



COLLIN COUNTY, TEXAS

ADDENDUM No. One (1)

IFB NO. 03501-09

INVITATION FOR BIDS

FOR

Construction, Bridge: County Road 593 Over Price Creek

DATE: May 27, 2009

NOTICE TO ALL PROSPECTIVE BIDDERS:

YOU ARE HEREBY DIRECTED TO MAKE CHANGES TO THE INVITATION FOR BIDS IN ACCORDANCE WITH THE ATTACHED INFORMATION.

Special Provision to Item 420 – The bridge deck may mechanically grooved or “wet- tined.” If the bridge deck is “wet-tined”, the surface texture shall meet the requirements in the specification.

Special Provision to Item 422 - Precast Panels will be allowed. See attached details.

Added Item 540 – Metal Beam Guard Fence-Thrie Beam Connection(Timber Post)

Modified Item 540 – Metal Beam Guard Fence: Metal Beam Guard Fences shall have timber posts and the quantity was modified to account for Thrie Beam Connection

DELETE SHEET: General Notes and Estimated Quantities
REPLACE WITH: General Notes and Estimated Quantities-REVISED

ADD SHEET: Prestressed Concrete Panels

DELETE SHEET: Bridge Approach Slab, Concrete Pavement, BAS-C
REPLACE WITH: Bridge Approach Slab, Asphaltic Concrete Pavement, BAS-A

PLEASE NOTE ALL OTHER TERMS, CONDITIONS, SPECIFICATIONS DRAWINGS, ETC. REMAIN UNCHANGED.

SINCERELY,
FRANKLIN YBARBO

PURCHASING AGENT

CR 593 – BID QUANTITIES

BID QUANTITIES FOR BRIDGE REPLACEMENT AT CR593 AT PRICE CREEK

BID DOCUMENT

BID

ITEM NO.	SPECIFICATION ITEM NUMBER	QUANTITIES	UNIT	BID ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT PRICE BID. IN NUMBERS	AMOUNT BID
1	100	4.70	STA	PREPARING AND MAINTAINING OF RIGHT-OF-WAY for _____ DOLLARS and _____ CENTS PER STATION	_____	_____
2	105	1255.0	SY	REMOVE STABILIZED BASE AND ASPHALT PAVING for _____ DOLLARS and _____ CENTS PER SQUARE YARD	_____	_____
3	110	3500.0	CY	EXCAVATION (ROADWAY & CHANNEL) for _____ DOLLARS and _____ CENTS PER CUBIC YARD	_____	_____

CR 593 – BID QUANTITIES

4	132	500.0	CY	EMBANKMENT (RDWY)(TY B)(CL 3)(DENS CONT) for _____ DOLLARS and _____ CENTS PER CUBIC YARD	_____	_____
5	164	1.5	AC	CELLULOSE MULCH/SEED for _____ DOLLARS and _____ CENTS PER ACRE	_____	_____
6	247	960.00	SY	FLEXIBLE BASE (COMPLETE IN PLACE)(TY A)(GR 3)(8") for _____ DOLLARS And _____ CENTS PER SQUARE YARD	_____	_____
7	340	101.0	TON	HOT-MIX ASPHALT PAVING(TYPE D)(SAC B)(PG64-22) for _____ DOLLARS and _____ CENTS PER TON	_____	_____
8	400	72.0	CY	CEMENT STABILIZED BACKFILL for _____ DOLLARS and _____ CENTS PER CUBIC YARD	_____	_____

CR 593 – BID QUANTITIES

9	416	114.0	LF	DRILLED SHAFT FOUNDATIONS (30" DIAMETER) for _____ DOLLARS And _____ CENTS PER LINEAR FOOT	_____	_____
10	420	32.6	CY	CLASS "C" CONCRETE (ABUTMENTS) for _____ DOLLARS And _____ CENTS PER CUBIC YARD	_____	_____
11	420	40.0	CY	CLASS "S" CONCRETE (APPROACH SLABS) for _____ DOLLARS And _____ CENTS PER CUBIC YARD	_____	_____
12	422	1820.0	SF	REINFORCED CONCRETE SLAB for _____ DOLLARS And _____ CENTS PER SQUARE FOOT	_____	_____

CR 593 – BID QUANTITIES

13	425	278.67	LF	PRESTRESSED CONCRETE SLAB BEAM(TYPE C) for _____ DOLLARS And _____ CENTS PER LINEAR FOOT	_____	_____
14	428	210.00	SY	CONCRETE SURFACE TREATMENT (CLASS I) for _____ DOLLARS And _____ CENTS PER SQUARE YARD	_____	_____
15	432	85.00	CY	STONE RIPRAP (DRY)(COMMON)(18") for _____ DOLLARS And _____ CENTS PER CUBIC YARD	_____	_____
16	450	180.0	LF	TRAFFIC RAIL (TYPE T203) for _____ DOLLARS and _____ CENTS PER LINEAR FOOT	_____	_____
17	454	51.00	LF	SEALED EXPANSION JOINTS (4" -Type A) for _____ DOLLARS And _____ CENTS PER LINEAR FOOT	_____	_____

CR 593 – BID QUANTITIES

18	459	545.0	SY	GALVANIZED GABIONS WITH PVC COATING (12" MATTRESS) for _____ DOLLARS and _____ CENTS PER SQUARE YARD	_____	_____
19	459	30.0	CY	GALVANIZED GABIONS WITH PVC COATING (3' x 3') for _____ DOLLARS and _____ CENTS PER CUBIC YARD	_____	_____
20	496	2	EA	REMOVE OLD STRUCTURE (LARGE) for _____ DOLLARS and _____ CENTS PER EACH	_____	_____
21	500	1	LS	MOBILIZATION FOR PROJECT for _____ DOLLARS and _____ CENTS PER LUMP SUM	_____	_____
22	502	4	MO	BARRICADES, SIGNS AND TRAFFIC HANDLING for _____ DOLLARS and _____ CENTS PER MONTH	_____	_____

CR 593 – BID QUANTITIES

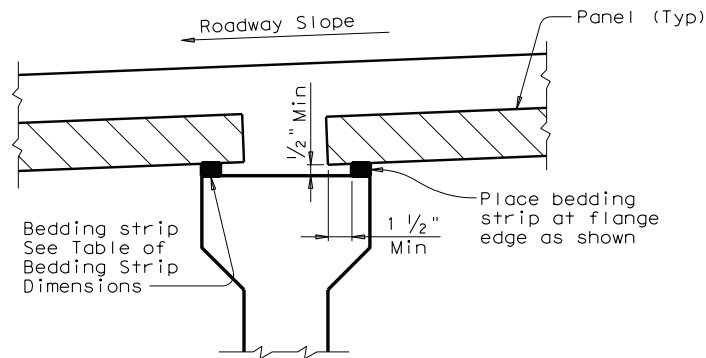
23	506	1	LS	EROSION CONTROL – ROCK FILTER DAMS(TYPE 4) for _____ DOLLARS and _____ CENTS PER LUMP SUM	_____	_____
24	506	850.0	LF	EROSION CONTROL – SEDIMENT CONTROL FENCE for _____ DOLLARS and _____ CENTS PER LINER FOOT	_____	_____
25	540	4.0	EA	METAL BEAM GUARD FENCE-THRIE BEAM CONNECTION (TIMBER POST) for _____ DOLLARS and _____ CENTS PER EACH	_____	_____
26	540	325.0	LF	METAL BEAM GUARD FENCE (TIMBER POST) for _____ DOLLARS and _____ CENTS PER LINEAR FOOT	_____	_____
27	540	4	EA	TERMINAL ANCHOR SECTION for _____ DOLLARS and _____ CENTS PER EACH	_____	_____

CR 593 – BID QUANTITIES

28	658	4	EA	OBJECT MARKERS (TYPE 3) for _____ and _____ PER EACH	DOLLARS CENTS	_____ _____
					SUBTOTAL	_____
					TOTAL (ITEMS 1-28)	_____

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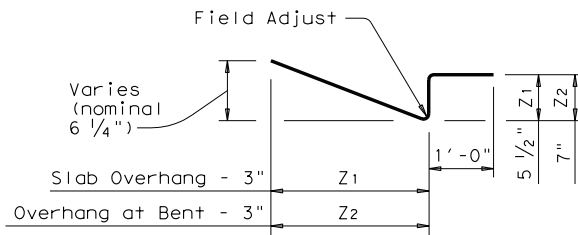
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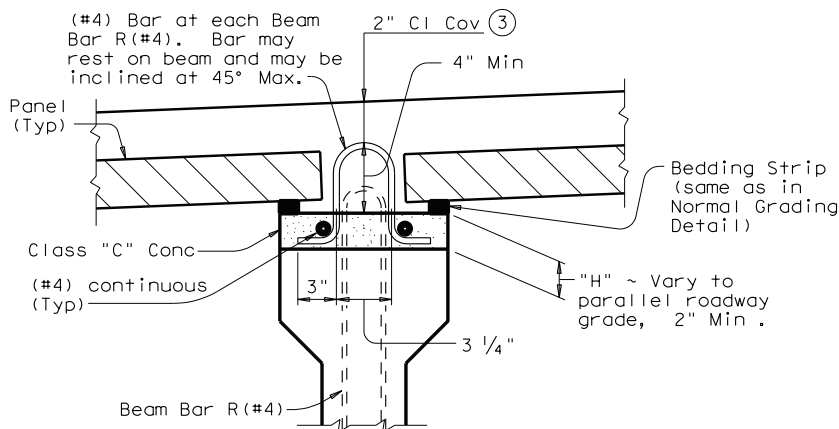
NORMAL GRADING DETAIL ①

Showing Prestressed Concrete I-Beams.
(Other Beam Types Similar)

TABLE OF BEDDING STRIP DIMENSIONS		
WIDTH	HEIGHT ②	
	Min	Max
1" (Min)	1/2"	2"
1 1/4"	1/2"	2 1/2"
1 1/2"	1/2"	3"
1 3/4"	1/2"	3 1/2"
2" (Max)	1/2"	4"

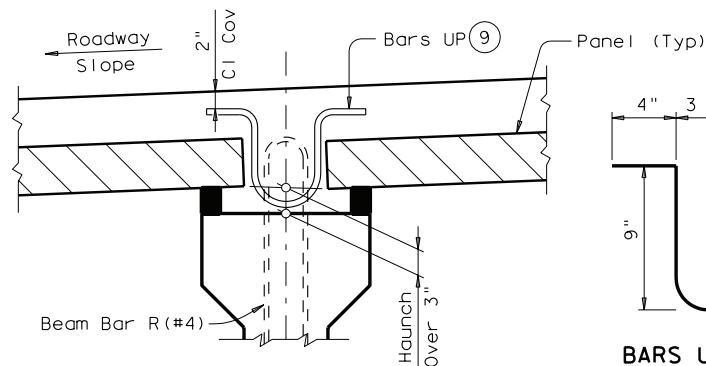


BARS Z (#4) ⑦



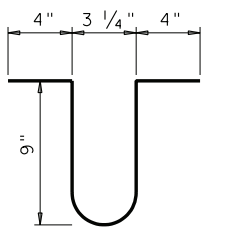
SPECIAL GRADING DETAILS FOR CONCRETE BEAMS ④

Showing Prestressed Concrete I-Beams.
(U-Beams and I-Girders Similar)

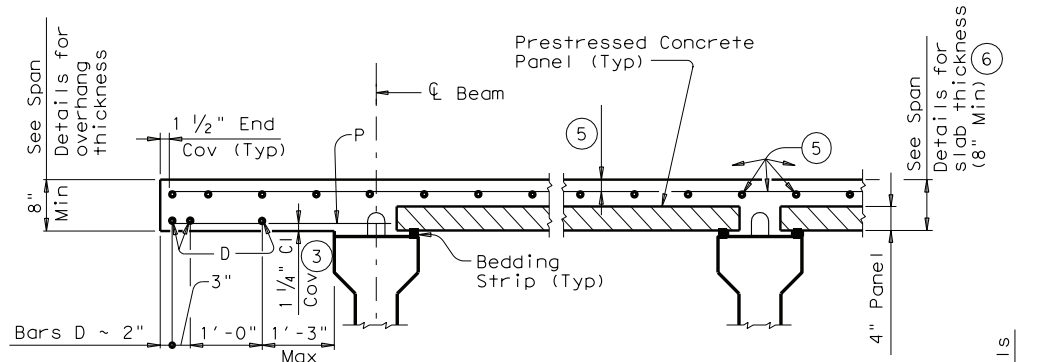


HAUNCH REINFORCING DETAIL

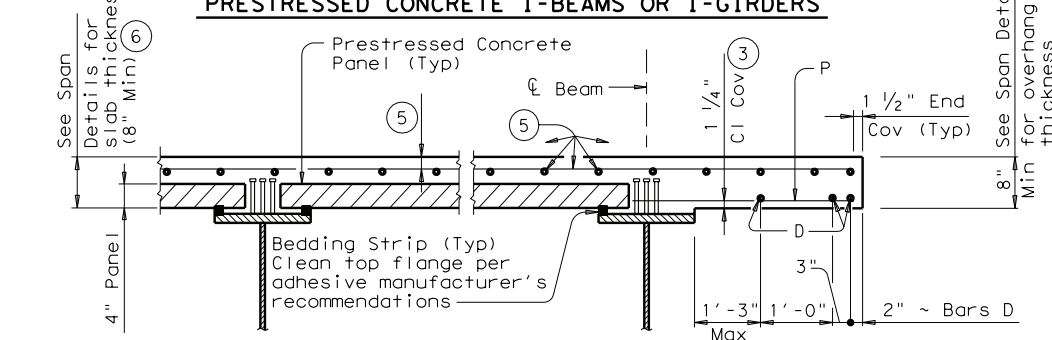
Showing Prestressed Concrete I-Beams.
(U-Beams and I-Girders Similar)



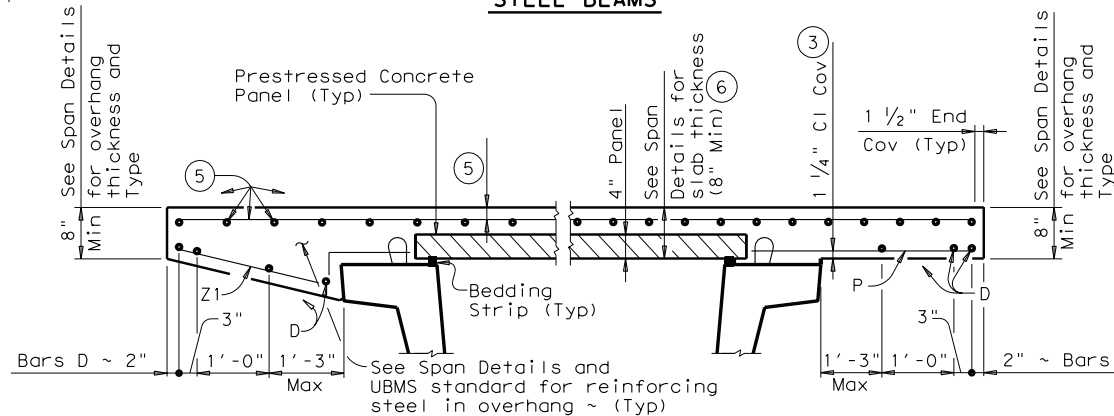
BARS UP (#4) ⑨



PRESTRESSED CONCRETE I-BEAMS OR I-GIRDERS



STEEL BEAMS



SLOPED OVERHANG WITH PRESTR CONC U-BEAMS

NORMAL OVERHANG WITH PRESTR CONC U-BEAMS

TYPICAL PART TRANSVERSE SECTIONS

- ① To reduce the quantity of cast-in-place concrete, bedding strip thickness may be increased in 1/4" increments. Bedding strips must be comprised of one layer. Bond bedding strips to the beams with an adhesive compatible with bedding strips. Bedding strips over 2.5" high may need to be bonded to panels. The same thickness strip must be used under any one panel edge and the maximum change in thickness between adjacent panels must be 1/4". Alternatively, bedding strips may be cut to grade. Panels may be supported by an alternate method, using a commercial product, if approved by the Engineer of Bridge Design, Bridge Division.
- ② Height must not exceed twice the width.
- ③ Clear cover shall be as indicated unless otherwise shown on Span Details.
- ④ For use where the distance between top of beam and finished grade can not be achieved within tolerances on cast-in-place slab thickness and thickness of bedding strips. Control dimensions shown in Normal Grading Detail still apply.
- ⑤ See Span Details for top slab reinforcement and clear cover. Longitudinal top slab reinforcement may rest on top of prestressed concrete panels if necessary to maintain clear cover.
- ⑥ The actual thickness constructed may exceed the slab thickness shown on the Span Details but, the extra thickness shall be no more than 2" for Prestressed Concrete I-Beams and 1" for Prestressed Concrete U-Beams and Steel Beams. Bearing Seat Elevations or finished grade may be adjusted.
- ⑦ Bars Z1 (#4) shall be field adjusted to match actual slope of slab overhangs. Width of slab overhang will vary along span with curved slab edges. Adjust Bar Z1 (#4) dimensions to maintain proper cover. Bars Z2 (#4) are located at Inv-T stems only.
- ⑧ Max Spacing as listed unless otherwise shown.
- ⑨ Space Bars UP (#4) with Beam Bars R (#4) in all areas where measured haunch exceeds 3".

CONSTRUCTION NOTES:

Erected panels must bear uniformly on bedding strips of extruded polystyrene placed along top flange edges.

If additional blocking is needed, special grading details for supporting the panels and extra reinforcing between beam and slab will be considered subsidiary to deck construction.

Care must be taken to ensure proper cleaning of construction debris and consolidation of concrete mortar under the edges of the panels. Bedding strips must be placed at beam flange edges so that adequate space is provided for the mortar to flow a minimum of 1 1/2" under the panels as the slab concrete is placed. To allow the proper amount of mortar to flow between beam and panel, the minimum vertical opening must be at least 1/2". Roadway cross-slope reduces the opening available for entry of the mortar. Bedding strips varying in thickness across the beam are therefore required.

All reinforcing steel in the cast-in-place slab must be Grade 60. See Table of Reinforcing Steel for size and spacing of reinforcement. Orientation of reinforcement (normal or skewed) must match that shown on the Span Details.

If the top and bottom layer of reinforcing steel is shown on the Span Details to be epoxy coated, then the A, D, E, P, & Z bars must be epoxy coated.

For clear span between U-beams less than or equal to 18", see Permissible Slab Forming Detail on Miscellaneous Slab Detail sheets, UBMS.

Bar Laps, where required, must be as follows:

Uncoated ~ #4 = 1'-5"
~ #5 = 1'-9"
Epoxy Coated ~ #4 = 2'-1"
~ #5 = 2'-7"

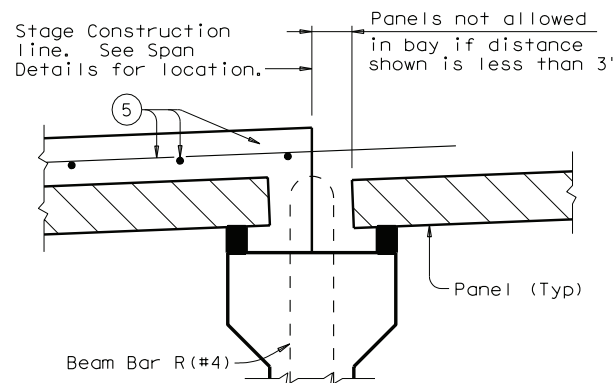
GENERAL NOTES:

Designed according to AASHTO LRFD Specifications.

Use of Prestressed Concrete Panels is not permitted for horizontally curved steel plate or tub girders. See Span Details for other possible restrictions on their use.

These details are to be used in conjunction with the Span Details and applicable Standard sheets.

Any additional reinforcement or concrete required on this standard is to be considered subsidiary to the bid item "Reinforced Concrete Slab".



STAGE CONSTRUCTION LIMITATIONS ON PANELS

Showing Prestressed Concrete I-Beams.
(Other Beam Types Similar)

HL93 LOADING SHEET 1 OF 4

Texas Department of Transportation
Bridge Division

PRESTRESSED CONCRETE PANELS OPTIONAL DECK DETAILS FOR BEAM SPANS

PCP

FILE: pcpsd1.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CR: TxDOT
© TxDOT April 2006	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS				
08-07: Added I-Girders and added note to WWR splice detail.	COUNTY	CONTROL	SECT	HIGHWAY

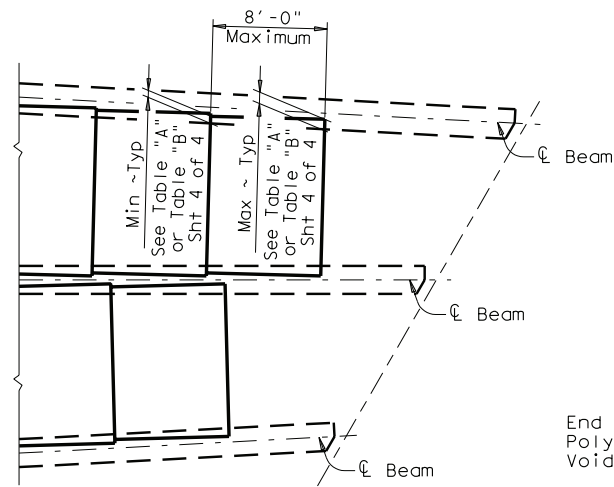
LEVELS DISPLAYED

FILE: pcpsdel.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT April 2006	DISTRICT	FEDERAL AID PROJECT		
REVISIONS				
08-07: Added I-Girders and added note to WWR splice detail.	COUNTY	CONTROL	SECT	JOB
				HIGHWAY

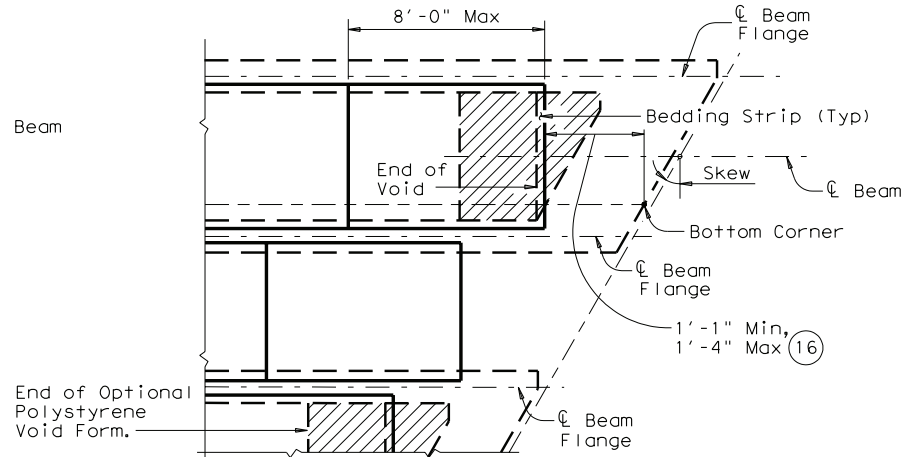
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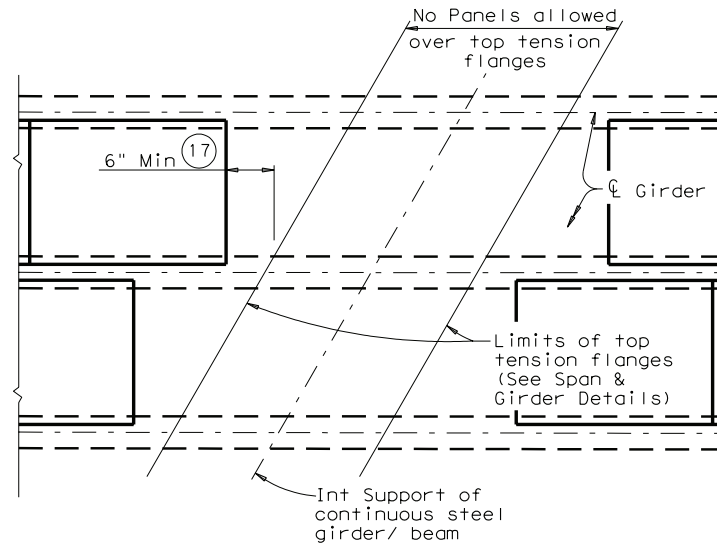
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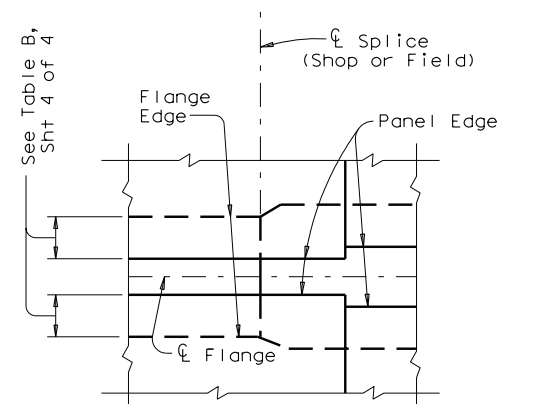
AT ENDS OF FLARED I-BEAMS OR I-GIRDERS
(Showing thickened slab end condition)



AT ENDS OF CONC U-BEAMS

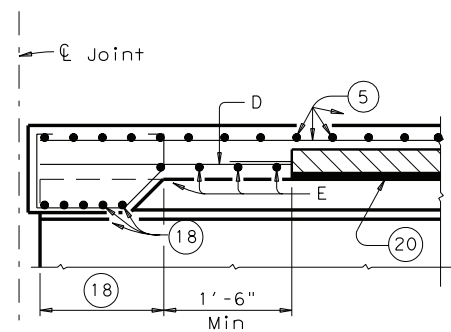


AT INT SUPPORTS OF CONTINUOUS STEEL GIRDERS

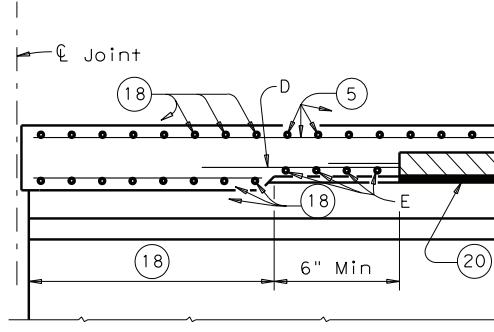


PLAN AT SPLICE
(Showing Steel Bms with flange width transition)

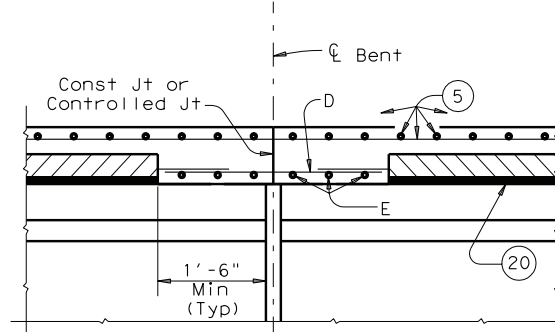
PART PLANS OF PANEL PLACEMENT



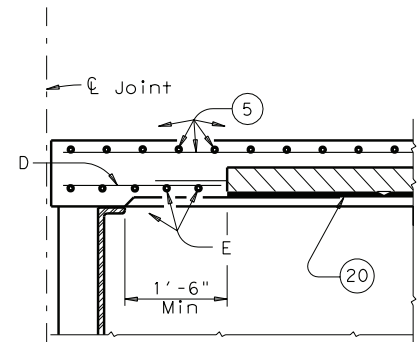
AT THICKENED SLAB ENDS FOR PRESTR CONC U-BMS



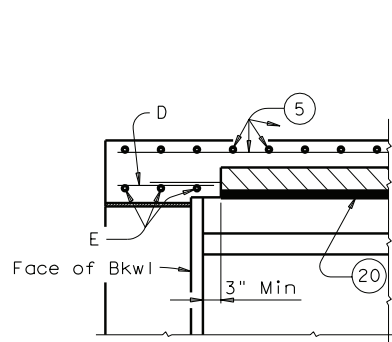
AT THICKENED SLAB ENDS FOR PRESTR CONC I-BMS AND STEEL BMS



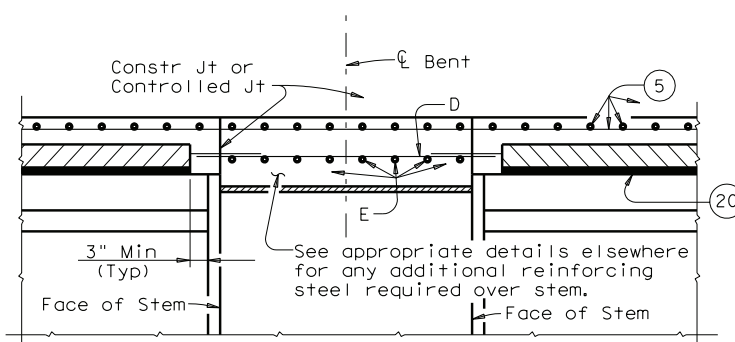
AT SLAB CONTINUOUS OVER CONVENTIONAL INTERIOR BENTS FOR ALL SIMPLE SPAN BMS



AT CONVENTIONAL END DIAPHRAGMS FOR STEEL BMS



AT SLAB OVER ABUTMENT BACKWALL FOR ALL BMS

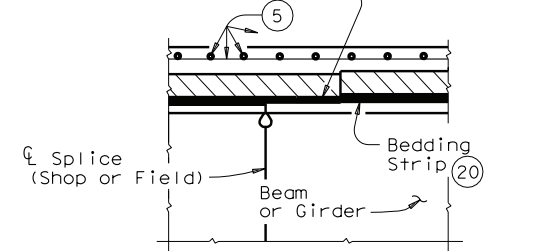


AT SLAB CONTINUOUS OVER INVERTED-T BENTS FOR ALL BMS

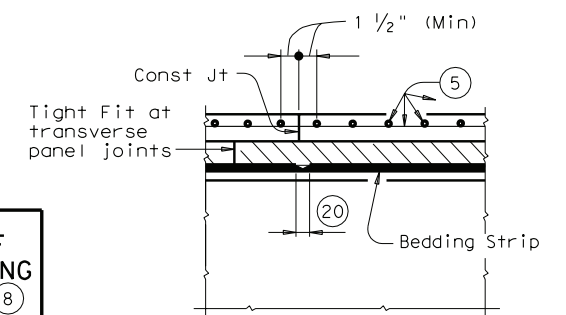
ELEVATIONS AT BEAM ENDS

- 5 See Span Details for top slab reinforcement and clear cover. Longitudinal top slab reinforcement may rest on top of prestressed concrete panels if necessary to maintain clear cover.
- 8 Max Spacing as listed unless otherwise shown.
- 16 For panel placement at ends of dapped end U-Beams, with Skews under 30°, use 2'-9" ± 1" or with Skews 30° thru 45°, use 3'-3" ± 1".
- 17 Location of concrete placement sequence boundaries and bolted field splices should be considered by the contractor in determining panel limits.
- 18 See appropriate thickened slab end details for reinforcing and limits of thickened slab end.
- 19 When flange thickness differs or flange cover plates are used the Contractor must compensate by using different thickness bedding strips to assure that the tops of Precast Panels are within 1/4" of alignment. See Normal Grading Detail for additional notes.
- 20 Butt adjacent bedding strips together with adhesive. Cut v-notches, approx 1/4" deep, in the top of the bedding strips at 8' o.c..

Contractor to field cut bedding strip to adjust for difference in flange thickness.



ELEVATION AT SPLICE
(Showing Steel Bms with different flange thickness)



TRANSVERSE PANEL JOINTS AND SLAB CONST JOINTS

TABLE OF REINFORCING STEEL 8

BAR	SIZE	Max Spa (in.)
A	#5	~
D	#5	9
E	#5	6
P	#4	18
UP	#4	~
Z	#4	18

HL93 LOADING SHEET 3 OF 4

Texas Department of Transportation
Bridge Division

**PRESTRESSED CONCRETE PANELS
OPTIONAL DECK DETAILS
FOR BEAM SPANS**

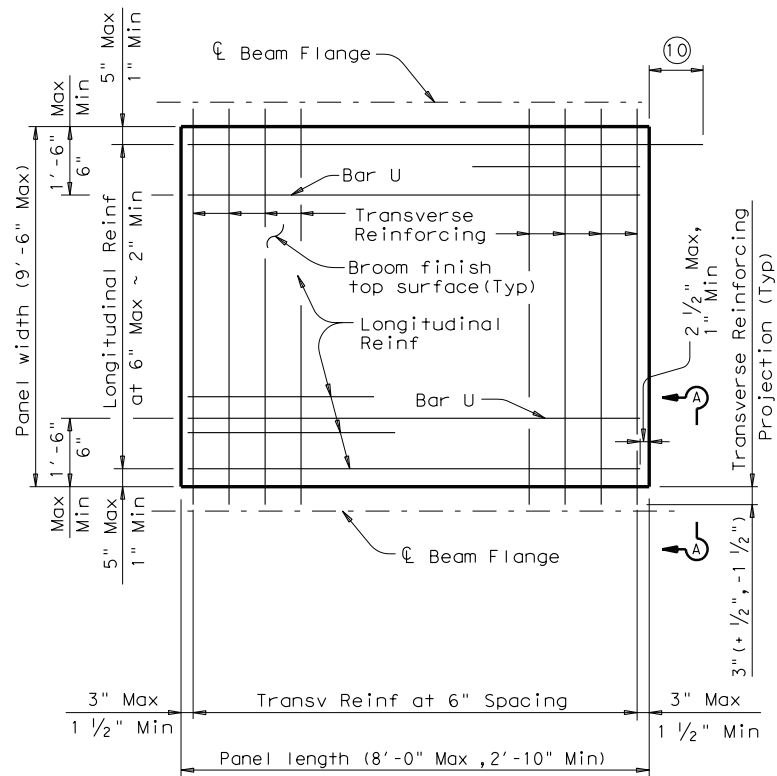
PCP

FILE: pcpsd1.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CR: TxDOT
© TxDOT April 2006	DISTRICT	FEDERAL AID PROJECT	SHEET	
REVISIONS				
08-07: Added I-Girders and added note to WWR splice detail.				
COUNTY	CONTROL	SECT	JOB	HIGHWAY

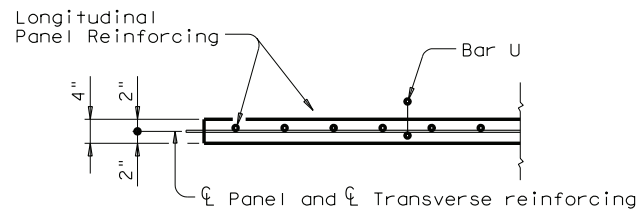
EXAMPLE OF BEDDING STRIPS BUTTED TOGETHER WITH V-NOTCH

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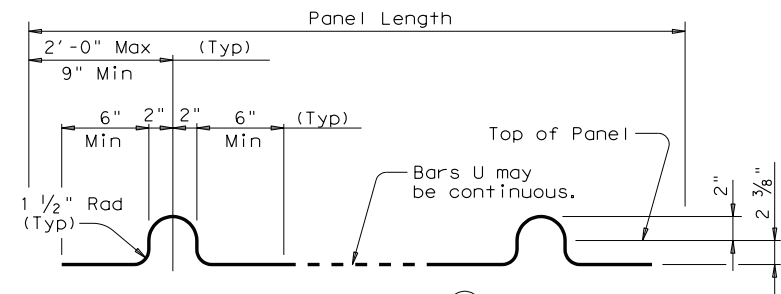
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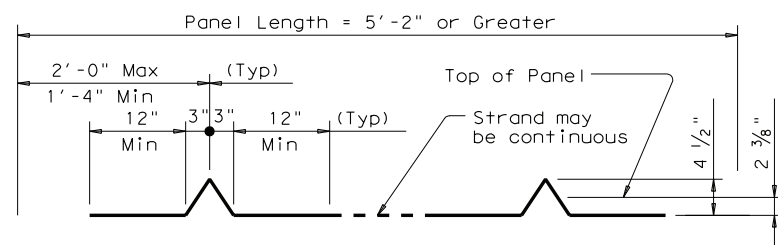
TYPICAL PANEL PLAN



SECTION A-A

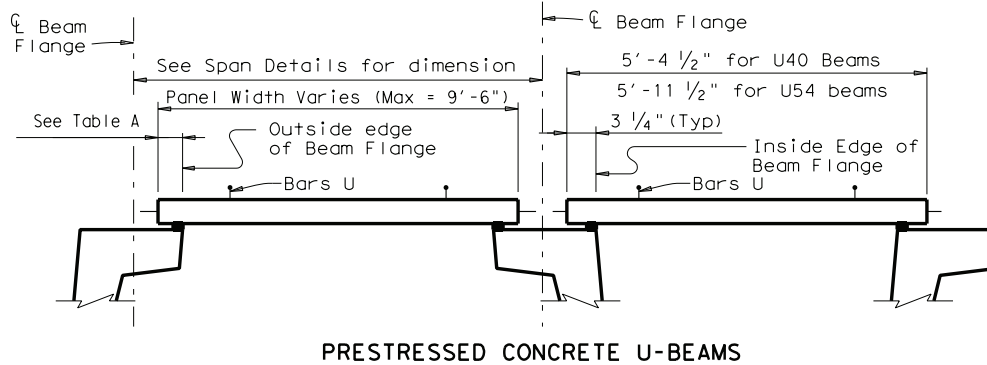
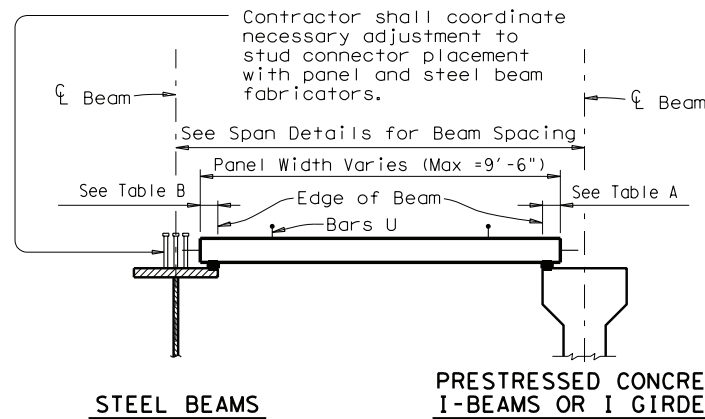


BARS U (#3) (21)



OPTIONAL STRAND FOR BARS U (22)

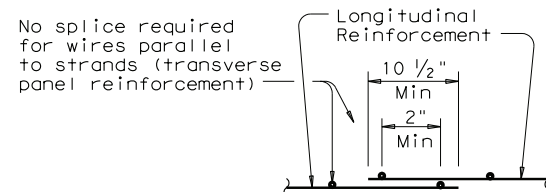
- (10) At connection with cast-in-place slab, extend longitudinal panel reinforcement 1'-0" (+2", -0") past panel end. Alternatively, provide (#3) x 2'-0" dowels at 6" Max Spacing and extend dowels 1'-0" past panel end.
- (21) Four loops required per panel.
- (22) Four loops required per panel. 3/8" or 1/2" strands may be used.
- (23) Normal dimensions must be used on spans with parallel beams. Maximum and Minimum dimensions apply only to spans with flared beams.
- (24) See Normal Grading Detail on Sht 1 of 4 for lap requirements and bedding strip dimensions. Some laps shown in tables cannot utilize all bedding strip widths.
- (25) One Splice allowed per panel.



TYPICAL SECTIONS FOR DETERMINING PANEL WIDTH

TABLE A (23)(24)			
Beam Type	Normal (In.)	Min (In.)	Max (In.)
A	3	2 1/2	3 1/2
B	3	2 1/2	3 1/2
C	4	3	4 1/2
IV	6	4	7 1/2
VI	6 1/2	4 1/2	8 1/2
U40	5 1/2	5 1/2	7
U54	5 1/2	5 1/2	7
Tx28-70	6	4	7 1/2

TABLE B (23)(24)			
Top Flange Width	Normal (In.)	Min (In.)	Max (In.)
11" to 12"	2 3/4	2 1/2	2 3/4
Over 12" to 15"	3 1/4	3	3 1/4
Over 15" to 18"	4	3	4 3/4
Over 18"	5	3 1/2	6 1/4



WELDED WIRE REINFORCEMENT (WWR) SPLICE DETAIL (25)

FABRICATION NOTES:

All concrete for panels is to be Class H. Use Class H (HPC) concrete for panels if required elsewhere in plans. Release strength $f'ci=4000$ psi. Minimum 28 day strength $f'c=5000$ psi.
Remove laitance from top panel surface.
A minimum of 90 percent of the top surface area must have the required broom finish.
Shop drawings for the fabrication of panels will not require the Engineer's approval if fabrication is in accordance with the details shown on this standard.
A panel layout which identifies location of each panel must be developed by the fabricator. Permanently mark each panel in accordance with the panel layout. A copy of the layout is to be provided to the Engineer.

TRANSVERSE PANEL REINFORCEMENT:

For panel widths over 5', use 3/8" or 1/2" Dia (270k) prestressing strands with an initial tension of 16.1 kips per strand.
For panel widths over 3'-6" up to and including 5', use 3/8" or 1/2" Dia (270k) prestressing strands with an initial tension of 16.1 kip per strand. Optionally, #4 Grade 60 reinforcing bars may be used in lieu of prestressed strands.
For panel widths up to 3'-6", use #4 Grade 60 reinforcing bars (prestressed strands are not allowed).
Place transverse panel reinforcement at panel centroid and space at 6" Max.

LONGITUDINAL PANEL REINFORCEMENT:

Any of the following options may be used for longitudinal panel reinforcement:
1. (#3) Grade 60 reinforcing steel at 6" Max Spacing. No splices allowed.
2. 3/8" Dia prestressing strands at 4 1/2" Max Spacing (unstressed). No splices allowed.
3. 1/2" Dia prestressing strands at 6" Max Spacing (unstressed). No splices allowed.
4. Deformed Welded Wire Reinforcement (WWR) (ASTM A497) providing 0.22 sq in per foot of panel width. Wires larger than D11 not permitted. Provide transverse wires to ensure proper handling of reinforcing. One splice per panel is allowed. See WWR Splice Detail.
No combination of longitudinal reinforcement options in a panel is allowed.
Place longitudinal panel reinforcement above transverse panel reinforcement.

CODES AND REFERENCES

- A. CONSTRUCTION SPECIFICATIONS, TEXAS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES" 2004 INCLUDING SPECIAL PROVISIONS.
- B. DESIGN SPECIFICATIONS: AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16TH EDITION, 1996.
- C. DESIGN LOADING: HL-93
- D. STANDARD DRAWINGS: TEXAS DEPARTMENT OF TRANSPORTATION.

CONSTRUCTION

- A. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4 " UNLESS NOTED OTHERWISE.
- B. CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN IN THE DRAWINGS, WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

DIMENSIONS

- A. DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
- B. CONTRACTOR SHALL INFORM ENGINEER/OWNER OF ANY DISCREPANCIES OF DIMENSIONS SHOWN IN THE DRAWINGS.

EXISTING UTILITIES

- A. THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THERE MAY BE OTHER UNKNOWN UTILITIES EXISTING NOT SHOWN ON THE PLANS THAT SHALL BE VERIFIED AND PROTECTED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION..
- B. INFORM ENGINEER/OWNER OF ANY CONFLICTS BETWEEN BRIDGE FOUNDATION LAYOUT AND EXISTING UTILITIES.

REINFORCING STEEL

- A. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A615, GRADE 60.
- B. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE UNLESS SUPPRESSED BY THE CONSTRUCTION SPECIFICATIONS.
- C. REINFORCING BAR SPACING SHALL BE TO CENTER OF BAR UNLESS NOTED OTHERWISE.
- D. BEND DIMENSIONS SHALL BE OUT TO OUT OF BEND UNLESS NOTED OTHERWISE.
- E. ALL LAP SPLICES SHALL BE AASHTO CLASS "C" UNLESS NOTED OTHERWISE.
- F. REINFORCING FOR BRIDGE SLAB SHALL BE EPOXY COATED.

DRILLED SHAFT FOUNDATIONS

- A. THE FOLLOWING PARAMETERS WERE USED TO DESIGN THE DRILLING SHAFTS INTO THE DARK GRAY CALCAREOUS SHALE.
- CR 593 @ PRICE CREEK
- ALLOWABLE END BEARING OF 30,000 PSF
- ALLOWABLE SKIN FRICTION OF 4,000 PSF
- B. ALL DRILLED SHAFTS SHALL BE FOUNDED AT THE ELEVATIONS SHOWN ON THE BRIDGE PLAN AND PROFILE DRAWINGS OR DEEPER AS NECESSARY TO OBTAIN THE NOTED MINIMUM PENETRATION INTO THE GRAY MARL.
- C. TEMPORARY STEEL CASINGS MAY BE REQUIRED FOR THE DRILLED SHAFTS DUE TO THE PRESENCE OF GROUNDWATER DURING CONCRETE PLACEMENT. CASING SHALL BE USED IF A.) MORE THAN 1 INCH OF WATER IS PRESENT AT THE BASE OF THE SHAFT PRIOR TO CONCRETE PLACEMENT AND B.) IF THE WATER LEVEL IS RISING ABOVE 1 INCH AT THE TIME CONCRETE IS POURED INTO THE SHAFT. EXCAVATIONS SHALL BE FREE OF WATER AND LOOSE MATERIALS WHEN CONCRETE IS PLACED. INSTALLATION OF INDIVIDUAL SHAFTS SHALL BE IN A CONTINUOUS MANNER AND SHALL BE CONCRETED WITHIN AN EIGHT HOUR PERIOD AFTER THE DESIGN PENETRATION.
- D. EXCAVATED MATERIAL, EXCESSIVE CONCRETE, DRILLED SHAFT SHAVINGS, ETC., SHALL NOT BE DEPOSITED INTO THE CREEKS BUT SHALL BE DISPOSED OF AS NOTED IN THE SPECIFICATIONS, ITEM 416.

EROSION CONTROL

1. ROCK FILTER DAMS SHALL BE PLACED EVERY 100' ON THE FLOW LINE OF PROPOSED DITCHES. REFER TO TxDOT STANDARD DRAWING EC (2) - 93
2. SEDIMENT CONTROL FENCE SHALL BE PLACED AT ALL DROP STRUCTURES. REFER TO TxDOT STANDARD DRAWING EC (1) - 93.
3. THE CONTRACTOR SHALL PROVIDE ALL EXPOSED AREAS WITHIN PROJECT LIMITS UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 75% BEFORE PROJECT COMPLETION.
4. VEGETATIVE WATERING AND ALL INCIDENTALS SHALL BE SUBSIDIARY TO SEEDING.
5. INSTALL SOIL RETENTION BLANKETS ON ALL GRADED EARTH SLOPES 6:1 AND STEEPER (SUBSIDIARY TO ITEM 132).

EARTHWORK

1. ALL STRUCTURAL EXCAVATION & CEMENT-STABILIZED BACKFILL SHALL BE SUBSIDIARY TO ITEMS 110 & 132.

REMOVAL AND DISPOSAL OF EXISTING STRUCTURE

- A. THE EXISTING STRUCTURES SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE SPECIFICATIONS ITEM 496.

FENCES

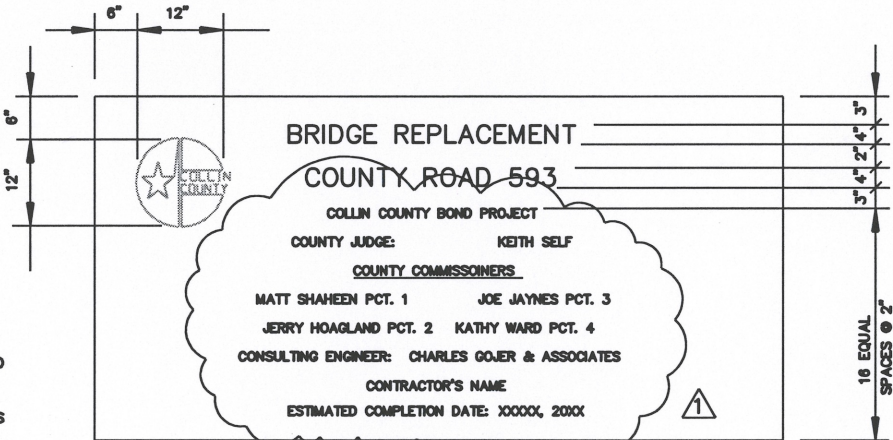
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL FENCES THAT ARE DESIGNATED TO BE RELOCATED IN THE PLANS, OR DISTURBED OR REMOVED BY HIM DURING CONSTRUCTION. ALL SUCH FENCES SHALL BE CONSTRUCTION IN ACCORDANCE WITH TxDOT ITEM 552. FINAL LOCATION OF FENCE SHALL BE CONFIRMED BY THE CONTRACTOR WITH THE COUNTY. REPLACE GATES WITH TYPE 1 GATES.
2. WHERE FENCES ARE REMOVED BY THE CONTRACTOR, TEMPORARY FENCES SHALL BE PROVIDED BY THE CONTRACTOR TO PROTECT LIVESTOCK. SUCH FENCES SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING FENCE, AND SHALL REMAIN IN PLACE FOR THE DURATION OF THE CONSTRUCTION AND UNTIL THE PERMANENT FENCE IS INSTALLED. TEMPORARY FENCES SHALL BE CONSTRUCTED OF SUITABLE QUALITY (EQUAL TO OR BETTER THAN EXISTING) TO RETAIN THE LIVESTOCK. CONTRACTOR IS SOLELY AND ENTIRELY RESPONSIBLE FOR THE LOSS OF EXISTING LIVESTOCK PRESENT ON EACH PROPERTY ADJACENT TO EACH WORK SITE DUE TO MISSING OR INADEQUATE FENCE REMOVED OR INSTALLED BY HIM.

ROCK RIPRAP

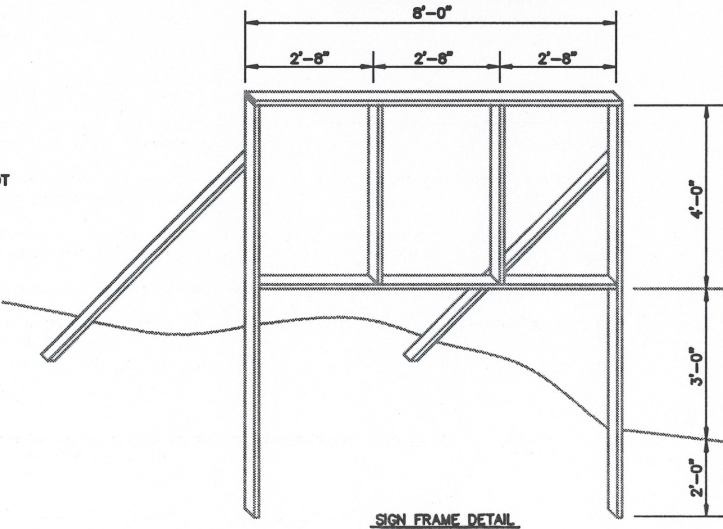
1. MAXIMUM SIDE SLOPES SHALL NOT EXCEED 3:1.
2. 8oz PER SQ. YARD GEOTEXTILE FABRIC SHALL BE PLACED UNDER ALL ROCK RIPRAP.
3. STONES USED IN RIPRAP SHALL HAVE A MINIMUM SPECIFIC WEIGHT OF 160pcf.
4. ALL EXCAVATION REQUIRED FOR ROCK RIPRAP SHALL BE CONSIDERED SUBSIDIARY TO ITEM 432.

EXISTING CONDITIONS

1. SINCE COMPLETION OF SURVEY, EXISTING FIELD CONDITIONS MAY HAVE CHANGED. CONTRACTOR SHALL VERIFY ACCURACY OF SURVEY AND NOTE ANY CHANGE AND REPORT DISCREPANCIES TO THE ENGINEER.

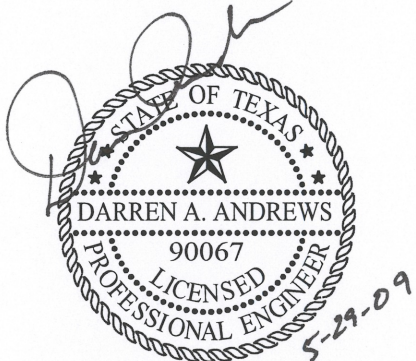


SIGN FRAME DETAIL



1. SIGN PANEL TO BE 3/4 " EXTERIOR PLYWOOD.
2. FRAME TO BE 2" X 4" STOCK.
3. FRAME TO BE PAINTED IN BLACK.
4. PAINT BACKGROUND OF SIGN WHITE.
5. PROJECT NAME SHALL BE IN BLUE LETTERS.
6. "CONSULTING ENGINEER: CHARLES GOJER & ASSOCIATES" SHALL BE GOLD.
7. COLLIN COUNTY LOGO SHALL BE IN ITS STANDARD COLORS OF BLUE, RED, AND WHITE.
8. BALANCE OF MESSAGE SHALL BE IN GLOSSY BLACK.
9. ALL PAINT TO BE EXTERIOR BASE PAINT.
10. LETTERS AND LOGOS CAN BE EITHER PAINT OR ADHESIVE.
11. SIGN PLACEMENT LOCATION TO BE DETERMINED BY COUNTY. TWO SIGNS WILL BE REQUIRED AT EACH SITE.

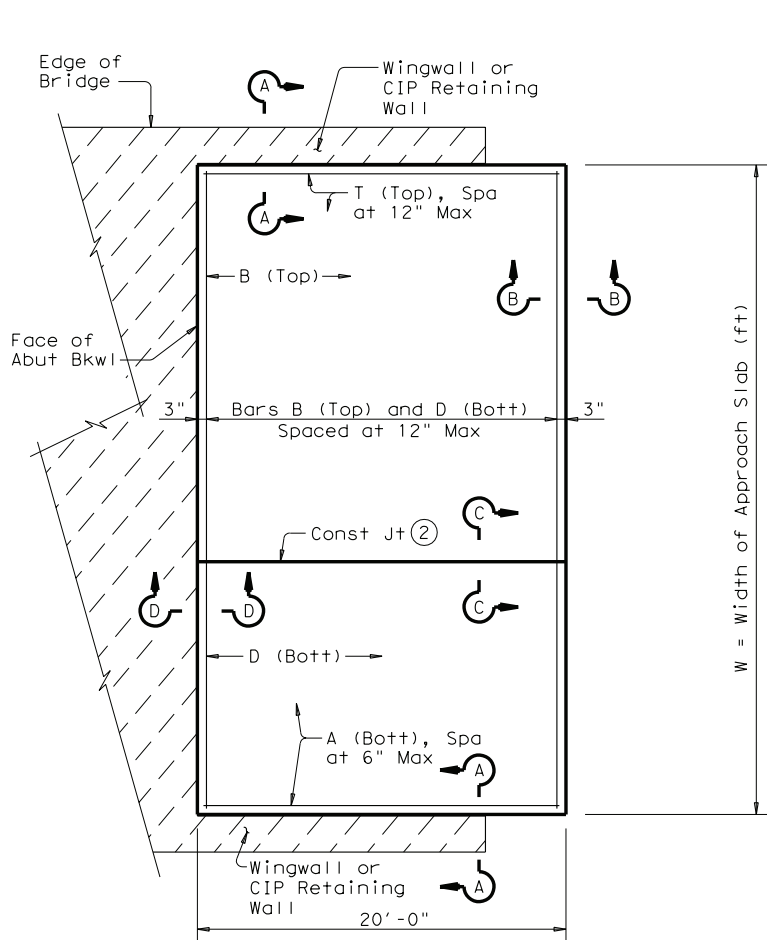
ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	UNIT	QTY
100	PREPARING AND MAINTAINING OF RIGHT-OF-WAY	STA	4.70
105	REMOVE STABILIZED BASE AND ASPHALT PAVING	SY	1255.00
110	EXCAVATION (RDWY & CHANNEL)	CY	3500.00
132	EMBANKMENT (RDWY)(TY B)(CL 3)(DENS CONT)	CY	500.00
164	CELLULOSE MULCH/SEED	AC	1.50
247	FLEX BASE (COMPLETE IN PLACE)(TY A)(GR 3)(8")	SY	960.00
340	DENSE-GRADED HOT-MIX ASPHALT (METHOD)(TYPE D)(SAC B)(PG64-22)	TON	101.00
400	CEMENT STABILIZED BACKFILL	CY	72.00
416	DRILLED SHAFT FOUNDATIONS (30" DIAM.)	LF	114.00
420	CLASS "C" CONCRETE (ABUTMENTS)	CY	32.60
420	CLASS "S" CONCRETE (APPROACH SLAB)	CY	40.00
422	REINFORCED CONCRETE SLAB	SF	1820.00
425	PRESTRESSED CONCRETE BEAM (TYPE C)	LF	278.67
428	CONCRETE SURFACE TREATMENT (CLASS I)	SY	210.00
432	STONE RIPRAP (DRY) (COMMON)(18")	CY	85.00
450	RAILING (TYPE T203)	LF	180.00
454	SEALED EXPANSION JOINTS (4")	LF	51.00
459	GALVANIZED GABIONS W/ PVC COATING (12" MATTRESS)	SY	545.00
459	GALVANIZED GABIONS W/ PVC COATING (3'x3')	CY	30.00
496	REMOVING OLD STRUCTURES (LARGE)	EACH	2.00
500	MOBILIZATION	LS	1.00
502	BARRICADES, SIGNS, AND TRAFFIC HANDLING	MO	4.00
506	ROCK FILTER DAMS (TYPE 4)	LS	1.00
506	SEDIMENT CONTROL FENCE	LF	850.00
540	METAL BEAM GUARD FENCE-THREE BEAM CONNECTION (TIMBER POST)	EACH	4.00
540	METAL BEAM GUARD FENCE (TIMBER POST)	LF	325.00
540	TERMINAL ANCHOR SECTION	EACH	4.00
658	OBJECT MARKERS (TYPE 3)	EACH	4.00



NO.	REVISION	BY	DATE
COLLIN COUNTY, TEXAS DEPARTMENT OF PUBLIC WORKS BRIDGE BOND PROJECT			
GENERAL NOTES & ESTIMATED QUANTITIES CR 593 @ PRICE CREEK			
Charles Gojer and Associates, Inc. Consulting Engineers 11815 Forest Central Dr. Suite 303 Dallas, Texas 75243 (214) 540-1199 TX REGISTRATION NO. F-4997			
DESIGNED: JAL/AB	DRAWN: JAL	DATE: 09/28/09	FILE: 10-07-110
APPROVED: DBA	CHECKED: DBA	SCALE: SEE PLAN	SHEET 01 OF 14

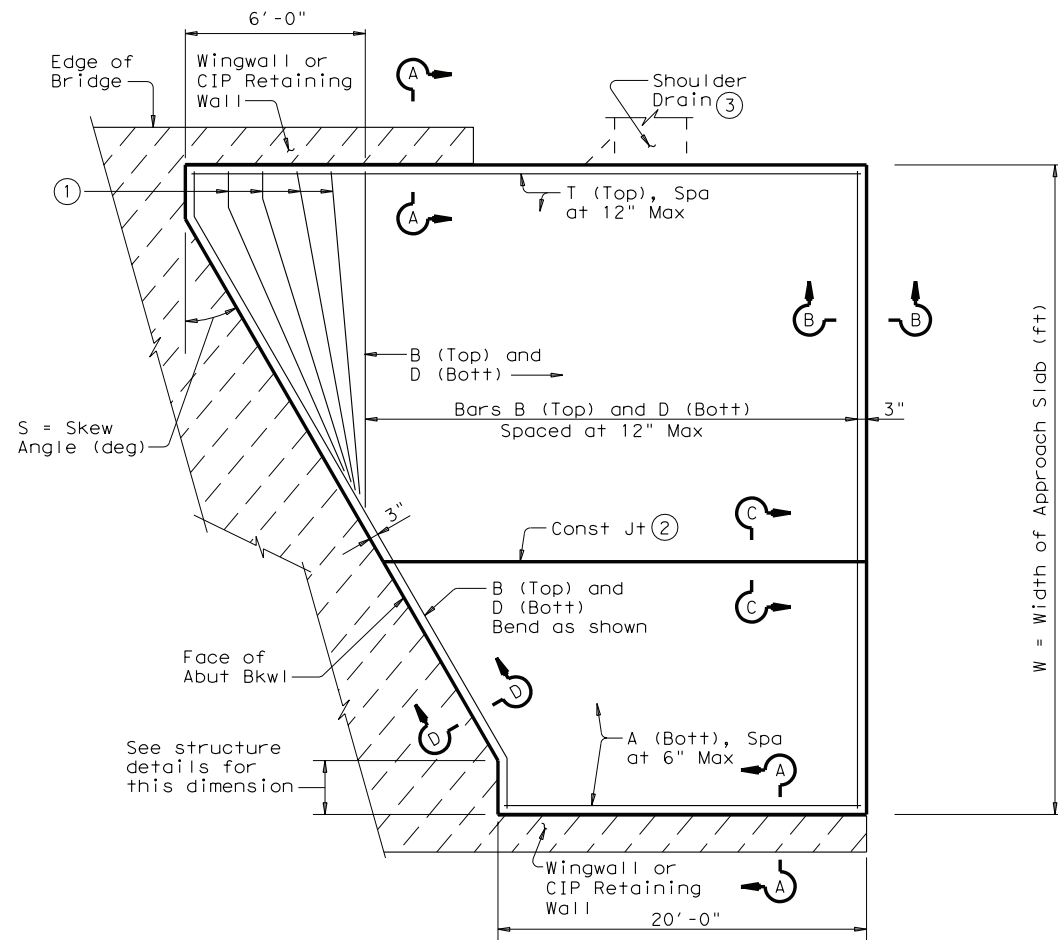
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PATH:
LEVELS DISPLAYED



PLAN

(Showing Non-Skewed Approach Slab)



PLAN

(Showing Skewed Approach Slab)

BAR TABLE	
BAR	SIZE
A	#8
B	#5
D	#5
T	#5

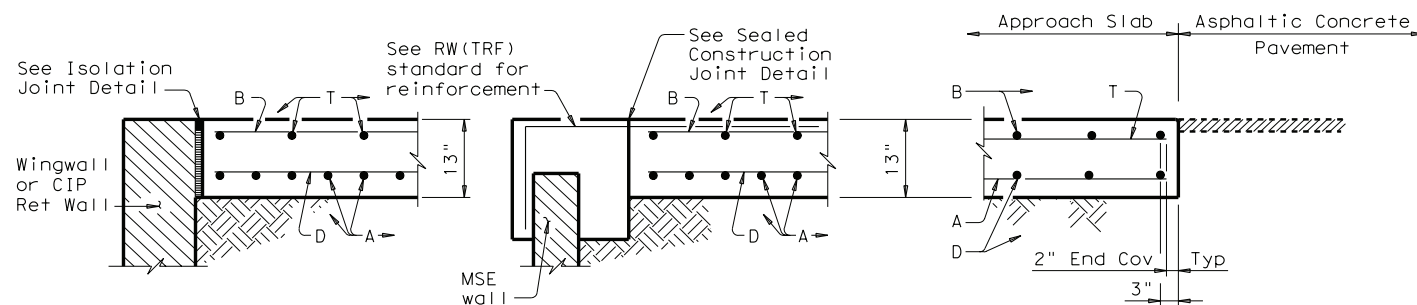
APPROXIMATE QUANTITIES ⁽⁴⁾

Reinf steel weight = 8.5 Lbs/SF of Approach Slab
Area of Appr Slab = $20W + 0.5W^2 \tan S$ (SF)
W = Width of Approach Slab (ft)
S = Skew Angle (deg)

- Flare Bars B and D in this region (1'-6" Max Spa, 3" Min Spa). Minimum flared bar length = 2'-6". Bend bars as necessary.
- Provide longitudinal construction joints that align with longitudinal construction joints in the bridge slab with bridges built in stages. Other longitudinal construction joints must receive approval of the Engineer.
- See details elsewhere in plans for shoulder drain location and details.
- For Contractor's information only.
- Multiple piece tie bars are acceptable at longitudinal construction joints provided minimum laps shown are achieved.
- See details elsewhere in plans for required cross-slope.
- Place in accordance with Item 438.
- Backer rod shall be 25% larger than joint opening and shall be compatible with the sealant.
- Place 1/2" Preformed Bituminous Fiber Material between concrete railing and top of approach slab as shown when concrete railing projects over the approach slab.

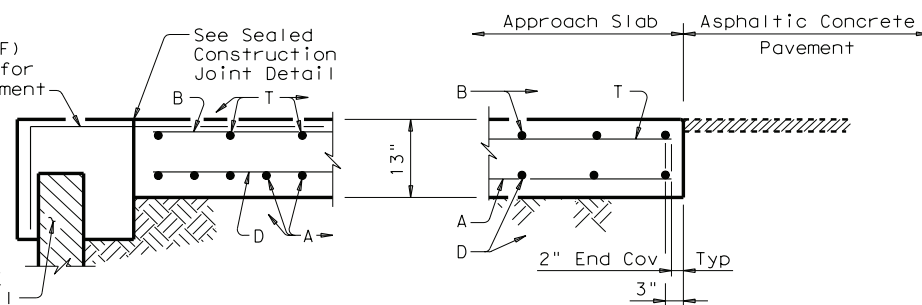
GENERAL NOTES:

Construct approach slab in accordance with Item 420.
Concrete shall be Class "S" with a minimum compressive strength of 4,000 psi.
All reinforcing steel shall be Grade 60.
Construct the subgrade or subbase from the bridge for a minimum distance of 100 feet prior to the approach slab, unless otherwise indicated on the plans.
Compact and finish the subgrade or foundation for the approach slab to the typical cross-section and to the lines and grades shown on the plans.
Cure for 4 days using water or membrane curing per Item 420.
Sealant, backer rod and preformed bituminous fiber material is subsidiary to approach slab concrete.
Provide a 1" bondbreaker (asphaltic concrete pavement or asphalt stabilized base) between the approach slab and cement stabilized backfill or cement treated base. Other bondbreakers may be used if approved by the Engineer.



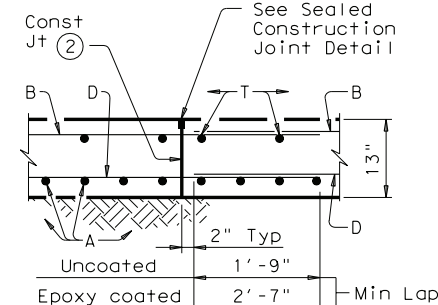
SHOWING WINGWALL OR CIP RETAINING WALL

SECTION A-A

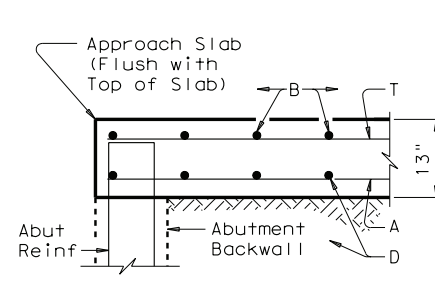


SHOWING MSE WALL

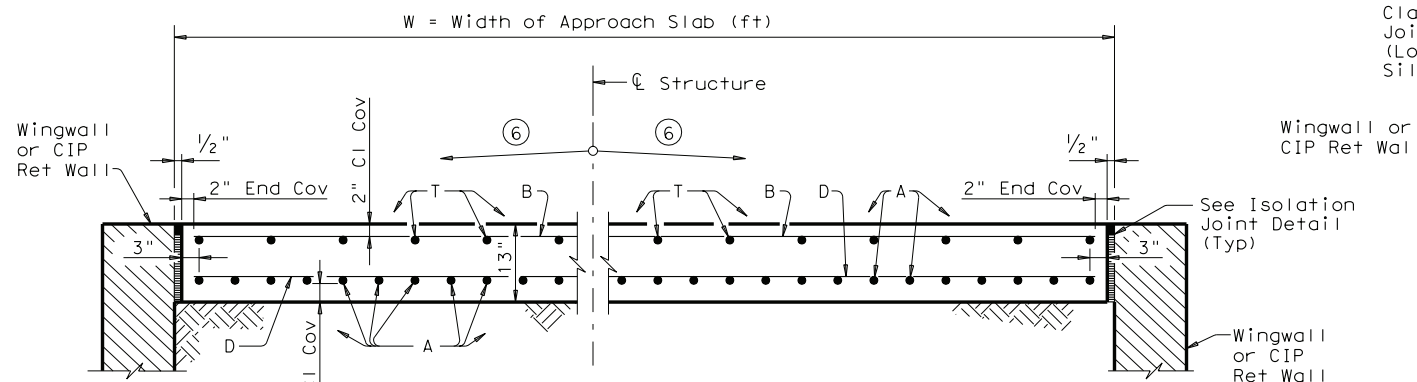
SECTION B-B



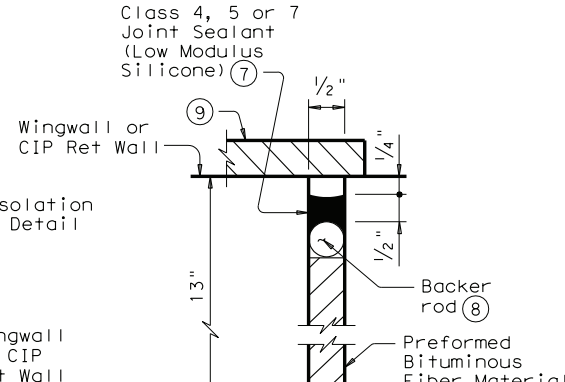
SECTION C-C ⁽⁵⁾



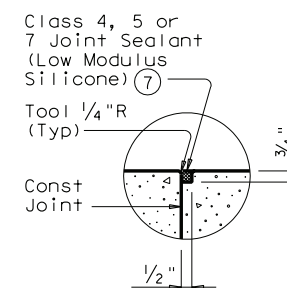
SECTION D-D



TYPICAL TRANSVERSE SECTION



ISOLATION JOINT DETAIL



SEALED CONSTRUCTION JOINT DETAIL

Texas Department of Transportation
Bridge Division

BRIDGE APPROACH SLAB ASPHALTIC CONCRETE PAVEMENT

BAS-A

FILE: basastel.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT April 2006	DISTRICT	FEDERAL AID PROJECT	SHEET	
REVISIONS	COUNTY	CONTROL	SECT	JOB
				HIGHWAY