

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

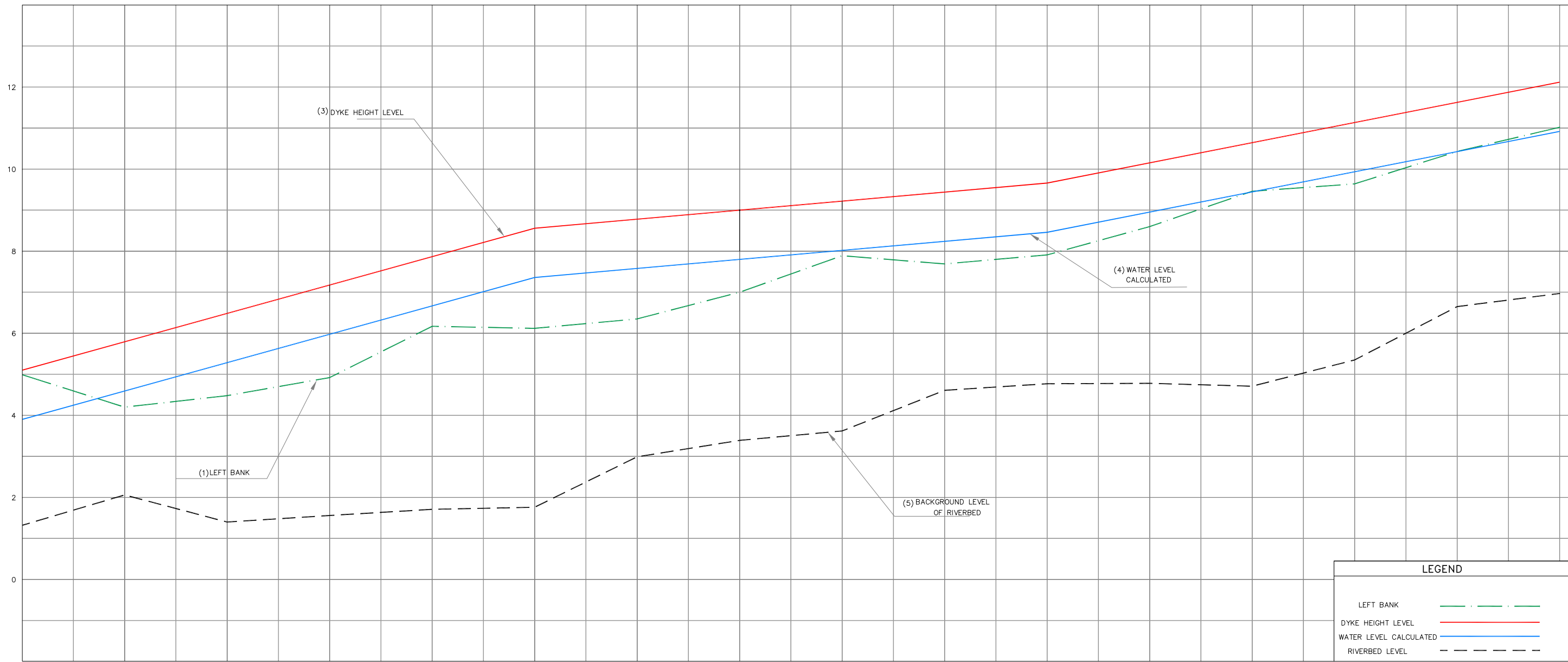
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



LEGEND	
LEFT BANK	-----
DYKE HEIGHT LEVEL	—————
WATER LEVEL CALCULATED	—————
RIVERBED LEVEL	-----

DISTANCE (m)	0	0+100	0+200	0+300	0+400	0+500	0+600	0+700	0+800	0+900	1+000	1+100	1+200	1+300	1+400	1+500
(1) LEFT BANK LEVEL	4.99	4.20	4.48	4.92	6.17	6.12	6.35	7.00	7.89	7.69	7.91	8.60	9.46	9.64	10.43	
(3) DYKE HEIGHT LEVEL	5.10	5.79	6.48	7.18	7.87	8.56	8.78	9.00	9.22	9.44	9.66	10.15	10.64	11.14	11.63	12.12
(4) WATER LEVEL CALCULATED	3.90	4.59	5.28	5.98	6.67	7.36	7.68	7.80	8.02	8.24	8.46	8.95	9.44	9.94	10.43	10.92
(5) BACKGROUND LEVEL OF RIVERBED	1.32	2.06	1.40	1.56	1.71	1.76	2.99	3.39	3.62	4.61	4.77	4.78	4.71	5.35	6.65	6.97

**CAMANA RIVER
CRITICAL POINT N° 1 (1/3)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

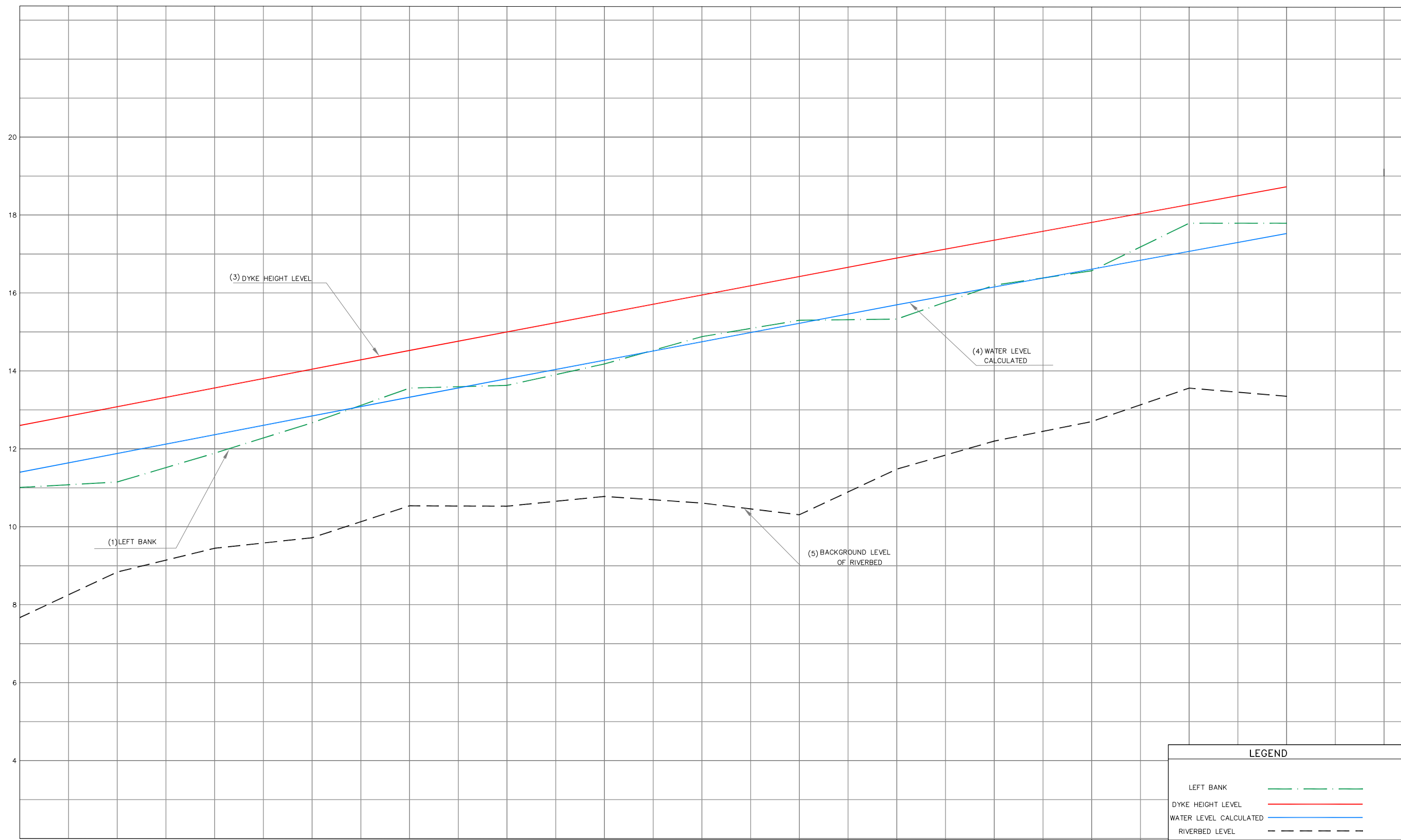


Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**CAMANA RIVER:
CRITICAL POINT N° 1 (1/3)
LONGITUDINAL PROFILE**

ESCALE: INDICATED
DATE: MARCH - 2013
CODE: **CAMANA - 1**



LEGEND	
LEFT BANK	-----
DYKE HEIGHT LEVEL	—————
WATER LEVEL CALCULATED	—————
RIVERBED LEVEL	-----

DISTANCE (m)	1+600	1+700	1+800	1+900	2+000	2+100	2+200	2+300	2+400	2+500	2+600	2+700	2+800	2+900	3+000
(1) LEFT BANK LEVEL	11.01	11.15	11.89	12.67	13.56	13.63	14.18	14.88	15.30	15.33	16.20	16.57	17.79	17.79	
(3) DYKE HEIGHT LEVEL	12.60	13.08	13.56	14.04	14.53	15.00	15.47	15.95	16.42	16.90	17.35	17.81	18.27	18.73	
(4) WATER LEVEL CALCULATED	11.40	11.88	12.36	12.84	13.33	13.80	14.27	14.75	15.22	15.70	16.15	16.61	17.07	17.53	
(5) BACKGROUND LEVEL OF RIVERBED	7.67	8.84	9.45	9.72	10.54	10.53	10.78	10.61	10.31	11.48	12.20	12.70	13.56	13.35	

**CAMANA RIVER
CRITICAL POINT N° 1 (2/3)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

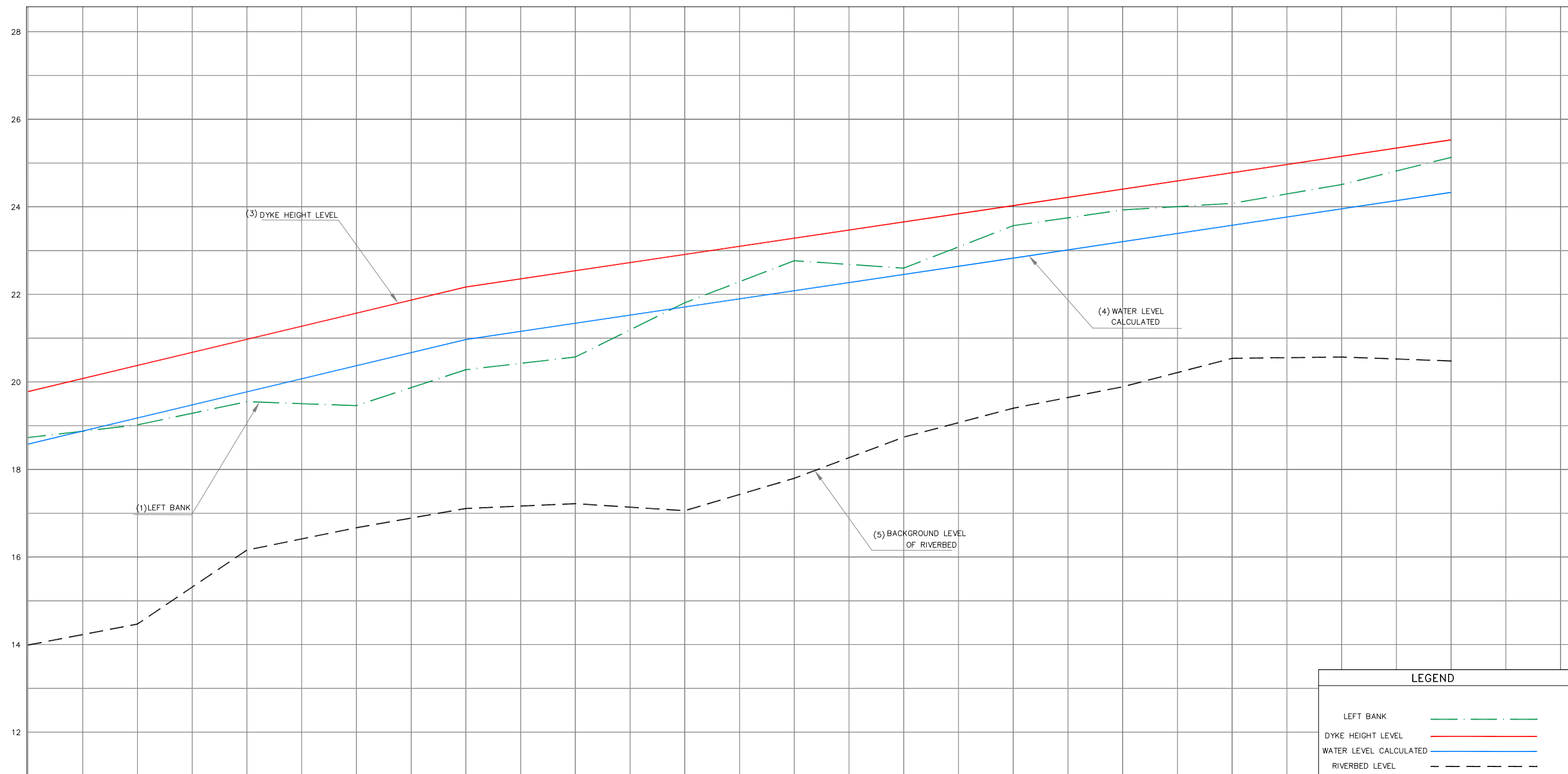


Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**CAMANA RIVER:
CRITICAL POINT N° 1 (2/3)
LONGITUDINAL PROFILE**

ESCALE: INDICATED
DATE: MARCH - 2013
CODE: **CAMANA - 1**



LEGEND	
LEFT BANK
DYKE HEIGHT LEVEL	————
WATER LEVEL CALCULATED	————
RIVERBED LEVEL	-----

DISTANCE (m)	3+100	3+200	3+300	3+400	3+500	3+600	3+700	3+800	3+900	4+000	4+100	4+200	4+300	4+400	4+500
(1) LEFT BANK LEVEL	18.73	19.02	19.55	19.46	20.28	20.57	21.81	22.77	22.60	23.57	23.93	24.08	24.51	25.13	
(3) DYKE HEIGHT LEVEL	19.78	20.38	20.97	21.57	22.17	22.54	22.91	23.29	23.66	24.03	24.40	24.78	25.16	25.53	
(4) WATER LEVEL CALCULATED	18.58	19.18	19.77	20.37	20.97	21.34	21.71	22.09	22.46	22.83	23.20	23.58	23.96	24.33	24.70
(5) BACKGROUND LEVEL OF RIVERBED	13.99	14.47	16.16	16.67	17.11	17.22	17.06	17.80	18.74	19.40	19.89	20.54	20.57	20.48	21.19

**CAMANA RIVER
CRITICAL POINT N°1 (3/3)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

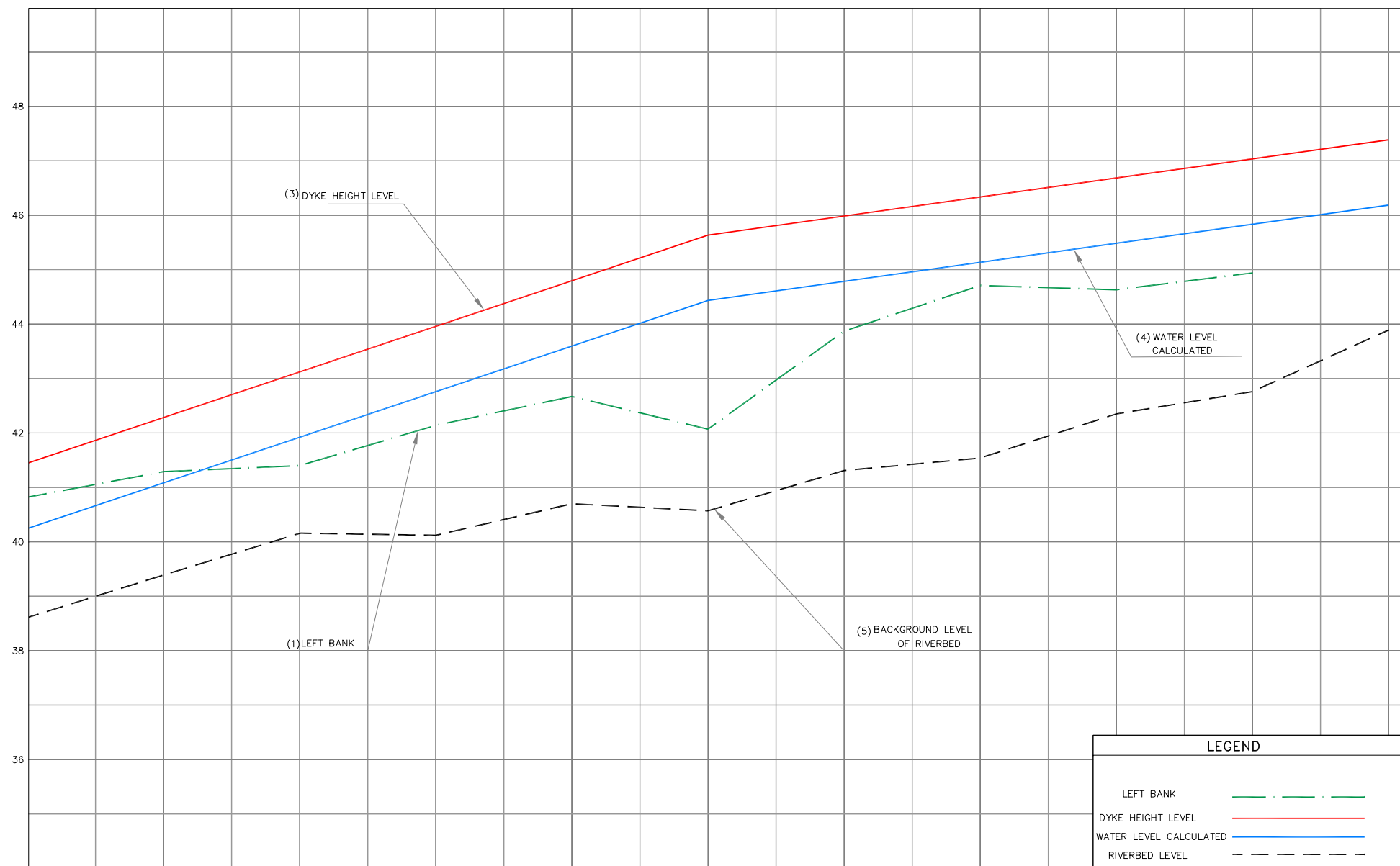
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



LEGEND	
LEFT BANK	— · — · — · — · — · — · — · — · —
DYKE HEIGHT LEVEL	—————
WATER LEVEL CALCULATED	—————
RIVERBED LEVEL	- - - - -

DISTANCE (m)	7+500	7+600	7+700	7+800	7+900	8+000	8+100	8+200	8+300	8+400	8+500
(1) LEFT BANK LEVEL	40.82	41.29	41.40	42.14	42.67	42.07	43.87	44.71	44.63	44.94	47.39
(3) DYKE HEIGHT LEVEL	41.45	42.28	43.12	43.96	44.80	45.63	45.98	46.33	46.68	47.03	47.39
(4) WATER LEVEL CALCULATED	40.25	41.08	41.92	42.76	43.60	44.43	44.78	45.13	45.48	45.83	46.18
(5) BACKGROUND LEVEL OF RIVERBED	38.61	39.39	40.16	40.12	40.70	40.57	41.31	41.54	42.36	42.76	43.89

CAMANA RIVER
CRITICAL POINT N° 2 (1/2)
 LONGITUDINAL PROFILE

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



Consultants:



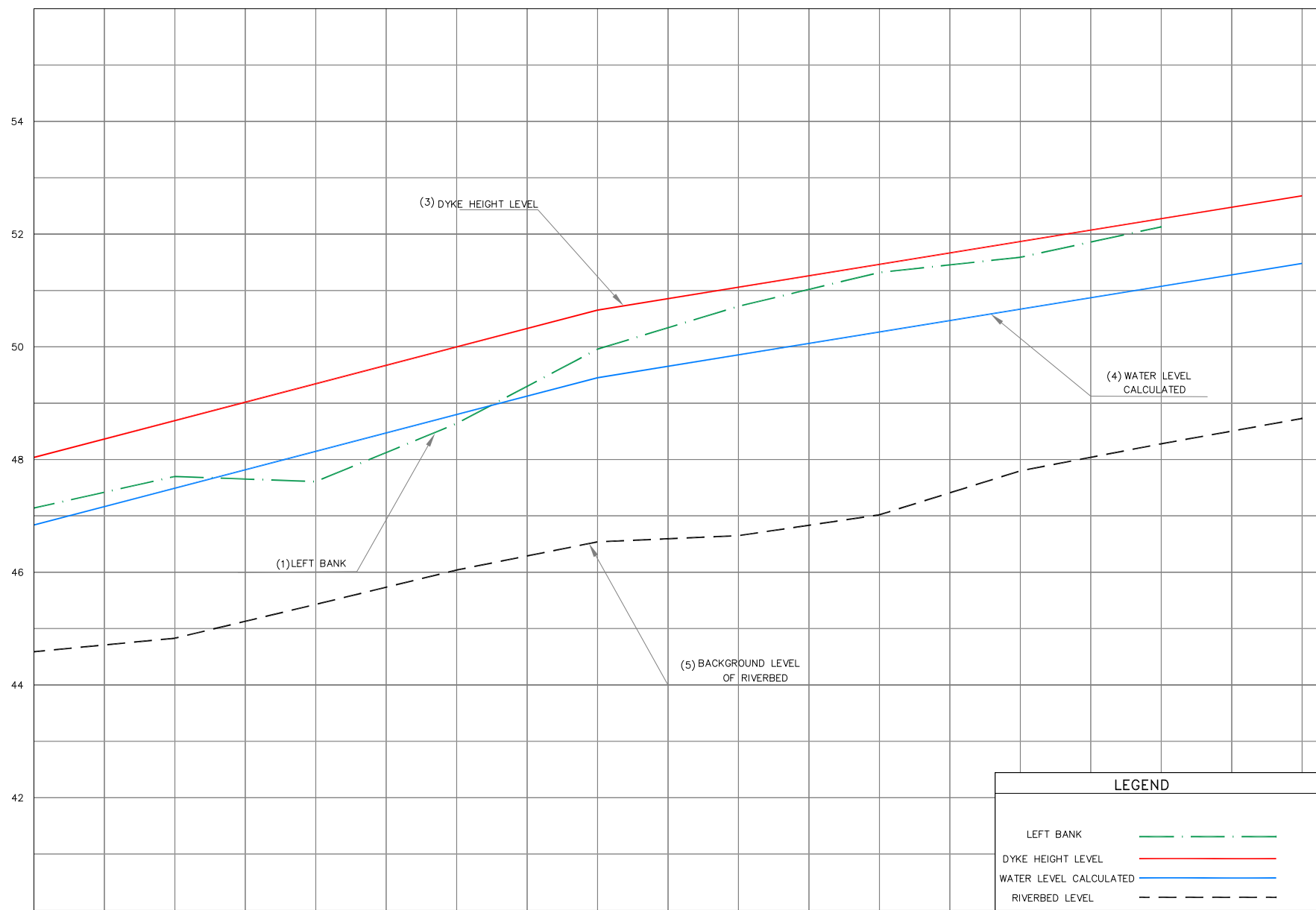
NIPON KOEI LAC CO., LTD.
 Consulting Engineers

Designed by: M.SOYA
 Revised by: M.KITANO
 Approved by: Y.NAKAGAWA
 Revised by: Y.NAKAGAWA

Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**CAMANA RIVER:
 CRITICAL POINT N° 2 (1/2)
 LONGITUDINAL PROFILE**

ESCALE: INDICATED
 DATE: MARCH - 2013
 CODE: **CAMANA - 2**



LEGEND	
LEFT BANK	— · — · — · — · —
DYKE HEIGHT LEVEL	—————
WATER LEVEL CALCULATED	—————
RIVERBED LEVEL	- - - - -

DISTANCE (m)	8+600	8+700	8+800	8+900	9+000	9+100	9+200	9+300	9+400	9+500
(1) LEFT BANK LEVEL	47.14	47.70	47.61	48.64	49.96	50.72	51.32	51.59	52.13	52.68
(3) DYKE HEIGHT LEVEL	48.04	48.69	49.35	50.00	50.65	51.06	51.46	51.87	52.28	52.68
(4) WATER LEVEL CALCULATED	46.84	47.49	48.15	48.80	49.45	49.86	50.26	50.67	51.08	51.48
(5) BACKGROUND LEVEL OF RIVERBED	44.59	44.83	45.43	46.04	46.54	46.65	47.02	47.80	48.28	48.73

**CAMANA RIVER
CRITICAL POINT N° 2 (2/2)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

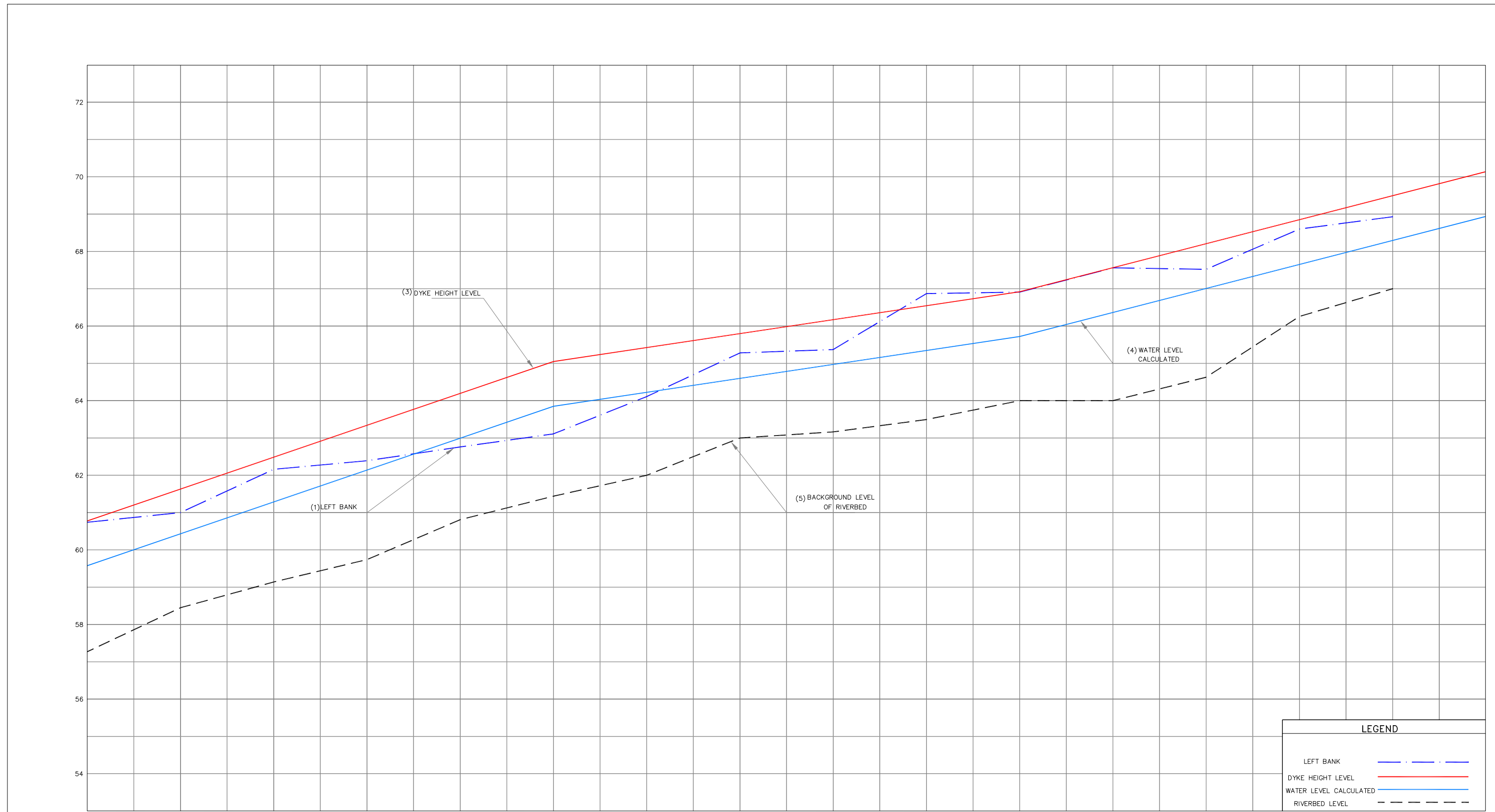
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



LEGEND	
LEFT BANK
DYKE HEIGHT LEVEL	————
WATER LEVEL CALCULATED	————
RIVERBED LEVEL	- - - - -

DISTANCE (m)	11+000	11+100	11+200	11+300	11+400	11+500	11+600	11+700	11+800	11+900	12+000	12+100	12+200	12+300	12+400	12+500
(1) LEFT BANK LEVEL	60.74	61.00	62.16	62.39	62.76	63.11	64.11	65.28	65.37	66.87	66.91	67.56	67.52	68.60	68.93	
(3) DYKE HEIGHT LEVEL	60.78	61.63	62.49	63.34	64.19	65.05	65.42	65.80	66.17	66.55	66.92	67.56	68.21	68.85	69.49	70.14
(4) WATER LEVEL CALCULATED	59.58	60.43	61.29	62.14	62.99	63.85	64.22	64.60	64.97	65.35	65.72	66.36	67.01	67.65	68.29	68.94
(5) BACKGROUND LEVEL OF RIVERBED	57.27	58.45	59.14	59.74	60.80	61.44	62.18	63.00	63.18	63.73	64.34	64.76	65.03	65.48	65.78	

**CAMANA RIVER
CRITICAL POINT N° 3 (1/4)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



Consultants:

LATIN AMERICA - CARIBBEAN

Designed by: M.SOYA
 Revised by: M.KITANO
 Approved by: Y.NAKAGAWA
 Revised by: Y.NAKAGAWA

Project:
 THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**CAMANA RIVER:
 CRITICAL POINT N° 3 (1/4)
 LONGITUDINAL PROFILE**

ESCALE: INDICATED
 DATE: MARCH - 2013
 CODE: **CAMANA - 3**

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

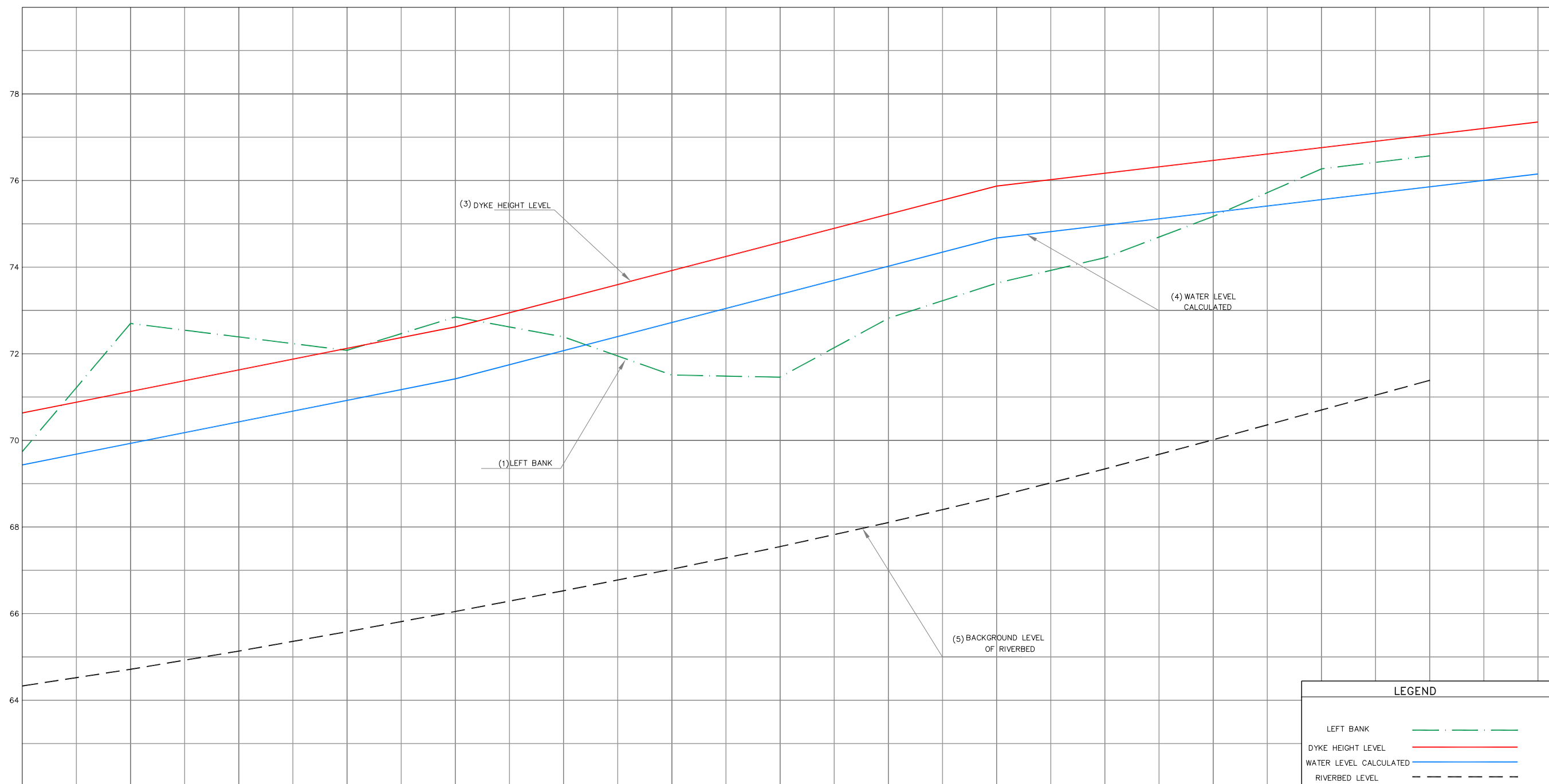
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



LEGEND	
LEFT BANK	— — — — —
DYKE HEIGHT LEVEL	—————
WATER LEVEL CALCULATED	- - - - -
RIVERBED LEVEL	- - - - -

DISTANCE (m)	12+600	12+700	12+800	12+900	13+000	13+100	13+200	13+300	13+400	13+500	13+600	13+700	13+800	13+900	14+000
(1) LEFT BANK LEVEL	69.74	72.70	72.39	72.08	72.85	72.39	71.51	71.46	72.82	73.63	74.22	75.17	76.27	76.57	77.35
(3) DYKE HEIGHT LEVEL	70.63	71.13	71.63	72.13	72.62	73.27	73.92	74.57	75.22	75.87	76.17	76.46	76.76	77.06	77.35
(4) WATER LEVEL CALCULATED	69.43	69.93	70.43	70.93	71.42	72.07	72.72	73.37	74.02	74.67	74.97	75.26	75.56	75.86	76.15
(5) BACKGROUND LEVEL OF RIVERBED	64.33	64.72	65.14	65.58	66.05	66.53	67.03	67.55	68.10	68.70	69.34	70.01	70.70	71.39	72.10

**CAMANA RIVER
CRITICAL POINT N°3 (2/4)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

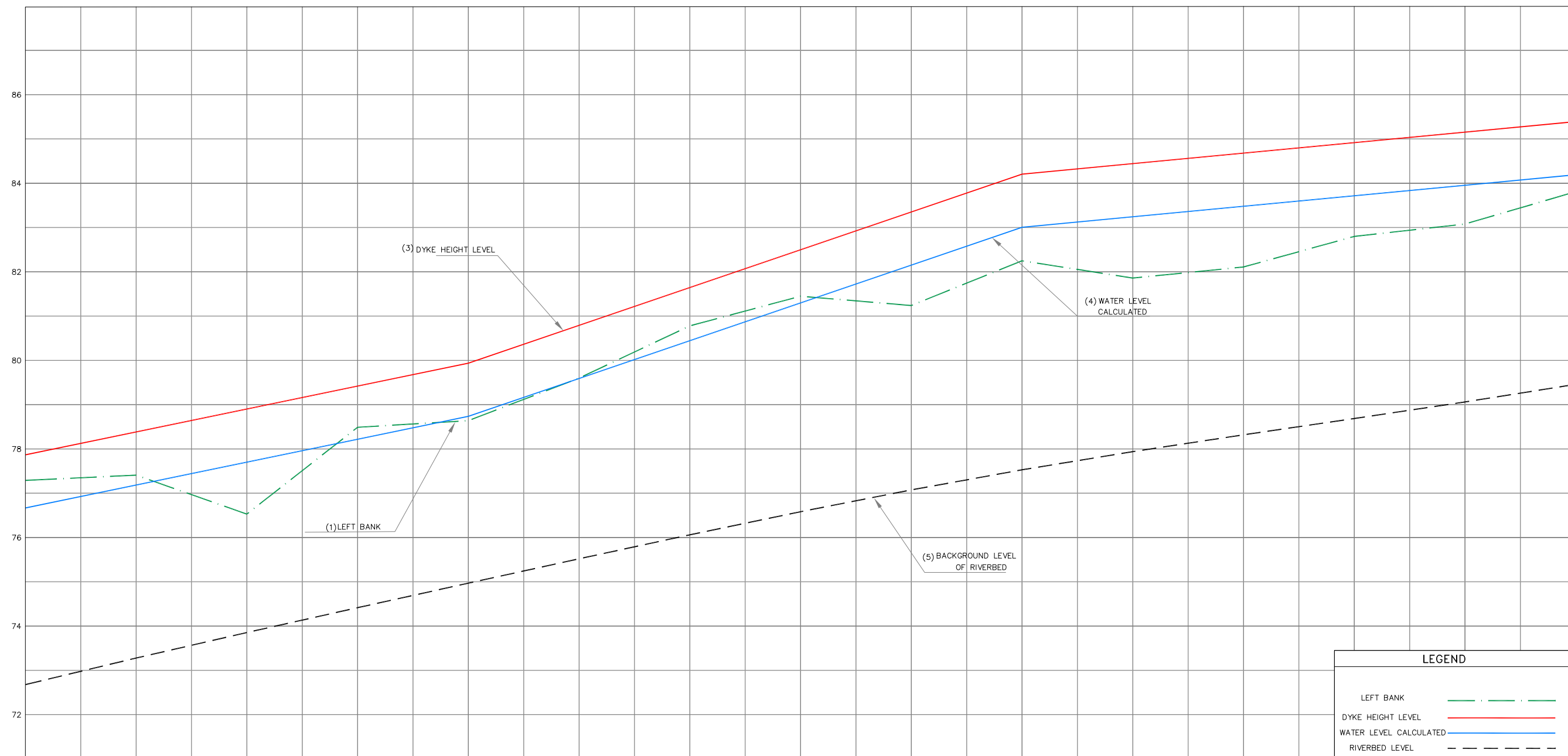


Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**CAMANA RIVER:
CRITICAL POINT N°3 (2/4)
LONGITUDINAL PROFILE**

ESCALE: INDICATED
DATE: MARCH - 2013
CODE: **CAMANA - 3**



LEGEND	
LEFT BANK	
DYKE HEIGHT LEVEL	
WATER LEVEL CALCULATED	
RIVERBED LEVEL	

DISTANCE (m)	14+100	14+200	14+300	14+400	14+500	14+600	14+700	14+800	14+900	15+000	15+100	15+200	15+300	15+400	15+500
(1) LEFT BANK LEVEL	77.29	77.41	76.53	78.49	78.64	79.60	80.78	81.45	81.24	82.25	81.86	82.11	82.80	83.08	84.19
(2) DYKE HEIGHT LEVEL	77.87	78.39	78.90	79.42	79.94	80.79	81.64	82.50	83.35	84.21	84.44	84.68	84.92	85.15	85.39
(3) WATER LEVEL CALCULATED	76.67	77.19	77.70	78.22	78.74	79.59	80.44	81.30	82.15	83.01	83.24	83.48	83.72	83.95	84.19
(4) BACKGROUND LEVEL OF RIVERBED	72.88	73.28	73.86	74.42	74.97	75.52	76.06	76.58	77.08	77.53	77.94	78.32	78.69	79.06	79.42

**CAMANA RIVER
PUNTO CRITICO N° 3 (3/4)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

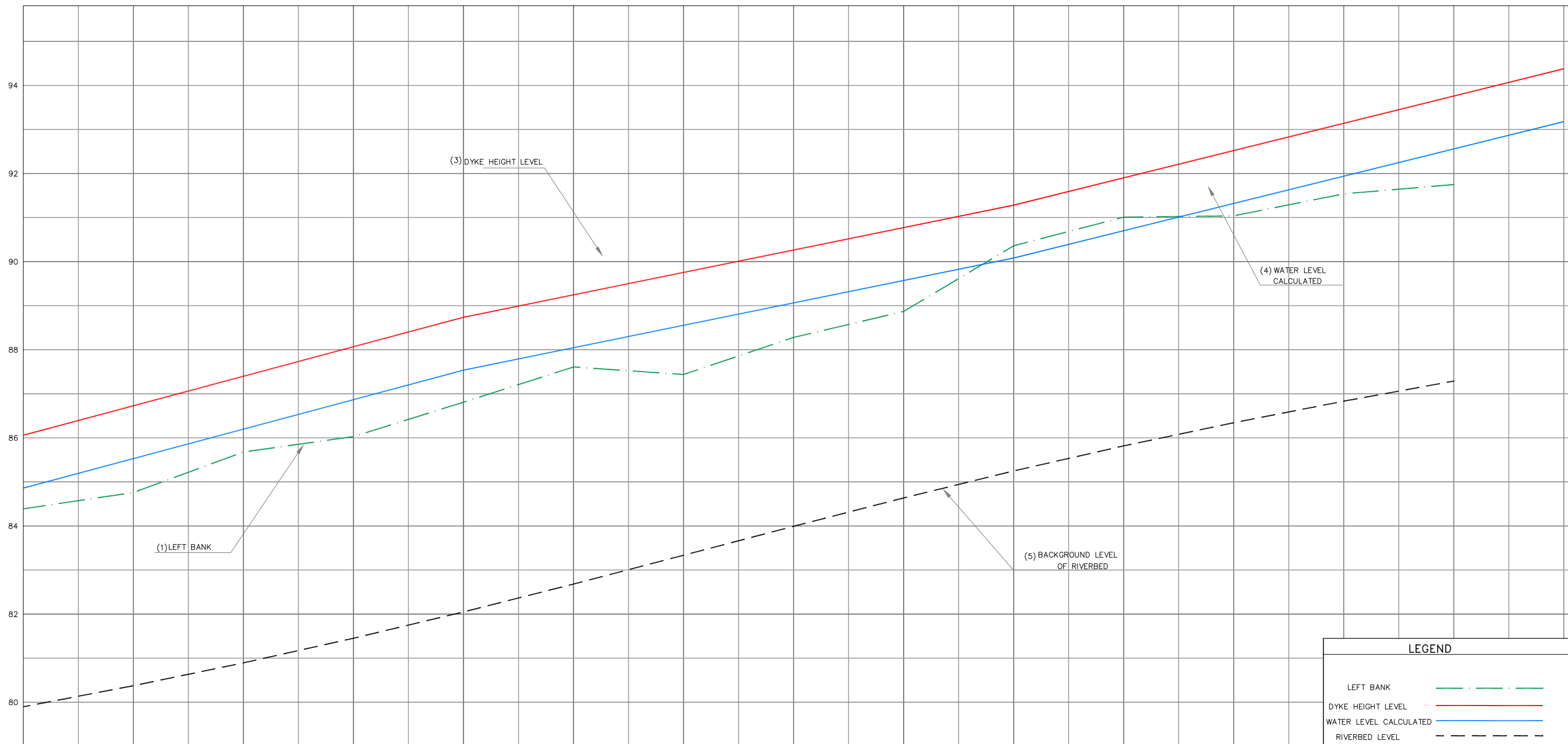
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



LEGEND	
LEFT BANK	
DYKE HEIGHT LEVEL	
WATER LEVEL CALCULATED	
RIVERBED LEVEL	

DISTANCE (m)	15+600	15+700	15+800	15+900	16+000	16+100	16+200	16+300	16+400	16+500	16+600	16+700	16+800	16+900	17+000
(1) LEFT BANK LEVEL	84.39	84.76	85.68	86.03	86.81	87.61	87.44	88.28	88.87	90.36	91.01	91.04	91.54	91.75	
(3) DYKE HEIGHT LEVEL	86.06	86.73	87.40	88.07	88.74	89.25	89.76	90.26	90.77	91.28	91.90	92.52	93.14	93.76	94.38
(4) WATER LEVEL CALCULATED	84.86	85.53	86.20	86.87	87.54	88.05	88.55	89.06	89.57	90.08	90.70	91.32	91.94	92.56	93.18
(5) BACKGROUND LEVEL OF RIVERBED	79.90	80.38	80.89	81.45	82.05	82.68	83.34	83.99	84.64	85.25	85.82	86.34	86.83	87.29	

**CAMANA RIVER
PUNTO CRITICO N° 3 (4/4)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

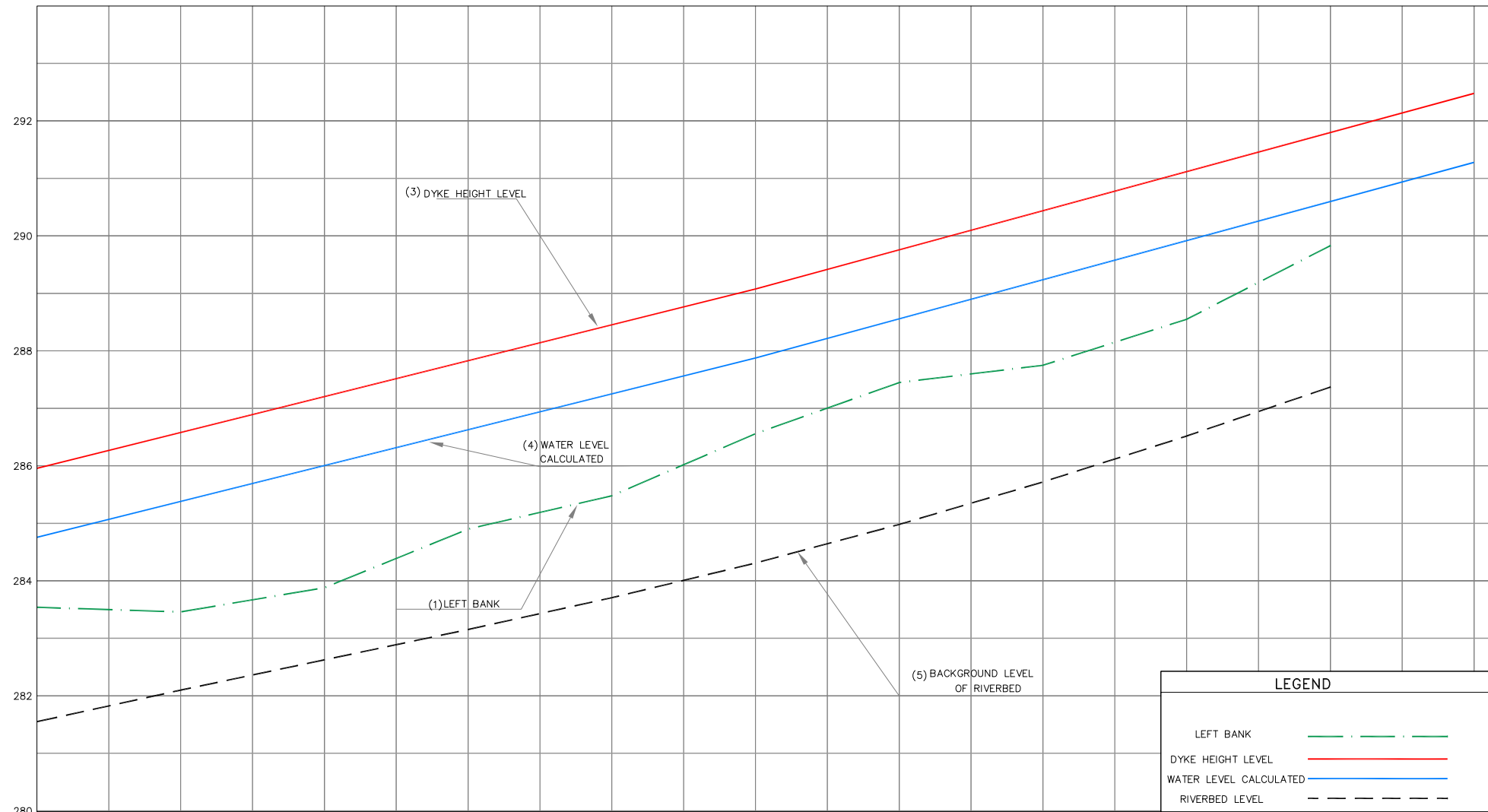
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



DISTANCE (m)	48+500	48+600	48+700	48+800	48+900	49+000	49+100	49+200	49+300	49+400	49+500
(1) LEFT BANK LEVEL	283.54	283.46	283.88	284.90	285.48	286.56	287.45	287.75	288.55	289.83	
(3) DYKE HEIGHT LEVEL	285.96	286.58	287.21	287.83	288.45	289.08	289.76	290.44	291.12	291.80	292.48
(4) WATER LEVEL CALCULATED	284.76	285.38	286.01	286.63	287.25	287.88	288.56	289.24	289.92	290.60	291.28
(5) BACKGROUND LEVEL OF RIVERBED	281.55	282.10	282.63	283.15	283.71	284.31	284.98	285.72	286.52	287.37	

**MAJES RIVER
CRITICAL POINT N° 4 (1/2)
LONGITUDINAL PROFILE**

NOTA: La escala indicada, corresponde al formato A-1
Para el Formato A-3, se debe considerar el doble.



Consultants:



Yachiyo Engineering Co., Ltd.



NIPPON KOEI CO., LTD.

LATIN AMERICA - CARIBBEAN



NIPPON KOEI LAC CO., LTD.
Consulting Engineers

Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

Project:

THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:

**MAJES RIVER:
CRITICAL POINT N° 4 (1/2)
LONGITUDINAL PROFILE**

ESCALE: 1/1,500

DATE: MARCH - 2013

CODE: **MAJES - 4**

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

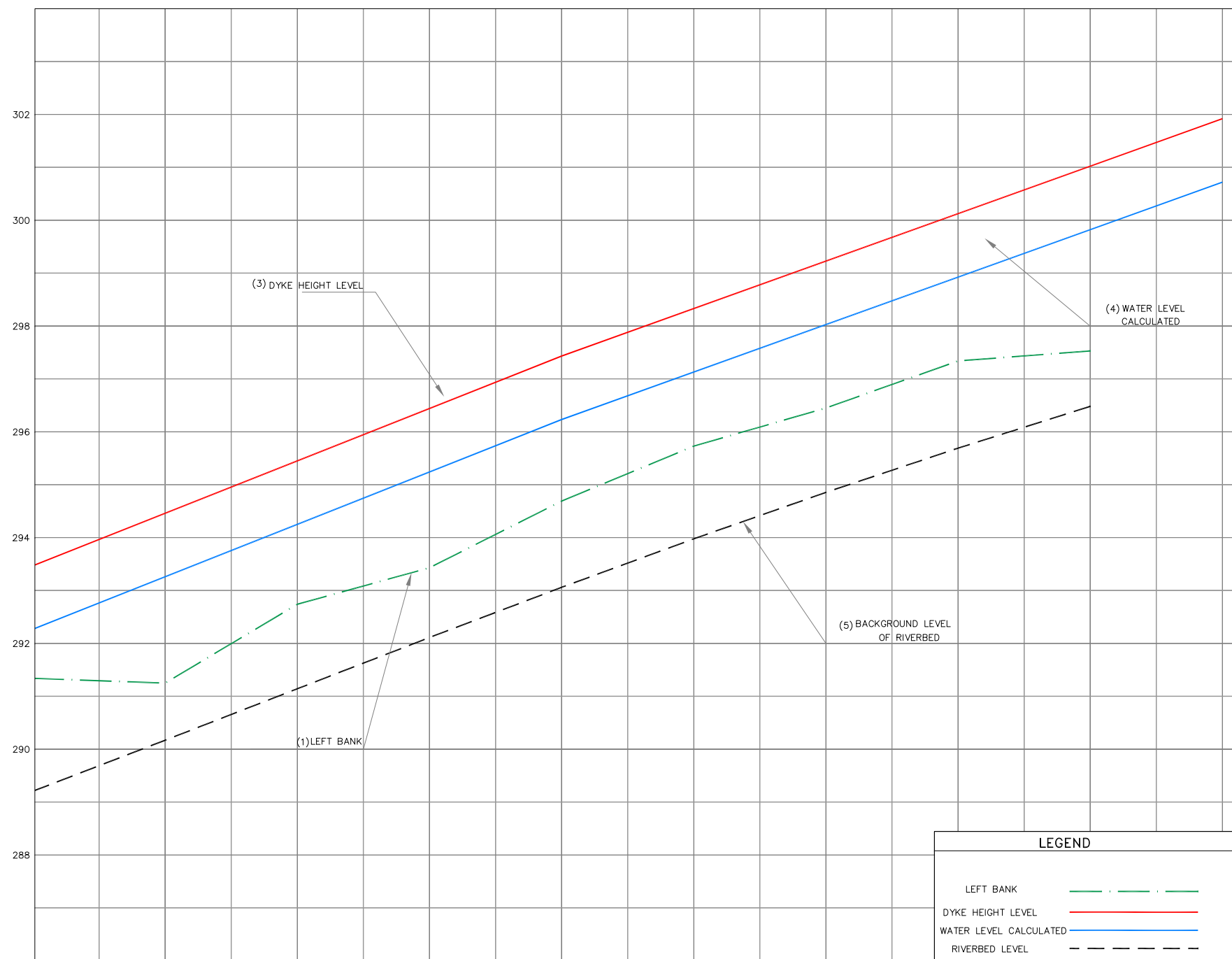
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



LEGEND	
LEFT BANK	
DYKE HEIGHT LEVEL	
WATER LEVEL CALCULATED	
RIVERBED LEVEL	

DISTANCE (m)	49+600	49+700	49+800	49+900	50+000	50+100	50+200	50+300	50+400	50+500
(1) LEFT BANK LEVEL	291.34	291.25	292.74	293.43	294.69	295.73	296.45	297.34	297.53	301.92
(3) DYKE HEIGHT LEVEL	293.47	294.46	295.45	296.44	297.43	298.33	299.23	300.12	301.02	301.92
(4) WATER LEVEL CALCULATED	292.27	293.26	294.25	295.24	296.23	297.13	298.03	298.92	299.82	300.72
(5) BACKGROUND LEVEL OF RIVERBED	289.21	290.17	291.14	292.11	293.06	293.98	294.86	295.69	296.48	297.34

**CAMANA RIVER
PUNTO CRITICO N° 4 (2/2)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



Consultants:



Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**MAJES RIVER:
CRITICAL POINT N° 4 (2/2)
LONGITUDINAL PROFILE**

ESCALE: INDICATED
DATE: MARCH - 2013
CODE: **MAJES - 4**

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

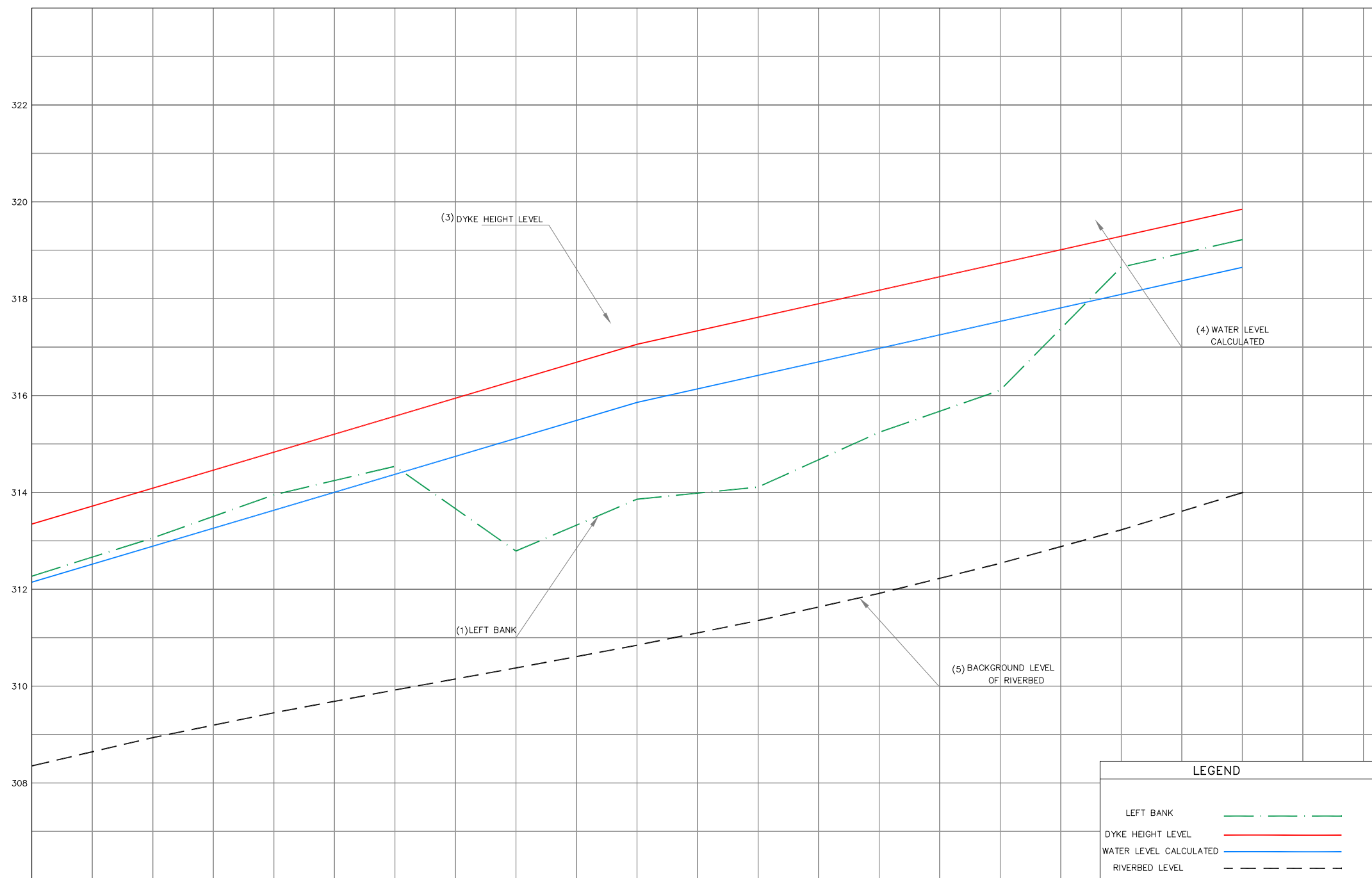
1:200 0 5 10 15

1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

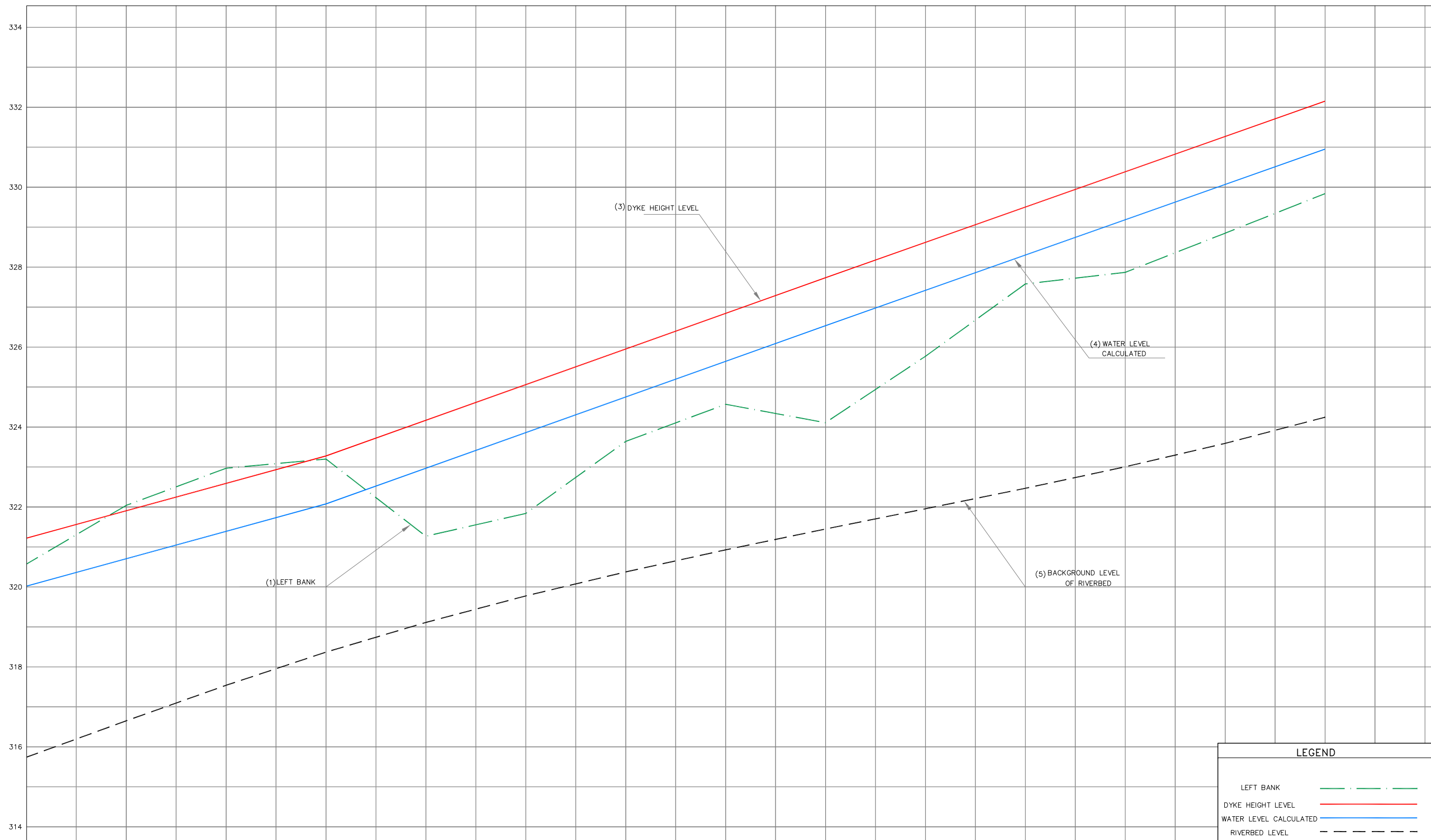
1:750 0 10 20 30 40 50 60



DISTANCE (m)	52+000	52+100	52+200	52+300	52+400	52+500	52+600	52+700	52+800	52+900	53+000	53+100
(1) LEFT BANK LEVEL	312.27	313.06	313.95	314.54	312.79	313.86	314.11	315.24	316.11	316.65	319.22	
(3) DYKE HEIGHT LEVEL	312.15	312.89	313.63	314.83	315.12	317.06	317.62	318.17	318.73	318.09	319.85	319.22
(4) WATER LEVEL CALCULATED	312.35	312.89	313.63	314.37	315.12	315.86	316.42	317.62	318.73	319.29	319.85	319.22
(5) BACKGROUND LEVEL OF RIVERBED	308.35	308.94	309.45	309.92	310.38	310.85	311.35	311.91	312.54	313.23	314.00	

MAJES RIVER
CRITICAL POINT N° 5 (1/3)
LONGITUDINAL PROFILE

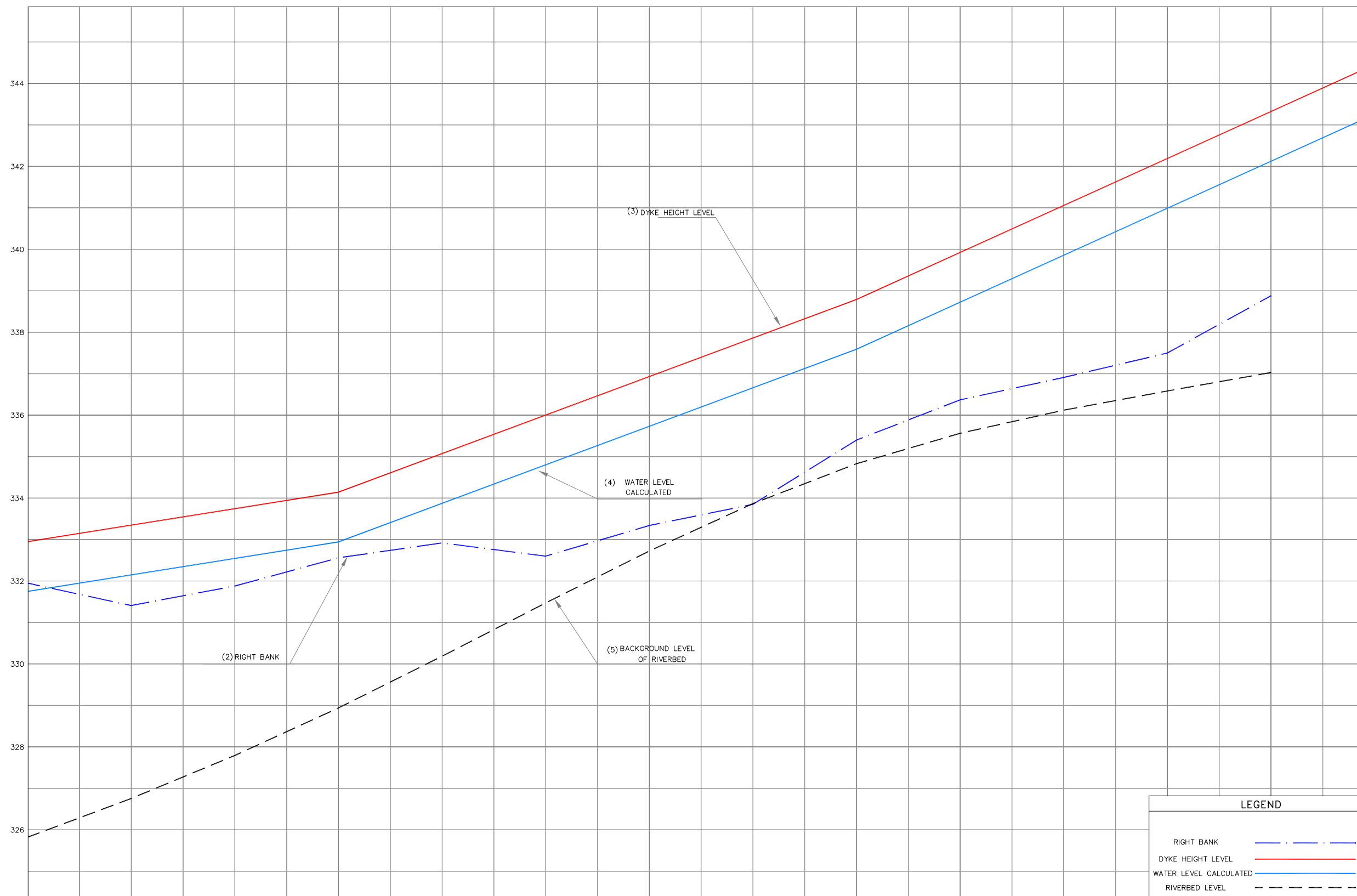
NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



DISTANCE (m)	53+200	53+300	53+400	53+500	53+600	53+700	53+800	53+900	54+000	54+100	54+200	54+300	54+400	54+500	54+600
(1) LEFT BANK LEVEL	320.57	322.04	322.97	323.20	321.27	321.84	323.64	324.57	324.11	325.77	327.58	327.87	328.85	329.84	
(3) DYKE HEIGHT LEVEL	321.22	321.91	322.59	323.28	324.17	325.06	325.95	326.84	327.74	328.62	329.50	330.39	331.27	332.15	
(4) WATER LEVEL CALCULATED	320.02	320.71	321.39	322.08	322.97	323.86	324.75	325.64	326.54	327.42	328.30	329.19	330.07	330.95	
(5) BACKGROUND LEVEL OF RIVERBED	315.74	316.65	317.54	318.37	319.11	319.78	320.38	320.93	321.45	321.96	322.47	322.91	323.59	324.25	

**MAJES RIVER
CRITICAL POINT N° 5 (2/3)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



LEGEND	
RIGHT BANK	— · — · — · —
DYKE HEIGHT LEVEL	— (Red) —
WATER LEVEL CALCULATED	— (Blue) —
RIVERBED LEVEL	- - - - -

DISTANCE (m)	54+700	54+800	54+900	55+000	55+100	55+200	55+300	55+400	55+500	55+600	55+700	55+800	55+900	56+000
(2) RIGHT BANK LEVEL	331.95	331.41	331.88	332.56	332.92	332.60	333.34	333.85	335.40	336.37	336.91	337.50	338.88	
(3) DYKE HEIGHT LEVEL	332.95	333.35	333.75	334.14	335.07	336.00	336.93	337.86	338.79	339.92	341.06	342.19	343.32	344.46
(4) WATER LEVEL CALCULATED	331.75	332.15	332.55	332.94	333.87	334.80	335.73	336.66	337.59	338.72	339.86	340.99	342.12	343.26
(5) BACKGROUND LEVEL OF RIVERBED	325.82	326.76	327.79	328.94	330.19	331.47	332.72	333.87	334.83	335.56	336.12	336.66	337.03	

CHICO RIVER
CRITICAL POINT N° 5 (3/3)
LONGITUDINAL PROFILE

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



Consultants:
Yeo
Yachiyo Engineering Co., Ltd.
NIPPON KOEI CO., LTD.

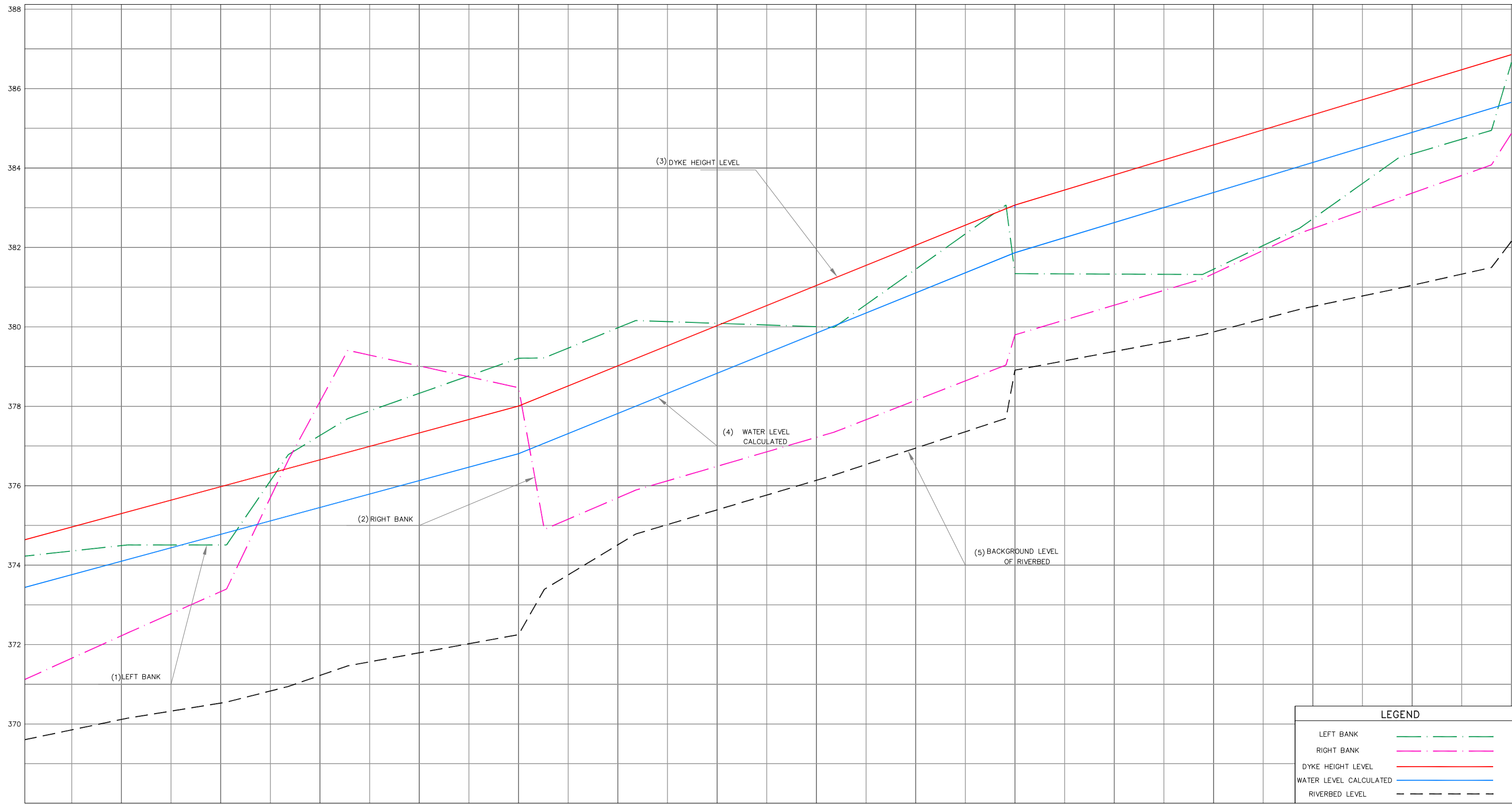
LATIN AMERICA - CARIBBEAN
NIPPO N K O E I L A C C O . , L T D .
Consulting Engineers

Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
MAJES RIVER: CRITICAL POINT N° 5 (3/3) LONGITUDINAL PROFILE

ESCALE: INDICATED
DATE: MARCH - 2013
CODE: **MAJES - 5**

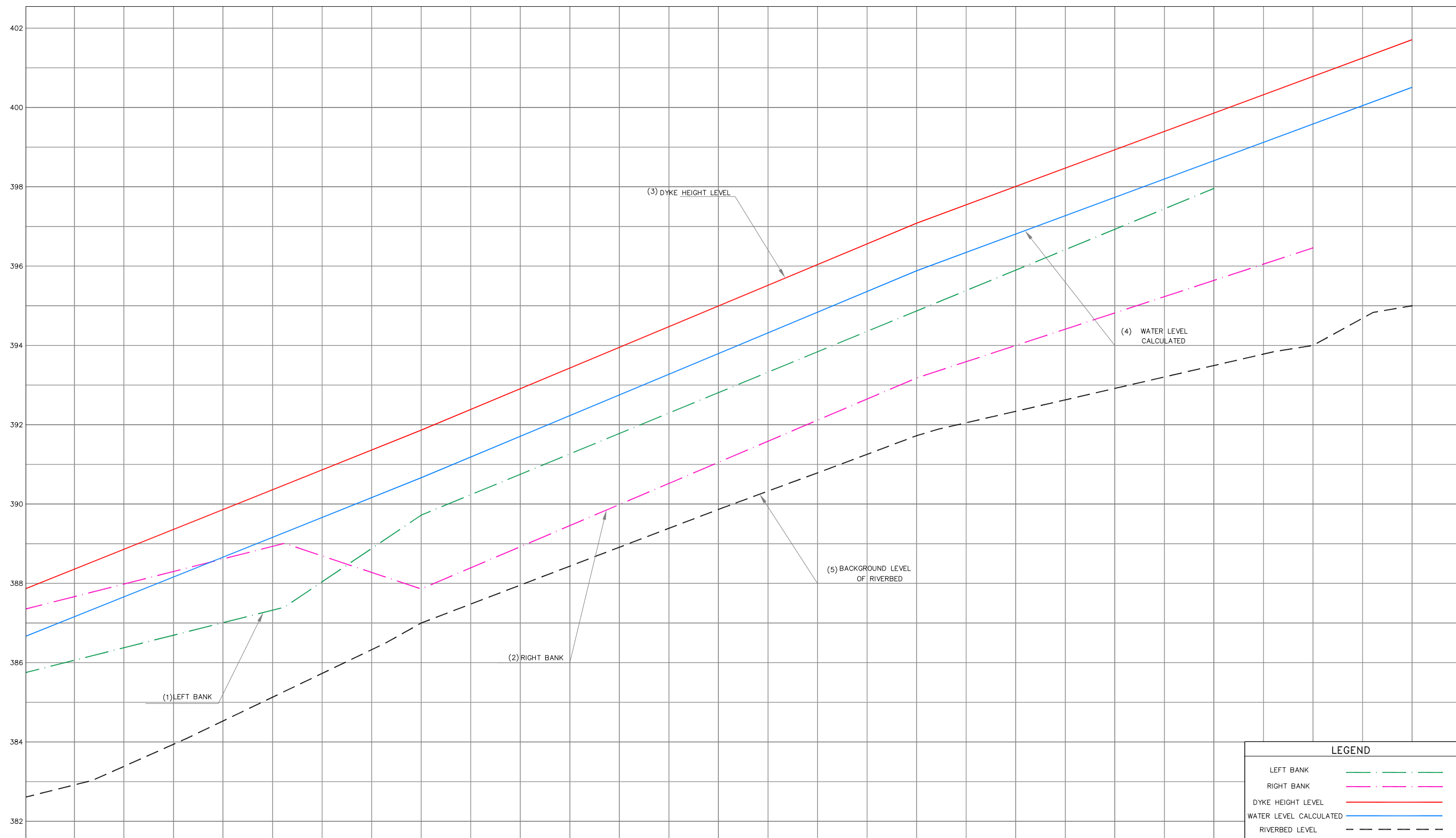


DISTANCE (m)	59+500	59+600	59+700	59+800	59+900	60+000	60+100	60+200	60+300	60+400	60+500	60+600	60+700	60+800	60+900	61+
(1) LEFT BANK LEVEL	370.11	374.10	374.51	377.27	378.33	379.21	379.98	380.09	380.01	381.45	381.34	381.33	381.45	382.72	383.37	384.35
(2) RIGHT BANK LEVEL	371.09	372.22	373.33	377.27	378.33	379.21	379.98	380.09	380.01	381.45	381.34	381.33	381.45	382.72	383.37	384.35
(3) DYKE HEIGHT LEVEL	374.42	375.30	375.98	376.65	377.33	378.01	378.69	379.37	380.05	380.73	381.41	382.09	382.77	383.45	384.13	384.81
(4) WATER LEVEL CALCULATED	373.42	374.10	374.78	375.46	376.14	376.82	377.50	378.18	378.86	379.54	380.22	380.90	381.58	382.26	382.94	383.62
(5) BACKGROUND LEVEL OF RIVERBED	369.59	370.11	370.63	371.15	371.67	372.19	372.71	373.23	373.75	374.27	374.79	375.31	375.83	376.35	376.87	377.39

**CHICO RIVER
CRITICAL POINT N° 6 (1/2)
LONGITUDINAL PROFILE**

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

	Consultants: Yachiyo Engineering Co., Ltd. NIPPON KOEI CO., LTD. NIPPON KOEI LAC CO., LTD. Consulting Engineers	Designed by: M.SOYA Revised by: M.KITANO Approved by: Y.NAKAGAWA Revised by: Y.NAKAGAWA	Project: THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU	Drawing: MAJES RIVER: CRITICAL POINT N° 6 (1/2) LONGITUDINAL PROFILE	ESCALE: INDICATED DATE: MARCH - 2013 CODE: MAJES - 6
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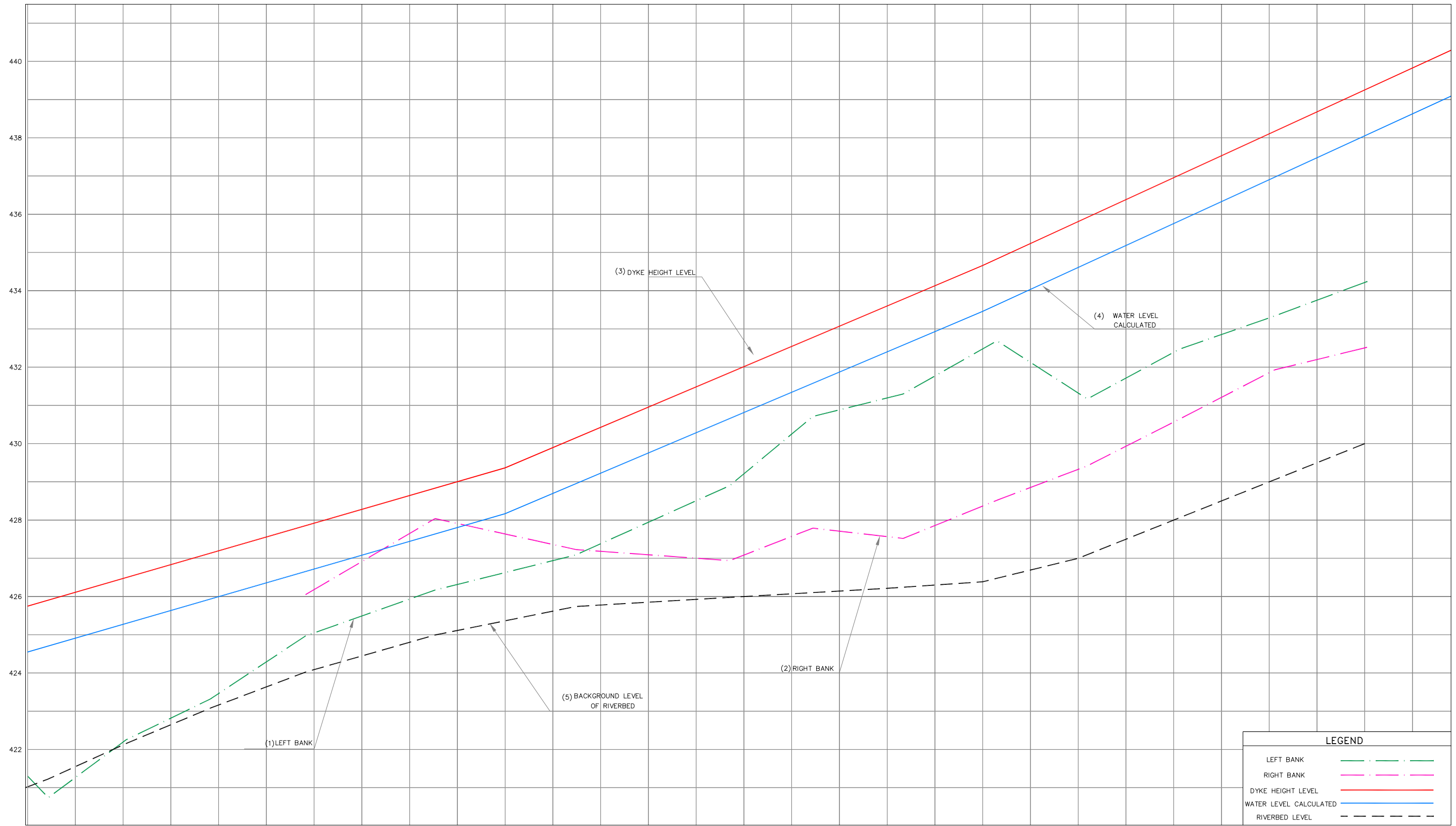


LEGEND	
LEFT BANK	
RIGHT BANK	
DYKE HEIGHT LEVEL	
WATER LEVEL CALCULATED	
RIVERBED LEVEL	

DISTANCE (m)	61+100	61+200	61+300	61+400	61+500	61+600	61+700	61+800	61+900	62+000	62+100	62+200	62+300	62+400	62+500
(1) LEFT BANK LEVEL	385.75	386.38	387.01	388.04	389.72	390.75	391.78	392.81	393.84	394.87	396.15	397.44	398.64	399.46	401.71
(2) RIGHT BANK LEVEL	387.35	387.98	388.62	389.86	391.87	392.91	393.95	395.00	396.04	397.08	398.01	399.03	399.86	400.78	401.71
(3) DYKE HEIGHT LEVEL	387.86	388.86	389.86	390.86	391.87	392.91	393.95	395.00	396.04	397.08	398.01	399.03	399.86	400.78	401.71
(4) WATER LEVEL CALCULATED	386.66	387.56	388.66	389.66	390.67	391.71	392.75	393.80	394.84	395.88	396.81	397.73	398.66	399.58	400.51
(5) BACKGROUND LEVEL OF RIVERBED	382.60	383.39	384.53	385.73	387.00	388.29	388.91	389.99	391.05	392.12	393.18	394.22	395.24	396.24	397.21

CHICO RIVER
CRITICAL POINT N°6 (2/2)
 LONGITUDINAL PROFILE

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



LEGEND	
LEFT BANK	
RIGHT BANK	
DYKE HEIGHT LEVEL	
WATER LEVEL CALCULATED	
RIVERBED LEVEL	

DISTANCE (m)	65+000	65+100	65+200	65+300	65+400	65+500	65+600	65+700	65+800	65+900	66+000	66+100	66+200	66+300	66+400
(1) LEFT BANK LEVEL	421.30	422.19	423.46	425.05	426.93	428.63	429.38	428.51	430.25	431.20	432.48	431.33	432.39	433.29	434.22
(2) RIGHT BANK LEVEL															
(3) DYKE HEIGHT LEVEL	425.75	426.47	427.20	428.18	428.64	429.37	431.48	432.54	433.60	434.66	435.81	436.96	438.10	439.42	439.42
(4) WATER LEVEL CALCULATED	424.55	425.27	426.00	426.72	427.44	428.17	429.23	430.28	431.34	432.40	433.46	434.61	435.76	436.90	438.22
(5) BACKGROUND LEVEL OF RIVERBED	421.02	422.12	423.16	424.09	424.80	425.50	425.78	425.93	426.07	426.21	426.39	427.00	428.00	429.00	430.00

CHICO RIVER CRITICAL POINT N° 7 LONGITUDINAL PROFILE

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



Consultants:

 Yeco
 Yachiyo Engineering Co., Ltd.



LATIN AMERICA - CARIBBEAN

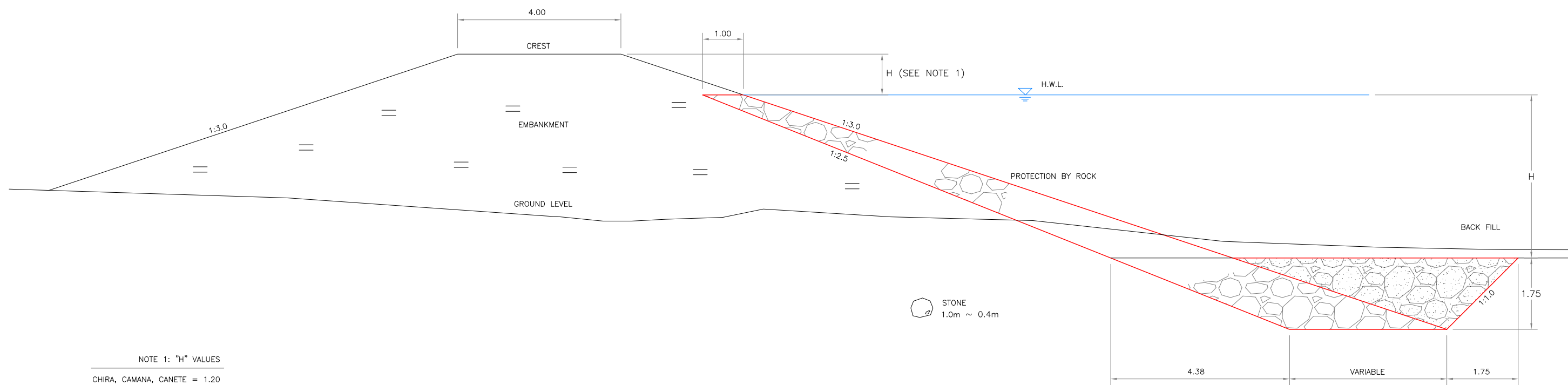
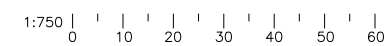
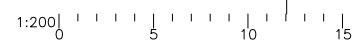
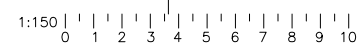
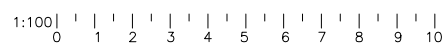
 NIPPON KOEI LAC CO., LTD.
 Consulting Engineers

Designed by: M.SOYA
 Revised by: M.KITANO
 Approved by: Y.NAKAGAWA
 Revised by: Y.NAKAGAWA

Project:
 THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
**MAJES RIVER:
 CRITICAL POINT N°7
 LONGITUDINAL PROFILE**

ESCALE: INDICATED
 DATE: MARCH - 2013
 CODE: **MAJES - 7**



NOTE 1: "H" VALUES
 CHIRA, CAMANA, CANETE = 1.20
 PISCO = 1.00
 CHINCHA, YAUCA = 0.80

TYPICAL SECTION OF THE PROJECTED DYKE

NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

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1:150 0 1 2 3 4 5 6 7 8 9 10

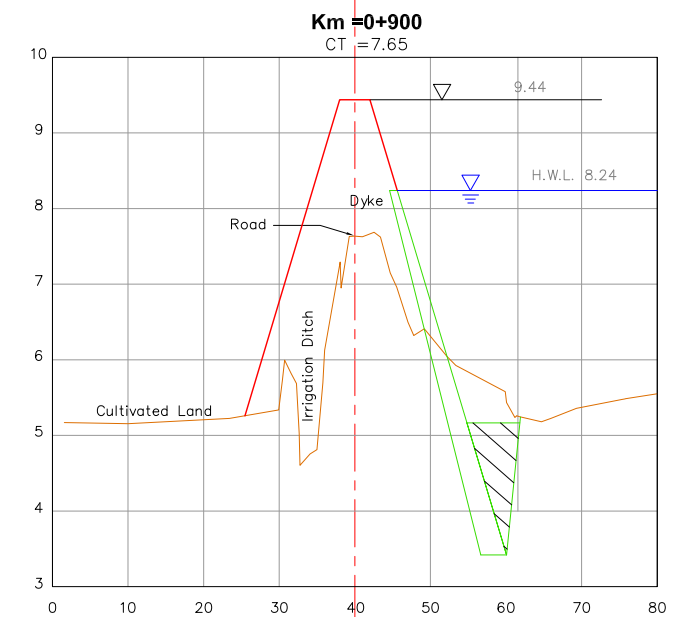
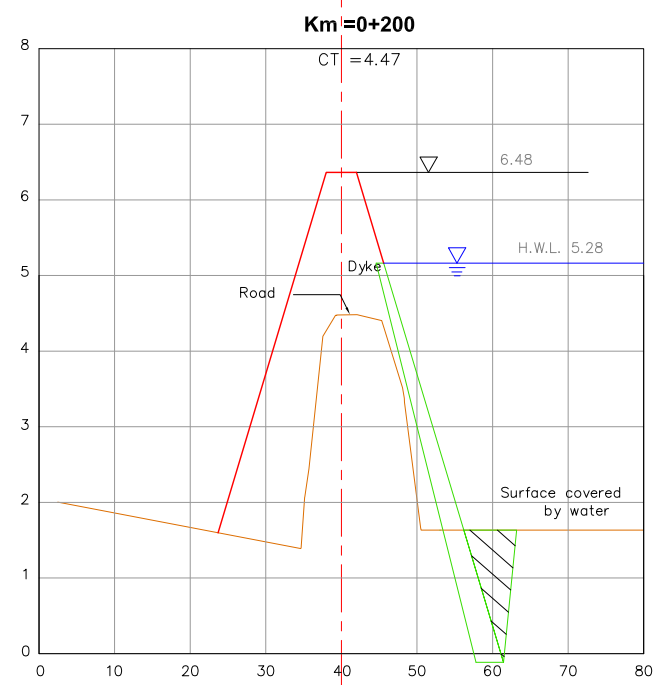
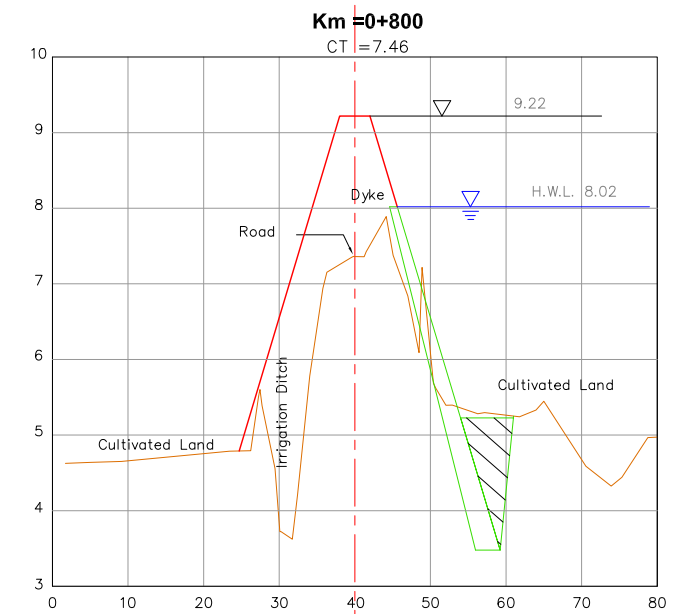
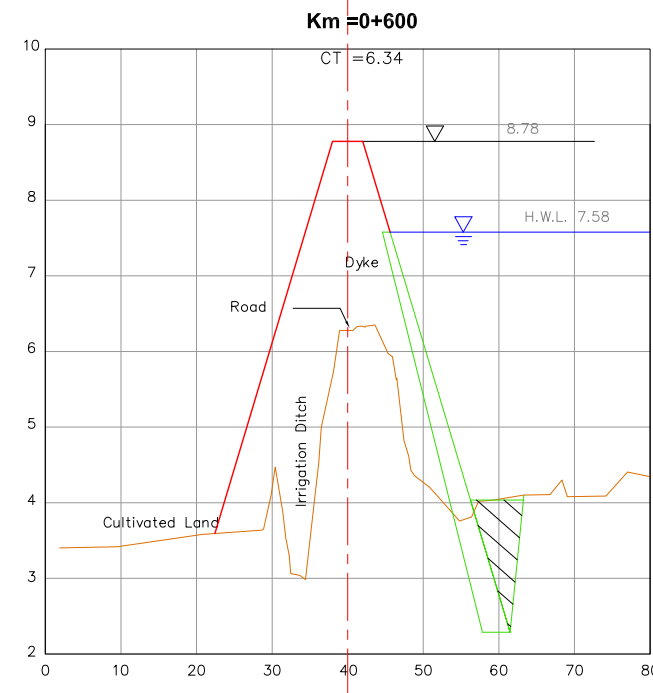
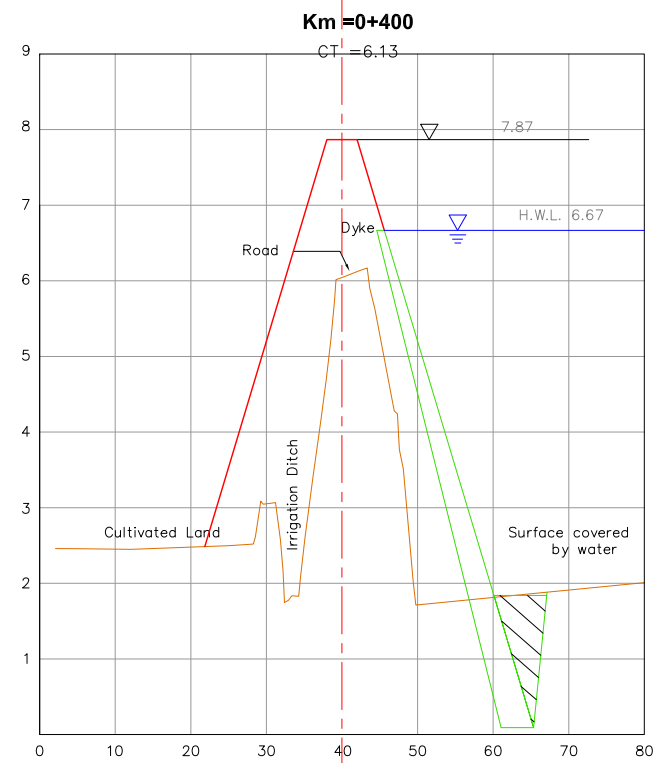
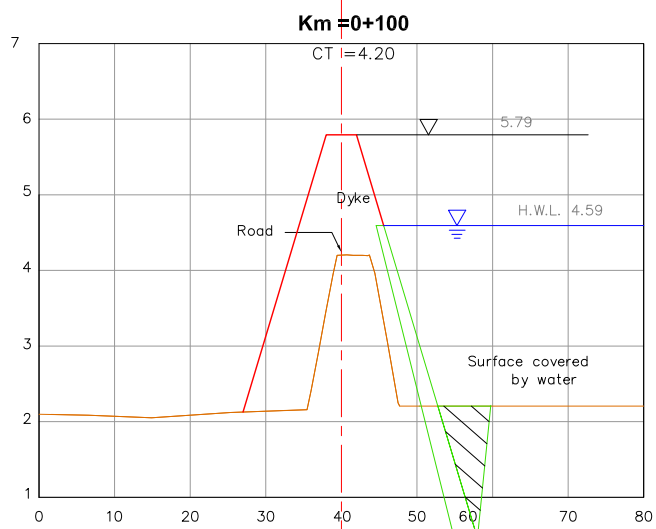
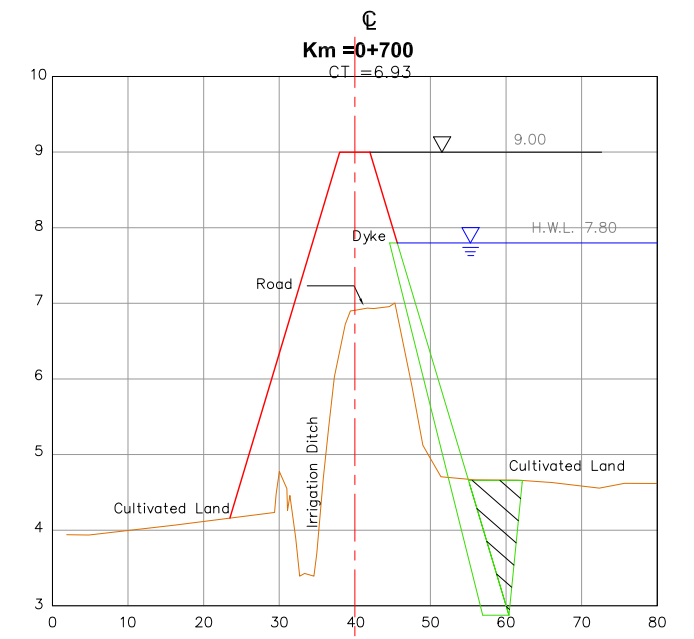
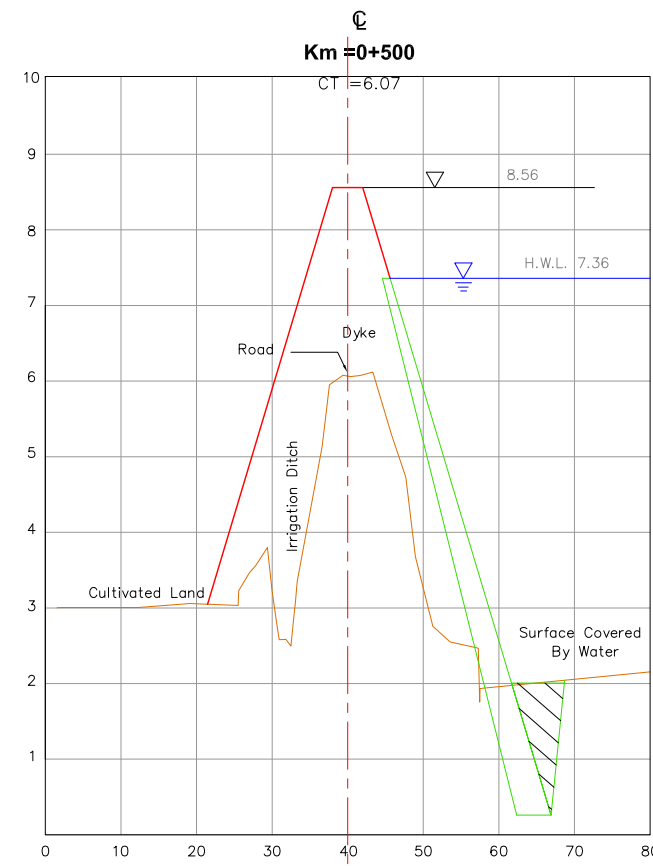
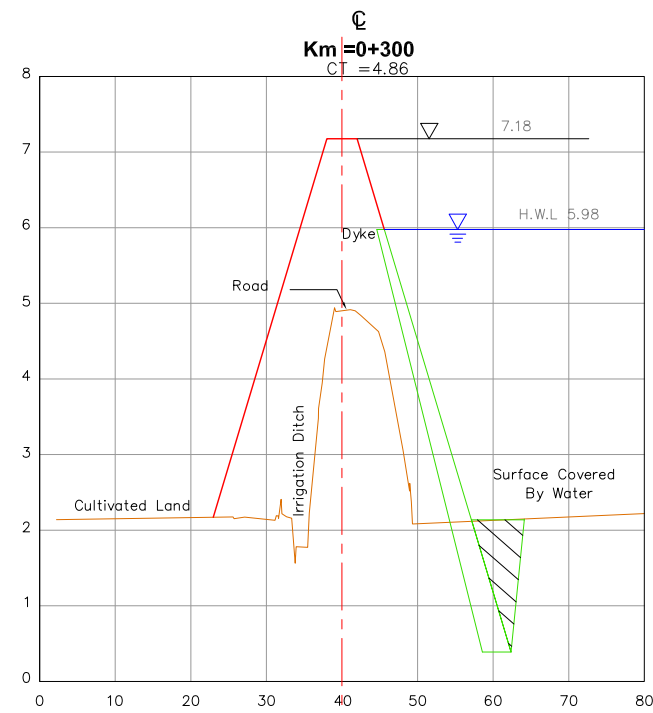
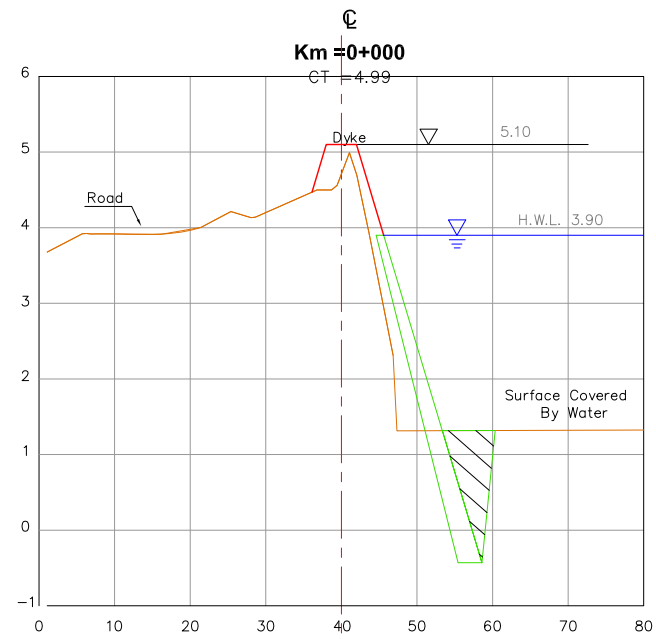
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1:250 0 5 10 15 20

1:333.3 0 5 10 15 20 25 30

1:1000 0 5 10 15 20 25 30 35 40

1:750 0 10 20 30 40 50 60



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



Consultants: **Yeo**
Yachyo Engineering Co., Ltd.



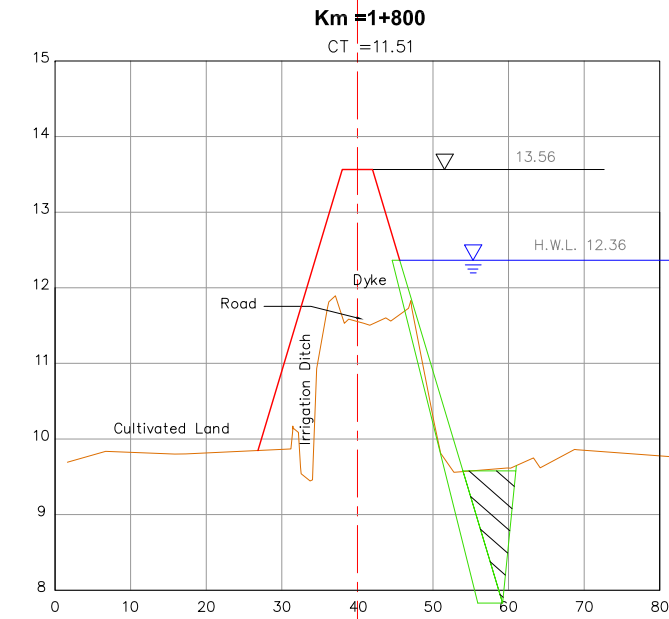
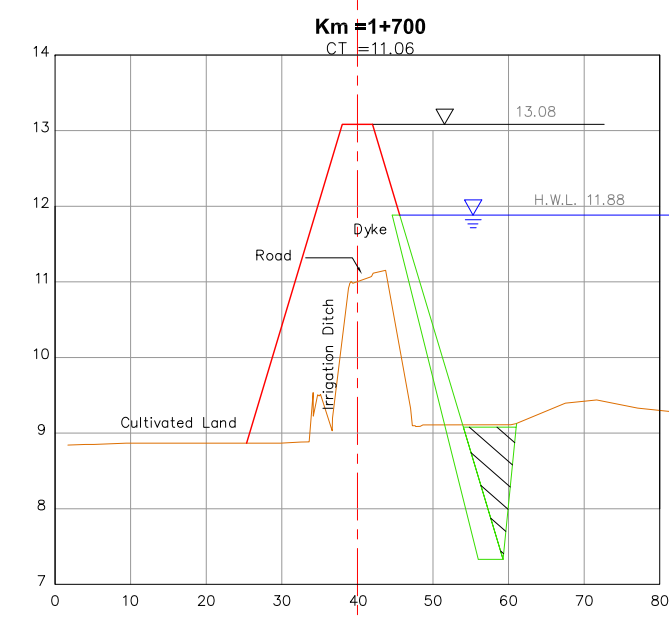
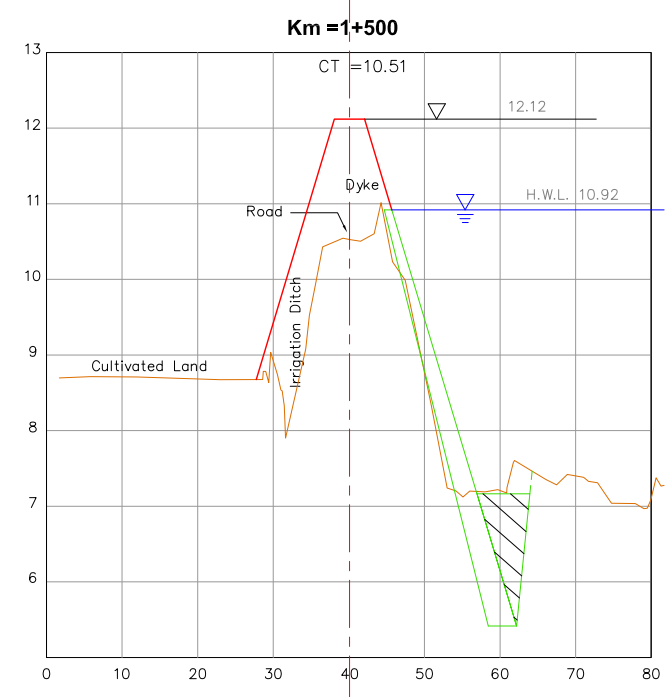
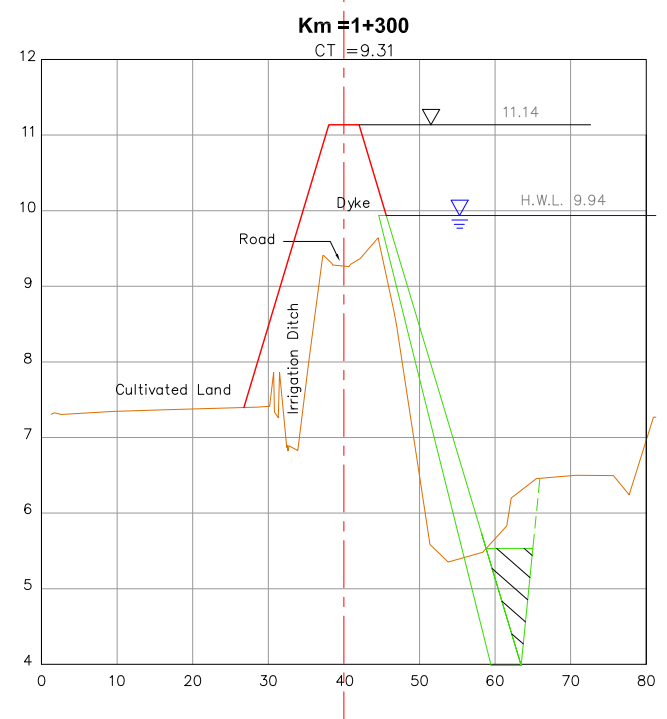
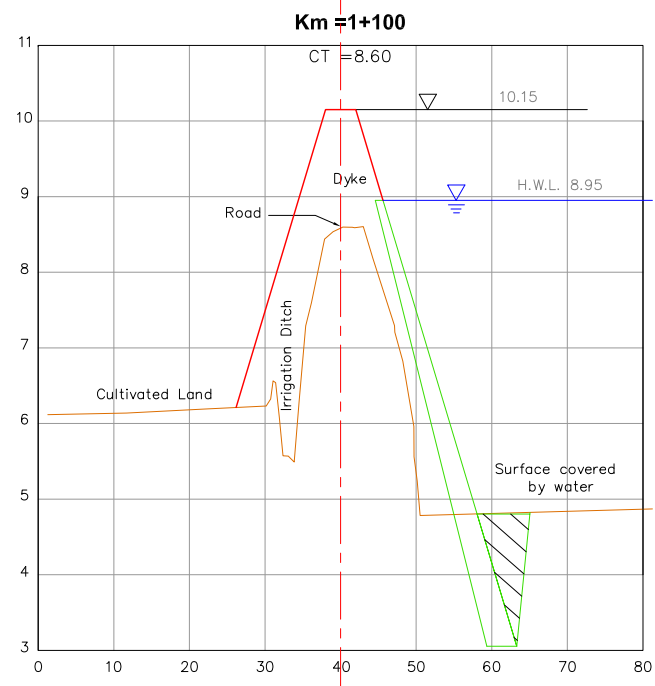
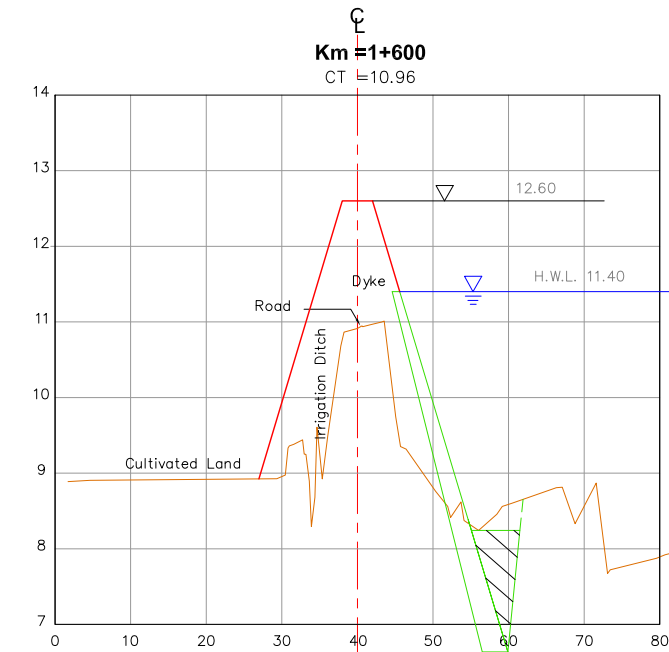
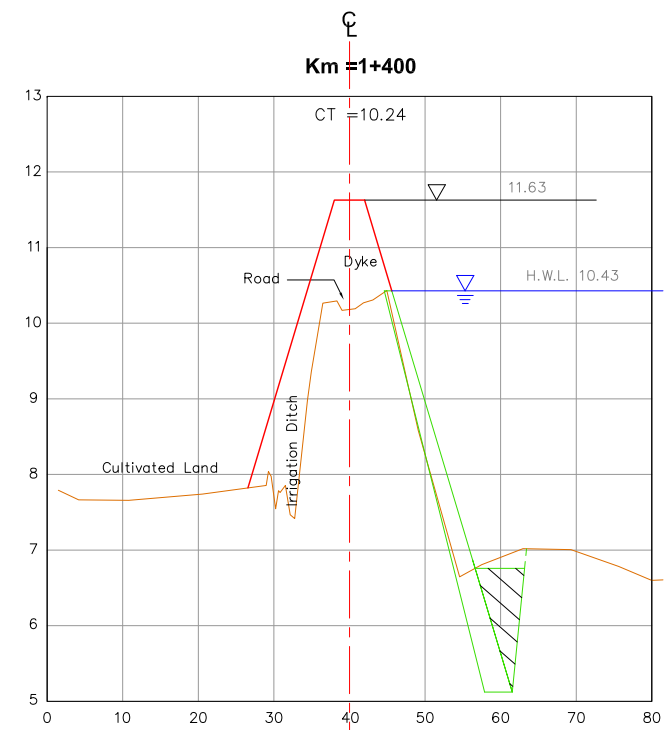
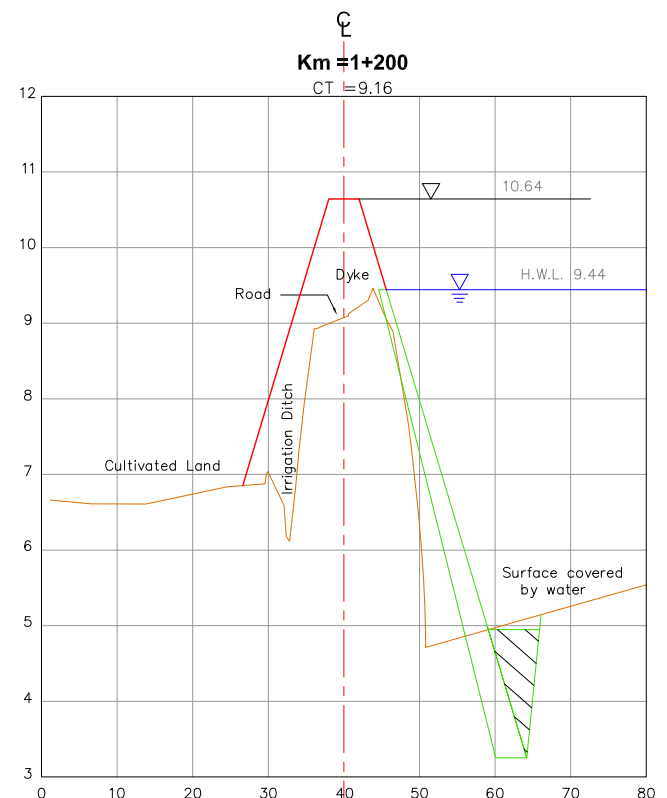
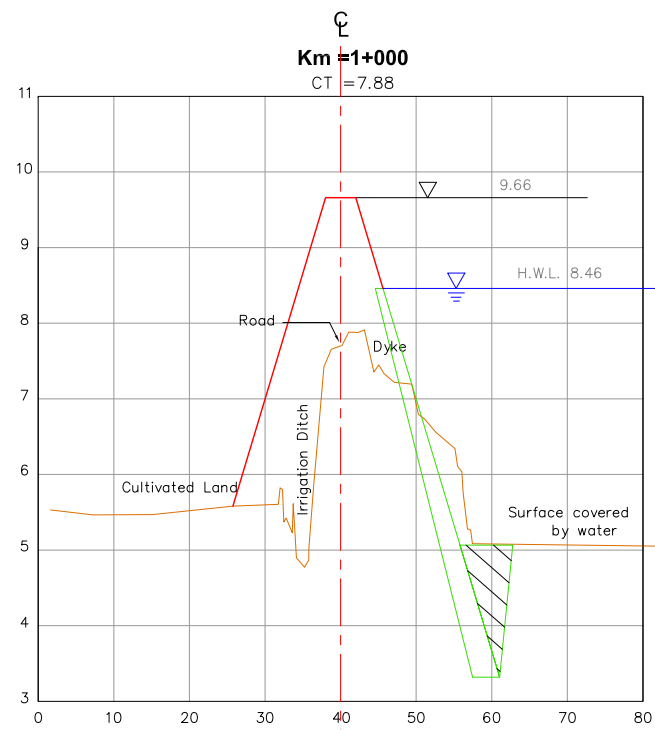
NIPPON KOEI LAC CO., LTD.
Consulting Engineers

Designed by: M.SOYA
Revised by: M.KITANO
Approved by: Y.NAKAGAWA
Revised by: Y.NAKAGAWA

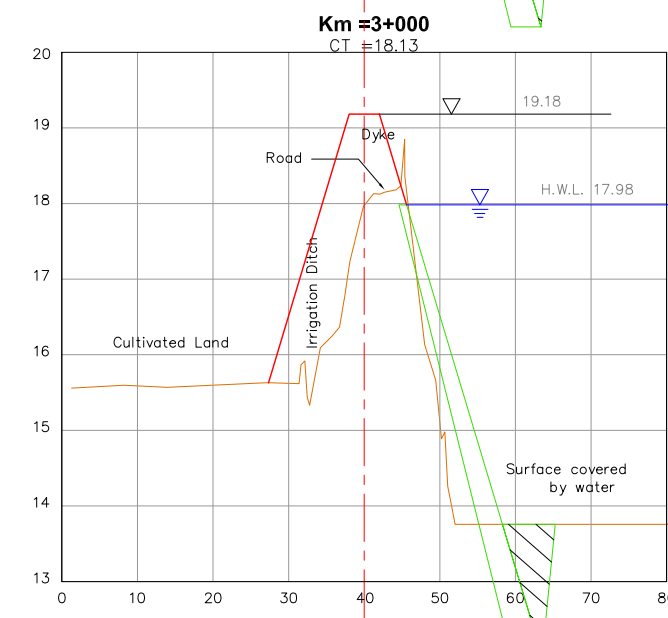
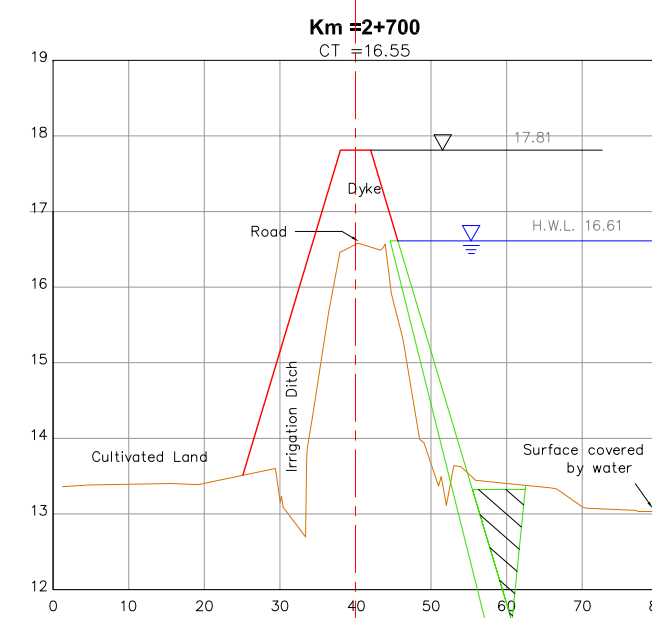
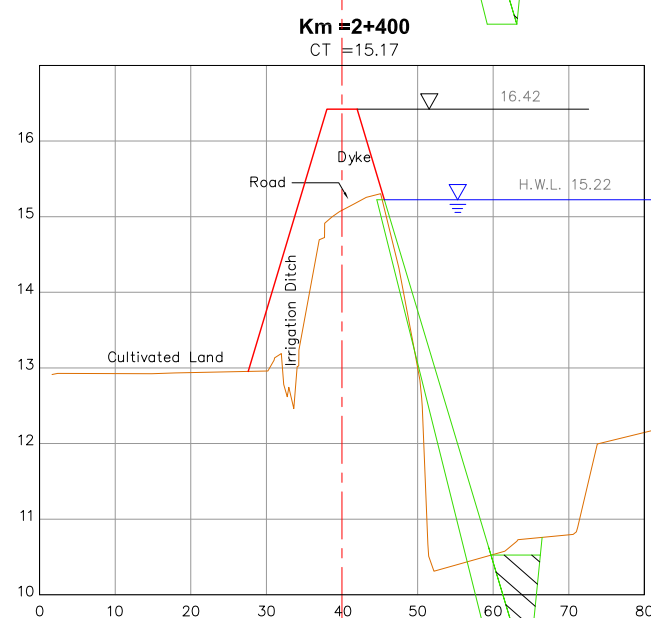
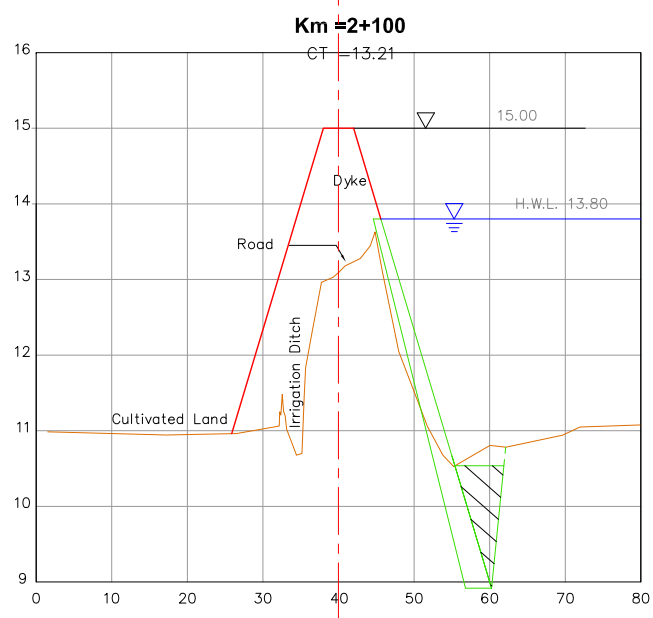
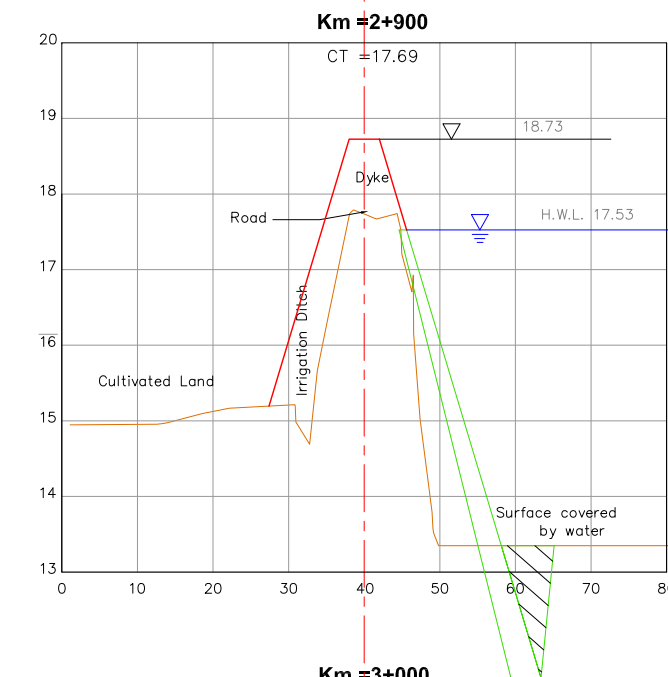
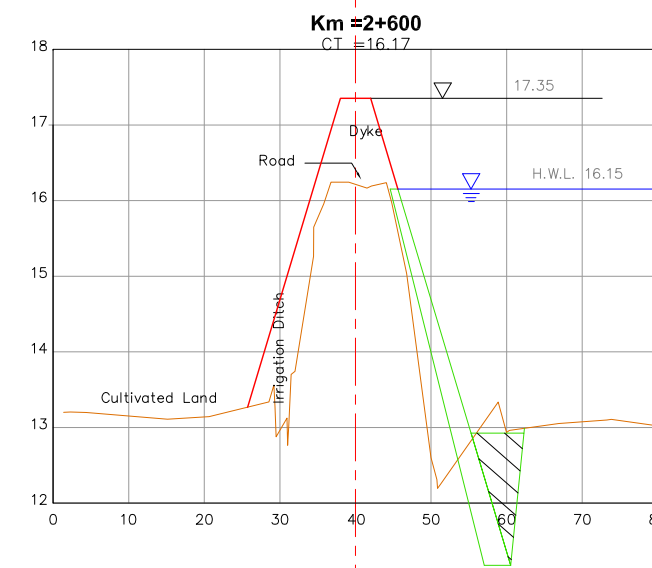
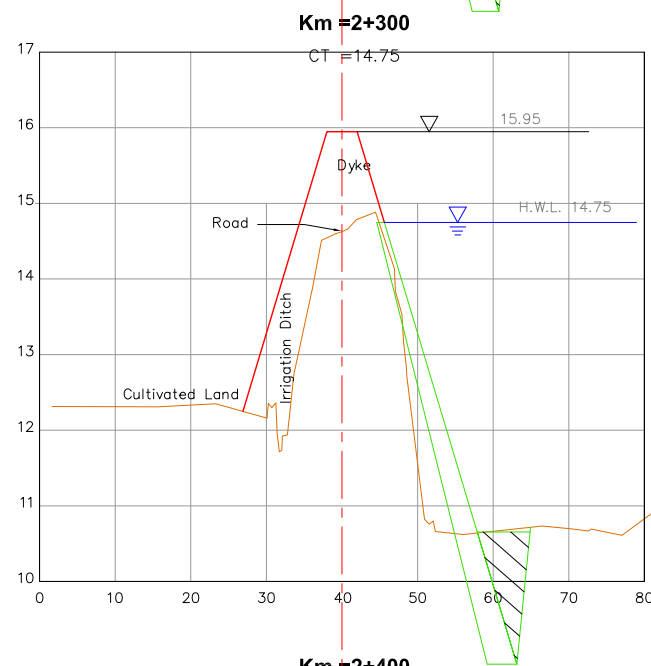
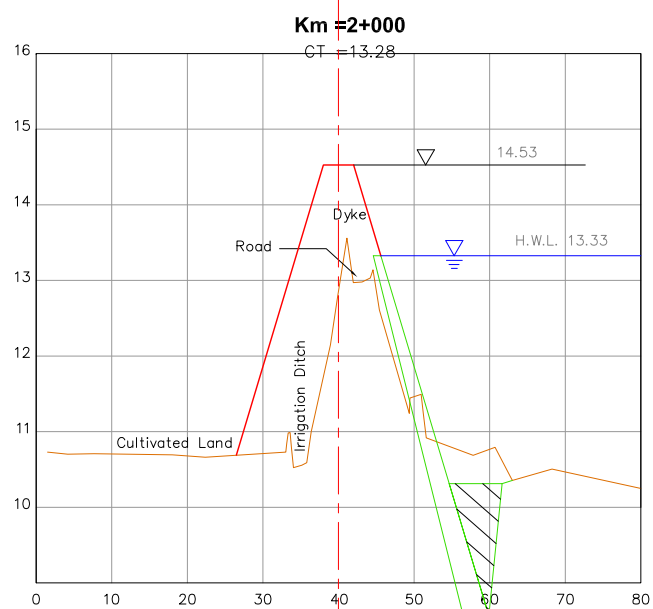
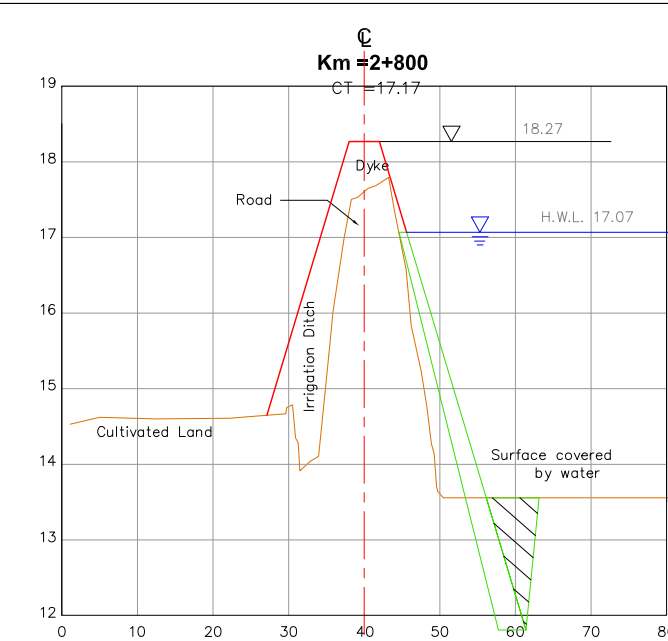
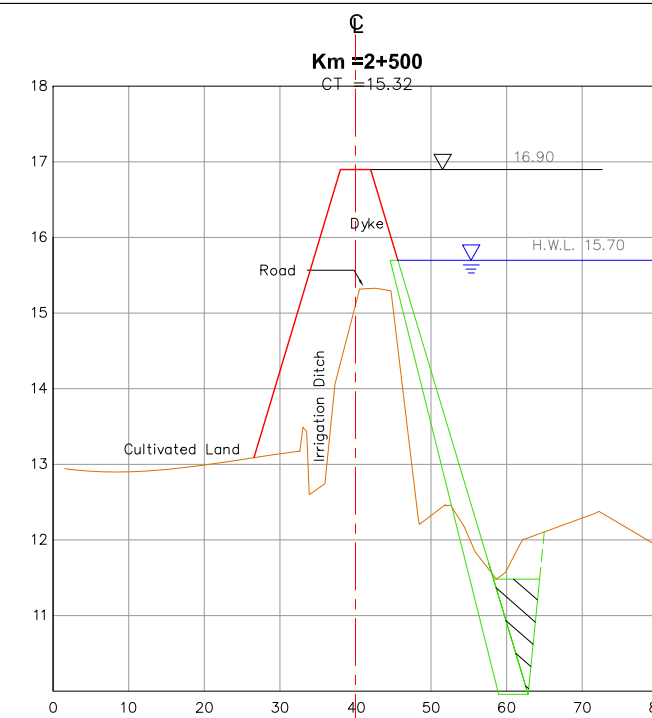
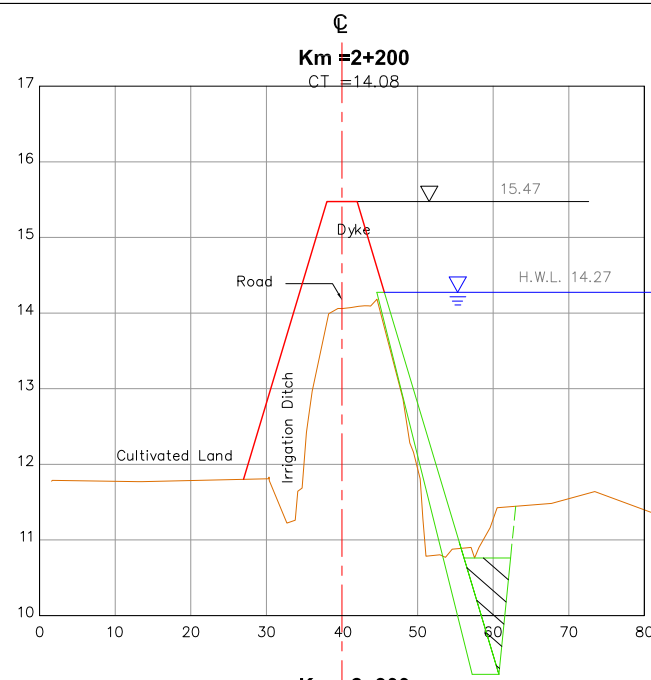
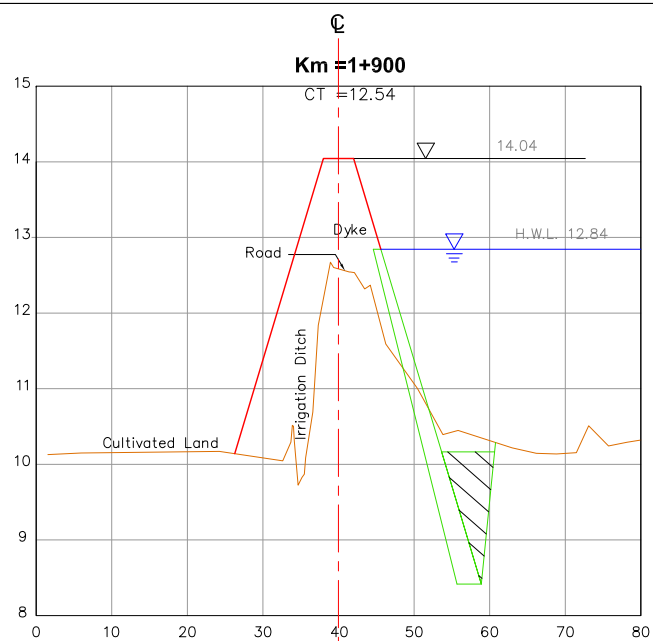
Project:
THE PREPARATORY STUDY ON PROJECT OF THE PROTECTION OF FLOOD PLAIN AND VULNERABLE RURAL POPULATION AGAINST FLOOD IN THE REPUBLIC OF PERU

Drawing:
CAMANA RIVER CROSS SECTIONS
Km. 0+000 - Km. 0+900

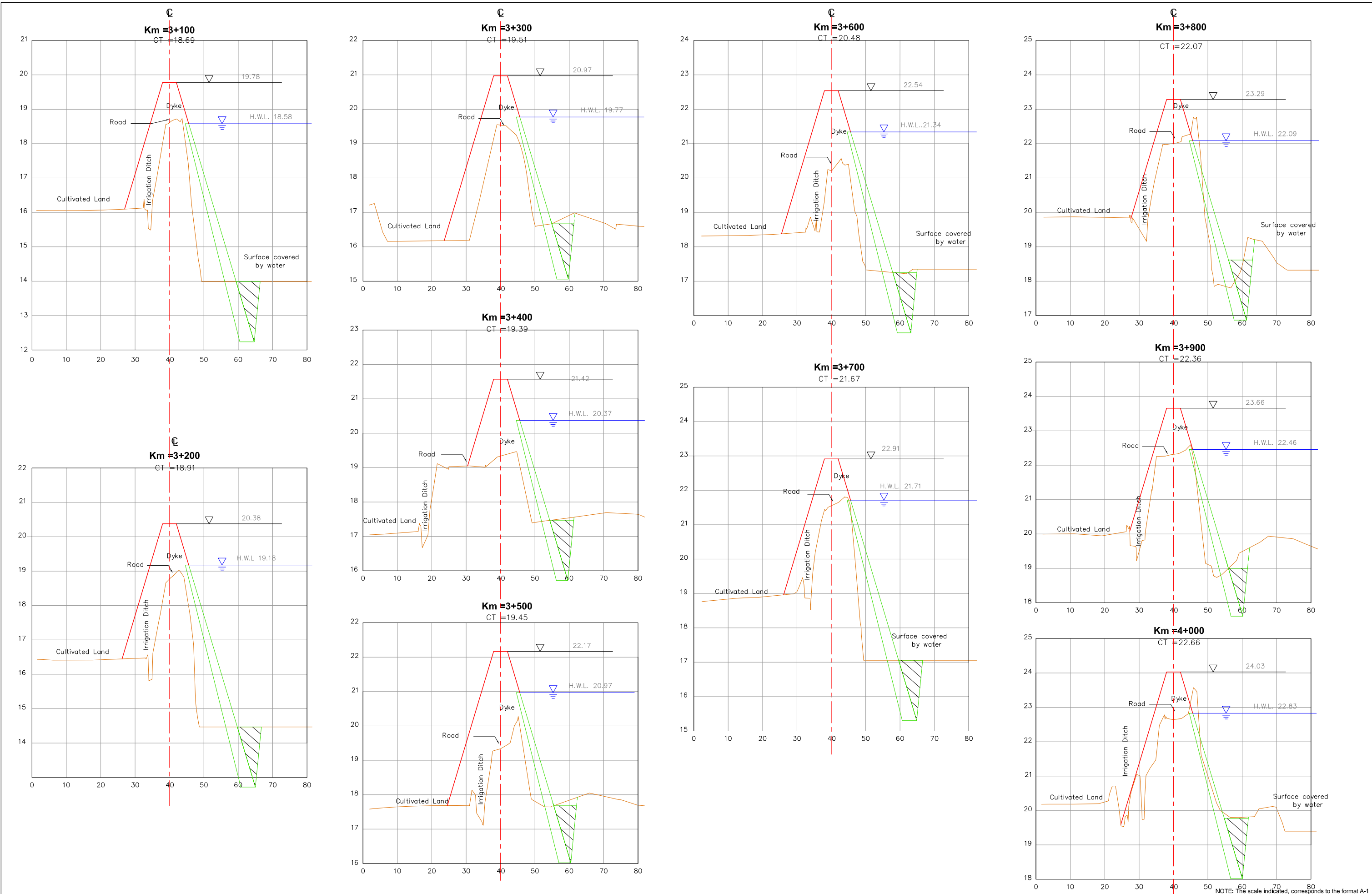
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CODE: **ST - CAMANA 1 - 01**



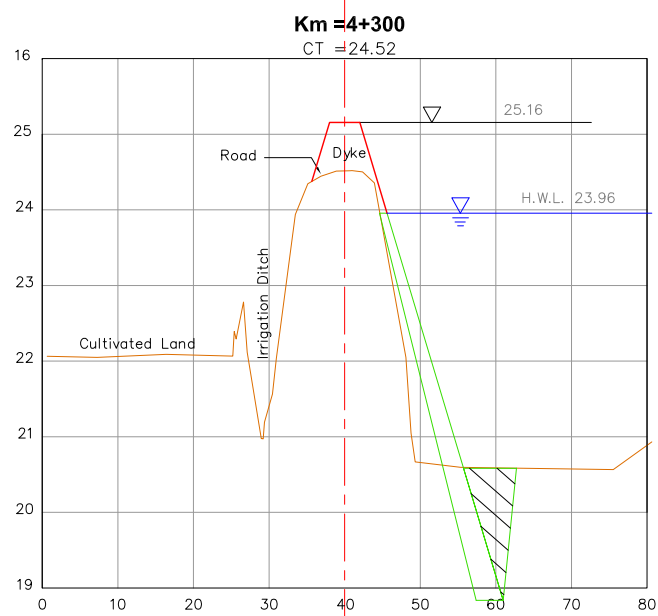
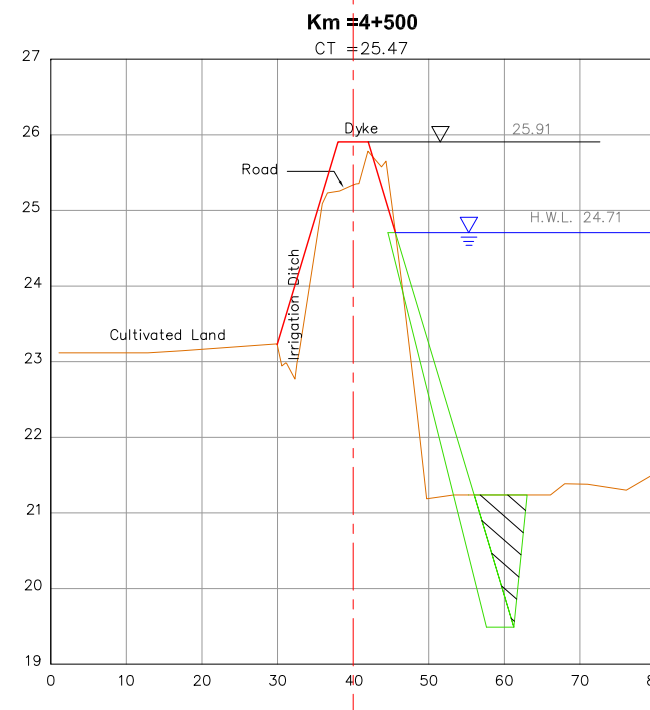
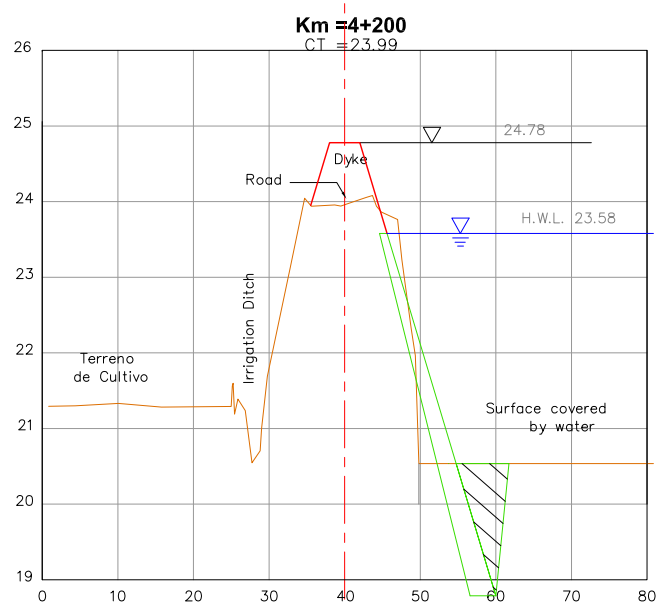
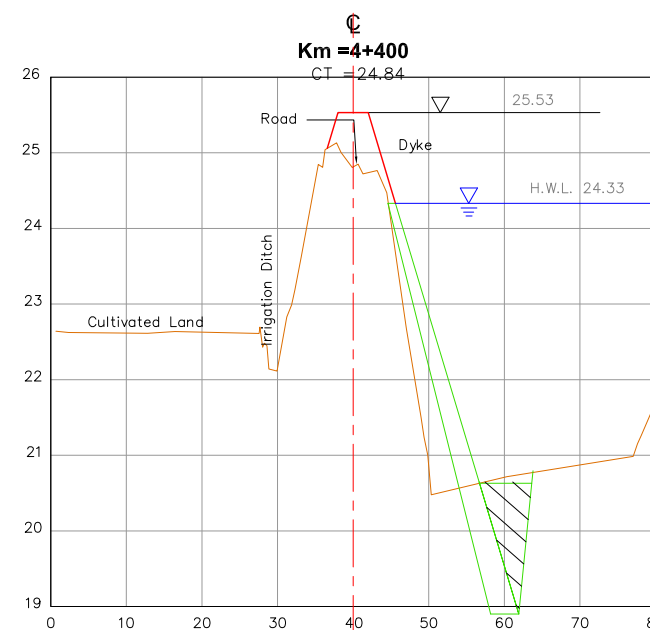
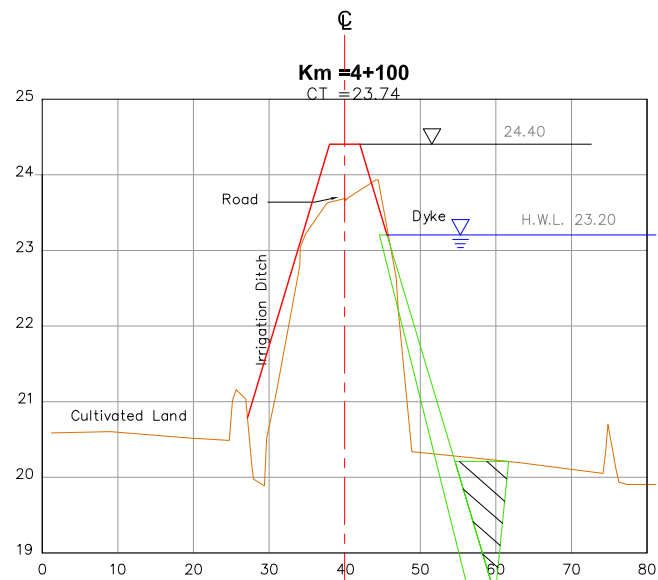
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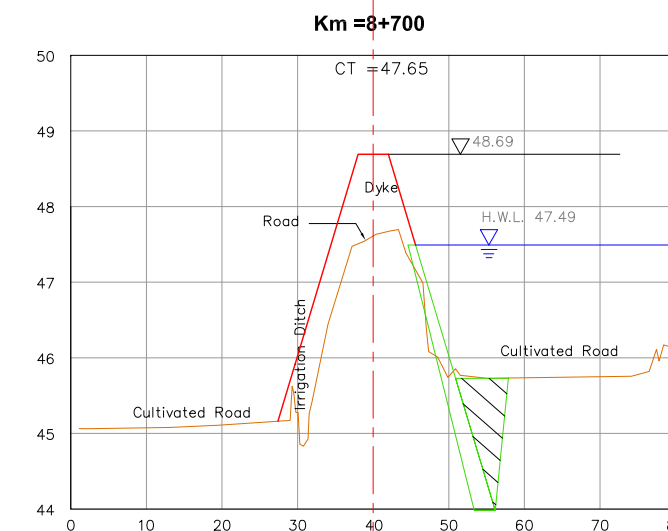
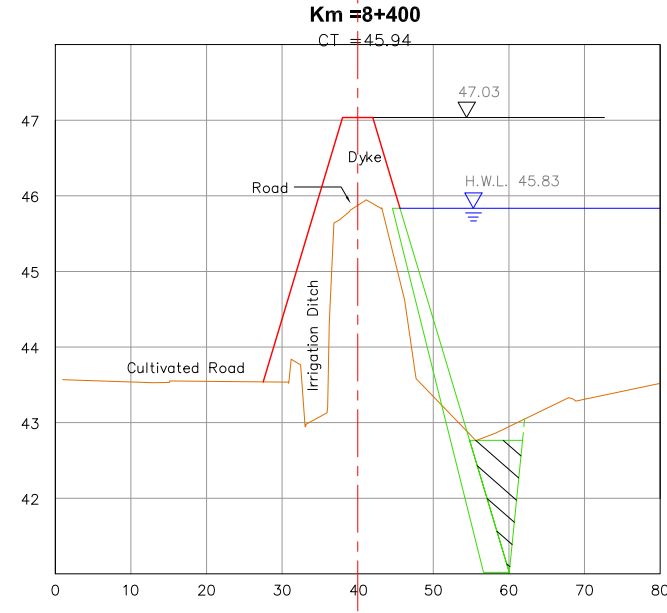
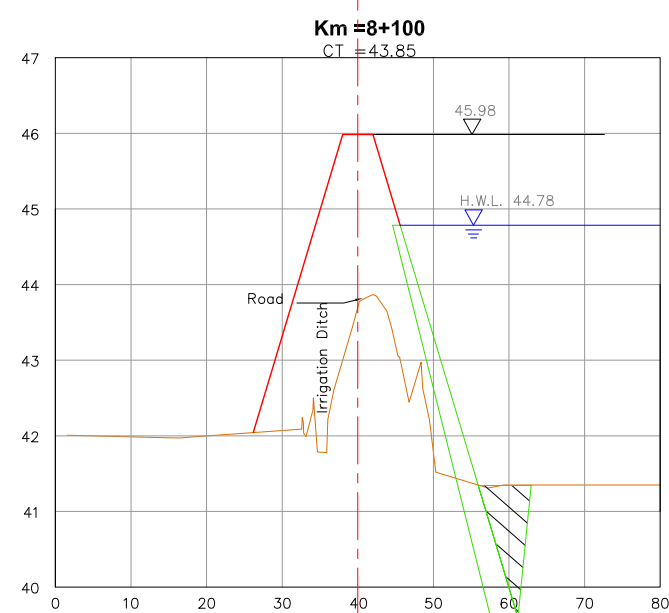
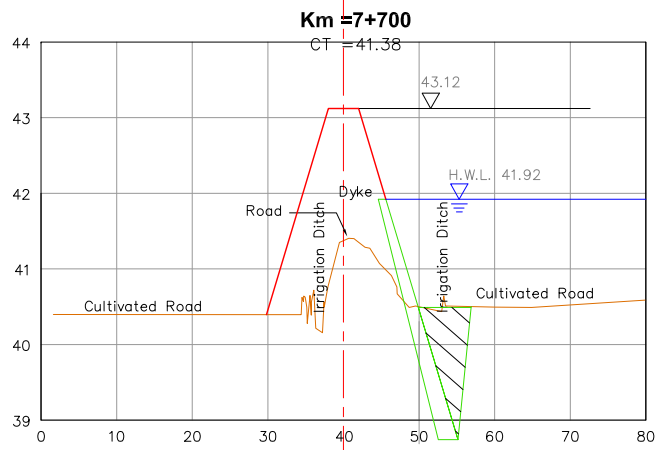
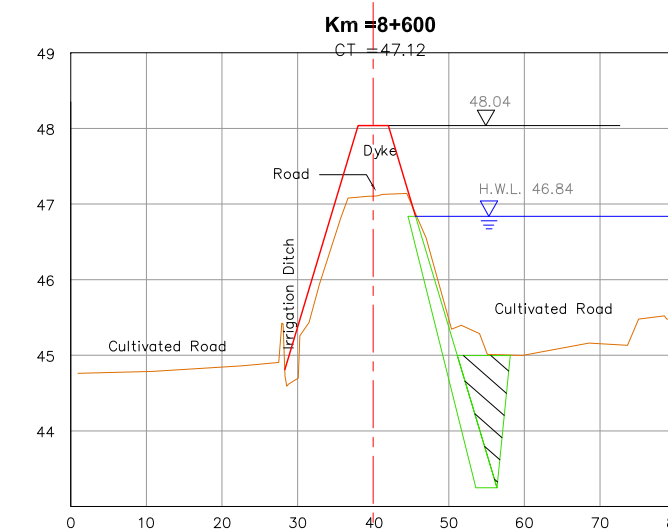
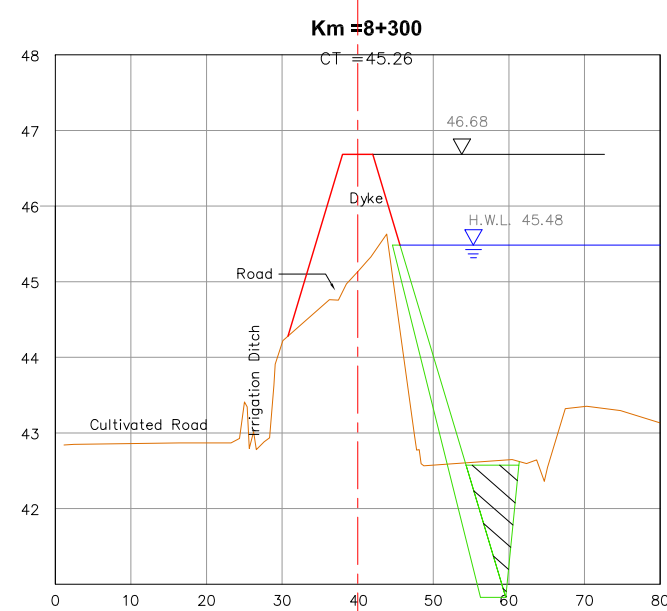
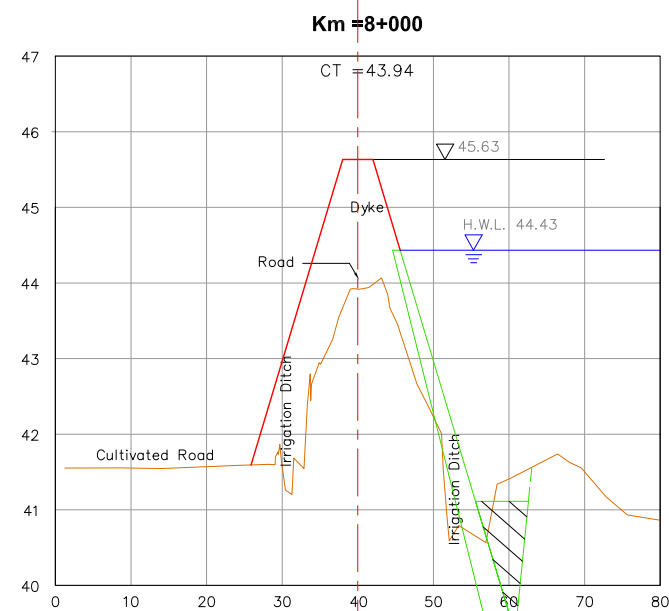
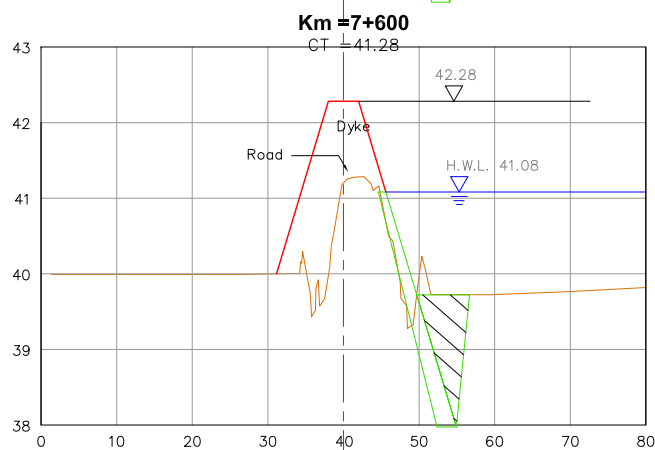
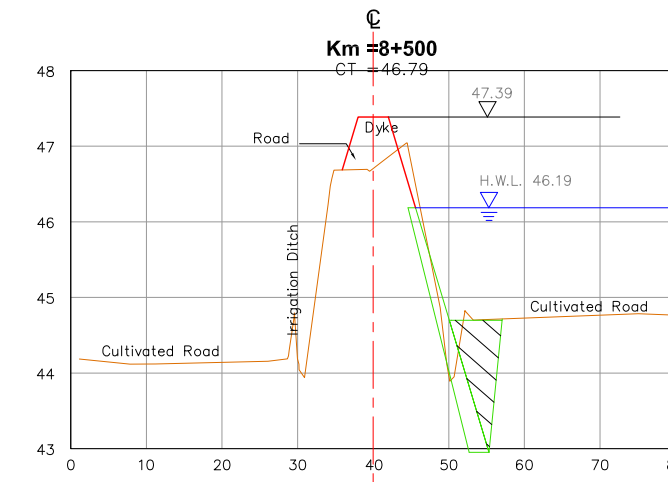
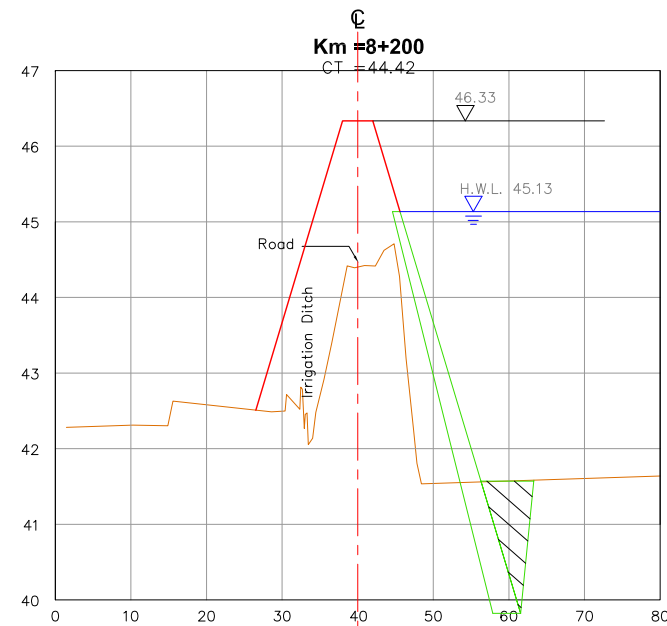
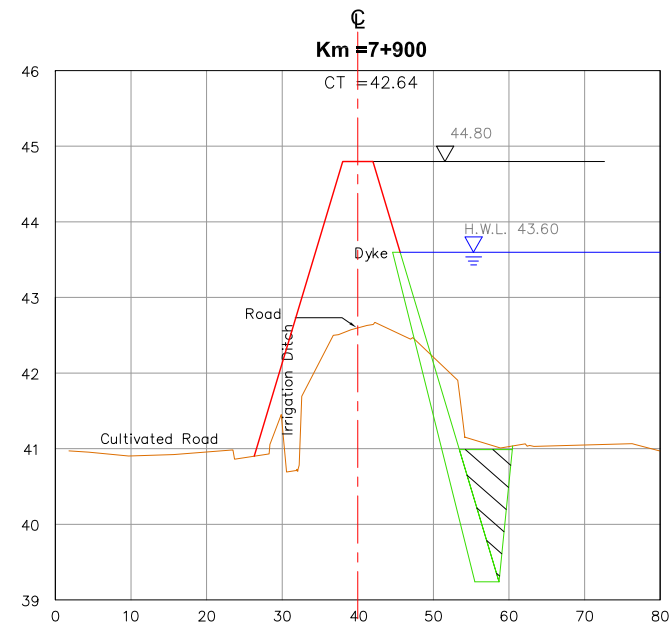
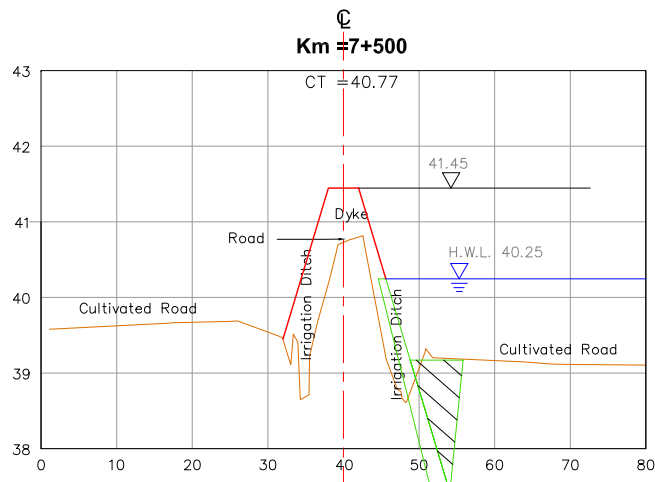
NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.

1:100 0 1 2 3 4 5 6 7 8 9 10

1:150 0 1 2 3 4 5 6 7 8 9 10

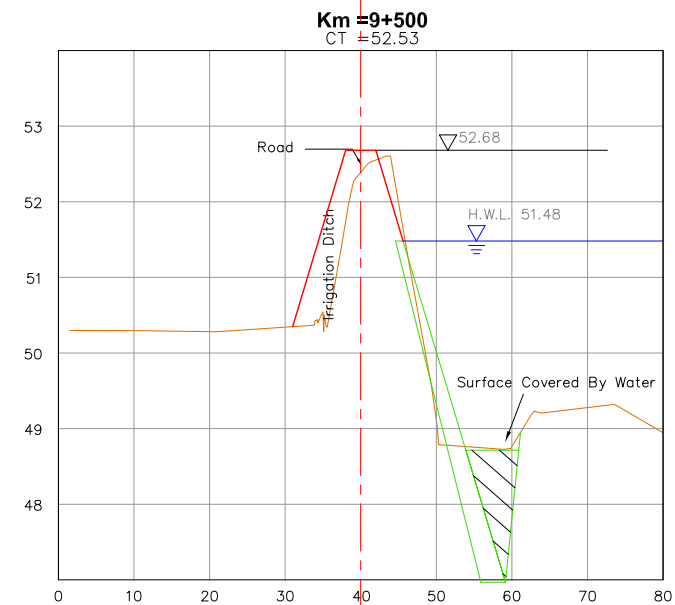
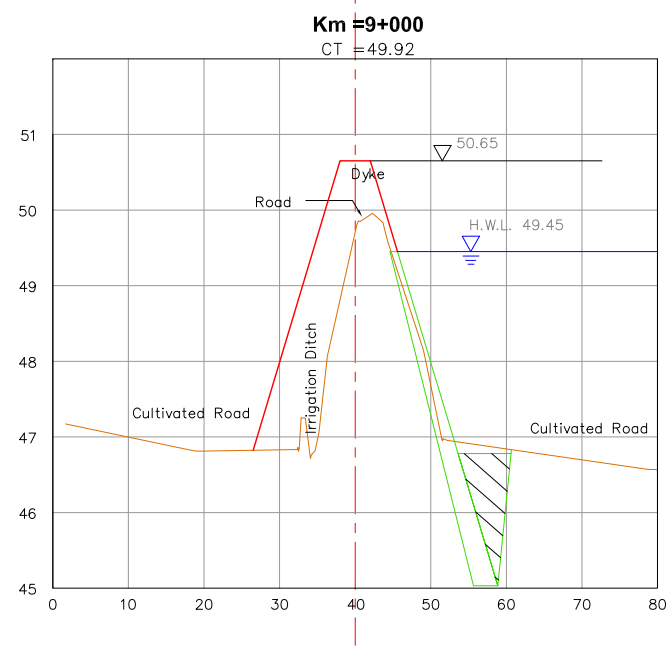
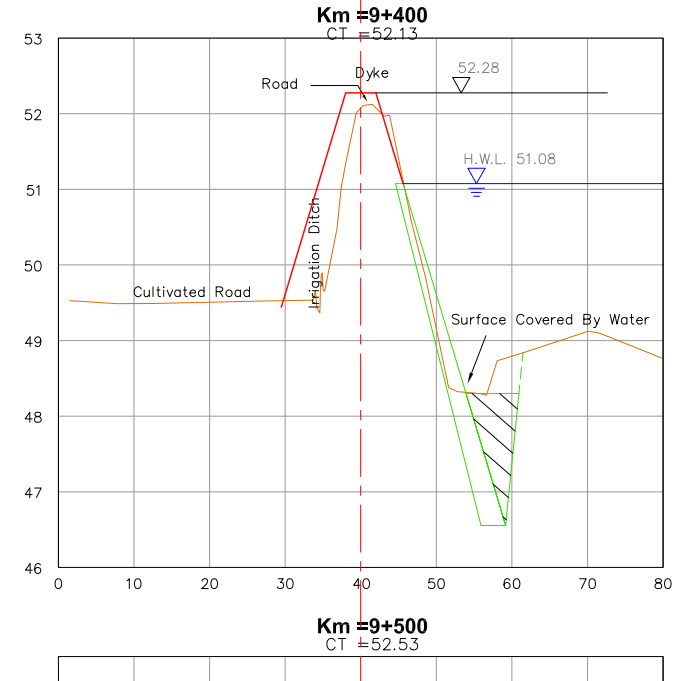
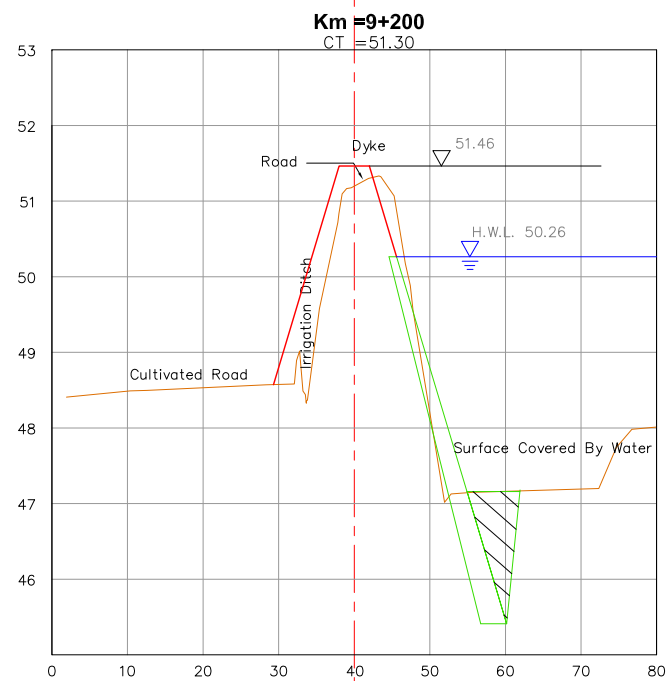
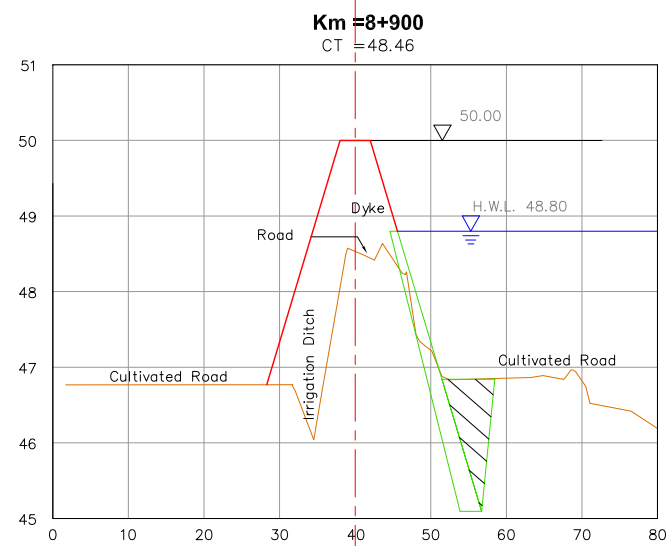
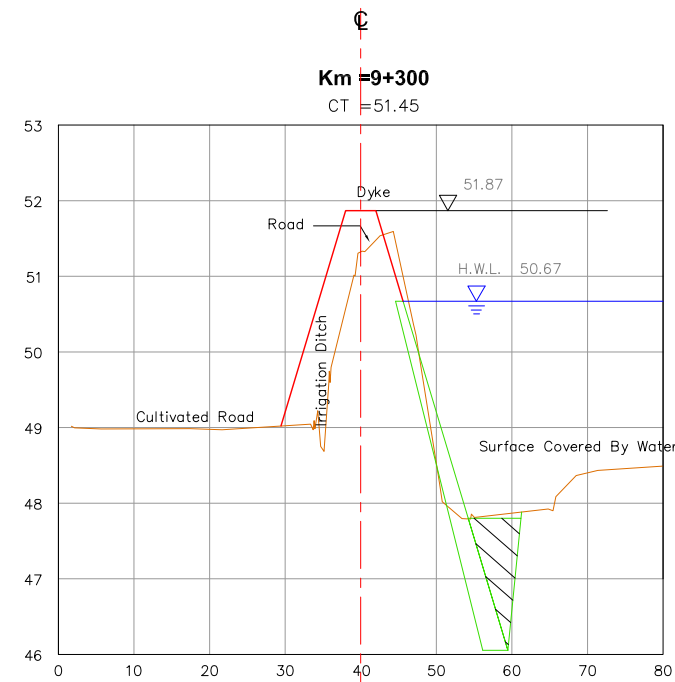
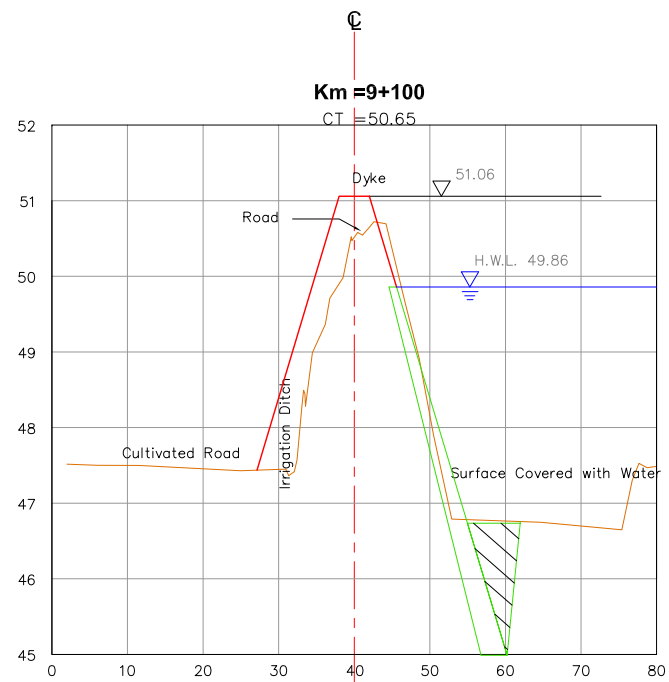
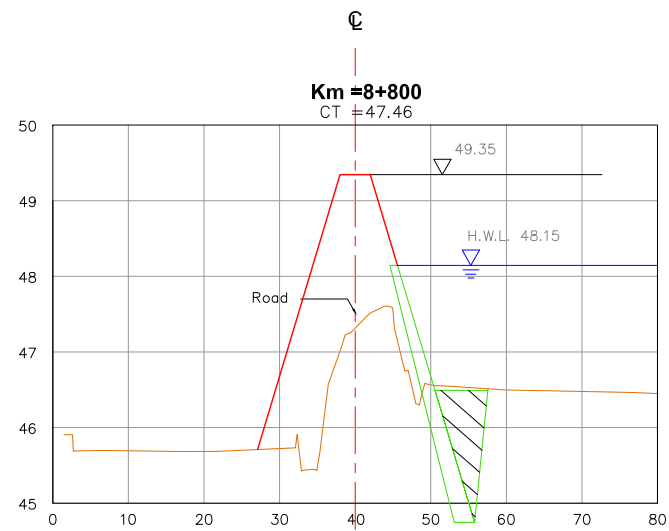
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1:250 0 5 10 15 20

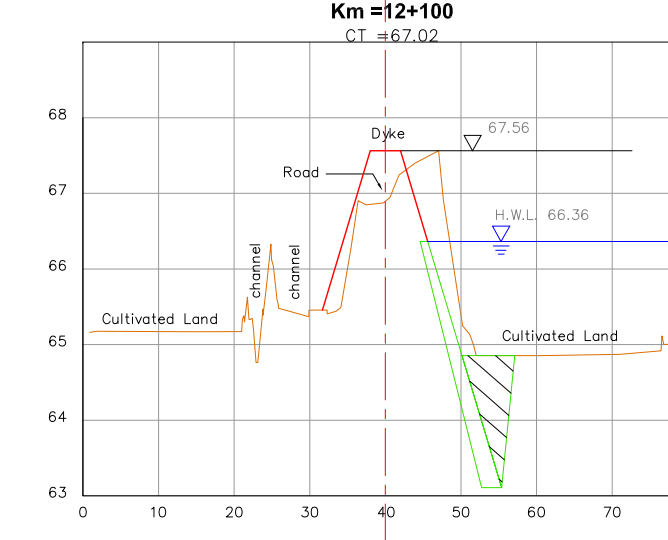
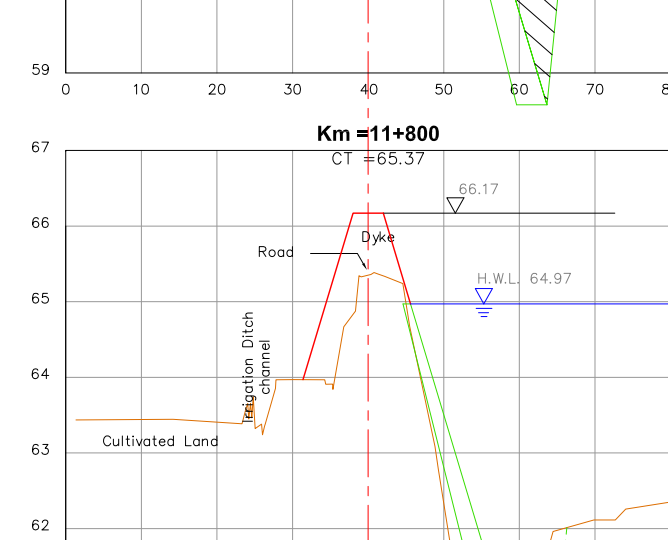
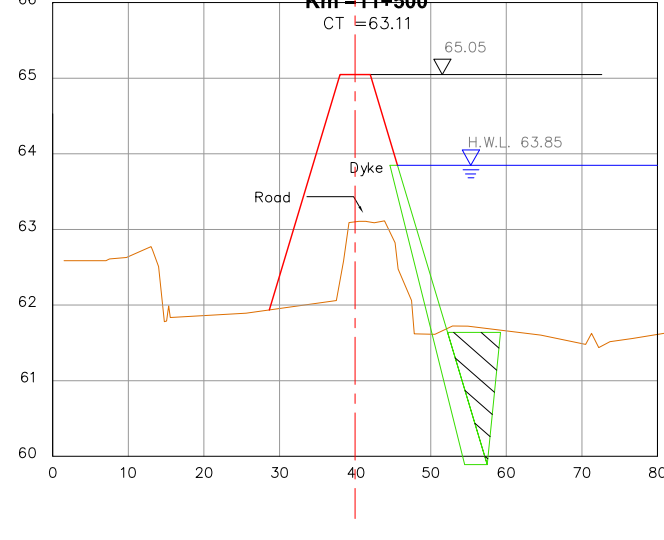
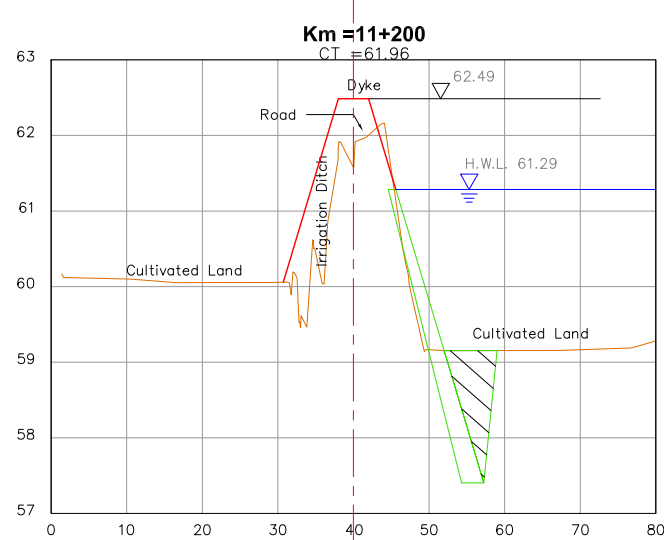
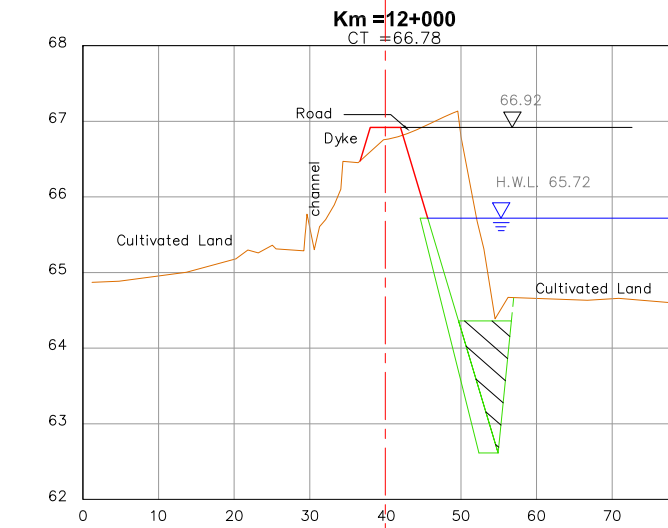
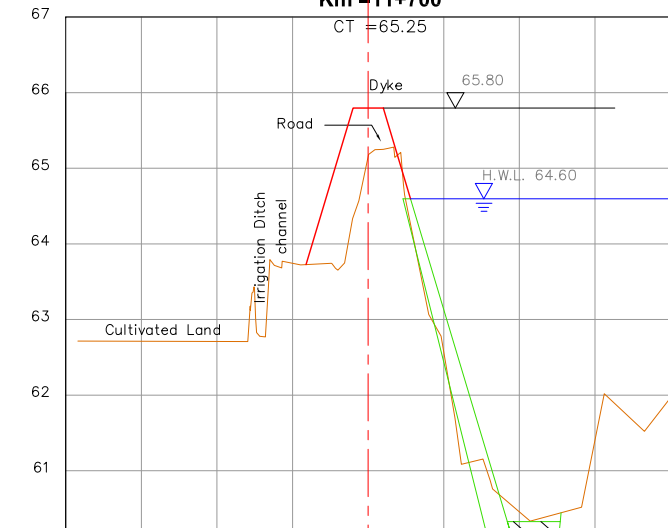
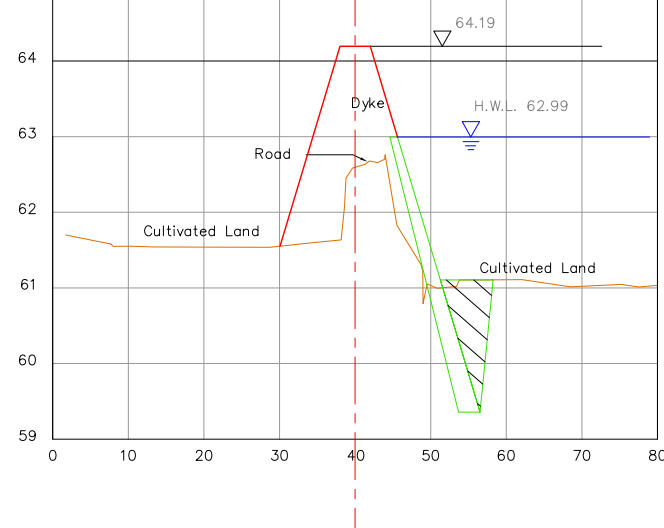
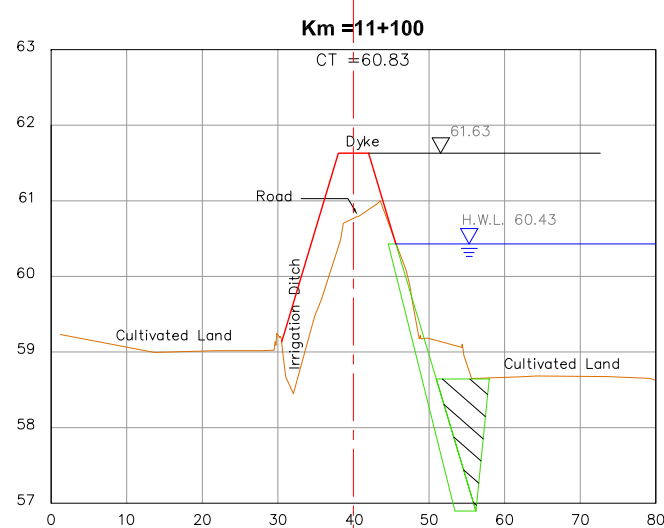
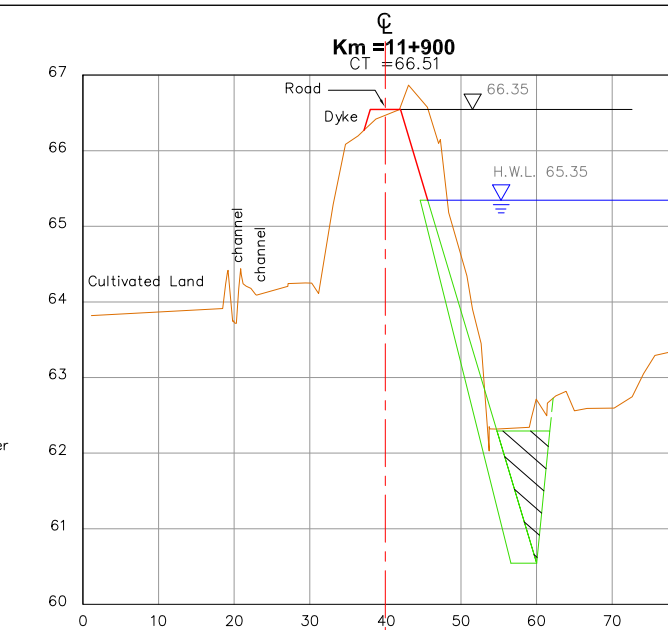
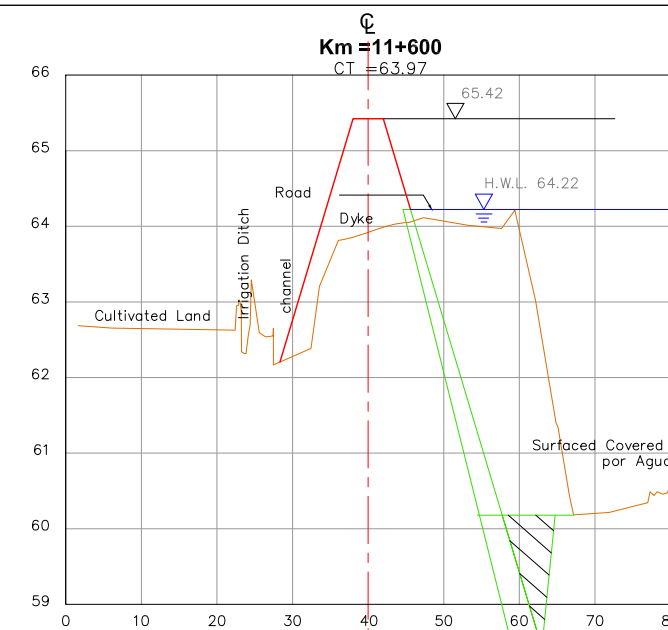
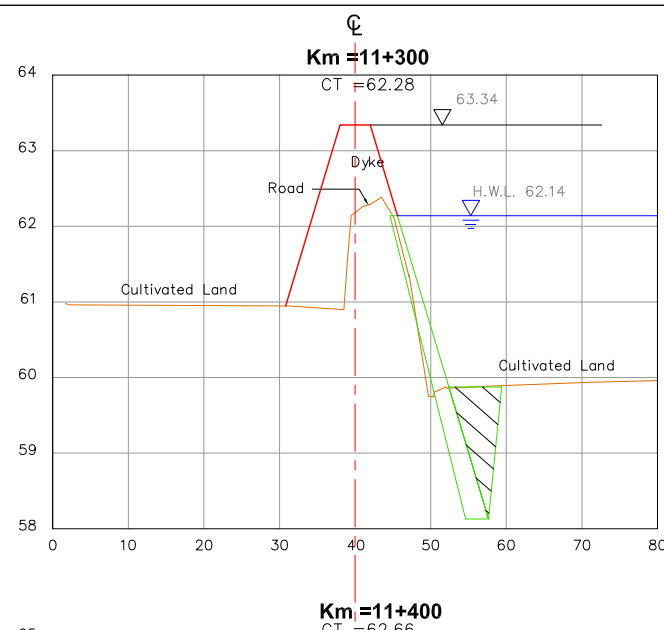
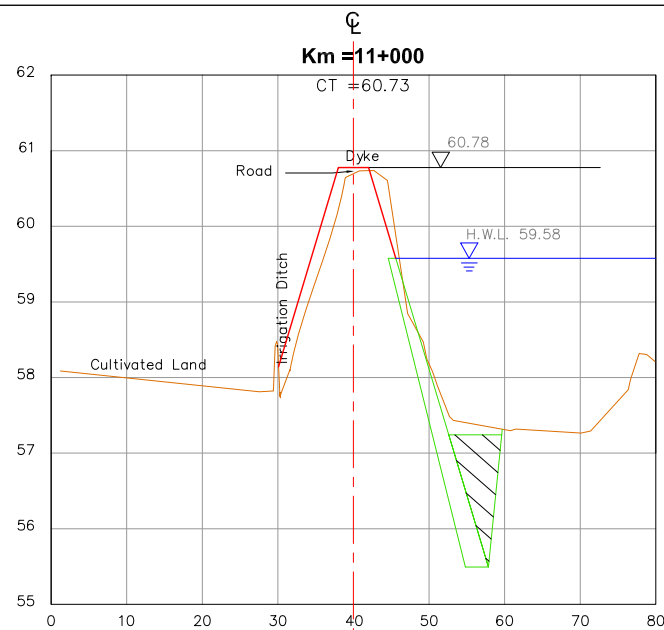
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1:1000 0 5 10 15 20 25 30 35 40

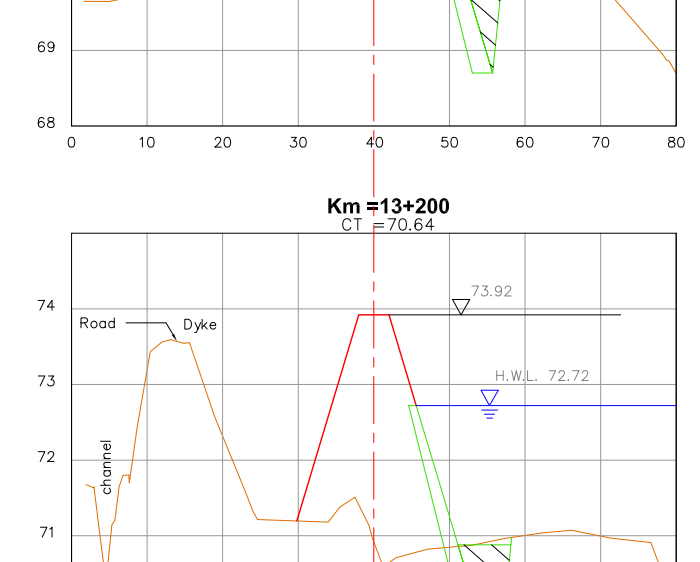
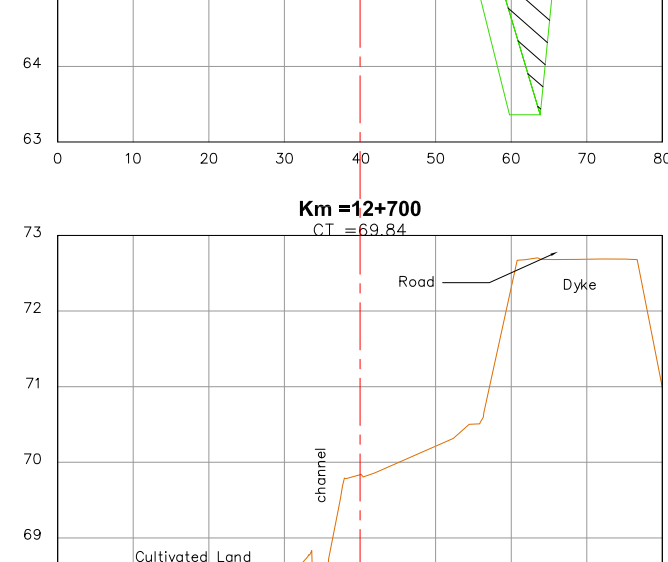
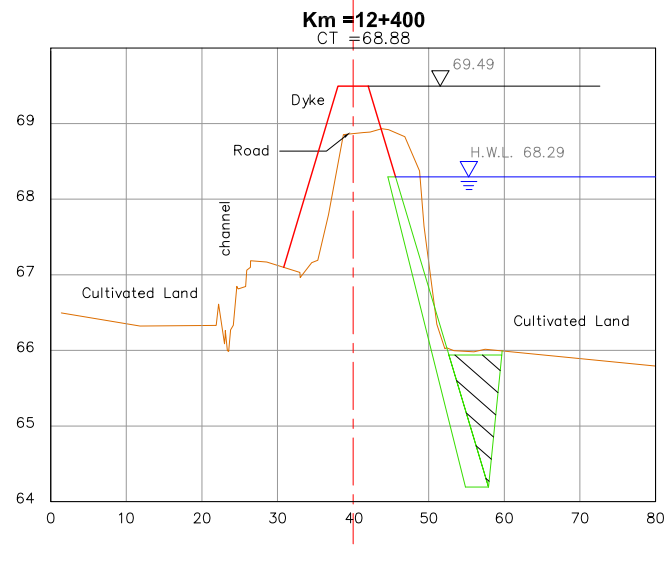
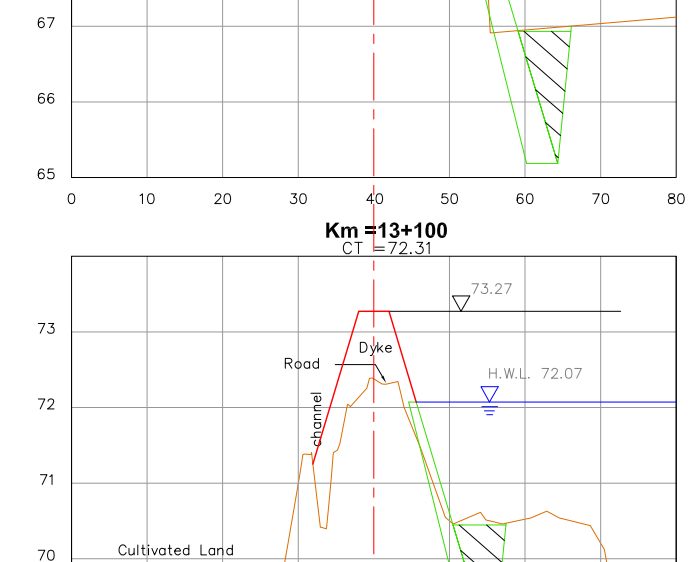
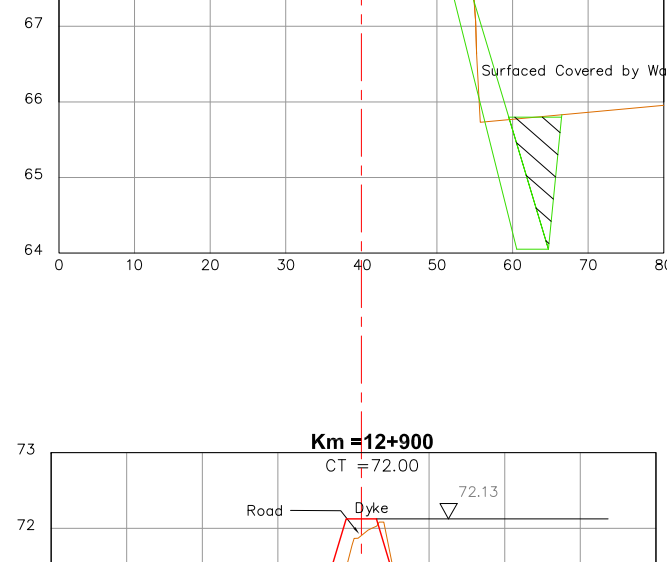
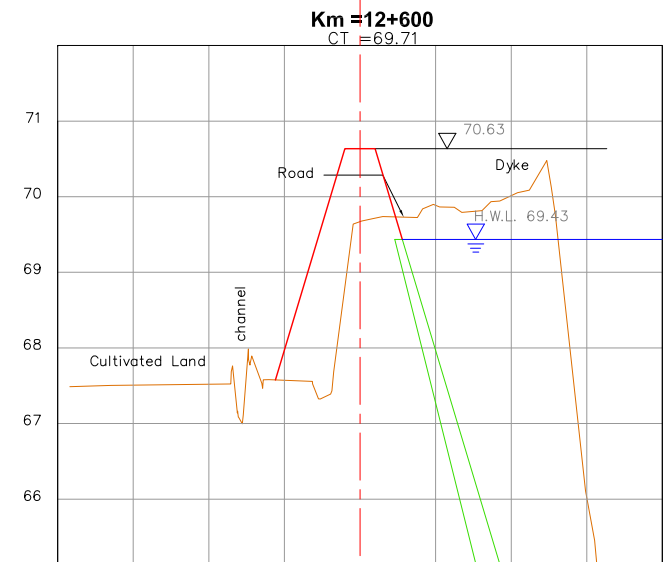
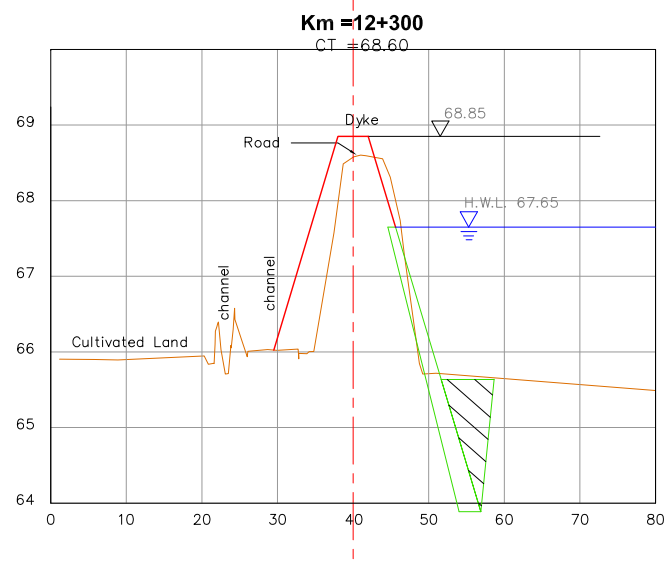
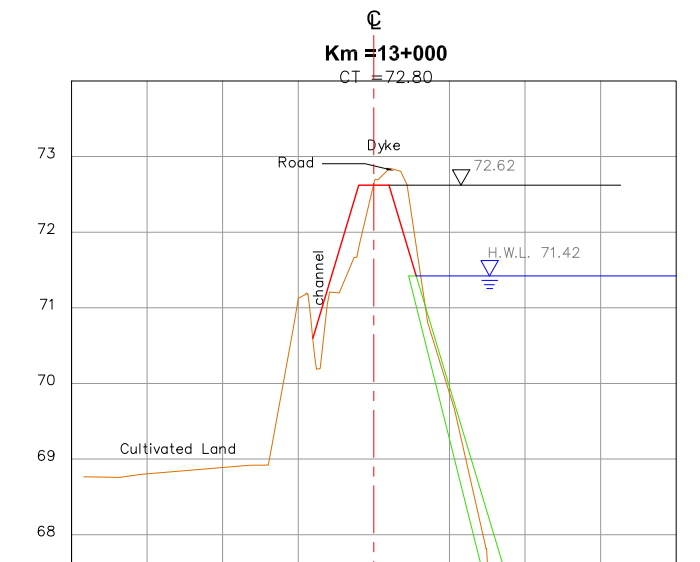
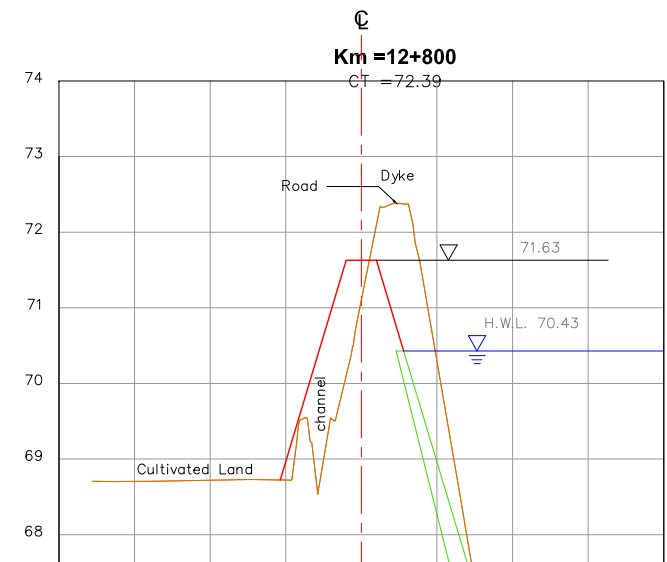
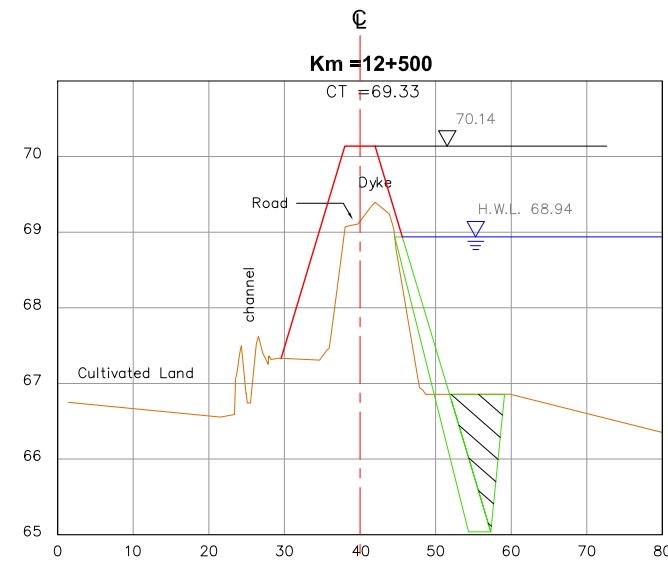
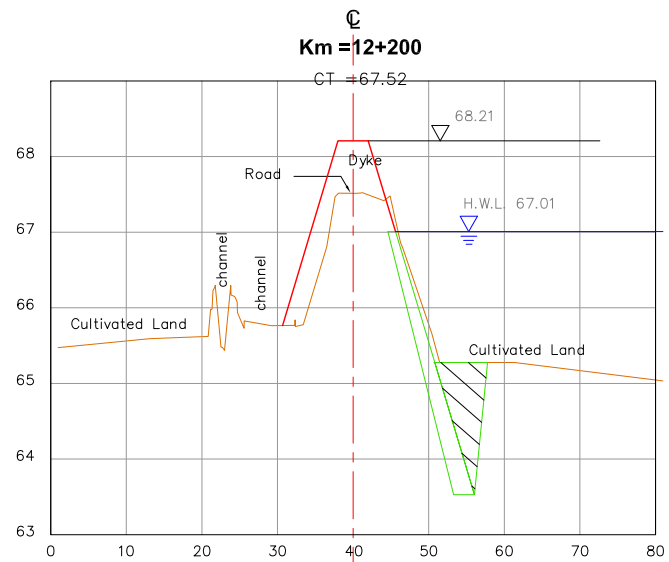
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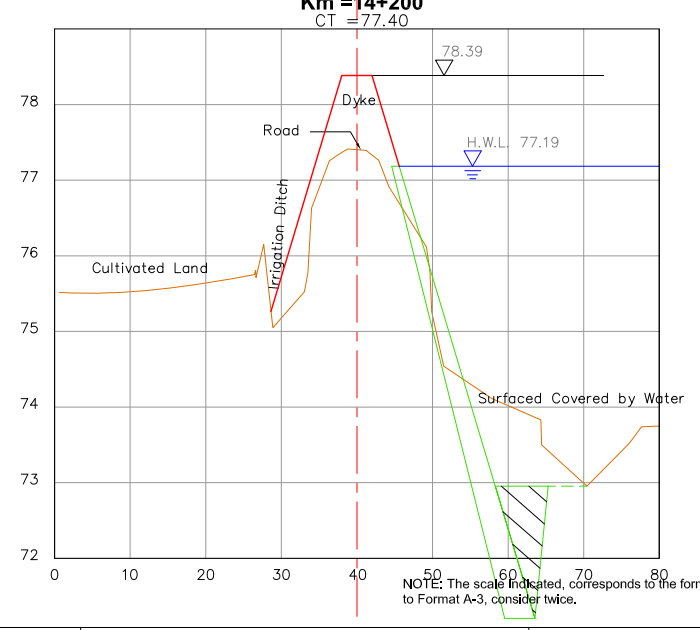
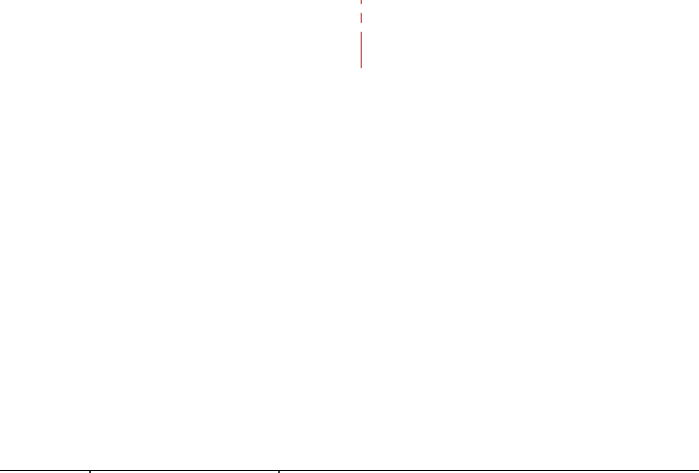
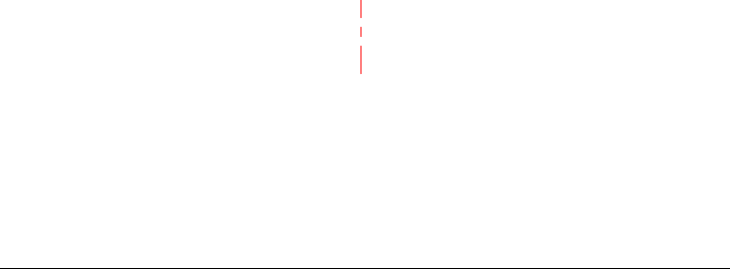
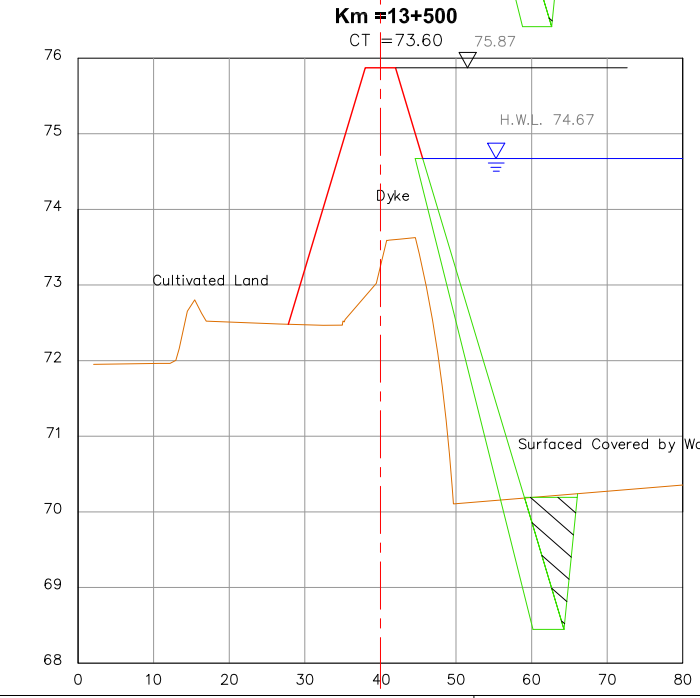
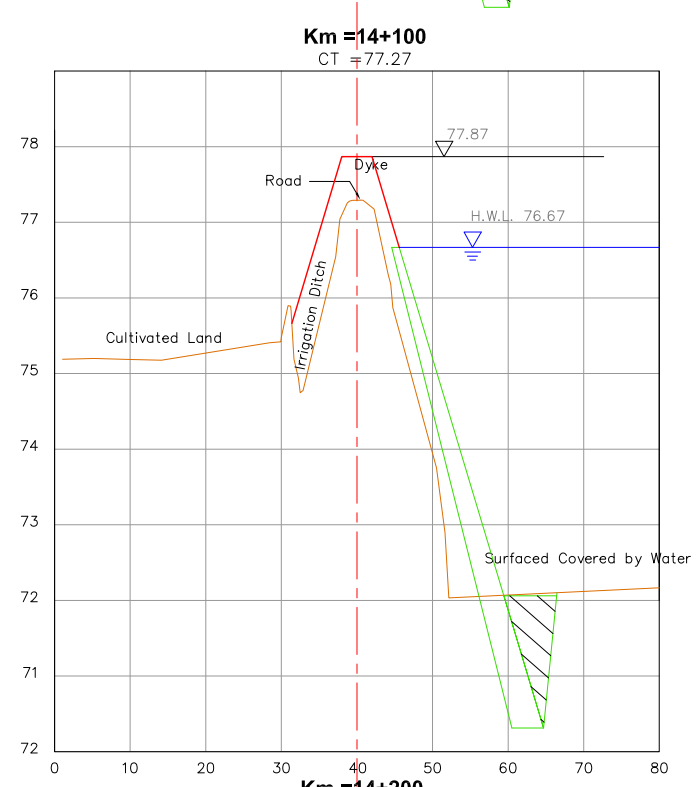
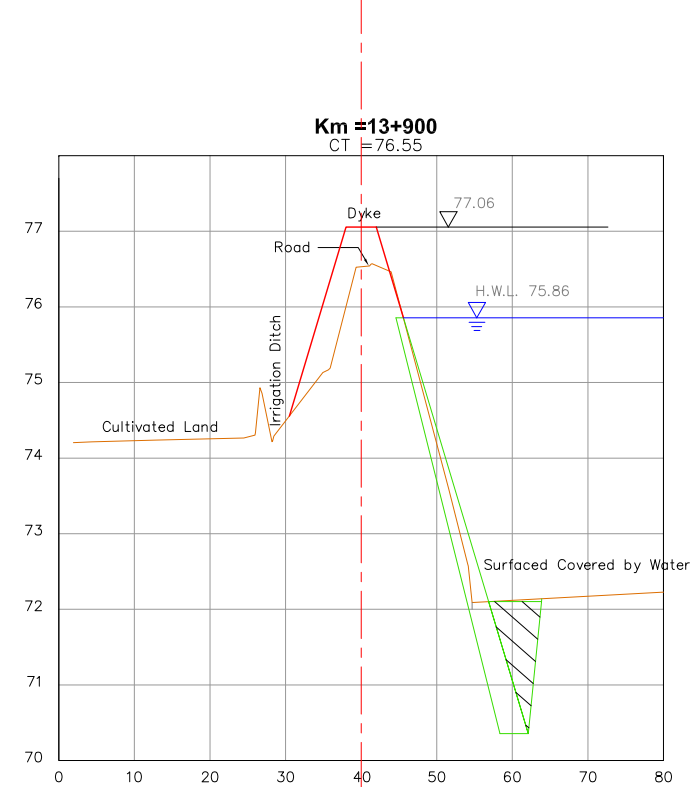
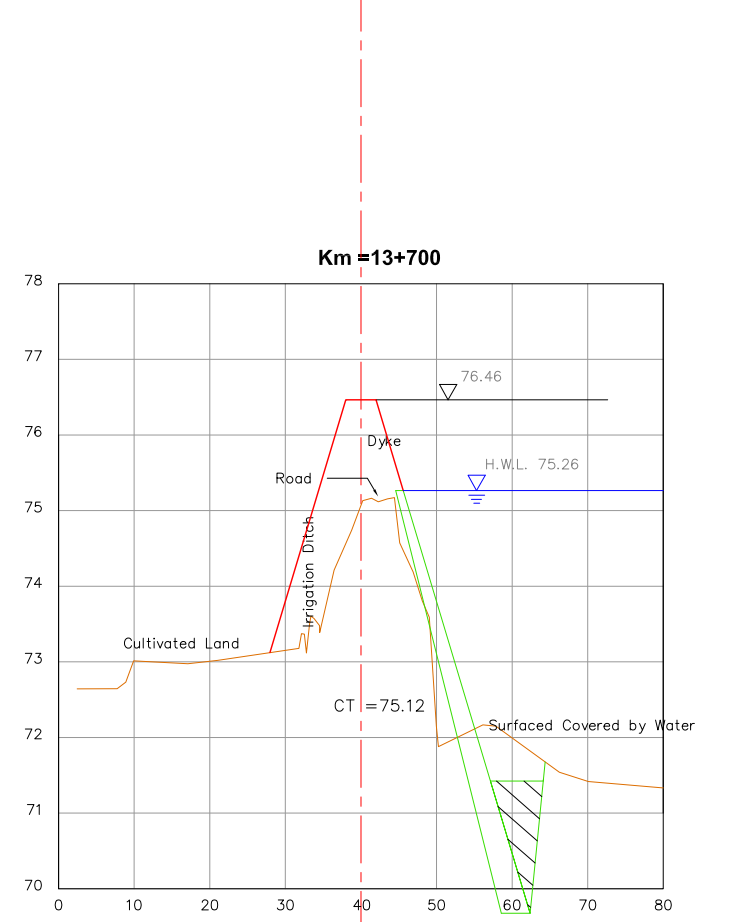
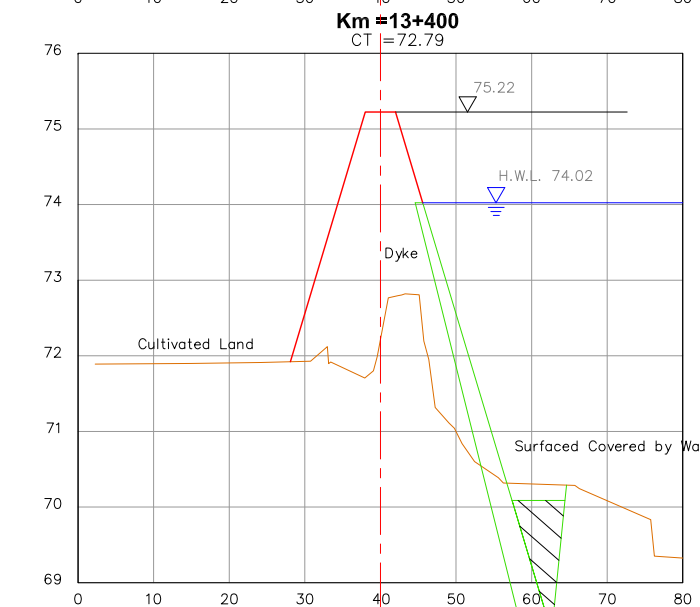
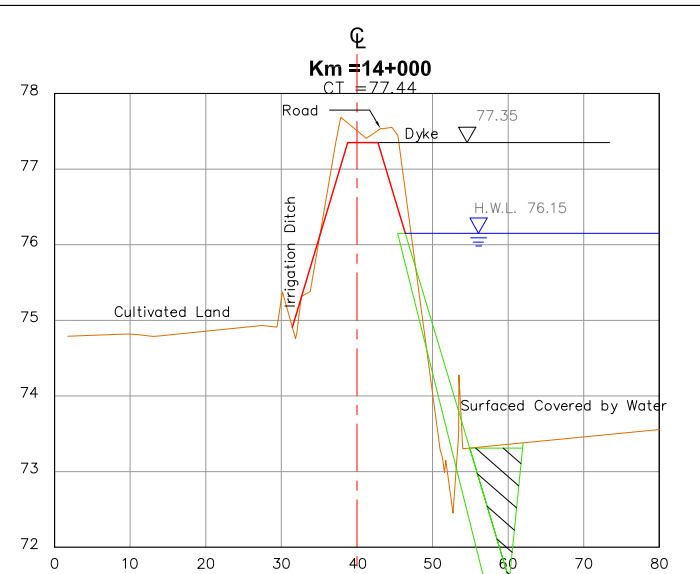
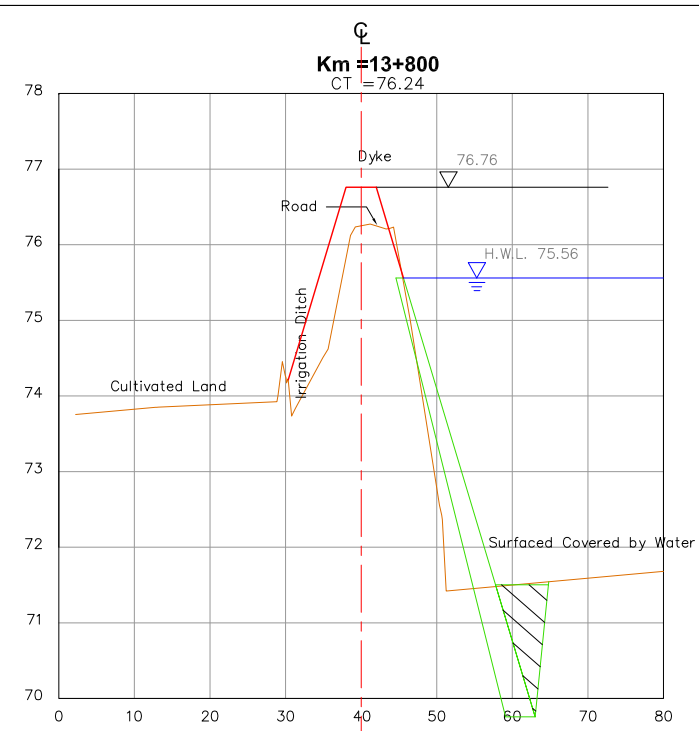
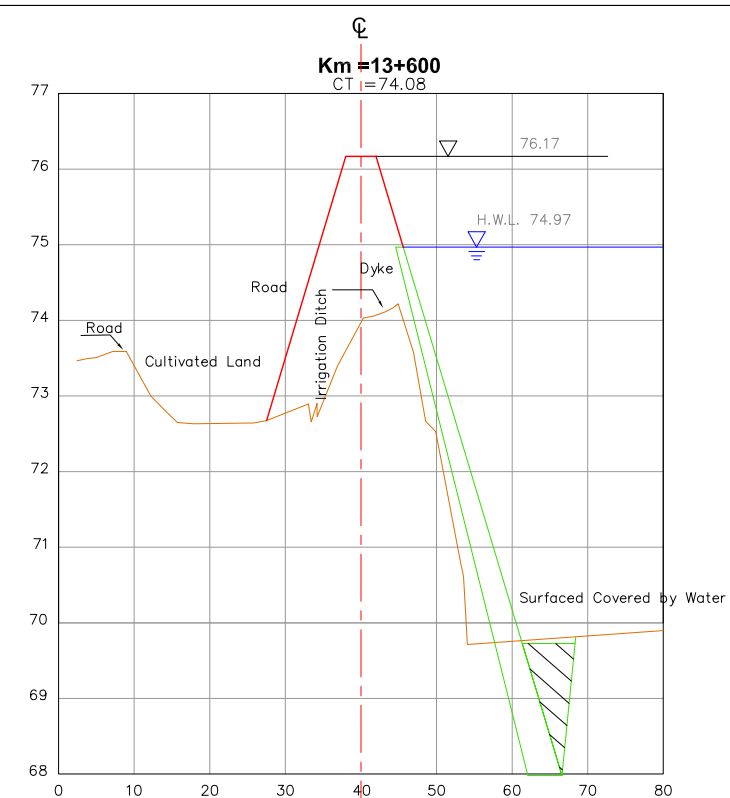
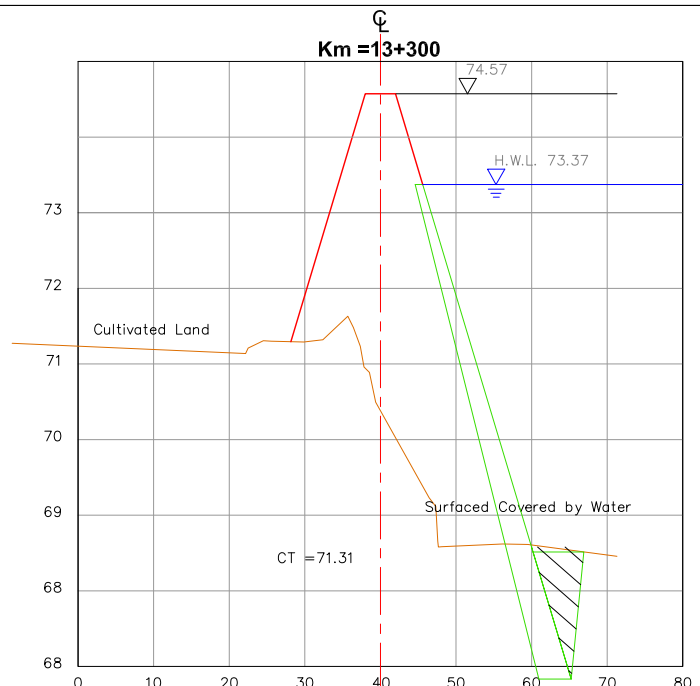
NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



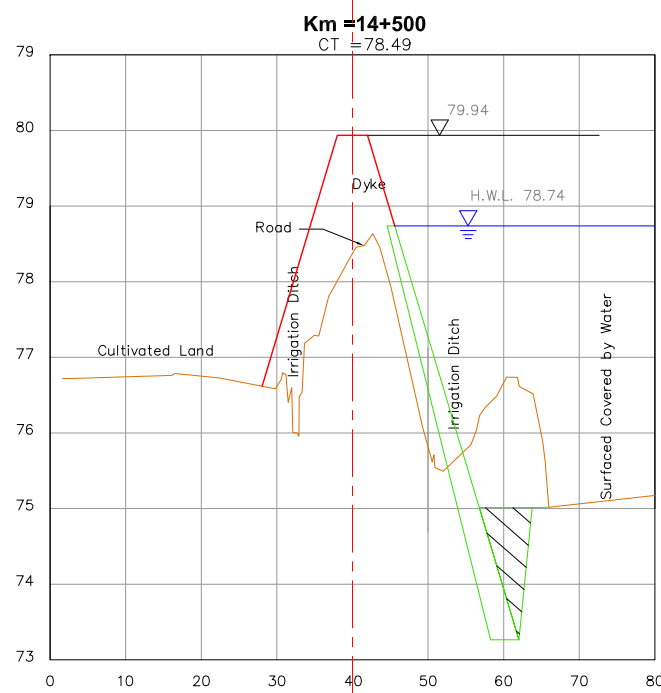
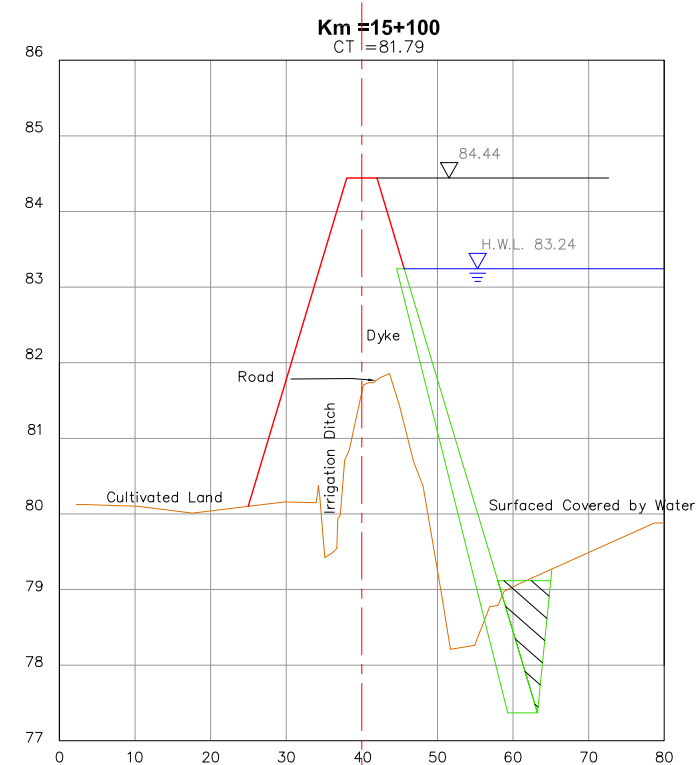
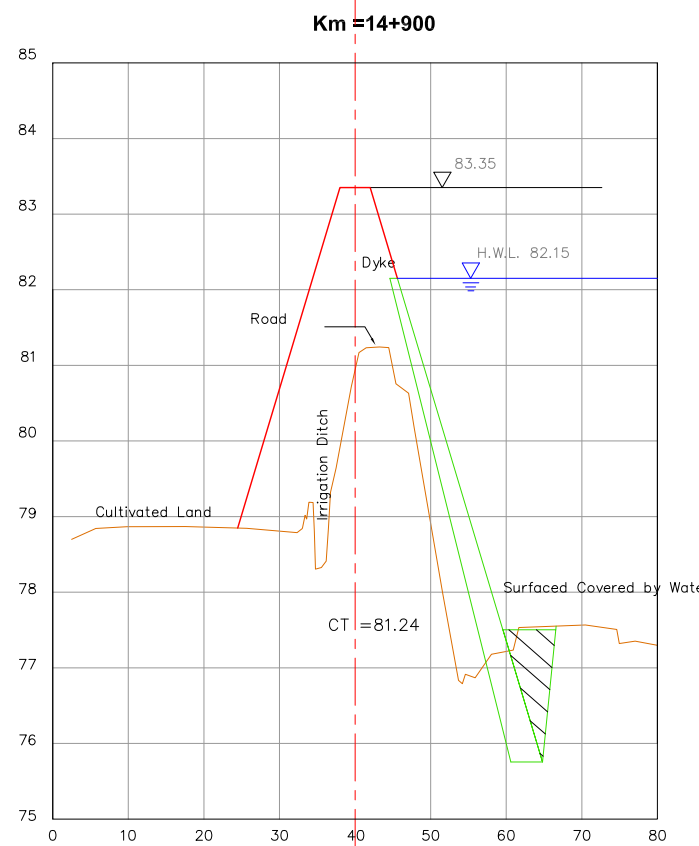
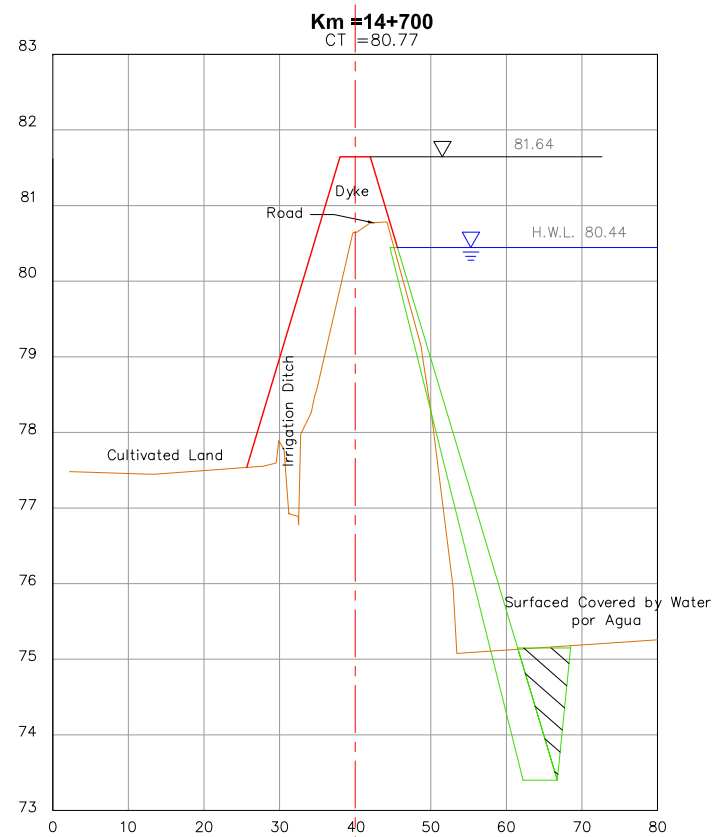
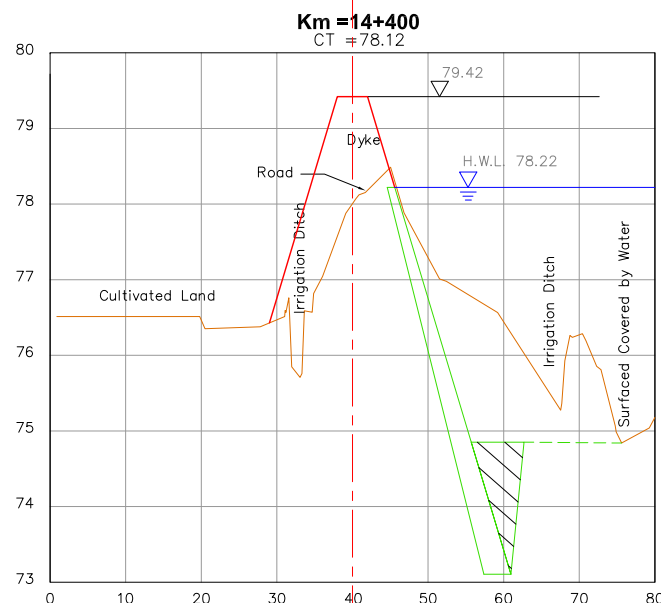
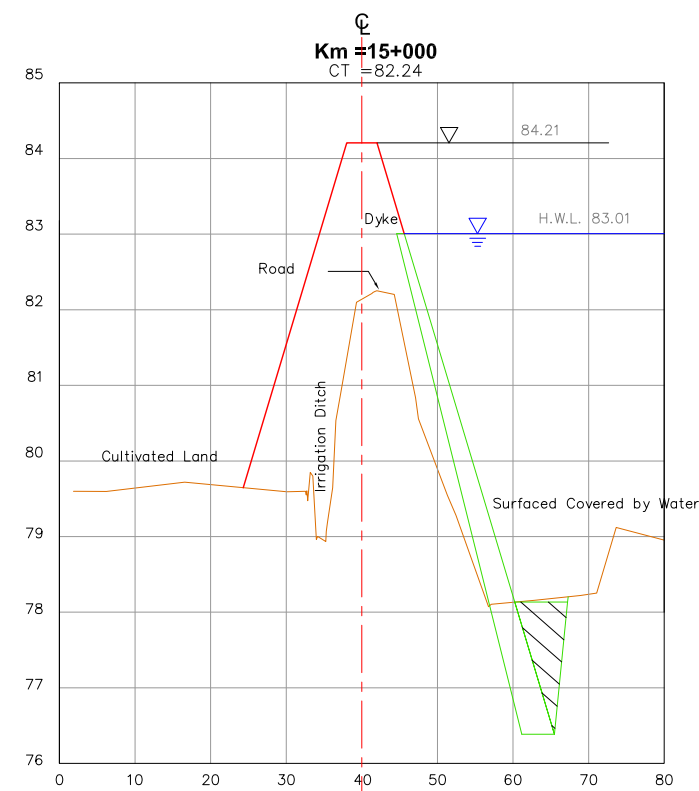
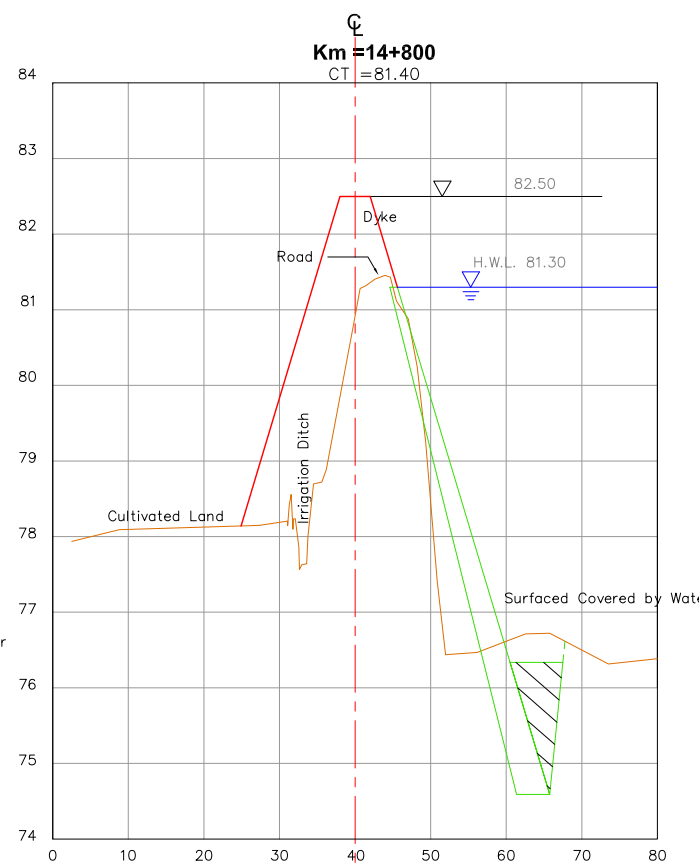
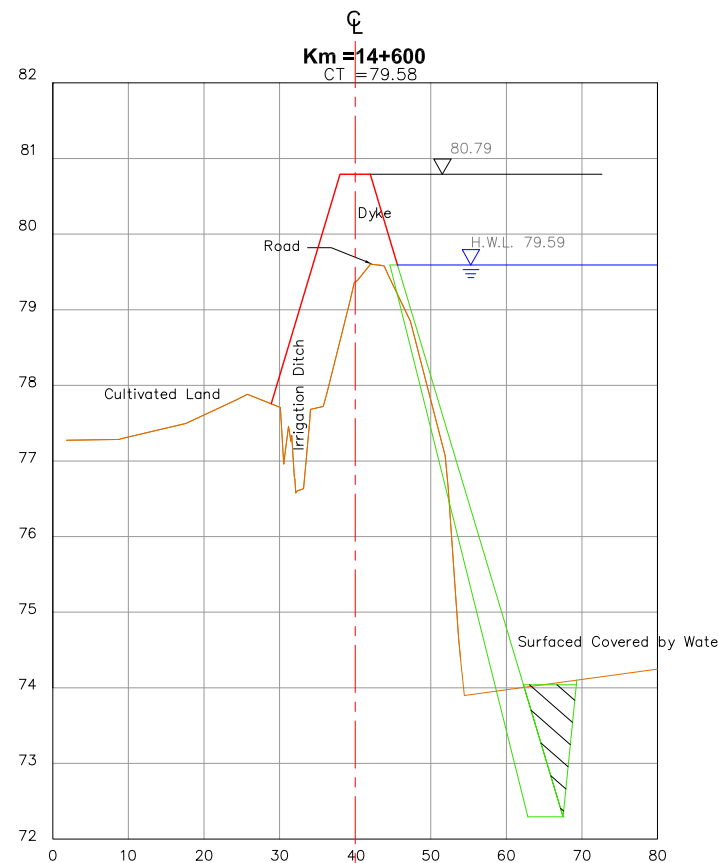
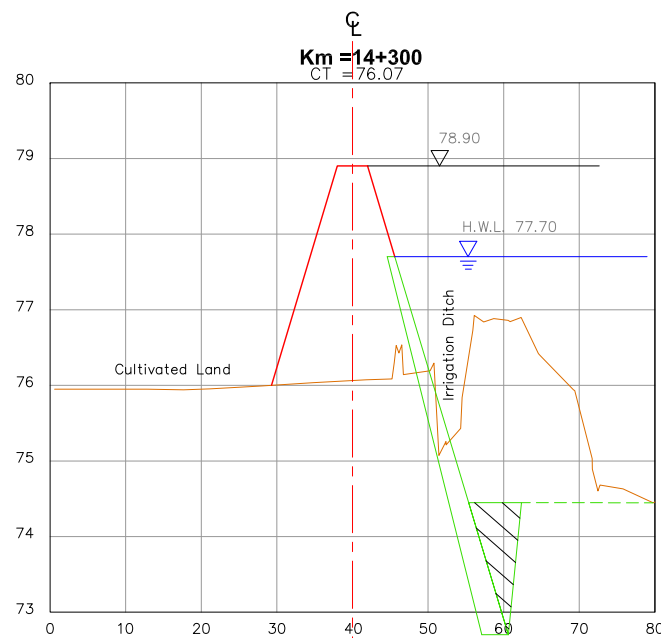
NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.



NOTE: The scale indicated, corresponds to the format A-1 to Format A-3, consider twice.