INCIDENT BRIEFING (ICS 201)

1. Incident Name:	2. Incident Number:	3. Date/Time Initiated:
NB STH 124 Bridge Closure B-09-146		Date: 6/09/17 Time: +/- 13:00 HRS

4. Map/Sketch (include sketch, showing the total area of operations, the incident site/area, impacted and threatened areas, overflight results, trajectories, impacted shorelines, or other graphics depicting situational status and resource assignment):

5. Situation Summary and Health and Safety Briefing (for briefings or transfer of command): Recognize potential incident Health and Safety Hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards.

On Friday morning, June 9, 2017 after reviewing the findings from Boring number 2 from Pier 3, B-09-146, the department made a determination that the structure should be closed until such time as further analysis was completed and we are satisfied that the structure is not compromised.

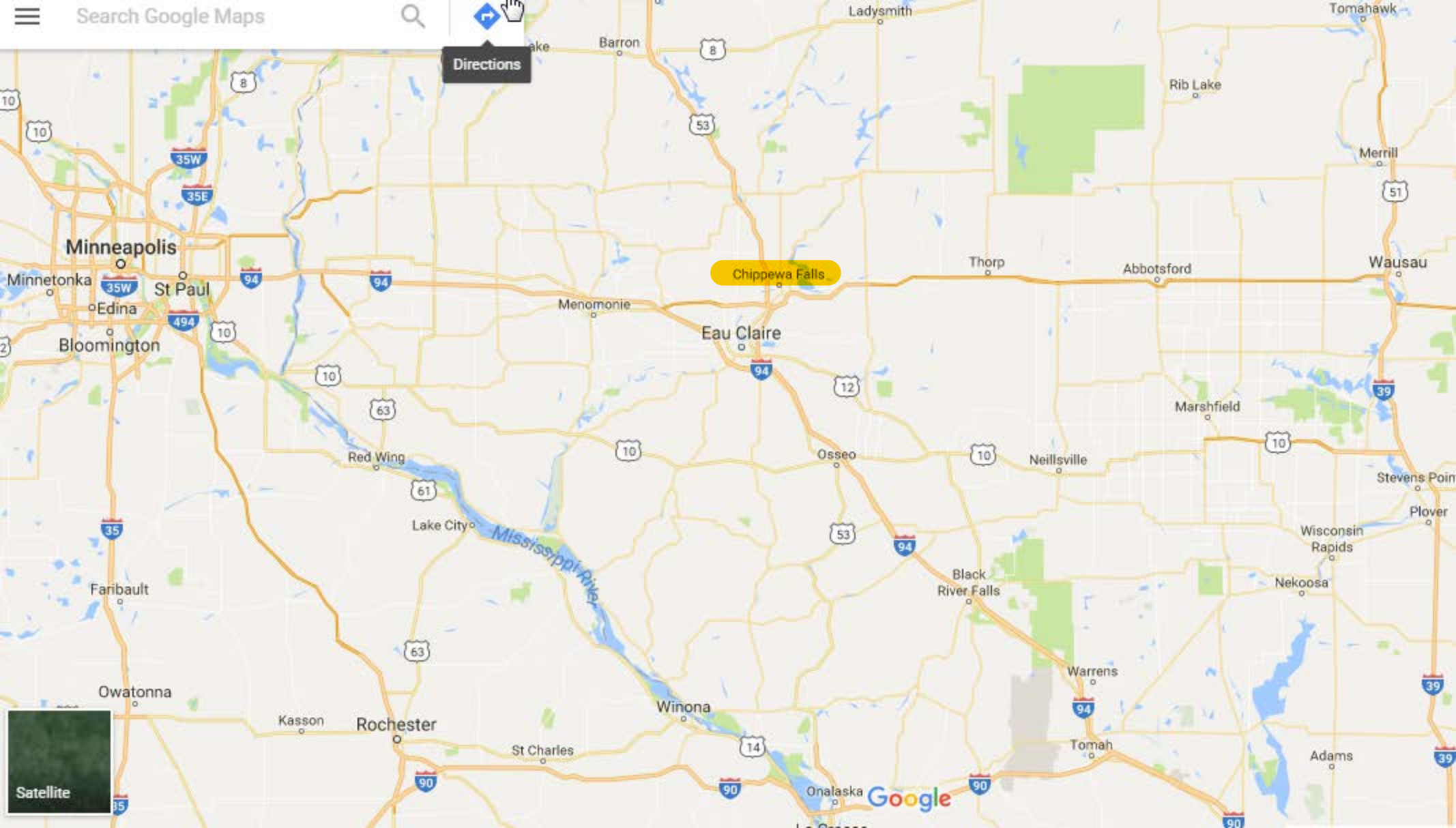
STH 124 traffic is being detoured off of the northbound bridge via local roads (River Road, Main Street, E Park Street).

SB STH 124 Bridge is currently under construction (partial deck replacement and approach slabs have been removed). The department is working with the contractor to replace the approach slabs and deck. Once the deck of the SB bridge is repaired and traffic control installed, STH 124 traffic will be rerouted to the SB bridge in a counter-directional configuration.

The Region will coordinate further investigations by BOS and BTS (and additional technical experts as needed) in order to provide the necessary information to make a determination on how to proceed with repairs or stabilization on the structure.

6. Prepared by: Name: Paul L. Conlin Position/Title: Incident Commander Signature: Paul L. Conlin Digitally signed by Paul L. Conlin Date: 2017.06.12 21:22:11 -05'00'

 Date/Time: 12 June 2017, 21:30 HRS


Search Google Maps
Directions
Minneapolis
Minnetonka
St Paul
Edina
Bloomington
Chippewa Falls
Eau Claire
Menomonie
Barron
Ladysmith
Rib Lake
Merrill
Thorp
Abbotsford
Wausau
Marshfield
Osseo
Neillsville
Red Wing
Lake City
Mississippi River
Faribault
Owatonna
Kasson
Rochester
St Charles
Winona
Black River Falls
Warrens
Tomah
Onalaska
Wisconsin Rapids
Nekoosa
Plover
Stevens Point
Adams
Satellite
Google

Home | Go » | b09146

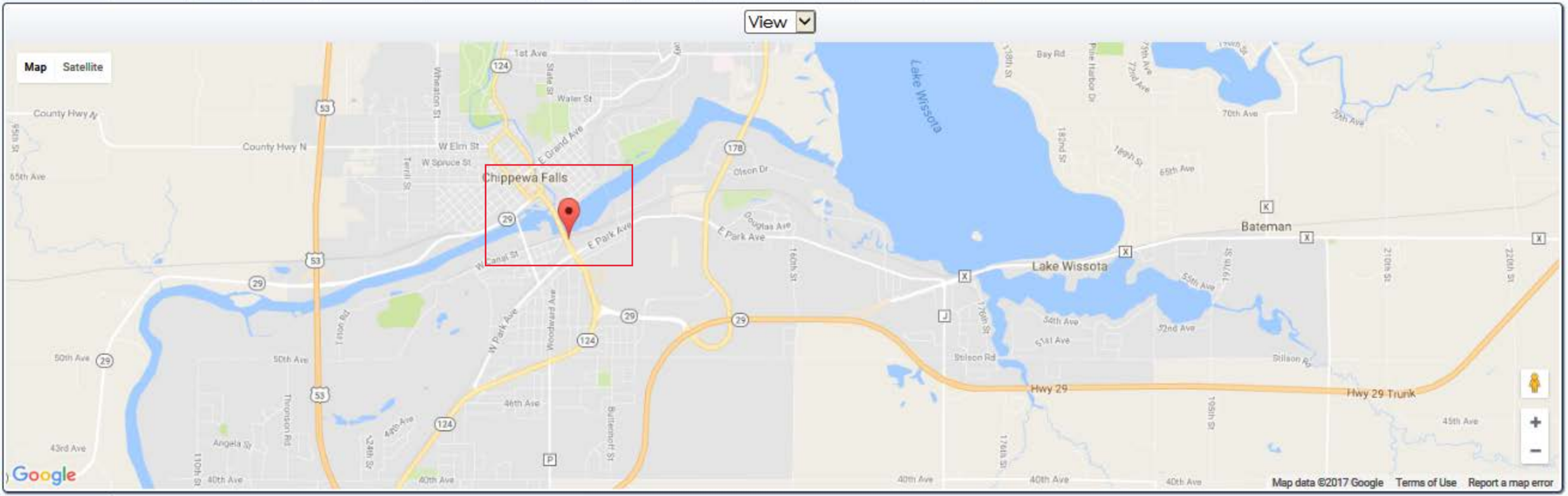
press space bar while editing criteria to display options

B-09-146 STH 124 NB over CANAL ST-CHIPPEWA RIVER

General Inventory

Identification | Location | Map | Files | Construction | Maintenance | Clearance | Route | Special Component | Media | Event

View



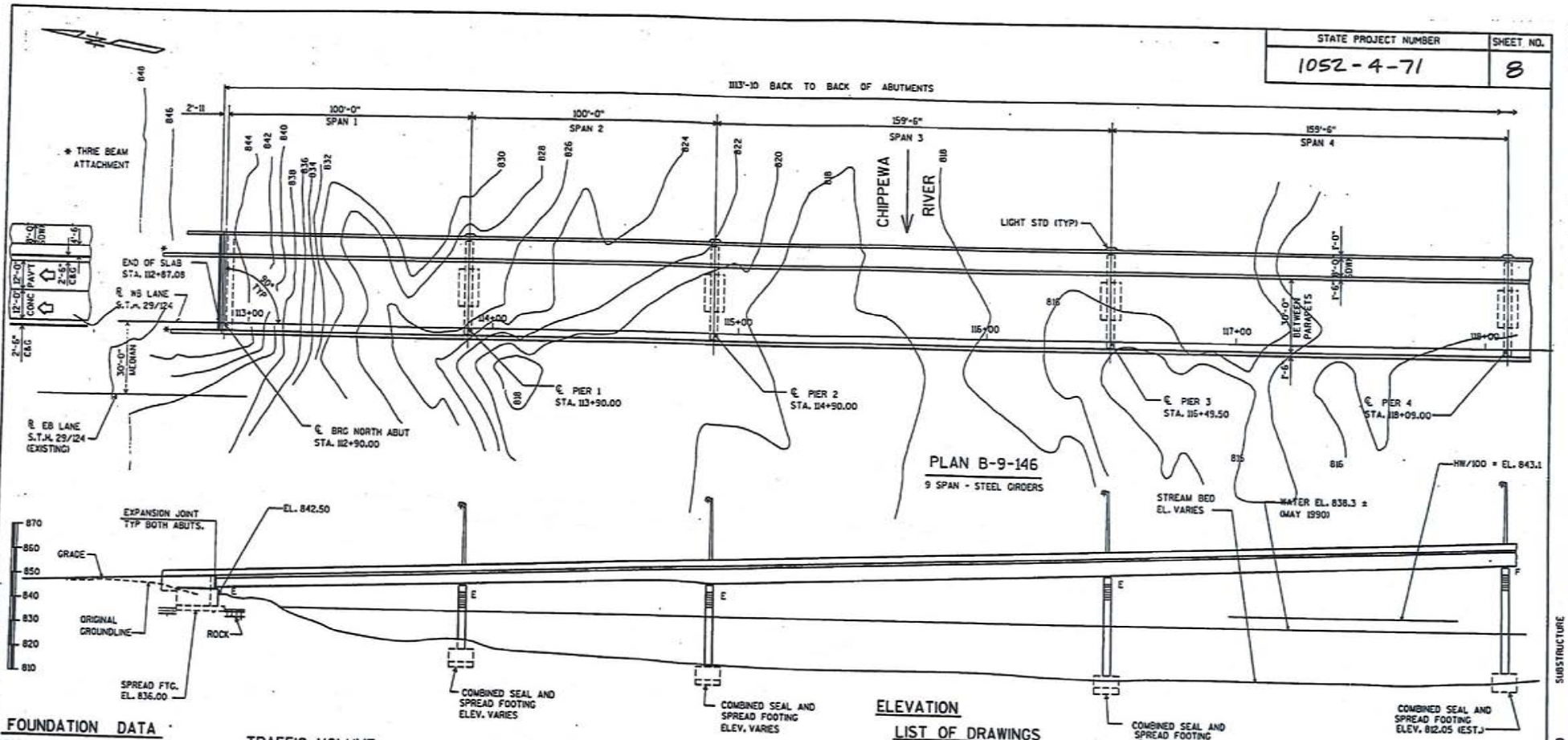
Bridge

Inspection

save | cancel

1991 PLANS (2)

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8



FOUNDATION DATA

NORTH ABUT. - SPREAD FOOTING
PIERS 1 THRU 5 - COMBINED SEAL AND SPREAD FOOTING.
PIER 6 - SPREAD FOOTING
PIERS 7 & 8 & SOUTH ABUT - STEEL PILING.

HYDRAULIC DATA

100 YEAR FREQUENCY
Q / 100=125,000 c.f.s.
HW.= EL. 843.1
DRAINAGE AREA= 5530 SQ. MI.
OVERTOPPING RD = NA
SCOUR CRITICAL CODE = 5

TRAFFIC VOLUME

S.T.H. 29/124
A.D.T.=25,650 (2012)
R.D.S.=40 M.P.H.

C & NW. TRANS CO.
2 PER DAY

WIS. CENTRAL LIMITED
2 PER DAY

CANAL STREET
ADT = 490

DESIGN DATA

LIVE LOAD:
DESIGN RATING: HS-20
INVENTORY RATING: HS-27
OPERATIONAL RATING: HS-45
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 Kips.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
PARAPETS AND ALL SLAB STEEL SHALL BE EPOXY COATED.
HIGH STRENGTH STRUCTURAL STEEL (A.S.T.M. A588 UNPAINTED)
TO AND INCLUDING 4" THICK — Fy = 50,000 P.S.I.

ELEVATION

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT - R.L. REESE (608)266-8488

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

S.T.H. 29/124 OVER CHIPPEWA RIVER
WIS CENTRAL LTD. RR & CANAL TRANS CO & CANAL ST

COUNTY	CHIPPEWA
MUNI/CITY/VILLAGE	CHIPPEWA FALLS
DESIGN SPEC.	AASHTO 1989
LOAD	HS-20
CONST. SPEC.	1989
DESIGNED BY	SMS DJR
DESIGN CK'D.	DJR SMS
DRAWN BY	JRZ JHG
PLANS CK'D.	S.M.S. D.J.R.

APPROVED Stanley W. Woody STATE BRIDGE ENGINEER 5/22/91 DATE

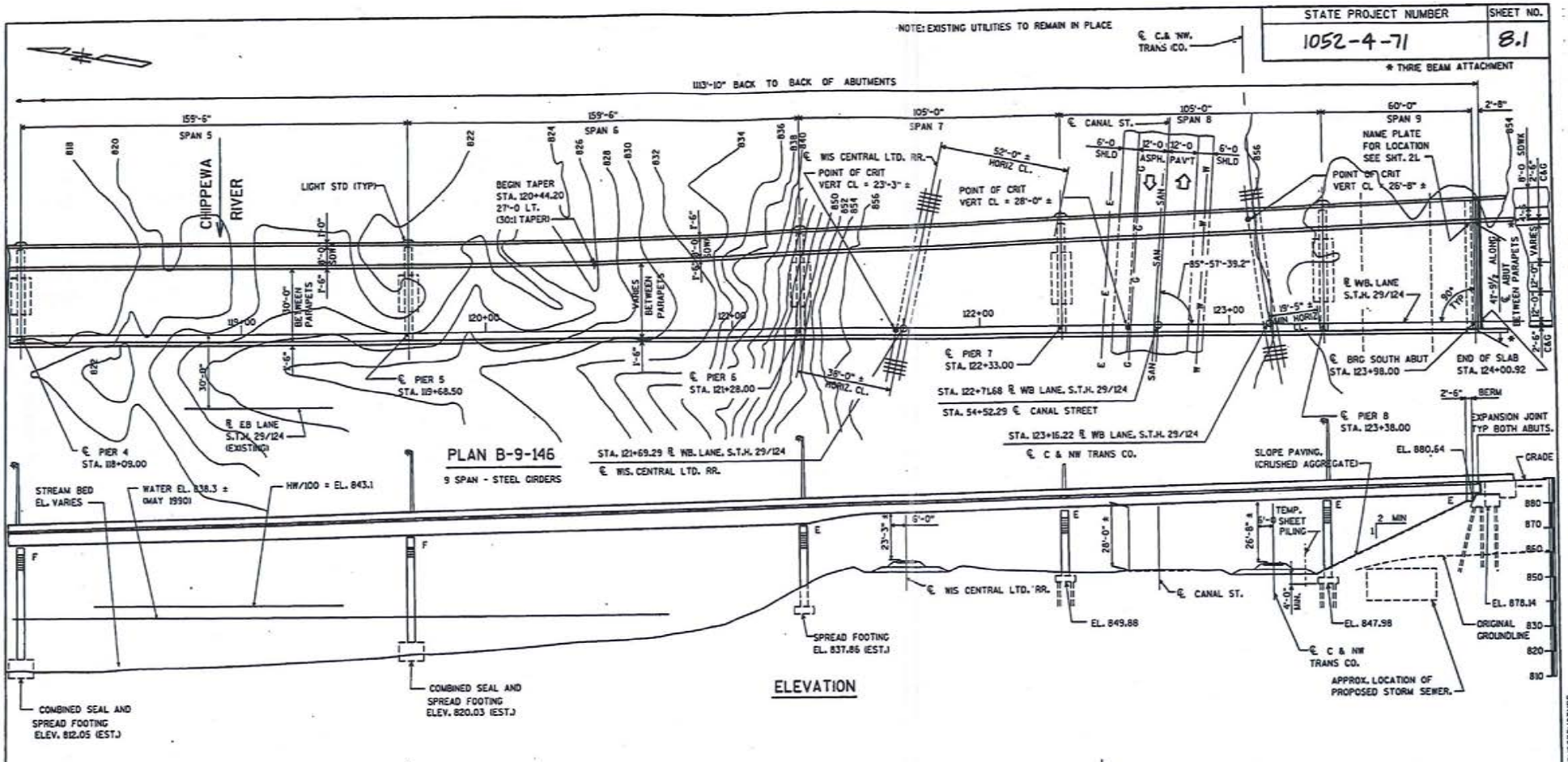
GENERAL PLAN

SHEET 1 OF 22

X83377

SCALE = 20 SUBSTRUCTURE

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.1



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	DRAWN BY	PLANS CKD.
1989	Zirk	DJK

GENERAL PLAN

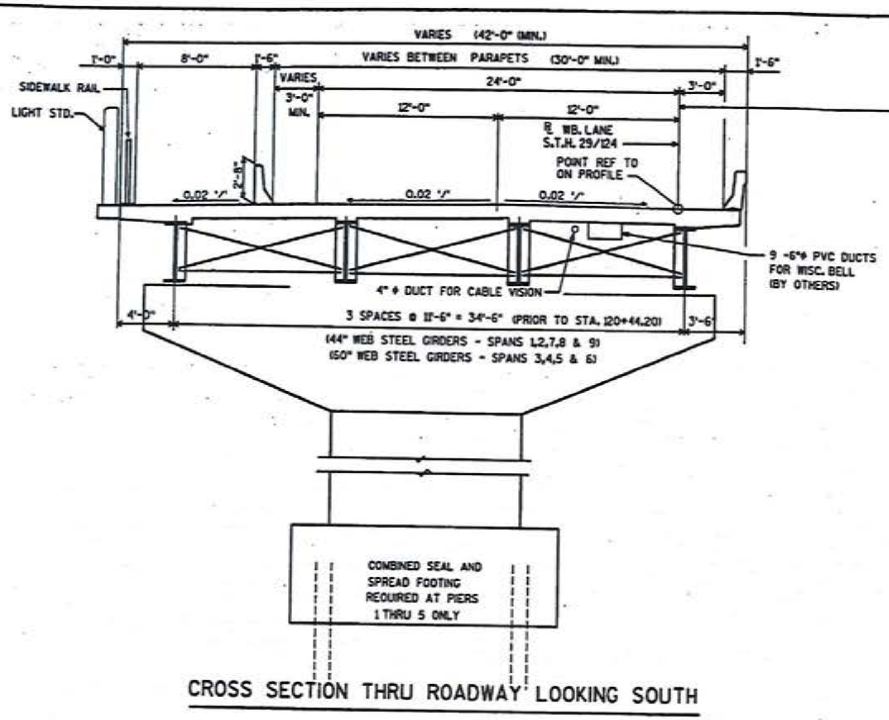
SHEET 2

X83377

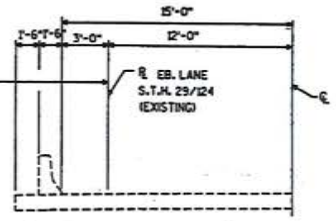
SUBSTRUCTURE

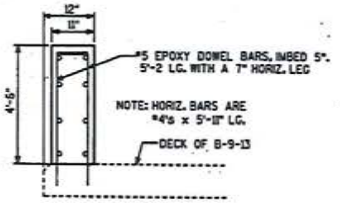
BR_B09146:PREPLAN

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.2



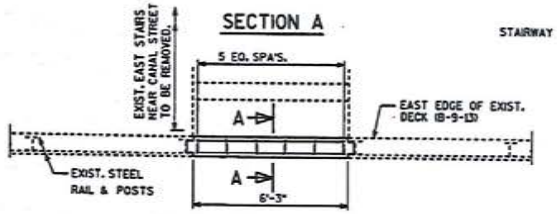
CROSS SECTION THRU ROADWAY LOOKING SOUTH





SECTION A

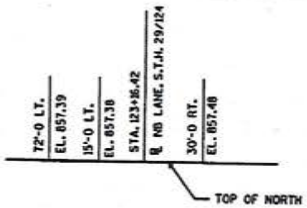
STAIRWAY REMOVAL FOR SUBSTRUCTURE PLAN ONLY.



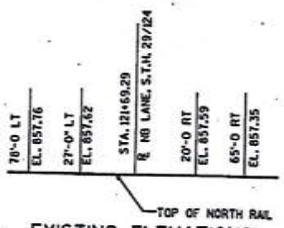
STAIRWAY REMOVAL DETAIL

NOTE: ALL WORK & MATERIALS REQ'D. FOR STAIRWAY REMOVAL INCLUDING CONCRETE & REINF. STEEL IS INCLUDED IN THE BID ITEM "REMOVING OLD BRIDGE, STA. 122+60"

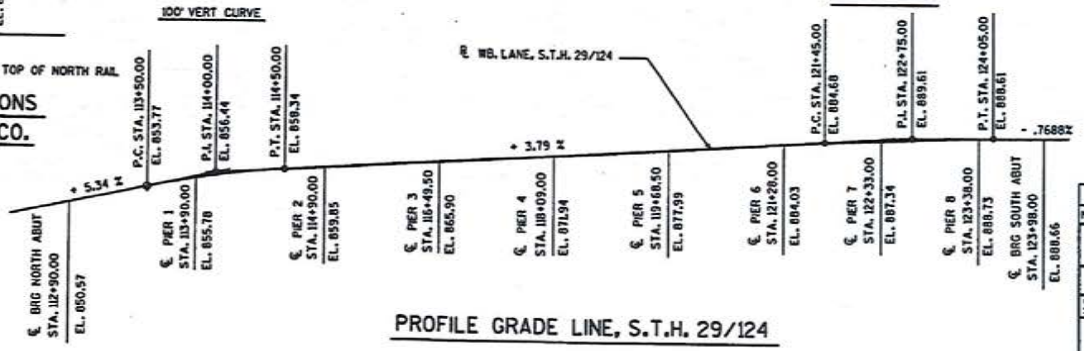
EXISTING ELEVATIONS
CANAL STREET



EXISTING ELEVATIONS
C&NW. TRANS. CO.



EXISTING ELEVATIONS
WIS. CENTRAL LTD. RR.



PROFILE GRADE LINE, S.T.H. 29/124

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	Zirk	PLANS CHD.	SMS

CROSS SECTION

SHEET 3

X83377

SUBSTRUCTURE

BR_B09146146GP.DGN 6/11

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.3

TOTAL ESTIMATED QUANTITIES

	BID ITEMS	UNIT	SUPER.	NORTH ABUT.	SOUTH ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	TOTALS
*	REMOVING OLD BRIDGE, STA. 122+60	L.S.	—	—	—	—	—	—	—	—	—	—	—	1
	EXCAVATION FOR STRUCTURES, BRIDGES, B-9-146	L.S.	—	—	—	—	—	—	—	—	—	—	—	1
	CONCRETE MASONRY, BRIDGES	C.Y.	—	109	—	47	67	70	80	82	103	114	142	814
	PROTECTIVE SURFACE TREATMENT	GAL.	—	—	—	—	—	—	—	—	—	—	—	—
	CONCRETE MASONRY, SEAL	C.Y.	—	—	—	113	160	213	152	75	—	—	—	723
	MODULAR EXPANSION DEVICE, B-9-146	L.S.	—	—	—	—	—	—	—	—	—	—	—	—
	HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	—	5960	—	8500	13,230	23,650	20,480	20,240	14,320	10,640	13,200	130,220
	COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	—	800	—	—	—	—	—	—	—	—	—	800
	HIGH-STRENGTH STRUCTURAL STEEL	LB.	—	—	—	—	—	—	—	—	—	—	—	—
	FIXED BEARING ASSEMBLIES, B-9-146	EACH	—	—	—	—	—	—	—	—	—	—	—	—
	EXPANSION BEARING ASSEMBLIES, B-9-146	EACH	—	—	—	—	—	—	—	—	—	—	—	—
	FLOOR DRAINS, TYPE GC	EACH	—	—	—	—	—	—	—	—	—	—	—	—
	SLOPE PAVING, CRUSHED AGGREGATE	S.Y.	—	—	—	—	—	—	—	—	—	—	—	—
	NONMETALLIC CONDUIT, 2-INCH	L.F.	—	—	—	—	—	—	—	—	—	—	—	—
	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	—	—	—	—	—	—	—	—	—	—	—	—
	STEEL SIDEWALK RAILING, B-9-146	L.F.	—	—	—	—	—	—	—	—	—	—	—	—
	ANCHOR ASSEMBLIES FOR LIGHT POLES	EACH	—	—	—	—	—	—	—	—	—	—	—	—
	STEEL PILING, DELIVERED AND DRIVEN, HP 10-INCH 42 POUND	L.F.	—	—	—	—	—	—	—	—	—	480	360	840
	PIPE UNDERDRAIN 6-INCH	L.F.	—	51	—	—	—	—	—	—	—	—	—	51
	PIPE UNDERDRAIN, UNPERFORATED, 6-INCH	L.F.	—	15	—	—	—	—	—	—	—	—	—	15
	GEOTEXTILE FABRIC, TYPE DF	S.Y.	—	43	—	—	—	—	—	—	—	—	—	43
	WELDED STUD SHEAR CONNECTORS, 7/8" x 4 INCH	EACH	—	—	—	—	—	—	—	—	—	—	—	—
	TEMPORARY SHEET PILING	S.F.	—	—	—	—	—	—	—	—	—	—	1172	1172
	CLEAR PROTECTIVE COATING	GAL.	—	3	—	5	5	6	7	8	10	9	11	64
	COFFERDAMS, B-9-146	L.S.	—	—	—	—	—	—	—	—	—	—	—	1
	NON-BID ITEMS													
	POLYVINYL CHLORIDE WATERSTOP	L.F.	—	40	—	—	—	—	—	—	—	—	—	40

* THE REMOVAL IS OF THE STAIRS (INCLUDING FOOTINGS) NEAR CANAL STREET ON THE EASTERN SIDE OF B-9-13.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL FIELD CONNECTIONS SHALL BE MADE WITH 3/4" ϕ A325 HIGH TENSILE STRENGTH BOLTS UNLESS OTHERWISE SHOWN OR NOTED.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

FALSEWORK WHICH CAUSES EXTERIOR GIRDER ROTATION DURING CONSTRUCTION SHALL NOT BE ALLOWED.

SUBSTRUCTURE PLAN

SUBSTRUCTURE

SCALE 20:1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

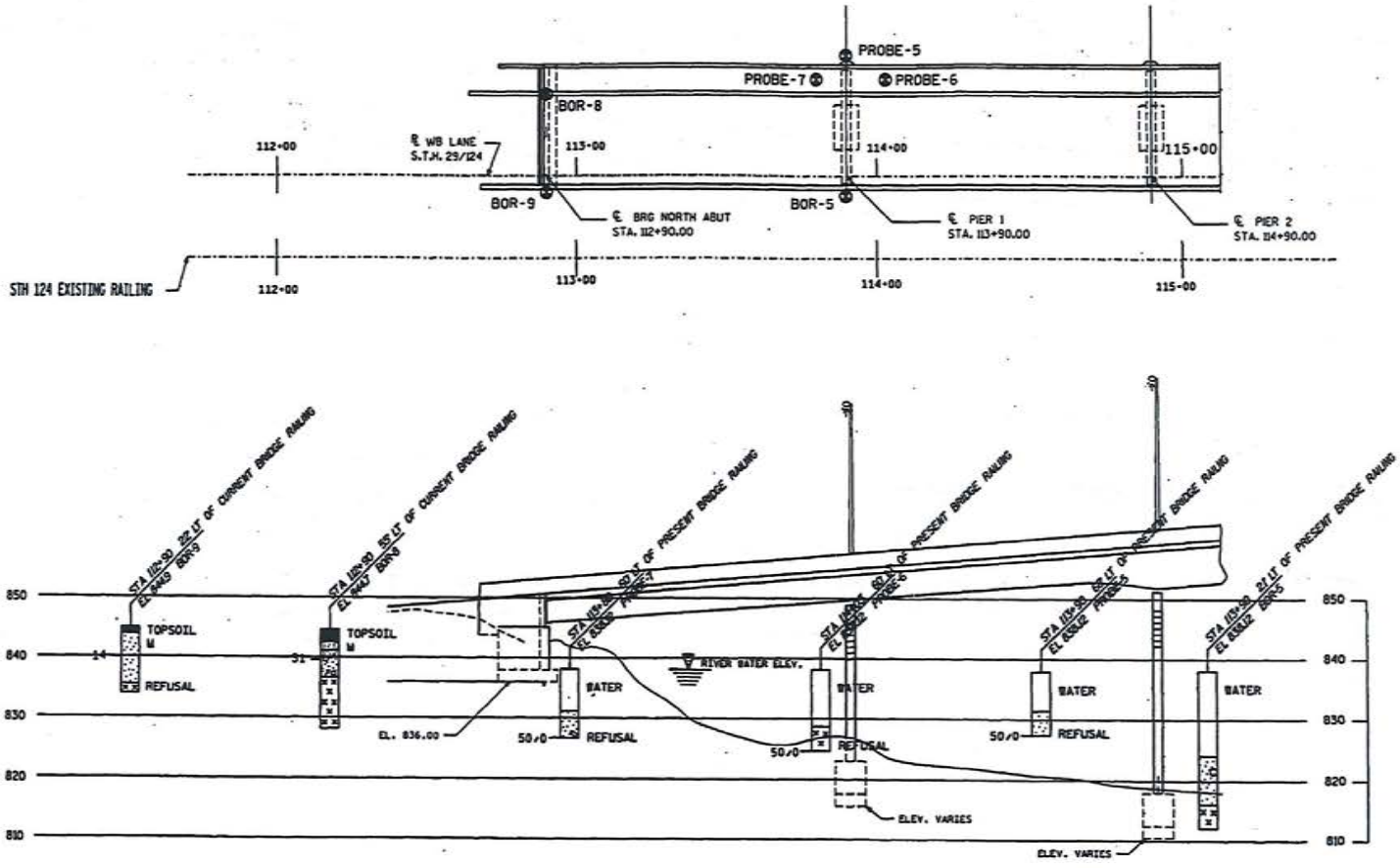
CONST. SPEC.	DRAWN BY	PLANS CKD.
1989	Zirk	LJK

TOTAL ESTIMATED QUANTITIES

SHEET 4

X83377

BR_B09146:146GP.DGN



STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.4

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
95/6=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.
Unconfined Strength — 7.7
Sandy Gravel
Blows Per Ft. Using 140# Wt. Falling 30"
F.
Wash Sample
Boulders or Cobbles
Sand
Shelby Tube — S.T.
Ground Water Elevation
Silty Clay
No Ground Water Observed Above This Elevation
So
Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a O.D. wt. 4" I.D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

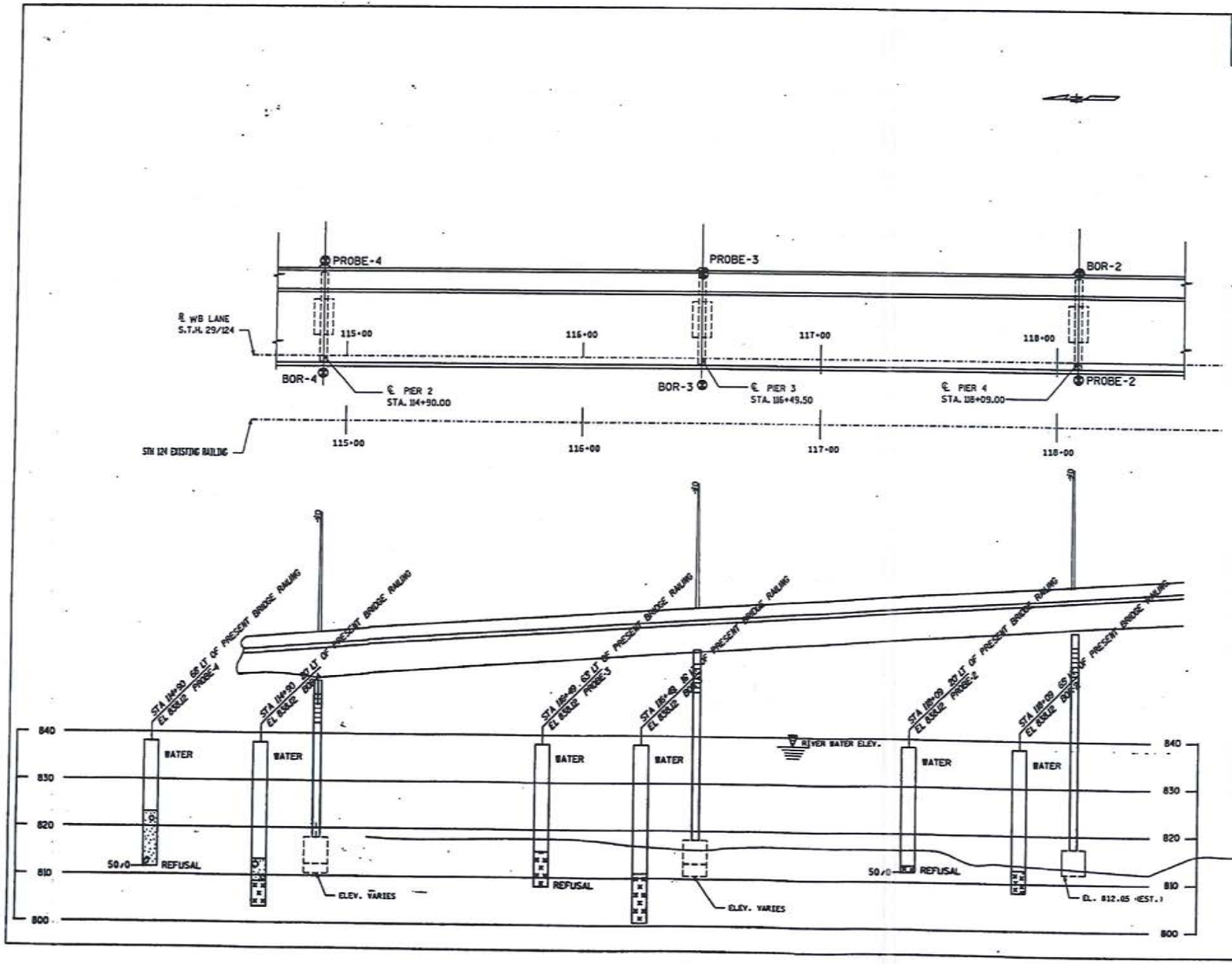
CONST. SPEC.	DRAWN BY	PLANS CKD.
1989	Zirk	I JK

SUBSURFACE EXPLORATION

SHEET 5

X83377

SUBSTRUCTURE



STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.5

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
95/6=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.
Sta.
Elev.
Unconfined Strength — 7.7 — ?
Sandy Gravel
Blows Per Ft. Using 140# Wt. Falling 30"
F.
Wash Sample
Boulders or Cobbles
Shelby Tube — S.T.
Sand
Ground Water Elevation
Silty Clay
No Ground Water Observed Above This Elevation
So
Limestone

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	DRAWN BY	PLANS DATE
1989	Zirk	1.JK.

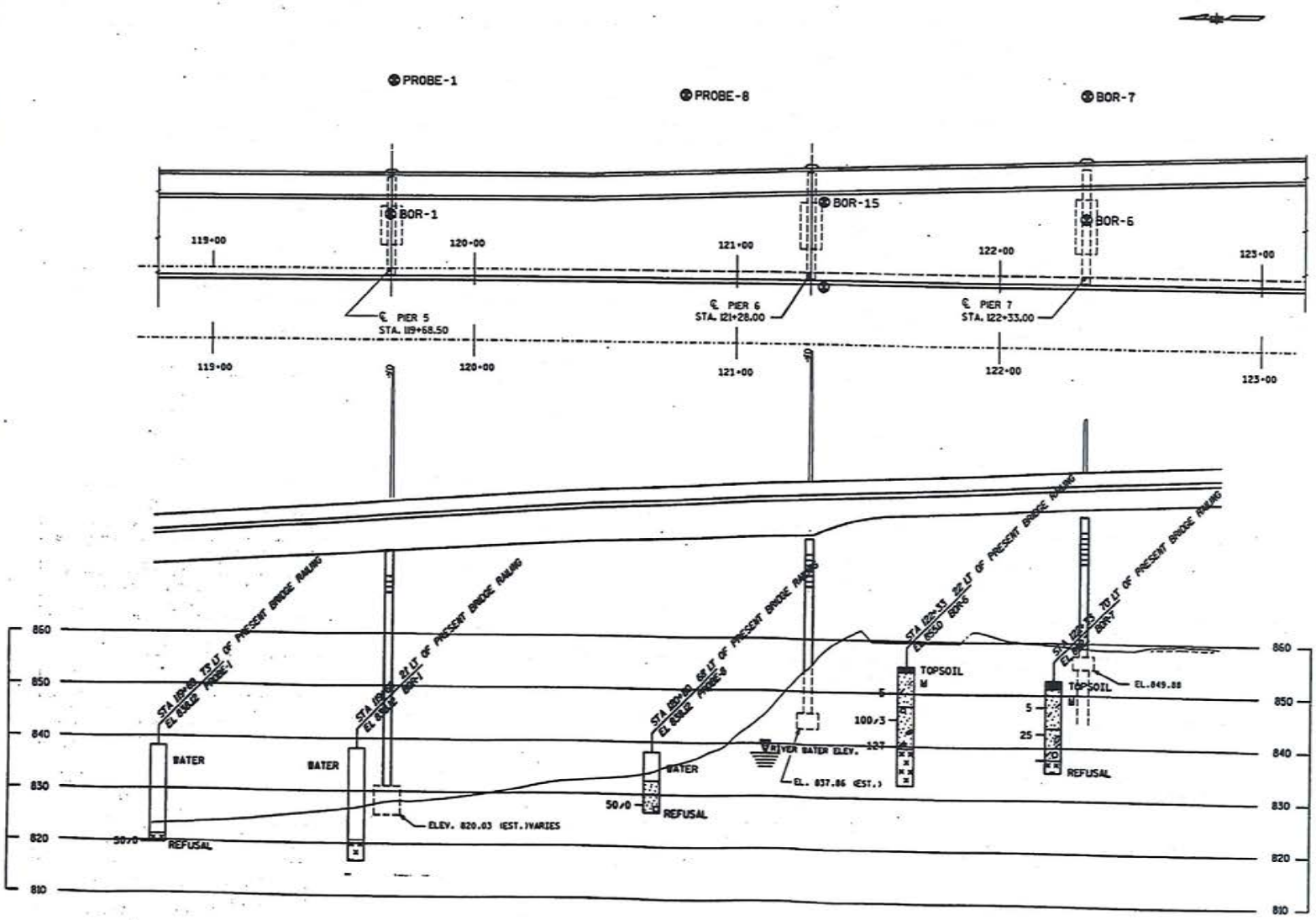
SUBSURFACE EXPLORATION

SHEET 6

X83377

SUBSTRUCTURE

STH 124 OVER CHIPPEWA RIVER, CHIPPEWA CO.



STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.6

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
95/6=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.
Sta.
Elev.
Unconfined Strength — 7.7
Blows Per Ft. Using 140# Wt. Falling 30"
Wash Sample
Shelby Tube — S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F.
Boulders or Cobbles
Sand
Silty Clay
So
Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a O.D.wt. 4" I.D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-6-146

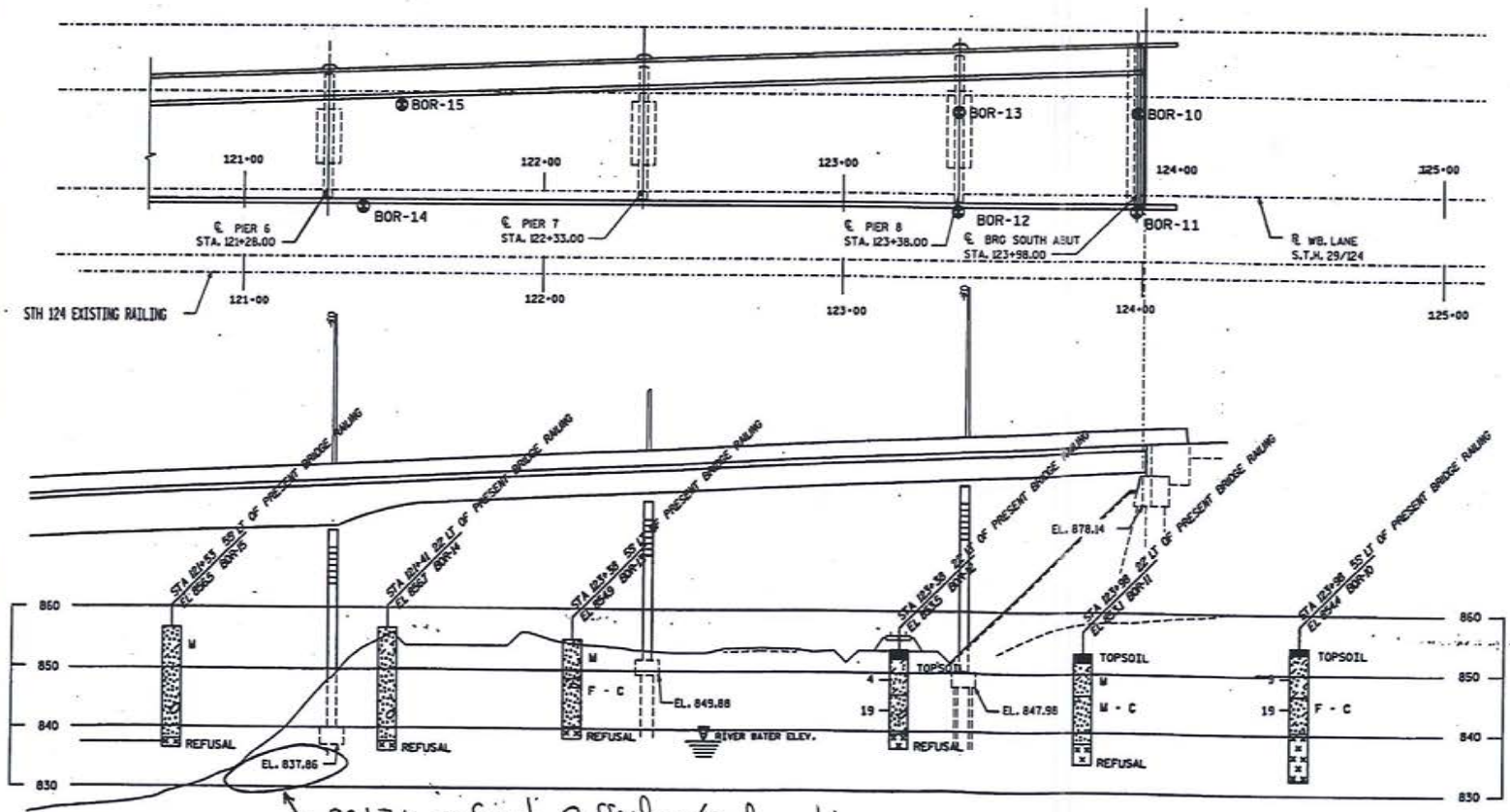
CONST. SPEC.	DRAWN BY	PLANS CK'D.
1989	Zirk	DJK

SUBSURFACE EXPLORATION

SHEET 7

X83377

SUBSTRUCTURE



STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.7

ABBREVIATIONS

F—Fine M—Medium C—Coarse
Wa—Weathered So—Sound

MATERIAL SYMBOLS

Topsoil, Silt, Sandstone
Sand, Peat, Limestone
Gravel, Clay, Igneous Rock

LEGEND OF PROBING

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

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

LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength 7.7
Blows Per Ft. Using 140# Wt. Falling 30"
Wash Sample
Shelby Tube—S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F. Boulders or Cobbles
Sand
Silty Clay
So Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a O.D.x1.4" I.D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

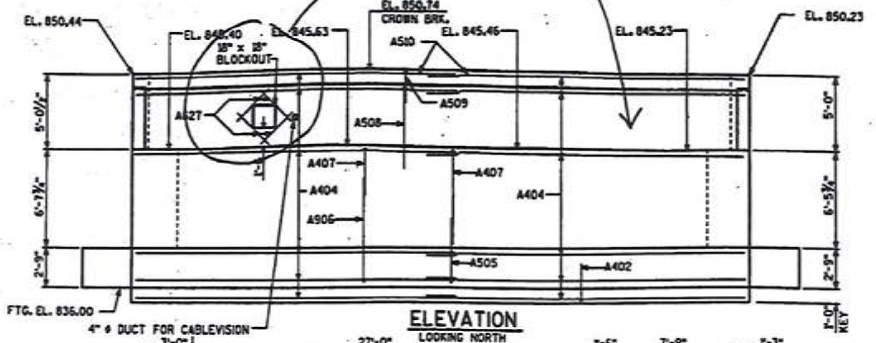
CONST. SPEC.	DRAWN BY	PLANS CHK.
1989	Zirk	DJK

SUBSURFACE EXPLORATION — SHEET 8 — X83377

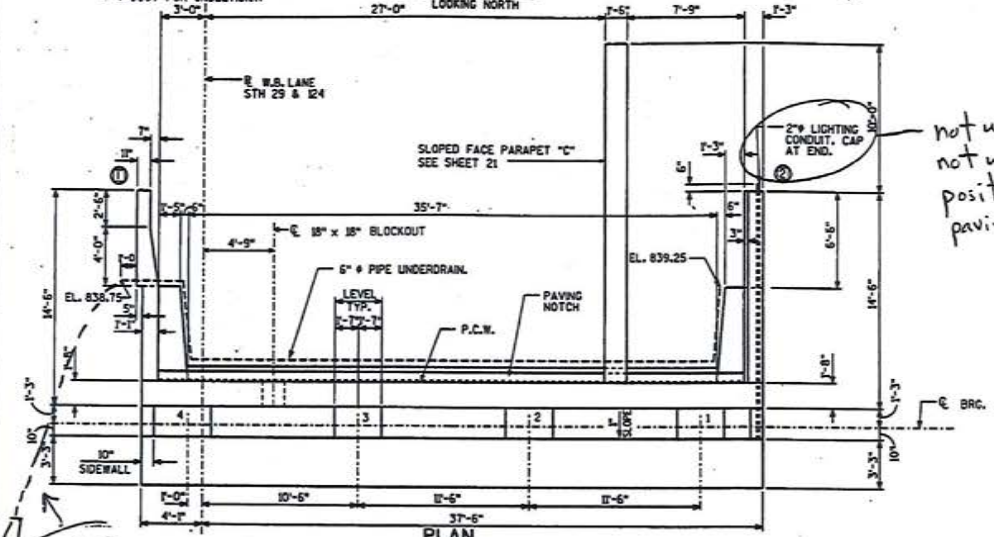
SUBSTRUCTURE

Blockout located on east side of Abutment Backwall for Telephone conduit bundle.
Blockout as shown modified for single Cablevision TV Duct. (6" dia single duct.)

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.8

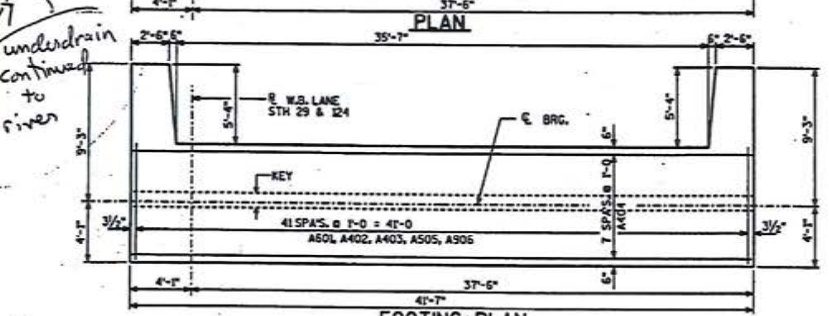


ELEVATION
LOOKING NORTH



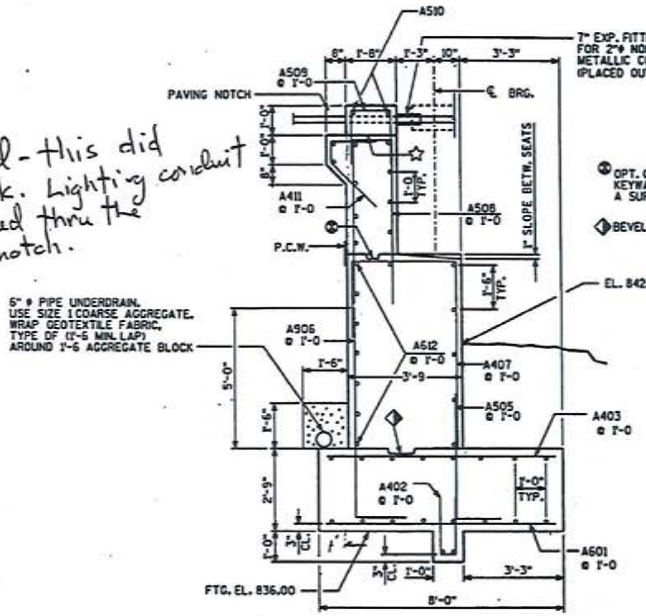
PLAN

not used - this did not work. Lighting conduit positioned thru the paving notch.



FOOTING PLAN

underdrain continued to river



SECT. THRU ABUT. BODY

☆ CONST. JOINT - POUR CONC. ABOVE THIS JT. AFTER AFTER SUPER. CONC. IS IN PLACE - STRIKE OFF & LEAVE ROUGH.

ALL BARS NOT OTHERWISE NOTED ARE A404 BARS SPACED AS SHOWN

NOTE: MIN SOIL BEARING CAPACITY TO BE 40 TONS PER SQ. FT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JHG	PLANS CKD.	SMC

NORTH ABUTMENT

SHEET 9

X83377

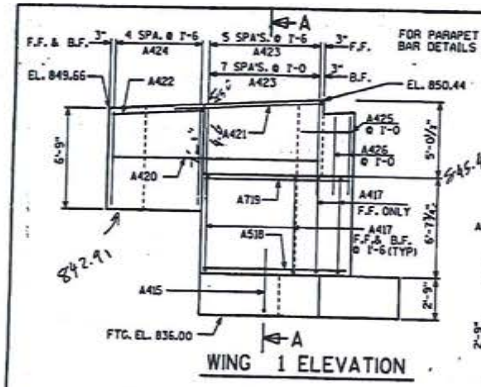
SUBSTRUCTURE

SCALE 4:1

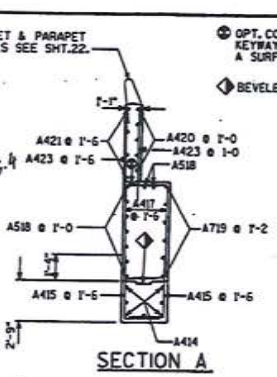
BR_B09146_J146ABUT.DGN

VIEW 1

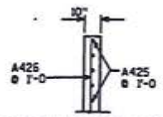
STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.9



WING 1 ELEVATION

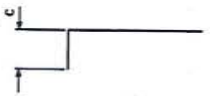


SECTION A

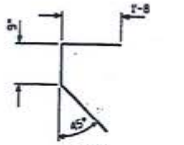


SECT. THRU SIDEWALL

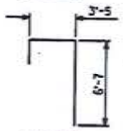
MARK	A	B
A402	5"	2'-2
A508	1'-4	5'-6
A509	1'-4	2'-0
A417	6-2	2'-0
A428	6-0	2'-0
A632	9"	1'-6



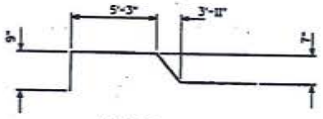
MARK	C	
A505	10"	
A906	1'-7	
A415	2'-6	
A429	9"	
A421	9"	
A422	9"	



A411



A407

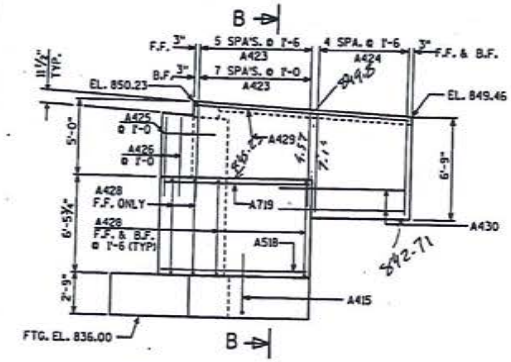


A420

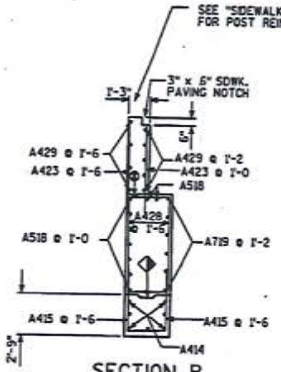
BILL OF BARS

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

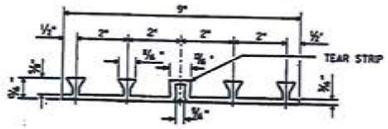
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
A601		42	7-6				BODY FTG.
A402		42	4-8	X			BODY FTG. KEY
A403		42	7-6				BODY FTG.
A404		68	21-7				BODY HORIZ.
A505		42	5-4	X			BODY DOWEL F.F.
A906		42	8-6	X			BODY DOWEL B.F.
A407		42	12-6	X			BODY VERT. F.F.
A508		42	12-0	X			BODY VERT. BACKWALL
A509	X	42	5-1	X			BODY VERT. BACKWALL
A510	X	4	21-11				BODY BACKWALL TOP
A411		40	4-8	X			BODY BACKWALL PAVING CORBEL
A612		14	22-2				BODY HORIZ. B.F.
A414		14	8-0				WING 1 & 2 FTG.
A415		24	6-3	X			WING 1 & 2 DOWEL F.F.
A417		12	10-4	X			WING 1 STIRRUPS
A518		18	9-9				WING 1 & 2 HORIZ. F.F.
A719		12	9-9				WING 1 & 2 HORIZ. B.F.
A420		5	14-10	X			WING 1 HORIZ. B.F.
A421		4	10-3	X			WING 1 HORIZ. F.F.
A422		5	7-3	X			WING 1 HORIZ. F.F.
A423		28	6-1				WING 1 & 2 VERT. F.F. & B.F.
A424		20	6-5				WING 1 & 2 VERT. F.F. & B.F.
A425		10	3-0				WING 1 & 2 SIDEWALL
A426		4	6-1				WING 1 & 2 SIDEWALL
A627		8	3-0				@ BLOCKOUT F.F. & B.F.
A428		12	10-2	X			WING 2 STIRRUPS
A429		9	14-10	X			WING 2 HORIZ. F.F. & B.F.
A430		4	7-6				WING 2 HORIZ. F.F. & B.F.
A631		2	14-2				WING 2 AT RAIL POST
A632		3	3-5				WING 2 AT RAIL POST



WING 2 ELEVATION



SECTION B



P.C.W.

(POLYVINYL CHLORIDE WATERSTOP)

P.C.W. SHALL BE BUTT SPLICED AT ALL INTERSECTIONS BY USING A HEATED SPLICING IRON. HOLD P.C.W. FLUSH WITH CONCRETE. SEAL ALL VERT. ENDS OF P.C.W. WITH NON-STAINING NON-BITUMINOUS JOINT SEALER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	DRAWN BY	PLANS CKD.
1989	JHC	I JK

NORTH ABUTMENT

SHEET 10

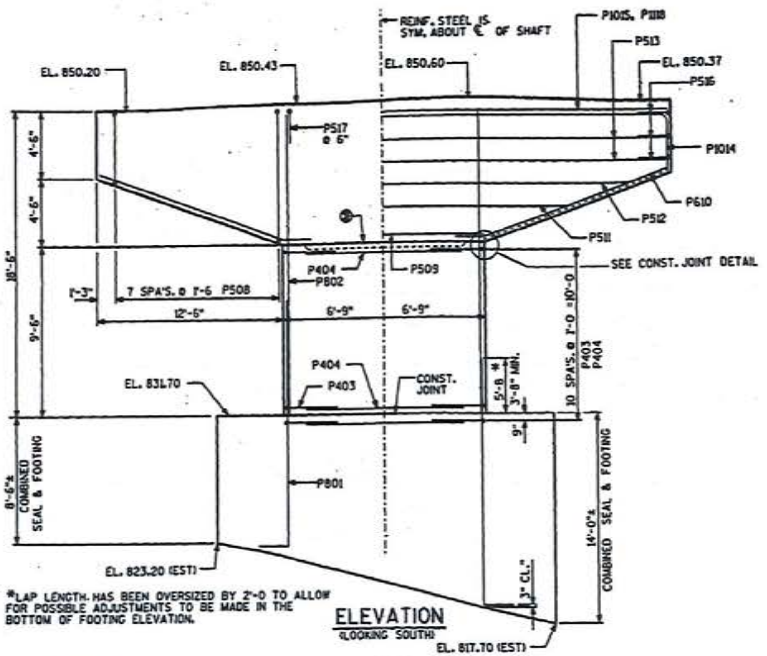
X83377

SUBSTRUCTURE

BR_B09146_J146ABUT.DGN

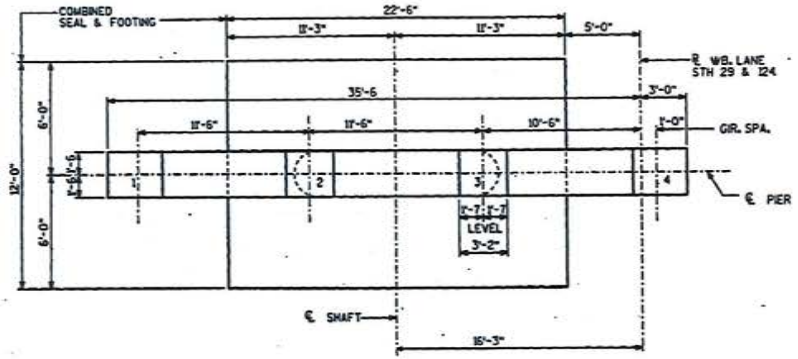
VIEW 2

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.10



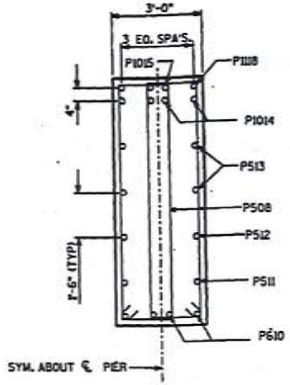
*LAP LENGTH HAS BEEN OVERSIZED BY 2'-0 TO ALLOW FOR POSSIBLE ADJUSTMENTS TO BE MADE IN THE BOTTOM OF FOOTING ELEVATION.

ELEVATION
(LOOKING SOUTH)

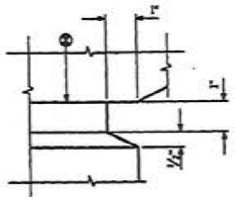


PLAN

NOTE: MINIMUM SOIL BEARING CAPACITY = 40 TONS PER SQ. FT.

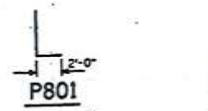


SECTION THRU CAP



CONST. JOINT DETAIL

Ⓒ CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 9'-6 LONG

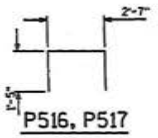


P801

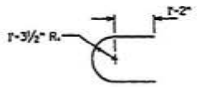
VARIES FROM 4'-6 TO 8'-3½ IN INCREMENTS OF 6½"

P508

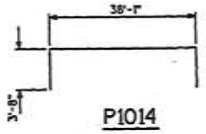
P610



P516, P517



P403

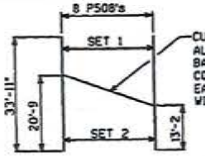


P1014

BILL OF BARS

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

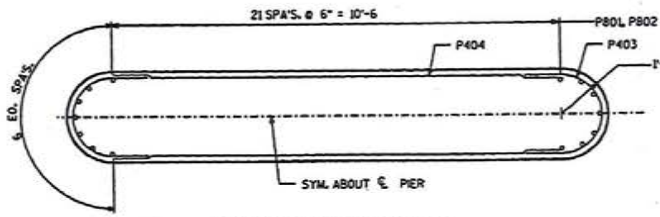
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
P801		54	20-3				FOOTING DOWELS
P802		54	18-3				SHAFT VERTICAL
P403		22	6-5	X			SHAFT TIE BARS
P404		22	10-6				SHAFT TIE BARS
P508		16	33-11	X	X		CAP STIRRUPS
P509		2	13-2				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	25-0				CAP SIDES
P512		2	33-4				CAP SIDES
P513		4	38-1				CAP SIDES
P1014		4	44-10	X			CAP TOP
P1015		2	38-1				CAP TOP
P516		6	5-2	X			CAP ENDS
P517		22	5-2	X			CAP TOP
P1118		2	38-1				CAP TOP



CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

CUTTING DIAGRAM

BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.



SECTION THRU SHAFT

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JMG	PLANS CKD.	DJK

PIER 1

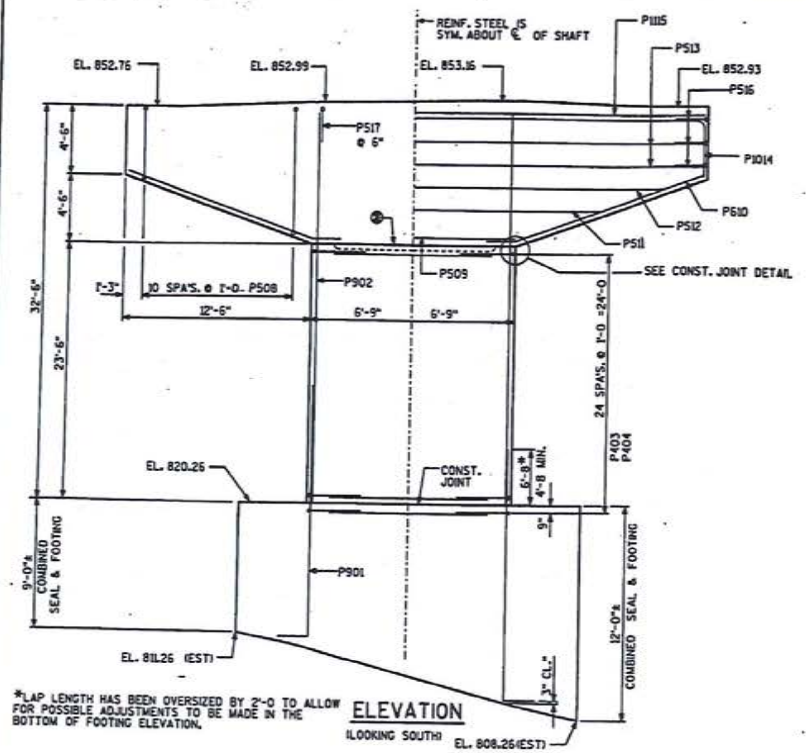
SHEET 11

X83377

BR_B09146.J46P1THRU5 SCALE 4:1

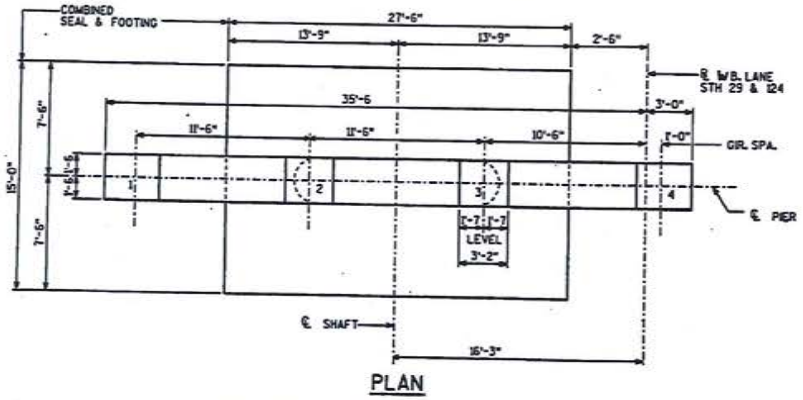
VIEW 1

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.11



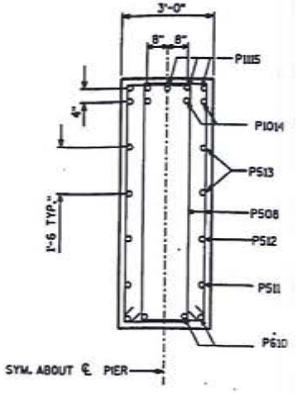
*LAP LENGTH HAS BEEN OVERSIZED BY 2'-0 TO ALLOW FOR POSSIBLE ADJUSTMENTS TO BE MADE IN THE BOTTOM OF FOOTING ELEVATION.

ELEVATION
(LOOKING SOUTH)

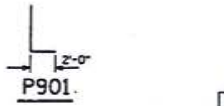


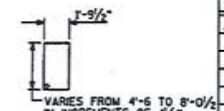
PLAN

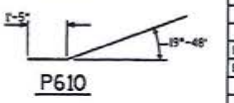
NOTE: MINIMUM SOIL BEARING CAPACITY = 40 TONS PER SQ. FT.

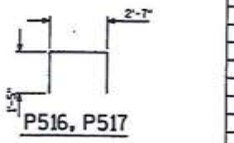


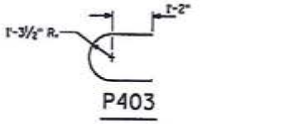
SECTION THRU CAP

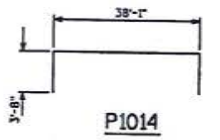


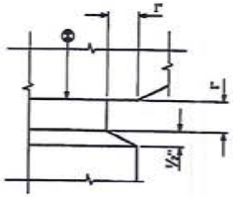












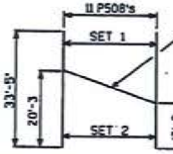
CONST. JOINT DETAIL

℄ CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 9'-6 LONG

BILL OF BARS

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

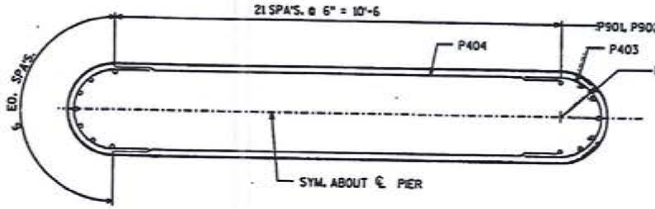
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
P901		54	19-5				FOOTING DOWELS
P902		54	32-3				SHAFT VERTICAL
P403		50	6-5	X			SHAFT TIE BARS
P404		50	10-6				SHAFT TIE BARS
P508		22	33-5	X	X		CAP STIRRUPS
P509		2	13-2				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	25-0				CAP SIDES
P512		2	33-4				CAP SIDES
P513		4	38-1				CAP SIDES
P1014		4	44-10				CAP TOP
P1115		5	38-1				CAP TOP
P516		6	5-2	X			CAP ENDS
P517		22	5-2	X			CAP TOP



CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

CUTTING DIAGRAM

BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.



SECTION THRU SHAFT

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JHC	PLANS CKD.	D.J.K.

PIER 2

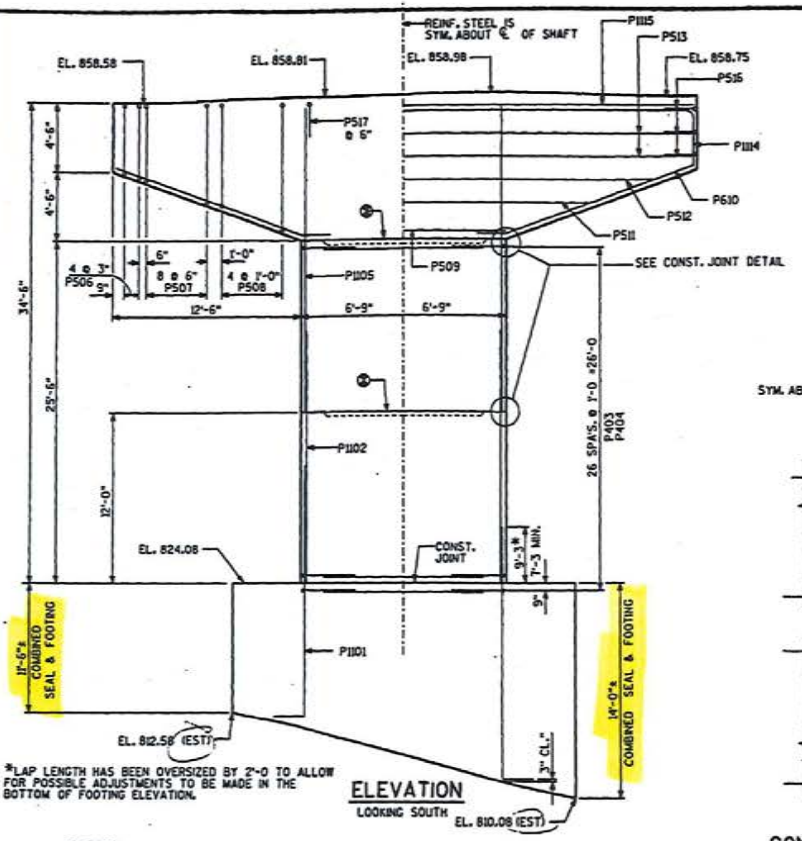
SHEET 12

X83377

VIEW 2

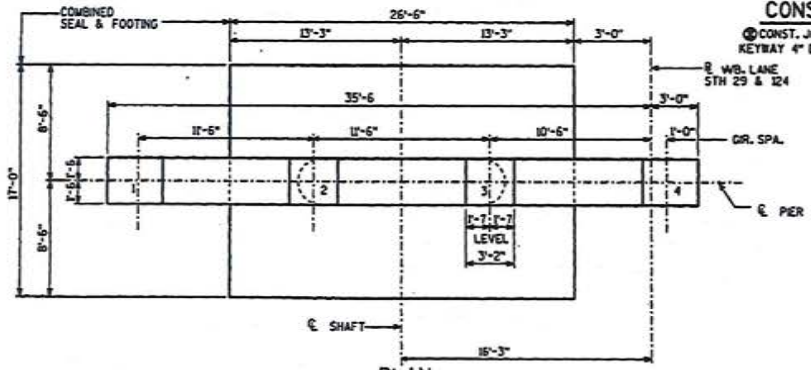
BR_B09146_J146P1THRU5 SCALE 4:1

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.12

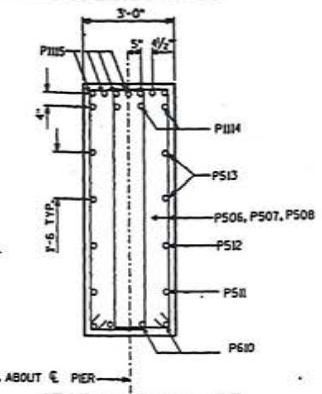


*LAP LENGTH HAS BEEN OVERSIZED BY 2'-0 TO ALLOW FOR POSSIBLE ADJUSTMENTS TO BE MADE IN THE BOTTOM OF FOOTING ELEVATION.

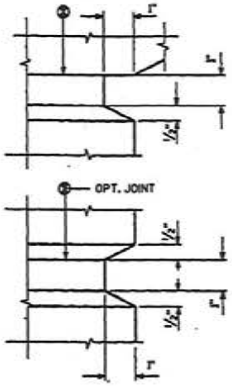
ELEVATION
LOOKING SOUTH



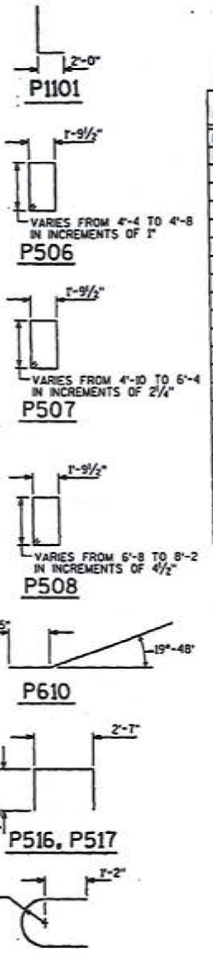
PLAN
NOTE: MINIMUM SOIL BEARING CAPACITY = 40 TONS PER SQ. FT.



SECTION THRU CAP



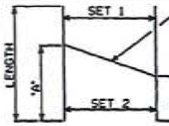
CONST. JOINT DETAIL
② CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 9"-6 LONG



BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
P1101		54	24-0				FOOTING DOWELS
P1102		54	19-3				SHAFT VERTICAL
P403		54	6-5	X			SHAFT TIE BARS
P404		54	10-6				SHAFT TIE BARS
P1105		54	22-3	X			SHAFT VERTICAL
P506		10	26-4	X	X		CAP STIRRUPS
P507		18	30-8	X	X		CAP STIRRUPS
P508		10	38-0	X	X		CAP STIRRUPS
P509		2	13-2				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	25-0				CAP SIDES
P512		2	33-4				CAP SIDES
P513		4	38-1				CAP SIDES
P1114		4	44-9	X			CAP TOP
P1115		7	38-1				CAP TOP
P516		6	5-2	X			CAP ENDS
P517		22	5-2	X			CAP TOP

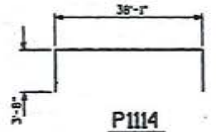


CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

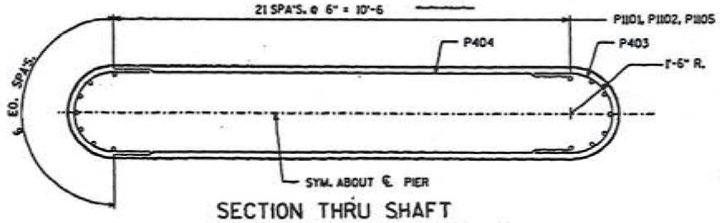
BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

CUTTING DIAGRAM

MARK	"B"	"A"	NO. OF BARS/SET	NO. OF EACH SET
P506	12-10	13-6	5	2
P507	13-10	16-10	9	2
P508	17-6	20-6	5	2



P1114



SECTION THRU SHAFT

NOTE: BAR STEEL RE... UNLESS OTHERWISE...

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JHG	PLANS CK'D.	CJK

PIER 3

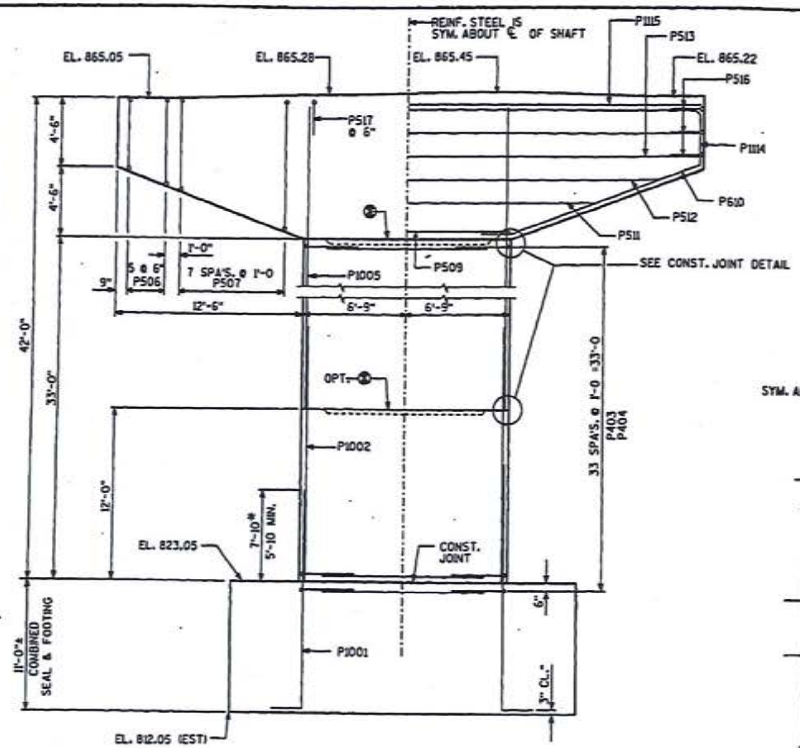
SHEET 13

X83377

VIEW 3

BR_B09146.J:46PITHRU5 SCALE 4:1

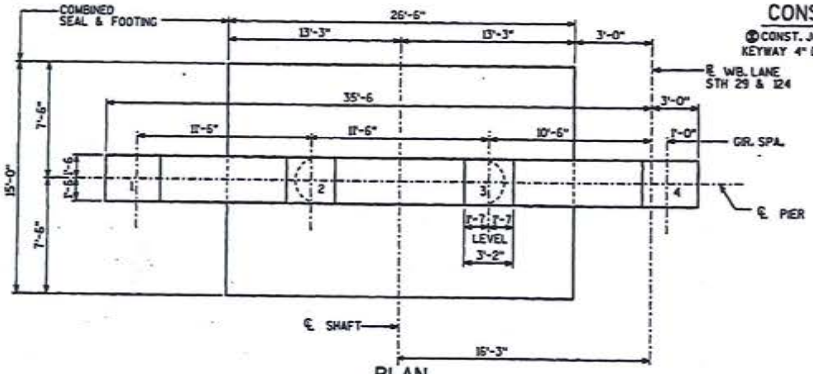
STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.13



*LAP LENGTH HAS BEEN OVERSIZED BY 2'-0 TO ALLOW FOR POSSIBLE ADJUSTMENTS TO BE MADE IN THE BOTTOM OF FOOTING ELEVATION.

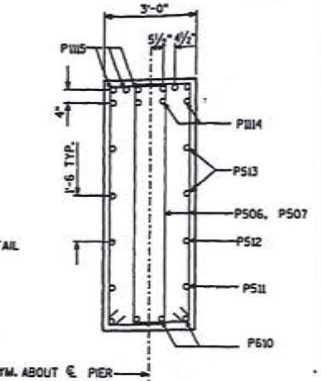
ELEVATION

LOOKING SOUTH

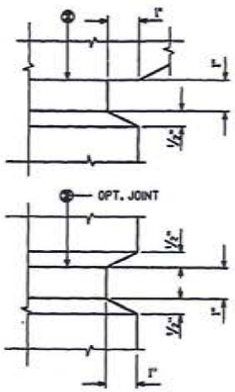


PLAN

NOTE: MINIMUM SOIL BEARING CAPACITY = 40 TONS PER SQ. FT.

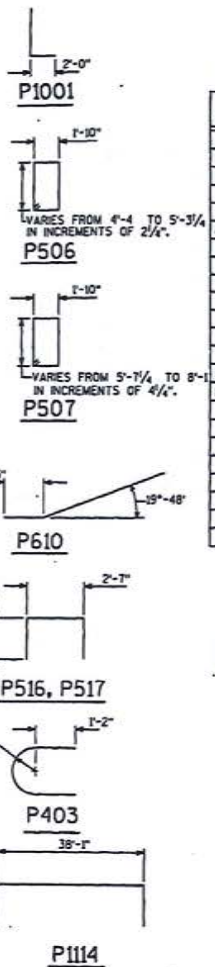


SECTION THRU CAP



CONST. JOINT DETAIL

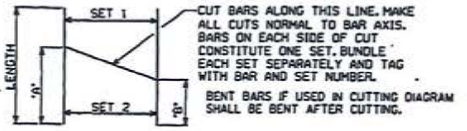
㉘ CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 9'-6 LONG



BILL OF BARS

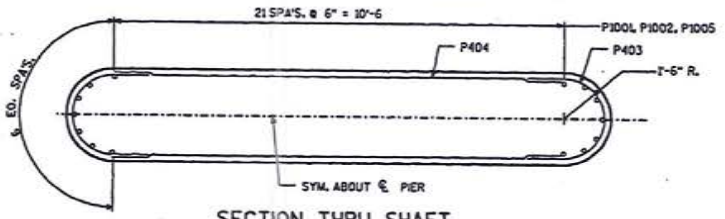
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
P1001		54	20-3	X			FOOTING DOWELS
P1002		54	18-9				SHAFT VERTICAL
P403		68	6-5	X			SHAFT TIE BARS
P404		68	10-6				SHAFT TIE BARS
P1005		54	29-9				SHAFT VERTICAL
P506		12	27-9	X	X		CAP STIRRUPS
P507		16	35-10	X	X		CAP STIRRUPS
P509		2	13-2				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	25-0				CAP SIDES
P512		2	33-4				CAP SIDES
P513		4	38-1				CAP SIDES
P1114		4	44-9	X			CAP TOP
P1115		6	38-1				CAP TOP
P516		6	5-2	X			CAP ENDS
P517		22	5-2	X			CAP TOP



CUTTING DIAGRAM

MARK	"A"	"B"	NO. OF BARS/SET	NO. OF EACH SET
P506	14-10	12-11	6	2
P507	20-5	15-5	8	2



SECTION THRU SHAFT

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JMG	PLANS CKD.	DJK

PIER 4

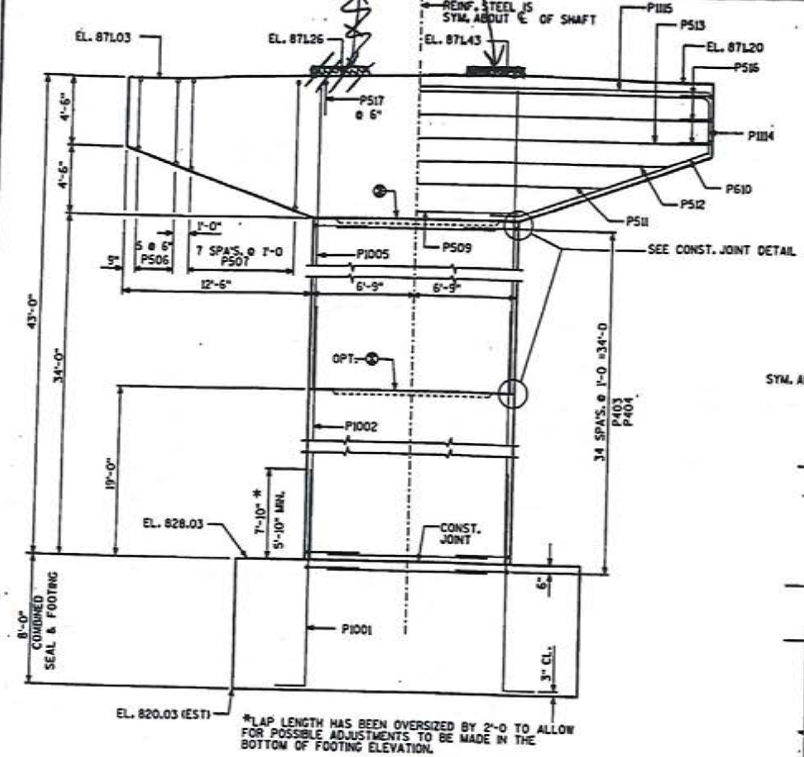
SHEET 14

X83377

BR_B09146_J146P1THRU5 SCALE 4:1

VIEW 4

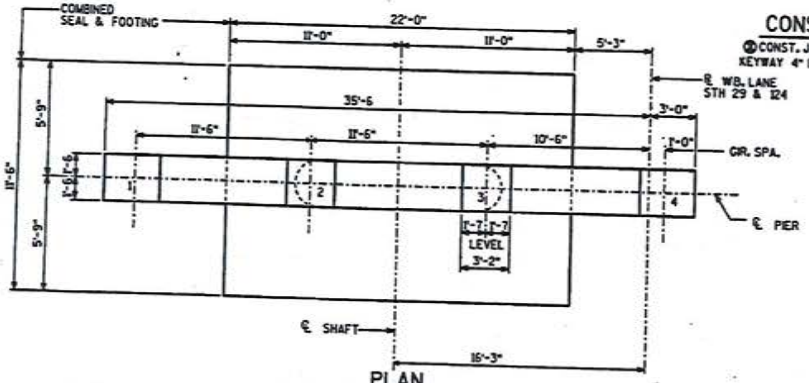
2" shim plate used



*LAP LENGTH HAS BEEN OVERSIZED BY 2'-0 TO ALLOW FOR POSSIBLE ADJUSTMENTS TO BE MADE IN THE BOTTOM OF FOOTING ELEVATION.

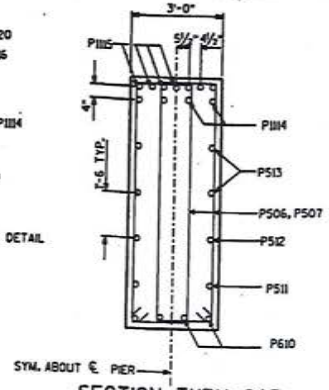
ELEVATION

LOOKING SOUTH

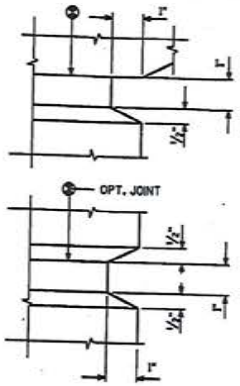


PLAN

NOTE: MINIMUM SOIL BEARING CAPACITY = 40 TONS PER SQ. FT.

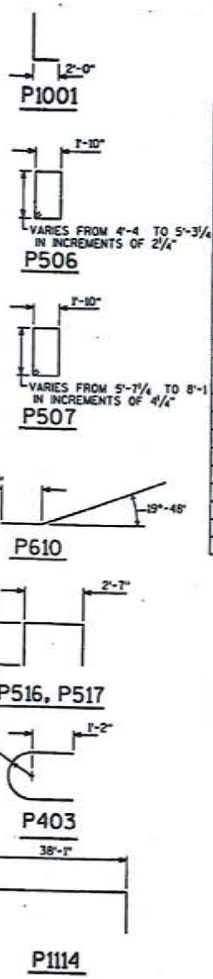


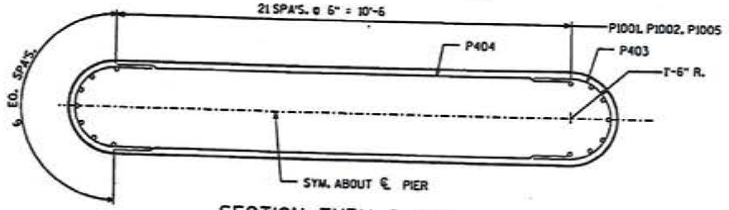
SECTION THRU CAP



CONST. JOINT DETAIL

㉒ CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 9'-6 LONG





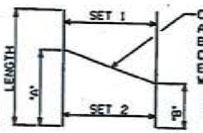
SECTION THRU SHAFT

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.14

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
P1001		54	17-3	X			FOOTING DOWELS
P1002		54	25-9				SHAFT VERTICAL
P403		70	6-5	X			SHAFT TIE BARS
P404		70	10-6				SHAFT TIE BARS
P1005		54	23-9				SHAFT VERTICAL
P506		12	27-8	X	X		CAP STIRRUPS
P507		16	35-11	X	X		CAP STIRRUPS
P509		2	13-2				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	25-0				CAP SIDES
P512		2	33-4				CAP SIDES
P513		4	38-1				CAP SIDES
P1114		4	44-9	X			CAP TOP
P1115		7	38-1				CAP TOP
P515		6	5-2	X			CAP ENDS
P517		22	5-2	X			CAP TOP



CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

CUTTING DIAGRAM

MARK	"B"	"A"	NO. OF BARS/SET	NO. OF EACH SET
P506	12-11	14-9	6	2
P507	15-6	20-5	8	2

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1989	JHG	DJK

PIER 5

SHEET 15

X83377

VIEW S

BR_B09146:J:146PITHRU5 SCALE 4:1

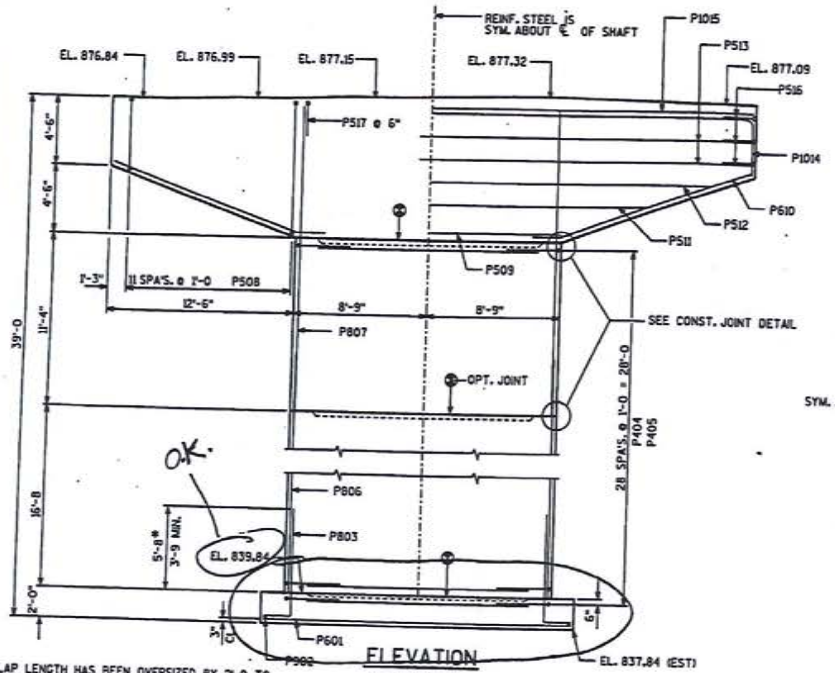
Pier 6 footing design changed to cofferdam/seal.
Longer P803 bars provided.

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.15

BILL OF BARS

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

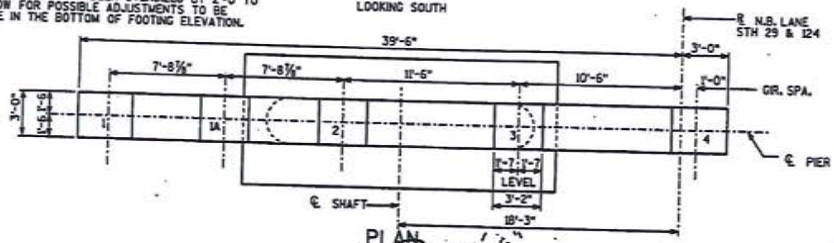
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
P601		9	20-0				FOOTING
P902		41	40-0				FOOTING
P803		66	8-6	X			FOOTING DOWELS
P404		58	24-6				SHAFT TIE BARS
P405		58	6-5	X			SHAFT TIE BARS
P806		66	20-4				SHAFT VERTICAL
P807		66	20-2				SHAFT VERTICAL
P508		24	33-8	X	X		CAP STIRRUPS
P509		2	17-6				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	29-0				CAP SIDES
P512		2	37-4				CAP SIDES
P513		8	21-10				CAP SIDES
P1014		4	48-10	X			CAP TOP
P1015		6	42-1				CAP TOP
P516		6	5-2	X			CAP ENDS
P517		30	5-2	X			CAP TOP



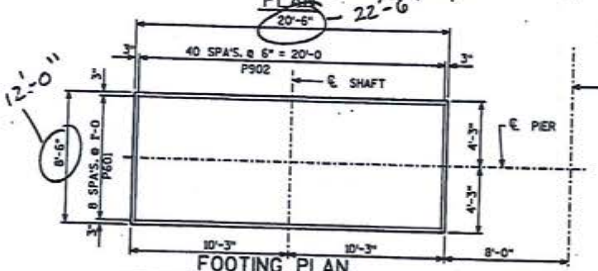
ELEVATION

LOOKING SOUTH

*LAP LENGTH HAS BEEN OVERSIZED BY 2'-0 TO ALLOW FOR POSSIBLE ADJUSTMENTS TO BE MADE IN THE BOTTOM OF FOOTING ELEVATION.

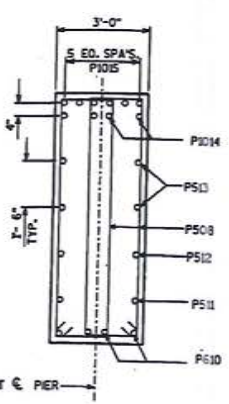


PLAN

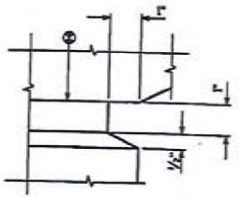


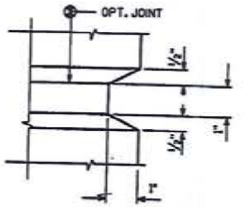
FOOTING PLAN

NOTE: MINIMUM SOIL BEARING CAPACITY = 40 TONS PER SQ. FT.



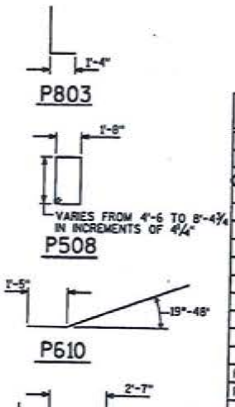
SECTION THRU CAP

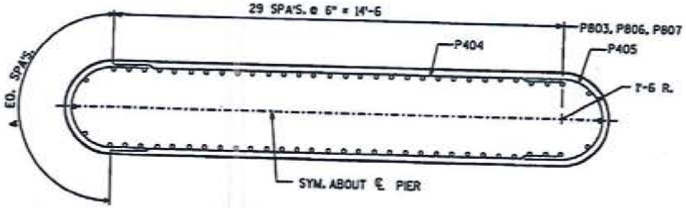




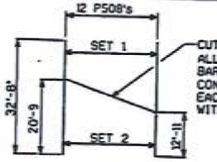
CONST. JOINT DETAIL

OPT. CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 13'-6 LONG





SECTION THRU SHAFT



CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

CUTTING DIAGRAM

BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JHG	PLANS CKD.	CMS

PIER 6

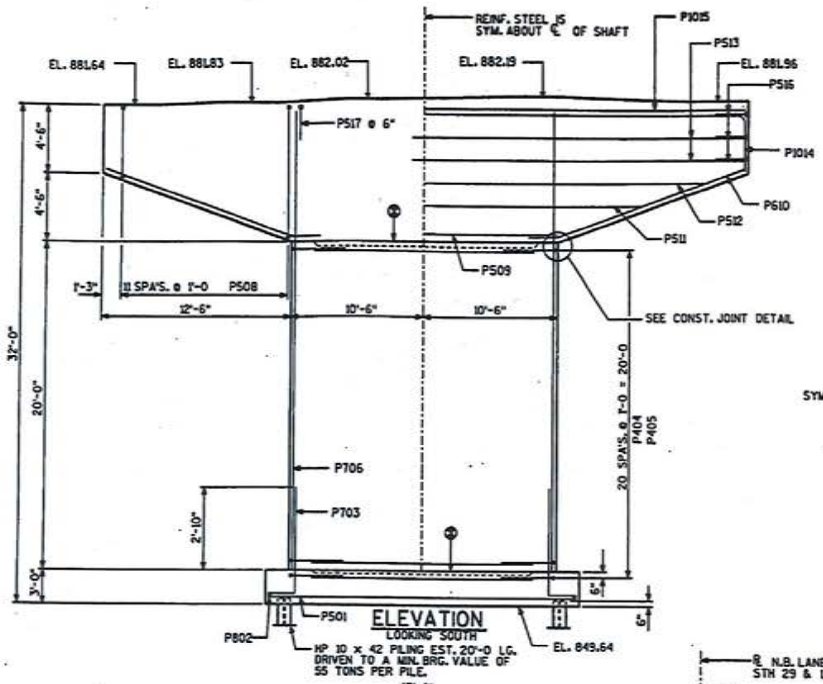
SHEET 15

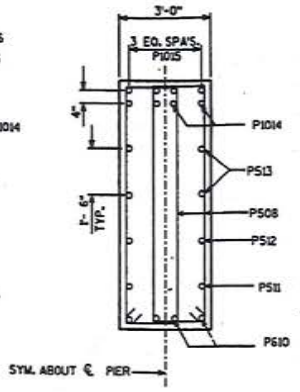
X83377

BR_B09146_J146PIER.DGN SCALE 4:1

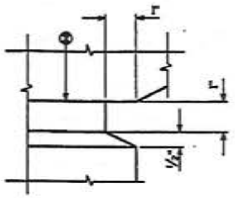
VIEW 6

STATE PROJECT NUMBER	SHEET NO.
1052-4-71	B.16



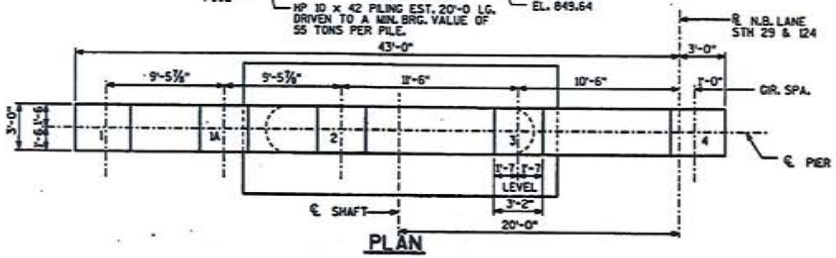


SECTION THRU CAP

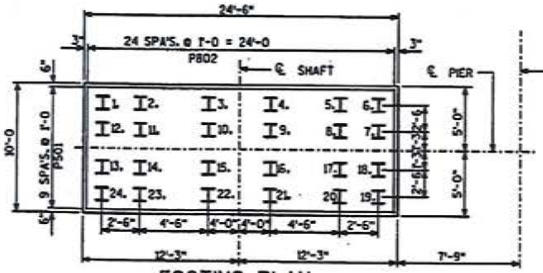


CONST. JOINT DETAIL

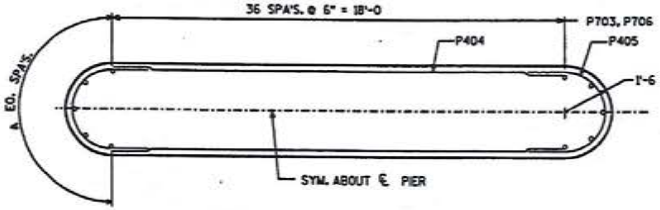
㉘ CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 17'-0 LONG



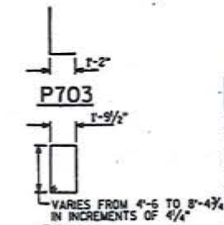
PLAN

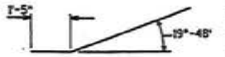


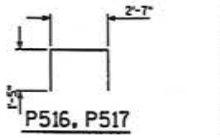
FOOTING PLAN

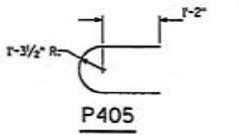


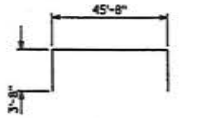
SECTION THRU SHAFT







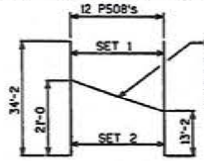




BILL OF BARS

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

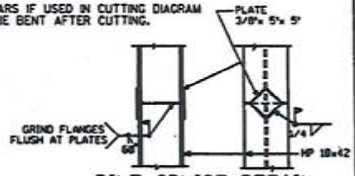
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUNDLE	LOCATION
P501		10	24-0				FOOTING
P802		25	9-6				FOOTING
P703		80	6-3	X			FOOTING DOWELS
P404		42	18-0				SHAFT TIE BARS
P405		42	6-5	X			SHAFT TIE BARS
P706		80	28-10				SHAFT VERTICAL
P508		24	34-2	X	X		CAP STIRRUPS
P509		2	21-0				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	32-6				CAP SIDES
P512		2	40-10				CAP SIDES
P513		8	23-7				CAP SIDES
P1014		4	52-4	X			CAP TOP
P1015		4	45-7				CAP TOP
P516		6	5-2	X			CAP ENDS
P517		37	5-2	X			CAP TOP



CUT BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS. BARS ON EACH SIDE OF CUT CONSTITUTE ONE SET. BUNDLE EACH SET SEPARATELY AND TAG WITH BAR AND SET NUMBER.

CUTTING DIAGRAM

BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.



PILE SPLICE DETAIL

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JHG	PLANS CKD.	SMS

PIER 7

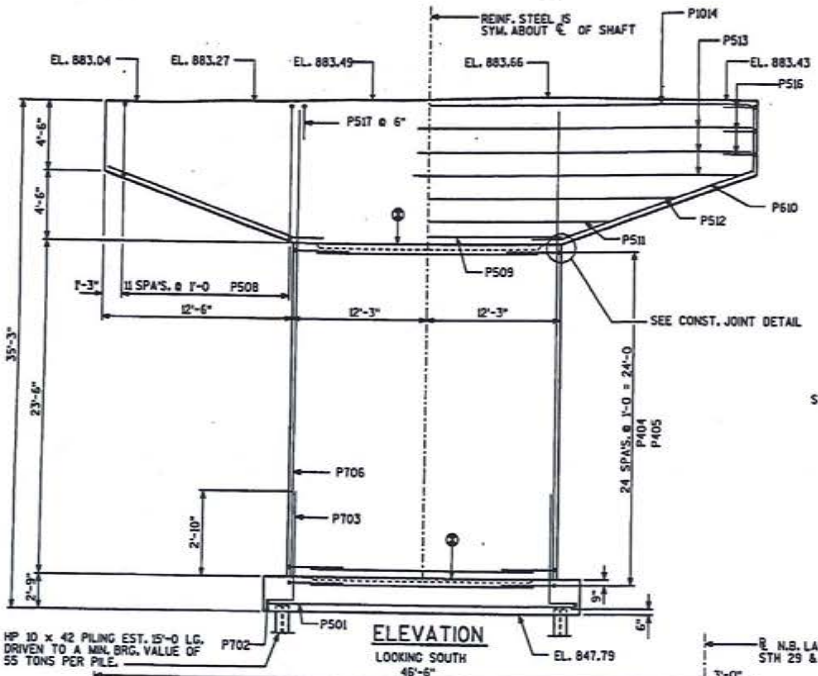
SHEET 17

X83377

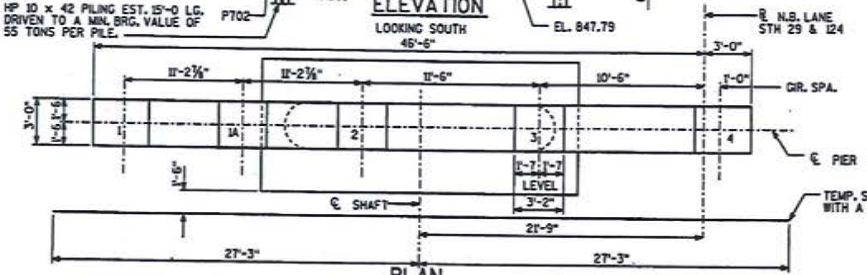
BR_B09146_J:\146PIER.DGN SCALE 4:1

VIEW 7

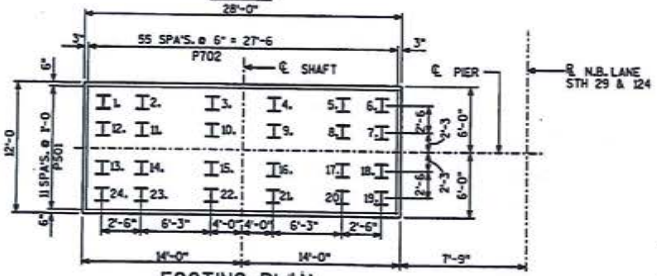
STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.17



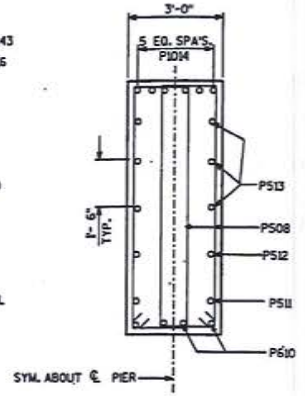
ELEVATION
LOOKING SOUTH



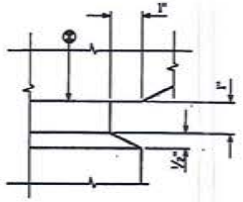
PLAN



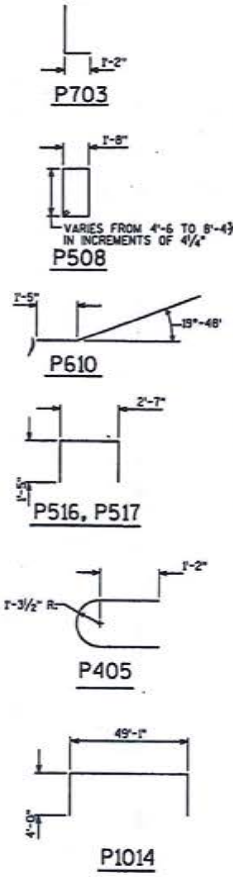
FOOTING PLAN



SECTION THRU CAP



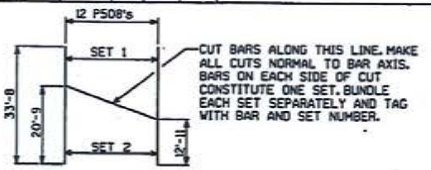
CONST. JOINT DETAIL
(22) CONST. JOINT WITH SURFACED, BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 13'-6 LONG



BILL OF BARS

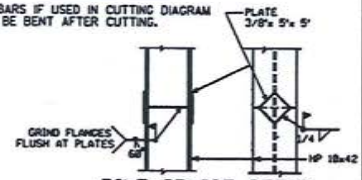
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
P501		12	27-6				FOOTING
P702		56	11-6				FOOTING
P703		94	6-0	X			FOOTING DOWELS
P404		50	21-6				SHAFT TIE BARS
P405		50	6-5	X			SHAFT TIE BARS
P706		94	32-3				SHAFT VERTICAL
P508		24	33-8	X	X		CAP STIRRUPS
P509		2	24-6				CAP SIDES
P610		8	14-4	X			CAP BOTTOM
P511		2	30-6				CAP SIDES
P512		2	38-9				CAP SIDES
P513		12	25-4				CAP SIDES
P1014		6	56-6	X			CAP TOP
P516		6	5-2	X			CAP ENDS
P517		44	5-2	X			CAP TOP

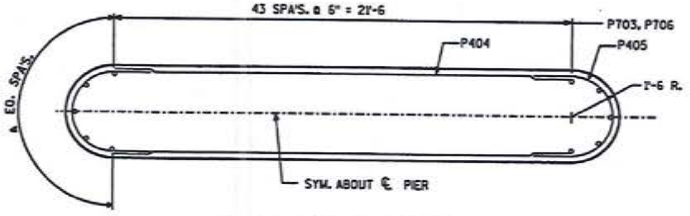


CUTTING DIAGRAM

BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.



PILE SPLICE DETAIL



SECTION THRU SHAFT

NOTE: BAR STEEL REINF. IS 2 ½" CL. UNLESS OTHERWISE SHOWN OR NOTED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	JHG	PLANS CKD.	SMS

PIER 8

SHEET 18

X83377

VIEW 8

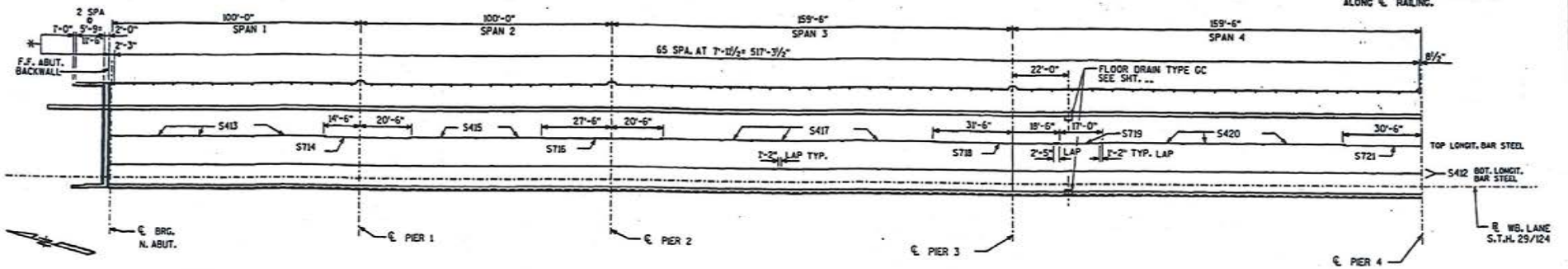
BR_B09146_J146PIER.DGN SCALE 4:1

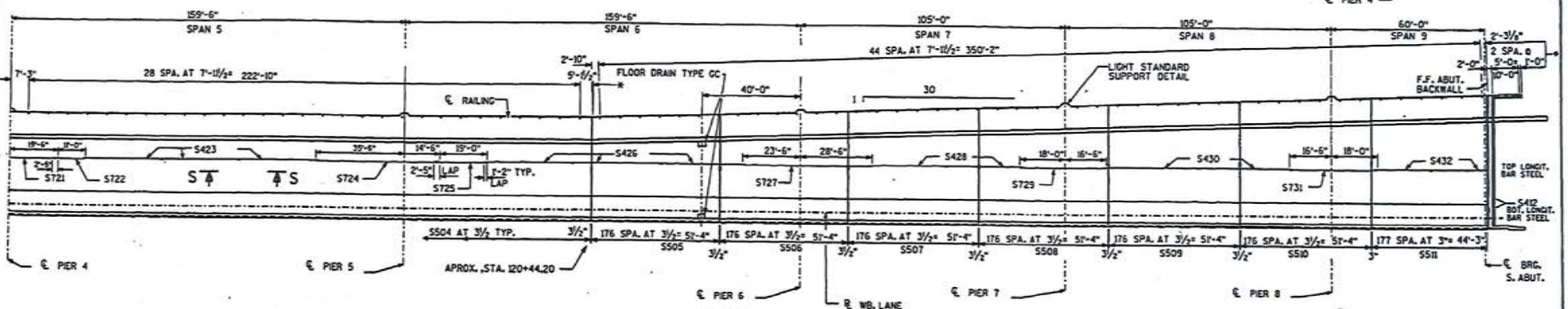
STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.18

THIS SHEET GIVEN TO SHOW RAIL POST SPACING ON ABUTMENT WINGS.

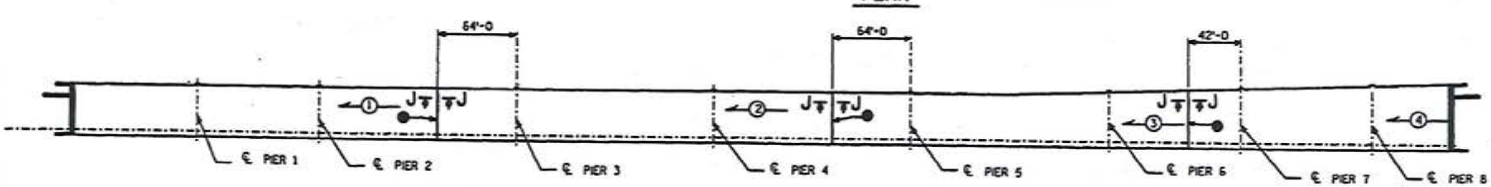
NOTE: LONGITUDINAL BARS SHALL BE PLACED PARALLEL TO W.B. LANE REF. LINE, BUT ADDITIONAL BARS IN TAPER SHALL BE PLACED PARALLEL TO EAST (SIDEWALK SIDE) SLAB EDGE.

* RAIL POST SPACING IS MEASURED ALONG ℄ RAILING.





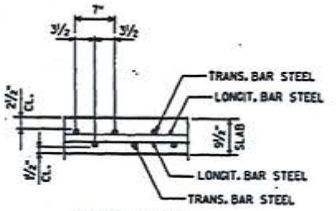
PLAN



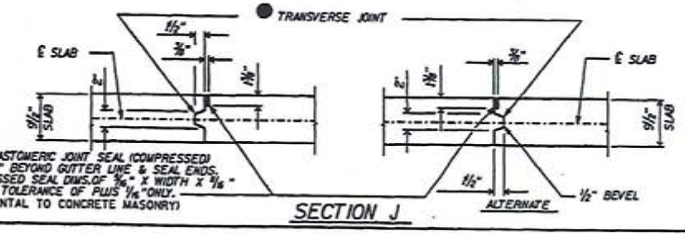
SLAB POURING DIAGRAM

INDICATES POUR NUMBER & DIRECTION OF POUR.

THE RATE OF POUR SHALL EXCEED .05 SPAN LENGTH PER HOUR. TRANS. CONST. JOINTS MAY BE OMITTED PROVIDED THE RATE OF POUR EXCEEDS .05 SPAN PER HOUR.



SECTION S



PREFORMED ELASTOMERIC JOINT SEAL (COMPRESSED) EXTEND SEAL 4" BEYOND GUTTER LINE & SEAL ENDS. USE UNCOMPRESSED SEAL DIMS. OF ⅞" X WIDTH X 1⅛" HEIGHT WITH A TOLERANCE OF PLUS 1/16" ONLY. (PRICE IS INCIDENTAL TO CONCRETE MASONRY)

SECTION J

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

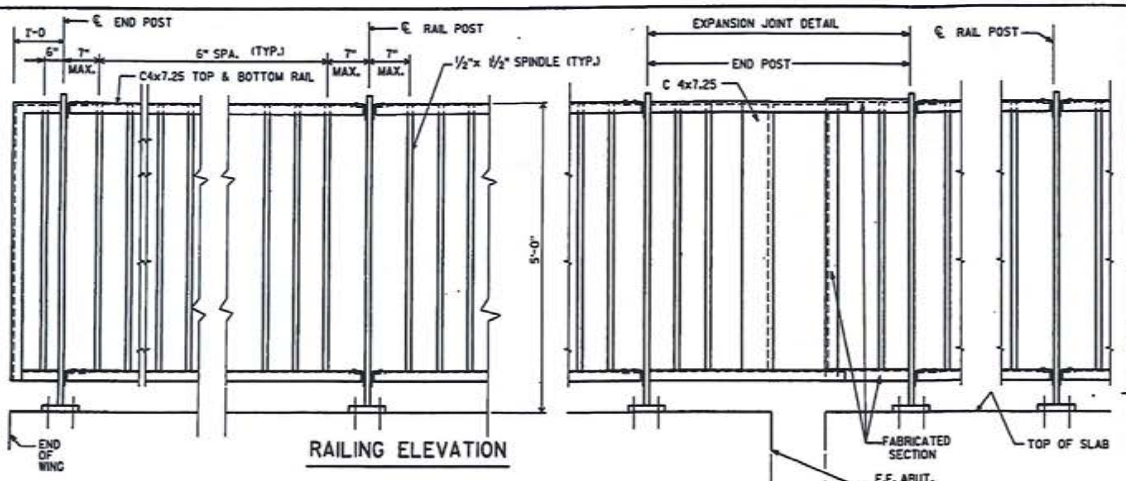
STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	Zirk	PLANS CCD.	DJK

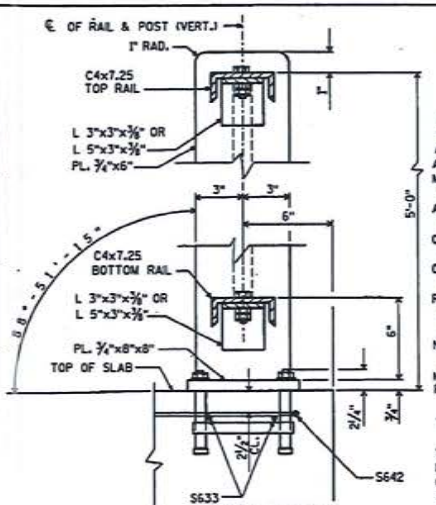
SUPERSTRUCTURE | SHEET 19 | X83377

BR_BR B09146 SUPER SUBSTRUCTURE

STATE PROJECT NUMBER	SHEET NO.
-1052-4-71	8.19



RAILING ELEVATION



POST DETAIL
ANCHORAGE IN SLAB SHOWN

GENERAL NOTES

BID ITEM SHALL BE 'STEEL SIDEWALK RAILING'.

BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

RAIL, POSTS, BASE PLATES AND SHIMS TO BE A.S.T.M. A36, ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING, SET NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTALLY ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK EXPOSED OPENINGS BETWEEN SHIMS.

FILL ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

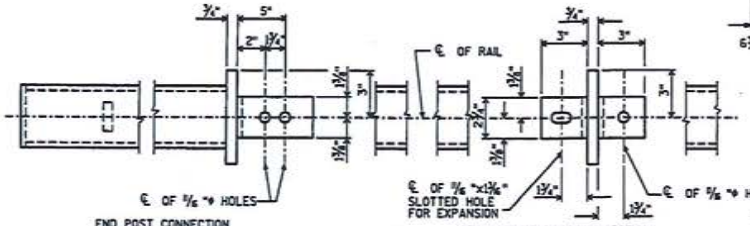
PRICE BID FOR 'STEEL SIDEWALK RAILING' INCLUDES ALL MATERIALS SHOWN ON THIS SHEET, EXCEPT BAR STEEL, PAINTING AND CONC. MASONRY.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

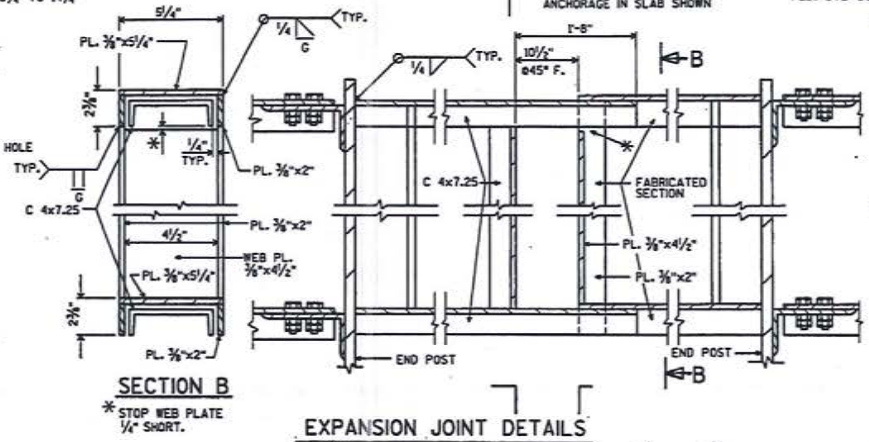
ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR A.S.T.M. A 307. IF A 307 IS USED, NUTS, WASHERS AND TOP 3" OF ANCHOR BOLTS SHALL BE GALVANIZED.

FOR POST SPACING SEE 'PLAN' ON SUPERSTRUCTURE SHEET.

SIDEWALK RAILING TO BE PAINTED BLUE FED.-STD COLOR NO. 25240

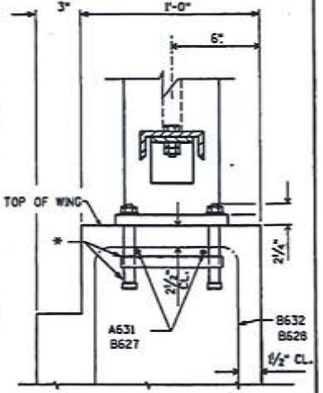


TOP VIEW



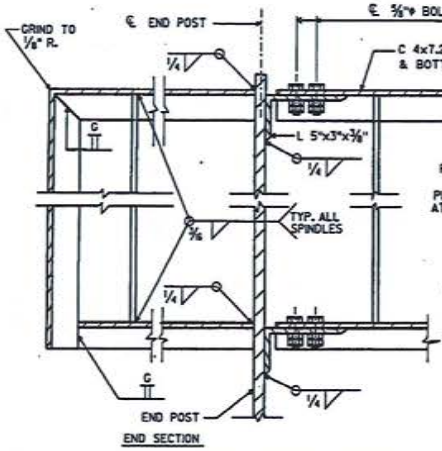
SECTION B
* STOP WEB PLATE ¼" SHORT.

EXPANSION JOINT DETAILS

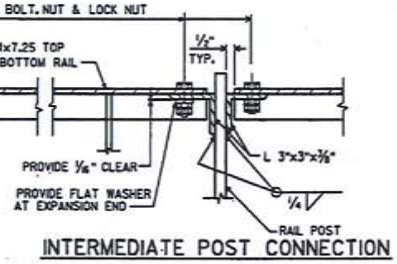


POST ANCHORAGE
IN ABUTMENT WINGS

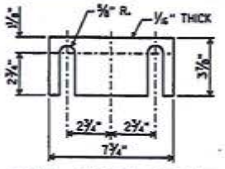
* INCIDENTAL TO CONCRETE-MASONRY ON N. ABUT WINGS ON SUBSTRUCTURE PLAN. ALL OTHER FENCING DETAILS ON DECK PLAN. AND PAID FOR AS "STEEL SIDEWALK RAILING"



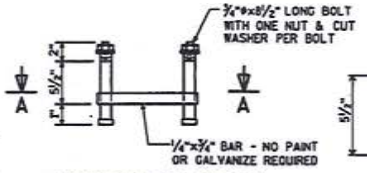
END POST DETAILS



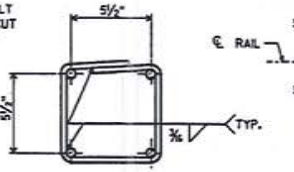
INTERMEDIATE POST CONNECTION



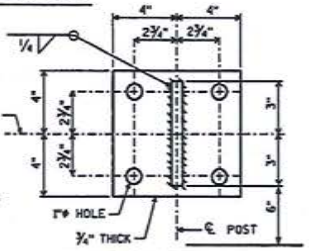
SHIM PLATE DETAIL
NOTE: FOUR SHIMS PER POST.



ANCHORAGE DETAIL



SECTION A



BASE PLATE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

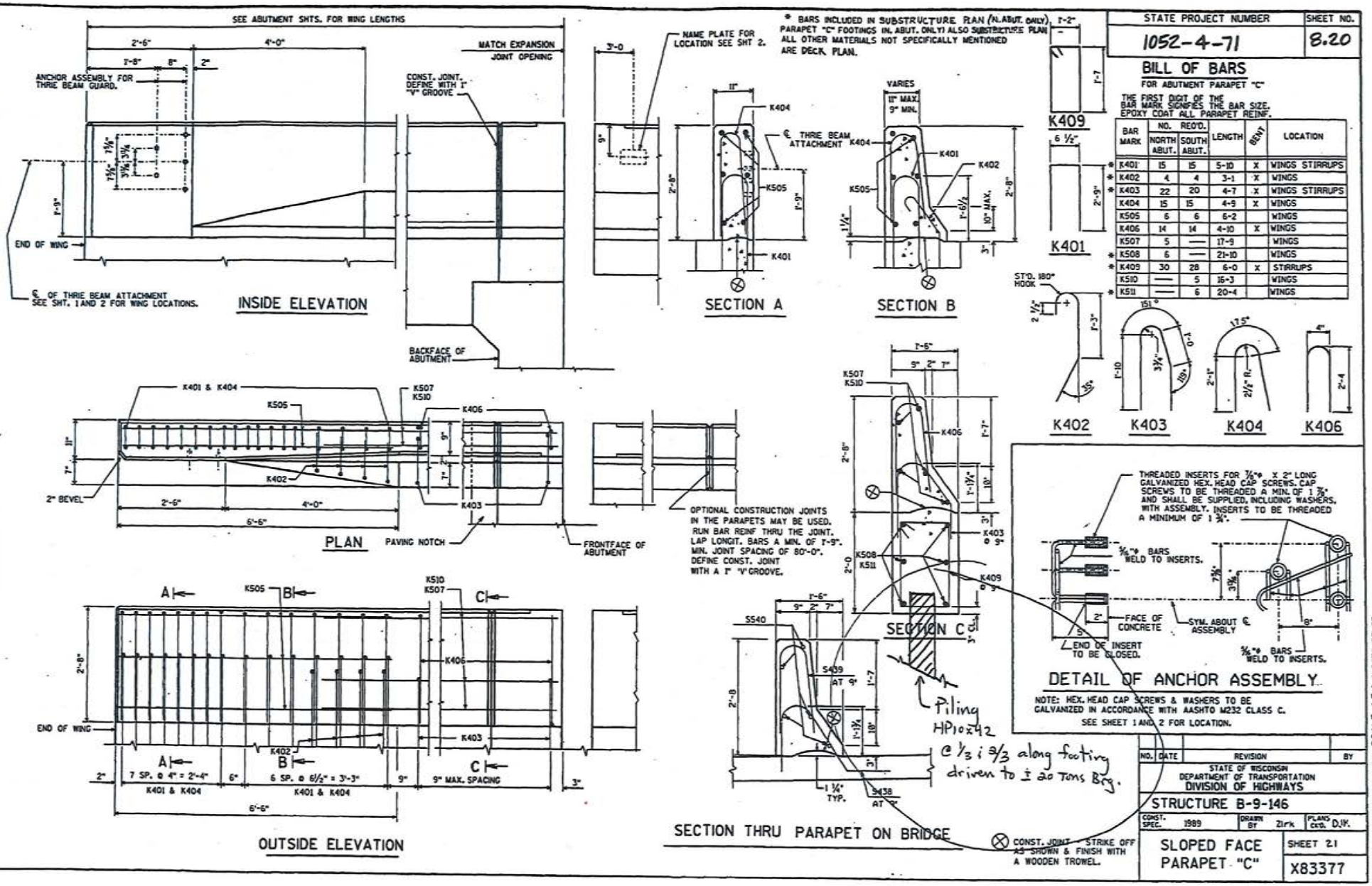
CONST. SPEC.	DRAWN BY	PLANS DATE
1989	ZIRK	SAME

SIDEWALK RAIL DETAILS

SHEET 20

X83377

BR_B09146:133FENCE.DGN



STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.20

BILL OF BARS

FOR ABUTMENT PARAPET "C"

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PARAPET REINF.

BAR MARK	NO. REQ'D. NORTH ABUT.	NO. REQ'D. SOUTH ABUT.	LENGTH	BENT	LOCATION
* K401	15	15	5-10	X	WINGS STIRRUPS
* K402	4	4	3-1	X	WINGS
* K403	22	20	4-7	X	WINGS STIRRUPS
K404	15	15	4-9	X	WINGS
K505	6	6	6-2		WINGS
K406	14	14	4-10	X	WINGS
K507	5	—	17-9		WINGS
* K508	6	—	21-10		WINGS
* K409	30	28	6-0	X	STIRRUPS
K510	—	5	16-3		WINGS
* K511	—	6	20-4		WINGS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	DRAWN BY	PLANS CHK'D.
1989	Zirk	D.W.

SLOPED FACE PARAPET "C"

SHEET 2.1

X83377

BR B09146:146PARAPET.DGN SCALE 1.5:1 SUBSTRUCTURE

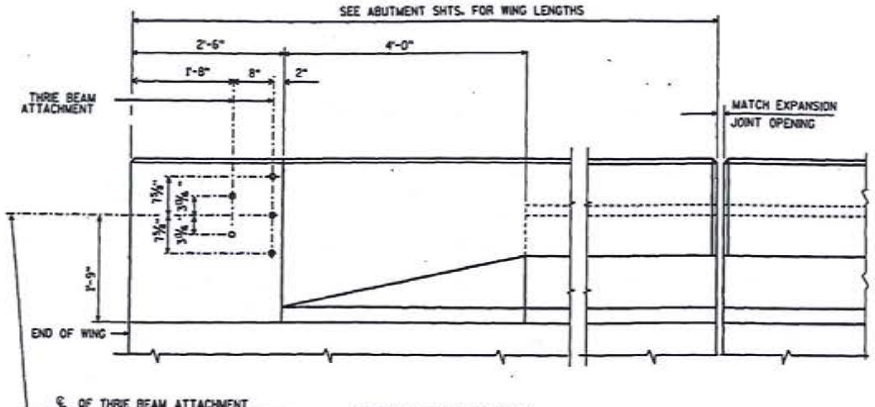
STATE PROJECT NUMBER	SHEET NO.
1052-4-71	8.21

*BARS INCLUDED IN SUBSTRUCTURE PLAN (N. ABUT. ONLY). ALL OTHER MATERIALS NOT SPECIFICALLY MENTIONED ARE DECK PLAN.

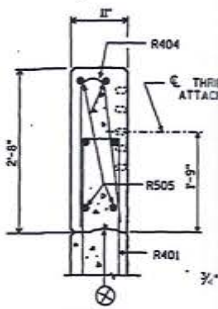
BILL OF BARS
FOR ABUTMENT PARAPETS

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE. EPOXY COAT ALL PARAPET REINF.

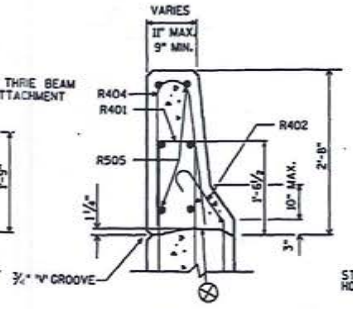
	BAR MARK	NO. REQ'D. NO. ABUT.	NO. REQ'D. SO. ABUT.	LENGTH	BENT	LOCATION
*	R401	15	15	5-10	X	WINGS STIRRUPS
*	R402	4	4	3-1	X	WINGS
*	R403	11	9	4-7	X	WINGS STIRRUPS
	R404	15	15	4-9	X	WINGS
	R505	6	6	6-2		WINGS
	R406	11	9	4-10	X	WINGS
	R507	5	—	10-0		WINGS
	R508	—	5	8-6		WINGS



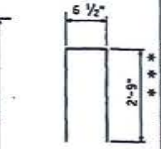
INSIDE ELEVATION



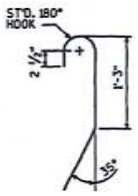
SECTION A



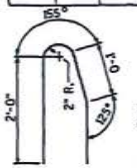
SECTION B



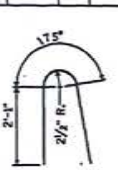
R401



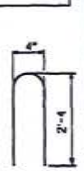
R402



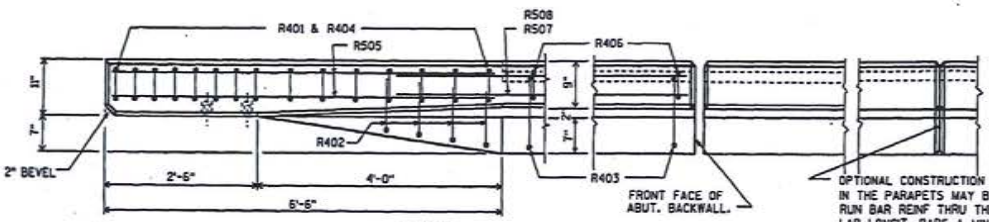
R403



R404

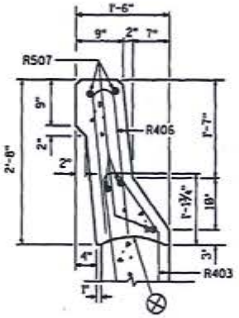


R406

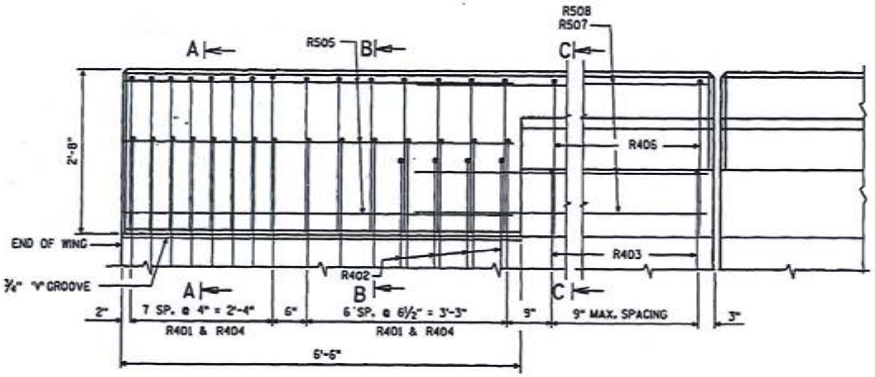


PLAN

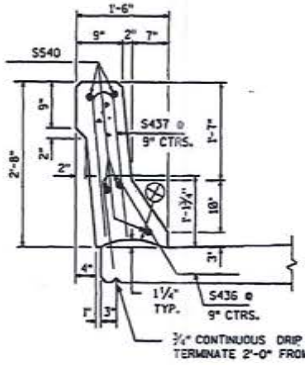
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 1" "V" GROOVE.



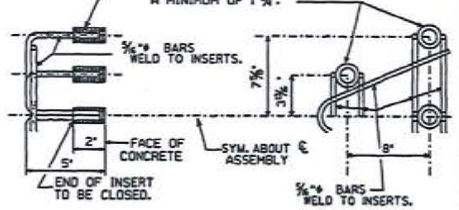
SECTION C



OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

SEE SHEET 1 AND 2 FOR LOCATION.

⊗ CONST. JOINT - STRIKE OFF AS SHOWN & FINISH WITH A WOODEN TROWEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-9-146

CONST. SPEC.	1989	DRAWN BY	Zirk	PLANS CKD.	JK

SLOPED FACE PARAPET "B"

SHEET 22

X83377

BR B09146:146PARAPET.DGN SUBSTRUCTURE

Bonk, Aaron M - DOT

From: Felix, Jessica L - DOT
Sent: Monday, June 12, 2017 12:40 PM
To: Becker, Scot - DOT; Shadewald, Laura - DOT; Krebs, Steven - DOT; Arndorfer, Robert - DOT; Horsfall, Jeffrey - DOT
Cc: Mentzel, Jerald - DOT; Brunner, Gary - DOT; Conlin, Paul - DOT
Subject: Emailing - STH124NB-B-9-146-coring.pdf
Attachments: STH124NB-B-9-146-coring.pdf

BOS and BTS,

Attached is a PDF summary of the observations thus far on STH 124 NB, B-9-146.

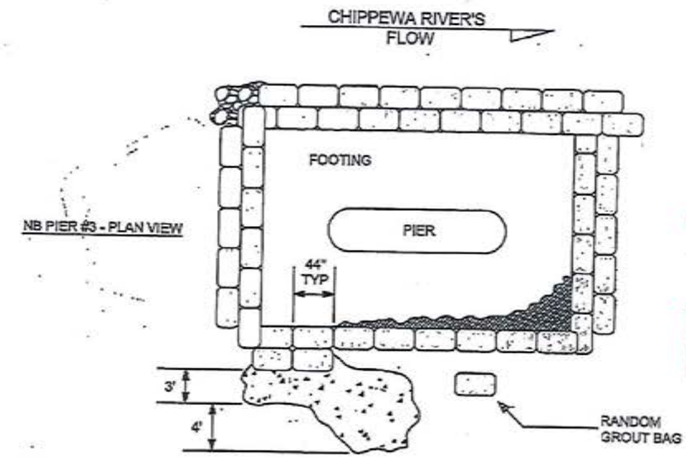
Region will assemble internal talking points to be shared with DTSD AO and SO. Goal is to have those distributed in draft form in the next 30 minutes for your edit/review.
Region has media interview this afternoon. Those talking points will be shared with OPA prior to media.

Am requesting that BTS put together an elevation in relation to the bridge pier of where have the soil conditions that have encountered. This would be for internal use only.

Thank you!
Jess

Jessica L. Felix, PE
Northwest Region Deputy Director
Cell: 715-225-9302

NB PIER #3 - EXISTING CONDITIONS
NOT TO SCALE



NB PIER #3 - PLAN VIEW

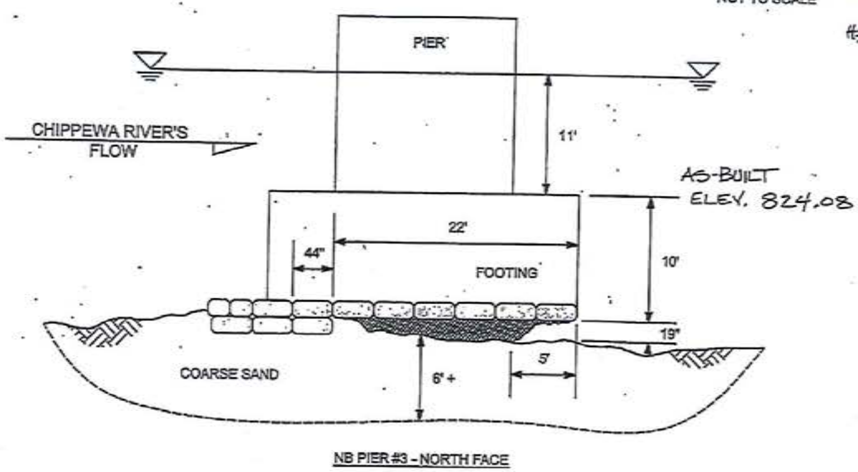
GENERAL NOTES:

1. A DOUBLE ROW OF GROUT BAGS WAS FOUND AROUND THE ENTIRE PERIMETER OF THE PIER EXCEPT FOR THE EXISTING SCOUR AREA.
2. THE CONCRETE OVER-POUR WAS PLACED ATOP THE EXISTING GROUT BAGS WHICH HAS LOCKED THE GROUT BAGS TOGETHER.
3. BRENNAN'S DIVER PROBED SIX FEET INTO THE COARSE SAND AND NEVER ENCOUNTERED BEDROCK.
4. DURING THE TIME OF THE INITIAL INSPECTION, NO EVIDENCE OF UNDERMINING OR LOCALIZED SCOUR WAS DISCOVERED OTHER THAN THE AREAS SHOWN WITHIN THE PROJECT PLANS.
5. WHEN THE SOUTHBOUND PIER #4 WAS INSPECTED, BRENNAN'S DIVER FOUND THE EXISTING CONDITIONS WERE CLOSELY COMPARABLE TO THE CONDITIONS SHOWN WITHIN THE PROJECT PLANS. ✓

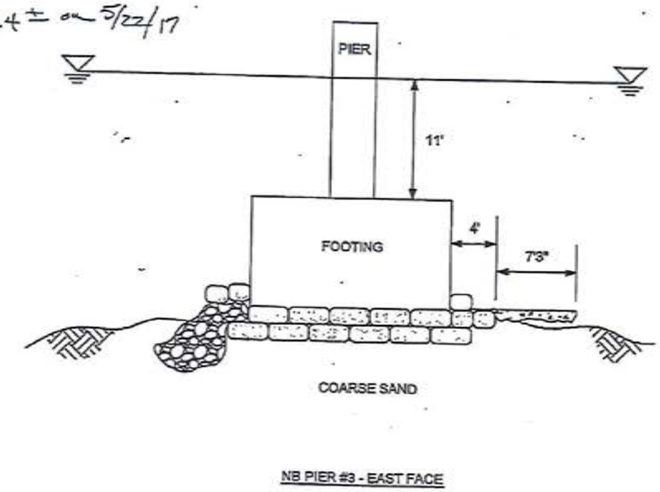
LEGEND:

- EXISTING GROUT BAGS
- FIRST TIER GROUT BAGS
- SECOND TIER GROUT BAGS
- RIVER BOTTOM
- CONCRETE OVER-POUR
- LARGE ROCK
- AREA OF SCOUR

H2O elev 838.4 ± on 5/22/17



NB PIER #3 - NORTH FACE



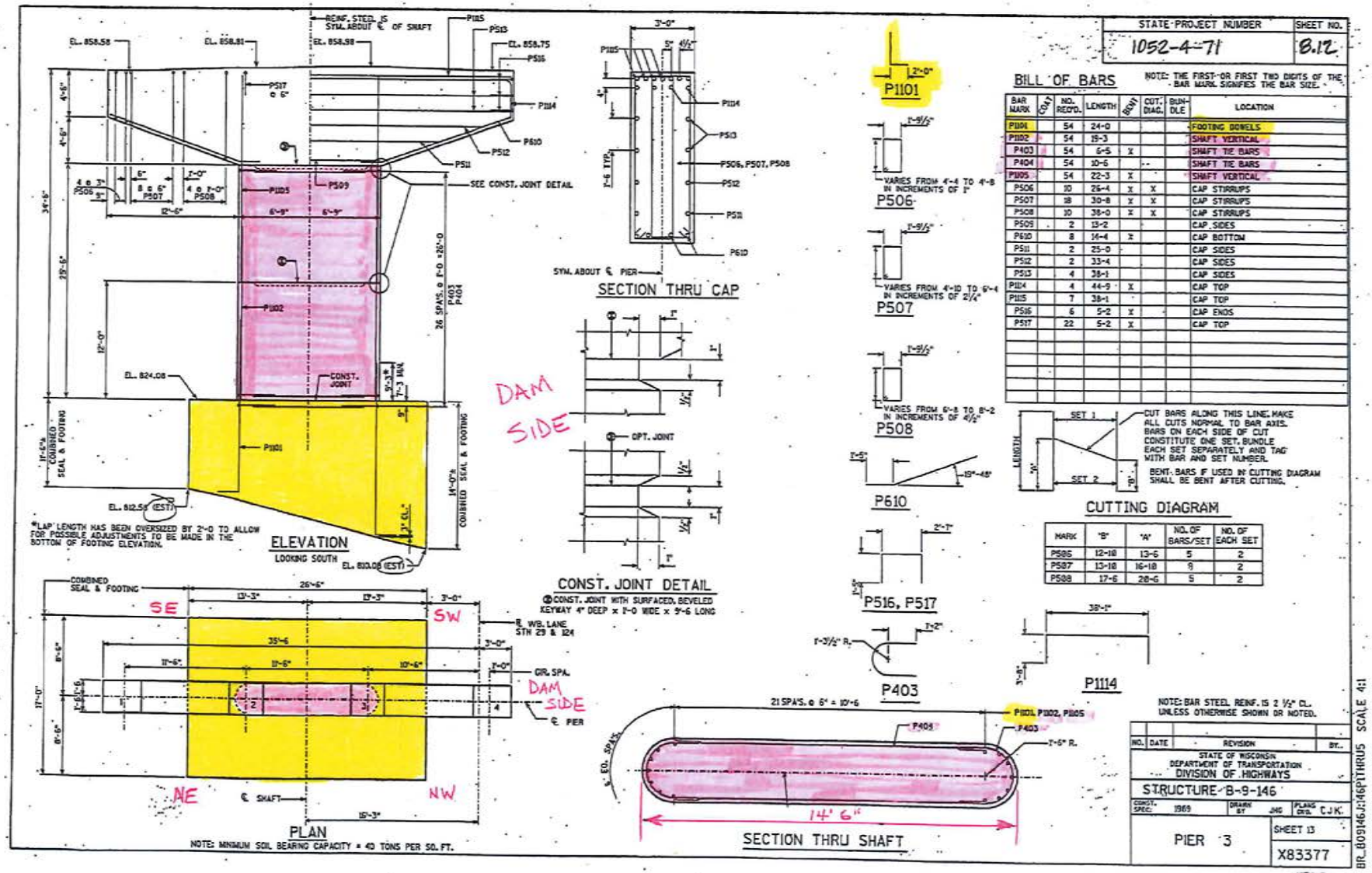
NB PIER #3 - EAST FACE

J.E. BRENNAN CO., INC.
818 BAINBRIDGE STREET
LA CROSSE, WISCONSIN 54603
PHONE: (608)784-7173
FAX: (608)785-2090
www.jfbrennan.com

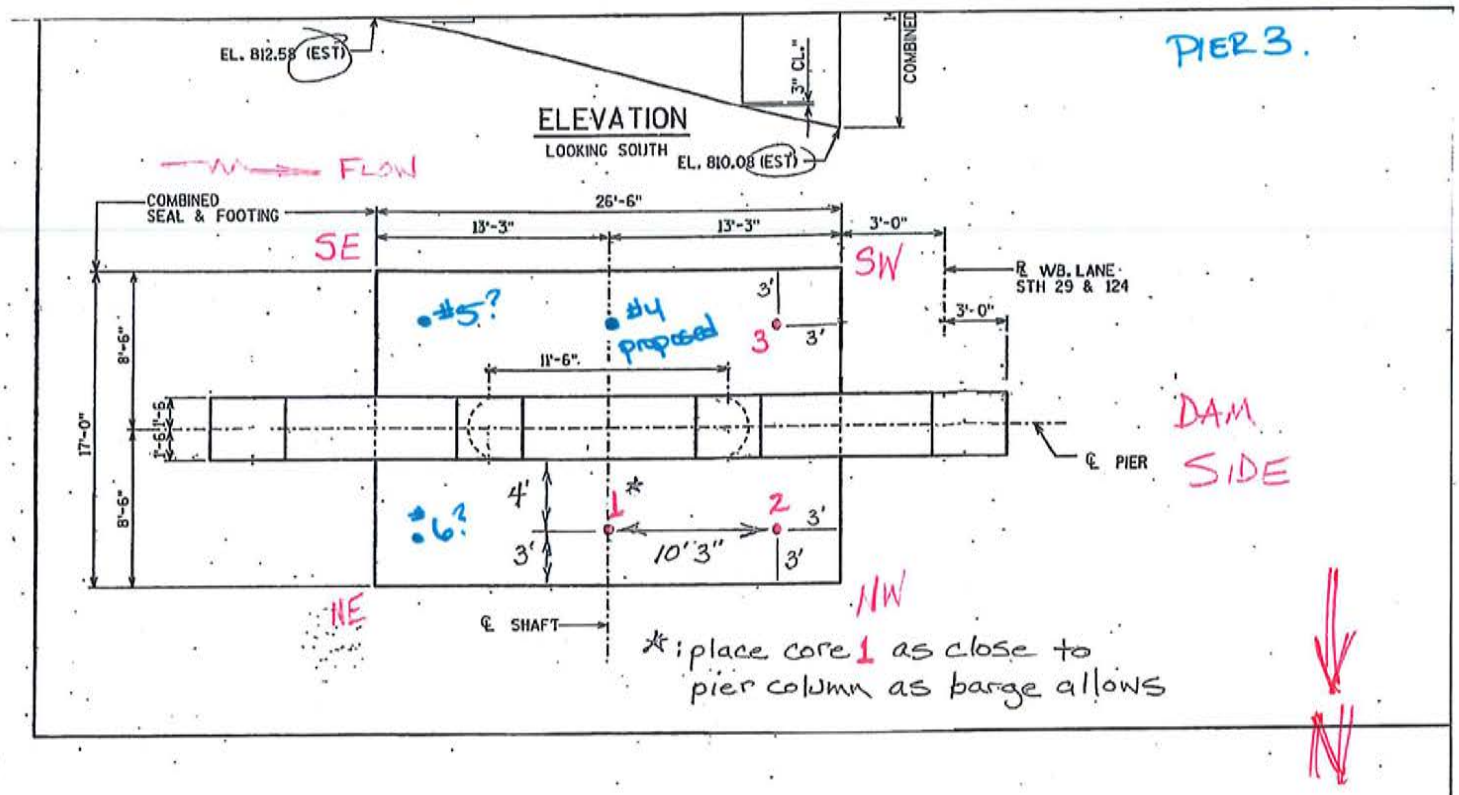
BRIDGE IDENTIFICATION: B-09-0116 (NORTHBOUND)
STATE PROJECT ID: 8510-02-72
FEDERAL PROJECT ID: WISC 2015502
COUNTY: CHIPPEWA COUNTY
DRAWN BY: COLE R. FARLEY
DRAWING DATE: MAY 1, 2017
PROJECT NUMBER: 352310

GROUT BAGS PLACEMENT PLAN
WISCONSIN DOT
CHIPPEWA FALLS, WISCONSIN
NB PIER #3 - EXISTING CONDITIONS

DRAWING NUMBER: A-1


ELEVATION
LOOKING SOUTH
PLAN
SECTION THRU CAP
CONST. JOINT DETAIL
SECTION THRU SHAFT
DAM SIDE
DAM SIDE
SE
SW
NE
NW
P1101
P506
P507
P508
P610
P516, P517
P403
P1114
BILL OF BARS
CUTTING DIAGRAM
STATE PROJECT NUMBER
1052-4-71
SHEET NO.
8.12
STRUCTURE B-9-146
PIER 3
SHEET 13
X83377

Soil borings locations
6/12/2017.
JLF.



1992 Bridge focus. – NB STH 124. (B-9-146)

Region & BOS proposed add'l cores on PIERS 1, 2, 4, 5 and 6.

↑ may not be in water.

— cores through concrete footing and 2ft of bedrock.

— locate at ℄ of shaft on each pier.

Bonk, Aaron M - DOT

From: Haig, Gregory - DOT
Sent: Wednesday, June 07, 2017 1:53 PM
To: Coupar, Matthew - DOT
Cc: Dreher, William - DOT; Bonk, Aaron M - DOT
Subject: RE: STH 124 Scour Repair Conference Call
Attachments: IMG_0431.JPG

Matt,

I just wanted to give you a heads up about the coring of the footing on B-09-0146. The coring crew only got one core/boring done today. It was the one located near the center of the pier on the northside of the stem. The coring drill went through 5 ft. of concrete footing before it hit a large layer of very poor concrete (5.5 ft. thick). They ended up having to switch from the core drill to a split spoon in order to get samples. After that they did hit another layer of good concrete but that was only about 8 in. thick before encountering more bad concrete. The poor concrete consisted of mainly gravel and had virtually no consolidation. They did eventually get into good bed rock , but that wasn't till they were about 8 ft. below the footing. They are going to do the rest of the proposed cores, but I just wanted make you aware of the situation. Hopefully we get better news from the rest, but at this point it's not looking good.

I've attached the boring notes that Jeff Horsfall took on site today.

Thanks,

8' BELOW SOUND UPPER 5' SECTION OF FOOTING
BUT ONLY 1' BELOW LOWER SOUND CONCRETE LAYER

Gregory Haig, P.E.
Bridge Maintenance Engineer
Northwest Region, Eau Claire
gregory.haig@dot.wi.gov
cell. (715) 577-0646

From: Dreher, William - DOT
Sent: Monday, May 15, 2017 3:15 PM
To: Pitsch, Nicholas J - DOT ; 'Cole Fairey' ; Lambele, Stacie - DOT ; Weiss, Tara - DOT ; 'Devlin Huhta' ; Pilgrim, Mark ; Bonk, Aaron M - DOT ; Rambo, Daniel N - DOT ; Coupar, Matthew - DOT ; Haig, Gregory - DOT ; Horsfall, Jeffrey - DOT ; Perkins, Mike - DOT ; Conlin, Paul - DOT ; Nemec, Albert - DOT ; Allie, Matthew A - DOT
Cc: 'Dan Wibralski' ; 'Scott Krall' ; 'Tim Kosobud' ; 'Steve Robinson' ; 'Randy Jacobs'
Subject: RE: STH 124 Scour Repair Conference Call

There seems to be the possibility for confusion related to which corner of the footing we're talking about (the NW corner). Please place a north arrow on the attached drawing and return to the group.

Thanks,

Bill

William Dreher, P.E. | Structures Design Chief
Office: (608) 266-8489 | Mobile: (608) 206-6935
william.dreher@dot.wi.gov | BOS Website

BUREAU OF STRUCTURES

From: Pitsch, Nicholas J - DOT
Sent: Friday, May 12, 2017 9:56 AM
To: 'Cole Fairey' <cfairey@JFBRENNAN.COM>; Lambele, Stacie - DOT <Stacie.Lambele@dot.wi.gov>; Weiss, Tara - DOT <Tara.Weiss@dot.wi.gov>; 'Devlin Huhta' <DHuhta@zenithtechinc.com>; Pilgrim, Mark <mpilgrim@correinc.com>; Bonk, Aaron M - DOT <Aaron.Bonk@dot.wi.gov>; Dreher, William - DOT <William.Dreher@dot.wi.gov>; Rambo, Daniel N - DOT <Daniel.Rambo@dot.wi.gov>; Coupar, Matthew - DOT <Matthew.Coupar@dot.wi.gov>; Haig, Gregory - DOT <gregory.haig@dot.wi.gov>; Horsfall, Jeffrey - DOT <Jeffrey.Horsfall@dot.wi.gov>; Perkins, Mike - DOT <mike.perkins@dot.wi.gov>; Conlin, Paul - DOT <Paul.Conlin@dot.wi.gov>; Nemec, Albert - DOT <Albert.Nemec@dot.wi.gov>
Cc: 'Dan Wibralski' <dwibralski@JFBRENNAN.COM>; 'Scott Krall' <skrall@JFBRENNAN.COM>; 'Tim Kosobud' <tkosobud@JFBRENNAN.COM>; 'Steve Robinson' <srobinson@JFBRENNAN.COM>; 'Randy Jacobs' <rjacobs@JFBRENNAN.COM>
Subject: RE: STH 124 Scour Repair Conference Call

9:00 AM on Monday didn't work with JF Brennan's schedule. I have set up the conference call for 2:30 PM Monday afternoon. The phone line is 888-557-8511 and the access code is 6261864. Please let me know if that works for everyone.

Thanks, Nick

Nicholas J. Pitsch
Civil Engineer - Transportation
Cell: (715) 579-4377
E-mail: nicholas.pitsch@dot.wi.gov
Wisconsin Department of Transportation
718 West Clairemont Avenue
Eau Claire, WI 54748

From: Pitsch, Nicholas J - DOT
Sent: Friday, May 12, 2017 9:04 AM
To: 'Cole Fairey' ; Lambele, Stacie - DOT ; Weiss, Tara - DOT ; 'Devlin Huhta' ; Pilgrim, Mark ; Bonk, Aaron M - DOT ; Dreher, William - DOT ; Rambo, Daniel N - DOT ; Coupar, Matthew - DOT ; Haig, Gregory - DOT ; Horsfall, Jeffrey - DOT ; Perkins, Mike - DOT ; Conlin, Paul - DOT ; Nemec, Albert - DOT
Cc: Dan Wibralski ; Scott Krall ; Tim Kosobud ; Steve Robinson ; Randy Jacobs
Subject: RE: STH 124 Scour Repair Conference Call

Good Morning,

I have set up a conference call line for Monday May 15 at 9:00 AM to address concerns that JF Brennan has brought forward regarding the scour repair on pier 3 of B-9-146. The phone line is 888-557-8511 and the access code is 8581062. Please let me know if you have any questions or concerns regarding and I will get back to you. I will be on site in Chippewa Falls today until approximately noon.

Thanks, Nick

Nicholas J. Pitsch
Civil Engineer - Transportation
Cell: (715) 579-4377
E-mail: nicholas.pitsch@dot.wi.gov
Wisconsin Department of Transportation
718 West Clairemont Avenue
Eau Claire, WI 54748

From: Cole Fairey [mailto:cfairey@JFBRENNAN.COM]
Sent: Wednesday, May 10, 2017 5:05 PM
To: Pitsch, Nicholas J - DOT <Nicholas.Pitsch@dot.wi.gov>
Cc: Dan Wibralski <dwibralski@JFBRENNAN.COM>; Scott Krall <skrall@JFBRENNAN.COM>; Tim Kosobud <tkosobud@JFBRENNAN.COM>; Steve Robinson <srobinson@JFBRENNAN.COM>; Randy Jacobs <rjacobs@JFBRENNAN.COM>
Subject: STH 124 Scour Repair Conference Call

Good afternoon Nick,

After completing an in-depth dive inspection to investigate the existing conditions of Structure B-09-0146's Pier #3, we have a list of concerns with completing the remainder of this project under the original proposal. When comparing the actual conditions to what was provided in the project's plans and specifications, we have noticed a complete misrepresentation of the actual conditions.

First of all, according to the project plans on Sheet 198, the elevation of bedrock should be located at 6'0"± from the top of the footing. At the Northwestern corner, Brennan's divers obtained a rough measurement of 11'0" from the top of the footing to river bottom. When Brennan's divers probed through the sandy river bottom near the Northwestern corner of the footing, the diver hit a solid bottom at about 5'6". Assuming the diver did not probe a grout bag or a large boulder, the elevation from the top of the footing to bedrock is in excess of 16'0". Bearing in mind the project's plans and specifications elevation of 6'0"± from the top of the footing to bedrock, Brennan has discovered a 10'0" difference when comparing the existing conditions to the project's plans.

Surrounding over three quarters of the footing's perimeter, the concrete over-pour was not shown or mentioned within any of the project's plans or specifications. This concrete over-pour has locked all of the existing grout bags together in a single mass. Considering there is no information pertaining to the existence of the concrete over-pour, the thickness cannot be ascertained in order to calculate the volume of required removal. Subsequently, the concrete over-pour was discovered around the entire downstream face of the footing, Brennan's dive team would have to demolish and remove in order to complete grout bags installation.

In order to excavate to bedrock, Brennan's divers would need to remove approximately 150-250 cy of material to properly bench the coarse sand and clear an area to place the grout bags. Also, the required excavation of 150-250 cy of material would all be completed far below the elevation shown on the project's plans and specifications In all likelihood, the divers would need to excavate underneath the existing grout bags and concrete over-pour in order to remove the required material. The safety of the divers must be held paramount. Divers cannot be positioned underneath any unsupported grout bags or concrete over-pour during the project. Additional grout bags would have to be removed and the unforeseen concrete over-pour would have to be removed as well.

Bearing in mind the above concerns, Brennan would require extra compensation to perform a scope of work which is inherently different than what was provided in the project's plans and specifications. We also have some liability concerns about completing this project after the meeting with members of WisDOT. Based on the existing conditions comparison to the project specifications, what is the pier actually founded upon? Is it truly anchored into bedrock? Is it

resting on sand? We have understood that the bridge has shifted in the past which lends an uncomforting feeling towards completing an excavation which has a high probability of further undermining a critical foundation member.

Thanks,
Cole R. Fairey
Project Manager
office 608.519.5330 | *cell* 608.799.0013
cfairey@jfbrennan.com

J.F. Brennan Company, Inc.
818 Bainbridge St., La Crosse, WI 54603
www.jfbrennan.com

From: Pitsch, Nicholas J - DOT [mailto:Nicholas.Pitsch@dot.wi.gov]
Sent: Wednesday, May 10, 2017 2:26 PM
To: Cole Fairey <cfairey@JFBRENNAN.COM>
Subject: RE: STH 124 scour repair conference call

Cole,

Could you email your concerns so I can forward them onto a couple of people within the department.

Thanks,
Nick

Nicholas J. Pitsch
Civil Engineer - Transportation
Cell: (715) 579-4377
E-mail: nicholas.pitsch@dot.wi.gov
Wisconsin Department of Transportation
718 West Clairemont Avenue
Eau Claire, WI 54748

From: Pitsch, Nicholas J - DOT
Sent: Wednesday, May 10, 2017 8:40 AM
To: 'cfairey@jfbrennan.com' <cfairey@jfbrennan.com>
Cc: 'Devlin Huhta' <DHuhta@zenithtechinc.com>; Lambele, Stacie - DOT <Stacie.Lambele@dot.wi.gov>
Subject: STH 124 scour repair conference call

Cole,

Before I set up the conference call regarding the scour repair on Pier 3 (B-9-146) could you let me know all of JF Brennan's concerns with the work according to plan. So I know who to get involved.

Thanks, Nick

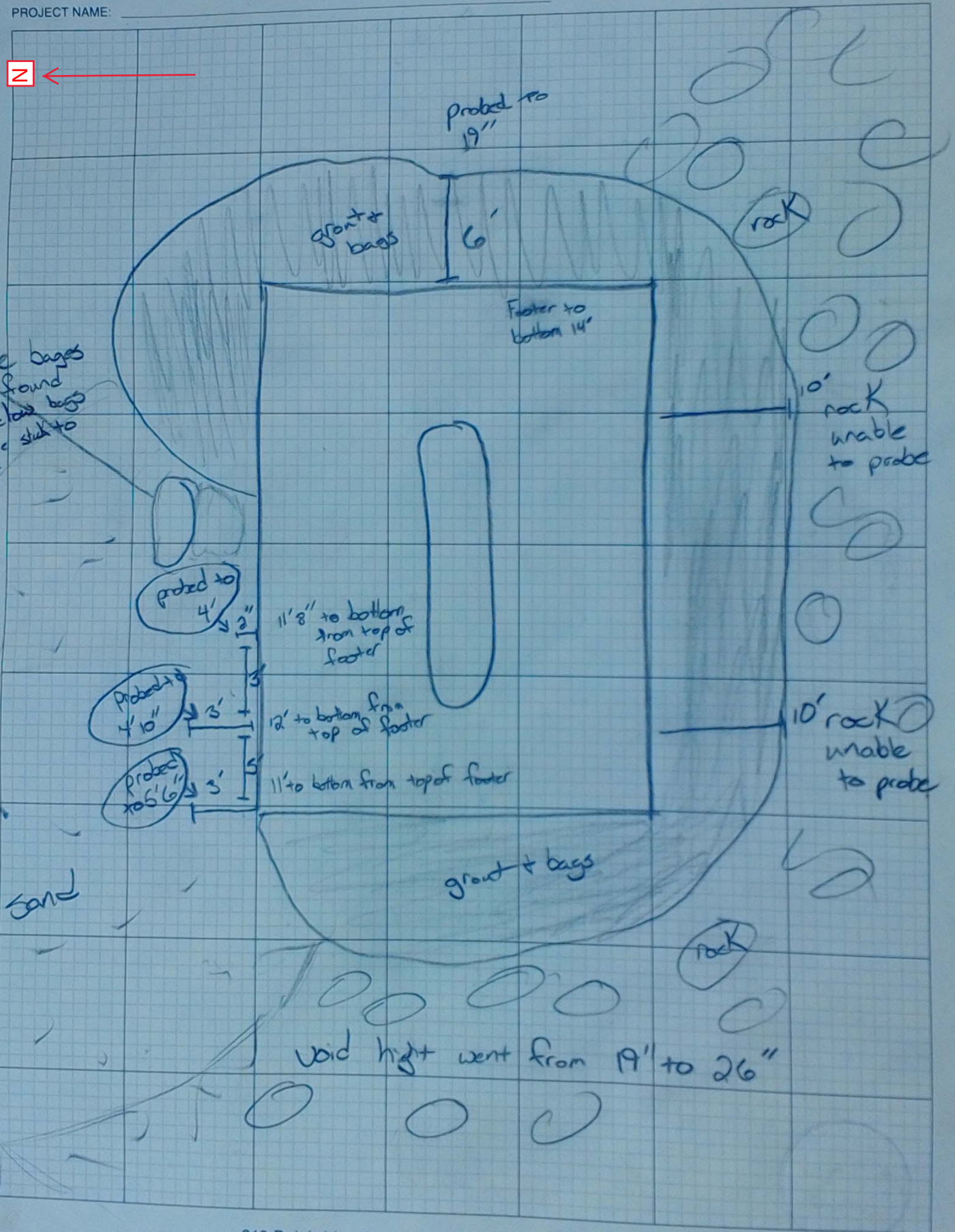
Nicholas J. Pitsch
Civil Engineer - Transportation
Cell: (715) 579-4377
E-mail: nicholas.pitsch@dot.wi.gov

Wisconsin Department of Transportation
718 West Clairemont Avenue
Eau Claire, WI 54748

<< OLE Object: Picture (Device Independent Bitmap) >> <<
OLE Object: Picture (Device Independent Bitmap) >> << OLE
Object: Picture (Device Independent Bitmap) >> << OLE
Object: Picture (Device Independent Bitmap) >> << OLE
Object: Picture (Device Independent Bitmap) >>

BRENNAN
Marine Professionals Since 1919

PROJECT NO.:
PAGE NO.:
BY:
DATE:
PROJECT NAME:



BORING #1, PIER 3

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No.	Structure	County	Sheet	Of
B-1 Pier 3	B-9-14C Pier 3	Chippewa	1	

Project	Road
8610-02-72	STH 124 over Chippewa River

Station	Offset	Surface Elevation

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation:	Depth to Water:					
Top of Well Elevation:						

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Unit 4 | Chief SKolos

Start 6/5/17 | Finish

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						Air Gap		3" Casing	
	W					5' Chippewa River 5'			
						10' 10'			
						F-C SAND & F-C gravel			
						15' Concrete Footing 15'			
						Core run #1 15.5'-20.5' 45% rec.			NQ Core
Core run #1									
						20' 20'			
1		10/4"			100	deteriorated Concrete.			
2	W	57	97		97				SS
3		23	100/5"		100				RB
4		75	100/5"		100				SS
5			100/4"		100	25' 25'			SS
6 Core run #2		60%			60	Core run #2 26-27' 80% rec.			NQ Core
7		11	100/6"			F-C SAND & F-C gravel			
						Core run #3.			
Core run #3						30' Granite Bedrock 28'-31' 100% rec. 30'			NQ Core
						EOB - B-1 Pier 3			
						35' 35'			

Checked By | Final | Boring No.

06/07/2017 12:44 AM -


B-1
S-1
B-1
S-2A
B-1
S-2B
06/07/2017 12:49 AM


B_1
S-3A
06/07/2017 12:51 AM


B-1
S-4
B-1
S-5
06/07/2017 12:53 AM

B-1
S-1
B-1
S-6
06/07/2017 12:54 AM

BORING #2, PIER 3

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No.	Structure	County	Sheet	Of
B-2 Pier 3	B-9-146 Pier 3	Chippewa	1	1
Project	**Road**			
8610-02-72	STH 124 over Chippewa River			
Station	**Offset**	**Surface Elevation**		
		838.74		

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation:	Depth to Water:					
Top of Well Elevation:						

MOISTURE	DRILLING METHOD				Unit	Chief
D = Damp M = Moist W = Wet	HS = Hollowstem WA = Wash Ahead RB = Rockbit	ST = Shelby Tube SS = Splitspoon DM = Drilling Mud	A = Auger C = Coring W = Wash	E = Easy M = Medium H = Hard	4	SKedos
					Start 6/8/17	Finish 6/8/17

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						Air Gap		4" Casing	
	W					Chippewa River		3" Casing	
						5'			
						10'			
						15' core run #1 14-18.5' 100% recov			NQ core
Core Run 1									
Core Run 2						core run 2 18.5'-20 100% recov			NQ core
Core Run 3						20' core run #3 20-22' 0 recov.			NQ core
			100/3"		100	deteriorated concrete.			SS
2		100/4"			100				SS
3		100/4"			100	25' lost fluid return 25.5'			SS
4		100/2"			100	Void			SS
5		100/2"			100	No recovery in spoon. granite bedrock			SS
Core Run 4						core run 4. 26-30' 100% recov			NQ core
						30'			
						EOB. B-2 Pier 3 30'			
						35'			

Checked By | Final | Boring No. B-2 Pier 3

BORING #3, PIER 1

WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 8610-02-72 WISDOT STRUCTURE ID: B-9-146		BORING ID: B-3 Pier 1 PAGE NO.: 1 of 2
WISDOT PROJECT NAME: STH 124/29 over Chippewa River	CONSULTANT:	CONSULTANT PROJECT NO:	LATITUDE: 44.93201216666667 LONGITUDE: -91.38756733333334
ROADWAY NAME: STH 124 NB/ Bus 29 WB	DRILLING CONTRACTOR: WISDOT	DRILLING CONTRACTOR PROJECT NO:	NORTHING: EASTING:
DATE STARTED: 6/14/17	CREW CHIEF: J. Ruda	DRILL RIG: Unit 1	COORDINATE SYSTEM: WCCS Chippewa
DATE COMPLETED: 6/14/17	LOGGED BY: S. Hunter	HOLE SIZE: 4 in	HORIZONTAL DATUM: WGS 84 VERTICAL DATUM:
COUNTY: Chippewa	LOG QC BY:	HAMMER TYPE: Automatic	STREAMBED ELEVATION: NA
STATION: OFFSET:	TOWNSHIP: RANGE: SECTION: 1/4 SECTION: 1/4 1/4 SECTION:		SURFACE ELEVATION: 856.28 ft

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				1		CONCRETE, 10.5 PCC Bridge Deck 0.9 855.4 Air Gap						MR	4" Casing 2 7/8" RB/DM
				5									3" Casing
				17.5		838.8 WATER, Chippewa River							

WATER LEVEL & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	▨	CAVE - IN DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE - IN DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐

NOTES: 1) Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.
2) NE = Not Encountered; NMR = No Measurement Recorded

P:\GINT\WISDOT GINT PROJECTS\GINT_020610-02-72.GPJ STH 124/29 over Chippewa River 6/14/17

WI Dept. of Transportation 3502 Kinsman Blvd. Madison, WI 53704	WISDOT PROJECT ID: 8610-02-72 WISDOT STRUCTURE ID: B-9-146	BORING ID: B-3 Pier 1 PAGE NO: 2 of 2

SAMPLE TYPE NUMBER	RECOVERY (in) (RQD)	Moisture	BLOW COUNTS (N VALUE)	Depth (ft)	Graphic	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Strength Qp (tsf)	Liquid Limit (%)	Plasticity Index (%)	Boulders	Drilling Method	Notes
				21		WATER, Chippewa River							
				22									
				23									
				24									
				25		25.0 831.3 CONCRETE, Pier 1 Concrete							
CORE C-1	36			26									
				27									
				28								COR	NQ Core 1
				29									
CORE C-2	43			30									
				31								COR	NQ Core 2
				32									
				33		33.0 823.3 SAND, brown, fine and coarse grained, wet, medium dense, little fine to medium gravel, little Orgalncs	SP						
SPT SS-1	12	W	2-7-9-10 (16)	34		34.0 822.3 SAND, brown, fine and coarse grained, wet, medium dense, and fine to coarse gravel	SP					MR	2 7/8" RB/DM
SPT SS-2	5	W	100/5"	35		35.0 821.3 35.5 820.8 GRAVEL, brown, fine and coarse grained, wet, very dense, some fine to coarse sand	GP						
				36		GRANITE, red, Red Granite							
CORE C-3	36			37								MR	NQ Core 3
				38		38.5 817.8							

End of Boring at 38.5 ft.

P:\GINT\WISDOT GINT PROJECTS\GINT_DF\8610-02-72.GPJ STH 124/29 over Chippewa River 6/14/17

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No. B-3 PIER 1	Structure B-9-146	County CHIPPEWA	Sheet 1 Of 2
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 113+95.5	Offset 16.25' LT OF STH 29/124 WB BK.	Surface Elevation 856.28	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:						
Water Elevation:	Depth to Water:						
Top of Well Elevation:							

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Unit 1 | Chief RODA | Start 6-14-17 | Finish 6-14-17

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						10.5" PCC BRIDGE DECK 29/124 WB		4½" CASING	2¼
						AIR			RB
									DM
						5' 5'			
						10' 10'			
						15' 15'			
	W					WATER CHIPPEWA RIVER			
						20' 20'			
						25' 25' CONCRETE FOOTING PIER 1			
						LOST FLUID RETURN 26'			NQ
CORE						CORE RUN #1 26'-29' 100% RECOV		3' CASING	CORE
						30' CORE RUN #2 29'-33' 90% RECOVERY 30'			
1		2	7	X	16	F-C SAND LITTLE F-M GRAVEL LITTLE ORGANICS BROWN FIRM			2¼
		9	10			F-C SAND & GRAVEL BROWN FIRM			RB
2	✓	100/5			100/5	35' F-C GRAVEL SOME F-C SAND BROWN V-DENSE 35'			DM

Checked By | Final | Boring No. B 3 PIER 1

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No. B-3 PIER 1	Structure B-9-146	County CHIPPEWA	Sheet 2 Of 2
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 113+95.5	Offset 16.25' LT OF STH 29/124 WB R/L	Surface Elevation 856.28	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation::	Depth to Water:					
Top of Well Elevation:						

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

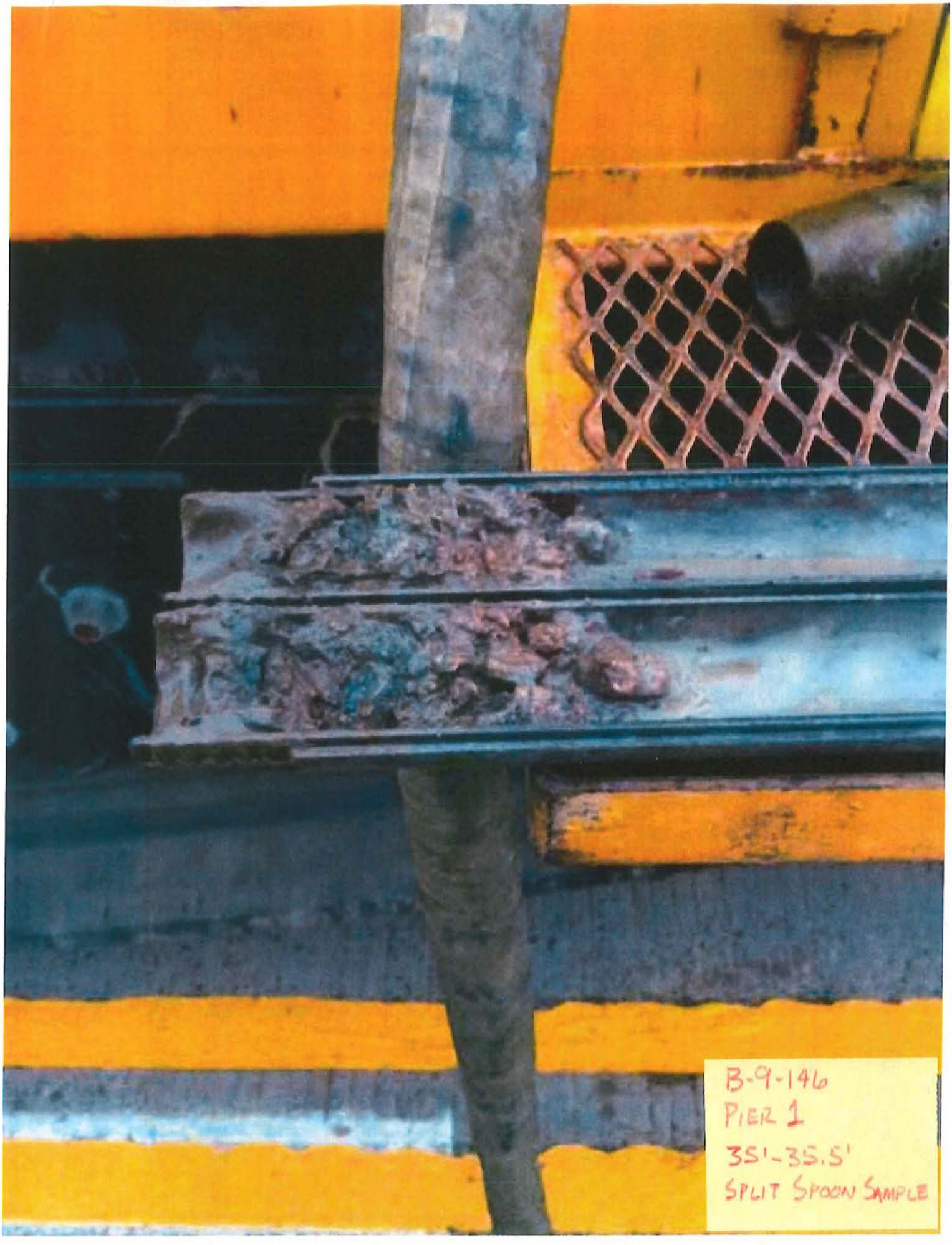
Unit 1 | Chief RVDA | Start 6-14-17 | Finish 6-14-17

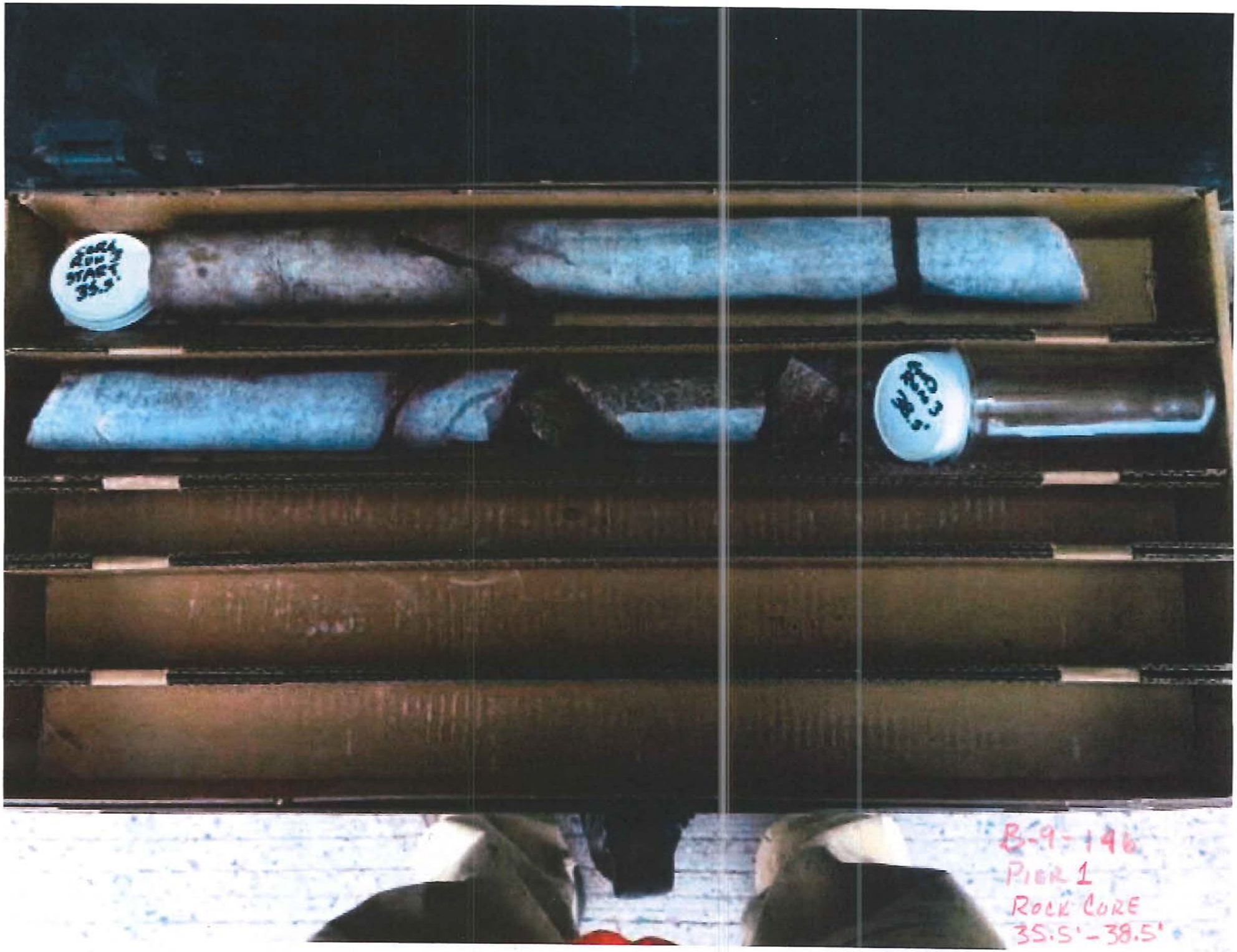
Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
C1 CORE RUN 3						F-C GRAVEL SOME F-C SAND BROWN U-DENSE CORE RUN #3 35.5' - 38.5' 100% RECOVERY			NQ CORE
						40' E.O.B. B-3 38.5' 5'			
						45' 10'			
						50' 15'			
						55' 20'			
						60' 25'			
						65' 30'			
						70' 35'			

Checked By | Final | Boring No. B-3 PIER 1


B-9-196
PIER 1
CONCRETE CORE
26'-33'


B-9-146
PIER 1
33'-35'
SPLIT SPOON SAMPLE


B-9-146
PIER 1
35'-35.5'
SPLIT SPOON SAMPLE



B-9-146
PIER 1
ROCK CORE
35.5' - 38.5'

BORING NUMBER B-4 Pier 2

CLIENT	NW DOT Eau Claire Mike Perkins	**PROJECT NAME**	STH 124/29 over Chippewa River
PROJECT NUMBER	8610-02-72	**PROJECT LOCATION**	Chippewa Falls / Chippewa River, Chippewa Falls, Wisconsin
DATE STARTED	2017-06-15 **COMPLETED**	**GROUND ELEVATION**	860.3 WGS 84 **HOLE SIZE** 4.00
DRILLING CONTRACTOR			
DRILLING METHOD	Mud rotary		
LOGGED BY	Steven Hunter		
NOTES	Driller Paul Skolos		

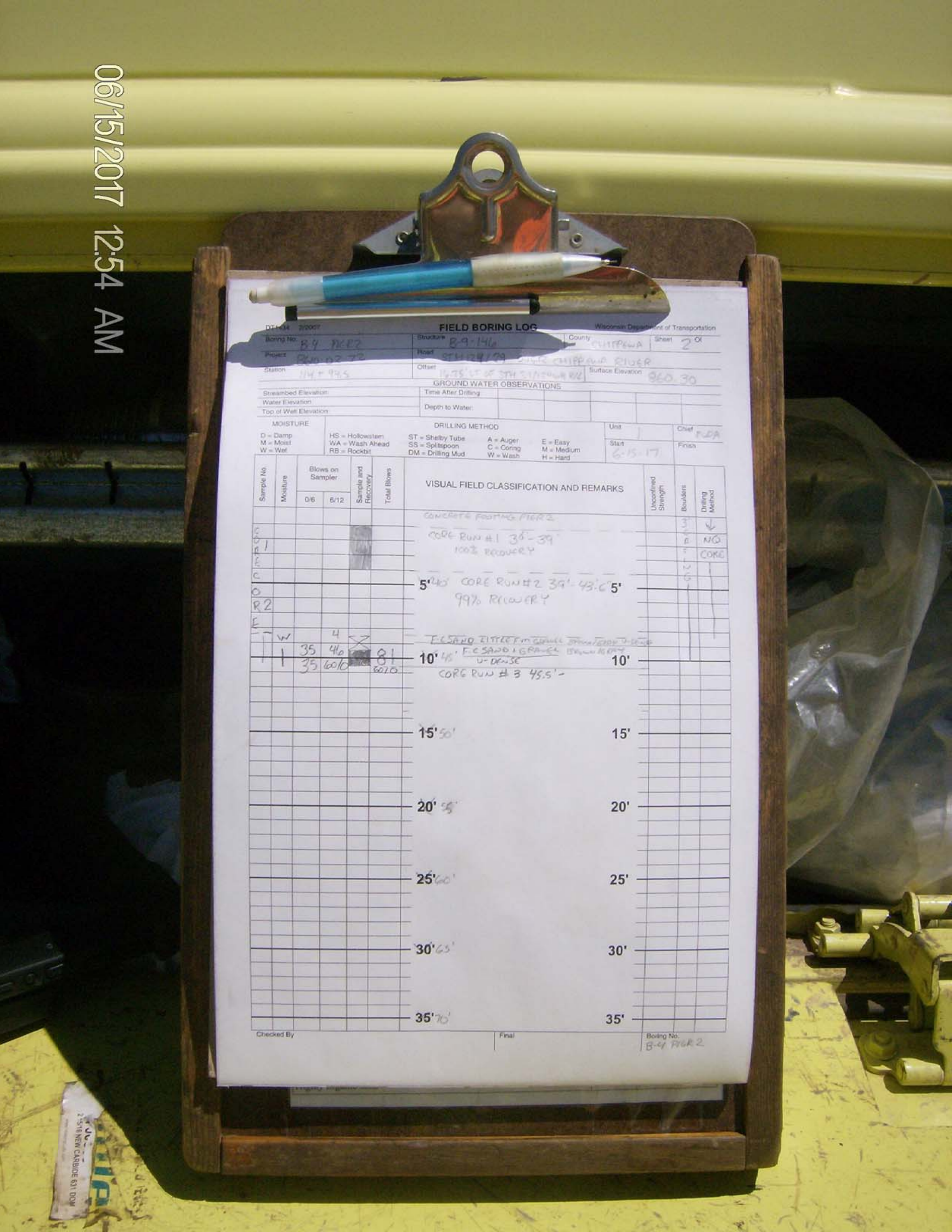
DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	TEST AND REMARKS	U.S.C.S	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
							CONCRETE, 10.5" PCC Bridge Deck 0.9 859.4	
							Air Gap	
5.0								
10.0								
15.0								
20.0								
							22.0 838.3	
							WATER, Chippewa River	
25.0								
30.0							35.0 825.3	

BORING NUMBER B-4 Pier 2

CLIENT	NW DOT Eau Claire Mike Perkins	**PROJECT NAME**	STH 124/29 over Chippewa River
PROJECT NUMBER	8610-02-72	**PROJECT LOCATION**	Chippewa Falls / Chippewa River, Chippewa Falls, Wisconsin

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	TEST AND REMARKS	U.S.C.S	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
35.0							35.0 — 825.3	
40.0							CONCRETE, Pier 2 Footing 43.5 — 816.8	
45.0	SPT SS-1		4 - 35 - 46 - 35 (81)		SP		SAND, fine to coarse grained, brown to gray, very dense little fine to medium gravel, wet 44.0 — 816.3 SAND, SP, fine to coarse grained, brown to gray, very dense and fine to coarse gravel, wet	
	SPT SS-2		60 (60.0/0.0")					
	CORE C-1	100.00						
50.0	CORE C-2	98.15					46.5 — 813.6	
55.0								
60.0								


06/15/2017 12:55 AM
...t of Transportation
Project 8610-02-72
Road STH 124/29
County CHIPPEWA
Sheet 1 Of
Station 114+94.5
Offset 6.25' LT OF STH 29
Surface Elevation 860.30
Streambed Elevation
Water Elevation
Top of Well Elevation
GROUND WATER OBSERVATIONS
Time After Drilling
Depth to Water
MOISTURE
D = Damp
M = Moist
W = Wet
DRILLING METHOD
HS = Hollowstem
WA = Wash Ahead
RB = Rockbit
ST = Shelby Tube
SS = Splitspoon
DM = Drilling Mud
A = Auger
C = Coring
W = Wash
E = Easy
M = Medium
H = Hard
Unit 1
Chief DUDA
Start 6-15-17
Finish
Sample No.
Moisture
Blows on Sampler
0/6
6/12
Sample and Recovery
Total Blows
VISUAL FIELD CLASSIFICATION AND REMARKS
Unconfined Strength
Boulders
Drilling Method
AIR
3" 4" CASING
W
WATER CHIPPEWA RIVER
5'
10'
15'
20'
25'
30'
35'
CONCRETE FOOTING PIER 2
RB
Checked By
Final
Boring No. B-4 PIER 2


06/15/2017 12:54 AM
FIELD BORING LOG
Wisconsin Department of Transportation
Boring No. B4 PIER 2
Structure B-9-146
County CHIPPEWA
Sheet 2 Of
Project
Road
Station
Offset
Surface Elevation 860.30
GROUND WATER OBSERVATIONS
Streambed Elevation
Water Elevation
Top of Well Elevation
Time After Drilling
Depth to Water
MOISTURE
D = Damp
M = Moist
W = Wet
DRILLING METHOD
HS = Hollowstem
WA = Wash Ahead
RB = Rockbit
ST = Shelby Tube
SS = Splitspoon
DM = Drilling Mud
A = Auger
C = Coring
W = Wash
E = Easy
M = Medium
H = Hard
Unit
Chief
Start 6-15-17
Finish
Sample No.
Moisture
Blows on Sampler
0/6
6/12
Sample and Recovery
Total Blows
VISUAL FIELD CLASSIFICATION AND REMARKS
Unconfined Strength
Boulders
Drilling Method
CORE RUN #1
100% RECOVERY
CORE RUN #2
99% RECOVERY
NQ
CORE
CORE RUN # 3 45.5'-
5'
10'
15'
20'
25'
30'
35'
Checked By
Final
Boring No.
B-4 PIER 2

Water Elevation:

Top of Well Elevation:

Depth to Water:

Unit 1

Start 6-15-17

MOISTURE

D = Damp
M = Moist
W = Wet

DRILLING METHOD

HS = Hollowstem
WA = Wash Ahead
RB = Rockbit
ST = Shelby Tube
SS = Splitspoon
DM = Drilling Mud
A = Auger
C = Coring
W = Wash

E = Easy
M = Medium
H = Hard

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders
						CONCRETE FOOTING PIER 2		
CORE 1						CORE RUN #1 36'-39' 100% RECOVERY		
						5' 40' CORE RUN #2 39'-43.6' 99% RECOVERY 5'		
F-1	W		4	X		F-C SAND LITTLE F-M GRAVEL BROWN/GRAY U-DENSE		
	1	35	46		81	10' 45' F-C SAND & GRAVEL BROWN/GRAY U-DENSE		
		35	60/0		60/0	CORE RUN #3 45.5'- 10'		
						15' 50' 15'		


TR080850
DRIVE NOW
TEXT LATER
06/15/2017 01:02 PM

06/15/2017 01:03 PM


8610-07-72
B-9-146
CHIPPEWA CO.
CHIPPEWA RIVER
B-4
S-1
1
06/15/2017 01:04 PM


8610-02-72
B-9-146
CHIPPEWA CO.
STH 124/29 OVER CHIPPEWA RIVER
B-3 / PIER 1
B-4
S-1
2
06/15/2017 01:05 PM


CORE 1
RUN
START
36'
CORE
RUN 1
END 39'
END
CORE
RUN 2
43.5'
CORE
RUN 3
START
45.5'
CORE
RUN 3
END.
06/15/2017 01:34 PM

BORING #5, PIER 3

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No. B-5 PIER 3 SC	Structure B-9-146	County CHIPPEWA	Sheet 1 Of 2
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 116+53.5	Offset 16.25' LT OF WB R/C STH 29/124	Surface Elevation 866.44	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation:	Depth to Water:					
Top of Well Elevation:						

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Unit 1 | Chief RUPA | Start 6-15-17 | Finish 6-16-17

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						10.5" PCC BRIDGE DECK 124/29		3' +	
						AIR GAP		4' CASING	
						5'			
						10'			
						15'			
						20'			
						25'			
W						WATER CHIPPEWA RIVER			
						30'			
						35'			

Checked By | Final | Boring No. B-5 PIER SC

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No. B-5 PIER 3 SC	Structure B-9-146	County CHIPPEWA	Sheet 2 Of 2
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 1161535	Offset 16.25' LT. OF STH 124/29 WB RR	Surface Elevation 866.44	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation:	Depth to Water:					
Top of Well Elevation:						

MOISTURE		DRILLING METHOD			Unit 1	Chief RVDA
D = Damp M = Moist W = Wet	HS = Hollowstem WA = Wash Ahead RB = Rockbit	ST = Shelby Tube SS = Splitspoon DM = Drilling Mud	A = Auger C = Coring W = Wash	E = Easy M = Medium H = Hard	Start 6-15-17	Finish 6-16-17

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
	W					WATER CHIPPEWA RIVER		3'3" CASING	
	↓					5' 40'		↓	
						CONCRETE FOOTING			2 7/8 RB
CORE 1						CORE RUN #1 42.5'-44' 100% RECOVERY			NQ CORE
CORE 2						CORE RUN 2 44'-45' 58% RECOVERY			↓
						10' 45'			
1	W	53	100/5		100/5	DETERIORATED CONCRETE			2 7/8 RB
2	↓	94	100/4		100/4				
3		86	100/3		100/3				
4		90	100/3		100/3				
5		100/5			100/5	15' 50'			
6		70	100/4		100/4				
7		100/5			100/5				
8		100/1			100/1	6" CONCRETE FOOTING			NQ
CORE 3						GRANITE BEDROCK 52.5'			CORE
						CORE RUN #3 53'-56.5'			
						20' 55' 100% RECOVERY			↓
						E.O.B B-5 56' 6"			
						25' 60'			
						30' 65'			
						35' 70'			

Checked By	Final	Boring No. B-5 PIER 3 SC

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No. B-6 NE CORNER	Structure B-9-146	County CHIPPEWA	Sheet 1 Of 1
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 116+44	Offset 26.25' LT OF STH 124/29 WB ℄	Surface Elevation	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation:	Depth to Water:					
Top of Well Elevation:						

Unit #4 Chief RUDA

Start 6-19-17 Finish 6-20-17

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						BARGE DECK 0'		4' + 3"	2 7/8
						AIR GAP			RB
						WATER CHIPPEWA RIVER		CASING	
						5' 5'			
						10' 10'			
						15' CONCRETE FOOTING PIER 3 NE CORNER 15'		3"	NQ CORE
CORE 1						CORE RUN #1 15'-20' 100% RECOVERY			
						20' 20'			
CORE 2						CORE RUN #2 20'-25' 100% RECOVERY DETERIORATED CONCRETE 24-24.5'			
						25' 25' GRANITE BEDROCK			
CORE 3						CORE RUN #3 25'-29.5' 100% RECOVERY			
						30' E.O.B. B-6 29.5' 30'			
						35' 35'			

Checked By | Final | Boring No. B-6 NE CORNER

DT1434 2/2007

FIELD BORING LOG

Wisconsin Department of Transportation

Boring No. B-7 PIER3 SE CORNER	Structure B-9-146	County CHIPPEWA	Sheet 1 Of 1
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 116+53	Offset 26.25' LT OF STH 124/29 WB R/L	Surface Elevation 731.18	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:				
Water Elevation:	Depth to Water:				
Top of Well Elevation:					

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Unit 4 | Chief SUCKOW | Start 6-20-17 | Finish 6-21-17

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						BARGE DECK		3" +	2 7/8
						AIR GAP		4"	RB
						WATER CHIPPEWA RIVER		CASING	
						5'	5'		
						10'	10'		
						15' CONCRETE FOOTING PIER3	15'	3"	
CORE 1						CORE RUN #1 15'-20' 100% RECOVERY			NQ CORE
C-2/1			100/4		100/4	20' CORE RUN #2 20'-20.5' 100% RECOVERY	20'		2 7/8
2		100/2			100/2	DETERIORATED CONCRETE 20.5'-25.5			RB
3		100/3			100/3				
4		100/3			100/3				
5		100/1			100/1				
6/7		100/5			100/5 100/0	25'	25'		
CORE 3						CORE RUN #3 25.5'-28' 100% RECOVERY GRANITE BEDROCK 25.5'			NQ CORE
						E.O.B B-7 28.0'			
						30'	30'		
						35'	35'		

Checked By | Final | Boring No. B-7 PIER3 SE CORNER

Highly organic soils

FIELD BORING LOG

Wisconsin Department of Transportation

DT1434 2/2007

Boring No. B-8 PIER 3 SW	Structure B-9-146	County CHIPPEWA	Sheet 1 Of 1
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 116+53	Offset 6.75' LT OF STH 124/29 WB RTE	Surface Elevation 839.18	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:				
Water Elevation:	Depth to Water:				
Top of Well Elevation:					

Unit 4 Chief SKOLOS

Start 6-21-17 Finish 6-21-17

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						BARGE DECK		3"+	2 7/8
						AIR GAP		4' CASING	RB
						WATER CHIPPEWA RIVER			
						5'			
						10'			
						15' CONCRETE FOOTING SW PIER 3			
						CORE RUN #1 15'-20'			NQ CORE
						80% RECOVERY			
CORE 1						DETERIORATED CONCRETE 19'-24.5'			
						20'			2 7/8
1	W	100/2			100/2				
2		100/5			100/5				
3		100/3			100/3				
4		100/4			100/4				
5		100/5			100/5				
						25' CORE RUN #2 24.5'-27'			NQ CORE
CORE 2						100% RECOVERY			
						GRANITE BEDROCK 24.5'			
						E.O.B. B-8 27'			
						30'			
						35'			

Checked By

Final

Boring No. B-8 PIER 3 SW CORNER

FIELD BORING LOG

DT1434 2/2007

Wisconsin Department of Transportation

Boring No. B-9 PIER 4 NC	Structure B-9-146	County CHIPPEWA	Sheet 1 Of 1
Project 8610-02-72	Road STH 124/29 OVER CHIPPEWA RIVER		
Station 118+03.5	Offset 16.25' LT OF 124/29 WB / RR	Surface Elevation 839.18	

GROUND WATER OBSERVATIONS

Streambed Elevation:	Time After Drilling:					
Water Elevation:	Depth to Water:					
Top of Well Elevation:						

Unit 4 | Chief RUDA | Start 6-22-17 | Finish 6-22-17

MOISTURE: D = Damp, M = Moist, W = Wet

DRILLING METHOD: HS = Hollowstem, WA = Wash Ahead, RB = Rockbit, ST = Shelby Tube, SS = Splitspoon, DM = Drilling Mud, A = Auger, C = Coring, W = Wash, E = Easy, M = Medium, H = Hard

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample and Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Unconfined Strength	Boulders	Drilling Method
						BARGE DECK			
						AIR GAP		3"	2 7/8
						WATER CHIPPEWA RIVER		+ 4"	RB
								CASING	
						5'			
						10'			
						15' CONCRETE FOOTING PIER 4 NC		3'	
CORE 1						CORE RUN #1 16.5' - 20.5' 90% RECOVERY			NQ CORE
						20'			
CORE 2						CORE RUN 2 20.5' - 25.5' 100% RECOVERY			
						25'			
C-3						CORE RUN #3 25.5' - 26' 100% RECOVERY			
1	W	28	100/6		100/6	F-C SAND + GRAVEL BROWN V-DENSE			2 7/8
2/C	1	100/2			100/2	GRANITE BEDROCK			NQ
ORE						CORE RUN #4 27' - 30' 100% RECOVERY			CORE
						30'			
						35'			

Checked By

Final

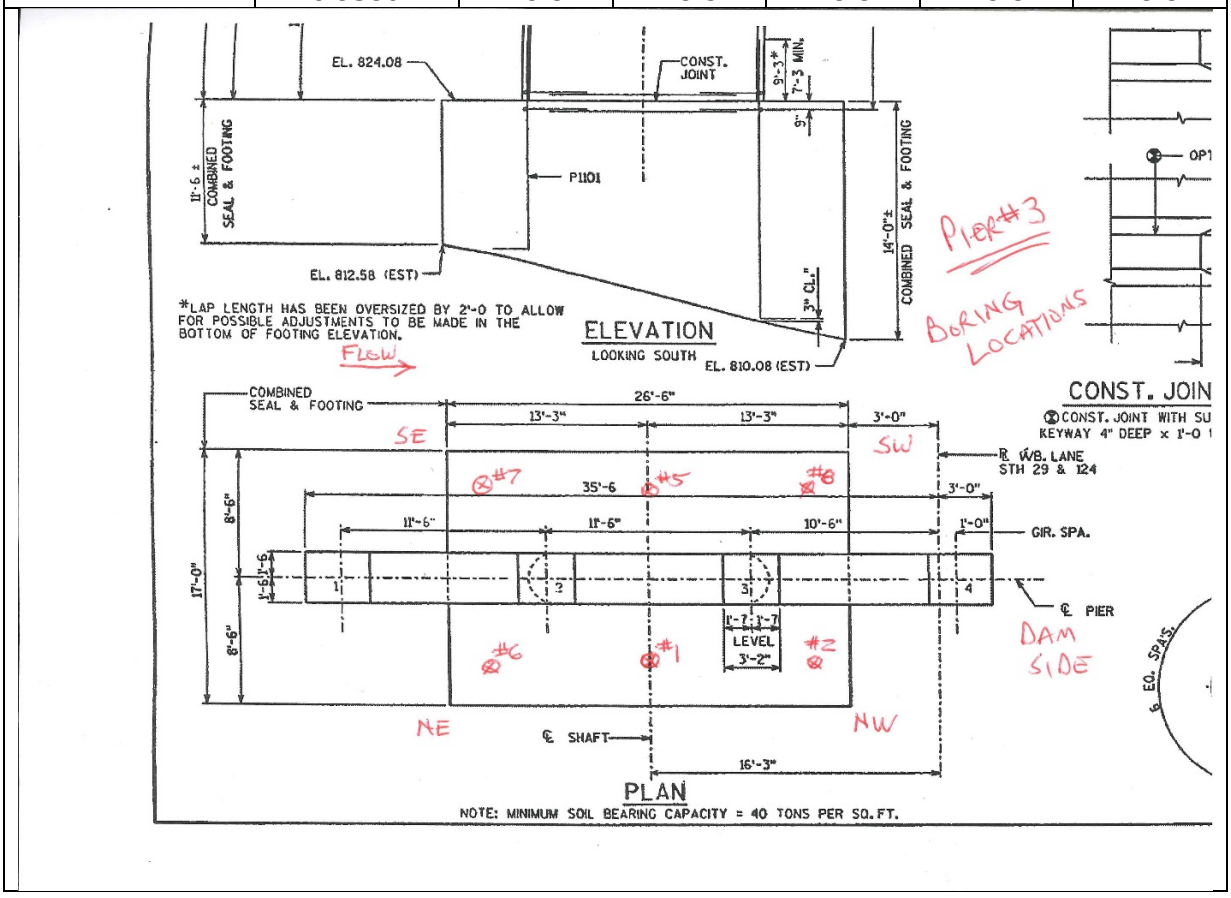
Boring No. B-9 PIER 4 NORTH CENTER

Highly organic soils

Pt peat

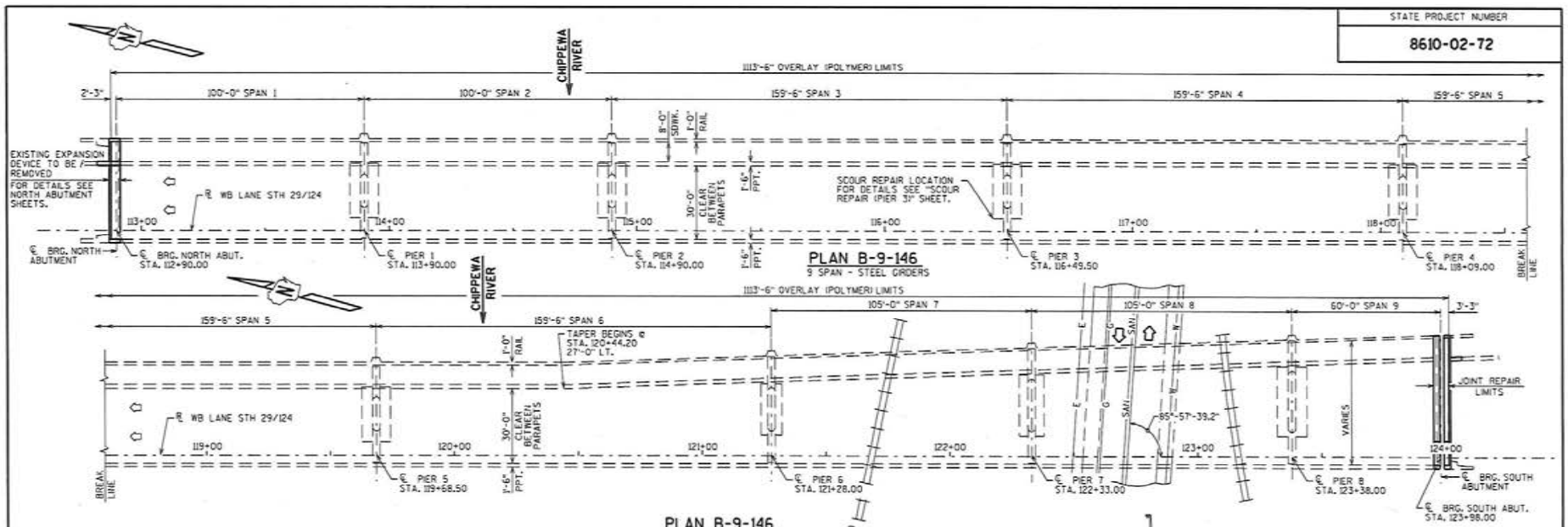
Pier 3 Coring Summary: Thicknesses in feet

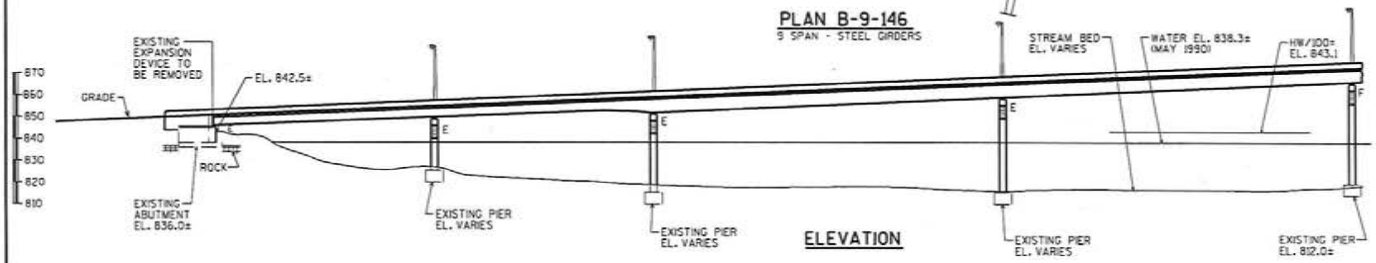
Material Thickness (From Top of Footing)	B-1 NC	B-2 NW	B-5 SC	B-6 NE	B-7 SE	B-8 SW
Competent Concrete	6	8	3.5	10.5	6.5	5
Deteriorated Concrete	5.5	3	7	0.5	5	5.5
Competent Concrete	1	-	0.7	-	-	-
Base Conditions	1 sand/gravel	0.5 void	Rock Contact	Rock Contact	Rock Contact	Rock Contact
Competent Bedrock	Yes	Yes	Yes	Yes	Yes	Yes
Thickness of Footing	12.5	11	11.2	11	11.5	10.5
Notes	Grouted closed	Pipe in hole	Pipe in hole	Pipe in hole	Pipe in hole	Pipe in hole



2016 PLANS

STATE PROJECT NUMBER
8610-02-72



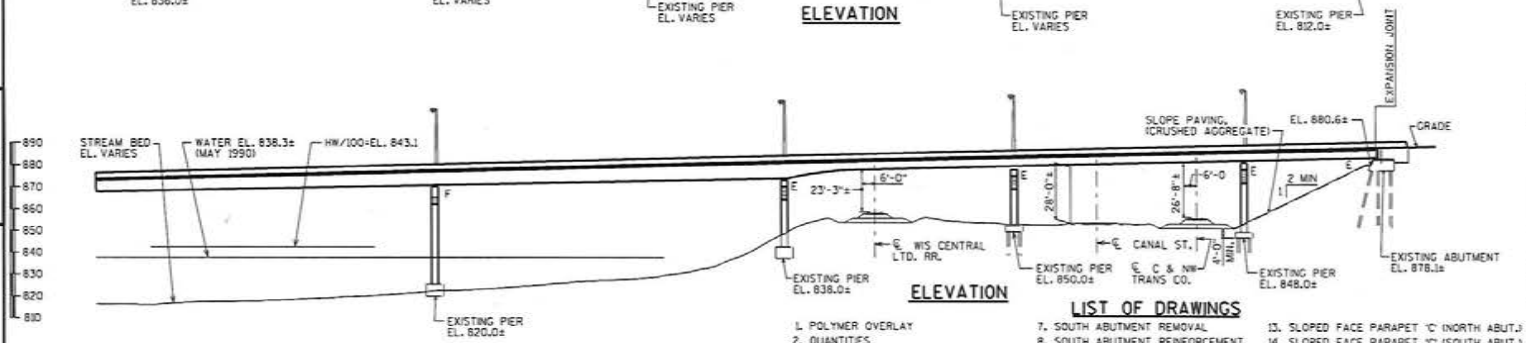


ELEVATION

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-26
OPERATIONAL RATING: HS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS.

MATERIAL PROPERTIES:
CONCRETE MASONRY ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.



ELEVATION

LIST OF DRAWINGS

1. POLYMER OVERLAY
2. QUANTITIES
3. NORTH ABUTMENT REMOVAL
4. NORTH ABUTMENT REINFORCEMENT
5. NORTH ABUTMENT DETAILS 1
6. NORTH ABUTMENT DETAILS 2
7. SOUTH ABUTMENT REMOVAL
8. SOUTH ABUTMENT REINFORCEMENT
9. SUPERSTRUCTURE DETAILS
10. EXPANSION DEVICE (MODULAR)
11. SLOPED FACE PARAPET 'B'
12. COVER PLATES FOR PARAPET 'B'
13. SLOPED FACE PARAPET 'C' (NORTH ABUT.)
14. SLOPED FACE PARAPET 'C' (SOUTH ABUT.)
15. COVER PLATES FOR PARAPET 'C'
16. SIDEWALK COVER PLATE DETAILS
17. SCOUR REPAIR (PIER 3)

STRUCTURE DESIGN CONTACTS:
MATTHEW COUPAR (608) 266-5083
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Duke 7/21/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-9-146
STH 124 NB OVER THE CHIPPEWA RIVER

COUNTY	CHIPPEWA	HOMECITY	CHIPPEWA FALLS
DESIGN SPEC.	REHABILITATION		N/A

DESIGNED BY	MSC	DESIGN CKD.	REL	DRAWN BY	DDS	PLANS CK'D.	MSC

POLYMER OVERLAY

SHEET 1 OF 17

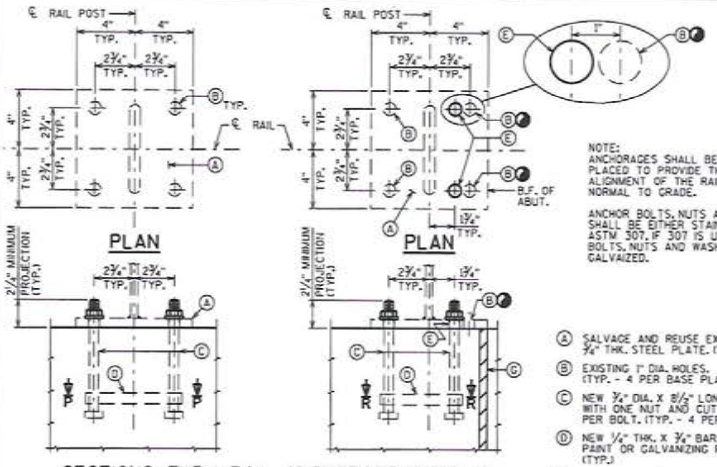
I.D. 8610-02-02A

DATE: MAY 2016

SCALE = 20

8

8



SECTIONS THRU RAIL ANCHORAGE DETAILS

ALL ITEMS SHOWN ABOVE SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "REMOVING AND RESETTING TUBULAR STEEL RAILING B-9-146 SPECIAL"
(ONLY AT SOUTH ABUTMENT & NORTH ABUTMENT WORK)

❷ EXISTING 1" DIA. HOLE TO BE FILLED WITH SILICONE CAULK (TYP.)

NOTE:
ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE THE CORRECT ALIGNMENT OF THE RAILING, SET NORMAL TO GRADE.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307, IF 307 IS USED, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVAIZED.

Ⓐ SALVAGE AND REUSE EXISTING ¾" THK. STEEL PLATE. (TYP.)

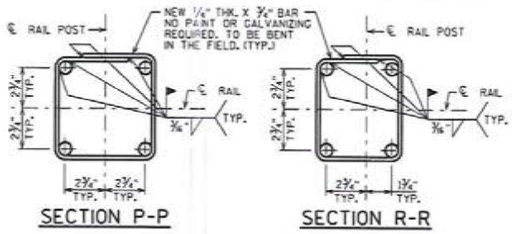
Ⓑ EXISTING 1" DIA. HOLES. (TYP. - 4 PER BASE PLATE)

Ⓒ NEW ¾" DIA. X 8½" LONG BOLT WITH ONE NUT AND CUT WASHER PER BOLT. (TYP. - 4 PER RAIL POST)

Ⓓ NEW ½" THK. X 3¼" BAR - NO PAINT OR GALVANIZING REQUIRED. (TYP.)

Ⓔ REDRILL NEW ⅞" DIA. HOLES IN EXISTING PLATE. (TYP. - 2 PER BASE PLATE)

Ⓖ NEW ½" THK. FILLER AT FRONT FACE OF WING/BACK FACE OF ABUTMENT AT NORTH ABUTMENT ONLY.



NOTE TO CONTRACTOR:

DURING THE ORIGINAL CONSTRUCTION OF THIS BRIDGE THE BRIDGE MOVED DOWNGRADE TO THE NORTH AND CLOSED THE NORTH ABUTMENT JOINT DUE TO THE BRIDGE'S STEEP GRADE AND FLEXIBLE PIERS.

SINCE THEN THERE HAVE BEEN STEEL PLATES INSERTED BETWEEN THE GIRDER ENDS AND THE ABUTMENT BACKWALL. THE GIRDERS ARE CURRENTLY IN THE CORRECT POSITION. AT THE NORTH ABUTMENT THE CONTRACTOR SHALL SUPPORT THE SUPERSTRUCTURE SO IT REMAINS IN THE CURRENT HORIZONTAL LOCATION AND DOES NOT MOVE DOWNGRADE DURING THE DURATION OF THE WORK. THE WORK INCLUDES REMOVING STEEL PLATES BETWEEN THE GIRDERS AND THE BACKWALL, REMOVING BEARINGS, REBUILDING THE BEAM SEATS AND POURING THE ABUTMENT CONCRETE DIAPHRAGM. THE SUPERSTRUCTURE SHALL NOT BE RELEASED UNTIL THE NORTH ABUTMENT CONCRETE DIAPHRAGM HAS CURED. THIS WORK IS PAID BY BID ITEM "BRIDGE JACKING AND RESTRAINT B-9-146".

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	NORTH ABUT.	PIER 1	PIER 2	PIER 3	PIER 4	PIER 5	PIER 6	PIER 7	PIER 8	SOUTH ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 112+90.00	LS	—	—	—	—	—	—	—	—	—	—	—	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-9-146	LS	—	—	—	—	—	—	—	—	—	—	—	1
502.0100	CONCRETE MASONRY BRIDGES	CY	8	32	—	—	—	—	—	—	—	—	11	51
502.3110.S	EXPANSION DEVICE MODULAR B-9-146	LS	—	—	—	—	—	—	—	—	—	—	—	1
502.3210	PIGMENTED SURFACE SEALER	SY	1,245	—	—	—	—	—	—	—	—	—	—	1,245
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	—	—	—	—	—	—	—	—	—	—	106	106
502.4206	ADHESIVE ANCHORS NO. 6 BAR	EACH	—	170	—	—	—	—	—	—	—	—	104	274
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,435	4,490	—	—	—	—	—	—	—	—	1,370	7,295
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	—	4	—	—	—	—	—	—	—	—	—	4
506.7050.S	REMOVING BEARINGS B-9-146	EACH	—	4	—	—	—	—	—	—	—	—	—	4
509.0301	PREPARATION DECKS TYPE 1	SY	6	—	—	—	—	—	—	—	—	—	—	6
509.0302	PREPARATION DECKS TYPE 2	SY	2	—	—	—	—	—	—	—	—	—	—	2
509.1000	JOINT REPAIR	SY	—	—	—	—	—	—	—	—	—	—	37	37
509.1500	CONCRETE SURFACE REPAIR	SF	5	—	—	—	—	—	—	—	—	—	—	5
509.5100.S	POLYMER OVERLAY	SY	4,930	—	—	—	—	—	—	—	—	—	—	4,930
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	—	12	—	—	—	—	—	—	—	—	10	22
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-9-146	LS	—	—	—	—	—	—	—	—	—	—	—	1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-9-146	LS	—	—	—	—	—	—	—	—	—	—	—	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1	—	—	—	—	—	—	—	—	—	—	1
** SPV.0035	CONCRETE MASONRY DECK PATCHING	CY	1	—	—	—	—	—	—	—	—	—	—	1
SPV.0035	SCOUR REPAIR GROUT	CY	—	—	—	—	1	—	—	—	—	—	—	1
SPV.0035	SCOUR REPAIR GROUT BAGS	CY	—	—	—	—	20	—	—	—	—	—	—	20
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	—	—	—	—	—	—	—	—	—	—	5	5
SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	30	—	—	—	—	—	—	—	—	—	—	30
SPV.0105	REMOVING AND RESETTING STEEL RAILING B-9-146 SPECIAL	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.01	BRIDGE JACKING AND RESTRAINT B-9-146	LS	—	—	—	—	—	—	—	—	—	—	—	1
	NON-BID ITEMS													
	BRIDGE SEAT PROTECTION	LS	—	—	—	—	—	—	—	—	—	—	1	1
	FILLER	SIZE	—	—	—	—	—	—	—	—	—	—	½", ¾", 1½"	½", ¾", 1½"
			—	—	—	—	—	—	—	—	—	—	—	—

** = INCLUDES CONCRETE FOR BID ITEMS "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2" AND "CONCRETE SURFACE REPAIR".

STATE PROJECT NUMBER
8610-02-72

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

APPLY "POLYMER OVERLAY" TO ENTIRE DECK AND SIDEWALK INCLUDING NEW AND EXISTING CONCRETE THAT ARE TO BE COMPLETED PRIOR TO APPLYING POLYMER OVERLAY.

APPLY "PIGMENTED SURFACE SEALER" TO THE ENTIRE LENGTH OF EXISTING AND NEW PARAPETS INCLUDING THE EXISTING WING PARAPETS. APPLY TO THE FRONT FACE AND TOP OF WEST PARAPET AND THE FRONT FACE, TOP AND BACK FACE OF INTERIOR PARAPET.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF THE SOUTH ABUTMENT BELOW EXPANSION DEVICE.

CLEAN AND PAINT THE EXISTING STEEL GIRDERS AT THE ABUTMENTS 6' FROM THE GIRDER ENDS ALONG WITH THE DIAPHRAGMS, STIFFENERS AND EXPOSED HARDWARE. THE COLOR OF THE FINISH EPOXY TOP COAT SHALL BE BROWN SIMILAR TO RUSTED STEEL (FEDERAL STANDARD COLOR NO. 20059) OR SIMILAR COLOR PREAPPROVED BY THE ENGINEER. TO BE PAID FOR UNDER BID ITEM "STRUCTURE REPAINTING RECYCLED ABRASIVE B-9-146".

ALL BEARINGS AT THE SOUTH ABUTMENT MUST BE CLEANED AND REPAINTED. THE COLOR OF THE TOP COAT SHALL BE BROWN (FEDERAL COLOR NO. 20059) OR SIMILAR COLOR PREAPPROVED BY THE ENGINEER, TO BE PAID FOR UNDER BID ITEM "CLEANING AND REPAINTING BEARINGS".

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1992.

REMOVE AND RESET THE EXISTING RAILING AT THE JOINT REPAIR LOCATIONS ONLY AND PROVIDE NEW GALVANIZED AND STAINLESS STEEL HARDWARE (SEE SECTION THRU ANCHORAGE DETAILS) ALL OF WHICH SHALL BE INCLUDED IN THE BID ITEM STSP "REMOVING AND RESETTING STEEL RAILING B-9-146 SPECIAL".

ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REMOVAL (NORTH ABUT.) AND THE JOINT REPAIR (SOUTH ABUT.) AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-9-146".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2 AND CONCRETE SURFACE REPAIR AREAS ARE TO BE DETERMINED BY THE ENGINEER. DECK PREPARATION AND CONCRETE SURFACE REPAIR SHALL BE FILLED WITH "CONCRETE MASONRY DECK PATCHING".

THE BRIDGE STATIONING PROVIDED IS BASED OFF OF THE ORIGINAL STRUCTURE PLANS AND DOES NOT CORRELATE WITH THE PROPOSED ROADWAY PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-9-146

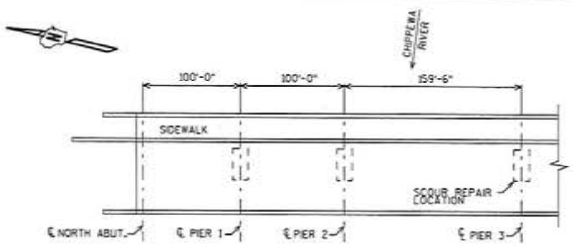
DRAWN BY DDS | PLANS CKD. MSC

QUANTITIES | SHEET 2

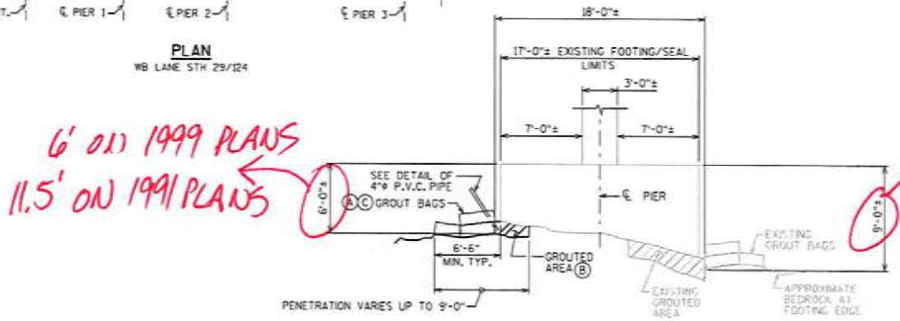
8 | 8

SCALE = 1

STATE PROJECT NUMBER
8610-02-72



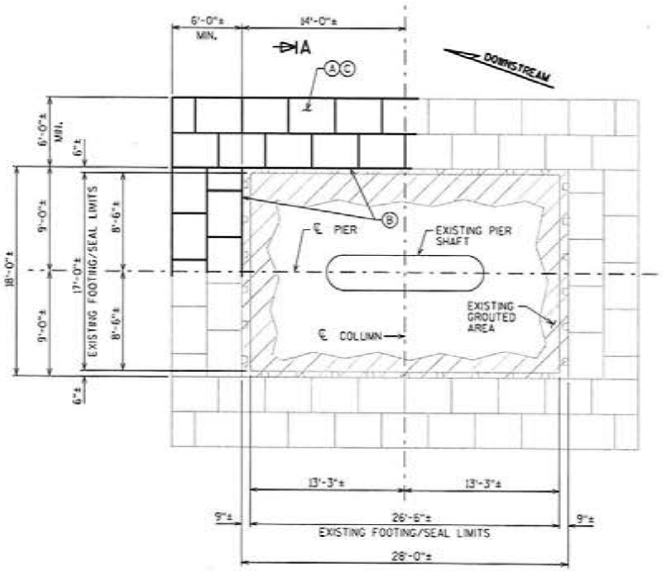
PLAN
WB LANE STH 29/124



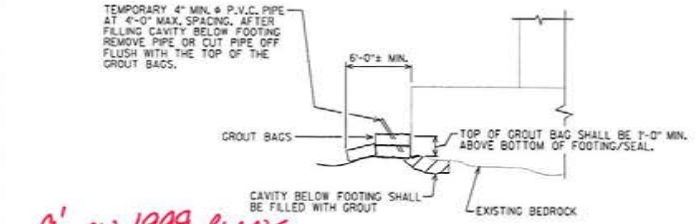
6' ON 1999 PLANS
11.5' ON 1991 PLANS

9' ON 1999 PLANS
14' ON 1991 PLANS

SECTION A-A THRU FOOTING



FOOTING PLAN



4" ϕ P.V.C. PIPE DETAIL

NOTES:

1. STACK BAGS AS REQUIRED. JOINTS BETWEEN BAGS IN SUCESSIVE ROWS SHALL BE STAGGERED.
2. PIN ROWS TOGETHER WITH #5 BARS @ 4'-0" MAX. SPACING.
3. PLACE TOP BAG TIGHT AGAINST THE FACE OF FOOTING. FOOTING MAY HAVE A JAGGED EDGE.
4. GROUT BAGS SHALL BE A MIN. OF 3'-0" WIDE X 4'-0" LONG X 1'-0" THK., AND A MAXIMUM OF 3'-6" WIDE X 8'-0" LONG X 2'-6" THICK.
5. DEPTH OF WATER VARIES TO 26'-0" DEEP.
6. ALL DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

REPAIR PROCESS

Ⓐ - REMOVE EXISTING GROUT BAGS THAT ARE UNDERMINED. REMOVE MATERIAL DOWN TO BEDROCK AS DIRECTED BY THE ENGINEER. WORK TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-9-146".

Ⓑ - INSPECT GROUTED AREA. REMOVE UNSOUND GROUT AND MATERIAL DOWN TO BEDROCK UNDER FOOTING/SEAL, AS DIRECTED BY THE ENGINEER.

Ⓒ - PLACE NEW GROUT BAGS ON BEDROCK IN AREA OF REMOVAL. TOP LAYER OF GROUT BAGS TO MATCH ELEVATION OF ADJOINING EXISTING GROUT BAGS. GROUT UNDER FOOTING/SEAL AS DIRECTED BY THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-9-146

DRAWN BY DDS | PLANS CK'D. MSC

SCOUR REPAIR (PIER 3)

SHEET 17

8

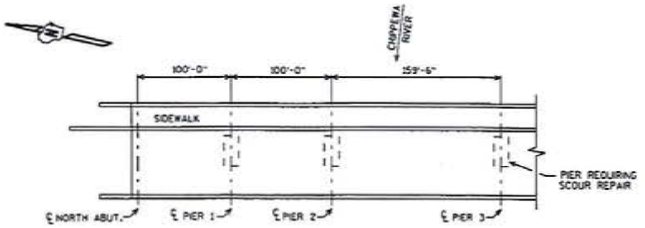
8

SCALE = 5

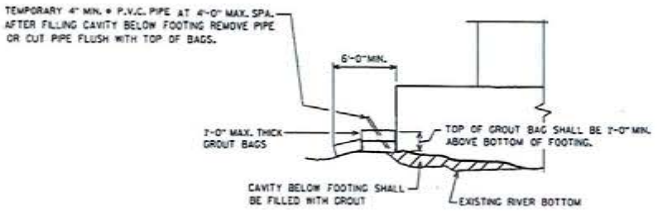
1999 PLANS

DISTRICT CONTACT: TYPE CODE = X

STATE PROJECT NUMBER	SHEET NO.
1050-04-71	8.1

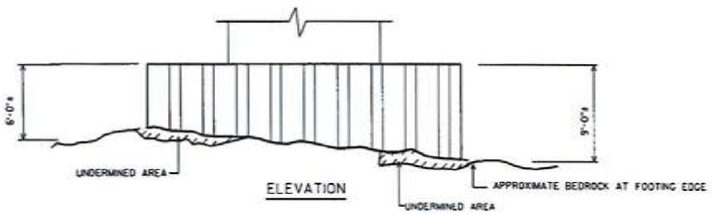


PLAN
S.T.H. 29/124 W.B.

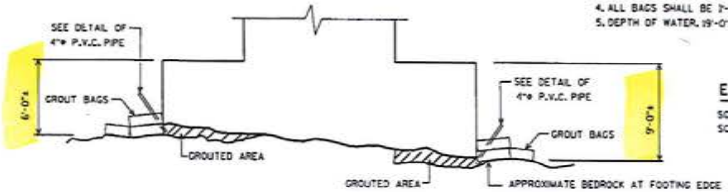


4" ϕ P.V.C. PIPE DETAIL

NOTES:
1. STACK BAGS AS REQUIRED. JOINTS BETWEEN BAGS IN SUCCESIVE ROWS AND TIERS SHALL BE STAGGERED.
2. REFER TO FOOTING FOR ANY EXCAVATION REQUIREMENTS.
3. PLACE TOP BAG FLUSH WITH FACE OF FOOTING.
4. ALL BAGS SHALL BE 2'-0" MAX. THICK, 3'-0" MAX. WIDE AND 4'-0" MAX. LENGTH.
5. DEPTH OF WATER, 19'-0" TO 26'-0"



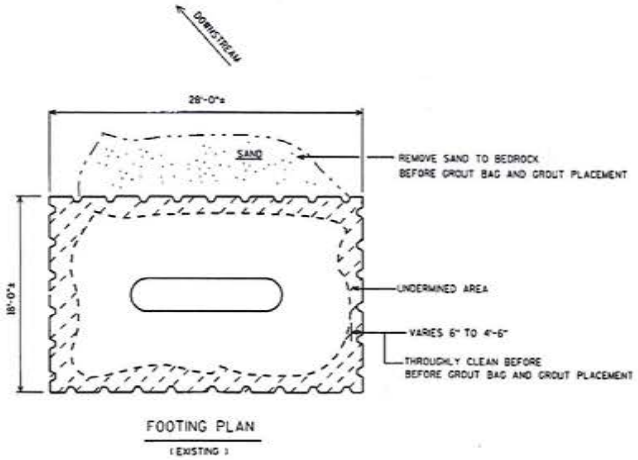
ELEVATION



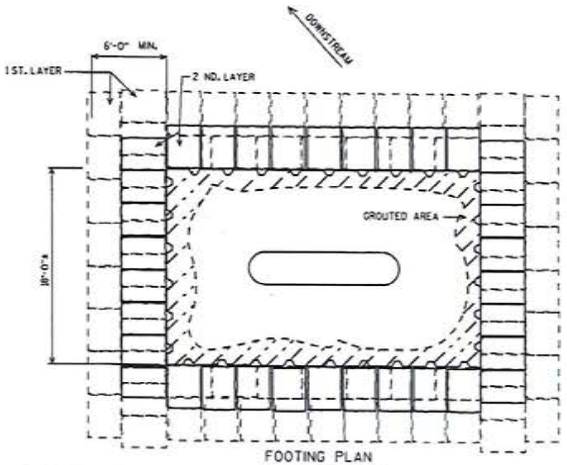
SECTION THRU FOOTING

ESTIMATED QUANTITIES

SCOUR REPAIR, GROUT _____ 6 C.Y.
SCOUR REPAIR, GROUT BAGS _____ 45 C.Y.



FOOTING PLAN
(EXISTING)



FOOTING PLAN

BRIDGE OFFICE CONTACTS :
FINN HUBBARD (608) 266-8489

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-9-146

S.T.H. 29/124 W.B. OVER CHIPPEWA RIVER

COUNTY CHIPPEWA		TOWN/CITY/VILLAGE CHIPPEWA FALLS	
DESIGN SPEC. AASHTO 1998	LOAD ——	CONST. SPEC. 1996	
DESIGNED BY FKH	DESIGN CK'D. ——	DRAWN BY CMF	PLANS CK'D.

APPROVED CHIEF STRUCTURAL DESIGN ENGINEER 02-12-99 DATE

SCOUR REPAIR

SHEET 1 OF 1

DATE: FEB '99"

I.D. 1050-04-01

FILE = BR B09146REP
SCALE =

[redacted] [redacted]

1/9/92

Pier 3 Seal/Footing poured today:
216 yards Grade B-WR. Rate of
pour averaged 2.1 feet/hour.
Tremmie was used correctly.
Bottom of river was approximately
2 feet higher than shown on plan
and more level; the top of footing
was raised to compensate. Re-bar
was correct and installed per plan
details. Concrete from A-1 Chippewa.
Air: 6.8, 7.8, 6.0 %. Slump: 8", 7 3/4".
Cylinders 11A, B, 12A, B. One load
of concrete rejected due to excess
slump.

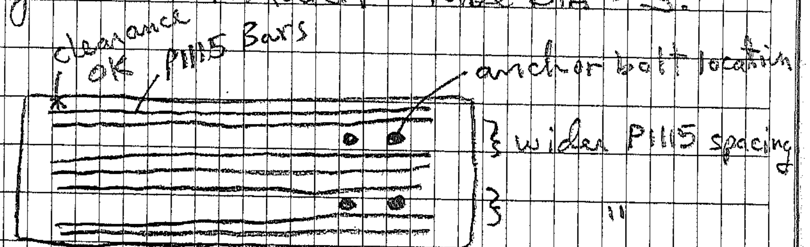
[signature]

M. Haydock 5-14-93

1-13-92

M. Haydock

Pier 5 Cap poured today. 37 yards
Grade A from A-1 Chippewa. Cyl. 13A, B.
air 5.6% Slump: 2 3/4". Forms
insulated with R=5 Polystyrene Board,
also Top of Cap. Thermometer placed.
Rebar per plan details except that
#11 Bars (P1115) were spaced approx.
1" wider @ Bearing assembly anchor
bolt locations to ensure anchor bolts
fit. Cardboard Tubes were set in
the concrete @ anchor bolt locations
between the P1115 bars to aid in
bolt placement later. Bolts to be
grouted in later. Tube DIA = 3".



Typical Cap As-built

[signature]

1-22-92

Pier 3 Shaft poured Today. 37 yards Grade A. air: 6.8% Slump: 2½" Cylinders 16A, B. Rebar per plan details. Top of Seal was Sound. Forms insulated with Styrofoam board. No Thermometer placed.

Ron Johnson

1-24-92

Pier 6 footing poured 60 yards Grade D-WR. air: 5.4% Slump: 2½ Cylinders 17A, B. Concrete covered w/plastic and insulated blankets within the cofferdam. Top of Bedrock was cleaned prior to pour. Propane Torches were placed overnight in the cofferdam to keep the rebar warm. Rebar per revised detail and original plan. One load concrete wasted due to contractor miscalc, + 3 yds on last load. 8 yd Total.

Ron Johnson

1-27-92

Pier 6 footing very warm to the touch - temperature is not a problem. Remained covered with insulated blankets.

RVJ

1-29-92

Pier 4 Cap poured today. 33 yards Grade A. air: 6.8% Slump: 3" Cylinders 18A, 18B. Rebar per plan details. (Spread slightly on top to allow room for bearing assembly anchor bolt tubes) (See 1-13-92 entry). Heat was applied to the rebar and top of shaft prior to pour to eliminate ice.

Pier 7 Cap also poured. 41 yards Grade A. air: 5.5% Slump: 3" Cylinders 19A, 19B. Curing compound used to cure beam seats. Styrofoam/insulated blankets covered cap. Rebar per plan. No Thermometer.

Ron Johnson

Thursday 12-26-91 fair 32/35 58

Lunda set Rings for Pier 3 cofferdam. Also worked on forms for Pier 8 Pier Cap.

Ron Johnson

L: 12/8

Friday 12-27-91 fair 28/36 59

Lunda worked on Pier 3 Rings and Pier 8 cap formwork. Mike stopped by - no problems.

Ron Johnson

Monday fair 28/35 60
12-30-91

Lunda stripped Pier 8 and Pier 5 Today. Continued work on Pier 3 cofferdam (sheet piling). They intend to work tomorrow and possibly New Years Day. Mark Servi called and said that 1052-04-71 should be complete by the end of February.

Lunda: 12/8
Hi-Boom: 2/8

Tuesday fair 30/35 61
12-31-91

Lunda set forms for Pier 8 Pier Cap. Began to dewater Pier 4 cofferdam. Worked on Pier 3 cofferdam sheeting. Mark Servi asked about how the parapets (Parapet C) should be supported under the portions not on the deck. I said two extra piling (one north end, one south end) would be driven. These will help support the two ends of Parapet C. I asked Servi to give us the frequency of Lunda's radios (so Jan can get crystals) or a boat w/ motor so we can better communicate w/ Mark Gehl while he's on the river barges.

L: 15/9
Hiboom: 2/8

Tuesday 1-7-92 | fair | 30/34 | 66

Lunda worked on Pier 3 seal re.bar. also Pier 5 Cap forms & steel.
A Winter Storm is forecast for tomorrow so Lunda may not work if it's too adverse conditions.

Ron Johnson

L: 12/8
Hi-boom: 3/8

Wednesday 1-8-92 | snow | 30/33 | 67

Lunda tied steel for Pier 3 footing, also Pier 5 Cap.
Prepared forms for Pier 5 Cap.
Mike O. visited in the afternoon - he called Bridge Office and they will re-design Pier 6 footing due to our discovery that the bedrock is lower than shown on the plan.
Bad weather forced work to stop today @ 2:00 PM. Ironworkers stayed to finish tying re.bars.

Ron Johnson

L: 15/6
Hi-Boom: 3/8

Thursday 1-9-92 | fair | 26/28 | 68

Lunda found Pier 3 seal/footing today. See Inspection Diary.
Mike O. called and said that according to Bridge Office Pier 6 footing can be excavated and a cofferdam used for construction. I told Lunda.

Ron Johnson

Lunda: 10/9
Hi-boom: 3/8

Friday 1-10-92 | 5/28 | 69

Lunda set re-bar for Pier 5 cap. Will pour on Monday.
Also set rings for Pier 6 Cofferdam - Bridge Section allowed use of cofferdam to excavate for footing.
Mike O. visited and brought me the revised design for Pier 6 footing.

Ron Johnson

Lunda: 12/9
Hi-boom: 3/8

Friday | fair | -15/-10 | 74

No work today due to the cold weather.

Ron Johnson

Monday | Fair | 8/32 35 | 75

1-20-92

Lunda set steel + forms for Pier 7 shaft. also began dewatering Pier 3 seal also completed cofferdam for Pier 6 footing.

Ron Johnson

L: 12/8
Hi Boom: 3/8

Tuesday fair 11/35 76
1-21-92

I gave the new drawings for the north and south abutments to Servi. He said Lunda may need more money for Pier 6 footing rebar work because of extra tying needed from Hi-Boom. I'll talk to Mike O.
Pier 7 shaft poured today. See Inspection Diary. Also clammed Pier 6 cofferdam. Also tied steel for Pier 7 Cap and Pier 3 shaft. I reminded Lunda to put in keyway in Pier 7 shaft top.

Ron Johnson

Lunda: 10/8
Hi-Boom: 3/8

Wednesday fair 31/35 77
1-22-92

Lunda poured Pier 3 shaft. See Inspection Diary. They finished excavating Pier 6 cofferdam - the footing is 3-5 feet lower plan (shallower than originally thought.) Steelworkers tied steel & cages for supporting Pier 6 footing towers.

Ron Johnson

Thursday 25/18 snow 78
1-23-92

Lunda completed cleaning Pier 6 footing excavation down to sound rock. Set steel for it. The rock surface was uneven enough that I judged no additional keyway needed in the rock. - the central area was lower than around the edges of the rock surface area.

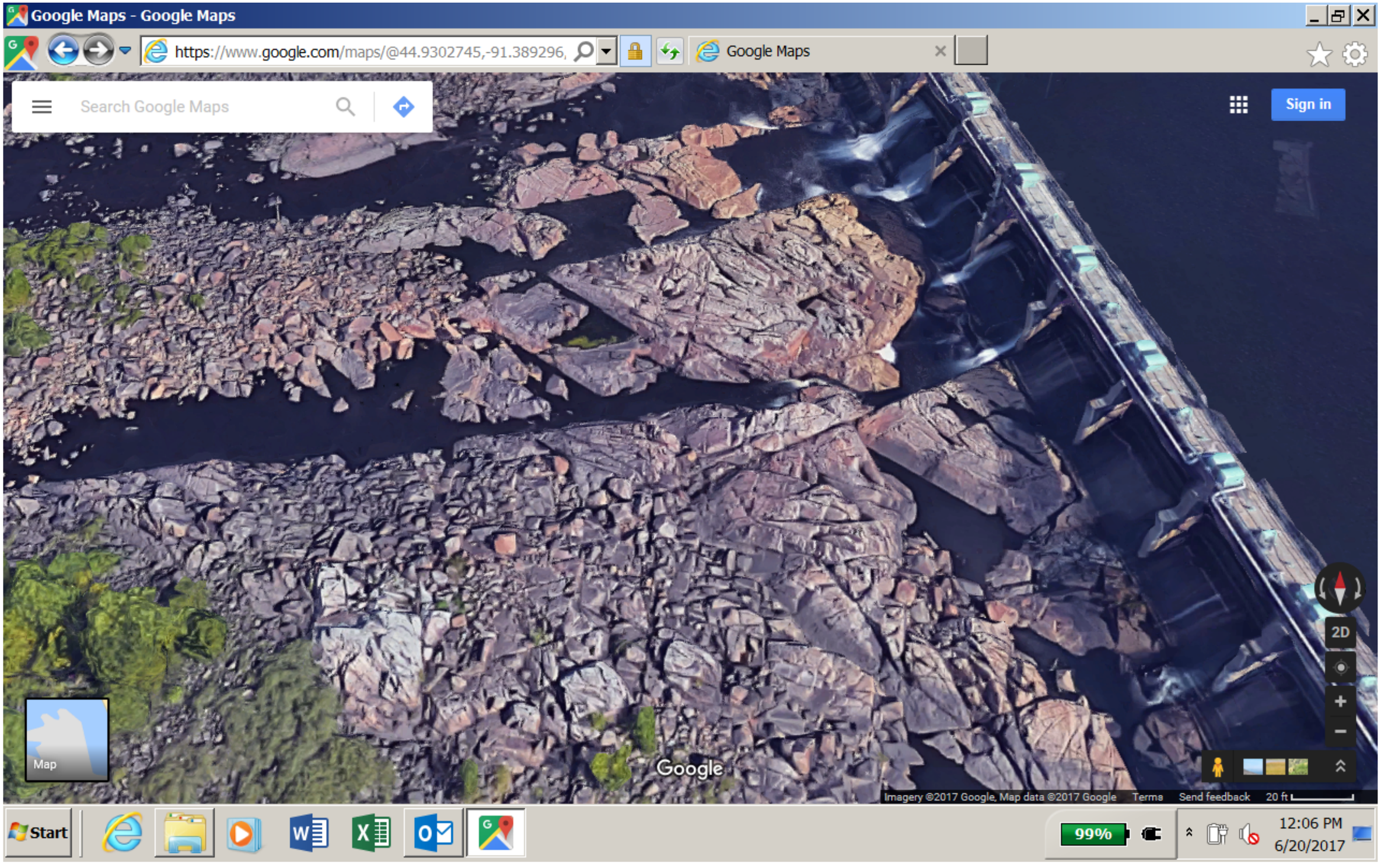
Ron Peterson

L: 12/8
Hiboom: 3/8

Friday fair +1/11 79
1-24-92

Pier 6 footing placed today. See Inspection Diary. also stripped Pier 5 cap.

Ron Peterson


Google Maps - Google Maps
https://www.google.com/maps/@44.9302745,-91.389296,
Google Maps
Search Google Maps
Sign in
2D
Map
Google
Imagery ©2017 Google, Map data ©2017 Google
Terms
Send feedback
20 ft
Start
99%
12:06 PM
6/20/2017