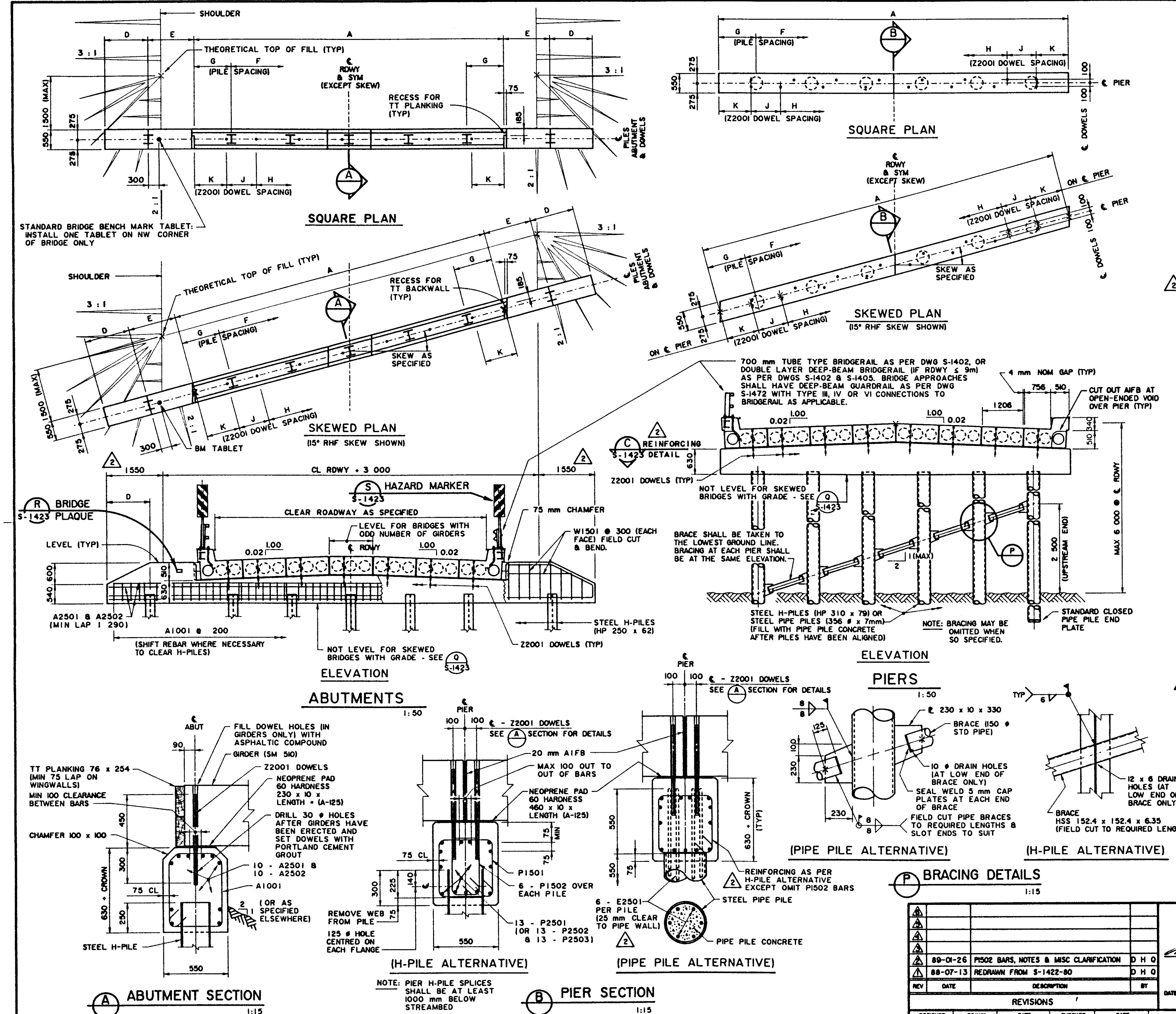

GENERAL NOTES

- ALL DRAWING REFERENCES REFER TO CURRENT DRAWINGS.
- ALL DIMENSIONS ARE GIVEN IN mm UNLESS NOTED OTHERWISE.
- ROADWAY ELEVATIONS SPECIFIED ELSEWHERE ARE GIVEN TO TOP OF THEORETICAL CROWN ON CENTRELINE ROADWAY.

DESIGN

- DESIGN SPECIFICATION: CSA CAN3-S6-M78
- DESIGN LIVE LOAD: MS226
- THE FOLLOWING LIMITS SHALL NOT BE EXCEEDED IN USING THIS PLAN:
  - ICE LOADING - USUAL VALUE FOR SMALL STREAMS
  - HEIGHT OF DECK ABOVE STREAMBED - 6 m
  - TOP OF FILL TO BACKWALL - 1.5 m
  - SKEW - 45°

MATERIALS

- ALL CONCRETE SHALL BE CLASS B OR PIPE PILE CONCRETE. SULPHATE RESISTANT PORTLAND CEMENT (TYPE 50) SHALL BE USED FOR ALL CONCRETE IF REQUIRED BY LOCAL SOIL CONDITIONS AND IF SO SPECIFIED ELSEWHERE.
- REINFORCING STEEL SHALL BE G30.12M GRADE 400. REBAR BENDING DETAILS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE OF ONTARIO.
- (2) UNLESS GALVANIZED, PIER PIPE PILES AND BRACES SHALL BE BLAST CLEANED AND PAINTED WITH TWO PRIME COATS AND TWO FINISH COATS IN THE FIELD. PAINTING SHALL CONFORM TO THE CURRENT BRIDGE CONSTRUCTION SPECIFICATION "PAINTING OF METAL STRUCTURES" B326, AND SHALL NOT COMMENCE UNTIL CLEANING IS APPROVED BY THE ENGINEER. PAINTING SHALL EXTEND DOWN TO PRACTICAL LOW WATER LEVEL OR 0.3 m BELOW GROUND SURFACE.
- PIER PIPE PILE PAINT SHALL CONFORM TO THE CURRENT CGSB SPECIFICATION 1-GP-12C. COLOUR SHALL BE 504-107 (LIGHT BROWN), UNLESS NOTED OTHERWISE.
- GALVANIZING SHALL CONFORM TO THE CURRENT ASTM SPECIFICATION A123 OR A153 AS APPLICABLE.
- ALL WELDING SHALL CONFORM TO THE AWS SPECIFICATION D 1.1-86.
- ASPHALT IMPREGNATED FIBREBOARD (AIFB) SHALL CONFORM TO THE CURRENT ASTM SPECIFICATION D1751 FOR PREFORMED EXPANSION JOINT FILLER.

CONSTRUCTION

- ALL CONCRETE WORK SHALL CONFORM TO THE CURRENT BRIDGE CONSTRUCTION SPECIFICATION B-358.
- ALL REINFORCEMENT SHALL HAVE A CLEAR CONCRETE COVER OF 75 mm UNLESS NOTED OTHERWISE.
- PIPE PILE CONCRETE SHALL BE CURED AT LEAST 12 HOURS BEFORE PLACING CAP CONCRETE.
- ALL EXPOSED CORNERS SHALL HAVE A 20 mm CHAMFER OR FILLET.
- ALL EXPOSED CONCRETE SURFACES EXCEPT BEARING AREAS SHALL BE FORMED WITH OILED PLYWOOD OR APPROVED EQUIVALENT.
- ALL EXPOSED CONCRETE SURFACES EXCEPT BEARING AREAS SHALL BE GIVEN A CLASS 3 FINISH.
- WELDERS SHALL HOLD A CURRENT ALBERTA SECOND CLASS CERTIFICATE OF PROFICIENCY.
- TREATED TIMBER (TT) SHALL BE HANDLED TO AVOID BRUISING, BREAKING OR PENETRATION OF OUTER FIBRES. LIFTING TOOLS SHALL BE APPLIED ONLY ON ENDS OF TT PIECES. ALL CUTS AND BRUISES SHALL BE CAREFULLY TRIMMED AND SHALL RECEIVE 2 APPLICATIONS OF CREOSOTE FOLLOWED BY A THOROUGH COVERING WITH HOT ROOFING PITCH.
- WHEN PILE TIP ELEVATIONS, AS DETERMINED ON THE BASIS OF SOIL ANALYSIS, ARE SPECIFIED, PILES SHALL BE DRIVEN TO THOSE ELEVATIONS EXCEPT THAT, WITH THE APPROVAL OF THE ENGINEER, PILES MAY BE STOPPED AT HIGHER ELEVATIONS PROVIDED THAT SPECIFIED BEARING VALUES HAVE BEEN OBTAINED. IF PILE TIP ELEVATIONS OR BEARING VALUES ARE NOT SPECIFIED ELSEWHERE, PILES SHALL BE DRIVEN TO AT LEAST THE FOLLOWING BEARING VALUES AS DETERMINED ON THE BASIS OF A PILE DRIVING FORMULA:
  - PIER PILES - 440 kN
  - ABUT PILES - 330 kN

  (2) NOTWITHSTANDING THE ABOVE, PIER PILES SHALL PENETRATE AT LEAST 5 m BELOW STREAMBED IN IRRIGATION CANALS OR OTHER LOCATIONS WHERE FROST HEAVING CAN OCCUR; AND 3 m BELOW STREAMBED IN STREAMS.

GIRDER & ERECTION DETAILS

- TYPE SM-510 GIRDER DWGS:
  - 6 m S-1301 TO S-1303
  - 8 m S-1304 TO S-1306
  - 10 m S-1307 TO S-1309
  - 11 m S-1310 TO S-1312
- GIRDERS SHALL BE CONNECTED TOGETHER WITH 20 ⌀ A325 BOLT ASSEMBLIES, C/W DROP-IN WASHERS TO FILL GAP BETWEEN GIRDERS, TORQUED TO 400 Nm. GIRDERS SHALL NOT TOUCH EXCEPT THROUGH DROP-IN WASHERS.
- CONNECTOR AND LIFTING HOOK POCKETS SHALL BE FILLED WITH A SAND-CEMENT GROUT, OR WITH HOT-POURED C190 ASPHALT IN FREEZING WEATHER.
- WORK DWGS S-1422 AND S-1423 TOGETHER WITH A SITE SPECIFIC GENERAL LAYOUT OR A BRIDGE AUTHORIZATION.

(6)

REVISIONS

REV	DATE	DESCRIPTION	BY
6			
5			
4			
3			
2	89-01-26	P1502 BARS, NOTES & MISC CLARIFICATION	D H Q
1	88-07-13	REDRAWN FROM S-1422-80	D H Q

APPROVED
EXECUTIVE DIRECTOR BRIDGE ENGINEERING
DATE JAN 26, 1989

Alberta TRANSPORTATION AND UTILITIES
BRIDGE ENGINEERING BRANCH

SM PRECAST GIRDER BRIDGES WITH CONCRETE SUBSTRUCTURES SHEET 1

DESIGNED	DRAWN	DATE	CHECKED	DATE	STREAM	LOCATION	HIGHWAY	FILE	SHEET	DRAWING
A W D H Q	MIK	88-07-13							1 of 2	S-1422-88

PLOTTED JAN 24 1989