



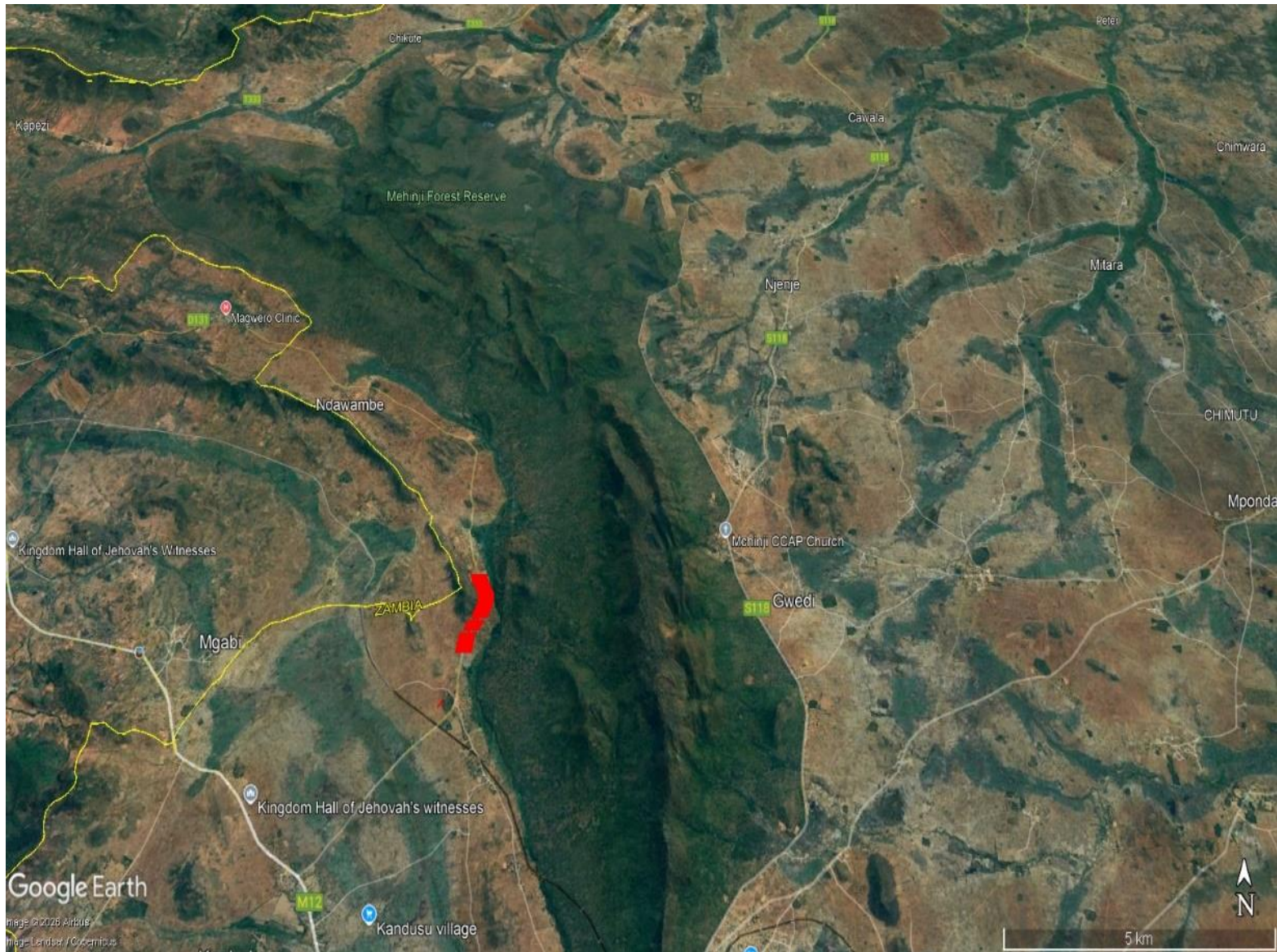
SOUTHERN AFRICA TRADE AND CONNECTIVITY PROJECT
(SATCP)

MINISTRY OF TRANSPORT AND PUBLIC WORKS

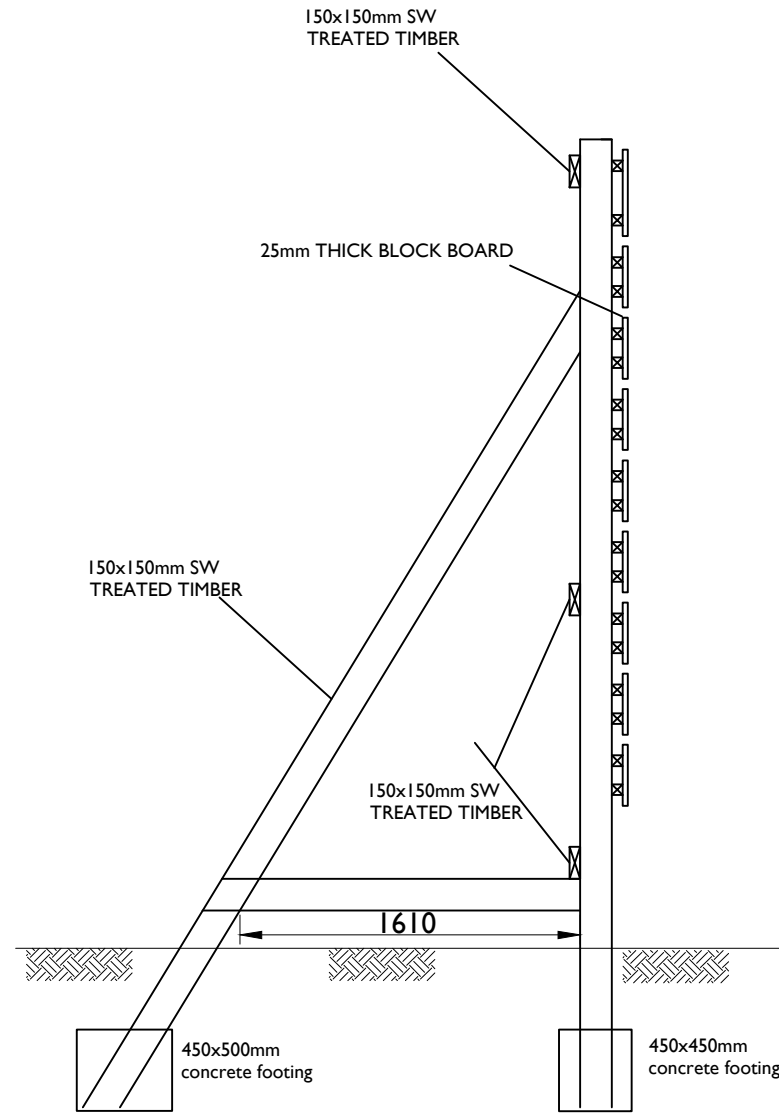
MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE
IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT

THE BOOK OF DRAWINGS FOR TENDER PURPOSE

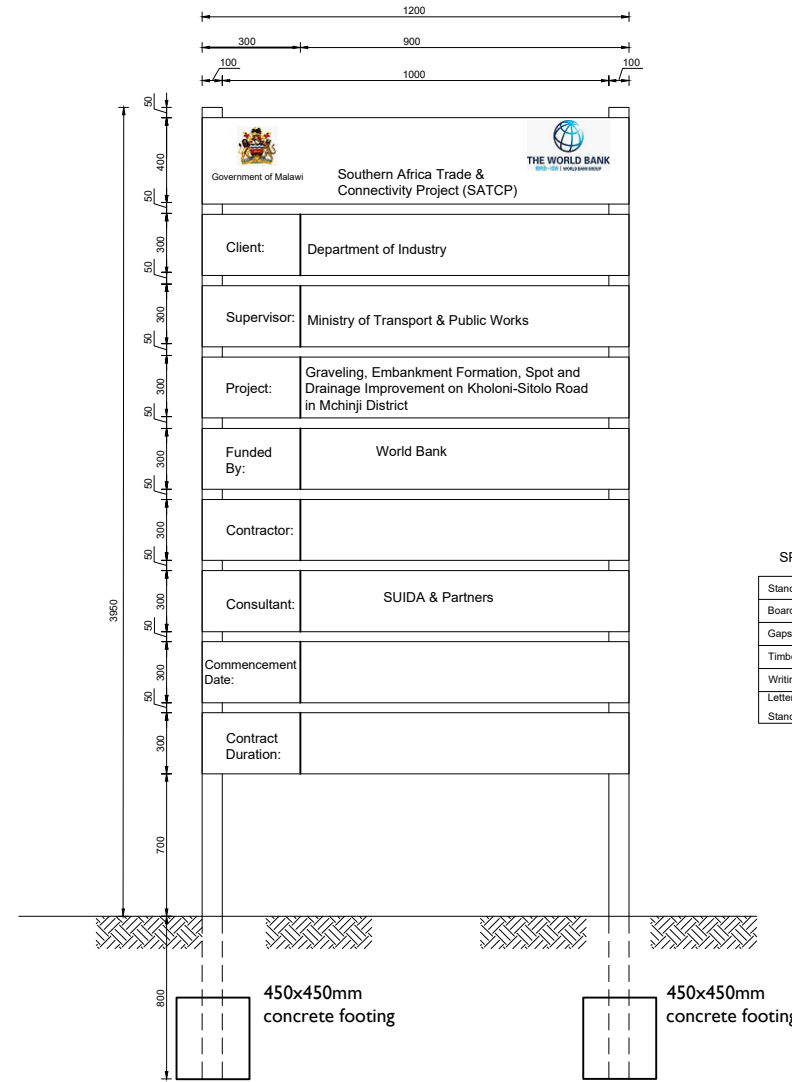
MARCH 2026



LOCATION MAP OF KHOLONI - SITOLO (UD) ROAD IN MCHINJI DISTRICT (RED)



SIDE ELEVATION



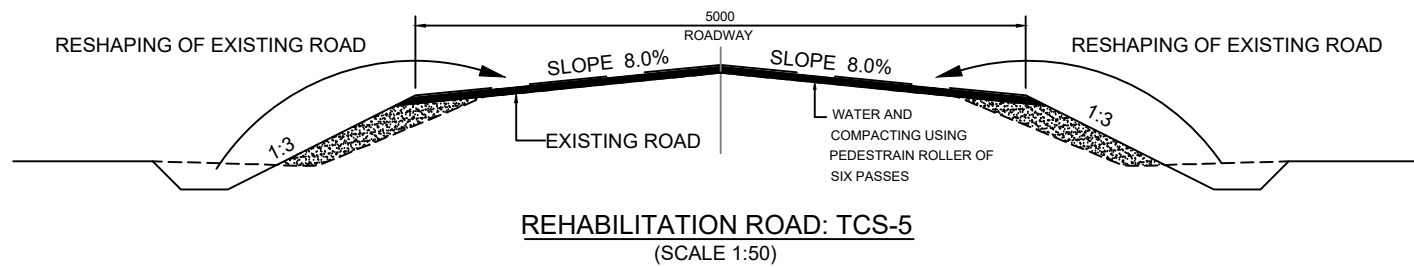
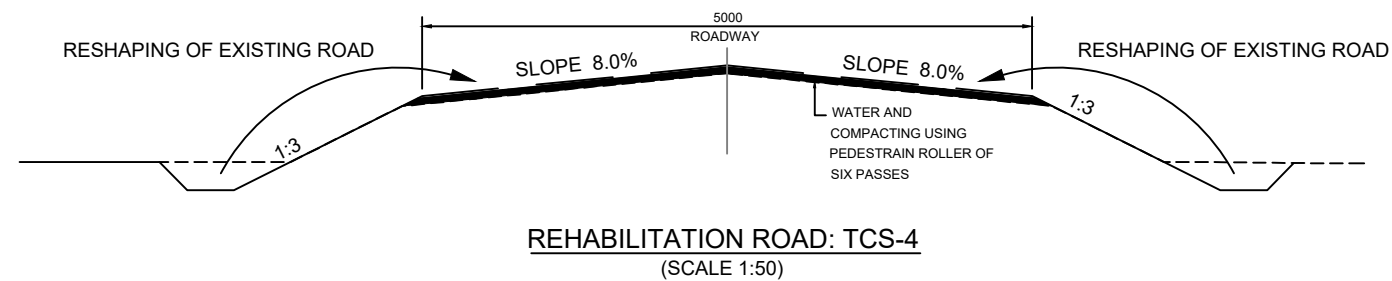
FRONT ELEVATION

SPECIFICATIONS

Stands	100mmx50mmx3250mm
Boards	300mmx25mmx1200mm
Gaps between board	= 50mm
Timber to be treated	soft wood
Writings to appear on	one side only
Lettering	
Standard sizes of black colour	on white background.

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS		Southern Africa Trade Connectivity Project,		Z. B		DETAILS OF PROJECT SIGN BOARD		<input type="radio"/> DESIGN <input type="radio"/> DRAWING <input type="radio"/> CONSTRUCTION <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206			 P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		 Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		DESIGN CHECKED BY F. N. RENg DATE: _____ SIGNATURE: _____		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1	
					 PROJECT ENGINEERING - PLANNING & MANAGEMENT		 private Bag 322, Lilongwe		DRAWN Z. B DATE: _____ SIGNATURE: _____		DRAWING CHECKED BY F. N. RENg DATE: _____ SIGNATURE: _____		CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 DRAWING NO.: CON/2025/SP/SATCP-LM/PSB-001 SHEET NO: 1 OF 1	

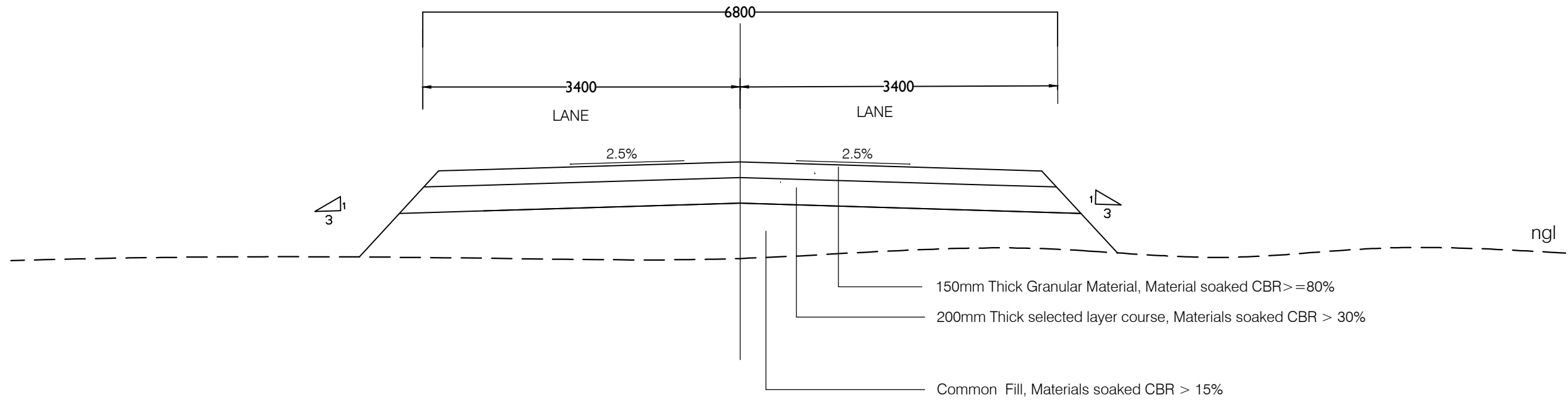
TYPICAL SECTIONS



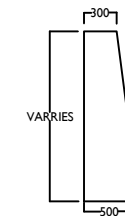
NOTE:-

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE MENTIONED.
2. FOR OTHER DETAILS, REFER RELEVANT MISCELLANEOUS DRAWINGS.

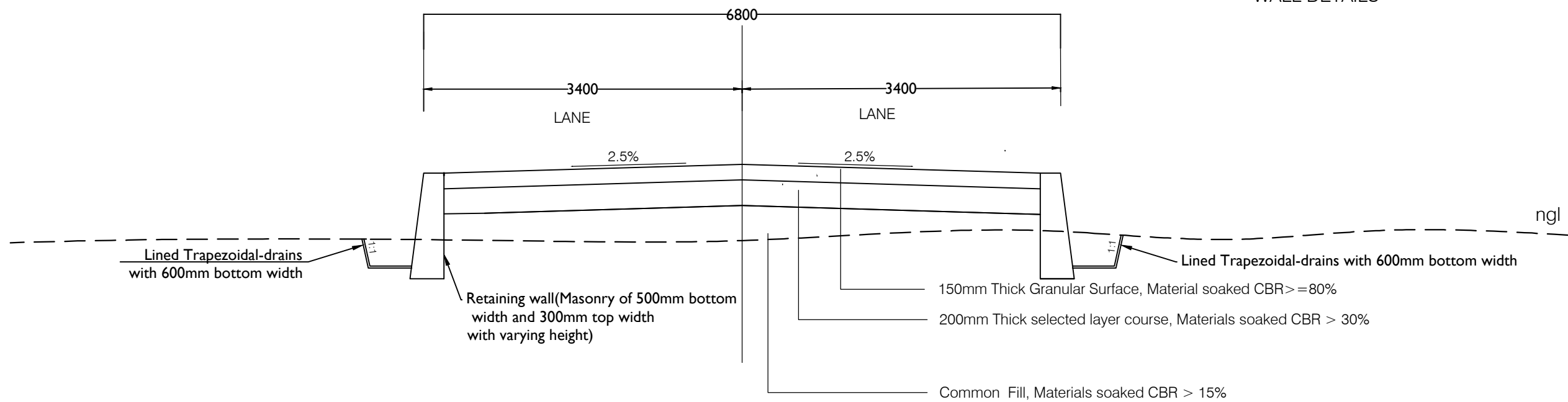
AMENDMENTS			LEGEND	CONSULTANT'S DETAIL:	CLIENT'S DETAIL:	DESIGNED		DRAWING TITLE:		PROJECT STATUS					
NR.	DESCRIPTION	DATE				DESIGNER	DATE	DESCRIPTION OF PROJECT	PLANNING	DESIGN	CONSTRUCTION	AS-BUILT	REVISIONS	DATE	ORIGINAL PAPER SIZE:
1	REVISION 1	25-02-206		<p>SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com</p>	<p>Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe</p>	Z. B		TYPICAL CROSS SECTION FOR UD ROADS UNDER RESHAPING		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
								DESIGN CHECKED BY			MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT				
								DRAWN							
								DRAWING CHECKED BY							
								APPROVED BY							
								DATE							
						CONTRACT No.:		PROJECT No.:	SCALE:	DATE:	DRAWING NO.:	SHEET NO.:			
								1:1000	NOVEMBER 2025	CON/2025/SP/SATCP-LM/TS-302	1 OF 1				



TYPICAL CROSS SECTION IN FILL



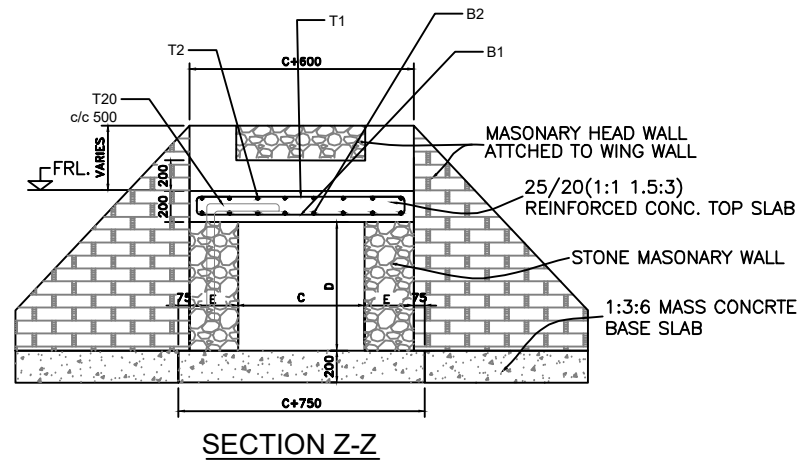
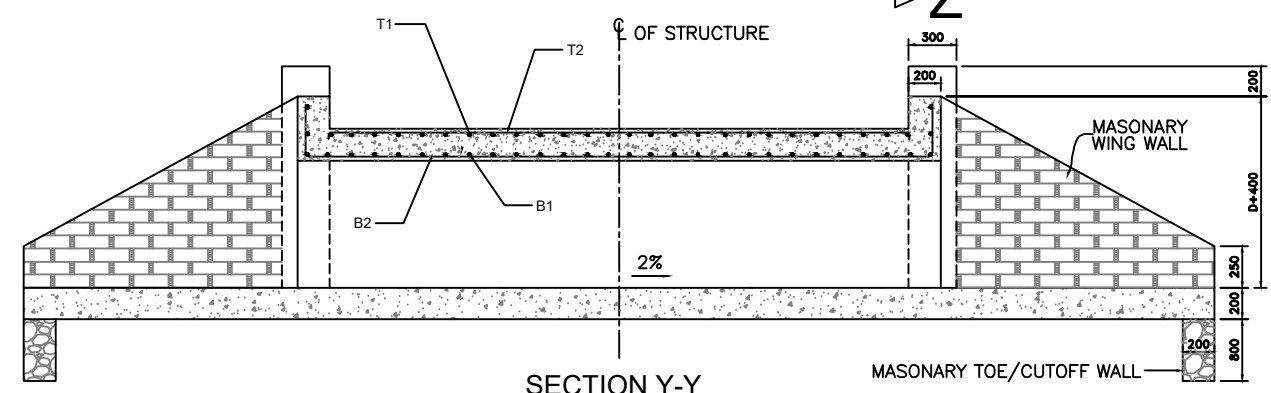
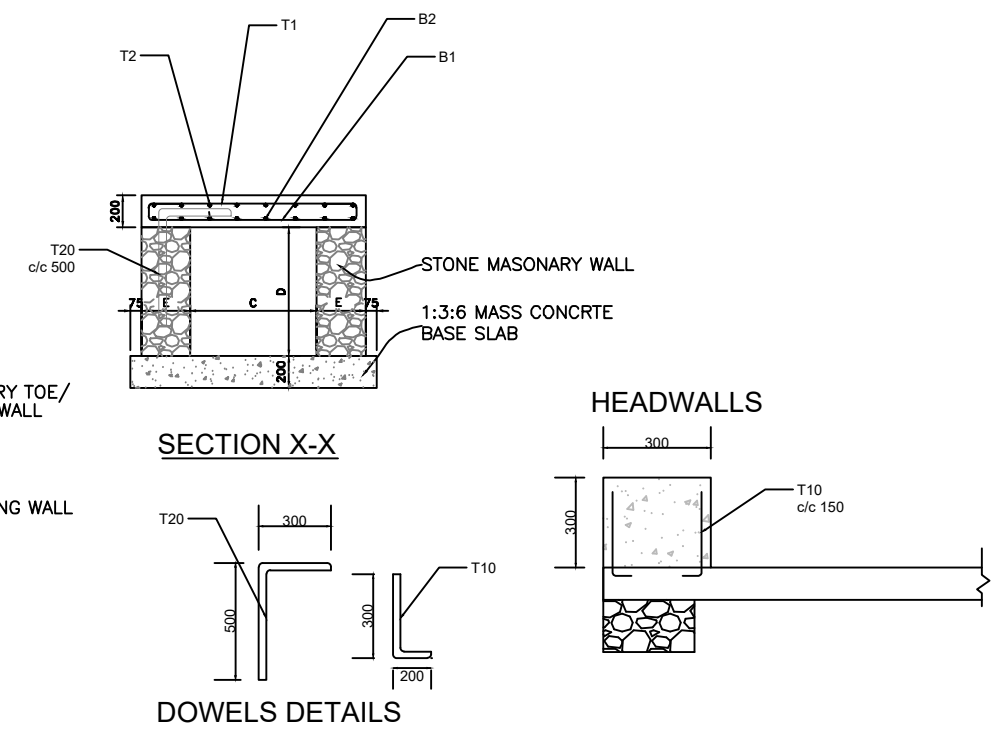
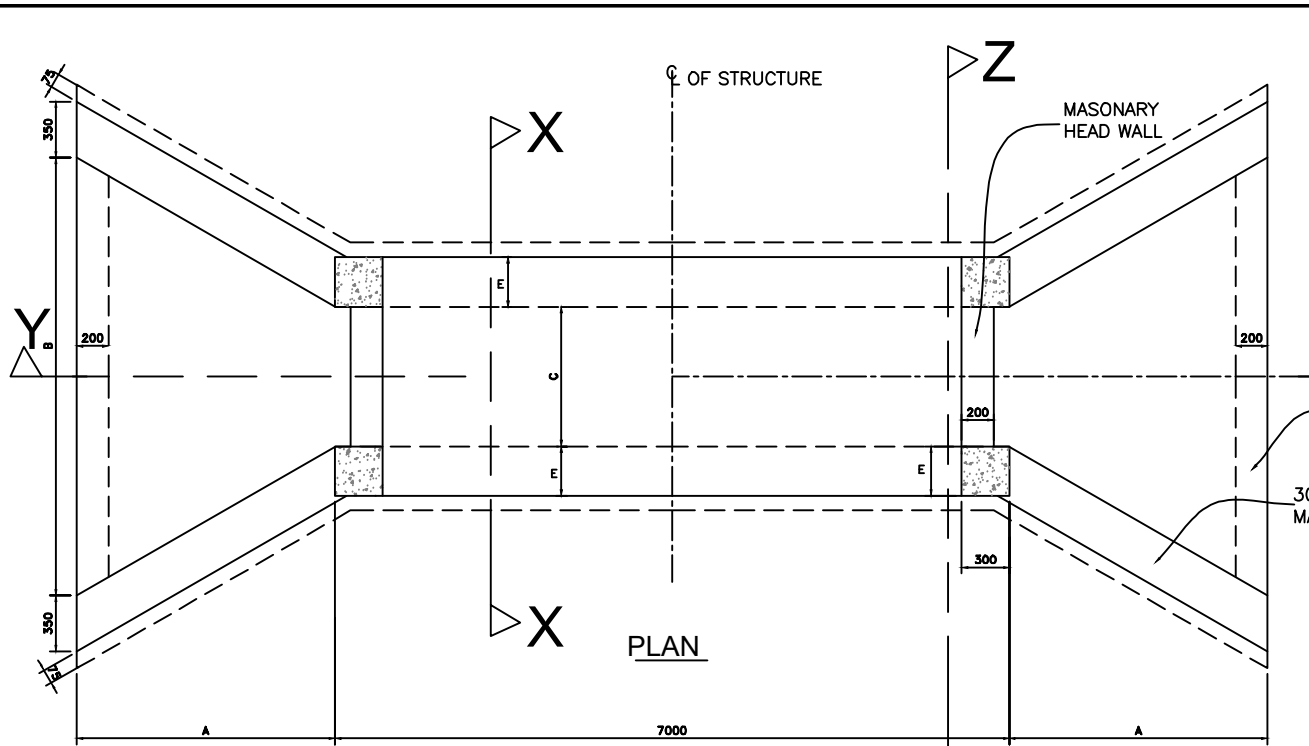
MASONRY RETAINING WALL DETAILS



TYPICAL CROSS SECTION IN FILL WITH RETAINING WALL

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		TYPICAL CROSS SECTION FOR THE ROAD IN EMBANKMENT		<input type="radio"/> DESIGN <input type="radio"/> CHECKING <input type="radio"/> CONSTRUCTION <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg DATE: _____ SIGNATURE: _____		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1, 1]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1	
									DRAWN Z. B DATE: _____ SIGNATURE: _____		DRAWING CHECKED BY F. N. RENg DATE: _____ SIGNATURE: _____		CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 DRAWING NO.: _____ SHEET NO.: 1 OF 1	

DRAINAGE STRUCTURES



FOR 1M WIDTH SINGLE CELL BOX																
CULVERT TYPE	DIMENSIONS (MM)					NO. OF CELLS	SLAB THK. (MM)	BAR MARK	M1 (MM)	M2 (MM)	NO. OF BARS	BAR MARK	M1 (MM)	M2 (MM)	NO. OF BARS	BAR DESCRIPTION
	A	B	C	D	E											
BC1	2000	5600	1000	1000	300	1	200	B1	120	920	48	B2	120	6920	7	T10-01-150
								T1	120	920	48	T2	120	6920	7	T10-01-150
BC2	2400	6895	1500	1000	300	1	200	B1	120	1420	48	B2	120	6920	11	T12-01-150
								T1	120	1420	48	T2	120	6920	11	T10-01-150
BC3	2400	6895	1500	1500	500	1	200	B1	120	1420	48	B2	120	6920	11	T12-01-150
								T1	120	1420	48	T2	120	6920	11	T10-01-150
BC4	2800	8200	2000	1000	500	1	200	B1	120	1920	48	B2	120	6920	14	T12-01-150
								T1	120	1920	48	T2	120	6920	14	T12-01-150
BC5	2800	8200	2000	2000	600	1	200	B1	120	1920	48	B2	120	6920	14	T12-01-150
								T1	120	1920	48	T2	120	6920	14	T12-01-150

NOTES :-
 . ALL DIMENSIONS ARE IN MILLI METRES UNLESS OTHERWISE SPECIFIED.
 . ARRANGEMENT FOR COMBINATIONS OF MULTIPLE BOX CULVERTS TO BE DETERMINED BY THE

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2018


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
 P.O Box 32345, Chichiri, Blantyre 3
 Malawi
 Tel: + 888 343 523/ 999 343 523
 Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
 Ministry of Transport and Public Works
 Capital Hill, Off Chilembwe Road
 private Bag 322, Lilongwe

DESIGNED
Z. B
 SIGNATURE: _____ DATE: _____
 DESIGN CHECKED BY
F. N. RENg
 SIGNATURE: _____ DATE: _____
 DRAWN
Z. B
 SIGNATURE: _____ DATE: _____
 DRAWING CHECKED BY
F. N. RENg
 SIGNATURE: _____ DATE: _____
 DRAWING APPROVED BY MINISTRY
 SIGNATURE: _____ DATE: _____

DRAWING TITLE:
STANDARD SINGLE CELL BOX CULVERT DETAILS

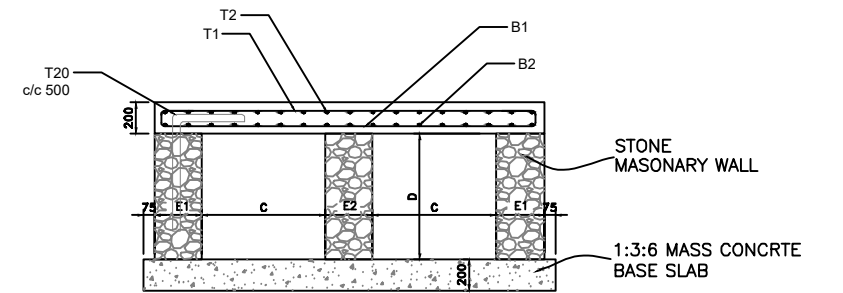
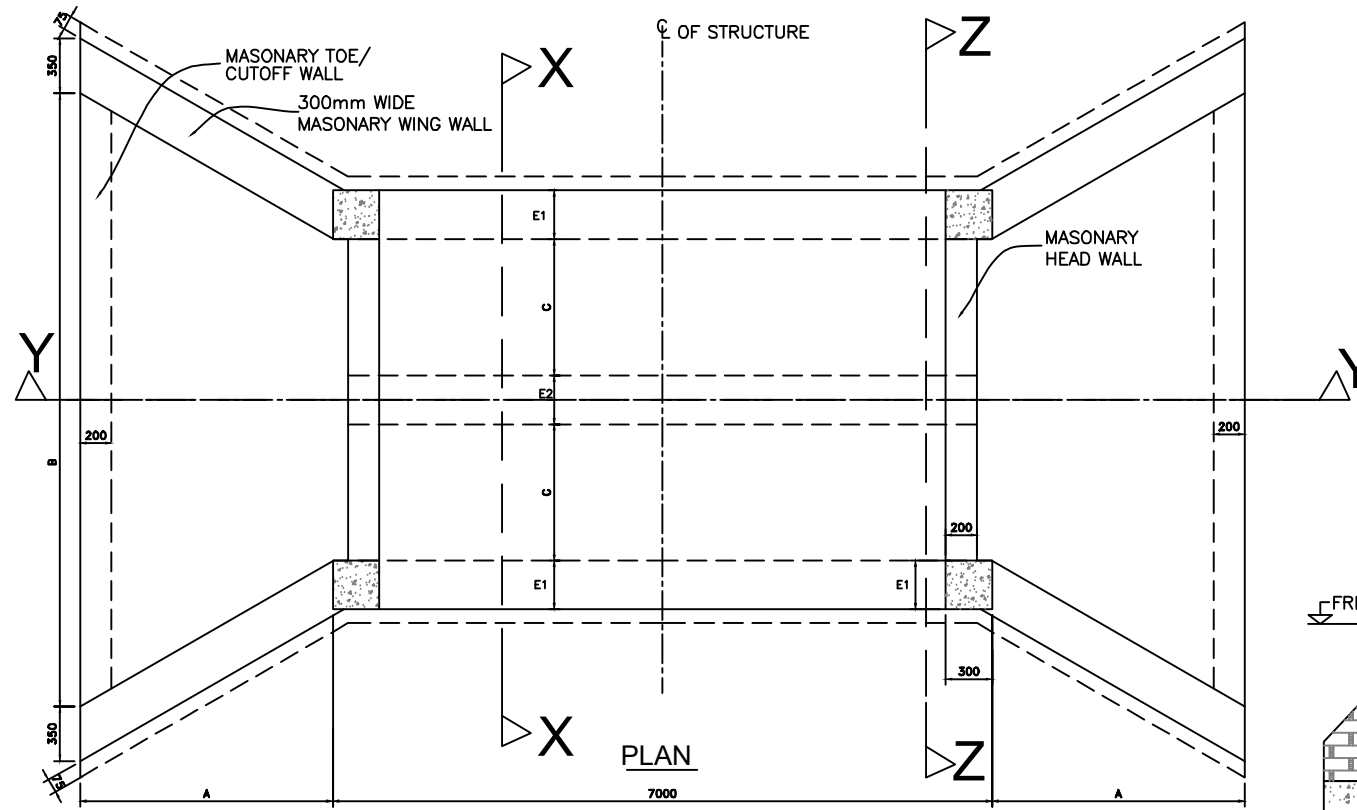
DESCRIPTION OF PROJECT:
MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI (U1.1)-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT

CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025

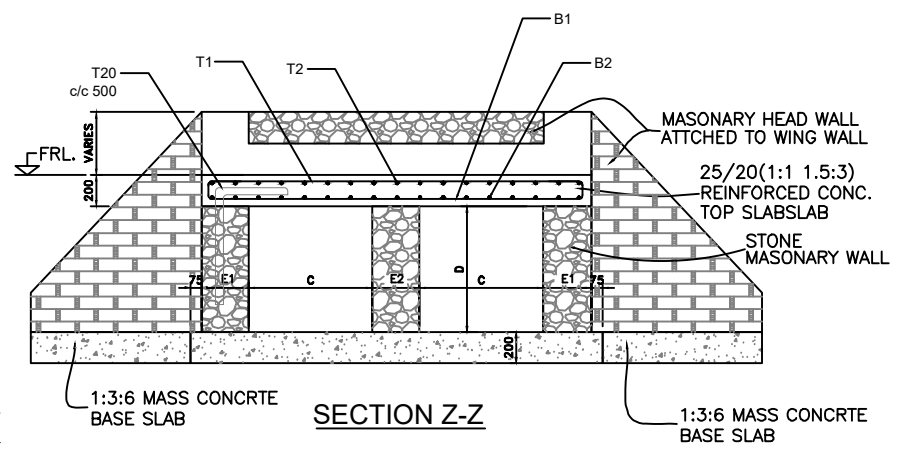
PROJECT STATUS

PLANNING/PROJECT ENGINEER: _____
 INSPECTOR OF WORKS: _____
 REMARKS: _____ ORIGINAL PAPER SIZE: A1

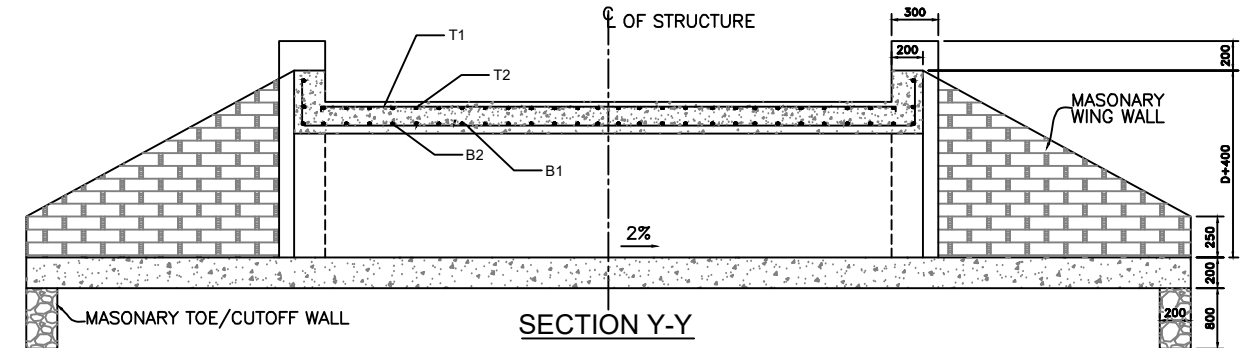
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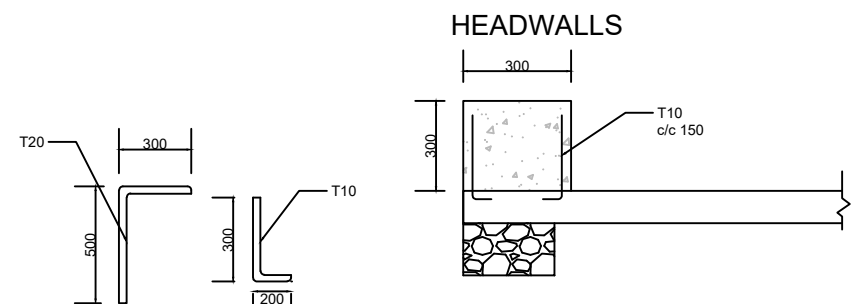
SECTION X-X



SECTION Z-Z



SECTION Y-Y



DOWELS DETAILS

NOTES :-
 . ALL DIMENSIONS ARE IN MILLI METRES UNLESS OTHERWISE SPECIFIED.
 . ARRANGEMENT FOR COMBINATIONS OF MULTIPLE BOX CULVERTS TO BE DETERMINED BY THE SUPERVISION ENGINEER ON SITE

CULVERT TYPE	FOR 1M WIDTH SINGLE CELL BOX											BAR DESCRIPTION					
	DIMENSIONS (MM)						NO. OF CELLS	SLAB THK. (MM)	BAR MARK	M1	M2		NO. OF BARS	BAR MARK	M1	M2	NO. OF BARS
	A	B	C	D	E1	E2				(MM)	(MM)				(MM)	(MM)	
BC6	2400	10200	1500	1500	500	600	2	200	B1	120	4520	48	B2	120	6920	31	T12-01-150
									T1	120	4520	48	T2	120	6920	31	T10-01-150

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2008


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
 P.O Box 32345, Chichiri, Blantyre 3
 Malawi
 Tel: + 888 343 523/ 999 343 523
 Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
 Ministry of Transport and Public Works
 Capital Hill, Off Chilembwe Road
 private Bag 322, Lilongwe

DESIGNED BY: Z. B. [Signature]

DESIGN CHECKED BY: F. N. RENg [Signature]

DRAWN BY: Z. B. [Signature]

DRAWING CHECKED BY: F. N. RENg [Signature]

DRAWING APPROVED BY: [Signature]

STANDARD DOUBLE CELL BOX CULVERT DETAILS

DESCRIPTION OF PROJECT: MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT

CONTRACT No.: [Blank]

PROJECT No.: [Blank]

SCALE: 1:1000

DATE: NOVEMBER 2025

PROJECT STATUS

PLANNING/PROJECT ENGINEER: [Signature]

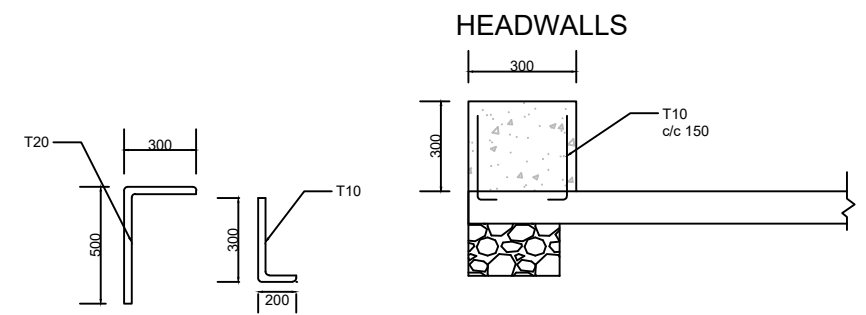
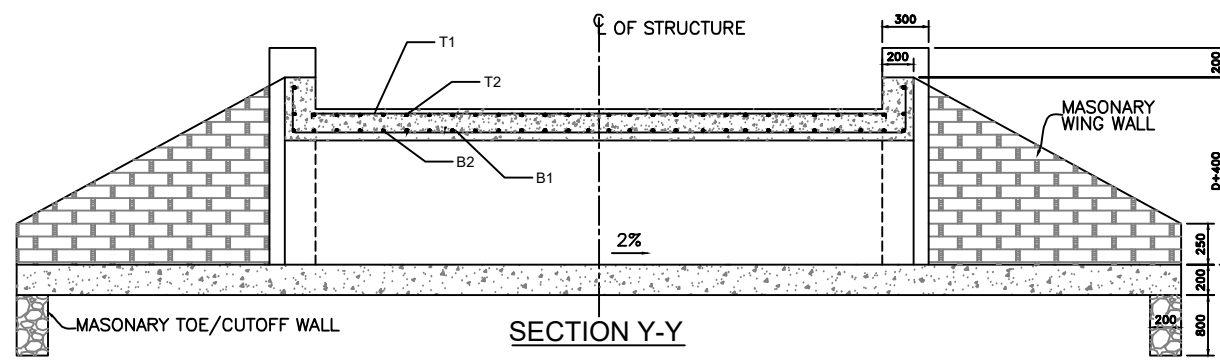
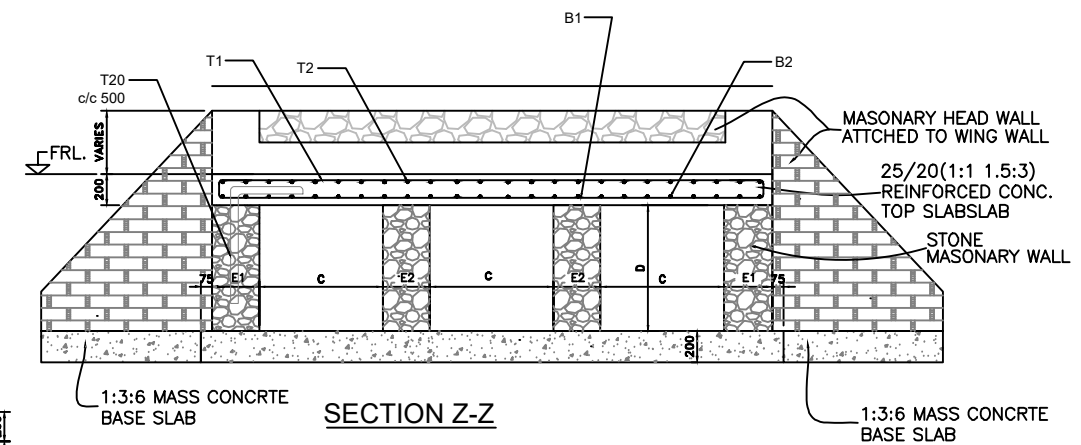
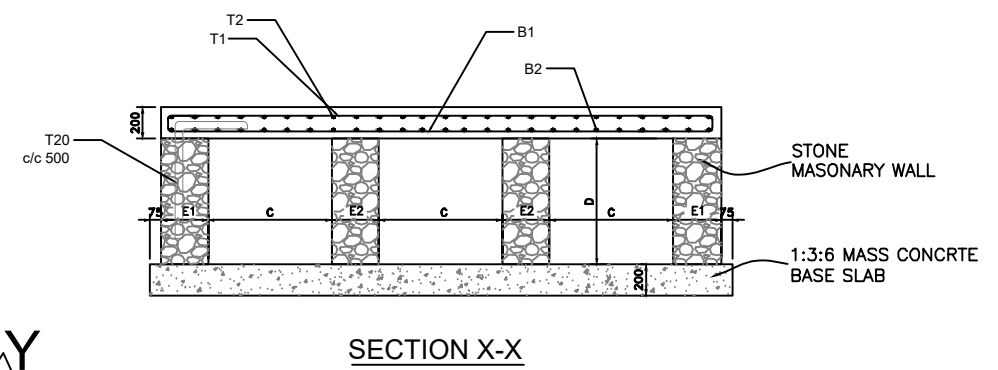
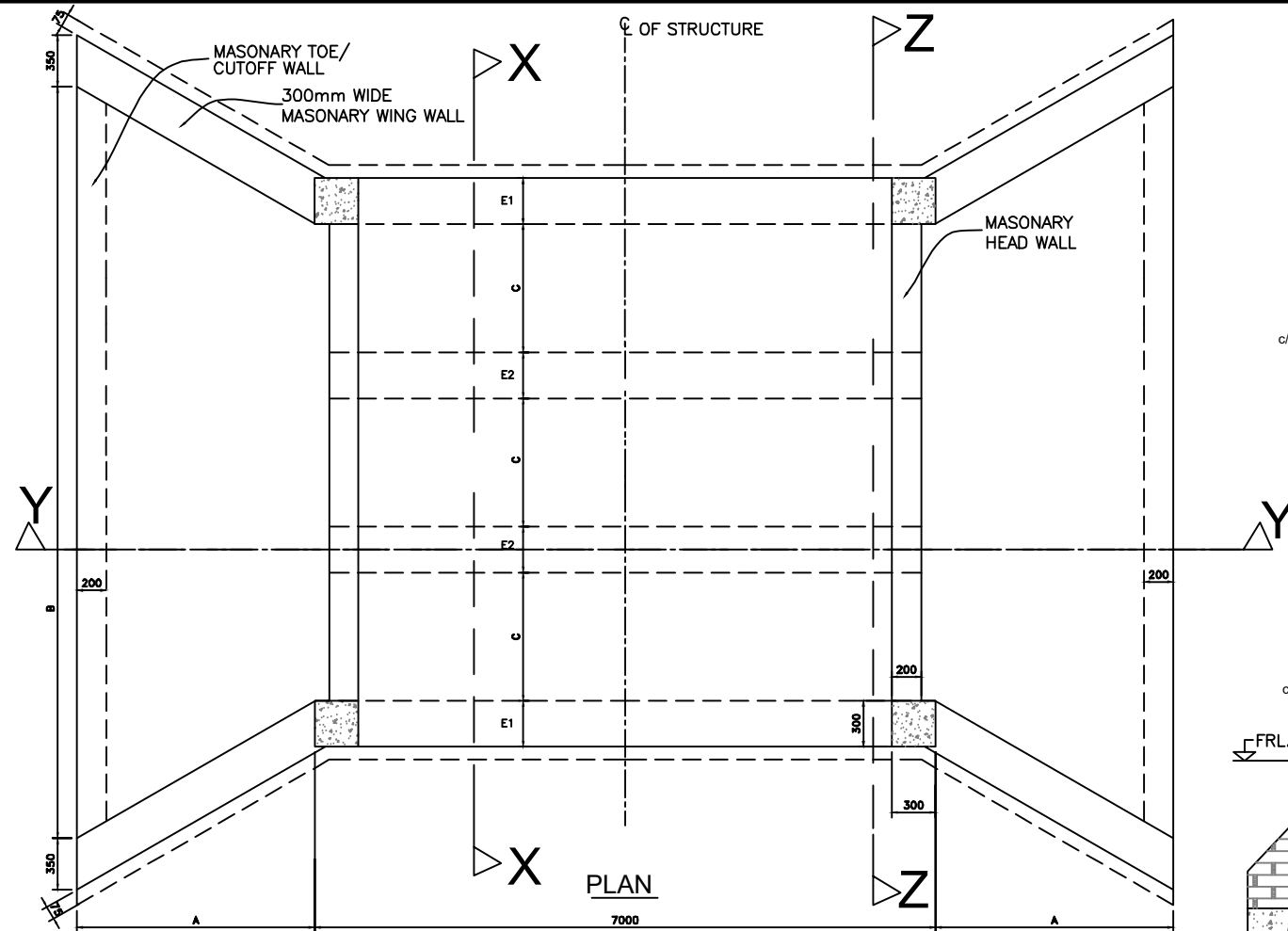
INSPECTOR OF WORKS: [Signature]

REMARKS: [Blank]

ORIGINAL PAPER SIZE: A1

DRAWING NO: CON/2025/SP/SATCP-LM/SBC-002

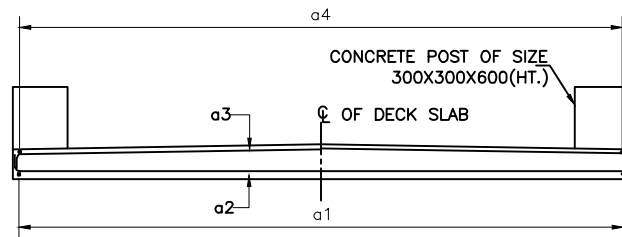
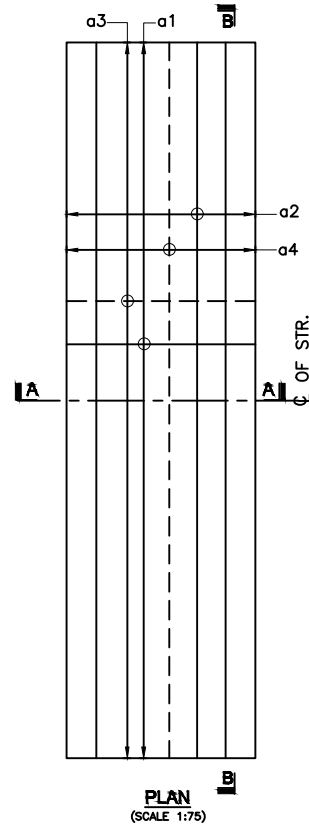
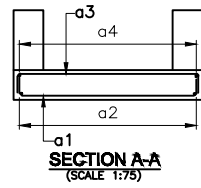
SHEET NO: 1 OF 1



NOTES :-
 . ALL DIMENSIONS ARE IN MILLI METRES UNLESS OTHERWISE SPECIFIED.
 . ARRANGEMENT FOR COMBINATIONS OF MULTIPLE BOX CULVERTS TO BE DETERMINED BY THE SUPERVISION ENGINEER ON SITE

CULVERT TYPE	DIMENSIONS (MM)						NO. OF CELLS	SLAB THK. (MM)	BAR MARK	M1		M2		NO. OF BARS	BAR MARK	M1		M2		NO. OF BARS	BAR DESCRIPTION					
	A	B	C	D	E1	E2				(MM)	(MM)	(MM)	(MM)			(MM)	(MM)	(MM)	(MM)							
	BC7	2800	13600	2000	1000	500				600	3	200	B1			120	7920	48	B2			120	6920	54	T12-01-150	T1
BC8	2800	13600	2000	2000	500	800	3	200	B1	120	7920	48	B2	120	6920	54	T12-01-150	T1	120	7920	48	T2	120	6920	54	T12-01-150

AMENDMENTS NR. DESCRIPTION DATE 1 REVISION 1 25-02-2018			LEGEND			CONSULTANT'S DETAIL: SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com			CLIENT'S DETAIL: Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe			DESIGNED: Z. B DESIGN CHECKED BY: F. N. RENg DRAWN: Z. B DRAWING CHECKED BY: F. N. RENg DRAWING APPROVED BY:			DRAWING TITLE: STANDARD THREE CELL BOX CULVERT DETAILS DESCRIPTION OF PROJECT: MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLI (UD) ROAD (10.0KM ²) IN MCHINJI DISTRICT			PROJECT STATUS PLANNING PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1 SHEET NO: 1 OF 1		
CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 CON/2025/SP/SATCP-LM/SBC-003																				



SECTION B-B
(SCALE 1:75)

LEGEND :

TOP BARS SHOWN THUS
 BOTTOM BARS SHOWN THUS

TABLE OF BAR BENDING SCHEDULE FOR SLAB HAVING SPAN 2000mm. :-

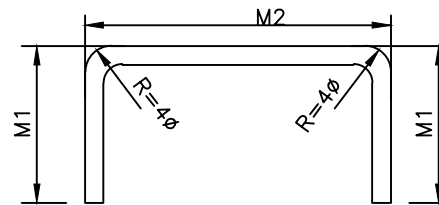
C:\Users\lunga\Desktop\All PDF- LOT-II\PDF Images\14b-Structural Drawings\8fcd05f.png

REIN. SCHEDULE :-

SL. NO.	DESCRIPTION	SHAPE
	FOR SPAN 2000mm.	
a1	16Y @ 150 c/c	
a2	8Y @ 150 c/c	
a3	10Y @ 250 c/c	
a4	10Y @ 250 c/c	

TABLE FOR SLAB :-

SL. NO.	SPAN (mm)	THICKNESS OF SLAB (mm)
1	2000	250 To 300



NOTES :-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES UNLESS NOTED OTHERWISE.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
3. CONCRETE GRADE FOR RCC PRECAST GIRDER SHALL BE CLASS 40/20.
4. GRADE OF STEEL SHALL BE H.Y.S.D. GRADE 460
5. THE CONCRETE COVER FOR REINFORCEMENT SHALL BE 40mm.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER SHEETS OF THIS DRAWING.
7. FOR ALL OTHER NOTES REFER 'GENERAL NOTES' DRAWING.

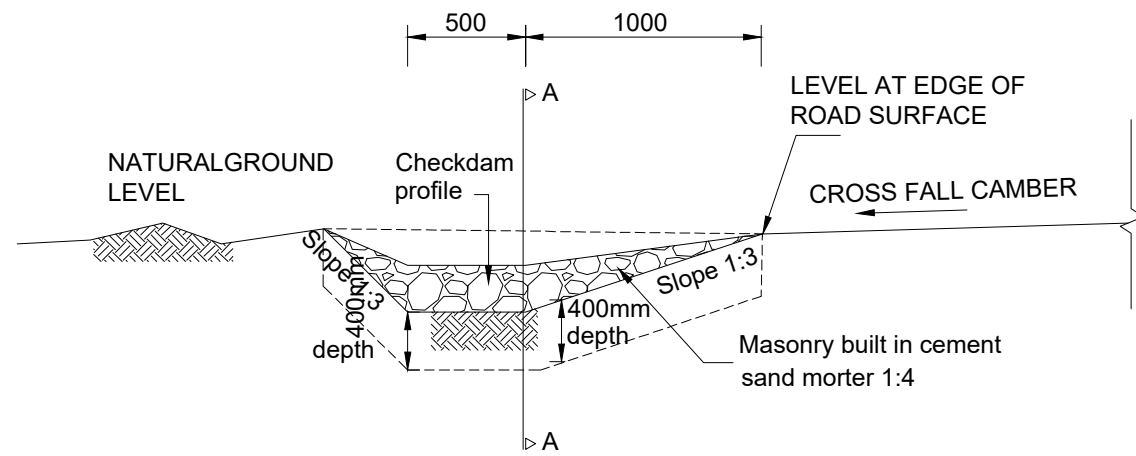
AMENDMENTS			LEGEND	CONSULTANT'S DETAIL:	CLIENT'S DETAIL:	DESIGNED	DRAWING TITLE:	PROJECT STATUS					
NR.	DESCRIPTION	DATE		SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com	Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe	DESIGNED	REINFORCEMENT DETAIL OF TOPSLAB OF MASONRY WALL BOX CULVERT	<input type="checkbox"/> CONSULTANT DRAWING <input type="checkbox"/> DESIGN DRAWING <input type="checkbox"/> PRELIMINARY DRAWING <input type="checkbox"/> AS-BUILT DRAWING					
1	REVISION 1	25-02-2026				DESIGN CHECKED BY	F. N. RENJ	DESCRIPTION OF PROJECT	MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT				
						DRAWN	Z. B	PLANNING/PROJECT ENGINEER:	<input type="text"/> DATE: _____				
						DRAWING CHECKED BY	F. N. RENJ	INSPECTOR OF WORKS:	<input type="text"/> DATE: _____				
						DRAWING APPROVED BY	F. N. RENJ	REMARKS:	<input type="text"/> DATE: _____				
						DRAWING APPROVED BY MINISTRY	CONTRACT No.:	PROJECT No.:	SCALE:	DATE:	DRAWING NO.:	SHEET NO.:	ORIGINAL PAPER SIZE:
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STANDARD DRAWINGS

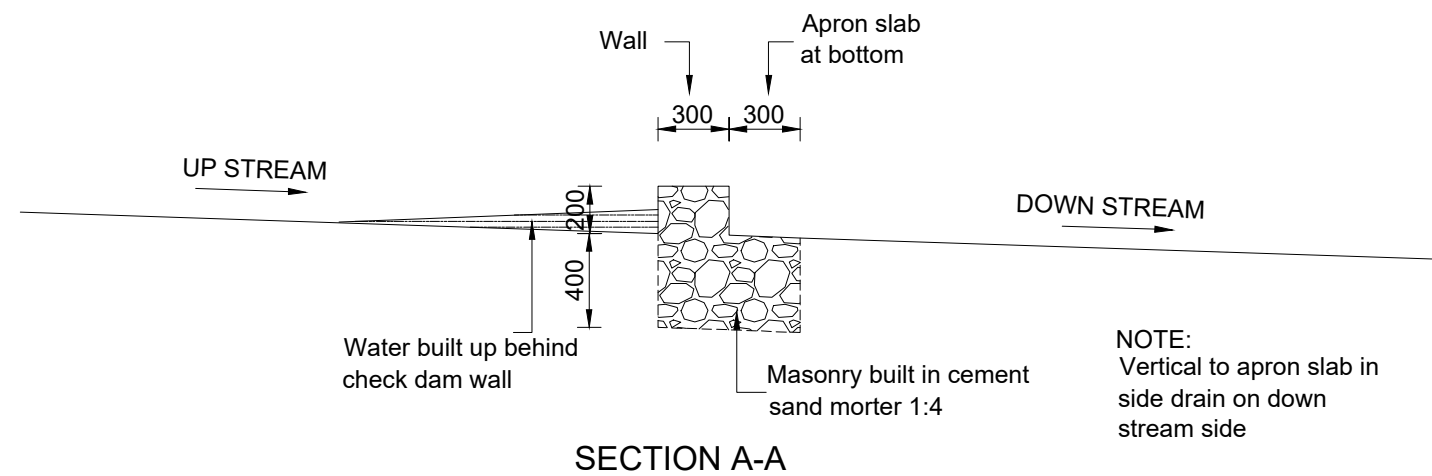
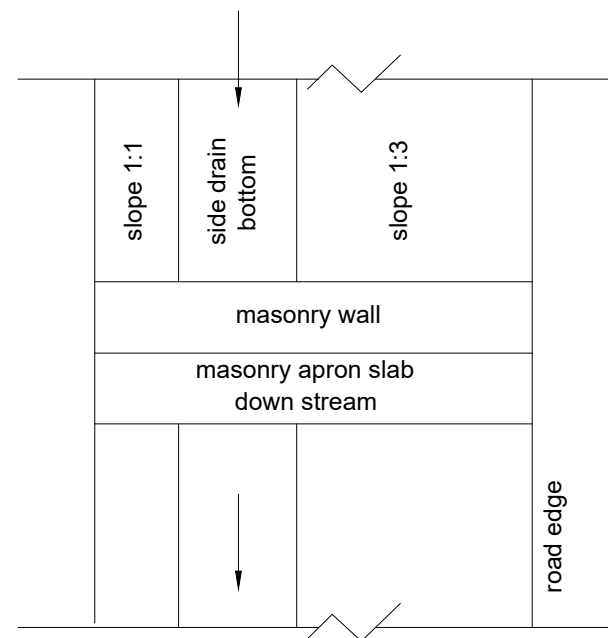
NOTE: Check dam to be used where soil is erodable and as indicated in the table below

TABLE SCOUR CHECK SPACING

GRADIENT OF ROAD (%)	SCOUR CHECK INTERNAL (m)
3	Not Required
4	17
5	13
6	10
7	8
8	7
9	6
10	5
12	4



SIDE DRAIN ELEVATION WITH CHECK DAM CONSTRUCTED



NOTE: Vertical to apron slab in side drain on down stream side

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2018


PLAN	
LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
P.O Box 32345, Chichiri, Blantyre 3
Malawi
Tel: + 888 343 523/ 999 343 523
Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
Ministry of Transport and Public Works
Capital Hill, Off Chilembwe Road
private Bag 322, Lilongwe

DESIGNED
Z. B

DESIGN CHECKED BY
F. N. RENg

DRAWN
Z. B

DRAWING CHECKED BY
F. N. RENg

DRAWING APPROVED BY MINISTRY

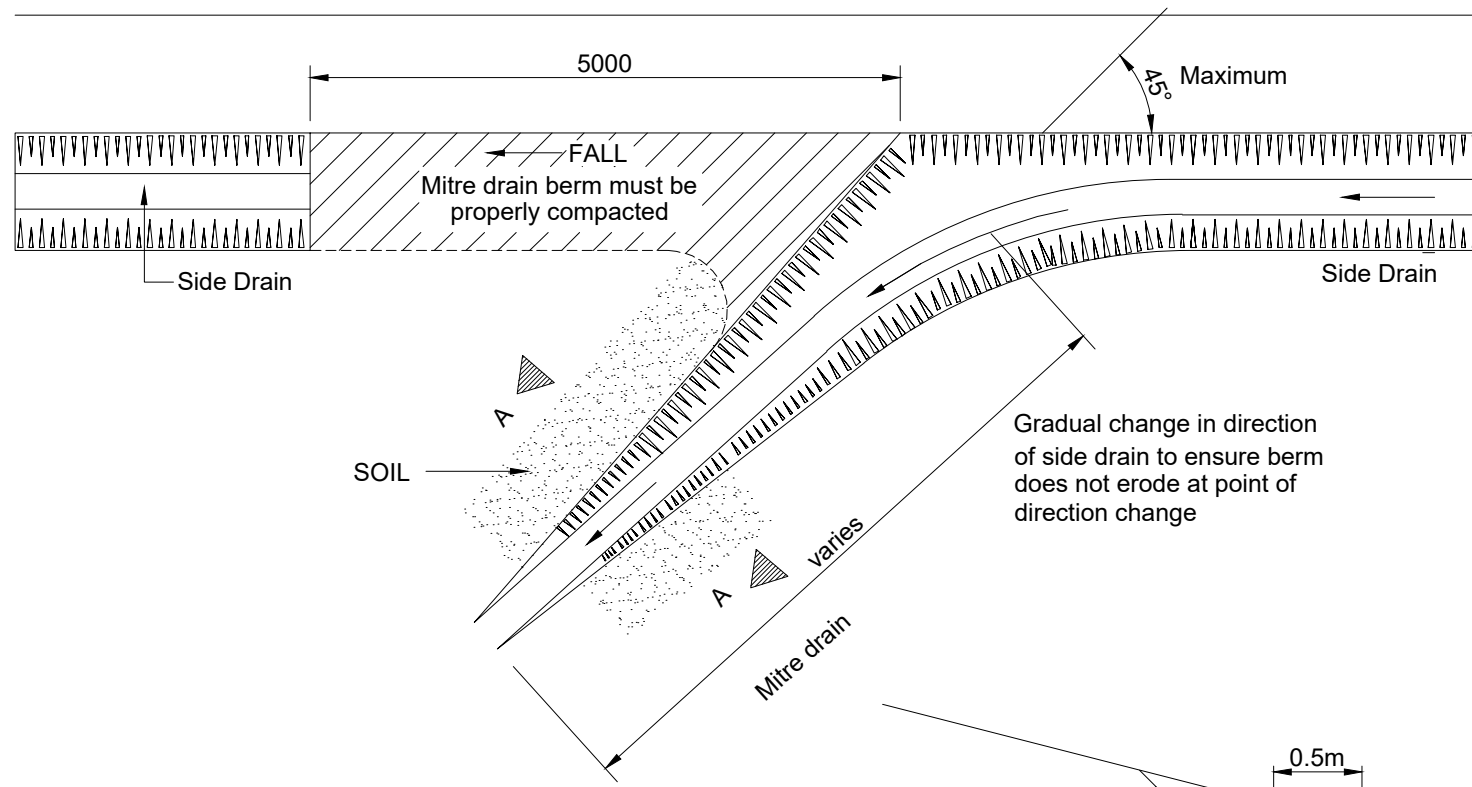
DRAWING TITLE:
TYPICAL DETAILS OF MASONRY CHECK DAMS

DESCRIPTION OF PROJECT:
MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT

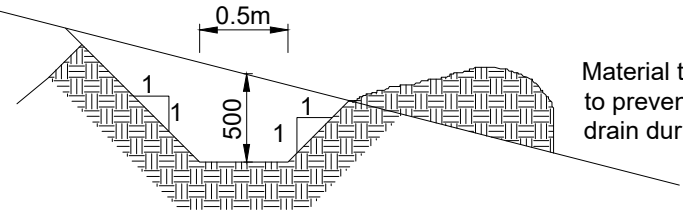
CONTRACT No.:
PROJECT No.:
SCALE: 1:1000
DATE: NOVEMBER 2025

PROJECT STATUS

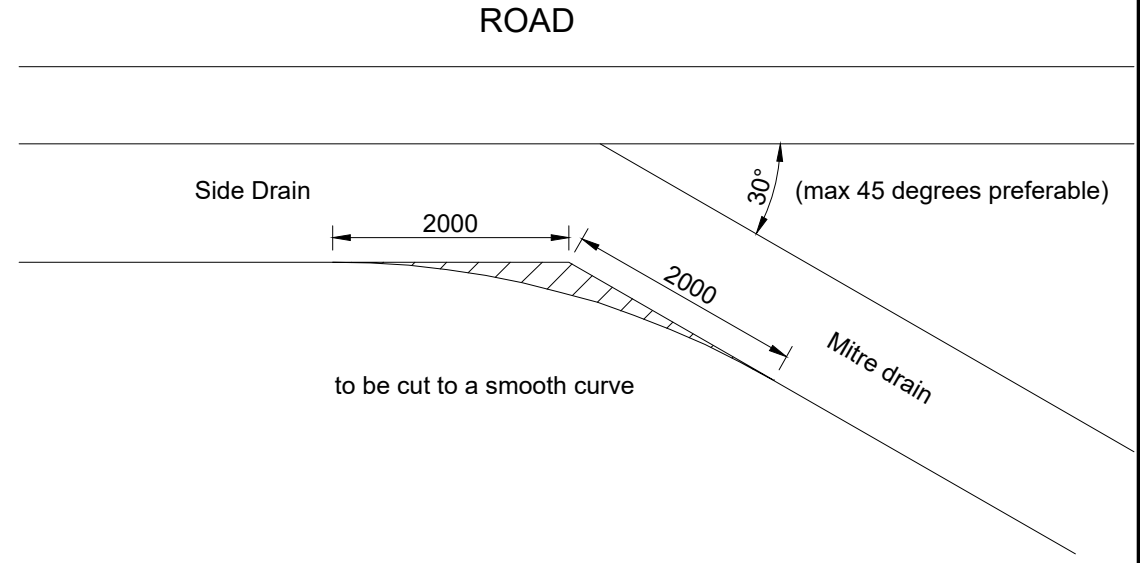
PLANNING/PROJECT ENGINEER:
INSPECTOR OF WORKS:
REMARKS:
ORIGINAL PAPER SIZE: A1
DRAWING NO: CON/2025/SP/SATCP-LM/DRN-01
SHEET NO: 1 OF 1



PLAN OF COMPLETED MITRE DRAIN

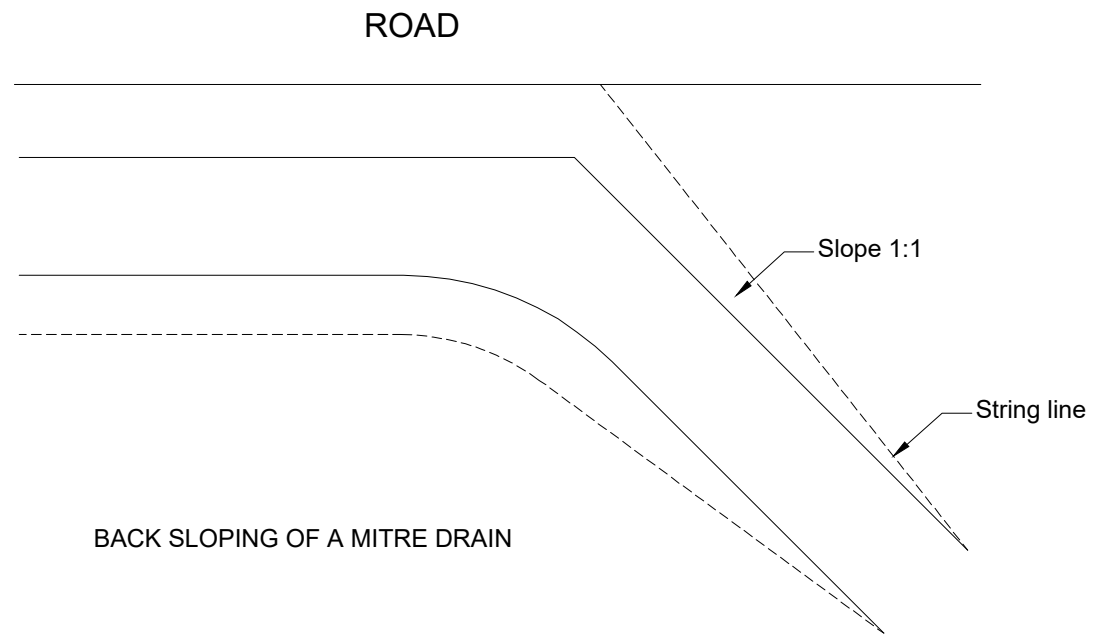


SECTION A-A





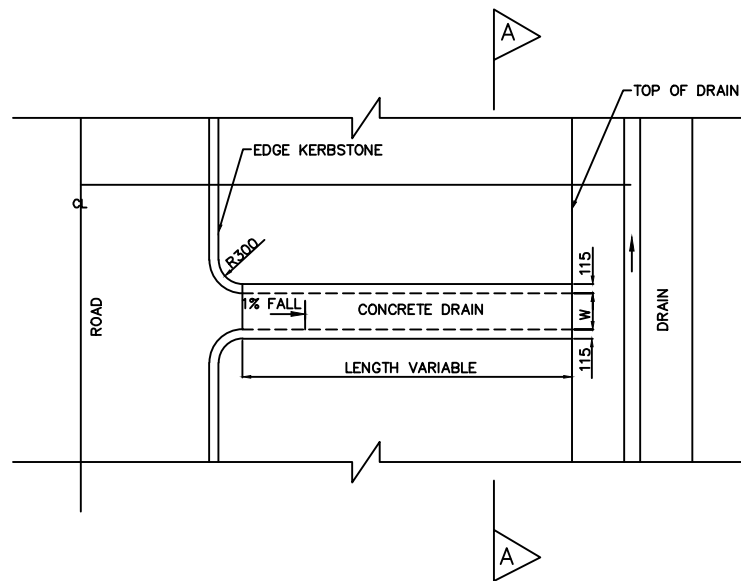
SPACING OF MITRES

Longitudinal Road Gradient (%)	Maximum Mitre Drain Interval (M)
12	40
10	80
8	120
6	150
4	200

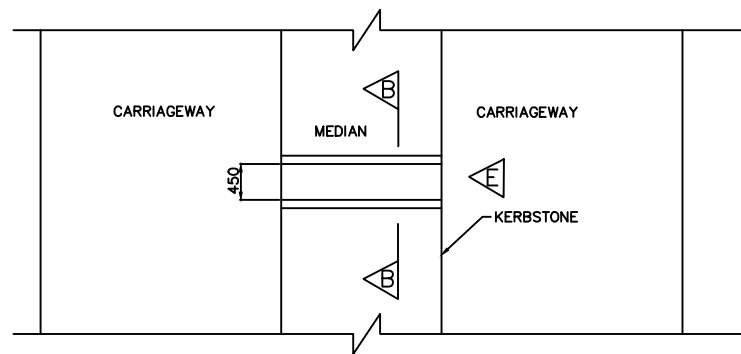


BACK SLOPING OF A MITRE DRAIN

AMENDMENTS NR. DESCRIPTION DATE 1 REVISION 1 25-02-2018			LEGEND			CONSULTANT'S DETAIL:  SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com			CLIENT'S DETAIL:  Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe			DESIGNED: Z. B DESIGN CHECKED BY: F. N. REng DRAWN: Z. B DRAWING CHECKED BY: F. N. REng DRAWING APPROVED BY: F. N. REng			DRAWING TITLE: TYPICAL DETAILS OF MASONRY MITRE DRAIN DESCRIPTION OF PROJECT: MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT			PROJECT STATUS PLANNING PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1		
									CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 DRAWING NO.: CON/2025/SP/SATCP-LM/DRN-02 SHEET NO: 1 OF 1											

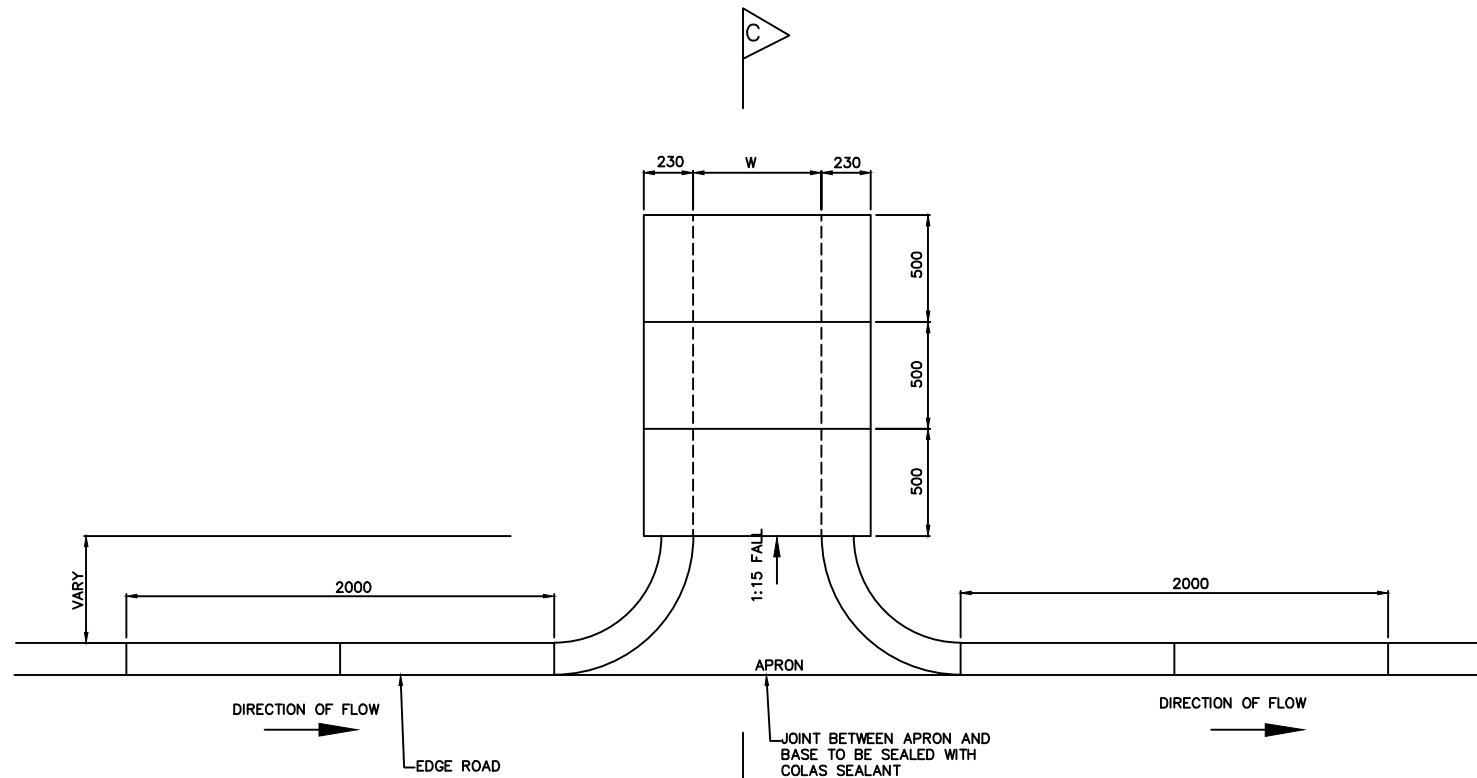


TYPICAL CONCRETE OUTLETS AND CHUTE PLANE



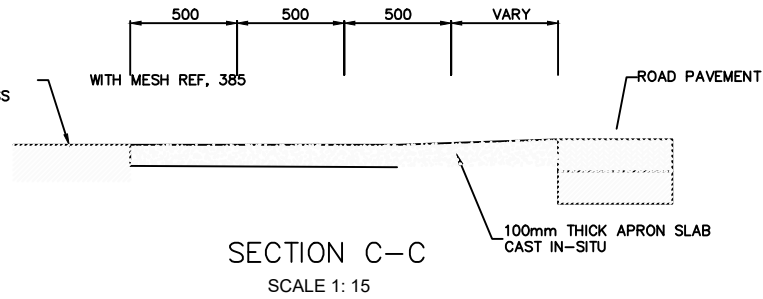
DUAL CARRIAGE ROAD PLAN

SCALE 1: 40



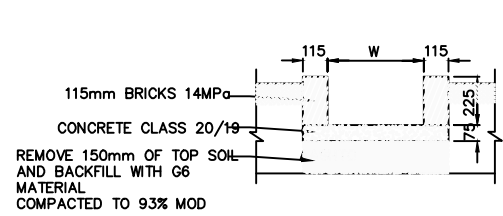
TYPICAL PLAN AT OUTLETS
SCALE 1: 15

COVER TO OUTLET AT
WALKWAY CONCRETE CLASS
20/19

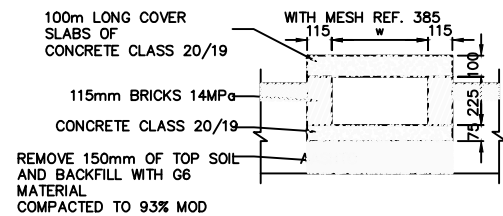


SECTION C-C
SCALE 1: 15

CHUTE	COVER	W
TYPE 1	OPEN	W=450
TYPE 2	COVERED	W=450
TYPE 3	COVERED	W=600

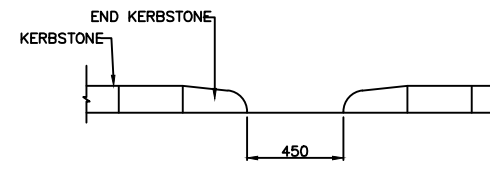


SECTION A-A OPEN CHUTES

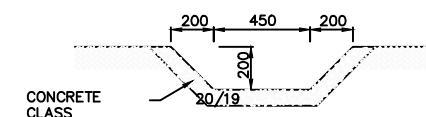


SECTION A-A COVERED
CHUTE
SCALE 1: 15

IN WALKWAYS



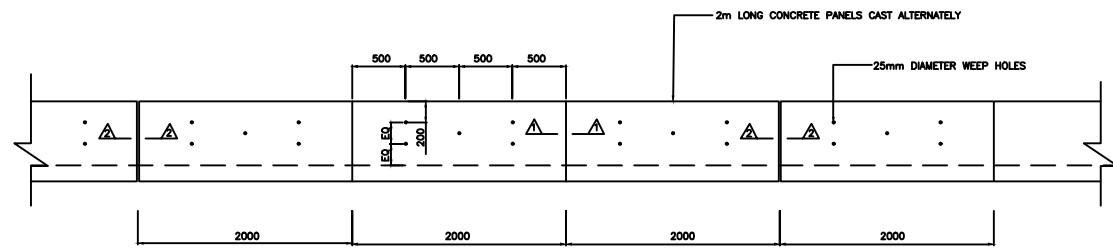
ELEVATION E
SCALE 1: 15



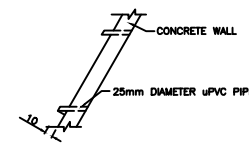
SECTION B-B

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: STORMWATER DRAINAGE DETAILS INLETS,OUTLETS AND CHUTES		<input type="radio"/> DESIGN <input type="radio"/> CHECKED <input type="radio"/> APPROVED <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg DRAWN Z. B. NDULO DRAWING CHECKED BY F. N. RENg DRAWING APPROVED BY MINISTRY		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U.L.]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: INSPECTOR OF WORKS: REMARKS: ORIGINAL PAPER SIZE: A1	
									CONTRACT No.: PROJECT No.: SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: SHEET NO: 1 OF 1			

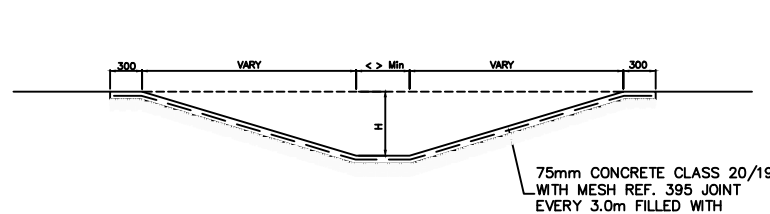
DEPTH H(m)	DEPTH H(m)
H<0.8	1:4
0.8<H<0.9	1:3
0.9<H<1.5	1:2
H>1.5	1:1.5



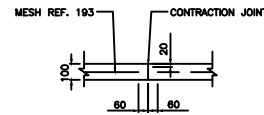
VEE OR TRAPEZOIDAL LINED DRAIN SIDE WALL ELEVATION
SCALE 1: 300



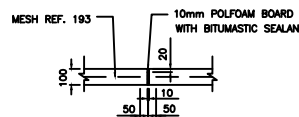
SECTION THROUGH SIDE PANEL



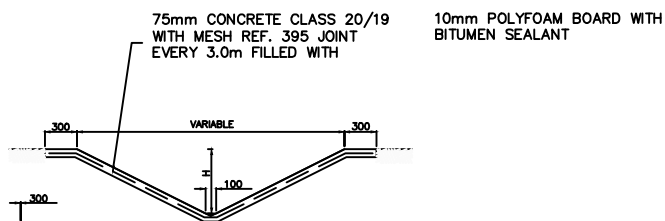
TYPICAL SECTION OF LINED TRAPEZOIDAL DRAIN
SIDE SLOVES VARY 'H' Min 300mm
SCALE 1: 300



SECTION 2-2
EXPANSION JOINT SECTION THROUGH SIDE PANEL



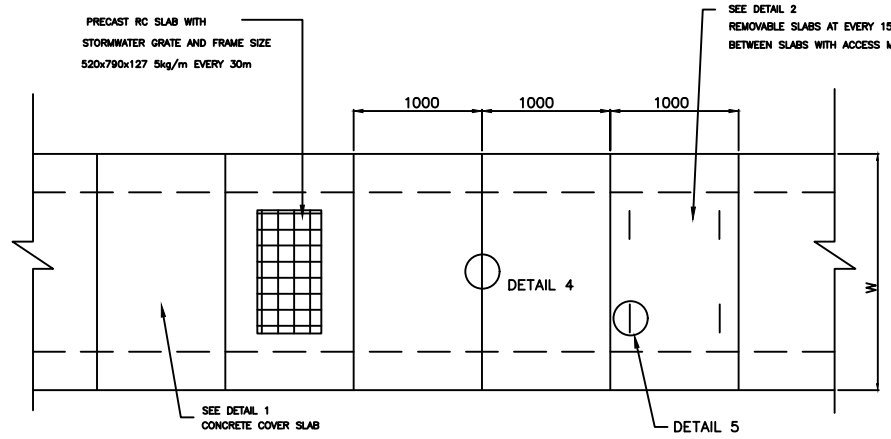
SECTION 2-2
EXPANSION JOINT



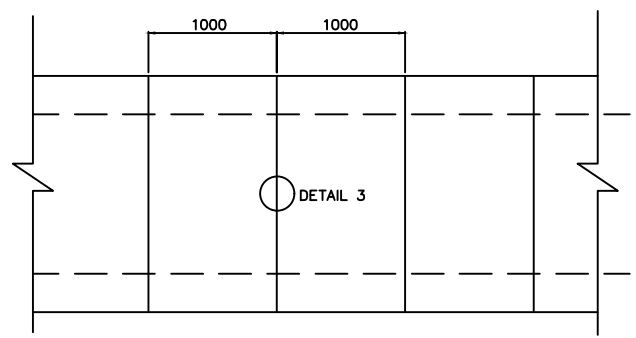
TYPICAL SECTION OF LINED VEE DRAIN
SIDE SLOVES VARY 'H' Min 300mm
SCALE 1: 300

REFERENCE CODE	WIRE/BAR DIAMETER	MESH APERTURE	SHEET WEIGHT
REF 100	4.00 mm	200 x 200mm	14.4 kgs
REF 156	3.55 mm	100 x 100mm	22.5 kgs
REF 193	5.6 mm	200 x 200mm	27.8 kgs
REF 245	6.3 mm	200 x 200mm	35.3 kgs
REF 311	7.1 mm	200 x 200mm	44.8 kgs
REF 395	8.00 mm	200 x 200mm	56.9 kgs
REF 500	9.00 mm	200 x 200mm	72.0 kgs
REF 617	10.00 mm	200 x 200mm	88.9 kgs
REF 888	12.00 mm	200 x 200mm	127.9 kgs

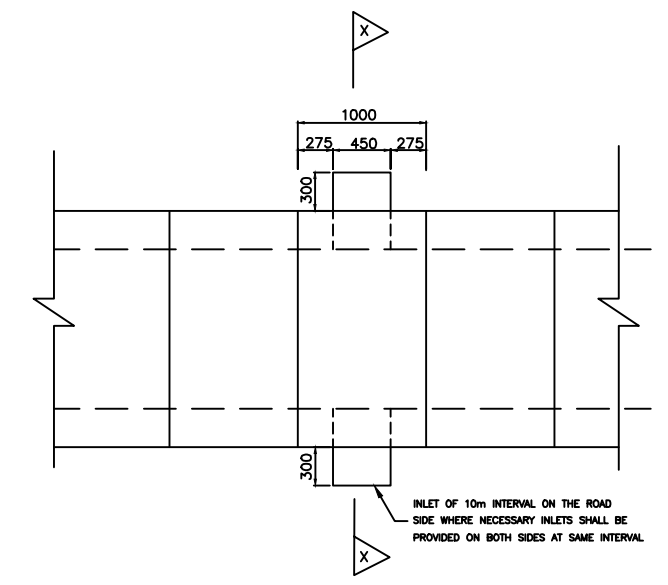
AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: TRAPEZOIDAL AND VEE DRAINS DETAILS AT ROAD CROSSING		<input type="radio"/> DESIGN <input type="radio"/> CHECKED <input type="radio"/> APPROVED FOR CONSTRUCTION <input type="radio"/> AS BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1	
									DRAWING CHECKED BY F. N. RENg		CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-06 SHEET NO: 1 OF 1	



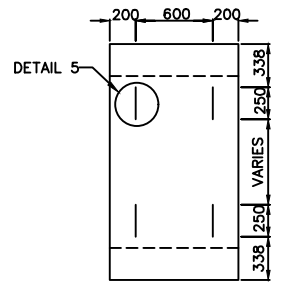
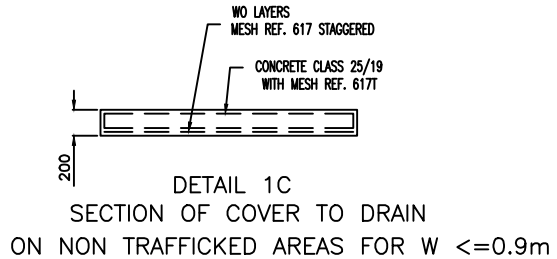
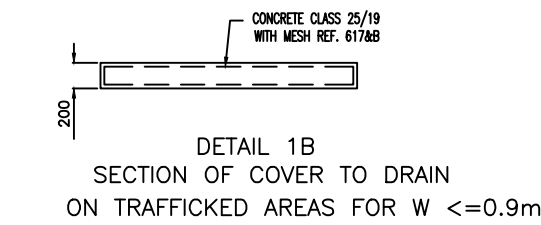
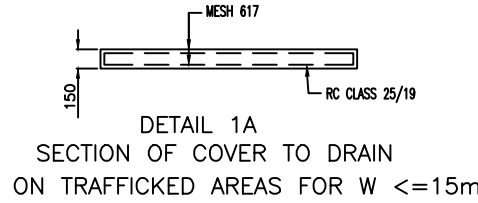
PLAN OF RECTANGULAR DRAIN COVERED WITH PRECAST SLABS



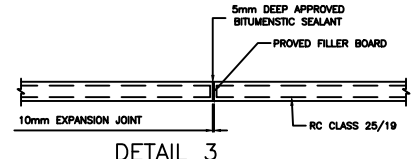
RECTANGULAR DRAIN INVERT SLAB OR CAST IN-SITU CONCRETE



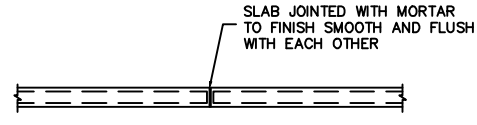
RECTANGULAR ROAD SIDE DRAIN PLAN



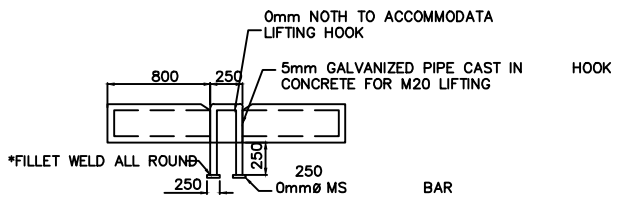
DETAIL 2 REMOVABLE PRECAST SLAB



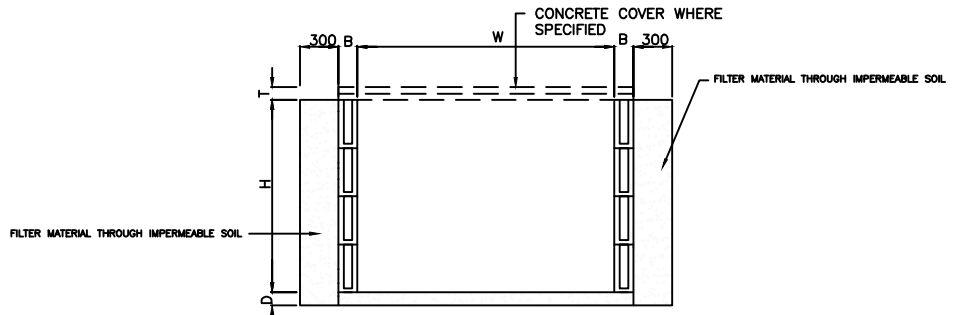
DETAIL 3 EXPANSION JOINT DETAIL ON WALLS AND BASE SLAB OF DRAIN AT 30m INTERVAL



DETAIL 4 JOINT IN COVER SLAB TO DRAIN

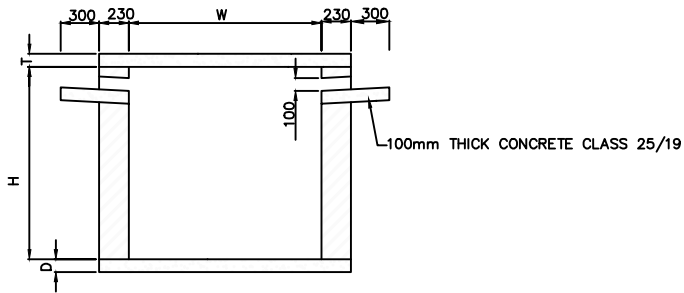


DETAIL 5 LIFTING HOOK FOR REMOVABLE SLABS



HOLLOW BLOCK RECTANGULAR DRAIN(OUTFALL)

W	Varies (as specified)
B	150 mm for H less than 0.6m Y= Hollow block min 5.0MPa filled with concrete class 20/19 and reinforced with Y12 bars vertically in each hole 230mm for H greater than 0.6m less than 1.5m Y= Hollow block min 5MPa with Y12mm per hole and filled with concrete class 20/19 150 mm for H greater than 1.5m and less than 1.8 Y= class 25/19 reinforced with mesh REF. 617 each face 150 mm for H greater than 1.8m and less than 2.5m Y= class 25/19 reinforced with double layer mesh REF. 617 each face for one thirds of height and single layer for rest of height
D	100mm concrete class 25/19 reinforced with mesh Ref. 395 top face
T	Varies (as specified)



SECTION X-X ROAD SIDE DRAIN

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-206


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
P.O Box 32345, Chichiri, Blantyre 3
Malawi
Tel: + 888 343 523/ 999 343 523
Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
Ministry of Transport and Public Works
Capital Hill, Off Chilembwe Road
private Bag 322, Lilongwe

DESIGNED: Z. B

DESIGN CHECKED BY: F. N. REng

DRAWN: Z. B

DRAWING CHECKED BY: F. N. REng

DRAWING APPROVED BY: F. N. REng

DRAWING TITLE: STANDARD DRAWINGS: COVERED RECTANGULAR DRAIN DETAILS

DESCRIPTION OF PROJECT: MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U.L.]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT

CONTRACT No.: PROJECT No.: SCALE: 1:1000 DATE: NOVEMBER 2025

PROJECT STATUS

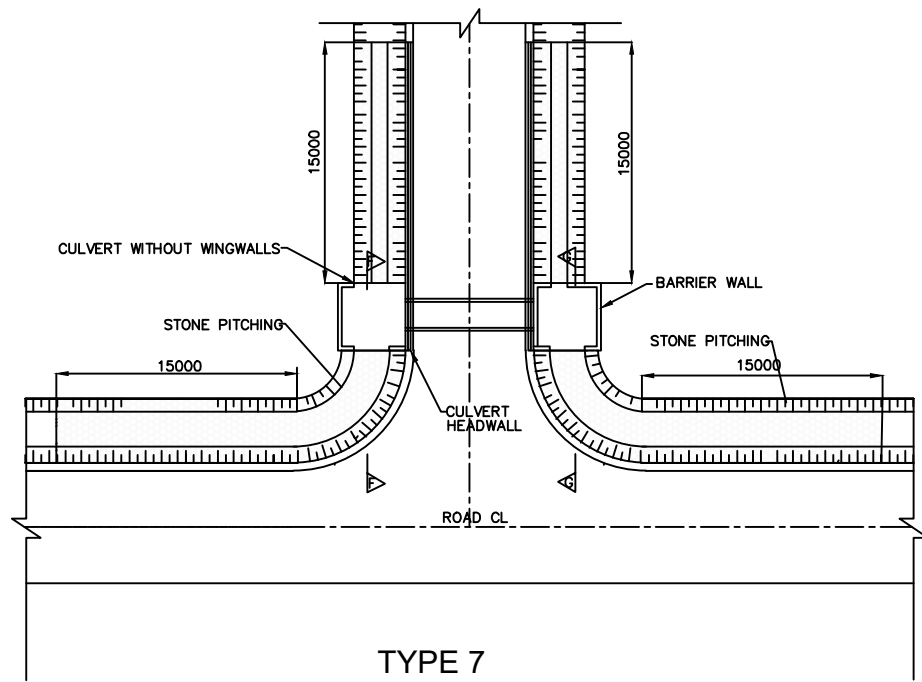
PLANNING/PROJECT ENGINEER: _____

INSPECTOR OF WORKS: _____

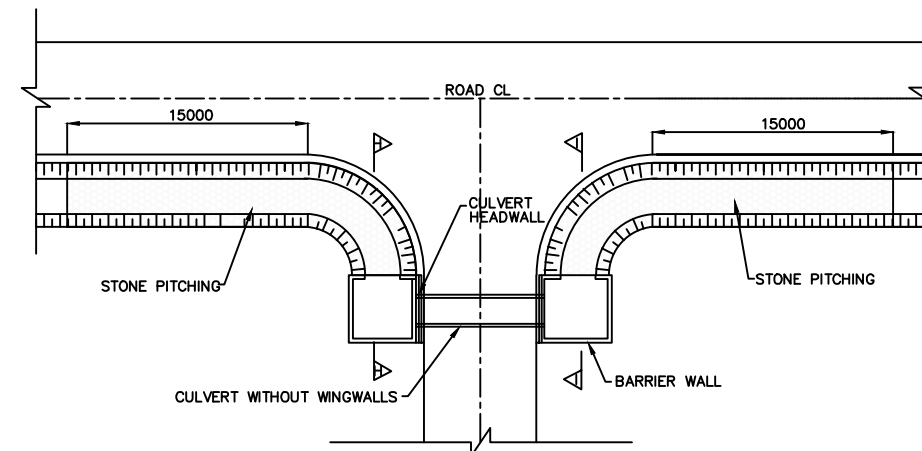
REMARKS: _____

ORIGINAL PAPER SIZE: A1

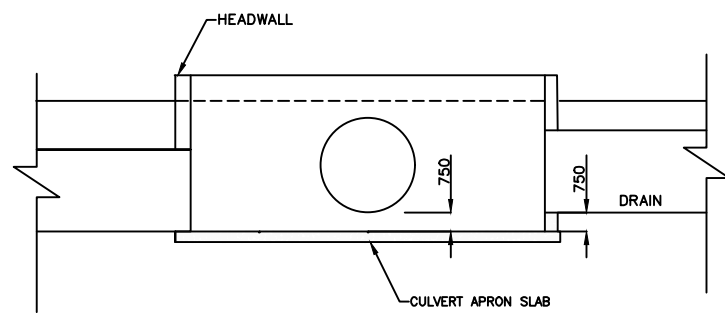
DRAWING NO: CON/2025/SP/SATCP-LM/DRN-07 SHEET NO: 1 OF 1



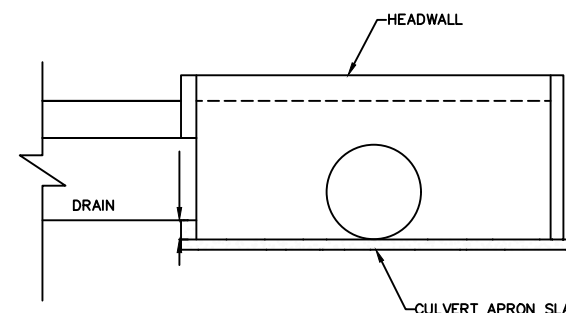
TYPE 7
SCALE 1 : 200



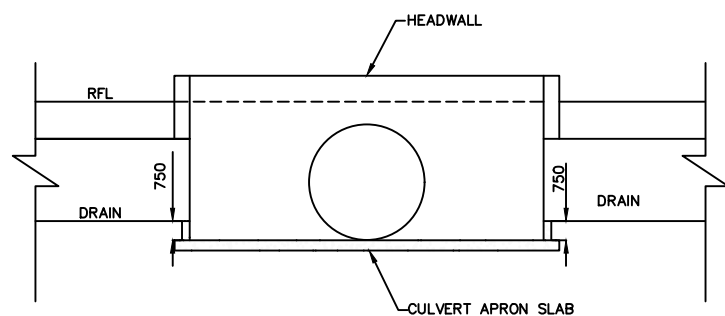
TYPE 8



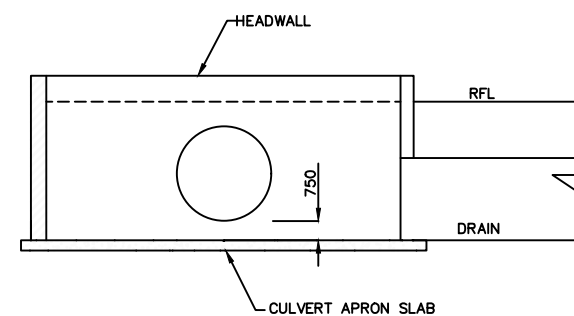
SECTION G-G
SCALE 1 : 250





SCALE 1 : 250

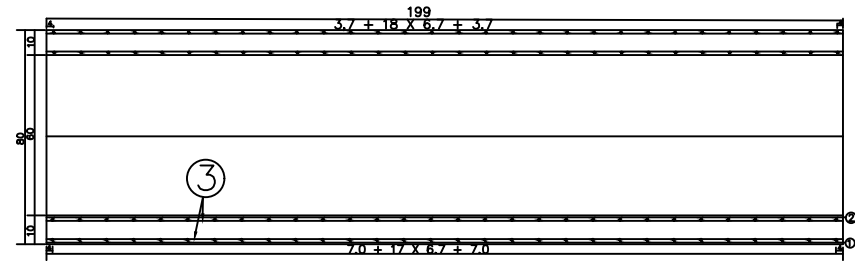


SECTION F-F

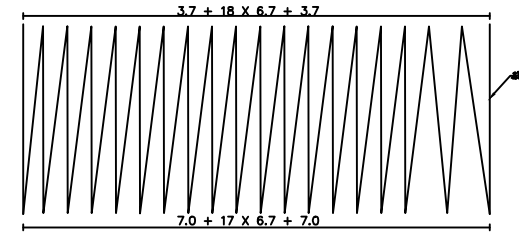


SECTION I-I

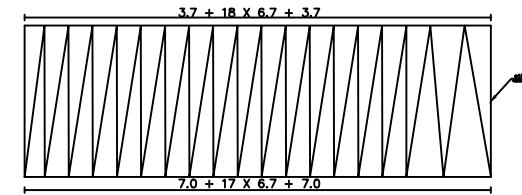
AMENDMENTS			LEGEND	CONSULTANT'S DETAIL:	CLIENT'S DETAIL:	DESIGNED	DRAWING TITLE:	PROJECT STATUS				
NR.	DESCRIPTION	DATE		 SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com	 Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe	DESIGNED BY	STANDARD DRAWINGS: DRAIN INLET AND OUTLET DETAILS	<input type="radio"/> CONSULTING <input type="radio"/> DESIGN <input type="radio"/> CONSTRUCTION <input type="radio"/> AS-BUILT				
1	REVISION 1	25-02-206				DESIGN CHECKED BY	DESCRIPTION OF PROJECT	PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1				
						DRAWN	MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1, 1]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT	DATE	SHEET NO: _____ 1 OF 1			
						DATE		CONTRACT No.:	PROJECT No.:	SCALE:	DATE:	DRAWING NO:
						DATE		*****	*****	1:1000	NOVEMBER 2025	CON/2025/SP/SATCP-LM/DRN-08
				DATE	*****	*****		*****	*****	*****		



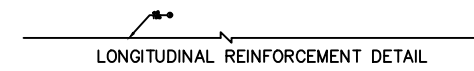
PROFILE



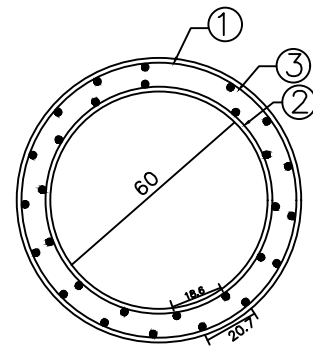
OUTER RING RIBS PROFILE



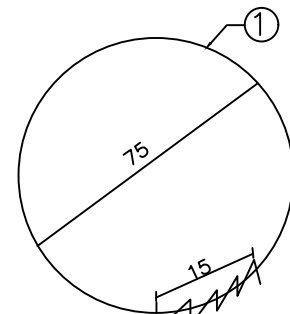
INNER RING RIBS PROFILE



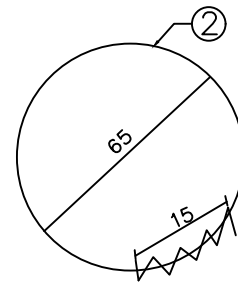
LONGITUDINAL REINFORCEMENT DETAIL



CROSS-SECTION



OUTER RING RIBS DETAILS



INNER RING RIBS DETAILS

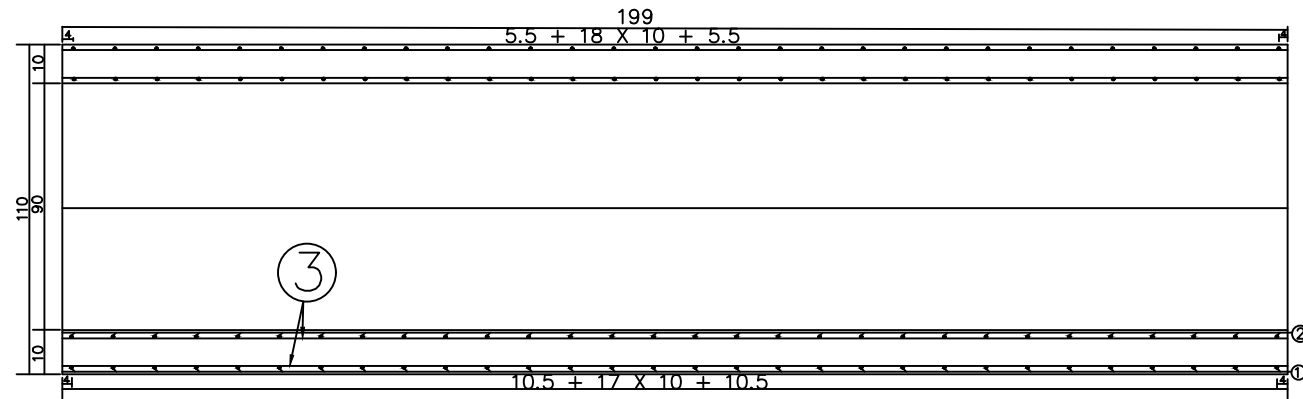
ENGINEERING QUANTITIES LIST

NUMBER	DIAMETER	EACH LENGTH	THE NUMBER	TOTAL	WEIGHT PER METER	WEIGHT	SERIAL NUMBER
Unit	mm	cm	Radius	m	kg/m	kg	
1	10	1000	1	1000	0.008	8.00	001
2	10	1000	1	1000	0.008	8.00	002
3	10	1000	1	1000	0.008	8.00	003

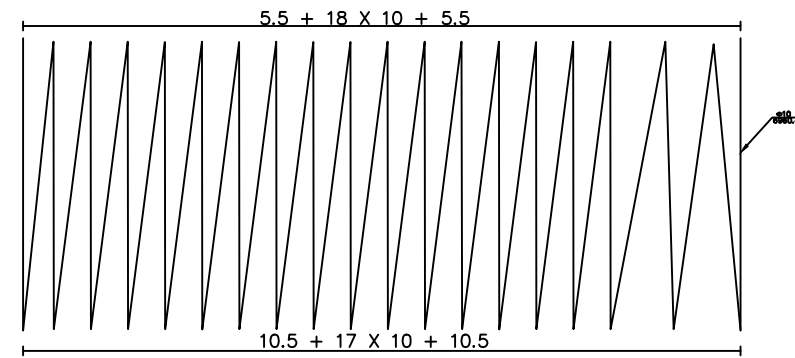
SUMMATION C20 concrete: 0.4m³ HPB235: 67.7KG

NOTES:
1. Figures in addition to the steel bar diameter in millimeters in size and indicated, the rest are in centimeters

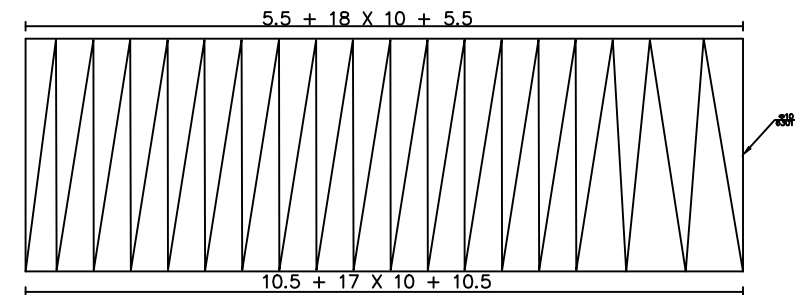
AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: 900MM DIAMETER CONCRETE DETAILS		<input type="checkbox"/> CONSULTANT <input type="checkbox"/> DESIGNER <input type="checkbox"/> CHECKER <input type="checkbox"/> APPROVED	
1	REVISION 1	25-02-2026							DESIGN CHECKED BY F. N. RENg		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1	
									DRAWN Z. B		DRAWING APPROVED BY F. N. RENg		CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 DRAWING NO. CON/2025/SP/SATCP-LM/DRN-09 SHEET NO. 1 OF 1	



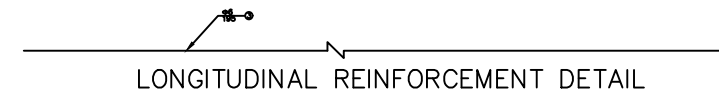
PROFILE



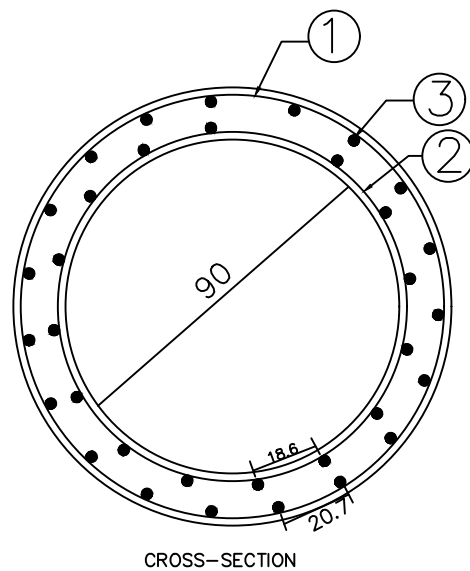
OUTER RING RIBS PROFILE



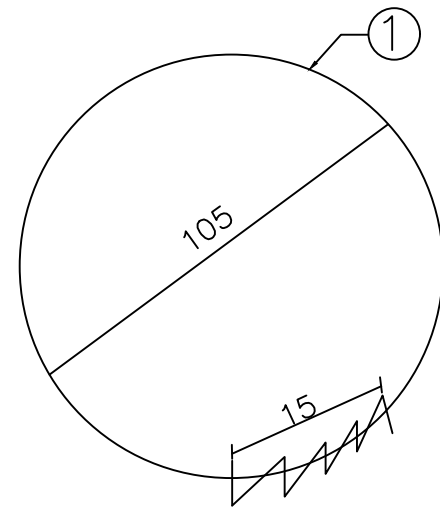
INNER RING RIBS PROFILE



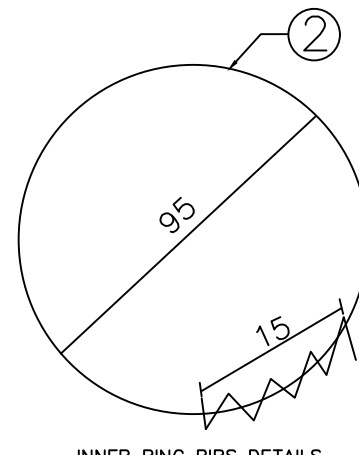
LONGITUDINAL REINFORCEMENT DETAIL



CROSS-SECTION



OUTER RING RIBS DETAILS



INNER RING RIBS DETAILS

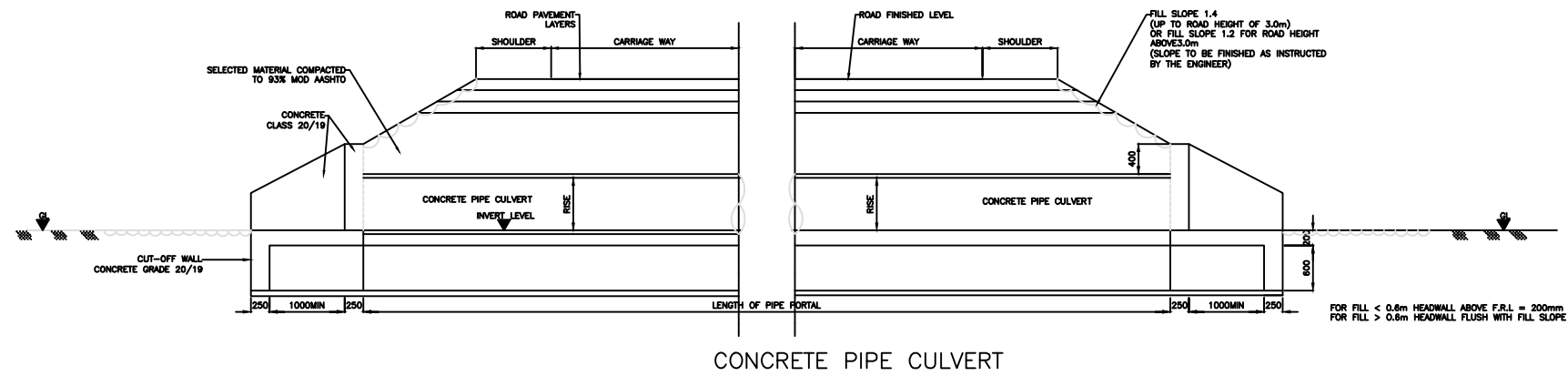
ENGINEERING QUANTITIES LIST

NUMBER	DIAMETER	EACH LENGTH	THE NUMBER	TOTAL	WEIGHT PER METER	WEIGHT	SERIAL NUMBER
Unit	mm	cm	Radical	m	kg/m	kg	
1	ø10	6003.30	1	60.0	0.62	42.98	HPB 235
2	ø10	6300.80	1	63.0	0.62	38.88	HPB 235
3	ø6	195	32	62.4	0.22	13.85	HPB 235
SUMMATION C20 concrete: 0.6m ³ HPB235: 95.7KG							

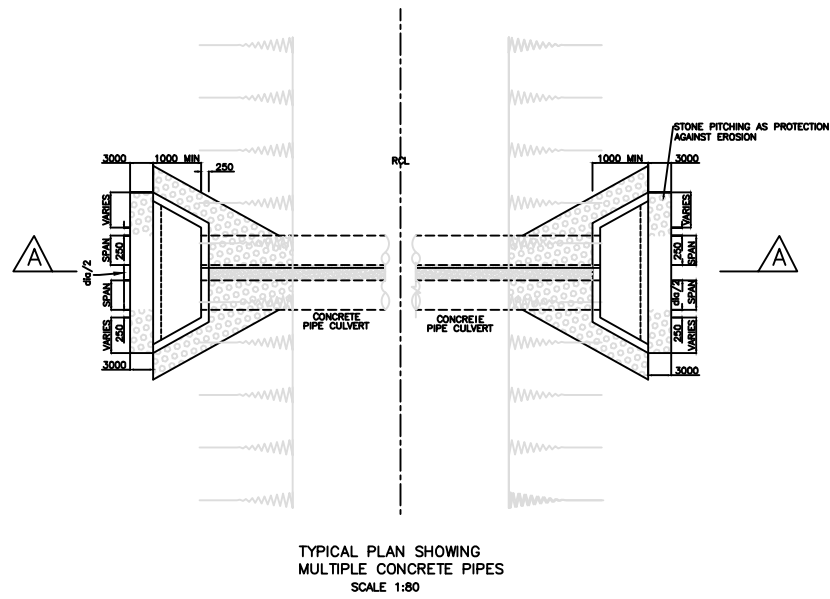
NOTES:

1. Figures in addition to the steel bar diameter in millimeters in size and indicated, the rest are in centimeters

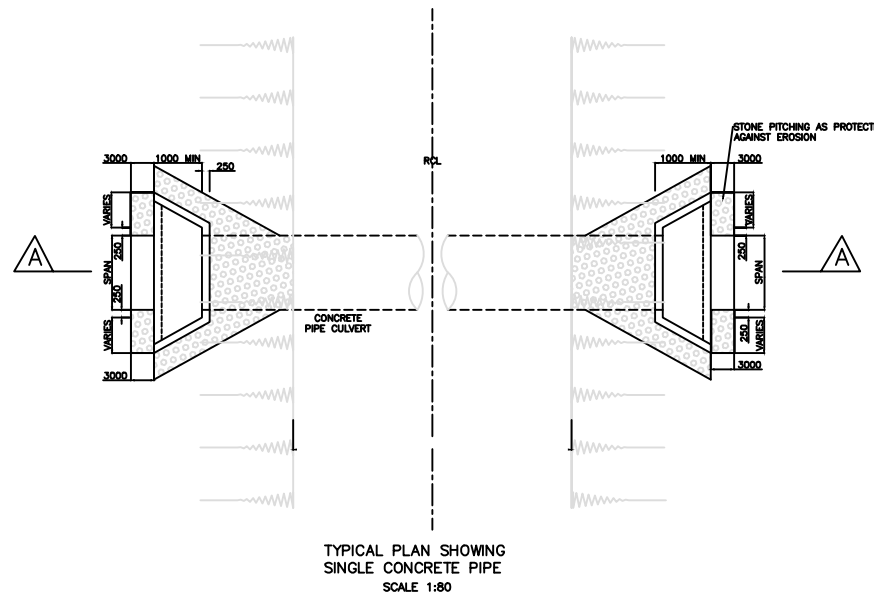
AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: 900MM DIAMETER CONCRETE DETAILS		<input type="radio"/> DESIGN <input type="radio"/> CHECKING <input type="radio"/> CONSTRUCTION <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U.L.]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER:	
									DRAWN Z. B				INSPECTOR OF WORKS:	
									DRAWING CHECKED BY F. N. RENg				REMARKS:	
									DRAWING APPROVED BY MINISTRY		CONTRACT No.:		ORIGINAL PAPER SIZE: A1	
									SCALE: 1:1000		PROJECT No.:		SHEET NO: 1 OF 1	
									DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-10		REVISION:	



TYPICAL SECTION A-A
SCALE 1:30

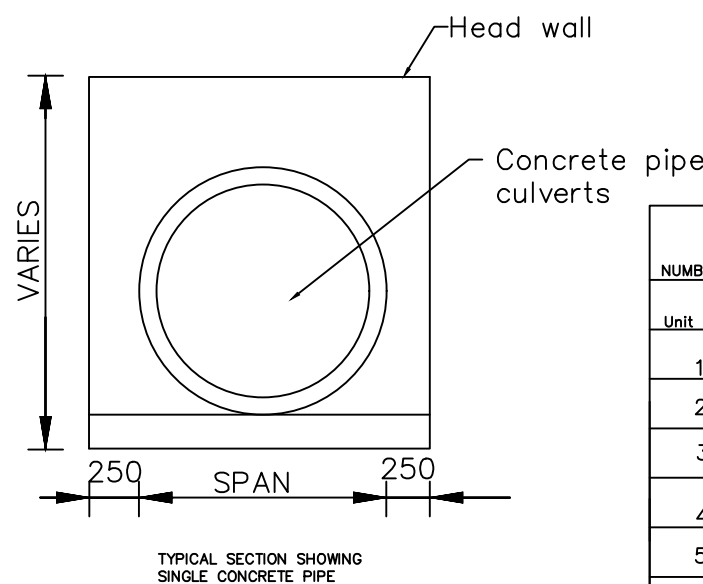
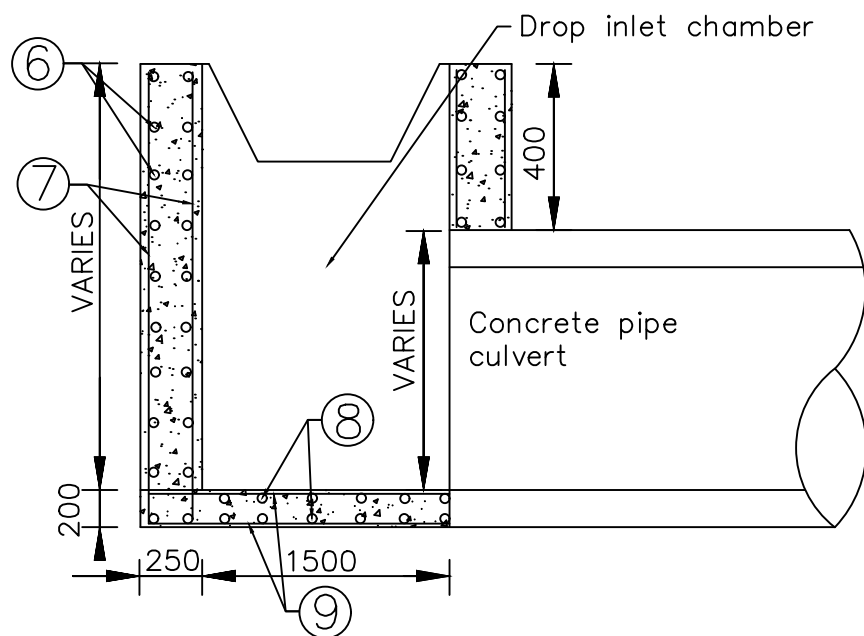
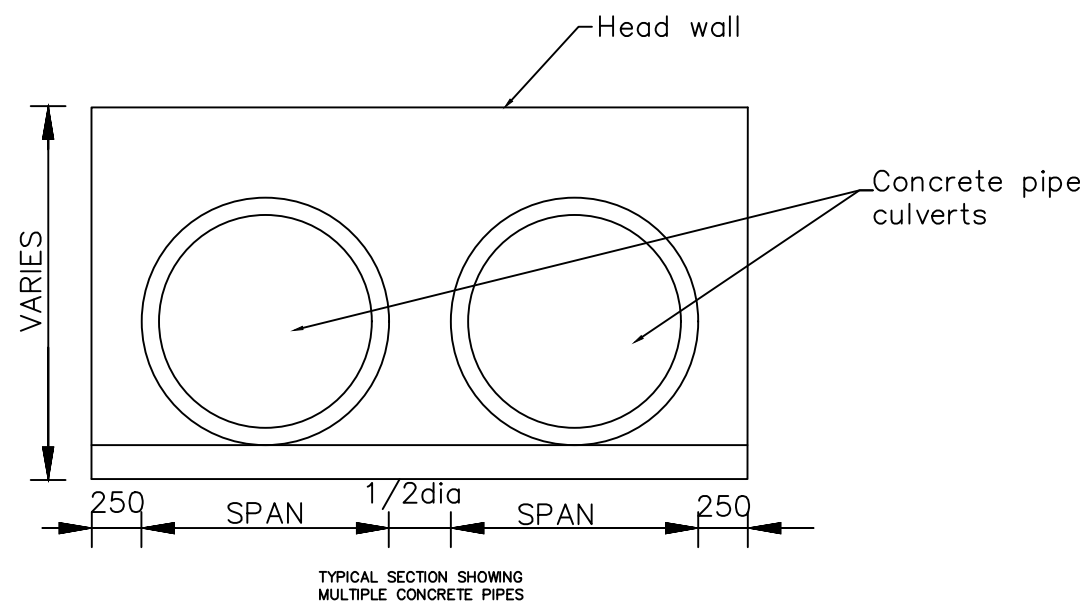
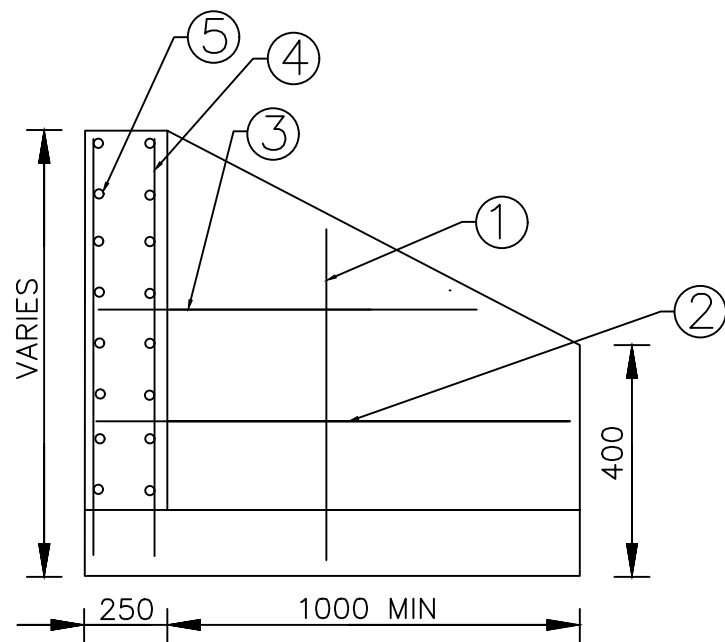


TYPICAL PLAN SHOWING
MULTIPLE CONCRETE PIPES
SCALE 1:80



TYPICAL PLAN SHOWING
SINGLE CONCRETE PIPE
SCALE 1:80

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS		Southern Africal Trade Connectivity Project,		Z. B		STANDARD DRAWINGS: GENERAL ARRANGEMENT OF REINFORCED CONCRETE RING		<input type="radio"/> CONSULTING <input type="radio"/> DESIGN <input type="radio"/> PRELIMINARY <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206			 P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		 Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		DESIGN CHECKED BY F. N. REING DATE: _____ DRAWN Z. B DATE: _____ DRAWING CHECKED BY F. N. REing DATE: _____ DRAWING APPROVED BY MINISTRY DATE: _____		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U.L.]-SITOLO (UD) ROAD (10.0KMS) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1 SHEET NO: 1 OF 1	
					 PROJECTING • PLANNING • MANAGEMENT				CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-11			



REINFORCEMENT DETAILS
(TO BE CUT AND BENT ON SITE)

NUMBER	DIAMETER	SPACING	WEIGHT PER METER	SERIAL NUMBER
Unit	mm	mm	kg/m	
1	φ12	150	0.89	HPB 235
2	φ10	150	0.62	HPB 235
3	φ10	150	0.62	HPB 235
4	φ12	150	0.89	HPB 235
5	φ10	150	0.62	HPB 235
6	φ10	225	0.62	HPB 235
7	φ10	225	0.62	HPB 235
8	φ10	225	0.62	HPB 235
9	φ10	225	0.62	HPB 235

Concrete class: C20/19

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE							Z. B		STANDARD DRAWINGS: REINFORCED CONCRETE RING AND DROP INLET CHAMBER DETAILS		<input type="radio"/> DESIGN <input type="radio"/> CHECKING <input type="radio"/> APPROVAL <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		DESIGN CHECKED BY F. N. RENg DATE: _____ DRAWN Z. B DATE: _____ DRAWING CHECKED BY F. N. RENg DATE: _____ DRAWING APPROVED BY MINISTRY DATE: _____		DESCRIPTION OF PROJECT MW-MTPW-544333-CW-RFB/GRAVELLING, EMBANKMENT FORMATION, SPOT AND DRAINAGE IMPROVEMENT ON KHOLONI [U1.1]-SITOLO (UD) ROAD (10.0KMs) IN MCHINJI DISTRICT		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1 SHEET NO: 1 OF 1	
									CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-12			

ROAD INVENTORY

DISTRICT - MCHINJI

DATA COLLECTED ON: 09/OCT/2025

UPDATED ON:

KHOLOMONI - SITOLO ROA (UD)

Chainage		DESCRIPTION
FROM	TO	
0+000		KHOLOMONI
0+000	9+420	Sections requires Spot gravelling
0+000	9+420	Section requires Reshaping and Earth drains - LHS & RHS
0+370		Existing concrete pipe culvert (600mm Dia - 1line) - Requires cleaning and Excavation of outlet drain
0+370	0+600	Provide Earth drains
0+700		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls and cleaning
1+000		Existing concrete pipe culvert (600mm Dia - 1lines)
1+220		Provide mitre drain - RHS
1+270		Existing Box culvert 5m x 1.5m
1+275		Existing concrete pipe culvert (600mm Dia - 2lines) - Provide retaining walls & lined drains, Embankment formation
1+310		Existing Concrete drift - Demolish and construct a box culvert 2m x 1m, fill approaches
1+275	1+330	Embankment Formation, provide earth drains and Scour checks - RHS & LHS
1+330	1+900	Provide Scour Checks - RHS & LHS
1+810		Existing concrete pipe culvert (600mm Dia - 1lines) - Demolish and construct a Box culvert 1.5m x 1m
1+900		Provide mitre drain - RHS
1+900	1+950	Provide Concrete pad
2+050	2+280	Provide Scour checks - LHS
2+200		Existing concrete pipe culvert (600mm Dia - 1line)
2+270		Existing concrete pipe culvert (600mm Dia - 1line) - requires 2No. Head walls, cleaning and Excavate outlet drain
2+400		Existing concrete pipe culvert (600mm Dia - 1line) - Demolish, construct a Box culvert 1.5m x 1m and Excavate outlet drain
2+600		Existing concrete pipe culvert (600mm Dia - 1lines) - Requires 2No. Head walls, Cleaning and Excavation of outlet drain
2+700		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 1No. Head walls and Cleaning
2+890		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 1No. Head walls and Cleaning
3+060		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 1No. Head walls
3+200		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Cleaning and provide lined outlet drain
3+300	3+370	Existing concrete pipe culvert (600mm Dia - 1line) - Requires Cleaning
3+400		Reshape road to Molosiyo and fill scoured section Provide lined drains drain - LHS (to the culvert at Km 3+440)
3+440		Existing concrete pipe culvert (600mm Dia - 1line) - Requires cleaning and Excavation of outlet drain
3+500		Existing concrete pipe culvert (600mm Dia - 1line) - Requires cleaning, 2No. Head walls and Excavation of outlet drain
3+790		Existing concrete pipe culvert (600mm Dia - 1line)
3+950		Existing concrete pipe culvert (600mm Dia - 1line)
4+100		Existing concrete pipe culvert (600mm Dia - 1line)
4+200	4+500	Embankment Formation, provide retaining wall (RHS & LHS) and lined drain(LHS)
4+360		Provide a Box Culvert 2m x 1m 3 cells
4+500	5+300	Provide Scour Checks - RHS & LHS
4+800		Existing concrete pipe culvert (600mm Dia - 1line)
5+200		Existing concrete pipe culvert (600mm Dia - 1line)
5+700		Existing concrete pipe culvert (600mm Dia - 1line) - Requires cleaning, excavation of outlet drain
6+100		Existing concrete pipe culvert (600mm Dia - 1lines) - Requires 2No. Head walls and Erosion protection works at the outlet structure.
6+100		Anti treatment
6+400		Existing concrete pipe culvert (600mm Dia - 1lines) - Requires 2No. Head walls and Cleaning.
6+600		Existing concrete pipe culvert (600mm Dia - 1line)
6+910		Existing concrete pipe culvert (600mm Dia - 1line)
7+000		Existing concrete pipe culvert (600mm Dia - 1line)
7+260		Existing concrete pipe culvert (600mm Dia - 1line)
7+400		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls
7+600		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls
7+720		Existing concrete pipe culvert (600mm Dia - 1line) - Requires 1No. Head wall, Cleaning and Excavation of Outlet drain

7+830	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 1No. Head walls, Cleaning and Excavation of Outlet drain
8+000	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
8+080	Provide mitre drain - RHS
8+200	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
8+300	Existing concrete pipe culvert (600mm Dia - 1line) - Excavation of Outlet drain
8+400	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Erosion Protection works and Excavation of Outlet drain
8+550	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls
8+610	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Remove and replace 2 No. concrete pipes and Excavation of Outlet drain
8+650	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Remove and Replace broken pipe and Excavation of Outlet drain
8+970	Existing concrete pipe culvert (600mm Dia - 1line) - Requires cleaning and Excavation of Outlet drain
9+020	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, erosion protection works (outlet structure) and Excavation of Outlet drain
9+100	Provide mitre drain - RHS
9+150	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
9+300	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
9+420	Existing concrete pipe culvert (600mm Dia - 1line) - Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
10+000	SITOL

DISTRICT - MCHINJI		
DATA COLLECTED ON: 09/OCT/2025		
UPDATED ON:		
	KHOLOMONI - SITOLO ROAD (UD)	
	LIST OF STRUCTURES	
Chainage	DESCRIPTION	ACTION
0+000	KHOLOMONI	
0+370	Existing concrete pipe culvert (600mm Dia - 1line)	Requires cleaning and Excavation of outlet drain
0+700	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls and cleaning
1+000	Existing concrete pipe culvert (600mm Dia - 1lines)	
1+270	Existing Box culvert 5m x 1.5m	
1+275	Existing concrete pipe culvert (600mm Dia - 2lines)	Provide retaining walls & lined drains, Embankment formation
1+310	Existing Concrete drift	Demolish and construct a box culvert 2m x 1m, fill approaches
1+810	Existing concrete pipe culvert (600mm Dia - 1lines)	Demolish and construct a Box culvert 1.5m x 1m
2+200	Existing concrete pipe culvert (600mm Dia - 1line)	
2+270	Existing concrete pipe culvert (600mm Dia - 1line)	requires 2No. Head walls, cleaning and Excavate outlet drain
2+400	Existing concrete pipe culvert (600mm Dia - 1line)	Demolish, construct a Box culvert 1.5m x 1m and Excavate outlet drain
2+600	Existing concrete pipe culvert (600mm Dia - 1lines)	Requires 2No. Head walls, Cleaning and Excavation of outlet drain
2+700	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 1No. Head walls and Cleaning
2+890	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 1No. Head walls and Cleaning
3+060	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 1No. Head walls
3+200	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls,Cleaning and provide lined outlet drain
3+300	Existing concrete pipe culvert (600mm Dia - 1line)	Requires Cleaning and provide lined outlet drain
3+440	Existing concrete pipe culvert (600mm Dia - 1line)	Requires cleaning and Excavation of outlet drain
3+500	Existing concrete pipe culvert (600mm Dia - 1line)	Requires cleaning, 2No. Head walls and Excavation of outlet drain
3+790	Existing concrete pipe culvert (600mm Dia - 1line)	
4+100	Existing concrete pipe culvert (600mm Dia - 1line)	
4+360	Provide a Box Culvert 2m x 1m 3 cells	
4+800	Existing concrete pipe culvert (600mm Dia - 1line)	Remove and fill section
5+200	Existing concrete pipe culvert (600mm Dia - 1line)	Demolish and fill section
5+500	Existing concrete pipe culvert (600mm Dia - 1line)	Demolish and fill section
5+700	Existing concrete pipe culvert (600mm Dia - 1line)	Requires cleaning, excavation of outlet drain
6+100	Existing concrete pipe culvert (600mm Dia - 1lines)	Requires 2No. Head walls and Erosion protection works at the outlet structure.
6+400	Existing concrete pipe culvert (600mm Dia - 1lines)	Requires 2No. Head walls and Cleaning.
6+600	Existing concrete pipe culvert (600mm Dia - 1line)	
6+910	Existing concrete pipe culvert (600mm Dia - 1line)	
7+000	Existing concrete pipe culvert (600mm Dia - 1line)	
7+260	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 1No. Head wall, Cleaning and Excavation of Outlet drain
7+300	Provide a Box Culvert 1m x 1m 1 cell	
7+400	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Inlet structure, Cleaning and Excavation of Outlet drain
7+600	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls and Excavation of Outlet drain
7+720	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 1No. Head wall, Cleaning and Excavation of Outlet drain
7+830	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
8+000	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
8+200	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
8+300	Existing concrete pipe culvert (600mm Dia - 1line)	Excavation of Outlet drain
8+400	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Erosion Protection works and Excavation of Outlet drain
8+550	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls and Excavation of Outlet drain
8+610	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls and Excavation of Outlet drain
8+650	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Remove and Replace broken pipe and Excavation of Outlet drain
8+800	Provide a Box Culvert - 1m x 1m	
8+970	Existing concrete pipe culvert (600mm Dia - 1line)	Requires cleaning and Excavation of Outlet drain

DISTRICT - MCHINJI		
DATA COLLECTED ON: 09/OCT/2025		
UPDATED ON:		
	KHOLOMONI - SITOLO ROAD (UD)	
9+020	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, erosion protection works (outlet structure) and Excavation of Outlet drain
9+150	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
9+300	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
9+420	Existing concrete pipe culvert (600mm Dia - 1line)	Requires 2No. Head walls, Cleaning and Excavation of Outlet drain
10+000	SITOLO	