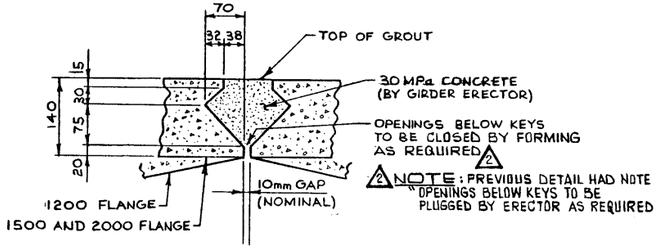
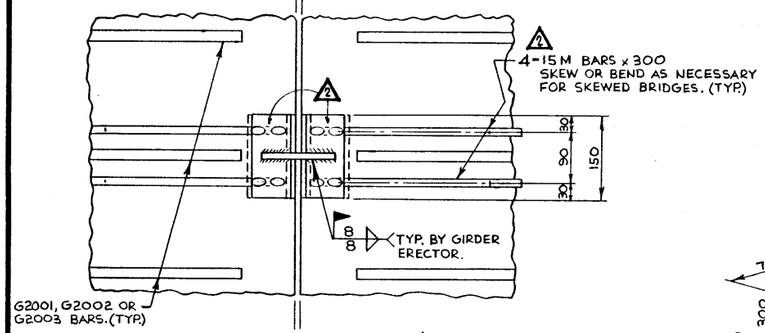
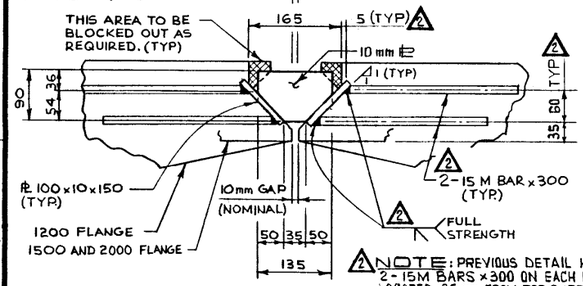



## TYPICAL GROUT KEY

1:5

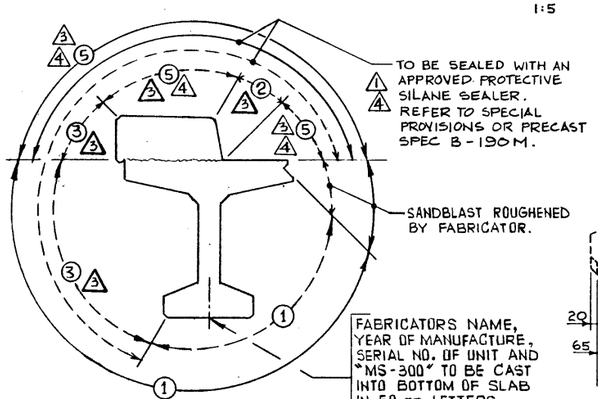



NOTE: FLANGE CONNECTION, AS SHOWN, USED AT ALL DIFFERENTIAL CAMBER ADJUSTMENT LOCATIONS AND FOR WELDED FLANGE CONNECTIONS. FOR LATERALLY POST-TENSIONED DECKS USE "TYPICAL CAMBER CORRECTION DETAIL" SHOWN ON DWG. S-1558

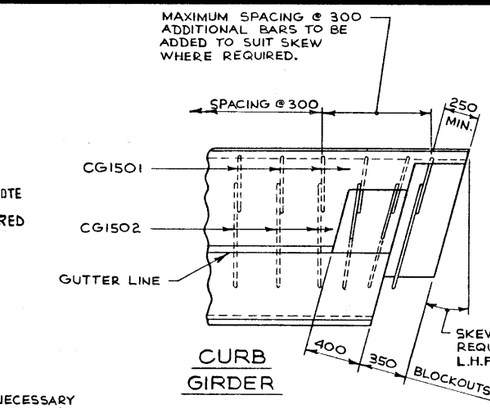
## TYPICAL FLANGE CONNECTION DETAIL

1:5

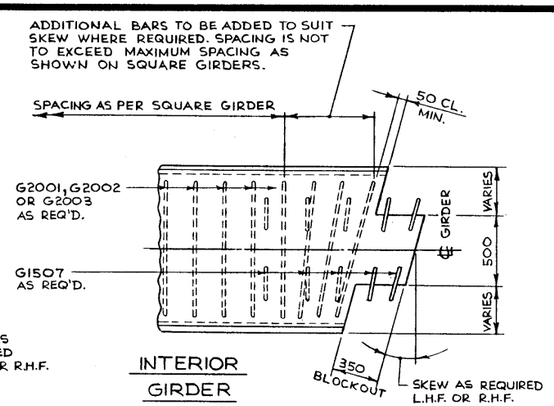



## GIRDER FINISHES (BY ERECTOR)

N.T.S.



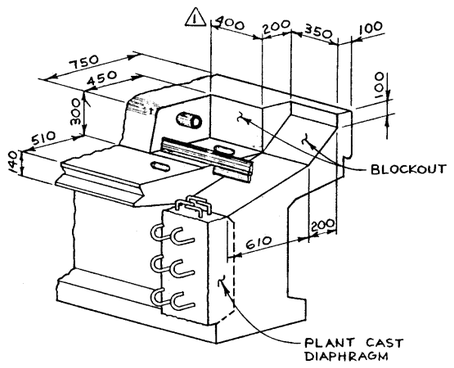

CURB GIRDER




INTERIOR GIRDER

## SKEWED END RE-BAR PLAN

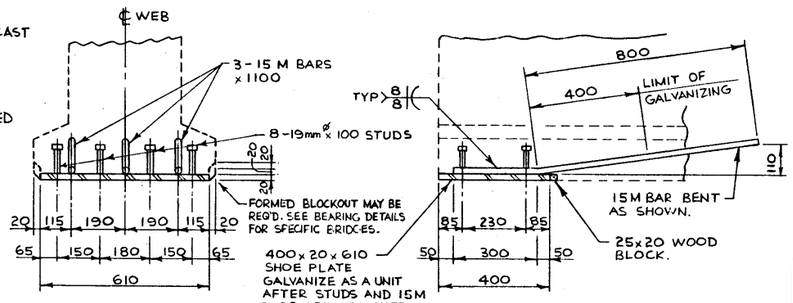
1:20




## CURB GIRDER END BLOCKOUT

1:20

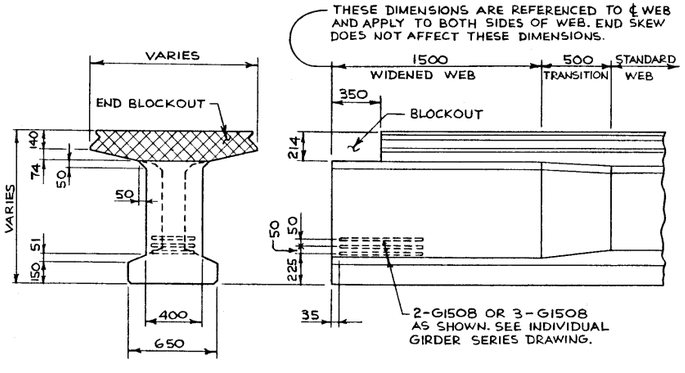
SUPERSEDED BY S-1589 SHEET 1 90-11-07




## SHOE PLATE DETAIL

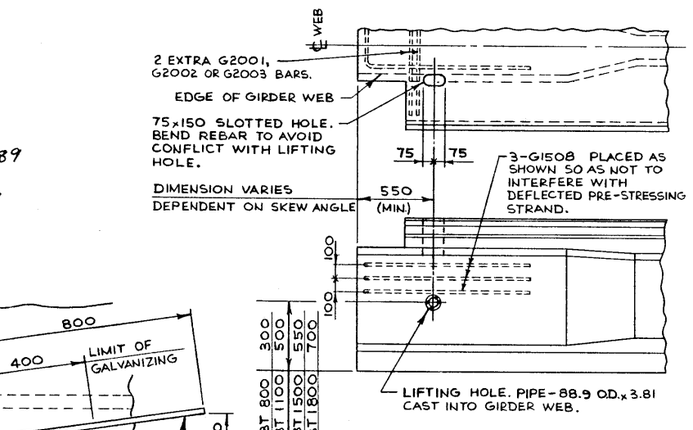
SKEW PLATE TO MATCH GIRDER SKEW.

1:10




## WIDENED GIRDER WEB DETAIL

1:20




## LIFTING HOLE DETAIL

NOTE: LIFTING HOLE IS ALWAYS SQUARE TO ℄ OF GIRDER.

1:20

## GENERAL NOTES

DESIGN

- C.S.A. CAN3-S6-M78 DESIGN OF HIGHWAY BRIDGES.
- NO TENSION ALLOWED AT TOP OR BOTTOM CONCRETE SURFACES.

LOADING

- LIVE LOAD - MS500 + IMPACT.
  - WHEEL LINE DISTRIBUTION SPECIFIED IN DATA TABLE.
- DEAD LOAD - SPECIFIED IN DATA TABLE. (ALLOWANCE HAS BEEN MADE FOR ADDITION OF FUTURE WEARING SURFACE)

MATERIALS

- ALL CONCRETE IS STANDARD WEIGHT EXCEPT THE WEB AND BULB OF THE DBT 1800 SERIES WHICH IS SEMI-LIGHT WEIGHT.
- STANDARD WEIGHT CONCRETE USED SHALL CONTAIN NOT LESS THAN 5% AIR ENTRAINMENT, WHILE SEMI-LIGHT WEIGHT CONCRETE SHALL CONTAIN NOT LESS THAN 6% AIR ENTRAINMENT, WHEN MEASURED IN A PLASTIC STATE.
- REQUIRED CONCRETE COMPRESSIVE STRENGTHS AT RELEASE AND 28 DAYS ARE SPECIFIED IN THE DATA TABLES.
- 2 NOTE REWORDED ONLY
  REINFORCING STEEL SHALL MEET CSA SPECIFICATION G30.12M GRADE 400.
- PRESTRESSING STEEL SHALL BE 12.7 mm ϕ - 7 WIRE LOW RELAXATION STRAND. ($f_{pu}$ = 1860 MPa)

FABRICATION

- GIRDERS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ALBERTA "SPECIFICATION FOR THE MANUFACTURE OF PRESTRESSED AND PRECAST CONCRETE BRIDGE UNITS B-190M".
- DRAWINGS ARE DETAILED ASSUMING A 50 mm HIGH DENSITY OVERLAY WILL BE FIELD PLACED AS A FINAL WEARING SURFACE. WHEN HIGH DENSITY IS NOT REQUIRED, AN ADDITIONAL 25 mm OF PLANT CAST (MONOLITHIC) CONCRETE SHALL BE PLACED ON THE DECK, RESULTING IN A FLANGE THICKNESS OF 165 mm AND CLEAR COVER TO TOP STEEL OF 65 mm.
- 1 WHEN HIGH DENSITY CONCRETE WEARING SURFACE IS USED, DECK BARS WILL NOT BE EPOXY COATED. CURB BARS ARE TO BE EPOXY COATED IN ALL CASES.
- GIRDER FORMS MUST BE ADJUSTABLE SUCH THAT THE TOP AND BOTTOM FLANGES OF THE GIRDER WILL FOLLOW THE SAME PARABOLIC CURVE WITH A MIDPOINT SAG EQUAL TO THE RELEASE CAMBER VALUE SPECIFIED IN THE DATA TABLES, ROUNDED TO THE NEAREST 5 mm.
- 3 NOTE ADDED CURBS ARE TO BE PLANT CAST, WITH GIRDERS SIMPLY SUPPORTED AT BOTH ENDS, NOT LESS THAN 14 DAYS AFTER CASTING GIRDERS. CURB CONCRETE IS TO BE STANDARD WEIGHT WITH COMPRESSIVE STRENGTH EQUALLING THE FINAL STRENGTH VALUE SHOWN IN THE DATA TABLE FOR THE GIRDER.

ERECTION

- LIFTING FORCE MUST BE VERTICAL AT ALL TIMES. ALTERNATE LIFTING ARRANGEMENTS WILL BE CONSIDERED.
- GIRDER SURFACE MUST BE LEVEL AT ALL TIMES.
- CAMBER DIFFERENTIAL IS TO BE ELIMINATED BEFORE WELDING FLANGE CONNECTORS OR INSTALLING THE LATERAL POST-TENSIONING SYSTEM.
- FABRICATOR AND ERECTOR SHALL ENSURE THAT THE UNITS ARE GIVEN ADEQUATE LATERAL SUPPORT DURING ALL ASPECTS OF HANDLING.

SUPERSEDED 1 2 3 4

| NO | DATE | DESCRIPTION | |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | 87-10-20 | GIRDER FINISHES | TJS |
| 4 | 87-10-05 | CONCRETE FINISHES REVISED | RJR |
| 5 | 85-06-19 | GENERAL NOTES, FLANGE CONNECTION | B.L.C. |
| 6 | 84-07-18 | CURB NOTE ADDED, DIM. ℄ NOTE CORRECTED | B.L.C. |

REVISIONS

APPROVED

CHIEF BRIDGE ENGINEER

DATE FEB 08 1988

Alberta TRANSPORTATION BRIDGE AND STRUCTURAL ENGINEERING BRANCH METRIC

# DECK BULB TEE
# STANDARD MISCELLANEOUS DETAILS

| DESIGNED | DRAWN BY | DATE | CHECKED BY | DATE | STREAM | LOCATION | HWY NO | SCALE | FILE NO | SHEET | DWG NO |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B.L.C. | W. S. | 83-12-01 | | | | | | SHOWN | | OF | S-1556 |