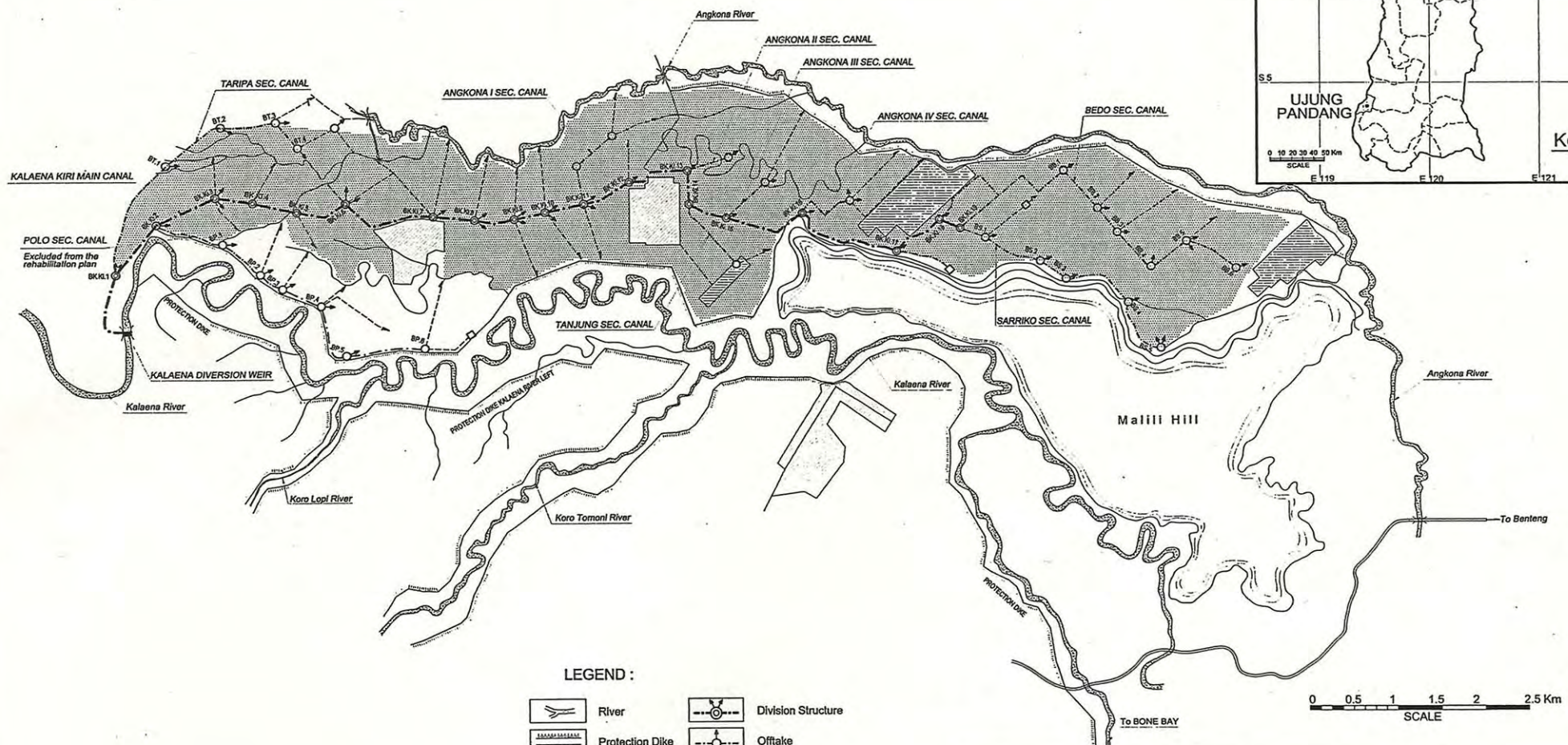
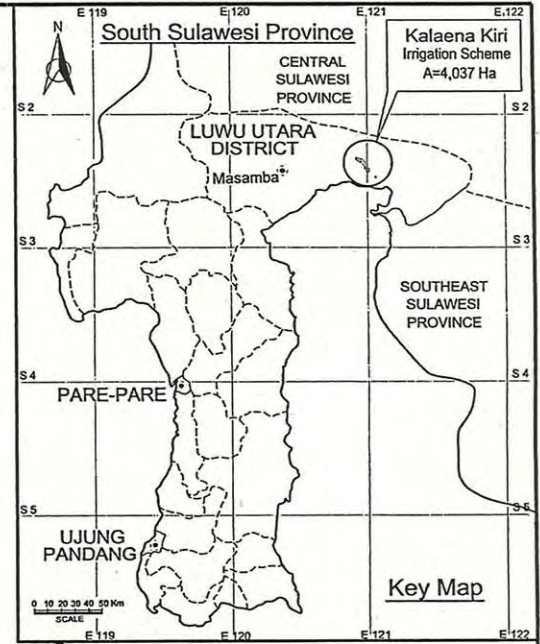


Drawings

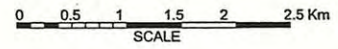
List of Drawings

<u>Drawing No.</u>	<u>Title</u>
100	GENERAL
100-01	General Layout
100-02	Irrigation Diagram
200	WATER RESOURCES FACILITY
200-01	Rehabilitation Plan of Kalaena Headworks
300	CANALS
300-01	Rehabilitation Plan of Main Canal and Inspection Road
300-02	Rehabilitation Plan of Main Canal Related Structures
300-03	Plan & Profile of Main Canal (1/20)
300-04	Plan & Profile of Main Canal (2/20)
300-05	Plan & Profile of Main Canal (3/20)
300-06	Plan & Profile of Main Canal (4/20)
300-07	Plan & Profile of Main Canal (5/20)
300-08	Plan & Profile of Main Canal (6/20)
300-09	Plan & Profile of Main Canal (7/20)
300-10	Plan & Profile of Main Canal (8/20)
300-11	Plan & Profile of Main Canal (9/20)
300-12	Plan & Profile of Main Canal (10/20)
300-13	Plan & Profile of Main Canal (11/20)
300-14	Plan & Profile of Main Canal (12/20)
300-15	Plan & Profile of Main Canal (13/20)
300-16	Plan & Profile of Main Canal (14/20)
300-17	Plan & Profile of Main Canal (15/20)
300-18	Plan & Profile of Main Canal (16/20)
300-19	Plan & Profile of Main Canal (17/20)
300-20	Plan & Profile of Main Canal (18/20)
300-21	Plan & Profile of Main Canal (19/20)
300-22	Plan & Profile of Main Canal (20/20)
300-23	Plan & Profile of Sample Secondary Canal (Sarikko Secondary Canal) (1/3)
300-24	Plan & Profile of Sample Secondary Canal (Sarikko Secondary Canal) (2/3)
300-25	Plan & Profile of Sample Secondary Canal (Sarikko Secondary Canal) (3/3)



LEGEND :

- | | | | |
|--|-----------------|--|--------------------|
| | River | | Division Structure |
| | Protection Dike | | Offtake |
| | Flow | | Tertiary Box |
| | Village | | Main Canal |
| | Irrigation Area | | Secondary Canal |

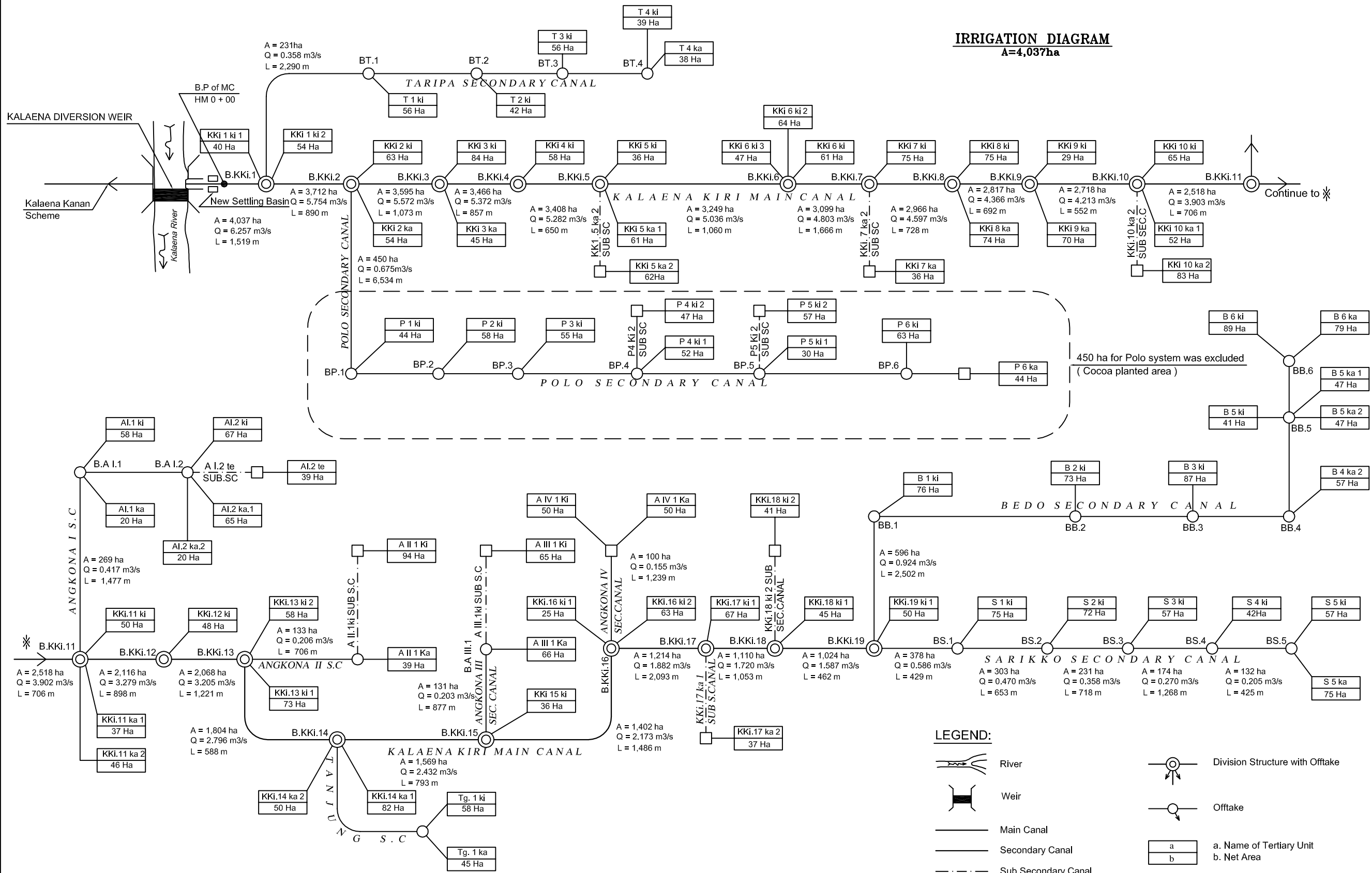


Data Source :
Kalibrasi, Manual, Ujicoba, Aliran, Inspeksi, verifikasi dan Gambar
Purnalaksana Daerah Irigasi Kalaena Kiri, January 1996

The Study on Comprehensive Recovery Program
of Irrigation Agriculture
Japan International Cooperation Agency

Drawing 100-01
Kalaena Kiri Scheme
General Lavout

IRRIGATION DIAGRAM
A=4,037ha



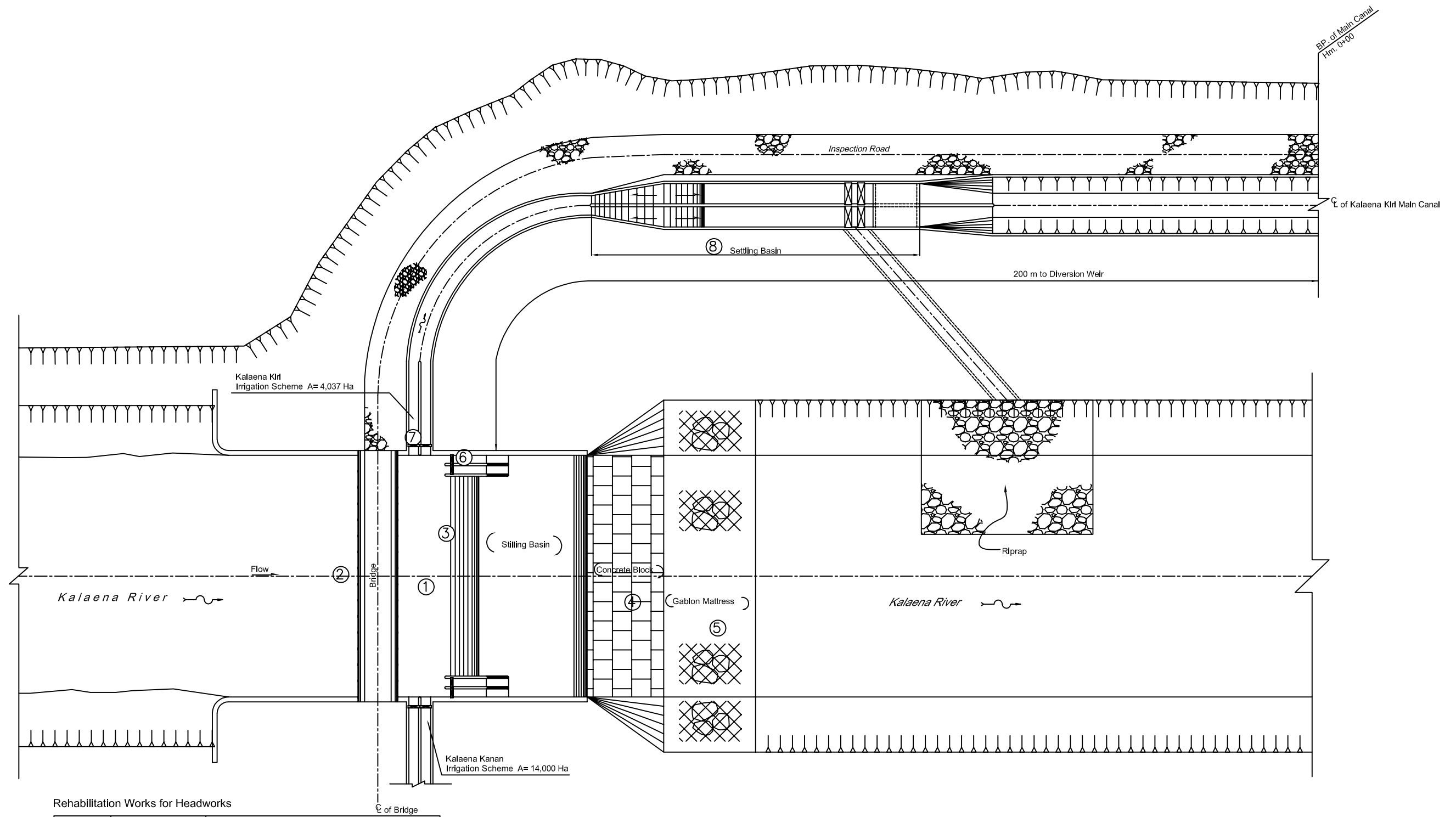
LEGEND:

- River
- Weir
- Main Canal
- Secondary Canal
- Sub Secondary Canal
- Division Structure with Offtake
- Offtake
- | |
|---|
| a |
| b |

 a. Name of Tertiary Unit
b. Net Area

Data Source :
Kalibrasi, Manual, Ujicoba, Aliran, Inspeksi, verifikasi dan Gambar
Pumalaksana Daerah Irrigasi Kalaena Kiri, January 1996

<p>The Study on Comprehensive Recovery Program of Irrigation Agriculture</p>	<p>Drawing 100-02 Kalaena Kiri Scheme Irrigation Diagram</p>
<p>Japan International Cooperation Agency</p>	



Rehabilitation Works for Headworks

Mark	Location	Rehabilitation Works
1	Upstream apron	Removal of & Sedimentation
2	Bridge	Repair of piers, provision of pavement on slab
3	Overflow Weir	Repair and provision of anti - wear concrete
4	Protection Work (1)	Provision of concrete blocks
5	Protection Work (2)	Provision of gabion mattress (≒1.2 m)
6	Scouring Sluice	Repair of sluice gates
7	Intake gate	Provision of trash rack, repair of gates, repair of civil works
8	Settling Basin	New construction of settling basin

Rehabilitation Plan of Kalaena Headworks

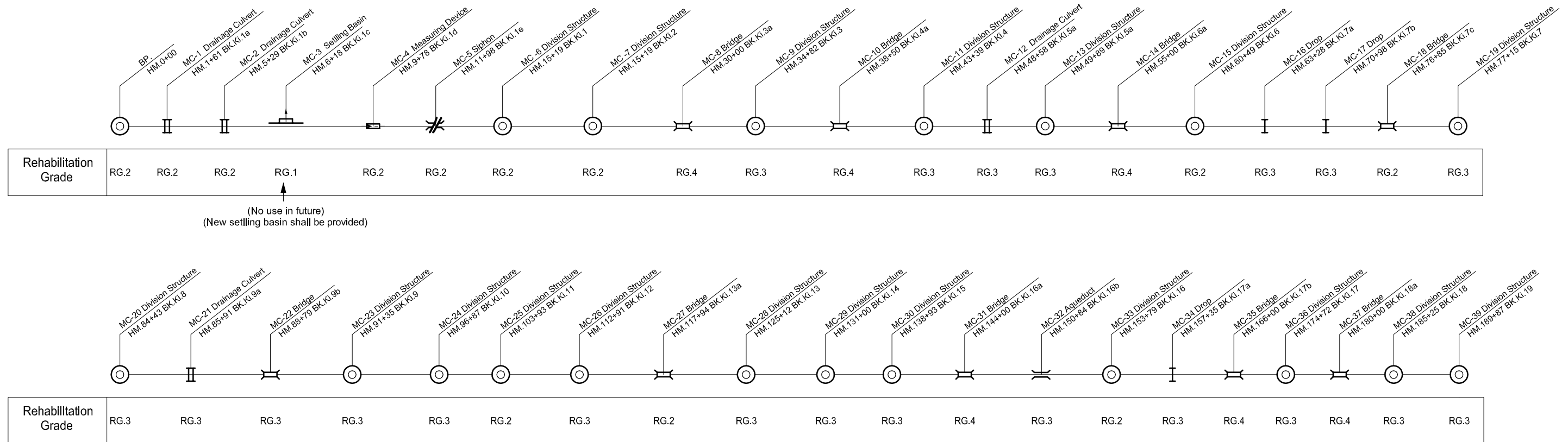
Not to Scale

The Study on Comprehensive Recovery Program
of Irrigation Agriculture

Japan International Cooperation Agency

Drawing 200-01
Kalaena Kiri Irrigation Scheme
Rehabilitation Plan of
Kalaena Headworks

REHABILITATION PLAN OF RELATED STRUCTURES



Rehabilitation grade :

- RG 1 : No Rehabilitation
- RG 2 : Minor Rehabilitation
- RG 3 : Large Scale Rehabilitation
- RG 4 : Replacement or New Construction

Legend :

- ⊙ : Division Structure
- ▭ : Drainage Culvert
- ▭ : Settling Basin
- ≡ : Siphon
- ≡ : Bridge
- ≡ : Aqueduct
- I : Drop

Summary of Rehabilitation Works of Related Structures

Structure Serial No.	Structure	HM	Name/Code of Structure	Rehabilitation Grade	Description of Rehabilitation Works	
					Civil	Metal
MC-1	Drainage Culvert	1+61	BK. Ki 1a	RG.2	C-1, 2	-
MC-2	Drainage Culvert	5+29	BK. Ki 1b	RG.2	C-1, 2	-
MC-3	Settling Basin	6+18	BK.Ki.1c	RG.1	No use in future	
MC-4	Measuring device	9+78	BK.Ki.1d	RG.2	C-2	M-4
MC-5	Siphon	11+98	BK.Ki.1e	RG.2	C-3,4	M-3
MC-6	Division Structure	15+19	BK. Ki 1	RG.2	C-2, 3	M-2, 4
MC-7	Division Structure	24+09	BK. Ki 2	RG.2	C-2, 3	M-2, 4
MC-8	Bridge	30+00	BK. Ki 3a	RG.4	New construction	
MC-9	Division Structure	34+82	BK. Ki 3	RG.3	C-2, 3	M-2, 4
MC-10	Bridge	38+50	BK. Ki 4a	RG.4	New construction	
MC-11	Division Structure	43+39	BK. Ki 4	RG.3	C-2, 3	M-2, 4
MC-12	Drainage Culvert	48+58	BK. Ki 5a	RG.3	C-1, 2	-
MC-13	Division Structure	49+89	BK. Ki 5	RG.3	C-2, 3	M-2, 4
MC-14	Bridge	55+00	BK. Ki 6a	RG.4	New construction	
MC-15	Division Structure	60+49	BK. Ki 6	RG.2	C-2, 3	M-2, 4
MC-16	Drop	63+28	BK. Ki 7a	RG.3	C-2	-
MC-17	Drop	70+98	BK. Ki 7c	RG.3	C-2	-
MC-18	Bridge	76+85	BK. Ki 7d	RG.2	C-6	-
MC-19	Division Structure	77+15	BK. Ki 7	RG.3	C-3	-
MC-20	Division Structure	84+43	BK. Ki 8	RG.3	C-2, 3	M-2, 4
MC-21	Drainage Culvert	85+91	BK. Ki 9a	RG.3	C-1, 2	-

Structure Serial No.	Structure	HM	Name/Code of Structure	Rehabilitation Grade	Description of Rehabilitation Works	
					Civil	Metal
MC-22	Bridge	88+79	BK. Ki 9b	RG.3	C-5, 6	-
MC-23	Division Structure	91+35	BK. Ki 9	RG.3	C-2, 3	M-2, 4
MC-24	Division Structure	96+87	BK. Ki 10	RG.3	C-2, 3	M-2, 4
MC-25	Division Structure	103+93	BK. Ki 11	RG.2	C-2, 3	M-2, 4
MC-26	Division Structure	112+91	BK. Ki 12	RG.3	C-2, 3	M-2, 4
MC-27	Bridge	117+94	BK. Ki 13a	RG.2	C-6	
MC-28	Division Structure	125+12	BK. Ki 13	RG.3	C-2, 3	M-2, 4
MC-29	Division Structure	131+00	BK. Ki 14	RG.3	C-2, 3	M-2, 4
MC-30	Division Structure	138+93	BK. Ki 15	RG.3	C-2, 3	M-2, 4
MC-31	Bridge	144+00	BK. Ki 16a	RG.4	New construction	
MC-32	Aqueduct	150+84	BK. Ki 16b	RG.3	C-2, 4, 5, 6	M-2, 4
MC-33	Division Structure	153+79	BK. Ki 16	RG.2	C-2, 3	M-2, 4
MC-34	Drop	157+35	BK. Ki 17a	RG.3	C-2, 4	-
MC-35	Bridge	166+00	BK. Ki 7a-1	RG.4	New construction	
MC-36	Division Structure	174+72	BK. Ki 17	RG.3	C-2, 3	M-2, 4
MC-37	Bridge	180+00	BK. Ki 18a	RG.4	New construction	
MC-38	Division Structure	185+25	BK. Ki 18	RG.3	C-2, 3	M-2, 4
MC-39	Division Structure	189+87	BK. Ki 19	RG.3	C-2, 3	M-2, 4

Description of Rehabilitation Works:

Civil works

- C-1: Removal of sediment in the barrels
- C-2: Repair of walls, slab, barrels
- C-3: Provision of slab bridge for traffic passing (T10 class)
- C-4: Provision of safety facility
- C-5: Repair of substructure
- C-6: Repair of superstructure
- C-7: Provision of measuring facility

Metal Works

- M-1: Major repair of gates and hoists
- M-2: Provision of additional gates
- M-3: Provision of trash rack
- M-4: Painting and lubricating to facility

The Study on Comprehensive Recovery Program
of Irrigation Agriculture

Japan International Cooperation Agency

Drawing 300-02
Kalaena Kiri Scheme
Rehabilitation Plan of Main Canal
Related Structures