

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9864-01-70		

Index of Sheets

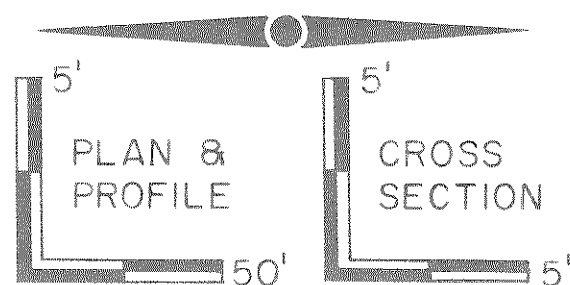
Sheet No. 1	Title
Sheet No.	Typical Cross Sections
Sheet No.	Estimate of Quantities
Sheet No.	Miscellaneous Quantities
Sheet No.	Right of Way Plat
Sheet No.	Plan and Profile Sta. 12+00-16+00
Sheet No.	Standard Details
Sheet No.	Structure Plans
Sheet No.	Computer Earthwork Data
Sheet No.	Cross Sections

TOTAL SHEETS =



STATE OF WISCONSIN  
**DEPARTMENT OF TRANSPORTATION**  
 PLAN AND PROFILE FOR PROPOSED  
**FOX FARM ROAD BRIDGE AND APPROACHES**  
 TOWN ROAD (FOX FARM ROAD)  
 LINCOLN COUNTY

STATE PROJECT NUMBER  
**9864-01-70**

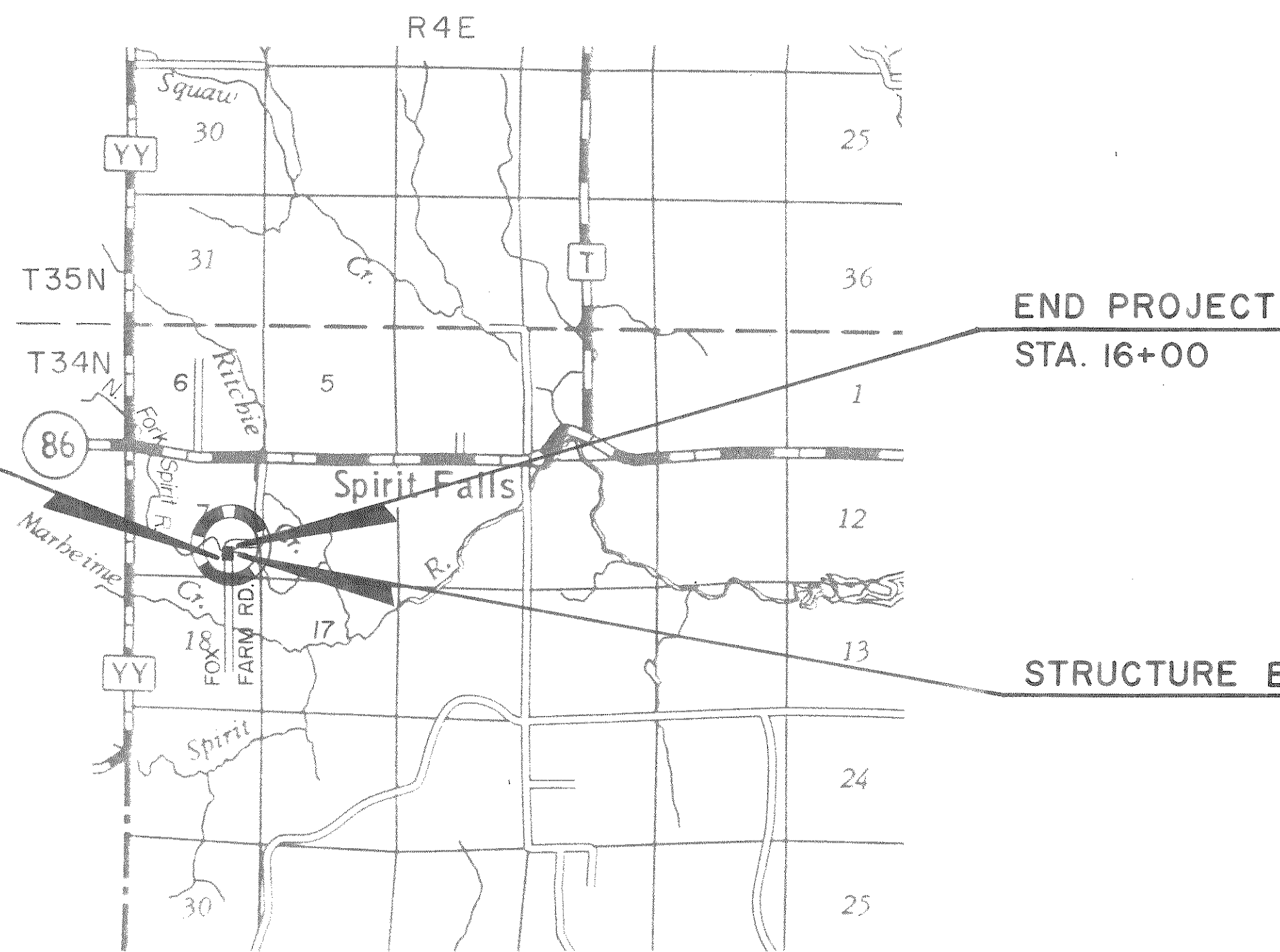


Design Designation

A. D. T. (1986)	■ 20
A. D. T. (2006)	■ 35
D. H. V.	■ 6
D.	■ 60/40
T.	■ 5%
V.	■ 40 M.P.H.

**BEGIN PROJECT  
 STA. 12+00**

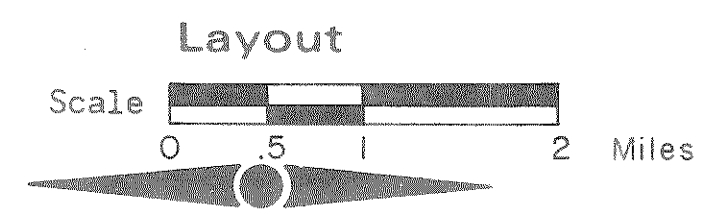
N= 100,700 (+200)  
 E= 1,993,100 (+200)



**STRUCTURE B-35-90**

Conventional Signs

County Line	-----	Culverts in Place	-----
Township or Range Line	-----	Culverts Required	-----
Section Line	-----	Drop Inlet	-----
New Right of Way Line	-----	Power Pole	-----
Present Right of Way Line	-----	Telephone or Telegraph Pole	-----
Wire Fence	-----	Right of Way Markers	-----
Corporate or City Limits	-----	Reference Stake for Hubs Only	-----
Property Line	-----	Marsh	-----
Traveled Way or P.E.	-----	Hedge	-----
Railroads	-----	Trees	-----
Base or Survey Line	-----	Ground Elevation	-----
Caution Symbol (combustible fluids under pressure)		Grade Elevation	-----



Total Net Length of Centerline = 0.076 Mi. (Rural)

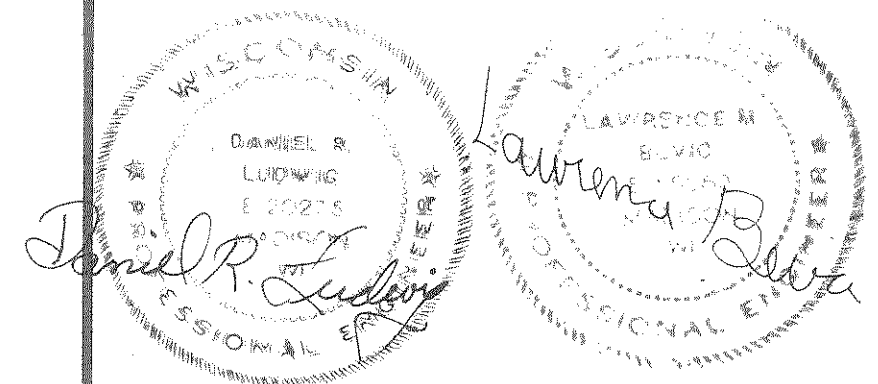
NOTE: Coordinates scaled from U.S.G.S. topographic map, SPIRIT, WISCONSIN QUADRANGLE for identification purposes.

FILE COPY

APPROVED FOR  
 LINCOLN  
 COUNTY BY

9-30-85 (Date) *Michael L. Hoop* (Signature of Official)

ORIGINAL  
 PLANS PREPARED BY  
 BARRIENTOS & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 MADISON, WISCONSIN



STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

Surveyor \_\_\_\_\_ District Checker \_\_\_\_\_  
 Designer \_\_\_\_\_ C.O. Checker \_\_\_\_\_  
 District Supervisor \_\_\_\_\_ C.O. Coordinator \_\_\_\_\_

Approved: \_\_\_\_\_

Date \_\_\_\_\_ District Transportation Director

Approved: \_\_\_\_\_

Date \_\_\_\_\_ Chief Design Engineer

Approved: \_\_\_\_\_

Date \_\_\_\_\_ Director of Development

U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 REGION 5 WISCONSIN DIVISION

Approved: \_\_\_\_\_

Date \_\_\_\_\_ Division Administrator

FINAL TRANS 10-30-85

**GENERAL NOTES**

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS UNCLASSIFIED EXCAVATION. THE LOCATION OF EBS WILL BE DETERMINED BY THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE FERTILIZED AND SEEDED AS DIRECTED BY THE ENGINEER.

SEED MIXTURE NUMBER 1 SHALL BE USED.

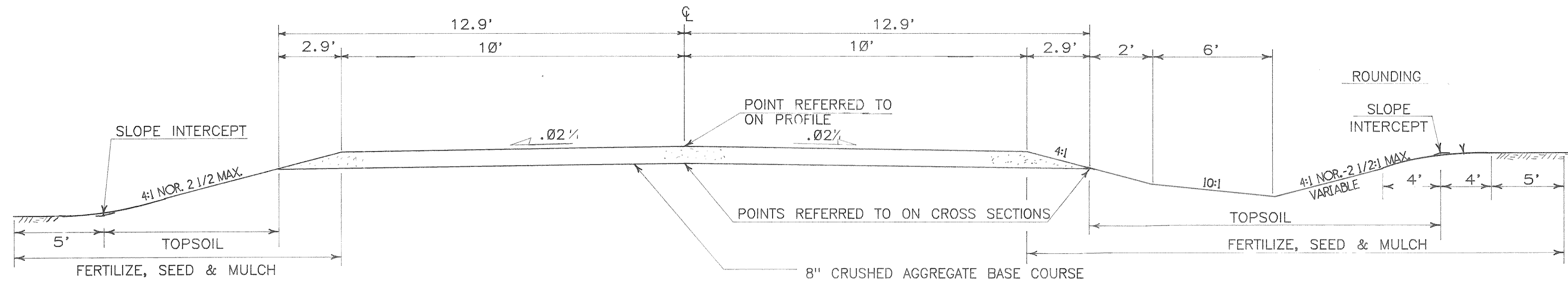
ALL SLOPES SHALL BE TOPSOILED, FERTILIZED, SEED AND MULCHED UNLESS OTHERWISE SPECIFIED.

THE WISCONSIN DEPT. OF TRANSPORTATION SHALL FURNISH THE CONTRACTOR A MONUMENT WHICH SHALL BE SET IN THE STRUCTURE AS DESIGNATED BY THE ENGINEER.

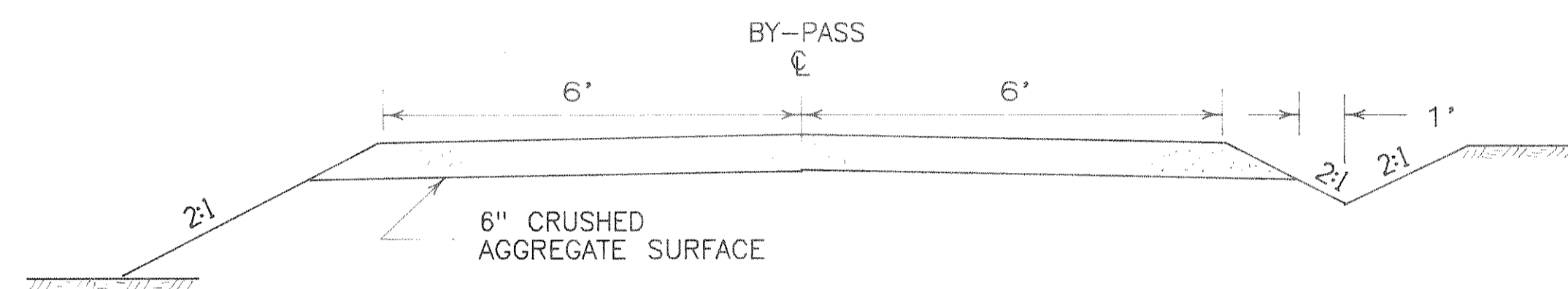
EXCAVATE BELOW SUBGRADE ALL MOUTHS OF CUTS AS DIRECTED BY THE ENGINEER IN THE FIELD.

FILL MATERIAL USED TO CONSTRUCT THE TEMPORARY BY-PASS SHALL BE REMOVED PRIOR TO COMPLETION OF THE PROJECT AND PAID FOR AS UNCLASSIFIED EXCAVATION.

WHEN THE QUANTITY OF ITEM OF BASE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.



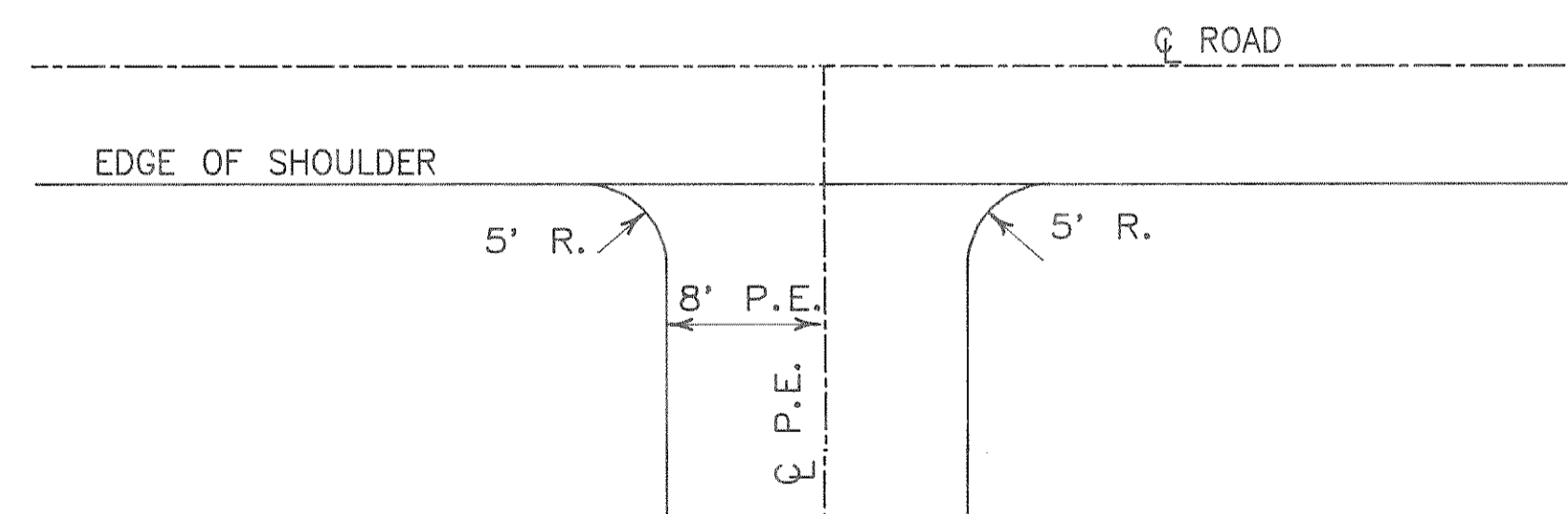
**TYPICAL ROADWAY CROSS SECTION**



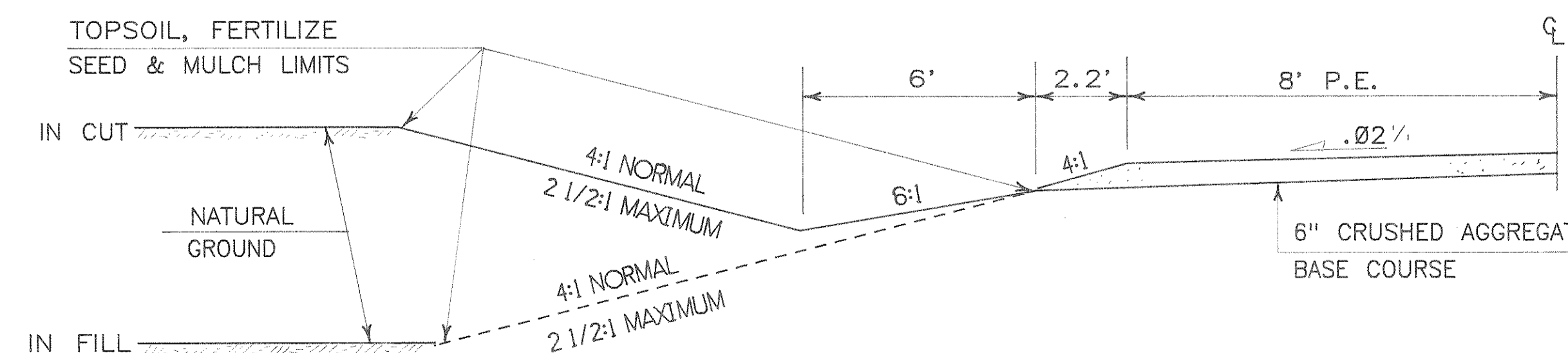
**TYPICAL BY-PASS CROSS SECTION**

**LIST OF STANDARD ABBREVIATIONS**

ABUT.	ABUTMENT	LT.	LEFT
AC.	ACRES	L.	LENGTH OF CURVE
AGG.	AGGREGATE	L.H.E.	LIMITED HIGHWAY EASEMENT
AH.	AHEAD	L.S.	LUMP SUM
A.D.T.	AVERAGE DAILY TRAFFIC	M.H.	MANHOLE
AVE.	AVENUE, AVERAGE	N.	NORTH
ASPH.	ASPHALT	PAV'T.	PAVEMENT
BEG.	BEGIN	P.C.	POINT OF CURVATURE
BK.	BACK	P.E.	PRIVATE ENTRANCE
B.M.	BENCHMARK	P.I.	POINT OF INTERSECTION
BIT.	BITUMINOUS	P.L.	PROPERTY LINE
C	CENTERLINE	P.P.	POWER POLE
C & G	CURB AND GUTTER	PROP.	PROPOSED
CONC.	CONCRETE	P.T.	POINT OF TANGENT
CONST.	CONSTRUCTION	R.	RANGE, RADIUS
COR.	CORNER	R.C.C.P.	REINFORCED CONCRETE
CORR.	CORRUGATED		CULVERT PIPE
C.S.C.P.	CORRUGATED STEEL	REQ'D.	REQUIRED
	CULVERT PIPE	RT.	RIGHT
C.T.H.	COUNTY TRUNK HIGHWAY	R/W	RIGHT-OF-WAY
C.P.	CULVERT PIPE	RD.	ROAD
CJ.	CUBIC	S.D.D.	STANDARD DETAIL DRAWING
CWT.	HUNDRED WEIGHT	S.S.	STORM SEWER
DIAM.	DIAMETER	S.E.	SOUTHEAST, SUPERELEVATION
D.	DEGREE OF CURVE	S.E.	SPECIFICATIONS
D.H.V.	DESIGN HOURLY VOLUME	SG.	SQUARE
ELEV. EL.	ELEVATION	S.T.H.	STATE TRUNK HIGHWAY
EXC.	EXCAVATION	ST.	STREET
EXIST.	EXISTING	STA.	STATION
E.	EXTERNAL	TAN.	TANGENT
F.E.	FIELD ENTRANCE	T.	TANGENT LENGTH OF CURVE, TRUCKS
FT.	FOOT	T.L.	TRANSIT LINE
HOR.	HORIZONTAL	UNCL.	UNCLASSIFIED
HWY.	HIGHWAY	V.	DESIGN SPEED
IN.	INCHES	VAR.	VARIABLE
I.	INTERSECTION ANGLE	VERT.	VERTICAL
I.P.	IRON PIN OR PIPE	U.G.	UNDERGROUND
LN.	LINEAR	YD.	YARD



**PLAN OF P.E.**



**TYPICAL 1/2 SECTION FOR P.E.**

**STANDARD DETAIL DRAWINGS**

- 8E8-1 TYPICAL INSTALLATIONS OF EROSION BALES
- 8E9-1 TEMPORARY SILT FENCE
- 12A3-4 NAME PLATE - STRUCTURES
- 15C1-7 CONSTRUCTION BARRICADES AND STANDARD SIGNS
- 15C3-1 TRAFFIC CONTROL FOR TEMPORARY ROAD CLOSURES IN RUAL AREAS

**UTILITIES LOCATED WITHIN PROJECT**

PRICE COUNTY ELECTRIC CO-OP (NOT INVOLVED)  
ATT: LADDIE HOLOUBEK  
508 N. LAKE ST.  
PHILLIPS, WISCONSIN 54555  
(715)339-2155



SCHEDULE OF LANDS AND INTERESTS

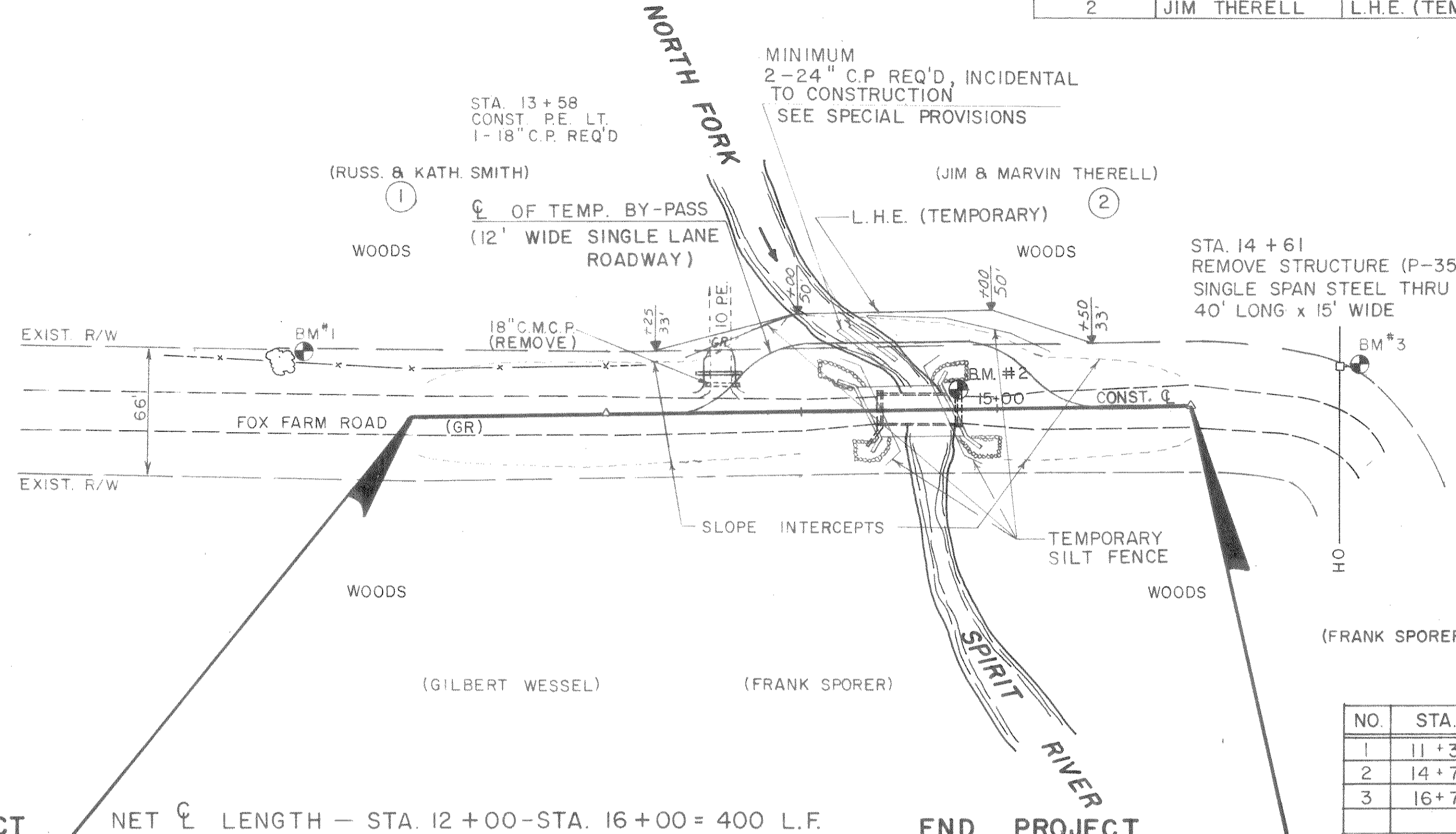
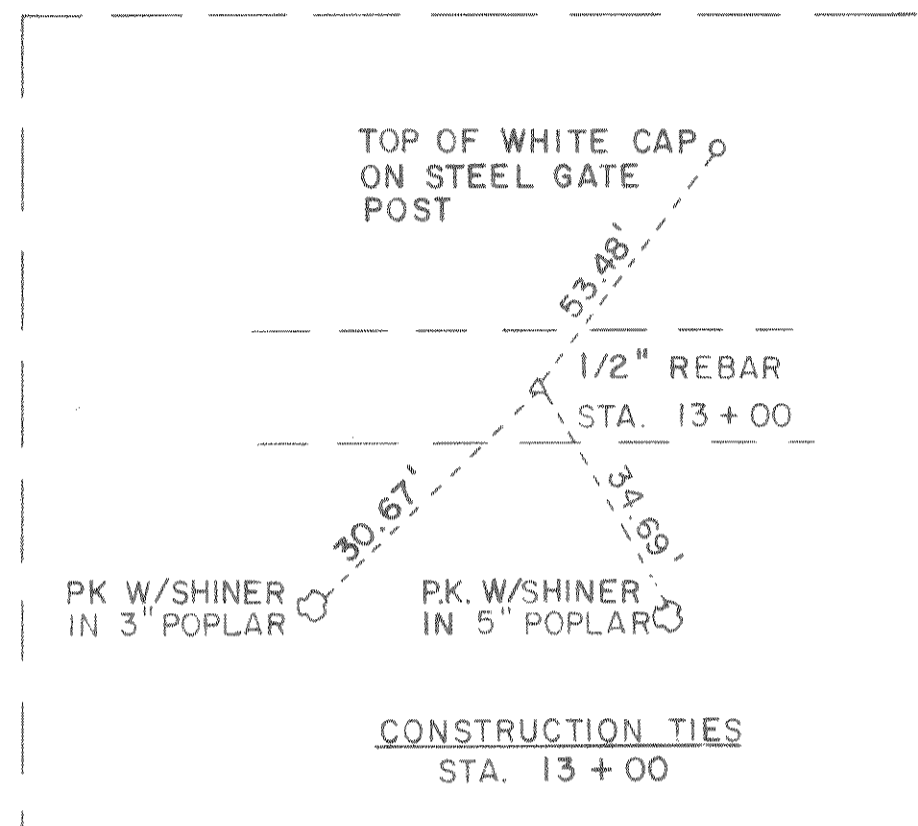
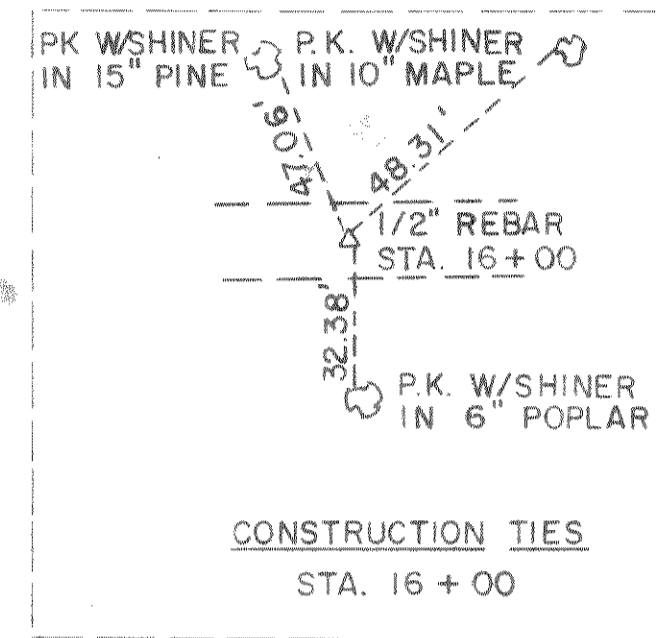
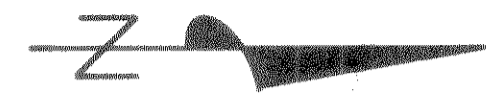
PARCEL NO.	OWNER	INTEREST REQUIRED	L.H.E. - ACRES
1	RUSSEL SMITH	L.H.E. (TEMP.)	0.24
2	JIM THERELL	L.H.E. (TEMP.)	0.39

STATE PROJECT NUMBER

9864-01-70

SHEET NO.

PLAN & PROFILE



**BENCH MARKS**

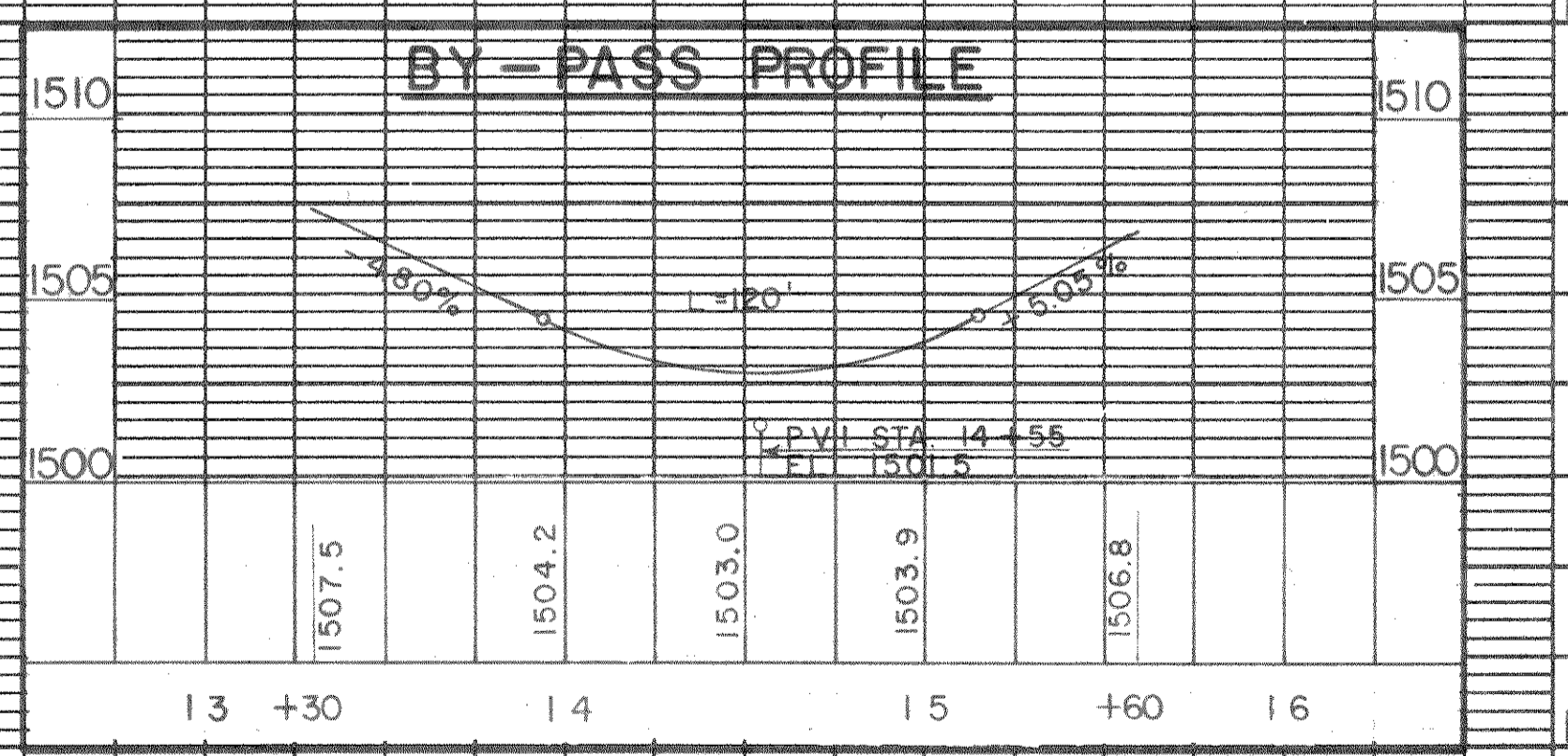
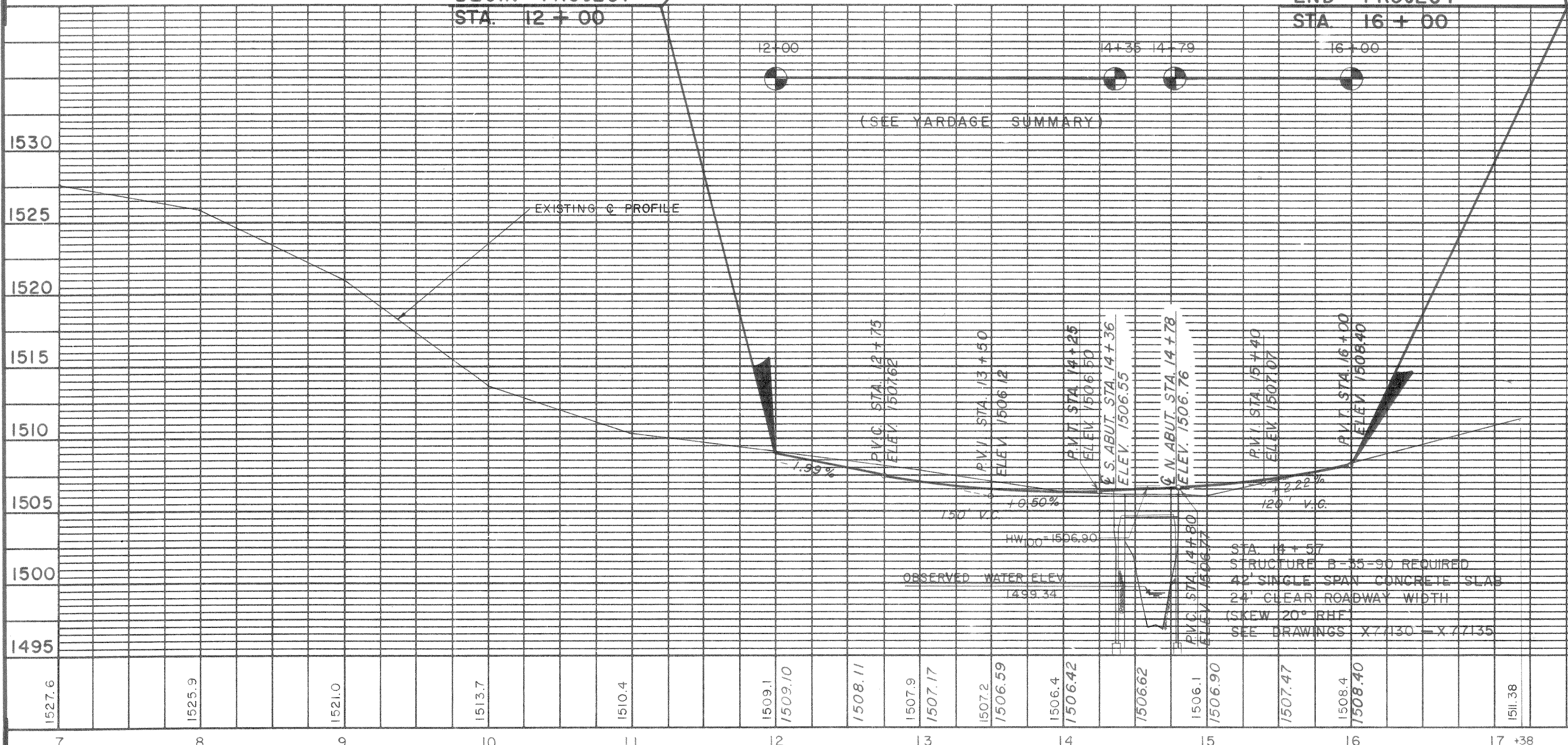
NO.	STA.	DESCRIPTION	ELEV.
1	11+31	SPIKE IN 24" POPLAR, 27'L.	1511.62
2	14+78	CHISELED SQUARE IN NW CORNER BRIDGE, 7'L.	1506.69
3	16+78	SPIKE IN PP, 20'L.	1513.68

BEGIN PROJECT STA. 12+00      NET LENGTH - STA. 12+00 - STA. 16+00 = 400 L.F.      END PROJECT STA. 16+00

**YARDAGE SUMMARY**

PHASE	CONSTRUCTION	BRIDGE	DESCRIPTION	CUT	FILL	BORROW	WASTE
PHASE I	CONSTRUCT	BRIDGE	TEMPORARY BY-PASS	64 C.Y.	84 C.Y.	20 C.Y.	0 C.Y.
PHASE II	CONSTRUCT	BRIDGE	BRIDGE & APPROACHES	446 C.Y.	0 C.Y.	0 C.Y.	446 C.Y.
PHASE III	REMOVE	BRIDGE	TEMPORARY BY-PASS	84 C.Y.	0 C.Y.	0 C.Y.	84 C.Y.

NOTE: FILL QUANTITIES REFLECT AN EXPANSION OF 30%

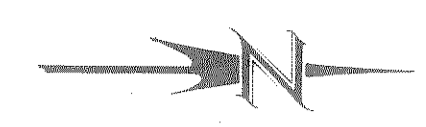




\* ANCHOR ASSEMBLY FOR STEEL PLATE BEAM TYPE GUARD RAIL

EXISTING STRUCTURE P-35-63 TO BE REMOVED.

**NORTH FORK SPIRIT RIVER**



**LIST OF DRAWINGS**

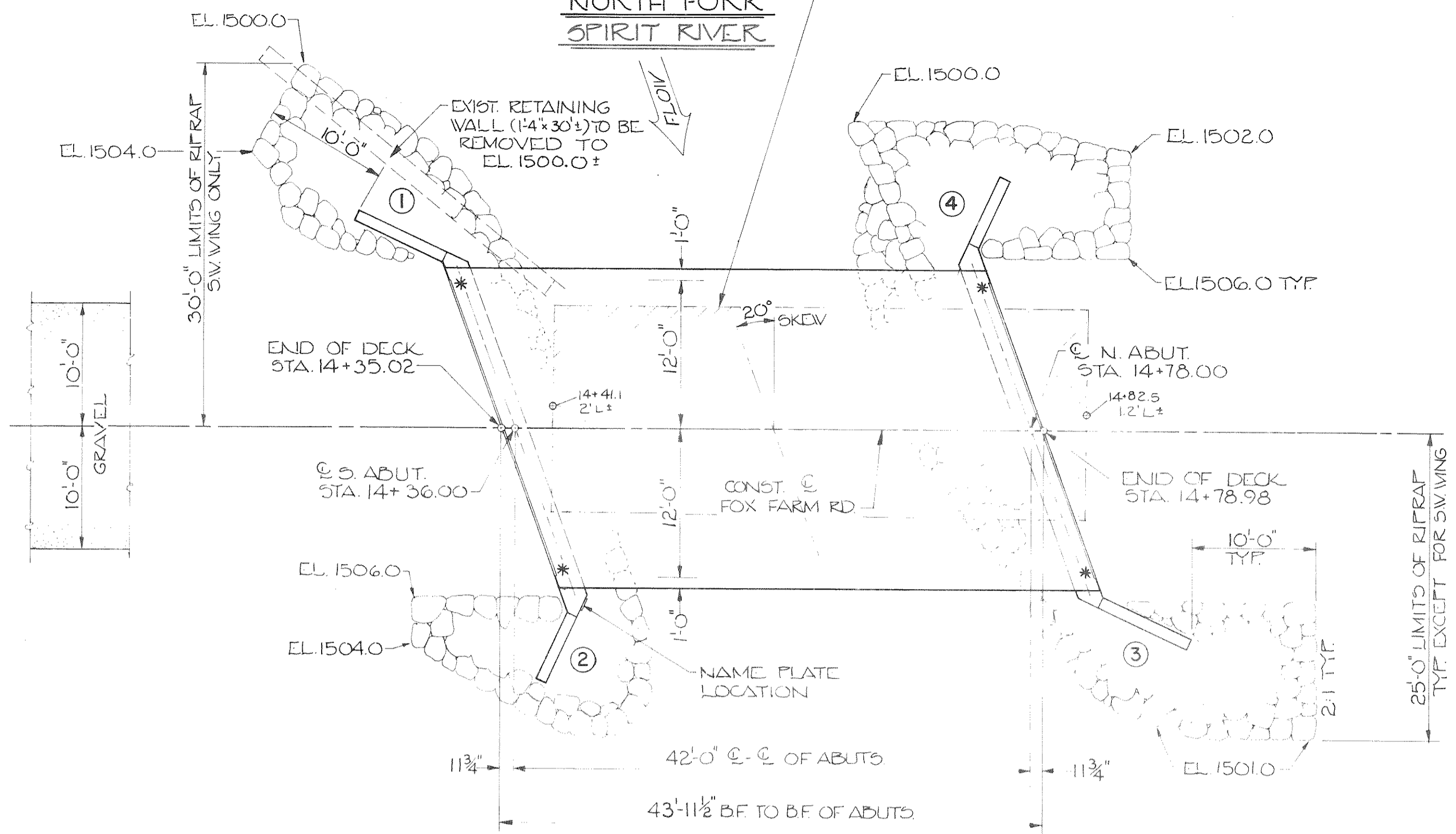
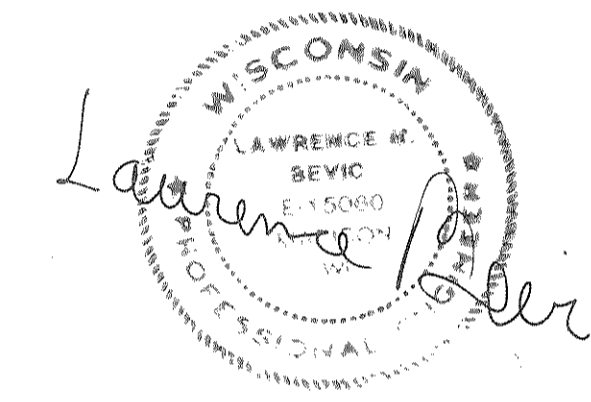
- 1. GENERAL PLAN ——— X77130
- 2. SUBSURFACE EXPLORATION — X77131
- 3. ABUTMENTS ——— X77132
- 4. ABUTMENT DETAILS ——— X77133
- 5. SUPERSTRUCTURE ——— X77134
- 6. TUBULAR RAILING, TYPE "F" — X77135

**GENERAL NOTES**

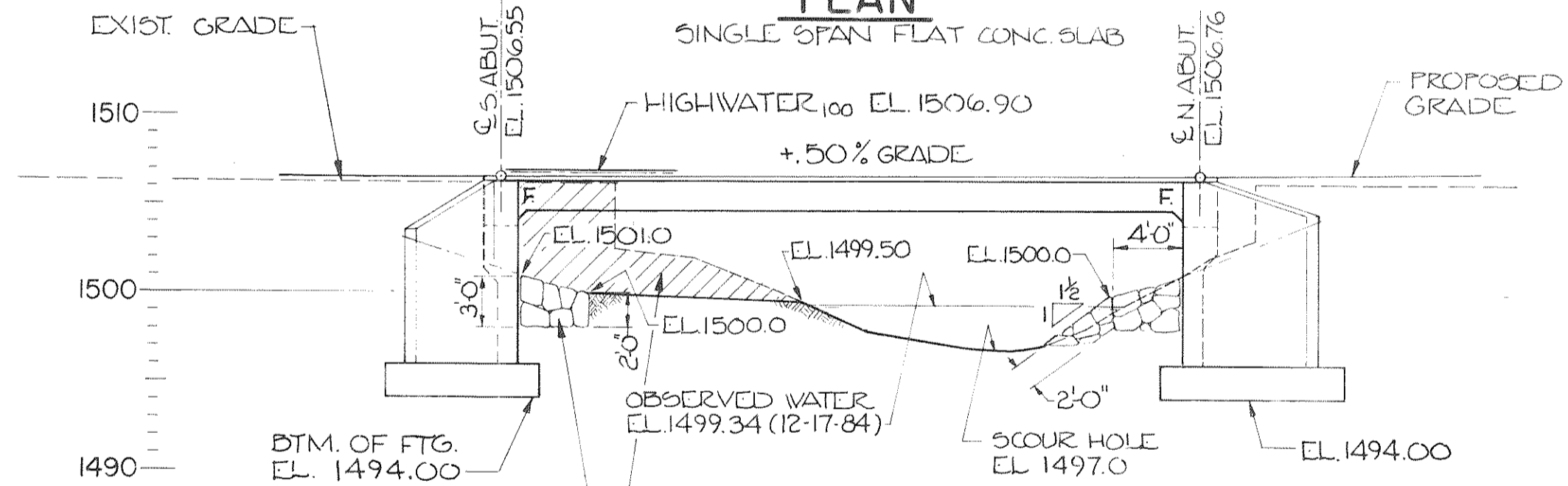
DRAWINGS SHALL NOT BE SCALED.  
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.  
 THE SLOPE OF THE FILL AT THE ABUTMENTS SHALL BE COVERED W/ HEAVY RIPRAP TO THE EXTENT SHOWN ON THIS SHEET.  
 JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153 - TYPE I, II OR III, OR M213.  
 SLAB FALSEWORK TO BE SUPPORTED ON PILES, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.  
 THIS STRUCTURE WILL REPLACE P-35-63, A SINGLE SPAN STEEL THRU GIRDER BRIDGE 40' LG.

**DESIGN DATA**

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.  
**RATINGS:** DESIGN RATING ——— H20  
 INVENTORY RATING ——— H21  
 OPERATING RATING ——— H527  
**ALLOWABLE DESIGN STRESSES:**  
 CONCRETE MASONRY - SLAB ———  $f_c = 4,000$  P.S.I.  
 - ALL OTHER ———  $f_c = 3,500$  P.S.I.  
 HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ———  $f_y = 60,000$  P.S.I.  
**FOUNDATION DATA:**  
 ABUTMENTS TO BE SUPPORTED ON SPREAD FOOTINGS FOUNDED ON SOUND MATERIAL, MINIMUM BEARING VALUE OF 4,000 P.S.F.

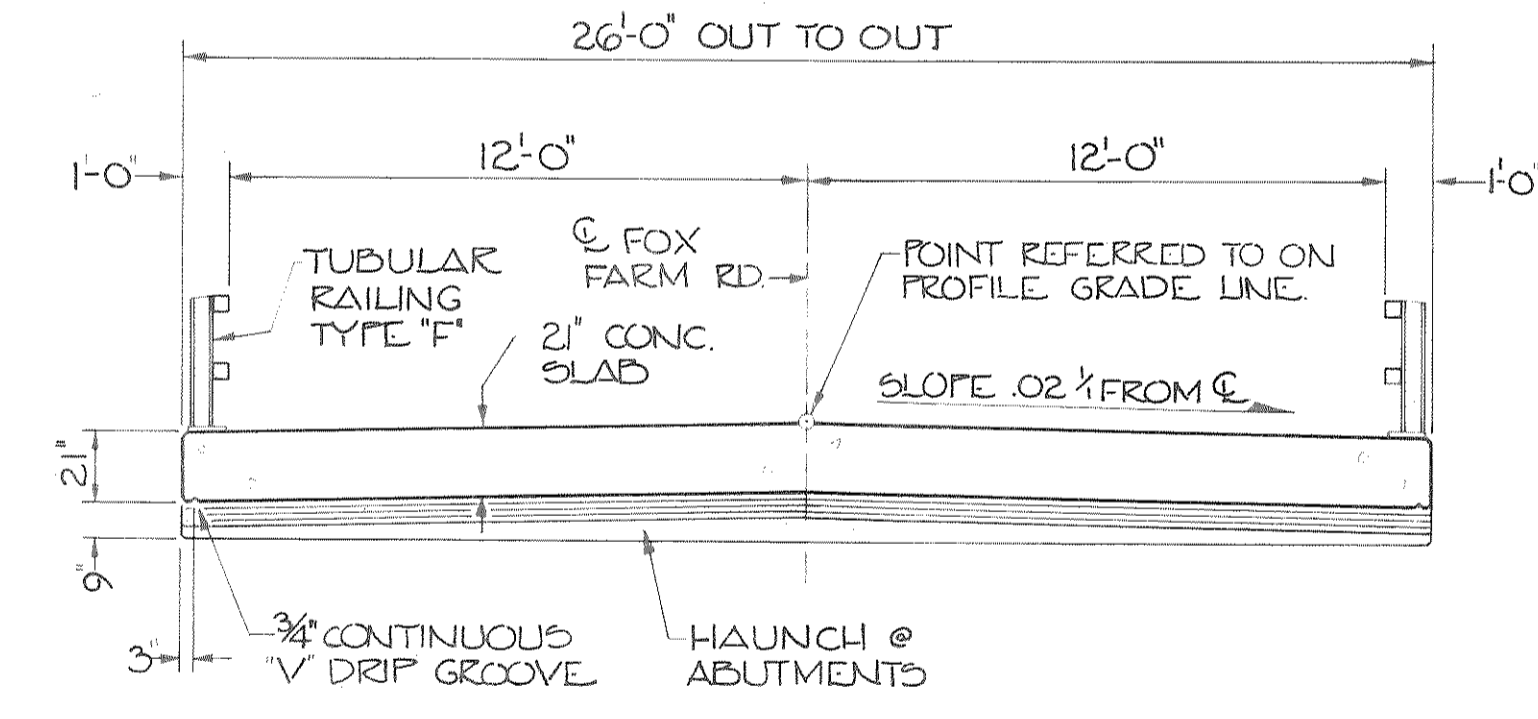


**PLAN**



**ELEVATION**

RAILING NOT SHOWN  
 EXCAVATION @ S. ABUT. TO BE INCLUDED IN " EXCAVATION FOR STRUCTURES."



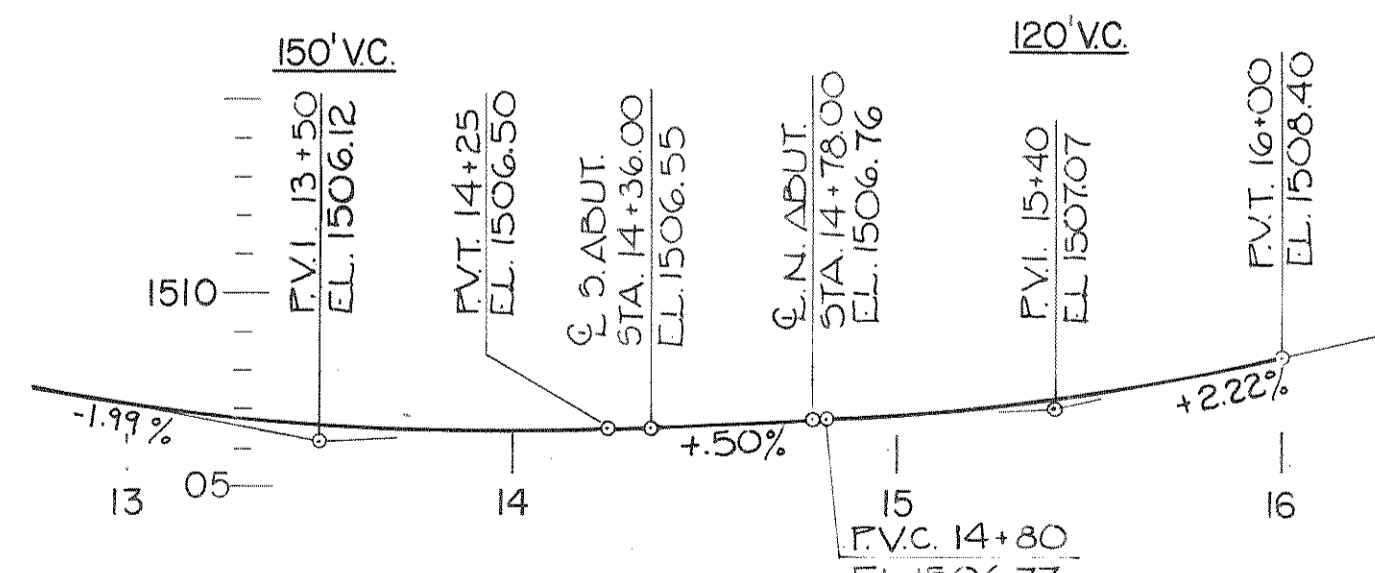
**CROSS SECTION THRU ROADWAY**

**HYDRAULIC DATA:**

DRAINAGE AREA ——— 23.3 SQ. MI.  
 100 YEAR FREQUENCY  
 $Q_{100}$  ——— 1,700 C.F.S.  
 WATERWAY AREA ——— 179 SQ. FT.  
 VELOCITY ——— 9.5 F.P.S.  
 HIGHWATER 100 ——— EL. 1506.9  
 ROADWAY OVERTOPPING ——— N/A

**TRAFFIC DATA:**

A.D.T. (1985) ——— 20  
 A.D.T. (2005) ——— 40  
 R.D.S. ——— 40 M.P.H.



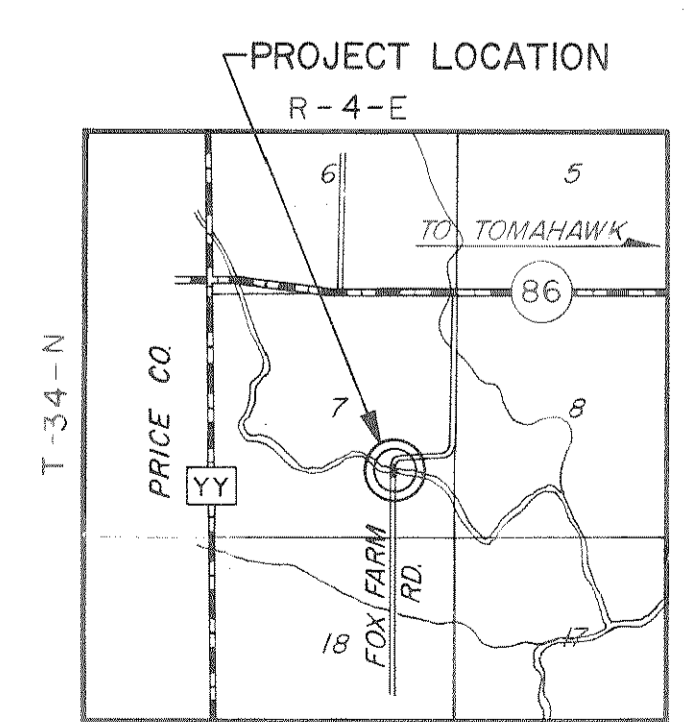
**PROFILE GRADE LINE**

**BENCH MARK LOCATION**

NO.	STA.	DESCRIPTION	ELEV.
1	11+31	SPIKE IN 24" @ POPLAR	27' LT. 1511.62
2	14+78	CHISELED □ IN NW CORNER OF BRIDGE	7' LT. 1506.69
3	16+78	SPIKE IN F.F.	20' LT. 1513.68

BID ITEM	UNIT	S. ABUT.	N. ABUT.	SUPER	TOTAL
REMOVING OLD BRIDGE, STA. 14+61	L.S.	—	—	—	1
EXCAVATION FOR STRUCTURES, BRIDGES B-35-90	L.S.	—	—	—	1
CONCRETE MASONRY, BRIDGES	C.Y.	31.4	31.8	77.8	141
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LBS.	1,905	1,905	10,400	14,210
COATED HIGH STRENGTH BAR STEEL REINF.	LBS.	—	—	1,400	1,400
STRUCTURAL CARBON STEEL	LBS.	—	—	275	275
TUBULAR RAILING, TYPE "F" - B-35-90	L.S.	—	—	1	1
HEAVY RIPRAP	C.Y.	35	50	—	85
PROTECTIVE SURFACE TREATMENT	GAL.	—	—	12	12
<b>NON-BID ITEM</b>					
POLYVINYL CHLORIDE WATERSTOP	L.F.	58	58	—	116
FILLER	SIZE	—	—	—	1/2" & 3/4"

Barrientos & Associates, Inc.  
 Consulting Engineers  
 3522 Mineral Point Road Madison, WI, 53705



**LAYOUT**

No.	Date	Revision	By

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

**STRUCTURE B-35-90**

**FOX FARM RD. OVER N. FORK SPIRIT RIVER**

County LINCOLN Town TOMAHAWK

Design Spec. A.A.S.H.T.O. '83 Load H20 Const. Spec. WIS'81  
 Designed By L.M.B. Design Checked T.E.P. Drawn By G.R.L. Plans Checked L.M.B.

Approved \_\_\_\_\_ State Bridge Engineer Date \_\_\_\_\_

GENERAL PLAN SHEET 1 OF 6 X77130

ABBREVIATIONS  
 F — Fine    M — Medium    C — Coarse  
 Ws — Weathered    So — Sound

MATERIAL SYMBOLS

Topsoil	Silt	Sandstone
Sand	Peat	Limestone
Gravel	Clay	Igneous Rock

LEGEND OF PROBING

95/6=95 Blows for 6" Penetration  
 Probing taken with a 350# wt. Falling 18" on a 2" O. D. Point.

Probing No. Sta. Elevation  
 7 Average Blows Per Foot  
 Refusal 95, 6

LEGEND OF BORING

Unconfined Strength → 7.7  
 Blows Per Ft. Using 140# Wt. Falling 30"  
 Wash Sample  
 Shelby Tube — S. T.  
 Ground Water Elevation  
 No Ground Water Observed Above This Elevation

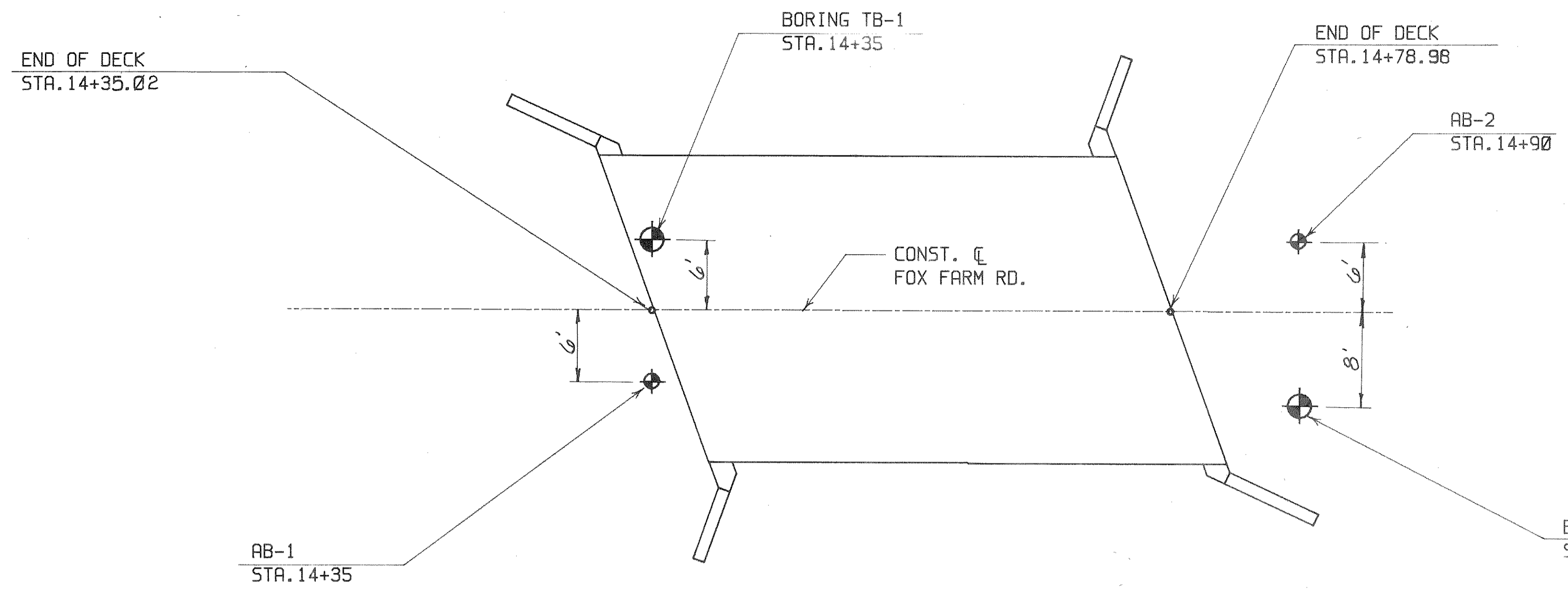
Boring No. Sta. Elev.  
 Sandy Gravel  
 Boulders or Cobbles  
 Sand  
 Silty Clay  
 Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O. D. x 1.4" I. D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

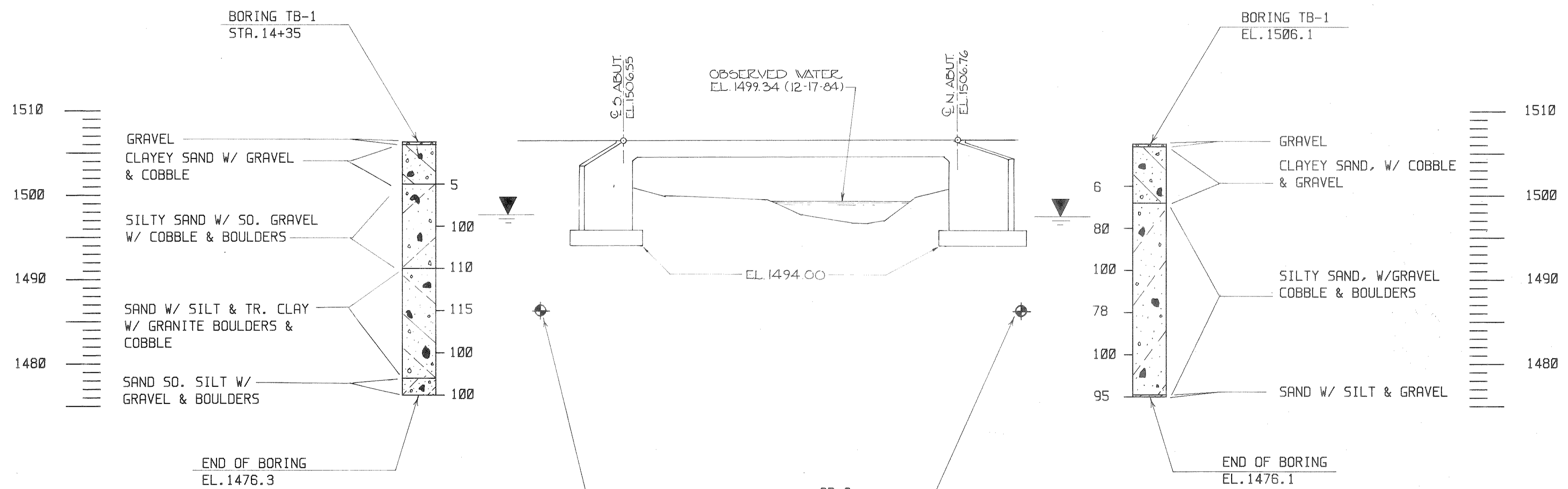
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-90</b>			
Const. Spec.	WIS. '81	Drawn By	T.L.
		Plans Checked	L.M.B.
<b>SUBSURFACE EXPLORATION</b>			SHEET <b>2</b> OF <b>6</b> X 77131



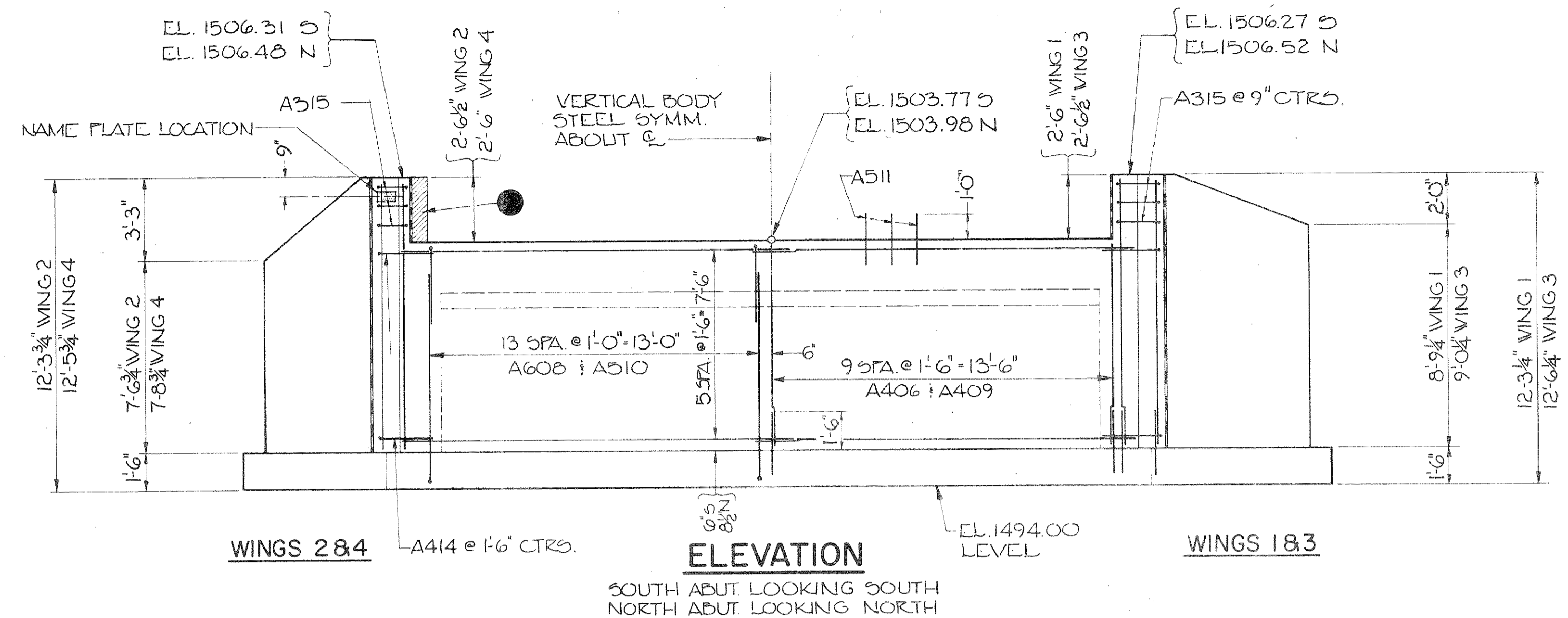
**PLAN**



AB-1  
 DRILLED EASY FROM TWO FEET TO THREE FEET. HARD FROM THREE FEET TO E.O.B. AT TWENTY FEET.

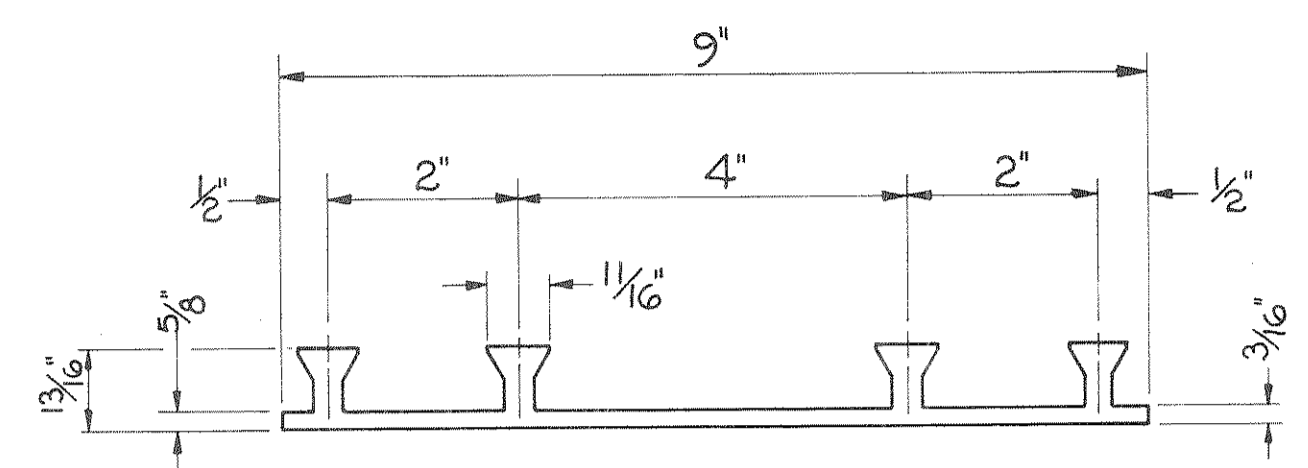
AB-2  
 NO EASY DRILLING AFTER FIRST FIVE FEET, HARD FROM FIVE TO TWENTY FEET.



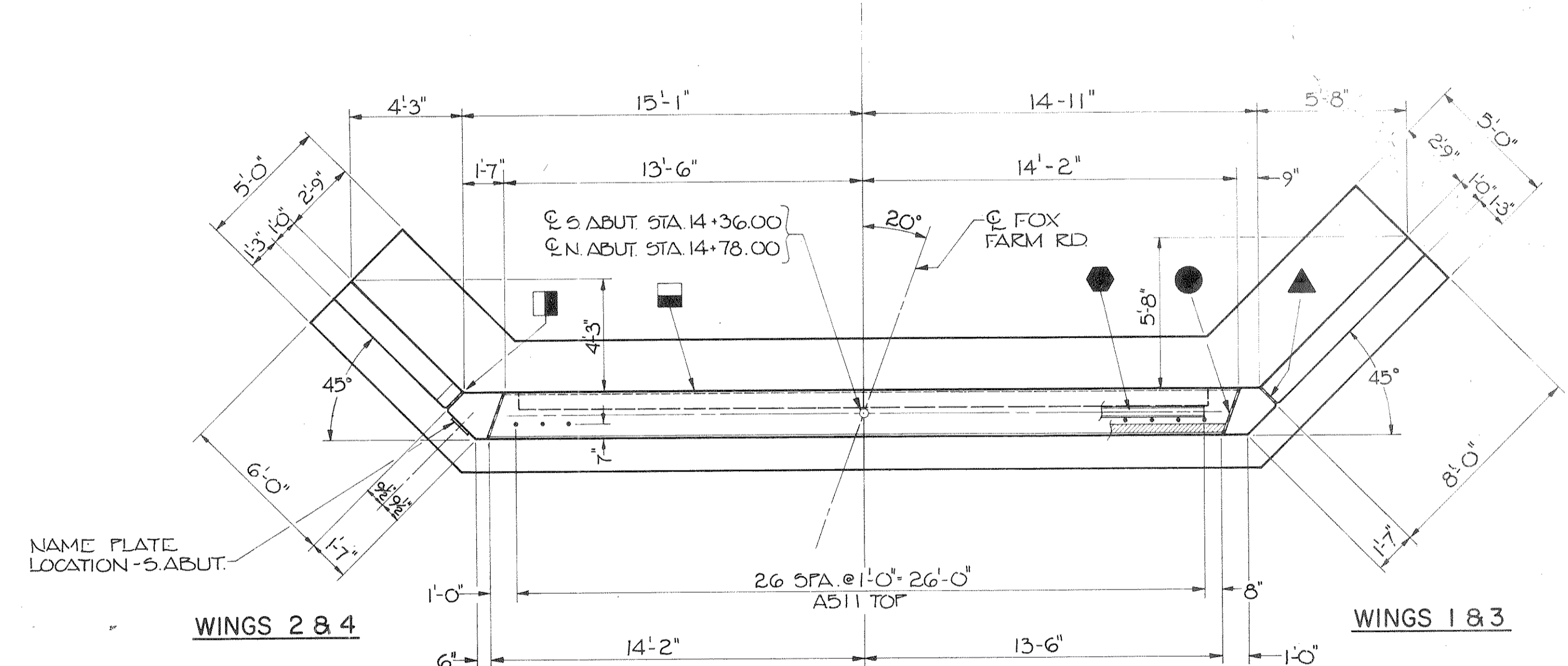


**ELEVATION**

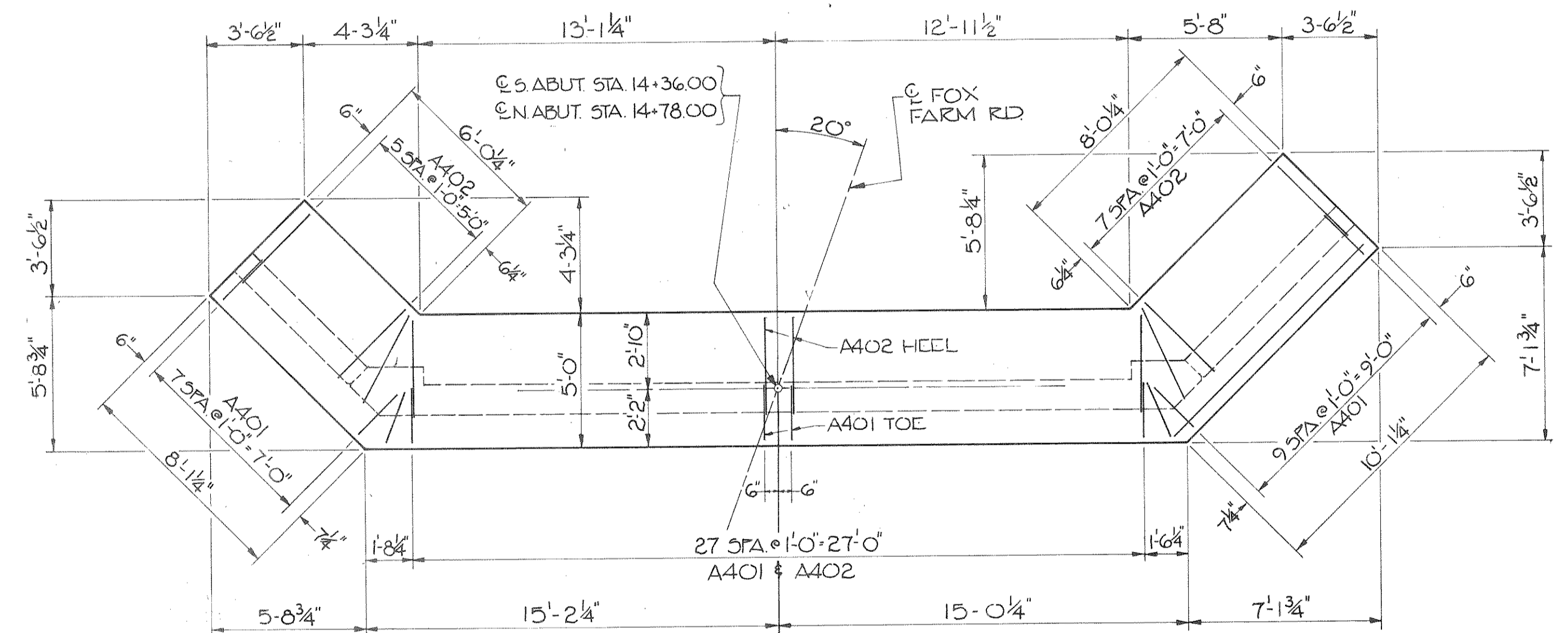
SOUTH ABUT LOOKING SOUTH  
NORTH ABUT LOOKING NORTH



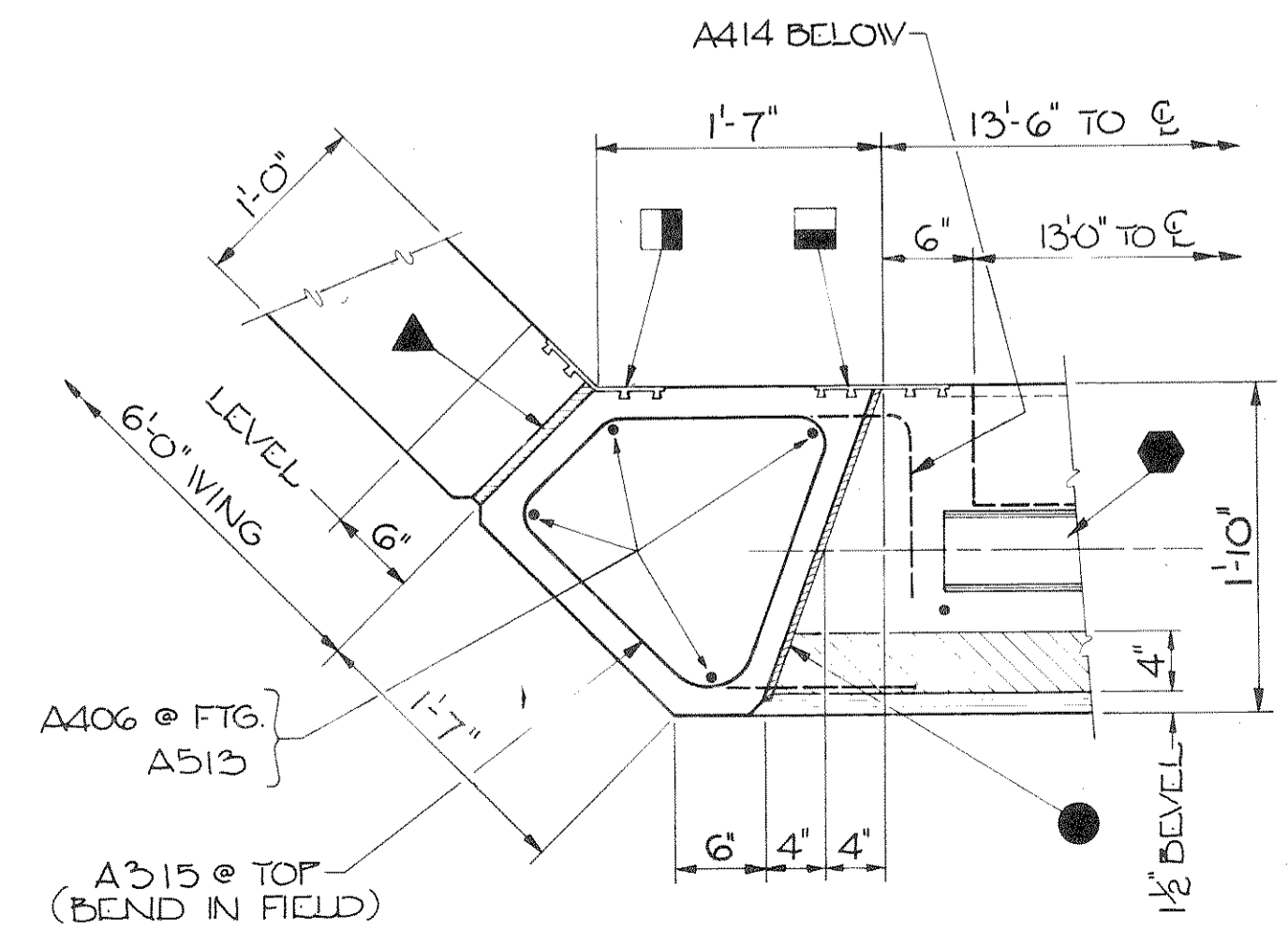
**POLYVINYL CHLORIDE WATERSTOP**



**BODY PLAN**

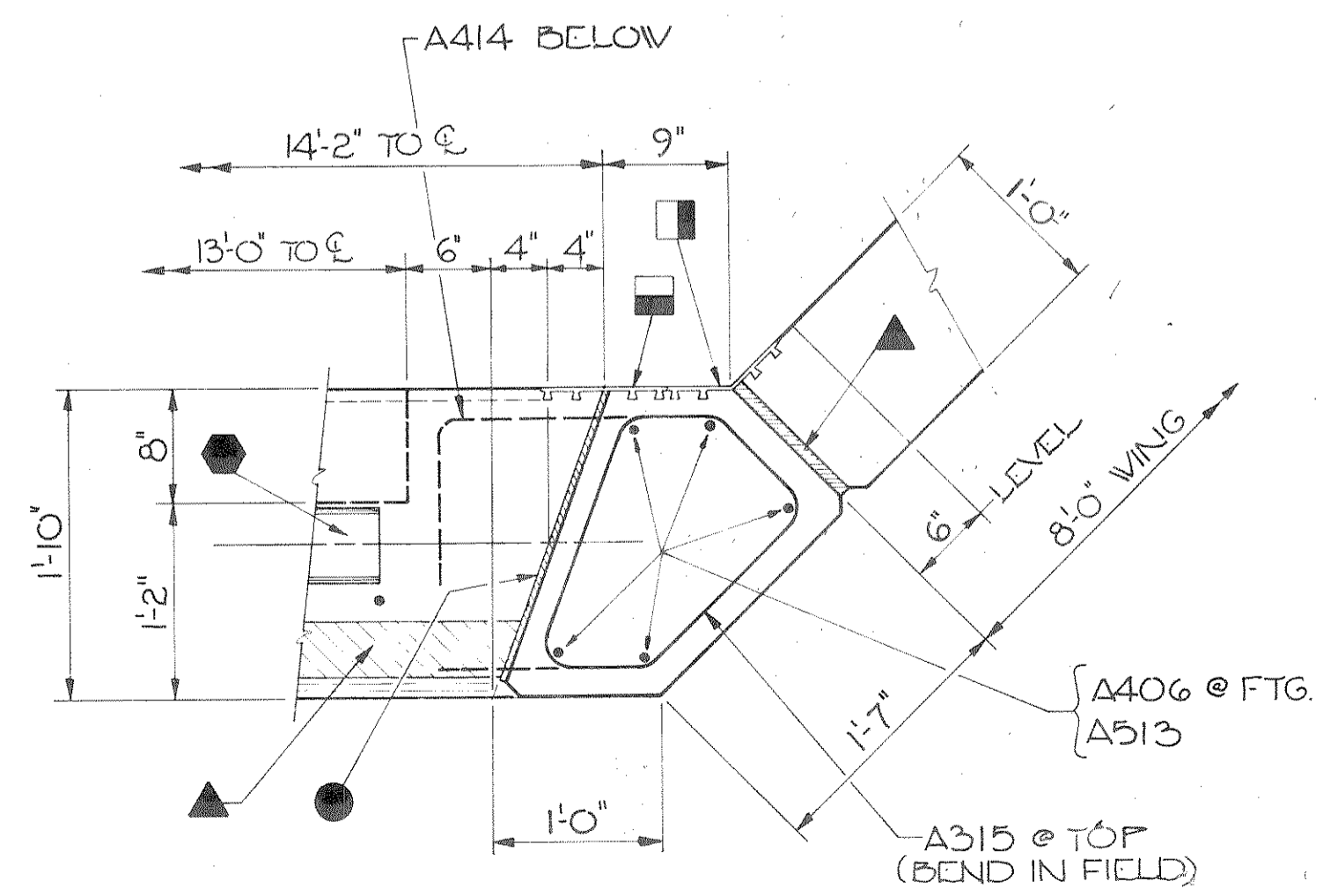


**FOOTING PLAN**



**CORNER DETAIL 2 & 4**

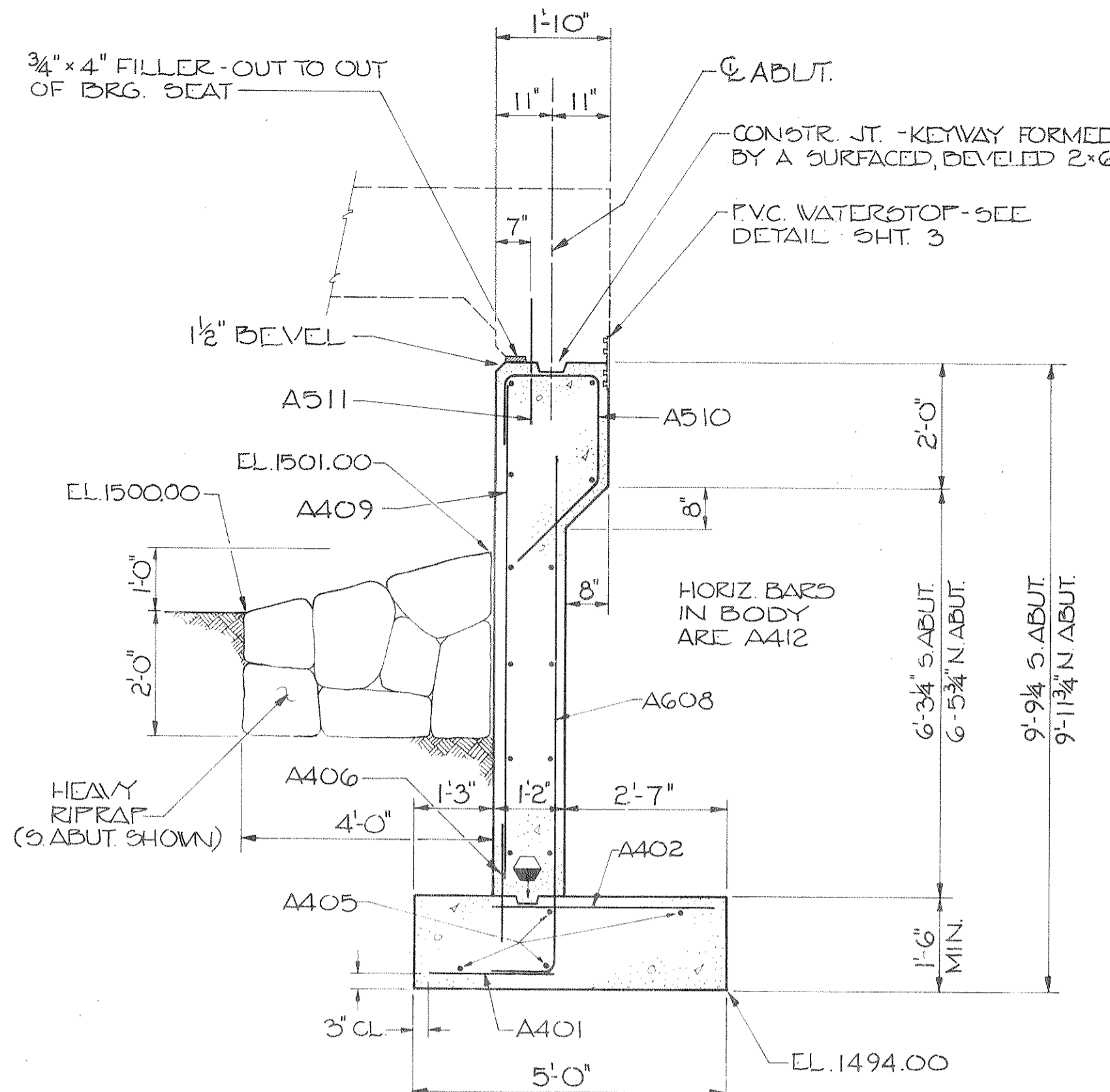
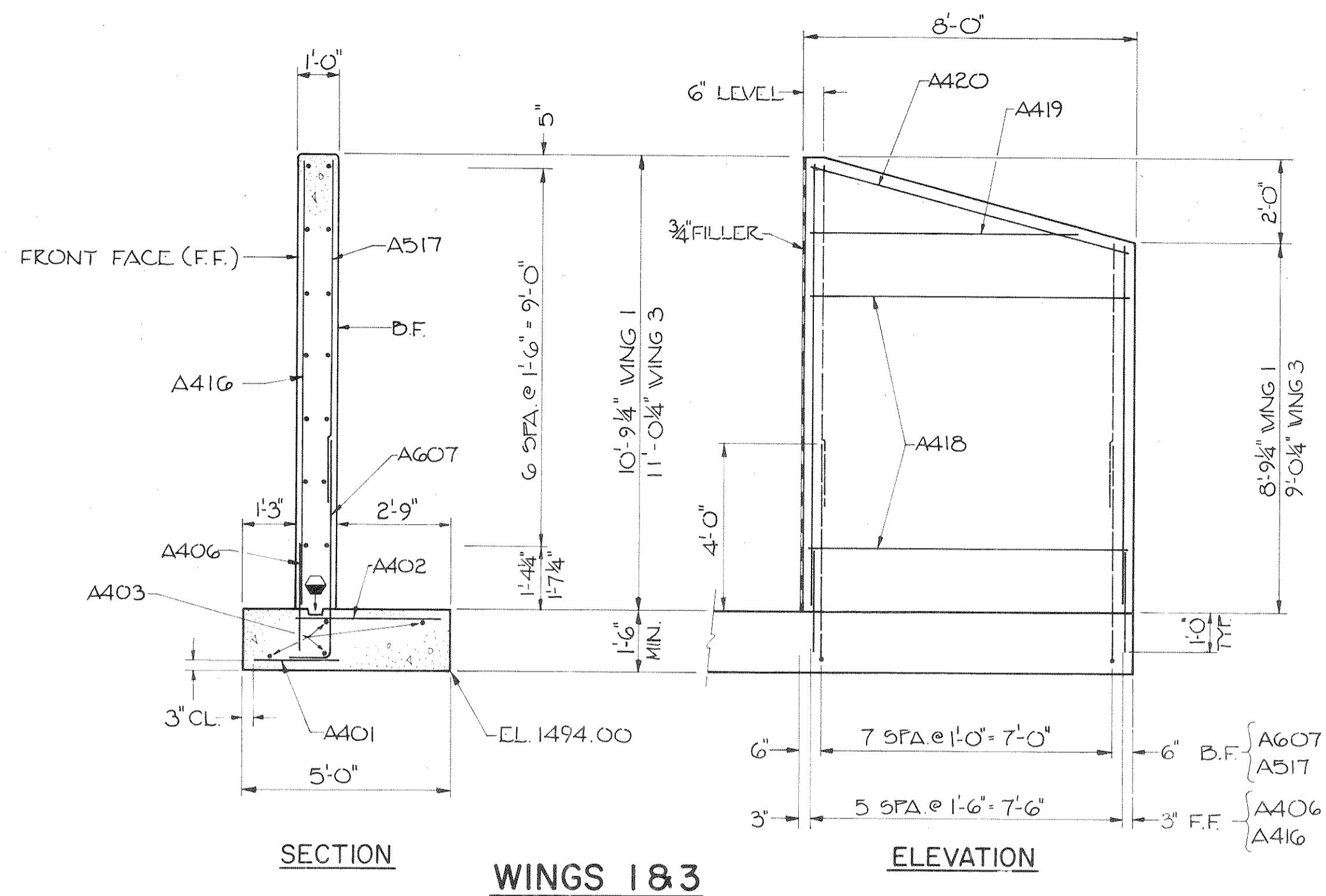
- CONSTRUCTION JOINT - KEYWAY FORMED BY A SURFACED, BEVELED 2x6.
  - ◐ CONSTRUCTION JOINT - KEYWAY FORMED BY A SURFACED, BEVELED 2x4.
  - 1/2" PREFORMED FILLER.
  - ▲ 3/4" PREFORMED FILLER.
  - POLYVINYL CHLORIDE WATERSTOP - PLACED FLUSH W/ CONC. - TO EXTEND FROM TOP OF FOOTING TO TOP OF WINGWALL.
  - POLYVINYL CHLORIDE WATERSTOP - TO EXTEND CONTINUOUS ALONG BACK FACE OF ABUT. @ SLAB & UP FROM SEAT TO TOP OF CORNER. - SPLICES @ CORNERS TO BE BUTT SPLICES, SPLICED W/ SPLICING IRON. PLACE FLUSH W/ CONCRETE.
- NOTE: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER W/ NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE.)



**CORNER DETAIL 1 & 3**

NOTE: SEE SHEET 4 FOR "SECTION THRU ABUTMENT BODY", WINGWALL DETAILS & BILL OF BARS.

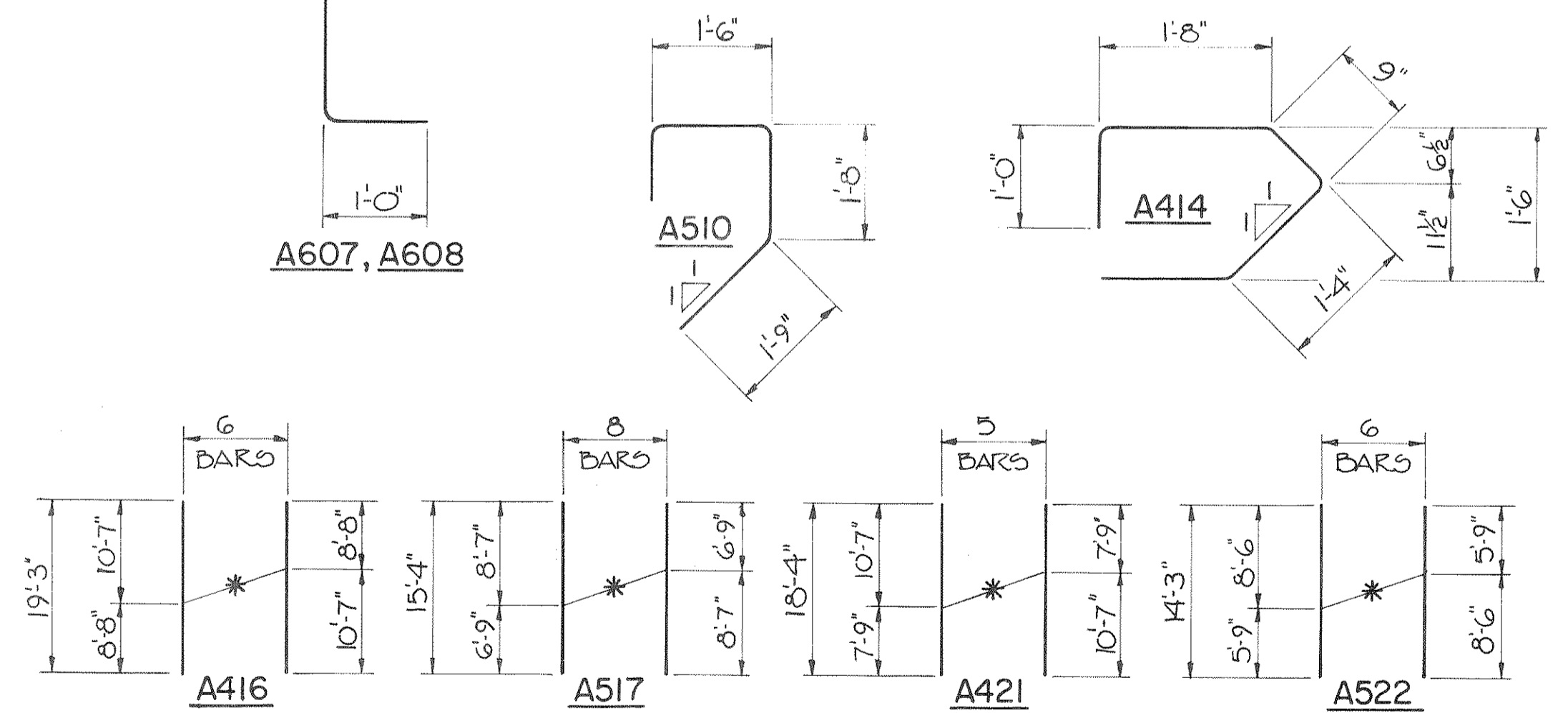
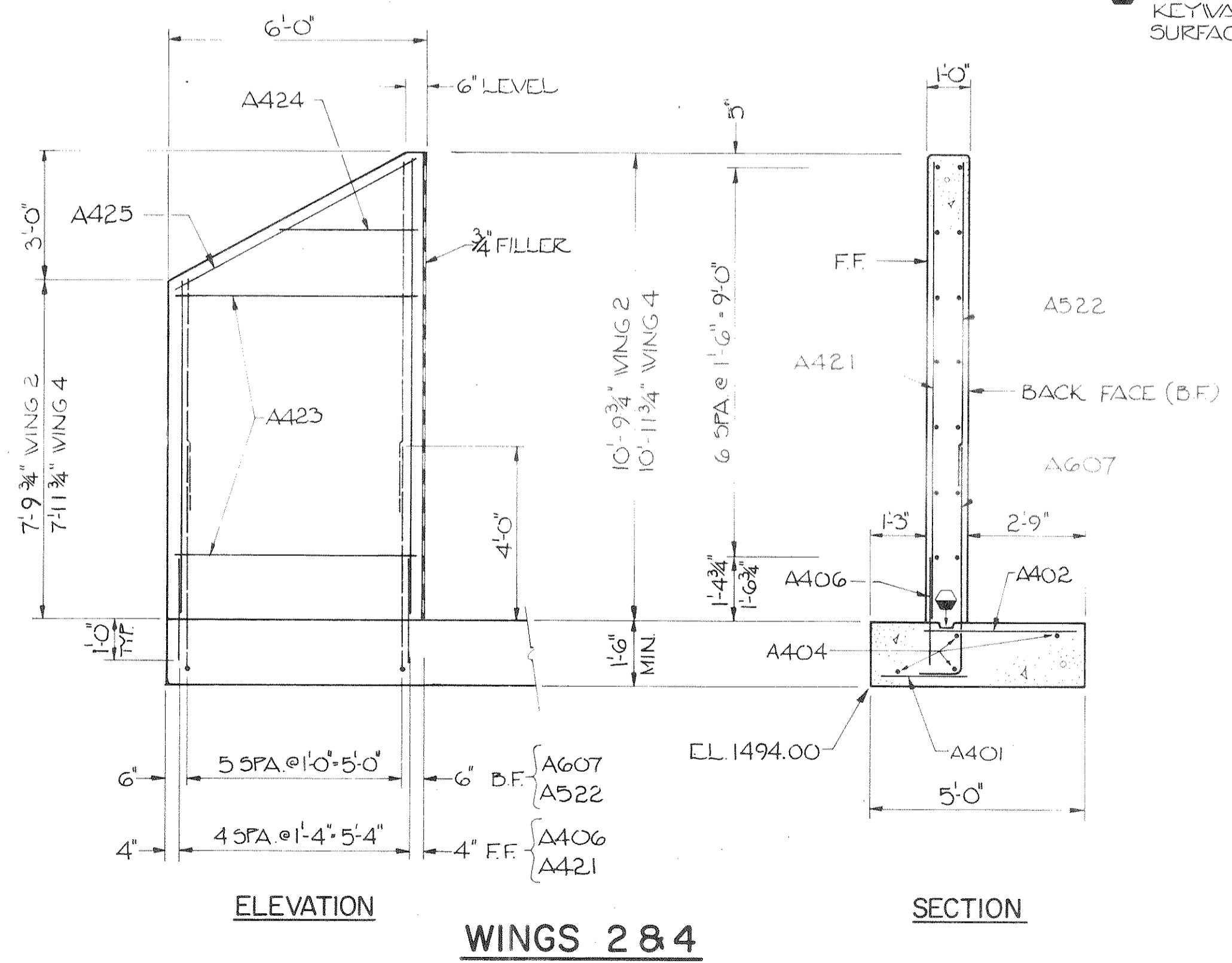
No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-90</b>			
Const. Spec.	WIS. '81	Drawn By	ORL.
Plans Checked	L.M.D.		
<b>ABUTMENTS</b>			SHEET 3 OF 6
X 77132			



**BILL OF BARS - ABUTMENTS**

MARK	NO.	LENGTH	BEND	CUT	LOCATION
A401	96	2'-0"			FOOTING - BODY & WINGS - TOE - BTM.
A402	88	3'-6"			" - " - HEEL - TOP
A403	8	10'-0"			" - WINGS 1:3 - TIE BARS
A404	8	8'-0"			" - " - 2:4 - " - "
A405	16	16'-0"			" - BODY - TIE BARS
A406	78	2'-6"			" - DOVELS - FF - WINGS & BODY
A607	28	6'-1"	X		" - DOVELS - B.F. - WINGS
A608	56	9'-1"	X		" - " - " - BODY
A409	38	8'-0"			BODY - VERT. - F.F.
A510	56	5'-10"	X		" - STIRRUP @ SEAT
A511	54	2'-0"			" - DOVELS - TOP
A412	48	15'-2"			" - HORIZ. - FF & B.F.
A513	18	10'-7"			" - VERT. - CORNERS
A414	24	5'-10"	X		" - HORIZ. - CORNERS
A315	12	5'-2"	X		" - " - CORNER - STIRRUPS - TOP
A416	6	19'-3"	X		WINGS 1:3 - VERT. - F.F.
A517	8	15'-4"	X		" 1:3 - " - B.F.
A418	20	7'-8"			" 1:3 - HORIZ. - FF & B.F.
A419	4	6'-6"			" 1:3 - " - " - "
A420	4	7'-10"			" 1:3 - " - " - TOP
A421	5	18'-4"	X		WINGS 2:4 - VERT. - F.F.
A522	6	14'-3"	X		" 2:4 - " - B.F.
A423	20	5'-8"			" 2:4 - HORIZ. - FF & B.F.
A424	4	3'-2"			" 2:4 - " - " - "
A425	4	6'-3"			" 2:4 - TOP - FF & B.F.

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

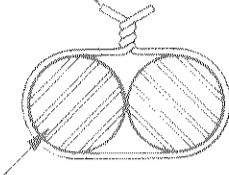


\* MARK & CUT ALL BARS ALONG THIS LINE MAKE ALL CUTS NORMAL TO BAR AXIS.

No.	Date	Revision	By
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<b>STRUCTURE B-35-90</b>			
Const. Spec.	WIS. '81	Drawn By	ORL
Plans Checked	L.M.D.		
<b>ABUTMENT DETAILS</b>			<b>SHEET 4 OF 6</b>
			<b>X 77133</b>

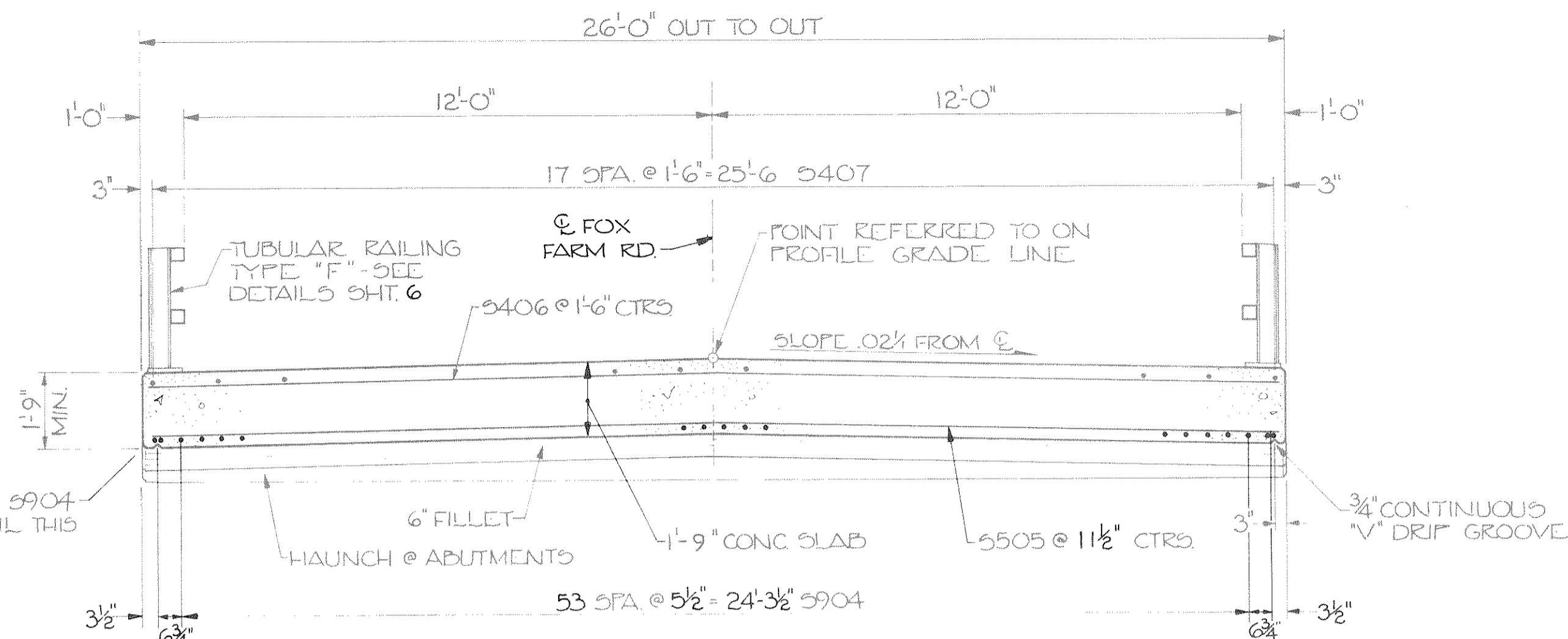


WIRE BARS TOGETHER @ 2'-0" CTRS.



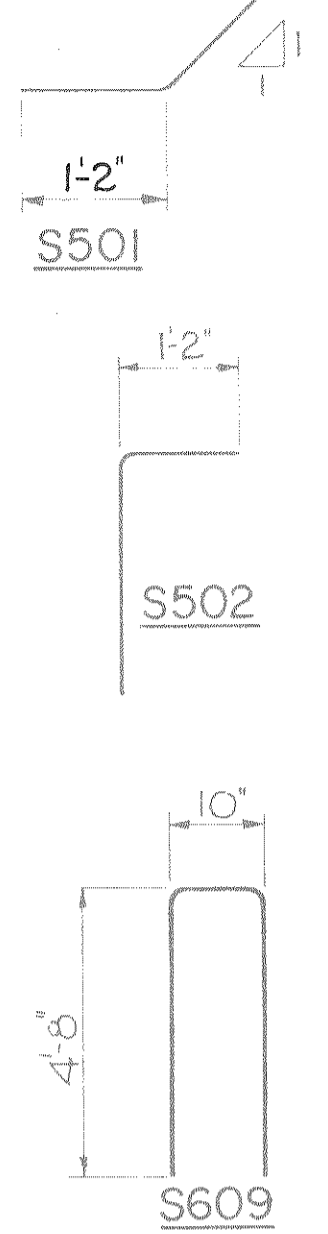
5904 BUNDLING DETAIL

BUNDLED 5904 SEE DETAIL THIS SHEET.



**CROSS SECTION THRU ROADWAY**

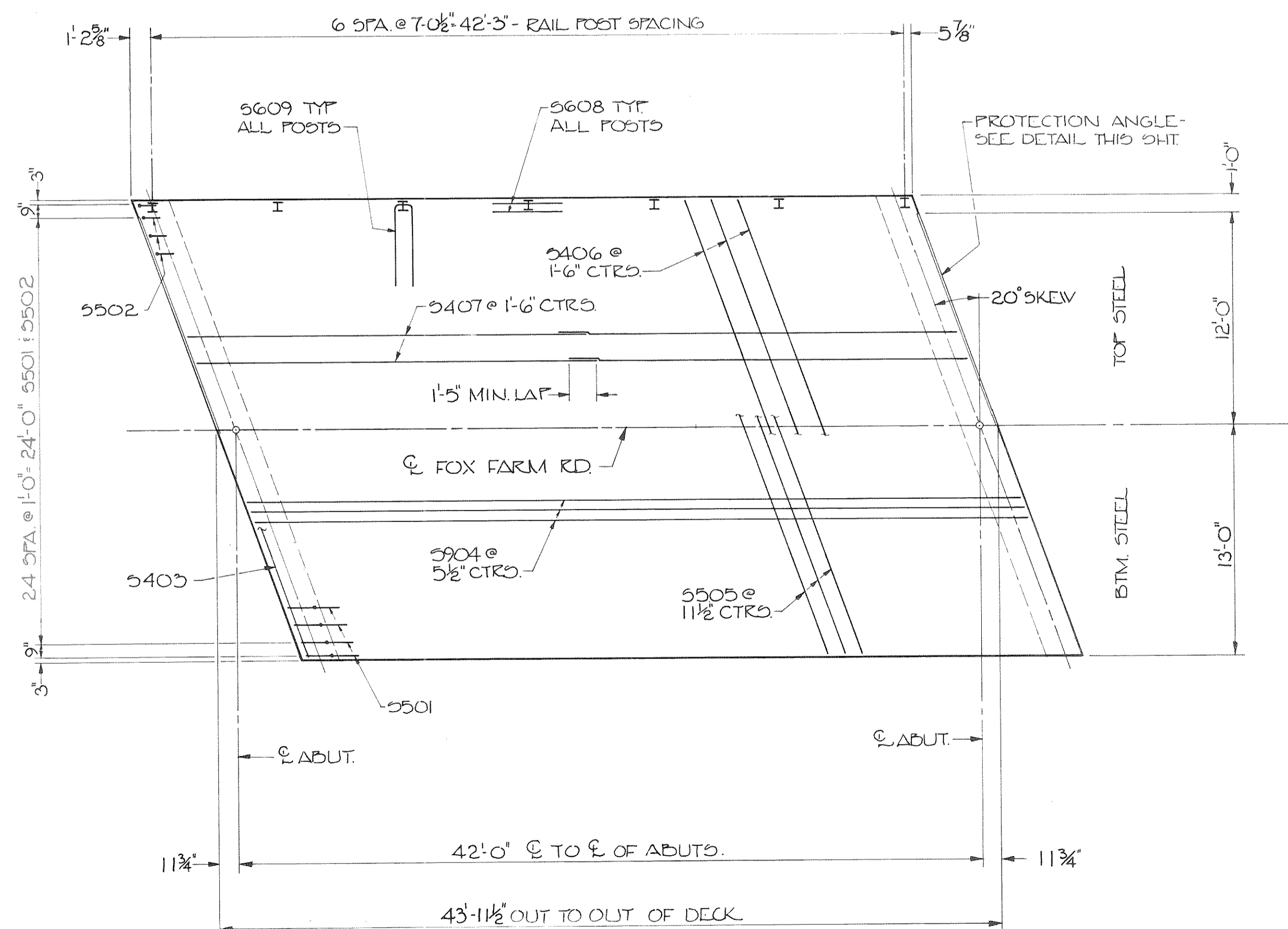
ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS @ APPROXIMATELY 3'-0" CTRS.  
 BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS @ APPROXIMATELY 4'-0" CTRS.



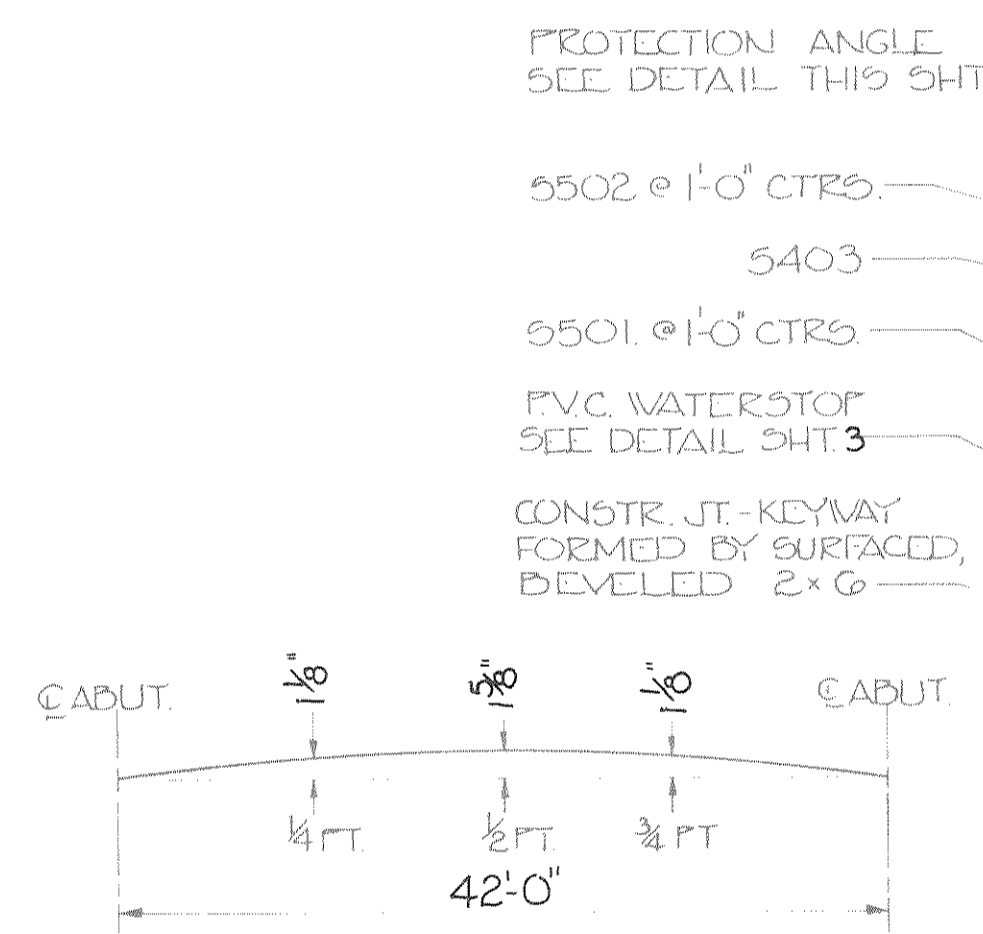
**BILL OF BARS - SUPERSTRUCTURE**

MARK	NO.	LENGTH	BEND	EPOX	LOCATION
5501	54	3'-10"	X		HAUNCH @ ABUTS - VERT. STIRRUPS
5502	54	3'-3"	X	X	" @ " - " - "
5403	10	27'-3"		X	" @ " - " - HORIZ.
5904	58	43'-6"			SLAB - BTM. - LONGIT.
5505	43	27'-3"			" - " - TRANSV.
5406	27	27'-3"		X	" - " - TOP - "
5407	36	22'-6"		X	" - " - LONGIT.
5608	28	4'-0"			" - " - 2 @ EA. RAIL POST
5609	14	10'-0"	X		" - " @ RAIL POSTS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



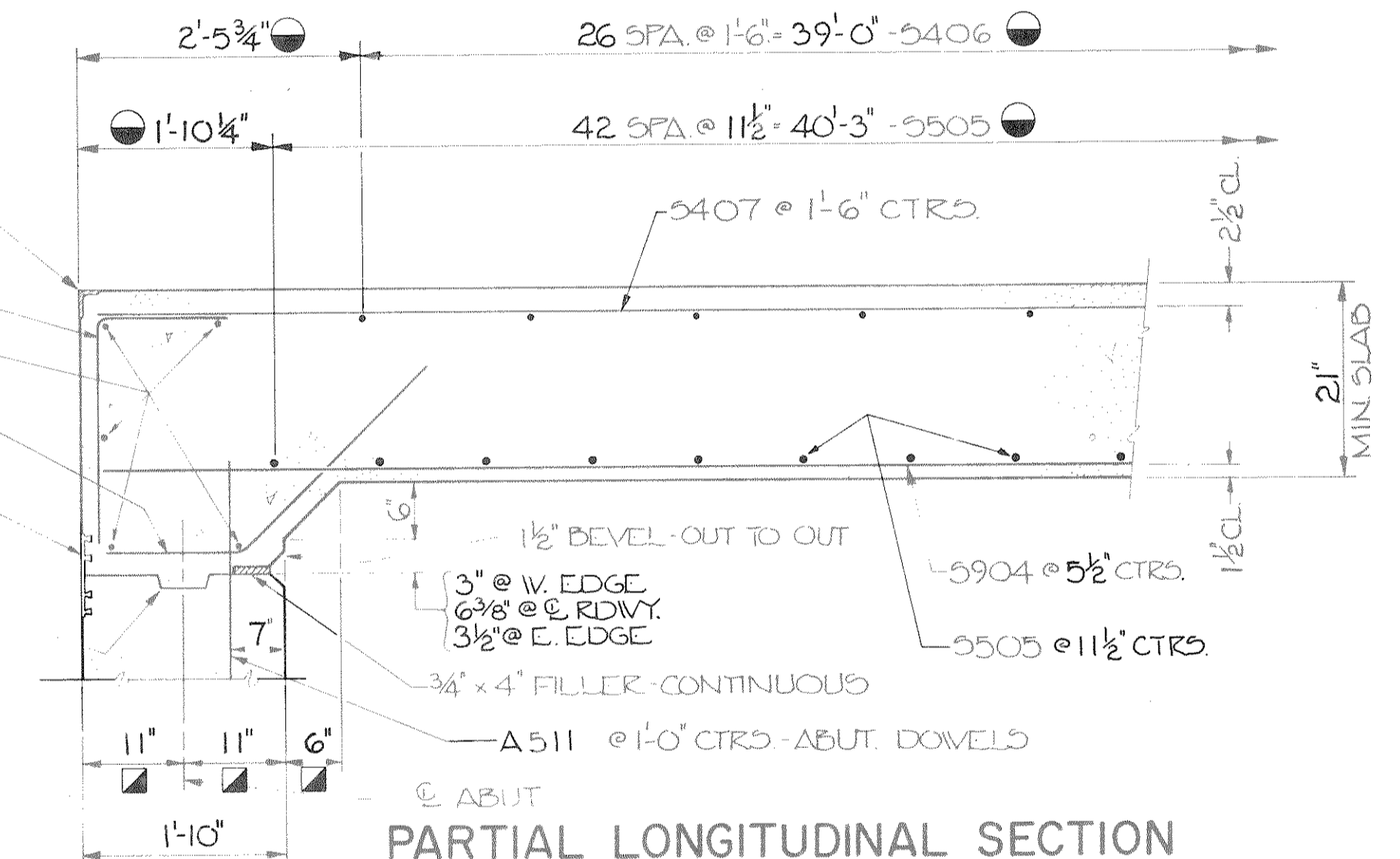
**PLAN**



**CAMBER DIAGRAM**

PROVIDE CAMBER AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE PLASTIC FLOW. THIS DOES NOT INCLUDE AN ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTION IS APPROX. 1/3 OF VALUES SHOWN.

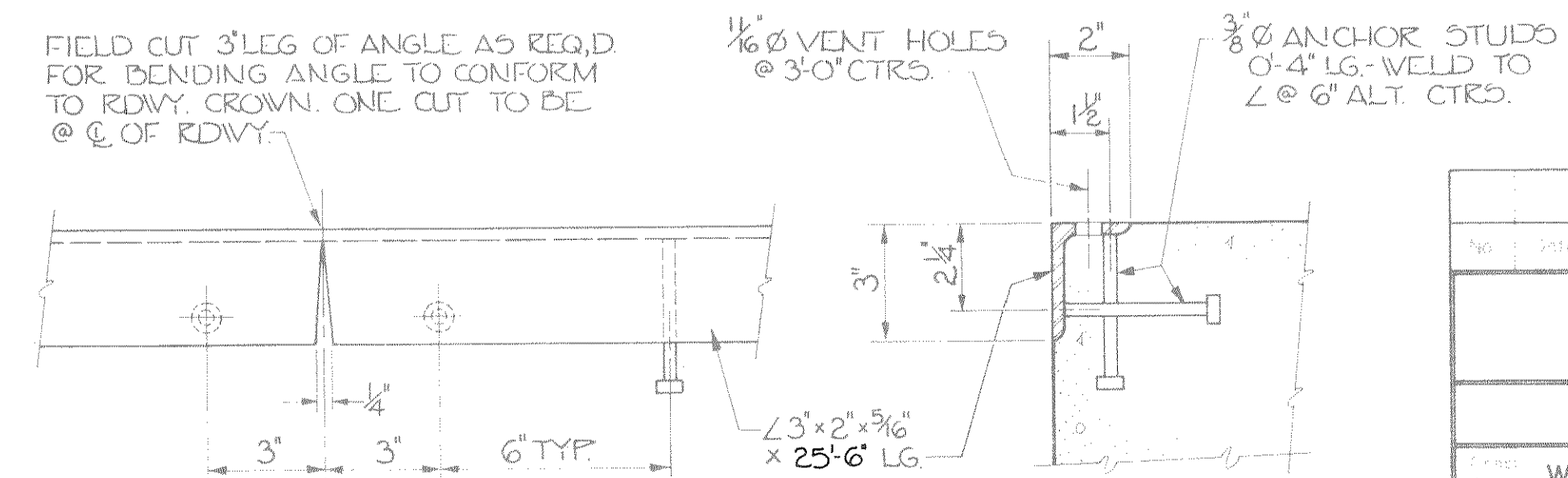
PROTECTION ANGLE SEE DETAIL THIS SHEET.  
 5502 @ 1'-0" CTRS.  
 5403  
 5501 @ 1'-0" CTRS.  
 P.V.C. WATERSTOP SEE DETAIL SHEET 3  
 CONSTR. JT. - KEYWAY FORMED BY SURFACED, BEVELED 2" X 6"



**PARTIAL LONGITUDINAL SECTION**

- DIMENSIONS ARE GIVEN NORMAL TO ABUTMENTS
- DIMENSIONS ARE GIVEN PARALLEL TO C. OF RDWY.

NOTE: ALL SLAB DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+)

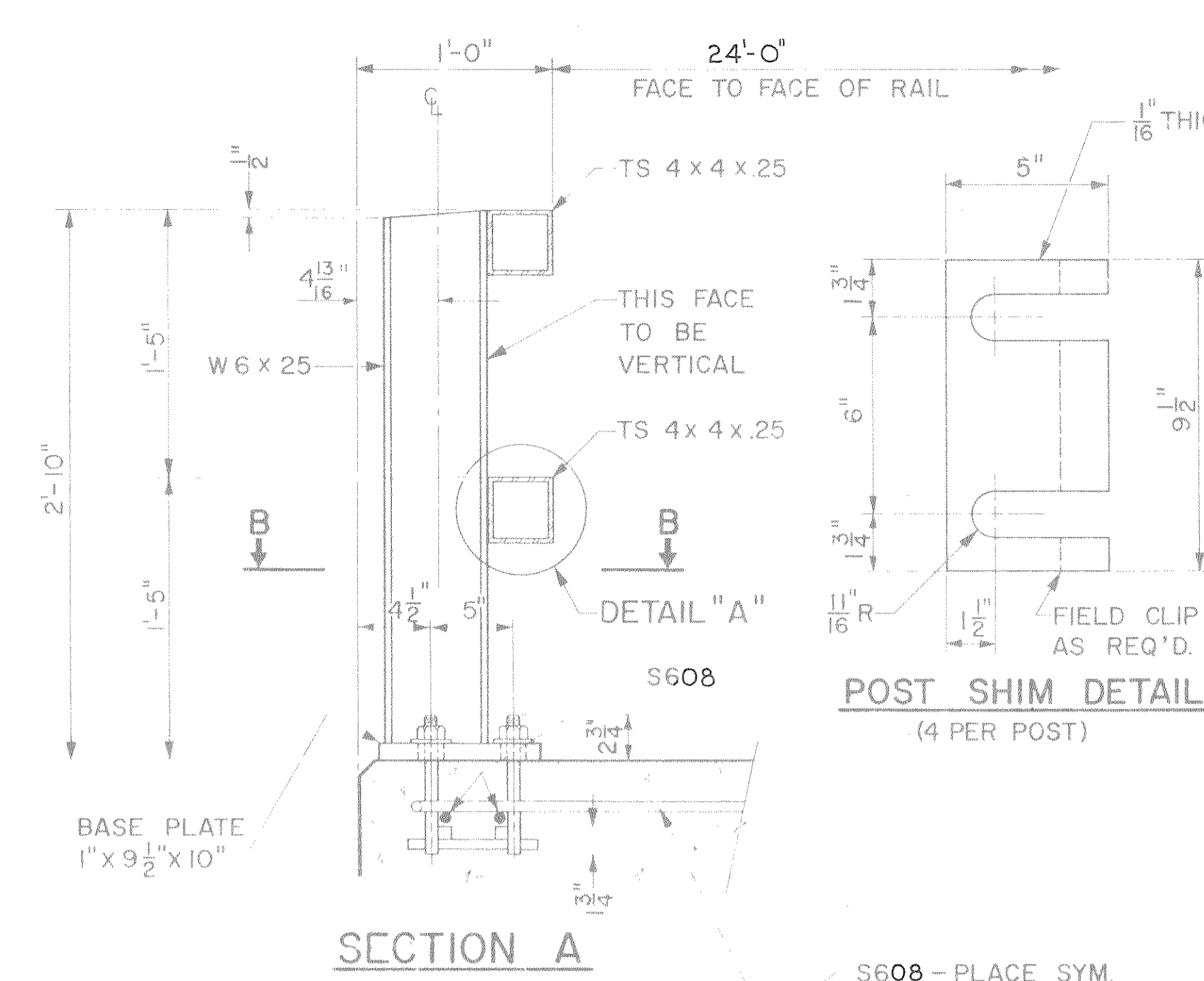
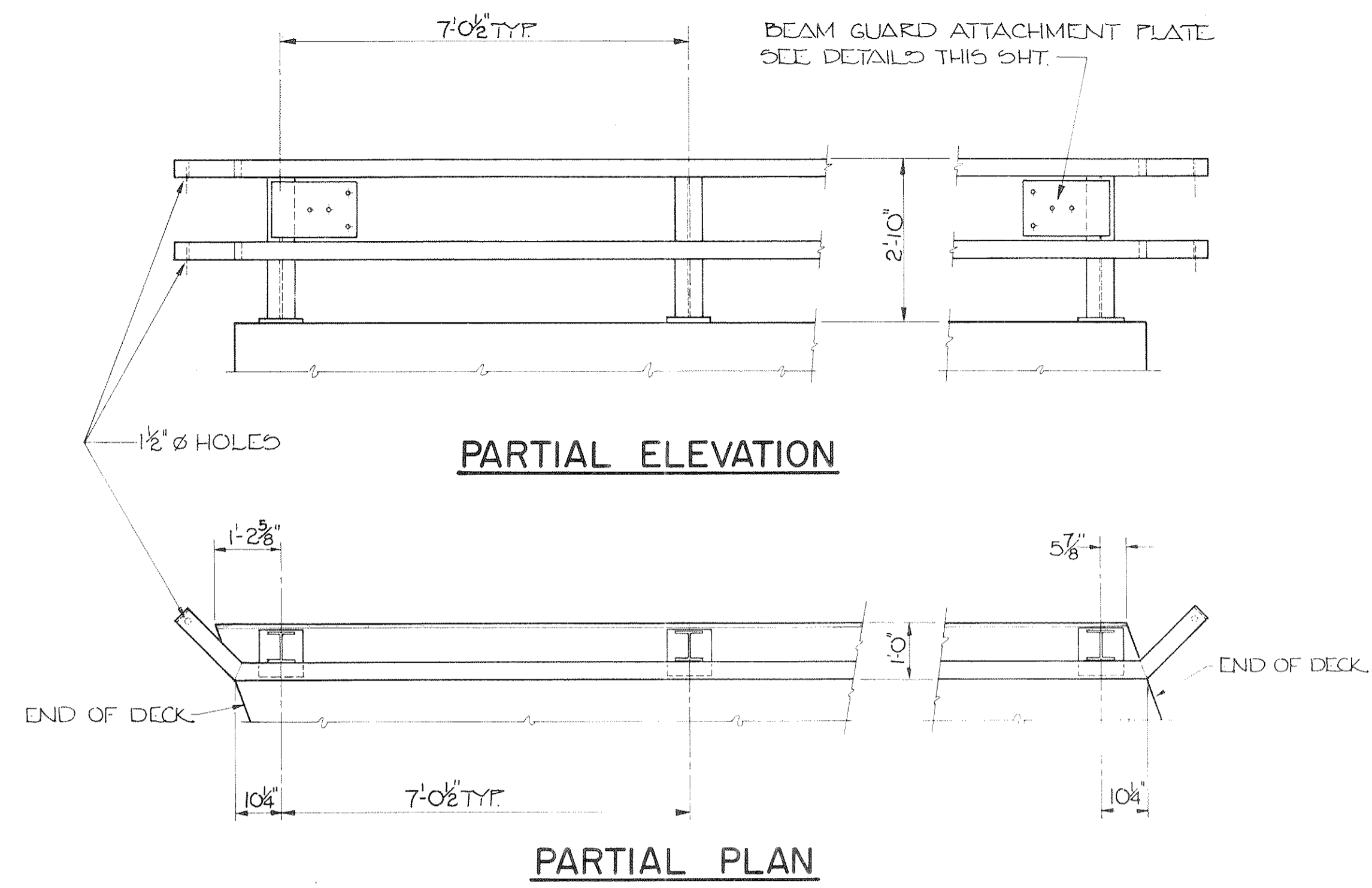


ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL CARBON STEEL". NO PAINTING REQUIRED.

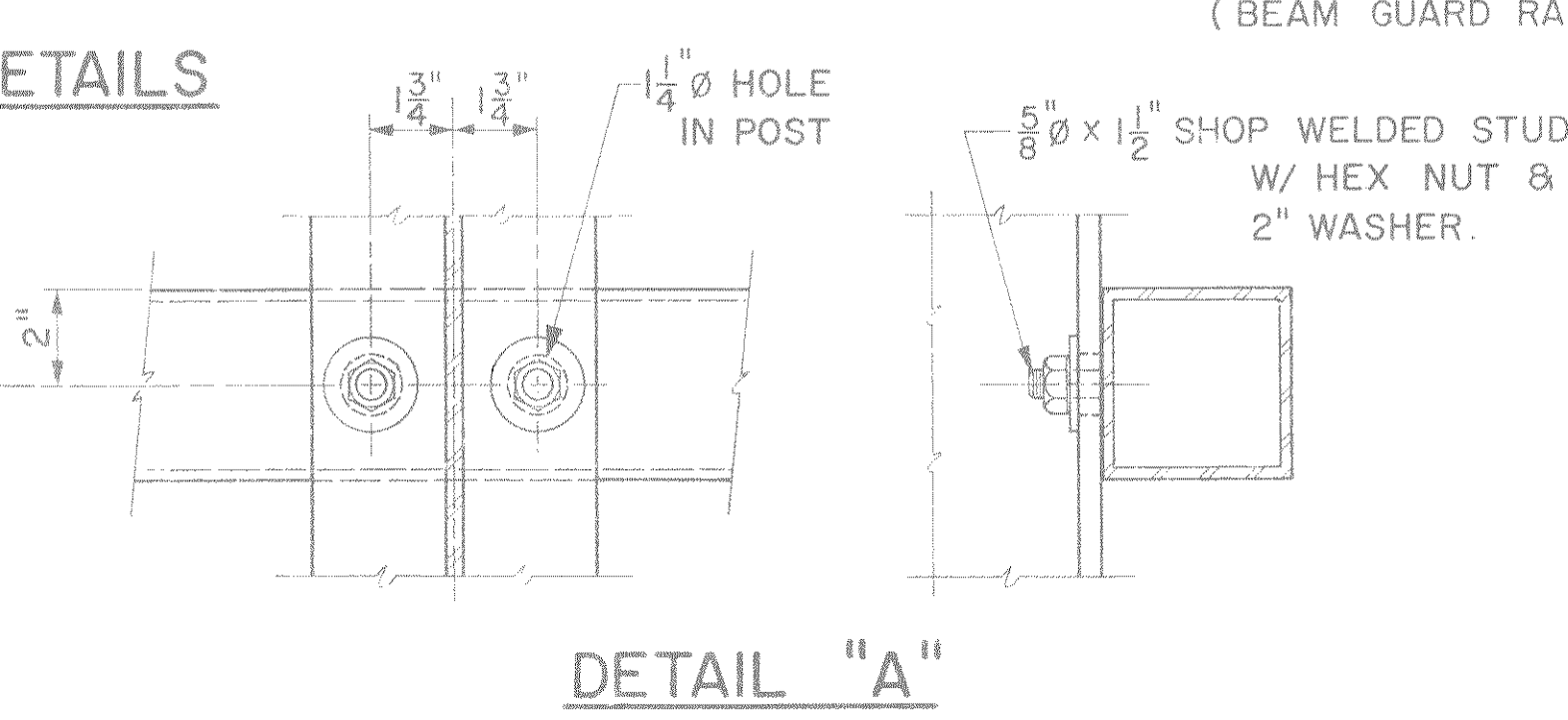
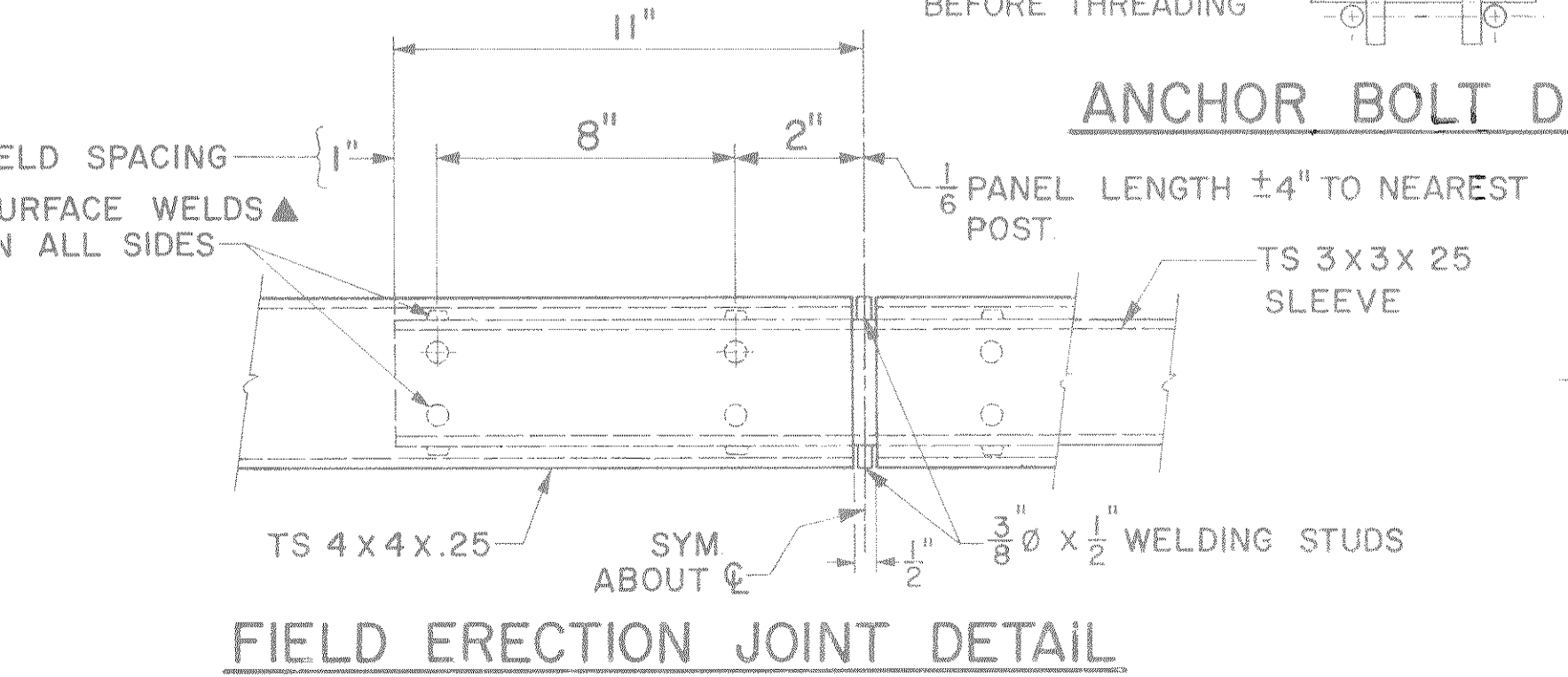
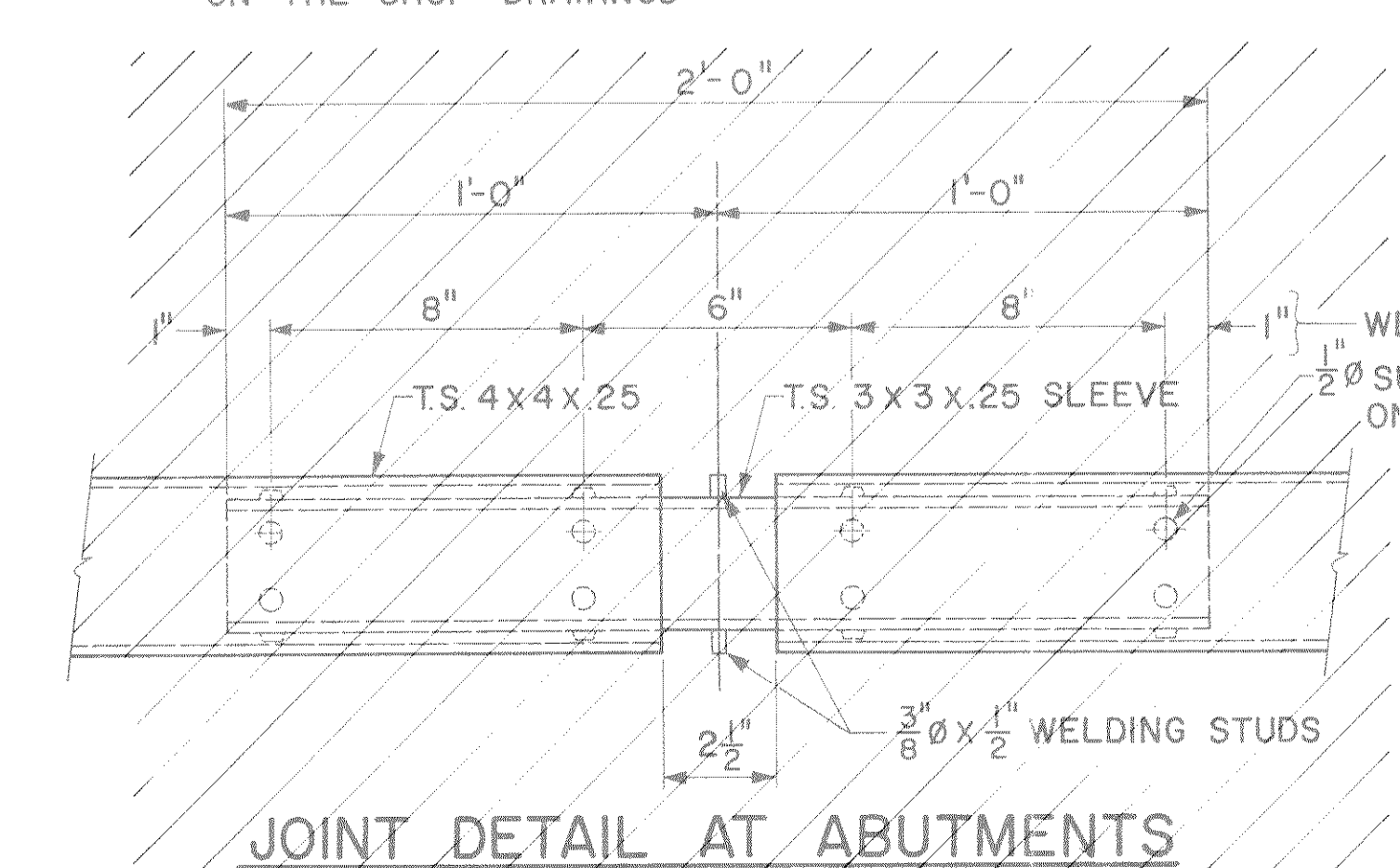
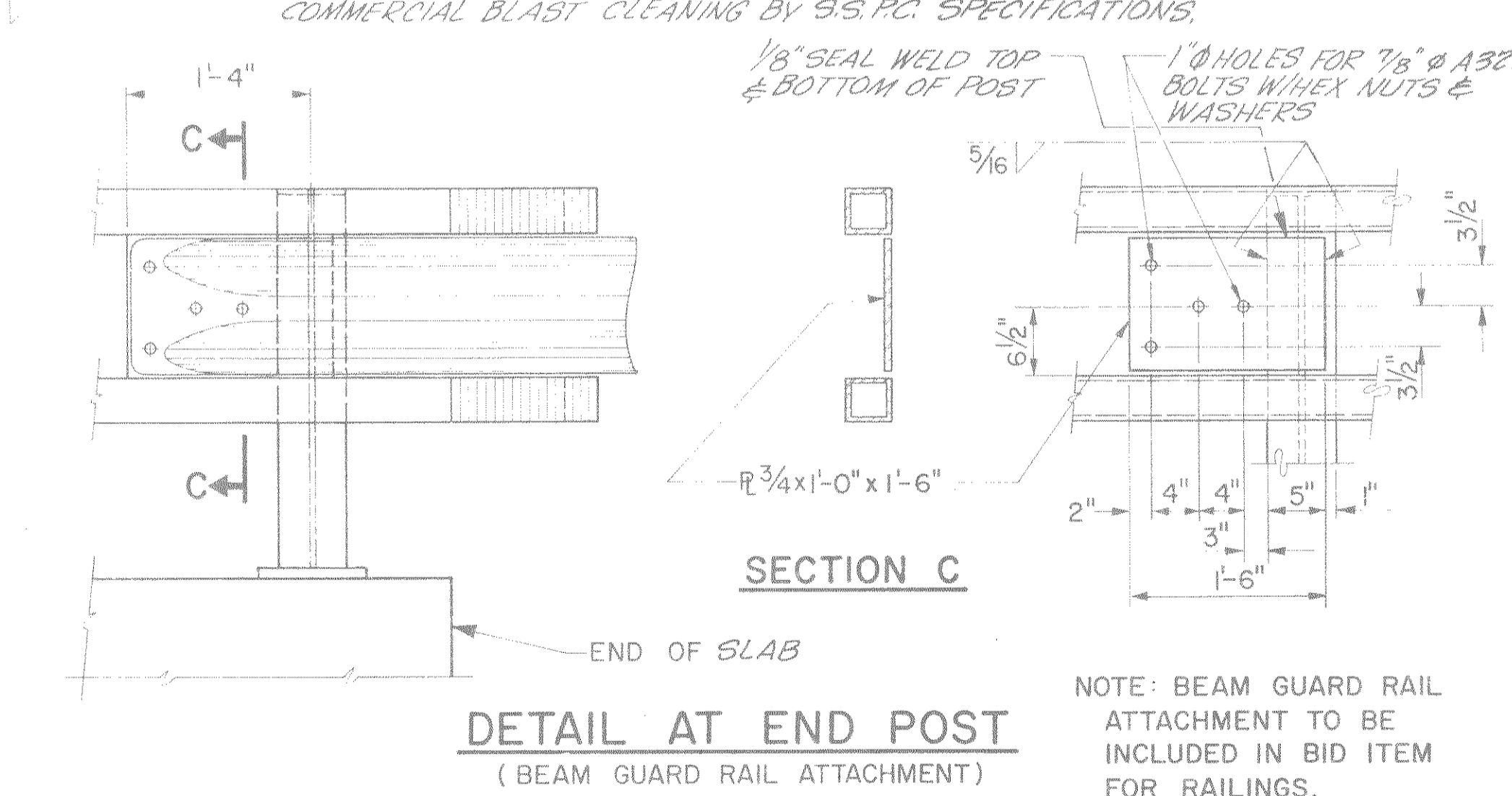
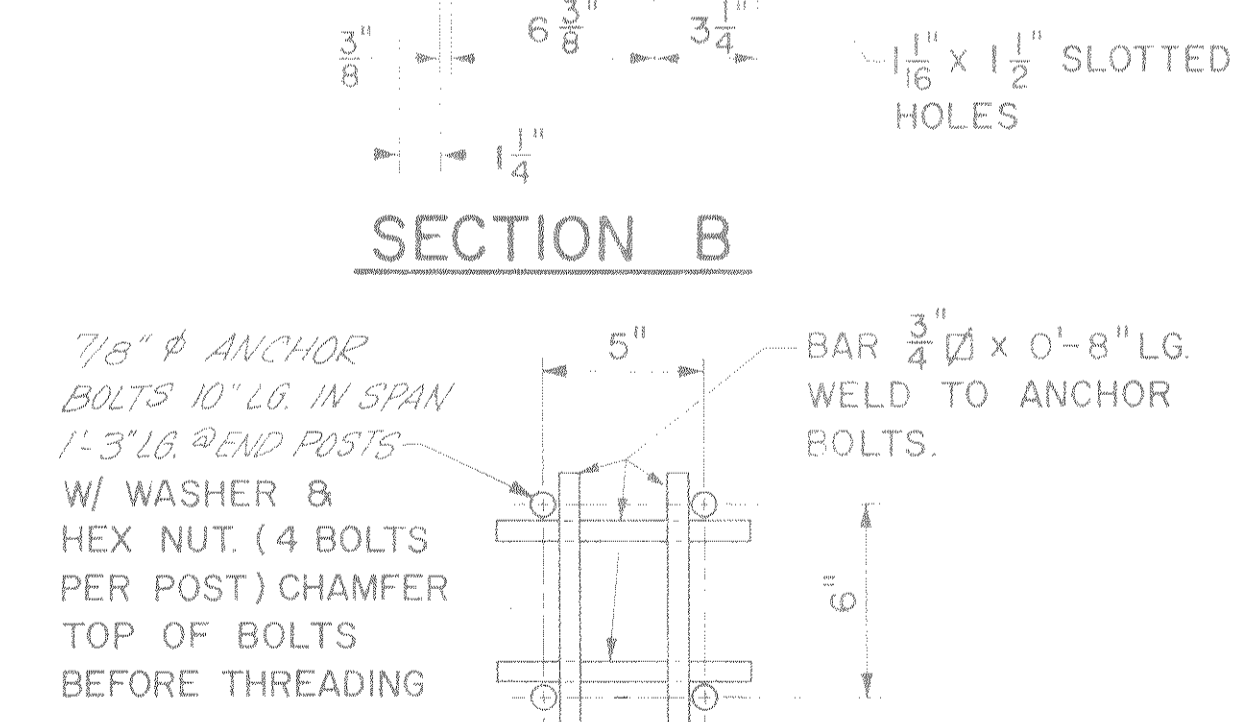
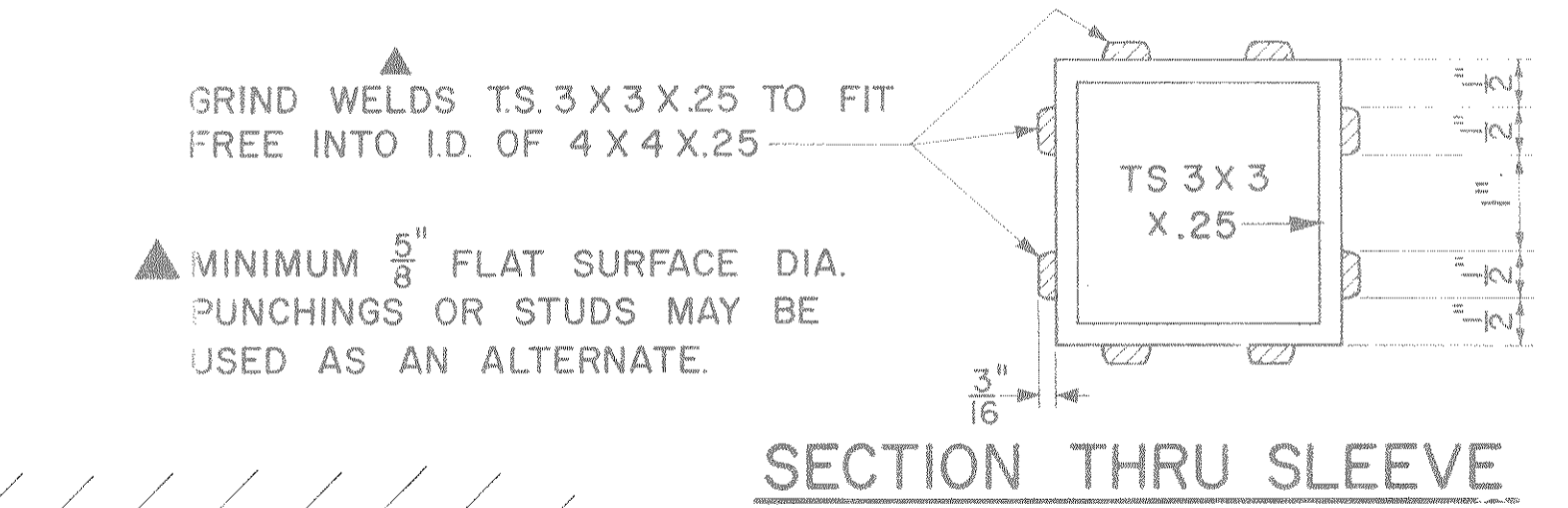
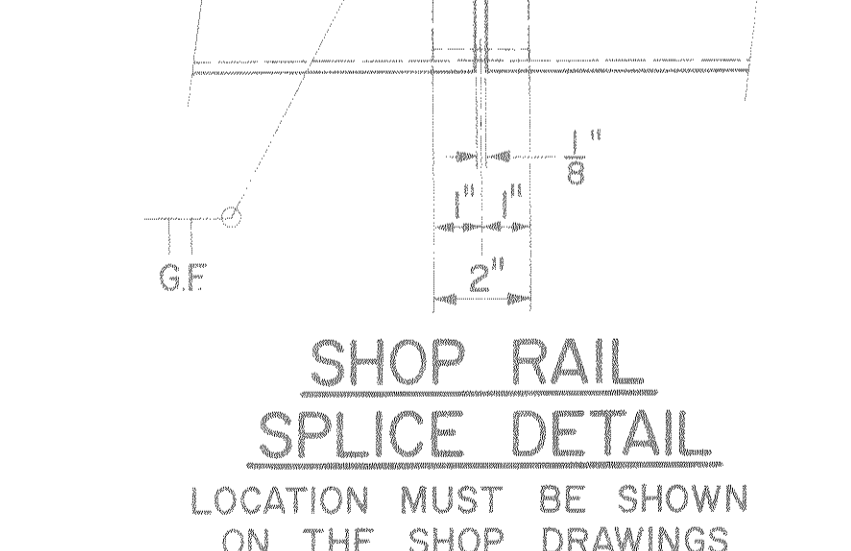
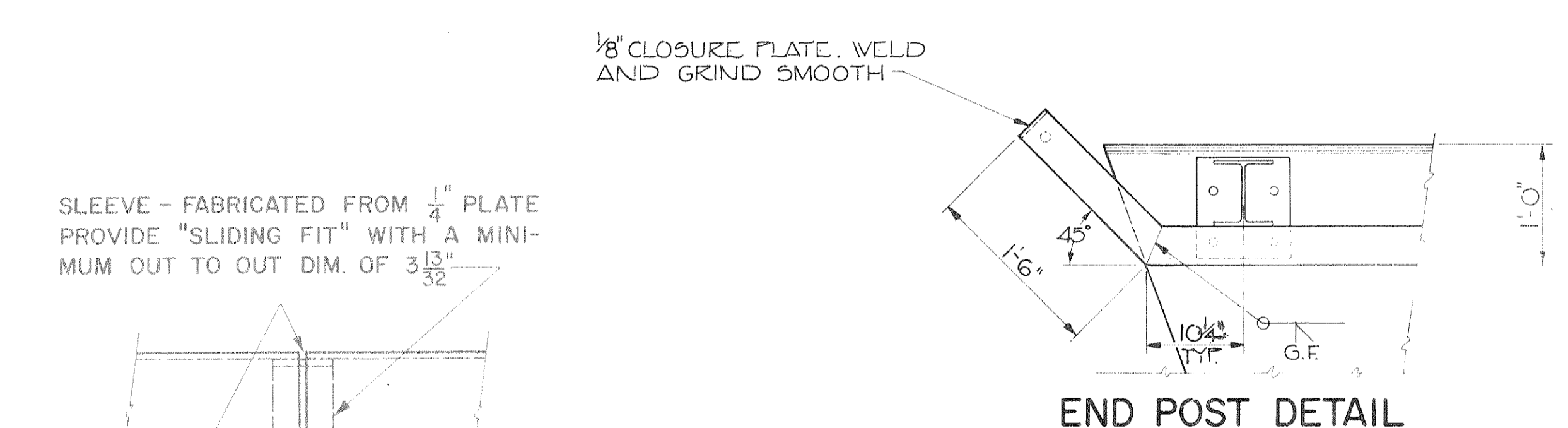
**PROTECTION ANGLE DETAIL**

No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-90</b>			
WIS. '81	Drawn By	S.K.L.	Plans Checked L.M.D.
<b>SUPERSTRUCTURE</b>			SHEET 5 OF 6
			X 77134





- ### GENERAL NOTES
- BID ITEM SHALL BE 'TUBULAR RAILING, TYPE F'
  - POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.
  - RAILING SHALL BE 4x4x.25 STRUCTURAL TUBING CONFORMING TO A.S.T.M. DESIGNATION A36.
  - ANCHOR BOLTS SHALL BE 7/8" NOMINAL CONFORMING TO A.S.T.M. A449 WITH 3" THREAD AND HIGH STRENGTH NUTS & WASHERS.
  - POSTS, BASE PLATES AND SHIMS SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION A36. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST NORMAL TO GRADE LINE.
  - PLACE ANCHOR BOLTS NORMAL TO BASE PLATE.
  - ALL MEMBERS, INCLUDING UPPER 4" OF ANCHOR BOLTS, SHALL BE GALVANIZED AFTER FABRICATION.
  - RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.
  - BEAM GUARD ATTACHMENT MAY BE WELDED TO RAILS AND RAILS MAY BE WELDED TO POSTS.
  - FILL POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
  - CALK EXPOSED OPENINGS BETWEEN SHIMS.
  - STEEL SHIMS SHALL BE USED UNDER POSTS WHERE REQUIRED FOR ALIGNMENT.
  - PRIOR TO GALVANIZING ALL STEEL RAILING SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.



No.	Date	Revision	By
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
<b>STRUCTURE B-35-90</b>			
Const. Spec.	W15 '81	Drawn By	OR L.
		Plans Checked	L.M.B.
TUBULAR RAILING TYPE "F"			SHEET 6 OF 6 X 77135