KEY PLAN WITH ROAD SHOWING
CULVERT POSITIONS

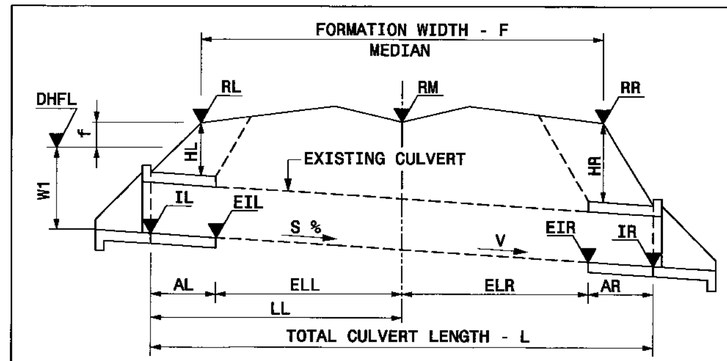
KEY PLAN

KEY TO CULVERT TYPES

PC - PIPE CULVERT (UNIT LENGTHS 2,44m)
BC - BOX CULVERT (UNIT LENGTHS 1i,22m)
IBC - IN-SITU BOX CULVERT
APC - ARMCO PIPE CULVERT
MH - MANHOLE
SI - SIDE INLET
SCI - SPECIAL CULVERT INLET
FA - FARM ACCESS
SDW - SIDE DRAIN WING WALL
DI - DROP INLET

NOTE :

1. DETAIL OF LONGITUDINAL SECTIONS OF CULVERTS TO BE EXTENDED, SHOWN ON SEPARATE DRAWINGS.
1. CULVERT EXTENSIONS ON LEFT AND RIGHT HAND SIDE REQUIRED ONLY IF DIMENSIONS AL AND AR IN SCHEDULE /= 0



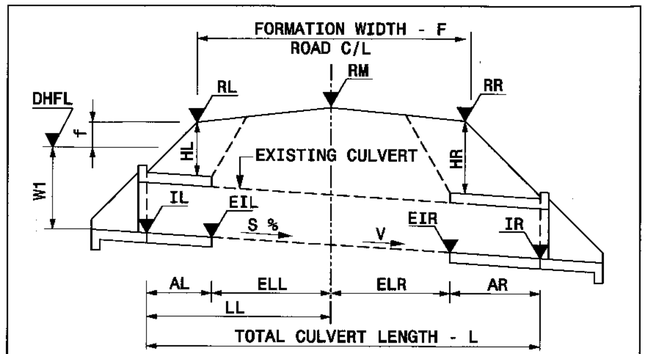
TYPICAL LONGITUDINAL SECTION OF CULVERT UNDER DOUBLE CARRIAGEWAY ROAD

SCALE: SCHEMATIC

(SHOW APPROPRIATE ROAD CROSS SECTION OF SINGLE /DOUBLE CARRIAGEWAY ON SCHEDULE)

DRAINAGE SCHEDULE

CULVERT DESCRIPTION	ITEM NUMBER																	
	ROAD KILOMETRE DISTANCE																	
	TYPE OF CULVERT																	
	SPAN/DIA (mm)																	
	HEIGHT (mm)																	
	PIPE & BEDDING CLASS																	
	SKEW ANGLE °(Deg)																	
	WING WALL REFERENCE (IF APPLICABLE)																	
HYDROLOGICAL DATA	CATCHMENT AREA CA (ha)																	
	TIME OF CONCENTRATION Tc (minutes)																	
	RAINFALL INTENSITY I (mm/h)																	
	CATCHMENT DISCHARGE AT INLET (m^3/s)																	
	WATER HEAD WH (m)																	
	DESIGN HIGH FLOOD LEVEL DHFL (m)																	
	FREE BOARD f (m)																	
	FLOW VELOCITY v (m/s)																	
ROAD DATA	ROAD LEVEL - LEFT SHOULDER RL (m)																	
	ROAD LEVEL - ROAD C/L (MEDIAN) RM (m)																	
	ROAD LEVEL - RIGHT SHOULDER RR (m)																	
	ROAD FORMATION WIDTH F (m)																	
CULVERT DATA	FLOOR SLOPE S (%)																	
	INVERT LEVEL - LEFT IL (m)																	
	INVERT LEVEL - RIGHT IR (m)																	
	EXISTING INVERT LEVEL LEFT EIL (m)																	
	EXISTING INVERT LEVEL RIGHT RIL (m)																	
	FILL HEIGHT - LEFT HL (m)																	
	FILL HEIGHT - RIGHT HR (m)																	
	LENGTH-LEFT TO ROAD C/L(MEDIAN) LL (m)																	
	TOTAL LENGTH - INLET TO OUTLET L (m)																	
	EXISTING LENGTH LEFT ELL (m)																	
	EXISTING LENGTH RIGHT RLL (m)																	
	ADDITION LEFT AL (m)																	
	NUMBER OF UNITS (LEFT) NUMBER																	
	ADDITION RIGHT AR (m)																	
	NUMBER OF UNITS (RIGHT) NUMBER																	



TYPICAL LONGITUDINAL SECTION OF CULVERT UNDER SINGLE CARRIAGEWAY ROAD

SCALE: SCHEMATIC

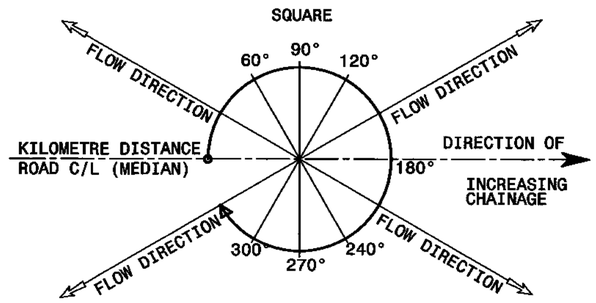


DIAGRAM SHOWING SLOPE & SKEW-ANGLE CONVENTION

No.	DATE	REVISION	APPROVED
V1	SEPT 2014	ORIGINAL VERSION	

SANRAL TYPICAL DRAWINGS

COPYRIGHT: THIS DRAWING IS PROTECTED IN TERMS OF THE COPYRIGHT ACT No. 98 OF 1978 AND MAY NOT BE REPRODUCED WITHOUT PERMISSION IN WRITING FROM SANRAL.
CONDITIONS FOR USE: CONSULTANTS APPOINTED BY SANRAL SHALL INCORPORATE THE TYPICAL DETAILS HEREON INTO THEIR SPECIFIC DESIGN FOR WHICH THEY WILL ASSUME FULL PROFESSIONAL RESPONSIBILITY. THIS TYPICAL DRAWING MAY NOT BE USED FOR TENDER PURPOSES.

THE SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg. No. 1998/009884/30

HEAD OFFICE
48 Tambotie Avenue
Val de Grace
Pretoria
0184

PO Box 415
Pretoria 0001
South Africa

Tel: (012) 844 8000

APPROVED

DATE: 2015/06/26

TYPICAL DRAWINGS - DRAINAGE

KEY PLAN AND DRAINAGE SCHEDULE REHABILITATION - UPGRADING ROADS

SANRAL DOC. No. (PDF) 1693203
SANRAL DOC. No. (DWG) 1797253
SANRAL DRAWING No. TD-D-DS-1002-V1