

PLOT SCALE:

PLOT NAME:

LINCOLN

REV. DATE: 02-26-97

9675-05-70

ORIGINATOR: DISTRICT 7 RHINELANDER

INDEX OF SHEETS

Sheet No. 1	Title
Sheet No.	Typical Sections and Details
Sheet No.	Estimate of Quantities
Sheet No.	Miscellaneous Quantities
Sheet No.	Right of Way Plat
Sheet No.	Plan and Profile
Sheet No.	Standard Detail Drawings
Sheet No.	Sign Plates
Sheet No.	Structure Plans
Sheet No.	Computer Earthwork Data
Sheet No.	Cross Sections

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PRAIRIE RIVER BRIDGE & APPROACHES

STRUCTURE B-35-103

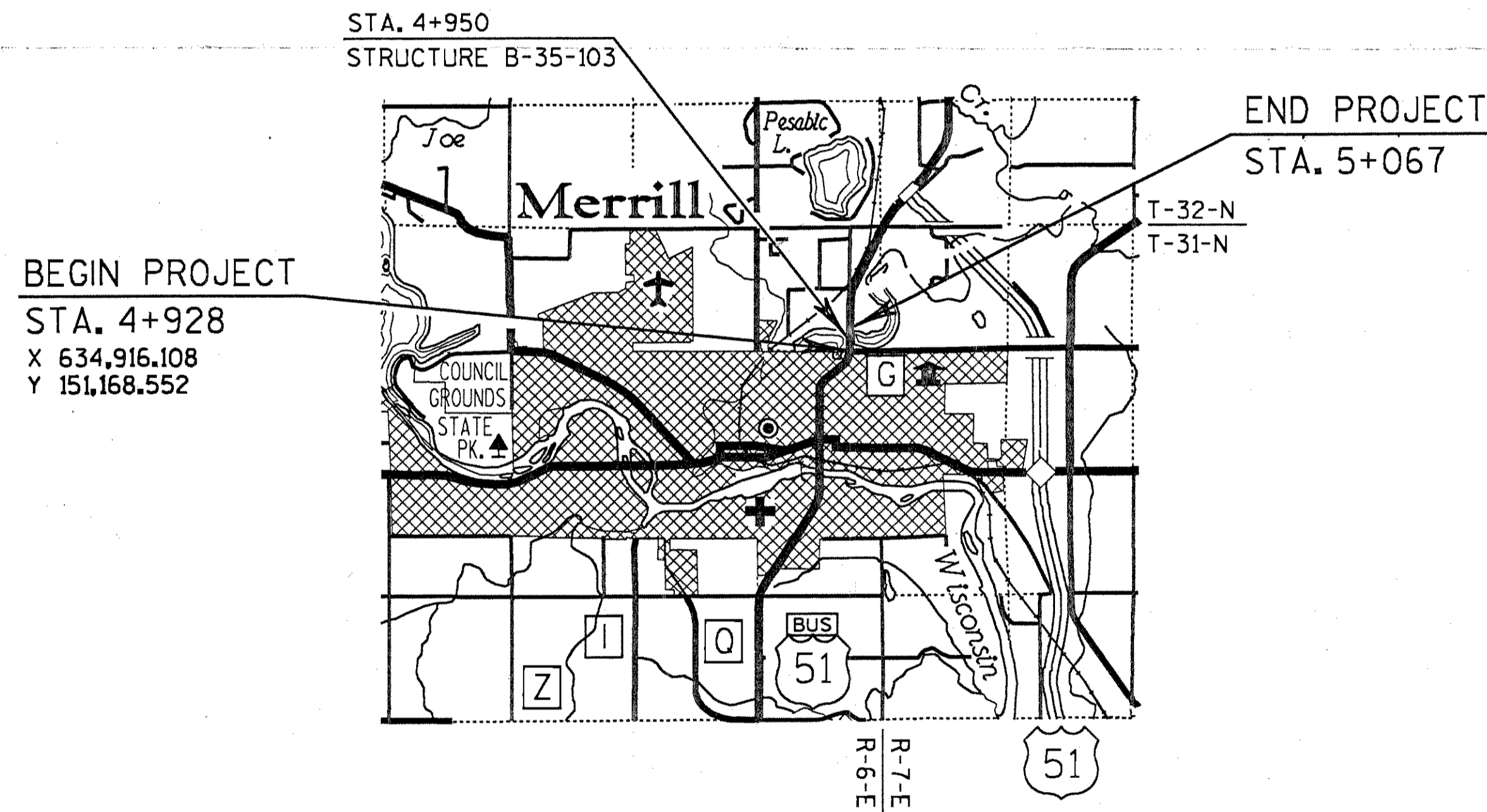
BUS. 51

LINCOLN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9675-05-70		

STATE PROJECT NUMBER
9675-05-70

GN



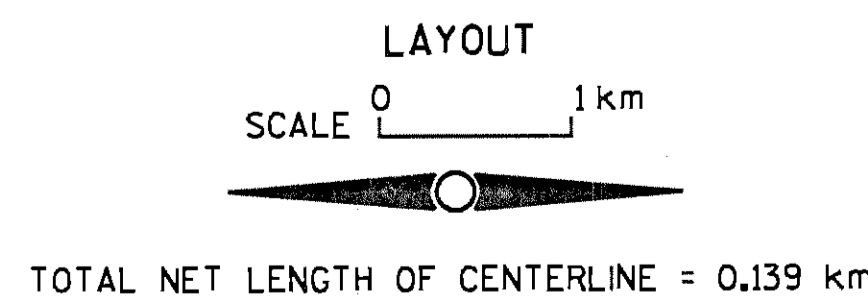
DESIGN DESIGNATION

A.D.T. 1998	=	4,150
A.D.T. 2018	=	5,550
D.H.V. 2018	=	627
D.	=	60/40
T.	=	10
DESIGN SPEED	=	60 km/hr
ESALS	=	1,255,600

CONVENTIONAL SYMBOLS

COUNTY LINE		COMBUSTIBLE FLUIDS	
CORPORATE LIMITS		UNDERGROUND UTILITIES	
PROPERTY LINE		GAS	
LOT LINE		ELECTRIC	
LIMITED EASEMENT		TELEPHONE OR TELEGRAPH	
EXISTING RIGHT OF WAY		SERVICE PEDESTAL	
PROPOSED OR NEW R/W LINE		CABLE MARKER	
SURVEY LINE		POWER POLE	
SLOPE INTERCEPT		TELEPHONE POLE	
ORIGINAL GROUND		RAILROAD	
MARSH OR ROCK PROFILE		MARSH AREA	
EXISTING CULVERT		WOODED OR SHRUB AREA	
PROPOSED CULVERT (Box or Pipe)			
CULVERT (Profile View)			

HORIZONTAL COORDINATES ARE BASED ON NORTH AMERICAN DATUM 1927 ADJUSTMENT AND COMPUTED ON THE CENTRAL ZONE FOR THE STATE OF WISCONSIN.



ACCEPTED FOR

COUNTY OF LINCOLN

DATE: _____
LINCOLN COUNTY HIGHWAY COMMISSIONER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: JAMES W. SMITH

Designer: RICHARD A. SIMON

District Examiner: BROCK A. GEHRIG

District Supervisor: MARVIN N. LASPA

Proj. Dev. Engineer: JAMES D. WHALEN, P.E.

C.O. Examiner: _____

APPROVED FOR DISTRICT OFFICE

DATE: _____ (Signature)

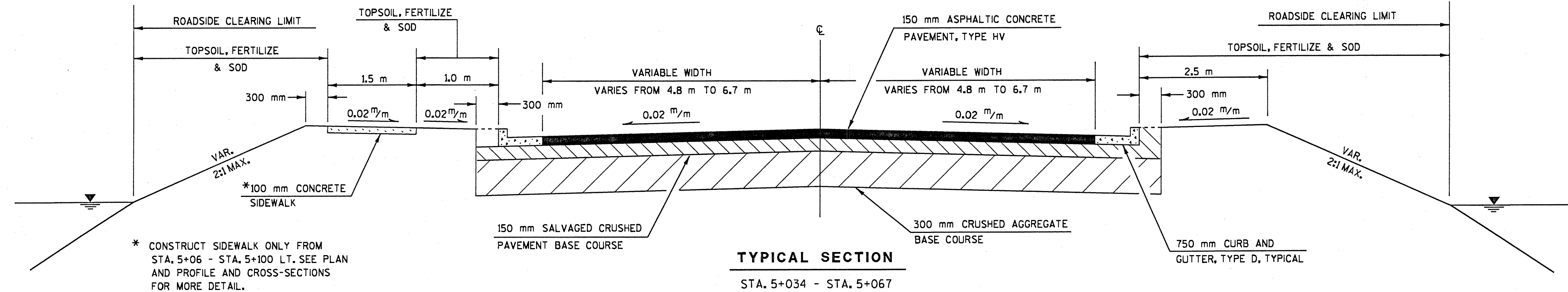
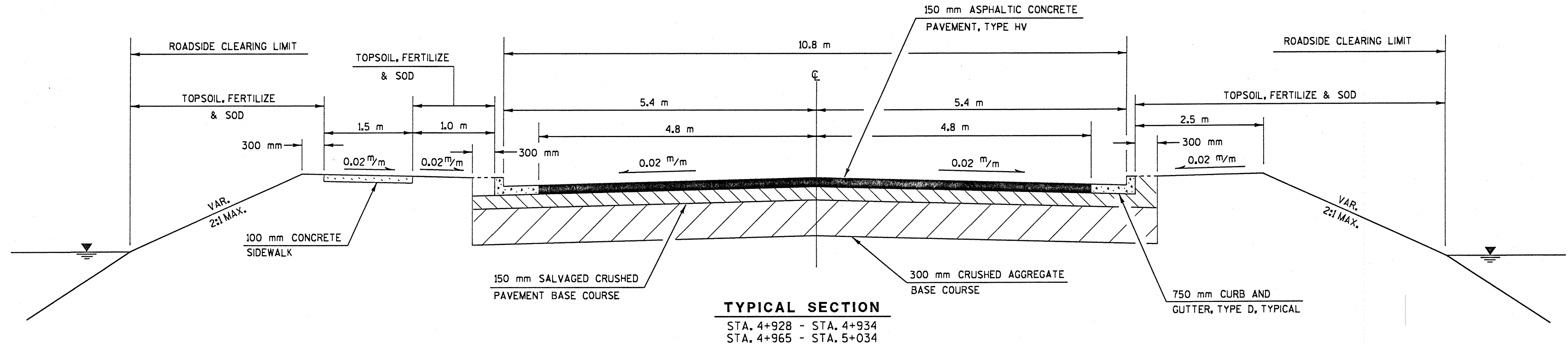
AUTHORIZED FOR CENTRAL OFFICE DESIGN

DATE: _____ (Signature)

PLOT SCALE:

REV. DATE: 04-24-97
 PLOT NAME:
 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

ORIGINATOR: DISTRICT 7 RHINELANDER
 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



* CONSTRUCT SIDEWALK ONLY FROM STA. 5+06 - STA. 5+100 LT. SEE PLAN AND PROFILE AND CROSS-SECTIONS FOR MORE DETAIL.

GENERAL NOTES

1. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
2. DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE FERTILIZED, SEEDED AND MULCHED OR SODDED AS DIRECTED BY THE ENGINEER.
3. THE LOCATION OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER. ALL P.E.'S AND C.E.'S WILL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER.
4. 150 mm ASPHALTIC CONCRETE PAVEMENT SHALL BE CONSTRUCTED WITH A 50 mm UPPER LAYER AND 2-50 mm LOWER LAYERS.
5. ASPHALTIC MATERIAL FOR TACK COAT SHALL BE APPLIED BETWEEN THE ASPHALTIC CONCRETE PAVEMENT COURSES AT A RATE OF 0.113 L/m².
6. 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.
7. JOINT TIES ARE REQUIRED ON ALL JOINTS FOR CONCRETE STORM SEWER PIPES.
8. THE DEPARTMENT OF TRANSPORTATION WILL FURNISH A MONUMENT TO BE INSTALLED ON THE STRUCTURE BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

STANDARD DETAIL DRAWINGS

- 8A5-13a INLET COVERS
- 8C1-5 INLETS, TYPES 1, 2, 3 AND 4
- 8D1-12 CONCRETE CURB, CONCRETE CURB AND GUTTER AND PAVEMENT TIES
- 8E8-2 TYPICAL INSTALLATIONS OF EROSION BALES
- 8E9-5 SILT FENCE
- 8F1-11 APRON ENDWALLS FOR CULVERT PIPE
- 8F4-5 JOINT TIES FOR CONCRETE PIPE
- 9B2-6 CONDUIT
- 9B4-2 PULL BOX
- 9C2-2 CONCRETE BASES, TYPES 1, 2 AND 5
- 9C3-2 TRANSFORMER/PEDESTAL BASE
- 9E1-3e POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (10.7 meters)
- 9E1-3f HARDWARE DETAILS FOR POLE MOUNTINGS
- 9E3-2 NON-FREWAY LIGHTING UNIT POLE WIRING
- 10HL1-1 ELECTRICAL HANDHOLE WIRING
- 12A3-4 NAME PLATE (STRUCTURES)
- 13B2-3 CONCRETE PAVEMENT APPROACH SLAB
- 15C2-3 BARRICADES AND SIGNS FOR ROAD CLOSURES
- 15C8-7a PAVEMENT MARKING (MAINLINE)

UTILITIES

WISCONSIN PUBLIC SERVICE
 3200 E. MAIN
 MERRILL, WI. 54452
 ROGER WEEGE
 TELE: 715-539-4023

GTE NORTH, INC.
 521 4th ST.
 WAUSAU, WI. 54401
 RON KOLTON
 TELE: 715-847-1511

WARNER CABLE COMM.
 244 HWY "E"
 MARSHFIELD, WI. 54449
 JAY HORNE
 TELE: 715-356-8911

CITY OF MERRILL
 1004 EAST FIRST ST.
 MERRILL, WI. 54552
 CHARLES PIEROTTI
 TELE: 715-536-6561



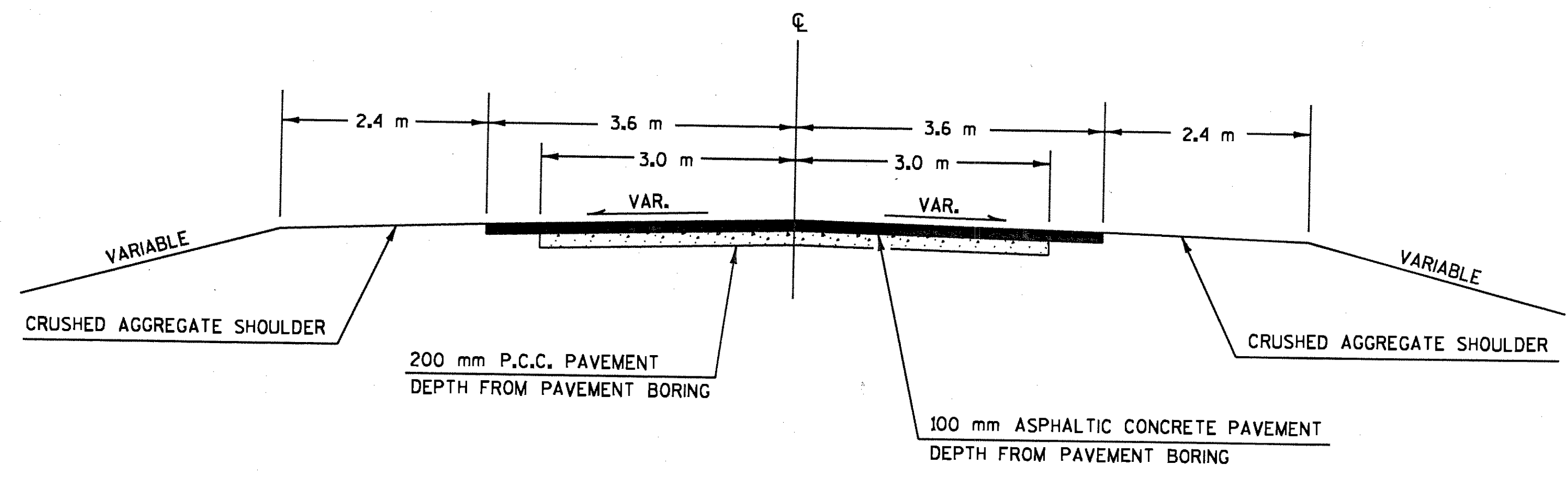
TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
 1-800-242-8511
 TOLL FREE

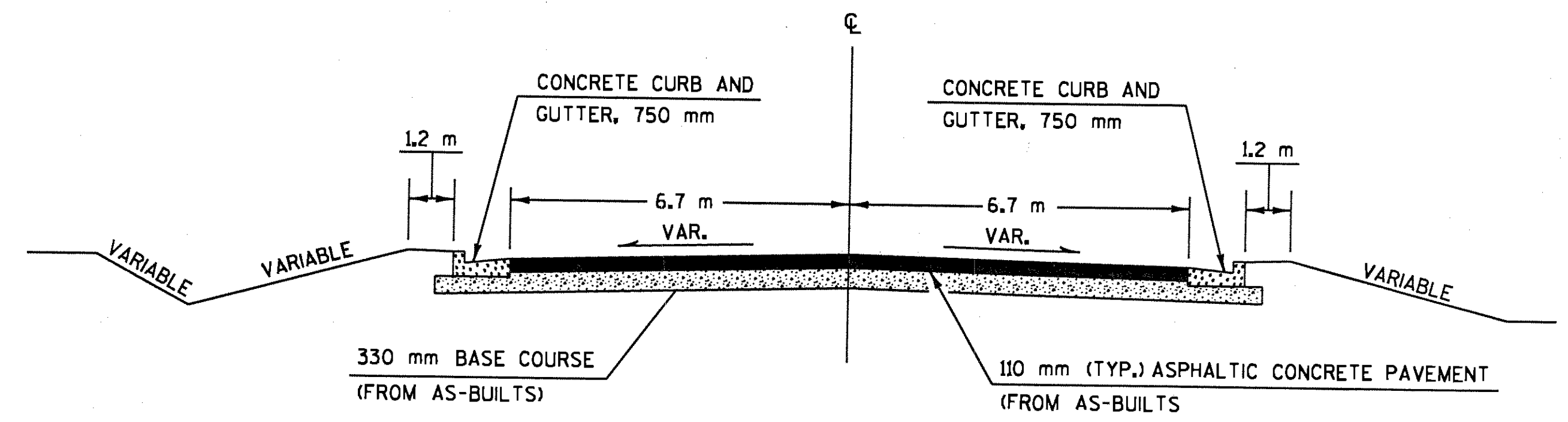
WIS. STATUTE 182.0175 (1974)
 REQUIRES MIN. OF 3 WORK DAYS
 NOTICE BEFORE YOU EXCAVATE

DEPARTMENT OF NATURAL RESOURCES
 NORTH CENTRAL DISTRICT
 P.O. BOX 818
 RHINELANDER, WI. 54501
 JIM GRAFELMAN
 TELE: 715-365-8927

ORIGINATOR: DISTRICT 7 RHINELANDER
 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
 REV. DATE: 04-04-97
 PLOT NAME:
 PLOT SCALE:



EXISTING TYPICAL SECTION
 STA. 4+860 - STA. 5+064



EXISTING TYPICAL SECTION
 STA. 5+064 - STA. 5+100

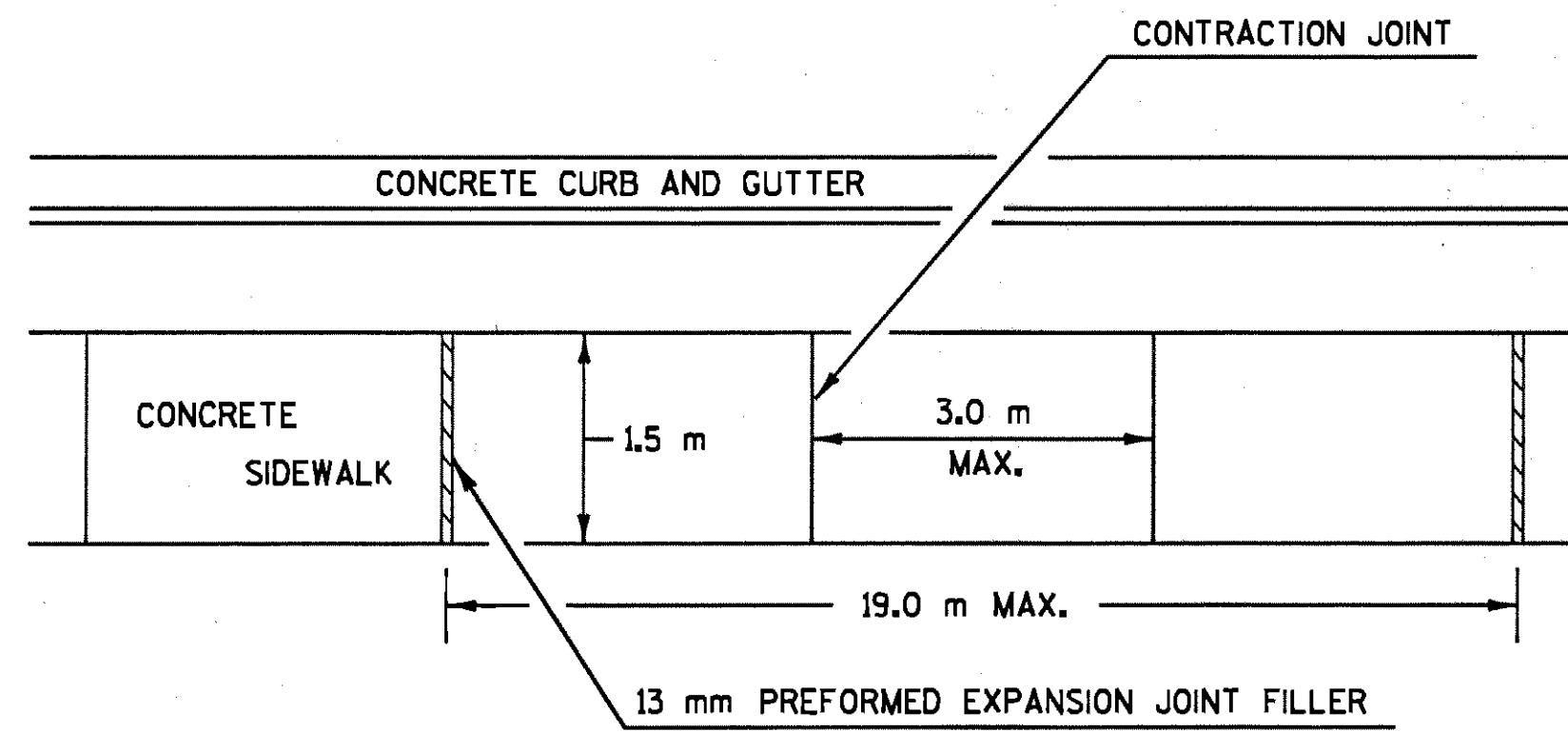
TYPICAL SECTION SHEET (EXISTING)	SCALE: 1:1	HWY: BUS. 51	COUNTY: LINCOLN	STATE PROJECT NO: 9675-05-70	SHEET NO: .	M
----------------------------------	------------	--------------	-----------------	------------------------------	-------------	---

PLOT SCALE:

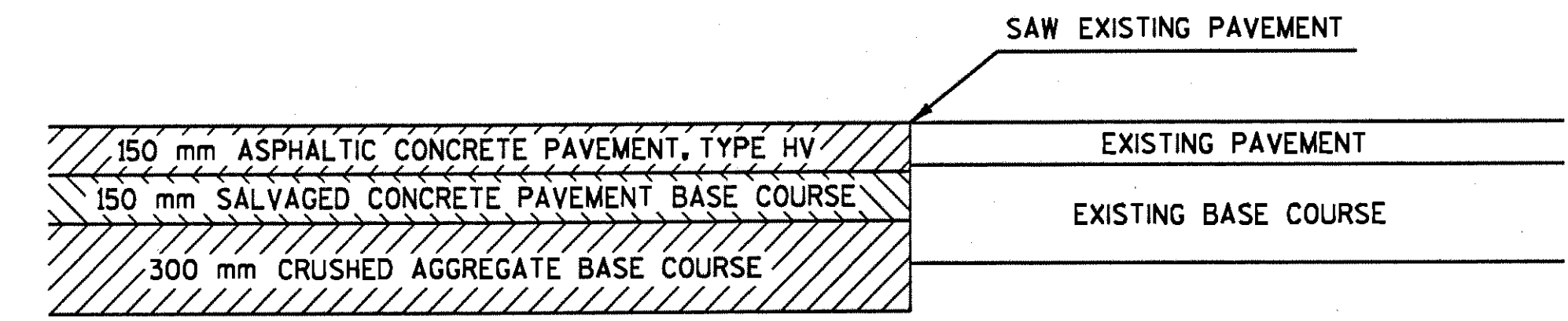
PLOT NAME:

REV. DATE: 05-30-97

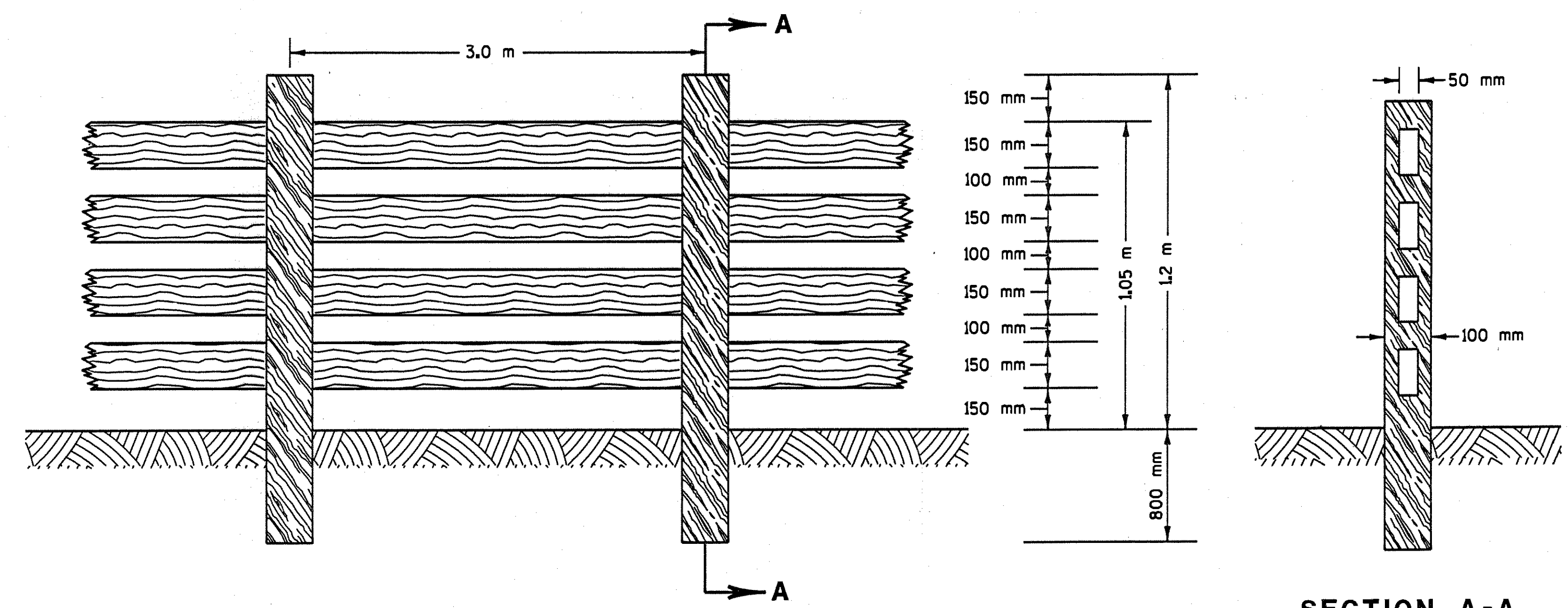
ORIGINATOR: DISTRICT 7 RHINELANDER
LEVELS ON - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



SIDEWALK DETAIL



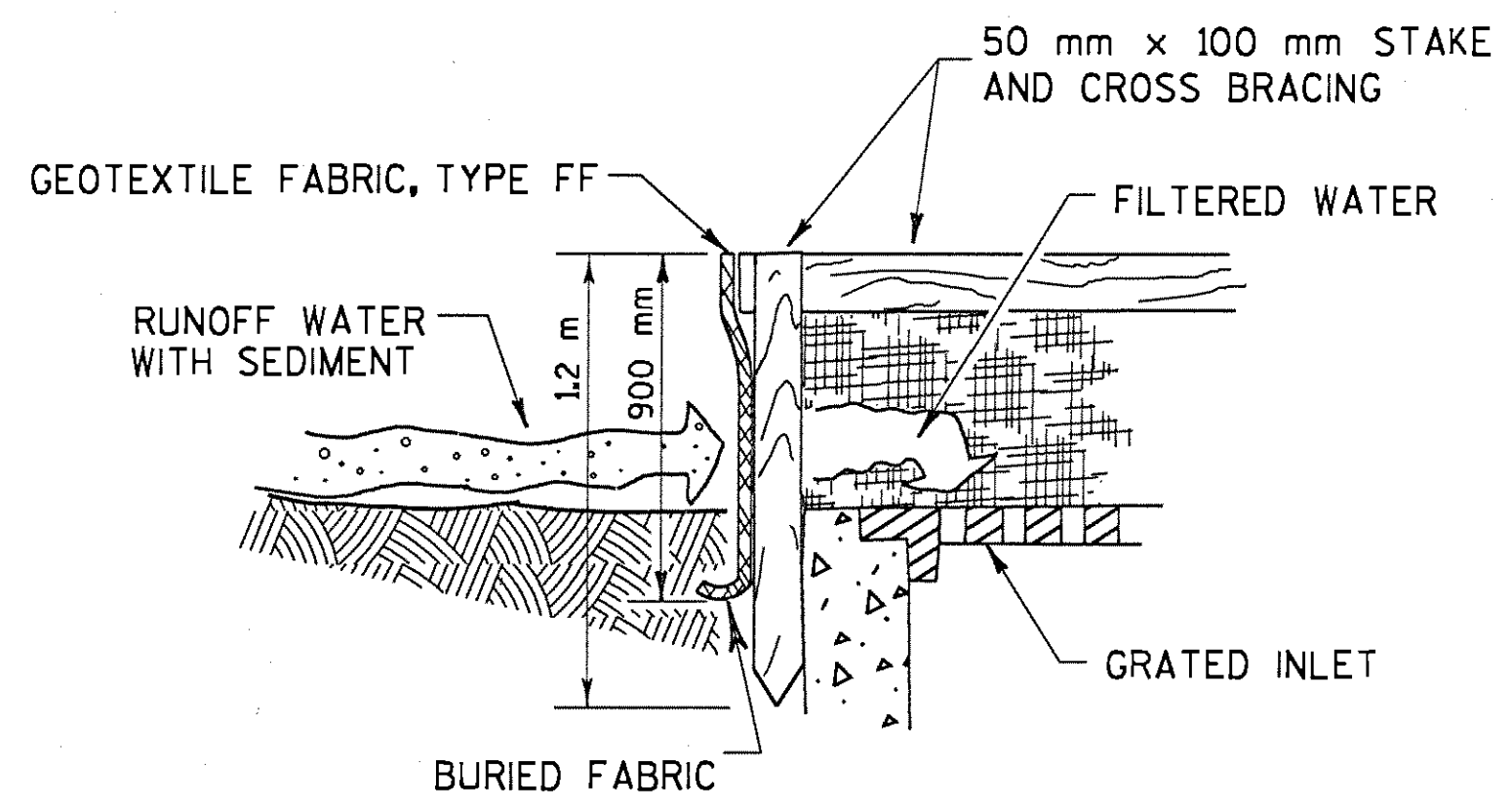
BUTT JOINT DETAIL
STA. 5+067



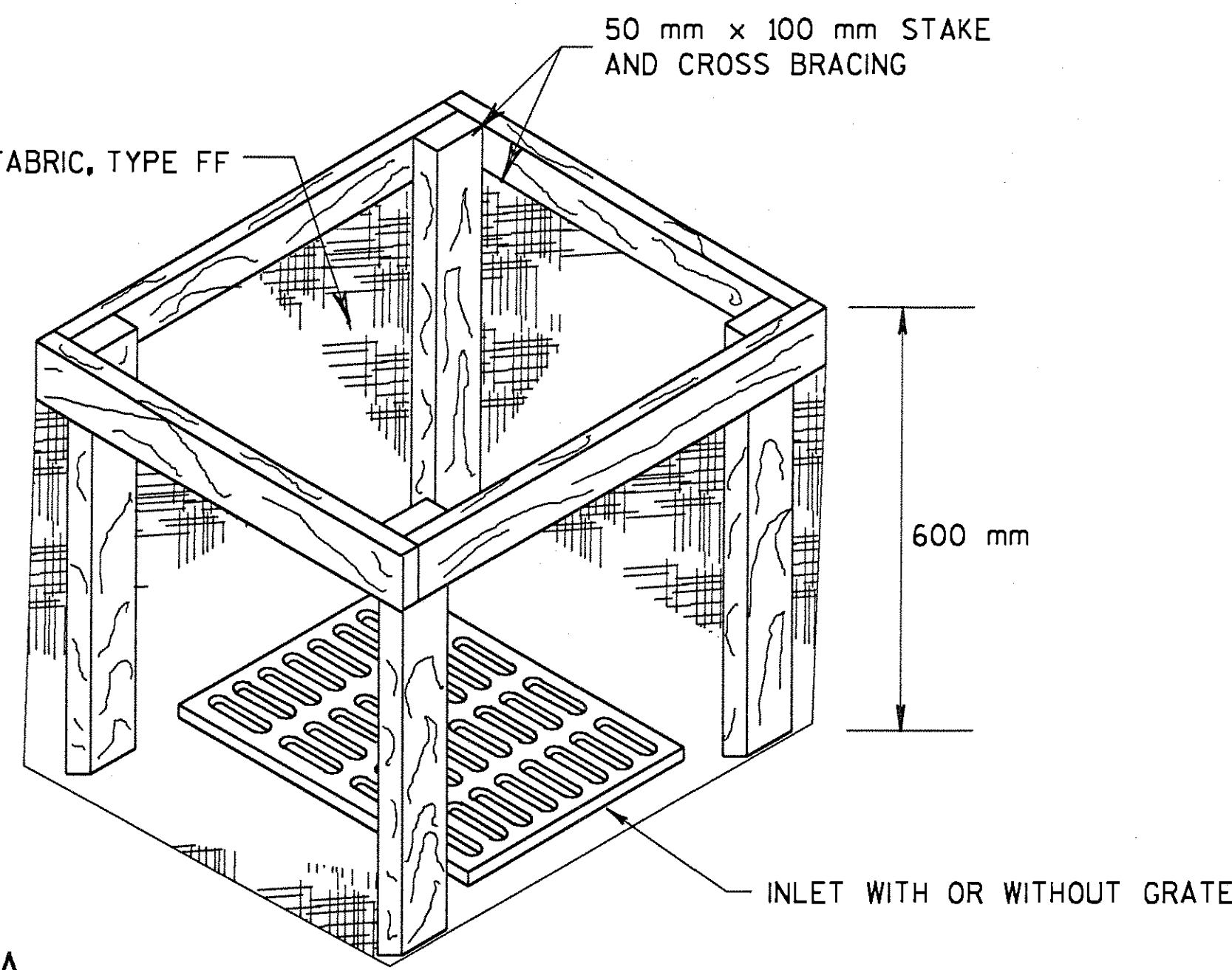
WOODEN SPLIT RAIL FENCE, CEDAR

FILE NAME: D7 967505:96750524.DGN
 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
 ORIGINATOR: DISTRICT 7 RHINELANDER
 REV. DATE: 04-24-97 PLOT SCALE: 1:00000000.000000
 PLOT DATE: 24-APR-1997 14:21

NOTE: ATTACH GEOTEXTILE FABRIC, TYPE FF TO THE TOP OF STAKES AND CROSS BRACINGS.

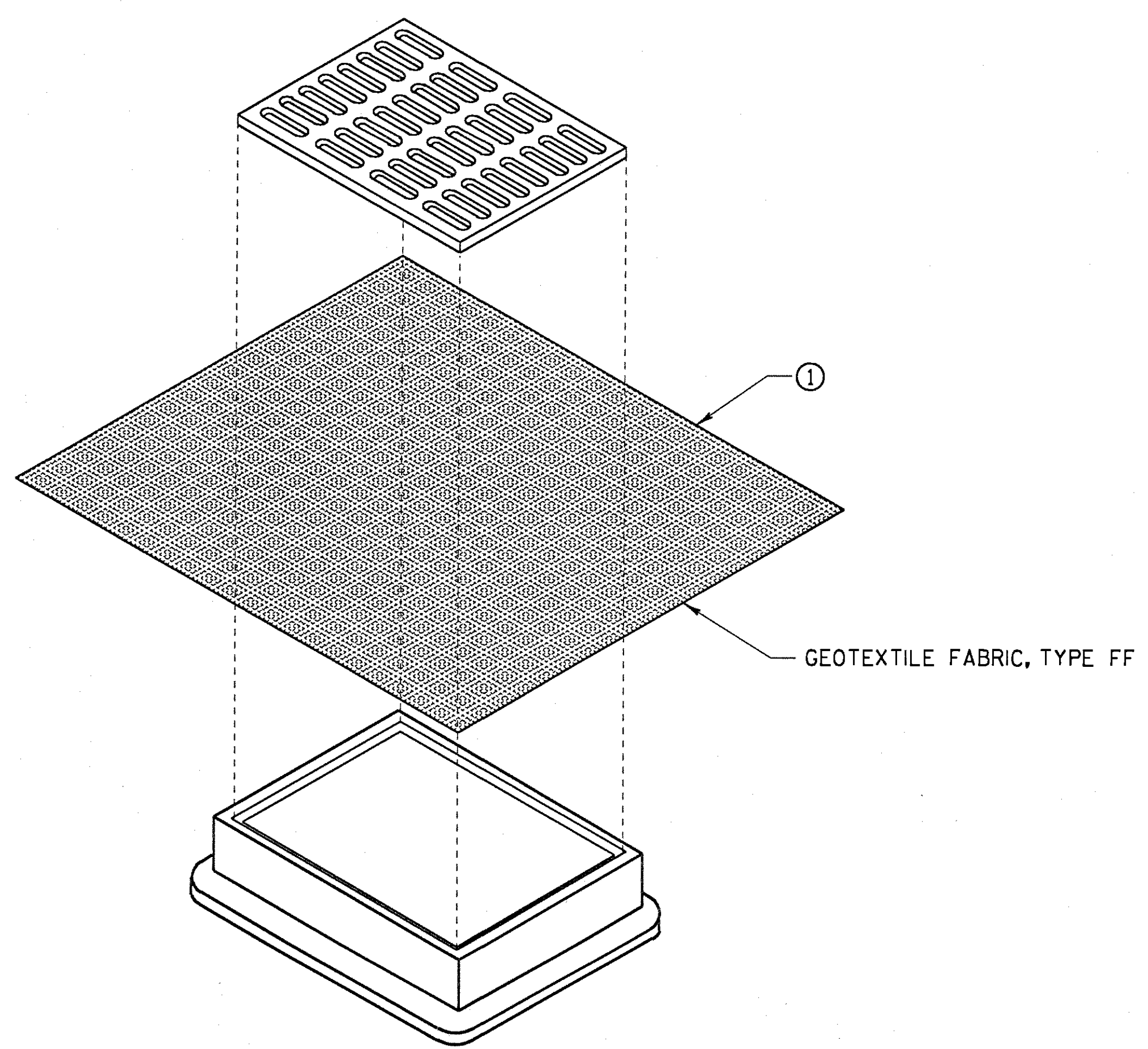


INLET PROTECTION, TYPE A

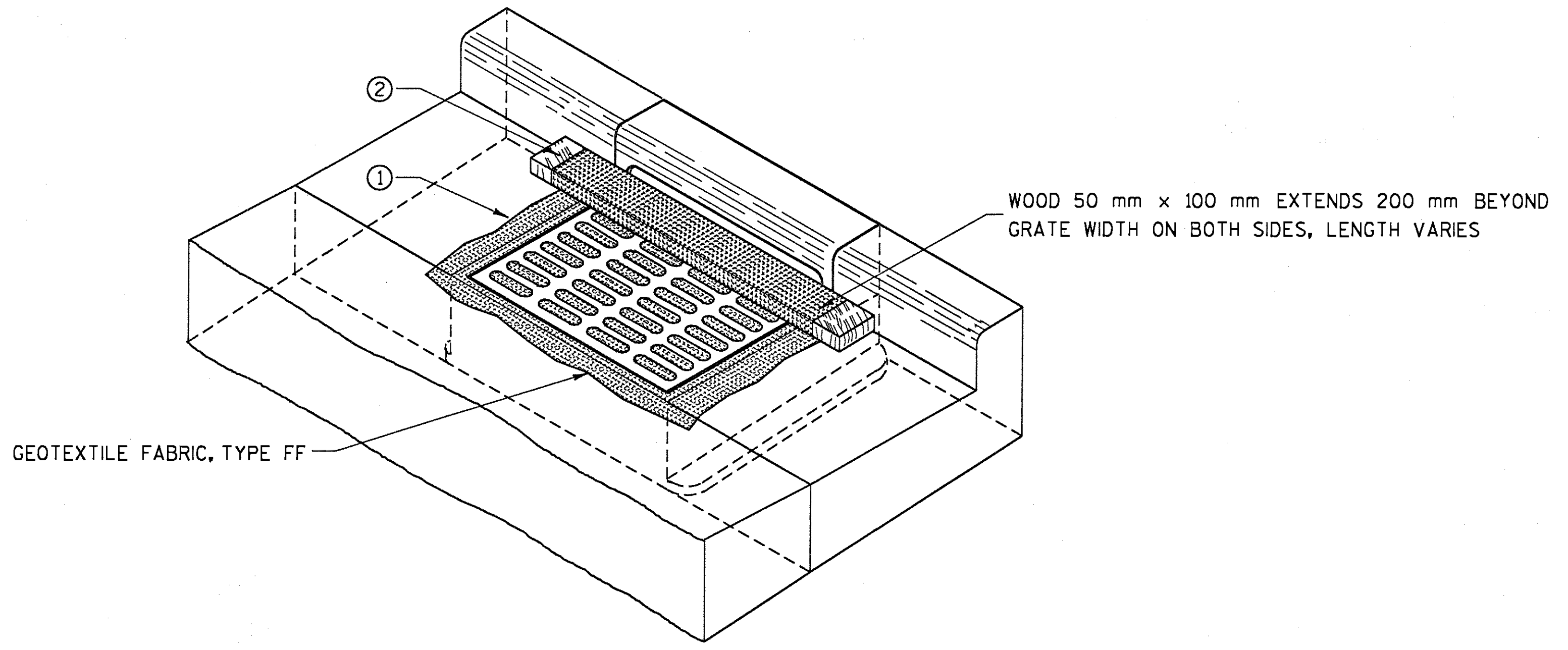


GENERAL NOTES:

- FABRIC SHALL BE REPLACED AT THE ENGINEERS DISCRETION.
 THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX.
 MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
 WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
- ① FABRIC SIZE SHALL BE 200 mm (MIN) GREATER ON ALL SIDES OF THE INLET COVER TO PROVIDE A HAND HOLD WHEN MAINTENANCE OR REMOVAL IS REQUIRED.
 - ② FOR INLET PROTECTION, TYPE C, WITH A CURB BOX, AN ADDITIONAL 450 mm OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES.



INLET PROTECTION, TYPE B (WITHOUT CURB BOX)
 (CAN BE INSTALLED ON ANY INLET TYPE)



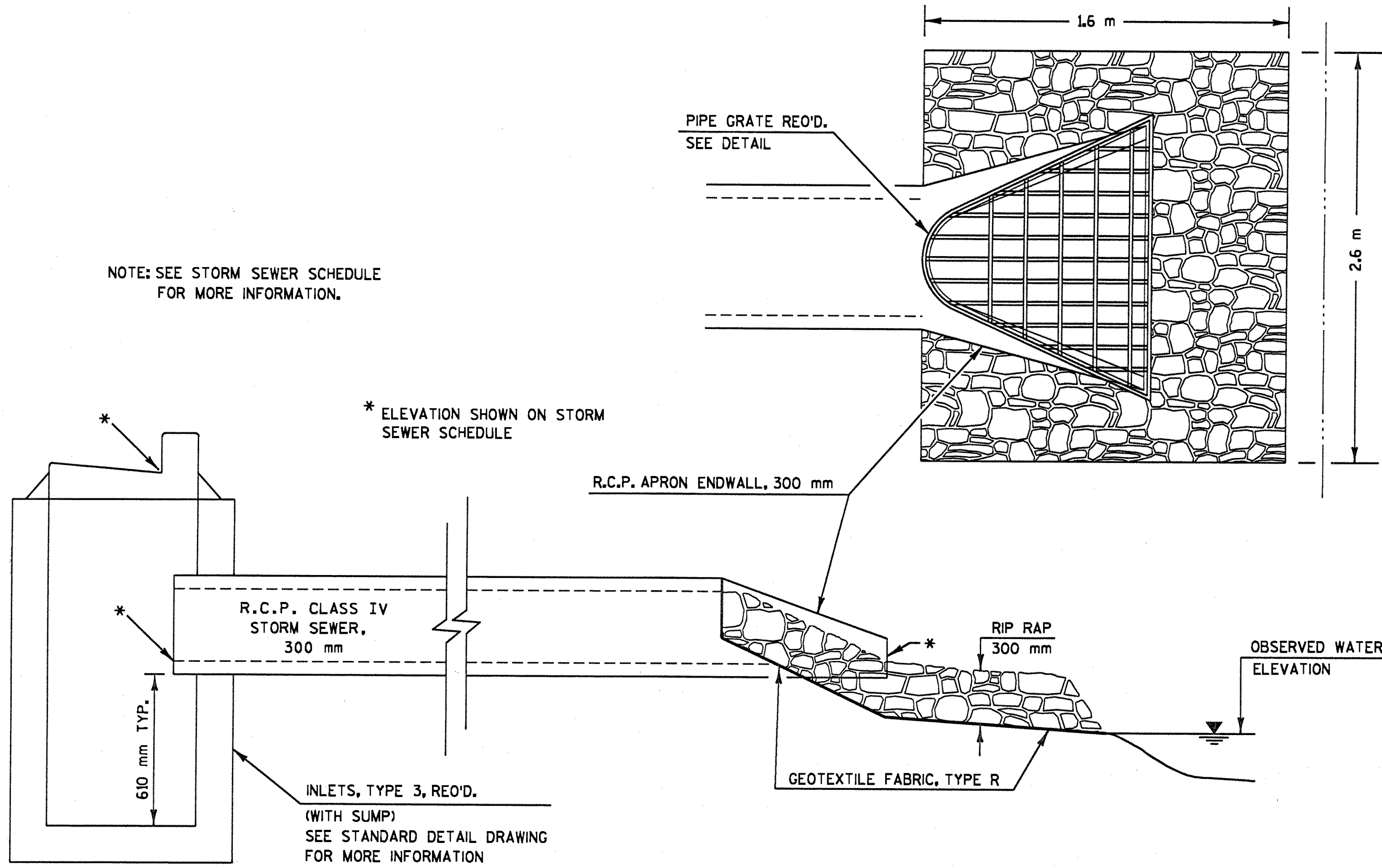
INLET PROTECTION, TYPE C (WITH CURB BOX)

PLOT SCALE:

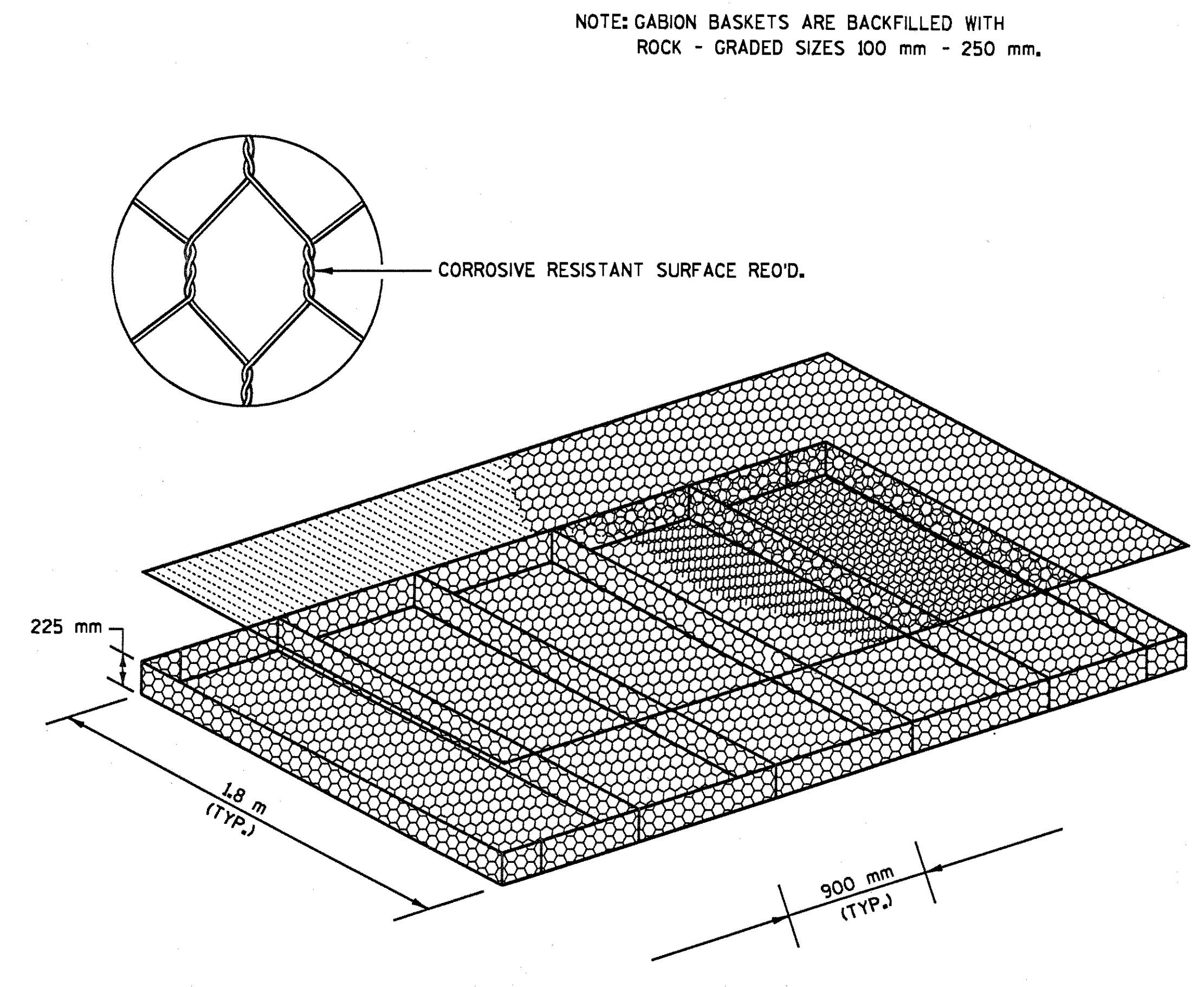
PLOT NAME:

REV. DATE: 06-04-97

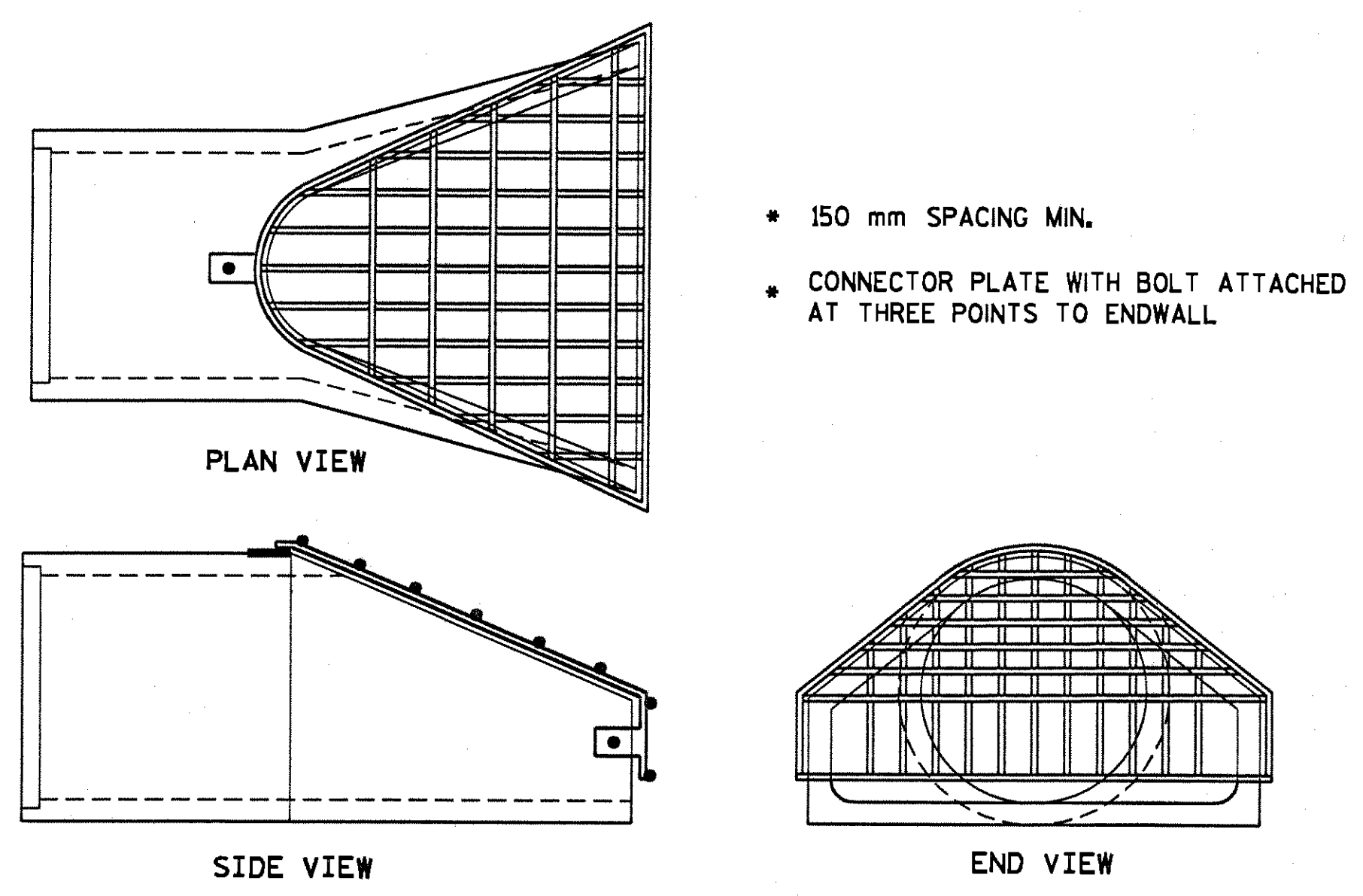
ORIGINATOR: DISTRICT 7 RHINELANDER LEVELS 0M - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63



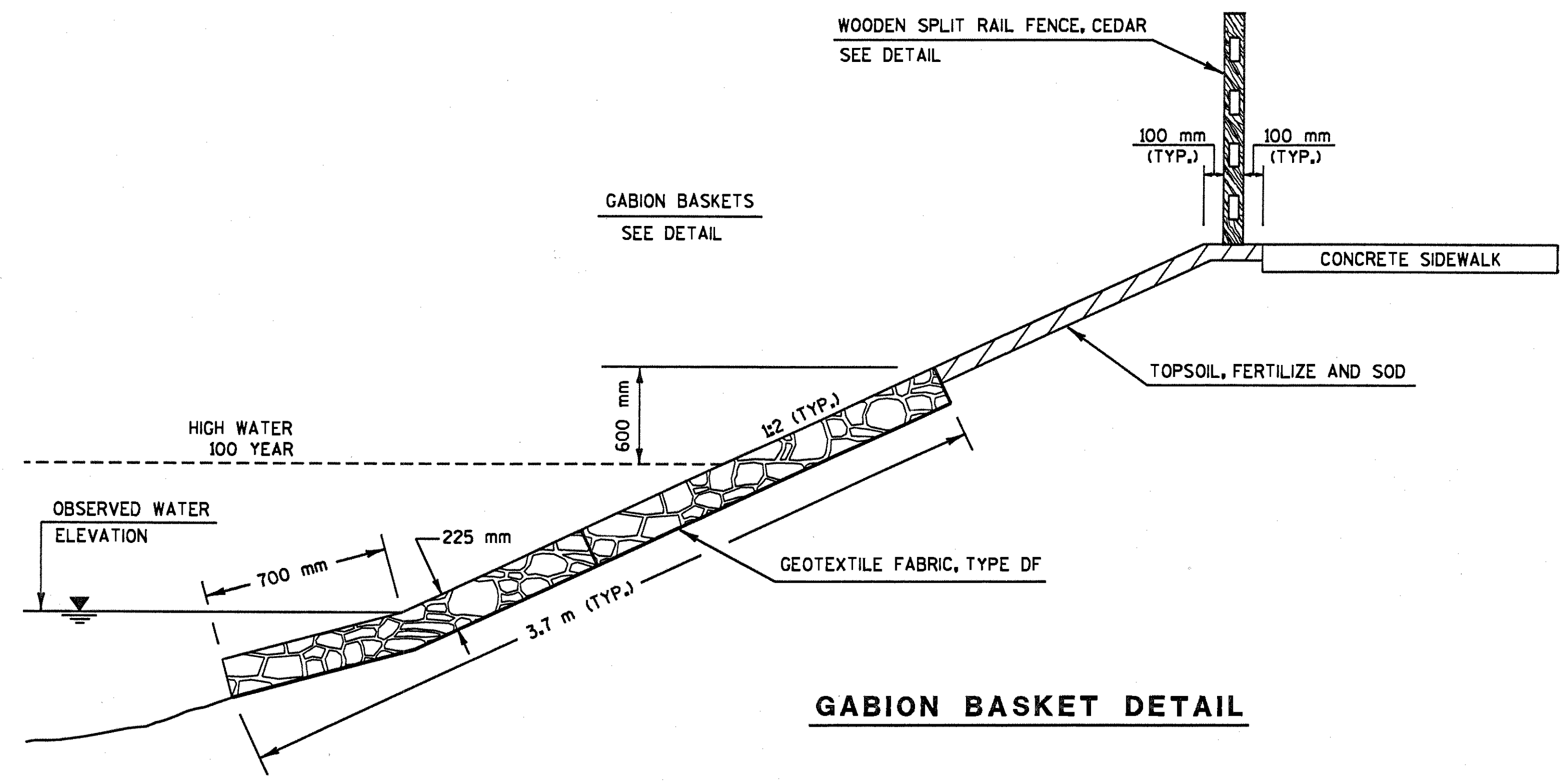
STORM SEWER DETAIL



GABION BASKET

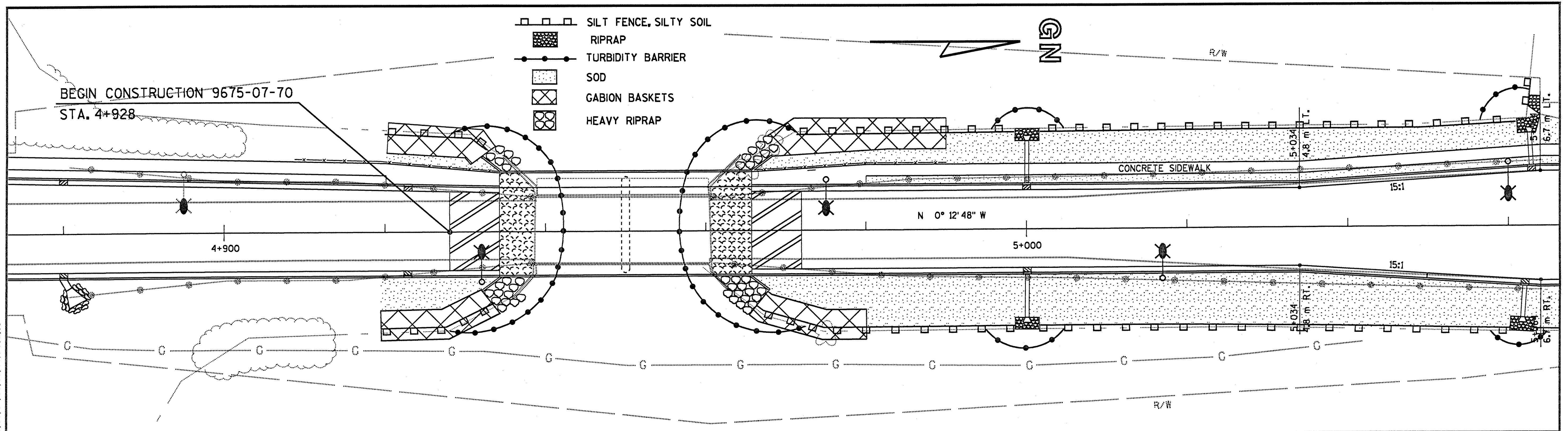


PIPE GRATE



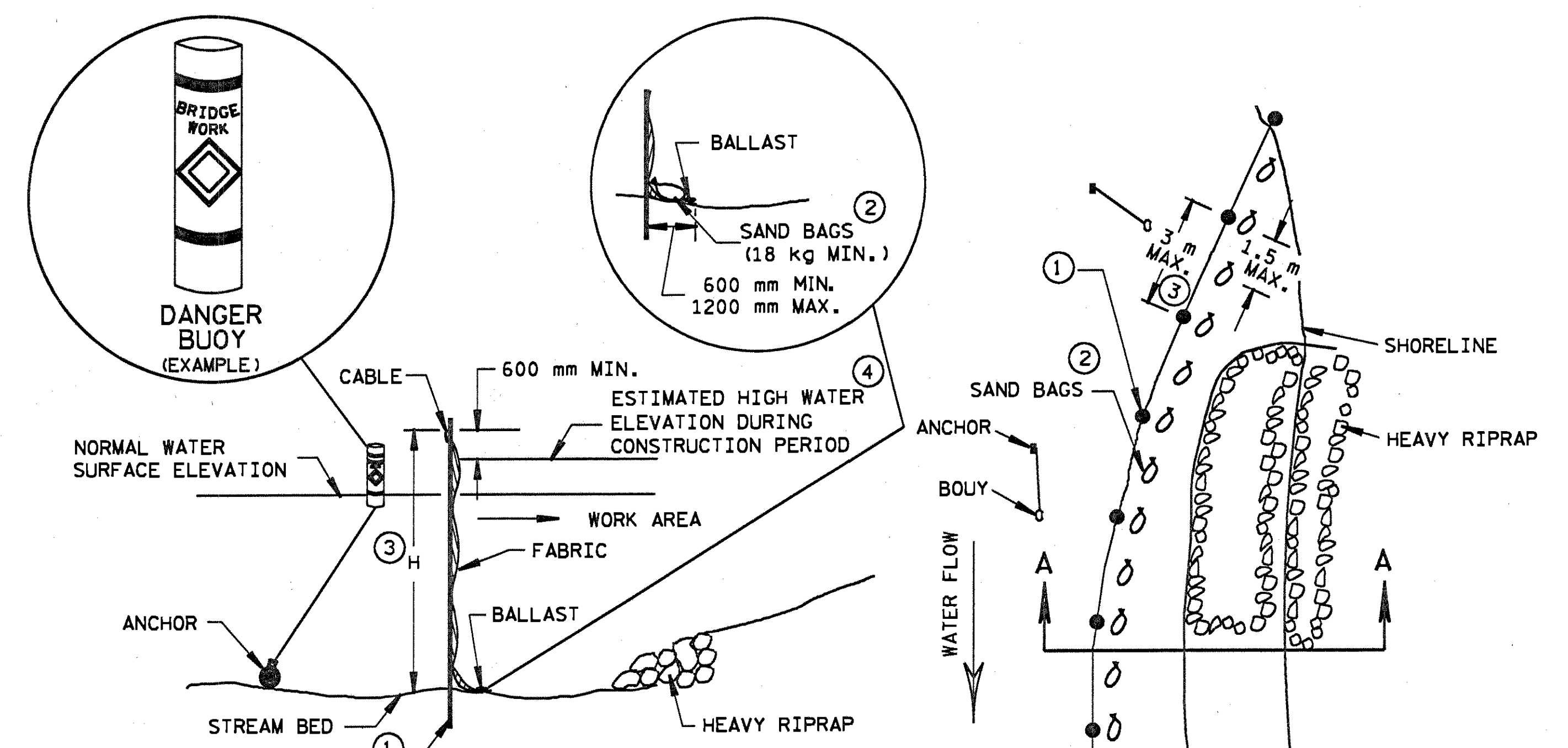
GABION BASKET DETAIL

PLOT SCALE: 1:250
 PLOT NAME: 9675-05-70-01
 REV. DATE: 06-04-97
 ORIGINATOR: DISTRICT 7 RHINELANDER
 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



	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

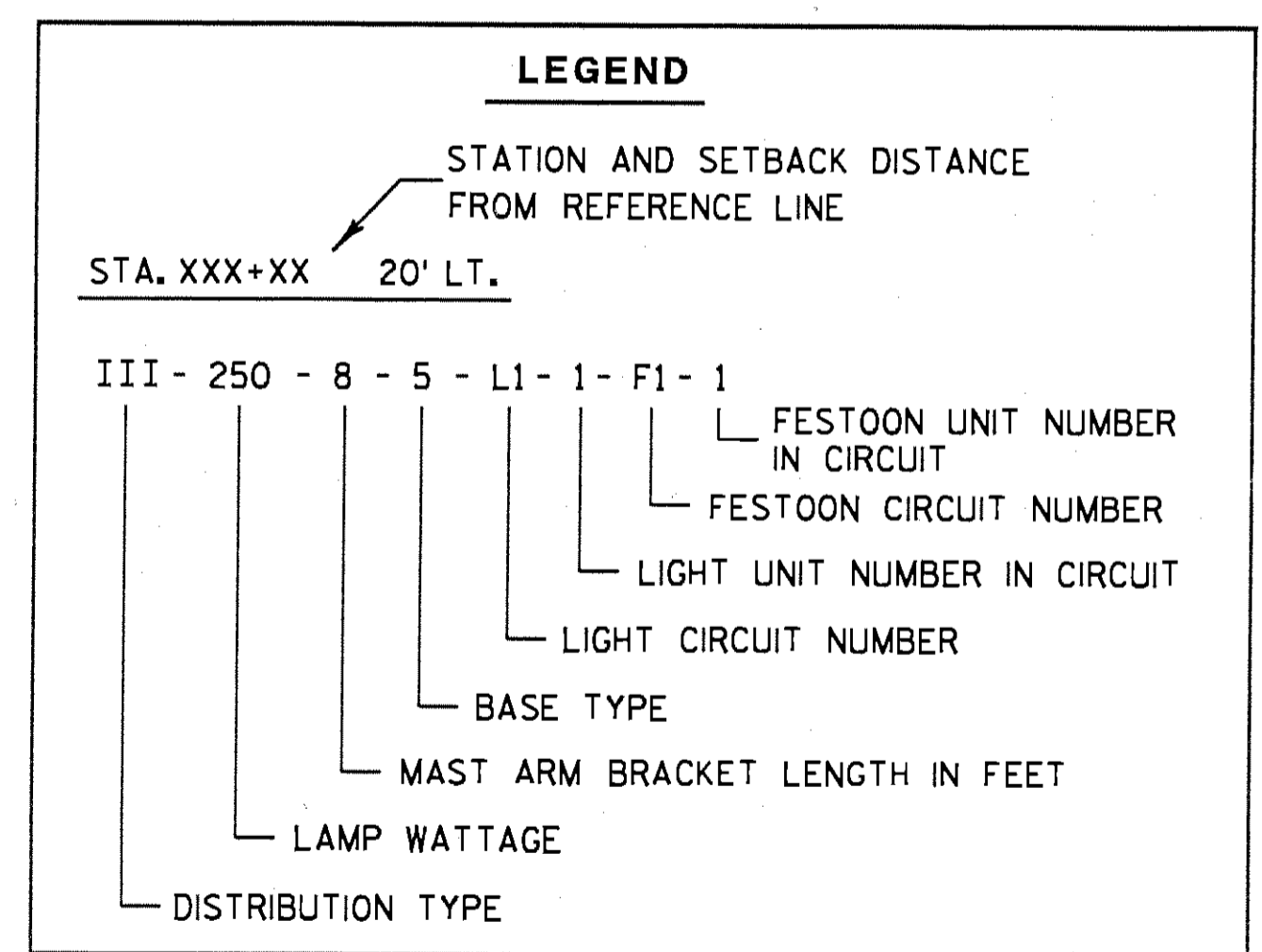
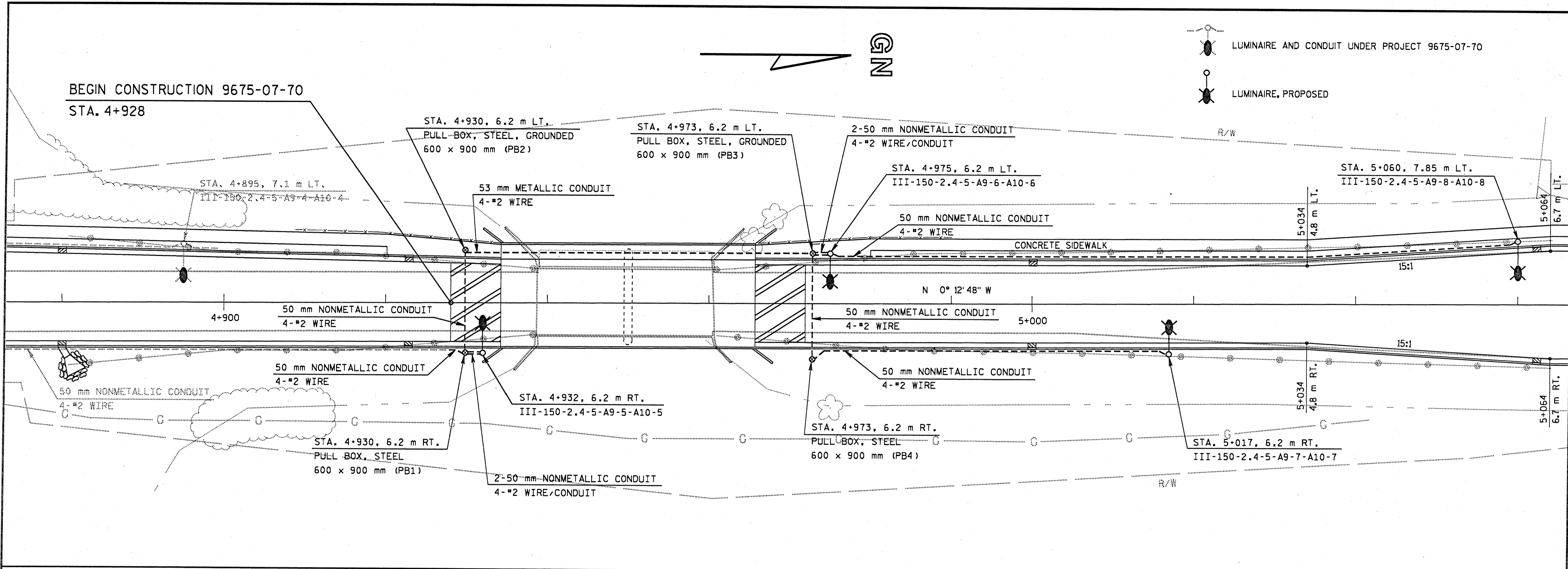
TOTAL PROJECT AREA = 0.59 HECTARES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.36 HECTARES



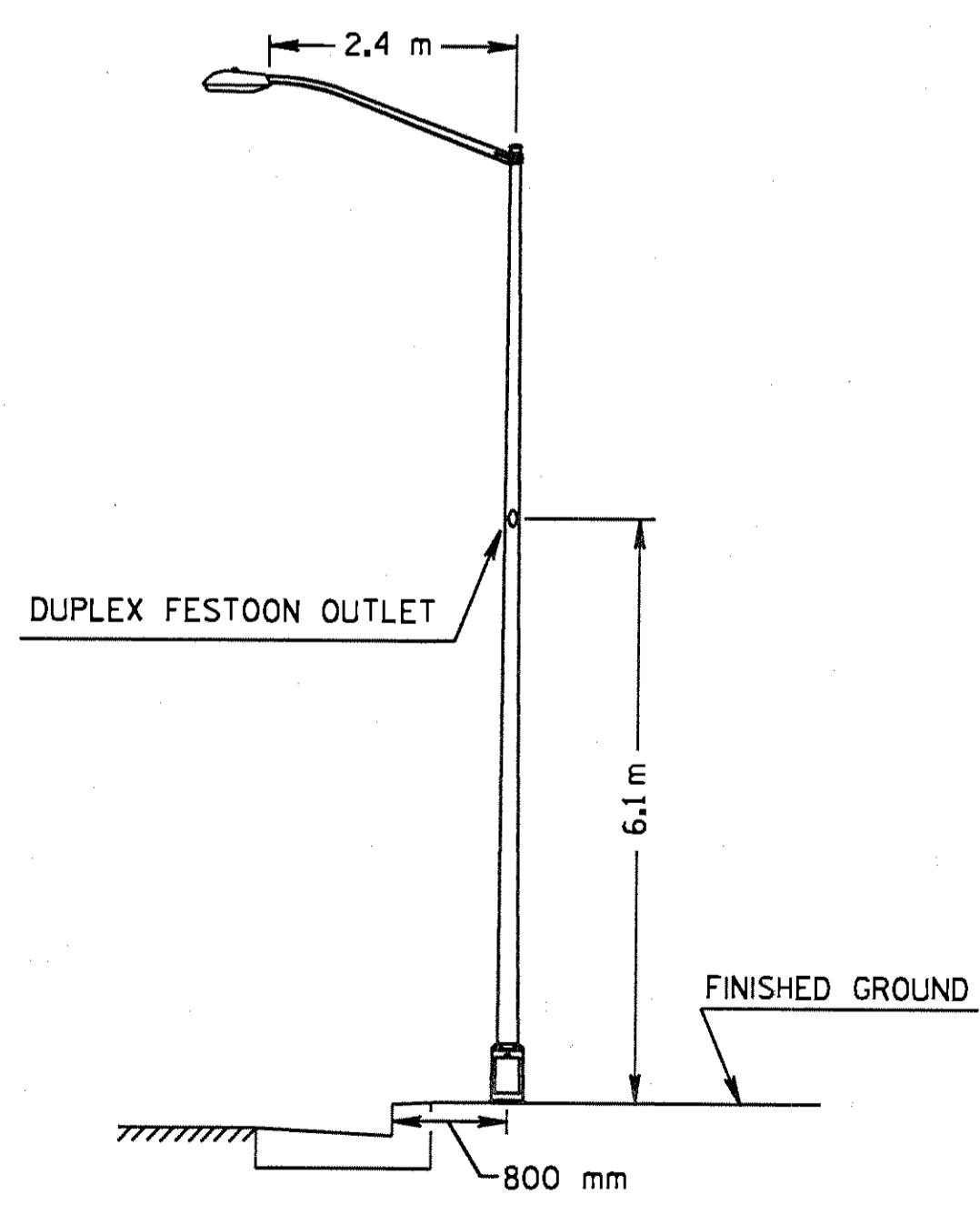
- NOTES:
- DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
 - SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS.
 - WHEN BARRIER HEIGHT, H, EXCEEDS 2.4 m, POST SPACING MAY NEED TO BE DECREASED.
 - ELEVATION VALUE TO BE ESTABLISHED BY THE CONTRACTOR BASED ON THE TIME OF YEAR AND DURATION OF THE ACTIVITY.

TURBIDITY BARRIER DETAIL

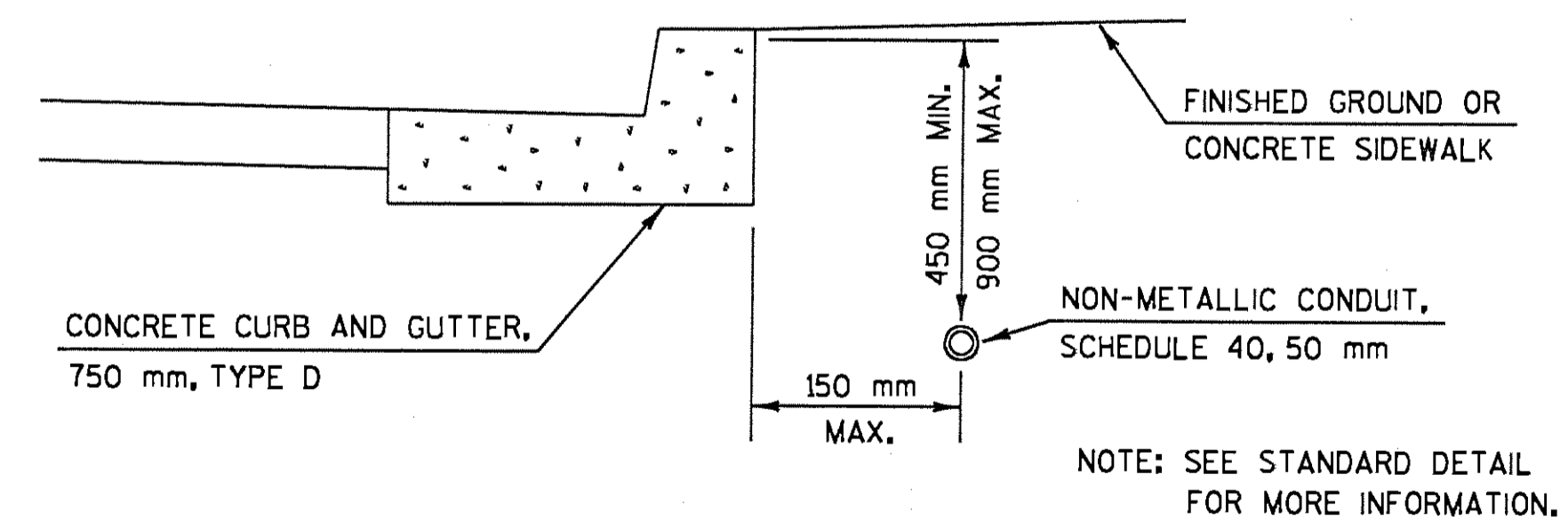
ORIGINATOR: DISTRICT 7 RHINELANDER
 LEVELS ON = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63
 REV. DATE: 02-27-97
 PLOT NAME:
 PLOT SCALE:



- GENERAL NOTES (LIGHTING)**
- LIGHTING FOR THIS PROJECT IS A CONTINUATION OFF OF PROJECT 9675-07-70.
 - THE METALLIC CONDUIT RUNNING INTO THE GROUNDED PULLBOX SHALL HAVE AN INSULATED GROUNDING BUSHING.



ACCESSORY DETAIL FOR LIGHT POLE



CONDUIT LOCATION DETAIL

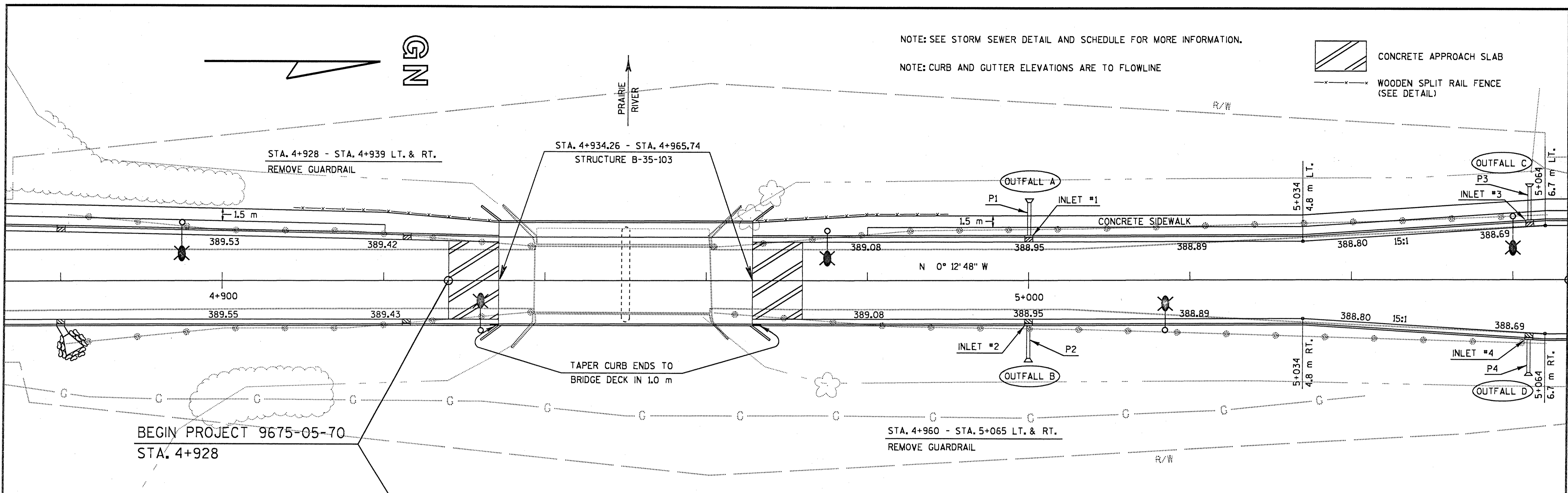
PLOT SCALE:

PLOT NAME:

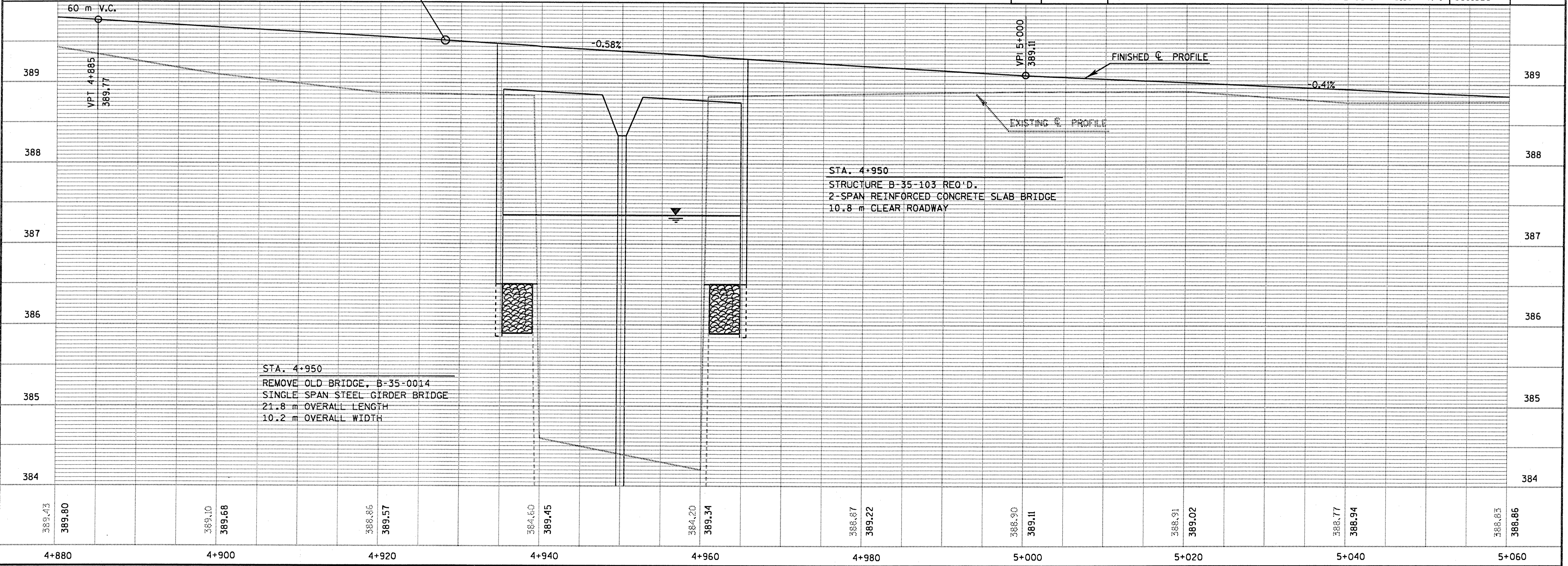
REV. DATE: 04-24-97

ORIGINATOR: DISTRICT 7 RHINELANDER

LEVELS: 01, 02, 03, 04, 05, 06, 07, 08, 09, 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



BENCH MARKS				
NO.	STATION	DESCRIPTION		ELEV.
1	4+936.07	KEEL MARK ON WINGWALL ON SE. CORNER BRIDGE B-35-14	5.31 m RT.	389.020

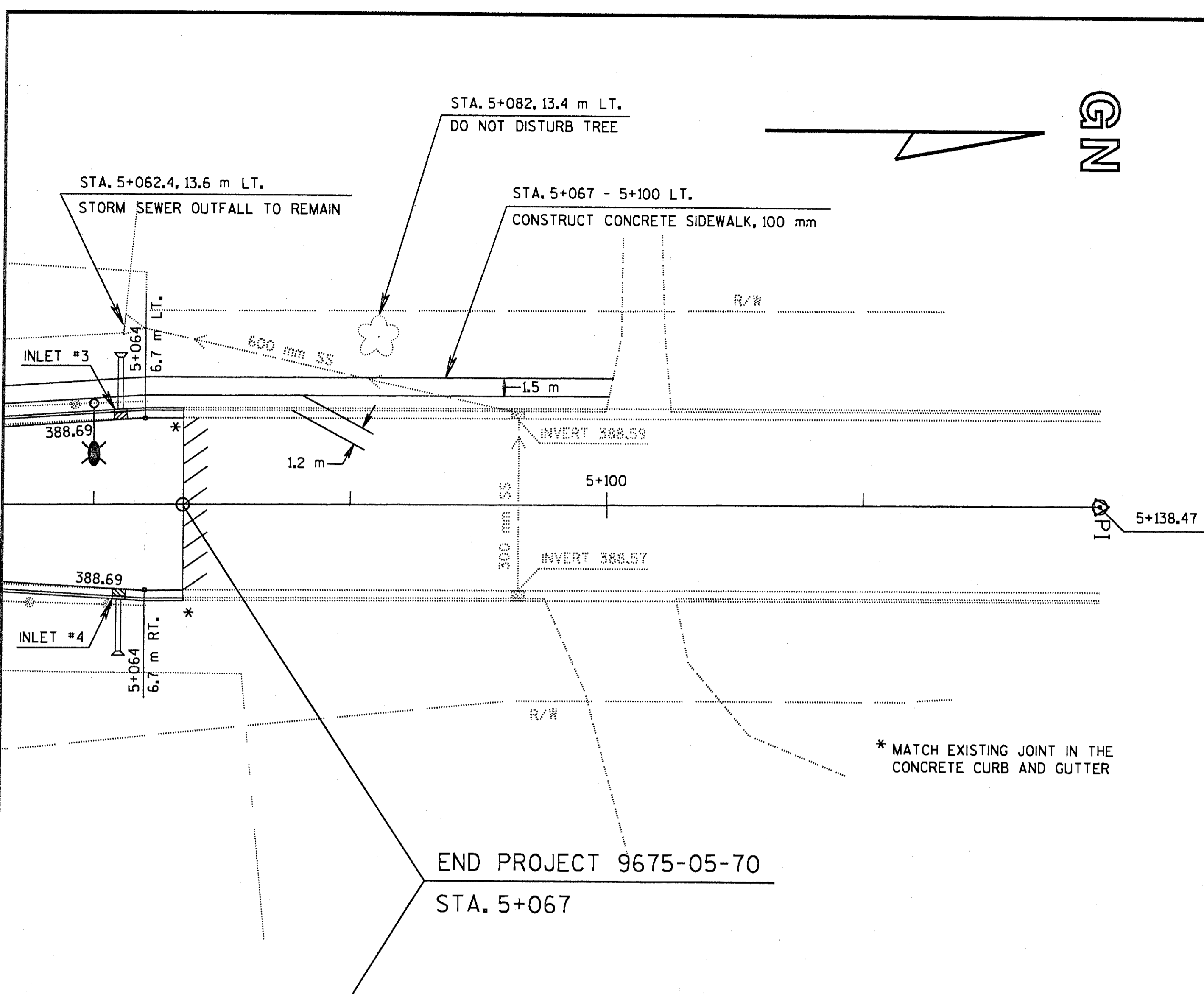


PLOT SCALE:

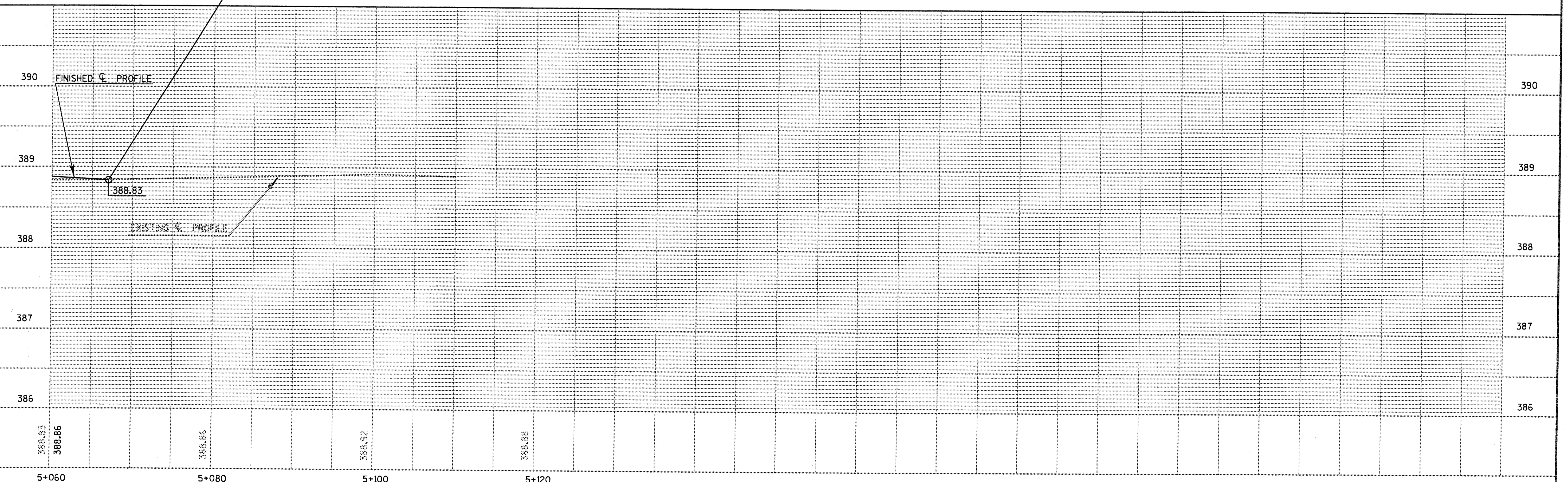
PLOT NAME:

REV. DATE: 04-04-97

ORIGINATOR: DISTRICT 7 RHINELANDER
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



END PROJECT 9675-05-70
STA. 5+067



PLAN AND PROFILE SHEET	SCALE: 1: 250	HWY: BUS. 51	COUNTY: LINCOLN	STATE PROJECT NO: 9675-05-70	SHEET NO: .	M
------------------------	---------------	--------------	-----------------	------------------------------	-------------	---

DISTRICT CONTACT: JOE BENBENEK

TYPE CODE = X020

STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.

DESIGN DATA

LIVE LOAD:

DESIGN RATING; MS-18
 INVENTORY RATING; MS-20
 OPERATIONAL RATING; MS-33
 MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 KN.
 STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 KN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — $f'_c = 28$ MPa ALL OTHER — $f'_c = 24$ MPa
 BAR STEEL REINFORCEMENT, AASHTO M31, GRADE 420 — $f_y = 420$ MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 x 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 480 kN PER PILE. ESTIMATED 23.0m LONG.

PIER TO BE SUPPORTED ON HP 250 x 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 480 kN PER PILE. ESTIMATED 24.0m LONG.

HYDRAULIC DATA

100 YEAR FREQUENCY

$Q_{100} = 155.2$ m³/s
 $VEL. = 1.89$ m/s
 $HW. = EL. 387.96$
 WATERWAY AREA = 82.1 m²
 DRAINAGE AREA = 579.7 km²
 ROAD OVERTOPPING = NA
 SCOUR CRITICAL CODE = 8

TRAFFIC VOLUME

BUSINESS U.S.H. 51

A.D.T. = 9,650 (2080)
 R.D.S. = 60 km/h

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
	4+936.07	KEEL MARK ON WINGWALL ON SE. CORNER OF BRIDGE, B-35-14	389.020

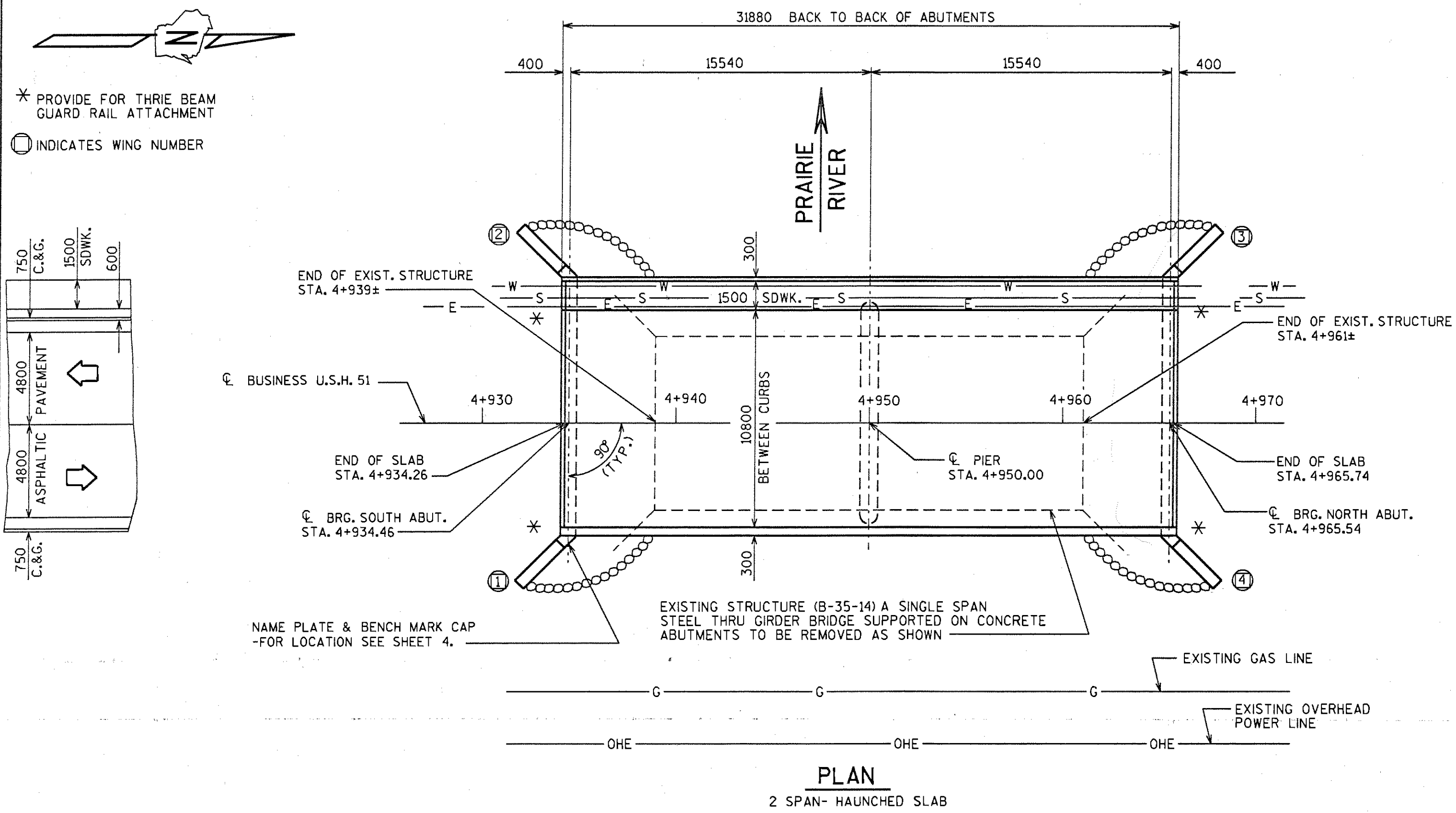
LIST OF DRAWINGS

- GENERAL PLAN
- CROSS SECTION & QUANTITIES
- SUBSURFACE EXPLORATION
- SOUTH ABUTMENT
- SOUTH ABUT. DETAILS
- PIER
- NORTH ABUTMENT
- NORTH ABUT. DETAILS
- SUPERSTRUCTURE
- SUPERSTRUCTURE DETAILS
- TUBULAR RAILING TYPE "F"
- TUBULAR STEEL RAILING TYPE "F" MODIFIED (5)

BRIDGE OFFICE CONTACT :
 KENT BAHLER (608) 266-8490
 CHRIS FOLTMAN (608) 266-5094

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
BUSINESS U.S.H. 51 OVER PRAIRIE RIVER			
COUNTY	LINCOLN	TOWN/CITY/VILLAGE	MERRILL
DESIGN SPEC.	AASHTO 1996	LOAD	MS-18
DESIGNED BY	V.T. CK'D.	CONST. SPEC.	1996
BY	S.D.R.	DRAWN BY	B.W. CK'D.
APPROVED	CHIEF BRIDGE DESIGN ENGINEER	DATE	
GENERAL PLAN			SHEET 1 OF 12
			DATE: MAR. '97

I.D. 9675-05-00

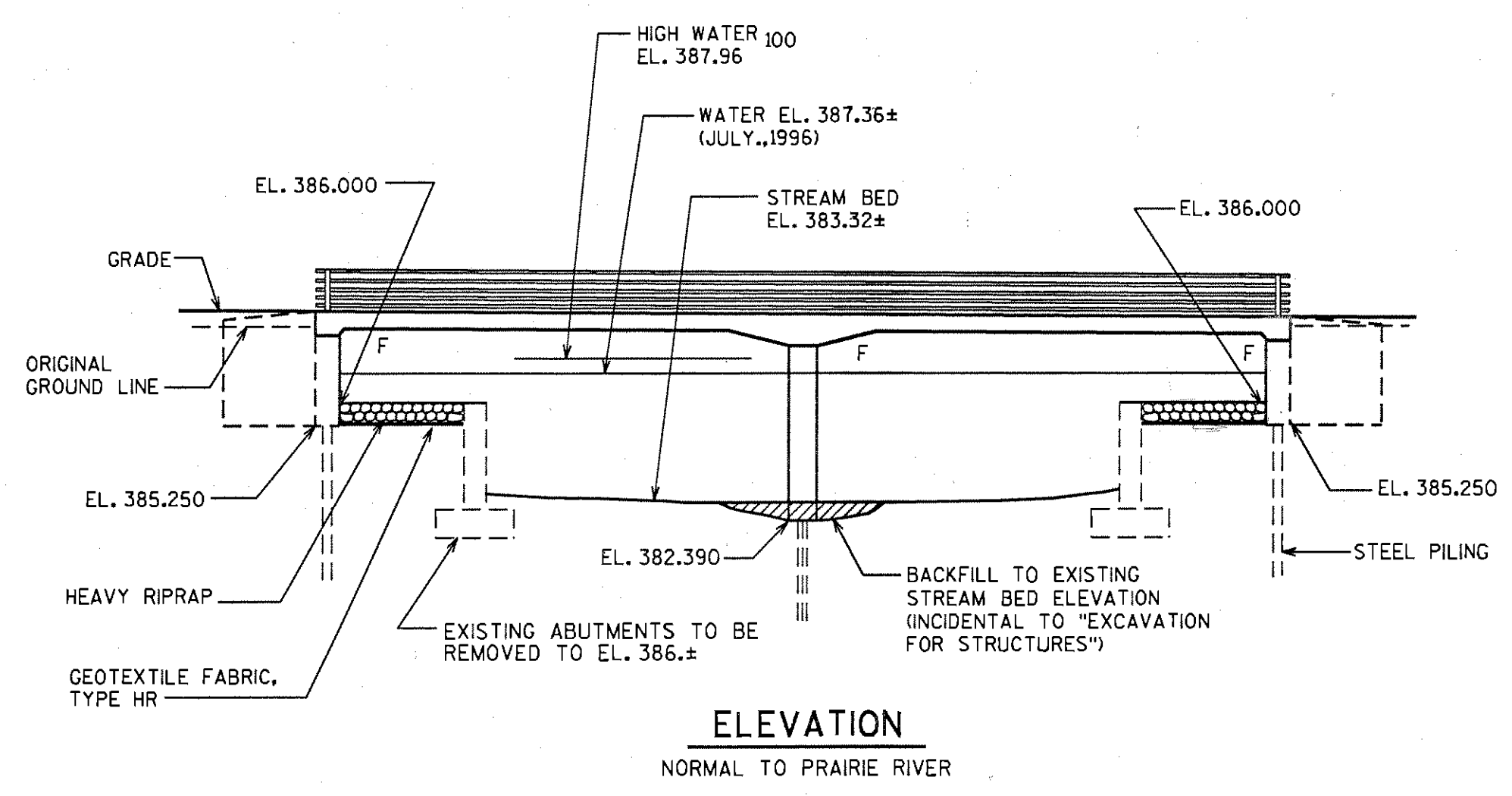


EXISTING STRUCTURE (B-35-14) A SINGLE SPAN STEEL THRU GIRDER BRIDGE SUPPORTED ON CONCRETE ABUTMENTS TO BE REMOVED AS SHOWN

EXISTING GAS LINE

EXISTING OVERHEAD POWER LINE

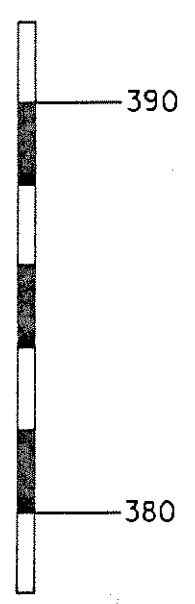
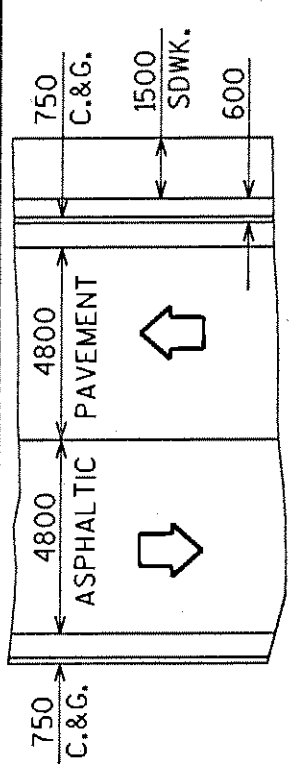
PLAN
2 SPAN- HAUNCHED SLAB



ELEVATION
NORMAL TO PRAIRIE RIVER

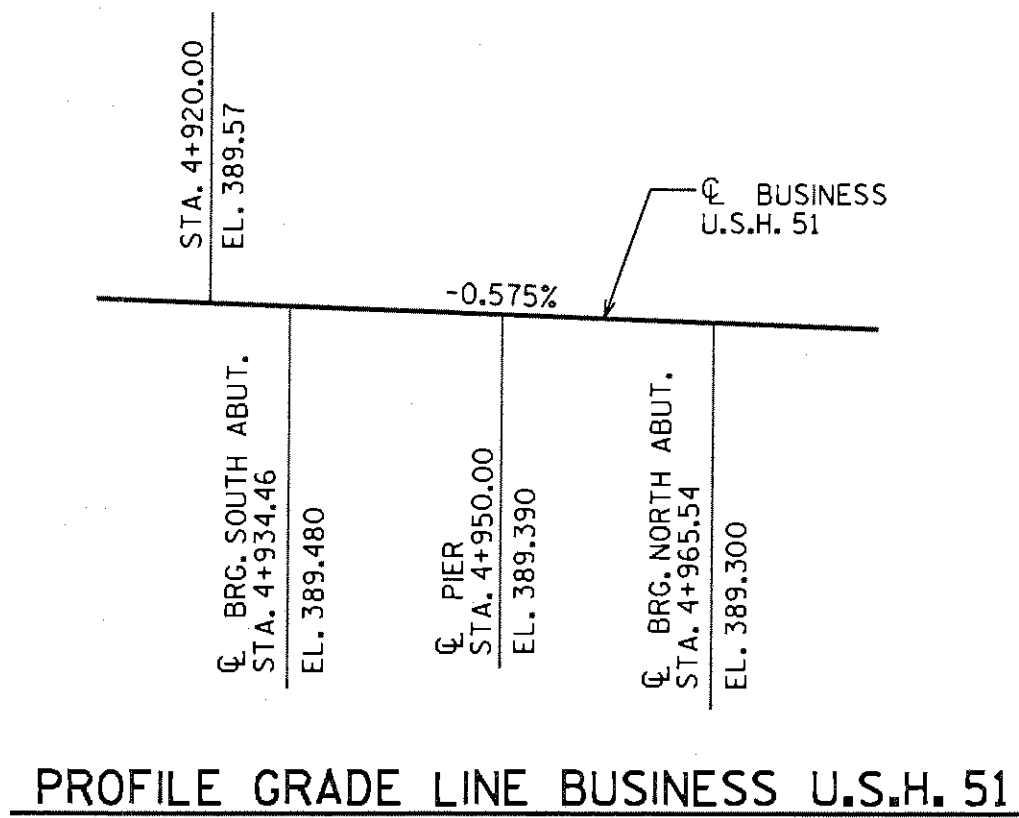
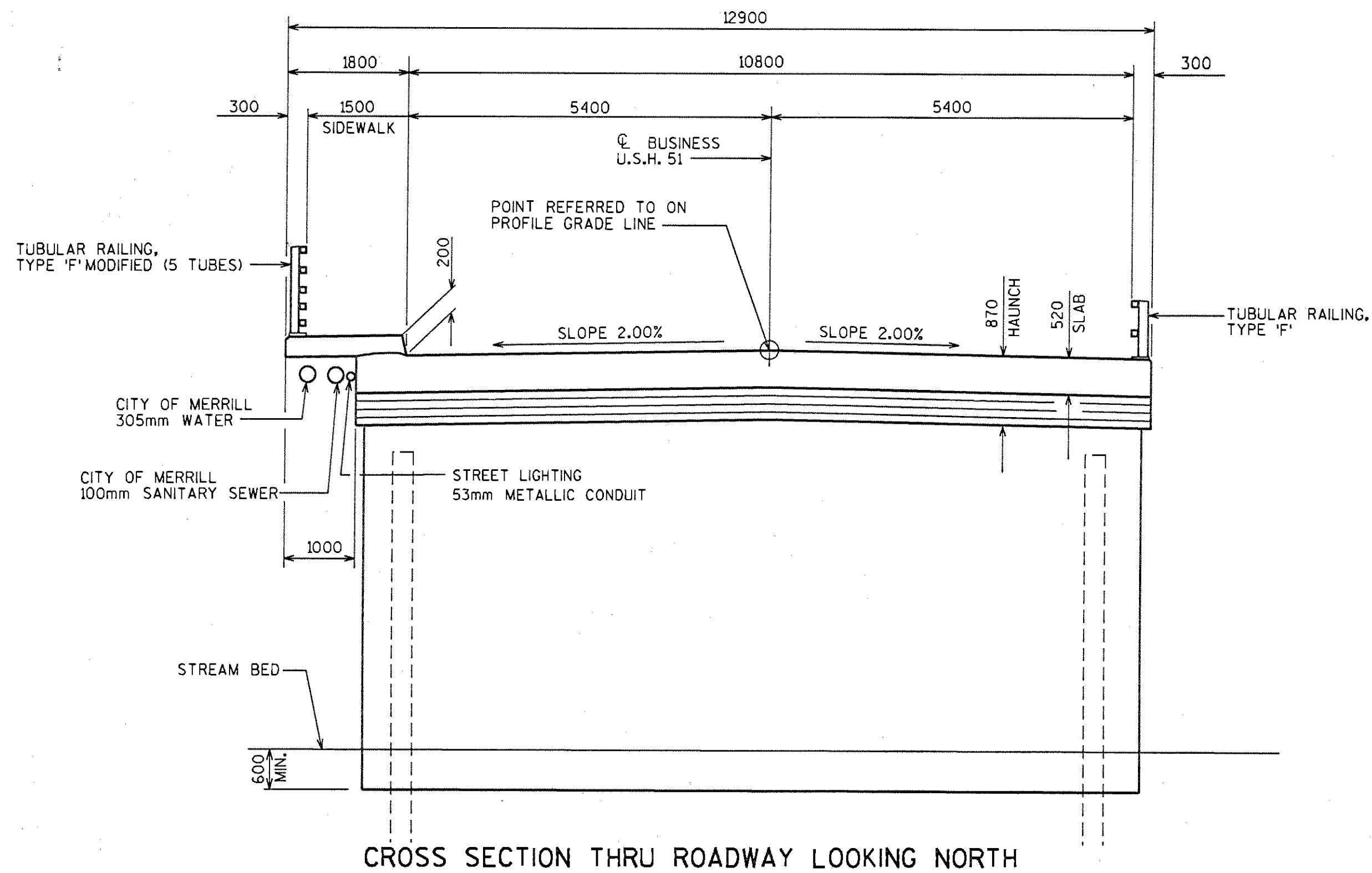
* PROVIDE FOR THREE BEAM GUARD RAIL ATTACHMENT

○ INDICATES WING NUMBER



FILE=BR.B35103103GP.DGN

STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.



CROSS SECTION THRU ROADWAY LOOKING NORTH

PROFILE GRADE LINE BUSINESS U.S.H. 51

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	TOTALS
REMOVING OLD BRIDGE, STA. 4+950.00	L.S.	—	—	—	—	1
EXCAVATION FOR STRUCTURES, BRIDGES, B-35-103	L.S.	—	—	—	—	1
STRUCTURE BACKFILL	m ³	—	303	303	—	606
CONCRETE MASONRY, BRIDGES	m ²	225	57	54	52	388
PROTECTIVE SURFACE TREATMENT	m ²	412	—	—	—	412
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	—	2180	2100	1480	5760
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	26650	—	—	—	26650
STEEL PILING, DELIVERED AND DRIVEN, HP 250 mm x 62 kg/m	m	—	207	207	288	702
TUBULAR RAILING, TYPE F, STRUCTURE B-35-103	L.S.	—	—	—	—	1
TUBULAR RAILING, TYPE F MODIFIED (5 RAIL), STRUCTURE B-35-103	L.S.	—	—	—	—	1
RUBBERIZED MEMBRANE WATERPROOFING	m ²	—	10	10	—	20
HEAVY RIPRAP	m ³	—	65	65	—	130
GEOTEXTILE FABRIC, TYPE HR	m ²	—	120	120	—	240
NON-BID ITEMS						
FILLER	SIZE	—	—	—	—	13 & 19
3mm ALUMINUM OR ZINC PLATE	m ²	1	—	—	—	1

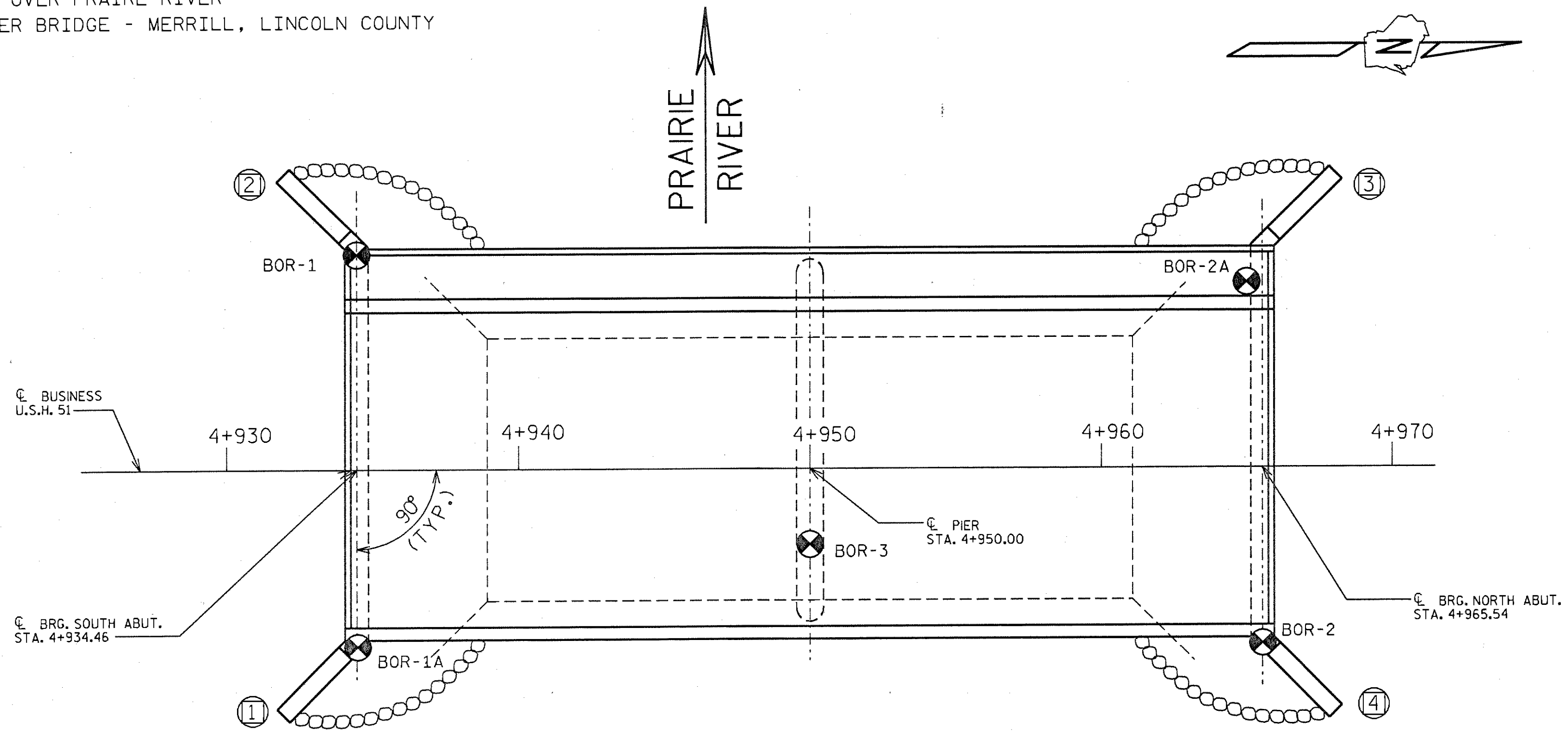
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
 ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
 ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).
 THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.
 AT THE BACKFACE OF ABUTMENT ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.
 BID ITEM "REMOVING OLD BRIDGE" SHALL INCLUDE REMOVING EXISTING ABUTMENT WALLS TO A NEAT LINE AT ELEVATION 386.00 PLUS OR MINUS 25mm.
 AT ABUTMENTS AND PIER, CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.6.3 OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY	B.W. PLANS CKD.
CROSS SECTION & QUANTITIES			SHEET 2

FILE= PREPLAN.DGN

USH BUS 51 OVER PRAIRE RIVER
PRAIRE RIVER BRIDGE - MERRILL, LINCOLN COUNTY



STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.

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

MATERIAL SYMBOLS		
Topsoil	Silt	Sandstone
Sand	Peat	Limestone
Gravel	Clay	Igneous Rock

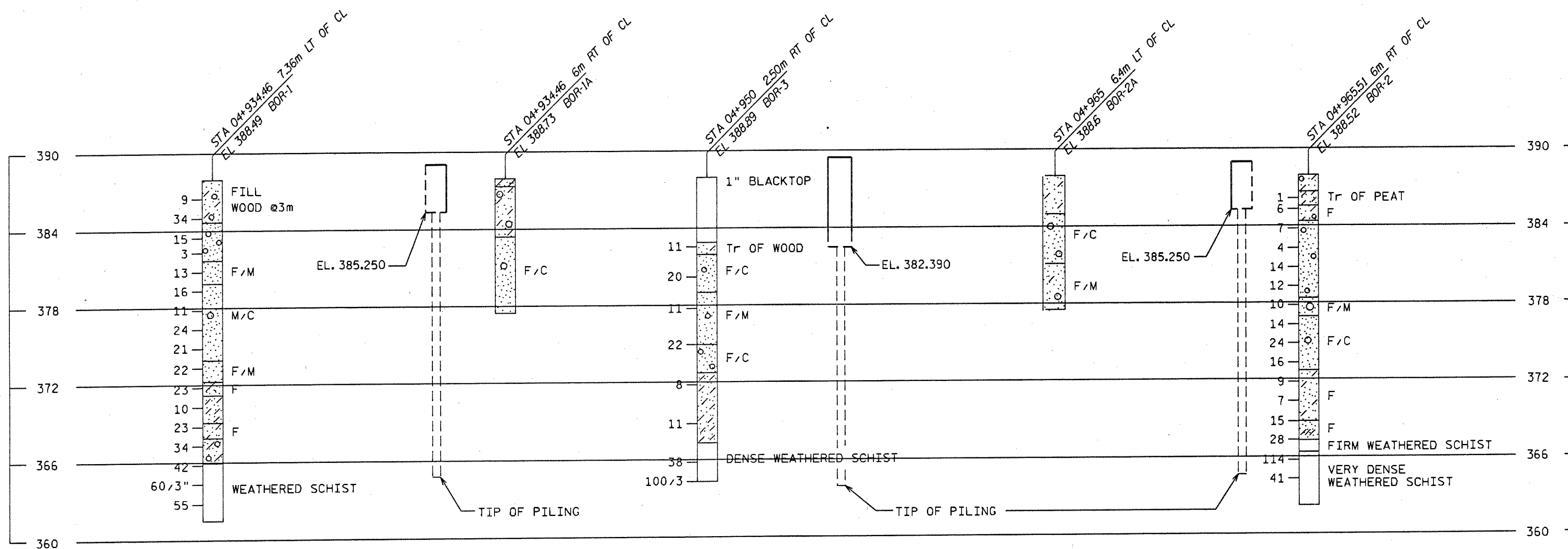
LEGEND OF PROBING
Probing No.
Sta.
Elevation
95/152=95 Blows for 152mm Penetration
Probing taken with a 159.1Kg Wt. Falling 457mm on a 51mm O.D. Point.
7 Average Blows Per 305mm
Refusal 95/152

LEGEND OF BORING
Elev. Boring No. Sta.
Unconfined Strength kPa → 770 7 *
Blows Per 300mm Using 63 Kg Wt. Falling 760mm
Wash Sample
Shelby Tube—S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F Boulders or Cobbles
Sand
Silty Clay
So
Limestone

Unless otherwise specified, the blows per 300mm at the locations indicated are based on driving a 51mm O.D. x 35mm I.D. split spoon sampler with a 63Kg hammer having a free fall of 760mm. 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

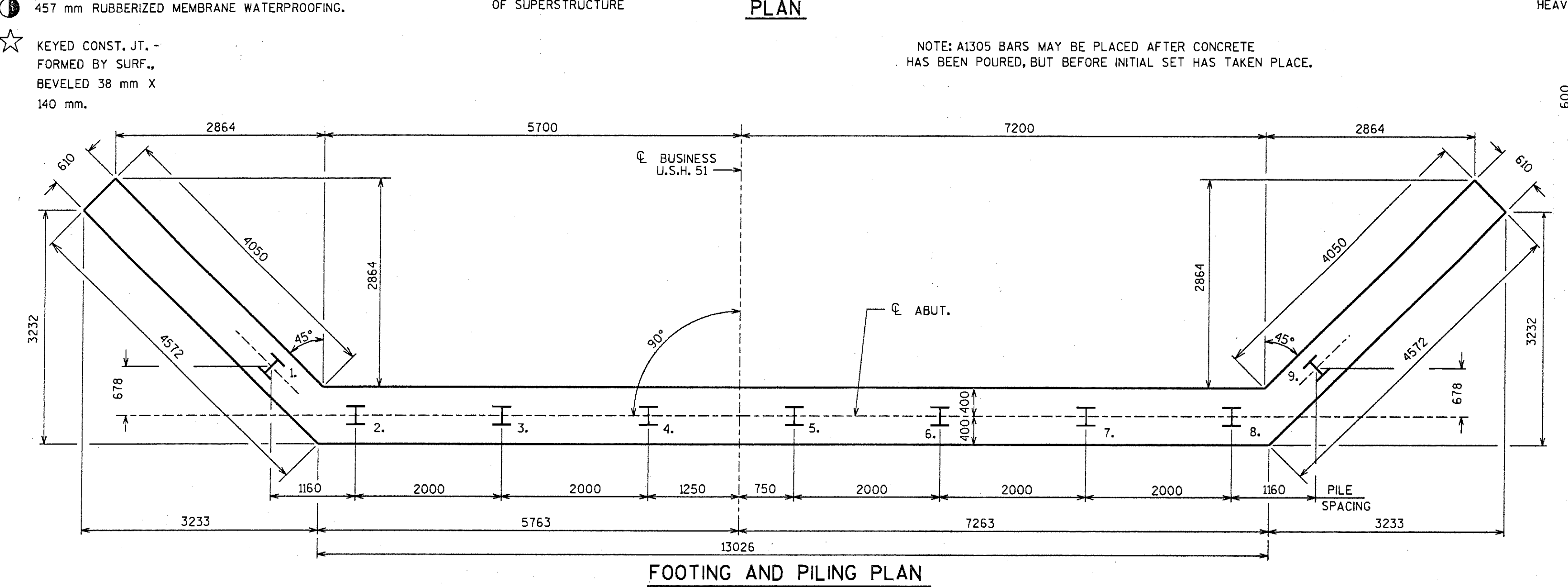
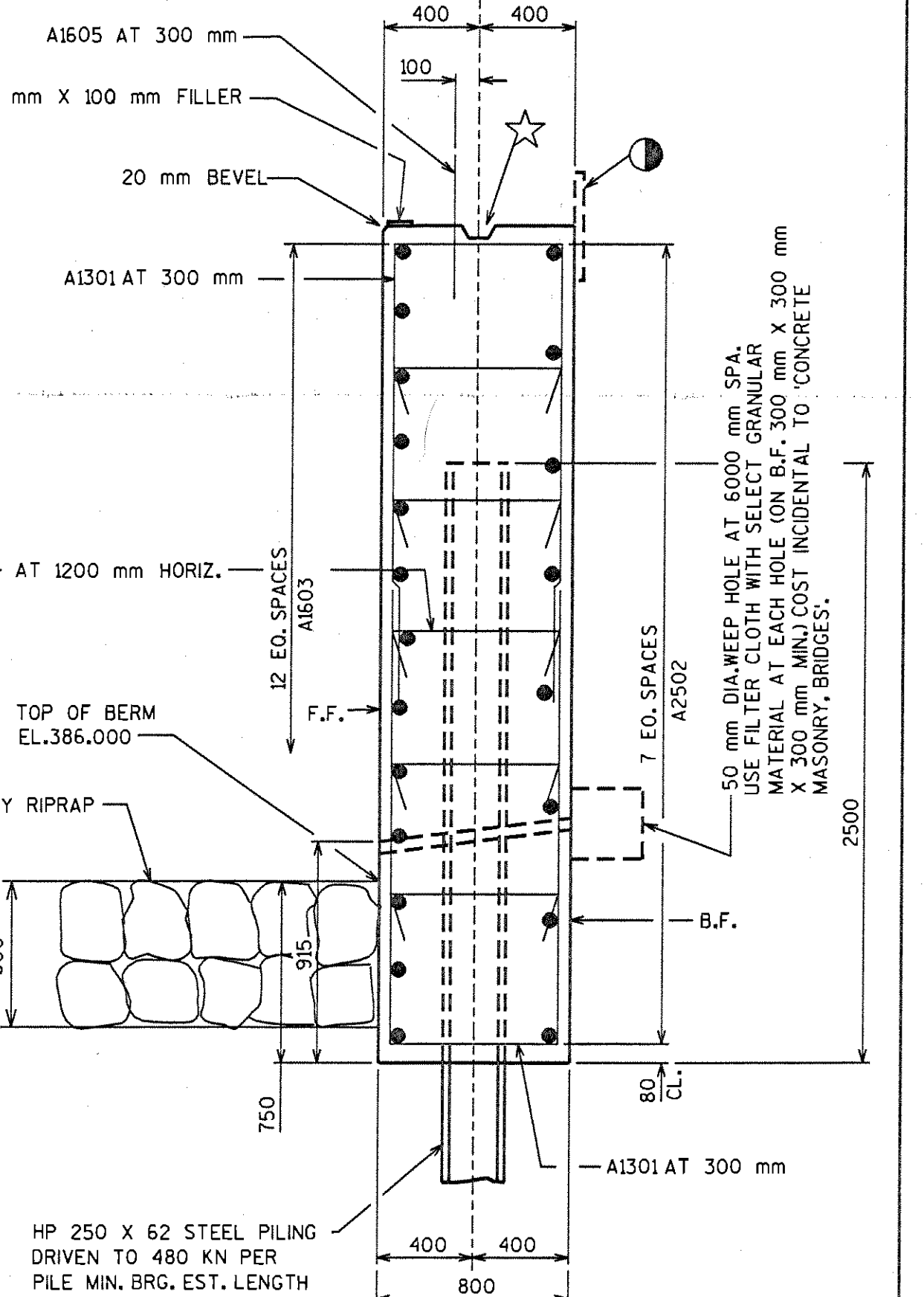
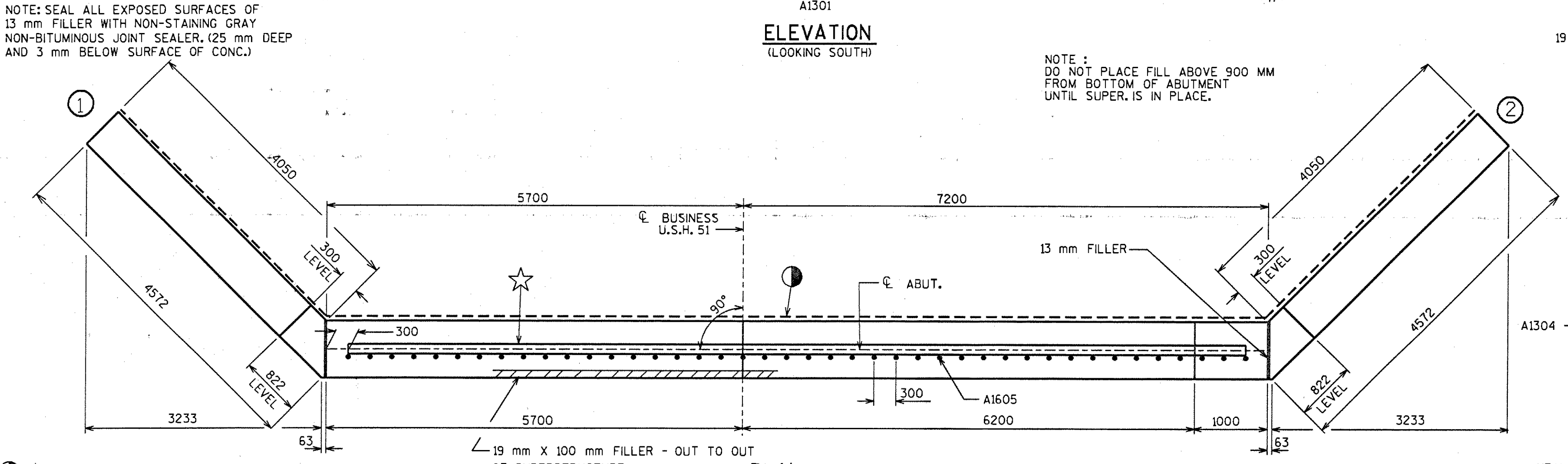
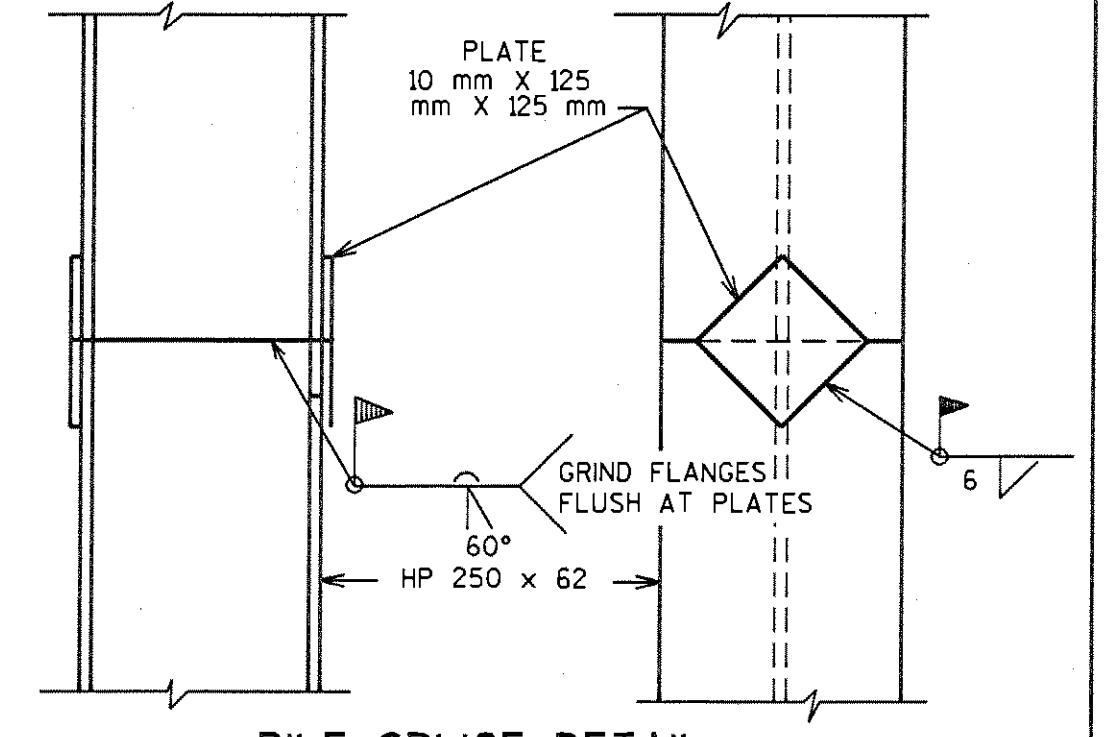
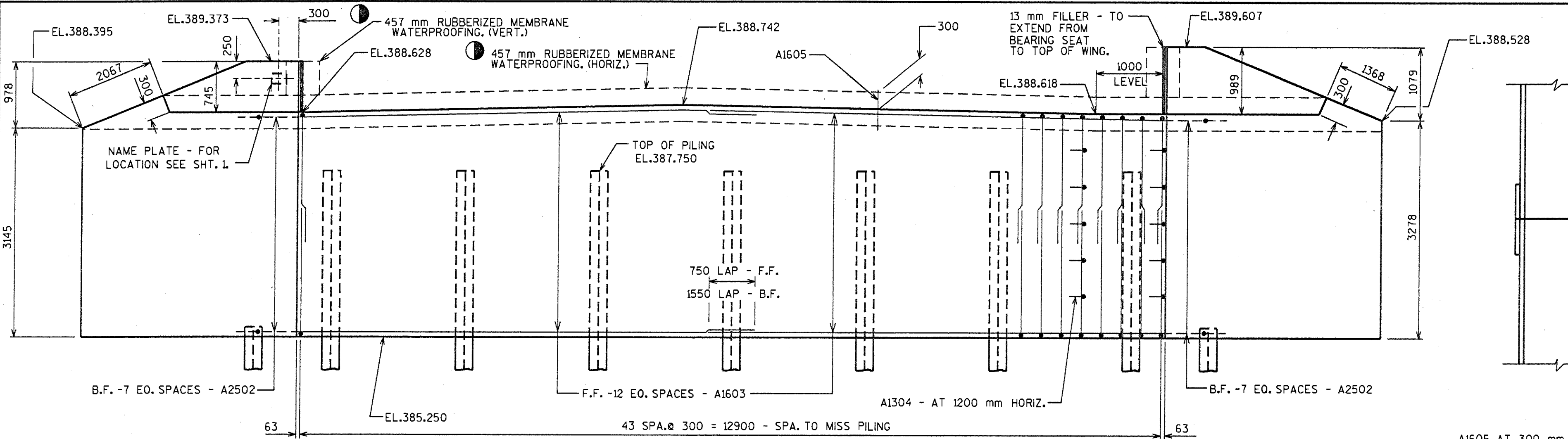
To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because 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			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY MJP/B.W.	PLANS CK'D.
SUBSURFACE EXPLORATION			SHEET 3

FILE: 10350100N

STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.



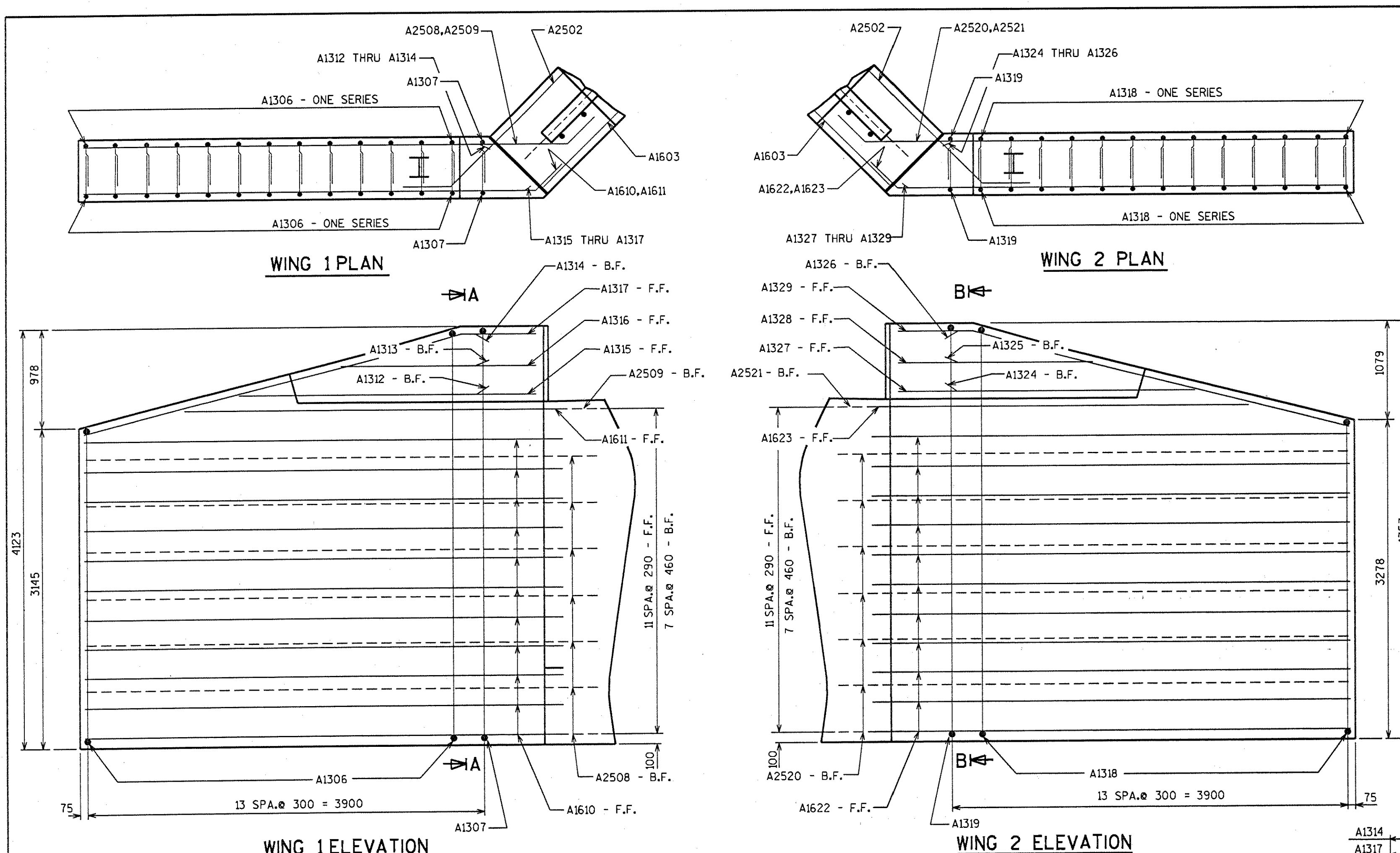
NOTE: SEAL ALL EXPOSED SURFACES OF 13 mm FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (25 mm DEEP AND 3 mm BELOW SURFACE OF CONC.)

457 mm RUBBERIZED MEMBRANE WATERPROOFING.

KEYED CONST. JT. - FORMED BY SURF., BEVELED 38 mm X 140 mm.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY	B.W.
		PLANS CK'D.	
SOUTH ABUTMENT		SHEET 4	

FILE= BR B35103103SA.DGN



BILL OF BARS NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

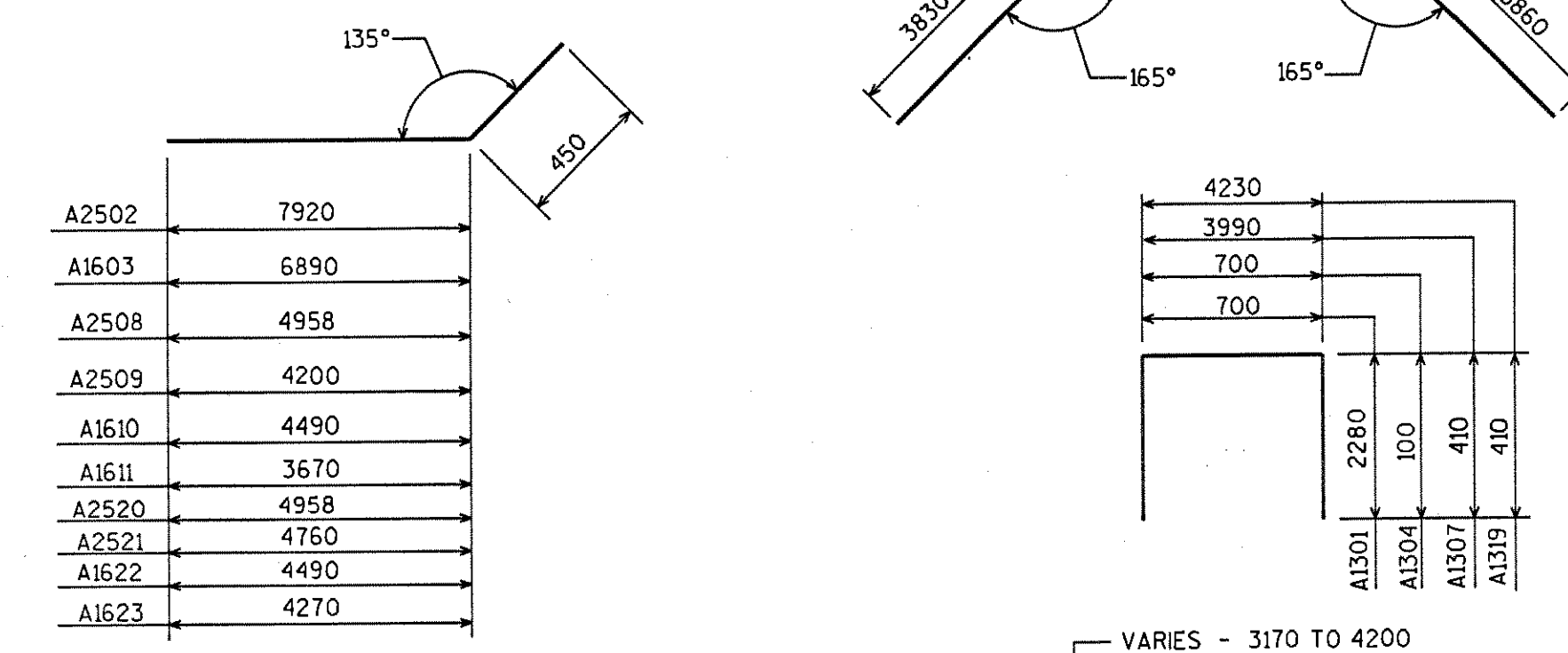
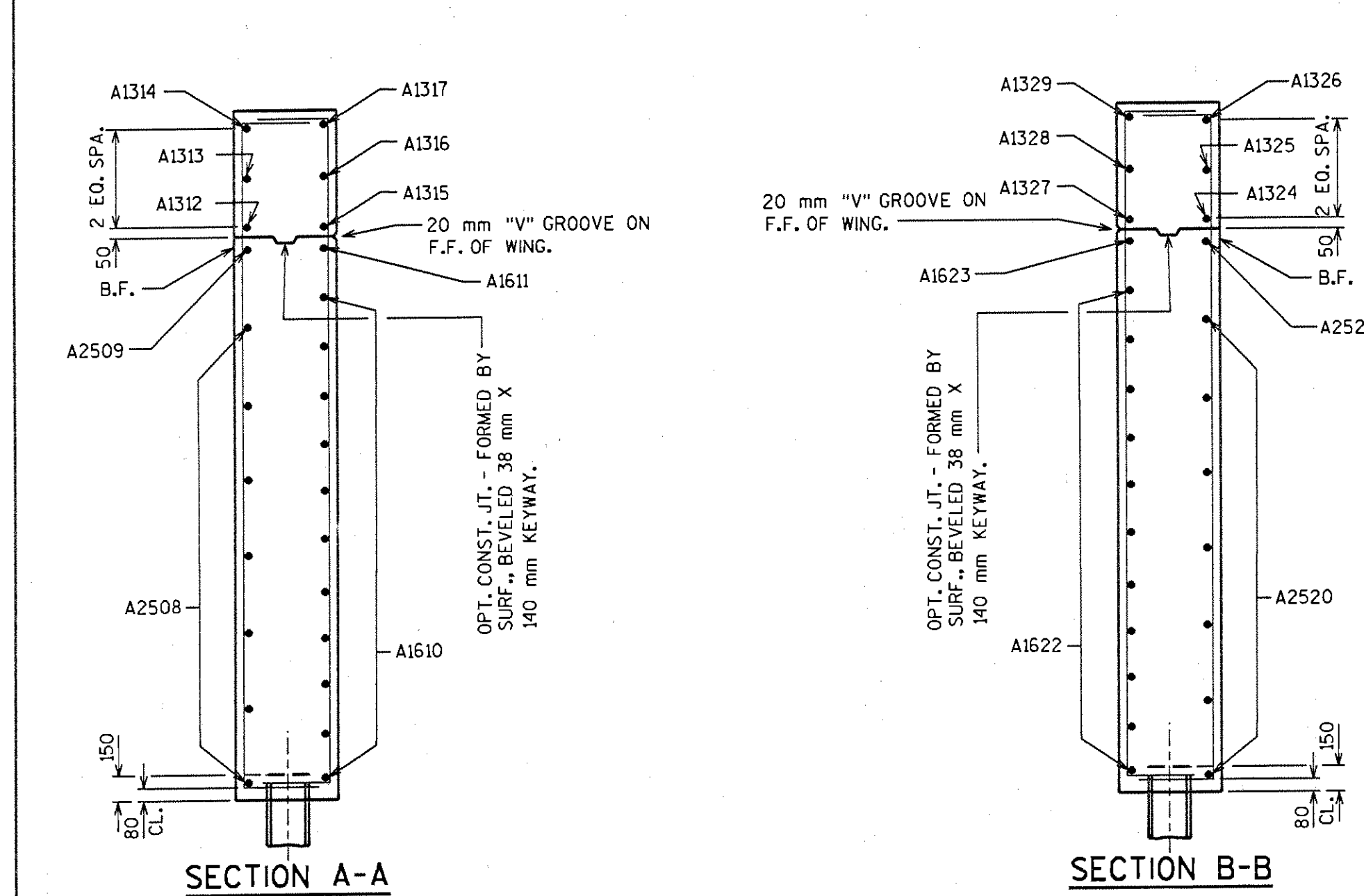
BAR MARK	COAT	NO. REOD.	LENGTH	BENT	BAR SERIES	LOCATION
A1301		88	5260	X		BODY - VERT.
A2502		16	8370	X		BODY - HORIZ. - B.F.
A1603		26	7338	X		BODY - HORIZ. - F.F.
A1304		60	840	X		BODY - TIES
A1605		42	600			BODY - DOWELS
A1306		26	4270	X	X	WING 1 - VERT.
A1307		2	4750	X		WING 1 - VERT.
A2508		7	5380	X		WING 1 - HORIZ. - B.F.
A2509		1	4650	X		WING 1 - HORIZ. - B.F.
A1610		11	4910	X		WING 1 - HORIZ. - F.F.
A1611		1	4090	X		WING 1 - HORIZ. - F.F.
A1312		1	2570			WING 1 - HORIZ. - B.F.
A1313		1	1480			WING 1 - HORIZ. - B.F.
A1314		1	4100	X		WING 1 - HORIZ. - B.F.
A1315		1	3040			WING 1 - HORIZ. - F.F.
A1316		1	1950			WING 1 - HORIZ. - F.F.
A1317		1	4530	X		WING 1 - HORIZ. - F.F.
A1318		26	4445	X	X	WING 2 - VERT.
A1319		2	4990	X		WING 2 - VERT.
A2520		7	5380	X		WING 2 - HORIZ. - B.F.
A2521		1	5200	X		WING 2 - HORIZ. - B.F.
A1622		11	4910	X		WING 2 - HORIZ. - F.F.
A1623		1	4690	X		WING 2 - HORIZ. - F.F.
A1324		1	3170			WING 2 - HORIZ. - B.F.
A1325		1	1740			WING 2 - HORIZ. - B.F.
A1326		1	4120	X		WING 2 - HORIZ. - B.F.
A1327		1	3620			WING 2 - HORIZ. - F.F.
A1328		1	2190			WING 2 - HORIZ. - F.F.
A1329		1	4560	X		WING 2 - HORIZ. - F.F.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

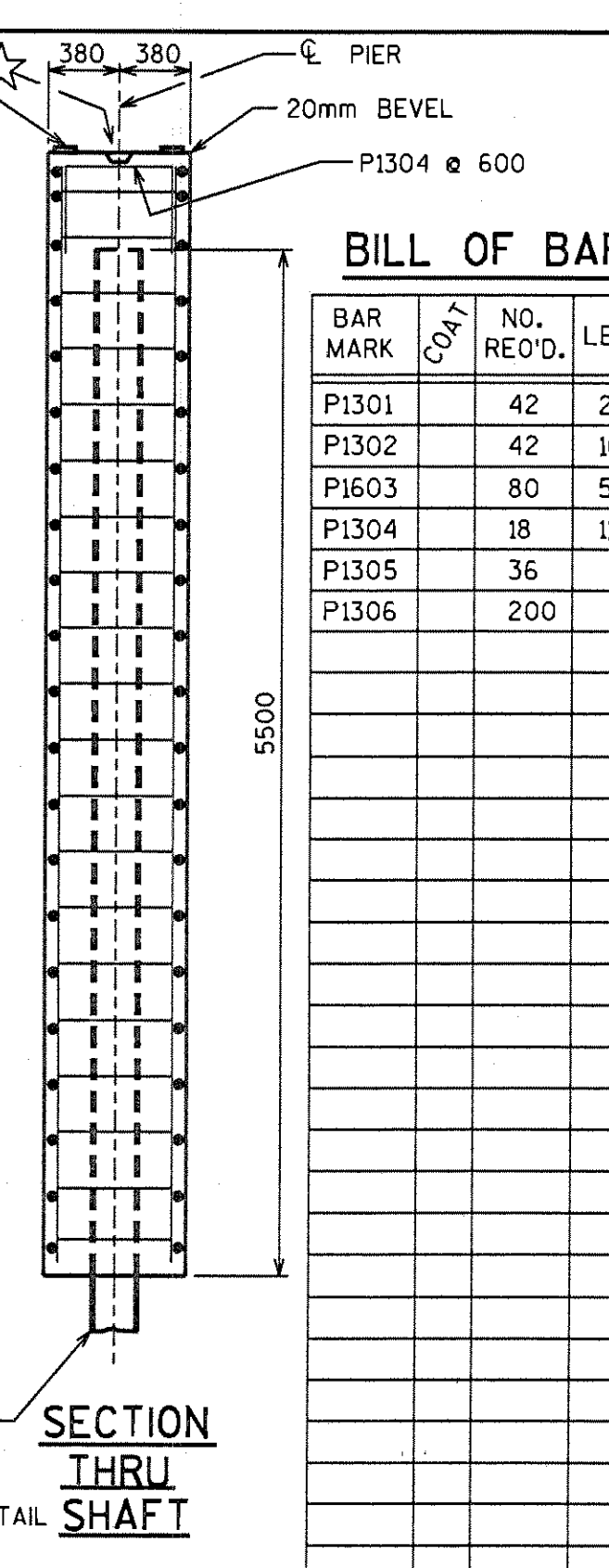
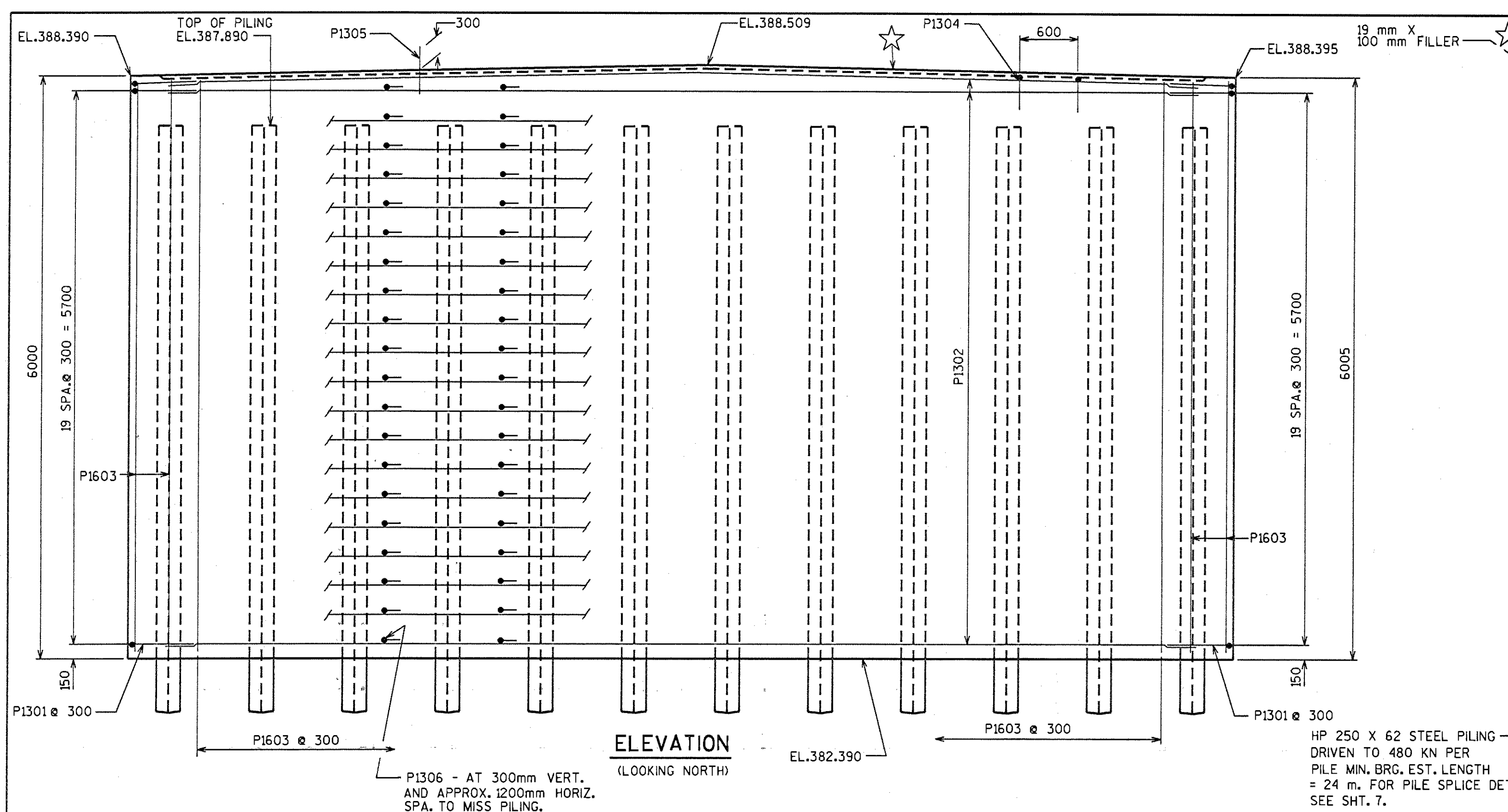
MARK	NO. REOD.	LENGTH
A1306	2 SERIES OF 13	3790 TO 4750
A1318	2 SERIES OF 13	3930 TO 4960
	OF SERIES	TO
	OF SERIES	TO

BUNDLE AND TAG EACH SERIES SEPARATELY.



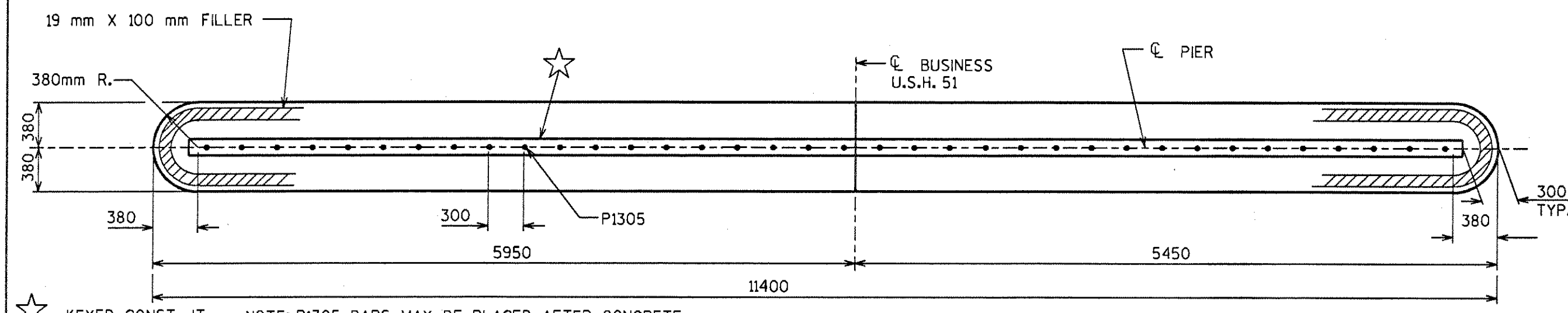
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY B.W.	PLANS CKD.
SOUTH ABUT. DETAILS			SHEET 5

FILE= BR 835103103SADGN



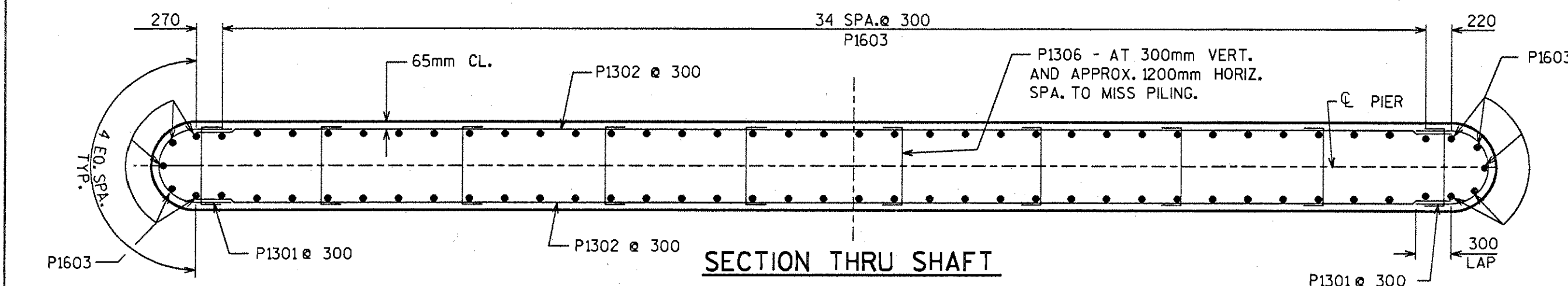
BILL OF BARS NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COU'T	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P1301		42	2605	X		SHAFT - ENDS
P1302		42	10640			SHAFT - HORIZ.
P1603		80	5900			SHAFT - VERT.
P1304		18	1170	X		SHAFT - VERT. - TOP
P1305		36	600			SHAFT - VERT. - DOWELS
P1306		200	770	X		SHAFT - HORIZ. - TIES

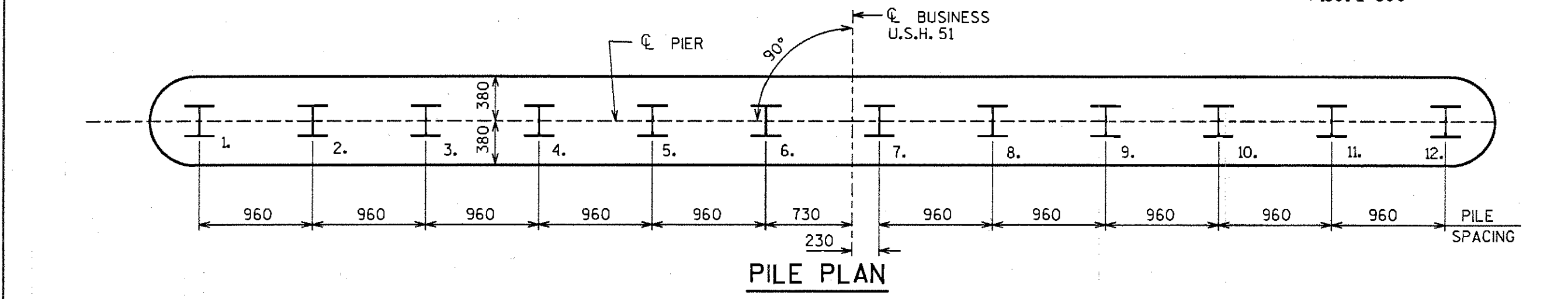


KEYED CONST. JT. - FORMED BY SURF., BEVELED 38 mm X 140 mm. NOTE: P1305 BARS MAY BE PLACED AFTER CONCRETE HAS BEEN POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE.

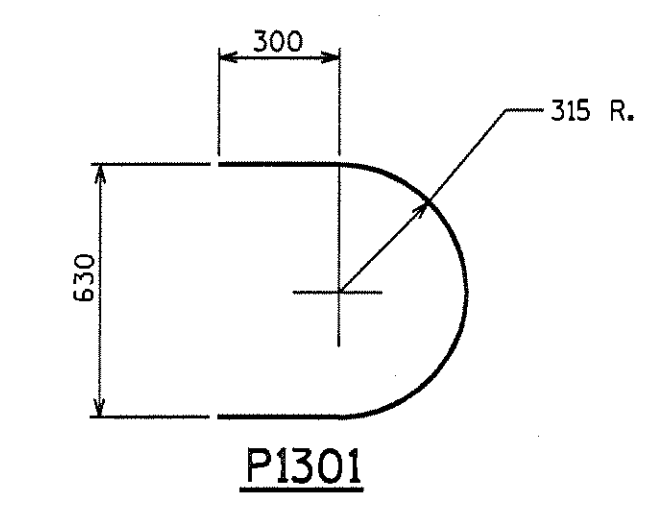
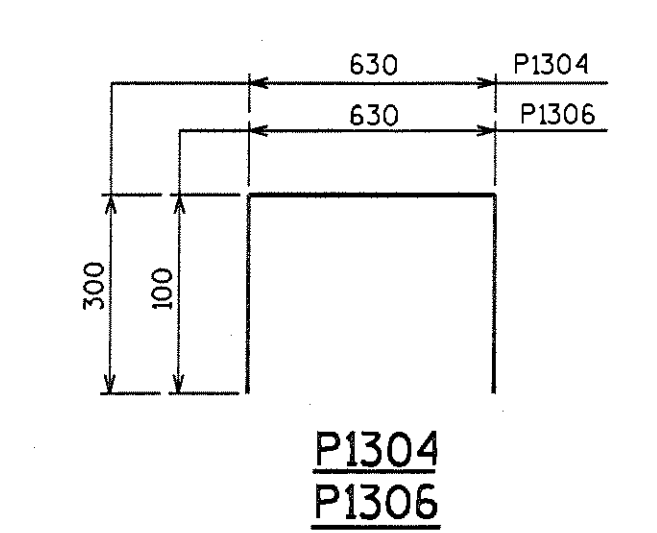
PLAN



SECTION THRU SHAFT

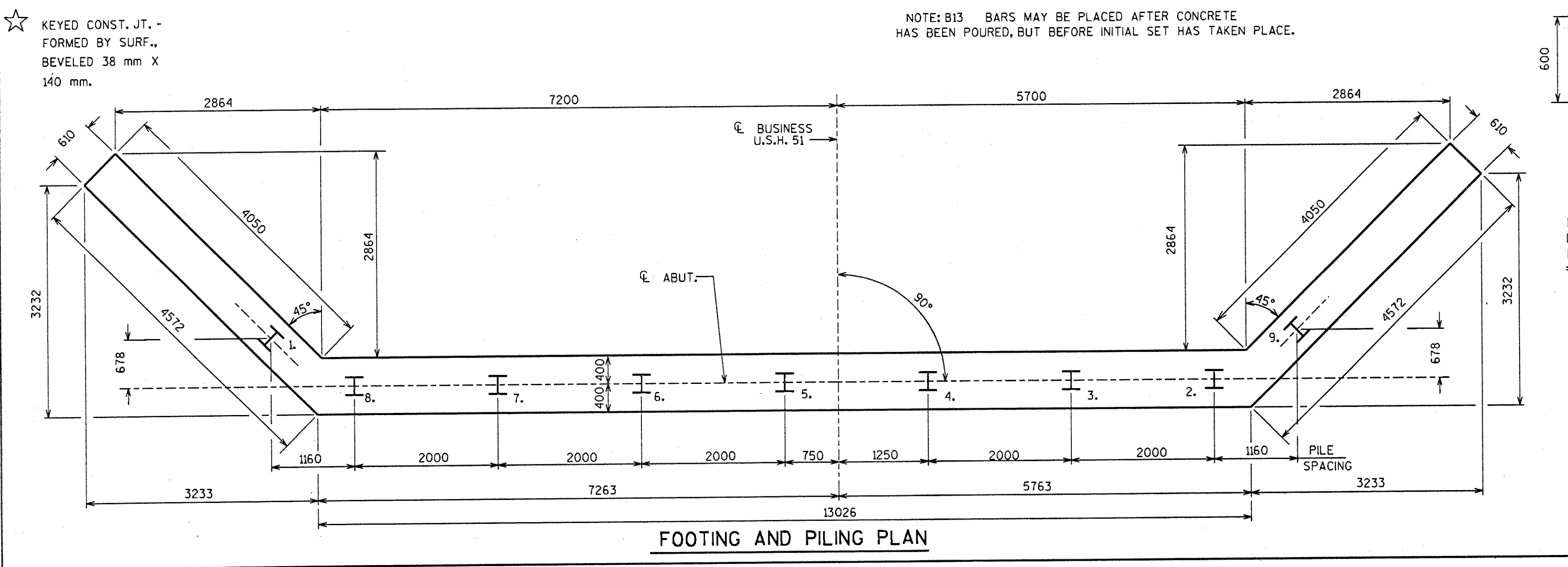
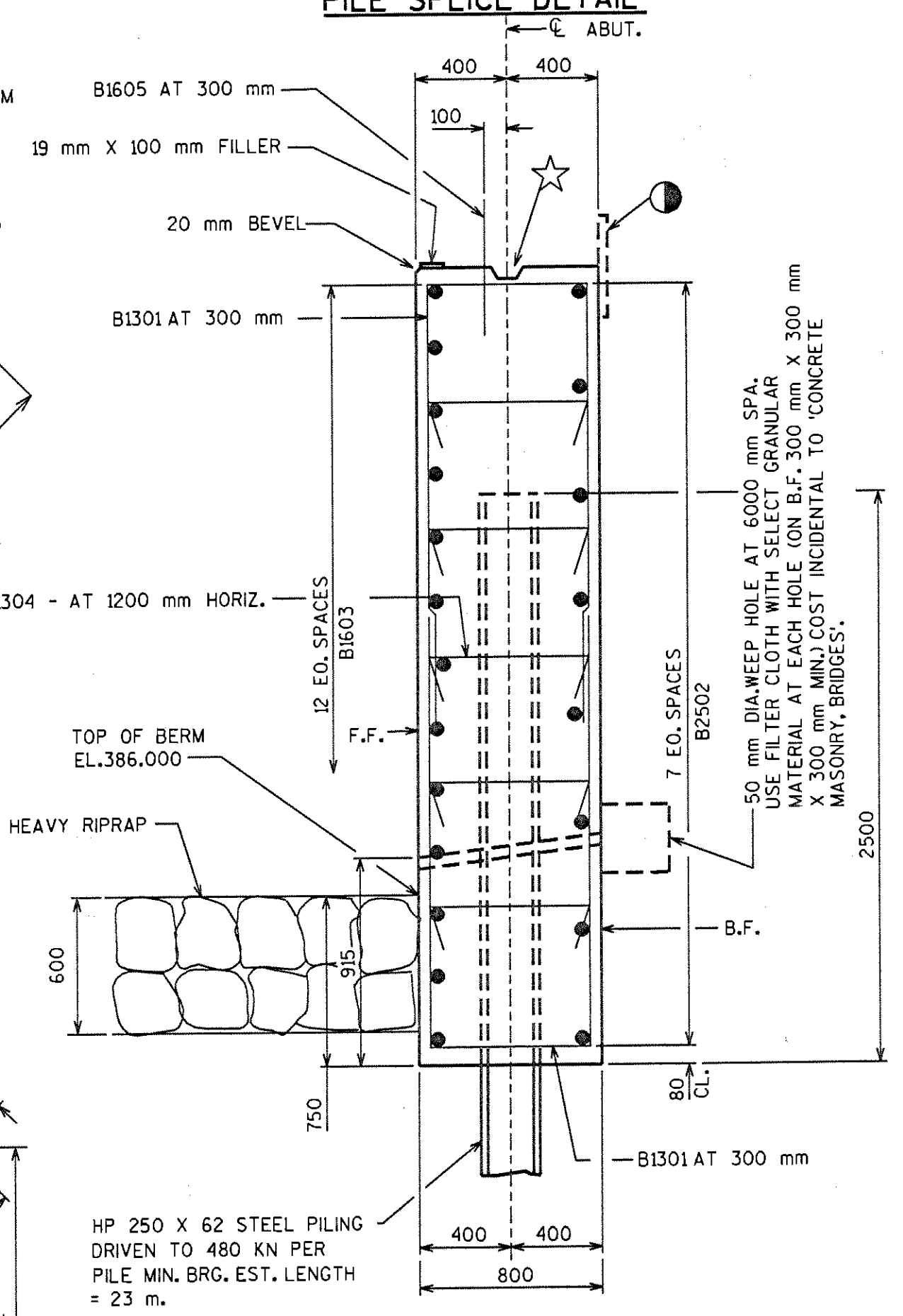
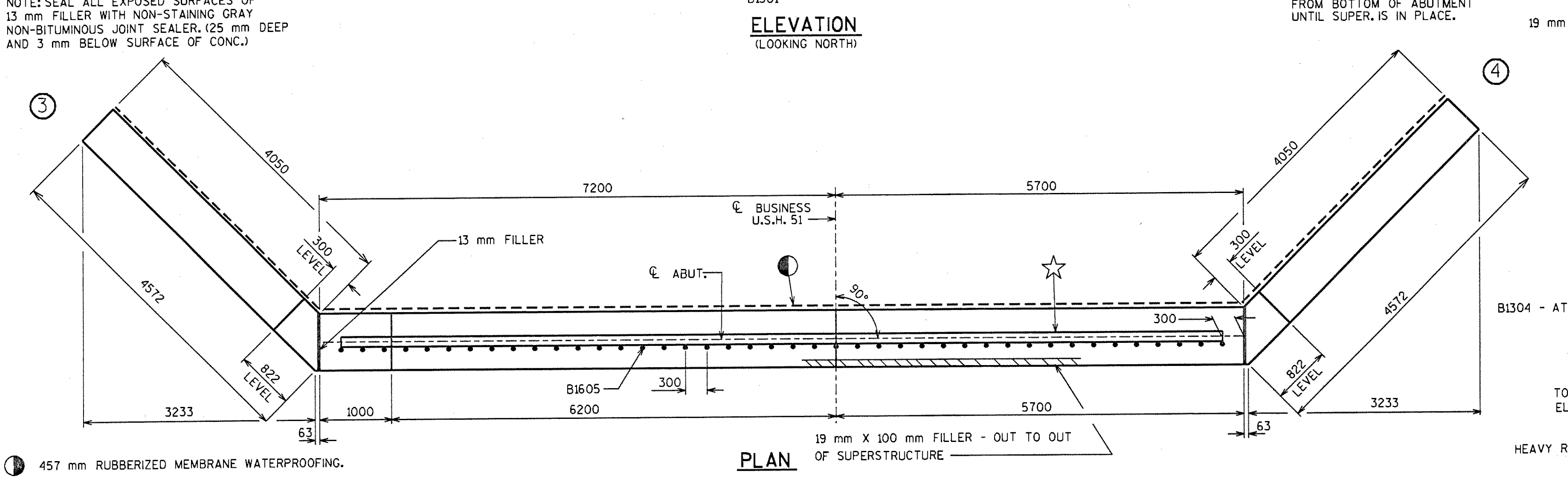
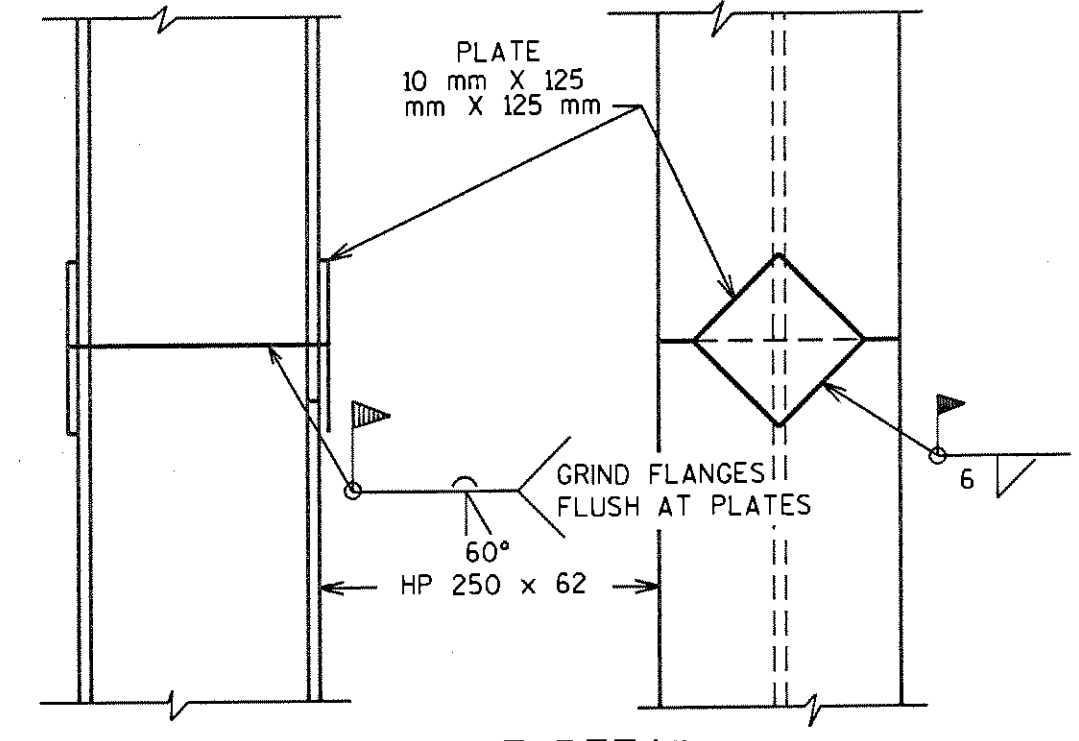
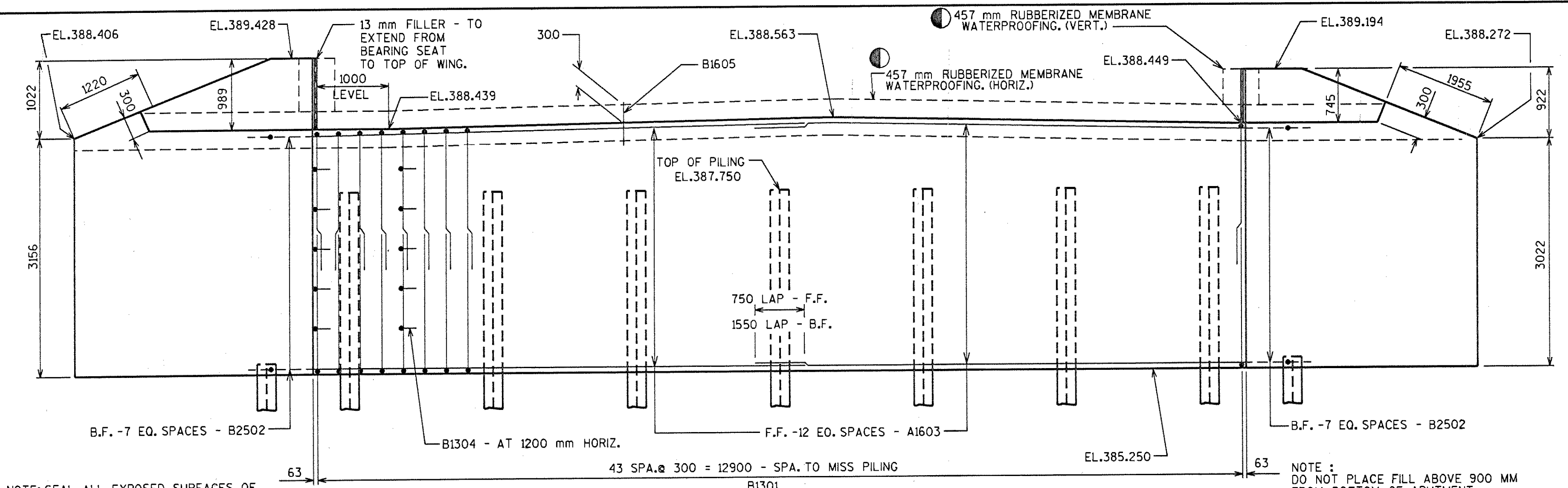


PILE PLAN



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY	B.W. PLANS CK'D.
PIER			SHEET 6

FILE= BR B35103:103PIER.DGN



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY	B.W. PLANS CKD.
NORTH ABUTMENT			SHEET 7

FILE= BR B35103103NA.DGN

BILL OF BARS

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

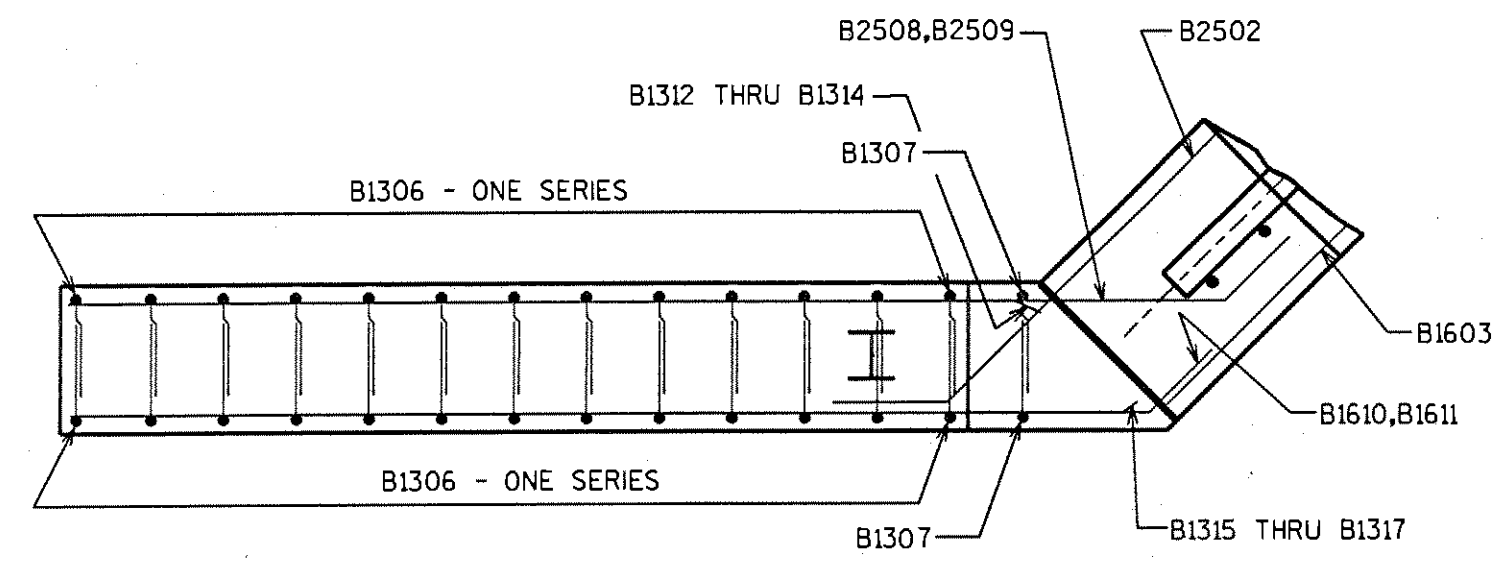
BAR MARK	COAT	NO. REO'D.	LENGTH	BENT	BAR SERIES	LOCATION
B1301		88	4420	X		BODY - VERT.
B2502		16	8370	X		BODY - HORIZ. - B.F.
B1603		26	7338	X		BODY - HORIZ. - F.F.
B1304		60	840	X		BODY - TIES
B1605		42	600			BODY - DOWELS
▲ B1306		26	4295	X	X	WING 3 - VERT.
B1307		2	4810	X		WING 3 - VERT.
B2508		7	5380	X		WING 3 - HORIZ. - B.F.
B2509		1	5270	X		WING 3 - HORIZ. - B.F.
B1610		11	4910	X		WING 3 - HORIZ. - F.F.
B1611		1	4810	X		WING 3 - HORIZ. - F.F.
B1312		1	3330			WING 3 - HORIZ. - B.F.
B1313		1	1820			WING 3 - HORIZ. - B.F.
B1314		1	4100	X		WING 3 - HORIZ. - B.F.
B1315		1	3800			WING 3 - HORIZ. - F.F.
B1316		1	2290			WING 3 - HORIZ. - F.F.
B1317		1	4540	X		WING 3 - HORIZ. - F.F.
▲ B1318		26	4105	X	X	WING 4 - VERT.
B1319		2	4570	X		WING 4 - VERT.
B2520		7	5380	X		WING 4 - HORIZ. - B.F.
B2521		1	4810	X		WING 4 - HORIZ. - B.F.
B1622		11	4910	X		WING 4 - HORIZ. - F.F.
B1623		1	4345	X		WING 4 - HORIZ. - F.F.
B1324		1	2710			WING 4 - HORIZ. - B.F.
B1325		1	1550			WING 4 - HORIZ. - B.F.
B1326		1	4070	X		WING 4 - HORIZ. - B.F.
B1327		1	3150			WING 4 - HORIZ. - F.F.
B1328		1	1990			WING 4 - HORIZ. - F.F.
B1329		1	4520	X		WING 4 - HORIZ. - F.F.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

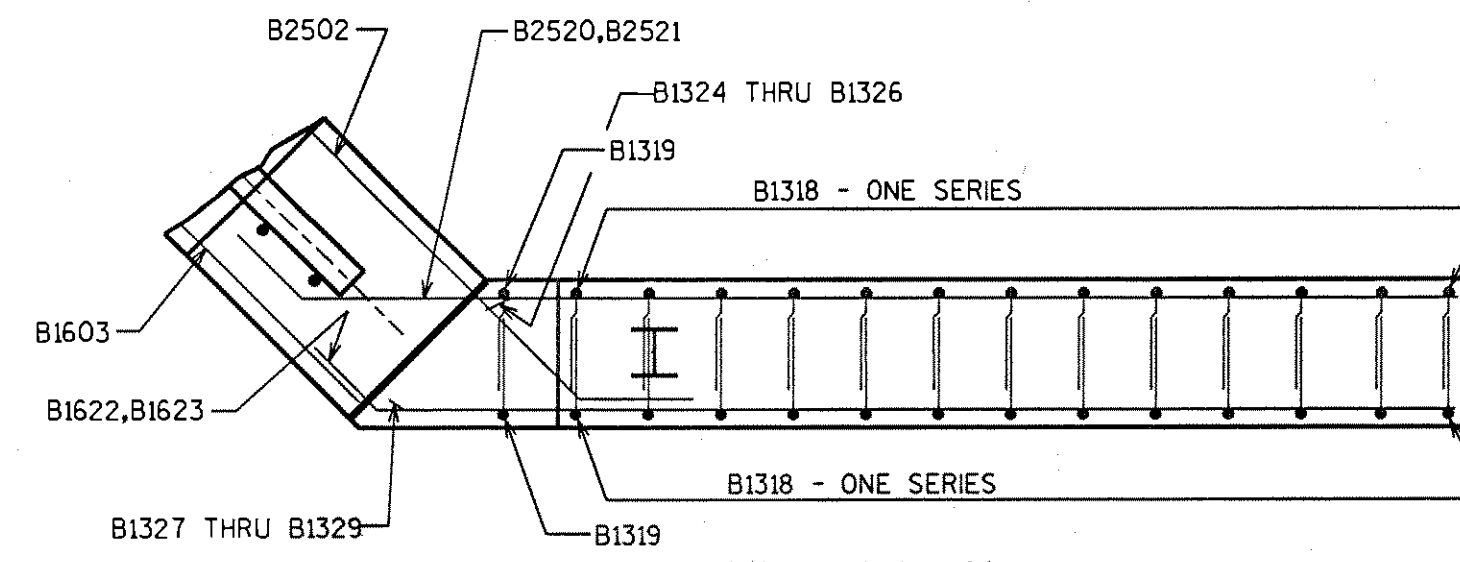
BAR SERIES TABLE

MARK	NO. REO'D.	LENGTH	
B1306	2 OF 13 SERIES	3800	TO
		4790	
B1318	2 OF 13 SERIES	3660	TO
		4550	
	OF SERIES		TO
	OF SERIES		TO

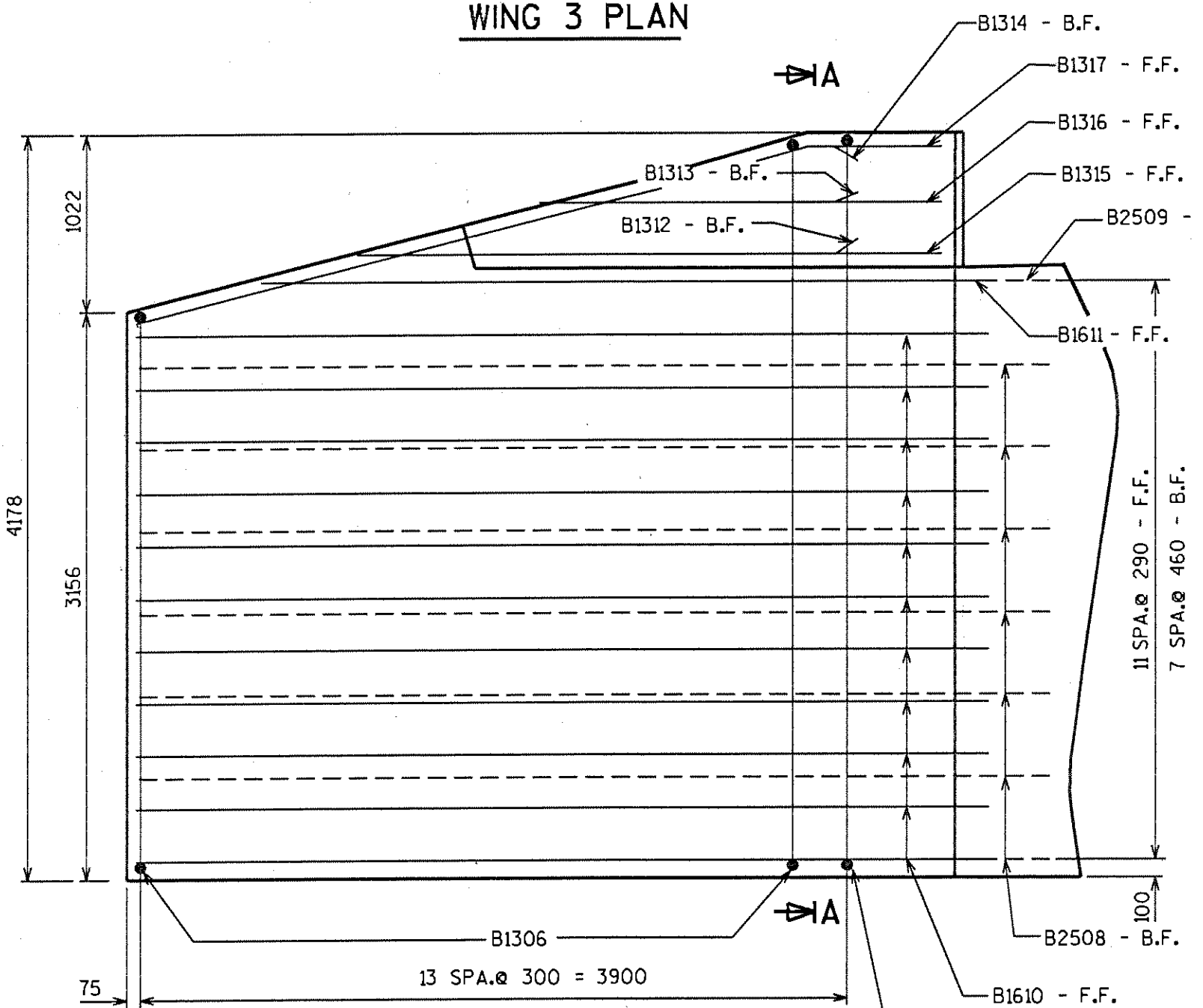
BUNDLE AND TAG EACH SERIES SEPARATELY.



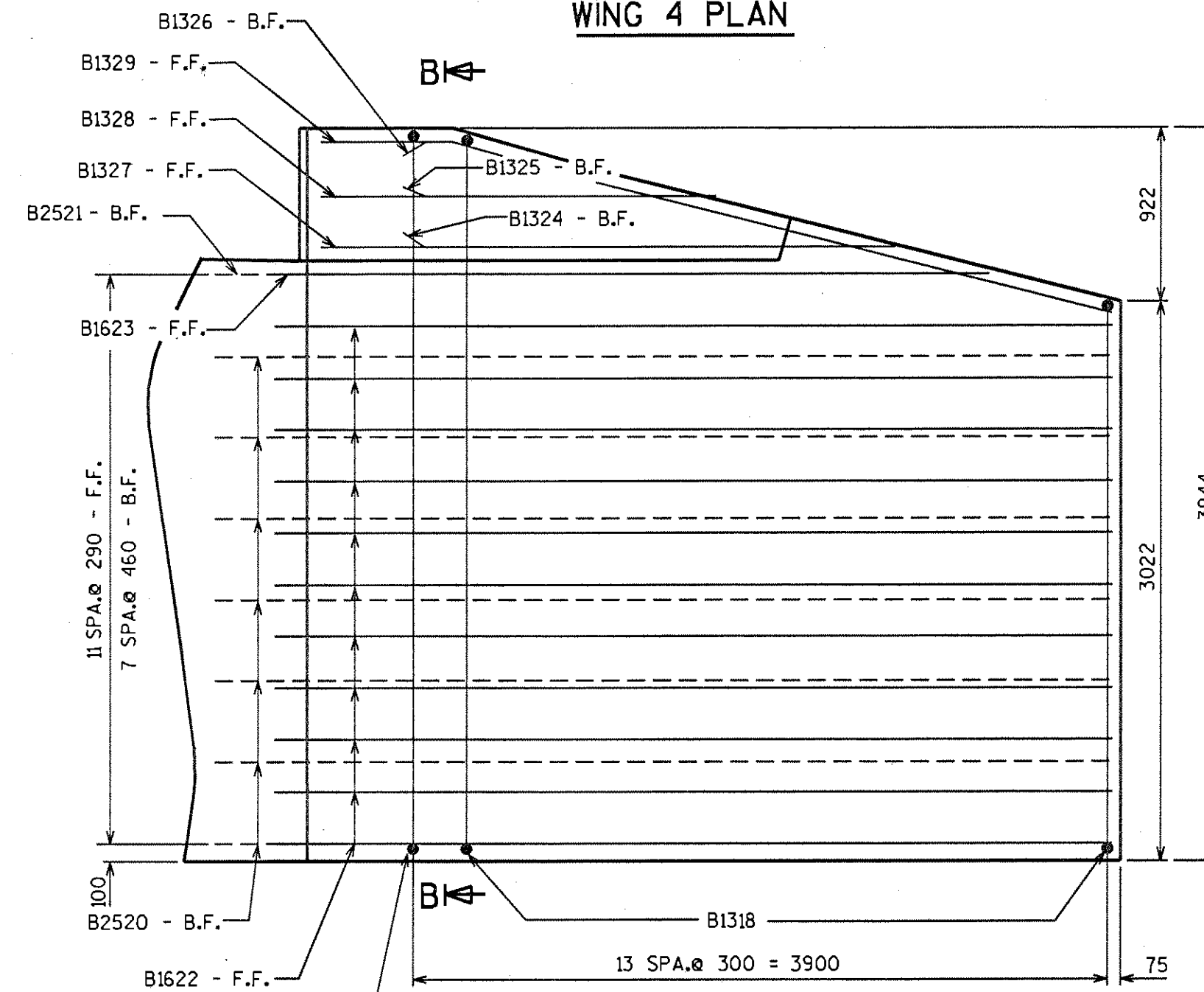
WING 3 PLAN



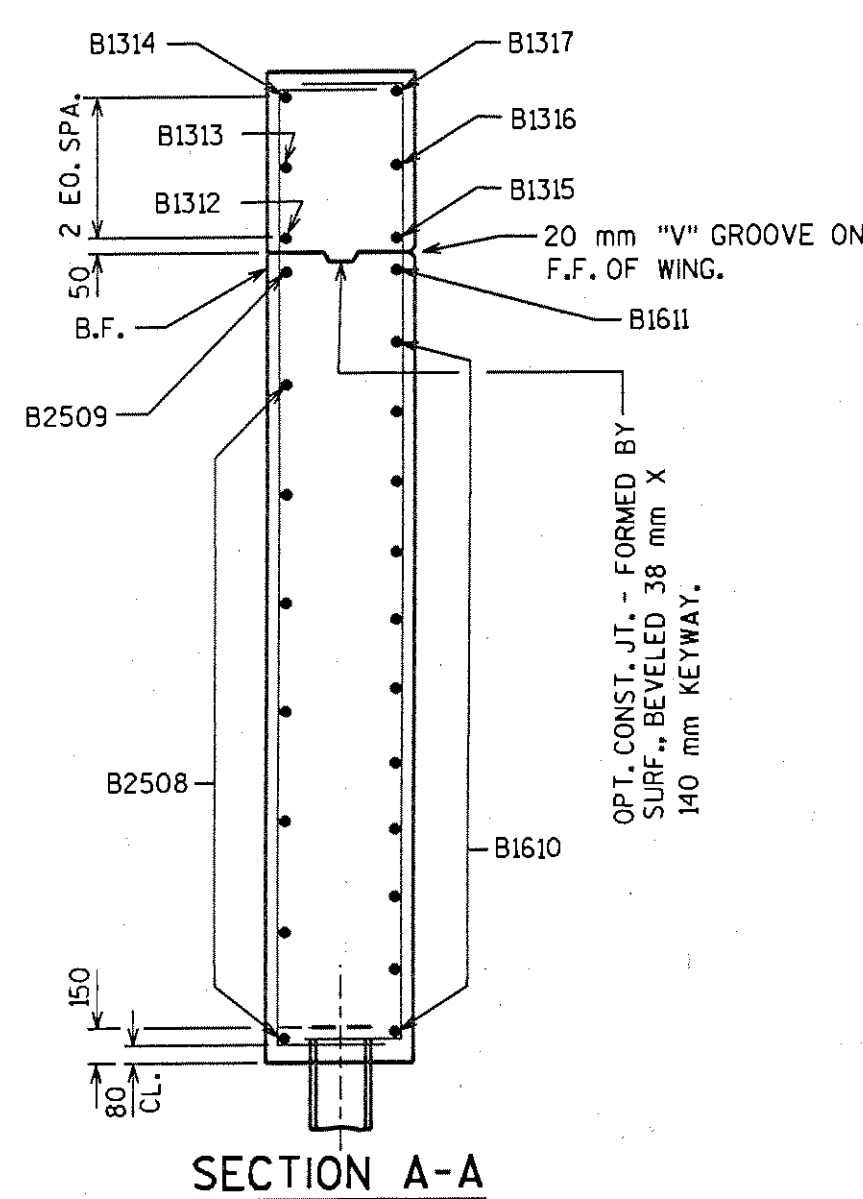
WING 4 PLAN



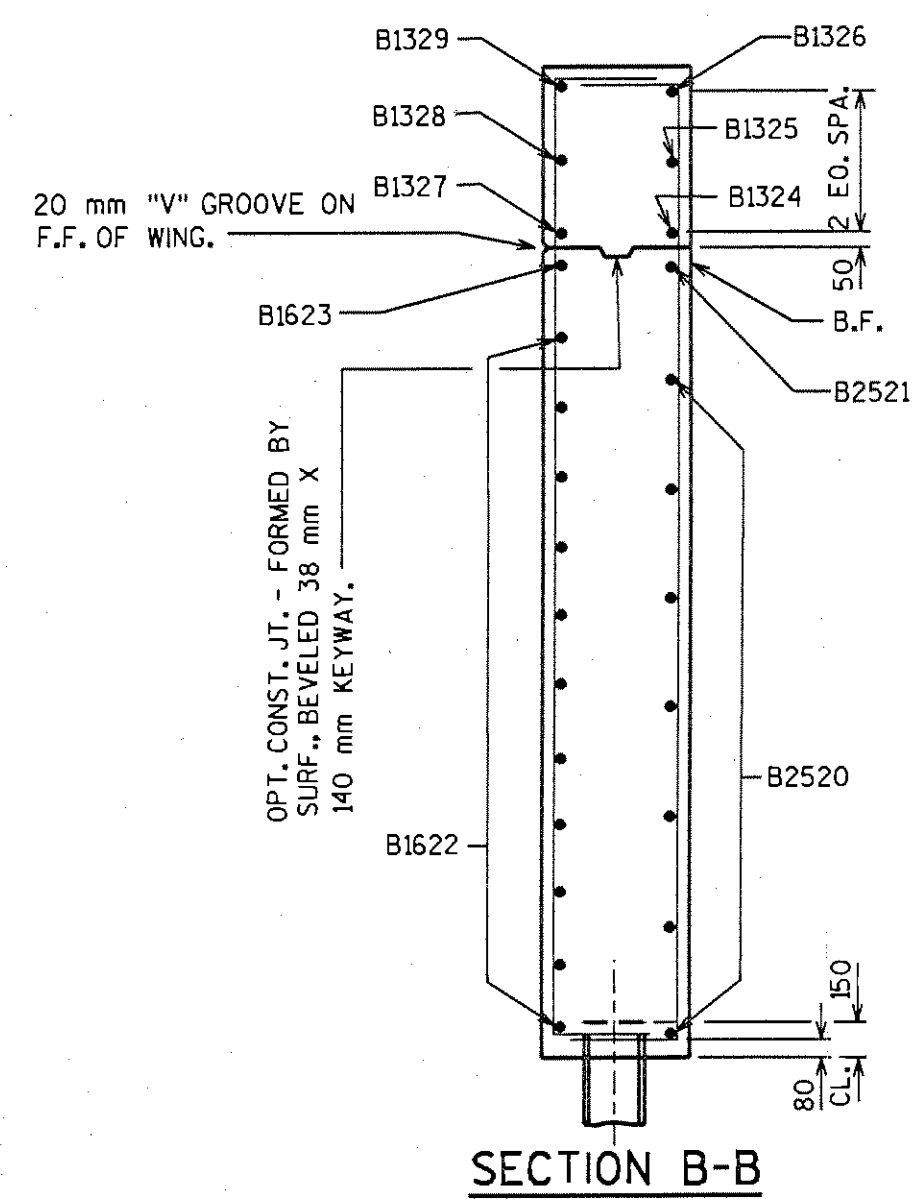
WING 3 ELEVATION



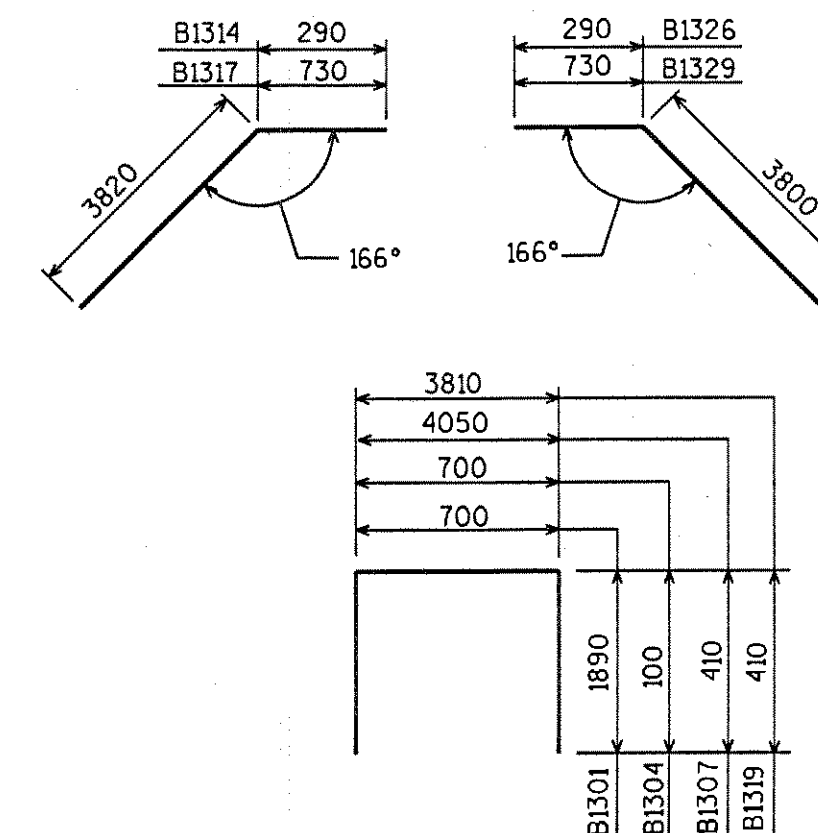
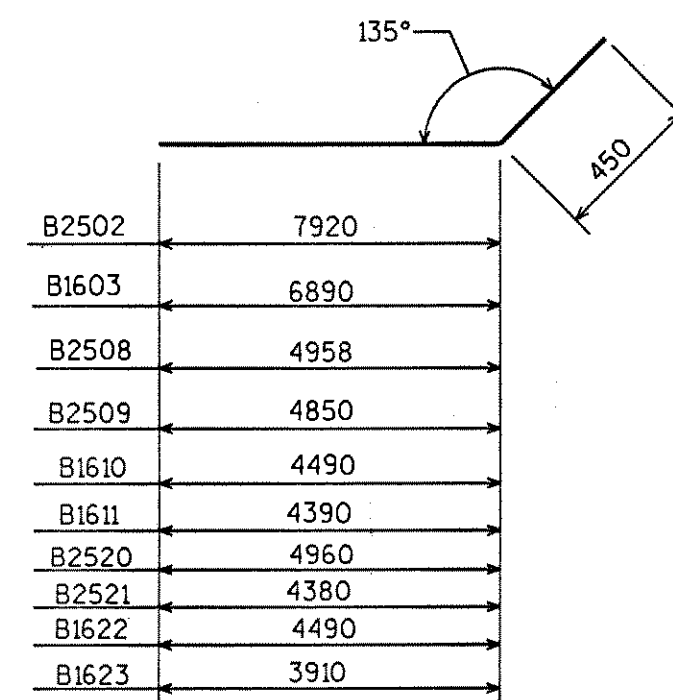
WING 4 ELEVATION



SECTION A-A



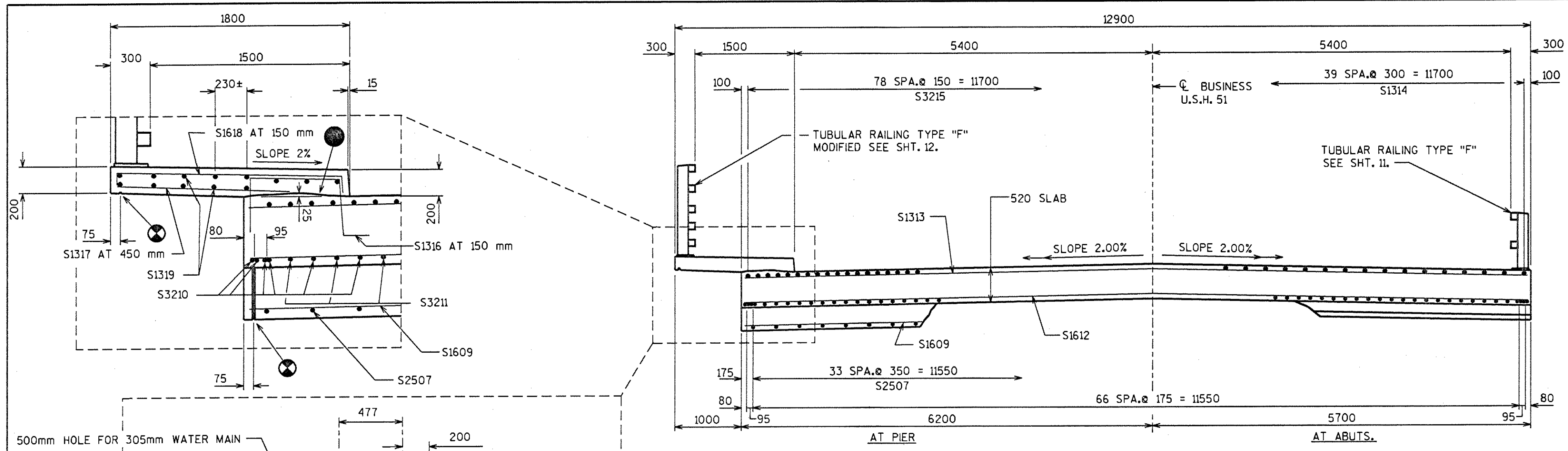
SECTION B-B



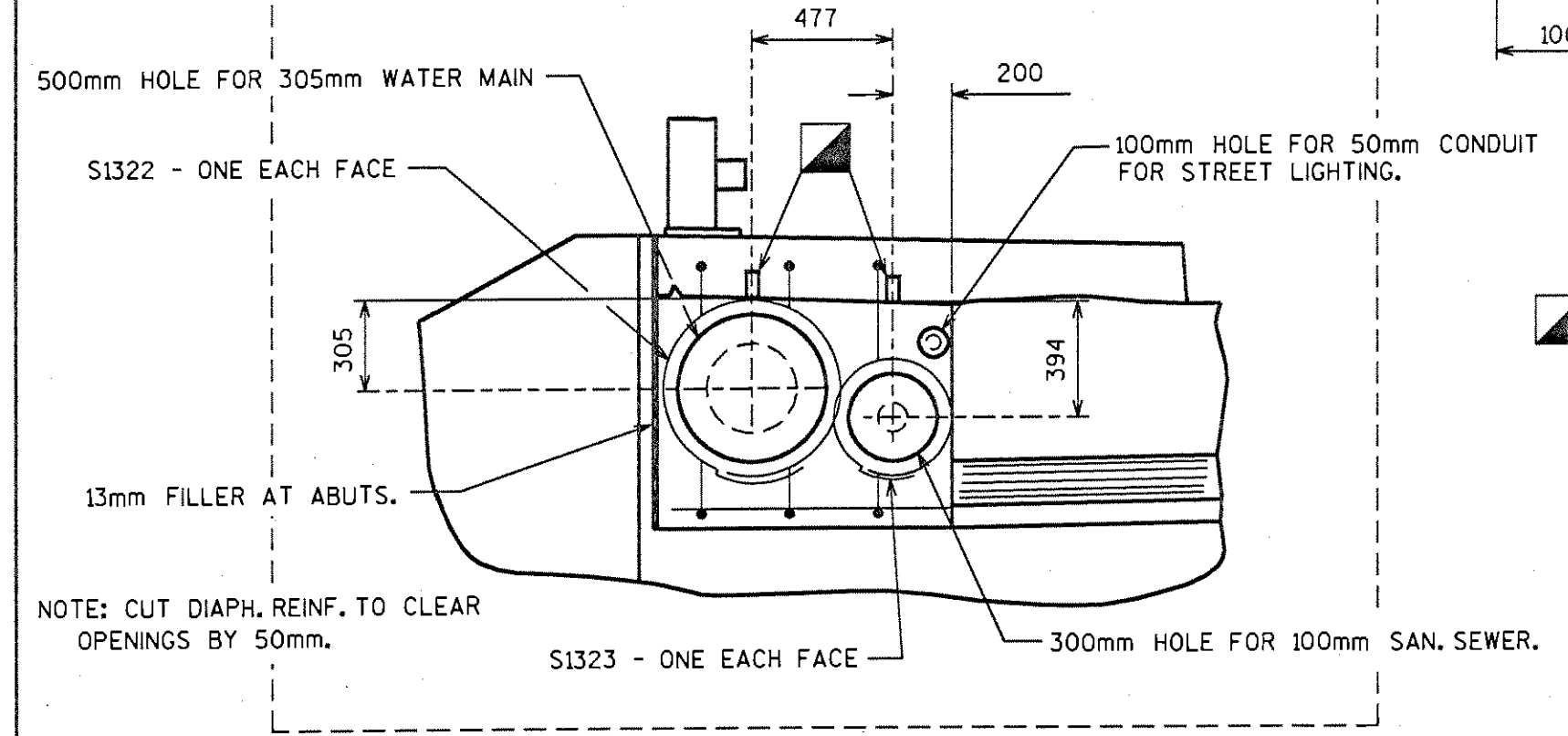
VARIES - 2900 TO 3790 AT 74 mm INCREMENTS.
VARIES - 3040 TO 4030 AT 83 mm INCREMENTS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY B.W.	PLANS CKD.
NORTH ABUT. DETAILS			SHEET 8

STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.

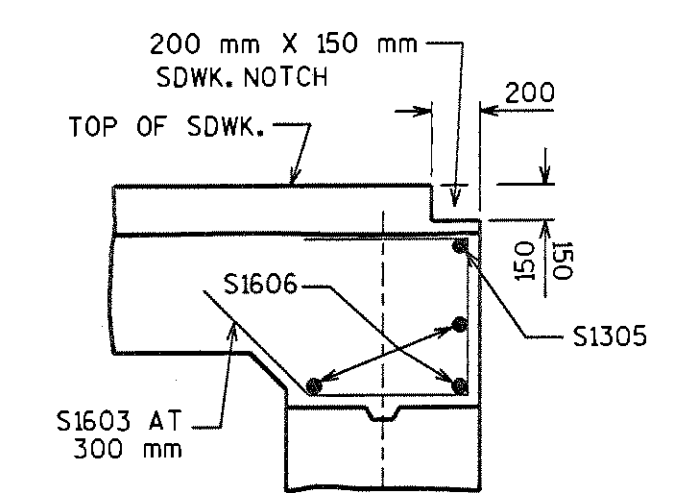


SECTION THRU ROADWAY LOOKING NORTH

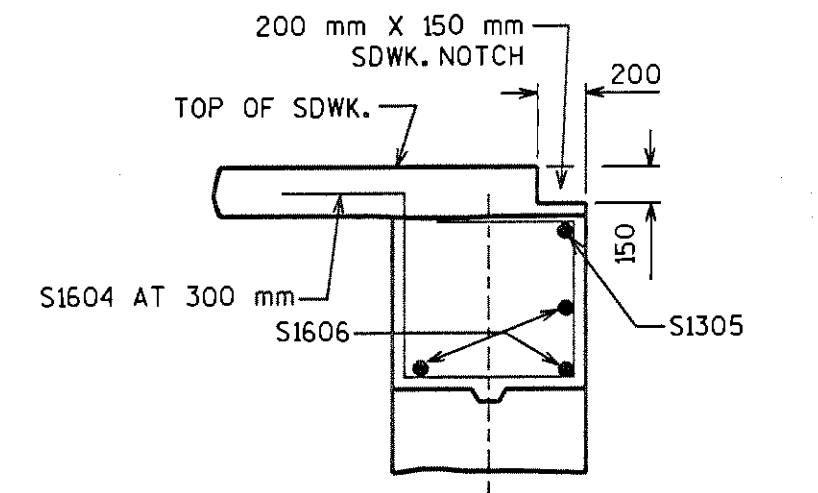


CONC. INSERTS - TO BE PROVIDED BY THE UTILITY AND PLACED BY THE CONTRACTOR. COST OF PLACING INSERTS TO BE INCLUDED IN BID ITEM "CONCRETE MASONRY". SPACING OF INSERTS TO BE PROVIDED BY THE UTILITY.

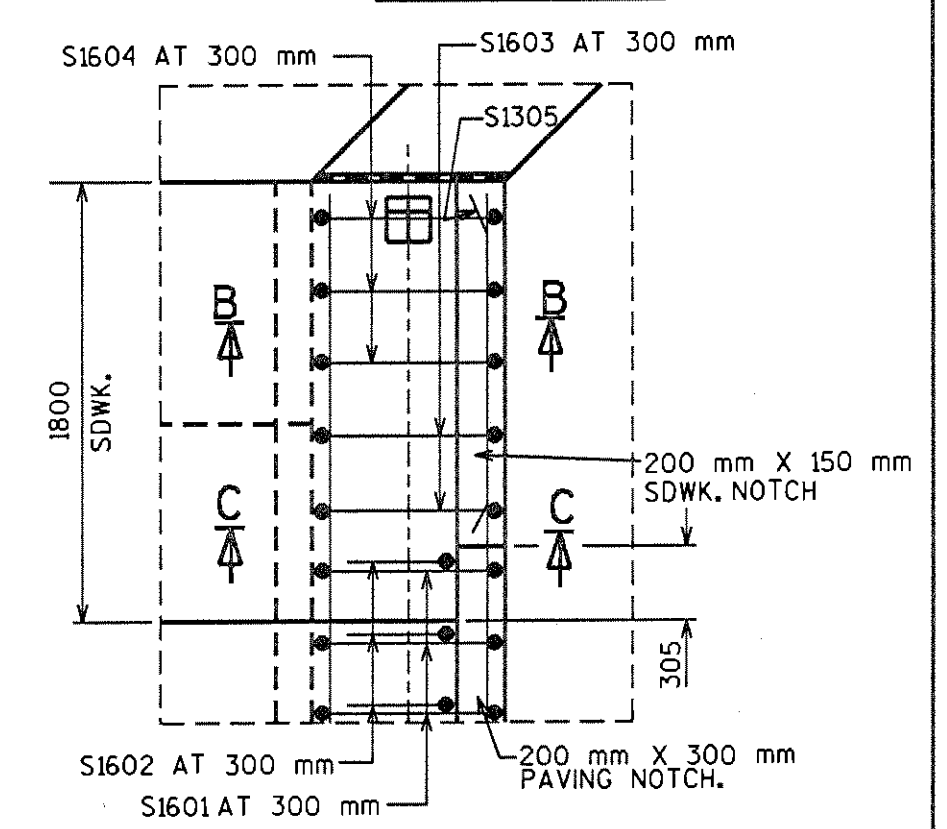
- CONST. JT. - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
 - ⊗ 20 mm CONTINUOUS DRIP GROOVE. END 600 mm FROM FACE OF ABUTS.
- NOTE:
 TOP TRANS. BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROX. 900 mm CENTERS EACH WAY. BOTTOM LONGIT. BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROX. 1200 mm CENTERS.
 THE SLAB THICKNESS SHOWN IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



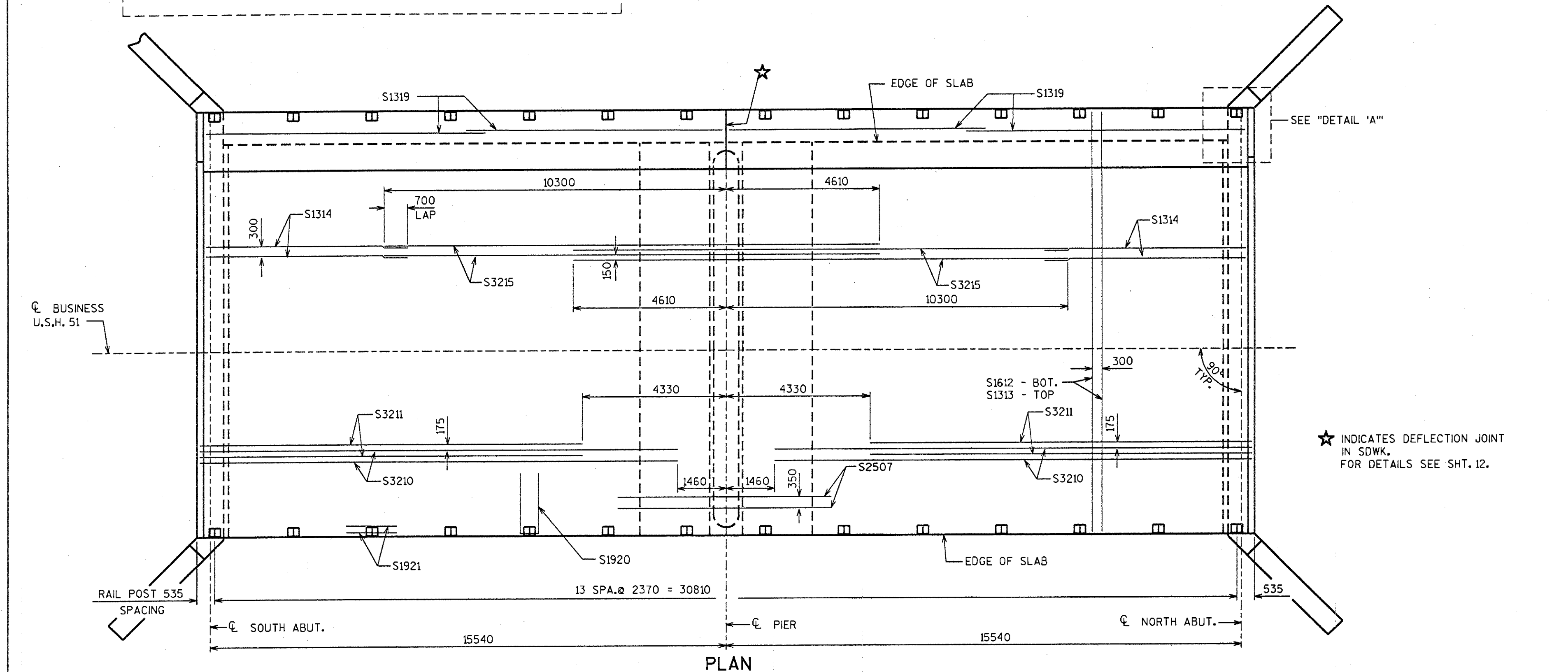
SECTION C-C



SECTION B-B



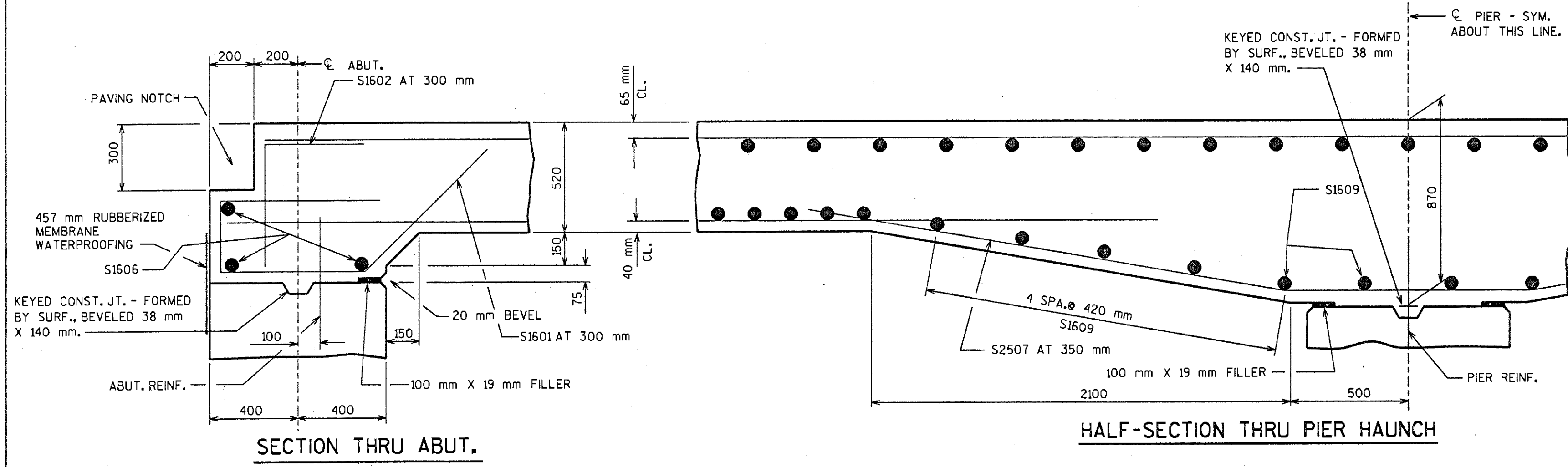
DETAIL 'A'



PLAN

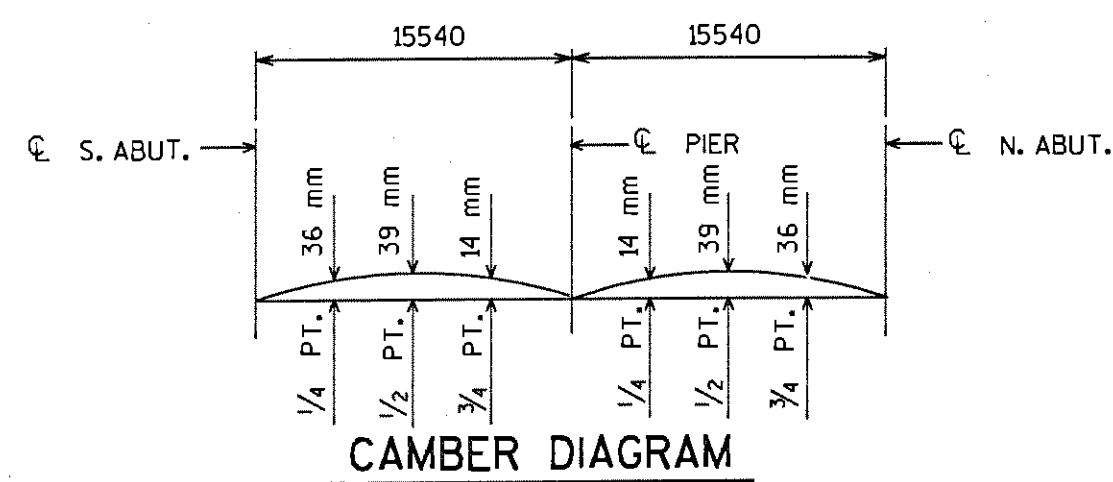
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY B.W.	PLANS CKD.
SUPERSTRUCTURE			SHEET 9

FILE= BR B35103:103SUP.DGN

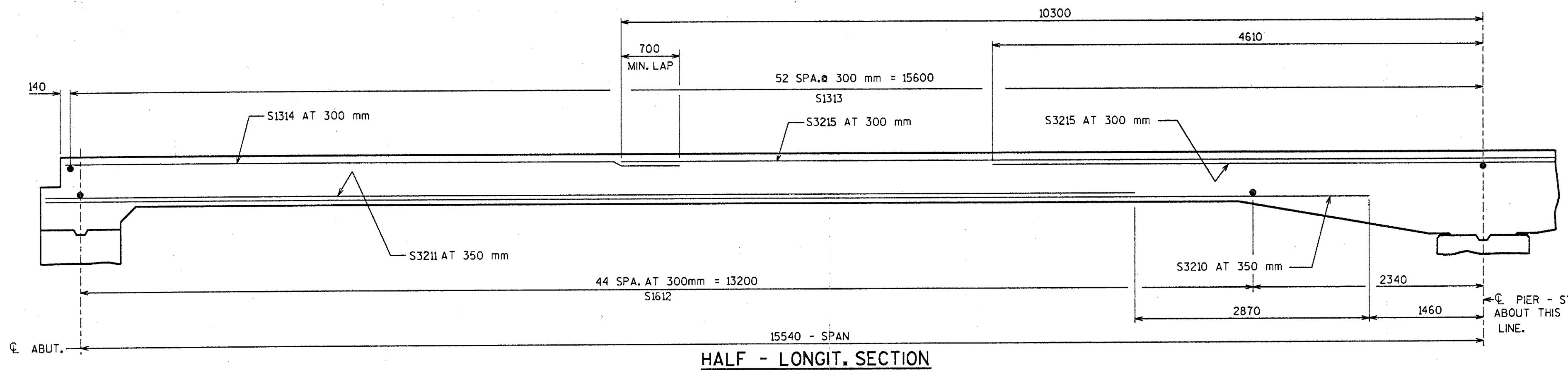
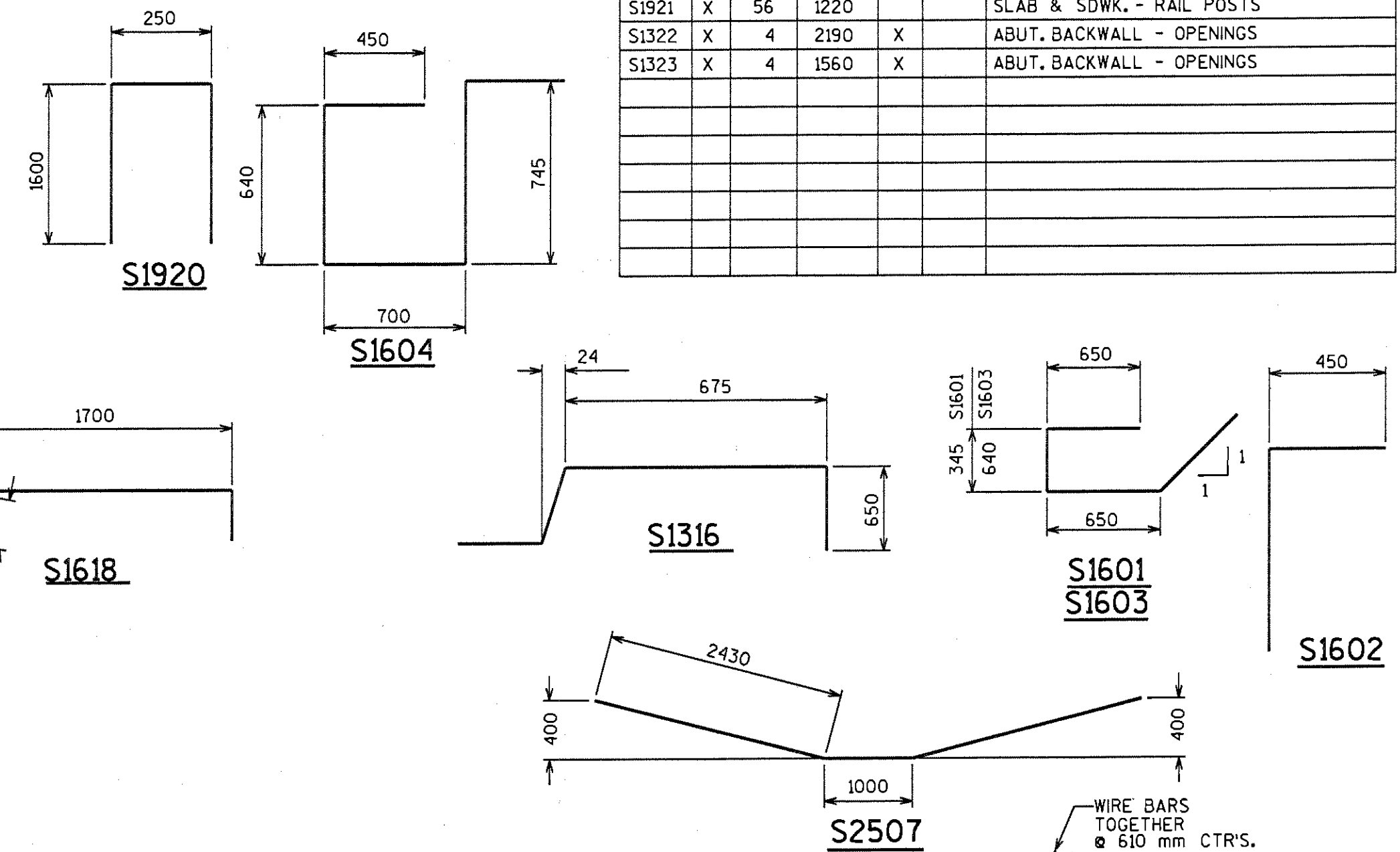


BILL OF BARS NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BEND	BUN DLE	LOCATION
S1601	X	76	2145	X		ABUT. DETAIL - HORIZ.
S1602	X	76	1050	X		ABUT. DETAIL - VERT.
S1603	X	4	2440	X		ABUT. DETAIL - HORIZ.
S1604	X	6	2675	X		ABUT. DETAIL - HORIZ.
S1305	X	2	1400			ABUT. DETAIL - HORIZ.
S1606	X	6	12800			ABUT. DETAIL - HORIZ.
S2507	X	34	5860	X		PIER - HAUNCH - HORIZ.
S1308		NOT USED				
S1609	X	12	11800			PIER - HAUNCH - HORIZ.
S3210	X	80	14430	X		SLAB - BOT. - LONGIT.
S3211	X	66	11560			SLAB - BOT. - LONGIT.
S1612	X	90	11800			SLAB - BOT. - TRANS.
S1313	X	105	11800			SLAB - TOP - TRANS.
S1314	X	79	6090			SLAB - TOP - LONGIT.
S3215	X	79	14910			SLAB - TOP - LONGIT.
S1316	X	210	2065	X		SLAB - VERT. - SDWK.
S1317	X	71	1400			SDWK. - TRANS. - HORIZ.
S1618	X	210	1820	X		SDWK. - TRANS. - HORIZ.
S1319	X	52	8170			SDWK. - LONGIT.
S1920	X	28	3350	X		SLAB & SDWK. - RAIL POSTS
S1921	X	56	1220			SLAB & SDWK. - RAIL POSTS
S1322	X	4	2190	X		ABUT. BACKWALL - OPENINGS
S1323	X	4	1560	X		ABUT. BACKWALL - OPENINGS



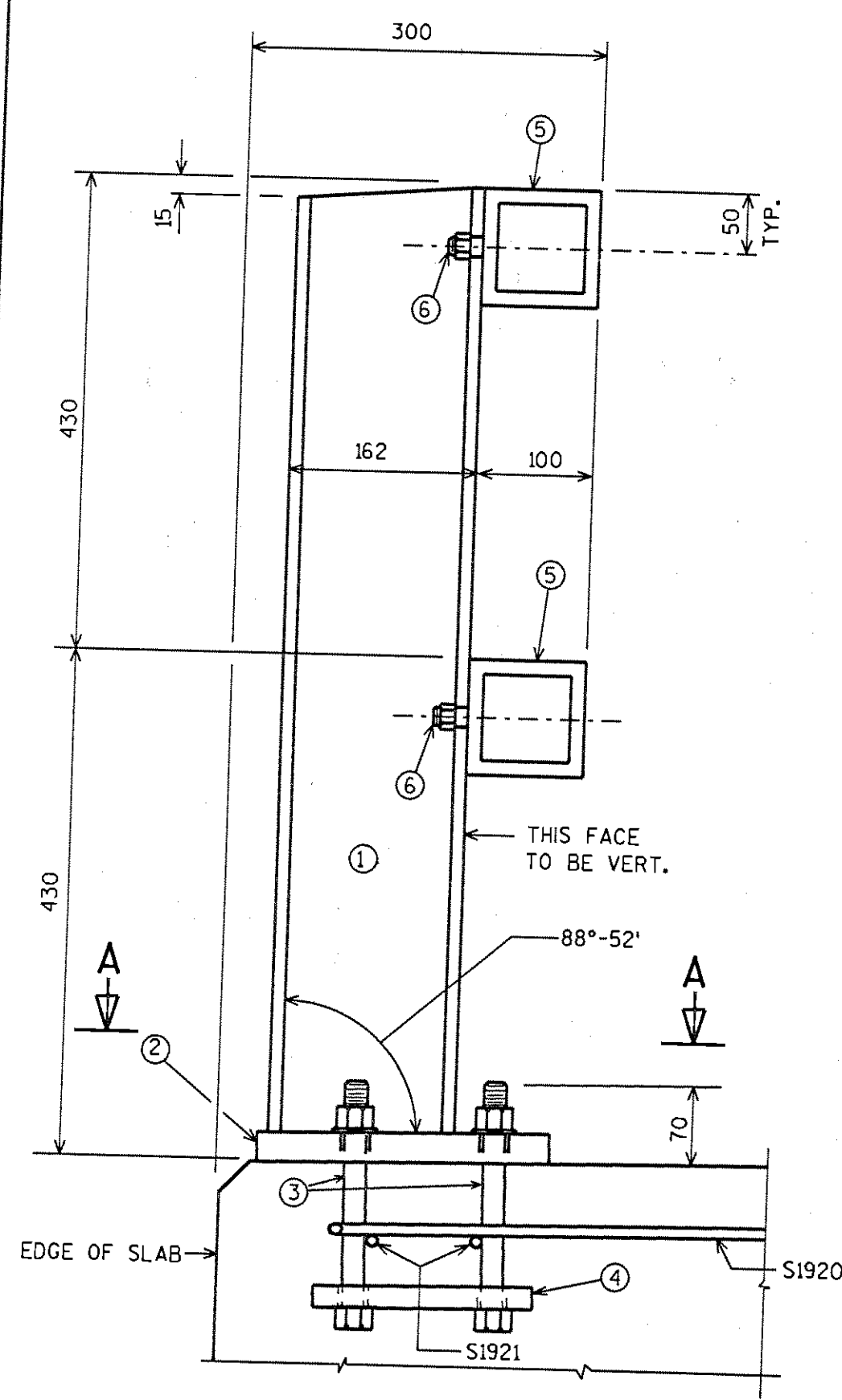
CAMBER SPAN AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE CREEP. THIS DOES NOT INCLUDE AN ALLOWANCE FOR FORM SETTLEMENT.



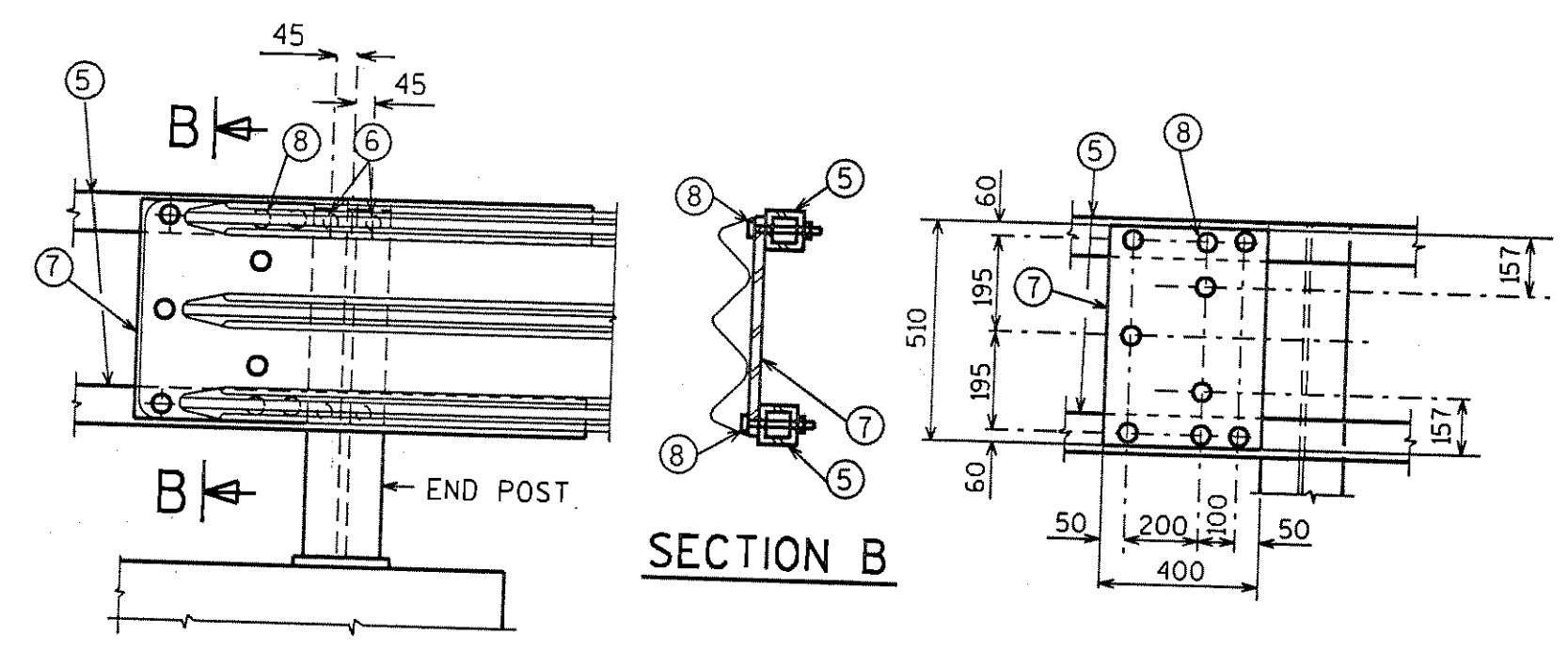
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY	B.W. PLANS CK'D.
SUPERSTRUCTURE DETAILS			SHEET 10

FILE= BR B35103103SUP.DGN

STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.



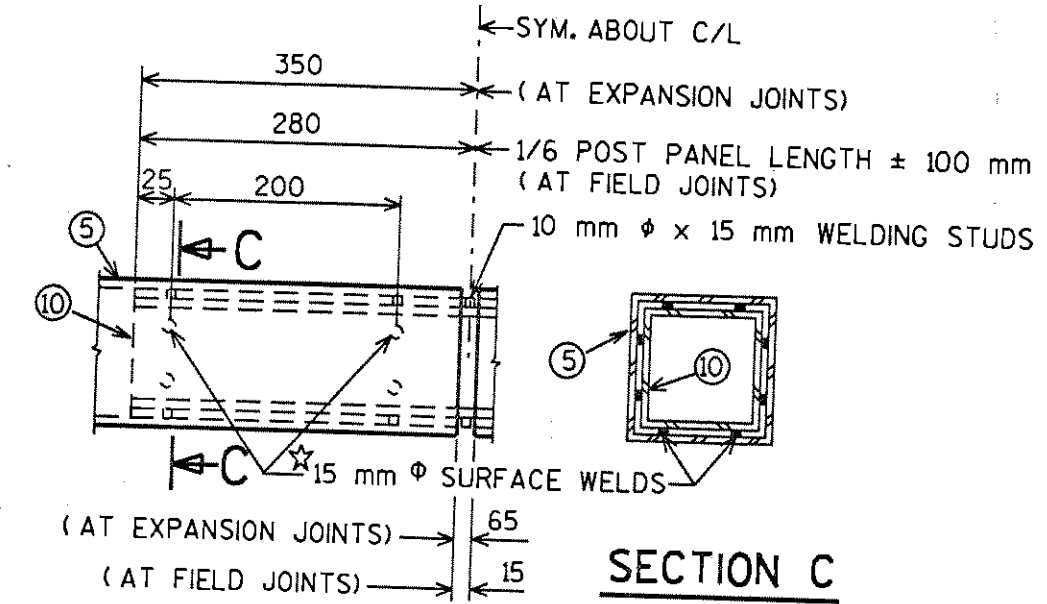
SECTION THRU RAILING ON DECK



DETAIL AT END POST
(THRE BEAM RAIL ATTACHMENT)

LEGEND

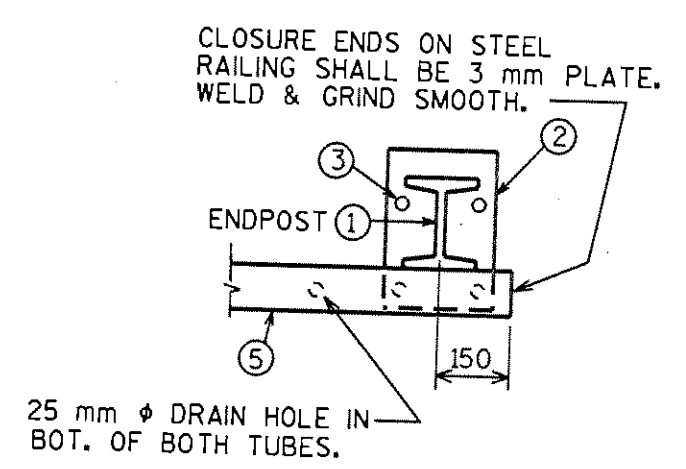
- ① W150X37 WITH 35 mm DIA. HOLES ON EACH SIDE OF POST FOR STUD NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 25 mm X 240 mm X 255 mm WITH 27 mm X 40 mm SLOTTED HOLES FOR ANCHOR BARS NO. 3. WELD TO NO. 1 AS SHOWN.
- ③ A325M- M22 X 200 mm LONG HEX BOLTS (GALVANIZED) WITH A325M NUT & WASHER. 4 REOD. PER POST. THREAD 75 mm AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 360 mm LONG AT END POST.
- ④ 6 mm X 200 mm X 200 mm FLAT BAR, WITH 24 mm DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TS 102 X 102 X 6.4 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A501 OR A500 GRADE B ATTACH TO NO. 1 WITH STUDS NO. 6.
- ⑥ 16 mm DIA. X 40 mm LG. SHOP WELDED STUDS WITH HEX. NUT AND 50 mm WASHERS. (2 REOD. AT EACH RAIL TO POST LOCATION.)
- ⑦ PLATE 10 mm X 400 mm (475 mm ON SDWK.) X 510 mm. BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5.
- ⑧ 25 mm DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5 FOR M22 A325M BOLTS W/HEX NUTS AND WASHERS.
- ⑨ SQUARE SLEEVE FABRICATED FROM 6 mm PLATE. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 87 mm.
- ⑩ TS 76 X 76 X 6.4 X (710 mm AT EXPANSION JOINTS) & (560 mm AT FIELD JOINTS) LONG. PROVIDE 13 mm DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 5. PROVIDE 10 mm DIA. X 13 mm WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.



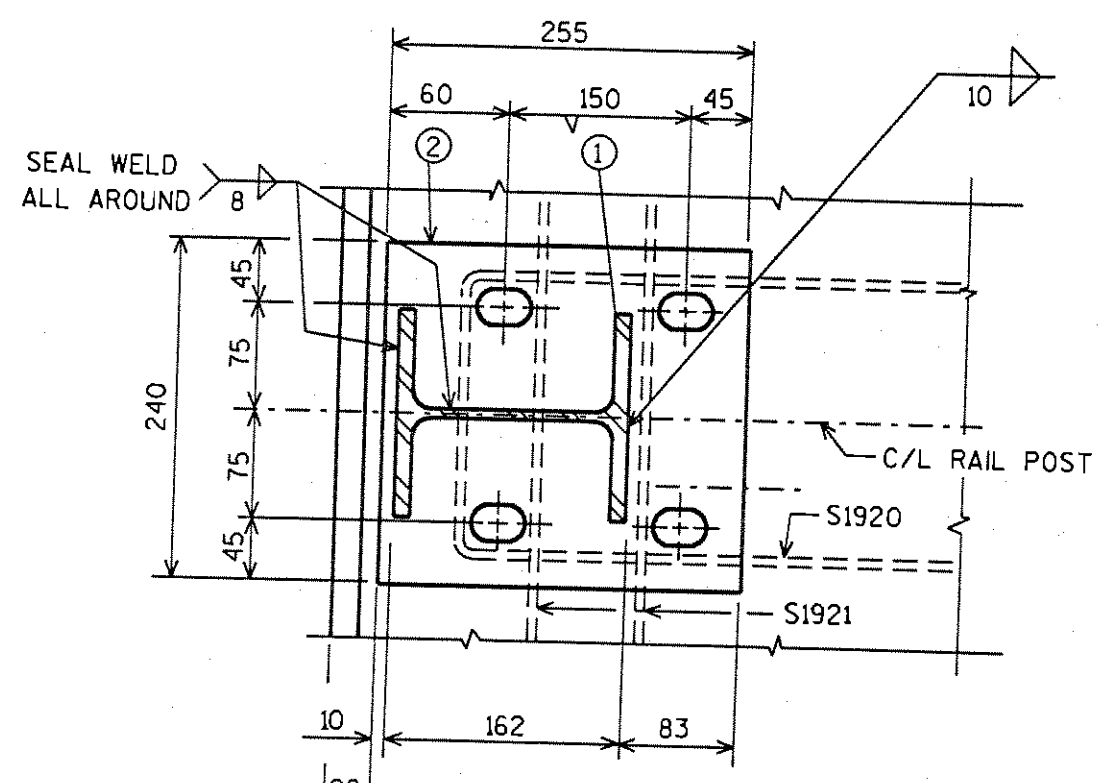
FIELD ERECTION JOINT DETAIL

GENERAL NOTES

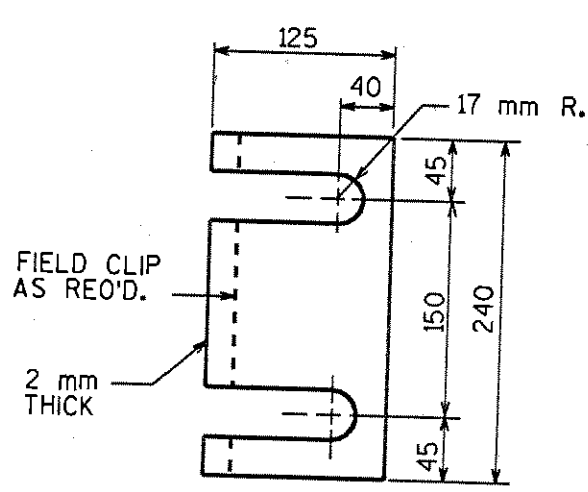
BID ITEM SHALL BE "TUBULAR RAILING TYPE 'F'", WHICH INCLUDES ALL ITEMS SHOWN.
 RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.
 POSTS BASE PLATES, NO. 2, SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
 ALL MATERIAL, EXCEPT (NO. 4) SHALL BE GALVANIZED AFTER FABRICATION.
 FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
 ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709M GRADE M250 UNLESS NOTED OTHERWISE.
 STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REOD. FOR ALIGNMENT.
 PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.



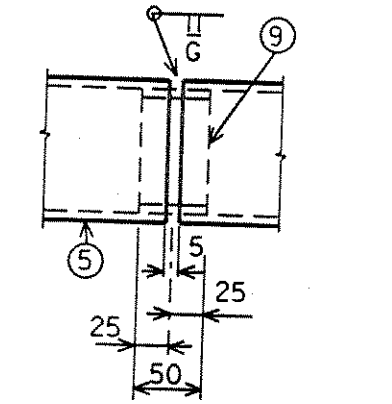
DETAIL FOR END POSTS



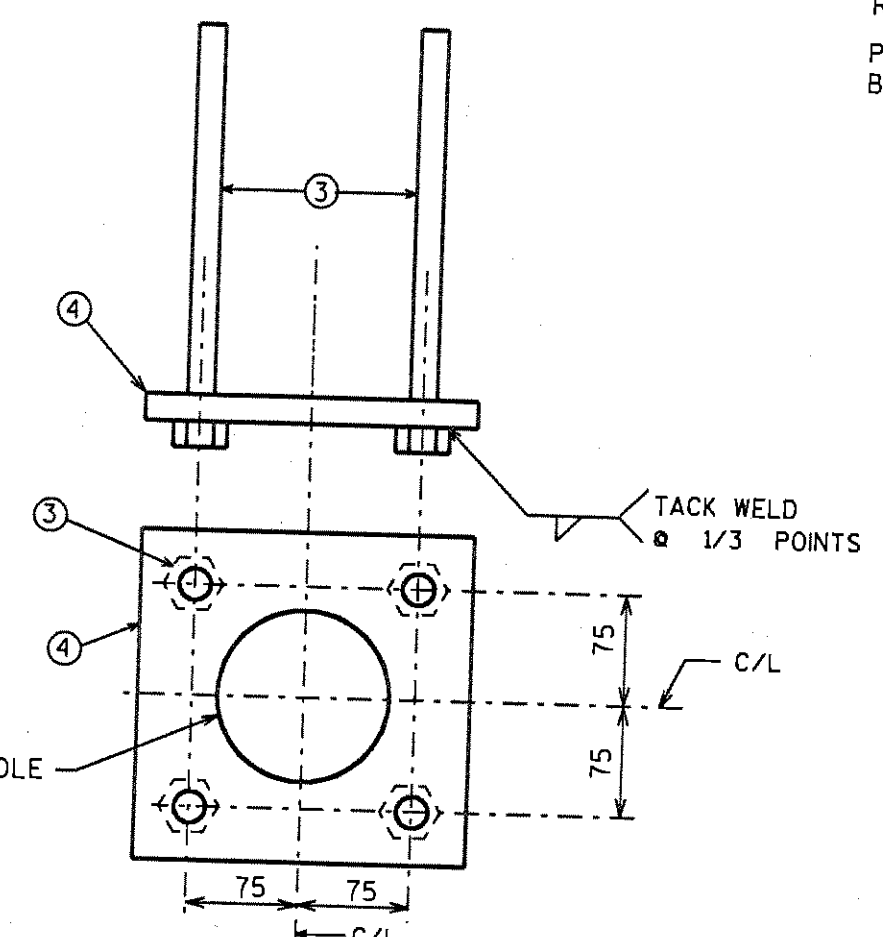
SECTION A



POST SHIM DETAIL
(4 PER POST)



SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

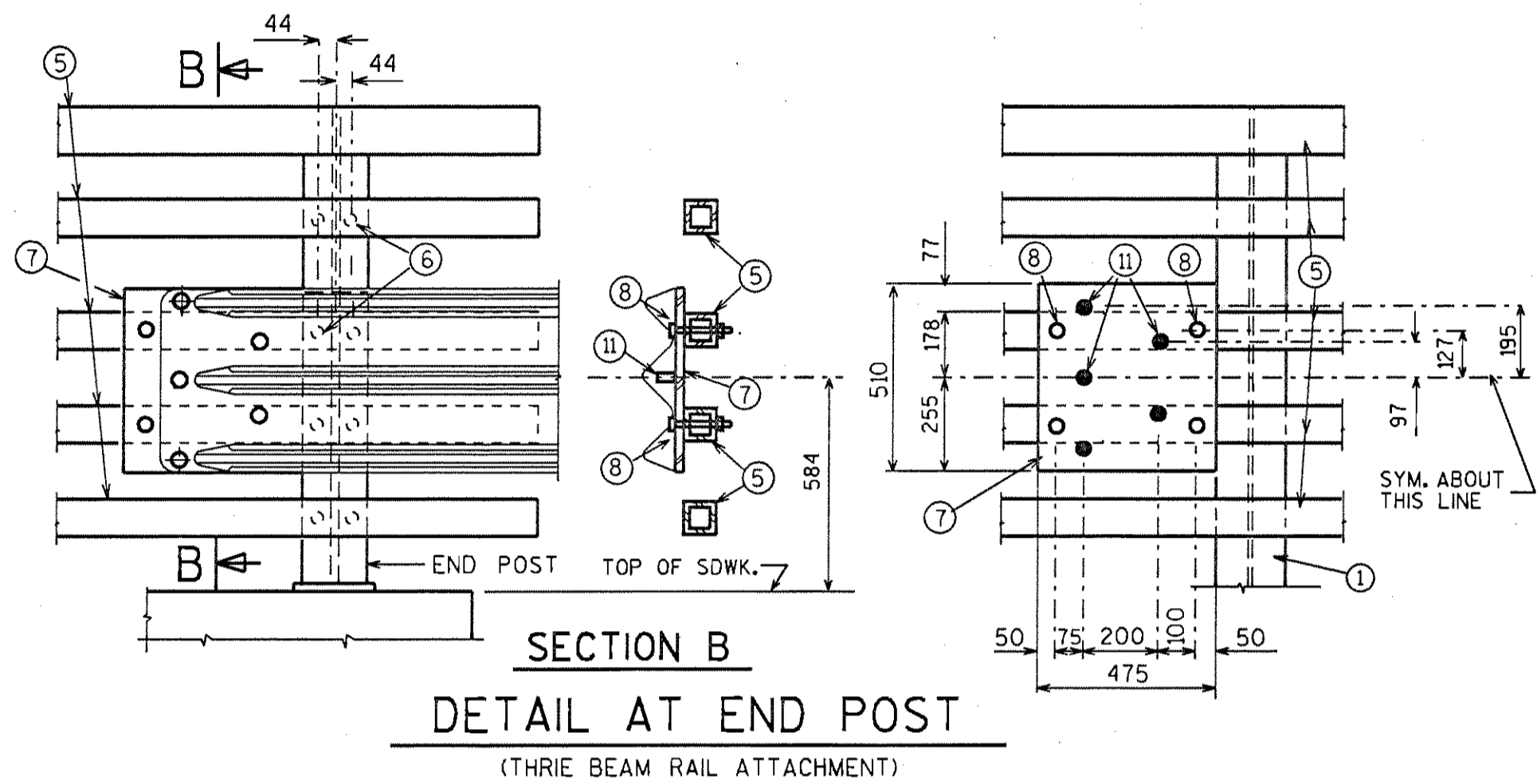
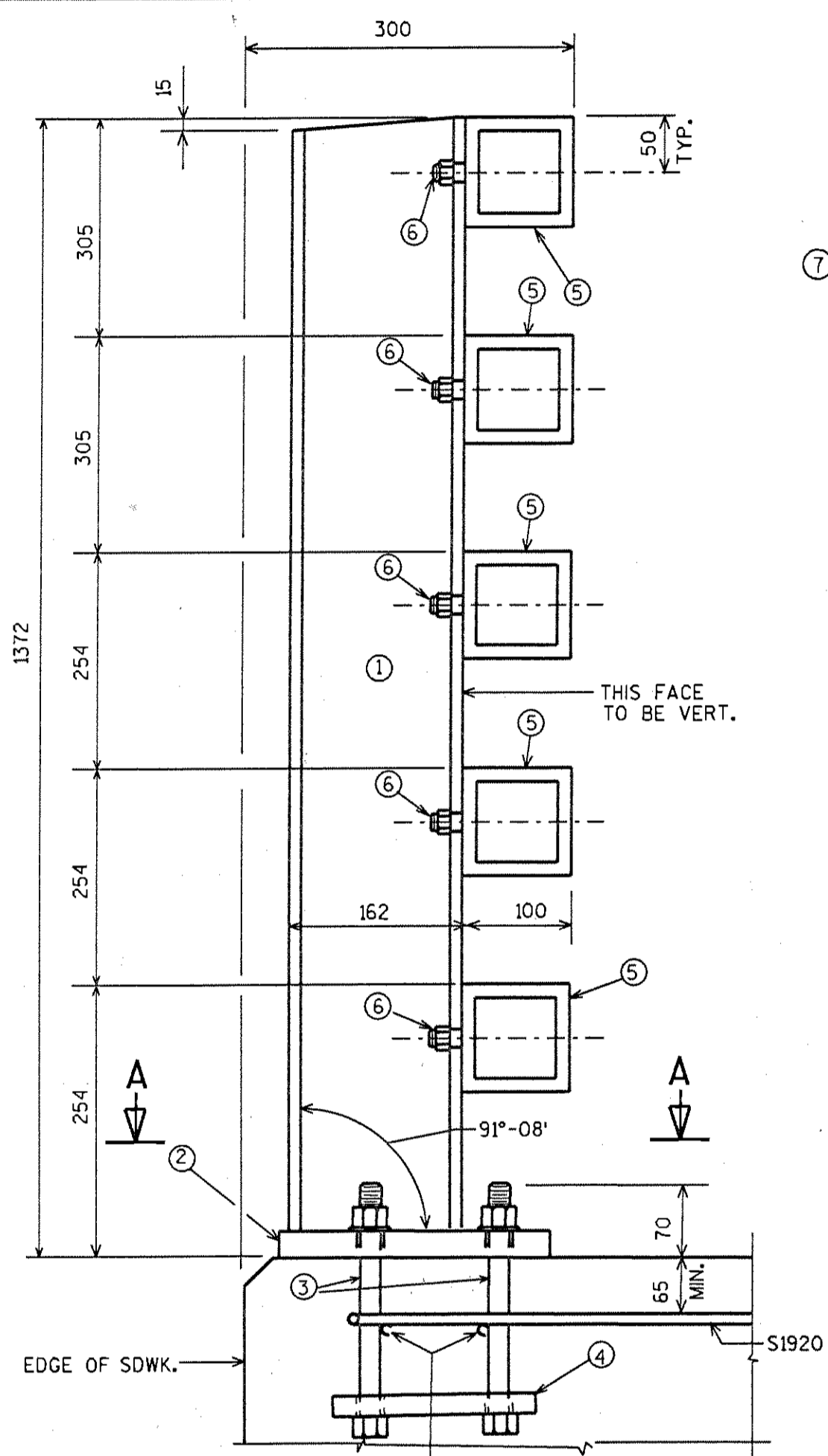


ANCHORAGE DETAIL

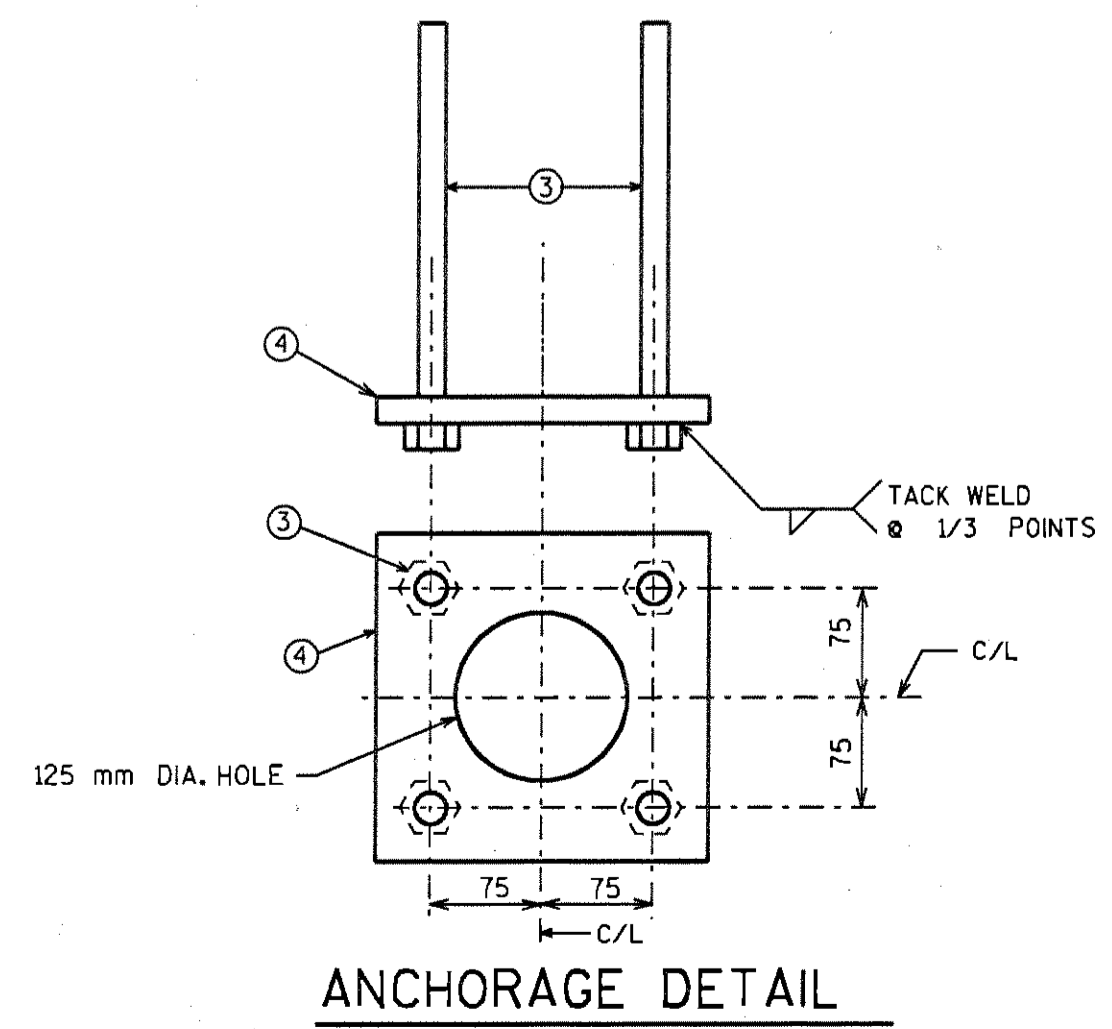
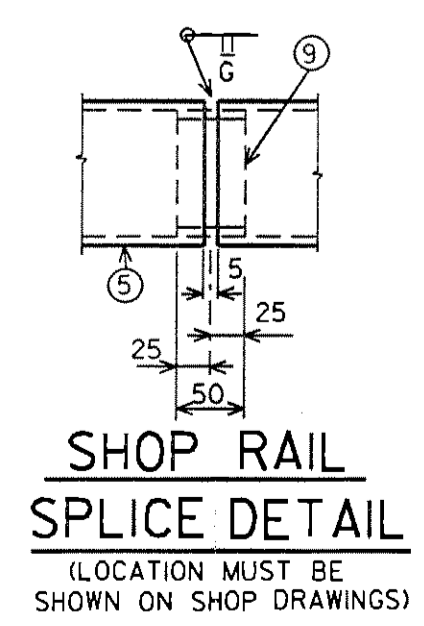
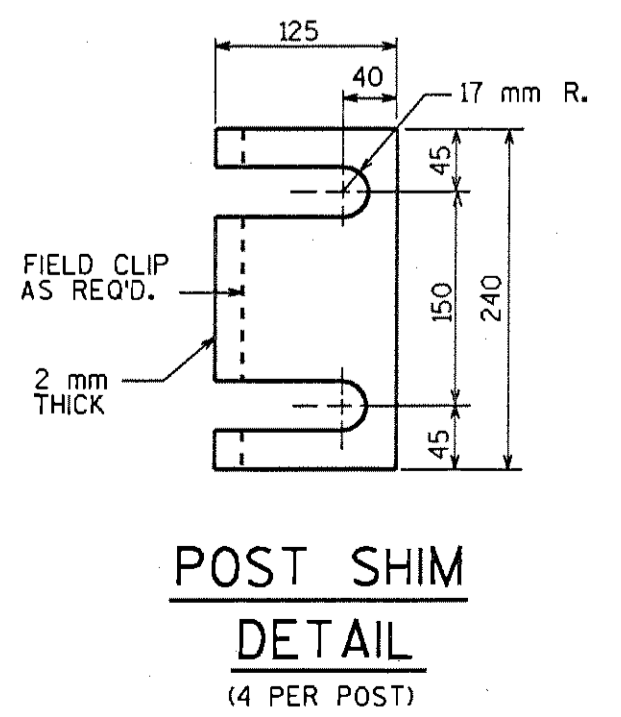
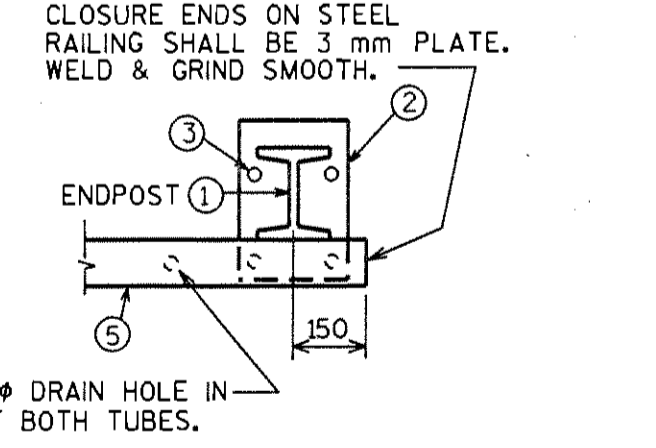
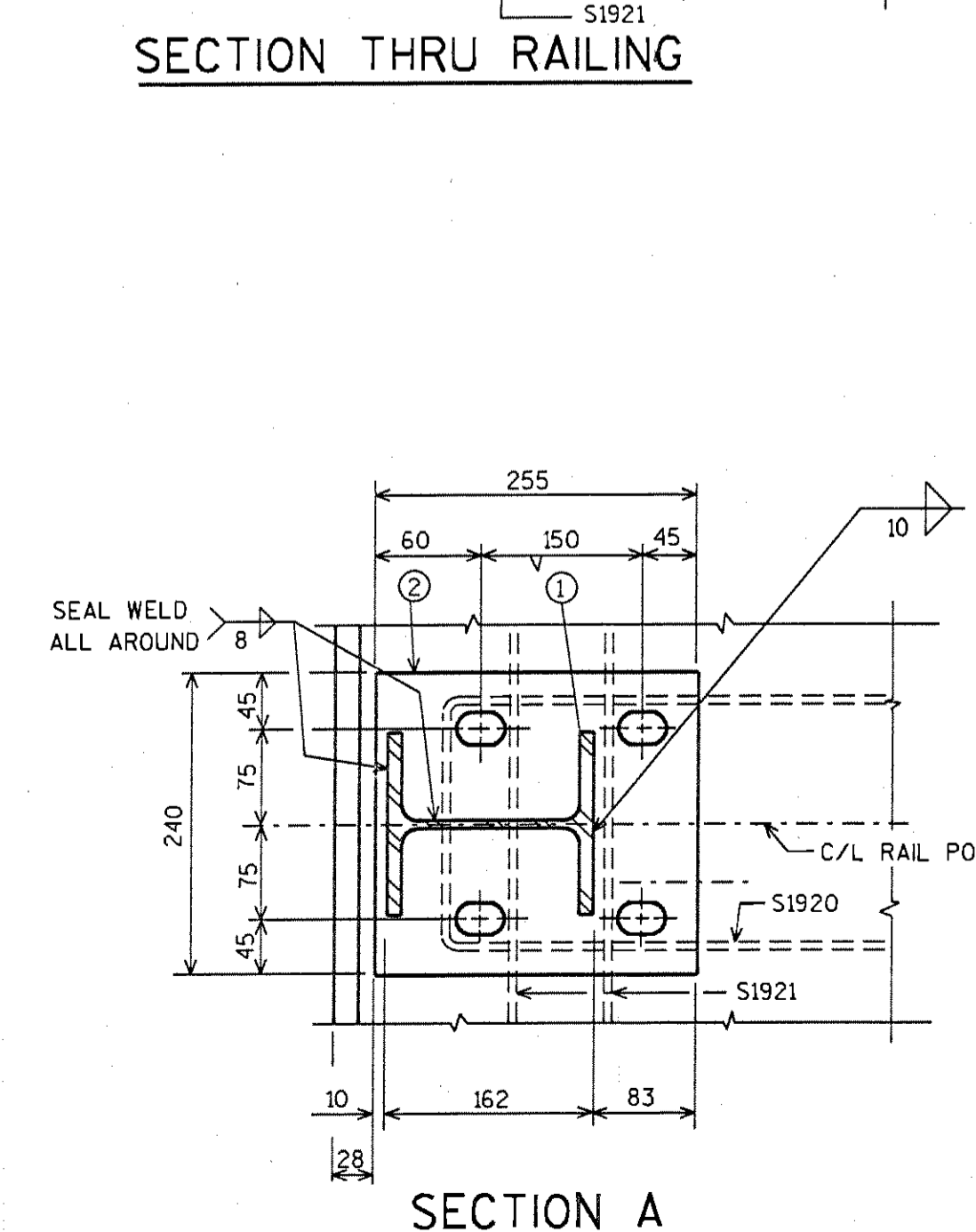
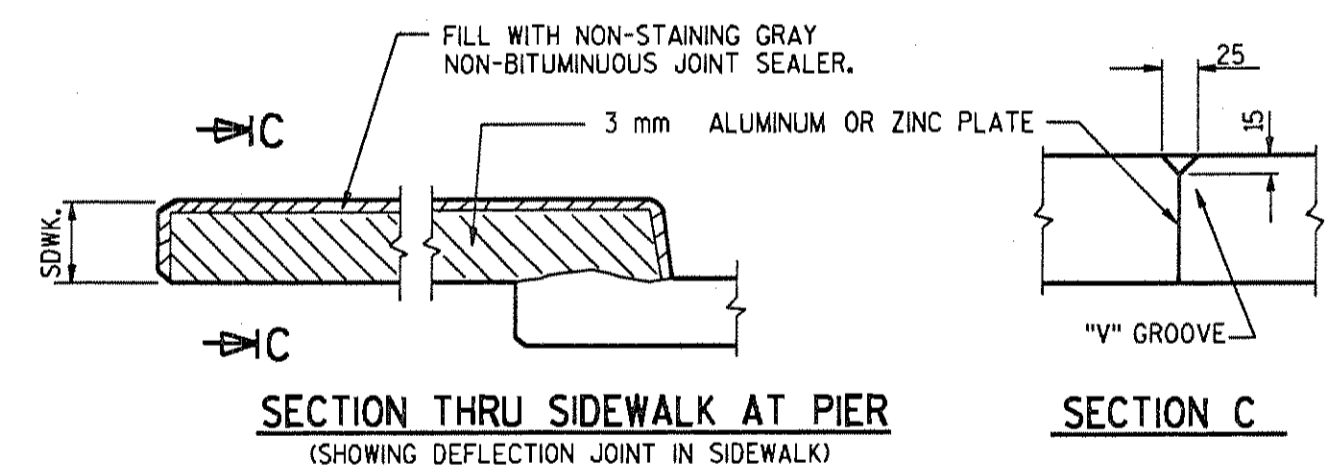
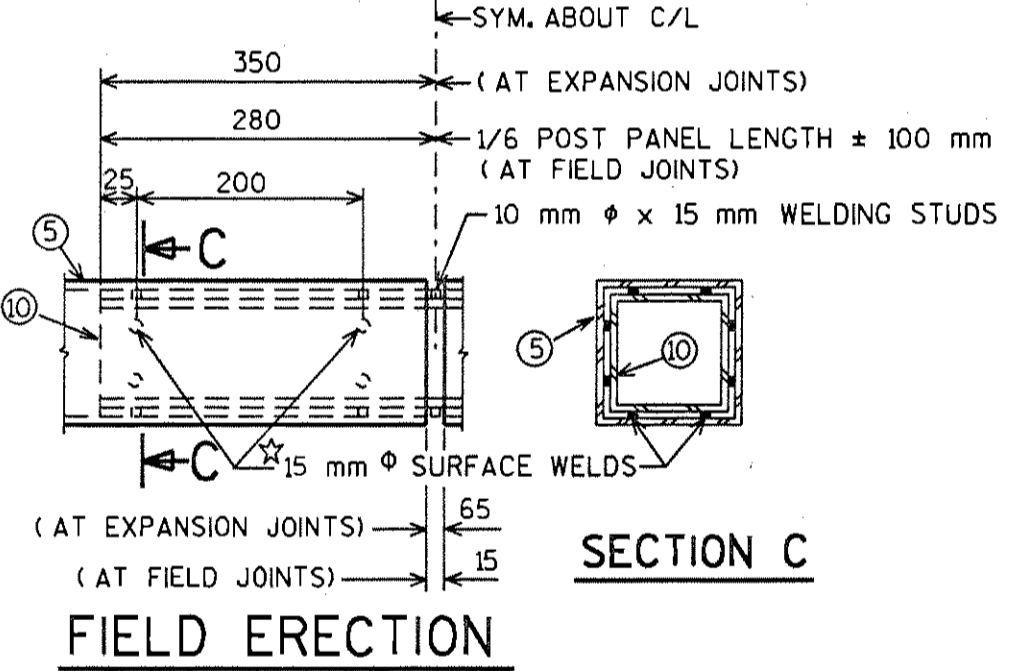
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY	B.W. PLANS CKD.
TUBULAR RAILING TYPE "F"			SHEET 11

FILE- BR B35103103RAIL.F.DGN

STATE PROJECT NUMBER	SHEET NO.
9675-05-70	8.



- LEGEND**
- ① W150X37 WITH 35 mm DIA. HOLES ON EACH SIDE OF POST FOR STUD NO. 6, CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY, PLACE POST VERTICAL, PLACE POSTS NORMAL TO GRADE LINE.
 - ② PLATE 25 mm X 240 mm X 255 mm WITH 27 mm X 40 mm SLOTTED HOLES FOR ANCHOR BARS NO. 3, WELD TO NO. 1 AS SHOWN.
 - ③ A325M- M22 X 200 mm LONG HEX BOLTS (GALVANIZED) WITH A325M NUT & WASHER, 4 REQ'D. PER POST, THREAD 75 mm AND PLACE NORMAL TO PLATE NO. 2, CHAMFER TOP OF BOLTS BEFORE THREADING, USE 360mm LONG AT END POST.
 - ④ 6 mm X 200 mm X 200 mm FLAT BAR, WITH 24 mm DIA. HOLES FOR ANCHOR BOLTS NO.3.
 - ⑤ TS 102 X 102 X 6.4 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A501 OR A500 GRADE B ATTACH TO NO. 1 WITH STUDS NO. 6.
 - ⑥ 16 mm DIA. X 40 mm LG. SHOP WELDED STUDS WITH HEX. NUT AND 50 mm WASHERS. (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
 - ⑦ PLATE 10 mm X 475 mm X 510 mm .BOLT TO RAIL AS SHOWN IN DETAIL, REQUIRED AT THREE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO.5.
 - ⑧ 25 mm DIA. HOLES IN PLATE NO. 7 & TUBES NO.5 FOR M22 A325M BOLTS W/HEX NUTS AND WASHERS.
 - ⑨ SQUARE SLEEVE FABRICATED FROM 6 mm PLATE. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 87 mm.
 - ⑩ TS 76 X 76 X 6.4 X (710 mm AT EXPANSION JOINTS) & (560 mm AT FIELD JOINTS) LONG, PROVIDE 13 mm DIA. SURFACE WELDS ON ALL SIDES AS SHOWN, GRIND WELDS TO FIT FREE INTO I.D. OF NO. 5, PROVIDE 10 mm DIA. X 13 mm WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.
 - ⑪ 22 mm DIA. X 38 mm LONG SHOP WELDED STUDS.



FIELD ERECTION JOINT DETAIL

* MIN. 15 mm FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

GENERAL NOTES

BID ITEM SHALL BE "TUBULAR RAILING TYPE 'F'", WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

POSTS BASE PLATES, NO. 2, 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 CUT.

ALL MATERIAL, EXCEPT (NO. 4) SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709M GRADE M250 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS			
STRUCTURE B-35-103			
CONST. SPEC.	1996	DRAWN BY B.W.	PLANS CKD.
TUBULAR STEEL RAILING TYPE 'F' MODIFIED (5)			SHEET 12

FILE= BR B35103103RAIL5.DGN