

**TABLES**

**CHAPTER 8**

**COST ESTIMATE**

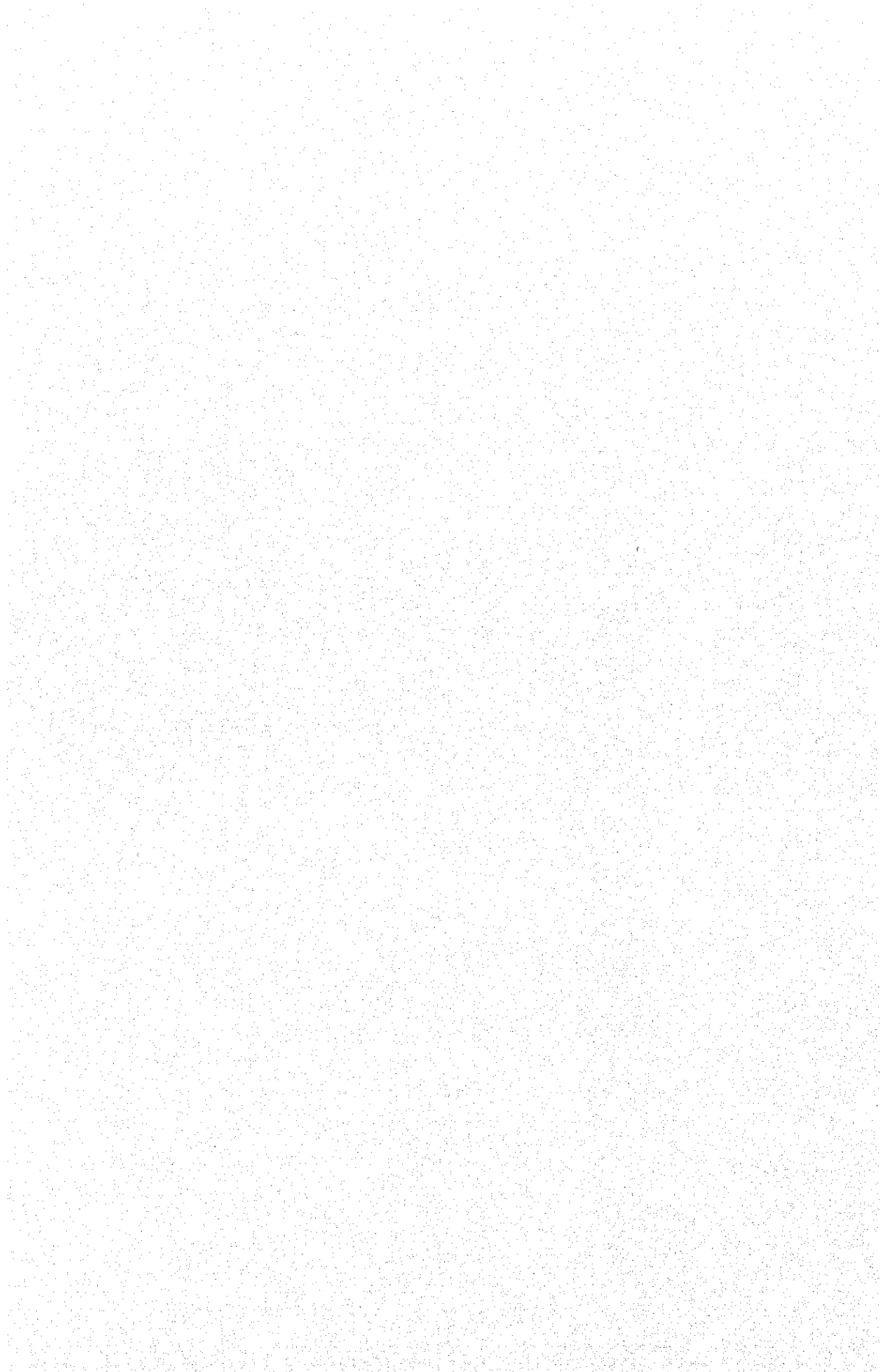


Table 8.2.1 THE RATIO OF EACH COST ITEM

| Name of Cost         | Detail               | Rate | Original Costs for Rate   | Remarks |
|----------------------|----------------------|------|---|---------|
| Administration Cost  |                      | 7%   | Construction Base Cost<br>Compensation Cost                             | *1      |
| Physical Contingency |                      | 6%   | Construction Base Cost<br>Engineering Service Cost<br>Compensation Cost | *1      |
| Price Contingency    | Price Escalation     | 3%   | All costs in Foreign Currency   | *2      |
|                      |                      | 8%   | All costs in Local Currency   | *2      |
| Value Added Tax      | PPN                  | 10%  | Construction Base Cost<br>Engineering Service Cost<br>Contingencies     |         |
| Site Expense         | consumables and etc. | 15%  | Direct Cost by sum of work item   |         |
| Overhead & Profit    |                      | 10%  | Direct Cost by sum of work item<br>Site Expense                         | *2      |

Note \*1 : Reference to similar and latest projects

\*2 : Reference to similar and latest projects and Statistic Data

Table 8.2.2 PRICE ESCALATION 1990-1996

| Material                             | Unit              | Year      |           |           |           |           |           |           | Percent Average<br>(Yearly) |
|--------------------------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------------------|
|                                      |                   | 1,990     | 1,991     | 1,992     | 1,993     | 1,994     | 1,995     | 1,996     |                             |
| I. Brick                             |                   |           |           |           |           |           |           |           |                             |
| - Quality I                          | pcs               | 30        | 33        | 38        | 50        | 50        | 50        | 50        |                             |
|                                      | percent increment |           | 8.9       | 16.3      | 31.6      | 0.0       | 0.0       | 0.0       | 8.9%                        |
| - Quality II                         | pcs               | 25        | 35        | 35        | 60        | 60        | 60        | 60        |                             |
|                                      | percent increment |           | 40.0      | 0.0       | 71.4      | 0.0       | 0.0       | 0.0       | 15.7%                       |
| II. Sand                             |                   |           |           |           |           |           |           |           |                             |
| - Sand for mortar                    | m3                | 8,000     | 17,000    | 12,000    | 12,000    | 12,000    | 12,500    | 12,500    |                             |
|                                      | percent increment |           | 112.5     | -29.4     | 0.0       | 0.0       | 4.2       | 0.0       | 7.7%                        |
| - Sand for concrete                  | m3                | 17,000    | 21,000    | 14,000    | 20,000    | 20,000    | 23,000    | 23,000    |                             |
|                                      | percent increment |           | 23.5      | -33.3     | 42.9      | 0.0       | 15.0      | 0.0       | 5.2%                        |
| III. Lime                            |                   |           |           |           |           |           |           |           |                             |
| - Lime for mortar                    | m3                | 23,000    | 40,000    | 30,000    | 35,000    | 40,000    | 40,000    | 40,000    |                             |
|                                      | percent increment |           | 73.9      | -25.0     | 16.7      | 14.3      | 0.0       | 0.0       | 9.7%                        |
| - Red lime                           | m3                | 27,000    | 67,500    | 60,000    | 50,000    | 50,000    | 50,000    | 50,000    |                             |
|                                      | percent increment |           | 150.0     | -11.1     | -16.7     | 0.0       | 0.0       | 0.0       | 10.8%                       |
| IV. Portland cement                  | m3                | 5,200     | 5,600     | 5,600     | 6,300     | 7,500     | 8,500     | 9,750     |                             |
|                                      | percent increment |           | 7.7       | 0.0       | 12.5      | 19.0      | 13.3      | 14.7      | 11.0%                       |
| V. White cement                      | m3                | 20,000    | 20,000    | 19,000    | 20,000    | 20,000    | 20,000    | 20,000    |                             |
|                                      | percent increment |           | 0.0       | -5.0      | 5.3       | 0.0       | 0.0       | 0.0       | 0.0%                        |
| VI. Wood                             |                   |           |           |           |           |           |           |           |                             |
| - Teak wood                          |                   |           |           |           |           |           |           |           |                             |
| - Plank wood                         | m3                | 1,700,000 | 1,500,000 | 1,500,000 | 3,000,000 | 3,000,000 | 3,000,000 | 3,000,000 |                             |
|                                      | percent increment |           | -11.8     | 0.0       | 100.0     | 0.0       | 0.0       | 0.0       | 9.9%                        |
| - Beam wood                          | m3                | 1,400,000 | 1,800,000 | 1,800,000 | 2,250,000 | 2,250,000 | 2,250,000 | 2,250,000 |                             |
|                                      | percent increment |           | 28.6      | 0.0       | 25.0      | 0.0       | 0.0       | 0.0       | 8.2%                        |
| - Camphor wood                       |                   |           |           |           |           |           |           |           |                             |
| - Plank wood                         | m3                | 450,000   | 400,000   | 400,000   | 700,000   | 1,250,000 | 1,250,000 | 1,250,000 |                             |
|                                      | percent increment |           | -11.1     | 0.0       | 75.0      | 78.6      | 0.0       | 0.0       | 18.6%                       |
| - Beam wood                          | m3                | 425,000   | 550,000   | 650,000   | 550,000   | 1,150,000 | 1,150,000 | 1,150,000 |                             |
|                                      | percent increment |           | 29.4      | 18.2      | -15.4     | 109.1     | 0.0       | 0.0       | 18.0%                       |
| VII. Steel                           |                   |           |           |           |           |           |           |           |                             |
| - Reinforcing steel Dia. 19 mm, 12 m | bar               | 18,700    | 19,700    | 20,700    | 21,770    | 23,000    | 24,200    | 24,200    |                             |
|                                      | percent increment |           | 5.3       | 5.1       | 5.2       | 5.6       | 5.2       | 0.0       | 4.4%                        |
| - Reinforcing steel Dia. 25 mm, 12 m | bar               | 32,000    | 33,500    | 35,000    | 35,805    | 39,000    | 41,175    | 41,175    |                             |
|                                      | percent increment |           | 4.7       | 4.5       | 2.3       | 8.9       | 5.6       | 0.0       | 4.3%                        |
| - Steel sheet, 4x6, t = 0.8 mm       | bar               | 29,000    | 30,000    | 30,000    | 35,000    | 35,000    | 35,000    | 35,000    |                             |
|                                      | percent increment |           | 3.4       | 0.0       | 16.7      | 0.0       | 0.0       | 0.0       | 3.2%                        |
| - Steel sheet, 4x8, t = 1.4 mm       | bar               | 45,000    | 46,000    | 47,000    | 47,500    | 47,500    | 47,500    | 47,500    |                             |
|                                      | percent increment |           | 2.2       | 2.2       | 1.1       | 0.0       | 0.0       | 0.0       | 0.9%                        |
| - Profile steel, UNP 15 cm           | bar               | 125,000   | 130,000   | 130,000   | 135,000   | 135,000   | 135,000   | 135,000   |                             |
|                                      | percent increment |           | 4.0       | 0.0       | 3.8       | 0.0       | 0.0       | 0.0       | 1.3%                        |
| - Profile steel, UNP 20 cm           | bar               | 185,000   | 185,000   | 185,000   | 185,000   | 185,000   | 210,000   | 210,000   |                             |
|                                      | percent increment |           | 0.0       | 0.0       | 0.0       | 0.0       | 13.5      | 0.0       | 2.1%                        |
| VIII. Labour                         |                   |           |           |           |           |           |           |           |                             |
| - Common worker                      | day               | 2,000     | 3,500     | 3,500     | 4,000     | 5,000     | 4,500     | 4,500     |                             |
|                                      | percent increment |           | 75.0      | 0.0       | 14.3      | 25.0      | -10.0     | 0.0       | 14.5%                       |
| - Foreman                            | day               | 3,000     | 4,500     | 4,500     | 5,000     | 5,000     | 4,500     | 4,500     |                             |
|                                      | percent increment |           | 50.0      | 0.0       | 11.1      | 0.0       | -10.0     | 0.0       | 7.0%                        |
| - Carpenter                          | day               | 4,500     | 5,500     | 5,500     | 5,500     | 5,500     | 6,500     | 6,500     |                             |
|                                      | percent increment |           | 22.2      | 0.0       | 0.0       | 0.0       | 18.2      | 0.0       | 6.3%                        |
| - Chief of carpenter                 | day               | 5,000     | 6,000     | 6,000     | 6,000     | 6,000     | 7,000     | 7,000     |                             |
|                                      | percent increment |           | 20.0      | 0.0       | 0.0       | 0.0       | 16.7      | 0.0       | 5.8%                        |
| - mansor                             | day               | 3,000     | 4,500     | 4,500     | 5,500     | 5,500     | 6,000     | 6,000     |                             |
|                                      | percent increment |           | 50.0      | 0.0       | 22.2      | 0.0       | 9.1       | 0.0       | 12.2%                       |
| - Chief of mansor                    | day               | 3,500     | 5,000     | 5,000     | 6,000     | 6,000     | 6,500     | 6,500     |                             |
|                                      | percent increment |           | 42.9      | 0.0       | 20.0      | 0.0       | 8.3       | 0.0       | 10.9%                       |
| - painter                            | day               | 3,000     | 4,500     | 4,750     | 5,500     | 5,500     | 5,500     | 5,500     |                             |
|                                      | percent increment |           | 50.0      | 5.6       | 15.8      | 0.0       | 0.0       | 0.0       | 10.6%                       |
| - Chief of painter                   | day               | 3,500     | 5,000     | 5,000     | 6,000     | 6,000     | 6,000     | 6,000     |                             |
|                                      | percent increment |           | 42.9      | 0.0       | 20.0      | 0.0       | 0.0       | 0.0       | 9.4%                        |
| - Black smith                        | day               | 3,250     | 4,500     | 4,500     | 5,500     | 5,500     | 5,500     | 5,500     |                             |
|                                      | percent increment |           | 38.5      | 0.0       | 22.2      | 0.0       | 0.0       | 0.0       | 9.2%                        |
| - Chief of Black smith               | day               | 3,500     | 5,000     | 5,000     | 6,000     | 6,000     | 6,000     | 6,000     |                             |
|                                      | percent increment |           | 42.9      | 0.0       | 20.0      | 0.0       | 0.0       | 0.0       | 9.4%                        |
| - Earth Cutter                       | day               | 2,750     | 4,250     | 4,250     | 4,500     | 4,500     | 5,500     | 5,500     |                             |
|                                      | percent increment |           | 54.5      | 0.0       | 5.9       | 0.0       | 22.2      | 0.0       | 12.2%                       |
| Average                              |                   |           |           |           |           |           |           |           | 8.5%                        |

Table 8.2.3 PRICE INDEX FOR CONSUMER IN THE DEVELOPED ASIAN  
AND NORTH AMERICAN COUNTRIES

| Country Name  | Total Index (1990 = 100) |       |       |       |      | Escalation Ratio per year |      |      |      |
|---------------|--------------------------|-------|-------|-------|------|---------------------------|------|------|------|
|               | 1994                     | 1995  | 1996  | 1997  | 1998 | 1994                      | 1995 | 1996 | 1997 |
| Asia          |                          |       |       |       |      |                           |      |      |      |
| Japan         | 107.1                    | 107   | 107.2 | 109   |      | 0.7                       | -0.1 | 0.1  | 1.7  |
| Singapore     | 111.5                    | 113.5 | 115   | 117.3 |      | 3.1                       | 1.7  | 1.4  | 2    |
| North America |                          |       |       |       |      |                           |      |      |      |
| United States | 113.4                    | 116.6 | 120   | 122.9 |      | 2.6                       | 2.8  | 2.9  | 2.3  |
| Canada        | 109.4                    | 111.8 | 113.5 | 115.4 |      | 0.2                       | 2.2  | 1.6  | 1.6  |

Table 8.3.1 RATIO OF CURRENCY PORTION FOR MAIN MATERIAL GROUPS

| Material Group                | Factor                          |                           |   |       | Ratio (%)        |          |          |
|-------------------------------|---------------------------------|---------------------------|---|-------|------------------|----------|----------|
|                               | Foreign Currency                |                           | Local   | Total | Foreign Currency |          | Local    |
|                               | Pure                            | Indirect                  | Currency                                      |       | Pure             | Indirect | Currency |
| Gasoline and Light Oil        |                                 | Product Machine           | Material                                      | 0     | 20               | 80       | 100      |
| Sand and Stones               |                                 | Product Machine           | Material                                      | 0     | 5                | 95       | 100      |
| Asphalt in General            |                                 | Product Machine           | Material                                      | 0     | 30               | 70       | 100      |
| Cement in general             |                                 | Product Machine           | Material                                      | 0     | 20               | 80       | 100      |
| Ready Mixed Concrete          |                                 | Product Machine           | Material                                      | 0     | 20               | 80       | 100      |
| PC Piles                      | Product by Foreign Capital Firm |                           | Transportation                                | 95    | 0                | 5        | 100      |
| RC Piles                      |                                 | Product Machine, Material | Material                                      | 0     | 25               | 70       | 95       |
| PC Sheet Piles                | Product by Foreign Capital Firm |                           | Transportation                                | 95    | 0                | 5        | 100      |
| Woods in General              |                                 |                           | Material                                      | 0     | 0                | 100      | 100      |
| Plywood                       |                                 | Product Machine           | Material                                      | 0     | 10               | 90       | 100      |
| Reinforcing Bar               |                                 | Product Machine, Material | Small Tool and Material                       | 0     | 30               | 70       | 100      |
| Structural Steel SS41         |                                 | Product Machine, Material | Transportation                                | 95    | 0                | 5        | 100      |
| Structural Steel SS41 (Lease) |                                 | Product Machine, Material | Small Tool, Material, Maintenance, Management | 50    | 0                | 50       | 100      |
| Steel Pile                    |                                 | Product Machine, Material | Transportation                                | 95    | 0                | 5        | 100      |
| Small steel material          |                                 | Product Machine, Material | Small Tool and Material                       | 0     | 30               | 70       | 100      |
| Gates & Valves                |                                 | Product Machine, Material | Transportation                                | 95    | 0                | 5        | 100      |
| PVC material                  |                                 | Product Machine, Material | Material                                      | 0     | 30               | 70       | 100      |
| Pumps in general              |                                 | Product Machine, Material | Transportation                                | 95    | 0                | 5        | 100      |
| Plants and Grass              |                                 |                           | Tool and Material                             | 0     | 0                | 100      | 100      |
| Tile                          |                                 |                           | Tool and Material                             | 0     | 10               | 90       | 100      |
| Equipment                     |                                 | Product Machine, Material |   | 100   | 0                | 0        | 100      |

Table 8.3.2 BASIC COSTS AND COMPUTATION OF LABORER COST

| IID No. | Qualification of Working | Additional Cost *2 |              |           |           |            | Cost per Day | Rounded Cost |
|---------|--------------------------|--------------------|--------------|-----------|-----------|------------|--------------|--------------|
|         |                          | (1) Daily          | (2) Overtime | (3) Leave | (4) Bonus | (5) Others |              |              |
| L-2-1   | Foreman                  | 25,000             | 10,714       | 1,250     | 2,083     | 9,762      | 48,809       | 48,800       |
| L-2-2   | Operator                 | 24,000             | 10,286       | 1,200     | 2,000     | 9,372      | 46,858       | 46,900       |
| L-2-3   | Assistant Operator       | 16,000             | 6,857        | 800       | 1,333     | 6,248      | 31,238       | 31,200       |
| L-2-4   | Electrician              | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-5   | Mechanic                 | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-6   | Welder                   | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-7   | Driver                   | 18,000             | 7,714        | 900       | 1,500     | 7,029      | 35,143       | 35,100       |
| L-2-8   | Assistant Driver         | 16,500             | 7,071        | 825       | 1,375     | 6,443      | 32,214       | 32,200       |
| L-2-9   | Tunnel Worker            | 24,000             | 10,286       | 1,200     | 2,000     | 9,372      | 46,858       | 46,900       |
| L-2-10  | Drill Worker             | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-11  | Mason                    | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-12  | Carpenter                | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-13  | Rigger                   | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-14  | Scaffolding Man          | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-15  | Plumber                  | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-16  | Steel Worker             | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-17  | Concrete Worker          | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-18  | Form Worker              | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-19  | Grout Worker             | 24,000             | 10,286       | 1,200     | 2,000     | 9,372      | 46,858       | 46,900       |
| L-2-20  | Painter                  | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-21  | Plasterer                | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-22  | Asphalt Walker           | 18,000             | 7,714        | 900       | 1,500     | 7,029      | 35,143       | 35,100       |
| L-2-23  | Common Labour            | 18,000             | 7,714        | 900       | 1,500     | 7,029      | 35,143       | 35,100       |
| L-2-24  | Light Labour             | 15,000             | 6,429        | 750       | 1,250     | 5,857      | 29,286       | 29,300       |
| L-2-25  | Watchman                 | 15,000             | 6,429        | 750       | 1,250     | 5,857      | 29,286       | 29,300       |
| L-2-26  | Chief of Carpenter       | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-27  | Chief of Mason           | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-28  | Chief of Concrete Worker | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-29  | Chief of Steel Worker    | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-30  | Chief of Painter         | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-31  | Chief of Plasterer       | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-32  | Chief of Bridge          | 35,000             | 15,000       | 1,750     | 2,917     | 13,667     | 68,334       | 68,300       |
| L-2-33  | Bridge Worker            | 30,000             | 12,857       | 1,500     | 2,500     | 11,714     | 58,571       | 58,600       |
| L-2-34  | Cad Operator             | 28,000             | 12,000       | 1,400     | 2,333     | 10,933     | 54,666       | 54,700       |
| L-2-35  | Draft Man                | 20,000             | 8,571        | 1,000     | 1,667     | 7,810      | 39,048       | 39,000       |
| L-2-36  | Chief of Tunnel Worker   | 36,000             | 15,429       | 1,800     | 3,000     | 14,057     | 70,286       | 70,300       |
| L-2-37  | Tunnel Specialist        | 31,000             | 13,286       | 1,550     | 2,583     | 12,105     | 60,524       | 60,500       |

Note \*1 : Source; Based on Daftar Harga Satuan Bahan Bangunan April-May 99/00 Semarang dan Sekitarnya including living and welfare facilities

\*2 : (2) Overtime ;

Basic wage / 7 x 1.5 x 2 hours

(3) Leave ;

Basic wage / 20

giving of 1 day / 1 month

(4) Bonus ;

Basic wage / 12

payment of 1 month / 1 year

(5) Others ;

( (1)+(2)+(3)+(4) ) x 25%

Taxes, Food, Insurances, Transportation and other allowances

\*3 : All cost belong to Local Currency Portion

Table 8.3.3 (1/6) UNIT COSTS OF MATERIALS

| ID No.               | Description |  | Unit | Price (Rp.) |         |         |         |
|----------------------|-------------|--|------|-------------|---------|---------|---------|
|                      | Major       | Details                                      |      | PF/C        | IF/C    | L/C     | Total   |
| Combustibles         |             |  |      |             |         |         |         |
| M-A-1                |             | Gasoline                                     | ltr  | 0           | 200     | 800     | 1,000   |
| M-A-2                |             | Light Oil (Diesel Oil)                       | ltr  | 0           | 120     | 480     | 600     |
| M-A-3                |             | Kerosene                                     | ltr  | 0           | 110     | 440     | 550     |
| M-A-4                |             | Propane Gas                                  | kg   | 0           | 165     | 660     | 825     |
| M-A-5                |             | Acetylene Gas                                | kg   | 0           | 1,768   | 7,072   | 8,840   |
| M-A-6                |             | Oxygen (big tube)                            | m3   | 0           | 1,573   | 6,292   | 7,865   |
| M-A-7                |             | Grease                                       | kg   | 0           | 600     | 2,400   | 3,000   |
| M-A-8                |             | Metanole                                     | ltr  | 0           | 700     | 2,800   | 3,500   |
| M-A-9                |             | SAE 20                                       | ltr  | 0           | 500     | 2,000   | 2,500   |
| M-A-10               |             | SAE 40                                       | ltr  | 0           | 600     | 2,400   | 3,000   |
| M-A-11               |             | SAE 140                                      | ltr  | 0           | 800     | 3,200   | 4,000   |
| M-A-12               |             | SAE 90                                       | ltr  | 0           | 660     | 2,640   | 3,300   |
| Sand and Stones      |             |  |      |             |         |         |         |
| M-B-1                |             | Fine Aggregate (washed sand)                 | m3   | 0           | 2,100   | 39,900  | 42,000  |
| M-B-2                |             | Coarse Aggregate                             | m3   | 0           | 2,600   | 49,400  | 52,000  |
| M-B-3                |             | Sand for Mortar (Masonry)                    | m3   | 0           | 2,250   | 42,750  | 45,000  |
| M-B-4                |             | Sand for Filling and Base Course             | m3   | 0           | 1,350   | 25,650  | 27,000  |
| M-B-5                |             | Cobble Stone                                 | m3   | 0           | 1,850   | 35,150  | 37,000  |
| M-B-6                |             | River Gravel(Stone)                          | m3   | 0           | 2,250   | 42,750  | 45,000  |
| M-B-7                |             | Boulder                                      | m3   | 0           | 2,500   | 47,500  | 50,000  |
| M-B-8                |             | Sand for Dam Embankment                      | m3   | 0           | 1,350   | 25,650  | 27,000  |
| M-B-9                |             | Soil for Backfilling                         | m3   | 0           | 400     | 7,600   | 8,000   |
| M-B-10               |             | Crushed Stone for Riprap                     | m3   | 0           | 2,350   | 44,650  | 47,000  |
| M-B-11               |             | Crushed Stone for Masonry                    | m3   | 0           | 1,100   | 20,900  | 22,000  |
| M-B-12               |             | Crushed Stone for Pavement and Concrete      | m3   | 0           | 3,250   | 61,750  | 65,000  |
| M-B-13               |             | Solid Soil                                   | m3   | 0           | 600     | 11,400  | 12,000  |
| M-B-14               |             | Sand for Concrete                            | m3   | 0           | 2,050   | 38,950  | 41,000  |
| M-B-15               |             | Pumicestone                                  | kg   | 0           | 875     | 16,625  | 17,500  |
| Concrete and Asphalt |             |  |      |             |         |         |         |
| M-C-1                |             | Portland Cement                              | kg   | 0           | 100     | 400     | 500     |
| M-C-2                |             | White Portland Cement                        | kg   | 0           | 200     | 800     | 1,000   |
| M-C-3                |             | Cut-back Asphalt                             | kg   | 0           | 195     | 455     | 650     |
| M-C-4                |             | Asphalt                                      | kg   | 0           | 450     | 1,050   | 1,500   |
| M-C-5                |             | Asphalt Tack Coat                            | lit  | 0           | 6,330   | 14,770  | 21,100  |
| M-C-6                |             | Asphalt Prime Coat                           | lit  | 0           | 6,300   | 14,700  | 21,000  |
| M-C-7                |             | Ready Mixed Concrete; 500kg/cm2, - mm (A1)   | m3   | 0           | 56,000  | 224,000 | 280,000 |
| M-C-8                |             | Ready Mixed Concrete; 400kg/cm2, 25mm (A2)   | m3   | 0           | 49,000  | 196,000 | 245,000 |
| M-C-9                |             | Ready Mixed Concrete; 350kg/cm2, 25mm (A3)   | m3   | 0           | 46,000  | 184,000 | 230,000 |
| M-C-10               |             | Ready Mixed Concrete; 250kg/cm2, 25mm (B)    | m3   | 0           | 42,000  | 168,000 | 210,000 |
| M-C-11               |             | Ready Mixed Concrete; 225kg/cm2, 25mm (C1&2) | m3   | 0           | 40,000  | 160,000 | 200,000 |
| M-C-12               |             | Ready Mixed Concrete; 225kg/cm2, 15mm (C3)   | m3   | 0           | 40,000  | 160,000 | 200,000 |
| M-C-13               |             | Ready Mixed Concrete; 175kg/cm2, 40mm (D)    | m3   | 0           | 39,000  | 156,000 | 195,000 |
| M-C-14               |             | Ready Mixed Concrete; 125kg/cm2, 25mm (E)    | m3   | 0           | 35,000  | 140,000 | 175,000 |
| M-C-15               |             | Prestressed Concrete Pile Dia. 300 mm A      | m    | 95,000      | 0       | 5,000   | 100,000 |
| M-C-16               |             | Prestressed Concrete Pile Dia. 300 mm B      | m    | 99,750      | 0       | 5,250   | 105,000 |
| M-C-17               |             | Prestressed Concrete Pile Dia. 300 mm C      | m    | 104,500     | 0       | 5,500   | 110,000 |
| M-C-18               |             | Prestressed Concrete Pile Dia. 350 mm A      | m    | 114,000     | 0       | 6,000   | 120,000 |
| M-C-19               |             | Prestressed Concrete Pile Dia. 350 mm B      | m    | 121,600     | 0       | 6,400   | 128,000 |
| M-C-20               |             | Prestressed Concrete Pile Dia. 350 mm C      | m    | 123,500     | 0       | 6,500   | 130,000 |
| M-C-21               |             | Prestressed Concrete Pile Dia. 400 mm A      | m    | 142,500     | 0       | 7,500   | 150,000 |
| M-C-22               |             | Prestressed Concrete Pile Dia. 400 mm B      | m    | 147,250     | 0       | 7,750   | 155,000 |
| M-C-23               |             | Prestressed Concrete Pile Dia. 400 mm C      | m    | 152,000     | 0       | 8,000   | 160,000 |
| M-C-24               |             | Prestressed Concrete Pile Dia. 450 mm A      | m    | 147,250     | 0       | 7,750   | 155,000 |
| M-C-25               |             | Prestressed Concrete Pile Dia. 450 mm B      | m    | 156,750     | 0       | 8,250   | 165,000 |
| M-C-26               |             | Prestressed Concrete Pile Dia. 450 mm C      | m    | 161,500     | 0       | 8,500   | 170,000 |
| M-C-27               |             | Prestressed Concrete Pile Dia. 500 mm A      | m    | 171,000     | 0       | 9,000   | 180,000 |
| M-C-28               |             | Prestressed Concrete Pile Dia. 500 mm B      | m    | 175,750     | 0       | 9,250   | 185,000 |
| M-C-29               |             | Prestressed Concrete Pile Dia. 500 mm C      | m    | 180,500     | 0       | 9,500   | 190,000 |
| M-C-30               |             | Prestressed Concrete Pile Dia. 600 mm A      | m    | 209,000     | 0       | 11,000  | 220,000 |
| M-C-31               |             | Prestressed Concrete Pile Dia. 600 mm B      | m    | 213,750     | 0       | 11,250  | 225,000 |
| M-C-32               |             | Prestressed Concrete Pile Dia. 600 mm C      | m    | 228,000     | 0       | 12,000  | 240,000 |
| M-C-33               |             | Reinforced Concrete Pipe, Dia. 200 mm        | m    | 0           | 9,000   | 21,000  | 30,000  |
| M-C-34               |             | Reinforced Concrete Pipe, Dia. 300 mm        | m    | 0           | 9,570   | 22,330  | 31,900  |
| M-C-35               |             | Reinforced Concrete Pipe, Dia. 400 mm        | m    | 0           | 35,640  | 83,160  | 118,800 |
| M-C-36               |             | Reinforced Concrete Pipe, Dia. 500 mm        | m    | 0           | 42,240  | 98,560  | 140,800 |
| M-C-37               |             | Reinforced Concrete Pipe, Dia. 600 mm        | m    | 0           | 54,285  | 126,665 | 180,950 |
| M-C-38               |             | Reinforced Concrete Pipe, Dia. 800 mm        | m    | 0           | 98,835  | 230,615 | 329,450 |
| M-C-39               |             | Reinforced Concrete Pipe, Dia. 1,000 mm      | m    | 0           | 136,422 | 318,318 | 454,740 |



Table 8.3.3 (2/6) UNIT COSTS OF MATERIALS

| ID No.         | Description |  | Unit   | Price (Rp.) |         |           |           |
|----------------|-------------|--|--------|-------------|---------|-----------|-----------|
|                | Major       | Details  |        | PF/C        | IF/C    | I/C       | Total     |
| M-C-40         |             | Concrete Pile (without Re-bar) Dia.400mm             | m      | 0           | 3,960   | 9,240     | 13,200    |
| M-C-41         |             | Concrete Pile (without Re-bar) Dia.600mm             | m      | 0           | 8,580   | 20,020    | 28,600    |
| M-C-42         |             | Concrete Block for Pavement : 21 x 10.5 x 8cm        | pcs    | 0           | 182     | 424       | 605       |
| M-C-43         |             | Concrete Hollow Block : 40 x 20 x 10 cm              | pcs    | 0           | 270     | 630       | 900       |
| M-C-44         |             | Form Tie   | pcs    | 285         | 0       | 15        | 300       |
| M-C-45         |             | Non Shrinkage Mortar                                 | m3     | 0           | 18,260  | 73,040    | 91,300    |
| M-C-46         |             | Sealant  | m3     | 0           | 17,600  | 70,400    | 88,000    |
| M-C-47         |             | Prestressed Concrete Sheet Pile (B=0.5m, t=0.32m)    | m      | 212,800     | 0       | 11,200    | 224,000   |
| M-C-48         |             | Prestressed Concrete Sheet Pile (B=0.5m, t=0.22m)    | m      | 190,000     | 0       | 10,000    | 200,000   |
| M-C-49         |             | Reinforced Concrete Sheet Pile                       | m      | 0           | 51,000  | 119,000   | 170,000   |
| M-C-50         |             | Precast Prestressed Concrete Main Beam               | m3     | 0           | 555,720 | 1,296,680 | 1,852,400 |
| M-C-51         |             | Precast Prestressed Concrete Panel                   | m3     | 0           | 184,800 | 431,200   | 616,000   |
| M-C-52         |             | Precast Prestressed Concrete Concrete Diaphragm      | m3     | 0           | 223,872 | 522,368   | 746,240   |
| M-C-53         |             | Admixture  | ltr    | 0           | 1,893   | 4,416     | 6,309     |
| M-C-54         |             | Concrete Pavement Border                             | m3     | 0           | 82,500  | 192,500   | 275,000   |
| M-C-55         |             | U-20 Shpape Concrete Block                           | m      | 0           | 1,500   | 3,500     | 5,000     |
| M-C-56         |             | U-30 Shpape Concrete Block                           | m      | 0           | 2,250   | 5,250     | 7,500     |
| M-C-57         |             | Paving Block   | piece  | 0           | 105     | 245       | 350       |
| M-C-58         |             | Lime   | m3     | 0           | 11,500  | 103,500   | 115,000   |
| M-C-59         |             | Fiber Cement for Ceiling, 1200 x 1200 mm x 6 mm      | m2     | 0           | 1,800   | 4,200     | 6,000     |
| M-C-60         |             | Prefabricated Concrete Tube                          | bar    | 0           | 15,000  | 35,000    | 50,000    |
| M-C-61         |             | Ready Mix Concrete 100 Kg/cm2                        | m3     | 0           | 31,000  | 124,000   | 155,000   |
| M-C-62         |             | Asphalt Jute Cord                                    | kg     | 0           | 180     | 420       | 600       |
| M-C-63         |             | Asphalt Treated Base                                 | ton    | 0           | 30,750  | 71,750    | 102,500   |
| Log and Timber |             |  |        |             |         |           |           |
| M-D-1          |             | Log Pile, Dia. 15cm                                  | m      | 0           | 0       | 10,000    | 10,000    |
| M-D-2          |             | Log Pile, Dia. 10cm                                  | m      | 0           | 0       | 5,000     | 5,000     |
| M-D-3          |             | Bamboo Pile, Dia. 3cm)                               | m      | 0           | 0       | 650       | 650       |
| M-D-4          |             | Timber   | m3     | 0           | 0       | 850,000   | 850,000   |
| M-D-5          |             | Plywood, 90x210 t=3mm                                | sheet  | 0           | 3,400   | 30,600    | 34,000    |
| M-D-6          |             | Plywood, 120 x 240 t=6mm                             | sheet  | 0           | 4,500   | 40,500    | 45,000    |
| M-D-7          |             | Plywood, 120 x 240 t=9mm                             | sheet  | 0           | 3,750   | 33,750    | 37,500    |
| M-D-8          |             | Plywood, t=12mm (water proof)                        | m2     | 0           | 6,000   | 54,000    | 60,000    |
| M-D-9          |             | Door incl. Frame Accessories, 2.1x0.9m               | nos.   | 0           | 0       | 900,000   | 900,000   |
| M-D-10         |             | Form Timber  | m3     | 0           | 0       | 850,000   | 850,000   |
| M-D-11         |             | Form Timber  | m2     | 0           | 0       | 30,000    | 30,000    |
| M-D-12         |             | Coconut Pile, Dia. 25cm, 10-12 m                     | nos.   | 0           | 0       | 55,000    | 55,000    |
| M-D-13         |             | Door Frame Wood first class(Teak/Ulin)               | m3     | 0           | 0       | 6,500,000 | 6,500,000 |
| M-D-14         |             | Plank Wood first class(Teak/Ulin)                    | m3     | 0           | 0       | 7,500,000 | 7,500,000 |
| M-D-15         |             | Door Frame Wood second class(Camphol)                | m3     | 0           | 0       | 1,850,000 | 1,850,000 |
| M-D-16         |             | Plank Wood second class(Camphol)                     | m3     | 0           | 0       | 1,900,000 | 1,900,000 |
| M-D-17         |             | Door Frame Wood third class(Borneo)                  | m3     | 0           | 0       | 1,200,000 | 1,200,000 |
| M-D-18         |             | Plank Wood third class(Borneo)                       | m3     | 0           | 0       | 1,250,000 | 1,250,000 |
| M-D-19         |             | Wood fourth class (Sengon)                           | m3     | 0           | 0       | 850,000   | 850,000   |
| M-D-20         |             | Timbering for roof                                   | m3     | 0           | 0       | 1,200,000 | 1,200,000 |
| M-D-21         |             | Plank wood (Bauwplank)                               | m3     | 0           | 0       | 850,000   | 850,000   |
| M-D-22         |             | Plank wood (Sengon)                                  | m3     | 0           | 0       | 300,000   | 300,000   |
| M-D-23         |             | Dolken Wood  | bar    | 0           | 0       | 7,500     | 7,500     |
| M-D-24         |             | Ceiling Wood   | m3     | 0           | 0       | 750,000   | 750,000   |
| M-D-25         |             | Wood for Fire  | m3     | 0           | 0       | 9,000     | 9,000     |
| M-D-26         |             | Wood Cornice   | m      | 0           | 0       | 1,500     | 1,500     |
| Iron           |             |  |        |             |         |           |           |
| M-E-1          |             | Reinforcing Bar, Round U-30                          | kg     | 0           | 2,500   | 2,500     | 5,000     |
| M-E-2          |             | Reinforcing Bar, Deformed U-30                       | kg     | 0           | 3,000   | 3,000     | 6,000     |
| M-E-3          |             | Structural Steel(Lease), SS41                        | kg day | 18          | 0       | 12        | 30        |
| M-E-4          |             | Structural Steel(Purchasing), SS41                   | kg     | 5,225       | 0       | 275       | 5,500     |
| M-E-5          |             | Structural Steel, SM41                               | kg     | 6,175       | 0       | 325       | 6,500     |
| M-E-6          |             | Structural Steel, SMA41                              | kg     |             |         |           |           |
| M-E-7          |             | Steel Plate SS41                                     | kg     | 5,225       | 0       | 275       | 5,500     |
| M-E-8          |             | H-beam (Lease), SS41                                 | kg day | 18          | 0       | 12        | 30        |
| M-E-9          |             | H-beam (Purchasing), SS41                            | kg     | 5,225       | 0       | 275       | 5,500     |
| M-E-10         |             | L-beam (Lease), SS41                                 | kg day | 15          | 0       | 15        | 30        |
| M-E-11         |             | L-beam (Purchasing), SS41                            | kg     | 5,225       | 0       | 275       | 5,500     |
| M-E-12         |             | Tierod (Lease)                                       | kg day | 60          | 0       | 40        | 100       |
| M-E-13         |             | Tierod (Purchasing)                                  | kg     | 47,500      | 0       | 2,500     | 50,000    |
| M-E-14         |             | Steel Pile, Dia.38mm (1.5ch), incl. Coating & Lining | m      | 11,475      | 0       | 604       | 12,079    |
| M-E-15         |             | Steel Pile, Dia.100mm, incl. Coating & Lining        | m      | 45,900      | 0       | 2,416     | 48,316    |
| M-E-16         |             | Steel Pile, Dia.125mm, incl. Coating & Lining        | m      | 68,850      | 0       | 3,624     | 72,474    |
| M-E-17         |             | Steel Pipe, Dia.50mm, incl. Coating & Lining         | m      | 20,540      | 0       | 1,081     | 21,621    |
| M-E-18         |             | Steel Pipe, Dia.75mm, incl. Coating & Lining         | m      | 33,105      | 0       | 1,742     | 34,848    |

Table 8.3.3 (3/6) UNIT COSTS OF MATERIALS

| ID No. | Description |  | Unit   | Price (Rp.) |         |            | Total       |
|--------|-------------|--|--------|-------------|---------|------------|-------------|
|        | Major       | Details  |        | PF/C        | IF/C    | L/C        |             |
| M-E-19 |             | Steel Pipe, Dia.100mm, incl. Coating & Lining    | m      | 45,900      | 0       | 2,416      | 48,316      |
| M-E-20 |             | Steel Pile, Dia.350mm, incl. Coating & Lining    | m      | 457,188     | 0       | 24,063     | 481,250     |
| M-E-21 |             | Steel Pile, Dia.400mm, incl. Coating & Lining    | m      | 485,925     | 0       | 25,575     | 511,500     |
| M-E-22 |             | Steel Pile, Dia.600mm, incl. Coating & Lining    | m      | 728,888     | 0       | 38,363     | 767,250     |
| M-E-23 |             | Steel Pipe for Gas                               | kg     | 5,738       | 0       | 302        | 6,039       |
| M-E-24 |             | Steel Pipe, Dia.400mm, (spiral welded)           | m      | 248,710     | 0       | 13,090     | 261,800     |
| M-E-25 |             | Steel Pipe, Dia.600mm, (spiral welded)           | m      | 376,200     | 0       | 19,800     | 396,000     |
| M-E-26 |             | Galvanized Steel Pipe, Dia. 150mm                | m      | 71,250      | 0       | 3,750      | 75,000      |
| M-E-27 |             | Galvanized Steel Pipe, Dia. 50mm                 | m      | 14,250      | 0       | 750        | 15,000      |
| M-E-28 |             | Galvanized Steel Pipe, Dia. 75mm                 | m      | 19,000      | 0       | 1,000      | 20,000      |
| M-E-29 |             | Galvanized Steel Pipe, Dia. 100mm                | m      | 23,750      | 0       | 1,250      | 25,000      |
| M-E-30 |             | Steel Sheet Pile (Lease)                         | kg day | 16          | 0       | 11         | 27          |
| M-E-31 |             | Steel Sheet Pile (Purchasing)                    | ton    | 5,700,000   | 0       | 300,000    | 6,000,000   |
| M-E-32 |             | Expansion Joint, Steel Profile L-75x6mm          | m      | 7,367       | 0       | 388        | 7,755       |
| M-E-33 |             | Anchor, Steel Bar (Dia.32&22) incl. PVC Pipe     | nos.   | 0           | 23,100  | 9,900      | 33,000      |
| M-E-34 |             | Steel Door, 40mm thick, 2.10x 1.70m              | pcs    | 2,978,250   | 0       | 156,750    | 3,135,000   |
| M-E-35 |             | Galvanized Steel Wire                            | kg     | 2,850       | 0       | 150        | 3,000       |
| M-E-36 |             | Bolt and Nut                                     | kg     | 0           | 12,375  | 28,875     | 41,250      |
| M-E-37 |             | Welding Rod                                      | kg     | 0           | 7,508   | 3,218      | 10,725      |
| M-E-38 |             | Galvanized Steel Fence, H=1.75m                  | m      | 0           | 33,957  | 79,233     | 113,190     |
| M-E-39 |             | Steel Fence; Chain Link Type                     | m      | 0           | 29,358  | 68,501     | 97,859      |
| M-E-40 |             | Steel Fence; Rectangular Pipe Type               | m      | 0           | 46,263  | 107,947    | 154,210     |
| M-E-41 |             | Guardrail: H=2.1m                                | m      | 0           | 26,111  | 60,926     | 87,038      |
| M-E-42 |             | Guardrail: H=1.1m                                | m      | 0           | 27,332  | 63,774     | 91,105      |
| M-E-43 |             | Gabion Mattress; 4 mm, 1.5x3.0x0.5m              | pcs    | 0           | 56,100  | 130,900    | 187,000     |
| M-E-44 |             | Gabion Cylinder; 4mm, Dia.=50cm                  | m      | 0           | 8,250   | 19,250     | 27,500      |
| M-E-45 |             | Zinc Roof  | m2     | 0           | 2,970   | 6,930      | 9,900       |
| M-E-46 |             | Checkered Steel Plate, 6mm thick                 | kg     | 0           | 1,733   | 743        | 2,475       |
| M-E-47 |             | Live and Anchorage                               | set    | 0           | 207,900 | 485,100    | 693,000     |
| M-E-48 |             | Nails for Wood                                   | kg     | 0           | 2,400   | 5,600      | 8,000       |
| M-E-49 |             | Nails for Iron(Steel) Sheet                      | kg     | 0           | 3,000   | 7,000      | 10,000      |
| M-E-50 |             | Stopper Nail                                     | pcs    | 0           | 3       | 7          | 10          |
| M-E-51 |             | Anchor   | pcs    | 0           | 2,100   | 4,900      | 7,000       |
| M-E-52 |             | Plug Nail  | pcs    | 0           | 90      | 210        | 300         |
| M-E-53 |             | Screw Nail                                       | pcs    | 0           | 150     | 350        | 500         |
| M-E-54 |             | Nail for Lath                                    | kg     | 0           | 1,650   | 3,850      | 5,500       |
| M-E-55 |             | Steel Baering Plate                              | kg     | 0           | 1,780   | 4,152      | 5,932       |
| M-E-56 |             | Copper Plate                                     | m2     | 0           | 323,369 | 754,527    | 1,077,896   |
| M-E-57 |             | Wire Mesh; Dia. 5mm x 15mm mesh                  | m2     | 0           | 3,000   | 7,000      | 10,000      |
| M-E-58 |             | Form (Metal)                                     | m2     | 3,230       | 0       | 170        | 3,400       |
| M-E-59 |             | Steel Sliding Form for Arc.                      | LS     | 364,779,044 | 0       | 19,198,897 | 383,977,941 |
| M-E-60 |             | Steel Sliding Form for Side Wall                 | LS     | 364,779,044 | 0       | 19,198,897 | 383,977,941 |
| M-E-61 |             | Jumbo for Reinforcing Bar                        | LS     | 127,672,665 | 0       | 6,719,614  | 134,392,279 |
| M-E-62 |             | Prefabricated Scaffold (Lease)                   | m2     | 6,600       | 0       | 4,400      | 11,000      |
| M-E-63 |             | Tubiar Scaffold (Lease)                          | m2     | 5,610       | 0       | 3,740      | 9,350       |
| M-E-64 |             | Steel Wire                                       | kg     | 0           | 2,400   | 5,600      | 8,000       |
| M-E-65 |             | Steel Net  | kg     | 0           | 510     | 1,190      | 1,700       |
| M-E-66 |             | Iron Sheet BJLS 3.0                              | sheet  | 0           | 20,300  | 8,700      | 29,000      |
| M-E-67 |             | Corrugated Iron Sheet                            | sheet  | 0           | 28,700  | 12,300     | 41,000      |
| M-E-68 |             | Gabion Mattress; 2.7mm, 3.0x1.0x0.5m, Galvanize  | pcs    | 327,038     | 0       | 17,213     | 344,250     |
| M-E-69 |             | Gabion Mattress; 2.7mm, 3.0x1.0x0.5m, Galvanize  | pcs    | 457,853     | 0       | 24,098     | 481,950     |
| M-E-70 |             | Gabion Mattress; 2.7mm, 2.0x1.0x0.3m, Galvanize  | pcs    | 163,519     | 0       | 8,606      | 172,125     |
| M-E-71 |             | Gabion Mattress; 2.7mm, 2.0x1.0x0.3m, Galvanize  | pcs    | 196,223     | 0       | 10,328     | 206,550     |
| M-E-72 |             | Gabion Cylinder; 2.7mm, Dia.=50cm, Galvanized a  | m      | 65,408      | 0       | 3,443      | 68,850      |
| M-E-73 |             | Aluminium Sheet t=0.5mm                          | sheet  | 0           | 44,100  | 102,900    | 147,000     |
| M-E-74 |             | Steel/Reinforcing Bar Dia.12 mm                  | kg     | 0           | 1,050   | 2,450      | 3,500       |
| M-E-75 |             | Steel/Reinforcing Bar Deform Dia. 16 mm          | kg     | 0           | 1,125   | 2,625      | 3,750       |
| M-E-76 |             | Galvanized Tube Dia. 3.81 mm                     | bar    | 0           | 10,800  | 25,200     | 36,000      |
| M-E-77 |             | C-beam (Lease), SS41                             | kg day | 4           | 0       | 2          | 6           |
| M-E-78 |             | C-beam (Purchasing), SS41                        | kg     | 5,225       | 0       | 275        | 5,500       |
| M-E-79 |             | Supporting (Lease)                               | m3     | 5,940       | 0       | 3,960      | 9,900       |
|        | Valves      |  |        |             |         |            |             |
| M-F-1  |             | Air Valve, Dia 25mm                              | set    | 648,945     | 0       | 34,155     | 683,100     |
| M-F-2  |             | Air Valve, Dia 50mm                              | set    | 1,111,880   | 0       | 58,520     | 1,170,400   |
| M-F-3  |             | Air Valve, Dia 75mm                              | set    | 1,573,770   | 0       | 82,830     | 1,656,600   |
| M-F-4  |             | Sluice Valve for 400mm Dia. Pipe                 | set    | 9,013,125   | 0       | 474,375    | 9,487,500   |
| M-F-5  |             | Counterflow Prevention Valve for 100 mm Dia. Pip | set    | 47,467      | 0       | 2,498      | 49,965      |
| M-F-6  |             | Butterfly Valve for 400mm Dia. Pipe              | set    | 7,837,500   | 0       | 412,500    | 8,250,000   |
| M-F-7  |             | Butterfly Valve for 600mm Dia. Pipe              | set    | 11,756,250  | 0       | 618,750    | 12,375,000  |
| M-F-8  |             | Flap Gate 600 mm Dia.                            | set    | 4,898,960   | 0       | 257,840    | 5,156,800   |

Table 8.3.3 (4/6) UNIT COSTS OF MATERIALS

| ID No.           | Description |  | Unit | Price (Rp.) |         |           |            |
|------------------|-------------|--|------|-------------|---------|-----------|------------|
|                  | Major       | Details  |      | PF/C        | IF/C    | L/C       | Total      |
| M-F-9            |             | Flap Gate 800 mm Dia.  | set  | 7,125,000   | 0       | 375,000   | 7,500,000  |
| M-F-10           |             | Flap Gate 1,000 mm Dia.  | set  | 8,159,360   | 0       | 429,440   | 8,588,800  |
| M-F-11           |             | Steel Gate 1.0x1.0m (Slide Gate Type)  | set  | 10,450,000  | 0       | 550,000   | 11,000,000 |
| M-F-12           |             | Steel Gate 1.0x1.25m (Slide Gate Type)   | set  | 35,150,000  | 0       | 1,850,000 | 37,000,000 |
| M-F-13           |             | Steel Gate 1.5x1.5m (Slide Gate Type)  | set  | 47,500,000  | 0       | 2,500,000 | 50,000,000 |
| M-F-14           |             | Steel Gate 2.0x1.5m (Slide Gate Type)  | set  | 12,138,720  | 0       | 638,880   | 12,777,600 |
| M-F-15           |             | Steel Gate 2.0x2.0m (Slide Gate Type)  | set  | 86,450,000  | 0       | 4,550,000 | 91,000,000 |
| M-F-16           |             | Steel Gate 4.00x3.46m incl. Machines   | set  |             |         |           |            |
| M-F-17           |             | Steel Gate 4.00x3.25m incl. Machines   | set  |             |         |           |            |
| M-F-18           |             | Steel Gate 5.50x4.35m incl. Machines   | set  |             |         |           |            |
| M-F-19           |             | Steel Gate 18.5x3.7m incl. Machines  | set  |             |         |           |            |
| M-F-20           |             | Expansion Joint for Pipe, Dia. 100mm   | nos. | 2,967,800   | 0       | 156,200   | 3,124,000  |
| M-F-21           |             | Expansion Joint for Pipe, Dia. 125mm   | nos. | 3,317,875   | 0       | 174,625   | 3,492,500  |
| M-F-22           |             | Expansion Joint for Pipe, Dia. 150mm   | nos. | 3,650,185   | 0       | 192,115   | 3,842,300  |
| M-F-23           |             | Expansion Joint for Pipe, Dia. 200mm   | nos. |             |         |           |            |
| M-F-24           |             | Expansion Joint for Pipe, Dia. 300mm   | nos. | 3,806,935   | 0       | 200,365   | 4,007,300  |
| M-F-25           |             | Expansion Joint for Pipe, Dia. 350mm   | nos. | 4,507,085   | 0       | 237,215   | 4,744,300  |
| M-F-26           |             | Expansion Joint for Pipe, Dia. 400mm   | nos. | 7,382,925   | 0       | 388,575   | 7,771,500  |
| M-F-27           |             | Expansion Joint for Pipe, Dia. 600mm   | nos. | 8,145,775   | 0       | 428,725   | 8,574,500  |
| M-F-28           |             | Expansion Joint for Pipe, Dia. 800mm   | nos. | 18,351,245  | 0       | 965,855   | 19,317,100 |
| Chemicals        |             |  |      |             |         |           |            |
| M-G-1            |             | PVC Pipe, Dia. 250mm   | m    | 0           | 58,500  | 136,500   | 195,000    |
| M-G-2            |             | PVC Pipe, Dia. 19.05mm(3/4")   | bar  | 0           | 4,350   | 10,150    | 14,500     |
| M-G-3            |             | PVC Pipe, Dia. 25.4mm(1")  | bar  | 0           | 6,000   | 14,000    | 20,000     |
| M-G-4            |             | PVC Pipe, Dia. 50mm  | m    | 0           | 2,340   | 5,460     | 7,800      |
| M-G-5            |             | PVC Pipe, Dia. 50.8mm(2")  | bar  | 0           | 14,250  | 33,250    | 47,500     |
| M-G-6            |             | PVC Pipe, Dia. 75mm  | m    | 0           | 2,475   | 5,775     | 8,250      |
| M-G-7            |             | PVC Pipe, Dia. 100mm   | m    | 0           | 3,465   | 8,085     | 11,550     |
| M-G-8            |             | PVC Pipe, Dia. 101.6mm (4")  | bar  | 0           | 33,000  | 77,000    | 110,000    |
| M-G-9            |             | PVC Pipe, Dia. 150mm   | m    | 0           | 14,108  | 32,918    | 47,025     |
| M-G-10           |             | PVC Pipe, Dia. 200mm   | m    | 0           | 23,018  | 53,708    | 76,725     |
| M-G-11           |             | PVC Air Vent Pipe, Dia.75mm, 80cm Long   | pcs  | 0           | 11,550  | 26,950    | 38,500     |
| M-G-12           |             | Elastic Joint Filler 10mm thick  | m2   | 0           | 8,250   | 19,250    | 27,500     |
| M-G-13           |             | Geotextile   | m2   | 7,838       | 0       | 413       | 8,250      |
| M-G-14           |             | Waterstop; B=200mm   | m    | 47,500      | 0       | 2,500     | 50,000     |
| M-G-15           |             | Waterstop; B=300mm   | m    | 76,000      | 0       | 4,000     | 80,000     |
| M-G-16           |             | Elastomeric Bearing, 350x280x 73mm   | pcs  | 0           | 600,000 | 600,000   | 1,200,000  |
| M-G-17           |             | Elastomeric Bearing, 312x212x 24mm   | pcs  | 0           | 150,000 | 150,000   | 300,000    |
| M-G-18           |             | Rubber Sheet, 400x100x 30mm  | pcs  | 0           | 220,000 | 220,000   | 440,000    |
| M-G-19           |             | PVC Pipe, Dia. 110mm   | bar  | 0           | 16,440  | 38,360    | 54,800     |
| M-G-20           |             | GIP Pipe 2"  | m    | 0           | 6,300   | 2,700     | 9,000      |
| Pump Equipments  |             |  |      |             |         |           |            |
| M-H-1            |             | Screw Pump Q=3.0m3/s   | nos. |             |         |           |            |
| M-H-2            |             | Screw Pump Q=2.3m3/s   | nos. |             |         |           |            |
| M-H-3            |             | Submersible Pump Q=0.1m3/s, 18kw   | nos. |             |         |           |            |
| M-H-4            |             | Submersible Pump Q=0.1m3/min, 1.8kw  | nos. |             |         |           |            |
| M-H-5            |             | Submersible Pump Q=0.1m3/min, 2.2kw  | nos. | 6,139,375   | 0       | 323,125   | 6,462,500  |
| M-H-6            |             | Diesel Engine; Radiator cooled indoor, 325hp   | set  | 4,441,250   | 0       | 233,750   | 4,675,000  |
| M-H-7            |             | Diesel Engine driven Generator Unit; 30kw  | set  |             |         |           |            |
| M-H-8            |             | Trash Screen; Rotally endless outdoor  | set  |             |         |           |            |
| M-H-9            |             | Belt Conveyor; B=0.9and18m, 2.2kw  | set  |             |         |           |            |
| M-H-10           |             | Electrical Panel incl. distribution, control, alarm and battery charger Panels, water level indication | set  |             |         |           |            |
| Plants and Grass |             |  |      |             |         |           |            |
| M-I-1            |             | Angsana  | tree | 0           | 0       | 15,000    | 15,000     |
| M-I-2            |             | Glodogan   | tree | 0           | 0       | 50,000    | 50,000     |
| M-I-3            |             | Flamboyant   | tree | 0           | 0       | 150,000   | 150,000    |
| M-I-4            |             | Cemara Kipas   | tree | 0           | 0       | 38,500    | 38,500     |
| M-I-5            |             | Cemara Lilin   | tree | 0           | 0       | 38,500    | 38,500     |
| M-I-6            |             | Palem Hijau  | tree | 0           | 0       | 16,500    | 16,500     |
| M-I-7            |             | Tanjung  | tree | 0           | 0       | 11,550    | 11,550     |
| M-I-8            |             | Cendrawasih/Taiwan Lila  | tree | 0           | 0       | 116       | 116        |
| M-I-9            |             | Soka   | tree | 0           | 0       | 275       | 275        |
| M-I-10           |             | Filling of Fertilized Soil   | kg   | 0           | 0       | 1,320     | 1,320      |
| M-I-11           |             | Sodding Grass  | m2   | 0           | 0       | 3,000     | 3,000      |
| Building         |             |  |      |             |         |           |            |
| M-K-1            |             | Wall Tile  | m2   | 0           | 1,925   | 17,325    | 19,250     |
| M-K-2            |             | Mosaic Stone   | m2   | 0           | 2,700   | 24,300    | 27,000     |
| M-K-3            |             | Roof Tile  | m2   | 0           | 2,035   | 18,315    | 20,350     |
| M-K-4            |             | Color Floor Tile 20x20   | m2   | 0           | 1,300   | 11,700    | 13,000     |

Table 8.3.3 (5/6) UNIT COSTS OF MATERIALS

| ID No.                | Description |   | Unit   | Price (Rp.) |           |           |           |
|-----------------------|-------------|---|--------|-------------|-----------|-----------|-----------|
|                       | Major       | Details   |        | PF/C        | IF/C      | L/C       | Total     |
| M-K-5                 |             | Color Floor Tile 15x20                          | m2     | 0           | 1,250     | 11,250    | 12,500    |
| M-K-6                 |             | Grey Floor Tile, 20x20                          | m2     | 0           | 813       | 7,313     | 8,125     |
| M-K-7                 |             | Grey Floor Tile, 15x20                          | m2     | 0           | 1,083     | 9,750     | 10,833    |
| M-K-8                 |             | Terasco Floor Tile, 30x30                       | m2     | 0           | 1,800     | 16,200    | 18,000    |
| M-K-9                 |             | Terasco Floor Tile, 10x30                       | m2     | 0           | 5,000     | 45,000    | 50,000    |
| M-K-10                |             | Wafel Floor Tile, 20x20                         | m2     | 0           | 875       | 7,875     | 8,750     |
| M-K-11                |             | Window Frame (Almi) with Accessory; 0.6 x 1.2m  | m2     | 0           | 4,000     | 36,000    | 40,000    |
| M-K-12                |             | Water Tank, 5.0m3                               | nos.   | 0           | 324,000   | 756,000   | 1,080,000 |
| M-K-13                |             | Maintenance Post Marker                         | nos.   | 0           | 28,600    | 42,900    | 71,500    |
| M-K-14                |             | Name Plate (marble)                             | m2     | 0           | 44,000    | 396,000   | 440,000   |
| M-K-15                |             | Electrical Charge                               | kWh    | 0           | 36        | 84        | 120       |
| M-K-16                |             | Marble  | m2     | 118,750     | 0         | 6,250     | 125,000   |
| M-K-17                |             | Porcelain 11x11                                 | m2     | 0           | 10,537    | 24,587    | 35,124    |
| M-K-18                |             | Porcelain 10x15                                 | m2     | 0           | 9,000     | 21,000    | 30,000    |
| M-K-19                |             | Porcelain 15x15                                 | m2     | 0           | 6,333     | 14,778    | 21,111    |
| M-K-20                |             | Porcelain 20x20                                 | m2     | 0           | 3,563     | 8,313     | 11,875    |
| M-K-21                |             | Septic Tank 1m3                                 | pes    | 0           | 510,000   | 1,190,000 | 1,700,000 |
| M-K-22                |             | Septic Tank 2m3                                 | pes    | 0           | 675,000   | 1,575,000 | 2,250,000 |
| M-K-23                |             | Septic Tank 6m3                                 | pes    | 0           | 1,290,000 | 3,010,000 | 4,300,000 |
| M-K-24                |             | Septic Tank 10m3                                | pes    | 0           | 1,590,000 | 3,710,000 | 5,300,000 |
| M-K-25                |             | Electrical Socket                               | pes    | 0           | 4,000     | 36,000    | 40,000    |
| M-K-26                |             | Electrical Switch                               | pes    | 0           | 900       | 8,100     | 9,000     |
| M-K-27                |             | Fuse for Electric Kit of 1group (Local Made)    | pes    | 0           | 15,000    | 135,000   | 150,000   |
| M-K-28                |             | Fuse for Electric Kit of 2group (Local Made)    | pes    | 0           | 17,500    | 157,500   | 175,000   |
| M-K-29                |             | Fuse for Electric Kit of 3group (Local Made)    | pes    | 0           | 22,500    | 202,500   | 225,000   |
| M-K-30                |             | Wall Paint                                      | kg     | 0           | 3,750     | 8,750     | 12,500    |
| M-K-31                |             | Paint for Masonry Wall                          | kg     | 0           | 1,500     | 3,500     | 5,000     |
| M-K-32                |             | Putty for Masonry Wall                          | kg     | 0           | 2,250     | 5,250     | 7,500     |
| M-K-33                |             | Paint for Wood                                  | kg     | 0           | 7,650     | 17,850    | 25,500    |
| M-K-34                |             | Glaziers Putty for Wood                         | kg     | 0           | 3,300     | 7,700     | 11,000    |
| M-K-35                |             | Antirust Primer paint                           | kg     | 0           | 3,150     | 7,350     | 10,500    |
| M-K-36                |             | Ridge for Roof                                  | pieces | 0           | 120       | 280       | 400       |
| M-K-37                |             | Glue for Wood                                   | kg     | 0           | 2,250     | 5,250     | 7,500     |
| M-K-38                |             | Glass of 3mm thick                              | m2     | 0           | 8,700     | 20,300    | 29,000    |
| M-K-39                |             | Paint Oil                                       | ltr    | 0           | 1,200     | 2,800     | 4,000     |
| M-K-40                |             | Paint for Iron                                  | kg     | 0           | 5,700     | 13,300    | 19,000    |
| M-K-41                |             | Polish  | kg     | 0           | 5,040     | 11,760    | 16,800    |
| M-K-42                |             | Sand Paper                                      | sheet  | 0           | 750       | 1,750     | 2,500     |
| M-K-43                |             | Red Lead  | kg     | 0           | 2,700     | 6,300     | 9,000     |
| M-K-44                |             | Door Hinge (125 mm)                             | pes    | 0           | 1,200     | 2,800     | 4,000     |
| M-K-45                |             | Aluminium Door Key                              | pes    | 0           | 15,000    | 35,000    | 50,000    |
| M-K-46                |             | Ceramic Roof Tile                               | m2     | 0           | 12,150    | 28,350    | 40,500    |
| M-K-47                |             | Ceramic Ridge Tile                              | pes    | 0           | 2,846     | 6,640     | 9,485     |
| M-K-48                |             | Ceramic Floor Tile, 200x200 mm                  | m2     | 0           | 9,000     | 21,000    | 30,000    |
| M-K-49                |             | Ceramic Floor Tile, 200x200mm, Nonslip Texture  | m2     | 0           | 9,000     | 21,000    | 30,000    |
| M-K-50                |             | Ceramic Floor Tile, 300x300 mm                  | m2     | 0           | 9,000     | 21,000    | 30,000    |
| M-K-51                |             | Ceramic Floor Tile, 300x300 mm, Nonslip Texture | m3     | 0           | 9,000     | 21,000    | 30,000    |
| M-K-52                |             | Window Hinge (75 mm)                            | pes    | 0           | 1,200     | 2,800     | 4,000     |
| M-K-53                |             | Glass of 5 mm thick (Natural Colour)            | m2     | 0           | 10,500    | 24,500    | 35,000    |
| M-K-54                |             | Glass of 10 mm thick (Rayband, for wall base)   | m2     | 0           | 28,800    | 67,200    | 96,000    |
| M-K-55                |             | Espagnolette                                    | pes    | 0           | 10,500    | 24,500    | 35,000    |
| M-K-56                |             | Door Stopper                                    | pes    | 0           | 12,000    | 28,000    | 40,000    |
| M-K-57                |             | Aluminium Rolling Door                          | m2     | 0           | 26,775    | 62,475    | 89,250    |
| Railway Work Material |             |   |        |             |           |           |           |
| M-M-1                 |             | Triplex 1,220x2,440x3                           | sheet  | 0           | 10,500    | 24,500    | 35,000    |
| M-M-2                 |             | Multiplex 18mm                                  | sheet  | 0           | 30,000    | 70,000    | 100,000   |
| M-M-3                 |             | Prall Wire                                      | kg     | 0           | 2,250     | 5,250     | 7,500     |
| M-M-4                 |             | Ballast 2-6 cm                                  | m3     | 0           | 3,250     | 61,750    | 65,000    |
| M-M-5                 |             | Wooden Sleeper 13x22x200cm                      | nos.   | 0           | 0         | 125,000   | 125,000   |
| M-M-6                 |             | Wooden Sleeper for Bridge 18x22x200cm           | nos.   | 0           | 0         | 187,500   | 187,500   |
| M-M-7                 |             | Wooden Board Class II                           | m3     | 0           | 0         | 1,250,000 | 1,250,000 |
| M-M-8                 |             | Wooden Board Class II                           | m3     | 0           | 0         | 900,000   | 900,000   |
| M-M-9                 |             | Corrugated Zinc BJLS 30                         | sheet  | 0           | 24,500    | 35,000    | 59,500    |
| M-M-10                |             | Teak Oil  | kg     | 0           | 6,000     | 14,000    | 20,000    |
| M-M-11                |             | Pinotex   | kg     | 0           | 3,750     | 8,750     | 12,500    |
| M-M-12                |             | Meni for Steel                                  | kg     | 0           | 3,750     | 8,750     | 12,500    |
| M-M-13                |             | Plamur  | kg     | 0           | 2,400     | 5,600     | 8,000     |
| M-M-14                |             | Sign Lamp                                       | nos.   | 0           | 50,000    | 50,000    | 100,000   |
| M-M-15                |             | Plastic Sack                                    | nos.   | 0           | 750       | 1,750     | 2,500     |
| M-M-16                |             | Epoxy   | sack   | 0           | 60,000    | 140,000   | 200,000   |

Table 8.3.3 (6/6) UNIT COSTS OF MATERIALS

| ID No. | Description |                                    | Unit  | Price (Rp.) |         |         |             |
|--------|-------------|------------------------------------|-------|-------------|---------|---------|-------------|
|        | Major       | Details                            |       | PF/C        | IF/C    | L/C     | Total       |
| M-M-17 |             | Manila Rope                        | kg    | 0           | 750     | 14,250  | 15,000      |
| M-M-18 |             | Vaslin                             | kg    | 0           | 1,800   | 4,200   | 6,000       |
| M-M-19 |             | Rail R-33                          | ton   | 966,316     | 0       | 0       | 966,316     |
| M-M-20 |             | Rail R-42                          | ton   | 966,316     | 0       | 0       | 966,316     |
|        | Others      |                                    |       |             |         |         |             |
| M-L-1  |             | Palm Fiber, 20mm thick             | m2    | 0           | 1,100   | 20,900  | 22,000      |
| M-L-2  |             | Concrete Brick; 23 x 11.5 x 5.5 cm | pcs   | 0           | 150     | 1,350   | 1,500       |
| M-L-3  |             | Brick; 10 x 2 x 6 cm               | m2    | 0           | 5       | 45      | 50          |
| M-L-4  |             | Staff Gauge (5.0m)                 | nos.  | 380,000     | 20,000  | 0       | 400,000     |
| M-L-5  |             | Bench (Wooden)                     | nos.  | 0           | 0       | 302,500 | 302,500     |
| M-L-6  |             | Bench (steel)                      | nos.  | 0           | 88,000  | 132,000 | 220,000     |
| M-L-7  |             | Aluminium Frame                    | m2    | 0           | 137,500 | 137,500 | 275,000     |
| M-L-8  |             | Cast-iron Cover; Dia.60cm          | pcs   | 0           | 440,000 | 440,000 | 880,000     |
| M-L-9  |             | Handy Talky                        | set   | 0           | 400,000 | 600,000 | 1,000,000   |
| M-L-10 |             | Garbage Container                  | nos.  | 0           | 100,000 | 900,000 | 1,000,000   |
| M-L-11 |             | Truck with Crane, 2.2ton           | nos.  | 344,250,000 | 0       | 0       | 344,250,000 |
| M-L-12 |             | Synthetic Shell (5m2 / kg)         | kg    | 0           | 3,438   | 3,438   | 6,875       |
| M-L-13 |             | Water Proofing Coat                | m2    | 0           | 13,464  | 8,976   | 22,440      |
| M-L-14 |             | Asbestos Cement, 6mm thick         | m2    | 0           | 800     | 1,200   | 2,000       |
| M-L-15 |             | Drawing Paper (A1)                 | sheet | 8,000       | 0       | 2,000   | 10,000      |
| M-L-16 |             | Blue Copy (A1)                     | sheet | 0           | 2,500   | 2,500   | 5,000       |
| M-L-17 |             | Brick; 26 x 12.4 x 5.2 cm          | pcs   | 0           | 0       | 200     | 200         |
| M-L-18 |             | Backhoe, 0.35m3                    | nos.  | 469,871,053 | 0       | 0       | 469,871,053 |
| M-L-19 |             | Dump Truck, 8t                     | nos.  | 422,763,158 | 0       | 0       | 422,763,158 |
| M-L-20 |             | Bulldozer, 11t                     | nos.  | 622,065,789 | 0       | 0       | 622,065,789 |
| M-L-21 |             | Patrol Car, 4WD                    | nos.  | 120,789,474 | 0       | 0       | 120,789,474 |
| M-L-22 |             | Outboard Motor Boat                | nos.  | 90,592,105  | 0       | 0       | 90,592,105  |

Table 8.3.4 (1/4) HOURLY DRIVING EQUIPMENT COST

| New ID No. | Description of Equipment                 | Unit   | Hourly Cost |       |         |           |
|------------|--|--------|-------------|-------|---------|-----------|
|            |  |        | PF/C        | IF/C  | L/C     | Total     |
| A-2-1-1    | Backhoe; 2 m3 Long Arm                   | hourly | 512,435     | 4,440 | 355,749 | 872,624   |
| A-2-1-2    | Backhoe; 0.3 m3 with Vibrator            | hourly | 141,121     | 948   | 96,872  | 238,941   |
| A-2-1-3    | Backhoe; 0.35 m3                         | hourly | 71,294      | 1,200 | 51,824  | 124,317   |
| A-2-1-4    | Backhoe; 0.35 m3 for Rock                | hourly | 78,423      | 1,200 | 56,526  | 136,149   |
| A-2-1-5    | Backhoe; 0.4 m3                          | hourly | 80,824      | 1,440 | 59,070  | 141,334   |
| A-2-1-6    | Backhoe; 0.4 m3 with Joint Cutter        | hourly | 96,989      | 1,440 | 69,731  | 168,160   |
| A-2-1-7    | Backhoe; 0.6 m3                          | hourly | 125,543     | 2,040 | 90,965  | 218,548   |
| A-2-1-8    | Backhoe; 0.6 m3 for Rock                 | hourly | 138,097     | 2,040 | 99,246  | 239,383   |
| A-2-1-9    | Backhoe; 0.7 m3                          | hourly | 153,950     | 2,160 | 110,182 | 266,292   |
| A-2-1-10   | Backhoe; 0.7 m3 for Rock                 | hourly | 169,345     | 2,160 | 120,336 | 291,842   |
| A-2-1-11   | Backhoe; 0.8 m3                          | hourly | 161,281     | 2,640 | 116,937 | 280,859   |
| A-2-1-12   | Backhoe; 0.8 m3 for Rock                 | hourly | 177,410     | 2,640 | 127,575 | 307,625   |
| A-2-1-13   | Backhoe; 1 m3                            | hourly | 196,104     | 3,360 | 142,785 | 342,249   |
| A-2-1-14   | Backhoe; 1 m3 for Rock                   | hourly | 215,714     | 3,360 | 155,720 | 374,793   |
| A-2-1-15   | Backhoe; 1.2 m3                          | hourly | 217,180     | 3,480 | 157,167 | 377,827   |
| A-2-1-16   | Backhoe; 1.2 m3 for Rock                 | hourly | 238,898     | 3,480 | 171,491 | 413,869   |
| A-2-1-17   | Bulldozer; 11 ton                        | hourly | 133,995     | 1,680 | 121,026 | 256,701   |
| A-2-1-18   | Bulldozer; 11 ton for Rock               | hourly | 147,395     | 1,680 | 132,457 | 281,532   |
| A-2-1-19   | Bulldozer; 15 ton                        | hourly | 178,227     | 2,280 | 161,158 | 341,665   |
| A-2-1-20   | Bulldozer; 15 ton for Rock               | hourly | 196,049     | 2,280 | 176,362 | 374,691   |
| A-2-1-21   | Bulldozer; 15 ton with Ripper            | hourly | 95,983      | 2,280 | 91,000  | 189,263   |
| A-2-1-22   | Bulldozer; 21 ton                        | hourly | 294,009     | 3,480 | 264,728 | 562,217   |
| A-2-1-23   | Bulldozer; 21 ton for Rock               | hourly | 323,410     | 3,480 | 289,808 | 616,698   |
| A-2-1-24   | Bulldozer; 21 ton with Ripper            | hourly | 158,277     | 3,720 | 149,900 | 311,897   |
| A-2-1-25   | Bulldozer; 3 ton                         | hourly | 48,785      | 660   | 44,256  | 93,701    |
| A-2-1-26   | Bulldozer; 3 ton for Rock                | hourly | 53,663      | 660   | 48,418  | 102,741   |
| A-2-1-27   | Bulldozer; 32 ton                        | hourly | 429,305     | 4,680 | 384,944 | 818,929   |
| A-2-1-28   | Bulldozer; 32 ton for Rock               | hourly | 472,235     | 4,680 | 421,566 | 898,481   |
| A-2-1-29   | Bulldozer; 32 ton with Ripper            | hourly | 237,733     | 5,280 | 223,921 | 466,934   |
| A-2-1-30   | Bulldozer; 44 ton for Rock               | hourly | 621,061     | 6,000 | 553,803 | 1,180,865 |
| A-2-1-31   | Truck with crane; 4 ton, Crane : 2.9 ton | hourly | 48,670      | 780   | 47,768  | 97,217    |
| A-2-1-32   | Truck with crane; 6 ton                  | hourly | 62,784      | 912   | 61,243  | 124,939   |
| A-2-1-33   | Truck with crane; 8 ton                  | hourly | 79,818      | 1,320 | 78,502  | 159,640   |
| A-2-1-34   | Clamshell; 0.6 m3                        | hourly | 145,596     | 1,680 | 99,479  | 246,754   |
| A-2-1-35-1 | Concrete Pump Truck; 65-85 m3/hr         | Time   | 36,721      | 280   | 23,415  | 60,416    |
| A-2-1-35-2 | Concrete Pump Truck; 65-85 m3/hr         | hourly | 220,327     | 1,680 | 140,490 | 362,497   |
| A-2-1-36-1 | Concrete Pump Truck; 90-110 m3/hr        | Time   | 45,418      | 340   | 28,935  | 74,694    |
| A-2-1-36-2 | Concrete Pump Truck; 90-110 m3/hr        | hourly | 272,510     | 2,040 | 173,613 | 448,163   |
| A-2-1-37   | Crawler Crane; 100 ton                   | hourly | 850,261     | 2,160 | 760,033 | 1,612,454 |
| A-2-1-38   | Crawler Crane; 22.5 ton                  | hourly | 153,115     | 804   | 138,527 | 292,447   |
| A-2-1-39   | Crawler Crane; 27 ton                    | hourly | 183,054     | 972   | 165,657 | 349,683   |
| A-2-1-40   | Crawler Crane; 37 ton                    | hourly | 255,763     | 984   | 229,959 | 486,705   |
| A-2-1-41   | Crawler Crane; 40 ton                    | hourly | 279,714     | 1,080 | 251,509 | 532,302   |
| A-2-1-42   | Crawler Diesel Hammer; 2.5 ton           | hourly | 486,850     | 1,680 | 346,521 | 835,051   |
| A-2-1-43   | Crawler Diesel Hammer; 3.5 ton           | hourly | 584,659     | 1,800 | 415,268 | 1,001,727 |
| A-2-1-44   | Crawler Diesel Hammer; 4.5 ton           | hourly | 637,410     | 1,800 | 452,087 | 1,091,297 |
| A-2-1-45   | Crawler Drill; 150 kg                    | hourly | 420,361     | 1,116 | 270,407 | 691,884   |
| A-2-1-46   | Crawler Drill; 180 kg                    | hourly | 477,530     | 1,440 | 307,871 | 786,841   |
| A-2-1-47   | Crawler Loader; 1.2m3                    | hourly | 101,653     | 1,440 | 81,806  | 184,900   |
| A-2-1-48   | Dumptruck; 10 ton                        | hourly | 77,269      | 3,060 | 70,744  | 151,073   |
| A-2-1-49   | Dumptruck; 10 ton for Rock               | hourly | 84,996      | 3,210 | 77,195  | 165,400   |
| A-2-1-50   | Dumptruck; 20 ton                        | hourly | 198,902     | 4,280 | 136,582 | 339,764   |
| A-2-1-51   | Dumptruck; 20 ton for Rock               | hourly | 218,792     | 4,480 | 149,328 | 372,600   |
| A-2-1-52   | Dumptruck; 32 ton                        | hourly | 321,681     | 6,100 | 219,807 | 547,588   |
| A-2-1-53   | Dumptruck; 32 ton for Rock               | hourly | 353,849     | 6,350 | 240,348 | 600,547   |
| A-2-1-54   | Dumptruck; 4 ton                         | hourly | 30,204      | 1,376 | 28,632  | 60,211    |
| A-2-1-55   | Dumptruck; 8 ton                         | hourly | 58,770      | 2,200 | 53,721  | 114,691   |

Table 8.3.4 (2/4) HOURLY DRIVING EQUIPMENT COST

| New ID No. | Description of Equipment                   | Unit   | Hourly Cost |        |           |           |
|------------|--|--------|-------------|--------|-----------|-----------|
|            |  |        | PF/C        | IF/C   | L/C       | Total     |
| A-2-1-56   | Dumptruck; 8 ton for Rock                  | hourly | 64,647      | 2,276  | 58,517    | 125,440   |
| A-2-1-57   | Macadam Roller; 10-12 ton                  | hourly | 73,027      | 912    | 73,401    | 147,340   |
| A-2-1-58   | Mortor Sprayer; 0.8-1.2m3/h                | daily  | 0           | 2,448  | 9,792     | 12,240    |
| A-2-1-59   | Motorgrader; 3.1 m                         | hourly | 122,998     | 1,116  | 118,868   | 242,982   |
| A-2-1-60   | Road Roller; Tandem 8-10 ton               | hourly | 63,475      | 696    | 63,413    | 127,583   |
| A-2-1-61   | Submergible pump; D 100 mm; 3.7 kW         | daily  | 21,522      | 0      | 10,871    | 32,394    |
| A-2-1-62   | Submergible pump; D 150 mm; 11 kW          | daily  | 39,099      | 0      | 19,749    | 58,848    |
| A-2-1-63   | Submergible pump; D 200 mm; 15 kW          | daily  | 65,404      | 0      | 33,036    | 98,440    |
| A-2-1-64   | Submergible pump; D 50 mm; 0.75 kW         | daily  | 6,576       | 0      | 3,322     | 9,898     |
| A-2-1-65   | Turbine Pump Dia. 200mm 75kW               | daily  | 177,383     | 0      | 112,624   | 290,007   |
| A-2-1-66   | Swamp Bulldozer; 13 ton                    | hourly | 161,131     | 2,160  | 146,095   | 309,386   |
| A-2-1-67   | Swamp Bulldozer; 16 ton                    | hourly | 180,013     | 2,280  | 162,683   | 344,976   |
| A-2-1-68   | Tire Roller; 8-20 ton                      | hourly | 81,684      | 864    | 82,451    | 164,999   |
| A-2-1-69   | Trailer; 20 ton                            | hourly | 119,879     | 2,160  | 102,572   | 224,611   |
| A-2-1-70   | Trailer; 32 ton                            | hourly | 153,758     | 2,160  | 129,118   | 285,036   |
| A-2-1-71   | Truck Crane; 11(10) ton, Oil Pressure      | hourly | 99,322      | 1,020  | 85,929    | 186,271   |
| A-2-1-72   | Truck Crane; 16 ton, Oil Pressure          | hourly | 135,641     | 1,020  | 115,858   | 252,520   |
| A-2-1-73   | Truck Crane; 22 ton, Oil Pressure          | hourly | 154,913     | 1,032  | 131,788   | 287,732   |
| A-2-1-74   | Truck Crane; 35 ton, Oil Pressure          | hourly | 255,717     | 1,440  | 216,490   | 473,647   |
| A-2-1-75   | Truck Crane; 4.9 ton, Oil Pressure         | hourly | 55,146      | 720    | 48,324    | 104,190   |
| A-2-1-76   | Truck Crane; 60 ton, Oil Pressure          | hourly | 421,006     | 1,560  | 353,180   | 775,747   |
| A-2-1-77   | Truck Mixer; 1.6 m3                        | hourly | 35,073      | 996    | 28,463    | 64,532    |
| A-2-1-78   | Truck Mixer; 3 m3                          | hourly | 51,377      | 1,164  | 40,516    | 93,057    |
| A-2-1-79   | Truck Mixer; 4.5 m3                        | hourly | 77,958      | 1,560  | 60,652    | 140,169   |
| A-2-1-80   | Truck; 11 ton                              | hourly | 96,932      | 1,560  | 95,161    | 193,653   |
| A-2-1-81   | Truck; 3.5 ton                             | hourly | 27,195      | 744    | 27,924    | 55,863    |
| A-2-1-82   | Truck; 4 ton                               | hourly | 37,005      | 876    | 37,451    | 75,332    |
| A-2-1-83   | Truck; 8 ton                               | hourly | 60,898      | 1,200  | 60,665    | 122,763   |
| A-2-1-84   | Tugboat; 15 ton                            | hourly | 129,433     | 4,440  | 140,042   | 273,915   |
| A-2-1-85   | Vibrating Hammer; 30 kW                    | hourly | 86,428      | 0      | 52,870    | 139,298   |
| A-2-1-86   | Vibrating Hammer; 40 kW                    | hourly | 105,466     | 0      | 64,516    | 169,982   |
| A-2-1-87   | Vibrating Hammer; 60 kW                    | hourly | 150,191     | 0      | 91,875    | 242,066   |
| A-2-1-88   | Vibrating Roller; 0.8-1.1 ton (Hand Guide) | hourly | 17,057      | 144    | 14,791    | 31,992    |
| A-2-1-89   | Vibrating Roller; 11-12 ton                | hourly | 212,629     | 2,400  | 186,791   | 401,821   |
| A-2-1-90   | Vibrating Roller; 15-18 ton                | hourly | 300,975     | 2,640  | 261,373   | 564,988   |
| A-2-1-91   | Vibrating Roller; 3-5 ton                  | hourly | 67,982      | 528    | 58,763    | 127,273   |
| A-2-1-92   | Water Jet; 45 kW                           | hourly | 84,280      | 0      | 58,824    | 143,104   |
| A-2-1-93   | Water Tank; 3000 litter                    | daily  | 8,864       | 0      | 4,432     | 13,295    |
| A-2-1-94   | Wheel Loader; 1 m3                         | hourly | 68,964      | 1,032  | 55,719    | 125,715   |
| A-2-1-95   | Wheel Loader; 1 m3 for Rock                | hourly | 62,694      | 1,032  | 51,029    | 114,756   |
| A-2-1-96   | Wheel Loader; 1.2 m3                       | hourly | 72,404      | 1,116  | 58,629    | 132,149   |
| A-2-1-97   | Wheel Loader; 10 m3                        | hourly | 1,222,719   | 11,040 | 958,866   | 2,192,625 |
| A-2-1-98   | Wheel Loader; 10 m3 for Rock               | hourly | 1,344,991   | 11,040 | 1,050,337 | 2,406,367 |
| A-2-1-99   | Wheel Loader; 3.1 m3                       | hourly | 246,941     | 3,600  | 199,135   | 449,676   |
| A-2-1-100  | Wheel Loader; 3.1 m3 for Rock              | hourly | 271,635     | 3,600  | 217,608   | 492,844   |
| A-2-1-101  | Wheel Loader; 5.4 m3                       | hourly | 625,744     | 5,760  | 491,154   | 1,122,659 |
| A-2-1-102  | Wheel Loader; 5.4 m3 for Rock              | hourly | 688,319     | 5,760  | 537,966   | 1,232,045 |
| A-2-1-103  | Concrete Pump Truck 55m3/hr                | hourly | 184,434     | 1,200  | 116,778   | 302,412   |
| A-2-1-104  | Water Tanker; 4000 litter                  | hourly | 46,828      | 1,076  | 35,138    | 83,041    |
| A-2-1-105  | Tandem Roller 8/12 ton                     | hourly | 191,666     | 1,200  | 164,522   | 357,388   |
| A-2-1-108  | Motorgrader; 2.8 m                         | hourly | 104,320     | 0      | 97,032    | 201,352   |
| A-2-1-109  | Crawler Crane 16t                          | hourly | 143,706     | 0      | 126,996   | 270,702   |
| A-2-1-110  | Crawler Crane 50t                          | hourly | 355,844     | 0      | 314,467   | 670,310   |
| A-2-1-111  | Chain Saw                                  | daily  | 42,825      | 0      | 17,538    | 60,363    |
| A-2-1-113  | Truck Crane; 80 ton, Oil Pressure          | hourly | 770,856     | 888    | 638,795   | 1,410,539 |
| A-2-1-114  | Truck Crane; 120 ton, Oil Pressure         | hourly | 1,082,164   | 888    | 895,335   | 1,978,387 |
| A-2-1-115  | Truck Crane; 160 ton, Oil Pressure         | hourly | 1,437,944   | 1,110  | 1,189,412 | 2,628,466 |
| A-2-1-116  | Truck Crane; 200 ton, Oil Pressure         | hourly | 1,913,305   | 1,154  | 1,581,323 | 3,495,783 |

Table 8.3.4 (3/4) HOURLY DRIVING EQUIPMENT COST

| New ID No. | Description of Equipment                  | Unit   | Hourly Cost |        |         |           |
|------------|---|--------|-------------|--------|---------|-----------|
|            |   |        | PF/C        | IF/C   | L/C     | Total     |
| A-2-2-1    | Concrete Breaker; 600 kg                  | daily  | 232,611     | 0      | 93,259  | 325,870   |
| A-2-2-2    | Stabilizer                                | hourly | 743,276     | 1,092  | 502,608 | 1,246,975 |
| A-2-2-3    | Truck with crane; 6 ton                   | hourly | 62,784      | 0      | 57,595  | 120,379   |
| A-2-2-4    | Truck with crane; 8 ton                   | hourly | 79,818      | 0      | 73,222  | 153,040   |
| A-2-2-5    | Cement Silo; 30 ton, 20t/h                | daily  | 7,768       | 0      | 3,276   | 11,044    |
| A-2-2-6    | Compressor; 10.5-11 m3/min                | daily  | 319,521     | 11,520 | 248,930 | 579,971   |
| A-2-2-7    | Compressor; 3.5-3.7 m3/min                | daily  | 120,290     | 4,032  | 92,495  | 216,817   |
| A-2-2-8    | Compressor; 20~21 m3/min                  | daily  | 730,012     | 17,280 | 532,572 | 1,279,864 |
| A-2-2-9    | Compressor; 7.5 m3/min                    | daily  | 226,296     | 8,640  | 178,225 | 413,161   |
| A-2-2-10   | Concrete Breaker; 20 kg                   | daily  | 9,136       | 0      | 3,181   | 12,317    |
| A-2-2-11   | Concrete Breaker; 30 kg                   | daily  | 11,420      | 0      | 3,977   | 15,397    |
| A-2-2-12   | Concrete Bucket; 1 m3                     | daily  | 92,239      | 0      | 45,461  | 137,700   |
| A-2-2-14   | Generator; 10 kVA                         | daily  | 65,615      | 1,440  | 41,622  | 108,678   |
| A-2-2-15   | Generator; 100 kVA                        | daily  | 215,064     | 10,800 | 160,745 | 386,609   |
| A-2-2-16   | Generator; 125 kVA                        | daily  | 271,912     | 15,120 | 209,096 | 496,128   |
| A-2-2-17   | Generator; 15 kVA                         | daily  | 82,875      | 1,800  | 52,496  | 137,171   |
| A-2-2-18   | Generator; 20 kVA                         | daily  | 104,107     | 2,448  | 66,693  | 173,248   |
| A-2-2-19   | Generator; 200 kVA                        | daily  | 415,060     | 23,760 | 321,895 | 760,715   |
| A-2-2-20   | Generator; 250 kVA                        | daily  | 569,851     | 29,520 | 429,537 | 1,028,908 |
| A-2-2-21   | Generator; 300 kVA                        | daily  | 658,206     | 36,720 | 506,628 | 1,201,554 |
| A-2-2-22   | Generator; 35 kVA                         | daily  | 121,915     | 3,816  | 81,898  | 207,629   |
| A-2-2-23   | Generator; 75 kVA                         | daily  | 211,639     | 9,360  | 153,113 | 374,113   |
| A-2-2-24   | Grout Mixer; 2x200 ltr 2.3kw Yoko         | daily  | 45,124      | 259    | 35,784  | 81,167    |
| A-2-2-25   | Grout Plant; 150 l/min                    | daily  | 1,114,557   | 12,960 | 522,644 | 1,650,162 |
| A-2-2-26   | Grout Pressure Meter; 120 l/min           | daily  | 428,848     | 0      | 230,918 | 659,767   |
| A-2-2-27   | Grout Pump; 37-100 l/min 7.8kw Yoko       | daily  | 110,621     | 864    | 88,638  | 200,123   |
| A-2-2-30   | Oil Pressure Jack                         | daily  | 36,093      | 0      | 17,857  | 53,950    |
| A-2-2-31   | Leg Hammer; 30 kg                         | daily  | 40,345      | 0      | 14,239  | 54,584    |
| A-2-2-32   | Leg Hammer; 40 kg                         | daily  | 45,409      | 0      | 16,027  | 61,435    |
| A-2-2-33   | Motor grader; 4.01 m x 0.62 m             | hourly | 220,940     | 0      | 205,503 | 426,444   |
| A-2-2-35   | Pick Hammer                               | daily  | 5,717       | 0      | 2,030   | 7,747     |
| A-2-2-36   | Guide Sell Feed 4m 150kg class            | daily  | 248,497     | 0      | 85,886  | 334,383   |
| A-2-2-37   | Pontoon Barge; 100 ton                    | daily  | 314,821     | 0      | 237,791 | 552,612   |
| A-2-2-38   | Grout Center Plant Automatic 150litre/min | daily  | 1,114,557   | 0      | 470,804 | 1,585,362 |
| A-2-2-39   | Rotary Boring Machine; 11 kW              | daily  | 241,735     | 1,224  | 191,040 | 433,999   |
| A-2-2-40   | Rotary Boring Machine; 5.5 kW             | daily  | 142,653     | 648    | 112,440 | 255,742   |
| A-2-2-41   | Drifter Air Type : 150kg class            | daily  | 257,007     | 0      | 88,827  | 345,834   |
| A-2-2-42   | Submergible pump; D 100 mm; 3.7 kW        | daily  | 21,522      | 0      | 10,871  | 32,394    |
| A-2-2-43   | Submergible pump; D 150 mm; 7.5 kW        | daily  | 28,458      | 0      | 14,374  | 42,831    |
| A-2-2-44   | Submergible pump; D 200 mm; 15 kW         | daily  | 65,404      | 0      | 33,036  | 98,440    |
| A-2-2-45   | Submergible pump; D 50 mm; 0.75 kW        | daily  | 6,576       | 0      | 3,322   | 9,898     |
| A-2-2-46   | Submergible pump; D 80 mm; 1.5 kW         | daily  | 14,587      | 0      | 7,368   | 21,956    |
| A-2-2-47   | Submergible Pump; D100mm 5.5 kW           | daily  | 26,903      | 0      | 13,589  | 40,492    |
| A-2-2-48   | Submergible Pump; D150mm 10.6 kW          | daily  | 39,099      | 0      | 19,749  | 58,848    |
| A-2-2-49   | Submergible Pump; D200mm 22kW             | daily  | 81,666      | 0      | 41,250  | 122,915   |
| A-2-2-50   | Submergible Pump; D50mm 1.5 kW            | daily  | 11,837      | 0      | 5,979   | 17,816    |
| A-2-2-51   | Tamper; 60-100 kg                         | daily  | 35,109      | 1,080  | 16,859  | 53,047    |
| A-2-2-52   | Vibrating Roller; 1 ton                   | hourly | 22,526      | 144    | 19,348  | 42,018    |
| A-2-2-53   | Vibrating Roller; 2 ton                   | hourly | 56,452      | 468    | 48,915  | 105,835   |
| A-2-2-54   | Vibrating Roller; 4 ton                   | hourly | 67,982      | 528    | 58,763  | 127,273   |
| A-2-2-55   | Concrete Vibrator; 60 mm Engine Type      | daily  | 20,241      | 2,280  | 16,494  | 39,015    |
| A-2-2-56   | Vibro hammer; 30 kW                       | hourly | 86,428      | 0      | 52,870  | 139,298   |
| A-2-2-57   | Vibro hammer; 40 kW                       | hourly | 105,466     | 0      | 64,516  | 169,982   |
| A-2-2-58   | Shotcrete Machine Wet Type : 0.8-1.2      | hourly | 68,498      | 0      | 40,476  | 108,975   |
| A-2-2-59   | Concrete Vibrator; High Wave              | daily  | 55,125      | 0      | 26,706  | 81,831    |
| A-2-2-60   | Portable Concrete Mixer 0.5m3             | daily  | 236,747     | 360    | 116,739 | 353,846   |
| A-2-2-61   | Portable Concrete Mixer 0.2m3             | daily  | 198,699     | 576    | 99,073  | 298,348   |
| A-2-2-62   | Asphalt Plant 30ton/hr, 110kw             | hourly | 584,193     | 0      | 399,236 | 983,429   |



Table 8.3.4 (4/4) HOURLY DRIVING EQUIPMENT COST

| New ID No. | Description of Equipment   | Unit   | Hourly Cost |       |         |           |
|------------|----------------------------|--------|-------------|-------|---------|-----------|
|            |                            |        | PF/C        | IF/C  | L/C     | Total     |
| A-2-2-63   | Asphalt Finisher 2.4m      | hourly | 170,054     | 0     | 150,540 | 320,594   |
| A-2-2-64   | Asphalt Sprayer 30ton/hr   | daily  | 32,295      | 0     | 11,398  | 43,693    |
| A-2-2-65   | Dragline 3.0m <sup>3</sup> | hourly | 774,072     | 4,200 | 748,374 | 1,526,645 |
| A-2-2-66   | Dredger                    | hourly | 636,080     | 0     | 464,469 | 1,100,550 |
| A-2-2-67   | Concrete Cutter            | daily  | 33,629      | 0     | 13,589  | 47,218    |

Table 8.4.1 (1/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item                                | Unit | PF/C    | IF/C      | L/C       | Total     | Application   |
|---------|--|------|---------|-----------|-----------|-----------|---|
| CW-1-1  | Backfill (Soil) A                                | m3   | 6,076   | 87        | 5,043     | 11,206    | Width is equal or more than 4m                                |
| CW-1-2  | Backfill (Soil) B                                | m3   | 7,022   | 103       | 6,326     | 13,451    | Width is equal or more than 0-4m                              |
| CW-1-3  | Backfill (Soil) C                                | m3   | 6,392   | 98        | 6,338     | 12,828    | Width is less than 4m   |
| CW-1-4  | Backfill (Soil) D                                | m3   | 6,038   | 132       | 7,114     | 13,284    | Width is less than 1m   |
| CW-1-5  | Spreading A                                      | m3   | 2,941   | 35        | 2,823     | 5,799     | Bulldozer 21t   |
| CW-1-6  | Manpower Excavation                              | m3   | 0       | 0         | 15,800    | 15,800    | Soil:Clay, Sand, Gravel                                       |
| CW-1-7  | Manpower Embankment/Backfill & Tamper            | m3   | 1,760   | 60        | 9,620     | 11,440    | Soil:Clay, Sand, Gravel                                       |
| CW-1-8  | Tamper Loading                                   | m3   | 1,760   | 60        | 2,600     | 4,420     | 60-100kg  |
| CW-1-9  | Slope Clearing for Embankment 1                  | m2   | 2,674   | 35        | 2,902     | 5,611     | Bulldozer 15t (S=1:2-3)                                       |
| CW-1-10 | Slope Clearing for Embankment 2                  | m2   | 3,265   | 54        | 2,660     | 5,979     | Backhoe 0.6m3 by Cutting, Soil:Sand and Clay                  |
| CW-1-11 | Slope Clearing for Embankment 3                  | m2   | 4,018   | 66        | 3,325     | 7,409     | Backhoe 0.6m3 by Additional Soil (Sand)                       |
| CW-1-12 | Slope Clearing of Excavation by Machine          | m2   | 4,018   | 66        | 3,760     | 7,844     | Backhoe 0.6m3 by Cutting (Sand)                               |
| CW-1-13 | Slope Clearing of Excavation by Manpower         | m2   | 0       | 0         | 2,202     | 2,202     | Soil: Sand  |
| CW-1-14 | Sodding  | m2   | 0       | 0         | 5,761     | 5,761     | 0   |
| CW-1-15 | Gravel Bedding                                   | m3   | 0       | 1,360     | 31,260    | 32,620    | Under Flat and Thin Concrete Structure                        |
| CW-1-16 | Backfilling Gravel A                             | m3   | 0       | 4,060     | 83,560    | 87,620    | Behind Revetment  |
| CW-1-17 | Backfilling Gravel B                             | m3   | 0       | 3,980     | 84,740    | 88,720    | Behind Concrete Wall  |
| CW-1-18 | Backfilling Concrete                             | m3   | 0       | 47,100    | 203,180   | 250,280   | Behind or Between Concrete Walls                              |
| CW-1-19 | Foundation River Gravel (Rubble Stone)           | m3   | 0       | 2,790     | 62,080    | 64,870    | Under Concrete Structure and so on                            |
| CW-1-20 | Concrete Work for Reinforced Concrete C1 by Pump | m3   | 20,270  | 41,770    | 183,330   | 245,370   | by Boom, Standard Concreting Volume=75m3                      |
| CW-1-21 | Concrete Work for Small Structure : Type-D       | m3   | 120     | 42,570    | 193,500   | 236,190   | by Manpower   |
| CW-1-22 | Concrete Work for Levelling Concrete             | m3   | 120     | 37,130    | 158,740   | 195,990   | by Manpower   |
| CW-1-23 | Form Work A                                      | m2   | 60      | 0         | 44,798    | 44,858    | Reinforced Concrete less than 4m high                         |
| CW-1-24 | Form Work B                                      | m2   | 10,030  | 75        | 52,910    | 63,015    | Reinforced Concrete more than 4m high                         |
| CW-1-25 | Form Work C                                      | m2   | 59      | 0         | 43,844    | 43,903    | Plain Concrete less than 4m high                              |
| CW-1-26 | Form Work D                                      | m2   | 0       | 0         | 43,547    | 43,547    | Small Concrete Structure                                      |
| CW-1-27 | Form Work E                                      | m2   | 0       | 0         | 46,438    | 46,438    | Small Concrete Structure II                                   |
| CW-1-28 | Form Work F                                      | m2   | 0       | 0         | 36,510    | 36,510    | Levelling Concrete  |
| CW-1-29 | Reinforcing Bar Setup 1                          | t    | 0       | 3,120,900 | 3,325,100 | 6,446,000 | SD295A, Construction scale : less than 10t, less than 5m high |
| CW-1-30 | Reinforcing Bar Setup by using Crane 1           | t    | 137,000 | 3,122,000 | 3,442,150 | 6,701,150 | SD295A, Construction Scale : less than 10t, more than 5m high |
| CW-1-31 | Reinforcing Bar Setup 2                          | t    | 0       | 2,808,810 | 2,992,590 | 5,801,400 | SD295A, Construction scale : more than 10t, less than 5m high |
| CW-1-32 | Reinforcing Bar Setup by using Crane 2           | t    | 123,300 | 2,809,800 | 3,097,935 | 6,031,035 | SD295A, Construction Scale : more than 10t, more than 5m high |
| CW-1-33 | Reinforcing Bar Setup A                          | t    | 0       | 3,120,900 | 3,342,700 | 6,463,600 | SD295A (D10-D13), less than 5m high                           |
| CW-1-34 | Reinforcing Bar Setup B                          | t    | 137,000 | 3,122,000 | 3,459,800 | 6,718,800 | SD295A(D10-D13), higher than 5m high                          |
| CW-1-35 | Reinforcing Bar Setup C                          | t    | 0       | 3,120,900 | 3,307,500 | 6,428,400 | SD295A (D16-D25), less than 5m high                           |

Table 8.4.1 (2/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item                                 | Unit | PF/C    | IF/C      | L/C       | Total     | Application   |
|---------|---|------|---------|-----------|-----------|-----------|---|
| CW-1-36 | Reinforcing Bar Setup D                           | t    | 137,000 | 3,122,000 | 3,424,500 | 6,683,500 | SD295A(D16-D25), higher than 5m high  |
| CW-1-37 | Prefabricated Scaffold for Re-Con I               | m2   | 6,600   | 0         | 8,678     | 15,278    | Less than 4m high (Lease)   |
| CW-1-38 | Prefabricated Scaffold for Re-Con II              | m2   | 14,739  | 62        | 15,629    | 30,430    | equal or higher than 4m high (Lease)  |
| CW-1-39 | Tubular Scaffold for Re-Con I                     | m2   | 224,200 | 0         | 26,570    | 250,770   | Less than 4m high   |
| CW-1-40 | Tubular Scaffold for Re-Con II                    | m2   | 232,340 | 70        | 32,690    | 265,100   | Higher than 4m high   |
| CW-1-41 | Tubular Scaffold for Re-Con III                   | m2   | 16,830  | 0         | 17,490    | 34,320    | Less than 4m high (Scaffold : Lease)  |
| CW-1-42 | Tubular Scaffold for Re-Con IV                    | m2   | 24,970  | 70        | 23,610    | 48,650    | Higher than 4m high (Scaffold : Lease)                                      |
| CW-1-43 | Pipe Support                                      | m3   | 5,940   | 0         | 28,640    | 34,580    | Height is 0-4m  |
| CW-1-44 | Frame Support                                     | m3   | 11,370  | 50        | 22,310    | 33,730    | Height is 4-10m <2t/m2  |
| CW-1-45 | Curing Work                                       | m3   | 110     | 0         | 350       | 460       | Reinforced Concrete   |
| CW-1-46 | Excavation A                                      | m3   | 2,361   | 39        | 1,711     | 4,111     | Original Soil (Condition:good)  |
| CW-1-47 | Excavation B                                      | m3   | 2,951   | 48        | 2,138     | 5,137     | Original Soil (Condition:common)  |
| CW-1-48 | Excavation C                                      | m3   | 3,943   | 65        | 2,857     | 6,865     | Original Soil (Condition:bad(less than water                                |
| CW-1-49 | Excavation D                                      | m3   | 2,361   | 39        | 1,711     | 4,111     | Loosed Soil (Condition:good)  |
| CW-1-50 | Excavation E                                      | m3   | 2,725   | 45        | 1,974     | 4,744     | Loosed Soil (Condition:common)  |
| CW-1-51 | Excavation F                                      | m3   | 3,541   | 58        | 2,566     | 6,165     | Loosed Soil (Condition:bad(less than water level))                          |
| CW-1-52 | Excavation G                                      | m3   | 2,725   | 45        | 1,974     | 4,744     | Loosed Soil (Condition:good, Material:Rock or Cobble)                       |
| CW-1-53 | Excavation H                                      | m3   | 3,541   | 58        | 2,566     | 6,165     | Loosed Soil (Condition:common, Material:Rock or Cobble)                     |
| CW-1-54 | Excavation I                                      | m3   | 5,072   | 83        | 3,675     | 8,830     | Loosed Soil (Condition:bad(less than water level), Material:Rock or Cobble) |
| CW-1-55 | Spreading and Compaction-A                        | m3   | 1,900   | 23        | 1,939     | 3,862     | Tire Roller 8-20t   |
| CW-1-56 | Spreading and Compaction for Gravel Pavement      | m3   | 5,117   | 43        | 16,431    | 21,592    | Width is less than 4m   |
| CW-1-57 | Reinforced Concrete Work Type D by Pump           | m3   | 20,270  | 40,730    | 179,170   | 240,170   | by Boom, Standard Concreting Volume=75m3                                    |
| CW-1-58 | Spreading and Compaction for Earth Filling        | m3   | 2,834   | 36        | 2,633     | 5,503     | Tire Roller 8-20t   |
| CW-1-59 | Spreading and Compaction-D                        | m3   | 1,509   | 19        | 1,473     | 3,001     | Tire Roller 8-20t   |
| CW-1-60 | Concrete Work for Type-C by Shoot Hopper          | m3   | 120     | 43,660    | 197,860   | 241,640   | by Manpower   |
| CW-1-61 | Concrete Work for Type-C3 by Shoot Hopper         | m3   | 120     | 43,660    | 197,860   | 241,640   | by Manpower   |
| CW-1-62 | Reinforced Concrete Work Type B by Pump           | m3   | 20,270  | 43,850    | 191,650   | 255,770   | by Boom, Standard Concreting Volume=75m3                                    |
| CW-1-63 | Light Concrete (Concrete.1:3:5)                   | m3   | 0       | 26,756    | 408,184   | 434,940   |   |
| CW-1-64 | Excavation by Backhoe 0.35m3                      | m3   | 2,688   | 45        | 1,954     | 4,687     | Loosed Soil (Condition:common)  |
| CW-1-65 | Spreading by Swamp Bulldozer                      | m3   | 4,284   | 54        | 4,047     | 8,386     | Swamp Bulldozer 16t (Loosed and Bad   |
| CW-2-1  | Temporary Fence of Corrugated Iron Sheet, 2m high | m    | 0       | 3,400     | 70,500    | 73,900    | SK SNI T-01-1991-03   |
| CW-2-2  | Making of Wood Temporary Fence                    | m2   | 0       | 20,300    | 377,300   | 397,600   | SK SNI T-01-1991  |
| CW-2-3  | Clearing Area                                     | m2   | 0       | 0         | 6,900     | 6,900     |   |
| CW-2-4  | Bowplank Installation                             | m    | 0       | 100       | 12,000    | 12,100    |   |
| CW-2-5  | Cutting Common Earth, 1m depth                    | m3   | 0       | 0         | 16,000    | 16,000    |   |
| CW-2-6  | Cutting Solid Earth, 1m depth                     | m3   | 0       | 0         | 25,000    | 25,000    |   |
| CW-2-7  | Cutting Muddy Earth, 1m depth                     | m3   | 0       | 0         | 7,400     | 7,400     |   |

Table 8.4.1 (3/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item   | Unit  | PF/C | IF/C    | L/C       | Total     | Application         |
|---------|---|-------|------|---------|-----------|-----------|---------------------|
| CW-2-8  | Removing Earth for 150m distance  | m3    | 0    | 0       | 4,300     | 4,300     |                     |
| CW-2-9  | Backfilling Earth   | m3    | 0    | 0       | 7,700     | 7,700     |                     |
| CW-2-10 | Flating and Compaction Earth  | m3    | 0    | 0       | 20,000    | 20,000    |                     |
| CW-2-11 | Filling Solid Earth for Road Body/berm  | m3    | 0    | 800     | 15,300    | 16,100    |                     |
| CW-2-12 | Filling Sand  | m3    | 0    | 1,800   | 86,700    | 88,500    |                     |
| CW-2-13 | Masonry/Riprap Protection, 20cm thickness                                     | m3    | 0    | 2,900   | 96,000    | 98,900    |                     |
| CW-2-14 | Masonry of Crushed Stone/Riverstone with Cement : 2 sand                      | m3    | 0    | 28,800  | 188,500   | 217,300   | SK SNI T-02-1991    |
| CW-2-15 | Masonry of Crushed Stone, Cement : 3sand                                      | m3    | 0    | 22,400  | 207,600   | 230,000   |                     |
| CW-2-16 | Masonry of Crushed Stone, Cement : 5sand                                      | m3    | 0    | 14,100  | 178,300   | 192,400   |                     |
| CW-2-17 | Masonry of Crushed Stone, Cement : 3lime : 10sand                             | m3    | 0    | 9,800   | 166,600   | 176,400   |                     |
| CW-2-18 | Masonry of Brick Stone/Brickwork, Cement : 2sand, 1Brick thickness            | m2    | 0    | 8,800   | 152,000   | 160,800   | SK SNI T-03-1991    |
| CW-2-19 | Masonry of Brick Stone/Brickwork, Cement : 4sand, 1Brick thickness            | m2    | 0    | 4,300   | 105,500   | 109,800   |                     |
| CW-2-20 | Masonry of Brick Stone/Brickwork, Cement : 3lime : 10sand, 1Brick             | m2    | 0    | 700     | 92,400    | 93,100    |                     |
| CW-2-21 | Masonry of Brick Stone/Brickwork, Cement : 2sand, 1/2Brick thickness          | m2    | 0    | 3,400   | 57,200    | 60,600    |                     |
| CW-2-22 | Masonry of Brick Stone/Brickwork, Cement : 4sand, 1/2Brick thickness          | m2    | 0    | 2,200   | 52,600    | 54,800    |                     |
| CW-2-23 | Masonry of Brick Stone/Brickwork, Cement : 3lime : 10sand, 1/2brick thickness | m2    | 0    | 1,300   | 50,700    | 52,000    |                     |
| CW-2-24 | Wall Masonry of Concrete Block, Cement : 5sand                                | m2    | 0    | 5,800   | 39,600    | 45,400    |                     |
| CW-2-25 | Tile Floor Work of 20cm x 20cm, 1lime : 3sand                                 | m2    | 0    | 1,400   | 25,900    | 27,300    |                     |
| CW-2-26 | Tile Floor Work of 20cm x 20cm, Cement : 1/2lime : 5sand                      | m2    | 0    | 2,200   | 29,000    | 31,200    |                     |
| CW-2-27 | Plint Tile Work, 15cm x 20cm or 10cm x 20cm Cement : 2sand                    | m     | 0    | 7,300   | 73,600    | 80,900    |                     |
| CW-2-28 | PVC pipe Installation with Dia.0.75", 1m length                               | piece | 0    | 0       | 36,700    | 36,700    |                     |
| CW-2-29 | PVC pipe Installation with Dia.1", 1m length                                  | piece | 0    | 0       | 54,000    | 54,000    |                     |
| CW-2-30 | Cutting Earth for Installation of PVC, ACP and GIP                            | m2    | 0    | 0       | 0         | 0         |                     |
| CW-2-31 | Filling Sand for Installation of PVC, ACP and GIP                             | m2    | 0    | 0       | 0         | 0         |                     |
| CW-2-32 | Concrete Work with Cement : 3/2sand : 5/2lime                                 | m3    | 0    | 47,500  | 507,000   | 554,500   |                     |
| CW-2-33 | Concrete Work with Cement : 2sand : 4gravel                                   | m3    | 0    | 36,000  | 466,600   | 502,600   |                     |
| CW-2-34 | Concrete Work with Cement : 2sand : 3gravel                                   | m3    | 0    | 37,300  | 467,700   | 505,000   |                     |
| CW-2-35 | Concrete Work with Cement : 3sand : 6gravel                                   | m3    | 0    | 26,700  | 408,800   | 435,500   |                     |
| CW-2-36 | Reinforcing-Bar Work  | kg    | 0    | 3,343   | 10,815    | 14,158    |                     |
| CW-2-37 | Steel-ct with Dia.4-15"   | m2    | 0    | 800     | 1,700     | 2,500     |                     |
| CW-2-38 | Form Work for 1m3 of Concrete   | m3    | 0    | 9,600   | 821,800   | 831,400   |                     |
| CW-2-39 | Form Work for Drainage Channel  | m2    | 0    | 300     | 143,800   | 144,100   |                     |
| CW-2-40 | Breaking-up the Concrete Form   | m2    | 0    | 0       | 3,700     | 3,700     |                     |
| CW-2-41 | Reinforced Concrete with Cement : 3/2sand : 5/2gravel/aggregate               | m3    | 0    | 424,900 | 2,518,500 | 2,943,400 |                     |
| CW-2-42 | Reinforced Concrete with Cement : 2sand : 4gravel/aggregate                   | m3    | 0    | 463,500 | 2,640,300 | 3,103,800 |                     |
| CW-2-43 | Reinforced Concrete with Cement : 2sand : 3gravel/aggregate                   | m3    | 0    | 414,700 | 2,479,200 | 2,893,900 |                     |
| CW-2-44 | Plastering 15mm thickness with Cement : 2sand                                 | m2    | 0    | 1,200   | 10,000    | 11,200    | SK-SNI T-03-1991-03 |
| CW-2-45 | Plastering 15mm thickness with Cement : 3sand                                 | m2    | 0    | 900     | 9,100     | 10,000    | SK-SNI T-03-1991-03 |
| CW-2-46 | Plastering 15mm thickness with Cement : 4sand                                 | m2    | 0    | 800     | 8,600     | 9,400     | SK-SNI T-03-1991-03 |

Table 8.4.1 (4/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item   | Unit | PF/C   | IF/C    | L/C        | Total      | Application         |
|---------|---|------|--------|---------|------------|------------|---------------------|
| CW-2-47 | Plastering 15mm thickness with Cement : 6sand                 | m2   | 0      | 600     | 7,900      | 8,500      | SK-SNI T-03-1991-03 |
| CW-2-48 | Plastering 15mm thickness with Cement : 3lime : 10sand        | m2   | 0      | 400     | 7,200      | 7,600      | SK-SNI T-03-1991-03 |
| CW-2-49 | Plastering 20mm thickness with Cement : 2sand                 | m2   | 0      | 1,900   | 13,900     | 15,800     | SK-SNI T-03-1991-03 |
| CW-2-50 | Plastering 20mm thickness with Cement : 3sand                 | m2   | 0      | 1,500   | 12,300     | 13,800     | SK-SNI T-03-1991-03 |
| CW-2-51 | Plastering 28mm thickness with Cement : 4sand per             | m2   | 0      | 1,200   | 11,300     | 12,500     | SK-SNI T-03-1991-03 |
| CW-2-52 | Plastering 28mm thickness with Cement : 6sand                 | m2   | 0      | 900     | 10,100     | 11,000     | SK-SNI T-03-1991-03 |
| CW-2-53 | Seam Work at Brick Masonry with Cement : 3sand per 1m         | m2   | 0      | 600     | 21,400     | 22,000     | SK-SNI T-03-1991-03 |
| CW-2-54 | Roof Truss/Trestle with Max Span of 8m                        | m3   | 78,400 | 7,200   | 9,348,600  | 9,434,200  | SK-SNI T-11-1993-03 |
| CW-2-55 | Roof Truss/Trestle with Max Span of 6m                        | m3   | 78,400 | 7,200   | 3,188,600  | 3,274,200  | SK-SNI T-11-1993-03 |
| CW-2-56 | Roof Truss/Trestle with Max Span of 6-9m                      | m3   | 78,400 | 7,200   | 9,653,800  | 9,739,400  | SK-SNI T-11-1993-03 |
| CW-2-57 | Roof Truss/Trestle with Max Span of 6-9m                      | m3   | 78,400 | 7,200   | 3,259,900  | 3,345,500  | SK-SNI T-11-1993-03 |
| CW-2-58 | Teak Wood Purlin Installation                                 | m3   | 0      | 5,300   | 8,666,500  | 8,671,800  | SK-SNI T-11-1993-03 |
| CW-2-59 | Kamper Wood Purlin Installation                               | m3   | 0      | 5,300   | 2,435,400  | 2,440,700  | SK-SNI T-11-1993-03 |
| CW-2-60 | Roof Truss for Iron Roof                                      | m2   | 0      | 300     | 93,200     | 93,500     |                     |
| CW-2-61 | Roof Frame 5/7 & Roof-lath 2/8                                | m2   | 0      | 400     | 37,600     | 38,000     | SK-SNI T-11-1993-03 |
| CW-2-62 | Roof Frame 5/7 & Roof-lath 3/4                                | m2   | 0      | 600     | 55,300     | 55,900     | SK-SNI T-11-1993-03 |
| CW-2-63 | Roof Frame 5/7 & Roof-lath 3/4, Concrete Tile Roof            | m2   | 0      | 400     | 41,400     | 41,800     | SK-SNI T-11-1993-03 |
| CW-2-64 | Ridge and Hip Covering with Cement : 1sand : 5lime            | m    | 0      | 2,200   | 37,900     | 40,100     |                     |
| CW-2-65 | Door/Window Work of Teak Wood                                 | m3   | 0      | 124,800 | 10,280,800 | 10,405,600 | SK-SNI T-11-1993-03 |
| CW-2-66 | Door/Window Work of Camphol Wood                              | m3   | 0      | 124,800 | 2,651,500  | 2,776,300  | SK-SNI T-11-1993-03 |
| CW-2-67 | Door/Window Work (Covered by Three Plywood and Aluminium)     | m2   | 0      | 300     | 3,237,100  | 3,237,400  | SK-SNI T-11-1993-03 |
| CW-2-68 | Venitian Blind Door/Window Work of Teak Wood                  | m2   | 0      | 500     | 546,200    | 546,700    | SK-SNI T-11-1993-03 |
| CW-2-69 | Venitian Blind Door/Window Work of Teak Wood                  | m2   | 0      | 500     | 253,000    | 253,500    | SK-SNI T-11-1993-03 |
| CW-2-70 | Door/Window Work of Plywood with Teak Wood as the Frame       | m2   | 0      | 4,200   | 444,600    | 448,800    | SK-SNI T-11-1993-03 |
| CW-2-71 | Door/Window Work of Plywood with Camphol Wood as the Frame    | m2   | 0      | 4,200   | 198,200    | 202,400    | SK-SNI T-11-1993-03 |
| CW-2-72 | Glass Door/Window Work of Plywood with Teak Wood as the Frame | m2   | 0      | 6,700   | 2,424,200  | 2,430,900  | SK-SNI T-11-1993-03 |
| CW-2-73 | Clamp Door/Window Work, with Camphol Wood Framework           | m2   | 0      | 300     | 130,800    | 131,100    | SK-SNI T-11-1993-03 |
| CW-2-74 | Panel Door/Window Work, with Teak Wood Framework              | m2   | 0      | 300     | 455,700    | 456,000    |                     |
| CW-2-75 | Panel Door/Window Work, with Camphol Wood Framework           | m2   | 0      | 300     | 209,200    | 209,500    |                     |
| CW-2-76 | Ceiling Frame, Grid of 50cm x 100cm, with Camphol wood        | m2   | 0      | 500     | 80,800     | 81,300     |                     |
| CW-2-77 | Ceiling Frame, Grid of 30cm x 60cm, with Camphol wood         | m2   | 0      | 600     | 101,500    | 102,100    |                     |
| CW-2-78 | Ceiling Frame, Grid of 30cm x 30cm, with Camphol wood per     | m2   | 0      | 700     | 116,900    | 117,600    |                     |
| CW-2-79 | Plank Wood Work of 3cm x 20cm, with Teak wood                 | m    | 0      | 200     | 65,600     | 65,800     |                     |
| CW-2-80 | Plank Wood Work of 3cm x 30cm, with Teak wood                 | m    | 0      | 200     | 93,500     | 93,700     |                     |
| CW-2-81 | Partition Wall Work of Teak wood, with Frame of Camphol Wood  | m2   | 0      | 4,400   | 103,300    | 107,700    |                     |
| CW-2-82 | Installation of Metal Sheet Ridge Gutter                      | m    | 0      | 72,100  | 433,500    | 505,600    |                     |
| CW-2-83 | Installation of Bag Gutter                                    | m    | 0      | 113,200 | 598,000    | 711,200    |                     |
| CW-2-84 | Corrugated Iron Roof BJLS 0.30                                | m2   | 0      | 22,200  | 25,200     | 47,400     |                     |
| CW-2-85 | Eaves Gutter Installation                                     | m2   | 0      | 61,800  | 365,200    | 427,000    |                     |
| CW-2-86 | Installation of Drainage Gutter                               | m2   | 0      | 5,150   | 27,590     | 32,740     |                     |

Table 8.4.1 (5/9) UNIT RATES OF WORKING COST

| ID No.   | Base Working Item  | Unit  | PF/C    | IF/C    | L/C       | Total     | Application               |
|----------|--|-------|---------|---------|-----------|-----------|---------------------------|
| CW-2-87  | Puttying, Foundation Paint   | m2    | 0       | 1,190   | 8,010     | 9,200     | (1 1/2 k2 + k30 + k28/m2) |
| CW-2-88  | Two Times Shiny Painting   | m2    | 0       | 1,740   | 9,060     | 10,800    |                           |
| CW-2-89  | Polishing and 2times Shiny Painting  | m2    | 0       | 3,800   | 21,600    | 25,400    | (k28+k30/m2)              |
| CW-2-90  | Simple Polishing Work per 1m2  | m2    | 0       | 200     | 20,800    | 21,000    |                           |
| CW-2-91  | Good Polishing Work 2xk15  | m2    | 0       | 400     | 41,600    | 42,000    |                           |
| CW-2-92  | Wall Painting Work   | m2    | 0       | 1,200   | 18,800    | 20,000    |                           |
| CW-2-93  | Wall Painting Work per 10m2  | m2    | 0       | 1,430   | 17,930    | 19,360    |                           |
| CW-2-94  | Wood Painting Work   | m2    | 0       | 4,100   | 30,520    | 34,620    |                           |
| CW-2-95  | Cost of Rolling  | m2    | 1,498   | 16      | 2,614     | 4,128     |                           |
| CW-2-96  | Road Foundation (Base Layer) 15cm thickness                                | m2    | 1,500   | 600     | 26,600    | 28,700    |                           |
| CW-2-97  | Subcourse Layer (Support Layer) 8cm thickness                              | m2    | 2,996   | 506     | 17,044    | 20,546    |                           |
| CW-2-98  | Rolling Cost for Month   | month | 0       | 130,800 | 9,184,000 | 9,314,800 |                           |
| CW-2-99  | Asphalt Covering with Hot Asphalt  | m3    | 6,000   | 6,900   | 586,900   | 599,800   |                           |
| CW-2-100 | Sand Beneath Rond Base Layer   | m3    | 0       | 1,700   | 44,500    | 46,200    |                           |
| CW-2-101 | Crushed Stone Layer, Size of 5/7   | m2    | 1,500   | 200     | 19,800    | 21,500    |                           |
| CW-2-102 | Foundation Layer   | m2    | 15      | 102     | 4,161     | 4,278     |                           |
| CW-2-103 | Surface Layer with 6mm thickness   | m2    | 1,500   | 2,900   | 20,500    | 24,900    |                           |
| CW-2-104 | Asphalt Work   | m2    | 0       | 362     | 4,662     | 5,024     |                           |
| CW-2-105 | Reinforced Concrete with 1:2:3 Dukker Slab Type A/B (with Re-bar-110kg/m3) | m3    | 0       | 85,500  | 805,600   | 891,100   |                           |
| CW-2-106 | Masonry of Kanstin Casted Concrete   | m3    | 0       | 31,100  | 450,800   | 481,900   |                           |
| CW-2-107 | Masonry of Kanstin Concrete Pavement Border with ratio of 1:2:3            | m     | 0       | 0       | 35,900    | 35,900    |                           |
| CW-2-108 | Masonry of Kanstin Brick with ratio of 1:2                                 | m     | 0       | 1,000   | 104,100   | 105,100   |                           |
| CW-2-109 | Masonry of Kanstin Brick with ratio of 1:4                                 | m     | 0       | 500     | 40,500    | 41,000    |                           |
| CW-2-110 | Masonry of U-shapes Casted Concrete U-20                                   | m     | 0       | 1,600   | 34,700    | 36,300    |                           |
| CW-2-111 | Masonry of U-shapes Casted Concrete U-30                                   | m     | 0       | 2,400   | 36,500    | 38,900    |                           |
| CW-2-112 | Masonry of Paving Block  | m2    | 0       | 5,700   | 44,800    | 50,500    |                           |
| CW-3-1   | Pile Work of Maintenance Bridge of Simongan Bridge-A                       | m     | 255,813 | 553     | 96,043    | 352,408   | Length is 4m tall         |
| CW-3-2   | Pile Work of Maintenance Bridge of Simongan Bridge-B                       | m     | 246,376 | 488     | 86,168    | 333,032   | Length is 5m tall         |
| CW-3-3   | Pile Work of Simongan Weir-A   | m     | 254,677 | 257     | 56,438    | 311,372   | Length is 13m tall        |
| CW-3-4   | Pile Work of Simongan Weir-B   | m     | 186,831 | 225     | 47,461    | 234,516   | Length is 13m tall        |
| CW-3-5   | Pile Work of Railway/Bridge-A (Abut Semarang Side)                         | m     | 46,236  | 301     | 48,809    | 95,346    | Length is 17m tall        |
| CW-3-6   | Pile Work of Railway/Bridge-B (Center Pier Semarang Side)                  | m     | 34,485  | 228     | 36,082    | 70,795    | Length is 13m tall        |
| CW-3-7   | Pile Work of Railway/Bridge-C (Center Pier Cirebon Side)                   | m     | 51,877  | 337     | 54,766    | 106,980   | Length is 14m tall        |
| CW-3-8   | Pile Work of Railway/Bridge-D (Abut Cirebon Side)                          | m     | 46,114  | 300     | 48,683    | 95,097    | Length is 17m tall        |
| CW-3-9   | Driving In of Steel Sheet Pile (Type-II)                                   | m     | 9,909   | 76      | 8,579     | 18,564    | L=10m long                |
| CW-3-10  | Pulling Out of Steel Sheet Pile (Type-II)                                  | m     | 9,754   | 67      | 8,548     | 18,369    | L=10m long                |
| CW-3-11  | Driving In of Concrete Sheet Pile (t=22)                                   | m     | 15,343  | 136     | 12,963    | 28,442    | L=10m long                |
| CW-3-12  | Driving In of Log Pile   | piece | 24,436  | 362     | 18,530    | 43,328    | L=2m long                 |
| CW-3-13  | Pile Work of Concrete Pile for Groyn                                       | m     | 35,839  | 251     | 37,593    | 73,683    | Length is 7m long         |

Table 8.4.1 (6/9) UNIT RATES OF WORKING COST

| ID No.    | Base Working Item   | Unit  | PF/C       | IF/C    | L/C        | Total      | Application   |
|-----------|---|-------|------------|---------|------------|------------|---|
| CW-3-14   | Pile Work of Simongan Weir-C  | m     | 177,272    | 221     | 42,464     | 219,957    | Length is 13m tall  |
| CW-3-15   | Pile Work of Simongan Weir-D  | m     | 146,827    | 210     | 39,215     | 186,252    | Length is 13m tall  |
| CW-3-16   | Wale Work-A   | kg    | 30,770     | 1,550   | 27,006     | 59,326     | Using C-Channel Steel   |
| CW-3-17   | Wale Work-B (Temporary)   | ton   | 558,950    | 3,200   | 581,050    | 1,143,200  | Using C-Channel Steel   |
| CW-3-18   | Installation of Tie Rod-A   | kg    | 68,880     | 96      | 25,764     | 94,740     | for Concrete Sheet Pile   |
| CW-3-19   | Installation of Tie Rod-B (Temporary)                                   | kg    | 142,600    | 960     | 228,960    | 372,520    | for Temporary Structure   |
| CW-3-20   | Pulling Out of Concrete Sheet Pile (t=22)                               | m     | 85,119     | 751     | 71,916     | 157,786    | L=10m long  |
| CW-3-21   | Driving In of H-Beam  | piece | 59,840     | 834     | 47,754     | 108,427    | Driving 6m long   |
| CW-3-22   | Pulling out of H-Beam   | piece | 51,919     | 723     | 41,432     | 94,074     | Driving 6m long   |
| CW-3-23   | Driving In of Log Pile L=3.0m   | piece | 29,501     | 437     | 22,371     | 52,309     | L=3m long   |
| CW-3-24   | Driving In of Log Pile L=4.0m   | piece | 33,999     | 504     | 25,782     | 60,285     | L=4m long   |
| CW-3-25   | Driving In of Log Pile L=5.0m   | piece | 38,497     | 571     | 30,088     | 69,156     | L=5m long   |
| CW-3-26   | Pile Work of Asin & Baru No.1   | m     | 229,222    | 298     | 63,215     | 292,735    | Length is 16m tall  |
| CW-3-27   | Pile Work of Asin & Baru No.2   | m     | 218,427    | 235     | 51,903     | 270,565    | Length is 26m tall  |
| CW-4-1    | Temporary Bridge  | m2    | 917,232    | 19,318  | 861,666    | 1,798,215  | Width is 3m. Number of Working Day is 180 days including Installation and Removal |
| CW-4-1-1  | Temporary Bridge  | ton   | 8,878,764  | 186,999 | 8,340,887  | 17,406,649 | Width is 3m. Number of Working Day is 180 days including Installation and Removal |
| CW-4-2    | Temporary Sign for Railway Work   | unit  | 0          | 119,900 | 266,300    | 386,200    |   |
| CW-4-3    | Install and Demolish Temporary Coffter for Rail Work                    | m3    | 0          | 16,913  | 327,531    | 344,443    |   |
| CW-4-4    | Site Clearing for Railway   | m2    | 0          | 0       | 4,935      | 4,935      |   |
| CW-4-5    | Removal/Demolish/Carriage of Tool                                       | ton   | 97,117     | 1,449   | 249,735    | 348,301    | 10km Distance   |
| CW-4-6    | Replacing Ballast with Sleeper Matress executed between Train Operation | m3    | 0          | 0       | 107,510    | 107,510    |   |
| CW-4-7    | Sand Bags   | nos   | 89         | 759     | 4,200      | 5,047      |   |
| CW-4-8    | Temporary Steel Sheet Pile (Type-C)                                     | nos   | 1,420,686  | 86      | 949,535    | 2,370,307  | L=9.0 long and 6.0m of Driving and Pulling Out (Type-II)                          |
| CW-4-9    | Installation of Tierod and Wale (Temporary)                             | ton   | 520,420    | 3,640   | 543,270    | 1,067,330  | Excluding Material  |
| CW-4-10   | Removal of Tierod and Wale (Temporary)                                  | ton   | 295,700    | 2,230   | 301,270    | 599,200    | Excluding Material  |
| CW-4-11   | Temporary Double Steel Sheet Pile                                       | m     | 11,624,101 | 15,806  | 8,175,660  | 19,815,566 | L=9.0 and 15.0m long and 4.7 and 10.7m of Driving and Pulling Out (Type-II)       |
| CW-4-12   | Temporary Dewatering by D100mm  | m     | 291,464    | 12,974  | 212,461    | 516,899    | Width is 3m. Number of Working Day is 180 days including Installation and Removal |
| CW-4-12-1 | Temporary Dewatering per 1 place (60days non-stop driving) D=100mm      | place | 14,573,175 | 648,720 | 10,623,031 | 25,196,905 |   |
| CW-4-13   | Angsana Species   | tree  | 0          | 150     | 93,560     | 93,710     | Total height from the root is 220cm   |
| CW-4-14   | Glodogan Species  | tree  | 0          | 150     | 128,560    | 128,710    | Total height from the root is 170cm   |
| CW-4-15   | Flamboyant Species  | tree  | 0          | 150     | 228,560    | 228,710    | Total height from the root is 220cm   |
| CW-4-16   | Relocating Trees  | tree  | 0          | 375     | 239,925    | 240,300    | Total height from the root is 220cm   |
| CW-4-17   | Temporary Double Steel Sheet Pile for Drainage Component                | m     | 936,106    | 10,719  | 818,076    | 1,764,901  | L=8m long and 3.3m of Driving and Pulling Out (Type-II)                           |

Table 8.4.1 (7/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item  | Unit   | PF/C       | IF/C    | L/C        | Total      | Application   |
|---------|--|--------|------------|---------|------------|------------|---|
| CW-4-18 | Temporary Steel Sheet Pile with Support for Drainage   | m      | 913,737    | 7,006   | 855,994    | 1,776,737  | L=7.5m long and 7.5 and 3.0m of Driving and Pulling Out (Type-II)       |
| CW-4-19 | Palm Botoi Planting  | tree   | 0          | 150     | 328,560    | 328,710    | Total height from the root is minimum 200cm                             |
| CW-4-20 | Bougainvillea Planting   | tree   | 0          | 150     | 103,560    | 103,710    | Total height from the root is minimum 100cm                             |
| CW-4-21 | Temporary Dewatering by D200mm   | day    | 353,884    | 15,124  | 251,251    | 620,260    | Assumption : Working Day is 180 days including Installation and Removal |
| CW-4-22 | Temporary Dewatering by D180mm   | day    | 339,696    | 15,124  | 244,084    | 598,904    | Assumption : Working Day is 180 days including Installation and Removal |
| CW-4-23 | Temporary Dewatering by D160mm   | day    | 319,831    | 15,124  | 234,051    | 569,006    | Assumption : Working Day is 180 days including Installation and Removal |
| CW-5-1  | Loading/Unloading/Carriage of Equipment and Material   | ton    | 0          | 0       | 70,000     | 70,000     |   |
| CW-5-2  | Replace Ballast with Sleeper Mattress (Ballast Excavation)   | m3     | 2,500      | 0       | 47,940     | 50,440     |   |
| CW-5-3  | Setting/Demolish Bulkhead Behind Temporary Bridge  | m3     | 3,543,172  | 14      | 6,925,463  | 10,468,649 |   |
| CW-5-4  | Setting/Demolish Temporary Abutment. Window Time Work  | pieces | 25,000     | 0       | 820,700    | 845,700    |   |
| CW-5-5  | Raising Track on The Bridge for 16 cm. Include 7.6 Setting Temporary Setting/Demolish Temporary Bridge. Window Time Work. Lateral Transfer | unit   | 0          | 0       | 125,000    | 125,000    |   |
| CW-5-6  | Erection   | ton    | 183,134    | 0       | 771,941    | 955,075    |   |
| CW-5-7  | Supplies and Setting Temporary Bridge  | ton    | 949,594    | 5,305   | 8,489,489  | 9,444,388  |   |
| CW-5-8  | Supplies of Bridge Wooden Sleeper Size 13 x 22 x 200 cm Setting and Demolish Sleeper Mattress as Temporary Abutment. Window Time Work      | pieces | 0          | 0       | 125,000    | 125,000    |   |
| CW-5-9  | Setting and Demolish Ballast Wall  | nos    | 0          | 0       | 961,750    | 961,750    |   |
| CW-5-10 | Setting/Demolish Temporary Bridge. Window Time Work. Direct Crane Erection. Include Demolish Existing Bridge                               | m3     | 2,214,583  | 347     | 4,065,625  | 6,280,556  |   |
| CW-5-11 | Demolish/Carry out Existing Bridges (32+33). Include Demolish Temporary Bridge   | ton    | 1,193,453  | 4,613   | 1,374,440  | 2,572,507  |   |
| CW-5-12 | Remove The Bearing Steel. Window Time Work   | ton    | 0          | 0       | 0          | 0          |   |
| CW-5-13 | Construct/Demolish Receiver Staging. Include Bridge Raising  | Nos    | 897,025    | 6,075   | 817,575    | 1,720,675  |   |
| CW-5-14 | Bridge Raising Implementation up to 44 cm Height. Window Time Work   | Step   | 956,000    | 0       | 1,836,000  | 2,792,000  |   |
| CW-5-15 | HB-500x300x16x28, 4 bars, Include Erection   | ton    | 4,398,347  | 4,613   | 3,123,373  | 7,526,333  |   |
| CW-5-16 | Clearing   | unit   | 0          | 0       | 1,404,000  | 1,404,000  |   |
| CW-5-17 | Demolish/The Wing of Bridge Abutment   | m3     | 1,171,050  | 8,100   | 924,350    | 2,103,500  |   |
| CW-5-18 | Supplies of Bridge Wooden Sleeper Size 18x22x200   | pieces | 0          | 0       | 187,500    | 187,500    |   |
| CW-5-19 | Instal/Removal of Cofferdam  | m2     | 3,398,294  | 241,877 | 1,650,991  | 5,291,161  |   |
| CW-5-20 | Pumping Work in The Stage for Structure Under Water Level, 220 days x 2 nos x 2  | L.S.   | 0          | 0       | 31,344,000 | 31,344,000 |   |
| CW-5-21 | Temporary Road for Pile Driving Equipment (for Pier Cirebon Side)  | L.S.   | 16,056,600 | 224,700 | 15,329,300 | 31,610,600 |   |
| CW-5-22 | H40mxW6mx2   | ton    | 0          | 0       | 56,000     | 56,000     |   |
| CW-5-23 | Load/Demolish/Carriage of Tool (L=256 km)  |        |            |         |            |            |   |



Table 8.4.1 (8/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item   | Unit   | P/F/C     | I/F/C   | L/C        | Total      | Application |
|---------|---|--------|-----------|---------|------------|------------|-------------|
| CW-5-24 | Construct/Demolish Platform at Pier to Preparing Cross Supporter and Raising Work   | Nos.   | 0         | 0       | 0          | 0          |             |
| CW-5-25 | Remove The Bearing Steel and Change it with Stapling. Window Time   | Nos    | 473,200   | 8,100   | 871,700    | 1,353,000  |             |
| CW-5-26 | Construction/Demolish Sleeper Mattress Above Pier/Abutment of Base Cross-Supporter Include Setting/Demolish Cross Girder. | m2     | 0         | 0       | 0          | 0          |             |
| CW-5-27 | Construct and Setting Cross Girder. Window Time Work  | ton    | 1,019,608 | 3,380   | 5,622,910  | 6,645,898  |             |
| CW-5-28 | Demolish Cross Girder   | ton    | 546,425   | 2,115   | 723,559    | 1,272,099  |             |
| CW-5-29 | Step by Step of Bridge Raising for 70 cm Height for 3 Span or Bridge. Window Time Work                                    | cm     | 4,113,007 | 565,947 | 2,573,940  | 7,252,893  |             |
| CW-5-30 | Window Time Work  | m2     | 2,470     | 94      | 2,567      | 5,131      |             |
| CW-5-31 | Removal of Pavement   | m2     | 14,817    | 562     | 15,405     | 30,784     |             |
| CW-5-32 | Piling/Demolish HB 400x300x12x15  | pieces | 4,682,225 | 328,938 | 4,811,750  | 9,822,913  |             |
| CW-5-33 | Setting/Demolish Steel Stiffening   | ton    | 7,286,364 | 413     | 8,689,256  | 15,976,033 |             |
| CW-5-34 | Setting/Demolish Cross Girder   | ton    | 3,396,405 | 16,968  | 3,128,028  | 6,541,400  |             |
| CW-5-35 | Construct/Setting/Demolish Temporary Bridge. Window Time Work.  | ton    | 2,331,840 | 12,889  | 2,768,406  | 5,113,136  |             |
| CW-5-36 | Setting/Demolish Soldier Pile   | pieces | 5,992,873 | 478,455 | 3,382,736  | 9,854,064  |             |
| CW-5-37 | Setting Retaining Wall from Wooden Plate with Size of 8x12x300 cm, Incl. Material.  | m3     | 0         | 0       | 2,084,400  | 2,084,400  |             |
| CW-5-38 | Setting/Demolish Temporary Abutment   | Nos    | 0         | 0       | 593,400    | 593,400    |             |
| CW-5-39 | Fill with Gravel of Base Stapling Incl. Material.   | m3     | 2,726     | 2,714   | 143,417    | 148,857    |             |
| CW-5-40 | Setting/Demolish Sleeper Mattress of Rail Bundles Supporter   | m      | 0         | 0       | 663,378    | 663,378    |             |
| CW-5-41 | Setting/Demolish Rail Bundles   | Line   | 1,113,425 | 25      | 1,410,600  | 2,524,050  |             |
| CW-5-42 | Install Sleeper Saddle Rail Bundles for False Work Base   | m2     | 0         | 0       | 159,117    | 159,117    |             |
| CW-5-43 | Setting/Demolish Construction with Roller. Window Time Work   | unit   | 20,350    | 13      | 9,510,013  | 9,530,375  |             |
| CW-5-44 | Setting Horizontal of Bridge. Window Time Work  | times  | 30,533    | 33      | 15,095,667 | 15,126,233 |             |
| CW-5-45 | HB. In Various Size   | ton    | 3,455,019 | 7,001   | 708,002    | 4,170,023  |             |
| CW-5-46 | Bridge Wooden Sleeper with Size of 18x22x200 cm for Temporary Bridge  | pieces | 0         | 0       | 90,000     | 90,000     |             |
| CW-5-47 | Rail Rental   | ton    | 966,320   | 0       | 0          | 966,320    |             |
| CW-5-48 | Raising the Bridge for 83 cm Height and Distapling  | Step   | 1,087,200 | 0       | 2,450,000  | 3,537,200  |             |
| CW-5-49 | Construct/Setting/Demolish Temporary Bridge. Window Time Work.  | ton    | 2,853,443 | 11,734  | 3,418,240  | 6,283,417  |             |
| CW-5-50 | Direct Crane Erection   | ton    | 0         | 0       | 404,905    | 404,905    |             |
| CW-5-51 | Setting/Demolish Temporary Cross Girder. Man Power  | ton    | 0         | 0       | 459,425    | 793,100    |             |
| CW-5-52 | Setting/Demolish Rail Bundles Include Material  | Line   | 333,650   | 25      | 5,584,722  | 5,585,417  |             |
| CW-5-53 | Setting/Demolish Bulkhead Behind The Temporary Abutment   | m3     | 347       | 347     | 0          | 0          |             |
| CW-5-54 | Setting/Demolish Receiver Staging of Existing Bridge. Include Demolish the Existing Bridge                                | Nos    | 0         | 0       | 0          | 0          |             |
| CW-5-55 | Demolish of Existing Bridge. Include Demolish Temporary Bridge  | Nos    | 0         | 0       | 0          | 0          |             |
| CW-5-56 | Material Supplies for Temporary Bridge  | ton    | 1,074,558 | 0       | 544,360    | 1,618,918  |             |

Table 8.4.1 (9/9) UNIT RATES OF WORKING COST

| ID No.  | Base Working Item   | Unit   | PF/C       | IF/C      | L/C        | Total      | Application                              |
|---------|---|--------|------------|-----------|------------|------------|--|
| CW-5-57 | Clearing of Site  | unit   | 0          | 0         | 2,106,000  | 2,106,000  |  |
| CW-5-58 | Coarse Sand   | m3     | 0          | 1,620     | 30,780     | 32,400     |  |
| CW-5-59 | Ballast   | m3     | 0          | 3,900     | 74,100     | 78,000     |  |
| CW-5-60 | Track Raising Every 5 cm until 70-100 cm for 5 km/h Speed             | m      | 400        | 80        | 27,820     | 28,300     |  |
| CW-5-61 | Track Tamping for 20 km/h   | m      | 630        | 126       | 12,504     | 13,260     |  |
| CW-5-62 | Track Tamping for > 60 km/h (By Tamping Machine). Use MTT             | m      | 0          | 0         | 15,750     | 15,750     |  |
| CW-5-63 | Guard of Restriction Speed (2x2x90)                                   | MD     | 0          | 0         | 23,333     | 23,333     |  |
| CW-5-64 | Demolition and Removal of Existing Substructure (Stone/Brick Masonry) | m3     | 32,595     | 842       | 38,073     | 71,509     |  |
| CW-5-65 | Demolition and Removal of Existing Substructure (Stone Masonry)       | L.S.   | 488,918    | 12,634    | 571,090    | 1,072,642  |  |
| CW-5-66 | Removal ballast   | m3     | 0          | 325       | 7,114      | 7,439      |  |
| CW-5-67 | Dewatering for BH5  | L.S.   | 7,170,725  | 197,527   | 7,168,487  | 14,536,739 |  |
| CW-5-68 | Demolition & Removal of Concrete Structure                            | m3     | 49,391     | 1,872     | 51,349     | 102,613    |  |
| CW-5-69 | Dewatering for BH 6   | L.S.   | 7,180,698  | 248,416   | 8,159,542  | 15,588,656 |  |
| CW-5-70 | Removal of steel bearing  | piece  | 0          | 0         | 81,900     | 81,900     |  |
| CW-5-71 | Dewatering for BH.10  | L.S.   | 24,562,294 | 2,220,013 | 53,921,127 | 80,703,434 |  |
| CW-5-72 | Temporary Construction Road for BH10                                  | L.S.   | 1,905,400  | 347,800   | 8,159,600  | 10,412,800 |  |
| CW-5-73 | Dewatering for BH.13  | L.S.   | 9,879,339  | 494,868   | 19,112,056 | 29,486,263 |  |
| CW-6-1  | Furnishing of Main Beam with Reinforcing Bar                          | Beam   | 6,101,929  | 5,128,787 | 25,816,683 | 37,047,399 | L = 21.8 m long                          |
| CW-6-2  | Temporary Work for Furnishing of Main Beam with Reinforcing Bar       | Beam   | 28,375,138 | 3,096     | 30,035,364 | 58,413,597 | L = 21.8 m long                          |
| CW-6-3  | Erection of Main Beam with Anchoring Work                             | Beam   | 3,286,228  | 596,217   | 4,530,225  | 8,412,670  | L = 21.8 m long                          |
| CW-6-4  | Furnishing of Diaphragm with Reinforcing Bar                          | Piece  | 1,986,742  | 392,608   | 1,836,043  | 4,215,392  |  |
| CW-6-5  | Depreciation of Equipment for Construction                            | piece  | 28,375,138 | 3,096     | 28,305,763 | 56,683,996 |  |
| CW-6-6  | Setup of PC Cable   | kg     | 6,250      | 65        | 21,799     | 28,114     |  |
| CW-6-7  | Grout Work  | m3     | 0          | 19,173    | 545,192    | 564,365    |  |
| CW-6-8  | Concrete Work for Beam  | m3     | 0          | 50,130    | 220,668    | 270,798    | Utilization of Derrick Crane             |
| CW-6-9  | Hole Work for PC Cable  | m      | 11,590     | 0         | 1,714      | 13,304     | Cross Direction                          |
| CW-6-10 | Stringing Work  | cable  | 652,536    | 108,756   | 390,496    | 1,151,788  | Type 195ton                              |
| CW-6-11 | Temporary Placing for Beam  | beam   | 0          | 0         | 282,500    | 282,500    |  |
| CW-6-12 | Clean-up of Board for Furnishing Beam                                 | beam   | 0          | 0         | 32,799     | 32,799     |  |
| CW-6-13 | Furnishing, Installing and Removing Board for Furnishing Beam         | m      | 0          | 0         | 33,161     | 33,161     |  |
| CW-6-14 | Installing and Removing Derrick Crane                                 | crane  | 0          | 0         | 443,810    | 443,810    | Type : 3ton                              |
| CW-6-15 | Installing and Removing Railing System for Derrick Crane              | m      | 0          | 0         | 9,848      | 9,848      |  |
| CW-6-16 | Erection of Beam  | ton    | 0          | 0         | 12,463     | 12,463     |  |
| CW-6-17 | Installation and Removal of Equipment for Erection                    | L.S.   | 1,534,301  | 8,640     | 6,433,439  | 7,976,379  |  |
| CW-6-18 | Cost of Equipment and Tools   | Bridge | 14,870,000 | 2,978,000 | 11,892,000 | 29,740,000 | Application : 20 ~ 30 m                  |
| CW-6-19 | Anchoring for Bridge Work   | place  | 67,545     | 0         | 447,245    | 514,790    |  |
| CW-6-20 | Concrete Work of Beam at A2 by Crane                                  | m3     | 120        | 50,980    | 223,080    | 274,180    |  |
| CW-6-21 | Concrete Work for Diaphragm at Type-A2 by Pump                        | m3     | 20,270     | 51,140    | 238,540    | 309,950    | by Boom, Standard Concreting Volume=75m3 |
| CW-6-22 | Concrete Work of Type-B by Pump                                       | m3     | 20,270     | 43,850    | 209,410    | 273,530    | by Boom, Standard Concreting Volume=75m3 |

**Table 8.4.2 NUMBER OF TRUCK IN GENERAL TRANSPORTATION FOR  
MOBILIZATION AND DEMOBILIZATION**

**MOBILIZATION AND DEMOBILIZATION OF SIMONGAN WEIR**

| Construction Equipment | Capacity/<br>Specification | Number of Equipment |    |    |    |      |   |   |   |      |   |   |   | Total |    |
|------------------------|----------------------------|---------------------|----|----|----|------|---|---|---|------|---|---|---|-------|----|
|                        |                            | 2001                |    |    |    | 2002 |   |   |   | 2003 |   |   |   |       |    |
|                        |                            | M                   | D  | D  | M  | M    | D | D | M | M    | D | D | M | D     | M  |
| Dump Truck             | 10 ton                     | 22                  | 21 | 13 | 13 | 5    |   |   |   |      |   |   |   | 35    | 39 |
| Ordinary Truck         | 10 ton                     | 3                   | 3  | 3  | 4  | 2    |   |   |   |      |   |   |   | 3     | 3  |
| Truck with Crane A     | 4 ton                      | 5                   | 3  | 6  |    |      | 2 |   |   |      |   |   |   | 11    | 11 |
| Truck with Crane B     | 6 ton                      | 3                   | 2  | 1  |    |      |   |   |   |      |   |   |   | 3     | 3  |

**MOBILIZATION AND DEMOBILIZATION OF FLOODWAY/GARANG RIVER**

| Construction Equipment | Capacity/<br>Specification | Number of Equipment |   |     |    |      |    |   |   |      |   |   |   | Total |     |
|------------------------|----------------------------|---------------------|---|-----|----|------|----|---|---|------|---|---|---|-------|-----|
|                        |                            | 2001                |   |     |    | 2002 |    |   |   | 2003 |   |   |   |       |     |
|                        |                            | M                   | D | D   | M  | M    | D  | D | M | M    | D | D | M | D     | M   |
| Barge A                | 200 ton                    | 2                   |   |     |    |      | 2  |   |   |      |   |   |   | 2     | 2   |
| Barge B                | 100 m3                     | 4                   |   | 2   |    |      | 2  |   |   |      |   |   |   | 4     | 4   |
| Tug Boat               | 15 ton                     | 2                   |   |     |    |      | 2  |   |   |      |   |   |   | 2     | 2   |
| Dump Truck             | 10 ton                     | 48                  | 9 | 123 | 86 | 78   | 80 |   |   |      |   |   |   | 212   | 212 |
| Truck with Crane A     | 4 ton                      | 5                   |   | 9   | 11 | 4    | 11 |   |   |      |   |   |   | 20    | 20  |

**Table 8.4.3 NUMBER OF TRAILER TRANSPORTATION FOR  
MOBILIZATION AND DEMOBILIZATION**

**MOBILIZATION AND DEMOBILIZATION OF SIMONGAN WEIR**

| Construction Equipment                     | Capacity/<br>Specification | Number of Transportation |      |      | Total |
|--|----------------------------|--------------------------|------|------|-------|
|  |                            | 2001                     | 2002 | 2003 |       |
| Buldozer A                                 | 15 ton                     | 2                        | 2    | 2    | 6     |
| Backhoe/Excavator A                        | 0.20 m3                    | 1                        | 0    | 1    | 2     |
| Backhoe/Excavator B                        | 0.35 m3                    | 7                        | 5    | 2    | 14    |
| Backhoe/Excavator C                        | 0.60 m3                    | 2                        | 2    | 0    | 4     |
| Giant Breaker                              | 600/800 kg                 | 2                        | 2    | 0    | 4     |
| Clamshell Bucket with Crane                | 40 ton                     | 4                        | 2    | 2    | 8     |
| Truck Crane A                              | 20 ton                     | 1                        | 0    | 1    | 2     |
| Truck Crane B                              | 25 ton                     | 1                        | 1    | 1    | 3     |
| Crawler Crane A                            | 40 ton                     | 6                        | 2    | 2    | 10    |
| Crawler Crane B                            | 50 ton                     | 2                        | 0    | 2    | 4     |
| Vibratory Pile Driver                      | 30 kw                      | 5                        | 2    | 2    | 9     |
| Portable Concrete Mixer A                  | 0.5 m3                     | 1                        | 0    | 1    | 2     |
| Tamper                                     | 60/100 kg                  | 3                        | 2    | 2    | 7     |
| Wire Sawing Machine                        |                            | 2                        | 0    | 0    | 2     |
| Wall Sawing Machine                        |                            | 2                        | 0    | 0    | 2     |
| Welding Machine                            | 250 AMP                    | 3                        | 2    | 3    | 8     |
| Engine Welder                              | 250 AMP                    | 2                        | 0    | 2    | 4     |
| Diesel Engine Generator A                  | 125 KVA                    | 2                        | 0    | 2    | 4     |
| Air Compressor                             |                            | 2                        | 2    | 2    | 6     |
| Total Number of Trailer for Mobilization   |                            | 15                       | 9    | 8    | 32    |
| Total Number of Trailer for Demobilization |                            | 11                       | 7    | 8    | 26    |

| Construction Equipment                     | Capacity/<br>Specification | Number of Transportation |      |      | Total |
|--|----------------------------|--------------------------|------|------|-------|
|  |                            | 2001                     | 2002 | 2003 |       |
| Buldozer A                                 | 15 ton                     | 5                        | 6    | 6    | 17    |
| Buldozer B                                 | 21 ton                     | 2                        | 0    | 0    | 2     |
| Backhoe/Excavator A                        | 0.20 m3                    | 2                        | 7    | 6    | 15    |
| Backhoe/Excavator B                        | 0.35 m3                    | 6                        | 11   | 7    | 24    |
| Backhoe/Excavator C                        | 0.60 m3                    | 4                        | 9    | 7    | 20    |
| Giant Breaker                              | 600/800 kg                 | 0                        | 0    | 4    | 4     |
| Clamshell Grabbing                         | 1.0 m3                     | 1                        | 2    | 0    | 3     |
| Crawler Crane A                            | 40 ton                     | 0                        | 10   | 2    | 12    |
| Vibro Hammer                               | 23/24 ton                  | 0                        | 5    | 2    | 7     |
| Portable Concrete Mixer A                  | 0.5 m3                     | 1                        | 4    | 4    | 9     |
| Tamper                                     | 60/100 kg                  | 3                        | 4    | 2    | 9     |
| Vibrating Roller B                         | 10 ton                     | 0                        | 2    | 2    | 4     |
| Tire Roller                                | 8/12 ton                   | 0                        | 2    | 2    | 4     |
| Motor Grader                               | 2.8 m                      | 0                        | 2    | 2    | 4     |
| Welding Machine                            | 250 AMP                    | 1                        | 2    | 1    | 4     |
| Total Number of Trailer for Mobilization   |                            | 10                       | 15   | 8    | 33    |
| Total Number of Trailer for Demobilization |                            | 4                        | 20   | 17   | 41    |



Table 8.5.1 (1/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

| ID No.     | Item No. | BQ Item  | Unit           | Quantity | Unit Cost (rupiah) |             |               | Initial Cost (rupiah) |             |               | Total          |
|------------|----------|--|----------------|----------|--------------------|-------------|---------------|-----------------------|-------------|---------------|----------------|
|            |          |  |                |          | PF/C               | IF/C        | L/C           | PF/C                  | IF/C        | L/C           |                |
| R-P1-Bq-1  | A        | General  |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-2  | A.1      | Mobilization and Demobilization  | L.S.           | 1        | 278,997,500        | 6,380,200   | 197,383,900   | 278,997,500           | 6,380,200   | 197,383,900   | 482,761,600    |
| R-P1-Bq-3  | A.2      | Establishment  |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-4  | A.2.1    | Temporary Construction Road and Bridge                                     | L.S.           | 1        | 192,069,400        | 18,738,800  | 447,345,900   | 192,069,400           | 18,738,800  | 447,345,900   | 658,154,100    |
| R-P1-Bq-5  | A.2.2    | Contractor's Site Office and Facilities                                    | L.S.           | 1        | 505,461,000        | 131,331,200 | 1,595,633,100 | 505,461,000           | 131,331,200 | 1,595,633,100 | 2,232,425,300  |
| R-P1-Bq-6  | A.2.3    | Engineer's Site Office and Facilities                                      | L.S.           | 1        | 38,746,200         | 10,067,200  | 122,313,400   | 38,746,200            | 10,067,200  | 122,313,400   | 171,126,800    |
| R-P1-Bq-7  | A.3      | Drawings   | L.S.           | 1        | 12,218,200         | 600,000     | 48,630,600    | 12,218,200            | 600,000     | 48,630,600    | 61,448,800     |
| R-P1-Bq-8  | A.4      | Surveying  | L.S.           | 1        | 1,484,000          | 0           | 7,371,000     | 1,484,000             | 0           | 7,371,000     | 8,855,000      |
| R-P1-Bq-9  | A.5      | Geological Investigation   |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-10 | A.5.1    | Auger Boring   | m              | 57       | 31,800             | 0           | 157,950       | 1,812,600             | 0           | 9,003,150     | 10,815,750     |
| R-P1-Bq-11 | A.5.2    | Rotary Boring  | m              | 378      | 63,600             | 0           | 315,900       | 24,040,800            | 0           | 119,410,200   | 143,451,000    |
| R-P1-Bq-12 | A.5.3    | Exploratory Excavation   | m <sup>3</sup> | 90       | 25,367             | 67          | 106,767       | 2,283,000             | 6,000       | 9,609,000     | 11,898,000     |
| R-P1-Bq-13 | B        | Channel and Dike Works   |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-14 | B.1      | Preparatory Works  |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-15 | B.1.1    | Coffering and Dewatering   | L.S.           | 1        | 2,093,706,600      | 19,817,100  | 1,278,926,300 | 2,093,706,600         | 19,817,100  | 1,278,926,300 | 3,392,450,000  |
| R-P1-Bq-16 | B.1.2    | Clearing and Grubbing  | m <sup>2</sup> | 133,800  | 4,040              | 90          | 2,850         | 540,552,000           | 12,042,000  | 381,330,000   | 933,924,000    |
| R-P1-Bq-17 | B.1.3    | Demolition of Existing Concrete Sheet Pile Wall Type Revetment             | L.S.           | 1        | 443,966,800        | 3,010,900   | 301,082,900   | 443,966,800           | 3,010,900   | 301,082,900   | 748,060,600    |
| R-P1-Bq-18 | B.1.4    | Demolition of Existing Concrete/Masonry Structures in River Channel        | m <sup>3</sup> | 210      | 49,530             | 918         | 43,567        | 10,401,300            | 192,780     | 9,149,070     | 19,743,150     |
| R-P1-Bq-19 | B.2      | Channel Excavation for West Floodway including Drainage By-pass Channel    |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-20 | B.2.1    | Excavation below Water Level (Low Water level shown on the cross sections) | m <sup>3</sup> | 651,700  | 15,649             | 266         | 10,229        | 10,198,453,300        | 173,352,200 | 6,665,913,450 | 17,037,718,950 |
| R-P1-Bq-21 | B.2.2    | Excavation above Water Level (Low Water level shown on the cross sections) | m <sup>3</sup> | 277,000  | 15,410             | 370         | 10,610        | 4,268,570,000         | 102,490,000 | 2,938,970,000 | 7,310,030,000  |
| R-P1-Bq-22 | B.2.3    | Soft Rock Excavation   | m <sup>3</sup> | 700      | 43,530             | 910         | 28,170        | 30,471,000            | 637,000     | 19,719,000    | 50,827,000     |
| R-P1-Bq-23 | B.3      | Channel Excavation for Garang River  |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-24 | B.3.1    | Excavation below Water Level (Low Water level shown on the cross sections) | m <sup>3</sup> | 148,400  | 16,770             | 390         | 11,420        | 2,488,668,000         | 57,876,000  | 1,694,728,000 | 4,241,272,000  |
| R-P1-Bq-25 | B.3.2    | Excavation above Water Level (Low Water level shown on the cross sections) | m <sup>3</sup> | 284,000  | 15,410             | 370         | 10,610        | 4,376,440,000         | 105,080,000 | 3,013,240,000 | 7,494,760,000  |
| R-P1-Bq-26 | B.3.3    | Soft Rock Excavation   | m <sup>3</sup> | 2,400    | 43,530             | 910         | 28,170        | 104,472,000           | 2,184,000   | 67,608,000    | 174,264,000    |
| R-P1-Bq-27 | B.4      | Earth Dike   |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-28 | B.4.1    | Stripping of Top Soil, 250mm thick   | m <sup>3</sup> | 6,200    | 18,450             | 390         | 13,020        | 114,390,000           | 2,418,000   | 80,724,000    | 197,532,000    |
| R-P1-Bq-29 | B.4.2    | Embankment   | m <sup>3</sup> | 15,300   | 26,300             | 1,210       | 38,300        | 402,390,000           | 18,513,000  | 585,990,000   | 1,006,893,000  |
| R-P1-Bq-30 | B.4.3    | Solid Sodding  | m <sup>2</sup> | 10,700   | 1,230              | 0           | 6,070         | 13,161,000            | 0           | 64,949,000    | 78,110,000     |
| R-P1-Bq-31 | B.4.4    | Gravel Pavement, 200mm thick   | m <sup>2</sup> | 697      | 4,850              | 700         | 17,280        | 3,380,450             | 487,900     | 12,044,160    | 15,912,510     |
| R-P1-Bq-32 | B.5      | Floodwall/Parapet Wall (Wet Stone Masonry Type)                            |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-33 | B.5.1    | Structural Excavation  | m <sup>3</sup> | 1,060    | 19,700             | 400         | 15,360        | 20,882,000            | 424,000     | 16,281,600    | 37,587,600     |
| R-P1-Bq-34 | B.5.2    | Backfill with Selected Soil  | m <sup>3</sup> | 720      | 12,720             | 770         | 20,480        | 9,158,400             | 554,400     | 14,745,600    | 24,458,400     |
| R-P1-Bq-35 | B.5.3    | Gravel Bedding   | m <sup>3</sup> | 40       | 6,920              | 1,360       | 32,990        | 276,800               | 54,400      | 1,319,600     | 1,650,800      |
| R-P1-Bq-36 | B.5.4    | Wet Stone Masonry  | m <sup>3</sup> | 310      | 46,070             | 28,800      | 200,020       | 14,281,700            | 8,928,000   | 62,006,200    | 85,215,900     |
| R-P1-Bq-37 | B.5.5    | Joint Filler, 10mm thick (Elastic Material)                                | m <sup>2</sup> | 30       | 6,750              | 9,260       | 24,250        | 202,500               | 277,800     | 727,500       | 1,207,800      |
| R-P1-Bq-38 | B.5.6    | Water Stop, 200mm wide   | m              | 41       | 98,951             | 0           | 9,367         | 4,056,991             | 0           | 384,047       | 4,441,038      |
| R-P1-Bq-39 | B.5.7    | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry           | m <sup>2</sup> | 383      | 2,000              | 1,010       | 8,900         | 766,000               | 386,830     | 3,408,700     | 4,561,530      |
| R-P1-Bq-41 | B.6      | Filling on Riverbed, River Bank and Flood Plain                            |                |          |                    |             |               |                       |             |               |                |
| R-P1-Bq-42 | B.6.1    | Stripping of Top Soil, 250mm thick   | m <sup>3</sup> | 15,500   | 18,450             | 390         | 13,020        | 285,975,000           | 6,045,000   | 201,810,000   | 493,830,000    |

Table 8.5.1 (2/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

| ID No.     | Item No. | BQ Item   | Unit           | Quantity | Unit Cost (rupiah) |           |             | Initial Cost (rupiah) |             |               | Total         |
|------------|----------|---|----------------|----------|--------------------|-----------|-------------|-----------------------|-------------|---------------|---------------|
|            |          |   |                |          | PF/C               | IF/C      | L/C         | PF/C                  | IF/C        | L/C           |               |
| R-P1-Bq-43 | B.6.2    | Earth Fill  | m <sup>3</sup> | 46,400   | 10,560             | 220       | 7,650       | 489,984,000           | 10,208,000  | 354,960,000   | 855,152,000   |
| R-P1-Bq-44 | B.7      | Miscellaneous Work  |                |          |                    |           |             | 0                     | 0           | 0             | 0             |
| R-P1-Bq-45 | B.7.1    | Maintenance Marker Post, 500m interval on Right and Left River Banks                                | nos.           | 36       | 10,790             | 1,590     | 51,990      | 388,440               | 57,240      | 1,871,640     | 2,317,320     |
| R-P1-Bq-46 | C.       | Raising the Existing Floodwall  |                |          |                    |           |             |                       |             |               |               |
| R-P1-Bq-47 | C.1      | Preparatory Works   |                |          |                    |           |             |                       |             |               |               |
| R-P1-Bq-48 | C.1.1    | Coffering and Dewatering  | L.S.           | 1        | 9,739,500          | 378,600   | 11,768,800  | 9,739,500             | 378,600     | 11,768,800    | 21,886,900    |
| R-P1-Bq-49 | C.1.2    | Clearing and Grubbing   | m <sup>2</sup> | 22,200   | 4,040              | 90        | 2,850       | 89,688,000            | 1,998,000   | 63,270,000    | 154,956,000   |
| R-P1-Bq-50 | C.1.3    | Demolition of Existing Buttress Wall (Wet Stone Masonry)  | m <sup>3</sup> | 172      | 49,530             | 918       | 43,567      | 8,519,160             | 157,896     | 7,493,524     | 16,170,580    |
| R-P1-Bq-51 | C.2      | Raising Works   |                |          |                    |           |             |                       |             |               |               |
| R-P1-Bq-52 | C.2.1    | Structural Excavation   | m <sup>3</sup> | 6,670    | 19,700             | 400       | 15,360      | 131,399,000           | 2,668,000   | 102,451,200   | 236,518,200   |
| R-P1-Bq-53 | C.2.2    | Stripping of Top Soil, 250mm thick  | m <sup>3</sup> | 5,600    | 18,450             | 390       | 13,020      | 103,320,000           | 2,184,000   | 72,912,000    | 178,416,000   |
| R-P1-Bq-54 | C.2.3    | Embankment at the River Side Front of Floodwall   | m <sup>3</sup> | 15,500   | 26,300             | 1,210     | 38,300      | 407,650,000           | 18,755,000  | 593,650,000   | 1,020,055,000 |
| R-P1-Bq-55 | C.2.4    | Solid Sodding   | m <sup>2</sup> | 44,000   | 1,230              | 0         | 6,070       | 54,120,000            | 0           | 267,080,000   | 321,200,000   |
| R-P1-Bq-56 | C.2.5    | Backfill with Selected Soil   | m <sup>3</sup> | 1,700    | 12,720             | 770       | 20,480      | 21,624,000            | 1,309,000   | 34,816,000    | 57,749,000    |
| R-P1-Bq-57 | C.2.6    | Gravel Bedding  | m <sup>3</sup> | 400      | 6,920              | 1,360     | 32,990      | 2,768,000             | 544,000     | 13,196,000    | 16,508,000    |
| R-P1-Bq-58 | C.2.7    | Chipping on Existing Floodwall Surface  | m <sup>2</sup> | 16,789   | 3,690              | 0         | 18,310      | 61,951,410            | 0           | 307,406,590   | 369,358,000   |
| R-P1-Bq-59 | C.2.8    | Concrete, Type C1 including Formwork  | m <sup>3</sup> | 5,056    | 112,470            | 44,160    | 365,370     | 568,648,320           | 223,272,960 | 1,847,310,720 | 2,639,232,000 |
| R-P1-Bq-60 | C.2.9    | Deformed Reinforcing Bars for C.2.8   | kg             | 221,410  | 1,230              | 2,809     | 3,300       | 272,312,159           | 621,918,549 | 730,675,141   | 1,624,905,849 |
| R-P1-Bq-61 | C.2.10   | Furnishing and Driving Log Pile, Dia. 150mm, L=2.0m   | m              | 5,373    | 35,750             | 370       | 31,360      | 192,084,750           | 1,988,010   | 168,497,280   | 362,570,040   |
| R-P1-Bq-62 | C.2.11   | Drilling, Anchoring Steel Bars in Existing Floodwall and Filling the Hole with Non-shrinkage Mortar | nos.           | 44,163   | 2,600              | 2,010     | 10,880      | 114,823,800           | 88,767,630  | 480,493,440   | 684,084,870   |
| R-P1-Bq-63 | C.2.12   | Joint Filler, 10mm thick (Elastic Material)   | m <sup>2</sup> | 530      | 6,750              | 9,260     | 24,250      | 3,577,500             | 4,907,800   | 12,852,500    | 21,337,800    |
| R-P1-Bq-64 | C.2.13   | Water Stop, 200mm wide  | m              | 1,363    | 98,951             | 0         | 9,367       | 134,870,213           | 0           | 12,767,221    | 147,637,434   |
| R-P1-Bq-65 | C.2.14   | Cement Mortar Plastering on Roadside Surface of Floodwall   | m <sup>2</sup> | 5,171    | 2,380              | 1,200     | 10,600      | 12,306,980            | 6,205,200   | 54,812,600    | 73,324,780    |
| R-P1-Bq-66 | D.       | Protection Works for Riverbank and Riverbed   |                |          |                    |           |             |                       |             |               |               |
| R-P1-Bq-67 | D.1      | Preparatory Works   |                |          |                    |           |             |                       |             |               |               |
| R-P1-Bq-68 | D.1.1    | Coffering and Dewatering  | L.S.           | 1        | 618,239,000        | 1,598,800 | 353,729,200 | 618,239,000           | 1,598,800   | 353,729,200   | 973,567,000   |
| R-P1-Bq-69 | D.1.2    | Clearing and Grubbing   | m <sup>2</sup> | 23,100   | 4,040              | 90        | 2,850       | 93,324,000            | 2,079,000   | 65,835,000    | 161,238,000   |
| R-P1-Bq-70 | D.1.3    | Demolition of Existing Wet Masonry Wall   | m <sup>3</sup> | 420      | 49,530             | 918       | 43,567      | 20,802,600            | 385,560     | 18,298,140    | 39,486,300    |
| R-P1-Bq-71 | D.2      | Revetment for Side Slope of 1:2 and 1:1.5 (Wet Stone Masonry Type)                                  |                |          |                    |           |             |                       |             |               |               |
| R-P1-Bq-72 | D.2.1    | Structural Excavation   | m <sup>3</sup> | 34,220   | 19,700             | 400       | 15,360      | 674,134,000           | 13,688,000  | 525,619,200   | 1,213,441,200 |
| R-P1-Bq-73 | D.2.2    | Backfill with Selected Soil   | m <sup>3</sup> | 5,740    | 12,720             | 770       | 20,480      | 73,012,800            | 4,419,800   | 117,555,200   | 194,987,800   |
| R-P1-Bq-74 | D.2.3    | Gravel Bedding  | m <sup>3</sup> | 9,500    | 6,920              | 1,360     | 32,990      | 65,740,000            | 12,920,000  | 313,405,000   | 392,065,000   |
| R-P1-Bq-75 | D.2.4    | Wet Stone Masonry   | m <sup>3</sup> | 9,080    | 46,070             | 28,800    | 200,020     | 418,315,600           | 261,504,000 | 1,816,181,600 | 2,496,001,200 |
| R-P1-Bq-76 | D.2.5    | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry                                    | m <sup>2</sup> | 28,386   | 2,000              | 1,010     | 8,900       | 56,772,000            | 28,669,860  | 252,635,400   | 338,077,260   |
| R-P1-Bq-77 | D.2.6    | Concrete, Type C1 including Formwork  | m <sup>3</sup> | 1,928    | 112,470            | 44,160    | 365,370     | 216,842,160           | 85,140,480  | 704,433,360   | 1,006,416,000 |
| R-P1-Bq-78 | D.2.7    | Deformed Reinforcing Bars for Item D.2.6  | kg             | 97,720   | 1,230              | 2,809     | 3,300       | 120,185,828           | 274,485,708 | 322,485,772   | 717,157,308   |
| R-P1-Bq-79 | D.2.8    | Furnishing and Driving Log Pile, Dia. 150mm, L=2.0m, 3.0m   | m              | 2,450    | 35,750             | 370       | 31,360      | 87,587,500            | 906,500     | 76,832,000    | 165,326,000   |
| R-P1-Bq-80 | D.2.9    | Joint Filler, 10mm thick (Elastic Material)   | m <sup>2</sup> | 1,871    | 6,750              | 9,260     | 24,250      | 12,629,250            | 17,325,460  | 45,371,750    | 75,326,460    |
| R-P1-Bq-81 | D.2.10   | Weep Hole, Dia.50mm including Filter Cloth  | nos.           | 3,010    | 3,147              | 909       | 14,500      | 9,472,028             | 2,736,364   | 43,645,000    | 55,853,392    |
| R-P1-Bq-82 | D.2.11   | Gabion Cylinder Dia.500mm (Galvanized and Coated with PVC)  | m <sup>3</sup> | 1,645    | 533,280            | 3,820     | 171,320     | 877,245,600           | 6,283,900   | 281,821,400   | 1,165,350,900 |
| R-P1-Bq-83 | D.2.12   | Soil Filling  | m <sup>3</sup> | 480      | 8,860              | 140       | 7,820       | 4,252,800             | 67,200      | 3,753,600     | 8,073,600     |
| R-P1-Bq-84 | D.2.13   | Gabion Mattress t=500mm (Galvanized)  | m <sup>3</sup> | 4,914    | 659,260            | 3,060     | 142,060     | 3,239,603,640         | 15,036,840  | 698,082,840   | 3,952,723,320 |
| R-P1-Bq-85 | D.2.14   | Rubble Stone Filling  | m <sup>3</sup> | 917      | 15,070             | 2,320     | 49,320      | 13,819,190            | 2,127,440   | 45,226,440    | 61,173,070    |

Table 8.5.1 (3/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

| ID No.      | Item No. | BQ Item   | Unit           | Quantity | Unit Cost (rupiah) |        |           | Initial Cost (rupiah) |             |               |               |  |
|-------------|----------|---|----------------|----------|--------------------|--------|-----------|-----------------------|-------------|---------------|---------------|--|
|             |          |   |                |          | PF/C               | IF/C   | L/C       | PF/C                  | IF/C        | L/C           | Total         |  |
| R-P1-Bq-86  | D.3      | Revetment for Side Slope of 1:2 (Stone Facing Type)                 |                |          |                    |        |           |                       |             |               |               |  |
| R-P1-Bq-87  | D.3.1    | Structural Excavation   | m <sup>3</sup> | 5,110    | 19,700             | 400    | 15,360    | 100,667,000           | 2,044,000   | 78,489,600    | 181,200,600   |  |
| R-P1-Bq-88  | D.3.2    | Rubble Stone Bedding  | m <sup>3</sup> | 2,373    | 13,760             | 2,790  | 65,520    | 32,652,480            | 6,620,670   | 155,478,960   | 194,752,110   |  |
| R-P1-Bq-89  | D.3.3    | Stone Facing (Dia.250 to 400mm)                                     | m <sup>3</sup> | 5,005    | 20,310             | 2,420  | 75,230    | 101,651,550           | 12,112,100  | 376,526,150   | 490,289,800   |  |
| R-P1-Bq-90  | D.4      | PC (Prestressed Concrete) Sheet Pile Wall Type Revetment            |                |          |                    |        |           |                       |             |               |               |  |
| R-P1-Bq-91  | D.4.1    | Structural Excavation   | m <sup>3</sup> | 440      | 19,700             | 400    | 15,360    | 8,668,000             | 176,000     | 6,758,400     | 15,602,400    |  |
| R-P1-Bq-92  | D.4.2    | Backfill with Selected Soil   | m <sup>3</sup> | 6,660    | 12,720             | 770    | 20,480    | 84,715,200            | 5,128,200   | 136,396,800   | 226,240,200   |  |
| R-P1-Bq-93  | D.4.3    | Gravel Bedding  | m <sup>3</sup> | 29       | 6,920              | 1,360  | 32,990    | 200,680               | 39,440      | 956,710       | 1,196,830     |  |
| R-P1-Bq-94  | D.4.4    | Furnishing and Driving PC Sheet Pile (K-500, t=220mm, w=500mm)      | m              | 15,050   | 247,670            | 100    | 30,940    | 3,727,433,500         | 1,505,000   | 465,647,000   | 4,194,585,500 |  |
| R-P1-Bq-95  | D.4.5    | Fixing Steel Tie Rod, Steel Cannel and Steel Plate to PC Sheet Pile | kg             | 13,580   | 48,712             | 1,380  | 30,225    | 661,508,960           | 18,740,400  | 410,455,500   | 1,090,704,860 |  |
| R-P1-Bq-96  | D.4.6    | Concrete, Type C1 including Formwork                                | m <sup>3</sup> | 325      | 112,470            | 44,160 | 365,370   | 36,552,750            | 14,352,000  | 118,745,250   | 169,650,000   |  |
| R-P1-Bq-97  | D.4.7    | Deformed Reinforcing Bars for D.4.6                                 | kg             | 10,650   | 1,230              | 2,809  | 3,300     | 13,098,435            | 29,914,785  | 35,146,065    | 78,159,285    |  |
| R-P1-Bq-98  | D.4.8    | Joint Filler, 10mm thick (Elastic Material)                         | m <sup>2</sup> | 29       | 6,750              | 9,260  | 24,250    | 195,750               | 268,540     | 703,250       | 1,167,540     |  |
| R-P1-Bq-99  | D.4.9    | Gabion Mattress (Galvanized) t=300mm with Soil Covering             | m <sup>3</sup> | 434      | 395,040            | 3,080  | 119,850   | 171,447,360           | 1,336,720   | 52,014,900    | 224,798,980   |  |
| R-P1-Bq-100 | D.4.10   | Riprap Mound (Dia.250 to 400mm)                                     | m <sup>3</sup> | 6,641    | 20,750             | 2,480  | 54,140    | 137,800,750           | 16,469,680  | 359,543,740   | 513,814,170   |  |
| R-P1-Bq-101 | D.5      | Leaning Wall (Concrete Type)  |                |          |                    |        |           |                       |             |               |               |  |
| R-P1-Bq-102 | D.5.1    | Structural Excavation   | m <sup>3</sup> | 6,340    | 19,700             | 400    | 15,360    | 124,898,000           | 2,536,000   | 97,382,400    | 224,816,400   |  |
| R-P1-Bq-103 | D.5.2    | Backfill with Selected Soil   | m <sup>3</sup> | 1,430    | 12,720             | 770    | 20,480    | 18,189,600            | 1,101,100   | 29,286,400    | 48,577,100    |  |
| R-P1-Bq-104 | D.5.3    | Backfill with Gravel  | m <sup>3</sup> | 1,530    | 18,580             | 4,060  | 88,210    | 28,427,400            | 6,211,800   | 134,961,300   | 169,600,500   |  |
| R-P1-Bq-105 | D.5.4    | Rubble Stone Bedding  | m <sup>3</sup> | 260      | 13,760             | 2,790  | 65,520    | 3,577,600             | 725,400     | 17,035,200    | 21,338,200    |  |
| R-P1-Bq-106 | D.5.5    | Concrete, Type D including Formwork                                 | m <sup>3</sup> | 3,847    | 268,520            | 41,210 | 1,025,360 | 1,032,996,440         | 158,534,870 | 3,944,559,920 | 5,136,091,230 |  |
| R-P1-Bq-107 | D.5.6    | Deformed Reinforcing Bars for Item D.5.5                            | kg             | 3,000    | 1,402              | 2,810  | 3,418     | 4,205,700             | 8,429,400   | 10,252,800    | 22,887,900    |  |
| R-P1-Bq-108 | D.5.7    | Joint Filler, 10mm thick (Elastic Material)                         | m <sup>2</sup> | 272      | 6,750              | 9,260  | 24,250    | 1,836,000             | 2,518,720   | 6,596,000     | 10,950,720    |  |
| R-P1-Bq-109 | D.5.8    | Weep Hole, Dia.50mm including Filter Cloth                          | nos.           | 491      | 3,147              | 909    | 14,500    | 1,545,105             | 446,364     | 7,119,500     | 9,110,969     |  |
| R-P1-Bq-110 | D.5.9    | Steel Fence (with Anti-corrosion Painting), H=1,100mm               | m              | 630      | 95,317             | 23,533 | 182,017   | 60,049,500            | 14,826,000  | 114,670,500   | 189,546,000   |  |
| R-P1-Bq-111 | D.6      | Leaning Wall (Wet Stone Masonry Type)                               |                |          |                    |        |           |                       |             |               |               |  |
| R-P1-Bq-112 | D.6.1    | Structural Excavation   | m <sup>3</sup> | 11,960   | 19,700             | 400    | 15,360    | 235,612,000           | 4,784,000   | 183,705,600   | 424,101,600   |  |
| R-P1-Bq-113 | D.6.2    | Backfill with Selected Soil   | m <sup>3</sup> | 3,140    | 12,720             | 770    | 20,480    | 39,940,800            | 2,417,800   | 64,307,200    | 106,665,800   |  |
| R-P1-Bq-114 | D.6.3    | Backfill with Gravel  | m <sup>3</sup> | 2,746    | 18,580             | 4,060  | 88,210    | 51,020,680            | 11,148,760  | 242,224,660   | 304,394,100   |  |
| R-P1-Bq-115 | D.6.4    | Rubble Stone Bedding  | m <sup>3</sup> | 347      | 13,760             | 2,790  | 65,520    | 4,774,720             | 968,130     | 22,735,440    | 28,478,290    |  |
| R-P1-Bq-116 | D.6.5    | Wet Stone Masonry   | m <sup>3</sup> | 4,520    | 46,070             | 28,800 | 200,020   | 208,236,400           | 130,176,000 | 904,090,400   | 1,242,502,800 |  |
| R-P1-Bq-117 | D.6.6    | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry    | m <sup>2</sup> | 5,152    | 2,000              | 1,010  | 8,900     | 10,304,000            | 5,203,520   | 45,852,800    | 61,360,320    |  |
| R-P1-Bq-118 | D.6.7    | Covering Concrete, Type D   | m <sup>3</sup> | 91       | 102,540            | 43,070 | 317,440   | 9,331,140             | 3,919,370   | 28,887,040    | 42,137,550    |  |
| R-P1-Bq-119 | D.6.8    | Joint Filler, 10mm thick (Elastic Material)                         | m <sup>2</sup> | 423      | 6,750              | 9,260  | 24,250    | 2,855,250             | 3,916,980   | 10,257,750    | 17,029,980    |  |
| R-P1-Bq-120 | D.6.9    | Weep Hole, Dia.50mm including Filter Cloth                          | nos.           | 1,803    | 3,147              | 909    | 14,500    | 5,673,776             | 1,639,091   | 26,143,500    | 33,456,367    |  |
| R-P1-Bq-121 | D.6.10   | Steel Fence (with Anti-corrosion Painting), H=1,100mm               | m              | 1,240    | 95,317             | 23,533 | 182,017   | 118,192,667           | 29,181,333  | 225,700,667   | 373,074,667   |  |
| R-P1-Bq-122 | D.7      | Earth Retaining Wall (Wet Stone Masonry Type)                       |                |          |                    |        |           |                       |             |               |               |  |
| R-P1-Bq-123 | D.7.1    | Structural Excavation   | m <sup>3</sup> | 200      | 19,700             | 400    | 15,360    | 3,940,000             | 80,000      | 3,072,000     | 7,092,000     |  |
| R-P1-Bq-124 | D.7.2    | Backfill with Selected Soil   | m <sup>3</sup> | 92       | 12,720             | 770    | 20,480    | 1,170,240             | 70,840      | 1,884,160     | 3,125,240     |  |
| R-P1-Bq-125 | D.7.3    | Gravel Bedding  | m <sup>3</sup> | 28       | 6,920              | 1,360  | 32,990    | 193,760               | 38,080      | 923,720       | 1,155,560     |  |
| R-P1-Bq-126 | D.7.4    | Wet Stone Masonry   | m <sup>3</sup> | 320      | 46,070             | 28,800 | 200,020   | 14,742,400            | 9,216,000   | 64,006,400    | 87,964,800    |  |
| R-P1-Bq-127 | D.7.5    | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry    | m <sup>2</sup> | 388      | 2,000              | 1,010  | 8,900     | 776,000               | 391,880     | 3,453,200     | 4,621,080     |  |
| R-P1-Bq-128 | D.7.6    | Joint Filler, 10mm thick (Elastic Material)                         | m <sup>2</sup> | 29       | 6,750              | 9,260  | 24,250    | 195,750               | 268,540     | 703,250       | 1,167,540     |  |



Table 8.5.1 (4/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE--1

| ID No.      | Item No. | BQ Item   | Unit           | Quantity | Unit Cost (rupiah) |           |               | Initial Cost (rupiah) |            |               |               |  |
|-------------|----------|---|----------------|----------|--------------------|-----------|---------------|-----------------------|------------|---------------|---------------|--|
|             |          |   |                |          | PF/C               | IF/C      | L/C           | PF/C                  | IF/C       | L/C           | Total         |  |
| R-P1-Bq-129 | D.8      | Pile Type Groin   |                |          |                    |           |               |                       |            |               |               |  |
| R-P1-Bq-130 | D.8.1    | Structural Excavation   | m <sup>3</sup> | 10       | 19,700             | 400       | 15,360        | 197,000               | 4,000      | 153,600       | 354,600       |  |
| R-P1-Bq-131 | D.8.2    | Reinforced Concrete Pile, Concrete Type A3, Section 200x200               | m              | 1,603    | 205,800            | 49,970    | 818,940       | 329,897,400           | 80,101,910 | 1,312,760,820 | 1,722,760,130 |  |
| R-P1-Bq-132 | D.8.3    | Test Piling for D.8.2   | m              | 63       | 53,580             | 260       | 52,030        | 3,375,540             | 16,380     | 3,277,890     | 6,669,810     |  |
| R-P1-Bq-133 | D.8.4    | Driving RC Pile   | m              | 682      | 51,460             | 260       | 41,500        | 35,095,720            | 177,320    | 28,303,000    | 63,576,040    |  |
| R-P1-Bq-134 | D.8.5    | Cutting Pile Head   | m <sup>3</sup> | 16       | 78,390             | 0         | 38,090        | 1,254,240             | 0          | 609,440       | 1,863,680     |  |
| R-P1-Bq-135 | D.8.6    | Concrete Type C1 for Beam including Formwork                              | m <sup>3</sup> | 34       | 375,740            | 42,910    | 603,970       | 12,775,160            | 1,458,940  | 20,534,980    | 34,769,080    |  |
| R-P1-Bq-136 | D.8.7    | Deformed Reinforcing Bars for Beam  | kg             | 4,130    | 1,402              | 2,810     | 3,418         | 5,789,847             | 11,604,474 | 14,114,688    | 31,509,009    |  |
| R-P1-Bq-137 | D.8.8    | Stone Facing (Dia.250 to 400mm)   | m <sup>3</sup> | 479      | 20,310             | 2,420     | 75,230        | 9,728,490             | 1,159,180  | 36,035,170    | 46,922,840    |  |
| R-P1-Bq-138 | D.9      | Riverbed Protection around Bridge Piers                                   |                |          |                    |           |               |                       |            |               |               |  |
| R-P1-Bq-139 | D.9.1    | Structural Excavation   | m <sup>3</sup> | 830      | 19,700             | 400       | 15,360        | 16,351,000            | 332,000    | 12,748,800    | 29,431,800    |  |
| R-P1-Bq-140 | D.9.2    | Backfill with Selected Soil   | m <sup>3</sup> | 180      | 12,720             | 770       | 20,480        | 2,289,600             | 138,600    | 3,686,400     | 6,114,600     |  |
| R-P1-Bq-142 | D.9.3    | Rubble Stone Filling  | m <sup>3</sup> | 91       | 31,880             | 2,590     | 62,010        | 2,901,080             | 235,690    | 5,642,910     | 8,779,680     |  |
| R-P1-Bq-143 | D.9.4    | Placing Filter Cloth (Geotextile sheet)                                   | m <sup>2</sup> | 261      | 14,290             | 30        | 3,800         | 3,729,690             | 7,830      | 991,800       | 4,729,320     |  |
| R-P1-Bq-144 | D.9.5    | Gabion Mattress (Galvanized) t=500mm                                      | m <sup>3</sup> | 471      | 659,260            | 3,060     | 142,060       | 310,511,460           | 1,441,260  | 66,910,260    | 378,862,980   |  |
| R-P1-Bq-145 | D.9.6    | Placing Palm Fiber Filter under Gabion Mattress                           | m <sup>2</sup> | 648      | 8,440              | 1,190     | 25,890        | 5,469,120             | 771,120    | 16,776,720    | 23,016,960    |  |
| R-P1-Bq-146 | D.9.7    | Riprap Mound (Dia.250 to 400)   | m <sup>3</sup> | 430      | 20,750             | 2,480     | 54,140        | 8,922,500             | 1,066,400  | 23,280,200    | 33,269,100    |  |
| R-P1-Bq-147 | D.9.8    | Gravel Bedding  | m <sup>3</sup> | 28       | 6,920              | 1,360     | 32,990        | 193,760               | 38,080     | 923,720       | 1,155,560     |  |
| R-P1-Bq-149 | D.9.9    | Precast Concrete Block (2.0t/piece), Concrete Type-D                      | nos.           | 116      | 209,366            | 94,760    | 351,428       | 24,286,398            | 10,992,206 | 40,765,625    | 76,044,229    |  |
| R-P1-Bq-150 | D.10     | Sodding   |                |          |                    |           |               |                       |            |               |               |  |
| R-P1-Bq-151 | D.10.1   | Solid Sodding   | m <sup>2</sup> | 70,350   | 1,230              | 0         | 6,070         | 86,530,500            | 0          | 427,024,500   | 513,555,000   |  |
| R-P1-Bq-152 | E.       | Ground Sills  |                |          |                    |           |               |                       |            |               |               |  |
| R-P1-Bq-153 | E.1      | Preparatory Works   |                |          |                    |           |               |                       |            |               |               |  |
| R-P1-Bq-154 | E.1.1    | Coffering and Dewatering  | L.S.           | 1        | 2,551,475,000      | 4,670,200 | 1,490,856,700 | 2,551,475,000         | 4,670,200  | 1,490,856,700 | 4,047,001,900 |  |
| R-P1-Bq-155 | E.1.2    | Clearing and Grubbing   | m <sup>2</sup> | 1,590    | 4,040              | 90        | 2,850         | 6,423,600             | 143,100    | 4,531,500     | 11,098,200    |  |
| R-P1-Bq-156 | E.2      | Ground Sill with Head at WF124  |                |          |                    |           |               |                       |            |               |               |  |
| R-P1-Bq-157 | E.2.1    | Structural Excavation   | m <sup>3</sup> | 380      | 19,700             | 400       | 15,360        | 7,486,000             | 152,000    | 5,836,800     | 13,474,800    |  |
| R-P1-Bq-158 | E.2.2    | Backfill with Selected Soil   | m <sup>3</sup> | 630      | 12,720             | 770       | 20,480        | 8,013,600             | 485,100    | 12,902,400    | 21,401,100    |  |
| R-P1-Bq-159 | E.2.3    | Replacement of Base Soil under the Ground Sill by Selected Material       | m <sup>3</sup> | 620      | 22,640             | 1,640     | 37,460        | 14,036,800            | 1,016,800  | 23,225,200    | 38,278,800    |  |
| R-P1-Bq-160 | E.2.4    | Furnishing and Driving Concrete PC Pile (K-500, t=220mm, w=500mm)         | m              | 833      | 247,670            | 100       | 30,940        | 206,309,110           | 83,300     | 25,773,020    | 232,165,430   |  |
| R-P1-Bq-161 | E.2.5    | Leveling Concrete, Type E including Formwork                              | m <sup>3</sup> | 52       | 78,580             | 37,610    | 211,460       | 4,086,160             | 1,955,720  | 10,995,920    | 17,037,800    |  |
| R-P1-Bq-162 | E.2.6    | Concrete for Main Body, Type D including Formwork                         | m <sup>3</sup> | 580      | 268,520            | 41,210    | 1,025,360     | 155,741,600           | 23,901,800 | 594,708,800   | 774,352,200   |  |
| R-P1-Bq-163 | E.2.7    | Concrete for Side Wall, Type C1 including Formwork                        | m <sup>3</sup> | 67       | 112,470            | 44,160    | 365,370       | 7,535,490             | 2,958,720  | 24,479,790    | 34,974,000    |  |
| R-P1-Bq-164 | E.2.8    | Deformed Reinforcing Bars for Side Wall                                   | kg             | 4,370    | 1,230              | 2,809     | 3,300         | 5,374,663             | 12,274,893 | 14,421,437    | 32,070,993    |  |
| R-P1-Bq-165 | E.2.9    | Water Stop, 200mm wide  | m              | 14       | 98,951             | 0         | 9,367         | 1,385,314             | 0          | 131,138       | 1,516,452     |  |
| R-P1-Bq-166 | E.2.10   | Joint Filler, 10mm thick (Elastic Material)                               | m <sup>2</sup> | 161      | 6,750              | 9,260     | 24,250        | 1,086,750             | 1,490,860  | 3,904,250     | 6,481,860     |  |
| R-P1-Bq-167 | E.2.11   | Wet Stone Masonry for Revetment   | m <sup>3</sup> | 350      | 46,070             | 28,800    | 200,020       | 16,124,500            | 10,080,000 | 70,007,000    | 96,211,500    |  |
| R-P1-Bq-168 | E.2.12   | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry          | m <sup>2</sup> | 1,216    | 2,000              | 1,010     | 8,900         | 2,432,000             | 1,228,160  | 10,822,400    | 14,482,560    |  |
| R-P1-Bq-169 | E.2.13   | Concrete, Type C1 for Revetment including Formwork                        | m <sup>3</sup> | 69       | 112,470            | 44,160    | 365,370       | 7,760,430             | 3,047,040  | 25,210,530    | 36,018,000    |  |
| R-P1-Bq-170 | E.2.14   | Deformed Reinforcing Bars for Revetment                                   | kg             | 3,840    | 1,230              | 2,809     | 3,300         | 4,722,816             | 10,786,176 | 12,672,384    | 28,181,376    |  |
| R-P1-Bq-171 | E.2.15   | Gabion Mattress t=500mm (Galvanized) on Riverbed                          | m <sup>3</sup> | 693      | 659,260            | 3,060     | 142,060       | 456,867,180           | 2,120,580  | 98,447,580    | 557,435,340   |  |
| R-P1-Bq-172 | E.2.16   | Placing Palm Fiber Filter under Gabion Mattress                           | m <sup>2</sup> | 1,196    | 8,440              | 1,190     | 25,890        | 10,094,240            | 1,423,240  | 30,964,440    | 42,481,920    |  |
| R-P1-Bq-173 | E.2.17   | Gabion Cylinder Dia. 500mm (Galvanized and coated with PVC) on Side Slope | m <sup>3</sup> | 72       | 533,280            | 3,820     | 171,320       | 38,396,160            | 275,040    | 12,335,040    | 51,006,240    |  |

Table 8.5.1 (5/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

| ID No.      | Item No. | BQ Item   | Unit           | Quantity | Unit Cost (rupiah) |         |            | Initial Cost (rupiah) |            |            |             |
|-------------|----------|---|----------------|----------|--------------------|---------|------------|-----------------------|------------|------------|-------------|
|             |          |   |                |          | PF/C               | IF/C    | L/C        | PF/C                  | IF/C       | L/C        | Total       |
| R-P1-Bq-174 | E.2.18   | Soil Filling  | m <sup>3</sup> | 30       | 8,860              | 140     | 7,820      | 265,800               | 4,200      | 234,600    | 504,600     |
| R-P1-Bq-175 | E.2.19   | Gravel Bedding  | m <sup>3</sup> | 392      | 6,920              | 1,360   | 32,990     | 2,712,640             | 533,120    | 12,932,080 | 16,177,840  |
| R-P1-Bq-176 | E.2.20   | Rubble Stone Bedding  | m <sup>3</sup> | 55       | 13,760             | 2,790   | 65,520     | 756,800               | 153,450    | 3,603,600  | 4,513,850   |
| R-P1-Bq-177 | E.3      | Ground Sill without Head at WF173   |                |          |                    |         |            |                       |            |            |             |
| R-P1-Bq-178 | E.3.1    | Structural Excavation   | m <sup>3</sup> | 1,240    | 19,700             | 400     | 15,360     | 24,428,000            | 496,000    | 19,046,400 | 43,970,400  |
| R-P1-Bq-179 | E.3.2    | Soft Rock Excavation  | m <sup>3</sup> | 660      | 43,530             | 910     | 28,170     | 28,729,800            | 600,600    | 18,592,200 | 47,922,600  |
| R-P1-Bq-180 | E.3.3    | Backfill with Selected Soil   | m <sup>3</sup> | 540      | 12,720             | 770     | 20,480     | 6,868,800             | 415,800    | 11,059,200 | 18,343,800  |
| R-P1-Bq-181 | E.3.4    | Gravel Bedding for Main Body and Side Wall                                    | m <sup>3</sup> | 33       | 6,920              | 1,360   | 32,990     | 228,360               | 44,880     | 1,088,670  | 1,361,910   |
| R-P1-Bq-182 | E.3.5    | Wet Stone Masonry for Main Body and Side Wall                                 | m <sup>3</sup> | 240      | 46,070             | 28,800  | 200,020    | 11,056,800            | 6,912,000  | 48,004,800 | 65,973,600  |
| R-P1-Bq-183 | E.3.6    | Gravel Bedding for Revetment  | m <sup>3</sup> | 153      | 6,920              | 1,360   | 32,990     | 1,058,760             | 208,080    | 5,047,470  | 6,314,310   |
| R-P1-Bq-184 | E.3.7    | Wet Stone Masonry for Revetment   | m <sup>3</sup> | 140      | 46,070             | 28,800  | 200,020    | 6,449,800             | 4,032,000  | 28,002,800 | 38,484,600  |
| R-P1-Bq-185 | E.3.8    | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry              | m <sup>2</sup> | 521      | 2,000              | 1,010   | 8,900      | 1,042,000             | 526,210    | 4,636,900  | 6,205,110   |
| R-P1-Bq-186 | E.3.9    | Concrete Type C1 including Formwork for Revetment                             | m <sup>3</sup> | 21       | 112,470            | 44,160  | 365,370    | 2,361,870             | 927,360    | 7,672,770  | 10,962,000  |
| R-P1-Bq-187 | E.3.10   | Deformed Reinforcing Bars for Revetment                                       | kg             | 1,090    | 1,230              | 2,809   | 3,300      | 1,340,591             | 3,061,701  | 3,597,109  | 7,999,401   |
| R-P1-Bq-188 | E.3.11   | Joint Filler, 10mm thick (Elastic Material)                                   | m <sup>2</sup> | 47       | 6,750              | 9,260   | 24,250     | 317,250               | 435,220    | 1,139,750  | 1,892,220   |
| R-P1-Bq-189 | E.3.12   | Gabion Mattress t=500mm (Galvanized) on Riverbed                              | m <sup>3</sup> | 693      | 659,260            | 3,060   | 142,060    | 456,867,180           | 2,120,580  | 98,447,580 | 557,435,340 |
| R-P1-Bq-190 | E.3.13   | Placing Palm Fiber Filter under Gabion Mattress                               | m <sup>2</sup> | 1,239    | 8,440              | 1,190   | 25,890     | 10,457,160            | 1,474,410  | 32,077,710 | 44,009,280  |
| R-P1-Bq-191 | E.3.14   | Gabion Cylinder Dia. 500mm (Galvanized and Coated with PVC) on Side Slope     | m <sup>3</sup> | 59       | 533,280            | 3,820   | 171,320    | 31,463,520            | 225,380    | 10,107,880 | 41,796,780  |
| R-P1-Bq-192 | E.3.15   | Soil Filling  | m <sup>3</sup> | 20       | 8,860              | 140     | 7,820      | 177,200               | 2,800      | 156,400    | 336,400     |
| R-P1-Bq-193 | E.3.16   | Rubble Stone Bedding  | m <sup>3</sup> | 20       | 13,760             | 2,790   | 65,520     | 275,200               | 55,800     | 1,310,400  | 1,641,400   |
| R-P1-Bq-194 | F.       | Drainage Sluiceway at WF172R+15m  |                |          |                    |         |            |                       |            |            |             |
| R-P1-Bq-195 | F.1      | Preparatory Works   |                |          |                    |         |            |                       |            |            |             |
| R-P1-Bq-196 | F.1.1    | Coffering and Dewatering  | L.S.           | 1        | 145,550,400        | 422,400 | 83,777,200 | 145,550,400           | 422,400    | 83,777,200 | 229,750,000 |
| R-P1-Bq-197 | F.1.2    | Clearing and Grubbing   | m <sup>2</sup> | 560      | 4,040              | 90      | 2,850      | 2,262,400             | 50,400     | 1,596,000  | 3,908,800   |
| R-P1-Bq-198 | F.1.3    | Demolition and Removal of Existing Concrete and Masonry Structures            | m <sup>3</sup> | 170      | 71,146             | 1,872   | 56,788     | 12,094,820            | 318,240    | 9,653,960  | 22,067,020  |
| R-P1-Bq-199 | F.2      | Main Structures and Steel Slide Gate  |                |          |                    |         |            |                       |            |            |             |
| R-P1-Bq-200 | F.2.1    | Structural Excavation   | m <sup>3</sup> | 970      | 19,700             | 400     | 15,360     | 19,109,000            | 388,000    | 14,899,200 | 34,396,200  |
| R-P1-Bq-201 | F.2.2    | Backfill with Selected Soil   | m <sup>3</sup> | 340      | 12,720             | 770     | 20,480     | 4,324,800             | 261,800    | 6,963,200  | 11,549,800  |
| R-P1-Bq-202 | F.2.3    | Embankment for Dike   | m <sup>3</sup> | 150      | 26,300             | 1,210   | 38,300     | 3,945,000             | 181,500    | 5,745,000  | 9,871,500   |
| R-P1-Bq-203 | F.2.4    | Solid Sodding   | m <sup>2</sup> | 30       | 1,230              | 0       | 6,070      | 36,900                | 0          | 182,100    | 219,000     |
| R-P1-Bq-204 | F.2.5    | Furnishing and Driving PC Sheet Pile (K-500, t=220mm, w=500mm)                | m              | 68       | 247,670            | 100     | 30,940     | 16,841,560            | 6,800      | 2,103,920  | 18,952,280  |
| R-P1-Bq-205 | F.2.6    | Leveling Concrete, Type E including Formwork                                  | m <sup>3</sup> | 9        | 78,580             | 37,610  | 211,460    | 707,220               | 338,490    | 1,903,140  | 2,948,850   |
| R-P1-Bq-206 | F.2.7    | Concrete for Structure, Type C1 including Formwork                            | m <sup>3</sup> | 83       | 375,740            | 42,910  | 603,970    | 31,186,420            | 3,561,530  | 50,129,510 | 84,877,460  |
| R-P1-Bq-207 | F.2.8    | Concrete for Blockout, Type C2 including Formwork                             | m <sup>3</sup> | 2        | 110,850            | 46,340  | 355,990    | 221,700               | 92,680     | 711,980    | 1,026,360   |
| R-P1-Bq-208 | F.2.9    | Deformed Reinforcing Bars for Item F.2.7                                      | kg             | 5,650    | 1,230              | 2,809   | 3,300      | 6,948,935             | 15,870,285 | 18,645,565 | 41,464,785  |
| R-P1-Bq-209 | F.2.10   | Water Stop, 200 mm wide   | m              | 16       | 98,951             | 0       | 9,367      | 1,583,216             | 0          | 149,872    | 1,733,088   |
| R-P1-Bq-210 | F.2.11   | Joint Filler, 10mm thick (Elastic Material)                                   | m <sup>2</sup> | 10       | 6,750              | 9,260   | 24,250     | 67,500                | 92,600     | 242,500    | 402,600     |
| R-P1-Bq-211 | F.2.12   | Furnishing and Installing Slide Gate, H=1.6m x W=1.6m                         | L.S.           | 1        | 4,875,500          | 110,600 | 7,059,900  | 4,875,500             | 110,600    | 7,059,900  | 12,046,000  |
| R-P1-Bq-212 | F.2.13   | Furnishing and Installing Hoist   | L.S.           | 1        | 2,465,800          | 28,400  | 3,598,100  | 2,465,800             | 28,400     | 3,598,100  | 6,092,300   |
| R-P1-Bq-213 | F.2.14   | Furnishing and Installing Anchor Bars and Metal Guide Frames                  | kg             | 40       | 5,940              | 788     | 5,801      | 237,600               | 31,520     | 232,040    | 501,160     |
| R-P1-Bq-214 | F.2.15   | Furnishing and Installing Hand Rail and Ladder (with Anti-corrosion Painting) | kg             | 190      | 2,049              | 481     | 4,231      | 389,310               | 91,390     | 803,890    | 1,284,590   |
| R-P1-Bq-215 | F.3      | Riverside Open Channel and Revetment  |                |          |                    |         |            |                       |            |            |             |

Table 8.5.1 (6/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

| ID No.      | Item No.  | BQ Item  | Unit           | Quantity | Unit Cost (rupiah) |         |            | Initial Cost (rupiah) |           |            |            |
|-------------|-----------|--|----------------|----------|--------------------|---------|------------|-----------------------|-----------|------------|------------|
|             |           |  |                |          | PF/C               | IF/C    | L/C        | PF/C                  | IF/C      | L/C        | Total      |
| R-P1-Bq-216 | F.3.1     | Structural Excavation  | m <sup>3</sup> | 320      | 19,700             | 400     | 15,360     | 6,304,000             | 128,000   | 4,915,200  | 11,347,200 |
| R-P1-Bq-217 | F.3.2     | Backfill with Selected Soil                                      | m <sup>3</sup> | 40       | 12,720             | 770     | 20,480     | 508,800               | 30,800    | 819,200    | 1,358,800  |
| R-P1-Bq-218 | F.3.3     | Filling Existing Open Channel                                    | m <sup>3</sup> | 30       | 4,010              | 40      | 2,930      | 120,300               | 1,200     | 87,900     | 209,400    |
| R-P1-Bq-219 | F.3.4     | Gravel Bedding   | m <sup>3</sup> | 81       | 6,920              | 1,360   | 32,990     | 560,520               | 110,160   | 2,672,190  | 3,342,870  |
| R-P1-Bq-220 | F.3.5     | Wet Stone Masonry  | m <sup>3</sup> | 90       | 46,070             | 28,800  | 200,020    | 4,146,300             | 2,592,000 | 18,001,800 | 24,740,100 |
| R-P1-Bq-221 | F.3.6     | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry | m <sup>2</sup> | 217      | 2,000              | 1,010   | 8,900      | 434,000               | 219,170   | 1,931,300  | 2,584,470  |
| R-P1-Bq-222 | F.3.7     | Concrete, Type C1 including Formwork                             | m <sup>3</sup> | 24       | 112,470            | 44,160  | 365,370    | 2,699,280             | 1,059,840 | 8,768,880  | 12,528,000 |
| R-P1-Bq-223 | F.3.8     | Deformed Reinforcing Bars for F.3.7                              | kg             | 1,040    | 1,230              | 2,809   | 3,300      | 1,279,096             | 2,921,256 | 3,432,104  | 7,632,456  |
| R-P1-Bq-224 | F.3.9     | Concrete Type D including Formwork                               | m <sup>3</sup> | 3        | 102,540            | 43,070  | 317,440    | 307,620               | 129,210   | 952,320    | 1,389,150  |
| R-P1-Bq-225 | F.3.10    | Joint Filler, 10mm thick (Elastic Material)                      | m <sup>2</sup> | 19       | 6,750              | 9,260   | 24,250     | 128,250               | 175,940   | 460,750    | 764,940    |
| R-P1-Bq-226 | F.3.11    | Gabion Cylinder Dia. 500mm (Galvanized and Coated with PVC)      | m <sup>3</sup> | 66       | 533,280            | 3,820   | 171,320    | 35,196,480            | 252,120   | 11,307,120 | 46,755,720 |
| R-P1-Bq-227 | F.3.12    | Soil Filling   | m <sup>3</sup> | 20       | 8,860              | 140     | 7,820      | 177,200               | 2,800     | 156,400    | 336,400    |
| R-P1-Bq-228 | F.3.13    | Gabion Mattress t=500mm (Galvanized)                             | m <sup>3</sup> | 29       | 659,260            | 3,060   | 142,060    | 19,118,540            | 88,740    | 4,119,740  | 23,327,020 |
| R-P1-Bq-229 | F.3.14    | Rubble Stone Filling   | m <sup>3</sup> | 9        | 15,070             | 2,320   | 49,320     | 135,630               | 20,880    | 443,880    | 600,390    |
| R-P1-Bq-230 | F.4       | Connecting Channel and Drainage Pipe                             |                |          |                    |         |            |                       |           |            |            |
| R-P1-Bq-231 | F.4.1     | Structural Excavation  | m <sup>3</sup> | 630      | 19,700             | 400     | 15,360     | 12,411,000            | 252,000   | 9,676,800  | 22,339,800 |
| R-P1-Bq-232 | F.4.2     | Backfill with Selected Soil                                      | m <sup>3</sup> | 390      | 12,720             | 770     | 20,480     | 4,960,800             | 300,300   | 7,987,200  | 13,248,300 |
| R-P1-Bq-233 | F.4.3     | Gravel Bedding   | m <sup>3</sup> | 16       | 6,920              | 1,360   | 32,990     | 110,720               | 21,760    | 527,840    | 660,320    |
| R-P1-Bq-234 | F.4.4     | Wet Stone Masonry  | m <sup>3</sup> | 100      | 46,070             | 28,800  | 200,020    | 4,607,000             | 2,880,000 | 20,002,000 | 27,489,000 |
| R-P1-Bq-235 | F.4.5     | Mortar Plastering on Surface of Wet Stone Masonry                | m <sup>2</sup> | 208      | 2,380              | 1,200   | 10,600     | 495,040               | 249,600   | 2,204,800  | 2,949,440  |
| R-P1-Bq-236 | F.4.6     | Furnishing and Installing RC Pipe, Dia.600mm                     | m              | 16       | 60,990             | 9,830   | 68,180     | 975,840               | 157,280   | 1,090,880  | 2,224,000  |
| R-P1-Bq-237 | F.4.7     | Concrete, Type D including Formwork                              | m <sup>3</sup> | 17       | 102,540            | 43,070  | 317,440    | 1,743,180             | 732,190   | 5,396,480  | 7,871,850  |
| R-P1-Bq-238 | F.4.8     | Concrete, Type C1 including Formwork                             | m <sup>3</sup> | 13       | 112,470            | 44,160  | 365,370    | 1,462,110             | 574,080   | 4,749,810  | 6,786,000  |
| R-P1-Bq-239 | F.4.9     | Deformed Reinforcing Bars for Item F.4.7 and F.4.8               | kg             | 1,440    | 1,230              | 2,809   | 3,300      | 1,771,056             | 4,044,816 | 4,752,144  | 10,568,016 |
| R-P1-Bq-240 | F.5       | Reinforcement of Existing Dike                                   |                |          |                    |         |            |                       |           |            |            |
| R-P1-Bq-241 | F.5.1     | Structural Excavation  | m <sup>3</sup> | 130      | 19,700             | 400     | 15,360     | 2,561,000             | 52,000    | 1,996,800  | 4,609,800  |
| R-P1-Bq-242 | F.5.2     | Embankment for Dike  | m <sup>3</sup> | 120      | 26,300             | 1,210   | 38,300     | 3,156,000             | 145,200   | 4,596,000  | 7,897,200  |
| R-P1-Bq-243 | F.5.3     | Solid Sodding  | m <sup>2</sup> | 40       | 1,230              | 0       | 6,070      | 49,200                | 0         | 242,800    | 292,000    |
| R-P1-Bq-244 | F.5.4     | Gravel Bedding   | m <sup>3</sup> | 3        | 6,920              | 1,360   | 32,990     | 20,760                | 4,080     | 98,970     | 123,810    |
| R-P1-Bq-245 | F.5.5     | Wet Stone Masonry  | m <sup>3</sup> | 30       | 46,070             | 28,800  | 200,020    | 1,382,100             | 864,000   | 6,000,600  | 8,246,700  |
| R-P1-Bq-246 | F.5.6     | Cement Mortar Pointing on Surface of Wet Stone Masonry           | m <sup>2</sup> | 32       | 2,000              | 1,010   | 8,900      | 64,000                | 32,320    | 284,800    | 381,120    |
| R-P1-Bq-247 | F.5.7     | Backfill with Selected Soil                                      | m <sup>3</sup> | 80       | 12,720             | 770     | 20,480     | 1,017,600             | 61,600    | 1,638,400  | 2,717,600  |
| R-P1-Bq-248 | <b>G.</b> | <b>Drainage Outlet Works</b>                                     |                |          |                    |         |            |                       |           |            |            |
| R-P1-Bq-249 | G.1       | Preparatory Works  |                |          |                    |         |            |                       |           |            |            |
| R-P1-Bq-250 | G.1.1     | Coffering and Dewatering   | L.S.           | 1        | 15,480,900         | 589,100 | 18,393,200 | 15,480,900            | 589,100   | 18,393,200 | 34,463,200 |
| R-P1-Bq-251 | G.1.2     | Clearing and Grubbing  | m <sup>2</sup> | 580      | 4,040              | 90      | 2,850      | 2,343,200             | 52,200    | 1,653,000  | 4,048,400  |
| R-P1-Bq-252 | G.1.3     | Demolition of Existing Structure (Concrete and Wet Masonry)      | m <sup>3</sup> | 20       | 71,146             | 1,872   | 56,788     | 1,422,920             | 37,440    | 1,135,760  | 2,596,120  |
| R-P1-Bq-253 | G.2       | Outlet Structures  |                |          |                    |         |            |                       |           |            |            |
| R-P1-Bq-254 | G.2.1     | Structural Excavation  | m <sup>3</sup> | 1,570    | 19,700             | 400     | 15,360     | 30,929,000            | 628,000   | 24,115,200 | 55,672,200 |
| R-P1-Bq-255 | G.2.2     | Backfill with Selected Soil                                      | m <sup>3</sup> | 460      | 12,720             | 770     | 20,480     | 5,851,200             | 354,200   | 9,420,800  | 15,626,200 |
| R-P1-Bq-256 | G.2.3     | Furnishing and Driving Log Pile, Dia. 150mm, L=2.0m              | m              | 25       | 35,750             | 370     | 31,360     | 893,750               | 9,250     | 784,000    | 1,687,000  |
| R-P1-Bq-257 | G.2.4     | Gravel Bedding   | m <sup>3</sup> | 39       | 6,920              | 1,360   | 32,990     | 269,880               | 53,040    | 1,286,610  | 1,609,530  |
| R-P1-Bq-258 | G.2.5     | Chipping on Existing Structure                                   | m <sup>2</sup> | 30       | 3,690              | 0       | 18,310     | 110,700               | 0         | 549,300    | 660,000    |
| R-P1-Bq-259 | G.2.6     | Concrete, Type E including Formwork                              | m <sup>3</sup> | 4        | 78,580             | 37,610  | 211,460    | 314,320               | 150,440   | 845,840    | 1,310,600  |
| R-P1-Bq-260 | G.2.7     | Concrete, Type-C1 including Formwork                             | m <sup>3</sup> | 49       | 112,470            | 44,160  | 365,370    | 5,511,030             | 2,163,840 | 17,903,130 | 25,578,000 |

Table 8.5.1 (7/9) PAYMENT ITEMS AND THE COSTS FOR PACKAGE-1

| ID No.      | Item No. | BQ Item   | Unit           | Quantity | Unit Cost (rupiah) |           |             | Initial Cost (rupiah) |            |             |               |
|-------------|----------|---|----------------|----------|--------------------|-----------|-------------|-----------------------|------------|-------------|---------------|
|             |          |   |                |          | PF/C               | IF/C      | L/C         | PF/C                  | IF/C       | L/C         | Total         |
| R-P1-Bq-261 | G.2.8    | Concrete, Type-C2 including Formwork  | m <sup>3</sup> | 2        | 110,850            | 46,340    | 355,990     | 221,700               | 92,680     | 711,980     | 1,026,360     |
| R-P1-Bq-262 | G.2.9    | Concrete, Type-D including Formwork   | m <sup>3</sup> | 3        | 102,540            | 43,070    | 317,440     | 307,620               | 129,210    | 952,320     | 1,389,150     |
| R-P1-Bq-263 | G.2.10   | RC Concrete Pipe, Dia.600mm   | m              | 5        | 60,990             | 9,830     | 68,180      | 304,950               | 49,150     | 340,900     | 695,000       |
| R-P1-Bq-264 | G.2.11   | Deformed Reinforcing Bars for G.2.7   | kg             | 1,940    | 1,230              | 2,809     | 3,300       | 2,386,006             | 5,449,266  | 6,402,194   | 14,237,466    |
| R-P1-Bq-265 | G.2.12   | Wet Stone Masonry   | m <sup>3</sup> | 380      | 46,070             | 28,800    | 200,020     | 17,506,600            | 10,944,000 | 76,007,600  | 104,458,200   |
| R-P1-Bq-266 | G.2.13   | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry                                    | m <sup>2</sup> | 176      | 2,000              | 1,010     | 8,900       | 352,000               | 177,760    | 1,566,400   | 2,096,160     |
| R-P1-Bq-267 | G.2.14   | Joint Filler, 10mm thick (Elastic Material)   | m <sup>2</sup> | 24       | 6,750              | 9,260     | 24,250      | 162,000               | 222,240    | 582,000     | 966,240       |
| R-P1-Bq-268 | G.2.15   | Drilling, Anchoring Steel Bars in Existing Floodwall and Filling the Hole with Non-shrinkage Mortar | nos.           | 113      | 2,600              | 2,010     | 10,880      | 293,800               | 227,130    | 1,229,440   | 1,750,370     |
| R-P1-Bq-269 | G.2.16   | Plastering on Surface of Wet Masonry  | m <sup>2</sup> | 26       | 2,380              | 1,200     | 10,600      | 61,880                | 31,200     | 275,600     | 368,680       |
| R-P1-Bq-270 | G.2.17   | Gabion Mattress t=500mm (Galvanized)  | m <sup>3</sup> | 24       | 664,580            | 3,120     | 145,960     | 15,949,920            | 74,880     | 3,503,040   | 19,527,840    |
| R-P1-Bq-271 | G.2.18   | Gabion Cylinder Dia. 500mm (Galvanized and Coated with PVC)   | m <sup>3</sup> | 70       | 533,280            | 3,820     | 171,320     | 37,329,600            | 267,400    | 11,992,400  | 49,589,400    |
| R-P1-Bq-272 | G.2.19   | Rubble Stone Filling  | m <sup>3</sup> | 5        | 15,070             | 2,320     | 49,320      | 75,350                | 11,600     | 246,600     | 333,550       |
| R-P1-Bq-273 | G.2.20   | Soil Filling  | m <sup>3</sup> | 30       | 8,860              | 140       | 7,820       | 265,800               | 4,200      | 234,600     | 504,600       |
| R-P1-Bq-274 | G.3      | Gate Works  |                |          |                    |           |             |                       |            |             |               |
| R-P1-Bq-275 | G.3.1    | Furnishing and Installing Steel Flap Gate (H=0.7m x W=1.1m)   | nos.           | 1        | 7,613,000          | 132,800   | 5,551,400   | 7,613,000             | 132,800    | 5,551,400   | 13,297,200    |
| R-P1-Bq-276 | G.3.2    | Furnishing and Installing Steel Flap Gate (H=0.8m x W=1.4m)   | nos.           | 1        | 9,346,500          | 120,500   | 6,685,000   | 9,346,500             | 120,500    | 6,685,000   | 16,152,000    |
| R-P1-Bq-277 | G.3.3    | Furnishing and Installing Steel Flap Gate (H=1.0m x W=1.0m)   | nos.           | 1        | 8,094,600          | 115,500   | 5,823,800   | 8,094,600             | 115,500    | 5,823,800   | 14,033,900    |
| R-P1-Bq-278 | G.3.4    | Furnishing and Installing Steel Flap Gate (H=1.0m x W=1.0m)   | nos.           | 1        | 8,094,600          | 115,500   | 5,823,800   | 8,094,600             | 115,500    | 5,823,800   | 14,033,900    |
| R-P1-Bq-279 | G.3.5    | Furnishing and Installing Steel Flap Gate (H=0.9m x W=1.1m)   | nos.           | 1        | 8,493,500          | 120,200   | 6,107,600   | 8,493,500             | 120,200    | 6,107,600   | 14,721,300    |
| R-P1-Bq-280 | G.3.6    | Furnishing and Installing Steel Flap Gate (H=2.2m x W=1.6m)   | nos.           | 1        | 22,794,200         | 325,300   | 16,399,700  | 22,794,200            | 325,300    | 16,399,700  | 39,519,200    |
| R-P1-Bq-281 | G.3.7    | Furnishing Stop Log (H=2.6m x W=1.2m)   | nos.           | 1        | 3,201,200          | 19,300    | 2,178,000   | 3,201,200             | 19,300     | 2,178,000   | 5,398,500     |
| R-P1-Bq-282 | H.       | River Amenity and Maintenance Facilities  |                |          |                    |           |             |                       |            |             |               |
| R-P1-Bq-283 | H.1      | Preparatory Works   |                |          |                    |           |             |                       |            |             |               |
| R-P1-Bq-284 | H.1.1    | Coffering and Dewatering  | L.S.           | 1        | 738,927,600        | 2,918,000 | 458,445,600 | 738,927,600           | 2,918,000  | 458,445,600 | 1,200,291,200 |
| R-P1-Bq-285 | H.1.2    | Clearing and Grubbing   | m <sup>2</sup> | 610      | 4,040              | 90        | 2,850       | 2,464,400             | 54,900     | 1,738,500   | 4,257,800     |
| R-P1-Bq-286 | H.2      | Approach Steps, Type-W.A ( 18 places)   |                |          |                    |           |             |                       |            |             |               |
| R-P1-Bq-287 | H.2.1    | Structural Excavation   | m <sup>3</sup> | 230      | 19,700             | 400       | 15,360      | 4,531,000             | 92,000     | 3,532,800   | 8,155,800     |
| R-P1-Bq-288 | H.2.2    | Backfill with Selected Soil   | m <sup>3</sup> | 90       | 12,720             | 770       | 20,480      | 1,144,800             | 69,300     | 1,843,200   | 3,057,300     |
| R-P1-Bq-289 | H.2.3    | Wet Stone Masonry   | m <sup>3</sup> | 90       | 46,070             | 28,800    | 200,020     | 4,146,300             | 2,592,000  | 18,001,800  | 24,740,100    |
| R-P1-Bq-290 | H.2.4    | Gravel Bedding  | m <sup>3</sup> | 51       | 6,920              | 1,360     | 32,990      | 352,920               | 69,360     | 1,682,490   | 2,104,770     |
| R-P1-Bq-291 | H.2.5    | Cement Mortar Plastering  | m <sup>2</sup> | 131      | 2,380              | 1,200     | 10,600      | 311,780               | 157,200    | 1,388,600   | 1,857,580     |
| R-P1-Bq-292 | H.2.6    | Cement Mortar Pointing on Riverside Surface of Wet Stone Masonry                                    | m <sup>2</sup> | 89       | 2,000              | 1,010     | 8,900       | 178,000               | 89,890     | 792,100     | 1,059,990     |
| R-P1-Bq-293 | H.2.7    | Joint Filler, 10mm thick (Elastic Material)   | m <sup>2</sup> | 152      | 6,750              | 9,260     | 24,250      | 1,026,000             | 1,407,520  | 3,686,000   | 6,119,520     |
| R-P1-Bq-294 | H.2.8    | Drilling, Anchoring Steel Bars in Existing Floodwall and Filling the Hole with Non-shrinkage Mortar | nos.           | 278      | 2,600              | 2,010     | 10,880      | 722,800               | 558,780    | 3,024,640   | 4,306,220     |
| R-P1-Bq-295 | H.2.9    | Concrete Type D including Formwork  | m <sup>3</sup> | 19       | 102,540            | 43,070    | 317,440     | 1,948,260             | 818,330    | 6,031,360   | 8,797,950     |
| R-P1-Bq-296 | H.2.10   | Concrete Type C1 including Formwork   | m <sup>3</sup> | 31       | 112,470            | 44,160    | 365,370     | 3,486,570             | 1,368,960  | 11,326,470  | 16,182,000    |
| R-P1-Bq-297 | H.2.11   | Deformed Reinforcing Bar for Item H.2.10  | kg             | 2,020    | 1,230              | 2,809     | 3,300       | 2,484,398             | 5,673,978  | 6,666,202   | 14,824,578    |
| R-P1-Bq-298 | H.3      | Approach Steps, Type-W.B ( 6 places)  |                |          |                    |           |             |                       |            |             |               |
| R-P1-Bq-299 | H.3.1    | Structural Excavation   | m <sup>3</sup> | 150      | 19,700             | 400       | 15,360      | 2,955,000             | 60,000     | 2,304,000   | 5,319,000     |
| R-P1-Bq-300 | H.3.2    | Backfill with Selected Soil   | m <sup>3</sup> | 20       | 12,720             | 770       | 20,480      | 254,400               | 15,400     | 409,600     | 679,400       |
| R-P1-Bq-301 | H.3.3    | Furnishing and Driving Log Pile, Dia. 150mm, L=2.0m   | m              | 38       | 35,750             | 370       | 31,360      | 1,358,500             | 14,060     | 1,191,680   | 2,564,240     |
| R-P1-Bq-302 | H.3.4    | Gravel Bedding  | m <sup>3</sup> | 26       | 6,920              | 1,360     | 32,990      | 179,920               | 35,360     | 857,740     | 1,073,020     |
| R-P1-Bq-303 | H.3.5    | Rubble Stone Filling  | m <sup>3</sup> | 19       | 15,070             | 2,320     | 49,320      | 286,330               | 44,080     | 937,080     | 1,267,490     |
| R-P1-Bq-304 | H.3.6    | Concrete, Type C1 including Formwork  | m <sup>3</sup> | 19       | 112,470            | 44,160    | 365,370     | 2,136,930             | 839,040    | 6,942,030   | 9,918,000     |