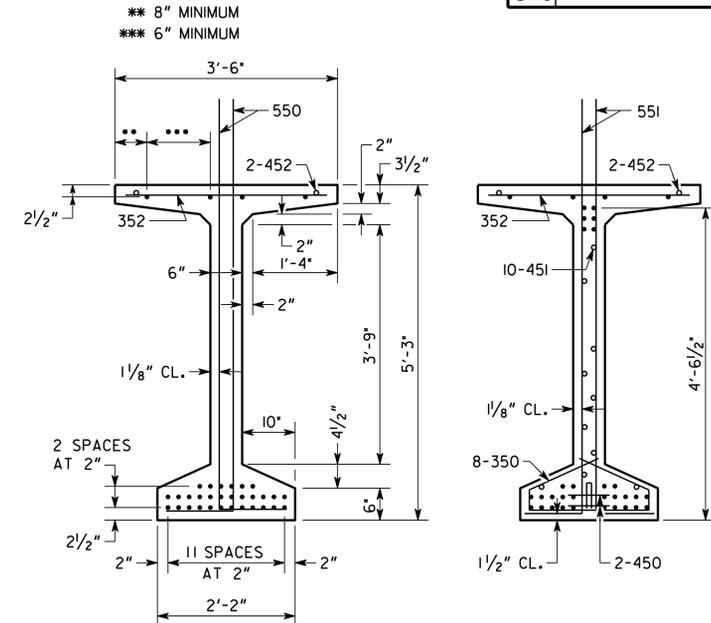
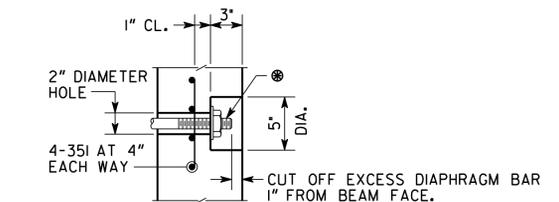


ELEVATION



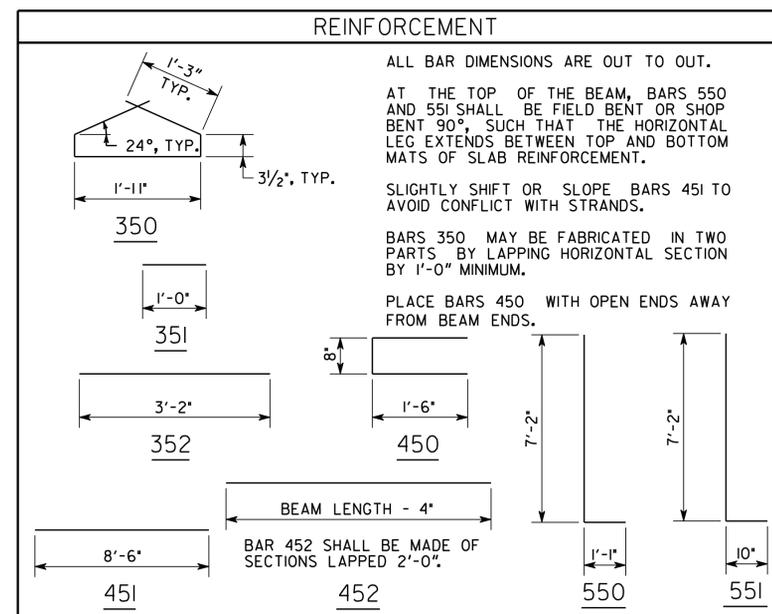
SECTION AT MIDPOINT SECTION AT END

MAINTAIN 1" MINIMUM CLEARANCE UNLESS SHOWN.  
• INDICATES 0.6" DIAMETER PRESTRESSED STRANDS.



⊙ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH 1/4" X 3/2" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).  
TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.  
AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.  
GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

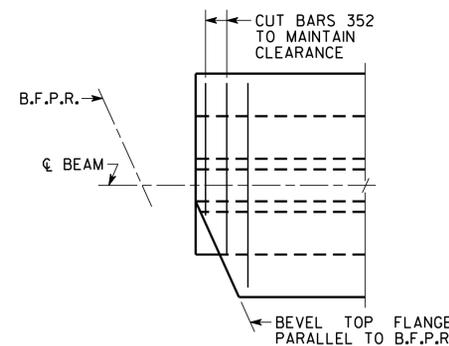
RECESS DETAIL FOR DIAPHRAGM BAR ENDS



REINFORCEMENT

NOTES

- BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
- CHAMFER EDGES OF BEAMS 1/2", 3/4" OR 1".
- HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE 1/8" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
- AT  $\bar{C}$  BEARING, FORM A 1 1/2" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X 1 1/2" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1 1/4" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
- TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY 1/4". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
- NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_{NC}$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
- COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER AND MEDIAN.
- STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
- PRESTRESSING DATA IS AS FOLLOWS:
  - USE 34 - 0.6" DIAMETER LOW RELAXATION ( $A = 0.217$  SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
  - PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 6,000 PSI.
  - INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 1,358,290 LBS.
  - INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,026,575 LBS.
- CONCRETE STRENGTH ( $f'_c$ ) = 7,000 PSI.
- ALLOWABLE PSC BEAM TENSION = 251 PSI.



BEVEL DETAILS

BRIDGE NO. 4

THE LPA GROUP  
THE LPA GROUP INCORPORATED  
TRANSPORTATION CONSULTANTS  
3995 ENGINEERING DRIVE  
MORCROSS, GEORGIA, 30092  
TEL: 770-585-9118

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BULB TEE, 63 IN PSC BEAM  
JIMMY DELOACH CONNECTOR  
OVER SR 30 (BONNYBRIDGE ROAD)  
CHATHAM COUNTY CSMSL-0008-00(690)

SCALE: NONE JULY 2013

DRAWING NO.  
35-33  
BRIDGE SHEET  
5 OF 9

DATE  
REVISIONS  
BY

DESIGNED BSB CHECKED ANZ REVIEWED DLC/WMD  
DRAWN BSB DESIGN GROUP AWB/SKG APPROVED BFR