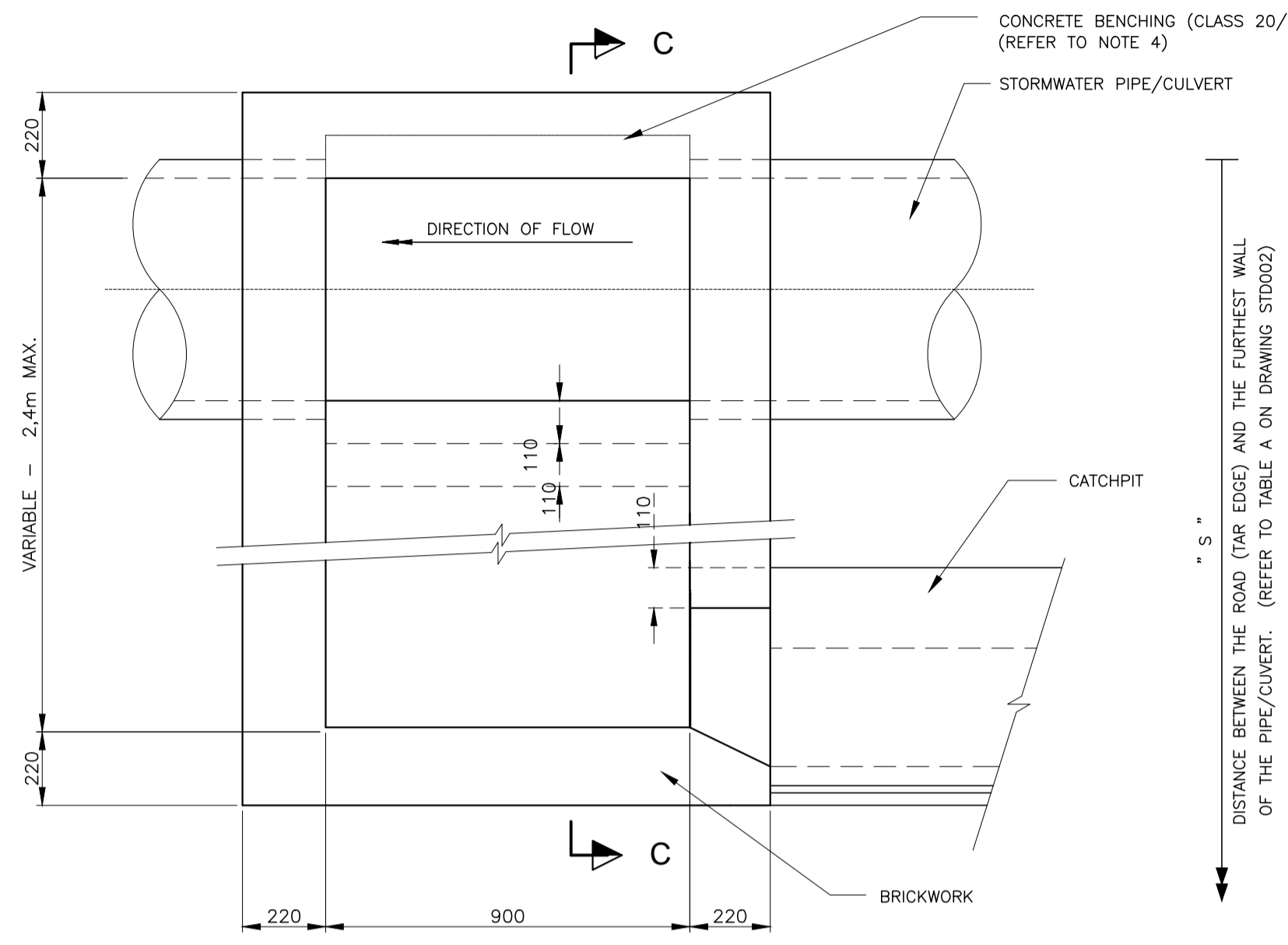
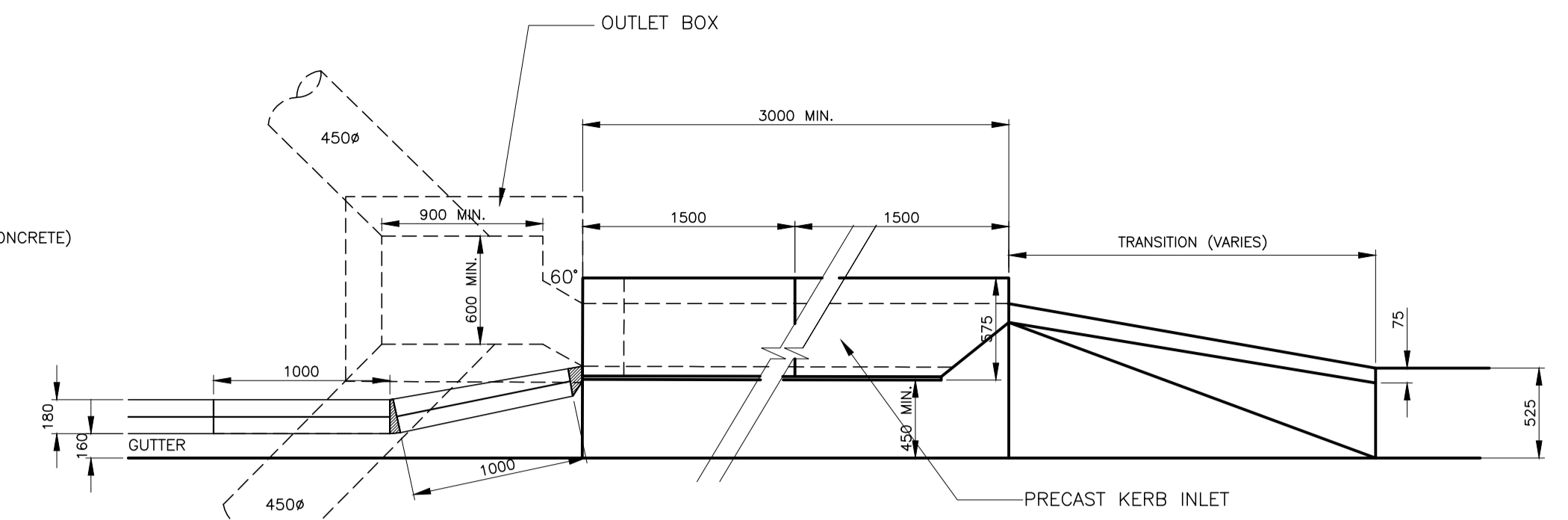


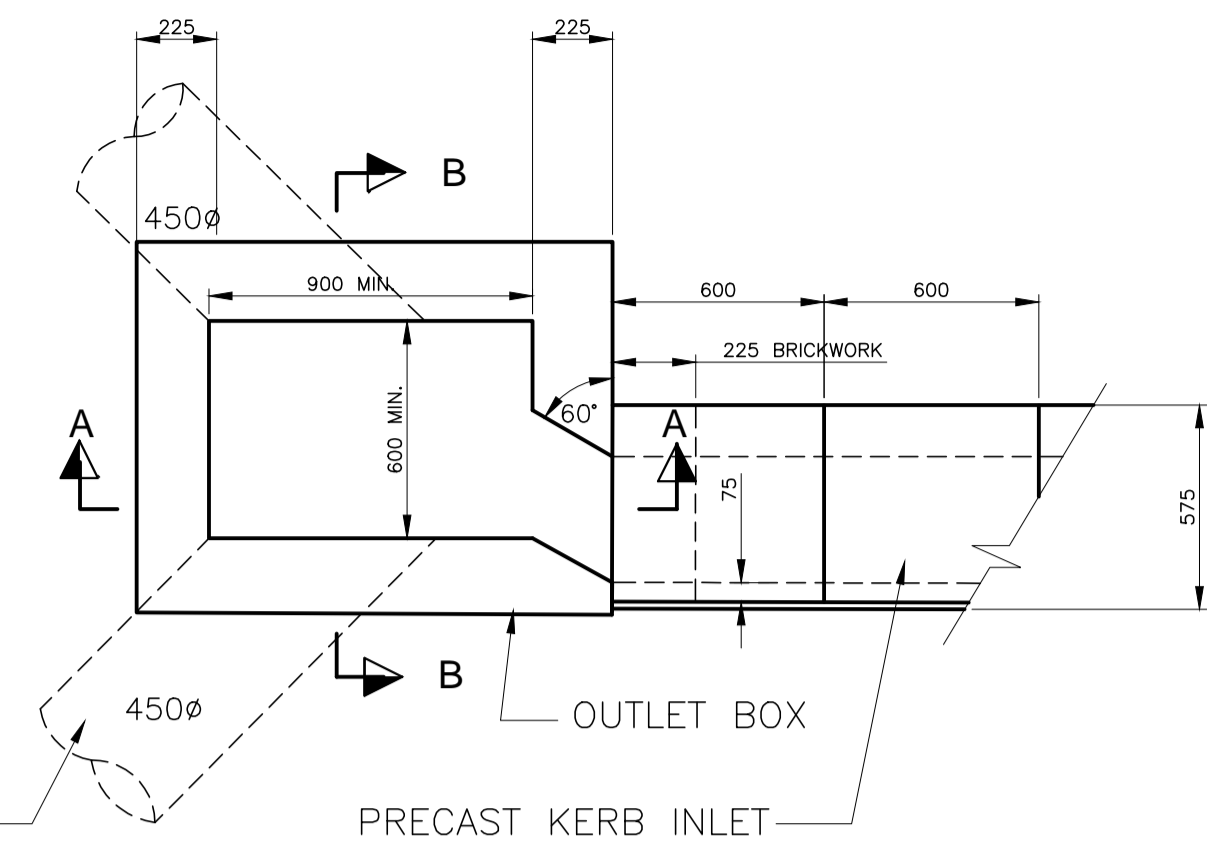
1. All stormwater pipes to be laid soffit to soffit
2. Minimum pipe diameter of all pipes is 450mm.
3. Maximum angle between adjoining pipes is 60°.
4. Where a pipe wall is at least 75mm from the nearest junction box wall, the concrete benching can be started adjacent to the double brick wall.
5. Where the total depth of the junction box (invert level to finished ground level) exceeds 2,0m a structural design must be submitted by a professional engineer.
6. 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.
7. Also refer to Section 502 of the Standard Specifications for Municipal Civil Engineering Works, 3rd Edition, 2005.



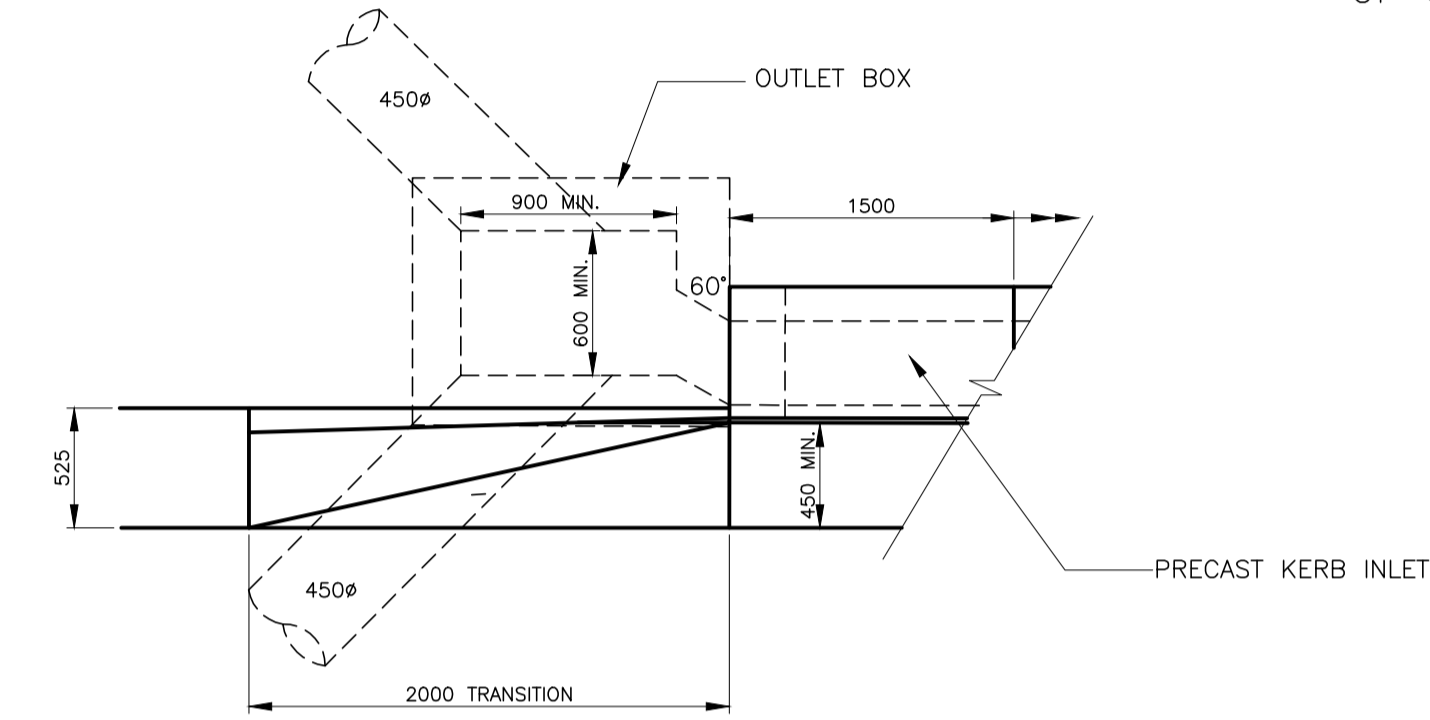
**PLAN OF TYPE B JUNCTION BOX (WITHOUT COVER SLAB)**



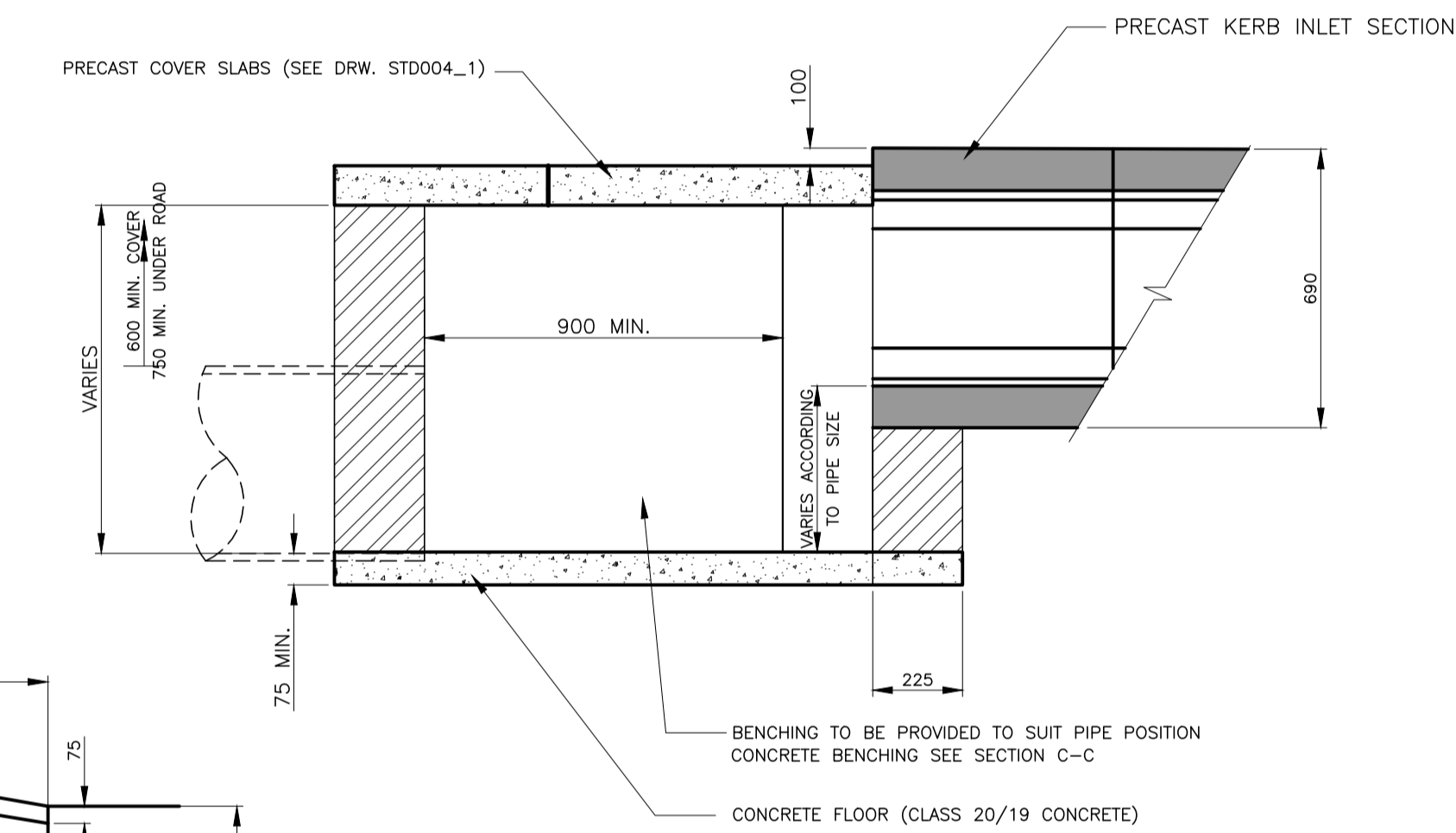
**PLAN OF KERB INLET SHOWING OUTLET BOX POSITION UNDER VERTICAL KERB**



**PLAN OF KERB INLET NOT DISCHARGING DIRECTLY INTO MAIN STORMWATER DRAIN (WITHOUT COVER)**

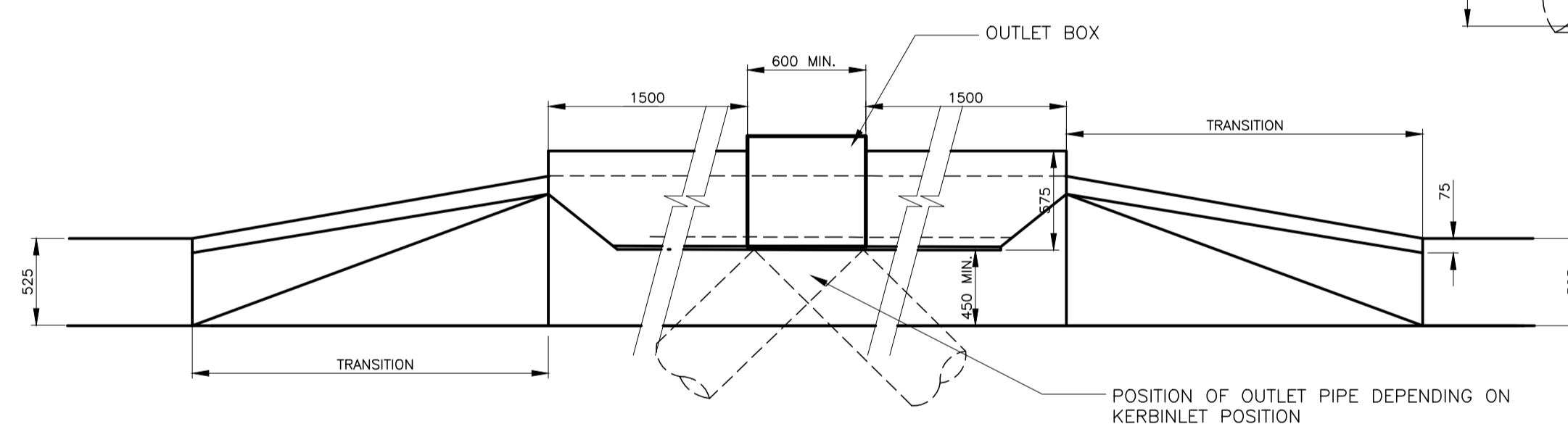


**PLAN OF KERB INLET SHOWING OUTLET BOX POSITION UNDER SLOPING KERB**

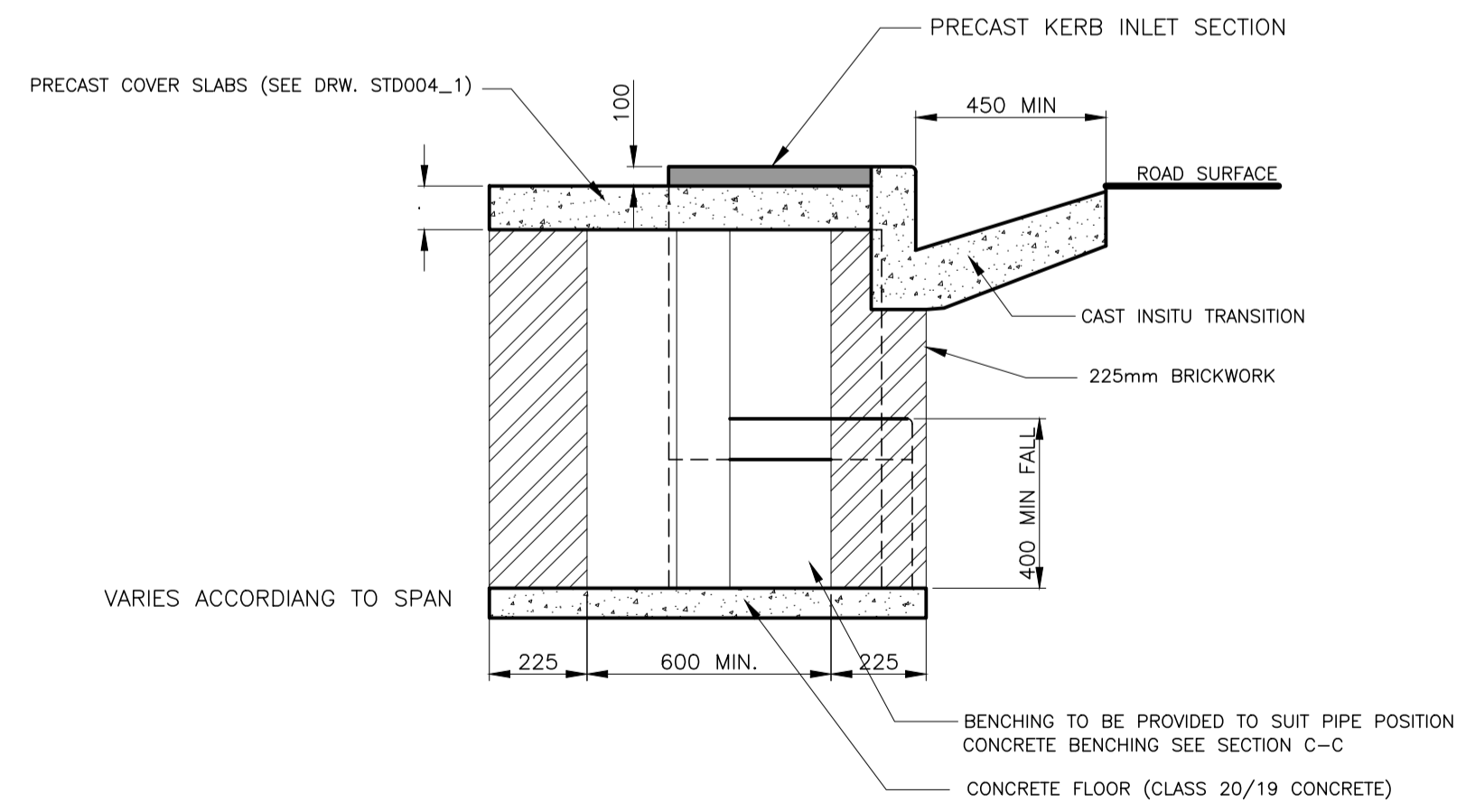


**SECTION A-A**

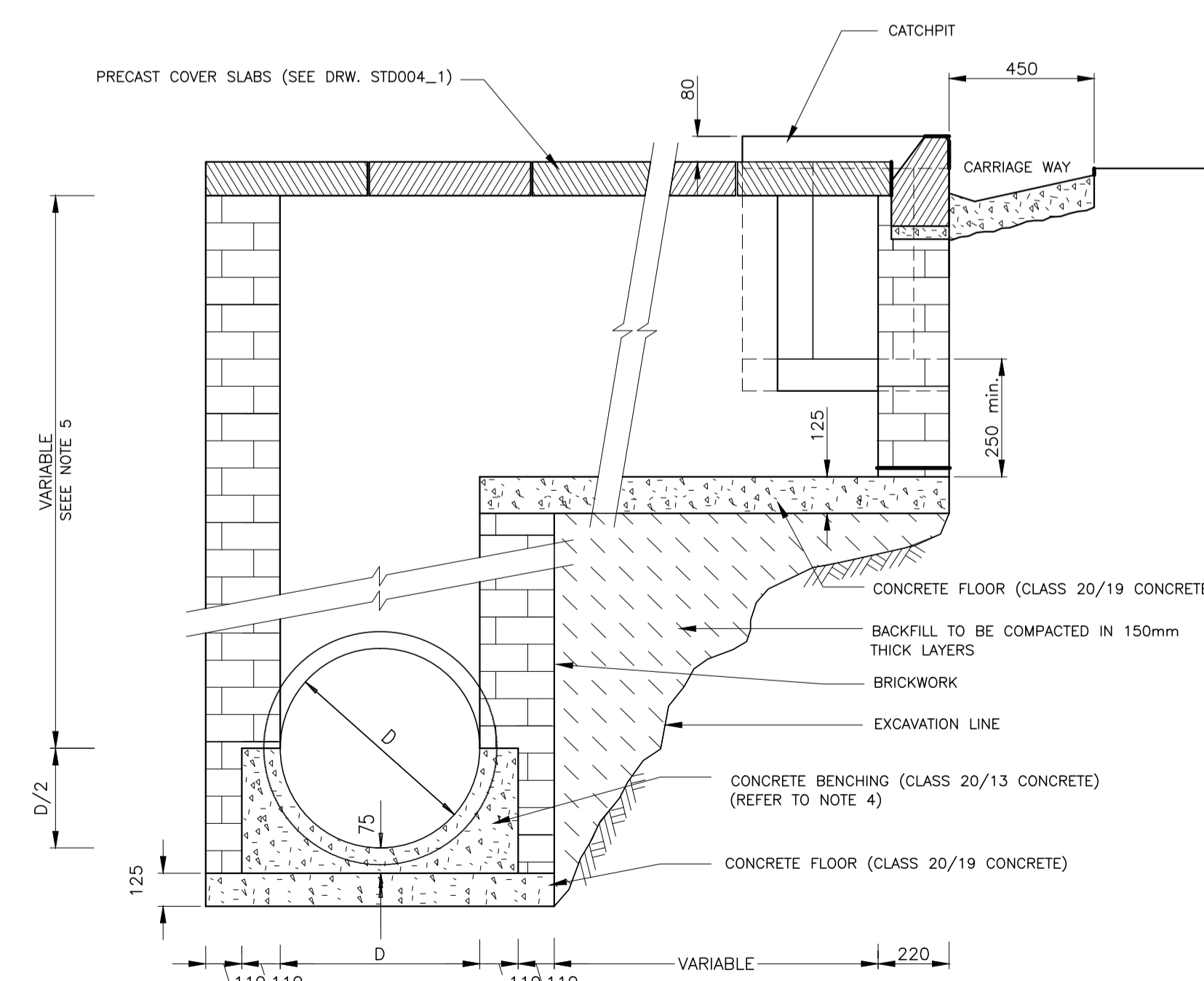
**NOTE:**  
WHERE PROVISION IS MADE FOR FUTURE ROAD WIDENING AND THE MAIN DRAIN IS CONSTRUCTED AWAY FROM THE CURRENT EDGE OF ROAD THE MAXIMUM LENGTH OF THE JUNCTION BOX IS TO BE LIMITED TO 3,0m WHICH A PIPE IS TO BE PROVIDED BETWEEN THE KERB INLET JUNCTION BOX AND THE MAIN STORMWATER DRAIN.



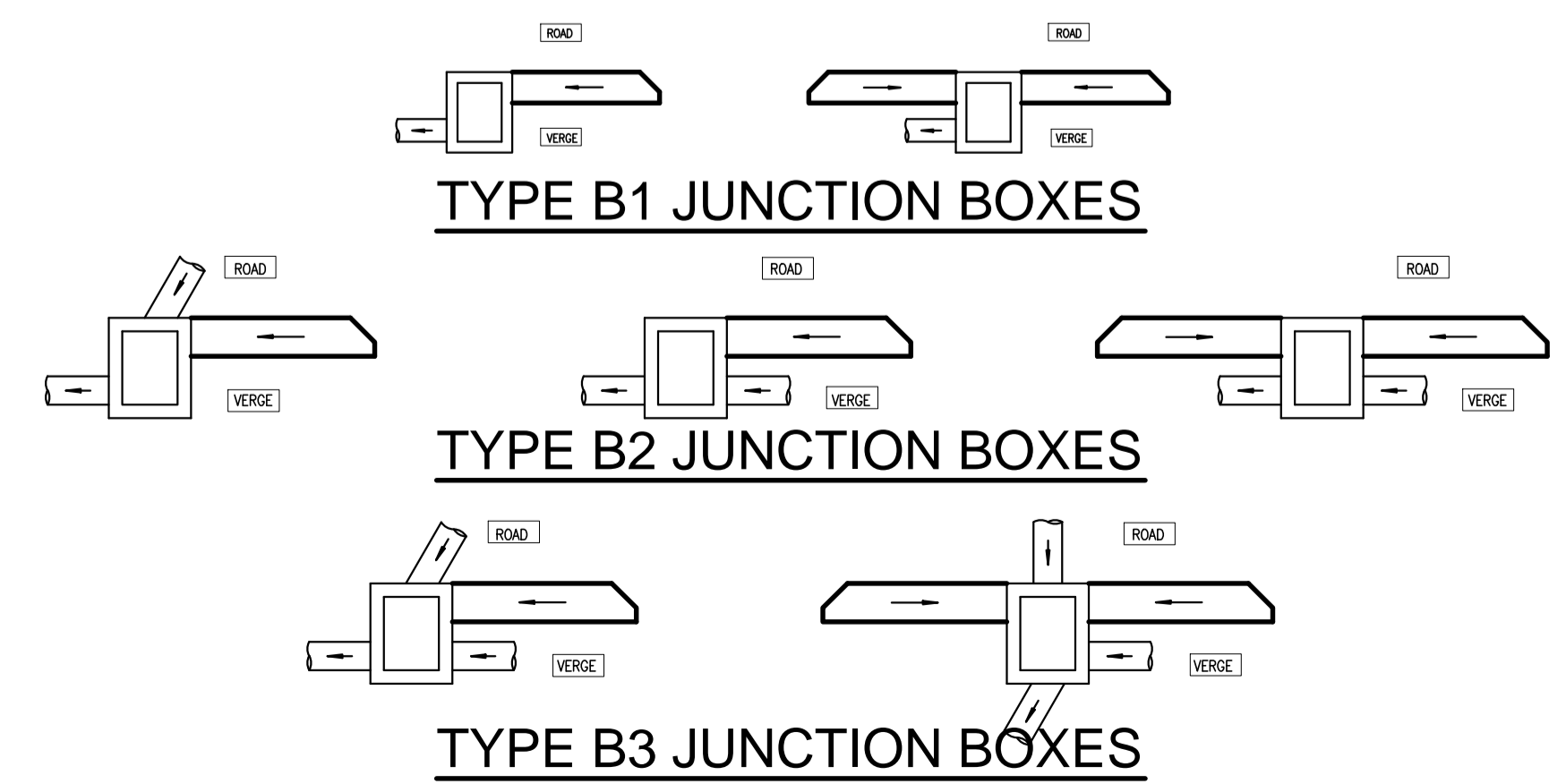
**PLAN OF KERB INLET AT A LOW POINT SHOWING POSITION OF OUTLET BOX**



**SECTION B-B**



**SECTION C-C**



**TYPE B1 JUNCTION BOXES**

**TYPE B2 JUNCTION BOXES**

**TYPE B3 JUNCTION BOXES**

AMENDMENTS				
NR.	DATE	APPROVED	DESCRIPTION	PAR.

DESIGNED J.G. JANSEN VAN VUUREN Pr.Tech.	DRAWN S. AUDIE
DESIGN CHECKED BY P. A. ODENDAAL Pr.Eng.	INFRASTRUCTURE TECHNICAL INFORMATION MANAGEMENT D.J. CHALMERS

PROJECT STATUS				
<input type="radio"/> CONCEPT DRAWING	<input type="radio"/> TENDER DRAWING	<input type="radio"/> APPROVED FOR CONSTRUCTION	<input type="radio"/> FOR QUOTE	<input type="radio"/> AS BUILT DRAWING

PROJECT ENGINEER (CONSULTANT)	INITIALS AND SURNAME	SIGNATURE AND Pr. No.	DATE
INSPECTOR OF WORKS (CITY OF TSHWANE)	INITIALS AND SURNAME	SIGNATURE AND Pr. No.	DATE

CONSULTANT DETAIL	

**CITY OF TSHWANE**  
ROADS AND TRANSPORT DEPARTMENT

Mr P. I. Letlorkane  
STRATEGIC EXECUTIVE DIRECTOR

Ms. L. V. Kegakhe-Piki  
EXECUTIVE DIRECTOR

P.O. BOX 1409  
PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR  
Ms. L. V. Kegakhe-Piki

**TYPICAL STANDARD DETAILS**

**JUNCTION BOX AND MANHOLE DETAILS: TYPE B JUNCTION BOX**

ROADS AND STORMWATER For Internal Approval	
DIRECTOR: INFRASTRUCTURE PROVISION	SIGNATURE _____ DATE _____
DIRECTOR: INFRASTRUCTURE CONSTRUCTION (PROJECT) MANAGEMENT	SIGNATURE _____ DATE _____
DIRECTOR: INFRASTRUCTURE ASSET MANAGEMENT	SIGNATURE _____ DATE _____
DIRECTOR: TRANSPORT INFRASTRUCTURE PLANNING	SIGNATURE _____ DATE _____
DIRECTOR: INTELLIGENT TRANSPORT SYSTEM AND TRAFFIC ENGINEERING	SIGNATURE _____ DATE _____
DIRECTOR: INFRASTRUCTURE MAINTENANCE MANAGEMENT (IMM)	SIGNATURE _____ DATE _____

DATE: MAY 2013	SCALE: AS SHOWN	ORIGINAL PAPER SIZE: A1
DRAWING NO: <b>STD004</b>	SHEET NO: 3 OF 7	REVISION