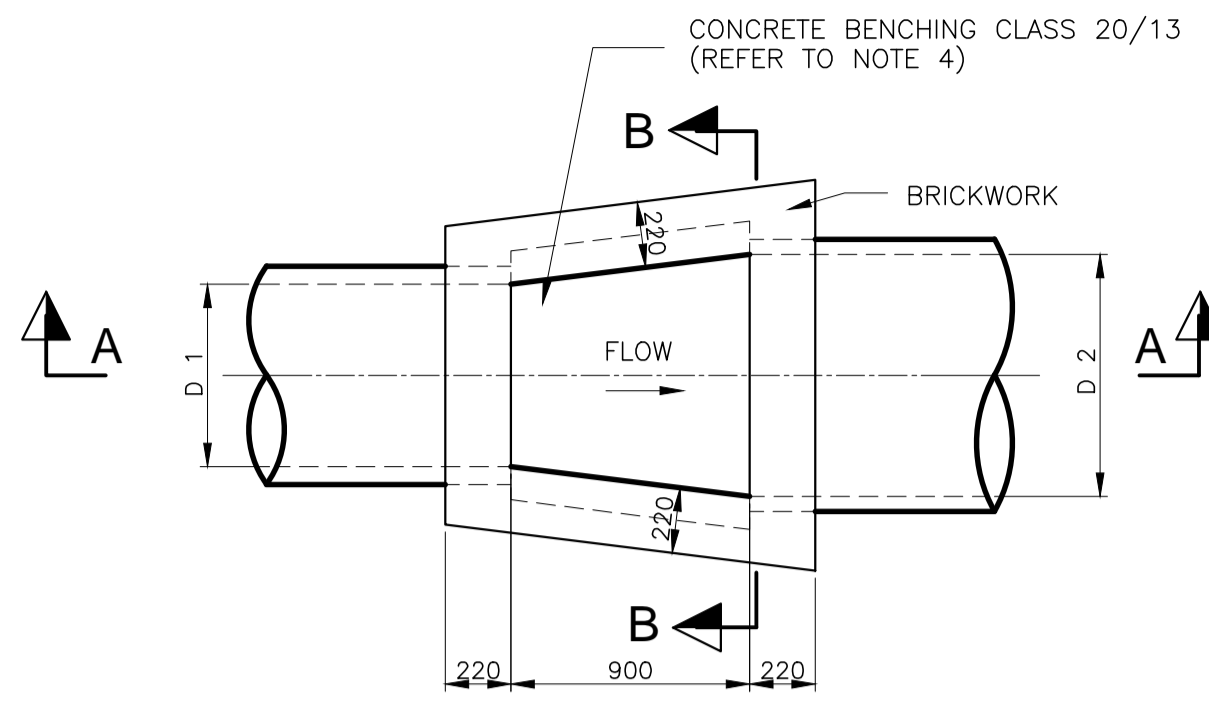
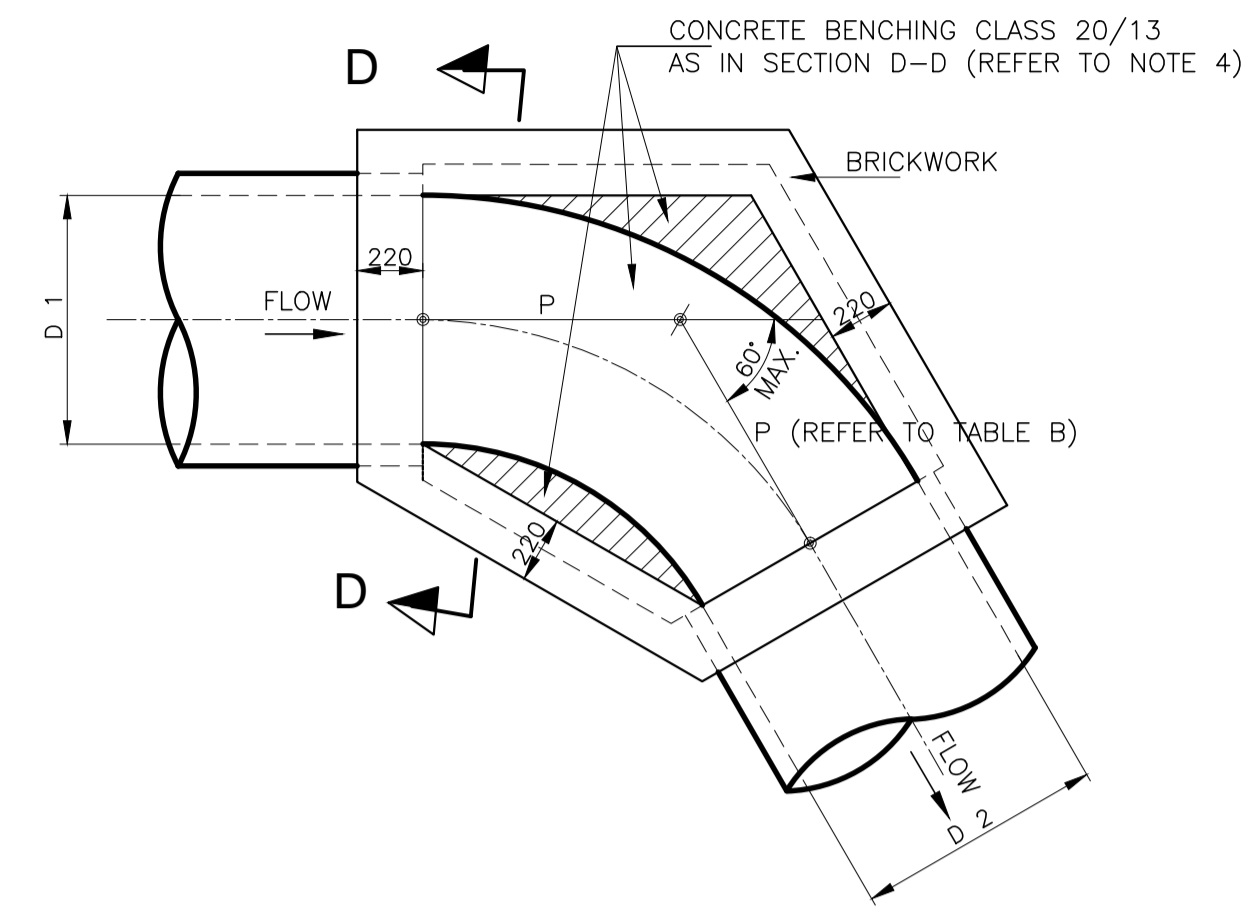


NOTES AND SPECIFICATIONS

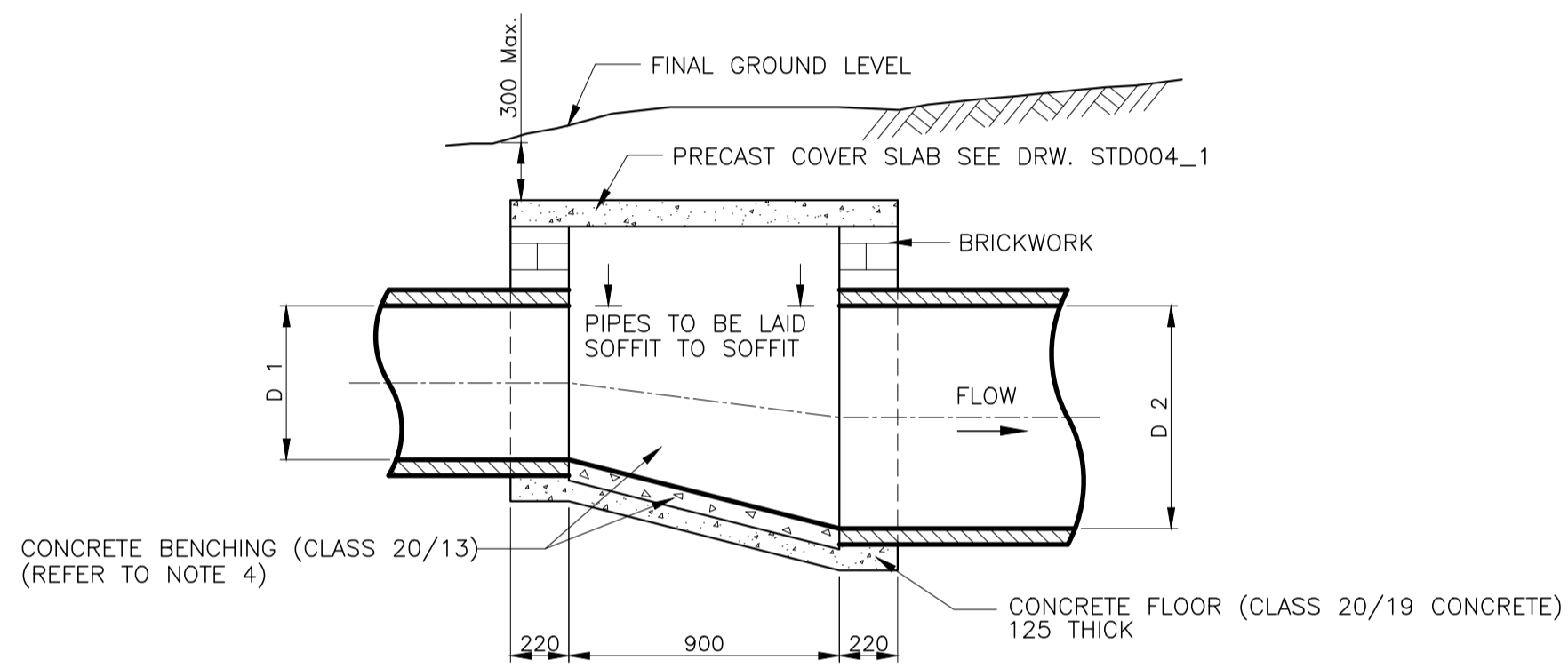
1. All stormwater pipes to be laid soffit to soffit
2. Minimum pipe diameter of all pipes is 450mm.
3. Maximum angle between adjoining pipes is 60°.
4. Where a pipe wall is at least 75mm from the nearest junction box wall, the concrete benching can be started adjacent to the double brick wall.
5. Where 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 SABS 227 and shall be engineering units of class FBS (face brick standard) with engineering units of class FBS (face brick standard) with engineering units of class FBS (face brick standard) with engineering units of class FBS (face brick standard).
7. Also refer to Section 502 of the Standard Specifications for Municipal Civil Engineering Works, 1991.



PLAN OF TYPE D JUNCTION BOX (WITHOUT COVER SLAB)
D 1 < D 2



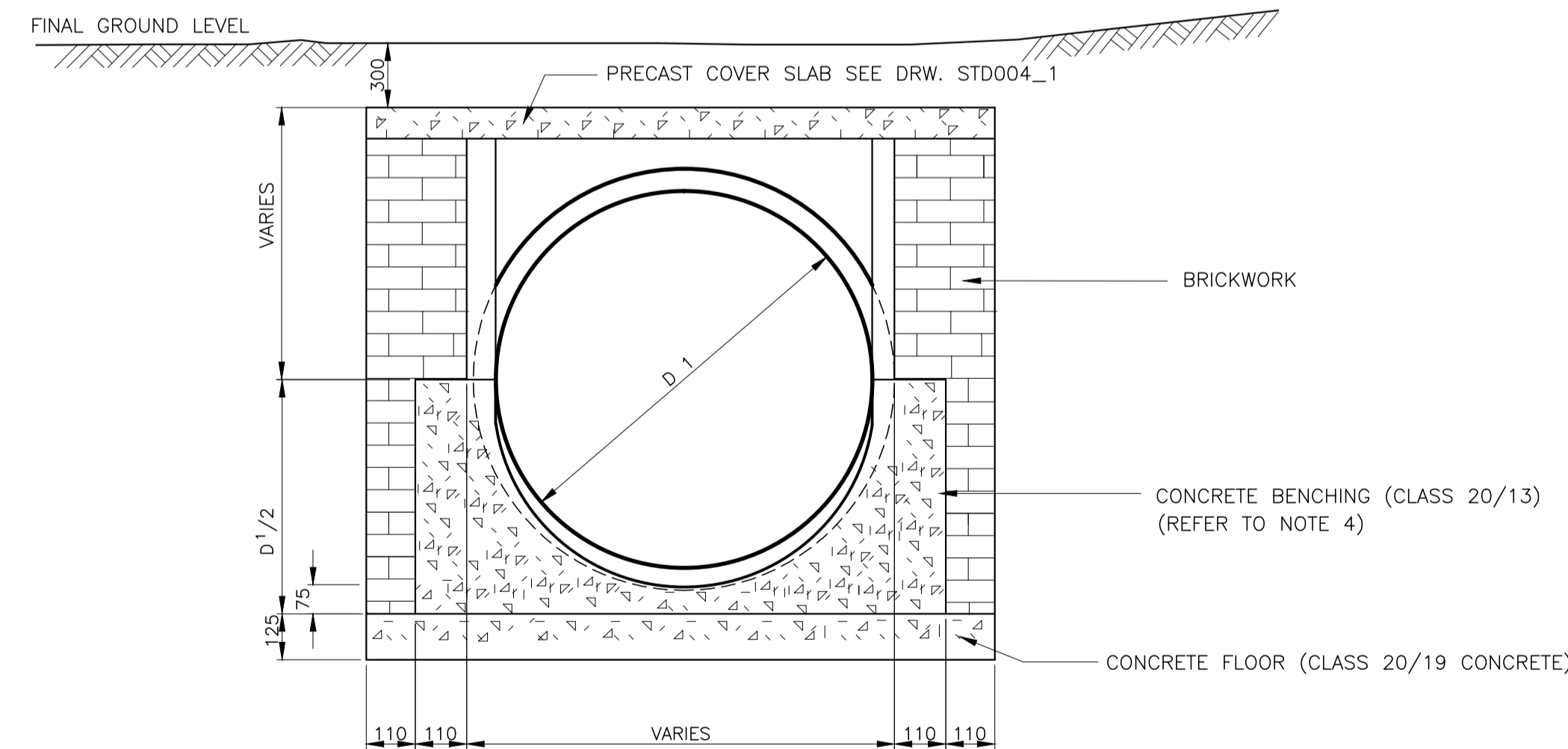
PLAN OF TYPE D JUNCTION BOX (WITHOUT COVER SLAB)
D 1 = D 2 OR D 1 < D 2



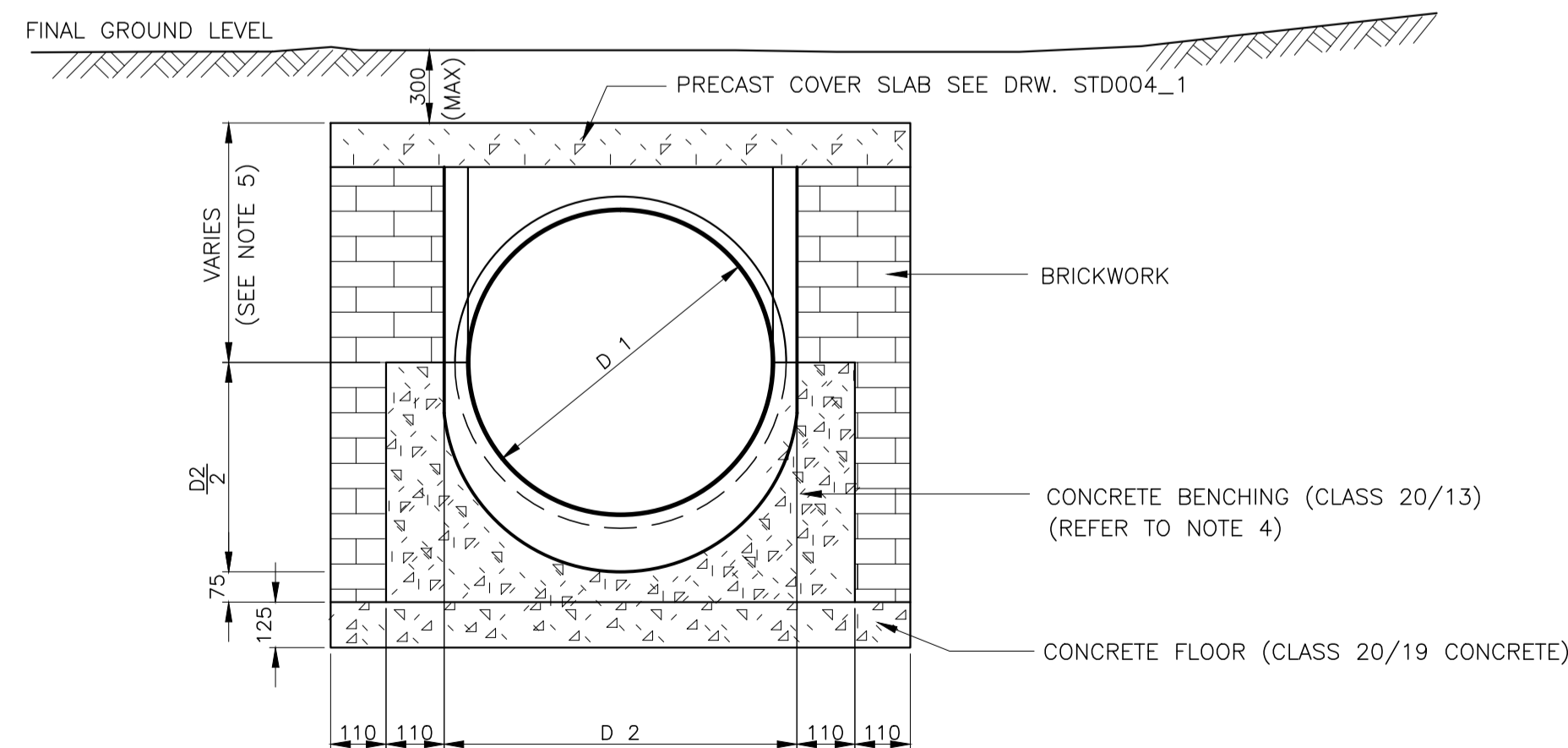
SECTION A-A

TABEL B

D 2 DIAMETER OF DOWN STREAM PIPE	DISTANCE P
450	700
525	700
600	750
675	780
750	800
825	825
900	850
1050	870
1200	925
1350	1000
1500	1100



SECTION D-D



SECTION B-B

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
DATE: _____	DATE: _____

PROJECT STATUS

CONCEPT DRAWING
 TENDER DRAWING
 APPROVED FOR CONSTRUCTION DRAWING
 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. J. Lotonkane
 STRATEGIC EXECUTIVE DIRECTOR
 P.O. BOX 1409
 PRETORIA 0001

Ms. L. V. Kgekake-Pili
 EXECUTIVE DIRECTOR
 P.O. BOX 1409
 PRETORIA 0001

DRAWING APPROVED BY EXECUTIVE DIRECTOR
Ms. L. V. Kgekake-Pili

TYPICAL STANDARD DETAILS

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

ROADS AND STORMWATER
For Internal Approval

RECEIVED
SIGNATURE AVAILABLE

DIRECTOR: INFRASTRUCTURE PROVISION
SIGNATURE _____ DATE _____

DIRECTOR: INFRASTRUCTURE CONSTRUCTOR (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 (BAM)
SIGNATURE _____ DATE _____

CONTRACT No. : _____ PROJECT No. : _____

DATE : MAY 2013 SCALE : AS SHOWN ORIGINAL PAPER SIZE : A1

DRAWING NO. **STD004** SHEET NO. **5 OF 7**

SCALE: 1:1000
0 10 20 40 60 80m

REVISION