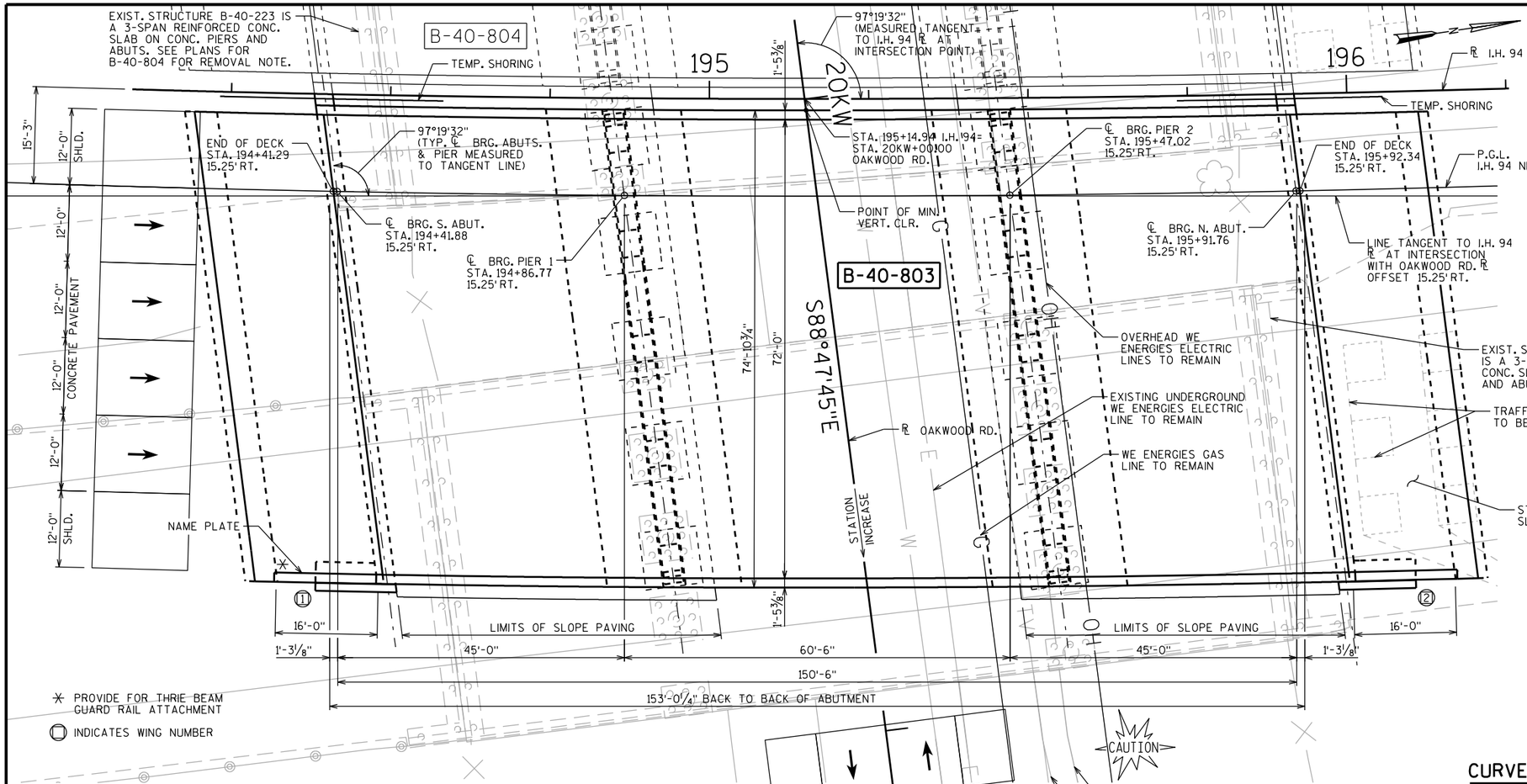
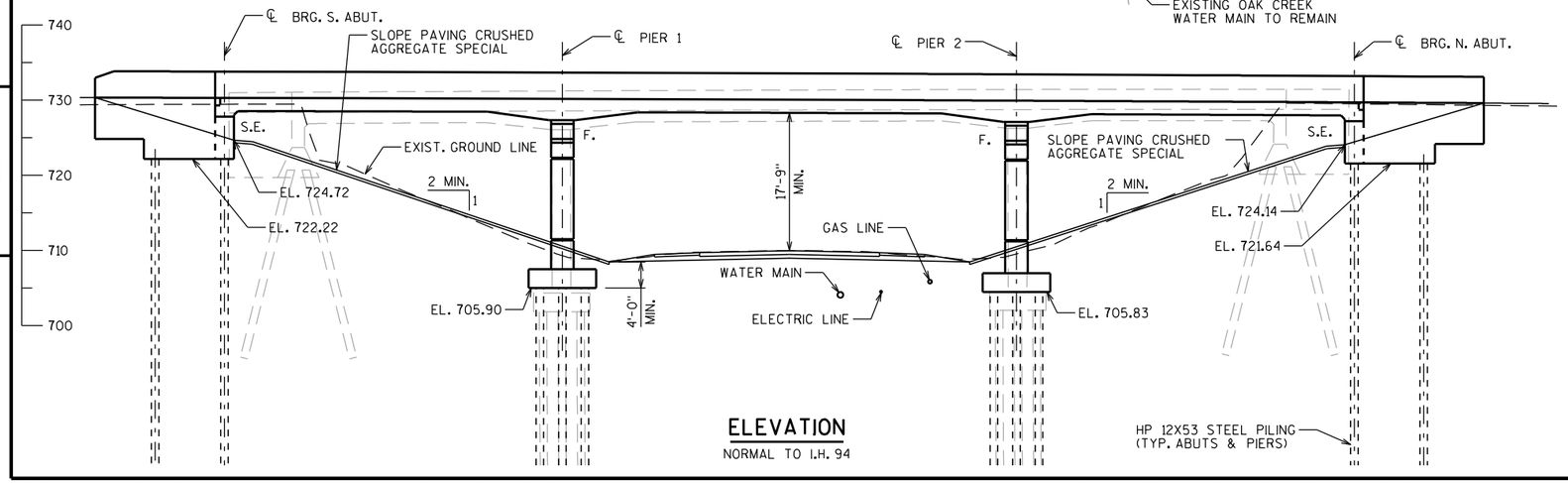
STATE PROJECT NUMBER
1030-20-87



PLAN

3 SPAN HAUNCHED CONCRETE SLAB
ABUT. AND PIER SKEW MEASURED TO TANGENT LINE
DIMENSIONS SHOWN ARE ALONG TANGENT LINE



ELEVATION

NORMAL TO I.H. 94

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

AT ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

ALL REINFORCING BARS ARE ENGLISH AND THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

UTILITIES UNDER OAKWOOD RD. ARE NOT TO SCALE. ELEVATIONS ARE UNKNOWN.

LIST OF DRAWINGS

CURVE DATA

I.H. 94

P.I. = 186+72.49
N: 232742.86
E: 598363.35
Δ = 42°08'21" LEFT
D = 1°32'55"
T = 1425.46'
L = 2721.23'
R = 3700.00'
P.C. = 172+47.03
P.T. = 199+68.26

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

WB I.H. 94 OVER OAKWOOD RD.

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	OAK CREEK

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DGS/SKT	KES	JBA	KES

GENERAL PLAN & ELEVATION

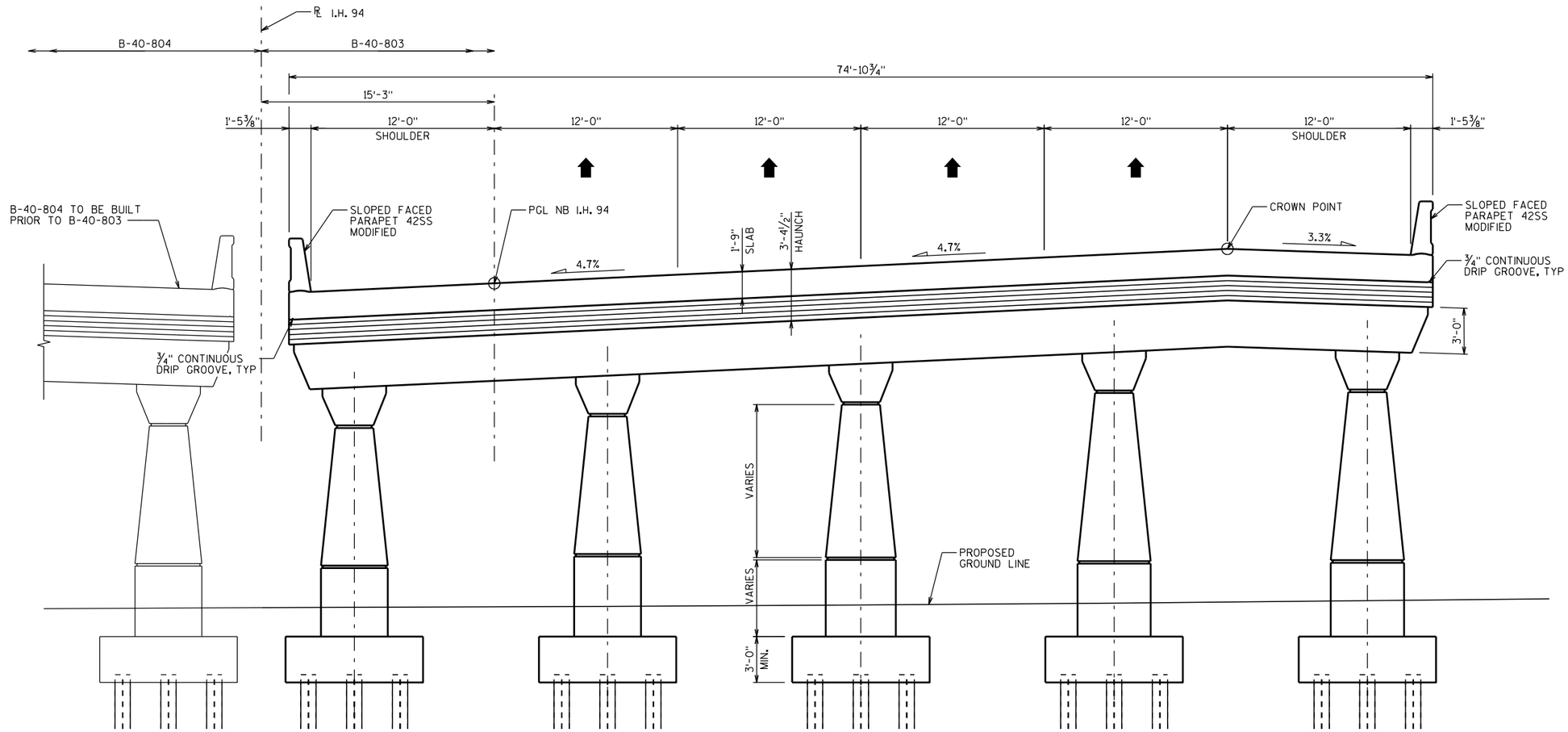
SHEET 1 OF 25

8

8

STATE PROJECT NUMBER

1030-22-87



TYPICAL SECTION THRU NB. I.H. 94

HAUNCHED REINFORCED CONCRETE SLAB
(LOOKING NORTH)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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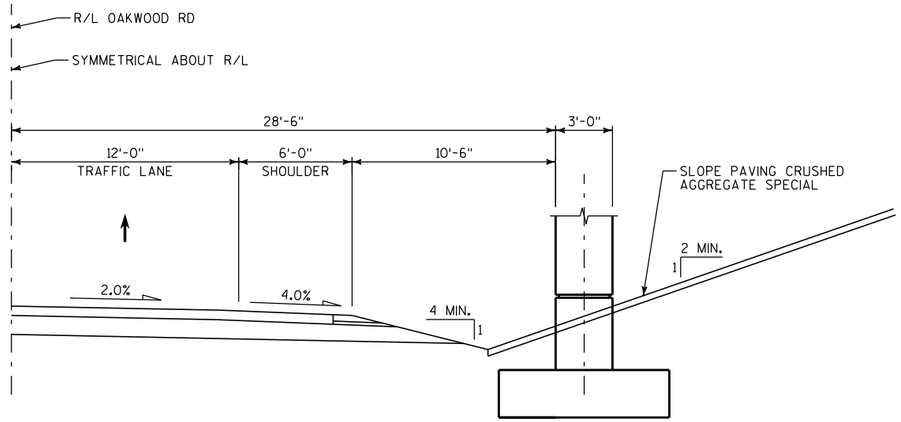
CROSS SECTION

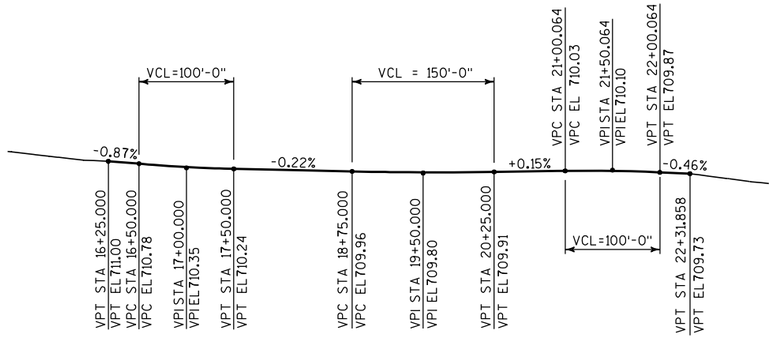
SHEET 2 OF 25

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080102_ts.dgn PLOT DATE : 24-OCT-2017 10:53 PLOT BY : mscekm PLOT NAME : B803_080102_ts PLOT SCALE : 8:1

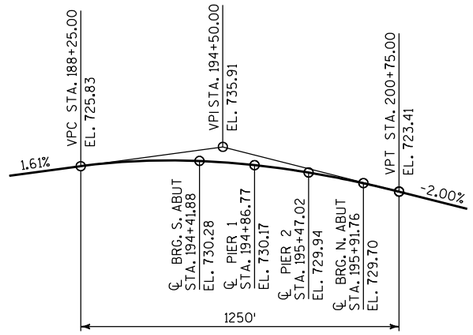
STATE PROJECT NUMBER
1030-20-87



TYPICAL SECTION THRU OAKWOOD RD.



PROFILE GRADE LINE OAKWOOD ROAD



PROFILE GRADE LINE I.H. 94

DESIGN DATA

LIVE LOAD

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.09
OPERATING RATING FACTOR: RF = 1.41
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 190 KIPS

STRUCTURE IS DESIGNED FOR A 1½" SACRIFICIAL WEARING SURFACE PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. NO ALLOWANCE HAS BEEN MADE FOR A FUTURE WEARING SURFACE LOAD.

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY	f'c = 4,000 PSI
BAR STEEL REINFORCEMENT	fy = 60,000 PSI
STEEL PILING	Fy = 50,000 PSI

FOUNDATION DATA

ABUTMENTS AND PIERS TO BE SUPPORTED ON HP 12 X 53 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE PER PILE AS DETERMINED BY THE PDA/CAPWAP METHOD.

	EST. PILE LENGTHS:	REQUIRED DRIVING RESISTANCE **:
S. ABUT.	40 FEET	96 TONS
PIER 1	70 FEET	191 TONS
PIER 2	70 FEET	191 TONS
N. ABUT.	40 FEET	96 TONS

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING THE PDA/CAPWAP METHOD TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

OAKWOOD RD.	I.H. 94
A.D.T. = 3,900 (2035)	A.D.T. = 115,000 (2035)
R.D.S. = 40 M.P.H.	R.D.S. = 70 M.P.H.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SOUTH ABUT.	NORTH ABUT.	PIER 1	PIER 2	SUPER	TOTAL
203.0200	REMOVING OLD STRUCTURE STA 195+15	LS	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-803	LS	-	-	-	-	-	1
206.6000.S	TEMPORARY SHORING	SF	270	270	-	-	-	540
210.0100	BACKFILL STRUCTURE	CY	182	180	57	57	-	476
502.0100	CONCRETE MASONRY BRIDGES	CY	59	59	101	100	-	319
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	1,214	1,214
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	-	-	3,865	3,865	-	7,730
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	6,150	6,125	23,595	23,520	163,925	223,315
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	14	14	-	-	-	28
550.1120.S	PILING STEEL HP 12-INCH X 53 LB	LF	440	440	2,100	2,100	-	5,080
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	117	117	-	-	-	234
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	-	-	-	-	1
SPV.0035.4000	HPC MASONRY SUPERSTRUCTURES	CY	-	-	-	-	900	900
SPV.0060.4000	PDA TESTING	EACH	3	3	5	5	-	16
SPV.0060.4001	PDA RESTRIKES	EACH	2	2	4	4	-	12
SPV.0165.4002	LONGITUDINAL GROOVING BRIDGE DECK	SF	-	-	-	-	10,925	10,925
SPV.0165.4003	STAINING CONCRETE	SF	490	485	1,640	1,630	3,375	7,620
SPV.0180.4000	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	458	461	-	-	-	919
	NON-BID ITEMS							
	FILLER	SIZE						½",¾", & 1"

NOTE: ALL ITEMS CATEGORY 2010

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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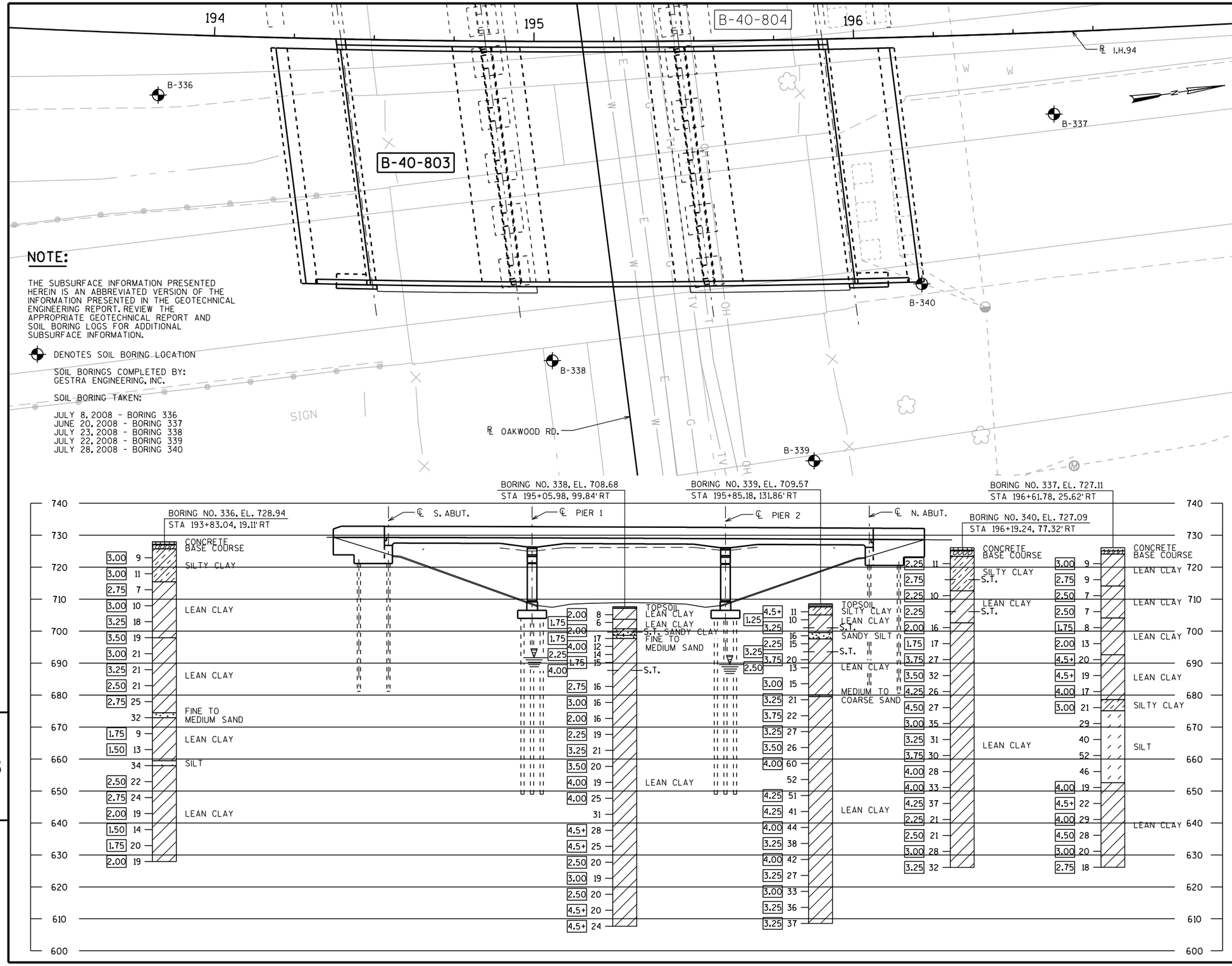
QUANTITIES & PROFILE GRADE LINES

SHEET 3 OF 25

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080103_ts.dgn PLOT DATE : 24-OCT-2017 10:53 PLOT BY : mscekm PLOT NAME : B803_080103_ts PLOT SCALE : 40:1



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STATE PROJECT NUMBER

1030-20-87

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL / FILL, 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.
ELEV.
STA.
UNCONFINED STRENGTH (TSF)
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 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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SUBSURFACE EXPLORATION

SHEET 4 OF 25

8

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080201_se.dgn PLOT DATE : 24-OCT-2017 10:54 PLOT BY : mscekm PLOT NAME : B803_080201_se PLOT SCALE : 30:1

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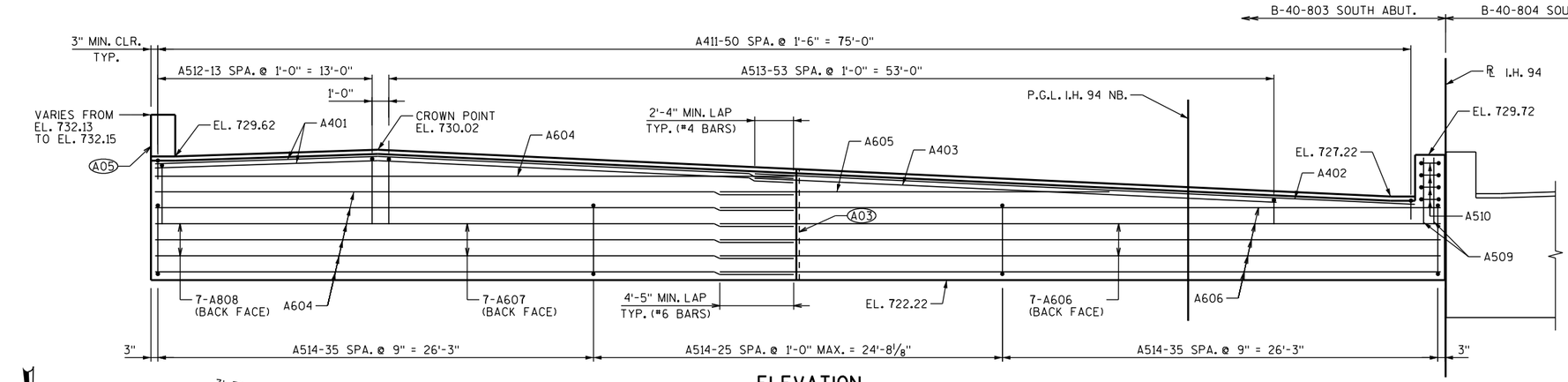
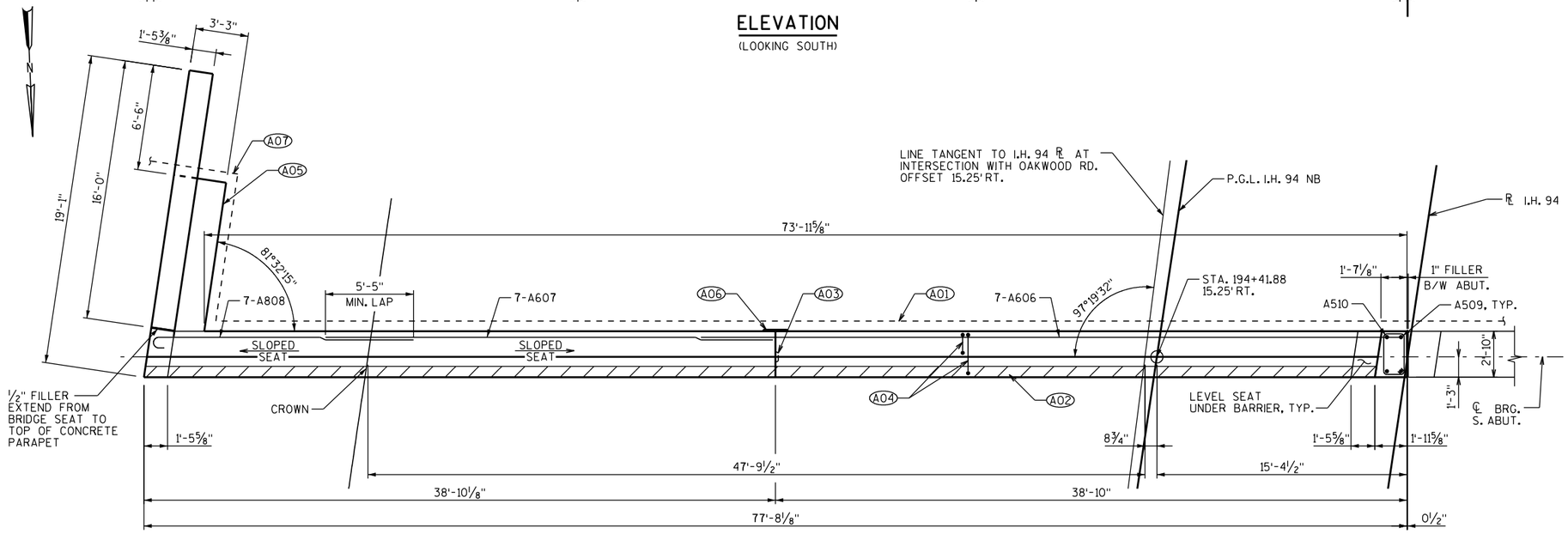
1030-20-87



ELEVATION
(LOOKING SOUTH)



PLAN

NOTES

(A01) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN TO DRAIN.

(A02) 4"X3/4" FILLER

(A03) VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2" X 8"

(A04) PLACE STIRRUPS AND U-SHAPED BARS NORMAL TO ABUT. BODY

(A05) FOR WINGWALL REINFORCING DETAILS, SEE SHEET 9

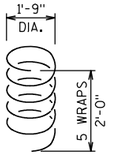
(A06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT

(A07) PIPE UNDERDRAIN WRAPPED (6-INCH), LOCATE TO SUITABLE DRAINAGE.

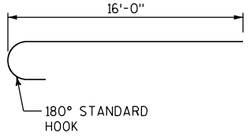
BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
A401	X	5	38'-2"			BEAM
A402	X	2	41'-2"			BEAM
A403	X	3	31'-0"			BEAM
A604	X	15	38'-2"			BODY - HORIZ.
A605	X	2	23'-4"			BODY - HORIZ.
A606	X	18	43'-7"			BODY - HORIZ.
A607	X	7	27'-7"			BODY - HORIZ.
A808	X	7	17'-2"	X		BODY - HORIZ.
A509	X	4	3'-9"			BODY - MEDIAN VERT.
A510	X	4	7'-5"	X		BODY - MEDIAN STIRRUP
A411	X	51	3'-3"	X		BEAM
A512	X	14	9'-2"	X	△	BEAM
A513	X	54	7'-1"	X	△	BEAM
A514	X	96	13'-7"	X		BODY - STIRRUP
A415	X	11	28'-0"	X		BODY PILES - 1 PER PILE
A416	X	22	2'-3"			BODY PILES - 2 PER PILE
A517	X	22	12'-4"	X		WING - STIRRUP
A518	X	10	20'-3"	X		WING - STIRRUP
A619	X	2	15'-7"			WING - HORIZ.
A420	X	5	15'-7"			WING - HORIZ.
A421	X	8	7'-9"			WING - HORIZ.
A522	X	8	11'-10"			WING - HORIZ.
A623	X	10	11'-2"			WING - HORIZ.

△ LENGTH SHOWN FOR BAR IS AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. (SEE BAR SERIES TABLE FOR ACTUAL LENGTH)



A415



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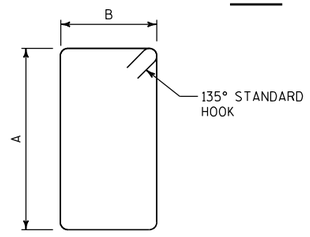
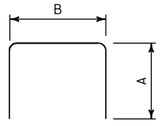


BAR MARK	DIM "A"	DIM "B"
A510	2'-2"	1'-3"
A514	4'-4"	2'-2"
A518	6'-11"	2'-11"

A510, A514, A518



BAR MARK	DIM "A"	DIM "B"
A411	1'-3"	11"
A512	3'-5" TO 3'-10"	2'-2"
A513	1'-4" TO 3'-10"	2'-2"
A517	5'-9"	1'-1"

A411, A512, A513, A517

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A512	1 SERIES OF 14	8'-9" TO 9'-7"
A513	1 SERIES OF 54	4'-7" TO 9'-7"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

DRAWN BY DGS | PLANS CK'D. KES

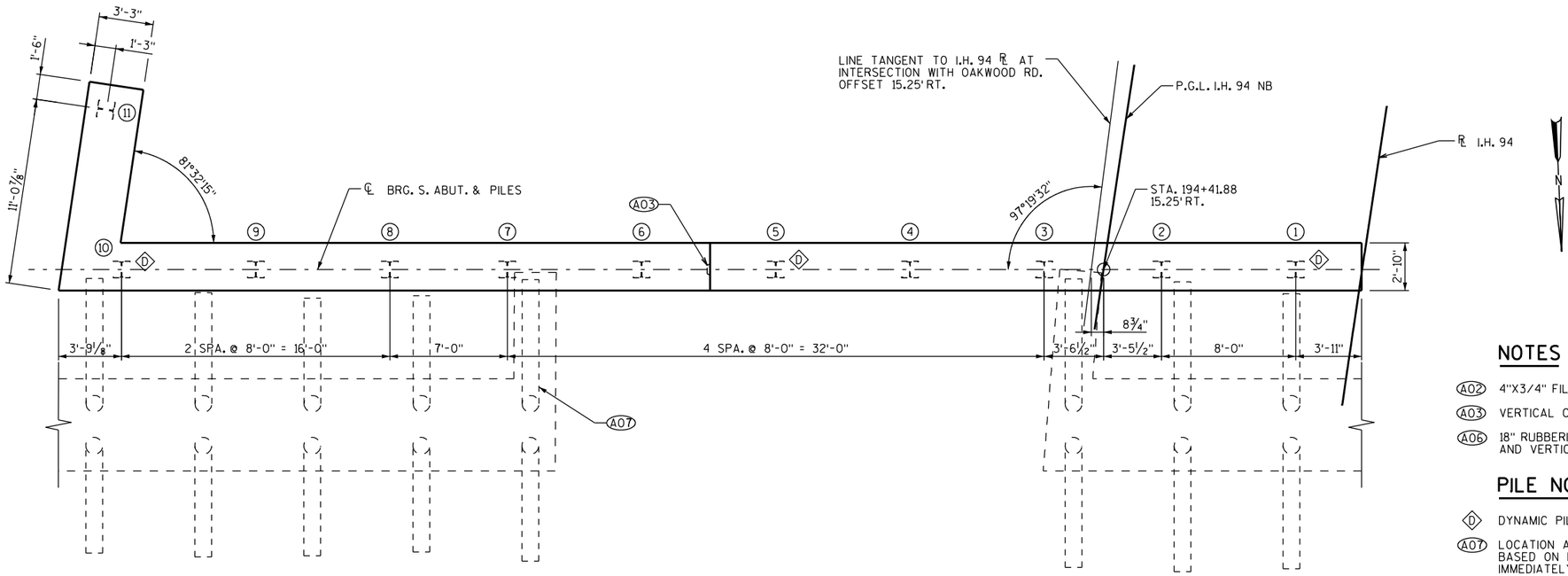
SOUTH ABUTMENT

SHEET 5 OF 25

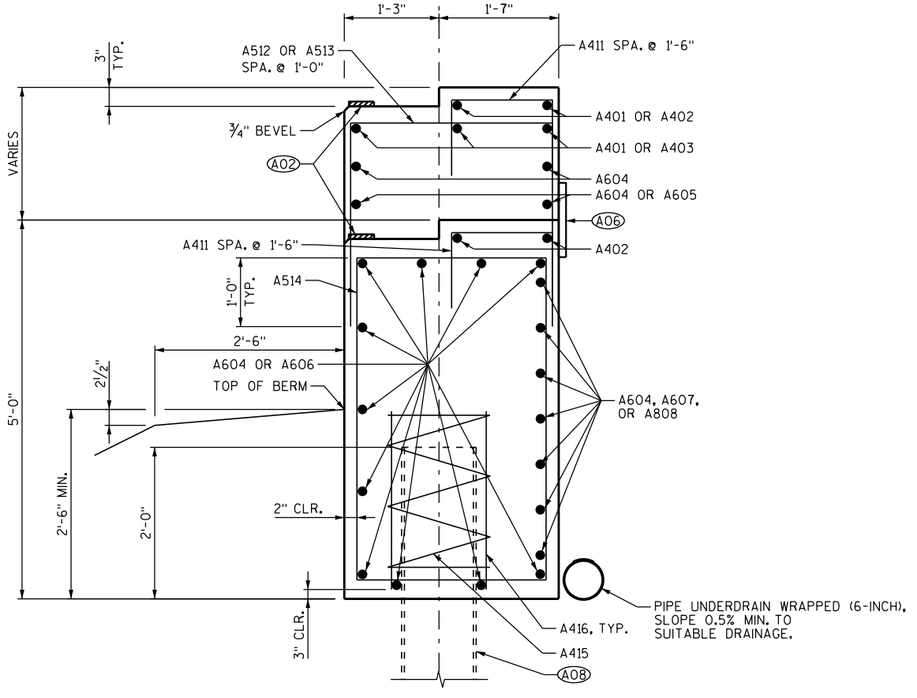
8

8

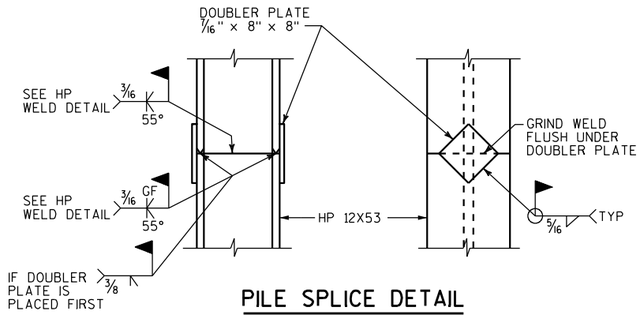
STATE PROJECT NUMBER
1030-20-87



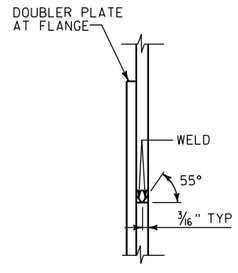
FOOTING PLAN



SECTION THRU ABUTMENT BODY



PILE SPLICE DETAIL



'HP' WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

NOTES

(A02) 4"X3/4" FILLER

(A03) VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2" X 8"

(A06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT

PILE NOTES

(D) DYNAMIC PILE LOAD TESTING

(A07) LOCATION AND PROJECTION OF EXISTING BATTERED PILES IS SHOWN BASED ON EXISTING STRUCTURE PLANS. VERIFY EXISTING PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINNER OF ANY EXISTING PILES THAT INTERFERE WITH PROPOSED NEW PILES.

IF NECESSARY, PROPOSED PILES THAT CONFLICT WITH EXISTING PILES MAY BE RELOCATED NOT MORE THAN 1'-0" ALONG ℄ BRG FROM THE PROPOSED LOCATION SHOWN IN THE PLAN TO AVOID CONFLICTING WITH THE EXISTING PILES. DISTANCE FROM EDGE OF PILING TO EDGE OF FOOTING SHALL BE 9" MIN.

(A08) ABUTMENT TO BE SUPPORTED ON HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 96 TONS PER PILE ESTIMATED 40' LONG.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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SOUTH ABUTMENT DETAILS

SHEET 6 OF 25

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FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080302_ab.dgn
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PLOT SCALE : 8:1

STATE PROJECT NUMBER
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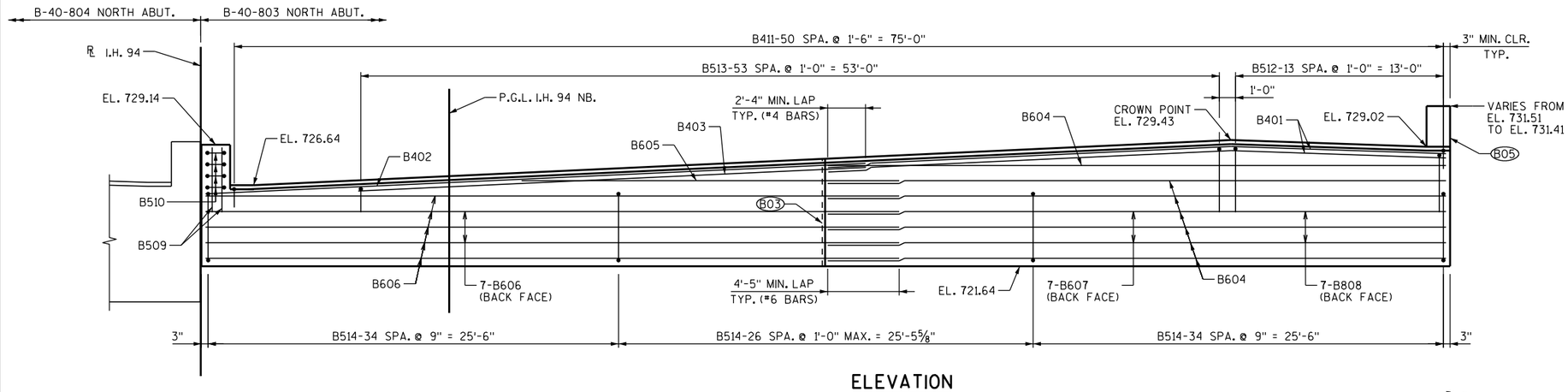
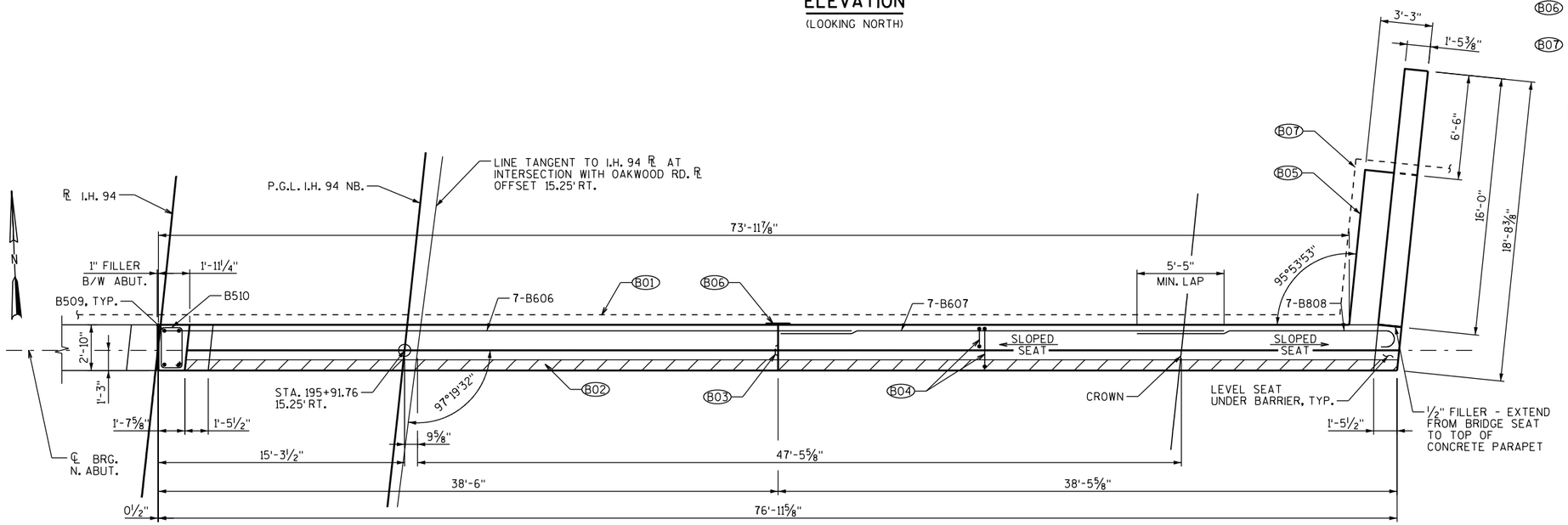


ELEVATION
(LOOKING NORTH)



PLAN

NOTES

(B01) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN TO DRAIN.

(B02) 4"X3/4" FILLER

(B03) VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2" X 8"

(B04) PLACE STIRRUPS AND U-SHAPED BARS NORMAL TO ABUT. BODY

(B05) FOR WINGWALL REINFORCING DETAILS, SEE SHEET 9

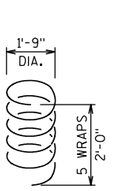
(B06) 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT

(B07) PIPE UNDERDRAIN WRAPPED (6-INCH), LOCATE TO SUITABLE DRAINAGE.

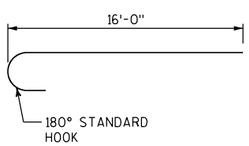
BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
B401	X	5	38'-1"			BEAM
B402	X	2	40'-8"			BEAM
B403	X	3	31'-2"			BEAM
B604	X	15	38'-1"			BODY - HORIZ.
B605	X	2	23'-4"			BODY - HORIZ.
B606	X	18	43'-1"			BODY - HORIZ.
B607	X	7	27'-6"			BODY - HORIZ.
B808	X	7	17'-2"	X		BODY - HORIZ.
B509	X	4	3'-9"			BODY - MEDIAN VERT.
B510	X	4	7'-5"	X		BODY - MEDIAN STIRRUP
B411	X	51	3'-3"	X		BEAM
B512	X	14	9'-2"	X	△	BEAM
B513	X	54	7'-1"	X	△	BEAM
B514	X	95	13'-7"	X		BODY - STIRRUP
B415	X	11	28'-0"	X		BODY PILES - 1 PER PILE
B416	X	22	2'-3"			BODY PILES - 2 PER PILE
B517	X	22	12'-5"	X		WING - STIRRUP
B518	X	10	20'-3"	X		WING - STIRRUP
B619	X	2	15'-7"			WING - HORIZ.
B420	X	5	15'-7"			WING - HORIZ.
B421	X	8	7'-9"			WING - HORIZ.
B522	X	8	11'-6"			WING - HORIZ.
B623	X	10	11'-8"			WING - HORIZ.

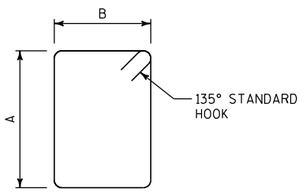
△ LENGTH SHOWN FOR BAR IS AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. (SEE BAR SERIES TABLE FOR ACTUAL LENGTH)



B415

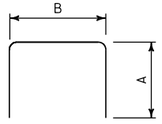


B808



BAR MARK	DIM "A"	DIM "B"
B510	2'-2"	1'-3"
B514	4'-4"	2'-2"
B518	6'-11"	2'-11"

B510, B514, B518



BAR MARK	DIM "A"	DIM "B"
B411	1'-3"	11"
B512	3'-5" TO 3'-10"	2'-2"
B513	1'-4" TO 3'-10"	2'-2"
B517	5'-9"	1'-1"

B411, B512, B513, B517

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
B512	1 SERIES OF 14	8'-9" TO 9'-7"
B513	1 SERIES OF 54	4'-7" TO 9'-7"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-40-803

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NORTH ABUTMENT

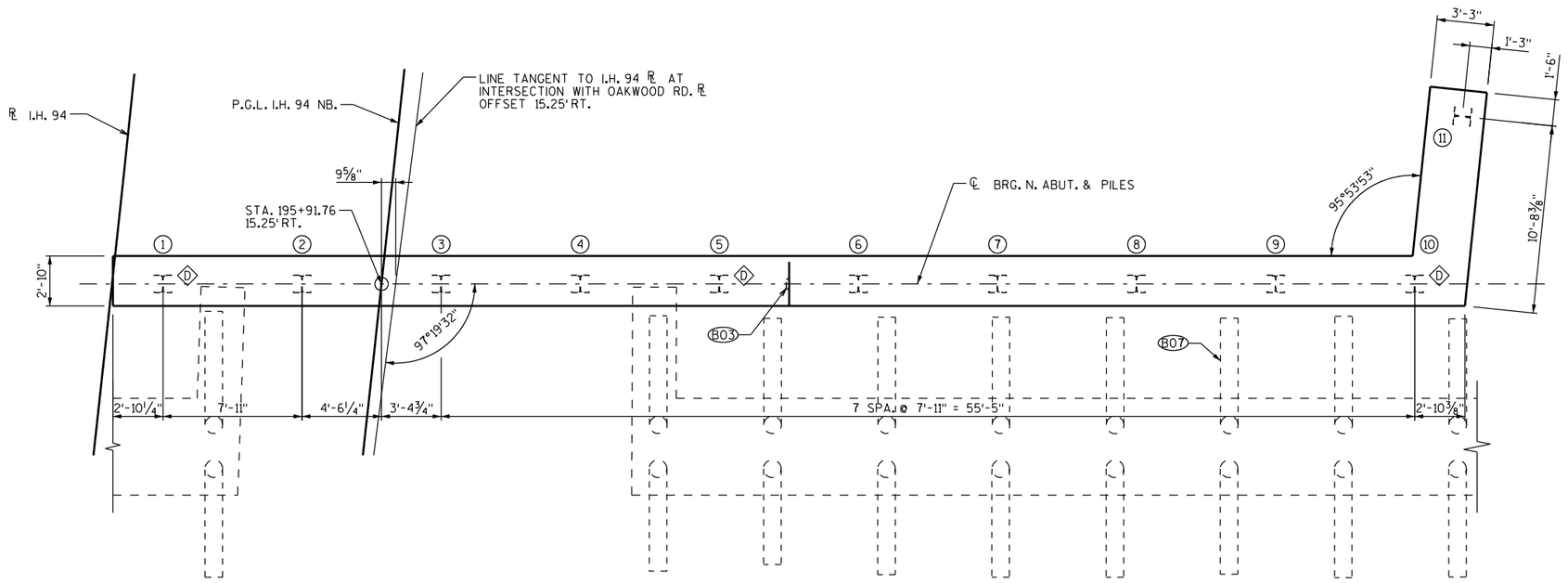
SHEET 7 OF 25

8

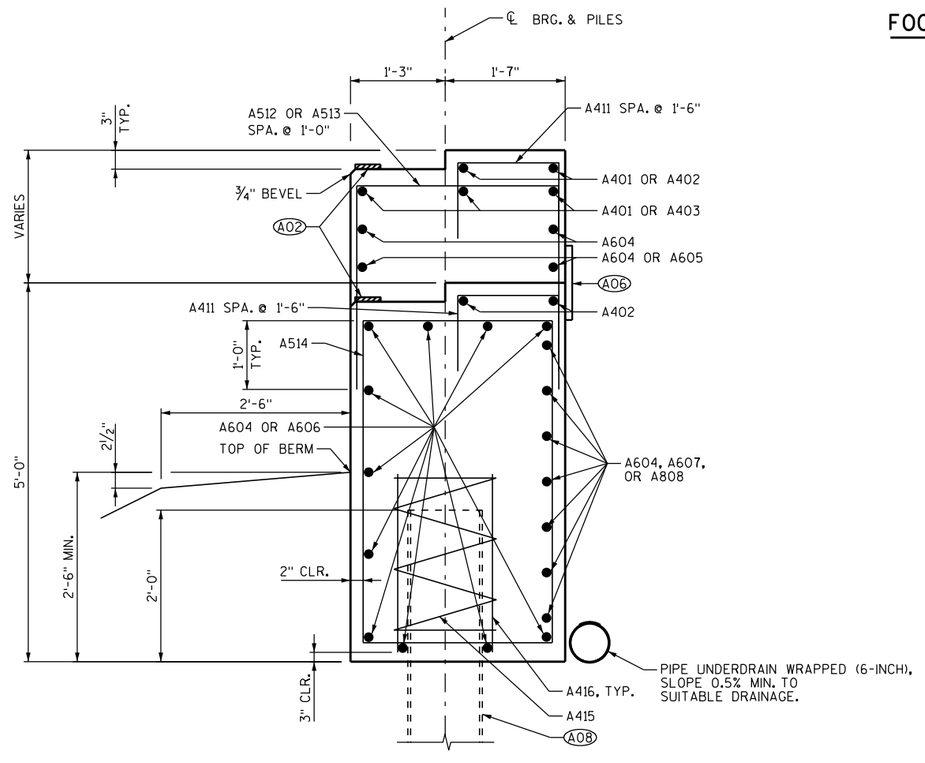
8

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080303_ab.dgn
PLOT DATE : 24-OCT-2017 10:54
PLOT BY : mscekm
PLOT NAME : B803_080303_ab
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1030-20-87



FOOTING PLAN



SECTION THRU ABUTMENT BODY

NOTES

B02 4"X3/4" FILLER

B03 VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2" X 8"

B06 18" RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENT

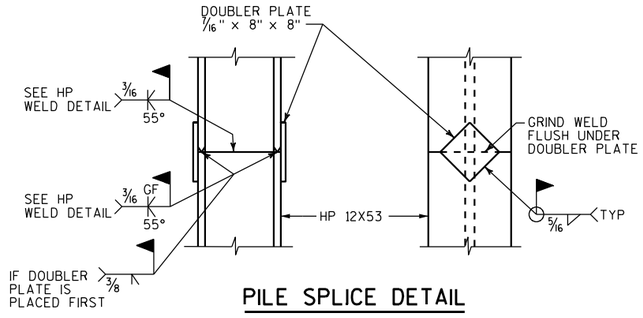
PILE NOTES

◇D DYNAMIC PILE LOAD TESTING

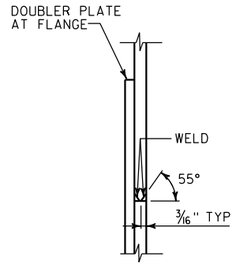
B07 LOCATION AND PROJECTION OF EXISTING BATTERED PILES IS SHOWN BASED ON EXISTING STRUCTURE PLANS. VERIFY EXISTING PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINNER OF ANY EXISTING PILES THAT INTERFERE WITH PROPOSED NEW PILES.

IF NECESSARY, PROPOSED PILES THAT CONFLICT WITH EXISTING PILES MAY BE RELOCATED NOT MORE THAN 1'-0" ALONG ℄ BRG FROM THE PROPOSED LOCATION SHOWN IN THE PLAN TO AVOID CONFLICTING WITH THE EXISTING PILES. DISTANCE FROM EDGE OF PILING TO EDGE OF FOOTING SHALL BE 9" MIN.

B08 ABUTMENT TO BE SUPPORTED ON HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 96 TONS PER PILE ESTIMATED 40' LONG.



PILE SPLICE DETAIL



'HP' WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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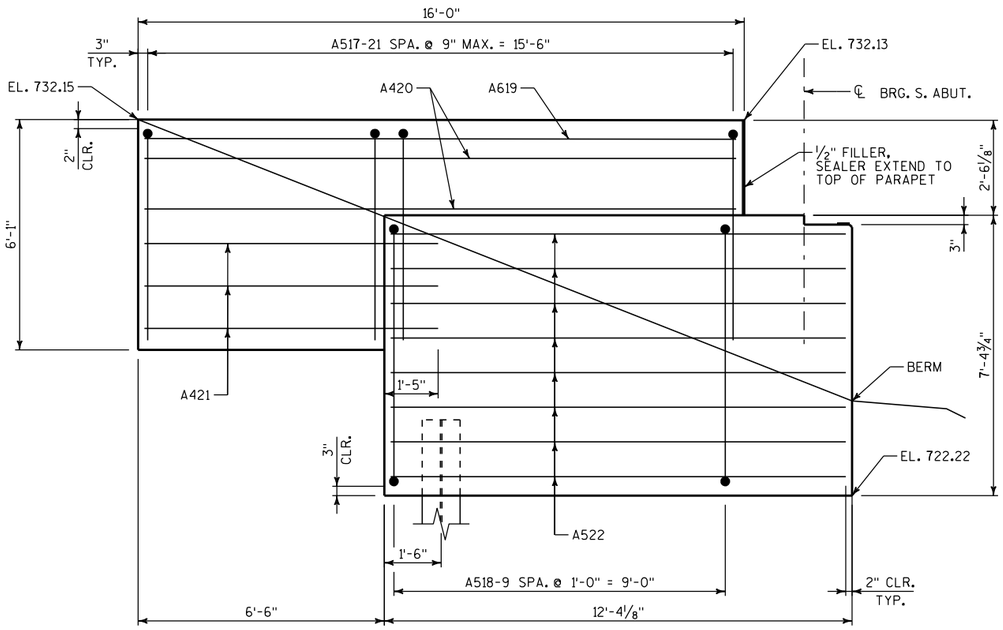
NORTH ABUTMENT DETAILS

SHEET 8 OF 25

8

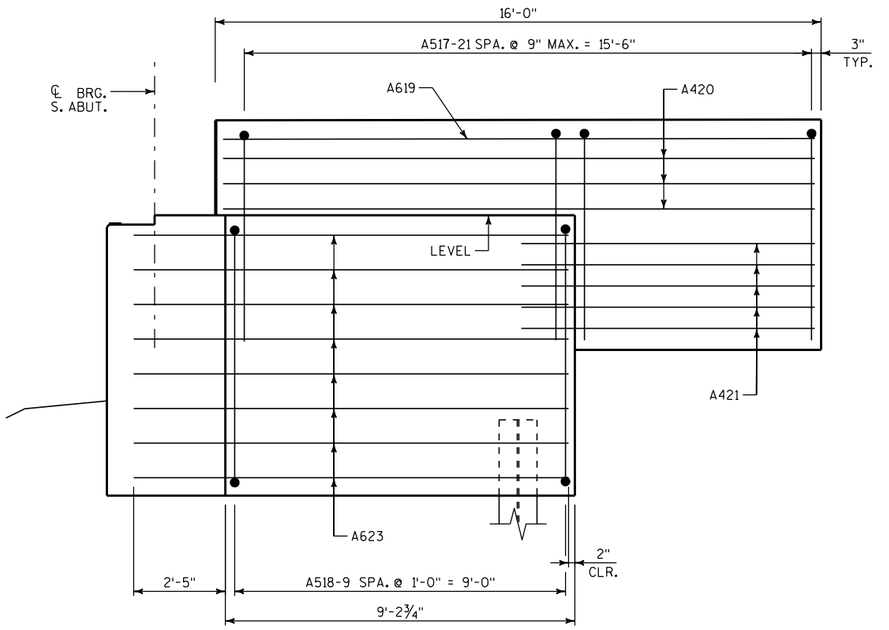
8

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080304_ab.dgn PLOT DATE : 24-OCT-2017 10:54 PLOT BY : mscekm PLOT NAME : B803_080304_ab PLOT SCALE : 8:1



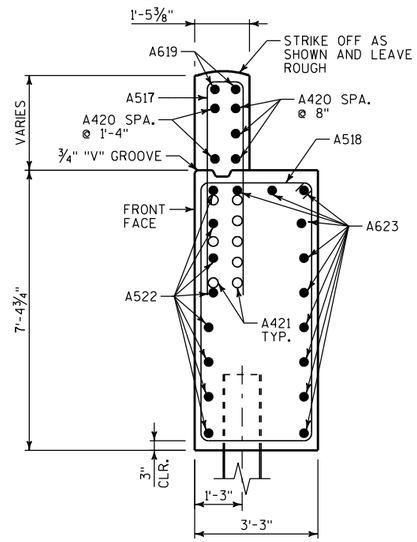
SOUTH ABUT. WINGWALL ELEVATION

(FRONT FACE)

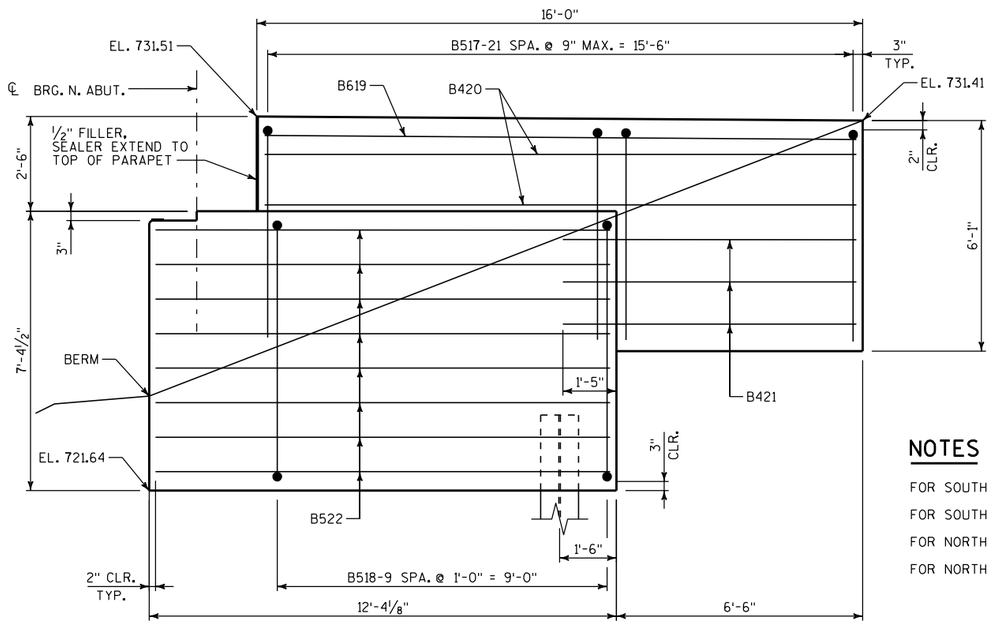


SOUTH ABUT. WINGWALL ELEVATION

(BACK FACE)



SOUTH ABUT. WINGWALL SECTION



NORTH ABUT. WINGWALL ELEVATION

(FRONT FACE)

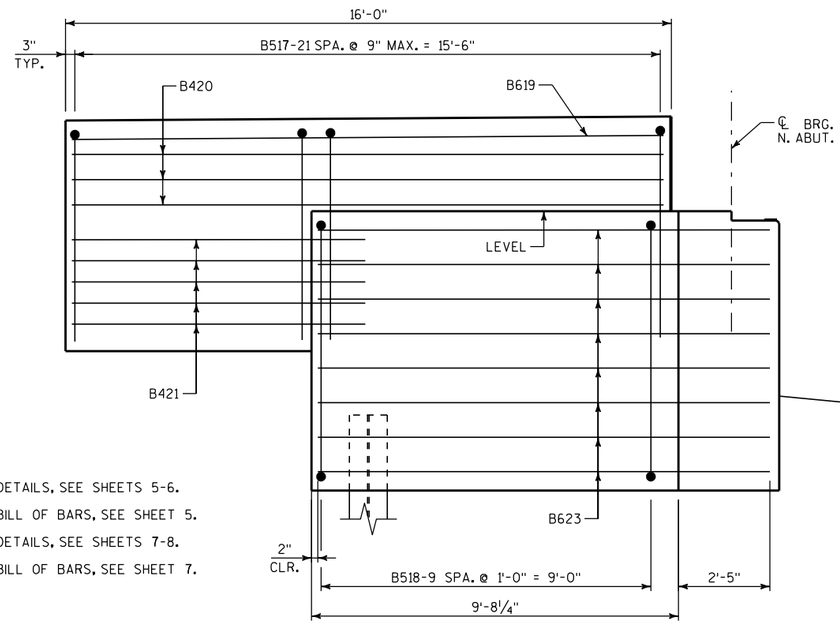
NOTES

FOR SOUTH ABUTMENT DETAILS, SEE SHEETS 5-6.

FOR SOUTH ABUTMENT BILL OF BARS, SEE SHEET 5.

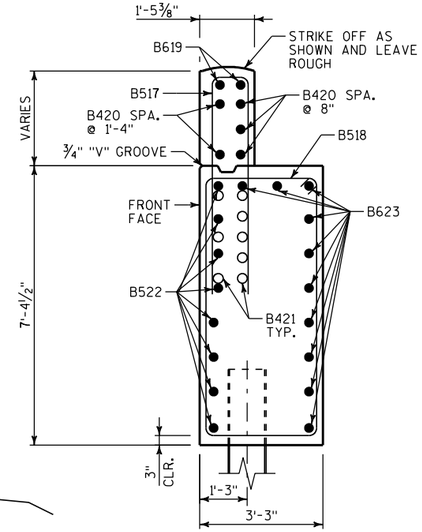
FOR NORTH ABUTMENT DETAILS, SEE SHEETS 7-8.

FOR NORTH ABUTMENT BILL OF BARS, SEE SHEET 7.



NORTH ABUT. WINGWALL ELEVATION

(BACK FACE)



NORTH ABUT. WINGWALL SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STATE PROJECT NUMBER

1030-20-87

STRUCTURE B-40-803

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ABUTMENT WINGWALL DETAILS

SHEET 9 OF 25

8

8

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080305_ab.dgn

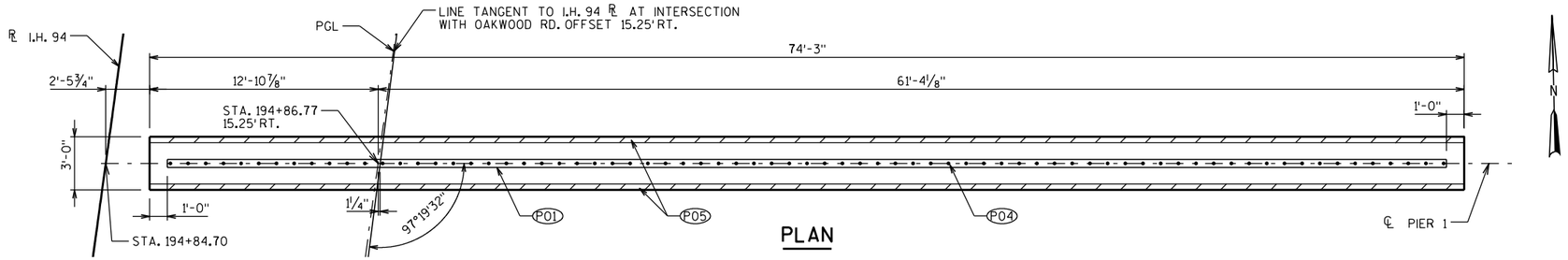
PLOT DATE : 24-OCT-2017 10:54

PLOT BY : mscekm

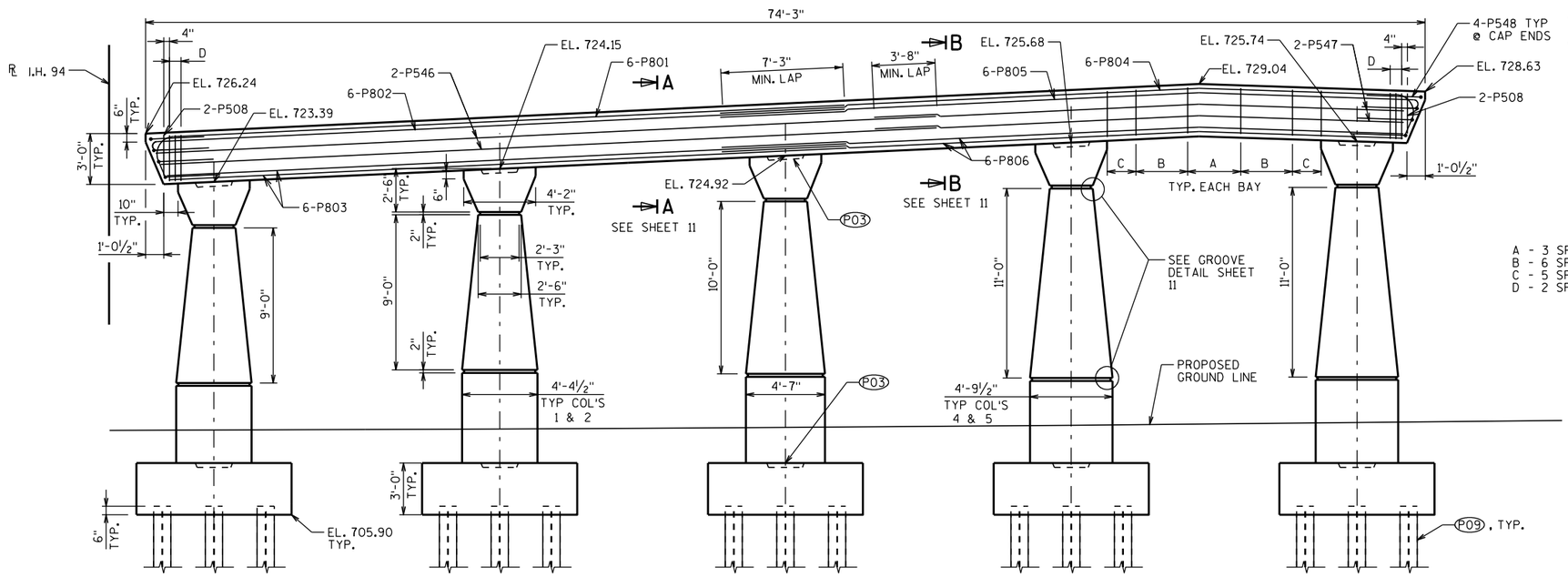
PLOT NAME : B803_080305_ab

PLOT SCALE : 4:1

STATE PROJECT NUMBER
1030-20-87

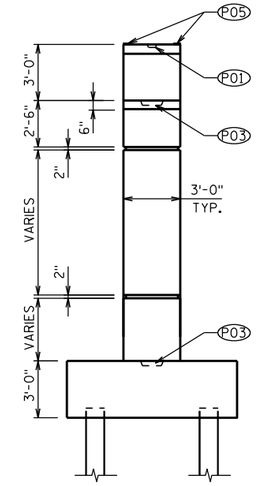


PLAN



ELEVATION

(LOOKING NORTH)



END VIEW

SEE SHEET 11 FOR COLUMN REINFORCING DETAIL

A - 3 SPA. OF 2 P509 @ 1'-0" = 3'-0"
B - 6 SPA. OF 2 P509 @ 6" = 3'-0"
C - 5 SPA. OF 2 P509 @ 4" = 1'-8"
D - 2 SPA. OF 2 P509 @ 4" = 8"

(P01) KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2" X 6" BETWEEN BEAM SEATS.

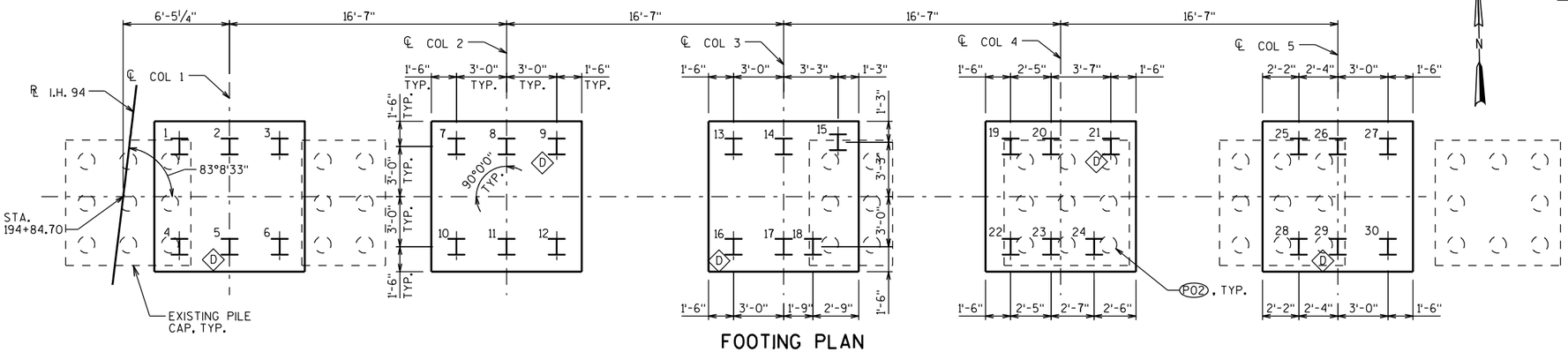
(P02) LOCATION OF EXISTING PILES IS SHOWN BASED ON EXISTING STRUCTURE PLANS. VERIFY EXISTING PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY EXISTING PILES THAT INTERFERE WITH PROPOSED NEW PILES.

IF NECESSARY, PROPOSED PILES THAT CONFLICT WITH EXISTING PILES MAY BE RELOCATED NOT MORE THAN 1'-0" FROM THE PROPOSED LOCATION SHOWN IN THE PLAN TO AVOID CONFLICTING WITH THE EXISTING PILES. DISTANCE FROM EDGE OF PILING TO EDGE OF FOOTING SHALL BE 9" MIN.

(P03) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3" X 1'-0" X 2'-2". TYPICAL AT TOP AND BOTTOM OF COLUMNS.

(P04) P507 BARS AT 1'-0" CENTERS MUST BE EMBEDDED 1'-0" INTO CONCRETE.

(P05) 4" X ¾" FILLER



FOOTING PLAN

PILE NOTES

◇D DYNAMIC PILE LOAD TESTING

(P09) PIER TO BE SUPPORTED ON HP 12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 191 TONS PER PILE ESTIMATED 70' LONG, SEE SHEET 6 FOR PILE SPLICE DETAIL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-40-803

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PIER 1

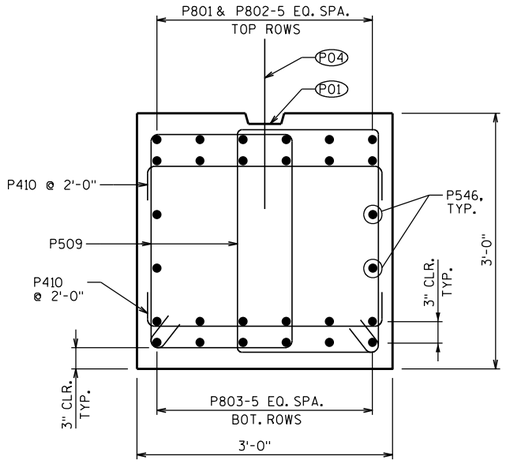
SHEET 10 OF 25

8

FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080401_pi.dgn PLOT DATE : 24-OCT-2017 10:54 PLOT BY : mscekm PLOT NAME : B803_080401_pi PLOT SCALE : 8:1

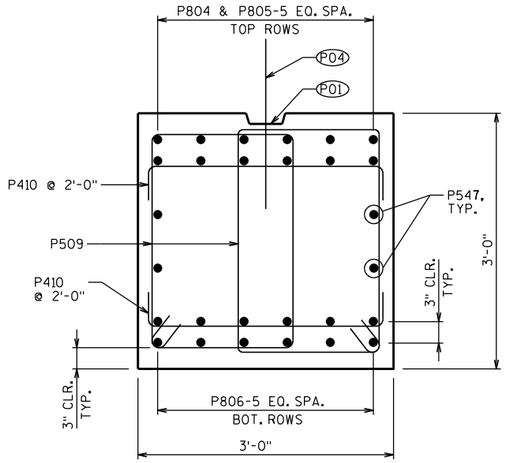
STATE PROJECT NUMBER

1030-20-87



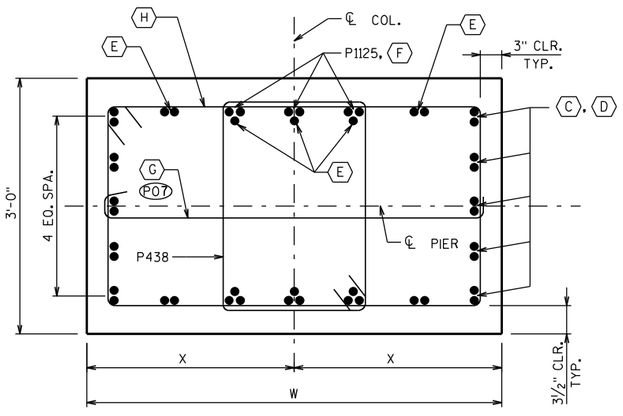
SECTION A-A

SEE SHEET 11 FOR LOCATION

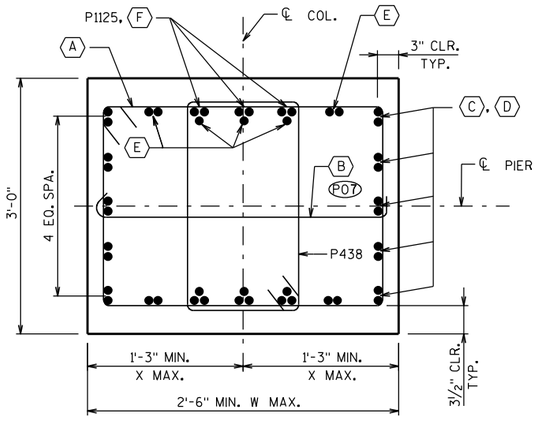


SECTION B-B

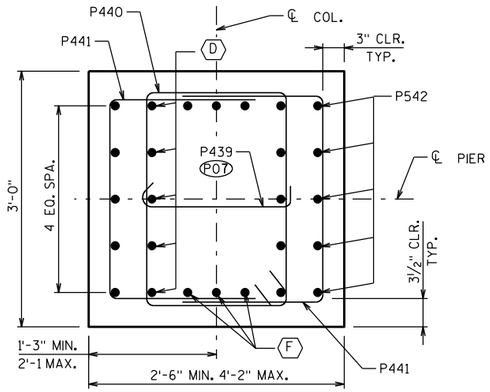
SEE SHEET 11 FOR LOCATION



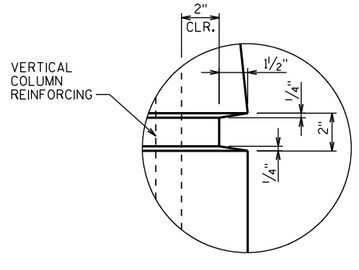
SECTION C-C



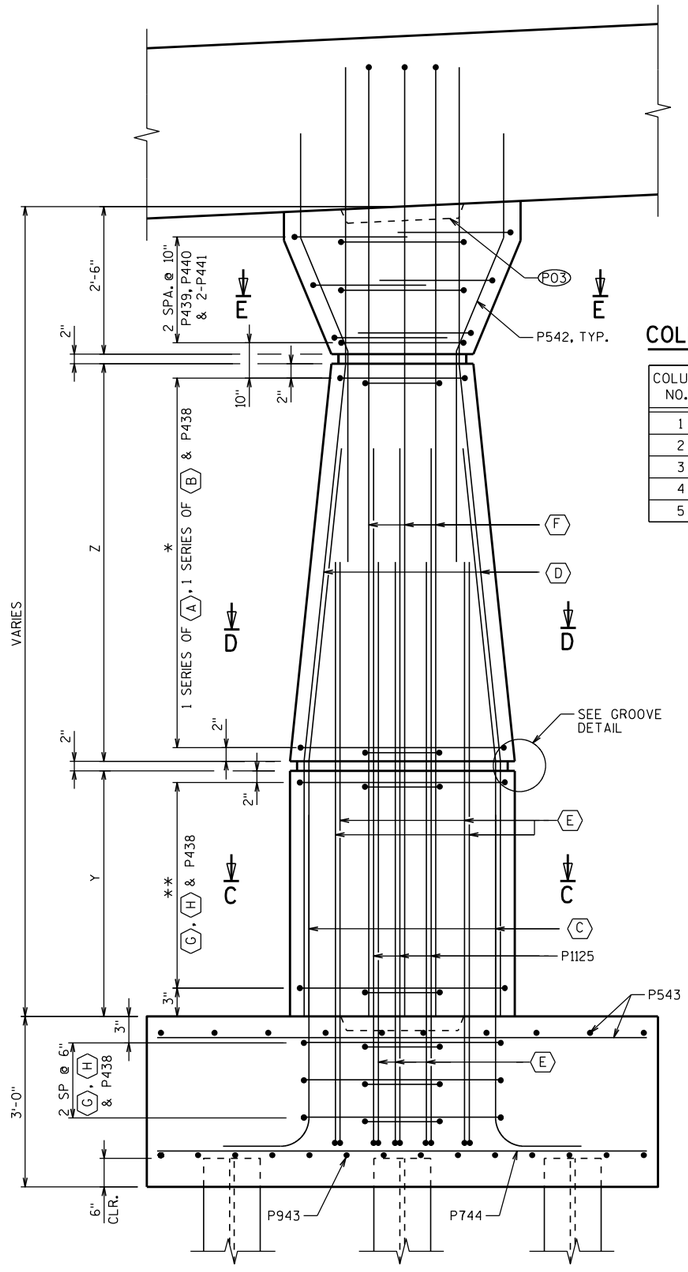
SECTION D-D



SECTION E-E



GROOVE DETAIL



COLUMN ELEVATION

COLUMN DATA

COLUMN NO.	W	X	Y	Z
1	4'-4½"	2'-2¼"	4'-5¾"	9'-0"
2	4'-4½"	2'-2¼"	5'-2⅞"	9'-0"
3	4'-7"	2'-3½"	5'-0⅛"	10'-0"
4	4'-9½"	2'-4¾"	4'-9¼"	11'-0"
5	4'-9½"	2'-4¾"	4'-9⅞"	11'-0"

COLUMN TIES

COLUMN NO.	*	Ⓐ	Ⓑ	**	Ⓖ	Ⓗ
1	17 EQ SPA	P426	P429	8 EQ SPA	P432	P435
2	17 EQ SPA	P426	P429	10 EQ SPA	P432	P435
3	19 EQ SPA	P427	P430	10 EQ SPA	P433	P436
4	21 EQ SPA	P428	P431	9 EQ SPA	P434	P437
5	21 EQ SPA	P428	P431	9 EQ SPA	P434	P437

COLUMN VERTICAL REINF.

COLUMN NO.	Ⓒ	Ⓓ	Ⓔ	Ⓕ
1	P1111	P1117	P1115	P1121
2	P1112	P1118	P1116	P1122
3	P1113	P1119	P1116	P1123
4 & 5	P1114	P1120	P1116	P1124

(P01) KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2" X 6" BETWEEN BEAM SEATS.

(P03) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3" X 1'-0" X 2'-2". TYPICAL AT TOP AND BOTTOM OF COLUMNS.

(P04) P507 BARS AT 1'-0" CENTERS MUST BE EMBEDDED 1'-0" INTO CONCRETE.

(P07) ALTERNATE HOOKED ENDS OF P416 TIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-40-803

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PIER 1
DETAILS (1 OF 2)

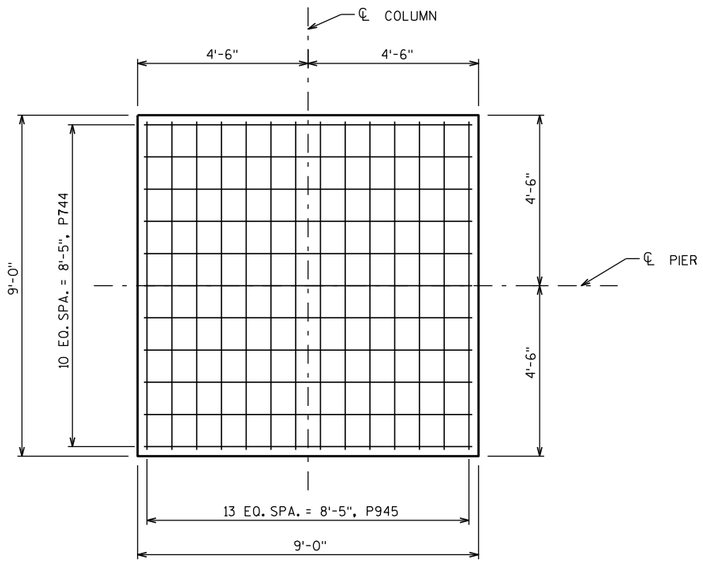
SHEET 11 OF 25

8

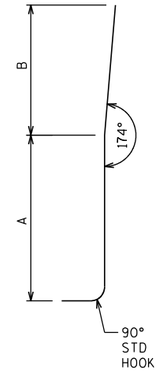
8

STATE PROJECT NUMBER

1030-20-87



FOOTING BOT. REINFORCEMENT PLAN

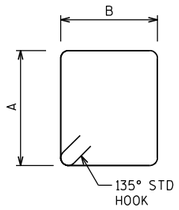


COLUMN NO.	BAR MARK	A	B
1	P1111	6'-10"	5'-7
2	P1112	7'-6"	4'-11"
3	P1113	7'-4"	5'-1"
4 & 5	P1114	7'-0"	5'-5"

P1111, P1112, P1113, P1114

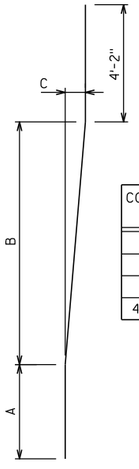
BAR SERIES TABLE

COLUMN NO.	BAR MARK	NO. REQ'D	LENGTH
1, 2	P426	2 SERIES OF 18	9'-4" TO 13'-0"
3	P427	1 SERIES OF 20	9'-4" TO 13'-6"
4, 5	P428	2 SERIES OF 22	9'-4" TO 13'-10"
1, 2	P429	2 SERIES OF 18	2'-11" TO 4'-10½"
2	P430	1 SERIES OF 20	2'-11" TO 5'-0½"
4, 5	P431	2 SERIES OF 22	2'-11" TO 5'-2½"



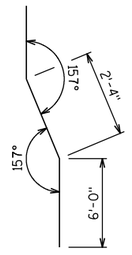
BAR MARK	A	B
P508	2'-2"	1'-8"
P509	2'-6"	1'-8"
P426	2'-5"	2'-0" TO 3'-10"
P427	2'-5"	2'-0" TO 4'-1"
P428	2'-5"	2'-0" TO 4'-3"
P435	2'-5"	3'-10"
P436	2'-5"	4'-1"
P437	2'-5"	4'-3"
P438	2'-5"	1'-6"
P440	2'-5"	2'-3"

P508, P509, P426, P427, P428, P435, P436, P437, P438, P440

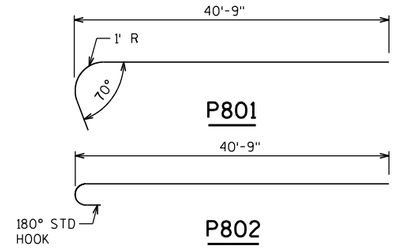


COLUMN NO.	BAR MARK	A	B	C
1	P1117	4'-6"	9'-2"	11"
2	P1118	5'-5"	9'-2"	11"
3	P1119	5'-2"	10'-2"	1'-1"
4 & 5	P1120	4'-11"	11'-2"	1'-2"

P1117, P1118, P1119, P1120

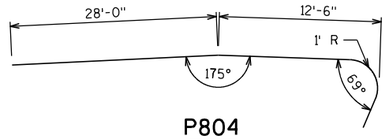


P542

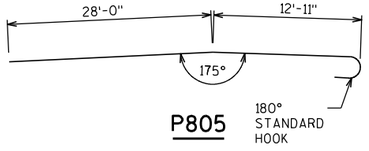


P801

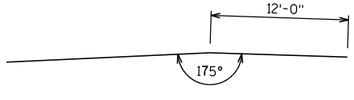
P802



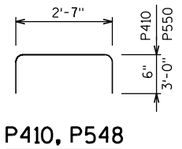
P804



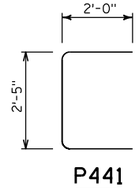
P805



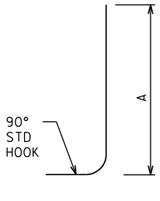
P806, P547, P849



P410, P548

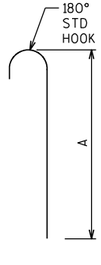


P441



BAR MARK	A
P1115	10'-6"
P1116	11'-0"
P1125	12'-6"

P1115, P1116, P1125



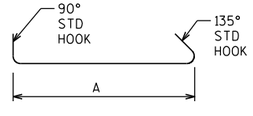
BAR MARK	A
P1121	18'-3"
P1122	19'-1"
P1123	19'-10"
P1124	20'-7"

P1121, P1122, P1123, P1124

BAR MARK	A
P429	2'-0" TO 3'-10"
P430	2'-0" TO 4'-1"
P431	2'-0" TO 4'-3"
P432	3'-10"
P433	4'-1"
P434	4'-3"
P439	2'-3"

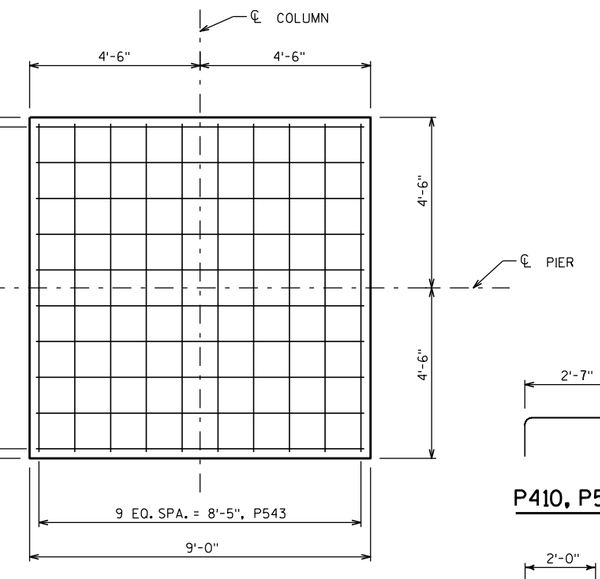
P429, P430, P431, P432, P433, P434, P439

△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION (SEE BAR SERIES TABLE FOR ACTUAL LENGTH)



BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P801	X	6	42'-10"	X		PIER CAP TOP
P802	X	6	41'-11"	X		PIER CAP TOP
P803	X	12	39'-9"			PIER CAP BOTTOM
P804	X	6	42'-7"			PIER CAP TOP
P805	X	6	42'-0"	X		PIER CAP TOP
P806	X	12	39'-9"	X		PIER CAP BOTTOM
P507	X	73	2'-0"			PIER CAP - DOWEL - VERT
P508	X	4	8'-3"	X		PIER CAP STIRRUP
P509	X	220	8'-11"	X		PIER CAP STIRRUP
P410	X	74	3'-5"	X		PIER CAP - TIE
P1111	X	10	14'-1"	X		COLUMN 1 - VERT - FTG DOWEL
P1112	X	10	14'-1"	X		COLUMN 2 - VERT - FTG DOWEL
P1113	X	10	14'-1"	X		COLUMN 3 - VERT FTG DOWEL
P1114	X	20	14'-1"	X		COL 4-5 - VERT - FTG DOWEL
P1115	X	14	12'-2"	X		COLUMN 1 - VERT - FTG DOWEL
P1116	X	56	12'-8"	X		COL 2-5 - VERT - FTG DOWEL
P1117	X	10	18'-8"	X		COLUMN 1 - VERT
P1118	X	10	19'-7"	X		COLUMN 2 - VERT
P1119	X	10	20'-6"	X		COLUMN 3 - VERT
P1120	X	20	21'-4"	X		COLUMN 4 & 5 - VERT
P1121	X	6	19'-11"	X		COLUMN 1 - VERT - TOP
P1122	X	6	20'-9"	X		COLUMN 2 - VERT - TOP
P1123	X	6	21'-6"	X		COLUMN 3 - VERT - TOP
P1124	X	12	22'-3"	X		COLUMN 4 & 5 - VERT - TOP
P1125	X	30	14'-2"	X		COL 1-5 - VERT - FTG DOWEL
P426	X	36	11'-2"	X	△	COLUMN 1 - TIES - MIDDLE
P427	X	20	11'-5"	X	△	COLUMN 2 & 3 - TIES - MIDDLE
P428	X	44	11'-7"	X	△	COLUMN 4 & 5 - TIES - MIDDLE
P429	X	36	3'-11"	X	△	COLUMN 1 - TIES - MIDDLE
P430	X	20	4'-0"	X	△	COLUMN 2 & 3 - TIES - MIDDLE
P431	X	44	4'-1"	X	△	COLUMN 4 & 5 - TIES - MIDDLE
P432	X	26	4'-10"	X		COLUMN 1 - TIES - BOTTOM
P433	X	14	5'-0"	X		COLUMN 2 & 3 - TIES - BOTT
P434	X	26	5'-3"	X		COLUMN 4 & 5 - TIES - BOTT
P435	X	26	13'-0"	X		COLUMN 1 - TIES - BOTTOM
P436	X	14	13'-6"	X		COLUMN 2 & 3 - TIES - BOTT
P437	X	26	13'-10"	X		COLUMN 4 & 5 - TIES - BOTT
P438	X	66	7'-10"			COLUMN - TIES
P439	X	15	3'-3"	X		COLUMN - TIES - TOP
P440	X	15	9'-4"			COLUMN - TIES - TOP
P441	X	30	6'-3"	X		COLUMN - TIES - TOP
P542	X	50	10'-1"	X		COLUMN - VERT - TOP
P543		100	8'-6"			FOOTING - TOP
P744		55	8'-6"			FOOTING - BOTTOM
P945		70	8'-6"			FOOTING - BOTTOM
P546	X	4	45'-0"			PIER CAP - HORIZ - SIDES
P547	X	4	33'-2"	X		PIER CAP - HORIZ - SIDES
P548	X	8	8'-4"	X		PIER CAP - HORIZ - ENDS



FOOTING TOP REINFORCEMENT PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

DRAWN BY JBA | PLANS CK'D. KES

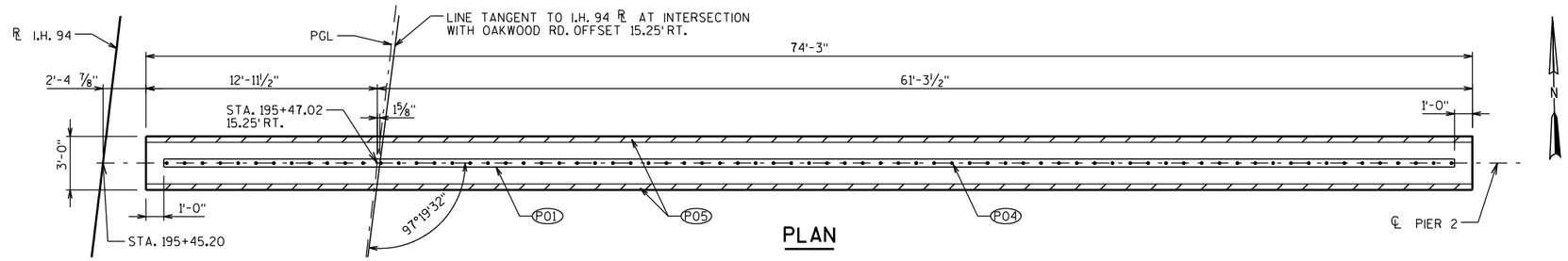
PIER 1
DETAILS (2 OF 2)

SHEET 12 OF 25

8

8

STATE PROJECT NUMBER
1030-20-87



PLAN

P01 KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2" X 6" BETWEEN BEAM SEATS.

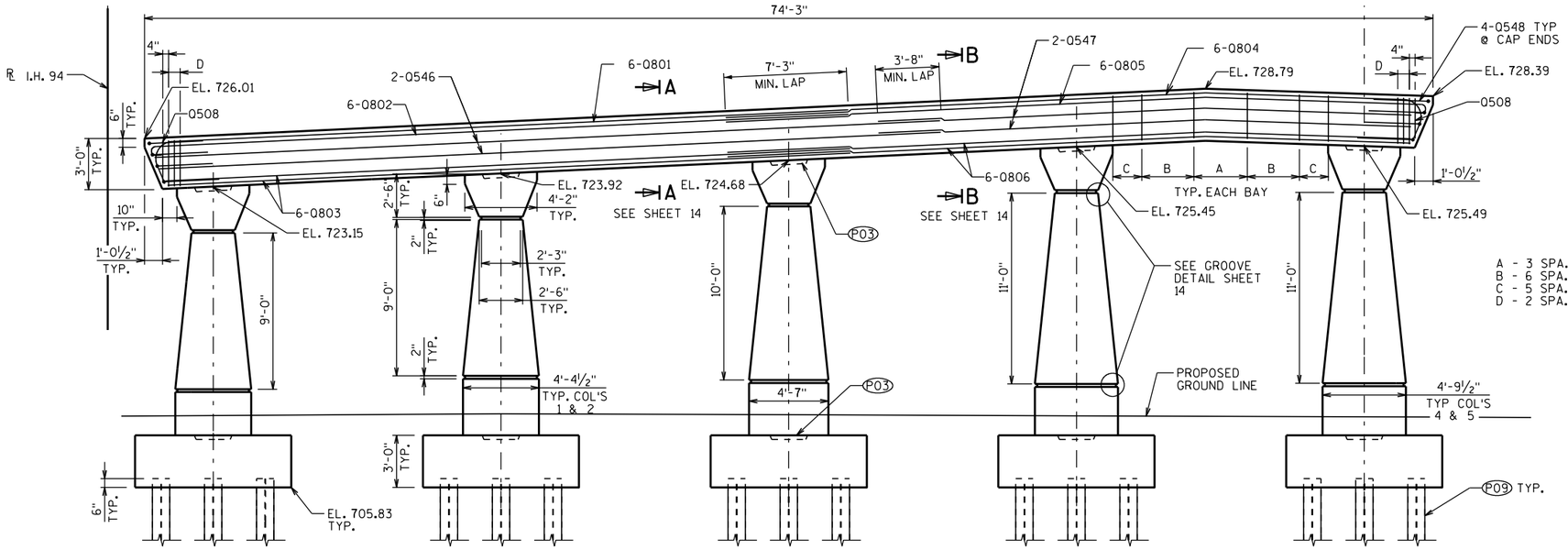
P02 LOCATION OF EXISTING PILES IS SHOWN BASED ON EXISTING STRUCTURE PLANS. VERIFY EXISTING PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY EXISTING PILES THAT INTERFERE WITH PROPOSED NEW PILES.

IF NECESSARY, PROPOSED PILES THAT CONFLICT WITH EXISTING PILES MAY BE RELOCATED NOT MORE THAN 1'-0" FROM THE PROPOSED LOCATION SHOWN IN THE PLAN TO AVOID CONFLICTING WITH THE EXISTING PILES. DISTANCE FROM EDGE OF PILING TO EDGE OF FOOTING SHALL BE 9" MIN.

P03 KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3" X 1'-0" X 2'-2". TYPICAL AT TOP AND BOTTOM OF COLUMNS.

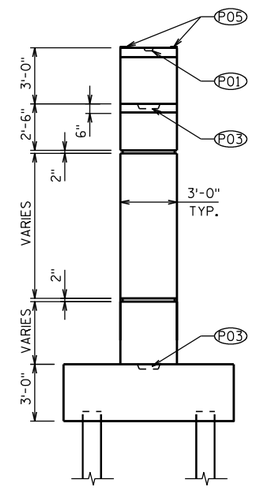
P04 0507 BARS AT 1'-0" CENTERS MUST BE EMBEDDED 1'-0" INTO CONCRETE.

P05 4" X 3/4" FILLER

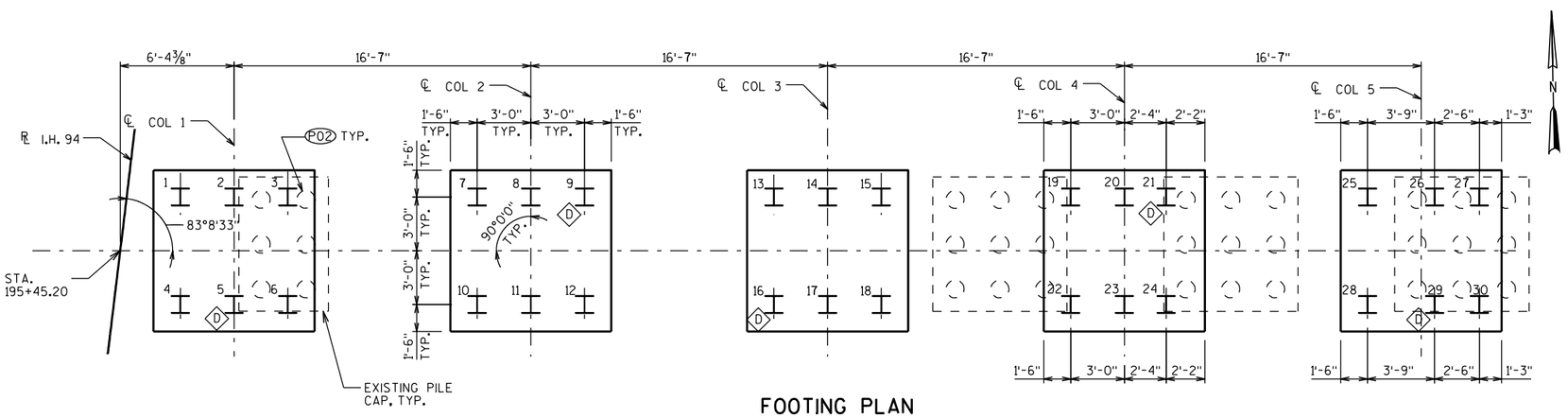


A - 3 SPA. OF 2 @ 1'-0" = 3'-0"
B - 6 SPA. OF 2 @ 6" = 3'-0"
C - 5 SPA. OF 2 @ 4" = 1'-8"
D - 2 SPA. OF 2 @ 4" = 8"

ELEVATION
(LOOKING NORTH)



END VIEW
SEE SHEET 14 FOR COLUMN REINFORCING DETAIL



FOOTING PLAN

PILE NOTES

D DYNAMIC PILE LOAD TESTING

P09 PIER TO BE SUPPORTED ON HP 12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 191 TONS PER PILE ESTIMATED 70' LONG, SEE SHEET 6 FOR PILE SPLICE DETAIL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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PIER 2

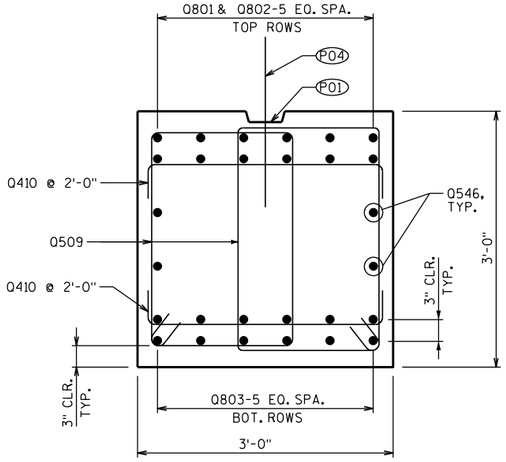
SHEET 13 OF 25

8

8

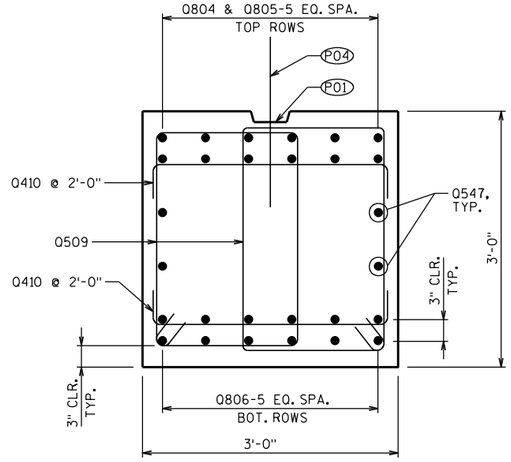
STATE PROJECT NUMBER

1030-20-87



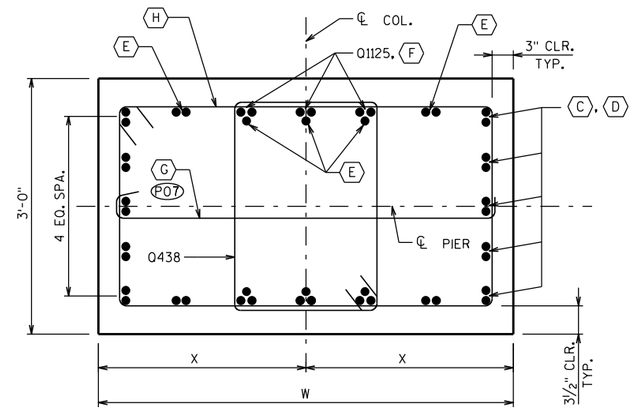
SECTION A-A

SEE SHEET 11 FOR LOCATION

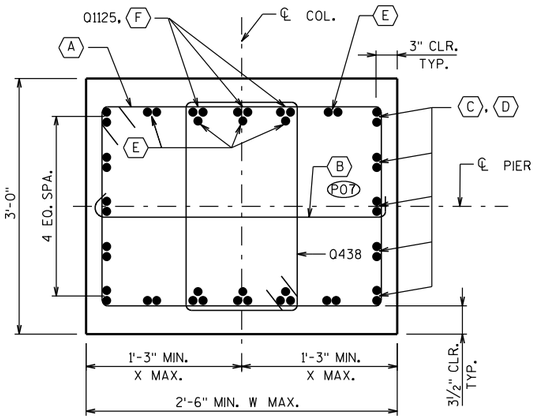


SECTION B-B

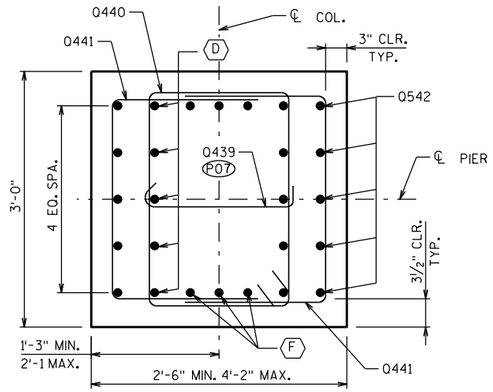
SEE SHEET 11 FOR LOCATION



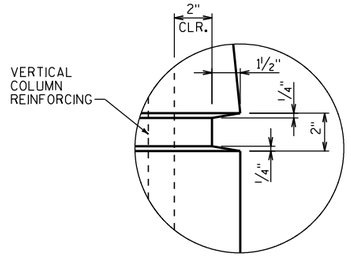
SECTION C-C



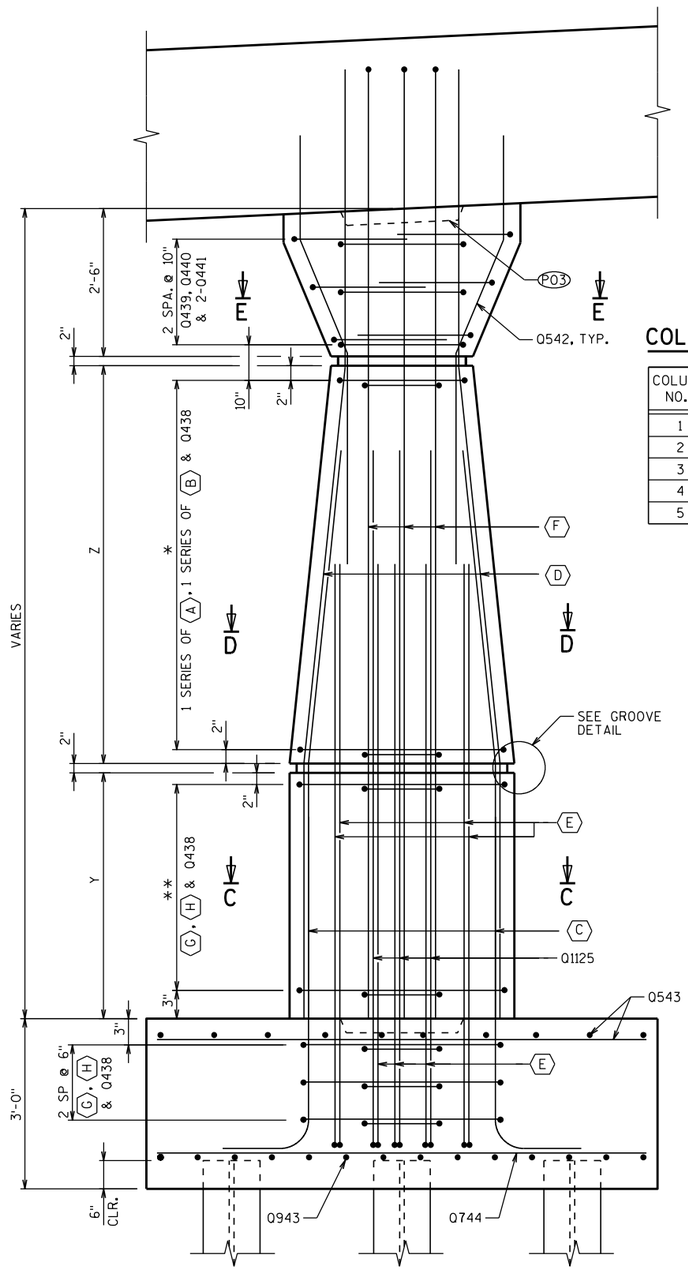
SECTION D-D



SECTION E-E



GROOVE DETAIL



COLUMN ELEVATION

COLUMN DATA

COLUMN NO.	W	X	Y	Z
1	4'-4½"	2'-2¼"	4'-5¾"	9'-0"
2	4'-4½"	2'-2¼"	5'-2⅞"	9'-0"
3	4'-7"	2'-3½"	5'-0⅛"	10'-0"
4	4'-9½"	2'-4¾"	4'-9¼"	11'-0"
5	4'-9½"	2'-4¾"	4'-9⅞"	11'-0"

COLUMN TIES

COLUMN NO.	*	A	B	**	C	H
1	17 EQ SPA	0426	0429	8 EQ SPA	0432	0435
2	17 EQ SPA	0426	0429	10 EQ SPA	0432	0435
3	19 EQ SPA	0427	0430	10 EQ SPA	0433	0436
4	21 EQ SPA	0428	0431	9 EQ SPA	0434	0437
5	21 EQ SPA	0428	0431	9 EQ SPA	0434	0437

COLUMN VERTICAL REINF.

COLUMN NO.	C	D	E	F
1	01111	01117	01115	01121
2	01112	01118	01116	01122
3	01113	01119	01116	01123
4 & 5	01114	01120	01116	01124

P01 KEYED CONSTRUCTION JOINT FORMED BY A SURFACE BEVELED 2" X 6" BETWEEN BEAM SEATS.

P03 KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3" X 1'-0" X 2'-2". TYPICAL AT TOP AND BOTTOM OF COLUMNS.

P04 0507 BARS AT 1'-0" CENTERS MUST BE EMBEDDED 1'-0" INTO CONCRETE.

P07 ALTERNATE HOOKED ENDS OF TIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

DRAWN BY JBA | PLANS CK'D. KES

PIER 2
DETAILS (1 OF 2)

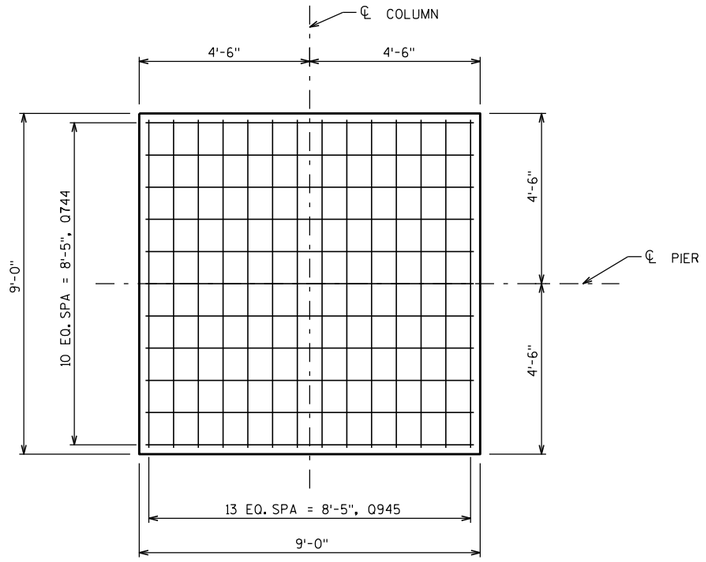
SHEET 14 OF 25

8

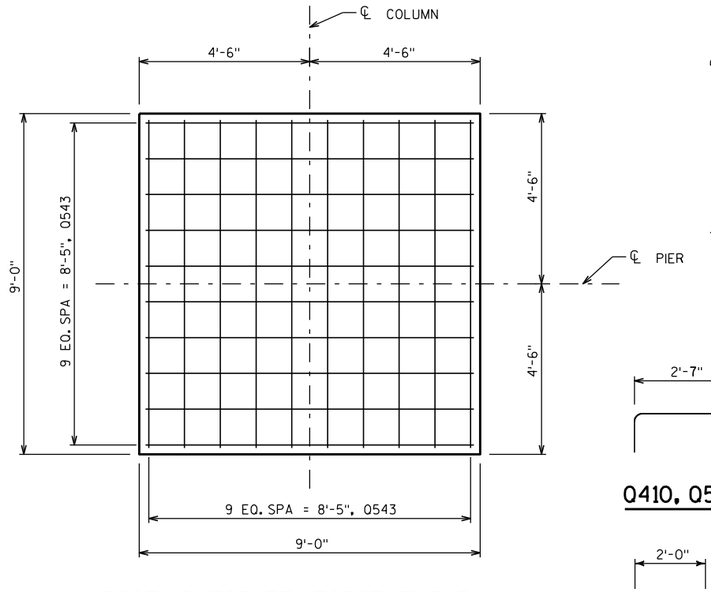
8

STATE PROJECT NUMBER

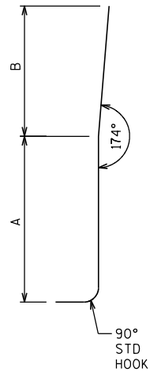
1030-20-87



FOOTING BOT. REINFORCEMENT PLAN

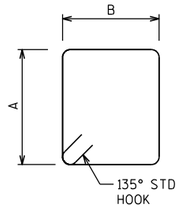


FOOTING TOP REINFORCEMENT PLAN



COLUMN NO.	BAR MARK	A	B
1	01111	6'-10"	5'-7
2	01112	7'-6"	4'-11"
3	01113	7'-4"	5'-1"
4 & 5	01114	7'-0"	5'-5"

01111, 01112, 01113, 01114

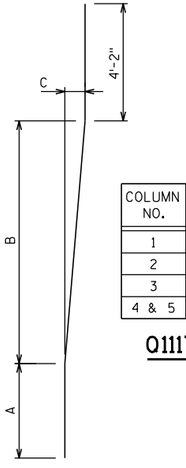


BAR MARK	A	B
0508	2'-2"	1'-8"
0509	2'-6"	1'-8"
0426	2'-5"	2'-0" TO 3'-10"
0427	2'-5"	2'-0" TO 4'-1"
0428	2'-5"	2'-0" TO 4'-3"
0435	2'-5"	3'-10"
0436	2'-5"	4'-1"
0437	2'-5"	4'-3"
0438	2'-5"	1'-6"
0440	2'-5"	2'-3"

0508, 0509, 0426, 0427, 0428, 0435, 0436, 0437, 0438, 0440

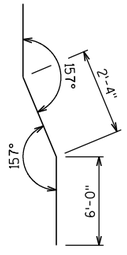
BAR SERIES TABLE

COLUMN NO.	BAR MARK	NO. REQ'D	LENGTH
1, 2	0426	2 SERIES OF 18	9'-4" TO 13'-0"
3	0427	1 SERIES OF 20	9'-4" TO 13'-6"
4, 5	0428	2 SERIES OF 22	9'-4" TO 13'-10"
1, 2	0429	2 SERIES OF 18	2'-11" TO 4'-10½"
2	0430	1 SERIES OF 20	2'-11" TO 5'-0½"
4, 5	0431	2 SERIES OF 22	2'-11" TO 5'-2½"

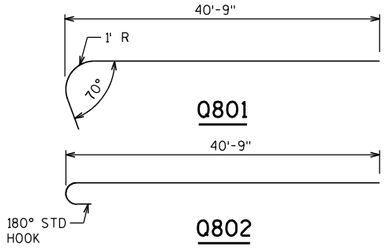


COLUMN NO.	BAR MARK	A	B	C
1	01117	4'-6"	9'-2"	11"
2	01118	5'-5"	9'-2"	11"
3	01119	5'-2"	10'-2"	1'-1"
4 & 5	01120	4'-11"	11'-2"	1'-2"

01117, 01118, 01119, 01120

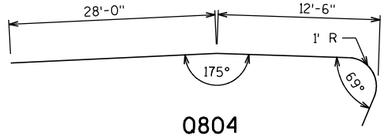


0542

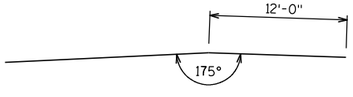


0801

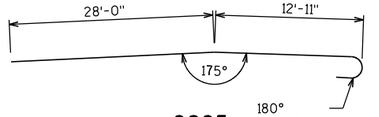
0802



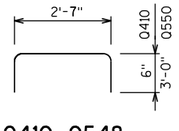
0804



0806, 0547, 0849



0805



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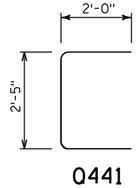
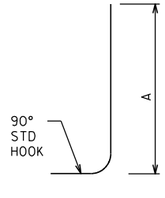
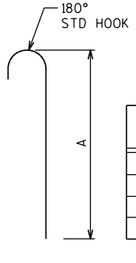


0441



BAR MARK	A
01115	10'-6"
01116	11'-0"
01125	12'-6"

01115, 01116, 01125



BAR MARK	A
01121	18'-3"
01122	19'-1"
01123	19'-10"
01124	20'-7"

01121, 01122, 01123, 01124

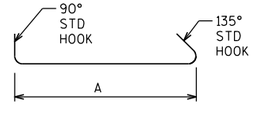
BAR MARK	A
0429	2'-0" TO 3'-10"
0430	2'-0" TO 4'-1"
0431	2'-0" TO 4'-3"
0432	3'-10"
0433	4'-1"
0434	4'-3"
0439	2'-3"

0429, 0430, 0431, 0432, 0433, 0434, 0439

BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
0801	X	6	42'-10"	X		PIER CAP TOP
0802	X	6	41'-11"	X		PIER CAP TOP
0803	X	12	39'-9"			PIER CAP BOTTOM
0804	X	6	42'-7"			PIER CAP TOP
0805	X	6	42'-0"	X		PIER CAP TOP
0806	X	12	39'-9"	X		PIER CAP BOTTOM
0507	X	73	2'-0"			PIER CAP - DOWEL - VERT
0508	X	4	8'-3"	X		PIER CAP STIRRUP
0509	X	220	8'-11"	X		PIER CAP STIRRUP
0410	X	74	3'-5"	X		PIER CAP - TIE
01111	X	10	14'-1"	X		COLUMN 1 - VERT - FTG DOWEL
01112	X	10	14'-1"	X		COLUMN 2 - VERT - FTG DOWEL
01113	X	10	14'-1"	X		COLUMN 3 - VERT FTG DOWEL
01114	X	20	14'-1"	X		COL 4-5 - VERT - FTG DOWEL
01115	X	14	12'-2"	X		COLUMN 1 - VERT - FTG DOWEL
01116	X	56	12'-8"	X		COL 2-5 - VERT - FTG DOWEL
01117	X	10	18'-8"	X		COLUMN 1 - VERT
01118	X	10	19'-7"	X		COLUMN 2 - VERT
01119	X	10	20'-6"	X		COLUMN 3 - VERT
01120	X	20	21'-4"	X		COLUMN 4 & 5 - VERT
01121	X	6	19'-11"	X		COLUMN 1 - VERT - TOP
01122	X	6	20'-9"	X		COLUMN 2 - VERT - TOP
01123	X	6	21'-6"	X		COLUMN 3 - VERT - TOP
01124	X	12	22'-3"	X		COLUMN 4 & 5 - VERT - TOP
01125	X	30	14'-2"	X		COL 1-5 - VERT - FTG DOWEL
0426	X	36	11'-2"	X	△	COLUMN 1 - TIES - MIDDLE
0427	X	20	11'-5"	X	△	COLUMN 2 & 3 - TIES - MIDDLE
0428	X	44	11'-7"	X	△	COLUMN 4 & 5 - TIES - MIDDLE
0429	X	36	3'-11"	X	△	COLUMN 1 - TIES - MIDDLE
0430	X	20	4'-0"	X	△	COLUMN 2 & 3 - TIES - MIDDLE
0431	X	44	4'-1"	X	△	COLUMN 4 & 5 - TIES - MIDDLE
0432	X	26	4'-10"	X		COLUMN 1 - TIES - BOTTOM
0433	X	14	5'-0"	X		COLUMN 2 & 3 - TIES - BOTT
0434	X	26	5'-3"	X		COLUMN 4 & 5 - TIES - BOTT
0435	X	26	13'-0"	X		COLUMN 1 - TIES - BOTTOM
0436	X	14	13'-6"	X		COLUMN 2 & 3 - TIES - BOTT
0437	X	26	13'-10"	X		COLUMN 4 & 5 - TIES - BOTT
0438	X	66	7'-10"			COLUMN - TIES
0439	X	15	3'-3"	X		COLUMN - TIES - TOP
0440	X	15	9'-4"			COLUMN - TIES - TOP
0441	X	30	6'-3"	X		COLUMN - TIES - TOP
0542	X	50	10'-1"	X		COLUMN - VERT - TOP
0543		100	8'-6"			FOOTING - TOP
0744		55	8'-6"			FOOTING - BOTTOM
0945		70	8'-6"			FOOTING - BOTTOM
0546	X	4	45'-0"			PIER CAP - HORIZ - SIDES
0547	X	4	33'-2"	X		PIER CAP - HORIZ - SIDES
0548	X	8	8'-4"	X		PIER CAP - HORIZ - ENDS

△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION (SEE BAR SERIES TABLE FOR ACTUAL LENGTH)



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-40-803

DRAWN BY JBA | PLANS CK'D. KES

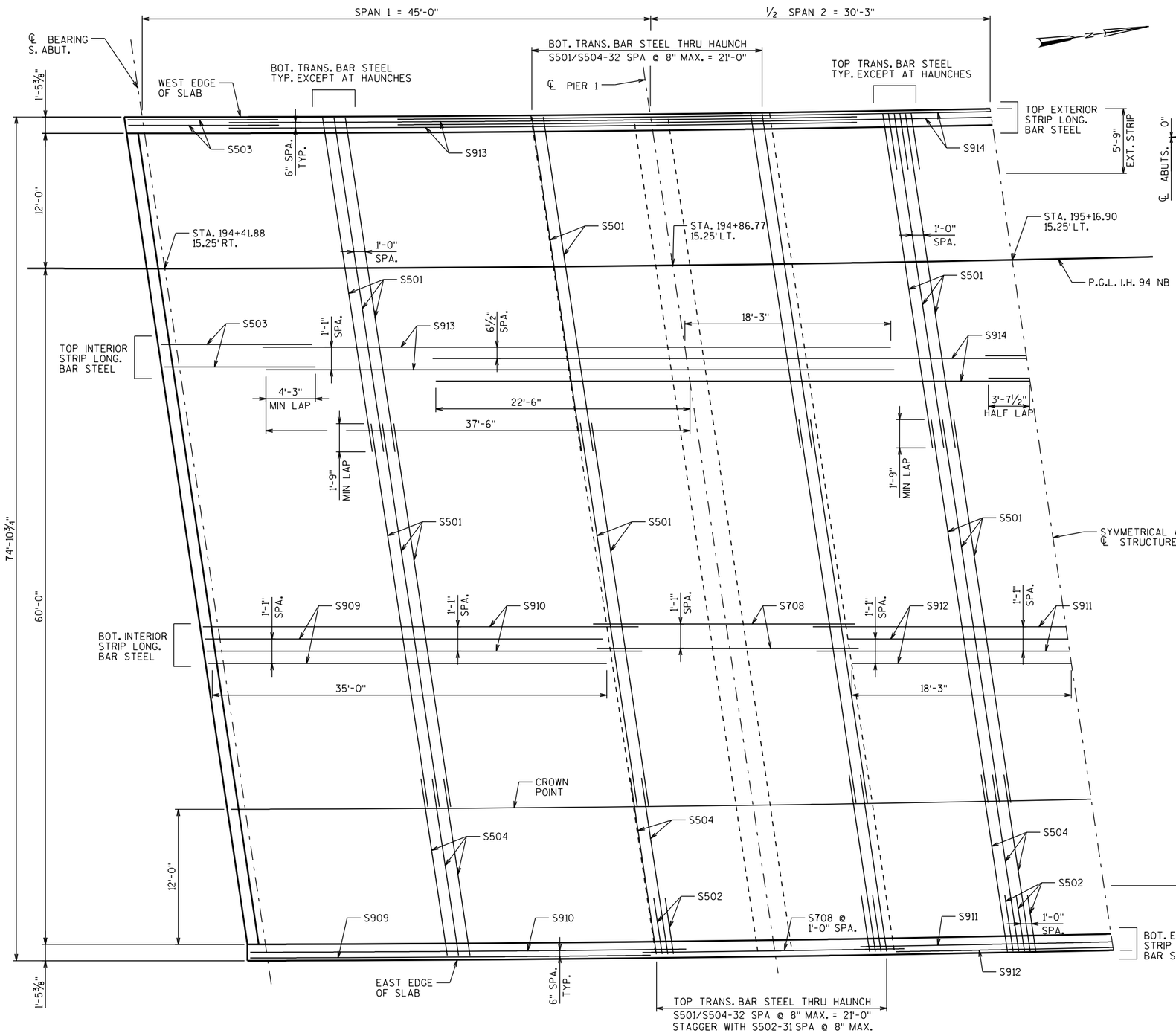
PIER 2
DETAILS (2 OF 2)

SHEET 15 OF 25

8

8

STATE PROJECT NUMBER
1030-20-87



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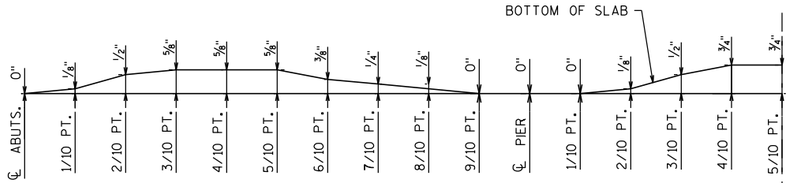

CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEADLOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT

SYMMETRICAL ABOUT ℄ OF STRUCTURE

TOP OF DECK ELEVATIONS AT FINAL GRADE

LOCATION	C/L BRG. S. ABUT.	SPAN 1								
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
EAST SLAB EDGE	732.12	732.11	732.10	732.09	732.08	732.07	732.06	732.05	732.04	732.02
CROWN POINT	732.52	732.51	732.51	732.50	732.48	732.47	732.46	732.45	732.44	732.42
WEST SLAB EDGE	729.72	729.71	729.70	729.69	729.68	729.67	729.66	729.65	729.64	729.63

C/L PIER 1	SPAN 2								
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
732.01	731.99	731.97	731.95	731.92	731.90	731.88	731.85	731.82	731.80
732.41	732.39	732.37	732.35	732.33	732.30	732.28	732.25	732.23	732.20
729.62	729.60	729.58	729.56	729.54	729.51	729.49	729.47	729.44	729.41

C/L PIER 2	SPAN 3									C/L BRG. N. ABUT.
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
731.77	731.74	731.72	731.70	731.67	731.65	731.63	731.60	731.57	731.55	731.52
732.17	732.15	732.13	732.10	732.08	732.05	732.03	732.00	731.98	731.95	731.93
729.38	729.36	729.34	729.32	729.30	729.27	729.25	729.22	729.20	729.17	729.14

NOTES

AT A GIVEN SPAN POINT: TOP OF FORM ELEVATION = TOP OF DECK ELEVATION AT FINAL GRADE - SLAB THICKNESS (AT STATION) + CAMBER (UPWARD IS ADDED; DOWNWARD IS SUBTRACTED)

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STATE OF WISCONSIN
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STRUCTURE B-40-803

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SUPERSTRUCTURE

SHEET 16 OF 25

8

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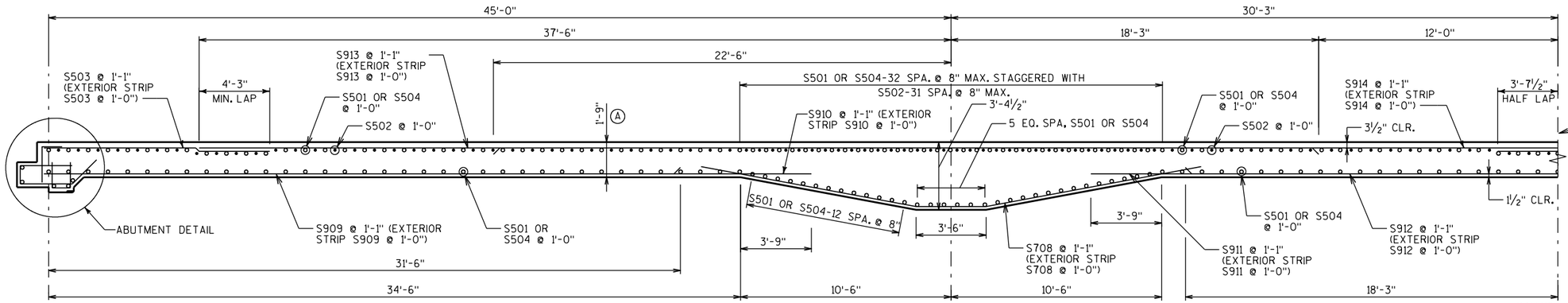
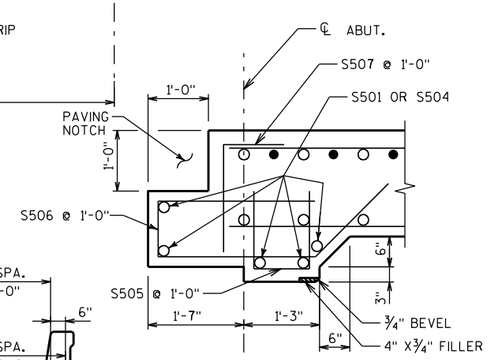
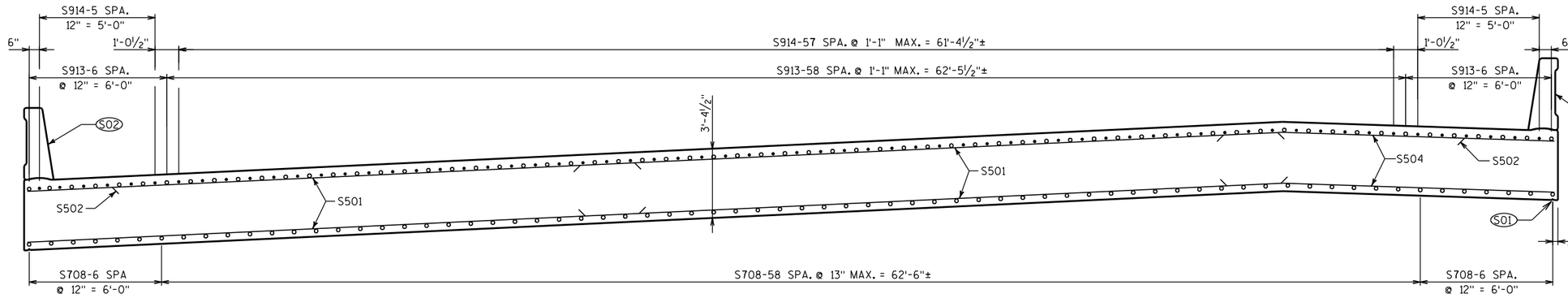
STATE PROJECT NUMBER
1030-20-87



LONGITUDINAL SECTION THRU ROADWAY



ABUTMENT DETAIL



CROSS SECTION THRU SUPERSTRUCTURE

THRU HAUNCH - BOTH PIERS

NOTES

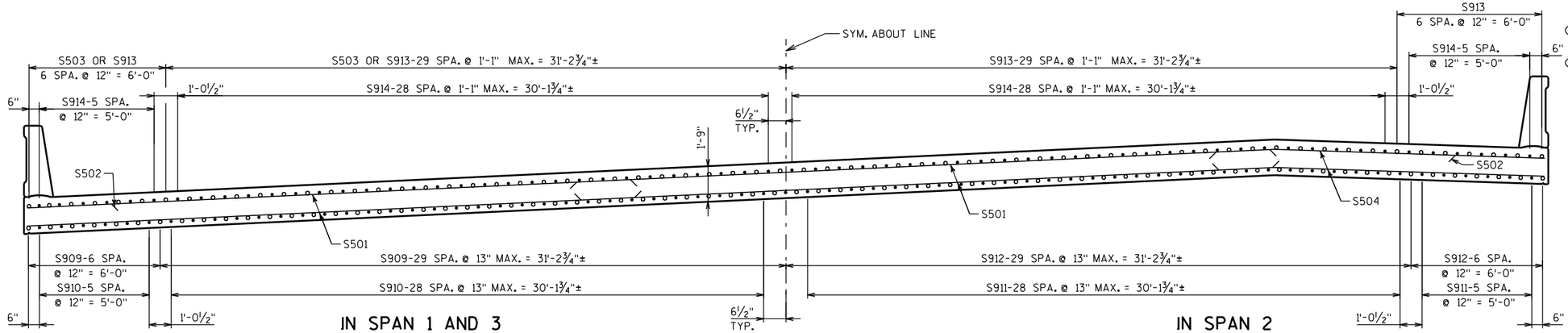
A SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

TOP TRANS. BARS IN THE SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS EACH WAY. BOTTOM LONG. BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

S01 ¾" CONTINUOUS DRIP GROOVE TO END 2'-0" AWAY FROM FACE OF ABUTMENT.

S02 PARAPETS SHALL BE PLACED AFTER FALSEWORK HAS BEEN RELEASED.



IN SPAN 1 AND 3

CROSS SECTION THRU SUPERSTRUCTURE

IN SPAN

IN SPAN 2

(AT ℄ STRUCTURE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

DRAWN BY JBA | PLANS CK'D. KES

SUPERSTRUCTURE DETAILS

SHEET 17 OF 25

8

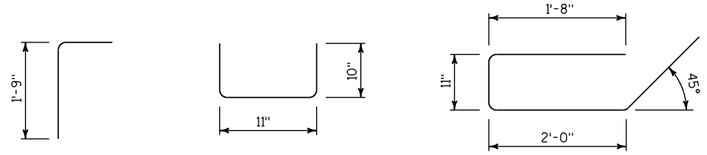
8

STATE PROJECT NUMBER
1030-20-87

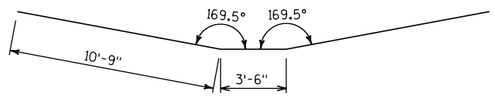
BILL OF BARS

	BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	LOCATION
	S501	X	716	30'-0"		SLAB TRANS. TOP & BOT.
	S502	X	348	4'-9"		SLAB TRANS. TOP
	S503	X	142	11'-7"		SLAB LONGIT. TOP SPANS 1 & 3
	S504	X	358	19'-8"		SLAB TRANS. TOP & BOT.
	S505	X	152	2'-4"	X	ABUT. DIAPH.
	S506	X	152	6'-1"	X	ABUT. DIAPH.
	S507	X	152	3'-2"	X	ABUT. DIAPH.
	S708	X	142	25'-0"	X	HAUNCH LONGIT. BOT.
	S909	X	142	35'-0"		SLAB LONGIT. BOT. SPANS 1 & 3
	S910	X	140	38'-7"		SLAB LONGIT. BOT. SPANS 1 & 3
	S911	X	70	47'-0"		SLAB LONGIT. BOT. SPAN 2
	S912	X	71	36'-6"		SLAB LONGIT. BOT. SPAN 2
	S913	X	142	55'-9"		SLAB LONGIT. TOP
	S914	X	140	56'-5"		SLAB LONGIT. TOP
*	S515	X	460	6'-10"	X	SLAB/PARAPET TRANS.

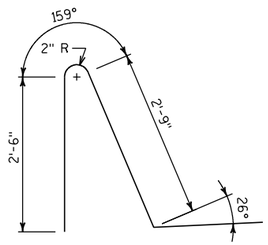
* SEE SHEETS 19 AND 20 FOR LOCATION AND LAYOUT OF S515 BAR.



S507 S505 S506



S708



S515

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

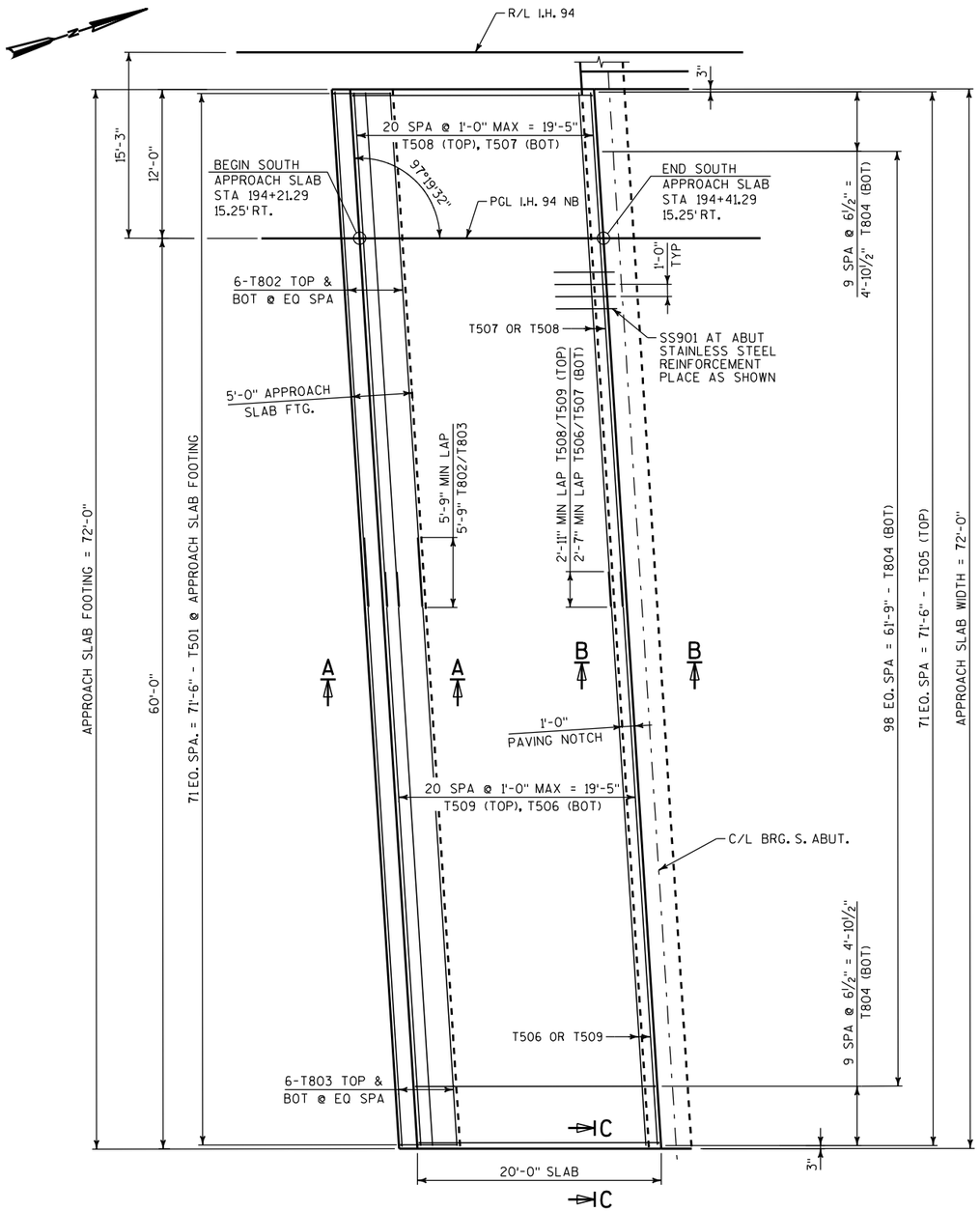
STRUCTURE B-40-803

DRAWN BY JBA | PLANS CK'D. KES

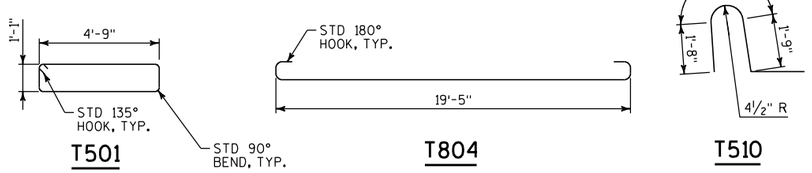
SUPERSTRUCTURE
BILL OF BARS

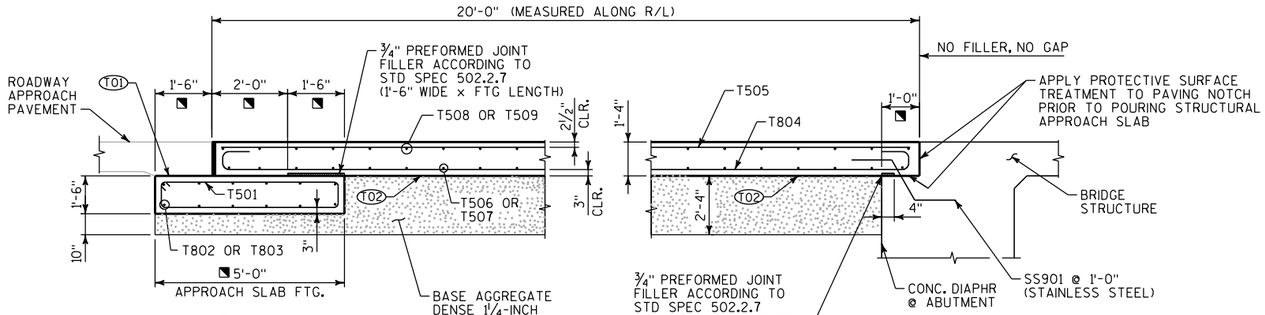
SHEET 18 OF 25

STATE PROJECT NUMBER
1030-20-87



APPROACH SLAB PLAN



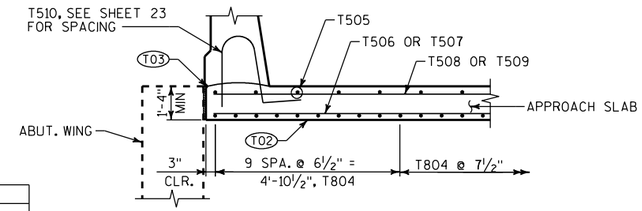


SECTION A-A

SECTION B-B

SECTION THRU APPROACH SLAB

MEASURED NORMAL TO ABUTMENT ◩



SECTION C-C

ELEVATIONS

FEATURE	SOUTH APPROACH					
	BEGIN			END		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
TOE OF EAST BARRIER	99EW+14.32	-88.02	750.91	99EW+34.32	-88.01	751.05
CROWN	99EW+17.36	-40.02	751.89	99EW+37.36	-40.01	752.03
WB LAYOUT LINE	99EW+18.12	-28.02	751.66	99EW+38.12	-28.01	751.80
TOE OF WEST BARRIER	99EW+19.64	-4.02	751.19	99EW+39.64	-4.01	751.33

APPROACH SLAB NOTES

THE APPROACH SLAB SHALL HAVE LONGITUDINAL GROOVING, SEE SPECIAL PROVISIONS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE APPROACH SLAB AND AREAS OUTLINED IN THE SECTION THRU APPROACH SLAB.

POLYETHYLENE SHEETS SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

LEGEND

(T01) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T02) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE.

(T03) ½" PREFORMED JOINT FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

BILL OF BARS

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

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	LOCATION
T501	X	87	12'-3"	X	APPROACH SLAB FTG. - STIRRUP
T802	X	12	42'-3"		APPROACH SLAB FTG. - TRANS
T803	X	12	50'-0"		APPROACH SLAB FTG. - TRANS
T804	X	142	21'-3"	X	APPROACH SLAB - LONG. - BOT
T505	X	88	19'-5"		APPROACH SLAB - LONG. - TOP
T506	X	21	47'-2"		APPROACH SLAB - TRANS. - BOT
T507	X	21	42'-3"		APPROACH SLAB - TRANS. - BOT
T508	X	21	42'-3"		APPROACH SLAB - TRANS. - TOP
T509	X	21	47'-2"		APPROACH SLAB - TRANS. - TOP
T510	X	60	5'-5"	X	APPROACH SLAB - PARAPET DOWEL

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STRUCTURE B-40-803

DRAWN BY TEK | PLANS CK'D. KES

SOUTH STRUCTURAL APPROACH SLAB

SHEET 19 OF 25

8

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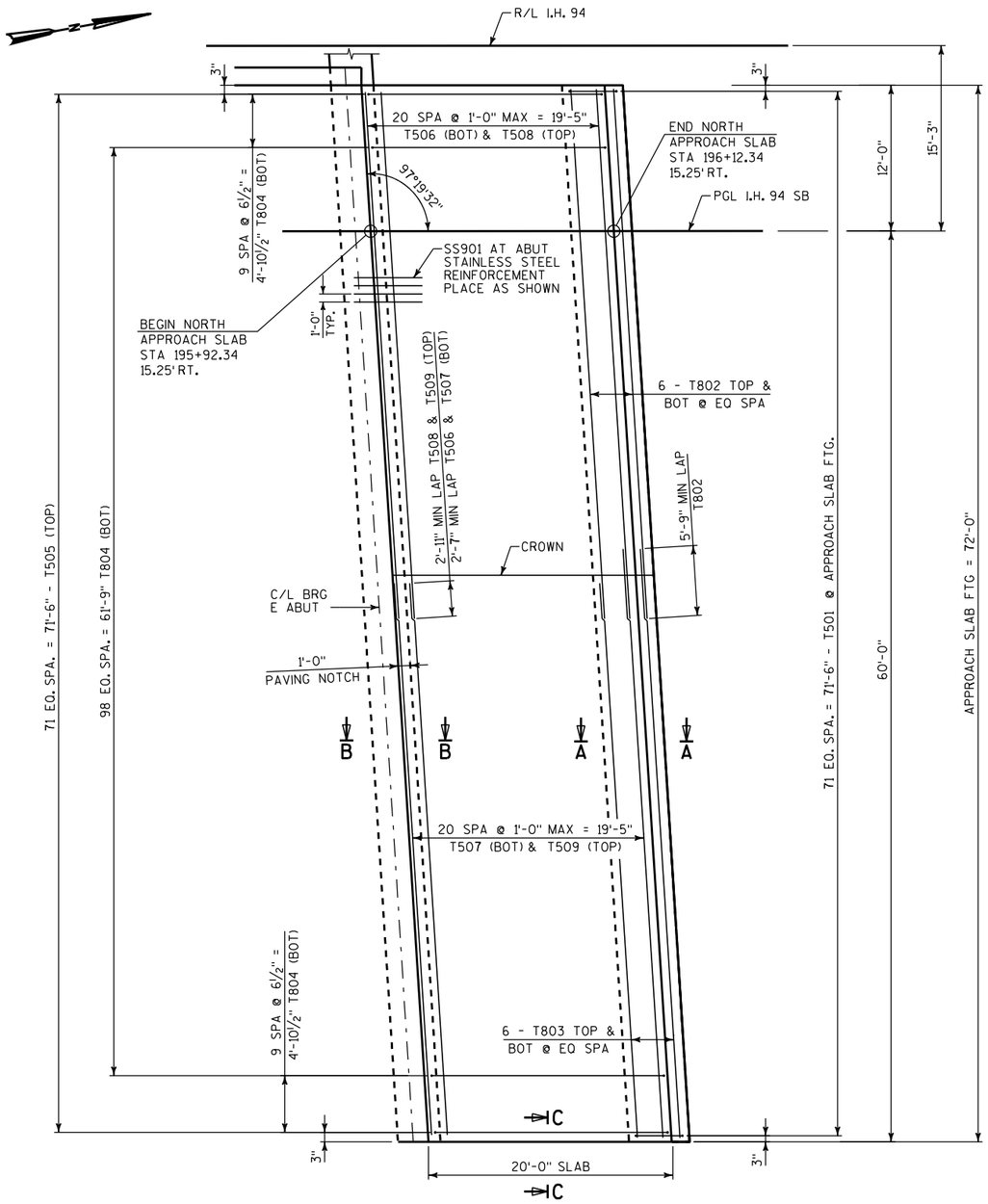
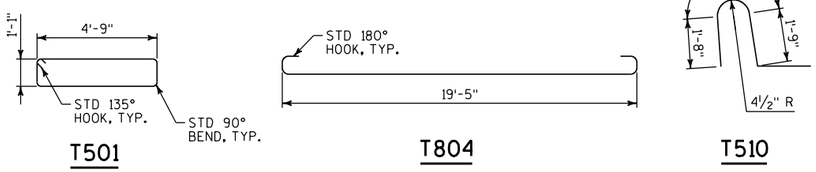
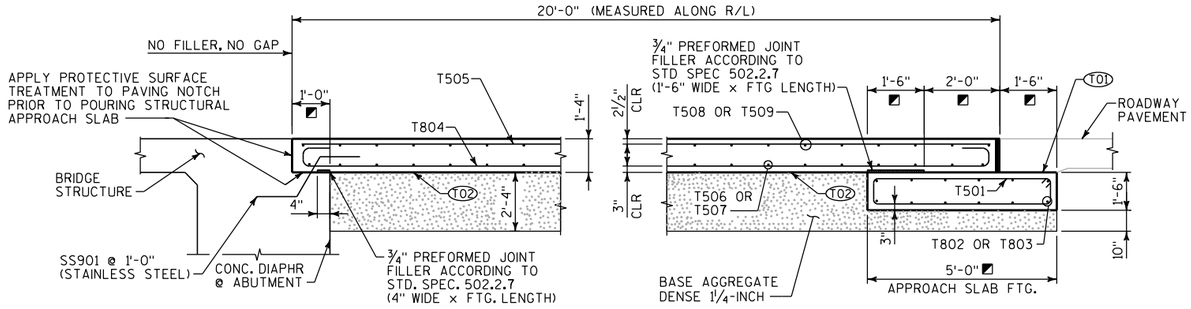
FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080504_ss.dgn PLOT DATE : 24-OCT-2017 10:54 PLOT BY : mscekm PLOT NAME : B803_080504_ss PLOT SCALE : 12:1

STATE PROJECT NUMBER
1030-20-87



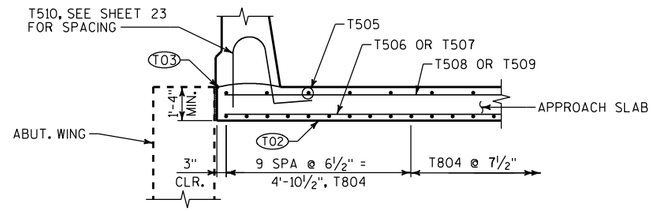
APPROACH SLAB PLAN





SECTION THRU APPROACH SLAB

▨ MEASURED NORMAL TO ABUTMENT



SECTION C-C

ELEVATIONS

FEATURE	NORTH APPROACH				
	OFFSET	BEGIN		END	
		STATION	ELEV	STATION	ELEV
TOE OF EAST BARRIER	-88.00	102EW+10.82	752.09	102EW+30.82	752.10
CROWN	-40.00	102EW+13.86	753.05	102EW+33.86	753.06
SB PGL	-28.00	102EW+14.62	752.81	102EW+34.62	752.82
TOE OF WEST BARRIER	-4.00	102EW+16.14	752.33	102EW+36.14	752.34

BILL OF BARS

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

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T802	X	12	42'-3"		APPROACH SLAB FTG. - TRANS
T803	X	12	50'-0"		APPROACH SLAB FTG. - TRANS
T804	X	142	21'-3"	X	APPROACH SLAB - LONG. - BOT
T505	X	88	19'-5"		APPROACH SLAB - LONG. - TOP
T506	X	21	47'-2"		APPROACH SLAB - TRANS. - BOT
T507	X	21	42'-3"		APPROACH SLAB - TRANS. - BOT
T508	X	21	42'-3"		APPROACH SLAB - TRANS. - TOP
T509	X	21	47'-2"		APPROACH SLAB - TRANS. - TOP
T510	X	60	5'-5"	X	APPROACH SLAB - PARAPET DOWEL

APPROACH SLAB NOTES

THE APPROACH SLAB SHALL HAVE LONGITUDINAL GROOVING, SEE SPECIAL PROVISIONS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE APPROACH SLAB AND AREAS OUTLINED IN THE SECTION THRU APPROACH SLAB.

POLYETHYLENE SHEETS SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

LEGEND

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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NORTH STRUCTURAL APPROACH SLAB

SHEET 20 OF 25

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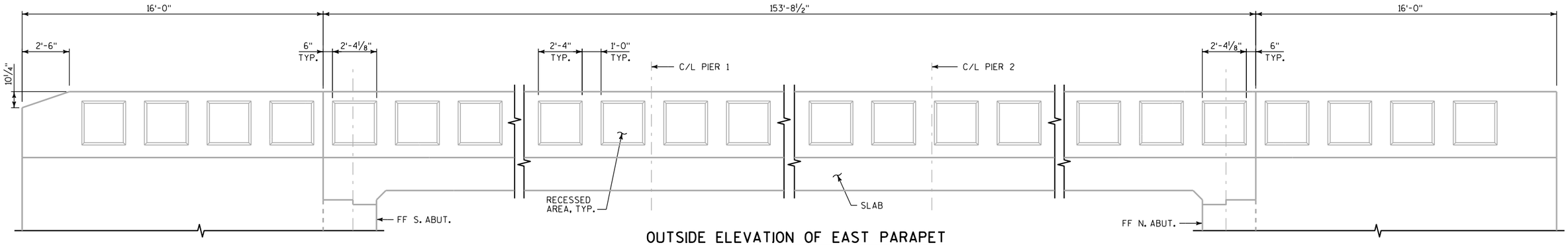
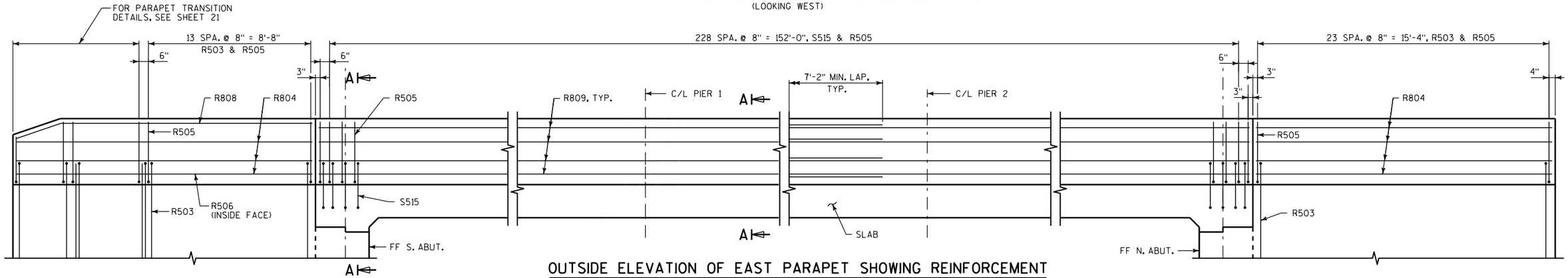
FILE NAME : S:\FinalDesign\MIL\10302087_E\Structs\B-40-803\cds\B803_080505_ss.dgn PLOT DATE : 24-OCT-2017 10:54 PLOT BY : mscekm PLOT NAME : B803_080505_ss PLOT SCALE : 12:1

STATE PROJECT NUMBER
1030-20-87



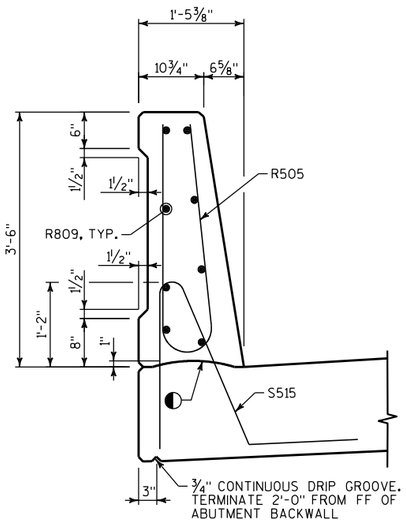
OUTSIDE ELEVATION OF EAST PARAPET

DIMENSIONS MEASURED ALONG OUTSIDE EDGE OF DECK / OUTSIDE FACE OF PARAPET
(LOOKING WEST)



OUTSIDE ELEVATION OF EAST PARAPET SHOWING REINFORCEMENT

DIMENSIONS MEASURED ALONG OUTSIDE EDGE OF DECK / OUTSIDE FACE OF PARAPET
(LOOKING WEST)



SECTION A

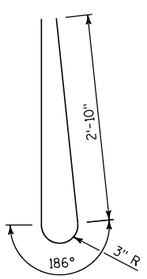
◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN

BILL OF BARS

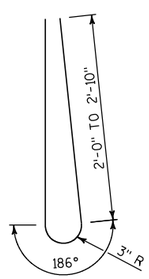
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	14	4'-7"	X		PARAPET VERT.
R502	X	8	2'-4"	X		PARAPET VERT.
R503	X	38	4'-7"	X		PARAPET VERT.
R804	X	13	15'-8"			PARAPET HORIZ.
R505	X	276	6'-6"	X		PARAPET VERT.
R506	X	1	15'-8"	X	△	PARAPET HORIZ.
R507	X	6	5'-8"	X		PARAPET VERT.
R808	X	2	15'-7"	X		PARAPET HORIZ.
R809	X	24	55'-9"			PARAPET HORIZ.

△ LENGTH SHOWN FOR BAR IS AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATION. (SEE BAR SERIES TABLE FOR ACTUAL LENGTH)



R505



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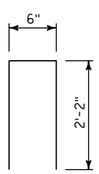

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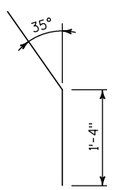

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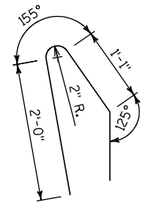

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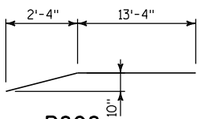
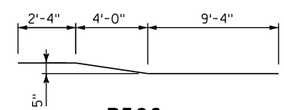


R808



R506

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
R507	1 SERIES OF 6	4'-10" TO 6'-6"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

DRAWN BY JBA | PLANS CK'D. KES

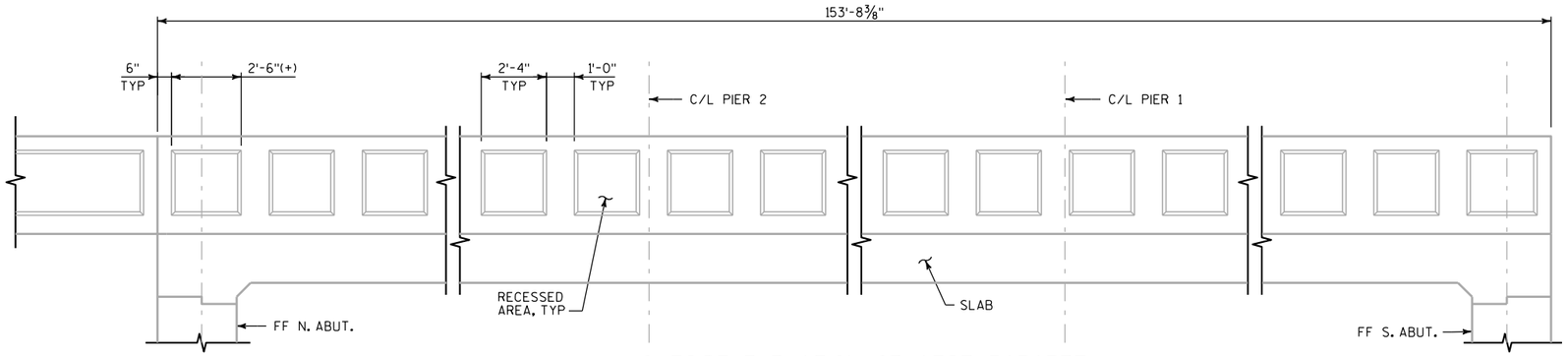
SLOPED FACE PARAPET 42SS MODIFIED (1 OF 3)

SHEET 21 OF 25

8

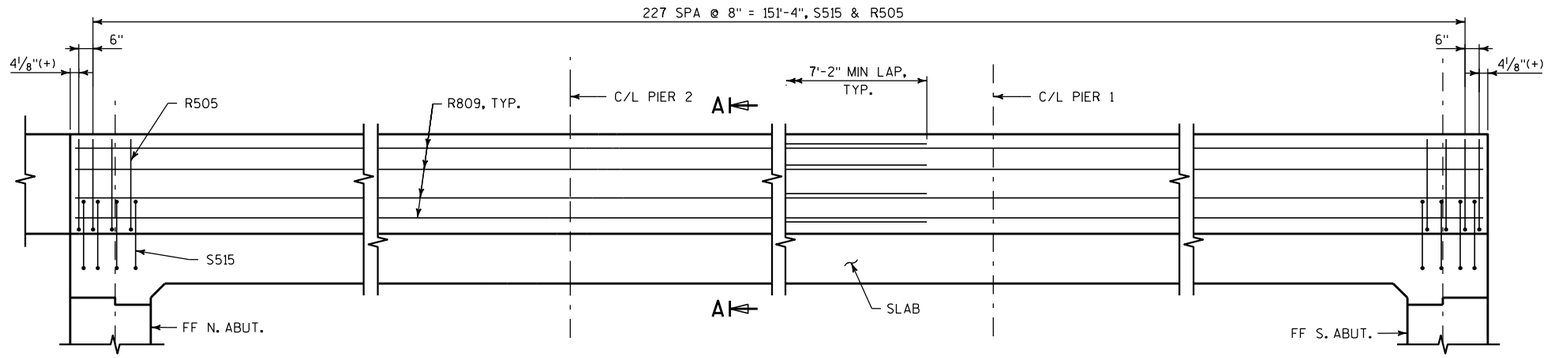
8

STATE PROJECT NUMBER
1030-20-87



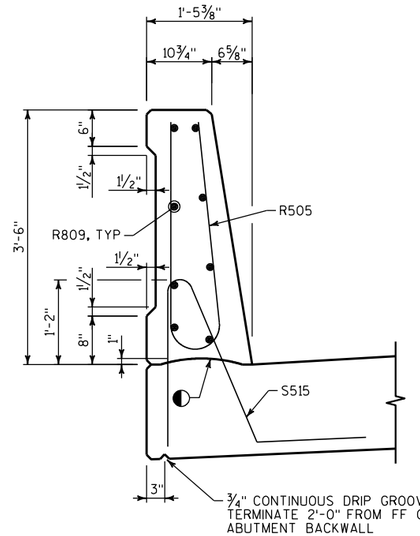
OUTSIDE ELEVATION OF WEST PARAPET

DIMENSIONS MEASURED ALONG OUTSIDE EDGE OF DECK / OUTSIDE FACE OF PARAPET
(LOOKING EAST)



OUTSIDE ELEVATION OF WEST PARAPET SHOWING REINFORCEMENT

DIMENSIONS MEASURED ALONG OUTSIDE EDGE OF DECK / OUTSIDE FACE OF PARAPET
(LOOKING EAST)



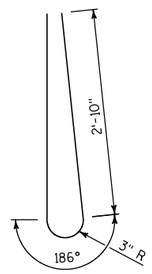
SECTION A

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN

BILL OF BARS

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

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
R505	X	230	6'-6"	X	PARAPET VERT.
R809	X	24	55'-9"		PARAPET HORIZ.



R505

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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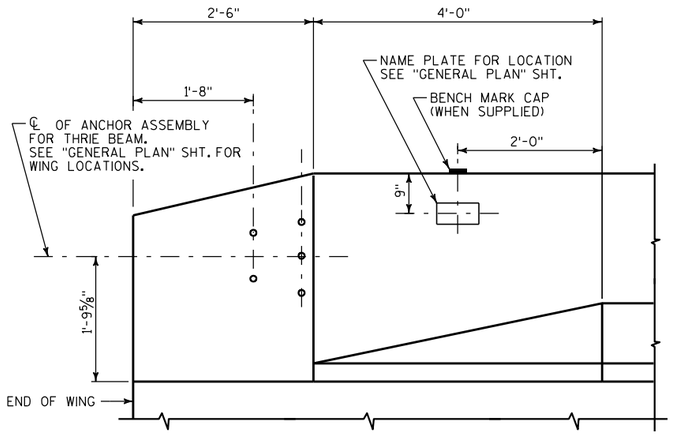
SLOPED FACE PARAPET 42SS MODIFIED (2 OF 3)

SHEET 22 OF 25

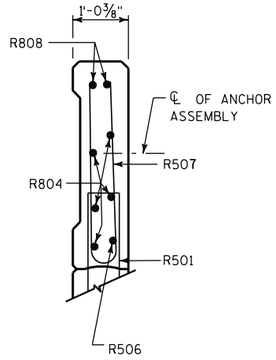
8

8

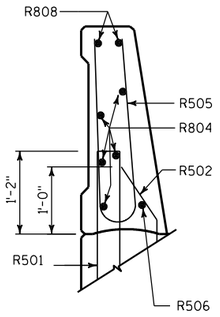
STATE PROJECT NUMBER
1030-20-87



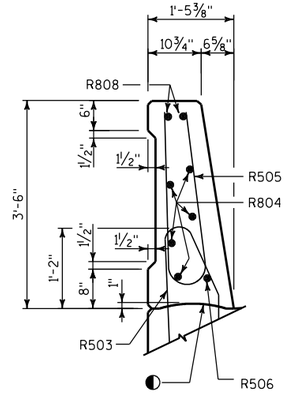
INSIDE ELEVATION



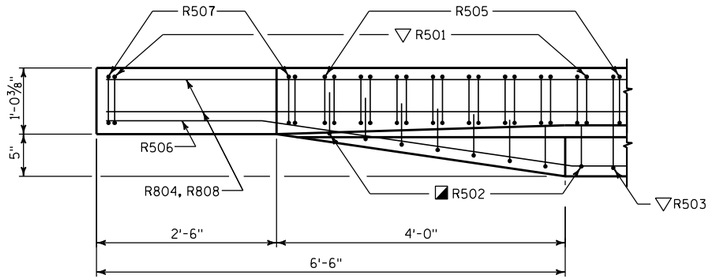
SECTION A



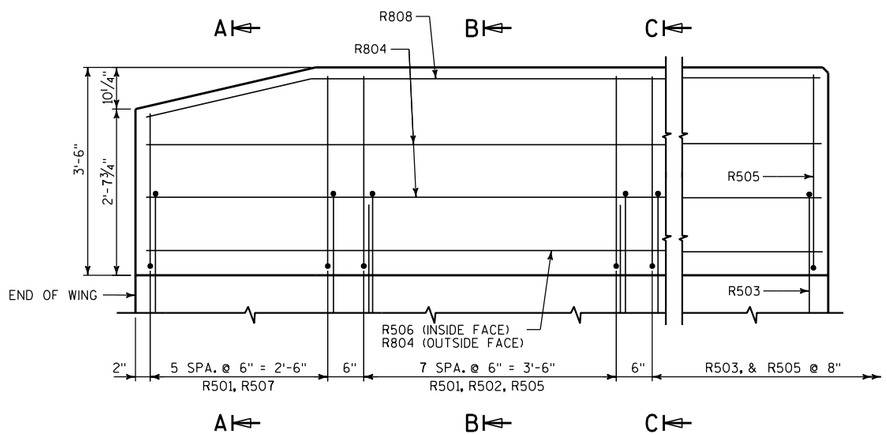
SECTION B



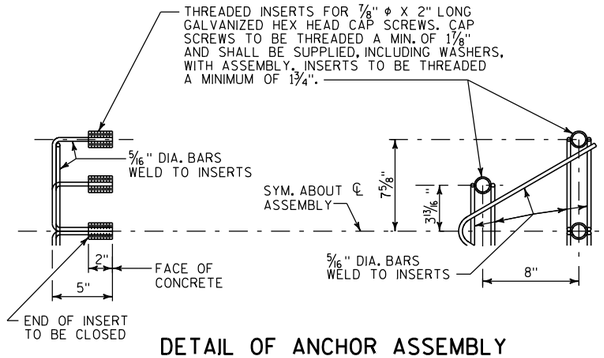
SECTION C



PLAN



OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

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

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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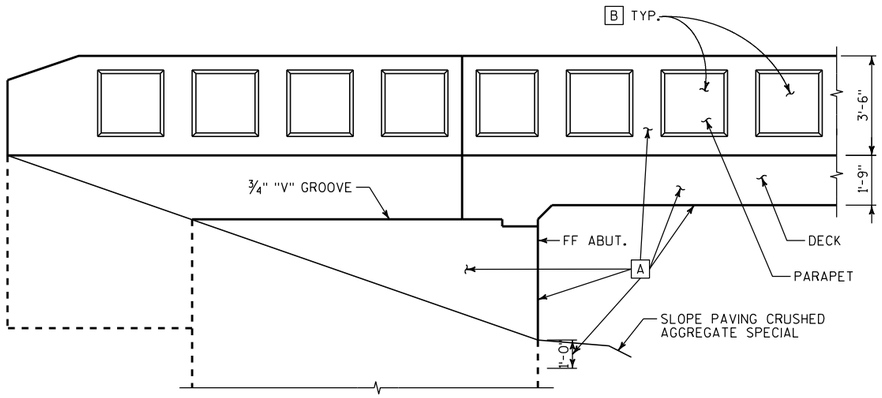
SLOPED FACE PARAPET 42SS MODIFIED (3 OF 3)

SHEET 23 OF 25

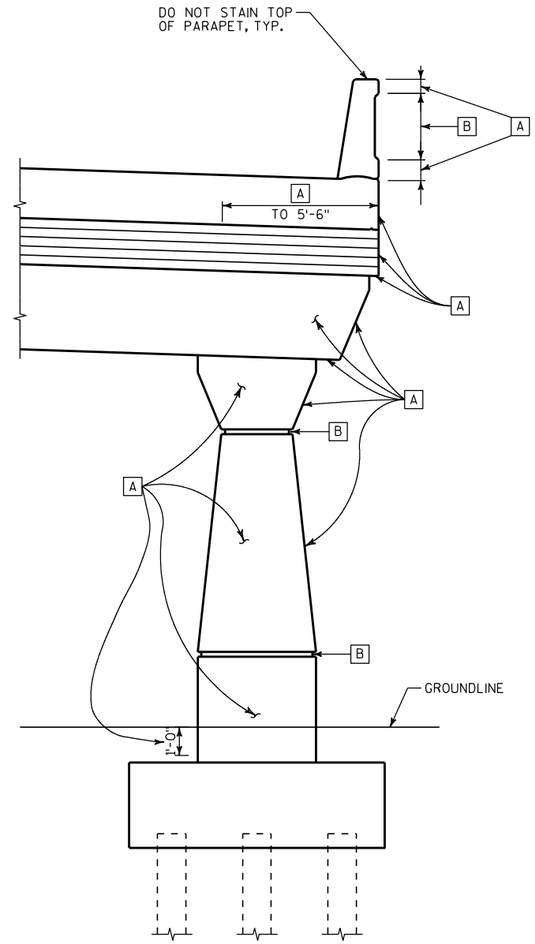
8

8

STATE PROJECT NUMBER
1030-20-87



OUTSIDE ELEVATION OF PARAPET



ELEVATION OF PIER

LOOKING NORTH

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	PARAPETS	EXTERIOR, EXCEPT AS NOTED FOR ACCENT COLORS, DO NOT STAIN TOP OR FRONT
		DECK	FASCIA & EXTERIOR 5'-6" OF EXPOSED UNDERSIDE
		ABUTMENT	WINGWALLS, ENDS, AND FRONT FACE FROM SLAB TO 1'-0" BELOW FINAL GRADE
		PIERS	PIER CAP & COLUMNS, EXCEPT AS NOTED FOR ACCENT COLORS, FROM BEAM SEAT TO 1'-0" BELOW FINAL GRADE
B	ACCENT COLOR #1	PARAPETS	RECESSED PANELS
		COLUMNS	HORIZONTAL RUSTICATIONS

SEE SPECIAL PROVISIONS FOR STAIN COLORS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

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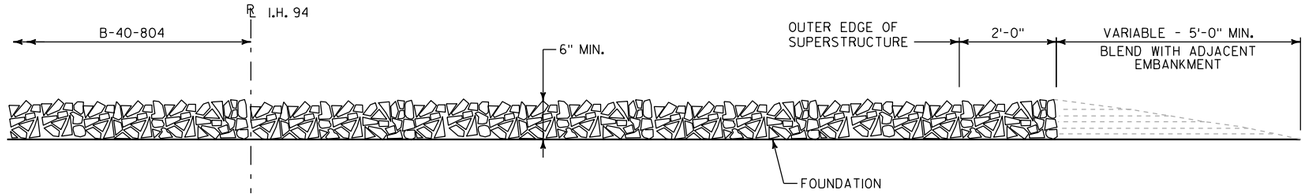
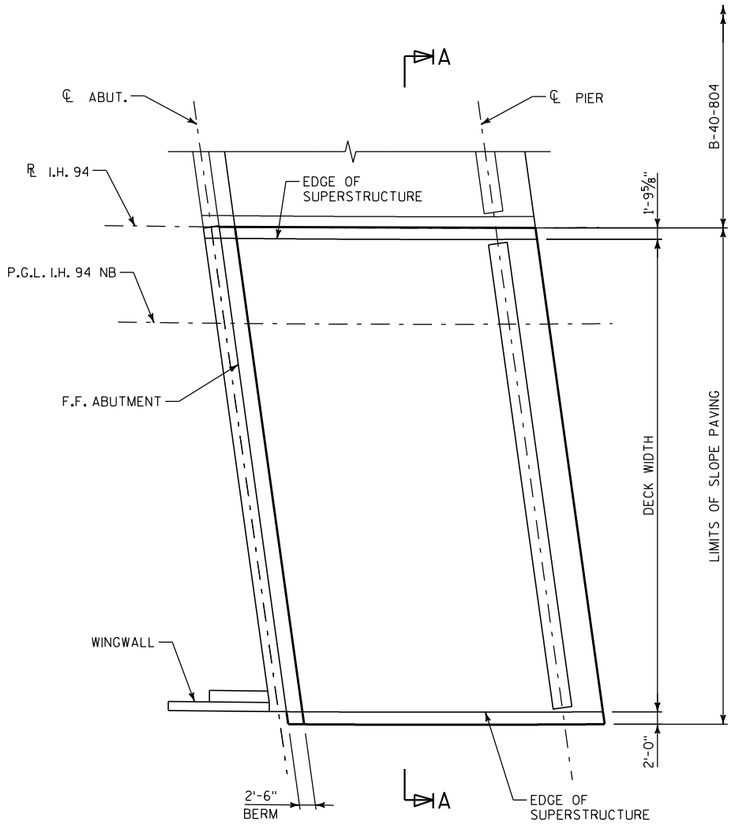
AESTHETIC DETAIL

SHEET 24 OF 25

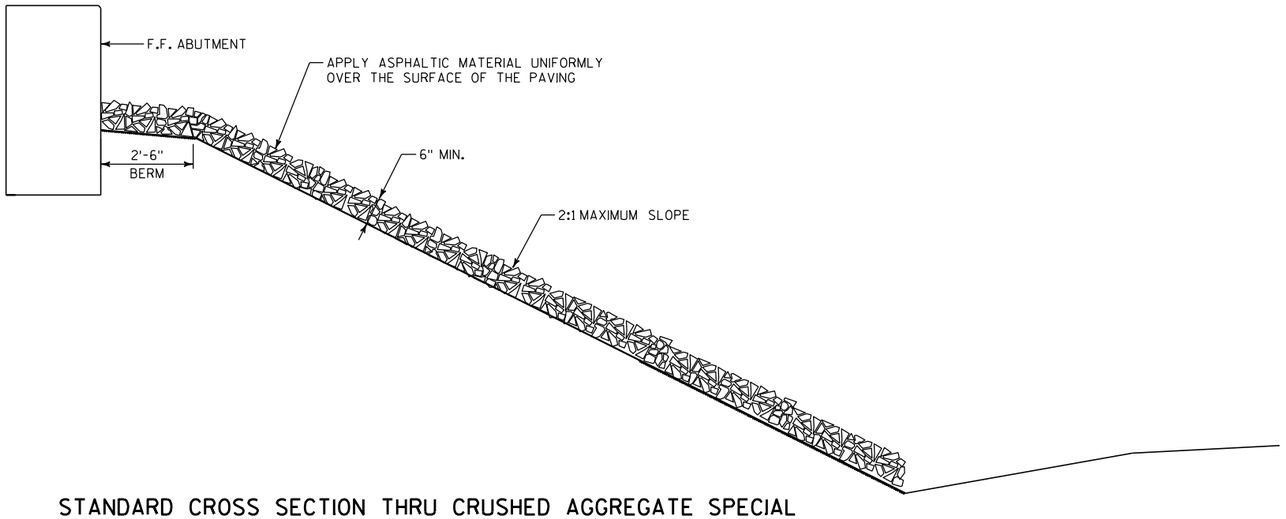
STATE PROJECT NUMBER
1030-20-87



SECTION A-A



PLAN



STANDARD CROSS SECTION THRU CRUSHED AGGREGATE SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-803

DRAWN BY DGS | PLANS CK'D. KES

SLOPE PAVING DETAILS

SHEET 25 OF 25