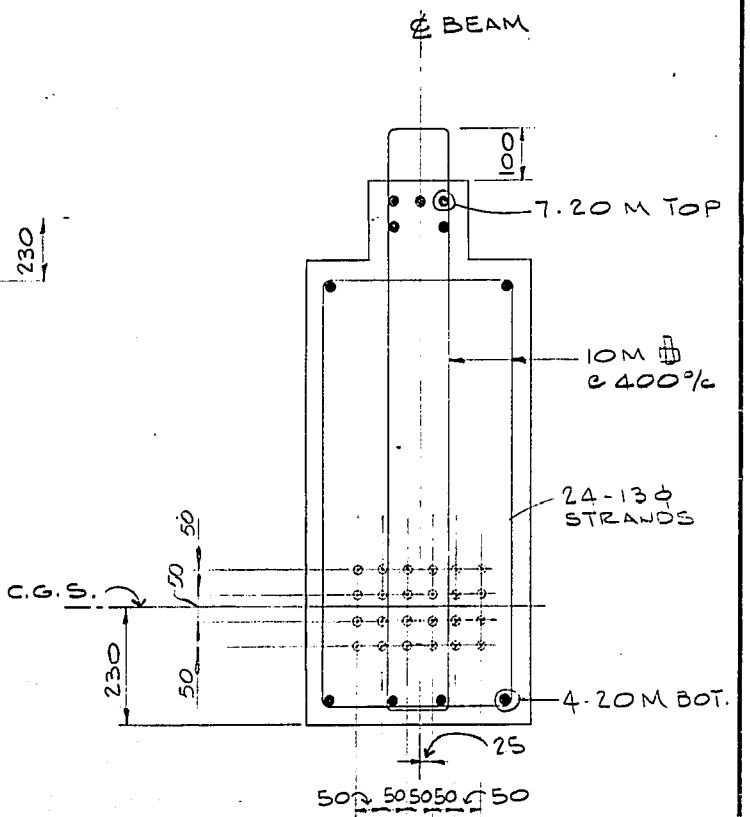
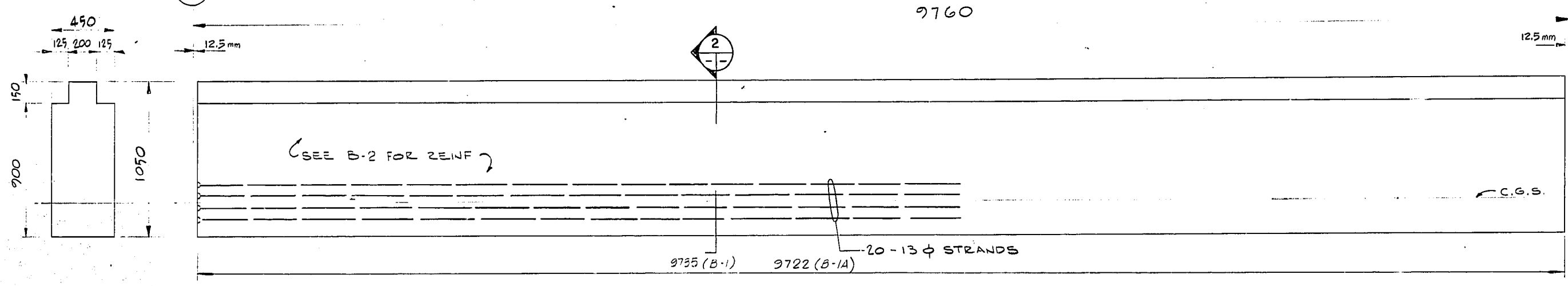


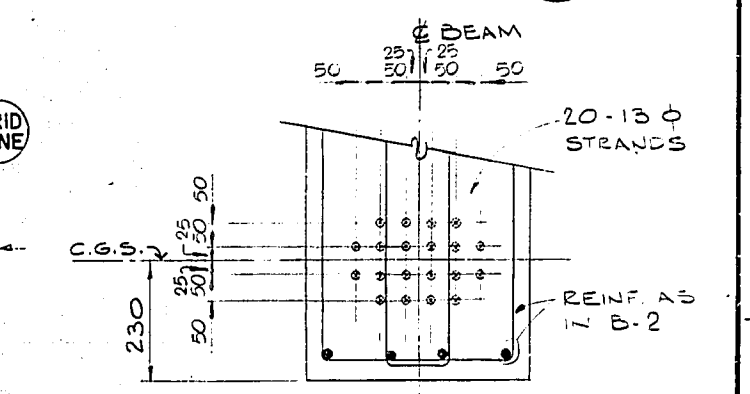
**PRECAST PRESTRESSED CONCRETE BEAM MK. B-2** (B-2A SIMILAR)  
1:20



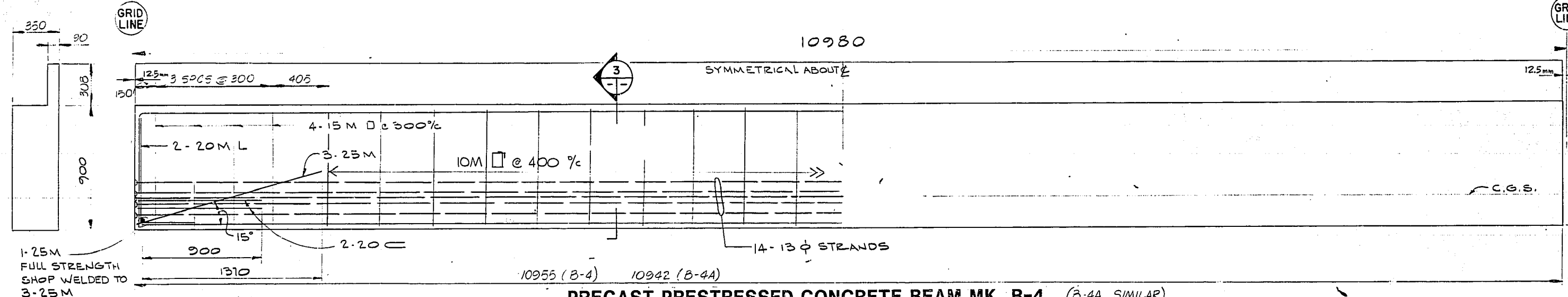
**SECTION 1**  
1:10



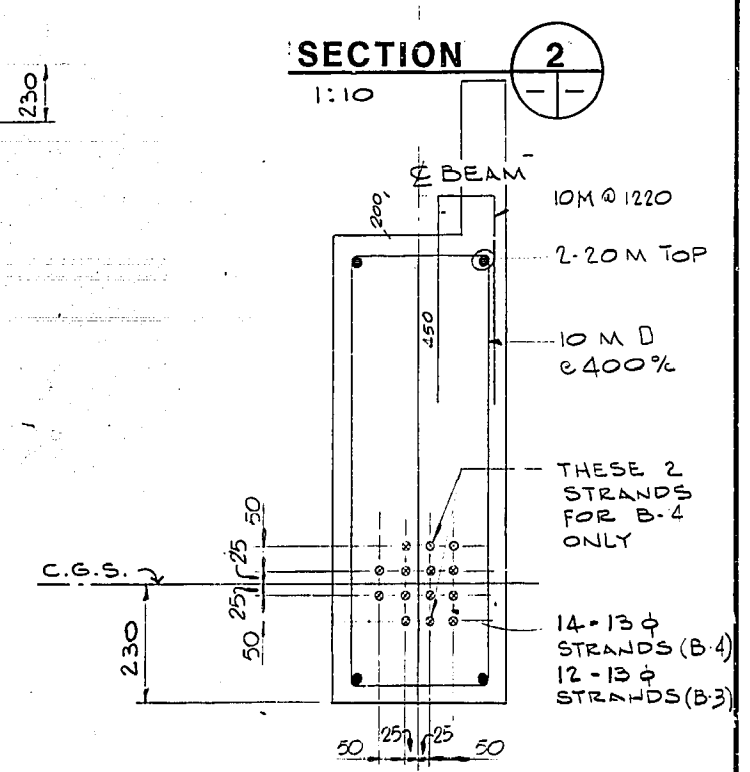
**PRECAST PRESTRESSED CONCRETE BEAM MK. B-1** (B-1A SIMILAR)  
1:20



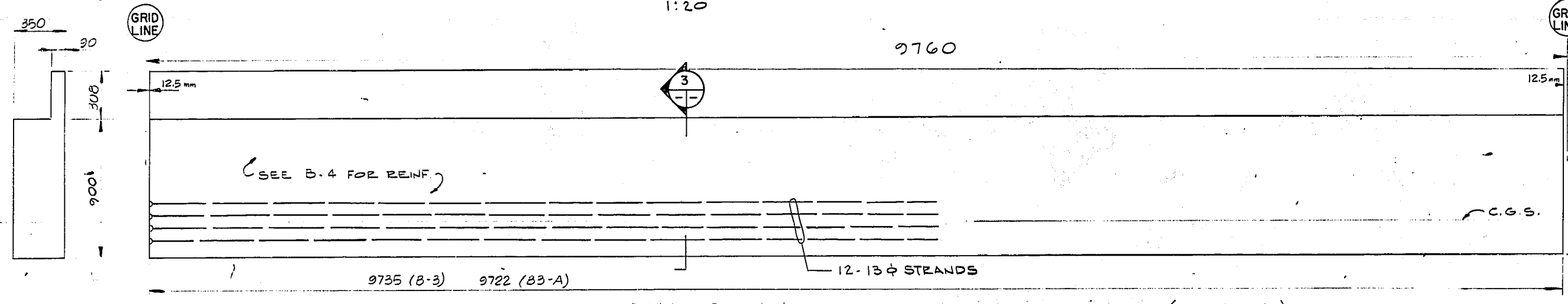
**SECTION 2**  
1:10



**PRECAST PRESTRESSED CONCRETE BEAM MK. B-4** (B-4A SIMILAR)  
1:20



**SECTION 3**  
1:10



**PRECAST PRESTRESSED CONCRETE BEAM MK. B-3** (B-3A SIMILAR)  
1:20

**NOTES :**

- CONCRETE AND STRANDS FOR THE ABOVE PRECAST BEAMS HAS A MINIMUM STRENGTH AS FOLLOWS:
- CONCRETE:**
- COMPRESSIVE STRENGTH AT 28 DAYS 35 MPa
  - COMPRESSIVE STRENGTH AT TRANSFER 25 MPa
- STRANDS:**
- SIZE - SEVEN (7) WIRE STRAND - 13 φ
  - ULTIMATE STRENGTH 1860 MPa
  - INITIAL PRESTRESS FORCE 129 KN
  - PRESTRESS FORCE AT TRANSFER 116 KN
  - PRESTRESS FORCE AFTER LOSSES 102 KN
- REINFORCING STEEL:**
- STIRRUPS - GRADE 300 DEFORMED BARS
  - OTHERS - GRADE 400 DEFORMED BARS

**METRIC NOTES**  
WHOLE NUMBERS IND. MILLIMETRES  
DECIMALIZED EXPRESSIONS IND. METRES

**RECORD DRAWING**

NO.	REVISIONS	DATE	APP.
1	RECORD DRAWING	DEC 11/80	EEL
1	BEAM MARKS REVISED	Apr 3/80	AN

ENGINEER'S SEAL  
20/3/80

**Underwood McLellan Ltd.**  
Consulting Engineers and Planners

DESIGNED BY: H.T.H.      DRAWN BY: B.H.P.  
CHECKED BY:      DATE: MARCH 20, 1980  
APPROVED BY:      DATE: 20/3/80

**THE CITY OF WINNIPEG**  
WORKS & OPERATIONS DEPARTMENT  
WATERWORKS, WASTE, & DISPOSAL DIVISION

**WILKES AVENUE RESERVOIR RECONSTRUCTION**  
PRECAST BEAM DETAILS

RELEASED FOR CONSTRUCTION:      DATE: 10/03/80  
SCALE: AS NOTED      DRAWING NO: **WIL-31**