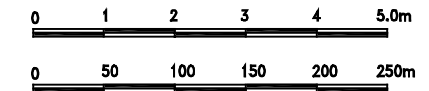
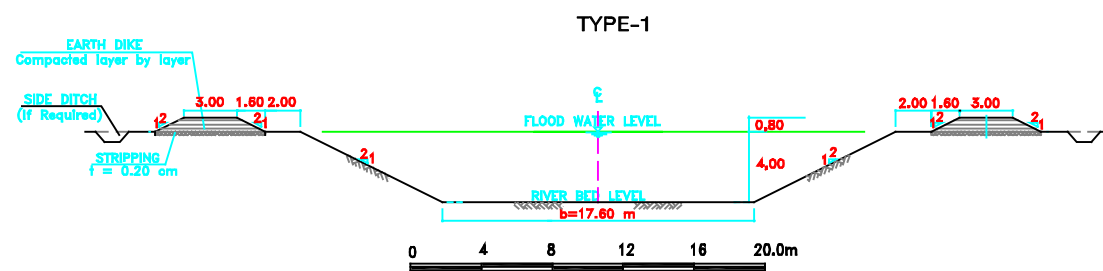


Section No.	BOL-15	BOL-16	BOL-17	BOL-18	BOL-19	BOL-20	BOL-21	BOL-22	BOL-23	BOL-24	BOL-25	BOL-26	BOL-27	SDG-0	SDG-2	
DISTANCE (M)		133	129	88	106	104	66	98	86	117	88	123	123	122	151	
ACCUMULATED DISTANCE																
LEFT BANK	5.22	5.13	5.06	5.00	4.94	4.86	4.80	4.70	4.68	4.60	4.54	4.48	4.41	4.32	4.15	
RIGHT BANK	4.85	4.98	4.93	4.75	4.99	4.90	4.84	4.70	4.67	4.53	4.44	4.37	4.02	4.28	4.45	
GROUND LEVEL IN CENTER LINE	0.33	0.61	1.33	0.50	0.68	0.45	1.74	0.57	0.19	0.41	0.25	0.80	1.34	0.28	3.98	
BANK LEVEL	5.66	5.55	5.44	5.37	5.28	5.20	5.14	5.06	4.99	4.89	4.82	4.71	4.61	4.51	4.39	
DESIGN WATER LEVEL	4.86	4.75	4.64	4.57	4.48	4.40	4.36	4.26	4.18	4.09	4.02	3.91	3.81	3.71	3.59	
BED LEVEL	0.86	0.75	0.64	0.57	0.49	0.40	0.34	0.28	0.19	0.09	0.02	-0.09	-0.19	0.51	0.39	
CHANNEL DIMENSION	TYPE-1														TYPE-2	
	Q = 200 m ³ /s															
	b = 17.60 m															
	h = 4.0 m															
	m = 1:2															
	v = 1.97 m/s															
	f = 0.80 m															
	l = 0.00083															



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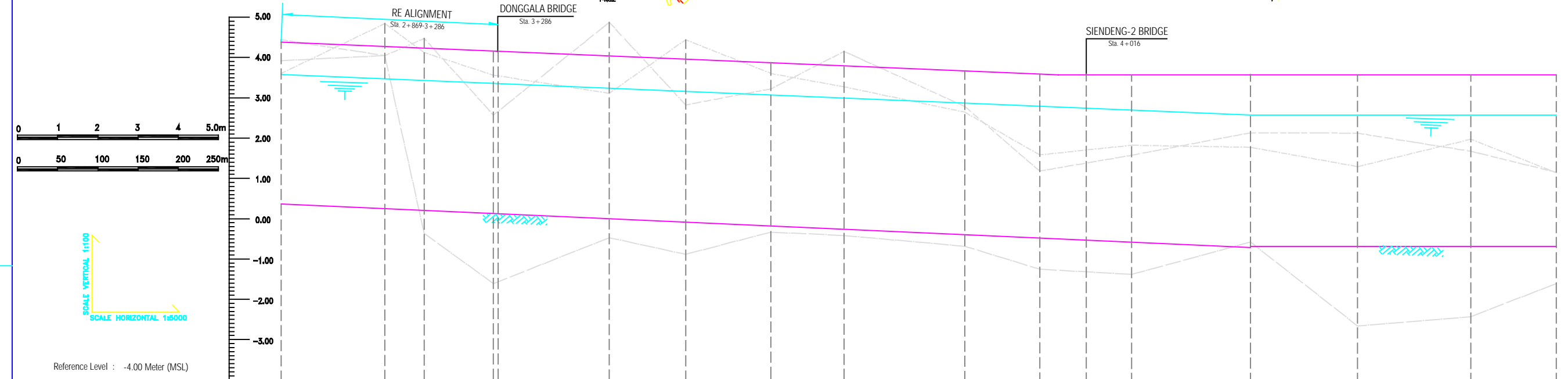
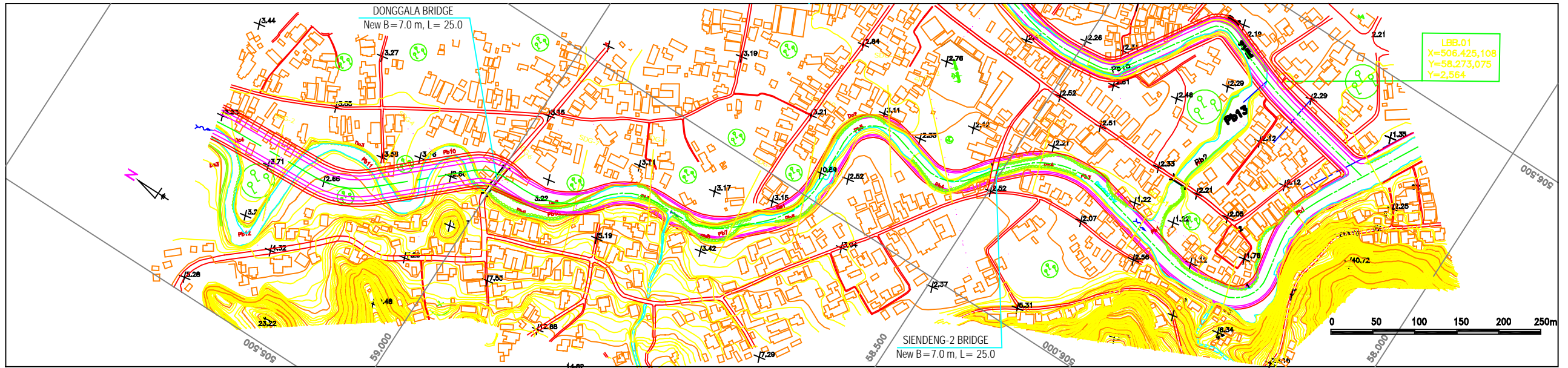
SECTION : LOWER BOLANGO RIVER IMPROVEMENT

TITLE : LONGITUDINAL SECTION - PROFILE BOL-15-SDG.2

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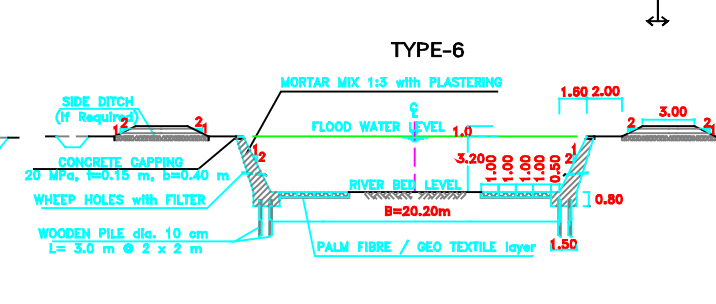
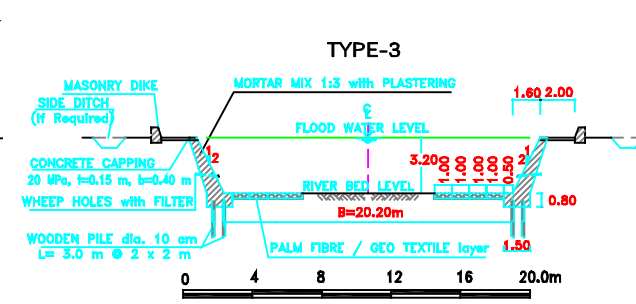
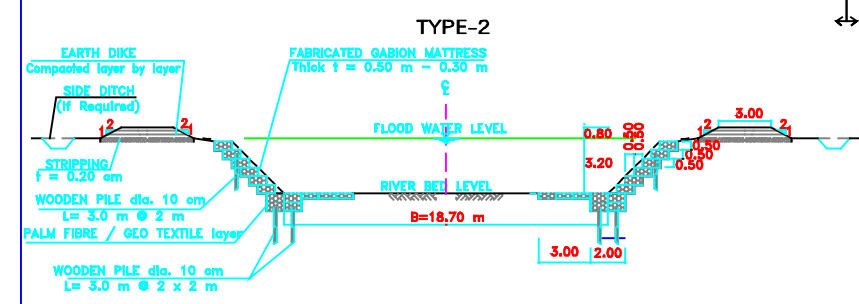
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DRAWING No. LS/BOL - 2 SHEET No. 2/4



Reference Level : -4.00 Meter (MSL)

Section No.	SDG-2	SDG-4	SDG-5	SDG-6	SDG-7	SDG-8	SDG-9	SDG-10	SD-11	SDG-12	SDG-13	SDG-14	BOL-45	BOL-46	BOL-47										
DISTANCE (M)	300	124	44	86	144	343	95	106	384	91	150	385	93	114	472	148	420	133	488	141	444	106	441		
ACCUMULATED DISTANCE																									
EXISTING LEFT BANK	4.15	4.00	4.00	4.06	4.06	4.08	3.77	3.60	3.60	3.25	3.00	3.00	3.51	3.22	3.10	3.10	3.10	3.02	3.02	2.85	2.85	2.85	2.87	2.87	
EXISTING RIGHT BANK	4.45	4.06	4.06	4.06	4.06	4.08	3.77	3.60	3.60	3.25	3.00	3.00	3.51	3.22	3.10	3.10	3.10	3.02	3.02	2.85	2.85	2.85	2.87	2.87	
GROUND LEVEL IN CENTER LINE	3.98	4.06	4.06	4.06	4.06	4.08	3.77	3.60	3.60	3.25	3.00	3.00	3.51	3.22	3.10	3.10	3.10	3.02	3.02	2.85	2.85	2.85	2.87	2.87	
DESIGN BANK LEVEL	4.39	4.28	4.24	4.17	4.05	3.97	3.88	3.80	3.80	3.68	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62	
DESIGN WATER LEVEL	3.59	3.45	3.44	3.37	3.25	3.17	3.08	3.00	3.00	2.88	2.80	2.80	2.80	2.71	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62	
BED LEVEL	0.39	0.28	0.24	0.17	0.05	-0.03	-0.12	-0.20	-0.32	-0.40	-0.48	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58	
CHANNEL DIMENSION	TYPE-2	TYPE-3			TYPE-3			TYPE-6			TYPE-6			TYPE-6											
	Q=125 m ³ /s b=18.7 m	Q=125 m ³ /s b=20.20 m			Q=125 m ³ /s b=20.20 m			Q=125 m ³ /s b=20.20 m			Q=125 m ³ /s b=20.20 m			Q=125 m ³ /s b=20.20 m											
	h=3.2 m m=1/1	h=3.2 m m=2/1			h=3.2 m m=2/1			h=3.2 m m=2/1			h=3.2 m m=2/1			h=3.2 m m=2/1											
	v=1.78 m/s f=0.80 m	v=1.59 m/s f=0.80 m			v=1.59 m/s f=0.80 m			v=1.59 m/s f=0.80 m			v=1.59 m/s f=0.80 m			v=1.59 m/s f=0.80 m											
	I=0.00083	I=0.00083			I=0.00083			I=0.00083			I=0.00083			I=0.00083											



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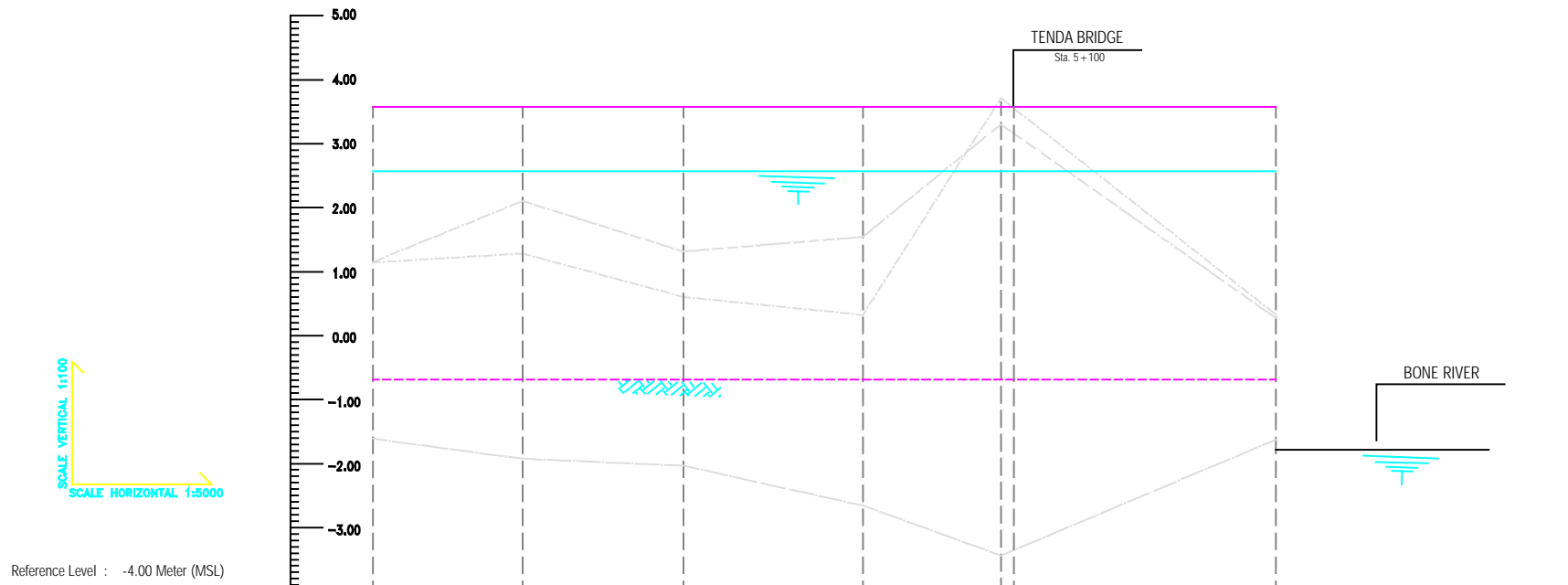
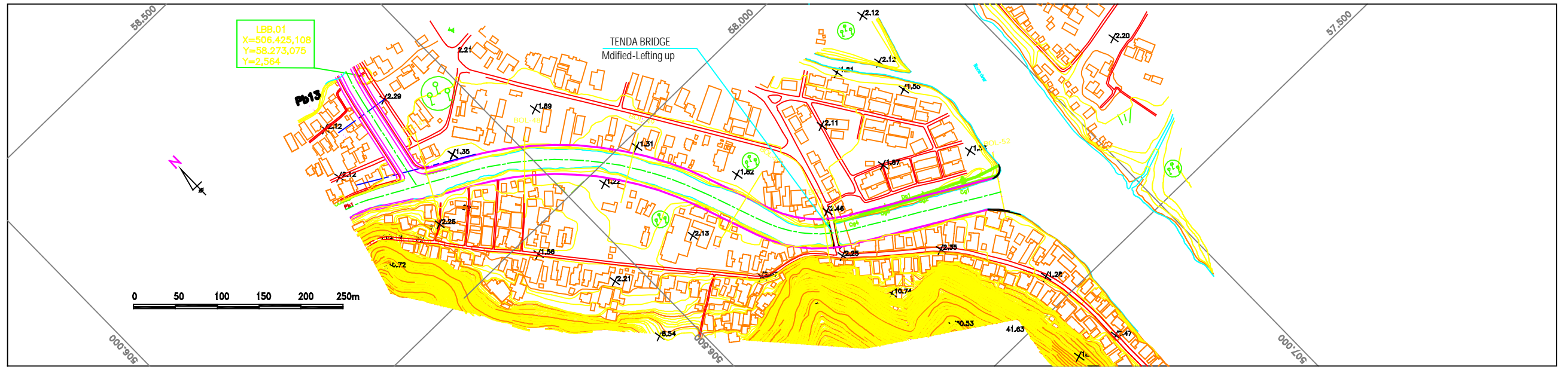
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SECTION : LOWER BOLANGO RIVER IMPROVEMENT

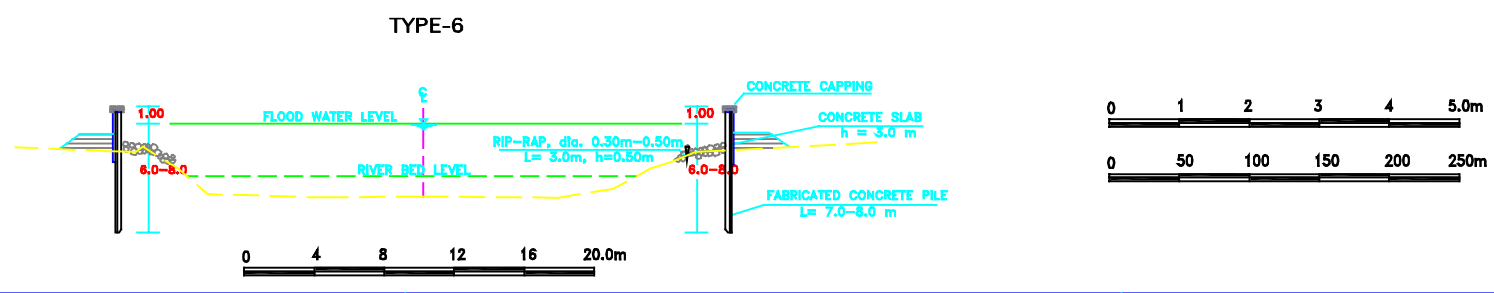
TITLE : LONGITUDINAL SECTION - PROFILE SDG.2-BOL.47

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		LS/BOL - 3	3/4

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Section No.	BOL-47	BOL-48	BOL-49	BOL-50	BOL-51	BOL-52
DISTANCE (M)		117	126	140	108	215
ACCUMULATED DISTANCE		117	243	383	491	706
LEFT BANK	2.87	2.78	2.72	2.82	2.54	2.40
RIGHT BANK	1.16	2.11	1.32	1.55	3.31	0.28
GROUND LEVEL IN CENTER LINE	-1.60	-1.82	-2.03	-2.65	-3.43	-1.62
BANK LEVEL	3.62	3.62	3.62	3.62	3.62	3.62
DESIGN WATER LEVEL	2.62	2.62	2.62	2.62	2.62	2.62
BED LEVEL	-0.58	-0.58	-0.58	-0.58	-0.58	-0.58
CHANNEL DIMENSION	TYPE-6 Q=200 m ³ /s b=30.0-40.0 m h=4.0 m m=0 f=1.0 m					



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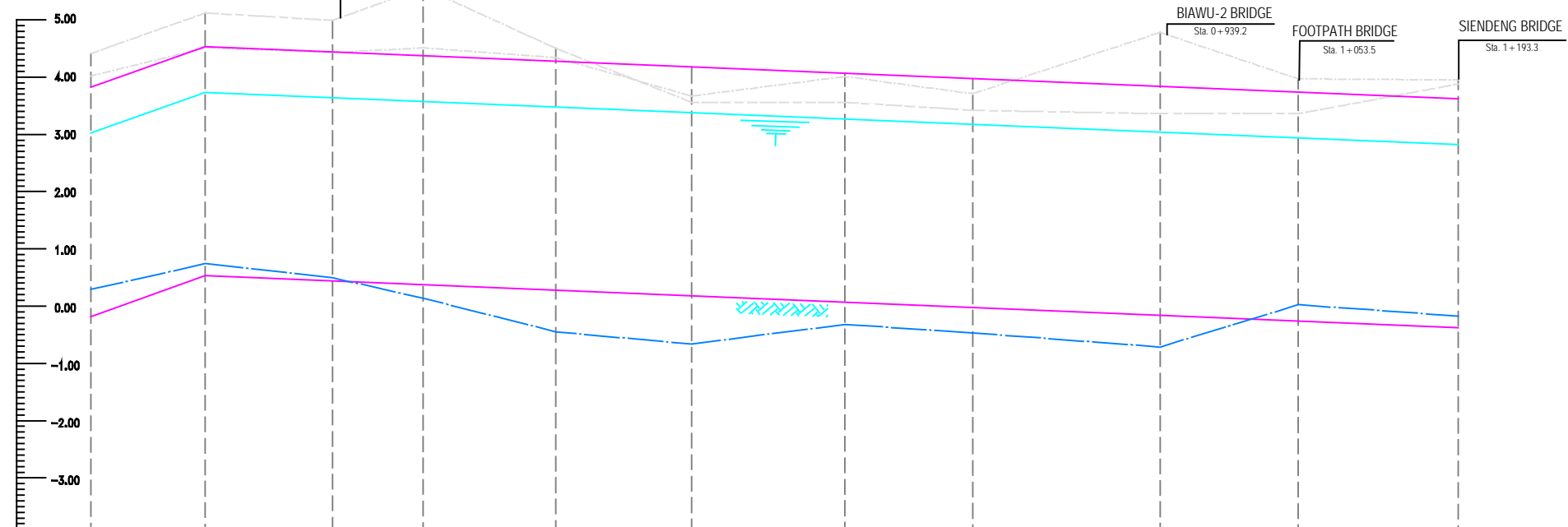
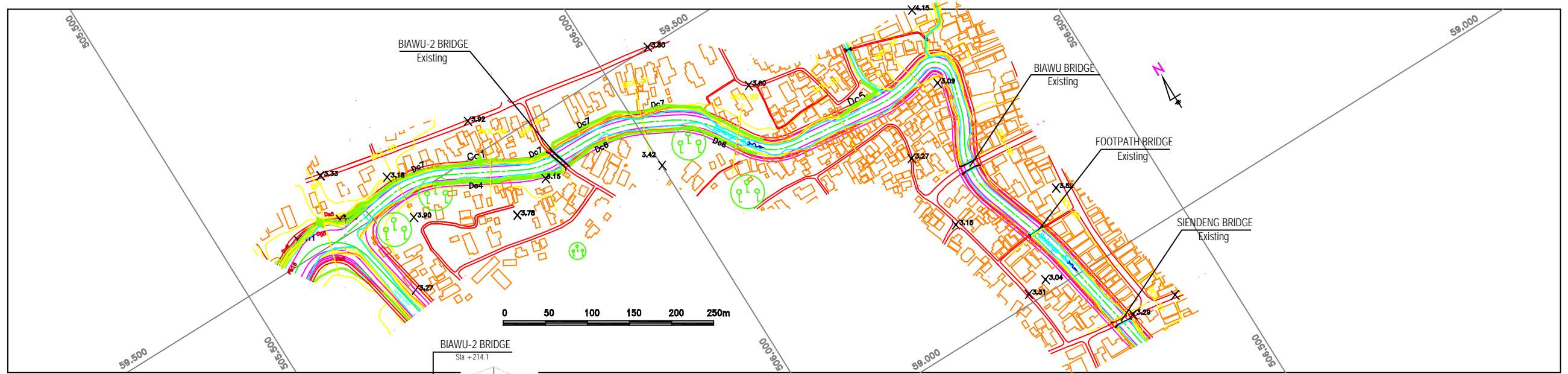
SECTION : LOWER BOLANGO RIVER IMPROVEMENT

TITLE : LONGITUDINAL SECTION - PROFILE BOL47-BOL52

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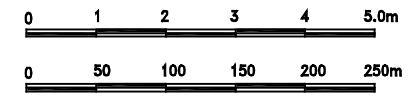
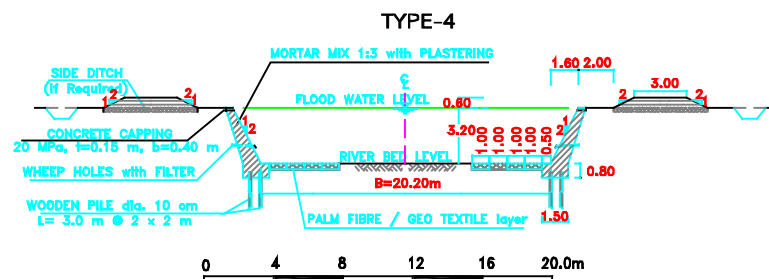
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DRAWING No. LS/BOL - 4 SHEET No. 4/4



Reference Level : -4.00 Meter (MSL)

Section No.		BP	BOL-28	BOL-29	BOL-30	BOL-31	BOL-32	BOL-33	BOL-34	BOL-35	BOL-36	BOL-37	
DISTANCE (M)			99.8	111.3	79.0	115.7	118.5	133.6	111.5	163.8	120.3	139.8	
ACCUMULATED DISTANCE		0.00	99.8	211.1	290.1	405.8	524.3	657.9	769.4	933.2	1053.5	1193.3	
LEFT BANB		4.41	5.12	4.99	5.56	4.5	3.42	3.4	3.56	3.51	3.51	3.08	
RIGHT BANK		4.02	4.51	4.45	4.51	4.5	3.67	4.01	3.71	4.78	3.97	3.95	
GROUND LEVEL IN CENTER LINE		1.34	0.74	0.49	0.14	-0.45	-0.66	-0.32	-0.47	-0.71	0.03	-0.17	
BANK LEVEL		4.60	4.53	4.44	4.37	4.27	4.17	4.08	3.97	3.83	3.73	3.62	
DESIGN WATER LEVEL		3.80	3.73	3.64	3.57	3.47	3.37	3.26	3.17	3.03	2.93	2.82	
BED LEVEL		-0.18	0.53	0.44	0.37	0.27	0.17	0.06	-0.03	-0.17	-0.27	-0.38	
CHANNEL DIMENSION		TYPE-4 Q = 75 m ³ /s b = 20.20 m h = 3.20 m m = 2 : 1 v = 1.46 m/s f = 0.60 m l = 0.00083											



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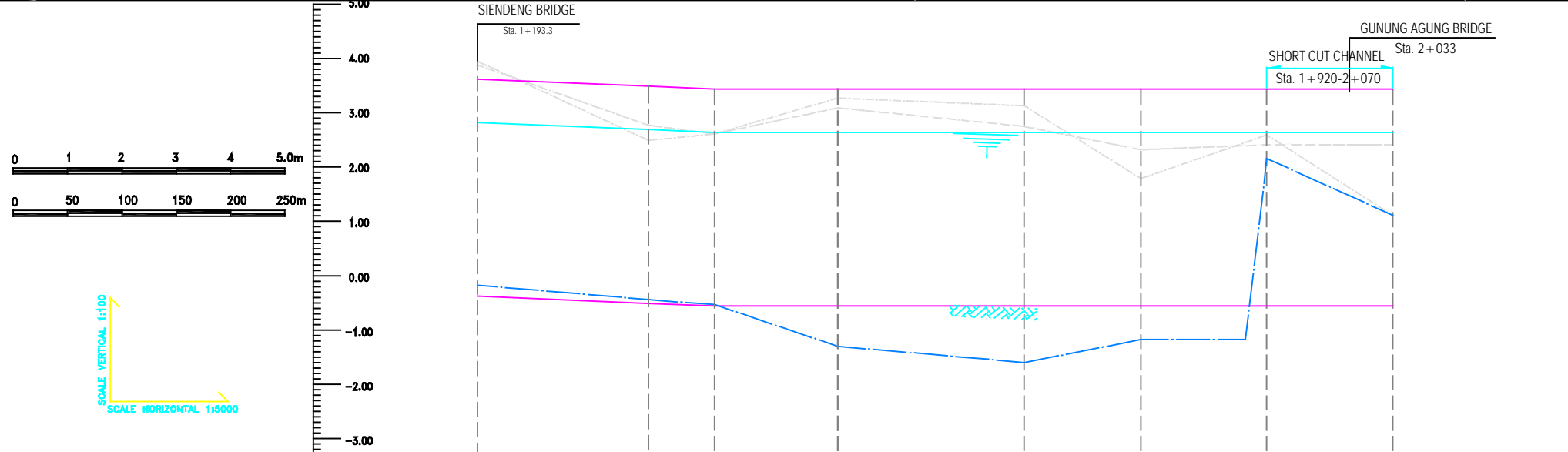
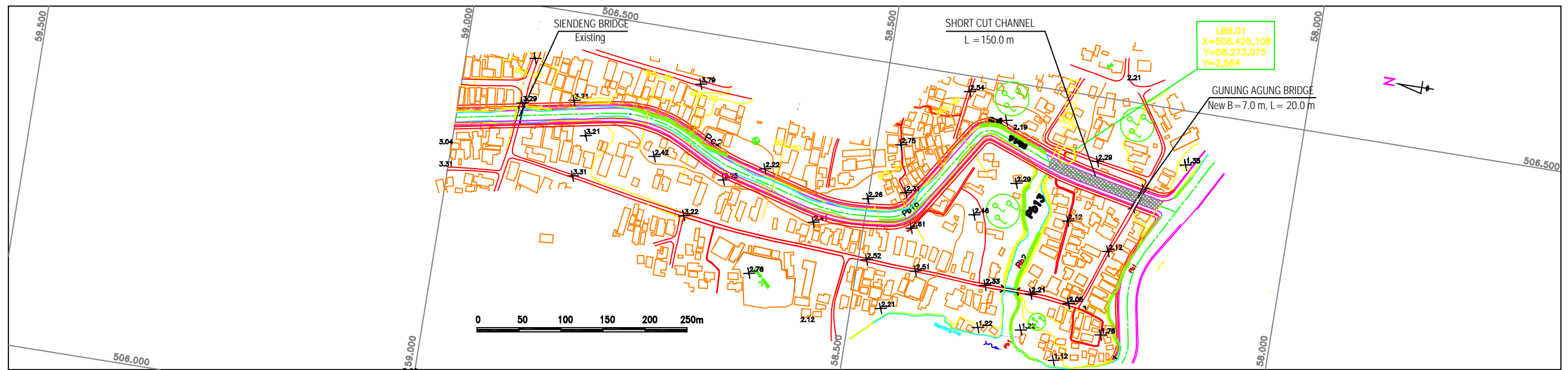
SECTION : LOWER BOLANGO RIVER IMPROVEMENT

TITLE : LONGITUDINAL SECTION - PROFILE BP-BOL37

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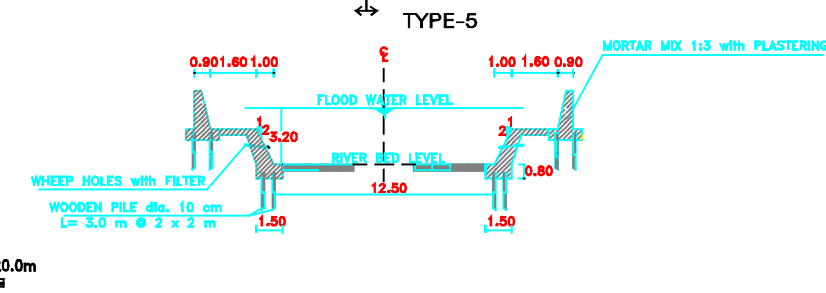
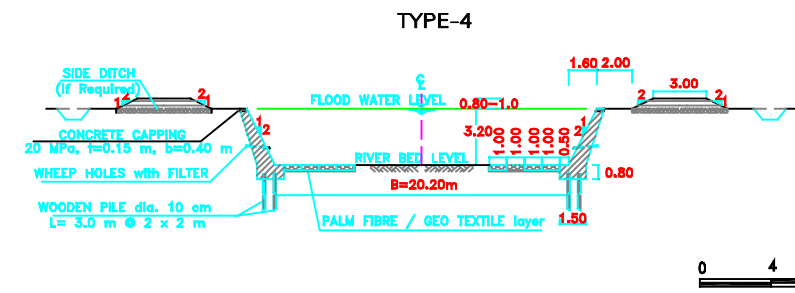
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DRAWING No. LS/BOLSC -1 SHEET No. 1/2



Reference Level : -4.00 Meter (MSL)

Section No.	BOL-37	BOL-38	BOL-39	BOL-40	BOL-41	BOL-42	CUT-1	CUT-2
DISTANCE (M) ACCUMULATED DISTANCE	140	157.5	60.5	113.5	171.8	107.4	116.0	149.2
EXISTING LEFT BANK	3.08	2.77	2.61	3.09	2.75	2.32	2.41	2.41
EXISTING RIGHT BANK	3.85	2.49	2.65	3.27	3.13	1.79	2.56	1.11
EXISTING GROUND LEVEL IN CENTER LINE	-0.17	-0.44	-0.55	-1.5	-1.5	-1.18	2.16	1.11
DESIGN BANK LEVEL	3.62	3.62	3.62	3.62	3.62	3.62	3.62	3.62
DESIGN WATER LEVEL								
DESIGN BED LEVEL	2.62	2.62	2.62	2.62	2.62	2.62	2.62	2.62
CHANNEL DIMENSION	TYPE-4 $Q = 75 \text{ m}^3/\text{s}$, $b = 20.20 \text{ m}$, $h = 3.20 \text{ m}$, $m = 2:1$, $v = 1.46 \text{ m/s}$, $f = 0.80 - 1.0 \text{ m}$, $I = 0.00083$					TYPE-5 $Q = 75 \text{ m}^3/\text{s}$, $b = 12.50 \text{ m}$, $h = 3.20 \text{ m}$, $m = 2:1$, $v = 1.46 \text{ m/s}$, $f = 1.0 \text{ m}$, $I = 0.00083$		



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SECTION : LOWER BOLANGO RIVER IMPROVEMENT

TITLE : LONGITUDINAL SECTION - PROFILE BOL37-CUT2

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		LS/BOLSC -2	2/2

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