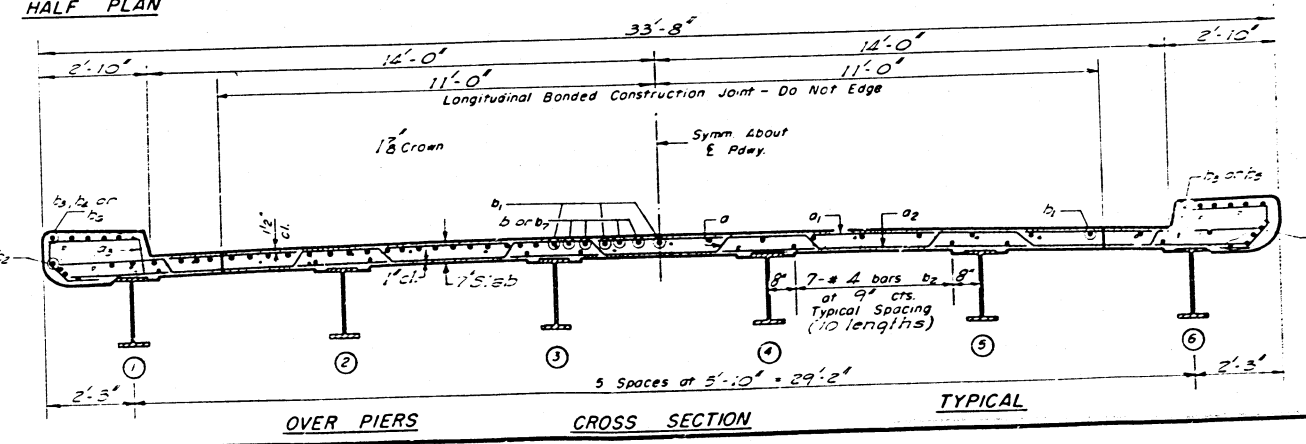
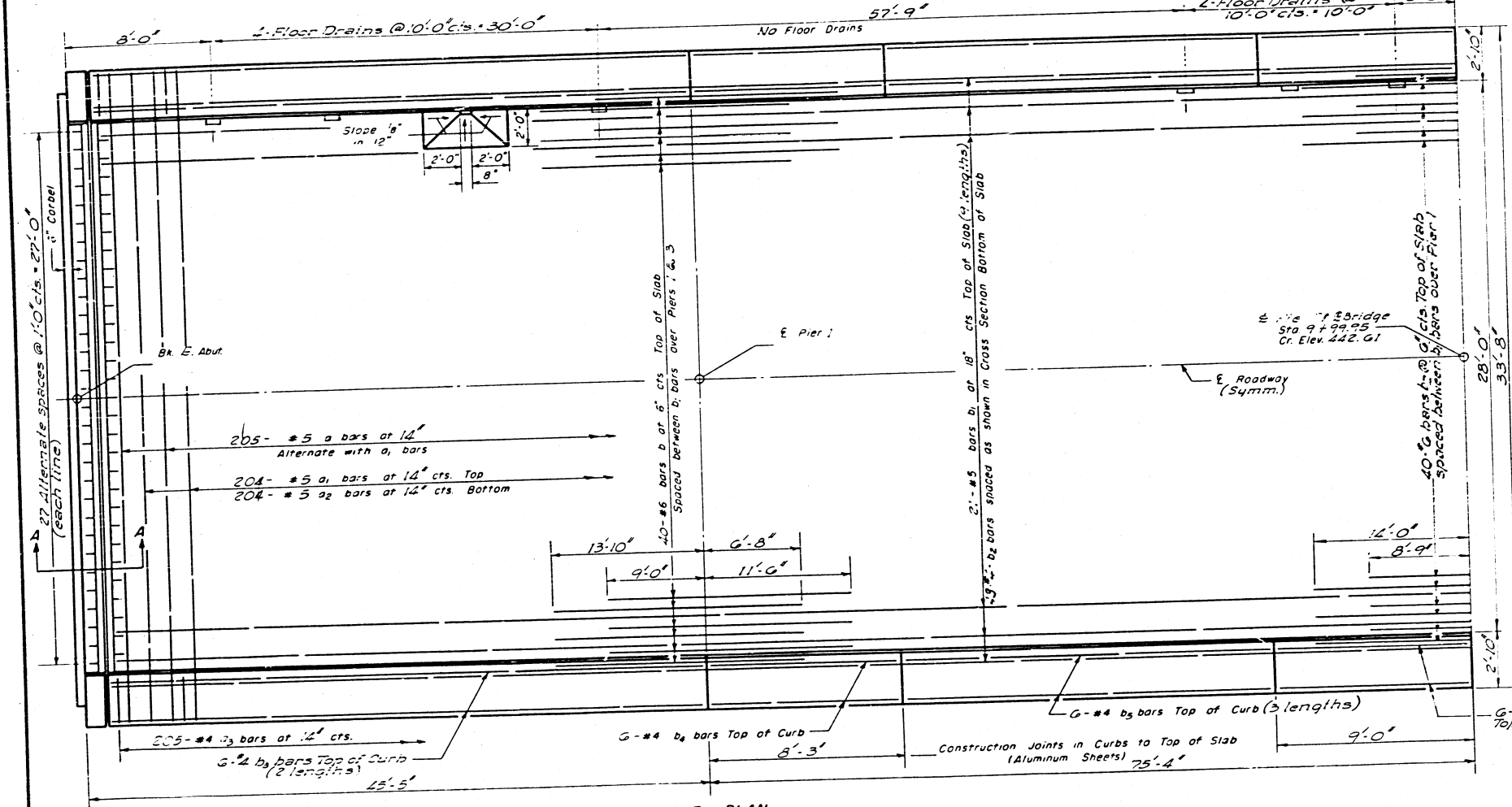
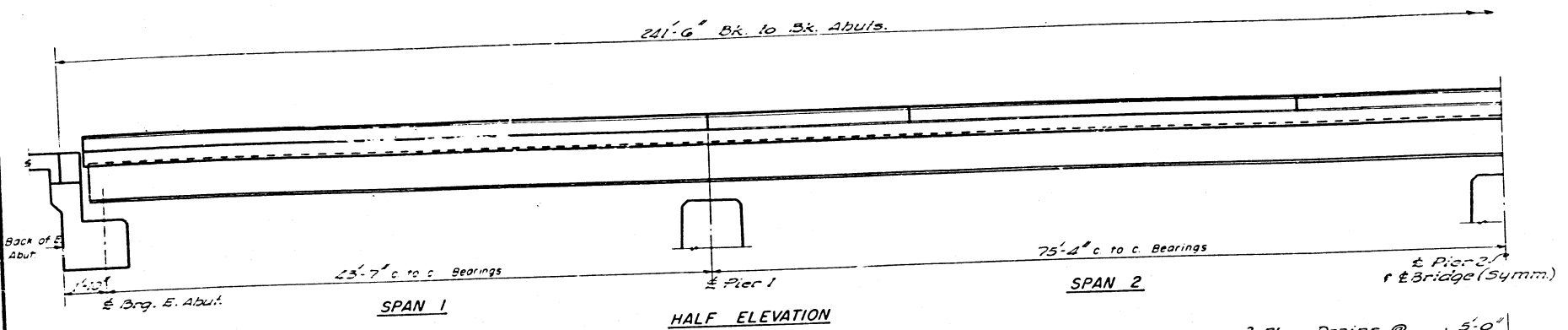
DESIGNED *Campbell*
CHECKED *S. Enger*
DRAWN *P. Lowler*
CHECKED *S. Enger*

EXAMINED *W.E. Bowman*
PASSED *P. Smith*
APPROVED *R.P. Barthman*

Dec. 15 1960

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

PROJECT NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
57	XI-5NB Williamson	40	9	2
REVISED BY	DATE	BY	REASON	



METHOD OF DETERMINING FILLET HEIGHT "f"
After all Structure Steel has been erected elevations of the top flanges of the beams shall be taken at stations shown on sheet "10". These elevations subtracted from the "theoretical grade elevations, adjusted for dead load deflection" shown on sheet "10" minus floor thickness, equal the fillet heights above top of beam.

BILL OF MATERIAL

Bar	No	Size	Length	Space
a	205	#5	32'-5"	
a1	204	#5	32'-9"	
a2	204	#5	31'-9"	
a3	410	#2	6'-0"	
b	80	#6	20'-6"	
b1	189	#5	27'-5"	
b2	430	#2	25'-0"	
b3	28	#2	23'-3"	
b4	24	#2	7'-3"	
b5	72	#2	20'-3"	
b6	24	#2	8'-5"	
b7	40	#6	23'-0"	
Class X Concrete		C-13	350'	
Reinforcement Bars		LE	4110	
Structural Steel		LB	226,480	

DESIGNED *Confidential*
CHECKED *J. Enger*
DRAWN *J. C. Mullenix*
CHECKED *J. Enger*

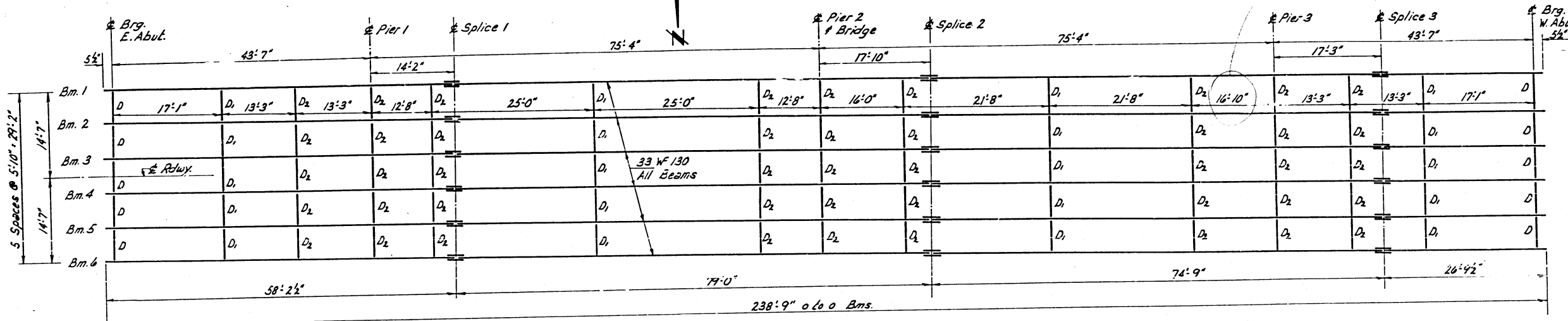
EXAMINED *W. E. Baerlein*
PASSED *R. C. Smith*
APPROVED *R. R. Bantlinger*

DEC 15 1960

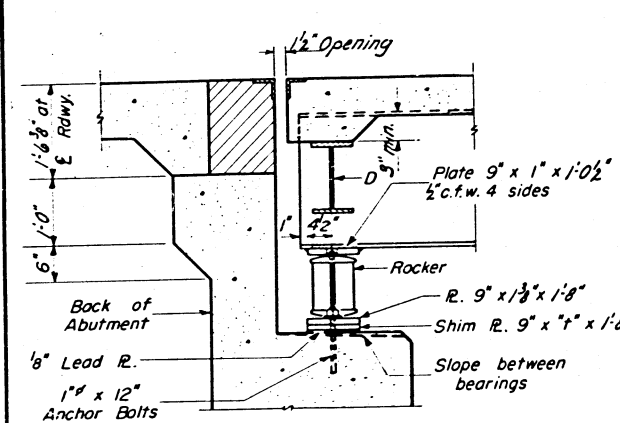
DESIGN STRESSES
fs = 18,000 psi Structural Steel
fs = 20,000 psi Reinforcement
fc = 1,400 psi Superstructure
fc = 1,400 psi Substructure

**SUPERSTRUCTURE
S.A.R.T. 1A
OVER
S.A.I.R.T. 57 SEC. XI-5H(B,F)
WILLIAMSON COUNTY
STATION 255 + 07.60**

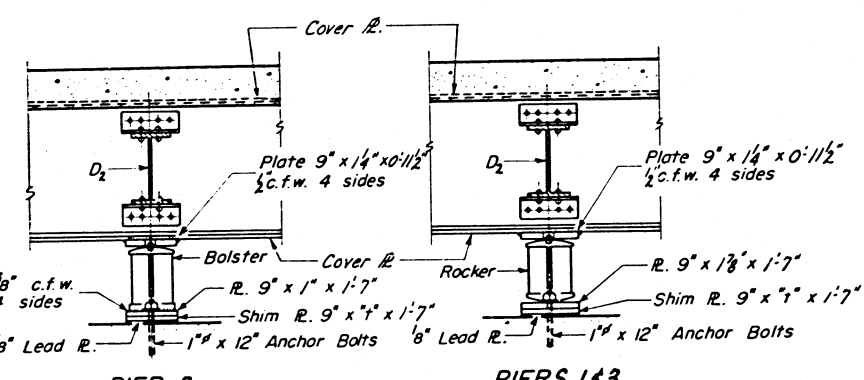
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	XI-5HB	Williamson	40	10



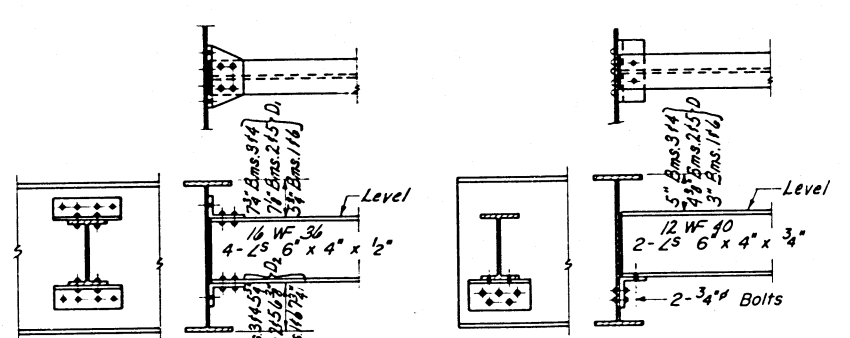
STRUCTURAL STEEL PLAN



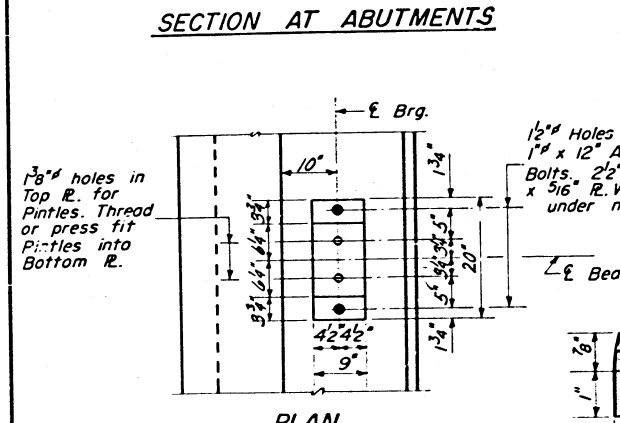
SECTION AT ABUTMENTS



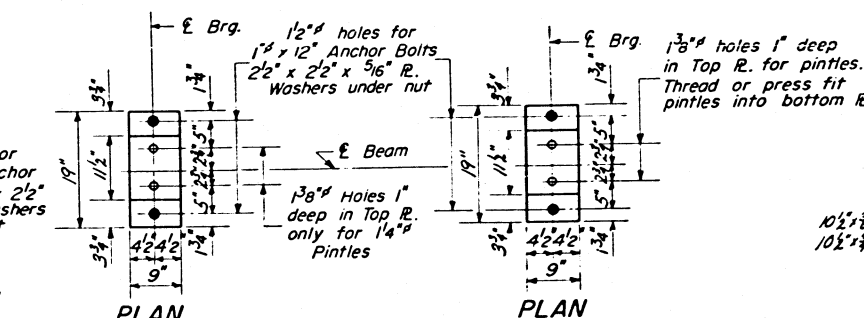
PIER 2 **PIERS 1 & 3**



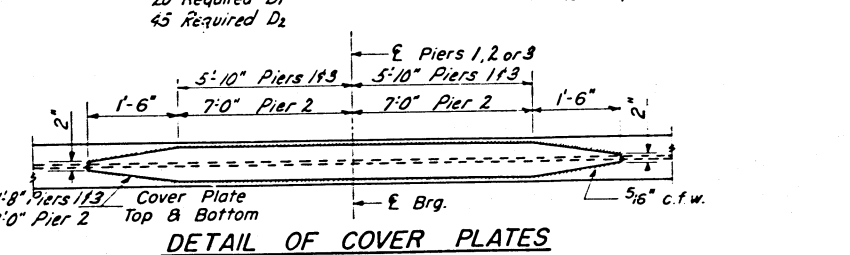
DIAPHRAGMS D₁ & D₂ **DIAPHRAGM D**



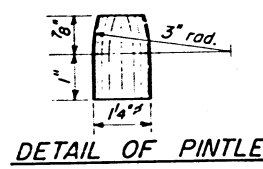
PLAN



PLAN **PLAN**



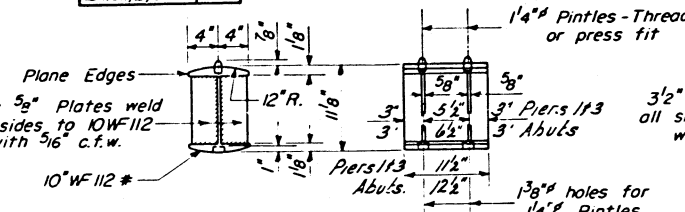
DETAIL OF COVER PLATES



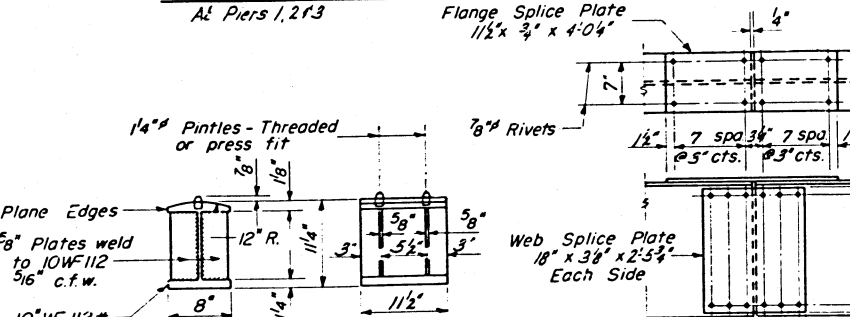
DETAIL OF PINTLE

TABLE OF 1/2" DIMENSIONS

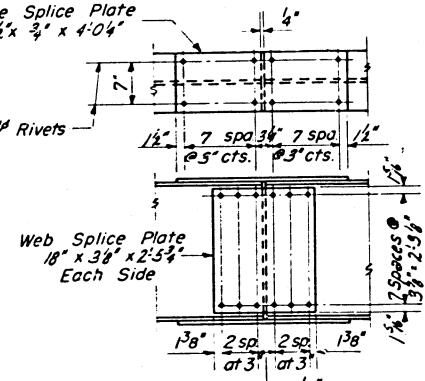
Bms 3 & 4	5/8"
Bms 12, 5 & 16	0"



DETAIL OF ROCKER AT PIERS 1, 3 & ABUTS.



DETAIL OF BOLSTER AT PIER 2



DETAIL OF SPLICE

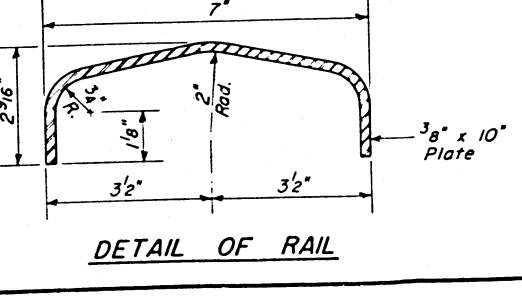
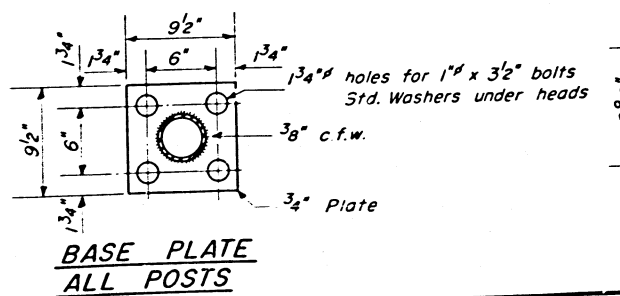
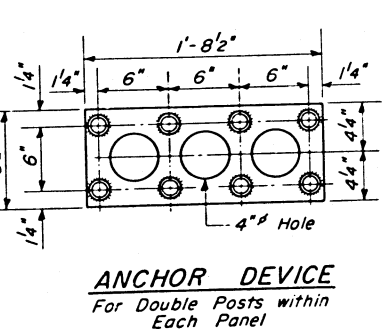
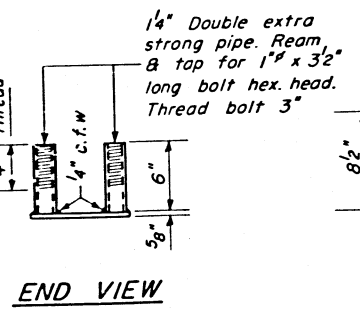
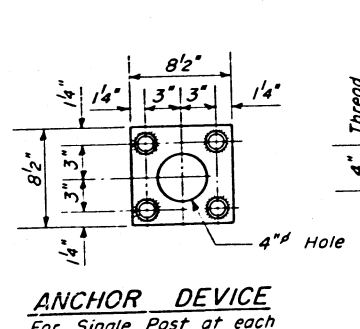
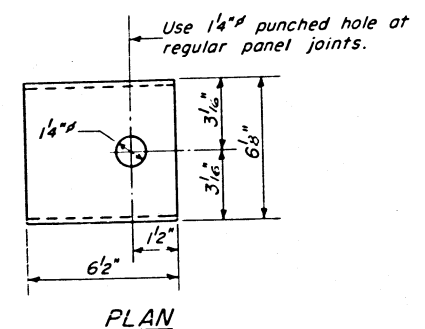
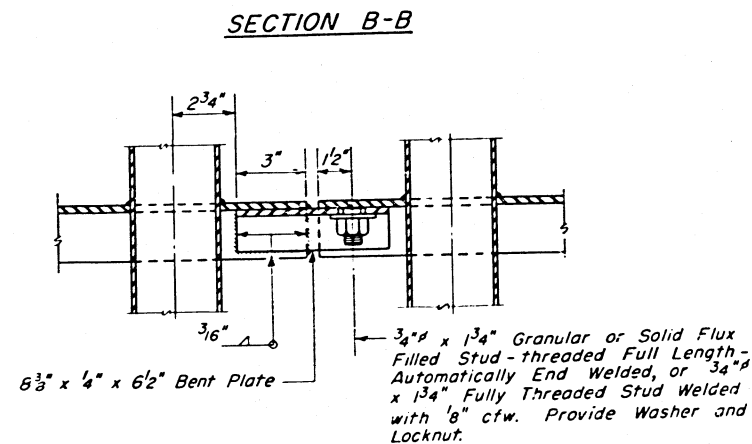
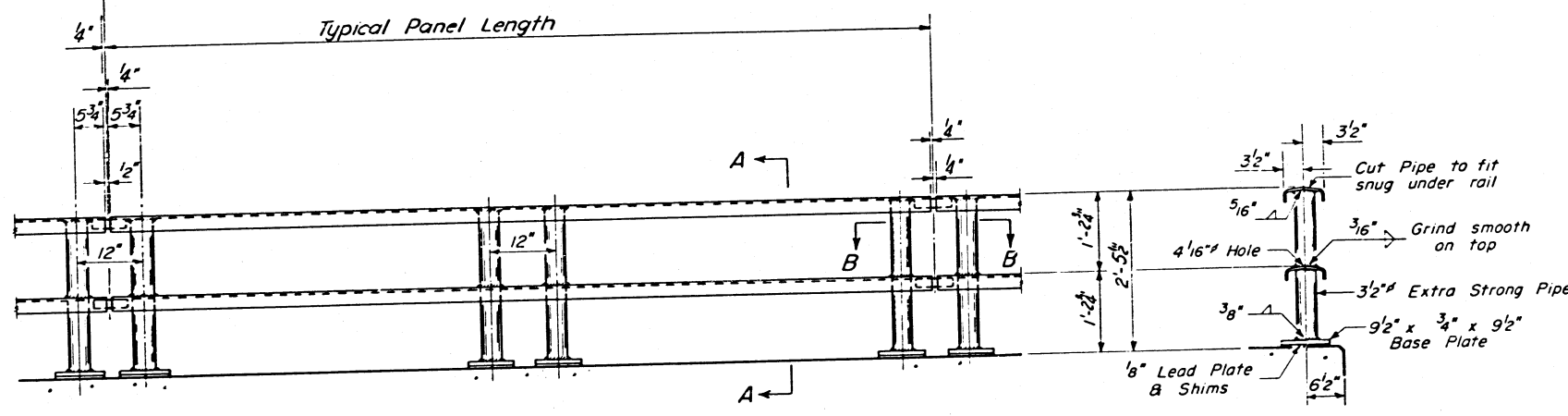
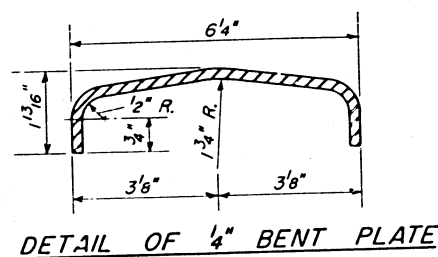
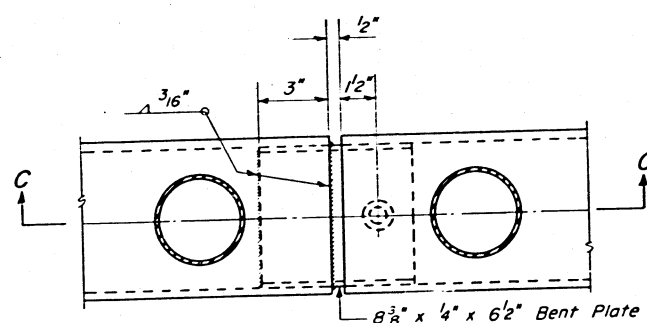
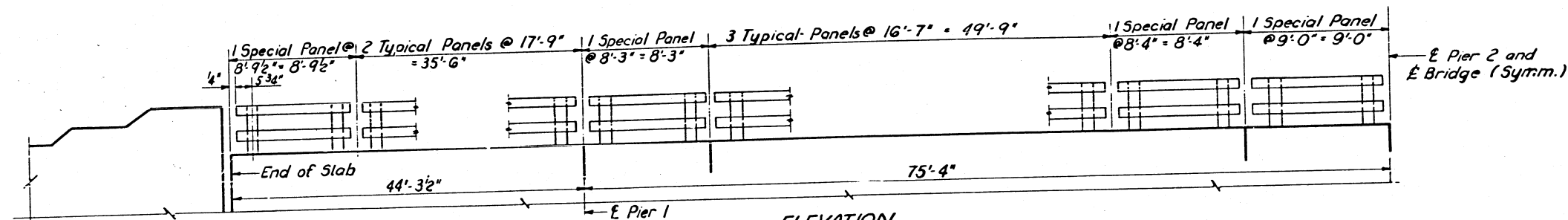
ELEVATION TOP OF BEAMS

	Bms 3 & 4	Bms 2 & 5	Bms 1 & 6
± Brq. E. Abut.	442.32	442.27	442.16
± Pier 1	442.26	442.21	442.10
± Splice 1	442.24	442.19	442.08
± Pier 2	441.95	441.90	441.79
± Splice 2	441.86	441.81	441.70
± Pier 3	441.32	441.27	441.16
± Splice 3	441.16	441.11	441.00
± Brq. W. Abut.	440.87	440.82	440.71

(Elev. are at top of flanges)

DESIGNED: *Confertant*
 CHECKED: *S. Enger*
 DRAWN: *W. A. Sausaman*
 EXAMINED: *W. S. Berman*
 PASSED: *C. J. Shantz*
 APPROVED: *R. R. Bostrom*

STRUCTURAL STEEL
S.A. RT. 1A
OVER
F.A.I. RT 57 SEC. XI-5H(B,F)
WILLIAMSON COUNTY
STA. 255+07.60



GENERAL NOTES

Provide 1-1/8" and 2-1/16" Shims for 50% of the Posts.

BILL OF MATERIAL

Item	Unit	Quantity
Metal Handrail	Lin.Ft.	478

HANDRAIL
S.A. RT. 1A OVER
F.A.I. RT. 57 SEC. XI-5HB
WILLIAMSON COUNTY
STA. 255+07.60

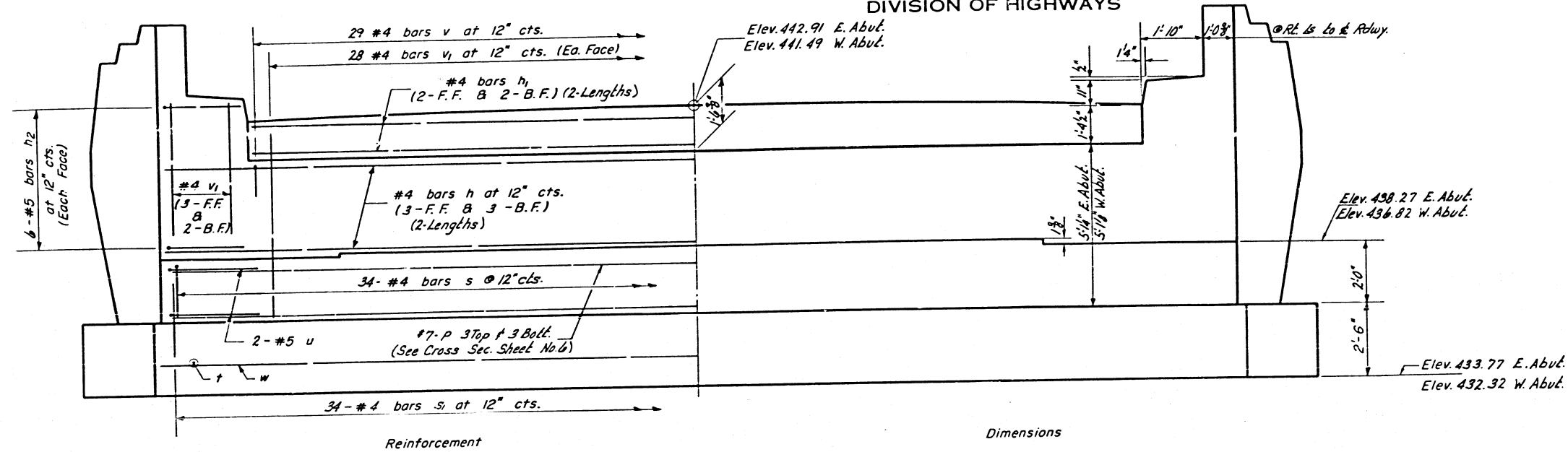
DESIGNED *Confidential*
CHECKED *S. Enger*
DRAWN *W. A. Sausman, Jr.*
CHECKED *S. Enger*

EXAMINED *W. E. Barman*
PASSED *C. F. Sauer*
APPROVED *R. R. Bartelme*

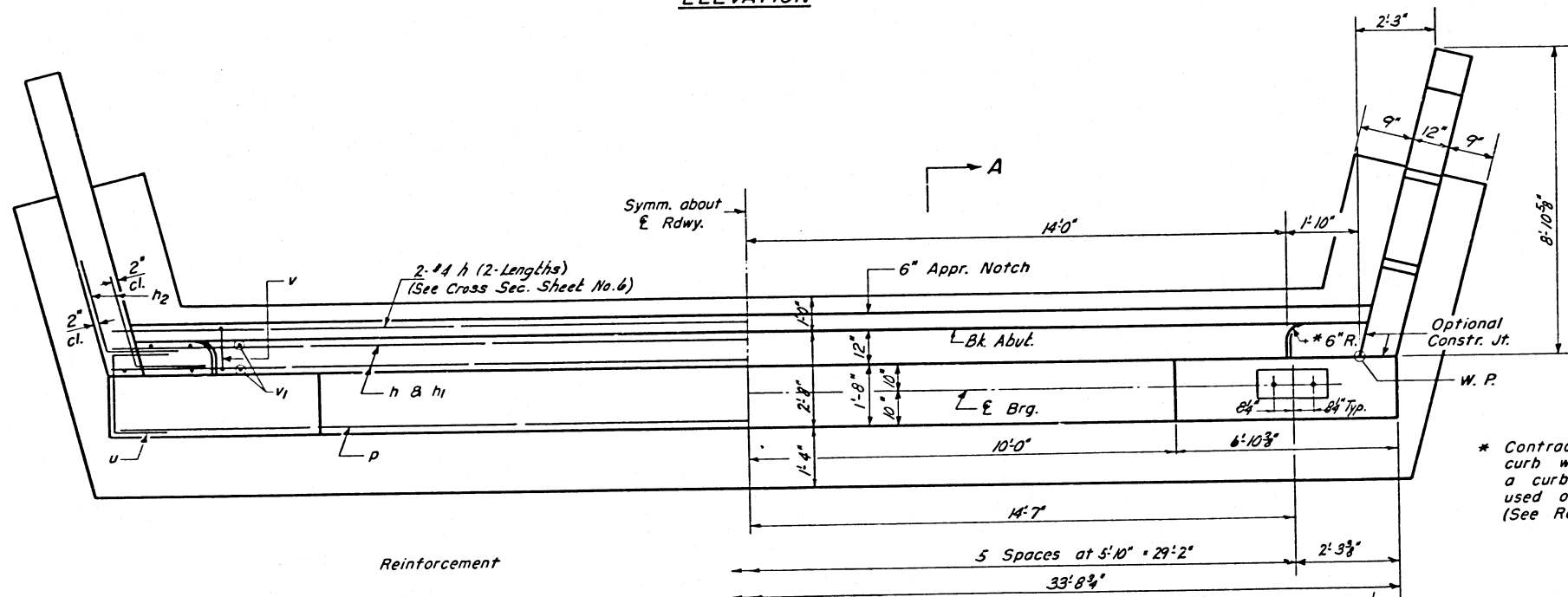
Dec 15 1960

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

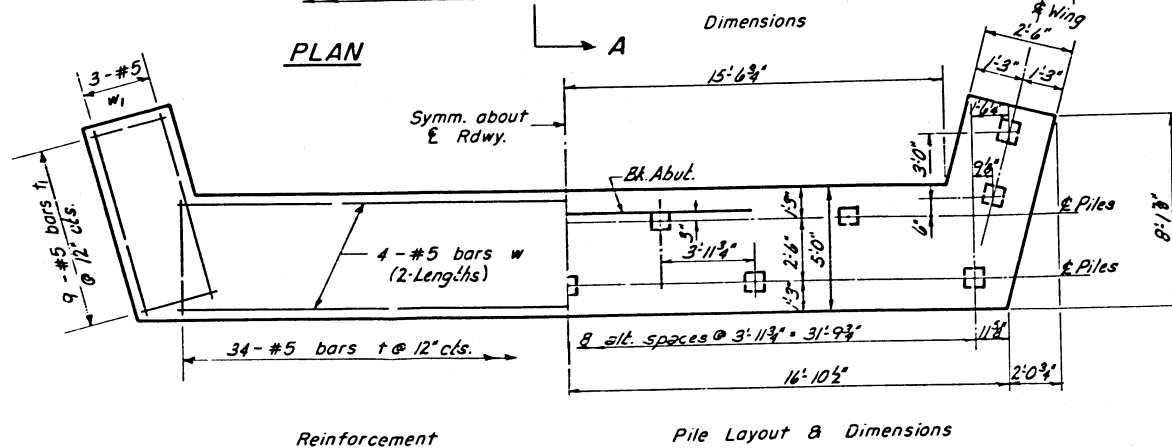
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
F.A.I. 57	XI-5HB	WILLIAMSON	40	12	10 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	



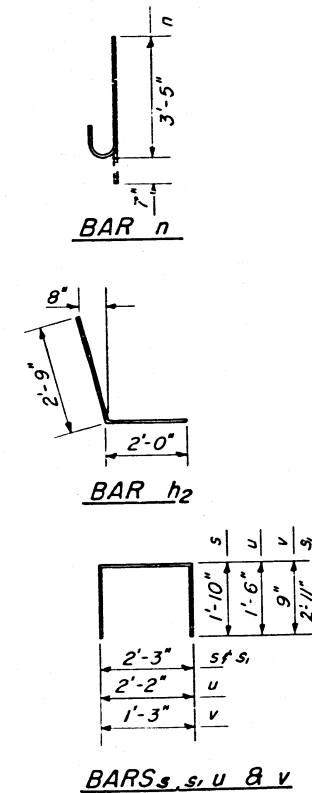
ELEVATION



PLAN



FOOTING PLAN



E & W ABUTMENTS
BAR LIST

Bar	No.	Size	Length	Shape
h	32	#4	18'-0"	—
h ₁	16	#4	14'-6"	—
h ₂	48	#5	4'-9"	L
n	40	#5	4'-0"	U
p	12	#7	33'-4"	—
s	68	#4	5'-11"	□
s ₁	68	#4	8'-1"	□
t	68	#5	4'-8"	—
t ₁	36	#5	2'-2"	—
u	8	#5	5'-2"	□
v	58	#4	2'-9"	□
v ₁	132	#4	6'-4"	—
w	16	#5	16'-10"	—
w ₁	12	#5	8'-0"	—

E & W ABUTMENTS
BILL OF MATERIAL

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	67.4
Reinforcement Bars	Lbs.	4660
Concrete Piles	Lin. Ft.	677
Test Piles (Concrete)	Each	1

Note: Bill of Material includes Reinforcement and Class X Concrete for E & J Posts.

PILE DATA

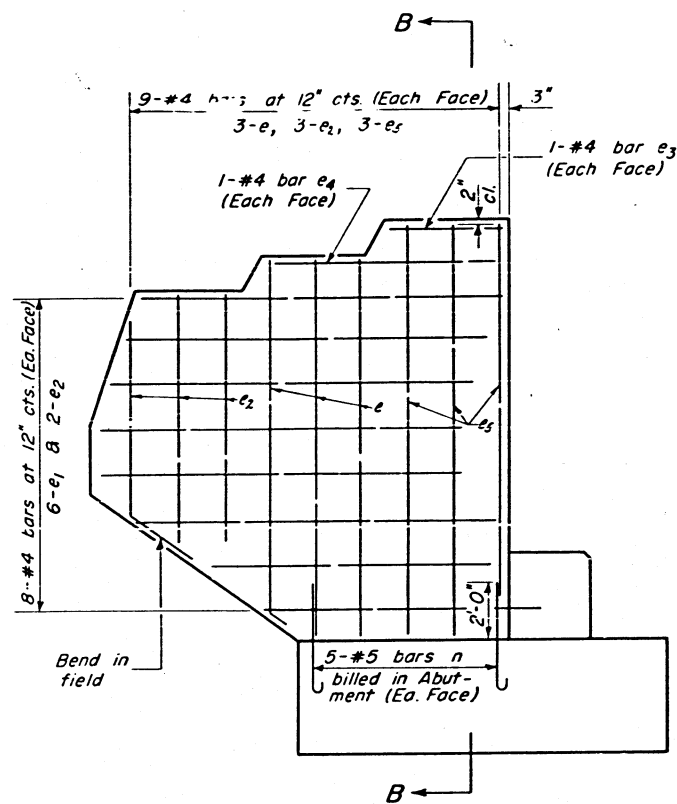
Type - Concrete
Capacity - 24 Ton Min.
Est. Length - 25' E. Abut. - 29' W. Abut.
No. Req'd. - 26 (including 1 test pile)

ABUTMENTS
S.A. RT. 1A

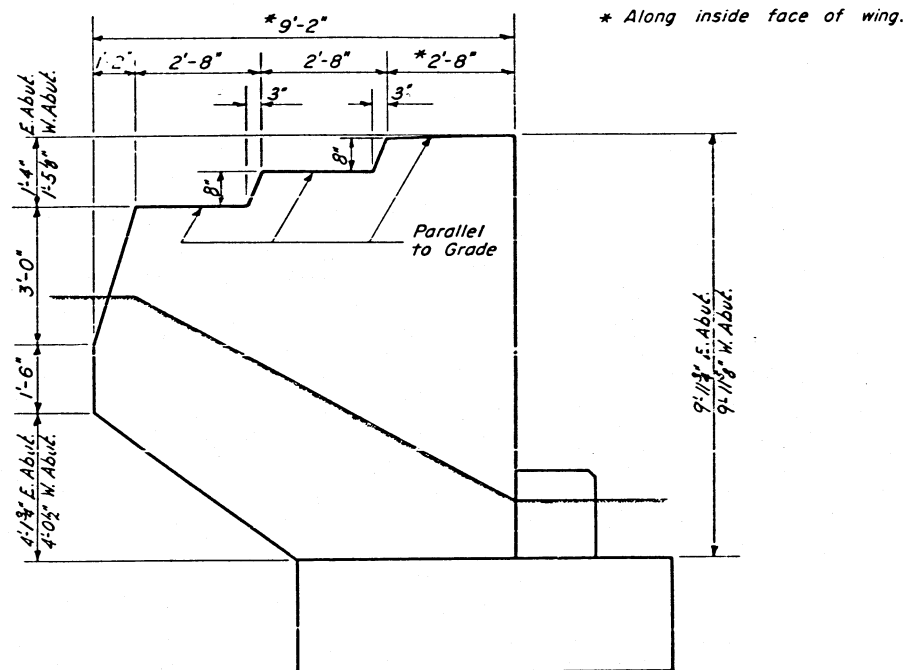
OVER
F.A.I. RT. 57 SEC. XI-5HB
WILLIAMSON COUNTY
STA. 255 + 07.60

For Details of End Post & Sec. A-A See Sheet 6

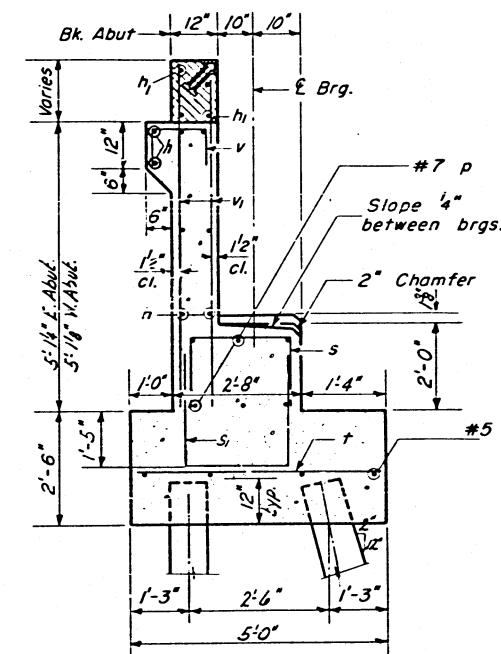
DESIGNED	Conjekaral	EXAMINED	W.E. Baumann
CHECKED	S. Enger	PASSED	E.J. Smith
T.K. DRAWN	W.A. Sausaman	APPROVED	P.A. Bartschmeyer
CHECKED	S. Enger		



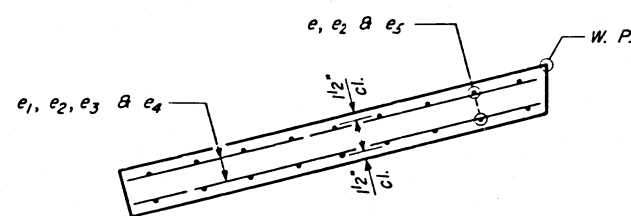
ELEVATION



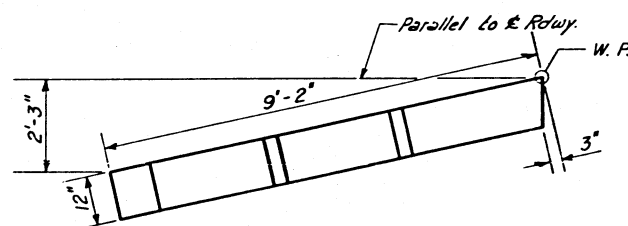
ELEVATION



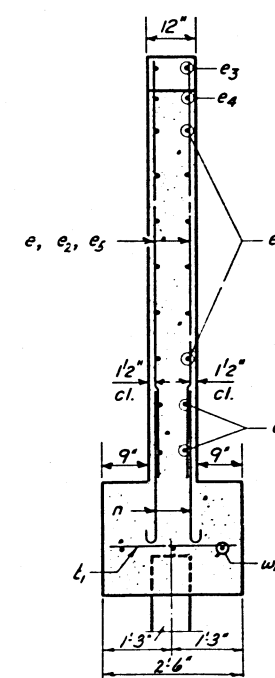
SECTION A-A



PLAN



PLAN



SECTION B-B

ONE END POST
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e	6	#4	9'-1"	—
e1	12	#4	7'-9"	—
e2	10	#4	6'-0"	—
e3	2	#4	2'-6"	—
e4	2	#4	5'-0"	—
e5	6	#4	9'-9"	—
Class X Concrete			Cu.Yds.	2.8
Reinforcement Bars			Lbs.	190

* Included in E & W Abutments (See Sheet 12)

END POST DETAILS
S.A. RT. 1A
OVER
F.A.I. RT. 57 SEC. XI-5HB
WILLIAMSON COUNTY
STA. 255+07.60

DESIGNED *Camille Kartal*
CHECKED *A. Enger*
T.K. DRAWN *W.A. Sausaman*
CHECKED *A. Enger*

EXAMINED *W.E. Baumann*
PASSED *[Signature]*
APPROVED *[Signature]*
DEC. 15 1960

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

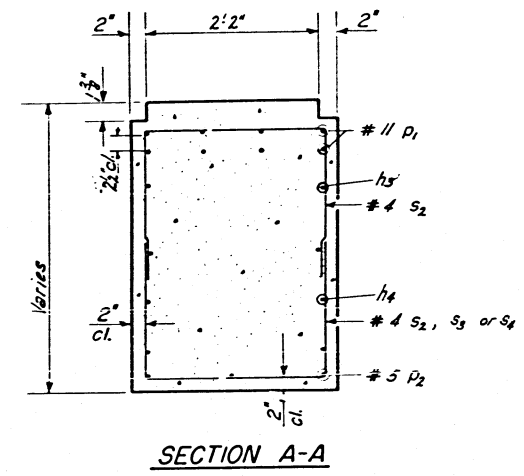
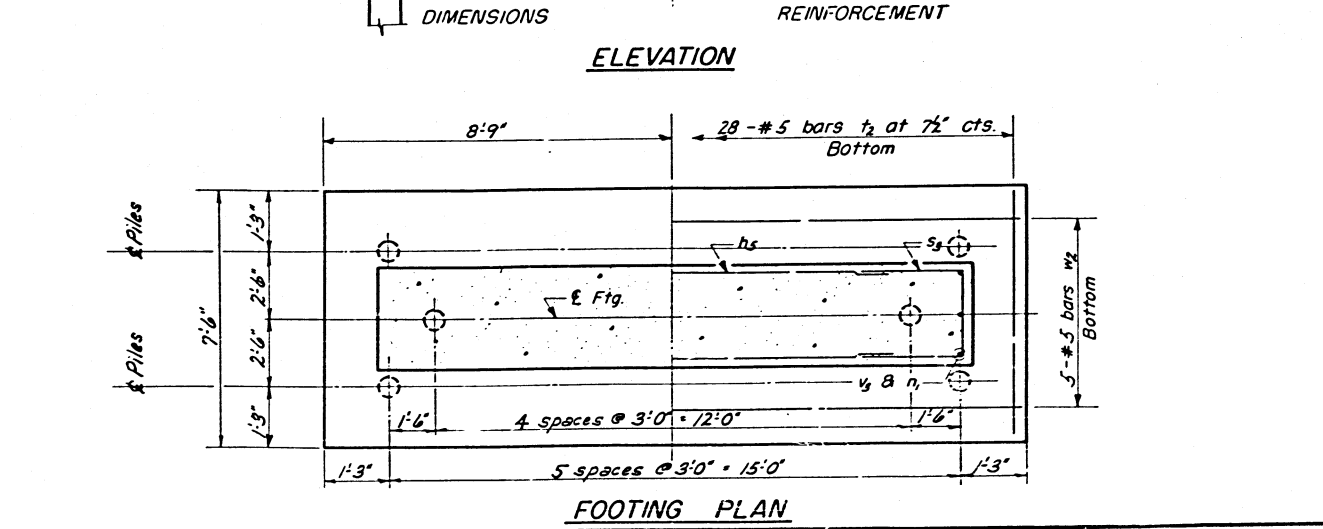
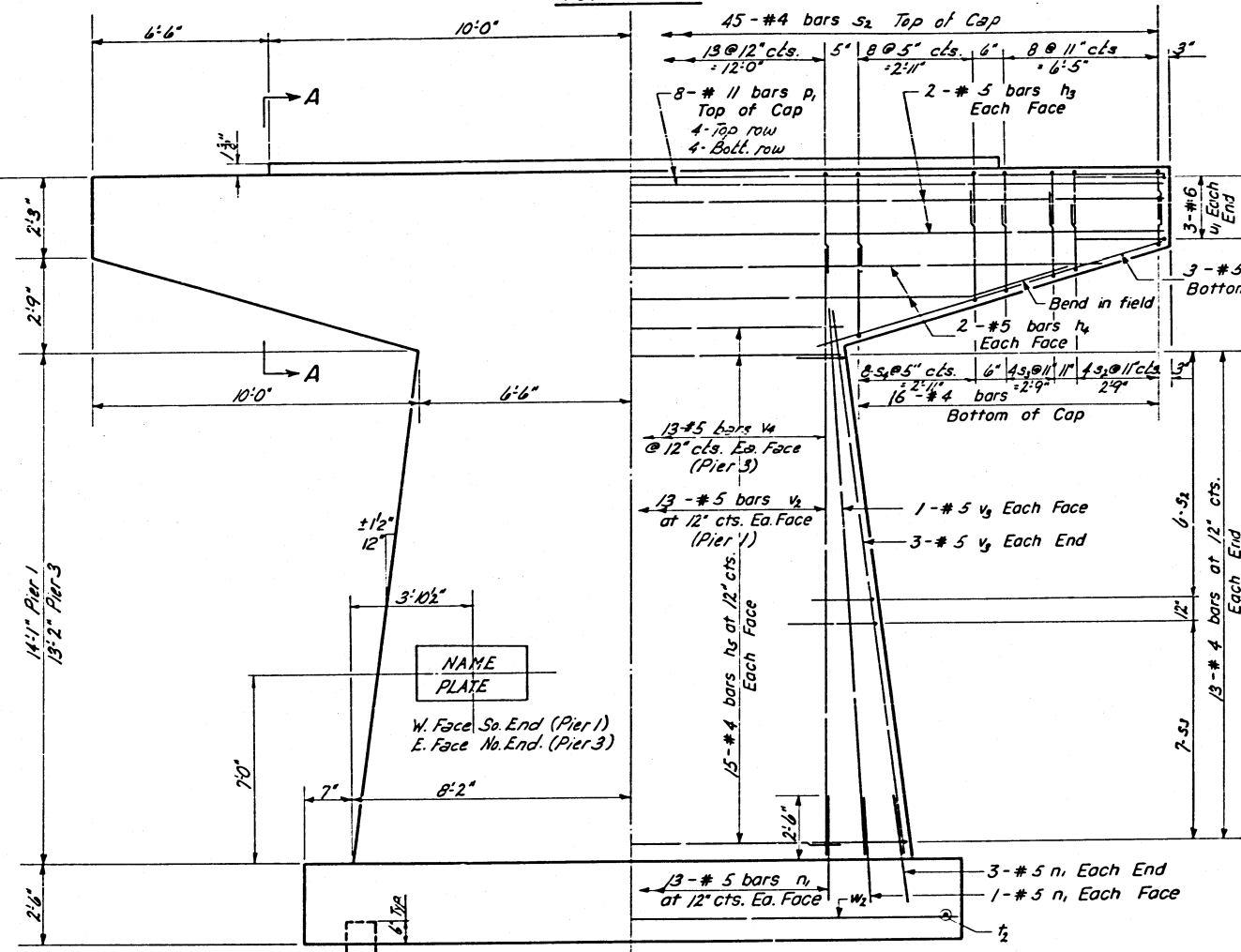
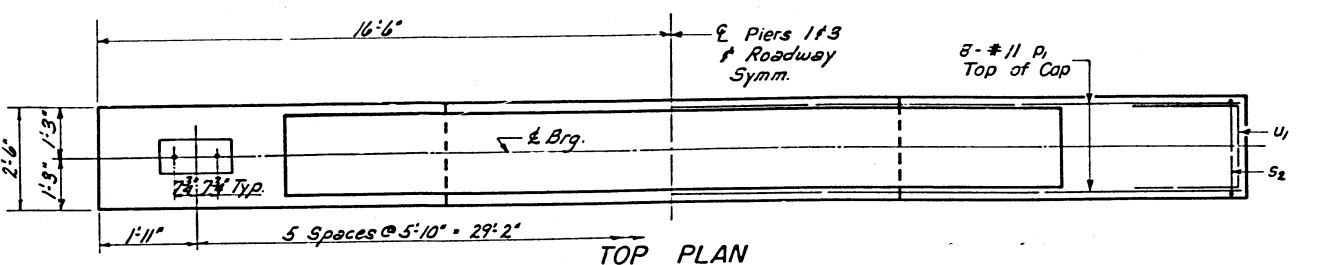
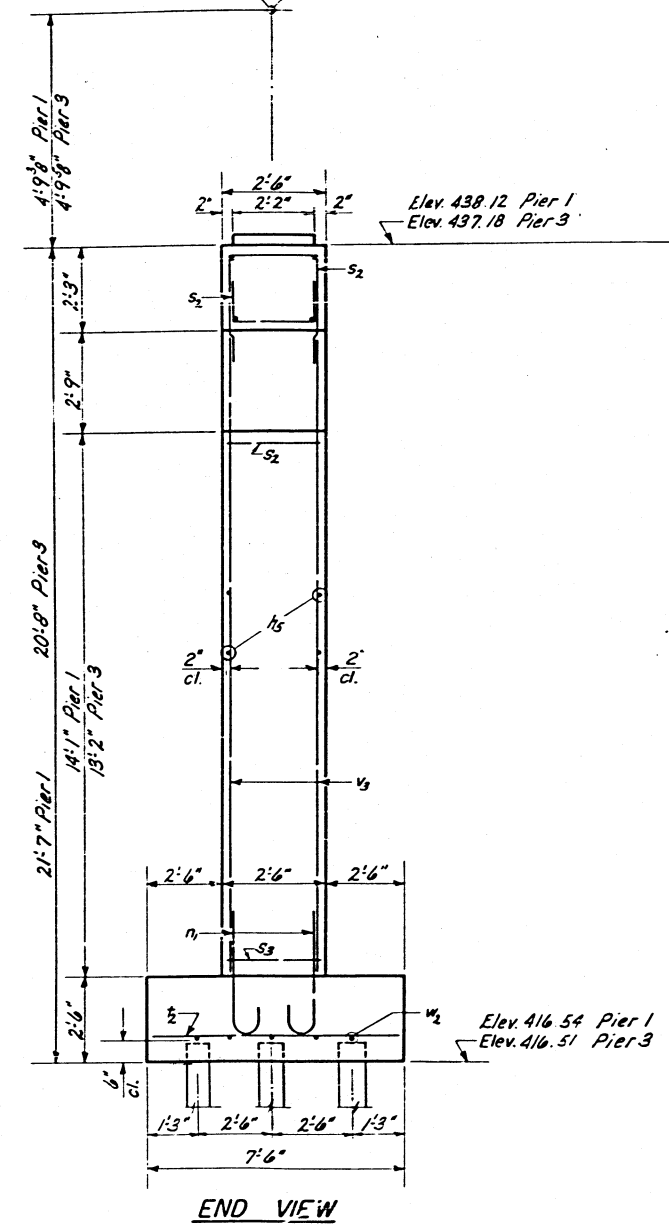
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11-57	XI-5	Williamson	40	14
11-57		11-57		10 SHEETS

PILE DATA

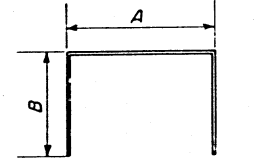
Type: Creosoted Timber
Capacity: 20 Tons
Est. Length 12'
Total No. Req'd. 34

Pier #1
Sta. 9+24.62
Cr. Elev. 442.90

Pier #3
Sta. 10+15.28
Cr. Elev. 441.98



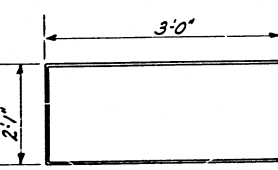
Note: All edges shall have standard 3/4" chamfers except footings.



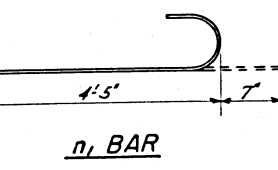
A & B DIMENSIONS

Bar	A	B
S2	2'-2"	2'-0"
S3	2'-2"	3'-0"
S4	2'-2"	4'-0"

s BARS



u1 BAR



n1 BAR

**PIERS 1 & 3
BILL OF MATERIAL**

Bar No.	Size	Length	Shape
h3	#5	32'-8"	—
h4	#5	26'-6"	—
h5	#4	12'-8"	—
n1	#5	5'-0"	U
p1	#11	32'-8"	—
p2	#5	12'-0"	—
v2	#4	6'-2"	U
v3	#4	8'-2"	U
v4	#4	10'-2"	U
w2	#5	7'-2"	—
u1	#6	8'-1"	U
v2	#5	18'-0"	—
v3	#5	15'-0"	—
v4	#5	17'-0"	—
w2	#5	17'-2"	—
Class X Concrete		Cu.Yds.	88.2
Reinforcement Bars		Lbs.	7,360
Creosoted Piles		Lin.Ft.	408
Name Plates		Each	2
Test Piles (Timber)		Each	1

PIERS 1 & 3
S.A. RT. 1A
OVER
F.A.I. RT. 57 SEC. XI-5HB
WILLIAMSON COUNTY
STA. 255+07.60

DESIGNED: *Campkantal*
CHECKED: *S. Enger*
DRAWN: *W.A. Sausaman*
EXAMINED: *W.S. Banneman*
PASSED: *C.P. Smith*
APPROVED: *R.P. Baillargeon*
DATE: *Dec 15 1960*

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	XI-5HB	Williamson	40	15
SHEET NO. 8 10 SHEETS				

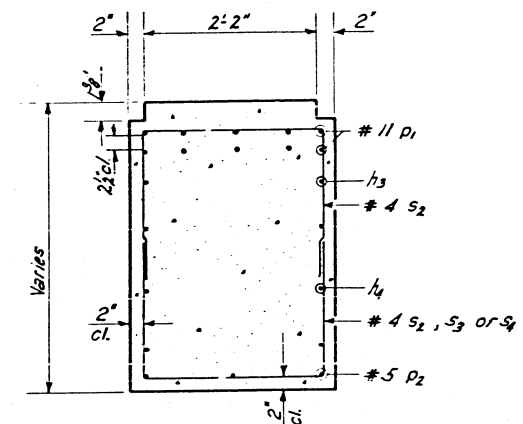
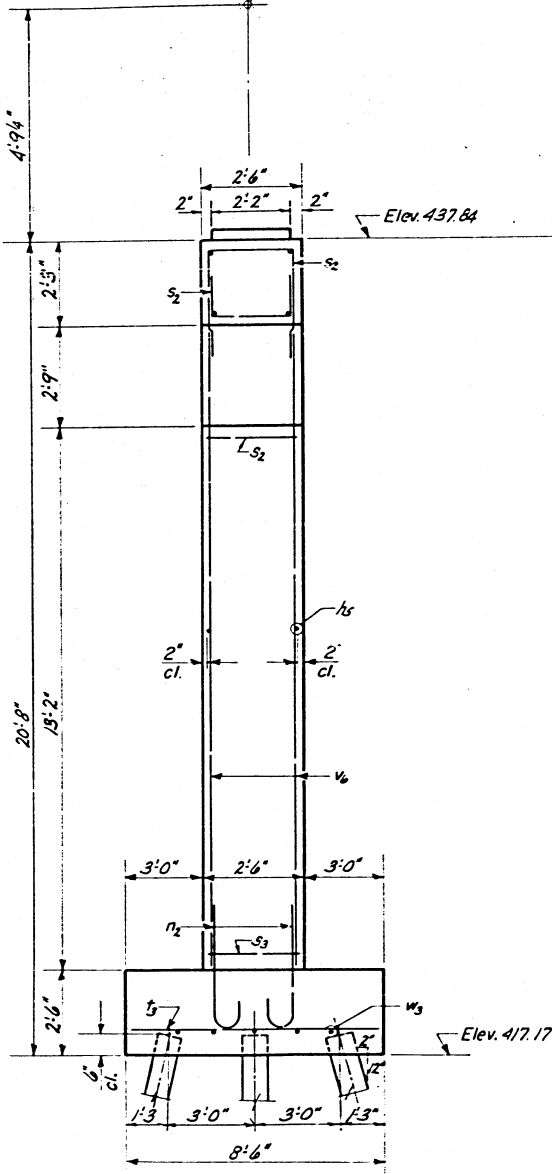
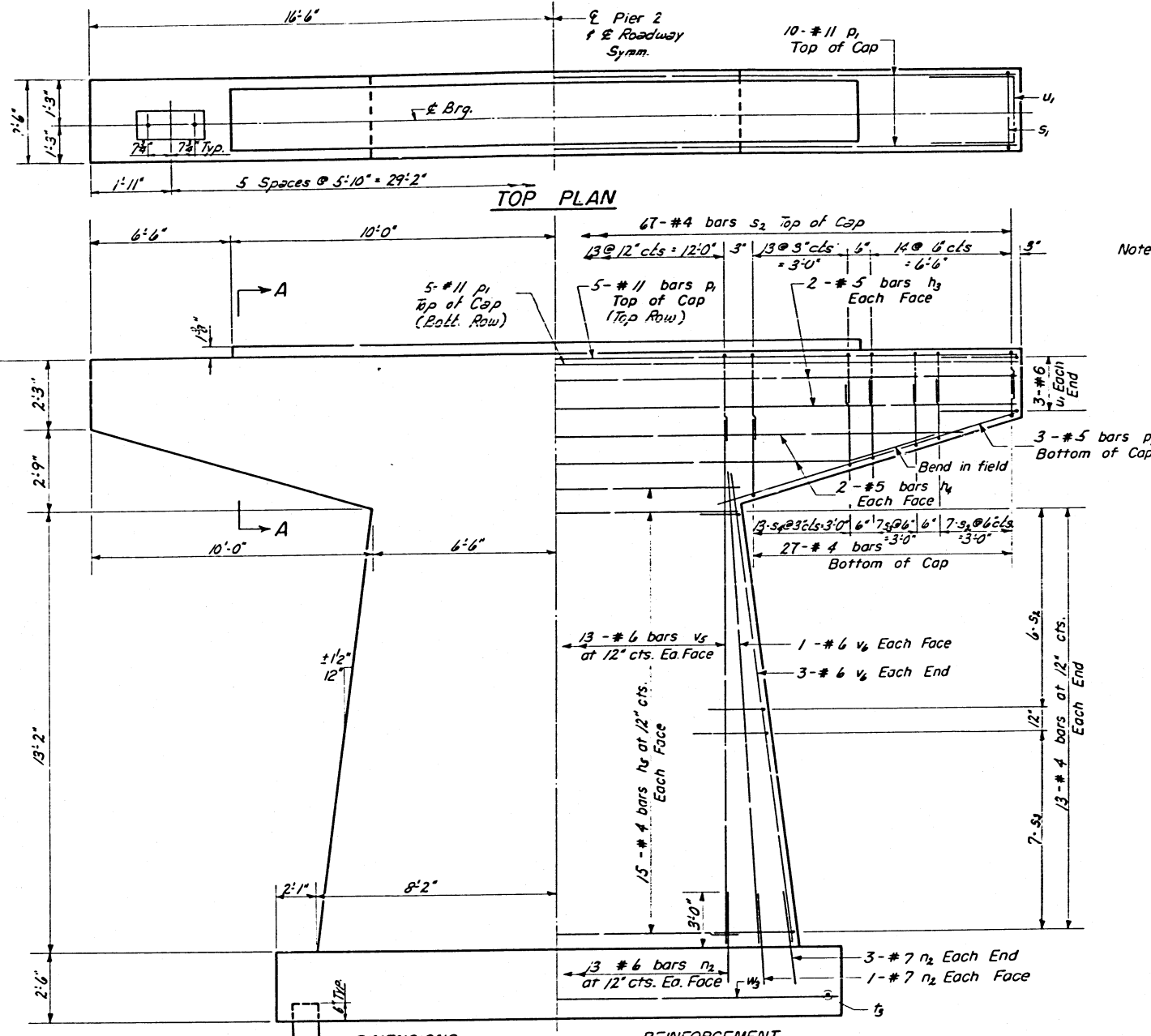
PILE DATA

Type: Creosoted Timber
Capacity: 20 Tons
Est. Length: 12'
No. Req'd.: 21

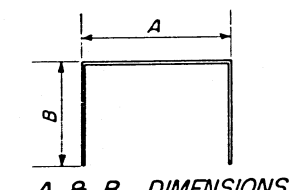
Pier # 2
Sta. 255+79.95
Cr. Elev. 442.61

Elev. 437.64

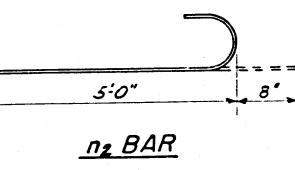
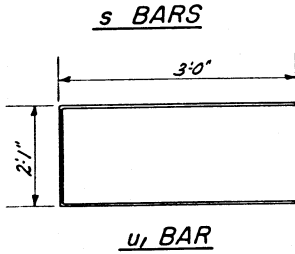
Elev. 417.17



Note: All edges shall have standard 3/4" chamfers except footings.



Bar	A	B
s2	2'-2"	2'-0"
s3	2'-2"	3'-0"
s4	2'-2"	4'-0"

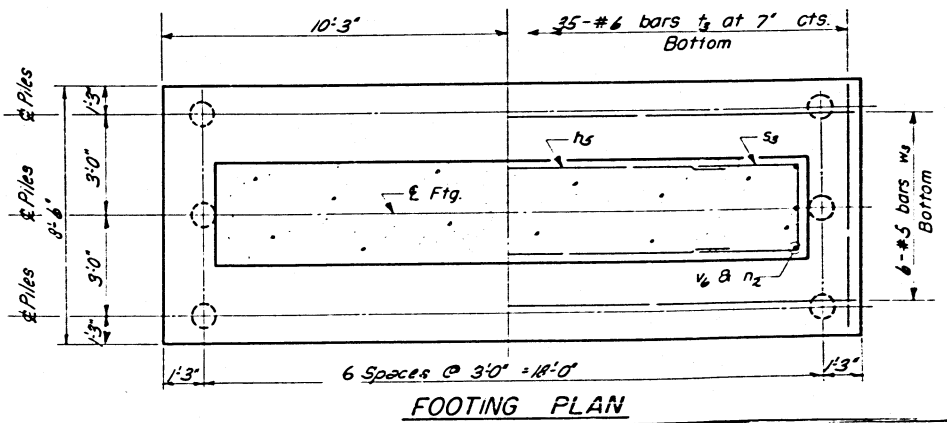


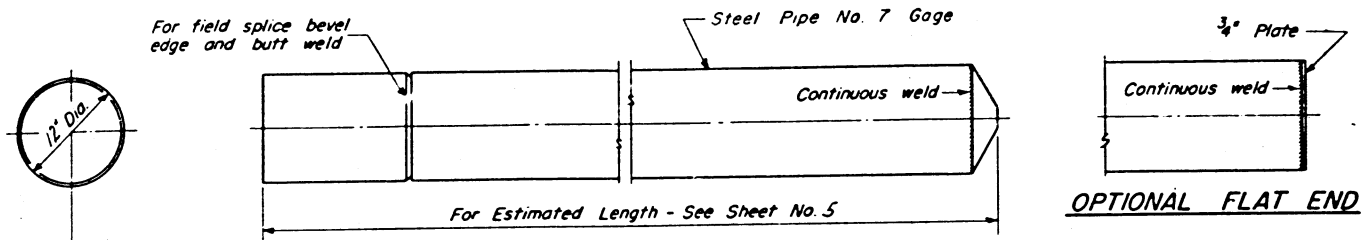
**PIER 2
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
n2	36	#6	5'-8"	U
p1	10	#11	32'-8"	—
p2	6	#5	12'-0"	—
s2	93	#4	6'-2"	□
s3	28	#4	8'-2"	□
s4	26	#4	10'-2"	□
t3	35	#6	8'-2"	—
u1	6	#6	8'-1"	□
v5	26	#6	17'-0"	—
v6	10	#6	15'-0"	—
w9	6	#5	20'-2"	—
Class X Concrete		Cu. Yds.	47.8	
Reinforcement Bars		Lbs.	4,850	
Creosoted Piles		L.in. Ft.	252	

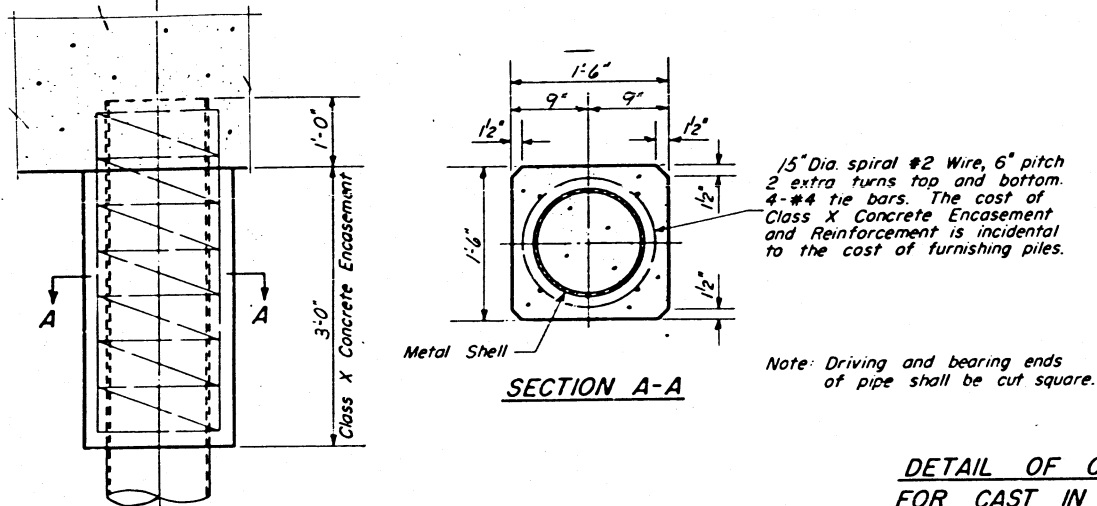
**PIER 2
S.A. RT. 1A
OVER
F.A.I. RT. 57 SEC. XI-5HB
WILLIAMSON COUNTY
STA. 255+07.60**

DESIGNED: *Confidential*
CHECKED: *A. Enger*
T.M. DRAWN: *W.A. Sausman*
CHECKED: *S. Enger*
DATE: *Dec. 15, 1960*
EXAMINED: *W.E. Bauman*
PASSED: *R.P. Bauman*
APPROVED: *R.P. Bauman*

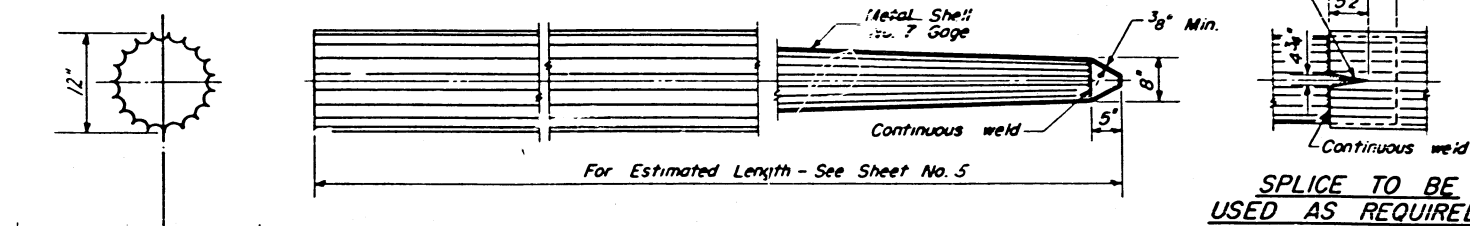




OPTIONAL FLAT END



DETAIL OF CYLINDRICAL STEEL SHELL
FOR CAST IN PLACE CONCRETE PILES

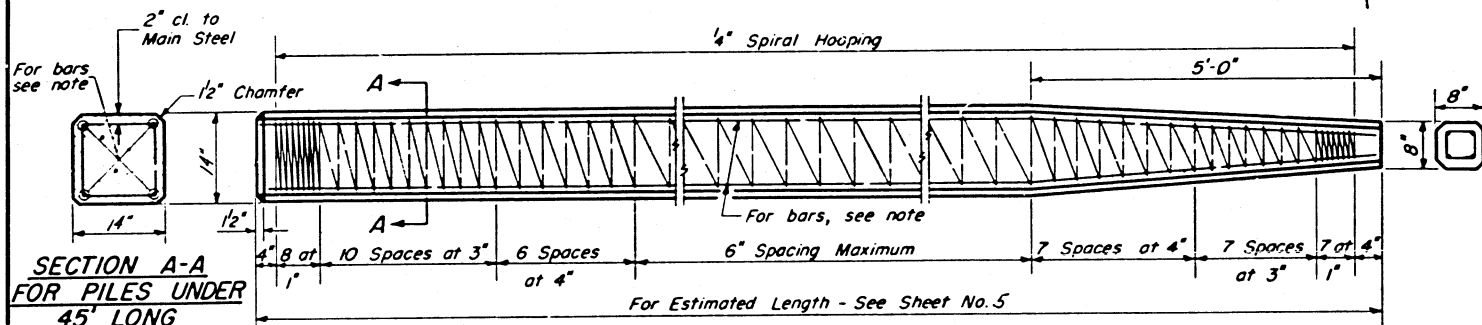


ALLOWABLE TAPERS

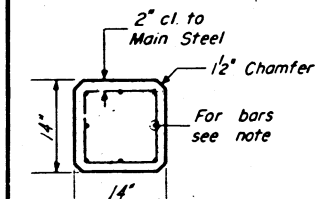
- 1-Taper 1/2'-6" for 10' + 12" Cylindrical Section Extension
- 2-Taper 1/4'-0" for 17' + 12" Cylindrical Section Extension

15" Dia spiral #2 Wire, 6" pitch
2 extra turns top and bottom.
4-#4 tie bars. The cost of
Class X Concrete Encasement and
Reinforcement is incidental to the
cost of furnishing piles.

DETAIL OF TAPERED METAL SHELL
FOR CAST IN PLACE CONCRETE PILES



SECTION A-A
FOR PILES UNDER
45' LONG

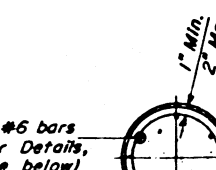
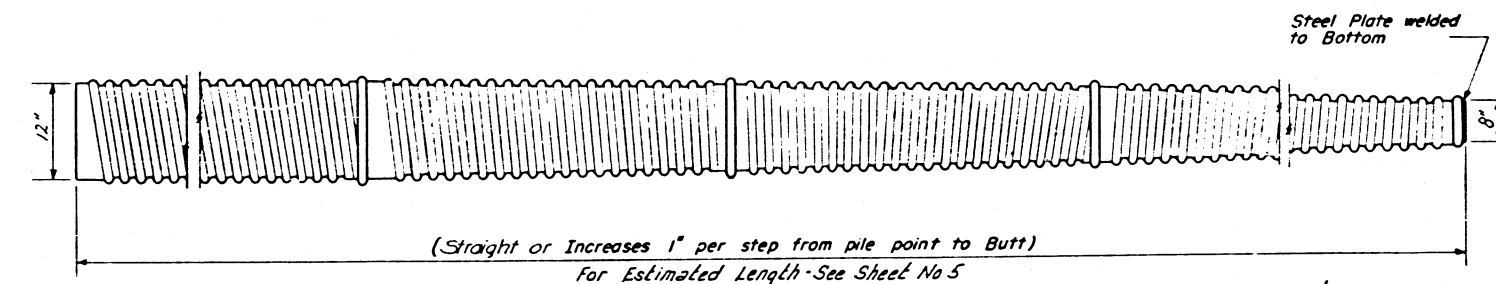


SECTION A-A
FOR PILES 45'
OR MORE

Note: For 14" Piles 45' long or more use 8-#8 bars
4 for the full length and 4 to the point of bevel.
For 14" Piles under 45' long use 4-#9 bars the
full length.

Handling: For Pile lengths up to 45', use two slings placed
at a distance of 0.21 L* from each end.
For Piles longer than 45', use three slings placed
at a distance of 0.12 L* from each end and
at mid-point of pile.

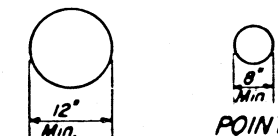
*L = Over all length of pile to be handled.



SECTION A-A

DETAIL OF MANDREL DRIVEN
PILES
FOR CAST IN PLACE CONCRETE PILES

At least 1/4 of the length
of pile shall have a Butt
diameter equal to or
greater than 12".
Gages are furnished to
suit soil conditions (14
Gage Min.)



BUTT
POINT
(Applies only
to Step Taper
type pile)

DESIGNED	<i>W. E. Bunn</i>	EXAMINED	<i>W. E. Bunn</i>
CHECKED	<i>J. Enger</i>	PASSED	<i>P. Lawler</i>
T.K.	<i>P. Lawler</i>	APPROVED	<i>R. R. Baughman</i>
DRAWN	<i>W. A. Sausman</i>		
CHECKED	<i>J. Enger</i>		

INTERIOR BEAMS

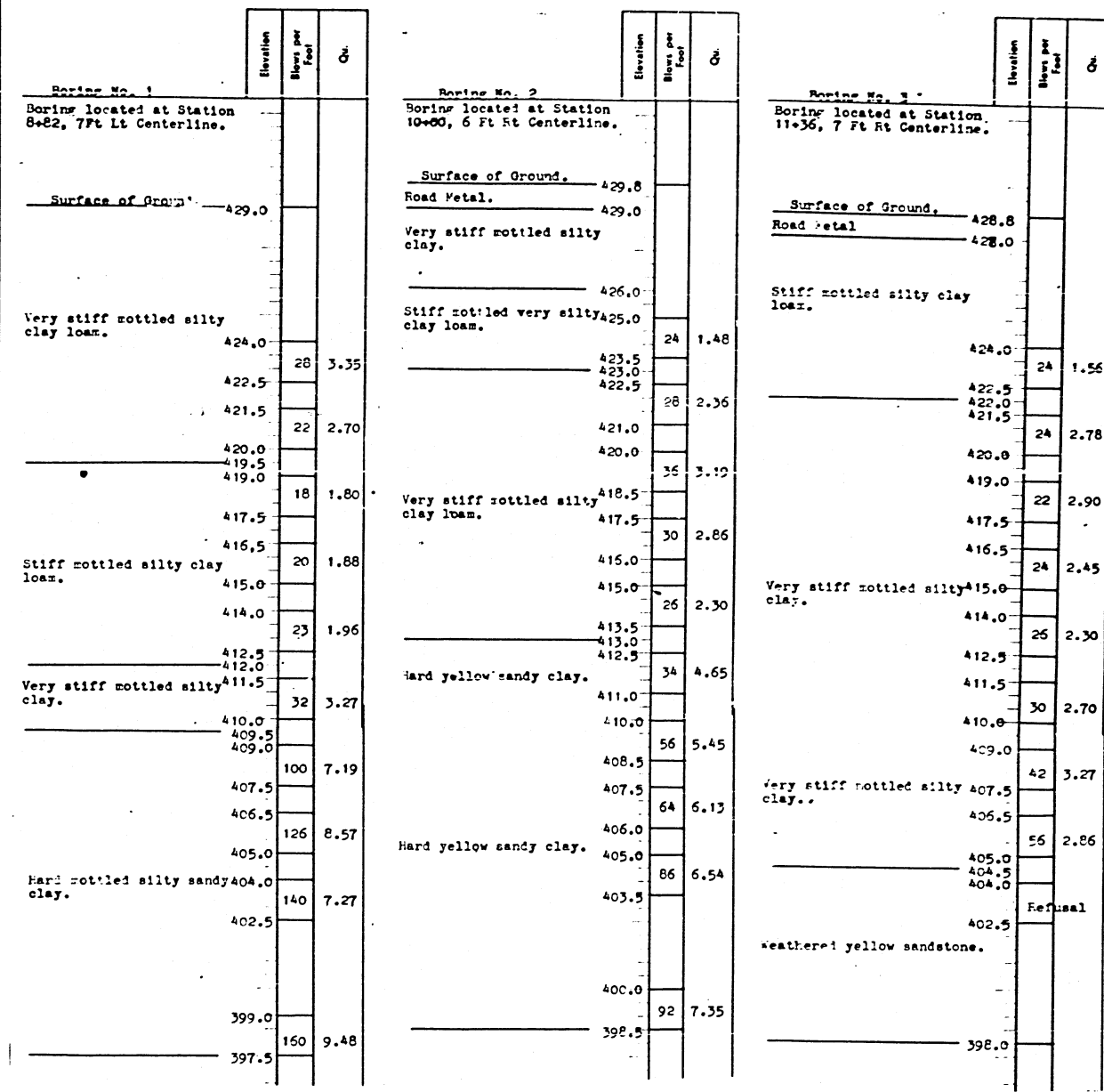
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS
EXTERIOR BEAMS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
F.A.I. 57	XI-5H(B)	WILLIAMSON	40	17	10 SHEETS
DATE: DEC 15, 1960					

Station	Offset from & Rdwy.	Top of slab Elevs.	Modified Elevs. #
879.200	8.750	442.846	442.846
879.200	2.916	442.905	442.905
879.200	.000	442.912	442.912
879.200	2.916	442.905	442.905
879.200	8.750	442.846	442.846
881.033	8.750	442.848	442.848
881.033	2.916	442.907	442.907
881.033	.000	442.914	442.914
881.033	2.916	442.907	442.907
881.033	8.750	442.848	442.848
891.033	8.750	442.856	442.859
891.033	2.916	442.914	442.918
891.033	.000	442.922	442.925
891.033	2.916	442.914	442.918
891.033	8.750	442.856	442.859
901.033	8.750	442.857	442.860
901.033	2.916	442.916	442.919
901.033	.000	442.923	442.926
901.033	2.916	442.916	442.919
901.033	8.750	442.857	442.860
911.033	8.750	442.853	442.853
911.033	2.916	442.911	442.912
911.033	.000	442.918	442.919
911.033	2.916	442.911	442.912
911.033	8.750	442.853	442.853
921.033	8.750	442.842	442.842
921.033	2.916	442.901	442.901
921.033	.000	442.908	442.908
921.033	2.916	442.901	442.901
921.033	8.750	442.842	442.842
924.617	8.750	442.837	442.837
924.617	2.916	442.895	442.895
924.617	.000	442.903	442.903
924.617	2.916	442.895	442.895
924.617	8.750	442.837	442.837
938.783	8.750	442.808	442.831
938.783	2.916	442.867	442.890
938.783	.000	442.874	442.897
938.783	2.916	442.867	442.890
938.783	8.750	442.808	442.831
948.783	8.750	442.781	442.814
948.783	2.916	442.840	442.873
948.783	.000	442.847	442.880
948.783	2.916	442.840	442.873
948.783	8.750	442.781	442.814
958.783	8.750	442.748	442.787
958.783	2.916	442.806	442.846
958.783	.000	442.814	442.853
958.783	2.916	442.806	442.846
958.783	8.750	442.748	442.787
968.783	8.750	442.709	442.744
968.783	2.916	442.767	442.802
968.783	.000	442.774	442.810
968.783	2.916	442.767	442.802
968.783	8.750	442.709	442.744
978.783	8.750	442.663	442.689
978.783	2.916	442.722	442.747
978.783	.000	442.729	442.755
978.783	2.916	442.722	442.747
978.783	8.750	442.663	442.689
988.783	8.750	442.612	442.626
988.783	2.916	442.671	442.684
988.783	.000	442.678	442.692
988.783	2.916	442.671	442.684
988.783	8.750	442.612	442.626
998.783	8.750	442.555	442.556
998.783	2.916	442.613	442.615
998.783	.000	442.621	442.622
998.783	2.916	442.613	442.615
998.783	8.750	442.555	442.556

Typical (# Bm. 1 & Bm. 6)

Station	Offset from & Rdwy.	Top of slab Elevs. #	Modified Elevs.
879.200	14.583	442.740	442.740
879.200	14.583	442.740	442.740
881.033	14.583	442.742	442.742
881.033	14.583	442.742	442.742
891.033	14.583	442.750	442.754
891.033	14.583	442.750	442.754
901.033	14.583	442.751	442.755
901.033	14.583	442.751	442.755
911.033	14.583	442.747	442.747
911.033	14.583	442.747	442.747
921.033	14.583	442.736	442.736
921.033	14.583	442.736	442.736
924.617	14.583	442.731	442.731
924.617	14.583	442.731	442.731
938.783	14.583	442.702	442.732
938.783	14.583	442.702	442.732
948.783	14.583	442.675	442.719
948.783	14.583	442.675	442.719
958.783	14.583	442.642	442.693
958.783	14.583	442.642	442.693
968.783	14.583	442.602	442.649
968.783	14.583	442.602	442.649
978.783	14.583	442.557	442.590
978.783	14.583	442.557	442.590
988.783	14.583	442.506	442.524
988.783	14.583	442.506	442.524
998.783	14.583	442.449	442.451
998.783	14.583	442.449	442.451
1007.783	14.583	442.392	442.404
1007.783	14.583	442.392	442.404
1017.783	14.583	442.323	442.352
1017.783	14.583	442.323	442.352
1027.783	14.583	442.249	442.290
1027.783	14.583	442.249	442.290
1037.783	14.583	442.168	442.222
1037.783	14.583	442.168	442.222
1047.783	14.583	442.081	442.128
1047.783	14.583	442.081	442.128
1057.783	14.583	441.989	442.025
1057.783	14.583	441.989	442.025
1067.783	14.583	441.890	441.906
1067.783	14.583	441.890	441.906
1075.283	14.583	441.812	441.812
1075.283	14.583	441.812	441.812
1082.533	14.583	441.733	441.733
1082.533	14.583	441.733	441.733
1092.533	14.583	441.620	441.622
1092.533	14.583	441.620	441.622
1102.533	14.583	441.500	441.505
1102.533	14.583	441.500	441.505
1112.533	14.583	441.375	441.378
1112.533	14.583	441.375	441.378
1118.867	14.583	441.292	441.292
1118.867	14.583	441.292	441.292
1120.700	14.583	441.268	441.268
1120.700	14.583	441.268	441.268



Note: N = Blows per foot of penetration of sampling spoon.
Hammer weight = 350 Lbs. Drop = 12 inches.
Qu = Unconfined compressive strength in tons per square foot.

DESIGNED: *Joseph Kastal*
CHECKED: *S. Enger*
T.K. DRAWN: *P. Lawler*
CHECKED: *S. Enger*

EXAMINED: *W.E. Beermann*
PASSED: *[Signature]*
APPROVED: *P.R. Cantelmyers*

DEC. 15, 1960

* Modified elevs. are top of slab elevs. plus the & deflections at the corresponding points
** Top of slab elevs. along exterior beams are on the theoretical extensions of top of slab line into the curbs.

TOP OF SLAB ELEVATIONS
AND
BORING DATA
S.A.R.T. 1A
OVER
F.A.I. RT. 57 SEC. XI-5H(B,F)
WILLIAMSON COUNTY
STA. 255 + 07.60