

5348-03-71 LA CROSSE COUNTY

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Sheet No. ....	Cross Sections

TOTAL SHEETS = ...



STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION  
 PLAN FOR PROPOSED IMPROVEMENT  
**SCHMALTZ ROAD**  
 (MORMON CREEK BRIDGE AND APPROACHES)  
 TOWN ROAD  
 LA CROSSE COUNTY

STATE PROJECT NUMBER  
**5348-03-71**

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5348-03-71		

ACCEPTED FOR  
TOWN OF GREENFIELD

DATE: \_\_\_\_\_  
TOWN CHAIRMAN

ACCEPTED FOR  
LA CROSSE COUNTY

DATE: \_\_\_\_\_  
COUNTY HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY

**MEAD & HUNT** ENGINEERS ARCHITECTS SCIENTISTS PLANNERS

**WISCONSIN PROFESSIONAL ENGINEER**  
 JOHN A. RATHKE  
 E-29332  
 COTTAGE GROVE, WI

10/21/97  
 DATE: \_\_\_\_\_  
 SIGNATURE: *John A. Rathke*  
 Mead & Hunt, Inc.  
 6501 Watts Road Madison, Wisconsin 53719-2700

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: MEAD & HUNT

Designer: MEAD & HUNT

District Examiner: \_\_\_\_\_

District Supervisor: \_\_\_\_\_

Proj. Dev. Engineer: \_\_\_\_\_

C. O. Examiner: \_\_\_\_\_

APPROVED FOR DISTRICT OFFICE

DATE: \_\_\_\_\_  
 (Signature)

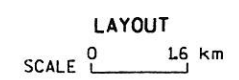
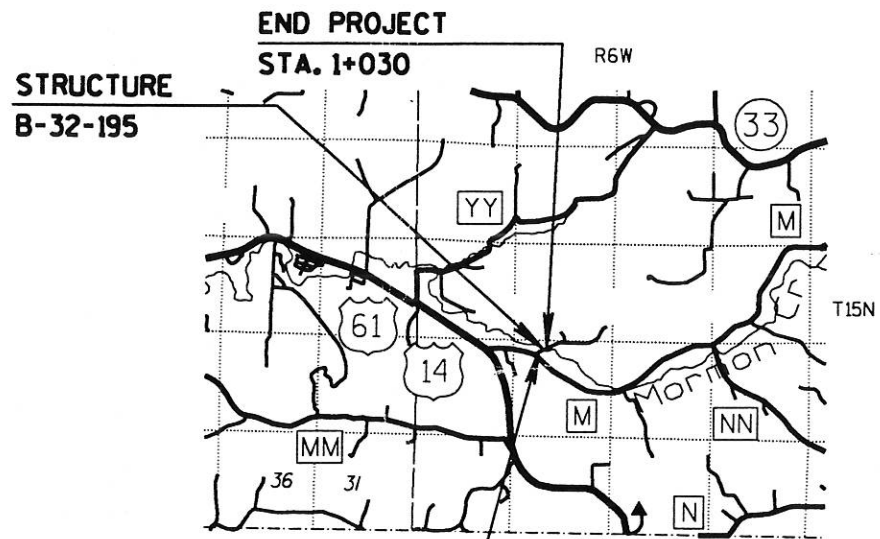
DESIGN DESIGNATION

A.D.T. (1998)	=	20
A.D.T. (2018)	=	40
D.H.V. (2018)	=	6
D.	=	50/50
T. (%ADT)	=	10
DESIGN SPEED	=	60 km/h
ESALS	=	N/A

CONVENTIONAL SYMBOLS

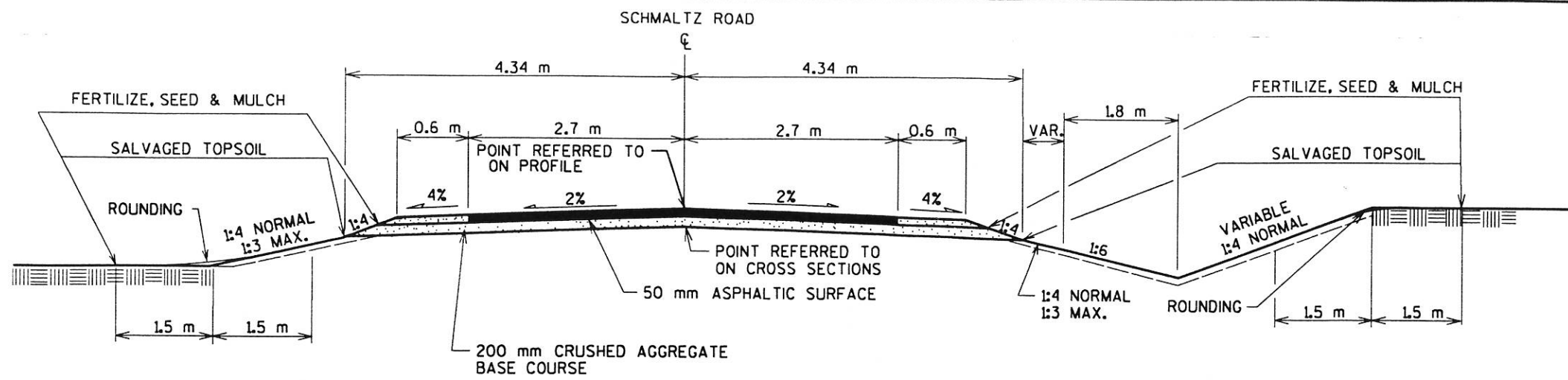
COUNTY LINE	---
CORPORATE LIMITS	////
PROPERTY LINE	P.L. 58.1
LOT LINE	---
LIMITED EASEMENT	---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SURVEY LINE	---
SLOPE INTERCEPT	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
CULVERT (Profile View)	○ □

COMBUSTIBLE FLUIDS	---
UNDERGROUND UTILITIES	---
GAS	G
ELECTRIC	E
TELEPHONE OR TELEGRAPH	T
SANITARY SEWER	(SIZE) SAN
STORM SEWER	(SIZE) SS
WATER	(SIZE) W OR WM
SERVICE PEDESTAL	⊠
CABLE MARKER	P
POWER POLE	□
TELEPHONE POLE	□
RAILROAD	---
MARSH AREA	⊛
WOODED OR SHRUB AREA	⊛
HYDRANT	⊙
LIGHT	*



TOTAL NET LENGTH OF CENTERLINE = 0.060 km (RURAL)

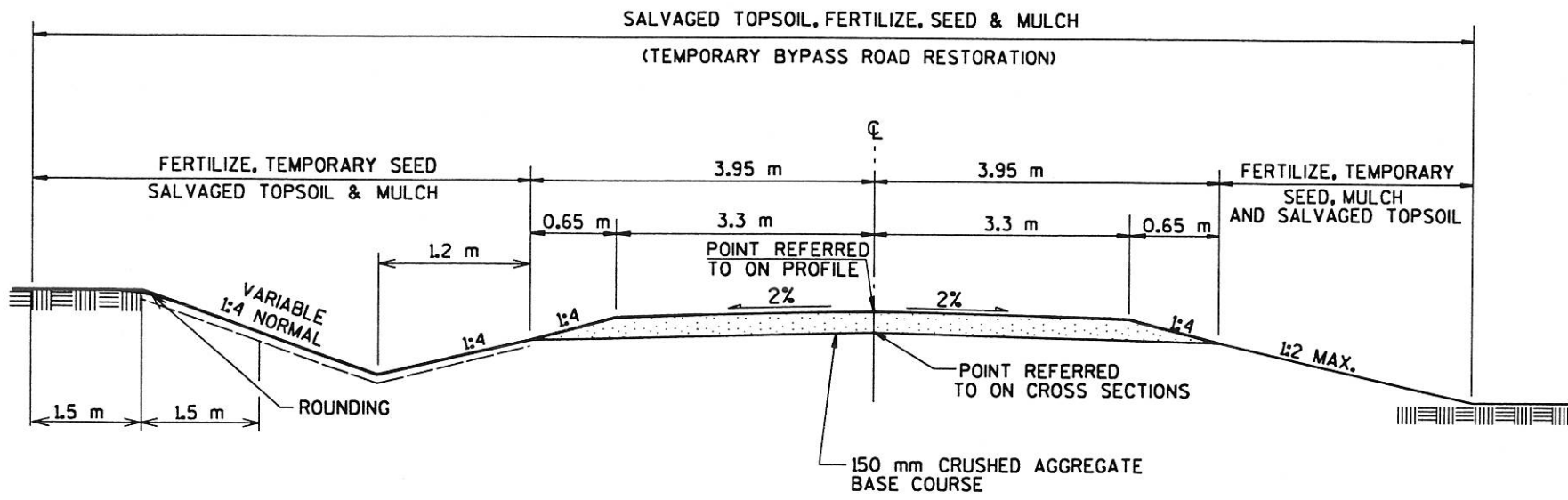
COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM SOUTHERN ZONE AND SCALED FROM THE ST. JOSEPH, WISCONSIN QUADRANGLE FOR IDENTIFICATION PURPOSES ONLY.



TYPICAL ROADWAY CROSS SECTION

STANDARD ABBREVIATIONS

ASPH	ASPHALTIC	MIN	MINIMUM
BM	BENCHMARK	MAX	MAXIMUM
CL	CENTERLINE	MPa	MEGAPASCAL
m <sup>3</sup>	CUBIC METER	NO.	NUMBER
EL	ELEVATION	PL	PROPERTY LINE
EXC	EXCAVATION	RHF	RIGHT HAND FORWARD
ha	HECTARE	RT	RIGHT
km	KILOMETER	R/W	RIGHT OF WAY
kg	KILOGRAM	m <sup>2</sup>	SQUARE METER
kN	KILONEWTON	STA	STATION
L	LITER	TL	TRANSIT LINE
LHF	LEFT HAND FORWARD	UNCL.	UNCLASSIFIED
LT	LEFT	TLE	TEMPORARY LIMITED EASEMENT
m	METER	VC	VERTICAL CURVE
mm	MILLIMETER		



TYPICAL TEMPORARY BYPASS ROAD CROSS SECTION

GENERAL NOTES

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.  
 THE LOCATION 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.  
 BEARINGS ARE ASSUMED BEARINGS TO THE NEAREST SECOND.  
 ELEVATIONS ARE REFERENCED TO NGVD 29.  
 ASPHALTIC SURFACE REMOVAL IS INCLUDED IN THE UNCLASSIFIED EXCAVATION.

UTILITIES

CENTURY TELEPHONE  
 P.O. BOX 4800  
 LA CROSSE, WI 54602-4800  
 MR. ED FEYEN  
 608-796-5143

DNR  
 WEST CENTRAL DISTRICT  
 1300 W CLAIRMONT AVE.  
 EAU CLAIRE, WISCONSIN 54702-4001  
 MR. TOM LOVEJOY  
 715-839-3747



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

CALL DIGGERS HOTLINE

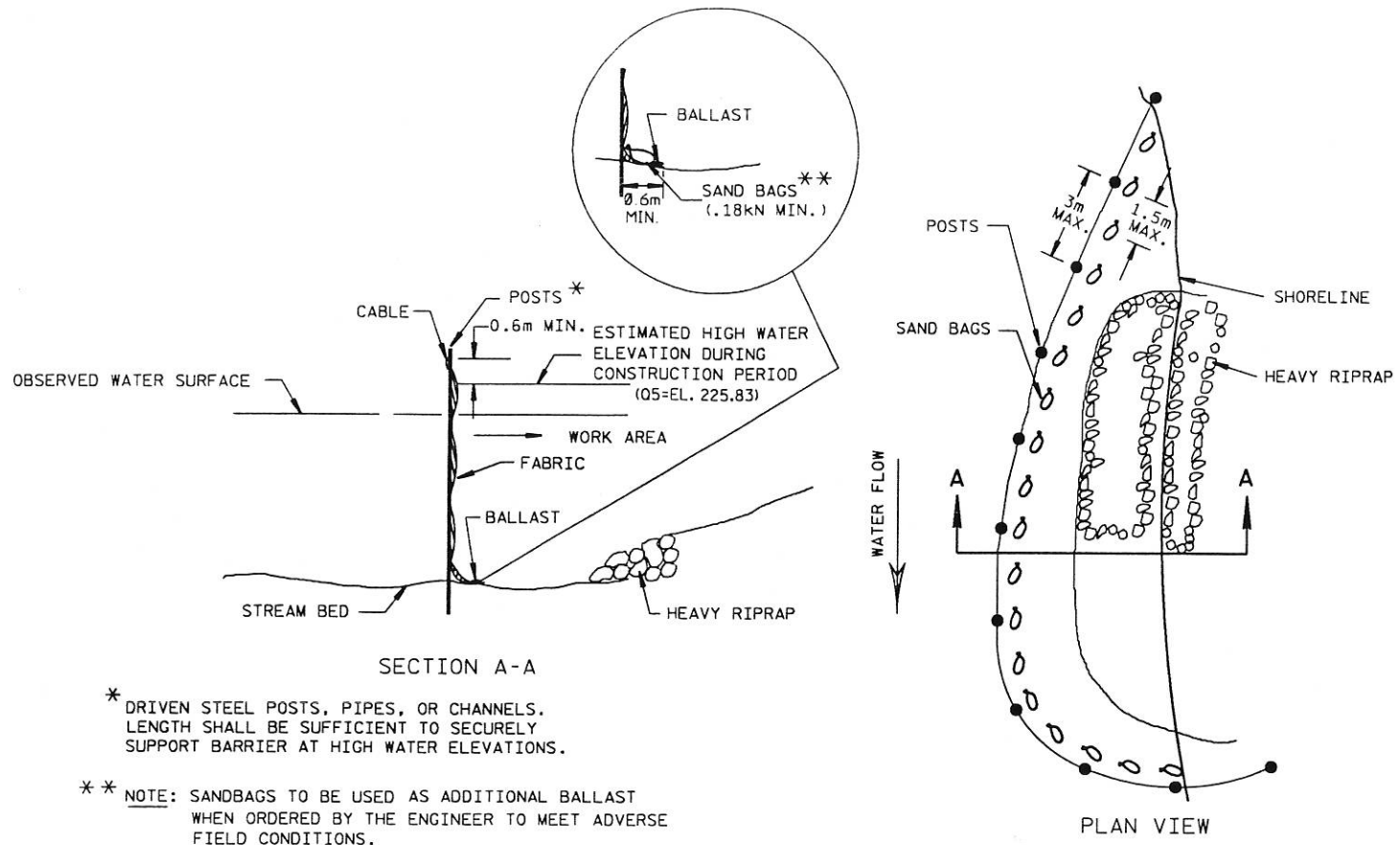
1-800-242-8511  
 TOLL FREE  
 FAX A LOCATE 1-800-338-3860  
 TDD (FOR HEARING IMPAIRED) 1-800-542-2289

WISCONSIN STATUTE 182.0175 (1974)  
 REQUIRES MINIMUM OF 3 WORK DAYS  
 NOTICE BEFORE YOU EXCAVATE.

STANDARD DETAIL DRAWINGS

- 8E9-5
- 12A3-4
- 15C2-3
- 15C6-4
- SILT FENCE
- NAME PLATE - STRUCTURES
- BARRICADES AND SIGNS FOR ROAD CLOSURES
- SIGNING AND MARKING FOR TWO LANE BRIDGES

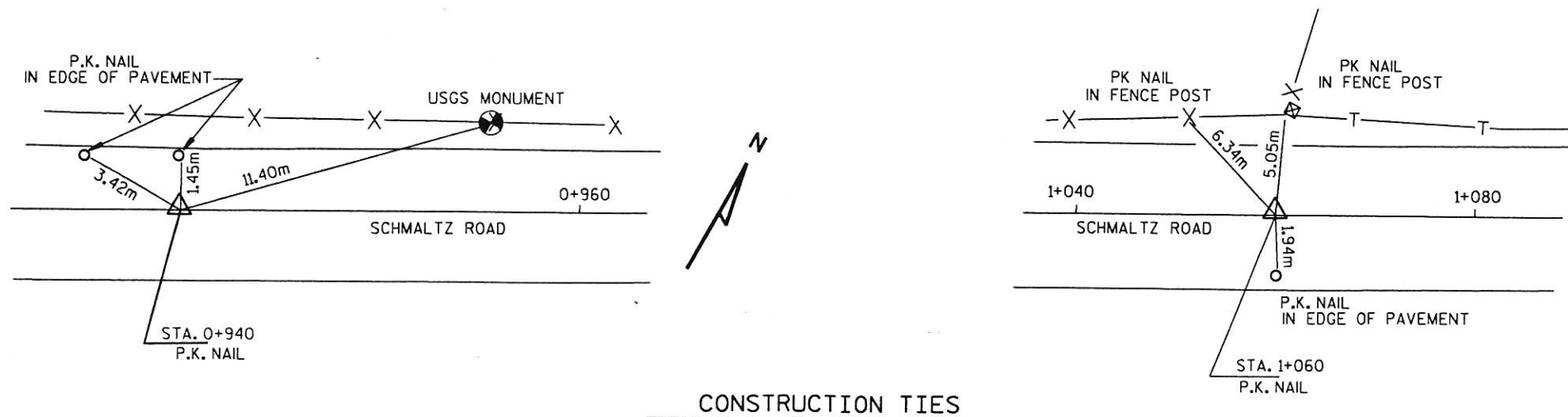
h:\hwys\lacrosse\smaltz\smaltz200.dg Oct. 22, 1997 08:03:30



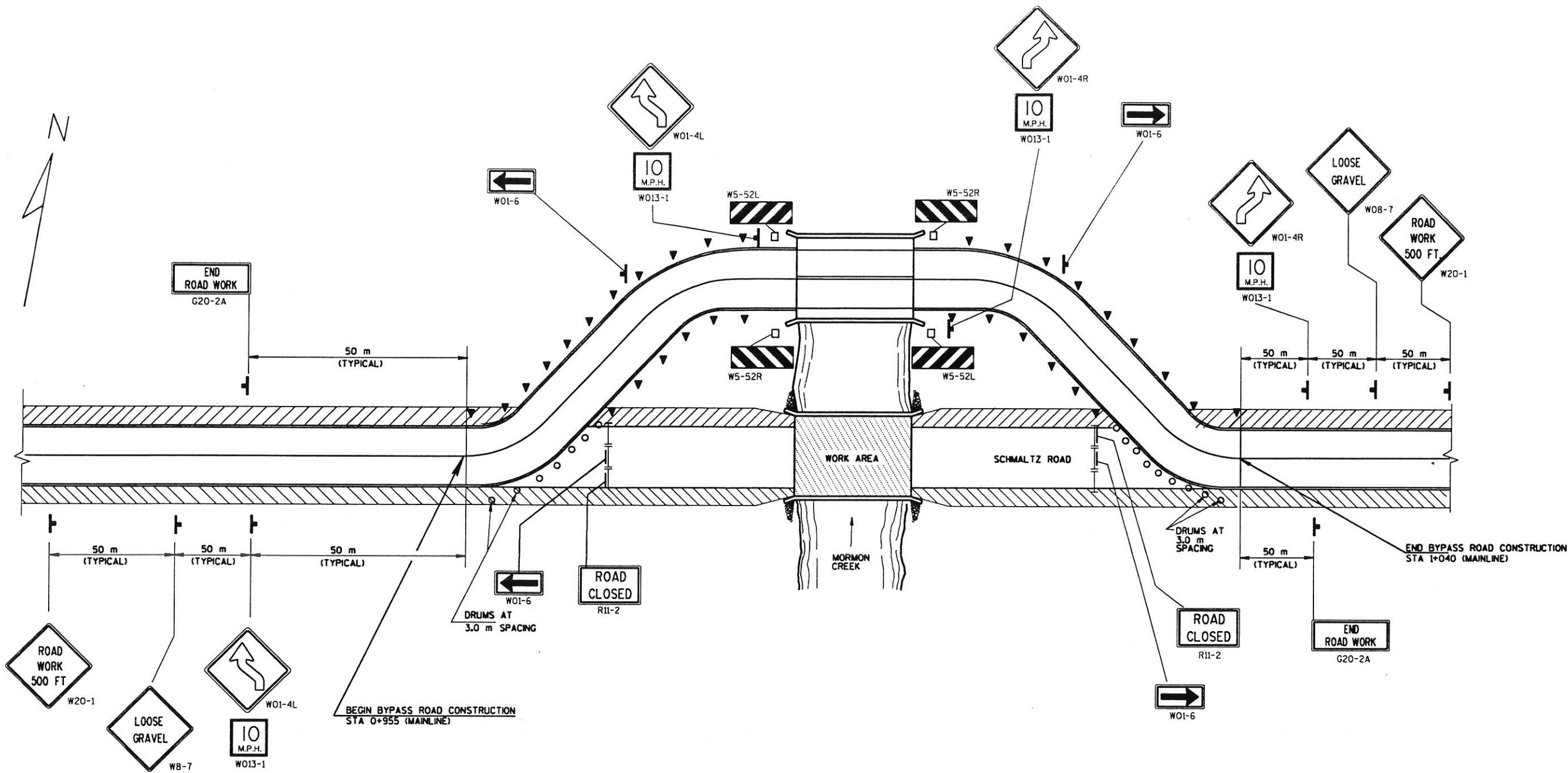
\* DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

\*\* NOTE: SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS.

TURBIDITY BARRIER DETAIL



CONSTRUCTION TIES



**GENERAL NOTES**

1. ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. ALL SIGNS ARE 1200 mm X 1200 mm UNLESS OTHERWISE NOTED.
4. PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED.
5. ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS, OR AS DIRECTED BY THE ENGINEER.
6. TEMPORARY DELINEATORS ARE BID AS THE BID ITEM "TEMPORARY DELINEATORS, EACH".
7. ALL TRAFFIC CONTROL ITEMS, EXCEPT TEMPORARY DELINEATORS, ARE BID AS THE LUMP SUM PRICE FOR "TRAFFIC CONTROL".
8. ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 2.4 m.
9. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES	
R11-2	= 1200 mm X 750 mm
W01-6	= 1500 mm X 750 mm
G20-2A	= 1200 mm X 600 mm
W5-52L&R	= 450 mm X 1350 mm
W013-1	= 900 mm X 900 mm

**LEGEND**

- WORK AREA
- DRUMS WITH TYPE "C" LIGHTS
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS (WITH SIGN / WITHOUT SIGN)
- TEMPORARY DELINEATORS AT 7.5 m SPACING (UNIDIRECTIONAL).

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CLEARING AND GRUBBING

STATION TO STATION	40 METERS CLEARING	40 METERS GRUBBING
0+980 - 1+020	1	1

YARDAGE SUMMARY

EXPANSION = 30%      TBR = TEMPORARY BYPASS ROAD

STATION	UNCL. m3	EXC. m3	FILL m3	EXPANDED FILL m3	BORROW m3	WASTE m3
0+970 - 1+030	57	11	15	---	42	---
TBR CONSTRUCTION	114	166	215	101	---	---
TBR RESTORATION	329	114	148	---	181	---
<b>TOTAL</b>	<b>500</b>	<b>291</b>	<b>378</b>	<b>101</b>	<b>223</b>	<b>---</b>

CRUSHED AGGREGATE BASE COURSE

STATION TO STATION	LOCATION	m3
0+970 - 1+030	MAINLINE	73
	SHOULDERS	14
	TEMP. BYPASS ROAD	80
<b>TOTAL</b>		<b>167</b>

ASPHALTIC SURFACE

STATION TO STATION	LOCATION	Mg
0+970 - 1+030	MAINLINE	25
	PAVED SHOULDER TAPERS	3
<b>TOTAL</b>		<b>28</b>

SILT FENCE, SILTY SOIL

STATION TO STATION	LOCATION	DELIVERED m	INSTALLED m	MAINTENANCE m
0+955 - CREEK	LT	45	45	90
0+970 - CREEK	RT	30	30	60
CREEK - 1+040	LT	35	35	70
CREEK - 1+030	RT	25	25	50
<b>TOTAL</b>		<b>135</b>	<b>135</b>	<b>270</b>

EROSION CONTROL

STATION TO STATION	LOCATION	SALVAGED TOPSOIL m2	MULCHING m2	FERTILIZER TYPE B kg	SEEDING NO. 10 kg	TEMPORARY SEED kg	SEEDING BORROW PIT kg
0+970 - 1+030	MAINLINE	215	290	10	3	---	---
	BORROW PIT	----	100	4	---	---	1
	TEMPORARY BYPASS ROAD	380	500	18	---	8	---
	SALVAGED TOPSOIL AREA	----	1280	45	13	----	---
	BYPASS ROAD RESTORATION	685	685	24	7	---	---
	WASTE SITE	----	223	8	3	----	---
<b>TOTAL</b>		<b>1280</b>	<b>3078</b>	<b>109</b>	<b>26</b>	<b>8</b>	<b>1</b>

SIGNS, TYPE II, REFLECTIVE, AND WOOD POSTS

STATION	LOCATION	SIGN	m2	WOOD POSTS 100X100X3m
0+986	END OF STRUCTURE LT	W5-52L	0.3	1
0+987	END OF STRUCTURE RT	W5-52R	0.3	1
1+013	END OF STRUCTURE LT	W5-52L	0.3	1
1+014	END OF STRUCTURE RT	W5-52R	0.3	1
<b>TOTAL</b>			<b>1.2</b>	<b>4</b>

YARDAGE SUMMARY

EXPANSION = 30%      TBR = TEMPORARY BYPASS ROAD

STATION	UNCL. m3	EXC. m3	FILL m3	EXPANDED FILL m3	BORROW m3	WASTE m3
0+970 - 1+030	57	11	15	---	42	---
TBR CONSTRUCTION	114	166	215	101	---	---
TBR RESTORATION	329	114	148	---	181	---
<b>TOTAL</b>	<b>500</b>	<b>291</b>	<b>378</b>	<b>101</b>	<b>223</b>	<b>---</b>

SAWING EXISTING PAVEMENT

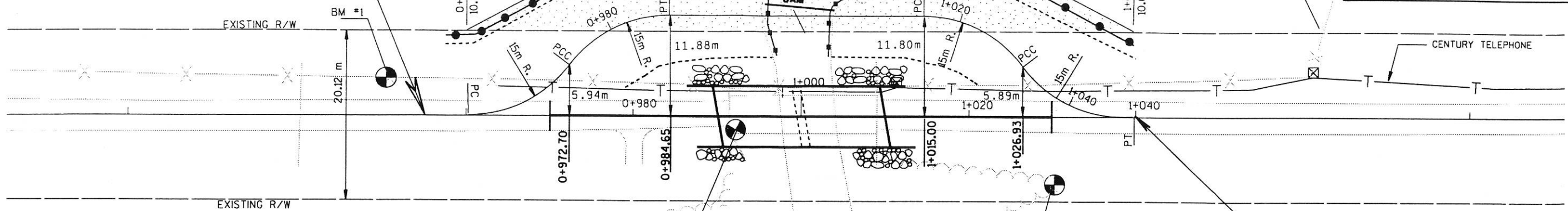
STATION	m
0+970	4.0
1+030	4.0
<b>TOTAL</b>	<b>8.0</b>

TURBIDITY BARRIER

LOCATION	m2
0+990, WEST ABUT.	90
1+010, EAST ABUT.	105
<b>TOTAL</b>	<b>195</b>

NO.	STATION	DESCRIPTION		ELEV.
1	0+950.5	USGS MONUMENT	4.4 m LT.	228.495m
2	0+992	TOP OF BOLT SW BRIDGE CURB	2.0 m RT.	228.696m
3	1+030.3	60d IN 30cm ELM	8.1 m RT.	228.644m

BEGIN CONSTRUCTION  
STA. 0+955 SCHMALTZ ROAD  
TEMPORARY BYPASS ROAD CONSTRUCTION



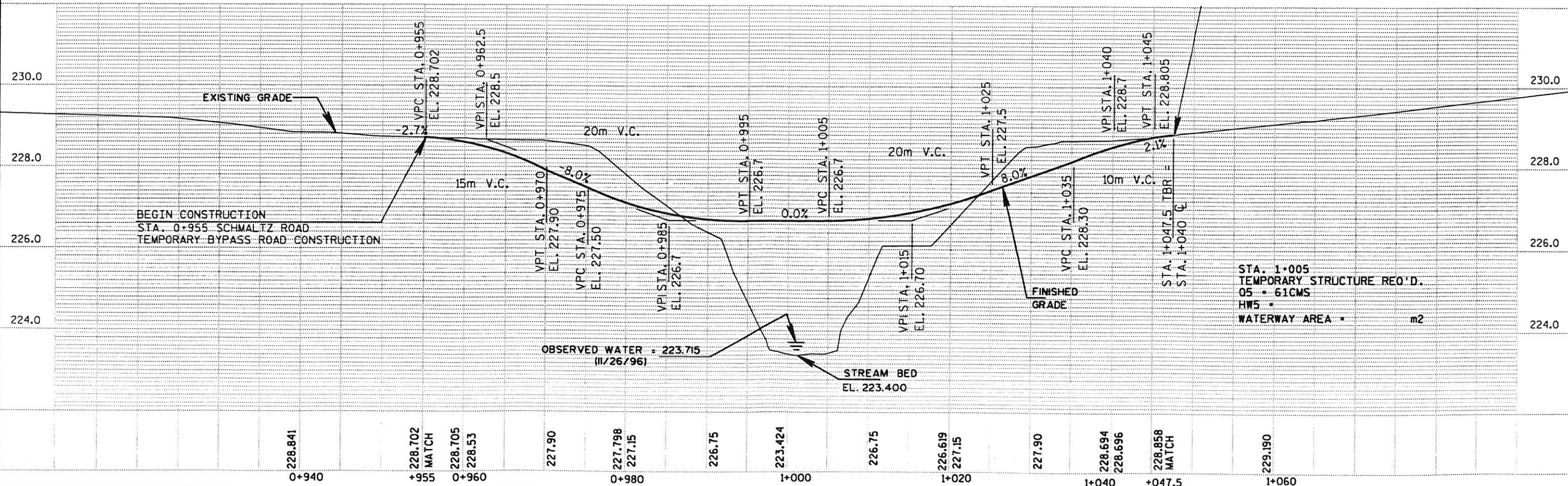
TEMPORARY BYPASS ROAD DETAILS

END CONSTRUCTION  
STA. 1+040 SCHMALTZ ROAD=  
STA. 1+047.5 TEMPORARY BYPASS ROAD  
TEMPORARY BYPASS ROAD CONSTRUCTION

C/L STATION	TBR STATION	OFFSET	ELEVATION
0+960	0+960	0.0	228.523
0+965	0+965.059	0.618	228.252
0+970	0+970.720	3.200	227.841
0+975	0+977.928	8.367	227.283
0+980	0+983.684	11.146	226.956
0+985	0+988.762	11.885	226.778
0+990	0+993.762	11.871	226.703
0+995	0+998.762	11.856	226.700
1+000	1+003.762	11.842	226.700
1+005	1+008.762	11.828	226.728
1+010	1+013.762	11.814	226.854
1+015	1+018.762	11.800	227.079
1+020	1+023.860	10.942	227.411
1+025	1+029.708	7.980	227.877
1+030	1+036.879	2.869	228.440
1+035	1+042.458	0.469	228.733
1+040	1+047.503	0.0	228.858

LEGEND  
● SILT FENCE  
■ TURBIDITY BARRIER

CURVE DATA	CURVE DATA	CURVE DATA	CURVE DATA
PI STA 0+968.195	PI STA 0+982.032	PI STA 1+026.191	PI STA 1+040.717
R 15.000 m	R 15.000 m	R 15.000 m	R 15.000 m
Δ 52°51'24"	Δ 52°51'24"	Δ 52°41'35"	Δ 57°05'24"
T 7.455 m	T 7.455 m	T 7.429 m	T 8.160 m
L 13.838 m	L 13.838 m	L 13.795 m	L 14.946 m
PC STA 0+960.739	PC STA 0+974.577	PC STA 1+018.762	PC STA 1+032.557
PT STA 0+974.577	PT STA 0+988.415	PT STA 1+032.557	PT STA 1+047.503



STA. 1+005  
TEMPORARY STRUCTURE REQ'D.  
05 - 61CMS  
HW5 -  
WATERWAY AREA - m2

PLAN AND PROFILE - TEMPORARY BYPASS ROAD

HWY: SCHMALTZ ROAD

COUNTY: LACROSSE

STATE PROJECT NO: 5348-03-71

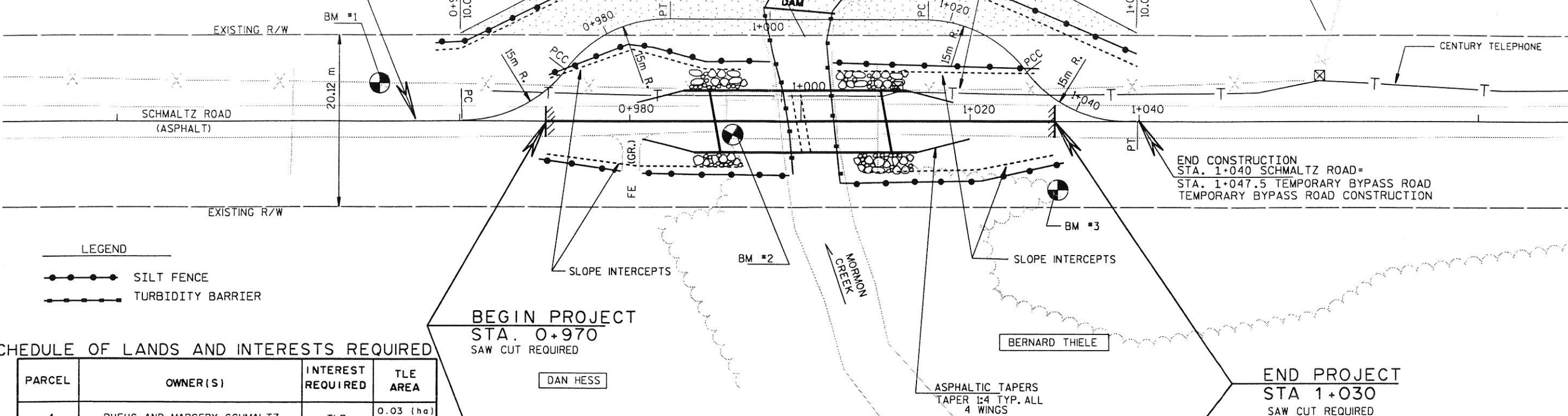
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SHEET NO: .---

M

NO.	STATION	DESCRIPTION		ELEV.
1	0+950.5	USGS MONUMENT	4.4 m LT.	228.495m
2	0+992	TOP OF BOLT SW BRIDGE CURB	2.0 m RT.	228.696m
3	1+030.3	60d IN 30cm ELM	8.1 m RT.	228.644m

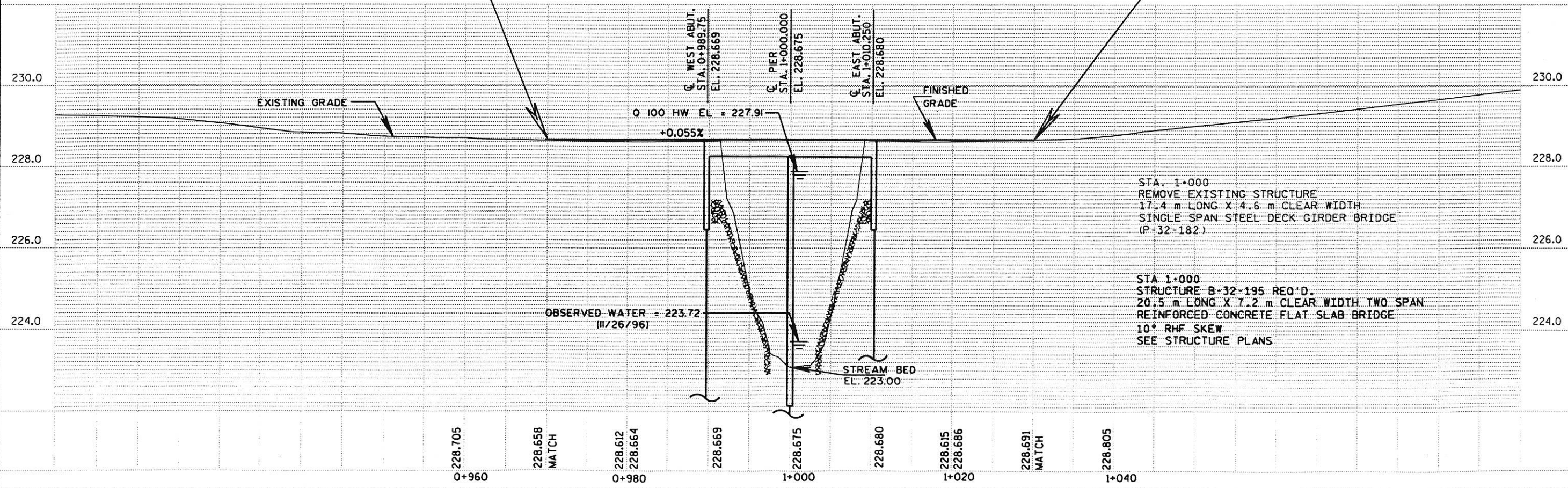
BEGIN CONSTRUCTION  
 STA. 0+955 SCHMALTZ ROAD  
 TEMPORARY BYPASS ROAD CONSTRUCTION



- LEGEND
- SILT FENCE
  - TURBIDITY BARRIER

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL	OWNER(S)	INTEREST REQUIRED	TLE AREA
1	RUFUS AND MARGERY SCHMALTZ	TLE	0.03 (ha) 0.07 (ac)
2	JOHN AND JEAN HENDERSON	TLE	0.03 (ha) 0.08 (ac)



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BENCH MARKS

NO.	STATION	DESCRIPTION		ELEV.
1	0+950.5	USGS MONUMENT	4.4m LT.	228.495
3	1+030.3	60d NAIL IN 300 ELM	8.1m RT.	228.644

GENERAL NOTES

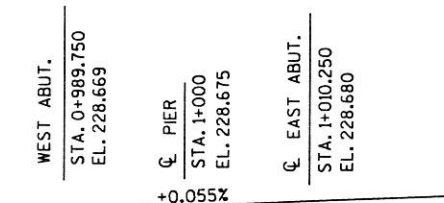
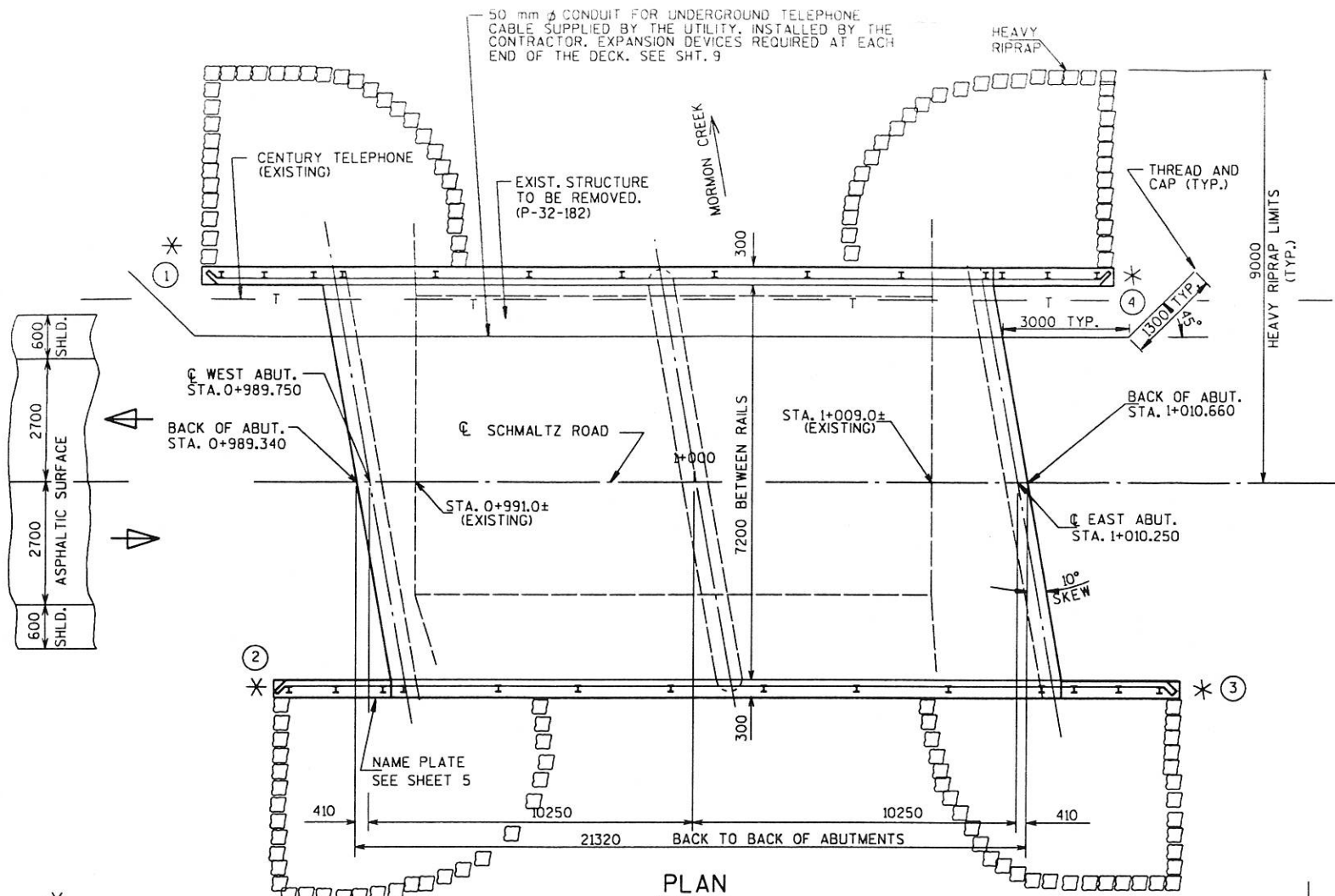
DRAWINGS SHALL NOT BE SCALED.  
 BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 50mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.  
 SLAB FALSEWORK SHALL BE SUPPORTED ON PILES, UNLESS ALTERNATE METHOD IS APPROVED BY THE ENGINEER.  
 THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP TO THE EXTENT SHOWN ON THIS SHEET AND IN THE ABUTMENT DETAILS.  
 THE EXISTING STRUCTURE IS A 17400 LONG BY 4600 CLEAR WIDTH, SINGLE SPAN STEEL GIRDER BRIDGE. (P-32-182)  
 ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.  
 A MONUMENT (BENCH MARK CAP) SUPPLIED BY THE DEPARTMENT SHALL BE SET IN THE SAME WING WALL AS THE NAME PLATE.  
 ALL STATIONS AND ELEVATIONS ARE IN METERS.  
 AT THE BACK FACE OF ABUTMENT ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.  
 ALL BAR STEEL REINFORCEMENT IS METRIC (SOFT CONVERSION).

HYDRAULIC DATA

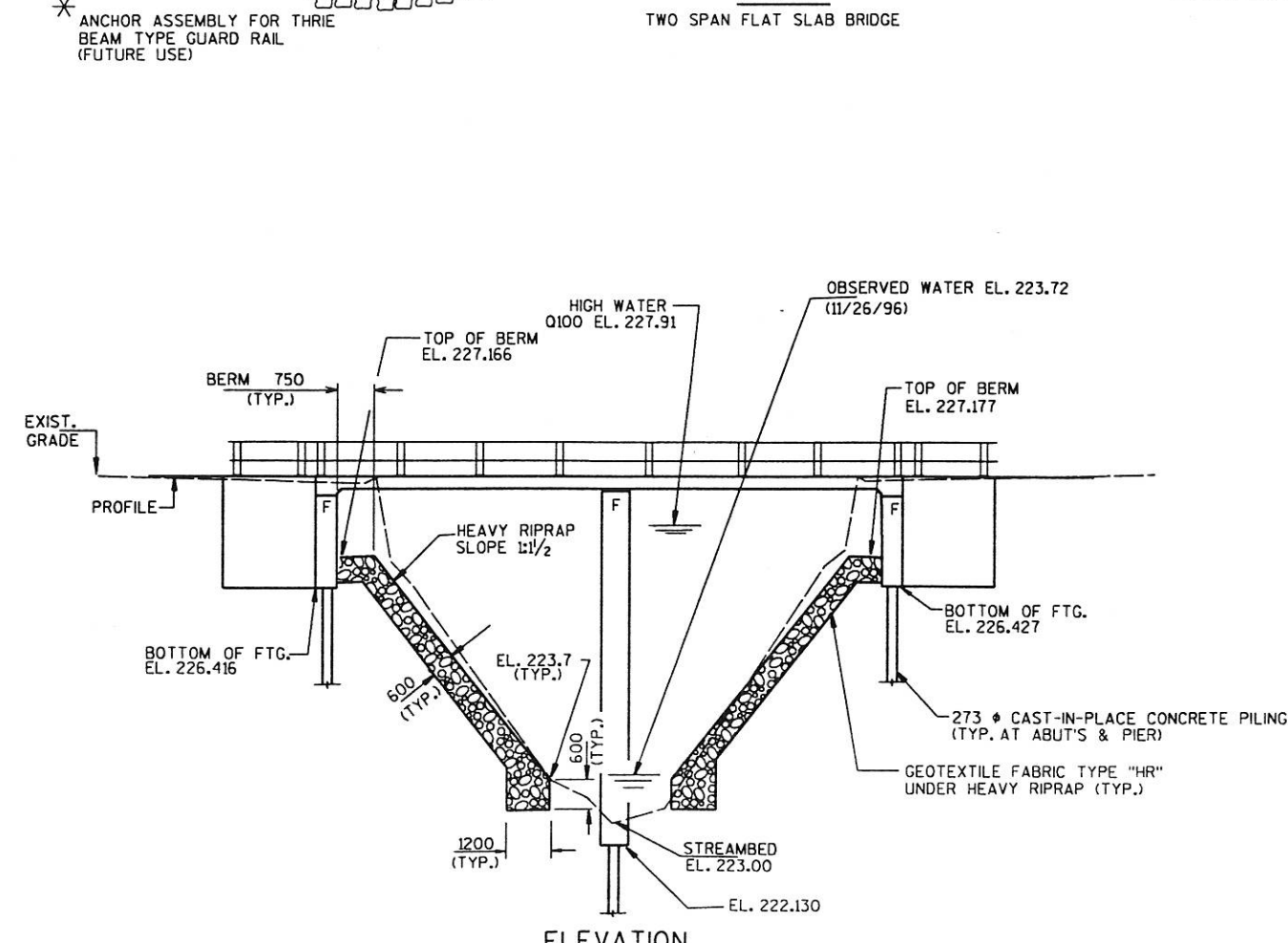
Q<sub>100</sub> 209.5 m<sup>3</sup>/S  
 VELOCITY 3.8 M/S  
 HIGH WATER EL. 227.91  
 WATERWAY AREA 55.0 m<sup>2</sup>  
 DRAINAGE AREA 49.0 km<sup>2</sup>  
 SCOUR CRITICAL CODE 5  
 OVERTOPPING FREQUENCY--N/A

DESIGN DATA

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 10 kN/m<sup>2</sup>  
 LIVE LOAD:  
 DESIGN RATING MS18  
 INVENTORY RATING MS18  
 OPERATING RATING MS35  
 MAXIMUM STANDARD PERMIT VEHICLE LOAD= 945 kN  
 ULTIMATE DESIGN STRESSES:  
 CONCRETE MASONRY SLAB f'c = 28 MPa  
 ALL OTHER f'c = 24 MPa  
 HIGH STRENGTH BAR STEEL REINFORCEMENT fy = 420 MPa



PROFILE



ELEVATION

FOUNDATION DATA

ABUTMENTS AND PIER SUPPORTED ON 273 φ CAST-IN-PLACE CONCRETE PILING DRIVEN TO 490KN PER PILE, ESTIMATED 12000 LONG.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT
6. EAST ABUTMENT
7. EAST ABUTMENT
8. PIER
9. SUPERSTRUCTURE
10. TUBULAR RAILING TYPE 'F'

TRAFFIC DATA

ADT (1998)= 20  
 (2018)= 40



ORIGINAL PLANS PREPARED BY JOHN RATHKE 10/22/97

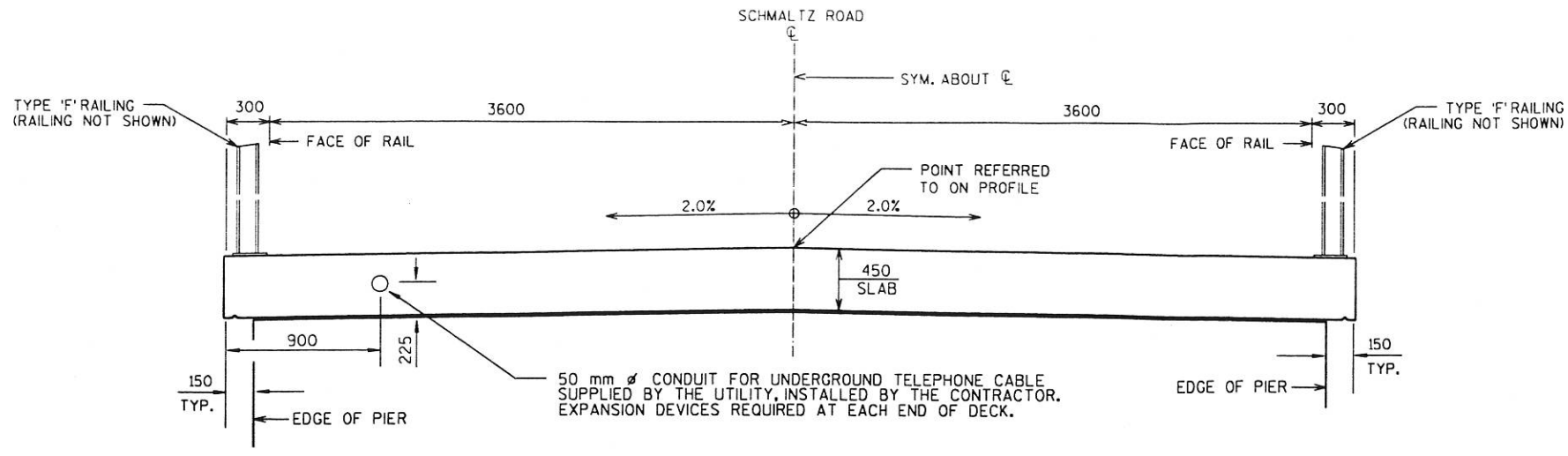


JOHN RATHKE, P.E.  
 608-273-6380

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-32-195			
SCHMALTZ ROAD OVER MORMON CREEK			
COUNTY	LACROSSE	TOWN/CITY/VILLAGE	GREENFIELD
DESIGN SPEC.	AASHTO '96	LOAD	MS18
DESIGNED BY	CJB	DESIGN CK'D.	JAR
DRAWN BY	NJA	PLANS CK'D.	CJB
APPROVED		DATE	
CHIEF STRUCTURAL DESIGN ENGINEER			
GENERAL PLAN			SHEET 1 OF 10

BRIDGE OFFICE CONTACT  
 G. ANDERSON 608-266-8488

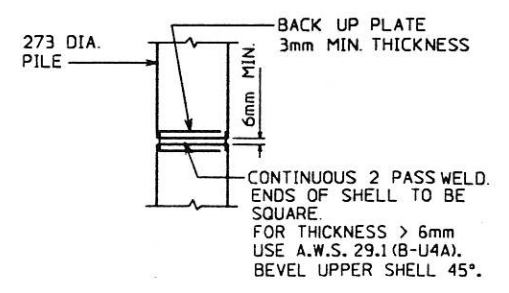




**CROSS SECT. THRU RDWY.**  
LOOKING EAST

**TOTAL ESTIMATED QUANTITIES**

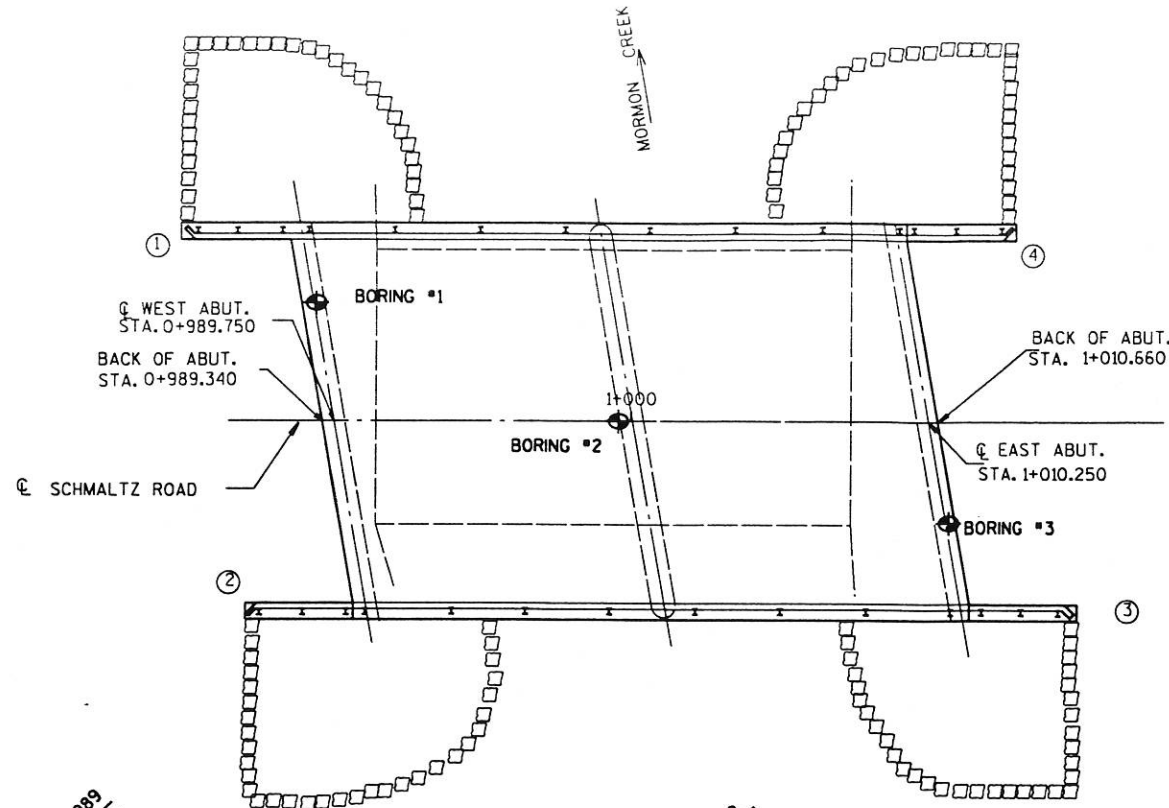
BID ITEMS	UNIT	WEST ABUT.	PIER	EAST ABUT.	SUPER.	TOTALS
REMOVING OLD BRIDGE, STA. 1+000	L.S.	—	—	—	—	1
EXCAVATION FOR STRUCTURES, BRIDGES B-32-195	L.S.	—	—	—	—	1
STRUCTURE BACKFILL	m3	75	—	75	—	150
CONCRETE MASONRY, BRIDGES	m3	19	33	19	78	149
PROTECTIVE SURFACE TREATMENT	m2	—	—	—	170	170
HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	Kg	890	990	890	5960	8730
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	Kg	120	—	120	3610	3850
CAST-IN-PLACE CONCRETE PILING, DELIVERED AND DRIVEN 273 mm	m	48	72	48	—	168
TUBULAR RAILING, TYPE 'F', STRUCTURE B-32-195	L.S.	—	—	—	—	1
RUBBERIZED MEMBRANE WATERPROOFING	m2	4	—	4	—	8
HEAVY RIPRAP	m3	105	—	105	—	210
GEOTEXTILE FABRIC, TYPE 'HR'	m2	175	—	175	—	350
NON-BID ITEMS						
FILLER	SIZE	—	—	—	—	13 & 19



**PILE SPLICE DETAILS**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-32-195</b>			
CONST. SPEC.	1996	DRAWN BY NJA	PLANS CK'D. CJB
<b>CROSS SECTION &amp; QUANTITIES</b>			SHEET 2 OF 10

BORINGS BY  
SOILS & ENGINEERING SERVICES, INC.  
MADISON, WISCONSIN  
ON APRIL 7 & 8, 1997



ABBREVIATIONS

F---FINE	M---MEDIUM	C---COARSE
Ws---WEATHERED	So---SOUND	

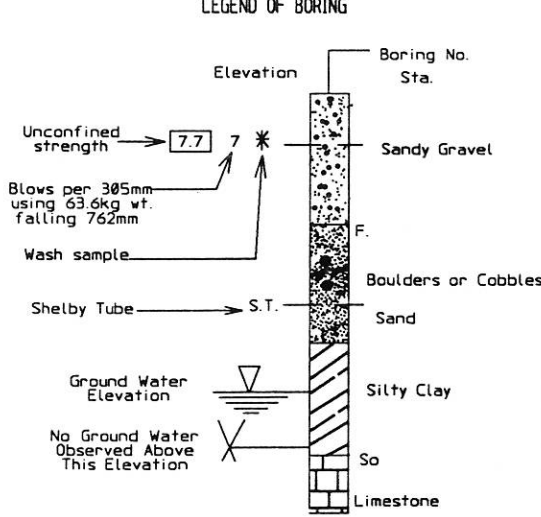
MATERIAL SYMBOLS


LEGEND OF PROBING

Probing No.  
Sta.  
Elevation

95/152mm OF Penetration  
Probing taken with a 159.1kg wt. Falling 457mm on a 51mm O.D. Point.

7 Average blows per 305mm  
Refusal 95/152



Unless otherwise specified, the blows per 305mm at the locations indicated are based on driving a 51mm O.D. x 35mm I.D. split spoon sampler with a 63.6kg hammer having a free fall of 762mm. 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.

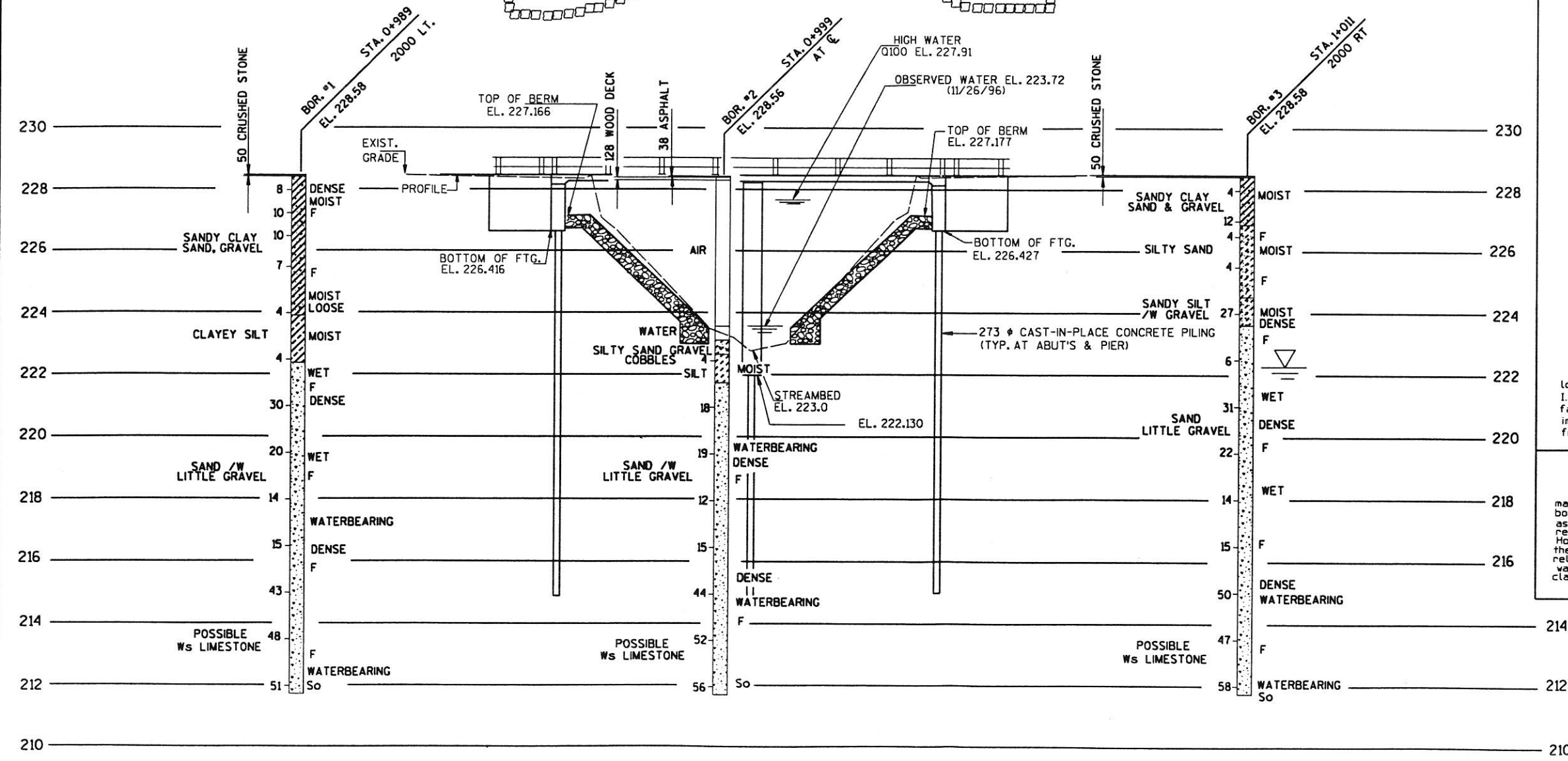
NO.	DATE	REVISION	BY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

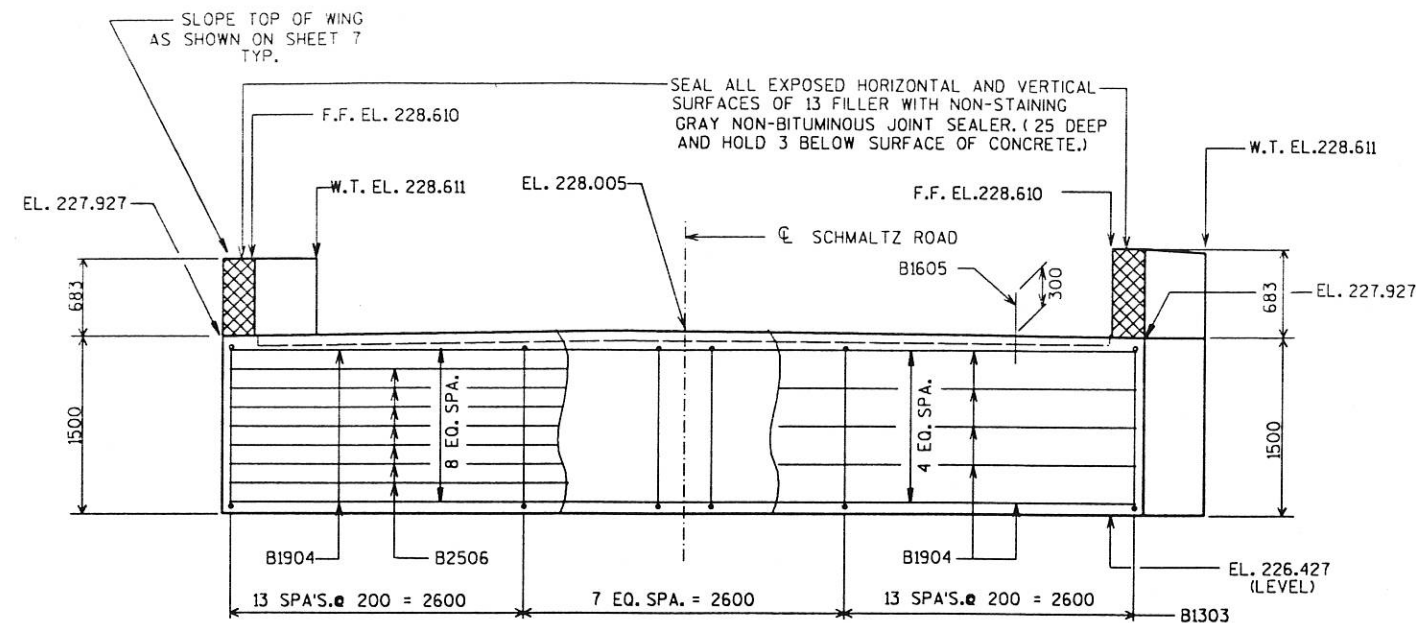
STRUCTURE B-32-195

CONST. SPEC.	1996	DRAWN BY	NJA	PLANS CK'D.	CJB
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SUBSURFACE EXPLORATION SHEET 3 OF 10

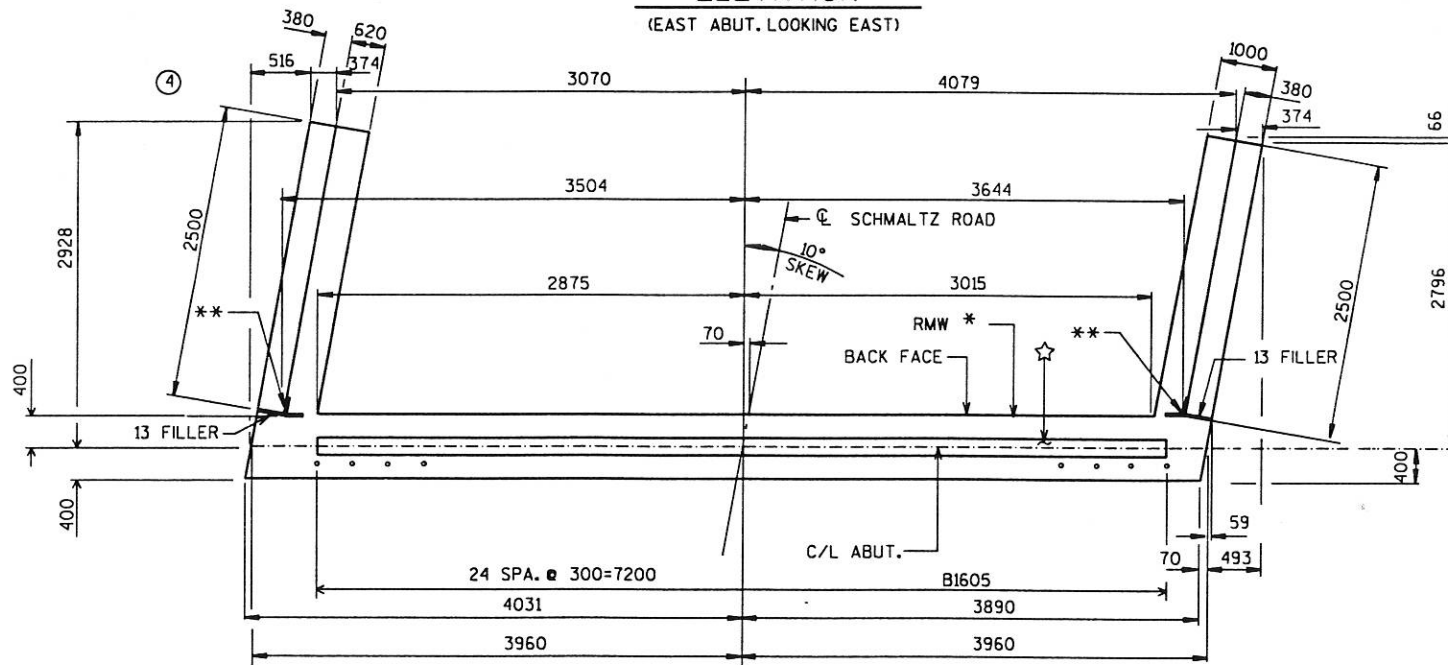




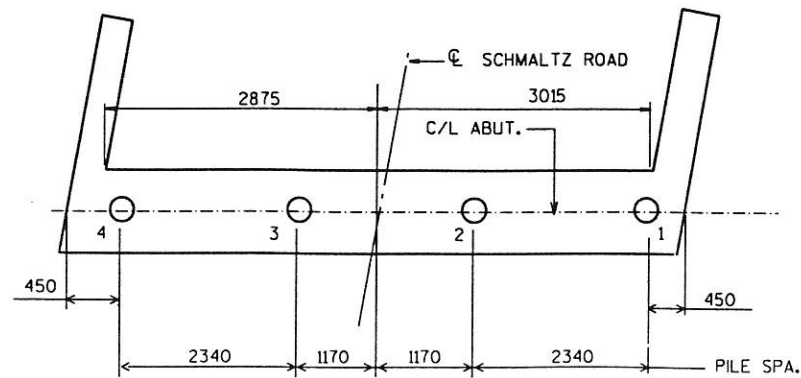


**ELEVATION**

(EAST ABUT. LOOKING EAST)



**PLAN**



**PILE PLAN**

B.F.=BACK FACE  
W.T.=WING TIP  
F.F.=FRONT FACE

\*\* 457 RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING AND BETWEEN INSIDE FACES OF WINGS.

NOTE: SEAL ALL VERT. AND HORIZ. JOINTS OF RUBBERIZED MEMBRANE WATERPROOFING.

\* EXTEND BETWEEN WINGS HORIZ. OVER FILLETS.

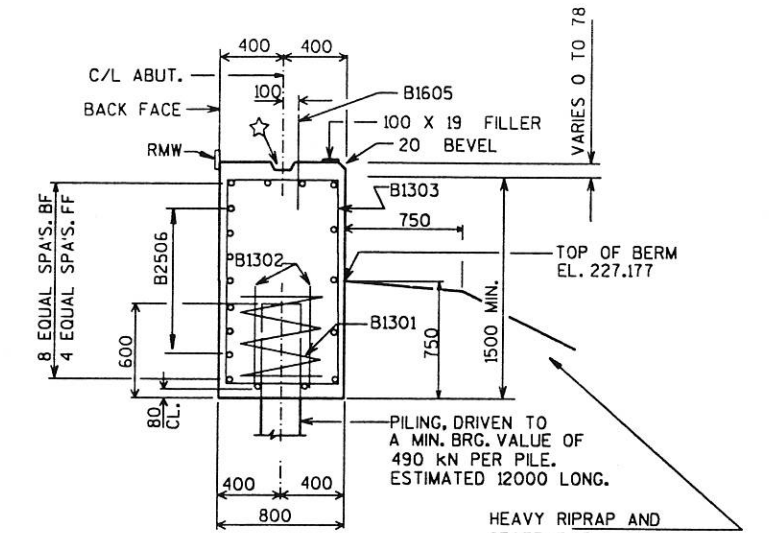
☆ CONST. JOINT KEYWAY FORMED WITH A SURFACED, BEVELED 38 X 140. TERMINATE 300 FROM ABUT. ENDS

NOTE: FILL/EXCAVATE TO BOTTOM OF FOOTING EL. 226.427 BEFORE DRIVING PILING.

NOTE: B1605 BARS MAY BE PLACED AFTER CONC. IS POURED, BUT BEFORE INITIAL SET HAS OCCURRED.

NOTE: ABUTMENT SUPPORTED ON 273mm CAST-IN-PLACE CONCRETE PILING DRIVEN TO A MIN. BRG. VALUE OF 490 kN PER PILE, EST. 12000 LONG.

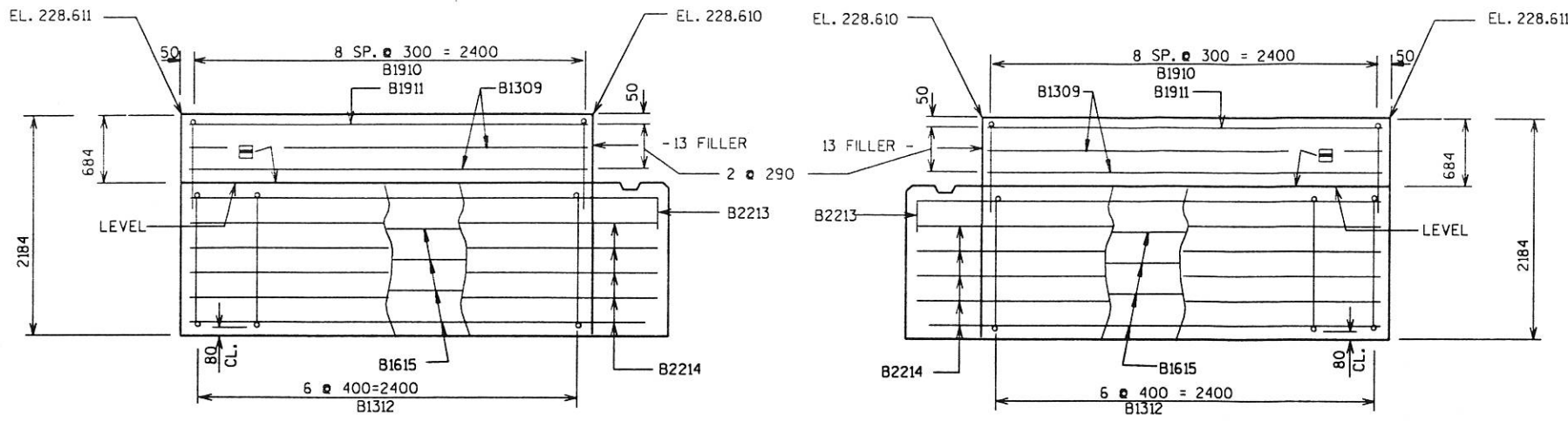
NOTE: FOR PILE SPLICE DETAIL SEE SHEET 2.



**SECT. THRU BODY**

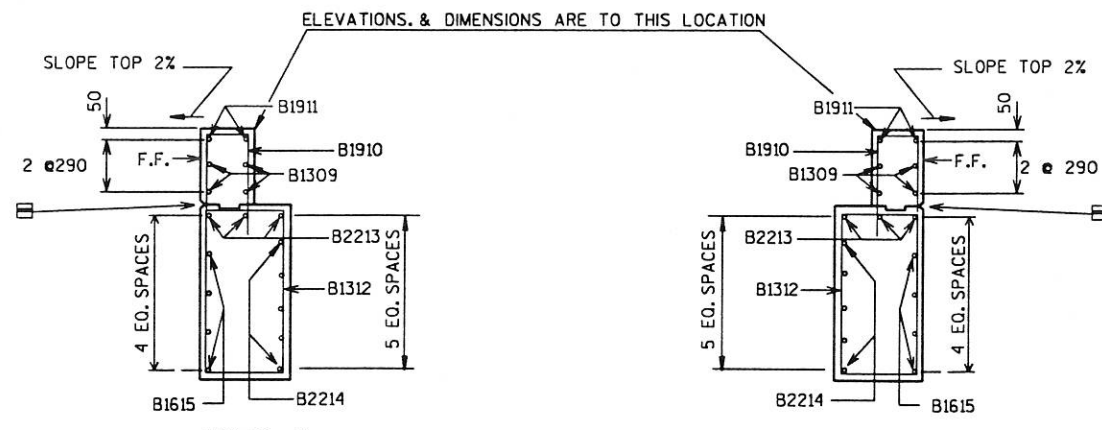
ALL HORIZONTAL BARS NOT LABELLED ARE B1904 BARS.

NO.	DATE	REVISION	BY
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<b>STRUCTURE B-32-195</b>			
CONST. SPEC.	1996	DRAWN BY NJA	PLANS CK'D. CJB
<b>EAST ABUTMENT</b>			SHEET 6 OF 10



WING 3 ELEVATION

WING 4 ELEVATION



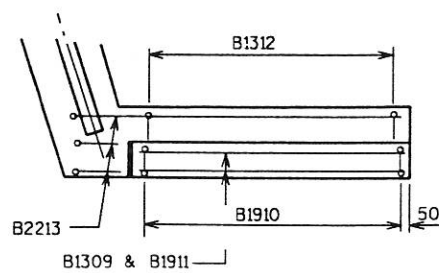
WING 3 SECTION

WING 4 SECTION

SEE SHEET 10 FOR RAIL POST ANCHORS.

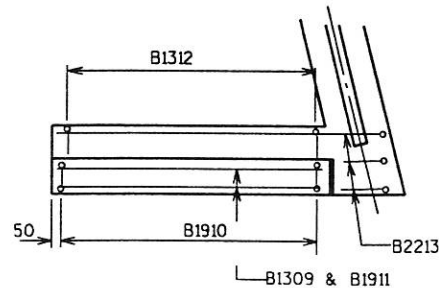
SEE SHEET 10 FOR RAIL POST ANCHORS.

OPT. CONST. JOINT- FORMED BY SURFACED, BEVELED 38 x 140 KEYWAY 20 'V' GROOVE ON F.F. OF WINGWALL IF JOINT IS USED.



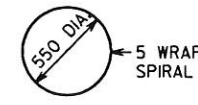
WING 3 PLAN

SPACE B1910 TO MISS ANCHORS FOR RAIL POSTS.

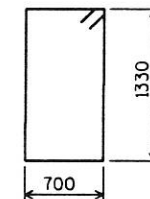


WING 4 PLAN

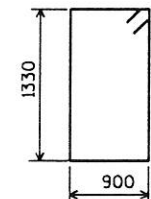
SPACE B1910 TO MISS ANCHORS FOR RAIL POSTS.



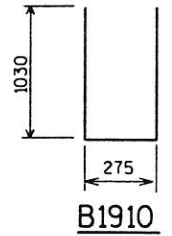
B1301



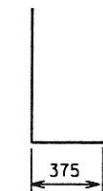
B1303



B1312



B1910



B2213

BILL OF BARS

NOTE: BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

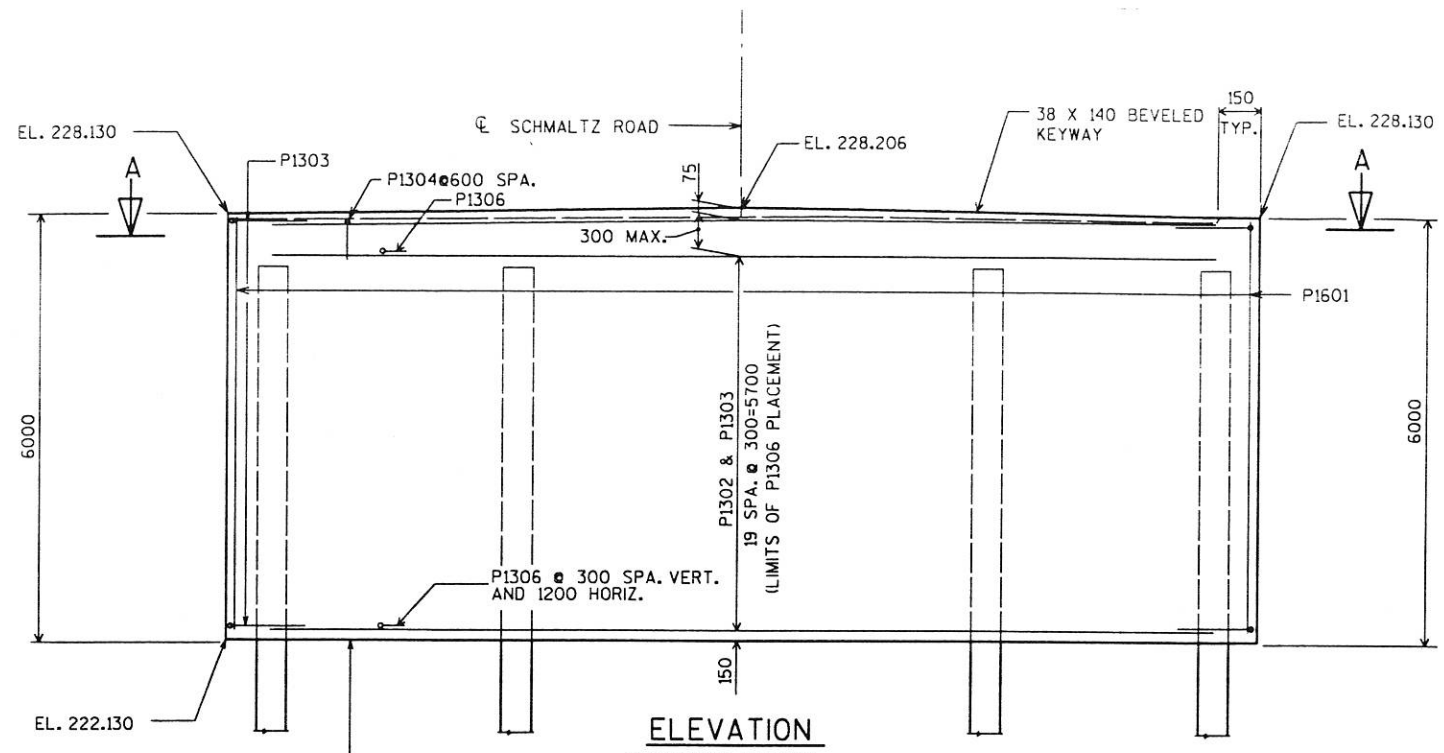
BAR MARK	NO. REQ'D	LENGTH	BENT	CURT. DIAG.	LOCATION
B1301	4	8600	X		BODY - ONE PER PILE
B1302	8	700			BODY - TWO PER PILE
B1303	34	4160	X		BODY - STIRRUPS
B1904	11	7800			BODY - HORIZ.
B1605	25	600			BODY - VERT.- DOWELS
B2506	7	7800			BODY - HORIZ.
B1309	8	2400			WING 3 & 4 - TOP HORZ.
B1910	18	2240	X	X	WING 3 & 4 - TOP VERT.
B1911	4	2400		X	WING 3 & 4 - TOP HORZ.
B1312	14	4550	X		WING 3 & 4 - BASE VERT.
B2213	6	3300	X		WING 3 & 4 BASE TOP HORZ.
B2214	10	3000			WING 3 & 4 - BASE HORZ.
B1615	8	3100			WING 3 & 4 - BASE HORZ.

NO.	DATE	REVISION	BY
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STRUCTURE B-32-195			
CONST. SPEC.	1996	DRAWN BY NJA	PLANS CKD. CJB
EAST ABUTMENT			SHEET 7 OF 10

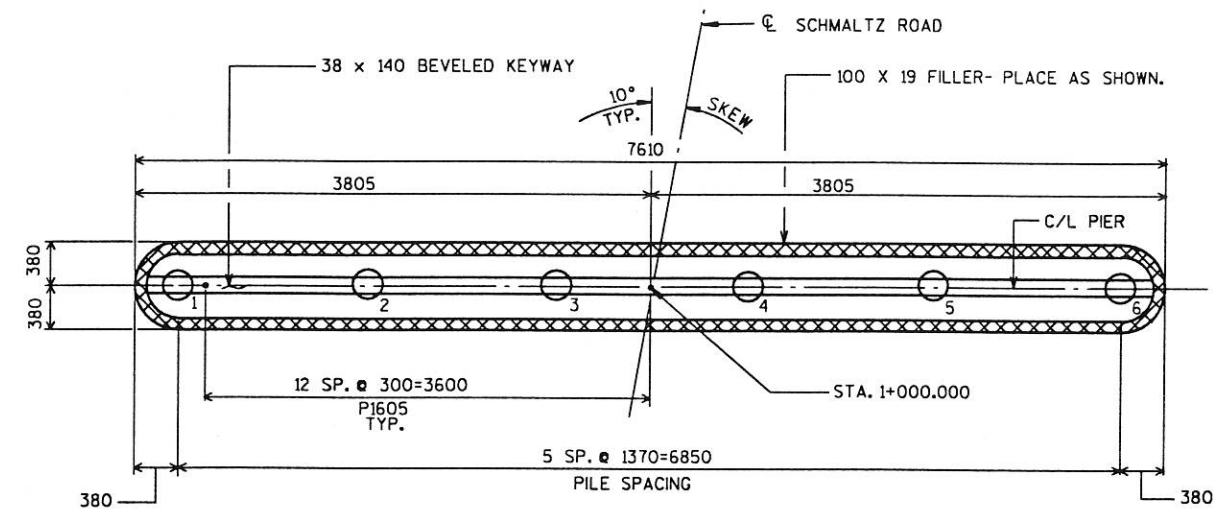
**BILL OF BARS**

NOTE: THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

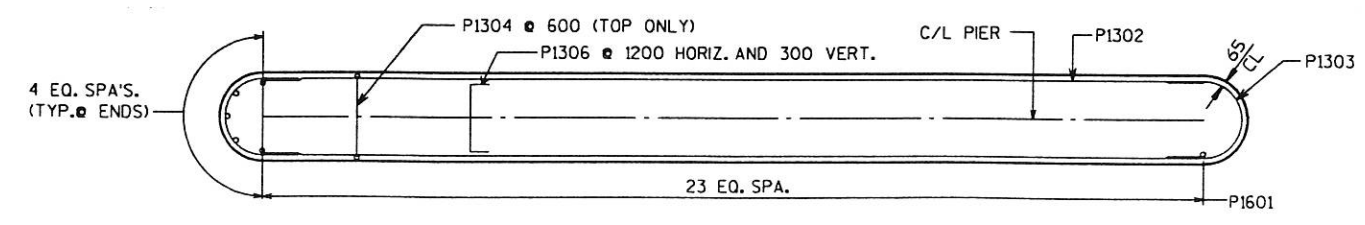
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	LOCATION
P1601		54	5800		VERTICAL
P1302		42	6850		HORIZONTAL
P1303		42	1590	X	HORIZONTAL
P1304		13	1390	X	HOOKS - TOP
P1605		25	600		DOWELS - VERTICAL
P1306		140	790	X	TIE BARS



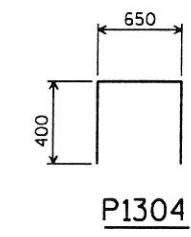
**ELEVATION**  
LOOKING UP STATION



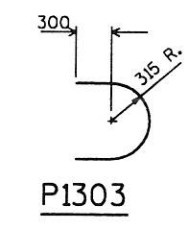
**PLAN**



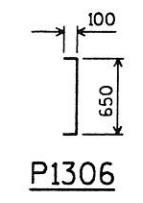
**SECTION A**



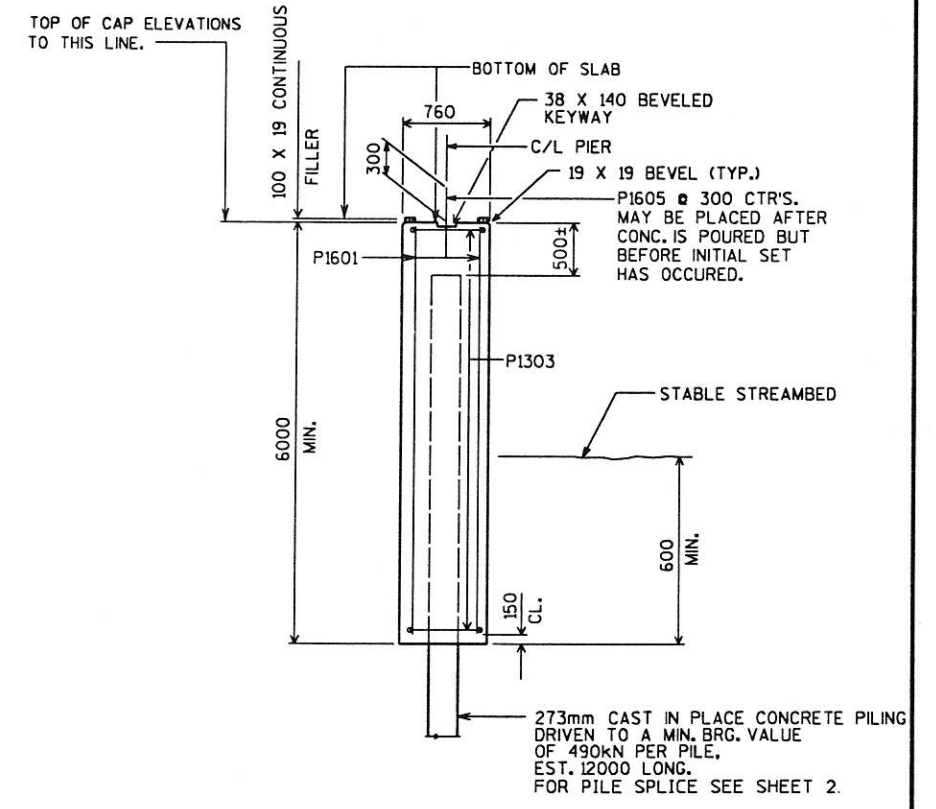
**P1304**



**P1303**



**P1306**



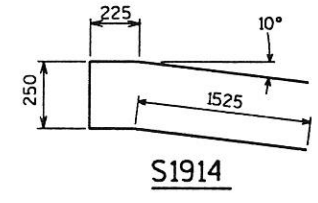
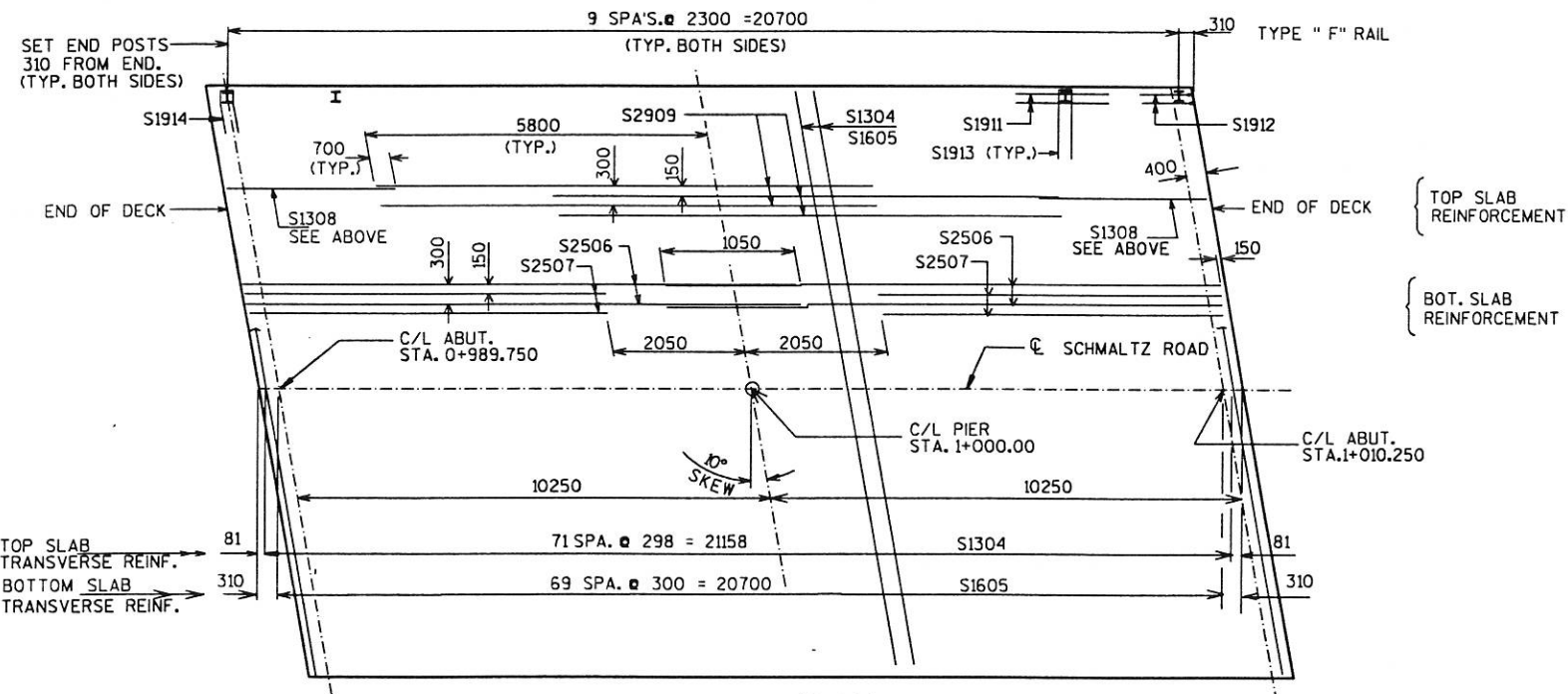
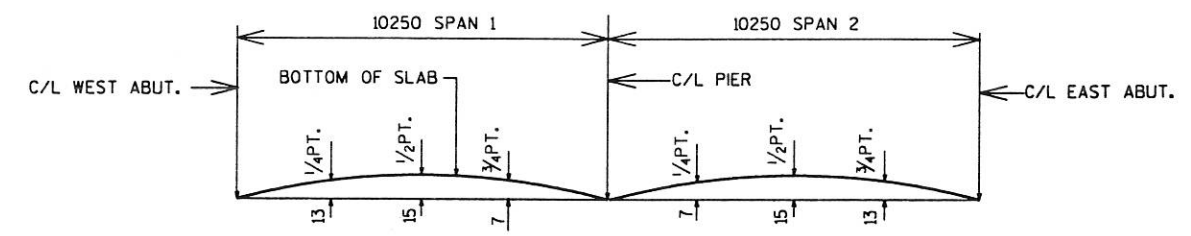
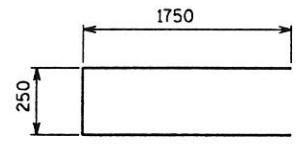
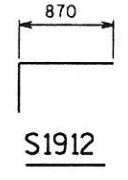
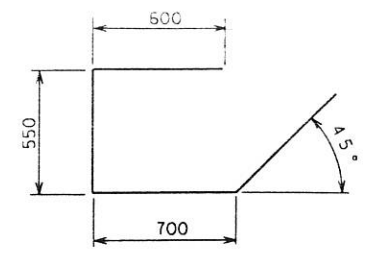
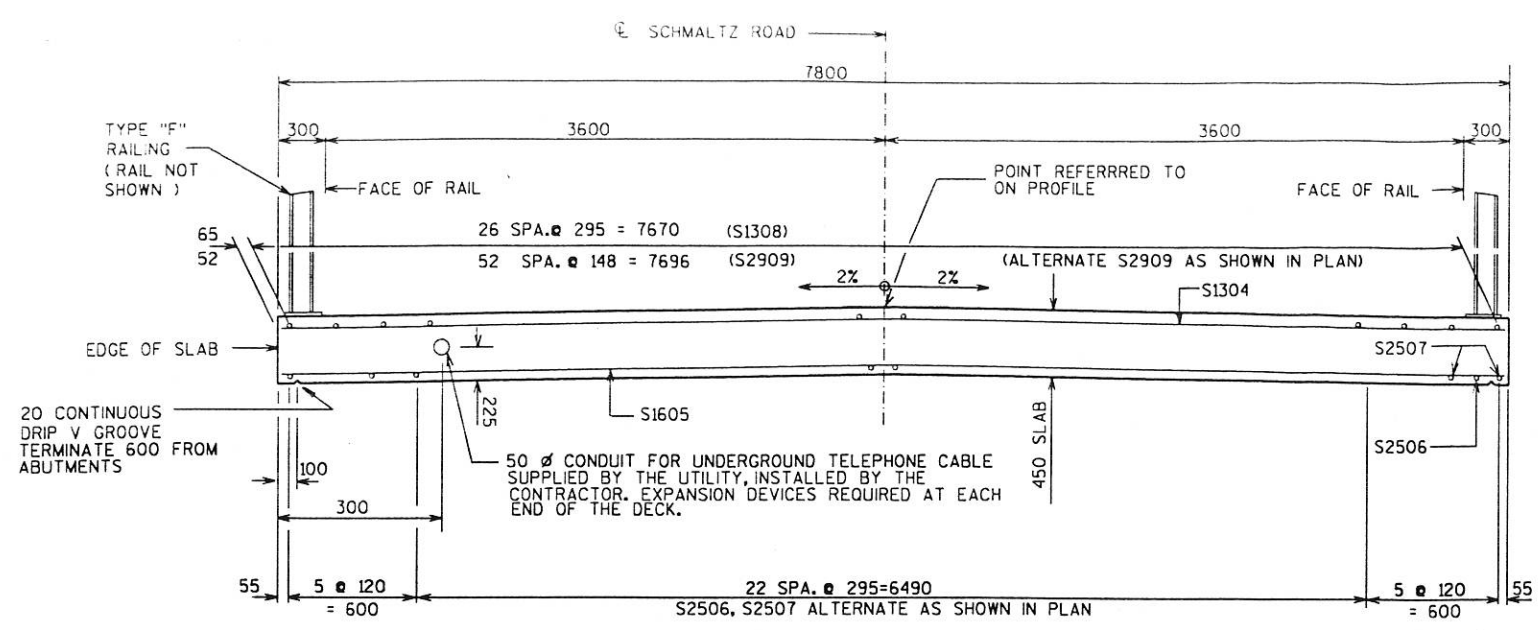
**END VIEW**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-32-195</b>			
CONST. SPEC.	1996	DRAWN BY NJA	PLANS C.K.D. CJB
<b>PIER</b>			SHEET 8 OF 10

**BILL OF BARS**

THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR. EPOXY COAT ALL TOP BARS.

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S1603	54	2330	X	ALL	AT END OF DECK
S1304	76	7800		ALL	SLAB, TOP, TRANSVERSE
S1605	70	7800			SLAB, BOTTOM, TRANSVERSE
S2506	66	11035			SLAB, BOTTOM, LONGIT.
S2507	66	8460			SLAB, BOTTOM, LONGIT.
S1308	54	5500		ALL	SLAB, TOP, LONGIT.
S2909	53	8400		ALL	SLAB, TOP, LONGIT.
S1911	32	1220		ALL	AT INTERIOR RAIL POSTS
S1912	8	1220	X	ALL	AT END RAIL POSTS
S1913	16	3650	X	ALL	AT INTERIOR RAIL POSTS
S1914	4	3650	X	ALL	AT END RAIL POSTS

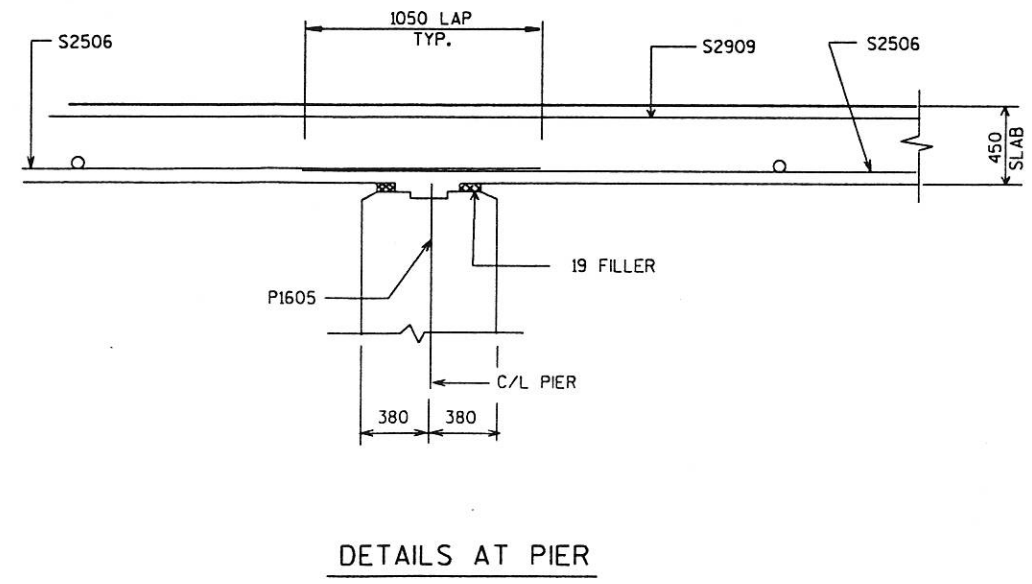
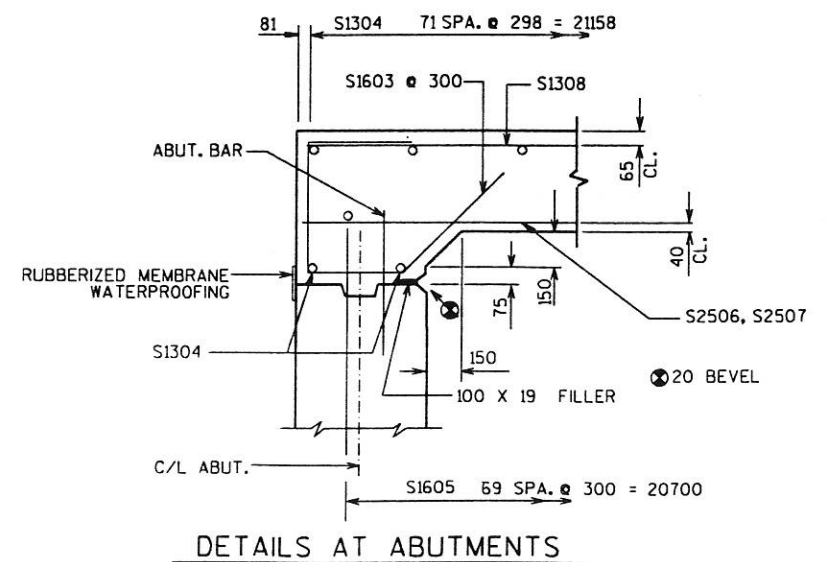


**CAMBER DIAGRAM**  
CAMBER SPAN AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION & FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

ALTERNATE TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 900mm CENTERS. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 1200mm CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE C/L OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



NO.	DATE	REVISION	BY
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<b>STRUCTURE B-32-195</b>			
CONST. SPEC.	1996	DRAWN BY NJA	PLANS CK'D. CJB
<b>SUPERSTRUCTURE</b>			SHEET 9 OF 10