

NOTES:

GENERAL

- FOR HANDLING, STORAGE, TRANSPORTATION AND ERECTION PROCEDURES PLEASE REFER TO "PRECAST HEADWALL INSTALLATION GUIDE" AND "DAYTON/RICHMOND GUIDELINES FOR HANDLING CONCRETE PIPE AND UTILITY PRODUCTS".
- WEIGHT = 12,000 kgs
- TOLERANCE FOR STRUCTURAL ELEMENTS, MATERIALS & CONSTRUCTION CONFORM TO CAN/CSA A23.4 "PRECAST CONCRETE" CLAUSE 10.
- PRECAST HEADWALL MUST BE FASTENED TO REINFORCED CONCRETE PIPE WITH SHAW SUPPLIED HARDWARE (SEE HEADWALL INSTALLATION GUIDE).

GEO TECHNICAL

- GEO TECHNICAL ENGINEER TO PROVIDE ON-SITE INSPECTION FOR PLACEMENT AND COMPACTION OF BACKFILL.

DESIGN

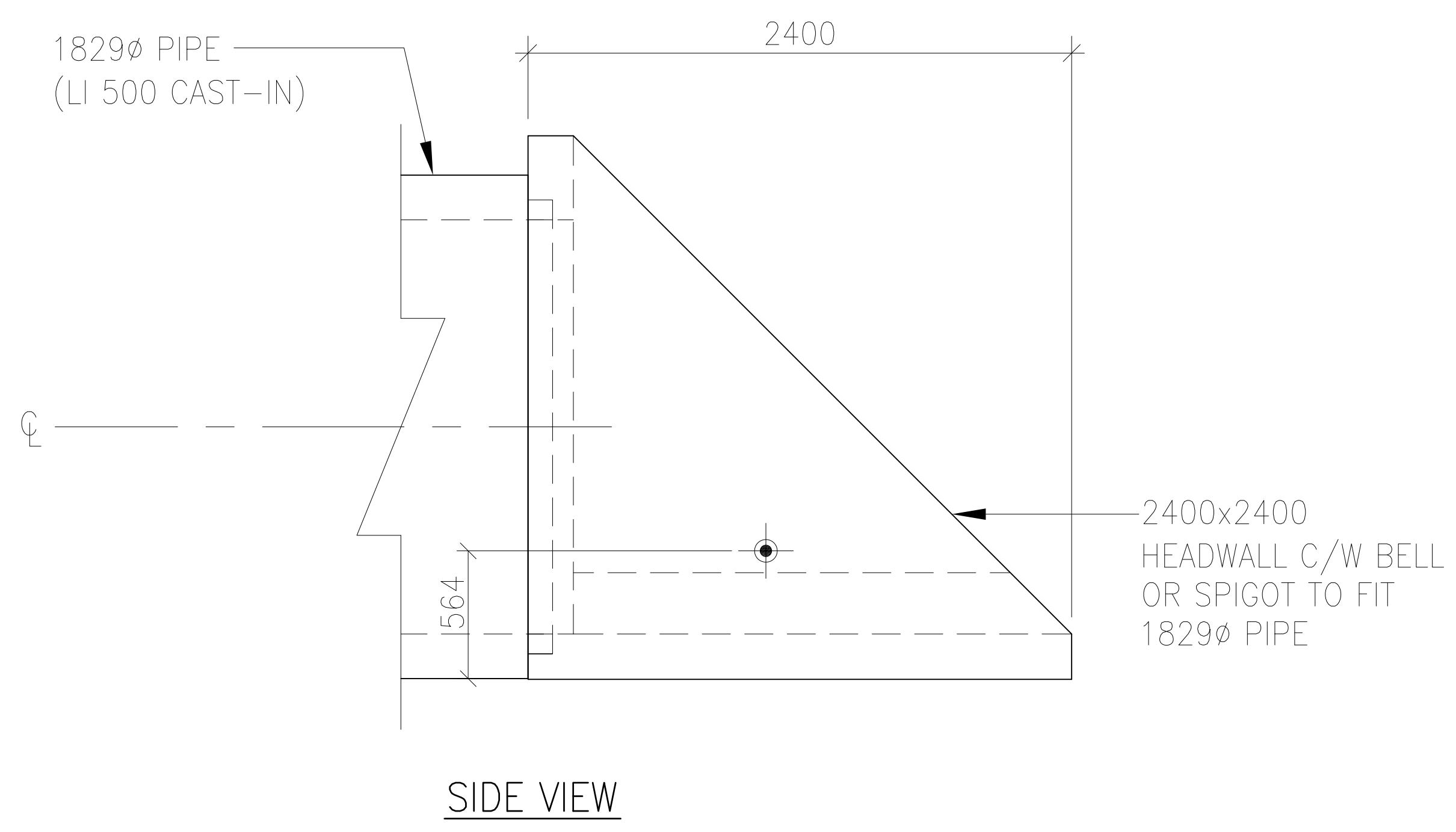
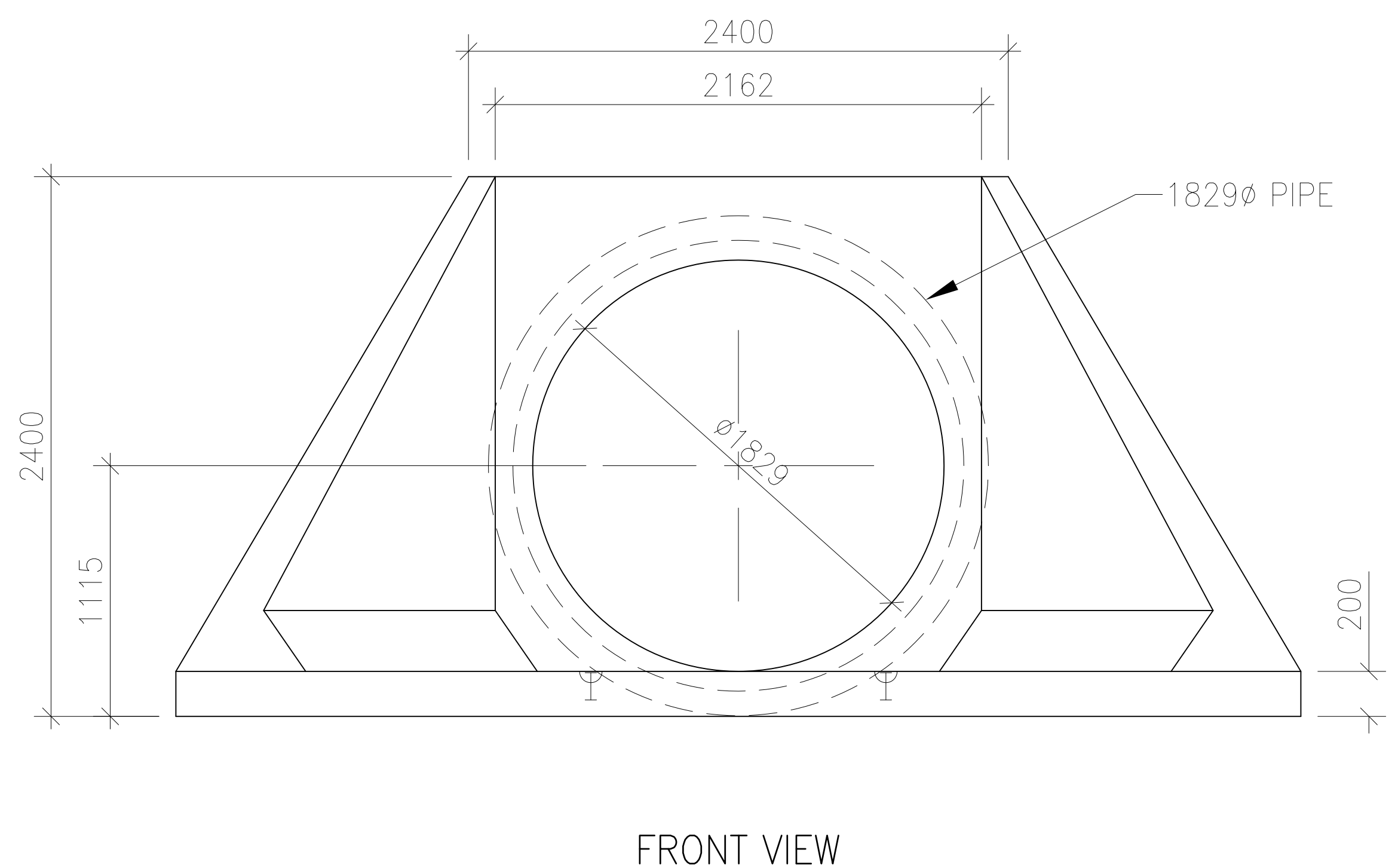
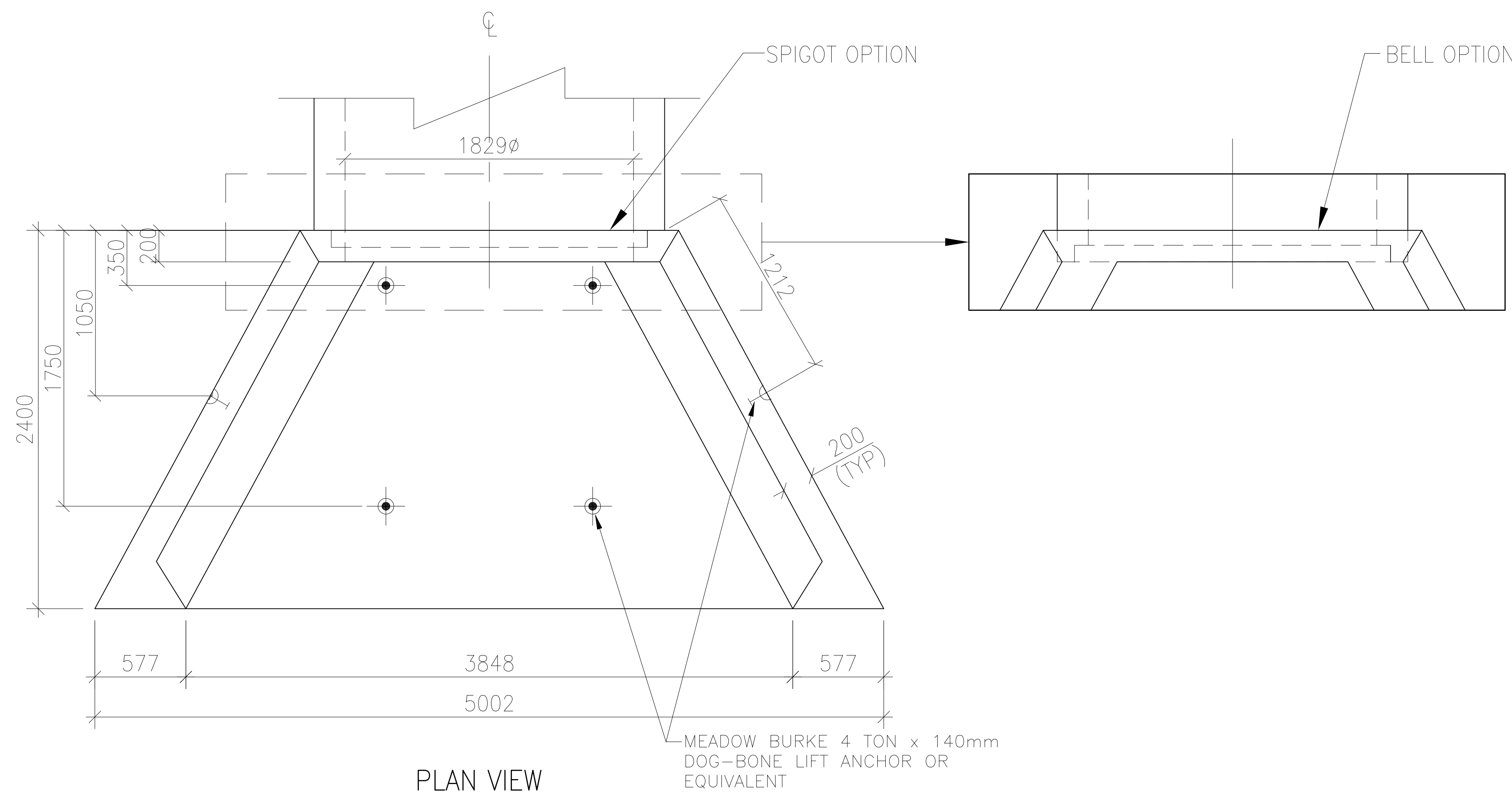
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH CAN/CSA S6.06 UNDER THE FOLLOWING DESIGN PARAMETERS:
 - DESIGN DEAD LOAD = 2H:1V EARTH FILL TOP SLOPE.
 - CONCRETE UNIT WEIGHT = 24.0 kN/m³
 - SOIL/BACKFILL UNIT WEIGHT = 22.0 kN/m³

REINFORCEMENT

- ALL REINFORCING STEEL SHALL BE GRADE 400W AND CONFORM TO CAN/CSA G30.18 (LATEST EDITION).
- ALL WELDED WIRE MESH SHALL HAVE A F_y = 485 MPA AND CONFORM TO ASTM A496 AND A497.
- ALL REINFORCING SHALL BE DETAILED, FABRICATED, PLACED AND SUPPORTED IN ACCORDANCE WITH CAN/CSA A23.4 (LATEST EDITION).
- THE CONCRETE COVER OVER PRINCIPAL REINFORCING SHALL BE 50mm ± 10mm AS REQUIRED BY ENVIRONMENTAL EXPOSURE 8.11.2.2 (a) IN CAN/CSA S6.06.

CONCRETE

- CONCRETE MIX DESIGNS SHALL CONFORM TO REQUIREMENTS SET FORTH IN CAN/CSA A23.1 EXPOSURE CLASS F-1:
 - CONCRETE STRENGTH = 14 MPA AT TIME OF STRIPPING
 - DESIGN CONCRETE STRENGTH OF 45 MPA AT 28 DAYS OR TIME OF SHIPPING
 - 5% TO 7% AIR ENTRAINMENT
 - GALLANT AGGREGATE SHALL BE USED WITH A NOMINAL AGGREGATE SIZE OF 13mm
- CONCRETE CURING SHALL BE IN CONFORMANCE WITH CAN/CSA A23.1 (LATEST EDITION).
- SHAW CONCRETE BATCH No. SHALL BE 406.



REV. NO.	REVISION	DATE



DRAWING No. **STD-HW2400SP**

PROJECT TITLE: **STANDARD PRODUCT**

DRAWING TITLE: **2400x2400 HRM STYLE HEADWALL c/w 1828 PIPE CONNECTION**

GEOMETRY

CONTRACTOR

DATE	MAY 2012	DESIGNED	STAFF
DRAWN	M.CAMERON	CHECKED	STAFF