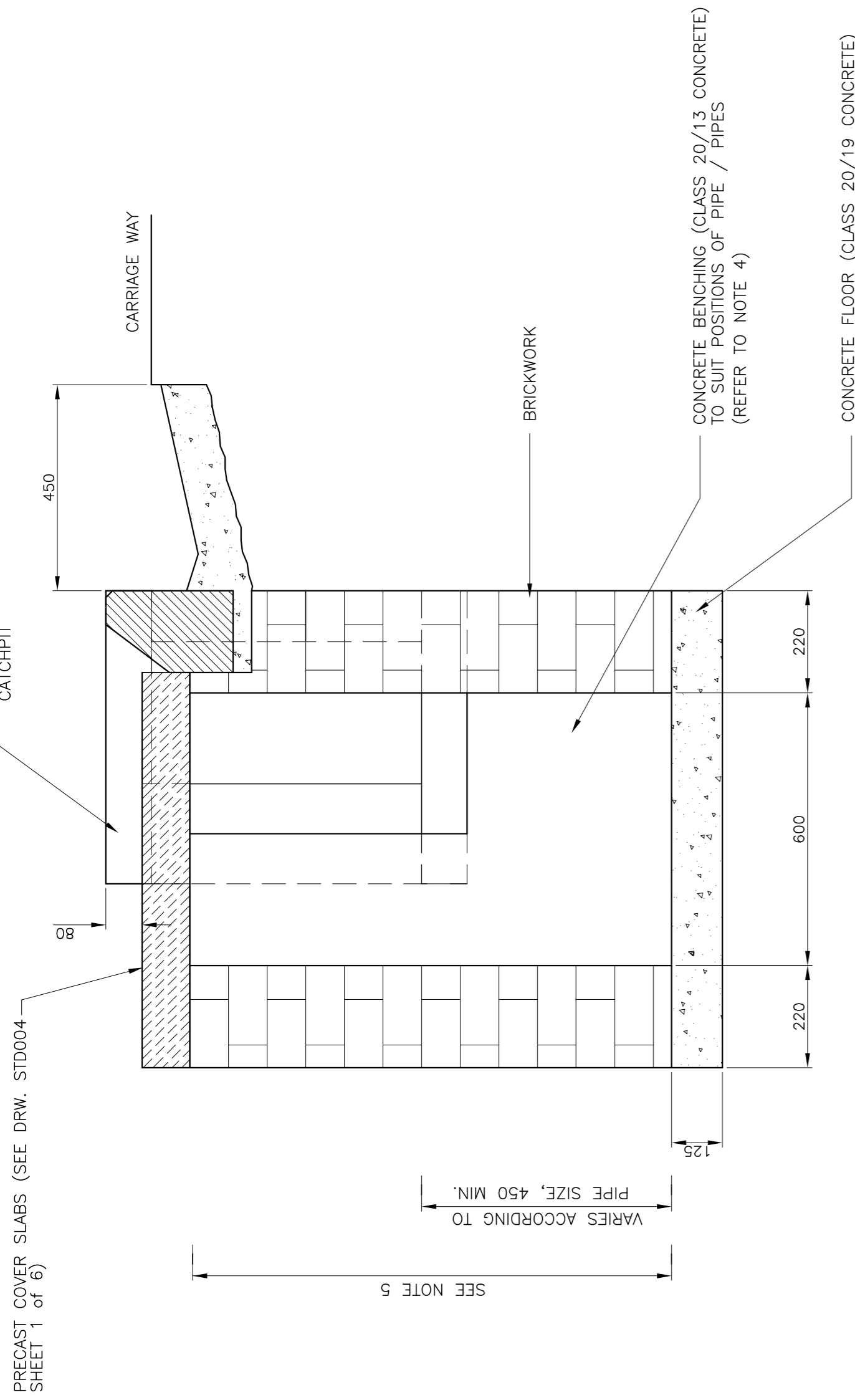
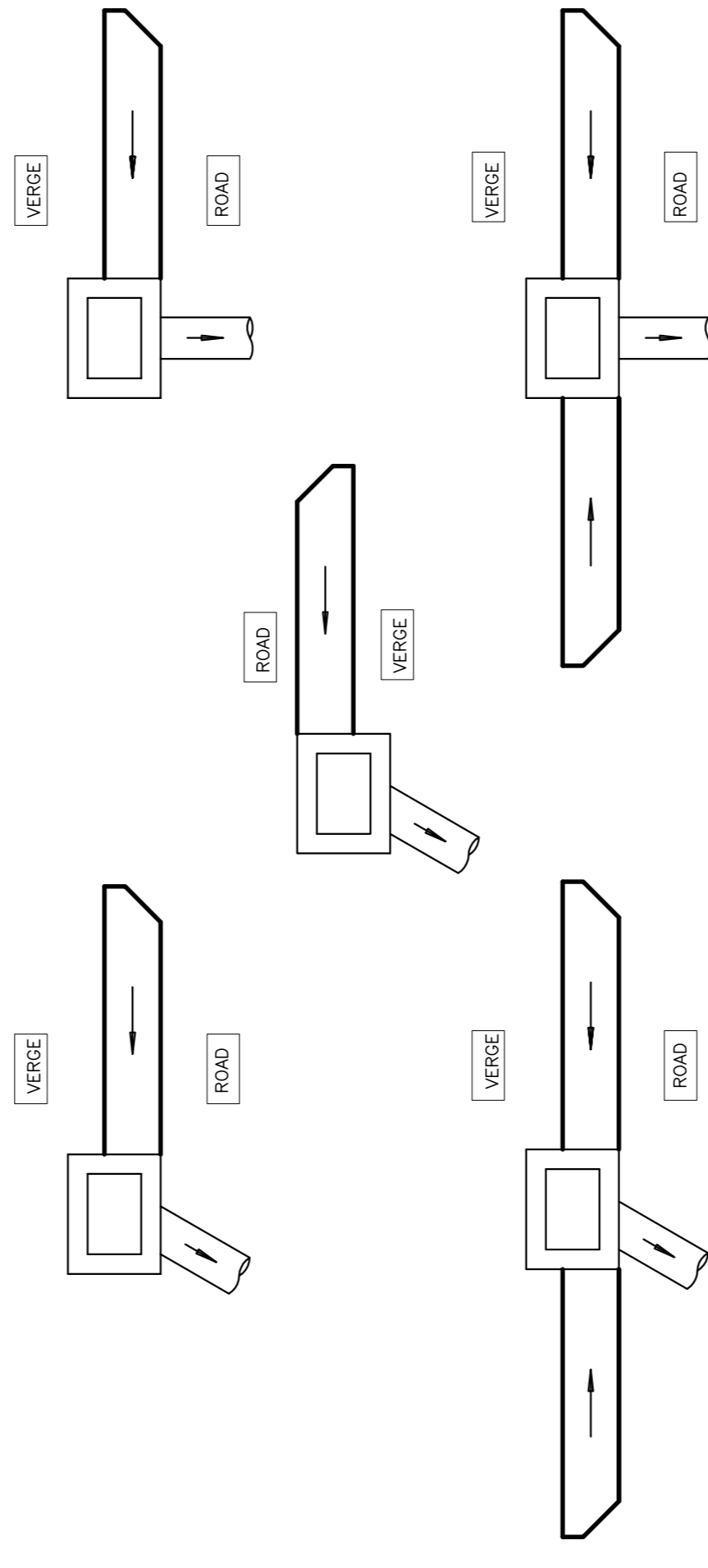


NOTES

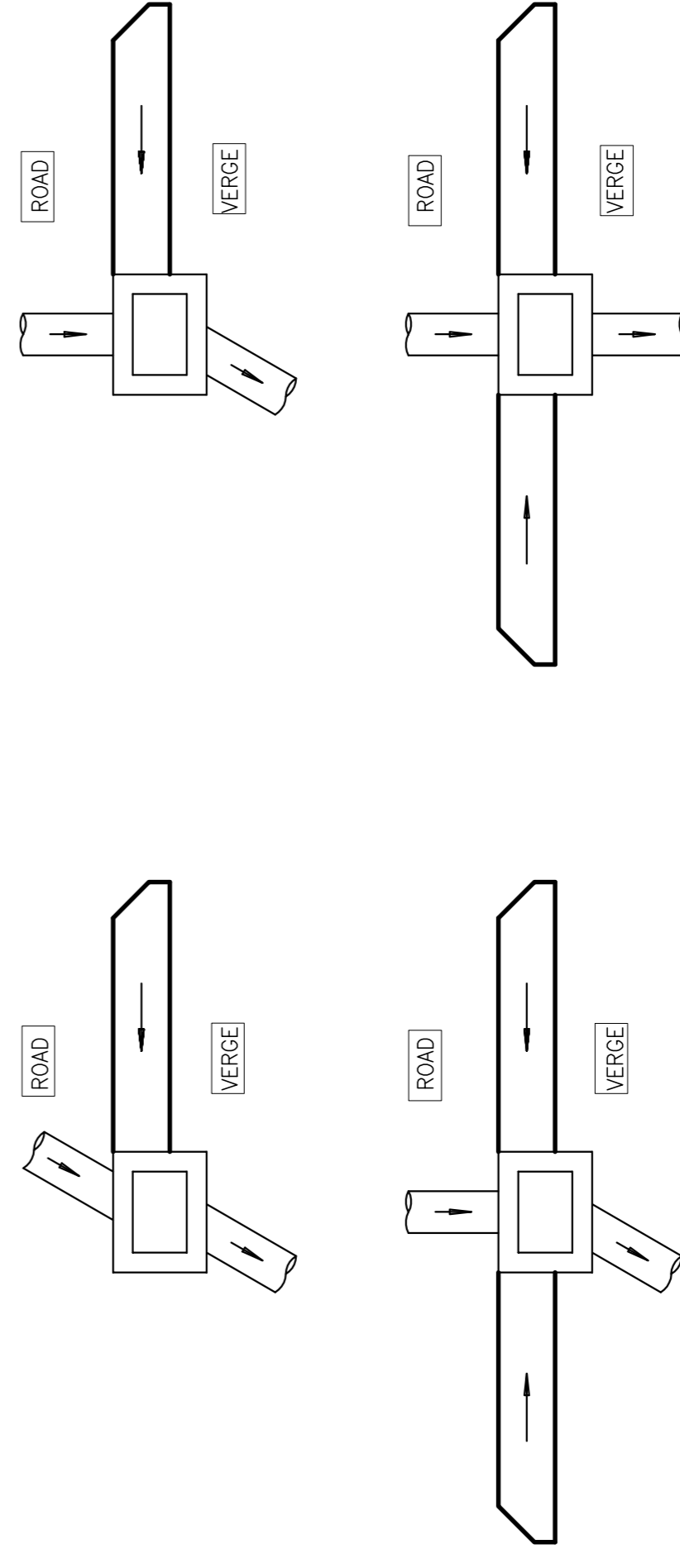
- All stormwater pipes to be laid soffit to soffit.
- Minimum pipe diameter of pipes is 450mm.
- Maximum angle between adjoining pipes is 60°.
- Where a pipe wall is at least 75mm from the nearest adjacent brickwork, the pipe can be started adjacent to the double brick wall.
- Where the total depth of the junction box (invert level to finished ground level) exceeds 400mm, a structural design must be submitted by a Professional Engineer.
- All bricks shall comply with SANS 227 and shall be engineering units of class FBS (face brick standard) with a nominal compressive strength of 12 MPa.
- Also refer to Section 502 of the Standard Specifications for Municipal Civil Engineering Works, 3rd Edition, 2005.



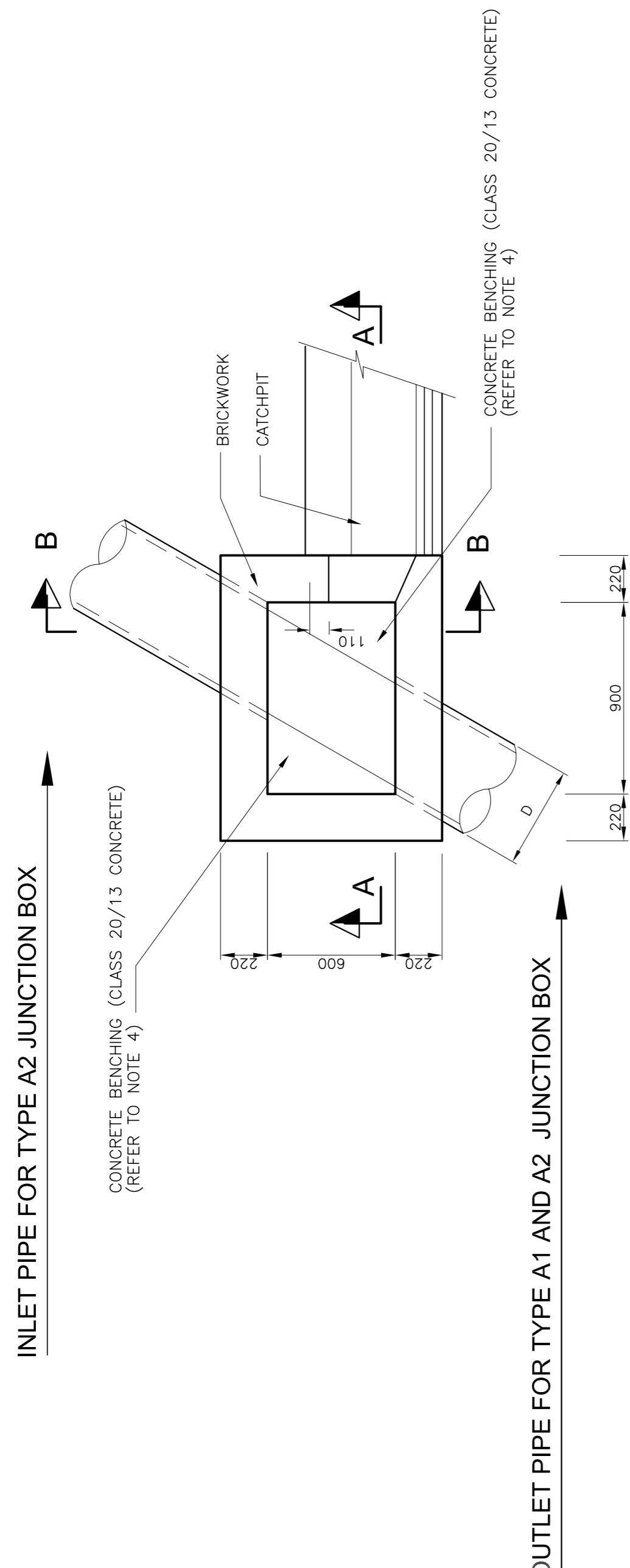
SECTION B-B
(CONCRETE BENCHING NOT SHOWN)



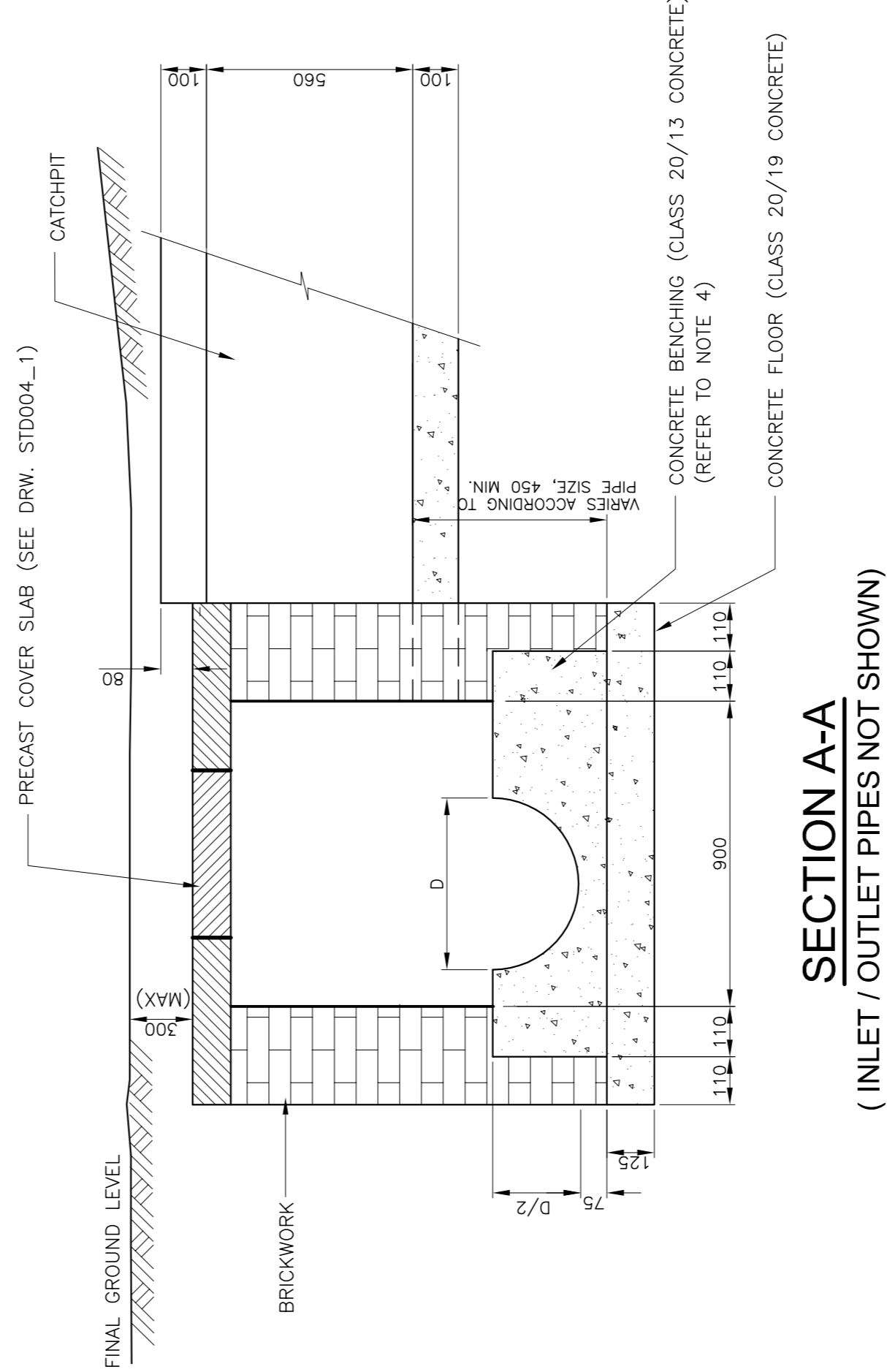
TYPE A1 JUNCTION BOX



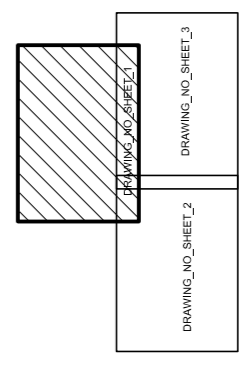
TYPE A2 JUNCTION BOX



PLAN OF TYPE A JUNCTION BOX (WITHOUT COVER SLAB)



SECTION A-A
(INLET / OUTLET PIPES NOT SHOWN)



PROJECT STATUS	
<input type="radio"/> DESIGN	<input type="radio"/> CONSTRUCTION
<input type="radio"/> AS BUILT	<input type="radio"/> OTHER
PROJECT ENGINEER:	DATE:
INSPECTOR OF WORKS:	DATE:
REVISIONS:	REVISIONS:
DRAWING NO.:	PROJECT NO.:
STD004	2 OF 6
A1	

AMENDMENTS	CONSULTANTS DETAIL
NO.	DATE
APPROVED	DESCRIPTION
PAGE	

ROADS AND STORMWATER For the City of Tshwane Municipality DIRECTOR OF INFRASTRUCTURE DEVELOPMENT	WATER AND SANITATION For the City of Tshwane Municipality DIRECTOR OF INFRASTRUCTURE DEVELOPMENT
DRAWING NO. STD004_1	DRAWING NO. STD004_1
DRAWING CHECKED BY P. A. ODEBIDAL P.Eng.	DRAWING CHECKED BY P. A. ODEBIDAL P.Eng.
DRAWN BY S. ALDRE	DRAWN BY S. ALDRE
CIVIL ENGINEERING SERVICES D. J. CHALMERS	CIVIL ENGINEERING SERVICES D. J. CHALMERS
DRAWING APPROVED BY EXECUTIVE DIRECTOR MS. L. MCHUNU	DRAWING APPROVED BY EXECUTIVE DIRECTOR MS. L. MCHUNU
SCALE: AS SHOWN	SCALE: AS SHOWN
DATE: NOV 2009	DATE: NOV 2009
PROJECT NO.:	PROJECT NO.:
SHEET NO.:	SHEET NO.:
2 OF 6	2 OF 6

CITY OF TSHWANE PUBLIC WORKS & INFRASTRUCTURE DEVELOPMENT ACTING: V. KOBLUWE STRATEGIC EXECUTIVE DIRECTOR	
WATER AND SANITATION EXECUTIVE DIRECTOR MS. L. MCHUNU P.O. BOX 1400 PRETORIA	
ROADS AND STORMWATER EXECUTIVE DIRECTOR MS. L. MCHUNU P.O. BOX 1400 PRETORIA	
CITY OF TSHWANE MUNICIPALITY P.O. BOX 1400 PRETORIA	