

## **ANNEX-2 DESIGN DRAWINGS**

**THE STUDY ON IMPLEMENTATION OF INTEGRATED SPATIAL PLAN FOR THE  
MAMMINASATA METROPOLITAN AREA, SOUTH SULAWESI PROVINCE IN INDONESIA**

**PRE-FEASIBILITY STUDY**

**FOR**

**IMPROVEMENT OF URIP - PERINTIS ROAD  
DRAWINGS**

**JUNE 2006**

** JICA JAPAN INTERNATIONAL COOPERATION AGENCY**

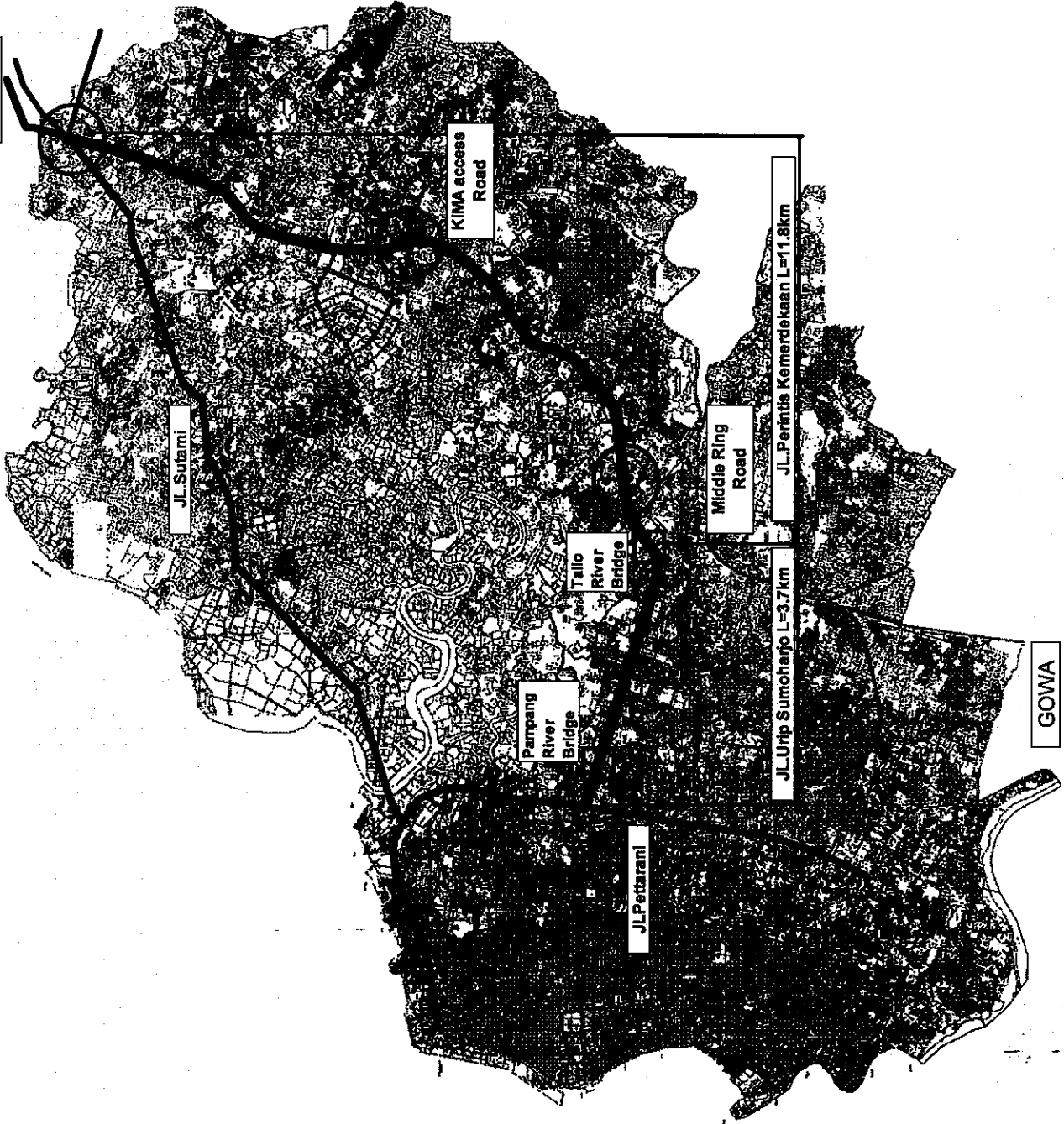
**KRI INTERNATIONAL CORPORATION** in joint venture with  **NIPPON KOEI Co., Ltd.**

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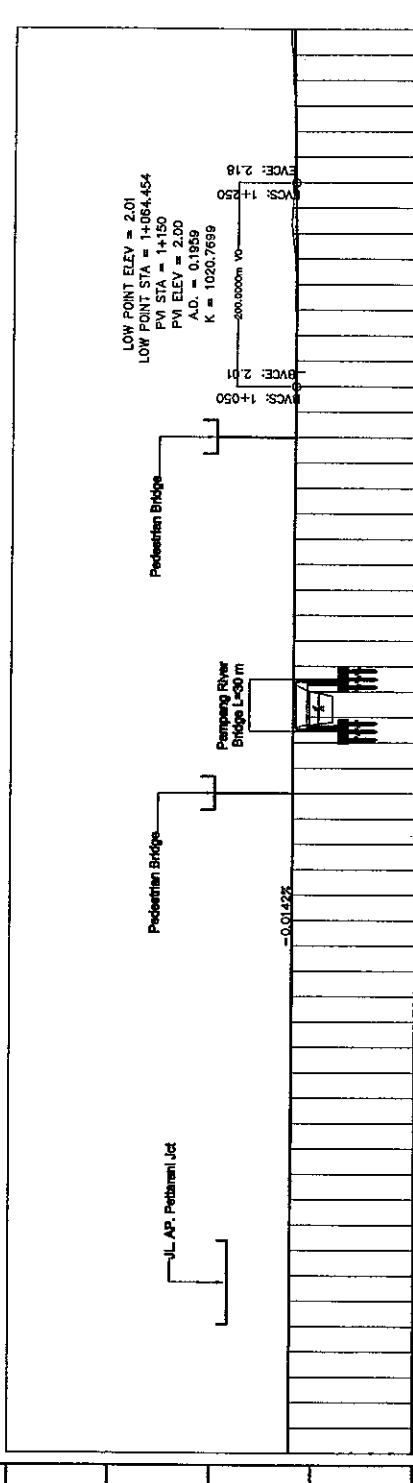
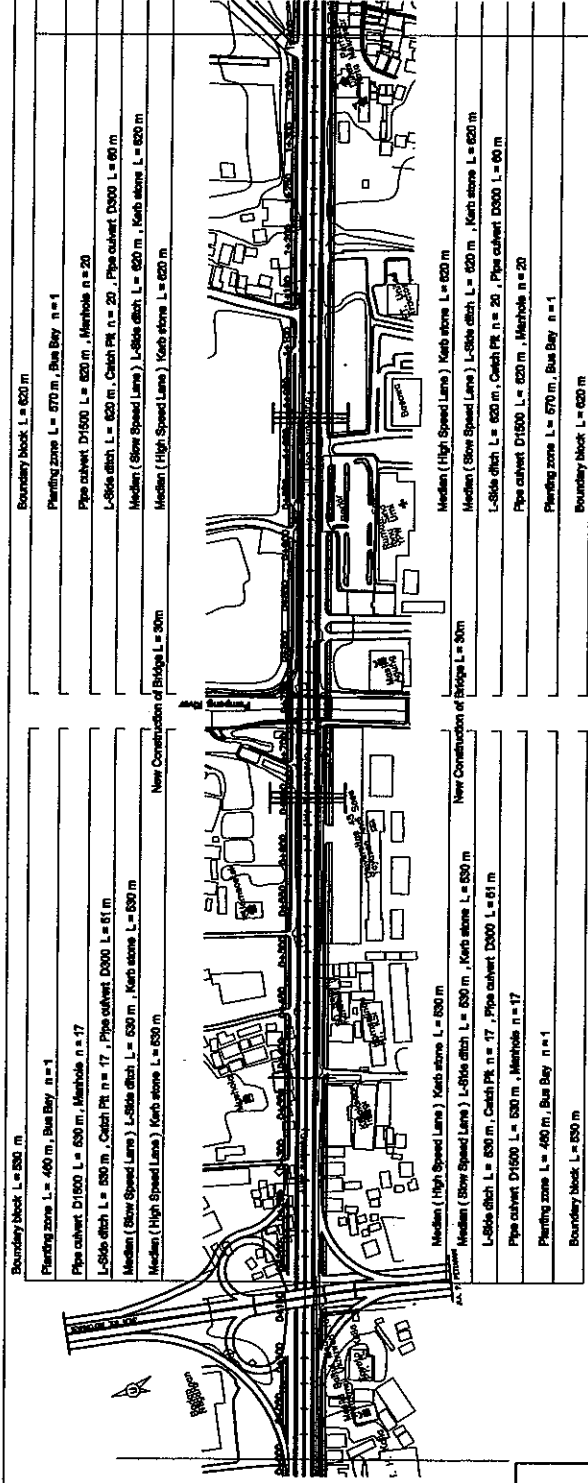
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LOCATION MAP

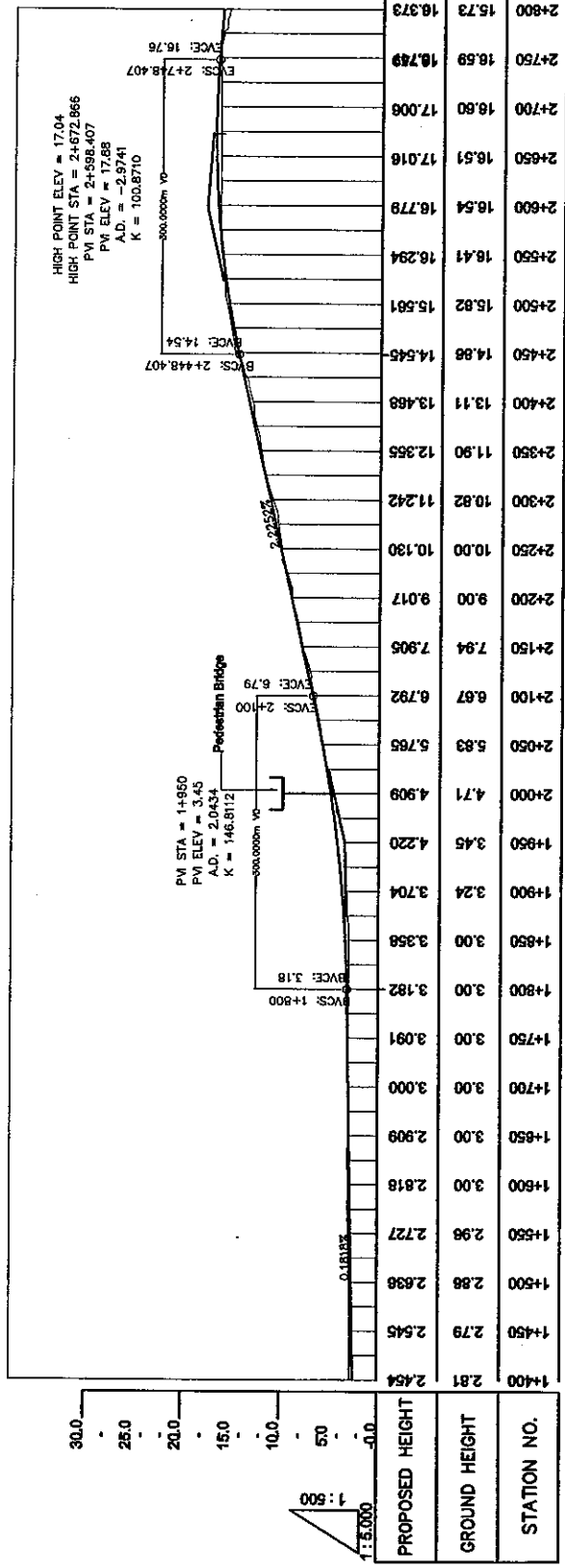
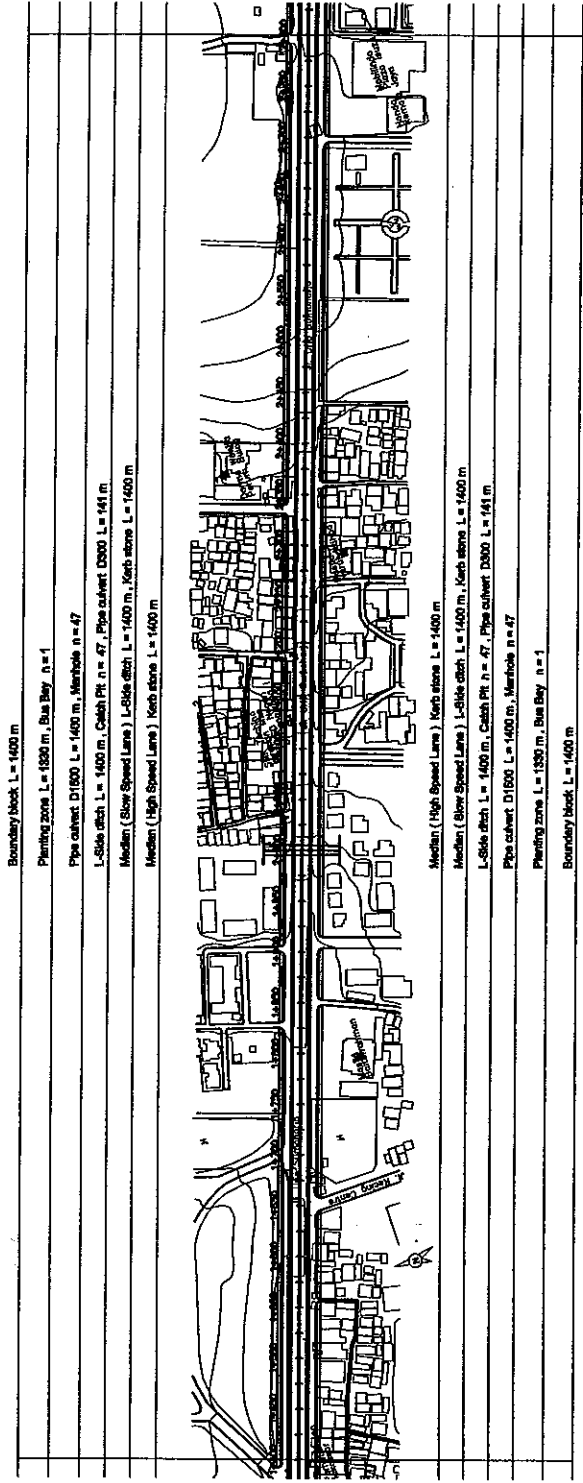
MAROS

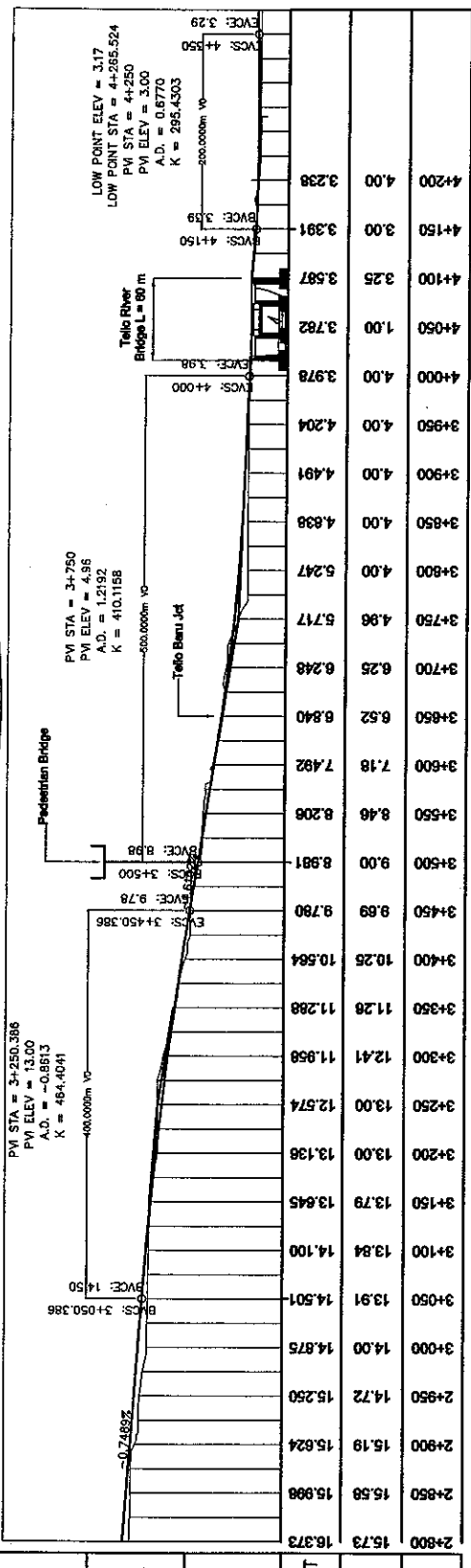
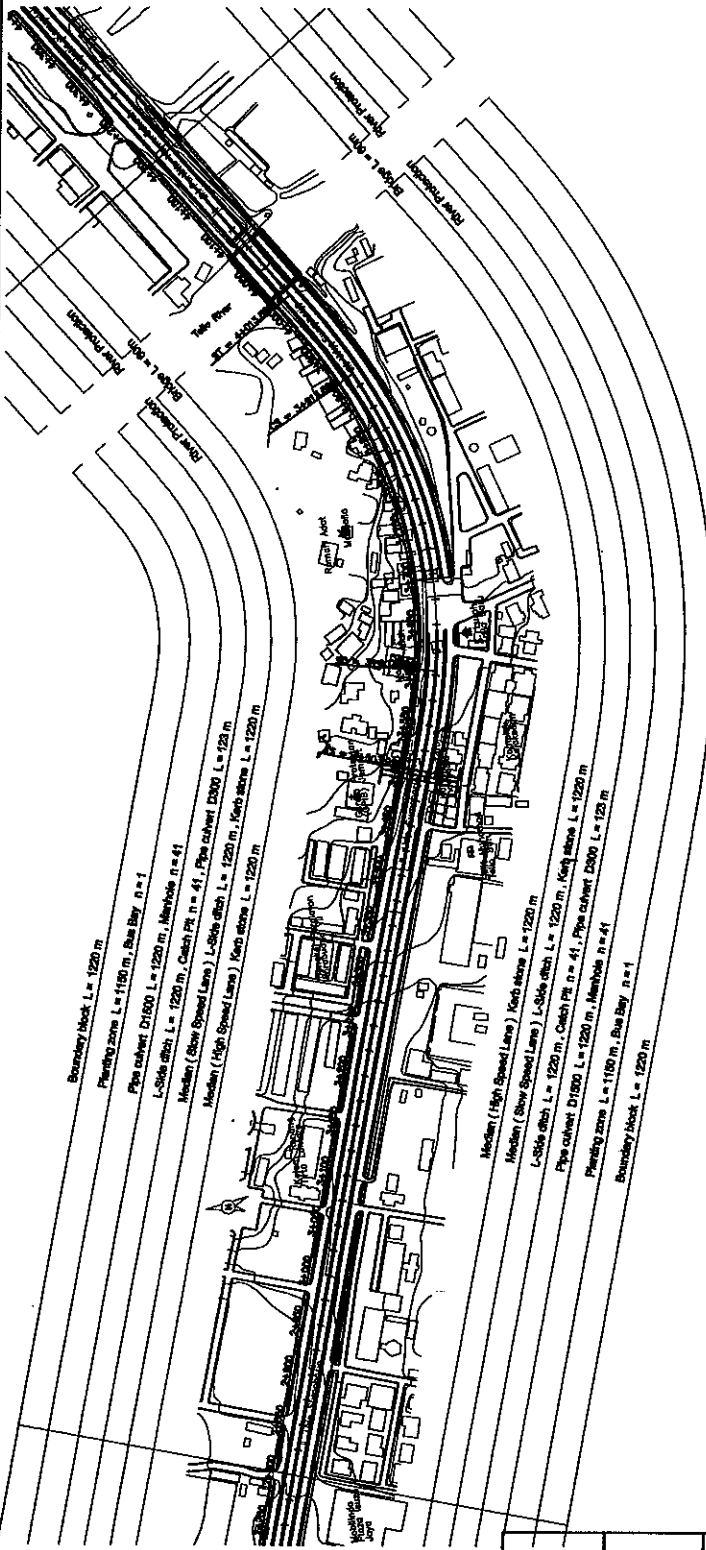


GOWA



PROPOSED HEIGHT	GROUND HEIGHT	STATION NO.
2.16	2.16	0+000
2.16	2.20	0+050
2.19	2.19	0+100
2.15	2.14	0+150
2.08	2.13	0+200
2.05	2.12	0+250
2.13	2.13	0+300
2.12	2.13	0+350
2.00	2.11	0+400
2.09	2.10	0+450
2.02	2.09	0+500
2.02	2.09	0+550
2.02	2.08	0+600
2.02	2.07	0+650
2.02	2.07	0+700
2.05	2.06	0+750
2.00	2.05	0+800
2.00	2.04	0+850
2.00	2.03	0+900
2.00	2.02	0+950
2.02	2.02	1+000
2.00	2.01	1+050
2.00	2.01	1+100
2.00	2.01	1+150
2.51	2.43	1+200
2.10	2.10	1+250
2.27	2.18	1+300
2.31	2.27	1+350
2.53	2.36	1+400
2.81	2.64	1+450
2.45	2.45	1+500





STATION NO.	GROUND HEIGHT	PROPOSED HEIGHT
2+800	15.73	16.373
2+850	15.98	15.998
2+900	15.19	15.624
2+950	14.72	15.250
3+000	14.00	14.875
3+050	13.91	14.501
3+100	13.84	14.100
3+150	13.79	13.645
3+200	13.00	13.136
3+250	12.41	12.574
3+300	11.28	11.958
3+350	11.26	11.288
3+400	10.26	10.564
3+450	9.89	9.780
3+500	9.00	8.981
3+550	8.46	8.206
3+600	7.18	7.492
3+650	6.52	6.840
3+700	6.25	6.248
3+750	4.96	5.717
3+800	4.00	5.247
3+850	4.00	4.838
3+900	4.00	4.491
3+950	4.00	4.204
4+000	4.00	3.978
4+050	1.00	3.782
4+100	3.25	3.587
4+150	3.00	3.391
4+200	4.00	3.238

**PLAN AND PROFILE**  
**STA. 2+800 - STA. 4+200**

PROJECT TITLE: **PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD**

DRAWING NO. **4**

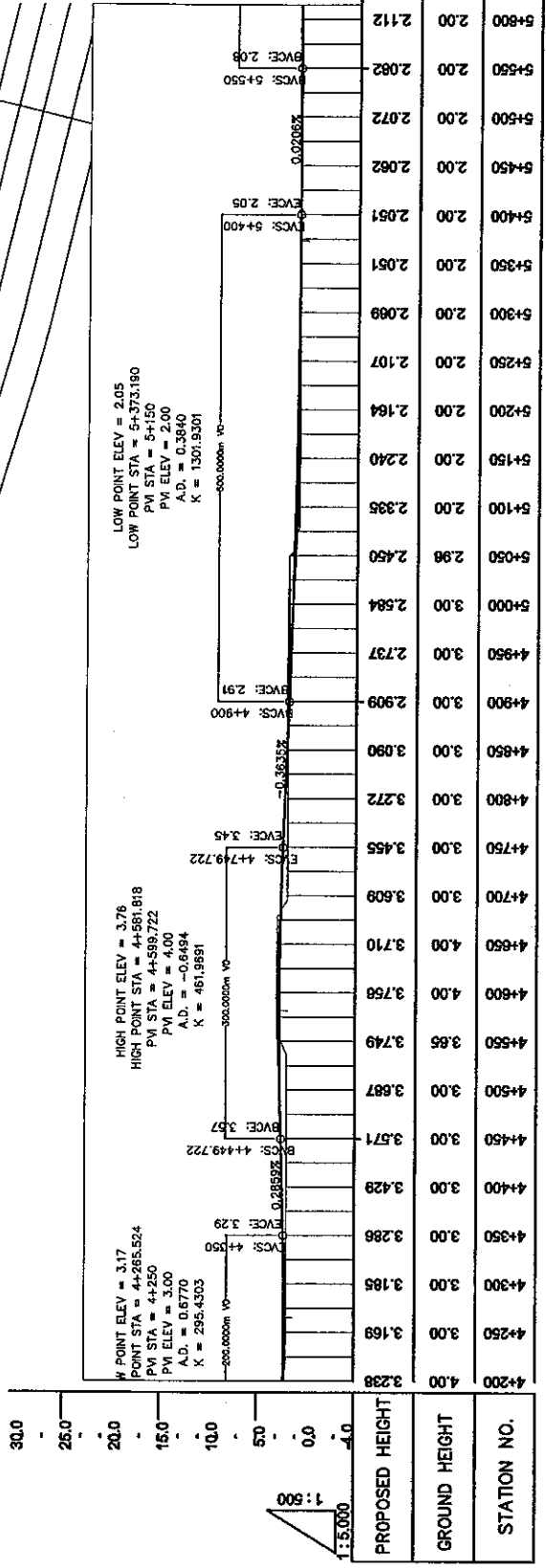
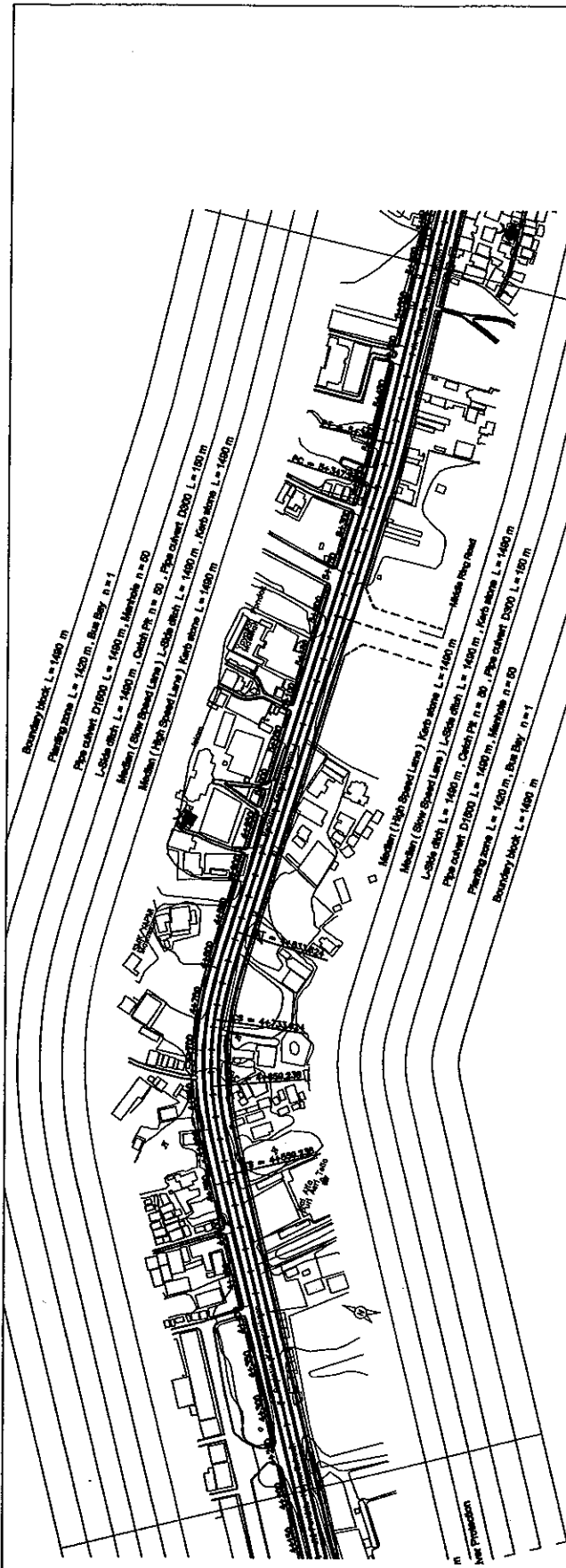
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DATE: **JUNE 2006**

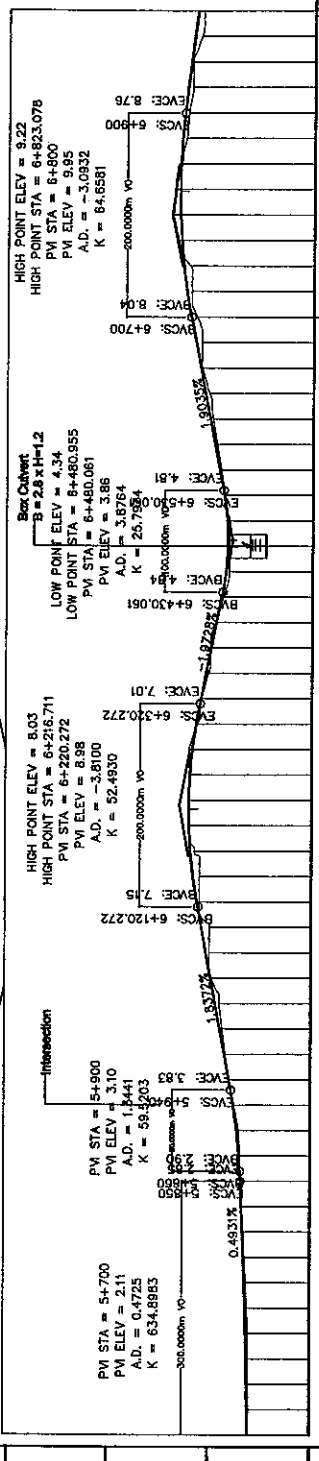
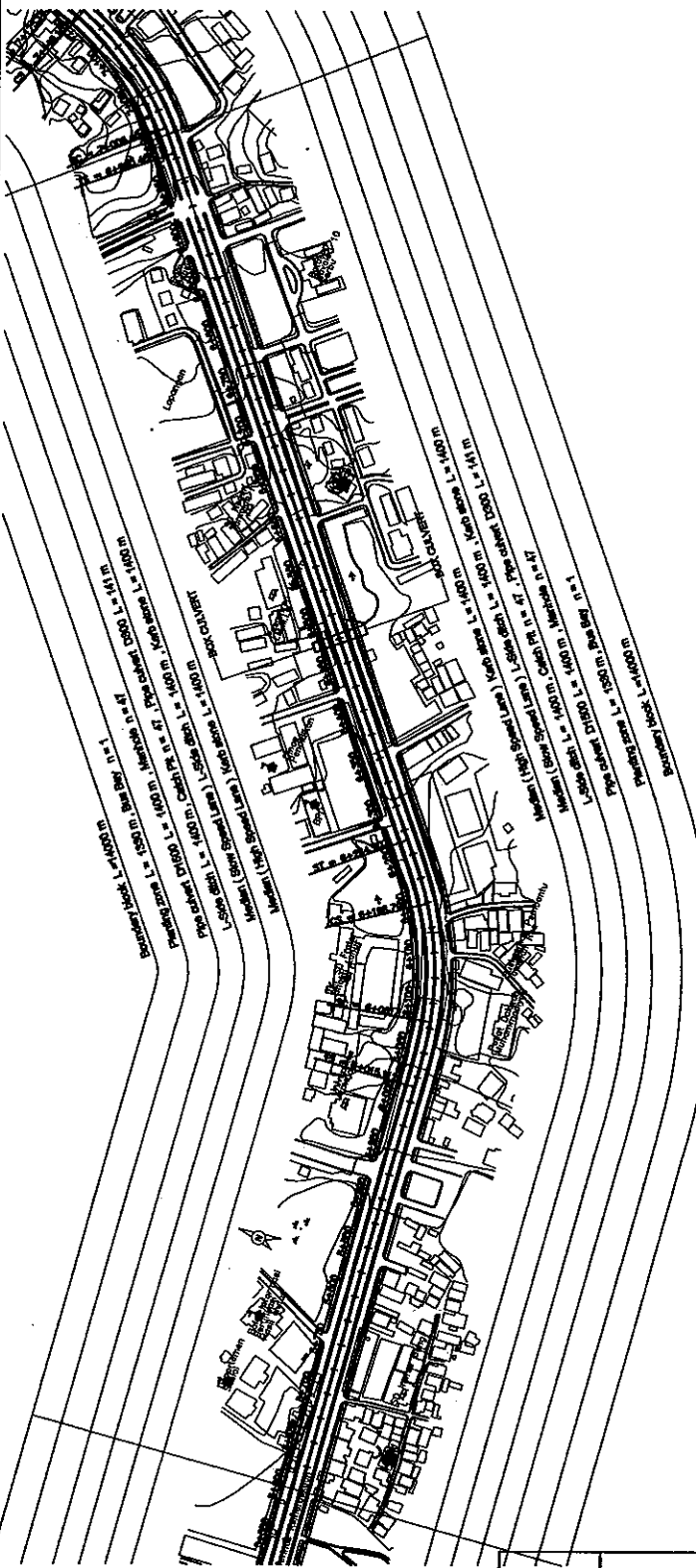
JICA  
**JAPAN INTERNATIONAL COOPERATION AGENCY**

KRI  
**INTERNATIONAL CORPORATION**

NIPPON ICGE CO., LTD.







STATION NO.	PROPOSED HEIGHT	GROUND HEIGHT
5+800	2.00	2.112
5+850	2.182	2.290
5+900	2.439	2.628
5+950	2.80	2.869
6+000	3.10	3.234
6+050	4.018	4.937
6+100	4.70	5.855
6+150	5.82	6.774
6+200	7.00	7.608
6+250	8.00	7.927
6+300	8.00	7.371
6+350	8.18	6.424
6+400	8.50	5.438
6+450	4.21	4.528
6+500	4.28	4.413
6+550	5.05	5.190
6+600	5.89	6.141
6+650	6.96	7.093
6+700	7.51	8.045
6+750	8.20	8.823
6+800	9.95	9.175
6+850	9.09	9.160
6+900	8.43	8.759
6+950	8.00	8.164
7+000	7.58	7.569

**PLAN AND PROFILE**  
STA. 5+600 - STA. 7+000

SCALE = 1/5,000

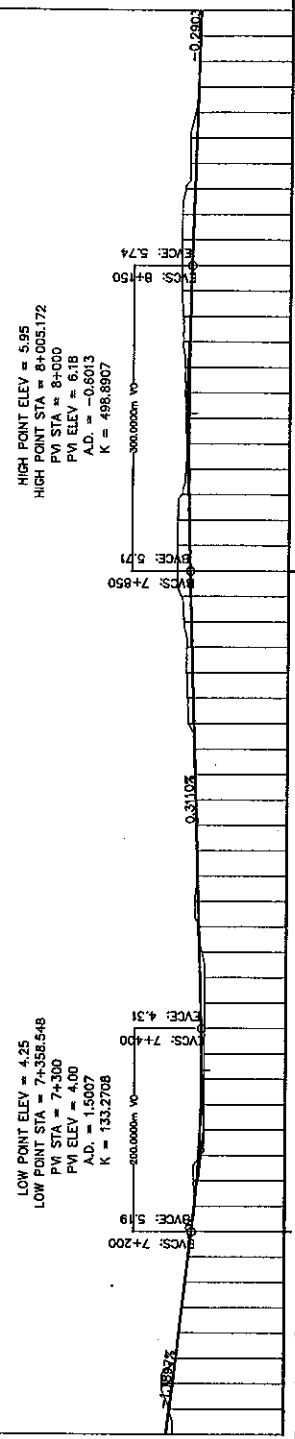
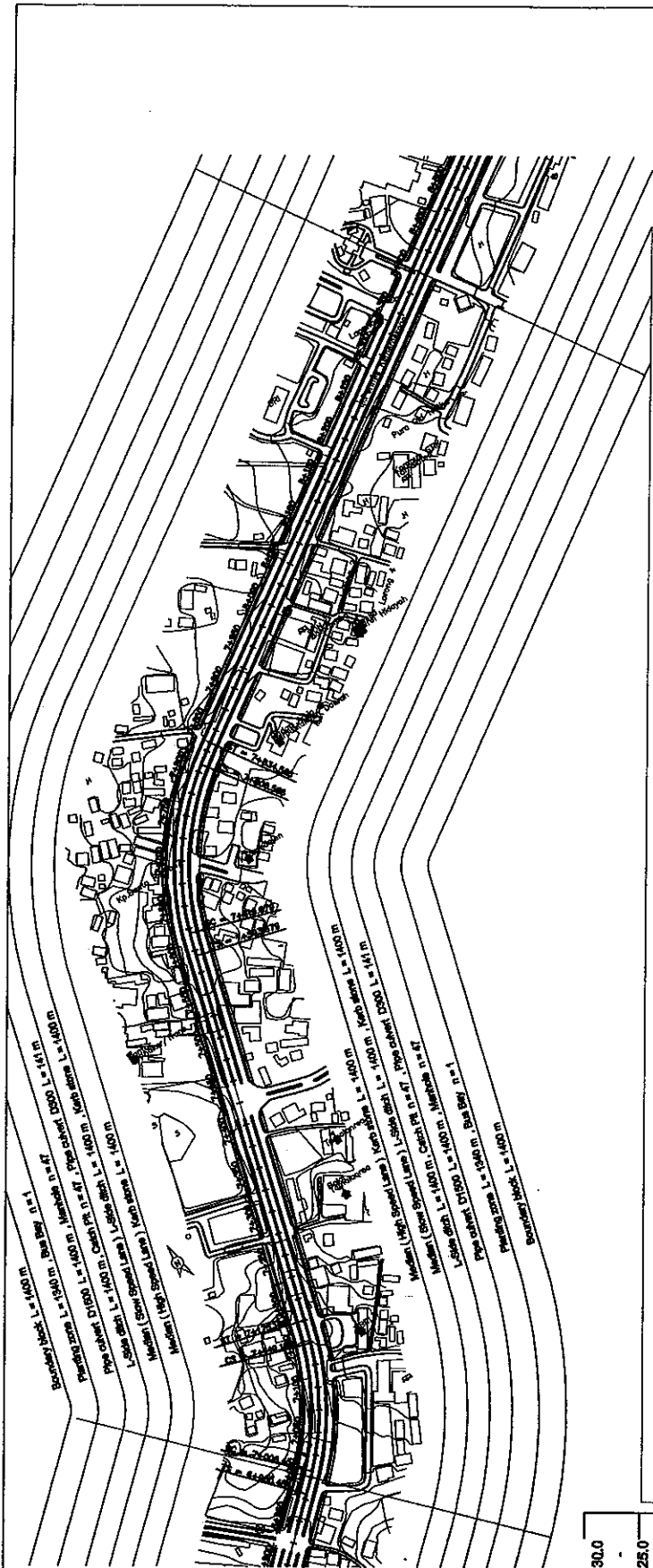
PROJECT TITLE:  
**PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD**

DRAWING NO.: 6

DATE: JUNE 2006

JICA JAPAN INTERNATIONAL COOPERATION AGENCY  
KRI INTERNATIONAL CORPORATION

WIPONIKOE CO., LTD.



STATION NO.	GROUND HEIGHT	PROPOSED HEIGHT
7+000	8.00	7.589
7+050	8.974	8.974
7+100	5.99	6.379
7+150	5.785	5.785
7+200	5.01	5.190
7+250	5.00	4.889
7+300	4.00	4.375
7+350	4.00	4.249
7+400	4.00	4.311
7+450	4.00	4.467
7+500	4.75	4.822
7+550	5.98	4.778
7+600	5.00	4.933
7+650	5.00	5.089
7+700	6.00	5.244
7+750	6.00	5.400
7+800	6.30	5.555
7+850	7.00	5.711
7+900	7.00	5.841
7+950	6.23	5.922
8+000	6.18	5.952
8+050	6.36	5.932
8+100	6.58	5.882
8+150	6.75	5.742
8+200	6.76	5.697
8+250	6.00	5.451
8+300	5.54	5.308
8+350	5.16	5.161
8+400	5.35	5.018

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY  
 KRI INTERNATIONAL CORPORATION

PROJECT TITLE: **PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URUP SUMCHARJO ROAD - PERINTIS KEMERDEKAAN ROAD**

STATIONING: **STA. 7+000 - STA. 8+400**

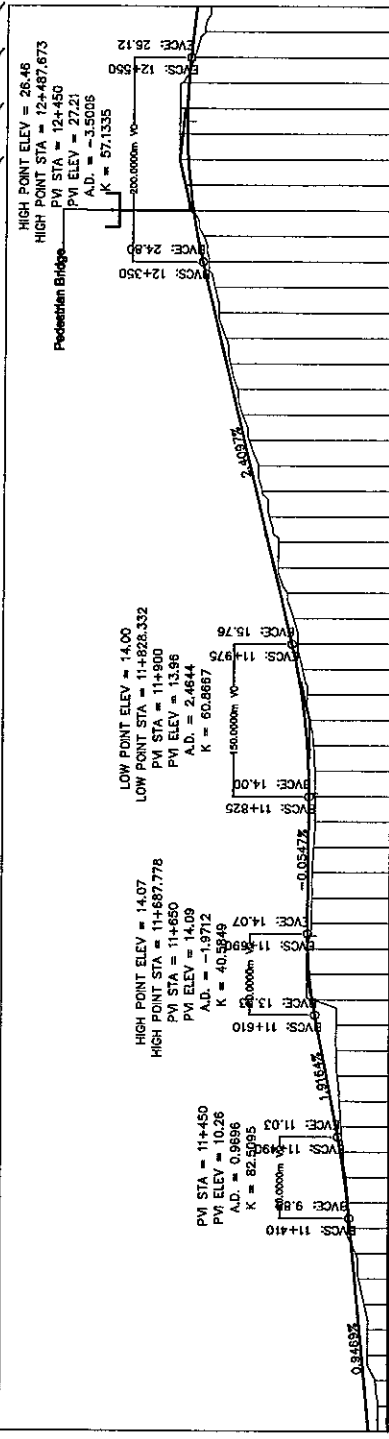
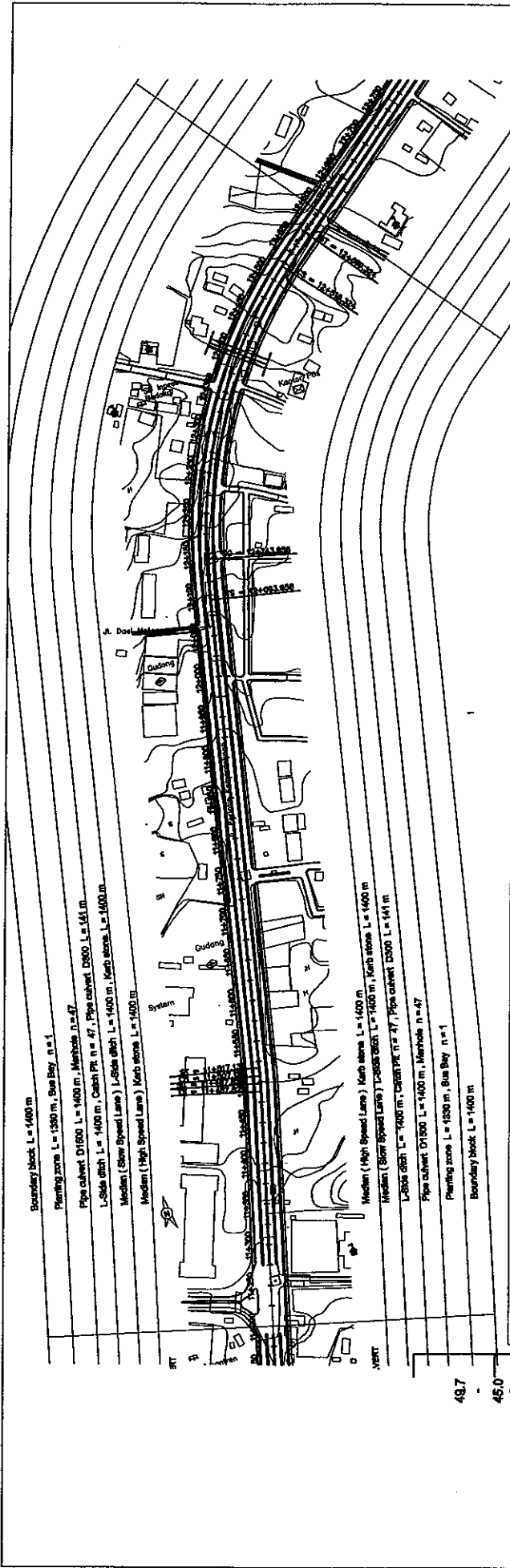
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DATE: **JUNE 2006**

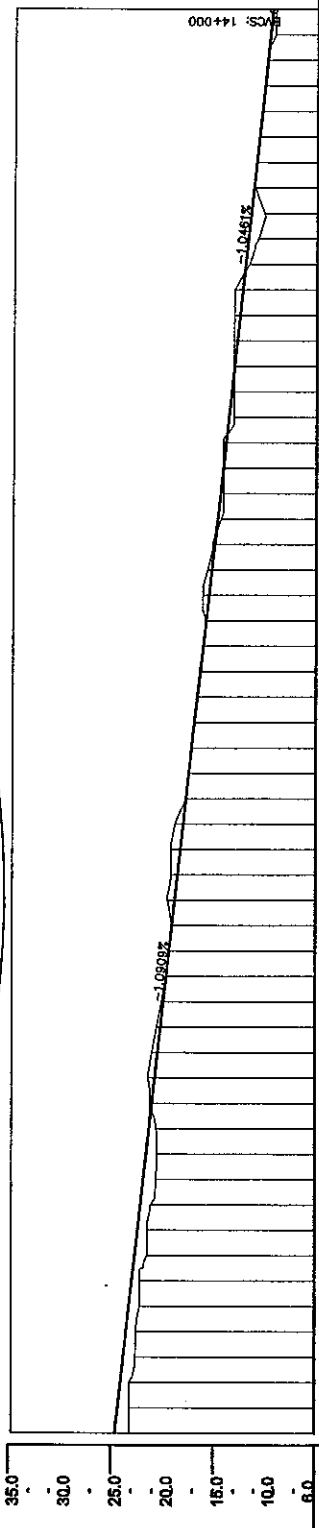
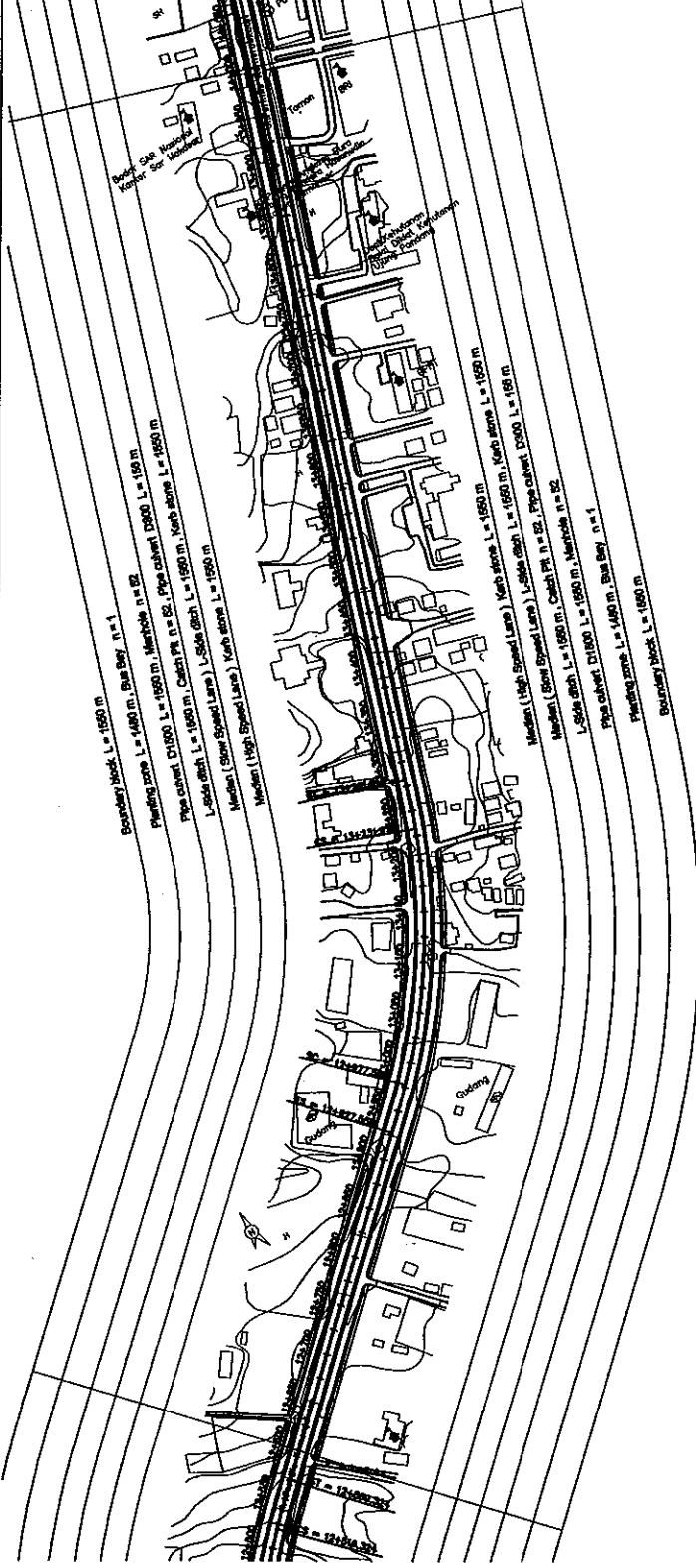
PROJECT NO. **7**







STATION NO.	GROUND HEIGHT	PROPOSED HEIGHT
11+200	7.00	7.894
11+250	7.25	8.367
11+300	8.00	8.841
11+350	8.91	9.314
11+400	10.00	9.787
11+450	10.26	10.358
11+500	10.71	11.219
11+550	11.10	12.177
11+600	11.22	13.135
11+650	14.09	13.897
11+700	13.88	14.086
11+750	13.65	14.039
11+800	13.40	14.012
11+850	13.44	14.036
11+900	13.96	14.419
11+950	14.71	15.213
12+000	15.62	16.367
12+050	17.21	17.571
12+100	18.07	18.776
12+150	19.21	19.981
12+200	20.82	21.186
12+250	22.02	22.391
12+300	23.21	23.596
12+350	24.21	24.800
12+400	26.18	25.786
12+450	27.21	26.335
12+500	27.21	26.446
12+550	28.79	28.119
12+600	24.21	25.574



STATION NO.	GROUND HEIGHT	PROPOSED HEIGHT
12+600	24.21	25.574
12+650	24.21	25.028
12+700	23.55	24.483
12+750	23.21	23.937
12+800	22.43	23.392
12+850	21.63	22.846
12+900	21.61	22.301
12+950	21.755	21.755
13+000	21.53	21.210
13+050	20.21	20.665
13+100	19.33	20.119
13+150	20.21	19.574
13+200	20.21	19.028
13+250	18.03	18.483
13+300	17.21	17.937
13+350	17.65	17.392
13+400	17.11	16.846
13+450	16.75	16.301
13+500	15.45	15.755
13+550	15.21	15.210
13+600	14.21	14.664
13+650	14.21	14.119
13+700	14.21	13.574
13+750	12.68	13.028
13+800	11.21	12.483
13+850	11.71	11.937
13+900	11.01	11.392
13+950	10.61	10.846
14+000	10.21	10.301

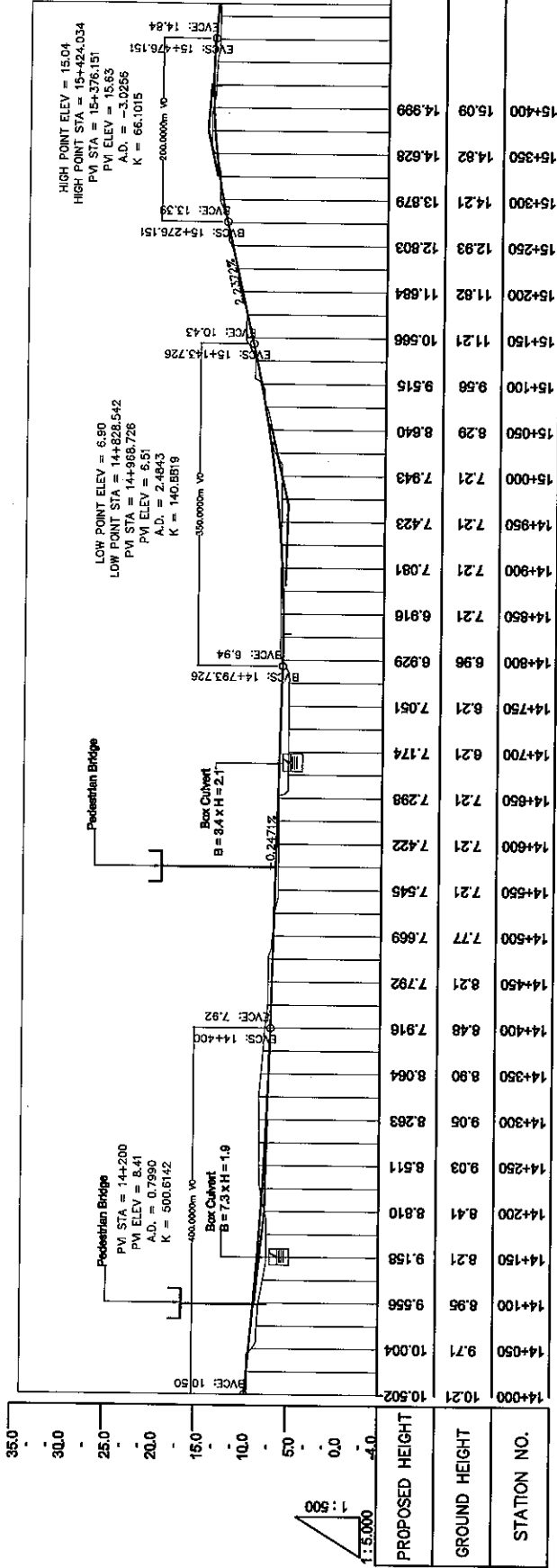
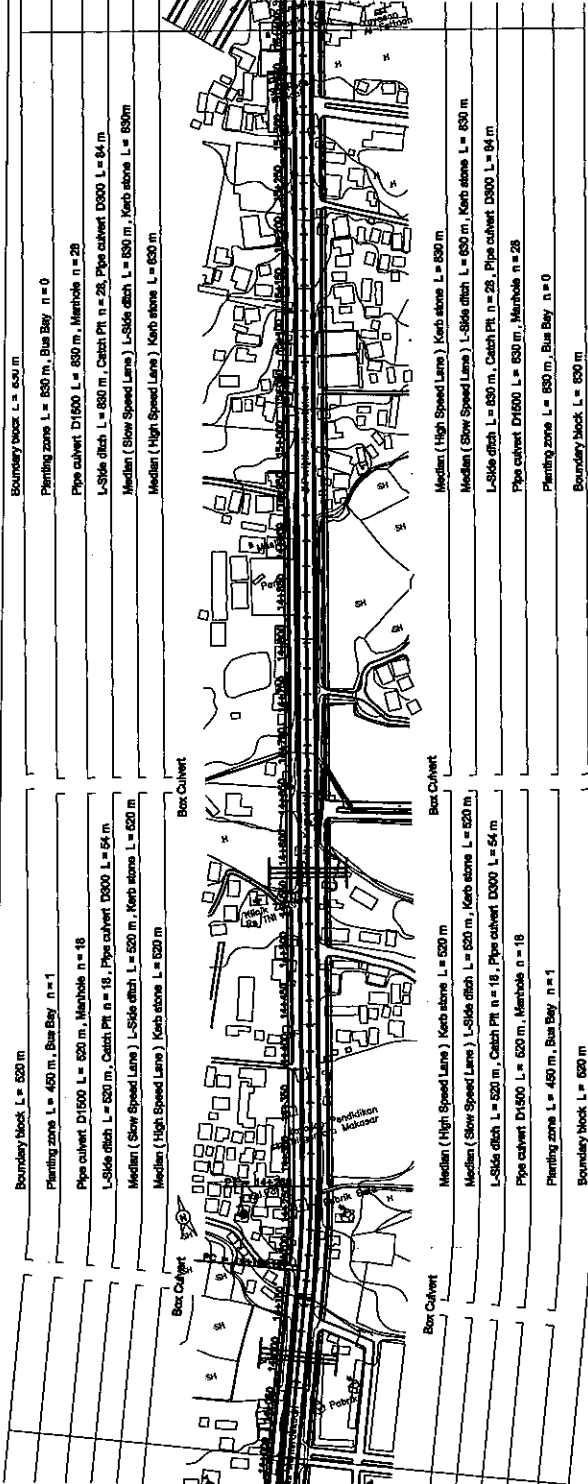
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY  
 KRI INTERNATIONAL CORPORATION

PROJECT TITLE:  
 PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
 URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD

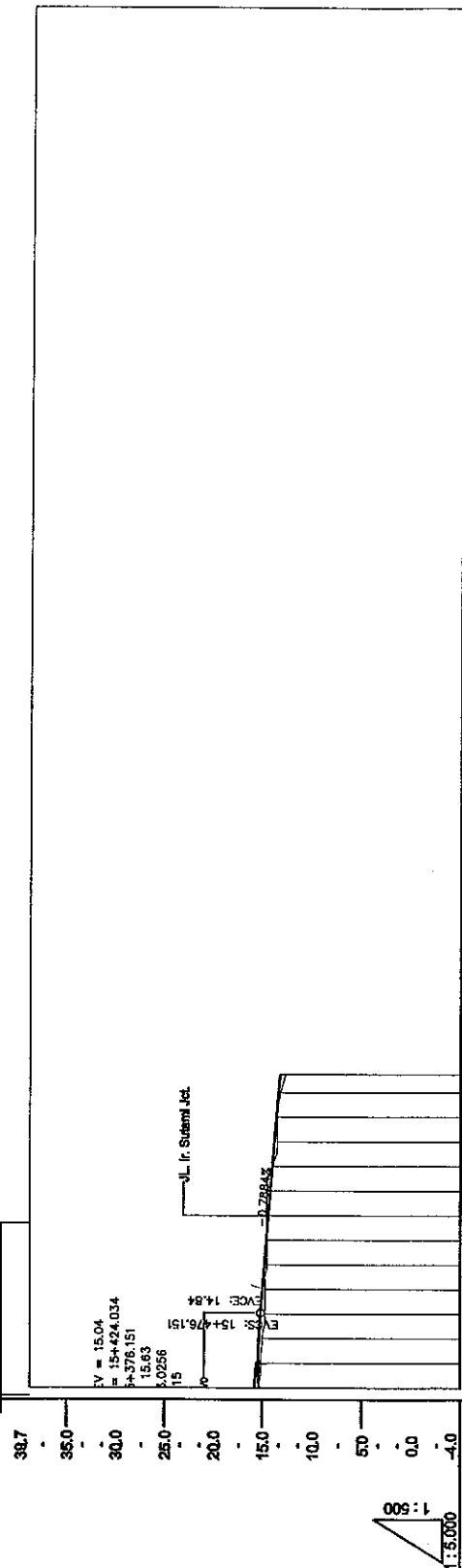
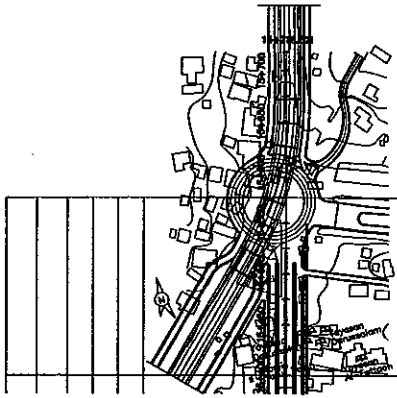
DESIGN TITLE:  
 PLAN AND PROFILE  
 STA. 12+600 - STA. 14+000

SCALE = 1/5,000

DATE: JUNE 2008  
 DRAWING NO. 11



STATION NO.	GROUND HEIGHT	PROPOSED HEIGHT
14+000	10.21	10.502
14+050	9.71	10.004
14+100	8.95	9.556
14+150	8.21	9.158
14+200	8.41	8.810
14+250	8.03	8.511
14+300	9.05	8.283
14+350	8.90	8.064
14+400	8.48	7.916
14+450	8.21	7.792
14+500	7.77	7.669
14+550	7.21	7.545
14+600	7.21	7.422
14+650	7.21	7.298
14+700	6.21	7.174
14+750	6.21	7.051
14+800	6.96	6.829
14+850	7.21	6.918
14+900	7.21	7.091
14+950	7.21	7.423
15+000	7.21	7.943
15+050	8.29	8.840
15+100	9.56	9.515
15+150	11.21	10.566
15+200	11.82	11.684
15+250	12.93	12.803
15+300	14.21	13.879
15+350	14.82	14.628
15+400	15.09	14.999



IV = 15.04  
 = 15+424.034  
 P = 376.151  
 15.63  
 0.0256  
 15

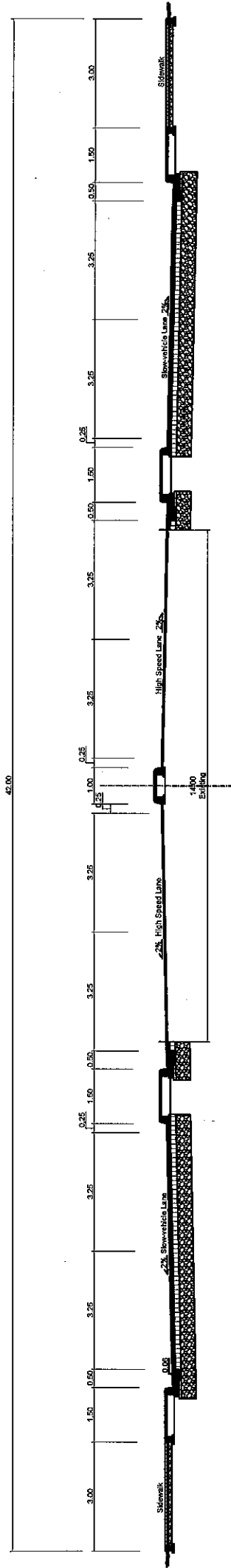
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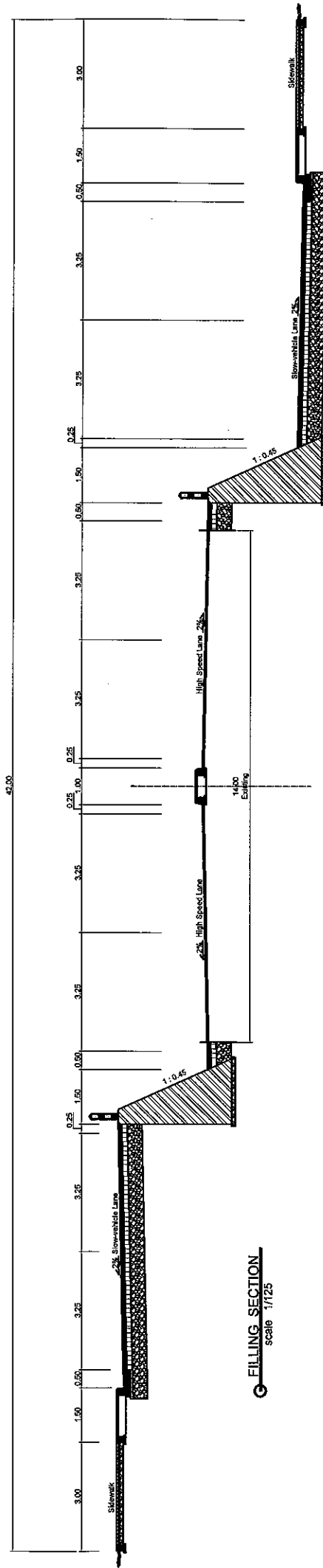
STATION NO.	GROUND HEIGHT	PROPOSED HEIGHT
15+400	15.09	14.999
15+450	14.69	14.991
15+500	14.37	14.649
15+550	14.21	14.255
15+600	14.21	13.880
15+650	13.21	13.466
15+700	12.86	13.072
15+718	12.34	12.854

<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY <small>INTERNATIONAL COOPERATION AGENCY</small>	PROJECT TITLE : <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING NO. <b>13</b>
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**FLAT SECTION**  
scale 1/125

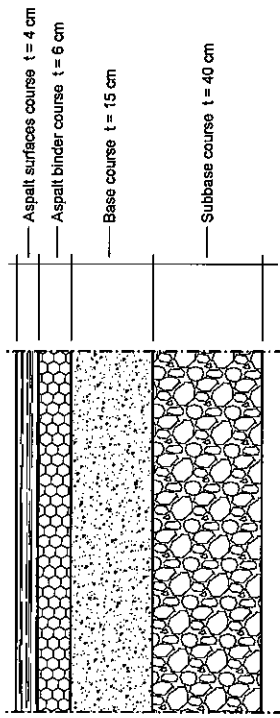


**FILLING SECTION**  
scale 1/125

**CUTTING SECTION**  
scale 1/125

JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING TITLE: <b>TYPICAL CROSS SECTION</b>	DRAWING NO. <b>14</b>
	SCALE = <b>1/125</b>	DATE <b>JUNE 2006</b>	

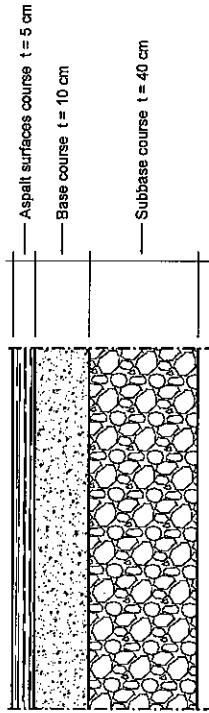
Carriageway (High speed lane / Slow speed lane / Intersection)



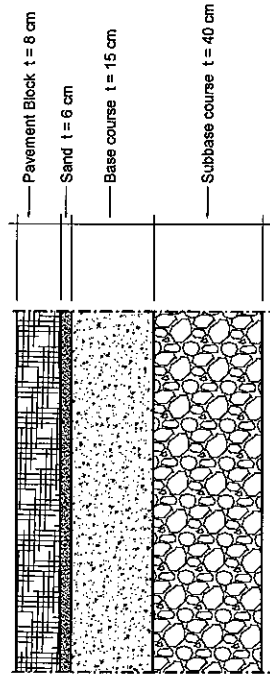
Carriageway (Bridge Section) and Over Lay



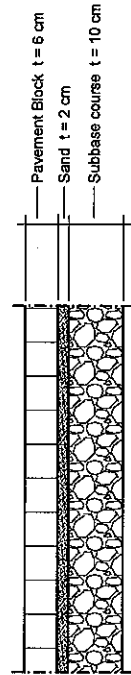
Access Road



Bus Bay

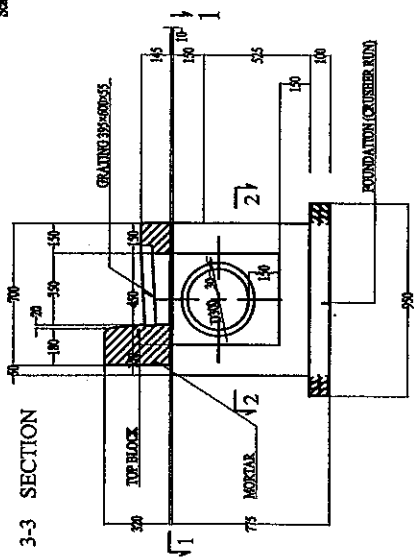


Sidewalk



### CATCH PIT(300)

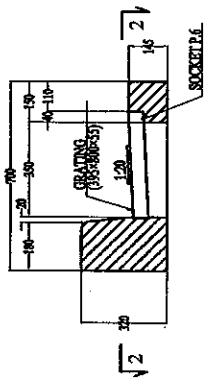
Scale 1/50



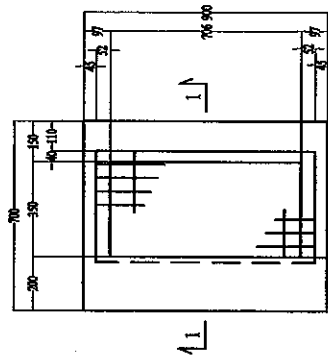
### TOP BLOCK

Scale 1/20

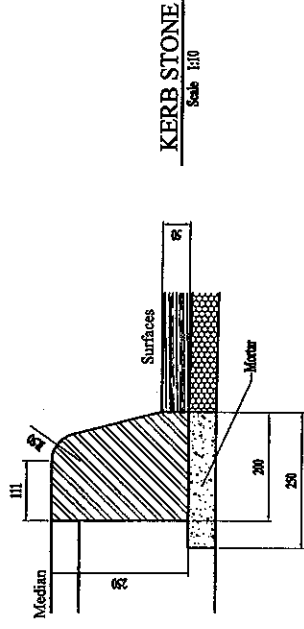
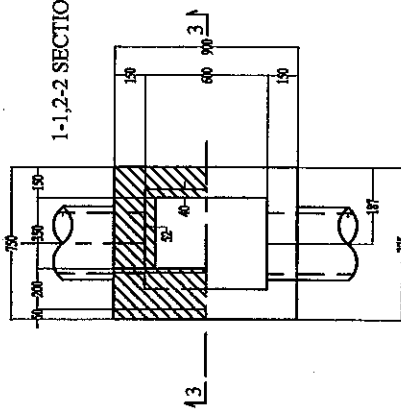
1-1 SECTION



2-2 SECTION

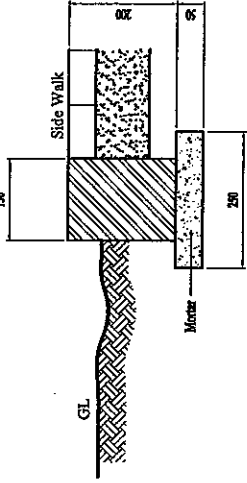


1-1,2-2 SECTION



### KERB STONE

Scale 1/10

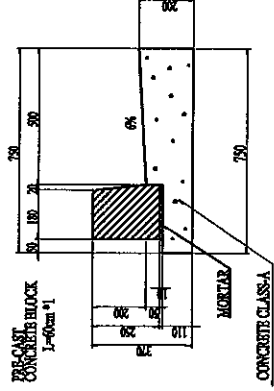


### BOUNDARY BLOCK

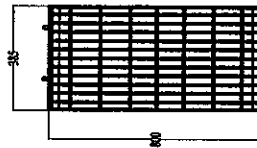
Scale 1/10

### L-SIDE DITCH

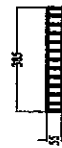
Scale 1/20



GRATING (T-20)

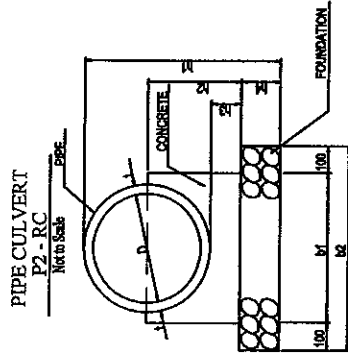
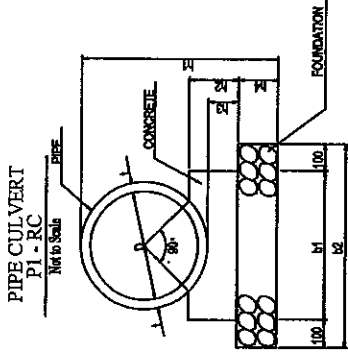
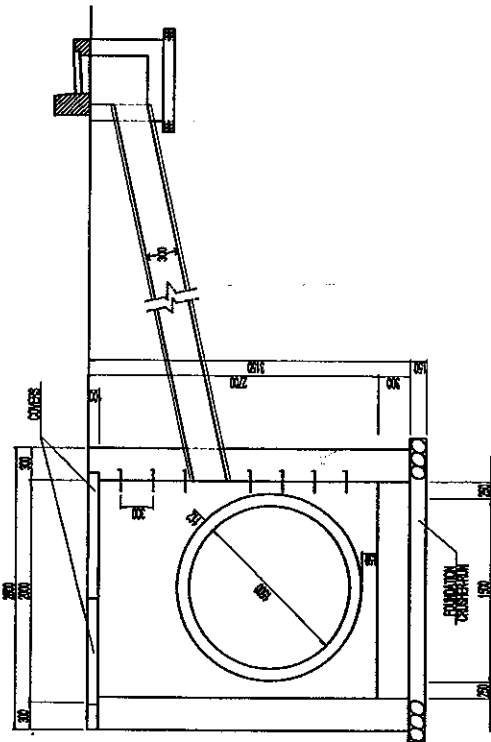


ANCHOR DIA

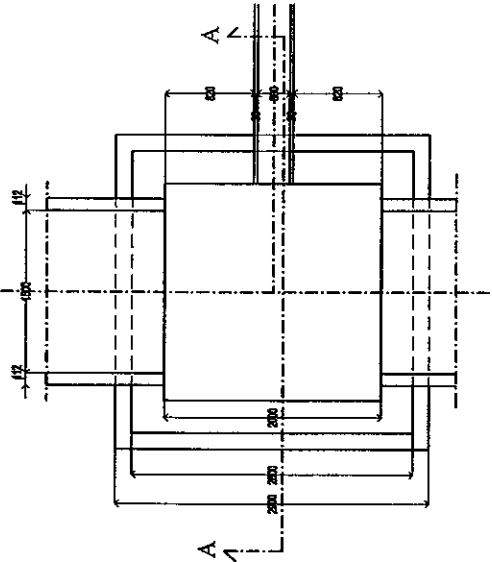


<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY <small>INTERNATIONAL CORPORATION</small>	<b>PROJECT TITLE:</b> PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD	<b>DRAWING NO.</b> 16
	<b>SCALE =</b> 1/50 1/20 1/10	<b>DATE</b> JUNE 2006

SECTION - A  
Scale 1:50

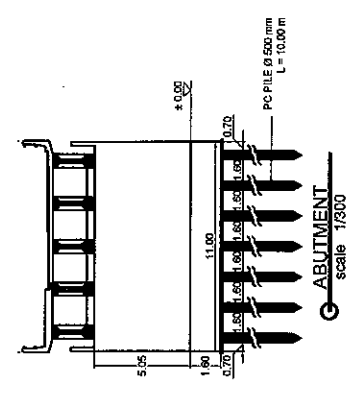
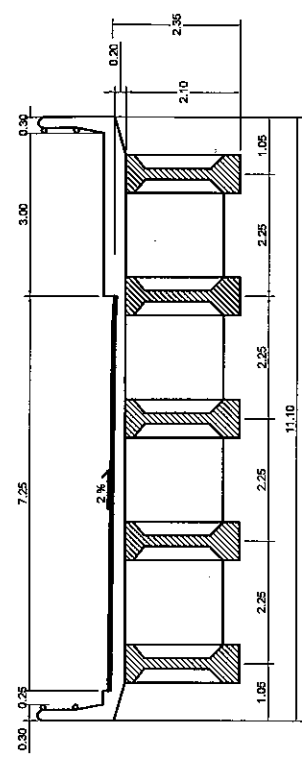
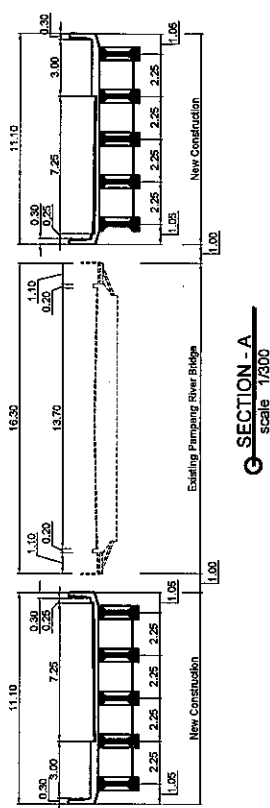
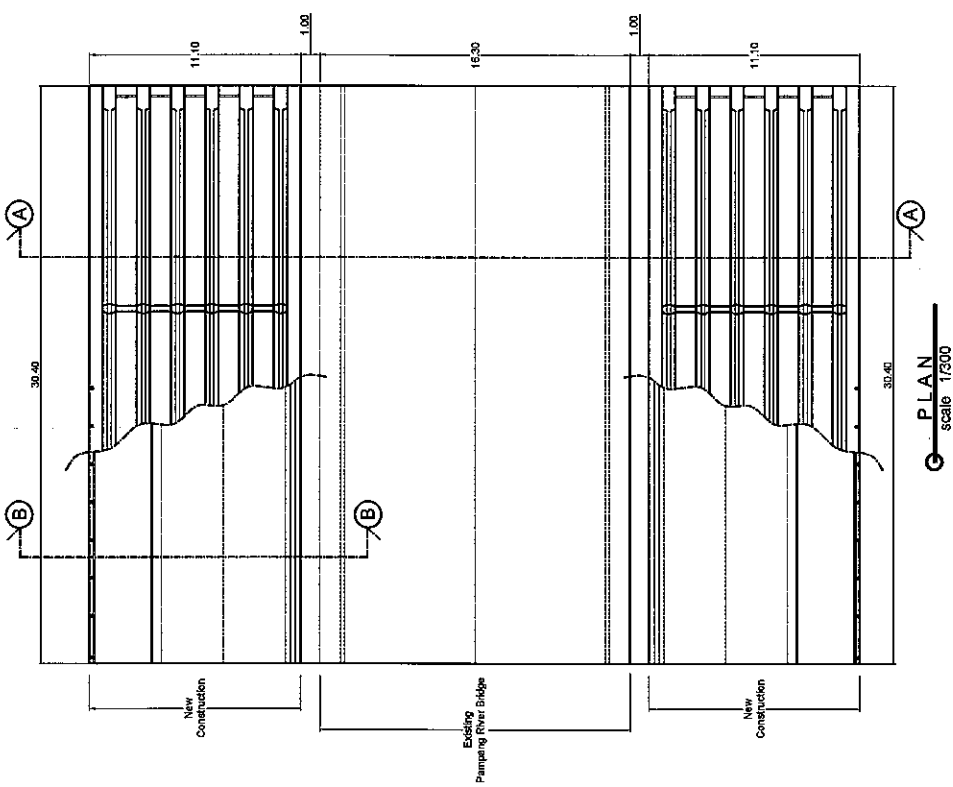
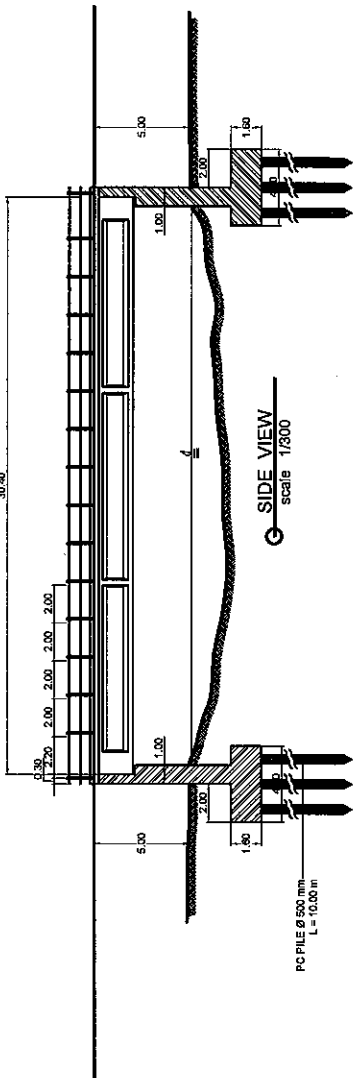


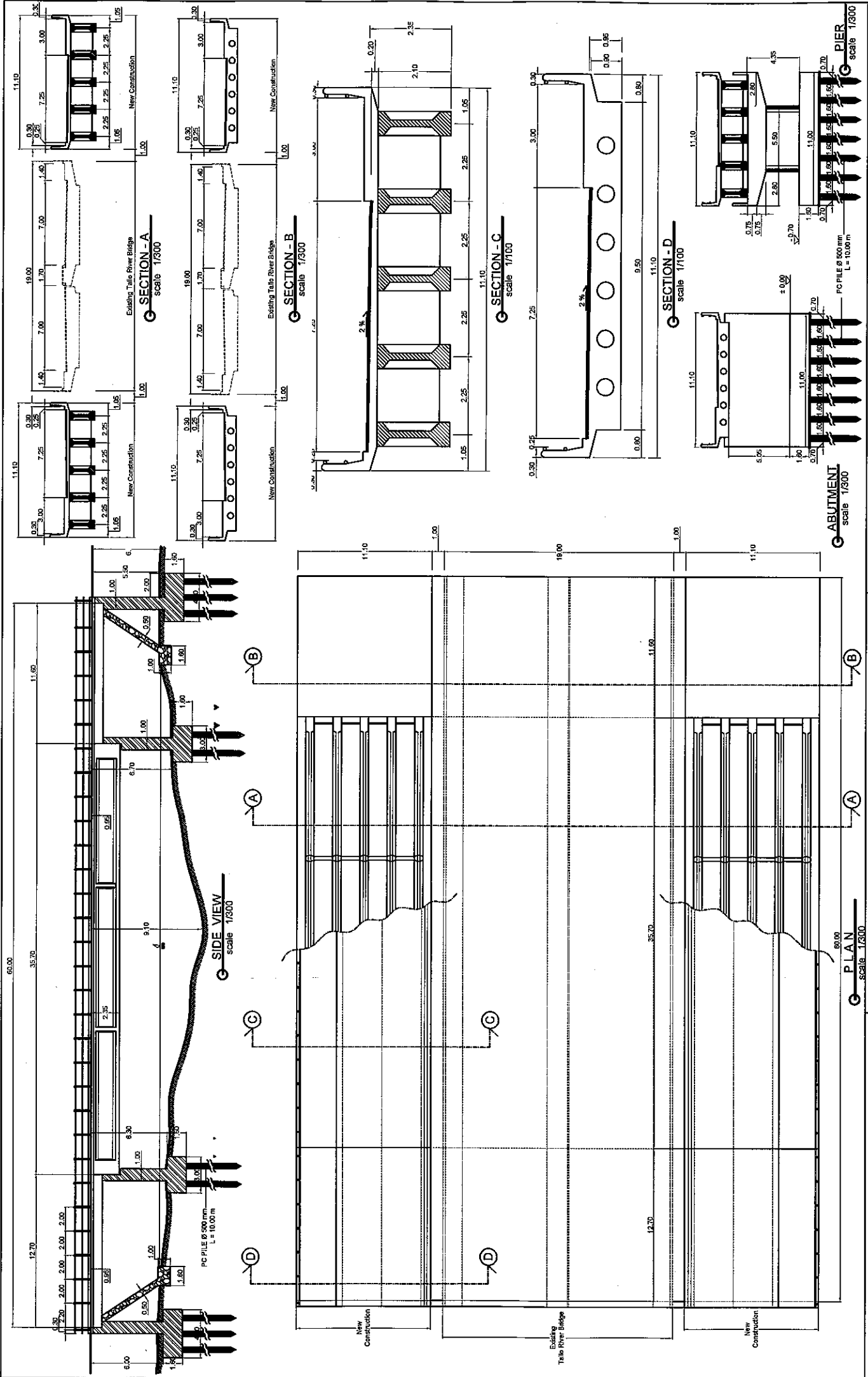
PLAN MANHOLE  
Scale 1:50



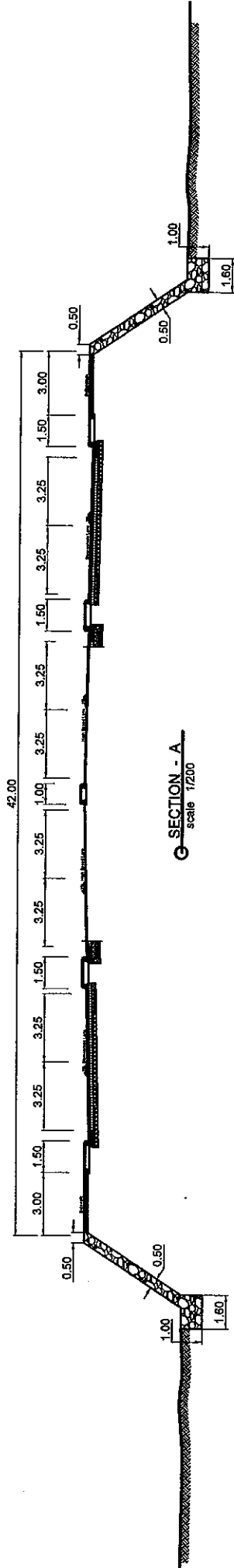
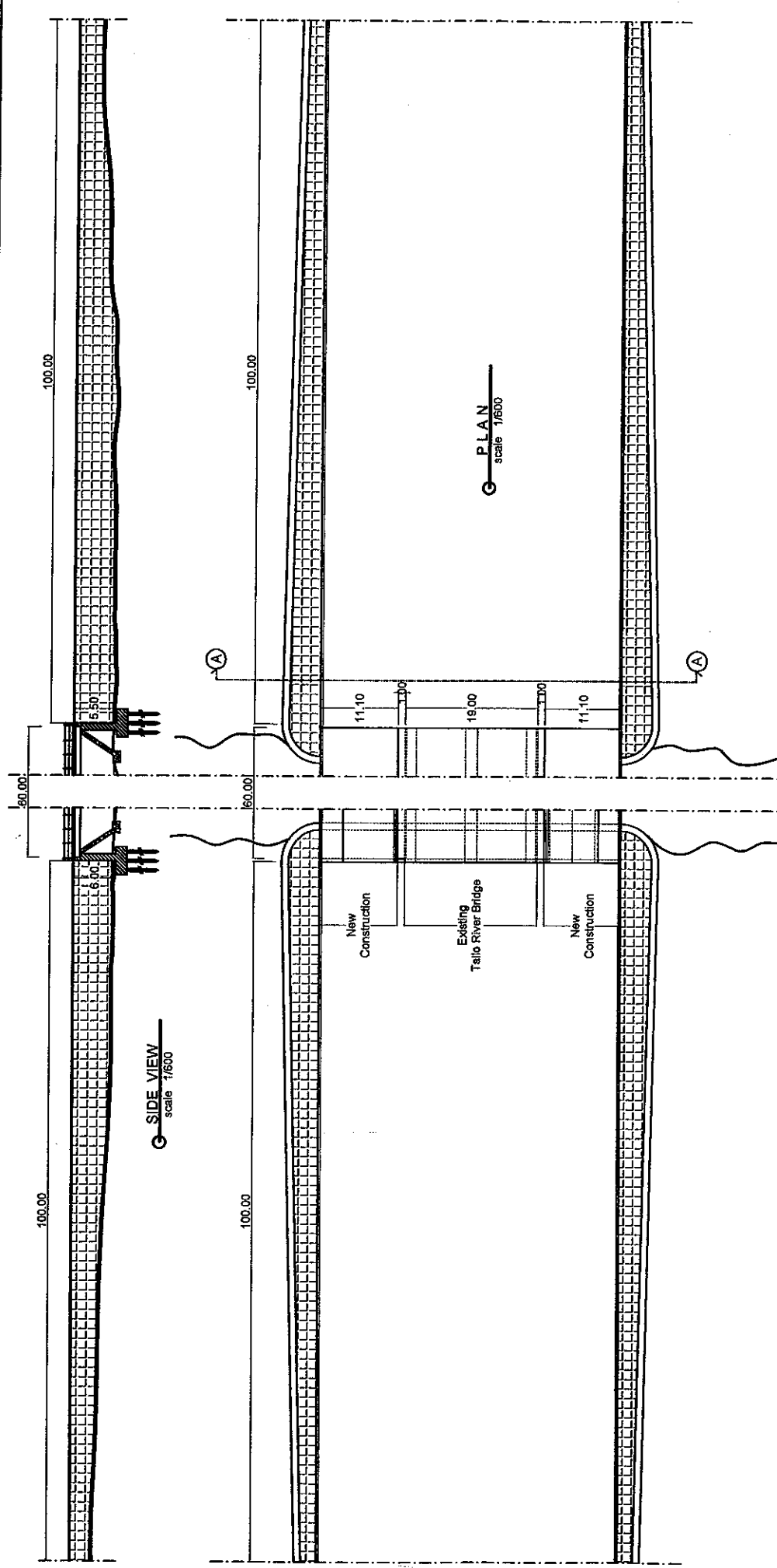
TYPE	DIMENSION (mm)											QUANTITY (per 10m)			
	D	t	b1	b2	b3	b4	b5	b6	b7	b8	b9	Concrete (m <sup>3</sup> )	Form (m <sup>2</sup> )	Foundation (m <sup>3</sup> )	Pipe (No)
P1-RC-0300	300	30	500	700	610	150	100	150	150	150	150	0.888	3.200	7.000	5.0
P1-RC-0600	600	50	750	950	1000	280	150	150	150	150	150	1.563	5.200	9.500	4.1
P1-RC-0900	900	82	1200	1400	1594	380	200	200	200	200	200	3.514	7.800	14.000	4.1
P1-RC-1500	1500	112	1750	1950	2174	510	250	200	200	200	200	6.712	10.200	19.500	4.2

TYPE	DIMENSION (mm)											QUANTITY (per 10m)			
	D	t	b1	b2	b3	b4	b5	b6	b7	b8	b9	Concrete (m <sup>3</sup> )	Form (m <sup>2</sup> )	Foundation (m <sup>3</sup> )	Pipe (No)
P2-RC-0300	300	30	600	800	610	150	100	150	150	150	150	1.171	5.600	8.000	5.0
P2-RC-0600	600	50	900	1100	1000	280	150	150	150	150	150	2.578	10.000	11.000	4.1
P2-RC-0900	900	82	1450	1650	1594	380	200	200	200	200	200	6.041	15.000	16.500	4.1
P2-RC-1500	1500	112	2100	2300	2174	510	250	200	200	200	200	11.710	22.400	23.000	4.2



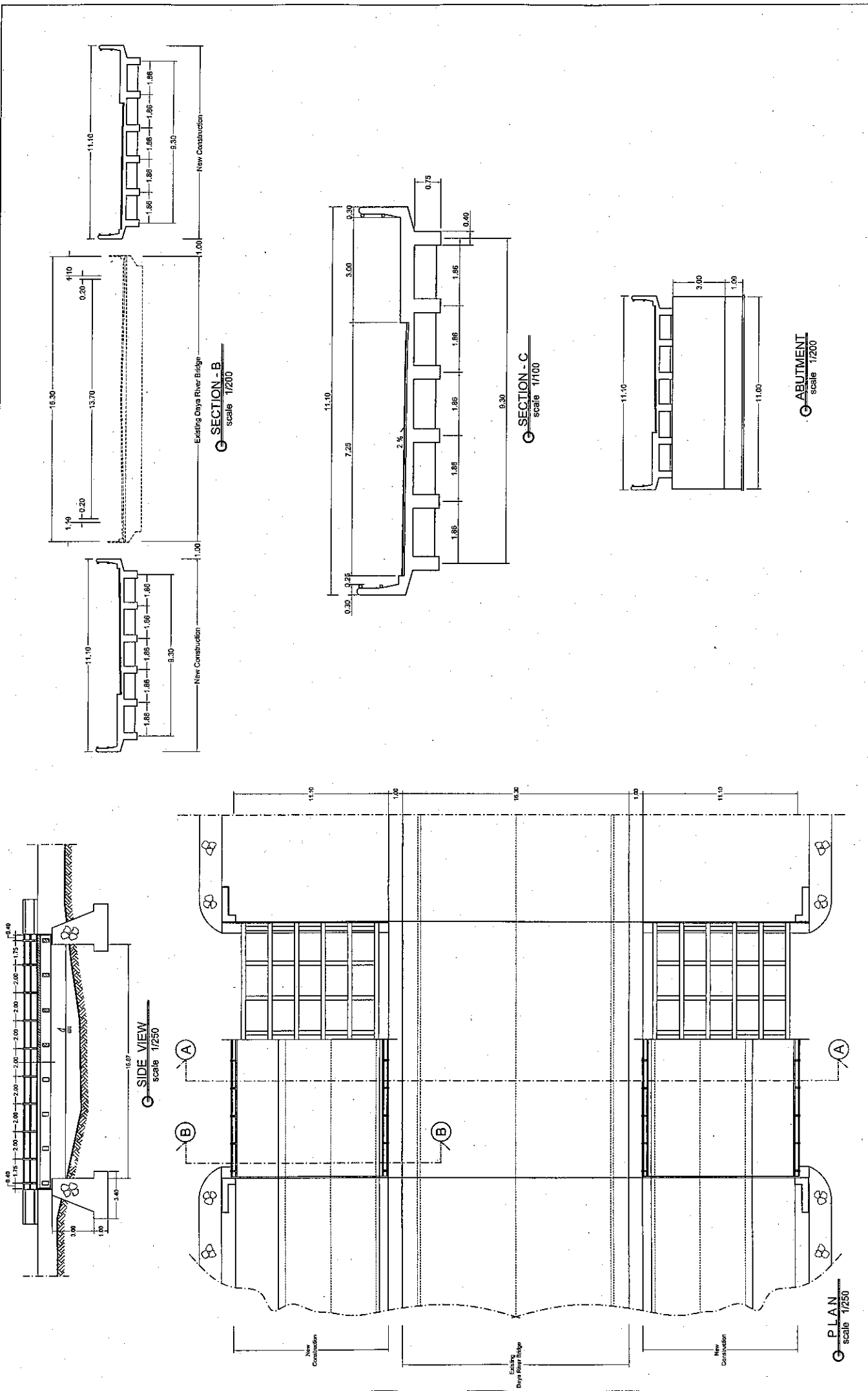


 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	<b>TALLO RIVER BRIDGE</b> STA. 4+050	DRAWING NO. <b>19</b>
 <b>KRI INTERNATIONAL COOPERATION</b>	SCALE = <b>1/100</b>	SCALE = <b>1/850</b>
 <b>NIPPON KOEI CO., LTD.</b>	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING TITLE:

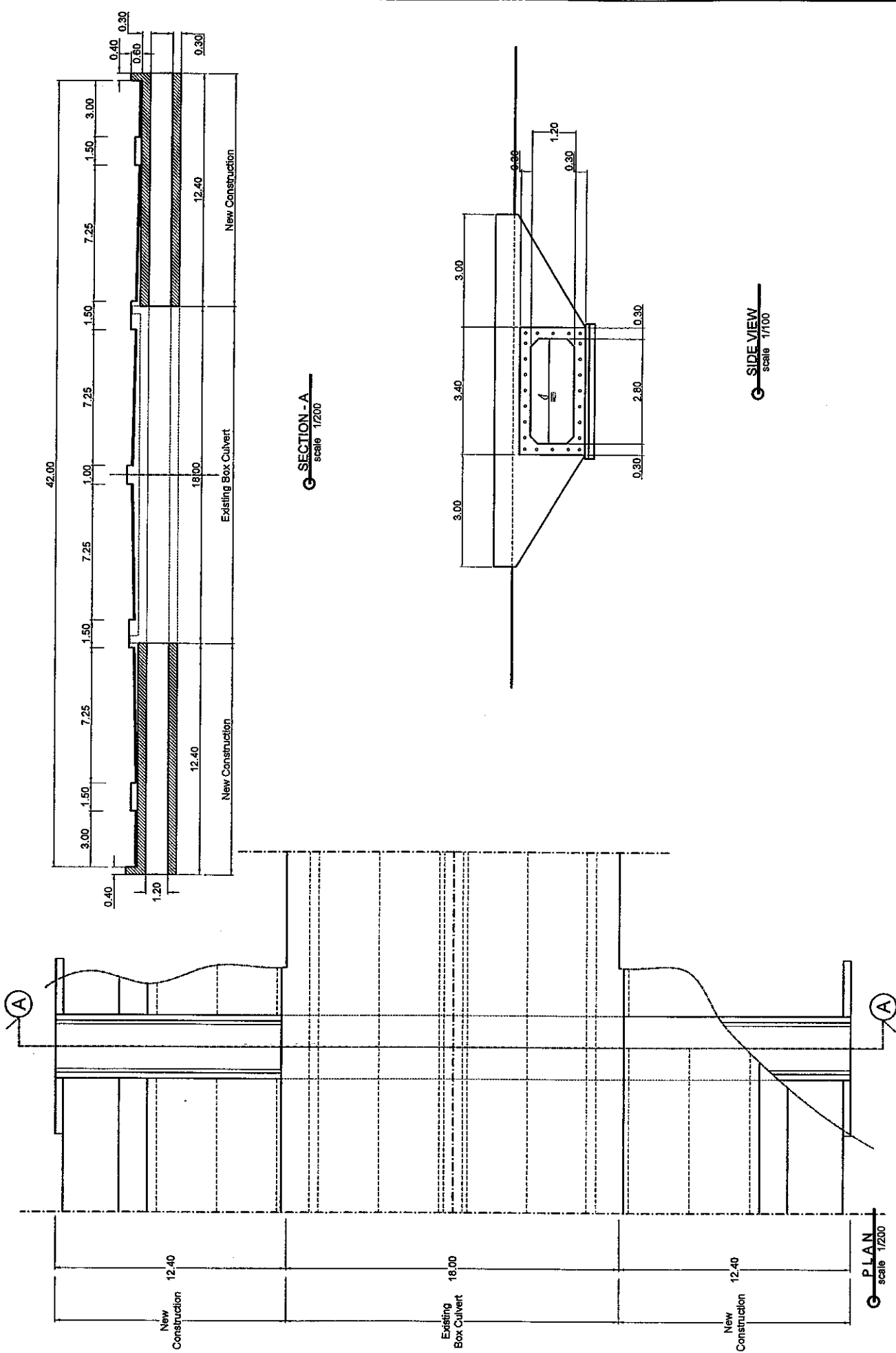


**SIDE VIEW**  
scale 1/600

<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> KRI INTERNATIONAL CORPORATION	PROJECT TITLE <b>PRE FEASIBILITY STUDY FOR URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD IMPROVEMENT PROJECT</b>	DRAWING TITLE <b>RIVER PROTECTION TALLO RIVER BRIDGE</b> STA. 4+050	DRAWING NO. <b>20</b>
	SCALE = <b>1/200</b>	SCALE = <b>1/600</b>	DATE <b>JUNE 2006</b>





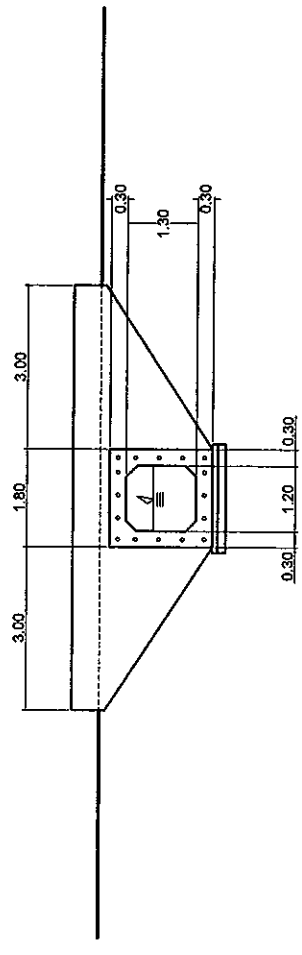
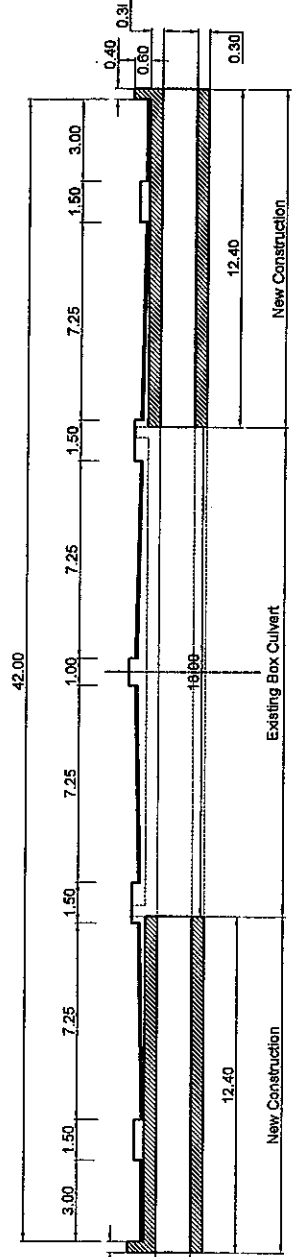
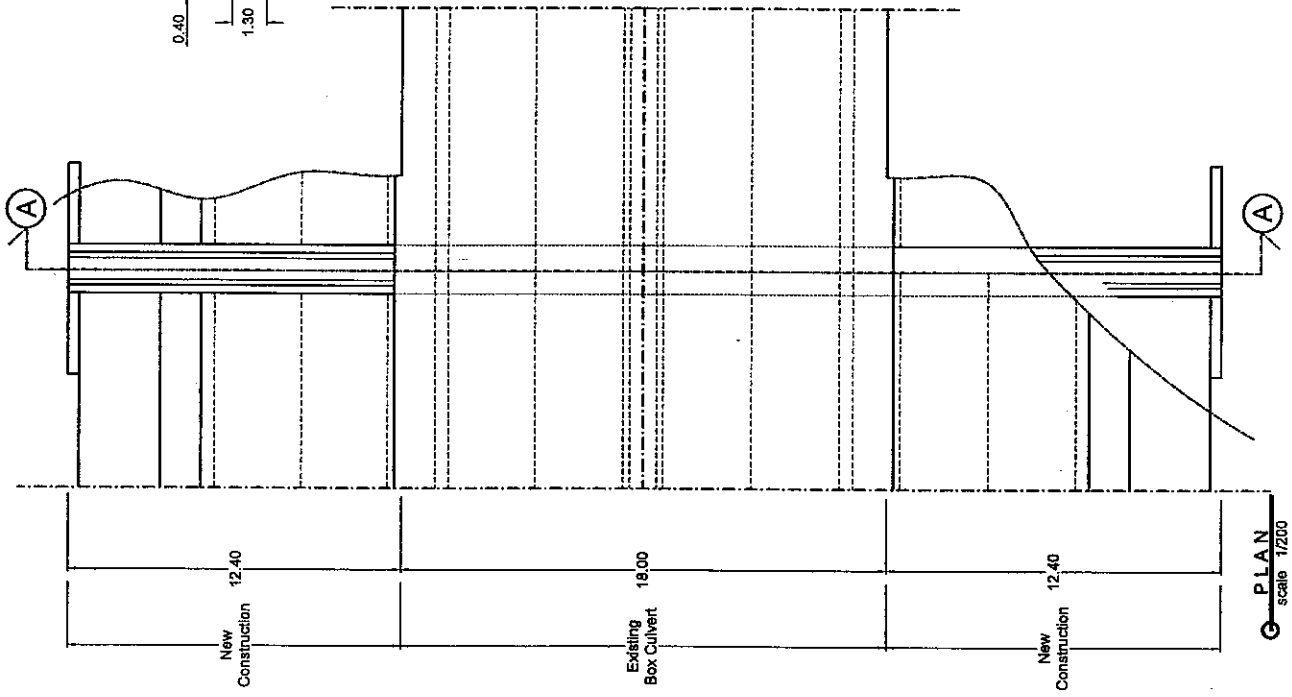


SECTION - A  
scale 1/200

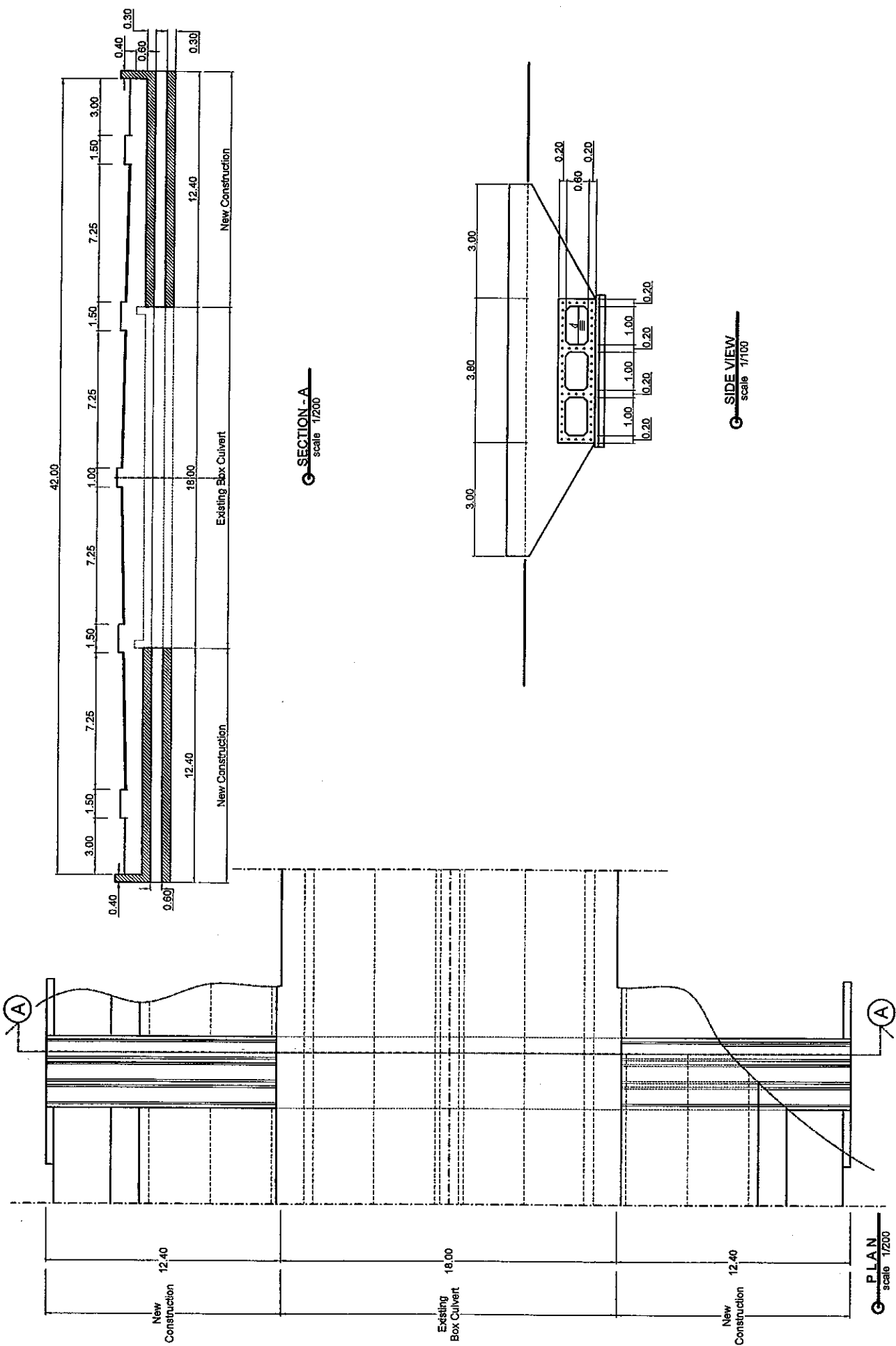
SIDE VIEW  
scale 1/100

PLAN  
scale 1/200

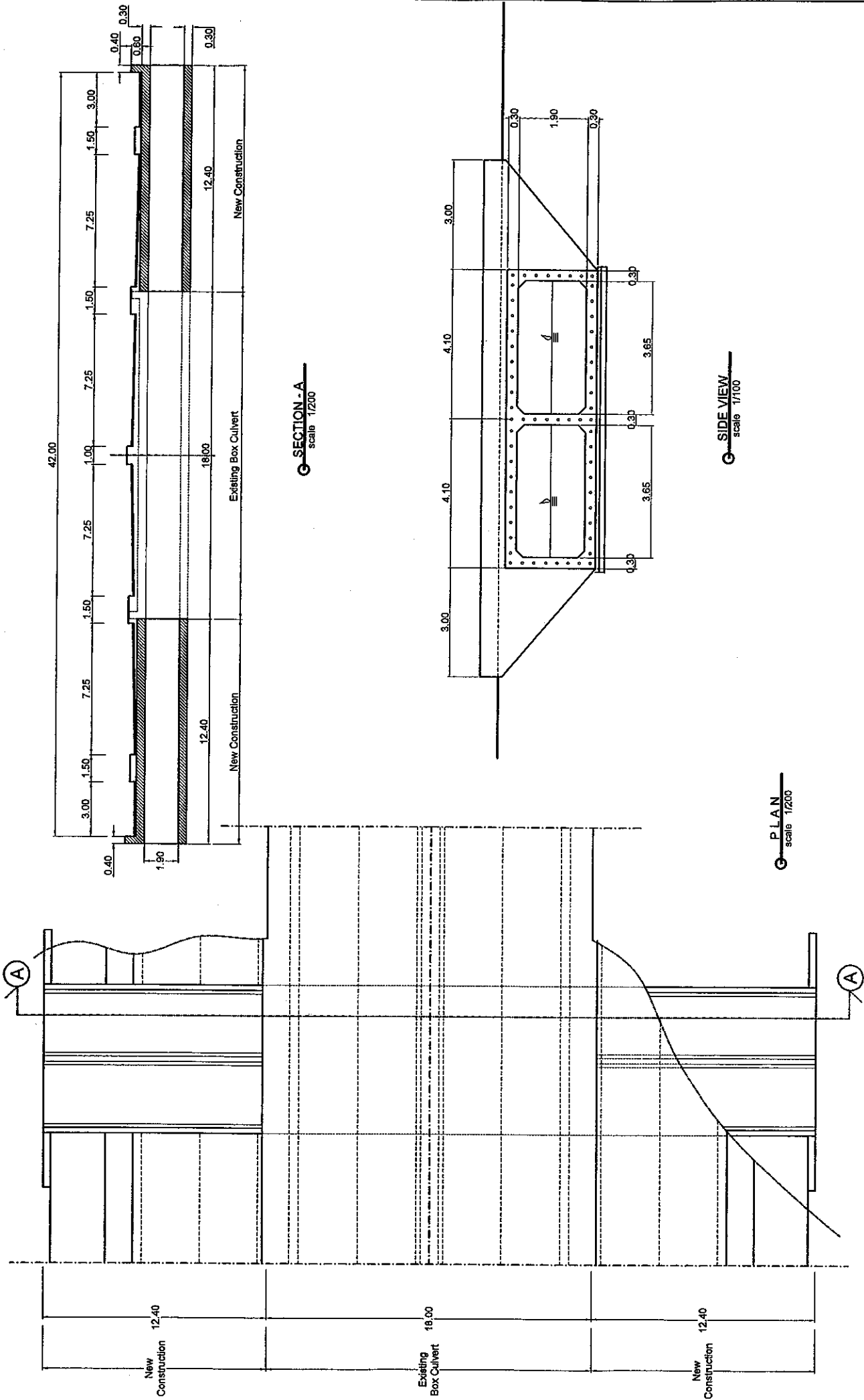
JICA INTERNATIONAL CORPORATION	JAPAN INTERNATIONAL COOPERATION AGENCY NIPPON KOEI CO., LTD.	PROJECT TITLE : PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD	DRAWING NO. 22
		SCALE = 1/200	DATE JUNE 2006



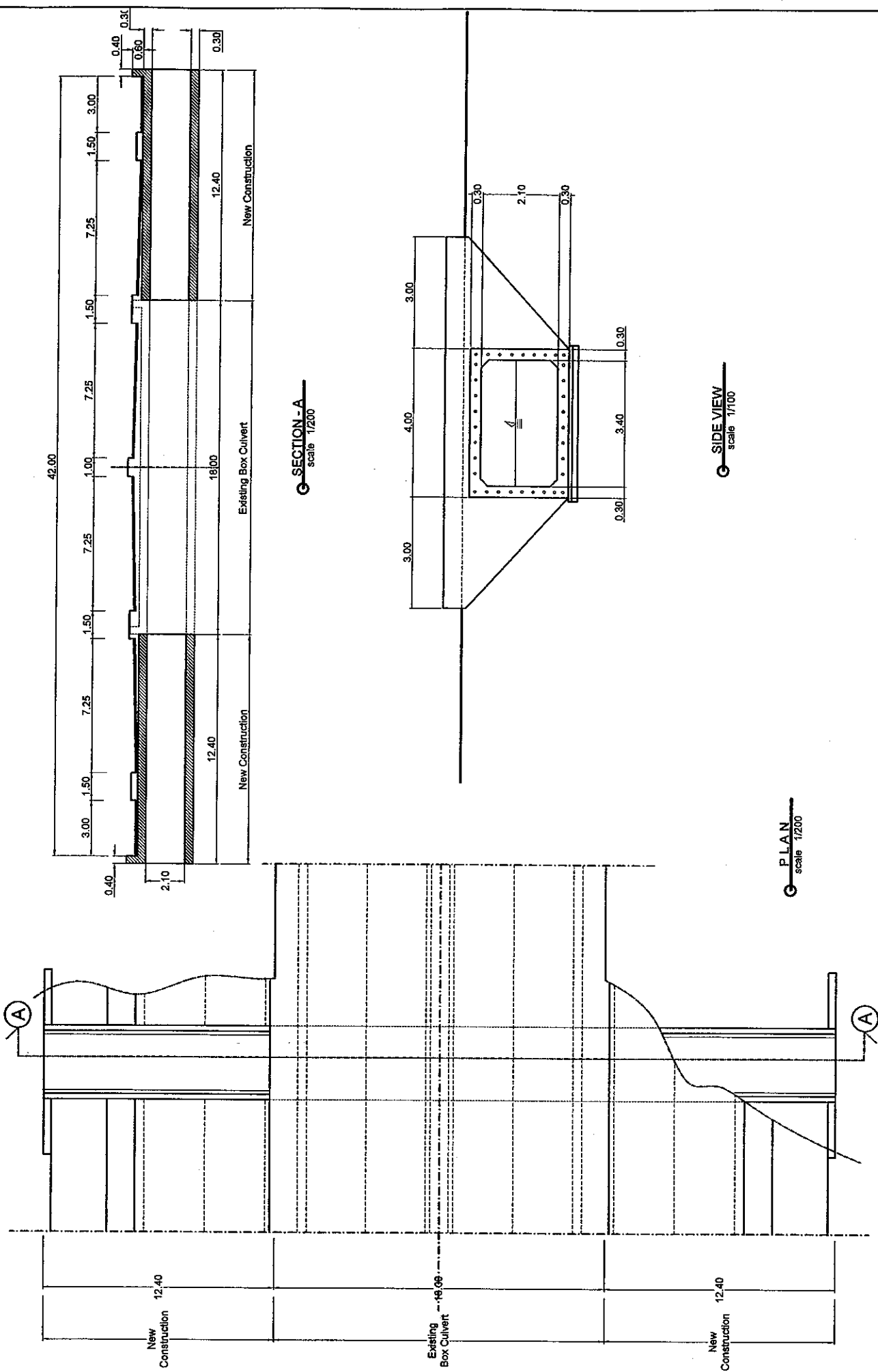
JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING NO. <b>23</b>	DATE <b>JUNE 2006</b>
	SCALE = <b>1/200</b>	SCALE = <b>1/100</b>	



<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> KFI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMCHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING NO. <b>24</b>	DATE <b>JUNE 2006</b>
	SCALE = <b>1/200</b>	<b>BOX CULVERT          STA. 11+075</b>	DATE <b>1/100</b>



<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	<b>KRI INTERNATIONAL CORPORATION</b>	<b>INPON KOBE CO., LTD.</b>	PROJECT TITLE : <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING TITLE : <b>BOX CULVERT          STA. 14+150</b>	DRAWING NO. <b>25</b>
			SCALE = <b>1/200</b>	SCALE = <b>1/100</b>	DATE: <b>JUNE 2006</b>



SECTION - A  
scale 1/200

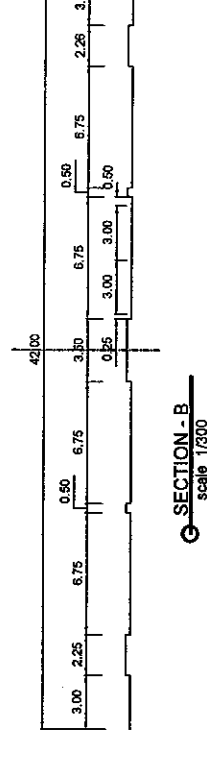
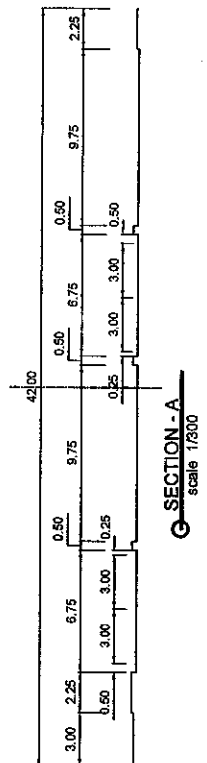
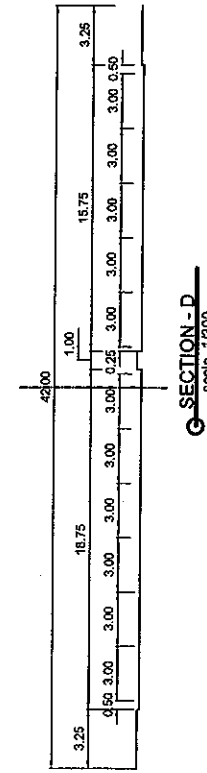
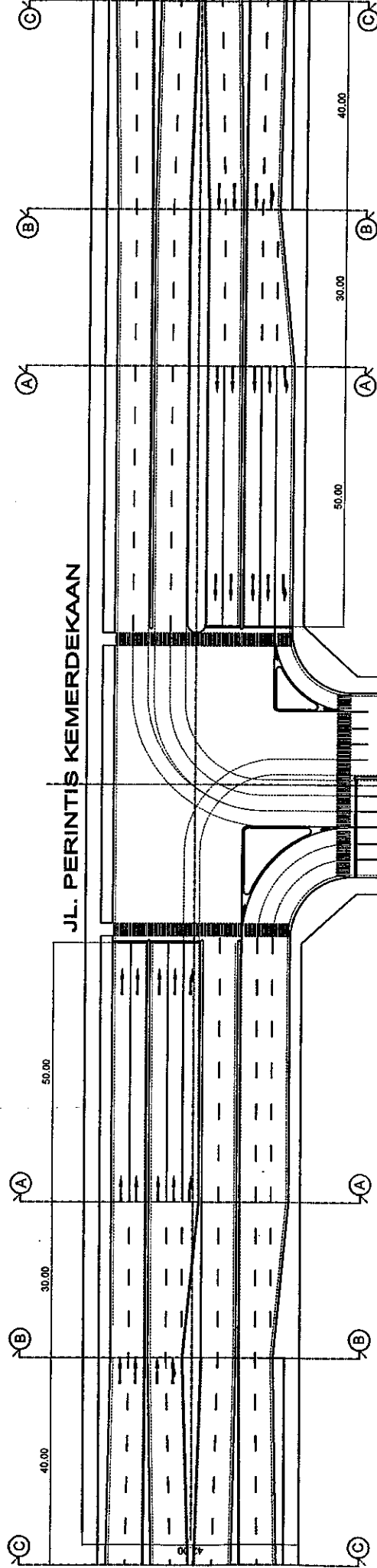
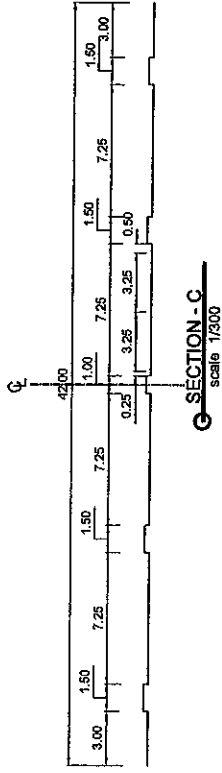
SIDE VIEW  
scale 1/100

PLAN  
scale 1/200

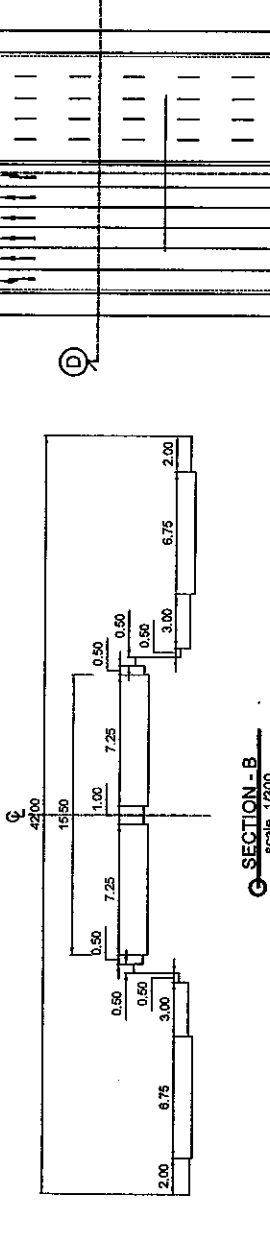
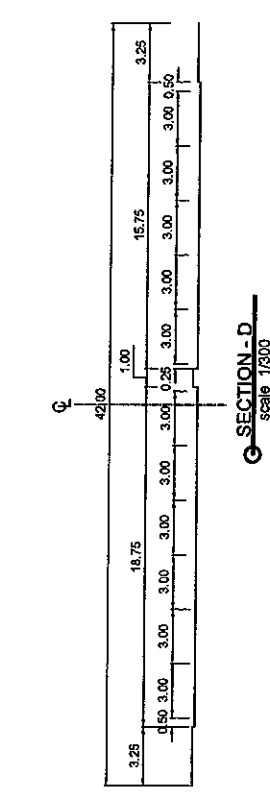
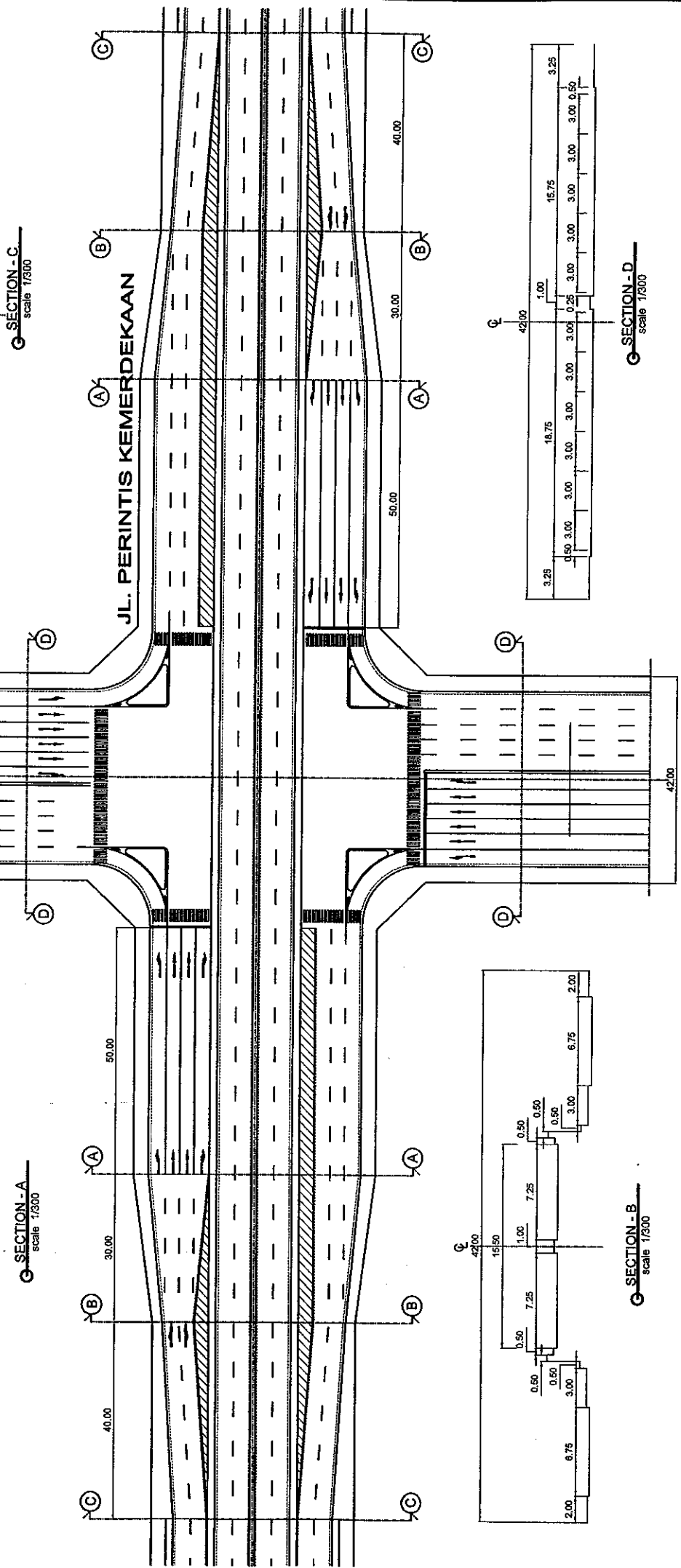
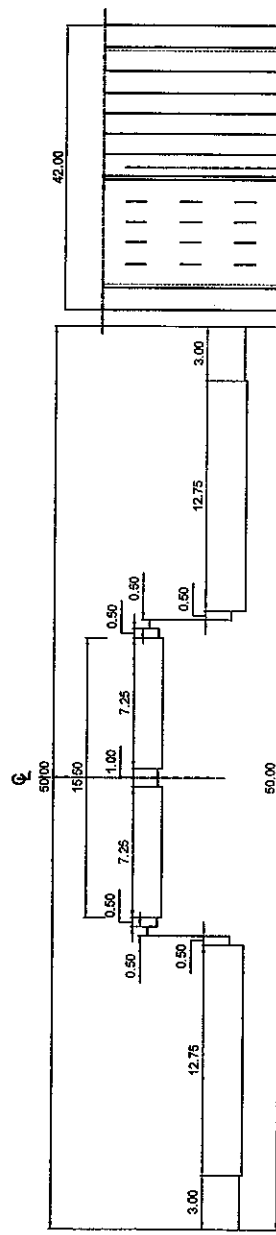
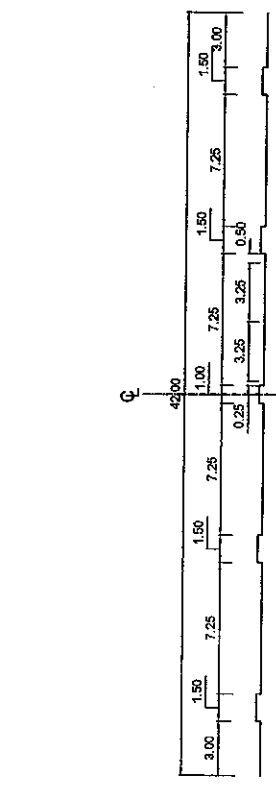
PROJECT TITLE :	BOX CULVERT STA. 14+675	DRAWING NO.	26
SCALE =	1/200	DATE	JUNE 2006

PROJECT TITLE  
PRE FEASIBILITY STUDY FOR URIP SUMOHARJO ROAD -  
PERINTIS KEMERDEKAAN ROAD IMPROVEMENT PROJECT

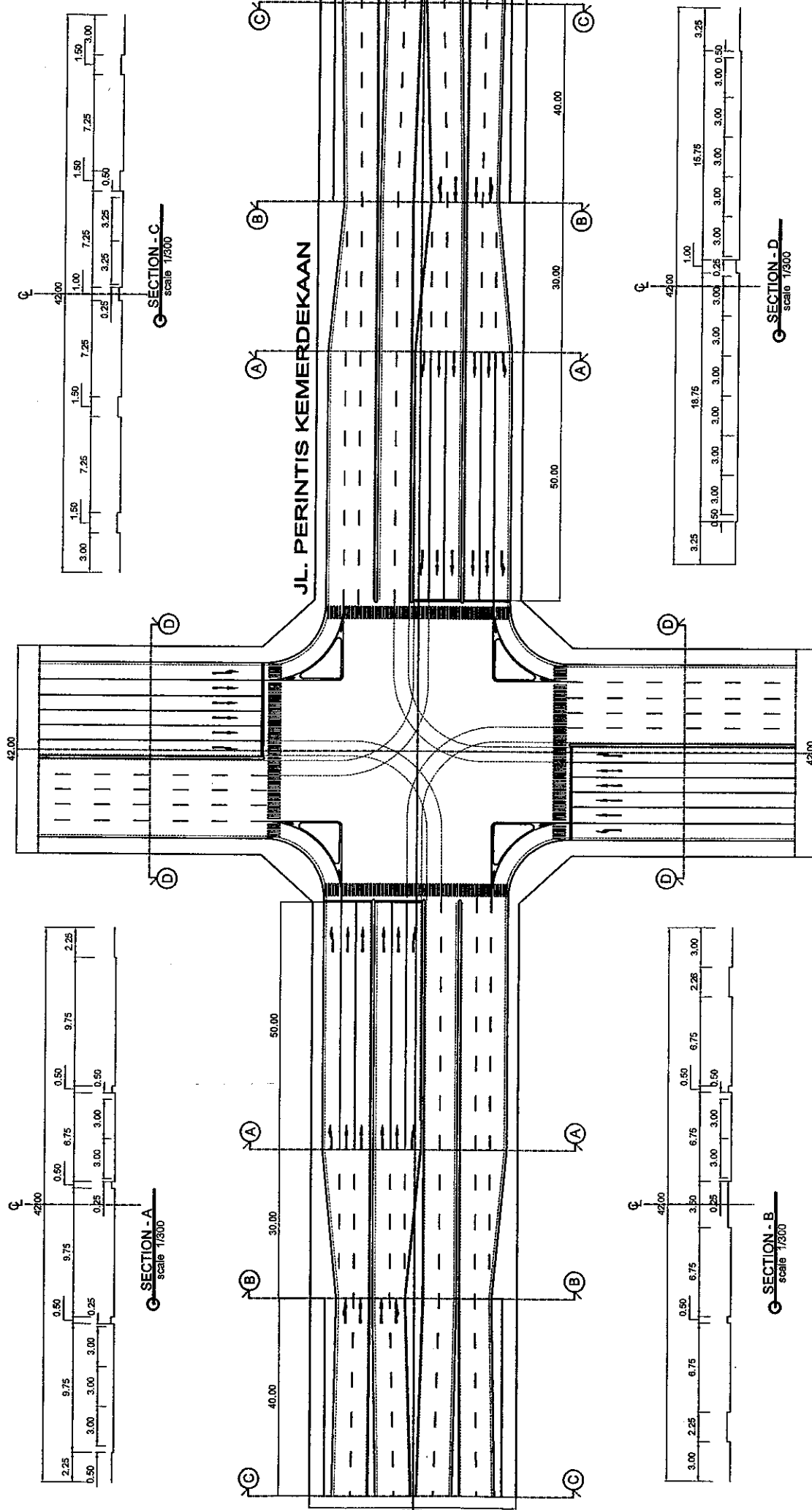
JAPAN INTERNATIONAL COOPERATION AGENCY  
 KRI INTERNATIONAL CORPORATION  
 NIPPON KOEI CO., LTD.



JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING NO. <b>27</b>	DATE <b>JUNE 2006</b>
	PROJECT TITLE: <b>INTERSECTION          JL. PERINTIS KEMERDEKAAN / MIDDLE RING ROAD</b>	SCALE = <b>1/800</b>	SCALE = <b>1/300</b>



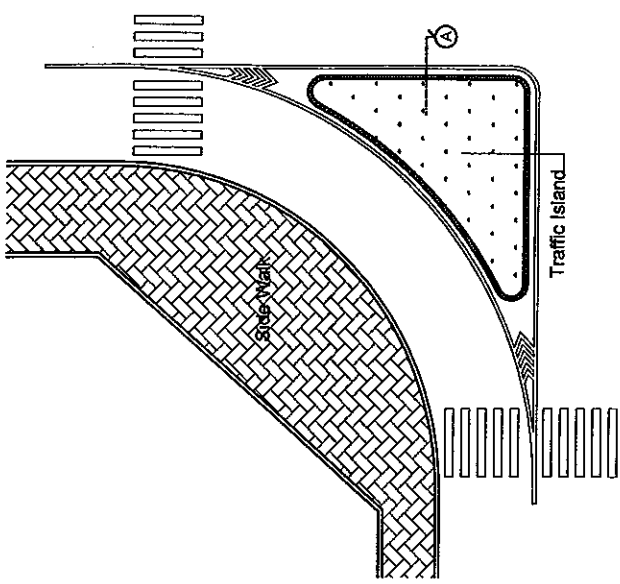
JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING TITLE: <b>FLYOVER</b> <b>JL. PERINTIS KEMERDEKAAN / KIMA ACCESS ROAD</b>	DRAWING NO.: <b>28</b>
	SCALE = 1/800	DATE: <b>JUNE 2006</b>	



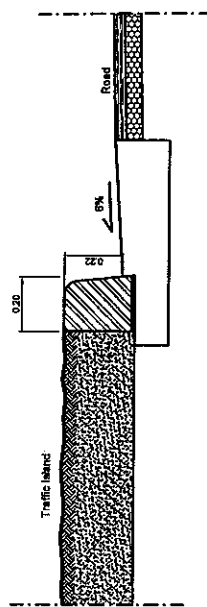
<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b> KRI INTERNATIONAL CORPORATION	PROJECT TITLE <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING TITLE <b>INTERSECTION JL. PERINTIS KEMERDEKAAN / KIMA ACCESS ROAD (1/2)</b>	DRAWING NO. <b>29</b>
	<b>NIPPON KOEI CO., LTD.</b>	SCALE = <b>1/800</b>	DATE <b>JUNE 2006</b>



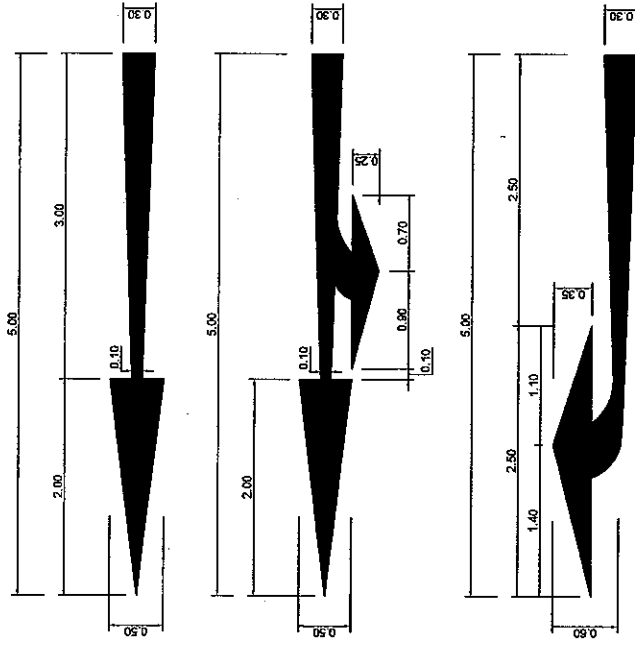




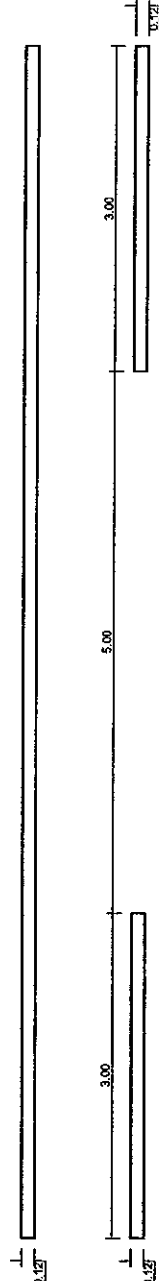
**TRAFFIC ISLAND**  
scale 1/50



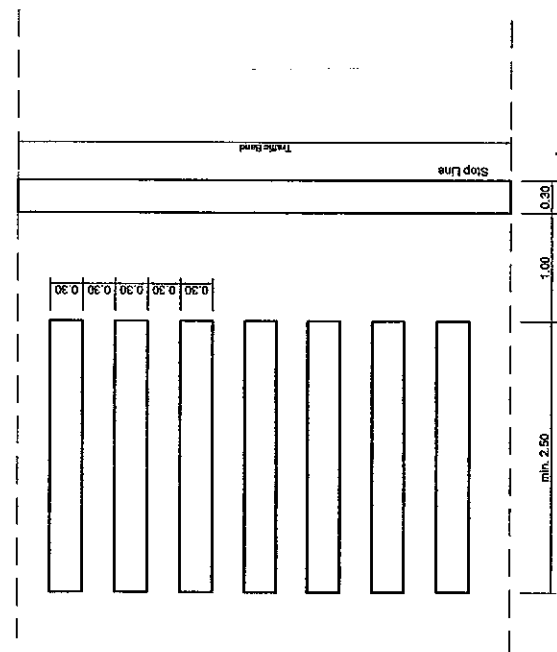
**SECTION - A**  
scale 1/20



**ARROW MARK**  
scale 1/50



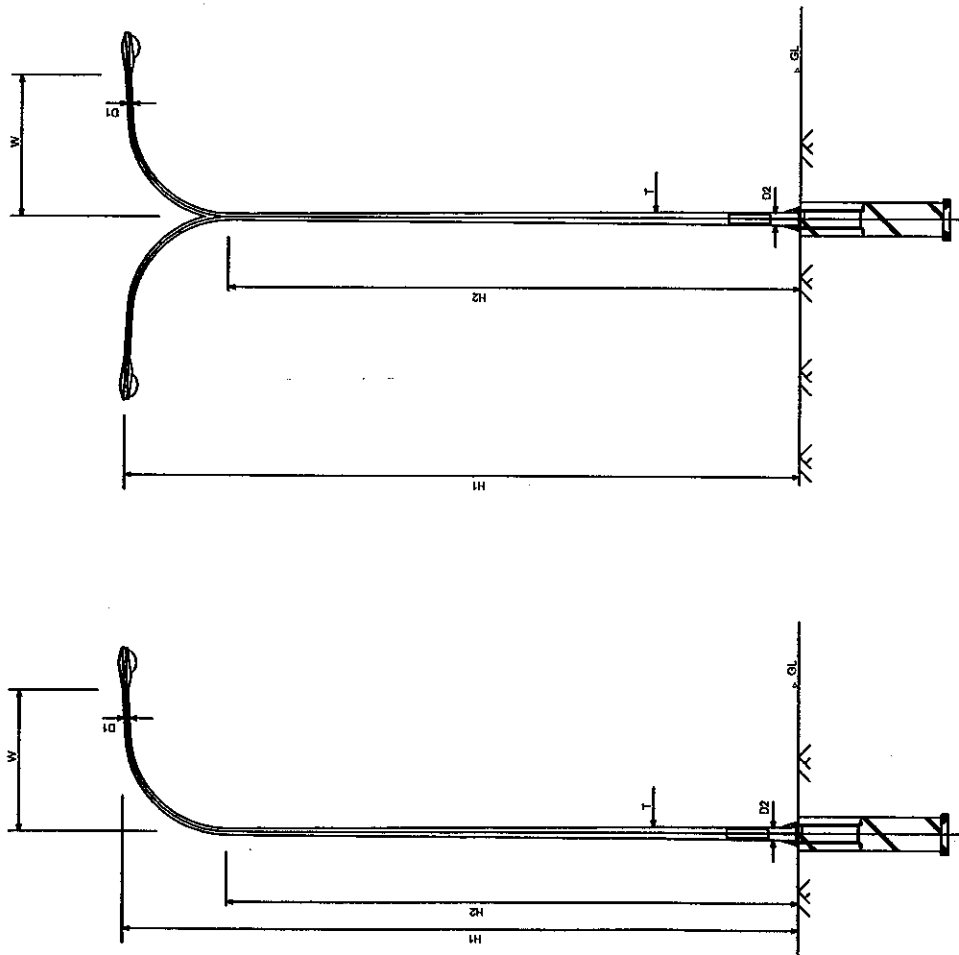
**BOUNDARY LINE / CENTER LINE**  
scale 1/50



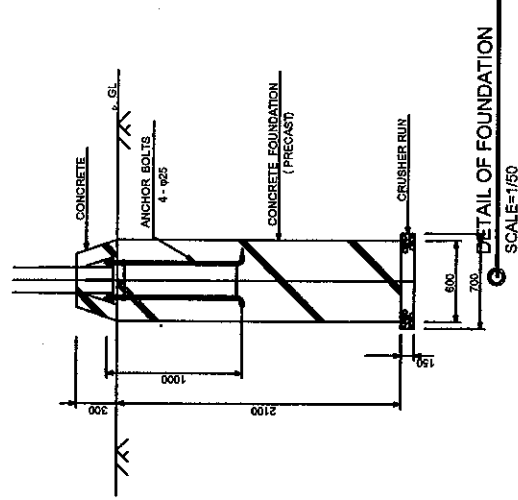
**PEDESTRIAN CROSSING**  
scale 1/50

JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING NO.: <b>31</b>
	SCALE = 1/50	DATE: <b>JUNE 2006</b>

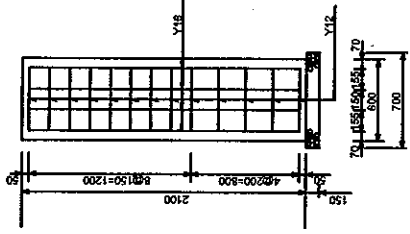




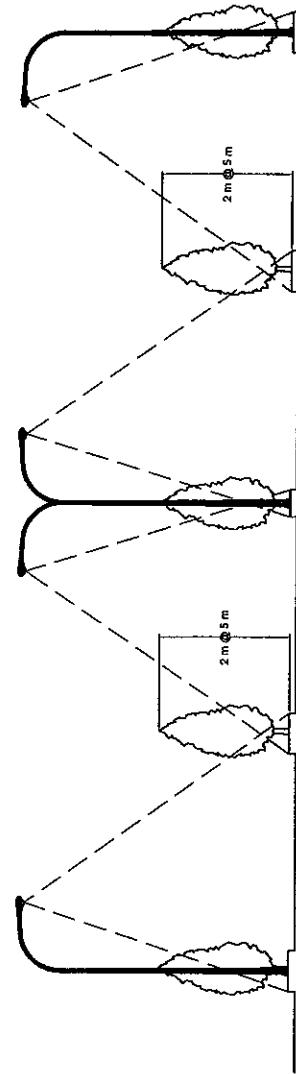
INSTALLATION DETAIL OF  
 STREET LIGHT (NH180W x1)  
 (1 $\phi$  230V 50Hz) SCALE=1/80

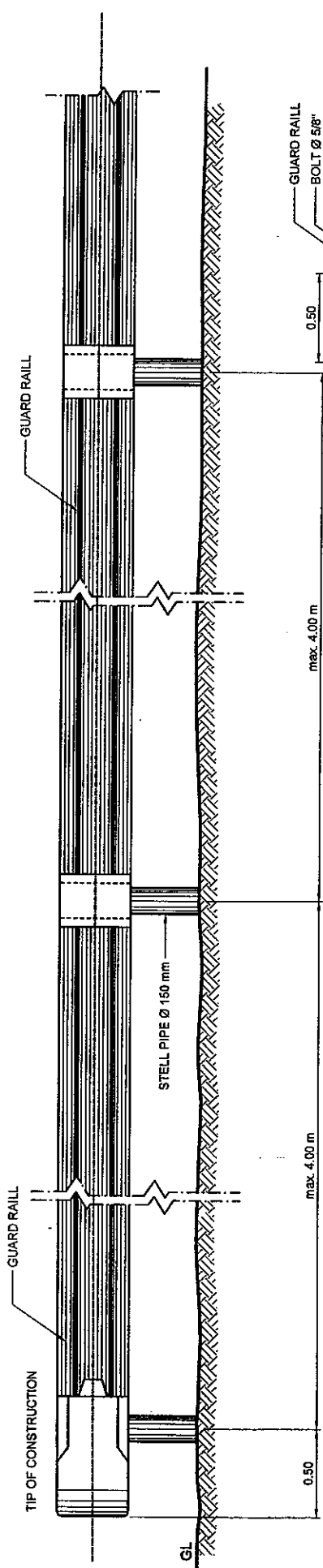


DETAIL OF FOUNDATION  
 SCALE=1/60

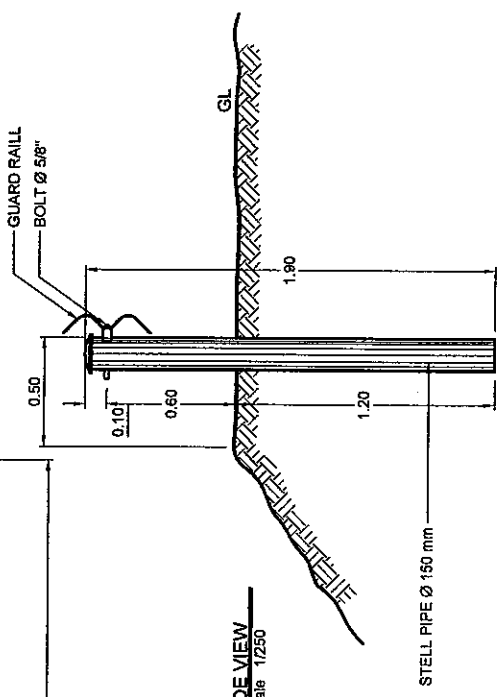


H1	H2	T	Base Plate	D1	D2	W	Anchor Bolts
m	m	mm	mm	mm	mm	m	mm
10	8.5	4.5	350*350*30	68	200	2	$\phi$ 25-1000

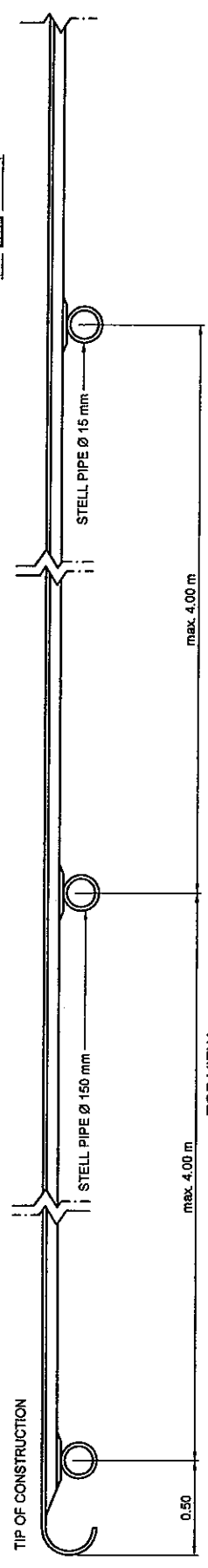







FRONT VIEW  
scale 1/250

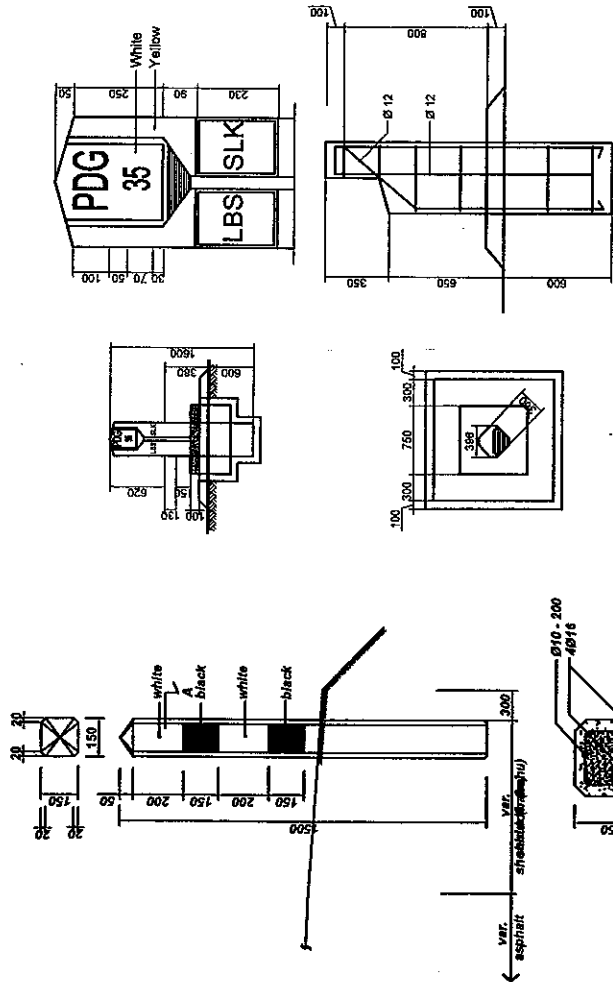


SIDE VIEW  
scale 1/250



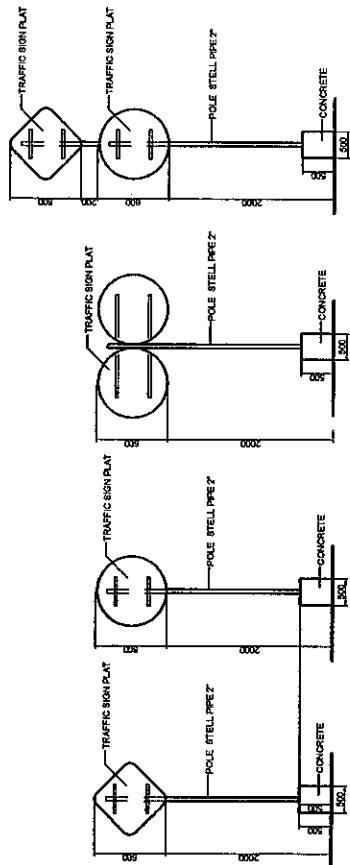
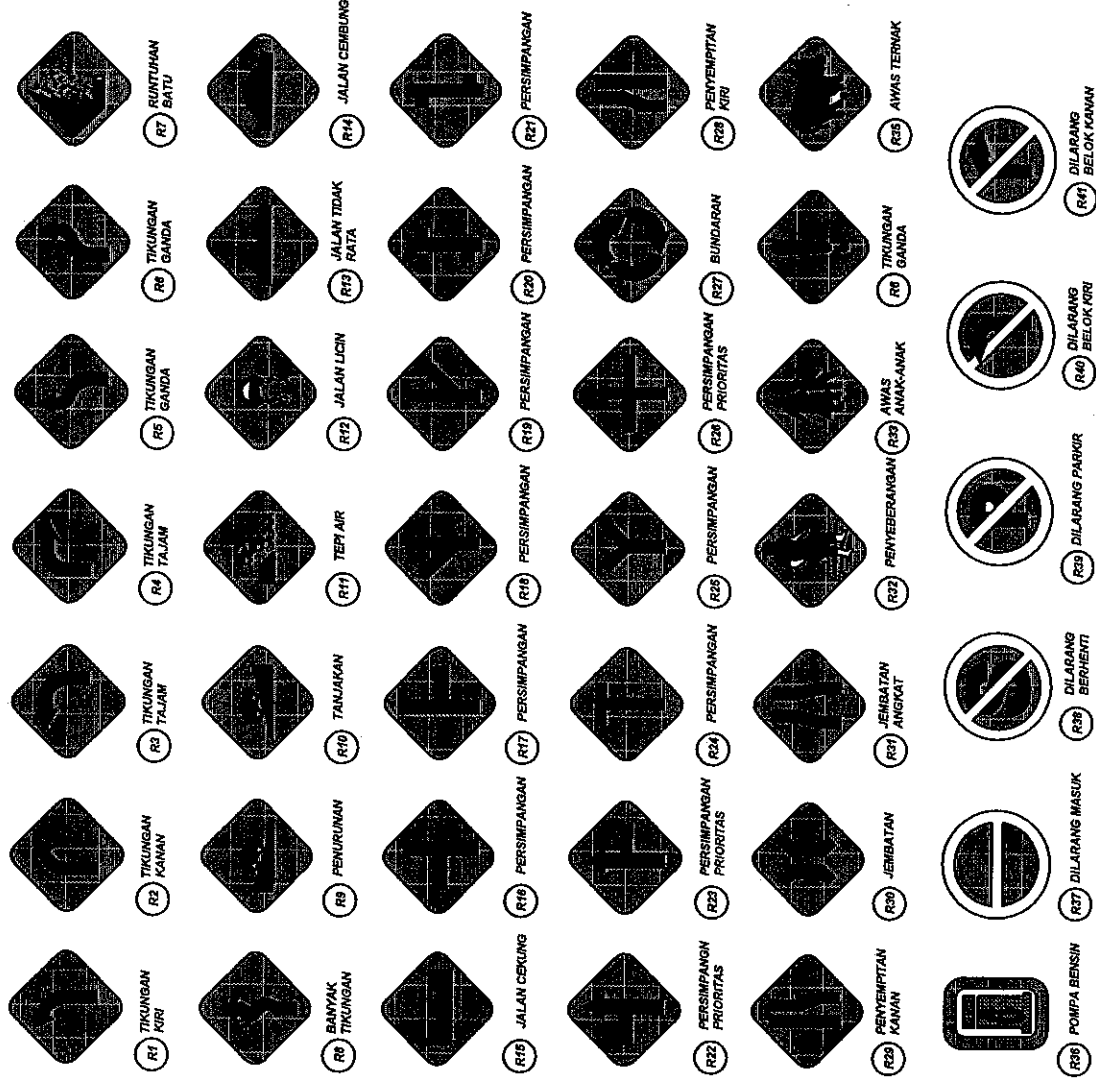
TOP VIEW  
scale 1/250

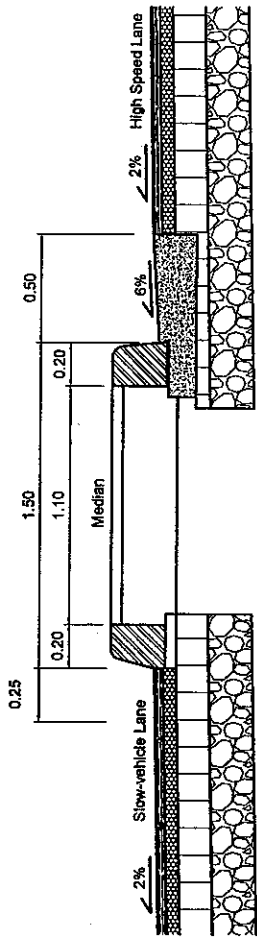
 <b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	 <b>KRI INTERNATIONAL CORPORATION</b>	 <b>MIYOSHI KISEI CO., LTD.</b>	PROJECT TITLE : <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING NO. <b>34</b>
			SCALE = <b>1/250</b>	DATE <b>JUNE 2006</b>



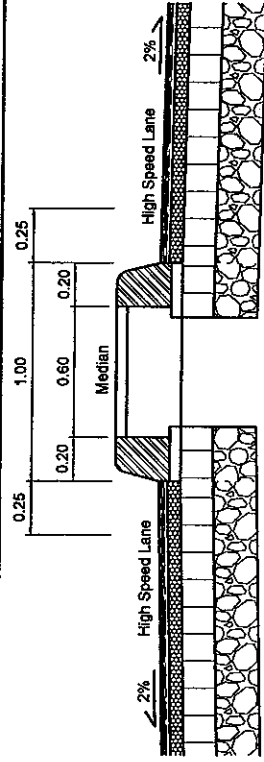
SECTION - A  
DIRECTIONAL POST  
NO TO SCALE

KILOMETER POST  
NO TO SCALE



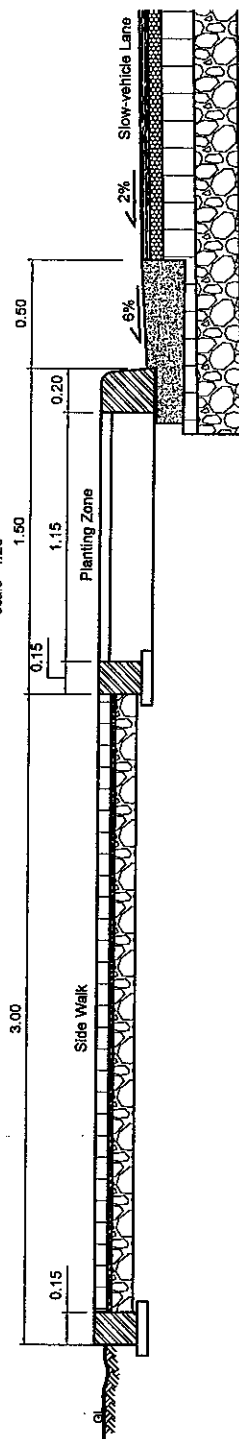


**MEDIAN TYPE - 2**  
scale 1/25

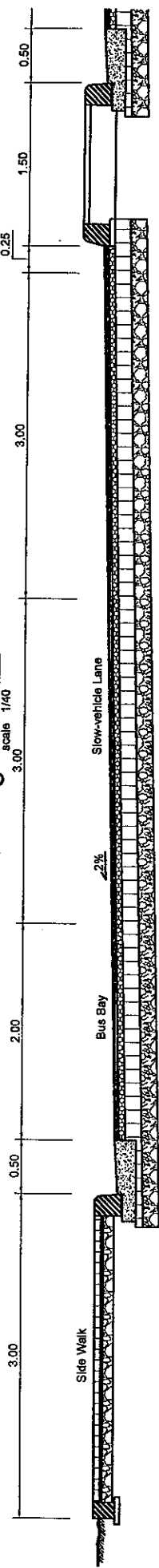


**MEDIAN TYPE - 1**  
scale 1/25

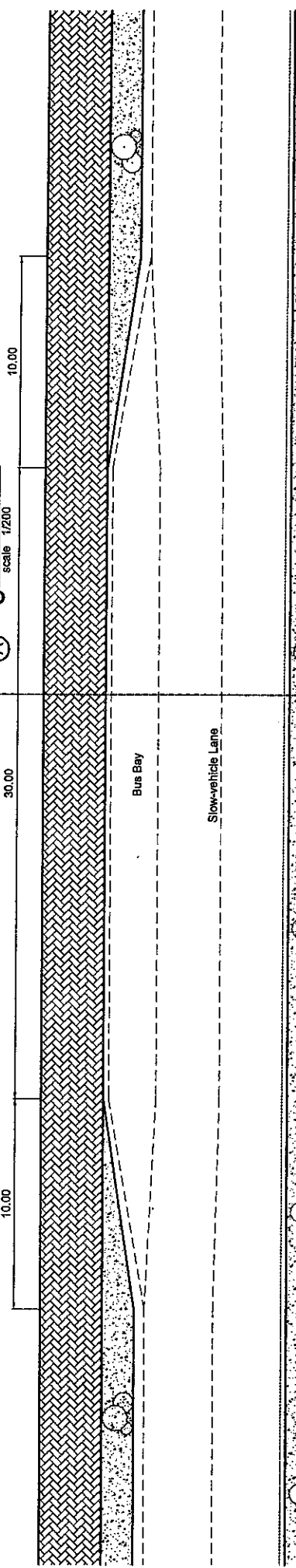
**SIDE WALK AND PLANTING ZONE**  
scale 1/25



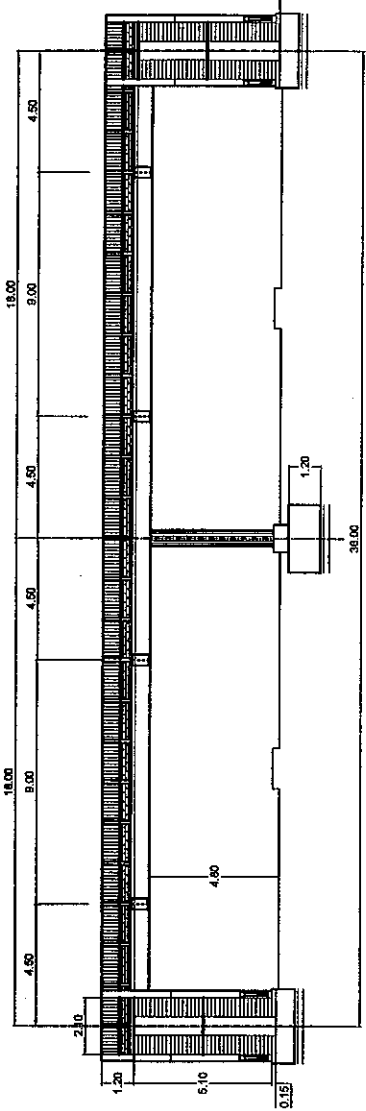
**SECTION A**  
scale 1/40



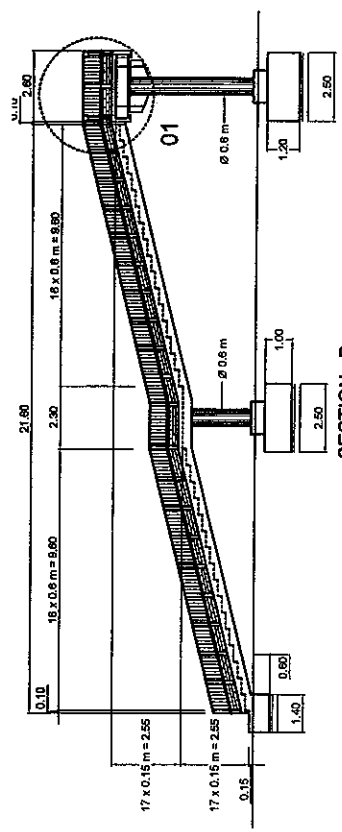
**PLAN BUS BAY**  
scale 1/200



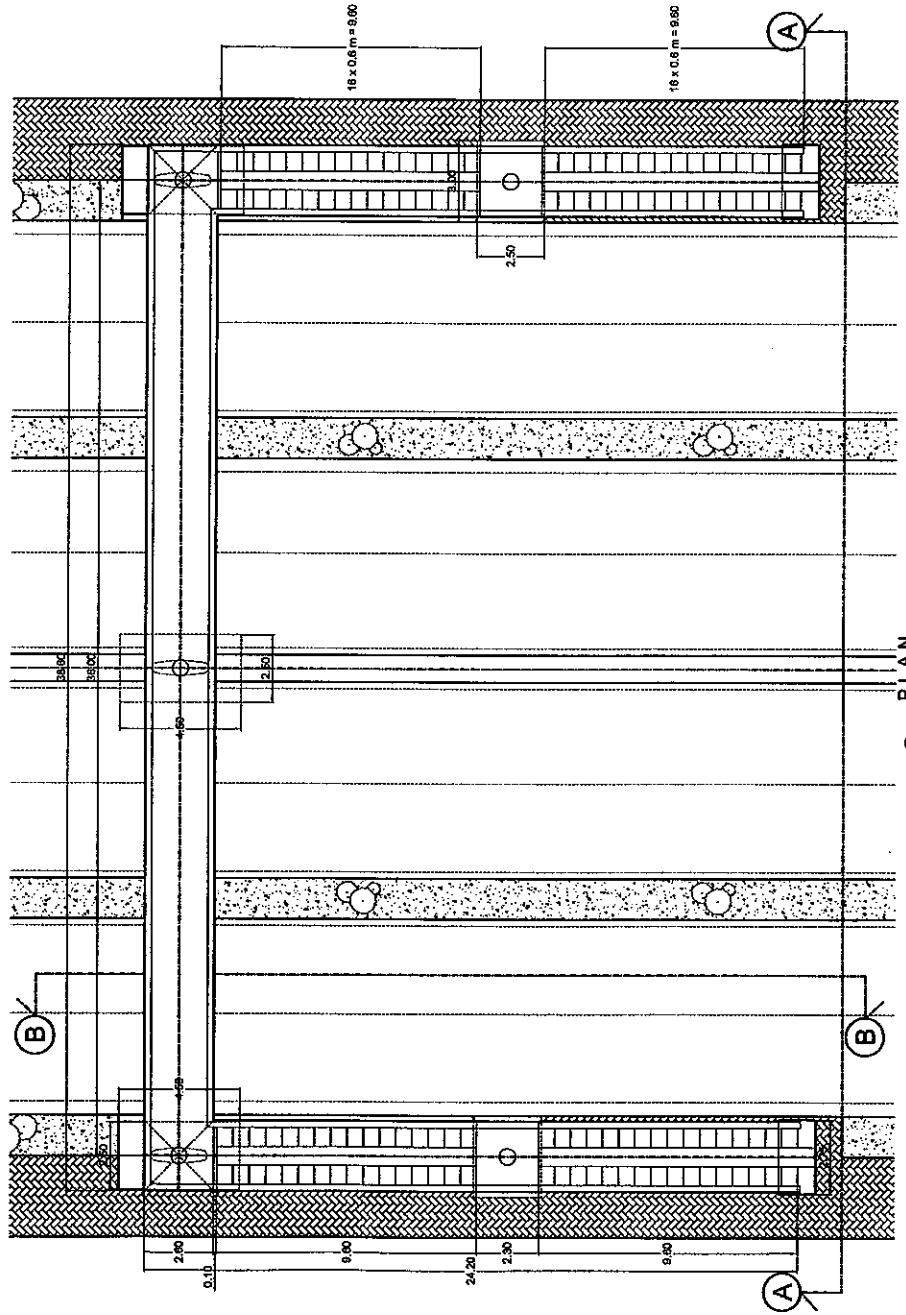
<b>JAPAN INTERNATIONAL COOPERATION AGENCY</b>	<b>PROJECT TITLE:</b> PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD	<b>DRAWING NO.:</b> 36
	<b>KRI INTERNATIONAL CORPORATION</b> <b>INFON KOBEL CO., LTD.</b>	<b>DATE:</b> 1/200
<b>SCALE =</b>		<b>DATE:</b> JUNE 2006



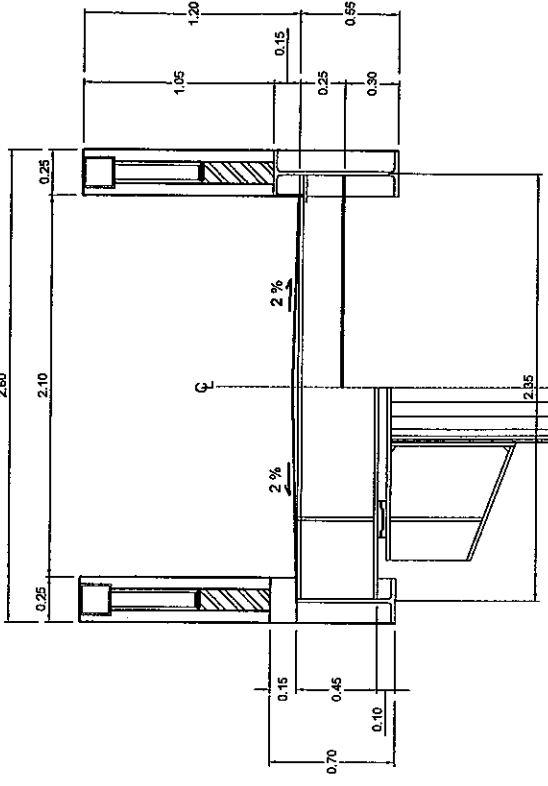
**SECTION - A**  
scale 1/200



**SECTION - B**  
scale 1/200



**PLAN**  
scale 1/200



**DETAIL - 01**  
scale 1/30



## **ANNEX-3 CONSTRUCTION COST ESTIMATE**

**COST ESTIMATE FOR JL. URIP SUMOHARJO AND JL PERINTIS IMPROVEMENT**

ITEMS		Amount(Rp)		
		A. JL.Urip Sumoharjo	B. JL.Perintis	Total
<b>I</b>	<b>Construction Cost</b>	75,648,320,000	251,818,710,000	327,467,030,000
1	Site Clearing Work	362,200,000	1,223,400,000	1,585,600,000
2	Demolition & Relocation Work	724,000,000	2,338,600,000	3,062,600,000
3	Earth Work	3,653,500,000	17,016,000,000	20,669,500,000
4	Pavement Work	17,976,800,000	59,720,400,000	77,697,200,000
5	Drainage Work	34,696,500,000	117,891,800,000	152,588,300,000
6	Bridge Work	4,308,200,000	10,414,600,000	14,722,800,000
7	Culvert Work	0	1,303,700,000	1,303,700,000
8	Safety Facility Work	3,482,600,000	6,847,900,000	10,330,500,000
9	Ancillary Work	3,567,400,000	12,169,700,000	15,737,100,000
	<b>Contingency (10%)</b>	6,877,120,000	22,892,610,000	29,769,730,000
<b>II</b>	<b>Detailed Design and Supervision</b>	7,564,832,000	25,181,871,000	32,746,703,000
	10% of Construction Cost	7,564,832,000	25,181,871,000	32,746,703,000
<b>III</b>	<b>Total (I+II)</b>	83,213,152,000	277,000,581,000	360,213,733,000
<b>IV</b>	<b>Land Acquisition and House compensation Cost</b>	51,490,500,000	92,537,900,000	144,028,400,000
<b>V</b>	<b>Public Utility Relocation Cost</b>	8,357,200,000	23,383,100,000	31,740,300,000
<b>VI</b>	<b>Total (IV+V)</b>	59,847,700,000	115,921,000,000	175,768,700,000
<b>VII</b>	<b>Total Project Cost (III+VI)</b>	143,060,852,000	392,921,581,000	535,982,433,000

Note: Include Profit & Overhead, Exclude VAT

**A. JL. Urip Sumoharjo**

ITEMS		Unit	Quantity	Unit Price(Rp)	Total(Rp)	
<b>I Construction Cost</b>					<b>68,771,200,000</b>	
1	Site Clearing Work				362,200,000	
	Clearing & Grubbing	m2	97,160	3,727.53	362,200,000	
2	Demolition & Relocation Work				724,000,000	
	Removal of Existing Open Channel	m3	1,794	80,636.30	144,700,000	
	Relocation of Existing Street Light	Single Bulb 192nos	1	579,334,260.26	579,300,000	
3	Earth Work				3,653,500,000	
	Common Excavation	m3	25,610	28,807.10	737,700,000	
	Earth Fill	m3	31,373	70,216.28	2,202,900,000	
	Gravity Wall	B=1.5m, H=3.0m	400	1,782,131.85	712,900,000	
4	Pavement Work				17,976,800,000	
	Aggregate Sub Base Course	Carriageway (t=40cm)	m3	24,572	231,881.42	5,697,800,000
	Aggregate Base Course	Carriageway (t=15cm)	m3	8,178	245,390.77	2,006,800,000
	Asphalt Binder Course	Carriageway (t=6cm)	m3	2,915	1,119,230.64	3,262,600,000
	Asphalt Wearing Course	Carriageway (t=4cm)	m3	3,791	1,167,972.03	4,427,800,000
	Asphalt Wearing Course	Bridge (t=5cm)	m2	846	58,072.63	49,100,000
	Access Road		m2	1,540	130,466.28	200,900,000
	Bus Lay-By		m2	800	171,335.76	137,100,000
	Side Walk		m2	20,700	93,418.23	1,933,800,000
	Boundary block		m	7,540	34,608.42	260,900,000
5	Drainage Work				34,696,500,000	
	L-side ditch		m	13,800	235,771.23	3,253,600,000
	Pipe Culvert	D300	m	686	613,063.74	420,600,000
	Pipe Culvert	D1500	m	6,900	4,164,954.71	28,738,200,000
	Catch pit	300	nos	228	660,285.07	150,500,000
	Manhole	2000*2000*2700	nos	228	9,357,981.15	2,133,600,000
6	Bridge Work				4,308,200,000	
	Pampang River Bridge	W11.1xL30.4x2	l.s.	1	4,308,246,686.24	4,308,200,000
7	Culvert Work				0	
8	Safety Facility Work				3,482,600,000	
	Road Mark	Thermoplastic	m2	3,990	115,692.33	461,600,000
	Road Sign		nos	24	572,892.20	13,700,000
	Directional Post		nos	2	101,680.35	200,000
	Kilometer Post		nos	8	251,293.59	2,000,000
	Guard Rail		m	400	373,327.85	149,300,000
	Street Light	DoubleBulb 96nos	l.s.	1	897,431,706.68	897,400,000
	Traffic Light	T Junction	l.s.	1	87,242,000.00	87,200,000
	Traffic Island		place	2	7,715,502.26	15,400,000
	Pedestrian Bridge		nos	4	463,948,323.85	1,855,800,000
9	Ancillary Work				3,567,400,000	
	Tree Plant	H=2m	nos	3,450	39,071.00	134,800,000
	Median Strip	W=1.0m	m	6,900	164,790.86	1,137,100,000
	Median Strip	W=1.5m	m	13,400	171,309.61	2,295,500,000
<b>IV Land/Acquisition and House compensation Cost</b>					<b>51,490,500,000</b>	
1	Unregistered Land		m2	75,614	520,500	39,357,100,000
2	Registered Land		m2	14,472	694,000	10,043,600,000
3	Building		m2	7,305	206,000	1,504,800,000
4	Demolition Work	Building	house	117	5,000,000	585,000,000
<b>V Public Utility Relocation Cost</b>					<b>8,357,200,000</b>	
1	Power Line		L.S.	1	4,184,430,258	4,184,400,000
2	Telecommunication Line		L.S.	1	3,138,487,182	3,138,500,000
3	Water main pipe		L.S.	1	1,034,325,400	1,034,300,000

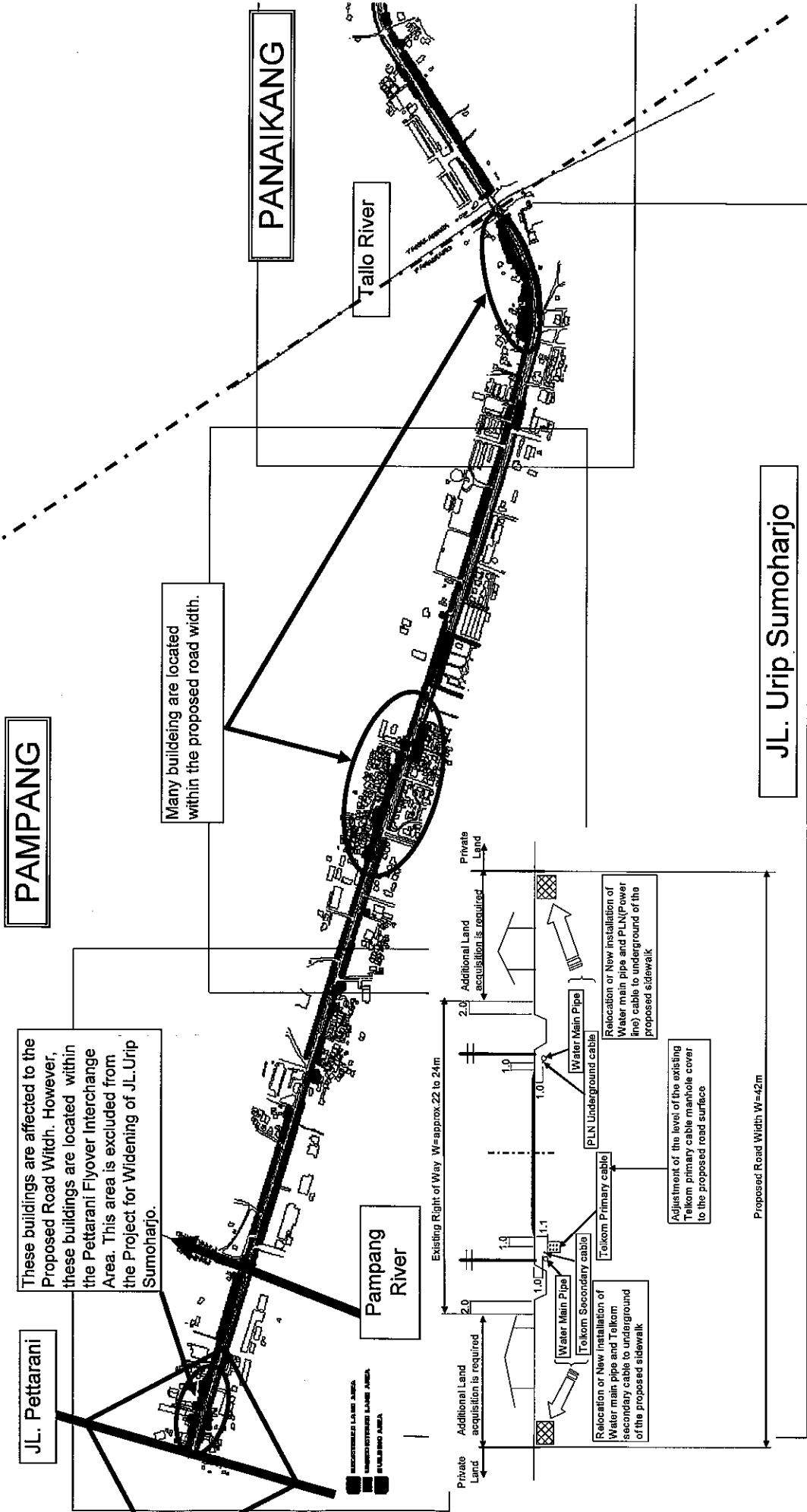
B. JL. Perintis

ITEMS		Unit	Quantity	Unit Price(Rp)	Total(Rp)
<b>I Construction Cost</b>					<b>226,926,100,000</b>
<b>1 Site Clearing Work</b>					
Clearing & Grubbing		m2	328,216	3,727.53	1,223,400,000
<b>2 Demolition &amp; Relocation Work</b>					<b>2,338,600,000</b>
Removal of Existing Open Channel		m3	6,089	80,636.30	491,000,000
Relocation of Existing Street Light	Single Bulb 574nos	l.s.	1	1,847,606,559.74	1,847,600,000
<b>3 Earth Work</b>					<b>17,016,000,000</b>
Common Excavation		m3	134,311	28,807.10	3,869,100,000
Earth Fill		m3	149,656	70,216.28	10,508,300,000
Wet Stone Masonry		m2	2,545	336,520.16	856,500,000
Gravity Wall	B=1.5m, H=3.0m	m	1,000	1,782,131.85	1,782,100,000
<b>4 Pavement Work</b>					<b>59,720,400,000</b>
Aggregate Sub Base Course	Carriageway (t=40cm)	m3	82,073	231,881.42	19,031,200,000
Aggregate Base Course	Carriageway (t=15cm)	m3	27,315	245,390.77	6,702,800,000
Asphalt Binder Course	Carriageway (t=6cm)	m3	9,738	1,119,230.64	10,899,100,000
Asphalt Wearing Course	Carriageway (t=4cm)	m3	12,607	1,167,972.03	14,724,600,000
Asphalt Wearing Course	Bridge (t=5cm)	m2	2,226	58,072.63	129,300,000
Access Road		m2	4,655	130,466.28	607,300,000
Bus Lay-By		m2	1,600	171,335.76	274,100,000
Side Walk		m2	70,260	93,418.23	6,563,600,000
Boundary block		m	22,780	34,608.42	788,400,000
<b>5 Drainage Work</b>					<b>117,891,800,000</b>
L-side ditch		m	46,840	235,771.23	11,043,500,000
Pipe Culvert	D300	m	2,362	613,063.74	1,448,100,000
Pipe Culvert	D1500	m	23,420	4,164,954.71	97,543,200,000
Catch pit	300	nos	788	660,285.07	520,300,000
Manhole	2000*2000*2700	nos	784	9,357,981.15	7,336,700,000
<b>6 Bridge Work</b>					<b>10,414,600,000</b>
Tallo River Bridge	W11.1xL60x2	l.s.	1	8,668,349,021.09	8,668,300,000
Daya River Bridge	W11.1xL18.3x2	l.s.	1	1,746,318,646.35	1,746,300,000
<b>7 Culvert Work</b>					<b>1,303,700,000</b>
Box Culvert (STA. 6+475)	B2.8xH1.2xL(12.4x2)	l.s.	1	214,162,229.35	214,200,000
Box Culvert (STA. 8+825)	B1.2xH1.3xL(12.4x2)	l.s.	1	148,480,717.95	148,500,000
Box Culvert (STA.11+075)	B1.0xH0.6xL(12.4x2)@3	l.s.	1	166,008,041.22	166,000,000
Box Culvert (STA.14+150)	B3.4xH2.1xL(12.4x2)	l.s.	1	283,213,448.78	283,200,000
Box Culvert (STA.14+685)	B3.65xH1.9xL(12.4x2)@2	l.s.	1	491,754,721.63	491,800,000
<b>8 Safety Facility Work</b>					<b>6,847,900,000</b>
Road Mark	Thermoplastic	m2	13,452	115,692.33	1,556,300,000
Road Sign		nos	46	572,892.20	26,400,000
Directional Post		nos	4	101,680.35	400,000
Kilometer Post		nos	24	251,293.59	6,000,000
Guard Rail		m	1,300	373,327.85	485,300,000
Street Light	DoubleBulb 287nos	l.s.	1	2,862,079,496.99	2,862,100,000
Traffic Light	Crossing	l.s.	2	70,871,000.00	141,700,000
Traffic Light	T Junction	l.s.	1	87,242,000.00	87,200,000
Traffic Light	+ Junction	l.s.	2	106,742,000.00	213,500,000
Traffic Island		place	10	7,715,502.26	77,200,000
Pedestrian Bridge		nos	3	463,948,323.85	1,391,800,000
<b>9 Ancillary Work</b>					<b>12,169,700,000</b>
Tree Plant	H=2m	nos	11,710	39,071.00	457,500,000
Median Strip	W=1.0m	m	23,420	164,790.86	3,859,400,000
Median Strip	W=1.5m	m	45,840	171,309.61	7,852,800,000
<b>IV Land Acquisition and House compensation Cost</b>					<b>92,537,900,000</b>
1 Unregistered Land	Tamalanrea Section	m2	90,529	300,000	27,158,700,000
2 Unregistered Land	Daya Section	m2	66,677	225,000	15,002,300,000
3 Unregistered Land	Sudiang Section	m2	75,779	187,500	14,208,600,000
4 Registered Land	Tamalanrea Section	m2	53,551	400,000	21,420,400,000
5 Registered Land	Daya Section	m2	13,923	300,000	4,176,900,000
6 Registered Land	Sudiang Section	m2	20,743	250,000	5,185,800,000
7 Building		m2	18,569	206,000	3,825,200,000
8 Demolition Work	Building	house	312	5,000,000	1,560,000,000
<b>V Public Utility Relocation Cost</b>					<b>23,383,100,000</b>
1 Power Line		L.S.	1	13,344,939,742	13,344,900,000
2 Telecommunication Line		L.S.	1	7,396,085,971	7,396,100,000
3 Water main pipe		L.S.	1	2,642,123,710	2,642,100,000

Note: Junction of KIMA access road is as At-grade intersection.

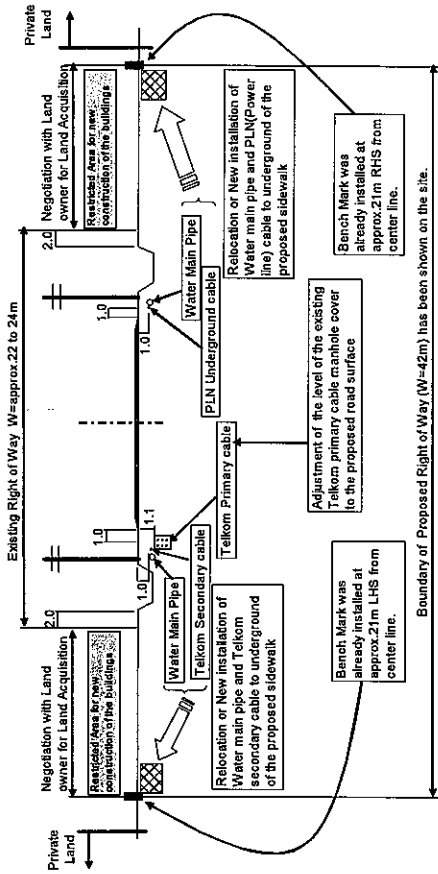
**ANNEX-4 LAND ACQUISITION / COMPENSATION COST CALCULATION**

Current Situation for land acquisition along JL.Urip Sumoharjo and JL.Perintis (1/4)

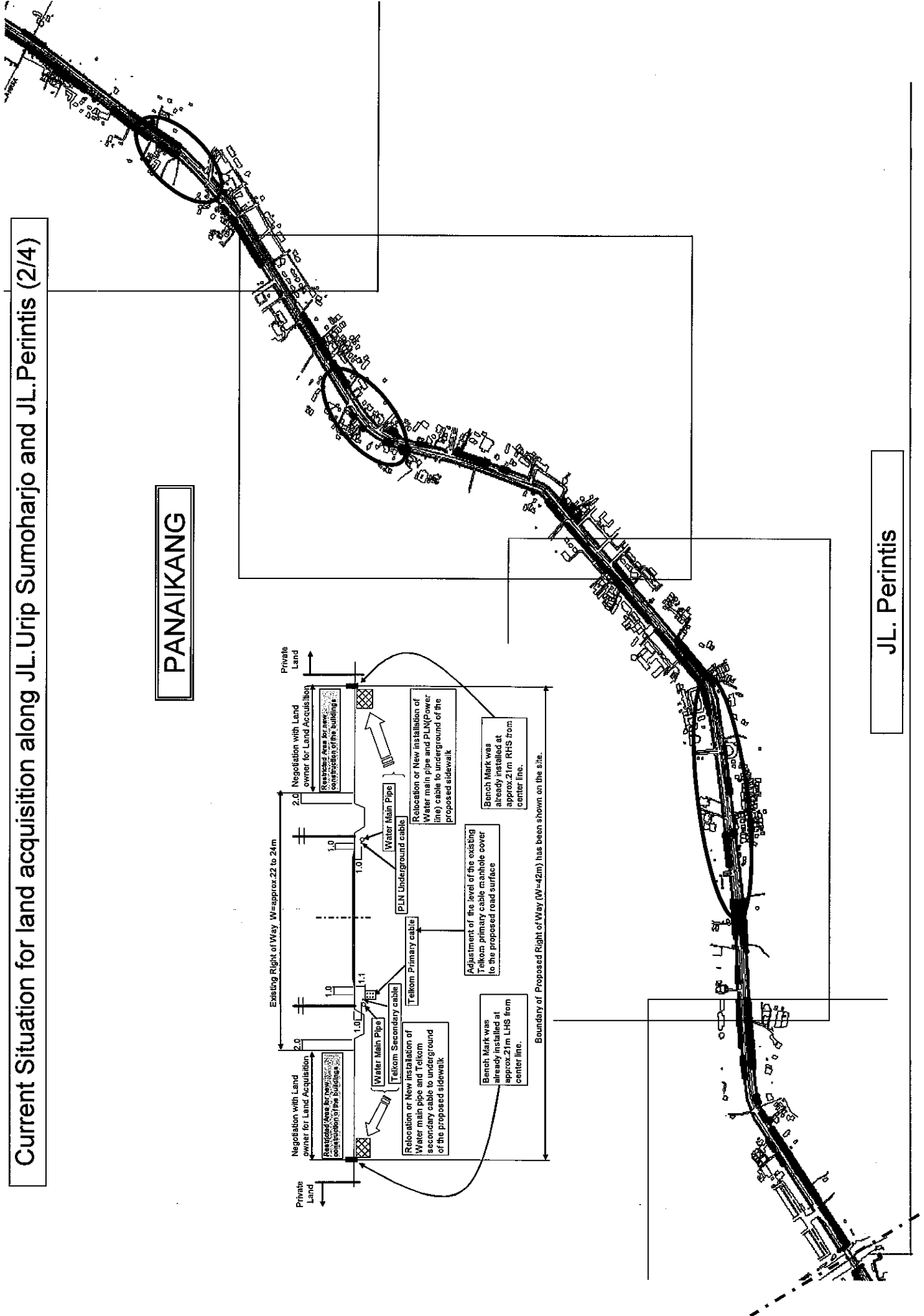


Current Situation for land acquisition along JL.Urip Sumoharjo and JL.Perintis (2/4)

PANAIKANG



JL. Perintis



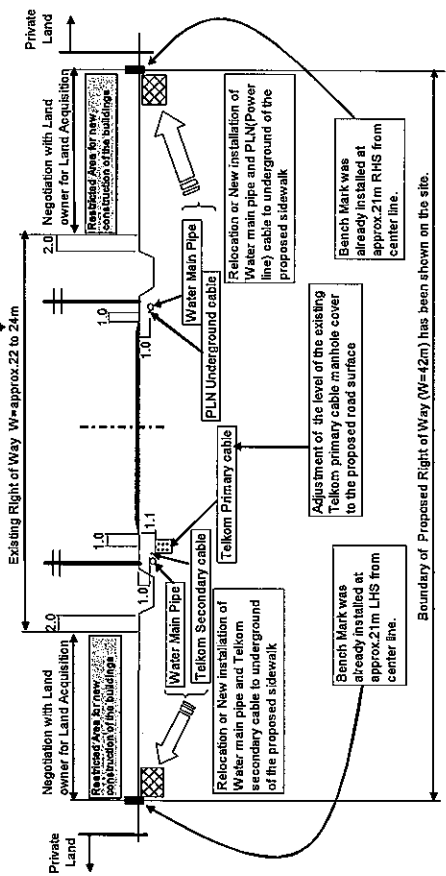
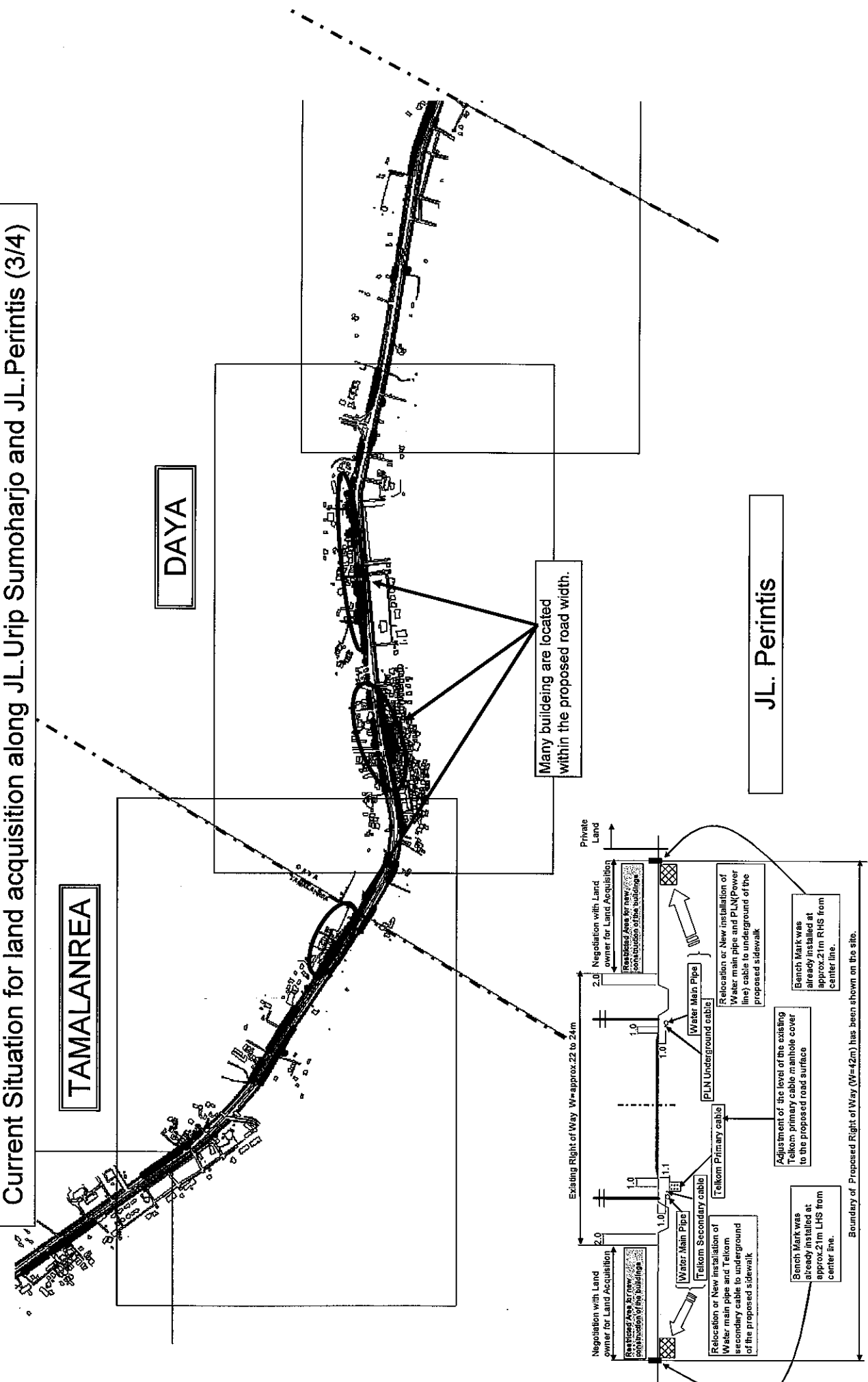
Current Situation for land acquisition along JL.Urip Sumoharjo and JL.Perintis (3/4)

TAMALANREA

DAYA

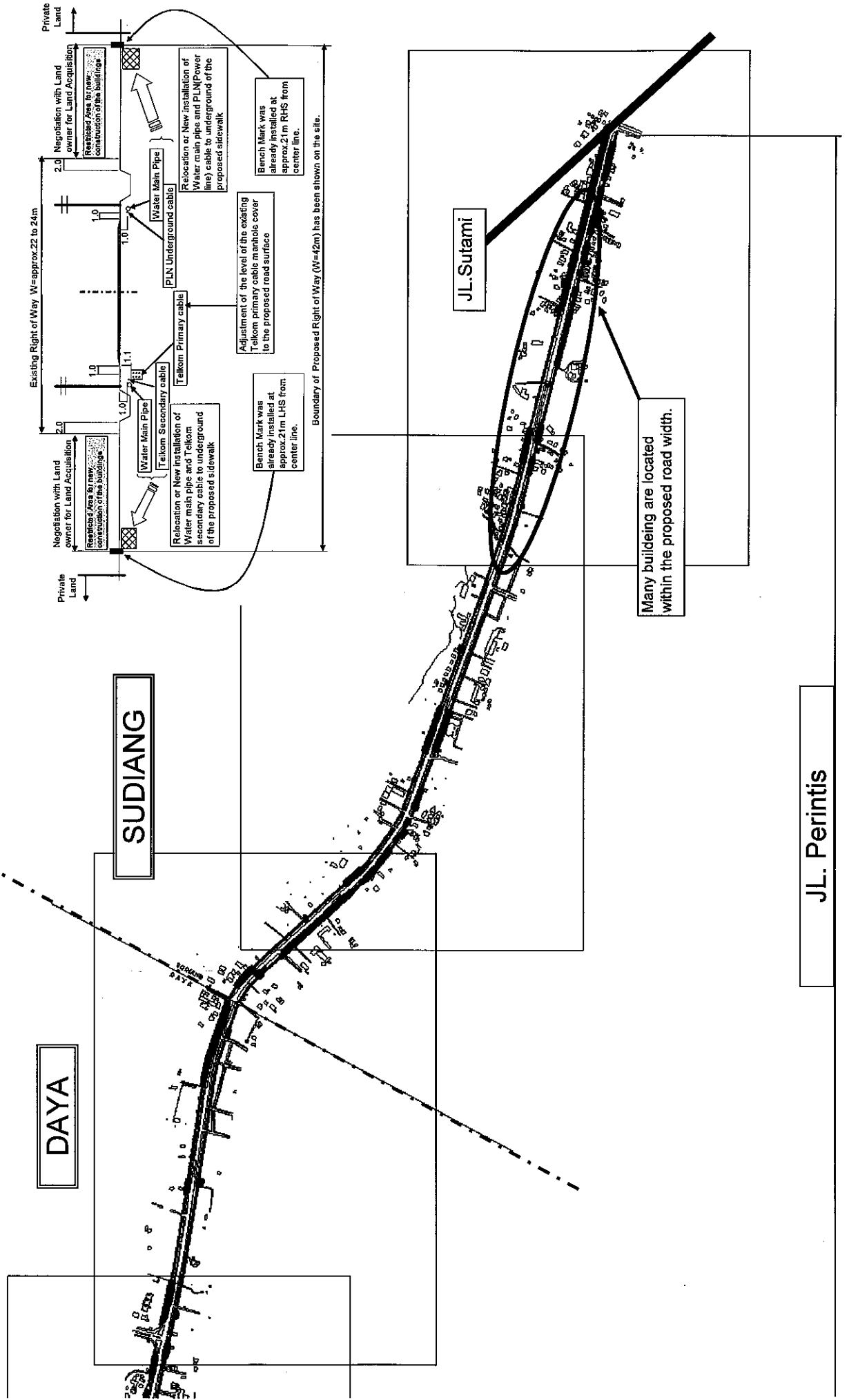
JL. Perintis

Many building are located within the proposed road width.





Current Situation for land acquisition along JL.Urip Sumoharjo and JL.Perintis (4/4)

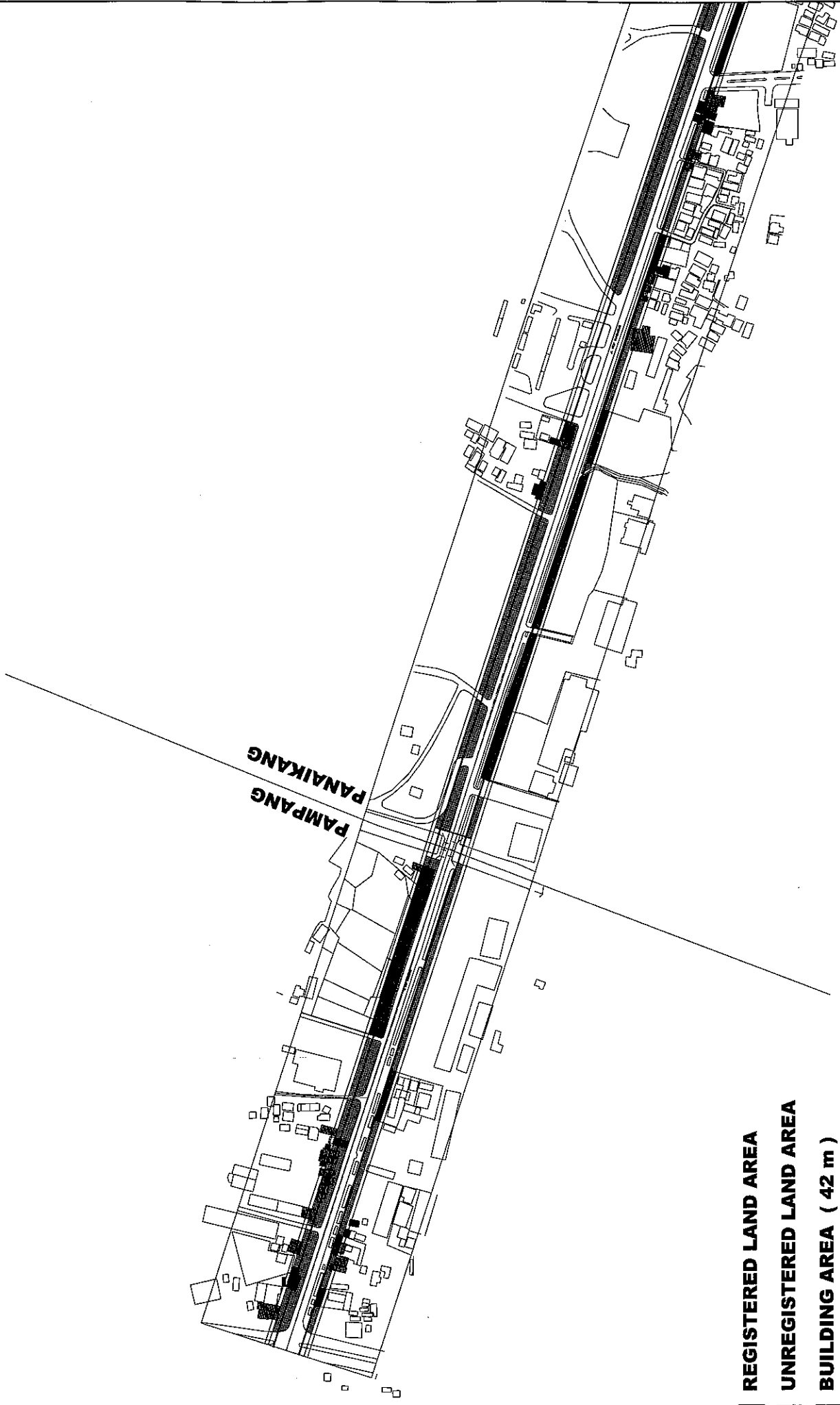


Estimated Land Acquisition Cost along J.L. Urip Sumoharjo and J.L. Perintis

14-Mar-05

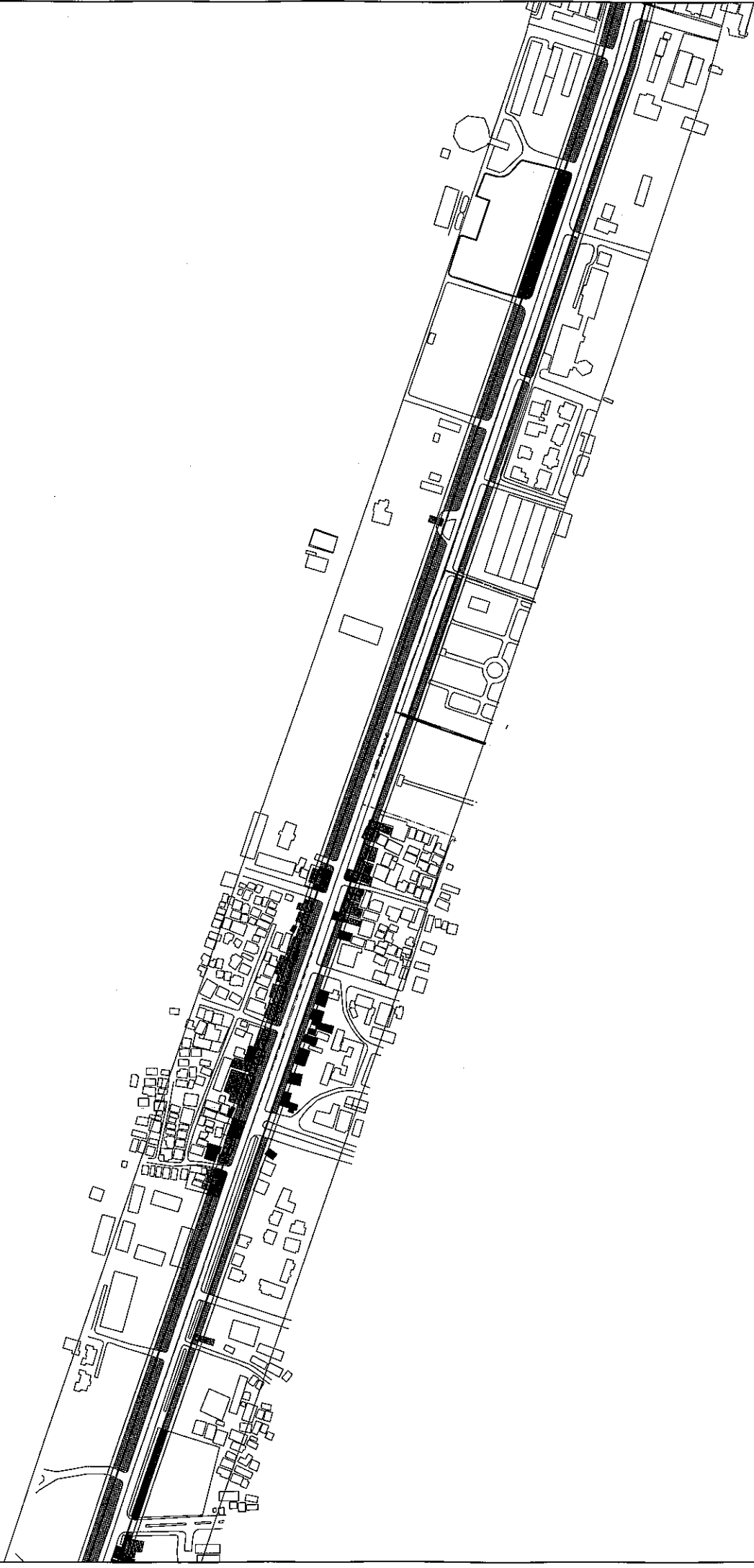
Road	Section	Area(m2)			Value(Rp./m2)			TOTAL VALUE(Rp.)				TOTAL ESTIMATED VALUE(Rp.)
		Unreg. Land	Reg. Land	Building	Unreg. Land	Reg. Land	Building	Unreg. Land	Reg. Land	Building		
J.L.Urip Sumoharjo	L	7,065	3,355	1,494	520,500	694,000	206,000	3,677,332,500	2,328,370,000	307,764,000	6,313,466,500	
	R	3,626	2,752	1,106	520,500	694,000	206,000	1,887,333,000	1,909,888,000	227,836,000	4,025,057,000	
J.L.Perintis	L	3,439	603	388	520,500	694,000	206,000	1,789,999,500	418,482,000	79,928,000	2,288,409,500	
	R	68,549	11,117	5,811	520,500	694,000	206,000	35,679,754,500	7,715,198,000	1,197,066,000	44,592,018,500	
Tamalanrea	L	37,844	4,444	4,112	520,500	694,000	206,000	19,697,802,000	3,084,136,000	847,072,000	23,629,010,000	
	R	30,705	6,673	1,699	520,500	694,000	206,000	15,981,952,500	4,631,062,000	349,994,000	20,963,008,500	
Daya	L	90,529	53,551	8,984	300,000	400,000	206,000	27,158,700,000	21,420,400,000	1,850,704,000	50,429,804,000	
	R	43,368	29,146	5,012	300,000	400,000	206,000	13,010,400,000	11,658,400,000	1,032,472,000	25,701,272,000	
Sudiang	L	47,161	24,405	3,972	300,000	400,000	206,000	14,148,300,000	9,762,000,000	818,232,000	24,728,532,000	
	R	66,677	13,923	2,783	225,000	300,000	206,000	15,002,325,000	4,176,900,000	573,298,000	19,752,523,000	
Total(J.L.Urip Sumoharjo and J.L.Perintis)	L	29,949	10,627	1,487	225,000	300,000	206,000	6,738,525,000	3,188,100,000	306,322,000	10,232,947,000	
	R	36,728	3,296	1,296	225,000	300,000	206,000	8,263,800,000	988,800,000	266,976,000	9,519,576,000	
J.L.Urip Sumoharjo	L	75,779	20,743	6,802	187,500	250,000	206,000	14,208,562,500	5,186,750,000	1,401,212,000	20,795,524,500	
	R	39,083	10,375	3,145	187,500	250,000	206,000	7,328,062,500	2,593,750,000	647,870,000	10,569,682,500	
J.L.Perintis	L	36,696	10,368	3,657	187,500	250,000	206,000	6,880,500,000	2,592,000,000	753,342,000	10,225,842,000	
	R	308,599	102,689	25,874	187,500	250,000	206,000	95,726,674,500	40,826,618,000	5,330,044,000	141,883,336,500	
J.L.Urip Sumoharjo	L	153,870	57,344	14,862	187,500	250,000	206,000	48,862,122,500	22,434,274,000	3,061,572,000	74,157,968,500	
	R	154,729	45,345	11,012	187,500	250,000	206,000	47,064,552,000	18,392,344,000	2,268,472,000	67,725,368,000	
J.L.Perintis	L	75,614	14,472	7,305	187,500	250,000	206,000	39,357,087,000	10,043,568,000	1,504,830,000	50,905,485,000	
	R	41,470	7,196	5,218	187,500	250,000	206,000	21,585,135,000	4,994,024,000	1,074,908,000	27,654,067,000	
Total(J.L.Urip Sumoharjo and J.L.Perintis)	L	34,144	7,276	2,087	187,500	250,000	206,000	17,771,952,000	5,049,544,000	429,922,000	23,251,418,000	
	R	232,985	88,217	18,569	187,500	250,000	206,000	56,369,587,500	30,783,050,000	3,825,214,000	90,977,851,500	
Total(J.L.Urip Sumoharjo and J.L.Perintis)	L	112,400	50,148	9,644	187,500	250,000	206,000	27,076,987,500	17,440,250,000	1,986,664,000	46,503,901,500	
	R	120,585	38,069	8,925	187,500	250,000	206,000	29,292,600,000	13,342,800,000	1,838,550,000	44,473,950,000	

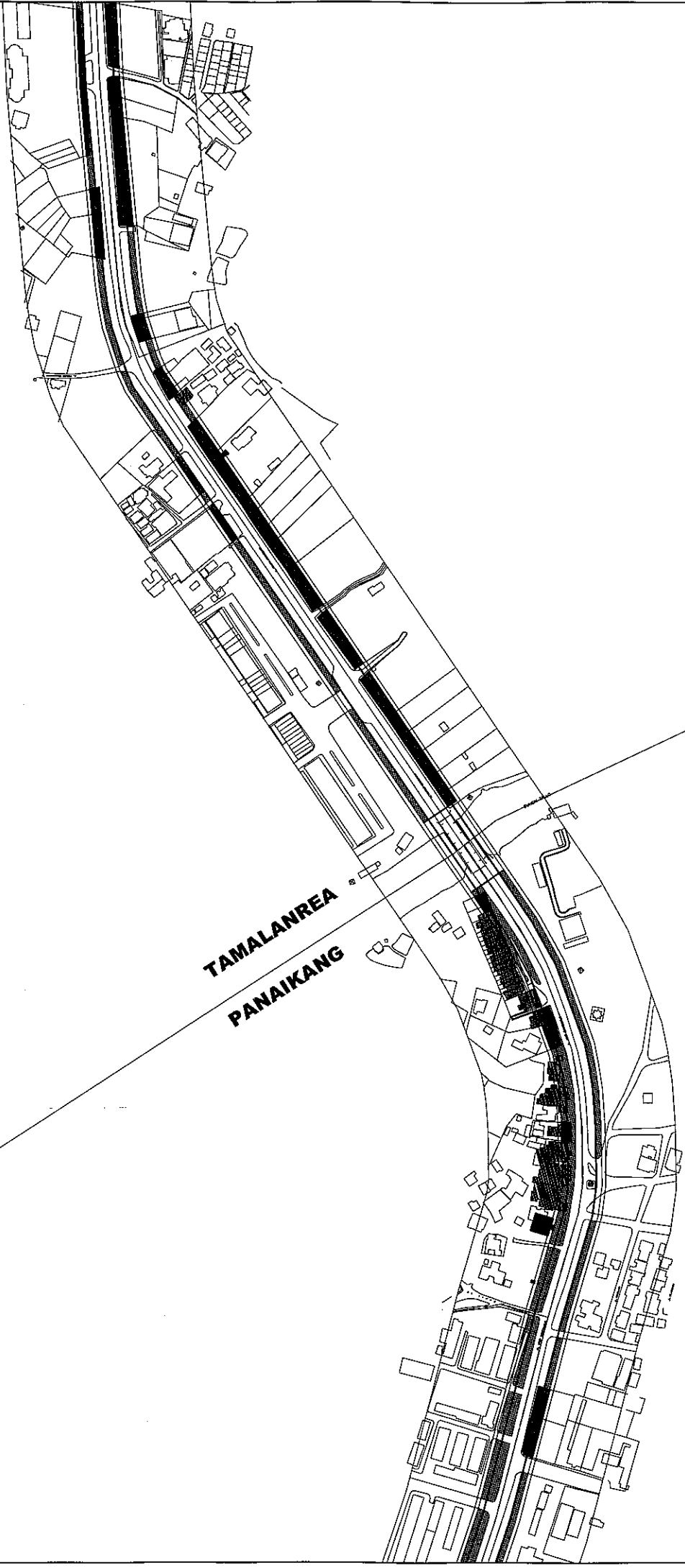
Note: ROW=42m



- REGISTERED LAND AREA
- ▨ UNREGISTERED LAND AREA
- ▩ BUILDING AREA ( 42 m )
- ▩ BUILDING AREA ( 52 m )


JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORPORATION	PROJECT TITLE: <b>PRE FEASIBILITY STUDY FOR IMPROVEMENT OF          UJIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD</b>	DRAWING TITLE : <b>LAND PROPERTY</b>	DRAWING NO.
		SCALE =	DATE
NIPPON KOEI CO., LTD.	DATE <b>JUNE 2006</b>		





**TAMALANREA**  
**PANAIKANG**

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORPORATION INCORPORATED IN JAPAN  NIPPON KOGI CO., LTD.

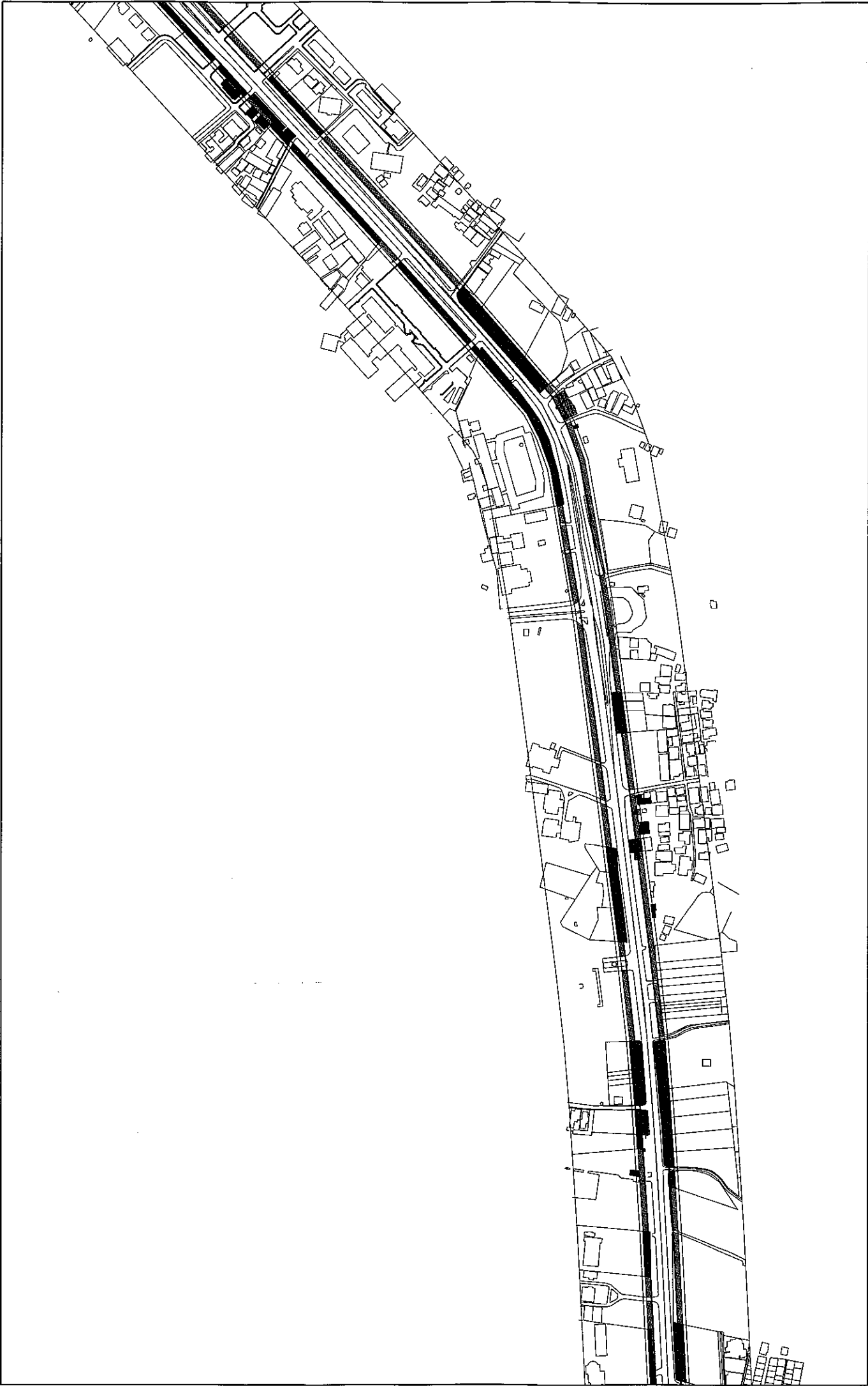
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**PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD**




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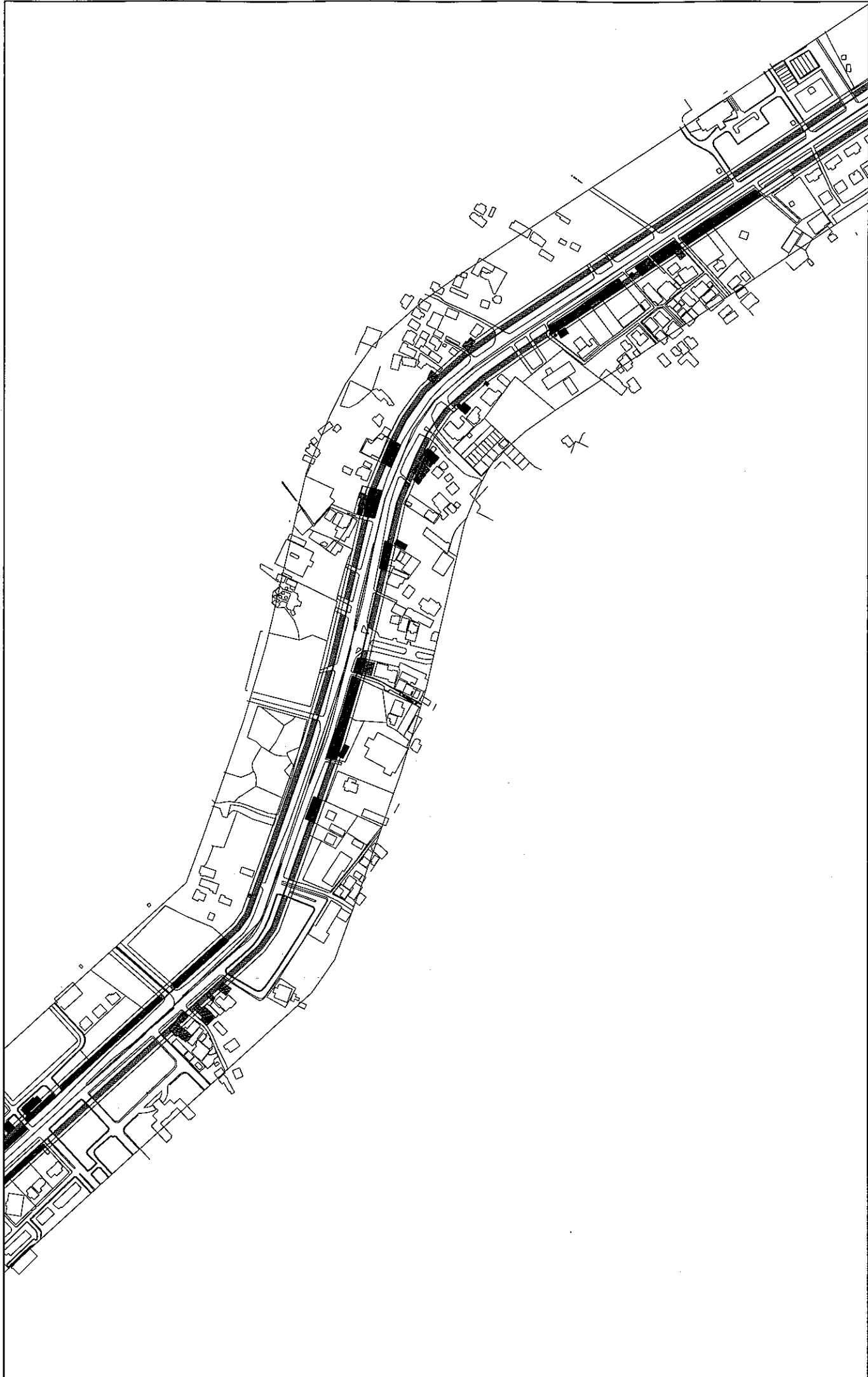
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DRAWING NO.

DATE  
**JUNE 2006**





DRAWING NO.	LAND PROPERTY	PROJECT TITLE: PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD	 JAPAN INTERNATIONAL COOPERATION AGENCY  KRI INTERNATIONAL CORPORATION
DATE	SCALE =	PROJECT TITLE:	 NIPPON KOBE CO., LTD.
DRAWING NO.	DATE	PROJECT TITLE:	PROJECT TITLE:

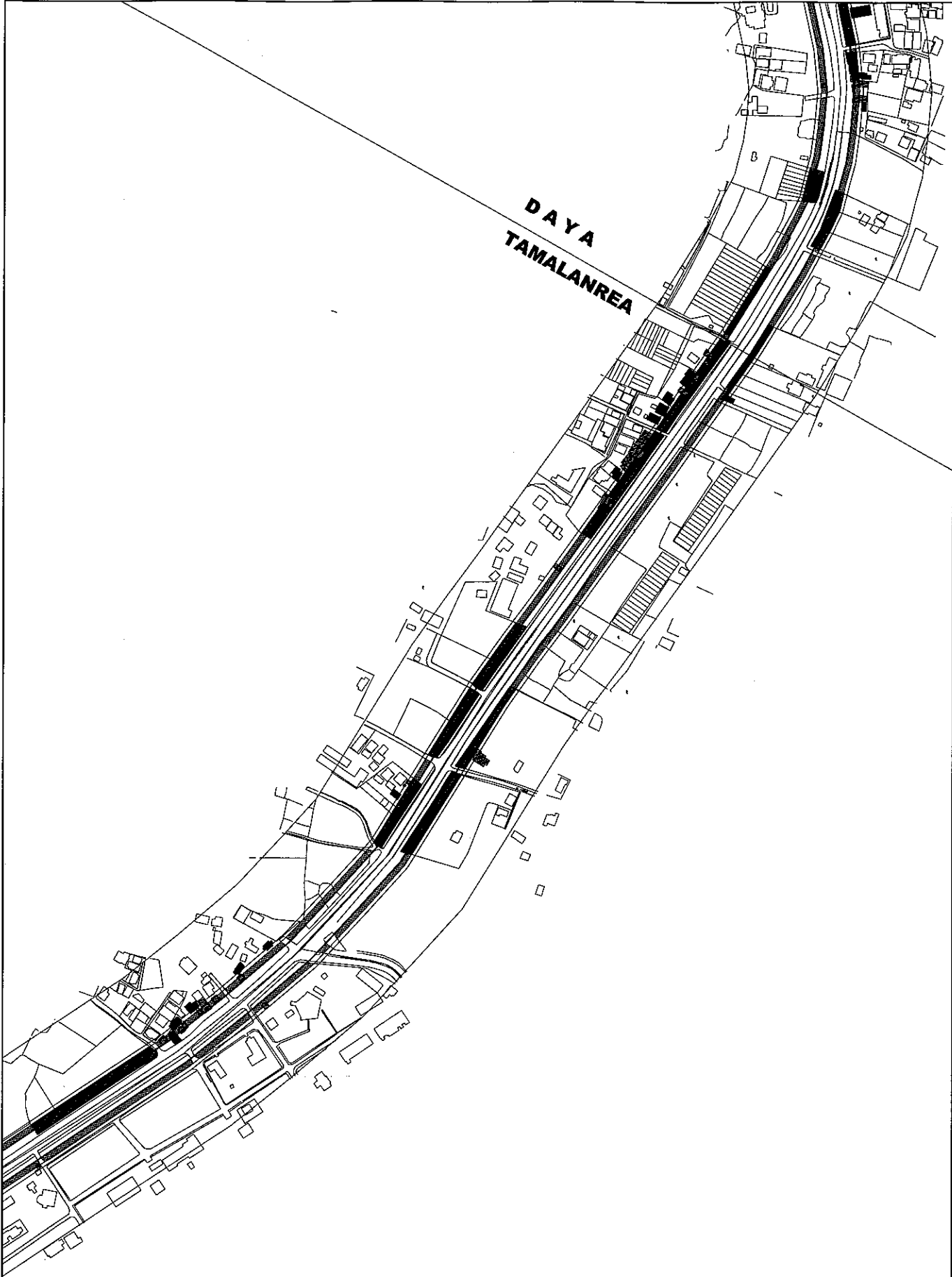


DRAWING NO. \_\_\_\_\_  
 DATE: JUNE 2006

LAND PROPERTY  
 SCALE = \_\_\_\_\_

PROJECT TITLE:  
 THE STUDY ON IMPLEMENTATION OF INTEGRATED SPATIAL PLAN  
 FOR THE MAMMASATA METROPOLITAN AREA, SOUTH SULAWESI  
 PROVINCE IN INDONESIA

**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY  
 KRI INTERNATIONAL CORPORATION  NIPPON KOGI CO., LTD. 



DRAWING NO.

LAND PROPERTY

DRAWING TITLE :

PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD

PROJECT TITLE :

JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORPORATION

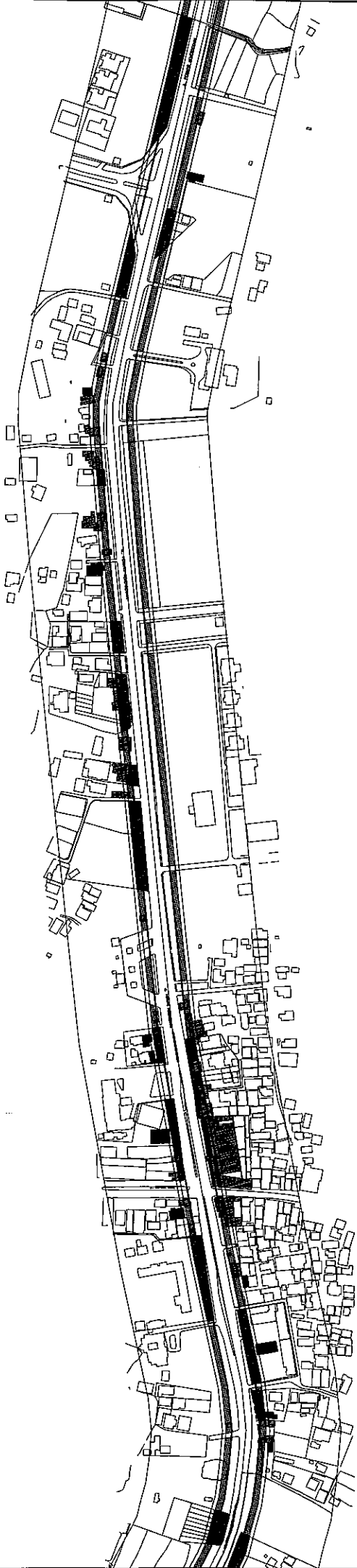


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SCALE =

JUNE 2006





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**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORPORATION



NISSAN KOBEL CO., LTD.

PROJECT TITLE:

PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD

DRAWING TITLE:

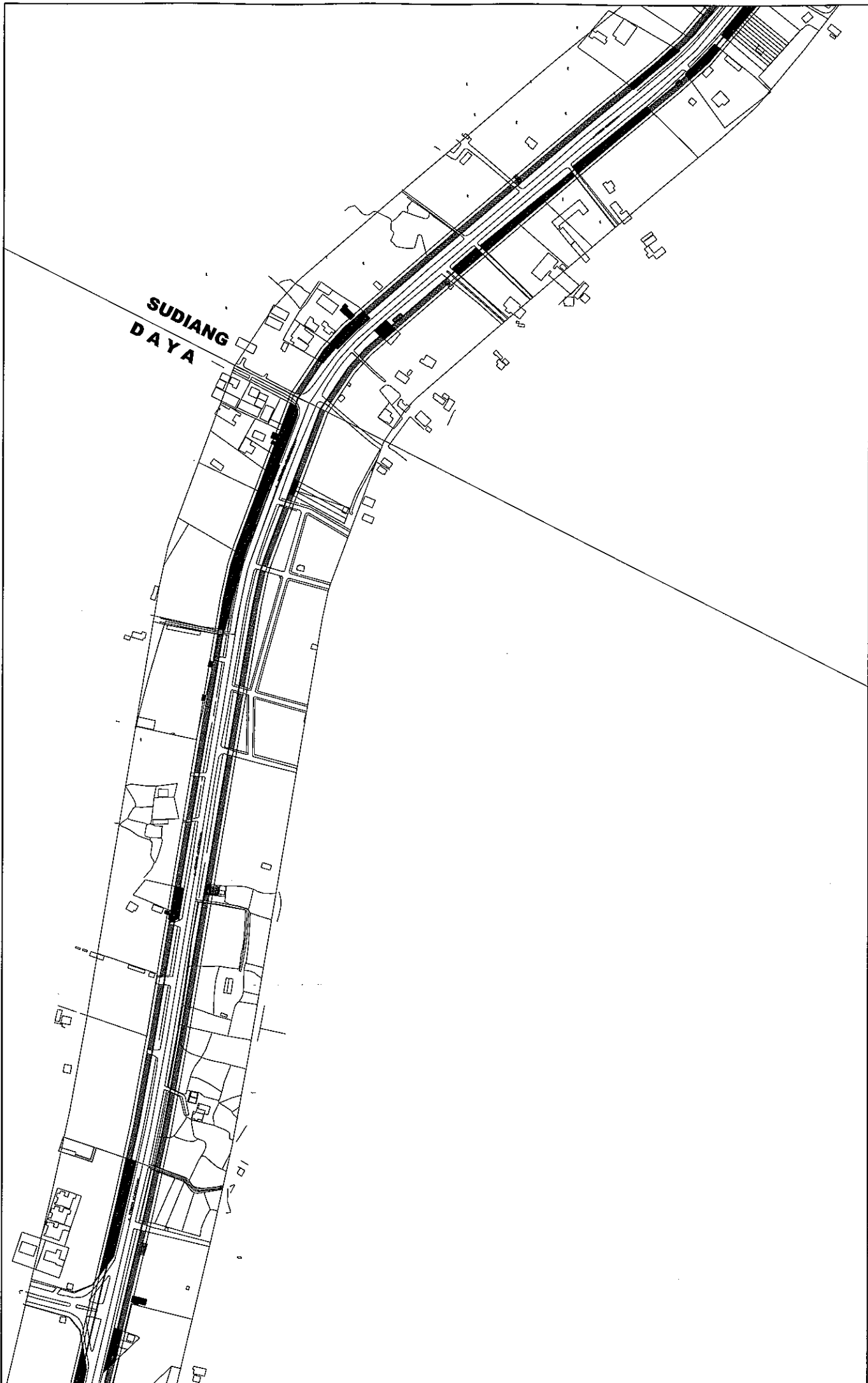
LAND PROPERTY

SCALE =

DRAWING NO.

DATE

JUNE 2006



**SUDIANG  
DAYA**

DRAWING NO.

DATE

JUNE 2006

DRAWING TITLE :

**LAND PROPERTY**

SCALE =

PROJECT TITLE:

**PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD**

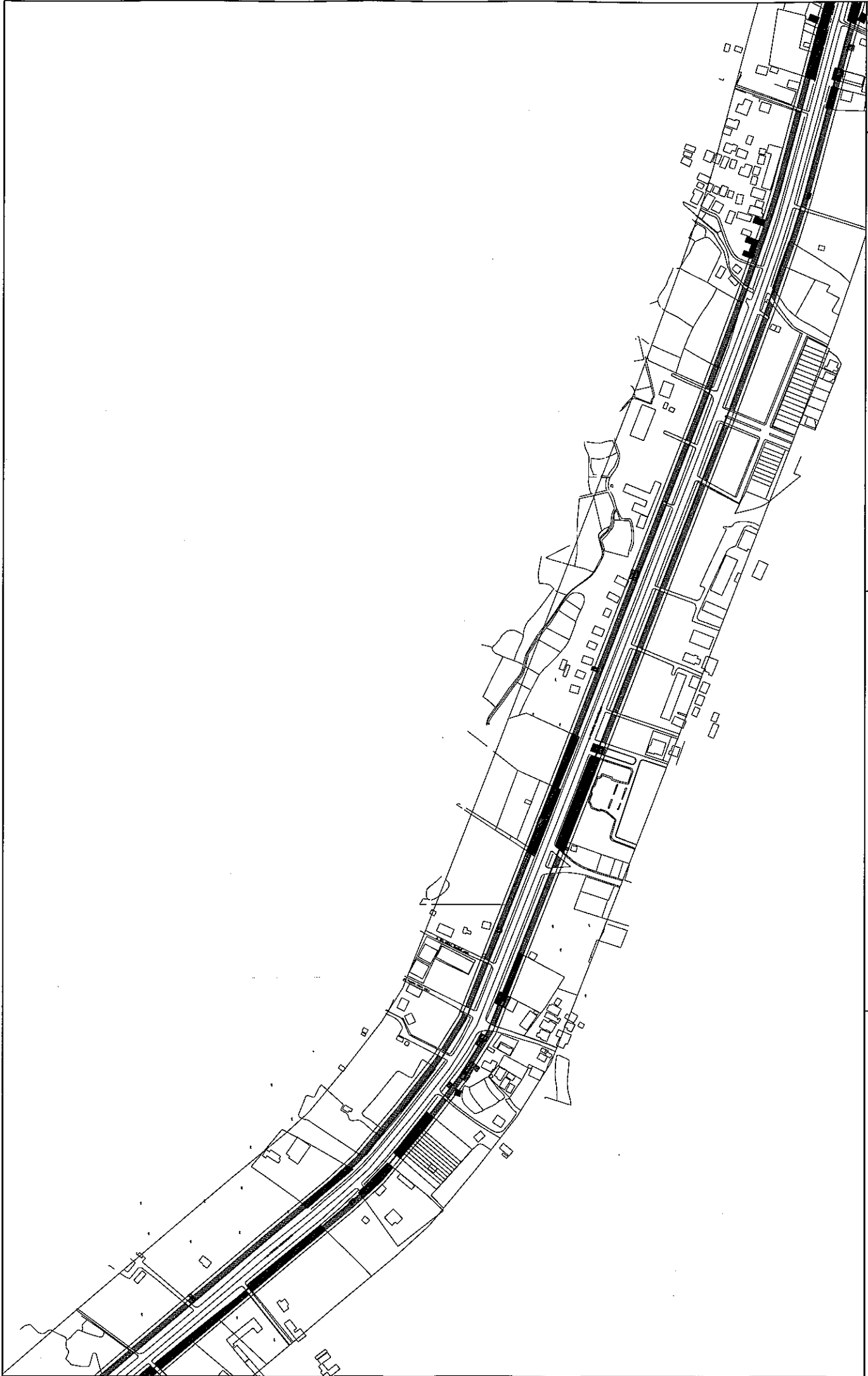
**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY




KRI INTERNATIONAL CORPORATION

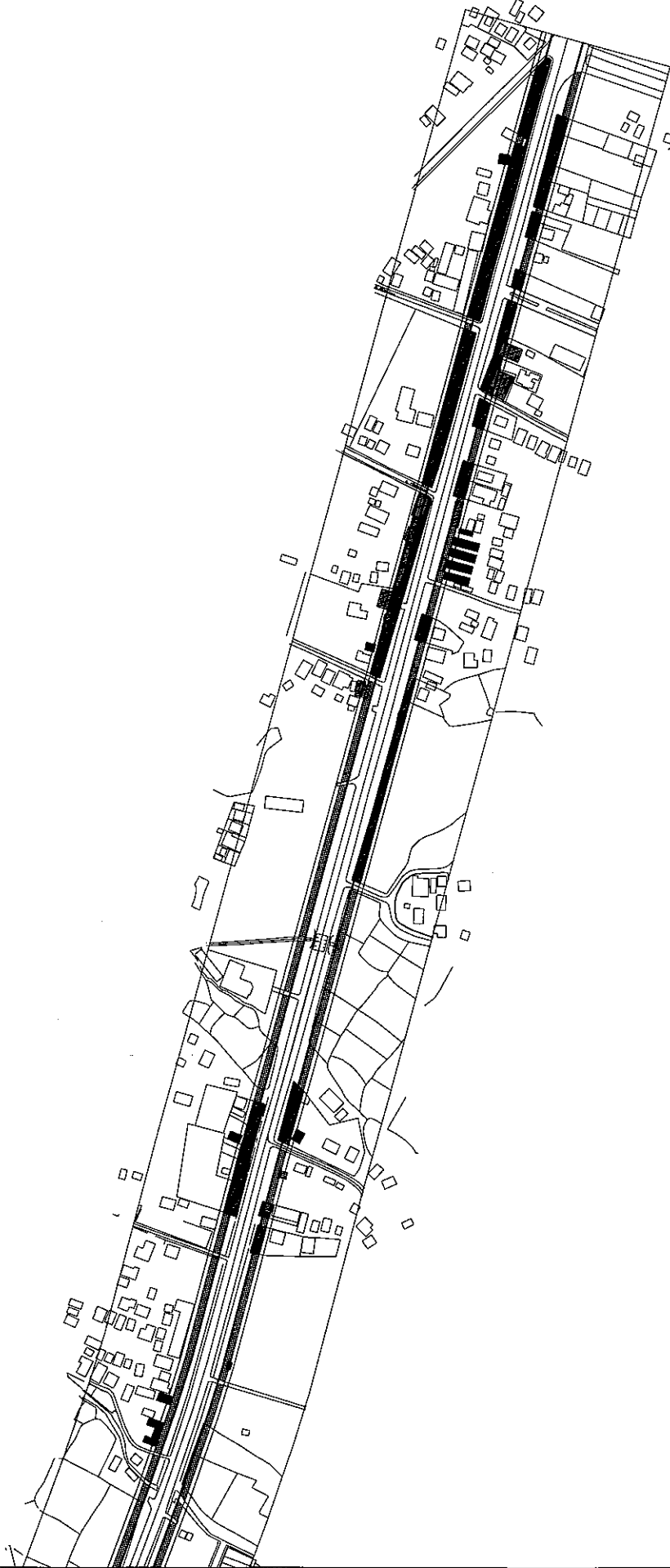


NEPPON KOBEI CO., LTD.







DRAWING NO.	LAND PROPERTY	PROJECT TITLE: PRE FEASIBILITY STUDY FOR IMPROVEMENT OF URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD	 JAPAN INTERNATIONAL COOPERATION AGENCY  NIPPON KOGYO CO., LTD.
DATE	SCALE =	DRAWING TITLE :	
DATE	SCALE =		 NIPPON KOGYO CO., LTD.



**JICA** JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORPORATION  NIPPON KOGI CO., LTD. 

PROJECT TITLE:  
 PRE FEASIBILITY STUDY FOR IMPROVEMENT OF  
 URIP SUMOHARJO ROAD - PERINTIS KEMERDEKAAN ROAD

DRAWING TITLE:  
 LAND PROPERTY

SCALE =

DRAWING NO.

DATE

JUNE 2006

**ANNEX-5 SITE PHOTOGRAPH**

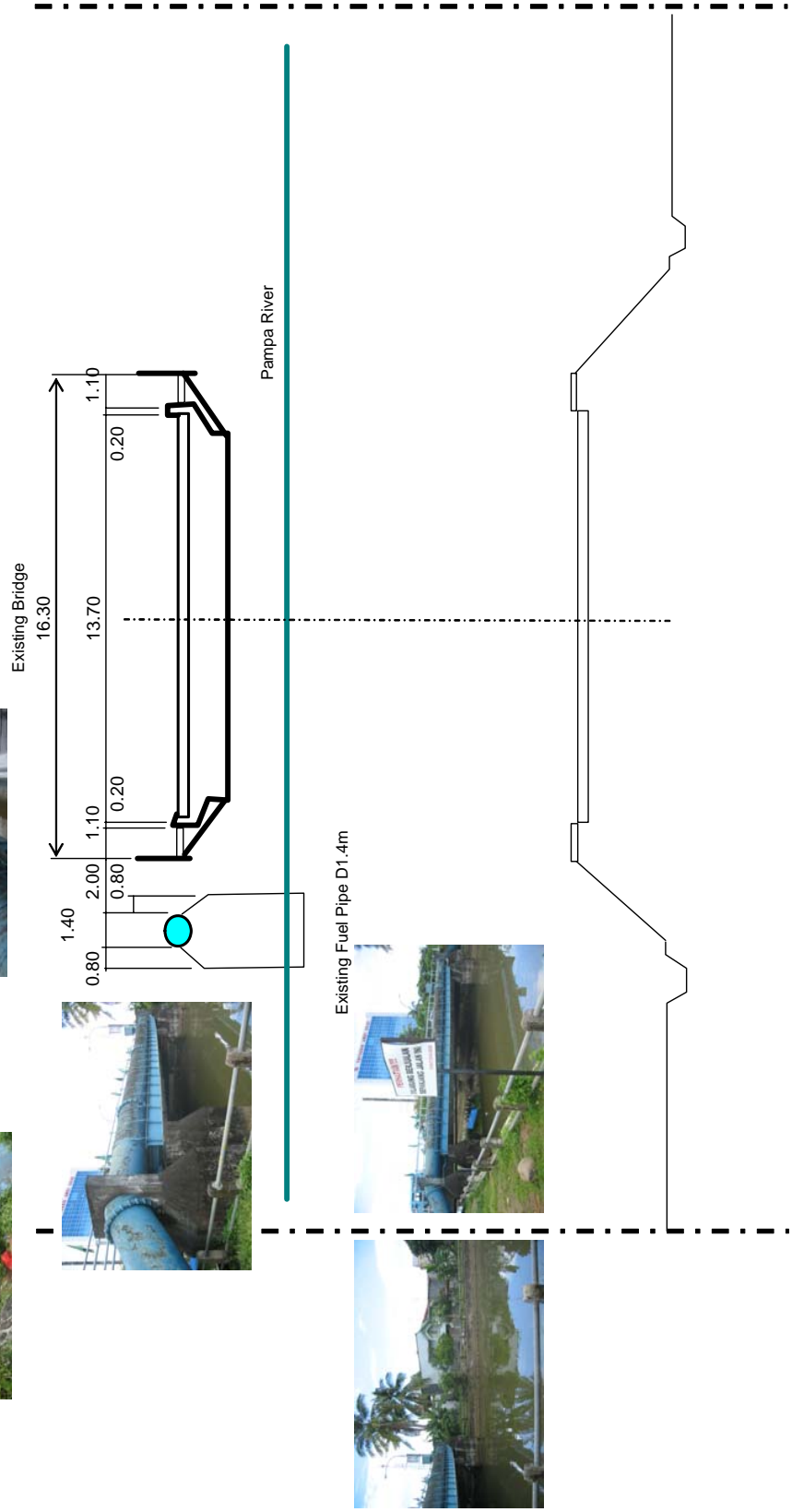


**Typical Section Photo of Perintis Road (1/2)**

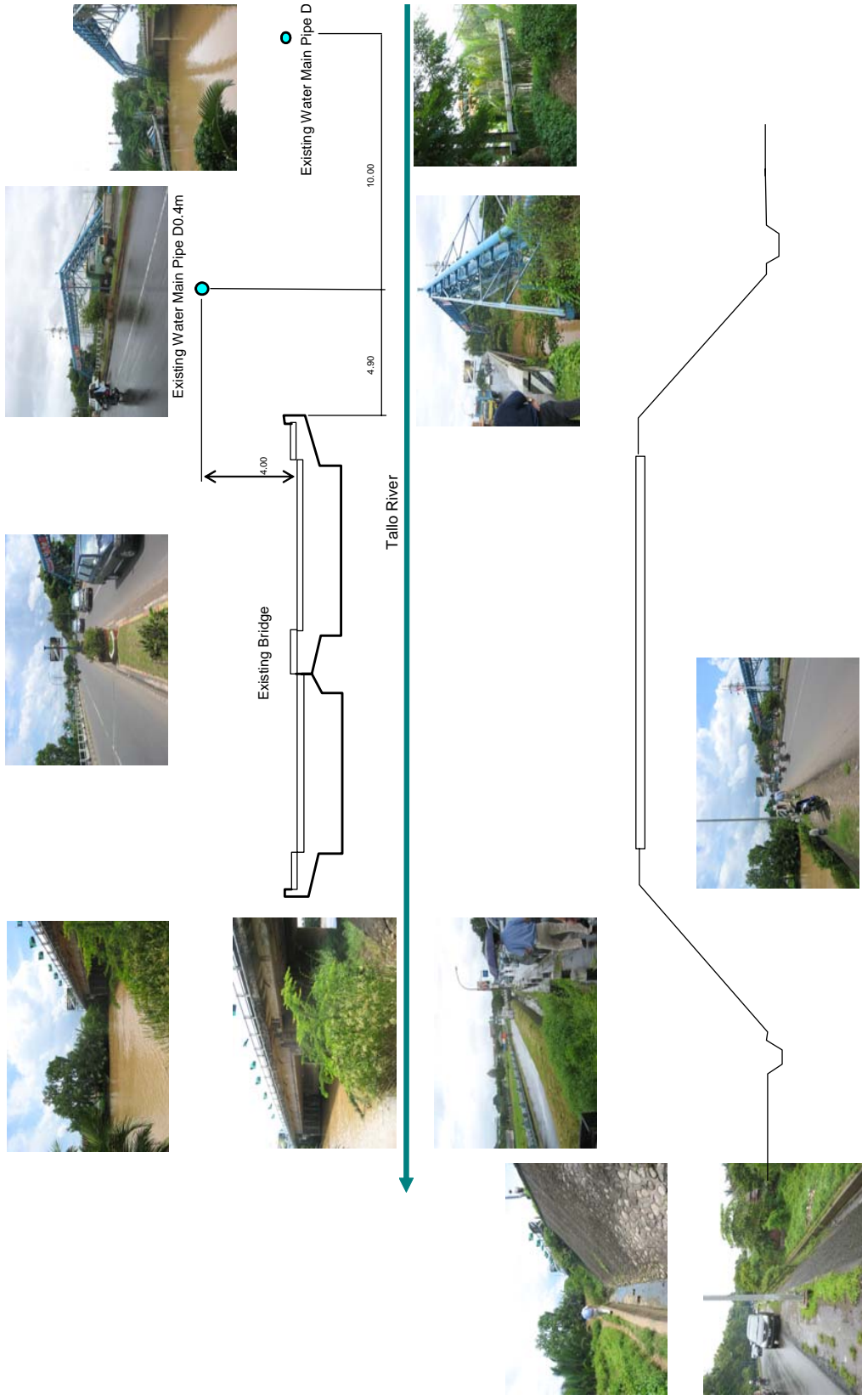


**Typical Section Photo of Perintis Road (2/2)**

**TYPICAL CROSS SECTION OF JL. PERINTIS at Pampang River Bridge  
Existing**



**TYPICAL CROSS SECTION OF JL PERINTIS at Tallo River Bridge  
Existing**





Bench Mark along J.L. Perintis

