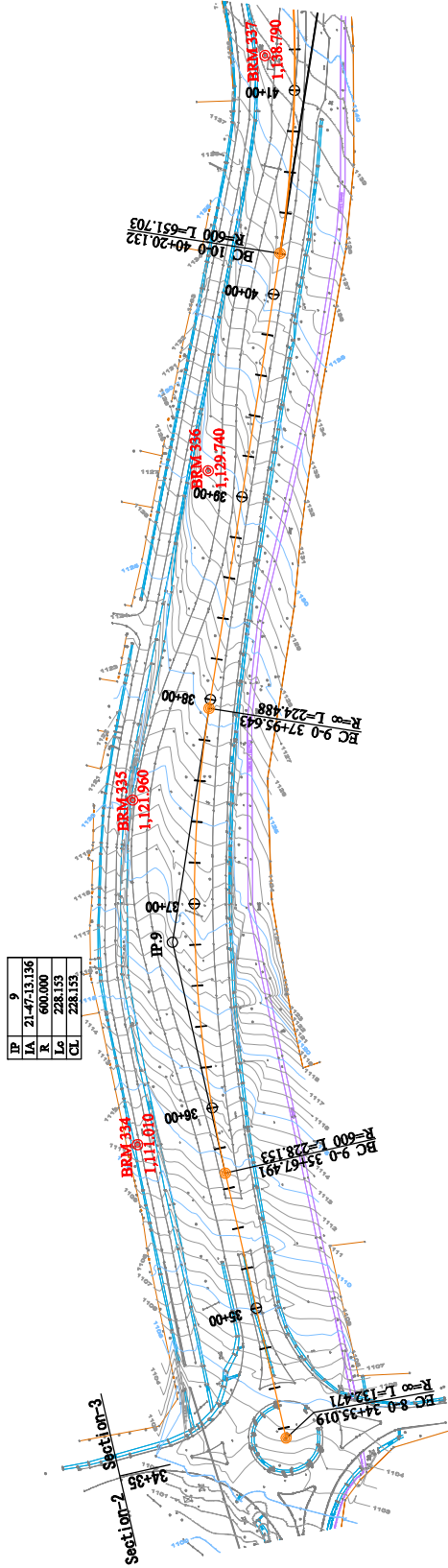


KEY PLAN (1) S=1 : 2500
 (CHIPIMBERE HIGHWAY AND LIVINGSTONE AVENUE)

| MARK | X-Coordinate | Y-Coordinate | Elevation |
|-------------------|--------------|--------------|-----------|
| BENCHMARKS | | | |
| BRM 334 | 52,273.960 | 18,235.060 | 1,111.010 |
| BRM 335 | 52,214.290 | 18,392.100 | 1,121.960 |
| BRM 336 | 52,120.940 | 18,527.810 | 1,129.740 |
| BRM 337 | 52,020.690 | 18,705.890 | 1,138.790 |

| | |
|----------------|--------------|
| TP | 9 |
| IA | 21-47-13.136 |
| R | 600.000 |
| L _o | 228.153 |
| CL | 228.153 |



| Important Point | Station | X-Coordinate | Y-Coordinate | Element | Distance |
|--------------------|-----------|--------------|--------------|---------|----------|
| Center-Line | | | | | |
| BC 8-0 | 34+35.019 | 52239.2458 | 18075.3866 | R=∞ | 132.471 |
| BC 9-0 | 35+67.491 | 52239.2374 | 18206.3380 | R=600 | 228.153 |
| BC 9-0 | 37+95.643 | 52163.2356 | 18420.0041 | R=∞ | 224.488 |
| BC 10-0 | 40+20.132 | 52049.3864 | 18613.4812 | R=600 | 651.703 |
| BC 10-0 | 46+71.835 | 52056.3391 | 19233.5790 | R=∞ | |

BLANTYRE CITY ASSEMBLY
 THE REPUBLIC OF MALAWI

JAPAN INTERNATIONAL
 COOPERATION AGENCY
 KATAHIRA & ENGINEERS INTERNATIONAL

THE PREPARATORY SURVEY
 ON THE PROJECT FOR THE IMPROVEMENT
 OF BLANTYRE CITY ROADS
 IN
 THE REPUBLIC OF MALAWI

KEY PLAN(1/7)

Drawing No. 6 - 2

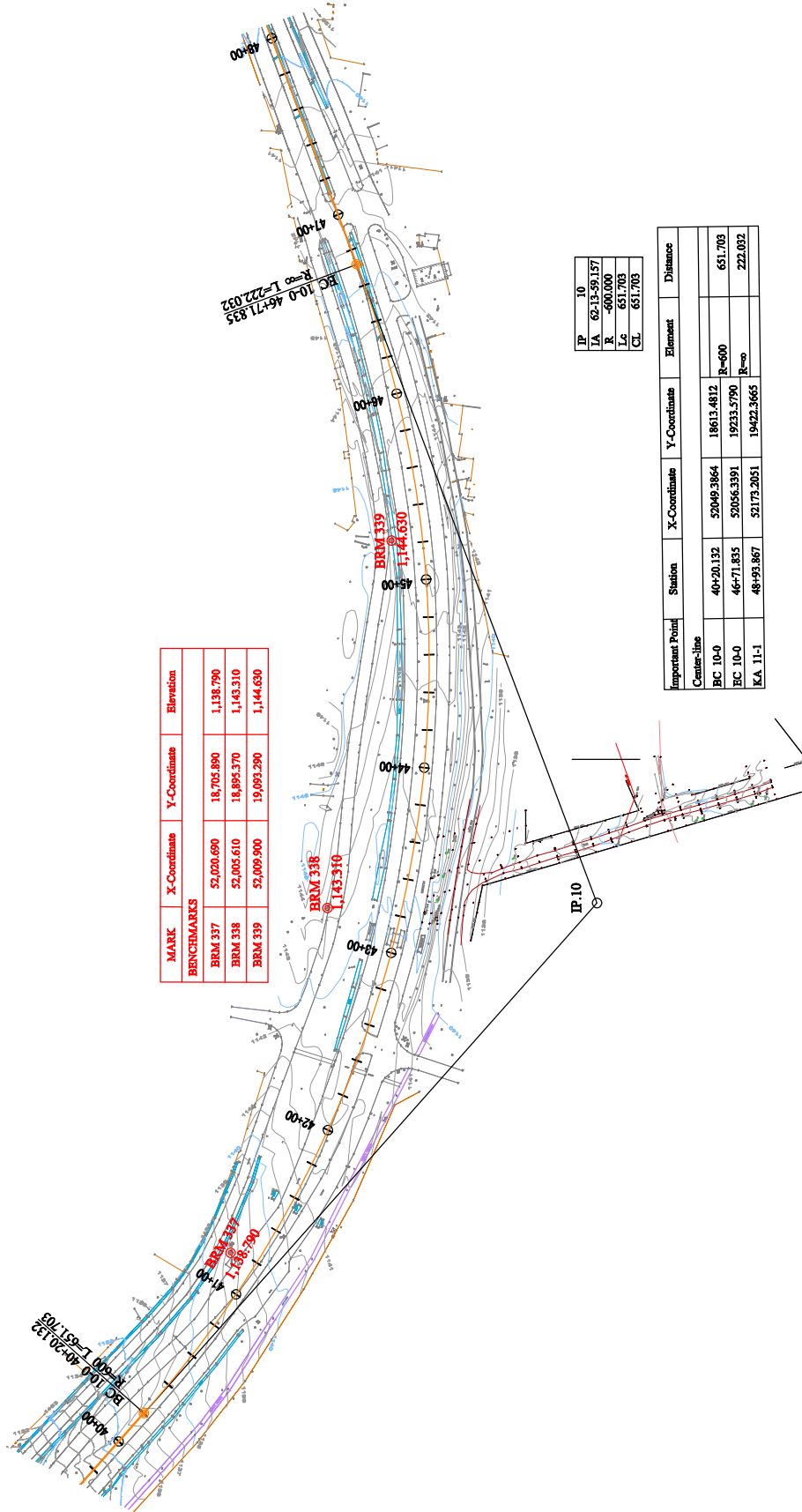
SCALE S=1:2500

DATE

KEY PLAN (2)

S=1:2500

(CHIPEMBERE HIGHWAY AND LIVINGSTONE AVENUE)



| MARK | X-Coordinate | Y-Coordinate | Elevation |
|-------------------|--------------|--------------|-----------|
| BENCHMARKS | | | |
| BRM 337 | 52,020.690 | 18,705.890 | 1,138.790 |
| BRM 338 | 52,005.610 | 18,895.370 | 1,143.310 |
| BRM 339 | 52,009.900 | 19,099.290 | 1,144.630 |

| | |
|----|--------------|
| IP | 10 |
| IA | 62.13-59.157 |
| R | -600.000 |
| Lc | 651.703 |
| CL | 651.703 |

| Important Point | Station | X-Coordinate | Y-Coordinate | Element | Distance |
|--------------------|-----------|--------------|--------------|---------|----------|
| Center-Line | | | | | |
| BC 10-0 | 40+20.132 | 52049.3864 | 18613.4812 | R=600 | 651.703 |
| BC 10-0 | 46+71.855 | 52056.3391 | 19233.5790 | R=∞ | 222.032 |
| KA 11-1 | 48+93.867 | 52173.2051 | 19422.3665 | | |

BLANTYRE CITY ASSEMBLY
THE REPUBLIC OF MALAWI

JAPAN INTERNATIONAL
COOPERATION AGENCY
KATAHIRA & ENGINEERS INTERNATIONAL

THE PREPARATORY SURVEY
ON THE PROJECT FOR THE IMPROVEMENT
OF BLANTYRE CITY ROADS
IN
THE REPUBLIC OF MALAWI

KEY PLAN(2/7)

Drawing No. 6 - 3

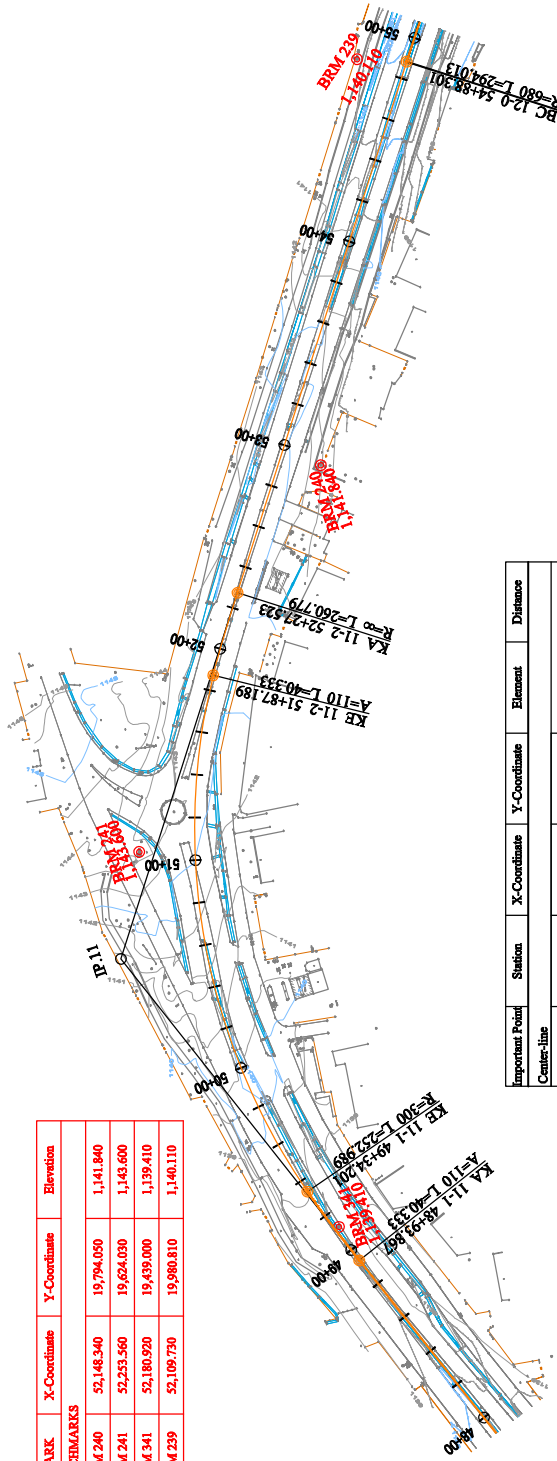
SCALE S=1:2500

DATE

KEI PLAN (3)
S=1:2500
(CHIPEMBE HIGHWAY AND LIVINGSTONE AVENUE)

| IP | 11 | Y | 0.903 | 0.903 |
|------|-------------|----|---------|---------|
| King | 11-1 | CL | 252.989 | |
| IA | 56-0-13.289 | D | 333.655 | |
| R | 300.000 | S | 179.865 | 179.865 |
| L | 40.333 | W | 46.525 | 46.525 |
| AK | 20.126 | A | 110.000 | 110.000 |
| X | 40.333 | | | |

| MARK | X-Coordinate | Y-Coordinate | Elevation |
|---------|--------------|--------------|-----------|
| BRM 240 | 52,148.340 | 19,794.050 | 1,141.840 |
| BRM 241 | 52,253.560 | 19,624.030 | 1,143.600 |
| BRM 341 | 52,180.920 | 19,439.000 | 1,139.410 |
| BRM 239 | 52,109.750 | 19,980.810 | 1,146.110 |



| Important Point | Station | X-Coordinate | Y-Coordinate | Element | Distance |
|--------------------|-----------|--------------|--------------|---------|----------|
| Center-Line | | | | | |
| EC 10-0 | 46+71.835 | 52056.3391 | 19233.5790 | R=500 | 222.032 |
| KA 11-1 | 48+93.867 | 52175.2051 | 19422.5665 | A=110 | 40.333 |
| KE 11-1 | 49+34.201 | 52193.6566 | 19457.1207 | R=500 | 252.989 |
| KE 11-2 | 51+87.189 | 52209.7116 | 19702.1539 | A=110 | 40.333 |
| KA 11-2 | 52+27.523 | 52193.9698 | 19739.2797 | R=500 | 260.779 |
| EC 12-0 | 54+88.301 | 52086.8157 | 19977.0262 | | |

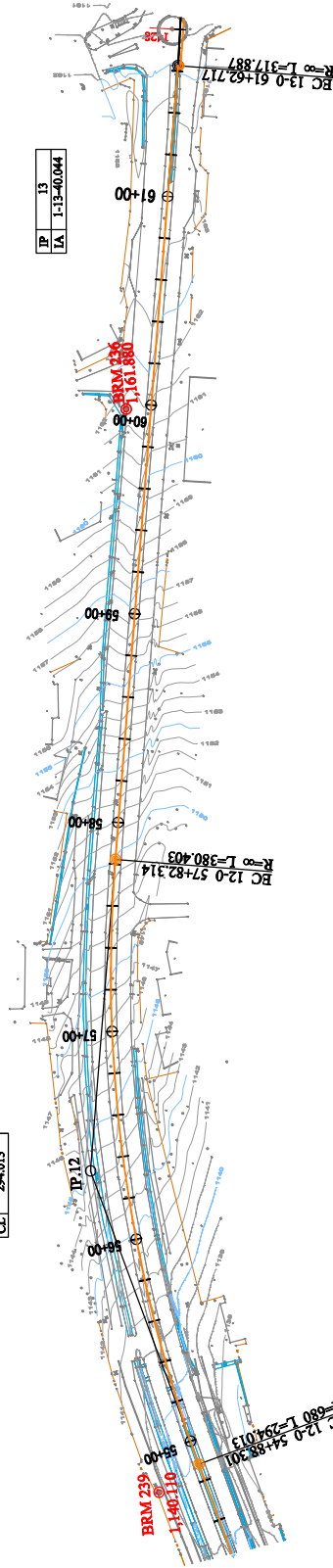
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|--|---|--|
| BLANTYRE CITY ASSEMBLY THE REPUBLIC OF MALAWI | JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL | THE PREPARATORY SURVEY ON THE PROJECT FOR THE IMPROVEMENT OF BLANTYRE CITY ROADS IN THE REPUBLIC OF MALAWI |
| TITLE: KEY PLAN(3/7) | | |
| Drawing No. | 6 - 4 | |
| SCALE | S=1:2500 | |
| DATE | | |

KEY PLAN (4) S=1:2500
 (CHIPEMBERE HIGHWAY AND LIVINGSTONE AVENUE)

Section-3 Section-4

| MARK | X-Coordinate | Y-Coordinate | Elevation |
|---------|--------------|--------------|-----------|
| BRM 236 | 51,758.130 | 20,540.800 | 1,161.880 |
| BRM 239 | 52,109.730 | 19,980.810 | 1,140.110 |

| | | |
|----|------|--------------|
| IP | 12 | 24,462,31.64 |
| IA | 1-13 | 40,044 |
| R | | 680,000 |
| Lc | | 294,013 |
| CL | | 294,013 |



| Important Point | Station | X-Coordinate | Y-Coordinate | Element | Distance |
|-----------------|-----------|--------------|--------------|---------|----------|
| Center-line | | | | | |
| KA 11-2 | 52+27.523 | 52193.9698 | 19739.2797 | | 260.779 |
| BC 12-0 | 54+88.301 | 52086.8157 | 19977.0262 | R=680 | 294.013 |
| BC 12-0 | 57+82.314 | 51912.6841 | 20211.0851 | R=680 | 380.403 |
| BC 13-0 | 61+62.717 | 51623.4402 | 20460.4787 | R=680 | 317.887 |
| KA 14-1 | 64+80.604 | 51389.9226 | 20673.9826 | | |

| | | |
|--|---|--|
| BLANTYRE CITY ASSEMBLY THE REPUBLIC OF MALAWI | JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL | THE PREPARATORY SURVEY ON THE PROJECT FOR THE IMPROVEMENT OF BLANTYRE CITY ROADS IN THE REPUBLIC OF MALAWI |
| TITLE: KEY PLAN(4/7) | | Drawing No. 6 - 5 SCALE S=1:2500 DATE |

KEY PLAN (5)

S=1:2500

(CHIPEMBERE HIGHWAY AND LIVINGSTONE AVENUE)

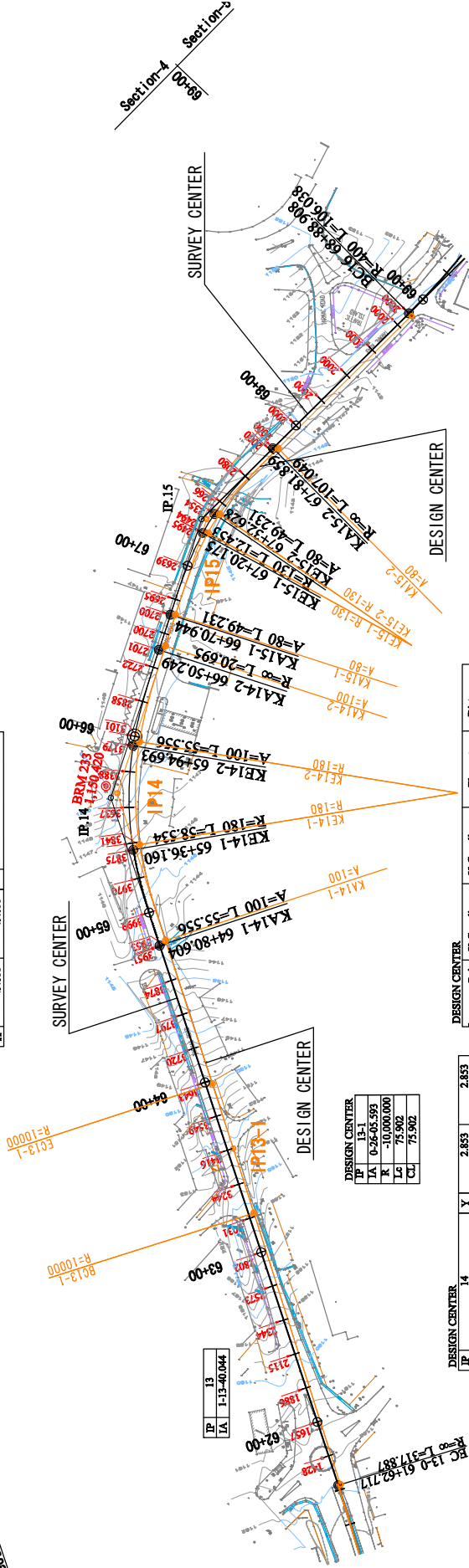
| SURVEY CENTER | | | | | | |
|---------------|--------------|--------------|------------|----------|---------|--|
| Station | X-Coordinate | Y-Coordinate | Element | Distance | | |
| BC 13-0 | 61+62.717 | 51625.4402 | 20460.4787 | R=∞ | | |
| KA 14-1 | 64+80.604 | 51389.9226 | 20673.9826 | A=100 | 317.887 | |
| KB 14-1 | 65+36.160 | 51346.9442 | 20709.0931 | R=∞ | 55.556 | |
| KB 14-2 | 65+94.694 | 51293.7209 | 20732.8291 | A=100 | 58.534 | |
| KA 14-2 | 66+50.249 | 51238.8810 | 20741.3425 | A=100 | 55.556 | |
| KA 15-1 | 66+70.944 | 51218.2951 | 20743.4616 | A=80 | 20.695 | |
| KB 15-1 | 67+20.175 | 51169.1810 | 20745.4019 | R=130 | 49.231 | |
| KB 15-2 | 67+32.628 | 51158.8453 | 20743.7306 | A=80 | 12.453 | |
| KA 15-2 | 67+81.859 | 51110.0181 | 20728.7918 | R=∞ | 107.049 | |
| BC 16-0 | 68+88.908 | 51010.2872 | 20689.8905 | R=∞ | 106.038 | |
| EC 16-0 | 69+94.946 | 50907.5735 | 20664.8241 | R=∞ | | |

| SURVEY CENTER 14 | | | | |
|------------------|---------|---------|---------|---------|
| TP | Y | X | Z | CL |
| IP | 14-1 | 14-2 | 2.853 | 2.853 |
| KN | 14-1 | 14-2 | 58.534 | 58.534 |
| LA | 14-1 | 14-2 | 169.645 | 169.645 |
| R | 180.000 | 180.000 | 87.024 | 87.024 |
| L | 55.556 | 55.556 | 55.497 | 55.497 |
| AR | 0.714 | 0.714 | 59.269 | 59.269 |
| AM | 27.756 | 27.756 | 100.000 | 100.000 |
| X | 55.423 | 55.423 | | |

| SURVEY CENTER 15 | | | | |
|------------------|--------------|---------|--------|---------|
| TP | Y | X | Z | CL |
| KN | 15-1 | 15-2 | 3.099 | 3.099 |
| LA | 27+11-11.079 | 110.915 | 12.453 | 110.915 |
| R | 130.000 | 130.000 | 56.208 | 56.208 |
| L | 49.231 | 49.231 | 49.152 | 49.152 |
| AR | 0.776 | 0.776 | 31.622 | 31.622 |
| AM | 24.586 | 24.586 | 80.000 | 80.000 |
| X | 49.055 | 49.055 | | |

| MARK | X-Coordinate | Y-Coordinate | Elevation |
|---------|--------------|--------------|-----------|
| BRM 233 | 51,320.510 | 20,737.560 | 1,150.420 |

Section 3
61+80



| DESIGN CENTER | | | | |
|---------------|-------------|---------|---------|---------|
| TP | Y | X | Z | CL |
| IP | 13-1 | 13-2 | 2.853 | 2.853 |
| KN | 13-1 | 13-2 | 57.839 | 57.839 |
| LA | 0-26-05.593 | 168.951 | 86.639 | 86.639 |
| R | -10.000,000 | 55.497 | 55.497 | 55.497 |
| L | 55.556 | 55.556 | 58.883 | 58.883 |
| AR | 0.714 | 0.714 | 100.000 | 100.000 |
| AM | 27.756 | 27.756 | 100.000 | 100.000 |
| X | 55.423 | 55.423 | | |

| DESIGN CENTER 14 | | | | |
|------------------|--------------|---------|---------|---------|
| TP | Y | X | Z | CL |
| IP | 14-1 | 14-2 | 2.853 | 2.853 |
| KN | 14-1 | 14-2 | 57.839 | 57.839 |
| LA | 36-05-41.102 | 168.951 | 86.639 | 86.639 |
| R | 180.000 | 180.000 | 55.497 | 55.497 |
| L | 55.556 | 55.556 | 58.883 | 58.883 |
| AR | 0.714 | 0.714 | 100.000 | 100.000 |
| AM | 27.756 | 27.756 | 100.000 | 100.000 |
| X | 55.423 | 55.423 | | |

| DESIGN CENTER 15 | | | | |
|------------------|--------------|---------|--------|---------|
| TP | Y | X | Z | CL |
| IP | 15-1 | 15-2 | 3.099 | 3.099 |
| KN | 15-1 | 15-2 | 12.453 | 12.453 |
| LA | 27+11-11.126 | 110.915 | 56.208 | 110.915 |
| R | 130.000 | 130.000 | 49.152 | 56.208 |
| L | 49.231 | 49.231 | 31.622 | 49.152 |
| AR | 0.776 | 0.776 | 80.000 | 31.622 |
| AM | 24.586 | 24.586 | 80.000 | 80.000 |
| X | 49.055 | 49.055 | | |

| DESIGN CENTER | | | | | | |
|-----------------|--------------|--------------|---------|----------|--|--|
| Important Point | X-Coordinate | Y-Coordinate | Element | Distance | | |
| BC 13-0 | 51624.6336 | 20459.5497 | R=∞ | 159.331 | | |
| BC 13-1 | 51503.3707 | 20665.2036 | R=10000 | 75.902 | | |
| BC 13-1 | 51448.7478 | 20615.7901 | R=∞ | 84.364 | | |
| KA 14-1 | 51386.0261 | 20672.1701 | A=100 | 55.556 | | |
| KB 14-1 | 51342.9126 | 20707.1146 | R=180 | 57.839 | | |
| KB 14-2 | 51290.2699 | 20730.4700 | A=100 | 55.556 | | |
| KA 14-2 | 51235.6900 | 20738.9834 | R=∞ | 18.383 | | |
| KA 15-1 | 51217.1440 | 20740.8658 | A=80 | 49.231 | | |
| KB 15-1 | 51168.0299 | 20742.8061 | R=130 | 12.453 | | |
| KA 15-2 | 51155.6941 | 20741.1348 | A=80 | 49.231 | | |
| KA 15-2 | 51108.8669 | 20726.1960 | R=∞ | 105.094 | | |

BLANTYRE CITY ASSEMBLY
THE REPUBLIC OF MALAWI

JAPAN INTERNATIONAL
COOPERATION AGENCY
KATAHIRA & ENGINEERS INTERNATIONAL

THE PREPARATORY SURVEY
ON THE PROJECT FOR THE IMPROVEMENT
OF BLANTYRE CITY ROADS
IN
THE REPUBLIC OF MALAWI

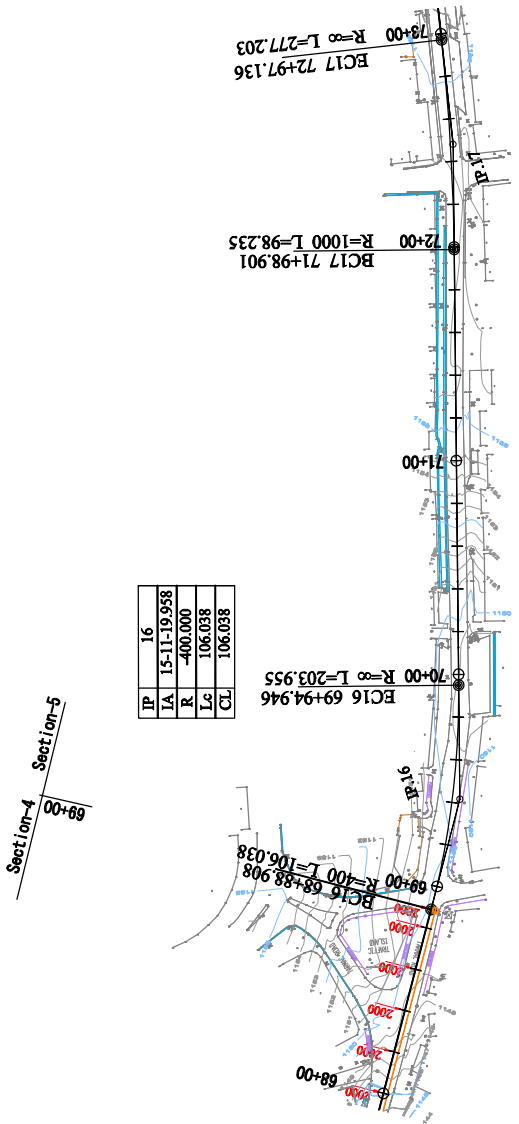
KEY PLAN(5/7)

Drawing No. 6 - 6

SCALE S=1:2500

DATE

KEY PLAN (6) S=1:2500
 (CHIPEMBERE HIGHWAY AND LIVINGSTONE AVENUE)



| IP | 16 |
|----|--------------|
| IA | 15-11-19.958 |
| R | -400.000 |
| Lc | 106.038 |
| CL | 106.038 |

| IP | 17 |
|----|-------------|
| IA | 5-37-42.475 |
| R | -1000.000 |
| Lc | 98.235 |
| CL | 98.235 |

| Important Point | Station | X-Coordinates | Y-Coordinates | Element | Distance |
|--------------------|-----------|---------------|---------------|---------|----------|
| Center-line | | | | | |
| EC 16-0 | 68+88.908 | 51010.2872 | 20689.8905 | R=400 | 106.038 |
| EC 16-0 | 69+94.946 | 50907.5735 | 20664.8241 | R=∞ | 203.955 |
| EC 17-0 | 71+98.901 | 50794.7810 | 20645.0801 | R=1000 | 98.235 |
| EC 17-0 | 72+97.137 | 50606.7486 | 20637.4177 | R=∞ | 277.203 |
| EA 18-1 | 75+74.339 | 50299.5563 | 20635.0395 | | |

BLANTYRE CITY ASSEMBLY
 THE REPUBLIC OF MALAWI

JAPAN INTERNATIONAL
 COOPERATION AGENCY
 KATAHIRA & ENGINEERS INTERNATIONAL

THE PREPARATORY SURVEY
 ON THE PROJECT FOR THE IMPROVEMENT
 OF BLANTYRE CITY ROADS
 IN
 THE REPUBLIC OF MALAWI

TITLE:
 KEY PLAN(6/7)

| | |
|-------------|----------|
| Drawing No. | 6 - 7 |
| SCALE | S=1:2500 |
| DATE | |

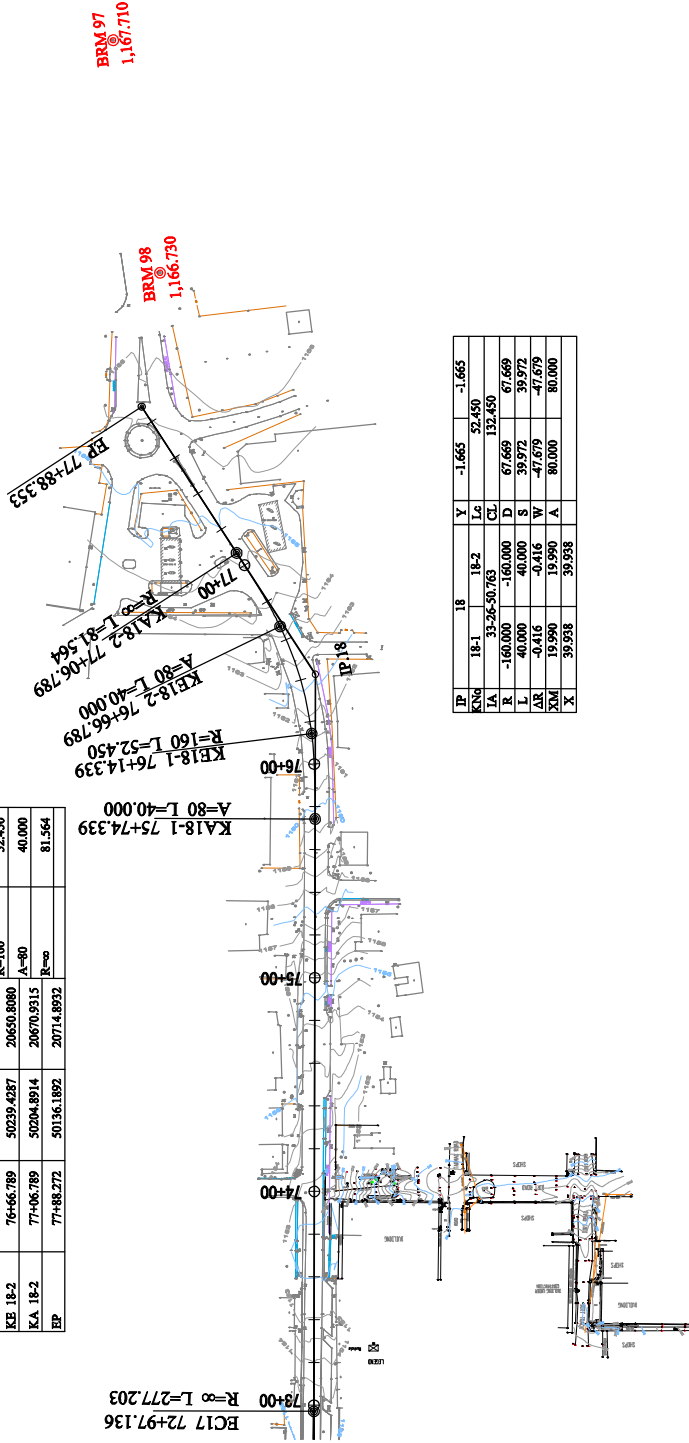
KEY PLAN (7)

S=1:2500

(CHIPEMBERE HIGHWAY AND LIVINGSTONE AVENUE)

| Important Point | Station | X-Coordinate | Y-Coordinate | Element | Distance |
|--------------------|-----------|--------------|--------------|---------|----------|
| Center-Line | | | | | |
| EC 17-0 | 72+97.137 | 50606.7486 | 20637.4177 | R=∞ | 277.203 |
| KA 18-1 | 75+74.339 | 50229.5563 | 20635.0395 | A=80 | 40.000 |
| KB 18-1 | 76+14.339 | 50289.6060 | 20636.3616 | R=160 | 52.450 |
| KB 18-2 | 76+66.789 | 50239.4287 | 20650.8080 | A=80 | 40.000 |
| KA 18-2 | 77+06.789 | 50204.8914 | 20670.9315 | R=∞ | 81.564 |
| EP | 77+88.272 | 50156.1892 | 20714.8932 | | |

| MARK | X-Coordinate | Y-Coordinate | Elevation |
|-------------------|--------------|--------------|-----------|
| BENCHMARKS | | | |
| BRM 97 | 49,964.630 | 20,727.160 | 1,167.710 |
| BRM 98 | 50,073.570 | 20,705.940 | 1,166.730 |



| IP | 18 | Y | -1.665 | -1.665 |
|-----|--------------|------|---------|---------|
| KN6 | 18-1 | 18-2 | L=6 | 52.450 |
| TA | 33-26-50.763 | CL | 132.450 | |
| R | -160.000 | D | 67.669 | 67.669 |
| L | 40.000 | S | 39.972 | 39.972 |
| ΔX | -0.416 | W | -47.679 | -47.679 |
| ΔY | 19.990 | A | 80.000 | 80.000 |
| X | 39.938 | | | |

BLANTYRE CITY ASSEMBLY
THE REPUBLIC OF MALAWI

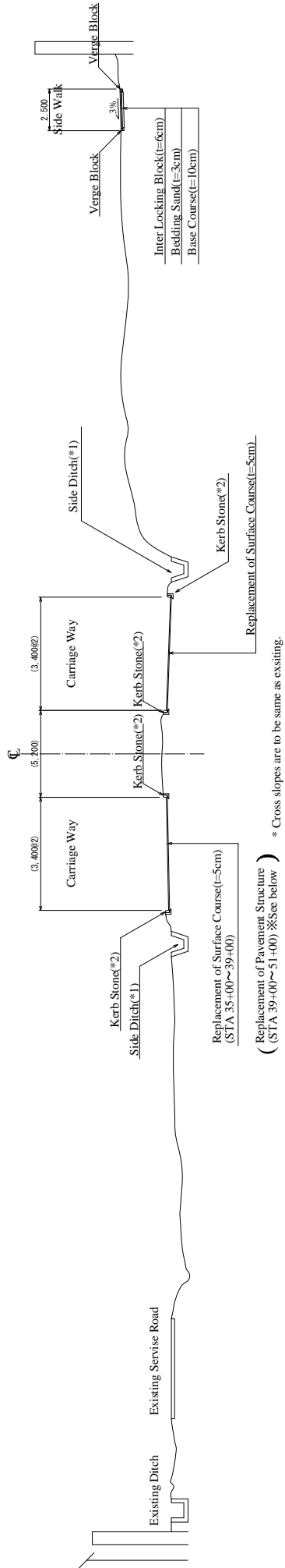
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THE PREPARATORY SURVEY
ON THE PROJECT FOR THE IMPROVEMENT
OF BLANTYRE CITY ROADS
IN
THE REPUBLIC OF MALAWI

TITLE:
KEY PLAN(7/7)

Drawing No. 6 - 8
SCALE S=1:2500
DATE

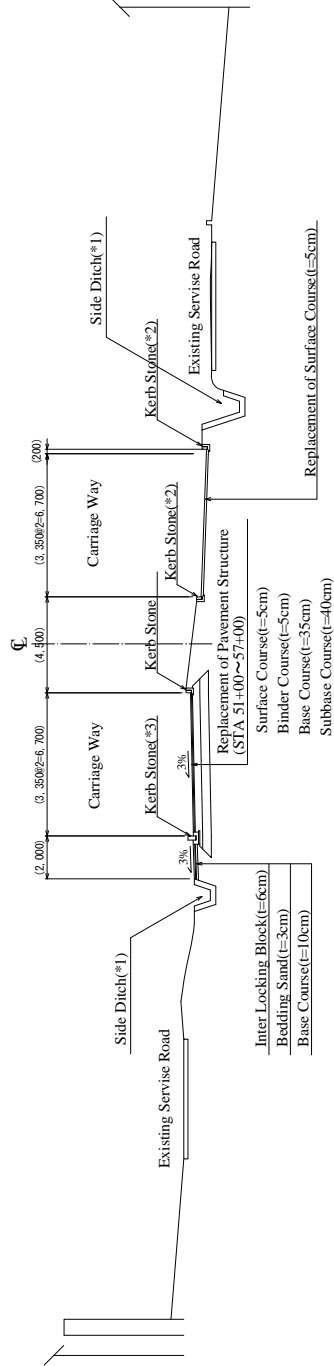
Chichiri RA to Maselema RA (SECTION-3)
STA 34+35~51+00



Replacement of Surface Course (t=5cm)
Replacement of Pavement Structure (STA 35+00~39+00)
Replacement of Pavement Structure (STA 39+00~51+00) * See below

* Cross slopes are to be same as existing.

Maselema RA to Yianikis RA (SECTION-3)
STA 51+00~61+80



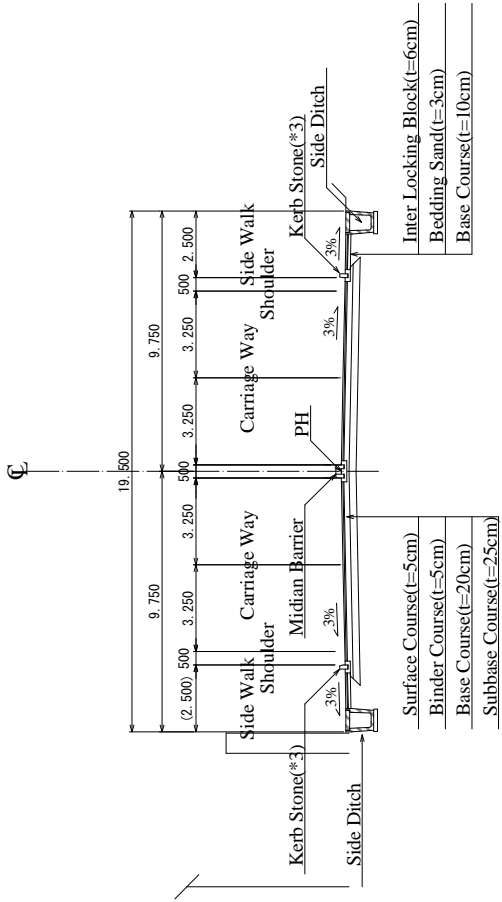
Replacement of Surface Course (t=5cm)
Replacement of Surface Course (t=5cm) (STA 57+00~61+80) * See Above

Notes:

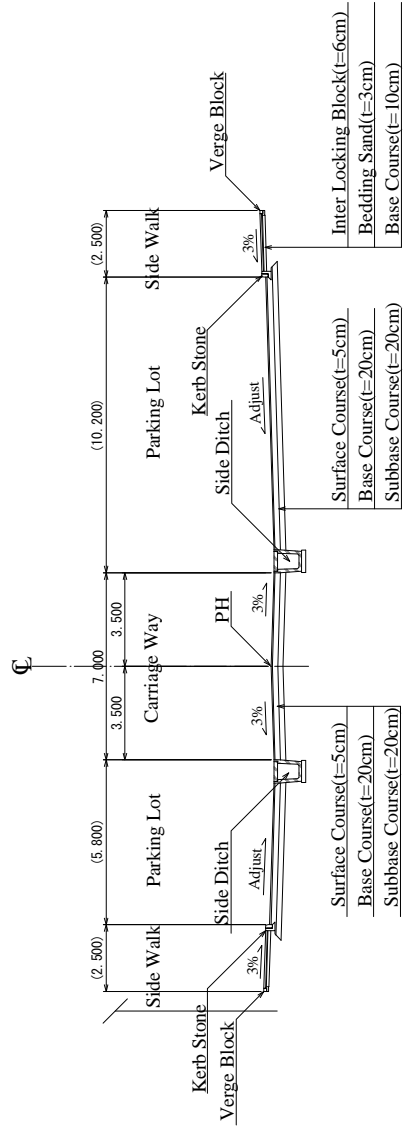
- Figure in () shows a dimension of the existing road.
- Existing side ditches are to be utilized for those shown with *1 by cleaning or repairing if existing side ditches are damaged.
- Existing kerb stones are to be utilized for those shown with *2 by painting. Where existing kerb stones are damaged or missing, new kerb stone are to be installed.
- Flat type kerb stones are to be installed for those shown with *3.
- The section from 34+35 to 35+00 is not included in the Project.

| | | | | | | |
|--|---|--|--------|---------------------------|-------------|---------|
| BLANTYRE CITY ASSEMBLY THE REPUBLIC OF MALAWI | JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL | THE PREPARATORY SURVEY ON THE PROJECT FOR THE IMPROVEMENT OF BLANTYRE CITY ROADS IN THE REPUBLIC OF MALAWI | TITLE: | TYPICAL CROSS SECTION (1) | Drawing No. | 6 - 9 |
| | | | | | SCALE | S=1:250 |
| | | | | DATE | | |

Yianikis RA to Standard Bank IC(Section-4)
STA 61+80~69+00
(Widening to 4 lane)



Standard Bank IC to Illovo RA(Section-5)
STA 69+00~77+89



Notes:
 1. Figure in () shows a dimension of existing road.
 2. Flat type kerb stones are to be installed for those shown with *3.

| | | | | | | |
|--|---|--|--------|---------------------------|-------------|---------|
| BLANTYRE CITY ASSEMBLY THE REPUBLIC OF MALAWI | JAPAN INTERNATIONAL COOPERATION AGENCY KATAHIRA & ENGINEERS INTERNATIONAL | THE PREPARATORY SURVEY ON THE PROJECT FOR THE IMPROVEMENT OF BLANTYRE CITY ROADS IN THE REPUBLIC OF MALAWI | TITLE: | TYPICAL CROSS SECTION (2) | Drawing No. | 6 - 10 |
| | | | | | SCALE | S=1:200 |
| | | | | | DATE | |