

Transportation Improvement Proposals for Coimbatore

With a view to improve the traffic situation and manage with the infrastructure facilities in Coimbatore, a number of proposals have been recommended. These proposals are broadly classified under Short-term, Medium-term and Long-term measures. The various proposals include:

SHORT TERM IMPROVEMENTS

- Traffic Management Measures
- Junction Improvements
- Roadway Riding Quality Improvements
- Footpaths and Cycle Tracks

MEDIUM TERM IMPROVEMENTS

- Missing Links Connectivity (Priority I & II)
- Flyovers (Priority I & II)
- Road Over Bridges (Priority I)
- Pedestrian Subways (Priority I)
- Road Widening Schemes (Priority I)

LONG TERM IMPROVEMENTS

- Ring Roads (Priority II)
- Mass Transit (Priority I)
- Multi-Level Parking Facilities (Priority I)
- Bus Terminals (Priority II)
- Truck Terminals (Priority II)

COST ESTIMATES

The block cost estimates for each of the proposals under the above three categories are summarized below:

SHORT TERM IMPROVEMENTS

SHORT TERM	Project Component	Cost In Crore
	Road way Riding quality Improvements	57.00
	Intersection Improvements	3.00
	Traffic Management	30.00
	Cycle Track and Footpaths	21.00
	TOTAL	111.00

MEDIUM TERM IMPROVEMENTS

MEDIUM TERM	Project Component	Cost In Crore
	Fly Over	211.00
	Pedestrian Underpass	26.50
	ROB & RUB	92.50
	Road Widening	234.00
	Road - Missing link	585.00
	TOTAL	1,149.00

LONG TERM IMPROVEMENTS

LONG TERM	Project Component	Cost In Crore
	BRTS	383.00
	Ring Roads	478.00
	Bus Terminals	65.00
	Truck Terminals	36.00
	Parking Facilities	200.00
	TOTAL	1,162.00

TOTAL COST : Rs. 2422 crore

Note:

1. The costs shown include the engineering cost, rehabilitation cost, land acquisition cost and the cost for shifting utilities. Necessary escalation in the costs shall be considered during implementation.
2. The cost for BRTS does not include the cost for purchasing buses (approximately 20 crores for 66 buses).

Summary of Improvement Proposal

Project Background

Coimbatore City Municipal Corporation planned to undertake a Comprehensive Transport Study in the city and local planning area of Coimbatore and implement a number of transport infrastructure improvement projects. These projects are proposed to be funded under Jawaharlal Nehru National Urban Renewal Mission(JNNURM).

Project Scope

The objectives of this project is to carry out design of selected infrastructure components improving riding quality of roads, flyovers, RoBs, pedestrian subways and Bus Rapid Transit System and conduct a comprehensive Traffic and Transportation study for Coimbatre to identify long term projects for catering to the growing transportation needs of the city. The study is proposed to be carried out in the following two phases.

Phase 1 – The city corporation has identified based on past studies and traffic information a number of projects to be taken up on a priority basis. First phase of the project involves preparation of Detailed Project Report (DPR) for the identified schemes including establishing the physical, traffic, engineering and economic viability of the identified schemes. Phase I is further divided in to three packages namely:

Package 1: Developments and improvements to the existing road of 33 kilometers of selected corridors in the city.

Package 2: Detailed field survey and designing of five flyovers, nine Rail Over Bridges (ROB) and pedestrian facilities on nine identified corridors.

Package 3: Route selection and Detailed Feasibility for Bus Rapid Transit System. Detailing of infrastructure and traffic plans for implementation of the BRT on the selected corridor.

Package 4: Widening Schemes for Identified Roads.

JNNURM PROGRAM

With the aim to encourage the cities the GOI has launched a JNNURM scheme to bring about improvement in the existing service level. Mission statement for the program is "Reforms driven, fast track, planned development of identified cities with focus on efficiency in urban infrastructure / services delivery mechanism, community participation and accountability of Urban Local Bodies (ULBs) / towards citizens". The duration of the program is for seven years from year 2005 to year 2012.

Assistance to ULBs through the program can be utilized for Capacity Building, City Development Plan (CDP), Detailed Project Reports (DPRs), Community Participation,

Information, Education and Communication (IEC) and also for Investment Support Component

City of Coimbatore has already completed preparation of a City Development Plan status of the project funding is as given below.

- 3187 Crores allocated for Coimbatore based on CDP
- 50% grant from GoI & 20% from GoTN
- Projects to be completed between 2005 -2012 (7years period)
- DPR to be submitted to Govt. of India for grant

Project Components

Identified Schemes

Package 1. Road

Roads included in this study

The roads included in this study sums up to a total length of 33.43 Km. Table 2.7 gives the list of road included in the study. The following sections give the list of deficiencies identified and the improvement proposals for the same. In general the pavement overlay, road markings, signages, road side furniture and lighting should be provided in all roads. Full reconstruction and road side arboriculture also considered in some roads.

Roads selected for improvement

SL NO	ROADS	LENGTH(KM)
1	RAJA STREET	1.30
2	NSR ROAD	1.75
3	DB ROAD	1.70
4	MASAKALIPALAYAM	3.30
5	THANNEERPANTHAL ROAD	5.05
6	KAMARAJ CIRCUIT HOUSE ROAD	1.43
7	RAJU ROAD	0.65

SL NO	ROADS	LENGTH(KM)
8	RAJENDRA PRASAD ROAD	1.20
9	CHINNASAMY ROAD	1.20
10	UKKADAM-BYPASS- -SUNDAKKAMUTHOOR	3.12
11	GVR ROAD	3.0
12	CHOKKAMPUDUR	1.25
13	RAMAMURTHY	1.45
14	SUBRAMANIYAUDAYAR	1.25
15	BARATHI ROAD	1.23
16	CMS SCHOOL SIDE ROAD	1.0
17	POLICEQUARTER'S APPROACH ROAD	1.25
18	SANGANUR	1.45
19	PANKAJAMILL-GEM HOSPITAL	0.85.

Package 2.**A. Flyovers****Proposed Flyover Locations**

Sl.	Name of the intersection	Location & Traffic details	Importance (In terms of peak hour volume)
1	Lakshmi mill junction	Towards East-Hopes College junction West-Anna flyover North-Bharathiyar road South- Puliyakulam road	Peak hour:17:30-18:30 Peak Hour Volume(Nos):8129 Peak Hour Volume(PCU):8083
2	Sathyamangalam road-Cross cut road	Towards East-Bharathiyar road West-Cross cut road North-Sathyamangalam road South- Nanjappa road	Peak hour:18:15-19:15 Peak Hour Volume(Nos):11518 Peak Hour Volume(PCU):11172
3	Sathyamangalam road-100ft road	Towards East-Chinnasamy road West-100 ft road North-Sathyamangalam road South- Gandhipuram road	Peak hour:9:15-10:15 Peak Hour Volume(Nos):8863 Peak Hour Volume(PCU):8581

4	Mettupalayam road - Sivanananda colony road	Towards East-Sivananda colony road North-Mettupalayam road South-NSR Road	Peak hour:08:45-09:45 Peak Hour Volume(Nos):7871 Peak Hour Volume(PCU):7177
5	Kikkani School road railway crossing	Towards East-Sastri road West-Kamaraj road North-Mettupalayam road South- Railway Station	Peak hour:19:00-20:00 Peak Hour Volume(Nos):8023 Peak Hour Volume(PCU):7653

Initial four flyovers are proposed with total width 17m for four lane configuration. At grade roads of 7m wide with 0.25m shy away have been provided on both sides. Footpath with interlocking tiles has been provided between the carriageway and property edges. Provision for parking is given below the flyover in between the slip roads. The road markings, signage, road side furniture and lighting are provided appropriately. On the flyover the corridor for BRTS shall be demarked and treated with colour pigment.

For Fifth flyover at Kikkani a two lane flyover with 8.5 m width is proposed. 3.5 m wide at grade road with 1m footpath has been proposed on both sides.

Sl. No	Name of the intersection	Structural arrangement	Total length (m)
1	Lakshmi mill junction	18mx62+20mx2+18mx35+36mx1 + 18mx7	670
2 & 3	Sathyamangalam road- Cross cut road & Sathyamangalam road- 100ft road	18mx10+28mx2+18mx23+25mx3 +18mx13+36m+18mx8	1920

Sl. No	Name of the intersection	Structural arrangement	Total length (m)
4	Mettupalayam road - Sivanananda colony road	25mx11+30m+25mx14	1340
5	Kikkani School road railway crossing	18mx12+36m+18mx8+36m+18m x6	870

B. ROB / RUB

Level Crossing Proposed with ROBs

Sl. No	Name of the Road	Location	Details of LC (TVU)	Importance
1	Thaierettari Road	Ratnapuri	LC 13 C (148364)	Connecting Sangapur with City
2	Rathinapuri 7th Street Extn.	Ratnapuri	LC 11 A (273546)	Connecting Sangapur Main Road with Town
3	Vellankuruchy Road	Peelamedu	LC 7G(168126)	Vilankuruchi with Avinashi Road
4	SIH Colony Road	Singanallur	LC 4B(80840)	Connection of SIHS Colony with Trichy Road
5	Avarampalayam Road	Avarampalayam	LC 9B (282381)	Connecting Ganapathy with Avarampalayam

Proposed Span Configurations for ROBs

Sl.	Name of the Road	Location	Total length (m)	Structural arrangement Span arrangement (m)
1	Thaierettari Road	Ratnapuri		1 x 10m x 5.5m (box structure)
2	Rathinapuri 7th Street Extn.	Ratnapuri	65	1x20 + 1x25 + 1x20
3	Vellankuruchy Road	Peelamedu	170	1x20 + 1x 25 + 2x40 + 1 x 25 + 1x20
4	SIH Colony Road	Singanallur	65	1x20 + 1x25 + 1x20
5	Avarampalayam Road	Avarampalayam	70	1x20 + 1x30 + 1x20

All the above RoBs are proposed as 2 lane configuration.

C. Pedestrian Facilities

Sl. No.	Locations		Peak Hour (time)	Peak Hr Count	Total Vol (sum of 12hrs)
1	Gandhipuram Junction	Commercial Subway	6.00 pm- 7.00 pm	6314	57401
2	In front of Railway Station	Subway	6.00 pm- 7.00pm	3891	32913
3	Clock Tower Junction	Commercial Subway	5 pm- 6 pm	3035	28516

Sl. No.	Locations		Peak Hour (time)	Peak Hr Count	Total Vol (sum of 12hrs)
4	Town Hall Junction	Commercial Subway	7 pm- 8pm	7135	53647
5	Bib Bazar Street and Oppanackara street Junction	Commercial Subway	4 pm- 5 pm	8212	61027
6	Gandhi Park junction	Subway	6 pm- 7 pm	1292	10553
7	Ramanathapuram Junction	Subway	4.15pm- 5.15 pm	864	5771
8	PSG Tech Junction / GRD Metric School	Subway	4 pm- 5 pm	1907	16674
9	Lakshmi Mills Junction	Subway	6.30 pm- 7.30 pm	2020	15072
10	CMC Hospital	Commercial Subway	9:00 am- 10:00 am	7962	58691
11	Uppilipalayam Junction	Subway	5:15pm -6:15 pm	527	16781
8	At Peelamedu	Subway	2:00 pm-3:00 pm	827	6356
13	Singanallur Junction	Subway	5.30 pm- 6.30 pm	581	5281
14	Nirmala College Junction / Sungam	Subway	4.30pm- 5.30 pm	541	4508
15	Hopes College Junction	Subway	6.30 pm- 7.30 pm	1285	10174

Sl. No.	Locations		Peak Hour (time)	Peak Hr Count	Total Vol (sum of 12hrs)
16	Anna Statue Junction	Subway	6.30 pm-7.30 pm	2002	16640
17	Tirupur Textile Park Junction	Subway	6 pm- 7pm	741	6443
18	Marutamalai junction / Thadagam	Subway	5. 15 pm-6.15 pm	718	6535

At locations where commercial establishments are not viable, pedestrian underpass having clear opening size of 4.0m x 2.5m is proposed.

At locations where commercial establishments are viable, pedestrian underpass having clear opening size of 9.5m x 3.0m, Shops of floor area of 2.75m x 3.0m and Walkway of 3.5m width are proposed.

Package 3: Bus Rapid Transport System

Project stretch of about 17.6 kms starting at Avinashi Road and ending at Mettupalayam Road running through Dr. Rajendra Prasad Road. After Avinashi road, the project road turns left from Stanes High School and passes along the Central Jail and joins at Dr. Rajendra Prasad Road (100 Ft. Road). Avinashi road, Dr. Rajendra Prasad Road and Mettupalayam road are provided with the exclusive lane for buses termed BRTS lane and the connecting links are allowed to flow with the mixed traffic. The different sections in the project stretch are given in Table below

Sections in the project stretch

SI No	Sections	Road	Length	At Grade / Elevated	Location
1	Section 1	Avinashi Road	1.85	At Grade	Airport road to PSG Tech, Dedicated bus lane.
2	Section 2	Avinashi Road	1.52	Elevated At PSG Tech	PSG Tech to LIC Junction, Dedicated bus lane.
			0.18	At Grade	
			2.53	Elevated	
			0.32	At Grade	
			0.67	Elevated At Lekshmi Mill Flyover	
1.93	At Grade				
3	Section 3	LIC Junction to 100 Ft. Road Sathy Road Junction	2.50	Mixed Lane	LIC Junction to 100 Ft. Road Sathy Road Junction (Via Central Jail, Dr. Nanjappa Road), mixed traffic lane.
4	Section 4	100 Feet Road	1.20	At Grade	Dr. Rajendra Prasad Road (100 Ft. Road), Dedicated bus lane.

SI No	Sections	Road	Length	At Grade / Elevated	Location
5	Section 5	100 ft Road to Chinthamani Junction	1.2	Mixed Lane	100 ft Road to Chinthamani Junction at Mettupalayam Road, mixed traffic lane.
6	Section 6	Mettupalayam Road	1.21	At Grade	Chinthamani Junction to Mettupalayam Road (Kovai Flyover Junction to Industrial Training Institute), Dedicated lane for buses.
			1.02	Elevated At Sivanada Colony Flyover	
			0.69	At Grade	
			1.10	Elevated at Coundampalayam	
			0.64	At Grade	

A Dedicated Two Lane carriageway of width 7.0m is provided for BRTS corridor. A Dual Lane for Mixed Traffic of Width 7.0m is provided on either side of the BRTS corridor. The Mixed traffic lane is separated from the BRTS lane by providing 250mm wide CC block on both sides. 2.0m wide Cycle Track over and 2.0m wide Footpath over built-up drain is proposed on either side of Mixed Traffic Lane. The Cycle Track is separated from Mixed Traffic Lane by providing 250mm CC Buttons. Out of Total 17.6 km BRTS is passing at grade for a length of 6.64 km (dedicated) and 6.87 km is passing though elevated section. It is proposed to have 14 at grade bus stops and 3 elevated bus stops.

Package 4: Widening of Selected Road Stretches

One of the problems that exist in many of the urban centers is that the core centers of the town are so saturated that there is no scope for any widening of roads. Coimbatore to some extent does not have that problem, as the road widening process is going on at several locations.

Based on the travel demand forecasts, the deficiencies in the road network are identified and measures are developed with a view to accelerate the process of final development with minimum land acquisition and moderate investment.

Location	Proposed Lanes	
	2007	2011
Avinashi Road	4 lane – 2 way- Divided to 6lane – 2w -Divided	-
Trichy Road	4 lane – 2 way- Divided to 6lane – 2w -Divided	-
Dr.Nanjappa Road	4 lane – 2 way- Divided to 6lane – 2w -Un Divided	6 lane – 2 way- Un Divided to 6lane – 2w – Divided
Kamraj Road	2 lane – 2 way- Un Divided to 4lane – 2w – Divided	-
Mettupalayam Road	4 lane – 2 way- Divided to 6lane – 2w -Divided	-
Palakkad Road	4 lane – 2 way- Divided to 6lane – 2w – Un	6 lane – 2 way- Un Divided to 6lane – 2w –

Location	Proposed Lanes	
	2007	2011
	Divided	Divided
Perur Road	2 lane – 2 way- Un Divided to 6lane – 2w – Un Divided	-
Satyamangalam Road	4 lane – 2 way- Divided to 6lane – 2w -Divided	-
Thadagam Road	2 lane – 2 way- Un Divided to 4lane – 2w – Un Divided	4 lane – 2 way- Un Divided to 4lane – 2w – Divided

Project Cost Estimates

As per the JNNURM guidelines the following items were considered for the costing

- Land acquisition/site development
- Physical infrastructure component-wise cost
- Environmental compliance cost
- Rehabilitation & resettlement cost (to be borne by ULB/ parastatal/ state government)
- Cost of surveys & investigations
- Cost of shifting utilities
- Cost of consultancy services: (a) Design (b) Supervision (c) Quality Assurance
- Other statutory compliance costs if applicable

- Finance / interest cost during construction of Civil cost
- Contingency

Total Project Cost

Sl. No.	Item	Capital Cost (Rs. in lakhs)
1	Road Improvements (33.4 Kms)	5,683.31
2	Flyovers (4 nos.)	21,112.78
3	RoBs/ RUB (5 nos.)	9,246.72
4	Pedestrian facilities (18 subways)	2,561.98
5	BRT	38,211.83
6	Widening of Selected Roads	23368.00
	Total	100188.00

Cost Under Different Heads

Cost Component	BRTS	Fly Over	Road	Pedestrian Underpass	ROB & RUB	Widening	Total
Cost for land acquisition	3,429.00	2,455.00	-	-	2,985.00	1,931.00	10,800.00
Cost for rehabilitation & resettlement	63.00	19.00	-	22.00	31.00	966.00	1,101.00
Cost for shifting utility	3,782.00	469.00	22.00	340.00	258.00	1,159.00	6,030.00
Construction cost (including environmental compliance, survey & investigation cost, consultancy service cost, other statutory compliance cost, Finance or interest cost & contingency)	30,938.00	18,173.00	5,661.00	2,200.00	5,973.00	19,313.00	82,258.00
Total	38,212.00	21,116.00	5,683.00	2,562.00	9,247.00	23,368.00	100,188.00

Grant from different agencies (total project cost)

Agencies	BRTS	Fly Over	Road	Pedestrian Underpass	ROB & RUB	Widenin g	Total
JNNURM (50%)	15,469.00	9,087.00	2,831.00	1,100.00	2,986.00	9,656.00	41,129.00
STATE GOVT (20%)	6,188.00	3,635.00	1,132.00	440.00	1,195.00	3,863.00	16,452.00
ULB (30%)	9,281.00	5,452.00	1,698.00	660.00	1,792.00	5,794.00	24,677.00
Total	30,938.00	18,173.00	5,661.00	2,200.00	5,973.00	19,313.00	82,258.00
Total amount to be borne by ULB	16,555.00	8,395.00	1,720.00	1,022.00	5,066.00	9,849.00	42,608.00

Break-ups for Each components are given Below.

Cost For Riding Quality improvement

No	Item Description	Roads
3.1	Land acquisition/site development (Land acquisition is not covered by JNNURM ACA Grant-- except for North-Eastern and designated hilly states. In all other cases, land acquisition is to be completed prior to application for JNNURM support).	-
3.2	Physical infrastructure component-wise cost (should correspond to section 2.2)	440,225,418.00

3.3	Environmental compliance cost	11,005,635 .00
3.4	Rehabilitation & resettlement cost (to be borne by ULB/ parastatal/ state government)	-
3.5	Cost of surveys & investigations	440,225.00
3.6	Cost of shifting utilities	2,201,127.00
3.7	Cost of consultancy services: (a) Design (b) Supervision (c) Quality Assurance 6%	26,413,525.00
3.8	Other statutory compliance costs if applicable	22,011,271.00
3.9	Finance / interest cost during construction 12% of Civil cost	52,827,050.00
3.10	Contingency-3%	13,206,763.00
3.11	Any other	-
Total		568,331,014.00

Costing for Flyovers

No	Item Description	Mettupalayam Road	Gandhipuram	Laxmi Mill	Kikkani	Total Cost
3.01	Land acquisition/site development (Land acquisition is not covered by JNNURM ACA Grant-- except for North-Eastern and designated hilly states. In all other cases, land acquisition is to be completed prior to application for JNNURM support).	48,551,897.00	47,607,897.00	39,799,543.00	109,548,321.00	245,507,658.00
3.02	Physical infrastructure component-wise cost (should correspond to section 2.2)					
	(a) Flyover Portion	396,859,319.00	667,715,235.00	245,041,424.00	143,749,615.00	1,453,365,593.00
	(b) Railway portion				3,991,564.00	3,991,564.00
3.03	Environmental compliance cost	2,325,588.00	4,027,746.00	1,520,722.00	1,915,753.00	9,789,809.00
3.04	Rehabilitation & resettlement cost (to be borne by ULB/ parastatal/ state government)	320,000.00	390,000.00	290,000.00	910,000.00	1,910,000.00
3.05	Cost of surveys & investigations	2,055,453.00	3,458,872.00	1,269,567.00	770,446.00	7,554,338.00
3.06	Cost of shifting utilities	11,071,424.00	14,047,254.00	12,030,384.00	9,746,711.00	46,895,773.00
3.07	Cost of consultancy services: (a) Design (b) Supervision (c) Quality Assurance 9%					
	(a) Approach Portion	32,887,255.00	55,341,955.00	20,313,071.00	11,998,228.00	120,540,509.00
	(b) Railway portion	-	-	-	328,905.00	328,905.00
3.08	Contingency-5% of Flyover portion	11,905,780.00	20,031,457.00	7,351,243.00	4,312,488.00	43,600,968.00
3.09	Other statutory compliance costs if applicable					

No	Item Description	Mettupalayam Road	Gandhipuram	Laxmi Mill	Kikkani	Total Cost
	For railway portion					
3.09a	Contingency-3%	-	-	-	119,747.00	119,747.00
3.09b	Railway supervision charges (25% on Contingency and on item 3.02 b)	-	-	-	1,027,828.00	1,027,828.00
3.09c	Railway Establishment Charges including Vigilance Provision (8.055% Contingency and on item 3.02 b)	-	-	-	331,166.00	331,166.00
3.09d	Add 15 % For Bonous on item 3.09c	-	-	-	49,675.00	49,675.00
3.09e	Maintenance Cost @ 30% on items 3.02b & 3.09a	-	-	-	1,233,393.00	1,233,393.00
3.09f	Way Leave Charges 6000 per year x 10 years + 6000				66,000.00	66,000.00
3.09g	Centage Charges 2% on 3.02b & 3.09a	-	-	-	82,226.00	82,226.00
3.10	Finance/interest cost during construction 12% of Civil cost	47,623,118.00	80,125,828.00	29,404,971.00	17,728,941.00	174,882,858.00
3.11	Any other					
	Total	553,599,834.00	892,746,244.00	357,020,925.00	307,911,007.00	2,111,278,010.00
	The Construction cost for railway portion is	-	-	-	7,230,504.00	7,230,504.00

The total construction cost for railway portion is

7 Millions

The total Project cost is

2111 Millions

Costig for ROB / RUB

No	Item Description	Road over Bridges				RUB
		Avarampalayam	SIH Colony	Ratnapuri	Velankuruchi	Thairitteri
3.01	Land acquisition/site development (Land acquisition is not covered by JNNURM ACA Grant-- except for North-Eastern and designated hilly states. In all other cases, land acquisition is to be completed prior to application for JNNURM support).	87,241,880.00	42,090,895.00	79,998,935.00	55,663,800.00	33,509,988.00
3.02	Physical infrastructure component-wise cost (should correspond to section 2.2)					
	(a) Approach Portion	72,261,891.00	80,833,345.00	80,198,990.00	80,255,838.00	22,235,589.00
	(b) Railway portion	8,564,248.00	8,122,238.00	8,377,048.00	49,984,966.00	16,483,881.00
3.03	Environmental compliance cost	232,799.00	235,210.00	232,210.00	359,487.00	78,071.00
3.04	Rehabilitation & resettlement cost (to be borne by ULB/ parastatal/ state government)	630,000.00	340,000.00	860,000.00	690,000.00	590,000.00
3.05	Cost of surveys & investigations	417,419.00	459,297.00	457,328.00	672,538.00	199,796.00

No	Item Description	Road over Bridges				RUB
		Avarampalayam	SIH Colony	Ratnapuri	Velankuruchi	Thairitteri
3.06	Cost of shifting utilities	6,775,221.00	5,416,908.00	5,416,908.00	5,416,908.00	2,754,408.00
3.07	Cost of consultancy services: (a) Design (b) Supervision (c) Quality Assurance 9%					
	(a) Approach Portion	6,719,629.00	7,514,420.00	7,455,345.00	7,472,070.00	2,068,266.00
	(b) Railway portion	793,906.00	752,931.00	776,552.00	4,633,606.00	1,528,056.00
3.08	Contingency-3% of approach portion	2,167,857.00	2,425,000.00	2,405,970.00	2,407,675.00	667,068.00
3.09	Other statutory compliance costs if applicable					
	For railway portion					
3.09a	Contingency-3%	256,927.00	243,667.00	251,311.00	1,499,549.00	494,516.00
3.09b	Railway supervision charges (25% on Contingency and on item 3.02 b)	2,205,294.00	2,091,476.00	2,157,090.00	12,871,129.00	4,244,599.00
3.09c	Railway Establishment Charges including Vigilance Provision (8.055% Contingency and on item 3.02 b)	710,546.00	673,874.00	695,014.00	4,147,078.00	1,367,610.00
3.09d	Add 15 % For Bonous on item 3.09c	106,582.00	101,081.00	104,252.00	622,062.00	205,142.00
3.09e	Maintenance Cost @ 30% on items 3.02b & 3.09a	2,646,353.00	2,509,772.00	2,588,508.00	15,445,355.00	5,093,519.00
3.09f	Way Leave Charges 6000 per year x 10 years + 6000	66,000.00	66,000.00	66,000.00	66,000.00	66,000.00

No	Item Description	Road over Bridges				RUB
		Avarampalayam	SIH Colony	Ratnapuri	Velankuruchi	Thairitteri
3.09g	Centage Charges 2% on 3.02b & 3.09a	176,424.00	167,318.00	172,567.00	1,029,690.00	339,568.00
3.10	Finance/interest cost during construction 12% of Civil cost	9,699,137.00	10,674,670.00	10,629,125.00	15,628,896.00	4,646,336.00
3.11	Any other					
	Total	201,672,113.00	164,718,102.00	202,843,153.00	258,866,647.00	96,572,413.00
	The Construction cost for railway portion is	15,526,280.00	14,728,357.00	15,188,342.00	90,299,435.00	29,822,891.00

The total construction cost for railway portion is **166.21 Millions**. **Total cost for all ROB and RUB is about Rs. 925 Millions.**

Cost for pedestrian Facilities

No	Item Description	Total
3.1	Land acquisition/site development (Land acquisition is not covered by JNNURM ACA Grant-- except for North-Eastern and designated hilly states. In all other cases, land acquisition is to be completed prior to application for JNNURM support).	
3.2	Physical infrastructure component-wise cost (should correspond to section 2.2)	169,602,107.00

No	Item Description	Total
3.3	Environmental compliance cost	4,240,055.00
3.4	Rehabilitation & resettlement cost (to be borne by ULB/ parastatal/ state government)	2,199,739.00
3.5	Cost of surveys & investigations	890,411.00
3.6	Cost of shifting utilities	34,024,608.00
3.7	Cost of consultancy services: (a) Design (b) Supervision (c) Quality Assurance 9%	16,409,004.00
3.8	Other statutory compliance costs if applicable	
3.9	Finance/interest cost during construction 12% of Civil cost	20,352,254.00
3.10	Contingency-5%	8,480,103.00
3.11	Any other	
	Total Project Cost	256,198,281.00

Costing For BRTS

No	Item Description	BRTS
9.1	Land acquisition / site development (Land acquisition is not covered by JNNURM ACA Grant--except for North-Eastern and designated hilly states. In all other cases, land acquisition is to be completed prior to application for JNNURM support).	342,900,000.00
9.2	Physical infrastructure component-wise cost	2,445,764,891.00
9.3	Environmental compliance cost	9,699,000.00
9.4	Rehabilitation & resettlement cost (to be borne by ULB/ parastatal/ state government)	6,300,000.00
9.5	Cost of surveys & investigations (. 1%)	2,445,765.00
9.6	Contingency-3%	73,372,947.00
9.7	Cost of shifting utilities	378,174,151.00
9.8	Cost of consultancy services: (a) Design (b) Supervision (c) Quality Assurance 6%	146,745,893.00
9.9	Other statutory compliance costs if applicable	122,288,245.00
9.10	Finance/interest cost during construction 12% of Civil cost	293,491,787.00

No	Item Description	BRTS
9.11	Any other	
	Total	3,821,182,679.00

Breakup Physical Infrastructure cost for BRTS

BILL	BILL NAME	AMOUNT (Rs.)
1	SITE CLEARANCE AND DISMANTLING	1,068,838.00
2	EARTH WORK	7,216,688.00
3	SUB-BASE AND BASE COURSES	32,918,612.00
4	BITUMINOUS WORKS	171,562,726.00
5	CROSS DRAINAGE WORKS	2,691,000.00
6	BRIDGES	38,506,422.00
7	FLYOVERS	1,093,017,729.00
8	TRAFFIC SIGNAGES, ROAD MARKING AND OTHER APPURTENANCES	128,467,304.00
9	ELECTRICAL WORKS	67,474,104.00
10	MISCELLANEOUS	50,377,563.00
11	UTILITY DUCT	652,463,905.00
12	ITS TECHNOLOGY AND JUNCTION SIGNALIZING	200,000,000.00
	TOTAL	2,445,764,891.00

BILL	BILL NAME	AMOUNT (Rs.)

Other Supplementary Cost for BRTS

The cost for automated ticketing, ITS Technology and Junction signaling t are not included in the above cost and this can be done in second stage of project which the service provider has to design and implement. The estimated costs for the above items are listed in the table below.

Other Cost

Sl No	Item	Total cost (Rs.)
1	Automated Ticketing	10,000,000
2	Bus Fleet	198,000,000
	Total cost	208,000,000