

GENERAL NOTES

- ALL DRAWINGS ARE DIMENSIONED IN MILLIMETRES, EXCEPT FOR THE GENERAL LAYOUT DRAWING WHICH IS DIMENSIONED IN METRES.
- **DESIGN**
- **SIGNS:** SIGN STRUCTURES ARE DESIGNED TO CARRY 3 m HIGH SIGNS COVERING 60% OF THE LENGTH OF THE SPAN OR 13 m, WHICH EVER IS GREATER. THE SIGNS ARE PLACED ON THE SPAN SO AS TO OBTAIN THE MAXIMUM LOAD EFFECTS.
- **LIVE LOAD:** 2 kN CONCENTRATED POINT LOAD ON WALKWAY.
- **ICE LOAD:** 12 mm ICE THICKNESS ON ALL FACES OF STRUCTURE MEMBERS AND ON ONE FACE OF SIGNBOARDS.
- **WIND LOAD:** 7.2 kPa ON STRUCTURE MEMBERS
3.0 kPa ON SIGNBOARDS.
- **FOUNDATIONS:** THE DESIGN OF THE FOUNDATION IS BASED ON COMPETENT SOIL EXISTING AT THE SITE. SITES WITH SOILS NOT MEETING THIS REQUIREMENT (CLAYS WITH UNCONFINED COMPRESSION STRENGTHS (q_u) LESS THAN 100 kPa, SANDS WITH STANDARD PENETRATION COUNTS (N) LESS THAN 10 BLOWS PER 305 mm, SILTS, ORGANIC SOILS, ETC) REQUIRE A SPECIAL FOUNDATION DESIGN.

MATERIALS

- ALL HSS MEMBERS SHALL CONFORM TO CSA G40.21M-350W.
- STEEL FOR DYWIDAG BARS AND NUTS SHALL CONFORM TO ASTM A722 TYPE II.
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH ASTM A325 BOLTS, UNLESS NOTED OTHERWISE.
- ALL REINFORCING STEEL SHALL CONFORM TO CSA G30.18-M92 - GRADE 400
- ALL OTHER STEEL SHALL CONFORM TO CSA G40.21M-300W.
- ALL CONCRETE SHALL HAVE A STRENGTH OF 25 MPa AT 28 DAYS.
- ALL GROUT SHALL BE SIKA 212.

FABRICATION

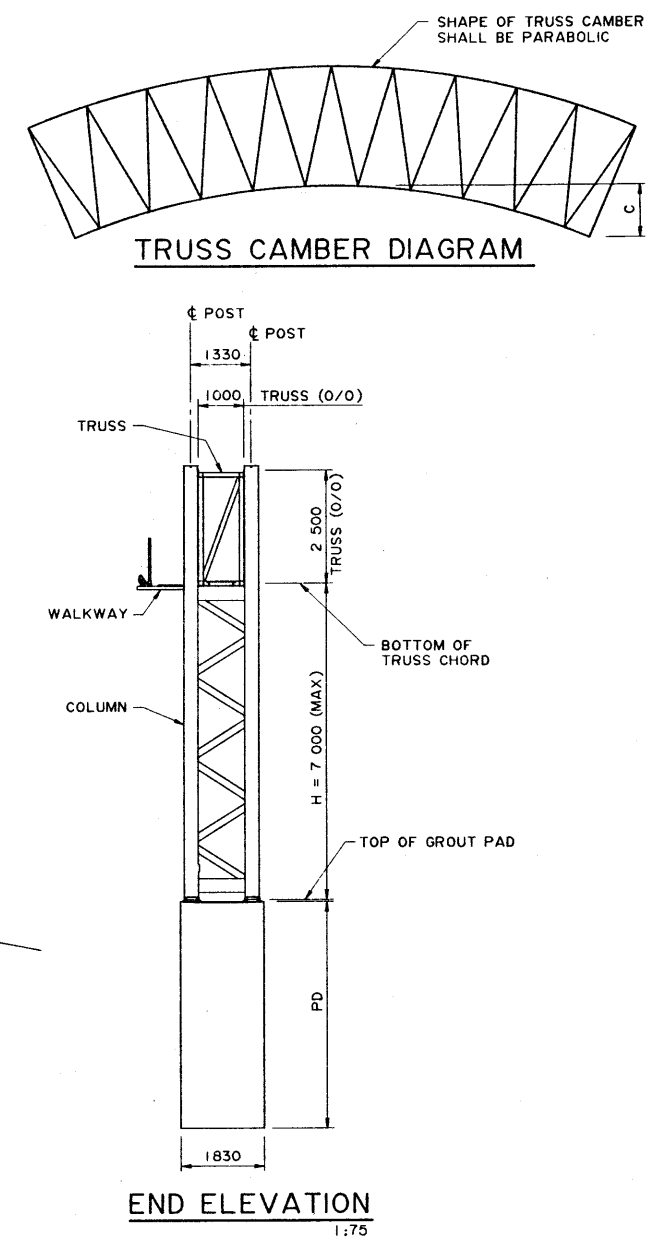
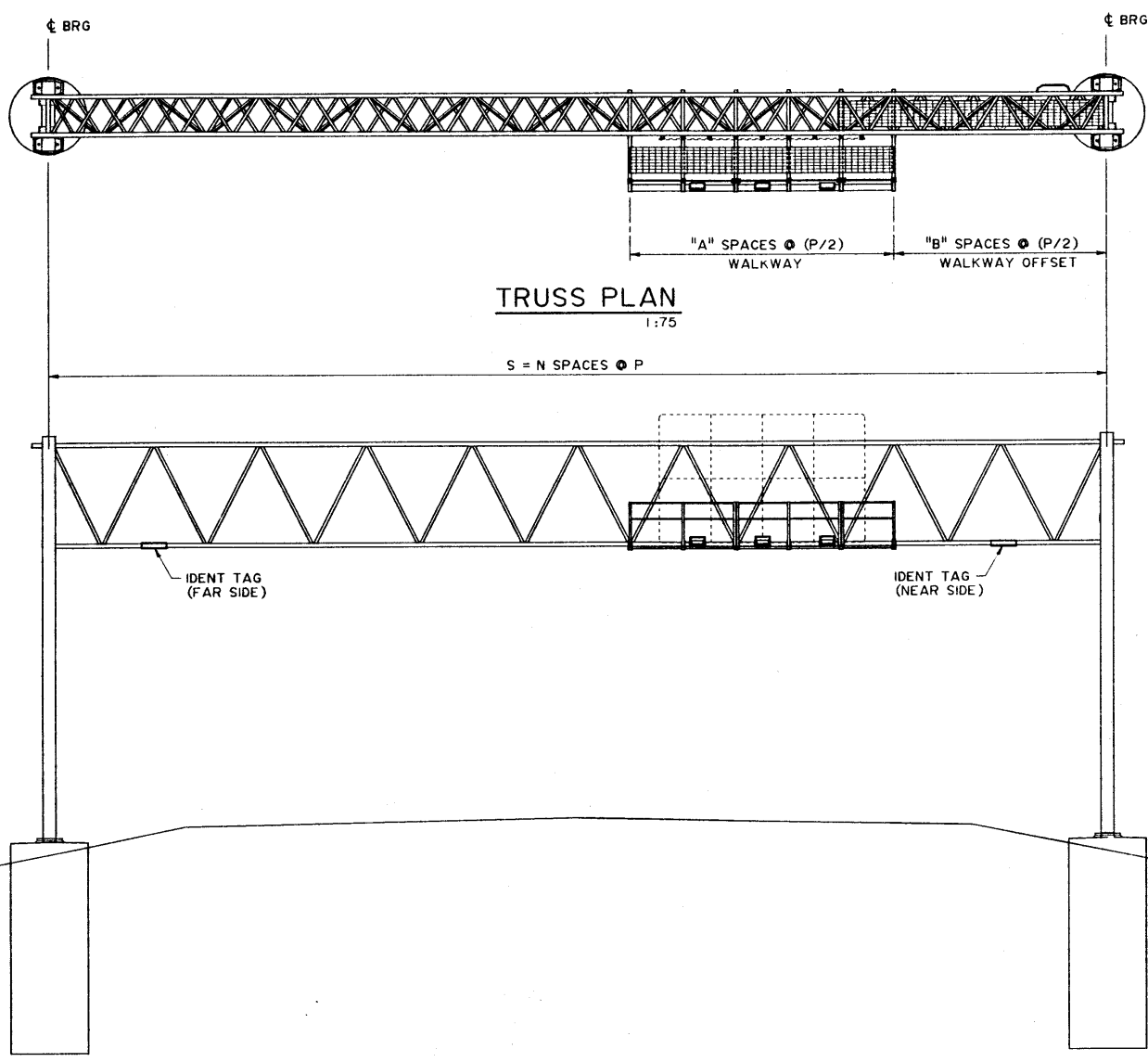
- FABRICATION SHALL BE IN ACCORDANCE WITH THE CURRENT BRIDGE BRANCH SPECIFICATION FOR THE SUPPLY OF STRUCTURAL STEEL FOR BRIDGES B187M.
- HSS MEMBERS SHALL BE CONNECTED BY WELDING UNLESS NOTED OTHERWISE. WELDS SHALL DEVELOP THE FULL STRENGTH OF THE CONNECTED MEMBERS AND SHALL BE CONTINUOUS AROUND THE CONNECTION.
- ALL WELDING SHALL CONFORM TO AWS SPECIFICATIONS D1.5 AND D1.1 (SECTION 10).
- TRUSS SHALL BE CAMBERED AS SHOWN ON THE TRUSS CAMBER DIAGRAM. DETAILS OF TRUSS TO COLUMN CONNECTION PLATES SHALL BE ADJUSTED FOR TRUSS END ROTATIONS DUE TO CAMBER AND DEAD LOAD DEFLECTIONS.
- ALL TRUSS MEMBERS AND DETAIL MATERIAL WELDED TO THE TRUSS SHALL BE BLAST CLEANED AFTER FABRICATION AS FOLLOWS:
 - TRUSS CONTACT SURFACES OF TRUSS TO COLUMN CONNECTIONS SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP5.
 - ALL OTHER STEEL SURFACES SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP6.
- ALL STRUCTURAL STEEL AND STEEL HARDWARE EXCEPT FOR TRUSS MEMBERS AND DETAIL MATERIAL WELDED TO THE TRUSS SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 OR A153 AS APPLICABLE. COLUMN CONTACT SURFACES OF TRUSS TO COLUMN CONNECTIONS SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP7 AFTER GALVANIZING.
- TRUSS CONTACT SURFACES OF TRUSS TO COLUMN CONNECTIONS SHALL RECEIVE ONE SHOP COAT OF INORGANIC ZINC PRIMER CONFORMING TO C65B SPECIFICATION 1-GP-181M, HAVING A DRY FILM THICKNESS OF 75 MICRONS. ALL OTHER SURFACES OF TRUSS MEMBERS AND DETAIL MATERIAL WELDED TO THE TRUSS SHALL RECEIVE A COMPLETE COATING CONSISTING OF THE FOLLOWING OR APPROVED EQUIVALENT.
 - 1) PRIMER COAT - GLIDDEN #5571 RUSTMASTER PRO PRIMER (RED) HAVING A DRY FILM THICKNESS OF 100 MICRONS.
 - 2) INTERMEDIATE COAT - GLIDDEN #5572 RUSTMASTER PRO MID-COAT (GREY) HAVING A DRY FILM THICKNESS OF 100 MICRONS.
 - 3) TOP COAT - GLIDDEN #5440 SERIES LIFEMASTER PRO HB ACRYLIC COATING (ALUMINUM COLOUR) HAVING A DRY FILM THICKNESS OF 100 MICRONS.
 PRIMER SHALL NOT BE APPLIED UNTIL APPROVAL OF THE BLAST CLEANING HAS BEEN OBTAINED FROM THE ENGINEER.

ERECTION

- FIELD WELDING TO HSS MEMBERS OR DETAIL MATERIAL WELDED TO THFM IS NOT PERMITTED.

SUPERSEDED

SUPERSEDED



FRONT ELEVATION
25 000 SPAN SHOWN 1:75

END ELEVATION
1:75

| VARIABLE DIMENSIONS | | 10 001 TO 15 000 | 15 001 TO 20 000 | 20 001 TO 25 000 | 25 001 TO 30 000 | 30 001 TO 35 000 |
|---------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| S | SPAN | 10 001 TO 15 000 | 15 001 TO 20 000 | 20 001 TO 25 000 | 25 001 TO 30 000 | 30 001 TO 35 000 |
| C | CAMBER | 15 | 25 | 30 | 40 | 50 |
| N | NUMBER OF PANELS | 6 | 8 | 10 | 12 | 14 |
| P | PANEL LENGTH | SPAN/6 | SPAN/8 | SPAN/10 | SPAN/12 | SPAN/14 |
| PD | PILE DEPTH | 4 750 | 5 000 | 5 250 | 5 500 | 5 750 |

| MATERIALS | | 10 001 TO 15 000 | | 15 001 TO 20 000 | | 20 001 TO 25 000 | | 25 001 TO 30 000 | | 30 001 TO 35 000 | |
|-----------|-----|---------------------|-----|---------------------|-----|---------------------|-----|----------------------|-----|----------------------|--|
| MK | QTY | DESCRIPTION | QTY | DESCRIPTION | QTY | DESCRIPTION | QTY | DESCRIPTION | QTY | DESCRIPTION | |
| CP | 4 | HSS 305 x 305 x 8.0 | 4 | HSS 305 x 305 x 8.0 | 4 | HSS 305 x 305 x 9.5 | 4 | HSS 305 x 305 x 12.7 | 4 | HSS 305 x 305 x 12.7 | |
| CT | 4 | HSS 305 x 305 x 8.0 | 4 | HSS 305 x 305 x 8.0 | 4 | HSS 305 x 305 x 9.5 | 4 | HSS 305 x 305 x 12.7 | 4 | HSS 305 x 305 x 12.7 | |
| CB | - | HSS 152 x 152 x 4.8 | - | HSS 152 x 152 x 4.8 | - | HSS 152 x 152 x 4.8 | - | HSS 152 x 152 x 4.8 | - | HSS 152 x 152 x 4.8 | |
| TC | 4 | HSS 89 x 89 x 4.8 | 4 | HSS 89 x 89 x 4.8 | 4 | HSS 102 x 102 x 6.4 | 4 | HSS 127 x 127 x 6.4 | 4 | HSS 127 x 127 x 9.5 | |
| TF | 10 | HSS 89 x 89 x 4.8 | 10 | HSS 89 x 89 x 4.8 | 10 | HSS 102 x 102 x 6.4 | 10 | HSS 127 x 127 x 6.4 | 10 | HSS 127 x 127 x 9.5 | |
| TW | 24 | HSS 51 x 51 x 4.8 | 32 | HSS 51 x 51 x 4.8 | 40 | HSS 64 x 64 x 4.8 | 48 | HSS 76 x 76 x 4.8 | 56 | HSS 76 x 76 x 4.8 | |
| TD | 12 | HSS 51 x 51 x 4.8 | 16 | HSS 51 x 51 x 4.8 | 20 | HSS 64 x 64 x 4.8 | 24 | HSS 76 x 76 x 4.8 | 28 | HSS 76 x 76 x 4.8 | |
| TH | 48 | HSS 51 x 51 x 4.8 | 64 | HSS 51 x 51 x 4.8 | 80 | HSS 64 x 64 x 4.8 | 96 | HSS 76 x 76 x 4.8 | 112 | HSS 76 x 76 x 4.8 | |

| QUANTITY ESTIMATE - 2 PILES | | 10 001 TO 15 000 | | 15 001 TO 20 000 | | 20 001 TO 25 000 | | 25 001 TO 30 000 | | 30 001 TO 35 000 | |
|-----------------------------|----------------|------------------|--|------------------|--|------------------|--|------------------|--|------------------|--|
| ITEM | UNIT | ESTIMATE | | ESTIMATE | | ESTIMATE | | ESTIMATE | | ESTIMATE | |
| CONCRETE - 25 MPa | m ³ | 25 | | 26 | | 28 | | 29 | | 30 | |
| REINFORCING STEEL | kg | 1 185 | | 1 248 | | 1 312 | | 1 374 | | 1 437 | |

| BAR LIST - 2 PILES | | 10 001 TO 15 000 | | 15 001 TO 20 000 | | 20 001 TO 25 000 | | 25 001 TO 30 000 | | 30 001 TO 35 000 | |
|--------------------|------|------------------|-----|------------------|-----------|------------------|-------------|------------------|-----|------------------|-----------|
| MARK | SIZE | SHAPE | QTY | LENGTH (mm) | MASS (kg) | QTY | LENGTH (mm) | MASS (kg) | QTY | LENGTH (mm) | MASS (kg) |
| F2501 | 25 | STR | 36 | 4 650 | 657 | 36 | 4 900 | 692 | 36 | 5 150 | 728 |
| F2001 | 20 | A | 38 | 5 900 | 528 | 40 | 5 900 | 556 | 42 | 5 900 | 584 |

| | | | | | | | | | | | | | | | | | | | | | |
|----------|-----|-------|-----|------|----------|---------|--|------|--|--------|--|----------|--|---------|--|------|--|-------|--------|---------|--------|
| DESIGNED | RJR | DRAWN | MIK | DATE | 93-04-19 | CHECKED | | DATE | | STREAM | | LOCATION | | HIGHWAY | | FILE | | SHEET | 2 of 5 | DRAWING | S-1607 |
|----------|-----|-------|-----|------|----------|---------|--|------|--|--------|--|----------|--|---------|--|------|--|-------|--------|---------|--------|

| | |
|--|--------|
| APPROVED | |
| EXECUTIVE DIRECTOR BRIDGE ENGINEERING | |
| DATE | PRELIM |

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

STANDARD TRUSS SIGN STRUCTURE

GENERAL ARRANGEMENT