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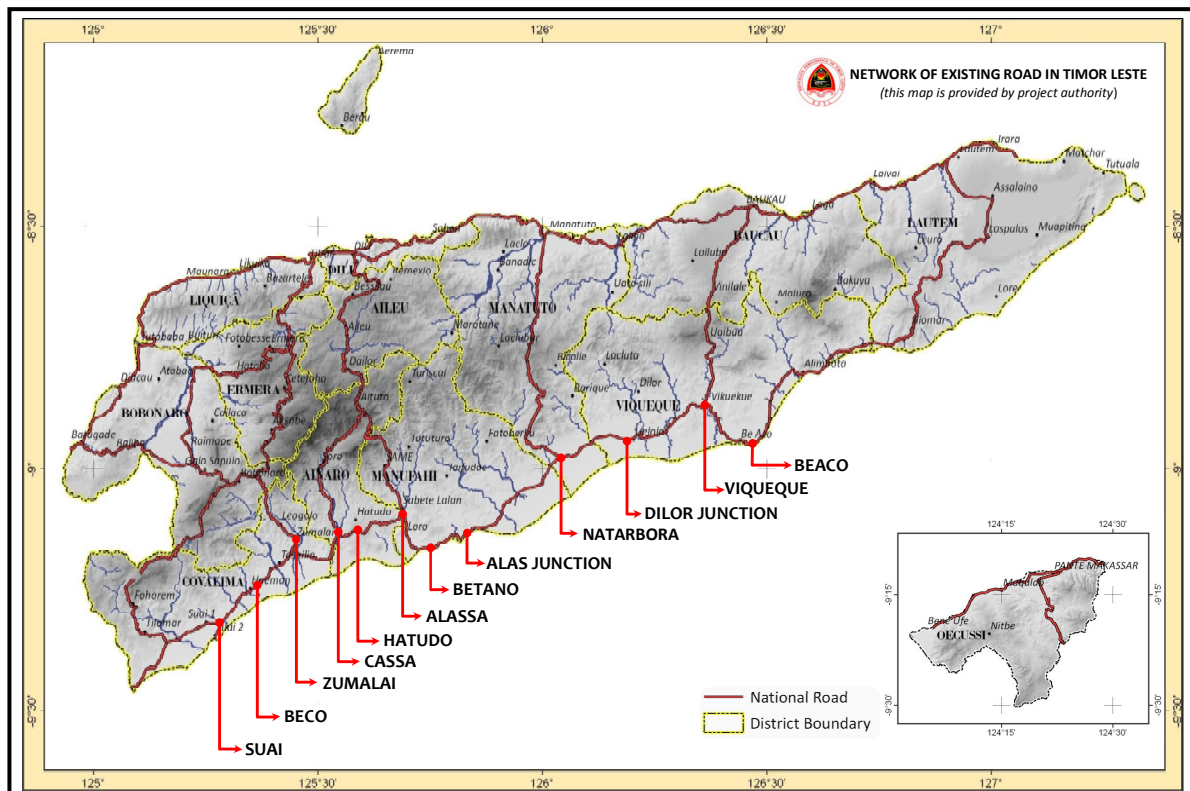
## 1. GENERAL

### 1.1. Suai – Beaco Existing Road Condition

Existing road condition along Suai to Beaco is very bad, the major part is unpaved or the pavement is totally failure

- Carriageway : 4.50 m
- Shoulder : 1-2 m
- Drainage : very poor
- Length : 190 km (*estimate*)

See Figure 1.



**Figure 1. NETWORK OF EXISTING ROAD**  
 (Source: Government of Timor Leste)

### 1.2. Sua – Beaco Highway Road Project Designed

A new highway road from Suai to Beaco is classified as expressway consists of four lanes for two ways.

- Beginning Point : Suai, sta. 0+000
- Ending Point : Beaco, sta. 155+679



- Length, km : 155.679

#### 1.2.1. Geometric Description

- Lane width, m : 4 X 3.60
- Median, m : 2.50
- Outer Shoulder : 3.00
- Inner Shoulder : 1.50

#### 1.2.2. Cross Sectional

- Embankment Height : 0.50 m varies to 20.00 m
- Embankment Slope : 1(V) : 2(H) and 1 (V) : 1 (H)
- Cutting Height : 0.50 m varies to 15.00 m (*maximum 50.00 m*)
- Cutting Slope : 2(V) : 1(H)

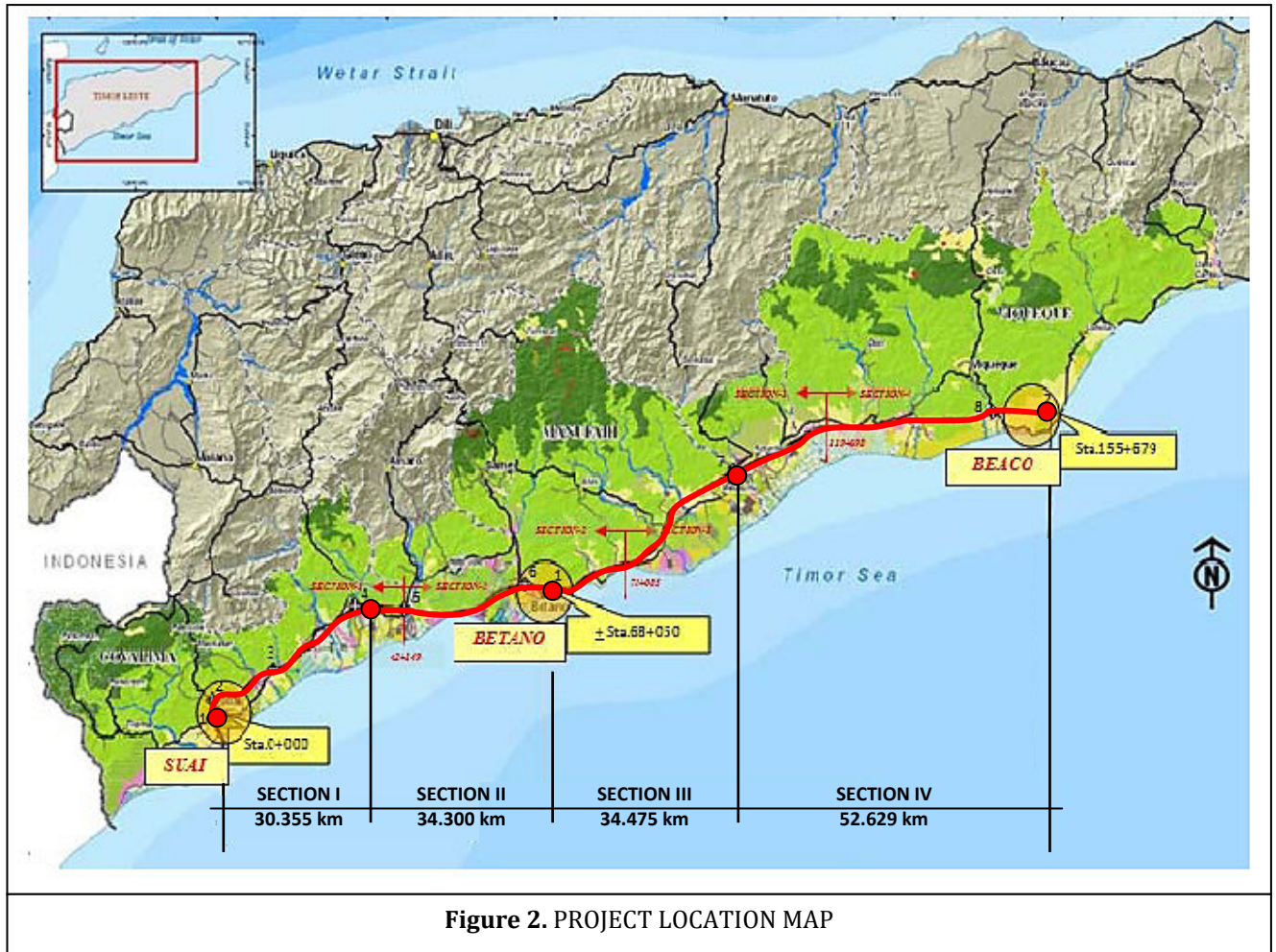
#### 1.2.3. Pavement

- Type of Pavement : Flexible Pavement
- Pavement structure,
  - AC Wearing Course : 4 cm
  - AC Binder Course : 6 cm
  - AC Base : 6 cm
  - Aggregate Base : 25 cm
  - Aggregate Sub Base : 30 cm

#### 1.2.4. Section

For construction purpose, a new highway road is splitted into *four (4)* Sections as presented in table below.

No	Section	Sta	Length	Remarks
1	Suai – Fatukai	3+920 - 34+275	30.355	See Figure 2.
2	Fatukai – Beaco	34+275 – 68+575	34.300	
3	Beaco – Clacuc	68+575 – 103+050	34.475	
4	Clacuc - Beaco	103+050 – 155+679	52.629	



#### 1.2.5. Major Work Component

- **Earth Work**
  - Embankment
  - cutting
- **Pavement**
  - As point 1.2.3
- **Bridge**
  - Super Structure : Prestress Concrete I Girder
  - Substructure : Reinforced Concrete
  - Foundation : Bore Pile



- Number of major bridge in each Section

No. of Section	Number of Bridge	Total Length (m)
1	8	1685
2	6	1527
3	5	1177
4	9	1272

- *Water Crossing Drainage/Culvert*

- Type of Culvert:

- Single and Double RC Pipe, diameter 1.20 m
- Single, Double and Triple RC Box dimension 2 m (W) : 2 m (H)

- Number of Culvert in each Section

No. of Section	RC Pipe		Rc. Box		
1	31	19	6	2	1
2	35	7	11	1	2
3	25	15	9	3	2
4	63	4	2	1	1

- *Existing Road Crossing*

- Type of Crossing : Underpass
- Type of Structure : Reinforce Concrete Box
- Dimension
  - National Road (NR) :
  - Regional Road (RR) :
  - Local Road (LR) :
- Number of Crossing

No. of Section	Number of Crossing		
1	3	3	5
2	4	0	11
3	1	1	7
4	2	5	7

- *Interchange in each Section*

No. of Section	Number of IC
1	0
2	1
3	0
4	1



### 1.2.6. Civil Work Construction Period

No. of Section	Construction Period (months)	Remark
1	24	This tender process
2	24	Next construction period
3	24	Next Construction period
4	24	Next Construction period

## 2. DESCRIPTION OF THIS PROJECT

### 2.1. General

A new highway road from Suai to Fatukai/Mola is Section-1 of Suai – Beaco were classified as expressway consists of four lanes for two ways.

- Beginning Point : Suai, sta. 3+920
- Ending Point : Fatukai/Mola, sta. 34+275
- Length, km : 30.355

### 2.2. Geometric Description

- Lane width, m : 4 X 3.60
- Median, m : 2.50
- Outer Shoulder : 3.00
- Inner Shoulder : 1.50

### 2.3. Cross Sectional

- Embankment Height : 0.50 m varies to 20.00 m
- Embankment Slope : 1(V) : 2(H) and 1 (V) : 1 (H)
- Cutting Height : 0.50 m varies to 15.00 m (*maximum 50.00 m*)
- Cutting Slope : 2(V) : 1(H)

### 2.4. Pavement

- Type of Pavement : Flexible Pavement
- Pavement structure;
  - AC Wearing Course : 4 cm
  - AC Binder Course : 6 cm
  - AC Base : 6 cm
  - Aggregate Base : 25 cm
  - Aggregate Sub Base : 30 cm



2.5. Major Work Component

- *Earth Work*
  - Embankment
  - cutting
- *Pavement*
  - As point 2.4
- *Bridge*
  - Super Structure : Prestress Concrete I Girder
  - Substructure : Reinforced Concrete
  - Foundation : Bore Pile
  - Number of major bridge in each Section

No. of Section	Number of Bridge	Total Length (m)
1	8	1685

- *Water Crossing Drainage/Culvert*
  - Type of Culvert:
    - Single and Double RC Pipe, diameter 1.20 m
    - Single, Double and Triple RC Box dimension 2 m (W) : 2 m (H)
  - Number of Culvert in each Section

No. of Section	RC Pipe		Rc. Box		
1	31	19	6	2	1

- *Existing Road Crossing*
  - Type of Crossing : Underpass
  - Type of Structure : Reinforce Concrete Box
  - Dimension
    - National Road (NR) :
    - Regional Road (RR) :
    - Local Road (LR) :
  - Number of Crossing

No. of Section	Number of Crossing		
1	3	3	5

- *Interchange in each Section*

No. of Section	Number of IC
1	0

2.6. Civil Work Construction Period





No. of Section	Construction Period ( <i>months</i> )	Remark
1	24	