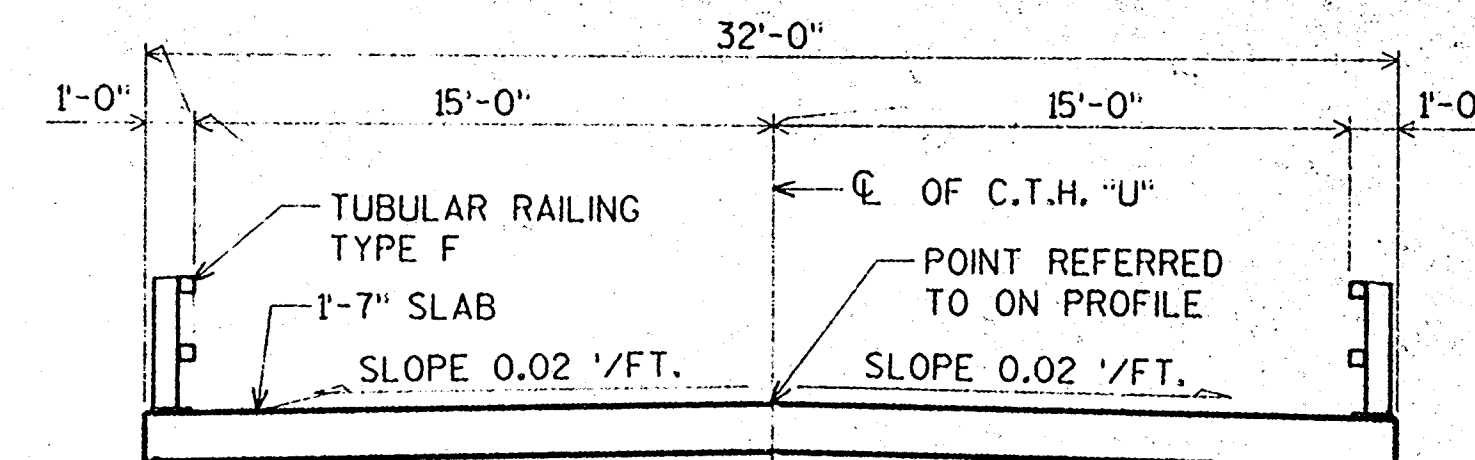
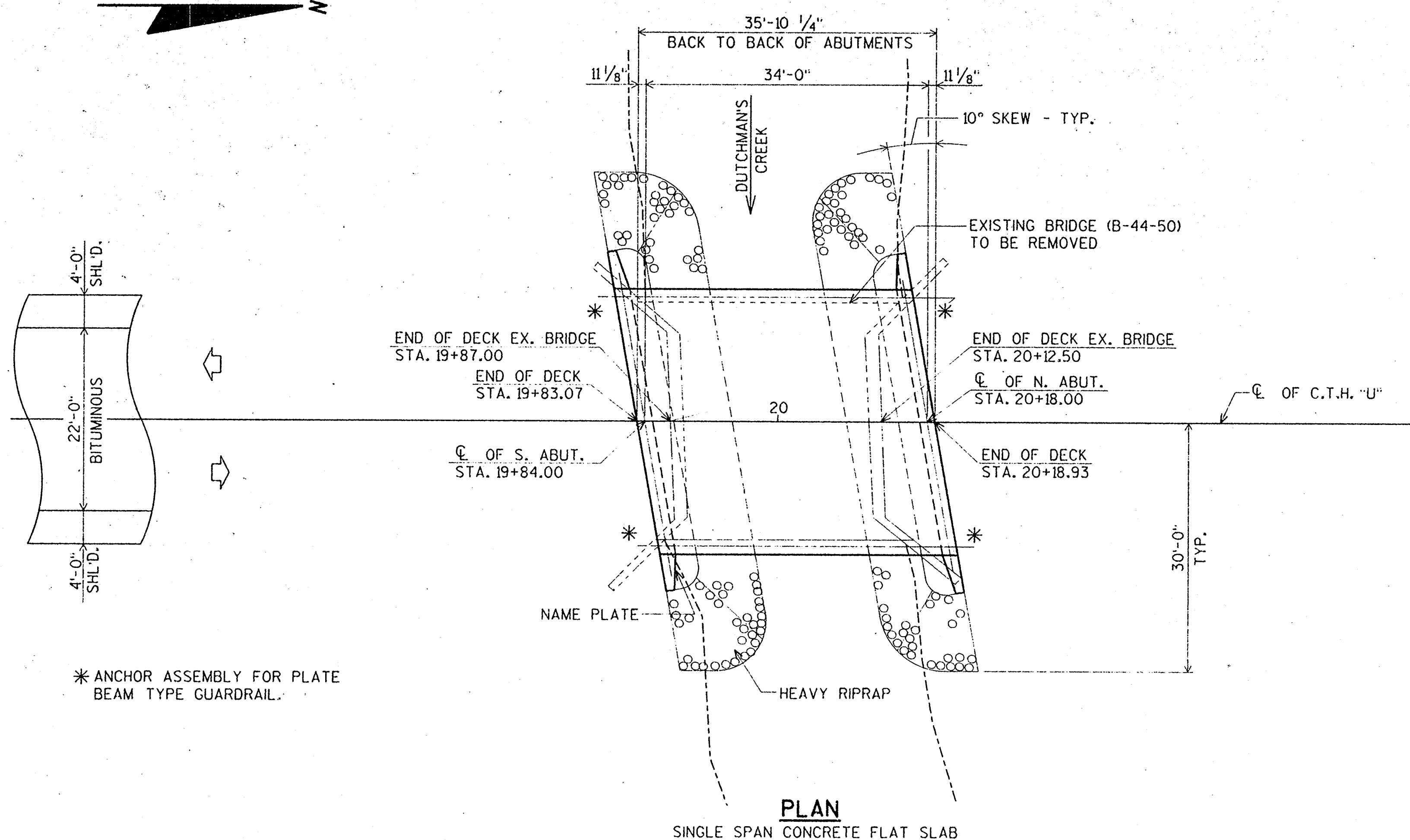


SUBSET:
FILE NAME: 07127GP

LEVELS ON -12,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:



CROSS SECTION THRU ROADWAY

DESIGN DATA

LIVE LOAD: HS-20 (STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20*/S.F.)

RATINGS: INVENTORY = HS-22 OPERATING = HS-38

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.

HYDRAULIC DATA:

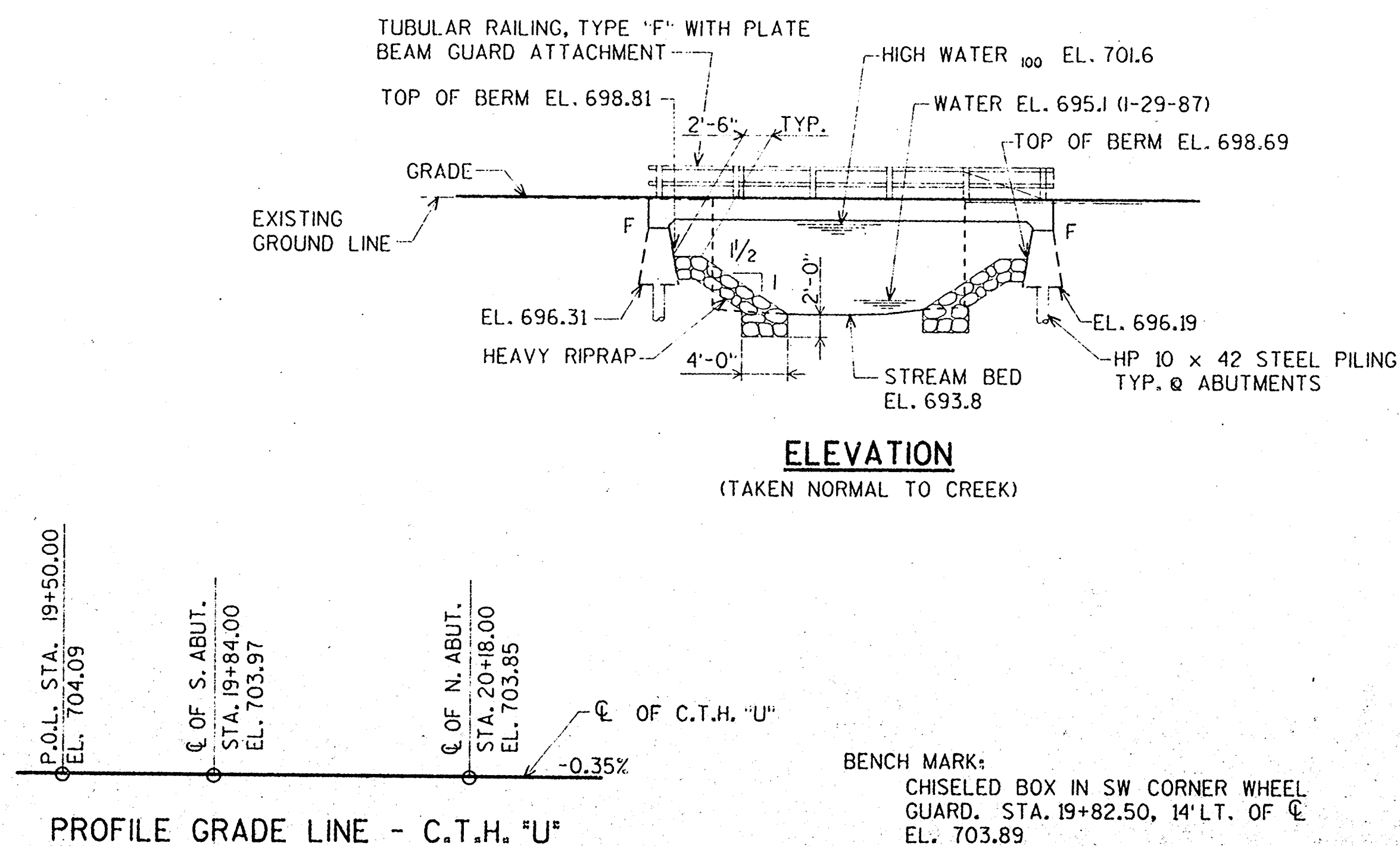
DRAINAGE AREA = 7.9 sq. mi.
WATERWAY AREA = 142 sq. ft.
 $V = 8.8$ f.p.s.
 $Q_{100} = 1,250$ c.f.s.
HIGH WATER $_{100}$ EL. 701.6
RDWY. OVERFLOW = N/A

FOUNDATION DATA:

PLACE ABUTMENTS ON HP 10 x 42 STEEL PILING, DRIVEN TO 35 TONS/PILE MINIMUM BEARING VALUE. EST. LENGTH 25'-0"

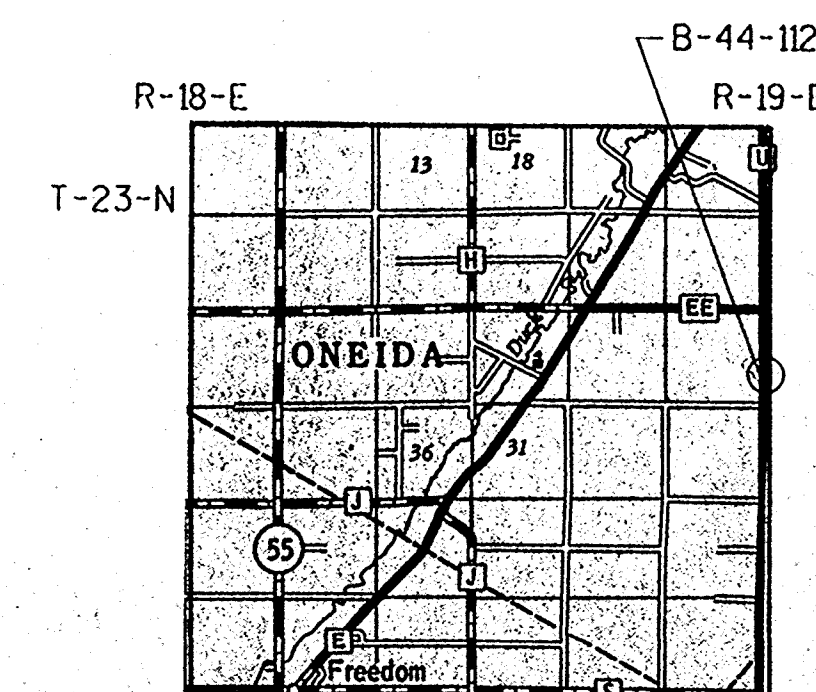
TRAFFIC DATA:

A.D.T. = 415 (1988)
A.D.T. = 550 (2008)
R.D.S. = 55 M.P.H.



LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. SUPERSTRUCTURE
7. TUBULAR RAILING TYPE "F"



LAYOUT

No.	Date	Revision	By
PLANS PREPARED BY AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-112			
C.T.H. "U" OVER DUTCHMAN'S CREEK			
County	OUTAGAMIE	Town/Village	ONEIDA
Design Spec.	A.A.S.H.T.O. '85	Load	HS-20
Design Spec.		Const. Spec.	1981
Designed By	GMW	Checked	DHP
Drawn By	G.L.D.	Plans Checked	GMW
Approved State Bridge Engineer		Date	
GENERAL PLAN		SHEET 1 OF 7	
		X	

SUBSET: TRBRIDGE
FILE NAME: 07127QN

LEVELS ON -1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

CHECKED BY: DATE:
BACK CHECKED BY: DATE:
CORRECTED BY: DATE:

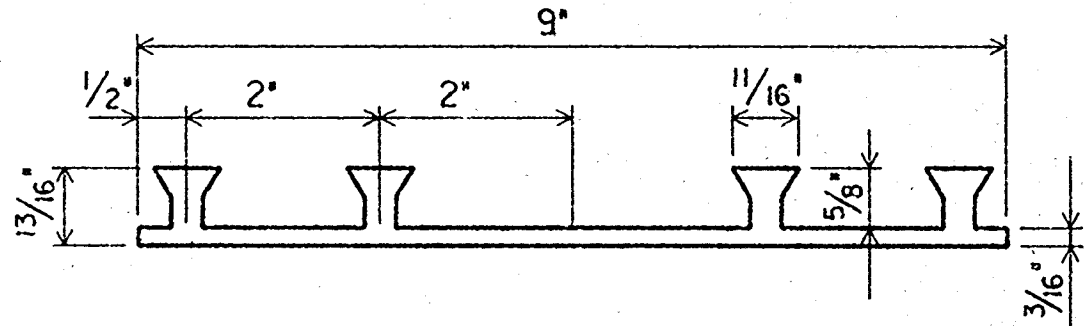
STATE PROJECT NUMBER	SHEET NO.

TOTAL ESTIMATED QUANTITIES

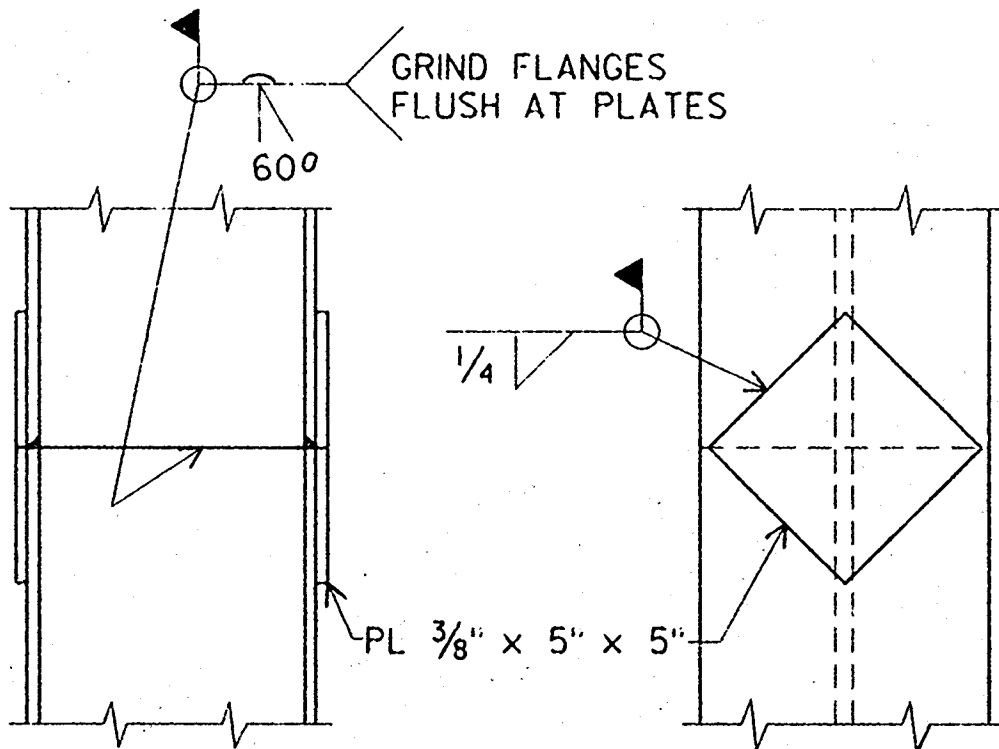
ITEM NO.	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
20351	REMOVING OLD BRIDGE, STA. 20+00	L.S.	-----	-----	-----	1
20610	EXCAVATION FOR STRUCTURES, BRIDGES B-44-112	L.S.	-----	-----	-----	1
50201	CONCRETE MASONRY, BRIDGES	C.Y.	19.6	19.6	69.8	109
50230	PROTECTIVE SURFACE TREATMENT	GAL.	-----	-----	6	6
50504	HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	1,500	1,500	8,540	11,540
50510	COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT	LB.	-----	-----	1,580	1,580
51121	STEEL PILING, DELIVERED AND DRIVEN, HP 10-INCH 42 POUND	L.F.	125	125	-----	250
51340	TUBULAR RAILING, TYPE F, STRUCTURE B-44-112	L.S.	-----	-----	-----	1
60602	HEAVY RIPRAP	C.Y.	60	55	-----	115
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	1/2 & 3/4
	POLYVINYL CHLORIDE WATERSTOP	L.F.	36	36	-----	72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE. JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF DECK.
THE EXISTING BRIDGE (B-44-50) IS A SINGLE SPAN CONCRETE SLAB ON VERTICAL ABUTMENTS. THE OVERALL LENGTH IS 25 FEET, THE CLEAR ROADWAY WIDTH IS 26 FEET.



POLYVINYL CHLORIDE WATERSTOP DETAIL



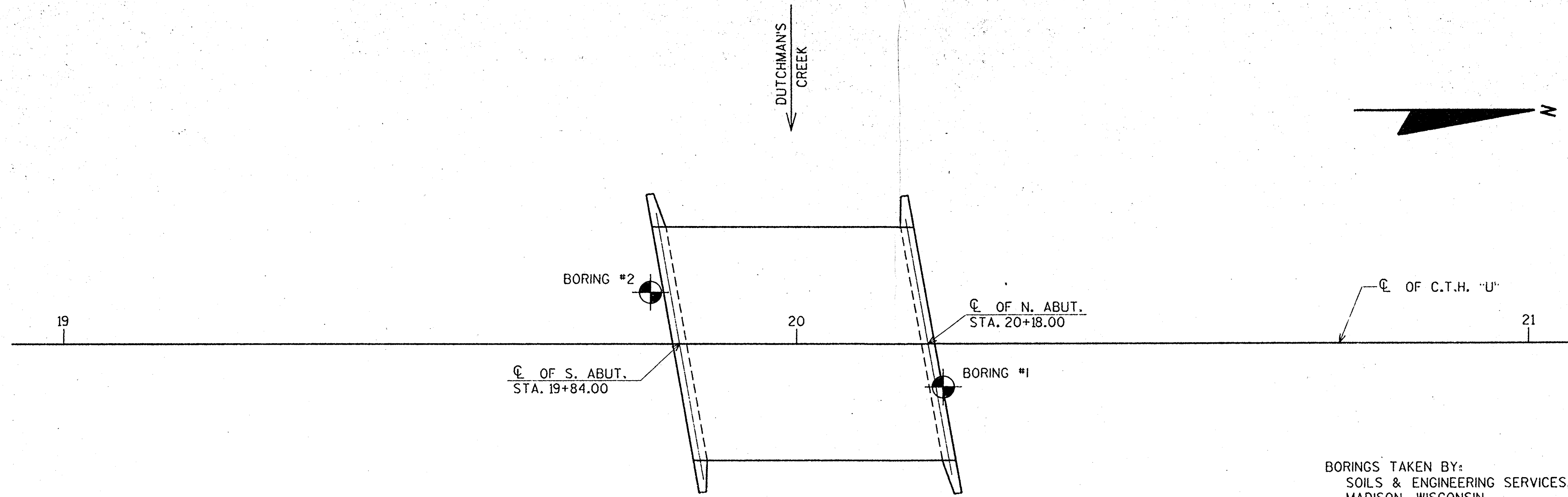
HP 10 x 42 SPLICE DETAIL

No.	Date	Revision	By
PLANS PREPARED BY AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-112			
Const. Spec.	1981	Drawn By G.L.D.	Plans Checked G.M.W.
QUANTITIES & NOTES			SHEET 2 OF 7
			X

SUBSET: FILE NAME: 07127GP

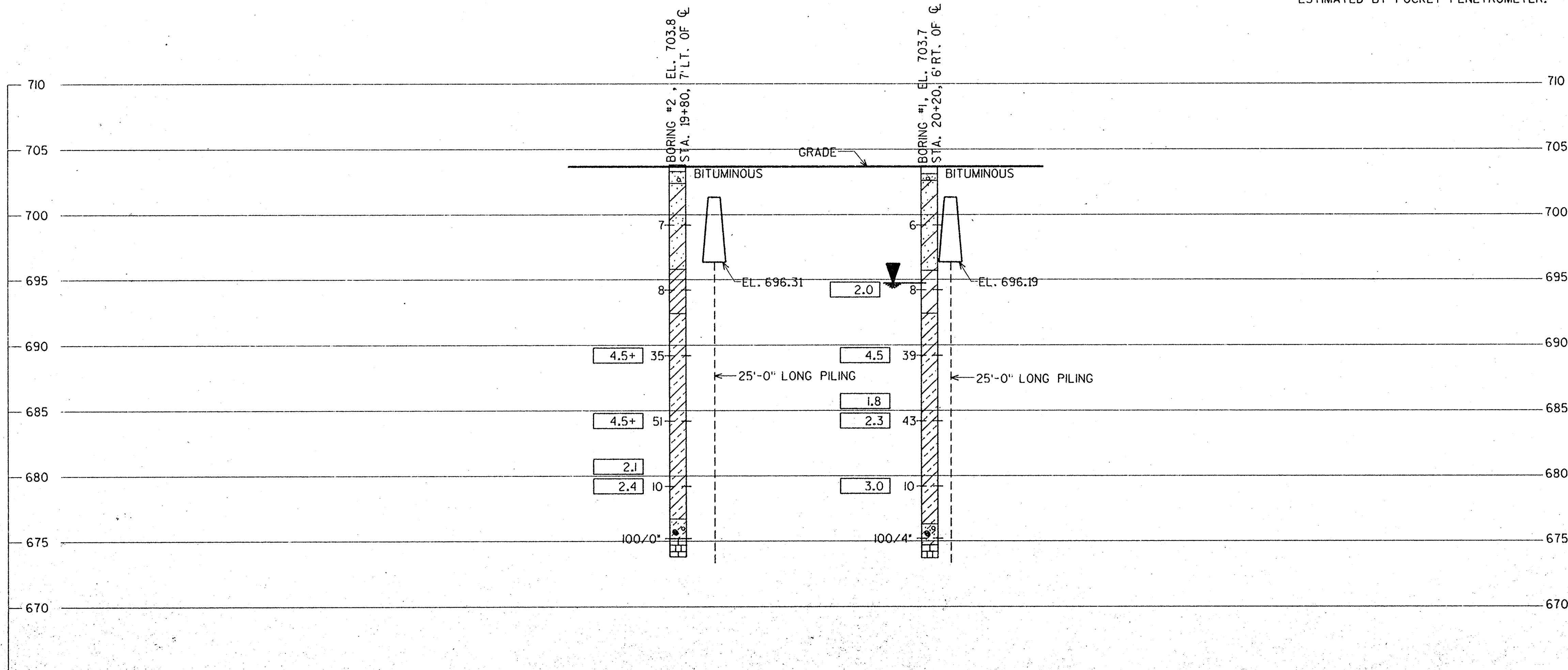
LEVELS ON -1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

CHECKED BY: DATE: BACK CHECKED BY: DATE: CORRECTED BY: DATE:



BORINGS TAKEN BY:
SOILS & ENGINEERING SERVICES, INC.
MADISON, WISCONSIN
JUNE 3, 1987

NOTE:
UNCONFINED STRENGTH SHOWN
ESTIMATED BY POCKET PENETROMETER.

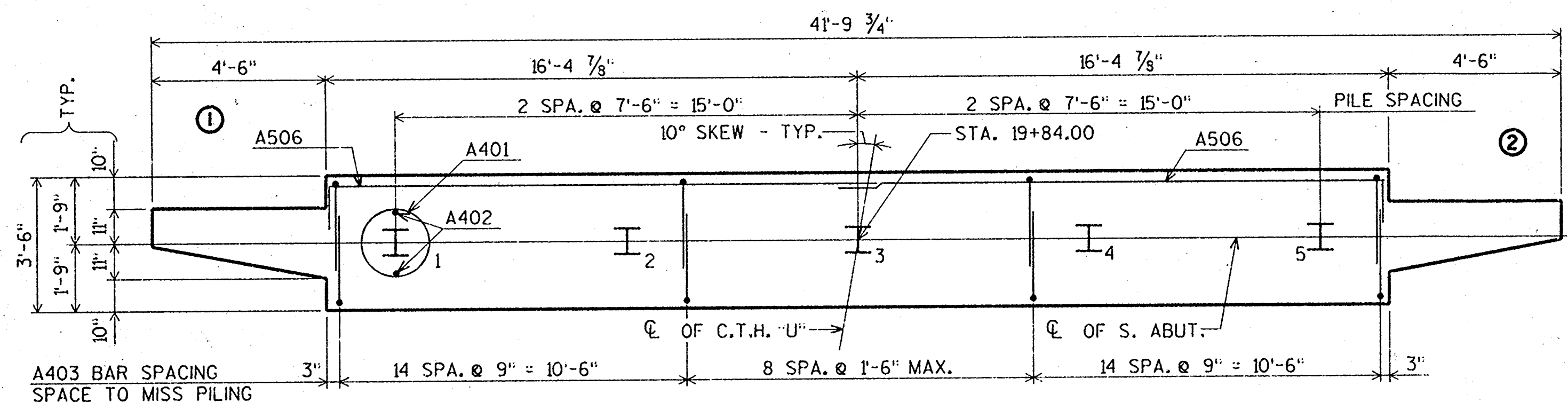
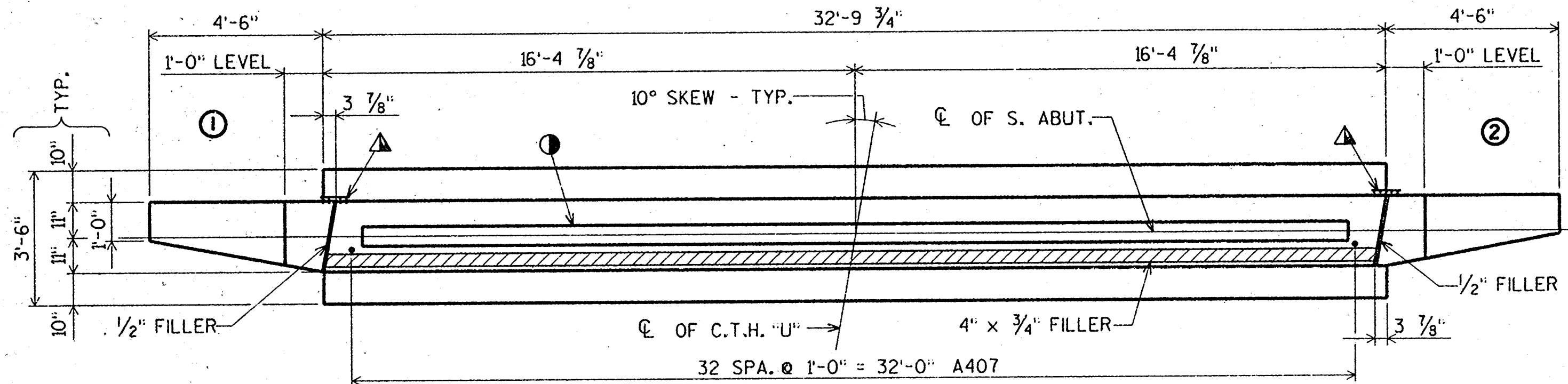
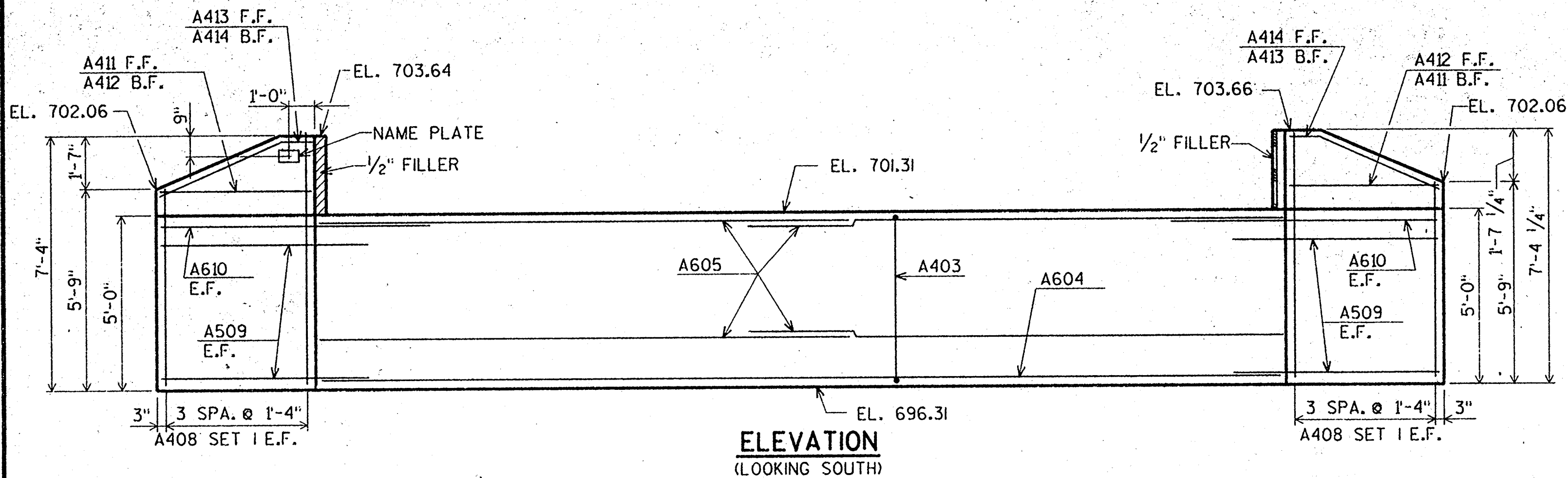


STATE PROJECT NUMBER		SHEET NO.	
ABBREVIATIONS F ---- Fine M ---- Medium C ---- Coarse Ws ---- Weathered So ---- Sound			
MATERIAL SYMBOLS Topsoil Silt Sandstone Sand Peat Limestone Gravel Clay Igneous Rock			
LEGEND OF PROBING Probing No. Station Elevation 95/6 = 95 Blows for 6' Penetration Probing taken with a 350# wt. Falling 18" on a 2" O.D. Point. 7 Average Blows Per Foot Refusal 95/6			
LEGEND OF BORING Boring No., Elev. Sta. & Offset Unconfined Strength 7.7 Blows Per Foot Using 140# Wt. Falling 30". Wash Sample Shelby Tube S.T. Ground Water Elevation No Ground Water Observed Above This Elevation Sandy Gravel Boulders or Cobbles Sand Silty Clay So 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 DEPT. OF TRANSPORTATION 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
PLANS PREPARED BY AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-112			
Const. Spec.	1981	Drawn By G.L.D.	Plans Checked G.M.W.
SUBSURFACE EXPLORATION			SHEET 3 OF 7
			X

SUBSET: TRBRIDGE
FILE NAME: 07127ABUT

LEVELS ON: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

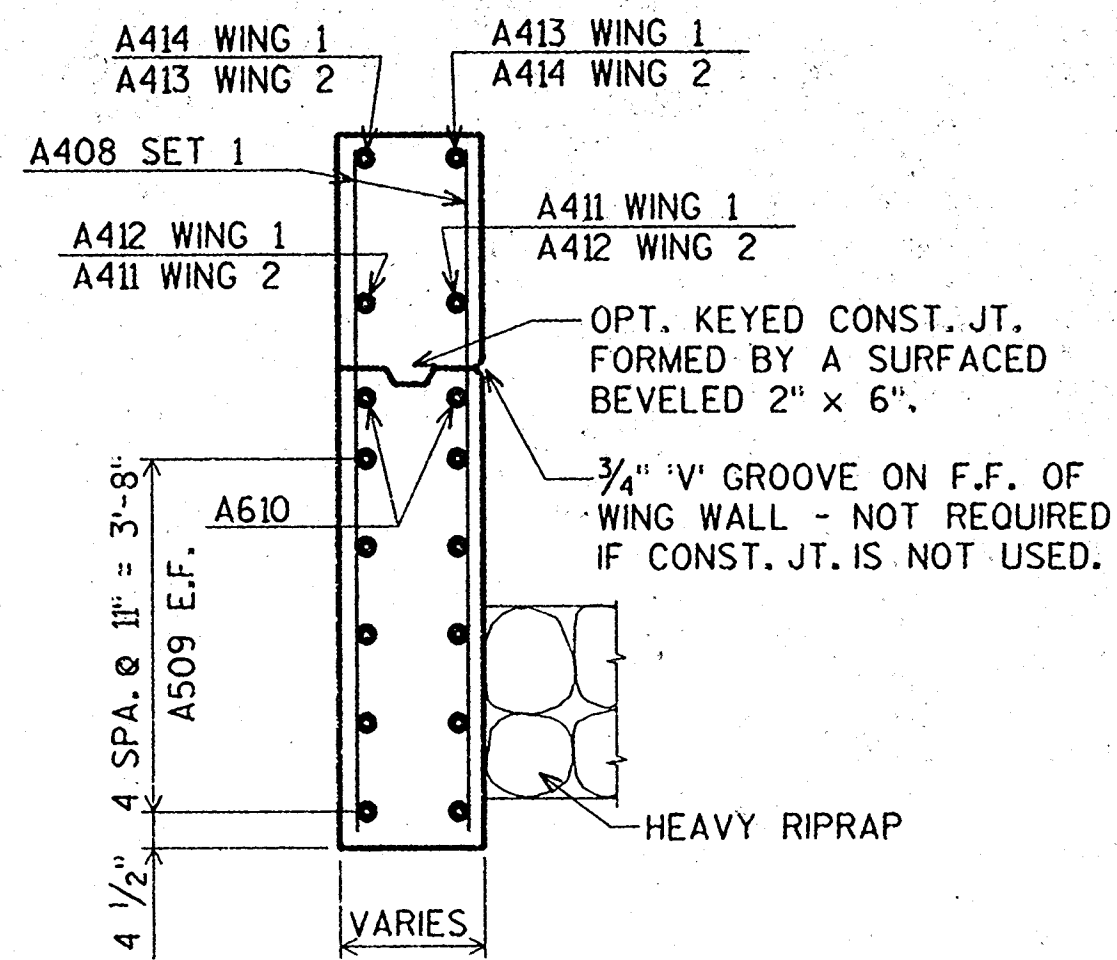
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)



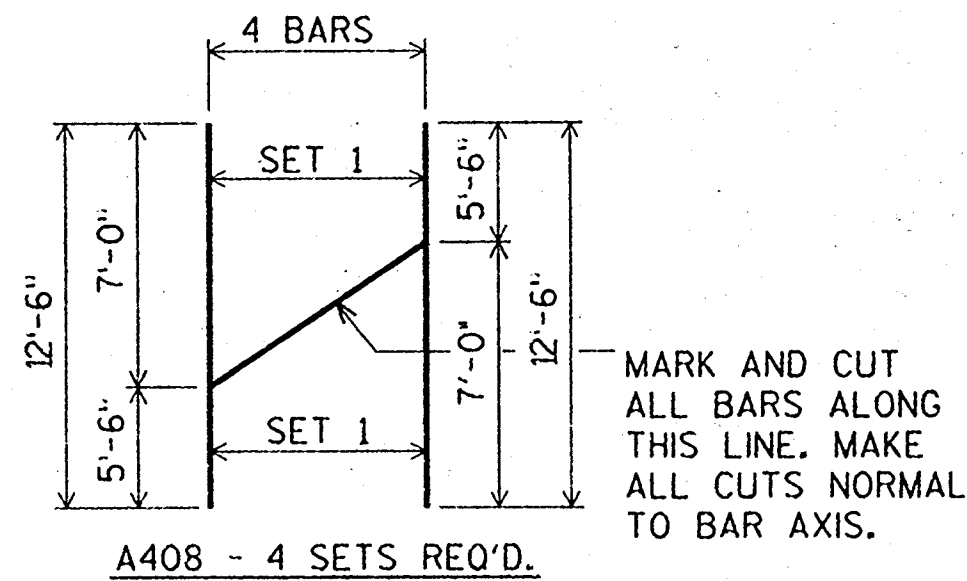
PILE LAYOUT

- KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".
- VERT. P.C.W. TO EXTEND FROM BRIDGE SEAT TO TOP OF WING. SPLICE AT JUNCTION WITH HORIZ. WATERSTOP BY USING A HEATED SPLICING IRON. HOLD P.C.W. FLUSH WITH CONCRETE.
- P.C.W. DENOTES POLYVINYL CHLORIDE WATERSTOP. SEE SHEET 2 FOR DETAILS.
- FOR PILE SPLICE DETAIL SEE SHEET 2.

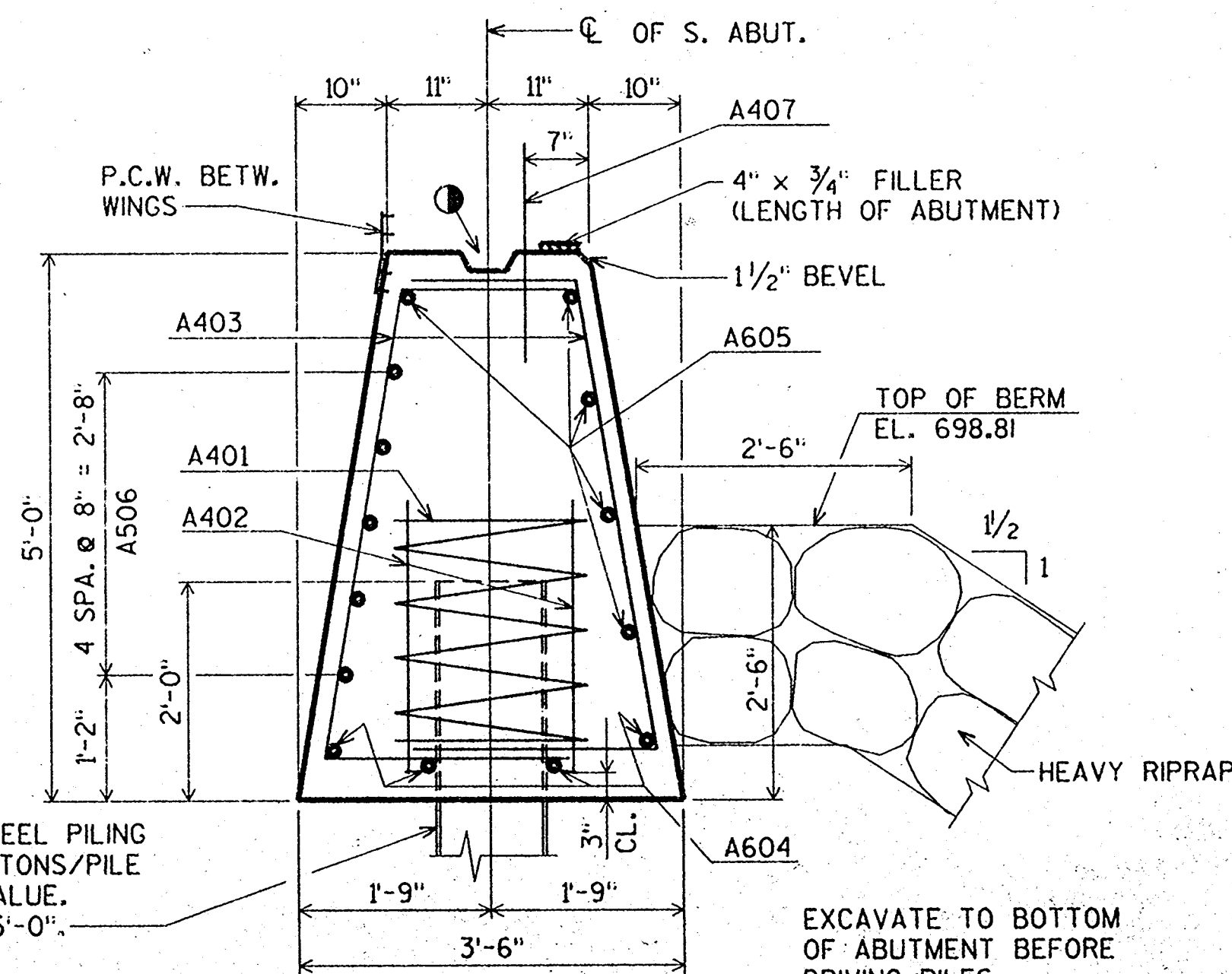
A407 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. IMBED BARS 1'-0".



TYP. SECTION THRU WING



CUTTING DIAGRAM

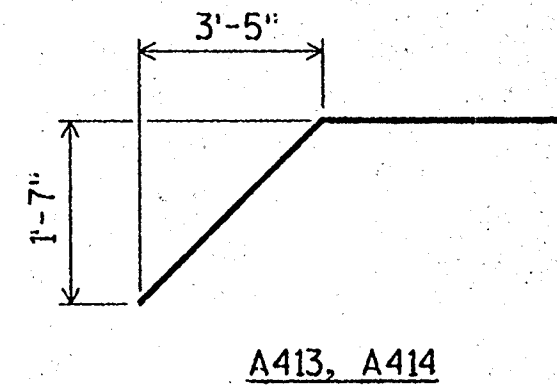
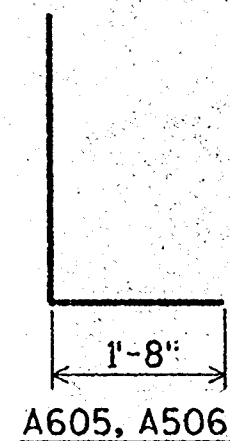
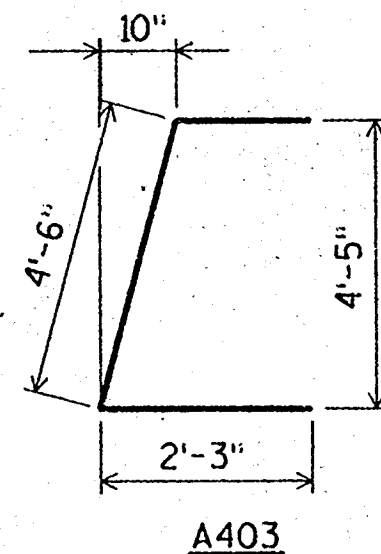
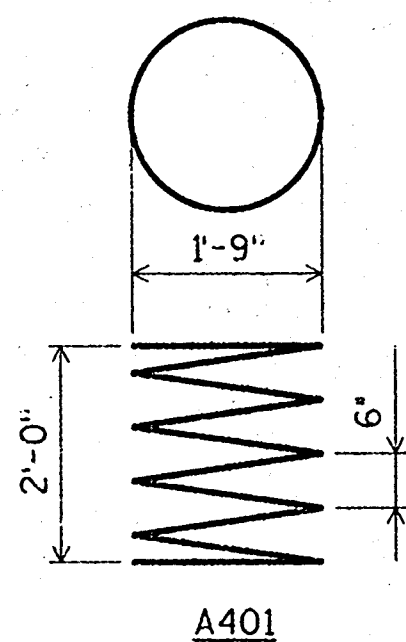


SECTION THRU BODY

BILL OF BARS

BAR NO.	NO. REQ'D.	LENGTH	BENT BAR	COATED BAR	CUT DIAGR.	1500# UNCOATED
						LOCATION
A401	5	28-0	X			BODY @ PILES
A402	10	2-3				BODY @ PILES
A403	74	8-3	X			BODY VERT.
A604	4	32-5				BODY HORIZ.
A605	10	19-2	X			BODY HORIZ.
A506	10	18-11	X			BODY HORIZ.
A407	33	2-0				BODY DOWELS
A408	8	12-6		X		WING 1 & 2 VERT. E.F. SET 1
A509	20	5-10				WING 1 & 2 HORIZ. E.F.
A610	4	7-7				WING 1 & 2 HORIZ. E.F.
A411	2	4-3				WING 1 F.F., WING 2 B.F. HORIZ.
A412	2	4-6				WING 1 B.F., WING 2 F.F. HORIZ.
A413	2	4-6	X			WING 1 F.F., WING 2 B.F. DIAG.
A414	2	4-9	X			WING 1 B.F., WING 2 F.F. DIAG.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.
B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

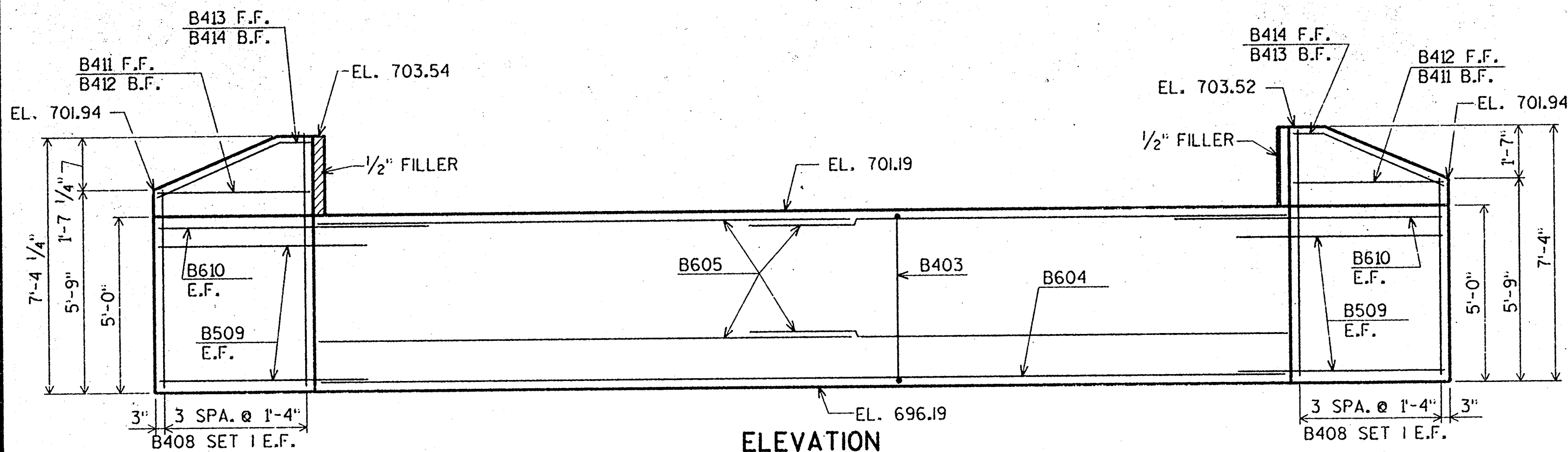


No.	Date	Revision	By
PLANS PREPARED BY			
AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-II2			
Const. Spec.	1981	Drawn By G.L.D.	Plans Checked G.M.W.
SOUTH ABUTMENT			SHEET 4 OF 7
			X

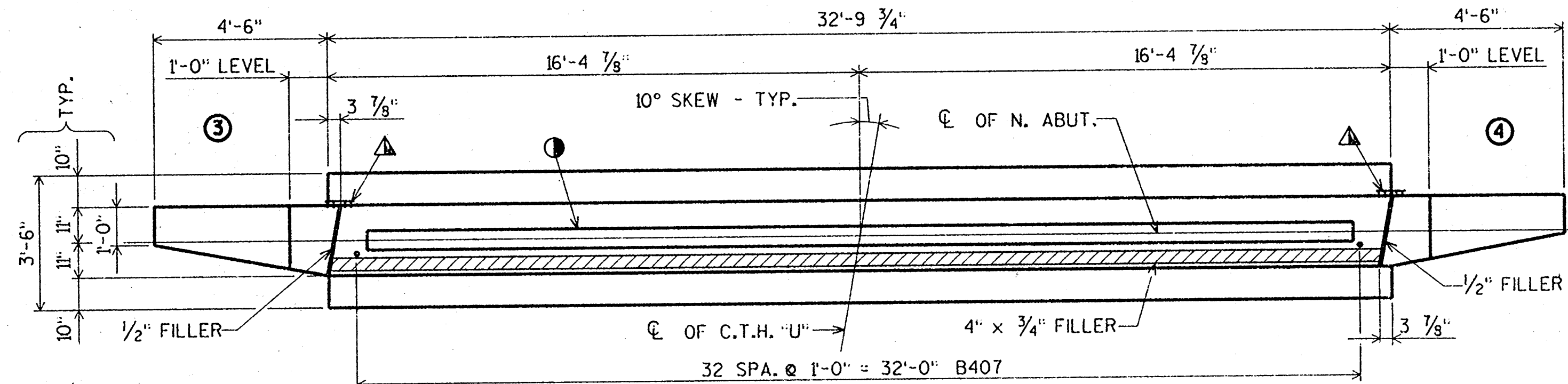
SUBSET: TRBRIDGE
FILE NAME: 07127ABUT

LEVELS ON 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

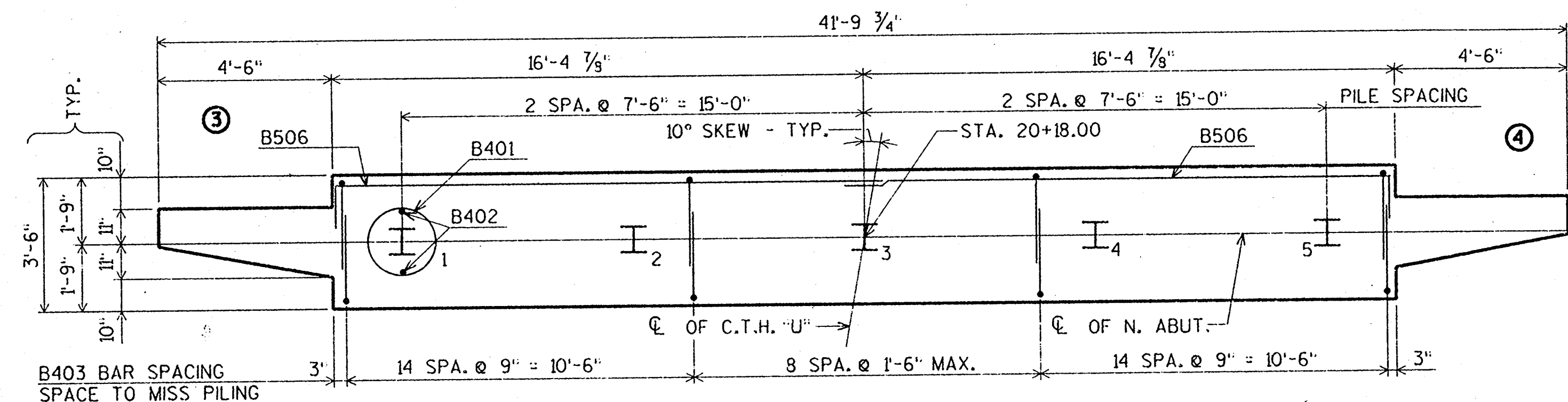
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)



ELEVATION
(LOOKING NORTH)



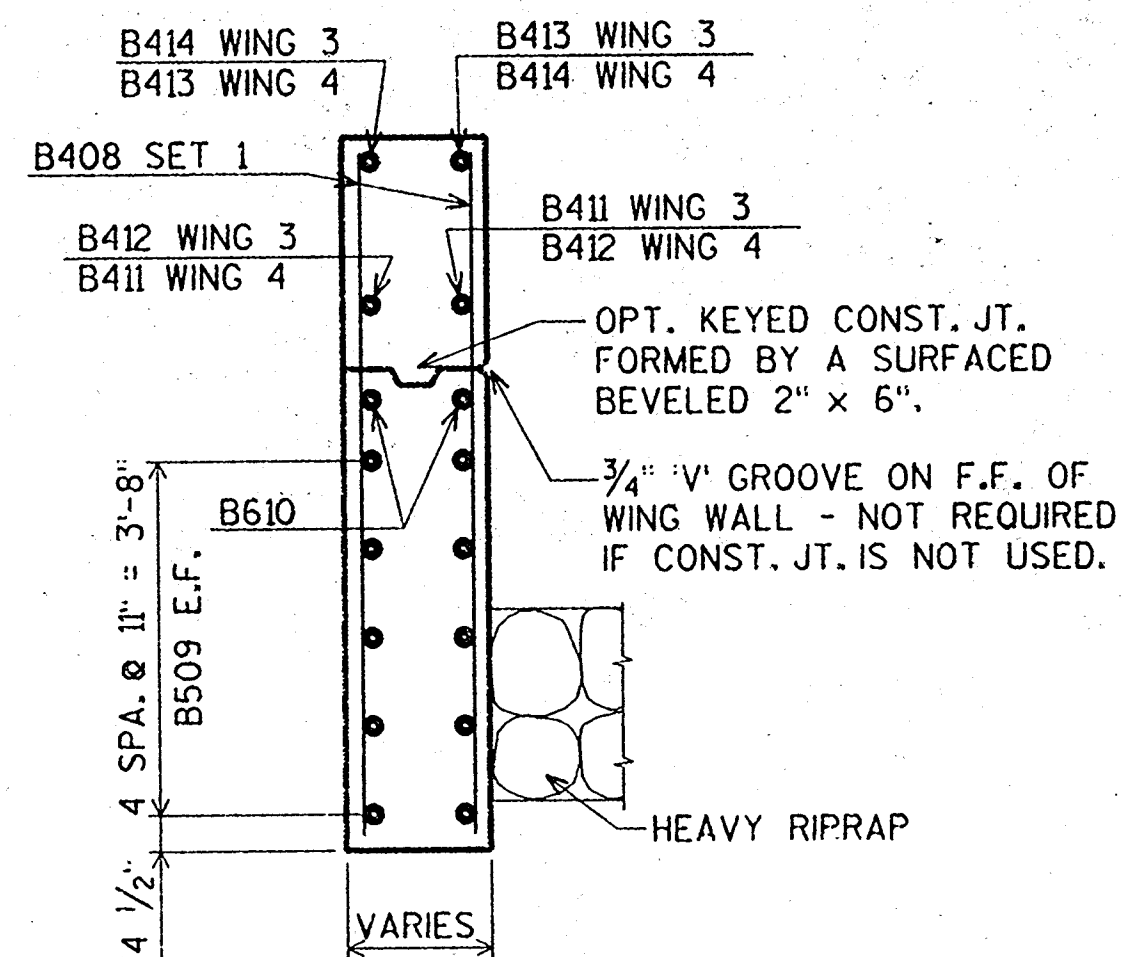
PLAN



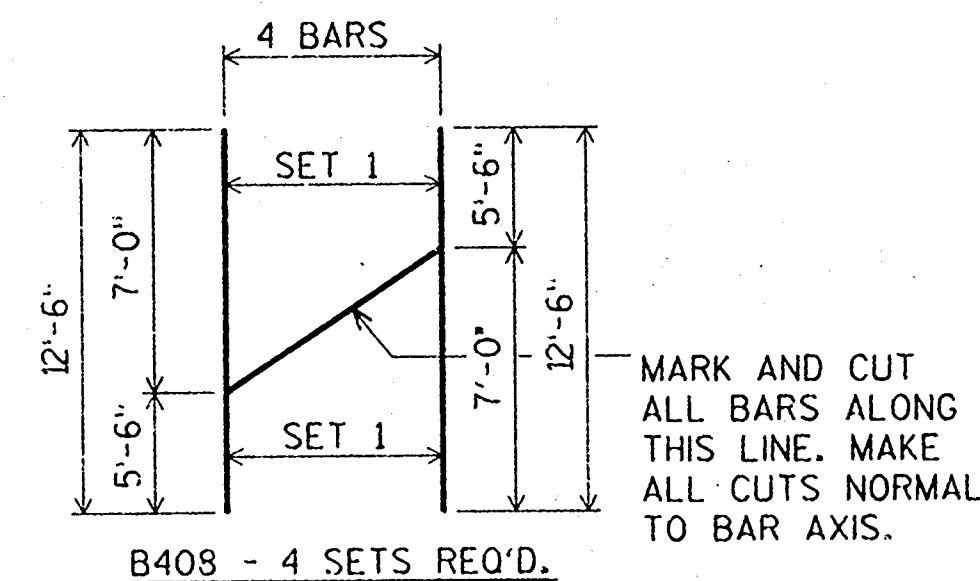
PILE LAYOUT

- KEYED CONST. JOINT - FORMED BY A SURFACED BEVELED 2" x 6".
- VERT. P.C.W. TO EXTEND FROM BRIDGE SEAT TO TOP OF WING. SPLICE AT JUNCTION WITH HORIZ. WATERSTOP BY USING A HEATED SPLICING IRON. HOLD P.C.W. FLUSH WITH CONCRETE.
- P.C.W. DENOTES POLYVINYL CHLORIDE WATERSTOP. SEE SHEET 2 FOR DETAILS.
- FOR PILE SPLICE DETAIL SEE SHEET 2.

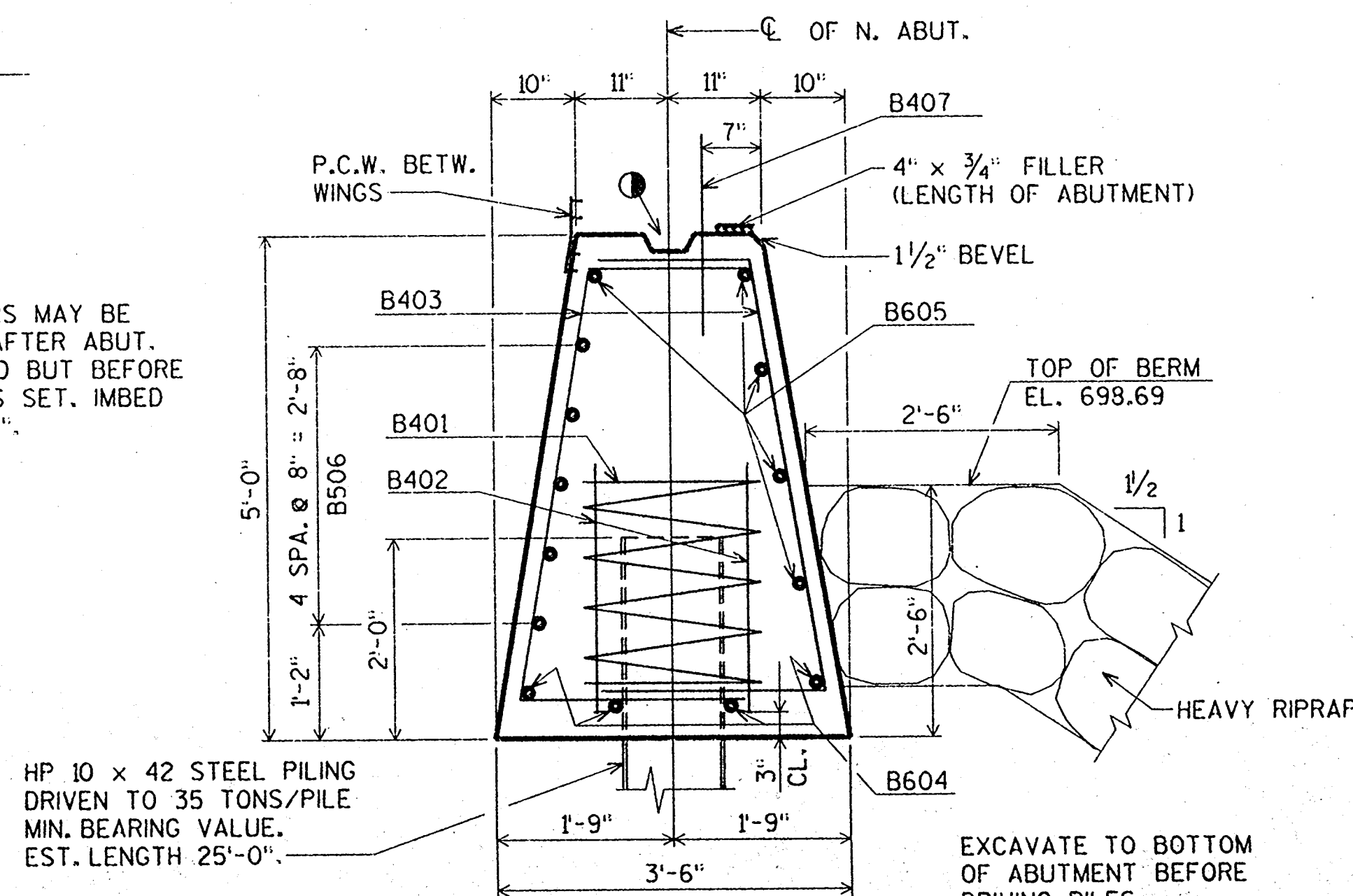
B407 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. IMBED BARS 1'-0".



TYP. SECTION THRU WING



CUTTING DIAGRAM

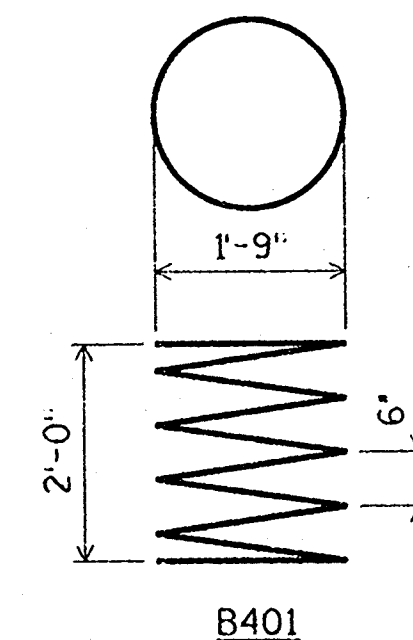


SECTION THRU BODY

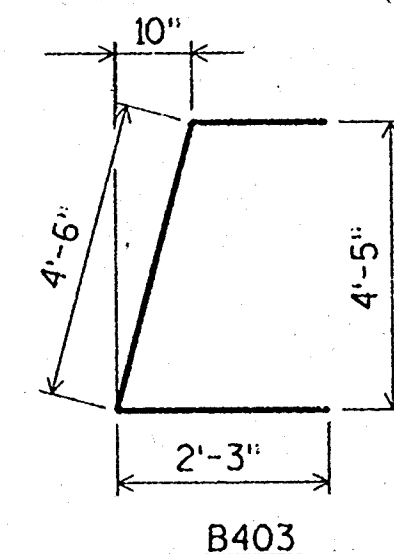
BILL OF BARS

BAR NO.	NO. REQ'D.	LENGTH	BENT BAR	COATED BAR	CUT DIAG.	1500# UNCOATED
						LOCATION
B401	5	28-0	X			BODY @ PILES
B402	10	2-3				BODY @ PILES
B403	74	8-3	X			BODY VERT.
B604	4	32-5				BODY HORIZ.
B605	10	19-2	X			BODY HORIZ.
B506	10	18-11	X			BODY HORIZ.
B407	33	2-0				BODY DOWELS
B408	8	12-6	X			WING 3 & 4 VERT. E.F. SET 1
B509	20	5-10				WING 3 & 4 HORIZ. E.F.
B610	4	7-7				WING 3 & 4 HORIZ. E.F.
B411	2	4-3				WING 3 F.F., WING 4 B.F. HORIZ.
B412	2	4-6				WING 3 B.F., WING 4 F.F. HORIZ.
B413	2	4-6	X			WING 3 F.F., WING 4 B.F. DIAG.
B414	2	4-9	X			WING 3 B.F., WING 4 F.F. DIAG.

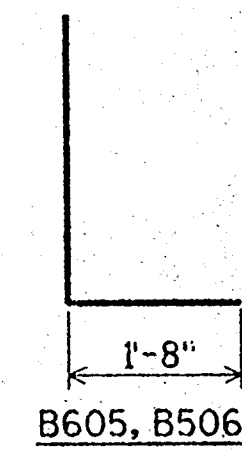
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.
B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.



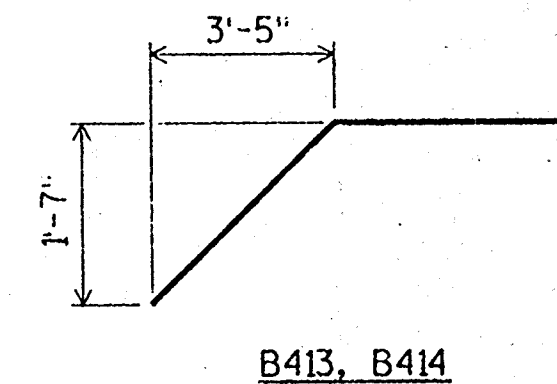
B401



B403



B605, B506



B413, B414

No.	Date	Revision	By
PLANS PREPARED BY AYRES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-44-II2			
Const. Spec.	1981	Drawn By G.L.D.	Plans Checked C.M.W.
NORTH ABUTMENT			SHEET 5 OF 7
			X

LEVELS ON =1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63

Diagram illustrating the cross-section of a turn roadway, showing dimensions and reinforcement details.

Dimensions:

- Overall width: 32'-0"
- Side slopes: 15'-0" (each side)
- Top width: 1'-0" (each side)
- Bottom width: 3'-0" (each side)
- Bottom width (excluding side slopes): 5 1/2" (each side)
- Bottom width (excluding side slopes and top width): 30'-6"

Reinforcement Details:

- Top reinforcement: 21 SPA. @ 1'-6" = 31'-6" S407
- Bottom reinforcement: 61 SPA. @ 6" = 30'-6" S903
- Side reinforcement: S406 (top), S504 (middle), S405 (bottom)
- Side reinforcement bundle: S903 BUNDLED

Other Details:

- TUBULAR RAILING TYPE "F" SEE SHEET 7 FOR DETAILS.
- SLOPE 0.02'/FT. (indicated on both sides)
- CL OF C.T.H. "U"

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

- 3/4" CONTINUOUS DRIP GROOVE
BEGIN 2'-0" FROM ABUT. TYP.

10 1/4"

5 SPA. @ 6'-10" = 34'-2"

TYPICAL RAIL POST SPACING

10"

3'-3" TYP.

6" TYP.

1'-0" TYP.

1'-6" TYP.

11 1/8"

34'-0"

35'-10 1/4"

11 1/8"

BOT. BAR STEEL REINFORCEMENT

CL OF C.T.H. "U"

END OF DECK

TOP BAR STEEL REINFORCEMENT

CL OF N. ABUT.

S501

S502

S503

S504

S505

S506

S507

S508

S509

Technical drawing of a bridge cross-section showing reinforcement details. The drawing includes dimensions for the total width (17'-0"), abutment width (6"), and various reinforcement bars (S406, S502, S405, S501, S407, S903). It also shows the centerline of the span and the centerline of the abutment. The reinforcement is specified as 11 SPA. @ 1'-6" = 16'-6" S406 and 6 SPA. @ 1'-0" = 6'-0" S405. The drawing also indicates a 1 1/2" BEVEL and a 4" x 3/4" FILLER (LENGTH OF ABUTMENT). The reinforcement is shown in a cross-section of a bridge deck.

Diagram of a parabolic arch bridge. The total span is 34'-0". The arch is divided into four equal horizontal segments of 8'-6" each. The vertical heights from the centerline to the arch are 7/8" at the quarter points and 1 1/8" at the crown. The centerline is labeled "C OF ABUT." at both ends.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEADLOAD DEFLECTION ONLY EQUALS APPROXIMATELY $\frac{1}{4}$ OF CAMBER VALUES SHOWN.

[illegible]

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

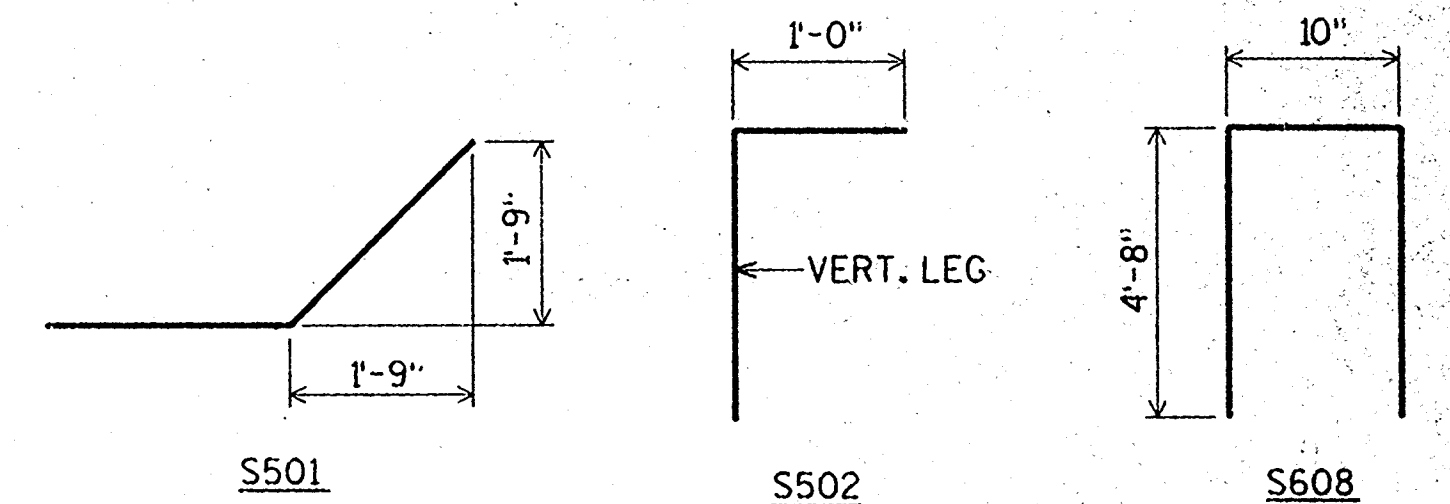


Diagram showing two S903 wire bars tied together at their ends. The text "WIRE BARS TOGETHER @ 2'-0\" CENERS" points to the connection point.

No.	Date	Revision			By
AYRES ASSOCIATES Engineers/Architects Planners/Surveyors Owen Ayres & Associates Inc. Eau Claire, Wisconsin					
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE			B-44-II2		
Const. Spec.	1981	Drawn By	G.L.D.		Plans Checked (G.W.)
SUPERSTRUCTURE			SHEET 6 OF 7		
			X		

△ DIMENSIONS MEASURED NORMAL TO
C OF SUBSTRUCTURE.

