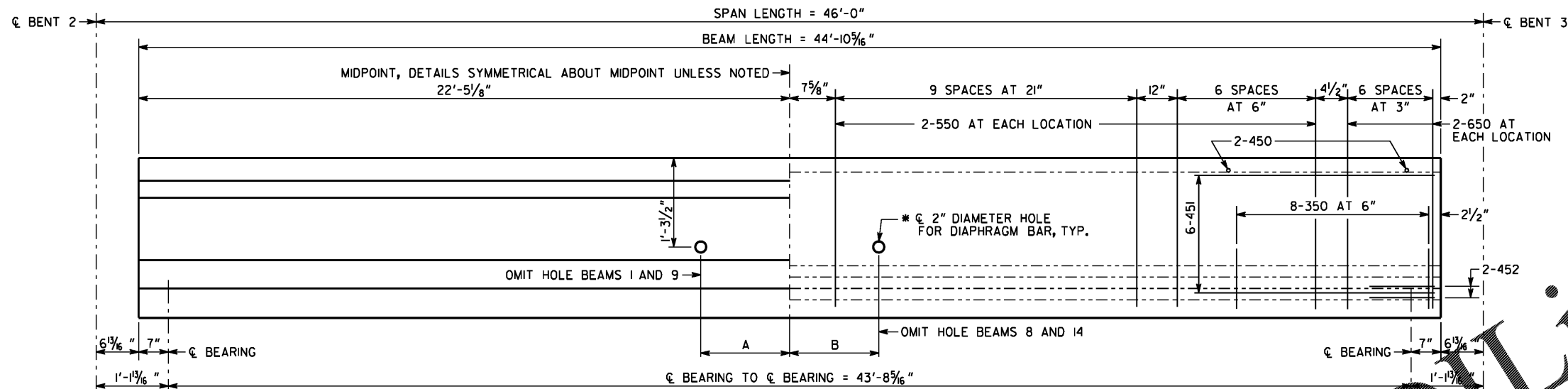
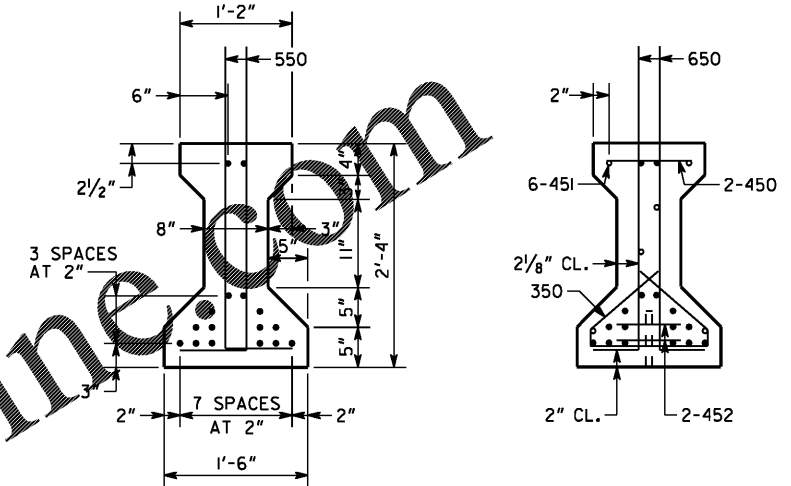


| BEAMS | 1 - 3 | 4 - 13 | 14 |
|-------|-------|--------|-------|
| ΔNC | 3/8" | 7/16" | 3/8" |
| ΔC | 1/16" | 1/16" | 1/16" |



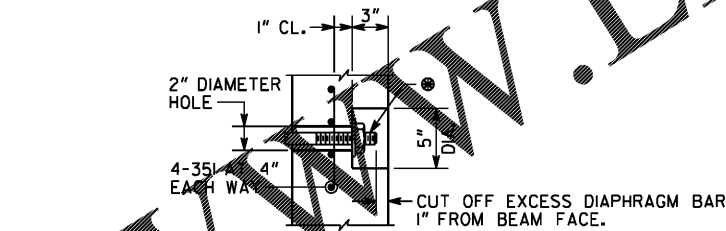
ELEVATION



SECTION AT MIDPOINT SECTION AT END

NOTES

- BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 3'-6" 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" OR 3/4".
- 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 C BEARING, FORM A 1 3/4" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 4" X 1 3/4" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1 1/2" 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 FINIS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
- ALL HOLES FORMED INTO THE BEAMS TO FACILITATE TRANSPORT SHALL BE FILLED AND GIVEN A TYPE I FINISH, PRIOR TO ACCEPTANCE OF THE BEAM. REMOVE PVC OR SIMILAR FORMING MATERIALS FROM EACH HOLE, EXPOSING THE CONCRETE SURFACE. COAT INTERIOR OF HOLE WITH A TYPE II EPOXY RESIN ADHESIVE IN ACCORDANCE WITH GEORGIA STANDARD SPECIFICATION 886 AND FILL WITH A RAPID SETTING PATCHING MATERIAL IN ACCORDANCE WITH GEORGIA STANDARD SPECIFICATION 934.
- NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
- COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF PARAPET, SIDEWALKS AND RAISED MEDIAN.
- STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 670.
- PRESTRESSING DATA IS AS FOLLOWS:
 - USE 16 - 0.6" DIAMETER LOW-RELAXATION (A = 0.217 SQ IN) STRANDS. PRETENSION STRANDS TO 43,943 LBS EACH.
 - PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH (f'ci) OF 6,000 PSI.
 - INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 703,088 LBS.
 - INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 563,174 LBS.
- CONCRETE STRENGTH (f'c) = 7,000 PSI.
- ALLOWABLE PSC BEAM TENSION = 502 PSI.



- 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

| DIMENSIONS | | |
|------------|------------|------------|
| BEAMS | A | B |
| 1 | - | 1'-1 1/16" |
| 2 | 1'-1 1/16" | 1'-1 1/16" |
| 3 | 1'-1 1/16" | 1'-4 1/16" |
| 4 - 7 | 1'-4 1/16" | 1'-4 1/16" |
| 8 | 1'-4 1/16" | - |
| 9 | - | 1'-3 3/8" |
| 10 - 13 | 1'-3 3/8" | 1'-3 3/8" |
| 14 | 1'-3 3/8" | - |

REINFORCEMENT

ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 452 WITH OPEN ENDS AWAY FROM BEAM ENDS.

BRIDGE NO. 1

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

TYPE I MOD PSC BEAM - SPAN 2
 SR 18 OVER LONG CANE CREEK
 TROUP COUNTY 0013999

NO SCALE NOVEMBER 2020

DESIGNED DVW CHECKED SAW REVIEWED DLC/SKG
 DRAWN DLR DESIGN GROUP DPD APPROVED WMD

INFRASTRUCTURE
 CONSULTING & ENGINEERING
 4940 PEACHTREE INDUSTRIAL BLVD., SUITE 310
 NORCROSS, GEORGIA 30071

DRAWING NO. 35-0018
 BRIDGE SHEET 18 OF 34