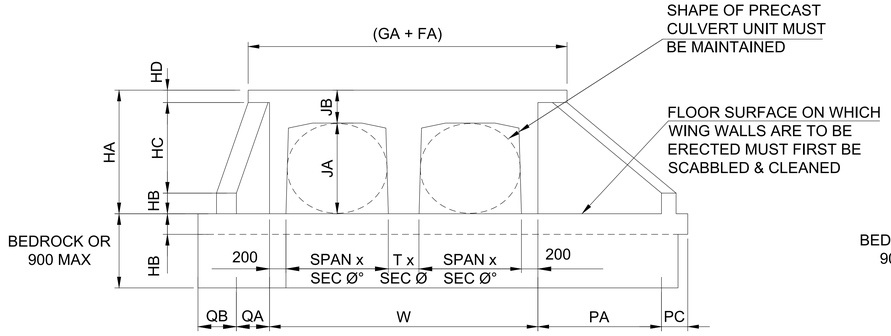
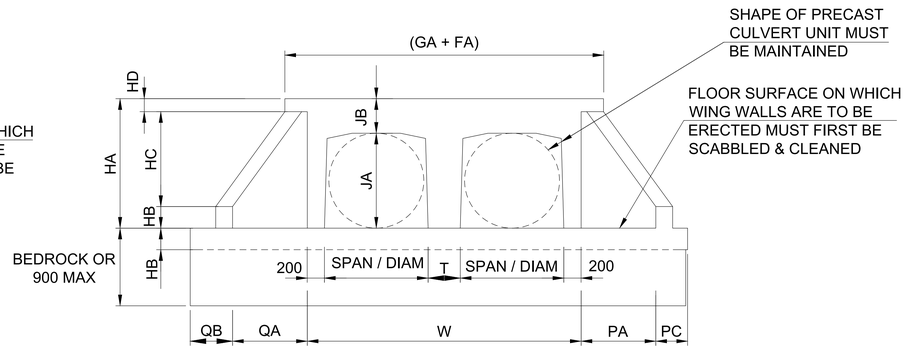
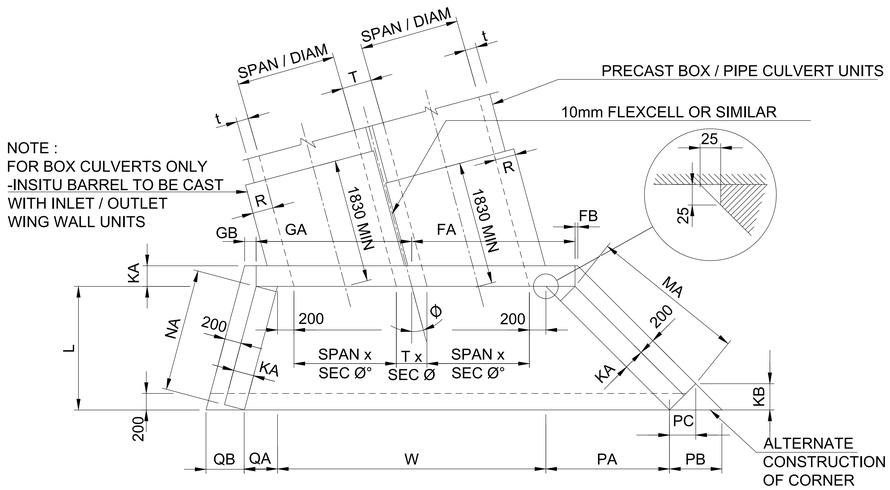


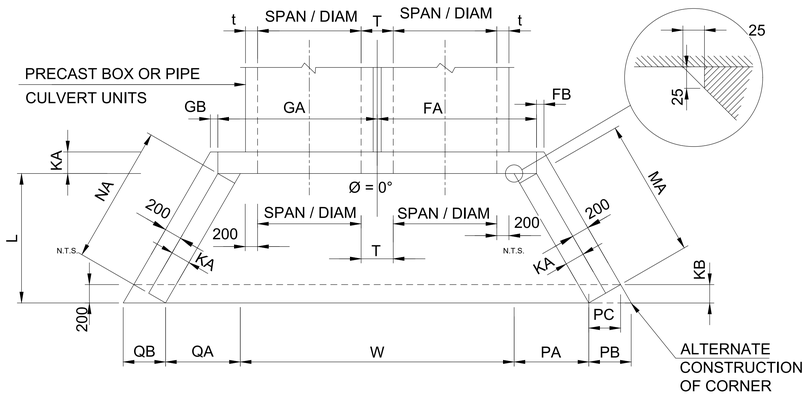
TYPICAL ELEVATION OF INLET / OUTLET
WING WALLS - MAX Ø = 30°
N.T.S.



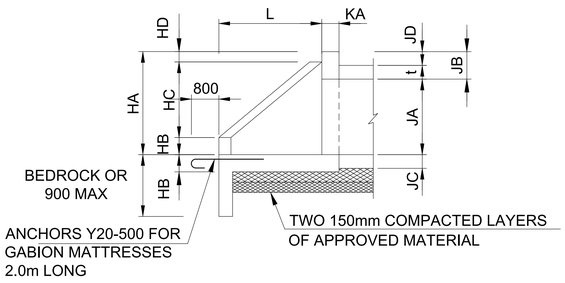
TYPICAL ELEVATION OF INLET / OUTLET
WING WALLS - Ø = 0° (SQUARE)
N.T.S.



TYPICAL PLAN OF INLET / OUTLET
WING WALLS - MAX Ø = 30°



TYPICAL PLAN OF INLET / OUTLET
WING WALLS - Ø = 0° (SQUARE)



TYPICAL END-ELEVATION OF
INLET / OUTLET WING WALLS - MAX Ø = 30°
N.T.S.

DATA SHEET AND FORMULAE

VERTICAL HEIGHT OF CULVERT	HB	HD	KA	JB
JA < 900	150	150	225	300
JA > 900	250	150	250	400

INSITU FLOOR SLAB (JC) AND PRECAST UNIT DECK THICKNESS (t)

	JC	t
900mm SPAN	150mm	110mm
1200mm SPAN	160mm	125mm
1500mm SPAN	175mm	145mm
1800mm SPAN	190mm	150mm
2100mm SPAN	220mm	155mm
2400mm SPAN	260mm	170mm

All dimensions in mm

FORMULAE

L = HC x S (min.1500mm) S = BATTER SLOPE

QA = L x TAN(Ø-30) Ø = CULVERT SKEW ANGLE

PA = L x TAN(Ø+30) t = PRECAST WALL THICKNESS

NA = L x SEC(Ø-30) - KA x TAN(Ø-30)

MA = L x SEC(Ø+30) - KA x TAN(Ø+30)

T = t x 2 + 80

QB = (KA + 200) x SEC(Ø - 30)

PB = (KA + 200) x SEC(Ø + 30)

KB = (KA + 200) x SIN(Ø + 30)

PC = (KA + 200) x COS(Ø + 30)

GA = W/2 + KA x SEC(Ø -30)

GB = {[200 x COSEC(Ø - 30)] - KA} x TAN(Ø - 30)

FA = W/2 + KA x SEC(Ø +30)

FB = {[200 x COSEC(Ø + 30)] - KA} x TAN(Ø + 30)

R = t + 100 (INSITU BARREL SLAB THICKNESS)

FOR TENDER ONLY

No.	DATE	REVISION	CONSULT. ENG.
T01	29/10/2024	ISSUED FOR RETENDER	
T00	28/02/2022	ISSUE FOR TENDER	

CONSTRUCTION RECORD (AS-BUILT)
WORKS CONTRACT ENGINEER
Name :
Prof. Reg. No. :
Date :
SANRAL PROJECT MANAGER
Name :
Date :

DESIGNED BY
NAME
Prof. Reg. No.
CHECKED BY
NAME
Prof. Reg. No.
DRAWN BY
NAME

CONSULTANT APPROVAL
Name :
Prof. Reg. No. :
Date :

HEAD OFFICE
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SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg No. 1998/009584/06
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

NORTHERN REGION
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ACCEPTANCE
THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING
for the SA NATIONAL ROADS AGENCY SOC LTD.
Date:

PROJECT DESCRIPTION
FOR TRAINING AND CONSTRUCTION MANAGEMENT SERVICES FOR A COMMUNITY DEVELOPMENT PROJECT TO UPGRADE ACCESS ROADS IN AND NEAR KWAMHLANGA TOWNSHIP – MPUMALANGA PROVINCE

DRAWING DESCRIPTION
PRECAST CULVERT WING WALLS DIMENSION

SCALE : AS SHOWN **SHEET 1 OF 2**

PROJECT NUMBER	C.002-053-2023/1	
DRAWING LOCATION DATA	START	END
ROUTE	-	-
SECTION	-	-
DRAWING km DISTANCE	-	-
DRAWING TYPE	TYPICAL DRAWING - DRAINAGE	
BRIDGE/STRUCTURE No.		
CONSULTANT DRAWING No.	60487450-4-1-C-DA-108-T-01	VER T01
SANRAL DOCUMENT #		

SANRAL TITLE BLOCK #164823H(DWG/PDF) VERSION V11.1