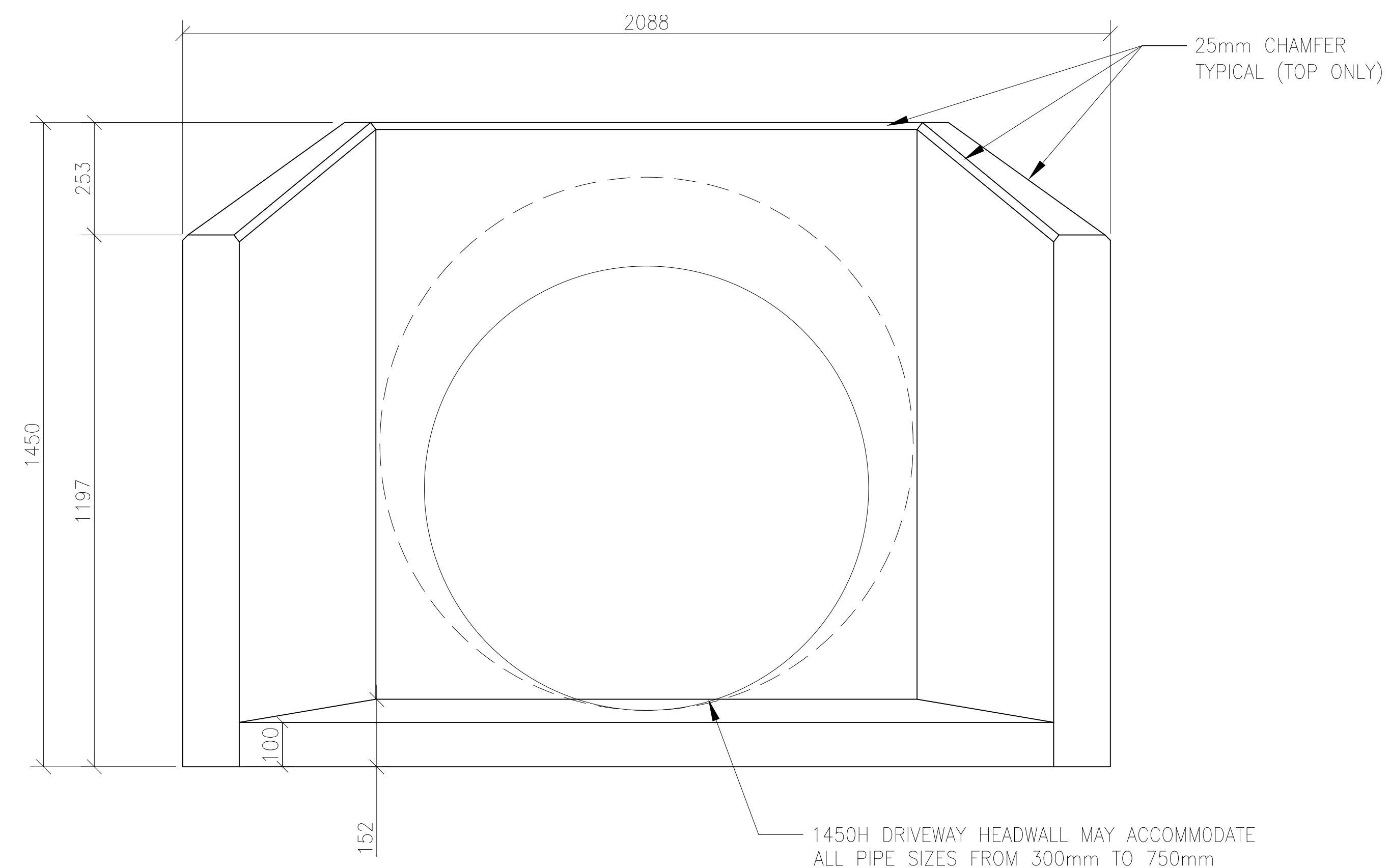


PLAN

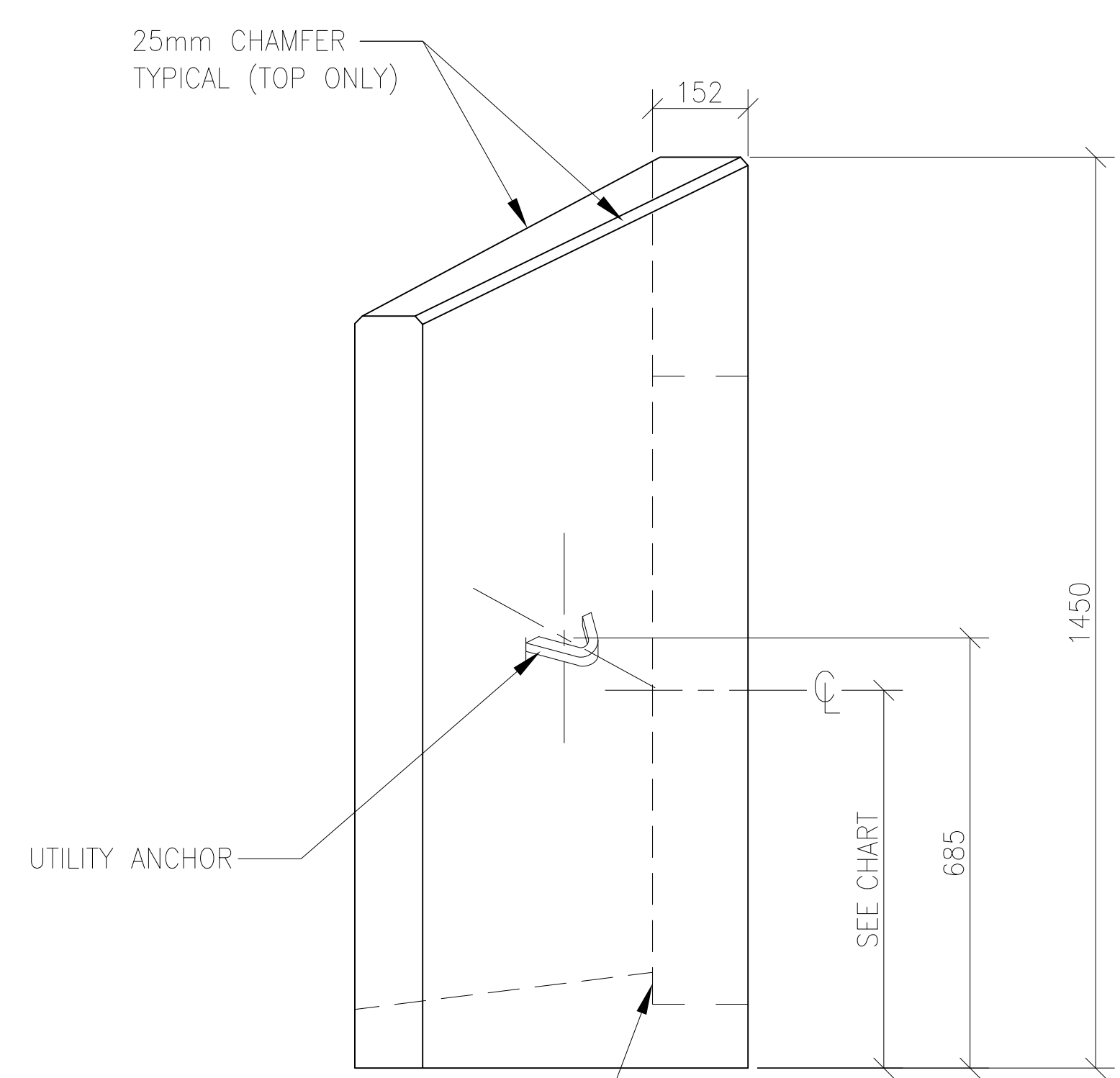
1450H HEADWALL	
STANDARD PIPE OPENINGS	
RCP SIZE	OPENING
750mm	1000mm (40")
900mm	1200mm (50")

PRODUCT CODE: D40HEADWALL  
PRODUCT CODE: D50HEADWALL

1450H HEADWALL	
SPECIAL PIPE OPENINGS	
RCP SIZE	OPENING
300mm	450mm (18")
375mm	550mm (22")
450mm	600mm (24")
525mm	700mm (28")
600mm	800mm (32")



FRONT



SIDE

1450 HEADWALL	
CENTERLINE (mm)	OPENING DIST. TO CL
450	364
550	414
600	452
700	502
800	539
1000	639
1200	764

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 = 1600 kgs
  - TOLERANCE FOR STRUCTURAL ELEMENTS, MATERIALS & CONSTRUCTION CONFORM TO CAN/CSA A23.4 "PRECAST CONCRETE" CLAUSE 10.
- GEOTECHNICAL**
- GEOTECHNICAL 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-TV EARTH FILL TOP SLOPE.
    - CONCRETE UNIT WEIGHT = 24.0 kN/m<sup>3</sup>
    - SOIL/BACKFILL UNIT WEIGHT = 22.0 kN/m<sup>3</sup>
- 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<sub>y</sub> = 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 (g) 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 = 24 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-HW1450**

PROJECT TITLE: **STANDARD PRODUCT**

DRAWING TITLE: **1450H DRIVEWAY HEADWALL TO SUIT 300Ø - 900Ø PIPE**

GEOMETRY

DATE	MAY 2012	DESIGNED	STAFF
DRAWN	M. CAMERON	CHECKED	STAFF