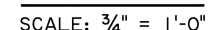
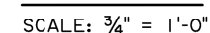
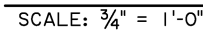
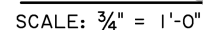


* ADD 63 LBS. OF REINFORCING STEEL (21-601 DOWELS) WHEN TWO FIXED ENDS OCCUR ON THE SAME BENT.

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.750	_____
HL-93 (OPR)	2.268	_____
LADY-11 (INV)	1.346	MAGNIFICATION FACTOR = 1.3



NOTES:
CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.
DESIGN LOAD: LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS AI.
EXPOSED EDGES SHALL HAVE A $\frac{3}{4}$ " CHAMFER UNLESS OTHERWISE NOTED.
ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A
SURFACE FINISH AS PER SUBSECTION 805.08 OF THE STANDARD
SPECIFICATIONS, EXCEPT WHEN SPECIFIED ELSEWHERE IN THE PLANS.

REINFORCING STEEL: ALL REINFORCING SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE NOTED. DOWELS (60I BARS) SHALL BE PROVIDED AT ALL FIXED BEARINGS AND APPROACH SLAB BEARINGS (SEE GENERAL PLAN). ALL EXPOSED ENDS OF DOWELS SHALL BE WRAPPED WITH TWO LAYERS OF 15 LB. ASPHALT SATURATED FELT. CLOSE FITTING TUBES OF COMPRESSIBLE MATERIAL NOT LESS THAN $\frac{3}{16}$ " THICK MAY BE SUBSTITUTED.



PRECAST CONCRETE PILES: FOR DETAILS SEE STANDARD DETAIL BD.2.5.1.0.01 (CS-216). EXTERIOR PILES ARE TO BE BATTERED OUTWARD AT 1½ ON 12 IN THE LONGITUDINAL DIRECTION OF THE BENT, WHEN NOTED ON THE GENERAL PLAN.

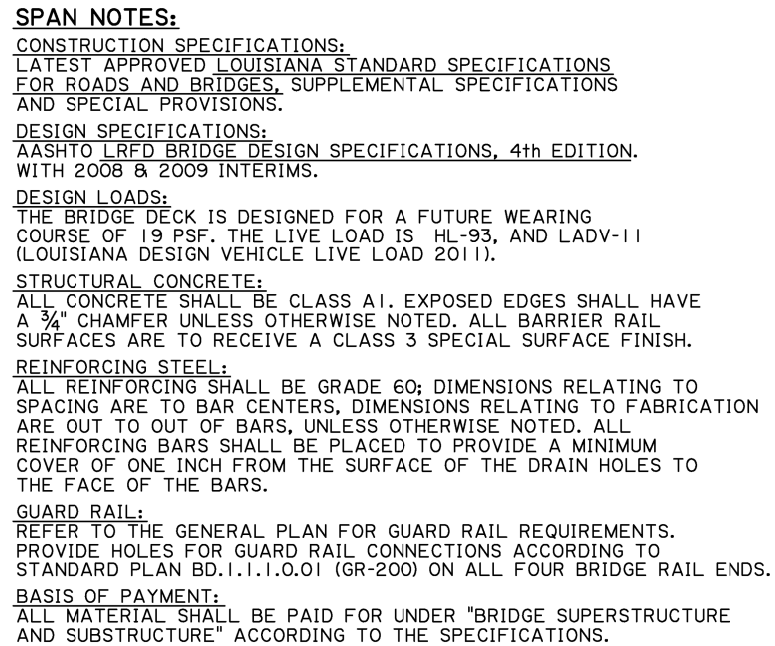
BASIS OF PAYMENT: ALL MATERIALS SHALL BE PAID FOR UNDER "BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE" ACCORDING TO THE SPECIFICATIONS.

PREFORMED JOINT MATERIAL: PREFORMED JOINT MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 815.04 OF THE STANDARD SPECIFICATIONS.

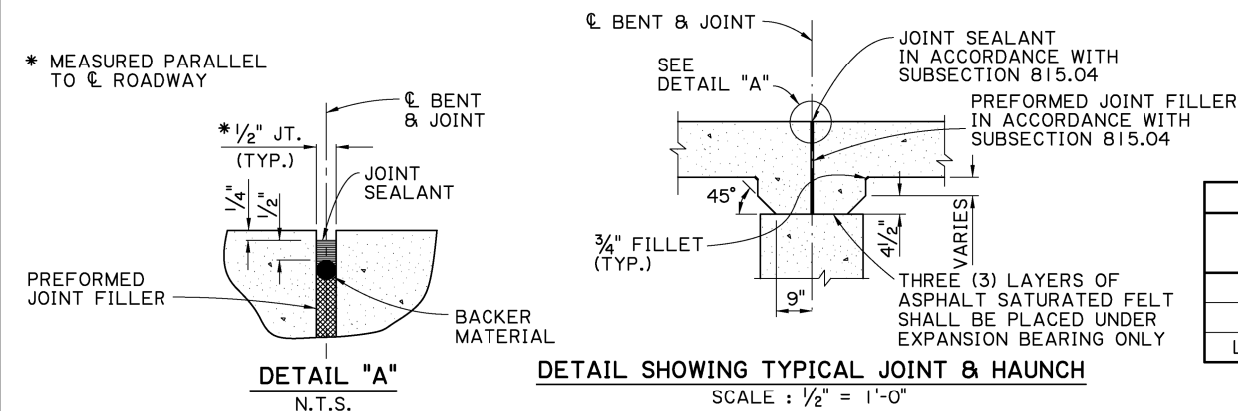
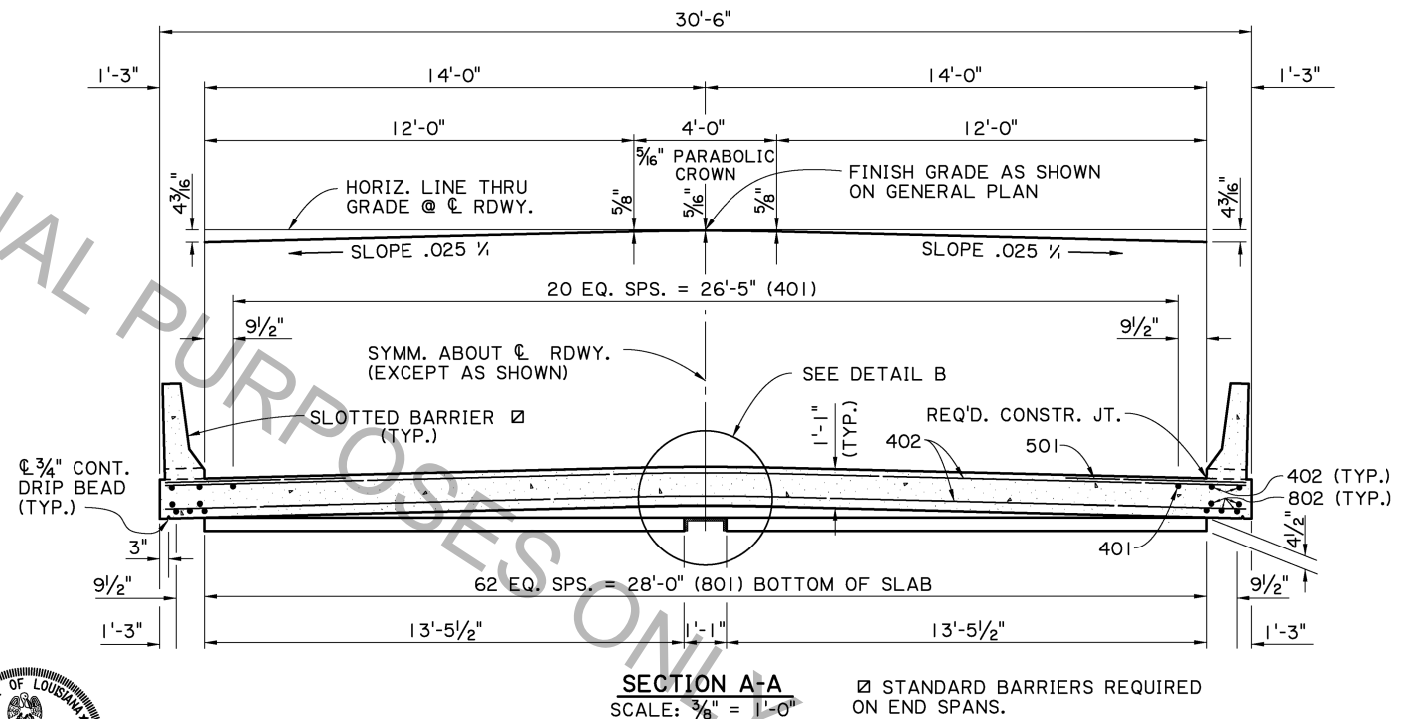
ESTIMATED QUANTITIES (ONE END BENT)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
802	6	8'-1"	64'-8"	LONGIT. IN CAP
803	4	34'-5"	137'-8"	LONGIT. IN CAP
804	2	34'-6"	69'-0"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 271'-4" = 724 LBS.				
601	21	2'-0"	42'-0"	DOWELS
TOTAL NO. 6 BARS = 42'-0" = 63 LBS.				
502	2	34'-5"	68'-10"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 68'-10" = 72 LBS.				
401	46	8'-2"	375'-8"	STIRRUPS IN CAP
402	4	3'-5"	13'-8"	STIRRUPS IN RISER
403	2	2'-3"	4'-6"	LONGIT. IN RISER
404	8	8'-9"	70'-0"	STIRRUPS IN WINGWALL
405	8	2'-10"	22'-8"	LONGIT. IN WINGWALL
406	12	4'-0"	48'-0"	LONGIT. IN WINGWALL
TOTAL NO. 4 BARS = 534'-6" = 357 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1216 LBS.				
CLASS A1 CONCRETE = 6.63 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 22 TONS				
SERVICE LIVE LOAD = 30 TONS				
FACTORED TOTAL LOAD = 72 TONS				

Ø 16" Ø PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" Ø PPC PILES ARE USED.)

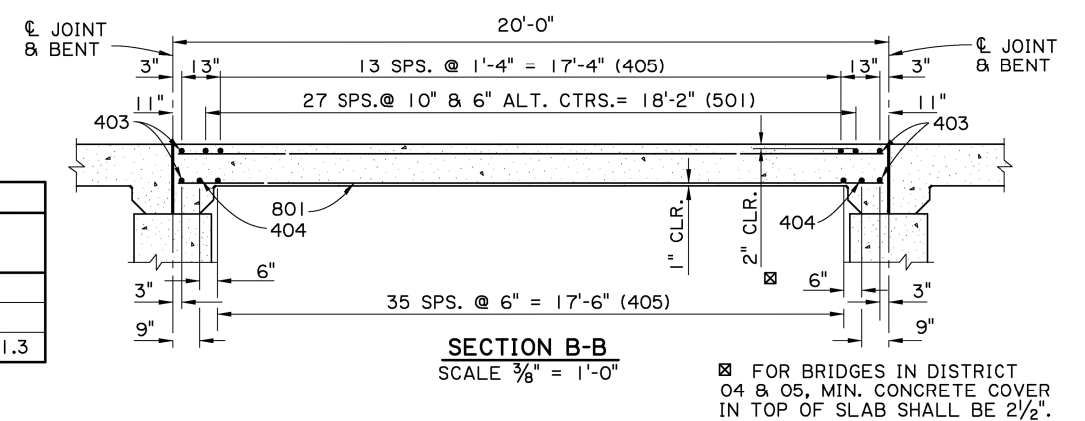
 DOTD BRIDGE DESIGN	BENTS REINFORCED CONCRETE PILE BENTS 28'-0" CLEAR ROADWAY 60' CROSSING TWO WAY TANGENT												DESIGNED CHECKED	J. NAKHLEH K. WASCOM	PARISH		SHEET NUMBER
													DETAILED CHECKED	D. HYMEL J. NAKHLEH	CONTROL SECTION		
													REVIEWED	05/17/17	STATE PROJECT		
													SERIES #	1 OF 11			
STANDARD SECTION		PSS-60-2B-20SL	REFUSION OR CHANGE ORDER DESCRIPTION		RY		NO.		DATE								

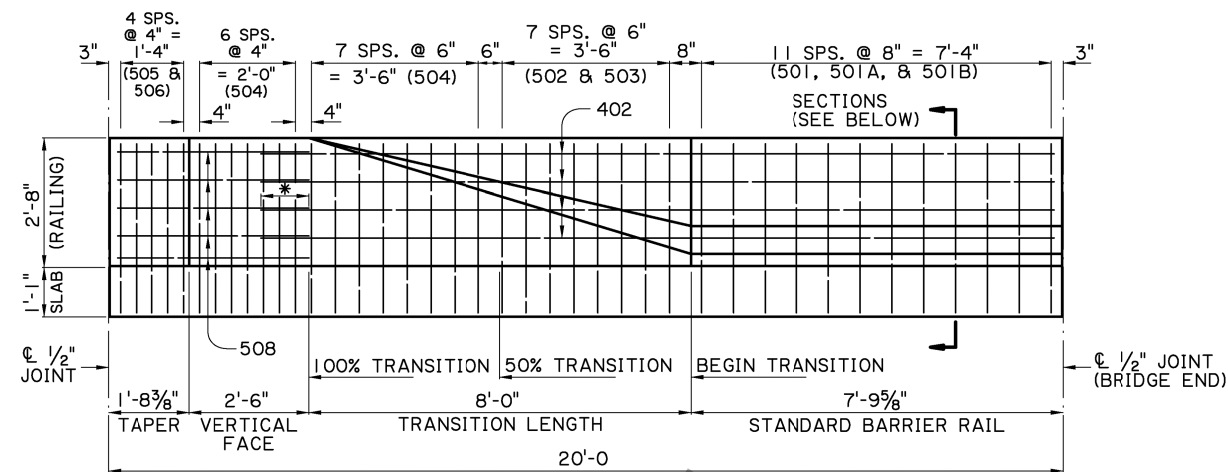


ESTIMATED QUANTITIES (ONE SPAN)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	63	19'-6"	1228'-6"	LONGIT. BOT. OF SLAB
802	8	19'-7"	156'-8"	LONGIT. BOT. OF SLAB
TOTAL NO. 8 BARS = 1385'-2" = 3699 LBS.				
501	56	5'-0"	280'-0"	TRANS. TOP OF SLAB
TOTAL NO. 5 BARS = 280'-0" = 292 LBS.				
401	21	19'-6"	409'-6"	LONGIT. TOP OF SLAB
402	4	19'-7"	78'-4"	LONGIT. TOP OF SLAB
403	4	33'-8"	134'-8"	TRANS. TOP & BOT. OF SLAB
404	2	34'-8"	69'-4"	TRANS. BOT. OF SLAB
405	50	34'-10"	1741'-8"	TRANS. TOP & BOT. OF SLAB
TOTAL NO. 4 BARS = 2433'-6" = 1626 LBS.				
TOTAL DEFORMED REINFORCING STEEL= 5617 LBS.				
CLASS A1 CONCRETE = 25.64 CU. YDS.				
CONCRETE RAILING (BARRIER TYPE)= 40.00 LIN. FT.				



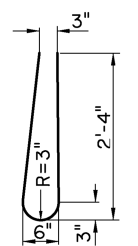
AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.366	—
HL-93 (OPR)	1.771	—
LADY-11 (INV)	1.051	MAGNIFICATION FACTOR = 1.3



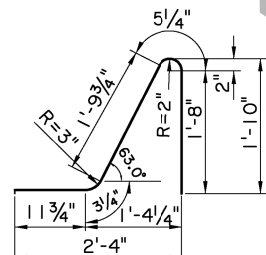


* 1'-0" (MIN.)
SPLICE

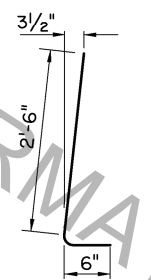
BARRIER RAILING TRANSITION ELEVATION
(SHOWING BARRIER RAILING AT END OF BRIDGE)
SCALE: $\frac{1}{2}" = 1'-0"$



BARS 501
(4'-10" LONG)

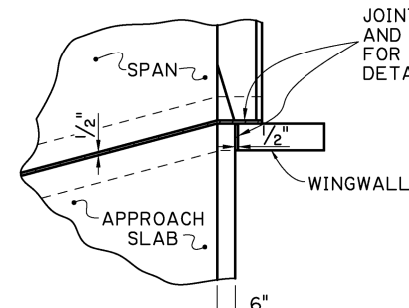


BARS 501A
(5'-2" LONG)



BARS 501B
 (2 1/2" Ø PIN)
 (3'-0" LONG)

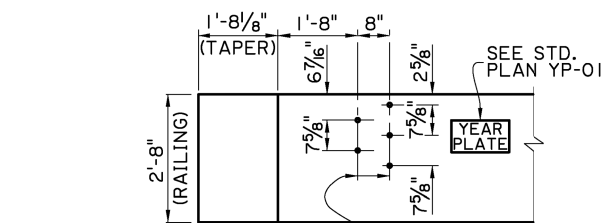
△ ON SLOPE



JOINT DETAIL
SCALE : $\frac{3}{8}" = 1'-0"$

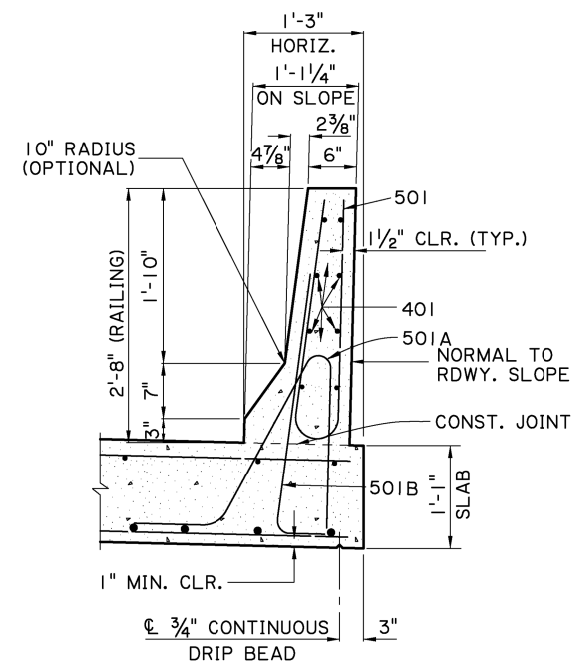


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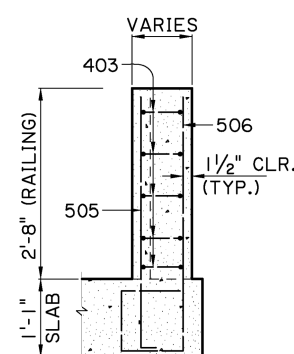


④ 1" Ø PREFORMED HOLES FOR
GUARD RAIL CONNECTION

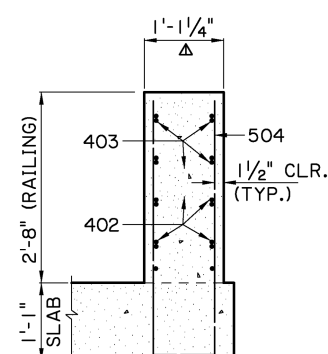
GUARD RAIL CONNECTION DETAIL
(FOR GUARD RAIL DETAILS,
SEE STANDARD PLAN BD.1.1.1.0.01 (GR-200).)
SCALE: 1/2" = 1'-0"



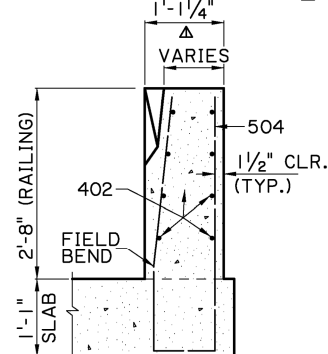
SECTION A-A
SCALE: 1" = 1'-0"



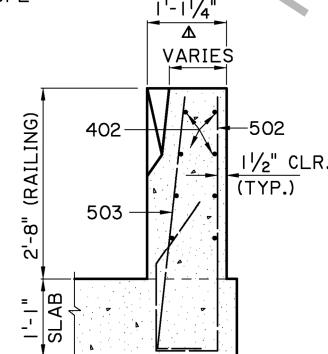
TAPER



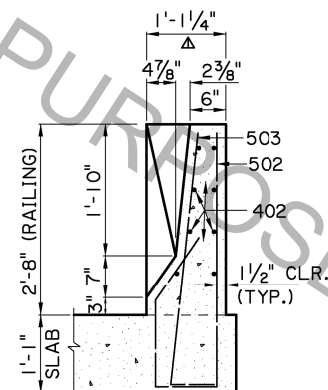
100 % TRANSITION



FROM 50% TO
100 % TRANSITION



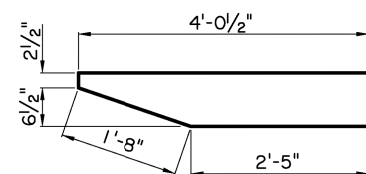
FROM BEGIN TO
50 % TRANSITION



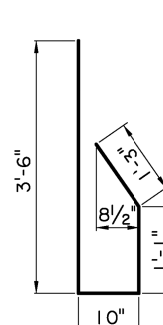
BEGIN TRANSITION

BARRIER RAILING TRANSITION SECTIONS

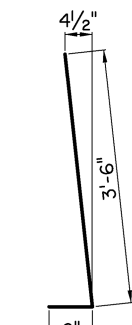
SCALE: $\frac{3}{4}" = 1'-0"$



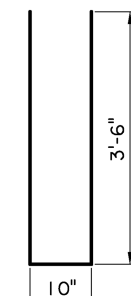
403
(2 1/2" Ø PIN)



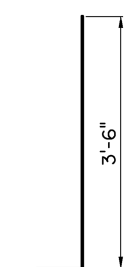
502
(2 1/2" Ø PIN)



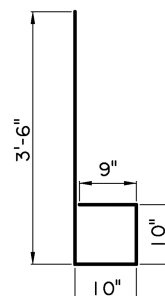
503
(2 1/2" Ø PIN)



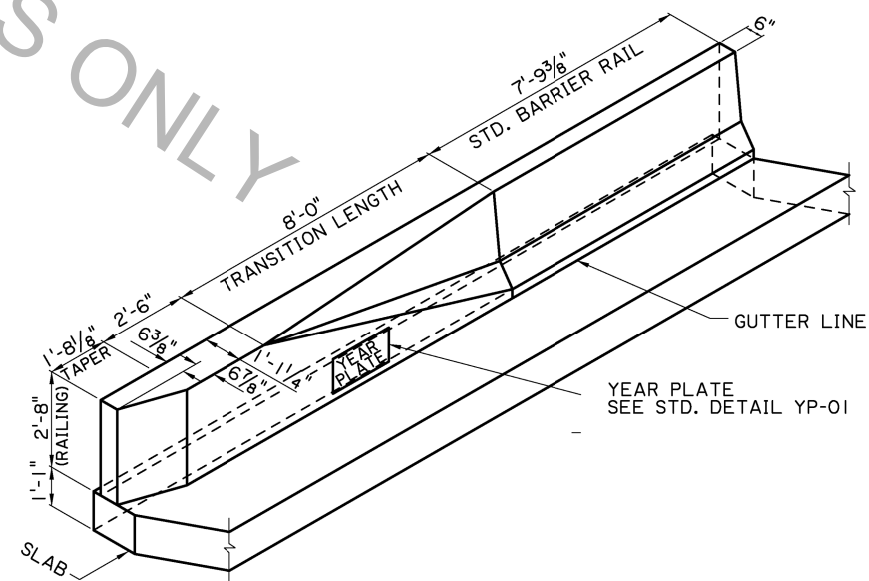
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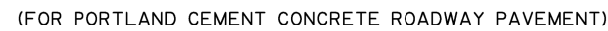
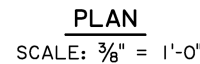
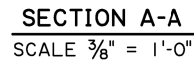
505
(2 1/2" Ø PIN)



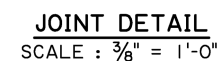
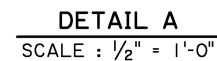
506
2 1/2" Ø PIN)



	SPAN (2 OF 2)	
	20'-0" CONCRETE BARRIER 28'-0" CLEAR ROADWAY 60' CROSSING TWO WAY TANGENT	
STANDARD SECTION PSS-60-2B-20SL		
THE GREAT SEAL OF THE STATE OF LOUISIANA FOUNDED 1763		
No.	Date	Ry
	REVISION OR CHANGE ORDER DESCRIPTION	
SERIES #	05/17/17	STATE PROJECT
REVISED	OF 11	
Detailed checked	J. NAKHLEH	CONTROL SECTION
Designed checked	B. DELATTE J. NAKHLEH	PARISH
		SHEET NUMBER



SECTION ALONG \mathbb{C} ROADWAY
SCALE: $\frac{3}{8}" = 1'-0"$



☐ TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS.
☒ REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT.

CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
4th EDITION, WITH 2008 & 2009 INTERIMS.

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A $\frac{3}{4}$ " CHAMFER, UNLESS OTHERWISE NOTED.

ASPHALT CONCRETE: TO BE THE SAME TYPE AS THE ASPHALT CONCRETE USED FOR THE APPROACH ROADWAY PAVEMENT OR OVERLAY.

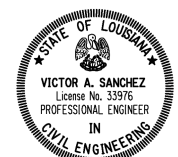
REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO THE FABRICATION ARE OUT-TO-OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS.

BEDDING MATERIAL: FOR DETAILS OF BEDDING MATERIAL AND UNDERDRAINS. SEE STANDARD DETAIL BD.2.10.1.0.07.

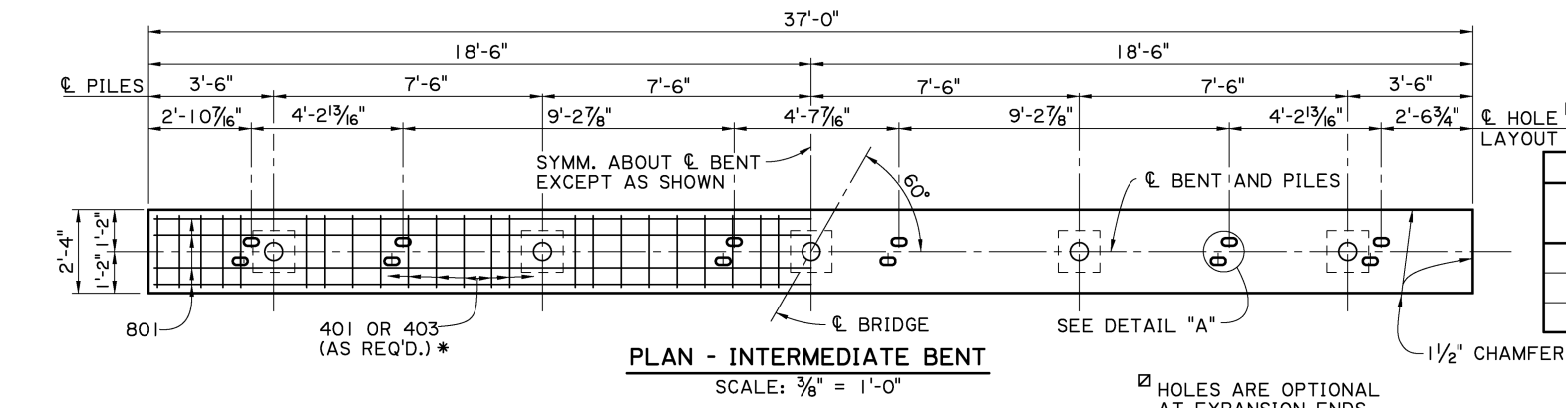
SAWING & SEALING: THE ASPHALT CONCRETE SHALL BE SAW CUT AT THE END OF THE CONCRETE APPROACH SLAB THE ENTIRE ROADWAY WIDTH AND SEALED. COST TO BE INCLUDED WITH CONCRETE APPROACH SLABS.

BASIS OF PAYMENT: ALL MATERIAL SHALL BE PAID FOR UNDER 'CONCRETE APPROACH SLABS' ACCORDING TO THE SPECIFICATIONS, EXCEPT WHERE NOTED ON THIS SHEET.

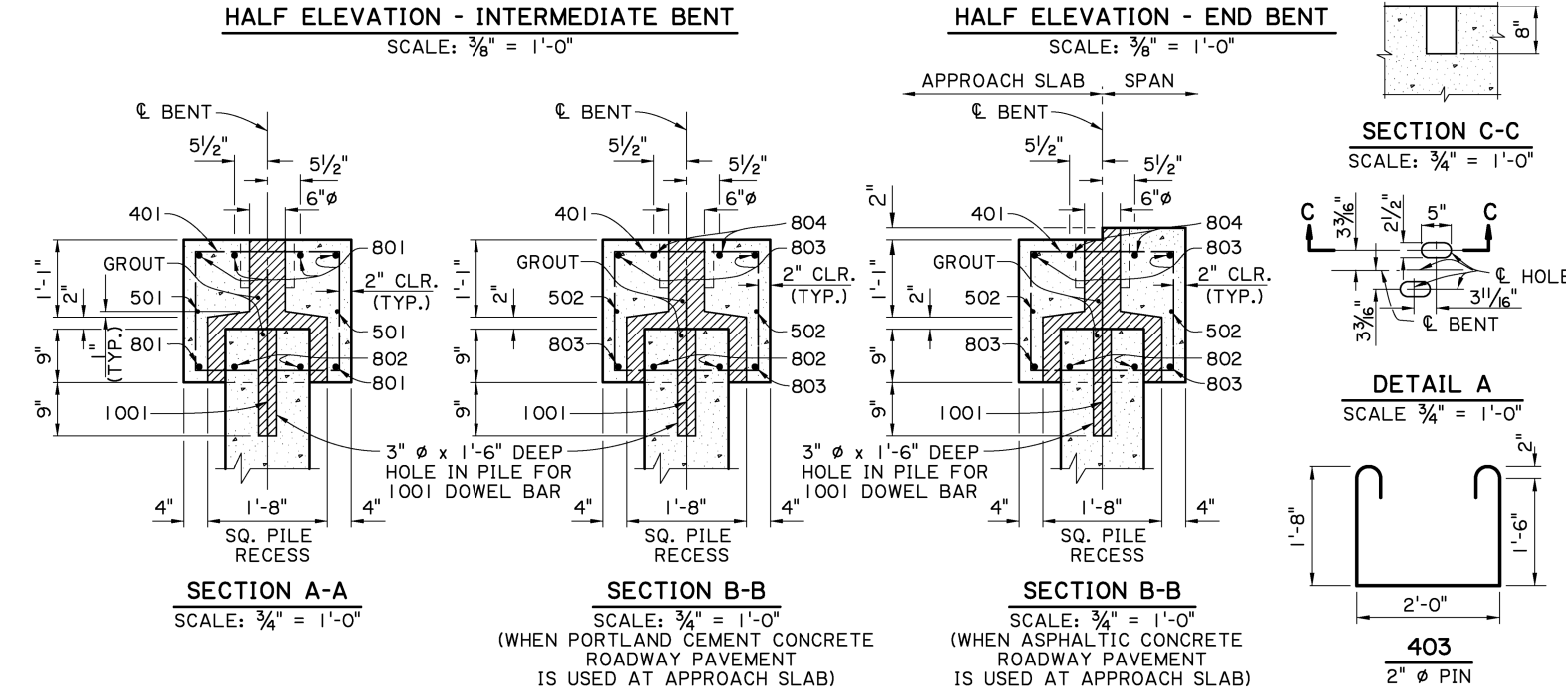
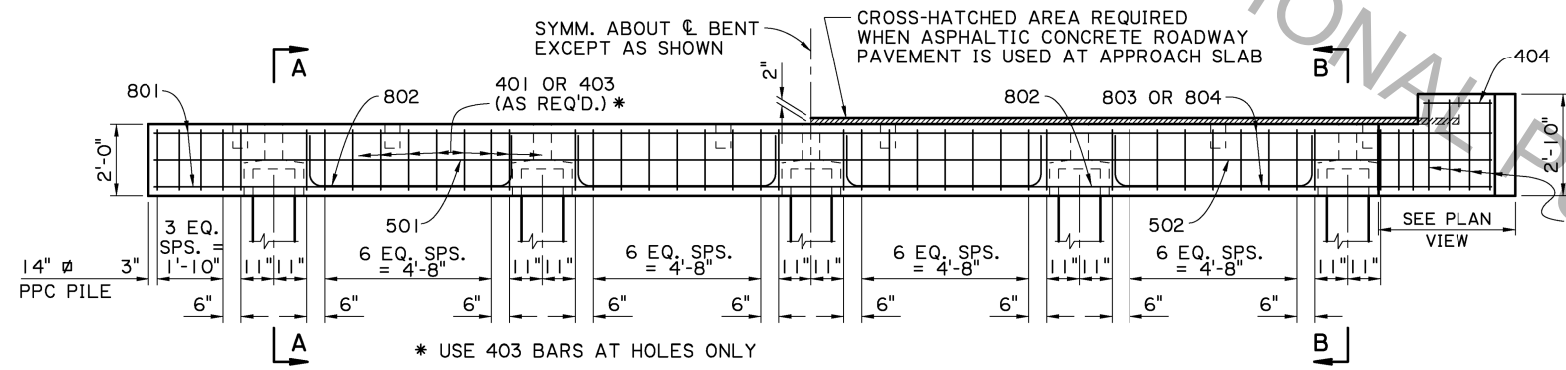
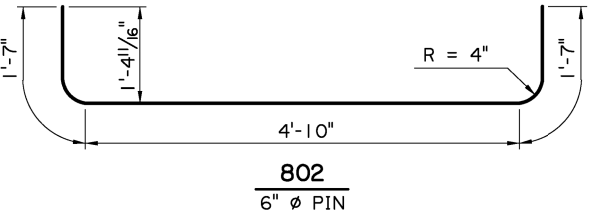
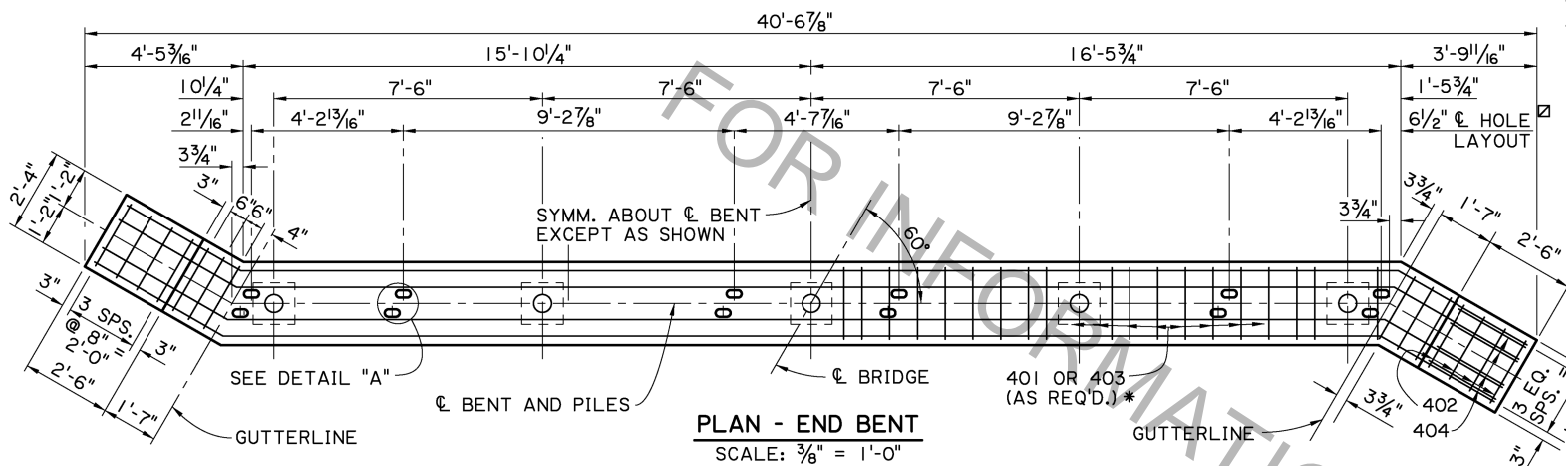
JOINT SEALANT, BACKER MATERIAL,
AND PREFORMED JOINT FILLER.
FOR DETAILS SEE SPAN SHEET,
DETAIL "A".



Victor N. Heinz -
05/17/17



AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	2.469	—
HL-93 (OPR)	3.201	—
LADV-11 (INV)	1.899	MAGNIFICATION FACTOR = 1.3



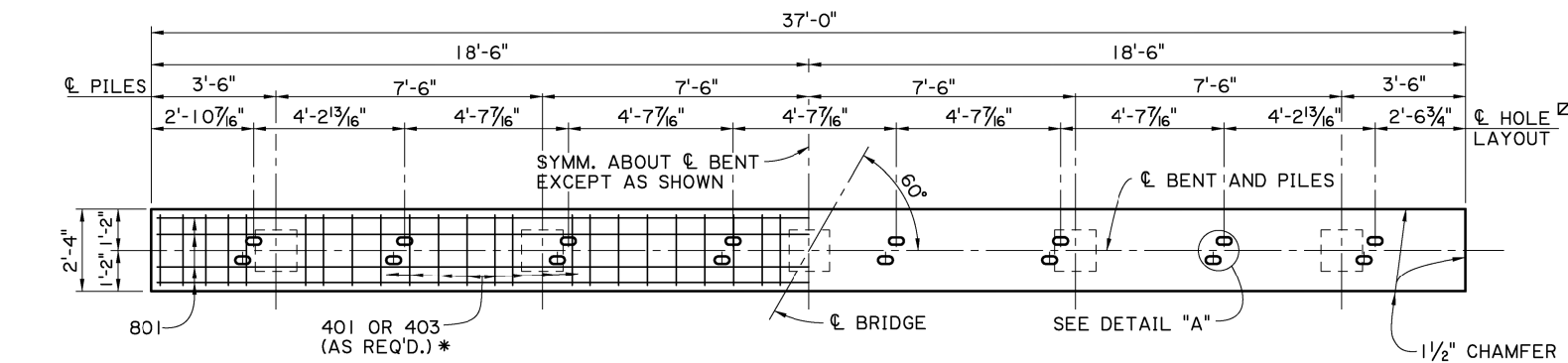
ALTERNATE BENT NOTES:
CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.
DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.
DESIGN LOAD: LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).
STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS P1. STEEL SIDE FORMS AND STEEL OR CONCRETE BOTTOM FORMS SHALL BE USED FOR PRECAST COMPONENTS. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED. ALL SURFACES SHALL RECEIVE A CLASS 1 ORDINARY SURFACE FINISH UPON REMOVAL OF THE FORMS. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A CLASS 3 SPECIAL SURFACE FINISH.
REINFORCING STEEL: ALL REINFORCING SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE NOTED.
GROUT: THE GROUT SHALL BE AN APPROVED FLOWABLE NON-SHRINK GROUT LISTED ON AML. THE GROUT SHALL BE TESTED FOR ACCEPTANCE PRIOR TO USAGE. SURFACES SHALL BE THOROUGHLY SATURATED WITH WATER BY FLOODING THE VOID FOR APPROXIMATELY 5 MINUTES IMMEDIATELY BEFORE THE GROUT IS PLACED. ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING PURPOSES.
PRECAST UNITS: THE PLANS FOR AN ONGOING OPERATION OF FABRICATING FACILITIES SHALL BE APPROVED BY THE DEPARTMENT. EACH UNIT SHALL HAVE THE FABRICATOR'S MARK AND UNIQUE NUMBER, MEETING THE APPROVAL OF THE ENGINEER, STAMPED OR SCRIBED IN THE PLASTIC CONCRETE. ALL UNITS SHALL BE HELD AT THE PLANT FOR A MINIMUM OF 10 DAYS AFTER CASTING. THE CONCRETE SHALL REACH A MINIMUM STRENGTH OF 3,000 PSI BEFORE HANDLING IS PERMITTED. THE LIFTING INSERTS SHALL BE 1" TYPE S INSERTS AS MANUFACTURED BY DAYTON-SUPERIOR CORPORATION OR AN APPROVED EQUAL. EACH INSERT SHALL HAVE A MINIMUM LOAD CAPACITY OF 10,000 POUNDS. FOUR INSERTS WITH 1" x 5" LONG COIL BOLTS SHALL BE PLACED IN THE TOP OF THE UNITS AND LOCATED AT A DISTANCE 21% OF ITS LENGTH (+/- 6") FROM EACH END AND 6" FROM THE EDGES. INSERT HOLES SHALL BE GROUT FILLED AFTER PLACEMENT OF THE UNIT. AT THE CONTRACTOR'S OPTION, A SLING OF SUFFICIENT CAPACITY MAY BE USED FOR LIFTING, PROVIDED THE SAME PICKUP LOCATIONS FROM THE ENDS ARE USED.
PRECAST CONCRETE PILES: PILES SHALL BE FABRICATED ACCORDING TO STANDARD DETAIL BD.2.5.1.0.01 (CS-216). THE CENTROID OF THE PILE AT CUTOFF ELEVATION SHALL NOT VARY FROM THE PLAN LOCATION BY MORE THAN 3" MEASURED EITHER PERPENDICULAR OR PARALLEL TO THE CENTERLINE OF BENT. IF THE CENTROID OF A PILE IS OUTSIDE THESE LIMITS BUT WITHIN THE ACCURACY OF DRIVING REQUIRED BY THE SPECIFICATIONS, A BENT CAP SHALL BE PROVIDED ACCORDING TO THE CAST-IN-PLACE ALTERNATE. EXTERIOR PILES ARE TO BE BATTERED OUTWARD AT 1 1/2 IN 12 IN THE LONGITUDINAL DIRECTION OF THE BENT, WHEN NOTED ON THE GENERAL PLAN.
BASIS OF PAYMENT: ALL MATERIALS SHALL BE PAID FOR UNDER "BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE" ACCORDING TO THE SPECIFICATIONS.

ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR NO.	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
1001	5	2'-4"	11'-8"	DOWELS IN PILES
TOTAL NO. 10 BARS = 11'-8" = 50 LBS.				
801	6	36'-8"	220'-0"	LONGIT. IN CAP
802	8	8'-0"	64'-0"	LONGIT. IN CAP BTW. PILES
TOTAL NO. 8 BARS = 284'-0" = 758 LBS.				
501	2	36'-8"	73'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 73'-4" = 76 LBS.				
401	40	8'-2"	326'-8"	STIRRUPS IN CAP
403	6	6'-6"	39'-0"	STIRRUPS IN CAP
TOTAL NO. 4 BARS = 365'-8" = 244 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1,128 LBS.				
TOTAL CLASS P1 CONCRETE = 5.84 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 18 TONS				
SERVICE LIVE LOAD = 31 TONS				
FACTORED TOTAL LOAD = 68 TONS				
TOTAL GROUT FOR PILE RECESSES = 0.36 CU. YDS.				
ESTIMATED QUANTITIES (ONE END BENT)				
BAR NO.	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
1001	5	2'-4"	11'-8"	DOWELS IN PILES
TOTAL NO. 10 BARS = 11'-8" = 50 LBS.				
802	8	8'-0"	64'-0"	LONGIT. IN CAP BTW. PILES
803	4	40'-1"	160'-4"	LONGIT. IN CAP
804	2	40'-1"	80'-2"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 304'-6" = 813 LBS.				
502	2	40'-1"	80'-2"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 80'-2" = 84 LBS.				
401	38	8'-2"	310'-4"	STIRRUPS IN CAP
402	8	9'-10"	78'-8"	STIRRUPS IN WINGWALL
403	6	6'-6"	39'-0"	STIRRUPS IN CAP
404	8	2'-2"	17'-4"	LONGIT. IN WINGWALL
TOTAL NO. 4 BARS = 445'-4" = 297 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1,244 LBS.				
TOTAL CLASS P1 CONCRETE = 6.81 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 18 TONS				
SERVICE LIVE LOAD = 31 TONS				
FACTORED TOTAL LOAD = 68 TONS				
TOTAL GROUT FOR PILE RECESSES = 0.36 CU. YDS.				
* ADD 0.26 CU. YDS. OF CLASS P1 CONCRETE PER BENT WHEN ASPHALTIC CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB.				

ALTERNATE BENTS
PRECAST CONCRETE BENT
28'-0" CLEAR ROADWAY
60' CROSSING TWO WAY TANGENT

DOTD
LOUISIANA
DOTD BRIDGE DESIGN

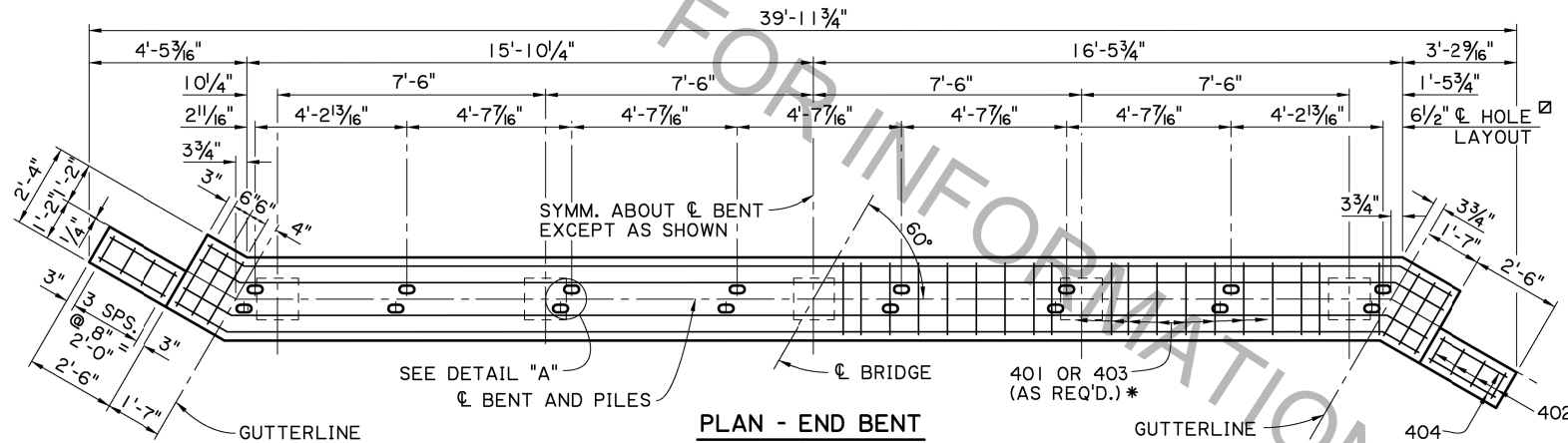
DESIGNED BY: J. NAKHLEH
CHECKED BY: B. DELATTE
PARISH: J. NAKHLEH
CONTROL SECTION: D. HYMEL
STATE: J. NAKHLEH
REVIEWED: 05/17/17
SERIES #: 5 OF 11
BY: J. NAKHLEH
DATE: 05/17/17
REVISION OR CHANGE ORDER DESCRIPTION: PSS-60-28-20SL



PLAN - INTERMEDIATE BENT

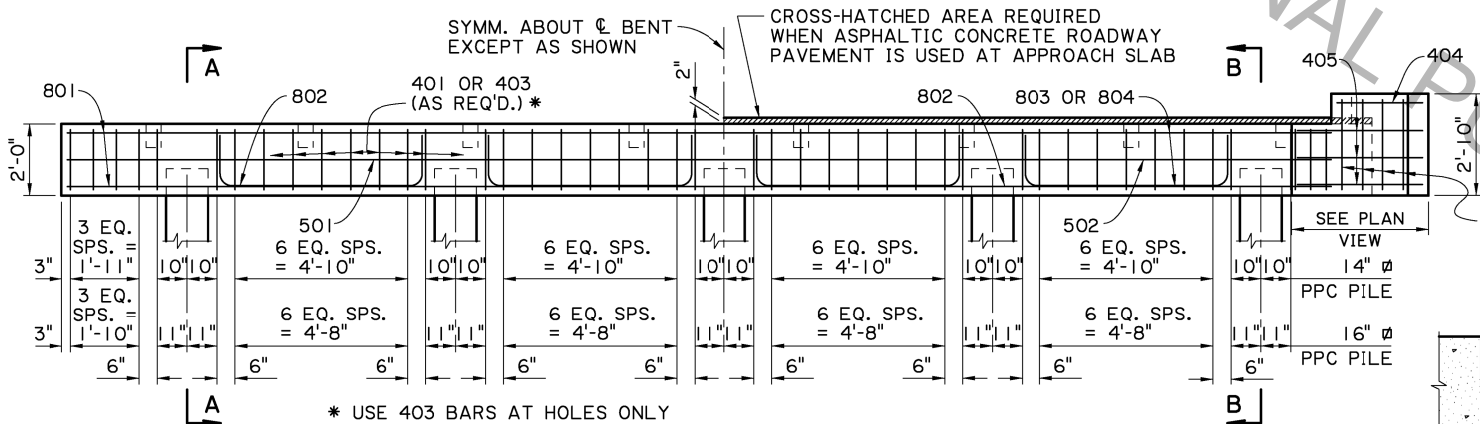
SCALE: 3/8" = 1'-0"

HOLES ARE OPTIONAL AT EXPANSION ENDS.



PLAN - END BENT

SCALE: 3/8" = 1'-0"



HALF ELEVATION - INTERMEDIATE BENT

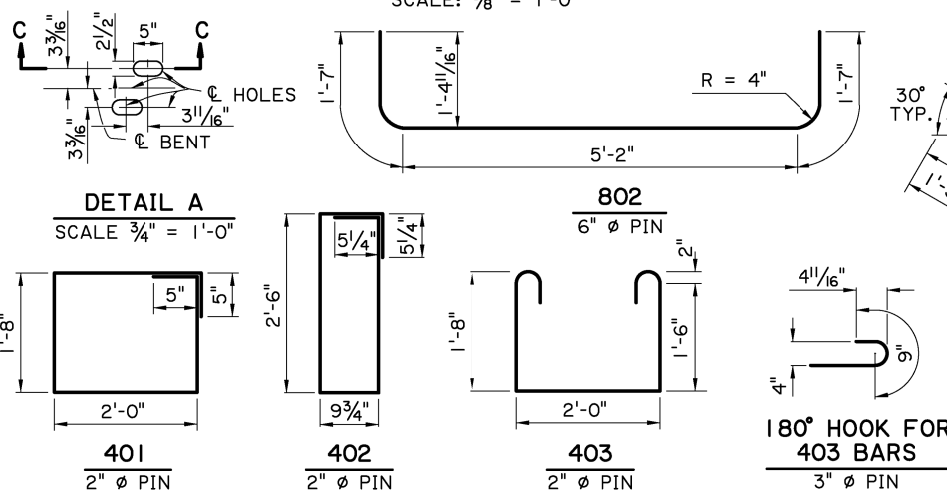
SCALE: 3/8" = 1'-0"

HALF ELEVATION - END BENT

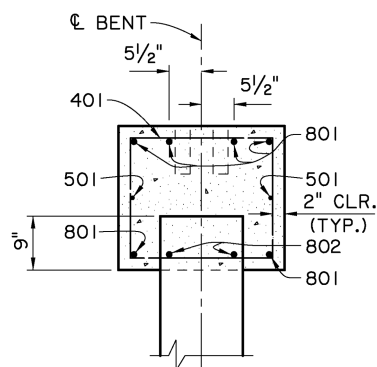
SCALE: 3/8" = 1'-0"

SECTION C-C

SCALE: 3/4" = 1'-0"

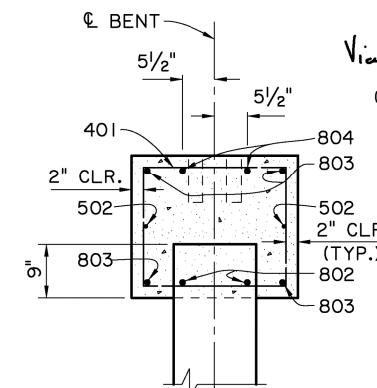


AS-DESIGNED RATING			
VEHICLE	RATING FACTOR	NOTES	
HL-93 (INV)	2.007		
HL-93 (OPR)	2.602		
LADV-11 (INV)	1.544	MAGNIFICATION FACTOR = 1.3	



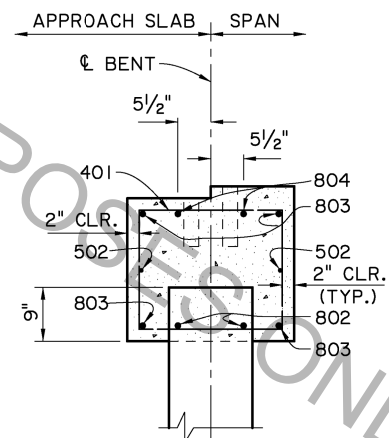
SECTION A-A

SCALE: 3/4" = 1'-0"



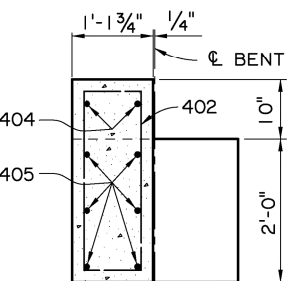
SECTION B-B

SCALE: 3/4" = 1'-0"
(WHEN PORTLAND CEMENT CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB)



SECTION B-B

SCALE: 3/4" = 1'-0"
(WHEN ASPHALTIC CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB)



END ELEVATION

SCALE: 3/4" = 1'-0"

ESTIMATED QUANTITIES (ONE INTER. BENT)

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	6	36'-8"	LONGIT. IN CAP
802	8	8'-4"	LONGIT. IN CAP BTW. PILES
TOTAL NO. 8 BARS = 286'-8"			= 765 LBS.
501	2	36'-8"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 73'-4"			= 76 LBS.
401	38	8'-2"	STIRRUPS IN CAP
403	8	6'-6"	STIRRUPS IN CAP
TOTAL NO. 4 BARS = 362'-4"			= 242 LBS.
TOTAL DEFORMED REINFORCING STEEL = 1,083 LBS.			
TOTAL CLASS A1 CONCRETE = 6.15 CU. YDS.			
MAX. PILE LOAD: SERVICE DEAD LOAD = 18 TONS			
SERVICE LIVE LOAD = 31 TONS			
FACTORED TOTAL LOAD = 68 TONS			

16" PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" PPC PILES ARE USED.)

ESTIMATED QUANTITIES (ONE END BENT)

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
802	8	8'-4"	LONGIT. IN CAP BTW. PILES
803	4	35'-1"	LONGIT. IN CAP
804	2	35'-2"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 277'-4"			= 740 LBS.
502	2	35'-1"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 70'-2"			= 73 LBS.
401	36	8'-2"	STIRRUPS IN CAP
402	8	7'-6"	STIRRUPS IN WINGWALL
403	8	6'-6"	STIRRUPS IN CAP
404	4	2'-2"	LONGIT. IN WINGWALL
405	12	3'-11"	LONGIT. IN WINGWALL
TOTAL NO. 4 BARS = 461'-8"			= 308 LBS.
TOTAL DEFORMED REINFORCING STEEL = 1,121 LBS.			
TOTAL CLASS A1 CONCRETE = 6.49 CU. YDS.			
MAX. PILE LOAD: SERVICE DEAD LOAD = 18 TONS			
SERVICE LIVE LOAD = 31 TONS			
FACTORED TOTAL LOAD = 68 TONS			

16" PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" PPC PILES ARE USED.) ADD 0.26 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN ASPHALTIC CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB.

ALTERNATE BENT NOTES:

CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4TH EDITION, WITH 2008 & 2009 INTERIMS.

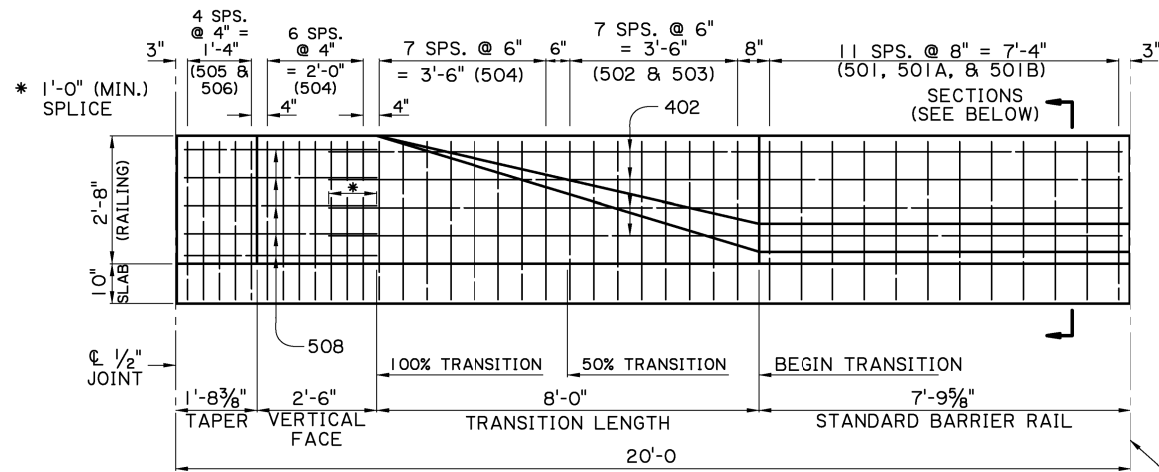
DESIGN LOAD: LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A SURFACE FINISH AS PER SUBSECTION 805.08 OF THE STANDARD SPECIFICATIONS, EXCEPT WHEN SPECIFIED ELSEWHERE IN THE PLANS.

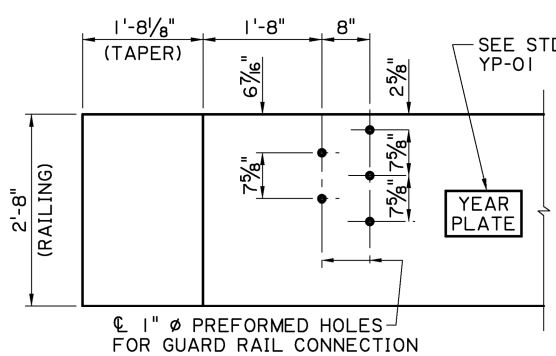
REINFORCING STEEL: ALL REINFORCING SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE NOTED.

PRECAST CONCRETE PILES: FOR DETAILS OF PILES SEE STANDARD DETAIL BD.2.5.1.0.01 (CS-216). EXTERIOR PILES ARE TO BATTERED OUTWARD AT 1/2 ON 12 IN THE LONGITUDINAL DIRECTION OF THE BENT, WHEN NOTED ON THE GENERAL PLAN.

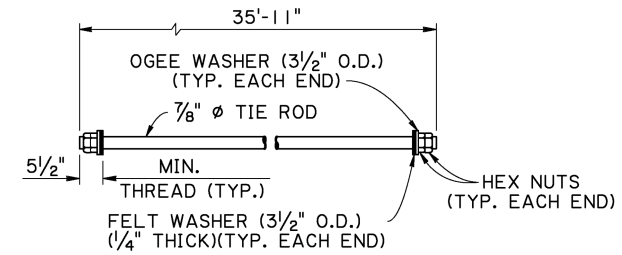
BASIS OF PAYMENT: ALL MATERIALS SHALL BE PAID FOR UNDER "BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE" ACCORDING TO THE SPECIFICATIONS.



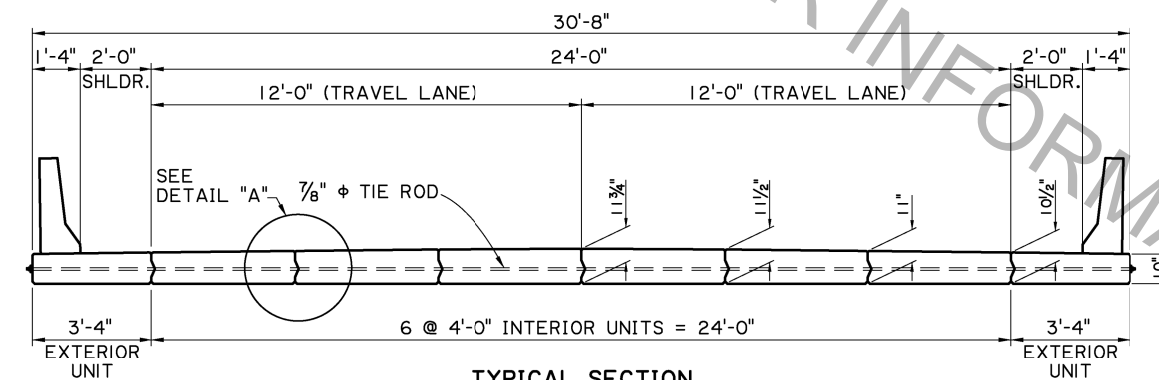
BARRIER RAILING TRANSITION ELEVATION
(SHOWING BARRIER RAILING AT END OF BRIDGE)
SCALE: 1/2" = 1'-0"



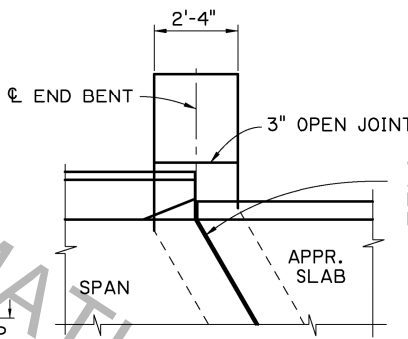
GUARD RAIL CONNECTION DETAIL
(FOR GUARD RAIL DETAILS, SEE
STANDARD PLAN BD.1.1.1.0.01 (GR-200).)
SCALE: 3/4" = 1'-0"



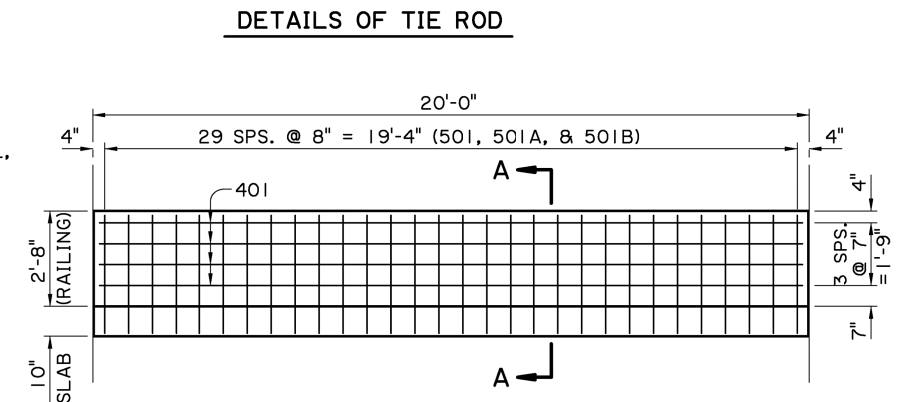
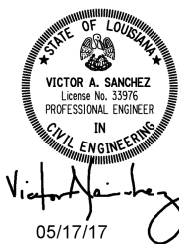
NOTE:
THE NUTS & WASHERS FOR THE TIE ROD SHALL BE ZINC COATED AND THE EXPOSED ENDS TO THE TIE RODS SHALL BE PAINTED WITH AN APPROVED COATING. AS A FINAL OPERATION THE CONTRACTOR SHALL BE REQUIRED TO TORQUE THE INSTALLED TIE ROD TO 170 FT. LBS. JUST PRIOR TO PAINTING. ALL EXPOSED ENDS SHALL BE PAINTED WITH AN APPROVED COATING AFTER STRESSING. ONE (1) MECHANICAL SPLICE MAY BE USED IN SPLICING THE 7/8" Ø TIE ROD. THE SPLICE SHALL DEVELOP AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE TIE ROD IN TENSION. THE MECHANICAL SPLICE SHALL BE ZINC COATED OR PAINTED WITH AN APPROVED COLD GALVANIZING REPAIR COMPOUND FROM AML PRIOR TO PLACING THE TIE ROD IN THE STRUCTURE.



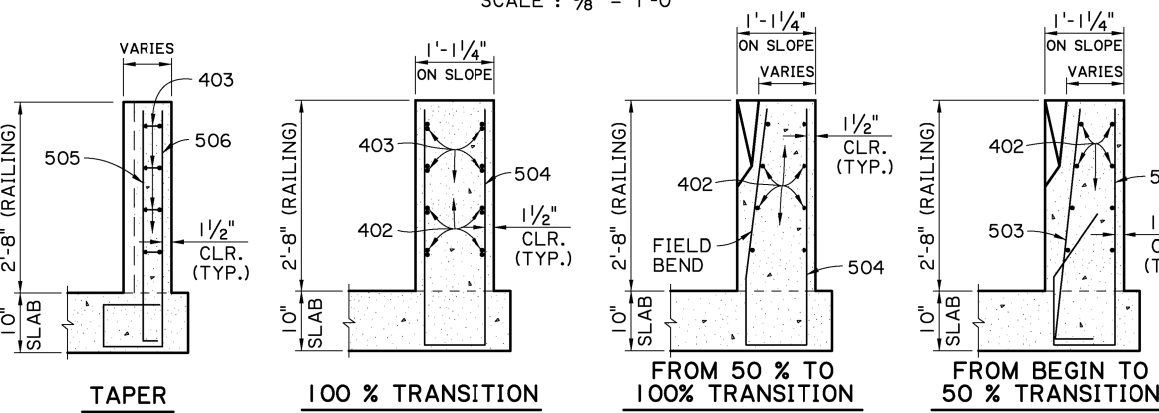
TYPICAL SECTION
SCALE: 3/8" = 1'-0"



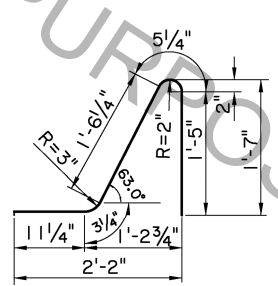
JOINT DETAIL
N.T.S.



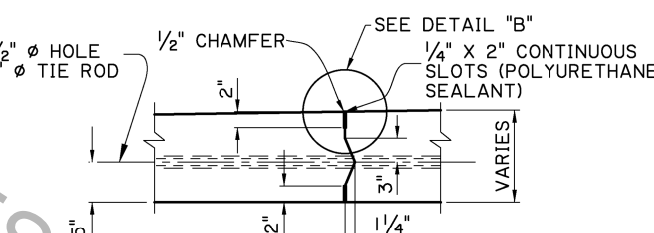
STANDARD BARRIER RAILING ELEVATION
(SHOWING BARRIER RAILING ALONG BRIDGE END)
SCALE: 3/8" = 1'-0"



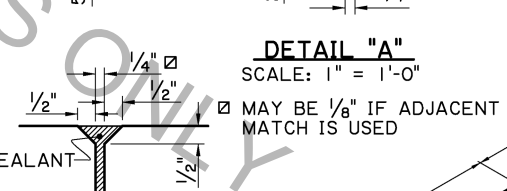
BARRIER RAILING TRANSITION SECTIONS
SCALE: 3/4" = 1'-0"



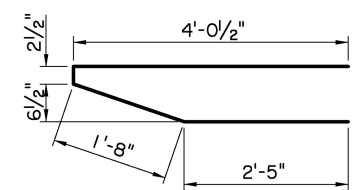
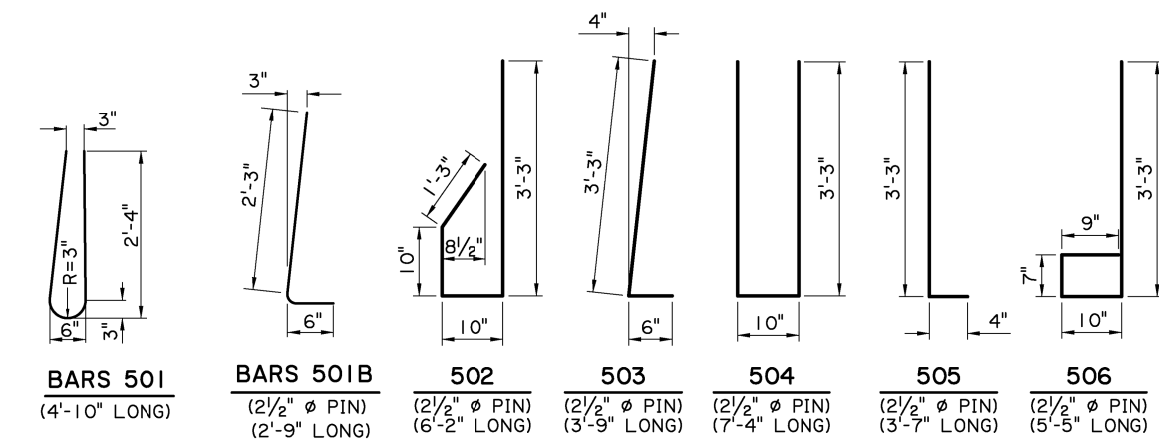
BARS 501A
(4'-7" LONG)



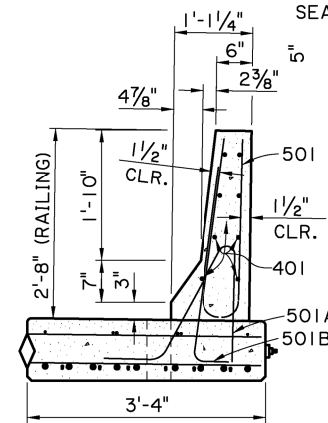
DETAIL "A"
SCALE: 1" = 1'-0"



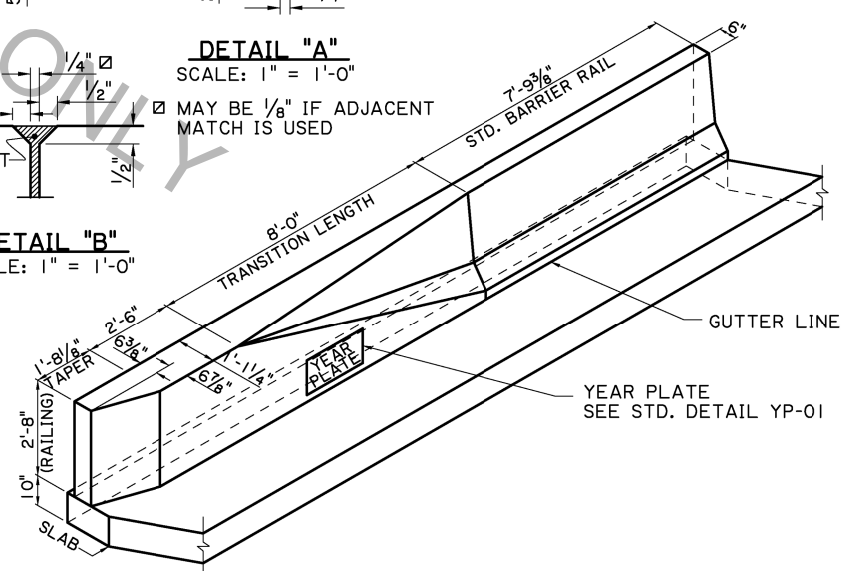
DETAIL "B"
SCALE: 1" = 1'-0"



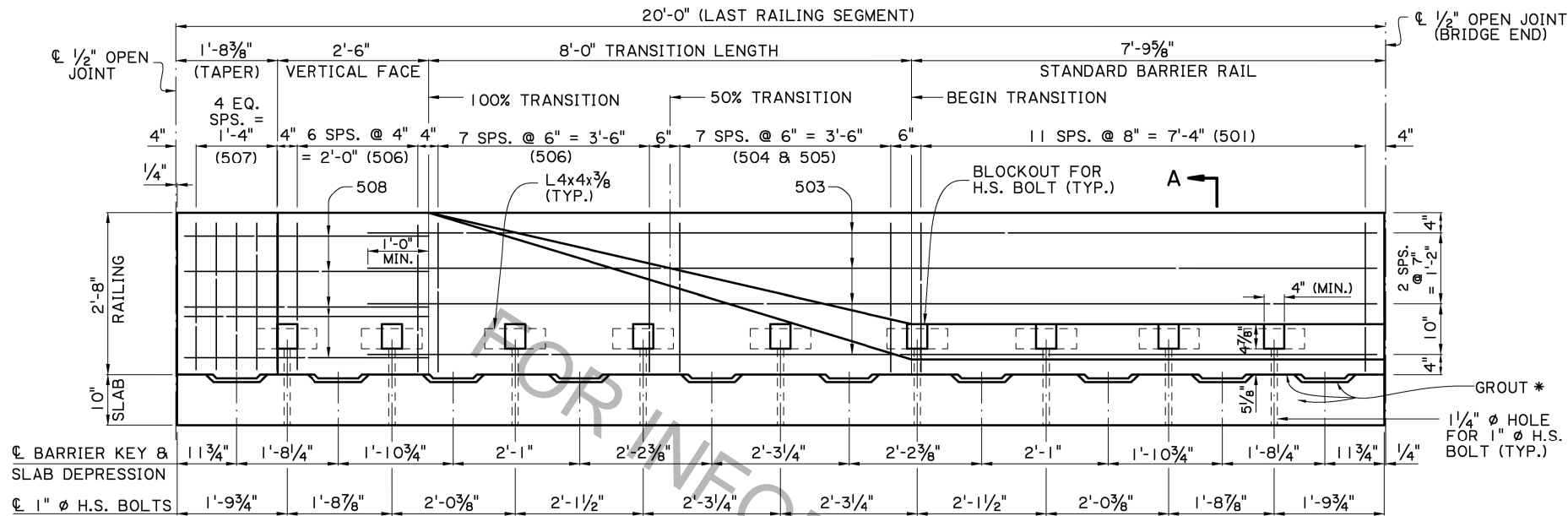
403
(2 1/2" Ø PIN)
(8'-4" LONG)



SECTION A-A
SCALE: 3/4" = 1'-0"



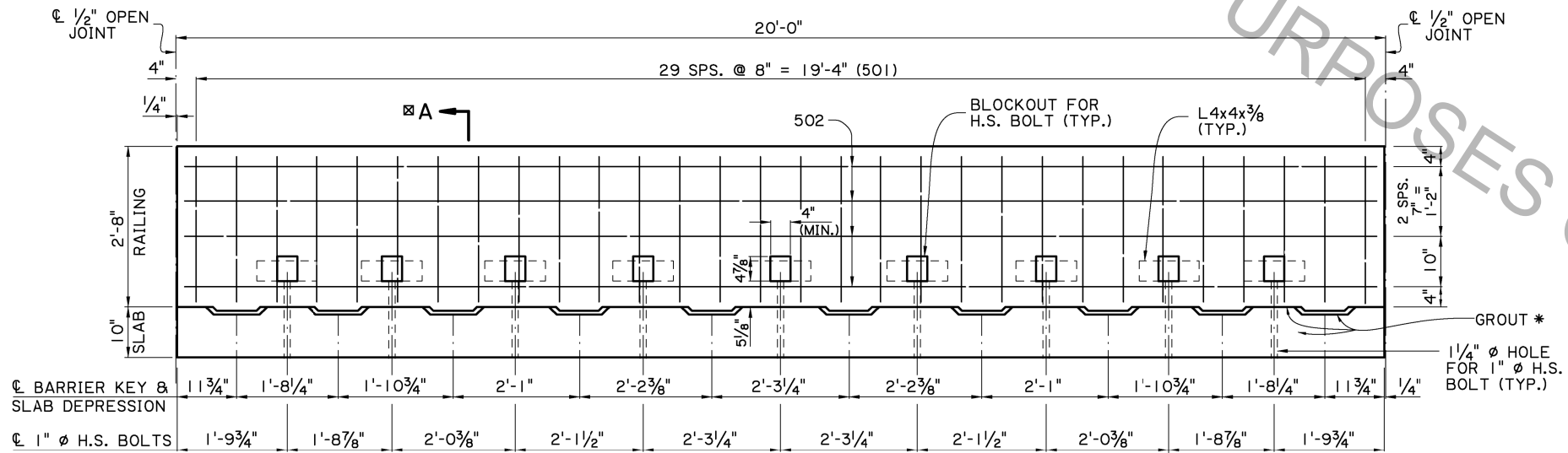
BARRIER RAILING TRANSITION SCHEMATIC
SCALE: 3/8" = 1'-0"



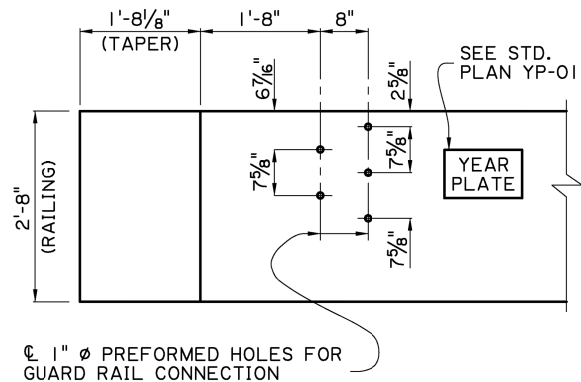
☒ FOR SECTION A-A & TRANSITION SECTIONS
SEE ALTERNATE SPAN (3 OF 4)

PRECAST BARRIER RAILING TRANSITION ELEVATION
(SHOWING BARRIER RAILING AT END OF BRIDGE)
SCALE: $\frac{3}{4}" = 1'-0"$

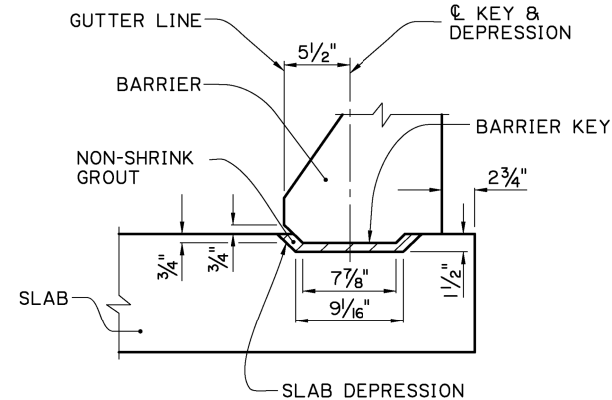
* PLACE OR INJECT NON-SHRINK GROUT AS REQUIRED IN BETWEEN SLAB DEPRESSIONS TO FILL ALL VOIDS AND GAPS FOR FULL EVEN BEARING OF THE BARRIER ON THE SLAB. SEE NOTE 3, SHEET 9 OF 11.



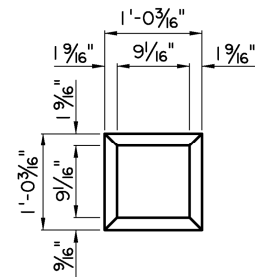
STANDARD PRECAST BARRIER RAILING ELEVATION
(SHOWING BARRIER RAILING ALONG BRIDGE SLAB)
SCALE: $\frac{3}{4}" = 1'-0"$



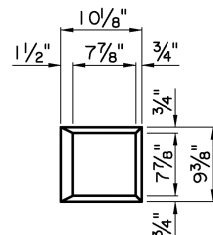
GUARD RAIL CONNECTION DETAIL
(FOR GUARD RAIL DETAILS,
SEE STANDARD PLAN BD.1.1.1.0.01 (GR-200).)
SCALE: $\frac{3}{4}" = 1'-0"$



ELEVATION
SCALE: $1\frac{1}{2}" = 1'-0"$



PLAN-DEPRESSION
SCALE: $1" = 1'-0"$

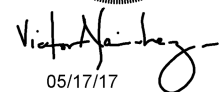
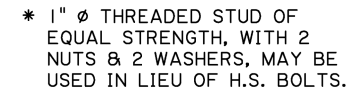


PLAN-KEY
SCALE: $1" = 1'-0"$

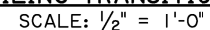
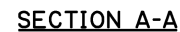
**BARRIER KEY AND
PANEL DEPRESSION DETAILS**

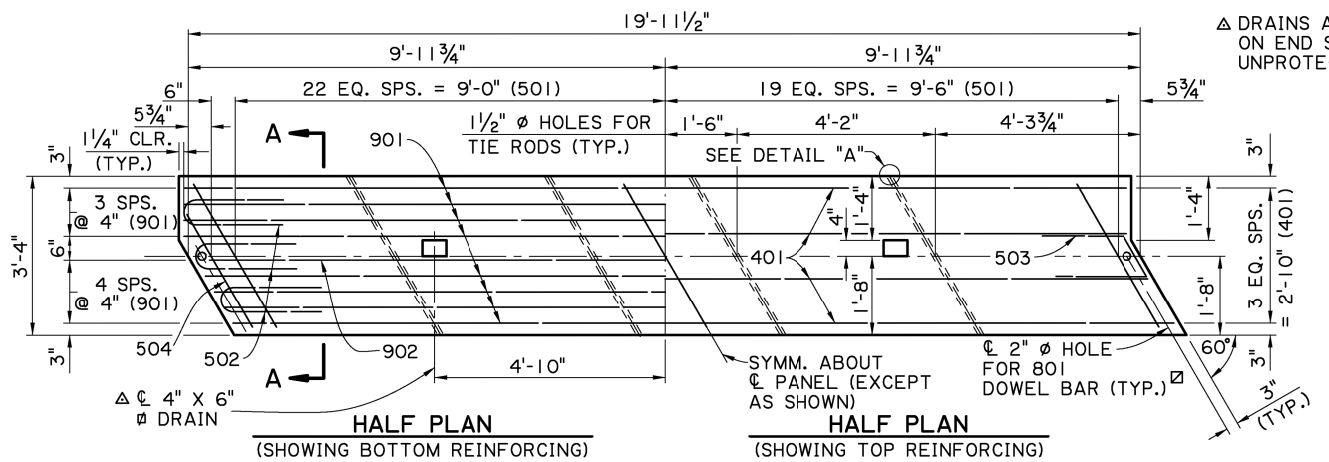


Victor A. Sanchez
05/17/17

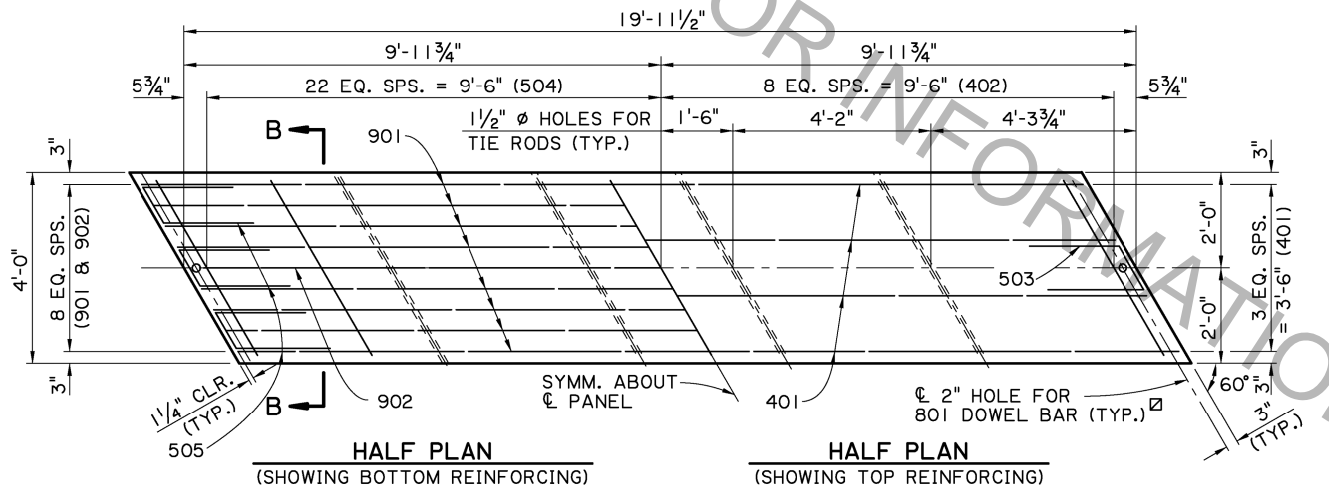


SECTION A-A
SCALE: 1" = 1'-0"

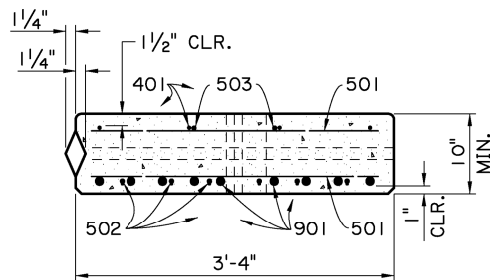




EXTERIOR UNIT
SCALE 1/2" = 1'-0"

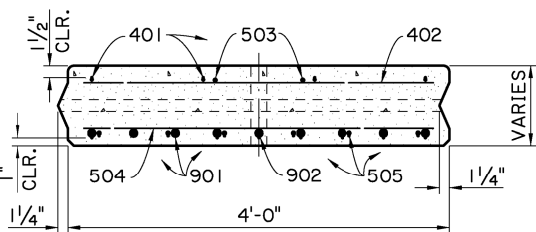


INTERIOR UNIT
SCALE 1/2" = 1'-0"

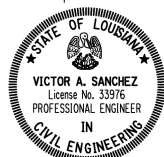


SECTION A-A
EXTERIOR UNIT
SCALE 1" = 1'-0"

NOTE:
FOR EACH SPAN, ONE EXTERIOR
UNIT WILL HAVE A TONGUE AND
ONE WILL HAVE A GROOVE.



SECTION B-B
INTERIOR UNIT
SCALE 1" = 1'-0"



05/17/17

THREE (3) LAYERS OF ASPHALT
SATURATED FELT SHALL BE
PLACED ON TOP OF BENT CAP.
CUT TAR PAPER TO EXPOSE ALL
OBLONG HOLES ON TOP OF CAP
PRIOR TO ERECTING THE SLAB.

2 1/2" X 5" OBLONG HOLES.
HOLES SHALL BE FILLED WITH
GROUT AFTER DOWEL BARS
ARE IN PLACE.

TYPICAL JOINT DETAIL
SCALE 1" = 1'-0"

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.561	—
HL-93 (OPR)	2.023	—
LADV-11 (INV)	1.200	MAGNIFICATION FACTOR = 1.3

△ DRAINS ARE NOT REQUIRED
ON END SPANS OVER
UNPROTECTED SLOPES.

ALTERNATE SPAN NOTES:

CONSTRUCTION SPECIFICATIONS : LATEST APPROVED LOUISIANA
STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLE-
MENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS : AASHTO LRFD BRIDGE DESIGN
SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.

DESIGN LOAD : THE BRIDGE DECK IS DESIGNED FOR A FUTURE
WEARING COURSE OF 19 PSF. THE LIVE LOAD IS HL-93, AND
LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

STRUCTURAL CONCRETE : ALL CONCRETE SHALL BE CLASS P.I.
THE BRIDGE RAIL CONCRETE SHALL BE CLASS A1 IF RAIL IS
CAST IN PLACE. STEEL SIDE FORMS AND STEEL OR CONCRETE
BOTTOM FORMS SHALL BE USED FOR PRECAST COMPONENTS.
EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS
OTHERWISE NOTED. ALL SURFACES SHALL RECEIVE A CLASS I
ORDINARY SURFACE FINISH UPON REMOVAL OF THE FORMS.
THE FINAL FINISH SHALL BE A TINE FINISH IN ACCORDANCE
WITH SUB-SECTION 805.08.5.3 OF THE LOUISIANA
STANDARD SPECIFICATIONS.

REINFORCING STEEL : ALL REINFORCING STEEL SHALL BE
GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT
TO OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS
RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE
NOTED. ALL REINFORCING BARS SHALL BE PLACED TO PROVIDE
A MINIMUM COVER OF 1" FROM THE DRAIN HOLES. REINFORCING
STEEL MAY BE TACK WELDED FOR A DISTANCE OF NOT MORE THAN
4'-0" FROM EACH END OF UNIT. NO OTHER WELDING SHALL BE
PERMITTED.

MISCELLANEOUS STEEL : HIGH STRENGTH BOLTS SHALL CONFORM
TO ASTM DESIGNATION A-325. PRESTRESSING STRANDS SHALL
CONFORM TO ASTM DESIGNATION A-416, GRADE 270. PLATES,
TIE RODS, AND DRIFT BOLTS SHALL CONFORM TO ASTM DESIG-
NATION A709, GRADE 36. STEEL SPECIFIED TO BE ZINC
COATED SHALL BE IN CONFORMANCE WITH ASTM DESIGNATION
A-123.

GROUT : THE GROUT SHALL BE AN APPROVED FLOWABLE NON-
SHRINK GROUT LISTED ON AML. THE GROUT SHALL BE TESTED
FOR ACCEPTANCE PRIOR TO USAGE. THE GROUT SHALL ATTAIN
A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI PRIOR TO
LOADING SLABS. SURFACES SHALL BE THOROUGHLY SATURATED
WITH WATER BY FLOODING THE HOLES FOR APPROXIMATELY
FIVE (5) MINUTES IMMEDIATELY BEFORE THE GROUT IS PLACED.
ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING
PURPOSES.

PATCHING MATERIAL : THE PATCHING MATERIAL SHALL BE AN
APPROVED PATCHING MATERIAL FOR PRECAST OR PRESTRESSED
CONCRETE PRODUCTS LISTED ON AML. SURFACE PREPARATION,
MIXING AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE MANU-
FACTURERS' RECOMMENDATIONS. ONLY POTABLE WATER SHALL BE
USED FOR SATURATION AND MIXING PURPOSES.

PRECAST UNITS : THE PLANS FOR AN ONGOING OPERATION OF
FABRICATION FACILITIES SHALL BE APPROVED BY THE DEPARTMENT.
EACH UNIT SHALL HAVE "LIVE LOAD HL-93 AND LADV-11". THE FABRI-
CATOR'S MARK, AND UNIQUE NUMBER, MEETING THE APPROVAL OF
THE ENGINEER STAMPED OR INSCRIBED IN THE PLASTIC CONCRETE.
PRECAST UNITS MAY BE CAST WITH OR WITHOUT CAMBER. IF CAMBER
IS PROVIDED IT SHALL NOT EXCEED 1/4" AT THE CENTERLINE OF
SPAN. ALL UNITS SHALL BE HELD AT THE PLANT FOR A MINIMUM
OF TEN(10) DAYS AFTER CASTING. THE CONCRETE SHALL REACH
A MINIMUM STRENGTH OF 3,000 PSI BEFORE HANDLING IS PERMITTED.
THE LIFTING INSERTS SHALL BE 1", TYPE S INSERTS AS MANU-
FACTURED BY DAYTON-SUPERIOR CORPORATION OR AN APPROVED
EQUAL. EACH INSERT SHALL HAVE A MINIMUM LOAD CAPACITY OF
10,000 POUNDS. FOUR(4) INSERTS WITH 1" Ø X 5" LONG COIL BOLTS
SHALL BE PLACED IN THE TOP OF THE UNIT AND LOCATED 1'-3"
FROM ITS ENDS AND 1'-0" FROM ITS EDGES. INSERT HOLES SHALL
BE GROUT FILLED AFTER PLACEMENT OF UNIT. AT THE CONTRAC-
TOR'S OPTION A SLING OF SUFFICIENT CAPACITY MAY BE USED FOR
LIFTING, PROVIDED THE SAME PICKUP LOCATION FROM THE ENDS ARE
USED. FABRICATION TOLERANCES SHALL BE AS FOLLOWS:

UNIT DEPTH ± 3/8"
UNIT LENGTH + 1/8" AND -1/2"
OVERALL SPAN WIDTH ± 2"

ALL PRECAST UNITS IN EACH BRIDGE SPAN SHALL BE MATCH CAST
IN THE SAME CASTING BED TO ENSURE A PROPER FIT DURING
INSTALLATION.

GUARDRAIL : REFER TO GENERAL PLAN FOR GUARDRAIL REQUIRE-
MENTS. PROVIDE HOLES FOR GUARDRAIL CONNECTIONS ACCORDING
TO STANDARD PLAN BD.1.1.1.O.01 (GR-200) ON ALL FOUR(4) BRIDGE ENDS.

BASIS OF PAYMENT : ALL MATERIALS SHALL BE PAID FOR UNDER
"BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE" ACCORDING TO
THE SPECIFICATIONS.

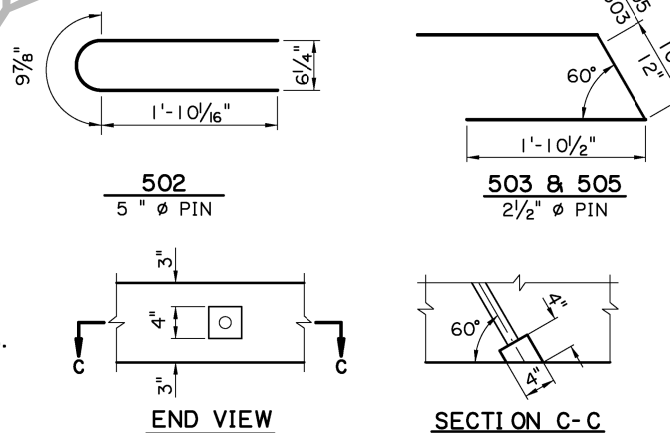
ESTIMATED QUANTITIES (ONE EXTERIOR UNIT)

BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
901	8	19'-9"	158'-0"	LONGIT. BOT. OF SLAB
902	1	19'-1"	19'-1"	LONGIT. BOT. OF SLAB
TOTAL NO. 9 BARS = 177'-1" = 602 LBS.				
801	1	1'-0"	1'-0"	DOWELS
TOTAL NO. 8 BARS = 1'-0" = 3 LBS.				
501	84	3'-5"	287'-0"	TRANS. TOP & BOT. OF SLAB
502	6	4'-6"	27'-0"	BOT. END OF SLAB
503	2	4'-9"	9'-6"	TOP END OF SLAB
504	2	2'-8"	5'-4"	TRANS. TOP & BOT. OF SLAB
TOTAL NO. 5 BARS = 328'-10" = 343 LBS.				
401	4	19'-9"	79'-0"	LONGIT. TOP OF SLAB
TOTAL NO. 4 BARS = 79'-0" = 53 LBS.				
DEFORMED REINFORCING STEEL = 1001 LBS				
CLASS P1 CONCRETE = 2.05 CU. YDS				
CONCRETE RAILING (PER SPAN) = 40.00 LIN. FT				

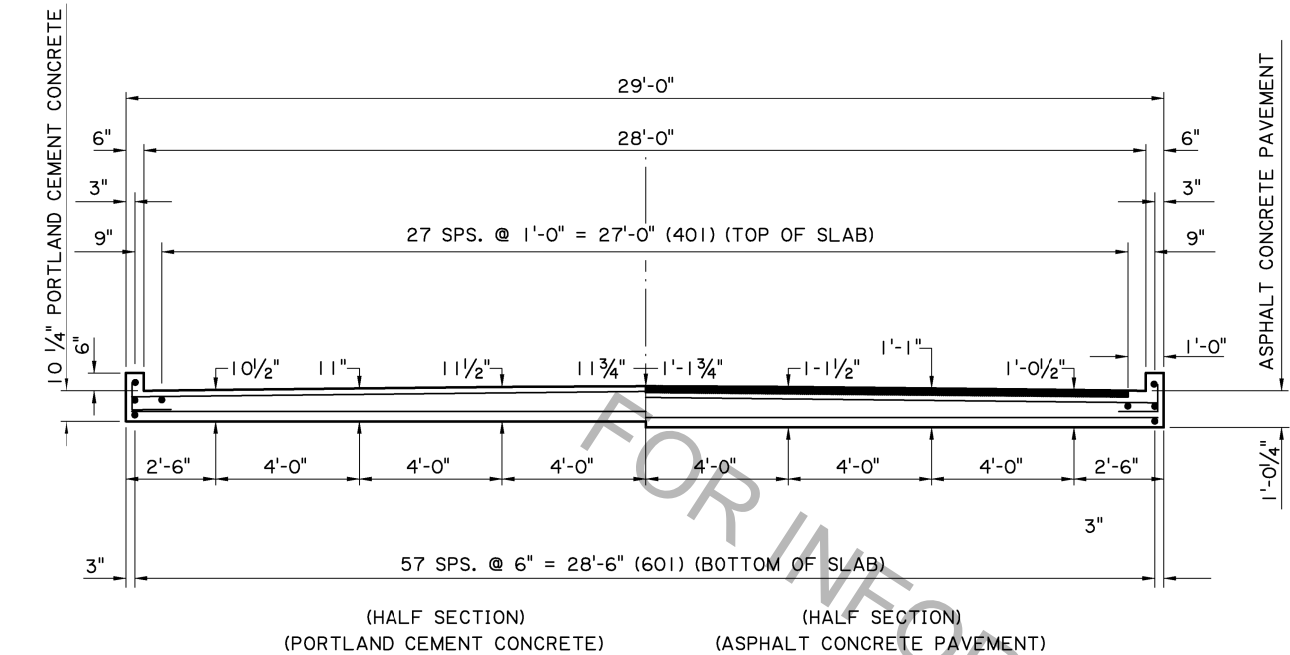
ESTIMATED QUANTITIES (ONE INTERIOR UNIT)

BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
901	8	19'-9"	158'-0"	LONGIT. BOT. OF SLAB
902	1	19'-1"	19'-1"	LONGIT. BOT. OF SLAB
TOTAL NO. 9 BARS = 177'-1" = 602 LBS.				
801	1	1'-0"	1'-0"	DOWELS
TOTAL NO. 8 BARS = 1'-0" = 3 LBS.				
503	2	4'-9"	9'-6"	TOP END OF SLAB
504	45	4'-2"	187'-6"	TRANS. BOT. OF SLAB
505	6	4'-7"	27'-6"	BOT. END OF SLAB
TOTAL NO. 5 BARS = 224'-6" = 235 LBS.				
401	4	19'-9"	79'-0"	LONGIT. TOP OF SLAB
402	17	4'-2"	70'-10"	TRANS. TOP OF SLAB
TOTAL NO. 4 BARS = 149'-10" = 100 LBS.				
DEFORMED REINFORCING STEEL = 940 LBS				
CLASS P1 CONCRETE = 2.46 CU. YDS				

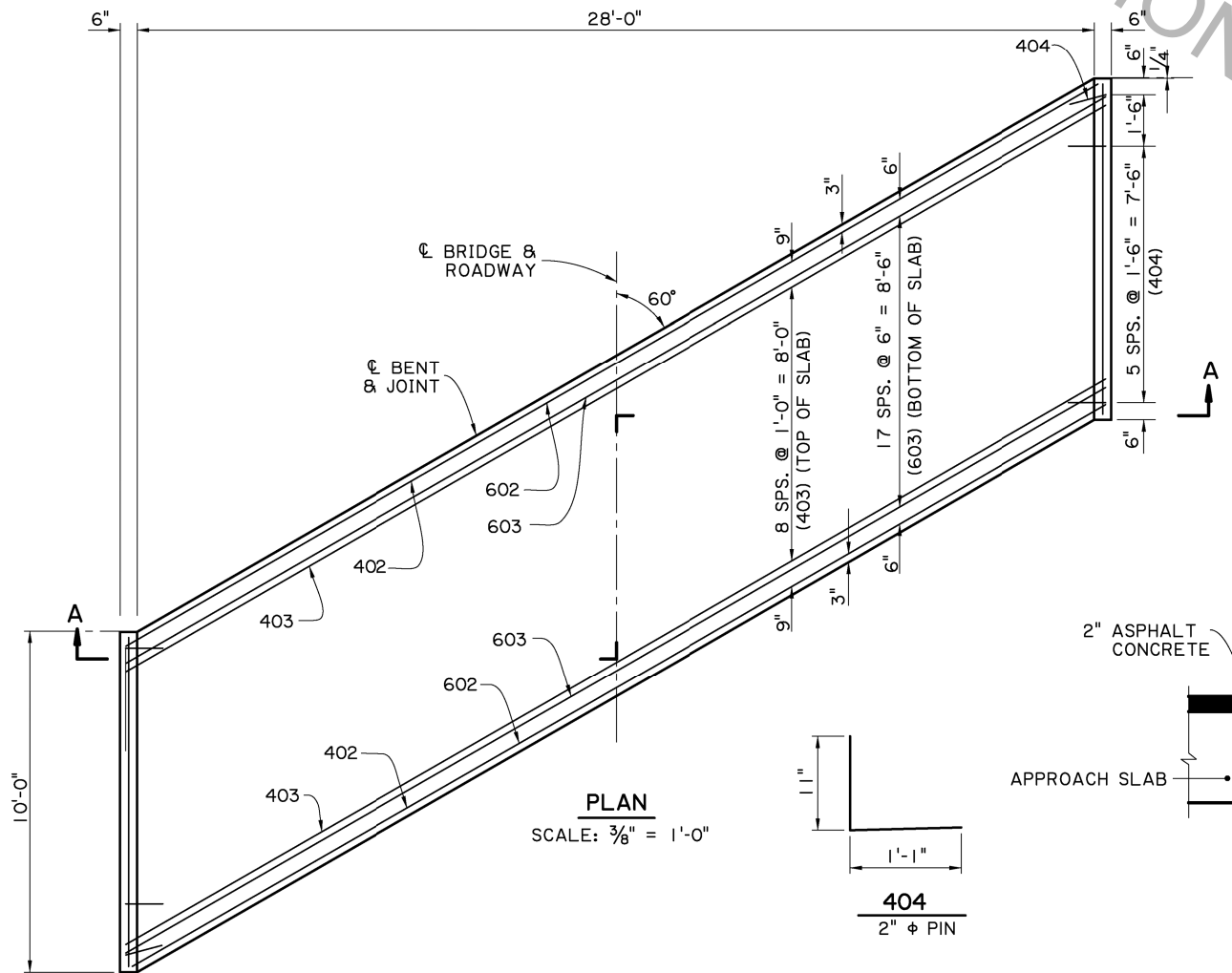
○ BASED ON A 10" SLAB THICKNESS



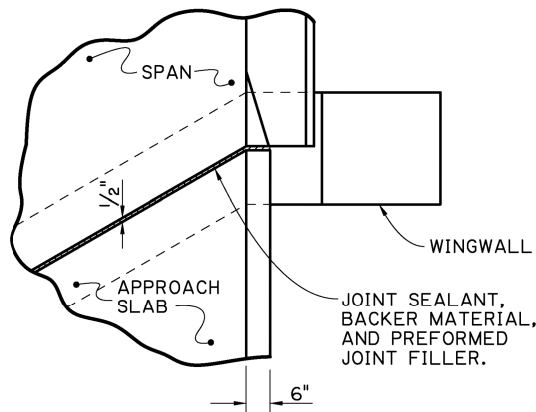
DETAIL "A"
TYP. EXTERIOR EDGE ONLY
SCALE 1" = 1'-0"



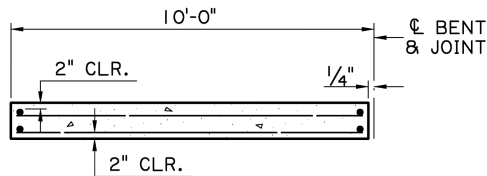
SECTION A-A
SCALE $\frac{3}{8}'' = 1'-0''$



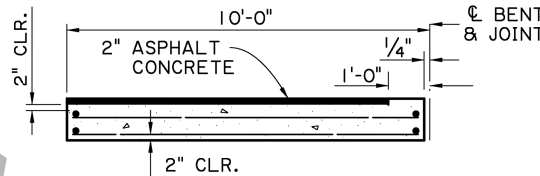
PLAN
SCALE: $\frac{3}{8}'' = 1'-0''$



JOINT DETAIL
N.T.S.

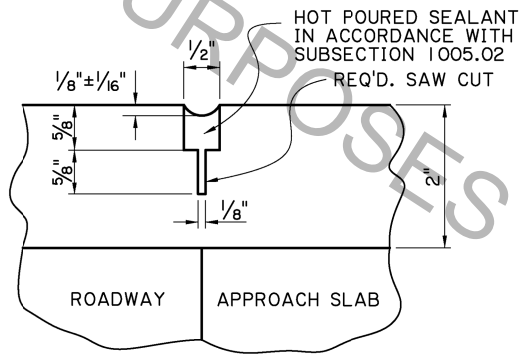


(FOR PORTLAND CEMENT ROADWAY PAVEMENT)

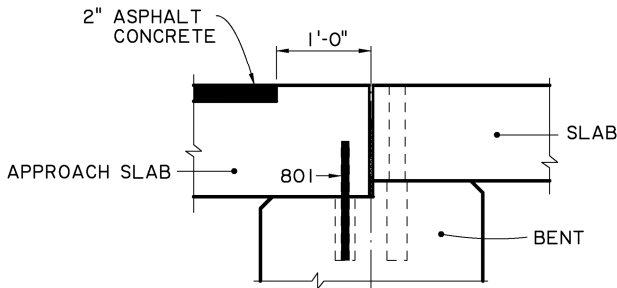


(FOR ASPHALT CONCRETE ROADWAY PAVEMENT)

SECTION ALONG ϕ ROADWAY
SCALE: $\frac{1}{4}'' = 1'-0''$



SAWING & SEALING
JOINT DETAIL
N.T.S.



DETAIL A
SCALE: $1'' = 1'-0''$
(ASPHALT CONCRETE PAVEMENT OPTION)

ESTIMATED QUANTITIES (ONE SLAB)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	8	1'-2"	9'-4"	DOWELS
TOTAL NO. 8 BARS = 9'-4" = 25 LBS.				
601	58	9'-6"	551'-0"	LONGIT. BOT. OF SLAB
602	2	32'-10"	65'-8"	TRANSV. BOT. OF SLAB
603	18	33'-1"	595'-6"	TRANSV. BOT. OF SLAB
TOTAL NO. 6 BARS = 1,212'-2" = 1,821 LBS.				
401	32	9'-7"	306'-8"	LONGIT. TOP OF SLAB & CURB
402	2	32'-10"	65'-8"	TRANSV. TOP OF SLAB
403	9	33'-1"	297'-9"	TRANSV. TOP OF SLAB
404	14	1'-10"	25'-8"	DOWELS IN CURB
TOTAL NO. 4 BARS = 695'-9" = 465 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 2,311 LBS.				
CONCRETE APPROACH SLAB = 32.22 SQ. YDS.				
ASPHALT CONCRETE = 3.0 TONS				
SAW CUT & SEAL = 31 LIN. FT.				

- TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS.
- REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT.

APPROACH SLAB NOTES:

CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.

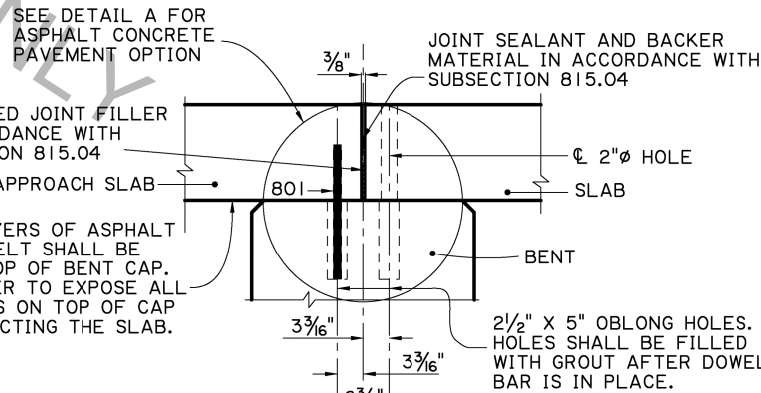
STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A $\frac{3}{4}''$ CHAMFER, UNLESS OTHERWISE NOTED.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO THE FABRICATION ARE OUT-TO-OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE NOTED.

BEDDING MATERIAL: FOR DETAILS OF BEDDING MATERIAL AND UNDERDRAINS, SEE STANDARD DETAIL BD.2.10.1.0.07.

SAWING & SEALING: THE ASPHALT CONCRETE SHALL BE SAW CUT AT THE END OF THE CONCRETE APPROACH SLAB THE ENTIRE ROADWAY WIDTH AND SEALED. COST TO BE INCLUDED WITH CONCRETE APPROACH SLABS.

BASIS OF PAYMENT: ALL MATERIAL SHALL BE PAID FOR UNDER 'CONCRETE APPROACH SLABS' ACCORDING TO THE SPECIFICATIONS.



TYPICAL JOINT DETAIL
SCALE: $1'' = 1'-0''$

NOTE: FOR ADDITIONAL JOINT DETAILS SEE SHEET 2 OF 11