

Tamil Nadu Road Sector Project - II



Detailed Project Report (DPR) For Various Road Improvement Works under PPC 01 of Tamil Nadu Road Sector Project – II (TNRSP II)



Environmental Assessment Report (Revision-2)

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(A Govt. of India Enterprise)
RITES Bhawan
Plot No. 1, Sector-29,
Gurgaon (Haryana) – 122 001

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Chapter 0: Executive Summary

Introduction :

The Government of Tamil Nadu has taken up around 2100 km of State Highways under Tamil Nadu Road Sector Project II (TNRSP II) for various improvement works under financial assistance of World Bank. The total cost of the project is estimated as Rs. 8500 crores. The objectives of the project is widening and strengthening of the existing roads of international standards creating facilities for uninterrupted flow of traffic with enhanced safety features. This will boost up the economy of the area. The EA and EMP study is to safeguard the environment. There are 407.301 km of road in TNRSP II (PPC 01) covering 10 numbers of roads, out of which 135.327 km is under Rj cug Kroad. The RITES has been appointed the consultant for Contract Package: PPC01 under Tamil Nadu Road Sector Project II (TNRSP II) in October 2013 for preparation of Detailed Project Report (DPR). The Rj cug Kroads include 1. Sadras – Chengalpattu; 2. Kanchipuram–Vandavasi; 3. Arni-Villuppuram road.

Project Roads

S. No.	Project Road Section	Road ID	Chainage		Length (km)
			From	To	
1	Kodambakkam – Sriperumbudur	SH-113	Km 12.500	Km 28.800	16.300
2	Kanchipuram – km 14.300 – Aryatur Cross Rd (Vandavasi)	SH-116	Km 14.115	Km 36.457	22.342
			Km 2.900	Km 14.300	11.400
3	Sadras – Chengalpattu – Kanchipuram – Arakkonam – Tiruthani	SH-58	Km 0.000	Km 26.745	26.745
			Km 26.811	Km 107.350	80.539
4	Chennai – Pulicat	SH-104	Km 0.000	Km 25.500	25.500
5	Arani – Villupuram	SH-4	Km 29.280	Km 115.520	86.240
6	Cheyyur – Vandavasi – Polur	SH-115	Km 0.000	Km 105.000	105.000
7	Tambaram-Mudichur-Sriperumbudur Road	SH-110	Km 18.000	Km 23.500	5.500
8	Tiruvotiyur-Ponneri-Pancheti Road	SH-56	Km 15.5000	Km 27.8000	12.300
9	ECR link: Cheyyur-Panayur Road	ODR	Km 0.000	Km 5.000	5.000
10	Pallavaram – Thuraipakkam Road (six laning)	SH 109	Km 0.000	Km 10.620	10.620
Total					407.301

Note: Road shown in bold letters indicate Rj cug Kroad

The environmental assessment report contains 8 chapters as introduction, project description, environmental regulatory framework, baseline environment, stakeholder consultations, analysis of alternatives, project impacts and issues and impact mitigation and enhancement.

Project Description:

The Phase I roads under TNRSP II consists of SH 58, SH 116 and SH 04. The available right of way is 08m-61.2m in SH 58, 15.1m-108.2m in SH 116 and 6.3m-244.7m in SH-04. The landuse along the road is settlement, agriculture/barren land and forest land. Land acquisition for SH58, SH116 and SH04 is kept minimal, only for 6%, 3% and 4% stretches of the roads. The average daily traffic are 4883, 6658 and 7483 PCU. Built up stretches of the road consist of 64%, 29% and 38%. There are 44 bridges and 387 culverts in the

proposed road. The cross section of the road in settlement area includes carriageway, paved shoulder/slow moving vehicle lane, road gullies, covered drain cum footpath and utility while road in open areas include carriage way, paved shoulder/ slow moving vehicle lane, earthen shoulder with kachcha drain and utility. Right of way for two lane road is kept as 16 m in settlement area and 23 m in open area. The right of way for Rj cug"Kin urban and village area is 16 m and in rural area, it is 23 m whereas these are 20.5m at the location of settlement on one side and forest on other side. 16m right of way is kept at the location of road where it passes through forest. One bypass is proposed for each of the three Phase I roads under TNRSP II. One re-alignment is proposed for Kanchipuram Vandvassi road and two re-alignments in Arni – Villupuram road. Road safety is an important aspect to be considered during the design of road which includes geometric design, design of intersection, traffic control and safety features, roadside facilities and traffic calming.

Environmental Regulatory Framework :

The main Environmental Regulatory Agency in India is the Ministry of Environment and Forest and Climate Change (MoEFCC), New Delhi. MoEFCC formulates environmental policies for environmental clearances of the projects. The key applicable environmental legislations are:

- Environment Protection Act, 1986
- Water Prevention and Control of Pollution Act, 1974, 1988
- Air Prevention and Control of Pollution Act 1981, 1987
- Noise Pollution (Regulation and Control) rules 2000
- Municipal Solid Waste (MSW) Rules 2000
- Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008,
- Forest Conservation Act, 1980, 1988
- Wildlife Protection Act, 1972 amended upto 2002
- Environmental Clearance Notification, 2006
- World Bank Operational Policy 4.01
- The Ancient Monuments and Archaeological sites and Remains Act, 1958 amended in 2010
- The Tamil Nadu Water (Prevention and Control of Pollution) Act Rules, 1983
- The Tamil Nadu Air (Prevention and Control of Pollution) Act Rules, 1983
- Public Liability and Insurance Act, 1991
- Explosive Act, 1984
- Mines and minerals (development and regulation) Act, 1957 amended in 2012

Other legislations applicable to the road construction are workmen's compensation act 1923, payment of gratuity act, 1972, employees PF and miscellaneous provision act, 1952 etc. As per the Environmental Impact Assessment Notification on 14th September, 2006, projects are categorized in Category A and Category B. Category "A" projects is cleared by the Ministry of Environment and Forests and Climate Change (MoEFCC) at central level Expert Appraisal Committee (EAC) and the category B project are cleared by the State level Expert Appraisal Committee (SEAC). As per EIA notification and its amendment, Highway expansion projects do not require scoping for EIA study and is prepared is on the basis of model Terms of Reference (TOR) to get the clearance. Highway project is categorised in A or B as per conditions described below.

National projects (Category A)	Highway	New Highway projects: All New Highway projects
		Expansion Projects: Greater than 100 km involving addition right of way or land acquisition greater than 40 m on existing alignment and 60 m on re-alignments or by-passes
State Highway projects (Category B)	Highway	New Highway projects: All new state highway projects
		Expansion Projects: State Highway expansion project in hilly terrain (above 1000 m MSL) or within 10 km of ecologically sensitive areas

As per the condition described, proposed road is categorised in B and does not require environmental clearance. Section 3 of the Environment Protection Act of 1986 seeks to regulate development activity on India’s coast line. Coast line has been divided into four zones (CRZ I-IV) as per permitted land use. As per the CRZ notification 2011 procedure for obtaining CRZ clearance requires submission of application form to the concerned State/UT CZMA along with the requisite documents/reports to get the CRZ clearance. The concerned CZMA examines the above documents in accordance with the approved CZMP and CRZ Notification and make recommendations to SEAC or EAC of MoEFCC in case of the project attracting EIA Notification, 2006 of MoEFCC or State Government for the project attracting CRZ Notification. MoEFCC or State Government considers such projects based on the recommendations of the concerned CZMA. No CRZ issues are involved for Phase I roads under TNRSP II. As per Ancient monument and archeological sites and remain act 2010 the Central Government has declared upto 100 meters from the protected limits to be prohibited area and further beyond it up to 200 meters to be regulated area for purposes of both mining operation and construction. No Archeological clearances are required for Rj cug"K Forest Clearances: As per Forest (Conservation) Act, 1980 no forest land can be used for non forestry purpose without the prior approval of Central Government. Therefore, all proposals of diversion of such areas to any non-forest purpose can only be permitted by the Central Government. The Regional Chief Conservator of Forests have the powers to decide proposals involving forest land upto 5 hectares while forest land between 5 - 20 hectares shall be processed by the Regional Chief Conservator in consultation with a State Advisory Group. Proposals involving more than 20 ha of forest land are submitted to the Advisory Committee constituted by the MoEF for clearance. Rule 6 of the Forest (Conservation) Rules, 2003, every user agency, who wants to use any forest land for non-forest purposes makes his proposal in the appropriate Form, i.e. Form ‘A’ for proposals seeking first time approval under the Act and Form ‘B’ for proposals seeking renewal of leases. Forest clearance for of SH 58 is required to be taken prior to construction of the project. The protection and conservation of forest and wildlife is entrusted to Forest Department in the state. Principal Chief Conservator of Forest is the head followed by Chief Conservator of Forest, Conservator of Forest and Deputy Conservator of Forest. The forest department is responsible for granting the forest clearance as per forest conservation act, 1980. Consent to Establish and Consent to Operate: Tamil Nadu Pollution Control Board (TNPCB) issues the consent to establish and consent to operate for the project for air and water as per Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974. World Bank Safeguard Policies applicable to Rj cug" K road are OP 4.01 for Environment Assessment, OP 4.36 for Forests and OP 4.11 for Cultural property. Applicability of Legal Regulations: The applicability of legal policy for three project road SH 58, SH 116 and SH 04 was checked, in which it was found that no wildlife, CRZ and environmental clearance are required for Rj cug" K road but forest clearance is required for SH 58 at Thirukaukandram bypass. All the three roads require consent to establish and consent to operate from Tamil Nadu Pollution Control Board and permission for tree cutting from the district collectorate.

Baseline Environment :

Air Environment, Land Environment, Water Environment, Ambient Noise, Ecological Environment and Socio-Economic Environment are the areas for which environmental baseline data are collected to visualize the existing status of environment prior to the construction and operation activities. The data are collected through secondary as well as primary source for the features existing within a radius of 10 km from the proposed road location. The relevant Survey of India topographical sheets are 66D/2 (for SH 58), 57P/9, 57P/10, 57P/11 (for SH 116) and 57P/6, 57P/7, 57P/8, 58M/5 (for SH 04). The data for air, noise, soil and water are generated through collection and analysis of the samples during field study while ecological data are generated through tree enumeration, forest working plan and consultation with forest officials.

Air Environment : The purpose for the generation of air quality data for the project road is to know the existing ambient air quality. This helps to assess the impact during construction and in operation of the project. The project road passes through rural and semi-urban areas and there has no major traffic congestion points at any of the stretches in Rj cug"K hence air quality is found relatively better.

Meteorological factors and Climate : The details of climatic conditions i.e. temperature, rainfall, relative humidity, wind speed and cloud cover have been collected for five years (2008-2012) from the nearest meteorological station of Indian Meteorological Department (IMD) at Vellore. The climatic condition of the areas depends upon the seasons of the year as summer, monsoon and winter. April and May months are the hottest months with mean monthly temperature from 36.3 °C to 40.8 °C while December and January are comparatively the coolest months with average mean monthly temperature from 16.1 to 20.5 °C. The maximum and minimum humidity are 93% and 35%. The humidity decides the nature and characteristics of pollution in the atmosphere. Monsoon season starts in June and ends in the month of November. 70% of the total rainfall occurs during monsoon season while February to April is dry period. The wind speed and wind direction affects the dispersion of pollutants into the atmosphere. Ground level pollution is inversely proportional to the wind speed in the down wind direction, while in upwind direction, there is no effect. 24 kmph is maximum wind speed at 8.30 hrs and 28 kmph at 17.30 hrs. Prevalent wind direction is from south west to west at 830 hours and from east to west at 1730 hours. 9.35% of the time, sky is found clear. June to September is found the sky as cloudy and is guided by monsoon winds. Data on cloud helps to evaluate the sunny days in a year.

Ambient Air Quality : The major pollutants are particulate matter (PM₁₀ and PM_{2.5}), sulphur dioxide (SO₂), nitrogen dioxide (NO₂), and carbon monoxide (CO) and its dispersion depends upon wind speed, wind direction, temperature, height of the source and roadside plantation. The ambient air quality monitoring locations were selected preferably at the sensitive locations like school, offices, temple etc. Availability of electricity connection, open air flow to air quality sampling machine and accessibility to machine were kept the other consideration during monitoring. Sixteen monitoring locations were selected for three Rj cug"K roads, four for SH 116, three for SH 58 and nine for SH 04. The air quality monitoring for 24 hours, twice a week and four weeks in a month was carried out. Monitoring results for SH 116 :sulphur dioxide 9 to 13.4 µg/m³, nitrogen dioxide 14.8 to 31.2 µg/m³, PM₁₀ 41 to 87 µg/m³, PM_{2.5} 19 to 43

$\mu\text{g}/\text{m}^3$ and CO 0.11 to 0.14 mg/cum while these results for SH 58 : sulphur dioxide 8.7 to 13.3 $\mu\text{g}/\text{m}^3$, nitrogen dioxide 13.8 to 32.4 $\mu\text{g}/\text{m}^3$, PM10 38 to 90 $\mu\text{g}/\text{m}^3$, PM2.5 18 to 45 $\mu\text{g}/\text{m}^3$ and CO 0.12 to 0.16 mg/cum and for SH 04 : sulphur dioxide 8 to 13.2 $\mu\text{g}/\text{m}^3$, nitrogen dioxide 13.3 to 33 $\mu\text{g}/\text{m}^3$, PM10 35.1 to 91.7 $\mu\text{g}/\text{m}^3$, PM2.5 14.9 to 39.5 $\mu\text{g}/\text{m}^3$ and CO 0.11 to 0.18 mg/cum. All the monitored parameters are within the permissible limits of NAAQS.

Land Environment: The land environment consists of physiography, geology, minerals, soils, land use pattern and seismicity. Geo-Morphological Aspects : Elevation varies from 0.5m to 814m. The project roads are falling in three districts of Tamilnadu i.e. Kanchipuram, Thiruvannamalai and Villupuram, and passing through plain and rolling terrain. St Thomas Mount, Thirukazhukundram, Vandalur, Javadu and Jagari, Kalrayan and Gingee are the some of the major hills within the project districts while Adayar, Palar, Cheyyar, Ponniyar, Tondiyar and Vellar are the major rivers. Geology: Geology of Kanchipuram district is characterized by hard rock predominantly charnockites Gneiss with Gondwana formations. These are overlain by laterites and alluvium while in Thirumanamalai, land is underlain by geological formations ranging in age from Achaean to Recent. Charnockites, gneisses and granites traversed by quartz veins and pegmatites underlain the major part of the district. Upper Gondwana formations are exposed in the northeastern part of the district. Villupuram district contains metamorphic rocks belonging to the Genesis family having three major groups of sedimentary rocks belonging to different geological periods. The residual hills and denudational hills are common in Tirukoilur, Kallakurichi and Gingee taluks. Structural hills are noticed in the western part of the district. The shallow pediments and buried pediments are common in the central part of the district. Coastal areas are having older and younger flood plains and also beach landforms at places. The ground slope is gentle towards coast. Lineaments are restricted to parts of Kallakurichi and Sankarapuram areas and productive fractures are noticed in select pockets. The crystalline sedimentary contact fault is having sympathetic fractures in hard rock's but mostly they are dry fractures. Soils : The major soil groups are: Red soils, (62 per cent), Black soils (12 per cent), Laterite soils (3 per cent) and Coastal soils (7 per cent) in the state. The soil of Kanchipuram district is classified into 1) clayey soil, 2) red sandy or red loamy soil 3) Red sandy brown clayey soil and 4) Alluvial soil, out of which brown clayey soil is the most predominant, covering more than 71 percent of the areal extent of the district. Alluvial soils are found on the banks of Palar, Cheyyar and other rivers. The soils in Villupuram are mostly forest soil and red soil. Alluvial soils are found in eastern side bordering coast. Black soils are confined to low ground in select pockets of the district while alkaline and saline patches are spotted in the south-west and eastern parts of the districts. The predominant soil type in Tiruvannamalai is red. Different types of soil like ferruginous loamy and sandy loamy are seen in the district and black loam is found in tank and river bed areas of Cheyyar and Vandavasitaluks. Soil samples from various locations were collected and analyzed to understand the soil characteristics of the area with respect to its productivity potential. These samples were tested in the laboratory to determine the nature and physical characteristics like soil classification, nutrient contents, electrical conductivity, etc. The soil sample analysis along the road SH 04 indicates Sulphur, arsenic and Lead in the samples is less than detection limit of 2.0 mg/kg. Total Nitrogen varies from 724 to 875 mg/kg; Total Phosphorus varies from 9 to 24 mg/kg; and Potassium varies from 1332 to 2113 mg/kg. Iron content varies from 170 to 215 mg/kg; manganese varies from 129 to 164 mg/kg and zinc varies from 33 to 45 mg/kg. The soil sample analysis along the road SH 58 indicates Sulphur, arsenic and Lead in the samples is less than detection limit of 2.0 mg/kg. Total Nitrogen varies from 269 to 836 mg/kg; Total Phosphorus varies from 17 to 69 mg/kg; and Potassium varies from 206 to 607 mg/kg. Iron content varies from 98 to 287 mg/kg; manganese varies from 64 to 992 mg/kg and zinc varies from 8 to 52 mg/kg. The soil sample analysis along

the road SH 116 indicates Sulphur, arsenic and Lead in the samples is less than detection limit of 2.0 mg/kg. Total Nitrogen is varies from 251 to 363 mg/kg; Total Phosphorus varies from 122 to 192 mg/kg; and Potassium varies from 109 to 390 mg/kg. Iron content is varies from 179 to 233 mg/kg; manganese varies from 62 to 155 mg/kg and zinc varies from 10 to 191 mg/kg.

Water Environment :Water environment consists of water availability in the form of surface and ground water resources, its quality and use. Study of the water environment is essential for identifying the critical water issues during construction and operation including planning the mitigation measures with a view to have optimum use of the water resources. Surface Water :Palar, Cheyyar, Ponnaiyar, Malattar, Manimuka, Gamukha, Varaha, Gadilam, Ponaiyar rivers are the major rivers in the project districts. Ground Water :The important aquifers in the project districts are constituted by (i) Fissured, fractured and weathered crystalline rocks and (ii) porous formations comprising recent alluvial deposits and Gondwana sediments. Ground water occurs under phreatic to semi-confined conditions in these aquifers. Water table in project districts varies as per the availability of ground water rocks which are varying from 0.70 m to 200 m. Water samples were collected along the project roads from surface and ground water, in order to assess the baseline water quality status. Three locations for SH 116; four for SH 04 and three for SH 58 were selected for monitoring of existing water quality in the area. SH 116: pH of surface water is 7.41 while pH of ground water varies between 6.59 to 7.42. Total hardness of ground water is 234.3 and 561.56 mg/l which are within permissible limit. Hardness of surface water source is within acceptable limit of 200 mg/l. Results for other parameters are below detection limits. Dissolved Oxygen of the samples are between 5.4 to 6.3 mg/l. SH 04: pH of sample water is 7.46 to 7.93 while hardness varies between 290.8 and 670.6 mg/l. One sample of water has result beyond permissible limit and can not be accepted without treatment. Hardness of surface water source is within acceptable limit of 200 mg/l. The results for other parameters are below detection limits. Dissolved Oxygen of the samples is between 6.1 to 6.5 mg/l. SH 58: pH of water is 6.86 to 7.90. Total hardness of ground water is 153.5 mg/l and 206 mg/l, which are within permissible limit. The results for other parameters are below detection limits. Dissolved Oxygen of the samples varies from 5.2 to 6.3 mg/.

Ambient Noise :Noise levels were recorded on hourly basis for 24 hours in order to have an assessment of the Day and Night time noise levels. Noise levels were monitored at five locations for SH 116, six locations for SH 58 and nine locations for SH 04. The noise levels on SH 116 varies from 55.8 to 63.7 dB (A) during day time and 51.9 to 60.4 dB (A) during night time; on SH 58 varies from 54.8 to 63.3 dB (A) during day time and 51.7 to 59.1 dB (A) during night time; and on SH 04 varies from 53.7 to 62.8 dB (A) during day time and 47.0 to 51.4 dB (A) during night time. The noise levels in the project area indicates that, noise levels are more than the permissible limits for silence zone at all monitoring locations of project roads SH 116, SH 58 and SH 04.

Flora and Fauna:Based on the physical setting and the kind of distribution of flora and fauna, the study area can be classified into crop, terrestrial and aquatic ecosystems. Crop Land Eco System is man-made and includes crop of *Oryzhasativa and saccarumofficinarum*. Terrestrial ecosystem includes *Borassusflabelifera, Phoenix aculis, Azadirachtaindica, Ficusspandare* restricted to waste and culturable waste lands while *Delonixregia, Azadirachtaindica, Cocosnucifera, Terminaliacatapa, Psidium guava, Albizialebbeck, Dalbergiasissoo and Tamarindusindica* are found near to village and in agricultural land. The two rivers flowing in the project area are Palar River and Cheyyar River which are non perennial and mesotrophic in nature, hence no issues of aquatic life.

Out of 35,000 species of plants in India, about 3,000 are in Tamil Nadu. Coastal, Island, Vegetation of the interior plains, Vegetation of the hills and mountains and Littoral Vegetation are found. Casuarina plantation is found in low dunes with adequate time having poor in nitrogen and mineral nutrient. The littoral forests in Vandvassi consists of plant species of *Borassusflabellifer*, *Anacardiumoccidentale*, *Lanniacoromandalica*, *Pandanustectorius*, *Opuntiadellenii*, *Cassia auriculata*, *Sesuviumportulacastrum*, *Cyperusarenarius*. Plantation : *Tamarindusindica*, *Azadirachtaindica*, *Syzygiumcumini* *Cassia sp*, *Eucalyptus sp*, *Casuarina*, *Bambusaarundanacea*, *Prosopisjuliflora*, *Acacia nilotica* are the species for plantation. No mangrove is found in study area. Natural Vegetation : 17.59% of land in Tamil Nadu is the forest area which is classified as Reserved Forest, Protected Forest and unclassified forest. The plantations of *Cassia sp.*, *Eucalyptus sp*, *Casuarina*, *Bambusaarundanacea*, *Prosopisjuliflora* and other miscellaneous species are undertaken in the state. The natural vegetation along the project roads are *Tamarandusindica*, *Azadiractaindica*, *Acacia leucophloe*, *Borassusflaberiformis*, *ficusreligiosa*, *ficusbengalensis*, *syzygiumcumini*, *Bombaxcieba*, *cocosnucifera* and *Bombaxmalabarica*. *Borassus* is naturally planted species. 98 plant species are recorded in the study area as per information from forest department while 17 species are observed during the field study. There are three stretches of reserved forest in SH 58, one in SH 116 and one in SH 04. In addition to reserved forest, social forest is existing along the project road. Trees affected : Major species of trees getting affected are *Tamarind*, *Gulmohar*, *Neem*, *Palm*, *Peepal*, *Bargad*, *Eucylptus* and *Keekar* having 1292, 7187 and 1244 numbers for SH 58, SH 04 and SH 116 respectively. Trees likely to be affected are greater than 30 cm and makes the majority of trees. Number of trees having girth less than 30 cm is very less and makes the total number of 25 for three Rj cug"Kroads.

5468 sqkms of land is brought under protected areas encompassing four Tiger Reserves, 10 Wildlife sanctuaries, 14 Bird sanctuaries, 5 National Parks, one Conservation reserve and four Elephant reserves. Endangered species of animals are Slender loris, Lion, Tailed macaque, Indian Pangolin, Jackal, Indian Fox, Indian Wild dog, Sloth bear Ratel, Striped hyena. Jungle cat, Leopard, Tiger, Mouse deer, Gaur, Blackbuck, NilgiriTahr, Grizzled grey squirrel, Common dolphin and Dugong. Vedanthangal and Karikili are two bird sanctuaries 9 km apart and are beyond 15 km from the project sites. No *National Parks*, *Bio Diversity reserves* and *Wildlife corridors* are existing within study area. Terrestrial Fauna falling in Schedule IV are recorded in study area e.g. common mangoose, indian hare, fruit bat, bandicoot etc. and ambhibian and reptiles are house lizard, indian chameleon, krat, common frog, toa etc. while birds include little cormorant, little purple heron, cattle egret, common myna, common teal etc. Butterflies of schedule in study area are *euplocacora*, *crassa*, *dicciotianua* and *graphiumagamemnos*. The predominant plant species in green tunnel is *Tamarindusindica*, *Azadirachtaindica* and *Syzygiumcumini*. Hot Spots: Ruined Dutch Fort and Cemetery located at Sadras, Kanchipuram on SH-58 is about 500 m from the project road while Pallava Rock-Cut Shrine located at Kilmavilangai, Villupuram on SH-4 is at about 2 km. Gingee Fort at Gingee on SH-4 is located at about 3-5 km.

Socio -Economic Environment : The project road passes through three districts of Tamil Nadu namely, Thiruvannamalai, Kanchipuram and Villupuram. The demographic profile of the districts as per Census 2011 indicates the population of 2464875, 3998252 and 3458873 respectively while population density is 654, 910 and 479 person per sq km. sex ration is the districts are 994, 986 and 987 females per 1000 males. Workers are 1238177, 1673814 and 1703249 respectively.

Stakeholder Consultations

Stakeholder consultation is a continuous process through which the project affected people and other stakeholders are informed, consulted, and allowed to participate actively for their decisions to be incorporated in project preparation. This improves technical and economic efficiency along with generating the sense of ownership within communities thus easing implementation process.

The consultations were conducted during field study with the local people disseminating the information about the project. The unstructured consultation was conducted at a number of locations along the Rj cug'Kroads covering the issues of social and environment and generating the environmental baseline data and collected the mitigation measures for the anticipated impact during construction and operation. Four locations were selected for structured consultation, one at SH 58, One SH 116 and two at SH 04. During the consultation various issues of environment, social and traffic were discussed. Key issues were pollution, amenities, traffic problem, employment and ecology.

In addition to project level consultation, district and state level stakeholder consultation was also carried out to disseminate the information and to collect the views/suggestions for the project. These consultation were made with district forest office, director, department of environment, highway department, land acquisition officer, district collector etc. which helped to generate the the baseline information, consequence of project activities and suggestion to mitigate the negative impacts. To minimize the impact of tree cutting, design was optimized to have minimum right of way at critical sections as 16m for two lane road. 10 times tree plantations is proposed for cutting one tree. As per suggestion gathered during consultation, environmental enhancement measures are taken up for community properties, religious places etc. by providing noise barrier and signages for school and hospital, retaining wall for pond etc.

Analysis of Alternatives

The alternative analysis is done to protect the environment by saving the tree, structures, religious places etc. for the strengthening and widening of the road. The Rj cug'Kroad is the existing one for strengthening and widening of two lane road with paved shoulder. The bypasses are provided to minimize the environmental as well as social impacts. The study of bypasses is scheduled to be taken up with normal scheduled road except Thirukalukundram and Arni bypasses for SH 58 and SH 04 respectively. The right of way is kept 16 m and 23 m in consideration to minimize the impacts. 16 m right of way is at settlement, forest location whereas it is 23m at open areas.

Thirukalukundram bypass is providing connectivity of Kalpakkam Atomic Power Plant to NH-45 in view of emergency measures and transportation of goods, machinery and employee. This will be the attraction to the tourist for hassle free movement to reach Sadras fort and beach.

Better connectivity to local people will boost the economy by getting more business opportunities and employment due to better infrastructure. Selection of Thirukalukundram bypass is subject to decongestion of the existing city road and using the existing Thirukalukundram bypass. As an alternative analysis, other option is on other side of the city, where Thirukalukundram Reserved Forest is existing. Hence, existing bypass was found most suitable requiring forest clearance for 0.544 Ha of forest areas. Arni bypass is selected on the west side of the city, where water bodies, settlements, agricultural and barren land are existing. Three alternatives were selected where first the shortest route passes through water bodies, settlements, agricultural and barren land and involves resettlement and rehabilitation issues, hence is not considered. The third, the longest passes through agricultural and barren land and is found uneconomical. Hence, it was not considered. Second option was found most suitable which is devoid of resettlement and rehabilitation issues and only small portion of water body is getting affected.

Project Impacts and Issues

The pollutants generated at the proposed project premises during construction and operation phases are solid, liquid and gaseous in nature. Pollutants are generated intermittently, periodically or accidentally which results into the negative impacts on various aspects of the environment. Impacts are assessed based on the baseline data and the project activities during road construction and vehicular movement during operation of the road project. Soil pollution is due to spillage of petroleum, oil and lubricants while water pollution is due to discharge of untreated waste water into the natural water bodies. Water extraction from ground source depletes the ground water table enhancing the water scarcity and intrusion of sea water. Use of construction machinery and equipment generates noise and air pollution and is of short term impacts while vehicular pollution is of long term impacts. Widening and strengthening of road as per IRC standard, requires land acquisition for the construction of the road which arises the social issues as well as environment issues of cutting the trees etc. Encroachment into the natural reserve is anticipated during construction. Community properties and religious structures will be get affected. Inadequate sanitation facilities in the labour camp will lead to mosquito breeding and unhygienic condition to the people leading to spread of diseases. Disposal of construction debris in the agricultural land makes the land infertile and unproductive.

Project Intervention :The project requires dismantling of roadside structures (residential and commercial), and removal of vegetation and trees. The Engineering Design has been rationalized to minimize acquisition of land, removal of structures and impact on assets. Even after such engineering efforts some residential/commercial structures are required to be dismantled partially or fully. The queries for aggregates and borrow earth are locally available, hence no significant direct impact is envisaged. **Air Environment** :For the proposed road projects, air pollution occurs mainly due to fugitive emissions/dust generation from various construction activities during construction period and vehicular emissions during operation period. The impacts due to the pre-construction activity are temporary and location specific and the width of the impacts is limited. The air pollution during the construction phase may be considered locally, particularly near the working zones, construction plant sites, quarries and from construction machinery and construction vehicles. **Operational Stage**: During the operational stage air pollutant will be from vehicular movements on roads and dust emission from tyres. CLINE 4 model is used to predict the air quality in 2017, 2027, 2037 and 2047. **Land Environment** :There is no substantial change in height of embankment due the design of Road for widening and strengthening. Vertical improvements are also where there is requirement of

bridges to be raised. The overall topography of the area is not going to alter due to these minor changes providing positive impacts. **Water Environment** :Due to construction of the proposed project, impact is assessed during construction and operation. During construction, impact will be due to use of water and acquisition of water body for the construction of the road. Due to the proposed project, there will be some direct and indirect long-term impacts on the water resources. Loose soil due to construction activities like removal of trees, removal of grass cover, excavation, stock piling of materials as part of the pre-construction and construction activities gives rise to degradation of water quality due to sediment transport to the surface waterbody. The impacts due to increased sediment laden run-off will make the water more turbid and is a significant negative impact on the water bodies supporting aquatic life. **Noise Environment**:The impacts of noise due to the project will be of temporary in nature during the construction phase and may increase slightly during the operation stages. Prediction has been made by using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) version 2.5 for the year of 2017, 2027, 2037 and 2047. **Flora and Fauna** :The major impact on flora involves the removal of trees to permit construction and to provide clear zone of safety to the road users. No wildlife sanctuary and national parks are within 10 km radius of the project road and no wildlife corridor exists. Impacts on the flora has been assessed based on area of forest affected and number of trees to be felled. **Socio-Economic Environment-Impacts** :Socio-economic impacts and mitigations are in SIA/RAP Report. Engineering, environmental and socio-economic surveys, conducted during the design phase, for the generation of the baseline information, provides indication of several adverse impacts in the vicinity of the alignment, most of which are related to common human psychology and general in nature. Other socio-economic impacts involve the presence of sensitive community facilities within the Corridor of Impact such as worship places and cultural properties. Utmost care has been taken in finalising the horizontal and vertical alignment so that the impact on religious / cultural community assets like temple, church etc. could be better avoided.

Impact Mitigation and Enhancement

Efforts to avoid and reduce the adverse impacts were adopted during the design stage. This is reflected in the designs of the horizontal & vertical alignment, cross sections adopted, construction methods and construction materials. As a result many environmental issues have been avoided at the design stage itself.

Air Environment:The main aim of the proposed project is to facilitate the increased number of vehicles on roads over time. Due to rapid urbanization, motor vehicles have emerged as one of the major sources of air pollution. Sprinkling of water efficiently encounters the problem of dust generation due to pre-construction and construction activities. The better fuel quality and good engine efficiency will substantially reduce the air pollution during operation stage. Air quality monitoring at pre-designated locations during construction and operation phases is taken up as per Environmental Monitoring Plan. **Land Environment** :There is no significant change in the embankment, hence no appreciable change in topography is anticipated. Adequate measures have been taken to keep the additional height of embankment in settlement areas at minimum not exceeding 0.5m. Only existing, live, licensed quarries will be used as sources of coarse and fine aggregates. It will be ensured the aggregates procured during construction stage will be from the authorized or licensed suppliers only. Aggregate quarry management and borrow area management are discussed under Environmental Management Plan. No impact on the seismological setting of the region is anticipated. As far as possible the land acquisition has been

kept to the minimum, by restricting the geometric improvement within the existing right of way. For safe and environmental friendly disposal of waste debris the instruction/procedure specified in EMP will be followed. Guidelines for site clearance and tree felling are given EMP. Adequate measures like slope grassing and pitching is taken for control of the soil erosion from the embankments. Contamination of soil can spoil the soil fertility as well as contaminating the surface and ground water source which can be prevented by providing oil interceptors, comprehensive plan of construction camp and proper collection of debris and solid waste. During construction and operation stage of the project, the soil quality shall be monitored to check the contamination due to various construction activities. The frequency, duration and responsibility during construction and operation phases are given in Environmental Monitoring Plan. **Water Environment:** There will be some direct and indirect long term impacts on the water resources due to proposed project. To mitigate the impacts or improve the existing environmental conditions, tree plantation along the periphery of the pond and retaining wall on road side are proposed for directly affected surface water bodies. Desilting will be done for the existing ponds/Tanks. Silt fencing will be provided wherever required. The Contractor will take all precautionary measures to prevent the waste water generated during construction from entering into streams, water bodies. Ground water resources are bore wells, tube wells and open wells and these assets are privately-owned and therefore loss of such sources will be compensated in financial terms. Proper mitigation or enhancement measures are proposed for alteration of cross drainage, runoff and drainage. Lined drains and recharge pits are provided along the project roads. Contractor has to select the source of water as per the availability of water and quality of water required for various uses. During construction and operation stage of the project, the water quality shall be monitored to check the contamination due to various construction activities. The frequency, duration and responsibility during construction and operation phases are given in Environmental Monitoring Plan. **Noise Environment:** Noise pollution around the highway roads are the major concerns to the habitation along the road. All sensitive receptors i.e. schools, hospitals and religious/cultural features, whether or not subject to direct impact, are proposed to be provided with noise barrier. Noise barrier in the form of boundary wall or plantation will be provided. Noise pollution will be monitored as per monitoring plan at sensitive locations. The frequency, duration and responsibility during construction and operation phases are given in Environmental Monitoring Plan. **Flora & Fauna :** There is no recorded wild life habitat in near vicinity of the project corridor. From km 16/100 to km 16/440 the project road is passing through the reserve forest area at Thirukalukundrambypass of SH 58. To widen and strengthen at forest reach, 0.544 Ha of land is required to acquire from forest department. This will be accomplished by getting the forest clearance. No wild life habitat/wild life crossing seen along the project corridor. Compensatory afforestation will be taken up as per the Forest (Conservation) Act, 1980. For each tree felled, ten trees will be planted. For intersections, shrubs will be planted at 1.5m c/c. beyond this point only dwarf shrubs are planted. The trees having girth less than 30 cm will be transplanted in the nearby area. Re-vegetation with local shrubs and grasses will be done at high embankments to prevent soil erosion. No specific cattle grazing are observed along the corridor though rumble strips, painted zebra crossings and warning signs for motorists at identified animal crossings are recommended. **Socio-Economic Environment :** The impacts on socio-economic environment are listed in social impact assessment (SIA) and their mitigation measures are detailed in the RAP. **Bus stops** with shelters are proposed to improve safety and increase road capacity.

Environmental Management Plan :

Environmental Management Plan is prepared separately for all the three Phase I roads under TNRSP II.

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1 INTRODUCTION

1.1 BACKGROUND

Tamil Nadu has traditionally a strong industrial base which contributes substantially to the industrial production of the country. Road and bridge infrastructure along with ports play a vital role in the development of key sectors of the economy like Industry, Technology, Agriculture etc. Highways and Minor Ports Department administers the road infrastructure in Tamil Nadu. The objectives of the department are to maintain and improve the roads under the control of the Government, and to provide all weather road connectivity to rural habitations. Tamil Nadu was the forerunner in bringing out standard specifications for the roads and bridges in the year 1954. The department is also in-charge of improvement and maintenance of National Highways in the State. Highways Department of Tamil Nadu aims to develop and maintain the Highway network in the State, ensure road safety and hassle free traffic. The state has a population of 7,21,47,030 as per Census 2011 and covers an area of 1,30,058 sq.km. Chennai (formerly known as Madras) is the State Headquarters. Tamil Nadu has 32 districts, 76 revenue divisions, 226 talukas, 16,564 revenue villages, 10 municipal corporations, 125 municipalities, 325 blocks (Panchayat unions), 561 town Panchayat and 12,618 village Panchayat.

The State of Tamil Nadu has 61,674 Km of roads which are maintained by Highways Department, Government of Tamil Nadu. This is nearly 2.5 times higher than the density of all-India road network. Road improvement and maintenance programme of these roads are financed from general revenue of state as well as fiscal transfer from Government of India. The Government of Tamil Nadu takes loan from international financial institutions, such as World Bank (WB) for the purpose of road development in the state. In addition to state road project, Highways Department maintains 4,974 km of National Highways under funding from the Ministry of Road Transport and Highways (MoRTH), Government of India. Tamil Nadu Road Sector Project (TNRSP) has improved the State Highways for a length of about 1800 km under various improvement programmes such as up gradation, enhanced periodical maintenance, performance based maintenance and Public Private Partnership under TNRSP-I of World Bank assistance programme.

The Government of Tamil Nadu has taken up around 2100 km of State Highways under Tamil Nadu Road Sector Project II (TNRSP II) for various improvement works under financial assistance of World Bank. The TNRSP II is expected to cover up gradation, maintenance and improvement of the identified core road network. The total cost of the project is estimated as Rs. 8500 crore approximately. There are five packages of roads (PPC01 to PPC05). RITES Limited has been awarded the Contract Package: PPC01 under Tamil Nadu Road Sector Project II (TNRSP II) in October 2013 for preparation of Detailed Project Report (DPR).

1.2 THE PROJECT

1.2.1 Project Description

There are 10 roads having a total length of 407.301 km in TNRSP II (PPC 01), out of which 135.327 km is under Phase I roads under TNRSP-II. As per contract document, the number of project Roads were seven which were revised vide TNRSP-II Letter No.2360/2013/TNRSP II-1 dated 24.12.2013 to 10 numbers of roads as shown in Index Map at **Figure 1.1** and described in **Table 1.1**.

FIG 1. 1: INDEX MAP

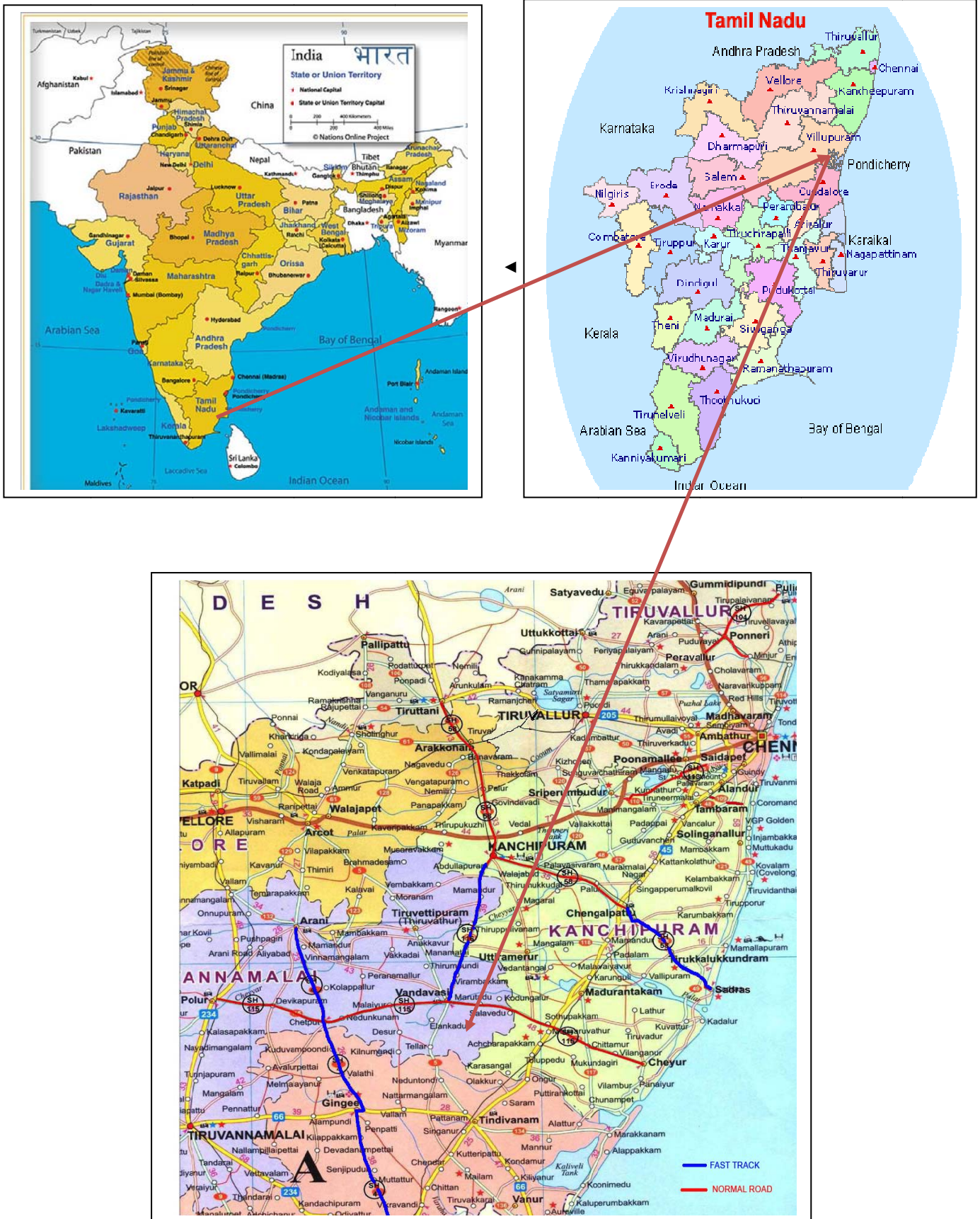


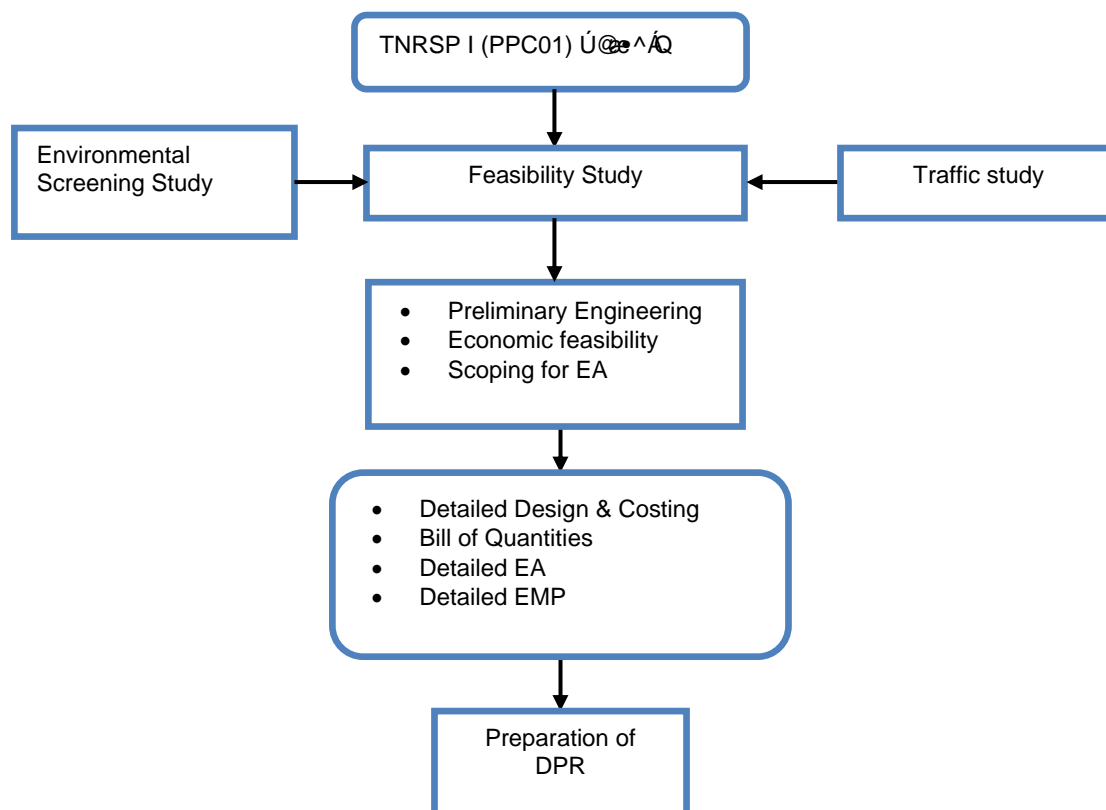
Table 1.1: Project Roads

S. No.	Project Road Section	Road ID	Chainage		Length (km)
			From	To	
1	Kodambakkam – Sriperumbudur	SH-113	Km 12.500	Km 28.800	16.300
2	Kanchipuram –km 14.300 – Aryatur Cross Rd (Vandavasi)	SH-116	Km 14.115	Km 36.457	22.342
			Km 2.900	Km 14.300	11.400
3	Sadras – Chengalpattu – Kanchipuram – Arakkonam – Tiruthani	SH-58	Km 0.000	Km 26.745	26.745
			Km 26.811	Km 107.350	80.539
4	Chennai – Pulicat	SH-104	Km 0.000	Km 25.500	25.500
5	Arani – Villupuram	SH-4	Km 29.280	Km 115.520	86.240
6	Cheyur – Vandavasi – Polur	SH-115	Km 0.000	Km 105.000	105.000
7	Tambaram-Mudichur-Sriperumbudur Road	SH-110	Km 18.000	Km 23.500	5.500
8	Tiruvotiyur-Ponneri-Pancheti Road	SH-56	Km 15.5000	Km 27.8000	12.300
9	ECR link: Cheyyur-Panayur Road	ODR	Km 0.000	Km 5.000	5.000
10	Pallavaram – Thuraiyakkam Road (six laning)	SH 109	Km 0.000	Km 10.620	10.620
Total					407.301

Note: Road shown in bold letters indicate Phase I roads under TNRSP-II

The present report on environmental assessment is prepared for 135.327 km of roads in accordance with the World Bank's guidelines. The schematic activity schedule, showing the activities / deliverables in broader / general terms, for the project study, is illustrated in **Fig. 1.2**.

FIG 1. 2: SCHEMATIC ACTIVITY SCHEDULE



1.2.2 Objectives of the Assignment

The main objective would be to alleviate the current unsafe and congested conditions of the road network connecting the villages and towns by providing better quality and safe roads to the users in a sustainable and environment friendly manner. Government of India, GoI through Ministry of Environment, Forest and Climate Change (MoEFCC) enforces Environment (Protection) Rules, 1986 for environmental protection because of intervention of new projects or activities, or on expansion and modernization of existing projects or activity based on their environmental impacts. The report in hand is prepared in accordance with the World Bank's operational policies¹ guidelines on Environmental Assessment and to meet the statutory requirement of Ministry of Environment, Forest and Climate Change (MoEFCC). The objectives of this study are stated below:

- To present to decision makers a clear assessment of potential impact associated with the proposed project intervention,
- To apply a methodology which assesses and predicts potential impacts and provides a) the means for impact prevention and mitigation, b) the enhancement of project benefits, and c) the minimization of long-term impacts;
- To provide a specific forum in which consultation is systematically undertaken in a manner that allows stakeholders to have direct input to the environmental management process.
- To assess the analysis of alternatives to bring environmental considerations upstream of development planning as well as the later stage of site selection, design and implementation, and
- To recommend the environmental management measures to reduce adverse impacts.

In order to achieve these objectives, detailed surveys and other studies have been carried out along the project roads to identify Valued Environment Components (VEC) and corridor specific significant environmental issues (SEI). For investigation/monitoring purpose the study area has been defined as under.

- Corridor of Impact, CoI: is the 50 m wide strip on either side from the centre line of road.
- Project Influence Area, PIA: is the 10km area on either side along the alignment.
- Project District is the districts through which project road is passing.

1.2.3 Scope of Environmental Assessment (EA)

The environmental assessment scope includes screening and scoping, environmental assessment and environmental management plans for the individual project road. The EA process envisages to develop a comprehensive environmental management framework which will be adopted as part of the corporate environmental policy for Tamil Nadu Road Sector Project.

Environmental Screening and Scoping

Environmental screening of the project roads is meant to provide environmental considerations to the project, apart from social, economic and traffic & transport considerations for the improvement and upgradation of the existing roads. Further, this report also provides scoping

¹ Applicable safeguards instruments are prepared based on Bank guidelines like environmental assessment (O.P. 4.01), Natural Habitat (O.P. 4.04), Forests (O.P. 4.06), Involuntary Resettlement (O.P. 4.10) and Indigenous Peoples (O.P. 4.12)

inputs in determining the major environmental issues and defines the scope of work for conducting environmental assessment. As per the recommendation of the Environmental Screening report, detailed Environmental Assessment is carried out for the project roads. The scoping exercise defines the project influence area to assess the impacts due to project activities.

Environmental Assessment (EA)

The EA for project roads includes generation of environmental baseline data in the study area, assessment of environmental impacts and preparation of environmental management plan to avoid, minimize, and mitigate negative impacts and maximize positive impacts by integrating the possible environmental enhancement measures. The EMP formulates budget, institutional roles for effective implementation. This is integrated in to project implementation agreements and construction contract documents.

Environmental Management Framework

An Environmental Management Framework will be designed for the implementation of the project. The environmental management framework consists of overall framework which is developed as a guidance document providing environmental planning and design criteria for the current and future developments, generic environmental management measures, and institutional mechanism for implementation, capacity building and training and resource material for the implementation of the environmental management.

1.2.4 Project Benefits

The implementation of the project will have the following direct benefits:

- (i) Improved quality of life due to employment, economic development and better transportation systems.
- (ii) The economy is boost up due to increased commercial and industrial activities.
- (iii) Employment generation
- (iv) Tourism development, commercialisation and industrialisation.
- (v) Easy access from village areas to town and city areas

The benefits of SH 58, SH 116 and SH 4 are as described in following paragraphs.

SH 58: 4 lane/2 lane upgradation of Sadras –Chengalpattu-Kanchipuram-Arakonam-Thiruthani (SCKAT) Road

The project road connects Sadras to Tiruthani and passes through three districts i.e. Kannchipuram, Vellore and Thiruvallur. The important tourist attractions along the road are Sadras, Thirukazhukundram, Kanchipuram and Tiruthani. Kanchipuram is a city of temples where Kailasanathar Temple, Sri Ekambareswara Temple, Sri Vardaraja Temple etc exists. Tiruthani has famous Murugan Temple and Thirukalukundram has Sri Veda Giriswara Temple. Kanchipuram is known for its renowned crafted world famous silk sarees, a traditional home industry and is also known for its culture and civilisation. The road connects to a number of important highways like NH 4, NH 45, ECR Road (SH 49), State highways, Major District Road, Other District Road and Village Road. This road provides connection to the Kalpakkam Atomic Power Plant with NH 45, ECR and Chengapattu Railway Station. There are a number of higher educational institutions, rice mill, sugar mill and other small scale industries within the area. SH 58 connects six talukas of three districts and one district head quarter. These Talukas are Kanchipuram, Walazabad, Chengalpattu and Thirukazhukundram in Kanchipuram district,

Arakonam in of Vellore district and Tiruthani of Thiruvallur district. INS Rajaji NAS is located at Arakonam. Strengthening and widening of the road will provide hassle free movement of vehicles, reduction in pollution level, better road safety, saving in transit time and comfort to the road users.

Sadras to Chengalpattu of SH 58 has been considered under priority road project due to its connectivity to Kalpakkam Atomic Power Plant, Sadras Dutch Fort (an Archaeological Monument), Kalpakkam Beach and ECR road. Present road is passing through Thirukazhukundram city where there is no scope for widening and strengthening, hence existing Thirukazhukundram bypass has been taken for development to provide better connectivity to Kalpakkam Atomic Power Plant.

SH 116:4 lane/2 lane up-gradation of Kanchipuram – Vandavasi Road

Vandavasi is a famous tourist attraction. Vandavasi fort and 3000 years old Thavalagirinathar (shiva temple) are located at Vandavasi. The road connects SIPCOT to NH 45 through Kanchipuram. There are rice mill and other industrial and commercial unit along the road. This road connects SH 115, SH 58, District road and village road. The better connectivity encourages the industrialist to invest more for expansion of existing unit or setting up of new units. Industrialisation creates employment opportunity to the people of the area and ultimately boosting up the economy of the country.

SH 4: 2 lane up-gradation of Arani – Chetpet – Gingee – Villupuram Road

The Road connects Villupuram to Arani through Chetpet and Gingee. Villupuram is district headquarters and Arani, Chetpet and Gingee are Talukas. Gingee fort is Archaeological monuments which is a famous tourist attraction. The road connects NH 45, NH 234, State Highways, District Road and Village road. There are rice mill, sugarcane mill, educational institutions, settlements etc along the road. The existing road is two lanes with earthen shoulder which is proposed for strengthening and widening for two lanes with paved shoulder. Strengthening and widening will give traffic decongestion, better connectivity with reduced transit time, less fuel consumption and low level of vehicular emission. The economy is boost up due to good road network.

1.2.5 Structure of the Report

There are eight chapters in Environmental Assessment (EA) Report which covers Introduction in Chapter 1, project description in Chapter 2, Environmental Regulatory Framework in Chapter 3, Baseline Environmental Status in Chapter 4, Public Consultation in Chapter 5, Alternative Analysis in Chapter 6, Impact Assessment in Chapter 7 and Mitigation and Enhancement Measures in Chapter 8. Contents of each Chapter is described briefly below.

Chapter -1: This chapter on Introduction includes background, project description, objectives, scope of work and project benefits.

Chapter-2: Brief description of the project corridors focusing on proposed improvements with a mention of right of way, roadway improvements, cross drainage structures, traffic projections etc.

Chapter-3: Environment Regulatory Framework presents the legal and administrative framework of World Bank, Government of India and Government of Tamil Nadu. This section

underlines various clearances involved for the project corridor at the State level and at the Central level.

Chapter-4 Baseline Environmental Status, the existing environmental conditions along the corridor was ascertained by conducting a reconnaissance survey along with collection of secondary information pertaining to the corridor. Primary data for various environmental parameters was generated using suitable monitoring devices. The methodology was strictly adhered to the Central Pollution Control Board's stipulated guidelines.

Chapter-5 Public Consultation was carried out in order to know the reactions of local population and the project affected people, PAP.

Chapter-6 Analysis of Alternatives was carried out during feasibility study, covered in Environmental Screening and Scoping report.

Chapter-7 Environmental Impacts, likely impacts caused on various environmental and social parameters by the various activities proposed for the project corridor was recorded in this chapter.

Chapter-8 Mitigation & Enhancement Measures, various mitigation & enhancement measures were suggested for the impacts caused due to various activities.

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2 PROJECT DESCRIPTION

2.1. GENERAL

There are three road sections under Phase I roads under TNRSP-II of PPC01 as given in **Table 2.1**. The 2 lane up-gradation of Sadras-Chengalpattu road starts at Chainagekm 0/000 near village Meyur and ends at the start of road over bridge (ROB) under construction near Chengalpattu railway station at Chainagekm 26/745 while 2 lane up-gradation of Kanchipuram-Vandavasi road starts at chainagekm 14/115 at SIPCOT in Kanchipuram and ends at chainagekm 36/457 in Vandavasi and 2 lane up-gradation of Arani-Villupuram starts at Chainagekm 29/280 in Arani and ends at Chainagekm 115/520 near railway crossing in Villupuram.

Table 2. 1: Project Roads

S. No.	Project Road Section	Road ID	Chainage		Length (km)
			From (km)	To (km)	
1.	Sadras- Chengalpattu Road	SH 58	0.000	26.745	26.745
2.	Kanchipuram-Vandavasi Road	SH 116	14.115	36.457	22.342
3.	Arani-Villupuram Road	SH 04	29.280	115.520	86.240
				Total	135.327

2.2. PRESENT CHARACTERISTICS

2.2.1 Available Right of Way (ROW) and Land Use

The existing features (available ROW and land use) of the road collected during environmental screening stage have been verified with FMB sketch of the road under EA study as described in **Table 2.2**, **Table 2.3** and **Table 2.4** for SH58, SH 116 and SH 4 in respectively.

Table 2.2: Available ROW and Land use for SH 58

S. No.	Chainage in m		Available ROW	Land Use	
	From	To		Left	Right
1.	0-	1000	12.6-33.8	AR	AR
2.	1000-	2000	16.5-36.0	AB	AB
3.	2000-	3000	14.5-21.1	AB	AB
4.	7000	8700	25.0-33.3	AB	AB
5.	8700	10500	19.1-33.3	ACR	ACR
6.	10500	11600	19.1-27.8	AB	AB
7.		BYPASS	--	--	--
8.		17900(bypass)	--	ACR	ARG
9.	17900	20400	15.5-31.9	AB	AB
10.	20400	20700	17.0-24.6	ABR	ABR
11.	20700	21400	19.9-21.8	AB	AB
12.	21400	21900	10.6-19.9	AR	AR
13.	21900	23500	08-27.00	AR	AR
14.	23500	24350	19.5-38.9	AR	ARB
15.	24350	25500	33.6-61.2	ARB	ARB
16.	25500	26200	21.8-37.8	ARB	ARB
17.	26200	26811	12.2-30.5	RB	RB

Note: A: Agriculture; B: Barren; R: Residential; C: Commercial

Table 2.3: Available ROW and Landuse for SH 116

S. No.	Chainage		Available ROW	Land use	
	From	To		Left	Right
1	14200	15100	21.5-30.7	ABR	ABR
2	15100	16900	20.2-77	R	RA
3	16900	18600	18.1-37	A	A
4	18600	19800	23.4-108.2	AR	AR
5	19800	23500	15.1-60.1	ABCR	ABCR
6	23500	24400	22.1-56.5	RAC	RAC
7	24400	25100	29.9-38	AR	AR
8	25100	29150	16.4-70.8	B	B
9	29150	30500	17.6-56.3	BR	BR
10	30500	33500	23.7-55.0	ABR	ABR
11	33100	33500	23.5-44.6	A	A
12	33300	34300	17.9-44.6	AR	AR
13	34300	37800	16.357.8	ARB	ABR

Note: A: Agriculture; B: Barren; R: Residential; C: Commercial

Table 2.4: Available ROW and Land use for SH 04

S. No.	Chainage		Available ROW	Landuse	
	From	To		Left	Right
1	29300	31300	17.6-37.00	A//R/B	A//R/B
2	31300	34200	13.1-42.6	A//R	A/R
3	35700	38100	13.6-57.4	C/R/A	C/R/A
4	38100	39800	8.8-36.4	A/R	A/R
5	39800	42100	28.6-72.6	C	C
6	42100	42500	35.4-41.7	A/B	A/B
7	43500	45200	15.5-53.5	ABR	ABR
8	47100	50300	18.6-52.0	A/B	A/B
9	50300	52800	8.1-51.3	A/B	A/B
10	52800	54400	14.4-41.6	A/B/R//I	A/B/R/I
11	54400	55150	19.0-50.6	A/B/R	A/B/R
12	55150	56200	17.4-76.2	A/B/R	A/B/R
13	56200	57850	32.4-62.2	A/B	A/B
14	57850	59800	24.6-89.5	A/B/R	A/B/R
15	59800	62000	21.4-50.1	B/R	B/R
16	62100	64200	13.4-45.3	B/R	B/R
17	64200	66300	13.4-45.3	BRC	BRC
18	66300	68100	38.6-45.3	A/B/R	A/B/R
19	68100	69800	08.7-64.5	A/B/R	A/B/R
20	69800	71600	--	A/B/R	A/B/R
21	71600	72900	--	A/B/R	A/B/R
22	72900	74200	22.4-42.5	A/B/R	A/B/R
23	74200	77000	21.5-80.4	A/B/R	A/B/R
24	77000	77300	28.1-55.0	B/R	B/R
25	81000	81600	28.1-67.3	B/C	B/C
26	81600	83100	19.8-58.5	B/C	B/C
27	83100	84100	17.6-33.2	B/C	B/C
28	84100	85300	19.0-54.8	B/C	B/C
29	85300	88600	19.1-54.6	A/B	A/B

S. No.	Chainage		Available ROW	Landuse	
	From	To		Left	Right
30	88650	89400	25.3-55.2	A/B/R	A/B/R
31	89400	90100	29.9-66.3	A/B/R	A/B/R
32	90100	91800	11.6-61.2	A/B/R	A/B/R
33	91800	92200	22.2-80.4	B/R	B/R
34	92200	94600	15.3-61.4	B/R	B/R
35	93000	94700	20.9-28.4	BCR	BCR
36	94700	96800	10.5-54.3	BRC	BRC
37	96800	97200	20.0-27.9	ABR	ABR
38	97200	98600	06.3-52.6	ABCR	ABCR
39	98600	99000	18.8-25.8	ABCR	ABCR
40	99000	100700	14.3-54.0	ABR	ABR
41	100700	101300	21.9-26.6	ABR	ABR
42	101300	101800	13.9-32.9	ABR	ABR
43	101800	103400	12.1-50.4	ABR	ABR
44	103400	104700	39.7-244.7	ABR	ABR
45	104700	107500	14.7-52.4	ABR	ABR
46	107500	109400	22.0-49.5	ABR	ABR
47	109400	111500	22.0-44.7	ABR	ABR
48	111500	115500	19.5-35.8	BCR	BCR

Note: A: Agriculture; B: Barren; R: Residential; C: Commercial

From Table 2.2, 2.3 and 2.4, it is seen that at some of the stretches existing right of way is even less than 16 m which is the minimum requirement for strengthening and widening of two lane road. The stretches with EROW less than 16 m is given in **Table 2.5** where 5.75%, 2.70% and 3.60% of the road length for SH 58, SH 116 and SH 04 are found less than 16 m. This portion of road essentially requires land acquisition. Minimum EROW is found as 8m, 6.4m and 6.3 for SH 58, SH 116 and SH 04 at Chainage 21.9-23.5km, 37.8-39.0 km and 97.2-98.6 km respectively.

Table 2.5: Stretches of Road with EROW less than 16 m

S. No.	Chainage		Available ROW	Length of road where EROW is less than 16 m
	From	To		
SH 58				
1.	0-	1050	12.6-33.8	168.40
2.	2000-	3000	14.5-21.1	227.27
3.	17900	20400	15.5-31.9	76.22
4.	21400	21900	10.6-19.9	290.32
5.	21900	23500	08-27.00	673.68
6.	26200	26811	12.2-30.5	126.87
Total				1562.77 (5.75%)
SH 116				
1	19800	23500	15.1-60.1	74.00
Total				74.00 (2.70%)
SH 04				
1	31300	34200	13.1-42.6	285.08
2	35700	38100	13.6-57.4	131.51
3	38100	39800	8.8-36.4	443.48
4	43500	45200	15.5-53.5	22.37
5	50300	52800	8.1-51.3	457.18
6	52800	54400	14.4-41.6	94.12

7	62100	64200	13.4-45.3	171.16
8	64200	66300	13.4-45.3	171.16
9	68100	69800	08.7-64.5	222.40
10	90100	91800	11.6-61.2	150.81
11	92200	94600	15.3-61.4	36.44
12	94700	96800	10.5-54.3	263.70
13	97200	98600	06.3-52.6	293.30
14	99000	100700	14.3-54.0	72.80
15	101300	101800	13.9-32.9	55.26
16	101800	103400	12.1-50.4	162.92
17	104700	107500	14.7-52.4	96.55
Total				3130.24 (3.60%)

2.1.2 Traffic Scenario

The vehicle-wise average daily traffic (ADT) estimated by classified traffic count survey are depicted in **Table 2.6**. The selection of traffic count station is based on the homogeneity of the section.

Table 2.6: Average Daily Traffic in PCU

Road	TVC Stations	Chainage of Station	Description	From-To (Km)	Length (Km)	Total PCU (ADT)
SH-4	TVC 1	48+300	Arani – Chetpet	24.600 – 51.834	27.234	7483
	TVC 2	54+400	Chetpet–Gingee	51.834 – 77.875	26.041	4565
	TVC 3	87+200	Gingee–Villupuram	79.100 – 110.000	30.900	5377
SH-116	TVC 1	12+300	Kanchipuram–Cheyyur Jn.	00.000 – 12.700	12.700	21025
	TVC 2	23+300	Cheyur Jn. – Uthiramerur Jn.	12.700 – 24.600	11.900	6544
	TVC 3	31+800	Uthiramerur Jn. - Vandavasi	24.600 – 39.800	15.200	6658
SH-58	TVC 1	11+450	Sadras – Chengalpattu	00.000 – 30.000	30.000	4883
	TVC 2	35+400	Chengalpattu - Walajabad	30.000 – 50.600	20.600	12990
	TVC 3	52+600	Walajabad – Kanchipuram	50.600 – 63.970	13.370	15327
	TVC 4	85+800	Kanchipuram – Arakkonam	63.970 – 94.060	30.090	7850
	TVC 5	100+050	Arakkonam - Tiruthani	94.060 – 107.800	13.740	7925

2.1.3 Built up Sections along the road

SH 58 passes through built up area for a length of 64%, SH 116 for a length of 44% and SH 04 for a length of 38%. There are a number of villages and settlements located along the project road as given in **Table 2.7**, **Table 2.8** and **Table 2.9** respectively. The table indicates length of habitation for each of the settlements.

Table 2.7: Habitation along the project road (SH 58)

S. No.	Habitation	From (km)	To (km)	Length (m)	Remarks
1.	Meyur	0	180	180	
2.	Vengapakkam and Neikuppi	2800	4100	1300	
3.	Anupuram	4400	6500	2100	
4.	Mullikulathur	8000	9400	1400	
5.	Kottimangalam	13100	13700	600	
6.	Erumallai	13700	17200	3500	
7.	Keerapakkam	18000	18400	400	
8.	Periar Nagar	19000	20400	1400	
9.	Nenmeli, Shantinagar, Nehrunagar, Alapakkam	21600	26811	5211	
Total				15491(64%)	

Table 2.8: Habitation along the project road (SH 116)

S. No.	Habitation	From (km)	To (km)	Length (m)	Remarks
1.	Mangal	14300	15200	900	
2.	Akkur	15700	16200	500	
3.	Kuzhamandal	17400	18230	830	
4.	Vellamalai	18230	18800	570	
5.	Peru Nagar	21700	22150	450	Dense
	Peru Nagar	22900	23100	200	
6.	ManamadiKootrode	24000	24900	900	
7.	Thethurai	26700	27300	600	Dense
8.	MelmaKootroode	28800	29200	400	Dense
9.	Pudur	31500	32200	700	Dense
10.	Thennangur	33800	34200	500	
11.	Venkundram	35800	36300	800	
Total				7350(28.82%)	

Table 2.9: Habitation along the project road (SH 04)

S. No.	Habitation	From (km)	To (km)	Length (m)	Remarks
1.	Arani	24600	30800	6200	
2.	VilaiSetheri	31450	31800	350	
3.	Nisal	32600	33300	700	
4.	Vinay Mangalam	36750	36850	100	Dense
5.	Vinay Mangalam	37100	38100	1000	Dense
6.	Gangapuram	39800	40400	600	
7.	Peraikolapolur	42200	42700	500	
8.	Indravanam	43200	44400	1200	
9.	Semampedi	45650	46900	1250	
10.	Kotavalsaavari	48390	48750	360	
11.	Angar	49100	50000	900	
12.	Chetpet	51100	53800	2700	
13.	Nemili	57300	57500	200	
14.	Valathy	65400	66000	600	
15.	KoduvampoondiJn	59300	59600	300	
16.	Kannalam	67000	67600	600	
17.	KalingmalaiJn	69100	69500	400	

S. No.	Habitation	From (km)	To (km)	Length (m)	Remarks
18.	Neelampondi	70200	70900	700	
19.	Kadali	71600	72100	500	
20.	Kalawai	76500	76700	200	
21.	Gingee	79000	81700	2700	
22.	Nrpet	81700	81900	200	
23.	Apampatti	83600	84700	1100	Dense
24.	Sittampoondi	85300	85600	300	
25.	Palapattu	87700	87950	250	
26.	Mattaparai	90700	91400	700	
	Mattaparai	92550	92650	100	
27.	Kozhipannai	95000	95300	300	
28.	Muttathur	95800	96400	600	
29.	Arsoapuram	96480	96900	420	
30.	Nemur	97300	97800	500	
31.	Annanagar	98200	98600	400	
	Annanagar	99700	99800	100	
32.	Kanjanur	101000	101100	100	
	Kanjanur	101850	102300	450	
33.	Poondi	102800	103400	600	
35.	Thumbur	103700	103900	200	
36.	Laxmipuram	105900	107600	1700	
37.	Poothamedu	110000	110100	100	
38.	Evi village Jn	110900	111000	100	
39.	ThiruvamathurJn	112500	112700	200	
40.	Villupuram	113100	115500	2400	
Total				33780 (38%)	

2.1.4 Bridges and Culverts

The inventory of bridge and culvert is prepared during screening study to assess the existing condition and the hydrological adequacy. The detailed information of the structural components, HFL, LWL, dimensions, linear water way, vertical clearances, drainage spouts, handrails etc. are recorded. 44 bridges and 387 culverts are existing in priority section of the road in PPC01 as depicted in **Table 2.10**. The bridge includes minor and major bridge, flyover/underpass and ROB/RUB while culvert includes pipe, slab, box, cut-stone, arch type and other types of culvert.

Table 2.10: Summary of Existing Structures in SH-58, SH 116 and SH 04

Road	Bridge				Culvert					
	Major	Minor	Flyover /overpass	ROB/RUB	Pipe	Slab	Box	Cut-stone	Arch	Others
SH 58	1	9	2	1	59	45	5	9	2	7
SH 116	2	10	-	-	37	44	1	-	1	-
SH 04	4	15	-	-	71	59	-	37	-	10

2.3. PROPOSED IMPROVEMENTS

2.1.5 Configuration of Road

The improvement works consist of widening and strengthening of road with paved shoulders from existing 2 lane to 2 lane or 2 lane to 4 lane and 4 lane to 6 lane with all required drainage

facilities, road furnitures and accessories. The existing and proposed configuration of road is described in **Table 2.11**. The chainage wise proposed ROW as per approved alignment is given in **Table 2.12**.

Table 2.11: Existing and Proposed Configuration of Roads

S. No.	Project Road Section	Road ID	Configuration		Remarks
			Existing	Proposed	
1	Kodambakkam – Sriperumbudur	SH-113	Two lane with earthen shoulder	Four lane with paved shoulder	Km 12.5 – km 28.8
2	Kanchipuram-Vandavasi	SH-116	Two lane with earthen shoulder	Four lane with paved shoulder	Km 2.9 – km 14.3
			Two lane with earthen shoulder	Two lane with paved shoulder	km 14.115– km 36.457
3	Sadras – Chengalpattu – Kanchipuram – Arakkonam – Thiruthani	SH-58	Two lane with earthen shoulder	Two lane with paved shoulder	Km 0- km 26.745
			Two lane with earthen shoulder	Two lane with paved shoulder	Km 26.81- km 107.356
4	Chennai – Pulicat	SH-104	Two lane with earthen shoulder	Two lane with paved shoulder	Km 0- km 25.5
5	Arani – Villupuram	SH-4	Two lane with earthen shoulder	Two lane with paved shoulder	Km 29.280- km 115.520
6	Cheyur – Vandavasi – Polur	SH-115	Two lane with earthen shoulder	Two lane with paved shoulder	Km 0- km 105
7	Tambaram-Mudichur-Sriperumbudur Road	SH-110	Two lane with earthen shoulder	Four lane with paved shoulder	Km 18- km 23.5
8	Tiruvotiyur-Ponneri-Pancheti Road	SH-56	Two lane with earthen shoulder	Two lane with paved shoulder	Km 15.5- km 27.8
9	ECR link: Cheyyur-Panayur Road	ODR	Two lane with earthen shoulder	Two lane with paved shoulder	Km 0- km 5
10	Pallavaram – Thuraiyakkam Road (six laning)	SH 109	Four lane with earthen shoulder	Six lane with paved shoulder	Km 0- km 10.6

Note: Road shown in bold letters indicate Phase I roads under TNRSP-II

Table 2.12: Proposed ROW

Existing Chainage		Proposed
Start (KM)	End (KM)	RoW
SH-58		
0	180	16
180	2800	23
2800	4100	16
4100	4400	23

4400	6500	16
6500	8000	23
8000	9400	16
9400	13700	23
13700	17200	16
17200	18000	RHS-9m
		LHS-11.5
18000	18400	16
18400	19000	23
19000	20400	16
20400	21200	RHS-9m
		LHS-11.5
21200	21600	23
21600	26800	16
SH-116		
14300	15200	16
15200	15700	23
15700	16200	16
16200	17400	23
17400	18230	16
18230	21900	23
21900	23600	16
23600	24200	23
24200	25100	16
25100	26900	23
26900	27500	16
27500	29000	23
29000	29400	16
29400	31700	23
31700	32400	16
32400	33900	23
33900	34400	16
34400	35800	23
35800	36300	LHS-11.5m
		RHS-9m
SH-04		
24600	30475	16
30475	31200	23
31200	31600	16
31600	32300	23
32300	33000	16
33000	37035	23
37035	37640	16
37640	39520	23
39520	40100	16
40100	43600	23

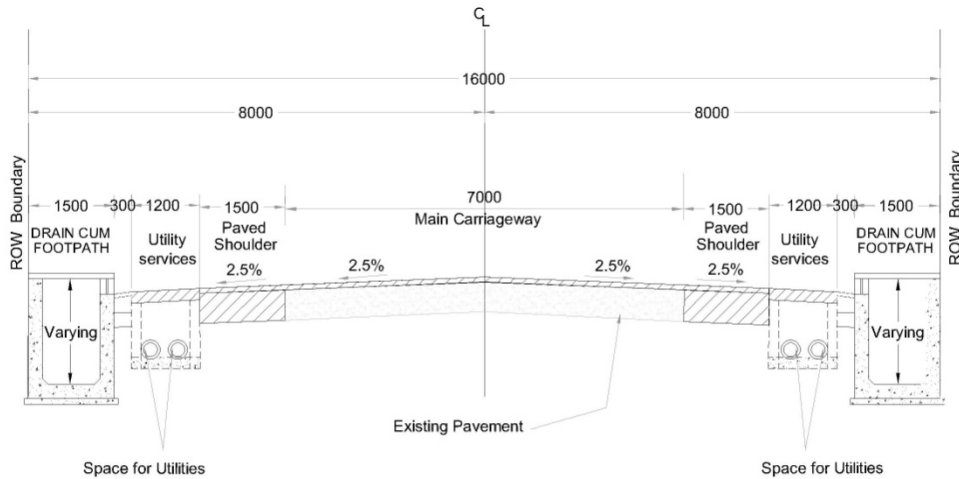
43600	44100	16
44100	45400	23
45400	45700	16
45700	48390	23
48390	48500	16
48490	49300	23
49300	49740	16
49740	50840	23
50840	52930	16
52930	64800	23
64800	65300	16
65300	66700	23
66700	67020	16
67020	69800	23
69800	70325	16
70325	77770	23
77770	79100	16
79100	79430	30
79430	81050	16
81050	81700	23
81700	81900	16
81900	82950	23
82950	83965	16
83965	86950	23
86950	87200	16
87200	89980	23
89980	90600	16
90600	94200	23
94200	94500	16
94500	95000	23
95000	95500	16
95500	96480	23
96480	96900	16
96900	97200	23
97200	97800	16
97800	98500	23
98500	99000	16
99000	100900	23
100900	101400	16
101400	105990	23
105990	106700	16
106700	110000	23
113300	114650	16

2.1.6 Cross-Section of the Road

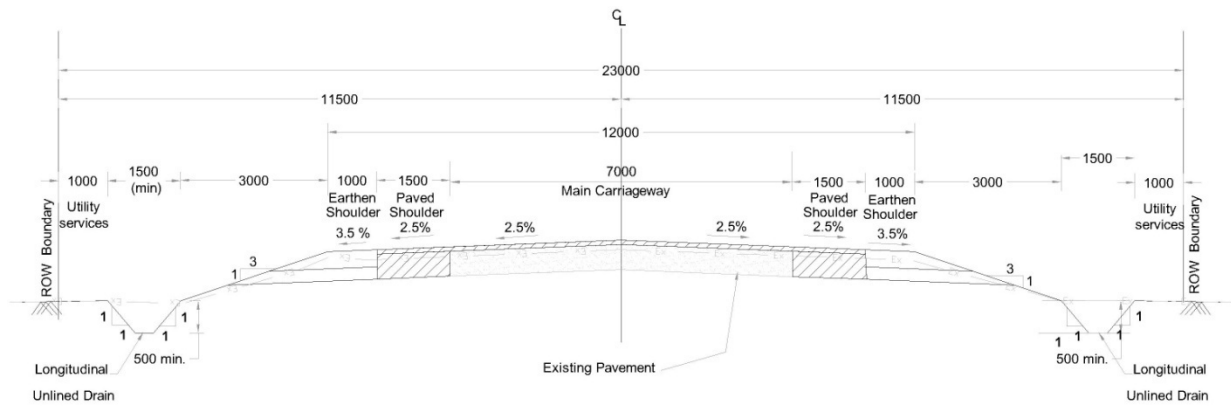
The cross section of the road is selected on the basis of land use along the road. The land use includes settlement, agricultural land, water body and forest land. The settlements are in urban, sub-urban and village areas. The proposed road cross section for two lane and four lane is given in **Figure 2.1**. The road cross sections indicates proposed ROW as 16 m in built up areas and at the location where forest is on either side of the road and forest at one side while settlement on

other side. Proposed ROW of 20.5 m is considered at the location of forest at one side and open/rural areas on other side. 23 m of proposed ROW is at the location of rural areas.

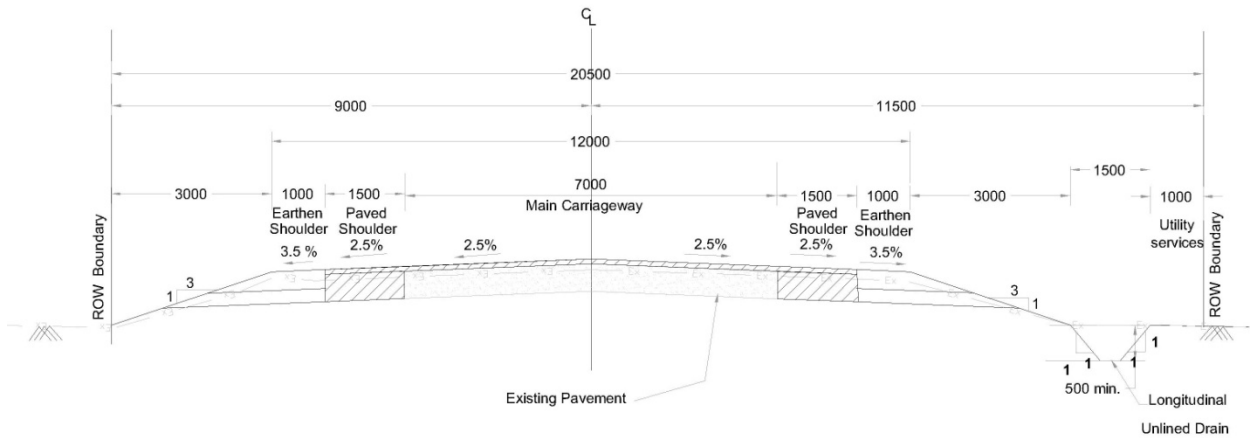
Figure 2.1: Typical Cross Section of Road



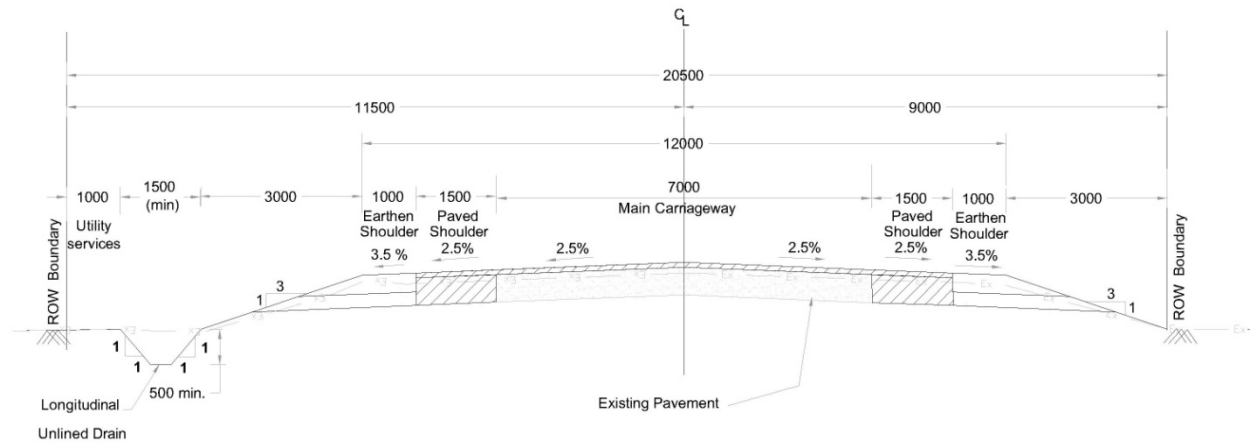
Type A : Typical Cross-Section of 2-Lane Carriageway with paved shoulders : Urban/Village Area
Normal & Fast Track Preparation



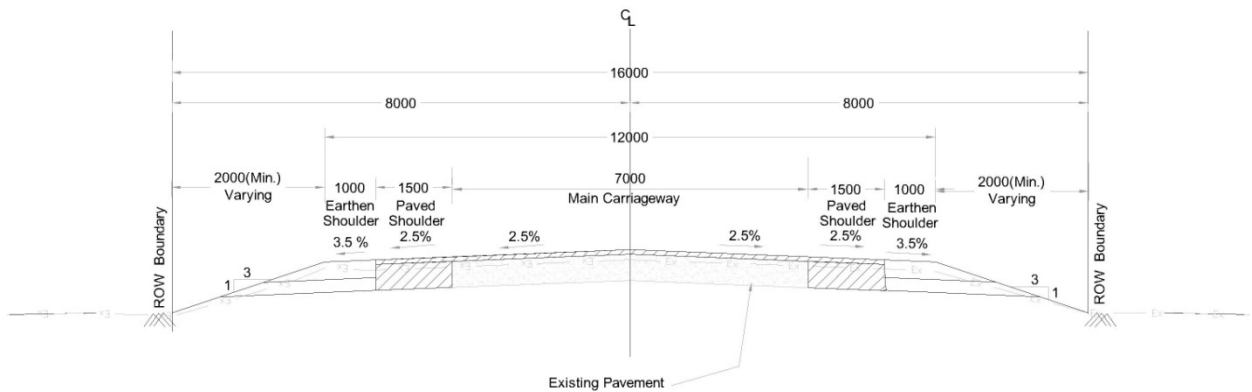
Type B : Typical Cross-Section of 2-Lane Carriageway with paved shoulders : Rural Area
Fast Track Preparation



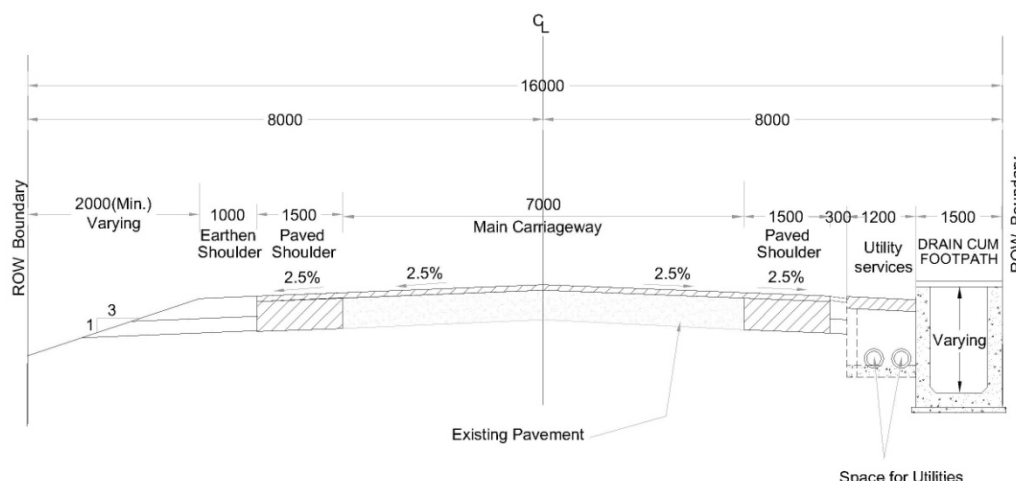
Type F : Typical Cross-Section of 2-Lane Carriageway with paved shoulders : Reserve Forest(LHS)



Type G : Typical Cross-Section of 2-Lane Carriageway with paved shoulders : Reserve Forest(RHS)



Type H : Typical Cross-Section of 2-Lane Carriageway with paved shoulders : Passing Through Reserve Forest



Type I : Typical Cross-Section of 2-Lane Carriageway with paved shoulders with One side Builtup and Other Side Reserve Forest

2.4. REQUIREMENT OF BYPASSES AND REALIGNMENT

The sections of the project road passing through congested areas with no possibility of widening due to inadequate ROW, bypass is proposed to provide an uninterrupted and smooth flow of traffic. The possibility of improvement of all such congested locations at major settlements along the project roads have been established at the stage of screening/draft data report.

In order to provide a smooth flow and inter and intra connectivity of road traffic, good condition of road with adequate ROW is required which is provided either by widening of the existing road or proposing the bypass. The bypass is proposed at congested locations where widening is not feasible due to inadequate ROW and high R & R issues. Geometric improvement has been provided by proposing realignment to the existing road to avoid accident. The list of proposed bypasses and realignment for project road in PPC01 is given in **Table 2.13**. Thirukazhukundram and Arni bypass are considered under Phase-I roads under TNRSP-II of PPC01 while one bypass for SH 116 is under Phase-II roads under TNRSP-II.

Table 2.13: Bypass Proposal and Realignment

S. No.	Road Section	SH No.	Bypass/Realignment proposed for	Chainages
Bypasses				
1.	Sadras – Chengalpattu	SH-58	Thirukazhukundram	11/635 km to 16/785 km
2.	Arani – Villupuram	SH-4	Arani	29/000 km at SH 04 to 2/400 km at Arani Polur Road (Outer Ring Road Junction)
3.	Kanchipuram-Vandavasi	SH-116	Vandavasi	36/485 km at SH 116 to SH 05
Realignment				

S. No.	Road Section	SH No.	Bypass/Realignment proposed for	Chainages
4.	Arani-Villupuram	SH 04	Raandam	38/600-39/300
5.	Arani-Villupuram	SH 04	Muttathur-Arsolapuram	95/500-96/400
6.	Kanchipuram-Vandavasi	SH 116	Mamandur	8/500-9/200
7.	Kanchipuram-Vandavasi	SH 116	Vellamalai-Perunagar	19/900-20/600

Note : Bypass and Realignment in bold are with Phase-II roads under TNRSP-II.

2.5. IDENTIFICATION OF BORROW AREAS

Extensive survey was conducted to identify borrow areas for locating suitable soil/soil aggregates mixes to be used in the construction of embankment and sub-grade. Efforts were made to locate borrow areas near the project road to avoid long haulage of the materials. Similarly, detailed survey was carried out to identify stone metal quarries of hard stone for use in Granular Sub-base (GSB), Wet Mix Macadam (WMM), bituminous and cement concrete works.

The following conclusions have been made based on the exploration of potential borrow sources:

- Construction materials are available within an economical lead;
- Construction materials can be obtained/exploited without any hassles during the implementation of the project;
- To procure good quality crushed stone aggregate in large quantity, the contractor is required to install his own crushing plant thus enhancing the quality of the materials;

2.6. GEOTECHNICAL INVESTIGATIONS

Geotechnical investigations are carried out at proposed bridge locations to explore sub-surface conditions by drilling boreholes to different depths in order to identify the thickness and sequences of various strata and to ascertain the sub surface profile of soils and bed rock to determine the most suitable foundation level of structures.

2.7. HYDRAULIC AND HYDROLOGICAL INVESTIGATIONS

All the hydraulic data for bridges has been collected from the field and it has been analyzed to determine the adequacy of waterway of the existing bridges proposed to be retained and new bridges to be constructed as per provisions of **IRC:5-1998** and **IRC: SP-13**. 50 year return flood is considered.

2.8. ROAD SAFETY REVIEW

The basic aim for road safety review is to identify areas of major concern, including black spots and accident-prone stretches on project road and to propose measure to be taken for improving the engineering design with respect to road safety aspects.

RITES have carried out a detailed reconnaissance along the project roads and identified areas of major concern, including black spots and accident-prone stretches on each project road. Based on critical analysis of accident-prone stretches, the observed main causes for accidents are as listed below:

1. Inadequate width of shoulders which is not sufficient for parking of disabled vehicles
2. Non-availability of emergency stops for vehicles
3. Lack of segregation of traffic in both direction and lack of access control in built-up area
4. Non-provision of acceleration and deceleration lanes and intersection / junction.

Following measures have been taken up to improve the traffic safety:

5. Geometric Design Aspects
6. Design of Intersections
7. Traffic Control and Road Safety Features
8. Roadside facilities
9. Traffic Calming

A) Geometric Design Aspects

All geometric design elements have been carried out as per Design standards stipulated for Project in consonance with IRC codal provisions. Comprehensive design standards have been utilised linking individual design elements to best estimates of actual speed. The emphasis has been given on maintaining continuity or giving adequate warning where it could not be made.

Following realignment locations have been identified to improve the horizontal geometrics of the project road as given in **Table 2.14**.

Table 2.14: Bypass Proposal and Realignment

S No.	Chainages in km		Length in m	Reason for improvement
	From	To		
SH 04				
1	38/600	39/300	700	Geometric Improvement
2	95/500	96/400	900	Geometric Improvement
SH 116				
3	8/500	9/200	700	Geometric Improvement
4	19/900	20/600	700	Geometric Improvement

Note : Bypass and Realignment in bold are with Phase-II roads under TNRSP-II

The design speed has been kept quite consistent keeping the speed difference at minimum for two consecutive curves. All horizontal curves are designed for 100kmph or 80kmph or the lowest one is 65kmph as detailed in **Table 2.15**.

Table 2.15: Summary of Proposed Horizontal Alignment

Total No of Curves	Radius of Curve (m)					Design speed (kmph)		
	150-200	200-400	400-800	800 -2000	>2000	65	80	100
168	3	37	35	38	55	6	49	113

All horizontal curves have been designed with proper transition curves and superelevation runoff. All vertical curves have been design for minimum stopping sight distance. Due care has

been taken to avoid the raising of profile at urban/builtup locations and in any case the raising has been restricted to 0.5m.

B) Design of Intersections

Accident data reveal that accidents at intersection occurs 30 -40% of all reported road accidents in India. During the detailed design proposal, all major and minor junctions have been studied thoroughly with respect to traffic volume and geometry. The important junctions are identified for proper junction layouts (including road markings and traffic signs) as per IRC-SP: 41-1994. Design of major junctions has been carried out based on peak hour traffic data. List of major junctions is given in **Table 2.16**.

Table 2.16: Major Junctions

S. No.	Chainage	Direction	Type of Junction
SH 58			
1.	3/000	LHR/RHS	Junction with ECR (ODR
2.	11/511	RHS	Start of Thirukalukundram Bypass
3.	16/750	RHS	End of Thirukalukundram bypass
SH 116			
1.	24/600	LHS	Uthiramerurkoot Junction with SH 118
2.	39/800	LHS/RHS	Junction with SH 115
SH 04			
1.	24/750	LHS/RHS	To Cheyyur (MDR-505)/To Pollur
2.	25/975	RHS	To Polur (Arani-Polur Road)
3.	51/834	LHS/RHS	Junction with SH - 115
4.	77/875	T-Junction	Junction with SH - 66
5.	79/100	T-Junction	Junction with SH - 66
6.	110/000	T-Junction	Junction with SH - 234
7.	113/200	LHS/RHS	Junction with SH - 45

C) Traffic Control and Road Safety Features

Traffic control devices and road safety measures play a key role in influencing the driver behaviour and dissemination of information which are briefly described in following paragraph.

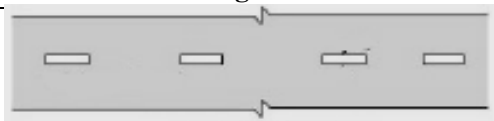
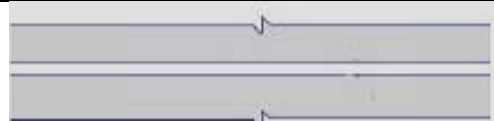
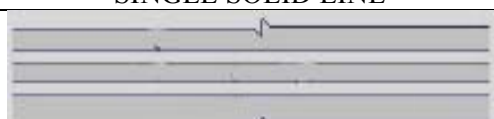

Traffic Signs: Traffic signs are divided into three broad categories as Warning signs, Regulatory signs and Informatory signs. Warning sign plays a crucial role in terms of road safety and for advance information about hazards ahead. Typical examples of warning signs are Curve ahead, Pedestrian crossings, gap in median etc. Regulatory/ Mandatory signs regulate the side of road or through traffic in order to have a safe movement. STOP, speed limit, NO parking etc. are some of the regulatory traffic signs. Informatory signs are provided to give information and guidance about the facilities available to the road users. Village sign boards, Fuel stations, Hospitals etc are some of the informatory sign boards.

All critical locations are identified at the proposed geometric improvements along the project road and cross roads where Warning, Regulatory and Informatory signs are required. Traffic signs have been designed to convey clear and unambiguous messages to road users so that they can understand quickly and easily. IRC-67:1977, code for Practice of Road Sign, has been followed for finalization of sign installation. On unkerbed roads segments, the extreme edge of

the sign would be 2 to 3m from the edge of the carriageway. On kerbed roads it is proposed as not less than 60cm away from the edge of the kerb.

Road Markings: Road markings play a very important role in guiding the driver and providing the information necessary to negotiate conflict points on the road network. It is given a high priority to improve the safety. IRC-35: 1997, Code of Practice for Road Markings, provides the recommended practice for use of road markings. Road markings are lines, words and symbols attached to the carriageway or adjacent to the carriageway for controlling, warning, guiding and informing the users. Yellow, white and black colours are the standard colours used for marking. Road markings are classified as longitudinal marking, marking at intersections, marking at hazardous locations, marking for parking and word messages. The longitudinal markings proposed along the project road are given in **Table 2.17**.

Table 2.17: Longitudinal Markings Proposed for the Project Road

Type of line	Figure	Description
Broken line	 SINGLE BROKEN LINE	Broken lines are permissive in character and may be crossed with discretion, if traffic permits.
Solid lines	 SINGLE SOLID LINE	Solid lines are restrictive in character and indicate that crossing is not permitted except for entry or exit from a side road.
Double solid lines	 PAIR OF SOLID LINES	Double solid lines indicate maximum restrictions and are not to be crossed except in emergent usage.
Combination of broken and solid lines	 COMBINATION OF BROKEN & SOLID LINES	In a combination of broken and solid lines, a solid line may be crossed, with discretion, if the broken line is nearer to the direction of travel. Vehicle from the opposite directions are not permitted to cross the solid line.

Thermoplastic road markings have been proposed considering their longlasting effect.

Delineators: The delineators are most likely to be effective on dangerous bends, on approaches to intersections and on embankments. Though all horizontal curves are designed to the IRC standards, delineators have been proposed for additional guidance and information to the commuter at curves (Radius less than 1000m). Locations along the high embankment have also been provided with delineators. Delineators with reflectorised panels have been considered.

Road lighting: Night-time accidents in urban areas can be substantially reduced by the implementation of adequate street lighting. The stretches of the project road traversing through the built-up/urban areas are proposed with adequate lighting. Road lighting has also been proposed at all major junctions. One/ Two/ Three arm bracket Sodium vapour lamps have been considered.

Crash Barrier: In addition to the adequate provisions of roadway width and roadside design, crash barrier/guard rails have been proposed to be installed along the roadway edge on either side based on the sections of the project road:

- At all the bridge approaches
- Embankment with >3 m height
- Horizontal curves with deflection angle >30 degrees and Radius \leq 240m.

For the embankments up to 3 m height, reasonably flatter side slope of 1 vertical: 3 horizontal or more would enable erring vehicles to return to the traffic stream. The locations of crash barrier are given in **Table 2.18**.

Table 2.18: Locations of proposed Crash Barrier

S. No	From	To	Length (km)	Embankment height in m
SH 58				
1.	20/500	20/600	100	Left : 2.00-3.00 and Right : 3.00-4.00
SH 116				
2.	19/400	19/500	100	Left : 4.20 and Right : 4.00
3.	19/825	19/900	75	5.00
4.	19/900	20/000	100	Left : 7.00 and Right : 5.00
5.	27/500	27/600	100	3.00
6.	27/600	27/700	100	3.50
7.	27/700	27/800	100	4.00
8.	27/800	27/900	100	5.00
9.	27/900	28/000	100	5.00
10.	28/000	28/100	100	4.50
11.	28/100	28/200	100	4.50
12.	38/500	38/600	100	3.00
13.	38/600	38/700	100	3.50
14.	38/700	38/800	100	4.00
15.	38/800	38/900	100	4.10
16.	38/900	39/000	100	4.30
17.	39/000	39/100	100	4.00
SH 04				
18.	38/100	38/200	100	3.00-5.50 and 5.50-6.00
19.	38/200	38/300	100	5.50-6.00
20.	38/300	38/400	100	5.50-6.00 and 5.50-2.00
21.	40/200	40/300	100	2.00-3.00
22.	40/300	40/400	100	3.00-4.00
23.	40/400	40/500	100	3.00-4.00
24.	40/500	40/600	100	3.00-4.00
25.	40/600	40/700	100	3.00-4.00
26.	40/700	40/800	100	3.00-3.50
27.	40/800	40/900	100	2.00-3.00
28.	40/900	41/000	100	2.00-3.00
29.	41/000	41/100	100	2.00-3.00
30.	44/500	44/600	100	2.00-4.00
31.	67/700	67/800	100	Left : 3.00 and Right : 3.30
32.	67/800	67/900	100	Left : 4.00 and Right : 4.00
33.	76/100	76/200	100	Left : 2.00 and Right : 3.00

S. No	From	To	Length (km)	Embankment height in m
34.	78/200	78/300	100	Left : 3.80 and Right : 3.00
35.	78/300	78/400	100	Left : 3.00 and Right : 1.20
36.	78/400	78/500	100	Left : 3.00 and Right : 0.30

D) Roadside Facilities

The roadside facilities are provided as per the requirement of road users. On street parking, Bus Lay-byes and Bus Shelters are proposed for project road of SH 58, SH 116 and SH 04.

On-street Parking: The project road traverses through built-up areas where small commercial activities are carried out on both side of the road. The proposed 1.5m paved shoulder may be utilized for short time parking of the vehicles. This curbside parking is permitted only if stationary vehicles do not unduly interfere with free and safe movement of vehicles. Besides bus lay byes, off street parking is proposed.

Bus Lay-byes and Shelters: Consultants have identified the location/site for the proposed bus-lay bye for each village or built-up locations based on the following criteria:

- Bus shelters are proposed near to residences to minimize the walking distance and major intersection/junction should have direct pedestrian links segregated from motorized traffic.
- It should be positioned in straight and level sections of road and should be visible from a long distance from both the directions.
- Bus bays are proposed as per the recommendations of IRC: 80-1981. The typical bus bays consists of deceleration and acceleration lanes of 45m length with stopping lane of 3.5m wide, 30m long. Adequate arrangements have also been made to drain off surface water.
- The typical layout of bus lay bye is presented in **Figure 2.2** and **Figure 2.3** and the location details of bus laybyes and shelters are presented in **Table 2.19**.

Table 2.19: Location of Proposed Bus Bays and Shelters

S. No.	Existing Chainage (m)	Proposed Chainage (m)	Side (Left/Right)
SH 58			
1	5/000	6/000	Left
2	3/052	3/053	Left
3	4/734	4/735	Right
4	4/760	4/756	Left
5	5/790	5/787	Left
6	5/818	5/815	Right
7	6/168	6/166	Right
8	7/007	7/004	Left
9	7/997	7/994	Left
10	8/806	8/804	Left
11	9/133	9/130	Left
12	9/200	9/197	Right
13	10/383	10/380	Left
14	10/600	10/595	Left
15	17/035	17/013	Left
16	18/128	18/103	Left
17	19/934	19/910	Right
18	20/477	20/440	Right
19	20/800	20/770	Right
20	22/370	22/304	Right
21	22/690	22/628	Left
22	25/061	25/000	Right
23	25/700	25/642	Left and Right
24	26/380	26/320	Right
25	26/636	26/566	Left
SH 116			
27	14/474	14/275	Left
28	14/789	14/600	Left
29	18/611	18/447	Right
30	22/048	21/829	Right
31	22/095	21/875	Left
32	24/586	24/365	Left/Right
33	26/080	25/857	Right
34	29/267	29/042	Left
35	30/798	30/572	Right
36	31/731	31/509	Right
37	32/989	32/767	Right
38	34/123	33/906	Left
39	35/628	35/415	Right
40	35/803	35/588	Left
SH 04			
41	29/275	29/555	Right
42	36/900	37/155	Right
43	37/370	37/625	Left
44	41/345	41/620	Right
45	51/555	51/759	Left
46	52/820	53/175	Left
47	55/225	55/765	Both side

S. No.	Existing Chainage (m)	Proposed Chainage (m)	Side (Left/Right)
48	56/030	56/565	Left
49	58/260	58/800	Right
50	58/900	59/450	Right
51	65/910	65/665	Right
52	68/705	69/255	Right
53	71/170	71/700	Left
54	73/765	74/320	Right
55	81/920	82/620	Left
56	83/440	84/155	Right
57	84/830	85/565	Right
58	88/475	89/235	Right
59	95/070	95/890	Right
60	95/420	96/230	Left
61	96/275	97/085	Left
62	96/860	97/665	Left
63	98/485	99/320	Left
64	100/210	101/065	Left
65	102/400	103/280	Right
66	104/650	105/550	Left
67	105/390	106/295	Left
68	105/415	106/315	Right
69	106/220	107/115	Left
70	108/160	109/035	Left
71	110/085	110/955	Left
72	110/580	111/450	Left
73	111/790	112/665	Left
74	112/320	113/195	Left

E) Traffic Calming

Speed is arguably a factor in every accident. Lower speeds reduce both the likelihood of the accident happening and the severity, if it does occur. Speed reduction benefits have received much attention in recent years and an international review of speed and accidents concluded that, on an average, each *5km reduction in speed would result in a 22% reduction in fatal accidents*.

Traffic calming measures need to be applied in a formal structured manner. All features should only be constructed where approach speeds are such that all road users can perceive the calming feature and traverse it safely. They should not be used in isolation but as part of a strategy covering a stretch of road or an area. Accordingly following two types of Traffic calming measures, i.e Speed humps and rumble strips have been proposed along the project road.

Road Humps: Road Humps or Speed breakers are formed by providing a rounded hump of 3.7m width (17m radius) and 100mm height for the preferred advisory crossing speed of 25kmph for general traffic as per the **IRC: 99–1988**. The basic material for construction is bituminous concrete formed to required shape. Road humps have been proposed on minor roads at junctions /intersections with major roads, School and Hospital zones. Proper signboards and markings are provided to advise the drivers in advance of the situation. Road humps are extended across

carriageway up to the edge of paved shoulder. Proper signboards and marking are proposed to advise the drivers in advance of the Road humps.

Rumble Strips: Rumble Strips are formed by a sequence of transverse strips laid across a carriageway with maximum permitted height of 20mm. These rumble devices produce audible and vibratory effects to alert drivers to take greater care and do not normally reduce traffic speeds in themselves. The typical design details of rumble strips proposed are transverse strips of Pre-mix bituminous concrete 500mm wide and overall thickness 20mm laid across a carriageway up to the end of paved shoulder. There will be 6 such transverse strips spaced at 0.5 m c/c. Rumble strips are proposed at:

- Sharp curves with radius less than 170m.
- Transition zones (speed limit zones).
- Village/built-up approaches.
- Sensitive receptors (schools and hospitals)

Proper signboards and marking are proposed to caution the drivers in advance of the situation.

2.9. ROAD CONSTRUCTION STANDARDS, NORMS AND GUIDELINES

The road construction standards/norms and management procedure has been adopted to implement the standards and guidelines provided by the Indian Roads Congress (IRC):

- i) Guidelines for Environmental Impact Assessment of Highway Projects, IRC: 104- 1988.
- ii) Recommended Practice for Treatment of Embankment slopes for erosion control, IRC: 36-1974.
- iii) Recommended Practice for Borrow pits for Road Embankment for Road manual operation, IRC: 10-1961.
- iv) Recommended Practice for the construction of Earth Embankments for Road Works, IRC: 36-1970.
- v) Highway Safety Code, IRC, special publication no. 44.
- vi) Guidelines on Bulk Bitumen Transportation and Storage Equipment, IRC, special publication 39.
- vii) Recommended Practice for Tools Equipment and Appliances for Concrete Pavement Construction, IRC: 43-1972.
- viii) Recommended Practice for use and Upkeep of Equipment, Tools and Appliances for Bituminous Pavement Construction, IRC: 72-1978. Road Accident Forms A-1 and 4, IRC: 33-1982.
- ix) The factories act 1956 for hygiene and safety requirements of construction workers.
- x) Other relevant codes of BIS and National Building Codes.

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3 ENVIRONMENT REGULATORY FRAMEWORK

3.1 Environmental Policy Framework

The environmental policy framework includes existing institutions and legislations relevant to the project at the International, National and State levels. The various statutory clearances/permissions from state and central government authorities and institutional framework are discussed in the subsequent section.

3.1.1 Legal Framework

There are a number of policy guidelines, Acts and regulations pertaining to environment in India. The Environment (Protection) Act, 1986 provides umbrella legislation for the protection of environment. As per this act, the responsibility to administer the legislation has been jointly entrusted to the Ministry of Environment, Forests and Climate Change (MoEFCC) and the Central Pollution Control Board (CPCB)/Tamil Nadu Pollution Control Board (TNPCB).

3.1.2 Key Environmental Laws and Regulations

The emerging environmental scenario calls for requisite attention on conservation and proper use of natural resources during the course of development. There is a need to integrate the environmental consequences of developmental activities by planning suitable mitigation measures in order to ensure sustainable development. To achieve such goals, the basic principles adopted are:

- To enhance the quality of environment in and around the project area. Adoption of measures for conservation of natural resources.
- Prevention/Avoidance of adverse environmental and social impacts.
- Mitigation of adverse environmental and social impacts and
- Implementation of environmental management plan during construction and operation.

It is the responsibilities of Government Agencies to implement the project as per environmental regulations, legislation, act, policy and guidelines. The main Environmental Regulatory Agency in India is the Ministry of Environment, Forests and Climate Change (MoEFCC), New Delhi. MoEFCC formulates environmental policies for environmental clearances of the projects. The key applicable environmental legislation with purpose, reason of applicability and authority are described in **Table 3.1**. The standards for air, noise and water are given at **Annexure 3.1**.

Table 3. 1: Environmental Regulations and Legislations

S. No	Act / Rules	Purpose	Applicable Yes/ No	Reason for Applicability	Authority
1	Environment Protection Act-1986	To protect and improve overall environment	Yes	As all environmental notifications, rules and schedules are issued under this act.	MoEFCC. Gol; DoE, State Gov. CPCB; SPCB

S. No	Act / Rules	Purpose	Applicable Yes/ No	Reason for Applicability	Authority
2	Environmental Impact Assessment Notification 14th Sep-2006 amended in 2009 and 2013	To provide environmental clearance to new development activities following environmental impact assessment	No	The notification is not applicable to Project road since as per amendment in 2013, upgradation of SH does not require EC	MoEFCC. EIAA
3	Notification for use of fly ash	Reuse large quantity of fly ash discharged from thermal power plant to minimize land use for disposal	No	There are no significant filling	
4	Coastal Regulation Zone Notification, 2011	Protection of fragile coastal belt	No	Section of SH 58 under Phase I does not include CRZ.	CRZMA, MOEFCC
5	National Environment Appellate Authority Act (NEAA) 1997	Address Grievances regarding the process of environmental clearance.	No	Project road does not require environmental clearance.	NEAA
6	The Land Acquisition Act 1894 & 1989	Set out rule for acquisition. of land by government	Yes	Acquisition of land for widening, geometric improvements and realignments.	Revenue Department, State Government.
8	The Forest (Conservation) Act 1927 The Forest (Conservation) Act. 1980, Forest (Conservation) Rules 1981	To check deforestation by restricting conversion of forested areas into non- forested areas	Yes	Chainage km 16/150 to 16/490of SH 58 passes through Oragadam Reserved Forest.	Forest Department, Govt of Tamil Nadu
10	Wild Life Protection Act 1972	To protect wildlife by declaring National Parks and Sanctuaries	No	No wildlife corridor exists and nearest wildlife sanctuary is more than 10 km away	Chief Conservator Wildlife, Wildlife Wing, Forest Department, GoTN
11	Air (Prevention and Control of Pollution) Act, 1981	To control air pollution by controlling emission of vehicles/machineries as per the prescribed standards.	Yes	During constructionfor establishment of hot mix plant, workers' camp, construction camp, etc.	SPCB
12	Water Prevention and Control of Pollution) Act1974	To control water pollution by controlling discharge of pollutants as per the prescribed standards	Yes	During construction for establishments of hot mix plant, construction camp, workers' camp, etc.	SPCB

S. No	Act / Rules	Purpose	Applicable Yes/ No	Reason for Applicability	Authority
13	Noise Pollution (Regulation and Control Act) 1990	The standards for noise for day and night have been promulgated by the MoEF for various land uses.	Yes	During construction and operation for the vehicular movement and use of machinery in construction	SPCB
14	The Ancient Monuments and Archaeological sites and Remains Act, 1958 amended in 2010	Conservation of cultural and historical remains found in India	No	Project route is more than 500m away from Ancient Monument, declared protected under this act.	Archaeological Dept Gol, Indian Heritage Society and Indian National Trust for Art and Culture Heritage (INTACH).
15	Public Liability and Insurance Act 1991	Protection from hazardous materials and accidents.	Yes	Contractor need to stock hazardous material like diesel, Bitumen, Emulsions etc.	SPCB
16	Explosive Act 1984	Safe transportation, storage and use of explosive material	Yes	For transporting and storing diesel, bitumen etc.	Chief Controller of Explosives
17	Minor Mineral and concession Rules	For opening new quarry.	Yes	Regulate use of minor minerals like stone, soil, river sand etc.	District Collector
18	Central Motor Vehicle Act 1988 and Central Motor Vehicle Rules 1989	To check vehicular air and noise pollution.	Yes	This rule will be applicable to road users and construction Machinery.	Motor Vehicle Department
19	National Forest Policy 1952 National Forest Policy (Revised) 1988	To maintain ecological stability through preservation and restoration of biological diversity.	No	This policy will not be applicable as no eco sensitive feature exists along the project corridor.	Forest Department, Gol and GoTN
20	The Mining Act	The mining act has been notified for safe and sound mining activity.	Yes	The construction of project road will require aggregates. These will be procured through mining from riverbeds and quarries	Department of Mining, GoTN

3.1.3 Environmental Requirements of the State

The various environmental legislations with which the Tamil Nadu is concerned are as described below published by Central Government's statutory body like Central Pollution Control Board, Archeological Survey of India, Ministry of Environment and Forest and Climate Change etc. There are some legislations at state level which is described in **Table 3.2**.

Table 3. 2: Key Applicable Environmental Legislations of the State

Legislations	Scope and Objective	Key Areas	Operational Agencies/ Key Players	Applicability
The Tamil Nadu Water (Prevention and Control of Pollution) Act Rules, 1983	Prevention and Control of Water Pollution, availability of safe drinking water	Control of Water pollution	Tamil Nadu Pollution Control Board	Water Pollution
The Tamil Nadu Air (Prevention and Control of Pollution) Act Rules, 1983	Prevention and Control of Air Pollution,	Control of Air pollution	Tamil Nadu Pollution Control Board	Air Pollution
Tamil Nadu Highways Act, 1981	Construction and maintenance of road to prevent ribbon development, encroachment and land acquisition for construction, widening and strengthening	Road development	Highway Department, Tamil Nadu	Widening and Strengthening

Source: Government of Tamil Nadu

3.1.4 Other Legislation Applicable to Road Construction Projects

Environmental issues during road construction stage generally involve equity, safety and public health issues. The road construction agencies require to comply the laws of the land which include *inter alia*, the following:

- ✚ **Workmen's Compensation Act 1923**(the Act provides for compensation in case of injury by accident arising out of and during the course of employment);
- ✚ **Payment of Gratuity Act, 1972**(gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years);
- ✚ **Employees PF and Miscellaneous Provision Act 1952**(the Act provides for monthly contributions by the employer plus workers);
- ✚ **Maternity Benefit Act, 1951**(the Act provides for leave and some other benefits to women employees in case of confinement or miscarriage, etc.);
- ✚ **Contract Labor (Regulation and Abolition) Act, 1970**(the Act provides for certain welfare measures to be provided by the contractor to contract labour);
- ✚ **Minimum Wages Act, 1948**(the employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the act);
- ✚ **Payment of Wages Act, 1936** (it lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers);
- ✚ **Equal Remuneration Act, 1979**(the Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees);
- ✚ **Payment of Bonus Act, 1965**(the Act provides for payments of annual bonus subject to a maximum of 83.3% of wages and minimum of 20% of wages);
- ✚ **Industrial Disputes Act, 1947**(the Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and

- what are the requirements for laying off or retrenching the employees or closing down the establishment);
- ✚ ***Industrial Employment (Standing Orders) Act; 1946***(the Act provides for laying down rules governing the conditions of employment);
 - ✚ ***Trade Unions Act, 1926***(the Act lays down the procedure for registration of trade unions of workers and employers. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities);
 - ✚ ***Child Labour (Prohibition and Regulation) Act; 1986***(the Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labour is prohibited in Building and Construction Industry);
 - ✚ ***Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act, 1979*** (the inter-state migrant workers, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home to the establishment and back, etc.);
 - ✚ ***The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996***(all the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act; the employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodation for Workers near the workplace, etc.);
 - ✚ ***The Factories Act, 1948***(the Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours and rendering information regarding accidents or dangerous occurrences to designated authorities);
 - ✚ **Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008;**
 - ✚ **Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.**

3.2 ENVIRONMENTAL CLEARANCES

3.2.1 Environmental Clearances

The Ministry of Environment, Forests and Climate Change (MoEFCC), New Delhi has issued the Environmental Impact Assessment Notification on 14th September, 2006, which has made prior environmental clearance mandatory for the development activities listed in its schedule. According to this notification, projects are categorized in Category A and Category B. Category B projects are further categorised into B1 and B2 projects. B2 projects do not require preparation of EIA reports. Category A projects are cleared by the Ministry of Environment, Forests and Climate Change (MoEFCC) at central level Expert Appraisal Committee (EAC) and the category B project are cleared by the State level Expert Appraisal Committee (SEAC). If there is no State level Expert Appraisal Committee, all B category projects are dealt at central level. The public hearing is a mandatory step in the process of environmental clearance for developmental projects and is conducted district-wise near to project location.

As per EIA notification and its amendment, Highway expansion projects do not require scoping. For Highway expansion projects, an EIA and EMP report is to be prepared on the

basis of model TOR specified by MoEFCC. This project is World Bank funded, hence environmental screening report with scoping has been prepared.

General Condition (GC): Any project or activity specified in Category ‘B’ will be treated as Category A, if located in whole or in part within 10 km from the boundary of: (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries. **Table 3.3** describes the categorization of Highway projects as per EIA notification and its latest amendments.

Table 3.3: EIA Categorization for Highway Projects

National Highway projects (Category A)	New Highway projects: All New Highway projects
	Expansion Projects: Greater than 100 km involving additional right of way or land acquisition greater than 40 m on existing alignment and 60 m on re-alignments or at bypasses
State Highway projects (Category B)	New Highway projects: All new state highway projects
	Expansion Projects: State Highway expansion project in hilly terrain (above 1000 m MSL) or within 10 km of ecologically sensitive areas

3.2.2 CRZ Clearances

On February 19, 1991, the Ministry of Environment, Forests and Climate Change (“MOEFCC”) issued a notification under Section 3 of the Environment Protection Act of 1986, seeking to regulate developmental activity on India’s coastline. The approach adopted by the first notification was to define the ‘High Tide Line’ (“HTL”) and ‘Coastal Regulation Zone’ (“CRZ”) and thereafter specify the activities permitted and restricted in the vicinity of the CRZ. This regulated zone was further divided into four categories (CRZ I-IV) as per permitted land use.

There had been about 25 amendments to this notification between 1991 and 2009, some of which had been based on the directions of the Supreme Court. On January 6, 2011, MoEFCC issued new Coastal Regulation Zone Notification 2011. As per the CRZ notification 2011 procedure for obtaining CRZ clearance is as follows:

- (i) The project authorities shall submit the proposal to the concerned State/UT CZMA along with the following documents/reports,-
 - Form-1 (Annexure-IV of the Notification);
 - Rapid Environment Impact Assessment (EIA) Report including marine and terrestrial EIA. Comprehensive EIA and cumulative studies for port and foreshore requiring projects as per guidelines issued by MoEFCC from time to time;
 - Disaster Management Report and Risk Management Report;
 - CRZ map indicating HTL and LTL demarcated by an authorized agency (1:4000 scale);
 - Project layout superimposed on the above mentioned map;
 - The CRZ map shall normally indicate a 7km radius around the project site.
 - The CRZ map shall indicate the CRZ-I, II, III and IV areas;
 - No Objection Certificate from the concerned Pollution Control Boards or Committees for the projects which envisage discharge of effluents, solid wastes, sewage etc. (NOC from

the State Pollution Control Boards or UT Pollution Control Committees has been made mandatory in view to minimize pollution in the coastal waters)

- (ii) The concerned CZMA shall examine the above documents in accordance with the approved CZMP and CRZ Notification and make recommendations within a period of sixty days from date of receipt of above document to,-
- SEAC or EAC in case of the project attracting EIA Notification, 2006;
 - MoEFCC or State Government for the project attracting CRZ Notification;
- (iii) MoEFCC or State Government shall consider such projects based on the recommendations of the concerned CZMA within a period of sixty days.

3.2.3 Forest Clearances

Forest (Conservation) Act, 1980 was enacted in 1980 to check irrational exploitation of forest and to maintain the ecological balance. This legislation is endorsement of Government's will to protect the rich bio-diversity of our forest and wildlife, which is not only the natural heritage of our country, but also the base of our socio-economic progress and the repository of yet unknown panaceas of the future. The Act also translated into legal term the fact that forests in India are not to be regarded as sources of State revenue, but rather as community resources, sub serving the needs of hundreds of millions of rural people and tribal; and the principal duty of the forest Administration was no longer exploitation of forest wealth, as in colonial times, but conservation of bio diversity and green-cover. Under this act no forest land can be used for non forestry purpose without the prior approval of Central Government. Therefore, all proposals of diversion of such areas to any non-forest purpose can only be permitted by the Central Government. As per the amended Forest (Conservation) Rules in force now, the Regional Chief Conservator of Forests have the powers to decide proposals involving forest land upto 5 hectares. Proposals involving forest land between 5 - 20 hectares shall be processed by the Regional Chief Conservator in consultation with a State Advisory Group consisting of representatives of the concerned State Government. Proposals involving more than 20 ha. of forest land are required to be placed before the Advisory Committee constituted by the MoEFCC.

As per Rule 6 of the Forest (Conservation) Rules, 2003, every user agency, who wants to use any forest land for non-forest purposes shall make his proposal in the appropriate Form appended to these rules, i.e. Form 'A' for proposals seeking first time approval under the Act and Form 'B' for proposals seeking renewal of leases where approval of the Central Government under the Act had already been obtained earlier, to the concerned nodal officer authorized on behalf of the State Government, along with requisite information and documents, complete in all respects, well in advance of taking up any non-forest activity on the forest land.

3.2.4 Consent to Establish (CTE) and Consent to Operate (CTO):

The Project requires Consent to Establish prior to the start of construction activities from TNPCB in pursuant of the Water (Prevention and 'Control of Pollution) Act of 1974, The

Cess Act of 1977 and the Air (Prevention and Control of Pollution) Act of 1981. On commissioning of the project, Consent to Operate has to be taken from TNPCB.

3.3 World Bank Environmental Requirements

The various environmental requirements of World Bank and Government of India for the project roads are described below.

3.3.1 Applicability of various WB Safeguard Policies

The World Bank has ten safeguard policies out of which the details and applicability of the seven safeguard policies are discussed in **Table 3.4**.

Environmental requirements of the World Bank are specified in detail in its Operational Policy (OP) 4.01 and in other related Operational Policies. The instances in which the procedural and regulatory requirements differ, the more stringent applies. The World Bank environmental requirements are based on a three-part classification system.

- **Category A**-requires a full Environmental Assessment (EA).
- **Category B**-projects require a lesser level of environmental investigation.
- **Category C**-projects require no environmental analysis.

On the basis of data and information collected during field survey and discussion with local people and visualization of potential associated impact, consultant has categorised this project as **Category-A**, as per World Bank Operational Policies 4.01 (OP 4.01) for the better care of the environment during construction and operation. Out of three roads SH 04, SH 58 and SH 116, there is forest land acquisition of 0.544 Ha in a stretch of 340 m (km 16/100 to km 16/440) for widening and strengthening of SH 58 at Thirukalukundram bypass. Other two roads have forest stretches along the road but no forest land acquisition is anticipated. The roads have full grown trees on either side of the road as depicted at Annexure 4.3, 4.4 and 4.5 of EA Report. SH04 has 7187 trees, SH 58 1292 trees and SH 116 1244 trees for their stretches of 90.90 km, 26.811 km and 22.20 km respectively.

Table 3. 4: Applicability of WB Safe Guard Policies

WB Safe Guard Policy	Subject Category	Triggered Or Not	Reason For Its Applicability	Mitigation Measures	Documentation
OP 4.01	Environmental Assessment	Triggered	Umbrella policy	All necessary mitigation measures incorporated.	EIA and EMP required.
OP 4.04	Natural Habitats	Not Triggered	No natural habitats are existing within 10 km radius of the project	Not applicable	Not applicable
OP 4.36	Forests	Triggered	Forest land diversion	Afforestation on equivalent area of non-forest land or afforestation on double	Forest Land Diversion

WB Safe Guard Policy	Subject Category	Triggered Or Not	Reason For Its Applicability	Mitigation Measures	Documentation
				the area of degraded forest land	
OP 4.09	Pest Management	Not Triggered	Not Applicable	Not Applicable	Not Applicable
OP 4.30	Involuntary Resettlement	Triggered	Road widening will lead to loss of livelihoods, loss of land and Buildings etc	Resettlement Action Plan and provision for livelihood enhancement measures, training for skill upgradation and support for capacity building.	Resettlement Action Plan
OP 4.20	Indigenous people	Not Triggered	The indigenous people are not getting affected due to the project	Not Applicable	Not Applicable
OP 4.11 (draft)	Cultural Property	Triggered	A number of temples, shrines, churches etc are located adjacent to road ROW, some of which will be affected.	Adequate mitigation measures will be provided.	Cultural restoration action plan

3.3.2 Applicability of Legal Regulations

The project roads were reviewed in the context of applicability of regulations and legislations described above. The study for the roads was done to find out the clearance and permission requirement to start the construction work. Requirement of Environment Clearance was assessed in the context of EIA Notification 2006 and its amendment in 2013 for the road project. As per this, Environmental Clearance is not required for Phase-I roads under TNRSP-II of SH 58, SH 116 and SH 04. Similarly, the CRZ and Archeological aspects were studied and was found that no CRZ and Archeological Clearances are required. While scrutinising the road for forest status, forest is on one side of the road at most of the location except at Thirukalukundram bypass where SH 58 is crossing the road and requires forest clearance. The requirement of clearances and permissions from the statutory authority is summarised in **Table 3.5**.

Table 3. 5: Clearances/Permissions Required for the Phase-I roads under TNRSP-II

S. No.	Clearance / Permission	Acts	Authority to Accord Clearance	Road No. 58	Road No. 116	Road No. 4
1	Environmental Clearance	EIA Notification 2006 & further amendments	SEIAA	No	No	No
2	Forest Clearance	Forest (Conservation) Act 1980	MoEFCC/State Forest Dept.	Yes	No	No
3	Wildlife Clearance	The Wildlife (Protection) Act,	NWLB	No	No	No

S. No.	Clearance / Permission	Acts	Authority to Accord Clearance	Road No. 58	Road No. 116	Road No. 4
		1972				
4	CRZ Clearance	Coastal Regulation Zone Notification, 2011	MoEFCC	No	No	No
5	Consent to establish and Consent to operate –for strengthening and widening of the road	Water (Prevention and Control of Pollution) Act 1974, Air (Prevention and Control of Pollution) Act 1981	Tamil Nadu Pollution Control Board (TNPCB)	Yes	Yes	Yes
6	Permission to cut the trees within PRow		District Collector/District Forest Officer	Yes	Yes	Yes

3.3.3 Clearance Requirements

The summary table showing time requirements for agency responsible for obtaining clearance, and a stage at which clearance will be required is given in **Table 3.6**.

Table 3. 6: Clearances Required

S. No.	Type of Clearance	Applicability	Project Stage	Responsibility	Time Required
1	Environmental Clearance from MoEF/SIAA	Not Applicable	Not Applicable	Not Applicable	Not Applicable
2	Forest Clearance for forest land diversion	For forest land diversion	Pre Construction	TNRSP	6-8 Months
3	Tree felling permission	For roadside tree cutting	Pre construction	TNRSP	15 days
4	Explosive License from Chief Controller of Explosives,	For storing fuel oil, lubricants, diesel etc. at construction camp	Construction stage (Prior to initiation of any work)	The Contractor	2-3 Months
5	Permission for storage of hazardous chemical from CPCB	Manufacture storage and Import of Hazardous Chemical	Construction stage (Prior to initiation of any work)	The Contractor	2-3 Months
6	Quarry Lease Deed and Quarry License from State Department of Mines and Geology	Quarry operation (for new quarry)	Construction stage (Prior to initiation of any work)	The Contractor	2-3 Months
7	Permission for extraction of ground water for use in road construction activities from State Ground Water board	Extraction of ground water	Construction stage (Prior to initiation of any work)	The Contractor	2-3 Months
8	Permission for use of water for construction purpose from irrigation department	Use of surface water for construction	Construction stage (Prior to initiation of any work)	The Contractor	2-3 Months
9	Labor license from labor commissioner office	Engagement of Labor	Construction stage (Prior to initiation)	The Contractor	2-3 Months

S. No.	Type of Clearance	Applicability	Project Stage	Responsibility	Time Required
			of any work)		

As mentioned in above table pre -construction regulatory clearance is required for tree felling and forest land acquisition from forest department. For this project, the designated officer is Divisional Forest Officer, Kanchipuram, Villupuram and Thiruvannamalai north. The Forest land diversion application has been submitted to District Forest Officer, Kanchipuram for SH 58.

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4 BASELINE ENVIRONMENT

4.1. BACKGROUND

Identification and prediction of impacts form core of an Environmental Impact Assessment (EIA) Study. Baseline description, which involves collection of data on the existing status of the environment helps in identification and assessment of impacts as a result of the proposed strengthening and widening of road and during various phases of project cycle. The environmental baseline includes investigation of physical, chemical, biological and socio-economic parameters. This section deals with the description of existing environmental setting in the study area. The baseline data has been compiled for:

- ❖ Air Environment
- ❖ Land Environment
- ❖ Water Environment
- ❖ Ambient Noise
- ❖ Ecological Environment
- ❖ Socio-Economic Environment

RITES has prepared an Environmental Scoping Matrix for Road and presented in **Table 4.1**. Based on environmental scoping matrix and project setting the attributes likely to be affected are identified for baseline data generation during construction. The information presented in this chapter has been collected from various sources. Majority of the data has been collected from field studies. RITES have carried out field studies to generate data on soil, water, and noise and air quality at the project site. Field visits were conducted for assessing the ecological status of the project area. In addition data were compiled from literature, books, maps and reports. Additional information was collected through discussions with individuals and organizations. The methodology adopted for data collection is highlighted wherever necessary. The general environmental attributes pertaining to this project along with parameters to be collected and frequency of monitoring is presented in **Table 4.2**.

Baseline environmental data play a key role in screening of environmental parameters likely to be affected due to the project. This also facilitates the decision maker to assess a particular environmental parameter, which needs to be incorporated during the detailed Environmental Impact Assessment (EIA) study. During the process of development, there has been intensive use of natural resources, very often leading to ecological imbalances. In a road project like this involving construction activities, conservation of flora, fauna and the ecosystem forms important aspect of overall sustainable development process. The data/features documented hereunder, have been collected through field investigation, interaction with local population and desk research.

The environmental baseline data comprise of the features existing within a radius of 10 km from the proposed road location. This area is referred to as study area in the report. It includes environmental features such as forest areas, water bodies (rivers, lakes ponds and reservoirs), industries, wildlife and flora and places of historical importance etc. The proposed study area

of priority road falls on Survey of India topographical sheet nos. 66D/2 (SH 58), 57P/9, 57P/10, 57P/11 (SH 116) and 57P/6, 57P/7, 57P//8, 58M/5 (SH 04). The specific environmental attributes for the road were collected for 100 m corridor (50 m on either side).

Table 4.1: Scoping Matrix for the Project

Aspect of Environment	Likely Impacts
A. Natural Environment	- Change in micro climate
B. Land Environment	- Increase in soil erosion - Pollution by construction spoils - Use of land for labour camps - Borrow and Quarry area Problems - Solid Waste from labour camps
C. Water Resources & Water Quality	- Water Quality impacts due to disposal of wastes from labour camps and construction sites
D. Terrestrial Ecology	- Land clearance - Tree cutting - Forest diversion
E. Socio-Economics	- Improved employment potential during project construction phase - Pressure on existing infrastructure facilities - Less fuel consumption due to reduced distance - Decongestion of traffic
F. Air Pollution	- Impacts due to emissions generated by construction machinery - Fugitive emissions from various sources - Air pollution will get reduced during operation due to decongestion.
G. Noise Pollution	- Noise due to operation of various equipment - Noise due to increased vehicular movement

Table 4.2: Environmental Attributes and Frequency of Monitoring

S. No.	Attributes	Parameter	Frequency	Source
LAND ENVIRONMENT				
1.	Geology	Geological History	---	Secondary sources
2.	Soil	Soil Types	One season soil sample analysis	Field Studies, secondary sources
WATER ENVIRONMENT				
1.	Water Quality	Physical, Chemical and Biological Parameters	One Season Water sample Analysis	Field studies and Secondary Sources
AIR ENVIRONMENT				
1.	Ambient Air Quality	PM10, PM2.5, SO ₂ , NO _x , CO	One season monitoring	Field Studies
2.	Meteorology	Wind Speed, Temperature,	Data Collection	Regional Meteorological Centre, Vellore,

S. No.	Attributes	Parameter	Frequency	Source
		Relative Humidity, Rainfall		
NOISE ENVIRONMENT				
1.	Noise	Noise levels in dB (A)	One Season Monitoring	Field Studies
ECOLOGY ENVIRONMENT				
1.	Ecology	Flora & Fauna	Data Collection	Field observations and other various secondary sources
SOCIO-ECONOMIC				
1.	Socio-Economic Aspects	Socio-Economic characteristic of the affected area	Socio-Economic	Secondary sources

Environmental features for the study areas have been collected for land, water, air, noise and ecological environment. The environmental data were collected from primary and secondary sources. Primary data generation involves monitoring for air, water, noise and soil and identification of valued environmental components with interaction and consultation with stakeholders. Secondary data are collected from the various concerned department for forest type, ecology, sanctuary, meteorology etc. The collection of data was accomplished from November, 2013 to June 2014.

Chapter 1, 2 and 3 are described with scoping of the work and existing project features and regulations applicable to environmental assessment. This chapter deals with environmental baseline data which helps in assessment of impacts due to project activities during construction and accordingly environmental management plan is prepared to mitigate the negative impacts. Environmental cost is estimated on the basis of mitigation and enhancement measures. During the study, regulatory requirement of India and operational procedure of World Bank are followed.

4.2. AIR ENVIRONMENT - BASELINE

The purpose for the generation of air quality data for the project road is to know the existing ambient air quality. This helps to assess the impact during construction and commissioning of the project. The project road passes through rural and semi-urban areas and there has not been found much traffic congestion at any of the stretches in Phase I, hence air quality is found relatively better.

4.2.1. Meteorological factors and Climate

Climate: Climate is the important physical factor which influences the environment. It plays a vital role for the evolution of landforms due to erosion/deposition, soil characteristics of the area, floral and faunal species and the productivity of ecosystems. It has an influence on the pollution load in the environment. Rainfall, temperature, humidity and winds are the main climatic components that help to transport, disperse various forms of pollution into the

atmosphere and on the ground. Climatic condition helps to assess the pollution load in the air during construction and operation.

The project districts Kanchipuram, Thiruvannamalai and Villupuram falls in the Semi Arid Tropical Zone of climatic classification. There are mainly three seasons in Tamil Nadu, but duration of the season varies as per the location of the district. The project road falls in three districts of Tamil Nadu, season of which with duration is given in **Table 4.3**. The details of climatic conditions i.e. temperature, rainfall, relative humidity, wind speed and cloud cover have been collected from the nearest meteorological station of Indian Meteorological Department (IMD) at Vellore. Data collected from Regional Meteorological Observatory, Vellore are given at **Table 4.4**. The data have been collected for five years to see the variation in climatic conditions on short term basis.

Table 4.3: Seasons in the Project Districts

S. No	Season	Kanchipuram	Thiruvannamalai	Villupuram
1.	Summer	Mar to May	Feb to Jun	Mar to May
2.	Monsoon	Jun to Oct	Jul to Nov	Jun to Nov
3.	Winter	Nov to Feb	Dec to Jan	Dec to Jan

Table 4.4: Climatic Conditions of the Project Area

Month	Temperature(°C)		Total Rainfall in mm	Relative Humidity (%)		Max. Wind Speed (kmph)		Cloud Cover (okta) (Range)	
	Max	Min		08.30	17.30	08.30	17.30	08.30	17.30
2008									
January	30.0	16.1	17.40	90	57	4	6	0-8	0-8
February	32.4	18.9	4.80	91	63	6	8	2-8	2-6
March	33.1	21.3	92.90	88	65	4	6	0-8	0-8
April	36.3	23.8	40.80	79	41	6	6	0-7	0-7
May	39.7	24.6	47.60	63	44	6	8	2-7	4-8
June	36.8	25.3	42.30	66	47	10	16	3-8	5-8
July	36.4	23.9	140.70	72	54	8	6	2-8	3-8
August	35.1	24.0	362.80	76	58	8	6	3-8	3-8
September	34.2	23.8	120.70	80	62	6	6	3-8	4-8
October	31.8	23.2	145.20	88	72	6	6	2-8	2-8
November	30.1	21.4	338.40	89	66	10	10	0-8	0-8
December	29.0	18.3	7.40	90	61	6	6	0-8	0-8
2009									
January	29.6	17.4	7.10	88	52	4	10	0-8	0-8
February	33.4	17.6	0.00	83	40	6	6	0-6	0-5
March	35.8	21.2	2.90	76	37	14	8	0-7	0-8
April	40.8	22.3	4.20	71	36	6	10	0-7	0-7
May	40.1	24.2	70.90	64	45	6	10	0-8	2-8
June	37.9	23.8	70.10	64	56	12	12	3-7	5-8
July	36.6	23.8	6.80	62	57	10	12	3-8	5-8
August	35.9	24.3	125.10	72	56	6	6	3-8	5-8
September	33.7	23.5	317.20	83	72	8	6	3-8	3-8
October	32.6	22.2	36.60	81	62	8	6	0-8	0-8

Month	Temperature(°C)		Total Rainfall in mm	Relative Humidity (%)		Max. Wind Speed (kmph)		Cloud Cover (okta) (Range)	
	Max	Min		08.30	17.30	08.30	17.30	08.30	17.30
November	28.7	21.9	168.90	91	80	6	6	4-8	4-8
December	27.55	20.49	52.70	89	73	6	6	4-8	4-8
2010									
January	28.5	18.5	48.40	88	63	6	10	0-8	0-7
February	32.6	19.6	0.00	88	46	6	12	0-7	0-6
March	38.2	21.5	0.00	80	35	6	10	0-6	0-7
April	40.4	25.6	5.70	72	38	10	12	2-7	2-7
May	39.3	25.4	81.00	70	46	10	12	2-8	0-8
June	35.5	24.3	114.80	78	62	6	6	2-8	4-8
July	33.3	23.0	138.10	81	65	6	8	4-8	3-8
August	33.8	23.7	118.60	76	66	12	12	4-8	5-8
September	33.7	23.8	163.30	77	63	20	12	4-8	4-8
October	33.1	24.2	111.60	81	70	18	18	3-8	5-8
November	30.0	22.5	231.80	92	82	12	8	3-8	5-8
December	28.1	19.8	158.60	91	77	12	16	0-8	0-8
2011									
January	31.2	20.1	0.40	86	54	16	16	0-6	0-7
February	32.7	18.8	47.40	82	45	10	12	0-7	0-8
March	36.0	20.9	0.00	78	38	12	16	0-7	0-6
April	37.2	24.7	72.40	76	46	12	16	2-8	2-8
May	40.0	26.8	24.70	63	43	10	18	2-7	2-8
June	37.8	26.3	5.00	60	41	24	24	3-7	5-8
July	35.4	25.4	174.40	68	56	18	18	5-8	5-8
August	34.0	24.7	157.20	76	61	12	12	5-8	6-8
September	34.5	24.6	104.20	75	59	12	12	2-8	3-8
October	32.9	23.6	202.00	87	75	10	6	2-8	2-8
November	29.7	20.7	135.80	90	80	6	10	0-8	0-8
December	29.5	19.4	100.90	93	70	14	4	2-8	3-8
2012									
January	30.1	18.4	8.10	91	61	2	4	0-8	0-7
February	33.6	19.2	0.00	85	44	4	6	0-8	0-8
March	36.2	23.0	0.50	83	40	4	8	0-7	0-4
April	38.9	25.3	35.10	75	42	6	6	0-7	1-8
May	40.3	26.9	68.10	66	47	12	16	2-8	3-8
June	38.2	26.6	90.30	63	46	14	28	3-8	3-8
July	36.2	24.9	130.10	73	50	16	16	3-8	3-8
August	35.7	24.7	150.20	77	58	12	18	3-8	3-8
September	35.1	25.2	49.60	79	70	12	12	2-8	3-8
October	32.9	23.0	259.00	89	71	6	8	1-8	1-8
November	31.4	19.1	130.20	84	69	4	6	2-8	3-8
December	29.4	19.2	72.40	88	70	20	4	1-8	2-8

Source: Regional Meteorological Centre, Vellore

Temperature: April and May months are the hottest months with mean monthly temperature varying between 36.3°C and 40.8 °C. December and January are comparatively the coolest

months with average mean monthly temperature varying from 16.1 to 20.5 °C. The minimum monthly temperature is 16 °C in the project area. The temperature pattern of the project area acts as the monitoring indicator for hot mix plants and stone crushers during construction.

Humidity: The analysis of five year humidity data taken at 8.30 am and 5.30 pm indicates the maximum humidity value of 93% and minimum as 35%. The humidity decides the nature and characteristics of pollution in the atmosphere. Fog helps in coalescence of suspended particles and enhances the chemical reaction of gaseous pollutants. Humidity is high during the monsoon season and rest of the year, air is generally dry.

Precipitation: Monsoon season starts in June and ends in the month of November. 70% of the total rainfall occurs during monsoon season while February to April is dry period. The extreme climatic conditions sometimes occurs which include cyclones/depression. Rainfall Data collected from Regional Meteorological Centre, Vellore 2012 is given in **Table 4.4** and **Table 4.5**. Rainfall data have been collected for five years (2008-2012) for the seven raingauge stations within the project area at Vellore, Villupuram, Vandavasi, Kanchipuram, Gingee, Chengalpattu and Arni.

The average annual rainfall in the project area varies from 773 mm to 2033 mm (Villupuram: 862.5 mm to 1361 mm, Villupuram: 804 mm to 1555 mm, Vandavasi: 957 mm to 1407 mm, Kanchipuram: 773 mm to 1775 mm, Gingee: 824 mm to 2033 mm, Chengalpattu: 1092 mm to 1534 mm, Arani: 826 mm to 1570 mm). Rainfall mainly occurs during north to east monsoon. Most of the pre-construction activities (mainly earthwork) should be avoided during monsoon season to avoid excessive soil loss with runoff that leads to water pollution. The muddy water affects aquatic life of the water body.

Table 4.5: Rainfall Data

Location	Year	Monthly Rainfall in mm											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Villupuram	2008	0	0	142	0	170	18	95	85	9	205	535	38
	2009	1	0	40	0	15	11	104	103	81	58	397.1	160
	2010	30	0	0	0	56	128	76	224	275	146	488.4	132
	2011	12	4	0	139	0	21	120	122	206	111.8	365.7	163
	2012	18.2	0	0	0	2	5	132	108	72	343	107	17
Vandavasi	2008	0	0	140	0	46	29	79	139	166	145	368.2	30
	2009	0	0	0	0	69	12	24.2	118	231.2	40.6	405	56.6
	2010	24.2	0	0	0	52.4	47	44	136	225.7	103	486.2	142.2
	2011	0	54	0	48	20.2	11.2	105.4	324.8	204.2	226.6	219.6	192.8
	2012	0	0	0	0	45.4	12.4	109.6	192	92.8	275.6	271.4	130
Kanchipuram	2008	0	0	102	0	86	55	48	89	204	165	507.3	19
	2009	14	0	0	0	102	65	59	156	206.6	42	395	167
	2010	0	0	0	0	81	35	183.4	167.7	170.2	159.7	318.6	276

Location	Year	Monthly Rainfall in mm											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2011	0	91.4	0	141	58	79	212.1	266	179	219	334	195
	2012	0	0	0	0	8	44.5	79.9	174.9	58.3	105.6	144.6	157.04
Gingee	2008	49	83.5	226	0	75	52	50.5	119	157.5	371.5	497	27
	2009	6	0	14.5	0	98	164	85.5	253.5	208	189	593	164
	2010	21	0	0	0	70.5	216	62.5	135	270.5	204.5	666.5	386.5
	2011	22.5	22.5	0	148.5	25	4	81.5	92	220	143.3	229.5	250
	2012	0	0	0	0	17	111	53	124	83	192	123	121
Chengalpattu	2008	42	10	110	23	0	28	19	80	111	204.5	504.1	51.8
	2009	7.4	0	0	0	3	20.2	17	98.2	75	108.1	564	199.5
	2010	0	0	0	0	59.2	36.6	63.9	218.6	92.8	152.6	357.9	265.4
	2011	0	58.4	0	30	9	24.6	83.8	282.1	222.5	244.8	374.3	204.8
	2012	1.4	0	0	0	1	84	102	218.6	141.4	475	202	154
Arani	2008	0	0	68.4	3.2	54.3	53.2	159.1	88.8	192.2	161.7	354.4	8.2
	2009	10.4	0	0	0	18	18	45	83.8	296.4	46.8	263.6	44
	2010	11.8	0	0	0	106.8	119.6	72.7	150.2	274.4	124.4	360.8	349.3
	2011	0	205.8	0	70.6	9.4	61.6	174.4	361	118	207.3	240	112.4
	2012	0	0	0	0	19.2	61.4	219.2	191.6	128.6	249.66	121.2	100.62

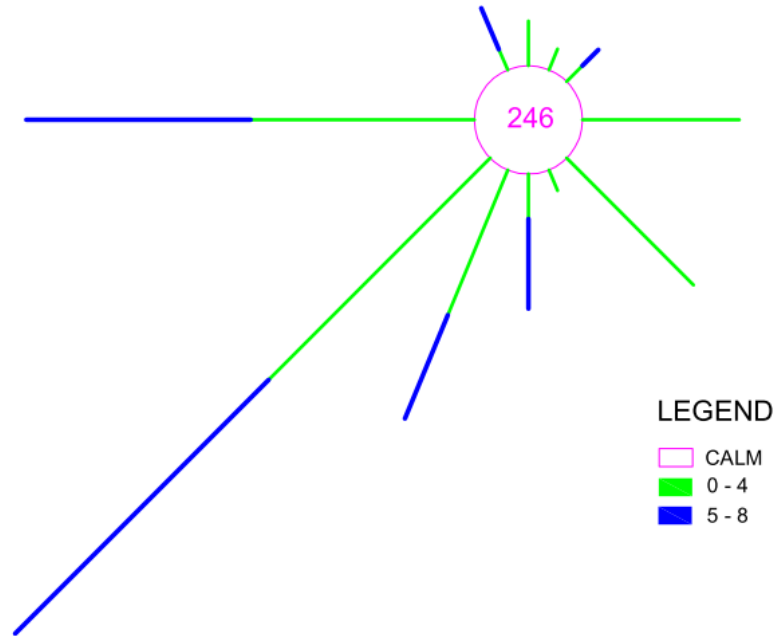
Source: Indian Meteorological Department

Wind: Wind is the important physical factor for the dispersion of pollution in the air. The dispersion of pollution depends upon wind speed and wind direction. Ground level pollution is inversely proportional to the wind speed in the down wind direction, while in upwind direction, no effect will be observed and in cross wind direction partial effect due to the emission sources is observed. Maximum wind speed of 24 kmph is observed at 8.30 hrs and 28 kmph at 17.30 hrs during 2008 to 2012. Annual wind rose diagram for 2008 to 2012 is shown in **Figure 4.1** and prevalent wind direction is given in **Table 4.6**.

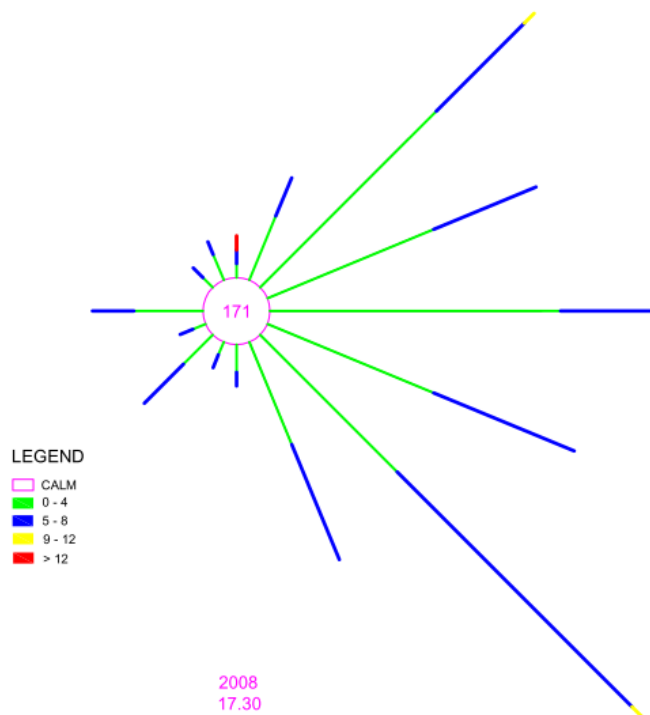
Table 4.6: Prevalent Wind Direction

S. No.	Year	Wind Direction	
		8.30 hours	17.30 hours
1.	2008	From South-West	From South-East
2.	2009	From South-West	From East
3.	2010	From South-West	From East
4.	2011	From South-West	From East
5.	2012	From West	From West

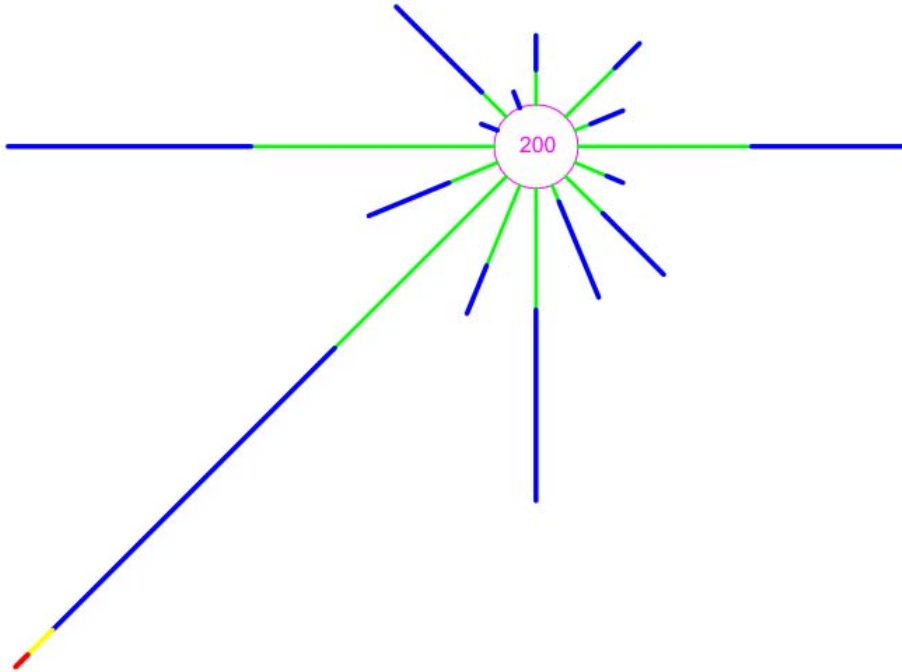
Fig. 4.1: Wind Rose Diagram of Vellore Observatory for Years 2008 to 2012



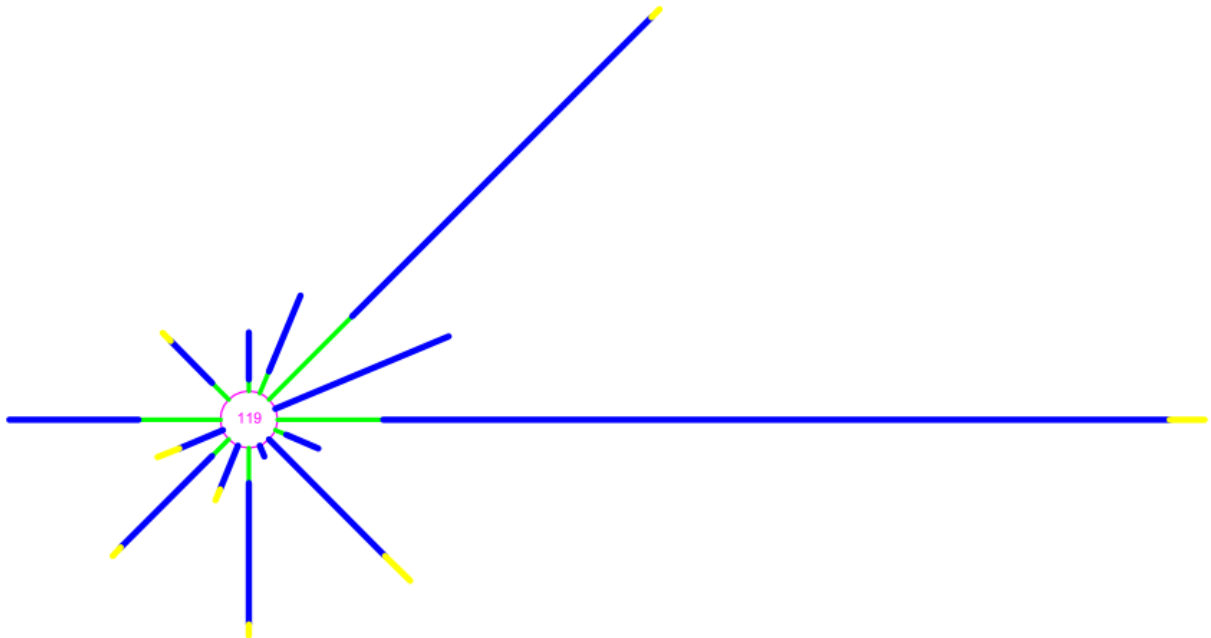
Yr: 2008 @ 08.30 hrs



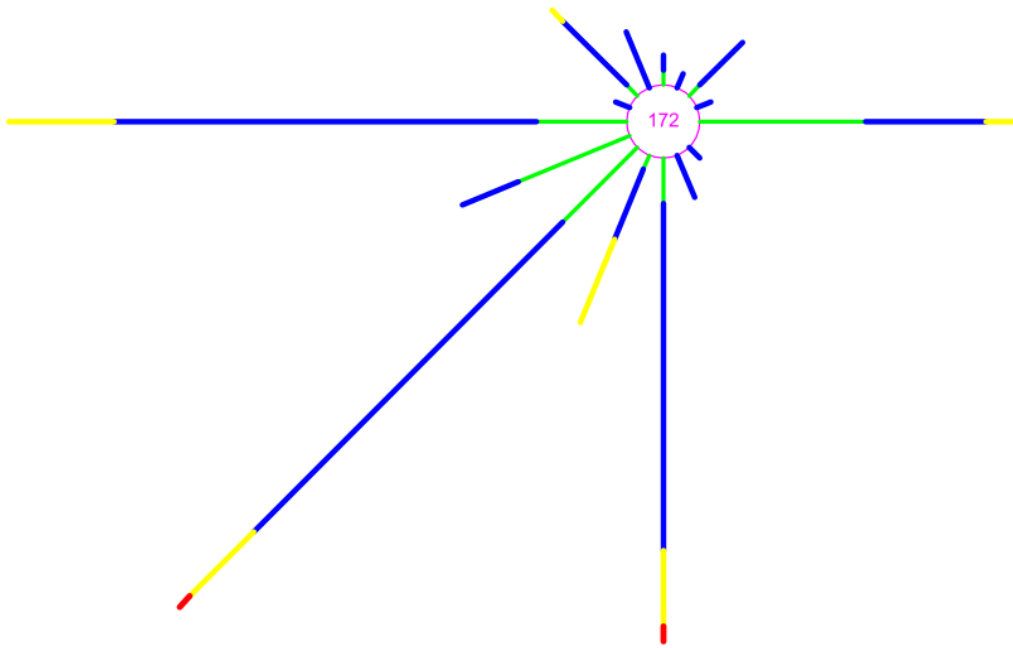
Yr: 2008 @ 17.30 hrs



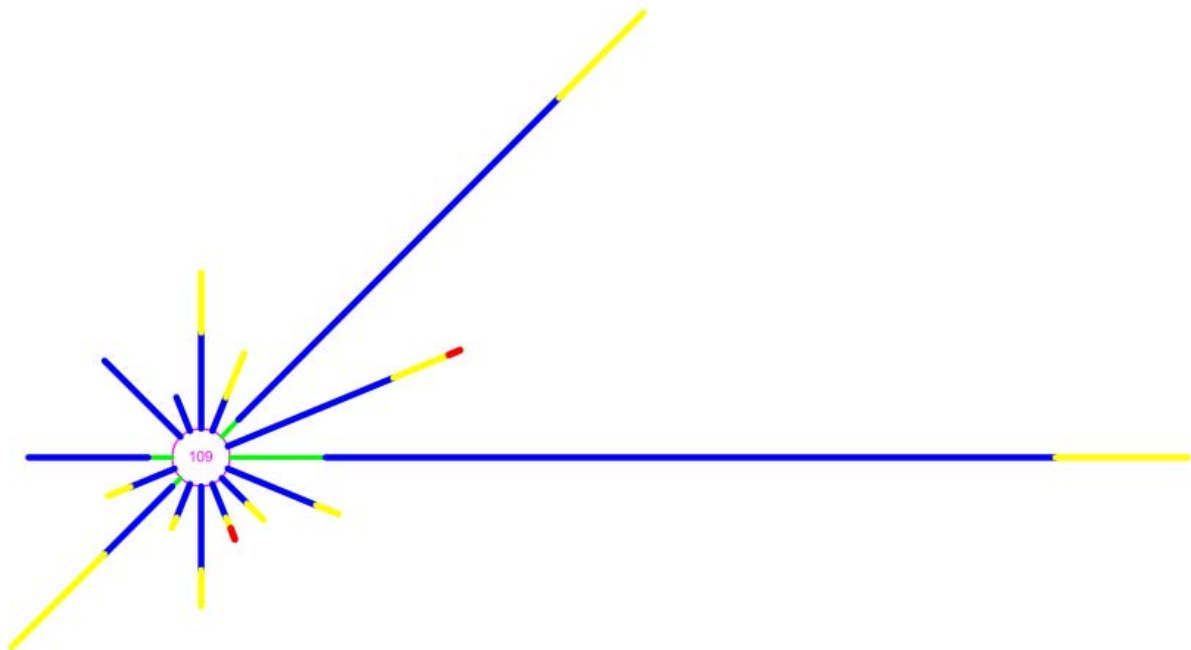
Yr: 2009 @ 08.30 hrs



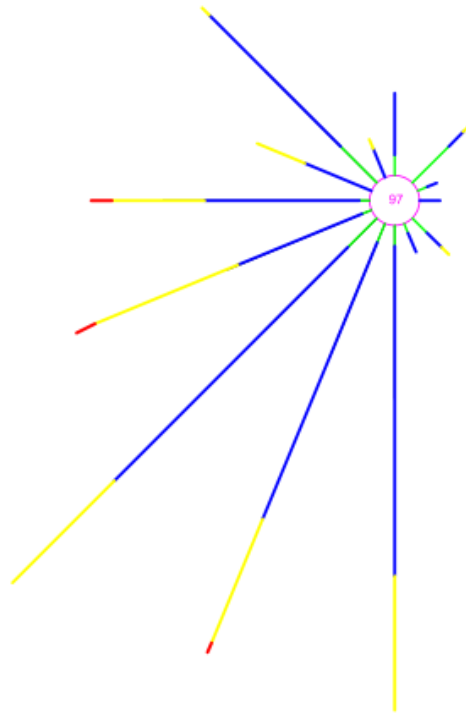
Yr: 2009 @ 17.30 hrs



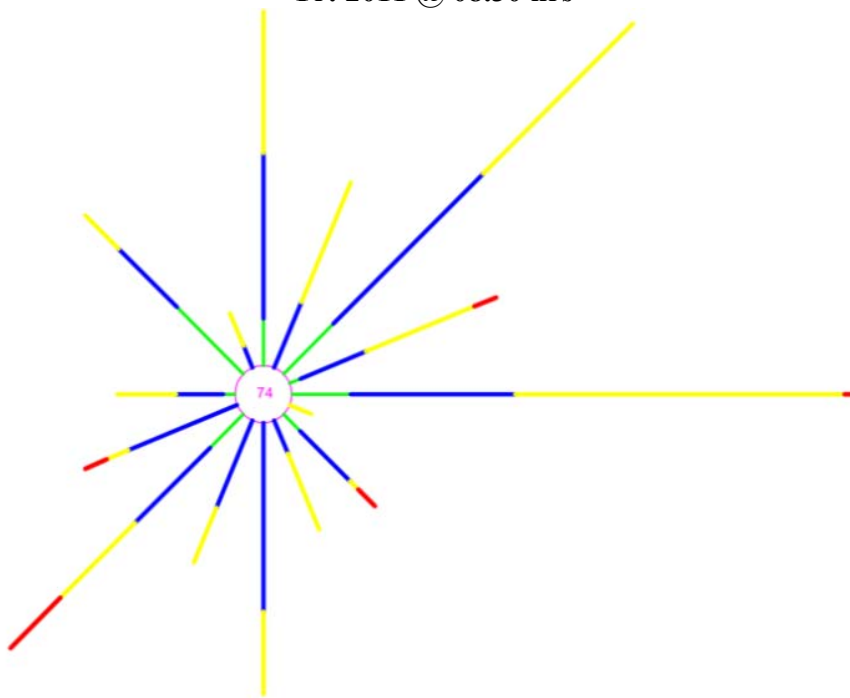
Yr: 2010 @ 08.30 hrs



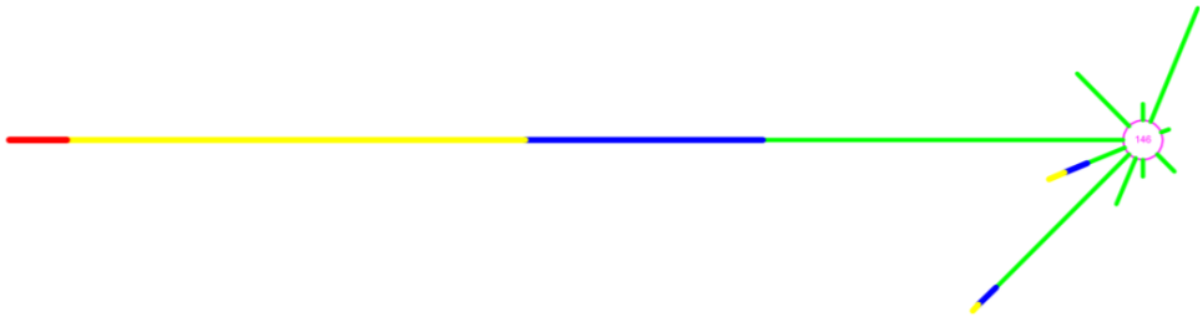
Yr: 2010 @ 17.30 hrs



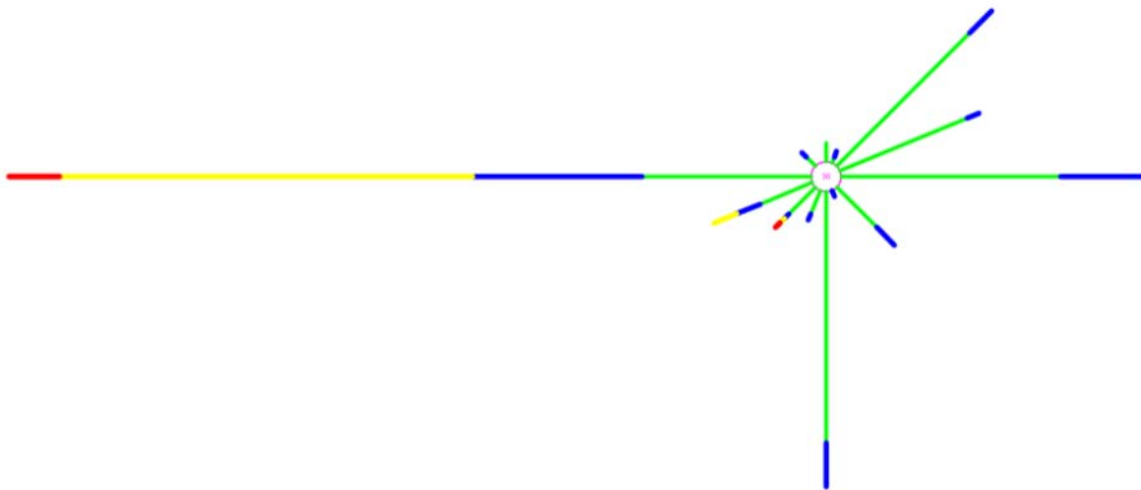
Yr: 2011 @ 08.30 hrs



Yr: 2011 @ 17.30 hrs



Yr: 2012 @ 08.30 hrs



Yr: 2012 @ 17.30 hrs

Legend:

- CALM
- 0 - 4
- 5 - 8
- 9 - 12
- > 12

Cloud Cover: Table 4.4 is given with range of cloud cover in Okta at 830 hrs and 1730 hrs for five years. The analysis of five years data reveals that 9.35% has clear sky as per the value of cloud cover as zero at 830 or 1730 hours or at both times. Daily cloud cover data from 2008-2012 are given in **Annexure 4.6**. June to September is found as cloudy sky as the value of cloud cover is greater than zero. Monsoon weather condition and cloud covers is guided by monsoon winds. Data on cloud helps to evaluate the sunny days in a year. This affects the temperature variation in the area.

4.2.1. Ambient Air Quality

The objective to generate the data on ambient air quality is to know the background air quality characterised by concentrations of various pollutants in the atmosphere. The type and concentration of pollutants depends on the source of pollution and pollution load emitted into the environment. Dispersion of pollution into the atmosphere depends on the wind speed and wind direction. Existing ambient air quality data for three Phase I roads were collected to establish a baseline database for the identification of stretches which are already polluted. The main sources of pollution are vehicular movement on the road. The sources of air pollution during construction will be the hot mix plants and machineries. The major pollutants of significance to roadside air quality, on account of vehicular emissions, are particulate matter (PM₁₀ and PM_{2.5}), sulphur dioxide (SO₂), nitrogen dioxide (NO₂), and carbon monoxide (CO). Dispersal of pollutants depends upon factors like prevailing wind speed and wind direction and other climatic conditions, height of the source, and characteristics of roadside plantation and presence of other sinks along the project corridor.

Ambient Air Quality Standard : The statutory bodies that regulate ambient air quality standard notified by the MoEF vide Gazette Notification dated 16th November 2009 at the central and state levels are the CPCB and the SPCB, respectively. The parameters of standard are PM₁₀, PM_{2.5}, SO₂, NO₂, CO, O₃, Pb, NH₃, C₆H₆, BaP, As, and Ni. Ambient Air Quality Standard is presented in Annexure 3.1 of Chapter 3.

Monitoring locations: The traffic characteristics (volume, speed, composition and mode), vehicle maintenance levels, road geometry and areas of congestion are the prime factors to cause the pollution at the side of the road. The ambient air quality monitoring locations were selected preferably at the sensitive locations like school, offices, temple etc considering the sensitivity of the receptors due to vehicular movement on the road. Availability of electricity connection, open air flow to air quality sampling machine and accessibility to machine were kept the other consideration during monitoring. To assess the ambient air quality along the project corridors, ambient air quality monitoring was carried out at identified locations. Locations of the monitoring stations are presented in **Table 4.7**.

Table 4.7: Ambient Air Quality Monitoring Locations

Location Code	Location of Monitoring Stations	Land use along the settlement	Chainage in km (approx.)	Description of Sampling Locations
SH 116: KANCHIPURAM TO VANDAVASI				
AAQ1	Dusi	Residential and commercial	7/100	Register office
AAQ2	Perunagar on Top of panchayat office	Residential	22/500	Panchayat office
AAQ3	Thethuraion Top of panchayat office	Residential	27/100	Panchayat office
AAQ4	Vandavasi near Rice Mill	Residential and commercial	39/500	Rice Mill
SH 58: SADRAS TO CHENGALPATTU				
AAQ1	Anupuram	Residential	5/000	School
AAQ2	Thirukazhukundram	Residential and commercial	14/600	School
AAQ3	Chengalpattu near Railway bridge	Residential and commercial	26/500	Railway Station
SH 4: ARANI - VILLUPURAM				
AAQ1	Arani	Residential and commercial	27/500	School
AAQ2	Aagaram	Residential	35/100	Settlement
AAQ3	Chetpet	Residential and commercial	50/500	Panchayat Office
AAQ4	Valathy	Residential and commercial	65/100	School
AAQ5	Kudali	Residential	69/800	School
AAQ6	Gingee	Residential and commercial	79/400	Panchayat Office
AAQ7	Arasolapuram	Residential	96/500	School
AAQ8	Thumbur	Residential	107/100	Settlement
AAQ9	Pappankulam	Residential and commercial	113/500	Temple

(Source: Field investigation by consultant's EA team: Mar-Apr 2014)

Monitoring Results: Continuous air quality monitoring for 24 hours, twice a week and four weeks in a month was carried out for pollutants SO₂, NO₂, PM₁₀, PM_{2.5} and CO. The summary of results for the air quality monitoring is given in **Table 4.8** and details are given at **Annexure 4.1**.

SH 116: The ambient air quality results indicate that, sulphur dioxide (SO₂) varies from 9 to 13.4 µg/m³, while nitrogen dioxide (NO₂) from 14.8 to 31.2 µg/m³, PM10 value is between 41 and 87 µg/m³ and PM2.5 is varying from 19 to 43 µg/m³. CO at all monitoring locations varies from 0.11 to 0.18 mg/m³. All the monitored parameters are within the permissible limits of NAAQS. These results are discussed as per data collected for 24 hourly for one month as given in Annexure 4.1.

Table 4.8: Summary of Air Quality Monitoring Results

Location	Land Use	Location Code	Pollutants Concentration				
			SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	CO (mg/m ³)
SH 116: KANCHIPURAM TO VANDAVASI							
Dusi near Register office	Residential and commercial	AAQ1	10.80	19.63	61.38	29.63	0.13
Perunagar on Top of panchayat office	Residential	AAQ2	11.44	22.00	58.13	28.38	0.12
Thethurai Top of panchayat office	Residential	AAQ3	10.20	16.73	46.63	21.50	0.11
Vandavasi near Rice Mill	Residential and commercial	AAQ4	11.89	27.64	77.00	38.13	0.14
SH 58: SADRAS to Chengalpattu							
Anupuram	Residential	AAQ1	9.85	15.64	43.50	20.00	0.12
Thirukazhukundram	Residential and commercial	AAQ2	11.11	22.68	59.50	29.25	0.12
Chengalpattu near Railway bridge	Residential and commercial	AAQ3	12.40	30.23	83.88	41.63	0.16
SH 4: ARNI - VILLUPURAM							
Arani	Residential and commercial	AAQ1	10.10	19.61	54.49	25.23	0.14
Aagaram	Residential	AAQ2	8.83	14.84	39.04	16.61	0.11
Chetpet	Residential and commercial	AAQ3	12.59	31.10	86.35	37.21	0.18
Valathy	Residential and commercial	AAQ4	11.71	26.31	73.13	32.94	0.15
Kudali	Residential	AAQ5	8.63	16.43	43.23	20.39	0.12
Gingee	Residential and commercial	AAQ6	10.70	23.01	63.91	27.55	0.13
Arasolapuram	Residential	AAQ7	9.85	20.74	56.08	22.34	0.12
Thumbur	Residential	AAQ8	11.80	27.76	77.15	34.30	0.15
Pappankulam	Residential and commercial	AAQ9	9.35	18.53	51.44	20.01	0.11

SH 58: The ambient air quality results indicate that, sulphur dioxide (SO₂) varies from 8.7 to 13.3 µg/m³, nitrogen dioxide (NO₂) varies from 13.8 to 32.4 µg/m³, PM10 varies from 38 to 90 µg/m³ and PM2.5 varies from 18 to 45 µg/m³. CO at all monitoring locations varies from 0.12 to 0.16 mg/m³. All the monitored parameters are within the permissible limits of NAAQS. These results are discussed as per data collected for 24 hourly for one month as given in Annexure 4.1.

SH 04: The ambient air quality results indicate that, sulphur dioxide (SO₂) varies from 8 to 13.2 µg/m³, nitrogen dioxide (NO₂) varies from 13.3 to 33 µg/m³, PM10 varies from 35.1 to 91.7 µg/m³ and PM2.5 varies from 14.9 to 39.5 µg/m³. CO at all monitoring locations varies from 0.11 to 0.14 mg/m³. All the monitored parameters are within the permissible limits of NAAQS. These results are discussed as per data collected for 24 hourly for one month as given in Annexure 4.1.

The low concentration of pollution level is due to the only source of vehicular pollution and no traffic congestion is seen during the monitoring.

4.3. LAND ENVIRONMENT - BASELINE

The land environment primarily consists of physiography, geology, minerals, soils, land use pattern and seismicity. The baseline aspects of the nature and geomorphic features, soil conditions and quality, borrow area and material resources are also discussed under land environment.

4.3.1. Geo-Morphological Aspects

The project roads are falling in three districts of Tamilnadu i.e Kanchipuram, Thiruvannamalai and Villupuram, and passing through plain and rolling terrain. The district-wise physiography, elevation and other important features are described in **Table 4.9**.

Table 4.9: Physiography of Project Area

S. No.	District	Physiography Type	Elevation in m above MSL	Hills	River
1	Kanchipuram	Coastal area and other plain lands with small intermittent hills	Min 0.5m Max 230m	St. Thomas Mount, Thirukazhukundram and Vandalur	Adayar, Palar, Cheyyar
2	Thiruvannamalai	Gently undulating with isolated hillocks	Min 80m Max 814m	Annamalai Hills, Javadu and Jagari hills and other smaller hillocks	Ponniyar, Palar, Cheyyar, Agaram
3	Villupuram	Generally plain topography with residual hillocks	Max: 61m	Kalrayan, Gingee	Pennaiyar, Tondiyar, Vellar

Source: RITES Study (Secondary Source of data)

Kanchipuram district is situated on the Northern East Coast of Tamil Nadu and is bounded by Vellore and Thiruvannamalai district in the west; Thiruvallur district and Chennai district in the north, Villupuram district in the south; and Bay of Bengal in the east. It lies between 11° 00' to 12° 00' North latitudes and 77° 28' to 78° 50' East longitudes. The district has a total geographical area of 4393.37 Sq.Km and coastline of 57 Km. Kanchipuram city is at an elevation of 83.2 m above sea level. The land around Kanchipuram is flat and slopes towards the south and east.

Thiruvannamalai District lies between 11° 55' and 13° 15' North latitude and 78° 20' to 79° 50' East longitude. The district is bounded on the north and west by Vellore District, on the southwest by Dharmapuri District, on the south by Villupuram District and on the east by Kanchipuram District.

Viluppuram District lies between 11 38' 25" N and 12 20' 44" N: 78 15' 00" E and 79 42' 55" E with an area of 7194 Sq. Km. It is surrounded on East and South by Cuddalore District; West by Salem and Dharmapuri District and on the North by Thiruvannamalai and Kanchipuram District.

Geology: Tamil Nadu represents an important high grade metamorphic terrain. Geologically Tamil Nadu is divided into three zones viz., the Northern region and Southern region divided by a Central region. The central region divides the North and South by a comparatively smaller East-West zone which is about 50 Km wide. The central region is marked by two prominent tectonic zones viz., East-West trending Moyar-Bhavani-Attur (MBA) on the North and Palghat-Noyyil-Cauvery (PNC) in the South. Northern region is occupied by the amphibolite facies terrain, which is the Southern extension of Dharwar craton. Southern region occurs to the south of the Palghat-Cauvery tectonic zone. On the west of this zone charnokites form the massifs of the Western Ghats and the Eastern part is predominantly of gneisses. This region differs from the Northern and Central regions by the predominance of meta-sedimentary rocks such as quartzite, sillimanite quartzites, calc-granulites, garnet and cordierite bearing meta-pelites. The geological map of Tamilnadu is given at **Figure 4.2**.

Geology of Kanchipuram district is characterized by hard rock predominantly charnockites Gneiss with Gondwana formations. These are overlain by laterites and alluvium.

Thiruvannamalai district is underlain by geological formations ranging in age from Achaean to Recent. Charnockites, gneisses and granites traversed by quartz veins and pegmatites underlain the major part of the district. Upper Gondwana formations are exposed in the northeastern part of the district.

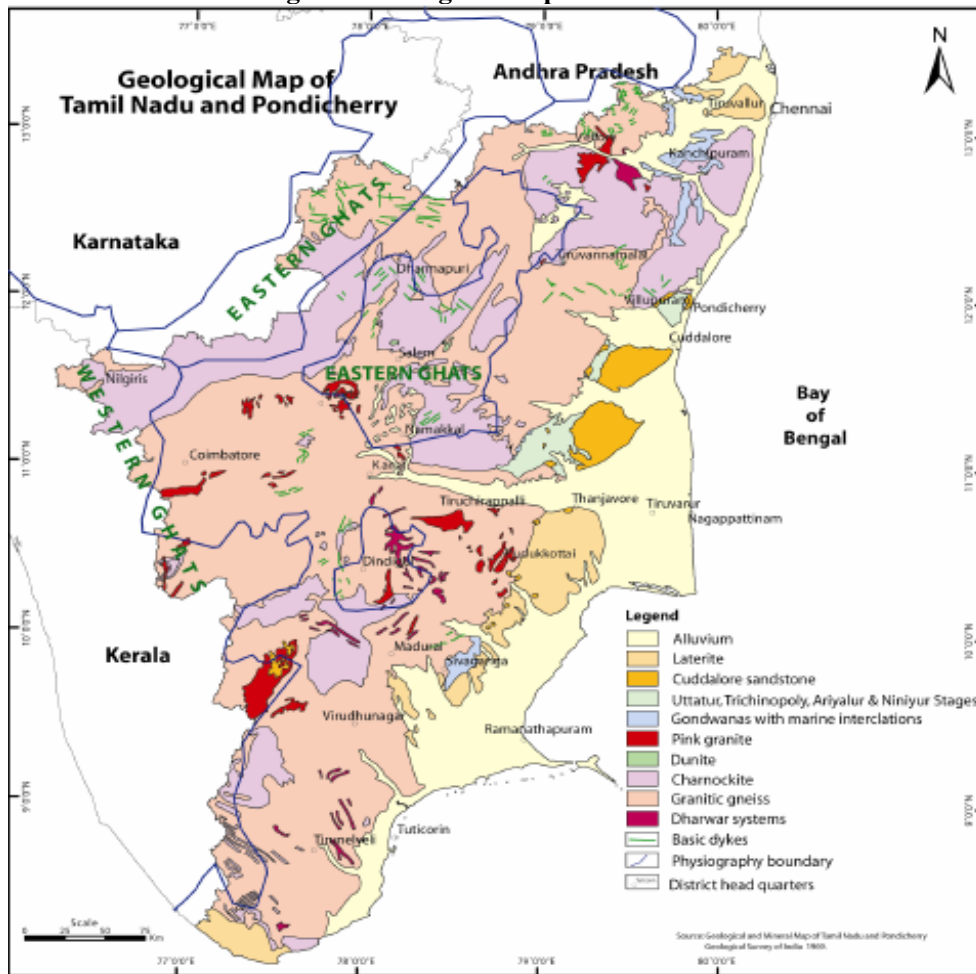
Villupuram district contains metamorphic rocks belonging to the Genesis family. There are also three major groups of sedimentary rocks belonging to different geological periods. The residual hills and denudational hills are common in Tirukoilur, Kallakurichi and Gingee taluks. Structural hills are noticed in the western part of the district. The shallow pediments and buried pediments are common in the central part of the district. Coastal areas are having older and younger flood plains and also beach landforms at places. The ground slope is gentle towards coast. Lineaments are restricted to parts of Kallakurichi and Sankarapuram areas and productive fractures are noticed in select pockets. The crystalline sedimentary contact fault is having sympathetic fractures in hard rock's but mostly they are dry fractures.

4.3.2. Borrow Areas

All along the project road borrow / material sources will be identified suitably to have the minimal impacts on environment. The samples from the selected borrow pits will be collected to carry out the necessary tests to study the adherence to the requirements of the MORTH specifications and to establish the suitability of the material for the road works. Availability of borrow areas for embankment, sub grade and shoulder construction is seen as per the

requirement of material. In addition to these details, the quantum of the materials available and the lead distances from the project road will be considered to arrive at the detailed rate analysis. The existing metal quarry locations, sand quarry and Borrow area location will be identified and investigated by contractor prior to the construction works.

Fig. 4.2: Geological Map of Tamilnadu



4.3.3. Soils

Soils consist of mechanical mixtures and chemical compounds of the materials found on the surface of the earth. They contain both inorganic and organic materials. The physical and chemical characters of the parent rock, physiography, altitude, climatic condition and plants and animals of the surrounding region influence the process of soil formation. The major soil groups of Tamil Nadu are: Red soils, (62 per cent), Black soils (12 per cent), Laterite soils (3 per cent) and Coastal soils (7 per cent). A brief description of the soil of the project districts is presented in following paragraphs.

Kanchipuram: Soils of the district have been classified into 1) clayey soil, 2) red sandy or red loamy soil 3) Red sandy brown clayey soil and 4) Alluvial soil. Of the above soils brown clayey soil is the most predominant, covering more than 71 percent of the areal extent of Kanchipuram district.

Alluvial soils are found on the banks of Palar, Cheyyar and other rivers. The river alluvium is transported and is seen in coastal area of this district. Sandy coastal alluvial (arenaceous soil) occurs along the seacoast in a narrow belt. Types of soil and their presence are given in **Table 4.10**.

Table 4.10: Types of Soil in Kanchipuram District

S. NO.	TYPE OF SOIL	PLACES IN DISTRICT
1.	Red Loam	Kanchipuram, Uthiramerur blocks
2.	Lateritic Soil	Plateaus in the districts
3.	Black Soil	Spread in all Blocks
4.	Sandy Coastal Alluvium	Some places Thirukazhukundram, Thiruporur, St. Thomas Mount
5.	Red Sandy Soil	Kanchipuram, Urban Blocks

Source: District Agriculture Plan

Villupuram: The soils in the district are mostly forest soils and red soil. Alluvial soils are found in eastern side bordering coast. Black soils are confined to low ground in select pockets in Vanur taluk. Alkaline and saline patches are also spotted in the south-west and eastern parts of the districts. Types of soil and their presence are given in **Table 4.11**.

Table 4.11: Types of Soil in Villupuram District

S. NO.	TYPE OF SOIL	PLACES IN DISTRICT
1.	Red soil	Ulundurpet, Vanur, Gingee, Tindivanam
2.	Black soil	Kallakurichi, Chinnasalem
3.	Red sandy soil	Kanai, Thiruvannainallur

Source: District Agriculture Plan

Thiruvannamalai: The predominant soil type is red and is found in all the taluks with more concentration in Polur Taluk. Red sand is found in all the taluks, but predominantly in Chengam, Thiruvannamalai and Vandavasi taluks. Different types of soil like ferruginous loamy and sandy loamy are seen extensively throughout the district and black loam is found in tank and river bed areas of Cheyyar and Vandavasi taluks. Types of soil and their presence are given in **Table 4.12**.

Table 4.12: Types of Soil in Thiruvannamalai District

S. NO.	TYPE OF SOIL	PLACES IN DISTRICT
1.	Red Loam	Small patches in the Taluks of Thiruvannamalai, Chengam and Polur
2.	Lateritic Soil	Nil
3.	Black Soil	Thiruvannamalai, Chengam, Polur, Arani, Cheyyar and Vandavasi

S. NO.	TYPE OF SOIL	PLACES IN DISTRICT
4.	Sandy Coastal Alluvium	Nil
5.	Red Sandy Soil	Nil

Source: tiruvannamalai.tn.nic.in

In the project area, Soil samples from various locations were collected and analyzed to understand the soil characteristics of the area with respect to its productivity potential. The samples were collected from various locations of the project area during pre-monsoon season. These samples were tested in the laboratory to determine the nature and physical characteristics like soil classification, nutrient contents, electrical conductivity, etc. The results of the soil sample analysis for the Phase I roads are given in **Table 4.13, 4.14 and 4.15.**

Table 4.13: Soil Quality Data along the Road SH 04

S. No	Parameters	Units	S1	S2	S3	S4
1	pH	-	7.80	7.40	7.42	7.48
2	Moisture Content	%	4.08	4.74	4.54	4.82
3	Soil Classification /Texture					
	(a) Sand	%	36.9	85.7	67.5	33.2
	(b) Silt	%	54.8	7.9	28.3	67.1
	(c) Clay	%	6.9	6.3	4.0	6.8
	(d) Soil classification	-	Silt Loam	Loamy sand	Sandy loam	Loamy sand
4	Electrical Conductivity (1:5 Soil Extract)	µmhos/cm	214	1419	542	207
5	Sodium Absorption Ratio(SAR)	-	3.9	6.2	3.1	5.9
6	Cation Exchange capacity	Meq/100g	7.6	7.1	5.6	4.2
7	Calcium	mg/Kg	129.2	59.7	113.0	48.4
8	Potassium	mg/Kg	1332.8	1704.8	2113.2	1773.1
9	Sodium	mg/Kg	619.5	515.8	438.8	345.0
10	Magnesium	mg/Kg	29.1	23.9	29.1	9.82
11	Chlorides	mg/Kg	32.8	285.1	57.8	134.8
12	Total Nitrogen	mg/Kg	724.6	840.2	875.6	820.4
13	Total Phosphorus	mg/Kg	58.6	105.7	46.6	42.6
14	Available Phosphorus	mg/Kg	18.5	24.8	9.2	14.2
15	Organic Matter	%	0.93	0.89	0.85	0.76
16	Carbonate	mg/Kg	79.1	147.8	159.8	120.8

S. No	Parameters	Units	S1	S2	S3	S4
17	Sulphur	mg/Kg	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)
18	Arsenic	mg/Kg	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)
19	Boron	mg/Kg	5.4	4.8	4.2	3.6
20	Iron	mg/Kg	170.4	179.4	188.4	215.3
21	Lead	mg/Kg	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)	BDL (DL:2.0)
22	Manganese	mg/Kg	140.7	164.7	129.9	155.7
23	Zinc	mg/Kg	44.9	33.0	35.2	45

S1: Laxmi Nagar

S2: Chetpet

S3: Valathy

S4: Asokapuri

DL: Detection Limit

The soil sample analysis along the road SH 04 indicates Sulphur, arsenic and Lead in the samples is less than detection limit of 2.0 mg/kg. Total Nitrogen varies from 724 to 875 mg/kg; Total Phosphorus varies from 9 to 24 mg/kg; and Potassium varies from 1332 to 2113 mg/kg. Iron content varies from 170 to 215 mg/kg; manganese varies from 129 to 164 mg/kg and zinc varies from 33 to 45 mg/kg.

Table 4.14 : Soil Quality Data along the Road SH 58

S. No	Parameters	Units	S1	S2	S3	S4
1	pH	-	7.69	7.48	7.51	7.61
2	Moisture Content	%	4.02	5.36	6.12	6.88
3	Soil Classification /Texture					
	(e) Sand	%	10	78.6	89.8	50
	(f) Silt	%	85	3.6	8.2	46.3
	(g) Clay	%	5	17.9	2.0	3.8
	(h) Soil classification	-	Silt	Sandy clay loam	Sand	Silt loam
4	Electrical Conductivity (1:5 Soil Extract)	µmhos/cm	154	602	626	618
5	Sodium Absorption Ratio(SAR)	-	6.30	5.58	8.28	7.24
6	Cation Exchange capacity	Meq/100g	4.68	36.1	44.4	47.1
7	Calcium	mg/Kg	48.3	124.5	40.3	32.3
8	Potassium	mg/Kg	436.8	284.7	607.6	206.4
9	Sodium	mg/Kg	353.9	288.5	334.2	305.1

S. No	Parameters	Units	S1	S2	S3	S4
10	Magnesium	mg/Kg	7.83	27.2	2.8	9.8
11	Chlorides	mg/Kg	240.4	38.5	57.8	77.0
12	Total Nitrogen	mg/Kg	836.1	364.5	269.9	391.6
13	Total Phosphorus	mg/Kg	45.9	68.9	47.1	17.7
14	Available Phosphorus	mg/Kg	11.6	3.8	3.4	2.6
15	Organic Matter	%	1.06	0.83	2.02	3.02
16	Carbonate	mg/Kg	119.7	119.9	79.9	79.9
17	Sulphur	mg/Kg	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)
18	Arsenic	mg/Kg	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)
19	Boron	mg/Kg	4.6	3.2	3.6	4.4
20	Iron	mg/Kg	195.0	98.7	242.2	287.1
21	Lead	mg/Kg	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)
22	Manganese	mg/Kg	64.7	78.5	437.1	992.2
23	Zinc	mg/Kg	8.2	10.3	52.4	24.8

S1: Kalpakkam S2: Meiyur S3: Thirukazhukundram S4: Keerapakkam
DL: Detection Limit

The soil sample analysis along the road SH 58 indicates Sulphur, arsenic and Lead in the samples is less than detection limit of 2.0 mg/kg. Total Nitrogen varies from 269 to 836 mg/kg; Total Phosphorus varies from 17 to 69 mg/kg; and Potassium varies from 206 to 607 mg/kg. Iron content varies from 98 to 287 mg/kg; manganese varies from 64 to 992 mg/kg and zinc varies from 8 to 52 mg/kg.

Table 4.15: Soil Quality Data along the Road SH 116

S. No	Parameters	Units	S1	S2	S3
1	pH	-	8.46	7.00	7.35
2	Moisture Content	%	6.02	6.50	5.80
3	Soil Classification /Texture				
	(i) Sand	%	66.7	7.0	50
	(j) Silt	%	16.7	89.5	48.8
	(k) Clay	%	16.7	3.5	1.2
	(l) Soil classification	-	Loamy	Silty soil	Sandy soil

S. No	Parameters	Units	S1	S2	S3
			sand		
4	Electrical Conductivity (1:5 Soil Extract)	µmhos/cm	339	83.5	588
5	Sodium Absorption Ratio(SAR)	-	15.44	1.58	1.25
6	Cation Exchange capacity	Meq/100g	41.67	11.47	41.78
7	Calcium	mg/Kg	32.4	129.1	258.5
8	Potassium	mg/Kg	173.7	390.3	109.7
9	Sodium	mg/Kg	550.7	250.9	385.4
10	Magnesium	mg/Kg	8.56	29.4	49.11
11	Chlorides	mg/Kg	57.8	96.3	250.6
12	Total Nitrogen	mg/Kg	363.1	251.5	315.7
13	Total Phosphorus	mg/Kg	122.1	192.1	139.2
14	Available Phosphorus	mg/Kg	5.2	6.8	4.2
15	Organic Matter	%	0.88	0.92	0.91
16	Carbonate	mg/Kg	119.2	119.8	159.9
17	Sulphur	mg/Kg	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)
18	Arsenic	mg/Kg	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)
19	Boron	mg/Kg	5.2	3.8	4.6
20	Iron	mg/Kg	179.4	215.3	233.3
21	Lead	mg/Kg	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)
22	Manganese	mg/Kg	154.9	105.2	62.2
23	Zinc	mg/Kg	10.4	191.1	19.4

S1: Abdullapuram
DL: Detection Limit

S2: Mamundur

S3: Thethurai

The soil sample analysis along the road SH 116 indicates Sulphur, arsenic and Lead in the samples is less than detection limit of 2.0 mg/kg. Total Nitrogen varies from 251 to 363 mg/kg; Total Phosphorus varies from 122 to 192 mg/kg; and Potassium varies from 109 to 390 mg/kg. Iron content varies from 179 to 233 mg/kg; manganese varies from 62 to 155 mg/kg and zinc varies from 10 to 191 mg/kg.

4.4. WATER ENVIRONMENT - BASELINE

Water environment consists of water availability in the form of surface and ground water resources, its quality and use (present and intended). Study of the water environment is essential for identifying the critical water issues during construction and operation including planning the mitigation measures with a view to have optimum use of the water resources. During the study conducted in pre-monsoon season, almost all the surface water bodies were found dry. Two main rivers flowing in the area are Palar and Cheyyar River which were also dry. Along the project road lots of tube well, open well, bore well and hand pumps were observed. Hence, the source of water available for the construction use and drinking water will be from ground source or nearby pond/tank.

A. Surface Water

Palar and Cheyyar are the important rivers in Kanchipuram District. The Ponnaiyar, Malattar, Manimuka, Gamukha and Varaha and the Gadilam are the major rivers in Villupuram District. Cheyyar and Ponnaiyar rivers are the major rivers in Thiruvannamalai district. The details of water bodies along the project roads within 500 m from the center line of roads are given in **Table 4.16**.

Table 4.16 : Details of Water Bodies Within 500m

S.No.	RHS/LHS	Nearest location	Distance from road (m)	Latitude and longitude
Sadras- Kanchipuram				
1.	RHS	Mullikulathur	196	12 ^o 34'40"N & 80 ^o 06'02"E
2	RHS	Near Chengalpattu	188	12 ^o 41'40"N & 79 ^o 58'52.92"E
3	RHS	Thangi	16	12 ^o 48'15.60"N & 79 ^o 46'36.74"E
Kanchipuram- Vandavasi				
1	RHS	Sevlimedu	234	12 ^o 48'38.09"N & 79 ^o 40'58.04"E
2	LHS	Dusi	295	12 ^o 46'40.34"N & 79 ^o 40'50.75"E
3	RHS	Vandavasi	11.43	12 ^o 30'45.86"N & 79 ^o 36'33.13"E
Arani - Villupuram				
1	LHS	Arani	425	12 ^o 40'19.25"N & 79 ^o 17'21.48"E
2	RHS	Arani	200	12 ^o 40'04.47"N & 79 ^o 17'01.74"E
3	RHS	Vinnamanglam	200	12 ^o 35'24.30"N & 79 ^o 18'24.66"E
4	RHS	Gengapuram	10	12 ^o 33'35.97"N & 79 ^o 19'17.57"E
5	LHS	Semmambadi	103.9	12 ^o 30'52.20"N & 79 ^o 20'33.32"E
6	RHS	Ulagampattu	436	12 ^o 30'16.48"N & 79 ^o 20'27.40"E
7	LHS	Gangasoodamni	113	12 ^o 28'54.66"N & 79 ^o 21'00.48"E
8	RHS	Chetpet	64	12 ^o 28'09.76"N & 79 ^o 20'59.32"E
9	LHS	Chetpet	238	12 ^o 27'29.85"N & 79 ^o 21'11.75"E

S.No.	RHS/LHS	Nearest location	Distance from road (m)	Latitude and longitude
10	RHS	Chetpet	500	12°27'24.70"N & 79°20'46.70"E
11	RHS	Kudvampoondi	84	12°23'43.99"N & 79°21'54.30"E
12	RHS	Arukkampoondi	476.11	12°22'51.45"N & 79°21'55.92"E
13	LHS	Thennamadevi	426	11°59'08.89"N & 79°29'16.09"E

Source: Field Study

B. Ground Water

Thiruvannamalai district: The important aquifers in the district are constituted by (i) Fissured, fractured and weathered crystalline rocks and (ii) porous formations comprising recent alluvial deposits and Gondwana sediments. Ground water occurs under phreatic to semi-confined conditions in these aquifers. In the Gondwana sediments, the granular zones in the depth range of 79.71 to 94.18 m.bgl yielded about 32 lps of water. The depth of wells drilled in crystalline rocks ranged from 34.60m to 200 m below ground level (bgl). Potential fracture zones were encountered in the depth range of 5.60 m to 177.80 mbgl. The yield of wells ranged from less than 1 lps to 13.88 lps.

Villupuram District: Groundwater occurs under phreatic and semi-confined conditions in consolidated formations. The depth of wells varies from 6.64 to 17 m bgl and water levels in observation wells tapping shallow aquifers varied from 0.74 to 9.7 m bgl during pre monsoon (May 2006) and it varies from 0.7 to 4.45 m bgl during post monsoon (January 2007). The average ground water table recorded in July 2011 and July 2012 indicates ground water level of 5.54 m and 5.64 m respectively showing a ground water depletion of 0.07 m. The ground water is being developed by means of dug wells, bore wells and tube wells. The diameter of the well is in the range of 7 to 10 m and depth of dug wells range from 15 to 18 m bgl depending on the weathered thickness and joints. The dug wells yield up to 1 lps in summer months and few wells remains dry. The yield is adequate for irrigation for one or two crops in monsoon period.

Kanchipuram District: Between Walajabad and Kanchipuram, small diameter dug wells tap the alluvium with depths ranging 6 to 12 mbgl and the yield ranges from 25 to 35 m³/hr. Depth of filter point and dug cum bore wells ranges from 10 - 21 mbgl and yield is around 20 m³/hr. The yield of infiltration wells with varying depths of 5 - 12 mbgl is around 35 m³/hr. In areas covered by the laterites, the ground water is developed by means of dug wells in the depth of 4 to 6 mbgl. Along the coast, windblown sand acts as aquifer zones and ground water extraction is by means of shallow dug wells with radial arms. The wells can sustain for 3 to 6 hours pumping and yield is around 15 m³/hr.

C. Water Quality

As mentioned in earlier section also, the project area is part of relatively drier region of the State. Many groundwater sources such as wells and hand pumps are located on both sides of the existing road ROW. The proposed project may contaminate the surface waters during the

construction, operation as well as maintenance phases. A plan for monitoring and mitigation will, therefore, be required to avoid the pollution or deterioration of the water sources.

Water samples were collected along the project roads from surface and ground water, in order to assess the baseline water quality status. The samples were analyzed for physical and chemical constituents. The details of the monitoring points are given in **Table 4.17**.

Three locations were selected along the proposed road SH 116; four locations were selected along the proposed road SH 04; and three locations were selected along the proposed road SH 58 for monitoring of existing water quality in the area.

Table 4.17 : Water Quality Monitoring Locations

Location Code	Name of Water body	Type of Water Body	Chainage in km
SH 116			
SW 1	Surface Water, Abdullapuram	Surface Water	5/500
GW 2	Ground Water, Mamundur	Ground Water	10/100
WW 3	Well Water, Theethurai	Ground Water	27/500
SH 04			
BW 1	Bore Well, Laxmi Nagar	Ground Water	30/200
BW 2	Bore Well, Chetpet	Ground Water	51/400
GW 1	Ground Water, Valathy	Ground Water	65/300
WW1	Well Water, Asokapuri village	Ground Water	-
SH 58			
GW 1	Ground Water, Meiyur	Ground Water	0/000
WW 1	Well Water, Thirukazhukundram	Ground Water	15/500
WW 2	Well Water, Keerapakkam	Ground Water	18/400

D. Water Quality Standard

The rivers, nallahs and ponds located within the project area are the sources of water for the local inhabitants to be used for domestic as well as agricultural uses. An analysis of water for the water sources available within project area is done and the results of water analysis are compared with IS 10500-2012 for Drinking Water Specifications. The results of analysis are presented in **Annexure 4.2**.

E. Water Quality along the Project Roads

SH 116: pH of surface water is 7.41 while pH of ground water varies between 6.59 to 7.42. Total hardness of ground water is 234.3 and 561.56 mg/l. Acceptable limit and permissible limit in absence of alternate source of hardness for drinking water is 200 mg/l and 600 mg/l respectively. Fluoride, Iron, Manganese, aluminum, Free Residual Chlorine, Phenolic

Compounds, Anionic Detergents, Mineral oil, Total Arsenic, Total Chromium, Cyanides, Lead, Mercury, Oil and Grease, BOD, COD, Free ammonia, Ammonical Nitrogen, Total Kjeldahl nitrogen, Dissolved Phosphates, Organic Phosphorus, Total Phosphates, Sulphides, Total Chromium, Boron, Barium, Nickel, Poly nuclear aromatic hydrocarbons, and Pesticides are below detection limits. Dissolved Oxygen of the samples are between 5.4 to 6.3 mg/l.

SH 04: pH of sample water is 7.46 to 7.93 while hardness varies between 290.8 and 670.6 mg/l. One sample of water has result beyond permissible limit and can not be accepted without treatment. Hardness of surface water source is within acceptable limit of 200 mg/l. Fluoride, Iron, Manganese, copper, aluminum, Free Residual Chlorine, Phenolic Compounds, Anionic Detergents, Mineral oil, Total Arsenic, Total Chromium, Cyanides, Lead, Mercury, Oil and Grease, BOD, COD, Free ammonia, Ammonical Nitrogen, Total Kjeldahl nitrogen, Sulphides, Total Chromium, Boron, Barium, Nickel, Poly nuclear aromatic hydrocarbons, and Pesticides are below detection limits. Dissolved Oxygen of the samples is between 6.1 to 6.5 mg/l.

SH 58: pH of water is 6.86 to 7.90. Total hardness of ground water is 153.5 mg/l and 206 mg/l, which are within permissible limit. Iron, Manganese, aluminum, Free Residual Chlorine, Phenolic Compounds, Anionic Detergents, Mineral oil, Total Arsenic, Total Chromium, Cyanides, Lead, Mercury, Oil and Grease, BOD, COD, Free ammonia, Ammonical Nitrogen, Total Kjeldahl nitrogen, Dissolved Phosphates, Organic Phosphorus, Total Phosphates, Sulphides, Total Chromium, Boron, Barium, Nickel, Poly nuclear aromatic hydrocarbons, and Pesticides are below detection limits. Dissolved Oxygen of the samples varies from 5.2 to 6.3 mg/l.

4.5. AMBIENT NOISE - BASELINE

Noise pollution occurs during construction and operation of the project. Main source of noise during construction is due to movement and operation of machinery, heavy vehicles, loading and unloading of construction materials, apart from high noise levels at the asphalt plants (90 - 100 dB (A)) while during operation noise from vehicular movement. Construction noise is intermittent and localized. The noise generation from vehicle movement occurs in three ways, namely from the vehicle body parts, from the tyre-roadway system (also known as the rolling noise) and from the use of horns. Noise from the vehicle body parts includes engine, inlet, exhaust, transmission, suspension, gearbox, cooling fan, during acceleration and chassis, etc. Vehicle condition is very important to this noise source. The rolling noise/frictional noise (noise from the tyre-roadway system) includes aerodynamic noise, noise from tyre-road interaction, brakes, etc. The noise level depends upon on the type and condition of tyres and pavement. At higher speed, these types of noise increase at same rate. At lower speeds in urban areas, where lower gears are used, noise from the vehicle body parts tends to be independent of vehicle speed whereas noise from the tyre-roadway system becomes less important. Driver behavior contributes to road noise by using vehicle's horns, sudden breaking on vehicle speed, depending on the road surface and whether the surface is wet or dry.

The noise generated by road traffic depends on the vehicle type, traffic volume, the speed and composition of the traffic, the road gradient and the type of road surface. The level of noise decreases due to fall in power output of the vehicle in decelerating stage of operation while in case of accelerating vehicle, initially the noise level increases and then drops as the speed increases. The noise is independent of vehicle speed for the lower speed range, but if vehicle speed is more than 50 km/h a strong relationship prevails between noise generated and vehicle speeds.

Factors and Parameters

The noise from a traffic stream is variable; hence it is necessary to use an index to arrive at a single figure estimate of the overall noise level for assessment purposes. Variation in traffic volume, vehicle composition and surrounding commercial and industrial activities are the dominating factors that influence the propagation of noise. Energy equivalent noise level L_{eq} (in dB (A)) is the primary parameter selected for monitoring of ambient noise level.

Data collection, Tabulation and Analysis

Noise monitoring was carried out at environmentally sensitive location and at settlement along the project road for 24 hours. Locations were selected close to the project road so as to assess the noise contribution mainly from traffic. The noise levels are measured as L_{eq} directly using a noise meter.

L_{eq} is defined as the continuous sound level that, were it to exist over the entire period in question, would give rise to the sum total sound energy as the actually varying sound levels. It thus represents all energy average, not a sound level average.

L_{10} refers to the sound level, expressed in dB (A), which is exceeded ten percent of the time period for which monitoring was carried out.

L_{50} refers to the sound level, expressed in dB (A), which is exceeded fifty percent of the time period for which monitoring was carried out.

L_{90} refers to the sound level, expressed in dB (A), which is exceeded ninety percent of the time period for which monitoring was carried out.

Ambient Noise Standards

With the objective of regulating ambient noise quality in the environment, the Central Government has notified the Noise Pollution (Regulation and Control) Rules, 2000 under the EPA. The noise standards for different category of areas are based on the weighted equivalent noise level (L_{eq}). These are presented in **Table 4.18**.

Monitoring Locations & Results

Noise level survey was conducted at the project site with an objective to establish the baseline noise levels and assess the impacts of the noise expected due to the proposed development. Noise levels were recorded on hourly basis for 24 hours in order to have an assessment of the Day and Night time noise levels. The sample locations with description of Noise quality monitoring locations are given in **Table 4.19**. The results of the average noise levels so obtained are summarized in **Table 4.20**.

Table 4.18: National Ambient Noise Standards

Category Of Zones	Leq in dB (A)	
	Day	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone	50	40

Source: Central Pollution Control Board

1. **Daytime** is from 6.00 AM to 10.00 PM.; 2. **Night time** shall mean from 10.00 p.m. to 6.00 AM; 3. **Silence zone** is an area comprising not less than 100 metres around hospitals, educational institutions, courts, religious places or any other area which is declared as such by the competent authority; 4. **Mixed categories of areas** may be declared as one of the four above mentioned categories by the competent authority

Table 4.19: Ambient Noise Quality Monitoring Locations

Location Code	Location of Monitoring Stations	Land use along the settlement	Chainage	Description of Sampling Locations
SH 116: KANCHIPURAM TO VANDAVASI				
AN-1	Dusi	Residential and commercial	7/100	Govt High School
AN-2	Mangal	Residential	14/500	Panchayat Union Primary school
AN-3	Manampathi	Residential	25/000	Govt Higher Secondary School
AN-4	Thethurai	Residential	27/100	Govt High School
AN-5	Pudur	Residential	-	Panchayat Union Middle School
SH 58: SADRAS TO CHENGALPATTU				
AN-1	Keerapakkam	Residential	18/500	Panchayat Union Middle school
AN-2	Athur	Residential	34/500	Bakhtavatsalam Sastipoorthy High school
AN-3	Palaya Seevaram	Residential	45/200	Panchayat Union Middle school
AN-4	Walajabad	Residential and commercial	50/000	Vat Masilamani Mudaliar Higher secondary school
AN-5	Ayempettai	Residential	57/500	Panchayat Union Primary school

Location Code	Location of Monitoring Stations	Land use along the settlement	Chainage	Description of Sampling Locations
AN-6	Nazarath pettai	Residential	59/300	Panchayat Union Primary school
SH 4: ARNI - VILLUPURAM				
AN-1	Arani	Residential and commercial	27/500	Boys Govt Higher Secondary School
AN-2	Indiravanam	Residential	45/200	Panchayat Union Primary school
AN-3	Chetpet	Residential and commercial	50/500	Divya Matriculation Higher Secondary School
AN-4	Devanur	Residential	63/200	Govt Higher Secondary School
AN-5	Annamangalam	Residential	69/000	Govt Higher Secondary school
AN-6	Gingee	Residential and commercial	79/400	Panchayat Union Urdu Primary school
AN-7	Kozhi Pannai (Muttahoor)	Residential	94/100	WyCkoff Hr.Secondary school
AN-8	Asokapuri	Residential		Panchayat Union Primary School
AN-9	Pappankulam	Residential and commercial	113/500	Sri Jayendra Saraswathi Vidyalaya Matriculation H.S School

(Source: Field investigation by consultant's EA team: Mar-Apr 2014)

Table 4.20: Noise Levels in the Project Area

S. No.	Location Name	Location Code	Time	Noise Levels in dB(A)								
				Lmin	L10	L50	L90	Lmax	Leq	Ld	Ln	L _{DN}
SH 116: KANCHIPURAM TO VANDAVASI												
1.	Dusi - Govt High School	AN-1	Day	59.8	70.2	72.1	73.3	76.1	63.7	63.7	53.2	58.4
			Night	54	54	59.7	56.7	64.1	53.2			
2.	Mangal - Panchayat Union Primary school	AN-2	Day	56.7	56.7	69.4	59.8	71.2	60.6	60.6	58.2	59.4
			Night	61.4	62.5	68.2	66.4	71.2	58.2			
3.	Manampathi - Govt Higher Secondary School	AN-3	Day	55.4	63.4	71.7	67.1	73.1	62.9	62.9	60.4	61.7
			Night	59	73.8	66.2	59.8	73.8	60.4			
4.	Thethurai - Govt High School	AN-4	Day	58.1	59.3	62.1	62.9	66.3	55.8	55.8	51.9	53.8
			Night	54.3	63.4	59.8	55.3	66.3	51.9			
5.	Pudur - Panchayat Union Middle School	AN-5	Day	52.8	53.8	71.2	62.7	71.2	57.8	57.8	54.7	56.3
			Night	54.7	59.3	60.4	63.7	63.7	54.7			
SH 58: KANCHIPURAM TO SADRAS												
1.	Keerapakkam - Panchayat Union Middle school	AN-1	Day	54.9	63.2	67.3	69.8	72.4	59.5	59.5	55.4	57.5
			Night	59.8	67.9	59.8	60.1	71.2	55.4			
2.	Athur - Bakhtavatsalam Sastipoorthy High school	AN-2	Day	53.9	53.9	67.8	56.9	71.2	60.1	60.1	56.5	58.3
			Night	57.1	63.8	57.1	59.4	71.2	56.5			
3.	Palaya Seevaram - Panchayat	AN-3	Day	57.3	59.3	62.1	63.8	65.7	54.8	54.8	51.7	53.2

S. No.	Location Name	Location Code	Time	Noise Levels in dB(A)								
				Lmin	L10	L50	L90	Lmax	Leq	Ld	Ln	L _{DN}
	Union Middle school		Night	54.4	59.1	54.4	56.3	59.3	51.7			
4.	Walajabad - Vat Masilamani Mudaliar Higher secondary school	AN-4	Day	59.3	64.3	64.3	71.3	71.3	60.6	60.6	52.4	56.5
			Night	58.4	65.3	61.9	70.2	72.1	52.4			
5.	Ayempettai - Panchayat Union Primary school	AN-5	Day	54.5	58.4	67.8	60.8	72.1	63.3	63.3	59.1	61.2
			Night	54.4	66.8	71.5	54.4	72.4	59.1			
6.	Nazarath pettai - Panchayat Union Primary school	AN-6	Day	57.9	57.9	64.7	66.7	74.8	60.2	60.2	56.5	58.3
			Night	54.3	67.8	54.3	59.3	67.8	56.5			
SH 4: ARNI - VILLUPURAM												
1.	Arani - Boys Govt Higher Secondary School	AN-1	Day	60.2	64.3	70.4	61.4	76.8	62.5	62.5	50.7	56.6
			Night	50.2	61.9	54.8	50.2	61.9	50.7			
2.	Indiravanam - Panchayat Union Primary school	AN-2	Day	58.3	58.9	68.2	65.8	68.2	57.6	57.6	47.6	52.6
			Night	50.2	58.9	51.2	51.6	58.9	47.6			
3.	Chetpet - Divya Matriculation Higher Secondary School	AN-3	Day	56.8	58.8	72.8	66.4	76.8	62.8	62.8	49.1	55.9
			Night	50.2	58.9	51.3	52.2	58.9	49.1			
4.	Devanur - Govt Higher Secondary School	AN-4	Day	53.3	53.3	67.6	68.2	74.6	61.4	61.4	50.1	55.7
			Night	50.2	59.4	54.2	51.3	59.4	50.1			
5.	Annamangalam - Govt Higher Secondary school	AN-5	Day	56.2	56.9	69.3	69.3	72.9	60.6	60.6	49.6	55.1
			Night	50.2	59.2	54.2	53.2	59.2	49.6			
6.	Gingee - Panchayat Union Urdu Primary school	AN-6	Day	56.8	57.8	66.7	66.9	72.1	58.8	58.8	47.8	53.3
			Night	50.2	58.2	51.2	52.1	58.2	47.8			
7.	Kozhi Pannai (Muttahoor) - WyCkoff Hr.Secondary school	AN-7	Day	58.2	58.9	70.2	68.2	70.2	59.3	59.3	47.6	53.4
			Night	50.2	58.2	51	53.2	58.2	47.6			
8.	Asokapuri - Panchayat Union Primary School	AN-8	Day	58.6	59.3	68.4	63.2	68.7	58.0	58.0	47.0	52.5
			Night	50.2	57.2	50.4	52.4	57.2	47.0			
9.	Pappankulam -Sri Jayendra Saraswathi Vidyalaya Matriculation H.S School	AN-9	Day	54.1	55.2	54.3	59.4	68.3	53.7	53.7	51.4	52.6
			Night	53.8	59.1	56.2	57.9	59.3	51.4			

(Source: Field investigation by consultant's EA team: Mar-Apr 2014)

All the noise monitoring survey was carried out at sensitive receptors like schools. The noise levels on SH 116 varies from 55.8 to 63.7 dB (A)during day time and 51.9 to 60.4 dB (A) during night time; on SH 58 varies from 54.8 to 63.3 dB (A)during day time and 51.7 to 59.1 dB (A) during night time; and on SH 04 varies from 53.7 to 62.8 dB (A)during day time and 47.0 to 51.4 dB (A) during night time. The noise levels in the project area indicates that, noise levels are more than the permissible limits for silence zone at all monitoring locations of project roads SH 116, SH 58 and SH 04.

4.6. FLORA AND FAUNA - BASELINE

4.6.1. Introduction

This section describes the ecology of the area based on information compiled from various sources i.e. district forest office, census hand book, gazetteer and visual inspection during the field visits.

Based on the physical setting and the kind of distribution of flora and fauna, the study area can be classified into crop, terrestrial and aquatic ecosystems.

4.6.2. Crop Land Eco System

This is also known as manmade ecosystem or artificial ecosystem because of man tries to control biotic community and physical environment. The most important of these is an artificial force from man to maintain a moisture level of the soil and replenishing nutrients at times. The common crops in crops land ecosystem are *Oryzha sativa*, *saccarum officinarum* which are mainly canal, river water dependent and rain fed crops. In this crop land ecosystem in addition to the crop raised, a number of weeds like *Cynodon dactylon*, *Euphorbia hirta*, *Cyperus rotundus*, *Digetaria sp* and *Alyscicarpus sp* also contributing to the primary production.

4.6.3. Terrestrial ecosystem

Natural vegetation is mostly restricted to herb layer having drought resistance. Other than herb layer the area is almost devoid of major forest type tree. *Borassus flabelifera*, *Phoenix aculis*, *Azadirachta indica*, *Ficus sp* which are mainly restricted to waste and culturable waste lands and in case of near villages and in case of agricultural lands, *Delonix regia*, *Azadirachta india*, *Cocos nucifera*, *Terminalia catapa*, *Psidium guava*, *Albizia lebbek*, *Dalbergia sissoo* and *Tamarindus indica* are predominant.

4.6.4. Aquatic ecosystem

As per our study area map two major water body were located within 10 km of the study area. The two rivers are Palar River and Cheyyar River, respectively. There are no perennial water bodies available, only Monsoon Rivers. As per aquatic ecosystem; the above mentioned water bodies are mesotrophic in nature.

4.6.5. Flora, Fauna and Protected Areas of Tamil Nadu

Tamil Nadu forests are rich in plant and animal life forms. Out of 35,000 species of plants found in India about 3,000 are found in Tamil Nadu. Most of the important species of the mammals of India are also found here. Among them the endangered are Slender loris, Lion, Tailed macaque, Indian Pangolin, Jackal, Indian Fox, Indian Wild dog, Sloth bear Ratel, Striped hyena. Jungle cat, Leopard, Tiger, Mouse deer, Gaur, Blackbuck, Nilgiri Tahr, Grizzled grey squirrel, Common dolphin and Dugong.

In Tamil Nadu, 5468 sq kms of land has been brought under protected areas so far. There are 4 Tiger Reserves which support sizable population of tigers, 10 Wildlife sanctuaries, 14 Bird sanctuaries, 5 National Parks, one Conservation reserve and four Elephant reserves.

4.6.6. Vegetation Structure of Tamilnadu

The great plant wealth and diversity of Tamilnadu is due to immense variety of climate, altitude and edaphic factors. Vegetation of the state can be broadly divided into four categories.

- Coastal vegetation;
- Island vegetation;
- Vegetation of the interior plains; and
- Vegetation of the hills and mountains.
- Littoral Vegetation

The soil is sea sand often blown and accumulating in low dunes with adequate time, but poor in nitrogen and mineral nutrient. Most of these have been converted into Casuarina plantation. The forest type occurs in reserve forest near Vandavasi, the littoral forests consists of plant species *Borassus flabellifer*, *Anacardium occidentale*, *Lannia coromandalica*, *Pandanus tectorius*, *Opuntia dellonii*, *Cassia auriculata*, *Sesuvium portulacastrum*, *Cyperus arenarius*. These are found in the reserved forest of Uttarmeru district.

4.6.7. Plantation

The division contains plantations of *Tamarindus indica*, *Azadirachta indica*, *Syzygium cumini* *Cassia sp*, *Eucalyptus sp*, *Casuarina*, *Bambusa arundanacea*, *Prosopis juliflora*, *Acacia nilotica* and other miscellaneous species.

As per records of forest department and also physical walk through studies along coastal line in study area reveals that ***there are no mangrove forest blocks or mangrove clusters along the coast.***

4.6.8. Natural Vegetation

The total geographical area of Tamil Nadu is 1, 30,058 sq.kms, of which the recorded forest area is 22,877 sq.kms, which constitute 17.59% of the States geographical area. The forest area of the State is classified as Reserved Forest, Reserved land and unclassified forest. Reserved Forests (RF) covers 19,388 sq.km, Protected Forests (PF) 2,183 sq km and unclassified forest 1306 sq km. The division contains plantations of *Cassia sp.*, *Eucalyptus sp*, *Casuarina*, *Bambusa arundanacea*, *Prosopis juliflora* and other miscellaneous species. 183 sq.km (9.6%) and Unclassified Forest (UF) covers an area of about 1,306 sq.km (5.8%). Forest map of Tamil Nadu is shown in **Figure 4.3**. The distribution of the forest in the state its density, classification and tree cover is given in **Table 4.21** and **Table 4.22**.

Table 4.21: Recorded Forest in Tamil Nadu

Type of Forest	Area (km ²)
Reserved Forest	19,388
Protected Forest	2,183
Un-classed Forest	1,306
Total	22,877

Type of Forest	Area (km ²)
Percentage of State's Geographical Area	17.59%
Percentage of Country's Forest Area	2.95%

Table 4.22: Tree Cover in Tamil Nadu

Culturable Non Forest Area (CNFA)	98,581
No. of trees per ha of CNFA	13.7
Tree Cover	4991 Km ²
Percentage of States Geographic area	3.84%
Percentage of CNFA	5.05%

Tamil Nadu has 22,877 sq.kms. of recorded forest area which is only 17.59% of the geographical area of 1,30,058 sq. kms of the State. The Forest and tree cover is 28306 sq. kms which is 21.76% of the total geographical area of the State as assessed by the Forest Survey of India (State of Forest Report 2009) as against 33.33% envisaged in National Forest Policy, 1988. There is an urgent need to increase the forest / tree cover of the State.

4.6.9. Flora/Vegetation in Study Area

The proposed project site is located, Kanchipuram, Villupuram and North Thiruvannamalai, district, Tamilnadu. The natural vegetation along the project site are *Tamarandus indica*, *Azadiracta indica*, *Acacia leucophloe*, *Borassus flaberiformis*, *ficus religiosa*, *ficus bengalensis*, *syzygium cumini*, *Bombax cieba*, *cocos nucifera* and *Bombax malabarica* respectively.

The list of common flora recorded from the study area is given in **Table4.23** and the list of commonly observed trees in the study area is given in **Table4.24**. Most of the vegetation along the proposed corridor is *Tamarindus indica*, *Azadirachta indica* and *Borassus flaberiformis*. Among the three predominantly observed tree species, only *Borassus* is naturally planted rest of the two species are planted by social forestry department through, avenue management program.

Table4.23: List of Common Flora recorded from the study Area – Trees, Shrubs and Others

S. No	Botanical Name	Tamil Name/Local Name
1	<i>Acasia Nilotica</i>	Karuvelan
2	<i>Acasia Ferrugmea</i>	Perambai
3	<i>Acasia intsia</i>	Indu
4	<i>Acacia Latronum</i>	Kakka odai
5	<i>Acacia planifrons</i>	Odai or Kudiavelan
6	<i>Acacia leucophloea</i>	Velvelan
7	<i>Acacia sundra</i>	Karunkali
8	<i>Achyranthes aspera</i>	Naiuruvi
9	<i>Aegle marmelos</i>	Vilvamaram
10	<i>Agave wightii</i>	Kathalai
11	<i>Albizzia amara</i>	Usil
12	<i>Albizzia lebbeck</i>	Vagai

S. No	Botanical Name	Tamil Name/Local Name
13	<i>Ailanthus excelsa</i>	Peemaram
14	<i>Anacardium Occidentale</i>	Munthiri
15	<i>Anogeissus latifolia</i>	Vekkaki
16	<i>Annona squamosa</i>	Seetha
17	<i>Asparagus racemosus</i>	Thanuttokodi
18	<i>Aristida hystrix</i>	Grass
19	<i>Aristida depressa</i>	Grass
20	<i>Azadirachta indica</i>	Vembu
21	<i>Barringtonia acutangula</i>	Nir Kadumbai
22	<i>Bassia latifolia</i>	Illupai
23	<i>Bambusa arundinacea</i>	Mungil
24	<i>Bauhinia racemosa</i>	Athi
25	<i>Borassus flabellifer</i>	Panai
26	<i>Butea monospermas</i>	Elaiporasa
27	<i>Calotropis gigantia</i>	Erukkai
28	<i>Carissa spinarum</i>	Sirukila
29	<i>Cassia auriculata</i>	Avaram
30	<i>Cassia fistula</i>	Konnai
31	<i>Commiphora beryi</i>	Mulkiluvai
32	<i>Ceiba pentandra</i>	Elavamaram
33	<i>Canthium dicoccum</i>	Kekkini
34	<i>Carraris divericta</i>	Thoratti
35	<i>Carissa carandus</i>	Kilakai
36	<i>Commiphora caudata</i>	Kiluvai
37	<i>Cassia siamea</i>	Ponnavarai
38	<i>Casuarina equisetifolia</i>	Savukku
39	<i>Chloroxylon swietenia</i>	porasu
40	<i>Cissus quadrangularis</i>	Pirandai
41	<i>Clistanthus collinus</i>	Oduvai
42	<i>Cocos nucifera</i>	Thennai
43	<i>Dichrostachys cineria</i>	Vedatharai
44	<i>Dalbergia paniculata</i>	Patchali
45	<i>Dodonea viscosa</i>	Virali
46	<i>Dalbergia sissoo</i>	Sissoo
47	<i>Diospyros melanoxylon</i>	Kasuvakkani
48	<i>Dalbergia latifolia</i>	Itti
49	<i>Emblica officinalis</i>	Nelli
50	<i>Erythrina indica</i>	Mullumurungai
51	<i>Erythroxyton monogynum</i>	Sembulichan
52	<i>Euphorbia antiquorum</i>	Kalli
53	<i>Euphorbia tirucalli</i>	Thirukalli
54	<i>Ferronia limonia</i>	Vilam
55	<i>Ficus bengalensis</i>	Alamaram
56	<i>Ficus religiosa</i>	Arasu
57	<i>Ficus racemosa</i>	athimaram
58	<i>Hemidesmis indicus</i>	Nannari

S. No	Botanical Name	Tamil Name/Local Name
59	<i>Inga dulcis</i>	Kodukkapuli
60	<i>Jatropha curcas</i>	Kattamannakku
61	<i>Lantana camara</i>	Lantana (poochedi)
62	<i>Leucas aspera</i>	Thumbai
63	<i>Loranthus longifloros</i>	pullurivi
64	<i>Mangifera indica</i>	Mamaram
65	<i>Morinda tingtoria</i>	Nona (manjanathi)
66	<i>Murraya koenigii</i>	Karuveppillai
67	<i>Murraya paniculata</i>	Kattu karuvepillai
68	<i>Mimosa pudica</i>	Thottasurungi
69	<i>Melia composita</i>	Malaiyembu
70	<i>Opuntia dellenii</i>	Nagothali (sappathikalli)
71	<i>Odina wodier</i>	Othian
72	<i>Peltophorum ferrugieium</i>	Iyalvagai
73	<i>Prosopis juliflora</i>	Velikattan
74	<i>Phoenix humilis</i>	Simaichai
75	<i>Phoenix sylvestris</i>	Echan
76	<i>Samanea saman</i>	Thoongumoonjimaram (Mazhaimaram)
77	<i>Pongamia pinnata</i>	Pungam
78	<i>Pterolobium indicum</i>	Karuindu
79	<i>Polyalthia longfolia</i>	Asokan (Nettilingam)
80	<i>Syzygium cuminii</i>	Naval
81	<i>Sideroxylon tomentosum</i>	Palai
82	<i>Santalum album</i>	Santhanam
83	<i>Sontia Indica</i>	Koddimullu
84	<i>Randia dumetorum</i>	Karai
85	<i>Securingea leucophyrus</i>	Veppulai
86	<i>Solanum pubescens</i>	Sundai
87	<i>Tamarindus indica</i>	Puli
88	<i>Tectona grandis</i>	Tekku
89	<i>Terminalia bellerica</i>	Thani
90	<i>Thespesia populnea</i>	Poovarasu
91	<i>Tribulus terrestris</i>	Nerinjikimullu
92	<i>Vitex negundo</i>	Nochi
93	<i>Webera corymbosa</i>	Tharani
94	<i>Wrightia tinctoria</i>	Veppalai
95	<i>Zizyphus jujuba</i>	Elandai
96	<i>Zizyphus xylopyrus</i>	Kottai elandai
97	<i>Zizyphus oenoplia</i>	Suraimullu
98	<i>Limonia acidissima</i>	Kattu elumitchai

As per BSI red data list, there are no RET species of plants are observed in the study area

Note: - R- Rare, E – Endangered, T- Threatened; Source: Chengalpattu Forest Division

Table 4.24: List of common trees observed in the study area

Sr no	Botanical name	Common name
1.	<i>Tamarindus indica</i>	Tamarind
2.	<i>Azadirachta indica</i>	Neem
3.	<i>Borassus flaberiformis</i>	Tad palm
4.	<i>Phonix sylvestris</i>	Khajur palm
5.	<i>Ficus bengalensis</i>	Bargad
6.	<i>Ficus religiosa</i>	Papal
7.	<i>Syzygium cumini</i>	Jamun
8.	<i>Bombax ceiba</i>	Kante sawar
9.	<i>Bombax malabarica</i>	Silk cotton tree
10.	<i>Acacia nilotica</i>	Babool
11.	<i>Cassia auriculata</i>	Cassia
12.	<i>Acacia auriculoformis</i>	Australian acacia
13.	<i>Eucalyptus species</i>	Nilgiri
14.	<i>Casuarinas equisetifolia</i>	Suru
15.	<i>Ficus glomerata</i>	Umbar
16.	<i>Dalbergia sisoo</i>	Shisam
17.	<i>Prosopis julifera</i>	Prosopis
As per BSI red data list ,there are no RET species of plants are observed in the study area		

Note: - R- Rare, E – Endangered, T- Threatened; Source: - primary field survey

4.6.10. Presence of Forest (RF/PF)

The forest communities of the study area consist of only reserve forest, there is no protected forest found in the study area. Details of forest stretches along the Phase I Roads were collected with the help of Reconnaissance Survey during the field visit. The detailed list of forest stretches along the project Roads are described in **Table 4.25**.

Fig. 4. 3: Forest Types of Tamil Nadu



Table 4.25: Detail of Forest Stretches along the Phase I roads chainage wise

Road name	Chainage	Location	Type of forest	Forest Land Acquisition in Ha
SH 58-SCKAT Road	km 16/100 to km 16/440 (both sides)	Thirukazhukundram bypass	Reserve	0.544
	km 9+800 to km 10+500 (LHS)	Mullikulathur	Social	NIL
	km 16+600 to km 18+400 (LHS)	Mandakkam	Reserve	NIL
	km 20+400 to km 21+200 (RHS)	Pulleri	Reserve	NIL
SH – 116 Kancheepuram – Vandavasi Road	km 26+900 to km 27+000 (RHS)	Thethurai	Social	NIL
	km 35+800 to km 36+300 (RHS)	Venkundram	Reserve	NIL
SH - 4-Arni-Villupuram Road	Km 89+075 to 88+025 and km 87+750 to km 86+230 (RHS)	Kavarai	Reserve	NIL
	Km 69+250 to 69+500 (RHS)	Sangamam	Social (This is proposed to be designated as reserve)	NIL

Road name	Chainage	Location	Type of forest	Forest Land Acquisition in Ha
			forest)	

Trees affected

Major species of trees along the road are *Tamarind*, *Gulmohar*, *Neem*, *Palm*, *Peepal*, *Bargad*, *Eucalyptus* and *Keekar* etc. Trees are mostly matured having girth more than 0.3 and above. The heights of trees are found to be 3 m to 30 m. Number of trees affected are listed in **Table 4.26**. The tree enumeration details of road SH-58, SH-116 & SH-04 are given in **Annexure 4.3, 4.4 & 4.5** respectively.

Table 4.26: Number of Trees affected

Name of Road	Length in KM	Trees (no.)		
		Left	Right	Total
Sadras – Chengalpattu Road (SH-58)	26.811	619	673	1292
Arani - Villupuram road (SH-04)	90.90	3906	3281	7187
Kanchipuram – Vandavasi Road (SH-116)	22.20	567	677	1244
Total	139.911	9723		

The tree species having girth size less than 30 cm are also observed in the study area. Major species of trees along the road are *Pongam*, *Neem*, *Babool*, *Cassia*, *Keekar*, *Tad palm* and *Khajur Palm* etc. there are total 43 tree species having girth size less than 30 cm, need to be transplanted in the study area. The trees enumerations are listed in **Table 4.27** and the trees list with botanical name and common name is given in **Table 4.28** respectively.

Table 4.27: List of Tree species along all the three Phase I roads

Tree List Below 0.3m (Girth)											
Trees on Southern Side (RHS)						Trees on Northern Side (LHS)					
Sr. No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr. No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
SH-04											
1	31742.58	7.641	Pungam	0.15	3.16	1	35424.29	10.488	Naval	0.22	3.99
2	39431.71	6.742	Eecham	0.10	7.66	2	37148.00	10	Other	0.24	8.99
3	89440.96	6.400	Pungam	0.25	6.2	3	50869.32	5.161	Other	0.25	8.99
4	104253.12	1.417	Puliyam	0.2	8	4	56836.00	7.3	Other	0.15	8.00
						5	85620.63	7.500	Other	0.2	3
						6	88153.63	8.700	Panai	0.1	8
SH-58											
1	4254.483	6.400	others	0.25	7.00	1	825.003	6.275	Neem	0.25	4.00
2	4309.941	9.940	others	0.20	3.10	2	971.000	4.975	Neem	0.22	2.50
3	4451.000	8.000	others	0.22	7.10	3	6573.000	6.975	Others	0.24	5.30

4	4951.008	7.800	others	0.23	6.20	4	6676.000	7.975	Others	0.15	5.30
5	4961.000	7.500	others	0.24	4.10	5	6698.000	7.975	Others	0.11	4.50
6	5491.000	7.800	others	0.22	7.10	6	6987.000	6.975	Others	0.16	5.60
7	5501.000	7.800	others	0.18	7.10	7	7496.000	7.975	Banyan	0.20	5.80
8	5601.000	8.000	Neem	0.19	6.20	8	7722.993	7.977	Others	0.28	5.10
9	5631.000	8.000	Neem	0.20	4.90	9	7832.994	6.977	Others	0.10	5.00
10	5641.000	7.800	others	0.10	6.80	10	8075.000	7.975	Others	0.20	6.50
11	5106.000	7.300	others	0.25	3.30	11	8081.976	5.979	Others	0.15	7.30
12	17242.000	5.000	others	0.25	4.00	12	8087.000	7.975	Pungam	0.12	6.70
13	17417.000	4.000	Neem	0.25	6.10	13	8693.000	4.975	Neem	0.13	6.20
14	17947.000	5.000	Neem	0.20	6.30	14	14563.000	6.275	Others	0.27	7.00
15	21385.021	0.648	Neem	0.19	4.00	15	15709.000	7.375	Neem	0.25	5.70
16	21431.026	0.996	Neem	0.25	3.40						
SH-116											
1	17919.9711	7.3	Neem	0.25	4.99	1	27934.32	1.25	Neem	0.255	6.16

Table 4.28: List of trees less than 30 cm, girth observed in the study area

Sr no	Botanical name	Common name
1.	<i>Azadirachta indica</i>	Neem
2.	<i>Pongamia pinnata</i>	Pongam /pungam
3.	<i>Borassus flaberiformis</i>	Tad palm
4.	<i>Phonix sylvestris</i>	Khajur palm
5.	<i>Acacia nilotica</i>	Babool
6.	<i>Cassia auriculata</i>	Cassia
7.	<i>Prosopis julifera</i>	Prosopis

4.6.11. Ecological Aspects of Project Area

Following are the protected area in the project districts: 1) Vedanthangal bird's sanctuary (Kanchipuram), 2) Karikili Birds Sanctuary (Kanchipuram). Distance between these two sanctuaries is 9 km. The proposed project road selected under Phase I is located more than 15 km from the sanctuaries. The location of Vedanthangal and Karikili bird sanctuary from the proposed corridors are given in **Figure 4.4**. The turtle breeding ground and the CRZ map on Google map is shown in **Figure 4.5**, and CRZ map is shown in **Figure 4.6**.

The project roads do not pass through any ecological sensitive areas such as National Parks, Bio Diversity reserves, Wildlife corridors.

Fig. 4. 4: wildlife sanctuaries from the proposed corridors

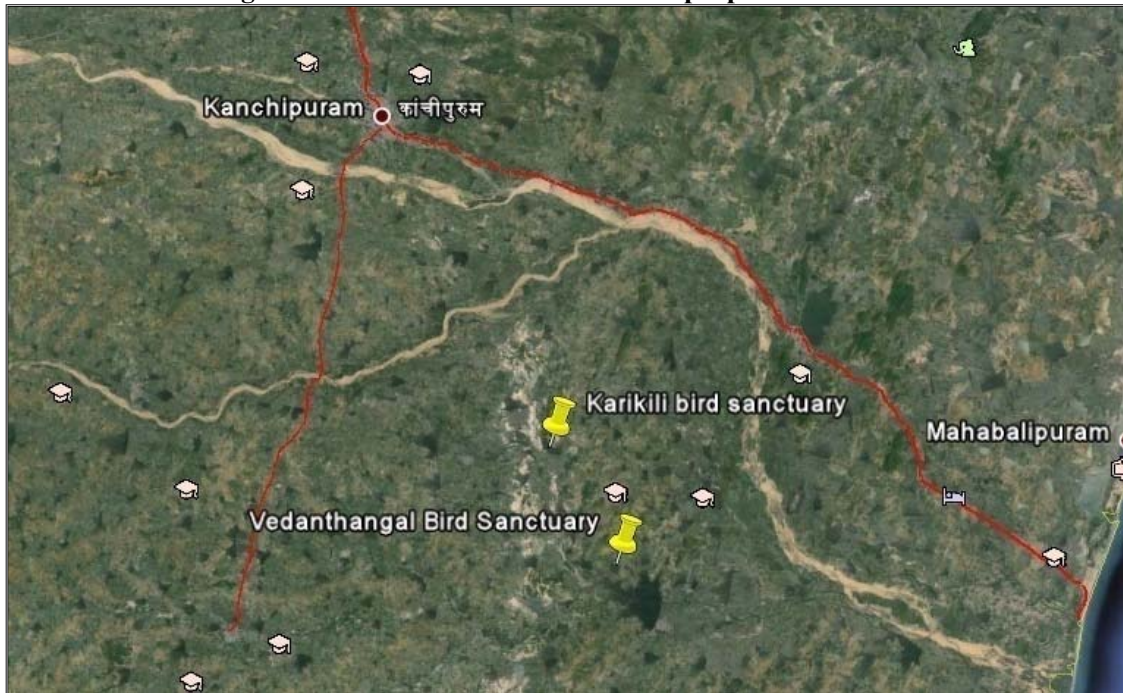


Fig. 4. 5: Location of CRZ and Turtle Breeding Ground on Google Map

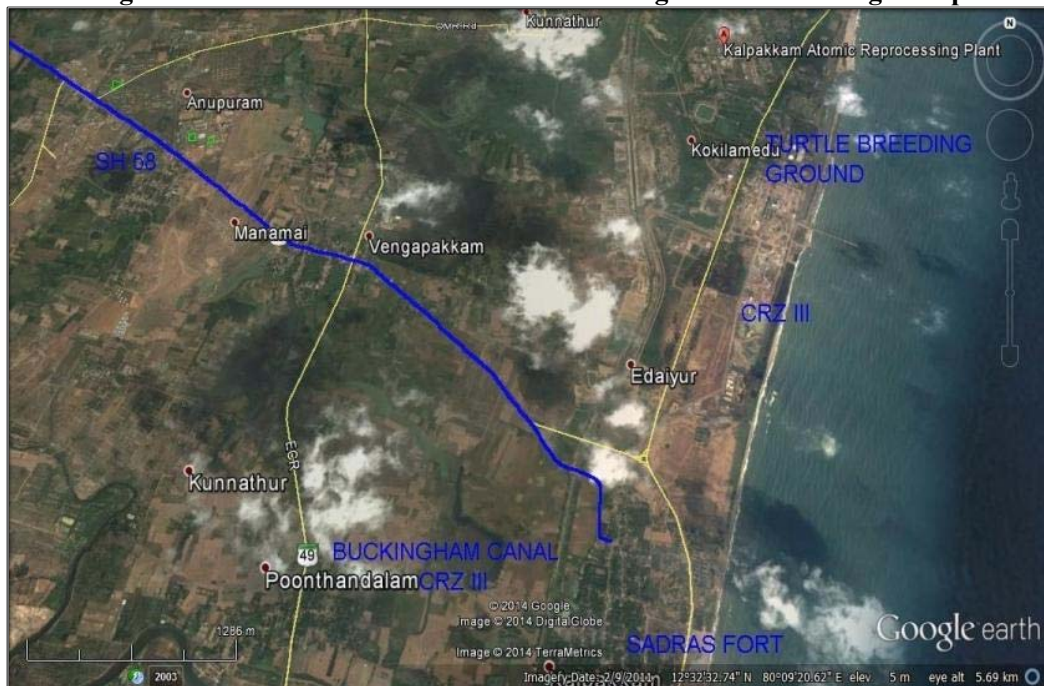
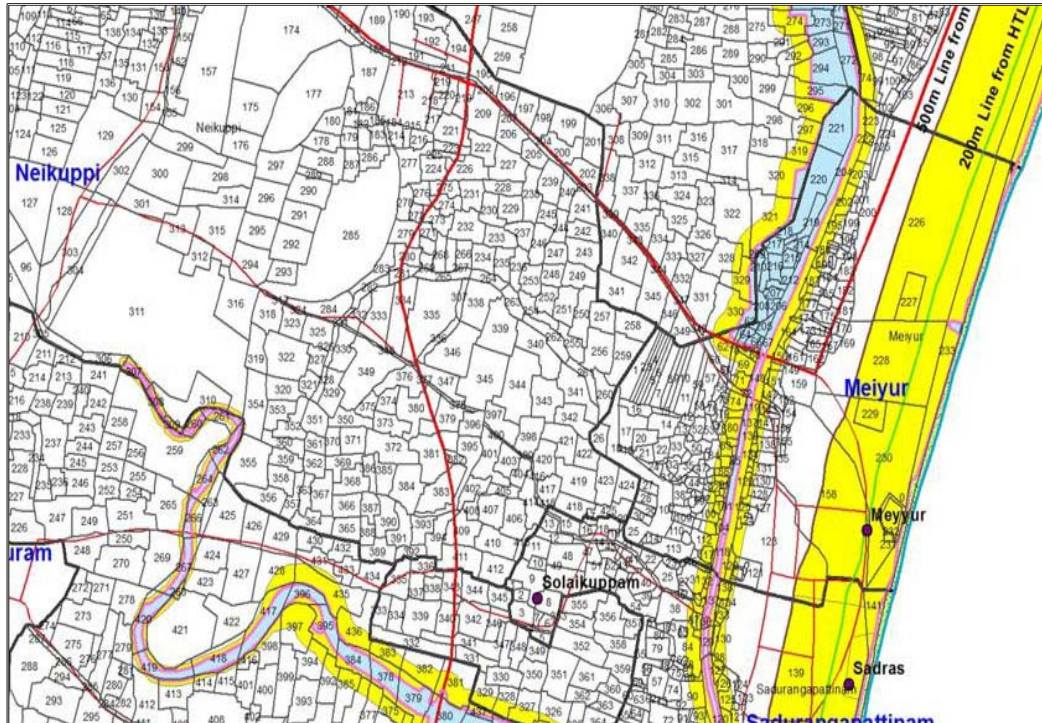


Fig. 4. 6: Location of CRZ and Turtle Breeding Ground on CRZ Map



As per the Google map of Tamil Nadu, project area is mild dense forest and non-forest land. In first Google image of the study area, there are two wildlife sanctuaries found, these are Karikili bird sanctuary and Vedanthangal bird sanctuary. Both the sanctuaries are more >10km from the proposed corridors. In second Google image turtle breeding ground, coastal regulatory zone, Buckingham canal and Sadras fort are seen. The CRZ is categorised as CRZ-III, with reference to the CRZ map. Ecological features within the project area are described in all the maps.

4.6.12. Protected Natural Habitats

The Project roads do not pass through any protected natural habitats of flora and fauna.

4.6.13. Wildlife Habitat

A. Terrestrial Fauna (Mammals)

The study area is categorised into discrete patches of vegetation, most of the area falls under agro ecosystem and waste land. There is no niche of endangered and critically endangered animal observed in the study area. Mammals are very sensitive to environmental pollution. There are several minor herbivorous and carnivorous wild animals in the study area. Except common mongoose all the mammals are categorised into Schedule-IV, only mongoose is

categorised into Schedule-II of WPA-1972. The commonly observed or reported mammals are presented in **Table 4.29**.

Table 4.29: List of Mammals Observed In The Study Area

S. No.	Zoological Name	Local Name	Conservation status as per Wild life Protection Act (1972)
1.	<i>Herpestres edwardsinyula</i>	Common Mongoose	Part-II of Schedule –II
2.	<i>Lapus nigricollis</i>	Indian Hare	Schedule-IV
3.	<i>Rousettus leschenaultia</i>	Fruit Bat	Schedule-IV
4.	<i>Bandicota benghalensis</i>	Bandicoot	Schedule-IV
5.	<i>Bandicota indica</i>	Rat	Schedule-IV
6.	<i>Funumbuls palmarum</i>	Squirrel	Schedule-IV
7.	<i>Mus rattus</i>	Indian rat	Schedule-IV
8.	<i>Hystrix indica</i>	Porcupine	Schedule-IV
9.	<i>Mus musculus</i>	Common Mouse	Schedule- VI

B. Amphibians and Reptiles

Amphibians are noticed mainly restricted to open waste land and marshy areas. Frogs and toads were present in this area. No tailed amphibians were cited in the survey. Reptilian fauna is comparatively rich; however **Table 4.30**. Gives the details of different amphibians and reptiles in the study area. 5 reptiles and 2 amphibians are recorded from study area.

Table 4.30: List of Reptiles and Amphibians observed in the Study Area

S. No.	Technical Name	Local Name	Conservation status as per Wild life Protection Act (1972)
Reptiles			
1.	<i>Hemidactylus sp</i>	House Lizard	Schedule IV
2.	<i>Calotes vesicolor</i>	Common garden lizard	Schedule IV
3.	<i>Chameleon zeylanicus</i>	Indian chameleon	Schedule IV
4.	<i>Bangarus sp</i>	Krait	Schedule-IV
5.	<i>Naja naja</i>	Indian cobra	Schedule IV
Amphibians			
6.	<i>Rana tigrina</i>	Common frog	Schedule IV
7.	<i>Bufo melanosticus</i>	Toa	Schedule IV

C. Local/ Migratory Birds in Study Area

It was observed that the study area looks almost dry, during primary field survey March-May 2014. Because of this reason most of the water birds are not visited in Arrays (surface water

ponds), which is present backside of almost all Temples. In some places paddy cultivation is done by using water from tube wells, so most of the avifauna observed is terrestrial avifauna.

In 22 species of birds observed/recorded in the study area is presented in **Table 4.31**. In the study area endangered and critically endangered sp of avifauna are not observed, during primary field survey. All species observed in the study area, during primary field survey are categorized under schedule-IV of Wildlife Protection Act, 1972.

Table 4.31: List of Birds Observed in the Study Area

S. No.	Technical Name	Local Name	Conservation status as per Wild life Protection Act (1972)
1.	<i>Phalacrocorax niger</i>	Little cormorant	Schedule IV
2.	<i>Ardea purpurea manilensis</i>	Eastern purple heron	Schedule IV
3.	<i>Ncticorax nycticorax</i>	Night heron	Schedule IV
4.	<i>Ardea grayii grayii</i>	Paddy bird	Schedule IV
5.	<i>Egretta garzetta</i>	Little Egret	Schedule IV
6.	<i>Bubulcus ibis</i>	Cattle Egret	Schedule IV
7.	<i>Haliastur Indus</i>	Brahmny kite	Schedule IV
8.	<i>Milvus migrans</i>	Pariah kite	Schedule IV
9.	<i>Eudynamis scolopaceus</i>	Koel	Schedule IV
10.	<i>Coracias benghalensis indica</i>	Southern Indian roller	Schedule IV
11.	<i>Acridotheres tristis tristis</i>	Common myna	Schedule IV
12.	<i>Corvus splendens portugatus</i>	Ceylon house crow	Schedule V
13.	<i>Passer domesticus indicus</i>	Indian house sparrow	Schedule IV
14.	<i>Orthotomus sutorius</i>	Tailor bird	Schedule IV
15.	<i>Aythya ferina</i>	Common pochard	Schedule-IV
16.	<i>Nettapus cormanadalincicus</i>	Common teal	Schedule-IV
17.	<i>Peridu asiatica</i>	Jungle bush quail	Schedule-IV
18.	<i>Burhinus oedicuenus</i>	Satone curlew	Schedule-IV
19.	<i>Streptopelia chinensis</i>	Spotted dove	Schedule-IV
20.	<i>Psittacula cyanocephala</i>	Parakeet	Schedule-IV
21.	<i>Contropus sinensis</i>	Crow pheasant	Schedule-IV
22.	<i>Passer domesticus</i>	House sparrow	Schedule-IV

D. Butterflies

A total of 4 species of butterflies are recorded in the study area. The lists of identified butterflies from study area are presented in **Table 4.32**.

Table 4.32: List of Butterflies Observed in the Study Area

S. No.	Technical Name	Local Name	Conservation status as per Wild life Protection Act (1972)
1.	<i>Euploca cora</i>	-	Schedule-IV
2.	<i>Euploca crassa</i>	-	Schedule-IV
3.	<i>Euploca dicciotianua</i>	-	Schedule-IV
4.	<i>Graphium agamemnos</i>	Tailed jay	Schedule-IV

E. Endangered Animals

A comprehensive Central Legislation namely Wild Life (Protection) Act was enforced in 1972 to provide protection to wild animals. Schedule-I of this act contains the list of rare and endangered species, which are completely protected throughout the country.

The list of wild animals and their conservation status as per Wild Life Act (1972) are presented in Table 4.29 to Table 4.32. It was found that, there are no endangered, threatened wild animal species observed in study area although 42 species recorded/reported from study area belong to schedule-II and schedule-IV of Wildlife protection Act, 1972. Common mongoose is of schedule-II species.

4.6.14. Green Tunnel

A tree tunnel is a road, lane or track where the trees on each side form a more or less continuous canopy overhead, giving the effect of a tunnel. The effect may be achieved in a formal avenue lined with trees or in a more rural setting with randomly placed trees on each side of the route.

In the study area none of the three roads exhibits uniform green tunnel but, it was observed in discrete sections. The predominant plant species in green tunnel is *Tamarindus indica*, *Azadirachta indica* and *Syzygium cumini*.

4.6.15. Vulnerable, Threatened and/or Endangered Species of Flora and Fauna

There are no vulnerable, threatened and endangered species of flora and fauna within the corridor of impact. But within study area of 10 km radius, olive Ridley turtle (*Lepidochelis olivacea*) which is Schedule –I species is found with their breeding ground along the sea coast. Common monkey (*Presbytis entellus*) and common mongoose (*Herpestes edwardsii*) which is Schedule –II Species are also observed during the field study. The avifauna found in the study area are categorized in Schedule –IV. The summer as well as winter migrant birds are found near Sadras coast.

Fig. 4. 7: Ecological Photographs



1. Dead olive Ridley turtle (*Lepidochelis alivacea*) at Sadras coast



2. Interaction with local fisherman at Sadras coast



3. *Calotis sp* observed on the *Ficus religiosa* tree



4. Measuring DBH of *Tamarindus indicatree*



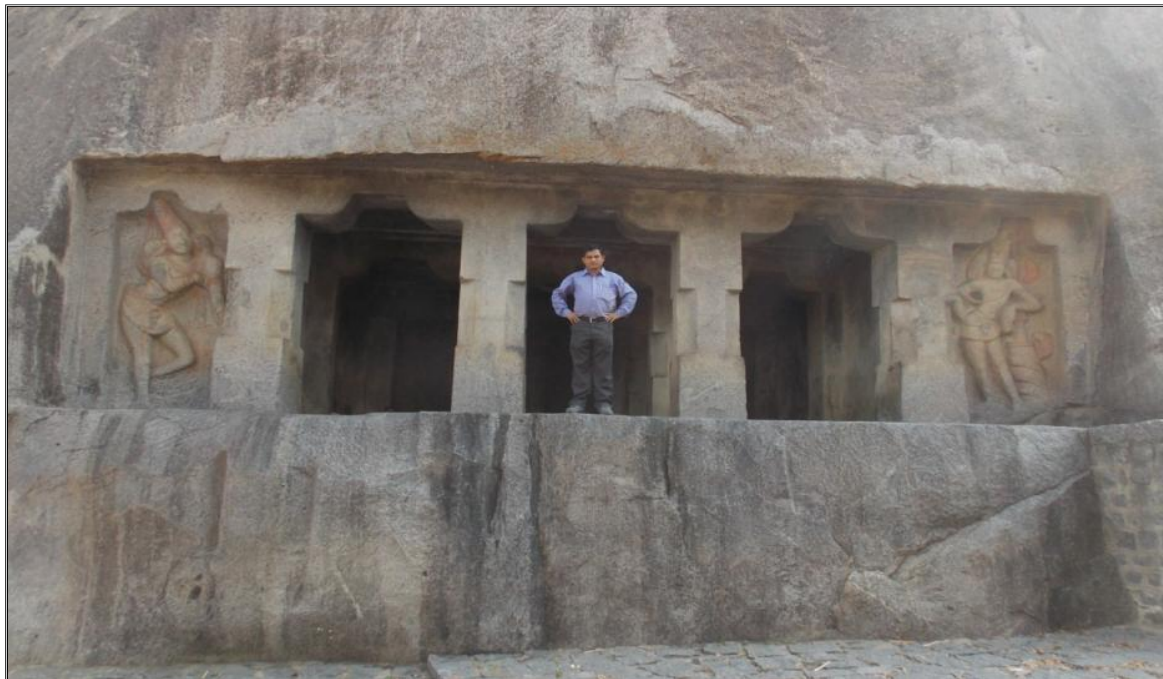
5. Coastal weeds observed, near Kalpakkam power plant



6. Turtle breeding shelter at Sadras coast



7. Rock cut Pallava temple (conserved by ASI)



8. Rock cut Pallava temple (protected by ASI)



9. Discussion with forest officials



10. Kingfisher observed in Venkundram RF



11. Measuring the GBH (*Shyzygium cumini*) of the tree

4.7. SOCIO -ECONOMIC ENVIRONMENT

The project road passes through three districts of Tamil Nadu namely, Thiruvannamalai, Kanchipuram and Villupuram. The demographic profile of the districts as per Census 2011 is summarized in **Table 4.29**. Socio-economic profile comprising livelihood, culture, public utilities etc will be dilated upon in SIA Report.

Table 4.29 : Demographic Profile

District	Total population	Pop. Density (no. per sq km)	Sex Ratio	No. of workers
Thiruvannamalai	2,464,875	654	994 females per 1,000 males	1,238,177
Kanchipuram	3,998,252	910	986 females per 1,000 males	1,673,814
Villupuram	3,458,873	479	987 females per 1,000 males	1,703,249

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5 STAKEHOLDER CONSULTATIONS

5.1 INTRODUCTION

Public consultation is a continuous process throughout the project period, during project preparation, implementation, and monitoring stage. At project planning stage the consultative process adopted ensures that the Project Affected Population (PAPs) and other stakeholders are informed, consulted, and allowed to participate actively in the process and the decisions of people are incorporated in project preparation. Often suggestions and option given by the people improves technical and economic efficiency of the project and suggested improvement proposals (if adopted by the project) generates sense of ownership within community's thus easing implementation process.

During environmental screening of the project informal consultations were conducted. Formal consultations were conducted with public at Project level and affected persons at District level. In this chapter the methodology adopted for the consultations and key findings are discussed.

5.2 METHODOLOGY FOR CONSULTATIONS

5.5.1 Unstructured Public Consultations at Project Level

The consultations, though in brief, were carried out with the local people during screening survey. It involved information dissemination i.e. informing the people about the details of the project. The consultant invited their suggestion and comments on the proposal of road improvements. During consultation the issue regarding to environment have been raised. The public consultation meetings were conducted along the road for SH 58, SH 116 and SH 4 on individual basis consultation. **Figure 5.1** depicts the consultation for road SH 58.

Some of the major findings of the unstructured public consultation are as described below.

1. People were concerned about the impact on environment with respect to tree loss
2. Majority of tree is tamarind and livelihood of local people is dependent on it.
3. People were found concerned about the impact on common facility like hand pump, tube wells, overhead tanks etc..
4. People were found enthusiastic for development works of road and expressed all sorts of support during construction of the project, but suggested to minimize the social issues at the most.



5.5.2 Structured Public Consultations at Project Level

Project Level Structured Public Consultation was conducted at 4 locations on Phase I roads. The locations of Public Consultation are given in Table 5.2. Consultations were accomplished to collect the opinion/views on the project. At pre-scheduled date and venue, people were communicated to gather for consultation with the help of gram panchayat. Gathering was explained about the project activities and their consequences in brief. Queries of the participants were replied by the Consultant experts and at the same time their suggestions were also recorded.

During the public consultation issues on trees, public utilities, community structures, employment and pollution during construction were discussed. Issue raised and suggestions given by the public is presented in Table 5.3. Photographs showing conducted public consultation are shown in Figure 5.1. The signature of stakeholders present during the public consultation is enclosed at Annexure-5.1.

Table 5. 1: Locations of Public Consultation

S No	Name of Road	Location
1	SH-116	Mamandur
2	SH-58	Thirukazhukundram
3	SH-4	Lakshmipuram
4	SH-4	Gengaiasodamani (Chetpet)

Table 5. 2: Summary of structured Public Consultation

Location	Issues	Suggestions of Stakeholders	Mitigation Measures
Mamandur Village (SH-116)	Pollution	Dust problem during construction of road widening	Water sprinkling on road during construction
		No problem with environmental issue	Environmental issue will be kept minimum by implementing the project scientifically.
	Amenities	Road crossing by animals disturbed due to proposed road	Animal corridor will be provided to cross the road by animal safely
		Underground water supply line disturbed due to proposed road widening	All the utilities have identified which will be rehabilitated appropriately
		The school where about 1000 students studying are affected.	School will be affected due to noise for which noise barrier will be provided
		Public places like primary health care, agriculture office & one water tank affected.	Wherever, there will be an impact, appropriate mitigation measures will be taken up.
		Use of agriculture land instead of loss of public places	To safeguard the public places, one side widening will be taken up
	Traffic	Requirement of service road	Slow moving vehicle lane

Location	Issues	Suggestions of Stakeholders	Mitigation Measures	
	problem	near village	is proposed to be provided.	
Thirukazhukundram (SH-58)	Pollution	Plantation of 10 trees per tree cutting	Afforestation in consultation with forest department	
		No problem with construction of project	Monitoring for implementation of EMP will avoid construction nuisance	
		No pollution problem due to construction of project	Monitoring for implementation of EMP will avoid construction nuisance	
	Amenities	Underground pipeline of water supply line disturbed due to proposed road widening	All the utilities have identified which will be rehabilitated appropriately	
	Employment	Advantage to next generation due to proposed development	Good road connectivity encourages entrepreneur to put industry and attracts tourist to visit the area. This creates employment.	
Lakshmipuram (SH-4)	Ecology	Trees on both side of road are tamarind trees which are socio-economic importance.	To minimise the tree loss, one side road widening has been taken into consideration.	
	Pollution	No pollution problem to the villagers	Pollution level will be kept at minimal level by adopting mitigation measures.	
	Amenities	Service road near village		Slow moving vehicle lane is proposed to be provided in paved shoulder.
		Approach road to the Sugar factory which is 4 km from SH-4.		This is world bank funded project, approach road to sugar factory will be constructed by highway department.
		Service road to the newly build Handicap School which is likely to be opened in the coming month.		This is world bank funded project, approach road to sugar factory will be constructed by highway department.
		School at Thumbur village where about 1500 students studying gets affected.		Noise barrier and road safety measures
		Temple, water tank, bus stand at Thumbur village gets affected.		These will be rehabilitated appropriately in time.
	Pollution	No pollution problem to the		

Location	Issues	Suggestions of Stakeholders	Mitigation Measures
Gengaiasodamani Village (SH-4)		villagers due to proposed development	
		No issue of noise during construction	Proper maintenance of equipment and machinery produces noise level within limit.
	Amenities	Disturbance to hospitals & pipeline of water tank along the road side.	Signages for no horn zone at hospital location and water tank will be suitably relocated.
		Widen the road on patta land to avoid the structures along the road side.	One side widening is proposed wherever feasible
	Traffic	More accidents at present which get reduced due to proposed road.	The road are getting upgraded as per IRC guidelines
		Requirement of divider at centre of the road	Road divider will be provided where four laning is proposed.

Fig. 5. 1: Photographs of Public Consultation



Mamandur Village



Thirukazhukundram



Lakshmipuram



Gengaiasodamani Village (Chetpet)

5.3 DISCUSSIONS WITH RELEVANT AGENCIES

One-to-one meeting was organized with officers of concerned government department i.e. **Public Works Department**, District Forest Department, district collectorate, etc. They responded well taking the interest into the project and raised the queries regarding consequences of road widening and strengthening project. They provided suggestion to mitigate the negative impacts, helped to identify the environmental issues like traffic congestion, accident point, quarry area etc. The issues were discussed basically on forest, acquisition of private land, use of fly ash etc. Some of the important views expressed and suggestions given by the officers at district level are:

- ❖ **FOREST:** During the consultation information on forest stretches, flora and fauna was collected. Participants made the following points:

Forest is mostly on one side of the road and can be saved with asymmetrical widening at forest location.

if tree cutting is necessarily required, cutting should be bare minimum just to accommodate the project and a well designed afforestation programme should be implemented before the completion of the project. Permission from forest department should be taken for cutting of trees and acquisition of forest land

- ❖ **LAND ACQUISITION:** Compensation for acquisition of private land should be given at the current market price. For acquisition of land the marking on the ground should be done in the presence of concerned officers from revenue department of the district.
- ❖ **TECHNOLOGY:** Selection of technology for the construction of road should be selected in such a way that it should not affect the habitation along the road during construction. Equipment and machinery used during construction should be less polluting. Traffic diversion during construction should be made and proper signage at suitable location should be provided to avoid the inconvenience of the people using the road.
- ❖ **IMPACT CORRIDOR:** All the structures falling within the impact corridor and within impact area should be photographed. This helps in evaluation of cost estimate of compensation and becomes a record in future.

5.4 FOCUSED GROUP DISCUSSIONS AT DISTRICT LEVEL

Focused discussions were held with PAFs in presence of concerned agencies wherein primarily resettlement issues were discussed. An accountal of these discussions will be presented in SIA Report.

5.5 LESSONS LEARNT FROM CONSULTATION AND SUGGESTED FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT PLAN

5.5.1 Issues of Tree Cutting

During consultation, people were found against the tree cutting and rehabilitation and resettlement. To consider the public opinion, asymmetrical widening was taken into

consideration to protect the tree. Where forest was both side of the road, right of way at that stretch was reduced to 16 m.

5.5.2 Compensatory Afforestation

Compensatory afforestation was considered by proposing of planting the tree 10 times that of number of tree lost.

5.5.3 Monitoring Plan and Training

Information collected during environment (air quality, water quality and other parameters) survey and consultation suggests periodic monitoring plan should be gauged by considering specific but limited number of environmental parameters. Therefore, Monitoring strategies for the project should devise a specific plan. Training and capacity building component of environmental team should be part of consolidated training program of TNRSP and budgeted in training and institutional component of the project.

5.5.4 Community Properties Resources (CPRs) Enhancement

Regarding community properties enhancement, village community is willing to come forward to cooperate with TNRSP in the enhancement of religious properties.

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6 ANALYSIS OF ALTERNATIVES

6.1. BACKGROUND

The alternative analysis is generally done for the bypass selected for the existing road to decongest the city area and to save the time of transit. The smooth flow of traffic reduces the pollution to the surroundings. The PPC 01 of TNRSP II includes 10 roads as discussed in Chapter 1, out of which 3 road section are included in Phase-I roads under TNRSP-II as given in **Table 6.1.**

TABLE 6. 1: PROJECT ROADS

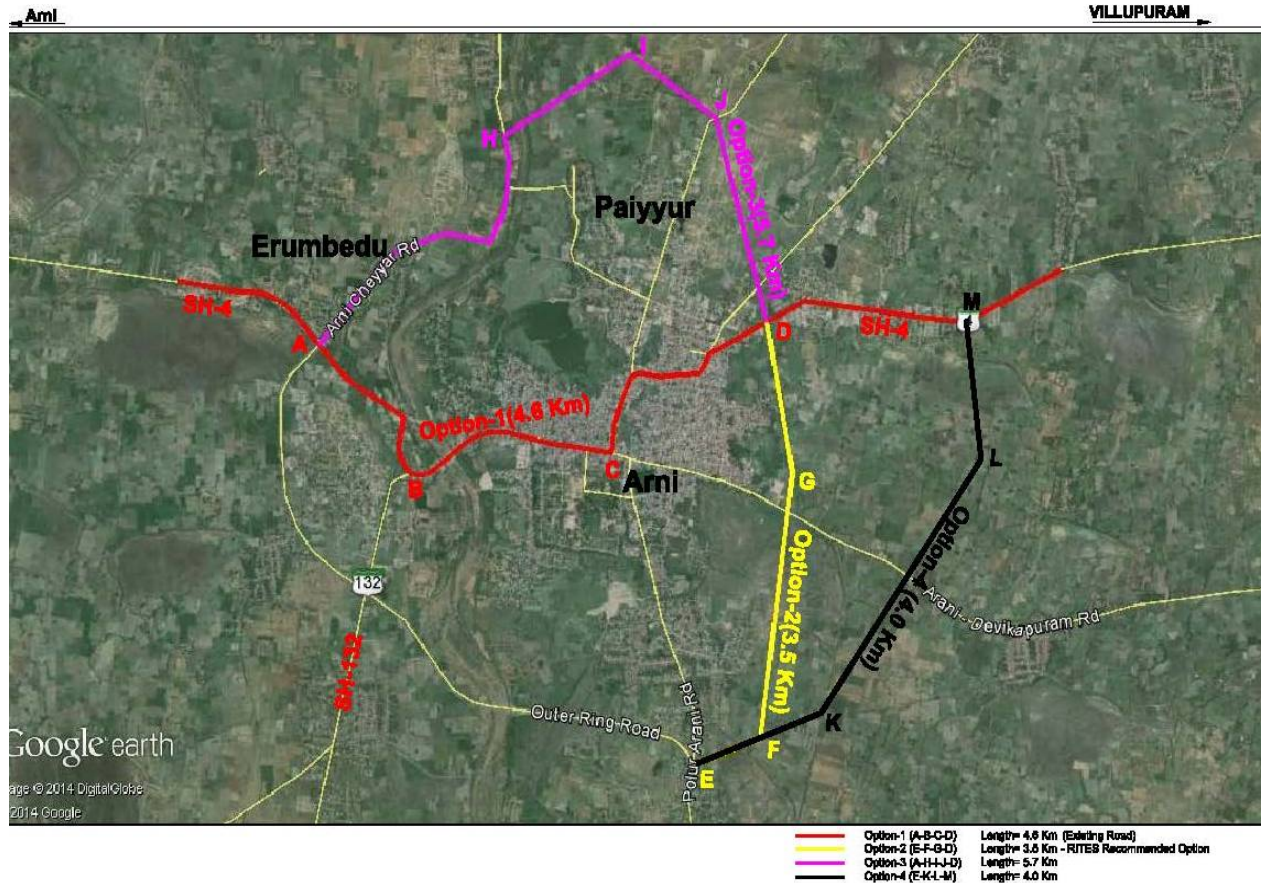
SI No.	Project Road Section	Road ID	Chainage		Length (km)	Bypasses
			From (km)	To (km)		
1.	Sadras Chengalpattu Road	SH 58	0.000	26.811	26.811	Thirukazhukundram (existing)
2.	Kanchipuram-Vandavasi Road	SH 116	14.300	36.500	22.200	-
3.	Arani-Villupuram Road	SH 04	24.600	115.500	90.900	Arani(proposed)
				Total	139.910	

Thirukazhukundram bypass and Arni bypass is taken in Phase-I roads under TNRSP-II. These bypasses are shown in **Figure 6.1** and **Figure 6.2.**

Fig 6.1: Thirukalukundram Bypass



Fig 6. 2: Arni Bypass



6.2. FINALIZATION OF ALIGNMENT

The three proposed Phase-I roads under TNRSP-II are two lane upgradation with paved shoulder. Finalisation of alignment has been done on the basis of social, environment and engineering aspects. Proposed Right of Way (PROW) in different sections of the road is taken following the criteria as mentioned in Table 6.2.

TABLE 6. 2: PROPOSED RIGHT OF WAY (PROW) FOR 2 LANES ROAD

S No.	Particulars on the sides of road		Proposed Right of Way (PROW) in m	Type of Road
	Left	Right		
1.	Settlement	Settlement	16	2 Lanes
2.	Open area	Open area	23	2 Lanes
3.	Reserved Forest	Reserved Forest	16	2 Lanes
4.	Reserved Forest	Settlement	16	2 Lanes
5.	Settlement	Reserved Forest	16	2 Lanes

6.3. THIRUKAZHUKUNDRAM BYPASS

6.3.1. Justification

The justification of Thirukazhukundram Bypass is justified considering the following points:

1. Connectivity of Kalpakkam Atomic Power Plant to NH-45 in view of emergency measures and transportation of goods, machinery and employee.
2. Tourism attraction to Sadras Fort and Kalpakkam beach.
3. Better connectivity to local people
4. Boosting the economy of the area by the generation of more employment through tourism industry and other allied activities.

6.3.2. Alternative Analysis

The SH 58 is passing through Thirukazhukundram town which has become very congested due to encroachment and development of market on either side of the road. Further widening of the road to accommodate the present traffic of 4883 PCU and future traffic is not possible due to R & R issues along the road. Hence, the option to propose the bypass was searched for the existing Thirukazhukundram bypass where small stretch of the road is crossing the bypass between chainage 16/150 to 16/490 and requires forest clearance. The proposal of bypass on other side of the town was found not feasible due to existence of Thirukzhundram Reserved Forest. Considering all the three options, existing bypass is most suitable option for widening and strengthening for SH 58 for Sadras-Chengalpattu Section.

6.4 ARNI BYPASS

6.4.1 Justification

The existing road of SH 4 is passing through Arni city which has become very congested and existing Right of Way (EROW) is 10 m. Divertible traffic is estimated as 2544. Widening of the road requires proposed Right of Way (PROW) of 16 m. The widening of the existing road has major social impacts affecting 617 structures. Hence, proposal of bypass is justified.

6.4.2 Alternative Analysis

The alternative analysis of the proposed bypasses were done considering the features of the alignment which are depicted below.

Table 6.3 : Alternative Analysis of Arni Bypass

Sl No.	Feature/Description	Option 1 (Existing Alignment)	Option 2	Option 3	Option 4
1.	Length (km)	4.25	3.5	5.70	4.0
2.	Chainage	km 24.750 to km 29.000	Km 29 to Jn of Arni Outer Ring Road towards Polur	Km 24.750 to km 29.800 using partly MDR-505 (2.40 km)	Km 30.500 to Jn of Arni Outer Ring Road towards Polur
3.	Existing ROW	10 m	-	-	-
4.	Proposed ROW	16 m	30 m	30 m	30 m
5.	Number of Curves	23	2	10	2
6.	Radius of Curves	3(R<90m), 20(R>90m)	2(R>360m),	6(R<90m), 4(R>360m),	2(R>360m),
7.	Divertible Traffic	2544	1164	1164	1164
8.	Major Bridge	1	-	1	-
9.	Culverts	14	13	20	15
10.	Major Jn Improvements	8	3	5	3
11.	Affected Water bodies	-	2	-	2
12.	Forest Land	-	-	-	-
13.	Wells	-	2	-	1
14.	Structures (Habitation)	617	-	-	1
15.	Land requirement (ha)	3.30	11.00	16.00	13.00

Comparison of the four alternatives shows that alternative 2 is the best and feasible options having shortest route of 3.5 km length and land acquisition of 11.00. There is no acquisition of structures. This provides the direct connectivity to Outer Ring Road to Arni town, a preferable shorter route to Polur and Arcot.

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7 PROJECT IMPACTS AND ISSUES

7.1 PROJECT IMPACTS AND ISSUES

Proposed road widening works and existing baseline scenario of project roads are discussed in previous chapters. The pollutants generated at the proposed project premises during construction and operation phases are solid, liquid and gaseous in nature. Pollutants may be generated continuously, periodically or accidentally.

This section identifies and appraises the negative as well as positive impacts on various aspects of the environment likely to result from the proposed development.

Impacts have been assessed based on the information collected from the screening & scoping of environmental attributes and subsequent field study for impacts on community assets. However for the purpose of an integrated view, general impacts on natural environment and built environment are summarized in **Table 7.1 A** and **Table 7.1B**.

Table 7.1A: General Impacts on Natural Environment of all Phase I Roads

Project Activity	Planning and Design Phase	Pre-construction Phase		Construction Phase					Road Operation	Indirect effects of operation or Induced development
		Removal of Structures	Removal of trees and vegetation	Earth works including quarrying	Laying of pavement	Vehicle & Machine operation & maintenance	Asphalt & crusher plants	Sanitation & Waste (labour campus)		
Env. component Affected	Land acquisition	Removal of Structures	Removal of trees and vegetation	Earth works including quarrying	Laying of pavement	Vehicle & Machine operation & maintenance	Asphalt & crusher plants	Sanitation & Waste (labour campus)	Vehicle operation	-
Air		Dust generation during dismantling	Reduced buffering of air and noise pollution, Hotter, drier microclimate	Dust generation	Asphalt odour	Noise, dust, pollution	Noise, soot, odour, dust, pollution	Odour / smoke	Noise, dust, pollution	other pollution
Land	Loss of productive Land	Generation of debris	Erosion and loss of top soil	Erosion and loss of top soil		Contamination by fuel and lubricants Compaction	Contamination Compaction of soil	Contamination from wastes	Spill from accidents Deposition of lead	Change in cropping pattern
Water	Loss of water sources	Siltation due to loose earth	Siltation due to loose earth	Alteration of drainage Break in continuity of ditches Siltation, Stagnant water pools in quarries.	Reduction of ground water recharge area	Contamination by fuel and lubricants	Contamination by asphalt leakage or fuel	Contamination from wastes Overuse	Spill Contamination by fuel, lubricants and washing of vehicles	Increased contamination of ground water

Project Activity	Planning and Design Phase	Pre-construction Phase		Construction Phase					Road Operation	Indirect effects of operation or Induced development
		Removal of Structures	Removal of trees and vegetation	Earth works including quarrying	Laying of pavement	Vehicle & Machine operation & maintenance	Asphalt & crusher plants	Sanitation & Waste (labour campus)		
Env. component Affected	Land acquisition	Removal of Structures	Removal of trees and vegetation	Earth works including quarrying	Laying of pavement	Vehicle & Machine operation & maintenance	Asphalt & crusher plants	Sanitation & Waste (labour campus)	Vehicle operation	-
Noise		Noise Pollution	Noise Pollution due to machinery	Noise Pollution		Noise pollution	Noise Pollution		Noise Pollution	Noise pollution
Flora		Loss of Biomass		Lowered productivity Loss of ground for vegetation		Removal of vegetation	Lower productivity Use as fuel wood	Felling trees for fuel	Impact of pollution on vegetation Lowered productivity Toxicity of vegetation.	
Fauna			Disturbance Habitat loss	Disturbance		Disturbance	Disturbance	Poaching	Collision with traffic	Distorted habitat

Socio-economic impacts due to disruptions on the social and economic interactions of communities are discussed below. This involves effect on both the adjacent communities (mostly direct) as well as the nearby communities (mostly indirect). The various impacts have been detailed as:

- General impacts that apply to the entire project corridor,
- Specific impacts on likely properties and PAPs, within the Corridor of Impact (CoI) of the project corridors.

Table 7.1 B: General Impact on Social and Cultural Environment

Project Activity	Planning and Design Phase	Pre Construction Phase			Construction Phase					Operation	
		Land acquisition	Removal of Structures	Removal of trees & vegetation	Earth works including quarrying	Laying of pavement	Vehicle & machine operation & maintenance	Asphalt and crusher plants	Labour Camps	Direct	Indirect Induced development
Env. Component Affected	Design decisions & Implementation policies									Vehicle operation	-
Agricultural land	-	Change in land prices	Loss of land economic value	Loss of standing crops	Loss of productive land	-	-	Dust on agricultural land reduce n productivity	-	-	Conversion of Agricultural Land
Buildings and built structures	-	-	Loss of structures, Debris generation, Noise and Air pollution	-	Noise, vibration may cause damage to structures	-	Noise, vibration may cause damage to structures	Dust accumulation on building and structure	-	Vibration and noise	Change in building use and characteristics
People and Community	Anxiety and fear among community	-	Displacement of people Psychological impact on people loss of livelihood	Loss of shade & community trees, Loss of fuel wood and fodder, Loss of income	Noise and Air pollution	Odour and dust	Noise and Air pollution, Collision with pedestrians livestock and vehicles	Air and noise pollution and discomfort	Community clashes with migrant labour	Noise pollution, Risk of accident	Induced pollution
Cultural Assets	-	-	Displacement loss of structure from RoW	Loss of sacred trees.	Noise, vibration may cause damage to structure	-	Damage from vibration & air pollution	Dust accumulation	-	Damage from vibration & air pollution	-
Utilities and Amenities	-	-	Interruption in supply	-	-	-	Damage to utility and amenities	Dust accumulation on water bodies	Pressure on existing amenities		-

Project Activity	Planning and Design Phase	Pre Construction Phase			Construction Phase					Operation	
										Direct	Indirect Induced development
Env. Component Affected	Design decisions & Implementation policies	Land acquisition	Removal of Structures	Removal of trees & vegetation	Earth works including quarrying	Laying of pavement	Vehicle & machine operation & maintenance	Asphalt and crusher plants	Labour Camps	Vehicle operation	-
Labour's Health & Safety	-	-	-	-	Increase of stagnant water and disease	Asphalt odour and dust	Collisions with vehicles, pedestrians & livestock	Impact on health due to inhale of dust	Increase in communicable diseases	Collisions pedestrians & livestock	-

7.2 PROJECT INTERVENTION

The project requires dismantling of roadside structures (residential and commercial), and removal of vegetation and Trees. In addition, the proposed road widening will require borrow earth and aggregates. *The quarries for these aggregates are locally available; hence NO significant direct impact is envisaged.*

Table 7.2: Potential Impacts and Requirement of Man, Materials & Machinery

S. No.	Description	Unit	Quantity			Remarks
			SH 04	SH 58	SH 116	
1	Land Acquisition	Ha	1.3371	3.1678	0.3680	Nil
2	Dismantling of Structures	No.s	85(Fully), 456 (Partially)	08 (Fully), 94 (Partially)	06 (Fully), 39 (Partially)	Nil
3	Removal of trees	No.s	7187	1292	1244	Nil
4	Removal of vegetation	Ha	59.70	18.70	17.80	Clearing and grubbing for construction activity and M&P
Man, Material and Machinery Requirement for Construction Activity						
5	Labour	No.s	120	40	30	Total No.s of man days divided by time allotted for construction activity
6	Operators and drivers	No.s	60	20	15	Total Machinery working time divided by 8 hours of operator working.
7	Semi skilled labour-mate/supervisor	No.s	30	10	8	One mate/supervisor over 8 labours.
8	Officers/incharge	No.s	15	6	4	
9	Borrow Earth	cum	300000	85000	90000	Requirement for embankment, sub grade shoulder etc
10	Fine Aggregate	cum	50000	13000	12000	Concrete works, screening

S. No.	Description	Unit	Quantity			Remarks
			SH 04	SH 58	SH 116	
						material and in GSB
11	Coarse Aggregate	cum	30500	11000	10500	WMM, GSB, concrete and BT works
12	Water	Kilolitre	150000	41000	37000	All construction activities and for worker use.
13	Crusher Plant	No.	3	1	1	Based on the project requirement, capacity will be judged.
14	BT plant	No.	3	1	1	
15	Batching Plant	No.	3	1	1	
16	Paver	No.	3	1	1	
17	Grader	No.	3	1	1	
18	Dumpers	No.	45	15	15	
19	Excavator	No.	15	5	5	
20	Road Roller	No.	12	4	4	

*Subject to cross check on 30 km of SH-04

7.2.1 Impact on land, structures and assets

The Engineering Design has been rationalized to minimize acquisition of land, removal of structures and impact on assets. Even after such engineering efforts some residential/commercial structures are required to be dismantled partially or fully.

This impact is observed in terms of the following components:

- Due to loss of land of private use and community use
- Due to loss of roadside structures of private use and community use
- Due to loss of other assets of private use and community use
- Due to loss of livelihood and social ecosystem.

Impact and respective mitigation/compensation plan is presented in following scheme in the Consultant's Reports:

- Item a) above will be presented in SIA/RAP Report
- Item b) above will be presented in SIA/RAP Report
- Environmental aspects of roadside community structures and other community assets under items b) and c) above has been presented as part of EIA/EMP Report in Chapter 7 and Chapter 8
- Item c) above will be presented in SIA/RAP Report.

In EIA/EMP Report community assets are dealt under following heads in paras 7.5.1, 7.6,7.8,10,7.9 and 7.10:

- roadside community structures
 - Religious / cultural assets
 - Noise-sensitive receptors – educational institutions and hospitals
 - Bus stops
- other community assets
 - Surface water bodies

- b) Ground water bodies
- c) Other community assets – graveyards/crematoria, hostels, etc

Removal of road structures & Pavement

Road appurtenance structures to be removed for the up gradation of the project roads are given in **Table 7.3**.

Table 7.3: Removal of structures and Pavement

S. No.	Item	Unit	Quantity			Remark
			SH 04	SH 58	SH 116	
1	Bituminous Material	cum	3600	1100	900	impact
2	Pavement Crust	cum	5200	1400	1350	No significant impact because it will be reused
3	Stone Masonry	cum	3100	800	700	No significant impact because it will be reused
4	RCC	cum	320	110	90	No significant impact because it will be reused
5	Hume Pipes	m	300	100	80	Nil

7.2.2 Removal of Trees and Vegetation

The details of trees and vegetation to be removed are given in **Table 7.4**. The data on trees is based on the approved alignment drawings; this will be confirmed after completion of tree enumeration on ground.

About 15.3 Ha along SH-116 and about 16.2 Ha along SH-58 and 52.2 Ha vegetation is required to be uprooted along SH-04 because of project improvement. The details are presented in Table 7.4. A separate table for trees having girth, species and height are given in Annexure.4.3,4.4& 4.5 for SH-58, SH-116 & Sh-04 respectively. The details of trees having girth less than 300 mm is given in Table 4.27.

Table 7.4: Removal of Vegetation

S. No.	Location/Description	Unit	Vegetation to be removed	Reason for removal of Vegetation
SH 116				
1	Along the alignment	Ha	15.3	Clearing and grubbing for construction activity
2	Plant site	Ha	2.5	Construction camp and stock yard
3	Trees	No.s	1244	Along the alignment
SH 58				
1	Along the alignment	Ha	16.2	Clearing and grubbing for construction activity
2	Plant site	Ha	2.5	Construction camp and stock yard
3	Trees	No.s	1292	Along the alignment
SH 04				

S. No.	Location/Description	Unit	Vegetation to be removed	Reason for removal of Vegetation
1	Along the alignment	Ha	52.2	Clearing and grubbing for construction activity
2	Plant site (3 Packages)	Ha	7.5	Construction camp and stock yard
3	Trees	Nos	7187	Along the alignment

7.2.3 Extraction of material for Construction Activity

The details of construction material required for project road up gradation are given in **Table 7.5**. The queries for these aggregates and borrow earth are locally available hence NO significant direct impact is envisaged.

Table 7.5: Construction Material Requirement

S. No.	Construction Material	Unit	Quantity	Reason
SH 04				
1	Borrow Earth	cum	300000	Embankment, Sub grade & Shoulder
2	Fine Aggregate	cum	50000	Screening Material, concreting
3	Coarse Aggregate	cum	30500	WMM, Bituminous work, concrete
4	Water	Kilolitre	150000	Compaction
SH 58				
1	Borrow Earth	cum	85000	Embankment, Sub grade & Shoulder
2	Fine Aggregate	cum	13000	Screening Material, concreting
3	Coarse Aggregate	cum	11000	WMM, Bituminous work, concrete
4	Water	Kilolitre	41000	Compaction
SH 116				
1	Borrow Earth	cum	90000	Embankment, Sub grade & Shoulder
2	Fine Aggregate	cum	12000	Screening Material, concreting
3	Coarse Aggregate	cum	10500	WMM, Bituminous work, concrete
4	Water	Kilolitre	37000	Compaction

7.2.4 Construction Machinery

The quantum of vehicles & machinery required for project intervention and their influence area are given in **Table 7.6**. These machineries will have its bearing on surrounding environment especially on air quality subject to emission level of machinery.

Table 7.6: Construction Machinery

S. No.	Construction Machinery	Quantity (No s)	Influence area
SH 04			
1	Dumpers	45	Quarry approach and Project road
2	Excavators	15	Quarry sites & Project Road
3	Road Rollers	12	Project road
4	Graders	3	Project Road
5	Pavers	3	
6	Stone Crusher	3	Plant site
7	BT Plant	3	

SH 58			
1	Dumpers	15	Quarry approach and Project road
2	Excavators	5	Quarry sites & Project Road
3	Road Rollers	4	Project road
4	Graders	1	Project Road
5	Pavers	1	
6	Stone Crusher	1	Plant site
7	BT Plant	1	
SH 116			
1	Dumpers	15	Quarry approach and Project road
2	Excavators	5	Quarry sites & Project Road
3	Road Rollers	4	Project road
4	Graders	1	Project Road
5	Pavers	1	
6	Stone Crusher	1	Plant site
7	BT Plant	1	

7.2.5 Labor for Construction Activity

The number of laborers required/used in the construction activities involved in the proposed road improvement works is given in **Table 7.7**.

Table 7.7: Labor for Construction activity

S. No.	Construction Activity	Number of labor involved	
		Local People	Contractor's
SH 04			
1	Quarry	75	8
2	Clearing & Grubbing	30	12
3	Crusher Plant	4	7
4	BT Plant	6	12
5	Paving	15	15
6	Drivers/Operators	30	60
7	Other Staff	9	32
SH 58			
1	Quarry	20	2
2	Clearing & Grubbing	10	4
3	Crusher Plant	2	4
4	BT Plant	2	6
5	Paving	5	5
6	Drivers/Operators	8	16
7	Other Staff	3	10
SH 116			
1	Quarry	18	2
2	Clearing & Grubbing	8	3
3	Crusher Plant	2	3
4	BT Plant	2	6
5	Paving	5	5
6	Drivers/Operators	8	16
7	Other Staff	3	10

238 number of contractor's staff and labor will be migrated to the project corridor.

7.3 AIR ENVIRONMENT- IMPACTS

For the proposed road projects, air pollution occurs mainly due to fugitive emissions/dust generation from various construction activities during construction period and vehicular emissions during operation period. The impacts on air environment during project construction and operation phase are described below.

7.3.1 Meteorological factors and climate

Due to the construction and operation of the proposed road corridors, no impacts are expected to contribute to the micro-climatic and meteorological conditions of the project region. The project will have afforestation programme and avenue plantation that includes shrub plantation in the median.

7.3.2 Air quality - emissions

Preconstruction Stage: The preconstruction stage activities include site clearance, shifting of utilities, removal of trees present in the corridor of impact, transportation of man and material, construction of accommodations, construction of stock yards, installation of construction plants and construction of office buildings. Dust generation during such activities would be the predominant polluting activity during pre-construction stage and particularly so if pre-construction tasks are performed during dry weather.

The impacts due to the pre-construction activity are temporary and location specific and the width of the impacts is limited. Quantification of impacts at the pre-construction stage is very difficult as these are very temporary and localized.

Construction Stage: During the construction stage the most predominant air pollutant would be particulate matter along with various other gaseous pollutants like oxides of nitrogen, carbon monoxide, sulphur dioxide and carbon based emissions from the hot mix plants.

The air pollution during the construction phase may be considerable locally, particularly near the working zones, construction plant sites, quarries and from construction machinery and construction vehicles. The list of activities which generate air pollutants are:

- Dust generation from the construction zone during different stages of the construction such as clearing and grubbing, materials dumping, drying of materials, brushing of the surface etc.,
- Dust generation from the access roads to the soil borrow-areas, aggregate quarries construction plants and construction camp sites,
- Operation of the construction plants such as hot mix plants, Crushers, WMM plants and Concrete Batching Plants,
- Material storage, transportation and handling (loading/unloading) of different construction materials such as sand, earth from borrow pits and aggregates,

- Asphalt odor during paving of asphalt layers, and
- Odor and smoke from construction labor camp.

Operational Stage: During the operational stage air pollutant will be from vehicular movements on roads and dust emission from tyres.

The severity of impact of gaseous pollutants due to vehicles plying on the highway at any given time will depend upon the traffic volume, emission rates of auto exhausted pollutants and prevailing metrological condition within the project corridor. Emissions are part and parcel of overall infrastructural development process and efficiency augmentation of transport system. However, compliance with future statutory regulatory requirements with respect to emission limits, auto-technology, and vehicular fuel quality should be adequate to prevent any negative public health impacts of this project.

Prediction of Impact: The prediction of for air pollution during operation has been made for the year of 2017, 2027, 2037 and 2047 for the projected vehicle as depicted in **Table 7.8** and the prediction of air result is given in **Table 7.9**. Prediction has been made by using the CLINE4 air quality model.

Table 7.8 : Projected Traffic Data for 2017, 2027, 2037 and 2047

Chainage in km	Traffic Data in PCU/Hr				
	2014	2017	2027	2037	2047
SH 04					
48.3	651	773	974	1144	1280
54.4	530	630	793	931	1042
87.2	373	443	558	655	734
SH 58					
11.45	527	635	799	938	1050
SH 116					
23.3	461	534	672	790	884
31.8	477	552	695	817	914

Table 7.9 : Projected Air Quality for Years 2017, 2027, 2037 and 2047

Results in PPM															
Receptors	2014			2017			2027			2037			2047		
	CO	NO ₂	PM	CO	NO ₂	PM	CO	NO ₂	PM	CO	NO ₂	PM	CO	NO ₂	PM
SH 04															
Arni	0.1	0.01	1	0.1	0.01	1.1	0.1	0.01	1.3	0.1	0.01	1.5	0.1	0.01	1.6
Chetpet	0.2	0.01	1.9	0.2	0.01	2.1	0.2	0.01	2.5	0.3	0.01	2.8	0.3	0.01	3
Gingee	0.1	0	0.9	0.1	0.01	1	0.1	0.01	1.2	0.1	0.01	1.3	0.1	0.01	1.4
Villupuram	0.2	0.01	2.1	0.2	0.01	2.3	0.3	0.01	2.7	0.3	0.01	3	0.3	0.01	3.3
SH 58															
Sadras	0.3	0.02	2.9	0.3	0.02	3.4	0.4	0.03	4.2	0.5	0.03	4.8	0.5	0.04	5.3
Tirukazukundaram	0.1	0.01	1.6	0.2	0.01	1.8	0.2	0.01	2.1	0.2	0.01	2.4	0.2	0.01	2.6
Chengalpattu	0.2	0.01	1.7	0.2	0.02	2	0.2	0.02	2.3	0.3	0.02	2.6	0.3	0.02	2.9
SH 116															
Vandavasi	0.3	0.04	3.5	0.4	0.04	3.9	0.5	0.05	4.8	0.6	0.06	5.6	0.6	0.06	6.1
Thethurai Vlg	0.5	0.05	4.9	0.5	0.05	5.4	0.6	0.06	6.6	0.7	0.07	7.5	0.8	0.07	8.3
Mangal Vlg	0.4	0.04	4.5	0.5	0.04	5	0.6	0.05	6.1	0.7	0.05	7	0.8	0.06	7.7

7.4 LAND ENVIRONMENT– IMPACTS

7.4.1 Impact on Topography

There is no substantial change in height of embankment due the design of Phase I road for widening and strengthening. Vertical improvements are also where there is requirement of bridges to be raised. The overall topography of the area is not going to alter due to these minor changes which will relieve the flooding situation, providing positive impacts. List of embankment raising sections are listed in **Table 7.10.**(Embankment raising is >0.5m).

Table 7.10: List of Embankment Raising Sections

S. No.	Chainage		Length of raising section (m)	Reason for raising
	From	To		
SH 58				
1	6/900	7/170	270	Minor Bridge at 7064, Vertical Geometric Improvement
2	8/350	8/730	380	Minor Bridge at 8537, Vertical Geometric Improvement
3	9/060	9/510	450	Vertical Geometric Improvement due submergence
4	11/950	12/630	680	Vertical Geometric Improvement
5	12/265	12/578	313	Minor Bridge at 12461, Vertical Geometric Improvement
6	21/730	21/870	140	Vertical Geometric Improvement
7	22/860	23/050	190	Vertical Geometric Improvement
8	23/620	23/760	140	Vertical Geometric Improvement
SH 116				
9	18/330	19/260	930	Minor Bridge at 18964, Vertical Geometric Improvement
10	20/580	20/700	120	Vertical Geometric Improvement due submergence
11	20/980	21/320	340	Vertical Geometric Improvement
12	21/320	21/620	300	Vertical Geometric Improvement
13	21/620	21/960	340	Vertical Geometric Improvement due submergence
14	21/960	22/460	500	Minor Bridge at 22177, Vertical Geometric Improvement
15	26/640	27/190	550	Minor Bridge at 26762, Vertical Geometric Improvement
16	28/320	28/590	270	Minor Bridge at 28457, Vertical Geometric Improvement
SH 04				
17	30/080	30/180	100	Vertical Geometric Improvement due submergence
18	32/980	33/080	100	Vertical Geometric Improvement due submergence
19	35/365	35/465	100	Vertical Geometric Improvement due submergence
20	35/865	35/965	100	Vertical Geometric Improvement due submergence

S. No.	Chainage		Length of raising section (m)	Reason for raising
	From	To		
21	36/800	36/850	50	Vertical Geometric Improvement due submergence
22	37/550	37/675	125	Vertical Geometric Improvement due submergence
23	39/800	39/900	100	Vertical Geometric Improvement due submergence
24	40/000	40/200	200	Vertical Geometric Improvement due submergence
25	43/150	43/250	100	Vertical Geometric Improvement due submergence
26	43/545	43/745	200	Vertical Geometric Improvement due submergence
27	44/240	44/340	100	Vertical Geometric Improvement due submergence
28	51/000	51/200	200	Vertical Geometric Improvement due submergence
29	51/500	51/800	300	Vertical Geometric Improvement due submergence
30	59/450	59/550	100	Vertical Geometric Improvement due submergence
31	60/650	60/750	100	Vertical Geometric Improvement due submergence
32	61/350	61/450	100	Vertical Geometric Improvement due submergence
33	65/550	65/650	100	Vertical Geometric Improvement due submergence
34	67/250	67/350	100	Vertical Geometric Improvement due submergence
35	68/850	68/950	100	Vertical Geometric Improvement due submergence
36	70/250	70/350	100	Vertical Geometric Improvement due submergence

(Height of Raising > 0.5m)

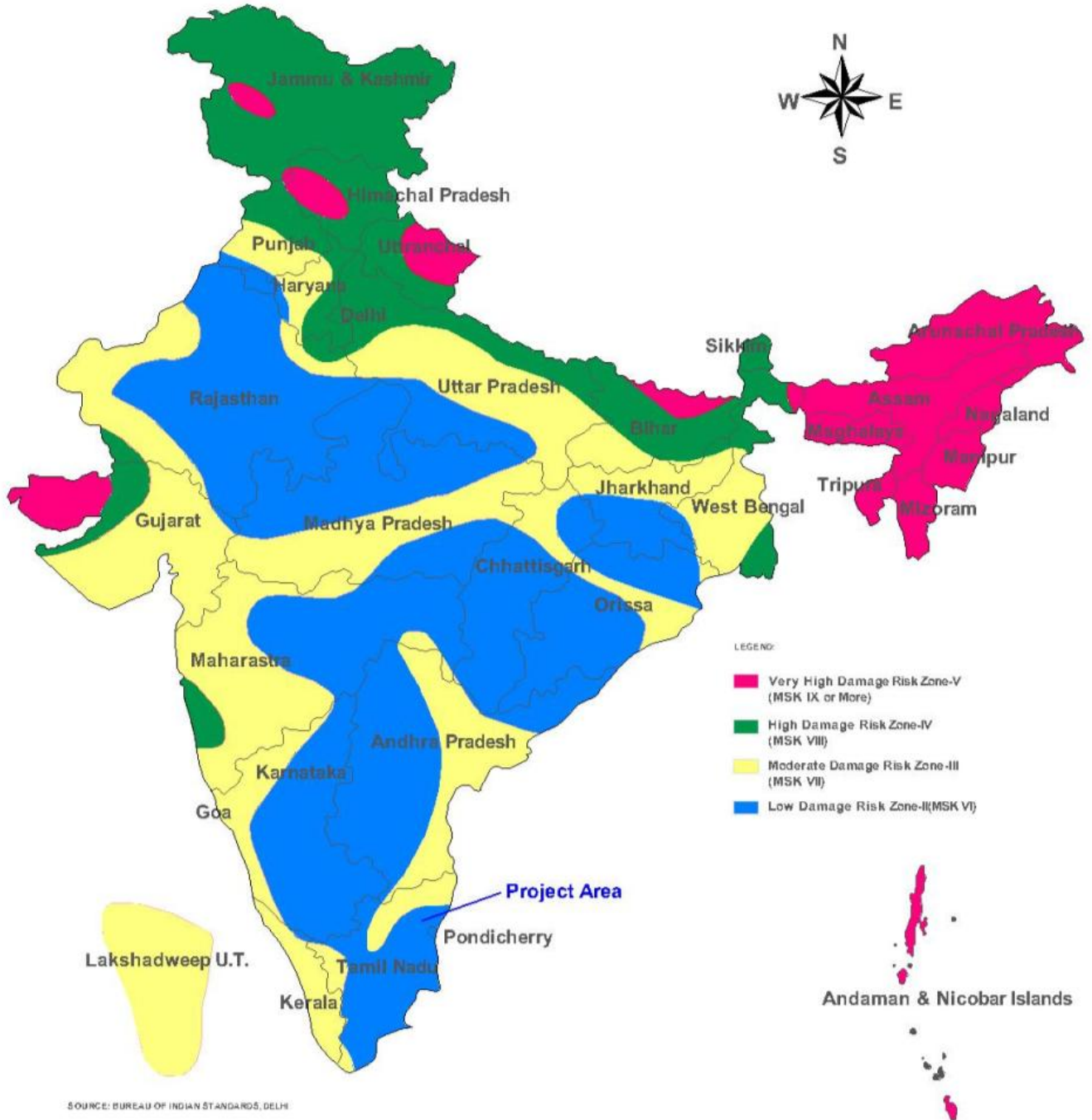
7.4.2 Impact on Geology

Likely impact on the geological resources will occur from the extraction of materials (borrow of earth, granular sub base and aggregates for base courses and bridges). The boulders will be procured from the authorized suppliers and prevalent rules will be followed for borrowing of soil, sand and aggregates. **Hence, the impact on general geology of the region is insignificant.** At the construction sites, no blasting is proposed; therefore, there will be no added impact on the geology of the area.

7.4.3 Impact on Seismological attributes

The construction and operation of the project road will not lead to any adverse impact on seismology settings of the regional environment. On the contrary, the seismic events that could occur on the region could damage the road and structures if not constructed as per the specification

recommended for the seismic zone. Present up gradation of proposed roads will be designed earth quake resistant. As per the revised seismic zoning map of India, the project area falls in Zone - II of the classification (IS-1893: Part-I: 2002). Seismic zoning map of India and Tamil Nadu state is shown in **Figure 7.1**.



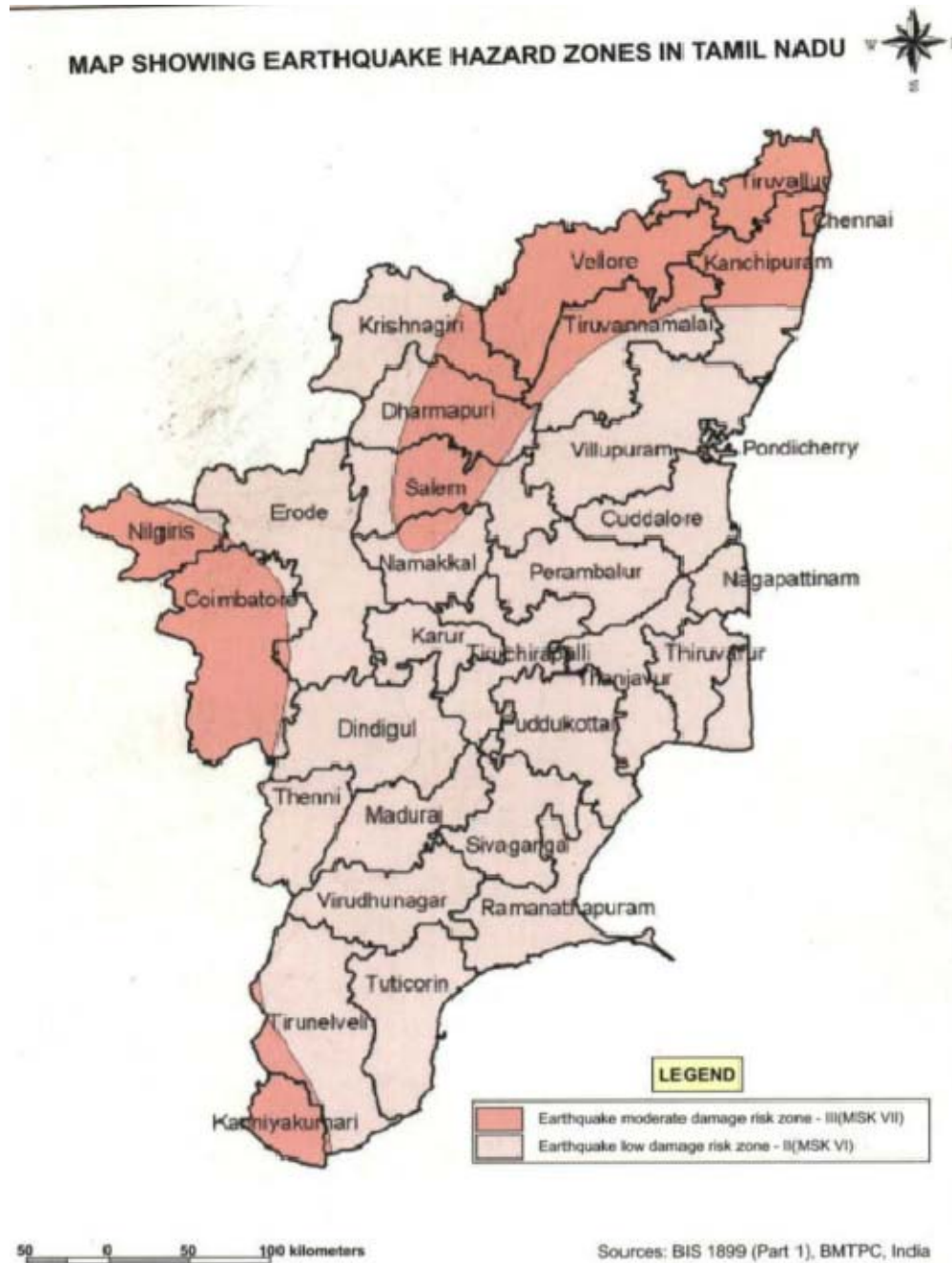


Fig. 7. 1: Seismic Map of India and Tamil Nadu

7.4.4 Impact on Land

Loss of Land: One of the major ‘local’ impacts due to highway project is upon the local land resources required for widening and improvement of the project road. There are stretches along the corridors where acquisition of agricultural and barren land has been unavoidable due to non-availability of sufficient right of way to accommodate the proposed cross-sections. This information will be available in RAP report.

Generation of Debris: The major source of debris generation is dismantling of existing cross drainage structures and road side residential and commercial structures. Data on residential/commercial structures to be removed will be available in RAP report.

Soil Erosion: Erosion of top-soil can be considered a moderate, direct and long-term negative impact resulting from the construction and maintenance of roads. The potential for soil erosion is high and pervasive during the construction stage. Starting with clearing and grubbing of trees vegetation is stripped away, exposing raw soil.

The construction of new fill slopes for grading and bridge-end fills also exposes large areas to erosion, if protection methods are not implemented. Finally, during the operation or maintenance phase of highway development, erosion can continue to occur in areas not vegetated. Fills are exposed to long-term exposure to water and wind. Although soil erosion occurs sporadically on highway corridors, the sites most affected are generally bridge end fills and over-steep banks.

a) Road slopes and spoils

Erosion problems may occur on newly constructed slopes and fills depending on soil type, angle of slope, height of slope and climatic factors like wind (direction, speed and frequency) and rain (intensity and duration). Since slope protection methods (re-vegetation or stone pitching) form part of good engineering practice, and have been incorporated into the detailed design for the roads, erosion concerns should be minimized. However, failure to maintain soil erosion protection can reduce the security of high road embankments and add siltation to the rivers during the monsoon season.

b) Construction of new bridges and culverts

Along each corridor rehabilitation/reconstruction/widening of a number of major and minor bridges and culverts is planned. Construction of new bridges involves excavation of river bed and banks for the construction of the foundation and piers. If the residual spoil is not properly disposed of, increased sedimentation downstream of the bridge may take place during the monsoon. Also, the bridge-end fills require armouring to ensure gullying and slumping are minimized. For details of bridge & culverts proposed for reconstruction, refer **Chapter-7**.

During the construction period some amount of drainage alteration and downstream erosion/siltation is anticipated. Some of these alterations may be because of construction of temporary traffic detours/diversion. Except for these temporary works, in almost all cases there should be an improvement in the drainage characteristics of the surrounding area due to improved design and added culvert/ditch capacity. Changes in the drainage pattern due to the raising of the road profile has not been discussed in specific cases, as the likely impact is not adverse and does not warrant mitigation (as the road design itself takes care of cross-pavement drainage). New culverts are being incorporated in the project roads not only to prevent over-topping but also to maintain equal water distribution on either side of the road. In fact, the bridges and culverts, as designed, are an automatic enhancement to the local environment (flooding, stagnation, scour, torrent run-off velocity– all would be reduced as a result of this project).

c) Quarries and borrow areas

The excavation of quarries and borrow pits used for obtaining soil and aggregate materials for road construction can cause direct, and indirect long-term major adverse impacts on the environment. While loss of productive soil is the most direct negative impact, other significant indirect negative impacts can also occur.

Since most of the construction materials would be available from existing quarries nearby, relatively few new borrow areas will be required. Approximate requirement of materials to the project corridors are already presented in **Table 7.5**.

One of the long-term residual adverse impacts of borrow pits not reclaimed is the spread of malaria. Mosquitoes breeding and multiplying in stagnant water that collects in these pits can affect humans in villages and towns close to the features.

7.4.5 Contamination of Soil

Construction Stage: In this project contamination of the soil may take place, from the following activities at the construction zones, construction labour camps, construction plant sites and other auxiliary facilities required for the construction. Details of the activities from which the contamination can occur are presented below;

- Scarified bitumen wastes, over production of bituminous product,
- Debris generation due to dismantling of structures,
- Maintenance of the machinery and operation of the diesel generator sets on site,
- Oil Spill from the operation of the diesel pumps and diesel storage, during transportation and transfer, parking places, and diesel generator sets,
- Operation of the emulsion sprayer and laying of hot mix,
- Operation of the residential facilities for the labour and officers,
- Storage and stock yards of bitumen and emulsion,
- Excess production of hot mix and rejected materials,

Operation Stage: During the operation stage, soil may get contaminated with similar reasons, as mentioned above, during routine and periodical maintenance of the project road. ***The implications of accidental discharge are potentially disastrous. But, it must be emphasized that the probability of such an accident is quite low, as one of the objectives of the design is the enhancement of road safety.***

Besides direct impact, there are many possible indirect impacts due to construction activities, as follows.

- Access to religious places would be difficult during the construction period due to the presence of working areas, consequent traffic management issues, presence of heavy equipment, machineries and numerous workers and controlled sign boards.
- Many existing signs boards and information boards will be removed for the construction work. This will make it more complicated for identifying the pilgrimage location, routes and landmarks.
- Safety issues and accidents could go high during the construction period.

7.5 WATER ENVIRONMENT –IMPACTS

Due to construction of the proposed project, impact is assessed during construction and operation. During construction, impact will be due to use of water and acquisition of water body for the construction of the road. Due to the proposed project there will be some direct and indirect long-term impacts on the water resources. **Table 7.11** presents the major adverse impacts on the water resources and the indicators chosen to assess the impacts for the study. During the site visit, most of the road side surface water body was found dried.

Table 7.11 Impacts on Water Resources due to Construction Activities

Impacts due to Construction	Indicators
Loss of water bodies	Area of water bodies affected
Loss of other water supply sources	Number of wells affected
Alteration of drainage, run off, flooding	No. of cross drainage channels
Depletion of Ground Water recharge	Area rendered impervious
Use of Water Supply for Construction	Quantum of water used
Contamination from fuel and lubricants	Nature and quantum of contaminants
Contamination from improper sanitation and Waste Disposal in Construction Camps	Area of camp / disposal site and, proximity to water bodies / channels






7.5.1 Loss of Water Bodies


The project roads lie in the districts of Kanchipuram, Villupuram and Tiruvanamalai, where mean annual rainfall varies from 804 to 2033 mm as per the rainfall data for 2008 to 2012. Land use along the project road has mixed use of land, agriculture, forest and some parts of the land are barren. Paddy is the major crop cultivated in the project districts. Groundnuts, Sugarcane, Cereals & Millets and Pulses are the other major crops cultivated.


Surface Water Bodies


The impact on surface water bodies and ground water resources like well, tube well etc. are due to acquisition of the land along the road falling within ROW. **Table 7.12** present the details of the existing surface water bodies and ground water resources and possible impacts on them.


Table 7.12: Impact on surface Water Bodies and Ground Water Resources
Surface Water Bodies along SH 58


THIRUTHANI		➔	SADRAS		
Chainage (km)	25+925		Structure ID No	Pond	
Village Name	Chengalpattu		Side (Left/Right)	Left	
Distance from PCL (m)	7.0		Length x Breadth (m)	39 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8		Impact	direct impact	
Chainage (km)	23+858			Structure ID No	Pond
Village Name	Nehru Nagar			Side (Left/Right)	Right
Distance from PCL (m)	16			Length x Breadth (m)	200 x 700
Proposed ROW (Equal on either side of PCL) (m)	8			Impact	No direct impact
Chainage (km)	23+772			Structure ID No	Pond
Village Name	Nehru Nagar			Side (Left/Right)	Left
Distance from PCL (m)	15			Length x Breadth (m)	50 x 50
Proposed ROW (Equal on either side of PCL) (m)	8			Impact	No direct impact
Chainage (km)	21+900			Structure ID No	Pond
Village Name	Pulleri			Side (Left/Right)	Left
Distance from PCL (m)	15.4			Length x Breadth (m)	1000 x 800
Proposed ROW (Equal on either side of PCL) (m)	8			Impact	No direct impact
Chainage (km)	20+000			Structure ID No	Pond
Village Name	Perier nagar			Side (Left/Right)	Right
Distance from PCL (m)	40			Length x Breadth (m)	40 x 40
Proposed ROW (Equal on either side of PCL) (m)	8			Impact	No direct impact


Chainage (km)	14+800	
Structure ID No	Pond	
Village Name	Erumallai	
Side (Left/Right)	Right	
Distance from PCL (m)	15.4	
Length x Breadth (m)	91 x 106.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	9+350	
Structure ID No	Pond/Ditch	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	45.5	
Length x Breadth (m)	100 x 150	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	5+150	
Structure ID No	Pond	
Village Name	Anupuram	
Side (Left/Right)	Right	
Distance from PCL (m)	40	
Length x Breadth (m)	35 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

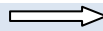
Chainage (km)	2+700	
Structure ID No	Water logged area	
Village Name	Vengapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	3.2	
Length x Breadth (m)	40 x 65	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	2+350	
Structure ID No	Water logged area	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	21	
Length x Breadth (m)	42 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	0+200	
Structure ID No	Pond	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	5	
Length x Breadth (m)	82 x 45.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Groundwater Bodies along SH 58


THIRUTHANI




SADRAS

Chainage (km)	0+075	
Structure ID No	Well	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	17.5	
Length x Breadth (m)	5.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	9+200	
Structure ID No	Well	
Village Name	Mullikolathur	
Side (Left/Right)	Left	
Distance from PCL (m)	13.3	
Length x Breadth (m)	2.1 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	22+350	
Structure ID No	Well	
Village Name	Nenmeli	
Side (Left/Right)	Left	
Distance from PCL (m)	21	
Length x Breadth (m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+500	
Structure ID No	Well	
Village Name	Mairinattam	
Side (Left/Right)	Left	
Distance from PCL (m)	11.5	
Length x Breadth (m)	3.0 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Surface Water Bodies along SH 116


KANCHIPURAM





VANDAVASI


Chainage (km)	14+775	
Structure ID No	Pond	
Village Name	Mangal	
Side (Left/Right)	Left	
Distance from PCL (m)	32.8	
Length x Breadth (m)	61.5 x 61.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	14+775	
Structure ID No	Pond	
Village Name	Mangal	
Side (Left/Right)	Right	
Distance from PCL (m)	15.4	
Length x Breadth (m)	86.8 x 32.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	16+731	
Structure ID No	Pond	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	18.4	
Length x Breadth (m)	95 x 57.4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	17+325	
Structure ID No	Pond	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	89.4	
Length x Breadth (m)	84 x 45	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	18+100	
Structure ID No	Pond	
Village Name	Kuzhamandal	
Side (Left/Right)	Left	
Distance from PCL (m)	28	
Length x Breadth (m)	56 x 80	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	18+450	
Structure ID No	Pond	
Village Name	Vellamalai	
Side (Left/Right)	Left	
Distance from PCL (m)	16	
Length x Breadth (m)	40 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	19+325	
Structure ID No	Cheyaar river	
Village Name	Vellamalai	
Side (Left/Right)		
Distance from PCL (m)		
Length x Breadth (m)	350	
Proposed ROW (Equal on either side of PCL) (m)		
Impact		


Chainage (km)	20+415	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	32.5 x 30	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	21+490	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	13.5	
Length x Breadth (m)	160 x 100	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	22+275	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	6.3	
Length x Breadth (m)	275 x 160	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	22+800	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	45 x 45	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	23+220	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	32	
Length x Breadth (m)	60 x 60	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	26+900	
Structure ID No	Pond	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	38.2	
Length x Breadth (m)	63 x 65	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	27+200	
Structure ID No	Pond	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	1300x 300	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	29+200	
Structure ID No	Pond	
Village Name	Melma kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	21	
Length x Breadth (m)	60x 60	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	29+250	
Structure ID No	Pond	
Village Name	Virapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	26.5	
Length x Breadth (m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	29+400	
Structure ID No	Pond	
Village Name	Virapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	28 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	31+200	
Structure ID No	Pond	
Village Name	Poodur	
Side (Left/Right)	Left	
Distance from PCL (m)	26	
Length x Breadth (m)	60 x 60	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

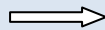
Chainage (km)	31+500	
Structure ID No	Pond	
Village Name	Palitakuppam	
Side (Left/Right)	Left	
Distance from PCL (m)	15	
Length x Breadth (m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	34+000	
Structure ID No	Pond	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	31	
Length x Breadth (m)	56 x 60	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	35+100	
Structure ID No	Pond	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	36	
Length x Breadth (m)	900 x 500	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Ground Water Bodies along SH 116


KANCHIPURAM




VANDAVASI

Chainage (km)	14+450	
Structure ID No	Well	
Village Name	Mangal	
Side (Left/Right)	Left	
Distance from PCL (m)	10.25	
Length x Breadth (m)	9.75 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

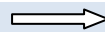
Chainage (km)	14+750	
Structure ID No	Well	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	19	
Length x Breadth (m)	7 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	19+125	
Structure ID No	Well	
Village Name	Vellamalai	
Side (Left/Right)	Left	
Distance from PCL (m)	12	
Length x Breadth (m)	10 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	33+700	
Structure ID No	Well	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	12 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Surface Water Bodies along SH 04


VILLUPURAM





ARNI


Chainage (km)	28+400	
Structure ID No	River	
Village Name	Arni	
Side (Left/Right)		
Distance from PCL (m)		
Length x Breadth (m)		
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact		


Chainage (km)	31+650	
Structure ID No	Pond	
Village Name	Sitheri	
Side (Left/Right)	Right	
Distance from PCL (m)	25	
Length x Breadth (m)	800 x 300	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	32+650	
Structure ID No	Pond	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	35 x 45	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	38+425	
Structure ID No	River	
Village Name	Vinnamangal	
Side (Left/Right)		
Distance from PCL (m)		
Length x Breadth (m)	200 width	
Proposed ROW (Equal on either side of PCL) (m)		
Impact		


Chainage (km)	40+100	
Structure ID No	Pond	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	44.5	
Length x Breadth (m)	70 x 42	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	40+550	
Structure ID No	Pond	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	5	
Length x Breadth (m)	875 x 600	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	43+400	
Structure ID No	Pond	
Village Name	Kollappalur	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	28 x 28	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	43+400	
Structure ID No	Pond	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	47.5	
Length x Breadth (m)	15 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	84+975	
Structure ID No	Pond	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	160	
Length x Breadth (m)	600 x 200	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	85+800	
Structure ID No	Pond	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	50 x 300	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	87+525	
Structure ID No	Pond	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	32.5	
Length x Breadth (m)	200 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+725	
Structure ID No	Pond	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	36	
Length x Breadth (m)	90 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+950	
Structure ID No	Pond	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	36.5	
Length x Breadth (m)	77 x 170	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	89+550	
Structure ID No	Pond	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	280 x 125	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+800	
Structure ID No	Pond	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	48	
Length x Breadth (m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+225	
Structure ID No	Pond	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	180	
Length x Breadth (m)	1000 x 500	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	94+050	
Structure ID No	Pond	
Village Name	Kozhipanni	
Side (Left/Right)	Left	
Distance from PCL (m)	12.5	
Length x Breadth (m)	47 x 45	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	96+300	
Structure ID No	Pond	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	34 x 25	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	96+350	
Structure ID No	Pond	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	55	
Length x Breadth (m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	97+420	
Structure ID No	Pond	
Village Name	Arsalapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	26.5	
Length x Breadth (m)	105 x 88	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	101+075	
Structure ID No	Pond	
Village Name	Narsinganur	
Side (Left/Right)	Left	
Distance from PCL (m)	150	
Length x Breadth (m)	1000 x 500	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+250	
Structure ID No	Pond	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	49	
Length x Breadth (m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+375	
Structure ID No	Pond	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	53	
Length x Breadth (m)	500 x 200	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	107+025	
Structure ID No	Pond	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	38	
Length x Breadth (m)	108 x 78.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	107+700	
Structure ID No	Pond	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	58.8	
Length x Breadth (m)	550 x 460	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

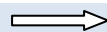
Chainage (km)	108+900	
Structure ID No	Pond	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	47.5	
Length x Breadth (m)	112 x 84	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	109+850	
Structure ID No	Pond	
Village Name	Orathur	
Side (Left/Right)	Left	
Distance from PCL (m)	70	
Length x Breadth (m)	70 x 100	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	110+075	
Structure ID No	Pond	
Village Name	Puthomedu	
Side (Left/Right)	Left	
Distance from PCL (m)	30.1	
Length x Breadth (m)	46.2 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Ground Water Bodies along SH 04


VILLUPURAM





ARNI


Chainage (km)	24+700	
Structure ID No	Well	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	42	
Length x Breadth (m)	7 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	31+900	
Structure ID No	Well	
Village Name	Sitheri	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	14 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	31+900	
Structure ID No	Well	
Village Name	Sitheri	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	5 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	32+850	
Structure ID No	Well	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	8.4	
Length x Breadth (m)	14 x 11.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

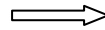
Chainage (km)	37+000	
Structure ID No	Well	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	23.5	
Length x Breadth (m)	12 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	43+650	
Structure ID No	Well	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL (m)	3.5	
Length x Breadth (m)	14 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	43+675	
Structure ID No	Well	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	13.5	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	43+713	
Structure ID No	Well	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL (m)	11.5	
Length x Breadth (m)	10 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


ARNI





VILLUPURAM


Chainage (km)	44+100	
Structure ID No	Well	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL(m)	16.1	
Length x Breadth(m)	6.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	44+275	
Structure ID No	Well	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL(m)	14.5	
Length x Breadth(m)	10.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	44+650	
Structure ID No	Well	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL(m)	19.5	
Length x Breadth(m)	5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	45+050	
Structure ID No	Well	
Village Name	Indravanam	
Side (Left/Right)	Left	
Distance from PCL(m)	26.5	
Length x Breadth(m)	12. x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	45+200	
Structure ID No	Well	
Village Name	Indravanam	
Side (Left/Right)	Right	
Distance from PCL(m)	28	
Length x Breadth(m)	12 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	45+425	
Structure ID No	Well	
Village Name	Indravanam	
Side (Left/Right)	Right	
Distance from PCL(m)	50	
Length x Breadth(m)	12 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	45+700	
Structure ID No	Pond	
Village Name	Chammambadi	
Side (Left/Right)	Right	
Distance from PCL(m)	10	
Length x Breadth(m)	55 x 55	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	45+875	
Structure ID No	Well	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	29.5	
Length x Breadth(m)	11 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	46+850	
Structure ID No	Well	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	22.5	
Length x Breadth(m)	14 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	46+850	
Structure ID No	Well	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	26	
Length x Breadth(m)	10.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	47+000	
Structure ID No	Well	
Village Name	Yangasudamani	
Side (Left/Right)	Left	
Distance from PCL(m)	36	
Length x Breadth(m)	10 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	47+150	
Structure ID No	Well	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	21.5	
Length x Breadth(m)	11 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	47+200	
Structure ID No	Well	
Village Name	Yangasudamani	
Side (Left/Right)	Left	
Distance from PCL(m)	41	
Length x Breadth(m)	14 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	48+150
Structure ID No	Well
Village Name	Yangasudamani
Side (Left/Right)	Left
Distance from PCL(m)	23
Length x Breadth(m)	12.5 x 6
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



Chainage (km)	48+400
Structure ID No	Well
Village Name	Yangasudamani
Side (Left/Right)	Left
Distance from PCL(m)	21
Length x Breadth(m)	14 x 7
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



Chainage (km)	48+825
Structure ID No	Well
Village Name	Yangasudamani
Side (Left/Right)	Right
Distance from PCL(m)	23.5
Length x Breadth(m)	8 dia
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	49+050
Structure ID No	Well
Village Name	Yangasudamani
Side (Left/Right)	left
Distance from PCL(m)	19
Length x Breadth(m)	12 x 7
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	49+200
Structure ID No	Well
Village Name	Yangasudamani
Side (Left/Right)	Left
Distance from PCL(m)	11.5
Length x Breadth(m)	14 x 7
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	49+525	
Structure ID No	Well	
Village Name	Yangasudamani	
Side (Left/Right)	Left	
Distance from PCL(m)	26.5	
Length x Breadth(m)	12 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	49+600	
Structure ID No	Well	
Village Name	Annanager	
Side (Left/Right)	Left	
Distance from PCL(m)	25	
Length x Breadth(m)	14 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	49+900	
Structure ID No	Well	
Village Name	Annanager	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	15.4 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	50+175	
Structure ID No	Well	
Village Name	Annanager	
Side (Left/Right)	Right	
Distance from PCL(m)	3.5	
Length x Breadth(m)	16 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	50+350	
Structure ID No	Well	
Village Name	Annanager	
Side (Left/Right)	Right	
Distance from PCL(m)	21.5	
Length x Breadth(m)	11 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	50+800	
Structure ID No	Well	
Village Name	Annanager	
Side (Left/Right)	Right	
Distance from PCL(m)	5	
Length x Breadth(m)	14 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	50+800	
Structure ID No	Well	
Village Name	Annanager	
Side (Left/Right)	Right	
Distance from PCL(m)	12.5	
Length x Breadth(m)	12 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	51+060	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	7	
Length x Breadth(m)	12 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	51+060	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	8.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	51+450	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	8.5	
Length x Breadth(m)	10 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	51+450	
Structure ID No	Pond	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	7	
Length x Breadth(m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	52+000	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	5.5	
Length x Breadth(m)	3.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	52+625	
Structure ID No	Pond	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	18.5	
Length x Breadth(m)	70 x 60	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	52+750	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	11	
Length x Breadth(m)	12 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	52+900	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	25.5	
Length x Breadth(m)	14 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	53+000	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	10.5	
Length x Breadth(m)	12 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	53+300	
Structure ID No	Well	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	11	
Length x Breadth(m)	14 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	54+000	
Structure ID No	Pond	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	29.5	
Length x Breadth(m)	31.5 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	54+950	
Structure ID No	Well	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	30	
Length x Breadth(m)	8.5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	54+950	
Structure ID No	Well	
Village Name	Nanodayam	
Side (Left/Right)	Left	
Distance from PCL(m)	37	
Length x Breadth(m)	11 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	55+520	
Structure ID No	Well	
Village Name	Nanodayam	
Side (Left/Right)	Left	
Distance from PCL(m)	33.5	
Length x Breadth(m)	10 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	55+675	
Structure ID No	Well	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	24.5	
Length x Breadth(m)	10 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	55+870	
Structure ID No	Pond	
Village Name	Nanodayam	
Side (Left/Right)	Left	
Distance from PCL(m)	14	
Length x Breadth(m)	70 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	55+900	
Structure ID No	Well	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	13	
Length x Breadth(m)	2 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	56+000	
Structure ID No	Well	
Village Name	Nanodayam	
Side (Left/Right)	Left	
Distance from PCL(m)	22.5	
Length x Breadth(m)	12.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	57+275	
Structure ID No	Well	
Village Name	Arul nadu	
Side (Left/Right)	Right	
Distance from PCL(m)	19.5	
Length x Breadth(m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	57+816	
Structure ID No	Pond	
Village Name	Arul nadu	
Side (Left/Right)	Left	
Distance from PCL(m)	10	
Length x Breadth(m)	70 x 140	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	58+350	
Structure ID No	Well	
Village Name	Arul nadu	
Side (Left/Right)	Left	
Distance from PCL(m)	38.5	
Length x Breadth(m)	9 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	58+525	
Structure ID No	well	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	40.5	
Length x Breadth(m)	10 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	59+050	
Structure ID No	Pond	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	5.5	
Length x Breadth(m)	42. x 42	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	59+500	
Structure ID No	Pond	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	23.5	
Length x Breadth(m)	63 x 63	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	59+950	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	12	
Length x Breadth(m)	11 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	59+950	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	21.5	
Length x Breadth(m)	11 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	60+375	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	28	
Length x Breadth(m)	21 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	60+800	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	19.5	
Length x Breadth(m)	10.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	60+950	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	21	
Length x Breadth(m)	10.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	60+950	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	19	
Length x Breadth(m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	60+950	
Structure ID No	Well	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	35	
Length x Breadth(m)	7 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	61+125	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Left	
Distance from PCL(m)	42	
Length x Breadth(m)	8.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	61+125	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Right	
Distance from PCL(m)	18	
Length x Breadth(m)	6.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	61+125	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Right	
Distance from PCL(m)	23	
Length x Breadth(m)	12.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	61+125	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Right	
Distance from PCL(m)	21.5	
Length x Breadth(m)	12 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	61+370	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Left	
Distance from PCL(m)	21.5	
Length x Breadth(m)	11 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	61+575	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Left	
Distance from PCL(m)	16	
Length x Breadth(m)	12.5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	61+700	
Structure ID No	Well	
Village Name	Ranganathampuram	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	10 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	62+600	
Structure ID No	Well	
Village Name	Devanur	
Side (Left/Right)	Right	
Distance from PCL(m)	19.5	
Length x Breadth(m)	10 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	63+100	
Structure ID No	Well	
Village Name	Devanur	
Side (Left/Right)	Left	
Distance from PCL(m)	16.5	
Length x Breadth(m)	7 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	63+100	
Structure ID No	Well	
Village Name	Devanur	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	10.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	63+175	
Structure ID No	Well	
Village Name	Devanur	
Side (Left/Right)	Right	
Distance from PCL(m)	11	
Length x Breadth(m)	16 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	63+825	
Structure ID No	Pond	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	45.5	
Length x Breadth(m)	92 x 168	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	64+469	
Structure ID No	Pond	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	9	
Length x Breadth(m)	99 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	64+600	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	29.5	
Length x Breadth(m)	12.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	64+700	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	8.8	
Length x Breadth(m)	12.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	64+775	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	8.5 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	64+850	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	22.5	
Length x Breadth(m)	12.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	64+850	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	12	
Length x Breadth(m)	8.4 x 12	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	64+890	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	22.5	
Length x Breadth(m)	11 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	64+890	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	31.5	
Length x Breadth(m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	65+150	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	13.5	
Length x Breadth(m)	11 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	65+150	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	12.5	
Length x Breadth(m)	10.5 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	65+150	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	15.5	
Length x Breadth(m)	10 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	65+150	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	10.5	
Length x Breadth(m)	10 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	65+200	
Structure ID No	Pond	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	5.5	
Length x Breadth(m)	77 x 77	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	66+185	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	16	
Length x Breadth(m)	12.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	66+185	
Structure ID No	Well	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	26.5	
Length x Breadth(m)	11 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	66+300	
Structure ID No	Well	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL(m)	8.5	
Length x Breadth(m)	8.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	66+600	
Structure ID No	Well	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	12	
Length x Breadth(m)	8.5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	66+600	
Structure ID No	Well	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	12	
Length x Breadth(m)	12 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	66+970	
Structure ID No	Well	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL(m)	14	
Length x Breadth(m)	10 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	66+970	
Structure ID No	Well	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	7	
Length x Breadth(m)	8 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	66+970
Structure ID No	Well
Village Name	Kannalam
Side (Left/Right)	Left
Distance from PCL(m)	28.5
Length x Breadth(m)	8 dia
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	No direct impact



Chainage (km)	67+175
Structure ID No	Well
Village Name	Kannalam
Side (Left/Right)	Right
Distance from PCL(m)	12.5
Length x Breadth(m)	3.5 dia
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



Chainage (km)	67+175
Structure ID No	Well
Village Name	Kannalam
Side (Left/Right)	Right
Distance from PCL(m)	12
Length x Breadth(m)	3 dia
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	67+550
Structure ID No	Well
Village Name	Kannalam
Side (Left/Right)	Left
Distance from PCL(m)	6
Length x Breadth(m)	14 x 8.5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	70+025
Structure ID No	Pond
Village Name	Annamangalm
Side (Left/Right)	Right
Distance from PCL(m)	7.7
Length x Breadth(m)	50 x 50
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	No direct impact





Chainage (km)	71+050	
Structure ID No	Pond	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	44.5	
Length x Breadth(m)	70 x 350	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+200	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	17.5	
Length x Breadth(m)	7 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+200	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	14	
Length x Breadth(m)	5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+250	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	12	
Length x Breadth(m)	8 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+250	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	29.5	
Length x Breadth(m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+250	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	12.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+275	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	18.5	
Length x Breadth(m)	7.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+730	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	28.5	
Length x Breadth(m)	6 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	72+400	
Structure ID No	Well	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	11	
Length x Breadth(m)	10 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	72+500	
Structure ID No	Well	
Village Name	Chellabadai	
Side (Left/Right)	Left	
Distance from PCL(m)	16.5	
Length x Breadth(m)	7 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	72+650	
Structure ID No	Well	
Village Name	Chellabadai	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	72+850	
Structure ID No	Well	
Village Name	Chellabadai	
Side (Left/Right)	Right	
Distance from PCL(m)	12.5	
Length x Breadth(m)	6.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	73+900	
Structure ID No	Well	
Village Name	Chellabadai	
Side (Left/Right)	Right	
Distance from PCL(m)	12	
Length x Breadth(m)	10.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	73+900	
Structure ID No	Well	
Village Name	Chellabadai	
Side (Left/Right)	Right	
Distance from PCL(m)	16	
Length x Breadth(m)	8 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	74+250	
Structure ID No	Well	
Village Name	Chellabadai	
Side (Left/Right)	Left	
Distance from PCL (m)	18.5	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	83+275	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Right	
Distance from PCL(m)	11.2	
Length x Breadth(m)	12.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	82+975	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Right	
Distance from PCL(m)	47.5	
Length x Breadth(m)	9 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	82+925	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	22.5	
Length x Breadth(m)	15.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	82+572	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	14.5	
Length x Breadth(m)	15.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	82+572	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	11.2	
Length x Breadth(m)	7 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	82+150	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	12	
Length x Breadth(m)	7 x 6.54	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	81+750	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	37.5	
Length x Breadth(m)	9 x 7.7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	81+650	
Structure ID No	Well	
Village Name	Gumiyanguttai	
Side (Left/Right)	Left	
Distance from PCL(m)	22.5	
Length x Breadth(m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	81+500	
Structure ID No	Well	
Village Name	Gumiyanguttai	
Side (Left/Right)	Right	
Distance from PCL(m)	5 x 4	
Length x Breadth(m)	5.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	81+200	
Structure ID No	Well	
Village Name	Gumiyanguttai	
Side (Left/Right)	Left	
Distance from PCL(m)	13.5	
Length x Breadth(m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	79+100	
Structure ID No	River	
Village Name	Gingee	
Side (Left/Right)		
Distance from PCL(m)		
Length x Breadth(m)	linear	
Proposed ROW (Equal on either side of PCL) (m)	15	
Impact	direct impact	


Chainage (km)	77+400	
Structure ID No	Well	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	38	
Length x Breadth(m)	20 x 6	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	77+225	
Structure ID No	Well	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Left	
Distance from PCL(m)	16.5	
Length x Breadth(m)	6.5 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	76+025	
Structure ID No	Well	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	43	
Length x Breadth(m)	8 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	76+025	
Structure ID No	Well	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	31	
Length x Breadth(m)	11.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	75+375	
Structure ID No	Well	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	13.5	
Length x Breadth(m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	75+375	
Structure ID No	Well	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	49.5	
Length x Breadth(m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	85+000	
Structure ID No	Well	
Village Name	Appampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	14 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	85+350	
Structure ID No	Well	
Village Name	Kavarai	
Side (Left/Right)	Left	
Distance from PCL (m)	38.5	
Length x Breadth (m)	12 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	85+400	
Structure ID No	Well	
Village Name	Kavarai	
Side (Left/Right)	Left	
Distance from PCL (m)	6.5	
Length x Breadth (m)	15.5 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	85+425	
Structure ID No	Well	
Village Name	Kavarai	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	15 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	86+300	
Structure ID No	Well	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	18.5	
Length x Breadth (m)	18 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	86+700	
Structure ID No	Well	
Village Name	Sitampondi	
Side (Left/Right)	Right	
Distance from PCL (m)	28	
Length x Breadth (m)	9 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+200	
Structure ID No	Well	
Village Name	Sitampondi	
Side (Left/Right)	Right	
Distance from PCL (m)	28.5	
Length x Breadth (m)	8.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+525	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	40	
Length x Breadth (m)	13 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+600	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	42	
Length x Breadth (m)	14 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+800	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	88+150	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	15.5	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+250	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	88+350	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	20.5	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+600	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	12.5	
Length x Breadth (m)	10 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+750	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	28.5	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+750	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	32	
Length x Breadth (m)	7 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+800	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	7.5	
Length x Breadth (m)	12 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	88+850	
Structure ID No	Well	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	32	
Length x Breadth (m)	10 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	89+900	
Structure ID No	Well	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	15.5	
Length x Breadth (m)	13.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+095	
Structure ID No	Well	
Village Name	Mattapari kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	14 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	91+225	
Structure ID No	Well	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	140	
Length x Breadth (m)	10 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+400	
Structure ID No	Well	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	30.5	
Length x Breadth (m)	16 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+425	
Structure ID No	Well	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	13.5	
Length x Breadth (m)	14 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+700	
Structure ID No	Well	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	45	
Length x Breadth (m)	9 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	92+000	
Structure ID No	Well	
Village Name	Mattapari kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	16.8	
Length x Breadth (m)	10 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	92+025	
Structure ID No	Well	
Village Name	Mattapari kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	26.5	
Length x Breadth (m)	14 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	93+475	
Structure ID No	Well	
Village Name	Mattapari kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	9	
Length x Breadth (m)	12.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	92+475	
Structure ID No	Well	
Village Name	Mattapari kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	22.5	
Length x Breadth (m)	11.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	93+600	
Structure ID No	Well	
Village Name	Kozhipanni	
Side (Left/Right)	Left	
Distance from PCL (m)	16	
Length x Breadth (m)	8.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	93+800	
Structure ID No	Well	
Village Name	Kozhipanni	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	8 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	93+800	
Structure ID No	Well	
Village Name	Kozhipanni	
Side (Left/Right)	Left	
Distance from PCL (m)	12.8	
Length x Breadth (m)	12.5 x 12.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	96+400	
Structure ID No	Well	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	21	
Length x Breadth (m)	8 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	96+575	
Structure ID No	Well	
Village Name	Muttathur	
Side (Left/Right)	right	
Distance from PCL (m)	19	
Length x Breadth (m)	8 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	96+925	
Structure ID No	Well	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	12.5 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	97+028	
Structure ID No	Well	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	40	
Length x Breadth (m)	12 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	97+125	
Structure ID No	Well	
Village Name	Arsalapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	30	
Length x Breadth (m)	13.5 x 13.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	98+450	
Structure ID No	Well	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	86	
Length x Breadth (m)	9 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	98+800	
Structure ID No	Well	
Village Name	Nembur	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	15.5 x 15.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	98+875	
Structure ID No	Well	
Village Name	Nembur	
Side (Left/Right)	Left	
Distance from PCL (m)	17.5	
Length x Breadth (m)	13.5 x 13.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	99+400	
Structure ID No	Well	
Village Name	Nembur	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	10.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	99+550	
Structure ID No	Well	
Village Name	Nandivadi	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	14 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	100+500	
Structure ID No	Well	
Village Name	Nandivadi	
Side (Left/Right)	Right	
Distance from PCL (m)	15.5	
Length x Breadth (m)	10.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	103+400	
Structure ID No	Well	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	15.4	
Length x Breadth (m)	17 x 12	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+400	
Structure ID No	Well	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	15	
Length x Breadth (m)	11 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+600	
Structure ID No	Well	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	18.2	
Length x Breadth (m)	10 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+550	
Structure ID No	Well	
Village Name	Poondi Kannima	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	15x 15	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	101+400	
Structure ID No	Well	
Village Name	Nandivadi	
Side (Left/Right)	Right	
Distance from PCL (m)	25.5	
Length x Breadth (m)	11 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	101+600	
Structure ID No	Well	
Village Name	Narsinganur	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	10.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	107+575	
Structure ID No	Well	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	15	
Length x Breadth (m)	10 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	109+100	
Structure ID No	Well	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	15	
Length x Breadth (m)	2.5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	112+250	
Structure ID No	Well	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	9.8	
Length x Breadth (m)	20.5 x 9.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Summary Table

SI	Structure	SH-58		SH-116		SH-04	
		Direct	Indirect	Direct	Indirect	Direct	Indirect
1	Pond	3	8	4	16	4	22
2	Well	0	4	1	3	45	140
3	River	0	0	1	0	2	0

7.5.2 Alteration of Cross Drainage

Alteration of drainage pattern is not anticipated being the existing road is getting strengthened and widened. The bridges are either reconstructed or retained. Some of the structures will be widened. The construction of temporary traffic diversions is required during pre-construction stage which may affect water courses temporarily during construction. All the diversions will be provided with adequate water way for drainage to avoid the impact. **Table 7.13** elaborates the need of cross drainage for the reconstruction and widening of structures along the Phase I roads.

Table 7.13: Bridges Reconstruction

S. No	Design Chainage	Existing Span Arrangement (m)	Proposal	Proposed Span Arrangement (m)	Type of Structure	Remarks

S. No	Design Chainage	Existing Span Arrangement (m)	Proposal	Proposed Span Arrangement (m)	Type of Structure	Remarks
SH 116						
1.	18.964	1X5.2	Reconstruction	2X4.0	Box Cell Bridge	Reconstruction as it is already widened earlier and vent way inadequate
2.	19.5	17X19.65	Retained	-	-	Overall condition is good.
3.	22.177	1X3.8+ 1X3.5+ 1X3.7	Reconstruction	3X4.0	Box Cell Bridge	Reconstruction as it is already widened earlier
4.	26.762	3X3.0	Reconstruction	3X4.0	Box Cell Bridge	Reconstruction as it is already widened earlier
5.	28.457	3X3.1	Reconstruction	3X4.0	Box Cell Bridge	Reconstruction as proposal is Arch masonry structure to be replaced with RCC box cell bridge
6.	32.566	3X6.5	Widening	3X6.5	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
SH 58						
1.	7.063	10X0.7	Reconstruction	3X4.5	Box Cell Bridge	Reconstruction as proposal is existing Pipe structure to be replaced with box cell bridge.
2.	8.537	4X4.0	Reconstruction	4X3	Box Cell Bridge	Reconstruction as overall Condition of structure is poor & Vent way Inadequate
3.	12.461	3X3.0	Widening	3X3.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.
4.	13.244	1X8.0	Widening	1X8.0	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
5.	14.300	4X3.0	Widening	4X3.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.
SH 04						
1.	26.29	13X13.4	Retain	-	-	Retained as existing structure is in good condition
2.	35.21	2X3.0	Widening	2X3.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.
3.	36.765	2X3.0	Widening	2X3.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.
4.	38.55	12X15.2	Retain	-	-	Retained as condition of structure is good
5.	40.56	3X3.0	Widening	3X3.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.

S. No	Design Chainage	Existing Span Arrangement (m)	Proposal	Proposed Span Arrangement (m)	Type of Structure	Remarks
6.	41.375	2X9.4	Widening	2X9.4	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
7.	44.77	2X8.3	Widening	2X8.3	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
8.	45.084	2X3.0	Widening	2X3.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.(Top slab should be replaced)
9.	50.445	2X3.8	Widening	2X3.8	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.
10.	68.33	8X8.75	Retain	-	-	Retained as condition of structure is good.
11.	71.782	2X4.0	Widening	2X4.0	Box Cell Bridge	Widening proposed to match with proposed formation width of SH.
12.	74.15	5X6.4	Retain	-	-	Retained as condition of structure is good.
13.	78.630	14X21.7	Retain	-	-	Retained as exiting structure is in Good Condition
14.	81.875	10X0.9	Reconstruction	2X5.0	Box Cell Bridge	Reconstruction of existing Pipe structure to box cell bridge.
15.	83.130	4X8.85	Widening	4X8.85	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
16.	95.470	2X7.4	Widening	2X7.4	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
17.	99.845	1X7.4	Widening	1X7.4	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
18.	100.12	2X6.86	Widening	2X6.86	RCC Slab superstructure	Widening proposed to match with proposed formation width of SH.
19.	108.29	1X7.5	Retained	-	-	Retained as structure is newly constructed
20.						
21.						

With these widening of minor bridges and bridging of existing causeways, there will be an improvement in the drainage characteristics of the surrounding area.

7.5.3 Run-off and Drainage

Sediment accumulation decreases the storage capacity of water bodies. Due to road construction run-off is increased due to increased paved on account of pavement, shoulders, bus shelters etc..

S. No.	Phase of Construction	Reason
1	Construction phase	The removal of vegetation and compaction of soil can lead to increased run-off during the monsoon
2	Operational phase	The area of open ground lost and added impervious black top surface increases the amount and rate of run-off.

The highest case of widening involves addition of 2x1.5m paved shoulders to the existing pavement of 7m; provision of 2x1m earthen (98 per cent compacted) shoulders; raising the pavement and as a result widening the embankment. During the operation phase increased run-off can be calculated using the formula:

$$\text{Increase in runoff per year (m}^3\text{)} = \text{increase in runoff coefficient due to construction} * \text{annual rainfall in the area (m)} * \text{area of the constructed surface (m}^2\text{)}$$

The appropriate run-off coefficients are: 0.95 for asphalt, 0.2 for silty and sandy soil, 0.3 for loamy soil, and 0.55 for Black cotton soil.

Average Annual Rainfall of the project districts is considered from the available meteorological data from year 2008 to 2012.

- Viluppuram District : 1178 mm
- Vandavasi District : 1179 mm
- Kancheepuram District : 1284 mm
- Gingee District : 1516 mm
- Chengalpattu District : 1287 mm
- Arni District : 1238 mm

SH 116

The increase in construction surface (BT) equals to 1,53,000 sqm

$$\text{Increase in runoff (cum)} = (0.95-0.2) \times 1.2 \times 153 \times 10^3 = 137 \times 10^3 \text{ cum}$$

Hence additional 1.37 lakh KL of additional storm water will be required to drain off.

SH 58

The increase in construction surface (BT) equals to 1,62,000 sqm

$$\text{Increase in runoff (cum)} = (0.95-0.2) \times 1.28 \times 162 \times 10^3 = 155.52 \times 10^3 \text{ cum}$$

Hence additional 1.55 lakh KL of additional storm water will be required to drain off.

SH 04

The increase in construction surface (BT) equals to 5,22,000 sqm

$$\text{Increase in runoff (cum)} = (0.95-0.2) \times 1.2 \times 522 \times 10^3 = 469.8 \times 10^3 \text{ cum}$$

Hence additional 4.69 lakh KL of additional storm water will be required to drain off.

Since soil erosion is associated with concentrated flow of water it is imperative to prevent any increased diversion of run-off into drainage channels.

7.5.4 Water requirement for project

The requirement of water for construction depends on the climatic conditions, type of equipment, type of material available, mix design, type of construction plant and number of people working on the project. Based on assumptions mentioned below the approximate water quantity required for the Project has been calculated.

- 8-10% of weight of soil for the embankment construction
- 7-8% of weight of soil for sub grade construction
- 5-6% of weight of GSB materials for GSB and WMM
- 150 liters/ cum for concrete

The water requirement has been assumed based on past project experiences and on the strict quality control basis. Domestic requirement of 150 liters per worker has been assumed. For this project about 350 resident workers have been considered. Details of the water requirement assessed for the project are presented in **Table 7.14**.

Table 7.14: Requirement of Water for Proposed Construction Works

S. No.	Purpose	Water Requirement in Cum/day		
		SH 04	SH 58	SH 116
1	Permanent works (Total quantity in cum)	220	70	60
2	Dust Suppression at work zone in (cum/day)	40	15	12
3	Curing (cum/day)	12	5	4
4	Laboratory (cum/day)	8	3	2
5	Haul Roads (cum/day)	22	7	6
6	Crusher (cum/day)	15	5	4
7	Plant Cleaning and workshop washing in (cum/day)	12	4	4
8	Domestic Purpose in (cum/day)	22	7	6
Total Requirement(cum/day)		351	116	98
Total Water requirement in considering 2 yrs construction period		263250 m ³	84680 m ³	71540 m ³

Daily water requirement for the works has been calculated assuming the construction period of 2 years.

7.5.5 Water Quality

Increased Sedimentation

Loose soil due to construction activities like removal of trees, removal of grass cover, excavation, stock piling of materials as part of the pre construction and construction activities gives rise to degradation of water quality due to sediment transport to the surface waterbody. The impacts due to increased sediment laden run-off will make the water more turbid and is a significant negative impact on the water bodies supporting aquatic life. Heavier sediment may affect the algae growing in the lower strata and could completely alter the nature of the watercourse. Excessive sediment loads may also mean disruption of areas for fish breeding.

Contamination of Water

Construction Stage: The degradation of the surface water quality may occur due to pavement construction works, bridge construction works, construction plants, machinery and accommodations of workers but there is less chances for the ground water to be impacted. The sources of water pollution from the construction activities are as follows;

- Water flow from scarified bitumen materials
- From the foundation works of the bridges and culverts such as piling and excavation for open/ well foundations
- Oil spills from the Maintenance of the machinery and operation of the diesel generator sets on site.
- Oil Spill from the operation of the diesel pumps and diesel storage, transportation and transfer, parking places, and diesel generators.
- Operation of the emulsion sprayer and laying of hot mix.
- Operation of the residential facilities for the labor& officers and offices
- Storage and stock yards of bitumen and emulsion

The possibility of accidental discharges into watercourses from drainage of workers camps and from spillages from vehicle parking and/or fuel and lubricant storage areas may also occur during construction of the works affecting the water courses.

Operation Stage: During the operation stage, water may get contaminated during routine and periodical maintenance of the project road. *The implications of accidental discharge are potentially disastrous. But, it must be emphasized that the probability of such an accident is quite low, as one of the objectives of the design is the enhancement of road safety.*

7.6 NOISE ENVIRONMENT - IMPACT

The highway traffic noise, is a complex phenomenon because of its intensity and characteristics of traffic which varies with time and depends upon the frequency as well as the type of vehicles on the road. The impacts of noise due to the project will be of temporary significance during the construction phase and may increase slightly during the operation stages. **Table 7.15** present the source of noise pollution and the impact categorization.

Table 7.15: Source of Noise Pollution


S. No.	Phase	Source of Noise pollution	Impact categorization
1	Pre-construction	<ul style="list-style-type: none"> • Man, material & machinery movements • Establishment of labor camps on-site offices, stock yards and construction plants 	<ul style="list-style-type: none"> • All activities will last for a short duration and also shall be localized in nature
2	Construction Phase	<ul style="list-style-type: none"> • Plant Site - stone crushing, asphalt production plant and batching plants, diesel generators etc • Work zones - Community residing near to the work zones 	<ul style="list-style-type: none"> • Plant Site: Impact will be significant within 500m. • Work zones: Such impacts again will be of temporary nature as the construction site will go on changing with the progress of the works.
3	Operation Phase	<ul style="list-style-type: none"> • due to increase in traffic (due to improved facility) 	<ul style="list-style-type: none"> • will be compensated with the uninterrupted movement of heavy and light vehicles.


Noise is a major area of concern for sensitive receptors like schools, colleges and hospitals etc. which have been located close to the road. The baseline day and night noise levels at sensitive receptors along the project roads are above the permissible limits specified by the MoEF for Silence Zone. List of the sensitive receptors along the project road are given in **Table 7.16**.


Table 7.16: Sensitive Receptors with respect to Noise Pollution


Sensitive Receptors along SH 58


THIRUTHANI ⇒ SADRAS


Chainage (km)	25+675	
Structure ID No	Health Centre	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	13.50	
Length x Breadth (m)	7 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	26+650	
Structure ID No	School	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	11	
Length x Breadth (m)	28.5 x 30	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	22+350	
Structure ID No	School	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	18 x 20	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	19+200	
Structure ID No	School	
Village Name	Keerapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	32.5 x 80	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	15+000	
Structure ID No	School	
Village Name	Erumallai	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	80 x 100	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	14+900	
Structure ID No	School	
Village Name	Erumallai	
Side (Left/Right)	Right	
Distance from PCL (m)	11.2	
Length x Breadth (m)	29.4 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	14+200	
Structure ID No	College	
Village Name	Kothimangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	28	
Length x Breadth (m)	25 x 60	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	11+675	
Structure ID No	ITI/College	
Village Name	Kotimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	7 x 23.8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	8+045	
Structure ID No	School	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	4.2	
Length x Breadth (m)	31.5 x 21	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	7+300	
Structure ID No	School	
Village Name	Narasogapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	15.4	
Length x Breadth (m)	29.4 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	3+390	
Structure ID No	School	
Village Name	Vembakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	17 x 80	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	0+050	
Structure ID No	School	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	23.8	
Length x Breadth (m)	30 x 11.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Sensitive Receptors along SH 116


KANCHIPURAM





VANDAVASI


Chainage (km)	14+875	
Structure ID No	College	
Village Name	Mangal	
Side (Left/Right)	Left	
Distance from PCL (m)	11.4	
Length x Breadth (m)	125 x 116.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	17+425	
Structure ID No	School	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	14.7	
Length x Breadth (m)	125 x 49	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	18+050	
Structure ID No	School	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	60 x 70	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	21+725	
Structure ID No	School	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	165 x 60	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	21+825	
Structure ID No	Hospital	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	14.7	
Length x Breadth (m)	20 x 16	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	24+350	
Structure ID No	School	
Village Name	Mannamathy kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	9 x 18	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	27+200	
Structure ID No	School	
Village Name	Thethurai	
Side (Left/Right)	Left	
Distance from PCL (m)	8.3	
Length x Breadth (m)	19 x 35.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	29+250	
Structure ID No	Hospital	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	29.7	
Length x Breadth (m)	91 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

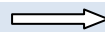
Chainage (km)	29+400	
Structure ID No	School	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	79.5	
Length x Breadth (m)	8 x 6	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	31+500	
Structure ID No	School	
Village Name	Palitakuppam	
Side (Left/Right)	Left	
Distance from PCL (m)	14.2	
Length x Breadth (m)	34 x 30	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	36+300	
Structure ID No	School	
Village Name	Venukundaram	
Side (Left/Right)	Left	
Distance from PCL (m)	18	
Length x Breadth (m)	70 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Sensitive Receptors along SH 04


VILLUPURAM





ARNI


Chainage (km)	24+625	
Structure ID No	School	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	30.8	
Length x Breadth (m)	70 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	29+500	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	12 x 19	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	29+800	
Structure ID No	Hospital	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	13 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	29+900	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	9 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	30+600	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	24 x 46	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	30+600	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	23.5	
Length x Breadth (m)	9.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	31+650	
Structure ID No	School	
Village Name	Sitheri	
Side (Left/Right)	Left	
Distance from PCL (m)	27	
Length x Breadth (m)	10 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	32+550	
Structure ID No	School	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	84 x 200	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	34+500	
Structure ID No	College	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	16.5	
Length x Breadth (m)	130 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	35+000	
Structure ID No	School	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	90	
Length x Breadth (m)	100 x 100	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	35+400	
Structure ID No	School	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	26	
Length x Breadth (m)	142 x 160	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	37+600	
Structure ID No	Hospital	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	8.5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	37+575	
Structure ID No	School.	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	36.5 x 32	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	43+400	
Structure ID No	School	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	40 x 45	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	43+850	
Structure ID No	School	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL (m)	26.5	
Length x Breadth (m)	19.5 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	43+900	
Structure ID No	School	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	15 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	49+350	
Structure ID No	Aanganwadi	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	9	
Length x Breadth(m)	24.5 x 18	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	53+150	
Structure ID No	School	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	19.5	
Length x Breadth(m)	19.5 x 43	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	53+725	
Structure ID No	School	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	17.5	
Length x Breadth(m)	103 x 110	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	56+650	
Structure ID No	Training centre	
Village Name	Nanodayam	
Side (Left/Right)	Left	
Distance from PCL(m)	16	
Length x Breadth(m)	19.5 x 210	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	63+750	
Structure ID No	Hostel	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	45.5	
Length x Breadth(m)	42 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	63+950	
Structure ID No	School	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	11	
Length x Breadth(m)	266 x 38	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	64+300	
Structure ID No	Veterinary hospital	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	12	
Length x Breadth(m)	85 x 29	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	72+400	
Structure ID No	School	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	42	
Length x Breadth(m)	70 x 18	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	74+425	
Structure ID No	School	
Village Name	Chellabadaai	
Side (Left/Right)	Right	
Distance from PCL (m)	17.5	
Length x Breadth (m)	100 x 65	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	80+900	
Structure ID No	School	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	9.5	
Length x Breadth(m)	44.5 x 49	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	79+700	
Structure ID No	Hospital	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	16.5	
Length x Breadth(m)	145 x 50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	79+700	
Structure ID No	School	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	56	
Length x Breadth(m)	88.5 x 70	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	86+510	
Structure ID No	School	
Village Name	Sitampoondi	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Length x Breadth (m)	50 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	86+834	
Structure ID No	Training centre	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	19	
Length x Breadth (m)	22.5 x 51	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+750	
Structure ID No	School	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	13 x 38	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	95+800	
Structure ID No	School	
Village Name	Muttathur	
Side (Left/Right)	Left	
Distance from PCL (m)	45	
Length x Breadth (m)	42 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+800	
Structure ID No	Hostel	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	45	
Length x Breadth (m)	30 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+800	
Structure ID No	Church +school+hospital	
Village Name	Muttathur	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	154 x 210	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	98+125	
Structure ID No	School	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	53	
Length x Breadth (m)	7 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	99+850	
Structure ID No	School	
Village Name	Nandivadi	
Side (Left/Right)	Left	
Distance from PCL (m)	16.5	
Length x Breadth (m)	65 x 52	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	101+075	
Structure ID No	ITI	
Village Name	Narsinganur	
Side (Left/Right)	Right	
Distance from PCL (m)	15.5	
Length x Breadth (m)	75 x 140	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	101+490	
Structure ID No	School	
Village Name	Narsinganur	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	56 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	102+900	
Structure ID No	Hospital	
Village Name	Kanjanur	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Length x Breadth (m)	82 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	106+300	
Structure ID No	School	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	36	
Length x Breadth (m)	10.5 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+350	
Structure ID No	School	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	20	
Length x Breadth (m)	13.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	107+150	
Structure ID No	School	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	104.2 x 44.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	107+900	
Structure ID No	School	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	36	
Length x Breadth (m)	8.5 x 33.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	108+600	
Structure ID No	College	
Village Name	Lakshampuram	
Side (Left/Right)	Right	
Distance from PCL (m)	12.5	
Length x Breadth (m)	72 x 108.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	109+200	
Structure ID No	College + Mosque (ph)	
Village Name	Lakshmipuram	
Side (Left/Right)	Right	
Distance from PCL (m)	73.5	
Length x Breadth (m)	13.5 x 22.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	109+200	
Structure ID No	School	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	31.5 x 63.7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	109+850	
Structure ID No	School	
Village Name	Orathur	
Side (Left/Right)	Left	
Distance from PCL (m)	12	
Length x Breadth (m)	84.7 x 58.1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	112+250	
Structure ID No	School	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	39.5	
Length x Breadth (m)	16 x 65	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	114+250	
Structure ID No	School	
Village Name	Papankulam	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	28 x 50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Summary Table

SI	Structure	SH-58		SH-116		SH-04	
		Direct	Indirect	Direct	Indirect	Direct	Indirect
1	Hospital	0	1	0	2	1	4
2	Educational Institute	2	9	1	8	9	35

Prediction of Impact: The prediction of for Noise pollution during operation has been made for the year of 2017, 2027, 2037 and 2047 and given in **Table 7.17**. Prediction has been made by using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) version 2.5.

Table 7.17: Noise Level by FHWA TNM

Receptors	Noise level (Ldn) in dBA				
	2014	2017	2027	2037	2047
SH 04					
Chetpet	61.6	62.1	62.5	63.0	63.3
Gingee	62.1	62.5	63.0	63.5	63.7
Muttathur	59.2	59.6	59.9	60.6	60.9
SH 58					
Keerapakkam	71.3	71.6	72.2	72.6	72.8
SH 116					
Thethurai	70.1	70.5	71.0	71.4	71.7
Pudur	69.7	70.1	70.6	71.0	71.3

7.7 FLORA AND FAUNA - IMPACT

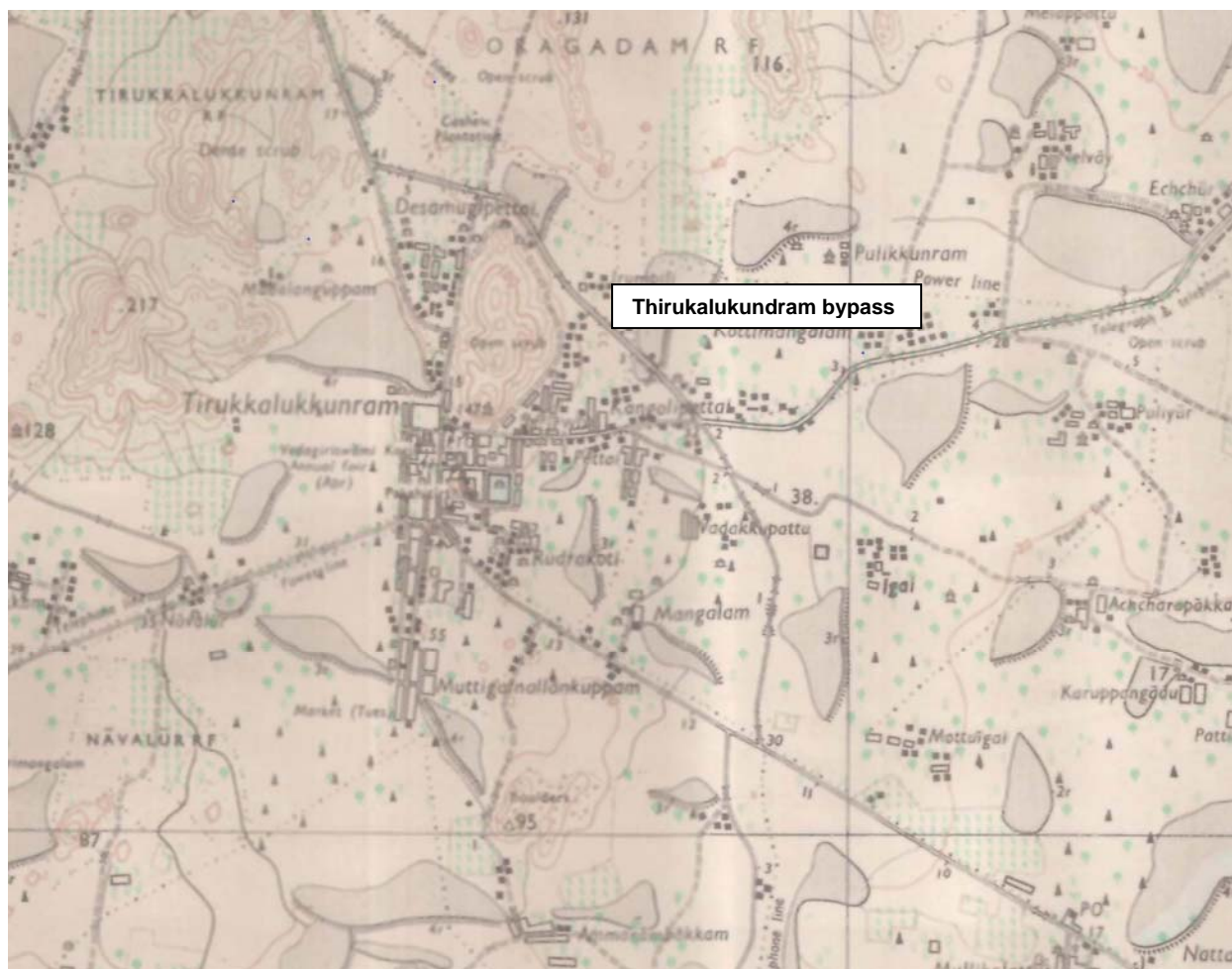
The major impact on flora involves the removal of trees to permit construction and to provide clear zone of safety to the road users. No wildlife sanctuary and national parks are within 10 km radius of the project road and no wildlife corridor exists. Impacts on the flora has been assessed based on area of forest affected, number of trees to be felled, area of vegetation loss and cattle grazing ground likely to be affected along the Phase I road.

7.7.1 Forest Area

During the study, forest area along the project road has been assessed which are given in **Table 7.18**. Forest is existing on one side of the road for SH 116 and SH 04 and three stretches in SH 58. Proposed right of way has been taken as 16 m where reserved forest exists on either side of the road to avoid/ minimise the forest land acquisition. Forest land acquisition of 0.544 Ha has been assessed at Thirukalundram bypass where forest is crossing the road. The forest diversion proposal is submitted to DFO, Kanchipuram for the diversion of Oragedum Reserve Forest. The forest diversion proposal is enclosed at **Annexure 7.1**. At other location, no forest land is getting acquired. Thirukalukundram bypass is shown in Figure below.

Table 7.18: Detail of Forest Stretches along the Phase I roads chainage wise

Road name	Chainage	Location	Type of forest	Forest Land Acquisition in Ha
SH 58- SCKAT Road	km 16/100 to km 16/440 (both sides)	Thirukazukundram bypass	Reserve	0.544
	km 9+800 to km 10+500 (LHS)	Mullikollathur	Social	NIL
	km 16+600 to km 18+400 (LHS)	Mandakkam	Reserve	NIL
	km 20+400 to km 21+200 (RHS)	Pulleri	Reserve	NIL
SH – 116 Kancheepuram – Vandavasi Road	km 26+900 to km 27+000 (RHS)	Thetturai	Social	NIL
	km 35+800 to km 36+300 (RHS)	Venkundram	Reserve	NIL
SH - 4-Arni-Villupuram Road	Km 89+075 to 88+025 and km 87+750 to km 86+230 (RHS)	Kavarai	Reserve	NIL
	Km 69+250 to 69+500 (RHS)	Sangamam	Social (This is proposed to be designated as reserve forest)	NIL



7.7.2 Wild Life

No wild life is crossing the project road as observed during the study and enquired from local people.

7.7.3 Tree Cutting

Trees located within the proposed right of way (PROW) need to be removed upto the toe of the formation width for efficient construction workmanship and more importantly to prevent collision with the trees, in case of accident. Roadside trees with strong and rigid stems pose safety hazards and some trees obstruct clear sight distances also. Others trees may be felled considering the potential safety hazards to road uses which depends upon age and decay condition. All such trees that pose safety hazards need to be removed.

There will be a significant and direct impact of cutting the roadside trees, which includes

- The loss of shade
- Loss of tree products.
- Loss of birds nesting place
- Removal of roadside trees will also reduce comfort levels for slow moving traffic and pe-

destrians.

- The removal of trees will facilitate erosion and contribute to the loss of the micro-ecosystems developed on the roadside.
- Besides this trees act as noise barrier, dust absorption, air purifier etc.

Number of trees likely to be felled is given in Annexure 4.3, Annexure 4.4 and Annexure 4.5 of Chapter 4 for road SH 58, SH 116 and SH 04 respectively. The appendices depict tree-wise girth, species, and height. The total number of trees likely to be affected is depicted in **Table 7.19**. Major species of trees affected are Tamarind, Neem, Jamun and Palm.

Table 7.19: Number of Trees Affected

Name of Road	Length in KM	Nature of Improvement	Left	Right	Total
Sadras – Chengalpattu Road (SH-58)	26.811	Strengthening and widening	619	673	1292
Arni - Villuppuram road (SH-4)	90.90	Strengthening and widening	3906	3281	7187
Kanchipuram – Vandavasi Road (SH-116)	22.20	Strengthening and widening	567	677	1244
Total	139.911			9723	

The tree of girth less than 30 cm has also been enumerated considering their transplantation in the vicinity of the project road which is given in Table 4.27 of Chapter 4. Total number of trees for road SH 58, SH 116 and SH 4 is 10, 31 and 2 respectively having species of neem, khajur, baboo, cassia, palm etc.

7.7.4 Removal of Vegetation

Clearing and grubbing of the area is the foremost requirement to start the construction activities in accordance with MoRTH specifications. The impact due to removal of vegetation includes

- Dust generation during windy atmosphere
- Loss of productive top soil
- Soil erosion during rainy season, may lead to water contamination.

Measures have been taken in reducing and curtailing the clearing and grubbing of excess land. **Table 7.5 may be referred for the quantitative requirement of clearing and grubbing.**

7.7.5 Cattle Grazing

No specific cattle grazing ground is observed along the project road corridor, hence chainage-wise identification of grazing is not feasible. Only random cattle grazing are observed during the site visit.

7.8 SOCIO-ECONOMIC ENVIRONMENT-IMPACTS

Socio-economic impacts and mitigations are primarily contained in SIA/RAP Report. For the purpose of providing a perspective, the range of impacts on socio-economic environment is already summarised in Table 7.1B.

General Impacts

Engineering, environmental and socio-economic surveys, conducted during the design phase, for the generation of the baseline information, provides indication of several adverse impacts in the vicinity of the alignment, most of which are related to common human psychology and general in nature.

7.8.1 Fear of uncertainties regarding future

Fear of uncertainties prevail on the people from the initial surveys to commencement of construction and till the compensation is paid or resettlement action plan is implemented. Land and property owners are subjected to sufferings regarding uncertainties to the extent of loss and the nature of compensation. These involve:

- uncertainty of the amount of land/property to be acquired,
- time of acquisition and evacuation,
- extent and amount compensation,
- Provision of alternative land or job, etc.

7.8.2 Inducement of Land Prices

Once the project is finalised and known to common people, there may be a danger of unscrupulous speculation for purchasing the land along the proposed road corridor prior to the commencement of the official procedures. Such impact is more likely to occur in the case of urban fringe areas during the design and pre-construction phase.

7.8.3 Inducement of Squatter Influx

Squatters are generally attracted to occupy land along and adjacent to the proposed alignments, in the hope of receiving compensation. Such squatters could cause undue pressure on local resources such as water and firewood, which can result in conflicts with those who are harvesting the resources presently.

7.8.4 Loss of utilities and amenities

During clearances, the removal of various assets, utilities and amenities takes place which include:

- Natural (trees, bushes and grasslands),
- Physical structures (public or private assets and utilities) and
- Relocation of utilities like electricity, water and telephone lines

This constitutes economic loss for some time for the people dependant on these resources till these are restored to their previous status. These have been discussed in the RAP also.

7.8.5 Public health and safety

- a) During the pre-construction and construction phases, dismantling of the structures for clearance and road construction activities may result in the following health hazards:
- Dismantling of properties has psychological impacts on their owners and others associated with them.
 - Debris generated on account of the above mentioned activities.
- b) Labour Camps during construction period may pose problems as discussed below.
- For non-local labour, labour camps are set up at one or more sites adjacent to the alignment, and at some ancillary sites, like aggregate quarries etc. These labourers can have clashes with the local population on account of cultural and religious differences. The influx of a large work force to an area poses additional stress on basic services like medical, power, water supply, etc.).
 - There are chances of tree cutting by the labors if alternative fuels are not made available.
 - The poor sanitary conditions result an impact on health of labourers as well as on the local population. Transmission of diseases is also facilitated by the migration of people. During the construction, crews and their dependants may bring with them a multitude of communicable diseases including sexually transmitted diseases (STDs) like AIDS. This is more if the project involves more male-workers, who have migrated from other parts of the state or country.
- c) Allied activities during construction period may cause local disruption.
- During road construction allied activities like quarrying and crushing operations, traffic diversions, etc., may cause disruption of social and economic life of the local population of the nearby areas.
 - Dust and noise generated in crushing and blasting operations may cause nuisance to the nearby communities.
 - Traffic jams and congestion, loss of access and other road accident risks, as a result of diversion of traffic due to construction of the road.
 - There will be some impact on land during construction, limited mainly to temporary acquisition to cater to road diversion or traffic detours and establishment of labour camps.
- d) Accidents and Safety
- Although the design speeds are kept lower in the major settlement areas, still some amount of accidents are expected. The location where the residential area is on one side and their agricultural land and other facilities are on the other side of the road is prone to accident. School children and ladies carrying pots full of water from the water sources (ponds/wells) also get exposed to this risk. In rural areas it was seen that cattle also cross the road near the settlement.

7.8.6 Resettlement of People

Due to widening and strengthening of the proposed road corridor of SH 58, SH 116 and SH 04, a number of families are getting affected as given in Table 7.20 below.

Table 7.20: Project Affected Families of SH 58, SH 116 and SH 04

S. No.	Name of Road	Affected Families (No.)
1.	SH 58	180
2.	SH 116	49
3.	SH 04	877

The displaced people create additional pressures to the local resource base as described below.

- water resources in areas where availability is low,
- grazing lands and fuel-wood,
- Public services such as schools and medical facilities.
- This becomes critical if the number of displaced persons being the squatters is larger.

The road construction affects the structures falling within the right of way (ROW). The lists of fully and partially affected structures are given in **Table 7.21** below. The affected structures include commercial, residential and residential cum commercial.

Table 7.21: Affected Structures of SH 58, SH 116 and SH 04

S. No.	Name of Road	Fully affected	Partially affected
1.	SH 58	08	94
2.	SH 116	06	39
3.	SH 04	85	456

7.8.7 Land Use Changes

There will be land use changes along the Phase I road where land acquisition exists. These changes bring about a change in the characteristics of the adjacent lands. There will be succession of land uses and higher return uses would displace the lower return uses. This phenomenon will occur at major intersections and in settlement areas along the project road. The urban fringe areas along the roads will be subjected to ribbon development.

7.8.8 Disturbance to the Road Side Services

Along the road and near the settlements, small shops get attracted to serve the local people as well as the road users. A composite socio-economically inter-dependent is developed as a consequence. The shops serve dual purpose by providing income and employment to locals as well as service to the road users. It is likely that due to implementation of the project some of the shops may get displaced. This would cause negative impact on the livelihood of people as well as loss of service to the local people and road users.

7.8.9 Removal of encroachments and squatters

For the purpose of identifying PAPs, CoI is defined as being same as PROW: land clearing shall

be restricted to within the Corridor of Impact (CoI). To clarify, this CoI is less than the CoI identified for purpose of environmental investigation/monitoring. Within the corridor of impacts, encroachers, squatters, tenants, titleholders and non-titleholders are identified as described in **Table 7.22** below.

Table 7.22: encroachers, squatters, tenants, titleholders and non-titleholders with in the COI

S. No.	Particulars	SH 58	SH 116	SH 04
1.	Encroachers	21	12	180
2.	Squatters	NIL	NIL	7
3.	Tenants	7	3	73
4.	Titleholders	152	34	617
5.	Non-titleholders	28	45	260

The potential impacts likely to arise from clearance of encroached residential areas (especially in settlements along the project road) may involve loss of valuable residential space to the residents. In the case of squatter settlements, displacement leads to loss of shelter if adequate measures are not taken for their resettlement. Compensation may not be enough for the affected persons to gain access to shelter. Other impacts include disturbance to family and community life and increased distance from their workplace. In such cases the displaced persons may again resort to squatting.

Specific Impact

Other socio-economic impacts involve the presence of sensitive community facilities within the Corridor of Impact such as worship places and cultural properties.

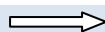
7.8.10 Religious / cultural community assets

Utmost care has been taken in finalising the horizontal and vertical alignment so that the impact on religious / cultural community assets like temple, church etc. could be better avoided. The list of religious / cultural community structures identified within CoI that will be impacted is provided in the **Table 7.23**.

Table 7.23: List of religious / cultural community Assets

Sensitive Community Structures along SH 58


THIRUTHANI





SADRAS


Chainage (km)	26+400
Structure ID No	Temple
Village Name	Chengalpattu
Side (Left/Right)	Right
Distance from PCL (m)	7.7
Length x Breadth (m)	14.4 x9.1
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	direct impact





Chainage (km)	26+200	
Structure ID No	Temple	
Village Name	Chengalpattu	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	29 x 11.6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	26+140	
Structure ID No	Temple	
Village Name	Chengalpattu	
Side (Left/Right)	Right	
Distance from PCL (m)	4.2	
Length x Breadth (m)	7.7 x 4.9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	26+050	
Structure ID No	Church	
Village Name	Chengalpattu	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	11 x 15	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	25+900	
Structure ID No	Church	
Village Name	Chengalpattu	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	15 x 12.50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	25+500	
Structure ID No	Temple	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	13.9	
Length x Breadth (m)	9 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	25+000	
Structure ID No	Temple	
Village Name	Mairinattam	
Side (Left/Right)	Left	
Distance from PCL (m)	60	
Length x Breadth (m)	12 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+500	
Structure ID No	Church	
Village Name	Mairinattam	
Side (Left/Right)	Left	
Distance from PCL (m)	11	
Length x Breadth (m)	6 x 14.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+400	
Structure ID No	Temple	
Village Name	Mairinattam	
Side (Left/Right)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	3.5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	24+250	
Structure ID No	Temple	
Village Name	Mairinattam	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	7.5 x 15	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+250	
Structure ID No	Temple	
Village Name	Mairinattam	
Side (Left/Right)	Right	
Distance from PCL (m)	20	
Length x Breadth (m)	9.5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+100	
Structure ID No	Temple	
Village Name	Nehru Nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	6 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	23+858	
Structure ID No	Temple	
Village Name	Nehru Nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	10.5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	23+800	
Structure ID No	Temple	
Village Name	Nehru Nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	50	
Length x Breadth (m)	4 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	22+675	
Structure ID No	Temple	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	3.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	22+650	
Structure ID No	Temple	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	22	
Length x Breadth (m)	6 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	20+000	
Structure ID No	Temple	
Village Name	Perier nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	27.5	
Length x Breadth (m)	4 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	20+000	
Structure ID No	Temple	
Village Name	Perier nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	36	
Length x Breadth (m)	2.5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	19+950	
Structure ID No	Temple	
Village Name	Perier nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	35	
Length x Breadth (m)	3 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	19+950	
Structure ID No	Temple	
Village Name	Perier nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	4 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	19+100	
Structure ID No	Temple	
Village Name	Keerapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	7 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	17+625	
Structure ID No	Temple	
Village Name	Keerapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	38	
Length x Breadth (m)	2 x 2	
Proposed ROW (Equal on either side of PCL) (m)	LHS 9 RHS 11.5	
Impact	No direct impact	


Chainage (km)	17+600	
Structure ID No	Temple	
Village Name	Thirukaludundaram	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	4 x 18	
Proposed ROW (Equal on either side of PCL) (m)	LHS 9 RHS 11.5	
Impact	direct impact	


Chainage (km)	14+775	
Structure ID No	Church	
Village Name	Kothimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	49	
Length x Breadth (m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	14+450	
Structure ID No	Temple	
Village Name	Kothimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	9.8	
Length x Breadth (m)	2.8 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	14+000	
Structure ID No	Church	
Village Name	Kothimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	35 x 42	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	13+400	
Structure ID No	Temple	
Village Name	Kothimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	21	
Length x Breadth (m)	2 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	13+300	
Structure ID No	Church	
Village Name	Kotimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	9.3 x 6.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	16+300	
Structure ID No	Temple	
Village Name	Kotimangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	8.4	
Length x Breadth (m)	15.4 x 15.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	11+675	
Structure ID No	Temple	
Village Name	Kotimangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	12.6	
Length x Breadth (m)	42 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	10+800	
Structure ID No	Temple	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	9.5	
Length x Breadth (m)	19.5 x 16.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	9+200	
Structure ID No	Temple	
Village Name	Mullikolathur	
Side (Left/Right)	Left	
Distance from PCL (m)	11.9	
Length x Breadth (m)	4.2 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	8+500	
Structure ID No	Temple	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	7 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	8+200	
Structure ID No	Temple	
Village Name	Mullikolathur	
Side (Left/Right)	Left	
Distance from PCL (m)	17.5	
Length x Breadth (m)	18.9 x 15.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	6+147	
Structure ID No	Temple	
Village Name	Anupuram	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	15 x 27	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	3+390	
Structure ID No	Temple	
Village Name	Vembakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Length x Breadth (m)	5.5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	3+300	
Structure ID No	Temple	
Village Name	Vembakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	3+250	
Structure ID No	Temple	
Village Name	Vembakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	2+905	
Structure ID No	Temple	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	15	
Length x Breadth (m)	10 x 12.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	2+700	
Structure ID No	Church	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	9.5	
Length x Breadth (m)	10.5 x 16	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	2+350	
Structure ID No	Temple	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	18.5 x 6	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	0+125	
Structure ID No	Temple	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	31.5 x 15.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	0+050	
Structure ID No	Temple	
Village Name	Mayur	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	29.5 x 36	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	0+050	
Structure ID No	Temple	
Village Name	Mayur	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	0+050	
Structure ID No	Temple	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	11.5	
Length x Breadth (m)	17 x 23	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	0+050	
Structure ID No	Temple	
Village Name	Mayur	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	0+050	
Structure ID No	Temple	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	23	
Length x Breadth (m)	12.5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Sensitive Community Structures along SH 116


KANCHIPURAM









VANDAVASI


Chainage (km)	14+515	
Structure ID No	Temple	
Village Name	Mangal	
Side (Left/Right)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	4.9 x 3.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	14+750	
Structure ID No	Mandapam	
Village Name	Mangal	
Side (Left/Right)	Left	
Distance from PCL (m)	13.5	
Length x Breadth (m)	12.7 x 12.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	15+825	
Structure ID No	Temple	
Village Name	Kuzhamandal	
Side (Left/Right)	Left	
Distance from PCL (m)	45	
Length x Breadth (m)	3 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	17+860	
Structure ID No	Mosque	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	45.5 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Impact	No direct impact	
Chainage (km)	17+925	
Structure ID No	Temple	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	11.9	
Length x Breadth (m)	4.2 x 9.1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	
Chainage (km)	18+025	
Structure ID No	Mandapam	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	95.2	
Length x Breadth (m)	9.2 x 8.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	
Chainage (km)	18+100	
Structure ID No	Temple	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	17.5 x 17.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	
Chainage (km)	18+425	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	3.5 x 4.9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	
Chainage (km)	18+480	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	11.2	
Length x Breadth (m)	9.1 x 34	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	18+480	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Left	
Distance from PCL (m)	14.7	
Length x Breadth (m)	3.5 x 9.1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	19+125	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Left	
Distance from PCL (m)	36.5	
Length x Breadth (m)	4.2 x 7.7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	19+300	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	35	
Length x Breadth (m)	3.5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	20+315	
Structure ID No	Temple	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	70	
Length x Breadth (m)	10.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	21+535	
Structure ID No	Mandapam	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	4.5	
Length x Breadth (m)	20.6 x 8.8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	21+675	
Structure ID No	Temple	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	14.7	
Length x Breadth (m)	50 x 77	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	21+925	
Structure ID No	Temple	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	6.3	
Length x Breadth (m)	6 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	22+800	
Structure ID No	Temple	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	10.8	
Length x Breadth (m)	6.4 x 7.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	23+250	
Structure ID No	Mandapam	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	8.7	
Length x Breadth (m)	8.2 x 8.9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	24+300	
Structure ID No	Temple	
Village Name	Mannamathy kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	11.2	
Length x Breadth (m)	3 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+350	
Structure ID No	Temple	
Village Name	Mannamathy kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	31.5	
Length x Breadth (m)	5 x 12.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	26+775	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	9.8 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	26+900	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	10.8	
Length x Breadth (m)	14.3 x 14.4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	26+985	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	36.4	
Length x Breadth (m)	11.2 x 16	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	26+900	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	2 x 2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	26+900	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Left	
Distance from PCL (m)	40	
Length x Breadth (m)	14 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	29+200	
Structure ID No	Temple	
Village Name	Melma kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	18	
Length x Breadth (m)	2 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	29+250	
Structure ID No	Mosque	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	30.8	
Length x Breadth (m)	15 x 15.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	29+250	
Structure ID No	Mandapam	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	9.7	
Length x Breadth (m)	13 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	29+700	
Structure ID No	Church	
Village Name	Virapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	19.5	
Length x Breadth (m)	6.5 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	30+100	
Structure ID No	Church	
Village Name	Virapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	34	
Length x Breadth (m)	21 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	30+400	
Structure ID No	Temple	
Village Name	Poodur	
Side (Left/Right)	Right	
Distance from PCL (m)	4.6	
Length x Breadth (m)	16.8 x 20	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	31+200	
Structure ID No	Church	
Village Name	Poodur	
Side (Left/Right)	Right	
Distance from PCL (m)	9.8	
Length x Breadth (m)	35 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	31+200	
Structure ID No	Temple	
Village Name	Poodur	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	7 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	31+200	
Structure ID No	Mosque	
Village Name	Poodur	
Side (Left/Right)	Right	
Distance from PCL (m)	21	
Length x Breadth (m)	16 x 20	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	34+000	
Structure ID No	Temple	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	34+000	
Structure ID No	Mandapam	
Village Name	Thanangoor	
Side (Left/Right)	Left	
Distance from PCL (m)	13	
Length x Breadth (m)	3 x 13	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

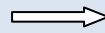
Chainage (km)	34+200	
Structure ID No	Temple	
Village Name	Thanangoor	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	35+100	
Structure ID No	Temple	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	11.5	
Length x Breadth (m)	13.5 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	35+600	
Structure ID No	Temple	
Village Name	Venukundaram	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	10 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Sensitive Receptors along SH 04


VILLUPURAM





ARNI


Chainage (km)	24+600	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	17.5	
Length x Breadth (m)	5 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+700	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	20	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+700	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	22	
Length x Breadth (m)	5 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+800	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	2 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+900	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	8.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	24+950	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	24+950	
Structure ID No	Temple	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	9	
Length x Breadth (m)	3 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	28+400	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	42	
Length x Breadth (m)	20 x 25	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	28+400	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	40.5	
Length x Breadth (m)	3.5 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	28+400	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	4 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	28+400
Structure ID No	Temple
Village Name	Arni
Side (Left/Right)	Right
Distance from PCL (m)	10.5
Length x Breadth (m)	3 x 3
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	No direct impact



Chainage (km)	28+800
Structure ID No	Temple
Village Name	Arni
Side (Left/Right)	Right
Distance from PCL (m)	9
Length x Breadth (m)	24 x 28
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	No direct impact



Chainage (km)	29+300
Structure ID No	Temple
Village Name	Arni
Side (Left/Right)	Left
Distance from PCL (m)	7
Length x Breadth (m)	5.5 x 3
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	direct impact





Chainage (km)	29+700
Structure ID No	Temple
Village Name	Arni
Side (Left/Right)	Right
Distance from PCL (m)	8.4
Length x Breadth (m)	20 x 18
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	No direct impact





Chainage (km)	29+700
Structure ID No	Mosque
Village Name	Arni
Side (Left/Right)	Right
Distance from PCL (m)	4
Length x Breadth (m)	5 x 10
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	direct impact





Chainage (km)	29+800	
Structure ID No	Mosque	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	25 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	29+900	
Structure ID No	Temple (2 nos)	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	4x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	29+900	
Structure ID No	Temple (2 nos)	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	4x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	29+900	
Structure ID No	Temple (2 nos)	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	3 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	30+000	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	2 x 2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	30+100	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	19 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	30+100	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6	
Length x Breadth (m)	6 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	30+200	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	16 x 11.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	30+600	
Structure ID No	Temple (statue)	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	10	
Length x Breadth (m)	1.5 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	31+500	
Structure ID No	Temple	
Village Name	Sitheri	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	18 x 15	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	31+650	
Structure ID No	Church	
Village Name	Sitheri	
Side (Left/Right)	Left	
Distance from PCL (m)	38	
Length x Breadth (m)	10 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	31+650	
Structure ID No	Church	
Village Name	Sitheri	
Side (Left/Right)	Left	
Distance from PCL (m)	47	
Length x Breadth (m)	10 x 16.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	32+775	
Structure ID No	Church	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	24	
Length x Breadth (m)	18 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	33+000	
Structure ID No	Church	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	31	
Length x Breadth (m)	13 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	32+900	
Structure ID No	Temple	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	9.8 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	33+150	
Structure ID No	Temple	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	13	
Length x Breadth (m)	4 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	35+400	
Structure ID No	Temple	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	14.7	
Length x Breadth (m)	12 x 19	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	36+750	
Structure ID No	Temple	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	11	
Length x Breadth (m)	19 x 32	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	36+850	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	15	
Length x Breadth (m)	4.5 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	37+650	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	35.5 x 28.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	37+875	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	38+400	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	22.5	
Length x Breadth (m)	4 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	38+900	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	20	
Length x Breadth (m)	6 x 16	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	39+950	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	6.5 x 12	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	40+050	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	25	
Length x Breadth (m)	5.5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	40+150	
Structure ID No	Mosque	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	27.2	
Length x Breadth (m)	16 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	40+500	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	15.4	
Length x Breadth (m)	6.5 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	41+450	
Structure ID No	Temple	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	41+550	
Structure ID No	Temple	
Village Name	Kollappalur	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	42+575	
Structure ID No	Temple	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	8 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	43+275	
Structure ID No	Church	
Village Name	Kollappalur	
Side (Left/Right)	Left	
Distance from PCL (m)	12	
Length x Breadth (m)	3.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	43+525	
Structure ID No	Temple	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	6.5	
Length x Breadth (m)	3 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	43+850	
Structure ID No	Church	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	35	
Length x Breadth (m)	9 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	43+900	
Structure ID No	Temple	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL (m)	11.5	
Length x Breadth (m)	1.5 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	44+100	
Structure ID No	Temple	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL(m)	7.7	
Length x Breadth(m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	45+700	
Structure ID No	Temple	
Village Name	Chammambadi	
Side (Left/Right)	Right	
Distance from PCL(m)	6.5	
Length x Breadth(m)	6.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	46+375	
Structure ID No	Temple	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	9.8	
Length x Breadth(m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	46+375	
Structure ID No	Temple	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	53	
Length x Breadth(m)	19.5 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	46+400	
Structure ID No	Temple	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	38	
Length x Breadth(m)	4.5 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	46+425	
Structure ID No	Temple	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	33	
Length x Breadth(m)	6.5 x 16.4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	48+650	
Structure ID No	Temple	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	7.7	
Length x Breadth(m)	1 x 2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	48+650	
Structure ID No	Temple	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	28.5	
Length x Breadth(m)	6.5 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	48+650	
Structure ID No	Temple	
Village Name	Yangasudamani	
Side (Left/Right)	Left	
Distance from PCL(m)	12	
Length x Breadth(m)	4.5 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	49+700	
Structure ID No	Temple	
Village Name	Annanager	
Side (Left/Right)	Right	
Distance from PCL(m)	10.5	
Length x Breadth(m)	7 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	51+200	
Structure ID No	Temple	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	53.5	
Length x Breadth(m)	5.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	51+200	
Structure ID No	Temple	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	56	
Length x Breadth(m)	10 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	51+450	
Structure ID No	Temple	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	8.5	
Length x Breadth(m)	3.5 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	51+475	
Structure ID No	Temple	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	14	
Length x Breadth(m)	3.5 x 11.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	52+450	
Structure ID No	Temple	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	7.7	
Length x Breadth(m)	25.5 x 19.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	53+150	
Structure ID No	Church	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	21	
Length x Breadth(m)	21 x 43	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	53+975	
Structure ID No	Church	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	33.5	
Length x Breadth(m)	77 x 28	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	54+000	
Structure ID No	Temple	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	77	
Length x Breadth(m)	11 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	55+950	
Structure ID No	Temple	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	12.5	
Length x Breadth(m)	2 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	57+300	
Structure ID No	Church	
Village Name	Arul nadu	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	10.5 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	61+370	
Structure ID No	Temple	
Village Name	Ranganathampuram	
Side (Left/Right)	Right	
Distance from PCL(m)	19.5	
Length x Breadth(m)	15.5 x 44	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	61+863
Structure ID No	Church
Village Name	Ranganathampuram
Side (Left/Right)	Left
Distance from PCL(m)	16
Length x Breadth(m)	105 x 78
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



Chainage (km)	62+600
Structure ID No	Temple
Village Name	Devanur
Side (Left/Right)	Right
Distance from PCL(m)	5
Length x Breadth(m)	4 x 2
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



Chainage (km)	63+400
Structure ID No	Temple
Village Name	Devanur
Side (Left/Right)	Right
Distance from PCL(m)	21.5
Length x Breadth(m)	5.5 x 12.5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	64+600
Structure ID No	Church
Village Name	Valathy
Side (Left/Right)	Left
Distance from PCL(m)	31.5
Length x Breadth(m)	8 x 14
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	65+500
Structure ID No	Church
Village Name	Valathy
Side (Left/Right)	Left
Distance from PCL(m)	6.5
Length x Breadth(m)	14 x 22.5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact




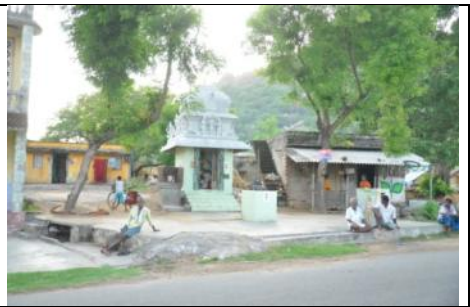
Chainage (km)	65+600	
Structure ID No	Masjid	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	17.5	
Length x Breadth(m)	19.5 x 17.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	65+600	
Structure ID No	Temple	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	7	
Length x Breadth(m)	5.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	65+880	
Structure ID No	Temple	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL(m)	8	
Length x Breadth(m)	21 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	65+880	
Structure ID No	Temple	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	7 x 28	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	66+970	
Structure ID No	Statue	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	7.5	
Length x Breadth(m)	1 x 2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	67+350	
Structure ID No	Temple	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	6.3	
Length x Breadth(m)	11 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	67+862	
Structure ID No	Temple	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	8.5	
Length x Breadth(m)	12.5 x 13	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	70+635	
Structure ID No	Temple	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	17.5	
Length x Breadth(m)	21 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	71+050	
Structure ID No	Temple	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	4	
Length x Breadth(m)	17.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	71+700	
Structure ID No	Temple	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	7	
Length x Breadth(m)	1 x 2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	71+730	
Structure ID No	Temple	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	33.5	
Length x Breadth(m)	8.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	73+038	
Structure ID No	Temple	
Village Name	Chellabadai	
Side (Left/Right)	Left	
Distance from PCL(m)	19	
Length x Breadth(m)	7 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	74+425	
Structure ID No	Temple	
Village Name	Chellabadai	
Side (Left/Right)	Right	
Distance from PCL (m)	12.5	
Length x Breadth (m)	17 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	84+675	
Structure ID No	Temple	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	3 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	84+675	
Structure ID No	Masjid	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	55	
Length x Breadth(m)	13.5 x 31	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	84+100	
Structure ID No	Masjid	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	16.1	
Length x Breadth(m)	19.5 x 45.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	83+375	
Structure ID No	Temple	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	3 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	82+600	
Structure ID No	Temple	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	6.5	
Length x Breadth(m)	5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	81+500	
Structure ID No	Church	
Village Name	Gumiyanguttai	
Side (Left/Right)	Left	
Distance from PCL(m)	10	
Length x Breadth(m)	29.5 x 72.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	81+250	
Structure ID No	Church	
Village Name	Gumiyanguttai	
Side (Left/Right)	Left	
Distance from PCL(m)	16	
Length x Breadth(m)	6.5 x 9.8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	81+200	
Structure ID No	Temple	
Village Name	Gumiyanguttai	
Side (Left/Right)	Left	
Distance from PCL(m)	12	
Length x Breadth(m)	3.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	80+900	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	23.5	
Length x Breadth(m)	2 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	80+900	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	9	
Length x Breadth(m)	3 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	80+050	
Structure ID No	Church	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	18.5	
Length x Breadth(m)	26.5 x 50.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	79+600	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	13 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	78+350	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	13.5	
Length x Breadth(m)	7 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	78+350	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	17.5	
Length x Breadth(m)	1.5 x 2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	78+100	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	27	
Length x Breadth(m)	3 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	78+050	
Structure ID No	Temple	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	2	
Length x Breadth(m)	10.5 x 21	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	77+900	
Structure ID No	Temple	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Left	
Distance from PCL(m)	9.8	
Length x Breadth(m)	14 x 30	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	77+725
Structure ID No	Temple
Village Name	Kariyamangalam kut road
Side (Left/Right)	Right
Distance from PCL(m)	9.8
Length x Breadth(m)	11.2 x 11
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



Chainage (km)	77+025
Structure ID No	Temple
Village Name	Kariyamangalam kut road
Side (Left/Right)	Right
Distance from PCL(m)	25.5
Length x Breadth(m)	4.5 x 18
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



Chainage (km)	76+950
Structure ID No	Temple
Village Name	Kariyamangalam kut road
Side (Left/Right)	Right
Distance from PCL(m)	14
Length x Breadth(m)	6.5 x 5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	76+950
Structure ID No	Temple
Village Name	Kariyamangalam kut road
Side (Left/Right)	Right
Distance from PCL(m)	49
Length x Breadth(m)	35 x 9
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	85+425
Structure ID No	Temple
Village Name	Kavarai
Side (Left/Right)	Left
Distance from PCL (m)	10.5
Length x Breadth (m)	6.5 x 7
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	85+650	
Structure ID No	Temple + Bus stop	
Village Name	Kavarai	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	1 x 1, 6 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	86+200	
Structure ID No	Masjid	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	35	
Length x Breadth (m)	19.5 x 63	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	86+625	
Structure ID No	Masjid	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	15	
Length x Breadth (m)	60 x 80	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	86+625	
Structure ID No	Mandapam	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	50	
Length x Breadth (m)	4 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+725	
Structure ID No	Mandapam	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	20.5	
Length x Breadth (m)	8 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	87+900	
Structure ID No	Temple	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	19.5	
Length x Breadth (m)	2 x 2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	88+425	
Structure ID No	Church	
Village Name	Palappattu	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	1.5 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	89+200	
Structure ID No	Church	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	6.5 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	89+750	
Structure ID No	Temple	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	19 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+750	
Structure ID No	Church	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	51	
Length x Breadth (m)	8.5 x 8.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+800	
Structure ID No	Mandapam	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	30	
Length x Breadth (m)	15 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+900	
Structure ID No	Temple (statue)	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+900	
Structure ID No	Temple	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	13	
Length x Breadth (m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

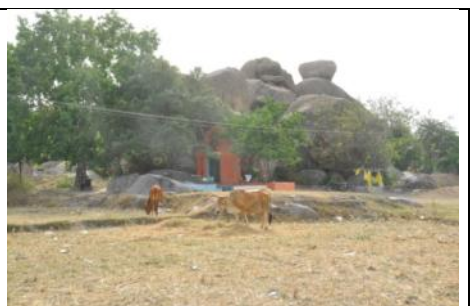
Chainage (km)	91+250	
Structure ID No	Temple	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	53	
Length x Breadth (m)	11 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	95+800	
Structure ID No	Church	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	30	
Length x Breadth (m)	38.5 x 52	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+800	
Structure ID No	Church +school+hospital	
Village Name	Muttathur	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	154 x 210	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+900	
Structure ID No	Temple	
Village Name	Muttathur	
Side (Left/Right)	Left	
Distance from PCL (m)	15	
Length x Breadth (m)	3.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	97+028	
Structure ID No	Temple	
Village Name	Arsalapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	3.5	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	97+050	
Structure ID No	Temple	
Village Name	Arsalapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	42	
Length x Breadth (m)	14 x 12	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	97+625	
Structure ID No	Temple	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	16.5	
Length x Breadth (m)	6.5 x 18	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	97+625	
Structure ID No	Temple	
Village Name	Arsalapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	12	
Length x Breadth (m)	108 x 50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	98+125	
Structure ID No	Church	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	80 x 30	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	99+200	
Structure ID No	Temple	
Village Name	Nembur	
Side (Left/Right)	Left	
Distance from PCL (m)	32	
Length x Breadth (m)	4 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	99+200	
Structure ID No	Temple	
Village Name	Nembur	
Side (Left/Right)	Left	
Distance from PCL (m)	11.9	
Length x Breadth (m)	4 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	99+225	
Structure ID No	Church	
Village Name	Nembur	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	4.5 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	99+750	
Structure ID No	Temple	
Village Name	Nandivadi	
Side (Left/Right)	Left	
Distance from PCL (m)	8.5	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	101+075	
Structure ID No	Church	
Village Name	Narsinganur	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	14 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	101+075	
Structure ID No	Church	
Village Name	Narsinganur	
Side (Left/Right)	Right	
Distance from PCL (m)	50	
Length x Breadth (m)	35 x 13	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	101+075	
Structure ID No	Sacred groove	
Village Name	Narsinganur	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	3 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	101+600	
Structure ID No	Church	
Village Name	Narsinganur	
Side (Left/Right)	Left	
Distance from PCL (m)	21	
Length x Breadth (m)	5 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	101+950	
Structure ID No	Temple	
Village Name	Kanjanur	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	13.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	102+300	
Structure ID No	Sacred groove	
Village Name	Kanjanur	
Side (Left/Right)	Left	
Distance from PCL (m)	5	
Length x Breadth (m)	0.6 girth	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	103+275	
Structure ID No	Temple	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	4.5	
Length x Breadth (m)	5.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	103+850	
Structure ID No	Temple	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	44.8	
Length x Breadth (m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	106+225	
Structure ID No	Temple (3 nos)	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	22.5	
Length x Breadth (m)	12 x 11.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+275	
Structure ID No	Temple	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	22	
Length x Breadth (m)	5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+275	
Structure ID No	Temple	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	23.5	
Length x Breadth (m)	10.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+400	
Structure ID No	Mosque	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	21	
Length x Breadth (m)	6 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+700	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	8.5	
Length x Breadth (m)	5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+000	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	21	
Length x Breadth (m)	6 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+025	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	14.5	
Length x Breadth (m)	3 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+100	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	6.5 x 14.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+100	
Structure ID No	Church	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	29	
Length x Breadth (m)	35 x 21	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+275	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	10.5 x 22.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+330	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	7.5	
Length x Breadth (m)	6.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	107+550	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	15.4	
Length x Breadth (m)	5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+775	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	3.5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	108+600	
Structure ID No	Temple in college	
Village Name	Lakshmipuram	
Side (Left/Right)	Right	
Distance from PCL (m)	15.5	
Length x Breadth (m)	2.5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	108+900	
Structure ID No	Temple	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	19.5	
Length x Breadth (m)	14.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	109+025	
Structure ID No	Temple	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	45.5	
Length x Breadth (m)	4.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	109+200	
Structure ID No	College + Mosque (ph)	
Village Name	Lakshmipuram	
Side (Left/Right)	Right	
Distance from PCL (m)	73.5	
Length x Breadth (m)	13.5 x 22.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	109+200	
Structure ID No	Mosque	
Village Name	Lakshmipuram	
Side (Left/Right)	Right	
Distance from PCL (m)	73.5	
Length x Breadth (m)	9.8 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	110+075	
Structure ID No	Temple	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	16.5	
Length x Breadth (m)	2 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	112+250	
Structure ID No	Temple	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	130	
Length x Breadth (m)	4 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	112+850	
Structure ID No	Temple	
Village Name	Muthiyalpatem	
Side (Left/Right)	Right	
Distance from PCL (m)	11	
Length x Breadth (m)	10 x 13	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	113+250	
Structure ID No	Temple	
Village Name	Muthiyalpatem	
Side (Left/Right)	Left	
Distance from PCL (m)	7.5	
Length x Breadth (m)	5 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	113+250	
Structure ID No	Temple (2 nos)	
Village Name	Muthiyalpatem	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	7.5 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	113+850	
Structure ID No	Temple	
Village Name	Ayanampali	
Side (Left/Right)	Left	
Distance from PCL (m)	58	
Length x Breadth (m)	2.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	113+850	
Structure ID No	Temple	
Village Name	Ayanampali	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	3.5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	114+961	
Structure ID No	Mosque	
Village Name	Papankulam	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	17 x 39.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Summary Table

SI	Structure	SH-58		SH-116		SH-04	
		Direct	Indirect	Direct	Indirect	Direct	Indirect
1	Temple/Church/Mosque	15	32	16	23	57	114

7.9 BUS SHELTER AND BUS BAYS

The detail of bus shelters are given below in Table 7.19.

Table 7.24: List of Bus Shelters

Bus Shelters along SH 58

THIRUTHANI




SADRAS


Chainage (km)	26+550	
Structure ID No	Bus Stop	
Village Name	Chengalpattu	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	7.7 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	26+300	
Structure ID No	Bus Stop	
Village Name	Chengalpattu	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	7.7 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	26+650	
Structure ID No	Bus Stop	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	7.7 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	26+650	
Structure ID No	Bus Stop	
Village Name	Alatakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	7.7 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	25+000	
Structure ID No	Bus Stop	
Village Name	Mairinattam	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	7.7 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	22+625	
Structure ID No	Bus stop	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	9.8	
Length x Breadth (m)	4.9 x 2.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	22+300	
Structure ID No	Bus stop	
Village Name	Nenmeli	
Side (Left/Right)	Left	
Distance from PCL (m)	6.3	
Length x Breadth (m)	7.7 X 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	20+750	
Structure ID No	Bus stop	
Village Name	Pulleri	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	3 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	LHS 9 RHS 11.5	
Impact	No direct impact	


Chainage (km)	20+450	
Structure ID No	Bus stop	
Village Name	Pulleri	
Side (Left/Right)	Left	
Distance from PCL (m)	12	
Length x Breadth (m)	3 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	LHS 9 RHS 11.5	
Impact	No direct impact	


Chainage (km)	19+900	
Structure ID No	Bus stop	
Village Name	Perier nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	5.5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	19+900	
Structure ID No	Bus stop	
Village Name	Perier nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	6.5	
Length x Breadth (m)	5.5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	18+000	
Structure ID No	Bus stop	
Village Name	Keerapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	3 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	LHS 9 RHS 11.5	
Impact	No direct impact	


Chainage (km)	17+000	
Structure ID No	Bus stop	
Village Name	Thirukalundaram bypass	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	3 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	10+600	
Structure ID No	Bus stop	
Village Name	Mangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	9.5	
Length x Breadth (m)	5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	10+400	
Structure ID No	Bus stop	
Village Name	Mukartul	
Side (Left/Right)	Right	
Distance from PCL (m)	12.5	
Length x Breadth (m)	3.5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	9+200	
Structure ID No	Bus stop	
Village Name	Mullikolathur	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	4.2 x 2.1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	9+150	
Structure ID No	Bus stop	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	7 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	8+500	
Structure ID No	Bus stop	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	4.9 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	8+100	
Structure ID No	Bus stop	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	7+000	
Structure ID No	Bus stop	
Village Name	Narasogapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	Direct impact	


Chainage (km)	6+147	
Structure ID No	Bus stop	
Village Name	Narasogapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	8.5	
Length x Breadth (m)	5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	5+800	
Structure ID No	Bus stop	
Village Name	Anupuram	
Side (Left/Right)	Left	
Distance from PCL (m)	12.6	
Length x Breadth (m)	6 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	5+800	
Structure ID No	Bus stop	
Village Name	Anupuram	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	4 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	4+800	
Structure ID No	Bus stop	
Village Name	Anupuram	
Side (Left/Right)	Righ	
Distance from PCL (m)	4.2	
Length x Breadth (m)	7.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	4+750	
Structure ID No	Bus stop	
Village Name	Anupuram	
Side (Left/Right)	Left	
Distance from PCL (m)	9	
Length x Breadth (m)	3 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	3+050	
Structure ID No	Bus stop	
Village Name	Vembakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	5.6 x 2.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	2+000	
Structure ID No	Bus stop	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	4.2 x 2.4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	0+050	
Structure ID No	Bus stop	
Village Name	Mayur	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	4 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	Direct impact	


Bus Shelters along SH 116


KANCHIPURAM → VANDAVASI


Chainage (km)	14+275	
Structure ID No	Bus Stop	
Village Name	Mangal	
Side (Left/Right)	Left	
Distance from PCL (m)	6.75	
Length x Breadth (m)	4.2 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	14+600	
Structure ID No	Bus stop	
Village Name	Mangal	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	6.25 x 3.7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	18+450	
Structure ID No	Bus stop	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	5.6 x 2.8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	20+415	
Structure ID No	Bus stop	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	21+875	
Structure ID No	Bus stop	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	7 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	21+825	
Structure ID No	Bus stop	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	13	
Length x Breadth (m)	10 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	24+350	
Structure ID No	Bus stop	
Village Name	Mannamathy kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	17.5	
Length x Breadth (m)	5.6 x 6.3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+350	
Structure ID No	Bus stop	
Village Name	Mannamathy kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	8.4 x 6.3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+350	
Structure ID No	Bus stop	
Village Name	Mannamathy kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	25+875	
Structure ID No	Bus stop	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	5.6 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	29+200	
Structure ID No	Bus stop	
Village Name	Melma kut road	
Side (Left/Right)	Left	
Distance from PCL (m)	11	
Length x Breadth (m)	6 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	29+800	
Structure ID No	Bus stop	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	7.7	
Length x Breadth (m)	7.7 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	31+200	
Structure ID No	Bus stop	
Village Name	Poodur	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	7 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

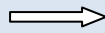
Chainage (km)	32+900	
Structure ID No	Bus stop	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	3 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	35+600	
Structure ID No	Bus stop	
Village Name	Venukundaram	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	35+800	
Structure ID No	Bus stop	
Village Name	Venukundaram	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Bus Shelters along SH 04


VILLUPURAM





ARNI


Chainage (km)	24+650	
Structure ID No	Bus stop	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	12.5	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	30+600	
Structure ID No	Bus stop	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	4.5 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	34+425	
Structure ID No	Bus stop	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	9	
Length x Breadth (m)	3.5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	37+100	
Structure ID No	Bus stop	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	6 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	40+350	
Structure ID No	Bus stop	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	16.8	
Length x Breadth (m)	7 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	41+600	
Structure ID No	Bus stop	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	42+575	
Structure ID No	Bus stop	
Village Name	Kollappalur	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	8 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	43+900	
Structure ID No	Bus stop	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	46+350	
Structure ID No	Bus stop	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	9	
Length x Breadth(m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	51+475	
Structure ID No	Bus stand	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	12	
Length x Breadth(m)	45 x 49	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	55+870	
Structure ID No	Bus stop	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	7	
Length x Breadth(m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	56+550	
Structure ID No	Bus stop	
Village Name	Nanodayam	
Side (Left/Right)	Left	
Distance from PCL(m)	3	
Length x Breadth(m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	58+800	
Structure ID No	Bus stop	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	6.5	
Length x Breadth(m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	59+450	
Structure ID No	Bus stop	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	7	
Length x Breadth(m)	3 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	60+800	
Structure ID No	Bus stop	
Village Name	Kooduvampondi	
Side (Left/Right)	Left	
Distance from PCL(m)	7.7	
Length x Breadth(m)	8 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	61+700
Structure ID No	Bus stop
Village Name	Ranganathampuram
Side (Left/Right)	Right
Distance from PCL(m)	6.5
Length x Breadth(m)	5 x 3
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



Chainage (km)	63+400
Structure ID No	Bus stop
Village Name	Devanur
Side (Left/Right)	Left
Distance from PCL(m)	8.5
Length x Breadth(m)	8 x 3
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



Chainage (km)	65+600
Structure ID No	Bus stop
Village Name	Valathy
Side (Left/Right)	Right
Distance from PCL(m)	7
Length x Breadth(m)	8 x 5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	67+350
Structure ID No	Bus stop
Village Name	Kannalam
Side (Left/Right)	Right
Distance from PCL(m)	7
Length x Breadth(m)	5 x 3
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	69+250
Structure ID No	Bus stop
Village Name	Annamangalm
Side (Left/Right)	Right
Distance from PCL(m)	7
Length x Breadth(m)	5 x 3
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	70+750	
Structure ID No	Bus stop	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	6.3	
Length x Breadth(m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	71+700	
Structure ID No	Bus stop	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	8.5	
Length x Breadth(m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	71+730	
Structure ID No	Bus stop	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	6.3	
Length x Breadth(m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	74+425	
Structure ID No	Bus stop	
Village Name	Chellabadai	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	4 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	84+150	
Structure ID No	Bus stop	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	7	
Length x Breadth(m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	83+625	
Structure ID No	Bus stop	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	5	
Length x Breadth(m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	82+600	
Structure ID No	Bus stop	
Village Name	Appampattu	
Side (Left/Right)	Right	
Distance from PCL(m)	6.5	
Length x Breadth(m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	79+600	
Structure ID No	Bus stop	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	6.5	
Length x Breadth(m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	79+600	
Structure ID No	Bus stop	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	26.5	
Length x Breadth(m)	8 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	76+025	
Structure ID No	Bus stop	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Left	
Distance from PCL(m)	13	
Length x Breadth(m)	3 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	85+650	
Structure ID No	Temple + Bus stop	
Village Name	Kavaraai	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	1 x 1, 6 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	86+000	
Structure ID No	Bus stop	
Village Name	Sitampoondi	
Side (Left/Right)	Left	
Distance from PCL (m)	9	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	86+600	
Structure ID No	Bus stop	
Village Name	Sitampoondi	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	6 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	87+800	
Structure ID No	Bus stop	
Village Name	Palappattu	
Side (Left/Right)	Left	
Distance from PCL (m)	18	
Length x Breadth (m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	89+200	
Structure ID No	Bus stop	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	8 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	91+325
Structure ID No	Bus stop
Village Name	Ottampattu
Side (Left/Right)	Right
Distance from PCL (m)	5.5
Length x Breadth (m)	6 x 4
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



Chainage (km)	92+550
Structure ID No	Bus stop
Village Name	Mattapari kut road
Side (Left/Right)	Left
Distance from PCL (m)	8
Length x Breadth (m)	6 x 4
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



Chainage (km)	93+050
Structure ID No	Bus stop
Village Name	Mattapari kut road
Side (Left/Right)	Right
Distance from PCL (m)	7.7
Length x Breadth (m)	8.5 x 5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	95+300
Structure ID No	Bus stop
Village Name	Kozhipanni
Side (Left/Right)	Left
Distance from PCL (m)	8.4
Length x Breadth (m)	5 x 3
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact





Chainage (km)	95+850
Structure ID No	Bus stop
Village Name	Muttathur
Side (Left/Right)	Left
Distance from PCL (m)	12
Length x Breadth (m)	5 x 3
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact





Chainage (km)	96+275	
Structure ID No	Bus stop	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	6 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	97+100	
Structure ID No	Bus stop	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	12.5	
Length x Breadth (m)	7 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	97+675	
Structure ID No	Bus stop	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	98+500	
Structure ID No	Bus stop	
Village Name	Arsalapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	6.5	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	99+400	
Structure ID No	Bus stop	
Village Name	Nembur	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	101+075	
Structure ID No	Bus stop	
Village Name	Narsinganur	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	102+200	
Structure ID No	Bus stop	
Village Name	Kanjanur	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	102+900	
Structure ID No	Bus stop	
Village Name	Kanjanur	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+300	
Structure ID No	Bus stop	
Village Name	Poondi Kannima	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	105+550	
Structure ID No	Bus stop	
Village Name	Ashokpuri	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	3.5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	106+275	
Structure ID No	Bus stop	
Village Name	Ashokpuri	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	4.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	106+325	
Structure ID No	Bus stop	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	107+275	
Structure ID No	Bus stop	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	7.7	
Length x Breadth (m)	5.5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	109+075	
Structure ID No	Bus stop	
Village Name	Lakshampuram	
Side (Left/Right)	Right	
Distance from PCL (m)	4	
Length x Breadth (m)	5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

Chainage (km)	110+900	
Structure ID No	Bus stop	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	5 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	112+250	
Structure ID No	Bus stop	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	112+650	
Structure ID No	Bus stop	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	5 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	113+250	
Structure ID No	Bus stop	
Village Name	Muthiyalpatem	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	7 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	113+650	
Structure ID No	Bus stop	
Village Name	Ayanampali	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	4.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


7.10 OTHER COMMUNITY UTILITY PROPERTIES


Besides cultural/religious properties, many community utility properties exist within the Corridor of Impact (CoI). The **Table 7.25** describes the details of other community properties like overhead tank, oldage home, crematorium and graveyard.


**Table 7.25: List of other Community Utility Properties
 Other Community Utilities along SH 58**


THIRUTHANI	➔	SADRAS
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Chainage (km)	25+500	
Structure ID No	Overhead Tank	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	15	
Length x Breadth (m)	3.5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+500	
Structure ID No	Old age home	
Village Name	Mairinattam	
Side (Left/Right)	Left	
Distance from PCL (m)	8.4	
Length x Breadth (m)	36.4 x 49	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+400	
Structure ID No	Over head tank	
Village Name	Mairinattam	
Side (Left/Right)	Left	
Distance from PCL (m)	52.6	
Length x Breadth (m)	3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+400	
Structure ID No	Over head tank	
Village Name	Mairinattam	
Side (Left/Right)	Left	
Distance from PCL (m)	72.6	
Length x Breadth (m)	3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	24+250	
Structure ID No	Over head tank	
Village Name	Mairinattam	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	22+575	
Structure ID No	Over head tank	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	7.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	20+300	
Structure ID No	Over head tank	
Village Name	Pulleri	
Side (Left/Right)	Left	
Distance from PCL (m)	21	
Length x Breadth (m)	1.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	19+900	
Structure ID No	Over head tank	
Village Name	Perier nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	10	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	19+100	
Structure ID No	Over head tank	
Village Name	Keerapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	24.5	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	16+300	
Structure ID No	Crematorium	
Village Name	Thirukalundaram bypass	
Side (Left/Right)	Left	
Distance from PCL (m)	22.5	
Length x Breadth (m)	10 x 15	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	14+700	
Structure ID No	Crematorium	
Village Name	Kothimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	9.8	
Length x Breadth (m)	49.7 x 45.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

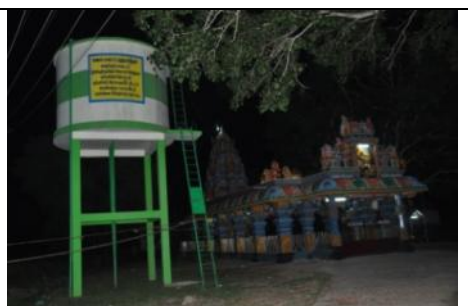
Chainage (km)	14+675	
Structure ID No	Over head tank	
Village Name	Kothimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	30.1	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	13+895	
Structure ID No	Over head tank	
Village Name	Kothimangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	25.2	
Length x Breadth (m)	4.5 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	13+400	
Structure ID No	Over head tank	
Village Name	Kothimangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	32.2	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	11+505	
Structure ID No	Grave yard	
Village Name	Mangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	15.7	
Length x Breadth (m)	26.6 x 25.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

Chainage (km)	9+300	
Structure ID No	Over head tank	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Length x Breadth (m)	3.5 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	8+200	
Structure ID No	Over head tank	
Village Name	Mullikolathur	
Side (Left/Right)	Left	
Distance from PCL (m)	11.2	
Length x Breadth (m)	3.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	3+475	
Structure ID No	Over head tank	
Village Name	Vembakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	14.5	
Length x Breadth (m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	2+900	
Structure ID No	Over head tank	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	12.5	
Length x Breadth (m)	4.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	0+125	
Structure ID No	Over head tank	
Village Name	Mayur	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	29.5 x 35.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Other Community Utilities along SH 116


KANCHIPURAM ➡ VANDAVASI


Chainage (km)	15+775	
Structure ID No	Over Head Tank	
Village Name	Kuzhamandal	
Side (Left/Right)	Left	
Distance from PCL (m)	21.4	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	17+825	
Structure ID No	Over head tank	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	13.2	
Length x Breadth (m)	3.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	18+350	
Structure ID No	Over head tank	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	18.9	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	18+540	
Structure ID No	Over head tank	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	21.7	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	19+250	
Structure ID No	Crematoria	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	23.5	
Length x Breadth (m)	3.5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	19+250	
Structure ID No	Crematoria	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	35	
Length x Breadth (m)	4.2 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

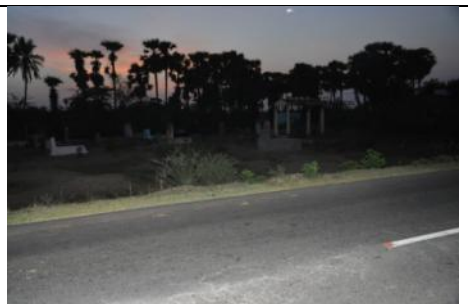
Chainage (km)	21+875	
Structure ID No	Over head tank	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	24.5	
Length x Breadth (m)	5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	22+950	
Structure ID No	Over head tank	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	15.4	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	24+350	
Structure ID No	Over head tank	
Village Name	Mannamathy kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	20	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	26+444	
Structure ID No	Grave yard	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	24.5	
Length x Breadth (m)	55 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	29+250	
Structure ID No	Over head tank	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	29.7	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	32+900	
Structure ID No	Grave yard	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	70 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	34+200	
Structure ID No	Over head tank	
Village Name	Thanangoor	
Side (Left/Right)	Left	
Distance from PCL (m)	20	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Other Community Utilities along SH 04


VILLUPURAM ➔ ARNI


Chainage (km)	24+625	
Structure ID No	Over head tank	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	18	
Length x Breadth (m)	5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	30+200	
Structure ID No	Over head tank	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	10	
Length x Breadth (m)	8 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	30+600	
Structure ID No	Over head tank	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	4 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	31+550	
Structure ID No	Over head tank	
Village Name	Sitheri	
Side (Left/Right)	Right	
Distance from PCL (m)	38.5	
Length x Breadth (m)	3.2 x 2.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	31+650	
Structure ID No	Grave yard	
Village Name	Sitheri	
Side (Left/Right)	Left	
Distance from PCL (m)	30	
Length x Breadth (m)	3.5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	32+200	
Structure ID No	Grave yard	
Village Name	Sitheri	
Side (Left/Right)	Left	
Distance from PCL (m)	20	
Length x Breadth (m)	20 x 20	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	32+700	
Structure ID No	Over head tank	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	58.5	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	32+850	
Structure ID No	Over head tank	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	22	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	33+200	
Structure ID No	Over head tank	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	26.5	
Length x Breadth (m)	3.2 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	37+250	
Structure ID No	Over head tank	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	29.5	
Length x Breadth (m)	5.5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	37+700	
Structure ID No	Over head tank	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	15.4	
Length x Breadth (m)	5 dia	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	40+050	
Structure ID No	Over head tank	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	33.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	42+525	
Structure ID No	Over head tank	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	17.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	43+300	
Structure ID No	Over head tank	
Village Name	Kollappalur	
Side (Left/Right)	Left	
Distance from PCL (m)	14.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	43+850	
Structure ID No	Over head tank	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL (m)	21.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	45+700	
Structure ID No	Over head tank	
Village Name	Chammambadi	
Side (Left/Right)	Left	
Distance from PCL(m)	36	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	46+350	
Structure ID No	Grave yard	
Village Name	Chammambadi	
Side (Left/Right)	Right	
Distance from PCL(m)	24.5	
Length x Breadth(m)	14 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	48+650	
Structure ID No	Over head tank	
Village Name	Yangasudamani	
Side (Left/Right)	Right	
Distance from PCL(m)	15.4	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	52+625	
Structure ID No	Over head tank	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL(m)	60	
Length x Breadth(m)	7 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	52+900	
Structure ID No	Over head tank	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	19.8	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	53+620	
Structure ID No	Grave yard	
Village Name	Chetpet	
Side (Left/Right)	Left	
Distance from PCL(m)	13.5	
Length x Breadth(m)	17.5 x 56	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	55+300	
Structure ID No	Grave yard	
Village Name	Nanodayam	
Side (Left/Right)	Right	
Distance from PCL(m)	17.5	
Length x Breadth(m)	43.5 x 29.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	57+050	
Structure ID No	Grave yard	
Village Name	Arul nadu	
Side (Left/Right)	Right	
Distance from PCL(m)	18	
Length x Breadth(m)	33.5 x 28	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	57+275	
Structure ID No	Over head tank	
Village Name	Arul nadu	
Side (Left/Right)	Right	
Distance from PCL(m)	15.4	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	59+450	
Structure ID No	Mandapam	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL(m)	21.5	
Length x Breadth(m)	7 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	61+275	
Structure ID No	Over head tank	
Village Name	Ranganathampuram	
Side (Left/Right)	Right	
Distance from PCL(m)	38.5	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	63+175	
Structure ID No	Over head tank	
Village Name	Devanur	
Side (Left/Right)	Right	
Distance from PCL(m)	41	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	65+200	
Structure ID No	Over head tank	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	83	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	65+990	
Structure ID No	Over head tank	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	12.5	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	66+200	
Structure ID No	Grave yard	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL(m)	10.5	
Length x Breadth(m)	35 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	66+300	
Structure ID No	Grave yard+crematoria	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL(m)	7	
Length x Breadth(m)	35 x 32	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	66+970	
Structure ID No	Over head tank	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL(m)	77	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	68+237	
Structure ID No	Grave yard	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL(m)	14	
Length x Breadth(m)	14 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	68+350	
Structure ID No	Grave yard	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL(m)	7	
Length x Breadth(m)	14 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	70+025	
Structure ID No	Mandapam	
Village Name	Annamangalm	
Side (Left/Right)	Right	
Distance from PCL(m)	8.5	
Length x Breadth(m)	9 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	70+635	
Structure ID No	Over head tank	
Village Name	Neelampoondi	
Side (Left/Right)	Left	
Distance from PCL(m)	21	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	72+400	
Structure ID No	Over head tank	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL(m)	35	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	84+675	
Structure ID No	Women development trust	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	16 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



Chainage (km)	83+775	
Structure ID No	Over head tank	
Village Name	Appampattu	
Side (Left/Right)	Left	
Distance from PCL(m)	16.1	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	82+150	
Structure ID No	Over head tank	
Village Name	Appampattu	
Side (Left/Right)	Right	
Distance from PCL(m)	18.5	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	81+250	
Structure ID No	Over head tank	
Village Name	Gumiyanguttai	
Side (Left/Right)	Right	
Distance from PCL(m)	8	
Length x Breadth(m)	5 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	80+050	
Structure ID No	Over head tank	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL(m)	30.5	
Length x Breadth(m)	5 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	79+600	
Structure ID No	Over head tank	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	32	
Length x Breadth(m)	7 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	79+128	
Structure ID No	Grave yard + crematoria	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	28	
Length x Breadth(m)	50 x 50	
Proposed ROW (Equal on either side of PCL) (m)	15	
Impact	No direct impact	
Chainage (km)	79+050	
Structure ID No	Abundant structure	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL(m)	22	
Length x Breadth(m)	10.5 x 16.5	
Proposed ROW (Equal on either side of PCL) (m)	15	
Impact	No direct impact	


Chainage (km)	77+025	
Structure ID No	Over head tank	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	42	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


Chainage (km)	75+850	
Structure ID No	Grave yard	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Left	
Distance from PCL(m)	13	
Length x Breadth(m)	29.5 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	75+125	
Structure ID No	Over head tank	
Village Name	Kariyamangalam kut road	
Side (Left/Right)	Right	
Distance from PCL(m)	16.5	
Length x Breadth(m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	86+300	
Structure ID No	Crematoria & Grave yrad	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	35	
Length x Breadth (m)	22 x 30	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	90+750	
Structure ID No	Grave yard	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	53	
Length x Breadth (m)	6 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+050	
Structure ID No	Over head tank	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	26	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+100	
Structure ID No	Grave yard	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	37	
Length x Breadth (m)	11 x 5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	91+225	
Structure ID No	Over head tank	
Village Name	Ottampattu	
Side (Left/Right)	Left	
Distance from PCL (m)	27	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	94+850	
Structure ID No	Grave yard	
Village Name	Kozhipanni	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	57 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	94+850	
Structure ID No	Crematoria	
Village Name	Kozhipanni	
Side (Left/Right)	Left	
Distance from PCL (m)	38.5	
Length x Breadth (m)	4 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+100	
Structure ID No	Grave yard	
Village Name	Kozhipanni	
Side (Left/Right)	Left	
Distance from PCL (m)	54	
Length x Breadth (m)	25 x 40	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+500	
Structure ID No	Grave yard	
Village Name	Kozhipanni	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	38 x 9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	95+600	
Structure ID No	Over head tank	
Village Name	Kozhipanni	
Side (Left/Right)	Left	
Distance from PCL (m)	38.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	98+000	
Structure ID No	Over head tank	
Village Name	Arsalapuram	
Side (Left/Right)	Right	
Distance from PCL (m)	22	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	99+200	
Structure ID No	Over head tank	
Village Name	Nembur	
Side (Left/Right)	Left	
Distance from PCL (m)	39	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	101+750	
Structure ID No	Over head tank	
Village Name	Kanjanur	
Side (Left/Right)	Left	
Distance from PCL (m)	50	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	103+000	
Structure ID No	Over head tank	
Village Name	Kanjanur	
Side (Left/Right)	Right	
Distance from PCL (m)	50	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	106+225	
Structure ID No	Over head tank	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	30.1	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+300	
Structure ID No	Over head tank	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	24	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	106+700	
Structure ID No	Grave yard	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	80 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	


Chainage (km)	107+025	
Structure ID No	Over head tank	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	26	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	107+350	
Structure ID No	Over head atrnk	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	12.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	109+050	
Structure ID No	Over head tank	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	17	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	


Chainage (km)	110+075	
Structure ID No	Crematoria	
Village Name	Puthomedu	
Side (Left/Right)	Left	
Distance from PCL (m)	65.5	
Length x Breadth (m)	46.21 x 14.7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	110+950	
Structure ID No	Over head tank	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	22.4	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	


Chainage (km)	112+650	
Structure ID No	Over head tank	
Village Name	Puthomedu	
Side (Left/Right)	Left	
Distance from PCL (m)	11.5	
Length x Breadth (m)	3.2 x 3.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	112+850	
Structure ID No	Grave yard	
Village Name	Muthiyalpatem	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	300 x 28.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	113+050	
Structure ID No	Crematoria	
Village Name	Muthiyalpatem	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	14 x 25.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

Chainage (km)	113+150	
Structure ID No	Over head tank	
Village Name	Muthiyalpatem	
Side (Left/Right)	Right	
Distance from PCL (m)	16.8	
Length x Breadth (m)	5.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	113+750	
Structure ID No	Over head tank	
Village Name	Ayanampali	
Side (Left/Right)	Left	
Distance from PCL (m)	45.5	
Length x Breadth (m)	4.2 x 4.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

Chainage (km)	115+375	
Structure ID No	Railway line	
Village Name	Papankulam	
Side (Left/Right)	Left	
Distance from PCL (m)	8.8	
Length x Breadth (m)	linear	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

7.11 SUMMARY OF SENSITIVE FEATURES

A summary of the sensitive features along the proposed corridor are presented in **Table 7.26** below. Sensitive features which are directly impacted by the project are also numbered as part of socio-economic survey. Mitigation and enhancement measures are presented in Chapter 8.

Table 7.26: Summary of Sensitive Features along the Proposed Corridor

SI	Structure	SH-58		SH-116		SH-04	
		Direct	Indirect	Direct	Indirect	Direct	Indirect
1	Temple/Church/Mosque	15	32	16	23	57	114
2	Pond	3	8	4	16	4	22
3	Well	0	4	1	3	45	140
4	River	0	0	1	0	2	0
5	Hospital	0	1	0	2	1	4
6	Educational Institute	2	9	1	8	9	35
7	Bus Stop	19	9	8	8	44	15
8	Overhead Tank	2	14	0	9	3	44
9	Grave yard/Crematoria	0	3	1	3	6	17
10	Railway line	0	0	0	0	0	1
11	Anganwadi/Woman training centre	0	0	0	0	0	3
Total		41	80	32	72	171	395

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8 IMPACT MITIGATION AND ENHANCEMENT

8.1 MITIGATION, AVOIDANCE AND ENHANCEMENT

Mitigation as an integral part of environmental assessment aims at the avoidance and reduction of project related impacts that may be connected with previous policies, plans or programs. Efforts to avoid and reduce the adverse impacts were adopted during the design stage. This is reflected in the designs of the horizontal & vertical alignment, cross sections adopted, construction methods and construction materials. Detailed site investigations were carried out so that sensitive environmental resources are effectively avoided. As a result many environmental issues have been avoided at the design stage itself, as presented in **Table 8.1** below.

Table 8.1: Environmental features measured at design stage

Environmental Features	Potential Impact		
	SH-58	SH-116	SH-04
Trees (nos.)	1292	1244	7187
Surface Water source	11	20	26
Ground Water source	4	4	185
Schools and Hospitals	12	11	49
Sensitive Community Properties	47	39	171
Bus Shelters	28	16	59
Other community structures	19	13	70

8.2 AIR ENVIRONMENT – MITIGATION

Due to rapid urbanization, motor vehicles have emerged as one of the major sources of air pollution. The major aim of the proposed project is to facilitate the increased number of vehicles on roads over time. The potential impact and mitigation measures proposed for Air Environment are mentioned in **Table 8.2** below:

Table 8.2: Air Environment- Potential Impacts and Mitigation Measures

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
1	Meteorological factors and climate	Marginal impact	Due to production and laying of hot bituminous mix.	<ul style="list-style-type: none"> ✓ plantation ✓ Plantation in realignment sections ✓ shrub plantation in the median/island ✓ RoW hedge
2a	Air quality - emissions Pre-construction stage	temporary and location specific (Dust Generation)	<ul style="list-style-type: none"> • shifting of utilities, • removal of trees & vegetation, • transportation of material • installation of construction plants 	<ul style="list-style-type: none"> ✓ Sprinkling of Water ✓ Fine materials to be completely covered, during transport & stocking. ✓ Plant to be installed in downwind direction from nearby settlement.
2b	Air quality -	Moderate	■ clearing and grubbing	✓ Air pollution Norms will be

	emissions Construction Stage	impact (Gaseous pollutants & Dust generation)	<ul style="list-style-type: none"> ▪ materials dumping ▪ brushing of the surface ▪ access roads to borrow-areas ▪ hot mix plants, Crushers ▪ paving of asphalt layers ▪ Labour Camps 	<p>enforced,</p> <ul style="list-style-type: none"> ✓ Laborers will be provided mask. ✓ Local people will be educated on safety and precaution. ✓ Provision of windscreens, mist spray units, and dust encapsulation will have to be provided at Crusher & Hot Mix Plants.
2c	Air quality - emissions Operation Stage	Moderate impact (Gaseous pollutants)	<p>air pollutants from traffic</p> <p>dust emission from tiers</p>	<ul style="list-style-type: none"> ✓ compliance with future statutory regulatory requirements ✓ auto-technology, vehicular fuel quality- improvement
3	Air quality – monitoring	--	<p>Effectiveness / shortfall (if any)</p> <p>Any unforeseen impact.</p>	<p>8 Measures will be revised & improved to mitigate/ enhance environment due to any unforeseen impact.</p>

8.2.1 Meteorological Factors and Climate - mitigation

The minor impacts do exist due to widening of proposed road project. The minor impact do exists due to widening will be countered by compensatory and additional afforestation plan. There will not be any micro-climatic effect/impact anticipated due to increased traffic emission on the project road during construction and operation phase.

8.2.2 Air Quality Emissions - mitigation

Pre-construction Stage: Sprinkling of water will efficiently encountered the problem of dust generation due to pre-construction activities. This is very temporary in nature.

Construction Stage: The dust will be produced due to excavation, loading and unloading and transportation of construction materials, vehicular and construction equipment emission and emission from the DG sets etc. The specific measures to encounter the construction stage air pollution include:

- The plants will be located at significant distance away in the downwind direction of normal wind flow from the nearest human settlement or any other institutions of importance.
- Sprinkling of water on haulage roads, earthworks, and diversions on a regular basis.
- Vehicles carrying fine materials like soil and fine aggregates shall be covered.
- Hot mix plant and batch mix plant will be fitted with dust extraction units and mist spray to keep down the dust emission levels.
- Pollution control systems like water sprinkling and dust extractors and cover on conveyors will be installed for the crushers.
- All vehicles, equipment and machinery used for construction will be regularly maintained to ensure that the emission levels conform to the SPCB/CPCB norms.
- Air pollution monitoring plan has been delineated for construction phase separately for checking the effectiveness of the mitigation measures adopted during the construction

phase of the Contract.

- Vehicles, equipments and machineries used for construction are regularly maintained and confirm to the emission standards specified by the CPCB/SPCB.

Operation Stage: During operation stage, air pollutant will be from vehicular movement on road. The better fuel quality and good engine efficiency will substantially reduced the air pollution during operation stage. The measures/proposed are below:

- Pollution resistant species should be planted along the roadside, which can grow in high pollutant concentrations.
- Monitoring of air pollution levels at sensitive/specified locations shall be carried out all through the operation stage to check that the pollution levels are within standards prescribed by CPCB. A monitoring plan to this effect has been prepared for all roads separately and is presented in the individual EMPs.
- Other measures such as the reduction of vehicular emissions, ensuring vehicular maintenance and up-keep, educating drivers about driving behavior / methods that will reduce emissions are beyond the scope of the Project but will be far more effective in reducing the pollutant levels.

8.2.3 Air Quality Monitoring

The periodic monitoring of the ambient air quality at pre-designated locations and if necessary at additional locations for comparative study of pre and post operative data in order to ensure further improvement /modification in the design methodology.

The frequency, duration and responsibility will be as per the **ANNEXURE 8.1: ENVIRONMENTAL MONITORING PLAN**. For location refer table 4.7: Ambient Air Quality Monitoring Locations. And standard/acceptable values are given in Annexure 3.1: National Ambient Air Quality Standards.

8.3 LAND ENVIRONMENT- MITIGATION

Soil erosion and contamination of soil have emerged as major sources of land impact especially in urban areas and nearby watercourses. The potential impact and mitigation measures proposed for Land Environment are mentioned in **Table 8.3** below:

Table 8.3: Land Environment - Potential Impacts and Mitigation Measures

Sr. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
1	Change in Topography	Marginal impact	Due to embankment raising.	Embankment rising to relieve water logging.
2	Change in Geology	Direct , long term, negative impact	Extraction of materials (borrows earth, coarse & fine aggregates).	no blasting is envisaged quarry redevelopment plan need to be enforced
3	Change in Seismology	No Negative Impact		Cross drainage structures are checked and complied with the seismological settings of the region. (Zone)

4	Change in Land environment			
a	Loss of land	Direct, long-term negative impact	Land Acquisition Change in land use pattern	Land acquisition to be minimized with provision of Retaining walls.
b	Generation of Debris	Negative Impact	May contaminate air, water and land, if not disposed properly.	disposed properly to avoid contamination
c	Soil Erosion	Moderate, direct, long-term negative impact	Road slopes and spoils Construction of new bridges and culverts Quarry and Borrow areas	Embankment protection. For Emb. ht. >3m Stone pitching, Emb. ht. <3m Turfing. Residual spoil need to be disposed properly. Silt Fencing need to be provided. Quarries need to be reclaimed
5	Contamination of Soil	Direct, long term negative impact	Scarified bitumen wastes Oil & diesel Spills Emulsion sprayer and laying of hot mix Production of hot mix and rejected materials Residential facilities for the labor and officers Routine and periodical maintenance	Hazardous Wastes (Management and Handling) Rules, 1989 to be enforced. Oil Interceptor will be provided for accidental spill of oil and diesel. Rejected material will be laid in village roads or as directed by engineer. Septic tank will be provided for waste disposal.
6	Soil quality - monitoring		Effectiveness / shortfall (if any) Any unforeseen impact	Measures will be revised & improved to mitigate/ enhance environment due to any unforeseen impact.

8.3.1 Change in Topography - mitigation

There is not much change in the embankment of the project road (refer table 7.9 Embankment raising sections) hence no appreciable change in topography. Pavement height will be raised to accommodate structural layers over the existing pavement, at minor & major bridges and at due submergence area. The raising due to submergence and profile improvement is positive impacts on the local environment. The raised sections are located away from habitations. **Adequate measures have been taken so that the additional height of embankment if any in settlement areas should be minimum possible and in no case exceed 0.5 m.**

8.3.2 Change in Geology- mitigation

As part of the Project preparation, the sources of quarries for the fine and coarse aggregates should be identified in the nearby areas for use in road works and structural works. No new quarry has been proposed for the Project requirements. Only existing, live, licensed quarries will be used as sources of coarse and fine aggregates. It will be ensured the aggregates procured during construction stage will be from the authorized or licensed suppliers only. Instructions/procedure as detailed in **ANNEXURE 8.2: GUIDELINES FOR AGGREGATE**

QUARRY MANAGEMENT will be applicable.

Selected soil borrow areas should be identified during the design stage of the Project. Most of these borrow areas are local borrow areas, and agricultural fields not in productive use. Instructions / procedure as detailed in **ANNEXURE 8.3: GUIDELINES FOR BORROW AREA MANAGEMENT**, will be applicable.

8.3.3 Change in Seismology - mitigation

There will be NO impact on the seismological setting of the region. However, as part of the project all the existing structures will be checked and constructed as per the seismological requirements of the region in conformity to the **IRC 6, 2000** guidelines. Refer Fig 7.1 Seismology map.

8.3.4 Change in Land Environment – Mitigation

Loss of Land: As far as possible the land acquisition has been kept to the minimum, by restricting the geometric improvement within the existing right of way. However the land acquisition will be done at sections having width, insufficient to accommodate the approved cross-sections & geometric improvements..

Debris Generation: Due to the removal of structures (Residential and commercial), pavement scarification and cross drainage structures lot of debris will generate, which need to be disposed properly to avoid contamination of land and water. For safe and environmental friendly disposal of waste debris the instruction/procedure specified in **ANNEXURE 8.4**.

Soil Erosion: Soil Erosion during construction of proposed project will cause negative impact if not dealt with, in time. Hence soil erosion cause loss of top-soil and contamination of water bodies/sources/channels.

Instruction/procedure is prepared in **ANNEXURE 8.5: GUIDELINES FOR SITE CLEARANCE AND TREE FELLING**

a) Road slopes and spoils

Adequate measures should be taken for control of the soil erosion from the embankments. Soil erosion through embankments is prevented and controlled by following methods.

Grassing of slopes: For the embankment height less than 3m, grasses, bushes & turfing are the best adopted practice for soil erosion control. Native species should be planted as these are easily grown in local soil, temperature and rainfall conditions. Plantation should be done just after the first pre-monsoon showers. However, watering of the slopes may be provided if the planting is done in the non-monsoon season, or to respond to dry conditions following planting. “Recommended Practice for Treatment of Embankment Slopes for Erosion Control”, IRC-56-1974, recommended the above methods of providing vegetation cover on embankment slopes.

Use of Pitching to Control Erosion: For embankment height more than 3 m, the lightly tamped stones or bricks should be used. The gaps between the stones are filled up with soil.

b) Construction of new bridges and culverts

All the debris/ earth generated due to dismantling of existing structure before the onset of monsoon should be removed by the Contractor.

c) Quarries and borrow areas

Refer ANNEXURE 8.2 and ANNEXURE 8.3

For temporary & permanent erosion/sedimentation control works of cleaning, roadway & drainage excavation, embankment/sub-grade construction, shoulders and other structures, the Contractor shall submit to the Engineer for approval his schedules before start of the construction. The contractor should also submit proposal for approval the proposed method of erosion/sedimentation control along with plan for disposal of waste materials.

8.3.5 Contamination of soil: Mitigation

Contamination of soil can spoil the soil and can also contaminate the surface as well as ground water sources. The potential impact and mitigation measures proposed for Land Environment are mentioned in Table 8.4 below:

Table 8.4: Soil - Potential Impacts and Mitigation Measures

Potential Impact	Mitigation/Enhancement
Scarified bitumen wastes, Excess production of hot mix and rejected materials.	Scarified waste and excess/rejected hot mix, with the consent of village authority, will be used in village roads construction.
Debris generated from dismantling of structures.	A comprehensive list of instructions/procedures has been suggested in ANNEXURE 8.4.
Maintenance of the machinery and operation of the diesel generator sets on site	The base of all machinery, generators will be paved and all the waste/spill will be drained to oil interceptor before discharging. Figure of oil interceptor is presented below.
Oil Spill from the operation of the diesel pumps and diesel storage, during transportation and transfer, parking places, and diesel generator sets	
Operation of the emulsion sprayer and laying of hot mix	Proper demarcation of the surface to be sprayed /paved will be done to minimize the excessive spread of emulsion/hot mix.
Operation of the residential facilities for the labour and officers	The residential facilities will be provided with proper sanitation, and planned setup of construction camp. A comprehensive plan of construction camp is prepared in ANNEXURE 8.11.
Storage and stock yards of bitumen and emulsion	The base of bitumen/emulsion stock yard will be paved and all the waste/spill will be drained to oil interceptor before discharging. Figure of oil interceptor is presented below

Oil Interceptor: Oil and grease from polluting run-off becomes major concern polluting the soil and water sources. During construction, discharge of Oil and Grease is most likely from workshops, oil and waste oil storage areas, diesel oil pumps, vehicle parking areas and from the

construction camps. Hence, vehicle/machinery and equipment maintenance and refuelling is carried out in such a way that it could not contaminate the soil. An “oil interceptor” is provided for wash down and refuelling areas. Fuel storage is in proper bounded areas. All spills and collected petroleum products are disposed off in accordance with MoEF and SPCB guidelines. Fuel storage and fuelling areas are located at least 300m from all cross drainage structures and significant water bodies. The details of the arrangement for the oil interceptor for the removal of oil and grease are given in **Figure 8.1** below.

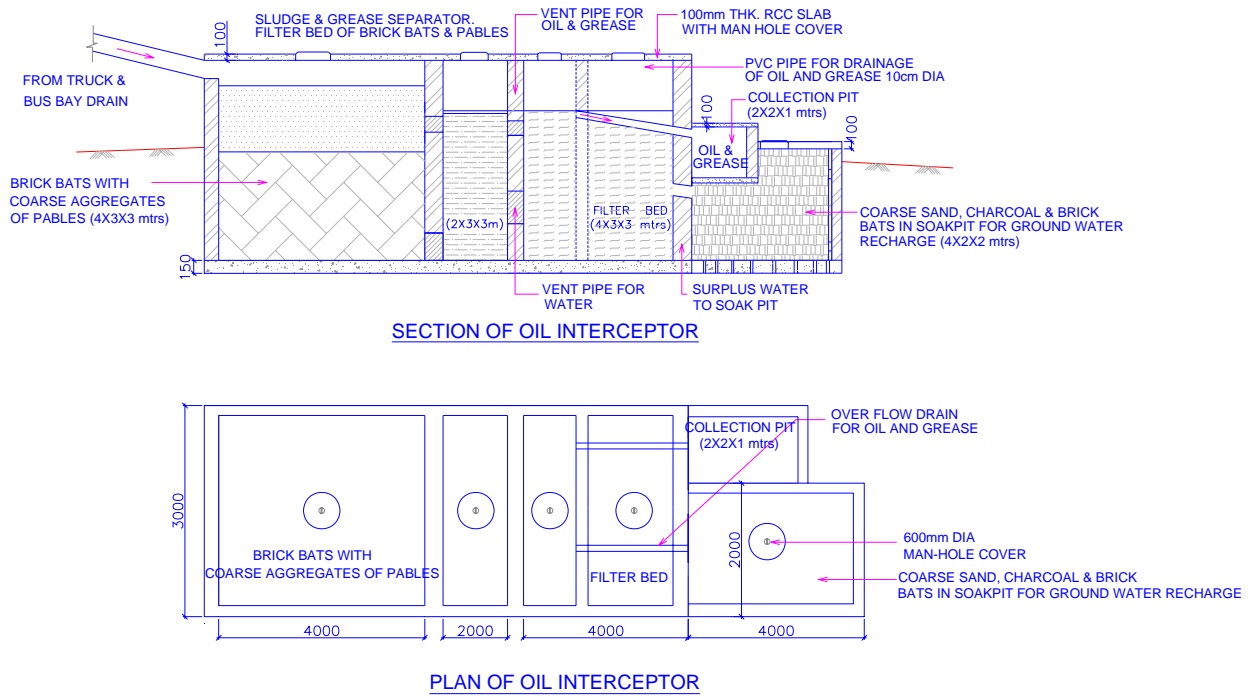


Figure 8. 1:Conceptual plan of Oil Interceptor

8.3.6 Soil Quality Monitoring

During construction and operation stage of the project, the soil quality shall be monitored to check the contamination due to various construction activities. The monitoring plan shall be functional in construction as well as in operation stages. The frequency, duration and responsibility will be as per the ANNEXURE 8.1. In addition to locations of soil quality monitoring, one at hot mix plant site, one at construction yard & labour colony will be identified.

8.4 WATER ENVIRONMENT-MITIGATION

There will be some direct and indirect long term impacts on the water resources due to proposed project. The major adverse impacts on the water resources and the mitigation measures taken are presents in the **Table 8.5** below:

Table 8.5: Water Environment - Potential Impacts and Mitigation Measures

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
1	Loss of water	Major,	Part or complete	Land acquisition to be minimized with

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
	Bodies	direct impact	acquisition of source of water	provision of Retaining walls. Relocation of ground/surface water sources.
2	Alteration of Cross Drainage	Low Impact	Widening of major & minor bridges and culverts.	Widening of bridges and culverts. There will be an improvement in the drainage characteristics of the project area. Enhancement to the local environment (flooding, stagnation, scour, run-off velocity– all would be reduced)
3	Runoff and drainage	Direct Impact	Siltation of water bodies Reduction in ground recharge. Increased drainage discharge	Silt fencing to be provided. Recharge well to be provided to compensate the loss of pervious surface. Continuous drain is provided, unlined in rural area and lined in urban areas.
4	Water requirement for project	Direct Impact	Water requirement for construction activity. Water requirement of labour.	Use of ground water facility shall be subject to the local legislation and ground water availability and the competent authority for such permission as declared by the State Govt. from time to time shall have to be contacted for issue of necessary permission in this regard. This is required to avoid depletion of water resources.
5	Water Quality			
a	Increased sedimentation	Direct impact	increased sediment laden run-off alter the nature & capacity of the watercourse	Silt fencing to be provided. Contractor will construct silt fencing at the base of the embankment construction for the entire perimeter of any water body (including wells) adjacent to the RoW and around the stockpiles at the construction sites close to water bodies. Contractor will ensure that construction materials containing fine particles are stored in an enclosure such that sediment-laden water does not drain into nearby water bodies. Instructions given in Annexure 8.6: Guidelines for sediment control to be enforced.
b	Contamination of Water	Direct adverse impact	<ul style="list-style-type: none"> • Scarified bitumen wastes • Oil & diesel Spills • Emulsion sprayer and laying of hot mix • Production of hot mix and rejected 	Hazardous Wastes (Management and Handling) Rules, 1989 to be enforced. Oil Interceptor will be provided for accidental spill of oil and diesel. Rejected material will be laid in village roads or as directed by engineer.

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
			materials • Residential facilities for the labor and officers • Routine and periodical maintenance	Septic tank will be construction for waste disposal.
6	Water quality - monitoring		Effectiveness / shortfall (if any) Any unforeseen impact	Measures will be revised & improved to mitigate/ enhance environment due to any unforeseen impact.

8.4.1 Loss of Water Bodies-Mitigation

Surface Water Bodies

Surface water bodies are community-based and therefore enhancement measures are proposed. Mitigation/enhancement measures of surface water bodies which are directly affected are given in **Table 8.6**. Details of surface water bodies – whether directly or indirectly affected- are presented in Chapter 7.

Table 8.6: Surface Water Bodies-Mitigation

Sl. No.	Road	Chainage (Km.)	Name of Common Property	Location (Left / Right)	Distance from PCL (m)	Impact	Mitigation/Enhancement
1	SH-58	25.925	Pond	Left	7	Direct Impact	Tree plantation Retaining wall on road side
2		2.700	Water logged	Left	3.2	Direct Impact	Tree plantation Retaining wall on road side
3		0.200	Pond	Left	5	Direct Impact	Tree plantation Retaining wall on road side
1	SH 116	20.415	Pond	Left	10.5	Direct Impact	Tree plantation Retaining wall on road side
2		22.275	Pond	Right	6.3	Direct Impact	Tree plantation Retaining wall on road side
3		22.800	Pond	Left	7.7	Direct Impact	Tree plantation Retaining wall on road side
4		27.200	Pond	Right	5.0	Direct Impact	Realignment
1	SH-04	38.425	River	Crossing	-	Direct Impact	Tree plantation Retaining wall on road side
2		40.550	Pond	Left	5	Direct Impact	Tree plantation Retaining wall on road side
3		43.400	Pond	Left	10.5	Direct Impact	Tree plantation Retaining wall on road side
4		85.800	Pond	Left	8	Direct Impact	Tree plantation Retaining wall on road side
5		96.300	Pond	Right	8.5	Direct Impact	Tree plantation Retaining wall on road side

Ground water resources

The removal of private and community ground water sources like bore wells, tube wells and open wells leads to loss of ground water sources. Details of such groundwater sources are presented in Chapter 7. All these assets are privately-owned and therefore loss of such sources will be compensated in financial terms. Assets which experience no direct impact will not be provided any compensation. As an enhancement measures for the existing ground water sources like hand pump and well, provision of soak pit is proposed as per the typical drawing in **Figure 8.2**.

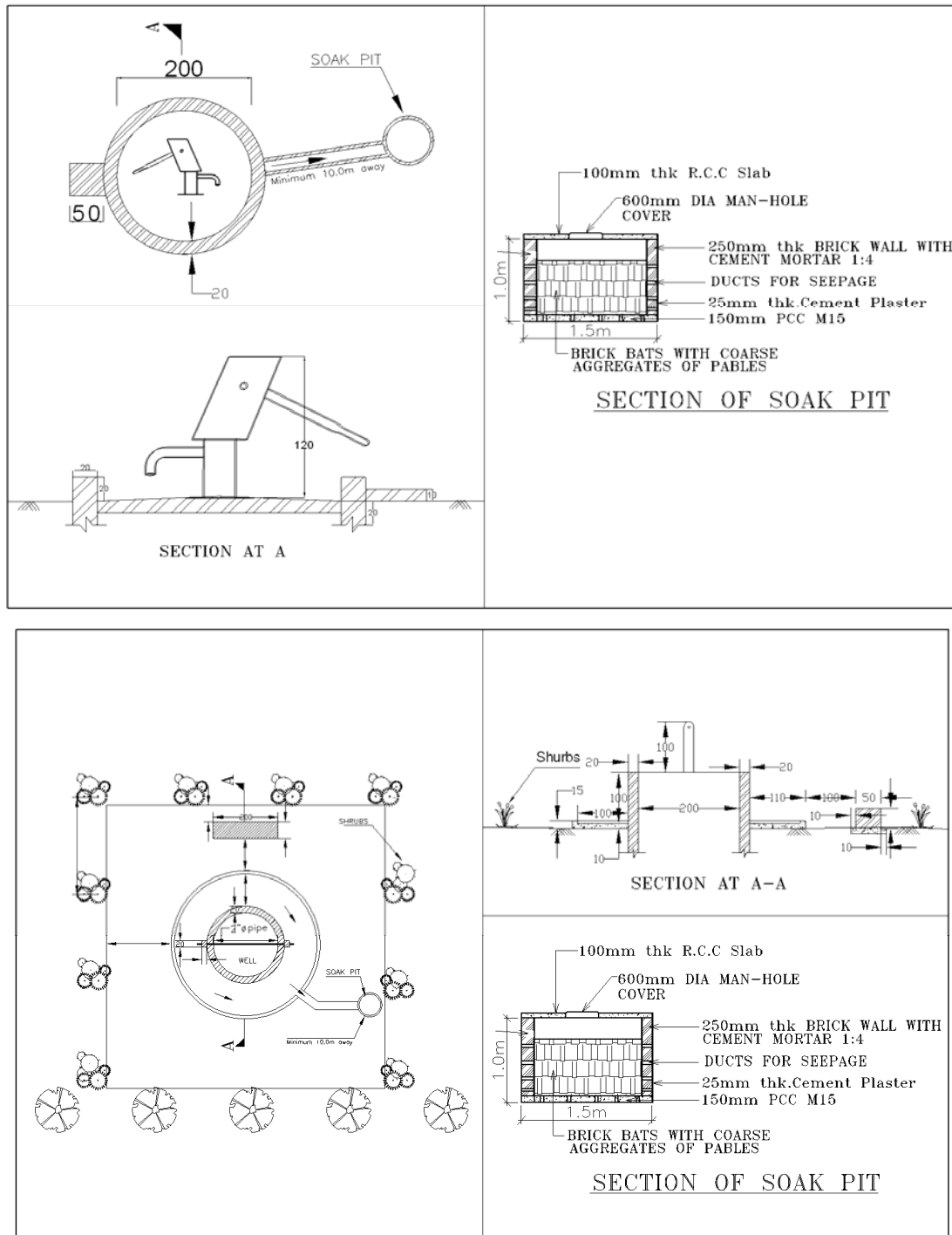


Figure 8. 2: Soak Pit

8.4.2 Alteration of cross drainage

- All cross drainage structures have been designed to handle a 50-year peak flood level.
- Storm water from all longitudinal and Cross drainage works will be connected to the natural drainage courses.
- The obstructions that may cause temporary flooding of local drainage channels, during the construction phase shall be removed by contractor.
- Contractor will be responsible for removal of debris generated due to the dismantling of structure and earth generated due to the excavation of foundation. For list of bridge under reconstruction bridges (refer table 7.12)

8.4.3 Runoff and drainage

- An efficient drainage/storm water system should be provided along all roads sides
- Lined drain is provided at built-up sections for quick drainage of storm water.
- The increased runoff due to increased impervious (Bituminous Top) surface will be countered with increased pervious surface area through soak pits, on both sides, at 500m interval.

Locations of lined drains for proposed Phase I roads (SH 58, SH 116 and SH 04) are given in Table 8.7, 8.8 and 8.9 below.

Table 8.7: Locations of lined drain(SH 58)

S. No.	Habitation	Chainage in KM		Length (m)	Number of Recharge Pits
		From	To		
1.	Meyur	0	180	180x 2	2
2.	Vengapakkam and Neikuppi	2800	4100	1300 x 2	6
3.	Anupuram	4400	6500	2100 x 2	8
4.	Mullikulathur	8000	9400	1400 x 2	6
5.	Kotimangalam	13100	13700	600 x 2	2
6.	Erumallai	13700	17200	3500 x 2	14
7.	Keerapakkam	18000	18400	400 x 2	2
8.	Periar Nagar	19000	20400	1400 x 2	6
9.	Nenmeli, Shantinagar, Nehrunagar, Alapakkam	21600	26800	5200 x 2	20

Table 8.8: Locations of lined drain(SH 116)

S. No.	Habitation	Chainage in KM		Length (m)	Number of Recharge Pits
		From	To		
1.	Mangal	14300	15200	900 x 2	4
2.	Akkur	15700	16200	500 x 2	2
3.	Kuzhamandal	17400	18230	830 x 2	4
4.	Vellamalai	18230	18800	570 x 2	2
5.	Peru Nagar	21700	22150	450 x 2	2
	Peru Nagar	22900	23100	200 x 2	2
6.	Manamadi Kootrode	24000	24900	900 x 2	4
7.	Thethurai	26700	27300	600 x 2	2
8.	Melma Kootroode	28800	29200	400 x 2	2

9.	Pudur	31500	32200	700 x 2	4
10.	Thennangur	33800	34200	500 x 2	2
11.	Venkundram	35800	36300	800 x 2	4

Table 8.9: Locations of lined drain(SH 04)

S. No.	Habitation	Chainage in KM		Length (m)	Number of Recharge Pits
		From	To		
1.	Arani	24600	30800	6200 x 2	24
2.	Vilai Setheri	31450	31800	350 x 2	2
3.	Nisal	32600	33300	700 x 2	2
4.	Vinay Mangalam	36750	36850	100 x 2	2
5.	Vinay Mangalam	37100	38100	1000 x 2	4
6.	Gangapuram	39800	40400	600 x 2	2
7.	Peraikolapolur	42200	42700	500 x 2	2
8.	Indiravanam	43200	44400	1200 x 2	6
9.	Semampedi	45650	46900	1250 x 2	6
10.	Kotavalsaavari	48390	48750	360 x 2	2
11.	Angar	49100	50000	900 x 2	4
12.	Chetpet	51100	53800	2700 x 2	12
13.	Nenmeli	57300	57500	200 x 2	2
14.	Valathy	65400	66000	600 x 2	2
15.	Koduvampoondi Jn	59300	59600	300 x 2	2
16.	Kannalam	67000	67600	600 x 2	2
17.	Kalingmalai Jn	69100	69500	400 x 2	2
18.	Neelampoondi	70200	70900	700 x 2	3
19.	Kadali	71600	72100	500 x 2	2
20.	Kalawai	76500	76700	200 x 2	1
21.	Gingee	79000	81700	2700 x 2	11
22.	Nrpet	81700	81900	200 x 2	1
23.	Apampatti	83600	84700	1100 x 2	4
24.	Sittampoondi	85300	85600	300 x 2	1
25.	Palapattu	87700	87950	250 x 2	1
26.	Mattaparai	90700	91400	700 x 2	3
27.	Mattaparai	92550	92650	100 x 2	1
28.	Kozhipannai	95000	95300	300 x 2	1
29.	Muttathur	95800	96400	600 x 2	2
30.	Arsoapuram	96480	96900	420 x 2	2
31.	Nemur	97300	97800	500 x 2	2
32.	Annanagar	98200	98600	400 x 2	2
33.	Annanagar	99700	99800	100 x 2	1
35.	Kanjanur	101000	101100	100 x 2	1
36.	Kanjanur	101850	102300	450 x 2	2
37.	Poondi	102800	103400	600 x 2	2
38.	Thumbur	103700	103900	200 x 2	1
39.	Lakshmipuram	105900	107600	1700 x 2	7
40.	Poothamedu	110000	110100	100 x 2	1
41.	Evi village Jn	110900	111000	100 x 2	1
42.	Thiruvamathur Jn	112500	112700	200 x 2	1
43.	Villupuram	113100	115500	2400 x 2	5

8.4.4 Water Requirement for Project

During the construction of the project, water is required for various uses which are estimated in Chapter 7. Water sample collected during the study is got analysed and their results are produced in Chapter 4. Accordingly, contractor has to select the source of water as per the availability of water and quality of water required for various uses. Following points are required to be considered for use of water during construction.

- Prior approval should be taken by the Contractor for withdrawing water from ground and surface source from relevant department.
- Contractor is required to minimise wastage of water.
- Methods for conservation of water to be adopted by contractor during construction process.

8.4.5 Water Quality

Increased sedimentation: Desilting will be done for the existing ponds/Tanks. Also silt fencing will be provided wherever required. Instructions given in **ANNEXURE 8.6: GUIDELINES FOR SEDIMENT CONTROL** to be enforced.

Table 8.10: Quantity of Silt Fencing

S. No.	Location	Length (approximate)			Remark
		SH 58	SH 116	SH 04	
1	Top soil storage	150 m	125 m	450 m	Around the periphery of dumping yard
2	Borrow area site	50 m	45 m	150 m	Along the length of borrow area
3	Surface Water bodies	225m	215 m	750 m	Equals to length parallel to road
4	Plant Site	50 m	45 m	150 m	Along length of plant site parallel to road

Contamination of water: The Contractor will take all precautionary measures to prevent the waste water generated during construction from entering into streams, water bodies.

- Oil interceptor will be provided at plant site and truck lay byes.
- Construction work close to the streams or water bodies will be avoided during monsoon.
- All waste arising from the project is to be disposed off in the manner that is acceptable to the State Pollution Control Board or as directed by Environmental Expert of Supervision Consultant in accordance to the local legislation for such disposal.
- Construction labourers' camps will be located at least 1000m away from the nearest habitation.
- Unless otherwise authorised by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the workplace suitably approved by the local medical health or municipal authorities will be made.
- Avoid vehicle washing in nearby water bodies.

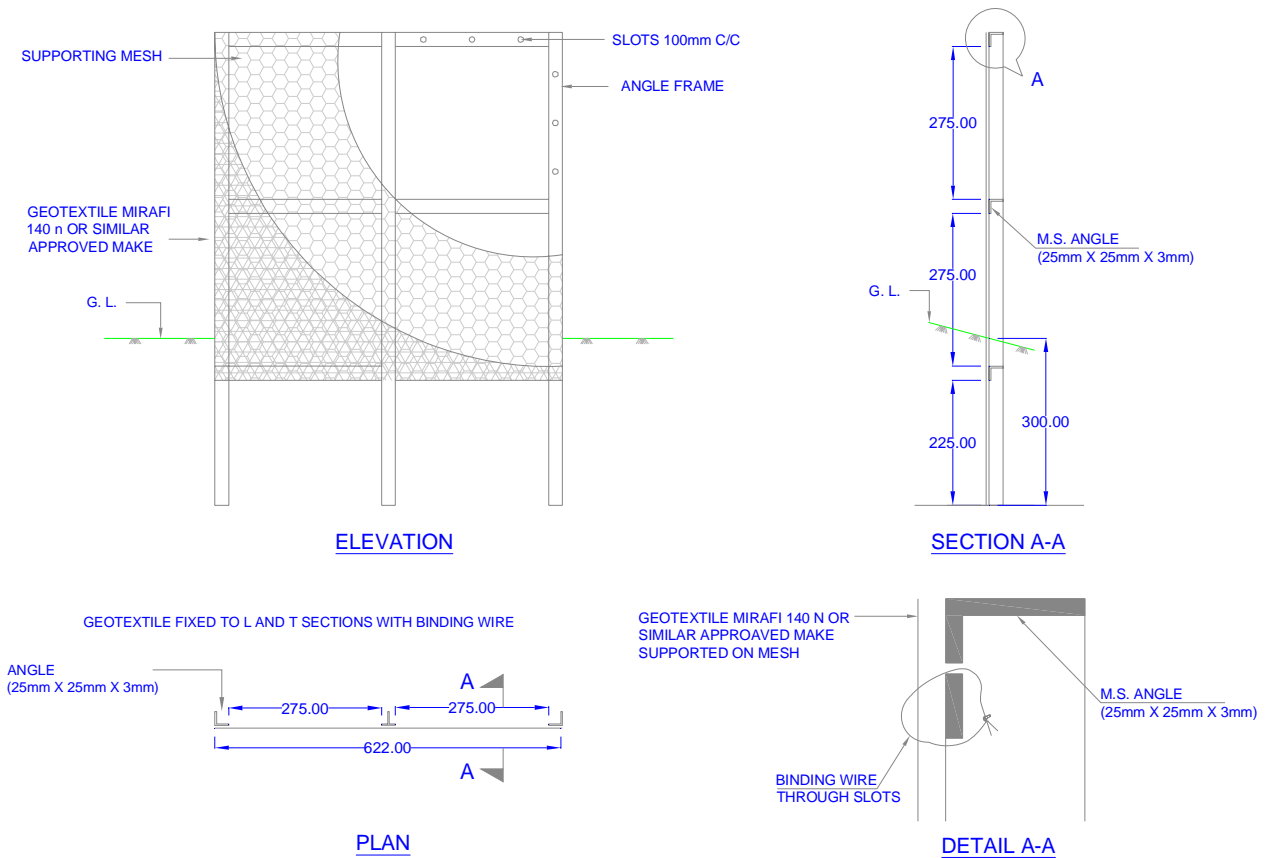


Figure 8. 3: Conceptual plan of silt fencing.

8.4.6 Water Quality Monitoring

During construction and operation stage of the project, the water quality shall be monitored to check the contamination due to various construction activities. The monitoring plan shall be functional in construction as well as in operation stages. The frequency, duration and responsibility will be as per the ANNEXURE 8.1: For location refer table 4.17: Additional Monitoring Locations as per the Engineer In charge at site. Three additional locations are taken for hot mix plant site, construction site and labour colony for each package. Any value/result not within acceptable limits will be reported to engineer, for remedial measures.

8.5 NOISE ENVIRONMENT-MITIGATION

Noise pollution around the highway roads are the major concerns to the habitation along the road. The potential impact and mitigation measures proposed for Land Environment are mentioned in Table 8.11 below:

Table 8.11: Noise Environment - Potential Impacts and Mitigation Measures

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
1	Sensitive receptors	Direct impact	Increase in noise pollution	Noise barrier to be provided NO Horn Zone sign Post.
2a	Noise Pollution (Pre-	Direct impact, short	Man, material & machinery movements	Area specific and for short duration Machinery to be checked & complied with noise pollution

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
	Construction Stage)	duration	Establishment of labor camps onsite offices, stock yards and construction plants	regulations. Camps to be setup away from the settlements, in the down wind direction.
2b	Noise Pollution (Construction Stage)	Marginal Impact	stone crushing, asphalt production plant and batching plants, diesel generators etc Community residing near to the work zones	Camps to be setup away from the settlements, in the down wind direction. Noise pollution regulation to be monitored and enforced. Temporary as the work zones will be changing with completion of construction
2c	Noise Pollution (Operation Stage)	Marginal Impact	due to increase in traffic (due to improved facility)	Avenue plantation on both side of road and uninterrupted traffic movement due to good condition of road
3	Noise Pollution Monitoring		Effectiveness / shortfall (if any) Any unforeseen impact	Measures will be revised & improved to mitigate/ enhance environment due to any unforeseen impact.

8.5.1 Sensitive Receptors -Mitigation

All sensitive receptors i.e.schools, hospitals and religious/cultural features, whether or not subject to direct impact, are proposed to be provided with noise barrier.List of sensitive receptors along the project corridor and respective mitigation measures is presented in **Table 8.12** below. Noise barrier in the form of boundary wall or plantation will be provided.Refer **ANNEXURE 8.14: MITIGATION/ENHANCEMENT OF COMMUNITY PROPERTIES**. Conceptual Plan for Noise Barrier is given in **Figure 8.4**.

Table 8.12: List of SensitiveReceptors and Mitigation

S. No.	Road	Chainage (Km.)	Name of Common Property	Location (Left / Right)	Distance from PCL (m)	Impact	Mitigation/Enhancement
1	SH-58	26.675	Health Center	Left	13.50	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
2		26.550	School	Left	11	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
3		22.350	School	Right	8.5	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
4		19.200	School	Right	14	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
5		15.000	School	Right	14	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn

							prohibited sign post will be provided
6		14.900	School	Right	11.2	No Direct	Tree Plantation. Horn prohibited sign post will be provided
7		14.200	College	Left	28	No Direct	Tree Plantation. Horn sign post will be provided
8		11.675	ITI	Right	10.5	Direct	Relocation
9		8.045	School	Right	4.2	Direct	Shifting of boundary wall and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
10		7.300	School	Left	15.4		Boundary wall will be constructed and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
11		3.390	School	Left	14		Tree Plantation. Horn prohibited sign post will be provided
12		0.050	School	Left	23.8		Tree Plantation. Horn prohibited sign post will be provided
1	SH-116	14.875	College	Left	11.4	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
2		14.425	School	Right	14.7	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
3		18.050	School	Right	16	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
4		21.725	School	Left	12.5	Direct	Shifting of boundary wall and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
5		21.825	Hospital	Right	14.7	No Direct	Boundary wall will be constructed and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
6		24.350	School	Right	14	No Direct	Tree Plantation. Horn prohibited sign post will be provided
7		27.200	School	Left	8.3	No Direct	Tree Plantation. Horn prohibited sign post will be provided
8		29.250	Hospital	Right	29.7	No Direct	Tree Plantation. Horn prohibited sign post will be provided
9		31.500	School	Left	14.2	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
10		36.300	School	Left	18	No Direct	Tree Plantation. Horn prohibited sign post will be provided
1	SH-04	24.625	School	Left	30.8	No Direct	Tree Plantation. Horn prohibited sign post will be provided
2		29.500	School	Right	7	Direct	Demolition of structure up to 1m inside
3		29.800	Hospital	Right	5	Direct	Demolition of structure up to 3m inside

4	29.900	School	Left	10.5	No Direct	Horn prohibited sign post will be provided
5	30.600	School	Left	6	Direct	Existing boundary wall shifting. Tree Plantation. Horn prohibited sign post will be provided
6	30.600	School	Left	23.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
7	31.650	School	Left	27	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
8	32.550	School	Right	10.5	No Direct	Existing boundary wall will be raised and develop as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
9	34.500	College	Left	16.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
10	35.400	School	Left	26	No Direct	Tree Plantation. Horn prohibited sign post will be provided
11	37.600	Hospital	Left	10.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
12	37.575	School	Right	7	Direct	Existing boundary wall shifting. Tree Plantation. Horn prohibited sign post will be provided
13	43.400	School	Right	16	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
14	43.850	School	Right	26.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
15	43.900	School	Left	7	Direct	Shifting of boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
16	86.510	School	Right	13.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
17	86.834	Training Center	Left	19	No Direct	Tree Plantation. Horn prohibited sign post will be provided
18	90.750	School	Right	10	Direct	Shifting of boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
19	95.800	School	Left	45	No Direct	Tree Plantation. Horn prohibited sign post will be provided
20	95.800	Hostel	Right	45	No Direct	Tree Plantation. Horn prohibited sign post will be provided
21	95.800	Church+ Hospital+ School	Left	15.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
22	99.850	School	Left	16.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
23	101.075	ITI	Right	15.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided

24	101.490	School	Left	15.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
25	102.900	Hospital	Right	13.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
26	106.300	School	Left	36	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
27	106.350	School	Left	20	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
28	107.150	School	Left	7	Direct	Shifting of boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
29	107.900	School	Right	36	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
30	108.600	College	Right	12.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
31	109.200	School	Left	10.5	Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
32	109.850	School	Left	12	No Direct	Tree Plantation. Horn prohibited sign post will be provided
33	112.250	School	Right	39.5	No Direct	Boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
34	114.25	School	Left	15.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
35	80.900	School	Left	9.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
36	79.700	Hospital	Right	16.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
37	53.150	School	Right	19.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
38	72.400	School	Right	42	No Direct	Tree Plantation. Horn prohibited sign post will be provided
39	63.950	School	Left	11	Direct	Shifting of boundary wall will be developed as noise barrier. Tree Plantation. Horn prohibited sign post will be provided
40	74.425	School	Right	17.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
41	64.300	Hospital	Right	12	No Direct	Tree Plantation. Horn prohibited sign post will be provided
42	63.750	Hostel	Right	43.5	No Direct	Tree Plantation. Horn prohibited sign post will be provided
43	56.650	Training Centre	Left	16	No Direct	Raise height of boundary wall. Tree Plantation. Horn prohibited sign post will be provided

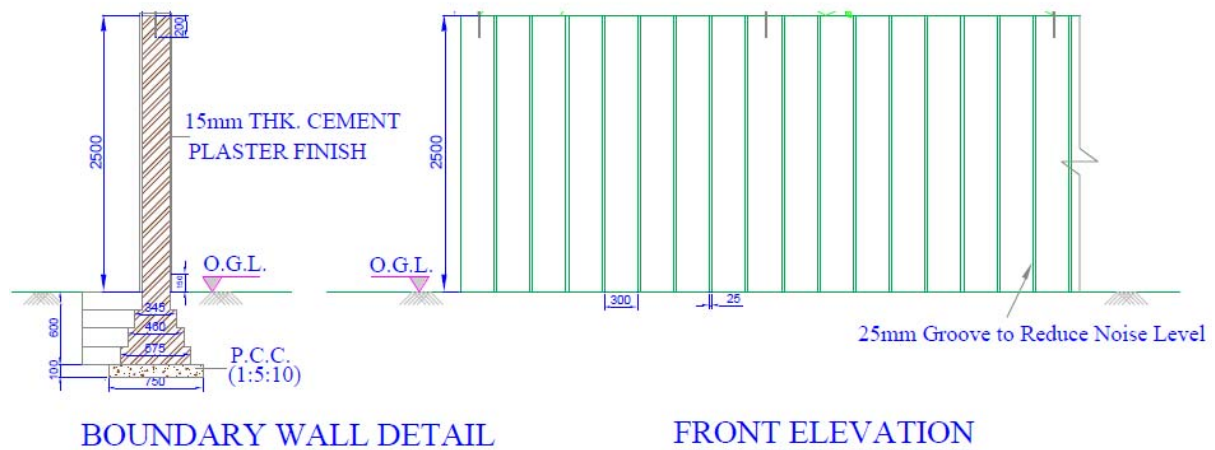


Figure 8.4: Conceptual Plan for Noise Barrier

8.5.2 Noise Pollution –Pre-construction and construction

- All plants and equipment used in construction (including aggregate crushing plant) shall strictly conform to the MoEF/ CPCB standards and should have latest noise suppression mountings.
- All vehicles and equipment used in construction will be fitted with exhaust silencers.
- Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.
- Construction activity at sites within 100m from habitation, hospitals and 1000mtrs. from forest areas should not be carried out during night.
- Contractor will provide noise mitigation barriers along the sensitive receptors mentioned above including masonry and vegetative
- Monitoring shall be carried out at the construction sites as per the monitoring schedule.
- Workers in the vicinity of high noise levels will be provided earplugs, helmets and will be engaged along with Job Rotation.
- All equipments having high noise generators such as concrete mixers, generators, graders, etc. must be provided with noise shields.

8.5.3 Noise Pollution Monitoring

Noise pollution will be monitored as per monitoring plan at sensitive locations. The survival and functioning of the noise filter plantations and noise control walls has to be specifically supervised and monitored for further improvement /replication at other affected points if necessary. The frequency, duration and responsibility will be as per the **ANNEXURE 8.1**. For location refer table 4.19: Additional Monitoring Locations as per the Engineer In-charge at site. Three additional locations are taken for hot mix plant site, construction site and labour colony for each package. And standard/acceptable values are given in Annexure-3.1: National Ambient Noise Quality Standards.

8.6 FLORA & FAUNA - MITIGATION

Removal of tree is the most common impact of any road-widening project. The trees in the corridor should be removed by taking prior approval and in consultation with State Forest/Local authority depending upon the ownership of land. Trees will be removed from the Corridor of Impact before the actual commencement of the construction work to prevent traffic problems and accidents. No construction activity and tree felling should be simultaneously taken up in any location of the package. There is no recorded wild life habitat in near vicinity of the project corridor. The potential impact and mitigation measures proposed for Flora & Fauna are mentioned in **Table 8.13** below:

Table 8.13: Flora & Fauna - Potential Impacts and Mitigation Measures

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
1	Forest area	Direct Impact	Forest land to be acquired for SH 58 only	Land to be diverted, application submitted to Forest Department.
2	Wild Life	No Impact	No wild life habitat	Nil
3	Trees Cutting	Direct impact	Increase in soil erosion, silting of water bodies, Dust & noise pollution. loss of shade & loss of tree products	Maximum deviation in alignment design to save the road side trees. Compulsory tree plantation in the ratio of 1:10, i.e. for each tree cut, ten saplings will be planted. Avenue plantation along corridor.
4	Vegetation	Direct Impact	Increase in soil erosion, silting of water bodies, Noise pollution. Dust Pollution	Clearing and grubbing will be minimized, and sprinkled with water to reduce dust pollution. Exposed surface like embankment slopes will be protected with stone pitching and turfing. Open land in and around plant will be vegetated.
5	Cattle Grazing	No Impact	No cattle grazing found	Nil

8.6.1 Forest Area

From km 16/100 to km 16/440 the project road is passing through the reserve forest area at Thirukazhukundram bypass of SH 58. To widen and strengthen of SH 58 at forest reach, 0.544 Ha of land is required to acquire from forest department. The breakup of land to be acquired is presented in **Table 8.14** below.

Table 8.14: Break-up of Forest Area

S. No.	Block name	Road length in forest area (ROW : 16 m)	Trees falling within the corridor of Impact	Area of land to be diverted. (Ha)
1	Thirukazhukundram	0.340 km	103	0.544

Since the land acquisition requirement for the project intervention is only 0.544 Ha, hence the permission of diversion of land from forest area is required. Necessary formalities for land diversion have been already initiated by TNRSP. List of tree species (botanical/common name)

and their girth range is given in **Table 8.15** and complete list of tree is in Annexure 4.3 of Chapter 4.

Table 8.15: List of tree species with (botanical/common name) and their girth

S. No.	Botanical name	Common name	Girth range Cm
1.	<i>Cassia auriculata</i>	Tarwar	40-89
2.	<i>Borassus flaberiformis</i>	Tad palm	45-96
3.	<i>Pongamia pinnata</i>	Pongam	38-52
4.	<i>Azadirachta indica</i>	Neem	48-70
5.	<i>Acacia nilotica</i>	Babool	44-63
6.	<i>Prosopis julifera</i>	Jangali kikar	40-66

8.6.2 Wild Life

No wild life habitat/wild life crossing seen along the project corridor.

8.6.3 Trees

Mitigation and enhancement measures are proposed under the following heads:

1. **Compensatory Afforestation:** Compensatory afforestation will be taken up as per the Forest (Conservation) Act, 1980. For each tree felled, ten trees will be planted. Refer **ANNEXURE 8.7: ARRANGEMENT WITH FOREST DEPARTMENT**

- The felling of trees has been minimised as much as possible by having the centreline adjusted so as to necessitate felling of trees from only one side.
- Endangered species, if found during construction, will be transplanted as per the **ANNEXURE 8.8: GUIDELINES FOR TRANSPLANTATION OF TREES**.
- Prior approval should be taken before removal of any tree from the concerned department.
- As per approved alignment, 9723 trees (1292 in SH 58 + 1244 in SH 116 + 7187 in SH 04) need to be felled along the alignment: this figure is subject to confirmation from tree enumeration which is in progress.

2. **Avenue Plantation:** Trees shall also be planted in addition to the compensatory afforestation along the project corridors by the TNRSP through Department of Forest for this purpose sign a MOU with Department of Forest should be required. Such plantations will be initiated once the construction is complete. The objective behind such plantation is to cover/ re-vegetate the areas within the RoW that are at presently barren. To maintain the present character of strip plantation, similar indigenous trees should be planted. Refer **ANNEXURE 8.9: SELECTION OF TREE SPECIES**.

- Considering the combined compensatory afforestation by Forest and avenue plantation by the TNRSP, a total of 51600 saplings, subject to tree enumeration, will be planted along the corridor in single row.
- Costing has been done as per forest schedule of rate, including the plantation and maintenance cost for 3 years.

- 3. Plantation at Enhancement sites:** A number of tourist places are located along the project corridor. To enhance the aesthetic beauty of these locations, indigenous species of trees recommended which are most suited for the tree plantations. Refer **ANNEXURE 8.9**.
- 4. Landscaping at Junctions and medians etc:** For clear sight distances no trees are planted up to 50m before the intersections. For intersections, shrubs will be planted at 1.5m c/c. beyond this point only dwarf shrubs are planted. The height of these shrubs should be such that they do not obstruct the view of traffic coming from the intersecting road. The native plant species should be recommended for intersections. The supervision consultant shall ascertain availability of space in the junctions mentioned below and plantation shall be done in the available space. Refer **ANNEXURE 8.9**.
- 5. Tree Transplantation:** The trees at roadside location will be transplanted at the location of avenue plantation wherever possible and nearby open area. For cost effective transplantation and to make the survival rate more, the selection of trees should be based on girth of trees. The girth of the tree should be less than 1.0 meter for better survival rate. The cost effective transplantation is briefly discussed as below:
- Preliminary root investigation should be carried out,
 - Health diagnosis of the tree should be carried out for treating infected trees,
 - Soil condition where the tree has to be transplanted is thoroughly checked & necessary treatments are applied to the soil after digging a pit,
 - The pit size has to be kept in accordance with the root ball of the tree,
 - Packing material should be strong enough to hold the soil around the root zone,
 - Crane should be used to lift the packed tree and a trolley or truck should be used to transport the tree,
 - Timely feeding of the plant should be done with soluble fertilizers and watering,
 - JCB should be used for digging pits,
 - There should be regular monitoring for fertilizer schedules and the chemicals like insecticides and pesticides.
 - Scaffolding should be used wherever required to support the trees,
 - Any broken stems during transplantation should be removed cautiously.
 - After transplantation, there are chances of external infections to the tree which need maintenance for at least 2-3 months.
- 6. Vegetation:** Re-vegetation with local shrubs and grasses at high embankments to prevent soil erosion from the bare earth, prior to the monsoon.

8.6.4 Cattle Grazing - Mitigation

Cattle grazing are observed along the corridor. In view of the proposed road being only 2 lanes, it is recommended that grade-separated cattle crossings where the project road is raised on columns or on bank be implemented when carriageway is widened further to 4 lanes or more in future. However rumble strips, painted zebra crossings and warning signs for motorists at identified animal crossings are recommended in this Project.

8.7 SOCIO-ECONOMIC ENVIRONMENT - MITIGATION

Groups of impacts on socio-economic environment are listed in Specific impacts and their mitigation measures will be detailed in the RAP. The potential impact and mitigation measures proposed for Socio-Economic Environment are mentioned in **Table 8.16** below:

Table 8.16: Socio-Economic Environment - Potential Impacts and Mitigation Measures

S. No.	Item	Impact	Impact (Reason)	Mitigation/Enhancement
1	Fear of uncertainties regarding future	Direct, long Impact	Land and property owners are subjected to sufferings regarding uncertainties of the extent of loss and the nature of compensation	Public participation sessions will be conducted in different stages of project.
2	Inducement of land prices	Direct impact	danger of unscrupulous speculators moving in to purchase land	Market Value will be assessed by competent Authority.
3	Inducement of squatter influx	Direct impact	Squatters may attempt to occupy adjacent land in the hope of receiving compensation undue pressure on local resources	The date of issue of Notification of LA is cut off date for identification of PAP.
4	Loss of utilities and amenities	Direct Impact	Natural (trees, bushes and grasslands), and Physical structures (public or private assets and utilities).	Relocation of utilities will be completed prior to start of project work.
5a	Public Health and Safety	High direct adverse impact	Psychological impacts on their owners and others associated with them. Debris generated	Advance notice as per RAP (4 months before commencement of work) will be given to the owners of the affected properties. Debris, so generated will be disposed to the satisfaction of Engineer. Refer Annexure 8.4: Guidelines for Debris Disposal Site. Monitoring of air, water, noise and land during construction and operation phase. Refer Annexure 8.1: Guidelines for Monitoring Plan. Refer Annexure 8.10: Guidelines for Environment Friendly construction Methodology.
5b	Labour Camps	Direct Impact	can have clashes with the local population Pressure on basic facilities like medical services, power, water supply, etc Transmission of communicable diseases including aids. sanitary conditions in the labour camps	All contractors will be encouraged to recruit the local people as labourer at least for unskilled and semi-skilled jobs. Hygiene and basic facilities will be ensured at labour camp to prevent the spread of disease. Refer Annexure 8.11 sitting and layout of construction Camps, and Annexure 8.12 Workers Safety during construction

5c	Allied activities	Indirect Impact	social and economic life of the local population due to quarrying and crushing operations, traffic diversions, etc., traffic jams and congestion, loss of access and other road accident risk temporary land acquisition	Detailed traffic control plans shall be prepared and submitted to the engineer for approval prior to commencement of work on any section of road.
5d	Accidents and Safety	Direct Impact	School children ladies carrying pots full of water	The contractor will provide, erect and maintain barricades, including signs marking flags lights and flagmen as required by the Engineer.
6	Resettlement of People	In direct impact	Pressure on civil amenities, water sources, grazing lands, fuel wood, medical facilities etc.	A comprehensive resettlement action plan will be prepared
7	Land Use Changes	Indirect impact	Succession of land uses and higher return uses would displace the lower return uses at major intersections and in settlement areas. Urban fringe areas will be subjected to ribbon development	Project is widening of existing pavement, hence no major change in land use pattern is envisaged along the project road.
8	Disturbance to road side services	Indirect Impact	Some Shops may be shifted, no income from highway users hence loss of service to the local people	The clearing of such informal establishment will be carried out as phase-wise resettlement Programme
9	Removal of encroachments and squatters	Direct impact	loss of shelter disturbance to family	Impact will be minimised by providing alternative means of livelihood.
10	Sensitive community facilities	Direct impact	Loss of community facilities or institutions	Facilities will be relocated/restored before start of work.
11	Host Community	Indirect Impact	Incoming labour and families will put pressure on the existing scarce infrastructure and amenities available with the host community	Impact temporary in nature; persists till completion of work.

8.7.1.1 Religious/cultural and other Community assets

The religious and other community assets within the corridor have been identified. Table 8.17 below presents the impact and mitigation/enhancement proposed at each location. (Refer ANNEXURE 8.14: MITIGATION/ENHANCEMENT OF COMMUNITY PROPERTIES.).
There is no cultural properties along the corridor getting affected.

Table 8.17 List of religious/cultural and other community assets and mitigation

S. No.	Road	Chainage (Km.)	Name of Common Property	Location (Left / Right)	Distance from PCL (m)	Impact	Mitigation/Enhancement (As per Annexure 8.14 & Generic enhancement)
1	SH-58	26.400	Temple	Right	7.7	Direct Impact	Temple wall D&R
2		26.200	Temple	Left	7.7	Direct Impact	Generic Enhancement
3		26.140	Temple	Right	4.2	Direct Impact	Realignment Explored

S. No.	Road	Chainage (Km.)	Name of Common Property	Location (Left / Right)	Distance from PCL (m)	Impact	Mitigation/Enhancement (As per Annexure 8.14 & Generic enhancement)	
4		25.900	Church	Left	7	Direct Impact	Boundary Wall D&R	
5		24.400	Temple	Right	4.5	Direct Impact	Base platform & one Idol D	
6		23.858	Temple	Right	7	Direct Impact	B. Wall D&R	
7		22.675	Temple	Right	4.5	Direct Impact	Front mandapam D	
8		17.600	temple	Right	7	Direct Impact	Base platform partially D&R	
9		13.300	Church	Right	10.5	Direct Impact	Front porch D	
10		10.800	Temple	Right	9.5	Direct Impact	Boundary fencing D&R	
11		6.147	Temple	Right	8.4	Direct Impact	Realignment Explored	
12		3.300	Rath	Right	5.5	Direct Impact	D	
13		2.700	Church	Right	9.5	Direct Impact	Front porch demolished	
14		0.125	Temple	Left	7	Direct Impact	Boundary Wall D&R	
1		SH-116	14.515	Temple	Right	4.5	Direct Impact	Realignment Explored
2			18.100	Temple	Right	7	Direct Impact	Gate D&R
3			18.425	Temple	Right	10.5	Direct Impact	Realignment Explored
4	18.480		Temple	Right	11.2	Direct Impact	Boundary Wall D&R	
5	21.925		Temple	Right	6.3	Direct Impact	Realignment Explored	
6	26.775		Temple	Right	5.6	Direct Impact	Realignment Explored	
7	26.900		Temple	Right	10.8	Direct Impact	Boundary Wall D&R	
8	26.900		Temple	Left	7	Direct Impact	Idol shifted D	
9	30.400		Temple	Right	4.6	Direct Impact	Realignment Explored	
10	31.200		Temple	Right	5.6	Direct Impact	Realignment Explored	
11	34.200		Statue	Left	7	Direct Impact	D	
12	35.600		Temple	Right	5	Direct Impact	Realignment Explored	
13		32.900	Grave Yard	Right	8	Direct Impact	Realignment Explored	
1	SH-04	29.300	Temple	Left	7	Direct Impact	Front footpath demolished	
2		29.700	Mosque	Right	4	Direct Impact	Boundary Wall D	
3		29.800	Mosque	Left	6	Direct Impact	Gate D	
4		29.900	Temple (4 nos)	Right	6.5	Direct Impact	Front footpath D	
5		30.000	Temple	Right	5	Direct Impact	D	
6		30.100	Temple	Right	5	Direct Impact	Realignment Explored	
7		30.100	Temple	Right	6	Direct Impact	Realignment Explored	
8		30.600	Statue	Left	10s	Direct Impact	D	
9		31.500	Temple	Right	5.5	Direct Impact	Boundary Wall shifted	
10		32.900	Temple	Right	7	Direct Impact	Boundary Wall shifted	
11		36.750	Temple	Right	11	Direct Impact	Boundary Wall shifted	
12		37.650	Temple	Right	9	Direct Impact	Wall D&R	
13		37.875	Temple	Right	8.5	Direct Impact	Realignment Explored	
14		41.450	Temple	Right	10.5	Direct Impact	Temple mandapam D	
15		42.575	Temple	Right	7	Direct Impact	Gate D&R	
16		43.525	Temple	Left	6.5	Direct Impact	Realignment Explored	
17		58.425	Temple	Left	10.5	Direct Impact	Gate D	

S. No.	Road	Chainage (Km.)	Name of Common Property	Location (Left / Right)	Distance from PCL (m)	Impact	Mitigation/Enhancement (As per Annexure 8.14 & Generic enhancement)
18		85.650	Temple	Left	6	Direct Impact	D
19		88.425	Church	Right	8.4	Direct Impact	D
20		89.200	Church	Right	8.5	Direct Impact	Shed D
21		97.028	Temple	Left	3.5	Direct Impact	Shifted D
22		99.225	Church	Right	7	Direct Impact	Boundary fencing shifted
23		99.750	Temple	Left	8.5	Direct Impact	Shifted D
24		101.075	Church	Right	7	Direct Impact	Shifted D
25		101.075	Sacred Groove	Left	7.7	Direct Impact	Realignment Explored
26		101.950	Temple	left	7	Direct Impact	Boundary wall D&R
27		103.275	Sacred Groove	Left	5	Direct Impact	Realignment Explored
28		103.275	Temple	Left	4.5	Direct Impact	Realignment Explored
29		107.330	Temple	Left	7.5	Direct Impact	Shed demolished
30		107.775	Temple	Right	5	Direct Impact	Shifted
31		113.225	Temple	Left	7.5	Direct Impact	Boundary wall D&R
32		113.250	Temple	Left	6	Direct Impact	Temple shed wall D
33		113.850	Temple	Left	6	Direct Impact	Realignment Explored
34		84.675	Temple	Left	9	Direct Impact	Shifted D
35		77.725	Temple	Right	9.8	Direct Impact	Shifted D
36		78.050	Temple	Left	2	Direct Impact	Realignment Explored
37		82.600	Temple	Left	6.5	Direct Impact	Realignment Explored
38		81.500	Church	Left	10	Direct Impact	Boundary wall shifted
39		44.100	Temple	Right	7.7	Direct Impact	Shifted D
40		71.700	Temple	Left	7	Direct Impact	Shifted D
41		45.700	Temple	Right	6.5	Direct Impact	Realignment Explored
42		46.375	Temple	Left	9.8	Direct Impact	Shifted D
43		48.650	Temple	Right	7.7	Direct Impact	Shifted D
44		52.450	Temple	Right	7.7	Direct Impact	Boundary wall shifted
45		62.600	Temple	Right	5	Direct Impact	Shifted D
46		65.600	Temple	Right	7	Direct Impact	Realignment Explored
47		65.880	Temple	Right	8	Direct Impact	Boundary wall shifted D&R
48		67.350	Temple	Right	6.3	Direct Impact	Front footpath demolished D
49		67.862	Temple	Right	8.5	Direct Impact	Boundary wall shifted
50		71.050	Temple	Right	4	Direct Impact	Realignment Explored
51		65.500	Church	left	6.5	Direct Impact	Realignment Explored
52		66.970	Statue	Right	7.5	Direct Impact	Shifted D
53		66.300	Grave yard	Left	7	Direct Impact	Realignment Explored
54		66.200	Grave yard	Left	10.5	Direct Impact	Realignment Explored
55		68.350	Grave yard	Left	7	Direct Impact	Realignment Explored

D&R: To demolish and to reconstruct D: To demolish; no relocation

8.8 BUS STOPS

Bus stops with shelters are proposed in lieu of those which will be removed due to the Project and in additional locations in order to improve safety and increase road capacity.

At locations where existing RoW is more than proposed RoW, recessed bus bays will be provided. Features of existing bus shelters are presented in Chapter 7. Locations of proposed bus bays are listed in Chapter 2.

8.9 AVOIDANCE OF DISRUPTION AND SAFETY RISKS DURING CONSTRUCTION

8.9.1 Disruption to the community

8.9.1.1 Loss of access

The Contractor will provide safe and convenient passage during construction for vehicles, pedestrians and livestock to and from side roads and connecting the project road.

8.9.1.2 Traffic control

Detailed Traffic Control Plans will be prepared prior to commencement of works on any section of the road. The traffic control plans will contain details of temporary diversions and arrangements for construction under traffic.

Temporary diversion will be constructed with the approval of the project authority. Special consideration will be given in the preparation of the traffic control plan to the safety of pedestrians and workers at night. Proper control measures for pollution from these diversions should be made by the contractor. Secure assistance from local police for traffic control during the construction. Safety measures shall also be undertaken by installing road signs and markings for safe and smooth movement of traffic. The conceptual plan for traffic diversion is given in **Figure 8.5** below.

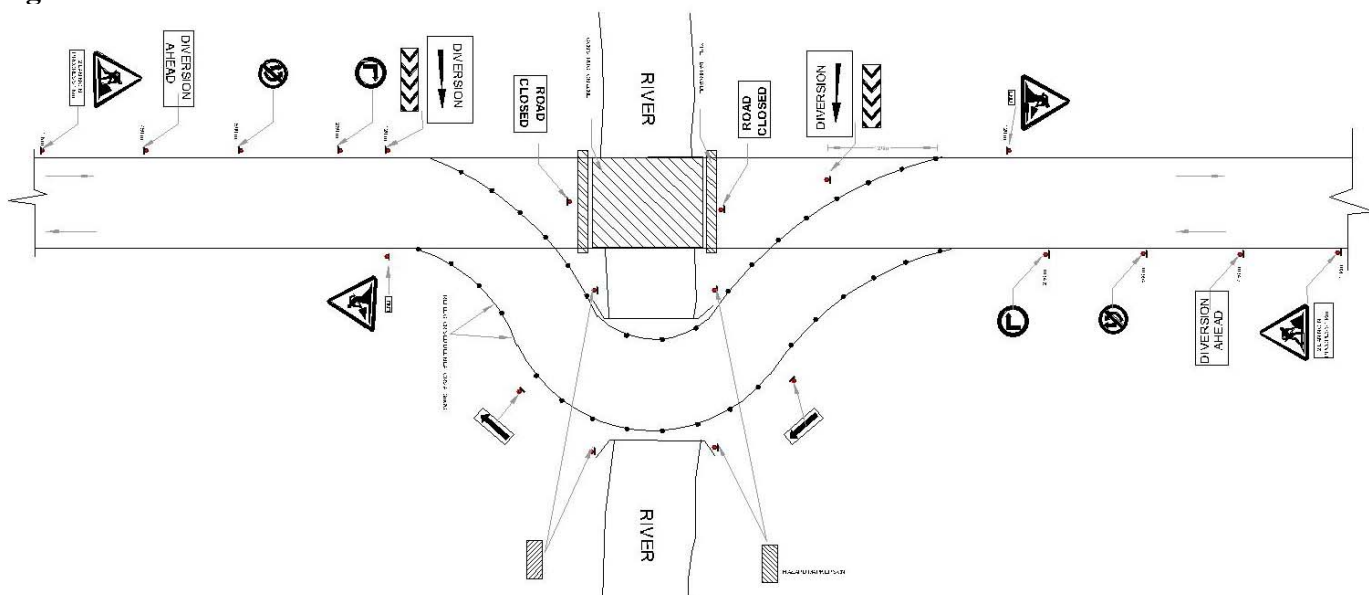


Figure 8. 5: Conceptual Plan for Traffic Diversion

8.9.1.3 Risk from operations

The Contractor is required to comply with all the precautions as required for the safety of the workmen as per the acts/rules applicable to this contract. The contractor will supply all necessary safety appliances such as safety goggles, helmets, masks, etc., to the workers and staff. The contractor has to comply with all regulation regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress.

8.9.1.4 Risk from electrical equipment

All machines to be used in the construction will conform to the relevant Indian Standards (IS) codes, will be free from patent defect, will be kept in good working order, will be regularly inspected and properly maintained as per IS provisions and to the satisfaction of the Engineer. Adequate precautions will be taken to prevent danger from electrical equipment.

8.9.1.5 Risk at hazardous activity

The contractor shall not use or generate any materials in the works, which are hazardous to the health of persons, animals or vegetation. Where it is necessary to use some substances, which can cause injury to the health of workers, the contractor shall provide protective clothing or appliances to his workers.

The contractor will provide, and ensure the utilization of appropriate safety equipment for all workmen and staff employed directly or indirectly by the contractor. A register of all toxic chemicals delivered to the site will be kept and maintained up to date by the Contractor. The register will include the trade name, physical properties and characteristics, chemical ingredients, health and safety hazard information, safe handling and storage procedures, and emergency and first aid procedures for the product.

8.9.1.6 Risk of lead pollution

The contractor will ensure that no paint containing lead or lead products is used except in the form of paste or readymade paint. Contractor will provide facemasks for use by the workers engaged in spray painting or manual painting when lead based compound is one of the constituents of such surface to be scrubbed, cleaned and painted. Person below 18 years of age must be restricted for such work.

8.9.1.7 Risk caused by force' majeure

All reasonable precaution will be taken to prevent danger of the workers and the public from fire, flood, drowning, etc. All necessary steps will be taken for prompt first aid treatment of all injuries likely to be sustained during the course of work.

8.9.1.8 Risk from explosives

Accidents occur due to careless handling of explosives, hazardous chemicals and inflammable materials. Explosives shall have to be carried out in accordance to the prevailing acts and guidelines from the time to time.

Where the use of explosives is so provided or ordered or authorised, the Contractor will comply with the requirements of the following Sub-Clauses of this Clause besides the law of the land as applicable: (**Annexure 8.13: Storage, Handling use and emergency**).

The Contractor will at all times take every possible precaution and will comply with appropriate laws and regulations relating to the importation, handling, transportation, storage and use of explosives and will, at all times when engaged in blasting operations, post sufficient warning flagmen, to the full satisfaction of the Engineer. For storage of blasting material, all precautions shall be taken as per The Explosive Rules, 1983. The Contractor will inform well in advance and obtain such permission as is required from all Government Authorities, public bodies and private parties whatsoever concerned or affected or likely to be concerned or affected by blasting operations.

8.9.1.9 Malarial risk

The borrow pits and any other water bodies created during the construction process will be situated at least 1 to 2 km away from the human settlements to avoid mosquito bite. Pits dug up closer than these will be adequately drained to prevent water logging.

Similarly compensatory measures for filling up part of the water bodies situated adjacent to the project corridors will be directed towards deepening of the water bodies concerned. This way the capacity of the water body remains the same, while water surface available for breeding of mosquitoes is reduced.

8.9.1.10 First aid

The contractor will arrange for -

- A readily available first aid unit including adequate supply of sterilized dressing materials and appliances as per the Factories Rules in every work zone with life saving first aid kits.
- Availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital
- Equipment and trained nursing /paramedical staff at construction camps.

8.9.1.11 Potable water

Contractor to ensure that the provision for supply of potable water to all camp sites will have to be in place; so that the sources are free from pollution and contamination. With proper drainage, platforms, storage facility and sanitation measures in position to see that the surplus and waste water flow does not stagnate or create unhealthy atmosphere around camp as well as the surrounding agricultural fields, water sources and habitation. Ground water recharging provision through setting up of soak pits away from such water supply system to discharge the waste water shall have to be made by the contractor at each camp site whether the same is over Govt. or private land. The Contractor will also provide availability of potable water within the precincts of every workplace in a cool and shaded area which is easily accessible as per standards set by the Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996.

8.9.1.12 Hygiene

The Contractor should be responsible for maintaining hygienic condition during whole construction period. The contractor will ensure that -

- The sewage system for the camp are designed, built and operated in such a fashion that no health hazard occurs and no pollution to the air, ground water or adjacent water courses takes place.
- Separate toilets /bathrooms /latrines, wherever required, are to be provided for women workers separately with specific signage indicating its exclusive use by them.
- All such facilities must have adequate water supply with proper drainage and disposal facility.
- All toilets in workplaces are to be located with covered screen walls and of dry earth system which are to be maintained, cleaned and disinfected daily using strong disinfectants. The location of such provisions should not be affecting the air surface water and ground water of the locality or the agricultural fields near by either during summer or rains.
- For lavatory purposes the use of portable latrines system are to be brought under use and the night soil so collected has to be disposed of at designated septic latrines, so as to prevent pollution of the workplace and surrounding areas.

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ANNEXURE OF CHAPTER 3

ANNEXURE 3.1: National Ambient Air Quality Standards, NATIONAL AMBIENT NOISE STANDARDS,
DRINKING WATER QUALITY STANDARDS, EFFLUENT DISCHARGE STANDARDS AND TOLERANCE
LIMIT FOR INLAND SURFACE WATER QUALITY 2

ANNEXURE 3.1: NATIONAL AMBIENT AIR QUALITY STANDARDS, NATIONAL AMBIENT NOISE STANDARDS, DRINKING WATER QUALITY STANDARDS, EFFLUENT DISCHARGE STANDARDS AND TOLERANCE LIMIT FOR INLAND SURFACE WATER QUALITY

NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Time Weighted Average	Industrial, Residential, Rural & Other Area	Ecologically Sensitive Area (notified by Central Government)
Sulphur Dioxide (SO ₂), µg/ m ³	Annual	50	20
	24 Hours**	80	80
Nitrogen Dioxide as NO ₂ , µg/ m ³	Annual	40	30
	24 Hours**	80	80
Particulate Matter (size less than 10µm) or PM ₁₀ µg/ m ³	Annual	60	60
	24 Hours**	100	100
Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/ m ³	Annual *	40	40
	24 Hours**	60	60
Ozone (O ₃) µg/ m ³	8 hours**	100	100
	1Hours**	180	180
Lead (Pb) µg/ m ³	Annual *	0.50	0.50
	24 Hours**	1.0	1.0
Carbon Monoxide (CO) mg/m ³	8 Hours**	02	02
	1 Hour**	04	04
Ammonia (NH ₃) µg/ m ³	Annual *	100	100
	24 Hours**	400	400
Benzene (C ₆ H ₆) µg/ m ³	Annual *	05	05
Benzo (a) pyrene (BaP) particulate phase only ng/m ³	Annual *	01	01
Arsenic (AS) ng/m ³	Annual *	06	06
Nickel (Ni) ng/m ³	Annual *	20	20

Source: Central Pollution Control Board Notification dated 18th November 2009

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week hourly at uniform intervals

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

National Ambient Noise Standards

Category Of Zones	Leq In Db(A)	
	Day *	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone **	50	40

Source: MoEF

- Day time shall mean from 6.00 a.m. to 10.00 p.m.
- Night time shall mean from 10.00 p.m. to 6.00 a.m. ising not less than 100 metres around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.

3. *Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.*

Drinking Water Quality Standards (IS 10500:2012)

S. No.	Characteristic	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate source	Remarks
Essential Characteristics				
1	Colour, Hazen units, Max	5	15	Extended to 15 only, if toxic substances are not suspected in absence of alternate source
2	Odour	Agreeable	Agreeable	a) Test cold and when heated b) Test at several dilutions
3	pH Value	6.5 to 8.5	No relaxation	-
4	Taste	Agreeable	Agreeable	Test to be conducted only after safety has been established
5	Turbidity NTU, max	1	5	-
6	Total dissolved solids, mg/l, Max	500	2000	-
7	Aluminium (as Al), mg/l Max	0.03	0.2	-
8	Ammonia (as total ammonia-N), mg/l Max	0.5	No relaxation	-
9	Anionic detergents (as MBAS), mg/l, Max	0.2	1.0	-
10	Barium (as Ba), mg/l, max	0.7	No relaxation	-
11	Boron (as B), mg/l Max	0.5	1.0	-
12	Calcium (as Ca) mg/l, Max	75	200	-
13	Chloramines (as Cl ₂), mg/l, Max	4.0	No relaxation	-
14	Chloride (as Cl) mg/l, Max	250	1000	-
15	Copper (as Cu) mg/l, Max	0.05	1.5	-
16	Fluoride (as F) mg/l, Max	1.0	1.5	-
17	Free residual Chlorine, mg/l, Min	0.2	1	To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infection is required, it should be minimum 0.5 mg/l
18	Iron (as Fe) mg/l, max	0.3	No relaxation	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3mg/l
19	Magnesium (as Mg) mg/l, Max	30	100	-
20	Manganese (as Mn) mg/l, Max	0.1	0.3	-
21	Mineral oil, mg/l Max	0.5	No relaxation	-
22	Nitrate (as NO ₃) mg/l, Max	45	No relaxation	-
23	Phenolic compounds (as	0.001	0.002	-

S. No.	Characteristic	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate source	Remarks
	C ₆ H ₅ OH) mg/l, Max			
24	Selenium (as Se), mg/l, Max	0.01	No relaxation	-
25	Silver (as Ag), mg/l, Max	0.1	No relaxation	-
26	Sulphate (as SO ₄) mg/l, Max	200	400	May be extended to 400 provided that Magnesium does not exceed 30
27	Sulphide (as H ₂ S) mg/l, max	0.05	No relaxation	-
28	Total alkalinity as calcium carbonate, mg/l Max	200	600	-
29	Total Hardness (as CaCO ₃) mg/l, Max	200	600	-
30	Zinc (as zn), mg/l, Max	5	15	-
31	Cadmium (as Cd), mg/l, Max	0.003	No relaxation	-
32	Cyanide (as CN), mg/l, Max	0.05	No relaxation	-
33	Lead (as Pb), mg/l, Max	0.01	No relaxation	-
34	Mercury (as Hg) mg/l, Max	0.001	No relaxation	-
35	Molybdenum (as Mo) mg/l, max	0.07	No relaxation	-
36	Nickle (as Ni), mg/l, max	0.02	No relaxation	-
37	Polychlorinated biphenyls, mg/l, max	0.0005	No relaxation	-
38	Polynuclear aromatic hydrocarbons (as PAH) mg/l, Max	0.0001	No relaxation	-
39	Total Arsenic (as As), mg/l, Max	0.01	0.05	-
40	Total Chromium (as Cr) mg/l, Max	0.05	No relaxation	-
41	Trihalomethanes Bromoform, mg/l, max Dibromochloromethane, mg/l, max Bromodichloromethane, mg/l, max Chloroform, mg/l, max	0.1 0.1 0.06 0.2	No relaxation No relaxation No relaxation No relaxation	-
42	Radioactive materials a) Alpha emitters Bq/l max b) Beta emitters pci/l, Max	0.1 1.0	No relaxation No relaxation	-

Effluent Discharge Standards (Inland Surface Water)

S.No.	Parameter	Unit	Standards
1	Colour & Odour	--	All efforts should be made to remove colour and unpleasant door as far as practicable.
2	Suspended Solids Max.	mg/l	100
3	Particle size of Suspended Solids	--	Shall pass 850 micron IS Sieve

S.No.	Parameter	Unit	Standards
4	pH value	--	5.5 to 9.0
5	Temperature, Max.	°C	Shall not exceed 5°C above the receiving water temperature
6	Oil and grease, Max.	mg/l	10
7	Total residual Chlorine, Max.	mg/l	1.0
8	Ammonical Nitrogen (as N), Max.	mg/l	50
9	Total Kjeldah Nitrogen (as N), Max.	mg/l	100
10	Free Ammonia (as NH ₃), Max.	mg/l	5
11	Biochemical Oxygen Demand (5 days at 20°C), Max.	mg/l	30
12	Chemical Oxygen Demand Max.	mg/l	250
13	Arsenic (as As), Max.	mg/l	0.2
14	Mercury (as Hg), Max.	mg/l	0.01
15	Lead (as Pb), Max.	mg/l	0.1
16	Cadmium (as Cd), Max.	mg/l	2.0
17	Hexavalent Chromium (as Cr ⁺⁶), Max.	mg/l	0.1
18	Total Chromium (as Cr) Max.	mg/l	2.0
19	Copper (as Cu), Max.	mg/l	3.0
20	Zinc (as Zn), Max.	mg/l	5.0
21	Selenium (as Se), Max.	mg/l	0.05
22	Nickel (as Ni), Max.	mg/l	3.0
23	Cyanide (as CN), Max.	mg/l	0.2
24	Fluorides (as F), Max.	mg/l	2.0
25	Dissolved phosphates (as P), Max.	mg/l	5.0
26	Sulphides (as S), Max.	mg/l	2.0
27	Phenolic compounds (as C ₆ H ₅ OH), Max.	mg/l	1.0
28	Radioactive Materials α Emitters, µcurie/ml, Max. β Emitters, µcurie/ml, Max.	mg/l	10 ⁻⁷ 10 ⁻⁶
29	Bio-assay test	mg/l	90% survival of fish after 96 hours in 100% effluent
30	Manganese (as Mn)	mg/l	2.0
31	Iron (as Fe)	mg/l	3.0
32	Vanadium (as V)	mg/l	0.2
33	Nitrate Nitrogen	mg/l	10.0

Tolerance Limits for Inland Surface Water Quality

Characteristic	Designated Use Class of Inland Waters				
	A	B	C	D	E
pH value	6.5 to 8.5	6.5 to 8.5	6.5 to 8.5	6.5 to 8.5	6.0 to 8.5
Dissolved Oxygen, mg/l, Min.	6	5	4	4	-
Biochemical Oxygen Demand (5 days at 20°C), mg/l	2	3	3	-	-
Total coliform organisms, MPN/100 ml. Max.	50	500	5000	-	-
Colour Hazen units	10	300	300	-	-
Chlorides (as Cl), mg/l Max.	250	-	600	-	600
Sodium Adsorption ratio Max.	-	-	-	-	26
Boron (as B), mg/l. Max.	-	-	-	-	2

Characteristic	Designated Use Class of Inland Waters				
	A	B	C	D	E
Sulphates (as SO ₄), mg/ l	400	-	400	-	1000
Nitrates (as NO ₃), mg/l Max.	20	-	50	-	-
Free Ammonia (as NH ₃), mg/l	-	-	-	1.2	-
Conductivity at 25° C microhm / cm Max.	-	-	-	1000	2250
Arsenic (as As), mg/l. Max.	0.05	0.2	0.2	-	-
Iron (as Fe), mg/l	0.3	-	50	-	-
Fluorides (as F), mg/l	1.5	1.5	1.5	-	-
Lead (as Pb), mg/l. Max.	0.1	-	0.1	-	-
Copper (as Cu), mg/l	1.5	-	1.5	-	-
Zinc (as Zn) mg/l/ Max.	1.5	-	1.5	-	-
Manganese (as Mn), mg/l	0.5	-	-	-	-
Total Dissolved Solids, mg/l	500	-	1500	-	2100
Total Hardness (CaCO ₃), mg/l	300	-	-	-	-
Magnesium (as Mg), mg/l	100	-	-	-	-
Chlorides (as Cl), mg/l	250	600	-	-	600
Cyanides (as CN), mg/l	0.05	0.05	0.05	-	-

A: Drinking Water Source without conventional treatment but after disinfections;

B: Outdoor bathing organized;

C: drinking water source with conventional treatment followed by disinfections;

D: propagation of wildlife and fisheries;

E: irrigation, industrial cooling, controlled waste disposal.

Source: Central Pollution Control Board

ANNEXURE OF CHAPTER 4

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ANNEXURE 4. 1: AIR QUALITY MONITORING RESULTS

LOCATION	DATE	PARAMETERS MONITORED				
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	CO (mg/m ³)
SH 116: KANCHIPURAM TO VANDAVASI						
Dusi near Register office (AAQ1)	07-08.03.2014	9.8	17.8	56	27	0.11
	12-13.03.2014	10.2	18.5	58	28	0.14
	17-18.03.2014	11	20.0	63	30	0.16
	21-22.03.2014	9.4	17.1	53	26	0.10
	26-27.03.2014	10.5	19.1	60	29	0.13
	31-01.04.2014	12	21.8	68	33	0.14
	04-05.04.2014	11.3	20.5	64	31	0.12
	09-10.04.2014	12.2	22.2	69	33	0.15
Perunagar on Top of panchayat office (AAQ2)	07-08.03.2014	11	21.2	56	27	0.10
	12-13.03.2014	12	23.1	61	30	0.11
	17-18.03.2014	12.8	24.6	65	32	0.13
	21-22.03.2014	10.2	19.6	52	25	0.12
	26-27.03.2014	11.4	21.9	58	28	0.11
	31-01.04.2014	11.8	22.7	60	29	0.13
	04-05.04.2014	10.7	20.6	54	27	0.15
	09-10.04.2014	11.6	22.3	59	29	0.13
Thethuraion Top of panchayat office (AAQ3)	10-11.03.2014	10	16.4	46	21	0.10
	14-15.03.2014	10.5	17.2	48	22	0.11
	19-20.03.2014	9.6	15.7	44	20	0.10
	24-25.03.2014	9	14.8	41	19	0.10
	28-29.03.2014	11	18.0	50	23	0.13
	02-03.04.2014	10.3	16.9	47	22	0.12
	07-08.04.2014	11.4	18.7	52	24	0.11
	10-11.04.2014	9.8	16.1	45	21	0.10
Vandavasi near Rice Mill (AAQ4)	10-11.03.2014	10.8	25.1	70	35	0.12
	14-15.03.2014	11.3	26.3	73	36	0.13
	19-20.03.2014	12	27.9	78	38	0.11
	24-25.03.2014	10.5	24.4	68	34	0.14
	28-29.03.2014	11.7	27.2	76	37	0.13
	02-03.04.2014	12.4	28.8	80	40	0.15

LOCATION	DATE	PARAMETERS MONITORED				
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	CO (mg/m ³)
	07-08.04.2014	13	30.2	84	42	0.16
	10-11.04.2014	13.4	31.2	87	43	0.16
SH 58: KANCHIPURAM TO SADRAS						
Anupuram (AAQ1)	10-11.03.2014	9	14.3	40	18	0.12
	13-14.03.2014	9.6	15.2	42	20	0.10
	17-18.03.2014	8.7	13.8	38	18	0.13
	20-21.03.2014	10	15.9	44	20	0.12
	24-25.03.2014	10.4	16.5	46	21	0.11
	27-28.03.2014	9.3	14.8	41	19	0.10
	31-01.04.2014	11	17.5	49	22	0.13
	03-04.04.2014	10.8	17.1	48	22	0.14
Thiru kzhukundram (AAQ2)	10-11.03.2014	10.2	20.8	55	27	0.11
	13-14.03.2014	10.7	21.8	57	28	0.12
	17-18.03.2014	9.5	19.4	51	25	0.10
	20-21.03.2014	11.4	23.3	61	30	0.14
	24-25.03.2014	11.8	24.1	63	31	0.13
	27-28.03.2014	11	22.4	59	29	0.12
	31-01.04.2014	12	24.5	64	32	0.11
	03-04.04.2014	12.3	25.1	66	32	0.12
Chengalpattu near Railway bridge (AAQ3)	10-11.03.2014	11.5	28.0	78	39	0.15
	13-14.03.2014	12.3	30.0	83	41	0.17
	17-18.03.2014	11.7	28.5	79	39	0.18
	20-21.03.2014	12.6	30.7	85	42	0.16
	24-25.03.2014	13	31.7	88	44	0.19
	27-28.03.2014	12	29.3	81	40	0.13
	31-01.04.2014	12.8	31.2	87	43	0.15
	03-04.04.2014	13.3	32.4	90	45	0.16
Walajabad near Masilamani.M.H.S. School (AAQ4)	11-12.03.2014	10.8	22.5	63	31	0.13
	14-15.03.2014	11.5	24.0	67	33	0.15
	18-19.03.2014	10	20.8	58	29	0.12
	21-22.03.2014	11	22.9	64	32	0.14
	25-26.03.2014	12.3	25.6	71	35	0.16
	28-29.03.2014	11.6	24.2	67	33	0.15

LOCATION	DATE	PARAMETERS MONITORED				
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	CO (mg/m ³)
	01-02.04.2014	12	25.0	69	34	0.14
	04-05.04.2014	11.2	23.3	65	32	0.13
Muthyal Pettai on top of Panchayat Office (AAQ5)	11-12.03.2014	9.5	16.1	45	22	0.12
	14-15.03.2014	10	16.9	47	23	0.13
	18-19.03.2014	9	15.3	42	21	0.10
	21-22.03.2014	9.7	16.4	46	23	0.14
	25-26.03.2014	11	18.6	52	26	0.12
	28-29.03.2014	10.4	17.6	49	24	0.10
	01-02.04.2014	11.2	19.0	53	26	0.13
	04-05.04.2014	10.6	18.0	50	25	0.11
SH 4: ARNI – VILLUPURAM						
Arni (AAQ1)	17-18.03.2014	9.2	17.7	49.1	22.8	0.12
	20-21.03.2014	10.2	19.6	54.5	25.2	0.14
	24-25.03.2014	10.6	20.4	56.6	26.2	0.15
	27-28.03.2014	9.8	18.8	52.4	24.2	0.13
	31-01.04.2014	10.0	19.6	54.5	25.2	0.14
	03-04.04.2014	9.5	18.6	51.7	24.0	0.12
	07-08.04.2014	11.0	21.6	59.9	27.7	0.15
	10-11.04.2014	10.5	20.6	57.2	26.5	0.13
Aagaram (AAQ2)	17-18.03.2014	8.0	13.3	35.1	14.9	0.11
	20-21.03.2014	9.0	15.0	39.5	16.8	0.10
	24-25.03.2014	9.4	15.7	41.2	17.5	0.12
	27-28.03.2014	8.5	14.2	37.3	15.9	0.11
	31-01.04.2014	8.7	14.7	38.8	16.5	0.11
	03-04.04.2014	8.3	14.1	37.0	15.8	0.10
	07-08.04.2014	9.5	16.1	42.4	18.0	0.12
	10-11.04.2014	9.2	15.6	41.0	17.5	0.10
Chetpet (AAQ3)	17-18.03.2014	12.0	29.3	81.3	35.0	0.16
	20-21.03.2014	12.4	30.2	84.0	36.2	0.17
	24-25.03.2014	13.0	31.7	88.1	38.0	0.20
	27-28.03.2014	12.7	31.0	86.0	37.1	0.18
	31-01.04.2014	13.2	33.0	91.7	39.5	0.16
	03-04.04.2014	12.5	31.3	86.8	37.4	0.19

LOCATION	DATE	PARAMETERS MONITORED				
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	CO (mg/m ³)
	07-08.04.2014	12.8	32.0	88.9	38.3	0.21
	10-11.04.2014	12.1	30.3	84.0	36.2	0.17
Valathy (AAQ4)	17-18.03.2014	11.0	24.4	67.9	30.6	0.14
	20-21.03.2014	11.7	26.0	72.2	32.5	0.15
	24-25.03.2014	12.0	26.7	74.1	33.4	0.17
	27-28.03.2014	11.4	25.3	70.4	31.7	0.13
	31-01.04.2014	12.6	28.6	79.5	35.8	0.16
	03-04.04.2014	11.3	25.7	71.3	32.1	0.14
	07-08.04.2014	12.2	27.7	77.0	34.7	0.13
	10-11.04.2014	11.5	26.1	72.6	32.7	0.15
Kudali (AAQ5)	18-19.03.2014	8.2	15.5	40.7	19.2	0.10
	21-22.03.2014	8.6	16.2	42.7	20.1	0.12
	25-26.03.2014	9.0	17.0	44.7	21.1	0.13
	28-29.03.2014	8.3	15.7	41.2	19.4	0.11
	01-02.04.2014	9.0	17.3	45.5	21.5	0.16
	04-05.04.2014	8.6	16.5	43.5	20.5	0.10
	08-09.04.2014	8.5	16.3	43.0	20.3	0.11
	11-12.04.2014	8.8	16.9	44.5	21.0	0.13
Gingee (AAQ6)	18-19.03.2014	10.7	22.8	63.2	27.3	0.12
	21-22.03.2014	11.0	23.4	65.0	28.0	0.14
	25-26.03.2014	11.5	24.5	68.0	29.3	0.13
	28-29.03.2014	10.2	21.7	60.3	26.0	0.11
	01-02.04.2014	10.5	22.8	63.4	27.3	0.13
	04-05.04.2014	10.0	21.7	60.4	26.0	0.15
	08-09.04.2014	11.0	23.9	66.4	28.6	0.14
	11-12.04.2014	10.7	23.3	64.6	27.9	0.13
Arasalpuram (AAQ7)	18-19.03.2014	9.5	19.8	53.5	21.3	0.12
	21-22.03.2014	10.0	20.8	56.3	22.4	0.13
	25-26.03.2014	10.6	22.1	59.7	23.8	0.14
	28-29.03.2014	9.0	18.8	50.7	20.2	0.13
	01-02.04.2014	9.6	20.4	55.2	22.0	0.13
	04-05.04.2014	8.9	18.9	51.2	20.4	0.10
	08-09.04.2014	10.2	21.7	58.7	23.4	0.11

LOCATION	DATE	PARAMETERS MONITORED				
		SO ₂ (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	CO (mg/m ³)
	11-12.04.2014	11.0	23.4	63.3	25.2	0.12
Thambur (AAQ8)	18-19.03.2014	11.5	26.7	74.3	33.0	0.13
	21-22.03.2014	12.0	27.9	77.5	34.5	0.15
	25-26.03.2014	12.4	28.8	80.1	35.6	0.14
	28-29.03.2014	11.0	25.6	71.1	31.6	0.16
	01-02.04.2014	12.2	29.0	80.7	35.9	0.19
	04-05.04.2014	11.5	27.4	76.1	33.8	0.17
	08-09.04.2014	12.0	28.6	79.4	35.3	0.15
	11-12.04.2014	11.8	28.1	78.0	34.7	0.14
Pappankulam (AAQ9)	18-19.03.2014	8.5	16.7	46.3	18.0	0.10
	21-22.03.2014	9.2	18.0	50.1	19.5	0.11
	25-26.03.2014	9.5	18.6	51.7	20.1	0.12
	28-29.03.2014	8.8	17.3	47.9	18.6	0.11
	01-02.04.2014	9.3	18.6	51.7	20.1	0.10
	04-05.04.2014	9.0	18.0	50.0	19.5	0.12
	08-09.04.2014	9.8	19.6	54.4	21.2	0.10
	11-12.04.2014	10.7	21.4	59.4	23.1	0.12

(Source: Field investigation by consultant's EA team: Mar-Apr 2014)

ANNEXURE 4. 2: WATER QUALITY DATA ALONG THE ROAD SH 116, SH 04 and SH 58

S. No	Parameters	Units	SH 116			SH 04				SH 58			IS 10500 : 2012 Requirement Limits	IS 10500 : 2012 Permissible Limits
			SW 1	GW2	WW3	BW-1	BW-2	GW-1	WW-1	GW 1	WW -1	WW-2		
1	Turbidity	NTU	2.6	0.8	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1	5
2	Colour	-	2	5	5	2	2	2	2	< 2	< 2	< 2	5	15
3	Taste	-	Disagreeable	Disagreeable	Agreeable	Disagreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Total Suspended Solids	mg/L	24	4	<2	BDL (D.L:2.0)	BDL(D.L:2.0)	BDL (D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	Not Specified	Not Specified
6	pH	-	7.41	7.42	6.59	7.46	7.77	7.93	7.92	7.87	7.90	6.86	6.5 – 8.5	6.5 – 8.5
7	Total Dissolved Solids	mg/L	420	1136	584	1612	970	624	740	538	342	372	500	2000
8	Total hardness as CaCO ₃	mg/L	80.8	561.56	234.3	670.6	432.3	290.8	307.04	153.5	202	206	200	600
9	Chlorides	mg/L	123.4	255.5	38.5	631.6	229.4	149.4	163.9	33.7	59.8	106.1	250	1000
10	Sulphates as SO ₄	mg/L	2.8	21.8	25.7	122.6	81.5	32.6	66.7	22.2	BDL(D.L:1.0)	25.7	200	400
11	Fluorides as F	mg/L	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	1.0	1.5
12	Nitrates as NO ₃	mg/L	8.5	30.1	3.8	40.2	43.1	4.47	22.2	5.8	12.8	3.4	45	45
13	Calcium as Ca	mg/L	14.54	96.96	42	163.2	137.4	32.3	85.6	32.3	43.2	42	75	200
14	Magnesium as Mg	mg/L	10.81	77.62	31.4	63.8	88.8	51.0	22.5	17.6	23.5	31.4	30	100
15	Iron as Fe	mg/L	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL(D.L:0.01)	BDL(D.L:0.01)	0.3	0.3
16	Manganese as Mn	mg/L	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	0.1	0.3
17	Copper as Cu	mg/L	BDL (D.L:0.05)	BDL (D.L:0.05)	0.12	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	0.06	0.05	1.5

S. No	Parameters	Units	SH 116			SH 04				SH 58			IS 10500 : 2012 Requirement Limits	IS 10500 : 2012 Permissible Limits
			SW 1	GW2	WW3	BW-1	BW-2	GW-1	WW-1	GW 1	WW -1	WW-2		
18	Aluminium as Al	mg/L	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	BDL (D.L:0.03)	0.03	0.2
19	Total Alkalinity as CaCO ₃	mg/L	173.72	668	258	140	328	268	328	394	150	102	200	600
20	Free Residual Chlorine	mg/L	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	0.2	1.0
21	Zinc as Zn	mg/L	BDL (D.L:0.02)	BDL (D.L:0.02)	0.06	0.07	0.04	0.6	0.54	BDL (D.L:0.02)	0.05	0.7	5	15
22	Phenolic Compounds as Phenol	mg/L	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	0.001	0.002
23	Anionic Detergents	mg/L	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	BDL (D.L:0.1)	0.2	1.0
24	Mineral oil	mg/L	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	0.5	0.5
25	Total Arsenic as As	mg/L	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	0.01	0.05
26	Cadmium as Cd	mg/L	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	0.003	0.003
27	Total Chromium (as Hexavalent)	mg/L	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	BDL (D.L:0.05)	Not Specified	Not Specified
28	Cyanides as CN	mg/L	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	0.05	0.05
29	Lead as Pb	mg/L	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	0.01	0.01
30	Selenium as Se	mg/L	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	BDL (D.L:0.01)	0.01	0.01
31	Mercury (Total as Hg)	mg/L	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	BDL (D.L:0.001)	0.001	0.001

S. No	Parameters	Units	SH 116			SH 04				SH 58			IS 10500 : 2012 Requirement Limits	IS 10500 : 2012 Permissible Limits
			SW 1	GW2	WW3	BW-1	BW-2	GW-1	WW-1	GW 1	WW -1	WW-2		
32	Oil and Grease	mg/L	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	BDL (D.L:10)	Not specified	Not specified
33	Electrical Conductivity	µmhos/cm	656	1761	909	2490	1572	982	1158	837	526	610	Not Specified	Not Specified
34	Dissolved Oxygen	mg/L	5.4	5.5	6.3	6.5	6.1	6.5	6.3	6.3	5.2	6	Not Specified	Not specified
35	Biological Oxygen demand (BOD)	mg/L	BDL(D.L:4.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL(D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)	BDL (D.L:2.0)	Not Specified	Not specified
36	Chemical Oxygen demand (COD)	mg/L	BDL (D.L:2.0)	BDL(D.L:4.0)	BDL(D.L:4.0)	BDL(D.L:4.0)	BDL(D.L:4.0)	BDL(D.L:4.0)	BDL(D.L:4.0)	BDL (D.L:4.0)	BDL(D.L:4.0)	BDL (D.L:4.0)	Not Specified	Not specified
37	Free ammonia	mg/L	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	0.5	0.5
38	Ammonical Nitrogen as N	mg/L	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	Not specified	Not specified
39	Total Kjeldahl nitrogen as N	mg/L	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL (D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	BDL(D.L:0.2)	Not specified	Not specified
40	Nitrate Nitrogen as N	mg/L	1.91	6.77	0.855	9.045	9.69	1.01	4.9	1.305	2.88	0.765	Not specified	Not specified
41	Total Nitrogen as N	mg/L	2.64	7.20	1.64	11.8	10.8	1.58	5.86	1.68	3.20	1.42	Not specified	Not specified
42	Dissolved Phosphates as P	mg/L	BDL(D.L:0.05)	BDL(D.L:0.05)	BDL(D.L:0.05)	1.0	BDL (D.L:0.05)	BDL (D.L:0.05)	0.68	BDL(D.L:0.05)	BDL(D.L:0.05)	BDL(D.L:0.05)	Not specified	Not specified
43	Organic Phosphorus as P	mg/L	BDL(D.L:0.05)	BDL(D.L:0.05)	BDL(D.L:0.05)	0.74	BDL(D.L:0.05)	BDL(D.L:0.05)	0.2	BDL(D.L:0.05)	BDL(D.L:0.05)	BDL(D.L:0.05)	Not specified	Not specified
44	Total Phosphates as P	mg/L	BDL(D.L:0.05)	BDL(D.L:0.05)	BDL(D.L:0.05)	1.74	BDL (D.L:0.05)	BDL (D.L:0.05)	0.88	BDL(D.L:0.05)	BDL(D.L:0.05)	BDL(D.L:0.05)	Not specified	Not specified
45	Sulphides	mg/L	BDL(D.L:0.5)	BDL(D.L:0.5)	BDL(D.L:0.5)	BDL (D.L:0.5)	BDL (D.L:0.5)	BDL (D.L:0.5)	BDL (D.L:0.5)	BDL(D.L:0.5)	BDL(D.L:0.5)	BDL (D.L:0.5)	0.05	0.05
46	Potassium	mg/L	21.94	62.95	BDL(D.L:1.0)	4.12	BDL (D.L:1.0)	3.7	1.7	BDL(D.L:1.0)	BDL(D.L:1.0)	1.8	Not specified	Not Specified

S. No	Parameters	Units	SH 116			SH 04				SH 58			IS 10500 : 2012 Requirement Limits	IS 10500 : 2012 Permissible Limits
			SW 1	GW2	WW3	BW-1	BW-2	GW-1	WW-1	GW 1	WW -1	WW-2		
47	Sodium	mg/L	106.6	174.6	44.5	294.5	199.8	103.7	166.6	138.1	25.2	38.1	Not specified	Not Specified
48	Total Chromium as Cr	mg/L	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	BDL(D.L.:0.05)	0.099	0.05	0.05
49	Boron as B	mg/L	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	BDL(D.L.:0.2)	0.5	1.0
50	Barium as Ba	mg/L	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	BDL(D.L.:0.1)	0.7	0.7
51	Nickel as Ni	mg/L	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	BDL(D.L.:0.02)	0.02	0.02
52	Sodium absorption Ratio	Meq/L	2.86	0.68	0.41	1.29	2.95	1.24	1.54	1.96	0.26	0.40	Not specified	Not Specified
53	Poly nuclear aromatic hydrocarbons (PAH's)	mg/L	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	BDL(D.L.:0.0001)	0.0001	0.0001
54	Pesticides (Total)	mg/L	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	BDL(D.L.:0.00001)	REFER ANNEXURE	
55	Total Coliforms	MPN/10 OML	< 1.8	< 1.8	1.8	1.8	< 1.8	< 1.8	< 1.8	< 1.8	1.8	< 1.8	Shall not be detectable in any 100ml of sample	
56	E.Coli	MPN/10 OML	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	Shall not be detectable in any 100ml of sample	
57	Faecal Coliforms	MPN/10 OML	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	Shall not be detectable in any 100ml of sample	

SW: Surface Water

GW: Ground Water WW: Well Water

BW: Bore Well

SH 116 SW1: Abdullapuram

GW2: Mamundur

WW3: Theethurai

SH 04 BW1: Laxmi Nagar

BW2: Chetpet

GW1: Valathy

WW1: Asokapuri village

SH 58 GW1: Meiyur

WW1: Thirukazhukundram

WW2: Keerapakkam

ANNEXURE 4.3: TREE ENUMERATION OF SH 58

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
1	A2	213.000	6.700	Athon	0.93	11.55	1	A1	100.000	6.500	Palm	0.90	18.15
2	A15	724.960	8.030	Palm	0.90	19.20	2	A3	260.000	6.000	Neem	1.20	11.50
3	A16	731.957	7.809	Neem	0.70	15.50	3	A4	347.000	5.200	Neem	0.70	10.50
4	A19	756.712	5.600	Neem	1.10	10.50	4	A5	375.000	5.000	Neem	0.70	6.30
5	A20	753.711	5.538	Neem	1.05	12.60	5	A6	392.000	5.800	Neem	0.70	6.20
6	A21	754.667	6.600	Neem	0.80	13.50	6	A7	404.000	3.800	Neem	0.50	11.00
7	A22B	756.712	7.200	Neem	0.80	11.60	7	A8	420.000	4.400	Athon	1.20	11.50
8	A23	794.422	5.740	Neem	0.90	10.90	8	A9	450.000	5.200	Neem	0.40	2.10
9	A28	799.955	5.367	Neem	1.30	8.90	9	A10	460.000	5.900	Neem	0.70	6.20
10	A31C	824.000	7.300	Neem	0.90	7.70	10	A11	477.994	5.800	Neem	0.50	6.00
11	A31D	826.999	7.200	Neem	0.80	7.80	11	A11A	469.574	5.787	Neem	0.40	5.00
12	A33	890.000	6.300	Neem	0.60	4.10	12	A12	480.000	5.000	Neem	0.70	6.20
13	A36	1224.016	7.592	Neem	0.40	3.50	13	A12A	549.824	4.498	Neem	0.60	7.30
14	A39	1360.041	8.200	Neem	0.50	5.10	14	A13	549.824	4.299	Neem	0.50	10.40
15	A40	1390.034	6.800	Palm	0.90	17.10	15	A13A	552.998	4.700	Neem	0.50	7.40
16	A41	1395.037	6.183	Neem	0.80	8.60	16	A14	619.989	7.800	Asoka	4.20	12.60
17	A41A	1425.000	5.900	Neem	0.80	5.10	17	A17	720.779	6.268	Tamarind	3.20	12.60
18	A42	1425.000	5.000	Palm	1.20	21.10	18	A18	712.967	6.739	Tamarind	3.50	11.20
19	A43	1510.000	2.800	Palm	1.00	8.20	19	A22	754.711	6.100	Neem	0.85	11.50
20	A43A	1513.000	4.500	Palm	1.50	3.50	20	A22A	754.711	7.500	Neem	0.90	7.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
21	A44	1560.765	5.928	Neem	0.70	9.60	21	A26	793.166	6.616	Neem	0.60	11.10
22	A45	1560.795	5.932	Neem	0.80	9.70	22	A27	797.266	6.462	Neem	0.60	11.20
23	A46	1565.544	6.339	Palm	1.10	17.80	23	A29	814.984	6.300	Neem	0.40	3.20
24	A46A	1570.031	6.200	Neem	0.80	6.50	24	A30	818.287	6.374	Neem	0.60	4.50
25	A47	1599.683	3.629	Palm	0.90	19.80	25	A31	818.302	6.074	Neem	0.60	7.20
26	A48	1630.584	4.042	Palm	0.80	11.80	26	A31A	822.217	6.328	Neem	0.40	4.00
27	A48A	1630.019	4.600	Neem	0.50	5.00	27	A31B	824.003	6.300	Neem	0.30	4.00
28	A51A	1660.000	5.000	Palm	1.50	13.80	28	A32	850.000	7.000	Neem	0.70	4.50
29	A59	1737.171	3.103	Palm	0.90	12.80	29	A34	970.000	5.000	Neem	0.30	2.50
30	A71	1746.456	2.782	Palm	0.90	12.60	30	A35	1195.000	5.000	Neem	1.00	8.90
31	A72	1752.450	3.034	Palm	0.80	12.30	31	A37	1250.000	5.800	Neem	1.00	8.50
32	A73	1756.461	3.775	Palm	1.20	12.10	32	A38	1312.000	4.800	Neem	2.50	10.40
33	A74	1759.874	3.570	Palm	0.90	11.20	33	A49	1630.211	6.574	Palm	0.90	12.60
34	A78	1771.701	4.145	Palm	0.70	13.80	34	A50	1637.835	6.338	Palm	0.80	15.20
35	A79	1782.714	4.401	Palm	0.80	17.00	35	A51	1647.898	6.293	Palm	1.20	16.40
36	A80	1788.000	7.200	Palm	0.80	15.90	36	A52	1657.204	6.397	Palm	0.90	16.10
37	A85	1803.439	6.200	Palm	0.80	14.20	37	A53	1665.653	6.800	Palm	0.90	13.90
38	A86	1808.852	3.068	Palm	1.10	13.90	38	A54	1673.140	6.908	Palm	0.80	13.70
39	A87	1803.560	8.395	Palm	0.90	14.50	39	A55	1681.836	6.970	Palm	0.80	14.90
40	A88	1810.496	3.318	Palm	0.80	13.10	40	A56	1684.787	6.805	Palm	0.80	12.80
41	A91	1824.896	2.316	Palm	1.30	13.00	41	A57	1693.297	6.956	Palm	0.80	13.40

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
42	A93	1841.709	2.664	Palm	0.80	17.00	42	A58	1699.340	6.834	Palm	0.90	13.70
43	A94	1843.638	2.593	Palm	0.70	17.00	43	A61	1725.000	7.100	Palm	0.80	18.10
44	A95	1847.945	2.252	Palm	0.80	18.10	44	A62	1737.810	6.832	Palm	0.80	13.40
45	A96	1854.000	2.500	Palm	0.80	13.80	45	A64	1745.323	6.231	Palm	0.60	12.60
46	A105	1867.420	2.912	Palm	1.00	13.80	46	A65	1722.902	6.844	Palm	0.80	13.00
47	A106	1870.990	3.088	Palm	0.80	14.60	47	A66	1736.709	6.468	Palm	0.90	10.30
48	A107	1872.087	2.737	Palm	0.80	15.90	48	A68	1749.411	6.304	Palm	0.70	12.40
49	A108	1875.148	3.207	Palm	0.80	17.40	49	A69	1752.548	6.083	Palm	0.75	11.80
50	A109	1878.576	2.641	Palm	0.90	17.30	50	A70	1753.881	6.311	Palm	0.80	12.40
51	A110	1880.559	2.847	Palm	1.20	16.20	51	A75	1763.400	7.037	Palm	0.80	13.30
52	A111	1925.000	3.000	Neem	0.70	16.90	52	A76	1765.592	7.295	Palm	0.80	12.80
53	A112	1928.000	2.500	Palm	1.20	18.50	53	A77	1776.289	7.977	Palm	0.80	11.20
54	A113	1928.000	3.200	Neem	0.70	6.00	54	A81	1785.719	7.827	Palm	0.90	12.30
55	A114	1940.109	3.394	Palm	0.80	17.10	55	A82	1785.000	8.100	Palm	0.80	12.50
56	A115	1942.000	2.500	Palm	1.50	17.00	56	A83	1787.414	7.840	Palm	0.90	12.90
57	A121	1975.786	3.314	Neem	0.80	5.10	57	A84	1793.958	7.851	Palm	0.80	13.30
58	A123	1992.565	3.377	Palm	0.90	17.00	58	A89	1815.032	7.498	Palm	1.00	14.10
59	A125	2000.000	4.100	Palm	1.20	18.30	59	A90	1820.267	7.279	Palm	1.50	15.10
60	A133	2400.005	3.500	Palm	1.30	13.70	60	A92	1836.433	7.534	Palm	1.00	15.00
61	A134	2400.005	3.500	Palm	1.30	12.50	61	A97	1855.424	7.657	Palm	0.90	15.80
62	A138	2370.004	3.100	Palm	2.20	13.40	62	A98	1856.009	7.201	Palm	0.70	15.70

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
63	A147	2220.003	2.000	Palm	1.80	18.20	63	A99	1859.806	7.863	Palm	0.80	15.50
64	A151	2277.599	1.703	Palm	1.20	22.50	64	A100	1865.341	7.006	Palm	1.00	14.90
65	A152	2284.050	2.803	Palm	1.30	16.30	65	A101	1870.557	7.047	Palm	0.70	14.90
66	A153	2290.302	1.419	Palm	3.00	14.80	66	A102	1876.877	7.359	Palm	0.60	13.00
67	A153 A	2328.000	7.700	Others	0.90	8.20	67	A103	1878.930	7.355	Palm	0.70	14.20
68	A156	2455.000	3.510	Palm	0.90	15.70	68	A104	1885.614	6.643	Palm	0.60	16.90
69	A157	2469.057	4.813	Palm	0.80	16.80	69	A116	1951.295	7.328	Palm	1.20	17.10
70	A158	2455.676	6.900	Neem	0.60	7.50	70	A117	1955.728	9.591	Palm	0.70	16.70
71	A160	2476.000	6.600	Palm	1.00	13.70	71	A118	1958.845	7.431	Palm	0.80	15.80
72	A161	2482.000	6.800	Lambolna	2.50	12.10	72	A119	1963.083	7.062	Palm	1.00	15.90
73	A162	2483.000	6.500	Palm	1.10	13.40	73	A120	1973.640	7.036	Palm	1.20	17.90
74	A163	2480.000	5.400	Neem	0.60	5.30	74	A122	1983.659	8.453	Palm	1.40	18.10
75	A164	2490.000	5.800	Neem	0.70	5.60	75	A124	1993.847	6.142	Palm	1.50	19.90
76	A165	2500.000	7.000	Neem	0.80	5.50	76	A126	2137.176	7.240	Neem	0.60	3.10
77	A167	2531.699	5.012	others	1.10	8.20	77	A128	2140.527	6.273	Palm	0.90	18.50
78	A168	2530.000	6.900	Palm	1.40	17.05	78	A127	2140.527	6.073	Palm	1.30	18.30
79	A169	2534.000	7.500	others	0.60	7.30	79	A129	2154.266	6.427	Neem	0.60	6.00
80	A172	2605.000	7.000	Neem	0.70	7.10	80	A130	2159.989	7.500	Neem	1.40	18.60
81	A173	2615.000	6.100	Neem	0.70	7.00	81	A131	2161.285	6.487	Neem	1.30	18.00
82	A174	2640.000	4.000	others	2.30	10.40	82	A132	2163.664	6.306	Neem	1.50	18.00
83	A175	2650.000	6.000	Neem	0.70	5.00	83	A135	2165.510	6.395	Neem	1.40	13.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
84	A179	2790.000	7.700	Palm	1.00	14.60	84	A136	2219.989	8.000	Neem	1.50	12.60
85	A180	2795.000	7.600	Palm	0.80	14.70	85	A137	2219.988	8.600	Neem	2.00	13.80
86	A183	2900.276	7.795	Palm	0.90	14.90	86	A139	2226.000	8.300	Neem	1.70	14.20
87	A186	2946.953	7.749	Palm	0.90	13.70	87	A140	2227.000	8.400	Neem	1.90	14.30
88	A187	3250.000	9.200	Neem	0.80	10.10	88	A141	2228.000	8.700	Neem	0.50	4.40
89	A189	3900.000	6.700	Palm	1.50	18.10	89	A142	2229.988	8.200	Palm	2.30	16.30
90	A190	3102.376	3.905	Palm	1.00	16.00	90	A143	2233.000	8.000	Palm	2.00	18.20
91	A191	3140.000	6.700	Palm	2.80	15.90	91	A144	2233.000	8.200	Palm	1.90	20.80
92	A194	3225.000	7.900	Pungam	0.80	9.80	92	A145	2248.607	7.048	Palm	2.10	19.70
93	A196	3285.023	6.486	Neem	3.60	17.20	93	A146	2257.254	7.492	Neem	1.90	4.50
94	A203	3335.322	9.870	others	1.30	13.90	94	A148	2259.989	8.000	Palm	1.60	18.20
95	A204	3399.001	12.000	others	0.80	8.70	95	A149	2279.989	7.900	Palm	1.10	18.50
96	A205	3394.818	12.074	others	2.60	8.70	96	A150	2289.989	8.000	Palm	1.90	18.50
97	A211	3508.270	5.157	Palm	1.00	17.00	97	A160	2525.000	5.200	Neem	0.50	7.80
98	A212	3522.900	6.546	Neem	0.50	11.50	98	A170	2578.166	6.087	Palm	1.10	14.80
99	A213	3533.400	3.980	Palm	0.90	13.50	99	A171	2600.000	7.200	Neem	0.70	7.00
100	A214	3549.962	2.500	Lambolna	2.00	12.70	100	A176	2652.000	7.400	Neem	0.50	15.70
101	A216	3565.000	4.900	Neem	0.70	9.70	101	A177	2745.244	6.068	Palm	0.90	16.80
102	A218	3621.991	5.546	Palm	0.70	12.70	102	A178	2770.000	7.200	Palm	0.90	14.80
103	A219	3621.991	5.546	Palm	0.80	12.00	103	A181	2770.000	6.000	Palm	0.70	13.20
104	A223	3641.149	5.975	Palm	0.80	19.90	104	A182	2904.586	3.460	Palm	0.80	13.40

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RHS							LHS						
105	A224	3643.806	6.011	Palm	0.80	19.90	105	A184	2918.242	2.556	Palm	0.80	13.20
106	A225	3646.756	6.299	Palm	0.90	18.20	106	A185	2918.115	3.588	Palm	1.00	13.20
107	A226	3649.291	6.299	Palm	0.75	16.20	107	A188	3225.000	6.400	Coconut	0.70	13.90
108	A227	3656.205	5.740	Lambolna	2.80	13.70	108	A192	3225.000	6.800	others	0.75	13.80
109	A228	3655.550	4.497	Lambolna	2.50	13.70	109	A193	3230.000	6.700	others	0.60	8.30
110	A240	3700.000	7.000	Palm	0.85	13.60	110	A195	3233.000	9.000	others	0.80	16.04
111	A241	3705.000	5.600	Palm	1.45	18.50	111	A197	3300.000	9.000	others	0.50	7.10
112	A242	3725.000	6.000	Neem	1.20	10.50	112	A198	3300.000	9.000	others	1.10	10.00
113	A243	3751.457	6.239	Neem	0.60	10.50	113	A199	3310.000	6.500	others	1.00	10.10
114	A244	3749.949	5.907	Neem	0.65	10.50	114	A200	3314.999	6.700	others	1.60	10.20
115	A245	3760.000	6.000	Neem	0.50	10.00	115	A201	3340.031	6.000	others	0.90	11.30
116	A246	3761.000	6.000	Neem	0.75	9.80	116	A202	3350.049	6.800	others	0.70	8.20
117	A247	3770.000	8.000	Palm	1.10	13.70	117	A202A	3411.261	7.187	Neem	0.50	8.10
118	A250	3784.135	5.108	Palm	1.50	13.70	118	A206	3396.669	7.201	Palm	0.90	12.70
119	A251	3798.663	5.823	Palm	1.10	14.80	119	A207	3401.444	2.439	Peepal tree	2.70	21.40
120	A252	3801.045	5.767	Palm	1.10	14.90	120	A208	3435.000	1.000	Palm	1.80	19.90
121	A253	3805.783	6.327	Palm	1.00	14.70	121	A209	3455.444	3.164	Neem	3.50	15.40
122	A254	3807.496	6.827	Palm	1.00	13.80	122	A210	3550.123	7.999	others	4.20	7.80
123	A257	3828.042	7.563	Palm	1.10	14.80	123	A220	3626.205	8.142	Palm	0.90	14.80
124	A258	3836.479	7.628	Palm	0.90	18.20	124	A221	3636.390	6.833	Palm	0.80	13.20
125	A259	3842.216	7.706	Palm	1.20	18.10	125	A222	3657.845	5.886	Palm	0.80	12.10

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RHS							LHS						
126	A260	3846.841	7.672	Palm	1.00	18.40	126	A229	3662.699	5.786	Palm	0.95	15.50
127	A261	3858.927	8.357	Neem	0.90	9.50	127	A230	3667.000	6.200	Palm	0.80	14.80
128	A266	3905.000	7.000	Neem	0.60	8.60	128	A231	3668.573	5.766	Palm	0.85	14.80
129	A277	3980.000	7.900	Neem	1.30	10.40	129	A232	3672.000	6.000	Palm	0.85	15.80
130	A278	3983.000	8.000	Palm	1.10	25.90	130	A233	3678.062	6.103	Palm	0.80	15.90
131	A288	4130.166	7.856	Palm	1.00	12.80	131	A235	3697.748	6.859	Palm	0.95	18.10
132	A289	4134.473	8.537	Palm	1.00	12.80	132	A234	3699.611	6.918	Palm	0.90	16.90
133	A290	4145.900	4.492	Lambolna	1.95	10.70	133	A236	3704.575	6.908	Palm	0.90	16.80
134	A291	4151.450	5.120	Palm	0.95	11.90	134	A237	3706.000	5.800	Palm	0.90	15.70
135	A292	4156.430	7.765	Palm	1.25	12.80	135	A238	3716.135	6.480	Palm	0.90	16.80
136	A293	4159.175	10.042	Palm	1.40	14.90	136	A239	3750.000	5.700	Palm	1.00	17.10
137	A294	4172.626	7.803	Palm	1.30	14.90	137	A248	3770.000	7.200	Palm	1.30	13.50
138	A295	4176.617	7.052	Palm	0.90	15.80	138	A249	3826.242	4.930	Neem	0.80	9.80
139	A296	4177.761	7.273	Palm	0.90	16.00	139	A255	3829.215	5.154	Palm	1.10	15.80
140	A297	4187.953	7.729	Palm	1.20	16.30	140	A279	3983.000	6.800	Palm	1.20	18.50
141	A298	4224.992	11.803	Palm	1.10	14.80	141	A282	4105.141	4.415	Neem	4.20	5.30
142	A299	4243.414	7.292	Palm	1.55	21.50	142	A284	4123.562	4.514	Lambolna	2.35	17.50
143	A300	4250.798	6.521	Palm	1.00	16.20	143	A285	4133.240	4.549	Palm	1.35	17.50
144	A301	4253.483	6.400	Neem	0.30	9.10	144	A286	4360.006	9.100	Lambolna	1.95	11.50
145	A302	4256.005	7.803	Palm	0.90	15.00	145	A287	4367.000	7.000	Palm	1.20	12.60
146	A303	4276.100	9.610	Neem	0.80	7.10	146	A324	4372.000	9.000	Lambolna	1.50	10.10

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RHS							LHS						
147	A304	4274.664	6.246	Palm	1.00	16.30	147	A325	4377.000	9.000	Neem	1.10	3.00
148	A305	4280.894	9.203	Palm	0.95	8.20	148	A326	4388.000	9.500	Lambolna	1.40	12.80
149	A306	4290.775	10.029	Neem	0.50	7.10	149	A327	4388.000	8.500	Neem	1.30	11.20
150	A307	4299.735	7.098	Lambolna	0.60	10.20	150	A356	4899.996	4.500	Others	1.10	6.90
151	A308	4301.156	7.210	Neem	0.80	11.10	151	A357	4919.000	8.000	Others	1.60	11.40
152	A309	4308.941	9.940	Neem	0.20	3.10	152	A358	4929.863	7.425	Palm	1.60	15.10
153	A310	4312.090	7.220	Neem	0.80	5.00	153	A359	4931.147	7.104	Palm	0.95	15.10
154	A311	4312.523	9.489	Neem	0.50	5.40	154	A381	5200.000	3.500	Neem	0.95	7.80
155	A312	4315.588	8.393	Neem	0.40	5.50	155	A406	5771.882	7.043	Lambolna	3.50	17.05
156	A313	4318.392	7.587	Neem	0.50	6.00	156	A407	5835.000	4.800	Lambolna	3.10	4.20
157	A314	4325.464	10.652	Neem	0.50	4.70	157	A410	5871.849	5.485	Neem	1.00	4.10
158	A315	4328.340	9.358	Neem	0.55	5.30	158	A412	5947.102	5.128	Lambolna	1.10	12.90
159	A316	4331.012	8.199	Neem	0.60	7.90	159	A414	5969.550	4.596	Lambolna	1.85	17.90
160	A317	4332.726	10.043	Neem	1.00	9.80	160	A413	5970.000	5.000	Neem	0.95	9.20
161	A318	4337.814	9.049	Neem	0.80	9.90	161	A415	5981.495	5.740	Neem	3.00	17.10
162	A319	4349.994	8.500	Neem	0.85	10.10	162	A418	6149.971	4.500	Neem	2.20	10.10
163	A320	4359.436	9.100	Tamarind	0.95	10.80	163	A420	6187.942	3.466	Neem	2.10	18.80
164	A321	4368.924	7.769	Palm	1.00	10.70	164	A422	6196.740	3.605	Tamarind	2.80	18.50
165	A322	4363.106	9.205	Neem	0.85	10.50	165	A423	6203.991	3.627	Tamarind	2.50	15.20
166	A323	4373.000	9.200	Neem	1.00	10.60	166	A426	6230.000	3.800	Tamarind	3.40	15.80
167	A330	4430.000	7.600	Neem	1.00	7.00	167	A427	6239.982	4.400	Tamarind	2.80	15.90

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
168	A331	4450.000	8.000	Neem	0.30	7.10	168	A428	6259.998	6.000	Tamarind	3.15	19.30
169	A334	4429.006	8.401	Neem	1.00	7.20	169	A429	6259.998	6.500	Palm	1.00	21.20
170	A336	4620.000	7.000	Neem	0.50	5.10	170	A435	6295.000	5.200	Neem	2.00	15.40
171	A340	4687.346	6.183	Palm	1.20	12.50	171	A436	6305.000	4.400	Palm	1.80	16.90
172	A341	4690.446	6.820	Palm	1.20	12.60	172	A437	6317.292	4.483	Palm	2.65	15.90
173	A342	4700.045	7.069	Palm	1.30	15.90	173	A438	6326.129	3.506	Palm	3.70	14.80
174	A343	4701.469	7.083	Palm	1.30	14.80	174	A439	6334.273	3.447	Palm	1.10	16.80
175	A360	4921.209	8.153	Neem	1.65	10.00	175	A440	6344.450	3.901	Palm	4.10	13.40
176	A360 A	4940.000	7.800	Bamboo	10.10	16.10	176	A441	6407.958	3.368	Palm	2.80	13.50
177	A361	4950.008	7.800	Neem	0.30	6.20	177	A442	6420.000	3.100	Palm	2.80	17.20
178	A362	4960.000	7.500	Neem	0.30	4.10	178	A446	6425.632	2.064	Palm	2.35	12.60
179	A363	4985.000	6.900	Neem	0.55	6.90	179	A447	6445.000	3.000	Palm	2.00	12.30
180	A364	5100.008	7.500	Lambolna	1.60	14.80	180	A448	6450.000	3.000	Tamarind	3.85	7.20
181	A365	5270.000	7.300	Neem	0.55	9.90	181	A449	6462.000	3.000	Tamarind	3.00	6.50
182	A366	5390.000	7.300	Neem	0.70	9.60	182	A450	6470.000	3.000	Tamarind	1.50	6.30
183	A367	5450.000	7.300	Neem	0.50	4.10	183	A451	6530.939	6.845	Tamarind	3.15	13.70
184	A368	5490.000	7.800	Neem	0.30	7.10	184	A452	6542.000	8.000	Tamarind	3.00	9.40
185	A369	5500.000	7.800	Neem	0.30	7.10	185	A456F	6570.000	8.000	Neem	0.80	11.30
186	A370	5600.000	8.000	Neem	0.30	6.20	186	A456E	6571.000	8.000	Others	0.40	6.20
187	A371	5630.000	8.000	Neem	0.30	4.90	187	A457C	6572.000	7.000	Others	0.30	5.30
188	A372	5640.000	7.800	Neem	0.30	6.80	188	A457B	6600.025	8.000	Others	0.40	5.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
189	A373	5697.541	7.322	Neem	1.00	6.00	189	A457	6635.148	7.424	Neem	0.80	7.50
190	A376	5750.000	6.700	Palm	1.00	3.40	190	A457A	6640.558	4.865	Neem	0.40	4.50
191	A377	5105.000	7.300	Neem	0.30	3.30	191	A460	6660.025	8.000	Navai	1.40	11.30
192	A378	5133.000	7.800	Neem	1.25	10.60	192	A461	6664.000	8.000	Neem	1.40	13.40
193	A379	5147.430	6.438	Neem	1.50	10.70	193	A466C	6675.000	8.000	Neem	0.30	5.30
194	A380	5169.440	8.030	Lambolna	2.50	13.60	194	A466B	6697.000	8.000	Neem	0.30	4.50
195	A381	5177.000	6.300	Lambolna	2.50	12.30	195	A466A	6704.000	8.000	Neem	1.00	7.90
196	A381 A	5200.000	7.400	Neem	0.60	7.10	196	A466	6713.000	8.000	Neem	0.70	9.80
197	A381 B	5215.000	6.500	Neem	0.75	7.20	197	A467	6729.000	7.000	Neem	0.80	6.80
198	A381 C	5220.000	6.400	Neem	0.60	10.30	198	A468	6738.975	7.997	Neem	1.00	7.60
199	A382	5236.000	4.200	Others	2.00	14.10	199	A469	6757.390	5.928	Neem	1.00	7.10
200	A382 A	5245.000	6.500	Neem	1.10	11.30	200	A470	6800.000	5.700	Neem	0.70	6.80
201	A382 B	5250.000	6.900	Neem	0.50	9.80	201	A470A	6834.000	8.000	Neem	1.00	7.20
202	A383	5260.000	6.900	Neem	1.00	10.10	202	A478	6850.000	7.000	Neem	0.80	8.30
203	A384	5277.000	8.400	Neem	0.60	7.00	203	A479	6854.000	8.000	Neem	0.90	5.00
204	A385	5298.000	7.000	Neem	0.50	6.70	204	A479A	6898.670	6.043	Neem	0.80	8.60
205	A386	5335.000	8.400	Neem	1.00	5.60	205	A482	6904.043	5.731	Neem	0.90	8.80
206	A387	5425.000	4.500	Neem	1.50	6.20	206	A483B	6918.160	3.517	Neem	0.80	5.30
207	A393	5580.000	7.200	Neem	0.90	9.30	207	A483A	6941.000	7.000	Neem	0.40	4.70
208	A394	5590.000	7.000	Neem	0.80	9.30	208	A483	6952.000	7.000	Neem	0.80	6.90

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
209	A396	5649.263	7.732	Neem	1.60	10.10	209	A487	6952.000	7.000	Neem	0.80	9.60
210	A398	5680.000	7.500	Lambolna	2.50	15.90	210	A488	6956.000	6.000	Neem	0.80	10.20
211	A408	5849.970	6.100	Neem	1.40	9.60	211	A489	6959.000	7.000	Neem	1.30	8.90
212	A409	5871.186	5.602	Neem	1.10	7.80	212	A491	6960.000	7.000	Neem	1.00	11.90
213	A411	5882.572	6.042	Neem	1.40	10.40	213	A491A	6966.000	7.000	Neem	0.50	7.30
214	A416	6699.980	6.500	Lambolna	4.00	17.80	214	A491B	6981.000	8.000	Neem	0.50	7.20
215	A417	6800.000	6.500	Neem	1.95	18.20	215	A491C	6986.000	7.000	Neem	0.30	5.60
216	A419	6970.000	6.900	Tamarind	2.50	13.30	216	A491D	6987.000	7.000	Pungam	0.40	9.20
217	A421	6124.034	6.495	Tamarind	2.60	19.70	217	A498	6999.194	8.315	Peepal tree	5.40	20.70
218	A424	6188.398	5.251	Tamarind	3.20	15.40	218	A501	7163.000	8.000	Neem	1.00	6.50
219	A425	6197.189	4.828	Tamarind	2.85	21.40	219	A508	7218.000	4.000	Neem	0.60	6.10
220	A430	6200.048	4.800	Tamarind	2.15	16.30	220	A510	7228.000	7.000	palm	1.10	16.10
221	A431	6230.530	5.040	Tamarind	2.10	17.50	221	A510A	7325.000	8.000	Others	1.10	8.80
222	A432	6240.020	4.900	Tamarind	1.60	18.40	222	A510B	7345.000	7.000	Others	0.80	7.90
223	A433	6250.010	4.800	Tamarind	2.80	18.50	223	A510C	7348.000	7.000	Others	0.90	6.20
224	A434	6260.002	4.800	Tamarind	2.60	19.20	224	A513A	7495.000	8.000	Banyan	0.30	11.90
225	A443	6338.687	5.276	Tamarind	1.80	13.70	225	A513	7513.972	4.554	palm	1.20	14.20
226	A444	6344.440	4.939	Palm	0.85	18.10	226	A513B	7631.000	8.000	Others	0.50	7.50
227	A445	6347.848	5.142	Tamarind	3.10	17.05	227	A514	7711.993	8.002	palm	1.00	12.50
228	A453	6460.000	7.800	Tamarind	2.90	12.00	228	A514A	7721.993	8.002	Others	0.30	10.30
229	A456	6571.000	8.000	Neem	0.60	6.30	229	A515	7741.000	8.500	Neem	1.00	9.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
230	A456 A	6541.789	8.021	Neem	0.80	9.20	230	A516	7817.000	7.000	Neem	1.00	9.10
231	A456 B	6536.392	8.169	Neem	1.00	10.10	231	A517	7831.994	7.002	Neem	0.30	5.90
232	A456 C	6530.000	7.000	Neem	0.40	7.40	232	A518	7861.994	7.002	Others	0.80	5.80
233	A456 D	6520.000	8.000	palm	1.00	3.00	233	A519	7869.428	4.586	palm	0.80	5.80
234	A458	6601.975	8.006	Neem	1.00	5.80	234	A520	7976.000	7.000	Neem	0.60	8.30
235	A459	6632.929	4.327	Neem	0.60	9.80	235	A521	7977.849	5.188	palm	1.10	17.90
236	A462	6654.113	4.647	Neem	0.70	5.80	236	A522	7985.991	5.269	palm	0.90	18.20
237	A463	6658.000	6.000	Neem	1.00	6.30	237	A524	8063.968	8.016	Others	1.00	9.40
238	A464	6669.000	6.000	Neem	0.60	5.80	238	A524A	8068.000	8.000	Others	0.50	7.20
239	A465	6694.000	7.000	Neem	0.80	7.80	239	A525	8069.972	7.000	palm	1.00	15.10
240	A465 A	6709.000	8.000	Neem	0.70	6.20	240	A525A	8074.000	8.000	Pungam	0.30	7.30
241	A471	6737.395	4.984	Navai	2.50	14.80	241	A526	8084.000	8.000	Neem	0.40	13.30
242	A472	6738.933	4.839	Neem	1.80	11.30	242	A526A	8080.976	6.004	Others	0.30	7.30
243	A473	6754.000	8.000	Neem	0.60	6.50	243	A526B	8085.000	8.000	Others	0.40	7.30
244	A474	6764.000	8.000	Neem	0.80	6.20	244	A526C	8086.000	8.000	Pungam	0.30	6.70
245	A475	6783.000	7.000	Neem	1.60	7.20	245	A526D	8092.968	8.012	Neem	0.40	11.50
246	A476	6797.000	7.000	Neem	1.00	9.80	246	A528G	8118.000	7.000	Others	0.40	10.50
247	A477	6820.000	8.000	Neem	0.50	6.80	247	A528F	8127.000	7.000	Coconut	2.00	16.90
248	A480	6857.000	8.000	Neem	1.00	8.60	248	A528E	8139.000	8.000	Coconut	1.10	2.00
249	A480 A	6842.000	8.000	Neem	1.00	9.80	249	A528D	8139.000	7.000	Coconut	1.00	4.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
250	A481	6958.000	6.000	Neem	2.10	13.60	250	A528C	8142.000	8.000	Coconut	1.20	6.70
251	A484	6971.000	7.000	Neem	2.20	12.50	251	A528B	8145.000	8.000	Coconut	1.10	7.20
252	A485	6979.000	8.000	Neem	0.50	7.40	252	A528A	8148.000	8.000	Coconut	1.10	6.30
253	A486	6981.595	9.081	Pungam	0.40	6.50	253	A528	8162.202	3.545	Others	1.00	16.80
254	A490	6936.000	6.000	palm	1.00	18.70	254	A529	8165.369	5.000	palm	1.30	16.10
255	A492 A	6946.000	7.000	Neem	0.50	5.60	255	A530	8166.000	4.205	palm	0.80	17.70
256	A492 B	6941.000	8.000	Pungam	2.50	13.30	256	A530D	8203.000	8.000	palm	1.10	22.30
257	A492 C	6936.000	8.000	Neem	0.50	8.30	257	A530E	8211.816	7.450	palm	1.00	21.80
258	A492	6956.996	6.484	Neem	1.00	7.80	258	A530F	8212.706	7.271	Neem	1.10	8.10
259	A493	6968.000	8.000	Neem	0.70	8.30	259	A530A	8226.000	7.000	Others	0.80	9.60
260	A494	6958.000	8.000	Neem	0.60	9.80	260	A530B	8229.000	7.000	Tamarind	1.00	11.80
261	A495	6976.324	6.898	Navai	3.30	10.30	261	A530C	8232.000	7.000	Others	2.60	13.90
262	A496	6983.000	8.000	Pungam	0.70	10.50	262	A539C	8290.000	8.000	Coconut	0.80	6.20
263	A499 B	7064.000	8.000	Neem	1.00	10.70	263	A539D	8292.000	7.000	Coconut	0.80	7.30
264	A499	7112.000	8.000	Neem	0.80	6.20	264	A543	8345.669	3.179	Tamarind	2.80	14.90
265	A499 A	7131.000	7.000	palm	1.00	1.30	265	A544	8351.956	3.575	Tamarind	2.40	14.80
266	A500	7137.000	7.000	Neem	0.80	5.90	266	A545	8360.365	2.076	Tamarind	4.30	15.50
267	A500 A	7153.000	8.000	Pungam	1.00	9.80	267	A546	8369.000	4.000	Tamarind	3.10	16.10
268	A502	7184.000	8.000	Pungam	1.50	10.40	268	A563	8395.000	5.000	Tamarind	3.10	13.30
269	A503	7186.000	8.000	Pungam	1.00	7.30	269	A563A	8400.000	5.000	Tamarind	2.90	20.40

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
270	A504	7195.322	7.590	Pungam	1.10	7.20	270	A563B	8411.000	7.000	Tamarind	2.90	14.30
271	A505	7204.498	7.301	Pungam	1.00	5.10	271	A561	8404.767	3.375	Tamarind	2.00	12.70
272	A506	7209.000	8.000	Pungam	1.00	5.90	272	A560	8416.111	3.148	Tamarind	3.50	14.30
273	A507	7215.926	7.315	Neem	0.90	5.30	273	A559	8421.763	4.031	Tamarind	1.60	13.80
274	A509	7236.784	8.351	Neem	1.20	6.30	274	A559A	8434.000	5.000	Others	0.50	11.30
275	A511	7276.000	7.000	Neem	0.50	5.80	275	A583	8473.433	5.136	palm	0.90	17.30
276	A510 D	7330.000	7.000	Pungam	0.70	3.50	276	A584	8475.190	3.693	palm	1.00	17.10
277	A515 A	7723.000	6.000	Neem	1.00	8.30	277	A586A	8509.976	7.381	Banyan	2.50	12.40
278	A518 A	7848.000	8.000	Others	0.80	6.50	278	A587	8519.646	2.509	palm	0.90	9.10
279	A527	8146.000	7.000	palm	0.60	13.50	279	A588	8521.797	2.828	Neem	2.80	8.40
280	A527 A	8145.000	7.000	Others	0.80	5.30	280	A589A	8545.000	7.000	Neem	2.10	14.30
281	A531	8165.882	5.802	palm	1.10	18.50	281	A596	8581.800	3.254	palm	0.90	14.90
282	A532	8169.671	6.512	palm	1.00	20.20	282	A597	8583.649	2.493	palm	1.20	14.50
283	A533	8172.097	6.319	palm	1.00	19.90	283	A598	8585.498	3.205	palm	1.20	14.80
284	A534	8175.389	6.406	palm	1.10	18.50	284	A604	8609.024	2.781	palm	0.90	15.90
285	A539 A	8303.000	7.000	Neem	0.70	6.30	285	A605	8610.976	2.732	palm	1.20	16.30
286	A539	8313.000	7.000	Tamarind	2.30	12.60	286	A606	8623.512	3.151	palm	1.10	17.80
287	A540	8323.725	6.594	Tamarind	3.30	13.20	287	A607	8626.819	3.161	palm	1.10	14.20
288	A541	8331.330	6.557	Tamarind	2.20	12.90	288	A608	8634.024	3.333	palm	1.00	13.80
289	A542	8337.185	6.615	Tamarind	2.20	13.60	289	A609	8648.000	9.000	palm	1.00	11.30

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RHS							LHS						
290	A547	8381.000	6.000	palm	1.10	16.80	290	A610	8649.772	3.500	palm	1.00	13.30
291	A548	8380.000	7.000	palm	1.10	18.80	291	A612	8643.679	8.000	palm	1.00	13.20
292	A549	8384.000	7.500	palm	1.00	17.40	292	A611	8653.776	5.255	palm	1.10	14.80
293	A550	8391.000	7.000	palm	1.30	18.40	293	A613	8647.000	3.281	Others	1.00	17.30
294	A551	8396.000	7.000	palm	1.00	19.20	294	A614	8650.000	2.573	palm	1.20	16.40
295	A552	8400.061	6.901	palm	1.10	18.30	295	A614A	8656.215	2.654	palm	1.10	15.60
296	A553	8403.765	7.437	palm	1.00	17.80	296	A621	8677.734	2.716	palm	1.20	14.90
297	A554	8609.426	6.645	palm	1.30	18.30	297	A620	8677.682	5.045	palm	1.00	14.70
298	A555	8612.000	7.000	palm	1.00	21.40	298	A622	8678.837	2.729	palm	0.90	14.30
299	A556	8615.000	7.000	palm	1.00	20.30	299	A627A	8692.000	5.000	Neem	0.30	6.20
300	A557	8415.826	7.667	palm	1.10	19.80	300	A627	8725.739	3.363	palm	1.00	12.10
301	A558	8419.362	7.015	palm	1.00	18.30	301	A628A	8806.000	7.000	Banyan	0.40	9.10
302	A565	8431.170	7.163	palm	1.10	17.80	302	A630A	8903.000	6.000	Neem	0.70	8.50
303	A566	8434.720	6.891	palm	1.00	16.90	303	A631	8975.003	8.002	Others	1.10	11.50
304	A567	8433.212	7.883	palm	1.10	22.30	304	A633	9067.809	6.443	Others	2.60	12.80
305	A568	8444.794	6.685	palm	1.00	19.20	305	A655	9117.000	5.000	Others	4.20	16.20
306	A569	8446.487	6.606	palm	1.00	16.80	306	A636	9135.000	4.000	Others	3.40	13.90
307	A570	8452.527	6.763	palm	1.20	16.80	307	A654	9367.000	7.700	Pungam	1.19	15.40
308	A571	8457.653	6.708	palm	1.00	16.50	308	A655	9367.000	4.900	Pungam	1.20	14.60
309	A572	8459.478	6.922	palm	1.00	15.90	309	A657	9400.000	9.000	Others	0.95	15.50
310	A573	8461.583	6.870	palm	1.10	16.99	310	A658	9420.000	8.400	Others	0.88	8.40

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
311	A574	8465.766	7.158	palm	1.00	16.80	311	A659	9436.157	5.680	Pungam	1.04	13.80
312	A575	8470.225	7.126	palm	1.00	16.80	312	A660	9438.213	6.169	Pungam	1.19	14.10
313	A576	8472.812	7.469	palm	0.80	16.80	313	A661	9468.370	6.026	Neem	1.62	11.60
314	A577	8474.257	7.160	palm	0.80	16.80	314	A662	9474.399	7.523	palm	1.24	11.40
315	A578	8481.000	7.000	palm	1.10	16.80	315	A663	9481.319	7.575	palm	1.45	13.90
316	A578 A	8484.000	9.000	Neem	0.70	16.80	316	A664	9503.556	4.568	Tamarind	1.40	14.10
317	A579	8487.000	8.000	palm	1.00	16.80	317	A665	9520.157	7.083	Neem	1.16	9.70
318	A580	8492.000	8.000	palm	0.90	16.80	318	A666	9521.943	7.786	Pungam	1.63	20.35
319	A581	8495.147	7.844	palm	1.00	16.80	319	A667	9522.000	4.400	palm	1.25	16.20
320	A582	8497.683	7.562	palm	0.90	16.80	320	A668	9558.334	5.012	Others	1.07	13.20
321	A582 A	8508.319	7.565	palm	1.00	16.80	321	A669	9641.531	3.144	Others	2.20	7.60
322	A582 B	8511.607	7.700	palm	0.90	16.80	322	A670	9654.021	6.882	palm	1.30	20.20
323	A590	8564.364	6.877	palm	1.10	13.20	323	A672	9674.557	5.228	Neem	1.90	10.50
324	A591	8567.341	6.825	palm	1.00	13.30	324	A675	9745.376	3.620	Others	1.35	6.20
325	A592	8570.207	6.879	palm	1.00	16.20	325	A677	9750.000	4.300	Others	3.00	8.70
326	A593	8576.602	6.993	palm	1.00	15.40	326	A678	9760.000	3.800	Others	2.45	12.40
327	A594	8583.303	6.936	palm	1.10	19.20	327	A679	9777.102	2.715	Others	1.92	14.50
328	A595	8584.990	6.892	palm	1.00	17.50	328	A680	9803.869	2.971	Others	1.40	9.10
329	A599	8599.159	6.494	palm	1.00	17.00	329	A688	9980.000	10.100	Others	2.05	12.70
330	A600	8614.000	7.000	palm	1.10	15.40	330	A691	10040.000	3.000	Others	1.70	12.10
331	A601	8616.000	7.000	palm	1.30	15.90	331	A692	10051.077	2.560	Others	3.10	10.60

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
332	A602	8618.799	7.565	palm	1.00	15.60	332	A693	10065.000	8.000	Others	3.20	17.90
333	A603	8631.000	8.000	palm	1.00	13.90	333	A702	10058.893	2.605	palm	0.65	3.00
334	A615	8657.000	7.000	palm	1.10	11.30	334	A705	10224.000	3.100	palm	1.10	14.20
335	A616	8669.000	6.000	palm	1.20	13.90	335	A707	10325.000	8.870	Neem	0.65	10.50
336	A617	8671.000	6.000	palm	1.00	14.80	336	A708	10433.708	7.559	Neem	0.45	10.70
337	A618	8676.000	7.000	palm	1.20	14.20	337	A712	10435.000	7.300	Neem	1.10	6.70
338	A619	8679.000	6.000	palm	1.10	14.50	338	A716	10440.000	7.840	Others	1.30	11.40
339	A624	8692.218	6.073	palm	1.20	14.20	339	A718	10550.000	8.500	Others	2.00	3.50
340	A625	8695.724	6.441	palm	0.90	13.80	340	A719	10581.000	8.600	palm	1.35	13.10
341	A626	8747.000	7.000	palm	1.10	22.30	341	A721	10590.000	8.800	palm	1.10	14.10
342	A628	8860.832	5.743	palm	1.10	12.70	342	A723	10625.035	5.619	Neem	1.80	16.90
343	A632	9016.433	5.291	Others	3.60	15.30	343	A733	10843.409	6.959	palm	1.05	14.70
344	A632 A	9038.000	7.000	palm	1.20	15.10	344	A735	10882.649	7.129	palm	0.95	13.90
345	A634	9075.184	4.551	Others	3.30	16.10	345	A736	10910.000	7.500	palm	1.35	16.06
346	A637 A	9136.954	4.380	Others	0.70	12.20	346	A738	10920.000	4.700	Neem	1.50	9.90
347	A638 A	9172.000	8.000	Others	1.40	10.50	347	A739	10950.000	6.500	Neem	1.05	14.40
348	A639	9192.000	7.500	Pungam	2.00	9.90	348	A740	10951.000	6.500	Others	0.87	10.80
349	A647	9275.905	6.105	Neem	1.78	16.60	349	A741	10952.758	6.179	Others	2.85	14.70
350	A648	9276.718	6.696	palm	1.61	18.68	350	A742	10972.369	5.707	Others	1.80	19.50
351	A651	9366.464	6.022	palm	1.30	23.90	351	A750	10980.404	5.153	Others	2.20	13.70
352	A652	9368.010	5.781	palm	1.10	22.80	352	A751	11122.521	8.529	palm	1.20	11.60

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
353	A656	9398.646	6.497	palm	1.00	9.40	353	A753	11152.963	9.122	Neem	0.70	8.20
354	A671	9670.000	6.600	palm	3.70	6.50	354	A758	11202.425	5.113	Neem	4.10	12.80
355	A673	9716.223	6.980	Others	3.25	12.70	355	A760	11225.000	7.200	Neem	0.80	10.60
356	A674	9721.999	6.536	Others	1.47	8.30	356	A761	11238.000	9.050	Neem	0.82	7.40
357	A676	9739.318	5.882	Others	2.80	11.90	357	A761A	11260.000	8.000	Neem	1.40	9.60
358	A681	9797.476	7.546	Others	1.89	10.70	358	A761B	11264.000	9.200	palm	0.60	7.70
359	A682	9775.000	8.600	palm	1.00	18.50	359	A762	11308.266	6.536	palm	1.00	9.30
360	A683	9863.355	6.636	Others	3.80	17.90	360	A764	11327.000	6.300	Neem	0.70	9.90
361	A684	9888.225	6.699	palm	1.17	25.50	361	A764A	11337.000	11.350	Others	0.60	7.20
362	A685	9901.932	6.583	Others	2.80	10.50	362	A765	11340.000	11.400	Others	2.00	13.70
363	A686	9918.919	6.706	Others	2.37	7.10	363	A766	11345.000	11.000	Others	1.70	15.10
364	A687	9936.285	7.203	Others	1.70	10.20	364	A767	11371.000	6.500	Others	1.60	15.40
365	A689	10037.020	9.541	Others	2.50	10.09	365	A771A	11505.000	7.500	Neem	0.50	7.30
366	A690	10064.928	7.860	Others	4.30	16.04	366	A783	11925.000	5.800	Others	0.70	9.50
367	A694	10097.347	9.709	Others	1.85	10.60	367	A786	12020.000	4.600	Others	1.11	6.90
368	A695	10161.716	10.217	Others	1.02	9.22	368	A787	12017.991	9.052	Others	0.60	9.20
369	A696	10166.000	10.200	Others	0.88	10.10	369	A788	12106.000	5.100	Others	0.82	14.20
370	A697	10252.260	8.043	Others	1.95	10.60	370	A789	12112.000	4.600	Others	0.78	10.40
371	A698	10277.960	9.329	palm	1.19	15.04	371	A803	12270.000	5.800	Neem	0.50	11.70
372	A699	10279.940	8.565	palm	1.23	7.50	372	A804	12281.860	6.413	Neem	0.80	10.20
373	A700	10280.605	9.291	Neem	2.10	7.70	373	A805	12293.649	5.859	Neem	0.55	7.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
374	A701	10352.518	5.481	Others	1.80	14.10	374	A807A	12307.000	5.600	Neem	1.20	6.30
375	A703	10400.000	4.600	Others	2.70	11.60	375	A815	12445.000	8.600	Neem	1.05	9.10
376	A704	10434.968	5.199	Others	4.80	17.70	376	A818	12502.000	8.000	Neem	0.50	5.40
377	A706	10425.000	5.800	Neem	1.75	12.60	377	A819	12520.000	8.700	Neem	0.60	5.50
378	A709	10445.000	5.600	Neem	0.95	13.70	378	A822	12520.000	8.800	Neem	0.80	5.90
379	A710	10445.000	5.800	Neem	0.85	12.80	379	A823	12785.404	9.207	Neem	0.70	7.10
380	A713	10561.655	2.305	Others	3.00	12.20	380	A867	13299.930	10.336	Neem	0.90	9.60
381	A714	10562.961	7.346	palm	1.20	15.05	381	A901	14135.000	5.000	Neem	1.20	11.20
382	A715	10572.662	2.672	palm	1.90	16.40	382	A902	14200.016	5.500	Neem	1.02	11.02
383	A717	10590.008	4.777	Neem		10.40	383	A903	14250.000	6.400	Neem	0.80	11.50
384	A720	10641.990	3.068	palm	1.01	13.70	384	A904A	14295.000	5.300	Neem	0.60	10.02
385	A722	10675.000	4.400	Others	3.00	10.80	385	A900	14310.000	5.500	Neem	0.90	5.20
386	A724	10725.647	4.006	Others	2.75	13.20	386	A905A	14360.000	5.500	Neem	0.60	6.10
387	A725	10766.000	8.900	Others	2.10	7.09	387	A905B	14370.000	6.400	Neem	0.40	5.10
388	A728	10810.000	8.500	Others	1.60	13.50	388	A905C	14380.000	5.900	Neem	0.60	5.40
389	A729	10222.000	8.200	Others	2.90	17.30	389	A906	14425.000	6.700	Neem	0.60	5.50
390	A732	10852.002	5.350	palm	2.62	16.90	390	A907	14425.000	6.900	Neem	0.50	5.30
391	A734	10901.784	5.582	palm	2.40	17.70	391	A908	14427.000	6.700	Neem	0.40	4.40
392	A737	10916.760	7.137	palm	1.30	18.04	392	A908A	14445.000	6.200	Others	0.50	7.80
393	A743	10970.988	6.234	Others	2.35	22.10	393	A908B	14500.000	6.200	Others	0.40	8.30
394	A744	10977.156	6.158	Others	3.00	23.20	394	A909	14540.000	4.400	Neem	0.70	10.40

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
395	A745	10983.127	5.991	Others	1.66	15.70	395	A910	14543.000	4.900	Neem	0.80	10.30
396	A746	11009.983	8.600	Neem	1.02	10.10	396	A910A	14562.000	6.300	Others	0.30	14.20
397	A747	11011.108	8.972	Neem	0.80	9.20	397	A911	14565.000	5.200	Neem	0.70	12.30
398	A748	11015.000	10.600	Neem	0.70	6.07	398	A911A	14566.000	5.900	Tamarind	0.40	11.20
399	A749	11050.092	6.932	Others	1.80	8.20	399	A911C	14569.992	5.300	Others	0.50	12.40
400	A754	11180.000	10.900	Neem	0.60	9.10	400	A912	14587.000	6.000	Tamarind	0.80	12.20
401	A755	11189.000	10.500	Neem	0.80	13.20	401	A913	14609.704	4.965	Neem	0.70	9.60
402	A756	11189.000	10.800	Neem	1.00	12.70	402	A914	14620.040	5.106	Others	1.10	17.05
403	A757	11195.000	10.400	Neem	1.00	13.70	403	A918	14725.000	8.000	Others	1.00	11.60
404	A759	11220.000	8.000	Others	4.00	15.90	404	A920	15177.000	3.900	Neem	0.70	10.40
405	A763	11299.988	9.300	Neem	1.50	9.20	405	A920A	15205.000	4.400	Neem	0.60	7.50
406	A764 B	11337.000	8.000	Neem	0.60	3.02	406	A922	15308.000	6.400	Neem	1.10	7.70
407	A764 C	11372.000	8.200	Neem	0.70	5.50	407	A921A	15310.000	5.500	Palm	2.00	5.60
408	A768	11340.000	9.600	Neem	0.50	6.60	408	A923	15330.000	7.000	Pungam	1.10	9.90
409	A769	11340.000	10.800	Neem	0.60	6.70	409	A926	15428.628	5.809	Neem	0.70	8.70
410	A770	11420.000	10.100	Others	0.55	9.10	410	A927	15439.319	5.397	Neem	1.25	9.70
411	A771	11461.000	11.200	Neem	0.50	6.30	411	A928	15449.986	6.800	Neem	0.60	8.40
412	A772	11649.869	2.398	Others	0.75	6.30	412	A929	15457.000	6.700	Neem	0.70	8.20
413	A802	12202.000	7.100	Neem	1.00	14.20	413	A930	15465.000	6.000	Neem	0.50	8.01
414	A806	12270.000	5.600	Neem	1.00	11.02	414	A931	15467.000	6.500	Neem	0.60	7.60
415	A807	12300.000	7.200	Neem	0.50	8.30	415	A932A	15470.000	6.000	Neem	0.90	6.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
416	A808	12372.000	4.900	Neem	0.90	8.50	416	A932B	15479.000	6.000	Neem	0.80	6.00
417	A808 A	12384.000	4.800	Neem	0.80	5.00	417	A932C	15514.988	6.210	Neem	0.60	6.70
418	A809	12420.000	3.900	Neem	0.50	8.40	418	A932D	15517.000	6.000	Neem	0.50	9.80
419	A810	12422.000	4.300	Neem	0.70	8.30	419	A933	15518.000	6.200	Neem	0.90	10.30
420	A811	12427.009	4.706	Neem	0.70	8.70	420	A934	15522.000	5.200	Neem	0.80	8.90
421	A812	12430.000	4.300	Neem	0.75	8.50	421	A936	15561.000	5.100	Pungam	1.20	12.60
422	A813	12445.000	4.300	Neem	1.3	6.20	422	A938	15567.000	6.200	Neem	0.70	10.20
423	A814	12450.000	4.000	Neem	0.70	9.05	423	A939	15600.000	5.800	Neem	0.90	10.50
424	A816	12470.000	3.100	Neem	1.80	9.50	424	A941	15620.000	4.800	Neem	0.60	10.70
425	A817	12781.913	2.751	Neem	0.70	7.50	425	A941A	15630.000	7.100	Neem	0.70	5.20
426	A820	12502.000	3.000	Neem	0.66	6.90	426	A942	15678.000	5.400	Pungam	0.60	6.50
427	A821	12510.000	2.800	Neem	0.92	12.60	427	A942A	15708.000	7.400	Neem	0.30	5.70
428	A824	12568.000	2.300	Neem	1.00	4.00	428	A944	16226.323	3.990	Palm	1.20	6.50
429	A825	12568.000	1.100	Neem	1.00	12.30	429	A944A	16279.000	7.000	Neem	0.90	10.10
430	A826	12574.000	0.700	Neem	0.70	10.40	430	A945	16760.000	5.200	Pungam	2.00	6.70
431	A828	12652.460	2.085	Palm	1.10	8.20	431	A950	16877.802	7.418	Tamarind	1.50	10.70
432	A868	13445.000	8.700	Others	1.20	8.20	432	A951	16894.999	8.000	Tamarind	1.40	10.50
433	A869	13640.000	6.600	palm	1.90	15.30	433	A952	16910.000	6.800	Tamarind	2.50	17.05
434	A870	13660.000	6.300	palm	1.20	9.50	434	A953	16943.000	6.000	Tamarind	2.60	13.60
435	A872	13666.000	6.000	Palm	1.80	9.50	435	A956	16953.679	5.689	Tamarind	1.90	12.20
436	A873	13680.000	5.200	Palm	1.30	11.50	436	A957	16969.997	5.836	Tamarind	1.10	15.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
437	A876	13600.000	7.600	Others	0.90	11.02	437	A958	16997.743	7.325	Tamarind	1.10	9.90
438	A877	13721.811	8.566	Others	1.00	18.50	438	A959	17040.000	6.400	Tamarind	2.30	14.40
439	A897	13827.000	6.500	Others	1.30	13.50	439	A961	17050.000	6.500	Tamarind	2.20	13.70
440	A904	14295.018	6.314	Neem	1.00	12.30	440	A962	17080.000	7.800	Tamarind	4.20	12.30
441	A905	14324.984	5.614	Neem	1.20	5.20	441	A66	18555.121	7.358	Tamarind	6.30	15.50
442	A904 D	14410.000	5.700	Neem	0.50	5.00	442	A67	18578.687	5.235	Navai	5.50	21.00
443	A911 B	14566.000	5.100	Neem	0.40	6.20	443	A68	18595.164	6.369	Navai	4.10	17.70
444	A915	14613.553	7.471	Neem	0.80	13.70	444	A76A	18766.000	6.000	palm	1.80	6.40
445	A916	14627.000	8.100	Neem	0.67	8.50	445	A78	18826.000	5.000	Neem	2.30	10.70
446	A917	14709.860	7.381	Palm	1.20	9.70	446	A84	18961.998	0.091	Others	4.40	17.20
447	A919	14785.051	7.431	Palm	1.80	7.07	447	A128	19500.000	8.500	Pungam	0.90	11.10
448	A920 B	15270.000	7.400	Neem	0.50	9.60	448	A132	19596.571	6.616	Neem	1.80	9.90
449	A924	15350.011	5.500	Neem	0.80	8.25	449	A135	19625.000	8.000	Others	4.30	20.50
450	A925	15407.000	6.300	Neem	0.60	7.80	450	A139	19673.743	6.882	Tamarind	4.20	10.40
451	A928 A	15450.000	6.100	Neem	0.50	8.50	451	A142	19688.137	6.261	Tamarind	4.60	1.50
452	A928 B	15448.000	6.200	Neem	0.70	9.10	452	A143	19700.077	6.370	Tamarind	4.40	8.70
453	A928 C	15457.000	6.800	Others	0.70	10.40	453	A144	19711.534	7.277	Tamarind	2.40	9.60
454	A928 D	15465.000	5.200	Neem	0.50	9.80	454	A146	19740.109	4.849	Navai	3.00	20.90
455	A928 E	15467.000	5.700	Neem	0.50	8.00	455	A147	19752.574	6.361	Tamarind	2.30	8.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
456	A932	15477.000	6.500	Neem	1.00	4.20	456	A148	19765.665	5.940	Tamarind	3.90	9.80
457	A935	15544.000	6.200	Neem	1.00	9.10	457	A149	19778.652	5.243	Tamarind	4.00	10.70
458	A937	15563.009	4.995	Neem	0.60	11.70	458	A153	19862.511	6.132	Others	4.10	11.40
459	A940	15590.000	5.600	Pungam	1.30	7.20	459	A169	20051.400	7.234	Tamarind	3.30	13.10
460	A944 B	16425.000	7.300	Tamarind	1.80	10.20	460	A171	20085.000	8.000	Tamarind	3.00	9.90
461	A948	16861.664	5.407	Tamarind	2.50	14.80	461	A172	20094.355	6.678	Tamarind	2.80	10.70
462	A949	16883.234	7.284	Tamarind	2.50	10.40	462	A173	20107.745	5.327	Tamarind	2.70	10.40
463	A963	17050.000	6.500	Tamarind	2.20	13.70	463	A174	20121.836	4.395	Tamarind	3.60	10.70
464	A964	17086.885	5.932	Tamarind	2.00	11.40	464	A175	20135.040	5.966	Tamarind	3.70	13.90
465	A965	17080.000	7.300	Tamarind	2.60	11.50	465	A180	20148.817	3.877	Tamarind	3.00	9.80
466	A967	17090.000	7.500	Tamarind	2.50	13.30	466	A182	20162.040	5.986	Others	0.60	4.50
467	A968	17114.941	5.137	Tamarind	3.30	11.70	467	A183	20188.527	5.006	Tamarind	2.50	9.80
468	A971	17160.000	6.500	Tamarind	4.40	20.30	468	A184	20209.000	7.000	Others	0.90	7.40
469	A972	17200.000	6.300	Tamarind	4.30	17.00	469	A185	20224.615	5.147	Others	1.10	8.80
470	A978	17234.000	3.000	Others	0.50	8.40	470	A190	20242.718	4.129	Tamarind	4.20	10.50
471	A979 B	17242.000	8.000	palm	1.10	6.10	471	A191	20267.903	3.635	Tamarind	3.30	11.30
472	A979 A	17241.000	5.000	Neem	0.30	4.00	472	A194	20296.553	4.543	Tamarind	6.30	11.50
473	A979	17240.744	1.972	Others	2.20	9.10	473	A194A	20322.000	8.000	Neem	0.40	6.00
474	A980	17262.000	3.000	Others	0.60	10.40	474	A197	20340.000	6.000	Tamarind	2.90	8.50
475	A981	17266.000	5.000	Neem	0.80	9.20	475	A198	20347.000	7.000	Others	1.30	7.70
476	A982	17269.000	5.000	Navai	1.90	8.30	476	A198A	20350.000	7.000	Others	0.50	3.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
477	A982 A	17291.000	8.000	Others	0.40	7.30	477	A200	20361.000	7.000	Tamarind	2.10	7.00
478	A984	17325.000	5.000	Navai	1.10	6.90	478	A200A	20363.000	8.000	Neem	0.70	8.70
479	A985	17342.000	6.000	Others	1.10	7.10	479	A205	20394.687	6.189	Tamarind	2.40	8.40
480	A986	17352.000	5.000	Others	1.00	9.20	480	A206	20422.547	5.747	Tamarind	3.60	8.00
481	A987	17359.884	5.141	Others	1.60	7.30	481	A207	20434.568	5.573	Tamarind	2.30	11.50
482	A988	17341.000	4.000	Others	1.10	6.90	482	A208	20447.000	4.000	Others	1.30	8.00
483	A989	17352.000	4.000	Others	0.80	9.20	483	A213B	20453.520	6.730	palm	2.30	7.60
484	A990	17355.000	5.000	Neem	0.50	7.20	484	A213A	20455.000	4.000	Others	1.10	7.50
485	A1000	17373.000	5.000	Navai	2.50	10.60	485	A213	20463.088	4.058	Others	1.00	8.30
486	A2	17410.993	4.002	Neem	0.70	8.00	486	A214	20526.000	4.100	Tamarind	3.60	12.20
487	A2A	17416.000	4.000	Neem	0.30	6.10	487	A215	20533.455	4.690	Tamarind	3.60	10.60
488	A4	17443.000	4.000	Neem	0.60	10.40	488	A216	20689.610	3.158	Tamarind	3.80	12.70
489	A5	17450.000	3.000	Others	0.80	10.90	489	A220	20784.947	3.158	Navai	2.30	14.90
490	A6A	17497.000	4.000	Others	0.50	5.90	490	A224	20805.000	8.000	Others	0.70	10.30
491	A6	17512.995	3.005	Tamarind	4.80	11.70	491	A225A	20810.000	8.000	Others	0.60	16.10
492	A7	17554.992	5.008	Tamarind	3.00	11.20	492	A225	20830.678	5.341	Tamarind	3.40	17.40
493	A9	17580.990	6.002	Tamarind	3.30	12.90	493	A226	20844.300	5.006	Tamarind	3.50	17.80
494	A12	17665.022	3.197	Tamarind	6.20	15.20	494	A229	20879.812	5.793	Tamarind	3.50	14.00
495	A13	17673.853	4.556	Tamarind	2.00	16.00	495	A231	20923.529	4.345	Tamarind	3.30	17.40
496	A15A	17708.000	7.000	Neem	0.60	7.50	496	A232	20939.492	3.864	Tamarind	3.20	14.00
497	A15	17718.000	6.000	Others	3.70	9.60	497	A233	20954.704	4.704	Tamarind	3.50	11.30

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
498	A16	17733.365	6.268	Tamarind	4.20	14.50	498	A248B	21008.000	8.000	Others	1.00	10.60
499	A16A	17753.000	9.000	Others	2.50	22.80	499	A248A	21011.000	7.000	Pungam	0.70	9.80
500	A21	17798.000	8.000	Others	1.60	13.80	500	A248	21022.000	4.000	Others	4.20	13.20
501	A22	17793.000	9.000	Neem	1.00	14.20	501	A249D	21037.000	8.000	Neem	1.50	11.30
502	A24A	17810.000	8.000	Others	1.40	10.80	502	A249C	21043.000	7.000	Tamarind	1.60	12.30
503	A24	17821.107	5.267	Tamarind	5.30	11.20	503	A249B	21060.000	7.000	Neem	1.00	9.20
504	A27	17872.008	3.996	Others	0.50	9.90	504	A249A	21060.000	6.000	Neem	0.90	10.40
505	A28	17888.000	7.000	Others	1.10	10.30	505	A249	21098.000	4.000	Tamarind	2.40	11.20
506	A29	17892.000	8.000	Neem	0.60	11.50	506	A250	21120.167	2.606	Tamarind	3.20	8.50
507	A32	17907.000	8.000	Others	2.10	12.80	507	A251	21135.597	2.424	Tamarind	2.20	8.80
508	A36A	17946.000	5.000	Neem	0.30	6.30	508	A255	21162.000	3.000	Tamarind	4.70	9.70
509	A35	17975.998	6.000	Navai	4.20	12.80	509	A278-54	21167.000	3.000	Others	0.60	8.60
510	A35D	17988.000	8.000	Others	0.40	10.50	510	A278-53	21175.000	5.000	Others	0.40	8.80
511	A35A	18003.265	7.893	Neem	1.60	11.20	511	A278-52	21177.000	5.000	palm	1.10	4.00
512	A35B	18016.002	7.000	palm	1.10	3.00	512	A278-51	21185.000	3.000	Others	0.60	5.00
513	A35C	18017.002	7.000	Neem	0.40	5.50	513	A278-50	21194.000	7.500	palm	0.80	3.20
514	A38	18058.413	7.033	Tamarind	5.00	12.00	514	A278-49	21196.000	7.000	palm	1.90	8.30
515	A41	18171.904	4.895	Neem	2.00	12.20	515	A278-48	21198.000	6.000	palm	1.30	8.10
516	A49	18387.000	6.000	Neem	2.20	8.40	516	A278-47	21205.000	6.000	palm	1.00	7.60

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
517	A50	18335.999	4.000	Others	1.40	9.10	517	A278-46	21205.000	7.000	palm	1.70	8.80
518	A53	18411.696	5.598	Tamarind	3.70	12.80	518	A278-45	21215.000	8.000	palm	1.60	3.70
519	A54	18427.000	4.000	Neem	1.30	8.00	519	A278-44	21218.000	8.000	Others	0.80	7.50
520	A55	18449.994	6.000	Neem	2.00	13.40	520	A278-43	21218.000	7.000	palm	2.60	6.80
521	A58	18467.000	8.000	Tamarind	2.90	9.10	521	A278-42	21231.000	5.000	palm	2.70	7.20
522	A59	18480.993	7.001	Neem	2.10	12.80	522	A278-41	21237.000	7.000	palm	2.40	8.20
523	A61	18507.222	7.169	Others	5.50	12.00	523	A278-40	21239.009	6.001	palm	1.90	4.60
524	A62	18537.341	8.381	Tamarind	5.70	12.80	524	A278-39	21277.999	8.000	palm	1.40	3.40
525	A70	18558.330	9.689	Others	1.80	16.10	525	A278-38	21278.999	8.000	palm	1.00	2.20
526	A71	18583.000	8.000	Neem	3.50	11.80	526	A278-37	21286.000	7.000	palm	1.60	6.20
527	A72	18672.128	7.299	Tamarind	1.00	8.90	527	A278-36	21296.998	5.000	palm	2.10	4.20
528	A74C	18679.151	6.365	palm	1.00	5.40	528	A278-35	21300.000	5.000	palm	2.30	7.80
529	A74B	18685.000	7.000	palm	0.80	6.30	529	A278-34	21306.000	3.000	palm	1.90	3.70
530	A74A	18691.000	8.000	palm	1.20	5.10	530	A278-33	21306.000	2.000	palm	2.10	6.80
531	A74	18693.000	8.000	Others	2.40	7.60	531	A278-32	21308.119	2.102	palm	2.10	5.50
532	A75	18694.000	8.000	Banyan	3.00	8.50	532	A278-24	21383.420	8.197	palm	1.40	6.80
533	A76	18758.080	4.391	Neem	3.10	12.00	533	A278-23	21384.046	1.000	palm	1.50	6.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
534	A77	18807.807	9.657	Others	1.00	10.80	534	A278-22	21384.046	2.000	palm	1.80	7.00
535	A79	18786.000	6.000	Others	2.00	8.90	535	A278-21	21383.564	6.202	palm	1.20	6.20
536	A82C	18908.000	0.400	Neem	7.00	6.50	536	A278-14	21409.704	6.999	Neem	0.70	5.80
537	A82B	18915.886	2.920	palm	5.00	16.90	537	A278-13	21419.794	6.001	Others	1.10	10.80
538	A82A	18914.000	0.800	palm	4.00	15.20	538	A278-10	21465.000	2.000	Neem	0.70	4.50
539	A82	18927.000	3.500	Others	0.60	5.90	539	A278-7	21482.000	6.000	palm	2.00	7.00
540	A85	18972.418	1.399	Others	2.20	11.10	540	A278-6	21480.000	5.000	Neem	0.70	9.10
541	A86	18982.626	1.422	Others	2.40	7.50	541	A278-5	21500.000	0.700	palm	1.20	6.30
542	A94	19013.053	2.498	Neem	2.00	9.50	542	A278-4	21490.000	8.000	Neem	0.70	5.20
543	A98	19054.021	5.252	Others	2.60	15.20	543	A278-1	21500.000	7.000	Others	0.40	11.20
544	A105	19131.141	7.979	Others	3.10	16.00	544	A279	21531.000	6.000	Pungam	0.60	7.60
545	A108	19172.804	7.098	Tamarind	3.30	18.20	545	A281A	21558.999	0.013	Neem	0.90	8.90
546	A109	19184.566	6.358	Others	4.30	17.90	546	A281	21570.140	6.996	Neem	0.60	7.60
547	A110	19196.941	6.383	Others	3.20	16.10	547	A282	21574.792	6.471	Katva	1.70	17.10
548	A112	19201.000	8.000	palm	1.00	18.50	548	A284	21595.759	7.822	Neem	0.90	11.30
549	A113	19207.000	7.000	palm	1.00	13.60	549	A285	21602.804	7.794	Neem	0.90	8.50
550	A114	19209.783	7.514	palm	1.30	20.10	550	A287	21620.644	8.528	Katva	2.00	14.50
551	A114 A	19217.000	8.000	palm	1.00	15.20	551	A288	21617.999	7.000	Neem	1.00	7.20
552	A115	19220.887	5.991	Neem	2.80	21.20	552	A291	21644.000	6.000	Others	0.50	5.90
553	A118	19225.921	7.131	palm	1.00	15.80	553	A292	21655.999	6.000	Others	0.70	6.40

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RHS							LHS						
554	A118 A	19227.385	6.971	palm	0.90	17.30	554	A293	21674.999	7.000	Others	0.40	4.80
555	A118 B	19231.885	7.298	palm	0.90	16.90	555	A294	21689.000	7.300	Neem	0.60	5.10
556	A119	19254.521	6.084	palm	2.00	18.40	556	A295	21705.000	7.000	Others	1.50	7.70
557	A120	19262.612	5.512	palm	1.30	23.60	557	A296	21725.000	3.000	Pungam	0.50	6.30
558	A121	19279.108	4.668	Neem	3.30	16.00	558	A299	21747.000	1.000	Others	0.60	8.00
559	A127	19430.138	8.260	Neem	1.30	11.00	559	A301	21858.586	0.968	Neem	0.70	6.20
560	A133	19606.094	6.637	Tamarind	5.20	12.80	560	A302	21904.000	7.000	Neem	0.70	5.80
561	A152	19808.000	7.000	Others	0.60	9.90	561	A306	22008.000	3.200	Tamarind	3.70	14.80
562	A155	19887.846	7.036	Tamarind	2.50	10.30	562	A307	22022.000	8.000	Tamarind	3.80	12.60
563	A159	19918.000	6.000	Others	0.70	13.00	563	A315	22057.569	7.991	Tamarind	2.80	11.50
564	A161	19939.534	5.564	Tamarind	3.80	12.30	564	A316	22087.000	8.000	Tamarind	3.10	16.60
565	A164	19993.260	6.356	Tamarind	5.20	18.20	565	A317	22102.000	7.500	Tamarind	2.80	12.30
566	A165	20004.838	6.697	Tamarind	4.00	15.00	566	A318	22110.000	8.000	Tamarind	2.90	16.10
567	A176	20080.146	7.549	Tamarind	4.70	16.10	567	A320	22132.417	7.435	Tamarind	3.60	18.60
568	A278-31	21315.994	0.000	palm	1.00	3.00	568	A324	22145.414	6.843	Tamarind	3.20	15.00
569	A278-30	21315.994	0.000	palm	2.00	4.00	569	A325	22160.308	6.675	Tamarind	3.30	16.10
570	A278-29	21320.050	0.677	palm	1.60	5.60	570	A326	22174.000	8.000	Tamarind	3.00	15.00
571	A278-28	21328.007	2.000	palm	2.00	4.00	571	A327	22200.000	8.000	Tamarind	3.60	15.20
572	A278-27	21338.003	4.000	palm	1.50	2.50	572	A328	22210.000	7.000	Tamarind	4.40	19.80
573	A278-	21356.993	5.000	palm	1.80	2.90	573	A329	22224.533	6.694	Tamarind	3.20	15.10

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RHS							LHS						
	26												
574	A278-25	21354.993	3.000	palm	2.00	4.50	574	A332	22235.028	7.203	Tamarind	3.70	15.20
575	A278-20	21383.999	0.051	palm	1.90	1.70	575	A333	22250.015	7.475	Tamarind	3.50	14.70
576	A278-19	21384.157	4.946	palm	1.20	5.00	576	A334	22261.000	7.300	Tamarind	3.30	19.30
577	A278-18	21384.188	5.946	palm	1.00	3.50	577	A338	22279.162	6.801	Tamarind	3.70	16.10
578	A278-17	21384.220	6.945	palm	1.00	5.80	578	A339	22310.104	6.215	Tamarind	3.40	10.10
579	A278-16	21384.251	7.945	palm	1.20	6.60	579	A341A	22325.822	6.198	Tamarind	1.00	6.20
580	A278-15	21384.021	0.648	Neem	0.30	4.00	580	A341	22346.000	8.000	Others	0.80	5.50
581	A278-12	21430.026	0.996	Neem	0.30	3.40	581	A342	22363.847	7.992	Tamarind	4.10	16.10
582	A278-11	21450.086	8.498	Neem	0.90	6.80	582	A347	22383.188	5.805	Tamarind	3.40	17.70
583	A278-9	21470.000	7.000	Others	0.60	7.50	583	A348	22412.110	6.192	Tamarind	4.20	12.60
584	A278-8	21480.000	2.000	Neem	0.40	3.50	584	A349	22427.101	6.654	Tamarind	2.50	11.30
585	A278-3	21466.021	7.984	Neem	0.50	3.50	585	A352	22440.572	6.866	Tamarind	3.60	16.10
586	A278	21506.000	3.000	Others	2.00	13.80	586	A353	22455.041	7.843	Tamarind	4.10	14.00
587	A278-2	21506.000	1.000	Pungam	0.40	5.70	587	A354	22486.702	6.857	Tamarind	2.70	10.00
588	A286	21612.755	4.748	Katva	2.20	20.80	588	A355	22503.325	6.965	Tamarind	3.10	15.20
589	A289	21636.999	8.000	Neem	1.10	9.50	589	A365A	22516.950	7.929	Coconut	0.80	17.60
590	A290	21652.859	7.061	Others	1.60	6.60	590	A367A	22661.639	8.088	Pungam	2.00	13.90

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
591	A300	21842.892	1.648	Others	1.20	7.30	591	A368	22865.000	1.000	Others	2.00	10.50
592	A305	22011.834	7.536	Tamarind	3.80	14.60	592	A369	22882.662	4.567	Others	0.50	7.00
593	A310	22057.637	8.060	Tamarind	3.20	14.50	593	A370A	22888.000	1.000	Others	1.10	11.50
594	A311	22072.489	8.900	Tamarind	4.40	14.40	594	A370B	22880.000	1.000	Neem	0.40	4.80
595	A314	22103.512	8.757	Tamarind	3.70	14.20	595	A370	22922.000	7.000	Others	0.80	5.20
596	A343	22383.787	7.382	Tamarind	4.30	21.90	596	A373B	23229.000	8.000	Neem	0.40	4.50
597	A358	22519.759	7.518	Tamarind	2.40	13.20	597	A376	23233.000	7.500	Others	1.00	11.00
598	A359	22529.521	5.910	Tamarind	2.00	11.30	598	A377	23349.000	6.000	Peepal tree	2.40	15.30
599	A360	22541.258	6.373	Tamarind	1.80	9.20	599	A377A	23383.207	4.860	Others	0.60	12.20
600	A360 A	22564.000	8.000	Neem	1.70	11.30	600	A378A	23665.000	1.000	Others	0.50	5.60
601	A360 B	22564.000	7.000	Coconut	0.80	4.00	601	A378	23815.223	7.852	Others	1.00	9.50
602	A365 B	22634.999	7.300	Pungam	0.60	7.50	602	A385	23861.801	6.186	Tamarind	2.20	13.50
603	A365	22636.999	7.000	Pungam	2.10	8.40	603	A451	23992.000	8.000	Tamarind	2.40	13.20
604	A366 A	22847.000	3.000	Neem	0.60	8.60	604	A456	24344.983	8.011	Tamarind	3.50	14.50
605	A366	22770.000	6.300	Mango	1.50	9.20	605	A470	24348.889	6.485	Tamarind	2.70	13.50
606	A367	22770.000	7.300	Others	2.60	13.40	606	A484	24570.327	7.984	Tamarind	2.70	12.30
607	A373 A	23032.000	0.011	Others	1.00	9.00	607	A485	24706.587	6.772	Tamarind	2.40	12.10
608	A374	23084.985	3.026	Others	1.10	8.00	608	A487	24722.255	6.574	Tamarind	3.10	12.40
609	A374 A	23098.000	3.500	Others	2.50	0.80	609	A488	24735.782	7.267	Tamarind	2.50	12.30
610	A375	23122.965	7.116	Others	1.10	6.00	610	A492	24750.000	8.000	Tamarind	3.30	11.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
611	A375 A	23158.000	5.500	Others	1.50	4.00	611	A502	24860.224	7.618	Navai	2.80	15.30
612	A379 A	23564.961	4.050	Others	0.80	7.70	612	A506	24935.481	6.922	Navai	2.80	16.90
613	A379	23579.994	6.000	Others	1.50	7.20	613	A508	24976.281	6.258	Navai	3.70	15.30
614	A384	23805.718	5.361	Tamarind	2.50	9.20	614	A509	24988.984	6.427	Navai	3.40	16.10
615	A387	23836.959	4.721	Tamarind	2.50	9.70	615	A510	25000.875	6.018	Navai	3.60	14.40
616	A388	23840.467	5.228	Tamarind	1.10	14.20	616	A522	25277.000	7.000	Navai	4.30	17.70
617	A390	23862.941	6.550	Tamarind	3.70	10.20	617	A551	26003.931	7.953	Tamarind	3.40	16.10
618	A391	23870.036	4.875	palm	1.10	11.20	618	A554	26094.758	5.560	Tamarind	3.40	22.30
619	A393	23884.998	7.026	palm	1.50	10.90	619	A557	26119.893	7.026	Tamarind	4.80	21.90
620	A394	23895.017	3.952	palm	1.00	12.40							
621	A395	23918.316	3.935	palm	1.00	16.10							
622	A413	23955.000	7.000	Tamarind	3.20	11.20							
623	A414	23970.745	5.678	Tamarind	2.90	10.40							
624	A414 A	23978.850	4.912	palm	0.90	12.20							
625	A415	23984.843	6.902	palm	1.00	12.90							
626	A416	23986.161	7.196	palm	1.00	12.70							
627	A417	23987.334	7.585	palm	1.30	12.70							
628	A418	23989.000	8.000	palm	1.20	13.80							
629	A429	24112.942	3.678	Tamarind	2.90	10.20							
630	A430	24128.573	4.603	Tamarind	2.00	9.90							
631	A431	24142.534	4.829	Tamarind	3.70	12.30							

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
632	A432	24158.355	4.085	Tamarind	4.60	15.60							
633	A433	24172.854	3.609	Tamarind	3.80	10.30							
634	A437	24202.351	0.699	Tamarind	3.70	14.50							
635	A438	24231.396	1.953	Tamarind	3.30	14.50							
636	A442	24239.000	2.000	Tamarind	2.60	14.60							
637	A443	24258.061	2.690	Tamarind	3.60	12.60							
638	A444	24275.000	5.000	Tamarind	3.00	12.30							
639	A445	24287.796	5.011	Tamarind	2.50	12.80							
640	A448	24308.000	7.000	Tamarind	3.00	14.20							
641	A454	24379.916	8.299	Tamarind	3.40	13.00							
642	A455	24394.560	7.639	Tamarind	3.00	18.20							
643	A457	24407.253	6.820	Tamarind	2.40	13.00							
644	A460	24453.000	5.000	Tamarind	2.50	10.20							
645	A461	24466.542	5.522	Tamarind	3.00	12.60							
646	A462	24482.098	4.828	Tamarind	3.50	12.20							
647	A464	24494.992	5.184	Tamarind	2.20	11.30							
648	A465	24508.116	5.771	Tamarind	3.10	12.70							
649	A469	24539.397	7.384	Tamarind	3.00	12.60							
650	A483	24695.000	8.700	Tamarind	3.00	11.80							
651	A491	24763.258	7.541	Tamarind	3.10	14.80							
652	A496	24792.000	6.000	Tamarind	2.60	10.80							

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
RHS							LHS						
653	A497	24800.061	4.998	Tamarind	2.70	11.80							
654	A500	24826.942	6.375	Tamarind	3.40	10.80							
655	A501	24846.000	8.000	Neem	0.80	10.40							
656	A507	24951.649	7.967	Navai	4.40	17.40							
657	A511	25006.485	8.145	Pungam	5.20	15.30							
658	A512	25068.818	5.928	Navai	3.80	17.40							
659	A513	25086.374	2.671	Neem	2.40	13.80							
660	A514	25094.164	4.588	Navai	4.30	23.00							
661	A526	25347.644	7.126	Navai	3.10	30.10							
662	A526 A	25382.000	7.000	Neem	0.40	8.00							
663	A544	25850.977	8.503	Pungam	1.10	11.50							
664	A545	25873.946	8.028	Others	0.90	9.20							
665	A565	26180.834	6.795	Tamarind	3.90	21.40							
666	A566	26203.186	6.063	Tamarind	4.50	26.80							
667	A567	26224.114	5.884	Tamarind	3.00	19.20							
668	A568	26236.000	5.000	Tamarind	4.80	18.50							
669	A572	26273.839	4.981	Tamarind	4.60	21.80							
670	A573	26301.067	5.310	Tamarind	2.80	17.00							
671	A574	26334.210	5.068	Tamarind	4.80	22.00							
672	A580	26476.333	7.218	palm	0.70	17.80							
673	A581	26527.559	5.967	palm	1.00	27.60							

ANNEXURE 4. 4: TREE ENUMERATION OF SH 116

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
1	5	14363.00	7.15	Pongam	2.4	6.33	1	1	14286.00	6	Dates tree	0.85	6.83
2	6	14365.00	7	Dates tree	0.85	7.33	2	2	14286.00	8.5	Dates tree	0.83	8.33
3	10	14388.00	8.4	Pongam	2.25	6.33	3	3	14345.00	4.9	Dates tree	0.8	8.25
4	11	14400.01	8.45	Pongam	2.1	3.9	4	4	14360.00	7.6	Dates tree	0.8	4.66
5	17	14415.00	7.13	Pongam	2	4.66	5	7	14365.00	7.55	Neem	0.73	4.76
6	18	14418.00	7.15	Palm	0.85	26.66	6	8	14378.00	4.75	Dates tree	0.75	4.99
7	19	14433.00	7	Dates tree	0.7	7.99	7	9	14378.00	4.75	Dates tree	0.8	5.33
8	20	14435.00	7	Dates tree	0.75	7.66	8	12	14389.99	4.7	Dates tree	0.85	4.33
9	21	14438.00	7.1	Dates tree	0.7	7.33	9	13	14399.99	4.8	Dates tree	0.8	5.99
10	22	14440.00	6.9	Peepil	6.34	9.94	10	14	14410.99	5.002	Dates tree	0.76	5.99
11	24	14455.00	7.1	Dates tree	0.75	7.33	11	15	14412.00	5.1	Dates tree	0.9	3.99
12	25	14457.00	7	Dates tree	0.7	6.66	12	16	14412.00	5.1	Dates tree	0.85	6.66
13	26	14475.00	6.28	Pongam	1	8.66	13	23	14439.99	5.2	Palm	1	2.1
14	27	14477.00	6.28	Pongam	0.9	8.33	14	28	14479.99	6.9	Dates tree	0.9	7.66
15	33	14498.54	4.515	Dates tree	0.8	7.33	15	29	14488.00	6.93	Dates tree	0.8	7.99
16	34	14500.00	6.25	Peepil	8.5	11.66	16	30	14489.99	6.9	Dates tree	0.7	7.66
17	45	14532.00	6.2	Dates tree	0.95	8.33	17	31	14493.00	7	Dates tree	0.8	7.99
18	55	14655.32	6.327	Other Tree	6.4	11.99	18	32	14497.00	7	Dates tree	1	8.66
19	56	14669.00	6.8	Palm	0.9	11.66	19	35	14499.99	7	Dates tree	0.7	3.33
20	57	14670.00	6.8	Palm	4.05	10.66	20	36	14505.00	6.8	Dates tree	0.85	8.66
21	60	14681.00	6.2	Palm	0.9	11.33	21	37	14507.00	6.85	Dates tree	0.88	7.99
22	61	14688.62	4.452	Palm	0.85	11.33	22	38	14512.00	6.7	Dates tree	0.85	8.33
23	69	14878.02	6.706	Neem	1	8.33	23	39	14515.00	5.8	Dates tree	0.9	7.33
24	71	14900.00	6.5	Neem	1.15	8.66	24	40	14516.00	6	Dates tree	0.85	6.99
25	72	14901.00	6.5	Neem	1	8.33	25	41	14520.00	5.15	Dates tree	0.75	5.66
26	73	14904.00	6.8	Neem	1.05	8.99	26	42	14528.00	5.4	Tamarin	3.6	11.99
27	76	14927.00	7.2	Neem	1.1	8.99	27	43	14532.00	5.4	Dates tree	0.7	8.66
28	79	14955.00	7.3	Neem	1.05	8.66	28	44	14536.00	5.6	Dates tree	0.75	7.66
29	86	15012.77	6.345	Tamarin	2.6	11.66	29	46	14545.00	5.6	Dates tree	0.7	8.66
30	87	15031.77	6.038	Tamarin	2.7	11.66	30	47	14546.00	5.6	Dates tree	0.7	7.66

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
31	88	15084.36	6.4	Neem	0.6	5.66	31	48	14553.00	5.8	Dates tree	0.71	7.33
32	89	15089.51	7.69	Neem	1.5	10.66	32	49	14554.00	5.9	Dates tree	0.73	4.33
33	94	15175.00	5.6	Palm	1	6.99	33	50	14555.00	5.85	Dates tree	0.78	7.99
34	98	15202.72	4.593	Palm	1.05	11.33	34	51	14559.94	5.7	Peepil	6.2	12.33
35	99	15204.28	4.587	Palm	1	10.99	35	52	14579.93	5.303	Other Tree	7.5	12.66
36	100	15220.99	5.298	Palm	1.1	9.99	36	53	14629.98	5.458	Neem	1.1	7.66
37	101	15219.38	6.48	Palm	1	10.99	37	54	14638.00	3	Palm	1.15	13.33
38	102	15217.48	6.776	Palm	1	5.66	38	58	14669.00	4.2	Palm	0.9	13.33
39	104	15285.00	6	Neem	0.8	7.66	39	59	14675.00	4.15	Palm	1.1	7.99
40	105	15280.00	6.1	Pongam	0.65	6.99	40	66	14869.00	7.8	Other Tree	1.17	7.99
41	106	15337.79	7.213	Palm	0.95	7.66	41	67	14873.00	7.2	Neem	1.04	7.66
42	107	15335.43	7.041	Dates tree	0.85	8.99	42	68	14875.00	7.2	Peepil	6	14.33
43	108	15372.00	7.8	Neem	0.8	5.99	43	70	14882.00	7.3	Neem	0.9	7.33
44	109	15400.00	7.6	Palm	1.15	6.16	44	74	14912.00	6.8	Neem	1.2	8.66
45	110	15410.00	7.2	Pongam	0.95	5.99	45	75	14922.00	6.7	Neem	1.1	8.66
46	111	15417.99	7.197	Palm	1.15	6.66	46	77	14928.00	7.3	Neem	1.05	8.66
47	112	15459.89	6.816	Dates tree	0.95	6.33	47	78	14930.00	7.3	Neem	1	8.66
48	113	15468.00	8.4	Palm	0.9	9.99	48	80	14962.80	6.221	Neem	1.2	8.66
49	114	15511.00	9.6	Palm	0.9	4.33	49	81	14967.26	6.596	Neem	1.1	8.66
50	122	15601.58	8.059	Palm	1.15	7.33	50	82	14978.89	6.08	Neem	1.4	8.66
51	123	15628.59	9.426	Other Tree	1.2	6.66	51	83	14981.02	4.057	Palm	0.8	9.99
52	124	15642.00	9.6	Pongam	1.05	6.66	52	84	14982.47	6.038	Neem	1	9.33
53	125	15675.00	9.65	Tamarin	1.2	6.99	53	85	14990.00	7.4	Palm	0.9	7.66
54	126	15694.24	8.614	Neem	1.38	10.66	54	90	15098.42	7.543	Neem	1.3	10.49
55	129	15748.98	5.161	Palm	1.1	10.99	55	91	15140.00	8	Neem	1.1	5.66
56	132	15807.72	7.58	Neem	0.84	7.33	56	92	15156.00	7.8	Neem	0.9	5.83
57	133	15816.41	7.896	Dates tree	0.8	7.66	57	93	15183.84	6.817	Palm	1.05	11.33
58	134	15816.19	7	Palm	0.87	7.66	58	95	15184.00	9	Neem	0.9	5.66
59	135	15830.00	7.6	Palm	1.8	7.99	59	96	15186.00	8.8	Neem	1.05	5.66
60	136	15834.49	7.61	Palm	1	7.99	60	97	15192.86	5.613	Palm	0.85	10.99
61	137	15837.00	7.85	Palm	1.2	8.66	61	103	15264.83	5.528	Other Tree	2.1	10.99
62	140	15862.00	7.5	Neem	0.85	6.99	62	127	15703.99	6.725	Other Tree	1.1	7.66

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
63	141	15913.00	8	Palm	1	8.33	63	128	15720.00	7.6	Pongam	1.26	5.99
64	143	15928.42	5.655	Palm	0.88	6.33	64	130	15802.94	5.441	Palm	1.32	7.99
65	145	15865.00	7.5	Palm	0.85	10.99	65	131	15803.84	5.583	Palm	0.987	7.66
66	146	15890.00	7.5	Palm	0.8	10.66	66	138	15830.00	6.2	Palm	1.18	6.99
67	148	15933.03	8.435	Dates tree	0.7	8.99	67	139	15831.00	6.2	Palm	1.25	6.83
68	157	15978.01	5.611	Palm	1.1	8.66	68	140	15843.00	6.25	Palm	1.25	6.66
69	163	16083.54	0.311	Palm	1	9.99	69	141	15858.00	6.2	Palm	1.4	6.66
70	164	16173.93	8.395	Palm	1	7.66	70	144	15887.00	8.1	Palm	0.95	8.99
71	165	16212.43	8.534	Palm	1.05	8.11	71	149	15935.00	7.7	Palm	1	8.66
72	166	16214.98	8.8	Palm	1	7.66	72	150	15935.00	7.7	Palm	0.9	8.33
73	167	16224.98	7	Palm	1.1	8.11	73	151	15937.95	6.855	Other Tree	2.12	9.99
74	168	16230.98	7.1	Neem	0.75	6.99	74	152	15939.60	8.009	Palm	1.1	9.33
75	169	16232.98	7	Palm	1.15	6.66	75	153	15940.00	7.8	Palm	1.15	8.99
76	170	16157.93	2.963	Palm	1.1	6.99	76	175	16326.10	10.076	Peepil	5.6	1.99
77	171	16177.13	5.059	Palm	1.3	7.16	77	176	16369.17	4.8	Banyan	9	13.33
78	172	16275.17	0.912	Palm	1.25	6.99	78	179	16378.09	4.054	Banyan	7	12.66
79	173	16285.91	0.413	Palm	1.2	6.99	79	180	16396.98	3.27	Palm	0.95	5.66
80	177	16364.06	5.335	Dates tree	0.6	6.16	80	183	16420.48	3.861	Palm	1	7.66
81	178	16374.43	7.236	Other Tree	3.5	9.99	81	184	16420.48	3.861	Palm	1.05	6.99
82	181	16406.71	9.501	Palm	0.9	6.66	82	185	16422.68	2.915	Palm	0.95	6.66
83	182	16416.80	10.524	Palm	0.85	6.66	83	186	16432.08	3.702	Palm	0.9	6.66
84	189	16442.98	6.25	Palm	1.1	5.66	84	187	16436.07	4.672	Palm	1	7.33
85	190	16448.70	7.851	Palm	1	5.99	85	188	16445.00	5.1	Palm	0.85	5.66
86	191	16447.66	9.017	Palm	1.05	5.99	86	192	16456.47	6.389	Palm	0.8	5.99
87	196	16474.09	8.046	Neem	0.65	6.33	87	193	16472.07	6.256	Palm	0.7	8.99
88	197	16482.51	7.67	Palm	1.15	6.99	88	194	16477.39	5.553	Palm	0.8	8.99
89	198	16487.87	8.372	Palm	0.95	7.66	89	195	16478.86	5.565	Dates tree	0.75	7.33
90	202	16525.03	6.87	Palm	1.2	5.33	90	199	16492.94	4.741	Palm	1.05	6.33
91	205	16602.54	4.722	Palm	1.05	6.16	91	200	16495.44	5.28	Palm	0.9	7.94
92	207	16634.98	7	Neem	0.6	6.66	92	201	16508.42	5.03	Palm	0.98	8.33
93	209	16703.76	7.788	Neem	1.25	5.66	93	203	16534.88	5.962	Palm	1.35	10.99
94	210	16705.34	9.357	Neem	1.05	10.99	94	204	16547.06	7.644	Palm	0.75	9.66

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
95	211	16724.22	7.736	Palm	1.15	9.99	95	206	16605.97	9.976	Palm	0.85	8.66
96	214	16791.98	6.2	Palm	1.35	8.33	96	208	16668.96	6.961	Palm	0.8	8.99
97	216	16812.98	8.2	Palm	1.1	6.99	97	212	16725.02	7.122	Neem	1.1	7.16
98	217	16888.32	8.522	Tamarin	1.9	11.66	98	213	16783.00	6.5	Palm	1.3	6.66
99	218	16890.76	6.142	Palm	0.95	10.99	99	215	16791.05	7.193	Neem	0.9	6.16
100	219	16891.07	8.169	Palm	1.1	6.99	100	220	16944.23	2.954	Tamarin	2.15	8.66
101	222	16969.98	8.2	Palm	1	7.66	101	221	16965.00	4.6	Palm	1.15	10
102	223	17011.70	8.28	Pongam	2.1	7.16	102	224	17010.00	4.2	Palm	1.45	7.66
103	231	17157.83	8.566	Neem	1.3	7.99	103	225	17011.00	4.2	Palm	0.95	7.66
104	235	17411.39	6.492	Tamarin	3.6	9.99	104	226	17029.98	4.8	Neem	0.98	5.99
105	236	17249.97	6	Tamarin	4.3	9.66	105	227	17039.98	4.5	Neem	0.7	5.99
106	240	17520.52	7.071	Tamarin	4.4	9.66	106	228	17088.00	3	Palm	0.95	6.16
107	241	17536.93	6.939	Tamarin	4.44	9.66	107	229	17090.37	3.894	Palm	1	6.16
108	244	17589.97	5.2	Tamarin	4.4	11.66	108	230	17120.00	4.2	Palm	1	6.66
109	246	17608.03	4.714	Tamarin	4.2	11.66	109	234	17377.23	6.251	Peepil	4.8	10.99
110	249	17663.20	5.93	Tamarin	4.3	11.66	110	237	17488.21	5.781	Tamarin	5	12.16
111	251	17697.86	6.104	Tamarin	4.8	12.16	111	238	17504.05	6.081	Tamarin	3.8	11.66
112	252	17714.82	6.264	Tamarin	5.2	12.99	112	239	17522.61	6.507	Tamarin	4.3	11.66
113	254	17749.73	7.577	Tamarin	5	10.99	113	242	17539.31	6.547	Tamarin	4.5	11.66
114	255	17765.40	5.995	Tamarin	4	10.66	114	243	17561.92	7.04	Tamarin	4.8	11.99
115	257	17801.72	6.351	Tamarin	4.2	11.66	115	245	17598.42	6.1	Tamarin	4	9.99
116	260	17832.78	6.981	Tamarin	4.3	11.99	116	247	17617.11	6.079	Tamarin	4.3	11.99
117	261	17871.02	5.939	Tamarin	4.2	11.66	117	248	17635.19	7.131	Tamarin	4.7	12.66
118	263	17896.13	5.875	Tamarin	5	11.99	118	250	17697.81	6.462	Tamarin	4.5	11.66
119	264	17918.97	7.3	Neem	0.3	4.99	119	253	17733.03	6.704	Tamarin	5.2	12.99
120	272	18067.97	10.2	Tamarin	4.2	10.66	120	256	17766.65	6.792	Tamarin	5.2	12.99
121	278	18091.24	4.387	Tamarin	5.1	11.99	121	258	17815.41	7.25	Tamarin	4.2	11.99
122	283	18152.97	4.8	Tamarin	5	10.99	122	259	17894.00	6.4	Tamarin	4.3	11.99
123	285	18169.33	5.462	Tamarin	4	10.99	123	262	17868.79	5.499	Tamarin	4.7	11.99
124	288	18203.18	4.99	Tamarin	5.5	12.99	124	265	17920.00	5.4	Neem	0.6	5.1
125	289	18223.42	5.997	Tamarin	4.6	12.99	125	267	18009.68	6.618	Tamarin	4.4	10.99
126	290	18239.97	7.2	Neem	0.6	7.99	126	268	18019.55	6.218	Pongam	1.85	6.16

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
127	293	18288.11	6.862	Tamarin	5.2	12.66	127	269	18038.00	6.8	Neem	0.85	7.99
128	298	18460.86	6.795	Tamarin	5.4	12.99	128	273	18059.00	7	Tamarin	1.9	10.66
129	299	18507.39	8.076	Tamarin	5.4	12.99	129	274	18062.00	6.9	Other Tree	1	8.99
130	300	18525.73	7.317	Tamarin	4.6	12.99	130	275	18079.00	6	Pongam	0.8	9.16
131	301	18541.95	6.97	Tamarin	6	13.16	131	276	18079.00	6	Pongam	0.8	9.16
132	302	18556.97	9.7	Neem	0.64	9.99	132	277	18085.00	5.9	Pongam	0.85	9.16
133	303	18567.93	9.523	Other Tree	1.1	11.16	133	279	18091.00	5.9	Pongam	0.85	9.16
134	305	18590.58	4.343	Palm	0.78	10.66	134	280	18111.00	6.5	Pongam	0.8	9.99
135	306	18610.97	6.2	MANGO	0.86	7.66	135	281	18114.00	6.5	Pongam	1	9.99
136	308	18618.77	5.541	Tamarin	2.1	7.99	136	282	18144.00	4.3	Tamarin	4.3	12.99
137	309	18626.31	5.24	Peepil	5.37	11.99	137	284	18159.12	6.567	Tamarin	4.1	11.99
138	311	18658.96	6.443	Tamarin	2.9	11.99	138	286	18172.00	6	Tamarin	5.6	12.16
139	314	18689.08	6.957	Tamarin	2	10.99	139	287	18208.01	6.641	Banyan	6.1	13.99
140	316	18707.97	10.5	Palm	1.35	10.99	140	291	18250.99	7.582	Tamarin	3	10.99
141	317	18711.97	9.9	Palm	1.45	14.66	141	292	18279.51	5.957	Tamarin	3.8	11.99
142	318	18741.38	8.207	Palm	1.12	12.99	142	294	18348.40	5.898	Tamarin	5	12.66
143	322	18796.42	7.999	Palm	1	12.66	143	296	18364.49	5.938	Tamarin	4.3	12.66
144	323	18863.28	7.682	Palm	0.85	13.66	144	297	18450.48	5.07	Tamarin	4.5	12.99
145	326	18873.97	4.1	Palm	0.86	13.99	145	304	18578.00	5.2	Palm	1.58	5.99
146	327	18876.97	4.1	Palm	0.65	13.66	146	307	18612.86	9.959	Palm	0.89	10.99
147	328	18876.97	4.1	Palm	0.86	14.16	147	310	18653.10	8.275	Tamarin	2.8	11.16
148	329	18880.97	4.05	Palm	0.85	13.99	148	312	18661.84	7.825	Tamarin	2.2	11.66
149	330	18885.97	4	Palm	1.0	13.66	149	313	18675.41	7.204	Tamarin	2.25	11.66
150	331	18889.97	4.1	Palm	0.82	13.99	150	315	18706.10	4.996	Tamarin	5.1	12.66
151	332	18892.97	4.05	Palm	0.84	14.66	151	319	18746.79	6.692	Tamarin	2.6	11.99
152	333	18899.97	4.2	Palm	0.85	13.66	152	320	18759.70	5.837	Palm	1.36	12.99
153	334	18901.97	4.2	Palm	0.8	12.99	153	321	18765.26	6.295	Tamarin	2.05	10.99
154	337	18904.97	4.5	Palm	1.16	14.99	154	324	18862.00	4.1	Palm	0.7	10.99
155	338	18906.97	4.5	Palm	1	13.16	155	325	18865.00	4	Palm	1.05	12.99
156	339	18916.97	4	Palm	0.85	12.99	156	335	18902.33	7.55	Palm	0.8	13.16
157	340	18919.97	4.05	Palm	1.1	13.66	157	336	18905.98	8.395	Palm	0.9	14.66
158	342	18921.55	3.807	Palm	0.6	13.66	158	341	18918.15	8.35	Palm	0.8	14.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
159	343	18921.55	3.807	Palm	0.8	14.99	159	345	18922.16	9.414	Palm	1	15.66
160	344	18922.41	4.169	Palm	0.85	13.66	160	346	18923.39	9.016	Palm	0.8	13.66
161	347	18926.54	3.13	Palm	0.85	14.16	161	349	18929.43	9.746	Palm	0.8	13.66
162	348	18927.56	3.61	Palm	0.95	14.99	162	350	18932.92	9.943	Palm	1	14.16
163	351	18940.97	1.6	Palm	0.8	13.66	163	410	20397.97	6	Palm	0.85	9.99
164	352	18941.90	2.132	Palm	0.9	14.16	164	411	20399.86	5.999	Palm	1.05	12.66
165	353	18946.56	1.927	Palm	0.85	13.66	165	412	20415.35	3.612	Other Tree	1.9	12.99
166	354	18948.68	1.635	Palm	0.8	12.99	166	417	20529.63	5.248	Tamarin	4	12.66
167	355	18949.53	1.621	Palm	0.85	14.66	167	419	20685.98	6.8	Palm	0.85	10.99
168	356	18950.49	1.538	Palm	0.9	14.99	168	420	20697.98	6.8	Tamarin	2.6	11.99
169	357	18951.21	1.323	Palm	0.75	12.99	169	421	20706.24	7.614	Tamarin	2.6	13.66
170	358	18954.53	1.575	Palm	0.95	13.99	170	422	20714.39	8.035	Tamarin	1.6	10.99
171	359	18974.97	2	Palm	1.1	14.66	171	423	20738.93	8.346	Tamarin	2.5	11.66
172	360	19007.74	2.903	Palm	1.15	14.99	172	424	20779.78	9.338	Tamarin	2.65	12.99
173	361	19029.11	8.655	Palm	1.1	14.66	173	426	20858.05	8.326	Palm	0.7	12.99
174	362	19046.83	7.014	Palm	1	14.16	174	428	20888.65	8.842	Tamarin	2.05	12.66
175	363	19080.96	0.216	Palm	0.7	12.99	175	429	20910.78	7.242	Palm	0.8	12.99
176	364	19117.09	6.259	Tamarin	2.5	13.66	176	430	20913.78	8.087	Other Tree	2.6	13.16
177	365	20009.89	0	TEALK	1.8	10.99	177	431	20929.38	7.818	Other Tree	2.8	16.99
178	371	20162.89	0.043	Tamarin	1.7	9.16	178	432	20939.32	7.226	Tamarin	3.7	12.99
179	373	20170.89	0.017	Tamarin	2.15	10.16	179	433	20954.93	6.238	Other Tree	0.45	12.66
180	376	20195.88	0.125	Tamarin	2.2	10.66	180	434	20964.91	6.548	Other Tree	0.75	6.99
181	377	20205.89	0	Tamarin	1.55	10.99	181	438	21359.98	7.1	Tamarin	4.3	12.66
182	379	20231.89	0.05	Tamarin	2.5	10.99	182	441	21456.55	5.184	Tamarin	4.4	12.99
183	382	20252.89	0.076	Tamarin	2.2	12.16	183	445	21568.15	7.306	Other Tree	4.8	15.66
184	384	20259.89	0.001	Tamarin	1.8	12.99	184	446	21639.08	7.488	Dates tree	0.75	8.99
185	385	20274.89	0	Tamarin	4.4	14.99	185	448	21687.99	7.003	Other Tree	6	11.66
186	387	20289.89	0.001	Tamarin	2.4	11.99	186	458	21900.05	5.308	Pongam	14.05	9.99
187	389	20297.89	0	Tamarin	1.85	11.99	187	459	21900.04	6.768	Pongam	1.5	9.16
188	391	20314.88	0	Tamarin	3.2	12.99	188	460	21917.98	8	Pongam	2	9.16
189	393	20349.88	0	Palm	1.2	13.66	189	461	22016.17	4.395	Other Tree	6.17	12.66
190	394	20354.88	0.001	Neem	1.5	12.66	190	462	22036.72	4.611	Tamarin	3.8	12.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
191	396	20374.88	0	Neem	1.45	12.66	191	465	22218.07	6.99	Dates tree	0.9	9.66
192	397	20381.88	0.035	Neem	1.6	12.99	192	466	22264.63	7.201	Neem	0.8	8.99
193	409	20407.81	9.55	Other Tree	1.2	9.99	193	468	22295.84	6.207	Dates tree	3	10.16
194	413	20451.83	5.111	Tamarin	2.05	12.66	194	469	22300.06	5.999	Other Tree	0.5	9.16
195	414	20469.88	6	Tamarin	3.2	11.99	195	470	22324.97	7.418	Other Tree	2.5	12.99
196	415	20484.62	6.128	Tamarin	2.4	11.66	196	471	22341.69	5.929	Other Tree	4	12.99
197	416	20502.00	5.53	Tamarin	2.5	12.66	197	472	22388.08	8.764	Other Tree	2.9	11.66
198	418	20552.54	6.441	Tamarin	4.2	13.99	198	479	22693.40	6.24	OTHERS	2.2	12.66
199	425	20791.10	8.052	Tamarin	2.45	11.66	199	484	22789.69	6.234	Banyan	7.6	13.99
200	427	20874.60	7.096	Palm	0.95	11.16	200	488	22907.20	7.979	Tamarin	3.4	9.99
201	435	21212.22	9.737	Dates tree	1.15	12.99	201	495	23072.58	4.019	Tamarin	3.7	13.99
202	436	21220.94	8.107	Dates tree	0.85	9.66	202	499	23124.98	5.8	OTHERS	0.55	6.99
203	437	21262.93	7.316	Tamarin	3.5	11.99	203	501	23160.98	7.2	Palm	1.1	8.66
204	439	21332.40	5.392	Tamarin	4.4	12.66	204	504	23177.24	6.098	Tamarin	4	12.99
205	440	21369.74	3.994	Tamarin	3.4	12.99	205	505	23285.66	8.347	ECHAM	1.1	13.66
206	442	21494.87	7.21	Dates tree	0.85	9.99	206	506	23298.66	7.28	Palm	1.15	6.16
207	443	21538.27	8.421	Peepil	7.8	16.99	207	508	23397.12	4.868	NAWAL	3.4	9.99
208	444	21563.15	7.462	Peepil	5.74	15.66	208	512	23498.42	2.359	Tamarin	4.6	12.99
209	447	21698.85	6.198	Tamarin	5	12.99	209	515	23522.34	3.089	Tamarin	3.5	13.66
210	463	22129.05	5.223	Peepil	3	10.99	210	518	23567.98	7	Palm	0.9	13.99
211	464	22207.38	5.68	Tamarin	4.8	12.99	211	519	23580.26	8.323	Palm	0.85	13.99
212	467	22274.84	6.6	Dates tree	0.85	9.66	212	524	23628.31	2.791	Tamarin	4.6	12.66
213	474	22427.43	7.501	Peepil	5.4	12.66	213	526	23650.81	2.831	Tamarin	3.7	11.99
214	477	22553.33	6.13	Neem	1.4	8.99	214	527	23666.98	3.8	Neem	0.95	8.16
215	478	22684.30	5.924	Tamarin	5.2	12.66	215	530	23749.98	3.8	Palm	1.4	4.16
216	482	22725.84	5.2	Dates tree	0.98	9.99	216	531	23781.95	3.219	Tamarin	4.3	13.99
217	487	22876.89	5.457	Tamarin	2.6	11.16	217	533	23803.15	3.932	Tamarin	3.4	13.99
218	489	22915.32	6.365	Tamarin	2.2	11.16	218	535	23861.79	5.79	Palm	1.05	7.99
219	490	22979.10	7.738	Tamarin	3	11.99	219	536	23874.36	6.34	Neem	1.35	10.99
220	491	23000.18	6.978	Tamarin	2.2	12.66	220	539	23884.98	4	Neem	0.85	10.99
221	492	23019.58	6.952	Tamarin	4.2	12.99	221	541	23910.54	3.899	Neem	0.8	8.99
222	493	23039.84	5.3	Tamarin	4.1	12.99	222	542	23925.00	5	Neem	1.05	8.16

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
223	494	23059.42	7.022	Tamarin	3.5	13.16	223	543	23928.96	5.003	Neem	1.15	8.66
224	496	23079.84	6.3	Tamarin	4.5	13.99	224	545	24011.01	4.754	Neem	0.96	9.66
225	497	23117.84	8.5	Neem	1	11.99	225	548	24072.97	6.227	Other Tree	0.7	9.99
226	498	23124.84	8.5	Tamarin	2.6	11.99	226	551	24084.98	6.5	Neem	0.6	9.66
227	500	23151.64	7.826	Tamarin	2.2	11.66	227	553	24099.97	3.036	Tamarin	2.2	12.66
228	502	23164.84	10.9	Neem	1.07	8.99	228	555	24138.59	3.459	Tamarin	2.8	13.99
229	503	23177.96	9.849	ROSEWOOD	0.9	9.66	229	557	24182.37	3.574	Tamarin	2.6	13.99
230	507	23355.41	8.412	Neem	1.5	9.99	230	560	24226.80	2.998	Tamarin	2	11.66
231	509	23421.08	7.022	NAUAL	3.35	9.99	231	562	24247.54	3.239	Tamarin	3.1	13.99
232	510	23463.79	7.3	PUGAM	0.45	3.99	232	567	24338.50	3.908	Tamarin	3.1	13.99
233	511	23488.63	7.545	OTHERS	2.6	9.99	233	569	24353.23	3.699	Tamarin	4.1	13.66
234	513	23510.51	6.894	OTHERS	3.1	12.99	234	571	24414.16	4.374	Tamarin	3.2	13.99
235	514	23511.35	6.754	PANAM	1	11.66	235	573	24434.75	4.465	Tamarin	4	14.99
236	516	23531.36	6.479	Tamarin	2.3	12.66	236	579	24528.49	3.881	Tamarin	3.4	12.99
237	517	23553.72	6.385	Tamarin	3.4	12.99	237	581	24550.10	4.779	Tamarin	3.4	12.66
238	520	23573.90	6.344	Tamarin	4.6	12.99	238	583	24572.40	3.515	Tamarin	3.6	13.99
239	521	23616.53	6.898	Palm	0.9	13.16	239	585	24596.13	3.581	Tamarin	2.7	13.66
240	522	23617.30	6.853	Neem	1.6	9.99	240	588	24642.33	4.124	Tamarin	2.75	13.99
241	523	23631.79	7	Palm	1.3	6.99	241	591	24723.54	3.297	Tamarin	2.3	12.66
242	525	23643.79	7.1	Palm	1.25	6.99	242	594	24762.98	7	Palm	1.25	6.99
243	528	23686.93	7.449	Tamarin	3	12.99	243	595	24774.98	7.9	NAWAL	0.8	9.99
244	529	23708.11	7.631	IVAWAL	2.3	12.66	244	596	24783.47	7.905	Neem	1.2	9.99
245	532	23792.19	6.07	Tamarin	2.8	13.99	245	598	24813.98	6.5	Neem	0.85	8.16
246	534	23836.64	7.707	Palm	0.95	6.16	246	599	24823.98	6.2	Neem	1.2	8.66
247	537	23882.03	7.028	Palm	0.8	7.99	247	600	24849.98	5.2	Other Tree	0.7	9.99
248	538	23882.03	7.028	Neem	0.75	5.99	248	601	24860.98	3.5	Other Tree	2	8.66
249	540	23904.67	6.24	Tamarin	2.5	12.99	249	609	25052.98	3.3	Palm	0.95	8.99
250	544	23967.82	8.338	Palm	1.25	8.66	250	610	25052.98	3.3	Neem	0.5	7.66
251	547	24066.79	8	Neem	1.2	8.66	251	613	25107.98	2.9	Neem	1.1	8.99
252	549	24071.79	5.8	Neem	0.75	8.99	252	615	25167.65	2.961	Tamarin	3.9	12.66
253	550	24088.79	6.1	Neem	1.25	8.99	253	616	25188.50	3.385	Tamarin	3	12.99
254	552	24108.30	6.968	Neem	0.86	9.99	254	617	25208.80	2.8	Tamarin	2	12.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
255	554	24171.25	6.326	Neem	0.86	9.99	255	620	25270.98	7.9	Palm	0.8	9.99
256	556	24036.03	6.245	Tamarin	3	12.66	256	622	25280.09	6.999	Neem	0.95	8.99
257	556	24060.33	7.903	Tamarin	3.3	13.99	257	624	25296.98	6.9	Neem	0.75	8.99
258	558	24192.32	6.232	Tamarin	2.8	13.99	258	625	25332.53	8.294	Tamarin	2.8	12.66
259	559	24126.79	6	Tamarin	2.6	13.99	259	627	25373.46	6.541	Neem	0.8	9.66
260	561	24237.40	6.564	Tamarin	1.6	13.99	260	629	25392.13	9.466	Neem	0.98	9.99
261	563	24252.27	6.577	Tamarin	3	13.99	261	631	25442.12	9.869	Neem	0.9	9.66
262	564	24286.79	6.05	Tamarin	3	13.99	262	634	25474.98	9.5	Neem	0.95	9.16
263	565	24313.42	6.577	Tamarin	3.56	13.99	263	635	25484.98	9.5	Neem	1	9.16
264	568	24347.93	6.633	Tamarin	3	13.99	264	637	25514.73	9.941	Tamarin	3	12.99
265	570	24404.08	6.189	Tamarin	4.7	13.99	265	638	25533.98	9.6	Tamarin	2.6	13.66
266	572	24423.74	6.685	Tamarin	3.1	14.66	266	639	25534.98	9.5	Neem	0.9	8.66
267	574	24439.79	9.2	Pongam	0.7	6.99	267	642	25559.99	7.543	Neem	1.3	8.99
268	575	24457.79	9	Tamarin	0.75	6.99	268	644	25574.98	9.5	Tamarin	2.6	13.16
269	576	24463.79	9	Tamarin	0.65	5.66	269	645	25589.19	5.169	Neem	1.3	9.99
270	577	24490.56	7.471	Tamarin	3.1	13.99	270	647	25608.61	9.033	Tamarin	2.5	12.66
271	578	24515.70	7.187	Tamarin	3.2	13.66	271	649	25618.57	9.47	Tamarin	1.8	12.66
272	580	24539.52	6.137	Tamarin	3.8	13.99	272	650	25634.28	9.031	Tamarin	2.5	12.99
273	582	24561.27	6.562	Tamarin	3.4	13.99	273	652	25660.67	8.786	Neem	1.8	10.66
274	584	24585.42	7.3	Tamarin	2.5	13.99	274	654	25685.82	6.051	Neem	0.95	9.66
275	586	24607.69	6.922	Tamarin	3.2	14.66	275	655	25693.83	4.918	Neem	1	10.16
276	587	24630.17	6.029	Tamarin	3.2	14.66	276	657	25705.98	6.5	Neem	0.85	8.99
277	589	24655.50	6.433	Tamarin	2.1	13.99	277	658	25724.97	2.8	Tamarin	1.3	5.99
278	590	24676.50	6.071	NAWAL	3.2	12.66	278	659	25734.97	0	Tamarin	2	12.99
279	592	24733.23	5.734	NAWAL	2.3	12.66	279	663	25774.93	1.2	Neem	1.1	8.66
280	593	24751.98	7.162	NAWAL	2.9	12.99	280	665	25779.94	1	Neem	1.05	9.99
281	597	24770.95	6.746	Pongam	0.9	7.99	281	666	25781.31	0.305	Neem	0.9	9.99
282	602	24907.79	9.5	Neem	0.6	8.99	282	667	25783.06	0.151	Neem	0.8	9.99
283	603	24910.79	9.5	Neem	0.7	8.99	283	668	25785.98	1.5	Neem	1	9.66
284	604	24914.79	10	Palm	0.8	8.66	284	670	25808.98	11	others	0.9	12.99
285	605	24930.79	11.5	Tamarin	1.6	8.66	285	671	25811.98	5.902	Neem	0.85	10.66
286	605	24936.79	11.7	Palm	0.8	6.99	286	672	25812.54	10.8	Neem	1.1	12.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
287	607	24985.79	8	Neem	0.8	7.99	287	673	25807.98	5.974	Neem	0.65	6.99
288	608	25047.79	12.5	Palm	1.3	7.66	288	674	25809.85	11	Neem	1.06	14.66
289	611	25055.79	10.5	Neem	1	8.99	289	677	25834.97	8	Neem	1.5	9.66
290	612	24098.95	7.685	Palm	1.2	7.16	290	678	25839.65	7.995	Neem	0.75	4.99
291	614	25169.79	10	Neem	1.2	9.99	291	679	25839.65	7.995	Neem	0.7	8.99
292	618	25217.79	10	Neem	0.9	7.99	292	680	25861.00	8.214	Tamarin	3.1	13.99
293	619	25243.71	10.032	Neem	1	7.99	293	684	25889.81	7.299	Neem	2.3	12.66
294	621	25244.79	11.5	Neem	1.1	8.99	294	688	25914.92	4.269	Tamarin	3.7	13.16
295	623	25295.79	9	Neem	1.2	8.99	295	691	25934.96	3.225	Tamarin	1.9	13.66
296	626	25326.78	6.8	Neem	0.8	7.66	296	692	25969.98	3.5	Tamarin	2.4	13.99
297	628	25385.77	8	Tamarin	1.2	12.16	297	693	25995.98	4	Tamarin	2.4	12.99
298	630	25434.77	6.4	Neem	0.8	10.16	298	694	26009.98	7.9	Neem	1.1	13.66
299	632	25466.14	7.803	Neem	0.8	9.66	299	697	26099.98	10.5	Neem	0.9	9.99
300	633	25478.46	6.862	Neem	0.95	9.66	300	703	26222.97	5.503	Tamarin	3.2	9.99
301	636	25508.71	6.709	nawal	2.5	10.99	301	704	26239.97	5.5	Tamarin	3.9	12.99
302	640	25539.72	10.087	Tamarin	1.5	10.99	302	707	26305.70	6.055	nawal	2.2	12.16
303	641	25550.68	10.611	Tamarin	2.8	12.99	303	708	26324.98	4.5	Tamarin	3	9.66
304	643	25561.66	9.949	Tamarin	3.6	12.99	304	709	26347.94	5.378	Tamarin	3.1	9.99
305	646	25604.39	8.915	Neem	1	8.66	305	712	26368.49	5.807	Tamarin	3	9.66
306	648	25611.77	9.089	Neem	0.85	6.99	306	714	26407.98	5	Tamarin	3.1	12.99
307	651	25656.80	10.61	Tamarin	1.9	11.66	307	716	26430.72	6.83	Tamarin	0.9	12.66
308	653	25665.00	7.744	others	1.4	13.99	308	718	26451.66	7.499	Tamarin	2.1	9.99
309	656	25696.59	13.678	Tamarin	2.7	13.99	309	723	26529.46	6.551	Neem	0.85	9.16
310	660	25742.47	17.904	Neem	1.9	12.99	310	726	26782.75	4.632	others	3.4	13.99
311	661	25751.06	15.047	Neem	1.3	10.99	311	731	27032.71	7.357	Tamarin	3.8	13.66
312	662	25767.54	16.705	Tamarin	2.6	13.66	312	742	27209.03	6.18	others	0.8	9.66
313	664	25774.89	15.5	Neem	0.6	7.99	313	743	27217.98	5.8	Tamarin	2.9	13.99
314	669	25786.88	10.2	Neem	1.2	9.16	314	749	27359.97	5.5	eacham	0.7	8.16
315	675	25815.99	7.567	others	2.5	10.99	315	750	27361.98	5	eacham	0.75	10.66
316	676	25834.88	5.999	Neem	2	12.99	316	751	27364.98	6.9	eacham	0.7	9.99
317	681	25872.06	5.682	Tamarin	1.3	12.66	317	753	27367.98	6	eacham	0.7	9.99
318	683	25886.86	7.8	Tamarin	1.5	12.66	318	754	27369.98	6.3	eacham	0.85	9.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
319	685	25891.86	7.8	Tamarin	1.3	12.66	319	760	27404.98	6.5	Neem	1.15	10.16
320	686	25904.86	7.8	Tamarin	1	11.99	320	765	27423.97	6.4	Neem	0.9	7.99
321	687	25913.86	7.8	Tamarin	1.7	12.99	321	766	27427.82	6.014	Neem	1.2	10.66
322	689	25924.86	9.5	Tamarin	1.2	12.99	322	771	27458.98	9	Neem	1.2	9.99
323	690	25934.86	9.5	Tamarin	1.7	12.99	323	772	27468.98	6.9	eacham	0.9	10.16
324	695	26024.86	9.8	Neem	1.05	11.99	324	783	27534.00	3.375	Neem	2.4	10.99
325	696	26057.86	9.8	Tamarin	2.9	13.66	325	794	27568.98	6	Neem	1.5	11.66
326	698	26099.86	7	Tamarin	2.7	12.99	326	797	27572.98	9.5	Neem	1	10.99
327	699	26099.86	7.8	Neem	1.4	9.99	327	798	27573.98	9.3	Neem	1.1	11.99
328	700	26137.86	6.5	Tamarin	1.6	6.99	328	799	27575.98	9.5	Neem	0.7	7.9
329	701	26157.85	5.998	Tamarin	1.8	7.99	329	800	27577.98	10	Neem	1.1	9.99
330	702	26189.86	5.8	Neem	0.85	7.99	330	801	27577.98	9	Neem	0.9	11.66
331	705	26249.87	6.764	Neem	0.9	9.99	331	805	27591.98	5	Neem	0.75	7.99
332	706	26286.92	6.912	Tamarin	1.9	9.99	332	811	27605.98	6	Neem	0.7	6.99
333	710	26349.86	6	Tamarin	2	12.99	333	817	27631.98	6.3	Neem	0.75	8.99
334	711	26367.85	6.198	Tamarin	3.1	12.66	334	822	27646.98	3.5	Neem	1.05	9.99
335	713	26389.86	6	Tamarin	2.6	13.66	335	831	27691.96	5.006	Neem	1	10.99
336	715	26408.85	5.999	Tamarin	3.2	9.99	336	838	27724.89	4.984	Neem	0.9	11.99
337	717	26430.45	6.042	Tamarin	2.3	10.99	337	839	27729.87	4.9	Neem	0.9	11.99
338	719	26453.86	5.5	Tamarin	2.3	11.99	338	845	27776.39	4.831	Neem	0.9	11.66
339	720	26474.86	4.962	Tamarin	3	11.66	339	846	27778.06	5.53	Neem	0.85	9.99
340	721	26496.50	5.432	Tamarin	3.3	12.99	340	856	27819.95	3.2	Peepil	10	14.66
341	722	26517.63	5.655	Tamarin	2.8	10.96	341	859	27844.98	6	Neem	1.1	9.99
342	724	26710.31	4.512	Tamarin	4	12.99	342	862	27866.98	3.3	Neem	0.9	10.66
343	725	26753.86	6	Tamarin	3.8	12.66	343	863	27880.98	3.2			
344	727	26889.86	6	arasam	5.9	14.99	344	863	27885.97	2.99	Neem	1.2	8.16
345	728	26933.86	7	Neem	1.5	11.99	345	867	27907.30	1.72	Peepil	8.5	14.99
346	729	26969.09	5.166	others	2.3	11.66	346	870	27921.60	1.602	Neem	0.9	9.99
347	730	27001.06	5.912	others	1.5	15.66	347	871	27929.46	1.008	Neem	0.85	9.99
348	732	27039.75	5.646	Tamarin	4.2	14.66	348	873	27933.32	1.255	Neem	0.35	6.16
349	733	27127.86	9	others	2	13.99	349	875	27956.95	0.836	Neem	0.7	6.99
350	735	27144.33	7.431	Tamarin	2.7	13.99	350	878	27977.83	1.623	Neem	0.9	8.66

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
351	744	27264.86	5.2	Neem	1	9.99	351	881	28008.35	0.589	athi	7.5	13.99
352	745	27284.86	6.3	Neem	0.7	6.99	352	882	28018.86	0.448	Palm	0.7	12.99
353	746	27296.86	8	Neem	0.8	8.66	353	883	28028.64	0.146	Neem	4	12.99
354	747	27314.86	10.5	Neem	0.65	8.99	354	885	28093.37	0.602	nawal	3.2	13.99
355	748	27359.85	11.4	Neem	0.75	6.99	355	886	28114.28	1.449	nawal	3.5	13.99
356	752	27366.85	11	Neem	0.8	6.99	356	887	28134.26	1.631	Tamarin	3.6	14.66
357	755	27369.85	10.6	Neem	1.15	8.66	357	888	28154.53	2.342	Neem	1.1	12.99
358	756	27376.85	10.8	Neem	1	8.66	358	894	28195.90	2.764	Tamarin	4.1	12.99
359	757	27382.85	6.2	Neem	1.2	8.99	359	899	28230.00	6.5	Neem	0.7	8.99
360	758	27383.85	6.2	Neem	0.9	8.66	360	900	28257.22	3.88	nawal	2.7	9.99
361	759	27385.85	6.4	Neem	0.7	8.99	361	905	28330.99	3.202	Neem	3.5	13.99
362	761	27408.93	5.213	Neem	1	9.66	362	906	28389.53	0.979	Palm	0.75	15.99
363	762	27412.85	6.8	Neem	0.8	9.99	363	907	28393.53	1.185	Palm	0.7	15.99
364	763	27414.85	5.2	Neem	0.64	9.16	364	908	28403.81	1.461	Palm	0.65	14.66
365	764	27418.93	6.012	Neem	1.7	9.99	365	909	28404.81	1.683	Palm	0.6	15.66
366	767	27434.85	6	Neem	1	9.99	366	910	28405.49	1.202	Palm	0.6	15.99
367	768	27443.85	6.8	Neem	1.4	10.66	367	912	28421.83	1.93	Palm	0.65	15.99
368	769	27450.73	6.02	Neem	0.9	8.66	368	915	28434.88	3.188	Palm	0.95	7.99
369	770	27451.85	6	Neem	0.95	10.99	369	918	28501.17	3.303	athi	4.2	11.66
370	773	27479.85	6.6	Dates tree	0.95	7.66	370	922	28693.00	3.7	Tamarin	3.5	11.99
371	774	27487.85	6.5	Neem	0.85	6.99	371	925	28752.07	8.934	other	0.9	8.99
372	775	27498.98	6.308	Neem	0.6	5.66	372	926	28765.00	6	other	0.8	8.99
373	776	27501.85	10.5	Neem	0.8	7.99	373	931	28802.10	7.192	Tamarin	4	9.99
374	777	27516.85	8.8	Neem	1	7.99	374	934	28849.18	7.38	Tamarin	3.65	12.66
375	778	27523.85	8.2	Neem	0.5	8.99	375	936	28263.00	5.6	Tamarin	2.7	12.99
376	779	27524.85	8.2	Neem	1	9.66	376	937	28887.52	7.269	Tamarin	2.85	12.99
377	780	27525.85	9	Neem	0.6	8.99	377	939	28906.07	6.806	Tamarin	3.2	12.99
378	781	27526.85	8.5	Palm	0.9	11.99	378	941	28925.89	6.598	Tamarin	3.9	12.16
379	782	27531.85	9.4	Neem	1	8.99	379	942	28960.33	11.701	Neem	0.8	9.99
380	784	27537.85	9.5	Neem	0.4	6.66	380	944	28977.31	10.834	Neem	0.9	9.99
381	785	27538.85	9.5	Neem	0.45	6.99	381	946	29094.00	6.073	Tamarin	2.5	12.66
382	786	27542.85	9.5	Neem	1.3	10.99	382	947	29144.41	11.345	Tamarin	4	12.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
383	787	25543.77	9	Neem	0.8	9.66	383	952	29241.19	8.781	Tamarin	2.7	11.66
384	788	27544.85	9	Neem	0.7	7.86	384	953	29282.38	8.368	Tamarin	3.3	11.66
385	789	27553.85	8	other	1.1	10.99	385	958	29501.77	7.251	Tamarin	4.6	12.99
386	790	27557.85	9.5	Neem	1.25	9.66	386	961	29619.67	7.208	Tamarin	5.3	13.66
387	791	27559.85	9	Neem	0.6	7.66	387	962	29693.55	11.659	Tamarin	2	9.99
388	792	27565.85	8.8	Neem	0.9	9.99	388	963	29715.32	13.109	Tamarin	1.85	9.99
389	793	27567.85	8.5	Palm	0.98	9.99	389	965	29774.36	6.432	Tamarin	3.3	12.66
390	795	27570.85	8.5	Neem	0.7	8.99	390	966	29797.06	6.115	Tamarin	3.4	12.99
391	796	27571.85	8.5	Neem	0.85	8.66	391	967	29820.00	6	athi	6.6	13.99
392	802	27584.85	9	etchyam	0.85	9.99	392	970	29836.00	5.8	athi	2.7	13.66
393	803	27585.85	9	etchyam	0.8	9.66	393	971	29883.06	6.037	Tamarin	3.5	12.99
394	804	27586.85	9	Neem	0.6	7.66	394	972	29904.28	6.216	Tamarin	2.9	12.16
395	806	27591.85	8.3	Neem	1	9.99	395	973	29925.90	6.725	Tamarin	3.1	12.99
396	807	27599.85	9.5	Palm	1.2	8.66	396	978	30005.00	8.5	rose wood	0.7	6.99
397	808	27599.85	9	Neem	0.7	8.99	397	981	30099.98	9	rose wood	0.75	7.66
398	809	27605.85	9.2	etchyam	0.7	8.99	398	983	30209.98	6.8	Tamarin	2.4	12.66
399	810	27610.85	9	Neem	1.5	11.99	399	985	30233.00	10.612	Tamarin	1	12.16
400	812	27621.85	7.3	Neem	0.7	7.66	400	986	30235.95	8.874	other	1.2	15.99
401	813	27622.85	6.5	echyam	0.75	8.99	401	987	30241.31	10.167	Tamarin	0.7	10.66
402	814	27623.85	7	Neem	0.6	9.99	402	989	30257.30	9	other	1.2	16.16
403	815	27627.85	7.5	Neem	0.9	8.99	403	991	30270.14	8.233	Peepil	2.5	12.99
404	816	27629.85	6.8	Neem	1.2	11.66	404	992	30291.13	7.598	Peepil	2.5	12.99
405	818	27633.85	8	Neem	1.15	9.99	405	994	30311.40	7.676	Tamarin	3	13.16
406	819	27634.85	8	Neem	1.05	9.99	406	998	30375.56	7.754	Peepil	4.2	13.66
407	820	27639.85	7	Neem	0.95	8.99	407	1001	30415.84	8.319	Tamarin	3	12.66
408	821	27641.85	7	Neem	0.9	8.66	408	1002	30436.10	7.746	Tamarin	2.5	9.99
409	823	27647.85	6.5	Neem	0.7	7.99	409	1003	30451.93	10.728	Neem	0.65	6.99
410	824	27657.85	6.8	Neem	1.5	9.99	410	1004	30476.12	8.323	other	0.75	8.66
411	825	27658.85	6.5	etchyam	0.7	8.99	411	1005	30490.00	7	Tamarin	4.6	12.99
412	826	27665.85	6	Neem	2	12.66	412	1007	30510.00	8	other	1.25	12.99
413	827	27678.85	6.5	Neem	1.5	9.99	413	1008	30528.05	8.35	Tamarin	3.5	13.16
414	828	27681.85	6.5	Neem	1.3	11.66	414	1011	30583.56	7.537	Tamarin	3.6	13.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
415	829	27685.85	7.6	Neem	1.05	11.99	415	1014	30625.90	7.079	Tamarin	5.6	13.99
416	830	27689.85	7	Neem	1.05	12.16	416	1016	30647.38	6.806	Tamarin	4.58	13.99
417	832	27694.85	7	Neem	2.1	11.99	417	1020	30691.07	7.348	Tamarin	4.3	13.66
418	833	27704.85	8.5	Neem	0.7	10.99	418	1021	30733.94	6.773	Tamarin	4.3	13.16
419	834	27709.95	8.399	Neem	0.6	9.99	419	1026	30819.03	6.604	Tamarin	3.4	13.99
420	835	27713.85	7	Neem	0.8	10.99	420	1028	30870.00	5.8	Tamarin	3.7	13.16
421	836	27717.85	6.5	Neem	0.98	10.66	421	1030	30905.25	6.381	Tamarin	2.85	11.99
422	837	27718.85	6.5	Neem	0.95	8.99	422	1031	30926.21	6.045	Peepil	5	11.66
423	840	27738.85	8.5	etchyam	0.7	9.99	423	1032	30947.05	6.619	Tamarin	3.5	13.66
424	841	27743.85	6.5	Neem	1.1	11.66	424	1034	30967.94	6.99	Tamarin	2.7	12.99
425	842	27745.85	7	Neem	1.25	11.66	425	1036	30989.28	6.419	Tamarin	3.5	12.99
426	843	27755.85	9	Neem	1.3	11.99	426	1037	31008.81	5.497	Tamarin	3.3	12.99
427	844	27756.85	9	Neem	1.4	11.99	427	1041	31073.91	6.464	Tamarin	4	13.16
428	847	27777.72	7.969	Neem	1.5	12.16	428	1042	31090.86	6.583	Tamarin	2.8	12.66
429	848	27787.71	6.256	Neem	0.8	9.99	429	1044	31111.88	6.383	Tamarin	3.4	12.66
430	849	27789.85	6.5	Neem	1.2	10.66	430	1046	31152.92	5.898	Tamarin	2.4	12.66
431	850	27795.85	6.5	Neem	0.8	9.66	431	1048	31172.27	5.977	teak	1.05	12.99
432	851	27803.85	8	Neem	1.1	10.66	432	1049	31217.67	6.008	Tamarin	4.5	14.16
433	852	27808.85	7.5	Neem	1.1	10.99	433	1052	31322.18	6.62	Tamarin	3.7	13.16
434	853	27809.85	7.5	Neem	0.85	10.99	434	1057	31426.42	6.072	Tamarin	2.2	13.66
435	854	27813.85	7.5	Neem	0.45	6.99	435	1059	31461.65	6.91	athi	2	13.99
436	855	27816.85	8	Neem	1	9.99	436	1060	31520.00	6.4	Tamarin	3.8	14.16
437	857	27828.85	6.5	Neem	0.65	7.99	437	1064	31591.07	7.092	Tamarin	3.2	12.99
438	858	27831.87	6.793	Neem	1	9.99	438	1065	31611.52	6.564	Tamarin	4.4	13.99
439	860	27860.80	7.307	Neem	0.98	9.66	439	1066	31629.72	7.029	Tamarin	4.1	13.66
440	861	27864.93	7.056	Neem	1	9.99	440	1067	31348.00	6	Tamarin	4	13.99
441	864	27896.25	8.186	Neem	1.8	10.99	441	1068	31667.94	7.267	Tamarin	4.8	13.99
442	865	27898.81	8.485	Neem	0.75	7.66	442	1073	31783.53	7.334	Tamarin	4.3	13.99
443	866	27905.40	8.759	Neem	1.4	10.66	443	1076	31841.00	7.144	Neem	0.45	8.66
444	868	27910.29	9.034	Neem	1.2	10.99	444	1079	31909.15	6.107	Tamarin	3.8	13.66
445	869	27919.25	9.297	Neem	0.4	6.99	445	1080	31950.12	5.855	Tamarin	3.3	12.99
446	872	27928.87	9.681	Neem	0.7	7.99	446	1081	31957.00	5	Neem	0.75	6.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
447	874	27951.15	10.025	Neem	1	8.99	447	1083	32127.00	7.3	povPeepil	0.7	6.16
448	876	27962.26	10.231	Neem	1.3	9.99	448	1084	32128.21	8.834	povPeepil	0.85	6.99
449	877	27970.36	9.831	Neem	0.95	9.99	449	1085	32133.81	8.409	Neem	0.6	8.16
450	879	27985.43	10.974	Neem	0.9	9.66	450	1086	32168.00	5.3	Tamarin	2.85	12.99
451	880	27992.15	11.753	Neem	1.2	9.66	451	1088	32348.05	6.288	Tamarin	4.5	13.66
452	884	28070.53	11.544	Tamarin	4.3	11.99	452	1089	32390.07	6.632	Tamarin	3.8	13.66
453	889	28169.23	10.061	nawal	4.4	12.66	453	1092	32410.13	6.143	Tamarin	3.5	13.66
454	890	28181.84	11.395	Neem	1	10.99	454	1093	32431.70	5.824	Tamarin	5	13.99
455	891	28184.34	9.958	Neem	1.2	10.99	455	1095	32468.00	7	Palm	0.9	10.16
456	892	28184.38	9.958	Neem	1.1	10.66	456	1096	32497.60	8.117	Palm	0.8	10.99
457	893	28192.21	8.611	Neem	1.2	10.99	457	1097	32501.32	8.335	Palm	0.8	10.99
458	895	28206.90	9.141	Palm	1.1	9.99	458	1098	32539.25	9.531	Palm	0.9	9.99
459	896	28220.06	8.486	Neem	1.05	9.99	459	1099	32540.22	9.129	Palm	0.92	10.16
460	897	28226.99	8.654	Neem	0.8	10.16	460	1100	32763.22	4.923	Tamarin	4.4	13.66
461	898	28229.72	8.814	Neem	0.75	8.99	461	1101	32776.42	8.757	Tamarin	3.3	13.66
462	901	28257.72	9.723	Neem	4.2	9.99	462	1105	33027.37	9.525	karwai	2.3	12.99
463	902	28279.20	9.871	Neem	1.2	9.99	463	1108	33099.44	6.971	Tamarin	3.7	12.99
464	903	28283.90	9	Neem	0.45	6.99	464	1113	33164.00	6.2	athi	2.4	13.16
465	904	28319.35	7.524	athi	4.5	12.99	465	1122	33603.51	7.704	athi	4	13.99
466	911	28410.90	8.061	Palm	1.1	9.99	466	1123	33612.56	7.358	Tamarin	4.7	12.99
467	913	28428.62	7.445	Palm	1.1	6.99	467	1124	33625.56	8.238	athi	3.9	12.66
468	914	28432.62	7.095	Palm	1.2	7.99	468	1131	33809.00	6.5	other	2.3	11.66
469	916	28463.99	8.423	athi	3.4	12.99	469	1132	33866.27	7.202	alarmaram	4.9	14.99
470	917	28482.90	8.6	athi	4.1	12.99	470	1134	33914.66	7.379	Neem	0.6	6.99
471	919	28532.18	8.467	Palm	0.95	9.99	471	1135	33926.98	7.434	Neem	0.65	6.99
472	920	28533.87	8.646	Palm	0.8	9.99	472	1137	33935.00	6.5	other	2.8	13.11
473	921	28586.48	8.8	Tamarin	3.1	10.99	473	1140	34055.60	5.83	Tamarin	3.2	13.66
474	923	28697.32	9.517	Tamarin	3.2	11.99	474	1142	34117.05	7.29	Tamarin	5.1	13.99
475	924	28717.41	9.192	Tamarin	4.2	11.66	475	1143	34159.06	7.562	Tamarin	3.9	13.99
476	927	28770.90	11.8	Neem	0.9	8.99	476	1146	34342.46	6.623	Tamarin	2.6	10.99
477	929	28781.24	8.559	Neem	0.6	6.16	477	1151	34410.00	6.4	Tamarin	3.6	12.99
478	930	28794.28	9.431	Neem	1	9.99	478	1149	34423.41	8.003	Neem	0.7	6.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
479	932	28825.87	8.066	Tamarin	4.15	12.66	479	1154	34528.87	7.281	Tamarin	3.8	12.99
480	933	28848.30	8.978	Tamarin	2.1	12.99	480	1157	34571.89	7.205	Tamarin	2.9	12.99
481	935	28867.33	8.137	Tamarin	3	12.99	481	1158	34591.91	7.367	Tamarin	3.4	13.16
482	938	28905.43	8.579	Tamarin	3.1	12.99	482	1161	34608.88	7.226	Neem	0.4	6.66
483	940	28924.88	8.802	Tamarin	2.8	12.99	483	1164	34617.52	7.553	Neem	0.65	6.99
484	943	28967.47	8.951	Tamarin	4.2	12.99	484	1166	34649.69	6.206	Neem	0.6	5.99
485	945	28986.45	8.907	Tamarin	4.5	12.99	485	1168	34661.28	7.792	Neem	0.65	6.99
486	948	29182.24	6.759	Tamarin	3.8	12.99	486	1171	34700.18	11.604	karuwai	1.4	10.66
487	949	29188.55	6.311	Tamarin	3.7	12.99	487	1172	34713.00	6.5	Neem	0.5	6.66
488	950	29217.85	7.536	Tamarin	3.6	12.16	488	1174	34719.00	7	Neem	0.6	5.99
489	951	29239.35	6.962	Tamarin	3.45	12.16	489	1178	34758.62	4.603	Peepil	8	13.66
490	954	29284.62	6.248	Neem	0.85	6.99	490	1179	34842.99	5.007	Neem	0.75	6.99
491	955	29451.69	6.812	Palm	1.1	9.99	491	1181	34851.99	5.005	Neem	1.4	9.99
492	956	29465.48	6.861	Neem	1.7	11.99	492	1182	34892.00	5.8	other	0.8	8.66
493	957	29477.79	5.083	Palm	1.05	9.99	493	1184	34908.00	3.3	athi	4.1	13.99
494	959	29568.57	5.988	Palm	1	10.66	494	1185	34926.00	5.5	other	0.85	9.99
495	960	29601.26	6.654	athi	4.2	12.99	495	1187	34945.00	5.8	other	0.9	8.99
496	964	29753.86	7.987	Tamarin	4.2	12.99	496	1188	34986.68	5.847	other	3.8	13.66
497	968	29819.21	9.602	athi	2.5	12.66	497	1190	35006.00	5	Tamarin	3.5	12.99
498	969	29838.54	9.662	athi	2.6	12.99	498	1195	35012.93	4.3	athi	3.25	13.99
499	974	29924.92	5.994	athi	3.5	14.16	499	1196	35064.00	5.5	Palm	1	6.16
500	975	29944.95	6.773	Tamarin	3	12.99	500	1197	35073.00	5.5	Palm	1.1	6.66
501	976	29965.45	8.436	Tamarin	2.4	10.99	501	1200	35078.00	5	Palm	0.85	6.99
502	977	29987.91	9	Neem	0.8	9.99	502	1202	35120.00	3.8	Palm	0.85	10.99
503	979	30054.96	5.958	arasam	2.9	10.99	503	1209	35143.00	5	Palm	0.85	12.99
504	980	30068.91	6	Neem	0.7	6.99	504	1210	35164.00	6	Palm	0.8	13.66
505	982	30208.87	8.015	arasam	3.3	12.99	505	1214	35170.00	6.749	other	3.2	13.99
506	984	30228.85	7.901	Tamarin	3	13.16	506	1216	35189.35	6.5	Palm	1.1	8.99
507	988	30244.61	7.538	arasam	3	13.66	507	1217	35200.00	6.6	mango	1	8.99
508	990	30269.83	8.627	arasam	3.3	12.66	508	1218	35206.00	6.5	Pongamm	0.7	6.99
509	993	30291.52	7.912	arasam	3.5	12.99	509	1219	35213.00	6.5	Pongamm	0.75	6.99
510	995	30333.09	8.425	arasam	3.9	12.99	510	1222	35216.00	7.3	Pongamm	0.75	6.99

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
511	996	30352.58	7.615	arasam	4.4	13.66	511	1227	35228.00	5.596	other	3.3	13.66
512	997	30372.74	7.892	Tamarin	5.55	12.66	512	1228	35265.54	5.643	other	3.25	13.66
513	999	30386.48	8.058	Palm	0.85	11.99	513	1230	35279.67	6.984	Neem	1.3	9.99
514	1000	30414.16	7.239	arasam	4.5	9.99	514	1233	35370.38	6.015	Tamarin	3	13.16
515	1006	30500.10	7.637	Tamarin	4.2	12.99	515	1234	35391.84	5.78	Tamarin	4.4	13.99
516	1009	30540.67	8.275	arasam	3.5	12.66	516	1235	35399.95	6.8	other	4.6	13.66
517	1010	30563.36	7.813	Tamarin	3.45	13.66	517	1236	35424.00	6	Neem	0.8	8.66
518	1012	30583.78	8.312	Tamarin	4.4	13.66	518	1237	35437.00	4	Neem	1.65	9.99
519	1013	30605.11	8.264	Tamarin	5	12.99	519	1239	35439.00	4	Neem	1.3	10.66
520	1015	30616.91	7	Tamarin	3.6	13.66	520	1240	35456.00	3.5	Palm	0.75	8.66
521	1017	30642.91	11.5	Neem	1.05	9.99	521	1241	35457.00	3.8	Neem	0.75	6.99
522	1018	30647.91	11.5	Neem	1	9.99	522	1243	35478.00	9	Neem	0.7	8.99
523	1019	30689.78	7.594	Tamarin	3.6	12.99	523	1244	35499.21	5.481	Tamarin	3.1	13.66
524	1022	30733.25	7.312	Tamarin	3.4	13.16	524	1245	35544.00	3.6	Tamarin	4.1	13.66
525	1023	30754.10	7.532	Tamarin	3.9	13.99	525	1249	35570.00	3	Neem	0.9	9.99
526	1024	30775.60	8.074	Tamarin	3.7	13.66	526	1250	35575.00	4	Neem	0.95	9.16
527	1025	30817.91	7.6	Tamarin	3.8	12.99	527	1255	35607.00	3.3	Tamarin	4.1	13.66
528	1027	30844.91	7.75	Tamarin	3.5	12.99	528	1256	35653.00	3	Neem	0.45	6.66
529	1029	30905.91	7.9	Tamarin	2.5	5.99	529	1257	35655.00	3.5	Neem	0.4	6.66
530	1033	30967.17	7.248	Tamarin	3	10.99	530	1258	35668.00	3	Neem	0.65	6.99
531	1035	30991.91	5	arasam	6.7	13.99	531	1260	35684.14	4.262	Tamarin	3.2	13.66
532	1038	31009.46	6.941	Tamarin	5.2	13.86	532	1263	35720.48	4.28	Tamarin	2.3	13.16
533	1039	31029.46	7.48	Tamarin	3.2	10.99	533	1265	35741.00	3.5	Tamarin	3.2	13.16
534	1040	31050.91	6.5	Tamarin	3.8	12.99	534	1270	35804.00	3.6	Neem	0.5	5.16
535	1043	31093.57	6.65	Tamarin	3.7	13.99	535	1271	35827.00	3.6	Neem	0.8	6.99
536	1045	31114.38	7.029	Tamarin	5	13.66	536	1273	35847.00	3	Tamarin	3.1	13.66
537	1047	31156.53	6.518	Tamarin	2.1	13.16	537	1275	35867.00	3	Tamarin	3.6	13.16
538	1050	31235.30	7.971	others	0.35	6.99	538	1277	35893.00	1.5	Tamarin	2.9	13.66
539	1051	31300.95	6.508	echam	0.8	7.66	539	1278	35903.00	3	Neem	0.45	6.99
540	1053	31329.30	5.587	Palm	0.7	14.16	540	1279	35909.00	2	Neem	0.98	6.99
541	1054	31342.85	6.054	Palm	0.65	14.16	541	1280	35910.00	2	Neem	0.75	6.99
542	1055	31365.29	6.166	Tamarin	6.3	13.99	542	1282	35927.00	1	Tamarin	3.4	12.66

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
543	1056	31384.27	6.264	arasam	9	13.66	543	1284	35950.00	3.2	Neem	0.6	7.16
544	1058	31428.58	6.991	Tamarin	3.5	13.66	544	1285	35955.00	3.5	Neem	0.6	6.66
545	1061	31552.19	7.229	Tamarin	3.6	13.66	545	1287	35968.00	2.3	Neem	0.65	7.99
546	1062	31572.92	8.124	Tamarin	4.6	13.16	546	1288	35986.87	2.001	Tamarin	2.4	12.66
547	1063	31592.19	8.403	Tamarin	3.2	13.16	547	1291	36028.00	1.8	Tamarin	2.7	13.16
548	1069	31668.48	8.261	Tamarin	4.1	13.99	548	1294	36056.00	1.3	other	1.2	9.99
549	1070	31710.33	8.621	Neem	0.6	7.99	549	1295	36070.00	7	Neem	0.8	9.99
550	1071	31743.52	7.677	Tamarin	5.4	14.16	550	1296	36070.00	7	Peepil	2.1	13.99
551	1072	31765.81	7.291	Tamarin	3.2	13.99	551	1297	36070.00	3	Neem	0.4	6.99
552	1074	31786.12	6.464	Tamarin	5.3	13.66	552	1300	36128.90	3.794	Tamarin	3.5	12.99
553	1075	31806.95	6.866	arasam	4.8	14.99	553	1302	36150.00	2.6	Tamarin	4.2	12.66
554	1077	31867.30	7.967	athi	5.9	14.16	554	1304	36172.00	3	Tamarin	4	13.11
555	1078	31907.26	7.455	Tamarin	6	14.66	555	1305	36210.00	3.5	Tamarin	3.6	12.16
556	1082	32081.91	9.8	Pongamm	1.3	9.99	556	1308	36255.00	4.5	Neem	0.6	6.99
557	1087	32204.58	6.858	Tamarin	4.5	8.66	557	1310	36272.00	4.199	Tamarin	3.6	13.16
558	1090	32387.90	3.2	Tamarin	3	12.16	558	1312	36292.00	4	Tamarin	3	13.16
559	1091	32409.52	4.618	Tamarin	2.7	12.66	559	1314	36310.00	4.5	Tamarin	2.5	13.16
560	1094	32438.27	4.644	Tamarin	1	6.99	560	1315	36329.90	6.811	Tamarin	3.8	11.66
561	1102	32765.31	8.482	others	0.95	6.99	561	1317	36349.32	7.279	Tamarin	3.6	11.16
562	1103	32801.24	6.521	others	2.9	13.66	562	1321	36411.84	7.572	Tamarin	3.6	13.16
563	1104	32875.02	8.725	Tamarin	4.7	13.16	563	1322	36431.01	5.999	Tamarin	2.85	12.66
564	1106	33036.40	10.195	karuwai	1.95	12.99	564	1323	36451.01	6.099	Tamarin	3.5	12.66
565	1107	33095.31	7.121	athi	3.3	13.99	565	1326	36473.76	8.123	Tamarin	3.9	11.99
566	1109	33110.79	6.864	athi	3.3	13.99	566	1327	36491.00	6	Tamarin	3.9	11.99
567	1110	33122.37	9.16	athi	2.2	12.99	567	1328	36520.00	11.3	Neem	0.85	9.99
568	1111	33143.90	6.8	athi	2.5	12.99							
569	1112	33164.90	4.3	athi	5.3	13.66							
570	1114	33170.32	4.742	Tamarin	3.2	13.16							
571	1115	33294.40	6.883	Palm	1.2	9.99							
572	1116	33342.58	6.465	Neem	1.45	12.99							
573	1117	33415.46	7.586	Tamarin	5.1	13.66							
574	1118	33475.90	7	others	1.15	10.66							

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
575	1119	33478.27	6.983	Tamarin	3.4	13.99							
576	1120	33528.33	7.31	athi	2.4	9.99							
577	1121	33597.70	7.485	athi	4.2	13.66							
578	1125	33641.90	6.3	athi	3.8	13.99							
579	1126	33647.11	7.056	others	0.6	13.66							
580	1127	33666.48	8.319	art	2.1	13.66							
581	1128	33681.28	7.714	athi	3.8	12.99							
582	1129	33789.12	2.944	Neem	2.8	13.16							
583	1130	33800.40	7	coconut	1.1	12.16							
584	1133	33866.64	7.651	Tamarin	2.5	13.99							
585	1136	33904.88	6	Tamarin	3.1	12.99							
586	1138	33995.69	5.14	Neem	1.1	8.99							
587	1139	34054.55	8.031	Tamarin	2.7	13.66							
588	1141	34074.09	8.553	Tamarin	2.8	11.99							
589	1144	34157.03	7.965	Tamarin	2.7	12.99							
590	1145	34302.60	8.477	Tamarin	4.1	12.99							
591	1147	34363.43	8.796	Tamarin	4.3	13.16							
592	1148	34404.85	8.42	Tamarin	4.1	12.99							
593	1150	34445.81	8.413	Tamarin	3.6	12.66							
594	1152	34469.88	6	Neem	0.6	5.99							
595	1153	34518.88	6	Neem	0.55	5.99							
596	1155	34549.88	7	Tamarin	2.6	13.16							
597	1156	34571.71	7.14	others	2.9	6.99							
598	1159	34594.25	6.114	Neem	0.5	6.99							
599	1160	34604.88	10.5	Neem	0.6	6.99							
600	1162	34610.65	6.883	Neem	0.75	6.99							
601	1163	34617.65	10.574	Neem	0.7	6.99							
602	1165	34641.60	8.903	Neem	0.6	6.99							
603	1169	34687.48	10.32	Neem	0.75	9.99							
604	1170	34695.62	6.836	Neem	0.7	6.99							
605	1173	34719.01	10.627	Neem	0.4	6.16							
606	1175	34726.56	9.845	Neem	0.45	6.99							

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
607	1176	34729.88	8	Palm	1.35	13.66							
608	1177	34738.38	7.894	arasam	6.5	13.16							
609	1180	34867.88	6	Tamarin	5.8	12.99							
610	1183	34906.88	5.8	Palm	1.1	8.66							
611	1186	34936.59	8.123	Neem	1.6	10.66							
612	1189	35000.24	5.958	Palm	0.75	12.99							
613	1192	35022.40	7.357	Tamarin	6	13.16							
614	1193	35043.87	8.557	Tamarin	3.8	13.16							
615	1194	35064.23	8.142	Tamarin	4	13.16							
616	1198	35111.17	6.756	Neem	1	9.99							
617	1199	35113.88	5.8	Neem	0.9	8.99							
618	1201	35122.05	6.269	Neem	1.2	9.99							
619	1203	35142.88	7	Neem	0.8	8.99							
620	1204	35149.88	7	Neem	0.85	9.99							
621	1205	35151.88	6.9	Neem	0.85	9.99							
622	1206	35154.10	5.856	Neem	0.9	9.16							
623	1207	35158.88	7	Neem	0.85	9.66							
624	1208	35159.88	6.5	Neem	0.98	10.16							
625	1211	35169.88	6.8	Neem	0.9	9.66							
626	1212	35180.03	6.404	Neem	0.8	9.99							
627	1213	35192.67	6.741	others	5.3	13.66							
628	1215	35194.88	6.5	Neem	1	10.66							
629	1220	35215.88	5	Neem	0.9	8.99							
630	1221	35224.86	5.401	Neem	1.05	8.99							
631	1223	35241.18	5.465	Neem	0.85	7.66							
632	1224	35245.88	6	Neem	0.7	6.99							
633	1225	35250.88	6	Neem	1	12.16							
634	1226	35265.43	4.791	Neem	0.95	12.66							
635	1229	35292.88	5.3	Neem	0.7	6.99							
636	1231	35325.88	6.2	others	2.5	13.66							
637	1232	35336.24	7.27	others	2.4	13.99							
638	1238	35436.80	7.045	Palm	0.95	8.99							

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
639	1242	35477.88	8	Pongamm	0.6	6.99							
640	1246	35543.88	9	Palm	1	8.99							
641	1247	35544.88	9	Neem	0.85	8.99							
642	1248	35547.88	8	Palm	1	9.99							
643	1251	35585.11	7.471	Neem	1.3	9.66							
644	1253	35598.09	8.182	Neem	0.8	7.88							
645	1254	35602.09	7.882	others	1.7	14.16							
646	1259	35684.48	9.009	others	0.8	6.66							
647	1261	35691.88	9.4	others	2.5	12.99							
648	1262	35715.88	9	Tamarin	3.1	12.99							
649	1264	35739.88	9	Tamarin	2.7	12.99							
650	1265	35755.88	9	Tamarin	2.8	13.16							
651	1268	35775.88	9	Tamarin	4	13.99							
652	1269	35792.88	11.5	Neem	0.8	6.99							
653	1272	35825.88	9	Tamarin	3.4	12.99							
654	1274	35849.88	9	Neem	0.6	6.99							
655	1276	35886.88	9	Tamarin	4.2	12.99							
656	1281	35909.88	9.8	Tamarin	3.2	12.99							
657	1283	35938.25	9.694	Palm	1.2	6.99							
658	1286	35952.88	9.5	Tamarin	2.9	13.66							
659	1289	35991.88	8.5	Tamarin	3.2	12.66							
660	1290	35018.88	9.2	Tamarin	3.1	12.16							
661	1292	36034.88	9	Tamarin	2.3	12.16							
662	1293	36055.88	10	Tamarin	2.7	12.16							
663	1298	36074.88	8.2	Tamarin	3.5	12.99							
664	1299	36097.29	11.441	Tamarin	4.1	13.16							
665	1301	36109.88	9.5	Tamarin	3.7	13.16							
666	1303	36163.88	9.3	coconut	0.85	12.99							
667	1306	36215.88	8.2	Neem	1	9.99							
668	1307	36239.14	10.082	Tamarin	4.2	10.99							
669	1309	36259.82	10.235	Tamarin	2.2	13.16							
670	1311	36279.23	10.536	Tamarin	2.9	13.66							

Trees on Southern Side (RHS)							Trees on Northern Side (LHS)						
Sr. No.	Tree No.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)	Sr. No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Commen)	Girth (m)	Height (m)
671	1313	36300.32	10.09	Tamarin	3.8	13.99							
672	1316	36344.40	9.272	Tamarin	3.8	12.99							
673	1318	36364.88	7.5	Tamarin	4.8	13.16							
674	1319	36387.79	7.965	Tamarin	5.6	13.16							
675	1320	36410.88	8.3	Tamarin	3.2	13.16							
676	1324	36450.88	6.8	Tamarin	3.4	12.99							
677	1325	36472.46	7.992	Tamarin	3.4	12.66							

ANNEXURE 4. 5: TREE ENUMERATION OF SH-04

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1	3	24789.14	7.574	PUNGAM	1.40	4.80	1	1	24764.71	9.129	PUNGAM	1.00	7.99
2	5	24828.37	8.577	TAMARIND	3.80	13.99	2	2	24772.38	8.046	TAMARIND	3.20	12.99
3	7	24850.84	3.650	VALANGAI	1.40	13.99	3	4	24811.70	8.73	TAMARIND	2.40	12.99
4	9	24870.13	8.986	TAMARIND	2.90	13.66	4	8	24853.37	8.845	TAMARIND	3.50	13.16
5	12	24899.98	9.942	TAMARIND	2.80	12.99	5	10	24887.28	7.635	TAMARIND	2.20	13.16
6	15	24944.35	7.106	TAMARIND	3.20	13.99	6	11	24896.60	9.374	TAMARIND	2.80	13.16
7	16	24952.97	8.451	TAMARIND	3.20	13.99	7	13	24923.26	9.357	TAMARIND	3.30	13.99
8	19	24993.20	6.100	TAMARIND	2.90	13.66	8	14	24942.10	8.549	TAMARIND	3.00	14.66
9	21	25014.02	8.938	TAMARIND	3.30	13.16	9	17	24962.93	8.348	TAMARIND	3.40	14.16
10	25	25065.70	8.766	TAMARIND	2.60	12.99	10	18	24983.00	8.7	TAMARIND	3.30	13.99
11	28	25104.17	8.866	TAMARIND	2.70	8.99	11	20	25006.71	10.207	VALANGAI	1.00	12.66
12	40	25323.32	8.300	VALANGAI	1.50	13.66	12	22	25025.00	8.6	VALANGAI	1.00	12.16
13	41	25334.28	7.668	PUNGAM	2.30	12.94	13	23	25030.00	7.3	TAMARIND	2.70	13.66
14	46	25397.49	6.437	TAMARIND	3.40	14.16	14	24	25050.00	6.8	TAMARIND	3.20	14.16
15	48	25437.71	6.275	TAMARIND	3.40	14.16	15	26	25070.36	8.71	PUNGAM	1.10	6.99
16	50	25450.00	5.000	TAMARIND	2.40	14.16	16	27	25079.63	8.331	PUNGAM	1.10	7.16
17	51	25456.11	6.862	TAMARIND	2.70	13.99	17	29	25107.43	8.485	TAMARIND	2.60	13.66
18	55	25499.02	7.813	TAMARIND	2.40	14.16	18	30	25116.10	7.881	TAMARIND	2.70	13.66
19	56	25803.94	6.757	TAMARIND	2.50	14.16	19	31	25119.86	7.3	TAMARIND	3.40	13.99
20	61	25620.43	5.928	TAMARIND	2.20	12.99	20	32	25130.00	9.2	NEEM	0.80	9.99
21	62	25660.37	5.189	TAMARIND	2.90	13.66	21	33	25151.98	8.453	PUNGAM	2.00	10.16
22	63	26054.28	6.312	TAMARIND	4.10	13.66	22	34	25154.01	8.335	PUNGAM	1.50	10.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
23	65	25682.44	5.300	TAMARIND	2.30	13.99	23	35	25175.00	6	TAMARIND	3.30	14.15
24	70	25736.57	5.438	PUNGAM	3.10	9.99	24	37	25290.00	11	COCONUT	1.00	13.99
25	73	25859.66	0.100	PUNGAM	3.00	13.99	25	38	25297.00	11	COCONUT	1.10	12.99
26	75	25795.08	7.377	NAVAL	4.20	13.16	26	42	25355.19	6.033	TAMARIND	4.30	13.99
27	76	25804.89	2.895	TAMARIND	1.00	5.66	27	43	25364.91	6.72	NEEM	0.80	6.99
28	77	25504.29	6.677	TAMARIND	1.90	12.16	28	44	25382.33	5.66	TAMARIND	4.40	14.16
29	78	25917.62	5.914	NEEEM	1.00	3.99	29	45	25398.08	5.429	TAMARIND	3.60	14.16
30	85	25879.31	4.883	OTHER	1.40	10.16	30	47	25415.04	7.333	NEEM	1.00	6.99
31	87	25952.12	2.520	COCONUT	0.80	9.99	31	49	25444.25	7.748	TAMARIND	4.20	13.66
32	88	25968.18	5.391	COCONUT	0.95	9.99	32	52	25475.37	6.411	TAMARIND	3.70	13.99
33	89	25977.18	6.296	COCONUT	0.76	8.99	33	53	25492.29	6.004	TAMARIND	2.90	13.99
34	90	26009.19	2.719	COCONUT	0.95	10.16	34	54	25499.69	6.544	TAMARIND	3.20	13.99
35	91	28690.44	7.055	NEEM	3.10	12.99	35	57	25525.00	9	ILUBAI	0.35	13.16
36	92	28848.42	8.283	TAMARIND	2.70	13.66	36	58	25530.00	9.8	ILUBAI	0.50	12.99
37	93	28870.72	8.093	TAMARIND	2.20	13.66	37	59	25575.00	8.5	TAMARIND	3.80	13.66
38	94	28875.77	8.092	PUNGAM	1.00	8.99	38	60	25595.70	7.756	TAMARIND	2.80	13.66
39	95	28891.08	7.756	PUNGAM	1.60	11.66	39	64	25682.26	6.936	TAMARIND	2.00	13.16
40	96	28899.83	7.027	PUNGAM	1.00	7.99	40	66	25700.36	7.208	PUNGAM	2.80	13.16
41	97	28912.93	6.638	TAMARIND	2.10	13.66	41	67	25708.27	7.094	PUNGAM	2.20	12.99
42	98	28917.95	6.399	TAMARIND	2.80	13.66	42	68	25718.64	6.875	TAMARIND	2.50	13.66
43	99	28924.49	7.059	PUNGAM	0.80	8.99	43	69	25726.96	6.735	PUNGAM	3.00	13.99
44	100	28942.64	6.017	PUNGAM	1.15	6.99	44	71	25733.04	5	TAMARIND	2.10	13.99
45	101	28952.01	6.348	PUNGAM	1.80	4.99	45	72	25740.09	5	TAMARIND	3.10	13.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
46	102	28961.78	5.330	TAMARIND	2.80	13.16	46	74	25754.00	4.8	PUNGAM	2.90	10.66
47	103	28978.73	5.866	TAMARIND	2.20	13.16	47	79	25803.94	1	PUNGAM	1.00	9.16
48	104	28988.11	6.922	TAMARIND	1.80	12.99	48	80	25810.00	1.1	PUNGAM	1.30	9.99
49	105	29143.56	4.659	PANJU	2.80	14.16	49	81	25823.79	3.691	PUNGAM	0.75	9.99
50	110	29227.01	7.983	TAMARIND	1.90	8.99	50	82	25830.00	1.2	PUNGAM	1.00	9.16
51	123	29596.62	6.778	TAMARIND	2.10	13.16	51	83	25832.53	3.997	PUNGAM	1.30	9.99
52	127	29801.69	9.007	TAMARIND	2.00	12.99	52	84	25838.00	1	PUNGAM	1.20	9.66
53	128	29812.39	9.600	TAMARIND	1.60	12.99	53	86	25952.14	2.332	MANGO	2.80	10.66
54	129	29902.23	9.803	TAMARIND	1.20	8.99	54	111	29232.89	8.808	TAMARIND	1.45	9.99
55	130	30080.01	8.200	TAMARIND	2.20	12.99	55	120	29547.38	8.501	PUNGAM	0.60	7.99
56	134	30270.90	11.794	OTHER	2.00	10.16	56	126	29641.64	8.756	PUNGAM	0.70	6.16
57	135	30267.35	8.586	NEEM	0.80	9.99	57	130	30024.48	8.732	PUNGAM	1.00	8.99
58	136	30339.44	8.510	NEEM	0.60	7.66	58	143	30473.12	5.018	OTHER	0.87	8.99
59	137	30355.00	7.800	COCONUT	0.90	9.99	59	144	30483.02	5.238	OTHER	0.80	8.99
60	138	30357.00	7.800	COCONUT	0.97	9.99	60	146	30571.35	8.593	OTHER	0.70	8.66
61	139	30360.64	8.455	PALM	1.00	8.16	61	148	30579.81	7.567	ARASAM	2.30	8.66
62	140	30363.77	8.461	PALM	1.00	8.16	62	149	30627.34	7.116	PUNGAM	0.60	6.99
63	141	30401.91	8.894	TAMARIND	2.57	12.99	63	156	30863.00	11.5	EECHAM	0.60	7.66
64	142	30441.33	8.348	NEEM	1.07	8.99	64	160	30943.50	5.977	PUNGAM	2.70	7.16
65	145	30484.99	8.459	NELLI	0.90	7.99	65	161	30978.58	6.409	ATHI	2.30	14.66
66	147	30575.53	6.551	PUNGAM	0.87	7.66	66	162	31015.62	6.566	TAMARIND	2.50	13.99
67	151	30701.25	8.060	MANGO	0.77	6.99	67	164	31064.33	11.537	PALM	0.50	6.99
68	152	30792.23	11.358	ATHI	1.90	13.99	68	166	31100.00	6	PUNGAM	1.20	8.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
69	153	30810.42	11.703	PUNGAM	1.70	9.99	69	169	31140.30	10.974	PUNGAM	1.60	6.99
70	154	30822.82	9.064	EECHAM	0.70	9.99	70	186	31614.00	7	COCONUT	1.00	9.99
71	155	30847.07	11.073	PUNGAM	0.97	6.66	71	187	31617.66	6.547	COCONUT	1.00	9.66
72	157	30875.00	11.000	TAMARIND	2.27	13.66	72	188	31622.52	6.644	COCONUT	1.30	9.66
73	158	30882.66	11.347	PUNGAM	2.40	13.66	73	200	31852.00	8.3	PUNGAM	0.35	3.66
74	159	30920.00	11.300	PUNGAM	1.80	12.16	74	202	31857.00	8.4	PUNGAM	0.35	3.66
75	163	31015.70	9.689	PUNGAM	0.93	7.99	75	203	31873.03	8.117	PUNGAM	1.00	5.66
76	165	31085.64	6.465	PUNGAM	2.10	12.99	76	207	31971.00	8	PUNGAM	0.90	6.99
77	167	31120.00	8.800	PUNGAM	1.80	9.99	77	208	31974.64	8.334	PUNGAM	0.60	6.66
78	168	31141.30	8.625	PUNGAM	1.75	10.66	78	227	32405.29	9.37	TAMARIND	3.05	13.66
79	170	31180.50	9.943	ATHI	1.20	9.99	79	233	32446.55	10.787	PUNGAM	1.90	11.66
80	171	31196.21	9.684	ATHI	2.10	11.66	80	234	32470.00	11.2	TAMARIND	1.15	13.66
81	172	31236.83	9.805	OTHER	0.98	7.99	81	236	32479.17	11.608	PUNGAM	2.40	6.99
82	173	31253.00	6.000	ATHI	1.50	13.16	82	237	32489.32	10.08	TAMARIND	1.95	12.99
83	174	31272.80	3.726	PUNGAM	1.00	9.99	83	243	32639.91	5.217	NEEM	0.80	8.99
84	175	31326.22	3.156	EECHAM	0.94	8.66	84	244	32698.09	6.523	COCONUT	0.98	8.99
85	176	31341.11	7.644	PUNGAM	1.80	9.99	85	245	32700.37	6.409	COCONUT	0.95	8.99
86	177	31425.88	7.131	TAMARIND	2.20	13.66	86	246	32702.00	7.3	NEEM	0.95	9.99
87	178	31444.12	6.212	TAMARIND	2.30	13.66	87	247	32733.21	7.38	OTHER	0.90	6.99
88	181	31582.44	7.383	PUNGAM	1.40	8.99	88	249	32783.75	8.309	ATHI	4.65	14.16
89	183	31619.00	7.500	EECHAM	0.70	7.99	89	250	32881.29	9.221	ATHI	4.70	14.16
90	184	31610.00	7.096	EECHAM	0.70	8.66	90	252	32905.87	9.237	TAMARIND	3.50	13.99
91	185	31616.08	6.404	PUNGAM	0.60	6.99	91	257	32966.96	7.645	NEEM	0.60	8.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
92	189	31628.35	8.118	PUNGAM	0.45	5.66	92	258	32971.42	7.949	PUNGAM	0.70	6.99
93	190	31677.16	6.882	PUNGAM	0.65	5.66	93	259	32975.13	6.329	OTHER	0.65	12.66
94	191	31684.95	6.854	PUNGAM	0.60	5.66	94	267	33030.60	7.348	TAMARIND	2.20	13.16
95	192	31689.22	6.540	PUNGAM	0.68	5.66	95	271	33106.70	5.676	PALM	5.10	14.16
96	194	31741.58	7.641	PUNGAM	0.15	3.16	96	273	33169.43	7.96	TAMARIND	4.65	13.99
97	195	31759.50	7.636	PUNGAM	0.80	6.99	97	274	33211.05	6.447	ILUBAI	4.30	14.66
98	196	31823.79	7.055	PUNGAM	1.20	6.99	98	276	33264.55	9.022	NEEM	0.85	7.99
99	197	31827.00	7.500	PUNGAM	1.45	7.66	99	277	33260.83	9.523	NEEM	0.80	8.66
100	198	31830.10	6.864	PUNGAM	1.30	7.66	100	278	33289.07	6.395	TAMARIND	4.70	13.99
101	199	31833.29	6.033	PUNGAM	1.40	7.99	101	279	33365.84	10.026	ILUBAI	4.10	14.66
102	201	31855.86	6.018	PALM	0.65	5.99	102	281	33407.17	9.857	ILUBAI	3.30	12.99
103	204	31880.96	7.807	PUNGAM	0.85	8.99	103	282	33429.94	8.974	ILUBAI	4.20	12.99
104	205	31883.87	5.678	PUNGAM	1.85	7.99	104	284	33495.06	8.281	ILUBAI	3.20	13.99
105	206	31890.24	5.316	PUNGAM	1.30	7.99	105	287	33537.75	10.849	ILUBAI	4.30	14.16
106	209	32013.53	10.589	COCONUT	1.00	9.99	106	289	33557.57	11.596	ILUBAI	3.80	14.16
107	210	32019.37	10.904	COCONUT	1.05	9.99	107	292	33603.79	8.305	ILUBAI	3.50	13.99
108	211	32025.23	10.512	COCONUT	1.00	10.99	108	293	33738.98	7.467	PALM	0.90	6.99
109	212	32031.66	11.459	COCONUT	0.95	9.66	109	298	34001.00	9.5	PUNGAM	0.60	6.99
110	213	32037.25	10.205	COCONUT	0.98	9.99	110	299	34003.46	9.46	PALM	1.30	7.66
111	214	32062.30	6.741	EECHAM	0.85	8.99	111	300	34007.40	9.624	PUNGAM	0.45	5.99
112	215	32106.34	6.503	EECHAM	0.90	6.99	112	301	34022.88	9.98	PUNGAM	0.60	5.99
113	216	32203.95	10.695	EECHAM	1.00	6.66	113	304	34073.21	7.556	NEEM	0.60	6.99
114	217	32220.90	8.311	EECHAM	0.90	4.99	114	305	34092.26	6.369	OTHER	0.65	5.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
115	218	32290.35	12.386	COCONUT	0.75	9.99	115	306	34108.04	4.421	PALM	0.85	8.99
116	219	32295.97	12.052	COCONUT	0.85	10.66	116	307	34138.52	5.79	PALM	0.75	8.16
117	220	32321.69	10.557	COCONUT	0.70	10.66	117	308	34284.06	10.748	EECHAM	0.60	9.16
118	221	32327.63	10.156	COCONUT	0.93	10.16	118	309	34286.35	10.58	EECHAM	0.65	9.99
119	222	32338.00	10.950	TAMARIND	1.60	9.99	119	311	34473.10	6.085	PUNGAM	0.85	6.99
120	223	32345.56	10.346	TAMARIND	2.05	13.99	120	312	34480.71	9.619	PALM	0.98	5.66
121	224	32362.06	9.660	NAVAL	1.95	9.99	121	313	34482.90	6.936	PUNGAM	0.90	6.99
122	225	32397.64	10.763	NAVAL	2.45	13.16	122	314	34498.73	7.557	PUNGAM	0.85	7.66
123	226	32406.54	9.428	NAVAL	2.60	13.99	123	315	34506.23	10.347	OTHER	0.80	8.66
124	228	32410.01	8.685	EECHAM	0.70	8.99	124	316	34529.24	7.941	OTHER	0.85	8.66
125	229	32414.74	11.076	NAVAL	2.65	13.66	125	317	34547.61	6.743	NEEM	1.00	9.99
126	230	32416.22	6.424	EECHAM	0.90	8.99	126	318	34552.83	6.825	NEEM	0.70	6.99
127	231	32439.00	11.500	NAVAL	2.00	13.16	127	319	34564.02	8.186	OTHER	0.70	6.99
128	232	32445.36	6.798	EECHAM	0.80	9.99	128	320	34621.78	4.674	PALM	0.80	8.99
129	235	32475.14	10.137	PUNGAM	5.30	10.66	129	321	34645.37	7.383	NEEM	1.00	9.99
130	238	32497.00	9.800	NEEM	1.05	6.99	130	322	34684.56	8.213	PALM	0.80	6.99
131	239	3241.72	8.720	ARASAM	4.40	13.99	131	323	34685.37	10.377	PALM	1.00	8.66
132	240	32557.63	7.374	PUNGAM	1.10	9.99	132	324	34696.18	8.341	PALM	1.00	8.16
133	241	32576.14	7.844	NEEM	0.95	8.66	133	325	34732.27	8.664	PALM	1.00	9.99
134	242	32599.04	8.983	TAMARIND	1.90	13.16	134	326	34754.80	8.346	PALM	1.00	6.99
135	248	32767.04	7.505	VALANGAI	1.65	10.16	135	327	34767.97	10.175	PALM	1.20	9.99
136	251	32898.88	9.025	TAMARIND	2.20	13.66	136	328	34770.82	7.907	PALM	1.00	8.99
137	253	32909.05	9.402	TAMARIND	2.75	13.99	137	329	34771.82	8.007	PALM	1.00	8.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
138	254	32927.29	8.659	TAMARIND	3.00	13.99	138	330	34776.22	8.028	PALM	0.85	8.99
139	255	32938.18	8.994	TAMARIND	3.20	13.99	139	331	34777.36	8.158	PALM	0.90	6.99
140	256	32967.34	9.898	TAMARIND	2.40	13.99	140	332	34783.92	7.917	PALM	1.00	8.66
141	260	32978.53	10.149	TAMARIND	2.00	13.99	141	333	34785.16	7.156	PALM	0.80	8.16
142	261	32984.83	10.398	TAMARIND	2.10	13.16	142	335	34796.30	6.24	PALM	1.00	7.99
143	262	32992.16	10.606	TAMARIND	2.00	13.16	143	336	34826.42	7.721	PALM	0.40	4.99
144	263	33016.72	10.425	TAMARIND	1.70	12.99	144	337	34839.50	12.089	NEEM	0.50	5.99
145	264	33021.93	10.397	TAMARIND	3.10	13.99	145	340	34948.14	10.72	PALM	1.00	8.99
146	265	33025.79	11.031	TAMARIND	2.10	13.66	146	341	34958.83	10.201	PALM	1.05	9.99
147	266	33029.15	10.834	TAMARIND	1.80	12.66	147	342	34964.06	10.363	PALM	1.00	7.66
148	268	33045.28	10.980	TAMARIND	2.15	13.99	148	353	35093.30	7.184	TAMARIND	2.50	12.99
149	269	33049.93	11.223	TAMARIND	2.10	13.99	149	354	35100.30	7.867	PALM	1.00	7.66
150	270	33070.39	10.942	TAMARIND	2.40	13.99	150	355	35145.18	5	TAMARIND	1.20	12.99
151	272	33134.80	8.479	MANGO	0.45	4.99	151	356	35145.00	7.423	PUNGAM	1.00	11.66
152	275	33240.37	9.276	TAMARIND	5.90	13.99	152	357	35149.00	5.3	TAMARIND	1.70	12.99
153	280	33376.00	10.000	ILUBAI	4.00	14.66	153	358	35160.00	5	TAMARIND	1.60	12.66
154	283	33439.81	8.852	ILUBAI	4.80	14.16	154	359	35173.00	5.6	PUNGAM	0.50	12.99
155	285	33500.44	4.261	PUNGAM	1.30	12.99	155	360	35278.67	9.626	OTHER	0.40	3.99
156	286	33527.00	10.500	ILUBAI	4.20	13.16	156	361	35403.60	11.007	NAVAL	0.40	5.66
157	288	33547.93	8.160	ILUBAI	3.50	14.66	157	363	35423.29	10.988	NAVAL	0.30	3.99
158	290	33568.59	8.573	ILUBAI	3.50	14.16	158	364	35695.30	7.921	PUNGAM	0.40	4.99
159	291	33590.12	9.334	ILUBAI	4.70	13.66	159	365	35707.39	7.789	TAMARIND	2.10	13.66
160	294	33748.48	8.656	EECHAM	0.65	6.66	160	366	35744.15	8.845	VATHAM	0.60	8.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
161	295	33770.26	6.430	PALM	1.00	8.99	161	367	35791.04	10.443	NEEM	0.65	7.66
162	296	33776.95	5.963	NEEM	0.85	9.99	162	368	35804.71	7.151	NEEM	0.75	8.66
163	297	33802.28	12.238	TAMARIND	3.80	13.99	163	369	36031.00	11.5	PALM	1.15	7.16
164	302	34048.00	11.300	NEEM	0.80	9.99	164	370	36036.00	11.5	PALM	1.00	7.16
165	303	34050.02	11.300	PUNGAM	0.60	6.16	165	371	36062.60	11.057	PALM	1.15	8.66
166	310	34457.77	12.501	PUNGAM	0.90	7.16	166	375	36079.13	11.022	PALM	1.00	7.66
167	334	34780.79	7.658	PALM	1.00	5.99	167	376	36095.52	10.611	OTHER	0.50	6.99
168	338	34898.35	9.973	PALM	1.05	5.99	168	379	36191.73	10.563	PALM	1.30	4.99
169	339	34900.99	9.978	PALM	1.20	6.66	169	380	36196.26	10.758	PALM	1.25	4.99
170	343	35995.00	9.000	PALM	1.30	9.99	170	381	36202.35	10.92	PALM	1.00	6.66
171	344	35997.00	9.000	PALM	1.20	10.66	171	382	36206.70	9.883	PALM	1.10	6.66
172	345	35998.00	10.000	PALM	1.20	10.66	172	383	36211.01	10.042	PALM	1.10	9.99
173	346	34999.48	9.514	PALM	1.30	11.99	173	385	36236.75	11.575	PALM	1.05	6.99
174	347	35018.95	9.868	PALM	1.00	11.66	174	398	36489.77	8.893	PALM	1.20	8.99
175	348	35025.00	10.500	PALM	1.10	12.66	175	399	36492.08	9.489	PUNGAM	0.40	5.16
176	349	35030.42	9.723	PALM	1.10	11.99	176	400	36498.37	7.906	PUNGAM	0.40	5.16
177	350	35038.82	10.969	PALM	1.00	10.99	177	401	36500.39	8.695	PALM	1.30	9.16
178	351	35048.73	10.807	PALM	1.05	10.66	178	402	36502.00	9.4	PALM	0.90	8.16
179	352	35059.55	10.199	PALM	1.00	8.99	179	403	36503.46	8.516	PALM	1.30	8.99
180	362	35409.22	6.573	NEEM	0.40	5.66	180	404	36506.50	8.695	PALM	1.10	8.66
181	372	36069.85	7.771	TAMARIND	3.20	13.66	181	405	36510.52	8.571	PALM	1.10	8.66
182	377	36135.19	10.657	PALM	0.98	6.99	182	406	36517.06	9.054	PALM	1.00	8.99
183	378	36149.69	9.969	PALM	0.95	8.99	183	409	36650.00	11	PALM	1.20	7.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
184	384	36238.77	6.410	PALM	1.30	6.99	184	410	36660.00	11.3	PALM	1.20	7.99
185	386	36242.17	6.323	PALM	1.05	6.99	185	411	36702.00	11.3	PALM	1.15	6.99
186	387	36274.38	7.540	PALM	0.95	8.99	186	412	36706.82	9.979	PALM	1.10	7.16
187	388	36290.00	4.800	PALM	1.00	8.99	187	414	36739.60	9.493	PALM	1.40	6.99
188	389	36307.28	6.960	PALM	1.00	8.66	188	422	37139.03	10.198	PALM	0.98	8.66
189	390	36342.14	9.634	PALM	1.10	6.99	189	423	37145.00	10.5	NETLING	0.40	8.66
190	391	36349.35	9.629	PALM	1.20	6.99	190	424	37147.00	10.5	NETLING	0.30	8.99
191	392	36353.25	7.411	PALM	1.00	5.66	191	425	37190.99	6.083	PALM	0.85	7.66
192	393	36398.47	7.439	PALM	1.00	8.99	192	426	37198.09	7.291	PALM	1.20	8.99
193	394	36400.81	8.506	PALM	1.15	8.99	193	431	37477.00	7.5	VATHAM	0.50	8.66
194	395	36419.59	8.100	PALM	1.20	9.99	194	432	37494.00	7.5	VATHAM	0.52	9.66
195	396	36425.60	7.564	PALM	1.10	7.66	195	433	37520.00	7.8	NEEM	0.80	9.99
196	397	36437.92	7.294	PALM	0.90	8.66	196	435	37568.26	8.226	COCONUT	1.00	8.66
197	407	36547.41	9.296	PALM	1.05	8.99	197	440	37978.27	6.724	TAMARIND	2.60	12.66
198	408	36543.23	8.324	PALM	1.00	8.99	198	441	38054.33	7.67	PALM	1.00	7.66
199	413	36725.94	11.098	NEEM	0.80	7.66	199	442	38323.78	7.935	EECHAM	0.70	8.66
200	415	36810.93	10.076	OTHER	1.40	12.99	200	443	38639.04	6.52	NEEM	0.68	7.16
201	416	36812.10	9.701	TAMARIND	1.20	13.16	201	450	38693.50	1.979	ARASAM	5.50	13.16
202	417	36980.00	7.000	PALM	1.00	4.66	202	451	39317.82	0.261	PALM	1.00	14.99
203	418	37005.16	11.230	PALM	0.80	10.66	203	452	39363.03	6.157	PALM	0.70	14.66
204	419	37061.62	8.130	PALM	0.85	7.66	204	453	39376.10	4.4	PALM	0.65	5.66
205	420	37115.24	6.183	PUNGAM	0.90	7.16	205	454	39377.95	4.651	PALM	1.05	14.66
206	421	37116.25	8.327	PALM	1.20	6.99	206	455	39388.00	4.4	PALM	1.00	6.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
207	427	37222.10	6.555	NEEM	0.70	9.99	207	458	39403.00	5	PALM	1.00	6.66
208	428	37225.04	7.994	PALM	1.20	9.99	208	463	39417.54	3.619	PALM	1.15	7.66
209	429	37308.57	8.302	VATHAM	0.70	7.99	209	468	39432.78	5.891	PALM	1.10	14.99
210	430	37329.00	7.200	MANGO	0.75	5.66	210	470	39443.55	5.086	PALM	1.20	8.66
211	434	37548.56	8.445	NEEM	0.70	9.99	211	471	39442.93	3.94	PALM	1.10	7.96
212	438	37895.59	10.813	COCONUT	0.95	10.99	212	474	39455.67	4.796	PALM	1.20	4.66
213	439	39738.90	11.902	NEEM	0.80	8.99	213	480	39480.04	4.486	TAMARIND	2.70	12.99
214	444	38638.00	9.600	ASPATHI	1.31	13.99	214	484	39512.00	6	PALM	1.00	14.36
215	445	38641.14	8.955	ASPATHI	0.70	13.99	215	487	39550.00	6	PALM	0.90	6.99
216	446	38645.00	9.600	ASPATHI	2.30	13.99	216	490	39570.47	6.675	EECHAM	0.95	7.66
217	447	38646.18	8.097	ASPATHI	1.40	13.99	217	491	39573.64	6.975	EECHAM	1.05	7.66
218	448	38655.29	6.947	OTHER	1.45	12.66	218	492	39574.17	7.427	EECHAM	0.90	3.69
219	449	38676.00	6.800	NEEM	1.10	11.99	219	494	39582.11	6.75	NEEM	0.68	5.66
220	456	38379.00	7.200	PALM	0.65	14.66	220	496	39592.79	7.624	PALM	1.10	7.36
221	457	39405.03	8.518	PALM	0.80	7.99	221	498	39621.85	6.404	PALM	0.70	5.16
222	459	39407.67	7.355	NEEM	1.10	7.99	222	499	39625.00	5.5	NEEM	1.20	9.99
223	460	39408.48	8.495	PALM	1.00	8.04	223	500	39626.00	5.6	NEEM	0.75	6.66
224	461	39418.27	8.133	PALM	0.60	7.66	224	501	39628.09	6.465	NAVAL	2.40	10.99
225	462	39422.49	7.995	NEEM	0.70	8.66	225	502	39639.00	5.8	PALM	1.15	6.66
226	464	39420.00	7.500	PALM	1.20	13.16	226	503	39640.00	5.9	PALM	1.20	5.99
227	465	39430.71	6.742	EECHAM	0.10	7.66	227	504	39651.86	4.982	PALM	0.75	14.16
228	466	39431.19	7.838	PALM	0.75	6.99	228	505	39666.00	5.2	PALM	0.80	14.69
229	467	39432.41	7.255	PALM	1.15	7.16	229	506	39667.00	5	NEEM	1.20	13.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
230	469	39437.85	8.245	PALM	1.15	6.66	230	507	39670.00	5.4	PALM	1.10	9.99
231	472	39447.82	7.181	PALM	1.10	7.66	231	510	39689.86	8.005	NEEM	1.00	8.99
232	473	39455.00	7.400	PALM	0.80	14.16	232	515	39808.00	7.3	PUNGAM	0.70	4.99
233	475	39468.32	7.208	PALM	1.00	12.99	233	516	39817.82	7.595	PUNGAM	0.70	4.66
234	476	39469.45	7.341	EECHAM	0.80	7.66	234	517	39844.60	6.991	TAMARIND	1.60	13.66
235	477	39470.94	6.959	PALM	0.90	7.66	235	553	40372.54	7.395	PUNGAM	1.05	6.99
236	478	39473.99	5.151	PALM	1.15	14.99	236	554	40382.01	7.989	PUNGAM	1.00	6.99
237	479	39476.73	6.101	PALM	1.20	14.99	237	558	40412.25	8.709	PUNGAM	0.75	5.66
238	481	39490.00	3.500	PALM	0.90	14.66	238	565	41468.00	1	OTHER	0.80	5.99
239	482	39492.00	3.500	PALM	1.00	14.16	239	566	41485.73	3.695	TAMARIND	2.50	12.99
240	483	39500.19	5.042	PALM	0.95	13.16	240	568	41512.89	7.829	TAMARIND	1.80	9.16
241	485	39533.00	5.680	PALM	1.25	14.36	241	570	41528.19	8.882	TAMARIND	1.56	9.09
242	486	39535.58	6.617	NEEM	1.00	12.99	242	571	41537.21	8.553	TAMARIND	2.68	12.16
243	488	39553.04	4.458	NEEM	1.20	5.99	243	572	41548.17	8.558	TAMARIND	1.94	9.99
244	489	39568.23	5.635	PALM	0.85	12.99	244	573	41558.48	8.478	TAMARIND	1.80	11.16
245	493	39573.24	5.289	PALM	1.30	6.66	245	575	41567.16	8.948	TAMARIND	1.63	11.99
246	495	39583.48	5.618	PALM	1.15	14.39	246	576	41573.91	8.989	TAMARIND	2.08	11.99
247	497	39607.75	4.729	PALM	1.20	14.39	247	578	41606.25	8.447	TAMARIND	2.30	12.16
248	508	39677.24	4.680	PALM	1.25	6.97	248	579	41615.00	11.2	OTHER	0.73	5.66
249	509	39684.61	4.535	PALM	1.15	6.16	249	580	41629.08	10.158	OTHER	0.68	4.99
250	511	39710.44	6.324	PALM	1.10	6.99	250	581	41638.50	10.199	OTHER	0.63	4.99
251	512	39718.91	5.628	PALM	1.50	12.99	251	582	41647.13	10.315	OTHER	0.70	5.16
252	513	39717.64	9.040	PALM	1.15	14.16	252	584	41655.82	10.488	OTHER	0.46	4.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
253	514	39722.99	10.965	COCONUT	1.10	12.99	253	585	41675.39	8.601	TAMARIND	1.65	11.66
254	518	39873.98	8.058	PUNGAM	1.90	11.66	254	587	41665.00	9.2	TAMARIND	2.40	11.99
255	519	39883.78	4.328	ARASAM	2.50	5.99	255	588	41667.00	8.5	TAMARIND	1.56	9.99
256	520	39939.78	7.397	COCONUT	0.95	12.99	256	589	41714.77	8.02	TAMARIND	1.80	8.99
257	521	39944.44	5.978	COCONUT	0.90	9.66	257	591	41725.32	8.32	TAMARIND	1.76	8.99
258	522	39945.33	8.121	OTHER	1.50	13.16	258	592	41734.96	7.962	TAMARIND	1.60	8.99
259	523	39954.11	4.080	TAMARIND	3.70	13.99	259	593	41747.45	7.549	TAMARIND	2.05	8.99
260	524	39953.64	1.521	PALM	1.00	12.96	260	594	41757.19	7.615	TAMARIND	3.25	9.16
261	525	39989.38	5.363	OTHER	0.80	12.99	261	596	41765.47	7.477	TAMARIND	2.30	9.16
262	526	39939.00	6.500	PUNGAM	1.25	12.66	262	597	41783.00	11	TAMARIND	0.76	6.66
263	527	39934.38	5.487	PUNGAM	1.50	12.66	263	600	41815.73	7.99	TAMARIND	3.10	11.66
264	528	40012.00	6.500	TAMARIND	1.70	12.99	264	602	41834.29	7.921	TAMARIND	1.70	6.16
265	529	40017.65	5.019	TAMARIND	2.00	12.99	265	604	41843.01	8.329	TAMARIND	3.10	9.99
266	530	40034.98	5.850	TAMARIND	1.10	13.39	266	605	41850.70	11.757	PALM	1.32	4.99
267	531	40049.15	5.113	TAMARIND	1.40	11.66	267	606	41855.82	10.902	PALM	1.02	5.66
268	532	40055.53	5.688	TAMARIND	1.80	13.16	268	608	41859.10	10.73	PALM	1.50	4.99
269	533	40063.29	5.647	TAMARIND	1.75	13.16	269	606	41861.22	10.997	PALM	1.40	4.99
270	534	40068.43	5.769	TAMARIND	1.60	13.16	270	610	41863.49	11.341	PALM	1.15	5.66
271	535	40074.01	6.016	TAMARIND	1.30	12.99	271	611	41866.57	10.869	PALM	0.95	5.66
272	536	40081.51	5.987	TAMARIND	1.80	12.99	272	612	41867.86	11.174	PALM	0.95	5.76
273	537	40087.53	5.695	TAMARIND	1.30	11.96	273	613	41869.75	11.071	PALM	1.20	5.76
274	538	40097.45	5.394	TAMARIND	2.00	12.66	274	614	41872.21	10.742	PALM	1.10	5.76
275	539	40101.92	5.615	TAMARIND	1.35	11.99	275	616	41885.88	9.645	PALM	1.22	5.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
276	540	40130.00	6.200	TAMARIND	2.10	12.99	276	617	41896.60	8.682	PALM	0.85	5.39
277	541	40159.18	6.561	TAMARIND	1.25	9.99	277	618	41898.54	9.274	PALM	0.86	4.76
278	542	40167.73	6.176	TAMARIND	1.25	9.99	278	619	41907.57	8.053	NEEM	1.20	8.99
279	543	40171.58	6.708	TAMARIND	1.20	12.66	279	621	41920.90	7.772	PALM	1.05	5.99
280	544	40175.49	6.947	TAMARIND	1.45	12.99	280	622	41927.97	8.179	PALM	1.08	5.16
281	545	40180.44	6.875	TAMARIND	1.30	12.99	281	623	41941.29	8.489	TAMARIND	2.70	11.99
282	546	40187.62	6.711	TAMARIND	1.10	9.16	282	628	41967.83	9.408	TAMARIND	3.25	12.39
283	547	40194.85	6.234	TAMARIND	2.00	13.66	283	632	41981.71	9.262	TAMARIND	4.46	12.39
284	548	40198.22	6.320	TAMARIND	1.15	12.69	284	635	42003.80	9.329	PALM	0.72	5.66
285	549	40202.31	6.017	TAMARIND	1.50	12.16	285	638	42077.00	11	TAMARIND	4.10	12.69
286	550	40216.55	6.090	TAMARIND	2.10	12.68	286	639	42129.25	11.381	TAMARIND	3.60	13.16
287	551	40264.00	6.500	TAMARIND	2.15	12.99	287	640	42132.72	0.436	TAMARIND	3.63	13.16
288	552	40269.55	6.920	TAMARIND	3.05	13.39	288	641	42194.78	8.45	TAMARIND	3.96	13.16
289	555	40400.79	7.141	PALM	0.68	5.99	289	643	42214.90	7.338	TAMARIND	3.70	13.16
290	556	40403.78	8.493	PALM	0.70	5.99	290	645	42239.66	5.947	TAMARIND	4.60	13.16
291	557	40408.28	7.784	PALM	0.65	6.99	291	646	42252.22	5.447	TAMARIND	1.65	12.16
292	559	40591.35	11.261	PUNGAM	1.70	8.99	292	649	42278.00	4.988	TAMARIND	2.00	12.66
293	560	40586.03	10.923	PUNGAM	1.70	4.99	293	651	42287.54	4.885	TAMARIND	2.08	12.66
294	561	40715.49	10.345	PUNGAM	1.50	8.99	294	654	42320.84	5.015	TAMARIND	2.42	13.99
295	562	40840.58	7.651	PALM	1.00	2.66	295	656	42330.34	5.14	TAMARIND	2.50	13.16
296	563	40849.14	7.148	EECHAM	1.05	12.99	296	658	42340.79	4.981	TAMARIND	2.37	13.16
297	564	40850.68	7.074	PALM	1.10	14.99	297	660	42358.72	5.095	TAMARIND	2.35	13.16
298	567	41506.63	5.487	TAMARIND	2.50	11.66	298	663	42377.30	5.079	TAMARIND	2.37	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
299	569	41521.74	4.637	TAMARIND	2.15	11.66	299	664	42387.59	5.244	TAMARIND	2.50	13.16
300	574	41561.32	3.717	TAMARIND	2.92	11.99	300	666	42396.77	5.158	TAMARIND	2.40	13.16
301	577	41591.93	2.841	TAMARIND	3.18	12.16	301	671	42436.00	4.7	TAMARIND	2.70	13.16
302	583	41654.48	4.036	TAMARIND	2.53	12.16	302	674	42454.73	4.708	TAMARIND	2.45	13.16
303	586	41664.00	3.300	TAMARIND	2.50	11.99	303	677	42474.28	4.067	TAMARIND	3.00	13.16
304	590	41722.50	2.997	TAMARIND	2.05	8.66	304	678	42492.65	4.367	TAMARIND	2.60	12.99
305	595	41760.00	3.000	TAMARIND	1.85	8.99	305	679	42501.08	3.877	TAMARIND	2.22	13.39
306	598	41797.15	3.325	TAMARIND	2.20	11.66	306	681	42510.20	4.677	TAMARIND	3.95	13.39
307	599	41809.11	3.200	TAMARIND	1.60	8.66	307	684	42537.46	3.953	TAMARIND	3.40	13.66
308	601	41818.03	3.171	TAMARIND	1.13	7.66	308	685	42546.00	2.608	TAMARIND	3.05	13.66
309	603	41837.32	3.028	TAMARIND	1.75	7.66	309	690	42597.25	4.252	TAMARIND	2.40	13.16
310	607	41856.40	2.921	TAMARIND	1.82	6.99	310	693	42615.06	3.065	TAMARIND	2.00	13.16
311	615	41877.25	3.028	TAMARIND	3.80	11.99	311	698	42650.17	4.123	TAMARIND	2.35	13.09
312	620	41912.64	2.574	TAMARIND	5.60	12.16	312	699	42658.48	2.278	TAMARIND	2.45	13.09
313	624	41950.00	2.965	TAMARIND	1.55	10.16	313	701	42675.73	3.917	TAMARIND	2.80	11.66
314	625	41948.00	2.000	EECHAM	0.73	6.67	314	702	42674.46	5.758	TAMARIND	2.40	11.66
315	626	41951.17	6.500	PALM	0.83	6.66	315	704	42695.00	4.6	TAMARIND	2.10	9.99
316	627	41956.96	2.912	PALM	1.00	5.16	316	705	42699.08	4.194	PALM	3.95	13.16
317	629	41976.39	6.000	PALM	0.75	5.66	317	706	42715.00	4.4	TAMARIND	2.40	12.99
318	630	41977.00	6.000	PALM	1.10	5.39	318	709	42739.00	5.3	OTHER	0.75	7.66
319	631	41975.00	3.087	PALM	0.82	5.66	319	710	42745.00	7.2	NEEM	0.90	8.89
320	633	41984.00	6.000	PALM	1.30	4.99	320	714	42775.00	4.3	TAMARIND	2.30	12.99
321	634	42000.27	1.931	PALM	1.15	13.66	321	716	42787.82	3.81	TAMARIND	3.00	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
322	636	42018.08	1.758	TAMARIND	3.90	13.39	322	719	42802.00	4.3	OTHER	0.55	9.16
323	637	42032.88	1.113	TAMARIND	3.40	13.39	323	720	42822.00	4	OTHER	0.60	9.16
324	642	42202.94	3.261	TAMARIND	2.00	12.99	324	722	42831.60	4.876	TAMARIND	2.40	12.16
325	644	42239.64	5.204	TAMARIND	4.80	13.16	325	724	42851.91	5.032	TAMARIND	2.45	8.99
326	647	42250.74	6.642	TAMARIND	2.00	13.16	326	725	42879.00	3.6	TAMARIND	2.70	13.16
327	648	42260.11	5.984	TAMARIND	3.65	12.99	327	729	42955.23	7.351	TAMARIND	3.30	12.99
328	650	42281.17	5.856	TAMARIND	2.90	11.66	328	732	42978.00	6.5	TAMARIND	2.55	12.99
329	652	42290.77	5.587	TAMARIND	2.25	12.99	329	733	42985.71	6.928	TAMARIND	2.00	11.66
330	653	42310.16	6.097	TAMARIND	2.10	11.99	330	735	42992.19	7.223	TAMARIND	1.75	11.66
331	657	42332.71	6.562	TAMARIND	3.00	12.99	331	736	43000.46	6.063	TAMARIND	1.60	10.16
332	659	42351.71	6.451	TAMARIND	3.35	13.16	332	737	43008.36	7.466	TAMARIND	2.30	11.99
333	661	42361.53	5.755	TAMARIND	2.45	12.99	333	739	43012.00	7.2	TAMARIND	2.20	10.16
334	662	42371.24	6.502	TAMARIND	2.70	12.99	334	741	43038.13	9.584	TAMARIND	1.65	8.99
335	665	42388.72	6.071	TAMARIND	2.00	12.99	335	743	43051.98	9.638	TAMARIND	2.59	11.66
336	667	42408.34	5.991	TAMARIND	2.20	12.69	336	745	43067.82	8.861	TAMARIND	3.00	12.66
337	668	42418.00	5.400	TAMARIND	2.50	12.69	337	747	43085.41	8.846	TAMARIND	3.00	10.66
338	669	42426.90	6.280	TAMARIND	2.15	12.99	338	748	43112.30	9.286	TAMARIND	3.10	10.66
339	670	42437.02	6.704	TAMARIND	2.05	12.69	339	749	43130.83	10.024	TAMARIND	2.35	10.66
340	672	42442.04	5.246	TAMARIND	0.76	13.99	340	750	43140.84	10.729	TAMARIND	2.20	10.66
341	673	42454.50	6.935	TAMARIND	2.20	13.66	341	751	43146.02	10.124	TAMARIND	2.75	11.99
342	675	42464.02	6.869	TAMARIND	2.45	13.66	342	753	43154.64	10.109	TAMARIND	2.75	11.66
343	676	42473.76	7.024	TAMARIND	2.55	12.99	343	754	43193.53	10.571	TAMARIND	3.35	12.99
344	680	42501.80	7.011	TAMARIND	3.40	13.16	344	755	43231.00	9.8	TAMARIND	2.75	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
345	682	42521.01	7.562	TAMARIND	2.75	12.99	345	79	43302.16	8.553	TAMARIND	3.00	12.99
346	683	42530.35	7.075	TAMARIND	2.70	12.99	346	760	43319.34	8.005	TAMARIND	2.20	12.99
347	686	42558.33	7.520	TAMARIND	4.30	13.69	347	761	43329.05	8.386	TAMARIND	2.00	13.16
348	687	42566.89	7.016	TAMARIND	2.80	13.16	348	763	43339.32	7.295	TAMARIND	3.70	13.16
349	688	42576.50	6.838	TAMARIND	3.60	13.16	349	764	43358.23	6.937	TAMARIND	3.15	13.16
350	689	42595.06	6.587	TAMARIND	2.50	13.16	350	767	43373.89	7.615	TAMARIND	3.00	11.99
351	691	42606.26	6.401	TAMARIND	3.40	13.66	351	768	43386.47	7.61	OTHER	0.90	11.66
352	692	42614.70	6.099	TAMARIND	2.30	13.16	352	770	43431.41	7.778	TAMARIND	5.00	12.99
353	694	42632.61	5.942	TAMARIND	2.45	13.66	353	771	43439.89	7.522	TAMARIND	2.90	12.16
354	695	42631.00	6.800	TAMARIND	2.85	13.66	354	772	43448.04	7.039	TAMARIND	4.50	12.99
355	696	42638.00	6.300	TAMARIND	1.30	13.16	355	773	43485.00	8.5	OTHER	1.05	5.69
356	697	42650.00	6.400	TAMARIND	2.00	13.16	356	776	43506.56	5.56	TAMARIND	1.60	11.66
357	700	42659.00	6.400	TAMARIND	2.45	13.16	357	777	43514.61	5.782	TAMARIND	2.75	12.99
358	703	42683.00	6.500	TAMARIND	3.10	12.99	358	778	43531.10	7.555	TAMARIND	3.35	13.16
359	707	42731.88	8.637	TAMARIND	2.30	13.16	359	779	43551.10	9.65	BANYAN	8.45	13.99
360	708	42739.00	7.800	TAMARIND	3.70	13.99	360	780	43563.47	5.592	TAMARIND	4.30	13.16
361	711	42744.52	9.584	TAMARIND	2.10	12.99	361	781	43972.00	5.2	OTHER	0.87	6.16
362	712	42755.36	9.445	TAMARIND	2.60	11.66	362	782	43946.94	6.378	OTHER	1.20	6.39
363	713	42776.75	8.927	TAMARIND	2.00	11.16	363	783	43661.28	7.186	OTHER	1.10	5.36
364	715	42781.99	9.803	TAMARIND	1.50	8.66	364	784	43675.90	7.483	OTHER	0.99	5.36
365	717	42788.00	7.000	TAMARIND	2.50	12.16	365	785	43831.95	1.018	OTHER	4.80	13.69
366	718	42796.09	9.001	TAMARIND	2.90	12.66	366	786	43846.46	1.954	TAMARIND	4.50	13.16
367	721	42824.99	8.307	TAMARIND	2.90	13.16	367	787	43862.00	3	TAMARIND	2.95	13.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
368	723	42840.31	8.399	TAMARIND	3.70	13.39	368	788	43869.00	3.3	TAMARIND	3.20	13.16
369	726	42888.92	7.153	TAMARIND	4.40	13.69	369	787	43879.95	3.16	TAMARIND	3.60	13.16
370	727	42920.97	6.071	TAMARIND	3.20	13.16	370	790	43884.73	4.576	TAMARIND	1.80	12.99
371	728	42936.28	7.386	TAMARIND	3.20	12.66	371	791	43898.00	6.5	TAMARIND	2.95	13.16
372	730	42960.23	4.618	TAMARIND	2.00	9.16	372	793	43928.00	4.5	ARASAM	3.50	13.99
373	731	42972.31	4.884	TAMARIND	1.85	8.99	373	795	43929.00	4.2	PALM	1.20	12.99
374	734	42991.36	4.551	TAMARIND	3.55	12.99	374	796	43931.00	5	PUNGAM	1.70	12.69
375	738	43013.34	5.414	TAMARIND	2.30	12.99	375	797	43934.85	7.352	PUNGAM	1.40	12.69
376	740	43020.00	3.600	TAMARIND	2.45	11.66	376	798	43936.74	4.829	ARASAM	3.20	13.99
377	742	43043.79	4.941	TAMARIND	1.85	7.99	377	800	43987.63	7.255	NEEM	3.98	13.69
378	744	43054.85	5.146	TAMARIND	2.10	8.99	378	801	43997.00	7.3	PALM	1.30	13.39
379	746	43076.46	4.914	TAMARIND	4.40	13.16	379	802	44002.19	7.767	PALM	1.30	13.39
380	752	43149.01	3.956	TAMARIND	3.70	13.16	380	803	44003.12	7.506	PALM	1.30	13.39
381	756	43255.00	3.200	TAMARIND	3.40	12.99	381	804	44004.68	7.281	PALM	1.20	13.39
382	757	43268.46	4.015	TAMARIND	2.95	10.99	382	805	44004.85	5.998	NEEM	4.20	13.39
383	758	43292.21	4.156	TAMARIND	3.10	11.99	383	806	44007.53	7.095	PALM	1.30	13.39
384	762	43328.47	5.078	TAMARIND	2.60	12.69	384	809	44071.78	7.075	NEEM	3.40	13.16
385	765	43357.57	3.823	TAMARIND	2.70	13.16	385	811	44120.00	7.2	NEEM	3.30	13.16
386	766	43367.60	3.644	TAMARIND	2.70	12.99	386	812	44141.02	8.995	TAMARIND	4.50	13.39
387	769	43412.26	6.820	TAMARIND	3.25	13.99	387	814	44192.23	10.756	TAMARIND	2.90	12.99
388	774	43486.00	6.800	TAMARIND	0.90	7.16	388	815	44270.29	8.02	TAMARIND	3.80	13.19
389	775	43502.10	3.316	TAMARIND	2.90	13.16	389	818	44326.51	7.81	NEEM	1.10	8.99
390	792	43915.00	5.450	TAMARIND	4.10	13.69	390	819	44338.06	7.77	NEEM	1.50	9.76

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
391	794	43934.26	4.176	COCONUT	1.20	12.99	391	822	44353.64	7.899	TAMARIND	2.60	9.89
392	799	43954.40	3.566	ARASAM	6.00	14.39	392	823	44379.49	7.102	TAMARIND	2.80	11.99
393	807	44019.36	4.629	PALM	1.20	12.99	393	825	44408.73	8.505	TAMARIND	2.80	12.99
394	808	44027.92	3.487	NEEM	3.60	13.69	394	827	44442.00	11	TAMARIND	2.50	7.99
395	810	44115.00	1.600	NEEM	3.20	13.39	395	828	44472.05	8.892	ILUBAI	2.20	9.99
396	813	44170.38	5.846	PALM	1.30	14.16	396	830	44503.62	11.128	TAMARIND	3.70	13.16
397	816	44304.93	3.276	PALM	1.20	13.99	397	831	44512.47	10.741	TAMARIND	2.95	13.16
398	817	44326.01	2.651	NEEM	3.10	13.39	398	834	44575.91	2.17	TAMARIND	3.30	13.66
399	820	44347.64	4.143	PALM	0.99	13.99	399	835	44595.91	2.023	TAMARIND	3.60	13.66
400	821	44345.37	4.566	PALM	1.20	14.69	400	836	44603.07	10.244	TAMARIND	2.90	12.99
401	824	44390.00	0.100	TAMARIND	2.95	12.99	401	837	44618.82	9.807	TAMARIND	2.80	12.99
402	826	44421.34	0.244	TAMARIND	2.90	12.99	402	838	44619.40	10.282	TAMARIND	2.29	12.99
403	829	44496.99	0.558	TAMARIND	2.40	12.99	403	839	44621.93	1.321	TAMARIND	2.95	12.99
404	832	44519.26	0.108	TAMARIND	2.95	11.69	404	840	44631.00	1.3	TAMARIND	3.40	11.66
405	833	44539.30	0.376	TAMARIND	3.90	11.69	405	841	44649.42	9.654	TAMARIND	2.20	11.69
406	845	44685.18	4.055	TAMARIND	2.75	11.69	406	842	44664.94	10.314	TAMARIND	2.40	11.69
407	849	44711.97	10.008	PALM	1.65	6.99	407	843	44671.61	9.482	TAMARIND	2.35	11.69
408	850	44713.00	10.000	PALM	1.80	7.39	408	844	44678.63	8.835	EECHAM	1.10	11.39
409	856	44954.31	6.163	TAMARIND	4.10	13.16	409	846	44686.63	7.762	TAMARIND	2.60	12.39
410	857	44967.55	7.539	PALM	1.40	7.99	410	847	44731.12	7.835	OTHER	1.70	12.36
411	859	44981.23	6.259	TAMARIND	1.95	8.69	411	848	44811.24	6.48	OTHER	1.70	12.36
412	860	45031.00	7.434	TAMARIND	3.20	13.16	412	851	44823.75	7.141	OTHER	2.00	12.36
413	862	45103.49	7.414	PALM	0.90	7.99	413	852	44845.02	6.931	TAMARIND	2.40	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
414	864	45128.39	10.327	PALM	1.20	8.99	414	853	44854.83	5.544	TAMARIND	2.35	12.99
415	871	45271.24	7.525	PALM	1.30	8.99	415	854	44885.00	7	OTHER	0.90	8.99
416	872	45304.29	8.150	PALM	1.45	9.39	416	855	44904.00	7	OTHER	0.85	8.99
417	875	45439.35	6.778	TAMARIND	3.10	13.16	417	858	44973.89	6.172	TAMARIND	3.95	13.16
418	877	45455.08	5.247	TAMARIND	2.20	13.39	418	861	45035.31	4.88	TAMARIND	2.95	13.16
419	879	45459.00	5.300	TAMARIND	2.70	13.34	419	863	45121.77	5.158	TAMARIND	2.70	13.16
420	880	45464.99	4.301	TAMARIND	2.30	13.66	420	865	45131.66	4.684	TAMARIND	2.50	13.16
421	884	45547.30	7.229	PALM	1.25	9.39	421	866	45138.58	6.146	TAMARIND	2.35	12.99
422	891	45566.00	6.000	PALM	1.20	6.66	422	867	45155.37	5.392	TAMARIND	3.50	13.16
423	892	45570.00	6.000	PALM	1.30	7.39	423	868	45241.88	6.025	PALM	1.20	4.99
424	895	45577.00	6.000	PALM	1.45	8.66	424	869	45248.43	7.097	PALM	1.00	8.99
425	897	45590.00	7.200	OTHER	0.95	7.66	425	870	45252.30	6.834	EECHAM	1.00	5.16
426	905	45785.17	6.002	TAMARIND	2.10	12.99	426	873	45373.52	7.203	PALM	1.20	6.99
427	906	45793.78	5.472	TAMARIND	2.60	13.39	427	874	45381.20	8.286	PALM	1.80	7.39
428	909	45833.00	6.800	TAMARIND	2.39	13.16	428	876	45443.50	5.316	TAMARIND	2.80	13.16
429	910	45842.00	6.900	TAMARIND	2.20	9.99	429	878	45449.83	4.956	TAMARIND	3.25	13.16
430	911	45849.45	6.693	TAMARIND	1.80	9.99	430	881	45465.53	5.92	TAMARIND	2.60	12.99
431	913	45869.71	6.619	TAMARIND	2.80	10.66	431	882	45490.09	8.111	OTHER	1.25	7.69
432	916	45915.72	2.814	TAMARIND	1.60	12.99	432	883	45543.00	6	PALM	1.10	9.39
433	917	45924.41	6.202	TAMARIND	3.70	13.16	433	885	45549.69	7.574	PALM	1.55	6.99
434	918	45932.22	6.116	TAMARIND	3.85	13.16	434	886	45553.00	6	PALM	1.70	7.39
435	921	45970.31	5.780	TAMARIND	2.95	13.39	435	887	45553.00	6	PALM	1.45	7.39
436	923	45979.59	6.130	TAMARIND	2.20	12.66	436	888	45555.00	6	PALM	1.55	7.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
437	924	45986.41	6.067	TAMARIND	3.45	13.39	437	889	45556.00	6	PALM	1.30	7.16
438	926	46002.87	5.993	TAMARIND	3.20	12.99	438	890	45566.00	6	PALM	1.55	7.69
439	928	46029.34	6.723	TAMARIND	4.55	13.16	439	893	45569.08	5.818	PALM	1.40	7.69
440	930	46057.19	7.526	TAMARIND	1.80	7.99	440	894	45576.00	6	PALM	1.40	6.99
441	931	46066.74	7.878	TAMARIND	2.80	11.99	441	896	45579.05	6.295	PALM	1.45	6.99
442	933	46075.02	7.850	TAMARIND	2.30	11.99	442	898	45597.00	5.7	PALM	1.55	8.66
443	935	46083.22	9.454	TAMARIND	4.40	12.39	443	899	45598.00	5.7	PALM	1.55	8.66
444	936	46091.30	9.216	TAMARIND	2.35	8.69	444	900	45644.32	5.198	TAMARIND	3.10	13.16
445	938	46100.20	9.451	TAMARIND	2.85	8.99	445	901	45725.79	4.266	TAMARIND	4.35	13.39
446	947	46191.38	6.656	TAMARIND	1.95	13.16	446	902	45756.91	4.79	TAMARIND	1.90	8.99
447	948	46191.38	7.653	TAMARIND	2.98	13.16	447	903	45766.06	4.459	TAMARIND	2.65	9.99
448	949	46200.96	6.892	TAMARIND	3.30	13.09	448	904	45776.34	5.088	TAMARIND	2.55	12.99
449	951	46209.33	5.661	TAMARIND	3.55	12.99	449	907	45793.00	43.4	TAMARIND	2.65	13.39
450	954	46228.85	5.932	TAMARIND	3.10	12.99	450	908	45820.57	3.591	TAMARIND	2.75	12.99
451	955	46237.69	6.137	TAMARIND	1.85	12.16	451	912	45858.52	3.134	TAMARIND	2.70	12.99
452	959	46266.20	6.054	TAMARIND	2.65	12.99	452	914	45890.89	2.775	TAMARIND	3.30	13.16
453	960	46275.44	7.061	TAMARIND	2.60	12.99	453	915	45907.89	3.021	TAMARIND	2.60	13.16
454	963	46293.92	7.834	TAMARIND	2.15	12.36	454	919	45933.77	3.306	TAMARIND	3.20	13.16
455	965	46303.67	7.509	TAMARIND	2.80	12.69	455	920	45950.51	3.425	TAMARIND	3.40	12.99
456	968	46314.39	6.182	TAMARIND	3.00	12.69	456	922	45976.51	3.068	TAMARIND	2.50	12.99
457	971	46354.98	5.891	TAMARIND	3.00	12.99	457	925	45993.94	3.862	TAMARIND	2.95	12.99
458	972	46364.14	5.982	TAMARIND	2.35	12.99	458	927	46019.70	5.062	OTHER	1.35	8.99
459	973	46372.83	5.922	TAMARIND	2.05	12.99	459	929	46048.91	5.272	PALM	1.35	5.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
460	975	46382.00	5.600	TAMARIND	3.00	12.39	460	932	46036.00	5.2	TAMARIND	2.85	12.39
461	978	46454.85	5.847	TAMARIND	2.05	9.99	461	934	46067.61	4.75	TAMARIND	2.50	12.39
462	981	46472.99	5.275	TAMARIND	2.70	8.99	462	937	46095.43	4.39	TAMARIND	2.50	12.99
463	982	46489.68	5.351	TAMARIND	2.45	12.99	463	939	46103.98	4.58	TAMARIND	2.88	12.66
464	983	46499.74	4.785	TAMARIND	3.00	12.99	464	940	46114.77	4.963	TAMARIND	1.85	11.69
465	985	46509.34	5.442	TAMARIND	1.90	11.66	465	941	46123.56	5.612	TAMARIND	2.99	11.69
466	986	46518.72	4.867	TAMARIND	2.25	12.99	466	942	46146.85	5.063	TAMARIND	2.70	11.99
467	989	46535.00	3.700	TAMARIND	2.40	11.99	467	943	46165.29	5.213	TAMARIND	2.50	11.99
468	990	46555.75	4.887	TAMARIND	1.70	7.89	468	944	46173.96	5.433	TAMARIND	2.75	12.69
469	995	46592.37	4.757	TAMARIND	1.65	6.99	469	945	46183.47	5.669	TAMARIND	3.10	12.66
470	996	46603.00	4.200	TAMARIND	1.90	8.69	470	946	46191.96	5.944	TAMARIND	2.95	12.99
471	997	46610.31	5.082	TAMARIND	1.90	7.99	471	950	46201.28	5.817	TAMARIND	2.85	13.16
472	998	46618.96	5.088	TAMARIND	1.75	6.89	472	952	46210.61	6.07	TAMARIND	2.28	12.39
473	1000	46627.69	5.047	TAMARIND	1.70	9.79	473	953	46231.00	6.2	TAMARIND	3.75	13.16
474	1002	46637.20	5.106	TAMARIND	1.75	9.16	474	956	46238.86	6.34	TAMARIND	2.20	12.69
475	1005	46675.19	5.329	TAMARIND	2.30	8.99	475	957	46247.66	6.115	TAMARIND	2.60	12.69
476	1006	46680.00	4.000	TAMARIND	2.10	7.99	476	958	46266.48	6.377	TAMARIND	3.00	13.16
477	1008	46684.56	5.414	TAMARIND	1.45	6.99	477	961	46276.85	7.031	TAMARIND	2.30	12.99
478	1011	46702.27	4.757	TAMARIND	2.40	11.66	478	962	46287.02	7.235	TAMARIND	2.55	12.99
479	1012	46711.45	5.087	TAMARIND	2.30	11.66	479	964	46295.87	7.659	TAMARIND	2.80	12.99
480	1015	46756.00	3.600	TAMARIND	2.45	12.99	480	966	46306.14	8.124	TAMARIND	2.45	13.16
481	1017	46765.32	3.897	TAMARIND	2.80	11.66	481	967	46314.83	8.081	TAMARIND	2.20	12.69
482	1019	46775.71	1.440	TAMARIND	2.15	12.99	482	969	46325.74	7.804	TAMARIND	3.10	12.69

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
483	1020	46783.19	3.919	TAMARIND	3.60	13.16	483	970	46356.35	6.673	TAMARIND	2.10	12.99
484	1023	46801.90	4.357	TAMARIND	2.75	13.16	484	974	46382.27	5.288	TAMARIND	2.70	12.99
485	1024	46810.78	3.861	TAMARIND	3.45	12.99	485	976	46427.95	6.045	TAMARIND	2.90	11.66
486	1028	46828.59	4.083	TAMARIND	4.50	13.16	486	977	46455.61	7.019	TAMARIND	2.20	11.66
487	1029	46848.23	3.849	TAMARIND	2.40	13.16	487	979	46464.00	6.2	TAMARIND	1.90	9.99
488	1030	46857.47	4.122	TAMARIND	3.60	12.99	488	980	46474.47	8.049	TAMARIND	2.15	9.99
489	1036	46984.90	3.443	TAMARIND	3.05	12.99	489	984	46501.11	7.058	TAMARIND	1.95	9.69
490	1037	46991.70	1.454	TAMARIND	2.90	13.16	490	987	46529.26	6.941	TAMARIND	1.75	9.69
491	1041	47009.14	3.016	TAMARIND	4.10	13.39	491	988	46538.28	6.693	TAMARIND	1.65	9.79
492	1042	47018.61	4.021	TAMARIND	2.90	13.16	492	991	46556.95	6.984	TAMARIND	2.40	9.99
493	1045	47036.84	3.601	TAMARIND	1.75	13.09	493	992	46574.70	6.587	TAMARIND	2.75	12.99
494	1048	47064.35	3.085	TAMARIND	1.45	12.69	494	993	46583.43	6.646	TAMARIND	2.10	12.99
495	1049	47073.12	2.869	TAMARIND	3.30	12.69	495	994	46592.25	7.1	TAMARIND	3.30	12.99
496	1050	47081.56	2.682	TAMARIND	2.30	13.16	496	999	46619.52	5.678	TAMARIND	1.65	9.99
497	1051	47099.28	3.111	TAMARIND	2.60	13.16	497	1001	46628.84	5.45	TAMARIND	1.90	9.79
498	1052	47109.05	3.304	TAMARIND	2.40	13.16	498	1003	46647.55	6.071	TAMARIND	2.80	11.99
499	1055	47133.96	3.396	TAMARIND	3.00	13.09	499	1004	46656.60	5.641	TAMARIND	1.90	11.99
500	1058	47163.76	4.218	TAMARIND	3.50	13.39	500	1007	46675.15	6.277	TAMARIND	1.80	11.66
501	1061	47233.28	10.394	PALM	1.20	8.99	501	1009	46692.63	5.851	TAMARIND	2.35	11.66
502	1062	47235.05	10.908	PALM	1.45	8.99	502	1010	46701.84	6.478	TAMARIND	1.80	9.99
503	1063	47236.00	11.000	PALM	1.50	8.99	503	1013	46718.96	7.117	TAMARIND	1.90	12.99
504	1065	47241.84	10.755	PALM	1.40	8.99	504	1014	46728.53	6.741	TAMARIND	3.65	12.99
505	1066	47273.73	4.492	TAMARIND	3.15	13.16	505	1016	46756.56	7.279	TAMARIND	1.70	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
506	1068	47293.00	3.700	TAMARIND	2.30	11.99	506	1018	46765.61	7.963	TAMARIND	2.90	12.99
507	1071	47326.86	3.946	TAMARIND	2.35	12.99	507	1021	46793.74	7.423	TAMARIND	2.60	12.69
508	1076	47399.60	5.201	TAMARIND	2.10	11.99	508	1022	46802.58	6.907	TAMARIND	2.65	12.69
509	1078	47408.19	4.295	TAMARIND	1.45	12.39	509	1025	46812.00	7.3	TAMARIND	2.55	12.99
510	1080	47418.00	4.400	TAMARIND	2.10	12.39	510	1026	46820.66	7.155	TAMARIND	2.70	12.99
511	1082	47445.28	6.381	TAMARIND	2.40	11.66	511	1027	46829.42	6.792	TAMARIND	2.15	11.69
512	1083	47463.23	6.500	TAMARIND	2.30	11.66	512	1031	46859.03	6.184	TAMARIND	2.30	13.99
513	1084	47478.96	6.515	TAMARIND	3.90	12.99	513	1032	46893.57	5.908	TAMARIND	2.70	12.99
514	1085	47488.33	7.385	TAMARIND	3.00	13.16	514	1033	46856.00	7.1	TAMARIND	2.80	13.16
515	1087	47506.17	7.904	TAMARIND	2.10	12.99	515	1034	46976.00	8	TAMARIND	3.30	13.69
516	1090	47525.25	9.149	TAMARIND	2.25	12.99	516	1035	46982.69	7.751	TAMARIND	1.20	6.99
517	1091	47553.06	9.347	TAMARIND	2.40	13.16	517	1038	46991.97	7.572	TAMARIND	2.20	9.99
518	1092	47561.04	9.350	TAMARIND	2.30	13.16	518	1039	47001.14	7.185	TAMARIND	3.10	13.16
519	1093	47571.39	9.637	TAMARIND	3.90	13.16	519	1040	47010.51	7.264	TAMARIND	2.65	13.16
520	1094	47601.00	10.593	TAMARIND	2.50	12.99	520	1043	47019.69	6.829	TAMARIND	1.90	12.99
521	1098	47618.14	9.909	TAMARIND	2.60	12.69	521	1044	47027.07	6.879	TAMARIND	1.60	12.89
522	1099	47635.01	9.888	TAMARIND	2.30	12.69	522	1046	47038.46	8.469	TAMARIND	3.65	13.19
523	1103	47672.13	8.531	TAMARIND	2.65	13.16	523	1047	47064.63	8.361	TAMARIND	2.55	12.99
524	1104	47680.95	8.272	TAMARIND	2.70	13.69	524	1053	47110.00	7.2	TAMARIND	1.40	13.16
525	1105	47689.26	7.869	TAMARIND	2.50	12.99	525	1054	47118.36	7.563	TAMARIND	3.10	13.39
526	1107	47704.02	7.902	TAMARIND	2.65	12.99	526	1056	47144.35	8.463	TAMARIND	2.90	12.99
527	1109	47719.69	7.830	TAMARIND	4.20	13.16	527	1057	47163.15	7.777	TAMARIND	2.70	12.99
528	1110	47724.00	7.000	TAMARIND	2.50	13.16	528	1059	47181.41	7.731	TAMARIND	2.75	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
529	1111	47735.10	7.345	TAMARIND	2.35	12.99	529	1060	47200.00	11	NEEM	0.90	6.99
530	1113	47752.09	5.767	TAMARIND	3.20	11.66	530	1064	47237.19	7.536	TAMARIND	2.60	12.99
531	1114	47799.20	3.007	TAMARIND	3.75	13.16	531	1067	47283.63	7.179	TAMARIND	2.65	12.69
532	1116	47822.75	2.162	TAMARIND	3.15	12.99	532	1069	47299.34	6.818	TAMARIND	3.25	12.99
533	1123	47870.99	1.523	TAMARIND	2.15	13.16	533	1070	47318.03	6.564	TAMARIND	2.10	12.99
534	1125	47888.00	1.100	TAMARIND	2.40	13.16	534	1072	47337.00	6.7	TAMARIND	2.50	12.69
535	1126	47902.25	1.629	TAMARIND	2.90	12.99	535	1073	47345.99	7.086	TAMARIND	2.10	12.69
536	1127	47909.70	1.812	TAMARIND	2.50	12.99	536	1074	47363.43	6.465	TAMARIND	1.50	11.66
537	1128	47925.05	2.357	TAMARIND	1.90	8.69	537	1075	47371.60	5.979	TAMARIND	3.20	12.99
538	1131	47954.07	2.841	TAMARIND	1.90	8.99	538	1077	47399.49	5.629	TAMARIND	2.50	12.69
539	1132	47962.22	3.142	TAMARIND	1.70	9.99	539	1079	47410.00	4.6	TAMARIND	2.40	12.68
540	1134	47971.46	2.558	TAMARIND	1.80	9.99	540	1081	47430.00	7.6	OTHER	0.60	5.69
541	1135	47990.00	5.000	EECHAM	1.00	6.99	541	1086	47482.00	2.4	TAMARIND	2.70	13.39
542	1136	48005.13	1.876	TAMARIND	4.80	13.69	542	1088	47507.71	2.194	TAMARIND	2.80	12.99
543	1137	48017.56	2.253	TAMARIND	2.45	12.99	543	1089	47525.97	1.567	TAMARIND	2.38	11.66
544	1138	48025.45	2.544	TAMARIND	3.20	12.99	544	1095	47603.00	0	TAMARIND	2.10	13.16
545	1139	48056.40	6.150	PALM	1.40	5.99	545	1096	47610.00	0	TAMARIND	2.90	13.16
546	1140	48065.23	5.676	PALM	1.55	4.99	546	1097	47618.00	0	TAMARIND	2.70	13.16
547	1141	48071.34	6.295	PALM	1.40	6.39	547	1100	47645.00	0.2	TAMARIND	2.55	12.99
548	1142	48079.05	6.123	PALM	1.35	4.99	548	1101	47653.93	1.875	TAMARIND	2.60	13.16
549	1143	48081.41	6.354	PALM	1.35	4.99	549	1102	47663.22	1.74	TAMARIND	2.00	11.66
550	1144	48084.42	6.810	PALM	1.40	5.36	550	1106	47690.00	1.7	TAMARIND	2.65	13.16
551	1146	48109.07	1.824	TAMARIND	2.90	12.99	551	1108	47711.59	7.139	PALM	1.15	4.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
552	1149	48136.47	1.851	TAMARIND	3.10	13.16	552	1112	47735.61	4.775	TAMARIND	3.70	13.16
553	1152	48187.60	2.423	TAMARIND	2.40	13.16	553	1115	47806.40	7.841	TAMARIND	3.00	13.16
554	1153	48194.34	3.128	TAMARIND	2.00	13.16	554	1117	47823.80	8.22	TAMARIND	3.05	12.99
555	1154	48201.28	4.051	TAMARIND	2.00	12.39	555	1118	47838.00	7.7	TAMARIND	2.80	12.99
556	1155	48214.15	2.982	TAMARIND	3.30	13.39	556	1119	47838.93	9.257	TAMARIND	2.65	12.99
557	1156	48222.00	3.000	TAMARIND	2.20	12.99	557	1120	47854.39	9.571	TAMARIND	2.75	12.69
558	1159	48244.00	2.900	TAMARIND	2.20	12.69	558	1121	47863.40	9.449	TAMARIND	2.45	12.69
559	1161	48261.00	2.700	TAMARIND	1.90	8.99	559	1122	47871.26	9.442	TAMARIND	2.75	12.69
560	1163	48268.99	2.732	TAMARIND	2.40	9.69	560	1124	47887.02	9.18	TAMARIND	2.00	11.66
561	1164	48276.70	2.941	TAMARIND	1.90	8.99	561	1129	47936.45	8.69	TAMARIND	2.45	12.99
562	1167	48322.48	3.033	TAMARIND	3.45	12.99	562	1130	47945.34	8.57	TAMARIND	2.15	11.99
563	1170	48382.76	2.606	TAMARIND	2.40	13.16	563	1133	47972.17	8.193	TAMARIND	2.45	12.99
564	1173	48408.72	3.188	TAMARIND	2.45	13.39	564	1145	48088.86	8.452	TAMARIND	2.90	13.69
565	1176	48442.05	2.971	TAMARIND	2.00	12.99	565	1147	48114.58	7.895	TAMARIND	2.85	13.16
566	1178	48460.03	2.762	TAMARIND	3.00	12.99	566	1148	48131.14	7.481	TAMARIND	2.90	13.16
567	1180	48469.58	3.063	TAMARIND	3.10	12.39	567	1150	48175.24	10.068	OTHER	0.90	8.99
568	1181	48478.00	3.000	TAMARIND	3.60	12.99	568	1151	48168.00	10.5	OTHER	0.95	8.99
569	1184	48495.76	3.474	TAMARIND	2.30	13.16	569	1157	48228.59	7.339	TAMARIND	1.60	8.99
570	1187	48524.82	3.976	TAMARIND	3.00	12.99	570	1158	48237.39	7.679	TAMARIND	2.60	10.99
571	1190	48553.00	4.000	TAMARIND	2.90	13.16	571	1160	48252.00	7.1	TAMARIND	2.50	7.99
572	1193	48571.32	4.129	TAMARIND	3.30	13.66	572	1162	48268.44	8.19	TAMARIND	2.65	8.99
573	1194	48579.59	4.007	TAMARIND	1.55	6.99	573	1165	48285.81	8.073	TAMARIND	2.45	12.99
574	1196	48642.87	4.182	TAMARIND	4.50	12.99	574	1166	48311.88	8.488	TAMARIND	3.05	13.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
575	1198	48651.71	4.643	TAMARIND	2.90	12.99	575	1168	48354.00	11.2	OTHER	0.90	8.66
576	1200	48754.86	1.335	TAMARIND	3.30	13.39	576	1169	48375.83	7.658	TAMARIND	3.00	13.16
577	1202	48763.33	1.972	TAMARIND	3.30	12.99	577	1171	48332.00	7.3	TAMARIND	2.20	12.99
578	1204	48786.95	14.650	PALM	1.05	8.98	578	1172	48400.19	7.895	TAMARIND	2.90	13.16
579	1205	48808.70	11.035	PALM	1.05	9.39	579	1174	48426.79	8.392	TAMARIND	3.05	12.99
580	1206	48827.50	8.768	PALM	1.20	9.39	580	1175	48435.25	8.427	TAMARIND	1.90	12.99
581	1207	48832.30	8.780	PALM	1.10	9.39	581	1177	48443.80	8.686	TAMARIND	2.90	12.99
582	1210	48893.39	3.480	TAMARIND	3.40	13.16	582	1179	48462.38	8.407	TAMARIND	2.15	13.16
583	1216	48913.89	3.626	EECHAM	0.90	6.99	583	1182	48479.34	8.445	TAMARIND	2.20	13.16
584	1217	48914.97	3.642	EECHAM	0.80	6.99	584	1183	48488.99	8.328	TAMARIND	2.60	13.16
585	1218	48917.04	3.713	EECHAM	0.80	6.69	585	1185	48497.47	7.733	TAMARIND	1.90	12.99
586	1219	48938.00	7.800	PALM	0.85	9.69	586	1186	48505.89	9.633	TAMARIND	2.15	11.66
587	1220	48940.00	7.800	PALM	1.00	9.69	587	1188	48533.90	8.515	NEEM	1.75	7.89
588	1221	48941.47	6.318	PALM	1.15	10.69	588	1189	48547.99	7.985	TAMARIND	2.55	8.69
589	1222	48943.10	5.980	PALM	0.86	9.69	589	1191	48557.77	7.64	TAMARIND	2.55	11.99
590	1223	48947.09	3.303	PALM	0.90	12.99	590	1192	48571.58	7.768	TAMARIND	2.70	8.99
591	1224	48948.69	2.623	PALM	0.90	12.69	591	1195	48526.00	7	TAMARIND	2.55	11.66
592	1225	48976.79	4.338	TAMARIND	2.90	12.69	592	1197	48648.03	7.637	TAMARIND	1.90	9.99
593	1228	49040.46	4.597	PALM	1.00	13.69	593	1199	48670.34	7.156	TAMARIND	3.40	9.69
594	1229	49056.42	3.249	PALM	0.85	13.99	594	1201	48762.87	10.674	TAMARIND	2.30	9.99
595	1230	49126.74	2.887	TAMARIND	3.20	8.79	595	1203	48787.69	9.164	TAMARIND	3.05	9.99
596	1231	49145.19	4.221	TAMARIND	3.70	12.99	596	1208	48848.37	6.513	PALM	1.10	14.39
597	1232	49155.75	4.081	TAMARIND	2.00	11.66	597	1209	48850.03	6.602	EECHAM	1.30	7.19

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
598	1233	49200.24	4.309	TAMARIND	2.20	8.99	598	1211	48902.73	9.212	EECHAM	1.00	11.66
599	1235	49229.82	6.021	PALM	1.10	14.16	599	1212	48904.62	7.931	EECHAM	0.80	11.66
600	1237	49263.91	7.410	PALM	0.90	13.99	600	1213	48909.86	9.331	PALM	1.20	13.99
601	1238	49295.65	5.159	TAMARIND	2.50	13.16	601	1214	48913.25	9.209	PALM	0.84	13.69
602	1241	49311.81	4.857	TAMARIND	2.20	12.94	602	1215	48914.74	9.006	PALM	1.10	13.69
603	1242	49320.46	5.613	TAMARIND	2.85	13.39	603	1226	48987.51	8.717	PALM	1.50	5.99
604	1243	49331.36	5.322	TAMARIND	3.40	13.69	604	1227	49012.95	9.101	PALM	0.90	4.69
605	1245	49339.33	4.926	TAMARIND	2.40	13.99	605	1234	49216.39	7.449	PALM	1.10	14.36
606	1247	49349.79	4.936	TAMARIND	3.60	14.16	606	1238	49240.16	6.575	PUNGAM	1.20	6.69
607	1248	49355.44	4.952	TAMARIND	3.10	12.99	607	1239	49303.18	5.372	PUNGAM	4.50	13.16
608	1249	49358.06	2.905	PALM	0.95	14.16	608	1240	49310.83	5.578	TAMARIND	2.90	13.39
609	1250	49361.57	5.403	PALM	1.20	13.99	609	1244	49337.65	6.033	TAMARIND	3.40	13.99
610	1254	49377.50	3.833	TAMARIND	4.25	13.69	610	1246	49348.68	5.899	TAMARIND	2.80	13.99
611	1257	49394.90	6.718	PALM	0.99	13.99	611	1251	49361.97	6.15	TAMARIND	3.35	13.99
612	1258	49395.83	4.758	TAMARIND	2.20	13.69	612	1252	49370.55	6.203	TAMARIND	2.55	12.66
613	1261	49480.02	6.699	PALM	1.00	13.99	613	1253	49378.40	6.794	PALM	0.83	14.16
614	1267	49709.25	7.451	TAMARIND	2.20	13.69	614	1255	49384.41	6.314	TAMARIND	4.36	13.69
615	1268	49712.12	6.561	PALM	1.05	13.69	615	1256	49394.23	5.673	TAMARIND	3.00	13.69
616	1271	49780.04	6.417	TAMARIND	3.20	13.36	616	1259	49404.79	4.904	TAMARIND	4.20	12.99
617	1275	49892.17	6.326	PALM	0.85	13.16	617	1260	49406.84	6.087	PALM	0.96	12.69
618	1276	49899.58	6.665	PALM	0.80	12.99	618	1262	49618.79	3.325	TAMARIND	3.00	12.99
619	1277	49912.88	6.544	PALM	0.75	12.99	619	1263	49626.66	7.384	NEEM	0.65	5.69
620	1278	49945.86	6.262	NEEM	2.80	11.99	620	1264	49659.94	3.634	TAMARIND	2.00	13.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
621	1284	50002.48	6.659	ILUBAI	4.90	13.39	621	1265	49670.35	7.926	TAMARIND	2.25	12.99
622	1285	50015.27	5.904	PALM	1.10	9.89	622	1266	49663.00	3.2	TAMARIND	2.00	13.39
623	1286	50051.98	2.651	PALM	0.90	14.36	623	1269	49742.14	7.813	COCONUT	1.18	7.99
624	1287	50075.08	3.769	PUNGAM	1.30	7.86	624	1270	49770.63	2.826	TAMARIND	2.80	13.36
625	1291	50290.96	3.973	ILUBAI	2.70	13.39	625	1272	49799.43	6.621	TAMARIND	3.10	13.39
626	1284	50339.40	3.630	ILUBAI	2.65	13.19	626	1273	49835.51	8.177	OTHER	0.90	6.99
627	1295	50367.54	4.366	ILUBAI	2.65	14.66	627	1274	49878.26	7.891	OTHER	1.20	8.39
628	1296	50379.67	4.322	ILUBAI	2.50	13.29	628	1279	49977.77	4.175	NEEM	1.00	9.99
629	1297	50514.35	4.358	ILUBAI	2.15	12.99	629	1280	49982.11	4.753	pungam	0.80	5.69
630	1298	50577.00	4.700	PALM	1.10	7.69	630	1281	49983.55	3.855	ILUBAI	2.90	13.39
631	1299	50590.00	4.500	EECHAM	1.10	7.99	631	1282	49986.40	2.856	PALM	0.95	12.99
632	1300	50590.00	4.500	EECHAM	1.30	7.99	632	1283	49991.81	3.265	ILUBAI	1.45	9.96
633	1301	50607.00	4.500	ILUBAI	3.50	13.69	633	1288	50159.66	5.974	NEEM	0.75	5.66
634	1307	50740.00	2.950	ILUBAI	3.60	14.16	634	1289	50179.44	4.122	TAMARIND	3.65	13.39
635	1308	50746.75	2.408	EECHAM	1.00	11.66	635	1290	50288.81	5.536	ILUBAI	2.60	13.69
636	1309	50748.00	2.950	ILUBAI	2.95	13.99	636	1292	50309.16	5.224	PALM	0.90	12.99
637	1310	50777.00	3.500	ILUBAI	3.10	13.99	637	1293	50317.83	4.401	PUNGAM	1.35	6.38
638	1312	50869.00	3.600	EECHAM	1.20	13.16	638	1302	50623.35	6.234	ILUBAI	4.30	13.99
639	1313	50876.00	3.800	EECHAM	1.15	12.69	639	1303	50634.32	5.896	TAMARIND	3.30	13.39
640	1314	50877.00	3.800	EECHAM	1.30	12.69	640	1304	50671.69	7.482	MURUNGAI	2.75	13.16
641	1316	51012.00	6.700	PALM	1.05	5.99	641	1305	50684.16	5.478	ILUBAI	3.20	13.69
642	1320	51235.00	3.950	TAMARIND	2.25	12.69	642	1306	50695.28	4.888	ILUBAI	3.00	13.38
643	1325	51396.57	6.364	TAMARIND	3.50	12.99	643	1311	50868.32	5.661	ILUBAI	0.20	8.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
644	1329	51529.98	7.501	COCONUT	1.10	8.99	644	1315	50989.65	2.471	ILUBAI	3.90	13.16
645	1330	51532.00	7.500	COCONUT	0.95	7.69	645	1317	51195.00	7	TAMARIND	3.55	13.69
646	1331	51535.00	7.500	COCONUT	0.95	7.69	646	1318	51214.33	6.445	TAMARIND	2.90	13.16
647	1332	51536.00	7.500	COCONUT	1.00	8.99	647	1319	51224.19	5.121	TAMARIND	3.10	13.69
648	1333	51539.00	7.500	COCONUT	0.95	8.99	648	1321	51238.82	4.447	TAMARIND	2.70	13.69
649	1334	51540.98	7.603	COCONUT	0.95	9.16	649	1322	51260.25	3.892	TAMARIND	1.90	13.16
650	1335	51542.52	7.683	COCONUT	1.00	9.36	650	1323	51313.22	4.761	TAMARIND	3.40	13.69
651	1336	51546.00	7.500	COCONUT	1.15	7.64	651	1324	51383.58	3.039	TAMARIND	3.90	13.16
652	1337	53088.46	7.942	TAMARIND	3.30	13.69	652	1326	51422.04	4.604	TAMARIND	3.70	13.99
653	1338	53096.07	7.724	TAMARIND	2.82	13.36	653	1327	51494.20	4.416	TAMARIND	4.25	13.69
654	1342	53324.27	12.290	PUNGAM	2.40	11.66	654	1328	51531.49	7.023	TAMARIND	4.85	13.89
655	1344	53405.00	5.550	PUNGAM	0.95	5.69	655	1339	51165.00	4.5	PUNGAM	0.85	6.99
656	1346	53420.11	6.689	TAMARIND	2.65	13.16	656	1340	53171.00	4.6	PUNGAM	0.85	6.99
657	1347	53429.80	6.204	TAMARIND	2.45	13.16	657	1341	53176.00	4.6	PUNGAM	0.75	6.39
658	1348	53488.00	4.600	TAMARIND	3.25	12.69	658	1343	53364.46	4.991	TAMARIND	3.05	12.99
659	1354	53661.00	4.000	TAMARIND	2.45	12.69	659	1345	53411.00	7.3	PUNGAM	1.10	8.96
660	1358	53654.30	5.976	TAMARIND	2.85	13.16	660	1349	53515.61	6	TAMARIND	2.75	13.16
661	1360	53679.49	6.591	TAMARIND	2.65	12.90	661	1350	53558.00	6.8	TAMARIND	2.60	12.99
662	1361	53696.29	6.577	TAMARIND	1.35	6.99	662	1351	53569.00	6.4	TAMARIND	2.85	13.39
663	1362	53704.69	6.662	TAMARIND	2.85	12.99	663	1352	53582.00	7.3	OTHER	0.65	6.99
664	1364	53712.60	6.520	TAMARIND	2.35	11.69	664	1353	53593.00	6.3	EECHAM	0.95	6.99
665	1365	53732.00	6.600	PUNGAM	2.40	9.99	665	1355	53638.58	6.856	TAMARIND	2.65	13.16
666	1366	53738.38	6.792	TAMARIND	2.45	11.66	666	1356	53648.00	7.3	TAMARIND	1.65	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
667	1369	53747.40	6.762	TAMARIND	2.25	12.39	667	1357	53654.37	7.142	TAMARIND	2.35	12.99
668	1371	53764.98	6.686	TAMARIND	2.25	12.99	668	1359	53672.04	7.026	TAMARIND	2.75	13.16
669	1372	53780.00	6.000	TAMARIND	3.20	12.99	669	1363	53705.00	6.7	TAMARIND	1.65	13.39
670	1373	53788.00	6.000	TAMARIND	2.25	11.66	670	1367	53738.90	6.068	TAMARIND	2.20	12.99
671	1374	53798.00	6.300	TAMARIND	1.95	10.99	671	1368	53748.04	5.769	TAMARIND	2.75	13.16
672	1378	53833.38	7.664	TAMARIND	2.25	12.99	672	1370	53756.65	6.066	TAMARIND	2.75	13.16
673	1380	53842.05	7.702	TAMARIND	2.40	12.99	673	1375	53804.14	6.085	TAMARIND	2.05	8.99
674	1382	53857.17	9.975	PALM	1.10	13.99	674	1376	53818.28	6.348	TAMARIND	2.55	12.99
675	1383	53869.06	7.102	TAMARIND	3.25	12.69	675	1377	53837.00	6.3	TAMARIND	2.85	12.99
676	1384	53877.96	6.940	TAMARIND	2.50	12.69	676	1379	53844.34	6.87	TAMARIND	1.60	8.99
677	1386	53885.62	7.009	TAMARIND	2.35	12.99	677	1381	53847.00	6.5	TAMARIND	1.15	8.39
678	1387	53895.52	7.533	TAMARIND	1.25	7.98	678	1385	53882.92	5.433	TAMARIND	2.65	12.99
679	1388	53904.37	7.935	TAMARIND	2.95	12.99	679	1389	53909.00	4	PUNGAM	2.65	9.99
680	1392	53956.49	8.277	TAMARIND	2.85	13.39	680	1390	53935.00	4.1	TAMARIND	1.85	9.99
681	1395	53992.65	11.854	TAMARIND	1.70	8.99	681	1391	53950.03	5.474	TAMARIND	1.85	9.99
682	1399	54015.33	9.988	TAMARIND	2.35	13.16	682	1393	53974.15	5.425	TAMARIND	2.40	12.99
683	1400	54025.59	9.705	TAMARIND	2.10	13.16	683	1394	53983.19	5.572	TAMARIND	2.20	12.99
684	1401	54034.72	7.747	TAMARIND	1.80	12.39	684	1396	53999.44	4.948	TAMARIND	1.75	8.99
685	1402	54044.06	9.006	TAMARIND	2.95	12.39	685	1397	54007.98	5.277	TAMARIND	1.60	7.99
686	1403	54060.67	9.585	TAMARIND	1.90	7.99	686	1398	54016.13	5.196	TAMARIND	2.25	11.69
687	1405	54083.95	10.934	TAMARIND	3.25	13.69	687	1404	54076.40	8.73	TAMARIND	2.05	12.99
688	1408	54111.98	11.205	TAMARIND	2.25	12.69	688	1406	54085.46	8.867	TAMARIND	2.70	13.39
689	1410	54152.68	11.312	TAMARIND	2.20	11.68	689	1407	54103.43	8.25	TAMARIND	2.30	12.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
690	1411	54175.26	10.804	OTHER	1.95	11.99	690	1409	54127.08	7.915	TAMARIND	2.35	13.16
691	1415	54202.72	11.147	TAMARIND	1.85	12.69	691	1412	54183.00	9.8	TAMARIND	1.95	13.16
692	1420	54264.98	8.011	PUNGAM	2.05	7.99	692	1413	54193.00	10.2	TAMARIND	1.45	12.96
693	1422	54309.88	11.002	TAMARIND	2.55	12.99	693	1414	54201.00	10.6	TAMARIND	1.40	9.99
694	1426	54485.00	11.000	PUNGAM	2.05	5.16	694	1416	54217.73	9.877	TAMARIND	2.05	12.99
695	1438	54784.35	7.976	PALM	1.55	8.19	695	1417	54227.64	10.48	TAMARIND	2.70	12.99
696	1444	54810.30	9.319	PALM	1.05	8.19	696	1418	54244.33	10.029	TAMARIND	2.30	11.66
697	1446	54816.35	7.556	PALM	1.75	4.99	697	1419	54262.56	9.365	TAMARIND	2.55	12.99
698	1447	54826.20	6.762	PALM	1.65	3.99	698	1421	54297.62	9.298	TAMARIND	2.15	13.16
699	1448	54831.95	8.637	PALM	1.05	9.36	699	1423	54315.22	7.474	TAMARIND	2.55	12.99
700	1450	54851.64	6.455	PALM	1.15	8.99	700	1424	54420.00	4.5	OTHER	1.05	5.99
701	1454	54915.08	7.461	NEEM	1.85	12.69	701	1425	54457.00	4.5	OTHER	1.05	6.69
702	1455	54919.09	12.019	NEEM	1.00	11.66	702	1427	54496.19	4.075	TAMARIND	2.65	13.37
703	1456	54959.52	4.334	NEEM	1.35	9.99	703	1428	54657.73	6.119	PALM	1.05	9.39
704	1457	54984.44	4.410	NEEM	1.05	8.69	704	1429	54671.77	11.264	PALM	1.00	9.16
705	A1	55000.61	5.714	PALM	1.20	8.34	705	1430	54687.86	11.104	PALM	1.15	9.16
706	A7	55026.00	8.754	PALM	1.20	10.00	706	1431	54691.00	11.3	PALM	1.05	8.69
707	A8	55028.98	9.008	PALM	1.00	8.00	707	1432	54704.00	8.2	PALM	1.05	9.39
708	A9	55032.31	9.351	PALM	1.30	8.50	708	1433	54726.00	8.4	PALM	1.05	9.16
709	A10	55047.06	6.218	PALM	1.20	8.50	709	1434	54760.00	8.5	PALM	1.10	8.69
710	A11	55050.00	9.000	PALM	1.40	10.00	710	1435	54768.00	8.8	OTHER	0.80	7.99
711	A12	55050.00	9.500	NEEM	0.80	8.00	711	1436	54778.08	9.309	PALM	1.90	4.96
712	A13	55052.00	9.000	NEEM	0.78	8.10	712	1437	54783.04	10.971	PALM	1.35	5.09

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
713	A14	55053.00	5.500	NEEM	1.00	8.20	713	1439	54788.00	9.8	PALM	1.65	5.69
714	A15	55054.00	8.500	NEEM	0.81	8.20	714	1440	54793.76	10.887	PALM	1.45	5.69
715	A16	55056.00	6.000	NEEM	0.60	6.50	715	1441	54801.98	9.934	PALM	1.55	5.69
716	A24	55069.94	12.002	NEEM	0.80	6.50	716	1442	54803.02	10.115	PALM	1.35	5.69
717	A25	55070.95	10.007	NEEM	1.00	10.00	717	1443	54807.84	10.165	PALM	1.55	4.99
718	A29	55035.00	5.000	PALM	1.20	8.00	718	1445	54813.00	10.613	PALM	1.00	6.61
719	A33	55092.29	8.994	PALM	1.10	8.00	719	1449	54845.00	9.8	PALM	1.25	7.89
720	A34	55093.55	9.705	PALM	1.20	10.00	720	1451	54858.55	9.897	PALM	1.20	8.99
721	A38	55098.00	10.000	PALM	1.20	7.50	721	1452	54884.79	10.689	PALM	1.60	6.99
722	A39	55099.00	10.000	PALM	1.15	8.50	722	1453	54896.14	12.001	PALM	1.45	6.99
723	A40	55099.00	10.000	PALM	1.30	8.80	723	A2	55006.00	15	PALM	1.30	11.00
724	A45	55101.00	10.000	PALM	0.70	6.00	724	A3	55011.84	17.891	NEEM	1.00	13.00
725	A46	55101.00	12.000	PALM	1.30	9.00	725	A4	55011.79	18.621	PALM	1.45	10.00
726	A47	55110.00	9.000	PALM	1.00	10.00	726	A5	55020.00	12	PALM	0.90	8.00
727	A49	55119.00	10.000	PALM	1.20	7.60	727	A6	55023.00	12	PALM	1.24	8.50
728	A50	55126.00	6.000	PALM	1.10	8.00	728	A17	55057.71	16.402	PALM	1.20	12.00
729	A77	55315.00	13.000	PALM	1.10	6.40	729	A18	55059.00	10	PALM	1.30	12.00
730	A81	55322.00	8.500	PALM	1.00	8.50	730	A19	55059.00	11	PALM	1.20	12.00
731	A82	55330.10	13.497	BANYAN	5.70	16.00	731	A20	55060.00	11	PALM	1.30	12.50
732	A85	55353.00	12.000	PALM	1.80	13.00	732	A21	55061.38	14.316	PALM	1.00	8.00
733	A86	55355.00	10.000	TAMARIND	1.30	14.00	733	A22	55066.52	13.448	PALM	1.20	11.00
734	A87	55355.00	12.000	TAMARIND	1.30	14.00	734	A23	55069.42	15.095	PALM	1.20	8.50
735	A88	55356.00	8.000	OTHER	0.90	6.00	735	A26	55072.93	13.277	PALM	1.25	8.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
736	A89	55360.00	9.999	NEEM	1.00	12.00	736	A27	55075.49	13.441	PALM	1.30	9.00
737	A90	55361.00	8.997	NEEM	1.80	14.00	737	A28	55083.62	12.835	PALM	1.20	8.00
738	A91	55362.99	10	PALM	1.50	12.00	738	A30	55086.00	9.5	PALM	1.00	7.60
739	A92	55365.56	12.422	PALM	1.50	12.00	739	A31	55087.31	12.403	PALM	1.30	8.00
740	A93	55366.97	11.841	PALM	1.20	11.00	740	A32	55088.70	11.978	PALM	1.20	9.00
741	A97	55373.00	7.5	NEEM	0.88	7.00	741	A35	55094.00	9.4	PALM	1.50	9.00
742	A99	55375.00	11	NEEM	1.10	10.00	742	A36	55095.00	9.4	PALM	1.40	8.00
743	A100	55375.00	11	PALM	1.00	10.00	743	A37	55096.60	10.111	PALM	1.40	7.80
744	A101	55378.00	10	NEEM	0.90	9.40	744	A41	55098.45	10.5162	PALM	1.00	7.00
745	A102	55380.00	7	NEEM	1.00	10.00	745	A42	55099.00	10.5	PALM	1.10	8.00
746	A103	55383.00	11	NEEM	1.00	7.50	746	A43	55100.53	10.55	PALM	1.20	8.50
747	A104	55384.00	11	NEEM	1.25	11.00	747	A44	55101.04	10.677	PALM	1.10	8.40
748	A105	55386.00	6	PALM	1.20	10.50	748	A45	55114.00	14	PALM	1.20	10.00
749	A106	55387.00	6	NEEM	1.00	10.00	749	A51	55155.00	7	PALM	1.60	7.50
750	A107	55388.00	6	NEEM	0.97	10.00	750	A52	55156.00	7	PALM	1.50	7.50
751	A108	55388.00	11	NEEM	1.20	10.00	751	A53	55157.61	6.421	PALM	0.60	6.00
752	A109	55389.00	11	NEEM	0.98	9.50	752	A55	55165.70	5.421	PALM	1.10	8.00
753	A111	55390.00	9	PALM	0.97	10.00	753	A57	55212.00	3	PALM	1.10	8.20
754	A112	55390.99	9	PALM	0.99	10.00	754	A58	55219.00	3	PALM	1.10	8.00
755	A113	55390.99	10	PALM	1.00	8.00	755	A60	55225.00	4	PALM	1.00	7.95
756	A114	55392.99	7	PALM	13.00	7.70	756	A63	55227.00	3	PALM	1.20	6.00
757	A116	55394.99	8	NEEM	0.70	7.60	757	A64	55266.84	2.593	PALM	1.20	8.00
758	A117	55441.99	11	PALM	1.10	10.70	758	A65	55267.62	2.709	PALM	1.20	9.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
759	A120	55454.99	6	PALM	1.00	10.00	759	A70	55269.00	6	PALM	1.00	7.00
760	A121	55454.99	7	PALM	1.00	10.80	760	A71	55273.00	6	PALM	1.00	8.00
761	A122	55454.99	7	PALM	1.00	9.60	761	A72	55276.00	6	PALM	1.00	8.00
762	A126	55470.00	7.1	PALM	1.10	11.20	762	A73	55300.00	18	PALM	1.40	10.00
763	A129	55474.99	7	PALM	1.10	11.00	763	A78	55315.00	12	PALM	1.10	7.00
764	A130	55476.22	7.233	PALM	1.00	9.50	764	A83	55351.16	13.956	PALM	1.20	12.00
765	A133	55480.00	7.208	PALM	1.00	9.80	765	A84	55352.00	8	OTHER	0.70	6.00
766	A134	55482.72	6.885	OTHER	1.30	9.75	766	A94	55366.00	6	OTHER	1.00	8.50
767	A139	55504.99	7.7	PALM	1.20	11.00	767	A98	55373.00	1	NEEM	1.00	8.80
768	A141	55511.99	7	OTHER	1.00	8.00	768	A110	55389.00	7.5	PALM	1.00	7.80
769	A143	55511.99	9.4	PALM	1.00	11.00	769	A115	55392.37	9.835	OTHER	1.14	8.00
770	A144	55511.99	9.6	PALM	1.10	11.00	770	A118	55450.00	15	PALM	1.50	11.80
771	A145	55512.99	9.5	PALM	1.20	11.20	771	A119	55451.00	15	PALM	1.00	9.40
772	A146	55516.99	7	PALM	1.20	9.80	772	A123	55470.00	12	PALM	1.00	9.50
773	A147	55517.99	9	PALM	1.10	10.00	773	A124	55471.00	12	PALM	1.00	10.00
774	A148	55518.99	6	PALM	1.30	9.80	774	A125	55471.00	10	NEEM	1.40	12.00
775	A149	55519.98	7.001	EACHA	0.80	12.20	775	A127	55474.00	12	PALM	1.15	11.00
776	A150	55524.99	7	PALM	1.10	11.00	776	A128	55475.00	7	PALM	1.20	11.10
777	A151	55526.99	9	PALM	1.30	9.00	777	A131	55479.00	12	PALM	1.00	8.80
778	A152	55528.99	7.1	PALM	1.20	8.00	778	A132	55480.00	12	PALM	1.00	10.50
779	A153	55529.98	6.001	PALM	1.10	9.20	779	A135	55488.00	10	NEEM	1.10	11.00
780	A154	55535.33	6.974	PALM	1.00	9.00	780	A136	55492.00	10.5	PALM	1.00	10.00
781	A156	55552.00	7.2	PALM	0.97	11.50	781	A137	55492.00	11.5	PALM	1.30	9.70

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
782	A157	55553.00	7	PALM	1.00	10.00	782	A138	55507.47	9.277	PALM	1.20	9.00
783	A158	55553.00	7.2	PALM	1.10	11.30	783	A140	55510.00	9.6	PALM	1.20	9.20
784	A164	55579.98	7.801	PALM	1.00	10.50	784	A142	55513.00	9.3	PALM	1.00	9.00
785	A167	55582.98	7.007	PALM	1.10	11.10	785	A155	55551.00	8.8	PALM	1.00	8.50
786	A168	55585.00	9	OTHER	1.70	11.10	786	A159	55563.00	5	PALM	1.15	10.80
787	A169	55626.00	9	OTHER	1.20	8.00	787	A160	55564.00	5	PALM	1.00	10.00
788	A170	55628.00	8	PALM	1.10	10.00	788	A161	55568.56	4.931	EACHA	1.20	13.00
789	A178	55654.00	7	PALM	1.00	10.50	789	A162	55569.62	5.349	EACHA	1.20	13.00
790	A179	55659.59	8.924	PALM	1.30	8.50	790	A163	55575.00	6	PALM	1.20	7.00
791	A190	55677.99	10.5	PALM	1.20	12.00	791	A164	55580.00	8.5	PALM	1.30	10.80
792	A191	55679.97	10.601	PALM	1.00	10.00	792	A166	55582.13	5.563	PALM	1.00	10.00
793	A192	55680.97	10.503	PALM	1.20	12.50	793	A171	55639.14	5.741	PALM	1.10	10.10
794	A193	55683.00	10.5	PALM	1.00	10.00	794	A172	55652.00	5	PALM	1.18	8.50
795	A194	55684.00	10.3	PALM	1.10	10.00	795	A173	55652.00	8	PALM	1.00	10.50
796	A195	55685.63	11.264	PALM	1.10	12.00	796	A174	55653.00	8	PALM	1.20	8.00
797	A196	55686.57	10.195	PALM	1.20	8.00	797	A175	55653.00	5	PALM	1.20	12.00
798	A197	55688.00	10	EACHA	1.00	11.00	798	A176	55654.00	8	PALM	1.10	10.80
799	A201	55689.98	10.001	PALM	1.00	10.00	799	A177	55654.00	8	PALM	1.10	10.00
800	A204	55699.98	10.001	PALM	1.00	10.20	800	A180	55660.00	8	PALM	1.00	10.00
801	A207	55727.99	9	PALM	1.10	8.50	801	A181	55661.00	8	PALM	1.10	10.00
802	A208	55733.00	9	PALM	1.00	10.50	802	A182	55662.00	8	PALM	1.20	10.50
803	A210	55734.00	9	PALM	1.10	10.50	803	A183	55662.83	11.603	PALM	1.30	10.60
804	A211	55734.99	9	PALM	1.00	10.50	804	A184	55664.00	8	PALM	1.00	9.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
805	A212	55734.99	9	PALM	1.00	11.00	805	A185	55669.34	11.636	PALM	1.10	9.00
806	A213	55737.99	9.002	PALM	1.10	9.50	806	A186	55673.02	11.683	OTHER	0.98	9.00
807	A219	55757.90	9.048	AOLAI	11.10	17.00	807	A187	55676.00	10	PALM	1.10	15.00
808	A222	55807.99	15	OTHER	1.00	11.00	808	A188	55676.00	6	PALM	1.30	9.00
809	A227	55813.00	8	AOLAI	5.30	13.00	809	A189	55677.69	11.647	EACHA	1.00	9.00
810	A228	55815.12	8.662	PALM	1.10	9.00	810	A198	55689.00	8	PALM	0.60	7.00
811	A229	55816.00	9	PALM	1.20	10.00	811	A199	55689.00	8	PALM	0.70	8.00
812	A230	55816.00	10	PALM	1.00	10.00	812	A200	55690.00	9	PALM	0.60	7.00
813	A231	55820.00	10	PALM	1.20	10.00	813	A202	55700.52	8.974	PALM	1.10	8.50
814	A233	55821.00	10	EACHA	1.00	9.00	814	A203	55702.23	8.689	PALM	1.20	8.00
815	A234	55821.00	10.5	EACHA	1.00	9.00	815	A205	55710.31	13.253	PALM	0.80	7.00
816	A235	55822.00	10	EACHA	1.00	8.00	816	A206	55711.32	12.36	PALM	0.90	8.00
817	A236	55824.00	5	OTHER	1.60	12.50	817	A209	55733.00	7	AALAI	4.20	15.00
818	A237	55825.00	9.5	PALM	0.90	8.80	818	A214	55738.00	7	AALAI	4.00	15.00
819	A238	55827.00	10	EACHA	0.90	9.50	819	A215	55740.00	7	PALM	1.10	13.00
820	A242	55830.00	11	PALM	1.00	12.00	820	A216	55750.00	13	OTHER	0.50	8.00
821	A243	55831.00	10	PALM	1.00	11.00	821	A217	55751.00	13	OTHER	0.60	9.50
822	A244	55832.00	10.5	PALM	1.10	10.00	822	A218	55752.00	8	OTHER	0.70	9.50
823	A245	55835.00	10	PALM	1.20	9.80	823	A220	55780.00	13	MANGO	1.00	8.00
824	A246	55836.00	10	PALM	1.10	10.00	824	A221	55802.00	13.5	PALM	1.10	10.00
825	A247	55837.00	10	PALM	1.00	9.80	825	A223	55804.00	12	OTHER	1.50	10.00
826	A248	55838.00	10	PALM	1.00	9.00	826	A224	55805.00	13	PALM	1.20	10.50
827	A249	55839.00	10	PALM	1.10	8.00	827	A225	55812.00	13	OTHER	1.00	10.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
828	A251	55840.00	10	PALM	1.20	10.50	828	A226	55812.00	10	OTHER	0.60	6.50
829	A253	55841.00	10	PALM	1.20	12.00	829	A232	55813.00	7	OTHER	0.80	7.00
830	A256	55843.00	9.8	PALM	1.20	8.00	830	A239	55828.00	8	NEEM	0.90	8.50
831	A257	55844.00	10	PALM	1.10	10.80	831	A240	55829.00	8	PALM	0.95	9.50
832	A258	55845.00	11	EACHA	1.10	13.00	832	A241	55829.00	7	PALM	1.00	10.50
833	A259	55846.00	11	EACHA	1.10	9.80	833	A250	55839.00	9	PALM	1.10	10.50
834	A260	55848.00	10	PALM	1.20	7.60	834	A252	55840.00	7	OTHER	0.40	6.50
835	A264	55850.00	10	PALM	1.20	8.00	835	A254	55841.00	9	PALM	1.10	7.00
836	A265	55850.99	10	PALM	1.30	8.00	836	A255	55843.03	7.844	PALM	1.10	8.00
837	A267	55851.99	10	PALM	1.10	9.50	837	A261	55848.00	9	PALM	1.30	7.00
838	A268	55851.99	11	PALM	1.10	10.00	838	A262	55849.00	9	PALM	1.30	7.00
839	A269	55852.99	10	PALM	1.10	10.00	839	A263	55850.00	9	PALM	1.20	7.00
840	A270	55854.99	10	PALM	1.20	10.00	840	A266	55852.00	9	PALM	1.30	7.00
841	A271	55858.99	10	PALM	1.10	10.00	841	A273	55865.00	9	OTHER	1.30	9.00
842	A272	55861.99	10	PALM	1.00	8.10	842	A274	55866.00	9	PALM	1.10	8.00
843	A275	55897.00	10.3	PALM	0.90	8.30	843	A276	55895.53	7.954	PALM	0.80	8.80
844	A277	55900.00	12	PALM	1.40	8.50	844	A293	55929.00	9	MANGO	1.40	10.50
845	A278	55915.00	12.52	PALM	1.20	9.30	845	A294	55934.74	9.347	THENNAI	1.20	10.00
846	A279	55916.00	12.3	PALM	1.20	9.00	846	A314	55951.00	8	TAMARIND	1.80	11.00
847	A280	55916.00	12.5	NEEM	1.20	9.50	847	A315	55985.93	6.317	OTHER	1.50	10.00
848	A281	55917.00	12.5	PALM	1.20	11.00	848	A317	56046.00	15	PALM	1.20	10.80
849	A282	55918.00	12.4	PALM	1.20	10.80	849	A318	56047.00	14	OTHER	1.80	11.00
850	A283	55918.00	12.5	PALM	1.30	9.00	850	A319	56048.00	15	OTHER	1.00	9.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
851	A284	55919.00	12.5	PALM	1.10	10.70	851	A320	56050.00	7.5	NEEM	0.90	7.80
852	A285	55920.00	12.5	PALM	1.25	11.00	852	A321	56053.00	7	OTHER	2.90	12.00
853	A286	55921.00	12.5	PALM	1.20	11.50	853	A322	56054.00	7	EACHA	1.00	11.00
854	A287	55922.00	12.5	OTHER	1.10	9.00	854	A323	56054.84	8.971	OTHER	2.10	10.80
855	A288	55923.00	12.5	PALM	1.25	11.50	855	A324	56060.00	7.3	NEEM	2.10	8.00
856	A289	55924.00	12.5	PALM	1.30	10.80	856	A325	56062.00	7.3	OTHER	1.00	8.00
857	A290	55925.00	13	PALM	1.10	10.50	857	A326	56062.73	7.735	OTHER	0.90	8.00
858	A291	55926.00	13	PALM	1.10	10.80	858	A327	56064.00	7.8	OTHER	1.20	8.80
859	A292	55927.00	13	PALM	1.20	11.00	859	A328	56066.00	7	OTHER	0.60	7.00
860	A295	55929.69	13.039	PALM	1.10	11.00	860	A329	56066.00	8.5	PALM	1.20	8.80
861	A296	55931.00	13	PALM	1.20	9.80	861	A330	56067.00	8.5	PALM	1.10	10.80
862	A297	55932.00	13	PALM	1.20	10.80	862	A331	56098.00	7	PALM	1.40	7.00
863	A298	55933.00	13	PALM	1.20	11.00	863	A332	56098.00	11	PALM	1.10	10.50
864	A299	55934.00	13	PALM	1.18	11.00	864	A333	56099.00	8	PALM	1.20	8.00
865	A300	55935.00	13	PALM	1.20	10.80	865	A334	56100.00	11	PALM	1.20	9.80
866	A301	55936.00	12.8	PALM	1.25	11.10	866	A335	56101.00	7.5	PALM	1.10	8.00
867	A302	55936.00	13	NEEM	0.90	11.50	867	A336	56102.00	11	PALM	1.20	10.50
868	A303	55937.00	13	PALM	1.10	10.00	868	A337	56103.00	11	PALM	1.10	11.00
869	A304	55940.00	13	PALM	1.20	11.00	869	A338	56104.00	11	PALM	1.25	10.00
870	A305	55941.00	13	PALM	1.20	10.80	870	A339	56105.00	11	PALM	1.15	7.50
871	A306	55942.00	13	PALM	1.20	11.00	871	A340	56107.00	7	PALM	1.10	10.50
872	A307	55943.00	13	PALM	1.20	11.00	872	A342	56113.00	12.8	PALM	1.20	11.00
873	A308	55944.00	13	PALM	1.20	10.00	873	A343	56123.00	10	OTHER	1.00	9.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
874	A309	55945.00	13	TAMARIND	2.10	16.00	874	A344	56127.74	11.579	OTHER	1.20	10.00
875	A310	55946.00	13	TAMARIND	1.90	16.00	875	A345	56136.00	10	PALM	1.30	7.00
876	A311	55948.00	13.000	PALM	1.40	12.00	876	A346	56139.00	10	PALM	1.30	10.30
877	A312	55948.88	11.438	PALM	1.30	11.00	877	A352	56211.56	7.598	PALM	1.10	10.00
878	A313	55950.00	13.000	PALM	1.20	10.90	878	A353	56212.45	7.921	PALM	1.20	10.80
879	A341	55107.00	10.000	OTHER	1.20	9.00	879	A356	56215.96	9.122	PALM	1.10	9.00
880	A354	56207.00	7.800	THENNAI	1.10	11.00	880	A358	56224.05	4.152	PALM	0.80	8.50
881	A355	56212.99	12.100	THENNAI	1.25	10.50	881	A359	56226.53	10.307	PALM	1.30	6.50
882	A357	56213.99	12.100	THENNAI	1.15	10.50	882	A360	56228.97	11.032	PALM	1.25	8.00
883	A363	56244.99	11.000	PALM	1.30	9.00	883	A361	56231.65	11.404	PALM	1.18	10.80
884	A364	56260.00	8.500	OTHER	0.40	7.00	884	A362	56237.29	12.275	PALM	1.10	10.80
885	A404	56405.54	10.570	PALM	1.18	10.20	885	A365	56260.00	7	OTHER	0.60	7.50
886	A407	56429.94	10.002	EACHA	1.10	10.50	886	A366	56310.00	13	PALM	1.20	6.00
887	A409	56434.51	10.234	EACHA	1.00	10.80	887	A367	56310.00	13	PALM	1.20	8.00
888	A410	56438.29	9.530	EACHA	0.97	7.50	888	A368	56311.00	13	OTHER	0.40	6.00
889	A416	56500.00	12.000	NEEM	0.98	10.00	889	A369	56320.00	14	OTHER	0.90	6.00
890	A417	56510.00	12.000	OTHER	1.20	10.30	890	A370	56321.00	14	OTHER	0.90	7.00
891	A419	56548.00	18.000	NEEM	1.20	9.50	891	A371	56340.00	14.5	PALM	1.20	11.00
892	A420	56551.99	8.000	PALM	1.25	9.00	892	A372	56341.00	14.5	PALM	1.10	11.00
893	A422	56553.99	8.000	PALM	1.30	8.40	893	A373	56342.00	14.5	PALM	1.00	10.50
894	A423	56562.00	8.000	PALM	1.15	8.80	894	A374	56343.00	14.5	PALM	1.30	12.10
895	A424	56572.00	8.500	PALM	1.35	8.80	895	A375	56344.00	14	PALM	1.20	11.50
896	A425	56580.00	9.000	PALM	1.40	9.20	896	A376	56345.00	14.5	PALM	1.00	11.70

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
897	A426	56601.99	9.000	PALM	1.25	8.80	897	A377	56346.00	14.5	PALM	1.30	10.80
898	A427	56630.00	9.500	PALM	1.20	8.50	898	A378	56347.00	14.5	PALM	1.10	11.20
899	A428	56632.00	9.500	PALM	1.20	8.80	899	A379	56347.00	14.4	PALM	1.10	12.00
900	A430	56634.00	9.600	PALM	1.20	8.50	900	A380	56348.00	14.5	PALM	1.20	11.60
901	A434	56646.78	8.627	PALM	1.10	9.80	901	A381	56348.00	14.5	PALM	1.30	10.90
902	A436	56646.80	8.988	EACHA	1.00	10.00	902	A382	56349.00	14.5	PALM	1.20	11.00
903	A437	56648.99	8.500	PALM	1.20	10.30	903	A383	56349.00	14.5	NEEM	0.70	6.00
904	A438	56650.01	8.399	PALM	1.15	10.00	904	A384	56350.00	14.5	PALM	1.20	12.00
905	A439	56660.02	7.999	NEEM	0.90	8.00	905	A385	56352.00	11	EACHA	0.75	10.00
906	A441	56662.00	8.000	PALM	1.15	9.70	906	A386	56354.00	14	PALM	1.20	12.00
907	A442	56663.00	8.000	PALM	1.20	10.00	907	A387	56355.00	14	PALM	1.10	12.00
908	A444	56674.99	8.000	PALM	1.10	9.00	908	A388	56356.00	14	PALM	1.10	10.80
909	A445	56677.99	8.000	PALM	1.25	9.20	909	A389	56357.00	14	PALM	1.00	12.00
910	A446	56678.99	8.000	PALM	1.15	9.80	910	A390	56358.00	14	PALM	1.10	11.50
911	A449	56680.02	6.999	NEEM	0.80	7.80	911	A391	56359.00	14	PALM	1.50	12.00
912	A452	56685.41	9.731	NEEM	0.90	9.50	912	A392	56360.00	14	PALM	1.20	12.10
913	A453	56685.79	9.773	PALM	1.00	9.80	913	A393	56362.00	13	AALAI	1.25	10.00
914	A454	56687.76	10.701	PALM	1.25	10.50	914	A394	56363.00	14	PALM	1.18	11.70
915	A455	56690.02	7.499	NEEM	0.90	8.50	915	A395	56365.00	14	PALM	1.22	12.20
916	A459	56698.00	7.500	NEEM	0.60	7.50	916	A396	56366.00	13	AALAI	4.50	13.30
917	A460	56699.00	8.000	PALM	1.10	10.70	917	A397	56366.00	13.2	PALM	1.18	12.10
918	A461	56699.00	8.000	PALM	1.00	10.50	918	A398	56370.00	13	PALM	1.20	11.80
919	A462	56699.00	8.000	PALM	1.20	10.50	919	A399	56371.00	14	PALM	1.30	12.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
920	A463	56700.00	8.000	PALM	1.00	10.50	920	A400	56372.00	14	PALM	1.35	11.80
921	A464	56700.00	8.000	PALM	0.90	10.50	921	A401	56373.00	14	PALM	1.28	12.00
922	A465	56701.00	8.000	PALM	1.00	10.50	922	A406	56423.47	5.717	PALM	1.18	10.70
923	A466	56701.00	8.000	PALM	1.10	1.50	923	A408	56441.79	9.257	OTHER	0.80	7.70
924	A467	56701.00	8.000	NEEM	1.00	9.00	924	A412	56460.00	11	NEEM	0.85	6.50
925	A468	56702.00	8.000	PALM	1.10	10.60	925	A413	56465.00	12	NEEM	1.30	10.80
926	A469	56706.00	8.000	NEEM	0.80	9.80	926	A414	56466.00	12	NEEM	1.00	10.40
927	A470	56709.17	9.652	OTHER	1.20	10.50	927	A415	56500.00	12	PUNGAI	1.25	11.20
928	A472	56713.83	7.923	EACHA	1.00	9.00	928	A418	56526.54	5.963	OTHER	2.00	12.20
929	A473	56715.25	7.647	NEEM	1.20	11.00	929	A421	56561.00	5	AALAI	2.80	11.00
930	A475	56720.03	7.999	PALM	0.95	10.00	930	A429	56634.00	12	PALM	1.20	10.00
931	A476	56720.03	7.999	PALM	1.35	9.70	931	A431	56634.00	12	NEEM	0.80	10.00
932	A477	56721.00	8.000	NEEM	0.90	9.00	932	A432	56636.00	11	EACHA	0.90	10.00
933	A478	56726.00	7.800	NEEM	1.00	9.00	933	A433	56641.39	10.806	NEEM	1.20	10.00
934	A479	56726.00	8.000	PALM	1.10	9.20	934	A435	56648.08	7.64	PALM	1.00	10.20
935	A481	56730.03	8.199	PALM	1.20	10.50	935	A440	56662.00	7	OTHER	0.80	7.80
936	A482	56731.00	8.200	PALM	1.00	10.00	936	A443	56675.00	11	NEEM	0.90	9.50
937	A483	56732.00	8.200	PALM	1.10	9.70	937	A447	56679.00	10	NEEM	1.00	10.00
938	A484	56733.00	8.200	PALM	1.10	10.00	938	A448	56680.00	9	NEEM	0.95	9.80
939	A485	56734.00	8.200	PALM	1.20	10.20	939	A450	56683.00	9	OTHER	1.00	9.50
940	A486	56734.80	10.276	PALM	1.10	10.50	940	A451	56683.00	9.1	NEEM	0.85	9.20
941	A489	56745.00	8.600	NEEM	0.80	8.00	941	A456	56690.00	10.6	NEEM	0.95	8.50
942	A490	56746.00	7.000	OTHER	1.00	8.50	942	A457	56697.00	10	NEEM	0.90	8.50

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
943	A492	56748.00	9.000	NEEM	0.70	7.90	943	A458	56698.00	9.8	OTHER	0.80	7.50
944	A493	56748.00	9.000	NEEM	0.40	6.50	944	A471	56709.00	6	NEEM	0.70	8.00
945	A494	56750.03	8.999	PALM	1.10	9.50	945	A474	56715.00	8	OTHER	0.80	8.00
946	A496	56759.00	7.500	OTHER	1.40	10.80	946	A479	56726.32	14.42	OTHER	1.00	8.80
947	A497	56759.00	8.000	NEEM	0.80	10.50	947	A480	56729.00	8.8	PALM	1.20	8.50
948	A499	56762.00	7.700	OTHER	0.90	8.00	948	A487	56735.65	12.113	PALM	1.00	8.80
949	A500	56762.00	8.200	PALM	1.20	10.00	949	A488	56742.00	9	NEEM	0.80	8.90
950	A503	56765.00	8.300	OTHER	0.70	5.50	950	A491	56747.00	9.5	NEEM	1.20	9.50
951	A504	56766.00	8.500	PALM	1.10	9.70	951	A495	56753.18	11.189	PALM	1.10	8.00
952	A505	56770.03	8.199	NEEM	1.15	10.00	952	A498	56758.00	8	OTHER	1.20	9.00
953	A509	56775.00	8.000	NEEM	0.90	8.00	953	A501	56765.00	8	OTHER	0.90	9.00
954	A510	56776.82	9.502	NEEM	0.90	7.80	954	A502	56768.59	12.763	OTHER	0.90	8.80
955	A511	56778.00	8.300	PALM	1.00	8.00	955	A506	56770.34	6.94	NEEM	0.70	8.80
956	A512	56781.00	8.300	PALM	1.30	7.80	956	A507	56772.00	8.2	PALM	1.20	7.80
957	A514	56783.00	8.300	PALM	1.20	8.00	957	A508	56774.00	8	PALM	1.10	6.50
958	A516	56785.00	8.300	PALM	1.10	7.80	958	A513	56786.91	9.896	NEEM	0.90	8.80
959	A517	56786.00	8.400	NEEM	1.30	8.00	959	A515	56790.51	8.367	OTHER	1.00	9.00
960	A518	56795.00	8.000	PALM	1.00	10.50	960	A524	56802.00	8	PALM	11.00	8.80
961	A519	56796.00	8.000	PALM	0.90	10.80	961	A529	56806.00	8.3	NEEM	0.80	9.00
962	A520	56796.00	8.000	OTHER	0.80	7.50	962	A531	56815.00	7.5	OTHER	0.80	8.30
963	A521	56797.00	8.000	OTHER	1.30	13.50	963	A533	56817.00	8.3	PALM	1.25	8.00
964	A522	56798.00	8.000	PALM	1.00	11.00	964	A534	56817.00	8.5	NEEM	0.75	7.50
965	A523	56800.00	7.500	PALM	1.15	10.20	965	A540	56823.02	10.873	NEEM	1.00	8.30

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
966	A525	56802.00	8.000	NEEM	0.80	10.00	966	A541	56835.00	8	PALM	1.40	7.80
967	A526	56802.00	8.000	PALM	1.15	10.80	967	A542	56835.00	7.8	OTHER	0.30	8.00
968	A527	56803.00	8.000	PALM	1.20	10.50	968	A545	56838.00	8	PALM	1.25	8.00
969	A528	56805.00	8.000	PALM	1.15	10.30	969	A548	56852.00	8	PALM	1.40	8.00
970	A532	56816.00	8.000	NEEM	1.25	11.50	970	A552	56860.00	7.5	PALM	1.10	6.20
971	A535	56818.00	7.800	PALM	0.95	8.00	971	A559	56865.00	11.5	PALM	1.20	12.20
972	A536	56820.00	8.000	OTHER	0.95	10.00	972	A560	56865.00	11.5	NEEM	0.80	10.00
973	A537	56825.00	8.000	PALM	1.10	10.30	973	A561	56867.00	11.7	PALM	1.00	10.50
974	A538	56827.00	8.000	NEEM	1.00	11.80	974	A562	56868.00	11.7	NEEM	1.00	10.20
975	A539	56829.00	8.000	NEEM	0.90	8.50	975	A563	56868.00	11.7	PALM	0.80	9.80
976	A543	56836.00	8.200	PALM	1.10	8.20	976	A564	56869.00	11.7	PALM	1.10	11.00
977	A544	56837.00	8.200	OTHER	1.00	7.90	977	A565	56870.00	3.8	OTHER	0.70	7.50
978	A546	56847.00	7.728	NEEM	1.00	8.80	978	A567	56881.00	9	PALM	1.15	11.20
979	A547	56847.37	8.200	OTHER	1.70	8.80	979	A568	56882.00	9	PALM	1.20	10.50
980	A549	56853.00	8.200	NEEM	0.85	8.80	980	A569	56883.00	8.5	PALM	1.10	7.50
981	A550	56855.00	8.200	NEEM	0.80	8.70	981	A570	56884.00	8.5	PALM	1.25	9.50
982	A551	56858.98	10.436	NEEM	1.15	10.00	982	A571	56885.00	8.8	PALM	0.95	10.90
983	A553	56865.57	10.631	PALM	1.10	8.00	983	A572	56885.00	9	PALM	1.20	11.20
984	A554	56866.00	7.800	NEEM	1.00	10.50	984	A573	56886.00	9	PALM	1.10	10.70
985	A555	56866.00	7.900	PALM	1.40	10.60	985	A574	56887.00	8.8	PALM	1.15	10.90
986	A556	56867.00	7.800	NEEM	0.80	9.00	986	A575	56887.00	8.2	PALM	1.15	6.40
987	A557	56867.00	7.900	PALM	1.25	10.80	987	A576	56888.00	9	PALM	1.10	11.00
988	A558	56868.00	8.000	PALM	1.25	10.70	988	A577	56888.00	9	PALM	1.45	8.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
989	A576	56887.00	7.700	NEEM	0.90	10.50	989	A578	56889.00	13	NEEM	0.40	5.50
990	A580	56820.00	8.000	NEEM	0.70	9.00	990	A579	56889.00	13	PALM	0.90	9.50
991	A585	56895.00	8.000	PALM	0.80	9.20	991	A581	56890.00	9	NEEM	0.75	8.30
992	A586	56897.00	8.000	PALM	1.10	9.50	992	A582	56892.00	13.1	NEEM	0.90	8.30
993	A587	56898.00	8.000	PALM	1.00	10.00	993	A583	56892.00	13.1	PALM	1.30	10.60
994	A589	56902.98	11.538	NEEM	0.70	7.50	994	A584	56892.00	13.1	PALM	0.90	11.00
995	A590	56904.18	7.700	PALM	1.00	8.50	995	A588	56893.00	13.1	PALM	1.10	10.50
996	A599	56904.18	11.380	NEEM	0.80	8.60	996	A591	56900.00	13.2	PALM	1.10	11.00
997	A600	56905.00	8.000	OTHER	1.10	8.70	997	A592	56901.00	13.1	PALM	1.00	11.00
998	A601	56905.00	8.200	PALM	1.15	8.90	998	A593	56901.00	13.1	PALM	1.00	11.00
999	A602	56905.00	8.200	NEEM	0.80	8.00	999	A594	56902.00	13.2	PALM	1.15	10.00
1000	A603	56907.18	9.142	PALM	1.10	9.00	1000	A595	56903.00	13	PALM	1.20	9.00
1001	A606	56910.00	7.800	PALM	1.40	8.80	1001	A596	56904.00	13.2	NEEM	0.95	9.20
1002	A666	56970.04	8.298	NEEM	1.10	8.40	1002	A597	56905.00	13.1	PALM	1.20	10.80
1003	A672	56977.00	11.500	NEEM	0.90	9.45	1003	A598	56906.00	13.2	PALM	1.10	10.80
1004	A680	56980.04	8.998	NEEM	0.60	10.00	1004	A604	56907.00	13	PALM	1.10	10.80
1005	A677	56984.39	10.483	OTHER	0.60	7.00	1005	A605	56908.00	13.2	PALM	1.20	11.20
1006	A684	57000.04	8.498	NEEM	0.80	10.50	1006	A607	56909.00	13.1	NEEM	0.50	9.50
1007	A686	57001.14	12.739	OTHER	11.80	12.80	1007	A608	56909.00	13.3	PALM	1.20	10.50
1008	A689	57018.53	11.646	OTHER	0.80	9.00	1008	A609	56910.00	13.2	NEEM	1.20	10.00
1009	A695	57023.00	11.000	PALM	1.40	8.30	1009	A610	56911.00	13	PALM	1.20	10.70
1010	A698	57026.00	12.000	NEEM	0.80	7.80	1010	A611	56911.00	13.2	PALM	1.40	7.80
1011	A701	57026.00	10.000	OTHER	0.80	8.20	1011	A612	56912.00	13.2	PALM	1.00	8.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1012	A703	57028.00	12.000	NEEM	1.20	9.00	1012	A613	56913.00	13.2	PALM	1.10	8.00
1013	A705	57031.98	11.492	NEEM	0.95	9.00	1013	A614	56914.00	13.2	PALM	1.00	9.00
1014	A708	57035.00	10.500	NEEM	0.80	8.00	1014	A615	56915.00	13.3	NEEM	0.50	8.00
1015	A710	57040.00	12.000	PALM	0.95	7.80	1015	A616	56915.00	13.2	PALM	0.90	10.50
1016	A712	57045.00	12.000	PALM	1.50	8.40	1016	A617	56916.00	13.2	PALM	1.00	10.60
1017	A714	57048.00	12.000	PALM	1.40	7.50	1017	A618	56916.00	13.2	PALM	1.00	10.80
1018	A716	57055.64	11.094	OTHER	1.30	7.50	1018	A619	56917.00	13.2	OTHER	0.80	10.80
1019	A717	57060.05	9.998	NEEM	0.80	7.50	1019	A620	56918.00	13.1	NEEM	0.40	7.80
1020	A718	57061.06	11.493	NEEM	0.60	7.80	1020	A621	56919.06	14.4	PALM	1.20	10.80
1021	A719	57062.00	10.000	NEEM	0.50	7.40	1021	A622	56920.00	13.2	PALM	1.00	10.80
1022	A725	57075.00	10.500	NEEM	0.70	7.70	1022	A623	56921.00	13	NEEM	1.10	8.30
1023	A728	57077.00	10.500	NEEM	0.50	8.00	1023	A624	56921.00	13.1	PALM	0.90	11.00
1024	A729	57078.00	11.000	NEEM	1.00	8.20	1024	A625	56922.00	13.2	PALM	1.00	11.00
1025	A731	57092.00	11.500	PALM	1.10	9.00	1025	A626	56923.00	10	PALM	1.10	9.80
1026	A766	57242.02	7.995	PALM	1.10	8.20	1026	A627	56923.00	13.4	PALM	0.80	10.80
1027	A768	57290.02	7.999	OTHER	1.10	8.60	1027	A628	56923.00	13	PALM	1.40	10.90
1028	A769	57305.00	8.500	EECHAM	1.20	10.90	1028	A629	56924.00	13	PALM	1.10	12.20
1029	A773	57334.19	11.133	OTHER	1.00	10.50	1029	A630	56925.00	12.5	NEEM	0.60	8.20
1030	A774	57354.89	10.155	OTHER	1.90	11.60	1030	A631	56925.00	12.8	NEEM	0.80	8.00
1031	A776	57380.02	9.999	OTHER	0.80	8.80	1031	A632	56926.00	13	PALM	1.20	12.20
1032	A778	57402.00	4.708	OTHER	0.60	7.80	1032	A633	56928.00	13.1	PALM	1.00	12.00
1033	A779	57409.28	9.997	PALM	1.00	7.90	1033	A634	56929.00	13	PALM	1.10	12.50
1034	A780	57413.00	10.600	OTHER	1.20	8.00	1034	A635	56928.86	15.278	PALM	1.15	10.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1035	A781	57414.37	10.540	OTHER	1.40	8.10	1035	A636	56930.00	13.1	PALM	1.20	10.80
1036	A782	57422.00	10.400	OTHER	1.10	8.50	1036	A637	56931.00	13.1	PALM	1.10	11.80
1037	A783	57427.49	9.873	PALM	1.00	8.40	1037	A638	56932.00	13.1	PALM	1.20	11.80
1038	A784	57430.00	10.400	OTHER	1.40	8.20	1038	A639	56933.71	7.276	PALM	1.00	9.50
1039	A785	57436.52	7.690	OTHER	1.90	8.60	1039	A640	56935.00	9.246	PALM	1.10	10.00
1040	A789	57469.52	7.391	NEEM	1.20	8.10	1040	A641	56934.68	13	PALM	1.20	10.80
1041	A792	57521.00	9.600	OTHER	0.80	8.00	1041	A642	56936.00	13	PALM	1.20	11.50
1042	A796	57538.00	9.000	OTHER	0.75	7.50	1042	A643	56937.00	13	PALM	1.00	12.00
1043	A798	57554.61	7.541	NEEM	0.80	8.00	1043	A644	56938.00	13	PALM	1.00	12.00
1044	A800	57567.06	8.188	PALM	1.10	8.10	1044	A645	56939.00	13	PALM	1.10	12.00
1045	A801	57576.58	5.722	NEEM	1.10	9.50	1045	A646	56942.00	9.2	NEEM	1.00	7.50
1046	A802	57578.00	6.200	NEEM	0.60	7.80	1046	A647	56943.00	9	NEEM	1.00	8.00
1047	A803	57585.00	8.000	OTHER	0.90	8.20	1047	A648	56944.00	13	PALM	1.10	12.10
1048	A804	57585.69	8.034	OTHER	1.80	8.20	1048	A649	56945.00	13.2	PALM	1.20	12.20
1049	A807	57610.88	7.264	OTHER	1.00	8.00	1049	A650	56947.00	13.2	PALM	1.15	12.10
1050	A808	57610.99	9.002	NEEM	1.20	8.10	1050	A651	56947.00	10	OTHER	0.70	9.50
1051	A809	57625.00	7.000	NEEM	0.50	7.50	1051	A652	56948.00	13	PALM	1.00	12.00
1052	A811	57645.60	8.502	OTHER	1.70	8.10	1052	A653	56949.00	13.1	PALM	1.15	12.00
1053	A812	57653.00	9.000	NEEM	0.60	7.70	1053	A654	56950.00	13.1	PALM	1.20	12.00
1054	A814	57676.01	8.665	PALM	1.20	8.40	1054	A656	56951.00	13.1	PALM	1.10	11.90
1055	A815	57676.77	8.904	PALM	1.10	8.60	1055	A657	56952.00	10.5	OTHER	1.00	11.50
1056	A816	57679.00	8.500	PALM	1.20	8.70	1056	A658	56952.00	6	NEEM	0.50	7.80
1057	A817	57680.00	8.700	PALM	1.15	8.70	1057	A659	56954.00	13	PALM	1.00	11.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1058	A819	57681.96	8.151	PALM	1.10	9.00	1058	A660	56956.00	13.15	PALM	1.20	10.50
1059	A820	57683.00	8.600	PALM	1.20	9.00	1059	A661	56960.00	13	NEEM	0.60	8.50
1060	A821	57684.43	8.763	PALM	1.15	9.00	1060	A662	56967.00	13	PALM	1.00	10.90
1061	A822	57685.33	8.968	PALM	1.15	9.00	1061	A663	56968.00	13	PALM	1.10	12.00
1062	A823	57686.61	8.527	PALM	1.10	8.00	1062	A664	56969.00	13	PALM	0.90	10.80
1063	A824	57691.24	8.642	PALM	1.00	8.60	1063	A665	56970.00	13	NEEM	0.70	8.50
1064	A827	57693.00	8.500	PALM	1.00	9.00	1064	A667	56969.00	8	PALM	1.00	10.80
1065	A828	57694.00	8.500	PALM	0.90	7.80	1065	A668	56971.00	13	PALM	1.10	11.80
1066	A829	57695.00	8.600	TAMARIND	0.80	8.80	1066	A669	56972.00	12	NEEM	0.70	8.60
1067	A830	57696.00	8.500	PALM	1.10	9.00	1067	A670	56974.00	13	PALM	0.90	11.00
1068	A831	57696.00	8.500	PALM	1.10	9.00	1068	A671	56975.00	13	PALM	1.20	8.00
1069	A832	57697.00	8.700	PALM	0.90	8.70	1069	A673	56979.00	13.5	PALM	1.20	8.00
1070	A833	57698.00	8.500	PALM	1.20	4.50	1070	A675	56982.00	13.8	PALM	1.10	6.00
1071	A834	57699.00	8.500	PALM	1.00	8.70	1071	A676	56983.00	13.5	PALM	1.10	11.70
1072	A835	57699.00	8.500	PALM	1.30	6.50	1072	A677	56987.00	13.7	PALM	1.20	11.00
1073	A836	56999.00	13.000	PALM	1.10	8.60	1073	A678	56988.00	13.8	PALM	1.10	10.30
1074	A837	57702.00	8.500	PALM	1.10	8.50	1074	A680	56992.01	15.346	PALM	1.10	10.90
1075	A838	57704.00	8.000	PALM	1.00	8.70	1075	A681	56996.01	15.575	PALM	1.20	12.00
1076	A839	57705.00	8.000	PALM	1.00	8.50	1076	A682	56996.81	15.1	PALM	1.10	11.50
1077	A840	57706.00	8.000	PALM	1.20	8.50	1077	A683	56998.00	13.5	PALM	1.10	10.80
1078	A841	57706.78	8.218	PALM	1.00	7.80	1078	A685	57001.56	6.68	PALM	1.00	8.80
1079	A842	57709.39	8.771	PALM	1.00	8.60	1079	A686	57006.86	13.216	NEEM	0.75	8.20
1080	A843	57711.19	8.647	PALM	1.10	8.80	1080	A687	57007.93	13.285	PALM	1.10	9.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1081	A844	57712.00	8.000	PALM	1.00	8.70	1081	A688	57016.00	13	PALM	1.00	8.00
1082	A845	57714.00	8.000	PALM	1.10	8.70	1082	A690	57018.00	13	NEEM	0.80	7.80
1083	A846	57715.00	8.000	PALM	0.90	8.70	1083	A691	57020.00	13	PALM	1.10	8.20
1084	A847	57717.00	8.000	PALM	1.20	8.60	1084	A692	57022.00	12	PALM	1.20	11.50
1085	A848	57717.00	9.000	PALM	1.10	8.40	1085	A693	57023.00	12.5	NEEM	0.90	8.20
1086	A849	57719.00	9.000	PALM	1.20	8.00	1086	A694	57023.00	12.3	NEEM	0.85	8.20
1087	A850	57719.00	8.000	PALM	1.10	8.60	1087	A696	57024.00	12.5	NEEM	0.90	8.60
1088	A851	57724.21	7.028	PALM	1.30	8.00	1088	A697	57025.00	13	PALM	1.20	11.00
1089	A852	57725.39	7.430	PALM	0.90	8.00	1089	A699	57025.00	12	OTHER	0.70	10.60
1090	A853	57727.31	7.417	PALM	1.10	7.80	1090	A700	57026.00	10	OTHER	0.80	10.40
1091	A855	57729.00	8.000	PALM	1.00	7.80	1091	A702	57029.00	6.111	PALM	1.15	10.40
1092	A856	57729.65	7.168	PALM	1.20	8.20	1092	A704	57028.20	12	NEEM	0.80	8.80
1093	A857	57731.00	8.200	PALM	1.00	8.00	1093	A706	57030.00	12	PALM	1.15	11.00
1094	A858	57732.00	8.200	PALM	1.20	7.80	1094	A707	57032.00	12	PALM	1.10	11.00
1095	A859	57733.05	8.200	PALM	1.20	7.70	1095	A709	57040.00	12	PALM	1.20	11.80
1096	A860	57733.00	7.440	PALM	1.30	7.60	1096	A711	57041.00	11	NEEM	0.90	9.00
1097	A861	57747.04	7.823	PALM	1.10	8.70	1097	A713	57050.00	7.5	NEEM	0.70	8.20
1098	A863	57752.00	8.300	PALM	1.10	7.80	1098	A715	57055.00	7.6	PALM	1.20	7.80
1099	A864	57759.99	8.201	OTHER	0.80	8.10	1099	A720	57070.00	7.4	NEEM	0.90	8.90
1100	A865	57759.99	8.301	PALM	1.20	8.10	1100	A721	57072.00	8	PALM	1.10	8.20
1101	A866	57760.99	8.302	PALM	1.10	7.50	1101	A722	57074.00	7.6	PALM	1.25	9.00
1102	A867	57762.00	8.400	PALM	1.30	7.50	1102	A723	57076.00	8	NEEM	0.60	9.00
1103	A869	57769.98	9.401	PALM	1.20	9.00	1103	A724	57080.99	5.09	PALM	1.15	8.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1104	A870	57777.00	9.800	PALM	1.20	10.60	1104	A726	57075.00	8	NEEM	0.70	9.80
1105	A871	57785.00	10.500	PALM	1.10	8.10	1105	A727	57076.00	8.2	PALM	1.10	9.00
1106	A872	57789.98	10.301	PALM	1.20	8.30	1106	A730	57090.00	8	OTHER	0.90	7.50
1107	A889	57920.02	8.999	NEEM	0.60	8.50	1107	A732	57093.00	7.5	PALM	1.10	11.80
1108	A896	58095.00	11.000	OTHER	0.89	9.20	1108	A733	57095.00	4.3	PALM	1.00	7.82
1109	A898	58111.00	11.000	OTHER	1.40	9.00	1109	A734	57101.00	4.5	NEEM	0.80	8.20
1110	A902	58128.00	8.500	PALM	1.20	8.20	1110	A735	57102.00	4.4	PALM	1.00	8.20
1111	A910	58148.00	11.000	PALM	1.20	8.30	1111	A736	57104.00	4.4	NEEM	0.60	6.80
1112	A915	58168.49	10.166	PALM	0.90	8.50	1112	A737	57105.00	4.4	NEEM	0.60	6.80
1113	A916	58171.00	11.000	PALM	1.00	8.50	1113	A738	57110.00	4.5	PALM	1.25	6.00
1114	A917	58171.00	11.200	EECHAM	1.00	9.00	1114	A739	57116.00	8	PALM	1.34	11.00
1115	A918	58172.00	11.000	PALM	1.00	8.80	1115	A740	57117.00	6	PALM	1.10	11.30
1116	A919	58173.00	11.000	PALM	0.90	8.80	1116	A741	57118.00	8.2	PALM	1.20	10.00
1117	A920	58178.00	11.000	PALM	1.40	9.20	1117	A742	57131.14	0.052	PALM	1.20	8.00
1118	A921	58180.42	9.515	PALM	1.25	8.80	1118	A743	57140.00	4	PALM	1.10	7.50
1119	A926	58220.02	8.999	OTHER	0.80	8.30	1119	A744	57142.00	6	PALM	1.20	8.00
1120	A928	58224.00	11.000	PALM	1.00	8.70	1120	A745	57143.00	6	PALM	1.30	8.00
1121	A929	58227.00	11.000	NEEM	0.90	8.00	1121	A746	57144.00	4	PALM	1.30	7.50
1122	A930	58230.00	11.000	PALM	1.20	8.50	1122	A747	57144.00	4	PALM	1.20	8.50
1123	A938	58298.00	11.300	PALM	1.20	8.10	1123	A748	57144.00	4	PALM	1.30	7.50
1124	A941	58303.00	10.900	PALM	1.30	9.20	1124	A749	57145.00	5	NEEM	0.40	7.00
1125	A942	58306.00	11.000	OTHER	2.10	9.80	1125	A750	57145.00	6	PALM	1.20	9.20
1126	A943	58320.03	11.299	PALM	1.20	9.00	1126	A751	57146.00	6	NEEM	0.90	8.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1127	A944	58321.00	11.000	NEEM	0.70	8.50	1127	A752	57148.00	6	PALM	0.80	8.80
1128	A947	58357.00	8.000	PALM	1.10	8.50	1128	A753	57158.00	7	PALM	1.00	8.50
1129	A948	58380.00	10.000	PALM	1.15	9.40	1129	A754	57162.00	7.2	PALM	1.20	11.20
1130	A952	58428.00	10.000	PALM	1.20	8.50	1130	A755	57165.00	7	PALM	1.10	10.80
1131	A953	58429.00	10.000	PALM	1.00	8.50	1131	A756	57165.00	7.1	PALM	1.10	10.50
1132	A955	58432.00	10.200	PALM	1.15	8.70	1132	A757	57166.00	7.1	PALM	1.10	10.70
1133	A956	58434.00	11.000	PALM	1.30	8.70	1133	A758	57180.00	2	PALM	1.00	9.80
1134	A959	58449.00	10.000	PALM	1.40	8.10	1134	A759	57187.00	6	PALM	1.30	8.20
1135	A961	58455.00	9.500	PALM	1.35	8.10	1135	A760	57190.00	2.5	PALM	1.30	8.00
1136	A964	58458.00	9.500	PALM	1.40	8.60	1136	A761	57195.00	1	PALM	1.00	8.20
1137	A967	58465.00	9.000	PALM	1.15	8.00	1137	A762	57200.00	8	PALM	1.10	11.00
1138	A969	58480.00	9.000	PALM	1.30	8.20	1138	A763	57200.00	8	PALM	1.10	12.70
1139	A971	58506.00	6.000	PALM	1.30	6.55	1139	A764	57202.00	4	PALM	1.00	10.50
1140	A972	58508.00	5.500	PALM	1.00	8.99	1140	A765	57230.00	5	MANGO	0.80	8.00
1141	A973	58520.00	6.000	PALM	1.50	7.50	1141	A767	57297.00	1	OTHER	1.20	7.90
1142	A974	58521.00	5.670	PALM	0.70	7.29	1142	A770	57310.00	5	OTHER	2.00	7.50
1143	A980	58531.03	6.994	PALM	1.20	9.00	1143	A771	57327.00	8	OTHER	1.20	8.30
1144	A982	58542.89	6.462	PALM	1.10	3.50	1144	A772	57331.24	6.973	OTHER	1.50	8.30
1145	A985	58585.00	9.550	PALM	1.20	8.20	1145	A775	57353.45	5.806	OTHER	0.80	8.50
1146	A986	58610.04	6.998	OTHER	0.40	6.95	1146	A777	57387.66	6.55	TAMARIND	2.70	12.00
1147	A987	58611.00	6.800	PALM	1.20	6.00	1147	A786	57445.20	9.295	PALM	1.00	8.20
1148	A988	58614.00	7.900	PALM	1.10	7.75	1148	A787	57455.00	10.5	PALM	1.10	8.80
1149	A990	58649.41	5.630	PALM	1.00	8.00	1149	A788	57460.54	12.419	PALM	1.10	8.70

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1150	A992	58671.03	6.494	PALM	0.90	9.50	1150	A790	57479.18	7.353	PALM	0.80	7.70
1151	A993	58674.00	5.400	PALM	1.00	10.89	1151	A791	57520.00	11	TAMARIND	0.80	7.80
1152	A994	58682.71	7.339	PALM	1.10	9.95	1152	A793	57522.00	10.5	PALM	1.30	7.00
1153	A996	58732.00	7.200	PALM	1.00	6.99	1153	A794	57529.60	8.374	OTHER	1.50	8.00
1154	A997	58742.00	10.500	PALM	1.20	8.00	1154	A795	57535.79	8.693	NEEM	0.60	8.00
1155	A998	58748.00	11.000	PALM	1.30	9.65	1155	A797	57550.85	8.552	NEEM	0.70	8.40
1156	A1000	58756.00	10.100	PALM	1.10	9.99	1156	A799	57558.67	7.954	OTHER	1.60	10.50
1157	A1003	58772.00	11.300	PALM	1.20	10.60	1157	A805	57610.00	11	NEEM	0.80	6.00
1158	A1004	58785.00	10.000	OTHER	1.00	9.00	1158	A806	57615.00	10.5	PALM	1.30	7.50
1159	A1005	58791.00	9.500	PALM	1.10	10.50	1159	A810	57643.88	6.641	NEEM	0.60	7.60
1160	A1006	58797.44	10.001	PALM	0.90	10.00	1160	A813	57652.36	5.833	PALM	1.25	8.00
1161	A1007	58808.00	8.000	OTHER	1.40	7.80	1161	A818	57684.61	7.66	NEEM	1.10	7.80
1162	A1020	59010.00	7.000	PALM	1.30	7.80	1162	A825	57690.44	7.166	PALM	1.10	7.80
1163	A1028	59102.93	9.525	PALM	1.00	8.00	1163	A826	57694.07	6.448	PALM	1.15	8.00
1164	A1032	59115.96	9.022	PALM	1.30	10.30	1164	A854	57728.00	9.5	PALM	1.10	7.60
1165	A1033	59126.00	9.000	NEEM	0.50	7.90	1165	A862	57734.54	9.412	PALM	1.10	7.60
1166	A1042	59245.00	6.300	PALM	1.10	8.50	1166	A868	57748.29	7.948	PALM	1.00	7.80
1167	A1043	59251.98	8.505	OTHER	0.90	8.50	1167	A873	57820.00	10	OTHER	0.90	8.40
1168	A1052	59335.00	10.000	OTHER	0.40	7.30	1168	A874	57821.00	8.8	PALM	1.20	8.20
1169	A1053	59347.00	9.700	PALM	1.35	6.70	1169	A875	57822.00	8.8	OTHER	0.60	8.00
1170	A1054	59369.98	10.001	EECHAM	1.15	11.00	1170	A876	57823.00	8.9	PALM	0.80	8.40
1171	A1055	59391.99	6.004	EECHAM	0.95	8.20	1171	A877	57823.00	10.2	PALM	1.10	8.40
1172	A1058	59436.82	8.900	OTHER	1.50	7.80	1172	A878	57825.00	9	PALM	1.10	8.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1173	A1059	59440.16	6.144	OTHER	1.40	8.00	1173	A879	57830.00	9	PALM	1.20	8.80
1174	A1060	59452.99	5.506	OTHER	0.95	8.00	1174	A880	57845.00	9.5	OTHER	0.60	8.30
1175	A1061	59458.00	5.500	OTHER	0.90	7.60	1175	A881	57847.00	9.5	OTHER	0.80	8.30
1176	A1063	59472.04	5.821	OTHER	1.90	8.60	1176	A882	57860.00	9	PALM	1.20	9.80
1177	A1063	59478.00	5.000	OTHER	1.00	7.90	1177	A883	57870.00	8	PALM	1.00	8.60
1178	A1094	59719.89	6.853	OTHER	1.25	9.30	1178	A884	57871.00	9	PALM	1.00	9.00
1179	A1096	59730.12	6.472	TAMARIND	2.80	9.20	1179	A885	57872.00	8	PALM	0.90	8.70
1180	A1097	59740.11	6.487	OTHER	1.90	9.30	1180	A886	57813.00	7.9	PALM	1.10	8.70
1181	A1099	59759.92	6.521	TAMARIND	2.20	8.90	1181	A887	57888.00	11	PALM	1.10	8.50
1182	A1102	59775.00	7.000	TAMARIND	1.30	7.84	1182	A888	57896.00	6	PALM	1.20	7.70
1183	A1103	59800.90	7.107	TAMARIND	2.00	8.00	1183	A890	57973.64	8.287	PALM	1.00	9.20
1184	A1104	59820.88	7.272	OTHER	1.40	8.40	1184	A897	57985.43	6.682	TAMARIND	0.80	7.60
1185	A1106	59830.87	7.092	TAMARIND	1.80	8.30	1185	A892	58016.97	6.88	OTHER	2.20	8.10
1186	A1109	59863.00	9.700	OTHER	1.30	7.90	1186	A893	58027.78	7.533	NEEM	0.90	8.00
1187	A1111	59877.00	8.300	NEEM	1.20	8.10	1187	A894	58047.64	12.646	NEEM	0.60	8.50
1188	A1113	59898.00	8.400	NEEM	1.40	8.10	1188	A895	58051.51	12.822	NEEM	0.70	7.80
1189	A1114	59908.72	8.006	NEEM	1.20	8.50	1189	A897	58106.00	10.9	NEEM	0.80	9.00
1190	A1115	59910.82	11.157	PALM	1.10	11.00	1190	A899	58125.00	11.4	PALM	0.90	8.60
1191	A1116	59918.00	11.000	PALM	1.00	12.70	1191	A909	58126.00	11.4	PALM	1.40	8.60
1192	A1120	59925.23	8.062	NEEM	1.00	9.50	1192	A901	58127.00	11.4	PALM	1.20	7.70
1193	A1121	59926.51	11.287	PALM	1.00	10.60	1193	A903	58130.00	11.4	PALM	1.10	8.10
1194	A1122	59929.86	11.400	PALM	0.70	10.20	1194	A904	58131.00	11.3	PALM	1.00	8.30
1195	A1127	59959.99	9.500	NEEM	1.40	9.00	1195	A905	58134.00	11.2	PALM	1.00	9.30

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1196	A1129	59974.20	8.065	OTHER	2.40	10.70	1196	A906	58134.00	11.3	PALM	1.00	9.50
1197	A1130	59985.52	7.919	OTHER	2.20	10.30	1197	A907	58142.00	11.2	PALM	0.80	9.00
1198	A1133	59989.99	9.000	EECHAM	0.70	8.80	1198	A908	58145.00	11.2	PALM	0.90	9.10
1199	A1134	59997.00	9.000	TAMARIND	3.40	9.50	1199	A909	58147.00	11.3	PALM	1.20	9.10
1200	A1136	60007.00	8.700	TAMARIND	2.40	9.40	1200	A911	58149.00	11.3	PALM	0.90	9.10
1201	A1139	60016.67	8.072	TAMARIND	3.20	9.30	1201	A912	58150.00	11.2	PALM	1.00	9.00
1202	A1144	60028.32	6.657	OTHER	1.10	9.40	1202	A913	58152.00	11.5	PALM	1.10	9.10
1203	A1148	60065.27	9.293	PALM	1.45	8.90	1203	A914	58156.00	11.5	PALM	1.20	9.20
1204	A1149	60074.00	10.000	PALM	1.30	8.10	1204	A922	58193.50	2.565	PALM	1.00	8.00
1205	A1150	60098.48	8.173	TAMARIND	1.70	7.80	1205	A923	58196.07	4.92	PALM	1.10	7.50
1206	A1153	60118.91	8.170	TAMARIND	2.30	7.90	1206	A924	58211.00	7	PALM	1.20	8.30
1207	A1156	60142.62	8.392	TAMARIND	1.80	7.60	1207	A925	58213.00	4	PALM	1.00	8.70
1208	A1159	60163.46	7.751	TAMARIND	1.80	8.20	1208	A927	58220.00	4	PALM	1.20	8.70
1209	A1161	60184.20	7.690	TAMARIND	1.20	8.10	1209	A931	58245.08	5.022	PALM	1.10	8.10
1210	A1163	60204.82	7.250	TAMARIND	1.30	8.20	1210	A932	58245.38	5.142	PALM	1.10	8.10
1211	A1165	60215.23	7.182	TAMARIND	1.30	7.90	1211	A933	58270.40	7.343	PALM	1.20	7.80
1212	A1169	60263.49	4.860	PALM	1.25	9.60	1212	A934	58274.00	6	PALM	1.00	7.80
1213	A1174	60328.94	6.417	TAMARIND	1.10	9.10	1213	A935	58277.00	4	PALM	1.20	8.20
1214	A1176	60350.01	6.500	OTHER	1.40	8.70	1214	A936	58293.00	4	PALM	0.90	8.60
1215	A1178	60367.74	8.256	PALM	1.00	9.00	1215	A937	58295.00	4	PALM	1.00	8.80
1216	A1179	60368.41	9.148	PALM	1.10	8.80	1216	A939	58298.00	4	PALM	0.90	7.80
1217	A1181	60381.64	6.965	TAMARIND	2.40	9.20	1217	A940	58299.00	4	PALM	1.10	8.00
1218	A1182	60386.68	8.075	PALM	0.90	8.00	1218	A945	58340.00	6	PALM	1.00	8.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1219	A1184	60397.00	8.500	PALM	1.10	8.70	1219	A946	58341.00	6	PALM	1.00	7.80
1220	A1188	60444.55	7.094	OTHER	2.70	10.70	1220	A949	58395.00	8	OTHER	1.00	8.60
1221	A1190	60454.75	7.184	OTHER	2.70	10.70	1221	A950	58397.00	7	PALM	1.10	7.80
1222	A1193	60466.80	7.365	TAMARIND	1.70	10.10	1222	A951	58415.00	7	OTHER	1.30	7.80
1223	A1195	60477.02	7.401	TAMARIND	1.20	7.60	1223	A954	58430.00	6.7	PALM	0.50	7.90
1224	A1196	60488.64	7.330	TAMARIND	2.20	9.10	1224	A957	58440.00	7	OTHER	0.60	7.50
1225	A1198	60498.00	8.000	PALM	1.60	7.40	1225	A960	58448.00	7	PALM	1.30	8.20
1226	A1200	60516.00	8.000	TAMARIND	1.60	7.60	1226	A960	58450.00	7	PALM	1.15	8.50
1227	A1201	60524.98	8.013	TAMARIND	1.40	8.50	1227	A962	58457.00	8.8	PALM	1.20	8.10
1228	A1204	60538.40	9.179	PALM	1.20	8.10	1228	A963	58458.00	8.8	PALM	1.30	8.00
1229	A1205	60545.86	8.131	OTHER	3.00	12.20	1229	A965	58461.00	8.5	PALM	1.10	7.50
1230	A1206	60553.03	8.471	PALM	1.10	8.40	1230	A966	58462.00	8	PALM	1.40	8.20
1231	A1207	60566.31	8.154	TAMARIND	2.20	8.60	1231	A968	58468.00	9	PALM	1.20	7.80
1232	A1211	60598.40	8.920	TAMARIND	1.50	8.10	1232	A970	58501.00	6	PALM	1.10	8.80
1233	A1212	60610.09	9.080	TAMARIND	1.20	7.80	1233	A975	58519.00	7.5	PALM	1.00	9.99
1234	A1213	60630.74	8.151	TAMARIND	1.80	10.20	1234	A977	58526.00	8	PALM	1.40	10.50
1235	A1214	60641.72	8.511	TAMARIND	0.90	7.20	1235	A978	58527.00	7.59	PALM	1.20	8.57
1236	A1215	60657.06	10.649	OTHER	1.00	9.60	1236	A979	58530.00	8	OTHER	0.65	6.22
1237	A1221	60694.19	8.444	TAMARIND	1.90	8.80	1237	A981	58539.00	7.5	PALM	1.00	7.75
1238	A1222	60704.16	8.217	TAMARIND	1.20	8.60	1238	A983	58580.00	7.8	PALM	1.00	8.40
1239	A1227	60724.64	8.466	TAMARIND	1.40	9.20	1239	A984	58580.00	9.6	PALM	1.30	9.00
1240	A1228	60735.16	8.085	TAMARIND	1.60	8.30	1240	A989	58640.00	6.57	OTHER	0.70	6.75
1241	A1229	60777.91	7.826	OTHER	1.20	11.50	1241	A991	58663.00	9	PALM	1.00	8.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1242	A1230	60788.45	7.905	TAMARIND	2.00	10.30	1242	A995	58704.41	6.859	PALM	1.40	7.50
1243	A1232	60810.68	7.458	TAMARIND	2.40	8.80	1243	A999	58759.00	7	OTHER	0.90	8.10
1244	A1236	60842.81	7.101	TAMARIND	2.10	8.50	1244	A1001	58763.00	7.2	PALM	0.80	7.50
1245	A1237	60853.65	7.166	TAMARIND	2.20	8.60	1245	A1002	58776.08	7.624	OTHER	2.10	10.50
1246	A1238	60874.47	6.687	OTHER	3.60	13.50	1246	A1008	58920.00	10	PALM	1.40	10.50
1247	A1239	60894.87	7.191	TAMARIND	1.20	7.90	1247	A1009	58922.00	10	EECHAM	0.90	11.20
1248	A1242	60928.57	7.015	TAMARIND	2.30	8.60	1248	A1010	58933.00	9.5	PALM	1.10	11.00
1249	A1244	60947.00	7.000	OTHER	0.90	7.30	1249	A1011	58936.00	10.6	PALM	1.40	10.60
1250	A1248	60980.00	7.000	OTHER	0.40	7.80	1250	A1012	58946.07	8.069	PALM	0.70	10.99
1251	A1250	61001.74	6.556	TAMARIND	1.30	8.20	1251	A1013	58949.25	6.395	PALM	1.00	11.99
1252	A1251	61012.24	6.458	TAMARIND	2.00	9.00	1252	A1014	58951.53	7.058	PALM	1.00	10.50
1253	A1254	61032.74	6.757	TAMARIND	1.60	8.80	1253	A1015	58980.00	9	PALM	1.50	11.00
1254	A1255	61045.00	6.597	TAMARIND	1.70	9.10	1254	A1016	58981.00	9.3	PALM	1.10	11.30
1255	A1257	61073.18	6.687	TAMARIND	1.50	7.80	1255	A1017	58923.00	10	PALM	1.00	11.50
1256	A1259	61090.00	7.300	TAMARIND	1.50	7.90	1256	A1018	58999.65	10.08	PALM	1.20	10.00
1257	A1260	61100.00	7.300	TAMARIND	1.50	6.80	1257	A1019	59002.21	7.391	PALM	1.20	10.60
1258	A1261	61102.83	7.305	OTHER	0.70	6.10	1258	A1021	59020.17	13.051	PALM	1.30	11.30
1259	A1263	61112.66	6.946	TAMARIND	1.80	7.10	1259	A1022	59028.33	9.659	PALM	1.20	10.80
1260	A1264	61132.96	7.451	TAMARIND	2.20	8.30	1260	A1023	59035.58	7.316	OTHER	2.60	12.50
1261	A1266	61156.14	6.870	TAMARIND	1.60	7.80	1261	A1024	59043.54	6.381	PALM	1.10	10.90
1262	A1268	61176.75	6.369	TAMARIND	2.00	11.00	1262	A1025	59047.00	7	PALM	0.80	10.30
1263	A1270	61186.99	6.443	TAMARIND	2.20	10.70	1263	A1026	59063.00	9.5	PALM	1.10	10.50
1264	A1272	61207.29	5.289	OTHER	4.60	15.40	1264	A1027	59097.00	9.5	PALM	1.00	12.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1265	A1275	61227.36	5.803	TAMARIND	2.70	13.00	1265	A1029	59112.00	11	PALM	1.15	12.90
1266	A1277	61237.19	5.570	TAMARIND	2.70	10.10	1266	A1030	59114.00	11	PALM	0.90	12.20
1267	A1279	61259.02	7.385	TAMARIND	2.40	9.70	1267	A1031	59115.00	6	PALM	0.90	11.70
1268	A1282	61301.36	6.657	TAMARIND	3.10	10.60	1268	A1034	59130.00	10.5	PALM	1.10	12.80
1269	A1285	61331.48	7.420	TAMARIND	2.00	10.40	1269	A1035	59163.00	9.7	PALM	1.10	8.50
1270	A1287	61361.92	6.782	TAMARIND	2.00	7.60	1270	A1036	59179.93	9.518	TAMARIND	2.20	8.80
1271	A1288	61372.32	7.174	OTHER	1.70	8.00	1271	A1037	59203.58	12.275	TAMARIND	1.60	9.40
1272	A1290	61392.69	6.870	TAMARIND	2.40	10.00	1272	A1038	59223.00	10.7	OTHER	1.30	7.80
1273	A1292	61413.27	6.999	OTHER	3.00	19.00	1273	A1039	59225.71	10.156	OTHER	0.90	7.70
1274	A1296	61459.36	7.489	OTHER	1.10	6.50	1274	A1040	59228.71	10.313	OTHER	1.10	8.30
1275	A1298	61496.67	7.662	TAMARIND	1.90	8.10	1275	A1041	59235.57	10.255	NEEM	1.20	7.90
1276	A1299	61506.81	7.448	TAMARIND	2.10	8.70	1276	A1044	59267.97	9.111	OTHER	2.00	8.40
1277	A1303	61538.00	7.700	TAMARIND	2.10	10.50	1277	A1045	59273.44	8.638	OTHER	2.30	9.00
1278	A1305	61557.65	7.595	TAMARIND	2.60	10.50	1278	A1046	59275.00	9.3	OTHER	0.80	9.00
1279	A1306	61567.69	8.126	TAMARIND	1.70	10.30	1279	A1047	59282.00	10.5	OTHER	1.30	8.20
1280	A1310	61597.96	7.517	TAMARIND	2.20	10.30	1280	A1048	59306.07	12.209	OTHER	2.00	10.90
1281	A1314	61638.69	7.702	TAMARIND	1.80	10.30	1281	A1049	59314.30	11.137	PALM	1.30	10.70
1282	A1315	61648.67	7.469	TAMARIND	1.50	10.30	1282	A1050	59322.00	11.5	PALM	1.15	10.70
1283	A1317	61658.65	7.488	OTHER	2.30	11.10	1283	A1051	59327.90	9.709	OTHER	2.50	10.60
1284	A1322	61668.84	7.129	TAMARIND	1.90	11.10	1284	A1056	59408.00	10	OTHER	1.00	9.20
1285	A1323	61678.00	7.400	TAMARIND	1.50	11.10	1285	A1057	59425.00	10.7	PALM	1.50	8.00
1286	A1324	61698.51	7.638	TAMARIND	2.00	11.20	1286	A1062	59466.73	8.248	OTHER	1.50	7.40
1287	A1325	61718.31	7.344	OTHER	1.70	11.20	1287	A1065	59480.48	8.321	OTHER	0.70	8.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1288	A1326	61723.91	6.283	TAMARIND	1.00	10.50	1288	A1066	59485.35	7.715	PALM	1.15	8.80
1289	A1329	61741.96	7.255	TAMARIND	2.20	10.90	1289	A1067	59525.00	10	OTHER	1.90	8.60
1290	A1381	61772.74	7.737	TAMARIND	1.90	10.90	1290	A1068	59532.00	10	PALM	1.00	9.30
1291	A1335	61793.01	7.469	TAMARIND	1.25	9.80	1291	A1069	59534.00	10	OTHER	1.50	9.30
1292	A1337	61804.00	8.500	TAMARIND	1.40	10.10	1292	A1070	59537.38	10.443	NEEM	1.32	9.50
1293	A1339	61824.04	6.860	OTHER	1.80	11.30	1293	A1071	59539.98	10.121	OTHER	1.90	9.50
1294	A1342	61855.53	6.935	TAMARIND	1.40	8.70	1294	A1072	59558.53	6.561	EECHAM	0.80	8.40
1295	A1344	61875.65	6.774	TAMARIND	1.60	9.10	1295	A1073	59560.19	7.14	OTHER	0.80	8.50
1296	A1349	61916.81	7.288	TAMARIND	1.60	9.80	1296	A1074	59544.56	10.564	EECHAM	0.80	7.80
1297	A1353	61926.86	7.298	OTHER	2.10	1.20	1297	A1075	59570.00	8.5	NEEM	0.80	8.10
1298	A1354	61936.00	8.000	OTHER	0.50	7.60	1298	A1076	59573.00	9	OTHER	1.10	8.20
1299	A1356	61956.08	6.504	EECHAM	0.90	9.20	1299	A1077	59574.00	8.5	EECHAM	0.95	7.80
1300	A1361	61992.00	7.500	TAMARIND	1.60	9.20	1300	A1078	59575.00	8.5	EECHAM	0.70	7.60
1301	A1363	62028.54	6.574	OTHER	3.10	12.50	1301	A1079	59575.00	9	OTHER	0.80	8.30
1302	A1367	62079.53	7.649	TAMARIND	2.00	11.00	1302	A1080	59584.00	5.5	PALM	1.10	7.80
1303	A1368	62089.84	7.295	TAMARIND	2.40	11.30	1303	A1081	59592.34	7.356	EECHAM	0.70	8.50
1304	A1369	62110.09	7.311	TAMARIND	2.40	12.00	1304	A1082	59610.00	8.1	EECHAM	0.70	8.40
1305	A1370	62120.36	7.394	TAMARIND	1.90	11.80	1305	A1083	59611.00	8.2	NEEM	0.80	8.30
1306	A1373	62130.21	7.684	OTHER	1.40	12.00	1306	A1084	59614.11	9.097	PALM	1.15	8.30
1307	A1374	62140.77	7.210	OTHER	1.50	12.00	1307	A1085	59618.00	8.5	EECHAM	0.60	8.30
1308	A1376	62151.93	7.693	TAMARIND	1.20	9.00	1308	A1086	59620.00	7.6	EECHAM	0.70	7.85
1309	A1383	62208.00	8.300	TAMARIND	2.40	9.00	1309	A1087	59627.00	10.5	PALM	1.25	8.20
1310	A1384	62220.00	8.300	TAMARIND	2.10	9.10	1310	A1088	59643.00	10.5	PALM	0.80	8.30

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1311	A1392	62228.00	8.300	OTHER	2.30	12.50	1311	A1089	59650.00	10.5	EECHAM	0.90	8.70
1312	A1395	62237.33	8.062	TAMARIND	2.80	11.00	1312	A1090	59653.00	10.5	PALM	0.90	8.40
1313	A1397	62256.84	5.942	PALM	1.00	10.90	1313	A1091	59655.00	10.5	PALM	0.90	7.90
1314	A1403	62311.24	6.433	TAMARIND	2.60	10.50	1314	A1092	59676.00	10.4	PALM	0.90	8.70
1315	A1404	62332.60	6.309	TAMARIND	2.50	11.00	1315	A1093	59704.50	8.754	TAMARIND	1.50	8.10
1316	A1406	62340.00	9.100	OTHER	3.10	13.00	1316	A1095	59724.17	8.609	OTHER	1.70	11.00
1317	A1408	62346.17	5.141	EECHAM	0.70	10.70	1317	A1098	59753.24	8.616	TAMARIND	1.70	8.10
1318	A1410	62361.80	5.922	OTHER	5.20	16.00	1318	A1100	59764.00	8.11	TAMARIND	1.80	8.10
1319	A1413	62384.00	7.000	NEEM	0.40	7.60	1319	A1101	59775.00	8.7	PALM	1.10	7.90
1320	A1414	62390.67	5.957	OTHER	1.80	9.80	1320	A1105	59823.06	7.759	OTHER	2.00	10.90
1321	A1416	62401.55	5.995	TAMARIND	1.80	10.70	1321	A1107	59832.00	7.6	TAMARIND	2.10	8.30
1322	A1421	62434.32	6.633	OTHER	4.20	17.00	1322	A1108	59862.00	9.3	NEEM	1.60	8.20
1323	A1427	62461.55	10.929	PALM	1.10	10.80	1323	A1110	59882.80	8.889	PALM	1.20	8.50
1324	A1436	62490.00	8.000	EECHAM	0.90	10.30	1324	A1112	59897.00	9.2	OTHER	0.90	8.20
1325	A1447	62541.59	5.849	OTHER	4.20	17.00	1325	A1117	59913.98	5.026	PALM	1.10	11.00
1326	A1448	62551.45	6.694	TAMARIND	2.50	11.00	1326	A1118	59916.84	7.078	TAMARIND	2.40	11.00
1327	A1449	62562.80	6.457	TAMARIND	1.80	11.00	1327	A1119	59926.57	6.987	TAMARIND	2.10	9.30
1328	A1450	62571.78	6.604	TAMARIND	1.80	12.00	1328	A1123	59936.72	7.051	TAMARIND	1.90	9.10
1329	A1451	62582.17	6.467	TAMARIND	1.40	12.00	1329	A1124	59946.11	7.044	PALM	1.20	12.70
1330	A1454	62600.73	4.274	BANYAN	4.40	14.00	1330	A1125	59947.28	6.72	TAMARIND	1.35	11.50
1331	A1455	62625.07	5.532	BANYAN	11.00	15.00	1331	A1126	59962.00	7.1	TAMARIND	2.80	11.50
1332	A1457	62643.08	6.688	TAMARIND	3.30	16.00	1332	A1128	59967.76	7.135	TAMARIND	2.40	9.40
1333	A1459	62653.45	6.539	TAMARIND	2.80	16.00	1333	A1131	59985.41	7.385	PALM	1.15	9.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1334	A1460	62662.79	4.142	BANYAN	5.00	17.50	1334	A1132	59991.23	7.633	EECHAM	1.00	9.50
1335	A1463	62673.57	6.721	TAMARIND	2.50	16.00	1335	A1135	59999.55	6.834	TAMARIND	2.50	9.50
1336	A1465	62704.74	6.623	TAMARIND	1.30	10.40	1336	A1137	60008.00	10	PALM	1.20	9.10
1337	A1466	62710.00	7.000	TAMARIND	2.30	12.00	1337	A1138	60009.00	9.7	PALM	1.10	8.80
1338	A1467	62720.00	7.000	TAMARIND	2.50	12.20	1338	A1140	60022.00	9.7	PALM	1.00	9.10
1339	A1470	62744.00	7.000	OTHER	3.00	15.00	1339	A1141	60024.00	9.7	PALM	1.00	8.80
1340	A1472	62750.00	7.500	TAMARIND	2.00	13.00	1340	A1142	60027.00	9.7	PALM	0.85	9.00
1341	A1475	62757.58	6.503	TAMARIND	2.60	13.00	1341	A1143	60028.00	9.7	PALM	0.85	8.80
1342	A1476	62785.00	7.500	EECHAM	0.80	19.00	1342	A1145	60029.00	9.7	PALM	0.90	8.00
1343	A1478	62795.00	7.500	TAMARIND	2.60	10.80	1343	A1146	60030.00	9.7	PALM	1.25	8.10
1344	A1479	62821.80	6.460	TAMARIND	1.60	11.00	1344	A1147	60035.41	7.427	PALM	1.20	9.10
1345	A1480	62840.00	7.500	OTHER	3.00	14.80	1345	A1151	60104.40	6.703	TAMARIND	2.20	9.40
1346	A1483	62848.00	7.500	TAMARIND	1.50	10.20	1346	A1152	60113.00	9.5	PALM	1.10	8.10
1347	A1486	62875.05	5.731	OTHER	2.50	11.50	1347	A1154	60121.00	8	PALM	1.10	9.20
1348	A1489	62936.23	6.439	TAMARIND	2.60	11.00	1348	A1155	60135.73	6.491	TAMARIND	2.00	9.30
1349	A1492	62956.08	6.610	TAMARIND	1.40	10.50	1349	A1157	60147.50	6.473	OTHER	7.90	10.40
1350	A1493	62966.22	6.414	TAMARIND	2.40	11.60	1350	A1158	60157.16	6.706	TAMARIND	2.20	8.10
1351	AA1495	62986.46	6.003	TAMARIND	2.10	11.00	1351	A1160	60178.60	7.251	TAMARIND	1.80	8.10
1352	A1496	62996.67	6.548	TAMARIND	1.90	11.00	1352	A1162	60199.31	7.399	TAMARIND	1.25	7.90
1353	A1498	63017.22	6.335	TAMARIND	1.30	10.70	1353	A1164	60209.67	7.844	TAMARIND	2.00	7.60
1354	A1499	63027.76	6.751	TAMARIND	1.30	11.10	1354	A1166	60219.95	8.195	TAMARIND	2.30	8.30
1355	A1501	63050.00	7.500	OTHER	4.00	15.00	1355	A1167	60251.04	8.374	TAMARIND	1.30	8.10
1356	A1502	63079.16	6.993	TAMARIND	2.80	11.20	1356	A1168	60265.00	8.5	TAMARIND	1.20	8.10

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1357	A1504	63099.02	7.184	TAMARIND	2.80	11.00	1357	A1170	60280.00	9	TAMARIND	1.65	8.90
1358	A1506	63112.00	7.500	TAMARIND	1.90	11.00	1358	A1171	60290.00	9	TAMARIND	1.70	9.00
1359	A1508	63129.74	7.755	TAMARIND	1.60	10.80	1359	A1172	60317.73	13.819	NEEM	0.80	8.10
1360	A1510	63140.07	8.047	TAMARIND	3.00	11.50	1360	A1173	60323.79	8.49	TAMARIND	1.40	8.90
1361	A1511	63149.68	7.928	OTHER	4.30	18.00	1361	A1175	60333.67	8.414	TAMARIND	2.90	11.00
1362	A1512	63179.73	7.912	TAMARIND	4.10	11.50	1362	A1177	60365.04	8.208	OTHER	2.90	10.90
1363	A1514	63189.39	8.786	TAMARIND	2.60	11.50	1363	A1180	60375.06	7.991	OTHER	2.90	10.90
1364	A1516	63209.02	8.822	TAMARIND	2.30	11.50	1364	A1183	60396.32	7.621	TAMARIND	3.70	10.90
1365	A1518	63242.03	11.653	TAMARIND	2.80	11.00	1365	A1185	60417.38	7.881	TAMARIND	1.90	10.20
1366	A1519	63269.66	7.667	TAMARIND	1.50	9.30	1366	A1186	60427.37	7.625	TAMARIND	2.80	10.30
1367	A1523	63299.26	7.313	TAMARIND	1.90	10.80	1367	A1187	60437.70	7.821	OTHER	2.80	10.50
1368	A1524	63309.59	7.227	TAMARIND	2.60	11.20	1368	A1189	60448.35	7.6	NEEM	2.10	10.60
1369	A1525	63330.17	7.260	TAMARIND	2.40	12.00	1369	A1191	60459.00	9.5	OTHER	0.50	6.30
1370	A1526	63340.05	7.082	TAMARIND	2.20	12.00	1370	A1192	60450.00	9.5	OTHER	0.50	7.80
1371	A1529	63374.71	7.155	TAMARIND	2.00	11.50	1371	A1194	60470.62	7.438	TAMARIND	1.60	9.20
1372	A1532	63406.35	9.830	TAMARIND	2.50	11.80	1372	A1197	60493.02	7.387	TAMARIND	1.70	10.50
1373	A1535	63482.73	6.654	TAMARIND	2.20	10.60	1373	A1199	60513.00	9	NEEM	1.40	11.00
1374	A1537	63499.79	6.030	TAMARIND	2.20	10.70	1374	A1202	60523.00	9	PALM	1.10	9.00
1375	A1538	63524.84	4.359	TAMARIND	2.10	9.10	1375	A1203	60536.46	7.18	TAMARIND	1.40	9.20
1376	A1543	63580.02	7.632	TAMARIND	2.40	11.00	1376	A1208	60571.18	7.544	OTHER	2.50	13.50
1377	A1544	63599.88	7.316	TAMARIND	2.20	10.60	1377	A1209	60581.40	7.753	TAMARIND	1.40	8.00
1378	A1545	63609.93	6.747	TAMARIND	2.80	11.10	1378	A1210	60584.00	7.9	TAMARIND	1.60	8.20
1379	A1547	63640.88	7.175	TAMARIND	2.60	12.00	1379	A1217	60647.42	6.895	TAMARIND	1.40	8.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1380	A1548	63661.18	7.504	OTHER	2.10	11.70	1380	A1218	60658.20	6.878	TAMARIND	1.80	8.20
1381	A1549	63681.88	7.686	TAMARIND	2.90	12.00	1381	A1219	60679.81	6.97	TAMARIND	1.50	8.30
1382	A1550	63702.31	7.705	TAMARIND	1.90	12.50	1382	A1220	60689.86	6.73	TAMARIND	1.50	8.00
1383	A1551	63720.00	8.200	TAMARIND	1.70	11.50	1383	A1223	60710.35	6.386	TAMARIND	1.90	8.60
1384	A1552	63720.00	8.200	TAMARIND	2.10	12.60	1384	A1224	60720.08	6.696	TAMARIND	1.00	8.40
1385	A1553	63732.52	7.721	TAMARIND	1.90	10.80	1385	A1225	60720.08	6.696	TAMARIND	1.30	8.60
1386	A1554	63741.95	7.890	TAMARIND	1.90	10.70	1386	A1226	60739.36	6.735	TAMARIND	1.90	8.60
1387	A1555	63745.00	8.200	OTHER	0.40	9.30	1387	A1231	60782.00	6.835	OTHER	2.80	13.00
1388	A1556	63754.00	8.200	BANYAN	0.90	7.40	1388	A1233	60825.73	6.936	OTHER	0.50	7.80
1389	A1561	63787.57	7.420	TAMARIND	1.90	10.50	1389	A1234	60837.20	7.309	TAMARIND	1.90	9.10
1390	A1563	63818.03	7.021	TAMARIND	2.20	10.60	1390	A1235	60840.00	10	TAMARIND	2.20	10.10
1391	A1564	63828.28	7.366	TAMARIND	2.00	10.60	1391	A1240	60899.62	7.111	TAMARIND	2.20	9.80
1392	A1565	63839.21	7.204	TAMARIND	2.90	10.60	1392	A1241	60920.87	7.228	TAMARIND	2.30	10.00
1393	A1566	63859.17	7.172	OTHER	2.40	11.20	1393	A1243	60930.48	7.441	TAMARIND	2.30	8.80
1394	A1571	63909.83	6.711	TAMARIND	2.30	11.00	1394	A1245	60952.06	10.352	TAMARIND	2.10	8.90
1395	A1572	63920.13	6.229	TAMARIND	2.00	11.20	1395	A1246	60973.92	7.079	TAMARIND	2.30	9.00
1396	A1575	63961.59	6.774	OTHER	1.60	11.20	1396	A1247	60995.06	7.121	BANYAN	3.70	10.80
1397	A1576	63982.60	7.151	TAMARIND	1.90	11.30	1397	A1249	61015.48	6.323	TAMARIND	1.70	9.40
1398	A1577	63993.03	7.020	TAMARIND	2.70	11.30	1398	A1252	61036.32	6.173	TAMARIND	2.80	11.60
1399	A1578	64021.29	9.799	TAMARIND	3.50	13.00	1399	A1253	61068.23	6.397	TAMARIND	2.50	10.70
1400	A1583	64042.95	7.429	TAMARIND	2.50	10.60	1400	A1256	61090.00	7	TAMARIND	1.60	9.20
1401	A1584	64075.02	7.182	OTHER	2.80	16.50	1401	A1258	61100.58	6.177	TAMARIND	1.60	9.10
1402	A1585	64075.02	7.182	TAMARIND	1.90	10.50	1402	A1262	61130.00	8	TAMARIND	1.70	8.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1403	A1586	64095.77	7.595	TAMARIND	2.10	10.50	1403	A1267	61162.65	7.441	TAMARIND	1.50	8.80
1404	A1587	64105.85	7.151	TAMARIND	2.90	10.50	1404	A1269	61181.94	6.938	TAMARIND	2.80	10.60
1405	A1588	64127.28	7.008	TAMARIND	1.70	10.50	1405	A1271	61192.74	6.798	TAMARIND	2.40	10.60
1406	A1590	64140.64	8.360	TAMARIND	1.90	10.50	1406	A1272	61195.00	8	OTHER	1.80	11.00
1407	A1591	64149.25	6.915	TAMARIND	2.80	10.50	1407	A1274	61200.00	7	BANYAN	5.80	11.30
1408	A1595	64180.08	8.189	TAMARIND	2.10	10.50	1408	A1276	61256.26	6.912	OTHER	2.10	11.00
1409	A1598	64209.39	6.928	TAMARIND	2.30	10.70	1409	A1278	61267.89	7.025	TAMARIND	1.50	8.80
1410	A1599	64218.77	7.113	TAMARIND	2.30	10.80	1410	A1280	61277.75	6.971	TAMARIND	2.70	9.50
1411	A1600	64230.00	7.500	TAMARIND	2.20	10.50	1411	A1281	61290.00	7.3	TAMARIND	2.60	10.40
1412	A1601	64238.82	7.403	TAMARIND	1.90	11.50	1412	A1283	61300.00	7.7	TAMARIND	1.90	10.30
1413	A1602	64247.72	7.155	TAMARIND	2.20	11.20	1413	A1284	61318.73	7.452	TAMARIND	2.60	10.40
1414	A1604	64320.12	7.865	TAMARIND	2.40	10.20	1414	A1286	61329.13	6.423	TAMARIND	2.00	9.50
1415	A1608	64381.19	7.634	TAMARIND	3.00	14.00	1415	A1289	61369.49	7.481	TAMARIND	2.60	10.30
1416	A1611	64399.95	8.002	OTHER	2.60	14.00	1416	A1291	61391.82	10.422	TAMARIND	2.00	9.40
1417	A1613	64421.80	7.423	OTHER	1.50	12.60	1417	A1293	61441.09	8.497	OTHER	3.00	14.00
1418	A1616	64459.87	8.005	TAMARIND	1.50	11.00	1418	A1294	61450.90	8.252	TAMARIND	1.80	10.10
1419	A1622	64607.00	9.500	TAMARIND	2.60	11.50	1419	A1295	61461.34	8.523	TAMARIND	1.60	10.20
1420	A1623	64618.00	10.000	TAMARIND	1.80	11.50	1420	A1299	61480.00	8.3	TAMARIND	1.90	10.30
1421	A1625	64642.77	8.277	TAMARIND	1.80	11.00	1421	A1301	61531.08	6.861	TAMARIND	1.60	10.00
1422	A1626	64651.65	7.721	TAMARIND	1.70	11.00	1422	A1302	61551.29	6.781	NEEM	1.60	10.40
1423	A1629	64677.00	8.300	OTHER	1.20	9.90	1423	A1304	61565.00	7.7	TAMARIND	3.00	11.00
1424	A1638	64730.02	7.999	NEEM	0.50	8.20	1424	A1307	61571.11	6.556	TAMARIND	1.80	10.40
1425	A1640	64830.00	6.600	OTHER	1.00	8.60	1425	A1308	61590.38	6.371	TAMARIND	2.00	10.60

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1426	A1642	64850.66	5.294	OTHER	1.00	9.10	1426	A1309	61597.00	7.2	OTHER	2.90	11.00
1427	A1643	64851.39	5.930	OTHER	1.10	9.20	1427	A1311	61610.95	6.906	TAMARIND	1.80	9.50
1428	A1646	64880.00	6.300	OTHER	1.60	9.00	1428	A1312	61620.00	7	NEEM	0.70	5.50
1429	A1647	64901.66	5.365	OTHER	3.20	14.10	1429	A1313	61622.00	7.5	OTHER	2.40	11.40
1430	A1652	65036.70	5.834	OTHER	1.30	10.20	1430	A1316	61662.95	7.263	TAMARIND	2.80	10.20
1431	A1653	65045.53	3.853	PALM	0.90	14.00	1431	A1318	61668.00	7.5	TAMARIND	1.40	10.20
1432	A1654	65046.69	4.212	PALM	1.00	14.00	1432	A1319	61682.43	7.216	TAMARIND	1.70	11.00
1433	A1657	65158.00	6.500	COCONUT	0.90	10.60	1433	A1320	61691.79	7.181	TAMARIND	2.00	11.00
1434	A1658	65210.00	8.000	OTHER	1.90	10.50	1434	A1321	61712.90	7.619	TAMARIND	1.90	10.70
1435	A1659	65230.00	8.000	PALM	1.10	11.00	1435	A1327	61731.08	6.635	OTHER	0.90	9.80
1436	A1660	65250.01	8.000	PALM	1.10	14.50	1436	A1328	61739.77	7.681	TAMARIND	1.70	9.10
1437	A1664	65396.34	7.873	TAMARIND	2.50	13.00	1437	A1330	61749.75	8.504	TAMARIND	2.10	9.30
1438	A1665	65397.07	7.904	PALM	0.70	14.00	1438	A1332	61769.64	7.701	TAMARIND	1.90	9.00
1439	A1673	65578.00	5.500	OTHER	0.50	8.20	1439	A1334	61780.21	7.586	TAMARIND	1.50	9.50
1440	A1674	65578.00	8.000	NEEM	0.70	8.30	1440	A1336	61801.01	7.668	TAMARIND	1.60	11.50
1441	A1675	65629.85	6.007	BANYAN	2.60	9.00	1441	A1338	61811.23	7.952	TAMARIND	1.70	13.00
1442	A1676	65655.00	5.000	OTHER	0.60	8.30	1442	A1340	61831.57	7.854	OTHER	1.70	9.00
1443	A1677	65705.13	6.439	OTHER	4.40	14.60	1443	A1341	61840.00	8	TAMARIND	1.60	9.50
1444	A1678	65719.73	6.809	OTHER	1.90	10.40	1444	A1343	61851.88	7.636	TAMARIND	1.80	9.50
1445	A1679	65721.00	7.000	PALM	0.90	10.50	1445	A1345	61882.55	7.319	TAMARIND	1.70	9.50
1446	A1680	65740.00	8.300	OTHER	0.50	7.10	1446	A1346	61892.92	7.348	TAMARIND	1.80	9.50
1447	A1681	65751.06	8.042	OTHER	0.70	10.40	1447	A1347	61903.00	8.5	NEEM	0.40	7.50
1448	A1685	65792.62	6.752	TAMARIND	1.70	10.20	1448	A1348	61904.00	8.5	PALM	1.20	6.80

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RHS							LHS						
1449	A1687	65815.08	8.409	NEEM	0.70	7.60	1449	A1350	61918.00	8.5	PALM	1.00	8.70
1450	A1696	65880.59	7.903	PANAI	1	13.99	1450	A1351	61920.00	8.5	PALM	1.10	8.70
1451	A1697	65882.12	8.117	PANAI	1.3	14.16	1451	A1352	61926.16	7.225	OTHER	0.90	8.70
1452	A1699	65902.69	9.300	OTHER	0.9	8.99	1452	A1355	61943.41	6.084	TAMARIND	1.60	8.60
1453	A1702	65908.49	6.950	PANAI	1.3	13.99	1453	A1357	61965.00	9.5	PALM	1.30	6.30
1454	A1703	65913.67	8.084	PANAI	0.9	13.99	1454	A1358	61974.51	7.29	TAMARIND	2.10	10.20
1455	A1705	65920.41	8.370	PANAI	1.4	12.99	1455	A1359	61985.14	7.216	TAMARIND	1.60	10.20
1456	A1707	65929.68	8.299	PANAI	0.7	12.69	1456	A1360	61990.00	7.5	TAMARIND	1.70	9.50
1457	A1708	65947.41	6.709	PUNGAM	0.6	6.99	1457	A1362	62005.27	7.333	TAMARIND	1.80	9.60
1458	A1709	65954.29	5.174	PUNGAM	0.6	6.99	1458	A1364	62036.73	7.882	OTHER	3.00	12.00
1459	A1710	65957.78	7.766	PUNGAM	0.7	6.99	1459	A1365	62056.39	7.935	TAMARIND	2.20	11.00
1460	A1711	65967.03	6.548	ARASAM	5.6	14.16	1460	A1366	62066.47	7.469	TAMARIND	2.00	10.80
1461	A1713	66039.26	9.204	PULIYAM	1.75	7.69	1461	A1371	62117.75	6.97	TAMARIND	2.00	10.70
1462	A1714	66048.46	7.421	PULIYAM	2.64	13.16	1462	A1372	62127.38	7.449	TAMARIND	1.90	10.70
1463	A1716	66066.24	5.899	PULIYAM	2.9	12.39	1463	A1375	62148.66	6.712	TAMARIND	2.10	10.80
1464	A1718	66075.52	4.286	PULIYAM	1.6	11.66	1464	A1377	62163.41	7.27	TAMARIND	1.70	10.80
1465	A1721	66093.42	3.400	PULIYAM	1.9	7.69	1465	A1378	62168.00	8	PALM	0.90	7.60
1466	A1723	66106.44	2.900	NAVAL	2.9	13.39	1466	A1379	62170.00	8	PALM	1.00	8.30
1467	A1725	66125.07	4.553	PULIYAM	2.5	11.99	1467	A1380	62170.00	8	OTHER	0.40	7.10
1468	A1727	66136.94	5.045	PULIYAM	2.4	12.39	1468	A1381	62179.08	6.798	PALM	1.15	8.30
1469	A1729	66155.43	5.377	PULIYAM	2.05	11.36	1469	A1382	62200.89	7.995	TAMARIND	1.90	9.70
1470	A1731	66166.89	5.347	PULIYAM	2.26	11.99	1470	A1385	62212.17	9.032	PALM	1.30	9.20
1471	A1733	66195.82	5.824	MANGO	2.6	13.36	1471	A1386	62215.35	7.883	PALM	1.10	9.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1472	A1735	66206.22	6.218	PULIYAM	1.9	11.99	1472	A1387	62220.00	9	PALM	1.00	9.20
1473	A1736	66226.52	6.489	PULIYAM	1.38	6.99	1473	A1388	62225.00	7.5	NEEM	0.40	7.80
1474	A1739	66255.31	5.300	PULIYAM	1.65	11.99	1474	A1389	62228.80	7.77	PALM	1.10	9.10
1475	A1742	66285.51	4.829	PULIYAM	2	11.39	1475	A1390	62228.80	7.77	PALM	1.23	9.10
1476	A1752	66447.11	1.897	PULIYAM	1.91	11.39	1476	A1391	62232.63	8.494	NEEM	1.00	9.40
1477	A1754	66454.70	4.500	PULIYAM	3.3	12.99	1477	A1393	62236.00	7.6	PALM	1.30	7.90
1478	A1756	66508.64	5.985	PULIYAM	2.7	12.99	1478	A1394	62238.00	8	PALM	1.30	8.40
1479	A1759	66535.67	5.500	PULIYAM	1.95	12.99	1479	A1396	62242.98	7.809	OTHER	2.40	12.00
1480	A1760	66546.63	6.607	PULIYAM	1.5	11.99	1480	A1398	62265.00	8.5	NEEM	0.80	9.80
1481	A1761	66556.88	6.540	PULIYAM	2.5	12.39	1481	A1399	62292.00	8.5	OTHER	0.40	7.10
1482	A1764	66527.13	7.000	PULIYAM	2.7	12.99	1482	A1400	62299.31	3.181	NEEM	0.50	7.80
1483	A1766	66597.77	7.000	PULIYAM	3.2	12.99	1483	A1401	62303.00	8.5	OTHER	0.50	8.10
1484	A1770	66647.20	7.171	PULIYAM	2.6	13.69	1484	A1402	62310.00	8.5	TAMARIND	1.30	8.30
1485	A1772	66657.23	7.213	PULIYAM	2.25	13.69	1485	A1405	62328.58	7.936	TAMARIND	2.50	12.00
1486	A1777	66697.19	6.527	PULIYAM	2.15	13.69	1486	A1407	62338.36	7.781	TAMARIND	1.80	12.00
1487	A1778	66706.03	5.880	PULIYAM	1.8	12.19	1487	A1409	62348.92	7.59	NEEM	1.30	11.00
1488	A1780	66756.41	6.400	OTHER	0.8	7.99	1488	A1411	62368.75	7.222	TAMARIND	2.30	12.40
1489	A1781	66765.91	5.900	NEEM	1.6	12.99	1489	A1412	62381.77	8.243	NEEM	0.70	11.10
1490	A1787	66810.05	9.594	NEEM	2.5	12.99	1490	A1415	62397.30	8.877	OTHER	1.20	12.00
1491	A1788	66848.01	8.000	NEEM	1.3	9.99	1491	A1417	62405.60	9.543	OTHER	1.10	11.50
1492	A1789	66909.53	8.237	PANAI	1.3	8.99	1492	A1418	62411.91	8.473	NEEM	1.00	12.50
1493	A1790	66918.75	8.749	PANAI	1.2	8.99	1493	A1419	62417.25	7.061	PALM	1.20	10.10
1494	A1791	66921.48	8.772	PANAI	1.2	8.99	1494	A1420	62426.95	7.739	OTHER	1.20	10.80

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1495	A1792	66929.15	9.088	PANAI	1.1	8.69	1495	A1422	62440.00	11	OTHER	1.15	9.80
1496	A1794	66938.60	8.528	PANAI	1.2	8.99	1496	A1423	62443.00	11	OTHER	0.90	8.00
1497	A1799	67010.80	10.115	PANAI	0.9	9.16	1497	A1424	62445.46	7.249	NEEM	0.90	8.10
1498	A1800	67070.90	10.501	PANAI	1.08	9.69	1498	A1425	62450.00	10	PALM	1.10	8.80
1499	A1807	67156.79	4.127	PUNGAM	1.3	9.99	1499	A1426	62455.00	10	NEEM	1.30	9.20
1500	A1809	67228.01	5.700	NEEM	1	9.99	1500	A1428	62460.00	6.5	EECHAM	0.80	9.20
1501	A1810	67346.82	5.000	PUNGAM	0.6	2.99	1501	A1429	62456.94	6.614	PALM	1.00	9.00
1502	A1817	67860.23	2.800	PUNGAM	0.75	8.09	1502	A1430	62459.00	8	NEEM	0.90	8.70
1503	A1818	67854.84	4.800	OTHER	1.8	13.99	1503	A1431	62464.00	8	PALM	0.90	7.90
1504	A1819	68090.00	0.000	OTHER	0.6	7.19	1504	A1432	62468.00	10	EECHAM	0.90	9.70
1505	A1823	68494.51	4.500	PANAI	1	6.99	1505	A1433	62469.00	10	NEEM	0.60	7.80
1506	A1824	68549.98	10.000	PULIYAM	3.3	12.99	1506	A1434	62469.88	6.796	PALM	0.90	7.80
1507	A1825	68596.21	6.200	NEEM	0.6	5.99	1507	A1435	62478.24	7.192	PALM	1.20	7.80
1508	A1828	68620.45	9.500	PANAI	1.15	8.99	1508	A1436	62486.15	7.06	NEEM	0.90	9.20
1509	A1829	68621.45	9.500	PANAI	1	8.91	1509	A1438	62492.25	7.077	PALM	1.00	8.20
1510	A1830	68626.31	9.795	NEEM	1.1	10.66	1510	A1439	62493.00	7.8	PALM	1.20	6.80
1511	A1831	68629.08	8.000	NEEM	0.65	10.66	1511	A1440	62495.00	7.8	PALM	1.20	4.30
1512	A1832	68628.88	8.831	PANAI	1.55	8.99	1512	A1441	62496.00	7.8	NEEM	0.90	10.10
1513	A1833	68632.62	8.829	NEEM	0.9	8.99	1513	A1442	62498.00	7.8	PALM	0.90	10.40
1514	A1834	68658.34	8.000	NEEM	1.12	11.66	1514	A1443	62499.00	7.8	PALM	1.00	10.90
1515	A1836	68670.62	8.500	OTHER	0.9	8.39	1515	A1444	62502.83	7.903	PALM	1.30	10.90
1516	A1839	68678.79	8.000	NEEM	1	8.99	1516	A1445	62512.98	7.037	OTHER	1.80	10.90
1517	A1840	68686.36	5.400	ARASAM	4.3	13.16	1517	A1446	62543.31	7.357	TAMARIND	2.80	11.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1518	A1842	68690.03	7.500	OTHER	0.9	5.39	1518	A1452	62575.03	7.137	TAMARIND	3.00	12.20
1519	A1843	68693.90	7.254	PUNGAM	1.05	6.69	1519	A1453	62586.40	7.104	TAMARIND	1.90	1.20
1520	A1844	68696.03	5.552	PANAI	0.95	8.99	1520	A1456	62659.30	5.62	OTHER	3.50	16.00
1521	A1845	68710.03	8.365	OTHER	0.55	5.39	1521	A1458	62648.66	5.469	OTHER	1.70	13.50
1522	A1847	68718.51	8.500	PANAI	1.2	6.99	1522	A1461	62658.84	5.208	TAMARIND	2.50	16.00
1523	A1848	68719.51	8.500	PANAI	0.75	6.99	1523	A1462	62669.95	5.003	TAMARIND	1.90	15.70
1524	A1852	68791.63	10.666	PANAI	0.96	13.99	1524	A1464	62670.08	5.424	TAMARIND	1.90	10.50
1525	A1855	68818.94	8.624	ECHAM	0.85	8.99	1525	A1468	62730.00	5	TAMARIND	2.70	11.00
1526	A1856	68817.18	6.930	ECHAM	0.82	8.99	1526	A1469	62737.83	5.416	OTHER	2.60	11.70
1527	A1857	68820.22	7.956	ECHAM	0.9	8.99	1527	A1471	62751.90	6.306	NEEM	1.40	12.00
1528	A1861	68876.61	6.600	Puliyam	2.4	14.11	1528	A1473	62761.47	6.11	TAMARIND	2.60	12.00
1529	A1863	68886.61	6.600	illupe	1.8	12.6	1529	A1476	62785.00	7.6	EECHAM	0.80	9.00
1530	A1869	68999.39	7.808	Neem	0.85	9.8	1530	A1477	62790.00	7.6	EECHAM	0.80	9.50
1531	A1870	69003.40	7.178	Neem	1.05	10	1531	A1481	62796.19	8.205	OTHER	0.80	8.60
1532	A1872	69019.93	8.710	Neem	1	7.15	1532	A1482	62854.76	9.065	NEEM	1.25	10.00
1533	A1873	69030.61	8.379	Neem	0.6	8.5	1533	A1484	62856.00	8.5	OTHER	1.10	10.10
1534	A1874	69033.31	8.237	Panai	1	7.1	1534	A1485	62857.00	8.5	PALM	1.10	12.00
1535	A1875	69037.87	7.662	Neem	0.8	8.4	1535	A1487	62869.84	9.659	TAMARIND	1.50	10.20
1536	A1876	69060.70	8.600	Neem	0.8	5.2	1536	A1488	62886.74	6.896	TAMARIND	2.10	11.50
1537	A1878	69099.86	7.603	Puliyam	1.85	12.9	1537	A1490	62939.69	7.321	TAMARIND	1.80	10.50
1538	A1881	69129.82	7.147	Puliyam	2.25	12.9	1538	A1491	62951.96	6.816	TAMARIND	2.10	11.00
1539	A1885	69200.75	7.192	Others	1.85	11.66	1539	A1494	62971.74	7.164	TAMARIND	2.40	10.20
1540	A1887	69206.43	6.400	Others	1.6	10.65	1540	A1497	63011.45	7.372	TAMARIND	2.20	10.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1541	A1890	69229.01	8.233	Naval	1.85	13.45	1541	A1500	63032.08	8.503	TAMARIND	3.30	11.00
1542	A1892	69251.75	8.036	Puliyam	1.55	12.1	1542	A1503	63092.59	8.548	OTHER	2.80	11.50
1543	A1893	69255.77	8.366	Panai	1.05	9.75	1543	A1505	63101.76	7.173	TAMARIND	3.30	11.50
1544	A1894	69261.69	8.208	Puliyam	1.8	12.2	1544	A1507	63112.86	7.212	TAMARIND	1.70	11.00
1545	A1896	69277.14	6.150	illupe	1.68	13.6	1545	A1509	63133.00	6.713	TAMARIND	1.70	10.00
1546	A1897	69286.60	6.400	Puliyam	1.25	10.25	1546	A1513	63184.32	6.002	TAMARIND	1.70	10.60
1547	A1904	69326.80	6.600	Panai	1.16	12.2	1547	A1515	63204.49	5.876	TAMARIND	1.50	9.80
1548	A1906	69347.37	7.051	Panai	0.75	12.3	1548	A1517	63214.12	6.05	TAMARIND	2.30	11.00
1549	A1914	69418.44	8.100	Panai	1.2	7.3	1549	A1520	63274.14	5.915	TAMARIND	2.50	11.00
1550	A1915	69419.44	8.100	Panai	1.2	7.4	1550	A1521	63284.24	6.235	TAMARIND	2.60	11.00
1551	A1916	69421.44	8.200	Panai	0.75	7.45	1551	A1522	63304.20	6.466	TAMARIND	3.50	12.00
1552	A1921	69510.31	10.000	Neem	1.02	8.6	1552	A1527	63334.27	7.027	TAMARIND	2.60	11.50
1553	A1922	69514.48	9.100	Panai	1	7.4	1553	A1528	63375.65	6.133	TAMARIND	2.70	12.10
1554	A1923	69519.47	9.100	Panai	0.9	6.8	1554	A1530	63393.73	4.897	TAMARIND	3.60	12.30
1555	A1929	69620.24	9.260	Panai	0.9	7.5	1555	A1531	63415.00	4.7	OTHER	2.00	10.90
1556	A1930	69629.06	8.300	Panai	0.92	7.6	1556	A1533	63469.33	5.656	OTHER	1.40	8.50
1557	A1931	69630.06	8.300	Neem	0.72	8	1557	A1534	63478.00	6.6	TAMARIND	0.40	7.50
1558	A1932	69687.86	7.100	Panai	1.2	7.8	1558	A1536	63493.63	5.856	NEEM	2.10	9.00
1559	A1954	69973.77	1.000	Others	0.8	13.1	1559	A1539	63520.91	8.818	TAMARIND	1.90	9.20
1560	A1955	69970.00	0.000	Others	0.8	10.17	1560	A1540	63537.51	8.658	TAMARIND	1.70	9.30
1561	A1956	69977.85	0.200	Others	1.2	15.8	1561	A1541	63570.00	10.7	NEEM	1.20	10.80
1562	A1957	69992.49	2.400	Others	0.5	9.95	1562	A1542	63530.00	10	OTHER	1.50	10.80
1563	A1958	70002.82	1.000	Others	1.7	17.45	1563	A1546	63605.82	11.284	NEEM	1.40	10.80

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RHS							LHS						
1564	A1959	70012.82	2.750	Rosewood	1	11.4	1564	A1557	63705.24	5.812	TAMARIND	2.40	11.00
1565	A1965	70100.14	9.850	Neem	0.88	8.65	1565	A1558	63736.69	6.528	TAMARIND	2.50	12.50
1566	A1966	70110.55	9.600	Panai	1.1	10.26	1566	A1559	63726.13	6.153	TAMARIND	2.00	10.00
1567	A1968	70117.21	7.180	Neem	0.7	8.15	1567	A1560	63743.00	6.5	OTHER	1.40	11.00
1568	A1971	70128.97	8.732	Neem	1.45	10.64	1568	A1562	63830.00	6.5	TAMARIND	2.00	12.00
1569	A1972	70138.79	8.785	Panai	0.87	8.66	1569	A1567	63886.08	6.511	OTHER	2.70	13.00
1570	A1986	70227.90	7.150	Panai	1.31	9.24	1570	A1568	63896.17	6.564	OTHER	1.60	8.50
1571	A1987	70233.31	9.200	Neem	0.78	9.05	1571	A1569	63906.62	6.861	TAMARIND	1.80	11.50
1572	A1990	70287.73	5.278	Puliyam	5	13.66	1572	A1570	63916.63	6.892	TAMARIND	3.10	11.50
1573	A1992	70344.98	4.780	Others	2.5	14.33	1573	A1573	63957.45	6.269	OTHER	2.10	10.00
1574	A1994	70387.02	6.150	Others	2.75	10.1	1574	A1574	63967.21	6.602	OTHER	2.30	11.70
1575	A2008	70620.48	8.142	Neem	0.85	7.95	1575	A1579	63987.38	6.851	TAMARIND	2.00	11.00
1576	A2009	70625.42	6.377	Panai	1.2	14.33	1576	A1580	64008.47	6.453	TAMARIND	2.80	12.50
1577	A2010	70623.69	7.751	Panai	1.2	14.68	1577	A1581	64038.69	6.78	TAMARIND	1.70	10.70
1578	A2013	70736.13	5.869	Puliyam	5.2	13.99	1578	A1582	64048.47	6.565	TAMARIND	2.50	10.80
1579	A2017	70846.96	6.805	Puliyam	3.2	13.99	1579	A1589	64130.34	7.482	TAMARIND	2.20	10.60
1580	A2019	70895.66	9.600	Neem	0.85	8.75	1580	A1592	64162.31	7.455	OTHER	2.40	13.00
1581	A2021	70944.81	9.500	Rosewood	0.85	7.66	1581	A1593	64172.09	7.548	OTHER	1.80	11.50
1582	A2022	70950.48	9.000	Others	0.5	5.1	1582	A1594	64182.61	7.211	TAMARIND	2.10	11.00
1583	A2028	71053.56	9.800	Neem	1	10.8	1583	A1596	64194.51	7.134	TAMARIND	2.70	10.70
1584	A2029	71067.52	11.592	Coconut	1.1	8.2	1584	A1597	64213.99	7.063	TAMARIND	1.80	11.00
1585	A2030	71069.68	11.100	Mango	0.6	5.66	1585	A1603	64283.82	6.779	OTHER	2.00	10.90
1586	A2031	71063.89	9.356	Panai	0.85	9.22	1586	A1605	64324.11	5.273	TAMARIND	2.00	11.00

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RHS							LHS						
1587	A2033	71155.28	8.700	Rosewood	1.2	10.16	1587	A1606	64334.71	5.137	TAMARIND	1.50	11.00
1588	A2034	71227.31	11.000	Others	0.65	7.88	1588	A1607	64365.29	5.63	OTHER	1.50	12.00
1589	A2035	71234.07	10.500	Neem	0.6	5.22	1589	A1609	64386.14	5.986	OTHER	1.70	13.00
1590	A2036	71243.82	11.000	Others	0.9	5.44	1590	A1610	64396.06	6.193	OTHER	3.00	14.00
1591	A2038	71301.63	9.000	Panai	1.8	6.25	1591	A1612	64406.26	6.47	OTHER	2.60	12.50
1592	A2040	71385.13	8.950	Panai	1.3	10.09	1592	A1614	64438.36	9.092	OTHER	1.40	13.00
1593	A2041	71403.07	9.079	Others	2.3	13.66	1593	A1615	64450.00	7.5	EECHAM	1.00	7.60
1594	A2042	71442.29	9.000	Others	0.9	5.11	1594	A1617	64467.99	7.784	TAMARIND	2.20	11.30
1595	A2044	71474.45	11.000	Neem	0.7	7.2	1595	A1618	64498.23	6.196	OTHER	3.20	14.00
1596	A2045	71496.57	9.800	Neem	1.15	6.99	1596	A1619	64546.08	10.357	TAMARIND	2.30	11.00
1597	A2046	71551.87	10.600	Neem	0.7	6.6	1597	A1620	64561.15	6.393	TAMARIND	1.60	10.50
1598	A2047	71552.95	10.341	Neem	0.9	7.88	1598	A1621	64595.00	6.5	TAMARIND	1.60	10.20
1599	A2048	71564.92	10.000	Neem	1.2	8.11	1599	A1624	64630.00	7	TAMARIND	1.80	11.00
1600	A2049	71568.71	9.400	Neem	1.15	8.4	1600	A1627	64645.66	7.081	TAMARIND	1.50	11.00
1601	A2050	71570.71	9.450	Neem	1	10.33	1601	A1628	64656.39	6.715	TAMARIND	1.30	11.00
1602	A2051	71570.86	9.600	Panai	1.25	13.98	1602	A1630	64680.66	9.676	OTHER	1.50	10.60
1603	A2052	71572.86	9.600	Panai	1.1	13.75	1603	A1631	64684.14	9.506	NEEM	0.70	9.20
1604	A2053	71574.12	9.600	Panai	0.9	12.6	1604	A1632	64687.00	9.8	PALM	1.00	14.00
1605	A2054	71577.12	9.550	Puliyam	1.75	10.45	1605	A1633	64690.35	8.445	NEEM	0.90	10.10
1606	A2055	71578.12	9.550	Panai	0.85	11.33	1606	A1634	64693.43	8.502	NEEM	1.00	10.30
1607	A2056	71579.84	10.516	Panai	1	14.46	1607	A1635	64698.76	6.553	PALM	0.90	9.00
1608	A2059	71584.64	3.162	Puliyam	3.7	12.97	1608	A1636	64700.83	7.768	PALM	1.00	12.50
1609	A2060	71657.21	7.200	Neem	0.75	5.66	1609	A1637	64710.00	8	NEEM	0.70	8.70

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1610	A2061	71677.52	7.204	Others	1.35	9.77	1610	A1639	64774.71	7.328	OTHER	1.80	10.50
1611	A2064	71696.72	5.914	Others	3.6	13.5	1611	A1641	64846.93	7.026	TAMARIND	2.20	10.70
1612	A2065	71716.72	6.347	Puliyam	4.8	13.46	1612	A1644	64868.42	10.195	PALM	1.00	10.40
1613	A2068	71760.28	10.000	Others	1.05	10.33	1613	A1645	64877.33	7.71	PALM	1.00	15.00
1614	A2069	71780.35	10.000	Others	1.7	8.9	1614	A1648	64935.00	6.5	OTHER	1.30	9.50
1615	A2070	71829.55	9.406	Others	0.9	8.44	1615	A1649	64944.71	4.548	OTHER	2.70	13.50
1616	A2073	71859.06	8.600	Others	1.1	6.55	1616	A1650	64983.00	5	COCONUT	1.30	15.00
1617	A2074	71869.93	9.862	Others	1	6.6	1617	A1651	65004.00	6	BANYAN	6.40	14.00
1618	A2075	71902.40	12.128	Puliyam	2.8	14.88	1618	A1655	65176.97	6.532	EECHAM	1.10	10.00
1619	A2076	71905.12	9.976	Puliyam	2.4	14.88	1619	A1689	65835.21	5.372	PANAI	0.9	12.99
1620	A2077	71907.39	6.900	Neem	0.6	8.15	1620	A1690	65836.82	5.022	PANAI	1.2	14.69
1621	A2080	72048.61	8.200	Neem	1.2	10.22	1621	A1691	65839.17	5.646	PANAI	1.4	14.78
1622	A2081	72160.61	8.840	Neem	1.1	9.85	1622	A1692	65845.33	6.532	PANAI	1.1	13.39
1623	A2082	72168.99	8.106	Eesam	1.2	11.45	1623	A1693	65847.58	6.862	PANAI	1.4	12.99
1624	A2083	72169.70	8.574	Panai	0.85	10.85	1624	A1694	65852.31	6.99	OTHER	3.2	13.69
1625	A2084	72217.23	5.377	Arasam	4	13.36	1625	A1695	65873.34	6.864	PANAI	1.5	13.99
1626	A2086	72266.06	5.800	Arasam	4.7	13.5	1626	A1698	65887.29	7.014	PANAI	1.3	12.99
1627	A2087	72284.81	4.807	Puliyam	9.15	14.1	1627	A1700	65905.66	10.509	PANAI	1	13.99
1628	A2088	72305.98	5.671	Others	4.55	14.2	1628	A1701	65905.93	10.552	PANAI	0.8	13.99
1629	A2090	72326.51	6.047	Puliyam	3.55	14.2	1629	A1704	65911.44	7.043	NAVAL	2.3	13.69
1630	A2092	72347.10	5.600	Panai	1	14.36	1630	A1706	65925.80	7.588	NAVAL	2.9	13.69
1631	A2094	72424.52	4.041	Panai	1	14.18	1631	A1712	66002.37	3.296	OTHER	3.1	12.99
1632	A2095	72426.12	4.294	Panai	0.95	13.44	1632	A1715	66048.64	7.157	PULIYAM	3.05	13.36

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1633	A2097	72517.66	7.470	Eesam	0.9	11.66	1633	A1717	66064.63	9	PULIYAM	2.65	11.99
1634	A2099	72622.60	10.596	Panai	1.65	9.8	1634	A1719	66077.19	9.073	PANAI	0.95	13.99
1635	A2100	72655.83	5.600	Panai	1.1	10.45	1635	A1720	66080.67	10.54	PULIYAM	2.1	11.66
1636	A2101	72656.03	5.800	Others	0.45	6.99	1636	A1722	66096.63	10.2	PULIYAM	2.4	11.66
1637	A2103	72678.25	8.233	Arasam	3.1	13.39	1637	A1724	66111.03	10.064	PULIYAM	2.6	11.66
1638	A2104	72688.31	8.018	Arasam	3.05	13.39	1638	A1726	66126.38	9.027	PULIYAM	3.4	11.99
1639	A2106	72707.76	7.300	Arasam	3.1	13.39	1639	A1728	66141.70	7.453	PULIYAM	3	12.99
1640	A2107	72747.79	6.928	Arasam	3.1	13.4	1640	A1730	66158.99	7.102	NAVAL	3.7	13.99
1641	A2108	72768.03	6.446	Arasam	4.6	13.35	1641	A1732	66188.61	7.535	PULIYAM	2.85	12.39
1642	A2109	72776.26	6.041	Panai	1	14.25	1642	A1734	66196.58	7.408	MANGO	1.95	12.39
1643	A2110	72780.84	5.293	Panai	1.05	10.1	1643	A1737	66225.81	6.419	PULIYAM	2.05	11.99
1644	A2111	72790.10	7.983	Panai	1.2	9.8	1644	A1738	66244.43	5.435	PULIYAM	1.9	11.39
1645	A2112	72807.81	7.510	Panai	1	10.7	1645	A1740	66253.32	5.286	PULIYAM	2.1	11.69
1646	A2115	72827.88	6.196	illupe	3.65	14.65	1646	A1741	66267.63	7.2	NEEM	0.75	5.16
1647	A2116	72862.00	8.704	Panai	1.8	10.15	1647	A1743	66281.29	7.517	PULIYAM	1.85	11.69
1648	A2117	72865.90	8.500	Panai	1.2	12.75	1648	A1744	66296.35	9	PULIYAM	1.2	8.99
1649	A2119	72868.82	7.000	Eesam	0.6	14.33	1649	A1745	66305.63	10	PULIYAM	1.6	8.99
1650	A2120	72882.61	9.499	Panai	1.9	11.88	1650	A1746	66323.84	0.461	PULIYAM	2.1	12.39
1651	A2123	72907.04	6.850	Panai	1.65	10.58	1651	A1747	66332.37	2.22	PULIYAM	1.4	8.99
1652	A2124	72936.71	5.800	Neem	0.4	8.65	1652	A1748	66341.23	3.86	PULIYAM	2.2	11.66
1653	A2125	72947.76	5.600	Others	0.4	7.5	1653	A1749	66349.77	4.553	PULIYAM	0.96	6.39
1654	A2127	72979.24	6.700	Neem	1.3	10.77	1654	A1750	66358.29	5.311	PULIYAM	1.15	11.99
1655	A2131	73077.67	6.300	Neem	1.25	9.8	1655	A1751	66367.64	5.805	PULIYAM	1.9	11.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1656	A2132	73085.66	6.250	Neem	1.35	10.1	1656	A1753	66469.37	10.007	PULIYAM	2.25	11.66
1657	A2133	73149.45	8.182	Puliyam	3.5	13.99	1657	A1755	66502.15	8.428	PULIYAM	1.7	11.99
1658	A2135	73156.72	6.000	illupe	3.2	13.66	1658	A1757	66510.63	8.34	PULIYAM	1.65	11.66
1659	A2138	73179.05	8.941	Puliyam	3.9	14.1	1659	A1758	66519.15	8.278	PULIYAM	2.3	11.66
1660	A2137	73170.38	10.363	Panai	0.6	12.15	1660	A1762	66505.63	5.5	PULIYAM	1.85	11.99
1661	A2140	73186.70	5.637	Puliyam	5.4	14.15	1661	A1763	66515.63	5.6	PULIYAM	2.2	12.99
1662	A2141	73206.62	6.026	illupe	4.2	14	1662	A1765	66524.63	5.4	PULIYAM	1.9	12.99
1663	A2144	73216.15	5.100	Eesam	0.7	12.3	1663	A1767	66589.07	4.676	PULIYAM	1.4	11.69
1664	A2146	73236.66	6.243	Panai	1	13.1	1664	A1768	66608.55	5.8	PULIYAM	2.8	12.99
1665	A2148	73249.10	7.398	Others	2.4	13.2	1665	A1769	66636.88	5.57	PULIYAM	2.8	13.39
1666	A2150	73254.90	7.558	Panai	1	10.65	1666	A1771	66645.75	5.403	OTHER	2.65	13.69
1667	A2151	73278.22	7.932	Panai	0.7	14.35	1667	A1773	66655.73	6.147	PULIYAM	2.2	13.69
1668	A2152	73286.85	5.849	Panai	0.7	14.25	1668	A1774	66664.40	6.315	PULIYAM	1.5	12.68
1669	A2153	73306.81	5.725	Panai	0.9	5.1	1669	A1775	66673.43	6.116	OTHER	2.7	13.39
1670	A2154	73316.34	5.884	Panai	2.1	9.8	1670	A1776	66683.93	6.636	PULIYAM	2.2	13.19
1671	A2155	73328.33	6.355	Others	0.85	6.45	1671	A1779	66712.66	6.646	PULIYAM	2.15	13.39
1672	A2156	73338.50	6.452	Eesam	1.3	3.7	1672	A1782	66768.63	10.5	PANAI	1.2	13.69
1673	A2157	73344.46	6.493	Panai	1.45	8.67	1673	A1783	66773.63	10	PANAI	0.95	13.69
1674	A2158	73345.70	5.365	Panai	0.95	7.5	1674	A1784	66773.63	10.5	PULIYAM	2.9	12.99
1675	A2159	73347.85	5.552	Panai	1.35	7.55	1675	A1785	66776.10	9.301	PANAI	1.2	13.69
1676	A2160	73356.94	4.842	Others	0.85	5.15	1676	A1786	66782.63	8.775	PANAI	1.02	13.69
1677	A2161	73380.36	8.487	Neem	1.3	6.98	1677	A1793	66922.59	8.272	OTHER	1.7	12.99
1678	A2163	73455.12	9.100	Puliyam	4.5	12.66	1678	A1795	66932.63	8	OTHER	1.2	9.99

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RHS							LHS						
1679	A2165	73456.70	6.500	Panai	1	13.88	1679	A1796	66945.63	7.5	NEEM	1.6	12.99
1680	A2166	73459.32	5.679	Neem	1.2	11.8	1680	A1797	66969.63	6.5	OTHER	1.2	7.66
1681	A2167	73467.45	6.500	Panai	0.9	12.8	1681	A1798	66974.63	6.5	NEEM	1	9.99
1682	A2168	73478.43	6.500	Panai	0.7	12.8	1682	A1801	67077.49	8.555	PUNGAM	1.1	7.39
1683	A2169	73481.43	6.500	Neem	1.3	10.6	1683	A1802	67113.52	11.028	NEEM	1.4	12.99
1684	A2170	73483.43	6.500	Panai	1.4	13	1684	A1803	67114.55	10	OTHER	0.95	11.39
1685	A2171	73488.68	7.500	Panai	1.1	12.8	1685	A1804	67117.91	10.906	OTHER	0.9	5.36
1686	A2172	73490.09	6.500	Others	1.05	9.8	1686	A1805	67145.99	7.165	OTHER	0.8	9.99
1687	A2173	73492.09	6.500	Panai	1.05	13.1	1687	A1806	67140.24	7.341	OTHER	0.9	7.99
1688	A2174	73495.31	5.300	Panai	0.85	10.5	1688	A1808	67217.63	6.5	ARASAM	2.5	12.99
1689	A2175	73495.31	5.300	Others	0.9	14.26	1689	A1811	67399.63	5.5	PUNGAM	0.7	5.69
1690	A2176	73495.51	5.500	Panai	0.85	13.44	1690	A1812	67409.63	7.4	PULIYAM	3.2	13.39
1691	A2178	73498.52	5.300	Neem	1.4	10.95	1691	A1813	67483.53	6.8	PUNGAM	0.6	7.86
1692	A2179	73498.72	5.500	Panai	0.95	13.2	1692	A1814	67512.85	2.85	PULIYAM	3	13.16
1693	A2180	73500.72	5.500	Panai	0.8	13.3	1693	A1815	67784.63	7	PUNGAM	0.75	5.99
1694	A2181	73506.26	5.800	Panai	1.25	12.8	1694	A1816	67802.63	6.5	PUNGAM	0.7	5.99
1695	A2182	73506.45	5.990	Panai	1.3	13.1	1695	A1820	68259.67	9.586	OTHER	2.8	14.16
1696	A2183	73506.56	6.100	Panai	1.15	13.33	1696	A1821	68449.64	10	NAVAL	1.2	13.16
1697	A2184	73507.66	7.200	Panai	1.05	13.33	1697	A1822	68462.64	10	OTHER	1.6	12.99
1698	A2185	73511.71	5.750	Panai	1.25	12.44	1698	A1826	68593.04	4.3	NEEM	0.7	7.99
1699	A2186	73508.83	6.600	Panai	1.3	13.56	1699	A1827	68596.03	4.3	KARUVAI	1.2	9.99
1700	A2187	73513.12	5.950	Panai	1.45	13.56	1700	A1835	68640.38	7.233	NEEM	1.08	11.66
1701	A2188	73510.14	6.950	Panai	1.37	12.7	1701	A1837	68655.93	6.736	NEEM	1.47	8.99

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RHS							LHS						
1702	A2189	73514.15	6.200	Panai	1.4	11.98	1702	A1838	68666.21	5.915	OTHER	1.3	11.99
1703	A2190	73515.16	6.100	Panai	1.56	13.98	1703	A1841	68677.63	6.5	ROSEWOOD	0.85	7.89
1704	A2191	73516.16	6.100	Panai	1.4	13.36	1704	A1846	68703.18	7.482	ROSEWOOD	0.63	5.69
1705	A2193	73517.21	6.200	Panai	1.25	13.36	1705	A1849	68717.63	6.8	OTHER	1	6.69
1706	A2194	73517.16	6.150	Panai	1.3	13.45	1706	A1850	68729.63	7	NEEM	0.5	5.99
1707	A2195	73518.28	6.300	Panai	1.1	13.55	1707	A1851	68738.63	7.3	KARUVAI	2.05	9.99
1708	A2196	73520.29	6.100	Neem	1.65	11.65	1708	A1853	68773.63	8.5	ROSEWOOD	0.48	4.99
1709	A2197	73521.29	6.200	Panai	0.95	13.45	1709	A1854	68779.63	8	OTHER	2.15	12.99
1710	A2198	73524.29	6.110	Panai	1.4	13.33	1710	A1858	68820.05	11.7	NEEM	1.3	9.99
1711	A2199	73528.41	6.330	Neem	1.75	11.5	1711	A1859	68821.99	9.037	KARUVAI	1.38	12.39
1712	A2200	73527.98	5.900	Panai	1.15	13.21	1712	A1860	68830.63	8	ROSEWOOD	0.45	5.66
1713	A2201	73529.67	7.100	Panai	1.2	14.5	1713	A1862	68870.63	3.5	KARUVAI	0.65	5.99
1714	A2202	73535.69	6.600	Panai	1.15	13.65	1714	A1864	68881.63	3.9	OTHER	0.95	9.99
1715	A2203	73535.74	6.650	Panai	1	13.7	1715	A1865	68888.63	3.4	PULIYAM	1.8	12.99
1716	A2204	73537.78	6.230	Panai	0.9	13.15	1716	A1866	68897.63	4	ILUBAI	1.8	12.99
1717	A2205	73537.50	6.100	Panai	0.95	13.65	1717	A1867	68916.63	3.8	NEEM	1.3	9.99
1718	A2206	73540.30	6.942	Neem	1.65	12.1	1718	A1868	68964.63	4.8	OTHER	0.58	3.99
1719	A2207	73542.94	5.700	Panai	1.2	12.95	1719	A1871	68994.63	6.4	OTHER	0.6	4.69
1720	A2208	73548.16	6.150	Panai	0.95	13.65	1720	A1877	69063.90	7.423	ILUBAI	2.3	13.16
1721	A2209	73549.16	6.100	Neem	1.3	12.15	1721	A1879	69093.29	7.412	PULIYAM	1.9	12.99
1722	A2210	73553.26	5.230	Panai	1.2	13.45	1722	A1880	69103.11	7.457	ILUBAI	2.3	12.99
1723	A2211	73554.93	6.450	Neem	1.45	13.4	1723	A1882	69152.61	7.739	PULIYAM	2.1	11.66
1724	A2212	73554.58	6.100	Neem	0.65	11.65	1724	A1883	69174.63	7.6	ILUBAI	1.6	12.99

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RHS							LHS						
1725	A2213	73556.35	5.890	Panai	1.1	13.12	1725	A1884	69175.72	8.074	PANAI	1.6	6.65
1726	A2214	73558.38	6.230	Neem	0.4	12.69	1726	A1886	69182.18	7.452	KARUVAI	1.9	12.99
1727	A2215	73567.39	6.795	Neem	0.68	11.11	1727	A1888	69204.63	7.3	PULIYAM	1.65	11.99
1728	A2216	73572.22	5.392	Neem	0.7	12.12	1728	A1889	69212.68	7.936	PULIYAM	1.9	11.99
1729	A2217	73578.41	6.480	Eesam	0.75	13.15	1729	A1891	69221.12	7.142	PULIYAM	1.5	11.99
1730	A2218	73584.24	8.028	Panai	0.89	14.1	1730	A1895	69264.20	9.507	ARASAM	4.28	13.39
1731	A2219	73586.98	6.548	Neem	1.4	11.19	1731	A1898	69289.66	9.423	PANAI	0.75	5.99
1732	A2220	73591.95	6.098	Neem	1.95	12.15	1732	A1899	69292.18	11.353	PANAI	0.7	5.99
1733	A2221	73597.75	7.596	Panai	0.95	13.15	1733	A1900	69295.37	9.354	PANAI	0.95	5.99
1734	A2222	73602.72	5.866	Eesam	0.8	13.1	1734	A1901	69305.63	8.6	PANAI	1.1	6.39
1735	A2223	73603.91	7.048	Panai	0.95	13.65	1735	A1902	69313.63	8.5	PANAI	1	6.39
1736	A2224	73618.24	6.250	Panai	0.98	13.1	1736	A1903	69319.63	8.6	NEEM	0.75	7.99
1737	A2225	73620.24	6.300	Panai	0.95	12.3	1737	A1905	69334.63	7.6	OTHER	2	8.69
1738	A2226	73622.25	6.150	Panai	1.1	12.5	1738	A1907	69355.89	9.042	ILUBAI	2	13.99
1739	A2227	73624.31	6.600	Panai	1.2	12.6	1739	A1908	69365.83	8.655	ILUBAI	2.2	13.99
1740	A2228	73625.76	6.235	Eesam	1.15	13.1	1740	A1909	69375.26	7.958	ILUBAI	2.2	13.99
1741	A2229	73627.40	5.850	Panai	1.4	12.1	1741	A1910	69378.63	6.5	PANAI	0.85	12.19
1742	A2238	73626.68	6.250	Panai	1.25	12.8	1742	A1911	69385.29	8.815	ILUBAI	2.6	12.99
1743	A2239	73628.45	5.664	Panai	1.1	10.9	1743	A1912	69404.22	7.37	PULIYAM	2.2	13.16
1744	A2245	73680.38	10.000	Panai	0.7	14.16	1744	A1916	69407.23	8.808	PULIYAM	2.45	13.16
1745	A2246	73681.18	10.000	Panai	0.8	13.9	1745	A1917	69431.92	6.991	NEEM	0.9	6.99
1746	A2249	73742.96	9.900	Panai	0.9	10.65	1746	A1918	69446.34	6.113	NEEM	1	6.99
1747	A2254	73780.36	9.344	Panai	0.8	13.65	1747	A1919	69457.32	5.761	PANAI	1	8.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1748	A2256	73818.29	8.182	illupe	3.5	14.2	1748	A1920	69477.63	6	PANAI	0.7	8.99
1749	A2259	73854.22	10.700	Neem	0.9	10.05	1749	A1924	69526.63	6	PANAI	1	8.99
1750	A2261	73862.22	10.700	Neem	1	11.2	1750	A1925	69554.63	6.55	PANAI	1	5.36
1751	A2262	73873.70	12.272	Neem	0.9	8.95	1751	A1926	69564.63	7	PANAI	1	5.69
1752	A2263	73881.17	10.592	Others	1.2	10.1	1752	A1927	69574.63	7.2	NEEM	0.62	7.99
1753	A2265	73951.34	8.335	Neem	1.35	9.8	1753	A1928	69594.63	6.5	NEEM	0.9	8.66
1754	A2267	73968.21	7.910	Puliyam	3.8	14.25	1754	A1933	69679.63	6.5	PANAI	1.3	6.99
1755	A2269	73988.41	7.740	illupe	3.3	13.68	1755	A1934	69714.56	7.224	NEEM	1.8	8.99
1756	A2272	74029.60	7.564	illupe	2.7	11.85	1756	A1935	69727.59	6.393	PANAI	0.75	7.66
1757	A2274	74109.91	7.600	Neem	0.9	5.25	1757	A1936	69731.63	6.4	NEEM	0.7	7.66
1758	A2275	74120.86	8.800	Panai	1.1	7.15	1758	A1937	69731.63	6.5	PANAI	1.3	7.86
1759	A2276	74126.33	6.300	illupe	3.8	13.22	1759	A1938	69743.77	10.953	ROSEWOOD	0.85	5.99
1760	A2279	74269.25	9.100	Neem	0.95	8.95	1760	A1939	69770.78	7.531	PANAI	0.62	8.36
1761	A2280	74301.71	9.100	Neem	1.4	11.2	1761	A1940	69778.84	8.086	PANAI	1.15	8.16
1762	A2281	74339.72	8.738	Neem	1.2	13.16	1762	A1941	69793.63	6.5	OTHER	0.75	5.36
1763	A2283	74348.54	8.544	Puliyam	2.4	13.16	1763	A1942	69793.63	7	PANAI	0.8	9.99
1764	A2285	74357.97	7.965	Naval	1.9	12.9	1764	A1943	69796.01	7.652	PANAI	0.75	9.39
1765	A2286	74392.10	9.441	Puliyam	1.4	10.05	1765	A1944	69803.26	6.345	PANAI	0.85	9.39
1766	A2288	74401.19	7.266	Others	1.1	9.8	1766	A1945	69804.85	5.962	PANAI	0.85	7.69
1767	A2289	74419.72	8.937	Puliyam	3.4	13.16	1767	A1946	69806.63	6.3	PANAI	0.75	9.19
1768	A2290	73452.69	10.213	Others	1	6.75	1768	A1947	69807.63	6.3	NEEM	1	11.66
1769	A2291	74462.03	11.513	Others	1.2	7.15	1769	A1948	69818.63	4.3	PANAI	0.7	8.99
1770	A2292	74471.76	10.654	Others	1.1	6.1	1770	A1949	69819.63	4.3	PANAI	0.7	7.69

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RHS							LHS						
1771	A2295	74527.29	6.419	Puliyam	3.2	13.15	1771	A1950	69839.63	3.5	OTHER	1.15	13.16
1772	A2298	74599.20	9.100	Neem	0.7	9.8	1772	A1951	69893.66	0.89	OTHER	1.8	13.39
1773	A2302	74670.28	10.000	Neem	0.9	7.95	1773	A1952	69956.63	1	NEEM	0.9	12.99
1774	A2304	74705.44	5.418	Others	1.6	10.15	1774	A1953	69964.63	0	OTHER	1	12.99
1775	A2306	74757.20	6.700	Neem	0.45	6.88	1775	A1960	70044.78	3.661	ROSEWOOD	1.2	8.99
1776	A2309	74829.21	9.200	Neem	1.4	10.3	1776	A1961	70055.65	5.095	NEEM	0.72	7.99
1777	A2311	74871.55	10.700	Neem	0.4	7.15	1777	A1962	70058.19	8.021	OTHER	0.88	9.16
1778	A2312	74902.45	10.700	Neem	0.35	5.4	1778	A1963	70071.77	6.51	NEEM	0.68	6.99
1779	A2313	74904.45	10.700	Neem	0.45	6.75	1779	A1964	70078.63	5.4	NEEM	0.72	7.39
1780	A2315	74928.86	8.200	Neem	0.45	8.6	1780	A1967	70097.63	9.95	PANAI	1.15	7.69
1781	A2317	74950.68	10.600	Neem	0.92	9.85	1781	A1969	70111.63	7.5	OTHER	0.9	6.99
1782	A2318	74953.79	9.500	Neem	0.98	8.9	1782	A1970	70123.63	7.5	NEEM	0.55	5.39
1783	A2319	74970.62	10.600	Neem	0.8	10.25	1783	A1973	70149.63	9.1	NEEM	0.55	4.69
1784	A2328	75030.79	9.765	Neem	1.38	12.68	1784	A1974	70156.63	9.5	PANAI	0.98	7.99
1785	A2330	75041.05	10.800	Neem	0.65	5.6	1785	A1975	70162.63	9.4	PANAI	1.17	6.99
1786	A2331	75042.95	10.800	Neem	0.89	11.2	1786	A1976	70168.63	9	PANAI	1.08	8.39
1787	A2332	75043.95	10.800	Neem	0.7	10.1	1787	A1977	70176.63	10	NEEM	0.56	6.99
1788	A2333	75044.95	10.800	Neem	0.65	9.8	1788	A1978	70184.63	9	OTHER	0.55	4.65
1789	A2334	75050.82	10.800	Naval	0.75	9.8	1789	A1979	70191.63	5.8	PANAI	1	6.65
1790	A2335	75060.88	10.800	Neem	0.9	10.25	1790	A1980	70195.63	7.3	NEEM	0.8	8.99
1791	A2337	75070.82	10.000	Neem	0.9	10.3	1791	A1981	70200.63	7	PANAI	0.8	8.99
1792	A2338	75070.82	10.800	Neem	0.7	9.4	1792	A1982	70204.63	7	PANAI	0.82	8.99
1793	A2339	75078.53	8.200	Panai	1	10.15	1793	A1983	70204.63	7.2	PANAI	1.2	8.69

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RHS							LHS						
1794	A2340	75079.56	8.450	Others	1.7	14.25	1794	A1984	70208.63	7.4	NEEM	0.76	7.99
1795	A2341	75080.52	8.200	Panai	0.9	10.1	1795	A1985	70211.63	7.2	NEEM	0.75	7.99
1796	A2342	75084.52	8.200	Panai	0.85	10.2	1796	A1988	70237.69	7.015	PULIYAM	2.68	11.99
1797	A2345	75088.82	7.500	Neem	1.1	10.05	1797	A1989	70273.63	5.5	PULIYAM	4.45	13.99
1798	A2346	75109.52	8.800	Neem	0.9	9.3	1798	A1991	70328.75	7.083	PULIYAM	5.2	14.16
1799	A2347	75116.55	6.509	Panai	0.9	9.5	1799	A1993	70366.63	6.3	PULIYAM	5.25	14.16
1800	A2348	75122.13	6.641	Neem	1.2	8.6	1800	A1995	70456.63	7.83	NEEM	0.9	5.69
1801	A2349	75148.23	6.800	Neem	0.8	8.95	1801	A1996	70556.79	6.587	PANAI	1	14.16
1802	A2350	75177.29	6.800	Panai	0.8	9.05	1802	A1997	70558.86	6.644	PANAI	0.95	12.99
1803	A2354	75225.76	5.346	illupe	3	13.99	1803	A1998	70559.63	7	PANAI	0.9	12.66
1804	A2358	75279.87	6.383	Puliyam	4.9	14.05	1804	A1999	70560.70	6.062	OTHER	0.93	11.66
1805	A2360	75299.73	7.042	Puliyam	3.8	14.05	1805	A2000	70564.44	7.488	PANAI	1.1	14.16
1806	A2361	75318.35	6.223	Puliyam	4.2	14.05	1806	A2001	70566.78	7.782	OTHER	2.15	12.99
1807	A2364	75337.43	5.565	Puliyam	3.2	13.98	1807	A2002	70570.97	7.901	PANAI	1.05	12.99
1808	A2367	75400.96	9.814	Panai	1.05	11.8	1808	A2003	70575.07	8.28	PANAI	0.95	11.39
1809	A2369	75428.42	8.000	Panai	1	11.2	1809	A2004	70575.17	6.801	OTHER	1.6	11.16
1810	A2371	75448.86	2.000	Puliyam	2.9	13.34	1810	A2005	70587.37	7.538	COCONUT	1	9.99
1811	A2372	75466.26	2.000	illupe	4.8	13.4	1811	A2006	70588.11	4.31	COCONUT	1.2	9.99
1812	A2373	75485.65	3.843	Puliyam	3.7	13.4	1812	A2007	70594.19	5.422	COCONUT	1.2	9.99
1813	A2375	75504.73	3.813	Puliyam	4	13.6	1813	A2011	70685.63	5.5	NEEM	0.9	8.99
1814	A2376	75524.15	2.565	Puliyam	4.4	13.75	1814	A2012	70699.63	4.1	PULIYAM	5.1	13.99
1815	A2378	75543.12	2.750	illupe	4.8	13.75	1815	A2014	70736.68	7.5	PULIYAM	2.95	13.69
1816	A2382	75617.44	5.043	illupe	2.2	13.98	1816	A2015	70755.05	6.379	PULIYAM	3.9	13.99

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RHS							LHS						
1817	A2383	75636.85	5.641	Puliyam	3.3	14	1817	A2016	70791.63	6.8	PULIYAM	5.5	14.39
1818	A2386	75709.21	9.200	Others	0.7	6.65	1818	A2018	70849.63	6.3	PULIYAM	3.9	13.99
1819	A2388	75747.53	6.600	Neem	0.4	5.15	1819	A2020	70903.09	6.648	ARASAM	4	11.99
1820	A2391	75831.95	9.200	Others	0.4	5.65	1820	A2023	70943.63	6	OTHER	1.05	8.99
1821	A2395	75877.15	5.165	Puliyam	4.5	14.1	1821	A2024	70943.63	7	PUNGAM	1.95	8.99
1822	A2396	75890.95	8.483	Panai	1	5.7	1822	A2025	70963.63	6.5	ROSEWOOD	0.4	5.99
1823	A2397	75892.17	8.632	Neem	0.8	6.8	1823	A2026	70979.63	6.5	ROSEWOOD	0.4	4.66
1824	A2398	75910.19	10.159	Neem	1.1	10.15	1824	A2027	71005.63	7.2	ROSEWOOD	0.5	4.66
1825	A2403	75917.80	9.443	Neem	0.8	9.85	1825	A2032	71040.63	7.8	OTHER	0.9	7.99
1826	A2404	75921.02	8.800	Neem	0.95	9.9	1826	A2037	71229.63	7	OTHER	1.05	7.99
1827	A2405	75929.19	8.800	Neem	1	10.1	1827	A2039	71349.63	10	PANAI	1.3	4.16
1828	A2406	75939.44	9.300	Neem	1.1	10.2	1828	A2043	71464.14	5.123	PULIYAM	4.7	13.99
1829	A2407	75947.61	7.600	Neem	0.78	11	1829	A2057	71559.17	9.103	PANAI	1.4	3.39
1830	A2408	75949.61	9.600	Panai	1.25	9.6	1830	A2058	71562.53	8.585	NEEM	0.65	6.99
1831	A2409	75954.30	6.000	Neem	0.4	8.95	1831	A2062	71678.63	8.8	ARASAM	2	12.99
1832	A2410	75955.53	5.530	illupe	4.5	14.1	1832	A2063	71691.91	10	NEEM	0.8	6.99
1833	A2411	75966.51	6.333	Neem	0.7	7.8	1833	A2066	71719.86	5.737	PULIYAM	2.8	13.16
1834	A2412	75969.16	7.652	Neem	0.9	10.1	1834	A2070	71824.63	7.5	PULIYAM	1	6.99
1835	A2413	75980.52	10.500	Others	0.4	8.9	1835	A2071	71837.63	7.5	VATHAM	0.4	6.99
1836	A2414	75983.40	9.936	Neem	1.2	10.12	1836	A2072	71837.63	10	COCONUT	1.1	6.99
1837	A2415	76008.00	5.963	illupe	4.6	13.44	1837	A2078	71915.79	8.467	PANAI	0.8	12.99
1838	A2418	76039.22	9.210	Panai	1	7.15	1838	A2079	71974.45	10.807	PANAI	0.7	5.99
1839	A2420	76060.17	9.500	Neem	0.6	6.66	1839	A2085	72213.63	9.3	ECHAM	0.9	7.99

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RHS							LHS						
1840	A2421	76069.86	9.500	Panai	1.3	5.25	1840	A2089	72307.68	6.574	PULIYAM	3.75	13.39
1841	A2422	76098.55	5.514	Puliyam	4.7	12.9	1841	A2091	72325.01	10.591	OTHER	1	9.99
1842	A2423	76117.60	5.944	illupe	4.1	13.05	1842	A2092	72346.63	10.5	OTHER	0.8	7.69
1843	A2424	76140.62	9.000	Others	1.1	9.8	1843	A2096	72417.55	7.205	COCONUT	0.75	9.99
1844	A2425	76151.80	9.000	Others	0.8	9.75	1844	A2098	72544.78	7.252	COCONUT	0.85	8.99
1845	A2427	76179.15	9.000	Others	1.7	10	1845	A2102	72669.63	7.3	ARASAM	3.6	13.39
1846	A2430	76231.02	8.800	Neem	0.6	8.95	1846	A2105	72692.81	7.859	ARASAM	3.4	13.39
1847	A2431	76239.51	9.500	Neem	0.65	5.6	1847	A2111	72793.29	9.724	PANAI	1.3	8.99
1848	A2436	76287.98	6.169	illupe	3.6	13.6	1848	A2113	72804.69	9.894	PANAI	0.7	8.16
1849	A2455	76390.43	10.300	Others	1	6.67	1849	A2114	72814.73	10.346	PANAI	1.6	7.99
1850	A2458	76408.55	7.497	Others	1.7	7.25	1850	A2118	72845.76	8.56	PANAI	1	13.99
1851	A2459	76417.38	7.148	Others	1	7.1	1851	A2121	72861.63	7	PANAI	0.8	9.99
1852	A2462	76452.19	9.500	Neem	0.5	5.89	1852	A2122	72898.63	9.7	NEEM	0.7	7.99
1853	A2465	76500.23	8.526	Neem	1	8.9	1853	A2126	72935.23	6.469	ILUBAI	3.3	12.99
1854	A2466	76502.80	8.928	Neem	1	9.65	1854	A2128	72976.28	7	PANAI	0.9	8.99
1855	A2472	76540.45	8.800	Neem	0.7	8.6	1855	A2129	73040.39	7.137	PANAI	0.85	9.99
1856	A2479	76640.09	10.000	Others	0.6	6.85	1856	A2130	73065.24	5.199	ILUBAI	5.2	13.39
1857	A2482	76728.26	8.200	illupe	1.2	12.4	1857	A2134	73138.87	5.649	PULIYAM	4.7	13.39
1858	A2488	76759.49	8.238	Neem	1.45	12.48	1858	A2136	73157.23	5.926	PULIYAM	4	13.69
1859	A2490	76777.90	7.522	Neem	1	9.85	1859	A2139	73174.61	5.818	PULIYAM	6.5	13.69
1860	A2491	76783.48	7.404	Others	2.8	13.34	1860	A2142	73203.65	8.068	PANAI	1	9.99
1861	A2495	76808.23	6.986	Others	2.9	13.16	1861	A2143	73206.71	9.216	PANAI	1	9.99
1862	A2496	76829.51	6.913	Neem	1.3	9.95	1862	A2145	73221.60	8.37	PANAI	0.8	8.69

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RHS							LHS						
1863	A2498	76857.47	7.463	Pungam	1.5	8.6	1863	A2147	73230.43	8.505	PANAI	1.1	8.16
1864	A2500	76863.71	6.140	Neem	1.5	10.1	1864	A2149	73236.41	8.2	PANAI	0.7	14.16
1865	A2501	76864.11	3.819	Neem	0.9	9.35	1865	A2161	73356.13	7.649	PANAI	0.9	13.39
1866	A2502	76888.73	5.360	Neem	1.7	10.4	1866	A2164	73451.27	8.713	OTHER	0.5	4.99
1867	A2503	76898.01	5.700	Pungam	0.7	6.95	1867	A2177	73490.00	9.648	OTHER	0.8	7.99
1868	A2504	76935.26	4.706	Neem	1.8	8.85	1868	A2192	73501.04	9.175	OTHER	0.7	7.69
1869	A2505	76946.28	5.608	Neem	1	8.8	1869	A2230	73589.96	8.648	PANAI	0.8	8.16
1870	A2506	76948.24	3.738	Others	2.8	13.14	1870	A2231	73590.63	8.8	PANAI	0.9	8.36
1871	A2511	76986.12	5.522	Others	2.7	10.5	1871	A2232	73591.63	8.8	PANAI	0.9	8.36
1872	A2512	76997.01	7.000	Naval	0.9	6.05	1872	A2233	73593.63	8.8	PANAI	0.9	8.19
1873	A2514	77009.62	6.780	Others	2.3	12.15	1873	A2234	73597.63	8.8	PANAI	1	7.69
1874	A2516	77037.48	7.457	Naval	1.2	12.1	1874	A2235	73612.87	8.543	PANAI	0.9	8.19
1875	A2517	77044.07	6.652	Others	2.6	6.8	1875	A2236	73613.63	8.8	PANAI	0.9	8.19
1876	A2521	77081.31	7.300	Pungam	0.8	5.1	1876	A2240	73649.63	10	PANAI	1	7.69
1877	A2522	77088.15	7.300	Pungam	0.45	5.1	1877	A2241	73655.63	7.5	PANAI	0.95	7.69
1878	A2533	77179.42	9.210	Panai	1.3	10.75	1878	A2242	73661.63	10	PANAI	0.95	7.36
1879	A2537	77200.01	7.100	Others	2.9	9.55	1879	A2243	73664.63	9	PANAI	1.1	7.36
1880	A2541	77243.54	9.500	Neem	1	12.1	1880	A2244	73669.63	10	PANAI	1.1	7.99
1881	A2542	77249.64	9.500	Neem	0.95	12.1	1881	A2247	73699.63	10	ILUBAI	2.5	5.99
1882	A2543	77250.64	9.500	Neem	1.35	12.1	1882	A2248	73706.21	5.627	ILUBAI	3	13.69
1883	A2544	77262.74	10.200	Panai	1.2	9.85	1883	A2250	73722.63	9.9	PANAI	1.1	7.36
1884	A2545	77271.40	10.654	Others	1.3	13.55	1884	A2251	73738.16	7.037	PANAI	1.15	8.19
1885	A2555	77310.70	7.500	Panai	1.35	6.6	1885	A2252	73745.66	6.963	PANAI	0.9	7.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1886	A2556	77316.07	5.998	Panai	1.15	6.6	1886	A2253	73752.49	6.861	PANAI	1.2	6.99
1887	A2557	77317.98	6.233	Panai	1.2	6.6	1887	A2255	73801.63	8.1	NEEM	0.8	6.99
1888	A2558	77320.78	6.500	Panai	1.2	6.6	1888	A2257	73813.44	4.996	PANAI	1.2	5.69
1889	A2562	77330.03	6.500	Panai	1.25	6.7	1889	A2258	73815.63	5.2	PANAI	1.4	4.99
1890	A2563	77336.53	6.500	Panai	1.25	6.7	1890	A2260	73837.38	3.822	ILUBAI	4.2	13.69
1891	A2566	77349.11	6.645	Panai	1.3	5.45	1891	A2264	73874.57	3.921	ILUBAI	3	9.99
1892	A2571	77362.26	9.600	Panai	1.3	5.5	1892	A2266	73947.80	3.189	PULIYAM	5	13.39
1893	A2572	77367.16	7.040	Panai	1.3	6.1	1893	A2268	73966.63	5	PANAI	0.8	8.99
1894	A2578	77411.28	9.411	Others	1	13.05	1894	A2270	73984.63	5	ILUBAI	4	12.99
1895	A2582	77430.28	7.955	Neem	1.7	11.08	1895	A2271	74011.63	6	NEEM	0.8	6.39
1896	A2583	77452.89	6.754	Panai	0.9	6.02	1896	A2273	74059.53	5.325	PULIYAM	3.3	13.19
1897	A2584	77450.08	9.445	Panai	1.2	10.15	1897	A2277	74190.07	5.362	ILUBAI	4.1	13.69
1898	A2585	77454.75	8.492	Neem	1.05	12.3	1898	A2278	74232.63	8.4	NEEM	0.8	7.69
1899	A2588	77461.12	11.000	Others	0.9	12.3	1899	A2282	74335.94	10.876	COCONUT	1	9.99
1900	A2589	77471.12	11.000	Others	1	12.1	1900	A2284	74345.63	8	PUNGAM	1.6	8.62
1901	A2601	77503.32	9.200	Neem	0.85	10	1901	A2287	74377.49	4.049	PULIYAM	5.9	14.39
1902	A2602	77510.79	9.200	Neem	1.4	12.6	1902	A2293	74471.63	5	PULIYAM	4.45	13.39
1903	A2603	77519.22	9.200	Neem	1.2	10.1	1903	A2294	74508.68	4.982	PULIYAM	3.8	13.69
1904	A2611	77558.92	8.643	Panai	1.3	6.9	1904	A2296	74522.63	6	NEEM	0.5	4.99
1905	A2612	77560.68	8.237	Panai	1.4	6.35	1905	A2297	74575.82	8.076	PANAI	0.75	7.99
1906	A2613	77563.25	7.685	Panai	1.4	5.6	1906	A2299	74609.37	7.929	PULIYAM	1.8	12.99
1907	A2614	77566.23	7.956	Panai	1.6	8.1	1907	A2300	74634.63	7.5	PANAI	1	1.66
1908	A2615	77567.67	7.556	Panai	1.5	6.4	1908	A2301	74639.63	7.7	NEEM	0.85	7.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1909	A2616	77569.39	8.131	Panai	1.28	6.7	1909	A2303	74666.63	7.9	NEEM	1.1	8.39
1910	A2617	77578.19	7.938	Panai	0.95	5.6	1910	A2305	74724.21	8.231	OTHER	3	13.16
1911	A2618	77583.67	7.895	Panai	1.2	5.95	1911	A2307	74757.63	8.2	PULIYAM	1.7	11.66
1912	A2619	77587.35	7.348	Panai	1.4	9.1	1912	A2308	74797.63	7.2	NEEM	1.7	11.99
1913	A2620	77589.45	8.800	Panai	1.3	8.9	1913	A2310	74840.05	6.535	ILUBAI	3.8	12.69
1914	A2621	77591.26	7.188	Panai	1.2	8.6	1914	A2314	74909.63	8.2	PANAI	1	9.99
1915	A2622	77593.18	8.700	Panai	1.4	8.7	1915	A2315	74918.63	6.75	NEEM	1.19	11.66
1916	A2623	77595.88	7.213	Panai	1.15	7.95	1916	A2320	74983.63	8.1	NEEM	0.4	3.39
1917	A2624	77599.05	8.800	Panai	1.3	5.55	1917	A2321	74990.63	9	OTHER	0.6	4.39
1918	A2628	77661.98	10.000	Neem	0.6	6.8	1918	A2322	74995.63	6.2	NEEM	0.66	7.99
1919	A2629	77672.08	10.000	Neem	1.25	5.6	1919	A2323	74996.63	6.3	NEEM	0.53	6.99
1920	A2630	77674.42	8.900	Panai	1.5	5.4	1920	A2324	74997.63	6.4	NEEM	0.45	6.99
1921	A2632	77680.62	9.000	Neem	1.15	5.3	1921	A2325	74998.63	6.2	NEEM	0.45	6.99
1922	A2633	77682.62	9.000	Neem	1.75	4.95	1922	A2326	74999.63	6.4	NEEM	0.88	8.36
1923	A2634	77683.68	8.650	Panai	1.78	6.25	1923	A2327	75007.63	7.5	NEEM	0.5	6.99
1924	A2635	77704.31	4.190	Panai	1.6	8.5	1924	A2329	75027.20	4.312	OTHER	4.3	13.99
1925	A2636	77709.66	4.983	Panai	1.2	9.2	1925	A2336	75047.02	7.475	NEEM	0.91	7.69
1926	A2637	77716.49	4.750	Panai	0.8	8.8	1926	A2343	75084.66	10	PUNGAM	0.5	6.99
1927	A2638	77725.97	5.968	Neem	0.7	6.65	1927	A2344	75086.72	9.5	PUNGAM	0.7	6.99
1928	A2639	77735.84	8.113	Panai	1.15	7.1	1928	A2351	75199.63	9.5	PANAI	0.7	9.99
1929	A2641	77789.47	6.433	Puliyam	4.2	13.45	1929	A2352	75213.63	8.8	NEEM	0.9	7.62
1930	A2642	77819.81	9.520	Others	2.85	13.3	1930	A2353	75218.63	8.8	OTHER	0.45	4.16
1931	A2643	77830.92	6.690	Neem	0.95	10.65	1931	A2355	75231.85	5.167	PULIYAM	4.65	13.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1932	A2644	77838.96	7.128	Neem	0.95	7.9	1932	A2356	75268.18	5.403	PULIYAM	3.9	13.16
1933	A2646	78000.24	7.800	Pungam	0.9	8.6	1933	A2357	75275.42	10.327	PANAI	1.1	13.16
1934	A2647	78010.09	7.600	Neem	0.9	9.1	1934	A2359	75287.64	5.317	PULIYAM	4.9	13.69
1935	A2648	78023.86	3.591	Arasam	4	12.69	1935	A2362	75327.67	8.312	OTHER	1.45	11.66
1936	A2651	80901.73	4.600	Neem	0.4	4.8	1936	A2363	75332.71	8.403	OTHER	1.4	11.66
1937	A2652	79956.19	10.030	Others	2.9	13.16	1937	A2365	75363.39	6.49	PULIYAM	4.45	13.39
1938	A2653	79869.32	16.077	Puliyam	4	13.28	1938	A2366	75382.04	6.902	ILUBAI	3.45	13.69
1939	A2656	79904.23	8.200	Puliyam	2.6	10.65	1939	A2368	75402.63	7.2	PULIYAM	3.7	13.39
1940	A2660	79863.59	5.216	Puliyam	5.8	13.99	1940	A2370	75438.31	8.191	PULIYAM	3.7	13.19
1941	A2263	80210.10	6.820	Puliyam	4.2	13.99	1941	A2374	75493.84	9.361	PULIYAM	4	13.69
1942	A2665	80239.15	6.809	Puliyam	2.9	10.15	1942	A2377	75532.01	9.31	PULIYAM	3.4	13.16
1943	A2666	80249.79	6.672	Puliyam	2.7	10.7	1943	A2379	75550.81	7.923	PULIYAM	5.3	13.16
1944	A2667	80408.19	7.831	Others	1.9	12.9	1944	A2380	75569.34	8.187	ILUBAI	3.5	13.36
1945	A2669	80437.99	7.962	Others	2	12.9	1945	A2381	75605.63	8	ILUBAI	3.9	13.36
1946	A2671	80466.64	6.591	Others	2.2	10.65	1946	A2384	75645.63	10.4	PANAI	1	8.99
1947	A2672	80470.71	6.873	Others	1.1	5.6	1947	A2385	75679.85	6.352	PULIYAM	5	13.19
1948	A2673	80497.99	7.692	Others	2.95	13.95	1948	A2387	75735.63	5.2	ILUBAI	5.1	13.99
1949	A2675	80598.27	8.000	Others	1.6	13.9	1949	A2389	75789.73	7.018	PULIYAM	4.8	13.39
1950	A2676	80608.33	8.000	Others	1.75	13.9	1950	A2390	75827.63	9.8	NEEM	0.4	5.66
1951	A2679	80618.33	7.740	Others	2.2	13.9	1951	A2392	75843.63	9.8	NEEM	0.55	5.99
1952	A2681	80672.48	8.600	Others	2.2	13.8	1952	A2393	75857.63	8.8	NEEM	0.8	6.36
1953	A2682	80682.55	7.973	Others	2.2	13.85	1953	A2394	75865.63	8.4	OTHER	0.9	6.39
1954	A2683	80692.60	7.807	Others	2.1	13.85	1954	A2399	75899.65	10	OTHER	0.8	7.69

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1955	A2684	80702.43	7.710	Others	2.1	13.85	1955	A2400	75902.72	10	PANAI	1.2	5.96
1956	A2685	80729.70	7.900	Others	3.1	13.8	1956	A2401	75908.73	10	OTHER	0.6	5.39
1957	A2686	80747.53	7.394	Others	3.2	13.88	1957	A2402	75916.63	10.6	OTHER	0.75	5.86
1958	A2687	80757.42	7.351	Others	2	13.88	1958	A2416	76012.90	5.617	PULIYAM	5.3	14.32
1959	A2690	80766.42	7.973	Others	1.9	13.88	1959	A2417	76031.23	6.43	ILUBAI	3.4	14.32
1960	A2691	80788.12	8.081	Others	1.75	13.88	1960	A2419	76050.55	5.47	MANGO	3.8	13.19
1961	A2694	80799.04	8.840	Others	2.4	13.88	1961	A2426	76162.80	6.117	ILUBAI	3.5	13.69
1962	A2699	80972.78	8.687	Puliyam	2.6	7.8	1962	A2428	76212.63	10.4	NEEM	1	8.99
1963	A2702	81060.50	6.232	Puliyam	2.85	13.4	1963	A2429	76224.63	8.7	NEEM	1	4.99
1964	A2703	81076.01	5.511	Puliyam	3	11.56	1964	A2432	76234.63	8.7	OTHER	0.6	7.66
1965	A2708	81237.42	5.800	Puliyam	5.5	12.99	1965	A2433	76248.63	8.7	NEEM	0.8	7.69
1966	A2711	81276.31	6.305	Puliyam	3.6	13.66	1966	A2434	76258.82	6.288	ECHAM	0.7	7.99
1967	A2713	81287.21	6.155	Puliyam	2.45	13.66	1967	A2435	76258.84	6.307	ILUBAI	3.8	13.39
1968	A2714	81300.14	5.483	Puliyam	3.25	11.88	1968	A2437	76274.63	10.5	ECHAM	0.75	6.6
1969	A2716	81358.84	4.799	Puliyam	3.9	13.66	1969	A2438	76275.63	10.5	ECHAM	0.8	8.19
1970	A2719	81427.23	7.143	Puliyam	2.8	13.67	1970	A2439	76276.63	10.5	ECHAM	0.75	6.66
1971	A2721	81489.16	7.352	Puliyam	2.4	12.6	1971	A2440	76276.63	10.5	ECHAM	0.8	7.16
1972	A2724	81537.30	4.650	Puliyam	2.7	11.87	1972	A2441	76277.63	10.5	ECHAM	0.7	6.19
1973	A2725	81567.22	7.114	Naval	0.77	7.8	1973	A2442	76281.63	10.5	ECHAM	0.8	7.16
1974	A2727	81589.86	3.452	Puliyam	3.15	13.46	1974	A2443	76288.42	8.672	ECHAM	0.8	7.39
1975	A2728	81597.85	7.055	Panai	1.2	13.99	1975	A2444	76317.18	8.423	NEEM	1.1	8.39
1976	A2732	81665.22	4.180	Puliyam	2.7	12.8	1976	A2445	76326.63	9.5	ECHAM	0.78	6.66
1977	A2733	81678.36	3.965	Puliyam	5.3	12.9	1977	A2446	76327.63	9.5	ECHAM	0.8	6.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
1978	A2734	81693.99	3.946	Puliyam	2.65	13.2	1978	A2447	76328.63	9.5	ECHAM	0.7	6.79
1979	A2737	81705.96	5.320	Others	3.7	13.1	1979	A2448	76330.63	9.5	ECHAM	0.8	7.19
1980	A2738	81745.26	5.196	Puliyam	3	13.56	1980	A2449	76330.63	9.5	ARASAM	1.5	8.19
1981	A2739	81778.55	5.334	Pungam	1.05	5.6	1981	A2450	76330.63	9.5	ECHAM	0.9	6.99
1982	A2740	81780.92	5.338	Pungam	0.65	4.1	1982	A2451	76331.63	9.6	ECHAM	0.9	6.99
1983	A2741	81781.96	5.220	Pungam	0.7	4.3	1983	A2452	76335.63	9.6	NAVAL	1.2	8.99
1984	A2742	81804.49	3.958	Pungam	1.7	6.45	1984	A2453	76339.63	9.8	ECHAM	0.8	6.99
1985	A2743	81807.92	4.923	Pungam	1.4	5.8	1985	A2454	76373.63	8	PUNGAM	0.5	5.39
1986	A2744	81809.68	5.150	Pungam	0.95	5.4	1986	A2456	76393.63	9.2	PUNGAM	0.4	7.36
1987	A2750	81842.55	2.100	Puliyam	3.35	12.75	1987	A2457	76394.63	9.2	PUNGAM	0.6	7.36
1988	A2752	81907.39	7.158	Puliyam	2.95	13.1	1988	A2460	76422.42	6.431	NAVAL	1.7	12.99
1989	A2755	81932.44	7.749	Puliyam	1.7	9.18	1989	A2461	76436.63	8.5	PUNGAM	1.1	8.66
1990	A2757	81970.15	8.457	Puliyam	3.4	12.9	1990	A2462	76442.63	8.5	NEEM	1	8.69
1991	A2762	82006.23	6.203	Puliyam	3.8	13	1991	A2464	76480.05	9.766	PANAI	0.7	8.99
1992	A2764	82036.83	6.800	Others	0.8	6.6	1992	A2467	76503.63	8	OTHER	0.7	4.99
1993	A2767	82057.89	5.876	Others	1.4	10.89	1993	A2468	76517.63	8.7	NEEM	0.8	6.99
1994	A2768	82066.14	5.804	Neem	0.8	9.1	1994	A2469	76524.63	8.7	OTHER	0.7	6.99
1995	A2770	82071.92	10.113	Neem	1	8.9	1995	A2470	76530.63	8.7	OTHER	0.75	6.96
1996	A2771	82076.32	6.000	Others	2.4	13.14	1996	A2471	76533.13	8.642	OTHER	0.8	6.96
1997	A2772	82084.11	6.302	Others	1.6	13.14	1997	A2473	76543.46	10.378	OTHER	1	8.6
1998	A2773	82097.69	6.718	Neem	0.75	7.85	1998	A2474	76545.10	7.581	NEEM	1.1	8.99
1999	A2774	82097.92	6.624	Others	2.6	13.2	1999	A2475	76571.81	8.739	NEEM	1	9.39
2000	A2775	82103.90	8.300	Neem	1	8.1	2000	A2476	76580.22	8.088	OTHER	0.9	7.36

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RHS							LHS						
2001	A2776	82129.53	7.549	Puliyam	2.4	13.1	2001	A2477	76623.98	11.492	OTHER	1.15	6.69
2002	A2777	82140.17	7.886	Puliyam	2.6	13.1	2002	A2478	76632.17	8.705	OTHER	1.4	12.6
2003	A2779	82162.86	9.825	Puliyam	2.2	9.9	2003	A2480	76677.79	8.009	OTHER	1.4	13.16
2004	A2780	82172.45	8.262	Others	2.5	13.1	2004	A2481	76685.34	7.309	OTHER	2.7	14.16
2005	A2782	82223.42	10.877	Neem	1.2	10.1	2005	A2483	76725.63	8.4	NEEM	0.65	7.99
2006	A2783	82230.95	8.154	Puliyam	2.7	13.14	2006	A2484	76737.63	7.6	NEEM	1.2	9.99
2007	A2785	82271.11	8.326	Puliyam	3.4	13.15	2007	A2485	76743.63	7.5	NEEM	0.6	6.99
2008	A2786	82289.90	9.859	Puliyam	2.3	12.6	2008	A2486	76745.63	7.8	NEEM	0.65	6.99
2009	A2789	82320.20	10.204	Puliyam	2.6	13.46	2009	A2487	76755.63	8.4	NEEM	1	7.69
2010	A2791	82339.35	9.310	Puliyam	2.2	12.9	2010	A2489	76768.64	6.929	OTHER	2.2	13.99
2011	A2793	82349.19	9.104	Puliyam	2.6	13	2011	A2492	76775.63	8.1	NEEM	0.5	6.66
2012	A2795	82358.36	8.348	Puliyam	3.1	13.1	2012	A2493	76782.63	8.1	OTHER	1.4	6.66
2013	A2796	82368.31	8.310	Puliyam	4	13.1	2013	A2494	76799.64	6.996	OTHER	2.6	13.39
2014	A2799	82388.57	8.343	Puliyam	3	12.85	2014	A2497	76832.09	8.082	OTHER	3.2	12.99
2015	A2804	82438.69	8.147	Puliyam	2.8	13.28	2015	A2499	76850.01	10.009	OTHER	3.9	9.89
2016	A2805	82448.43	7.512	Puliyam	3.2	13.2	2016	A2507	76947.27	10.348	NEEM	1	9.69
2017	A2809	82491.16	7.889	Puliyam	3.9	13.3	2017	A2508	76949.58	11.146	NEEM	1	9.69
2018	A2812	82509.99	7.346	Puliyam	2.9	13.2	2018	A2509	76976.64	8.799	NEEM	1	8.69
2019	A2813	82519.34	7.001	Puliyam	2.4	13.2	2019	A2510	76983.04	8.541	NEEM	1	8.69
2020	A2816	82548.70	6.343	Puliyam	2.6	13.1	2020	A2513	76999.63	9.5	NEEM	0.75	7.89
2021	A2818	82577.25	5.613	Puliyam	4.1	13.2	2021	A2515	77009.92	6.724	OTHER	4	13.69
2022	A2819	82588.60	7.009	Puliyam	2.6	13.2	2022	A2520	77082.94	6.176	OTHER	3.1	14.12
2023	A2820	82617.07	6.242	Neem	0.8	7.3	2023	A2523	77110.27	7.626	NEEM	0.5	5.16

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2024	A2822	82637.61	6.910	Puliyam	2.7	12.96	2024	A2524	77116.38	6.669	OTHER	2.3	12.99
2025	A2825	82657.67	5.870	Puliyam	1.9	13	2025	A2525	77109.63	7.9	OTHER	3.8	14.39
2026	A2827	82668.96	5.843	Puliyam	2.3	13	2026	A2526	77120.63	8	NEEM	0.4	7.99
2027	A2831	82800.36	7.000	Neem	1.1	7.89	2027	A2527	77120.63	8	NEEM	0.45	7.99
2028	A2832	82818.39	7.000	Others	2.4	13.28	2028	A2528	77122.63	8	NEEM	0.7	7.99
2029	A2833	82837.38	7.200	Others	2.2	13.28	2029	A2529	77133.63	8	NEEM	0.7	8.16
2030	A2834	82846.96	6.950	Panai	0.95	12.1	2030	A2530	77138.63	9.5	NEEM	0.7	6.99
2031	A2835	82852.98	6.500	Neem	0.8	8.25	2031	A2531	77150.82	8.039	NAVAL	1.7	12.99
2032	A2836	82855.98	6.350	Panai	0.8	8.3	2032	A2532	77169.63	7.1	NEEM	0.6	6.99
2033	A2837	82866.41	6.400	Others	0.7	7.85	2033	A2534	77179.63	9.8	NEEM	0.9	8.69
2034	A2839	82873.02	4.951	Panai	0.8	6.99	2034	A2535	77180.63	7.1	NEEM	0.9	6.99
2035	A2840	82880.03	8.900	Panai	1.2	10.23	2035	A2536	77192.63	8.6	NEEM	0.8	8.66
2036	A2841	82889.11	8.801	Panai	1.1	10.23	2036	A2538	77213.76	8.908	OTHER	3.1	14.16
2037	A2842	82890.22	9.064	Panai	0.7	10.23	2037	A2539	77232.38	11.022	NEEM	0.5	7.69
2038	A2843	82896.01	6.697	Panai	0.8	10.23	2038	A2540	77238.20	7.154	OTHER	2.3	9.99
2039	A2863	82909.93	6.350	Panai	1.1	14	2039	A2546	77262.73	5.793	PULIYAM	4.3	13.69
2040	A2864	83008.69	7.890	Panai	0.7	13.2	2040	A2547	77275.63	7.6	NEEM	0.9	7.69
2041	A2865	83012.69	7.890	Panai	0.7	13.2	2041	A2548	77283.63	8.3	PANAI	1.2	6.39
2042	A2867	83026.33	6.300	Eesam	0.6	10.9	2042	A2549	77289.63	8.3	PANAI	1.2	8.39
2043	A2868	83048.31	8.300	Panai	0.9	9.8	2043	A2550	77294.63	8.2	PANAI	1.2	6.32
2044	A2869	83056.31	8.350	Panai	0.6	10.9	2044	A2551	77296.63	7.9	PANAI	1.2	8.42
2045	A2870	83058.32	8.300	Panai	1	11	2045	A2552	77297.63	7.5	PANAI	1.15	4.32
2046	A2871	83069.25	9.100	Neem	1.35	10.5	2046	A2553	77307.63	8.5	PANAI	1.2	8.39

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2047	A2878	83199.35	6.766	Others	1.5	9.8	2047	A2554	77311.17	7.537	PANAI	1.2	8.39
2048	A2879	83210.26	4.620	Others	0.9	11.35	2048	A2559	77317.63	7.5	PANAI	1.3	8.32
2049	A2886	83276.63	6.624	Neem	1.4	12.12	2049	A2560	77320.63	7.5	PANAI	1.3	6.99
2050	A2887	83281.35	8.073	Others	2.3	10.95	2050	A2561	77325.63	7.5	NEEM	0.8	8.39
2051	A2891	83299.61	8.512	Panai	1.1	11.65	2051	A2564	77333.63	7.5	PANAI	1.2	7.69
2052	A2892	83302.51	8.390	Neem	1.38	11	2052	A2565	77340.63	7.5	ECHAM	1	7.69
2053	A2893	83309.57	9.200	Others	1.2	12.35	2053	A2567	77355.87	7.076	PANAI	1.4	4.99
2054	A2894	83316.13	8.276	Neem	1.2	9.98	2054	A2568	77360.45	6.999	PANAI	1.5	6.99
2055	A2895	83319.88	8.618	Panai	1.1	13.4	2055	A2569	77362.63	7.7	PANAI	1.9	4.99
2056	A2896	83324.16	7.225	Panai	1.3	9.75	2056	A2570	77365.01	6.471	PANAI	1.35	3.99
2057	A2897	83328.97	8.950	Neem	1.1	10.1	2057	A2573	77374.67	7.562	PANAI	1.3	6.99
2058	A2900	83333.74	11.550	Panai	1.2	12.6	2058	A2574	77378.54	7.062	PANAI	1.2	7.96
2059	A2901	83339.05	8.582	Neem	1.95	11.85	2059	A2575	77389.63	9	NEEM	0.8	7.38
2060	A2902	83339.52	9.012	Neem	0.95	6.15	2060	A2576	77399.63	7	NEEM	0.9	7.39
2061	A2904	83346.08	5.361	Neem	0.8	7	2061	A2577	77406.84	6.981	NEEM	0.7	7.39
2062	A2905	83351.98	5.365	Neem	0.65	7.1	2062	A2579	77414.38	10.56	OTHER	0.7	8.39
2063	A2907	83381.12	10.279	Others	1.65	12.2	2063	A2580	77417.87	6.536	NEEM	0.75	8.36
2064	A2912	83408.36	8.200	Neem	1.2	10.25	2064	A2581	77427.69	7.113	PANAI	1.2	6.99
2065	A2913	83422.33	8.800	Others	1.1	9.8	2065	A2586	77446.63	10.5	OTHER	0.9	7.69
2066	A2914	83428.22	8.200	Panai	1.15	13.14	2066	A2587	77450.10	7.335	OTHER	0.7	7.69
2067	A2915	83437.93	7.900	Panai	0.9	13.14	2067	A2590	77460.51	7.739	NEEM	0.75	7.86
2068	A2916	83441.93	7.900	Others	1.4	8.6	2068	A2591	77461.63	10.5	PANAI	1.15	7.69
2069	A2920	83456.23	5.650	Pungam	1.6	4.68	2069	A2592	77466.39	7.923	PANAI	1	7.86

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RHS							LHS						
2070	A2921	83469.50	5.650	Pungam	0.4	5.15	2070	A2593	77466.39	7.923	NEEM	0.65	7.99
2071	A2923	83480.32	5.650	Neem	0.6	7.8	2071	A2594	77475.99	6.641	PANAI	1.1	7.99
2072	A2924	83485.88	5.650	Pungam	1.2	7.9	2072	A2595	77475.34	7.534	PANAI	1	8.32
2073	A2925	83491.88	5.650	Panai	1	13.1	2073	A2596	77481.89	7.093	PANAI	0.9	8.38
2074	A2937	83531.04	9.500	Others	0.4	6.15	2074	A2597	77485.18	6.598	PANAI	1.05	8.38
2075	A2938	83542.03	9.300	Others	0.6	7.18	2075	A2598	77491.95	5.423	PANAI	1.1	3.99
2076	A2939	83543.03	9.300	Panai	0.98	12.18	2076	A2599	77495.08	6.16	PANAI	1.2	4.36
2077	A2940	83549.98	9.300	Panai	1.1	12.18	2077	A2600	77497.63	9	PANAI	1.25	4.36
2078	A2941	83551.98	9.300	Others	0.4	7	2078	A2604	77513.03	5.898	PANAI	1.3	3.36
2079	A2942	83553.98	9.300	Panai	1	12.15	2079	A2605	77514.44	7.865	PANAI	1.2	6.99
2080	A2943	83559.44	9.300	Panai	1.05	12.1	2080	A2606	77515.34	5.641	PANAI	1	5.44
2081	A2944	83560.44	9.300	Others	0.45	7.05	2081	A2607	77516.39	5.239	PANAI	1	6.99
2082	A2945	83570.62	9.000	Neem	0.55	6.1	2082	A2608	77523.63	7.6	NEEM	1.05	7.99
2083	A2946	83578.92	8.900	Others	0.95	6.1	2083	A2609	77529.63	7.6	PANAI	1	7.86
2084	A2947	83591.10	8.900	Others	0.8	5.95	2084	A2610	77536.63	7.6	NEEM	0.8	7.32
2085	A2950	83635.18	4.924	Panai	0.8	12.15	2085	A2625	77624.40	10	PANAI	1.1	9.99
2086	A2951	83727.27	5.600	Pungam	1.1	7.12	2086	A2626	77630.26	8.862	PANAI	1.1	9.99
2087	A2953	83757.21	5.400	Others	1.35	6.95	2087	A2627	77630.26	8.862	PANAI	1.1	9.99
2088	A2955	83778.02	7.850	Puliyam	1.95	12.35	2088	A2631	77672.71	5.968	PULIYAM	3.7	13.39
2089	A2956	83788.66	7.813	Pungam	1	8.1	2089	A2640	77770.20	7.984	PULIYAM	5.2	13.38
2090	A2958	83800.21	7.557	Puliyam	2.1	13.14	2090	A2645	78012.11	9.86	ARASAM	10.2	13.99
2091	A2960	83848.19	6.382	Puliyam	2.1	13.14	2091	A2649	78089.63	2	OTHER	0.65	9.66
2092	A2963	83901.91	11.870	Neem	1.3	12.5	2092	A2650	78123.63	1	NEEM	3	13.99

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RHS							LHS						
2093	A2972	84780.75	10.650	Neem	1.2	10.85	2093	A2654	79700.04	9.439	PULIYAM	3	12.99
2094	A2973	84758.22	10.000	Neem	0.9	5.9	2094	A2655	79717.63	8	PULIYAM	2.9	12.99
2095	A2974	84769.77	8.600	Others	1.2	12.95	2095	A2657	80029.81	6.426	PULIYAM	3.7	13.32
2096	A2976	84949.31	5.460	Panai	1	9.2	2096	A2658	80073.54	6.149	PULIYAM	3.55	9.99
2097	A2977	84976.07	4.771	Panai	1.2	8.95	2097	A2659	80090.00	6.699	PULIYAM	3.6	11.66
2098	B1	85007.01	7.000	Other	0.5	5.66	2098	A2661	80165.56	6.334	PULIYAM	4.1	13.99
2099	B2	85016.33	6.224	PUNGA	1.1	9	2099	A2662	80209.00	5.551	PULIYAM	3	13.16
2100	B4	85028.01	7.560	Other	0.4	4.56	2100	A2664	80236.56	4.773	PULIYAM	3.1	6.65
2101	B5	85037.73	7.700	Other	0.8	8.99	2101	A2668	80410.63	7	NEEM	0.7	9.99
2102	B6	85048.01	8.000	Other	0.7	5.6	2102	A2670	80439.63	7	NEEM	1.1	11.66
2103	B7	85057.88	7.850	NAVAL	0.8	8.5	2103	A2674	80526.94	8.123	OTHER	2.1	12.99
2104	B8	85078.16	8.000	NAVAL	0.8	8	2104	A2677	80605.24	7.8	OTHER	3.8	13.39
2105	B9	85097.01	7.000	Other	0.5	5.1	2105	A2678	80623.71	9.388	OTHER	3.5	13.39
2106	B10	85100.91	4.500	PANAI	0.75	9.85	2106	A2680	80662.47	8.219	OTHER	2.5	12.99
2107	B11	85103.90	3.135	PANAI	0.8	9.5	2107	A2688	80752.73	8.443	OTHER	2	12.99
2108	B18	85121.06	8.000	NAVAL	0.9	8	2108	A2689	80761.71	9.059	OTHER	2.5	13.16
2109	B19	85129.06	7.100	NAVAL	0.6	7.2	2109	A2692	80772.95	8.431	OTHER	2	13.16
2110	B22	85141.06	8.000	Other	0.5	3.2	2110	A2693	80783.97	8.317	OTHER	2.4	13.16
2111	B25	85177.53	6.600	NAVAL	0.5	4.1	2111	A2695	80840.41	8.779	OTHER	2.3	13.32
2112	B27	85191.06	8.000	Other	1	3.99	2112	A2696	80871.31	8.243	OTHER	2.8	13.12
2113	B29	85227.11	7.100	PUNGA	0.7	3.1	2113	A2697	80880.12	7.951	OTHER	2.15	13.16
2114	B32	85244.64	4.631	NAVAL	0.8	3.5	2114	A2698	80901.28	7.074	OTHER	1.8	13.19
2115	B33	85248.00	5.100	PANAI	1.1	9.75	2115	A2700	80990.81	7.703	OTHER	1.3	9.99

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RHS							LHS						
2116	B34	85257.01	7.000	PUNGA	0.5	3.2	2116	A2701	81013.04	6.589	OTHER	1.7	12.99
2117	B35	85267.51	7.500	NAVAL	0.7	4.6	2117	A2704	81137.63	4.000	PULIYAM	3.1	9.99
2118	B38	85274.53	8.000	PUNGA	0.45	3	2118	A2705	81145.63	4.300	OTHER	2.2	9.99
2119	B40	85327.73	7.560	NAVAL	0.8	4.4	2119	A2706	81189.63	4.700	PULIYAM	2.4	13.56
2120	B41	85348.01	8.000	NAVAL	0.9	4	2120	A2707	81215.75	4.941	PULIYAM	2.45	12.99
2121	B42	85348.01	8.000	PUNGA	1	5	2121	A2709	81241.56	4.650	PULIYAM	2	12.99
2122	B43	85369.33	8.100	PANAI	1.1	10.69	2122	A2710	81260.39	2.869	PULIYAM	5	13.36
2123	B44	85397.71	7.700	NEEM	1.2	8.1	2123	A2712	81274.27	4.120	PULIYAM	3.5	13.19
2124	B46	85408.16	8.000	NEEM	0.9	8.5	2124	A2715	81302.97	4.538	PULIYAM	4.15	13.09
2125	B52	85545.63	5.042	PUNGA	0.9	8	2125	A2717	81380.26	8.398	OTHER	2.3	9.86
2126	B53	85557.08	6.940	PUNGA	1.1	8	2126	A2718	81410.63	7.800	OTHER	2.5	7.61
2127	B67	85768.16	8.000	Other	0.8	9	2127	A2720	81472.62	4.882	PULIYAM	2.4	13.19
2128	B72	85807.60	4.443	PUNGA	1.27	10.8	2128	A2722	81497.45	4.857	PULIYAM	4.45	13.32
2129	B73	85827.09	6.604	NEEM	0.9	8.9	2129	A2723	81528.94	5.778	PULIYAM	3.9	13.36
2130	B74	85849.51	4.000	PUNGA	0.9	3	2130	A2726	81573.79	6.243	PULIYAM	3.6	12.99
2131	B76	85904.32	4.000	PULLIYA	1.4	7.95	2131	A2729	81630.43	5.772	PULIYAM	2.8	13.19
2132	B77	85968.75	4.930	Other	1.1	6.5	2132	A2730	81636.27	8.449	PANAI	0.9	13.36
2133	B78	85978.36	3.249	PULLIYA	1	9.85	2133	A2731	81643.63	6.400	PULIYAM	2.1	13.19
2134	B79	86004.25	3.946	ARASA	2.1	10.62	2134	A2735	81696.11	6.658	OTHER	1.7	12.99
2135	B80	86039.56	7.179	ARASA	2.4	10	2135	A2736	81704.91	5.328	PULIYAM	2.1	12.99
2136	B81	86116.22	5.918	PULLIYA	1.1	9.1	2136	A2745	81802.63	10.400	OTHER	2.4	13.19
2137	B83	86209.67	9.539	EACH	0.7	7.9	2137	A2746	81815.47	9.455	PUNGAM	1.1	8.12
2138	B84	86273.77	13.677	NEEM	0.8	9	2138	A2747	81824.95	9.246	OTHER	2.1	13.19

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2139	B85	86287.28	6.372	PANAI	1.2	10.1	2139	A2748	81834.90	9.358	OTHER	1.8	12.99
2140	B86	86290.80	9.767	PANAI	1.1	10	2140	A2749	81845.07	9.363	OTHER	2	12.99
2141	B87	86294.73	6.500	NEEM	2.3	13.1	2141	A1751	81857.63	8.500	PUNGAM	1	7.99
2142	B88	86298.01	8.000	PANAI	1.3	9.85	2142	A2753	81894.28	9.537	PANAI	1.2	13.59
2143	B89	86309.01	9.000	NEEM	0.6	7.5	2143	A2754	81907.19	9.248	PANAI	1.2	13.59
2144	B90	86313.59	7.464	PANAI	1.1	9.5	2144	A2756	81952.63	8.600	NEEM	1.1	10.99
2145	B91	86349.29	6.427	PUNGA	1.3	7	2145	A2758	81965.63	8.300	PANAI	1	12.99
2146	B96	86470.69	8.776	PANAI	1.2	10.1	2146	A2759	81976.63	8.600	PANAI	1	12.99
2147	B97	86485.21	5.200	NEEM	0.8	7.2	2147	A2760	81977.63	8.600	PANAI	1	13.39
2148	B99	86497.51	7.500	NEEM	0.6	4.5	2148	A2761	81981.63	9.000	PANAI	1.2	13.19
2149	B100	86498.11	8.100	NEEM	0.5	4.5	2149	A2763	82017.72	8.908	PULIYAM	2.75	13.16
2150	B101	86499.11	8.100	PANAI	1	10.1	2150	A2765	82045.28	9.329	OTHER	1.4	7.99
2151	B102	86503.26	7.000	NEEM	0.7	7	2151	A2766	82053.63	10.200	OTHER	0.6	5.99
2152	B103	86515.93	5.771	PANAI	1	8.5	2152	A2769	82064.31	10.710	NEEM	1.25	9.99
2153	B105	86510.08	9.800	NEEM	0.5	6.5	2153	A2778	82133.64	10.105	NEEM	1	7.99
2154	B106	86521.90	11.894	PANAI	1.2	11.2	2154	A2781	82205.50	6.223	PULIYAM	1.8	13.1
2155	B110	86608.74	8.559	PUNGA	0.9	7.7	2155	A2784	82236.63	10.800	NEEM	1.6	7.99
2156	B123	86870.97	9.605	PANAI	1.3	8.5	2156	A2787	82282.63	4.777	PULIYAM	2.6	13.39
2157	B127	86899.01	9.000	NEEM	0.45	4.5	2157	A2788	82294.18	4.031	PULIYAM	3.6	13.39
2158	B128	86918.71	8.600	NEEM	0.67	5.99	2158	A2790	82323.20	3.442	PULIYAM	3.5	13.32
2159	B130	86940.70	10.648	PANAI	1.2	8.9	2159	A2792	82333.16	3.219	PULIYAM	2.7	13.19
2160	B133	86947.11	10.857	PANAI	1	10.1	2160	A2794	82342.92	3.492	PULIYAM	2.3	13.19
2161	B261	87819.01	1.372	PULLIYA	3.9	12.69	2161	A2797	82363.88	4.191	PULIYAM	2.2	11.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2162	B278	88141.63	10.210	Other	5.69	14.2	2162	A2798	82374.30	4.228	PULIYAM	2.3	11.66
2163	B306	88299.09	8.700	NEEM	0.6	5.3	2163	A2800	82384.93	4.557	PULIYAM	2.4	11.66
2164	B311	88319.86	9.500	PULLIYA	0.4	4.2	2164	A2801	82395.23	4.533	PULIYAM	3.2	13.16
2165	B322	88428.02	7.994	PANAI	1.2	6.7	2165	A2802	82405.73	4.443	PULIYAM	2.9	13.16
2166	B323	88429.47	9.100	Other	0.6	6	2166	A2803	82416.22	4.196	PULIYAM	3.2	13.16
2167	B326	88439.31	9.300	Other	0.5	5.8	2167	A2806	82448.84	4.309	PULIYAM	3.9	13.36
2168	B327	88451.81	9.100	Other	0.6	6.1	2168	A2807	82471.88	4.258	PULIYAM	3.8	13.19
2169	B328	88449.72	9.700	Other	0.5	6.2	2169	A2808	82482.41	4.319	PULIYAM	3.4	13.36
2170	B341	88482.32	8.624	Other	0.7	5.2	2170	A2810	82494.42	4.230	PULIYAM	2.9	13.19
2171	B357	88530.34	7.774	NEEM	0.8	7.8	2171	A2811	82504.94	4.750	PULIYAM	2.15	13.19
2172	B358	88539.11	9.100	NEEM	0.85	7.9	2172	A2814	82516.20	4.610	PULIYAM	2.8	13.36
2173	B361	88544.11	8.900	NEEM	0.6	7.5	2173	A2815	82538.69	4.184	PULIYAM	3.2	13.19
2174	B362	88548.12	9.100	NEEM	0.5	7.2	2174	A2817	82569.51	5.636	PULIYAM	3	12.99
2175	B363	88549.89	9.200	NEEM	0.8	7.8	2175	A2821	82626.12	7.520	OTHER	0.8	8.66
2176	B365	88553.47	8.942	PUNGA	0.6	6.5	2176	A2823	82641.63	7.800	PULIYAM	3.3	13.39
2177	B366	88559.12	9.100	PUNGA	0.8	6.6	2177	A2824	82651.39	7.821	PULIYAM	1.9	12.99
2178	B370	88569.05	8.900	Other	0.6	7.2	2178	A2826	82664.15	7.500	PULIYAM	2.6	12.99
2179	B371	88569.65	9.500	Other	0.8	8.5	2179	A2828	82756.63	8.800	PANAI	0.6	9.99
2180	B380	88581.95	9.200	Other	0.85	4.5	2180	A2829	82763.63	8.800	PANAI	0.8	9.99
2181	B381	88590.87	9.300	Other	0.8	5.8	2181	A2830	82764.63	9.800	ECHAM	1	7.66
2182	B391	88610.07	9.811	Other	0.7	4.2	2182	A2838	82859.63	7.000	PUNGAM	0.6	7.69
2183	B392	88613.01	9.941	PUNGA	1.3	8.7	2183	A2844	82900.93	11.317	KARUVAI	1	9.99
2184	B393	88629.21	9.200	PANAI	1.2	6.8	2184	A2845	82940.63	9.005	OTHER	2.2	12.96

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2185	B394	88634.21	9.300	PANAI	1.2	8.7	2185	A2846	82978.41	11.817	PANAI	0.7	13.16
2186	B395	88637.21	9.200	Other	0.7	5.2	2186	A2847	82979.26	13.789	PANAI	0.7	12.99
2187	B396	88639.05	8.900	PANAI	1.1	8.9	2187	A2848	82989.31	9.445	PANAI	0.8	12.99
2188	B397	88643.07	8.500	Other	1	8.2	2188	A2849	82994.63	10.100	PANAI	1.1	12.99
2189	B399	88660.20	8.241	Other	2.3	11.3	2189	A2850	82995.69	10.160	PANAI	1.1	13.36
2190	B401	88681.05	9.169	PANAI	1.3	5.45	2190	A2851	83002.60	10.274	PANAI	0.8	12.99
2191	B403	88701.33	11.248	PANAI	1.1	7.95	2191	A2852	83003.84	10.351	PANAI	1	12.69
2192	B404	88729.44	7.884	NEEM	0.9	6.99	2192	A2853	83004.60	10.301	PANAI	0.8	12.36
2193	B405	88739.38	9.000	PANAI	1.1	10.69	2193	A2854	83014.51	9.102	PANAI	0.9	12.99
2194	B407	88745.39	8.600	PANAI	1.2	8.4	2194	A2855	83020.31	8.405	PANAI	0.7	13.19
2195	B408	88769.02	9.000	PANAI	1.3	9.79	2195	A2856	83026.49	9.040	PANAI	0.7	12.96
2196	B409	88770.59	10.070	NEEM	0.5	4.69	2196	A2857	83028.63	9.000	PANAI	0.8	9.99
2197	B411	88777.91	7.500	Other	2.1	10.89	2197	A2858	83030.51	8.493	PANAI	0.8	9.99
2198	B415	88780.45	8.878	PANAI	1.2	6.95	2198	A2859	83034.63	10.000	PANAI	1.1	5.6
2199	B416	88790.48	9.430	PANAI	1.1	9.3	2199	A2860	83035.11	9.367	PANAI	1	9.64
2200	B417	88793.00	9.096	PANAI	1.2	9.3	2200	A2861	83035.75	9.086	PANAI	0.9	8.99
2201	B419	88801.02	10.000	PANAI	1.1	9.79	2201	A2862	83048.81	8.925	OTHER	1.3	13.69
2202	B421	88794.06	10.000	PANAI	1.15	10.1	2202	A2872	83060.39	9.527	OTHER	0.8	11.66
2203	B422	88810.13	10.000	PANAI	1	10	2203	A2873	83073.11	8.439	PANAI	0.7	12.99
2204	B423	88813.13	10.000	PANAI	1.2	10	2204	A2874	83088.63	8.500	PANAI	0.7	12.99
2205	B424	88819.99	8.863	PANAI	1.1	8.5	2205	A2875	83202.50	8.130	PANAI	0.8	12.99
2206	B428	88830.45	10.451	NEEM	0.8	6.99	2206	A2876	83201.70	10.954	PANAI	0.7	13.19
2207	B429	88834.75	9.886	PANAI	1.1	7.5	2207	A2877	83211.34	7.631	OTHER	1	5.66

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2208	B430	88838.41	8.521	PANAI	1.2	10.1	2208	A2880	83243.66	11.281	PANAI	0.8	13.16
2209	B435	88848.03	8.000	PANAI	1.3	5.6	2209	A2881	83247.24	7.256	PANAI	0.8	6.99
2210	B438	88868.64	8.571	PULLIYA	1.2	7.5	2210	A2882	83261.46	9.211	PANAI	0.7	12.99
2211	B441	88878.71	8.700	PANAI	1.1	5.69	2211	A2883	83267.63	8.800	PANAI	0.7	12.99
2212	B445	88903.05	11.629	NEEM	0.8	7.1	2212	A2884	83267.91	10.031	PANAI	0.9	12.99
2213	B446	88906.62	9.300	NEEM	1	8.75	2213	A2885	83270.43	8.868	NEEM	0.8	12.99
2214	B448	88902.82	1.000	NEEM	0.9	8	2214	A2888	83283.29	8.540	PANAI	1	8.99
2215	B462	89139.21	9.200	NEEM	0.8	7.25	2215	A2889	83283.91	9.112	PANAI	1	13.16
2216	B463	89143.82	10.681	ARASA	1.2	8	2216	A2890	83301.59	6.900	NEEM	1.2	12.99
2217	B470	89225.74	1.100	NEEM	1	7.75	2217	A2898	83318.97	7.497	NEEM	1.7	12.99
2218	B474	89284.74	1.000	NEEM	1.1	6.9	2218	A2899	83324.70	8.318	PANAI	1	12.99
2219	B479	89361.42	8.500	NEEM	0.7	6.5	2219	A2903	83342.27	8.058	OTHER	0.6	4.99
2220	B480	89378.26	8.100	NEEM	0.6	5.7	2220	A2906	83362.45	7.712	ILUBAI	2.4	13.16
2221	B481	89740.20	8.500	NEEM	0.8	6.8	2221	A2908	83397.63	6.900	NEEM	0.9	7.96
2222	B482	89396.28	5.700	NEEM	0.9	8.2	2222	A2909	83399.65	6.518	NEEM	0.9	7.96
2223	B484	89409.14	7.200	NEEM	0.6	6.2	2223	A2910	834009.87	5.546	PANAI	0.7	9.99
2224	B485	89417.98	7.100	PUNGA	0.4	7.5	2224	A2911	834009.87	5.546	PANAI	0.75	9.99
2225	B486	89439.96	6.400	PUNGA	0.3	6.2	2225	A2917	83431.63	8.300	NEEM	0.9	8.69
2226	B487	89468.56	7.200	PUNGA	0.5	6.5	2226	A2918	83439.63	8.500	NEEM	1.1	8.69
2227	B488	89479.15	9.000	NEEM	0.8	7.4	2227	A2919	83448.63	8.300	PANAI	1.2	6.99
2228	B491	89500.03	8.300	NEEM	0.5	6.1	2228	A2922	83475.04	5.183	PANAI	0.8	13.16
2229	B492	89507.42	5.800	PANAI	1.1	10.4	2229	A2926	83506.63	7.800	NEEM	1.3	9.99
2230	B496	89517.62	6.700	NEEM	0.69	5.1	2230	A2927	83510.63	7.000	PUNGAM	0.9	5.69

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RHS							LHS						
2231	B503	89558.75	8.600	NEEM	0.5	7	2231	A2928	83520.55	6.072	PANAI	0.7	7.69
2232	B506	89586.11	6.100	NEEM	0.4	5.5	2232	A2929	83526.21	5.994	PANAI	0.7	7.89
2233	B508	89595.10	3.786	NEEM	0.6	5.2	2233	A2930	83528.59	6.886	PANAI	1	7.99
2234	B509	89611.13	8.100	NEEM	0.75	10.5	2234	A2931	83529.63	6.800	OTHER	1	8.16
2235	B513	89649.64	5.100	ARASA	0.8	0.8	2235	A2932	83539.63	5.300	ECHAM	1.3	7.99
2236	B513	89657.86	6.000	ARASA	0.8	9.8	2236	A2933	83545.63	6.200	OTHER	1.2	7.79
2237	B514	89656.84	6.200	NEEM	0.9	6.2	2237	A2934	83557.63	7.300	OTHER	0.6	7.99
2238	B515	89655.29	0.300	NEEM	0.4	5.8	2238	A2935	83563.63	7.000	PANAI	1.3	7.99
2239	B516	89661.47	6.100	NEEM	0.6	7.1	2239	A2936	83570.63	5.800	NEEM	0.6	6.99
2240	B517	89666.27	1.455	ARASA	0.9	10.3	2240	A2948	83604.63	8.500	PUNGAM	1	7.99
2241	B518	89674.04	3.700	PULLIYA	1	7.5	2241	A2949	83614.46	7.999	PUNGAM	1.2	7.99
2242	B528	89841.04	9.500	NEEM	0.6	7.7	2242	A2952	83739.84	10.000	PULIYAM	2.9	13.16
2243	B529	89850.17	9.500	NEEM	1	8.7	2243	A2954	83766.43	7.546	PULIYAM	2.2	13.16
2244	B534	89917.95	7.500	NEEM	0.4	6.4	2244	A2957	83794.81	6.950	PULIYAM	3.5	13.39
2245	B536	89948.46	8.126	NEEM	1.4	10.7	2245	A2959	83807.19	6.951	PULIYAM	2	13.16
2246	B540	89961.37	10.896	NEEM	8	6.4	2246	A2861	83884.53	6.192	PULIYAM	2.8	13.09
2247	B541	89978.76	6.729	NEEM	1.8	10.3	2247	A2962	83895.94	6.631	PULIYAM	2.8	13.39
2248	B542	89990.11	6.209	NEEM	0.6	7.4	2248	A2964	84007.41	6.979	NEEM	1.2	13.99
2249	B544	90008.53	8.200	Other	0.8	7	2249	A2965	84024.63	7.300	PUNGAM	1.1	6.66
2250	B545	90027.51	7.500	Other	1.9	10.8	2250	A2966	84046.44	7.752	PANAI	1	8.99
2251	B546	90047.19	7.000	PULLIYA	1.6	11.7	2251	A2967	84673.63	9.100	NEEM	0.9	5.66
2252	B556	90157.98	7.971	PULLIYA	1.8	11.3	2252	A2968	84722.63	7.900	PANAI	1	13.16
2253	B557	90169.01	8.980	PULLIYA	1.8	11	2253	A2969	84739.05	7.899	PANAI	0.7	12.99

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RHS							LHS						
2254	B563	90199.69	8.260	PULLIYA	2.2	11.7	2254	A2970	84747.09	9.028	PUNGAM	0.8	11.66
2255	B565	90220.52	7.652	PULLIYA	1.9	11.5	2255	A2971	84750.43	7.835	NEEM	1	11.66
2256	B566	90240.36	8.366	PULLIYA	1.9	11.8	2256	A2975	84872.63	7.000	NEEM	1	8.66
2257	B567	90258.26	8.201	PULLIYA	2.3	11.5	2257	A2978	84981.63	9.500	VATHAM	0.5	6.66
2258	B570	90268.68	8.614	PULLIYA	2.1	13.6	2258	B3	85012.57	7.849	OTHER	1.86	11.86
2259	B571	90278.68	8.677	PULLIYA	1.6	10.8	2259	B12	85098.63	7.850	PANAI	1.1	10.95
2260	B572	90289.07	8.433	PULLIYA	1.9	11.2	2260	B13	85106.17	9.133	PANAI	0.9	9.5
2261	B573	90309.70	8.157	PULLIYA	2	11	2261	B14	85109.63	8.662	PANAI	1	10.99
2262	B578	90367.80	7.557	PULLIYA	1.5	11.2	2262	B15	85109.54	7.901	OTHER	1.2	9.1
2263	B579	90378.06	7.857	PULLIYA	1.2	10.5	2263	B16	85109.82	7.906	EACH	0.6	8.95
2264	B583	90388.70	8.552	PULLIYA	1.7	10.2	2264	B17	85117.63	6.650	EACH	0.7	9
2265	B584	90398.30	8.255	PULLIYA	2.3	11.7	2265	B20	85134.26	9.475	PANAI	1.3	11.55
2266	B585	90407.14	7.109	PULLIYA	2	11.9	2266	B21	85136.63	7.500	NEEM	1.1	10.1
2267	B586	90420.18	9.500	PULLIYA	1.6	11.5	2267	B23	85142.63	7.800	NEEM	1.2	7.13
2268	B587	90439.90	9.600	PULLIYA	2.1	12	2268	B24	85164.63	8.000	EACH	0.7	8.63
2269	B588	90449.61	9.500	PULLIYA	1.6	11.4	2269	B26	85183.63	6.900	EACH	0.8	9.1
2270	B592	90458.62	8.500	PULLIYA	2.7	11.2	2270	B28	85191.63	7.850	PANAI	1.1	9.85
2271	B593	90468.83	8.500	PULLIYA	2.6	11	2271	B30	85220.69	7.126	EACH	0.8	11.66
2272	B594	90477.84	7.625	PULLIYA	1.8	11	2272	B31	85223.63	7.560	EACH	0.8	9.45
2273	B597	90486.53	6.468	PULLIYA	1.7	11	2273	B36	85263.59	8.472	NEEM	1.5	10.89
2274	B598	90497.10	6.912	PULLIYA	2.1	11.1	2274	B37	85265.17	8.770	NEEM	1.35	10.8
2275	B599	90505.49	7.000	PULLIYA	1.5	11	2275	B39	85289.63	7.600	PANAI	1.2	10.1
2276	B600	90516.80	6.775	PULLIYA	2.1	11	2276	B45	85393.63	8.500	PANAI	1	9

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2277	B601	90531.96	6.806	NEEM	1.2	11	2277	B47	85402.03	5.939	NEEM	1.3	9.77
2278	B602	90527.17	11.233	NEEM	1.2	11	2278	B48	85431.63	7.000	NEEM	2.2	10.16
2279	B603	90534.57	10.381	NEEM	1.3	11	2279	B49	85447.63	7.600	NEEM	1.5	8.6
2280	B604	90537.39	11.794	NEEM	1	11.2	2280	B50	85454.15	10.000	OTHER	2.15	9
2281	B608	90537.47	7.277	PULLIYA	2	11.2	2281	B51	85462.63	8.200	PANAI	1	9.5
2282	B609	90547.05	7.053	PULLIYA	1.8	11.2	2282	B54	85617.63	8.000	OTHER	0.4	3.6
2283	B610	90557.76	7.300	PULLIYA	1.8	11.2	2283	B55	85619.63	8.000	OTHER	0.3	3
2284	B611	90568.15	7.300	PULLIYA	1.7	11.2	2284	B56	85651.11	15.343	PANAI	1.1	7.69
2285	B612	90587.67	7.300	PULLIYA	1.4	10.2	2285	B57	85718.53	10.064	PANAI	1.2	10.99
2286	B620	90607.16	6.567	PULLIYA	1.7	10.69	2286	B58	85724.41	9.036	NEEM	1.1	9.65
2287	B621	90628.01	7.412	PULLIYA	2	10.5	2287	B59	85745.07	9.549	PANAI	1	11.69
2288	B622	90638.92	7.471	PULLIYA	1.5	10.9	2288	B60	85747.87	9.714	PANAI	1.1	12
2289	B623	90650.21	7.797	PULLIYA	1.5	11.69	2289	B61	85748.78	9.390	PANAI	1	11.5
2290	B626	90667.80	7.680	PULLIYA	1.9	10.95	2290	B62	85750.63	9.000	OTHER	1.4	7.6
2291	B627	90677.50	7.454	PULLIYA	1.8	10.16	2291	B63	85752.08	7.425	PANAI	1	10
2292	B628	90699.89	8.226	PULLIYA	1.6	10.35	2292	B64	85753.63	7.500	PANAI	1.1	11.6
2293	B632	90738.03	7.288	PULLIYA	1.6	11	2293	B65	85756.69	10.352	PANAI	1	11.5
2294	B633	90750.41	7.135	PULLIYA	1.5	10.8	2294	B66	85761.63	8.000	PANAI	1.1	11.5
2295	B634	90767.32	7.314	PULLIYA	1.4	10.6	2295	B68	85770.47	10.755	PANAI	1.3	12.6
2296	B635	90777.53	7.500	PULLIYA	2	10.9	2296	B69	85772.63	8.000	PANAI	1.1	13
2297	B636	90787.68	7.500	PULLIYA	1.7	11.5	2297	B70	85779.63	8.000	PANAI	1	10.8
2298	B640	90807.22	7.215	PULLIYA	2.3	11.1	2298	B71	85794.63	7.750	NEEM	0.6	7.5
2299	B641	90814.09	7.315	PULLIYA	1.6	11	2299	B75	85891.18	11.915	EACH	0.5	4.6

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2300	B642	90819.28	7.697	PULLIYA	1.8	16.8	2300	B82	86150.19	12.064	PANAI	1	11
2301	B647	90839.99	8.445	PULLIYA	2.1	11.1	2301	B92	86355.53	7.569	PANAI	1.1	9.5
2302	B648	90868.22	8.196	PULLIYA	2.1	11.6	2302	B93	86373.93	9.563	PANAI	0.9	7.8
2303	B654	90914.62	4.506	Other	1.6	9.2	2303	B94	86380.44	10.671	PANAI	1.2	10.33
2304	B655	90928.23	6.000	Other	2.8	12.3	2304	B95	86397.35	6.784	PUNGA	2.4	11.99
2305	B659	90958.22	7.605	PULLIYA	3	11.6	2305	B98	86482.21	7.407	PANAI	1	9.68
2306	B662	91016.77	5.448	PULLIYA	1.7	10.3	2306	B104	86514.23	5.633	NEEM	0.7	8.7
2307	B663	91067.34	6.091	PULLIYA	1.6	10	2307	B107	86531.63	8.500	NEEM	0.9	7.5
2308	B664	91077.72	7.615	NEEM	1	11.3	2308	B108	86589.63	9.800	PUNGA	0.6	6.5
2309	B665	91087.23	7.216	PULLIYA	1.6	10.5	2309	B109	86607.48	8.732	PULLIYA	2.3	11.2
2310	B666	91117.64	6.845	PULLIYA	1.2	11.3	2310	B111	86626.63	9.500	NEEM	0.7	7.5
2311	B669	91167.13	6.860	PULLIYA	1.4	10.4	2311	B112	86669.63	8.100	NEEM	0.6	6
2312	B670	91177.15	6.591	PULLIYA	1.2	12.2	2312	B113	86703.63	7.200	NEEM	0.9	6.5
2313	B675	91219.26	7.641	PULLIYA	1.7	10.3	2313	B114	86755.63	7.500	NEEM	0.6	8
2314	B676	91239.38	7.500	PULLIYA	1.2	11.8	2314	B115	86756.63	6.700	NEEM	0.4	5
2315	B679	91251.09	8.260	Other	1.9	11.5	2315	B116	86759.63	7.500	OTHER	0.7	7.2
2316	B680	91259.44	8.102	PULLIYA	1.5	11.8	2316	B117	86789.63	5.100	OTHER	0.6	3.9
2317	B681	91269.95	9.202	PULLIYA	1.4	10.5	2317	B118	86800.63	6.400	PUNGA	0.5	4.5
2318	B685	91336.49	6.247	NEEM	1.7	11.4	2318	B119	86827.63	4.500	OTHER	0.5	5
2319	B686	91348.27	6.796	PULLIYA	1.5	12.3	2319	B120	86834.63	5.300	OTHER	0.55	5
2320	B689	91369.65	8.570	PANAI	1.1	11.1	2320	B121	86845.63	5.000	OTHER	0.7	5.11
2321	B692	91419.85	9.733	NEEM	0.9	8.5	2321	B122	86862.63	4.850	OTHER	0.65	5
2322	B697	91447.33	6.702	NEEM	0.7	11.2	2322	B124	86874.63	6.500	NEEM	0.8	5.56

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2323	B706	91477.92	7.800	PANAI	1.2	7.5	2323	B125	86878.63	6.000	OTHER	0.95	7
2324	B707	91488.83	8.540	NEEM	1.4	12.3	2324	B126	86885.89	2.884	OTHER	1.8	9.5
2325	B708	91492.31	9.300	PANAI	1.1	8.3	2325	B129	86913.52	10.000	PANAI	1	9.66
2326	B709	91519.74	9.710	NEEM	1.8	9.5	2326	B131	86931.63	4.750	NEEM	0.9	8
2327	B710	91536.80	6.715	OTHER	0.9	10.3	2327	B132	86934.82	3.434	NEEM	0.7	8
2328	B727	91590.41	6.657	PUNGA	1.8	10.2	2328	B134	86953.33	2.558	PONGA	1.15	8.79
2329	B726	91908.94	8.800	PUNGA	0.8	8.65	2329	B135	86955.37	7.182	NEEM	1.2	9.79
2330	B730	91979.34	7.600	NEEM	0.8	7.99	2330	B136	86973.63	5.500	NEEM	0.7	7.5
2331	B735	92033.23	6.639	PULLIYA	2	10.2	2331	B137	86992.19	4.969	OTHER	0.9	9
2332	B738	92064.44	5.800	PANAI	1.2	9.86	2332	B138	86994.16	8.804	PANAI	1.3	8.5
2333	B739	92065.44	5.800	PANAI	1.1	10.6	2333	B139	86994.74	8.774	PANAI	1	9.99
2334	B740	92066.44	5.300	PANAI	1.15	10.1	2334	B140	86996.63	7.500	NEEM	0.8	7.6
2335	B741	92067.44	6.000	PANAI	1.2	9.3	2335	B141	87003.63	6.000	PANAI	1.1	10.1
2336	B742	92071.24	6.680	PANAI	0.6	7.6	2336	B142	87009.63	7.890	PANAI	1.2	11
2337	B743	92073.32	6.473	NEEM	1.15	8.89	2337	B143	87014.63	7.500	OTHER	8	6.8
2338	B744	92092.44	7.200	NEEM	0.6	3.69	2338	B144	87018.63	7.600	PANAI	1.1	9.7
2339	B745	92093.44	7.360	NEEM	0.5	5.98	2339	B145	87019.63	7.200	PANAI	1.2	11.5
2340	B747	92097.44	9.100	NEEM	1.3	9.1	2340	B146	87024.63	8.300	PANAI	1.15	10.6
2341	B748	92101.44	7.500	NEEM	0.5	6.3	2341	B147	87030.51	8.189	PANAI	1.1	8.5
2342	B749	92101.44	8.900	EACH	0.9	9.69	2342	B148	87032.91	8.191	PANAI	1.2	9.9
2343	B759	92365.44	7.800	Other	1.4	10.9	2343	B149	87032.26	5.691	PANAI	1	9.7
2344	B760	92366.44	8.800	Other	2	11.2	2344	B150	87038.14	8.476	PANAI	0.9	10.1
2345	B762	92419.44	8.300	Other	0.6	5.89	2345	B151	87039.33	8.357	PANAI	1.3	9.9

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RHS							LHS						
2346	B763	92437.44	5.500	NEEM	1.1	7.1	2346	B152	87046.63	8.500	PANAI	1.4	10.1
2347	B766	92448.44	7.400	COCONUT	0.8	9.4	2347	B153	87051.09	7.720	PANAI	1.2	9.7
2348	B767	92453.44	7.400	COCONUT	0.9	10.15	2348	B154	87073.95	5.167	NEEM	0.7	6.5
2349	B768	92467.83	6.059	NEEM	1.8	10.65	2349	B155	87077.82	4.901	NEEM	0.65	7.5
2350	B770	92484.51	6.923	Other	2.2	11.1	2350	B156	87039.63	6.500	NEEM	0.82	7.8
2351	B777	92510.44	7.400	Other	1.3	5.5	2351	B157	87094.63	6.700	NEEM	0.75	5.5
2352	B778	92524.44	7.400	Other	2.1	9.69	2352	B158	87099.63	6.200	NEEM	1.1	8.5
2353	B779	92540.44	7.400	Other	0.7	6.1	2353	B159	87113.85	4.814	NEEM	0.8	8
2354	B782	92560.88	7.074	PULLIYA	1.7	9.5	2354	B160	87121.93	7.747	NEEM	1.1	9.1
2355	B783	92581.91	6.633	PANAI	1.2	8.45	2355	B161	87128.54	8.698	NEEM	0.9	9.87
2356	B784	92591.14	7.574	PULLIYA	0.9	7.6	2356	B162	87133.43	5.255	PANAI	1.15	10.2
2357	B785	92600.46	6.529	Other	1.9	8.5	2357	B163	87135.53	8.335	NEEM	0.6	5.89
2358	B790	92619.61	7.106	PULLIYA	1.9	9.2	2358	B164	87141.63	9.100	PANAI	1	9.5
2359	B791	92612.44	7.000	PULLIYA	1.7	10.68	2359	B165	87142.63	9.000	PANAI	1.2	10.7
2360	B792	92630.65	6.677	Other	0.6	6.84	2360	B166	87143.63	6.500	NEEM	1.1	7.2
2361	B793	92676.44	5.800	NEEM	0.8	7.6	2361	B167	87146.63	6.100	NEEM	0.7	7.1
2362	B801	92738.91	6.976	PULLIYA	1.2	9	2362	B168	87150.63	7.150	NEEM	1	9.2
2363	B806	92863.08	5.334	NEEM	1.2	10.6	2363	B169	87151.63	8.100	PANAI	1.2	10.5
2364	B807	92884.15	6.009	PANAI	1.4	9.8	2364	B170	87154.63	6.200	NEEM	0.6	4.2
2365	B808	92889.44	6.000	NEEM	1.3	9	2365	B171	87160.63	5.000	NEEM	0.9	5.3
2366	B815	92971.72	6.420	PANAI	1.5	10.96	2366	B172	87167.63	4.900	NEEM	0.8	6.9
2367	B816	92989.44	6.200	PANAI	1.2	8.6	2367	B173	87174.63	4.100	NEEM	0.9	5.99
2368	B817	92990.44	6.200	PANAI	1.1	9.7	2368	B174	87182.14	3.041	NEEM	1	6

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RHS							LHS						
2369	B820	93043.32	6.249	PANAI	1.1	6.1	2369	B175	87195.50	3.211	NEEM	0.5	3.95
2370	B821	93045.45	5.593	NEEM	0.8	9.6	2370	B176	87199.63	3.950	NEEM	0.5	5.65
2371	B822	93047.44	6.600	PANAI	1.7	10	2371	B177	87199.63	3.700	NEEM	0.6	4.1
2372	B824	93059.44	6.600	PANAI	1	8.3	2372	B178	87200.63	3.800	PANAI	1.1	10.2
2373	B825	93060.36	5.501	NEEM	0.7	8	2373	B179	87202.63	3.800	PANAI	1.3	9.4
2374	B828	93110.44	5.000	NEEM	1.1	7.69	2374	B180	87210.15	1.267	NEEM	0.8	6.1
2375	B829	93114.44	5.300	PANAI	1.3	9.8	2375	B181	87218.63	3.000	OTHER	0.9	5.5
2376	B830	93117.44	5.600	PANAI	1.4	10.1	2376	B182	87224.85	2.069	OTHER	1	5.5
2377	B831	93128.44	4.500	PANAI	1.15	10.35	2377	B183	87232.63	3.500	OTHER	0.5	4.1
2378	B834	93132.44	7.000	PANAI	1.2	9.95	2378	B184	87252.25	1.058	NEEM	0.8	5.6
2379	B836	93154.44	6.500	PANAI	1.5	10.2	2379	B185	87254.63	1.100	PANNI	1.2	9.69
2380	B837	93156.44	6.700	PANAI	1.3	10.1	2380	B186	87260.39	3.505	PANNI	1.45	4.95
2381	B838	93160.44	6.000	PANAI	1.3	10.5	2381	B187	87263.63	3.000	PANNI	1.2	5.65
2382	B839	93177.44	7.400	PANAI	1.2	8.9	2382	B188	87266.63	2.850	NEEM	0.7	5.3
2383	B841	93226.44	8.300	Other	0.7	8	2383	B189	87271.63	4.200	PANAI	1.2	9.2
2384	B843	93302.25	9.447	PULLIYA	2.5	11	2384	B190	87275.63	4.000	PANAI	1.4	9.5
2385	B852	93355.44	8.500	NEEM	1.4	10.1	2385	B191	87276.63	4.000	PANAI	1.1	9.2
2386	B853	93364.91	5.851	NEEM	1	9.6	2386	B192	87280.21	3.485	PANAI	1.2	8.9
2387	B854	93400.24	8.756	Other	1.6	10.85	2387	B193	87284.63	4.400	PANAI	1.1	7.8
2388	B855	93448.61	6.798	NEEM	0.9	9.1	2388	B194	87301.63	7.000	PANAI	1	9.2
2389	B856	93451.44	6.900	NEEM	0.9	9.5	2389	B195	87305.63	6.800	PANAI	1.3	10.3
2390	B859	93557.44	7.900	EACH	0.6	10	2390	B196	87310.10	3.294	NEEM	0.7	7.6
2391	B860	93577.45	8.657	NEEM	0.8	9.85	2391	B197	87315.63	6.900	PANAI	1.2	8.9

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RHS							LHS						
2392	B862	93669.44	7.100	PANAI	1.3	8.95	2392	B198	87316.95	2.926	PUNGA	1.1	11.2
2393	B867	93694.44	10.500	MANGO	1.5	10.3	2393	B199	87323.35	3.128	PANAI	1.3	8.6
2394	B874	93749.44	5.913	PANAI	0.7	9.5	2394	B200	87325.75	3.814	PANAI	1.4	9.1
2395	B875	93784.44	8.400	PANAI	1.2	10.8	2395	B201	87327.36	3.803	PANAI	1.3	10.4
2396	B876	93815.26	6.764	EACH	0.8	8.4	2396	B202	87328.63	6.700	PANAI	1.1	7.1
2397	B877	93819.30	7.100	EACH	0.8	8.3	2397	B203	87329.44	5.018	PANAI	1.4	6.8
2398	B878	93819.30	7.100	EACH	0.6	8.1	2398	B204	87328.63	4.200	PANAI	1	7.2
2399	B879	93821.87	6.756	PANAI	1	7.9	2399	B205	87328.63	4.800	PANAI	1.1	7.5
2400	B880	93824.53	7.237	PANAI	1.1	7.8	2400	B206	87332.63	5.100	PANAI	1.2	8.9
2401	B882	93880.24	9.990	PANAI	1.2	7.2	2401	B207	87335.63	5.000	PANAI	1.1	9.7
2402	B883	93897.74	9.322	PULLIYA	1.9	10.6	2402	B208	87338.63	7.500	PANAI	1.4	6.9
2403	B884	93961.73	9.464	PULLIYA	1.1	6.9	2403	B209	87341.46	2.307	NEEM	1	8.9
2404	B885	93979.15	5.450	PULLIYA	1.2	3.5	2404	B210	87343.63	6.500	PANAI	1.1	7.5
2405	B886	94069.59	8.111	PULLIYA	3	11.1	2405	B211	87246.63	6.900	PANAI	1.4	8.4
2406	B887	94086.63	7.700	PULLIYA	2.9	11	2406	B212	87348.63	6.800	PANAI	1.2	7.6
2407	B888	94089.66	10.049	PULLIYA	2.4	11.9	2407	B213	87352.63	3.500	OTHER	1	9.2
2408	B893	94209.75	4.577	NEEM	0.8	6.7	2408	B214	87366.03	3.359	NEEM	0.9	8.9
2409	B894	94218.65	3.207	EACH	0.8	9.5	2409	B215	87380.19	2.499	NEEM	0.7	7.3
2410	B895	94225.98	4.046	PUNGA	0.7	6.2	2410	B216	87391.63	4.500	PANAI	1.3	5.5
2411	B896	94235.61	4.948	NEEM	1.2	8.9	2411	B217	87392.63	4.700	NEEM	0.7	7.2
2412	B923	94606.33	6.379	PULLIYA	2.9	12.7	2412	B218	87398.63	6.100	PANAI	1.1	9.6
2413	B924	94654.40	0.000	PANAI	1	9.2	2413	B219	87405.63	9.000	NEEM	1.3	9.8
2414	B925	94653.40	0.000	Other	1.1	11.2	2414	B220	87406.63	3.700	NEEM	0.9	9.3

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2415	B932	94785.44	6.000	NEEM	0.8	9.7	2415	B221	87409.05	2.959	NEEM	0.8	8.5
2416	B934	94838.82	8.021	PULLIYA	2.1	11.3	2416	B222	87416.63	9.200	NEEM	0.9	8.9
2417	B936	94862.96	10.094	PULLIYA	1.7	11	2417	B223	87425.63	8.200	NEEM	0.7	7.2
2418	B938	94966.68	10.138	NEEM	0.7	8.7	2418	B224	87427.63	9.500	NEEM	0.8	9.7
2419	B939	95017.48	7.881	Other	0.8	7.3	2419	B225	87433.63	9.200	NEEM	0.7	8.7
2420	B940	95085.82	10.127	PULLIYA	1.7	11.2	2420	B226	87437.63	9.500	NEEM	0.7	7.6
2421	B945	95116.20	9.891	PULLIYA	1.8	10.3	2421	B227	87439.06	3.216	OTHER	1	9.5
2422	B947	95140.81	9.192	PULLIYA	2.9	12.4	2422	B228	87459.63	3.100	OTHER	2	10.65
2423	B948	95165.11	8.329	PULLIYA	2.4	12.8	2423	B229	87461.35	2.821	PANAI	1.1	8.69
2424	B949	95179.97	5.912	PULLIYA	1.1	10.7	2424	B230	87467.63	3.590	NEEM	0.8	9
2425	B950	95207.16	5.461	NEEM	1	6.7	2425	B231	87467.63	8.000	NEEM	0.5	7.69
2426	B951	95210.44	6.300	NEEM	1.2	10.4	2426	B232	87467.63	8.500	PANAI	1.1	7.9
2427	B952	95235.33	6.648	PULLIYA	1.6	11.6	2427	B233	87475.63	2.100	PANAI	0.7	8.2
2428	B953	95235.44	7.300	PULLIYA	2	11.6	2428	B234	87476.63	5.000	NEEM	0.9	9
2429	B955	95250.14	7.455	PULLIYA	2.4	11.1	2429	B235	87478.90	1.986	NEEM	0.6	5.2
2430	B956	95260.52	7.690	PULLIYA	2.9	12.1	2430	B236	87486.63	4.300	NEEM	0.5	7.5
2431	B960	95306.44	7.700	NEEM	1.1	10.2	2431	B237	87486.63	4.000	NEEM	0.7	7.69
2432	B961	95327.44	6.000	Other	1.3	10.5	2432	B238	87505.63	3.800	OTHER	0.9	5.99
2433	B965	95340.44	10.000	Other	0.9	9.6	2433	B239	87511.63	4.100	OTHER	1	5.2
2434	B966	95355.03	6.137	Other	1.4	5.7	2434	B240	87517.09	1.073	PANAI	1.1	8.95
2435	B971	95391.44	6.800	Other	0.8	6.3	2435	B241	87519.06	1.016	PANAI	1	8.5
2436	B972	95404.16	5.637	Other	1.5	9.7	2436	B242	87519.63	1.000	PANAI	1.1	8.5
2437	B976	95547.44	9.700	PULLIYA	3.1	11.4	2437	B243	87520.63	1.000	PANAI	1.1	8.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2438	B980	95642.98	7.896	PULLIYA	2.7	10.4	2438	B244	87523.21	0.806	PANAI	1.1	8.5
2439	B982	95652.70	8.542	PULLIYA	3.3	11.6	2439	B245	87525.50	0.459	PANAI	1.2	8.5
2440	B983	95664.04	7.487	PULLIYA	3.1	11.2	2440	B246	87525.53	0.467	PANAI	1	8.5
2441	B986	95694.13	10.435	PANAI	0.7	8.3	2441	B247	87526.63	0.900	PANAI	1	8.5
2442	B999	96208.44	8.500	NEEM	1.2	7.4	2442	B248	87527.75	0.668	PANAI	1	8.5
2443	B1001	96244.86	7.943	NEEM	1.3	11.3	2443	B249	87531.61	0.593	PANAI	1.1	8.5
2444	B1004	96428.15	5.258	EACH	0.9	9.1	2444	B250	87535.75	0.632	OTHER	0.6	4.95
2445	B1005	96968.73	4.147	Other	0.7	7.1	2445	B251	87554.63	0.100	EACH	0.7	9.99
2446	B1006	96975.44	6.100	Other	0.5	7	2446	B252	87561.63	3.500	PANAI	1	8.5
2447	B1007	96997.44	10.600	NEEM	1.5	9.6	2447	B253	87564.63	3.900	NEEM	0.7	5.9
2448	B1008	96998.44	11.100	NEEM	0.6	9	2448	B254	87616.75	8.854	PANAI	1.2	8.3
2449	B1009	97032.48	3.846	ARASAM	2.1	10.1	2449	B255	87630.63	6.200	PANAI	1.3	8.3
2450	B1010	97212.14	10.279	PULLIYA	2.8	11.7	2450	B256	87638.63	5.800	PANAI	1.2	8.29
2451	B1011	97262.44	8.800	PANAI	0.8	9.4	2451	B257	87418.00	0.000	PULLIYA	4.55	12.55
2452	B1012	97265.44	8.800	PANAI	0.7	9.2	2452	B258	87774.63	0.500	OTHER	0.5	5.1
2453	B1013	97269.44	8.700	PANAI	0.7	8.8	2453	B259	87781.63	0.100	BHATHAM	0.5	7.5
2454	B1014	97271.44	8.800	PANAI	0.7	8.8	2454	B260	87786.63	0.100	BHATHAM	0.5	7.5
2455	B1015	97271.44	7.000	NEEM	1	10.3	2455	B262	87905.85	1.830	OTHER	0.8	6.1
2456	B1021	97296.41	3.989	PANAI	0.9	10.5	2456	B263	87912.61	3.094	PULLIYA	3.2	12.96
2457	B1022	97327.44	7.500	NEEM	0.7	7.4	2457	B264	87914.90	2.316	PULLIYA	2.25	12.96
2458	B1024	97343.79	8.668	NEEM	0.8	5.8	2458	B265	87915.18	5.786	PULLIYA	3.8	12.96
2459	B1025	97344.25	8.236	NEEM	0.4	5.5	2459	B266	87941.12	1.373	BHATHAM	0.6	7.5
2460	B1026	97352.44	7.500	PULLIYA	3.3	11.7	2460	B267	87946.98	3.500	BHATHAM	0.6	7.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2461	B1032	97394.44	8.000	NEEM	0.8	6.8	2461	B268	87974.20	1.779	NEEM	1	8.5
2462	B1061	97828.40	10.934	NEEM	1.5	9.9	2462	B269	88002.23	1.989	OTHER	1.1	7.2
2463	B1062	97835.49	10.674	NEEM	1.3	9.6	2463	B270	88028.17	1.551	OTHER	1.3	7.95
2464	B1067	97849.39	10.220	NEEM	1.2	11.3	2464	B271	88043.94	2.374	NEEM	0.9	4.5
2465	B1068	97857.28	9.654	NEEM	1	11	2465	B272	88056.09	3.342	PANAI	1	10.85
2466	B1069	97867.23	12.367	NEEM	1.3	10.8	2466	B273	88058.65	8.256	PANAI	1.1	9.1
2467	B1070	97870.80	12.275	NEEM	1.4	11.1	2467	B274	88098.09	4.677	ONAM	0.6	8.1
2468	B1073	97923.47	9.689	NEEM	2	10.7	2468	B275	88099.63	3.650	DHALAM	1.2	10.69
2469	B1084	98131.44	8.100	Other	0.9	9.8	2469	B276	88131.63	5.200	OTHER	0.8	6.5
2470	B1087	98229.44	3.000	PULLIYA	4.5	11.2	2470	B277	88131.63	7.000	OTHER	0.7	6.5
2471	B1089	98254.24	7.133	Other	1.6	8.5	2471	B279	88144.63	4.200	OTHER	0.8	6.2
2472	B1091	98284.44	8.000	NEEM	0.9	6.3	2472	B280	88146.63	3.700	OTHER	0.85	8.5
2473	B1092	98311.44	6.200	NEEM	1.1	11.2	2473	B281	88147.51	2.536	OTHER	0.6	3.7
2474	B1093	98309.28	6.163	Other	0.6	5.5	2474	B282	88148.63	3.500	OTHER	0.65	8.5
2475	B1094	98319.44	6.800	Other	0.6	5.8	2475	B283	88150.63	3.800	OTHER	0.6	8.7
2476	B1095	98323.18	6.564	Other	0.8	5.8	2476	B284	88152.63	9.200	PANAI	0.1	11.3
2477	B1096	98421.43	6.273	PULLIYA	2.6	6.3	2477	B285	88157.35	3.581	PANAI	1.15	11.7
2478	B1097	98497.91	7.953	PULLIYA	2.7	11.3	2478	B286	88152.97	2.690	OTHER	0.8	6.1
2479	B1099	98727.72	7.338	NEEM	1.4	12.1	2479	B287	88153.51	3.183	OTHER	0.65	7.7
2480	B1100	98760.02	7.831	NEEM	1.1	11.1	2480	B288	88159.41	3.878	OTHER	0.85	8.2
2481	B1106	99218.44	11.000	NEEM	0.8	8.9	2481	B289	88163.18	6.810	OTHER	0.9	7.5
2482	B1119	99447.44	7.400	PANAI	0.9	1.3	2482	B290	88170.63	9.400	PANAI	1.1	10.2
2483	B1142	99615.22	7.246	NEEM	1	9.4	2483	B291	88174.63	9.200	PANAI	1.15	10.7

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2484	B1143	99625.10	7.351	NEEM	1	7.5	2484	B292	88178.83	5.675	PANAI	1.17	12.5
2485	B1144	99629.44	7.400	NEEM	0.7	9.2	2485	B293	88179.79	5.712	PANAI	1.3	11.3
2486	B1145	99646.14	8.431	PULLIYA	1.2	6.3	2486	B294	88184.64	7.104	EACH	0.9	10.6
2487	B1150	99708.56	8.489	PULLIYA	2.5	10.2	2487	B295	88188.24	6.049	PANAI	1	9.5
2488	B1151	99716.71	6.955	Other	3.5	12.4	2488	B296	88190.63	7.700	OTHER	0.7	7.6
2489	B1153	99741.62	8.146	Other	3.7	11.5	2489	B297	88191.63	7.900	PANAI	1.1	11.4
2490	B1154	99796.16	8.473	PANAI	1.3	11.3	2490	B298	88193.44	8.1	PANAI	1	9.7
2491	B1155	99810.53	8.213	PANAI	1	9.7	2491	B299	88195.44	8.4	PANAI	1.05	9.3
2492	B1156	99815.91	9.044	PANAI	1	9.5	2492	B300	88197.44	8.9	PANAI	1.1	11.1
2493	B1158	99861.40	11.194	PULLIYA	2.2	11.2	2493	B301	88198.44	8.8	PANAI	1.15	11.5
2494	B1159	99877.56	6.937	PANAI	1.1	9.3	2494	B302	88198.44	8.8	PANAI	1.1	10.7
2495	B1160	99880.95	6.121	PANAI	1	8.7	2495	B303	88198.44	8.8	PANAI	1.2	11.3
2496	B1161	99896.57	6.596	PANAI	1.1	9.4	2496	B304	88200.96	2.509	PANAI	1.3	7.6
2497	B1162	99908.20	8.206	PANAI	1.1	10.2	2497	B305	88275.03	3.583	OTHER	1	5.8
2498	B1163	99916.44	7.000	PANAI	1	10.5	2498	B307	88290.69	1.65	PANAI	1.1	8.2
2499	B1164	99917.44	10.400	PANAI	1.2	10.2	2499	B308	88303.44	5.2	PANAI	1.25	8.9
2500	B1165	99920.44	7.000	PANAI	1	7.8	2500	B309	88306.44	7.1	OTHER	0.9	5.7
2501	B1166	99922.06	7.351	PANAI	1.2	9.3	2501	B310	88310.44	6.3	OTHER	1	6.3
2502	B1167	99922.93	7.709	PANAI	1.1	10.7	2502	B312	88326.52	5.426	PANAI	1.1	9.2
2503	B1168	99924.09	7.530	PANAI	0.9	8.9	2503	B313	88332.87	5.59	PANAI	1.2	9
2504	B1169	99925.60	7.140	PANAI	1	9.7	2504	B314	88342.45	5.255	PANAI	1	9
2505	B1170	99929.44	7.800	PANAI	1	10.5	2505	B315	88345.66	5.52	PANAI	1.15	9
2506	B1171	99931.70	7.132	PANAI	1.1	8.8	2506	B316	88350.44	8	NEEM	0.8	7.5

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RHS							LHS						
2507	B1172	99934.44	7.900	PANAI	1	9.9	2507	B317	88369.44	9	PANAI	1.1	8.95
2508	B1173	99936.44	8.000	PANAI	1.1	8.2	2508	B318	88389.76	8.439	PANAI	1.3	9.6
2509	B1174	99940.44	8.400	PANAI	1.3	8.7	2509	B319	88411.44	10.5	PANAI	1.2	8.1
2510	B1175	99951.44	9.500	PANAI	1	9	2510	B320	88419.44	5.9	PANAI	1	6.75
2511	B1176	99957.44	9.000	PANAI	1.2	8.7	2511	B321	88421.44	5.8	PANAI	1.2	6.9
2512	B1177	99959.44	8.800	PANAI	1	8.1	2512	B324	88244.44	5.8	PANAI	1.1	8.2
2513	B1178	99965.92	7.575	PANAI	1.1	8.9	2513	B325	88429.44	6.5	PANAI	1.2	8.4
2514	B1179	99978.44	8.800	PANAI	1.2	6.9	2514	B329	88444.44	7.1	NEEM	0.7	5.6
2515	B1180	99979.44	9.600	PANAI	1	9	2515	B330	88448.44	7.3	NEEM	0.6	7.3
2516	B1181	99981.44	9.000	PANAI	1.2	12.2	2516	B331	88450.44	9.7	PANAI	1.1	10.2
2517	B1182	99982.44	9.200	PANAI	1	9.5	2517	B332	88453.44	9.6	PANAI	1.3	10.5
2518	B1183	99984.44	8.500	PANAI	1	9.7	2518	B333	88456.41	6.324	NEEM	0.9	6.3
2519	B1184	99985.44	8.600	PANAI	1.1	9	2519	B334	88456.51	8.391	PANAI	1.4	9.7
2520	B1186	99998.44	9.400	PANAI	1.4	10.2	2520	B335	88459.44	9.7	PANAI	1.3	8.8
2521	B1187	100004.44	7.500	PANAI	1.2	8.3	2521	B336	88471.44	8.8	COCONUT	0.9	7.3
2522	B1189	100011.44	9.000	PANAI	1.5	8	2522	B337	88478.44	9.9	COCONUT	0.95	8.4
2523	B1190	100018.44	8.700	PANAI	1	7.6	2523	B338	88480.95	7.787	PANAI	1.1	7.8
2524	B1191	100023.44	7.600	PANAI	1.1	8.7	2524	B339	88478.44	6.8	LEMON	0.6	5.6
2525	B1205	100059.44	7.000	PANAI	0.8	9.8	2525	B340	88482.49	6.011	PANAI	1.2	9.5
2526	B1206	100060.44	9.000	PANAI	0.9	9.8	2526	B342	88490.14	5.403	PANAI	1.4	9.9
2527	B1207	100064.44	9.500	PANAI	1	10	2527	B343	88499.44	9.1	PANAI	1.2	10.5
2528	B1208	100069.44	8.000	PANAI	0.8	9.5	2528	B344	88501.44	9.1	PANAI	1.1	10.7
2529	B1216	100209.44	8.300	PANAI	1.1	10.2	2529	B345	88501.44	10.2	PANAI	1.2	8.7

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RHS							LHS						
2530	B1217	100212.44	6.200	PANAI	1	9.5	2530	B346	88503.44	9.1	PANAI	1.1	9.8
2531	B1218	100215.44	8.500	PANAI	0.9	9.2	2531	B347	88506.44	9.1	PANAI	1.4	10.5
2532	B1219	100215.44	6.400	PANAI	1.1	8.8	2532	B348	88509.44	9.1	PANAI	1.3	9.9
2533	B1220	100217.44	8.300	PANAI	1	9.5	2533	B349	88513.44	9	NEEM	0.8	8.5
2534	B1221	100219.44	8.500	PANAI	0.9	8.2	2534	B350	88515.44	9.9	PANAI	1.2	10.7
2535	B1222	100222.44	8.000	PANAI	1	8	2535	B351	88516.44	9.7	PANAI	1.3	10.2
2536	B1223	100225.08	6.178	PANAI	1.2	9.5	2536	B352	88521.44	8.7	PANAI	1	9.5
2537	B1224	100225.94	7.510	PANAI	1.4	8.7	2537	B353	88526.15	8.373	NEEM	1.3	8.3
2538	B1225	100227.44	8.300	PANAI	1	9.8	2538	B354	88529.44	10.2	PANAI	1.2	8.2
2539	B1230	100231.44	9.500	PANAI	0.8	8.9	2539	B355	88533.29	8.555	PANAI	1.2	9.6
2540	B1231	100232.44	9.500	PANAI	0.9	8.9	2540	B356	88566.44	9.2	NEEM	0.8	7.4
2541	B1232	100234.44	9.600	PANAI	1.1	11	2541	B359	88541.52	5.609	OTHER	0.6	9.1
2542	B1233	100237.44	9.400	PANAI	1.2	11.2	2542	B360	88541.90	5.675	PANAI	1	9.3
2543	B1234	100239.44	8.100	PANAI	0.9	9.6	2543	B364	88549.44	7.8	OTHER	1.1	8.5
2544	B1235	100247.44	9.000	PANAI	0.9	9.2	2544	B367	88557.44	8.3	PANAI	1	8.7
2545	B1236	100249.44	8.600	PANAI	1	11.1	2545	B368	88557.44	9.3	PANAI	1.1	9.7
2546	B1237	100250.44	9.000	PANAI	1.1	9.9	2546	B369	88557.44	8.2	PANAI	1.1	9
2547	B1238	100252.44	6.900	PANAI	0.8	8.4	2547	B372	88557.44	7.5	OTHER	0.7	6.6
2548	B1239	100253.44	8.600	PANAI	1	9	2548	B373	88561.44	7.6	OTHER	0.8	5.9
2549	B1240	100260.44	9.400	PANAI	1.2	10.5	2549	B374	88565.44	7.4	OTHER	0.7	5.7
2550	B1241	100269.44	7.100	PANAI	1	11.1	2550	B375	88569.44	7.2	PANAI	1.1	9.6
2551	B1242	100271.44	8.990	PANAI	0.9	9.1	2551	B376	88575.87	6.219	PANAI	1.15	9.2
2552	B1243	100274.44	9.200	PANAI	1.1	7.99	2552	B377	88578.44	7.1	PANAI	1.3	11.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2553	B1249	100281.44	9.200	PANAI	1	9	2553	B378	88578.44	8	OTHER	1.2	7.8
2554	B1250	100283.44	9.000	PANAI	1.2	8.5	2554	B379	88581.44	7.8	OTHER	1.8	7.5
2555	B1251	100294.44	9.400	PANAI	0.9	9.8	2555	B382	88584.44	7.3	PANAI	1.2	12.6
2556	B1252	100312.44	9.900	PANAI	1.1	10.1	2556	B383	88584.44	7.6	OTHER	0.7	6.8
2557	B1253	100315.44	9.100	PANAI	0.7	10.6	2557	B384	88585.44	7.2	PANAI	1.25	12.2
2558	B1254	100324.44	10.800	PANAI	1.3	7.99	2558	B385	88587.44	8	PANAI	1.3	10.5
2559	B1255	100347.80	6.454	PANAI	0.9	8.5	2559	B386	88590.44	7.3	PANAI	1.2	11.8
2560	B1256	100382.92	7.873	PANAI	1.3	11.3	2560	B387	88592.60	6.777	PANAI	1.25	12.2
2561	B1257	100391.34	7.799	PANAI	1.1	11.9	2561	B388	88591.92	5.062	PANAI	1.2	6.5
2562	B1258	100392.44	7.500	PANAI	0.8	8.2	2562	B389	88599.96	7.157	PANAI	1	10.5
2563	B1259	100407.44	10.500	EACH	0.9	7.89	2563	B390	88599.44	8.673	PANAI	1.3	9.1
2564	B1260	100409.44	10.200	PANAI	2	10.7	2564	B398	88649.44	5.3	OTHER	0.5	5.5
2565	B1264	100421.44	8.200	PANAI	1	9.9	2565	B400	88671.66	3.748	OTHER	1.7	10.3
2566	B1265	100421.44	10.500	PANAI	1.1	9	2566	B402	88685.34	3.069	OTHER	2.2	11.5
2567	B1266	100424.44	10.100	PANAI	1.1	11	2567	B406	88739.44	6.3	PANAI	1.1	7.5
2568	B1267	100425.44	10.600	PANAI	0.9	8.7	2568	B410	88763.44	6.4	OTHER	0.7	5.89
2569	B1268	100426.44	10.800	PANAI	1.3	9.9	2569	B412	88770.44	6	MANGO	2	10.2
2570	B1269	100428.23	9.667	PANAI	0.9	7.5	2570	B413	88774.44	7.4	PANAI	1.1	10.99
2571	B1270	100437.44	9.900	PANAI	1.3	8.8	2571	B414	88777.06	5.339	PANAI	1.2	8.5
2572	B1271	100446.44	8.200	PANAI	0.9	11	2572	B418	88784.75	4.109	PANAI	1.1	8
2573	B1280	100447.77	8.060	PANAI	0.9	12.8	2573	B420	88799.44	5.7	PANAI	1.1	9.2
2574	B1281	100450.15	8.098	PANAI	0.8	11.2	2574	B425	88812.44	6.1	PANAI	1	9.56
2575	B1282	100450.44	7.800	PANAI	0.7	10.9	2575	B426	88817.44	6.9	PANAI	1.2	7.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2576	B1283	100450.44	9.690	PANAI	0.7	11.7	2576	B427	88821.44	7	PANAI	1.1	7.5
2577	B1284	100452.44	8.000	PANAI	1	12	2577	B431	88824.55	4.638	PANAI	1.2	9.2
2578	B1285	100452.44	9.500	PANAI	0.9	11.2	2578	B432	88825.44	9	PANAI	1	9
2579	B1286	100453.44	10.200	EACHA	0.8	6.95	2579	B433	88827.44	8.1	PANAI	1.25	7.2
2580	B1287	100458.83	8.693	PANAI	0.8	11.69	2580	B434	88829.44	8.95	PANAI	1.1	10.1
2581	B1288	100468.44	9.200	PANAI	1.2	5.69	2581	B436	88855.44	8.2	PANAI	1.2	8.95
2582	B1303	100485.44	10.100	PANAI	0.9	8.6	2582	B437	88859.44	8.6	PANAI	1.1	5.9
2583	B1304	100490.44	9.700	PANAI	0.8	9	2583	B439	88864.44	8	PANAI	1.2	6.2
2584	B1305	100496.91	9.468	PANAI	0.9	11	2584	B440	88865.44	8	PANAI	1	6.2
2585	B1306	100497.06	9.479	PANAI	0.9	11	2585	B442	88870.44	8.3	PANAI	1	7.5
2586	B1313	100515.44	10.700	PANAI	1.1	8.5	2586	B443	88870.44	9	PANAI	1.1	7.8
2587	B1314	100518.44	10.000	PANAI	1	9	2587	B444	88875.44	8.3	PANAI	1	7.99
2588	B1328	100560.32	7.200	PANAI	0.7	10.1	2588	B447	88899.86	5.603	OTHER	0.9	8
2589	B1333	100583.44	6.900	PANAI	1.2	12.2	2589	B449	88909.44	6	NEEM	0.5	4.5
2590	B1347	100612.44	8.700	PANAI	1.1	9.5	2590	B450	88915.45	6.723	OTHER	1.1	9.5
2591	B1348	100618.44	8.800	PANAI	1.2	10	2591	B451	88944.44	6.5	NEEM	0.4	4.1
2592	B1349	100620.44	8.800	PANAI	1.4	9.95	2592	B452	88946.44	6.5	NEEM	0.6	5.25
2593	B1350	100624.44	6.500	PANAI	0.9	10.6	2593	B453	88949.44	6.5	NEEM	0.8	5.6
2594	B1351	100626.44	6.500	PANAI	1.1	12.1	2594	B454	88982.44	6	NEEM	0.5	5
2595	B1352	100627.44	7.900	PANAI	1	6.9	2595	B455	88995.44	6.4	NEEM	0.7	5.25
2596	B1353	100630.44	6.000	PANAI	0.8	9.45	2596	B456	89007.82	4.834	NEEM	0.6	6
2597	B1354	100631.44	7.300	PANAI	0.9	7.59	2597	B457	89022.22	5.964	NEEM	0.8	7.15
2598	B1355	100631.44	8.900	PANAI	1.2	7.69	2598	B458	89052.96	6.074	NEEM	0.7	6.99

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2599	B1356	100632.44	7.000	PANAI	1	10	2599	B459	89061.65	4.728	NEEM	1.5	8.1
2600	B1357	100634.44	7.600	PANAI	1.1	8.9	2600	B460	89071.09	4.542	OTHER	1.25	9.16
2601	B1358	100639.44	9.200	PANAI	1.3	8.9	2601	B461	89081.44	6.2	PULLIYA	0.6	5.67
2602	B1359	100639.44	6.500	PANAI	0.8	10.9	2602	B464	89146.36	5.831	PANAI	1.3	7.2
2603	B1390	100671.44	9.700	PANAI	1	9	2603	B465	89148.48	3.058	PANAI	1.1	10.11
2604	B1401	100684.44	9.500	PANAI	1.1	9.5	2604	B466	89164.44	8.5	PANAI	1.3	6.66
2605	B1404	100699.13	9.106	PANAI	0.7	10.89	2605	B467	89166.44	5.99	NEEM	0.5	4
2606	B1405	100704.44	10.000	PANAI	0.9	11	2606	B468	89169.44	4.95	PANAI	1.1	3
2607	B1406	100706.44	9.000	PANAI	0.7	11	2607	B469	89206.44	9	NEEM	0.5	3.5
2608	B1407	100707.44	10.500	PANAI	0.8	10.6	2608	B471	89226.40	9.9	NEEM	1.2	6.79
2609	B1408	100708.04	8.968	PANAI	0.7	11	2609	B472	89237.77	6.964	ARASAM	0.6	5.67
2610	B1429	100713.52	9.655	PANAI	1	11.5	2610	B473	89281.93	7.77	NEEM	0.5	5.9
2611	B1430	100716.64	10.152	PANAI	0.7	10.1	2611	B475	89311.44	8.2	NEEM	0.8	5
2612	B1431	100717.44	8.800	PANAI	0.7	11	2612	B476	89323.44	4	NEEM	0.6	4.5
2613	B1432	100717.44	9.000	PANAI	0.75	10.2	2613	B477	89334.44	3.8	NEEM	0.7	6.1
2614	B1433	100718.93	10.320	PANAI	0.8	10.5	2614	B478	89350.44	4.2	NEEM	0.65	6.4
2615	B1434	100719.49	11.267	PANAI	0.9	10.98	2615	B483	89401.44	9.5	NEEM	0.8	7.2
2616	B1435	100721.41	11.330	PANAI	1	10.98	2616	B489	89487.44	9.9	NEEM	0.6	7.8
2617	B1436	100723.14	10.604	PANAI	0.9	11.9	2617	B490	89492.44	9.3	NEEM	0.9	7.7
2618	B1437	100724.32	11.432	PANAI	1.1	9.85	2618	B493	89506.44	9.5	NEEM	0.7	7.6
2619	B1438	100735.44	11.300	PANAI	1	10.99	2619	B494	89506.44	9.032	NEEM	0.6	7.6
2620	B1447	100767.44	1.800	PANAI	0.9	9.8	2620	B495	89512.44	8.2	NEEM	0.45	6.8
2621	B1452	100769.44	0.800	PANAI	0.9	10.2	2621	B497	89528.60	9.515	PANAI	1.2	7

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2622	B1453	100771.44	1.000	PANAI	1.5	9.4	2622	B498	89533.44	9.6	PANAI	1.3	6.1
2623	B1454	100774.44	1.100	PANAI	2.1	8.8	2623	B499	89536.44	9.4	PANAI	1.2	5.4
2624	B1455	100774.44	1.200	PANAI	2.6	9.2	2624	B500	89544.44	6.5	NEEM	0.6	7.6
2625	B1456	100779.67	4.595	PANAI	1.2	9.2	2625	B501	89551.44	4.7	NEEM	1.1	8.7
2626	B1457	100781.23	4.193	PANAI	1.1	9.1	2626	B502	89551.44	8.6	PANAI	1.2	6.9
2627	B1458	100790.68	2.451	PANAI	1	8.5	2627	B504	89564.44	7.2	OTHER	0.7	8.1
2628	B1459	100792.14	2.388	PANAI	1.1	9.1	2628	B505	89576.44	7.8	NEEM	0.6	7.2
2629	B1460	100794.80	3.078	PANAI	1.2	9.5	2629	B507	89589.28	9.199	NEEM	0.8	7.5
2630	B1461	100798.36	2.792	PANAI	1.1	9.5	2630	B510	89611.44	8.2	NEEM	0.7	7.2
2631	B1467	100824.96	8.455	PANAI	0.9	8.2	2631	B511	89617.44	9.3	OTHER	0.6	8.1
2632	B1474	100853.04	6.981	PANAI	1.2	10	2632	B512	89629.30	8.499	NEEM	0.8	8.5
2633	B1475	100859.04	4.645	PANAI	0.9	9.3	2633	B517	89657.44	2.5	NEEM	0.6	7.1
2634	B1476	100859.44	6.700	PANAI	0.9	9	2634	B519	89727.45	9.925	NEEM	0.6	7.1
2635	B1477	100868.96	5.488	PANAI	1.1	9.3	2635	B520	89737.44	9.2	NEEM	1	6.8
2636	B1478	100872.44	5.500	PANAI	1.1	7	2636	B521	89781.44	5	NEEM	0.6	7.1
2637	B1479	100882.13	3.792	PANAI	1.2	9.5	2637	B522	89817.44	7	NEEM	0.9	7.5
2638	B1480	100891.44	1.300	PANAI	1.1	9	2638	B523	89819.44	6	NEEM	0.6	7.2
2639	B1481	100889.44	4.300	PANAI	1.1	9.5	2639	B524	89826.44	6.1	NEEM	0.5	7.7
2640	B1482	100893.98	2.018	PANAI	1.1	9.4	2640	B525	89828.44	5.4	OTHER	0.4	6.5
2641	B1484	100903.44	4.500	PANAI	1.3	10	2641	B526	89834.44	7.4	NEEM	0.6	7.5
2642	B1485	100905.24	3.210	PANAI	1.2	9.8	2642	B527	89837.44	6.2	NEEM	0.6	6.8
2643	B1486	100903.44	6.000	PANAI	1	9.6	2643	B530	89844.44	7.3	NEEM	0.7	7.4
2644	B1487	100907.44	3.700	PANAI	1.1	9.4	2644	B531	89845.44	7.1	NEEM	0.5	7.3

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2645	B1488	100911.44	3.700	PANAI	1.1	9.5	2645	B532	89891.44	7.3	NEEM	0.6	7.1
2646	B1489	100918.44	3.700	PANAI	1.2	9.5	2646	B533	89896.21	5.977	NEEM	0.5	6.5
2647	B1490	100919.44	3.700	PANAI	1	9.2	2647	B535	89924.44	7.3	OTHER	0.4	7.7
2648	B1491	100924.44	2.900	PANAI	1.2	8.8	2648	B537	89956.47	7.737	PANAI	2.4	6.6
2649	B1492	100929.44	2.900	PANAI	1.1	9.2	2649	B538	89964.44	7.8	NEEM	0.8	7.4
2650	B1493	100938.44	2.900	PANAI	0.96	9.2	2650	B539	89965.44	8.1	NEEM	1	7.8
2651	B1494	100944.44	2.900	PANAI	1.1	9	2651	B543	89995.44	8	PULLIYA	1.1	10.5
2652	B1495	100944.44	2.900	PANAI	1.1	9	2652	B547	90039.51	10	PULLIYA	0.8	8.2
2653	B1496	100943.44	2.900	PANAI	1.1	9	2653	B548	90049.44	10	PULLIYA	1	9.1
2654	B1500	101019.17	0.814	PANAI	1	11	2654	B549	90057.44	10.1	OTHER	0.5	6.2
2655	B1504	101004.87	7.929	PANAI	1.2	8.75	2655	B550	90070.44	10.2	OTHER	0.6	6
2656	B1505	101130.44	8.800	PANAI	1.2	8	2656	B551	90075.44	10.1	PULLIYA	0.8	9.7
2657	B1507	101176.37	7.971	PANAI	1.1	7.85	2657	B552	90078.44	8.7	NEEM	0.7	7.4
2658	B1509	101193.44	8.200	PANAI	1	8.4	2658	B553	90081.44	9.5	NEEM	0.9	8.7
2659	B1510	101203.44	5.400	PANAI	1.1	9.1	2659	B554	90082.44	8.4	NEEM	0.6	7.2
2660	B1511	101206.34	5.562	PANAI	1.3	9	2660	B555	90137.45	9.102	NEEM	0.9	10.5
2661	B1512	101231.64	7.749	PANAI	1.2	8.69	2661	B558	90156.44	6.2	NEEM	1.1	9.5
2662	B1519	101246.17	7.510	PANAI	1.1	9.87	2662	B559	90163.18	5.671	NEEM	0.8	9.2
2663	B1529	101303.44	7.400	PANAI	1.2	9.3	2663	B560	90172.44	6.7	NEEM	1.2	10.1
2664	B1530	101315.44	8.000	PANAI	1.1	9	2664	B561	90177.44	7	NEEM	1.3	10.7
2665	B1531	101319.44	8.200	PANAI	1	9	2665	B562	90183.44	8.4	NEEM	1.3	10.9
2666	B1534	101334.44	7.900	PANAI	1.2	8.3	2666	B564	90201.44	6	NEEM	1.3	10.7
2667	B1535	101338.84	7.291	PANAI	1.2	8	2667	B568	90257.45	8.004	PULLIYA	1.5	10.3

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2668	B1536	101347.44	7.900	PANAI	1.1	8.3	2668	B569	90265.83	7.407	PULLIYA	1.3	10.5
2669	B1537	101350.78	7.022	PANAI	1.2	9.1	2669	B574	90305.44	7.8	PULLIYA	1.1	8.5
2670	B1541	101359.83	7.061	PANAI	1.1	7.79	2670	B575	90313.77	6.345	PULLIYA	1.7	10.1
2671	B1542	101370.44	6.600	PANAI	1.2	8	2671	B576	90322.47	6.901	PULLIYA	1.2	9.8
2672	B1543	101384.20	6.185	NEEM	1.1	8.39	2672	B577	90344.44	6.2	PULLIYA	1.4	10.2
2673	B1555	101414.44	8.700	PANAI	0.4	5.87	2673	B580	90362.49	6.149	PULLIYA	1.5	10.4
2674	B1570	101519.44	10.000	PANAI	1.1	8	2674	B581	90374.44	6	PULLIYA	1.2	11
2675	B1571	101523.44	9.800	PANAI	1.2	9.65	2675	B582	90395.44	6.1	PULLIYA	1	9.4
2676	B1572	101526.44	9.500	PANAI	1.15	8.9	2676	B589	90426.54	6.449	PULLIYA	1.1	9.8
2677	B1573	101529.44	8.900	PANAI	1.2	1.1	2677	B590	90443.44	6	PULLIYA	1.2	10.5
2678	B1574	101531.44	9.200	PANAI	1.1	10	2678	B591	90452.45	6.414	PULLIYA	1	7.8
2679	B1575	101533.44	9.000	PANAI	1.2	11.1	2679	B595	90474.81	6.407	PULLIYA	1.2	10.5
2680	B1576	101542.09	8.695	PANAI	1.2	10.49	2680	B596	90485.31	6.527	PULLIYA	1.5	10.5
2681	B1578	101563.16	5.905	PANAI	1.3	6.58	2681	B605	90513.48	6.625	PULLIYA	2.1	11
2682	B1582	101580.44	7.600	PANAI	1.1	10.27	2682	B606	90524.55	6.704	PULLIYA	1.4	11
2683	B1583	101590.44	8.000	EACHA	0.7	10.5	2683	B607	90533.54	6.423	PULLIYA	1.5	11
2684	B1586	101622.77	5.408	PULLIYA	2.9	11	2684	B613	90546.40	6.78	PULLIYA	1.7	11
2685	B1587	101632.50	6.092	PULLIYA	2.8	11.2	2685	B614	90557.44	7	PULLIYA	1.5	11
2686	B1588	101643.12	6.671	PULLIYA	2.6	11	2686	B615	90560.44	7	PULLIYA	1	11
2687	B1589	101652.44	7.400	PULLIYA	2.3	10.6	2687	B616	90566.34	6.486	PULLIYA	1.5	11
2688	B1593	101685.99	7.600	PULLIYA	2.6	11.6	2688	B617	90572.44	7	PULLIYA	1.5	11.5
2689	B1595	101697.04	7.796	PULLIYA	3.1	11.9	2689	B618	90584.55	6.553	PULLIYA	1.6	10.95
2690	B1597	101705.13	7.837	PULLIYA	1.6	12.1	2690	B619	90605.87	6.61	PULLIYA	1.8	10.6

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2691	B1599	101712.49	8.291	PULLIYA	2.5	10.4	2691	B624	90651.15	13.8	OTHER	0.6	9.1
2692	B1601	101734.08	7.447	PULLIYA	2.3	11.2	2692	B625	90669.44	8.2	OTHER	1.6	10.3
2693	B1602	101744.17	7.121	PULLIYA	1.7	10.8	2693	B629	90698.37	6.706	PULLIYA	1.6	11.5
2694	B1604	101763.38	7.740	PULLIYA	3.9	11.9	2694	B630	90708.37	6.665	PULLIYA	1.6	10.6
2695	B1606	101786.44	8.200	PULLIYA	2.1	10.9	2695	B631	90729.09	6.95	PULLIYA	1.7	10.9
2696	B1608	101803.62	6.463	PULLIYA	2.7	10.1	2696	B637	90759.37	6.778	PULLIYA	1.9	11.4
2697	B1610	101815.44	7.000	PULLIYA	2.1	11.2	2697	B638	90779.36	6.582	PULLIYA	1.7	11
2698	B1611	101822.21	6.809	PULLIYA	2.9	12	2698	B639	90787.83	7.172	PULLIYA	1.8	11.1
2699	B1613	101832.44	7.400	PULLIYA	2	11.8	2699	B643	90812.30	7.742	PULLIYA	2	10.45
2700	B1315	101842.44	6.900	PULLIYA	2.6	11	2700	B644	90821.27	7.635	PULLIYA	1.9	10.7
2701	B1617	101851.44	7.100	PULLIYA	2.3	12.3	2701	B645	90831.44	7.8	PULLIYA	2.2	10.6
2702	B1620	101868.75	6.062	PULLIYA	2.1	11.4	2702	B646	90841.44	7.8	PULLIYA	2.1	11.1
2703	B1624	101894.17	6.726	PULLIYA	2	10.2	2703	B649	90852.44	8	PULLIYA	1.5	11.5
2704	B1626	101902.44	7.000	PULLIYA	2.8	11	2704	B650	90870.46	7.944	PULLIYA	1.2	11
2705	B1627	101911.44	7.400	PULLIYA	1.5	10	2705	B651	90890.71	7.441	PULLIYA	1.9	11.2
2706	B1629	101918.59	6.754	PULLIYA	3.5	11.69	2706	B652	90892.44	8	PULLIYA	2.2	11.6
2707	B1631	101935.44	7.100	PULLIYA	1.9	10.1	2707	B653	90899.44	8	PULLIYA	0.9	5.1
2708	B1632	101940.77	7.199	PULLIYA	2	11.2	2708	B656	90916.67	7.869	EACH	0.8	11.3
2709	B1633	101944.44	7.200	PULLIYA	2.3	12.3	2709	B657	90918.77	6.543	OTHER	1.3	9.5
2710	B1636	101958.44	6.700	PULLIYA	2.1	11.5	2710	B658	90922.34	8.208	OTHER	1.5	11.8
2711	B1637	101969.44	6.500	PULLIYA	1.9	11	2711	B660	90951.44	7.6	PULLIYA	2	12.1
2712	B1638	101981.44	7.000	PULLIYA	2.2	11	2712	B661	90973.35	5.459	PULLIYA	4.9	12.5
2713	B1641	102011.71	7.063	PULLIYA	2.2	11	2713	B667	91122.44	8.1	OTHER	0.5	5.2

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2714	B1644	102094.44	6.900	PULLIYA	1.8	11.2	2714	B668	91130.35	7.161	OTHER	0.5	6.8
2715	B1645	102021.32	7.366	PULLIYA	2.1	11	2715	B671	91179.67	7.26	PULLIYA	1.4	10.2
2716	B1647	102034.44	7.500	PULLIYA	2.8	11	2716	B672	91195.67	7.201	PULLIYA	1.4	9.8
2717	B1649	102038.44	7.300	PULLIYA	3	10.9	2717	B673	91205.70	6.79	PULLIYA	1.5	11.7
2718	B1654	102071.25	7.882	ALAM	3.6	11.3	2718	B674	91215.47	6.807	PULLIYA	1.4	10.7
2719	B1656	102081.73	8.530	PULLIYA	3.7	11.1	2719	B677	91225.11	6.999	PULLIYA	1.5	10.3
2720	B1660	102105.44	8.000	PULLIYA	2.6	11.6	2720	B678	91234.66	6.587	PULLIYA	1.4	10
2721	B1662	102129.37	8.097	PULLIYA	2.4	11.9	2721	B682	91271.44	6	PULLIYA	1	8.6
2722	B1663	102152.90	7.060	PULLIYA	2.4	10.59	2722	B683	91294.86	7.118	OTHER	1.1	10.7
2723	B1665	102218.44	6.800	PULLIYAM	2.7	10.78	2723	B684	91299.44	6.234	PULLIYA	1.8	11.5
2724	B1675	102301.44	6.100	NEEM	1	7.99	2724	B687	91338.72	6.611	PULLIYA	1.6	12.1
2725	B1676	102318.63	5.722	ALAM	5.8	11.68	2725	B688	91354.03	7.272	NEEM	1.5	11.3
2726	B1677	102330.53	5.393	ALAM	6.5	11.68	2726	B690	91377.44	8.2	PANAI	0.9	11.7
2727	B1678	102343.44	10.400	PANAI	1.1	12	2727	B691	91382.44	8.8	PANAI	0.8	11
2728	B1679	102344.88	5.891	PANAI	1.2	11.3	2728	B693	91432.32	4.97	COCONUT	0.9	11.2
2729	B1680	102346.44	5.454	PANAI	1.1	12	2729	B694	91432.95	9.131	COCONUT	0.9	10.1
2730	B1681	102347.01	4.659	PANAI	1.2	12	2730	B695	91441.90	5.043	COCONUT	0.8	10.5
2731	B1682	102347.44	7.400	PANAI	1	9.6	2731	B696	91440.51	10.033	COCONUT	0.9	10.7
2732	B1683	102349.44	6.400	PANAI	1.1	11.5	2732	B698	91451.29	5.753	EACHA	0.9	10.1
2733	B1690	102351.44	9.100	PANAI	1.1	8.78	2733	B699	91463.18	5.856	OTHER	1.8	11.7
2734	B1691	102352.44	10.000	PANAI	0.9	8.78	2734	B700	91470.44	5.8	EACHA	0.9	11.5
2735	B1692	102353.44	10.500	PANAI	0.9	10.9	2735	B701	91473.44	5.5	PANAI	1.3	7.1
2736	B1693	102355.92	9.244	PANAI	1	12	2736	B702	91477.30	4.942	PANAI	1	4.2

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2737	B1694	102357.44	10.500	PANAI	1	10.39	2737	B703	91478.54	6.115	PANAI	1.2	5.5
2738	B1695	102359.44	8.000	PANAI	0.9	8.9	2738	B704	91480.48	5.515	PANAI	1.1	7.8
2739	B1696	102360.09	5.853	PANAI	0.8	8.9	2739	B705	91483.44	6.3	PANAI	1	5
2740	B1697	102360.44	8.900	PANAI	1.3	8.5	2740	B711	91502.67	5.678	PANAI	1.1	7.5
2741	B1698	102359.44	8.900	PANAI	1.1	8.5	2741	B712	91513.44	6.4	PANAI	1.4	5.1
2742	B1699	102361.44	6.800	PANAI	1	10	2742	B713	91517.44	5.8	PANAI	1.6	3.4
2743	B1700	102365.44	6.800	PANAI	1	8.69	2743	B714	91522.44	5.653	PANAI	1.8	7.3
2744	B1701	102365.99	6.186	PANAI	1.1	9	2744	B715	91525.71	5.16	PANAI	1.6	7.8
2745	B1702	102369.44	10.900	PANAI	1.1	10.39	2745	B716	91530.02	4.873	PANAI	1.1	6.3
2746	B1705	102375.44	6.300	PANAI	0.9	9.3	2746	B717	91530.33	4.829	PANAI	1	5.8
2747	B1706	102375.44	6.500	PANAI	0.8	9	2747	B718	91535.44	4.8	PANAI	2	6.2
2748	B1707	102376.44	8.500	OTHER	0.5	10	2748	B719	91546.44	6.3	PANAI	1.8	5.2
2749	B1708	102378.44	8.300	PANAI	1.3	5.98	2749	B720	91556.44	6.9	OTHER	0.7	6.3
2750	B1709	102380.44	6.400	PANAI	1.1	7.8	2750	B722	91609.90	9.87	PANAI	1.1	11.3
2751	B1710	102382.44	6.400	PANAI	1	7.8	2751	B723	91612.28	10.359	PANAI	1.3	11.8
2752	B1713	102402.44	10.100	PANAI	0.9	10.6	2752	B724	91621.44	10.3	NEEM	0.9	9.3
2753	B1714	102406.44	10.000	PANAI	1.1	11	2753	B725	91885.92	4.764	PANAI	1.1	9.3
2754	B1715	102408.44	8.900	PANAI	0.8	7	2754	B727	91918.50	8.5566	OTHER	1.1	8.5
2755	B1716	102410.38	8.547	PANAI	0.7	10.8	2755	B728	91920.00	7.5	NEEM	0.6	8
2756	B1717	102411.44	8.900	PANAI	1	7.4	2756	B729	91925.44	5.8	NEEM	0.4	7.7
2757	B1719	102420.75	6.255	PULIYAM	1.9	10.1	2757	B731	91997.44	9	NEEM	1	9.8
2758	B1721	102433.75	5.833	PULIYAM	2	10.8	2758	B732	92014.44	9	NEEM	1.4	10.2
2759	B1724	102473.33	5.553	PULIYAM	2.9	9.65	2759	B733	92028.44	9	NEEM	1.6	10.3

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RHS							LHS						
2760	B1726	102488.44	6.100	PULIYAM	1.4	8.9	2760	B734	92032.44	9	NEEM	1	8.7
2761	B1728	102500.55	5.768	PULIYAM	1.5	6.7	2761	B736	92044.01	8.191	PULIYAM	1.8	10.3
2762	B1730	102512.44	4.900	PULIYAM	2	9.9	2762	B737	92059.44	10.7	NEEM	2.2	10.9
2763	B1733	102527.44	5.200	PULIYAM	1.5	8.7	2763	B746	92091.44	9	NEEM	1.5	10.4
2764	B1735	102539.79	5.954	PANAI	1	10.6	2764	B750	92147.44	2.9	PUNGAM	0.4	6.1
2765	B1736	102541.22	4.734	PULIYAM	1.4	9.9	2765	B751	92176.44	2.5	EACHA	1.2	9.8
2766	B1740	102554.09	4.001	PULIYAM	1.8	10.1	2766	B752	92277.44	4.6	PANAI	1.5	10.5
2767	B1748	102560.33	6.750	PANAI	1.1	11.69	2767	B753	92277.44	4.2	EACHA	0.8	7.6
2768	B1753	102565.33	7.212	PANAI	0.9	11.5	2768	B754	92276.44	7.2	COCONUT	1	8.5
2769	B1756	102568.80	4.417	PULIYAM	2.7	10.9	2769	B755	92277.44	7.2	NEEM	1.2	10.3
2770	B1767	102577.00	6.954	PANAI	0.8	11.9	2770	B756	92236.28	1.067	EACHA	1	10
2771	B1774	102594.88	5.213	PULIYAM	1.8	10.2	2771	B757	92269.44	3.1	EACHA	0.95	9.5
2772	B1775	102595.94	6.480	PANAI	0.9	11.6	2772	B758	92339.44	4.3	PANAI	1.4	7.3
2773	B1780	102600.44	6.300	PANAI	0.8	11	2773	B761	92394.44	5.7	PANAI	1.3	9
2774	B1791	102622.43	5.775	PULIYAM	2.2	9.83	2774	B764	92439.23	7.338	EACHA	0.8	10.8
2775	B1792	102626.44	7.200	PANAI	1	11.6	2775	B765	92441.44	8	NEEM	1.5	9.8
2776	B1800	102636.25	6.173	PULIYAM	3	10.89	2776	B769	92444.94	8.093	OTHER	0.4	7.8
2777	B1808	102649.00	5.907	PULIYAM	3.3	10.2	2777	B771	92485.44	8.8	PANAI	1	8.6
2778	B1814	102662.44	5.900	PULIYAM	2.5	10	2778	B772	92486.44	8	NEEM	0.8	8.7
2779	B1817	102689.74	8.966	PANAI	0.9	11.69	2779	B773	92490.91	7.55	NEEM	0.9	8
2780	B1818	102691.27	6.145	PULIYAM	1.8	10.3	2780	B774	92499.52	6.781	PULIYAM	2.8	9.1
2781	B1819	102694.07	8.728	PANAI	1.2	11.5	2781	B775	92510.70	6.933	PULIYAM	2.3	10.2
2782	B1822	102705.41	6.905	PULIYAM	3	10.29	2782	B776	92520.60	7.099	PULIYAM	1.9	10.5

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RHS							LHS						
2783	B1826	102717.76	6.930	PULIYAM	2.1	11.37	2783	B780	92530.98	6.604	PULIYAM	1.9	10.2
2784	B1828	102731.26	7.529	PULIYAM	2.4	11	2784	B781	92552.44	7.9	PULIYAM	2.3	9.5
2785	B1832	102734.42	8.391	PANAI	1.1	11.95	2785	B786	92586.44	8.1	PULIYAM	2.4	11
2786	B1839	102755.10	8.181	PANAI	1.1	10.2	2786	B787	92591.44	8.2	PULIYAM	2.3	11
2787	B1840	102756.44	8.800	PANAI	1.3	10.5	2787	B788	92606.44	8	PULIYAM	1.8	11
2788	B1841	102756.44	10.900	PANAI	1	13.1	2788	B789	92619.44	8	PULIYAM	2.1	11
2789	B1842	102756.44	11.300	PANAI	1.2	12.3	2789	B794	92697.44	7.6	NEEM	0.5	7.5
2790	B1843	102758.44	10.000	PANAI	1.1	13.1	2790	B795	92716.44	7.4	NEEM	0.6	8.1
2791	B1849	102770.44	8.600	PULIYAM	2.7	10.9	2791	B796	92719.44	7.6	PANAI	1.4	9.8
2792	B1850	102784.44	8.900	PULIYAM	2.7	11.37	2792	B797	92724.44	6.8	NEEM	0.9	8.7
2793	B1852	102789.44	11.500	PANAI	1.4	12	2793	B798	92734.44	8.4	NEEM	1.3	8.6
2794	B1853	102791.24	11.255	PANAI	1	10.9	2794	B799	92742.62	8.296	NEEM	2	8.8
2795	B1854	102793.76	11.709	PANAI	1.2	10.9	2795	B800	92747.44	8.7	PANAI	1.3	9.5
2796	B1855	102799.40	8.186	PULIYAM	2.3	11	2796	B802	92819.44	6.3	NEEM	1.3	10
2797	B1856	102800.08	11.627	PANAI	1.2	11.39	2797	B803	92839.44	8.4	OTHER	0.5	7.8
2798	B1858	102812.70	8.306	PULIYAM	1.5	10	2798	B804	92857.44	8	OTHER	0.5	8
2799	B1862	102840.47	12.171	PULIYAM	2.4	10.9	2799	B805	92861.47	5.862	NEEM	1.2	8.4
2800	B1863	102854.19	11.803	PULIYAM	2.2	10.1	2800	B809	92897.84	7.215	NEEM	1.6	8.4
2801	B1864	102867.44	11.500	PULIYAM	2.6	11.5	2801	B810	92898.44	7.3	PANAI	1.2	10.4
2802	B1866	102880.90	9.860	PULIYAM	2	9.29	2802	B811	92901.44	7.5	NEEM	0.9	9.8
2803	B1869	102909.56	10.818	PULIYAM	1.8	10.75	2803	B812	92903.44	7.5	NEEM	1	10.1
2804	B1872	102935.22	10.135	PULIYAM	2.1	11.2	2804	B813	92929.44	7.3	NEEM	1.3	10.3
2805	B1874	102949.29	8.609	PULIYAM	2.3	10.1	2805	B814	92939.44	8.8	NEEM	0.5	8.2

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RHS							LHS						
2806	B1876	102961.87	8.577	PULIYAM	3	11.95	2806	B818	92996.74	8.295	PANAI	0.9	10
2807	B1879	102984.31	11.317	PANAI	1.1	10.6	2807	B819	93024.44	5.2	ARASAM	1.6	9.2
2808	B1880	102984.44	11.500	PANAI	1.2	11.2	2808	B823	93059.44	9.5	PANAI	1.1	10.5
2809	B1881	102989.28	7.949	PULIYAM	2.2	10.9	2809	B826	93071.44	7.6	PANAI	1.1	9.8
2810	B1883	103003.41	6.451	PULIYAM	1.9	11.9	2810	B827	93089.86	6.095	PANAI	0.8	7.3
2811	B1885	103019.44	6.500	PULIYAM	2.1	10.67	2811	B832	93117.44	8.6	PANAI	1	10.5
2812	B1887	103029.44	5.600	PANAI	1.4	11.5	2812	B833	93127.44	10.5	PULIYAM	3.3	11
2813	B1888	103035.44	5.700	PANAI	1.2	11	2813	B835	93139.44	9.5	ECHAM	0.9	10.8
2814	B1891	103044.44	4.600	PULIYAM	2	10.6	2814	B840	93191.44	5.9	NEEM	0.4	7.5
2815	B1892	103044.44	5.500	PANAI	1.1	11	2815	B842	93268.89	7.754	PULIYAM	2	10.7
2816	B1893	103046.44	5.100	PANAI	1.3	11.5	2816	B844	93307.44	10.7	NEEM	1.1	9
2817	B1895	103056.51	4.999	PANAI	0.9	8.95	2817	B845	93320.96	9.843	OTHER	2.2	10.8
2818	B1896	103058.23	3.405	PANAI	1.2	11.2	2818	B846	93350.44	7.2	VATHAM	0.8	8
2819	B1897	103060.44	4.400	PULIYAM	1.1	9.35	2819	B847	93356.51	6.795	VATHAM	0.7	8.3
2820	B1898	103061.44	7.600	PANAI	0.9	9	2820	B848	93359.44	7	PUNGAM	0.6	8.5
2821	B1900	103065.65	4.944	PANAI	1	11.5	2821	B849	93359.44	7.2	VATHAM	0.6	8.6
2822	B1901	103071.00	5.739	PANAI	1.1	12	2822	B850	93362.62	6.398	PUNGAM	1.4	8.6
2823	B1902	103071.57	3.226	PANAI	1.2	11.1	2823	B851	93367.44	7.2	VATHAM	0.6	8.5
2824	B1903	103072.83	6.853	PULIYAM	2.4	10.9	2824	B857	93449.29	6.106	ALAM	9	11.5
2825	B1904	103073.58	5.939	PANAI	1.2	10.1	2825	B858	93476.87	6.135	ALAM	4	12.2
2826	B1905	103074.44	6.300	PANAI	1.3	11	2826	B861	93657.78	8.923	PULIYAM	3	10.8
2827	B1906	103074.44	6.300	PANAI	1	11	2827	B863	93688.44	9	NEEM	0.6	8.6
2828	B1907	103075.65	6.677	PANAI	1.1	11	2828	B864	93690.44	8.4	OTHER	0.7	10.1

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2829	B1925	103101.18	10.400	PANAI	1	11.5	2829	B865	93692.16	6.856	OTHER	1.4	10.1
2830	B1927	103107.02	9.579	PANAI	1.1	10.3	2830	B866	93695.44	8.4	EACHA	1	9
2831	B1931	103140.36	6.200	PULIYAM	2.5	11.1	2831	B868	93705.38	6.513	OTHER	1.7	11.2
2832	B1933	103150.83	5.520	PULIYAM	2.8	11.3	2832	B869	93706.44	6	EACHA	0.9	10.7
2833	B1935	103164.36	6.800	PULIYAM	1.7	11	2833	B870	93717.44	8	EACHA	0.8	10.6
2834	B1937	103174.26	6.603	PULIYAM	2	11.2	2834	B871	93718.32	9.761	EACHA	1	9.2
2835	B1944	103271.11	5.720	PULIYAM	2.9	10.3	2835	B872	93718.29	10.842	OTHER	1.9	10.2
2836	B1947	103283.58	4.897	PULIYAM	2.4	10	2836	B873	93743.03	6.223	PANAI	1.1	9.5
2837	B1950	103310.07	5.689	PULIYAM	2.6	11.2	2837	B881	93811.38	11.004	PUNGAM	1.4	9.8
2838	B1951	103328.36	6.500	PULIYAM	2.7	11	2838	B889	94100.13	11.355	NEEM	0.7	9.8
2839	B1952	103350.51	4.533	PULIYAM	4.1	11.5	2839	B890	94101.40	11.783	NEEM	1	9.8
2840	B1956	103364.36	5.700	PULIYAM	2.9	11.2	2840	B891	94159.44	8.2	NEEM	0.8	9.7
2841	B1958	103376.51	6.334	PULIYAM	3.5	11.4	2841	B892	94183.19	10.328	PULIYAM	2.3	10.2
2842	B1959	103398.36	8.700	PULIYAM	0.9	10.4	2842	B897	94220.44	7.4	NEEM	1.4	10.5
2843	B1960	103406.36	11.200	NEEM	1.2	9.3	2843	B898	94243.61	7.219	NEEM	1.7	10.8
2844	B1967	103412.39	6.097	PULIYAM	3.3	11.2	2844	B899	94268.18	8.863	PULIYAM	2.6	11.2
2845	B1909	103076	7.300	PANAI	0.9	10.3	2845	B900	94301.14	8.022	NEEM	1.2	11.3
2846	B1910	103076	7.500	PANAI	1	11	2846	B901	94314.05	7.753	OTHER	1.3	10.1
2847	B1911	103077	7.300	PANAI	1.1	11.5	2847	B902	94319.44	9	NEEM	1.1	8.1
2848	B1912	103082	6.541	PANAI	1	11.1	2848	B903	94324.44	10.8	NEEM	1.1	9.1
2849	B1913	103082	6.866	PANAI	1	7.2	2849	B904	94327.44	9.3	NEEM	1	9.3
2850	B1914	103083	7.400	PANAI	1.1	11.2	2850	B905	94333.67	7.8	NEEM	0.8	8.7
2851	B1915	103085	7.500	PANAI	1.2	9.9	2851	B906	94339.27	7.828	NEEM	0.8	9.1

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2852	B1916	103086	7.300	PANAI	0.8	6.8	2852	B907	94344.44	8	NEEM	1	8.9
2853	B1917	103087	7.300	PANAI	1.2	11.1	2853	B908	94367.87	10.603	NEEM	1	8.5
2854	B1918	103088	7.400	PANAI	1	10	2854	B909	94427.15	5.756	PULIYAM	2.1	8.5
2855	B1919	103090	7.000	PANAI	0.9	10.7	2855	B910	94455.39	9.98	PANAI	1.2	8.3
2856	B1920	103091	7.500	PANAI	1.2	11.1	2856	B911	94457.44	9	PANAI	9.9	8.5
2857	B1921	103092	7.400	PANAI	1.3	10.2	2857	B912	94463.11	8.945	PANAI	1.1	9.1
2858	B1922	103094	7.500	PANAI	1.2	10.2	2858	B913	94474.38	8.927	PANAI	1.2	9.3
2859	B1923	103100	7.000	PULIYAM	2.3	11	2859	B914	94490.06	9.157	PANAI	1.2	10.2
2860	B1924	103102	10.400	PANAI	1.3	12	2860	B915	94491.44	7.8	NEEM	1.1	9.1
2861	B1963	103425.39	7.309	OTHER	4.5	11.5	2861	B916	94493.57	7.954	PANAI	1.3	8.5
2862	B1966	103438.11	7.538	OTHER	3.2	11.8	2862	B917	94501.44	7.2	NEEM	0.7	9.8
2863	B1968	103448.38	6.691	HAGA	3.9	12	2863	B918	94570.63	8.587	PANAI	0.7	10.5
2864	B1970	103467.38	7.614	OTHER	3.4	11.5	2864	B919	94575.44	7.5	NEEM	0.5	7.7
2865	B1972	103474.36	8.500	OTHER	3.2	11.7	2865	B920	94578.44	8	PANAI	1	8.3
2866	B1976	103496.89	6.339	OTHER	3.5	11.9	2866	B921	94589.44	9.5	EACHA	0.7	10.2
2867	B1978	103511.07	7.178	OTHER	3.3	11.2	2867	B922	94591.44	10	PANAI	1.4	9.5
2868	B1980	103525.51	7.215	OTHER	2.3	10.8	2868	B923	94597.44	10	PANAI	1.2	8.7
2869	B1983	103537.56	7.160	OTHER	3.1	11	2869	B924	94609.44	11	EACHA	0.8	10.2
2870	B1985	103548.40	7.802	OTHER	1.8	10.5	2870	B927	94733.14	4.591	NEEM	0.9	8.9
2871	B1986	103551.19	7.734	OTHER	2.6	11.8	2871	B928	94754.44	1.5	PANAI	1.1	1.2
2872	B1987	103564.63	9.408	PANAI	1.3	12	2872	B929	94777.44	1.5	PANAI	1.1	12.2
2873	B1988	103565.51	7.850	OTHER	2.4	11.7	2873	B930	94784.44	1.5	PULIYAM	2.1	12.5
2874	B1989	103567.36	9.800	PANAI	1	12.1	2874	B931	94785.44	1.5	PANAI	1.1	12

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RHS							LHS						
2875	B1990	103569.34	10.253	PANAI	1.1	12	2875	B933	94821.39	9.875	PANAI	1	10
2876	B1991	103579.42	8.710	OTHER	2.9	12	2876	B935	94857.04	7.189	NEEM	0.9	9
2877	B1993	103590.17	9.114	PANAI	1.2	10.5	2877	B937	94881.39	7.15	PULIYAM	2.2	11
2878	B1994	103592.89	8.264	OTHER	2.5	10.8	2878	B941	95084.91	7.705	OTHER	0.8	9
2879	B1996	103609.21	8.900	OTHER	2.3	10	2879	B942	95105.04	4.416	OTHER	1.2	10.7
2880	B1997	103623.12	9.866	OTHER	2.7	10.8	2880	B943	95108.68	6.125	VATHAM	0.7	10.6
2881	B2000	103666.93	9.863	OTHER	4.1	12.2	2881	B944	95117.52	7.673	PULIYAM	2.4	10.7
2882	B2007	103719.31	8.941	PULIYAM	2.9	11.5	2882	B946	95131.44	7.7	PULIYAM	1.8	11
2883	B2012	103772.21	7.413	PULIYAM	2.4	11	2883	B954	95245.22	7.596	PULIYAM	2.3	11
2884	B2015	103796.74	8.347	PULIYAM	2.2	10.5	2884	B957	95270.42	6.284	PULIYAM	2.3	11.2
2885	B2017	103810.33	7.745	PULIYAM	2.5	11.2	2885	B958	95298.44	6.6	PULIYAM	2.1	11
2886	B2019	103824.01	7.975	PULIYAM	1.8	11.4	2886	B959	95314.44	6	PULIYAM	2.2	10.8
2887	B2021	103837.00	8.286	PULIYAM	2.7	11.2	2887	B962	95328.44	8.8	NEEM	0.8	8.3
2888	B2023	103874.58	6.704	PULIYAM	2	10	2888	B963	95329.44	9	NEEM	0.6	6.7
2889	B2025	103913.41	4.724	PULIYAM	1.9	10.2	2889	B964	95333.31	7.421	PULIYAM	2	11.3
2890	B2027	103925.39	4.645	PULIYAM	2.3	10	2890	B967	95349.03	8.191	NEEM	1.2	10.8
2891	B2029	103939.33	5.722	PULIYAM	2.1	10.3	2891	B968	95356.44	8.3	NEEM	1.5	10.9
2892	B2031	103953.92	5.755	PULIYAM	2	10.5	2892	B969	95358.78	9.163	OTHER	0.6	10.8
2893	B2033	103966.77	6.886	PULIYAM	1.8	9.8	2893	B970	95359.42	9.216	NEEM	1.1	10.6
2894	B2035	104020.11	9.068	PULIYAM	1.9	9.6	2894	B973	95554.11	11.984	PANAI	1.1	12.7
2895	B2037	104032.43	10.407	PULIYAM	1.7	9	2895	B974	95566.44	9	PANAI	1.1	13.6
2896	B2039	104045.23	10.990	PULIYAM	1.9	8.7	2896	B975	95582.22	7.042	PULIYAM	3.8	13
2897	B2040	104070.49	11.627	PULIYAM	2.1	8.5	2897	B977	95614.94	4.73	PANAI	1.2	11

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RHS							LHS						
2898	B2041	104085.21	11.580	PULIYAM	1.6	9	2898	B978	95634.44	6	PANAI	0.9	12
2899	B2047	104199.18	0.968	PULIYAM	2.2	9.7	2899	B979	95636.44	6	PANAI	1	12.5
2900	B2048	104214.17	1.151	PULIYAM	2.3	10.2	2900	B981	95649.76	4.93	PULIYAM	2.2	12
2901	B2049	104239.78	1.118	PULIYAM	1.7	9.5	2901	B984	95683.32	5.728	PULIYAM	2.2	12
2902	B2050	104252.12	1.417	PULIYAM	0.2	10	2902	B985	95692.11	6.379	PULIYAM	2.1	11.2
2903	B2057	104328.44	8.732	PULIYAM	1.9	8.5	2903	B987	95705.44	7.9	PULIYAM	2	11.2
2904	B2058	104336.05	11.081	PULIYAM	1.3	8.7	2904	B988	95729.43	5.966	PULIYAM	2	12.5
2905	B2061	104361.86	8.923	PULIYAM	2.1	9.8	2905	B989	95761.44	7.6	NEEM	1.5	7.5
2906	B2063	104388.34	6.982	PULIYAM	2.6	10.3	2906	B990	95835.72	7.221	OTHER	0.9	7.8
2907	B2066	104414.06	7.520	PULIYAM	1.4	9.7	2907	B991	95848.26	6.98	NEEM	0.7	8.7
2908	B2067	104440.52	7.719	PULIYAM	2.6	8.2	2908	B992	95887.44	7.5	NEEM	0.9	8.3
2909	B2069	104451.86	5.276	PULIYAM	1.8	9	2909	B993	96013.71	6.047	NEEM	0.7	7.6
2910	B2072	104479.36	7.305	PULIYAM	1.6	8.5	2910	B994	96036.44	7.3	OTHER	0.4	6.9
2911	B2075	104506.16	4.098	PULIYAM	2.7	9.8	2911	B995	96039.44	7.6	OTHER	0.8	10.2
2912	B2078	104533.10	2.790	PULIYAM	1.4	7.8	2912	B996	96095.44	6.2	OTHER	0.4	7.8
2913	B2080	104547.02	3.534	PULIYAM	1.2	7.5	2913	B997	96097.44	6.2	OTHER	0.4	7.8
2914	B2082	104559.01	3.853	PULIYAM	2	10.5	2914	B998	96099.44	6.4	OTHER	0.4	7.8
2915	B2084	104571.50	2.692	PULIYAM	1.3	10.8	2915	B1000	96210.19	8.013	PANAI	0.9	10.8
2916	B2088	104608.80	2.042	PULIYAM	2.1	10.2	2916	B1002	96362.13	7.66	PULIYAM	1.6	9.8
2917	B2089	104623.64	2.347	PULIYAM	2.5	10.5	2917	B1003	96373.59	9.659	PULIYAM	1.3	10
2918	B2091	104648.09	4.015	NEEM	0.8	8	2918	B1016	97266.69	7.979	ARSAN	1	10.3
2919	B2093	104664.52	3.772	NEEM	0.8	8.2	2919	B1017	97270.44	8	ARSAN	0.7	9.3
2920	B2095	104678.36	3.500	PULIYAM	2	10.3	2920	B1018	97275.44	8.1	PANAI	1.1	10.9

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RHS							LHS						
2921	B2098	104704.36	3.800	PULIYAM	2.4	10.5	2921	B1019	97276.44	8.1	PANAI	0.9	10.6
2922	B2100	104717.66	3.873	PULIYAM	2.3	11	2922	B1020	97287.44	8.5	ECHAM	0.9	9.2
2923	B2104	104758.37	5.214	PULIYAM	2	10.5	2923	B1023	97330.69	6.035	PULIYAM	2.1	11
2924	B2105	104771.50	3.708	PULIYAM	2.1	10.5	2924	B1027	97377.44	6	PANAI	1	10
2925	B2107	104784.72	3.357	PULIYAM	1.2	9.2	2925	B1028	97379.26	6.385	PANAI	1	10
2926	B2109	104811.93	4.576	PULIYAM	2	10.1	2926	B1029	97380.44	7	OTHER	1.3	10
2927	B2111	104826.35	3.618	PULIYAM	2.7	10	2927	B1030	97389.44	7.3	OTHER	1.4	10.1
2928	B2113	104840.29	5.351	PULIYAM	1.9	10.5	2928	B1031	97393.44	6.7	PANAI	1	10
2929	B2115	104852.28	5.326	PULIYAM	2.8	11	2929	B1033	97402.99	4.312	OTHER	1.5	10.2
2930	B2116	104866.36	4.223	PULIYAM	2.5	10.7	2930	B1034	97408.68	5.728	NEEM	1.1	10.2
2931	B2118	104879.67	3.960	PULIYAM	2.3	11.2	2931	B1035	97419.44	4.9	NEEM	0.7	10.2
2932	B2120	104893.78	4.502	PULIYAM	2.5	11	2932	B1036	97421.44	4.9	NEEM	0.7	10.2
2933	B2122	104910.26	5.026	PULIYAM	2.7	11.3	2933	B1037	97428.44	6.1	PULIYAM	0.6	8.1
2934	B2124	104921.36	5.500	PULIYAM	1.2	10	2934	B1038	97433.44	6.2	PULIYAM	0.6	8.6
2935	B2126	104933.15	6.141	PULIYAM	3	11.2	2935	B1039	97585.44	4.4	MANGO	0.9	6.9
2936	B2127	104944.13	7.013	POONGA	0.8	9.5	2936	B1040	97699.44	7.5	NEEM	1.1	8.8
2937	B2128	104961.36	5.700	PULIYAM	1.8	10	2937	B1041	97710.66	8.197	NEEM	1.3	10.2
2938	B2129	104972.89	6.701	PULIYAM	2.3	11.2	2938	B1042	97710.74	8.264	PANAI	1.5	10.1
2939	B2130	104986.06	6.816	PULIYAM	2.7	11.5	2939	B1043	97726.39	7.216	NEEM	1.3	10.2
2940	B2132	104999.57	6.811	PULIYAM			2940	B1044	97730.74	8.068	NEEM	1.1	10.2
2941	B2134	105013.39	6.629	PULIYAM	3	11.3	2941	B1045	97737.20	7.671	NEEM	1.5	10.4
2942	B2136	105026.47	6.782	PULIYAM	2.1	11	2942	B1046	97757.98	9.717	NEEM	1.4	10.6
2943	B2139	105079.70	7.738	PULIYAM	4	11.5	2943	B1047	97767.14	9.867	NEEM	1.8	10.6

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RHS							LHS						
2944	B2140	105093.16	8.047	PULIYAM	3.8	11.3	2944	B1048	97776.44	10	NEEM	1.5	10.6
2945	B2141	105107.17	6.578	PULIYAM	3.6	11.5	2945	B1049	97785.44	9.3	NEEM	1.2	11
2946	B2143	105121.76	7.426	PULIYAM	3.5	11.2	2946	B1050	97785.44	10	PANAI	1.1	9.8
2947	B2144	105147.06	7.413	PULIYAM	2.8	10.8	2947	B1051	97789.44	9.3	NEEM	1.4	9.8
2948	B2145	105160.85	7.036	PULIYAM	1.8	10.5	2948	B1052	97789.44	9.5	PANAI	0.9	10
2949	B2147	105173.54	7.087	PULIYAM	1.4	9.5	2949	B1053	97795.44	9.5	PANAI	1.4	9.9
2950	B2149	105187.59	7.561	PULIYAM	1.8	9	2950	B1054	97799.44	9.3	NEEM	0.9	10
2951	B2150	105217.27	8.156	PULIYAM	2.5	10.7	2951	B1055	97802.44	9.5	PANAI	1	9.7
2952	B2152	105231.67	8.383	PULIYAM	1.8	10	2952	B1056	97806.44	9.5	PANAI	1	9.6
2953	B2155	105257.72	7.802	PULIYAM	1.3	9.8	2953	B1057	97808.44	9.5	PANAI	1.2	9.6
2954	B2156	105268.72	8.700	PULIYAM	1.7	9.8	2954	B1058	97809.44	9.5	PANAI	0.9	9.6
2955	B2158	105285.07	7.876	PULIYAM	2.1	9.5	2955	B1059	97809.44	9.5	NEEM	1.3	9.8
2956	B2160	105298.29	7.947	PULIYAM	2.4	10.2	2956	B1060	97811.44	9.5	PANAI	0.9	9.7
2957	B2162	105310.49	7.921	PULIYAM	3.1	10.8	2957	B1063	97824.96	7.677	NEEM	0.8	8.5
2958	B2164	105332.77	7.662	PULIYAM	2.4	11	2958	B1064	97831.17	8.587	NEEM	0.9	10
2959	B2166	105345.89	8.511	PULIYAM	2.8	11.2	2959	B1065	97831.27	8.53	NEEM	1.8	10.5
2960	B2169	105372.52	7.719	PULIYAM	3	11.5	2960	B1066	97834.75	8.827	NEEM	1.7	11
2961	B2172	105400.04	7.522	PULIYAM	1.7	10.7	2961	B1071	97874.44	10.5	NEEM	2	11.2
2962	B2173	105414.41	7.445	PULIYAM	2.8	11	2962	B1072	97895.45	8.872	PANAI	1.3	9.8
2963	B2175	105428.31	7.383	PULIYAM	2.2	11.1	2963	B1074	97932.44	8.2	NEEM	1.8	9.7
2964	B2177	105440.80	8.106	PULIYAM	2.4	11.3	2964	B1075	97939.44	9.9	NEEM	1.9	11
2965	B2179	105454.09	8.663	PULIYAM	2.7	12	2965	B1076	97960.51	9.763	NEEM	1.5	10.5
2966	B2181	105483.82	6.599	PULIYAM	3.1	11.5	2966	B1077	97964.06	8.394	NEEM	1.9	11

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2967	B2183	105498.38	7.110	PULIYAM	2.8	11.7	2967	B1078	97967.32	8.239	NEEM	0.9	8.1
2968	B2184	105511.87	7.772	PULIYAM	1.4	11.2	2968	B1079	97978.44	8.9	NEEM	1.3	10.8
2969	B2185	105526.97	7.016	PULIYAM	1.8	11	2969	B1080	97976.79	6.969	PANAI	1.1	10
2970	B2186	105540.50	6.783	PULIYAM	3.1	11.5	2970	B1081	97997.58	6.69	PANAI	1.2	8.2
2971	B2187	105551.00	7.343	PULIYAM	2.4	11.5	2971	B1082	98005.58	6.898	NEEM	1.3	9
2972	B2188	105566.71	6.616	PULIYAM	2.6	11.8	2972	B1083	98027.44	8.5	PANAI	0.9	11
2973	B2189	105581.24	5.828	PULIYAM	2.7	12	2973	B1085	98175.62	9.529	OTHER	0.5	7.5
2974	B2191	105593.93	5.576	PULIYAM	3	12.2	2974	B1086	98214.44	8	OTHER	0.5	7.1
2975	B2194	105623.43	4.889	PULIYAM	2.6	12.3	2975	B1088	98251.35	8.29	OTHER	3.4	9.8
2976	B2196	105637.60	5.761	PULIYAM	2.4	11.8	2976	B1090	98285.91	8.624	NEEM	0.7	8
2977	B2197	105665.62	5.380	PULIYAM	2.1	11.5	2977	B1098	98602.34	7.352	NEEM	2.3	10.6
2978	B2198	105727.02	7.262	PANAI	1.3	7.5	2978	B1101	98786.44	7.6	COCONUT	1.3	10.7
2979	B2199	105733.77	5.775	PULIYAM	2	10.5	2979	B1102	99145.44	6.6	ECHAM	0.9	9.2
2980	B2202	105787.52	5.792	PULIYAM	2.6	11.2	2980	B1103	99177.44	3.4	PANAI	0.8	9.2
2981	B2206	105841.27	6.819	PULIYAM	2.3	11.5	2981	B1104	99184.44	7	PANAI	1	8.5
2982	B2207	105868.39	6.255	PULIYAM	2.2	12	2982	B1105	99219.44	7.3	PANAI	0.7	8.6
2983	B2208	105884.25	6.260	PULIYAM	1.9	11.2	2983	B1107	99431.94	5.789	PANAI	0.9	8.5
2984	B2210	105901.90	11.714	NEEM	0.8	10	2984	B1108	99433.36	5.8	PANAI	1.1	9
2985	B2211	105907.27	10.772	NEEM	0.6	10	2985	B1109	99435.36	5.8	PANAI		9
2986	B2214	105926.28	5.856	PULIYAM	2.4	11.2	2986	B1110	99437.36	5	PANAI	1.1	8.9
2987	B2215	105940.64	6.161	PULIYAM	2.9	11.7	2987	B1111	99439.36	5.8	PANAI	1	9
2988	B2216	105953.69	6.188	PULIYAM	3.1	11.5	2988	B1112	99441.36	5.4	PANAI	1.2	9
2989	B2221	106039.42	11.577	PULIYAM	1.6	11	2989	B1113	99445.36	5.4	PANAI	1	9

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
2990	B2223	106050.71	5.973	PULIYAM	2.6	11.5	2990	B1114	99446.36	5.4	PANAI	1.1	9
2991	B2225	106064.88	5.537	NEEM	4	11.7	2991	B1115	99447.36	5.2	PANAI	0.8	9
2992	B2227	106078.35	9.434	NEEM	1.2	11.5	2992	B1116	99448.36	5.89	PANAI	0.9	8.6
2993	B2228	106094.35	10.201	NEEM	1.1	10	2993	B1117	99454.36	5.2	PANAI	0.9	8.8
2994	B2230	106106.81	9.356	PULIYAM	0.8	10.1	2994	B1118	99456.36	5.2	PANAI	1	8.8
2995	B2231	106114.16	4.283	PULIYAM	2.8	11.2	2995	B1120	99464.36	5.2	PANAI	0.9	9
2996	B2233	106127.57	4.004	PULIYAM	2.7	9.8	2996	B1121	99465.36	5.2	PANAI	1	9
2997	B2235	106140.30	4.052	PULIYAM	2.4	11.5	2997	B1122	99469.36	5.2	PANAI	1	9
2998	B2237	106154.23	4.266	PULIYAM	3.1	11	2998	B1123	99474.36	5.3	PANAI	1.1	9
2999	B2238	106169.06	4.667	PULIYAM	1.8	11.2	2999	B1124	99474.36	5.2	PANAI	1.2	9
3000	B2239	106181.97	5.094	PULIYAM	3	10.5	3000	B1125	99479.36	5.3	PANAI	0.8	8.8
3001	B2243	106224.15	5.763	PULIYAM	2.2	11.3	3001	B1126	99481.36	5.2	PANAI	0.9	8.8
3002	B2245	106237.10	5.585	PULIYAM	2.8	11.5	3002	B1127	99482.36	5.2	PANAI	1	8.8
3003	B2247	106251.47	5.364	PULIYAM	2.1	11	3003	B1128	99483.36	5.2	PANAI	0.9	9
3004	B2249	106266.52	6.234	PULIYAM	2	11.1	3004	B1129	99487.36	5.3	PANAI	1	3.9
3005	B2251	106293.74	5.769	PULIYAM	2.2	10.5	3005	B1130	99488.36	5.2	PANAI	1.1	9.2
3006	B2252	106306.86	6.213	PULIYAM	2.6	11	3006	B1131	99489.36	5.2	PANAI	1	9.2
3007	B2255	106368.12	10.051	PULIYAM	2.2	11.3	3007	B1132	99490.36	5.3	PANAI	1.1	9.2
3008	B2257	106434.64	5.325	PULIYAM	1.7	10.4	3008	B1133	99498.36	5.6	PANAI	1.1	8.8
3009	B2259	106444.36	10.500	NEEM	0.7	10.5	3009	B1134	99499.36	5.6	PANAI	1.1	9
3010	B2260	106450.82	4.829	PULIYAM	2.1	11	3010	B1135	99514.36	6	PANAI	1.1	9
3011	B2261	106466.45	4.372	PULIYAM	3.2	11.7	3011	B1136	99519.36	6	PANAI	1	9
3012	B2264	106498.62	3.985	PULIYAM	2	11.5	3012	B1137	99520.36	6	PANAI	1.1	9

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3013	B2266	106547.25	3.685	PULIYAM	1.9	10.7	3013	B1138	99526.36	6	PANAI	1.2	9.4
3014	B2267	106567.04	4.253	PULIYAM	2.1	10.3	3014	B1139	99528.91	5.874	PANAI	9	9.2
3015	B2268	106575.63	4.145	PULIYAM	2	11.1	3015	B1140	99587.62	6.356	PANAI	1.1	9.8
3016	B2271	106614.14	4.984	PULIYAM	1.5	9.5	3016	B1141	99595.15	7.676	PANAI	1.1	8.4
3017	B2272	106629.29	4.488	PULIYAM	1.4	9	3017	B1146	99687.48	6.117	MANGO	0.9	9.2
3018	B2274	106642.41	4.414	PULIYAM	0.9	8.5	3018	B1147	99692.51	6.873	COCO	1	10.5
3019	B2276	106654.97	3.618	PULIYAM	2.1	10.29	3019	B1148	99696.59	6.259	PANAI	1.2	8.9
3020	B2278	106671.22	3.963	PULIYAM	2	10.7	3020	B1149	99709.18	4.672	COCO	1	10.5
3021	B2281	106695.86	3.573	PULIYAM	2.5	11	3021	B1152	99737.36	4.4	OTHER	0.9	7.5
3022	B2284	106723.59	4.219	PULIYAM	2	10.5	3022	B1157	99858.77	5.477	OTHER	8.8	11
3023	B2285	106736.94	4.439	PULIYAM	1.8	10	3023	B1185	99985.18	8.923	NEEM	1	9.1
3024	B2288	106779.14	5.231	PULIYAM	2.3	9.8	3024	B1188	100011.36	8.6	PANAI	1.1	9.2
3025	B2290	106834.05	4.706	PULIYAM	1.8	10.3	3025	B1192	100027.44	8.296	PANAI	0.9	8.9
3026	B2292	106848.33	4.210	PULIYAM	2.1	10.5	3026	B1193	100029.36	8.4	PANAI	1.2	9
3027	B2293	106860.90	6.933	PULIYAM	2.6	10.7	3027	B1194	100030.36	8.4	PANAI	1	9
3028	B2295	106894.36	7.700	PULIYAM	2	11.2	3028	B1195	100031.36	8.4	PANAI	0.9	9
3029	B2296	106956.77	7.162	PULIYAM	2.1	10.5	3029	B1196	100034.36	8.4	PANAI	1.2	9
3030	B2300	106998.04	7.255	PULIYAM	1.6	9.8	3030	B1197	100036.36	8.5	PANAI	1.2	9
3031	B2302	107011.45	7.170	PULIYAM	1.8	9.5	3031	B1198	100038.36	8.4	PANAI	1	10
3032	B2303	107037.63	7.289	PULIYAM	1.9	10.3	3032	B1199	100039.36	8.4	PANAI	1	9
3033	B2305	107119.31	5.381	PULIYAM	2	11.5	3033	B1200	100040.36	8.4	PANAI	1	9.3
3034	B2308	107189.65	5.388	PULIYAM	1.8	11.2	3034	B1201	100041.36	8.4	PANAI	1	10
3035	B2309	107232.95	4.144	PULIYAM	3.2	12.1	3035	B1202	100042.36	8.3	PANAI	1	10

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3036	B2317	107486.82	7.676	PULIYAM	2.8	12.3	3036	B1203	100043.36	8.3	PANAI	1.3	10
3037	B2318	107500.08	6.446	PULIYAM	3.3	12.5	3037	B1204	100045.02	8.628	PANAI	1	9
3038	B2322	107624.04	6.331	PULIYAM	3.2	12.2	3038	B1209	100074.00	9.215	PANAI	1.2	9.3
3039	B2325	107638.29	6.382	PULIYAM	1.9	12	3039	B1210	100076.36	10.2	PANAI	1.1	8.9
3040	B2326	107652.39	6.962	OTHER	2.3	12.3	3040	B1211	100077.36	10.2	PANAI	1.2	9
3041	B2328	107666.77	7.067	PULIYAM	2.4	12.1	3041	B1212	100157.62	7.867	PANAI	1.2	8.5
3042	B2330	107681.04	6.348	PULIYAM	2.9	12.4	3042	B1213	100197.36	9	PANAI	1.1	8.8
3043	B2331	107689.36	9.000	OTHER	2.7	10.5	3043	B1214	100205.36	8	PANAI	1.1	8.8
3044	B2332	107709.68	6.540	PULIYAM	2.8	11.4	3044	B1215	100211.36	6.4	PANAI	1.2	9.1
3045	B2335	107744.73	8.575	OTHER	1.1	10.6	3045	B1226	100227.36	8.6	PANAI	1	8.8
3046	B2338	107774.36	8.500	NEEM	1.2	10	3046	B1227	100229.36	8.6	PANAI	1	8.8
3047	B2340	107812.72	7.024	NEEM	1	10.2	3047	B1228	100239.82	8.5	PANAI	1.2	8.2
3048	B2341	107814.90	7.092	NEEM	1.2	10.3	3048	B1229	100246.36	8.7	PANAI	1	8.2
3049	B2343	107859.40	8.746	NEEM	1.4	10.5	3049	B1244	100256.36	6.9	PANAI	1.1	9.2
3050	B2347	107901.36	10.500	PANAI	1.1	10	3050	B1245	100257.36	7	PANAI	1.2	9.2
3051	B2348	107913.36	10.700	PANAI	1	9.5	3051	B1246	100259.36	7.2	PANAI	1.1	8.6
3052	B2349	107933.65	5.836	PULIYAM	2.5	10.3	3052	B1247	100262.36	7.3	PANAI	1	9.2
3053	B2351	107961.22	5.870	PULIYAM	3.3	11.3	3053	B1248	100267.36	7.2	PANAI	1.4	10
3054	B2352	107984.50	8.284	EACHA	0.9	8.7	3054	B1261	100408.36	7.9	PANAI	0.9	9
3055	B2355	108063.87	6.985	PULIYAM	3.4	11.5	3055	B1262	100409.36	7.7	PANAI	0.9	9
3056	B2357	108076.48	6.737	PULIYAM	3.6	11.8	3056	B1263	100410.36	7.8	PANAI	1	9.1
3057	B2360	108115.68	6.369	PULIYAM	3.1	12	3057	B1271	100425.33	6.137	PANAI	1	9.3
3058	B2362	108127.96	6.758	ARASA	1.7	10.2	3058	B1272	100439.36	6.1	PANAI	0.36	9.3

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3059	B2365	108161.64	7.764	PULIYAM	3	11.3	3059	B1273	100440.36	6.1	PANAI	0.8	8.7
3060	B2367	108179.36	5.500	OTHER	1.3	11.5	3060	B1274	100444.36	4.1	PANAI	1.2	8.2
3061	B2369	108213.71	10.500	PANAI	0.9	10.3	3061	B1275	100445.36	4.1	PANAI	1.2	9.1
3062	B2370	108214.96	11.654	PANAI	0.8	11.2	3062	B1276	100446.36	4.1	PANAI	1	8.8
3063	B2371	108235.36	7.200	PULIYAM	2.8	11.5	3063	B1277	100447.36	4	PANAI	0.8	11.4
3064	B2375	108265.10	6.299	PULIYAM	4	12	3064	B1278	100449.36	5	PANAI	1.2	8.3
3065	B2380	108328.92	5.956	PULIYAM	2.9	11.7	3065	B1279	100449.36	4	PANAI	0.8	7.8
3066	B2382	108341.99	5.215	PULIYAM	2.6	11.1	3066	B1287	100452.03	3.565	PANAI	0.9	8.1
3067	B2385	108399.89	5.666	NEEM	1.1	9.5	3067	B1288	100453.36	4.7	PANAI	0.9	8.5
3068	B2389	108437.96	4.032	PULIYAM	2.1	10.7	3068	B1289	100454.36	5.2	PANAI	0.8	8.6
3069	B2391	108466.13	4.400	PULIYAM	2	10.6	3069	B1290	100455.36	5	PANAI	1	9
3070	B2393	108479.00	3.894	PULIYAM	2.8	11.2	3070	B1293	100459.36	4	PANAI	1.2	9
3071	B2395	108493.36	4.900	PULIYAM	1.7	10.5	3071	B1294	100462.36	4.1	PANAI	0.8	8.3
3072	B2397	108507.29	4.394	PULIYAM	1.6	10	3072	B1295	100463.36	4.2	PANAI	0.8	9.2
3073	B2398	108521.15	4.384	PULIYAM	1.4	9.5	3073	B1296	100464.36	4	PANAI	1.2	9.2
3074	B2400	108548.91	5.794	PULIYAM	1.7	9	3074	B1297	100472.36	4.3	PANAI	0.9	8.9
3075	B2401	108562.24	4.895	PULIYAM	2.6	11.2	3075	B1298	100473.36	4	PANAI	1	9
3076	B2403	108575.95	4.664	PULIYAM	1.8	10	3076	B1299	100477.36	3	PANAI	1	9
3077	B2405	108589.18	5.890	PULIYAM	2.1	10.5	3077	B1300	100482.86	3.351	PANAI	1.3	9.4
3078	B2407	108615.40	6.495	PULIYAM	2.2	11	3078	B1301	100485.36	4.2	PANAI	0.8	9.4
3079	B2408	108629.13	6.097	PULIYAM	2.5	11.2	3079	B1302	100486.36	5	PANAI	0.9	8.9
3080	B2409	108642.95	7.454	PULIYAM	2.4	11.5	3080	B1307	100493.36	3.9	PANAI	0.7	8.8
3081	B2411	108657.10	7.175	PULIYAM	2.9	11.7	3081	B1308	100495.36	3.9	PANAI	0.7	9.1

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RHS							LHS						
3082	B2412	108670.41	6.887	PULIYAM	2.2	11.2	3082	B1309	100506.94	3.684	PANAI	0.9	8.2
3083	B2413	108683.70	7.861	PULIYAM	2.7	11.5	3083	B1310	100509.36	8	PANAI	0.9	8.7
3084	B2417	108729.36	6.800	PULIYAM	1.9	10.5	3084	B1311	100511.94	3.69	PANAI	1.2	9.3
3085	B2419	108737.67	6.597	PULIYAM	2.5	10.7	3085	B1312	100514.36	5	PANAI	1	8.9
3086	B2420	108751.77	7.727	PULIYAM	2.3	11	3086	B1315	100519.36	5.6	PANAI	1.1	8.8
3087	B2422	108779.28	7.980	PULIYAM	2.9	11.5	3087	B1316	100521.82	4.042	PANAI	0.8	10.8
3088	B2425	108809.36	8.700	PULIYAM	2.2	11.2	3088	B1317	100525.36	6.2	PANAI	1.2	9
3089	B2427	108824.36	7.800	PULIYAM	3.2	11.6	3089	B1318	100529.36	6.2	PANAI	0.9	8.2
3090	B2429	108853.36	7.600	PULIYAM	3.7	11.8	3090	B1319	100530.36	6.2	PANAI	1	9.1
3091	B2431	108862.36	6.800	PULIYAM	1.4	9.5	3091	B1320	100531.36	6.1	PANAI	1.1	9.5
3092	B2433	108874.36	7.000	PULIYAM	2.9	11	3092	B1321	100533.36	6	PANAI	1.25	9.4
3093	B2435	108889.36	7.200	PULIYAM	1.9	10.8	3093	B1322	100545.36	6	PANAI	1	9.1
3094	B2437	108898.40	6.877	PULIYAM	2.6	11.3	3094	B1323	100547.36	6	PANAI	1.3	8.8
3095	B2438	108911.44	6.742	PULIYAM	2.3	11.5	3095	B1324	100549.36	6.8	PANAI	1.1	9.3
3096	B2441	108971.43	6.622	PULIYAM	3.2	12	3096	B1325	100550.36	6.7	PANAI	1	9.4
3097	B2446	109039.36	8.500	NEEM	0.9	11.2	3097	B1326	100551.36	6.7	PANAI	1	9.4
3098	B2449	109059.44	8.708	PULIYAM	2.6	11.5	3098	B1327	100561.36	9.5	PANAI	0.5	3.7
3099	B2451	109072.93	8.156	PULIYAM	2.8	11.7	3099	B1329	100508.36	5	PANAI	1	9
3100	B2452	109085.79	9.833	PULIYAM	2.5	11.4	3100	B1330	100570.36	8	PANAI	1.1	9
3101	B2454	109100.43	8.727	PULIYAM	3.1	12	3101	B1331	100571.36	8	PANAI	1	8.8
3102	B2457	109142.15	9.339	NEEM	1	10.5	3102	B1332	100584.36	8	PANAI	1.5	9
3103	B2459	109154.78	11.032	NEEM	1.3	10.8	3103	B1334	100595.36	7	PANAI	1	9.1
3104	B2463	109193.97	7.628	PULIYAM	3.2	11.8	3104	B1335	100596.36	7.2	PANAI	0.9	9.1

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3105	B2466	109218.83	8.237	PULIYAM	3.3	12	3105	B1336	100597.36	8	PANAI	1.3	9.1
3106	B2468	109231.70	7.245	PULIYAM	2.8	11.5	3106	B1337	100598.36	7.6	PANAI	0.9	9.1
3107	B2470	109245.79	8.038	PULIYAM	2.7	11.8	3107	B1338	100603.36	7.6	PANAI	0.9	9.1
3108	B2473	109274.26	8.003	PULIYAM	1.8	11.1	3108	B1339	100604.36	7	PANAI	1	9.4
3109	B2474	109288.95	7.990	PULIYAM	2.3	11.5	3109	B1340	100606.36	7	PANAI	0.9	9.4
3110	B2476	109303.44	8.082	PULIYAM	2	11.7	3110	B1341	100607.36	6.7	PANAI	1.3	9.4
3111	B2478	109316.07	7.362	PULIYAM	2.8	11.9	3111	B1342	100609.36	7.6	PANAI	1	9.3
3112	B2480	109330.34	7.547	PULIYAM	3.2	11.5	3112	B1343	100610.36	6.6	PANAI	1	9.3
3113	B2482	109343.11	7.493	PULIYAM	2.3	11.2	3113	B1344	100611.36	6.6	PANAI	0.9	9.3
3114	B2483	109358.13	8.164	PULIYAM	1.7	10.3	3114	B1345	100612.36	6.6	PANAI	0.9	8.9
3115	B2485	109371.17	7.489	PULIYAM	4.1	11.5	3115	B1346	100613.36	6.6	PANAI	1.2	9.5
3116	B2487	109384.04	7.869	PULIYAM	1.5	11.2	3116	B1350	100620.15	5.916	PANAI	0.9	8.9
3117	B2488	109421.36	8.500	PULIYAM	1.2	9.8	3117	B1360	100629.36	6.9	PANAI	1.1	9.1
3118	B2490	109443.36	7.200	PULIYAM	2.4	10.5	3118	B1361	100632.36	6.9	PANAI	1.1	9.4
3119	B2492	109457.36	6.800	PULIYAM	3.7	11.2	3119	B1362	100634.36	6.8	PANAI	1	9.5
3120	B2493	109494.26	4.758	PULIYAM	3.8	11.5	3120	B1363	100635.36	6.8	PANAI	1	9.5
3121	B2494	109507.37	6.692	PULIYAM	2.4	11.7	3121	B1364	100641.36	7	PANAI	1.1	9.5
3122	B2496	109520.38	5.320	PULIYAM	2.8	11.9	3122	B1365	100643.36	6	PANAI	0.9	8.7
3123	B2499	109563.26	5.008	PULIYAM	3.3	12.2	3123	B1367	100643.36	7.2	PANAI	1.2	9
3124	B2502	109576.38	5.806	PULIYAM	2.2	11.7	3124	B1368	100644.36	7.2	PANAI	1.1	9
3125	B2503	109589.32	6.335	PULIYAM	2.5	11.5	3125	B1369	100646.36	7.2	PANAI	1	9.2
3126	B2507	109617.85	5.881	PULIYAM	2	11.1	3126	B1370	100647.36	7.2	PANAI	1	9.2
3127	B2509	109642.65	6.168	PULIYAM	1.8	11.3	3127	B1371	100648.36	7.3	PANAI	1.1	8.3

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3128	B2518	109710.90	6.424	PULIYAM	2.8	11.7	3128	B1372	100649.36	6.5	PANAI	0.9	8.7
3129	B2519	109749.52	6.176	OTHER	4.2	11.5	3129	B1373	100654.36	6.5	PANAI	0.8	8.8
3130	B2520	109762.88	6.976	OTHER	2.3	11	3130	B1374	100657.36	10	PANAI	0.9	8.8
3131	B2521	109790.10	6.750	PULIYAM	2.7	11.3	3131	B1375	100656.36	10	PANAI	1	9.2
3132	B2527	109874.36	11.400	PANAI	1.26	10	3132	B1376	100656.36	6.6	PANAI	1	9.2
3133	B2529	109951.98	6.793	PULIYAM	2.4	11.5	3133	B1377	100659.36	6.5	PANAI	1	9.2
3134	B2532	110032.7766	6.172	PULLIYAM	1.8	10.9	3134	B1378	100660.36	9	PANAI	1	9.2
3135	B2533	110046.5275	6.137	PULLIYAM	2.1	10.1	3135	B1379	100661.36	9	PANAI	1	9.2
3136	B2534	110059.4657	6.407	PULLIYAM	1.7	10.6	3136	B1380	100665.36	9.1	EACHA	1	9.4
3137	B2535	110073.5243	6.189	PULLIYAM	2.2	11	3137	B1381	100666.36	6.5	PANAI	0.9	9.2
3138	B2539	110113.6062	6.539	PULLIYAM	1.8	10.8	3138	B1382	100666.36	6.7	PANAI	0.9	9.2
3139	B2541	110126.9151	5.987	PULLIYAM	1.8	8	3139	B1383	100667.32	5.833	PANAI	0.9	9.2
3140	B2543	110141.5217	6.033	PULLIYAM	2.4	10.9	3140	B1384	100668.77	6.437	PANAI	1	9.2
3141	B2545	110151.9983	6.426	PULLIYAM	1.7	10	3141	B1385	100670.36	8.2	PANAI	0.9	9.3
3142	B2547	110183.5651	7.756	PULLIYAM	2.2	10.8	3142	B1386	100670.36	6.5	PANAI	1.3	8.9
3143	B2549	110196.365	7.735	PULLIYAM	2.4	10.7	3143	B1387	100671.36	8.2	PANAI	0.9	9
3144	B2553	110252.424	7.112	PULLIYAM	3.1	11.2	3144	B1388	100672.36	8.2	PANAI	0.9	9
3145	B2556	110280.2196	6.167	PULLIYAM	2.8	10.7	3145	B1389	100675.36	7	EACHA	0.9	9.7
3146	B2558	110294.6841	6.862	PULLIYAM	2.1	10.7	3146	B1391	100677.36	9.7	PANAI	0.8	8.2
3147	B2560	110308.3963	6.714	PULLIYAM	3.2	10.6	3147	B1392	100679.36	9	PANAI	0.9	9.2
3148	B2563	110337.1692	6.221	PULLIYAM	1.5	9.8	3148	B1393	100679.62	5.534	PANAI	1	9.9
3149	B2565	110351.7091	5.779	PULLIYAM	2.5	9.8	3149	B1394	100681.36	7.4	PANAI	1.2	10.3
3150	B2567	110364.3335	6.2	PULLIYAM	2.5	11.3	3150	B1395	100681.43	5.963	PANAI	1.1	10.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3151	B2569	110379.3353	6.138	PULLIYAM	1.8	10.4	3151	B1396	100687.36	10.2	PANAI	1.2	8.5
3152	B2571	110394.8008	6.547	PULLIYAM	2.4	10.4	3152	B1397	100691.36	10.5	PANAI	1	9.4
3153	B2574	110408.0743	6.677	PULLIYAM	3.2	10.8	3153	B1398	100693.36	6.202	PANAI	1	8.9
3154	B2577	110438.9536	8.43	PULLIYAM	1.9	11	3154	B1399	100693.21	10.5	PANAI	1.1	9.2
3155	B2579	110452.1343	8.606	PULLIYAM	2.4	11.2	3155	B1400	100694.67	6.542	PANAI	1	9
3156	B2583	110497.806	10.187	PULLIYAM	3.2	11.4	3156	B1402	100696.36	6.2	PANAI	0.9	8.3
3157	B2584	110511.4833	9.221	PULLIYAM	2.2	10.9	3157	B1403	100696.36	6.4	PANAI	1	8.7
3158	B2586	110526.4783	6.506	PULLIYAM	2.4	8.9	3158	B1404	100698.36	7.3	PANAI	1	8
3159	B2588	110539.9297	6.841	PULLIYAM	1.6	11.4	3159	B1410	100699.36	7.3	PANAI	0.9	7.7
3160	B2589	110553.1797	6.074	PULLIYAM	3.3	11.2	3160	B1411	100699.36	6.9	PANAI	0.8	7.7
3161	B2590	110571.1023	7.54	PULLIYAM	2.5	11	3161	B1412	100700.36	6.8	PANAI	0.9	7
3162	B2592	110608.0801	6.012	OTHER	1	9.8	3162	B1413	100702.36	7.7	PANAI	1	8.9
3163	B2593	110646.2339	8.229	PULLIYAM	2	11.2	3163	B1414	100704.36	8.5	PANAI	1.1	6.9
3164	B2594	110656.3335	8.6	PULLIYAM	1.9	11	3164	B1415	100704.36	6.3	PANAI	1	8.2
3165	B2601	110824.3335	8.6	PULLIYAM	2.8	10.4	3165	B1416	100705.36	7	PANAI	1.1	6.8
3166	B2602	110834.0906	8.217	PULLIYAM	2.2	10.7	3166	B1417	100706.36	7.2	PANAI	1.2	8.7
3167	B2604	110846.1506	7.706	PULLIYAM	2.3	10.8	3167	B1418	100708.36	6.5	PANAI	0.9	8
3168	B2608	110886.7385	8.643	PULLIYAM	1.7	10	3168	B1419	100708.36	7.4	PANAI	1	8.3
3169	B2609	110894.7558	8.726	VEPPAM	1.2	10.5	3169	B1420	100709.10	5.446	PANAI	1.1	8.5
3170	B2611	110904.4734	8.792	PULLIYAM	2.8	12	3170	B1421	100713.36	7.7	PANAI	1	6.9
3171	B2615	110974.1023	11.461	PULLIYAM	2.9	11.3	3171	B1422	100711.47	3.18	PANAI	0.8	9.5
3172	B2616	110986.1381	9.845	PULLIYAM	1.8	11	3172	B1423	100718.36	6.8	PANAI	1.2	7.2
3173	B2617	110991.5547	8.957	PULLIYAM	1.8	11.2	3173	B1424	100719.36	5.8	PANAI	1	8.1

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3174	B2618	110997.1442	8.459	PULLIYAM	1.8	11.2	3174	B1425	100720.36	5.2	PANAI	1	8.3
3175	B2619	111002.5793	7.503	PULLIYAM	1.7	11	3175	B1426	100722.36	5	PANAI	1.1	8.5
3176	B2620	111014.3335	7.6	PULLIYAM	2.9	11	3176	B1427	100723.36	5.3	PANAI	1	8
3177	B2623	111037.6223	7.241	PULLIYAM	1.6	11.8	3177	B1428	100725.93	2.124	PANAI	0.9	7.5
3178	B2626	111039.3335	7	PULLIYAM	3	11.8	3178	B1439	100735.07	1.148	PANAI	1.2	9.5
3179	B2628	111054.2326	6.843	PULLIYAM	1.6	11.5	3179	B1440	100735.89	1.791	PANAI	0.9	8
3180	B2629	111074.3335	7	PULLIYAM	2.1	11.9	3180	B1441	100737.48	0.978	PANAI	0.9	7.8
3181	B2631	111088.7309	6.421	PULLIYAM	1.5	10.9	3181	B1442	100739.06	0.583	PANAI	1	8.8
3182	B2633	111091.3335	6.8	PULLIYAM	1.8	11.5	3182	B1443	100729.87	9.022	PANAI	1.3	4.5
3183	B2635	111129.3336	6.8	PULLIYAM	2.5	11.6	3183	B1444	100741.53	0.027	PANAI	1	8
3184	B2637	111139.3335	6.8	PULLIYAM	1.9	11.8	3184	B1445	100744.36	3.7	PANAI	1.1	7.7
3185	B2640	111165.2231	6.417	PULLIYAM	2.1	11.5	3185	B1446	100749.36	1.3	PANAI	1.2	8.1
3186	B2645	111181.3335	7.1	PULLIYAM	1.8	11.7	3186	B1447	100754.36	0.6	PANAI	1.2	10.2
3187	B2646	111205.3335	7.3	PULLIYAM	2.4	11.5	3187	B1448	100754.36	0.6	PANAI	1.1	10
3188	B2648	111210.2279	6.512	PULLIYAM	2.7	11.8	3188	B1449	100757.36	0.6	PANAI	1	10.5
3189	B2649	111221.4216	6.283	PULLIYAM	3.1	11.4	3189	B1450	100759.36	0.6	PANAI	1	9.1
3190	B2650	111228.4332	6.725	PULLIYAM	1.8	11.6	3190	B1462	100807.36	0	PANAI	1.2	5.5
3191	B2651	111239.3335	7.1	PULLIYAM	2.4	11.8	3191	B1463	100808.64	0.087	PANAI	1.1	8.2
3192	B2652	111244.831	6.489	PULLIYAM	2.5	12.1	3192	B1464	100815.36	3.2	PANAI	1	8.8
3193	B2653	111256.3335	7.1	PULLIYAM	2.8	12.4	3193	B1465	100820.36	5.5	PANAI	1.1	8
3194	B2655	111271.3335	7	PULLIYAM	2.9	12.2	3194	B1466	100825.36	5.5	PANAI	1.2	7.2
3195	B2658	111297.5991	4.318	PULLIYAM	2.7	11.8	3195	B1468	100836.85	5.828	PANAI	0.9	8.2
3196	B2662	111334.3335	6.1	PULLIYAM	1.6	11.5	3196	B1469	100834.36	4.7	PANAI	1	8.7

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RHS							LHS						
3197	B2663	111389.3335	5.7	PULLIYAM	1.8	11.2	3197	B1470	100854.14	9.722	PANAI	0.9	8.9
3198	B2664	111399.3336	5.4	PULLIYAM	1.4	10.9	3198	B1471	100857.36	10.2	PANAI	1	8.5
3199	B2665	111427.3335	5.4	PULLIYAM	2.2	11.6	3199	B1472	100858.36	9.8	PANAI	1.2	9.4
3200	B2666	111437.3335	6.5	VEPPAM	1.2	11.3	3200	B1473	100862.03	10.486	PANAI	1	8
3201	B2668	111452.4582	4.795	PULLIYAM	1.9	11.4	3201	B1497	100962.99	1.213	PANAI	1.2	8.1
3202	B2669	111459.9562	4.715	PULLIYAM	2	11.2	3202	B1498	100965.45	1.355	PANAI	1.1	6.2
3203	B2670	111474.3335	5.2	PULLIYAM	2	11.3	3203	B1499	100970.09	1.12	PANAI	1	7.8
3204	B2671	111494.5327	5.25	PULLIYAM	1.8	12.3	3204	B1501	101083.36	11.5	PANAI	1.1	7.7
3205	B2673	111529.0605	4.955	PULLIYAM	1.5	10.8	3205	B1502	101101.14	9.608	PANAI	1	9.8
3206	B2674	111542.2089	5.762	PULLIYAM	1.5	10.8	3206	B1503	101124.36	10	PANAI	1.1	9.4
3207	B2677	111599.3335	5.3	PULLIYAM	2.8	10.3	3207	B1506	101150.02	9.77	PANAI	1.3	9.6
3208	B2679	111619.3336	4	PULLIYAM	1.7	10.6	3208	B1508	101183.01	6.736	PANAI	1.2	7.8
3209	B2681	111629.3335	4.2	PULLIYAM	1.8	10	3209	B1513	101236.36	9.6	PANAI	1.3	7.8
3210	B2684	111667.3335	4	PULLIYAM	1.7	10.5	3210	B1514	101237.36	9.6	PANAI	1.1	8.2
3211	B2687	111706.4536	6.235	PULLIYAM	2	10.8	3211	B1515	101238.36	9.8	PANAI	1.4	7.8
3212	B2689	111736.5159	5.053	PULLIYAM	1.8	10.69	3212	B1516	101246.36	9.6	PANAI	1.1	8.8
3213	B2691	111760.3335	5.8	PULLIYAM	2.1	10.5	3213	B1517	101248.72	8.238	PANAI	1	7.3
3214	B2692	111771.3335	5.2	PULLIYAM	1.9	10.6	3214	B1518	101254.36	8.6	PANAI	1	8.2
3215	B2695	111794.5698	5.516	PULLIYAM	1.7	9.3	3215	B1521	101274.67	7.862	PANAI	1.1	8.4
3216	B2696	111802.1593	5.898	PULLIYAM	1.8	10.4	3216	B1522	101279.36	7.9	PANAI	1.4	8.2
3217	B2699	111823.2359	5.135	PULLIYAM	1.5	10	3217	B1523	101285.36	7.9	PANAI	1	7
3218	B2700	111825.3335	5.2	PULLIYAM	2.1	11.3	3218	B1524	101294.36	7	PANAI	1	9.2
3219	B2702	111833.3336	5.4	PULLIYAM	2	11	3219	B1525	101296.36	4.2	PANAI	1.3	9.2

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3220	B2705	111897.0615	5.001	PULLIYAM	1.6	10.7	3220	B1526	101298.36	4.2	PANAI	1.3	9.4
3221	B2706	111911.3335	5.2	PULLIYAM	1.2	10	3221	B1527	101299.47	4.637	PANAI	1.3	9.4
3222	B2707	111934.3335	5.3	PULLIYAM	1.5	7.9	3222	B1528	101302.36	4.2	PANAI	1	8.3
3223	B2711	112002.3335	5.3	PULLIYAM	1.6	10.8	3223	B1532	101314.36	4.4	PANAI	1.2	9.4
3224	B2712	112027.3335	5.3	PULLIYAM	2.8	11	3224	B1533	101315.36	4.4	PANAI	1.1	9
3225	B2713	112039.3335	5.3	PULLIYAM	1.7	10.4	3225	B1537	101335.36	4.2	PANAI	1.4	9.1
3226	B2714	112047.3335	5.6	PULLIYAM	1.6	10.6	3226	B1538	101346.50	4.938	PANAI	1.3	7.8
3227	B2716	112063.3335	3.4	PULLIYAM	1.9	10.9	3227	B1539	101349.36	4.2	PANAI	1.2	8.6
3228	B2719	112094.0462	5.777	PULLIYAM	2.1	10.8	3228	B1540	101354.36	4.2	PANAI	1	9.4
3229	B2720	112100.7531	5.897	PULLIYAM	1.8	10.8	3229	B1544	101379.38	4.922	PANAI	1	9.9
3230	B2724	112144.3335	3.5	PULLIYAM	3	10.9	3230	B1545	101384.36	5	PANAI	0.8	8
3231	B2725	112151.3335	3.7	PULLIYAM	1.6	10.9	3231	B1546	101385.36	5.1	PANAI	1	8.7
3232	B2727	112167.3335	4	PULLIYAM	3	11.2	3232	B1547	101389.36	5	PANAI	1	8.7
3233	B2728	112199.3335	3.3	PULLIYAM	3.2	11.2	3233	B1548	101390.44	4.601	PANAI	0.8	8.4
3234	B2729	112221.8615	6.594	PULLIYAM	3.5	12	3234	B1549	101394.36	4.6	PANAI	1.2	8.9
3235	B2730	112250.0416	5.385	PULLIYAM	3.4	12	3235	B1550	101398.44	4.979	PANAI	0.9	8.5
3236	B2732	112336.6569	6.013	PULLIYAM	2.9	13	3236	B1551	101404.36	5	PANAI	1.3	8.2
3237	B2734	112348.8141	6.013	PULLIYAM	1.9	12	3237	B1552	101405.36	5	PANAI	1	8.3
3238	B2735	112379.3335	6.2	PULLIYAM	3	10.9	3238	B1553	101409.36	4.6	PANAI	1.2	8.8
3239	B2741	112474.3335	7.2	VEPPAM	1.8	10.8	3239	B1554	101411.83	5.359	PANAI	1	8.5
3240	B2743	112534.7535	7.117	PULLIYAM	1.5	11	3240	B1556	101424.50	6.14	PANAI	0.9	8.7
3241	B2744	112539.5124	7.092	OTHER	1.4	10.2	3241	B1557	101426.36	6.5	PANAI	1.1	8.6
3242	B2749	112665.9343	6.348	PULLIYAM	3	11	3242	B1558	101431.36	6.5	PANAI	1.1	9.3

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3243	B2754	112860.3335	6.8	VEPPAM	1.1	11	3243	B1559	101432.36	6.5	PANAI	1.3	6.8
3244	B2756	112879.3334	6.6	VEPPAM	0.9	10.5	3244	B1560	101443.36	6.5	PANAI	1	9.1
3245	B2757	112891.3335	6.5	PULLIYAM	3.2	11.8	3245	B1561	101444.36	6.5	PANAI	1.1	9.1
3246	B2758	112909.7828	5.83	PULLIYAM	2.2	11.9	3246	B1562	101445.36	6.7	PANAI	1.1	8.4
3247	B2759	112931.8523	6.681	PULLIYAM	4.2	12	3247	B1563	101446.36	6.7	PANAI	1.2	8.4
3248	B2760	112941.4008	7.838	PULLIYAM	2.9	11.5	3248	B1564	101449.84	6.591	PANAI	1.2	8.8
3249	B2761	112944.3336	7	ARASA	4.6	12.4	3249	B1565	101459.36	7.4	PANAI	1.1	8.2
3250	B2762	112959.3335	7.5	PULLIYAM	2.8	11	3250	B1566	101460.36	6.8	PANAI	1.1	9
3251	B2767	113092.3143	10.569	OTHER	2.1	11	3251	B1567	101460.36	7.4	PANAI	1.2	8.9
3252	B2771	113236.1456	6.367	PULLIYAM	5	12	3252	B1568	101463.36	6.8	PANAI	1.2	9.2
3253	B2773	113319.3335	5.2	PULLIYAM	3.8	12.3	3253	B1569	101469.36	7.4	PANAI	1.1	8.2
3254	B2775	113349.3335	5.8	PULLIYAM	4.2	12.8	3254	B1577	101553.32	10.018	PANAI	0.9	9.3
3255	B2776	113390.3335	6	PANAI	1	7.8	3255	B1579	101567.39	10.151	PANAI	1	9.1
3256	B2777	113424.3336	2.8	PANAI	1	10.7	3256	B1580	101577.36	9.5	PANAI	0.9	8.2
3257	B2782	113587.3335	0	PANAI	1	8	3257	B1581	101578.12	8.645	PANAI	0.9	8.8
3258	B2783	113589.3335	0	PANAI	1	7.8	3258	B1584	101590.75	8.267	PANAI	0.8	9
3259	B2784	113587.3335	2	THENNAI	0.9	13.5	3259	B1585	101606.34	6.253	PULIYAM	3.3	10.5
3260	B2785	113611.3335	1.4	ALA	3.7	13	3260	B1590	101647.36	4.5	PULIYAM	2.6	11
3261	B2786	113661.8291	4.547	PULLIYAM	2.6	12.3	3261	B1591	101658.14	3.767	PULIYAM	2.6	11
3262	B2788	113701.0788	7.097	PULLIYAM	2.6	11.8	3262	B1592	101680.26	3.405	PULIYAM	2	11.2
3263	B2789	113905.6425	7.238	PULLIYAM	2	13.6	3263	B1594	101690.82	3.746	PULIYAM	2.1	10.5
3264	B2790	113917.5329	7.328	PULLIYAM	2.8	11.5	3264	B1596	101701.07	5.098	PULIYAM	1.7	9
3265	B2791	113929.9464	6.999	PULLIYAM	2.3	11.6	3265	B1598	101709.29	4.543	PULIYAM	2.5	10

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
3266	B2792	113962.6151	7.393	PULLIYAM	4.3	12	3266	B1600	101718.77	4.676	PULIYAM	2.8	11
3267	B2794	113995.3335	7.8	VEPPAM	1.8	7.5	3267	B1603	101749.16	6.346	PULIYAM	2.1	11.5
3268	B2799	114409.4124	5.6	PULLIYAM	1.4	7.4	3268	B1605	101769.36	7	PULIYAM	2.2	8
3269	B2803	114509.3896	6.068	PULLIYAM	2.9	11.3	3269	B1607	101798.65	6.236	PULIYAM	2	10.3
3270	B2804	114528.9123	7.028	PULLIYAM	3.1	13	3270	B1608	101808.67	6.493	PULIYAM	2.2	10.5
3271	B2805	114549.5858	8.92	PULLIYAM	5.3	13	3271	B1612	101827.51	7.535	PULIYAM	2.6	11
3272	B2806	114575.3862	6.547	PULLIYAM	5.2	13	3272	B1613	101837.26	7.235	PULIYAM	2.5	11
3273	B2807	114645.665	6.584	PULLIYAM	2.8	11.8	3273	B1616	101847.40	7.846	PULIYAM	2.6	11
3274	B2808	114659.2076	5.419	OTHER	1.9	12.5	3274	B1618	101856.39	6.162	PULIYAM	2.6	11.1
3275	B2813	114849.3335	5.2	PULLIYAM	2.5	10.9	3275	B1619	101874.36	7.9	PULIYAM	2.5	11.6
3276	B2817	114896.8979	5.192	PULLIYAM	5	12.2	3276	B1621	101883.65	7.374	PULIYAM	2.1	11.6
3277	B2818	114915.686	6.41	PULLIYAM	5.4	12.3	3277	B1622	101892.14	6.759	PULIYAM	1.3	11.6
3278	B2822	115053.1321	4.88	PULLIYAM	2.7	11.8	3278	B1623	101892.54	6.569	PULIYAM	2.1	11
3279	B2824	115072.5284	5.555	OTHER	1.5	9.8	3279	B1625	101899.35	6.823	PULIYAM	2.2	10.5
3280	B2827	115092.6659	7	OTHER	0.6	8.7	3280	B1628	101915.01	7.1	PULIYAM	2.2	10.7
3281	B2828	115093.7552	7.082	OTHER	1	8.7	3281	B1630	101933.36	7.4	PULIYAM	1.4	11.2
							3282	B1631	101938.48	7.928	PULIYAM	1.5	11.2
							3283	B1632	101945.66	7.268	PULIYAM	2.2	11.3
							3284	B1635	101953.82	7.045	PULIYAM	1.9	11
							3285	B1638	101981.48	5.959	PULIYAM	2	11
							3286	B1640	101992.18	5.24	PULIYAM	2.1	11.2
							3287	B1642	101006.36	6.5	PULIYAM	2.6	11.2
							3288	B1643	102013.36	6.4	PULIYAM	2.6	10.7

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3289	B1646	102016.40	3.408	PULIYAM	3	11
							3290	B1648	102024.33	3.235	PULIYAM	3.7	11
							3291	B1650	102034.36	4.5	PULIYAM	2.9	10.7
							3292	B1651	102042.68	3.401	PULIYAM	2.7	10.7
							3293	B1652	102055.24	3.264	PULIYAM	2	11
							3294	B1653	102062.36	3	PANAI	1.2	11
							3295	B1655	102065.42	2.783	PULIYAM	2	11
							3296	B1657	102081.36	6	PANAI	1.2	10
							3297	B1658	102087.09	3.119	PULIYAM	2.2	10.8
							3298	B1659	102098.98	3.38	PULIYAM	3	11.4
							3299	B1661	102109.67	4.369	PULIYAM	2.4	11
							3300	B1664	102159.36	6.1	PULIYAM	2.5	11.3
							3301	B1666	102232.34	7.725	NEEM	1.4	10.8
							3302	B1667	102276.95	7.936	OTHER	5.1	11.2
							3303	B1668	102286.07	9.773	PANAI	1	10.6
							3304	B1669	102288.36	9.8	PANAI	1	10.6
							3305	B1670	102289.36	9.8	PANAI	1.2	11
							3306	B1671	102295.36	11.2	PANAI	1.1	11.5
							3307	B1672	102296.36	11.1	PANAI	0.9	10.7
							3308	B1673	102297.36	11.2	PANAI	1.2	11
							3309	B1674	102298.36	11.1	PANAI	0.9	11
							3310	B1684	102352.90	7.207	PANAI	1	11
							3311	B1685	102354.36	7.8	PANAI	1	11

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3312	B1686	102355.36	7.2	PANAI	1	11
							3313	B1687	102355.36	7.3	PANAI	9.1	11
							3314	B1688	102356.36	7.2	PANAI	0.8	10.4
							3315	B1689	102357.36	7.3	PANAI	0.9	8.8
							3316	B1703	102369.61	4.889	PANAI	0.9	10.9
							3317	B1704	102371.36	5	PANAI	0.9	10.8
							3318	B1711	102378.26	6.268	PANAI	1.2	10.9
							3319	B1712	102383.36	7.1	PANAI	1	10.9
							3320	B1718	102414.45	7.219	PULIYAM	2.1	10.7
							3321	B1720	102427.69	7.146	PULIYAM	2.3	10.9
							3322	B1722	102446.36	7.7	PULIYAM	2.1	11
							3323	B1723	102465.46	7.523	PULIYAM	1.9	10.7
							3324	B1725	102479.50	7.509	PULIYAM	1.3	10.9
							3325	B1727	102493.19	6.812	PULIYAM	2.4	10.8
							3326	B1729	102507.28	6.301	PULIYAM	1.5	10.6
							3327	B1731	102521.36	7.5	PULIYAM	1.9	10.7
							3328	B1732	102522.36	7.3	PANAI	1.3	10.5
							3329	B1734	102534.79	6.122	PANAI	1.8	10.4
							3330	B1737	102549.36	8.3	PULIYAM	2.2	10.9
							3331	B1738	102548.81	6.166	PANAI	1.2	12
							3332	B1739	102550.36	8.2	PANAI	1	11.8
							3333	B1741	102551.36	8.3	PANAI	0.9	11.7
							3334	B1742	102552.18	7.026	PANAI	1	11.8

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3335	B1743	102554.00	7.639	PANAI	1.2	11.9
							3336	B1744	102554.36	8.4	PANAI	0.9	10.3
							3337	B1745	102555.60	7.856	PANAI	1.2	10.8
							3338	B1746	102556.36	8.6	PANAI	1.1	11.7
							3339	B1747	102557.36	8.3	PANAI	0.9	10.2
							3340	B1749	102558.36	8.3	PANAI	0.9	11.7
							3341	B1750	102559.36	8.8	PANAI	0.9	10.6
							3342	B1751	102560.36	7	PANAI	2	10.4
							3343	B1752	102561.56	8.245	PULIYAM	1.2	11.2
							3344	B1754	102563.18	7.786	PANAI	1.2	11
							3345	B1755	102564.36	8	PANAI	0.9	10.7
							3346	B1757	102565.36	8	PANAI	1.2	10.2
							3347	B1758	102565.56	6.605	PANAI	0.7	10.8
							3348	B1759	102567.46	6.443	PANAI	1	10
							3349	B1760	102568.52	6.673	PANAI	0.9	11.2
							3350	B1761	102568.44	7.648	PANAI	0.9	11.3
							3351	B1762	102569.92	7.177	PANAI	1.1	10.9
							3352	B1763	102571.39	7.416	PANAI	1	11
							3353	B1764	102572.65	7.198	PANAI	0.9	11
							3354	B1765	102574.16	7.841	PANAI	0.9	10.8
							3355	B1766	102573.87	6.432	PULIYAM	2.2	10
							3356	B1768	102577.11	5.641	PANAI	1.3	11
							3357	B1769	102577.81	7.518	PANAI	1	10.6

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3358	B1770	102579.64	7.141	PANAI	1.1	11.4
							3359	B1771	102588.86	4.911	PULIYAM	2.7	9.8
							3360	B1772	102592.36	8	PANAI	0.9	11.2
							3361	B1773	102594.36	8	PANAI	0.9	11.2
							3362	B1776	102599.36	8.2	PANAI	1.2	10.9
							3363	B1777	102599.50	6.725	PANAI	1	11
							3364	B1778	102601.03	5.306	PANAI	0.9	11
							3365	B1779	102601.72	6.725	PULIYAM	1.9	10.9
							3366	B1781	102604.36	8.3	PANAI	0.7	10.8
							3367	B1782	102607.62	7.72	PANAI	0.9	11
							3368	B1783	102608.15	6.776	PANAI	0.9	10.8
							3369	B1784	102613.46	6.926	PANAI	1.1	11.2
							3370	B1785	102617.36	8.5	PANAI	0.9	11
							3371	B1786	102610.97	7.642	PULIYAM	2.5	10.5
							3372	B1787	102611.36	6.2	PANAI	0.9	11
							3373	B1788	102615.85	4.989	PANAI	0.9	11
							3374	B1789	102619.36	6	PANAI	1	11
							3375	B1790	102624.36	6.3	PANAI	0.9	11
							3376	B1794	102628.52	7.043	PANAI	0.9	11
							3377	B1795	102628.94	4.967	PULIYAM	2.1	11
							3378	B1796	102630.17	6.707	PANAI	1	11.2
							3379	B1797	102631.77	7.392	PANAI	0.9	11.2
							3380	B1798	102638.03	7.364	PANAI	1	11

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RHS							LHS						
							3381	B1799	102638.68	6.074	PANAI	0.9	11.2
							3382	B1801	102640.36	6.5	PANAI	0.9	11.2
							3383	B1802	102641.36	6.3	PANAI	0.9	11.2
							3384	B1803	102644.04	6.597	PULIYAM	2	11.3
							3385	B1804	102643.49	4.256	PANAI	1	11
							3386	B1805	102644.36	6.3	PANAI	0.9	11
							3387	B1806	102647.70	6.107	PANAI	1.1	10.8
							3388	B1807	102647.97	5.184	PANAI	0.9	10.8
							3389	B1809	102651.67	6.348	PANAI	0.9	10.9
							3390	B1810	102653.36	6.4	PANAI	1	10.8
							3391	B1811	102655.36	4.5	PANAI	0.9	10.9
							3392	B1812	102656.34	3.303	PULIYAM	1.9	10.6
							3393	B1813	102656.22	4.693	PANAI	0.9	10.9
							3394	B1815	102666.52	5.85	PANAI	0.9	10.9
							3395	B1816	102684.25	3.378	PULIYAM	2.4	10.7
							3396	B1820	102696.36	5	PULIYAM	1.9	11
							3397	B1821	102698.15	4.137	PULIYAM	2.3	10.5
							3398	B1823	102707.36	5.9	PANAI	0.9	10.8
							3399	B1824	102710.67	4.054	PULIYAM	1.6	10.7
							3400	B1825	102724.36	5.9	PANAI	1.2	11
							3401	B1827	102731.76	5.361	PULIYAM	1.8	10.4
							3402	B1828	102734.36	4.2	PANAI	1.1	11.2
							3403	B1830	102737.42	3.705	PANAI	1.1	11.2

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3404	B1831	102738.36	4.2	PANAI	0.9	11
							3405	B1833	102739.36	3	PULIYAM	2.6	10.3
							3406	B1834	102746.05	4.782	PANAI	1.1	11
							3407	B1835	102747.36	4.2	PANAI	1	11
							3408	B1836	102748.36	4.3	PANAI	1.4	11
							3409	B1837	102749.36	4.4	PANAI	1	7.8
							3410	B1838	102757.12	2.008	PANAI	1	10.8
							3411	B1844	102756.68	5.079	PANAI	1.1	11.4
							3412	B1845	102759.36	5.8	PANAI	1.3	11.4
							3413	B1846	102762.36	5.8	PANAI	1.2	11
							3414	B1847	102767.36	5.6	PULIYAM	1.6	11.2
							3415	B1848	102779.58	4.072	PULIYAM	1.9	10.5
							3416	B1851	102802.30	3.5	PULIYAM	2.1	10.5
							3417	B1857	102821.80	3.5	PULIYAM	2.2	10.8
							3418	B1858	102831.52	3.5	PULIYAM	2.5	10.8
							3419	B1860	102836.36	7.3	PANAI	1.1	10.5
							3420	B1861	102847.68	2.417	PULIYAM	3	11
							3421	B1865	102873.12	3.41	PULIYAM	2.2	10.8
							3422	B1867	102887.35	4.147	PULIYAM	1.6	10.6
							3423	B1868	102901.57	4.343	PULIYAM	1.7	10.5
							3424	B1870	102915.22	3.897	PULIYAM	2.1	10.5
							3425	B1871	102931.36	4.3	PULIYAM	1.5	10
							3426	B1873	102944.15	5.597	PULIYAM	2.4	9.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3427	B1875	102947.36	5.3	PULIYAM	1.6	8.5
							3428	B1877	102970.30	5.637	PULIYAM	2.5	10.3
							3429	B1878	102982.78	6.515	PULIYAM	2.9	10.4
							3430	B1882	102997.36	8	PULIYAM	2.8	10.2
							3431	B1884	103002.36	8.3	PULIYAM	2	10
							3432	B1886	103023.36	9.1	PULIYAM	1.7	10
							3433	B1889	103036.36	9.6	PULIYAM	1.8	9
							3434	B1890	103038.36	10.2	PANAI	1	10.8
							3435	B1894	103049.36	10.6	PULIYAM	2.1	10.4
							3436	B1899	103064.36	10.4	PULIYAM	2.2	10
							3437	B1908	103078.04	10.712	PULIYAM	2	10
							3438	B1916	103091.37	9.507	PULIYAM	2.5	10.7
							3439	B1926	103104.22	8.706	PULIYAM	1.6	10
							3440	B1928	103118.36	8	PULIYAM	2.8	10.8
							3441	B1930	103131.13	8	PULIYAM	2.3	10.5
							3442	B1932	103144.66	7.927	PULIYAM	3	10.7
							3443	B1934	103157.90	7.809	PULIYAM	2.2	10.8
							3444	B1936	103170.84	7.768	PULIYAM	3.1	11.2
							3445	B1938	103183.36	8.3	PULIYAM	3.7	11.5
							3446	B1939	103197.26	8.364	PULIYAM	3	11
							3447	B1940	103209.36	8.4	PULIYAM	3.6	12
							3448	B1941	103223.37	9.079	PULIYAM	2.8	11.5
							3449	B1942	103236.36	9	PULIYAM	2.8	11.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3450	B1943	103249.95	8.796	PULIYAM	2.6	11.4
							3451	B1945	103274.36	4	PANAI	1.1	11
							3452	B1946	103277.44	5.328	PANAI	0.9	11
							3453	B1948	103290.06	7.51	PULIYAM	2.4	11.2
							3454	B1949	103303.69	7.354	PULIYAM	2.5	11.3
							3455	B1951	103316.45	6.439	PULIYAM	3.9	11.3
							3456	B1955	103359.62	7.089	PULIYAM	2.6	11.5
							3457	B1957	103373.36	6.3	PULIYAM	3.3	12
							3458	B1961	103406.68	6.602	OTHER	4.2	12.5
							3459	B1964	103434.38	6.96	OTHER	1.6	10.8
							3460	B1965	103431.98	6.912	NEEM	2.1	11.5
							3461	B1967	103442.05	5.98	OTHER	3.4	11.6
							3462	B1969	103451.36	7.4	NEEM	2.6	12.3
							3463	B1971	103458.49	8.193	PANAI	1.3	11.3
							3464	B1973	103489.98	4.454	OTHER	2.6	11
							3465	B1974	103493.44	4.109	OTHER	2.8	11
							3466	B1975	103493.50	4.124	PANAI	1.1	11.6
							3467	B1977	103505.84	3.93	OTHER	3.3	11.6
							3468	B1979	103519.22	2.625	OTHER	2.6	10.8
							3469	B1980	103532.05	1.773	EACHA	0.8	10.7
							3470	B1982	103536.36	1	OTHER	2.9	10.6
							3471	B1984	103545.36	0.5	OTHER	2.3	11
							3472	B1992	103585.41	0.805	OTHER	2.6	10.9

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3473	B1995	103604.17	0.051	OTHER	3	11
							3474	B1998	103632.36	0	OTHER	3.2	12.7
							3475	B1999	103644.33	0.735	PULIYAM	4.4	12.7
							3476	B2001	103666.36	9	EACHA	0.9	7.7
							3477	B2002	103667.36	8.9	EACHA	0.8	7.4
							3478	B2003	103668.36	7	EACHA	6.8	7.8
							3479	B2004	103700.64	1.744	PULIYAM	4.2	13
							3480	B2005	103708.72	5.313	EACHA	0.8	10
							3481	B2006	103715.03	4.005	PANAI	1	9.8
							3482	B2008	103725.01	4.012	PULIYAM	3.2	11.5
							3483	B2009	103739.08	3.668	PULIYAM	3.2	11.5
							3484	B2010	103752.66	4.844	PULIYAM	2.9	10.8
							3485	B2011	103767.20	5.279	PULIYAM	1.8	9.7
							3486	B2013	103778.61	5.479	PULIYAM	2.6	10.5
							3487	B2014	103790.70	5.127	PULIYAM	2.8	11.2
							3488	B2016	103802.02	5.206	PULIYAM	2.4	11.2
							3489	B2018	103815.56	6.865	PULIYAM	2.1	10.5
							3490	B2020	103829.78	6.768	PULIYAM	3.7	11
							3491	B2022	103856.57	7.476	PULIYAM	2.2	10.8
							3492	B2024	103882.93	7.128	PULIYAM	2.9	11
							3493	B2026	103927.38	7.621	PULIYAM	2.1	10.8
							3494	B2028	103932.32	7.156	PULIYAM	2.3	10.9
							3495	B2030	103945.81	7.667	PULIYAM	2.3	10.8

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RHS							LHS						
							3496	B2032	103959.75	7.907	PULIYAM	1.6	10.5
							3497	B2034	104000.36	6.3	PULIYAM	1.8	9.5
							3498	B2036	104024.36	3	PULIYAM	1.8	11
							3499	B2038	104041.41	1.899	PULIYAM	3	11.3
							3500	B2042	104094.18	2.584	PULIYAM	2.3	10.8
							3501	B2043	104132.16	1.305	PULIYAM	2.6	10.9
							3502	B2044	104163.73	2.416	NEEM	0.7	9.7
							3503	B2045	104165.74	4.362	NEEM	0.8	8.5
							3504	B2046	104186.36	8	NEEM	0.7	7.8
							3505	B2051	104289.44	0.657	PULIYAM	2.8	7.8
							3506	B2052	104311.21	3.417	OTHER	1.3	9.8
							3507	B2053	104321.36	9.3	PANAI	1.1	9.8
							3508	B2054	104322.36	9.3	PANAI	1	9.8
							3509	B2055	104323.36	9.3	PANAI	1.1	9.8
							3510	B2056	104327.40	3.768	PULIYAM	1.6	7.8
							3511	B2059	104341.67	3.615	PULIYAM	1.3	7.8
							3512	B2060	104356.26	4.293	PULIYAM	1.6	8.2
							3513	B2062	104379.05	4.746	PULIYAM	1.5	3
							3514	B2064	104393.91	5.915	PULIYAM	1.3	8
							3515	B2065	104406.34	6.442	PULIYAM	1.8	7.8
							3516	B2068	104446.23	6.459	PULIYAM	1.5	7.7
							3517	B2070	104458.41	7.302	PULIYAM	2.1	7.9
							3518	B2071	104474.31	7.214	PULIYAM	1.9	8.5

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3519	B2073	104486.38	6.772	PULIYAM	1.2	6.8
							3520	B2074	104498.36	7	PULIYAM	1.9	9
							3521	B2076	104513.25	7.055	PULIYAM	2.4	9.2
							3522	B2077	104526.16	7.359	PULIYAM	1.7	8.4
							3523	B2079	104539.79	8.029	PULIYAM	1.4	7.8
							3524	B2081	104552.01	8.21	PULIYAM	1.7	8.2
							3525	B2083	104564.26	9.24	PULIYAM	1.3	7.8
							3526	B2085	104577.60	9.751	PULIYAM	1.6	7.9
							3527	B2086	104588.79	10.193	PULIYAM	1.7	8
							3528	B2087	104603.14	10.489	PULIYAM	2.2	8.3
							3529	B2090	104632.83	9.128	PULIYAM	3	8.7
							3530	B2092	104658.93	8.802	PULIYAM	2.5	8.5
							3531	B2094	104672.43	8.859	PULIYAM	2	8.8
							3532	B2096	104684.38	8.824	PULIYAM	2.8	9.1
							3533	B2097	104699.70	8.555	PULIYAM	2.7	9.6
							3534	B2099	104711.11	8.054	PULIYAM	1.6	9.2
							3535	B2101	104724.89	8.164	PULIYAM	2.1	9.5
							3536	B2102	104738.86	7.23	PULIYAM	1.4	9.3
							3537	B2103	104749.73	6.262	PULIYAM	2.6	9.8
							3538	B2106	104789.56	5.848	PULIYAM	2	10.1
							3539	B2108	104792.91	5.988	PULIYAM	2.5	8.5
							3540	B2110	104817.29	6.266	PULIYAM	2	10.8
							3541	B2112	104833.70	6.22	PULIYAM	2.1	11

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3542	B2114	104845.89	7.4	PULIYAM	2.8	11.2
							3543	B2117	104873.26	7.045	PULIYAM	3	11.5
							3544	B2119	104898.36	7.8	PULIYAM	2.1	10.7
							3545	B2121	104901.36	7.3	PULIYAM	3	11.6
							3546	B2123	104914.42	6.576	PULIYAM	2.4	11.5
							3547	B2125	104925.95	5.53	PULIYAM	3.2	11.7
							3548	B2131	105001.09	4.8	PULIYAM	2.2	10.8
							3549	B2133	105007.93	3.86	PULIYAM	3	10.8
							3550	B2135	105021.60	3.581	PULIYAM	3.2	11.2
							3551	B2137	105032.64	3.743	PULIYAM	1.8	11
							3552	B2138	105073.40	2.82	PULIYAM	3.2	13
							3553	B2142	105115.11	2.26	PULIYAM	3.7	1.6
							3554	B2146	105166.81	3.343	PULIYAM	2.4	10.5
							3555	B2148	105179.20	3.622	PULIYAM	3.2	10.9
							3556	B2151	105225.07	3.604	PULIYAM	2.7	10.8
							3557	B2153	105239.02	3.363	PULIYAM	2	10.5
							3558	B2154	105252.25	3.47	PULIYAM	2.1	10
							3559	B2157	105279.35	3.663	PULIYAM	2.4	10.3
							3560	B2159	105291.53	4.221	PULIYAM	2.2	10
							3561	B2161	105303.21	4.816	PULIYAM	2.3	10
							3562	B2163	104314.36	3.5	PULIYAM	1.5	10.2
							3563	B2165	105340.42	3.504	PULIYAM	2	10.8
							3564	B2167	105355.39	4.804	PULIYAM	2	11

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3565	B2168	105369.77	4.47	PULIYAM	1.9	11
							3566	B2170	105379.05	4.446	PULIYAM	2	10.9
							3567	B2171	105394.70	1.93	PULIYAM	2.4	10.8
							3568	B2174	105419.50	3.818	PULIYAM	2.6	10.8
							3569	B2176	105435.21	4.397	PULIYAM	1.8	10.8
							3570	B2178	105447.43	4.679	PULIYAM	3.5	12
							3571	B2180	105461.71	5.044	PULIYAM	3.3	12
							3572	B2182	105489.86	5.602	PULIYAM	2.4	12.5
							3573	B2190	105586.86	6.295	PULIYAM	4.5	12.7
							3574	B2192	105601.92	6.134	PULIYAM	2.5	12.8
							3575	B2193	105615.31	6.282	PULIYAM	2.3	12.8
							3576	B2195	105630.37	6.56	PULIYAM	2.6	12.4
							3577	B2200	105739.80	3.947	PULIYAM	2.2	12.5
							3578	B2201	105781.00	4.333	PULIYAM	2.6	12.3
							3579	B2203	105994.36	4.7	PULIYAM	2.8	11
							3580	B2204	105807.15	5.164	PULIYAM	2.1	11.2
							3581	B2205	105821.09	5.126	PULIYAM	3.1	11.9
							3582	B2209	105893.98	11.378	PANAI	1.1	10.8
							3583	B2212	105911.06	12.788	PANAI	1.2	10.3
							3584	B2213	105910.66	10.956	PANAI	1.1	9.8
							3585	B2217	106000.13	10.471	PANAI	1	9.9
							3586	B2218	106006.85	12.473	PANAI	0.9	10
							3587	B2219	106022.17	13.928	PANAI	1.1	10.6

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3588	B2220	106024.02	12.843	PULIYAM	1	9.5
							3589	B2222	106045.06	6.633	PULIYAM	2.2	11
							3590	B2224	106060.23	7.137	PULIYAM	2.4	12
							3591	B2226	106073.23	7.124	PULIYAM	2	11
							3592	B2229	106105.94	7.19	PULIYAM	2.6	11
							3593	B2232	106121.98	7.258	PULIYAM	2.2	11.2
							3594	B2234	106134.82	7.208	PULIYAM	1.8	11
							3595	B2236	106154.36	7.8	PULIYAM	2.9	11
							3596	B2240	106190.99	7.908	PULIYAM	2.2	11
							3597	B2241	106204.36	7.8	PULIYAM	1.7	10.9
							3598	B2242	106217.41	6.676	PULIYAM	2.9	11.5
							3599	B2244	106230.40	7.178	PULIYAM	1.9	10.8
							3600	B2246	106245.21	6.28	PULIYAM	2.5	12.5
							3601	B2248	106258.27	7.069	PULIYAM	3.4	11.8
							3602	B2250	106272.65	5.723	PULIYAM	2.1	11.9
							3603	B2253	106309.36	10.8	PULIYAM	1	10.8
							3604	B2254	106368.41	6.53	PULIYAM	2.7	11.2
							3605	B2256	106399.36	8.3	PULIYAM	2.4	11
							3606	B2258	106443.63	6.983	PULIYAM	2.1	10.8
							3607	B2262	106471.39	7.608	PULIYAM	2.2	11.5
							3608	B2263	106488.48	7.904	PULIYAM	2.8	12
							3609	B2265	106540.44	7.909	PULIYAM	2.2	10.8
							3610	B2269	106594.90	8.034	PULIYAM	2.7	11.2

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3611	B2270	106607.18	8.76	PULIYAM	2.8	11
							3612	B2273	106635.99	7.077	PULIYAM	1.8	10.8
							3613	B2275	106648.90	7.767	PULIYAM	2.7	10.6
							3614	B2277	106663.48	6.948	PULIYAM	1.8	11
							3615	B2279	106679.36	8.4	PULIYAM	1.9	10.7
							3616	B2280	106690.42	6.425	PULIYAM	2	10.8
							3617	B2282	106704.27	9.561	PULIYAM	1.6	7.8
							3618	B2283	106719.36	9.6	PULIYAM	1.6	8.2
							3619	B2286	106745.65	9.045	PULIYAM	1.7	9.5
							3620	B2287	106773.22	8.203	PULIYAM	1.6	8.8
							3621	B2289	106827.33	9.645	PULIYAM	2.5	8.7
							3622	B2291	106841.73	8.858	PULIYAM	2.9	9.2
							3623	B2294	106868.79	8.3	PULIYAM	3.2	10.5
							3624	B2297	106958.77	5.636	PULIYAM	2.8	12
							3625	B2298	106977.91	3.424	PULIYAM	1.9	11.5
							3626	B2299	106993.29	7.65	PULIYAM	2.9	11.6
							3627	B2301	107006.36	8	PULIYAM	0.9	9.9
							3628	B2304	107043.57	7.271	PULIYAM	0.9	10
							3629	B2306	107130.93	6.368	PULIYAM	2.1	11.7
							3630	B2307	107174.36	8	PULIYAM	2	12.6
							3631	B2310	107253.27	3.367	PULIYAM	2.4	12.6
							3632	B2311	107267.10	3.347	PULIYAM	2.6	11.5
							3633	B2312	107356.65	6.223	PULIYAM	2.4	12

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3634	B2313	107372.30	8.657	NEEM	1	8.3
							3635	B2314	107399.36	5.3	PULIYAM	3.8	12.5
							3636	B2315	107412.18	6.367	PULIYAM	3.5	12
							3637	B2316	107466.97	6.719	OTHER	4	13
							3638	B2319	107519.55	5.692	PULIYAM	2	11.5
							3639	B2320	107566.77	7.85	PANAI	1	9.9
							3640	B2321	107613.25	6	OTHER	1.8	11.8
							3641	B2323	107631.15	4.685	PULIYAM	2.4	11
							3642	B2324	107637.76	6.198	OTHER	1.6	9.2
							3643	B2327	107660.55	4.088	PULIYAM	2.9	12.5
							3644	B2329	107674.29	6.279	PULIYAM	1.6	11.6
							3645	B2333	107720.90	6.282	OTHER	1.5	11.7
							3646	B2334	107744.42	9.153	OTHER	1.3	10
							3647	B2336	107760.77	8.648	OTHER	1.8	10.7
							3648	B2337	107771.36	6.109	NEEM	1.6	10.5
							3649	B2339	107785.62	4.657	PULIYAM	2.8	10.7
							3650	B2342	107843.99	5.423	PULIYAM	1.9	10
							3651	B2344	107888.23	5.675	NEEM	1.3	9.3
							3652	B2345	107887.53	13.59	PANAI	0.9	11
							3653	B2346	107895.23	11.686	PANAI	1.2	11.2
							3654	B2350	107953.71	5.288	PULIYAM	2.7	10.6
							3655	B2353	108013.70	4.867	PANAI	1.1	11.8
							3656	B2354	108056.61	3.967	PULIYAM	3.4	11

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3657	B2356	108070.01	4.316	PULIYAM	2.6	11
							3658	B2358	108083.29	4.937	PULIYAM	2.8	11.2
							3659	B2359	108094.97	4.076	PULIYAM	2.8	11.3
							3660	B2561	108125.69	7.094	OTHER	2.9	12
							3661	B2563	108149.11	9.984	PANAI	1	10.2
							3662	B2564	108155.23	10.591	PANAI	0.9	10.2
							3663	B2566	108168.01	6.677	PULIYAM	4	12
							3664	B2568	108204.16	7.266	PANAI	1	9.3
							3665	B2372	108231.01	6.501	PULIYAM	3.4	11.5
							3666	B2373	108245.16	5.918	PULIYAM	4.3	12.3
							3667	B2374	108260.11	6.238	PULIYAM	2.5	12.5
							3668	B2376	108279.36	7	PULIYAM	4.9	13
							3669	B2377	108300.75	7.039	PULIYAM	3.5	11.5
							3670	B2378	108310.75	7.304	PULIYAM	2.9	11
							3671	B2379	108322.40	7.447	PULIYAM	2	11
							3672	B2381	108335.58	6.038	PULIYAM	2.2	11
							3673	B2383	108376.85	7.299	PULIYAM	3.2	11
							3674	B2384	108398.18	6.904	PULIYAM	2.5	11
							3675	B2386	108403.59	7.42	PULIYAM	1.7	310
							3676	B2387	108418.70	6.837	PULIYAM	1.6	9
							3677	B2388	108431.65	6.662	PULIYAM	2.4	10.2
							3678	B2390	108459.10	7.34	PULIYAM	1.3	9.3
							3679	B2392	108471.68	6.757	PULIYAM	2.1	10

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3680	B2394	108486.66	6.963	PULIYAM	1.6	10.5
							3681	B2396	108500.54	6.632	PULIYAM	1.9	10.2
							3682	B2399	108542.25	7.047	PULIYAM	1.8	10
							3683	B2402	108570.49	6.799	PULIYAM	2.1	10
							3684	B2404	108583.48	6.996	PULIYAM	2.8	10.5
							3685	B2406	108608.90	6.063	PULIYAM	2.3	10.7
							3686	B2410	108649.67	6.964	PULIYAM	2	9.8
							3687	B2414	108690.97	7.033	PULIYAM	2.2	10.5
							3688	B2415	108704.93	6.343	PULIYAM	2.2	10.6
							3689	B2416	108724.36	6.9	PULIYAM	3.9	11
							3690	B2418	108732.57	5.942	PULIYAM	2.6	11
							3691	B2421	108773.05	6.777	PULIYAM	2.2	7.9
							3692	B2423	108785.87	7.132	PULIYAM	2.4	9.9
							3693	B2424	108799.36	8	PULIYAM	2.6	10.5
							3694	B2426	108814.36	7.2	PULIYAM	1.7	7.8
							3695	B2428	108829.36	7	PULIYAM	2.8	10
							3696	B2430	108859.76	7.743	PULIYAM	3.4	10.5
							3697	B2432	108876.89	15	PULIYAM	2.7	10.6
							3698	B2434	108882.36	7.9	PULIYAM	2	10.5
							3699	B2436	108893.84	7.834	PULIYAM	1.8	9.7
							3700	B2437	108936.81	8.413	PULIYAM	2.9	10.7
							3701	B2438	108963.00	8.621	PULIYAM	3	11.5
							3702	B2440	108974.36	8.6	PULIYAM	2.7	11

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3703	B2442	108986.36	8.6	PULIYAM	2.5	11
							3704	B2443	109014.94	6.83	PULIYAM	3.6	11
							3705	B2444	109028.18	6.076	PULIYAM	3.3	11
							3706	B2447	109043.94	6.313	PULIYAM	2.5	10.5
							3707	B2448	109055.87	6.958	PULIYAM	3	10.6
							3708	B2450	109065.85	5.971	PULIYAM	2.9	11.5
							3709	B2453	109092.01	6.049	PULIYAM	3.7	11.5
							3710	B2455	109105.79	5.818	PULIYAM	2.4	11.5
							3711	B2456	109120.15	5.993	PULIYAM	2.7	11.5
							3712	B2458	109148.80	5.806	PULIYAM	2.9	11
							3713	B2460	109160.77	6.037	PULIYAM	2.9	10.8
							3714	B2461	109173.86	5.81	PULIYAM	4.3	10.8
							3715	B2462	109185.76	7.307	PULIYAM	2	10.7
							3716	B2464	109199.63	6.487	PULIYAM	2.2	10.5
							3717	B2465	109211.19	6.678	PULIYAM	2.6	10.5
							3718	B2467	109223.80	6.976	PULIYAM	3	11
							3719	B2469	109234.36	7.7	PULIYAM	2.2	11
							3720	B2471	109251.16	7.352	PULIYAM	2.4	10.8
							3721	B2472	109266.17	6.836	PULIYAM	2.8	10.6
							3722	B2475	109293.69	6.643	PULIYAM	3	11.5
							3723	B2477	109306.59	6.769	PULIYAM	2.5	11
							3724	B2479	109320.48	5.829	PULIYAM	3	11
							3725	B2481	109335.25	6.386	PULIYAM	3.3	11.2

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3726	B2484	109362.36	7.5	PULIYAM	2.2	6.5
							3727	B2486	109376.36	7.5	PULIYAM	2.6	8
							3728	B2489	109434.36	7.3	PULIYAM	1.9	9.8
							3729	B2491	109450.31	7.375	PULIYAM	3	10.6
							3730	B2495	109513.35	6.088	PULIYAM	2	10.7
							3731	B2497	109529.36	7.4	PULIYAM	2.6	11
							3732	B2498	109546.36	7.6	PULIYAM	1.8	10.8
							3733	B2500	109569.15	8.329	PULIYAM	2.6	11
							3734	B2502	109583.23	7.481	PULIYAM	2.6	11
							3735	B2504	109596.07	6.846	PULIYAM	2.6	11
							3736	B2505	109596.74	8.387	PULIYAM	1.5	11
							3737	B2506	109614.36	9.7	PANAI	1.1	9.9
							3738	B2508	109622.99	6.953	PULIYAM	2.2	11
							3739	B2510	106677.08	6.715	PANAI	1.1	9.5
							3740	B2511	106681.36	8	PANAI	1	8.4
							3741	B2512	106683.36	7.3	PANAI	1.2	8
							3742	B2513	106692.36	7.6	PULIYAM	4.8	10.7
							3743	B2514	106709.36	8	PANAI	7.2	7.8
							3744	B2515	106714.36	8	PANAI	1.1	9.7
							3745	B2516	106716.85	8.87	PANAI	1.2	7.9
							3746	B2517	106719.36	7.8	PANAI	1.1	7.7
							3747	B2522	106794.36	8.8	PULIYAM	2	10.5
							3748	B2523	106817.36	9.2	PANAI	1	8.6

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3749	B2524	106819.36	9.2	PANAI	1.3	8.6
							3750	B2525	106849.36	6.8	PULIYAM	3	10.3
							3751	B2526	106859.36	11	PANAI	1	10.3
							3752	B2528	106914.36	7	PULIYAM	3.7	11.6
							3753	B2530	106997.36	6.80	PULIYAM	2.90	10.10
							3754	B2531	110026.05	6.61	PULLIYAM	1.90	10.80
							3755	B2536	110079.07	6.34	PULLIYAM	1.80	10.50
							3756	B2537	110093.10	6.43	PULLIYAM	1.50	10.70
							3757	B2538	110103.11	5.88	PULLIYAM	2.30	11.00
							3758	B2540	110120.70	6.33	PULLIYAM	1.70	10.80
							3759	B2542	110134.79	6.65	PULLIYAM	1.80	10.80
							3760	B2544	110147.65	5.47	PULLIYAM	2.20	11.00
							3761	B2546	110175.73	5.21	PULLIYAM	2.10	10.90
							3762	B2548	110188.93	5.85	PULLIYAM	2.60	10.80
							3763	B2550	110203.38	6.10	PULLIYAM	1.70	10.60
							3764	B2551	110217.96	6.15	PULLIYAM	2.50	10.90
							3765	B2552	110246.22	5.72	PULLIYAM	3.00	11.20
							3766	B2554	110259.95	6.28	PULLIYAM	1.60	11.20
							3767	B2555	110273.79	6.40	PULLIYAM	1.60	11.00
							3768	B2557	110287.40	5.67	PULLIYAM	1.80	10.20
							3769	B2559	110301.73	5.82	PULLIYAM	2.40	10.90
							3770	B2561	110315.73	6.58	PULLIYAM	2.30	10.80
							3771	B2562	110329.42	6.66	PULLIYAM	2.20	10.30

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RHS							LHS						
							3772	B2564	110342.33	7.20	PULLIYAM	2.00	10.80
							3773	B2566	110358.03	6.09	PULLIYAM	1.60	11.20
							3774	B2568	110371.79	6.70	PULLIYAM	2.40	11.30
							3775	B2570	110386.52	6.38	PULLIYAM	2.50	11.00
							3776	B2572	110399.10	6.45	VEPPAM	0.80	10.70
							3777	B2573	110401.59	5.50	PULLIYAM	2.90	10.80
							3778	B2575	110416.09	4.84	PULLIYAM	1.90	11.00
							3779	B2576	110430.97	4.75	PULLIYAM	2.70	11.50
							3780	B2578	110446.47	5.03	PULLIYAM	1.50	10.70
							3781	B2580	110459.33	7.00	OTHER	1.40	10.70
							3782	B2581	110475.68	5.64	PULLIYAM	1.90	10.80
							3783	B2582	110489.33	7.00	PULLIYAM	1.50	9.00
							3784	B2585	110517.43	4.98	PULLIYAM	2.20	9.80
							3785	B2587	110534.64	5.96	PULLIYAM	1.70	9.20
							3786	B2591	110602.93	7.16	PULLIYAM	1.80	11.30
							3787	B2595	110716.10	8.55	VEPPAM	0.80	8.50
							3788	B2596	110718.33	10.00	PANAI	0.80	8.60
							3789	B2597	110719.33	8.70	VEPPAM	0.70	7.90
							3790	B2598	110735.54	7.53	OTHER	0.90	9.80
							3791	B2599	110739.78	10.96	PANAI	0.90	8.90
							3792	B2600	110771.33	8.00	PANAI	1.30	8.30
							3793	B2603	110838.70	6.63	PULLIYAM	2.00	10.70
							3794	B2605	110852.47	7.15	PULLIYAM	2.80	11.30

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RHS							LHS						
							3795	B2606	110867.33	9.00	PULLIYAM	1.80	11.40
							3796	B2607	110880.00	6.92	PULLIYAM	2.10	11.50
							3797	B2610	110904.78	6.10	PULLIYAM	3.20	11.70
							3798	B2612	110947.19	5.92	PULLIYAM	4.30	12.00
							3799	B2613	110963.94	5.00	PULLIYAM	2.70	12.00
							3800	B2614	110970.71	6.32	PULLIYAM	1.90	12.00
							3801	B2621	111016.33	6.30	PULLIYAM	2.80	11.20
							3802	B2622	111029.33	6.00	PULLIYAM	2.90	11.50
							3803	B2624	111039.33	6.10	PULLIYAM	1.40	10.80
							3804	B2625	111049.33	6.10	PULLIYAM	1.80	11.50
							3805	B2627	111056.85	4.48	PULLIYAM	1.70	11.50
							3806	B2630	111079.33	6.10	PULLIYAM	2.00	12.50
							3807	B2632	111089.33	6.30	PULLIYAM	1.70	12.00
							3808	B2634	111109.33	6.60	PULLIYAM	2.00	12.60
							3809	B2636	111129.33	7.00	PULLIYAM	1.90	12.60
							3810	B2638	111144.33	7.00	PULLIYAM	1.70	12.50
							3811	B2639	111154.33	6.80	PULLIYAM	1.90	12.60
							3812	B2641	111164.33	6.80	PULLIYAM	2.20	12.70
							3813	B2642	111171.33	6.80	PULLIYAM	1.60	12.50
							3814	B2643	111174.33	6.80	PULLIYAM	1.80	12.40
							3815	B2644	111179.33	6.80	PULLIYAM	2.30	12.40
							3816	B2647	111204.33	7.00	PULLIYAM	2.30	12.60
							3817	B2654	111249.33	7.00	PULLIYAM	2.80	11.20

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RHS							LHS						
							3818	B2656	111266.33	5.00	PULLIYAM	1.90	11.00
							3819	B2657	111293.33	6.20	PULLIYAM	1.90	11.00
							3820	B2659	111304.33	6.00	PULLIYAM	2.80	11.80
							3821	B2660	111315.08	5.40	PULLIYAM	2.50	10.50
							3822	B2661	111327.48	4.98	PULLIYAM	2.20	11.00
							3823	B2667	111445.03	7.38	ARASA	3.50	11.00
							3824	B2672	111499.33	5.30	PULLIYAM	2.40	11.00
							3825	B2675	111549.33	6.60	PULLIYAM	2.60	9.80
							3826	B2676	111576.20	4.94	PULLIYAM	1.40	10.00
							3827	B2678	111607.33	4.50	PULLIYAM	1.80	10.70
							3828	B2680	111624.33	4.50	PULLIYAM	2.80	10.80
							3829	B2682	111649.33	5.00	PULLIYAM	1.90	10.70
							3830	B2683	111664.33	5.00	PULLIYAM	1.60	10.70
							3831	B2685	111674.12	5.70	PULLIYAM	1.50	10.60
							3832	B2686	111683.59	4.16	PULLIYAM	1.50	10.80
							3833	B2688	111711.93	4.49	PULLIYAM	1.60	9.80
							3834	B2690	111739.33	6.00	PULLIYAM	1.20	10.00
							3835	B2693	111773.63	4.36	PULLIYAM	1.40	8.90
							3836	B2694	111783.65	4.78	PULLIYAM	1.60	10.50
							3837	B2697	111800.33	4.60	PULLIYAM	1.10	9.10
							3838	B2698	111821.63	5.44	PULLIYAM	1.90	10.90
							3839	B2701	111830.80	5.33	PULLIYAM	1.40	10.60
							3840	B2703	111869.06	4.77	PULLIYAM	1.80	11.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3841	B2704	111897.33	4.50	PULLIYAM	2.10	10.50
							3842	B2708	111974.33	3.50	PULLIYAM	1.60	10.80
							3843	B2709	111984.33	3.50	PULLIYAM	2.40	10.90
							3844	B2710	111994.33	4.30	PULLIYAM	1.50	10.70
							3845	B2715	112052.33	4.00	PULLIYAM	2.70	10.00
							3846	B2717	112086.33	3.10	PULLIYAM	2.00	10.50
							3847	B2718	112094.33	3.20	PULLIYAM	3.10	10.90
							3848	B2721	112111.33	4.00	PULLIYAM	2.70	11.10
							3849	B2722	112119.33	3.70	PULLIYAM	1.60	11.00
							3850	B2723	112127.33	3.70	PULLIYAM	2.30	11.00
							3851	B2726	112149.33	4.00	PULLIYAM	2.20	10.60
							3852	B2731	112319.33	5.40	PULLIYAM	1.90	12.00
							3853	B2733	112339.33	6.20	PULLIYAM	3.00	10.90
							3854	B2736	112380.15	6.62	PULLIYAM	2.90	10.90
							3855	B2737	112397.33	6.30	VEPPAM	2.50	11.20
							3856	B2738	112397.33	6.30	VEPPAM	1.40	8.30
							3857	B2739	112414.33	6.00	PULLIYAM	2.90	13.00
							3858	B2740	112443.89	6.30	PULLIYAM	3.50	13.50
							3859	B2742	112509.33	5.30	PULLIYAM	1.80	10.80
							3860	B2745	112547.33	6.30	VEPPAM	0.80	10.70
							3861	B2746	112547.33	6.20	EACHA	1.00	10.90
							3862	B2747	112602.33	6.20	THENNAI	0.80	10.70
							3863	B2748	112665.91	7.77	PULLIYAM	3.00	13.00

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3864	B2750	112827.51	5.48	PULLIYAM	3.00	13.50
							3865	B2751	112837.33	6.00	PULLIYAM	4.00	14.00
							3866	B2752	112849.33	7.40	PULLIYAM	5.20	14.00
							3867	B2753	112861.95	7.81	PULLIYAM	3.40	12.00
							3868	B2755	112870.29	8.62	PULLIYAM	3.30	12.80
							3869	B2763	112971.33	8.00	VEPPAM	2.00	11.60
							3870	B2764	112985.33	7.80	PULLIYAM	3.40	12.60
							3871	B2765	112996.33	7.50	PULLIYAM	4.00	12.70
							3872	B2766	113039.33	7.00	THENNAI	0.80	10.20
							3873	B2768	113166.23	3.91	PULLIYAM	6.20	11.80
							3874	B2769	113182.33	6.90	VEPPAM	0.80	9.80
							3875	B2770	113189.33	6.80	VEPPAM	1.10	9.60
							3876	B2772	113238.48	3.97	PULLIYAM	5.20	11.20
							3877	B2774	113322.33	5.50	PULLIYAM	3.40	12.00
							3878	B2778	113484.33	3.00	PANAI	1.20	8.00
							3879	B2779	113488.33	3.10	PANAI	1.00	7.50
							3880	B2780	113492.33	3.00	PANAI	1.00	9.80
							3881	B2781	113495.33	3.00	PANAI	1.00	9.40
							3882	B2787	113679.33	5.50	PULLIYAM	1.80	10.80
							3883	B2793	113972.65	6.04	PULLIYAM	2.80	11.80
							3884	B2795	114015.87	5.93	PULLIYAM	2.60	10.50
							3885	B2796	114092.32	6.67	PULLIYAM	2.10	10.40
							3886	B2797	114104.47	7.98	OTHER	1.70	10.20

Sr no.	Tree No.	Chainage (KM)	Offset from CL(m)	Tree Name (Local/Common)	Girth (m)	Height (m)	Sr No.	TREE NO.	Chainage (km)	Offset from CL (m)	Tree Name (Local/Common)	Girth (m)	Height (m)
RHS							LHS						
							3887	B2798	114280.31	6.50	PULLIYAM	3.00	10.30
							3888	B2800	114464.33	7.20	PULLIYAM	1.80	9.90
							3889	B2801	114498.96	4.70	PULLIYAM	5.80	11.70
							3890	B2802	114507.75	4.89	PULLIYAM	3.80	11.80
							3891	B2809	114662.85	7.50	PANAI	0.80	8.00
							3892	B2810	114693.19	6.44	PULLIYAM	3.80	11.00
							3893	B2811	114731.35	7.76	PULLIYAM	3.90	10.90
							3894	B2812	114848.91	7.35	PULLIYAM	4.30	11.30
							3895	B2814	114859.33	8.00	PULLIYAM	5.40	14.00
							3896	B2815	115907.08	8.00	PULLIYAM	3.50	14.00
							3897	B2816	114898.31	7.35	PULLIYAM	5.30	13.80
							3898	B2819	115796.34	5.29	PULLIYAM	5.30	12.80
							3899	B2820	115011.83	5.19	PULLIYAM	3.90	13.80
							3900	B2821	115030.15	6.15	PULLIYAM	3.70	14.50
							3901	B2823	115063.61	6.87	PULLIYAM	3.40	11.70
							3902	B2825	115083.00	6.62	PULLIYAM	3.20	11.80
							3903	B2826	115093.57	5.71	OTHER	0.70	8.60
							3904	B2829	115103.11	5.54	PULLIYAM	4.00	10.80
							3905	B2830	115104.15	8.00	VEPPAM	0.70	7.50
							3906	B2831	115150.67	6.90	VEPPAM	0.80	8.40

ANNEXURE 4. 6: CLOUD COVER (OKTA)

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
1	JAN	1	3	3	0	4	0	3	6	6	4	6
2	JAN	2	4	3	0	4	0	3	2	6	4	7
3	JAN	3	3	3	0	5	6	5	6	6	4	6
4	JAN	4	8	8	0	2	5	3	6	7	6	6
5	JAN	5	8	2	0	3	0	0	6	7	6	5
6	JAN	6	4	3	0	0	6	5	6	6	8	5
7	JAN	7	4	0	6	8	7	5	6	4	8	4
8	JAN	8	3	0	8	7	6	7	2	4	7	4
9	JAN	9	4	0	6	3	8	7	6	6	8	4
10	JAN	10	0	0	5	4	6	5	6	3	6	4
11	JAN	11	0	0	6	0	6	7	6	4	5	4
12	JAN	12	4	0	0	0	7	6	2	0	6	4
13	JAN	13	6	0	5	0	5	6	5	4	6	4
14	JAN	14	0	0	7	2	5	5	5	5	4	4
15	JAN	15	0	0	0	7	6	5	5	3	8	2
16	JAN	16	4	0	2	3	5	5	2	3	2	1
17	JAN	17	0	0	6	4	5	4	5	0	1	1
18	JAN	18	0	0	7	2	6	3	0	0	0	0
19	JAN	19	0	0	0	1	6	4	0	0	6	4
20	JAN	20	0	0	0	2	6	6	2	4	6	4
21	JAN	21	0	2	2	3	0	3	6	5	7	4
22	JAN	22	4	1	0	6	0	2	6	3	7	4
23	JAN	23	2	4	0	3	0	3	6	5	6	4
24	JAN	24	3	4	0	2	5	5	6	5	7	4
25	JAN	25	3	3	0	4	2	4	6	4	4	2
26	JAN	26	3	5	4	4	5	3	6	3	1	2
27	JAN	27	5	5	0	3	6	3	6	5	4	1
28	JAN	28	6	4	5	4	5	6	6	3	2	1
29	JAN	29	5	4	6	4	6	6	5	5	6	4
30	JAN	30	7	6	6	5	5	4	6	3	6	5

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
31	JAN	31	4	3	3	2	2	3	6		6	4
32	FEB	1	4	6	6	4	5	6	5	5	7	5
33	FEB	2	8	3	0	0	0	4	2	5	6	5
34	FEB	3	7	4	0	1	2	3	6	6	1	2
35	FEB	4	7	5	0	0	6	5	6	7	1	2
36	FEB	5	5	4	0	1	2	5	5	3	0	3
37	FEB	6	3	4	0	0	5	6	5	2	1	1
38	FEB	7	6	6	0	2	5	5	5	3	1	3
39	FEB	8	4	6	0	4	2	5	5	2	1	3
40	FEB	9	7	6	0	3	5	3	0	2	6	4
41	FEB	10	7	4	3	3	2	3	0	5	6	5
42	FEB	11	7	5	3	0	7	6	0	5	6	5
43	FEB	12	5	5	0	2	7	5	0	2	7	5
44	FEB	13	6	4	0	0	5	5	0	2	6	5
45	FEB	14	7	5	0	0	6	5	0	2	6	4
46	FEB	15	7	4	0	0	6	6	2	2	6	4
47	FEB	16	5	4	0	2	6	0	0	3	6	4
48	FEB	17	4	3	0	0	6	2	6	2	5	4
49	FEB	18	3	3	0	2	6	5	7	4	3	6
50	FEB	19	4	3	0	0	6	5	6	0	4	1
51	FEB	20	2	3	6	5	6	3	5	0	1	0
52	FEB	21	3	2	6	5	5	3	5	3	0	2
53	FEB	22	3	4	5	3	6	2	8	7	4	7
54	FEB	23	3	4	3	4	2	3	7	8	8	8
55	FEB	24	3	4	0	0	2	6	6	5	7	7
56	FEB	25	5	2	0	0	6	4	6	0	6	7
57	FEB	26	3	2	5	0	5	4	7	5	6	4
58	FEB	27	3	2	0	2	2	2	6	5	6	2
59	FEB	28	2	2	0	0	2	2	5	2	6	4
60	FEB	29	2	3							3	0
61	MAR	1	2	3	0	0	5	3	7	5	3	4
62	MAR	2	2	2	0	0	2	4	5	0	3	4

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
63	MAR	3	3	0	0	0	6	4	0	2	3	0
64	MAR	4	0	0	2	3	5	4	6	0	0	1
65	MAR	5	0	0	0	0	5	2	2	0	4	0
66	MAR	6	0	0	0	1	2	0	5	3	2	2
67	MAR	7	3	3	2	0	6	0	0	2	2	2
68	MAR	8	2	2	3	5	6	0	0	2	0	4
69	MAR	9	2	3	6	8	6	0	0	0	0	4
70	MAR	10	3	3	7	8	5	4	0	0	4	4
71	MAR	11	6	6	6	5	6	2	0	0	4	4
72	MAR	12	8	6	6	5	6	4	4	4	4	4
73	MAR	13	6	8	6	5	6	7	6	4	3	4
74	MAR	14	8	7	5	6	5	6	6	6	7	5
75	MAR	15	8	8	7	7	5	0	6	4	4	4
76	MAR	16	6	5	5	2	6	5	0	6	4	1
77	MAR	17	3	5	2	0	6	1	6	2	3	1
78	MAR	18	3	5	0	0	2	2	0	0	4	1
79	MAR	19	7	5	0	0	2	4	5	0	3	1
80	MAR	20	6	8	3	0	0	1	0	0	3	4
81	MAR	21	8	8	5	6	2	1	0	0	4	4
82	MAR	22	8	6	5	4	2	0	7	2	4	4
83	MAR	23	6	5	6	2	0	0	6	0	4	2
84	MAR	24	3	8	7	6	5	2	5	0	3	4
85	MAR	25	5	6	6	3	6	2	6	5	0	0
86	MAR	26	5	6	2	6	2	2	7	6	0	4
87	MAR	27	7	5	0	4	3	2	6	5	4	4
88	MAR	28	6	5	4	4	5	6	0	5	4	4
89	MAR	29	7	7	5	4	5	3	0	0	3	3
90	MAR	30	6	6	0	0	3	6	5	4	4	2
91	MAR	31	6	8	3	2	3	6	6	2	2	2
92	APR	1	6	7	0	0	5	5	2	3	2	1
93	APR	2	7	7	0	0	3	6	5	3	2	4
94	APR	3	7	5	0	4	2	5	6	6	1	2

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
95	APR	4	3	7	2	5	5	4	5	6	3	2
96	APR	5	5	3	6	5	6	2	6	5	3	2
97	APR	6	6	4	5	3	6	7	6	5	2	2
98	APR	7	6	4	3	2	6	5	6	4	1	2
99	APR	8	3	4	6	6	7	6	5	3	1	3
100	APR	9	5	3	5	6	4	4	5	3	3	3
101	APR	10	6	4	6	6	6	5	5	5	0	3
102	APR	11	6	3	6	7	5	4	6	4	3	3
103	APR	12	3	2	7	7	6	4	2	4	3	3
104	APR	13	2	0	2	4	5	6	2	2	3	4
105	APR	14	5	2	5	6	3	6	3	6	2	4
106	APR	15	2	3	5	4	6	6	6	7	2	4
107	APR	16	2	4	4	6	5	3	6	6	2	3
108	APR	17	5	5	5	7	4	6	6	5	3	3
109	APR	18	5	3	3	2	5	6	6	5	3	3
110	APR	19	3	4	3	3	3	7	6	7	4	3
111	APR	20	3	4	5	6	3	7	6	7	3	3
112	APR	21	2	2	5	7	5	7	6	8	0	3
113	APR	22	3	2	3	7	6	6	7	8	0	3
114	APR	23	0	5	3	5	5	4	8	7	3	3
115	APR	24	6	5	3	6	6	5	7	5	4	4
116	APR	25	4	2	7	6	6	5	6	6	5	7
117	APR	26	5	6	3	3	5	4	5	5	4	3
118	APR	27	3	6	3	2	5	5	5	4	6	4
119	APR	28	7	7	2	0	5	6	6	6	7	4
120	APR	29	6	6	0	0	5	5	7	7	6	5
121	APR	30	5	6	2	0	5	6	5	5	7	8
122	MAY	1	3	6	2	6	8	5	6	7	4	6
123	MAY	2	5	4	2	2	4	6	3	5	4	6
124	MAY	3	3	6	0	4	6	6	3	5	3	3
125	MAY	4	3	4	0	8	3	6	7	6	3	3
126	MAY	5	2	4	7	3	7	6	3	8	3	4

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
127	MAY	6	2	5	2	6	3	7	3	5	3	4
128	MAY	7	2	7	3	4	4	5	3	3	3	3
129	MAY	8	7	7	4	6	2	3	3	5	3	3
130	MAY	9	6	7	3	8	6	6	3	3	3	3
131	MAY	10	5	8	5	8	6	6	3	5	3	7
132	MAY	11	6	8	4	6	3	5	3	5	3	3
133	MAY	12	6	6	3	6	5	6	3	5	2	3
134	MAY	13	5	5	3	7	4	3	5	3	2	3
135	MAY	14	5	6	5	8	5	6	7	5	3	3
136	MAY	15	7	4	6	8	5	3	5	3	3	4
137	MAY	16	3	5	7	6	6	6	3	3	4	3
138	MAY	17	5	6	5	6	5	7	3	2	3	3
139	MAY	18	4	6	7	7	5	7	3	5	4	6
140	MAY	19	6	6	4	7	8	8	3	5	2	7
141	MAY	20	7	7	3	7	8	8	7	7	8	8
142	MAY	21	5	8	6	7	8	6	6	7	4	3
143	MAY	22	6	8	8	6	3	5	5	5	5	4
144	MAY	23	6	7	3	7	5	8	2	5	3	3
145	MAY	24	7	6	7	6	5	5	3	6	3	4
146	MAY	25	5	5	5	6	4	5	3	5	3	4
147	MAY	26	4	7	8	6	6	5	3	5	8	8
148	MAY	27	5	6	3	8	3	0	5	6	8	6
149	MAY	28	4	7	6	8	2	7	3	5	8	3
150	MAY	29	5	5	5	7	6	7	5	5	6	3
151	MAY	30	5	6	5	8	5	8	3	7	4	3
152	MAY	31	6	8	5	8	5	5	4	8	8	8
153	JUN	1	6	7	6	6	3	5	6	8	7	6
154	JUN	2	6	5	3	5	4	6	7	7	7	6
155	JUN	3	3	5	3	5	4	7	7	6	6	7
156	JUN	4	4	7	5	6	3	7	7	6	7	6
157	JUN	5	4	6	7	6	8	5	6	6	6	5
158	JUN	6	6	8	6	7	7	8	6	6	6	3

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
159	JUN	7	7	6	4	5	8	7	7	6	6	3
160	JUN	8	8	7	5	5	6	7	5	7	6	6
161	JUN	9	7	7	5	6	8	7	7	6	4	3
162	JUN	10	7	7	5	7	7	6	6	6	5	4
163	JUN	11	6	6	3	8	8	7	7	6	6	5
164	JUN	12	8	7	5	8	7	6	7	7	7	6
165	JUN	13	8	7	5	8	8	7	6	8	7	6
166	JUN	14	5	8	7	6	7	7	7	7	7	6
167	JUN	15	7	6	6	5	6	7	7	7	7	6
168	JUN	16	6	6	6	6	7	5	7	7	8	5
169	JUN	17	6	7	5	7	6	7	6	6	8	4
170	JUN	18	4	6	5	8	7	5	6	6	8	8
171	JUN	19	5	8	6	6	5	5	5	5	8	3
172	JUN	20	5	7	6	7	8	7	5	6	3	3
173	JUN	21	8	5	7	7	6	6	5	5	5	3
174	JUN	22	6	7	4	6	7	4	3	6	8	4
175	JUN	23	5	5	6	5	4	7	6	6	7	5
176	JUN	24	4	5	5	6	7	8	6	6	7	6
177	JUN	25	4	6	6	8	5	7	6	7	7	7
178	JUN	26	7	6	5	8	5	6	7	7	8	7
179	JUN	27	5	7	6	8	3	6	6	7	8	7
180	JUN	28	8	8	6	7	6	5	7	7	8	6
181	JUN	29	6	7	4	6	2	7	6	6	8	7
182	JUN	30	6	5	7	7	7	7	5	6	7	8
183	JUL	1	5	7	3	7	6	7	7	7	6	5
184	JUL	2	6	6	6	8	7	6	6	7	6	4
185	JUL	3	6	8	7	7	5	6	8	8	5	4
186	JUL	4	6	5	7	7	6	6	7	8	4	5
187	JUL	5	6	6	8	7	5	8	8	6	4	6
188	JUL	6	5	7	6	8	7	7	7	7	5	6
189	JUL	7	6	8	8	7	7	8	7	7	6	6
190	JUL	8	6	6	8	8	7	3	7	6	7	7

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
			0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST	0830 IST	1730 IST
191	JUL	9	7	7	8	8	6	7	6	7	7	6
192	JUL	10	7	7	6	7	6	6	6	5	8	3
193	JUL	11	4	3	5	5	6	6	5	7	8	3
194	JUL	12	2	4	6	6	6	7	7	7	7	4
195	JUL	13	2	7	7	7	8	6	7	7	4	8
196	JUL	14	6	6	7	8	6	5	6	7	8	4
197	JUL	15	6	5	6	7	6	4	6	7	8	6
198	JUL	16	4	8	8	6	6	6	6	7	6	5
199	JUL	17	7	8	7	7	6	7	7	7	6	6
200	JUL	18	4	6	7	7	7	7	7	7	7	7
201	JUL	19	6	6	6	7	7	8	6	7	7	7
202	JUL	20	7	7	6	7	8	8	7	7	7	6
203	JUL	21	5	7	5	7	8	7	7	7	7	5
204	JUL	22	5	6	5	6	7	6	7	7	7	4
205	JUL	23	4	5	4	5	4	4	7	7	7	4
206	JUL	24	6	7	5	7	6	6	6	6	7	4
207	JUL	25	8	7	5	7	6	6	6	8	7	4
208	JUL	26	6	6	4	6	7	6	5	8	5	3
209	JUL	27	6	8	4	6	5	6	7	8	6	5
210	JUL	28	8	6	4	6	6	7	8	7	7	4
211	JUL	29	7	6	6	7	8	8	6	8	6	5
212	JUL	30	6	8	7	8	6	7	7	7	4	4
213	JUL	31	6	6	7	8	7	6	8	7	3	8
214	AUG	1	4	6	6	6	6	5	7	7	5	8
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216	AUG	3	6	6	3	6	5	6	7	7	8	8
217	AUG	4	8	7	4	6	7	7	7	8	6	8
218	AUG	5	5	4	6	6	6	6	6	7	6	4
219	AUG	6	6	6	5	6	6	5	7	6	7	6
220	AUG	7	5	6	4	6	*	*	7	8	5	3
221	AUG	8	8	8	5	5	6	7	8	7	3	7
222	AUG	9	8	8	5	5	5	6	7	7	6	4

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
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224	AUG	11	7	7	6	6	7	7	7	7	7	5
225	AUG	12	4	6	4	7	6	8	7	7	6	3
226	AUG	13	8	6	4	7	6	7	7	5	3	5
227	AUG	14	7	7	5	8	6	6	6	7	7	5
228	AUG	15	8	7	8	7	6	6	5	7	7	5
229	AUG	16	6	7	6	8	5	7	6	8	7	4
230	AUG	17	6	7	8	8	6	8	7	8	4	8
231	AUG	18	8	8	6	6	8	6	7	7	4	6
232	AUG	19	7	6	5	7	4	6	7	7	6	6
233	AUG	20	8	7	5	6	7	6	7	7	8	6
234	AUG	21	6	7	6	7	6	8	7	7	4	5
235	AUG	22	5	6	6	5	6	8	7	6	4	7
236	AUG	23	6	4	7	6	8	7	7	6	5	3
237	AUG	24	3	6	8	7	6	8	7	7	3	3
238	AUG	25	4	8	7	5	8	7	7	7	4	4
239	AUG	26	6	2	6	8	6	6	8	7	7	4
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242	AUG	29	5	3	4	5	7	6	7	7	7	8
243	AUG	30	4	4	5	7	7	8	7	8	8	8
244	AUG	31	6	8	8	6	7	6	7	7	8	8
245	SEP	1	5	7	8	8	4	5	6	7	8	8
246	SEP	2	5	5	8	8	6	6	7	6	5	8
247	SEP	3	8	4	5	5	7	6	7	7	8	8
248	SEP	4	4	5	7	7	6	6	5	7	8	3
249	SEP	5	5	5	5	5	6	7	6	7	4	5
250	SEP	6	6	5	7	7	6	6	7	6	3	5
251	SEP	7	7	8	6	6	6	6	6	5	4	6
252	SEP	8	8	7	5	5	6	6	6	7	7	8
253	SEP	9	8	6	5	5	4	6	6	7	6	4
254	SEP	10	7	5	5	5	7	8	6	7	4	5

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
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256	SEP	12	6	4	5	5	7	7	6	8	4	8
257	SEP	13	3	5	6	6	7	8	6	7	2	4
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261	SEP	17	5	6	8	8	7	6	7	7	7	8
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265	SEP	21	4	4	7	7	6	6	3	5	8	4
266	SEP	22	5	5	8	8	5	6	3	5	5	3
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268	SEP	24	5	7	4	4	6	5	2	3	4	3
269	SEP	25	8	5	5	5	6	6	2	3	4	5
270	SEP	26	5	5	4	4	6	8	2	3	4	4
271	SEP	27	3	5	3	3	8	5	2	5	4	6
272	SEP	28	5	6	8	8	5	5	4	6	5	8
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274	SEP	30	3	5	7	7	6	6	5	6	8	8
275	OCT	1	4	6	6	6	5	7	2	7	8	8
276	OCT	2	4	5	5	5	6	6	7	7	7	6
277	OCT	3	7	6	7	7	6	6	7	7	4	4
278	OCT	4	5	5	6	6	6	5	7	7	2	2
279	OCT	5	4	2	5	5	5	5	2	5	1	1
280	OCT	6	3	4	6	6	5	8	6	7	7	3
281	OCT	7	2	5	5	5	8	7	6	7	6	7
282	OCT	8	4	8	5	5	5	6	2	6	4	3
283	OCT	9	2	3	7	7	8	8	6	7	3	4
284	OCT	10	4	4	7	7	7	6	6	6	2	2
285	OCT	11	5	6	5	5	6	7	7	8	7	4
286	OCT	12	6	8	7	7	7	6	7	6	4	7

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
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287	OCT	13	8	6	5	5	6	7	7	7	6	8
288	OCT	14	7	8	7	7	6	6	6	7	7	8
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290	OCT	16	7	6	3	3	3	5	6	6	8	8
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296	OCT	22	8	8	4	4	7	6	3	7	8	8
297	OCT	23	8	7	3	3	6	6	6	7	7	6
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299	OCT	25	6	7	5	5	6	6	7	8	3	8
300	OCT	26	7	7	5	5	8	7	7	8	4	3
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302	OCT	28	2	5	8	8	6	7	4	8	4	6
303	OCT	29	2	5	7	7	7	7	7	8	4	8
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305	OCT	31	2	3	6	6	6	8	8	8	8	8
306	NOV	1	0	0	6	6	6	8	7	8	8	7
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309	NOV	4	0	1	8	8	6	6	8	8	4	3
310	NOV	5	0	2	8	8	7	7	8	8	3	3
311	NOV	6	1	3	6	6	7	6	5	7	7	4
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313	NOV	8	2	2	8	8	8	6	0	0	6	7
314	NOV	9	1	4	7	7	7	7	2	0	6	7
315	NOV	10	5	8	7	7	6	6	0	3	6	8
316	NOV	11	5	6	6	6	5	7	0	6	6	8
317	NOV	12	6	6	4	4	5	6	1	2	6	6
318	NOV	13	6	5	6	6	7	5	0	2	6	4

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
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319	NOV	14	5	7	8	8	6	6	0	0	4	3
320	NOV	15	7	7	8	8	6	7	0	2	3	3
321	NOV	16	7	6	4	4	6	8	0	3	3	3
322	NOV	17	5	6	6	6	8	6	7	5	3	3
323	NOV	18	4	5	8	8	5	7	8	6	3	3
324	NOV	19	7	8	6	6	5	6	0	1	3	3
325	NOV	20	5	4	6	6	6	7	0	2	3	3
326	NOV	21	2	6	6	6	7	6	0	3	3	8
327	NOV	22	8	7	6	6	7	7	5	3	7	8
328	NOV	23	7	8	6	6	6	7	2	3	8	8
329	NOV	24	8	8	8	8	3	7	3	6	2	3
330	NOV	25	7	8	5	5	6	7	5	8	6	5
331	NOV	26	8	8	5	5	8	7	6	7	6	4
332	NOV	27	8	8	5	5	8	7	8	7	6	6
333	NOV	28	8	8	4	4	6	6	8	8	4	3
334	NOV	29	8	8	4	4	6	6	6	6	3	3
335	NOV	30	8	7	7	7	6	6	5	7	3	4
336	DEC	1	6	8	7	7	8	8	8	3	4	4
337	DEC	2	8	4	6	6	6	6	8	3	4	8
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342	DEC	7	3	5	6	6	6	4	5	5	6	6
343	DEC	8	3	8	6	6	6	4	5	4	2	4
344	DEC	9	8	8	4	4	6	6	7	5	1	2
345	DEC	10	7	2	5	5	8	3	6	5	1	2
346	DEC	11	0	0	7	7	7	4	7	5	1	3
347	DEC	12	1	2	8	8	7	0	2	3	4	2
348	DEC	13	3	6	7	7	6		7	6	6	3
349	DEC	14	4	3	6	6	8	4	7	7	5	3
350	DEC	15	4	5	8	8	6	5	8	8	5	4

YEAR	MONTH	DATE	2008		2009		2010		2011		2012	
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351	DEC	16	3	5	8	8	6	3	6	7	6	4
352	DEC	17	4	5	8	8	8	3	5	4	4	3
353	DEC	18	4	5	5	5	7	0	4	7	5	6
354	DEC	19	5	5	5	5	6	0	8	8	5	6
355	DEC	20	2	4	5	5	7	0	8	8	4	6
356	DEC	21	5	3	7	7	5	4	6	6	2	4
357	DEC	22	0	0	5	5	0	5	7	7	8	4
358	DEC	23	5	2	6	6	0	3	6	8	6	4
359	DEC	24	4	5	8	8	6	5	5	5	6	2
360	DEC	25	0	5	6	6	7	5	4	4	3	2
361	DEC	26	0	3	5	5	6	4	4	4	4	4
362	DEC	27	0	1	6	6	6	3	5	4	5	3
363	DEC	28	0	1	7	7	6	5	7	3	7	6
364	DEC	29	0	0	5	5	7	3	4	7	8	8
365	DEC	30	2	5	5	5	7	5	8	8	8	6
366	DEC	31	0	3	6	6	7	3	8	8	6	5

ANNEXURE OF CHAPTER 5

ANNEXURE5.1: SIGNATURE OF STAKEHOLDERS	5.2
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**PUBLIC CONSULTATION FOR WIDENING AND STRENGTHENING OF SH-4 UNDER
 TAMILNADU ROAD SECTOR PROJECT-II**

Place: Laxmipuram, Tambir, Ashokpur villages, Vinayakpuram village Date: 27/5/2014

Sr No	Name of Participant	Contact No.	Sign
1.	E. Athimoolam	9791950224	E. Athimoolam
2.	P. Ganesvel	9994412330	P. Ganesvel
3.	N. BAKKIYARAJ	9952861203	N. Bakkiyaraj
4.	U. BHARATHI RAJA	9677623565	U. Bharathi Raja
5.	P. M. S. S. S. S.	9942629945	P. M. S. S. S.
6.	P. VEL MURUGAN. Rikshan	9629086987	P. Vel Murugan
7.	P. Ananthkumar	910954366	P. Ananthkumar
8.	C. Hari karan	9740532136	C. Hari karan
9.	K. V. Jay	960902040	K. V. Jay
10.	K. V. Jay	763999788	K. V. Jay
11.	V. Kannaiah. Lakshmi	992440389	V. Kannaiah
12.	M. K. K. K. K.	962982281	M. K. K. K.
	G. S. S. S. S.	979028156	G. S. S. S.
	K. V. S. S. S.	9677425206	K. V. S. S.
	M. THIRUMAL. G. S. S.	7401409740	M. Thirumal

President
 Tambir
 President
 Laxmipuram
 Vinayakpuram
 Village

ANNEXURE OF CHAPTER 7

ANNEXURE 7. 1: FOREST DIVERSION PROPOSAL.....7.2

ANNEXURE 7. 1: Forest Diversion Proposal

ANIL MESHARAM, I.A.S.,
PROJECT DIRECTOR.

Tamil Nadu Road Sector Project,
Tamil Nadu Maritime Board Building,
171, South Kesava Perumalpuram,
Greenways Road, Chennai – 600 028.

Phone : 044 24954360
Fax : 044 - 24952414
E-mail : tnrsp1@gmail.com

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Re. No. 1722 / 2014 / ACF. dated : 07.06.2014

Sub : Forest diversion proposal for the existing Thirukalukundram bypass (MDR- km 4/350 to 4/690 km), traverse in the part of Oragadam Reserved Forest which starts km11.511 of SH-58 and ends at km16.750 of SH-58. Sadras – Chengalpattu –Kanchipuram – Arakkonam – Thiruthani Road

It is proposed to widen and strengthen the Thirukalukundram bypass (MDR- km 4/350 to 4/690 km) of State Highway No. 58 connecting Sadras to Chengalpattu for which the required diversion of forest land is 0.544 Hectares. The proposed road is passing through Oragadam Reserved Forests in Kancheepuram District.

The required proposals, seeking approval under Forest conservation Act 1980, along with relevant undertakings and the map are enclosed herewith.

o/c

(ANIL MESHARAM)

11/6/14
ACF

To
The District Forest Officer,
Chengalpattu Division,
Kancheepuram.

Copy to the District Collector, Kancheepuram District.

ANNEXURE - 1
 CHECK - LIST FOR PROPOSALS
 FOREST (CONSERVATION) ACT 1980

Sl No	Name of the Document	
1	Information in proforma as per Rule(4) of F(c) Rules	
2	Certificate from the project authority that demand for forest land for the project is minimum	
3	Certificate from the Collector/Deputy Commissioner that no alternative suitable non-forest land is available for the project	
4	Area statement for forest area required or the project i.e survey no. /compartment No. Item wise requirement of forest area for the project vez., dam seat, submergence, canal, etc.,	
5	Area statement for non-forest area required for the project	
6	Index map in suitable scale 1:10,000	
7	Map of forest area required indicating clearly forest boundaries and adjoining land use in suitable scale in district column to be countersigned by the Deputy Conservator of Forest and project authority.	Enclosed
8	Contour map of the project site	
9	Unqualified commitment from project authority to bear the cost of compensatory afforestation	
10	Statement showing specie-Wise abstract of tree growth in forest area required for the project	
11	Certificate from the Deputy Conservator of Forest and project authority stating that no violation of the provisions of FC Act 1980 occurred	

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12	If the violation of Act occurred then a note giving circumstances leading to violation date of commencement of work/growing of work done and amount spent. Deputy Conservator of Forest to certify about the details of work done in violation of the Act after site inspection. Name of the persons responsible for violation of the act be also reported and action to be taken against them be reported.	
13	In case the work is started in non-forest area violation of the guidelines then details of the same be also furnished. In case the work is carried out in forest area per court's order then details of court case and the work done be furnished. In either of the case the date of starting the work, amount spent on the works and details of work carried out be furnished.	
14	Certificate from the Deputy Commissioner of the concerned District about availability of non-forest land for compensatory afforestation.	
15	Map of the non - forest land selected for compensatory afforestation on a suitable scale clearly showing adjoining land use. Extract of revenue record (VII/XII) of survey No. selected for compensatory afforestation in English	
16	Suitable certificate from Deputy Conservator of Forest that non-forest lands suitable for raising tree species.	
17	Certificate from the Deputy conservator of Forest that non-forest land selected for compensatory afforestation is in a compact block/ and continuous to forest area or in close proximity of forest area and suitable from the management and protection point of view	
18	Detailed compensatory afforestation scheme for non-forest areas / degraded forest area clearly showing the plantation technique	
19	Cost benefit analysis	
20	Parameter for evaluation of loss of forest in annexure – VI(b)	
21	Parameter for evaluation of benefit not with standing loss of forest in annexure – VI(b)	

	Brief note on the project by project authority	
23	Certificate from project authority regarding catchments area treatment plan with estimate of expenditure to be incurred	
24	List of trees species-Wise/girth class-Wise in forest are required for the project with specific remarks of Dy. Conservator of Forest whether felling of all the trees is essential for implementation the project.	
25	Certificate from Dy. Conservator of Forest that the proposal does not affect any monuments off historical religions, archaeological or recreational importance including wildlife sanctuary and national park, etc.	
26	Information regarding number of beneficiaries of the project	
27	Site inspection certificate for forest are by Dy. Conservator of Forest /Conservator of Forests concreted as per the guidelines	
28	Copy of the order giving administrative and technical sanction to the Project	
29	Certificate from Dy. Conservator of Forest that all required annexure and particulars pertaining to the proposal are furnished in English	
30	Land value certificate to the Forest land required for the project	
31	Undertaking about the payment of annual lease rent	
32	Certificate of funding assurance for forest land diversion	
33	Certificate of pending court cases regarding diversion of forest land	
34	Flora and Fauna list	

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APPENDIX (SEE RULE 6)

FORM - 'A'

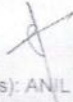
Form for seeking prior approval under section 2 of the proposal by the state Government and other authorities

PART – I

1. Project Details :	
i. Short narrative of the proposal and project/scheme for which the forest land is required.	<p>The road network is considered as the means of development which places the country in the development map of the world. It acts as the backbone for overall socio-economic development of the region.</p> <p>The Tamil Nadu Road Sector Project II (TNRSP II) has under taken improvement of various road networks under financial assistance of the World Bank. The State Highway 58 (SH 58) is one of the ten roads, which is being considered under package I (PPC01). The road SH 58 covers improvements from Sadras to Chengalpaipattu, which is considered as the priority road section. Because it has comparatively less social and environmental issues to be addressed.</p> <p>This section of road provides connectivity to Kalpakkam Atomic Power Plant from NH 45. The development of the road includes widening and strengthening of the existing two lanes road for the proposed two lanes road with paved shoulder as per Indian Road Congress (IRC) standard. The proposed improved SH 58 road will facilitate better rescue operation, if any disaster occurs in Kalpakkam Atomic Power Plant. The developed road will also provide escape route and the transportation route for local people, tourist, employees working in the power plant, raw material, etc.</p> <p>However the proposed improvements for SH 58 shall require 0.544 ha forest land which is stretched in 340 m in length and 16 m in width along existing Thirukalukundram bypass (MDR). The forest land diversion for the proposed improvement is identified from chainage km 4/350 to km 4/690 (Thirukalukundram bypass-MDR). The forest stretch of 340 m length is proposed for diversion and change in land use.</p>
ii. Map showing the required forest land, boundary of adjoining forest on a 1:50,000 scale map.	The map of 1:50,000 scale showing the required forest land, boundary of adjoining forest is attached in Annexure-I.
iii. Cost of the Project:	Rs. 500 Lakhs (approx) for strengthening and widening of Thirukalukundram bypass (MDR)
iv. Justification for locating the project in forest area.	The proposed forest stretch (km 4/350 to km 4/690) is along the existing Thirukalukundram bypass-(MDR) and is the part of Oragadam Reserved Forest. The Oragadam RF has a total

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penal compensatory a forestation as well as cost for protection and regeneration of safety zone, etc. as per the scheme prepared by the state Government (undertaking to be enclosed)	
6. Details of Certificates/documents enclosed as required under the instructions	1.Route Map marking the forest details in 1:50,000 scale 2. Undertakings 3. Project approval from the Transport Infrastructure Act 1994, Ministry of Roads and Infrastructure Government of India

Signature: 

(Name in block Letters): ANIL MESHARAM

Designation: Project Director-TNRSP

Address (of user Agency): TNMB Building, 1st Floor, No. 171, Kesava Perumalpuram, Off Greenways Road, R. A. Puram, Chennai-600028

Date: 06.06.14

Place: Chennai

State Serial No. of proposal _____

(To be filled up by the Nodal Officer with date of receipt)

1/1
A-CF
7/6/14

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7

CERTIFICATE

This is to certify that the requested diversion of forest land for construction of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58 for widening and strengthening in Orgagadam Reserve Forest in Chengalpattu Forest Division is 0.544 Ha (340mx16m) and is designed for minimum forest involvement.

ACF
7/6/14

Name: ANIL MESHARAM, I.A.S.
Designation: Project Director-TNRSP
Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

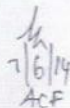
Date: 06.06.14

Place: Chennai

UNDERTAKING

As contemplated under F (C) Act 1980 rules of guidelines, under the head compensatory Afforestation (3.2.IX) with special provision for Central Govt. Undertaking Projects, provision has been made that compensatory Afforestation may be raised on degraded forest land twice in extent of forest area being diverted. It has been also stated that certificate of Chief Secretary regarding non availability of non forest land for CA need not be utilised.

As Tamil Nadu Road Sector Project (TNRSP), Department of Highways, Government of Tamil Nadu is an organisation of Govt of Tamil Nadu and the proposed project is a Govt. of Tamil Nadu Project namely "Strengthening and widening of Existing Thirukalukundram Bypass – MDR (Chainage 4/350 km to 4/690km) of SH 58 which is executed by Tamil Nadu Road Sector Project (TNRSP) is agreed to deposit the cost of Compensatory Afforestation (CA) twice in the degraded forest.


2/6/14
AcF

Name: ANIL MESHAM, I.A.S.
Designation: Project Director-TNRSP
Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

9

CERTIFICATE

This is to certify that Ten times of savings cost would be paid by Tamil Nadu Road Sector Project (TNRSP) towards the Number of trees proposed to be cut, which falls on the forest alignment with regard to the construction of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58 for widening and strengthening at Oragadam Reserve Forest in Chengalpattu Forest Division Kancheepuram District of Tamil Nadu.

Name: ANIL MESHARAM, I.A.S.

1/6/14
A.P.
Designation: Project Director-TNRSP

Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

10

CERTIFICATE

Certify that no suitable alternative Non-Forest land is available for the construction of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58 for widening and strengthening at Orgagadam Reserve Forest in Chengalpattu Forest Division Kancheepuram District of Tamil Nadu.

Name: ANIL MESHAM, I.A.S.

Designation: Project Director-TNRSP

Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai



UNDERTAKING FOR ADDITIONAL AMOUNT OF THE NET PRESENT VALUE

Tamil Nadu Road Sector Project (TNRSP), Department of Highways, Government of Tamil Nadu, hereby agrees to pay the additional amount of Net present Value of the Forest Land required for the purpose of laying of road under widening and strengthening of Existing Thirukalukundram Bypass –MDR. (Chainage 4/350 km to 4/690km) of SH 58 in Chengalpattu Forest Division, as per the order of the Hon'ble Supreme Court of India order's Dated: 28.03.2008 and 09.05.2008 in IA Nos 826 in 566 with related IA's in WP (civil) no 202/95 and guidelines issued by the Government of India, Ministry of Environment Forest Letter no.5 1/1998-FC (Pt.ii) dated:18.09.2003 and 22.09.2003 and becoming due after revision of the same by the Hon'ble supreme Court of India in Future and also give willingness to deposit additional amounts, if any suggested or demand subsequently.

ACF 2/6/14

Name: ANIL MESHARAM, I.A.S.

Designation: Project Director-TNRSP

Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

12

UNDERTAKING

Tamil Nadu Road Sector Project (TNRSP), Department of Highways, Government of Tamil Nadu, undertakes to pay the cost towards lease rent as fixed by the Forest Department at the time of sanction along with any escalation for the forest land to be diverted for the construction of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58 under strengthening and widening of road.

T. G. K. P.
Name: ANIL MESHRAM I.A.S.
Designation: Project Director-TNRSP
Address: TNMS Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. K. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

13

UNDERTAKING FOR NET PRESENT VALUE

It is agreed to pay the Net present Value of the Forest Land required for the purpose of laying of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58 under widening and strengthening at Oragadam Reserve Forest in Kanchipuram Forest Division which will be fixed by the Supreme Court as stated in Principal Chief Conservator of Forest, Chennai Endt: Roc. No. 3631 /06/TS4, Dated: 22.01.06. It is also assured that the above funds will be deposited to the Tamil Nadu Forest Department.

ACF
7/6/14

Name: ANIL MESHAM, I.A.S.
Designation: Project Director-TNRSP
Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

UNDERTAKING

This is to certify that no work in violation of the Forest (Conservation) Act 1980 will be carried out for strengthening and widening of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58 at Oragadam RF in Chengalpattu Forest Division, Kanchipuram District, Tamil Nadu.

Name: ANIL MESHARAM, I.A.S.

Designation: Project Director-TNRSP

Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14
Place: Chennai

(15) (15)

UNDERTAKING FOR COMPENSATORY AFFORESTATION

It is agreed to deposit the cost of Compensatory Afforestation as fixed by the Forest Department. It is also assured that the above funds will be deposited with the Forest Department, which will be implementing the Compensatory Afforestation Scheme and also given willingness to deposit such additional amount if any, suggested as amended to the above owing to the change in planting technique, enhancement in the FSR etc., demanded subsequently.

Handwritten signature and date
7/6/14
ACF

Name: ANIL MESHRAM, I.A.S.

Designation: Project Director-TNRSP

Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Greenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

17

16

UNDERTAKING

Tamil Nadu Road Sector Project (TNRSP), Department of Highways, Government of Tamil Nadu, undertakes to bear the cost along with any escalation for exploitation of trees and for raising the compensatory afforestation in double the area of degraded forest land in lieu of the Forest Land to be diverted for the construction of Existing Thirukalukundram Bypass –MDR (Chainage 4/350 km to 4/690km) of SH 58.

Handwritten signature and initials
2/6/14
ACP

Name: ANIL MESHARAM, I.A.S.
Designation: Project Director-TNRSP
Address: TNMB Building, 1st Floor,
No. 171, Kesava Perumalpuram, Off
Grenways Road, R. A. Puram,
Chennai-600028

Office Stamp:

Date: 06.06.14

Place: Chennai

D.Dis. 14990 /2014/B3 Dated. 9 .7.2014

Collector's Office,
Kancheepuram.

CERTIFICATE

This is to certify that no suitable alternative Non-Forest land is available in the route proposed by the Tamil Nadu Road Sector Project in connection with the widening and strengthening of existing Thirukalukundram bypass (MDR - km 4/350 to 4/690 km), traverse in the part of Oragadam Reserved Forest which start km 11.511 of SH- 58 and ends at km 16.750 of SH – 58 connecting Sadras to Chengalpattu in Kancheepuram District. This certificate is issued based on the letter received from Project Director, Tamil Nadu Road Sector Project Chennai-28 / R.C.No 1722/2014/ACF Dat 11.6.2014

Dated : 9. 07 .2014
Place : Kancheepuram



hemi yndi
9/7/14.
District Collector,
Kancheepuram.

To,
The Project Director,
Tamil Nadu Road Sector Project,
Tamil Nadu Maritime Board Building,
171, South Kesava Perumalpuram
Greenways Road, Chennai-28

ANNEXURE 7.2: Alignment (SH 58) passing through Reserved Forest



ANNEXURE OF CHAPTER 8

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ANNEXURE 8. 1: Guidelines for Monitoring Program

Environmental Monitoring Plan

To ensure the effective implementation of the EMP, it is essential that an effective monitoring programme be designed and carried out. Broad objectives of the monitoring programme are:

- To evaluate the performance of mitigation measures proposed in the EMP
- To suggest improvements in the management plans, if required
- To satisfy the statutory and community obligations

The monitoring programme contains monitoring plan for all performance indicators, reporting formats and necessary budgetary provisions. Monitoring plan for performance indicators and reporting system is presented in the following sections.

Performance Indicators

The Performance Indicators and monitoring plans prepared for *Project Implementation* are presented in Table.

Performance Indicators for Project Implementation

S. No.	Indicator	Details	Stage
A	Environmental Condition Indicators and Monitoring Plan		
1	Air Quality	The parameters to be monitored, frequency and duration of monitoring as well as the locations to be monitored will be as per the Monitoring Plan prepared	Pre Construction
			Construction
			Operation
2	Noise Levels		Pre Construction
			Construction
			Operation
3	Water Quality		Pre Construction
			Construction
			Operation
4	Soil Quality		Pre Construction
			Construction
			Operation
B	Environmental Management Indicators and Monitoring Plan		
1	Construction Camps	Location of construction camps have to be identified and parameters indicative of environment in the area has to be reported	Pre-construction
2	Borrow Areas	Location of borrow areas have to be identified and parameters indicative of environment in the area has to be reported.	Pre-construction
3	Tree Cutting	Progress of tree removal marked for cutting is to be reported	Pre-construction
4	Tree Plantation	Progress of measures suggested as part of the Strategy is to be reported	Construction
C	Management & Operational Performance Indicators		

S. No.	Indicator	Details	Stage
1	Survival Rate of Trees	The number of trees surviving during each visit will be compared with the number of saplings planted	Operation
2	Status Regarding Rehabilitation of Borrow Areas	The PU will undertake site visits to determine how many borrow areas have been rehabilitated in line with the landowner's request and to their full satisfaction.	Operation
3	Soil Erosion	Visual monitoring and operation inspection of embankments will be carried out once in three months.	Operation

Monitoring Parameters and Standards

The Environmental monitoring of the parameters involved and the threshold limits specified are discussed below:

Ambient Air Quality Monitoring (AAQM)

The air quality parameters viz: Sulphur Dioxide (SO₂), Particulate Matter (PM₁₀) & Particulate Matter (PM_{2.5}), Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), Hydro-Carbons (HC), shall be regularly monitored at identified locations from the start of the construction activity. The air quality parameters shall be monitored in accordance with the National Ambient Air Quality Standards as given in following **Table**. The duration and the pollution parameters to be monitored and the responsible institutional arrangements are detailed out in the Environmental Monitoring Plan **Table 1.3** and specific details in chapter on baseline environment.

Table 1.2A National Ambient Air Quality Standards

Pollutant	Time Weighted Average	Industrial, Residential, Rural & Other Area	Ecologically Sensitive Area (notified by Central Government)
Sulphur Dioxide (SO ₂), µg/ m ³	Annual	50	20
	24 Hours**	80	80
Nitrogen Dioxide as NO ₂ , µg/ m ³	Annual	40	30
	24 Hours**	80	80
Particulate Matter (size less than 10µm) or PM ₁₀ µg/ m ³	Annual	60	60
	24 Hours**	100	100
Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/ m ³	Annual *	40	40
	24 Hours**	60	60
Ozone (O ₃) µg/ m ³	8 hours**	100	100
	1 Hours**	180	180
Lead (Pb) µg/ m ³	Annual *	0.50	0.50
	24 Hours**	1.0	1.0
Carbon Monoxide (CO) mg/m ³	8 Hours**	02	02
	1 Hour**	04	04
Ammonia (NH ₃) µg/ m ³	Annual *	100	100
	24 Hours**	400	400
Benzene (C ₆ H ₆) µg/ m ³	Annual *	05	05
Benzo (a) pyrene (BaP) particulate phase only	Annual *	01	01

ng/m ³			
Arsenic (AS) ng/m ³	Annual *	06	06
Nickel (Ni) ng/m ³	Annual *	20	20

Source: Central Pollution Control Board Notification dated 18th November 2009

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week hourly at uniform intervals

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Noise Quality Monitoring

The noise levels shall be monitored at already designated locations in accordance with the Ambient Noise Quality standards given in **Table 1.2B**. The duration and the noise pollution parameters to be monitored and the responsible institutional arrangements are detailed in the Environmental Monitoring Plan **Table 1.3** and specific details in chapter on baseline environment.

Table 1.2B National Standard of Noise

Category of Zones	Leq in dB(A)	
	Day*	Night
Industrial	75	70
Commercial	65	55
Residential	55	45
Silence Zone **	50	40

Source: MoEF

1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
2. Night time shall mean from 10.00 p.m. to 6.00 a.m. not less than 100 metres around hospitals, educational institutions and courts. The silence zones are zones which are declared as such by the competent authority.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.

Water Quality Monitoring

Water quality parameters such as pH, BOD, COD, DO coliform count, total suspended solids, total dissolved solids, Iron, etc. shall be monitored at all identified locations during the construction stage as per standards prescribed by Central Pollution Control Board and Indian Standard Drinking water specifications IS 10500, 2012, presented in **Table 1.2C**. The duration and the pollution parameters to be monitored and the responsible institutional arrangements are detailed out in the Environmental Monitoring Plan **Table 1.3** and specific details in chapter on baseline environment.

Table 1.2C: National Standard of Water

S. No.	Characteristic	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate source	Remarks
Essential Characteristics				
1	Colour, Hazen units, Max	5	15	Extended to 15 only, if toxic substances are not suspected in absence of alternate source
2	Odour	Agreeable	Agreeable	a) Test cold and when

S. No.	Characteristic	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate source	Remarks
				heated b) Test at several dilutions
3	pH Value	6.5 to 8.5	No relaxation	-
4	Taste	Agreeable	Agreeable	Test to be conducted only after safety has been established
5	Turbidity NTU, max	1	5	-
6	Total dissolved solids, mg/l, Max	500	2000	-
7	Aluminium (as Al), mg/l Max	0.03	0.2	-
8	Ammonia (as total ammonia-N), mg/l Max	0.5	No relaxation	-
9	Anionic detergents (as MBAS), mg/l, Max	0.2	1.0	-
10	Barium (as Ba), mg/l, max	0.7	No relaxation	-
11	Boron (as B), mg/l Max	0.5	1.0	-
12	Calcium (as Ca) mg/l, Max	75	200	-
13	Chloramines (as Cl ₂), mg/l, Max	4.0	No relaxation	-
14	Chloride (as Cl) mg/l, Max	250	1000	-
15	Copper (as Cu) mg/l, Max	0.05	1.5	-
16	Fluoride (as F) mg/l, Max	1.0	1.5	-
17	Free residual Chlorine, mg/l, Min	0.2	1	To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infection is required, it should be minimum 0.5 mg/l
18	Iron (as Fe) mg/l, max	0.3	No relaxation	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3mg/l
19	Magnesium (as Mg) mg/l, Max	30	100	-
20	Manganese (as Mn) mg/l, Max	0.1	0.3	-
21	Mineral oil, mg/l Max	0.5	No relaxation	-
22	Nitrate (as NO ₃) mg/l, Max	45	No relaxation	-
23	Phenolic compounds (as C ₆ H ₅ OH) mg/l, Max	0.001	0.002	-
24	Selenium (as Se), mg/l, Max	0.01	No relaxation	-
25	Silver (as Ag), mg/l, Max	0.1	No relaxation	-
26	Sulphate (as SO ₄) mg/l, Max	200	400	May be extended to 400 provided that Magnesium does not exceed 30
27	Sulphide (as H ₂ S) mg/l, max	0.05	No relaxation	-
28	Total alkalinity as calcium carbonate, mg/l Max	200	600	-
29	Total Hardness (as CaCO ₃) mg/l, Max	200	600	-
30	Zinc (as zn), mg/l, Max	5	15	-
31	Cadmium (as Cd), mg/l, Max	0.003	No relaxation	-
32	Cyanide (as CN), mg/l, Max	0.05	No relaxation	-
33	Lead (as Pb), mg/l, Max	0.01	No relaxation	-
34	Mercury (as Hg) mg/l, Max	0.001	No relaxation	-
35	Molybdenum (as Mo) mg/l, max	0.07	No relaxation	-

S. No.	Characteristic	Requirement (Acceptable Limit)	Permissible limit in the absence of alternate source	Remarks
36	Nickle (as Ni), mg/l, max	0.02	No relaxation	-
37	Polychlorinated biphenyls, mg/l, max	0.0005	No relaxation	-
38	Polynuclear aromatic hydrocarbons (as PAH) mg/l, Max	0.0001	No relaxation	-
39	Total Arsenic (as As), mg/l, Max	0.01	0.05	-
40	Total Chromium (as Cr) mg/l, Max	0.05	No relaxation	-
41	Trihalomethanes Bromoform, mg/l, max Dibromochloromethane, mg/l, max Bromodichloromethane, mg/l, max Chloroform, mg/l, max	0.1 0.1 0.06 0.2	No relaxation No relaxation No relaxation No relaxation	-
42	Radioactive materials a) Alpha emitters Bq/l max b) Beta emitters pci/l, Max	0.1 1.0	No relaxation No relaxation	-

Monitoring Plans for Environment Condition

For each of the environmental components, the monitoring plan specifies the parameters to be monitored; location of the monitoring sites; frequency and duration of monitoring. The monitoring plan also specifies the applicable standards, implementation and supervising responsibilities. The monitoring plan for the various environmental condition indicators of the project in construction and operation stages is presented in **Table 1.3**.

Monitoring plan does not include the requirement of arising out of Regulation Provision such as obtaining NOC/ consent for plant site operation.

ENVIRONMENTAL MONITORING LOCATIONS

In addition of the critical locations selected during design stage, the environmental monitoring will also be done at the construction camp site and plant site during construction stage. List of critical locations for caring out monitoring is presented in **chapter 4 of EIA report**: Baseline environment.

REPORTING PROCEDURES

Mitigation and enhancement measures adopted in the final design have been identified in the contract documents and Bill of quantities so that performance and completion is effective. The periodic site visits of the EO/Engineer/EE of the PU will keep a record of progress as well as the site-specific EMP implementation records. The frequent meeting of the EO/Engineer with the Contractors will ensure any information and communication gap with regard to the Construction phase environmental management at construction site; labour and construction camps quarry and borrow areas etc. It is necessary that the EO/Engineer should visit the sites for evolving a concept for the Environmental Management with regard to the siting of various construction requirements. The various reporting guidelines and arrangements are presented in **TABLE 1.4. DESIRED MONITORING AND REPORTING PROCESS AND RESPONSIBILITIES**.

Table 1.3: Environmental Monitoring Plan

Attribute	Project Stage	Parameter	Standards	Frequency	Duration	Location	Implementation
Air	Construction	CO, NO _x , PM10, PM2.5, and SO ₂	Air (prevention and Control of Pollution) Rules, CPCB, 1994	Three seasons per year	24 hours Sampling	Along the road Hot mix / batching plant/Labour camp	EMU-TNRSP
	Operation			Two seasons in a year for three years		Along the road	EMU-TNRSP
Water	Construction	All essential characteristics and some of desirable characteristics as decided by the Environmental Specialist of the PMC and TNRSP	Indian Standards for Inland Surface Waters (IS: 2296, 1982) and for Drinking Water (IS : 10500 - 2012)	Four seasons per year	Grab Sampling	Along the road	EMU-TNRSP
	Operation			four seasons for three years		Surface water sources	EMU-TNRSP
Noise	Construction	Noise levels on dB (A) scale	MoEF Noise Rules, 2000	Three seasons per year	Leq in dB(A) of day time and night time	Along the road Hot mix / batching plant/ Labour camp	EMU-TNRSP
	Operation			Three seasons per year for three years.		Along the road	EMU-TNRSP
Soil	Construction	Monitoring of Pb, SAR and Oil & Grease	Threshold for each contaminant set by IRIS database of USEPA until national standards are promulgated	Four seasons per year	Grab Sampling	Along the road Hot mix / batching plant/ Labour camp	EMU-TNRSP
	Operation			four seasons for three years		Along the road	EMU-TNRSP

Attribute	Project Stage	Parameter	Standards	Frequency	Duration	Location	Implementation
Borrow area	Construction	As per Guidelines	-	Once in a month	-	Borrow area location	Contractor
Tree plantation	Operation stage	As per Rehabilitation Plan		Quarterly	-	Areas where plantation is being done	EMU-TNRSP

Table 1.4: Desired Monitoring and Reporting Process and Responsibilities

Format No.	Item	Stage	Contractor	PMC Consultant		PIU-TNRSP		Reporting from TNRSP to World Bank)
			Implementation and Reporting to TA Consultant	Supervision	Reporting to TNRSP	Oversee Field Compliance Monitoring	Reporting to EMU, TNRSP	
P1	Identification for disposal locations	Pre -construction	One Time	One Time	One Time	One Time	One Time	One Time
P2	Setting up of Construction Camp	Pre- construction	One Time	One Time	One Time	One Time	One Time	One Time
P3	Establishment of Borrow areas	Pre- construction	Monthly	Monthly	Quarterly	Quarterly	Quarterly	Quarterly
P4	Establishment of HMP/ BMP	Before start of construction	One Time	One Time	One Time	One Time	One Time	One Time
P5	Road Safety and Traffic Management	Pre- construction	Monthly	Monthly	Monthly	Monthly	Quarterly	Quarterly
P6	Arrangement for Temporary Land	Pre- Construction	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly
P7	Pollution Monitoring	Pre- Construction	Quarterly	During Monitoring	Immediately on receipt of results	Quarterly	Quarterly	Quarterly
P8	Tree cutting/Stump Removal	During construction period	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly
P9	Identification of Source of water for Construction	Pre- construction	One Time	One Time	One Time	One Time	One Time	One Time
C1	Details of earth work	During Construction period	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly
C2	Details of Hot Mix Plant	During Construction period	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly
C3	Details of landfill locations/	During Construction period	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly
C4	Details of Machinery in Operations	During Construction period	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly

Format No.	Item	Stage	Contractor	PMC Consultant		PIU-TNRSP		Reporting from TNRSP to World Bank)
			Implementation and Reporting to TA Consultant	Supervision	Reporting to TNRSP	Oversee Field Compliance Monitoring	Reporting to EMU, TNRSP	
C5	Redevelopment of borrow areas	During construction period	Monthly	Monthly	Monthly	Quarterly	Half Yearly	Quarterly
C6	Safety Check List	During construction period	Monthly	Monthly	Monthly	Quarterly	Half Yearly	Quarterly
C7	Accident Report	During construction period	After Accident	After Accident	Immediately on receipt of report	Quarterly	Half Yearly	Quarterly
C8	Pollution Monitoring	During construction period	Quarterly	During Monitoring	Quarterly	Quarterly	Quarterly	Quarterly
C9	Enhancement Measures	During Construction	Monthly	Monthly	Monthly	Quarterly	Quarterly	Quarterly
C10	Restoration of Construction Sites	Immediate after Construction	One Time	One Time	One Time	One Time	One Time	Quarterly
O1	Pollution Monitoring	During Operation	-	-	-	Quarterly	Quarterly	Quarterly

ANNEXURE 8. 2: Guidelines for Siting, Management and Redevelopment of Quarrying and Stone Crushing Operations

The Contractor will finalize the locations from the list given by DPR Consultant's for procuring materials. The Contractor shall establish a new quarry only with the prior consent of the EO only in cases when: (i) Lead from existing quarries is uneconomical and (ii) Alternative material sources are not available. The Contractor shall prepare a Redevelopment Plan for the quarry site and get it approved by the EO/Supervision Consultant.

The construction schedule and operations plans to be submitted to the EO prior to commencement of work shall contain a detailed work plan for procuring materials that includes procurement, transportation and storage of quarry materials.

Operation & redevelopment plan (if a new quarry is opened).....

- Photograph of the quarry site prior to commencement
- The quarry boundaries as well as location of the materials deposits, working equipments, stockpiling, access roads and final shape of the pit.
- Drainage and erosion control measures at site.
- Safety Measures during quarry operation.
- Design for redevelopment of exhaust site.

Option-A: Revegetating the quarry to merge with surrounding landscape: This is done by conserving and reapplying the topsoil for the vegetative growth.

Option-B: Developing exhausted quarries as water bodies: The pit shall be reshaped and developed into pond, for harvesting rainwater. This option shall only be considered where the location of quarry is at the lowest point, i.e. surrounding areas/natural drainage slopes towards it.

CONSTRUCTION STAGE

Development of site: To minimize the adverse impact during excavation of material following measures are need to be undertaken:

- Adequate drainage system shall be provided to prevent the flooding of the excavated area
- At the stockpiling locations, the Contractor shall construct sediment barriers to prevent the erosion of excavated material due to runoff
- Construction of offices, laboratory, workshop and rest places shall be done in the up-wind of the plant to minimize the adverse impact due to dust and noise.
- The access road to the plant shall be constructed taking into consideration location of units and also slope of the ground to regulate the vehicle movement within the plant.
- In case of storage of blasting material, all precautions shall be taken as per The Explosive Rules, 1983.

QUARRY OPERATIONS INCLUDING SAFETY

- Overburden shall be removed and disposed in line with Guidelines for Debris Disposal Site and management giving in ANNEXURE-8.4.

- ii) During excavation, slopes shall be flatter than 20 degrees to prevent their sliding. Incises where quarry strata are good and where chances of sliding are less this restriction can be ignored.
- iii) In case of blasting, procedure and safety measures shall be taken as per The Explosive Rules, 1983
- iv) The contractor shall ensure that all workers related safety measures shall be done as per guidelines for Workers and Safety attached as ANNEXURE-8.12.
- v) The Contractor shall ensure maintenance of crushers regularly as per manufacturer's recommendation.

Topsoil will be excavated and preserved during transportation of the material measures shall be taken to minimize the generation of dust and prevent accidents.

The EO and the Supervision Consultant shall review the quarry site for the management measures during quarry operation, including the compliance to pollution norms.

POST CONSTRUCTION STAGE

The Contractor shall restore all haul roads constructed for transporting the material from the quarries to construction site to their original state.

The EO and the Supervision Consultant shall be entrusted the responsibility of reviewing the quarry site for the progress of implementation of Redevelopment Plan. These shall include the following two cases;

- Redevelopment of quarries opened by the Contractor for the project
- Redevelopment of existing quarries operated by other agencies

In the first case, the Contractor shall be responsible for the Redevelopment Plan prior to completion after five years, during the defect liability period. The EO shall be responsible for reviewing this case of redevelopment prior to the issuing the defect liability certificate.

In the second case, the redevelopment of exhaust quarry shall be the responsibility of the agency providing the permit to ensure the implementation of Redevelopment Plan.

There are three possibilities:

Case I- If the quarry is an existing one and is managed directly by the Contractor.

Case II -If the quarry is an existing one and is managed directly by a sub-contractor from whom the Contractor is sourcing the materials.

Case III - If the quarry is a new one and is managed directly by the Contractor from whom the contractor is sourcing the materials.

ANNEXURE 8.3: Guidelines for Siting, Management and Redevelopment of Borrow Areas Management

Borrow areas will be finalized either from the list of locations recommended by DPR consultants or new areas identified by contractor. The finalization of locations identified by DPR consultant or identified by contractor depends upon the formal agreement between landowners and contractor and its suitability from civil engineering as well as environmental consideration. Meeting the guidelines/notifications as stipulated from time to time by the Ministry of Environment and Forests, Government of India, and local bodies, as applicable shall be the sole responsibility of the contractor.

Besides this certain precautions have to be taken to restrict unauthorized borrowing by the contractor. No borrow area shall be opened without permission of the Engineer/EO. The engineer in addition to the established practices, rules and regulation will also consider following criteria before approving the Borrow areas.

- (1) The borrow area should not be located in cultivable land unless unavoidable i.e. no suitable uncultivable land in the vicinity for borrowing or private landowners are willing to allow borrowing in their fields.
- (2) Along the roadside, borrow pits should be located 5m away from the toe line.
- (3) The loss of productive and agriculture soil should be minimum.
- (4) The loss of vegetation is almost nil or minimum.
- (5) Sufficient quality of soil is available.
- (6) The Contractor will ensure that suitable earth is available.

After identification of borrow areas based on guidelines. Contractor will fill reporting format as under and submit the same for approval to the “Engineer” Once approved the contractor will adhere to the recommendation for borrow area to the satisfaction of Engineer.

- (1) In no case the depth of borrow area should exceed 2m from the existing ground level.
- (2) Borrow pits slope should be maintained, no steeper than 1 Vertical: 4 Horizontal.
- (3) In case of cultivable land, top soil (15cm) should be preserved and stockpiled.
- (4) Ridges of not less than 8m width should be left at intervals not exceeding 300m. Small drains to be cut through the ridges to facilitate drainage
- (5) Water pooling to be avoided/managed so that no disease spread due to water stagnation.
- (6) Borrow pits should be located at least 1000m away from settlements.
- (7) Precautionary measures as the covering of vehicles will be taken to avoid spillage during transportation of borrow area.
- (8) The unpaved surfaces used for the haulage of borrow materials should be maintained properly for dust suppression.
- (9) Haulage of material to embankments or other areas of fill shall proceed only when sufficient spreading and compaction facility is operating at the place of deposition, to minimize dust pollution.
- (10) Borrow pits located near settlements will be re-developed immediately after borrowing is completed. If spoils are dumped, that will be covered with a layers of stockpiled topsoil in accordance with compliance requirements with respect MOEF/SPCB guidelines
- (11) Redevelopment of the borrow areas to mitigate the impact will be the responsibility of the contractor. The contractor shall evolve site-specific redevelopment plans for each borrows area locations, which shall be implemented after the approval of the Engineer.

- (12) Borrow area near to any surface water body will be at least at a distance of 15m from the toe of the bank or high flood level, whichever is maximum.
- (13) During rains appropriate measures to be taken to minimize soil erosion, silt fencing to be provided as directed by Engineer/EO.
- (14) Borrow areas might be used for aquaculture in case landowner wants such development. In that case, such borrow area will be photographed after their post use restoration and Environment Expert of Supervision Consultant will certify the post use redevelopment.

The Contractor will keep record of photographs of various stages i.e., before using materials from the location (pre-project), for the period borrowing activities (construction Phase) and after rehabilitation (post development), to ascertain the pre and post borrowing status of the area.

ANNEXURE 8. 4: Guidelines for Siting and Management of Debris Disposal Sites

The locations of Disposal sites have to be selected such that:

- Productive land to be avoided and available wasteland to be given preference.
- Disposal sites to be located at least 1000m away from sensitive locations like Settlements, Water body, notified forest areas, Sanctuaries or any other sensitive locations.
- Should be located in the downwind side of nearest settlement locations.
- Disposal sites do not contaminate any water sources, rivers etc for this, site should be located away from water body and disposal site should be lined properly to prevent infiltration of water.
- Public perception about the location of debris disposal site has to be obtained before finalizing the location.
- Permission from the Villager/local community is to be obtained in writing by contractor for finalizing the disposal site identified.
- The Plan must be approved by EO/Supervision Consultant and PIU- TNRSP.

Precautions to be Adopted during Disposal of Debris / Waste Material

The contractor shall take the following precautions while disposing off the waste material

- During the site clearance and disposal of debris, the contractor will take full care to ensure that public or private properties are not damaged/affected, there is no dwellings below the dumpsite and that the traffic is not interrupted.
- Contractor will dispose-off debris only to the identified places or at other places only with prior permission of Engineer/EO.
- In the event of any spoil or debris from the sites being deposited on any adjacent land, the contractor will immediately remove all such spoil debris and restore the affected area to its original state to the satisfaction of the Engineer/EO.
- The contractor will at all times ensure that the entire existing drains within and adjacent to the site are kept safe and free from any debris.
- Contractor will utilize effective water sprays during the delivery and handling of materials when dust is likely to be created and to dampen stored materials during dry and windy weather.
- Materials having the potential to produce dust will not be loaded to a level higher than the side and tail boards and will be covered with a tarpaulin in good condition.
- Care should always be taken to maintain the hydrological flow in the area.

REHABILITATION OF DISPOSAL SITES

The dumpsites filled only up to the ground level could be rehabilitated as per guidelines below and to be decided by the engineer and the supervision consultant

- The dumpsites have to be suitably rehabilitated by planting local species of shrubs and other plants. Local species of trees has also to be planted so that the landscape is coherent and is in harmony with its various components.
- In cases where a dumpsite is near to the local village community settlements, it could be converted into a play field by spreading the dump material evenly on the ground. Such

playground could be made coherent with the landscape by planting trees all along the periphery of the playground.

- Material excavated for foundation of bridge works should not be dumped in the water course; if same has to be refilled then precaution has to be taken so that the excavated material should not be carried away by flowing/rainy water, thereby silting the water course.
- Care should always be taken to maintain the hydrological flow in the area.

ANNEXURE 8. 5: Guidelines for Site Clearance and Tree Felling

1. Vegetation Clearance

Vegetation clearance shall comprise uprooting of vegetation, grass, brushwood, shrubs, stumps, trees and saplings of girth up to 30 cm. measured at a height of one meter above the ground level. Where only clearance of grass is involved it shall be measured and paid for separately. The procedure/ steps involved for uprooting, skating and felling trees are described below.

1.1 Uprooting of Vegetation

- The roots of trees and saplings shall be removed to a depth of 60 cm. below ground level or 30 cm. below formation level or 15 cm below sub grade level, whichever is lower.
- All holes or hollows formed due to removal of roots shall be filled up with earth rammed and levelled.
- Trees, shrubs, poles, fences, signs, monuments, pipe lines, cables etc. within or adjacent to the area, which are not required to be disturbed during vegetation clearance shall be properly protected by the contractor at his own cost.

1.2 Staking and Disposal

- All useful materials obtained from clearing and grubbing operation shall be staked in the manner as directed by the Engineer.
- Trunks and branches of trees shall be cleared of limbs and tops stacked properly at the places indicated by the Engineer- in – charge. These materials shall be the property of the Government.
- All unserviceable materials are disposed off in such a manner that there is no livelihood of getting mixed up with the materials meant for construction.

1.3 Felling Trees

- *Marking of tress:* Trees, above 30 cm girth (measured at a height of one meter above ground level) to be cut, shall be approved by the Engineer-in-charge and then marked at the site.
- *Felling of trees:* Felling of trees shall include taking out roots up to 60 cm. below ground level or 30 cm. below formation level or 15 cm. below sub-grade level, whichever is lower.
- *Filling:* All excavations below general ground level arising out of removal of trees, stumps etc. shall be filled with suitable material in 20 cm. layers and compacted thoroughly so that the surface at these points conforms to the surrounding area.
- *Sizing:* The trunks and branches of trees shall be cleared of limbs and tops and cut into suitable pieces as directed by the Engineer-in-charge.
- *Staking:* The serviceable materials shall be staked in the manner as directed by the Environmental specialist of Supervision Consultants/Engineer-in-charge.
- *Disposal:* The material, which cannot be used or auctioned shall be removed from the area and disposed off as per the directions of the Engineer-in-charge. Unsuitable waste materials should not get mixed with construction material during disposal.

ANNEXURE 8. 6: Guidelines for Soil Erosion and Sedimentation Control

All materials shall meet commercial grade standards and shall be approved by the Engineer before being used in the work.

CONSTRUCTION STAGE

Prior to the start of the relevant construction, the Contractor shall submit to the Engineer for approval, his schedules for carrying out temporary and permanent erosion/sedimentation control works as are applicable for the items of clearing and grubbing, roadway and drainage excavation, embankment/sub-grade construction, bridges and other structures across water courses, pavement courses and shoulders. He shall also submit for approval his proposed method of erosion/sedimentation control on service road and borrow pits and his plan for disposal of waste materials. Work shall not be started until the erosion/sedimentation control schedules and methods of operations for the applicable construction have been approved by the Engineer.

The surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and fill operations shall be limited to the extent practicable. The Contractor may be directed to provide immediate control measures to prevent soil erosion and sedimentation that will adversely affect construction operations, damage adjacent properties, or cause contamination of nearby streams or other watercourses. Such work may involve the construction of temporary berms, dikes, sediment basins, slope drains and use of temporary mulches, fabrics, mats, seeding, or other control devices or methods as necessary to control erosion and sedimentation.

The Contractor shall be required to incorporate all permanent erosion and sedimentation control features into the project at the earliest practicable time as outlined in his accepted schedule to minimize the need for temporary erosion and sedimentation control measures.

Temporary erosion/sedimentation and pollution control measures will be used to control the phenomenon of erosion, sedimentation and pollution that may develop during normal construction practices, but may neither be foreseen during design stage nor associated with permanent control features on the Project.

Where erosion or sedimentation is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion or sedimentation control features can follow immediately thereafter if the project conditions permit; otherwise temporary erosion or sedimentation control measures may be required between successive construction stages. Under no conditions shall a large surface area of erodible earth material be exposed at one time by clearing and grubbing or excavation without prior approval of the EO/Engineer.

The Engineer may limit the area of excavation, borrow and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding and other such permanent erosion, sedimentation and pollution control measures, in accordance with the accepted schedule.

Temporary erosion is sometimes caused due to the Contractor's negligence, carelessness or failure to install permanent controls. Sedimentation and pollution control measures then become

necessary as a part of the work as scheduled or ordered by the Engineer, and these shall be carried out at the Contractor's own expense. Temporary erosion, sedimentation and pollution control work required, which is not attributed to the Contractor's negligence, carelessness or failure to install permanent controls, will be performed as ordered by the EO/Engineer.

Temporary erosion, sedimentation and pollution control may include construction work outside the right of way where such work is necessary as a result of road construction such as borrow pit operations, service roads and equipment storage sites.

The temporary erosion, sedimentation and pollution control features installed by the Contractor shall be maintained by him till these are needed, unless otherwise agreed by the Engineer.

ANNEXURE 8. 7: Guidelines for Arrangement with Forest Department

REGULATORY FRAMEWORK

- The TNRSP under the provisions of the Forest (Conservation) Act, 1980 will submit a diversion proposal in the prescribed format through the State Forest Department to the concerned Regional Office of the Ministry of Environment and Forests, of the Govt. of India. The Regional Office is the competent authority to dispose of such proposal irrespective of the area involved. In line with current directives for every tree cut at least ten trees have to be planted.
- Forest Department of the Government of TN after having identified the lands on the embankment and toes of the road will delineate the proposed area of compensatory afforestation on a suitable map. The Department of Forest will thereafter prepare an afforestation scheme providing therein the details of work schedule, the cost structure and proposed monitoring mechanism.

FUNDING MECHANISM

- The Ministry of Environment and Forests have constituted an authority known as **Compensatory Afforestation Fund Management and Planning Authority, CAMPA** for the purpose of management of money received from user agencies for compensatory afforestation. The TNRSP being the user agency in this project will be required to deposit the money as estimated by the State Forest Department to the CAMPA.
- CAMPA shall release funds to the State in predetermined instalments through the State Level Management Committee as per the Annual Plan of Operations drawn by the State Forest Department

MANAGEMENT AND MONITORING

- Strip plantations should be properly fenced to prevent damages by biotic interference.
- Wherever possible live- hedges may be provided; in such stretches live-hedges need be grown a year ahead of actual planting; such hedges may be reinforced by weaving with split bamboos.
- It may also be explored as to whether communities along the roads can be involved in protection and maintenance of such plantations through a mechanism of sharing of usufructs.

ANNEXURE 8. 8: Guidelines for Transplantation of Full-Grown Trees

If trees are not very old they can be transplanted easily. The percentage of survival can be hundred per cent if the work is done properly and during the rainy season. The following steps are involved:

1. The sites where the trees are to be shifted should be selected first. The sites should be free of overhead telephone or power lines. Large pits should be dug at these sites to comfortably accommodate the 'tree roots' ball of earth.
2. Distance between pits depends on the variety. In case of short varieties with a small spread, the distance should be 10 ft. to 15 ft. For tall varieties with spreads of between 15 ft. and 20 ft. on either side, the distance should not be less than 30 feet.
3. When pits are dug at the selected sites, their sizes would depend on the dimensions/age of the tree. For trees of medium size the pit size will be around 8 feet in diameter and 5 feet deep. The actual pit size for different trees can be adjusted with experience. The point to be kept sight of is that 'trees roots' ball of earth should fit in comfortably with at least 6 to 12 inches clearance all around. Usually the pit size in feet should be directly proportional to the girth of the trees in inches.
4. Adequate quantity of soil and manure mixture @ 4:1 is necessary for each pit. A little bone meal can also be added. To start with only about 60cm soil mixture is to be filled in each pit and watered well to form a puddle before the actual transplantation. The total quantity of soil and manure required for all the pits should be mixed and arrange before the start of the actual operation.
5. Before transplantation, the trees should be 'extensively pruned'. That is, the foliage should be completely removed and all the branches should be cut off with a pruning saw. No other implement should be used. The cut surfaces should be painted with non-synthetic white paint to anaesthetize these portions. 'Extensive pruning' helps in easier 'replanting balance' and handling, thereby reducing the shock effect. This also aids the plant roots in recovering and adhering to the new soil and reduces transpiration and/or loss of moisture.
6. The trees are now ready for lifting or uprooting. A deep trench of at least up to 5 feet in depth is to be dug around the base of the tree at least 2 to 3 feet away from the trunk in the case of trees with a girth of up to 60cm. The depth of the trench and its distance from the trunk would therefore vary with the size of the tree. The trench should be dug to gradually converge towards the base of the tree so that 'tree roots' ball of earth can ultimately be detached from the ground.
7. The trees are then to be lifted with the help of a crane of suitable size. Before lifting, a piece of gunny should be wound round the trunk, with a few wooden batons secured around the gunny pack on the outside by a steel wire rope. This will facilitate lifting without injuring the bark. Immediately the 'trees roots' ball should be sprayed with potassium phosphate solution and then wrapped and tied with a piece of very wet gunny.
8. Before replanting, the soil at the base of the pit should be watered heavily after which the uprooted tree along with the 'tree roots' ball should be lowered carefully into the new pit with the help of the crane.
9. The empty space in this pit is to be filled with the previous prepared mixture of soil, bone meal and manure and thoroughly rammed in tightly, so that no air gaps are left inside the soil. Air gaps could result in fungal infection to the roots. Sand can also be added which will fill up the air gaps when watered.
10. The trunk can now be sprayed with Blytox, a copper sulphate compound whose action is anti-fungicidal in nature.

11. The transplanted tree should be watered heavily at the base.
12. Guy ropes, angle iron or bamboos should be used for a few days to secure the tree till the soil hardens around the transplanted tree to hold it erect.
13. Four to five days after transplantation the trunk can be sprayed with potassium nitrate solution for facilitating the initiation of new shoots.
14. If rains are inadequate watering should continue for three months.

The heavily pruned transplanted tree is not a pretty sight, but this should not deter the optimist, as the chances of survival are maximum without the branches and foliage.

ANNEXURE 8. 9: Guidelines for Selection of Tree Species

1. TREES TO BE AVOIDED:

S No.	Trees Name	Characteristics
1	Eucalyptus (all species), Millenglonia Hortensis, Eugenia jambolana, Albizzia lebbek, Cassia siamca and Ficus (all species).	All these tree species have very weak wood and consequently break easily in windstorm. After a heavy storm, roads become blocked and traffic is stopped for a considerable length of time. During a storm, these trees are threats to vehicles plying and pedestrians on the road. Besides the <i>eucalyptus</i> have a few other negative environmental impacts.
2	Acacia arabica, Acacia Modesta and Zizyphus Jujuba, etc	They are thorny trees to be avoided close to urban stretches. Their thorns are nuisances for the pneumatic tyres of small vehicles.
3	Ficus bengalensis	The <i>Ficus</i> species are of tap root system but flowing type (average depth of root system is 1.5m). Therefore, these, when mature, may overturn in strong-wind, storm, etc. Even the existing trees may be recommended for removal from safety points of view

2. TREES TO BE SELECTED:

S No.	Trees Name	Characteristics
1	Azardiracta indica (Neem)	The leaves, barks are used for medicinal purposes, and the seeds yield valuable oil. It can grow on alkaline usar soil
2	Maduca indica (Mahua)	The fruit is edible and seeds yields oil. It is also ornamental
3	Tamarindus indica (Imli)	A beautiful tree, which stands the dust of roads very well. Its fruit and timber are also valuable; suitable for dry area
4	Dalbergia sisoo (Shisham)	Yields excellent timber
5	Mangifera indica (Mango)	Yield valuable fruit
6	Safed siris	A quick growing beautiful tree. Because of the light yellow colour of the trunk, it reflects even weak light. This is an excellent roadside tree.

3. DUST RESISTANCE:

S No.	Species
1	Ficus bengalensis
2	Ficus religiosa
3	Magnifera indica
4	Anthocephalus
5	Lagerstroemia
6	Polyalthia longifolia
7	Tectona grandis
8	Terminalia arjuna
9	Bauhinea variegata

4. POLLUTION RESISTANCE:

S No.	Species
1	Albizzia lebbek
2	Cassia Fistula
3	Ficus glomerata
4	Anthocephalus indicus
5	Polyalthis longifolia
6	Eucalyptus sp.

ANNEXURE 8. 10: Guideline for Environment Friendly Construction Methodology

The contractor shall be deemed to have acquainted himself with the requirements of all the current statutes, ordinances, by-laws, rules and regulations or their instruments having the force of law including without limitation those relating to protection of the environment, health and safety, importation of labour, demolition of houses, protection of environment and procurement, transportation, storage and use of explosives, etc.

1. PROTECTION OF ENVIRONMENT

- i) The contractor will take all necessary measures and precautions and ensure that the execution of the works and all associated operations on site or offsite are carried out in conformity with statutory and regulatory environmental requirements including those prescribed in EMP.
- ii) The contractor will take all measures and precautions to avoid any nuisance or disturbance to inhabitants arising from the execution of works.
- iii) All liquid waste products arising on the sites will be collected and disposed of at a location on or off the sites and in a manner that will not cause either nuisance or pollution.
- iv) The contractor will at all times ensure that all existing water courses and drains within and adjacent to the site are kept safe and free from any contamination.
- v) The contractor will submit details of his temporary drainage work system (including all surface channels, sediment traps, washing basins and discharge pits) to the Project Implementation Unit –TNRSP / Environment Officer for approval prior to commencing work on its construction.
- vi) The contractor will arrange all the equipment in good condition to minimize dust, gaseous or other air-borne emissions and carry out the works in such a manner as to minimize adverse impact on air.
- vii) Any vehicle with an open load-carrying area used for transporting potentially dust-producing material will have properly fitted side and tailboards. Materials having the potential to produce dust will not be loaded to a level higher than the side and tail boards and will be covered with a clean tarpaulin in good condition.
- viii) The contractor will take all necessary measures to ensure that the operation of all mechanical equipment and condition processes on and off the site will not cause any unnecessary or excessive noise, taking into account applicable environmental requirements.
- ix) The contractor will take necessary measures to maintain all plant and equipment in good condition.
- x) Where the execution of the works requires temporary closure of road to traffic, the contractor will provide and maintain temporary traffic diversions subject to the approval of the EO/Engineer.
- xi) Where the execution of the works requires single-lane operation on public road the contractor will provide and maintain all necessary barriers, warning signs and traffic control signals to the satisfaction of the EO/Engineer.
- xii) Wherever traffic diversions, warning signs, traffic control signals, barriers and the like are required, the contractor will install them to the satisfaction of EO/Engineer prior to commencing the work, in that area.
- xiii) Contractor will install asphalt plants and other machineries away from the populated areas as per laid down regulations.

- xiv) Permit for felling of trees will be obtained from the forest department before the execution of any work.
- xv) Trees and plants going to be uprooted will be duly compensated and maintained up to 3 years.
- xvi) Mist sprays should be provided at appropriate places for preventing dust pollution during handling and stockpiling of stones and loose earth.
- xvii) Over Burden (OB) waste dumps shall be sprayed with water, as they are the major source of air borne particulate matter.
- xviii) OB waste dumps shall be reclaimed / afforested to bind the loose soil and to prevent soil erosion. The frequency of sprinkling should be fixed as per the seasonal requirement and in consultation with engineer.
- xix) Regular water spraying on haulage roads during transportation of construction material by water sprinklers. The frequency of sprinkling should be fixed as per the seasonal requirements in consultation with engineer.
- xx) Transfer point for transporting construction material shall be provided with appropriate hoods/ chutes to prevent dust emissions.
- xxi) Dumping of construction material should be from an optimum height (preferably not too high), so as to reduce the dust blow.
- xxii) Innovative approaches of using improvised machinery designs, with in-built mechanism to reduce sound emission.
- xxiii) Procurement of drill loaders, dumpers and other equipment with noise proof system in operator's cabin.
- xxiv) Confining the equipment with heavy noise emissions in soundproof cabins, so that noise is not transmitted to other areas.
- xxv) Regular and proper maintenance of noise generating machinery including the transport vehicles to maintain noise levels.
- xxvi) Provisions should be made for noise absorbing pads at foundations of vibrating equipments to reduce noise emissions.

2. QUARRY OPERATIONS

3. The Contractor shall obtain materials from quarries only after the consent of the Forest Department or other concerned authorities and in consultation with the EO/Engineer. The quarry operations shall be undertaken within the purview of the rules and regulations in force and instructions as mentioned in ANNEXURE 8.3: Guidelines for Quarry Management and ANNEXURE 8.3: Guidelines for Borrow Area Management.

4. PREVENTION OF WATER COURSES FROM SOIL EROSION AND SEDIMENTATION SILTATION

5. The Contractor shall apply following mitigation measures to prevent sedimentation and pollution of watercourses.
 - To prevent increased siltation, if need be existing bridges maybe widened downstream side of the water body;
 - Cement and coal ash should be stacked together, fenced by bricks or earth wall, and kept away from water, to prevent leachate formation and contamination of surface and ground water;
 - During construction silt fencing could be used along the road at all surface water bodies which are directly impacted to prevent sediments from the construction site to enter into the watercourses.

6. POLLUTION FROM HOT-MIX PLANTS AND BATCHING PLANTS

7. Bituminous hot-mix plants and concrete batching plants shall be located sufficiently away from habitation, agricultural operations. The Contractor shall take every precaution to reduce the levels of noise, vibration, dust and emissions from his plants and shall be fully responsible for any claims for damages caused to the owners of property, fields and residents in the vicinity.
8. ARRANGEMENT FOR TRAFFIC DURING CONSTRUCTION
9. The Contractor shall at all times carry out work on the road in a manner creating least interference to the flow of traffic with the satisfactory execution. For all works involving improvements to the existing state highway, the Contractor shall, in accordance with the directives of the SE, provide and maintain, during execution of the work, a passage for traffic either along a part of the existing carriageway under improvement, or along a temporary diversion constructed close to the state highway. The Contractor shall take prior approval of the SE regarding traffic arrangements during construction.

10. TRAFFIC SAFETY AND CONTROL

- i) Where subject to the approval of the Engineer the execution of the works requires temporary closure of road to traffic use, the Contractor shall provide and maintain temporary traffic diversions
- ii) Where the execution of the works requires single-lane operation on public road, the Contractor shall provide and maintain all necessary barriers, warning signs and traffic control signals to the approval of the Engineer.
- iii) With the exception of temporary traffic arrangements or diversions required within the first 4 weeks of the Contract, the Contractor shall submit details of his proposals to the Engineer for approval not less than 4 weeks prior to the temporary arrangement or diversion being required. Details of temporary arrangements or diversions for approval as soon as possible after the date of the Letter of Acceptance.
- iv) The color, configuration, size and location of all traffic signs shall be in accordance with the code of practice for road sign. In the absence of any detail or for any missing details, the signs shall be provided as directed by the Supervising Engineer (SE).
- v) The Contractor shall take all necessary measures for the safety of traffic during construction and provide, erect and maintain such barricades, including signs, marking, flags, lights and flagmen as may be required by the Engineer for the information and protection of traffic approaching or passing through the section of the road under improvement. Before taking up any construction, an agreed phased programme for the diversion of traffic or closer of traffic on the road shall be drawn up in consultation with the SE.
- vi) At the points where traffic is to deviate from its normal path (whether on temporary diversion or part width of the carriageway) the lane width path for traffic shall be clearly marked with the aid of pavement markings, painted drums or a similar device to the directions of the SE. At night, the passage shall be delineated with lanterns or other suitable light source.
- vii) One-way traffic operation shall be established whenever the traffic is to be passed over part of the carriageway inadequate for two-lane traffic. This shall be done with the help of temporary traffic signals or flagmen kept positioned on opposite sides during all hours. For regulation of traffic, the flagmen shall be equipped with red and green flags and lanterns / lights.
- viii) On both sides, suitable regulatory / warnings signs as approved by the PIU-TNRSP shall be installed for the guidance of road users. On each approach, at least two signs shall be

put up, one close to the point where transition of carriageway begins and the other 120 m away. The signs shall be of design and of reflectory type, if so directed by the Engineer.

- ix) Upon completion of the works for which the temporary traffic arrangements or diversions have been made, the Contractor shall remove all temporary installations and signs and reinstate all affected roads and other structures or installations to the conditions that existed before the work started, as directed by the Engineer.

11. HEALTH AND SAFETY

The contractor shall take all measures and precautions necessary to ensure the health, safety and welfare of all persons entitled to be on the site. Such precautions shall include those that, in the opinion of the Engineer, are reasonable to prevent unauthorized entry upon the site and to protect members of the public from any activities under the control of the contractor. The contractor's responsibilities shall include but not be limited to:

- i) The provision and maintenance of the Contractor's Equipment in a safe working condition and the adoption of methods of work that are safe and without risks to the health of any person entitled to be on the site.
- ii) The execution of suitable arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage, transport and disposal of articles and substances,
- iii) The provision of lighting, including standby facilities in the event of failure that, in the opinion of the Engineer, is adequate to ensure the safe execution of any works that are to be carried out at night.
- iv) The provision of protective clothing and safety equipment, with such personnel and equipment and such information, instruction, training and supervision as are necessary to ensure the health and safety at work of all persons employed on or entering on the site in connection with the works, including the Engineer's supervisory staff, all in accordance with the laws.
- v) Near towns, villages and all frequented places, trenches and foundation pits shall be securely fenced provided with proper caution signs and marked with lights at night to avoid accidents. Contractor shall take adequate protective measures to see that the excavation operations do not affect or damage adjoining structures.
- vi) The contractor shall not use or generate any materials in the works, which are hazardous to the health of persons, animals or vegetation. Where it is necessary to use some substances, which can cause injury to the health of workers, the Contractor shall provide protective clothing or appliances to his workers.
- vii) The contractor will take all measures necessary to safeguard the health; safety and welfare of all persons entitled to be on site and will ensure that works are carried out in a safe and efficient manner.
- viii) The contractor will provide, and ensure the utilization of appropriate safety equipment for all workmen and staff employed directly or indirectly by the contractor. Such safety equipment will include but not be limited to the safety helmets, goggles and other eye protectors, hearing protectors, safety harnesses, and safety equipment for working over water, rescue equipment, fire extinguishers and first-aid equipment. The personnel working at vulnerable locations at site will wear safety helmets and strong footwear.
- ix) The contractor will provide an adequate number of latrines and other sanitary arrangements at areas of the site where work is in progress and ensure that they are regularly cleaned and maintained in a hygienic condition.

12. FIRST AID

- i. The provision and maintenance of suitably equipped and staffed first aid stations throughout the extent of the works to the satisfaction of the Engineer. The contractor shall allow in his prices and be responsible for the costs of all such site welfare arrangements and requirements.
- ii. Injuries might occur during the construction period. It is therefore pertinent to provide first aid facilities for all the construction workers. At construction camps and at all workplaces first aid equipment and nursing staff must be provided. Since many of the workplaces may be far away from regular hospitals, an indoor health unit having one bed facility every 150 workers needs to be provided.
- iii. Adequate transport facilities for moving the injured persons to the nearest hospital must also be provided in ready to move condition.
- iv. The first-aid units apart from an adequate supply of sterilized dressing material should contain other necessary appliances as per the factory rules.

13. MAINTENANCE

- i. All buildings, rooms and equipment and the grounds surrounding them shall be maintained in a clean and operable condition and be protected from rubbish accumulation.
- ii. Each structure made available for occupancy shall be of sound construction, shall assure adequate protection against weather, and shall include essential facilities to permit maintenance in a clean and operable condition. Comfort and safety of occupants shall be provided for by adequate heating, lighting, ventilation or insulation when necessary to reduce excessive heat.
- iii. Each structure made available for occupancy shall comply with the requirements of the Uniform Building Code. This shall not apply to tent camps.

14. MAINTENANCE OF DIVERSIONS AND TRAFFIC CONTROL DEVICES

15. Signs, lights, barriers and other traffic control devices, as well as the riding surface of diversion shall be maintained in a satisfactory condition till such time they are required as directed by the EO/Engineer. The temporary traveled way shall be kept free of dust by frequent applications of water, if necessary.

ANNEXURE 8. 11: Guideline for Siting & Layout of Construction Camp

(A) SITING

The contractor based on the following guidelines shall identify the location of the construction site. The construction site shall be located:

- The construction camps will be located at least 1000m away from major settlements in downwind direction. The living accommodation and ancillary facilities for labour shall be erected and maintained to standards and scales approved by the resident engineer.
- A minimum 500m away from surface water course or body.
- A minimum 1000m away from Wild life Sanctuary/Ecologically sensitive areas.
- Should not be located in cultivable land unless unavoidable.
- All sites used for camps must be adequately drained.
- The camps must be located such that the drainage from and through the camps will not endanger any domestic or public water supply.
- All sites must be graded, ditched and rendered free from depressions such that water may get stagnant and become a nuisance.

(B) LAYOUT

A conceptual layout of a typical construction site has been presented in Figure below. The Contractor during the progress of work will provide, erect and maintain necessary (temporary) living accommodation and ancillary facilities for labour to standards and scales approved by the engineer. All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. Safe drinking water should be provided to the dwellers of the construction camps. Adequate washing and bathing places shall be provided, and kept in clean and drained condition. Construction camps are to be sited away from vulnerable people and adequate health care is to be provided for the work force.

Sanitation Facilities: Construction camps shall be provided sanitary latrines and urinals. Sewerage drains should be provided for the flow of used water outside the camp. Drains and ditches should be treated with bleaching powder on a regular basis. The sewage system for the camp must be properly designed, built and operated so that no health hazard occurs and no pollution to the air, ground or adjacent watercourses takes place. Compliance with the relevant legislation must be strictly adhered to. Garbage bins must be provided in the camp and regularly emptied and the garbage disposed off in a hygienic manner

Shelter at Workplace: At every workplace, there shall be provided free of cost, four suitable shelters, two for meals and two others for rest, separately for use of men and women labourers. The height of shelter shall not be less than 3m from floor level to lowest part of the roof. Sheds shall be kept clean and the space provided shall be on the basis of at least 0.5m² per head.

Canteen Facilities: A cooked food canteen on a moderate scale shall be provided for the benefit of workers wherever it is considered necessary. The contractor shall conform generally to sanitary requirements of local medical, health and municipal authorities and at all times adopt such precautions as may be necessary to prevent soil pollution of the site.

First aid facilities: At every workplace, a readily available first-aid unit including an adequate supply of sterilized dressing materials and appliances will be provided. Workplaces remote and far away from regular hospitals will have indoor health units with two bed facility. Suitable transport will be provided to facilitate taking injured and ill persons to the nearest hospital. At construction camp an ambulance room containing the prescribed equipment and nursing staff will be provided.

Health Care Facilities: Health problems of the workers should be taken care of by providing basic health care facilities through health centres temporarily set up for the construction camp. The health centre should have at least a doctor, nurses, duty staff, medicines and minimum medical facilities to tackle first-aid requirements or minor accidental cases, linkage with nearest higher order hospital to refer patients of major illnesses or critical cases.

The health centre should have MCW (Mother and Child Welfare) units for treating mothers and children in the camp. Apart from this, the health centre should provide with regular vaccinations required for children.

Day Crèche Facilities: At every construction site, provision of a day crèche shall be worked out so as to enable women to leave behind their children. At construction sites where 20 or more women are ordinarily employed, there shall be provided at least a hut for use of children under the age of 6 years belonging to such women. Huts shall not be constructed to a standard lower than that of thatched roof, mud walls and floor with wooden planks spread over mud floor and covered with matting. Huts shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean. There shall be two maidservants (or aayas) in the satisfaction of local medical, health, municipal or cantonment authorities. Where the number of women workers is more than 25 but less than 50, the contractor shall provide with at least one hut and one maidservant to look after the children of women workers. Size of crèches shall vary according to the number of women workers employed.

ANNEXURE 8. 12: Guidelines to Ensure Workers Safety During Construction

SAFE LAYOUT IN THE CONSTRUCTION PLANT, CAMP AND QUARRY AREAS

1. Arrange border to perimeter fencing
2. Ensure good visibility and safe access at site entrances
3. Provide adequate warning signs at the entrance and exit where necessary
4. Provide adequate space/area for loading and unloading, storage of materials, plant and machinery
5. Display emergency procedure and statutory notices at conspicuous location
6. Consider welfare facilities required
7. Provide areas for dumping garbage and other waste materials, and also arrange for their regular clearance.
8. Arrange storage, transport and use of fuel, other flammable materials and explosives in line with the license requirements to be obtained from appropriate authorities
9. Plan emergency assembly points, fire escape routes and locate fire-fighting equipment
10. Provide access roads and plant movement areas within the site.
11. Ensure the availability of first aid facilities and display notices at the various works to show the location of these facilities
12. Provide proper drainage and sewage & drainage facilities

HOUSE KEEPING PRACTICES

1. Maintain washrooms and canteens clean
2. Keep all walkways clear and unobstructed at all times
3. Ensure that spillages of oil and greasy
4. Stack raw materials and finished products clear of walkways or inside roads
5. Do not leave tools on the floor or in any location where they can be easily dislodged
6. Keep windows and light fitting clean
7. Maintain the workplace floors dry and in a non-slippery condition
8. Provide and maintain proper drainage system to prevent water ponding
9. Use metal bins for oily and greasy rags and store all flammable materials in appropriate bins, racks or cabinets. Ensure that the metal bins for storing oily and grease rags should be covered with lids.
10. Ensure that protruding nails in boards or walls are moved or bent over so that they do not constitute a hazard to people
11. Make sure that hazardous/dangerous chemicals are kept in the goods stores with the appropriate labelling, display of the material-safety-data-sheet (MSDS) and other precautionary measures
12. Display 'no smoking' signs in areas with high fire risks, e.g. paint stores, wood working area and others

TREE FELLING

- Use hard hats during tree felling
- Ensure tools such as the axes are in good condition
- Determine proper foot and body position when using the axe. Do not cut above your head
- Wear appropriate foot protection
- Carry a first aid kit to the site

- Determine possible hazards in the area, e.g. electrical or telephone or other utility lines
- Prior to felling, determine the safest direction for the fall
- Determine the proper hinge size before directing the tree fall.

NOISE HAZARDS AND ITS CONTROL

1. Note that indications of noise levels are:
 - You have to shout to be heard;
 - Your hearing is dulled just after work;
 - You get head noises or ringing in the ears after work;
 - You have difficulty hearing people while others are talking
2. Use sound level meters to measure. If the sound level exceeds 85 dB(A), then preventive measures should be taken
3. Make personnel aware of noisy areas by using suitable warning signs and insisting that ear protectors should necessarily be worn.
4. Reduce noise at source by improved maintenance, replacing noisy machines, screening with noise absorbing material, making changes to the process/equipment, controlling machine speeds, ensuring that two noise-generating machines are not running at the same time, using cutting oils and hydraulic breakers.
5. Appoint a competent person to carry out a detailed noise assessment of the site, designate ear protection zone, and give instructions on the necessary precautionary measures to be observed by site personnel, including the use of suitable type of ear protections.
6. Wear and maintain ear muffs and ear plugs as required
7. In construction or repair work, noise should be kept to a low-level bearing in mind the disturbance to local residents.

ROAD WORKS

1. The use of signage is most important to caution the road users of possible unsafe conditions due to the road works.
2. Use the appropriate signage devices as required by the site conditions/situation. The devices include regulatory signs, delineators, barricades, cones, pavement markings, lanterns and traffic control lights.
3. In using signs, make sure that they are (i) simple, easy-to-understand and convey only one message, (ii) luminescent and with reflective properties, and) iii) broad, prominent and of appropriate size.
4. In using barricades, make sure that you keep traffic away from work areas and you guide the drivers to keep along a safe, alternative path.
5. Ensure that proper personal protective equipment (PPE) is provided to all the workers.
6. Cover existing road signs and install new ones at appropriate locations taking into account the distances that would be required and reaction times.
7. Plan layout and traffic management so that hazard is not created.
8. Deploy flagmen, who control traffic at the work areas.
9. Flagmen should wear reflective safety vests along with hard hats
10. If required, use wireless devices for flagmen to co-ordinate from either ends of the road, where works are being carried out.

ELECTRICAL HAZARDS IN CONSTRUCTION AREAS

1. Treat all wires as live wires
2. Never touch dangling wires, but report them to your manager
3. Unless you are a qualified electrician, do not attempt electrical repairs
4. Never use electrical equipment if your hands are wet or you are standing in water
5. If electrical equipment is sparking or smoking, turn the power off and report the condition to your supervisor
6. Never use electrical wires that have physical damage
7. Never allow equipment or traffic to run over electrical wires.

USE AND STORAGE OF GAS/LPG

1. Store filled gas/LPG cylinder in the open area, i.e. outside of the building
2. Transport, store, use and secure cylinders in upright position
3. Ensure proper ventilation at the ground level in locations where gas/LPG is in use
4. Avoid physical damage to the cylinders
5. Never weld or cut on or near the cylinders
6. Store empty cylinders secured and upright
7. Make sure that the cylinder is closed immediately after use
8. Investigate immediately if there is the smell of LPG or gas
9. Never use distanced gas/LPG on site.
10. Make sure that there is no other unrelated fire in the vicinity of the cylinder

OPERATION OF EXCAVATORS

1. Ensure that excavators are operated by authorized persons who have been adequately trained.
2. Prevent unauthorized movement or use of the excavators
3. Check regularly and maintain the machine thoroughly
4. Ensure that all relevant information, including those related to instruction, training, supervision and safe system of work are provided to the operators.
5. Ensure that the operation and maintenance manuals, manufacturer's specifications, inspection and maintenance log books are provided for the use of the mechanics, service engineers or other safety personnel during periodic maintenance, inspection and examination.
6. During tipping or running alongside the trenches, excavators must be provided with stop blocks.
7. Excavators must be rested on firm ground during operation
8. Avoid operating the machine too close to an overhang, deep ditch or hole and be altering to potential carving edges, falling rocks and slides, rough terrain and obstacles.
9. Locate and identify underground services by checking with all utility companies before excavations.
10. Ensure that all excavations are supervised by experienced and competent persons.
11. When reversing or in case the operator's view is restricted, adequate supervision and signalling should be provided.
12. Ensure that the type and capacity of the excavator are properly chosen for the intended purposes and site conditions. Never use a machine for any purposes other than it is designed for.

13. Check and report for excessive wear and any breakage of the bucket, blade, edge, tooth and other working tools of the excavator.
14. Check that all linkages/hinges are properly lubricated and ensure that the linkage pins are secured. Never use improper linkage pins.
15. Never dismount or mount a moving machine
16. Work only with adequate ventilation and lighting
17. Ensure that the protective front screen of the driving cabin is fixed in position during excavations to avoid eye injury to the operator.
18. Ensure switch-off of the unattended vehicle.

OPERATION OF TRUCKS AND DUMPERS

1. Ensure that only trained, authorized and licensed drivers operate the vehicles
2. Enlist the help of another worker before reversing the vehicle
3. Switch-off the engine of an unattended vehicle
4. Lower the tipping bodies when the machine is unattended, but if it is necessary to leave them in the raised position they should be blocked to prevent their fall.
5. Wear safety boots or shoes to avoid injuries during loading and unloading.
6. Carryout periodic servicing to the manufacturer's requirements. All records of maintenance and repairs should be in writing or kept on site.
7. Keep the vehicle tidy and the cabin free from tools and material, which might obstruct the controls.
8. Keep to speed limits.
9. No passenger should be carried on a dumper except the driver
10. Never drive the vehicle across a slope
11. Provide stop blocks when the vehicle is tipping into or running alongside excavations
12. Do not overload the vehicle.
13. Carry only well secured loads
14. Park only on level ground, in neutral with the parking brake applied
15. Never mount or dismount from a moving vehicle

GAS WELDING

1. Use the following personal protective equipment during welding
 - Face or hand shield fitted with filters
 - Goggles, particularly when chipping slag
 - Gloves long enough to protect wrists and forearms against heats, sparks, molten metal and radiation
 - High-top boots to prevent sparks from entering footwear.
2. Screen of the work area with sturdy opaque or translucent materials because glare can cause eye injury.
3. Key for opening the acetylene cylinder valve must be on the valve stem while the cylinder is in use so that the cylinder valve may be immediately shut-off in an emergency.
4. Ventilate the workplace using air blowers and exhaust fans to remove poisonous fumes and gases that are given off during welding
5. Take precautions against flying sparks and hot slag where welding is being done near flammable materials and check the area before leaving.
6. Do not weld material degreased with solvents until completely dry.
7. Do not use gas cylinders for supporting work or as rollers

8. Do not use oil grease on oxygen cylinder fittings
9. Do not use cylinders with damaged valves.
10. Do not use too much force if valves are stuck.
11. Replace valve caps after use
12. Search for leaks in equipment by using a solution of soapy water.
13. Shut the cylinder valve if acetylene from a cylinder catches fire at the valve or regulator due to leakage at a connection.
14. Treat all gas cylinders as “full” unless you are sure otherwise.
15. Never attempt to transfer acetylene from one cylinder to another or attempt to refill an acetylene cylinder.
16. Place portable fire extinguishers near the welding area
17. Secure all cylinders against accidental displacement.
18. Always lift gas cylinders. Do not slide them along the ground or drop them from trucks.
19. Keep gas cylinders in vertical position both in storage and when in use
20. Keep the work place dry, secure, free from combustible materials and obstruction.
21. Store the acetylene and oxygen cylinders separately, and in a proper store.
22. Keep the gas cylinders from source of heat, flammable materials, corrosive chemicals and fumes.

MANUAL HANDLING AND LIFTING

1. Use mechanical equipment in place of manual handling as far as possible.
2. Assess the manpower required to handle or lift the load safely and arrange the manpower accordingly.
3. In handling hazardous materials, the workers shall be informed of the hazards and safety precautions.
4. All relevant persons shall be trained in the proper methods of lifting and carrying.
5. Where team work is required, select the persons whose ages and physical builds are compatible for teaming up. Coordinate the actions of the team members by giving necessary instructions.
6. Always lighten or suitably shape the load for manual handling as far as possible. Keep a look out for splinters, sharp edges, loose banding and nails.
7. Clear path or obstruction and tripping hazards.
8. Stack and secure goods safely on trucks, otherwise they fall off and injure passers-by.
9. Use personal protective equipment such as gloves, safety shoes, etc.
10. Adopt the following procedure when you lift a load:
 11. Stand close to the object. Have a firm footing with feet spread on either side of the road.
 12. Bend the knees and keep your back as straight as you can
 13. Grasp object firmly. Be sure grip will not slip
 14. Breathe in and throw the shoulder backwards.
 15. Straighten the legs, continuing to keep the back as straight as you can.
 16. Hold object firmly close to the body
 17. Always lift smoothly. Avoid jerky motions. Turn with feet instead of twisting the back.

HANDLING CHEMICALS AND HAZARDOUS SUBSTANCES

1. Always substitute hazardous chemicals with harmless or less hazardous ones wherever possible.

2. Enclose the process using chemicals or provide other engineering controls such as local exhaust ventilation, a fume cupboard or a safety cabinet.
3. Exercise great care in the storage and use of chemicals because they may be explosive, poisonous, corrosive or combustible.
4. Separate different chemicals physically
5. Store chemicals classified as dangerous goods in a properly constructed and approved goods store. Keep proper records of all chemicals and hazardous substances delivered, stored and used on site.
6. Consider unknown substances and liquids as dangerous until proven otherwise.
7. All containers should be clearly labelled to indicate contents. Never use a wrongly labelled container for chemicals.
8. Prohibit smoking in the vicinity of dangerous chemicals
9. Ensure that you are wearing the correct personal protective equipment before you handle chemicals
10. Maintain the Material Safety Data Sheet of all chemicals for reference on safety precautions to be taken and the use of suitable PPE.
11. When opening containers, hold a rag over the cap or lid, as some volatile liquids tend to spurt up when released.
12. Wash before you eat and do not eat at the work place.
13. If the skin is splashed with a chemical, rinse it immediately with plenty of clean water. Eye should be flushed thoroughly with water followed by immediate medical attention.
14. Eye fountain, emergency shower and breathing apparatus should be available in the vicinity of the workplace.
15. Safety instructions for handling emergency situations should be displayed prominently at both the storage and use locations.

FIRST AID

1. Provide first aid boxes at every site
2. Ensure that training on the use of the first aid box is provided to a handful of staff working in the site.
3. Display the list of persons who are trained on providing first aid.
4. Ensure that every first aid box is marked plainly “First Aid” in English and local language.
5. The responsible person or first aider should replenish the contents of the first aid box as necessary.

PERSONAL PROTECTIVE EQUIPMENT

General

1. Consider the provision of personal protective equipment only after all measures for removing or controlling safety hazards have been provided reasonably impractical.
2. Ensure that sufficient personal protective equipment is provided and that they are readily available for every person who may need to use them.
3. The management should ensure that all persons make full and proper use of the personal protective equipment provided.
4. Provide instruction and training in the proper use and care of any specific protective equipment where necessary
5. Do not wilfully misuse, interfere with or ill-treat any protective clothing and equipment provided.

6. Ensure that the personal protective equipment is in good condition. Report immediately any damage to the management for replacement. Always keep the personal protective equipment as clean as possible.

Eye protection

1. Issue eye protection equipment where there is a foreseeable risk of eye injury
2. Ensure an adequate supply of goggles/shields is available.
3. Keep the goggles clean and make sure they are good fit.
4. Do not watch welding operations unless your eyes are protected from the damaging effect of flash.

Head Protection

1. No person shall enter a construction site unless he is wearing a suitable safety helmet
2. Wear a safety helmet:
 - When there is the risk of being hit by falling objects
 - While on or near a construction site
 - During adverse weather conditions
 - When in any area designated as a “hard hat” area.
3. Provide identification labels to all helmets in some way to prevent random exchange among wearers, with one helmet exclusive to each person.
4. Inspect helmets for cracks or sign of impact or rough treatment before each usage. Destroy, remove and replace all worn, defective or damaged helmets.

Hearing Protection

1. Provide ear plugs or ear muffs as required. Use re-usable ear plugs when the reduction required (15-25 dBA) is not excessive. Use ear muffs where a large attenuation of up to 40 dBA is demanded.
2. Do not use dry cotton wool for hearing protection because it cannot provide any.
3. Provide disposable ear plugs for infrequent visitors and ensure that they are never re-used.
4. Provide re-usable ear plugs for those who need to work continuously for a long period in a high noise area.
5. Use ear muffs with replaceable ear cushions because they deteriorate with age or may be damaged in use.
6. Avoid wearing spectacles with ear muffs.
7. Use soap and water or the recommended solvent for cleaning ear muffs.
8. Provide ear muffs for those who may need to get in and out of a high noise area frequently.

RESPIRATORY PROTECTIVE EQUIPMENT

1. Wear suitable respirable for protection when there is a potential for small particles entering the lungs, e.g. emptying of cement bags.
2. Ensure that the explanatory can provide adequate protection.
3. Provide training to all persons using the respirators for their correct fitting, use, limitations and symptoms of exposure.
4. Clean and inspect all respirators before and after use.
5. Store respirators properly when not in use.

Safety Footwear

1. Wear suitable footwear for work

2. Use safety footwear on site or in other dangerous areas
3. Wear suitable safety shoes or ankle boots when working anywhere where there is high risk of foot injuries from slippery or uneven ground, sharp objects, falling objects, etc.
4. All safety footwear, including safety shoes, ankle boots and rubber boots, should be fitted with steel toecaps.
5. Avoid wearing flip flops, high heeled shoes, slippers, light sport shoes in situations where there is a risk of foot injury.
6. Keep shoe lace knots tight.

Hand Protection

1. Wear suitable gloves for selected activities such as welding & cutting and manual handling of materials & equipment.
2. Do not wear gloves where there is a risk of them becoming entangled in moving parts of machinery
3. Wash hands properly with disinfectant soap and clean water before drinking, eating or smoking. Wash hands immediately after each operation on site when the situation warrants.

FIRE PREVENTION, FIGHTING AND EQUIPMENT

Before fire breaks out

1. Store flammable material in proper areas having adequate fire protection systems.
2. Display sufficient warning signs.
3. Train selected personnel to use these fire extinguishers
4. Inspect fire extinguishers regularly and replace as necessary
5. Fire escape route should be kept clear at all times and clearly indicated.
6. Know the escape route and assembly point.
7. Display escape route maps prominently on each floor
8. Carryout fire drill regularly. Designate fire officers
9. Install fire alarm wherever required and test regularly.
10. Provide sufficient exit signs at prominent locations for directing people to the escape staircases and routes.

When fire breaks out.

1. Alert all persons
2. Put off the fire with appropriate fire extinguishers only when you are sure that you are safe to do so.
3. Escape if you are in danger through the fire escape route to assembly point
4. Fire officers to carryout head count at the assembly point.

Incident and accident investigations

1. Carryout the investigation as quickly as possible.
2. Conduct interviews with as many witnesses as necessary
3. Do not rely on any one sole source of evidence
4. Use the following tools:
Checklists for obtaining basic and typical information for accidents
 - Notebook
 - Tape records
 - Camera
 - Measuring tape

- Special equipment for the particular investigation
5. Obtain answers to the following questions:
 - When did the accident occur?
 - Where did it occur?
 - Who was injured and what was damaged?
 - What caused the accident?
 - Why did it occur?
 - How could it have been prevented?
 - How can a recurrence be prevented?
 6. Prepare a short but sufficient investigation report that contains the following:
 - A summary of what had happened
 - A summary of events prior to the accident
 - Information gathered during the investigation
 - Details of witnesses
 - Information on injury or loss sustained
 - Conclusions and possible causes of the accident
 - Recommendations to prevent recurrence
 - Supporting materials (photos, diagrams, etc.)

WORKERS SAFETY DURING CONSTRUCTION

Sl No.	Stage and Nature of Construction Hazard	Safety measures expected to be taken by the Contractors and Site Engineers
1	Excavation in soft loose & slushy soil above 2.00 m depth sliding of earth or collapsing of sides.	The Excavation beyond 1.5 m to 2.00 m to be done in steps of minimum 500 mm offsets as shown in Clause 2.18.2(b) and also planking and strutting should be done as in Clause 2.19.1.
2	Excavation in slippery area (water logged) – The labour may fall or machinery on site may slip.	Try to dewater the area and spread minimum 150 mm thick sand layer to avoid slipping
3	Excavation in Rock where chiselling is involved – The fall of hammer may injure the hand, small rock pieces may injure the eyes and legs.	For hammer work, only experienced and skilled labour should be employed. Chisel should not be allowed to be held by hand, while hammering but chisel holding clamp should be provided. The labour should be provided with goggles and leg cover to protect eyes and legs, from injuries due to small rock pieces.
4	Excavation in Rock where blasting is involved - Careless handling may lead to injury to main worker or a passerby.	The work of blasting should be entrusted to only experienced persons. Provide sufficient length of fuse to give ample margin of time from the time of lighting to the time of explosion. A danger zone at least 180m diameter is to be flagged off 10 minutes before actual firing. All workmen should be sent away from danger zone except the firing man, who should be provided with a whistle.
5	Excavation for drain across road or manhole adjacent to a road – chances of a passer by falling into the excavated portion	The area should be well barricaded & a red lamp provided at night. A watchman should be deputed to prevent any movement of persons, or vehicles.
6	During Excavation or sometimes even	In places where the movements of snakes are more the

Sl No.	Stage and Nature of Construction Hazard	Safety measures expected to be taken by the Contractors and Site Engineers
	while concreting – Snake bites or Scorpion stings –	contractor should provide the labour with gum boots, gloves etc. and also make snake antidotes available on site. A particular care that has to be taken on such site is to always keep a vehicle available on site to rush the patient to a doctor. This applies to snake stinged patients as well.
7	Centring (form-work) and scaffolding – Form-work collapse while concreting or just before concreting especially when wooden ballies are used.	Many a times ballies joined together give way due to weak joint. Hence the use of joined ballies should be restricted. Only 2 joined ballies out of 8 ballies should be allowed. In case of double staging for a Slab at a height, utmost care should be taken to see that the top balli rests on the bottom balli. A particular care that should be taken during each concreting operating of slabs and beams is that, one carpenter and two helpers with spare ballies, nails etc. should be deputed below the slab/beam that is being concreted to watch any disturbance in the supports of the form-work below during concreting and in case of any doubt the concreting should be stopped immediately and the form work strengthened. Never allow bricks below a balli to make up the required height. This is most dangerous.
8	Form-work for beams and slabs: The bottom of beam collapses and many a times brings down the slab as well, injuring the labour and supervision staff.	This case is noticed when slender ballies are used without bracing. In fact, no concreting should be allowed without bracing at 300 mm above ground, and at mid way, in normal beams & slabs. The bracings should be for the support of beams as well as slabs.
9	Form-work for sides of a slab–The labour just rests his foot on the plank and loses balance and falls resulting a fatal accident.	This is noticed when the carpenter fixes the side shuttering of a slab with a plank just tied by binding wire to the steel reinforcements and by wooden pieces nailed in wall and plank. This is so weak a portion that with little pressure the plank gives way. Hence side shuttering should be done with a direct balli support from ground or floor, and the practice of tying planks with binding wire to the steel reinforcement should be totally avoided. A temporary railing along the periphery of slab will guard the life of labour and supervision staff.
10	Form-work for beams and slabs– Opening the form- work–Accident due to fall of materials during removing the forms.	In fact, this is a most dangerous work. One should be very careful while form-work is removed. Only trained carpenters should be deputed for the work. A safe resting place outside the area of slab as a temporary measure should be constructed from where the Slab can be removed safely. Removal of form-work during night should not be permitted under any circumstances.
11	Scaffolding–Fall of work-man, Supervision Staff, Standing on Chalis not tied properly or tied only at one end.	This is a very common negligence on the part of labour that do scaffolding work. The Chalis on which they work either span over its complete length or is tied loosely and

Sl No.	Stage and Nature of Construction Hazard	Safety measures expected to be taken by the Contractors and Site Engineers
	(Chalis mainly made of Bamboos).	many a times at one end only. Hence, care must be taken that the Chali do not span over the full length but some middle support should be provided and also the same is tied properly on both ends.
12	Ladders–Balli or bamboo ladders – The horizontal member breaks and the person falls. Sometimes the top face just rests on wall and the whole ladder tilts causing an accident.	The ladders should be strong enough to bear the weight of a labour with materials on head. As far as possible a hand rail should be provided at one end. The horizontal member should be preferably fixed with Bolt & nuts or strong nails. When the ladder is placed across a wall the top portion should be tied firmly to a strong support so that the ladder does not move laterally.
13	Column Reinforcements–Column reinforcements mainly in independent footings collapses – Injury to persons working nearby.	The tendency of bar-benders is to tie the vertical steel with coir rope or 8 mm steel rods as ties on all four sides of the column reinforcement. This method of supporting the column reinforcements results in a weak support. Hence, the column reinforcements should be supported by strong ballies on all four sides of reinforcements and as far as possible a combined platform should be constructed out of ballies over which the reinforcements can be supported.
14	Concreting chajjas – When chajjas are concreted without care and on opening the form-work the chajja would collapse, causing injury to labour on top or bottom of chajja.	While concreting chajjas care must be taken that the labour does not stand on the reinforcement and disturb the position. Separate scaffolding must be tied over which the labour can stand and work without disturbing the reinforcements. The main reason is in chajja the steel is placed on top face but if the labour stands on the steel, it will bend and come to bottom face and hence the chajja will fall when form-work is removed, thus, causing injury to labour working on top, or bottom.
15	Dismantling–Dismantled materials may fall on passerby or the person engaged in dismantling work may fall due to slipping. The dismantled materials may fall on persons working below.	When work of demolition is to be taken up the area should be closed for all outsiders. No one should be allowed up to 50 m. from the place of demolition. The workers engaged in demolition should be asked to wear safety belts. Helmets must be worn by all the workers engaged in dismantling work. The place should be strictly guarded at night with red lights at prominent places, and watchman should be posted.
16	Electric-Connections/Cables etc. –High tension/L.T. Electric wire passing near the slab structure- while bending, lifting or tying reinforcements the bar benders may sustain the Electric Shock, causing fatal injury.	The work in such places should not be allowed to the workers themselves, but in such position the work must be executed under the strict supervision of a responsible Foreman or a Supervisor.
17	Electric Connections/Cables etc. –Cables below ground may get punctured during excavation & thus electrocute the labour working. Similarly when concreting is in	Before taking up the work all available drawings should be studied, local enquiry to be made to know the position of cables and work in such area should be got executed under strict supervision of an experienced Foreman or a

Sl No.	Stage and Nature of Construction Hazard	Safety measures expected to be taken by the Contractors and Site Engineers
	progress the punctured cable may prone to be fatal to the labour.	Supervisor.
18	Electric Connections/Cables etc. – Temporary Electric lines near damp walls, near joinery stretched on a considerable length – There is every chance that the wire may get cut due to usage and may develop short circuits/leakages etc. and may electrocute the person touching the wire accidentally.	The Electric wires should be maintained by an electrician who should regularly check up the insulation of wires especially placed near steel items & damp areas. The temporary wiring should be supported properly. As far as possible a good quality wire should be used which may not get damaged easily?
19	Electric and gas welding work – Drilling, polishing work – Done by temporary cables used on a number of works – Due to the fact that the wires are old & when they come in contact with water even in the process of curing the surrounding area may get affected due to leakage in the electric current thus causing damage to the workers & supervision staff.	All wiring works to be inspected by experienced electrician. All wires to be properly insulated and fixed at height on temporary poles. No welding work should be permitted near damp area. The welders to be provided with welder's goggles & gloves. As far as possible machine in good condition should be used.
20	Construction Machinery & Lifts – Concrete Mixers – Safety precautions. A mixer with hopper tried to be operated by a helper could not release brake in time thus causing injury to the person near hopper- sometimes fatal one.	The Mixers with hopper should be operated by an experienced mixer operator and such mixers should not be allowed to be handled by a helper or a labour.
21	Construction Machinery & Lifts - Lifts - Safety precautions. (1) The lift pit if left unguarded the children of workers may fall in the pit resulting in fatal accident	(1) A brick protection wall of minimum 1.00 m height should be constructed around the Lift Pit, thus, preventing the children going near the pit. A special care should be taken to see that the children are not allowed to come near the machinery.
	(2) The manually operated brakes of the lift failed or the communication between the labour at the top and the liftman failed and thus, the lift was not controlled and resulted in fatal accident.	(2) The condition of the lift must be maintained properly. The lift operator should be well trained. The labour receiving the bucket at top should be smart and active enough to convey the message of stopping & releasing the lift-to-lift operator properly.
22	Water Storage Tank for general use & curing - chances of children of workers falling in the tank with fatal accident.	The water tanks constructed on site should be protected by at least 1.00 m high walls on four sides, so that the children do not fall.
23	Misuse of lift by labour and sometimes supervision staff The lifts that are meant for lifting materials used by labour to go to upper floors – The labour thus travelling many a times get injured.	No person should be allowed to go to upper floors by lifts that are mainly meant for conveying the building materials. Fatal accidents have taken place due to above action of workers.

Sl No.	Stage and Nature of Construction Hazard	Safety measures expected to be taken by the Contractors and Site Engineers
24	Site Cleaning–Cleaning top floors of buildings – Upper portion of any structure – Throwing waste materials broken concrete pieces, brick bats, sand etc. straightway from top to ground injuring person below or even a passerby.	This dangerous practice should not be allowed at all. The materials should be brought to the ground with the help of lift or the use of rope over pulley with a bucket, thus bringing down materials safely.
25	Bar bending work-Helpers of bar benders to follow short cut method, throw surplus steel pieces from top floors to ground and may cause fatal injuries.	This is a very bad practice. The helpers should bring the rods to ground with the help of lift or rope & pulley.

ANNEXURE 8. 13: Guidelines for Storage, Handling, Use and Emergency Response for Hazardous Substances

A1. REFUELING/MAINTENANCE PROCEDURE

- There will be no storage of fuel, oil or fluids within 100m (or 50m) of the permanent water line.
- Prior to re-fueling or maintenance, drip pans and containment pans will be placed under the equipment. Absorbent blankets may also be required to be placed under the equipment and hoses where there is a possibility of spillage to occur.
- All used oils or fluids will be properly contained and transported to appropriately licensed (authorized) disposal facilities;
- Following re-fueling and maintenance, the absorbent blankets (if any) and spill pans will be picked up and the fuel truck or container moved outside of the 100m (or 50m) wide area.

Emergency Spill Procedure

Should a spill occur, either through spillage or equipment failure, the applicable emergency spill procedure outlined in sections A-2 to A-4 must be followed.

A2. SPILL PROCEDURE (INSIDE THE STREAM)

In the case of a spill, overflow or release fluid into the stream waterway (whether water is flowing during the spill or not), do what is practical and safely possible to control the situation, then get help.

- **Stop the flow**
 - Stop the release into the stream waterway
 - Shutdown equipment
 - Close valves and pumps
 - Plug hoses
- **Remove Ignition Sources**
 - Shut off vehicles and other engines
 - Do not allow tiger torches, vehicles, smoking or other sources of ignition near the area. Keep a fire extinguisher on hand but keep it a safe distance away from the potential ignition source (if a fire starts, the extinguisher must be easily accessible).
- **Contract the environmental Officer and initiate Emergency Response**
 - Notify the site supervisor and the Contractor's Environmental Officer as soon as possible
 - The Environmental Officer will review the situation and decide if Emergency Services like Fire Brigade are required
 - Appropriate parties to be notified of the spill are
 - The contractor's Project Manager
 - The Engineer through his designated Environmental Officer
 - The Client

- Regulatory Agencies like Pollution Control Board, Municipal Authorities, as applicable.
- Site Safety Officer

- **Cleanup and Disposal**
 - Emergency Services will be engaged for the containment, cleanup and disposal of contamination release into the environment

- **Reporting**
 - The contractor's Environmental Officer will document the event and submit reports to the EO/Engineer, the Client and appropriate regulatory agencies like the Pollution Control Board (s).

- **Procedure Review**
 - The Engineer will review the report, determine if changes are required to procedures and recommend implementation of all required change.

A3. SPILL PROCEDURE (ON LAND)

In the case of a spill, overflow or release fluid onto land, do what is practical and safety possible to control the situation, and then get help.

- **Stop the flow**
 - Stop the release into the water body
 - Shut down equipment
 - Close valves and pumps
 - Plug hoses
- **Remove Ignition Sources**
 - Shut off vehicles and other engines
 - Do not allow tiger torches, vehicles, smoking or other sources of ignition near the area. Keep a fire extinguisher on hand but keep it a safe distance away from the potential ignition sources (if a fire starts the extinguisher must be easily accessible).
- **Contain the Spill**
 - Dike around the spill to contain the material
 - Spread absorbent or place a spill blanket on the spill
 - Enlist the help of personnel on site
 - Notify your supervisor as soon as possible
- **Notification**
 - Appropriate parties to be notified of the spill are:
 - The Contractor's Project Manager
 - The Engineer through his designated Environmental Officer
 - The Client
 - Regulatory Agencies like Pollution Control Board, Municipal Authorities, as applicable
 - Site Safety Coordinator
- **Cleanup and Disposal**
 - The Engineer's Environmental Officer will ensure that a proper cleanup and disposal method is determined.

- **Reporting**
 - The Contractor's Environmental Officer will document the event and submit reports to the Engineer, the Client and appropriate regulatory agencies like the Pollution Control Board (s).
- **Procedure Review**
 - The Engineer will review the report, determine if changes are required to procedures are recommend implementation of all required changes.

A4. SPILL PROCEDURE (WITHIN PONDS)

In the case of a spill, overflow or release fluid due to equipment or hose failure, do what is practical and safely possible to control the situation, and then get help

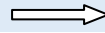
- **Stop the flow**
 - Stop the release
 - Shut down equipment
 - Close valves and pumps
 - Plug hoses
- **Remove Ignition Sources**
 - Shut off vehicles and other engines
 - Do not allow tiger torches, vehicles, smoking or other sources of ignition near the area. Keep a fire extinguisher on hand but keep it a safe distance away from the potential ignition sources (if a fire starts the extinguisher must be easily accessible).
- **Contain the Spill**
 - Stop any pumps that may be moving the water from the area where the spill occurred
 - Enlist the help of personnel on site
 - Notify your supervisor as soon as possible
- **Notification**
 - Appropriate parties to be notified or the spill are:
 - The Contractor's Project Manager
 - The Engineer through his designated Environmental Officer
 - The Client
 - Regulatory Agencies like Pollution Control Board, Municipal Authorities, as applicable
 - Site Safety Coordinator
- **Cleanup and Disposal**
 - The Engineer's Environmental Officer will ensure that a proper cleanup and disposal method is determined. Absorbent pads will soak up the spilled material. The pads will be contained and removed from site for disposal at a licensed (authorized) facility.
- **Reporting**
 - The Contractor's Environmental Officer will document the event and submit reports to the Engineer, the Client and appropriate regulatory agencies like the Pollution Control Board (s)
- **Procedure Review**
 - The Engineer will review the report, determine if changes are required to procedures and recommend implementation of all required changes.

ANNEXURE 8. 14: Environmental Enhancement Drawings - SH 04


Mitigation/Enhancement of Community Properties

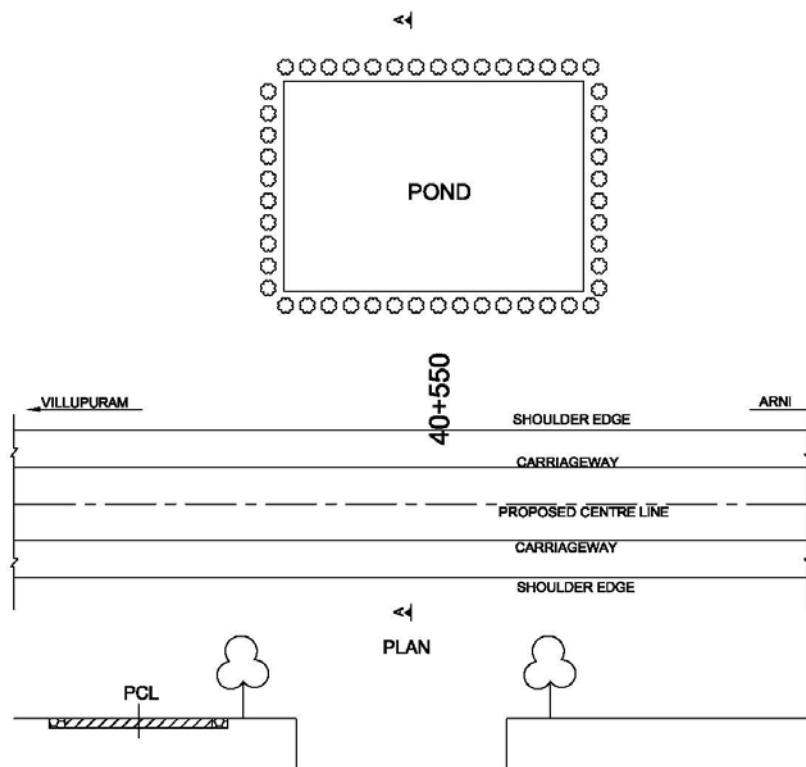
Surface Water Bodies along SH 04

VILLUPURAM




ARNI

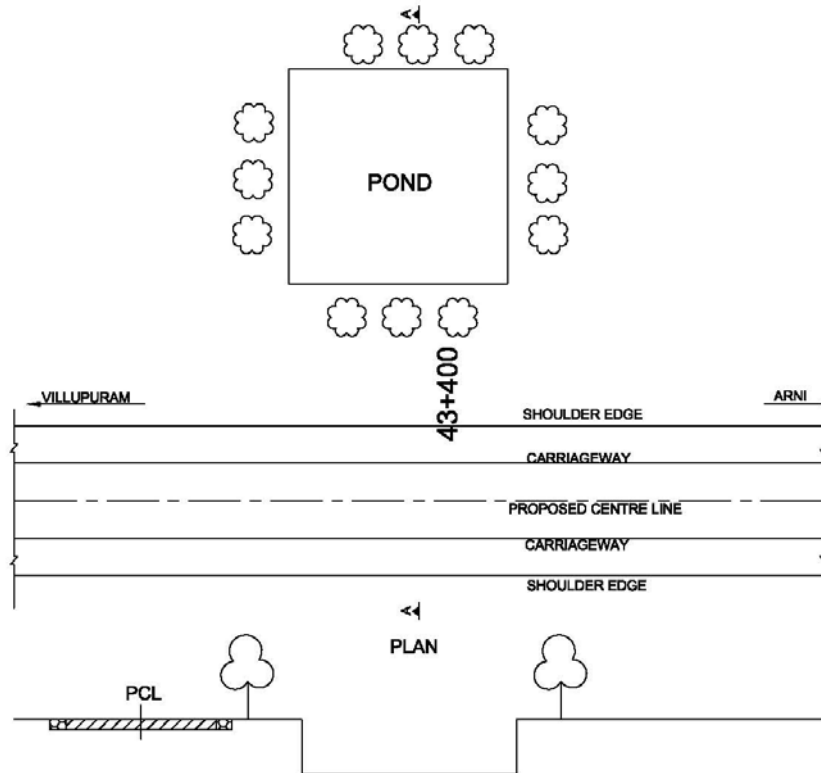
Chainage (km)	40+550	
Structure ID No	Pond	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	5	
Length x Breadth (m)	875 x 600	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	295	1500	442500	2.1
2	Retaining wall on road side	rm	875	55900	48912500	6.3
3	Disilting	No	1	100000	100000	
Total					49455000	

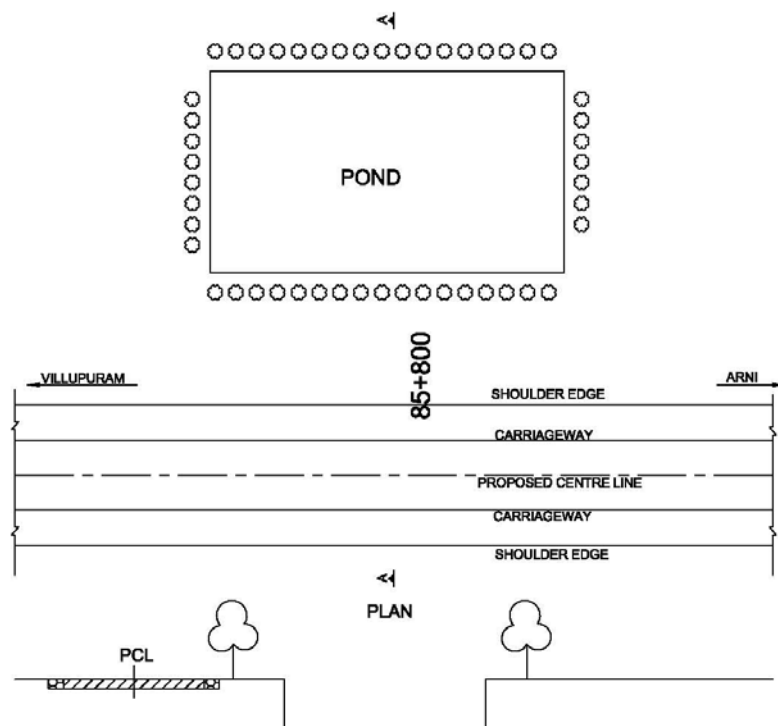
Chainage (km)	43+400	
Structure ID No	Pond	
Village Name	Kollappalur	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	28 x 28	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	11	1500	16500	2.1
2	Retaining wall on road side	rm	28	55900	1565200	6.3
3	Disilting	No	1	100000	100000	
Total					1681700	

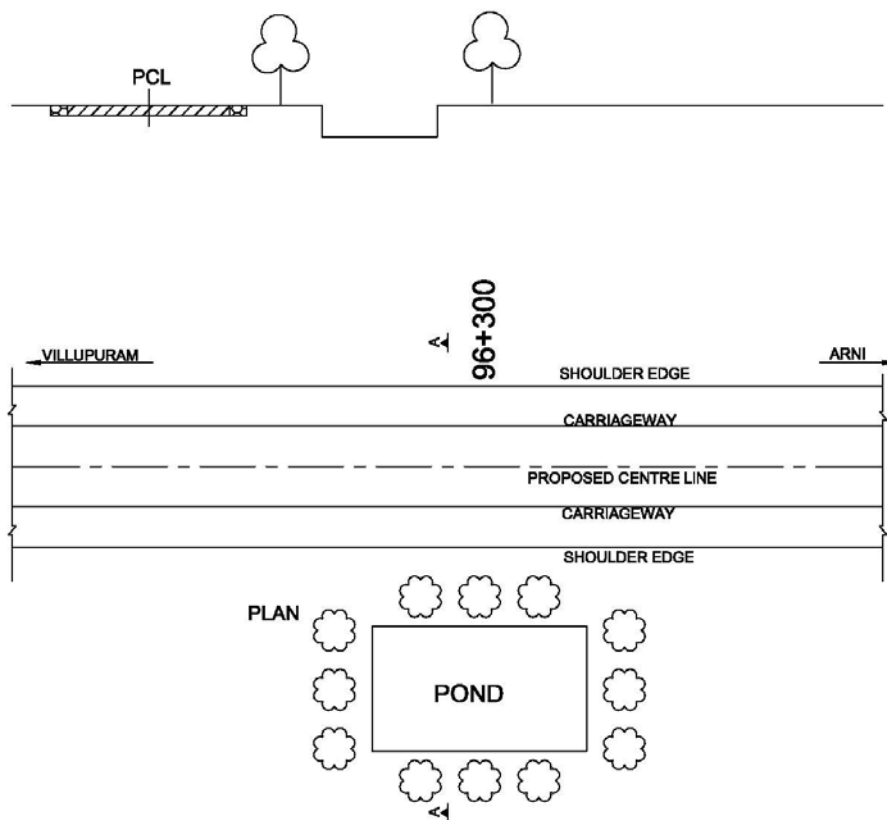
Chainage (km)	85+800	
Structure ID No	Pond	
Village Name	Sitampondi	
Side (Left/Right)	Left	
Distance from PCL (m)	8	
Length x Breadth (m)	50 x 300	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	70	1500	105000	2.1
2	Retaining wall on road side	rm	50	55900	2795000	6.3
3	Disilting	No	1	100000	100000	
Total					3000000	

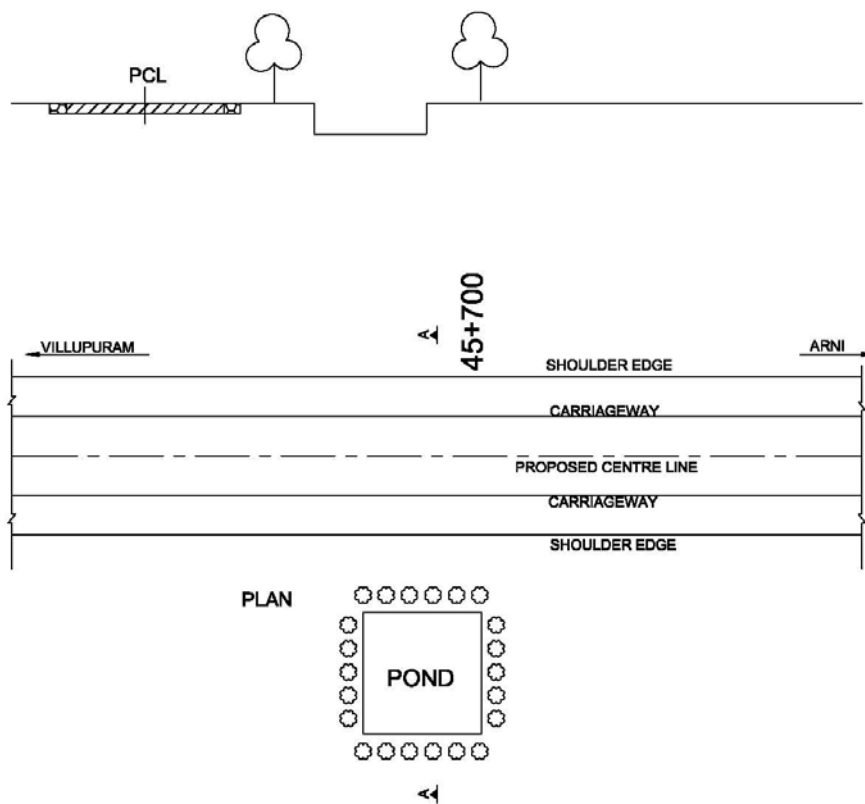
Chainage (km)	96+300	
Structure ID No	Pond	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	34 x 25	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	12	1500	18000	2.1
2	Retaining wall on road side	rm	34	55900	1900600	6.3
3	Disilting	No	1	100000	100000	
Total					2018600	

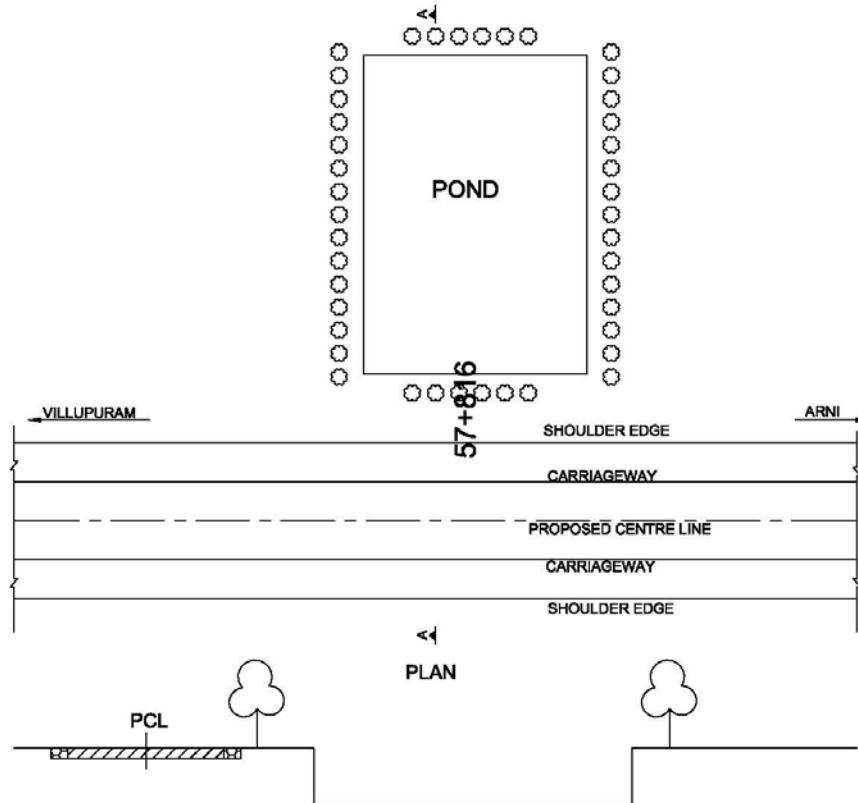
Chainage (km)	45+700	
Structure ID No	Pond	
Village Name	Chammambadi	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	55 x 55	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	22	1500	33000	2.1
2	Retaining wall on road side	rm	55	55900	3074500	6.3
3	Disilting	No	1	100000	100000	
Total					3207500	

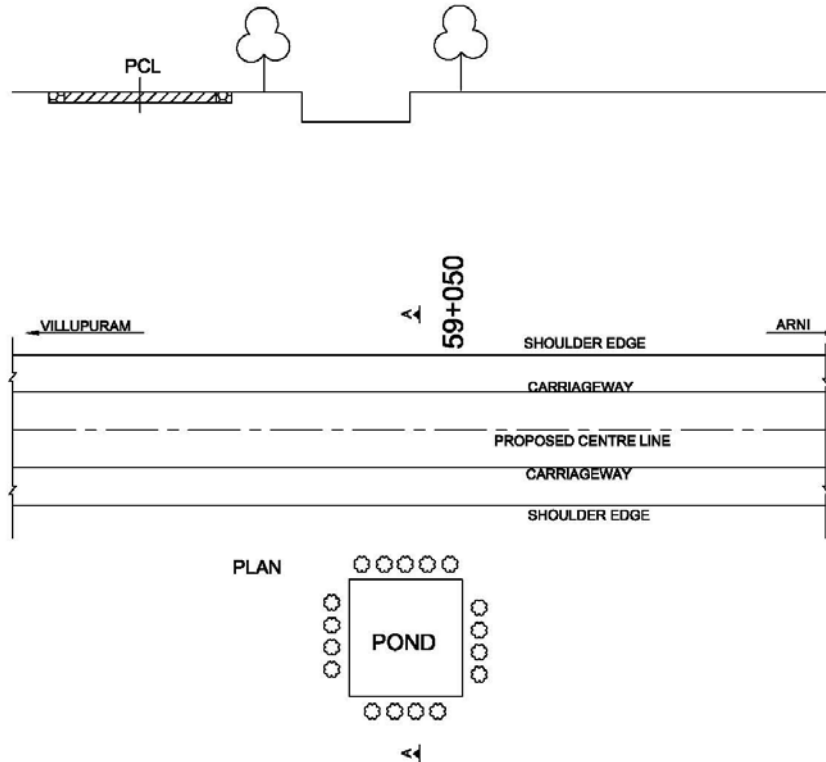
Chainage (km)	57+816	
Structure ID No	Pond	
Village Name	Arul nadu	
Side (Left/Right)	Left	
Distance from PCL (m)	10	
Length x Breadth (m)	70 x 140	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	42	1500	63000	2.1
2	Retaining wall on road side	rm	70	55900	3913000	6.3
3	Disilting	No	1	100000	100000	
Total					4076000	

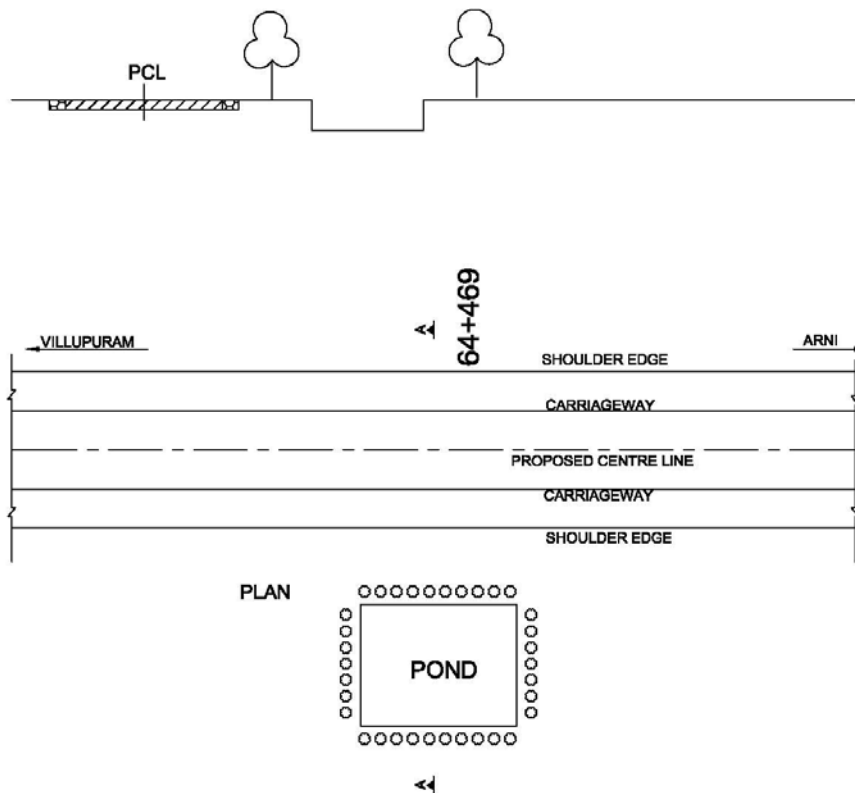
Chainage (km)	59+050	
Structure ID No	Pond	
Village Name	Kooduvampondi	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	42. x 42	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	17	1500	25500	2.1
2	Retaining wall on road side	rm	42	55900	2347800	6.3
3	Disilting	No	1	100000	100000	
Total					2473300	

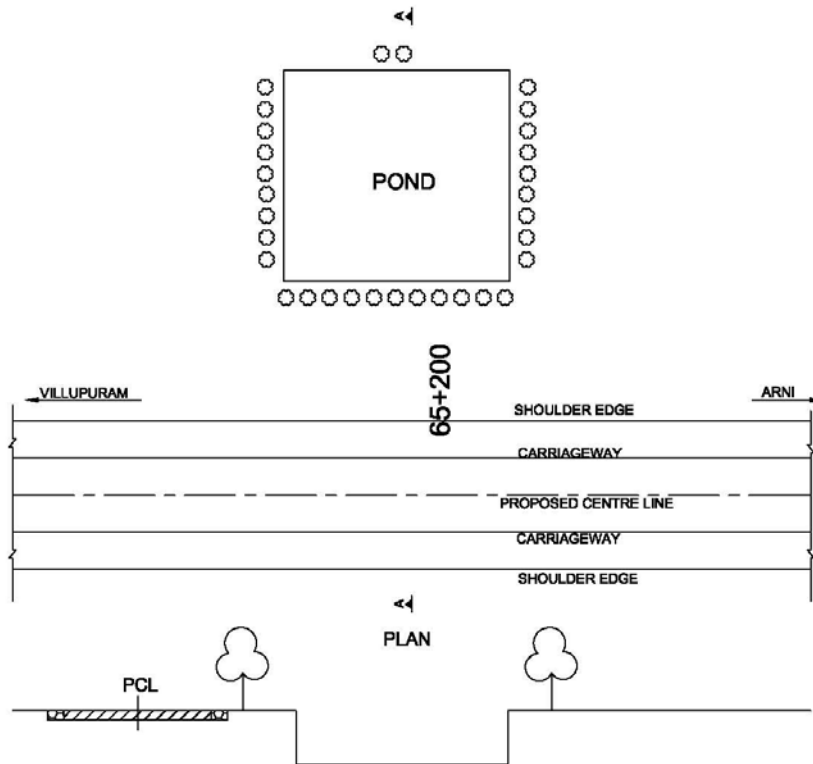
Chainage (km)	64+469	
Structure ID No	Pond	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	99 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	34	1500	51000	2.1
2	Retaining wall on road side	rm	99	55900	5534100	6.3
3	Disilting	No	1	100000	100000	
Total					5685100	

Chainage (km)	65+200
Structure ID No	Pond
Village Name	Valathy
Side (Left/Right)	Left
Distance from PCL (m)	5.5
Length x Breadth (m)	77 x 77
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	direct impact

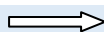


MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	31	1500	46500	2.1
2	Retaining wall on road side	rm	77	55900	4304300	6.3
3	Disilting	No	1	100000	100000	
Total					4450800	

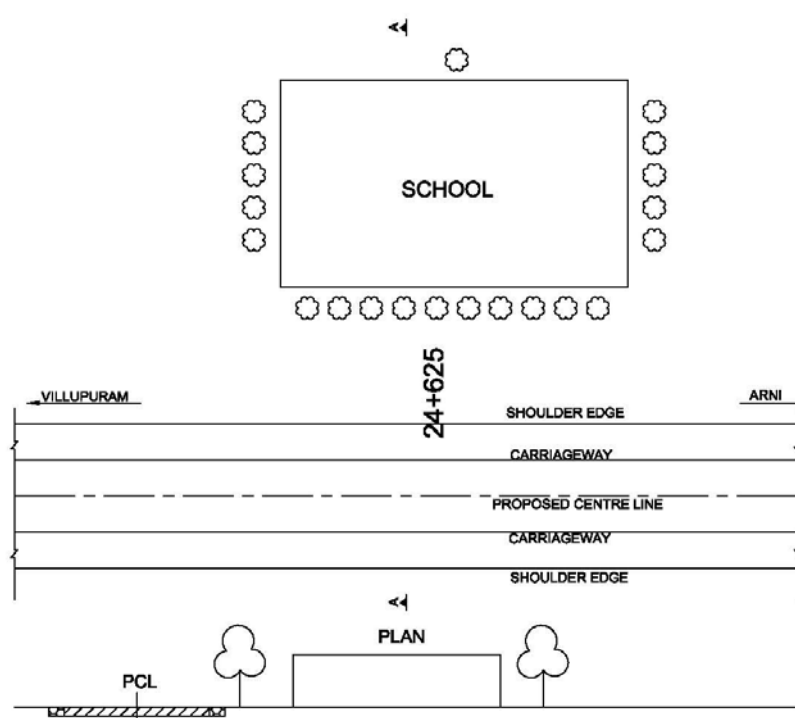
Sensitive Receptors along SH 04

VILLUPURAM




ARNI

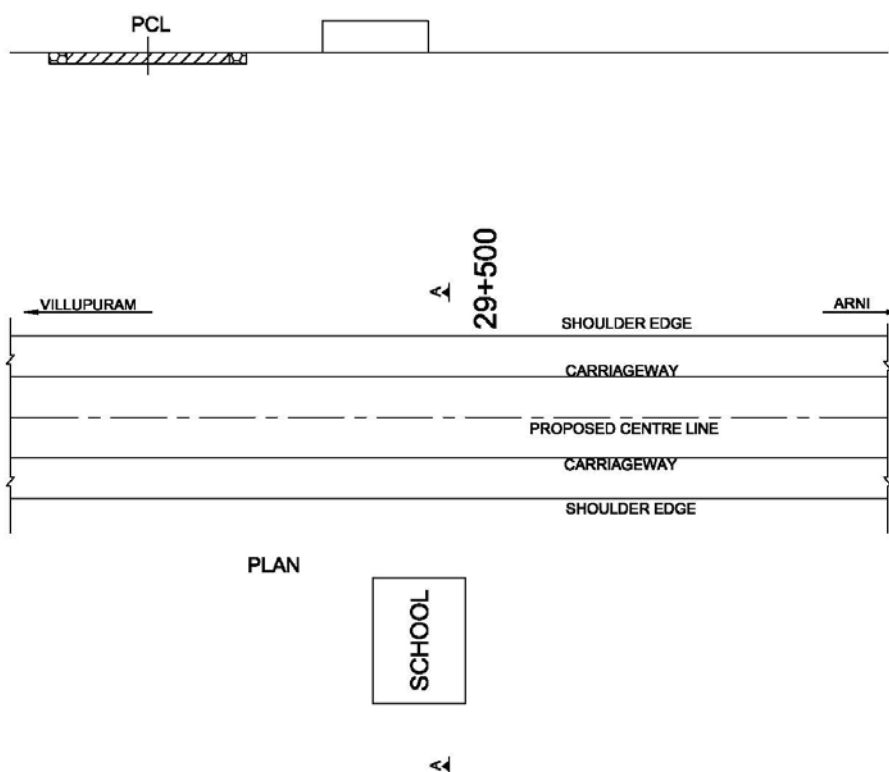
Chainage (km)	24+625	
Structure ID No	School	
Village Name	Irimbedi	
Side (Left/Right)	Left	
Distance from PCL (m)	30.8	
Length x Breadth (m)	70 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	rm	21	1500	31500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					31500		

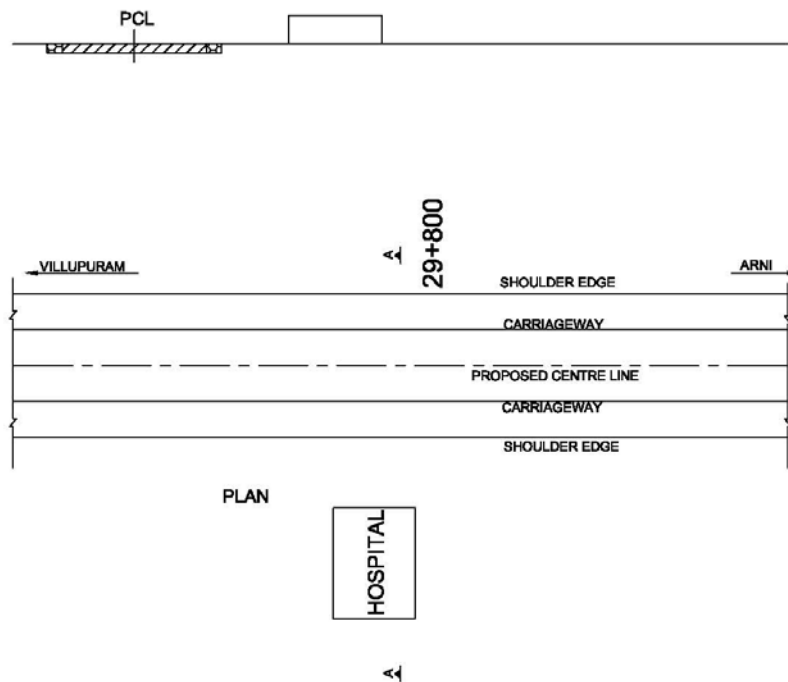
Chainage (km)	29+500	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	12 x 19	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of Structure	nil	nil	nil	nil	nil
Total					nil	

Chainage (km)	29+800	
Structure ID No	Hospital	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	13 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

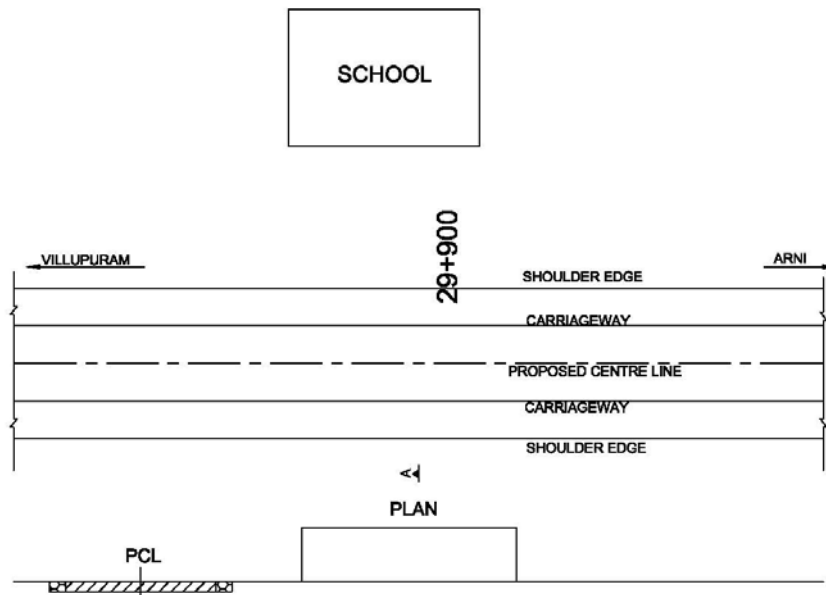


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of Structure	nil	nil	nil	nil	nil
Total					nil	

Chainage (km)	29+900	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	9 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

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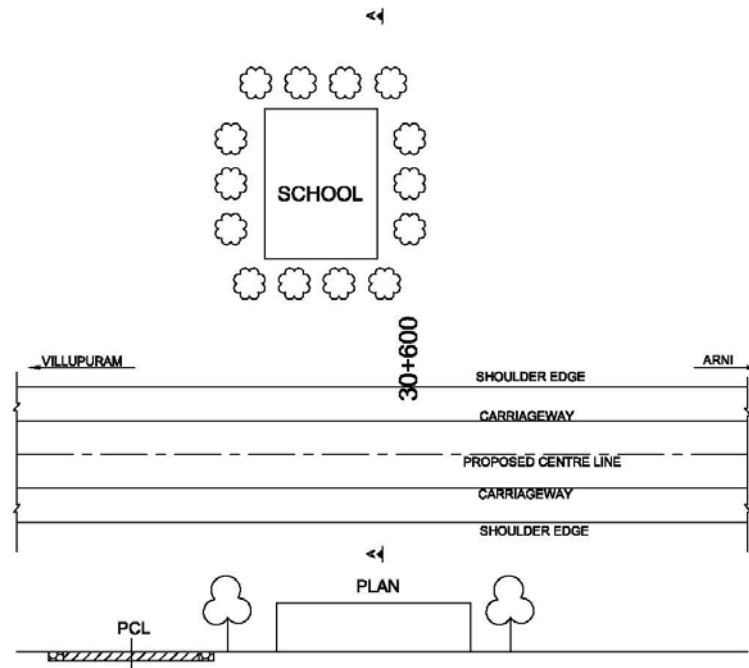


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Horn prohibited sign post		Considered in engineering works			
Total						


Chainage (km)	30+600	
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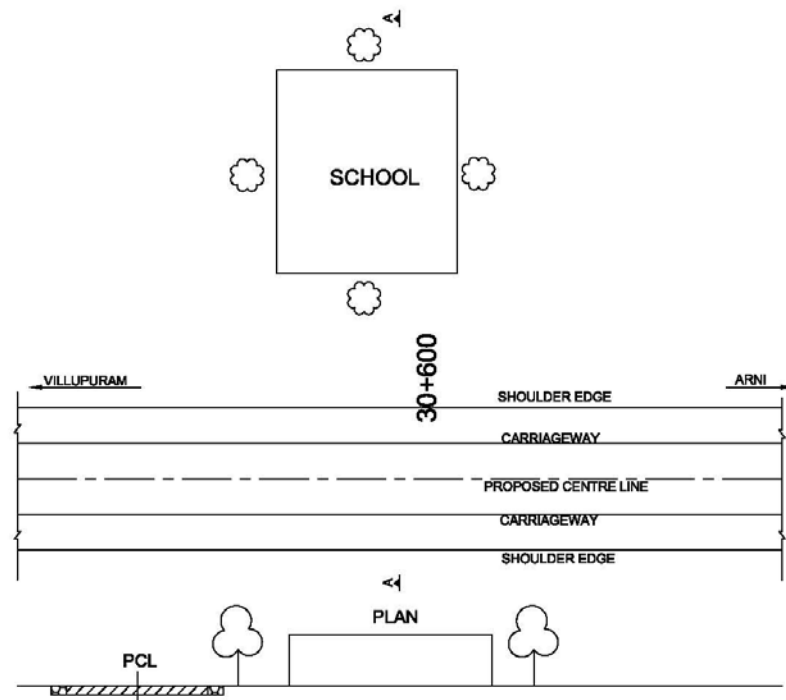
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	24 x 46	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	35	29	1015	6.0	
2	Construction of Boundary Wall	rm	24	2396	57504	6.0	
3	Gate	no	1	10000	10000		
4	Tree Plantation	no	14	1500	21000	2.1	
5	Horn prohibited sign post	Considered in engineering works					
Total					89519		

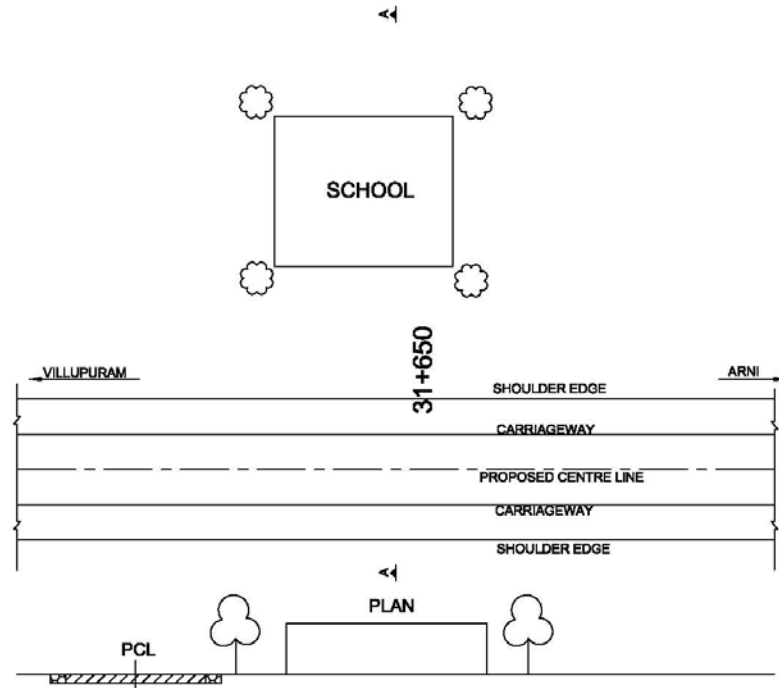
Chainage (km)	30+600	
Structure ID No	School	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	23.5	
Length x Breadth (m)	9.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	rm	4	1500	6000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					6000		

Chainage (km)	31+650
Structure ID No	School
Village Name	Sitheri
Side (Left/Right)	Left
Distance from PCL (m)	27
Length x Breadth (m)	10 x 7.5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact

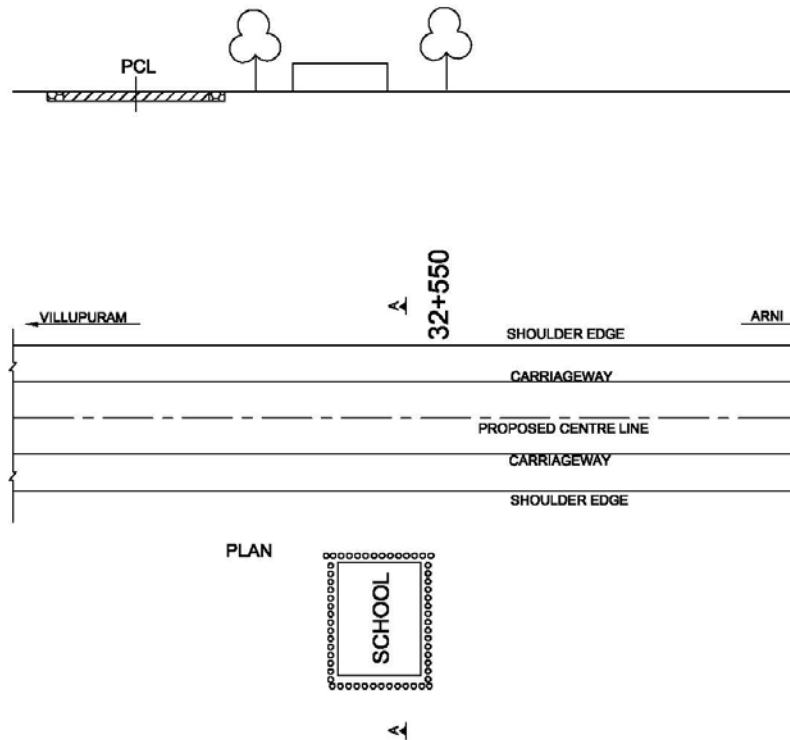


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	no	4	1500	6000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					6000		


Chainage (km)	32+550	
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Structure ID No	School	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	84 x 200	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

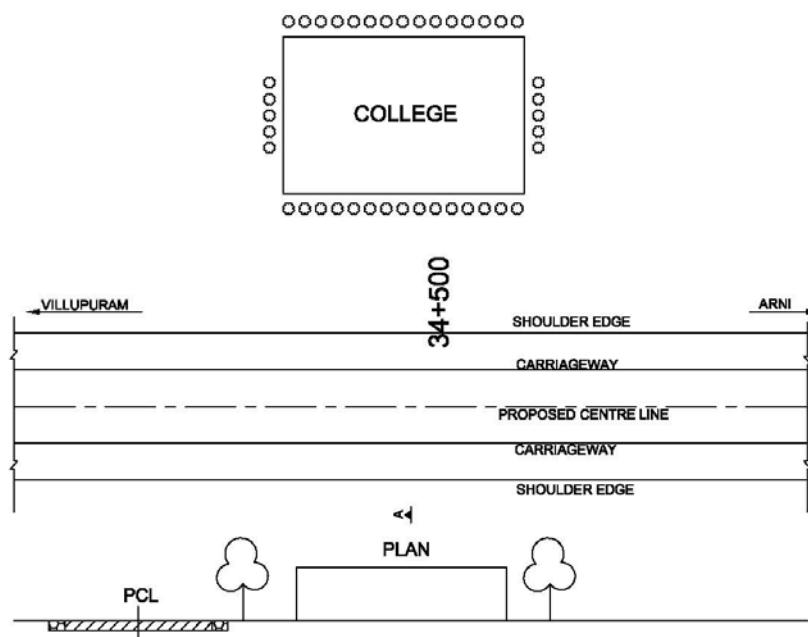


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree Plantation	No	57	1500	85500	2.1
2	Horn prohibited sign post	Considered in engineering works				
Total					85500	


Chainage (km)	34+500	
Structure ID No	College	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	16.5	
Length x Breadth (m)	130 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

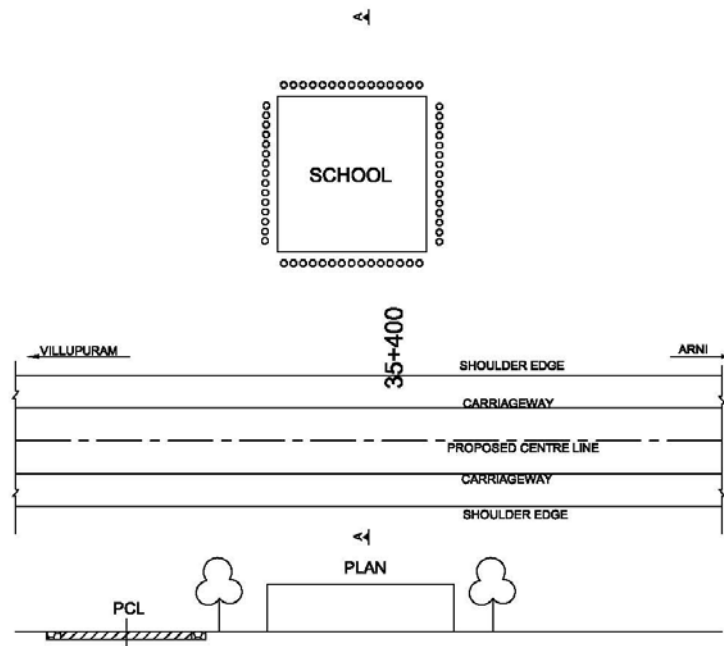
44



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	40	1500	60000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					60000		

Chainage (km)	35+400	
Structure ID No	School	
Village Name	Nesal	
Side (Left/Right)	Left	
Distance from PCL (m)	26	
Length x Breadth (m)	142 x 160	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

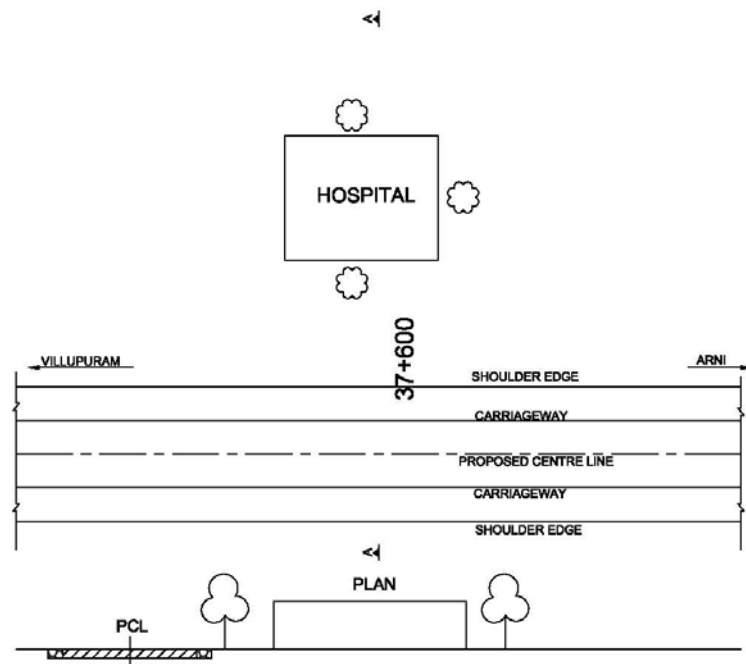


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	60	1500	90000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					90000		


Chainage (km)	37+600	
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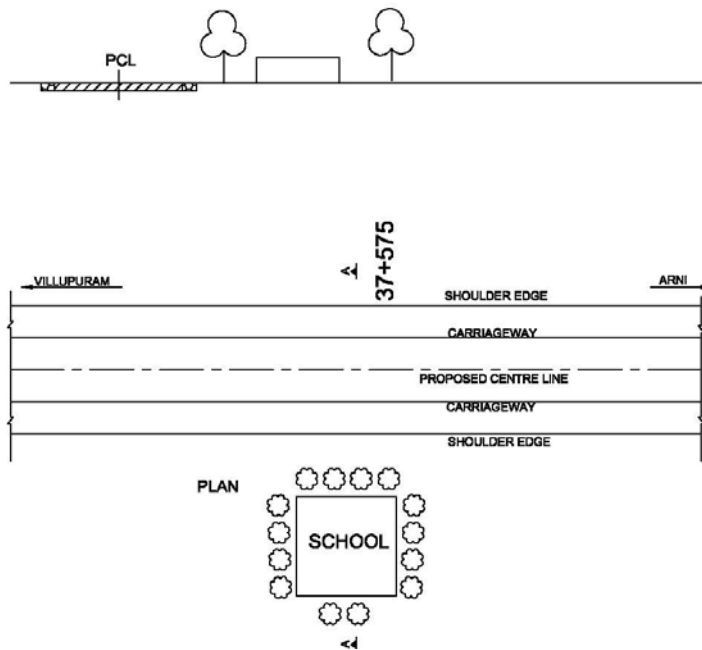
Structure ID No	Hospital	
Village Name	Vinnamangal	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	8.5 x 7.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	3	1500	4500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					4500		

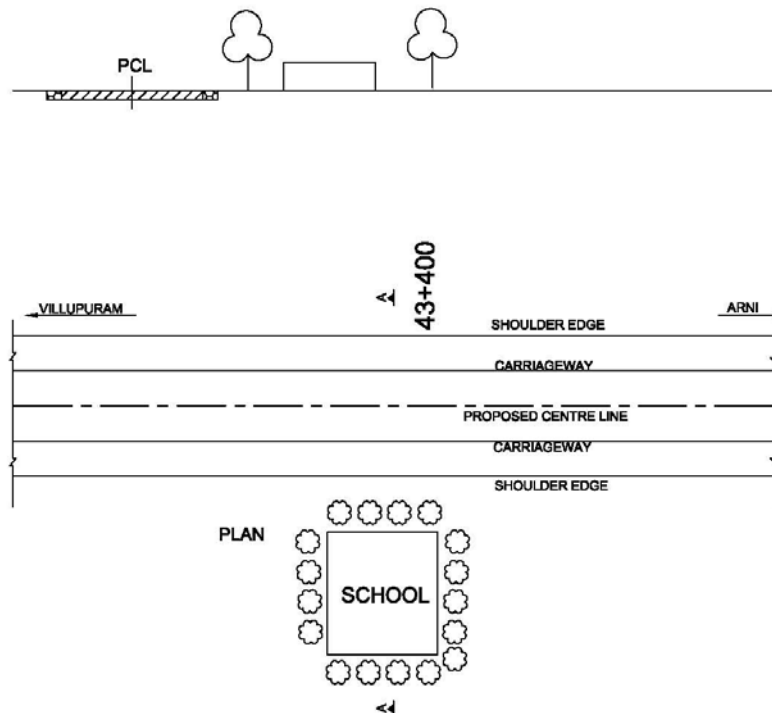
Chainage (km)	37+575	
Structure ID No	School.	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	36.5 x 32	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	47	29	1363	6.0	
2	Construction of Boundary Wall	rm	36.5	2396	87454	6.0	
3	Gate	no	1	10000	10000		
4	Tree Plantation	no	14	1500	21000	2.1	
5	Horn prohibited sign post	Considered in engineering works					
Total					119817		

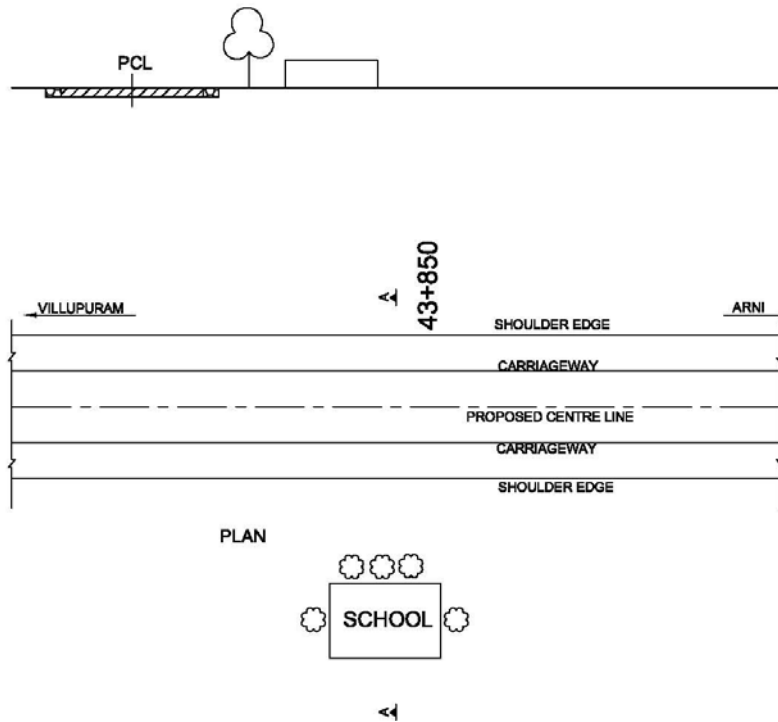
Chainage (km)	43+400	
Structure ID No	School	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	40 x 45	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	17	1500	25500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					25500		

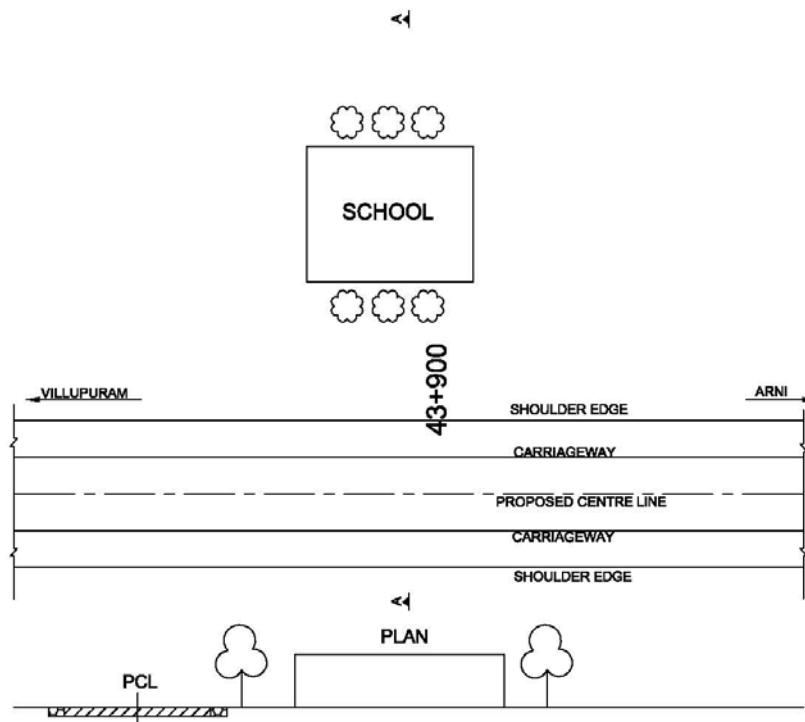
Chainage (km)	43+850	
Structure ID No	School	
Village Name	Indravarnam	
Side (Left/Right)	Right	
Distance from PCL (m)	26.5	
Length x Breadth (m)	19.5 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	19.5	2396	46727	6.0	
2	Gate	no	1	10000	10000		
3	Tree Plantation	no	5	1500	7500	2.1	
4	Horn prohibited sign post	Considered in engineering works					
Total					64227		

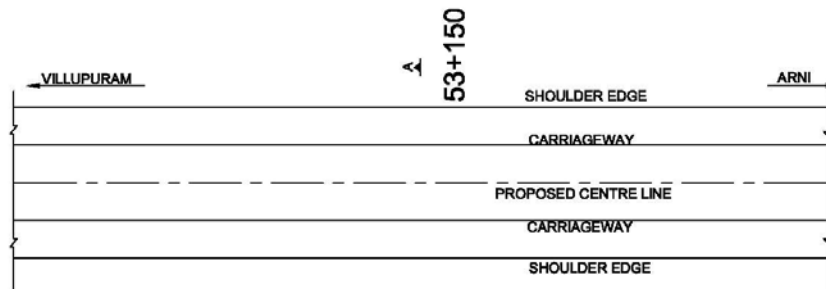
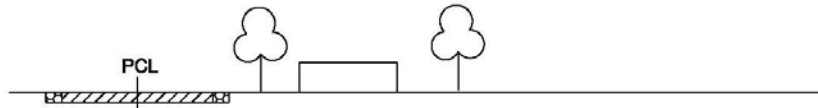
Chainage (km)	43+900	
Structure ID No	School	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	15 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



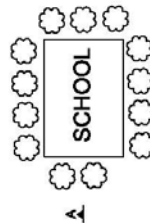
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	18	29	522	6.0	
2	Construction of Boundary Wall	rm	15	2396	35944	6.0	
3	Gate	no	1	10000	10000		
4	Tree Plantation	no	6	1500	9000	2.1	
5	Horn prohibited sign post	Considered in engineering works					
Total					55466		

Chainage (km)	53+150	
Structure ID No	School	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL (m)	19.5	
Length x Breadth (m)	19.5 x 43	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



PLAN



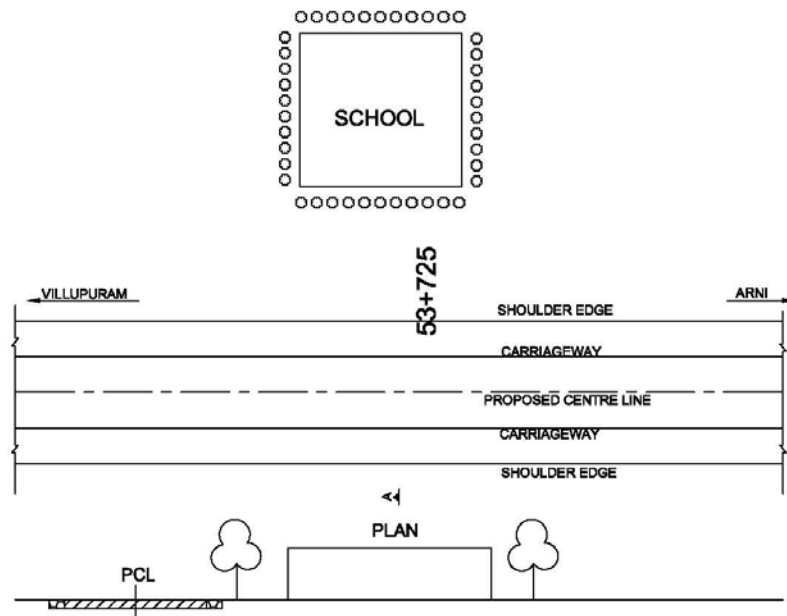
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	rm	13	1500	19500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					19500		

Chainage (km)	53+725
Structure ID No	School
Village Name	Chetpet
Side (Left/Right)	Left
Distance from PCL (m)	17.5
Length x Breadth (m)	103 x 110
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



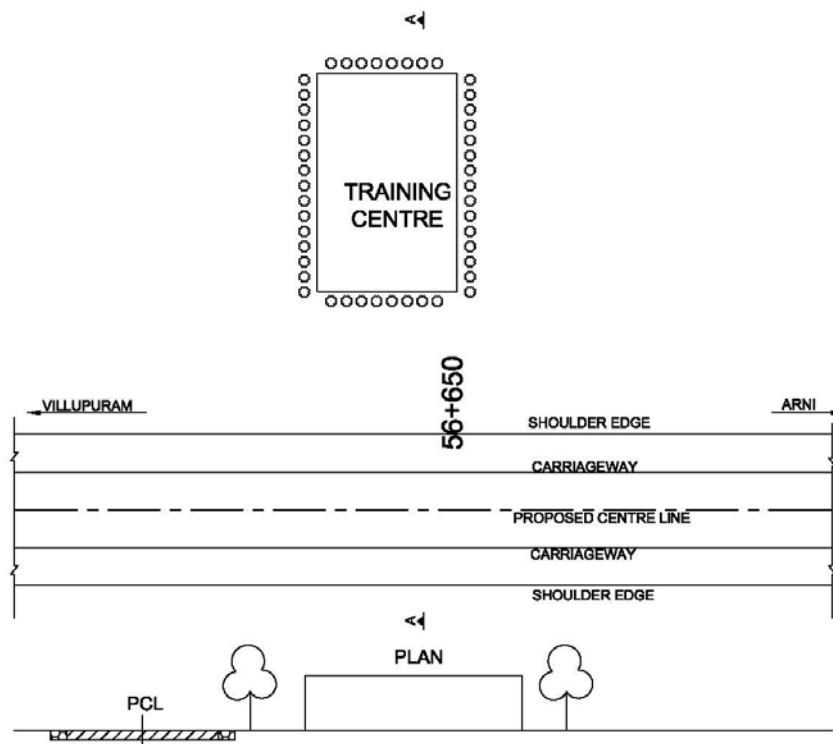
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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	rm	42	1500	63000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					63000		

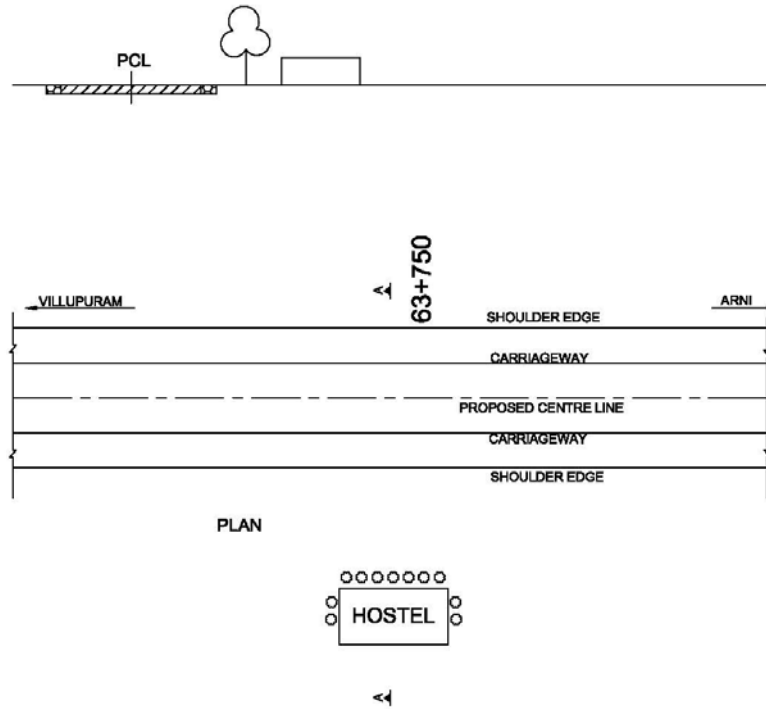
Chainage (km)	56+650
Structure ID No	Training centre
Village Name	Nanodayam
Side (Left/Right)	Left
Distance from PCL (m)	16
Length x Breadth (m)	19.5 x 210
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Existing boundary wall will be raised and develop as noise barrier	rm	19.5	479	9340.5	6.0	
2	Tree Plantation	no	46	1500	69000	2.1	
3	Horn prohibited sign post	Considered in engineering works					
Total					78341		

Chainage (km)	63+750	
Structure ID No	Hostel	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL (m)	45.5	
Length x Breadth (m)	42 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

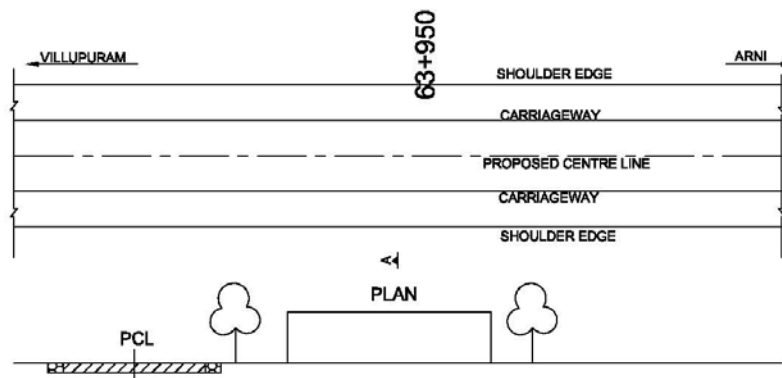


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	11	1500	16500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					16500		


Chainage (km)	63+950	
Structure ID No	School	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL (m)	11	
Length x Breadth (m)	266 x 38	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

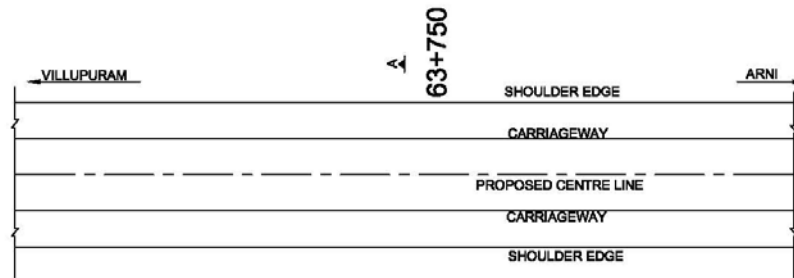
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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	267	29	7743	6.0	
2	Construction of Boundary Wall	rm	266	2396	637336	6.0	
3	Gate	no	1	10000	10000		
4	Tree Plantation	no	61	1500	91500	2.1	
5	Horn prohibited sign post	Considered in engineering works					
Total					746579		

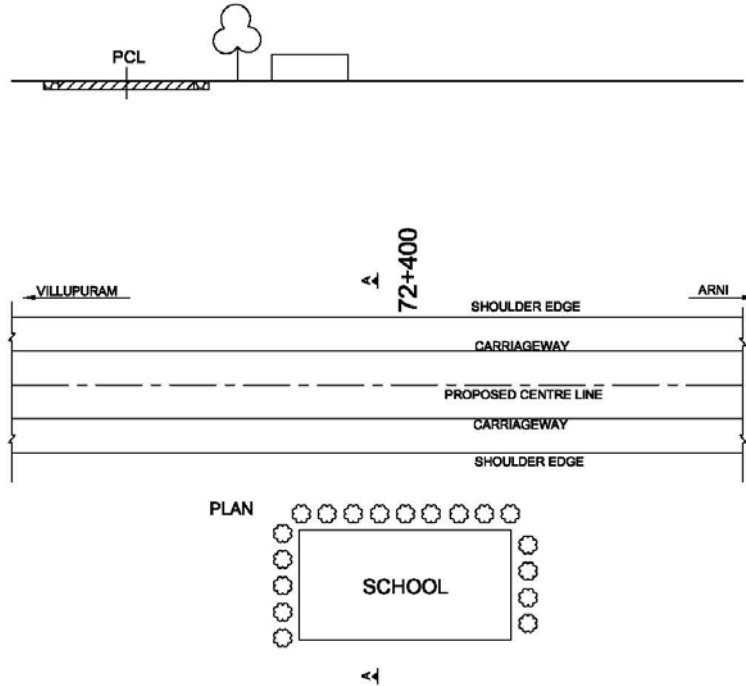
Chainage (km)	64+300	
Structure ID No	Veterinary hospital	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL (m)	12	
Length x Breadth (m)	85 x 29	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	23	1500	34500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					34500		

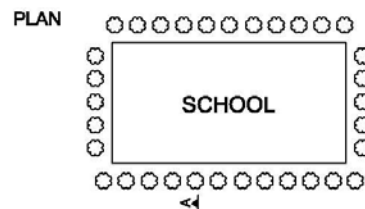
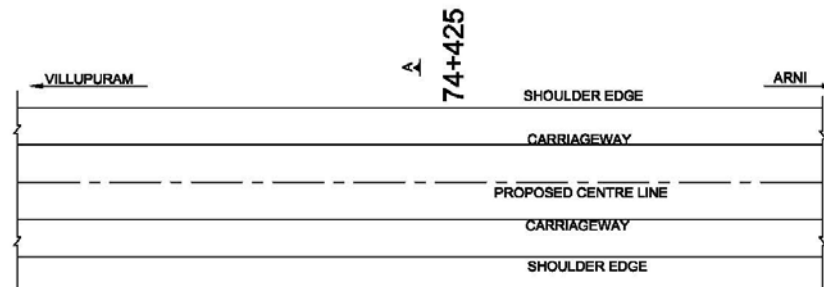
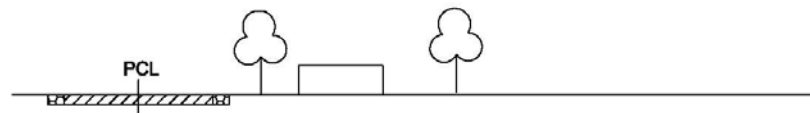
Chainage (km)	72+400	
Structure ID No	School	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL (m)	42	
Length x Breadth (m)	70 x 18	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	18	1500	27000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					27000		

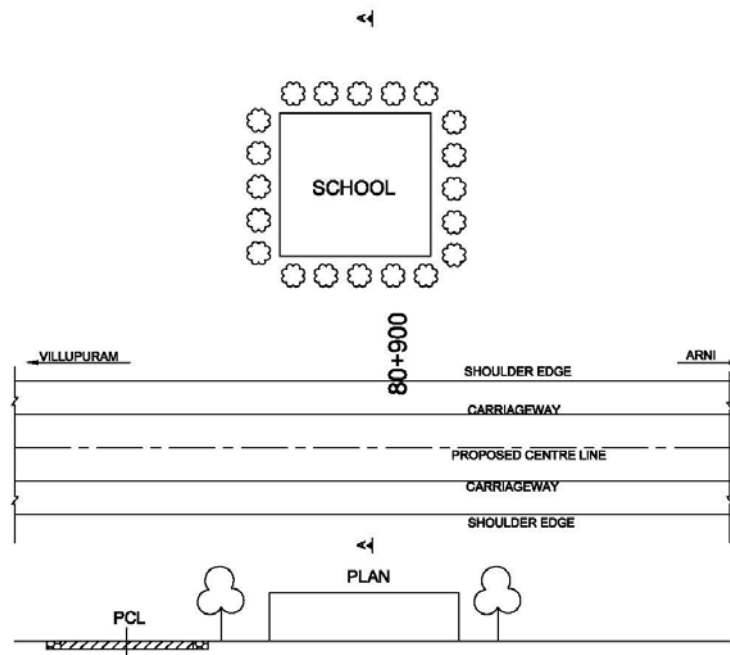
Chainage (km)	74+425	
Structure ID No	School	
Village Name	Chellabadai	
Side (Left/Right)	Right	
Distance from PCL (m)	17.5	
Length x Breadth (m)	100 x 65	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	33	1500	49500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					49500		

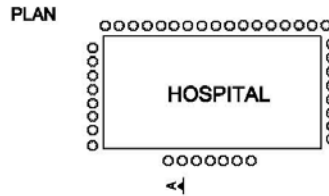
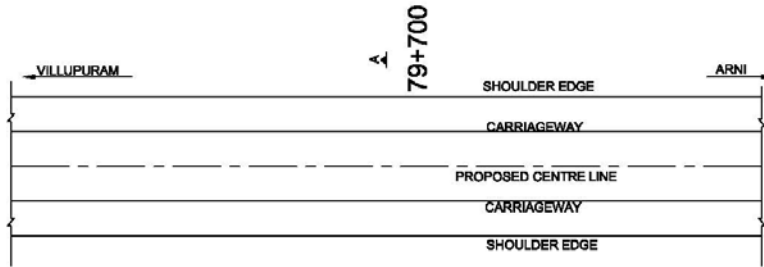
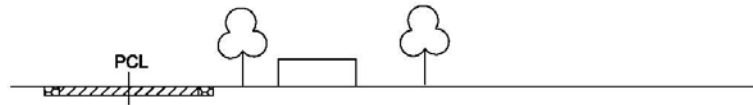
Chainage (km)	80+900	
Structure ID No	School	
Village Name	Gingee	
Side (Left/Right)	Left	
Distance from PCL (m)	9.5	
Length x Breadth (m)	44.5 x 49	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree Plantation	No	19	1500	28500	2.1
2	Horn prohibited sign post	Considered in engineering works				
Total					28500	

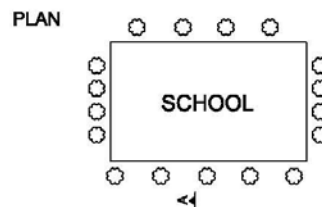
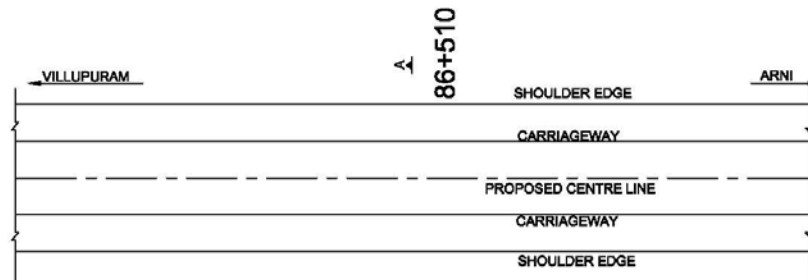
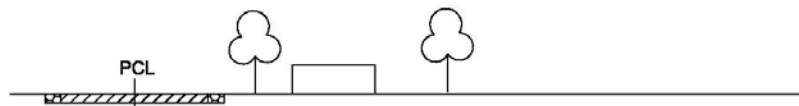
Chainage (km)	79+700	
Structure ID No	Hospital	
Village Name	Gingee	
Side (Left/Right)	Right	
Distance from PCL (m)	16.5	
Length x Breadth (m)	145 x 50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	40	1500	60000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					60000		

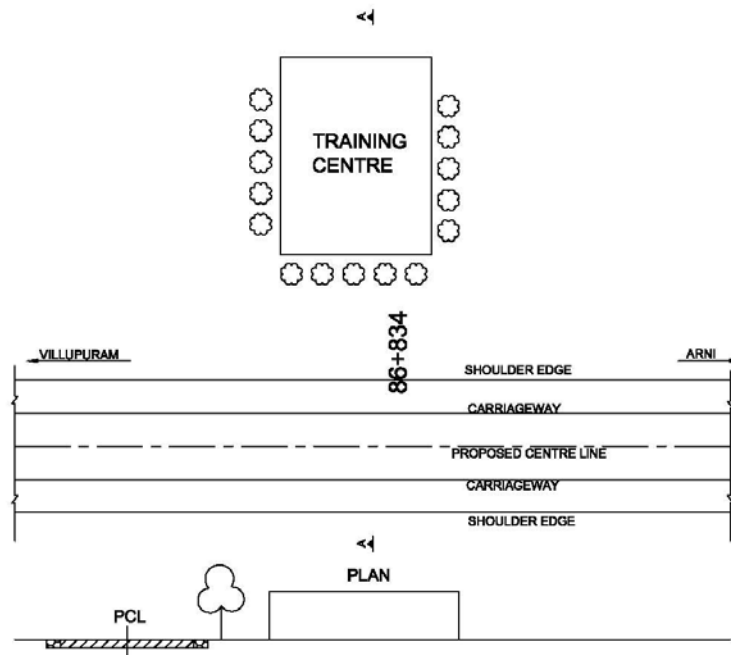
Chainage (km)	86+510	
Structure ID No	School	
Village Name	Sitampondi	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Leth x Breadth (m)	50 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	17	1500	25500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					25500		

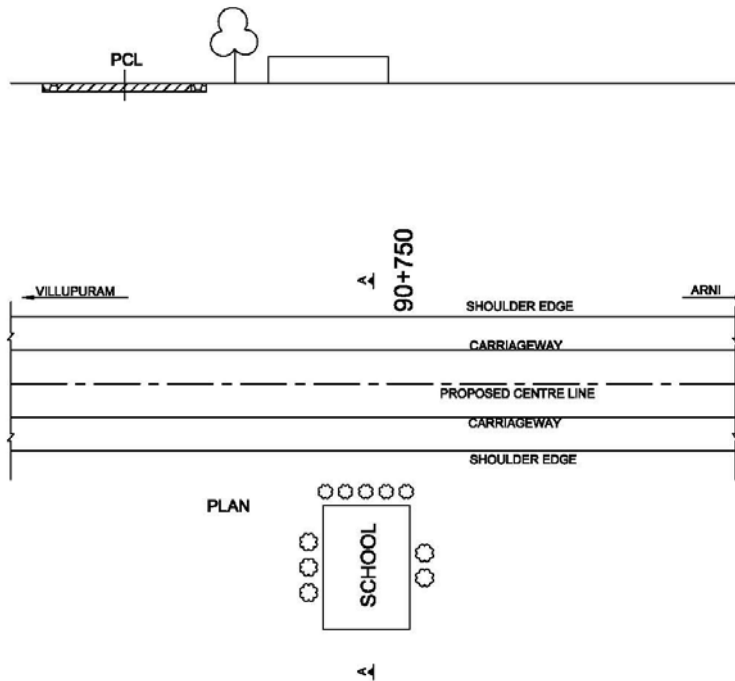
Chainage (km)	86+834	
Structure ID No	Training centre	
Village Name	Sitampoondi	
Side (Left/Right)	Left	
Distance from PCL (m)	19	
Length x Breadth (m)	22.5 x 51	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	15	1500	22500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					22500		

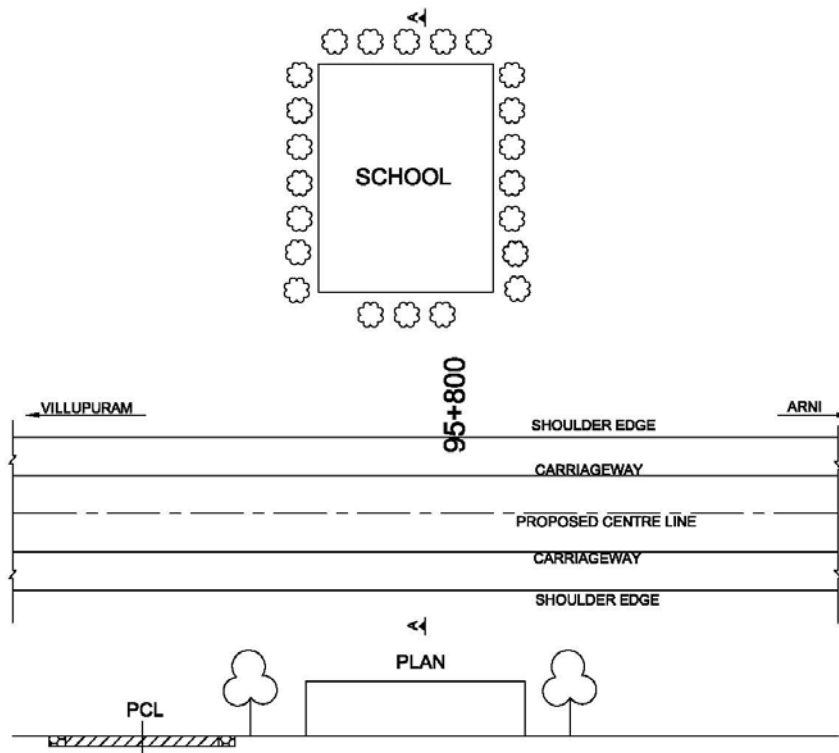
Chainage (km)	90+750	
Structure ID No	School	
Village Name	Ottampattu	
Side (Left/Right)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	13 x 38	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	16	29	462	6.0	
2	Construction of Boundary Wall	rm	13	2396	31151	6.0	
3	Gate	no	1	10000	10000		
4	Tree Plantation	no	10	1500	15000	2.1	
5	Horn prohibited sign post	Considered in engineering works					
Total					56613		

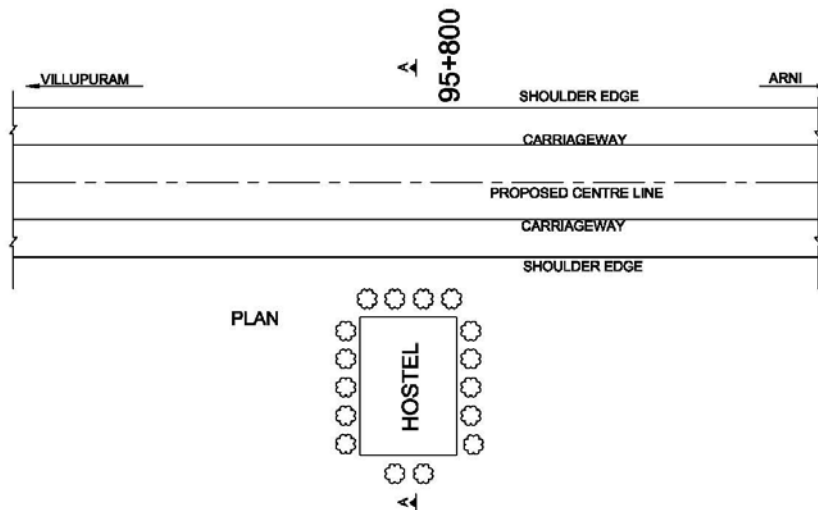
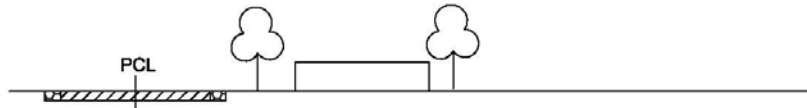
Chainage (km)	95+800	
Structure ID No	School	
Village Name	Muttathur	
Side (Left/Right)	Left	
Distance from PCL (m)	45	
Length x Breadth (m)	42 x 70	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree Plantation	No	22	1500	33000	2.1
2	Horn prohibited sign post	Considered in engineering works				
Total					33000	

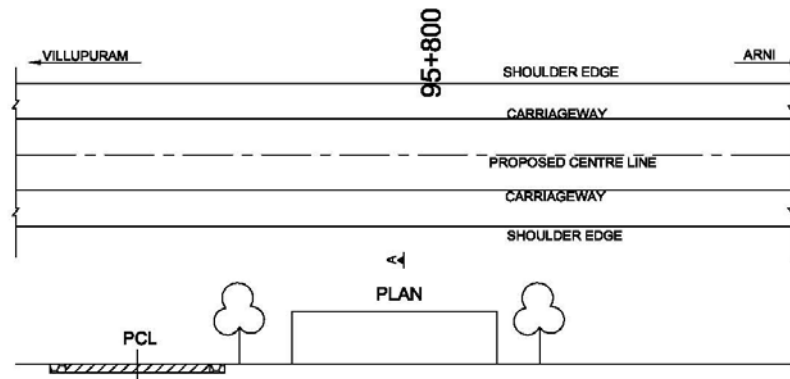
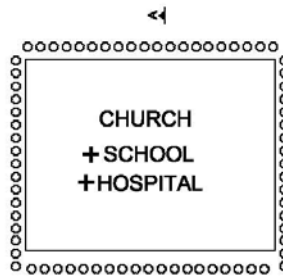
Chainage (km)	95+800	
Structure ID No	Hostel	
Village Name	Muttathur	
Side (Left/Right)	Right	
Distance from PCL (m)	45	
Length x Breadth (m)	30 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	16	1500	24000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					24000		

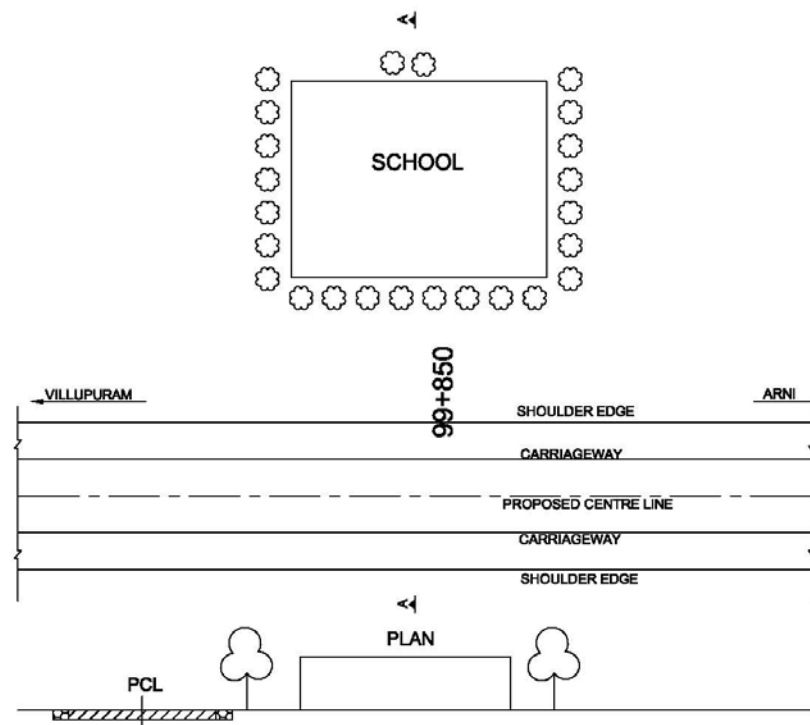
Chainage (km)	95+800	
Structure ID No	Church +school+hospital	
Village Name	Muttathur	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	154 x 210	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	73	1500	109500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					109500		

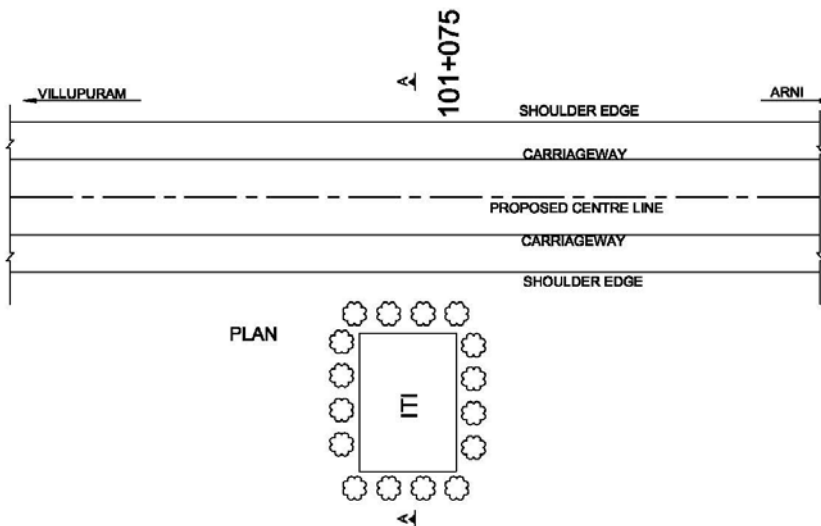
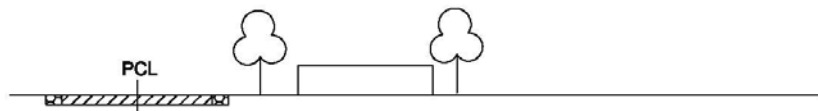
Chainage (km)	99+850	
Structure ID No	School	
Village Name	Nandivadi	
Side (Left/Right)	Left	
Distance from PCL (m)	16.5	
Length x Breadth (m)	65 x 52	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	65	2396	155740	6.0	
2	Tree Plantation	no	24	1500	36000	2.1	
3	Gate	no	1	10000	10000		
4	Horn prohibited sign post	Considered in engineering works					
Total					201740		

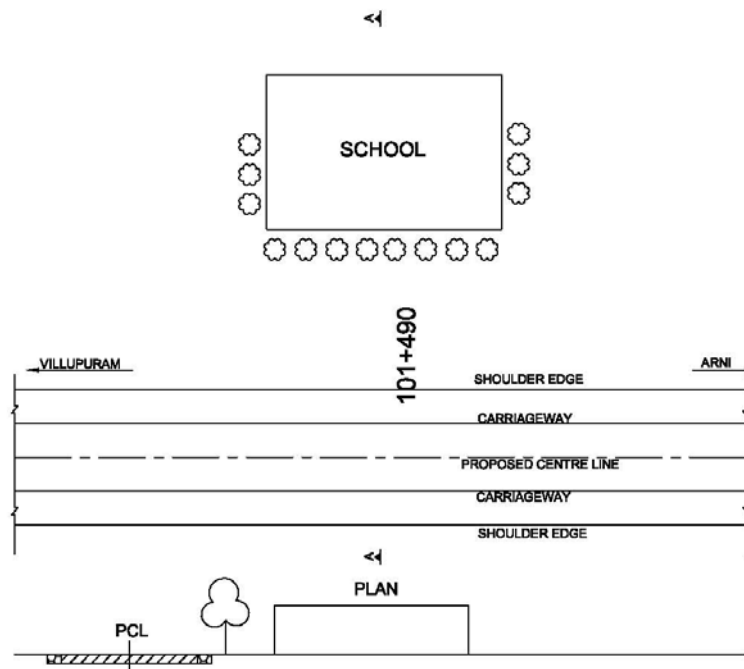
Chainage (km)	101+075	
Structure ID No	ITI	
Village Name	Narsinganur	
Side (Left/Right)	Right	
Distance from PCL (m)	15.5	
Length x Breadth (m)	75 x 140	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	75	2396	179700	6.0	
2	Gate	no	1	10000	10000		
3	Tree Plantation	no	140	1500	210000	2.1	
4	Horn prohibited sign post	Considered in engineering works					
Total					399700		

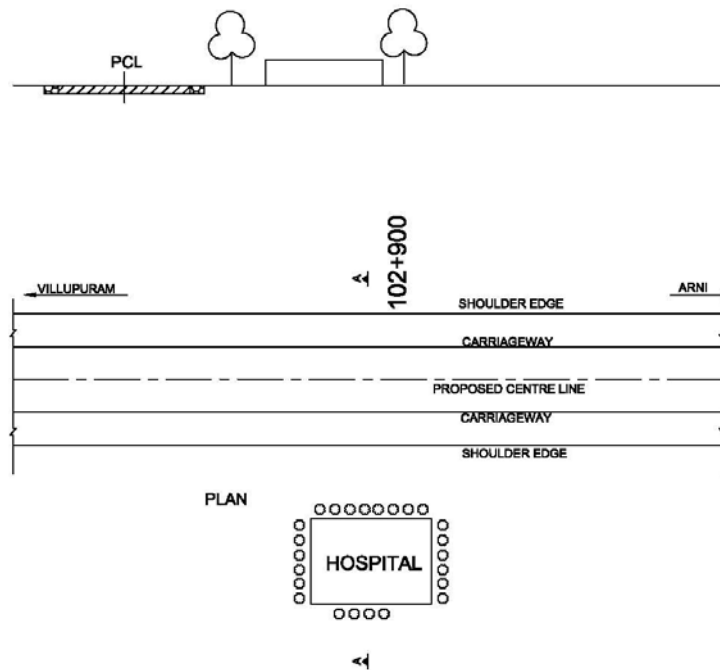
Chainage (km)	101+490	
Structure ID No	School	
Village Name	Narsinganur	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	56 x 14	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	56	2396	134176	6.0	
2	Tree Plantation	no	14	1500	21000	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					165176		

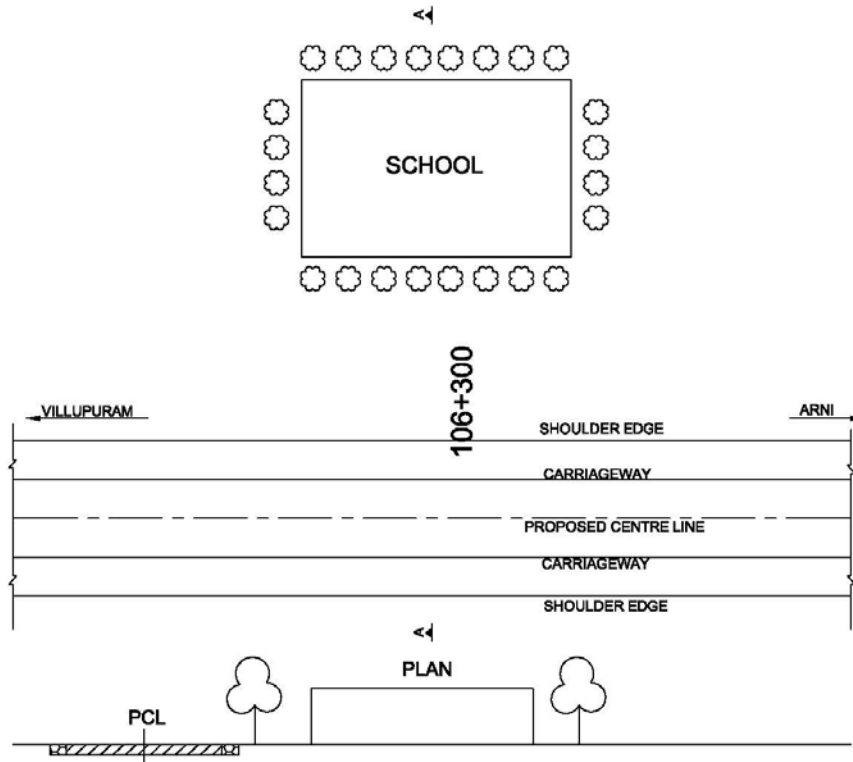
Chainage (km)	102+900	
Structure ID No	Hospital	
Village Name	Kanjanur	
Side (Left/Right)	Right	
Distance from PCL (m)	13.5	
Length x Breadth (m)	82 x 35	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	82	2396	196472	6.0	
2	Tree Plantation	no	24	1500	36000	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					242472		

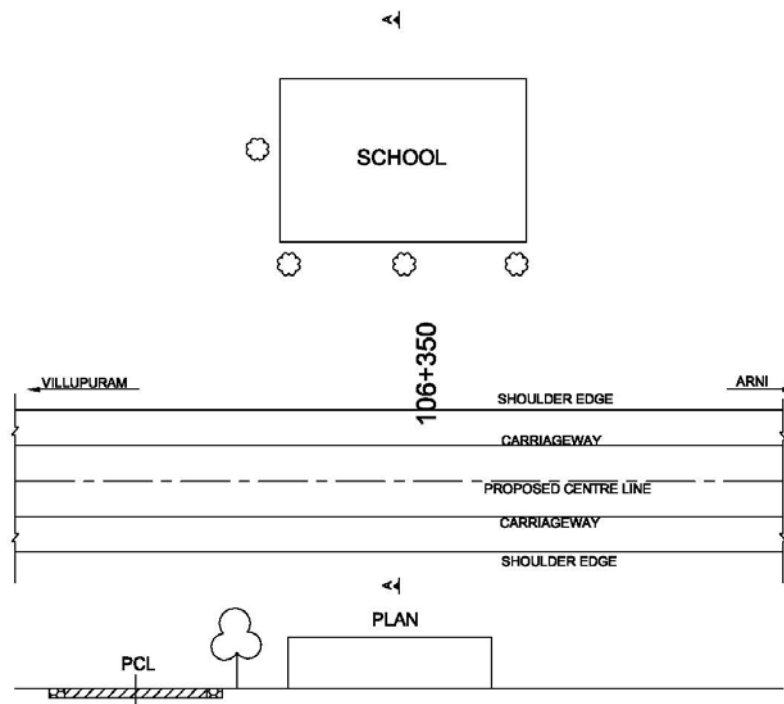
Chainage (km)	106+300
Structure ID No	School
Village Name	Ashokpuri
Side (Left/Right)	Left
Distance from PCL (m)	36
Length x Breadth (m)	10.5 x 6.5
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	No direct impact



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	82	2396	196472	6.0	
2	Tree Plantation	no	24	1500	36000	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					242472		

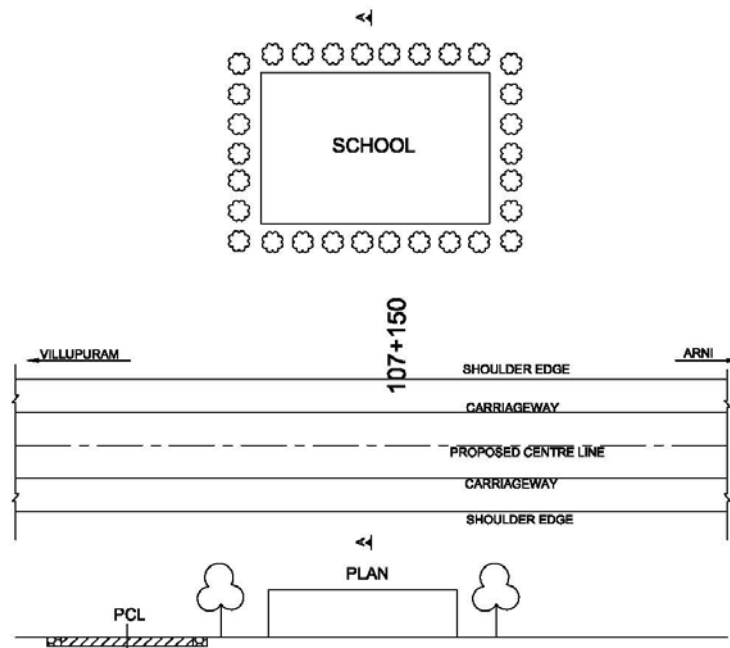
Chainage (km)	106+350	
Structure ID No	School	
Village Name	Ashokpuri	
Side (Left/Right)	Left	
Distance from PCL (m)	20	
Length x Breadth (m)	13.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	13.5	2396	32349	6.0	
2	Tree Plantation	no	4	1500	6000	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					48349		

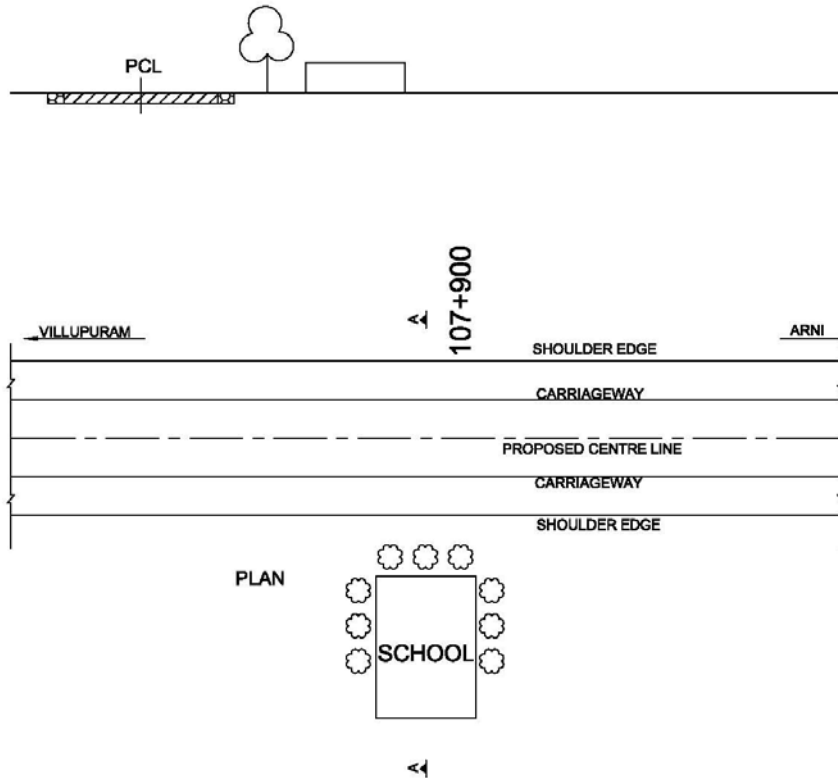
Chainage (km)	107+150	
Structure ID No	School	
Village Name	Thumbur	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	104.2 x 44.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	108	29	3132	6.0	
2	Construction of Boundary Wall	rm	104.2	2396	249663.2	6.0	
3	Tree Plantation	no	30	1500	45000	2.1	
4	Gate	no	1	10000	10000	6.0	
5	Horn prohibited sign post	Considered in engineering works					
Total					307795		

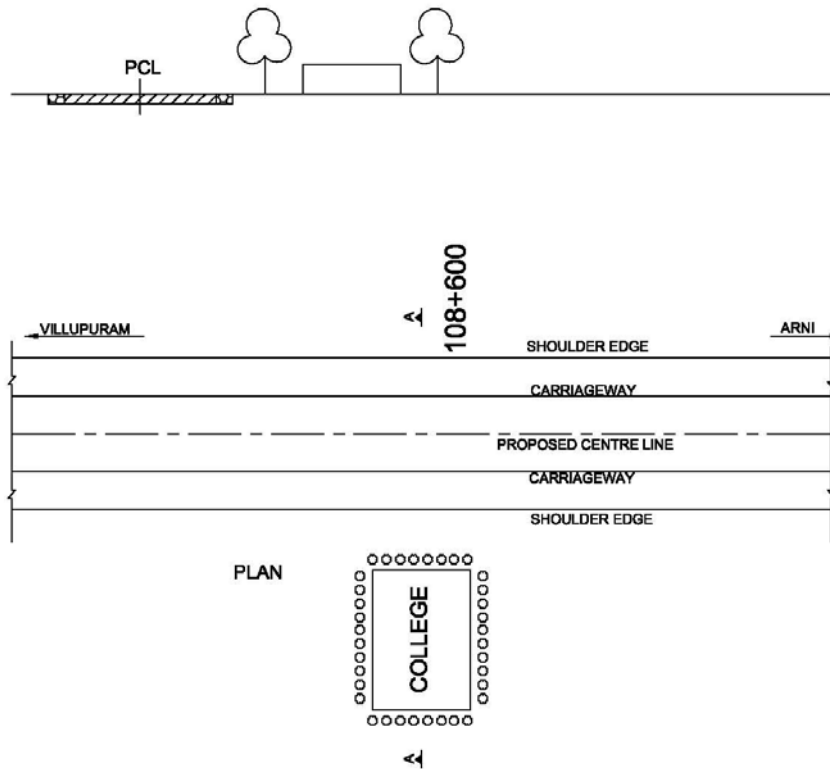
Chainage (km)	107+900	
Structure ID No	School	
Village Name	Thumbur	
Side (Left/Right)	Right	
Distance from PCL (m)	36	
Length x Breadth (m)	8.5 x 33.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	8.5	2396	20366	6.0	
2	Tree Plantation	no	9	1500	13500	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					43866		

Chainage (km)	108+600	
Structure ID No	College	
Village Name	Lakshmipuram	
Side (Left/Right)	Right	
Distance from PCL (m)	12.5	
Length x Breadth (m)	72 x 108.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	

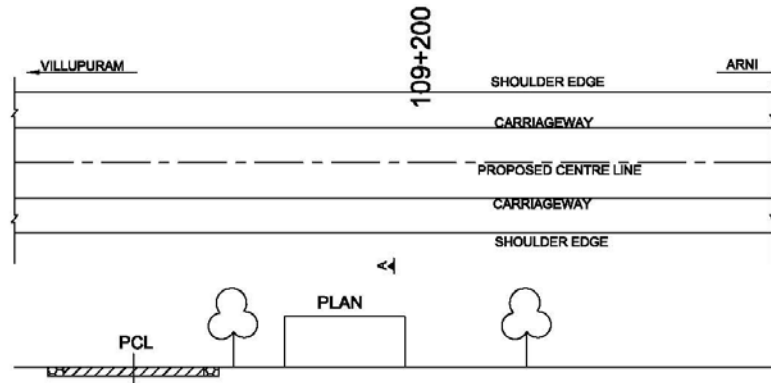


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	72	2396	172512	6.0	
2	Tree Plantation	no	36	1500	54000	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					236512		


Chainage (km)	109+200	
Structure ID No	School	
Village Name	Lakshmipuram	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	31.5 x 63.7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

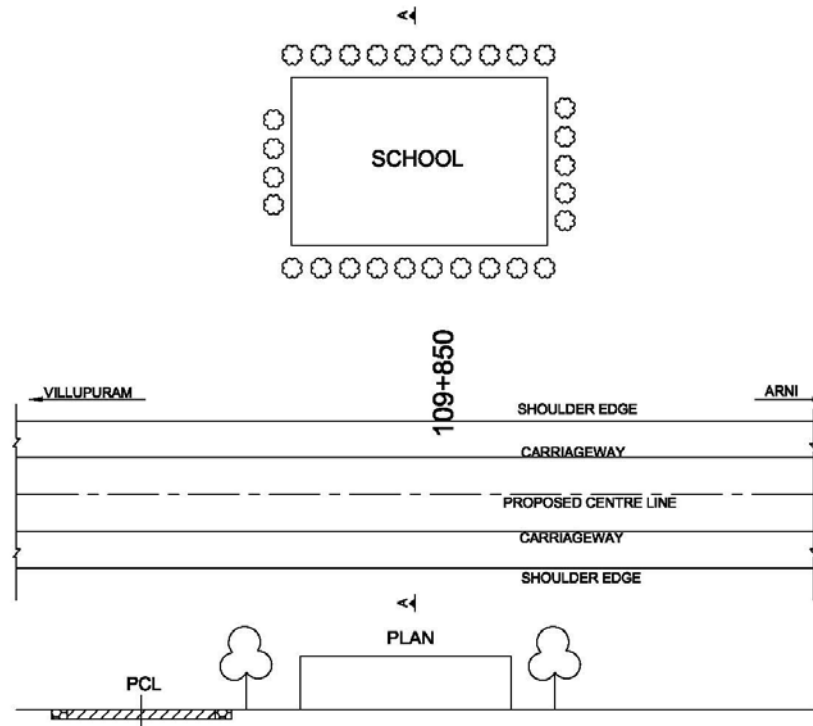
4



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	31.5	2396	75474	6.0	
2	Tree Plantation	no	19	1500	28500	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					113974		

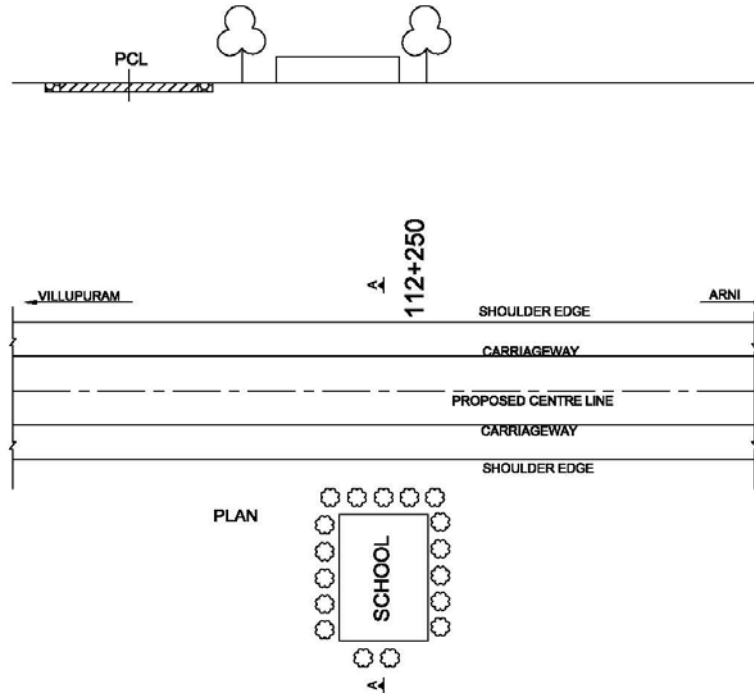
Chainage (km)	109+850	
Structure ID No	School	
Village Name	Orathur	
Side (Left/Right)	Left	
Distance from PCL (m)	12	
Length x Breadth (m)	84.7 x 58.1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	29	1500	43500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					43500		

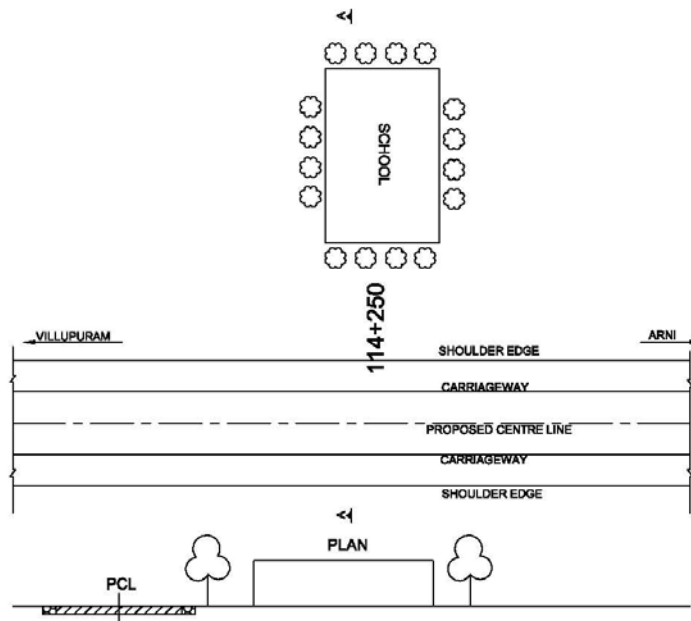
Chainage (km)	112+250	
Structure ID No	School	
Village Name	Puthomedu	
Side (Left/Right)	Right	
Distance from PCL (m)	39.5	
Length x Breadth (m)	16 x 65	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	16	2396	38336	6.0	
2	Tree Plantation	no	17	1500	25500	2.1	
3	Gate	no	1	10000	10000	6.0	
4	Horn prohibited sign post	Considered in engineering works					
Total					73836		

Chainage (km)	114+250	
Structure ID No	School	
Village Name	Papankulam	
Side (Left/Right)	Left	
Distance from PCL (m)	15.5	
Length x Breadth (m)	28 x 50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	

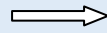


MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	16	1500	24000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					24000		

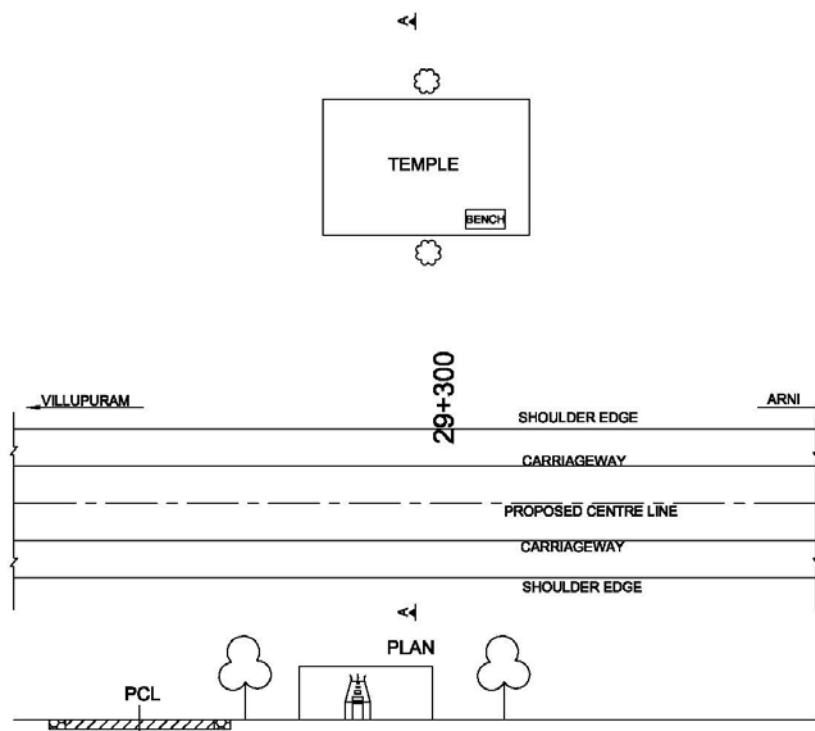
Community Structures along SH 04

ARNI




VILLUPURAM

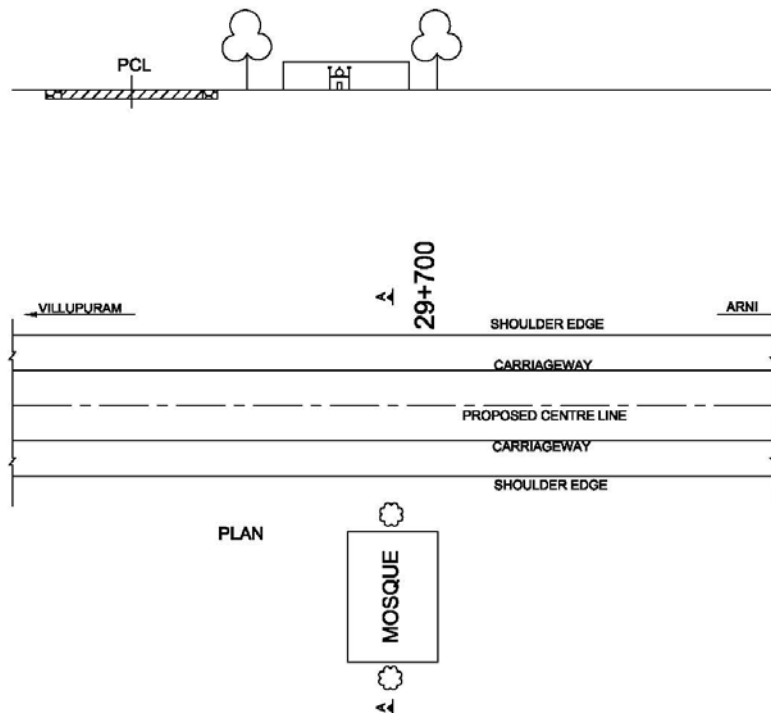
Chainage (km)	29+300	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	5.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of platform	rm	1.5	30	45	6.0
2	Seating bench	No	1	1200	1200	6.0
3	Tree Plantation	No	2	1500	3000	2.1
Total					4245	

Chainage (km)	29+700	
Structure ID No	Mosque	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	4	
Length x Breadth (m)	5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

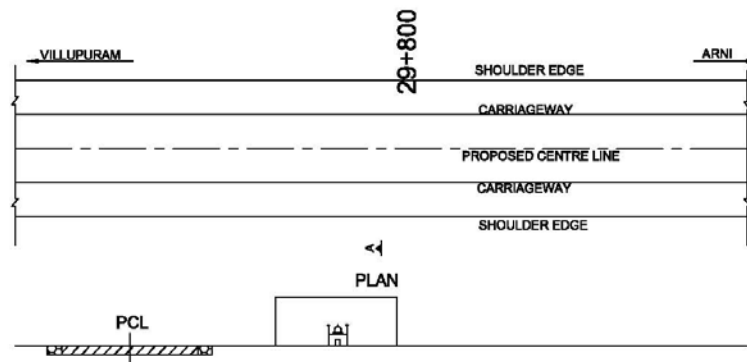
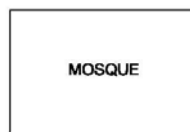


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	14	19	266	6.0
2	Construction of boundary Wall	rm	5	1600	8000	6.0
3	Tree Plantation	No	2	1500	3000	2.1
4	Gate	no	1	10000	10000	6.0
Total					21266	


Chainage (km)	29+800	
Structure ID No	Mosque	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	6	
Length x Breadth (m)	25 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

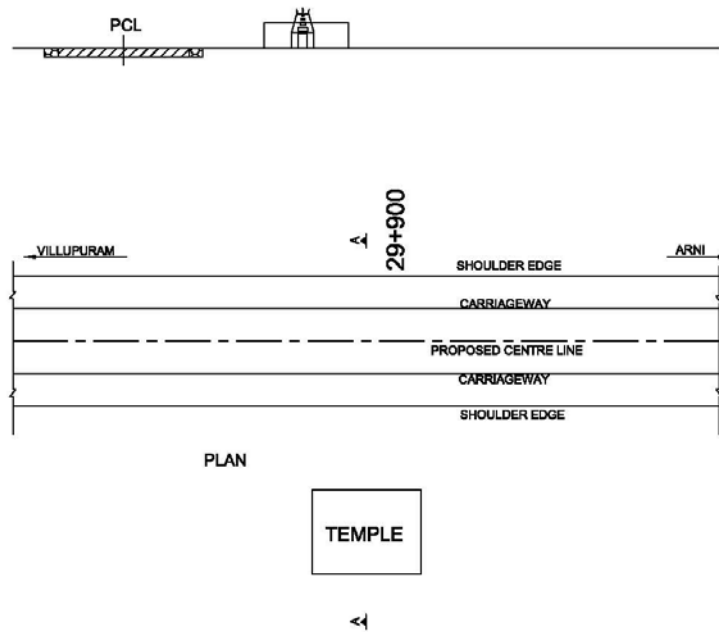
4



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of gate	No	1	300	300	6.0
2	Gate	No	1	10000	10000	6.0
Total					10300	

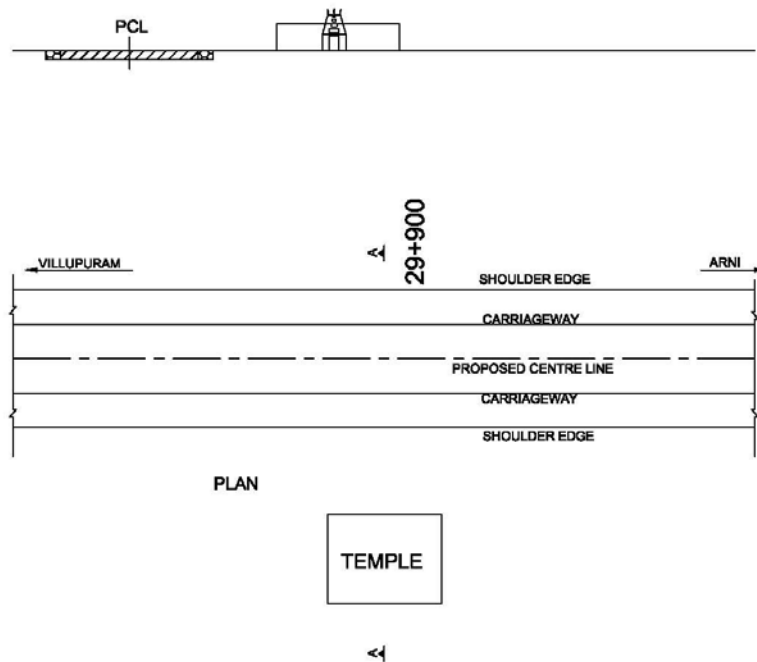
Chainage (km)	29+900	
Structure ID No	Temple (2 nos)	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	4x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of platform	rm	4	44	176	6.0
Total					404	

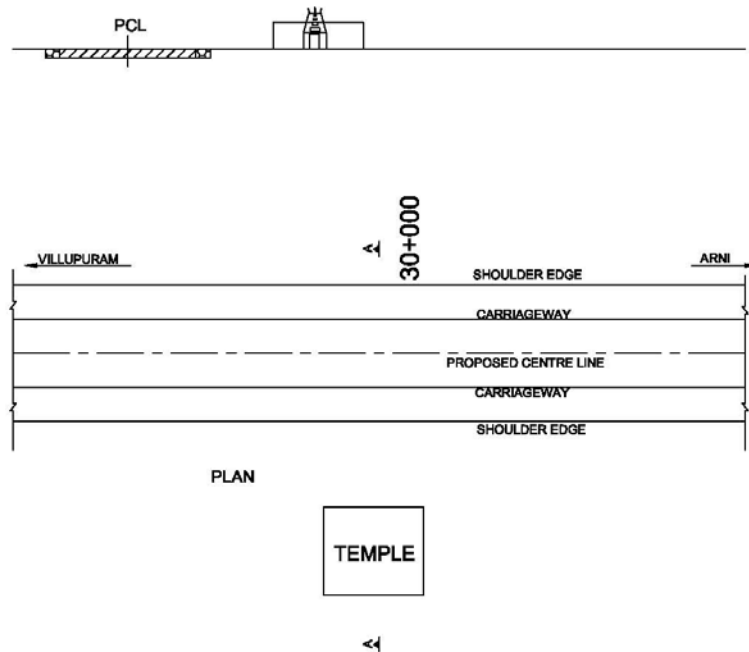
Chainage (km)	29+900	
Structure ID No	Temple (2 nos)	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	4x 3	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of platform	rm	4	44	176	6.0
Total					176	

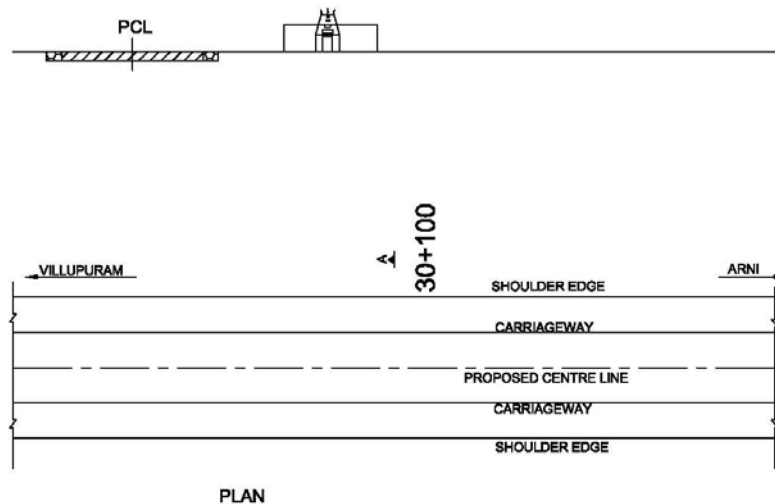
Chainage (km)	30+000	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	2 x 2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						

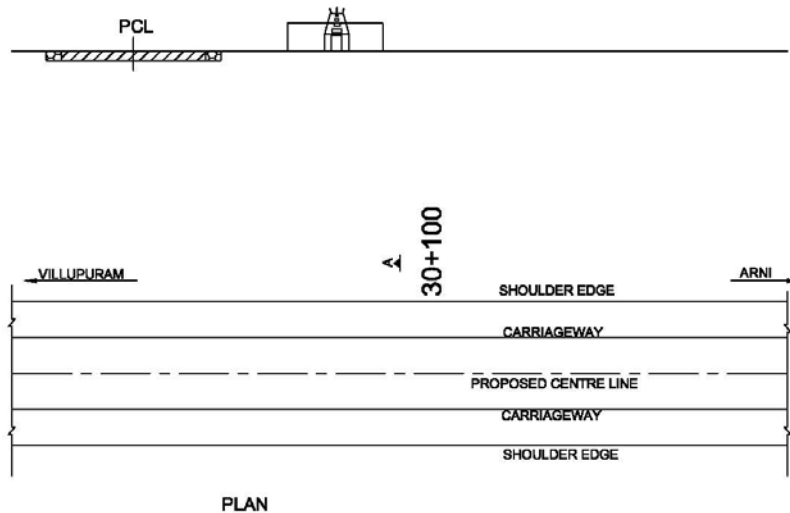
Chainage (km)	30+100	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	19 x 11	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	30+100	
Structure ID No	Temple	
Village Name	Arni	
Side (Left/Right)	Right	
Distance from PCL (m)	6	
Length x Breadth (m)	6 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	




PLAN



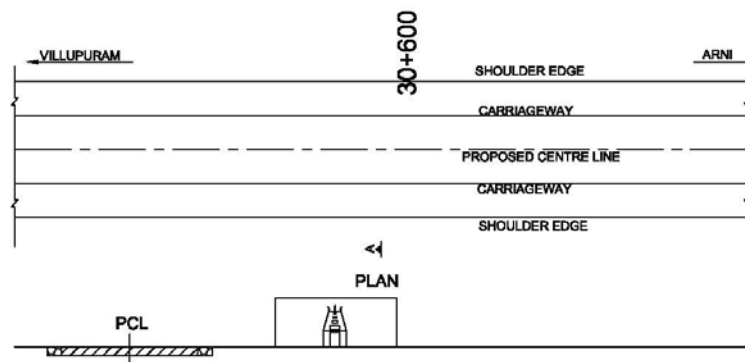
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MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						


Chainage (km)	30+600	
Structure ID No	Temple (statue)	
Village Name	Arni	
Side (Left/Right)	Left	
Distance from PCL (m)	10	
Length x Breadth (m)	1.5 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

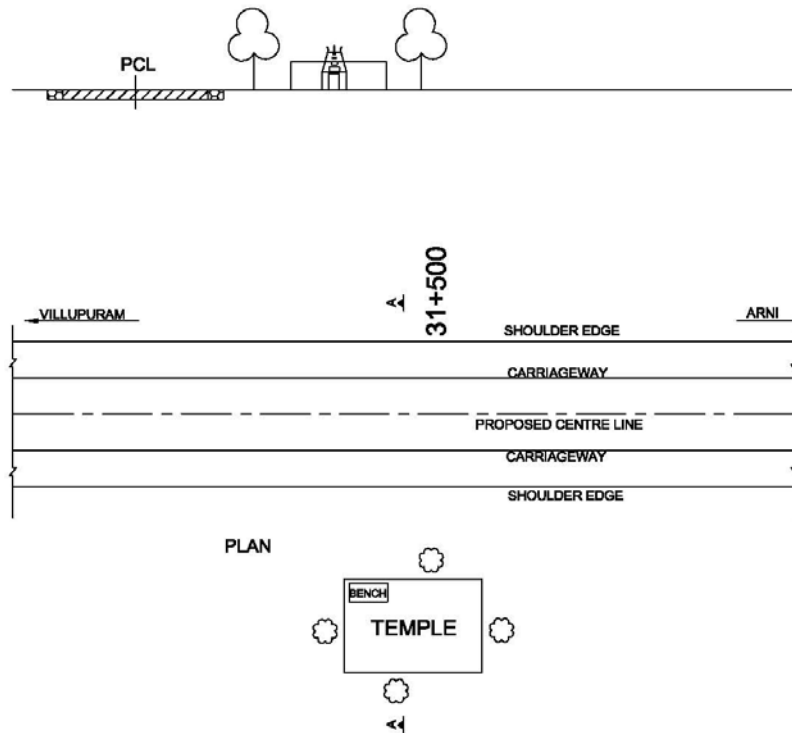
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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						

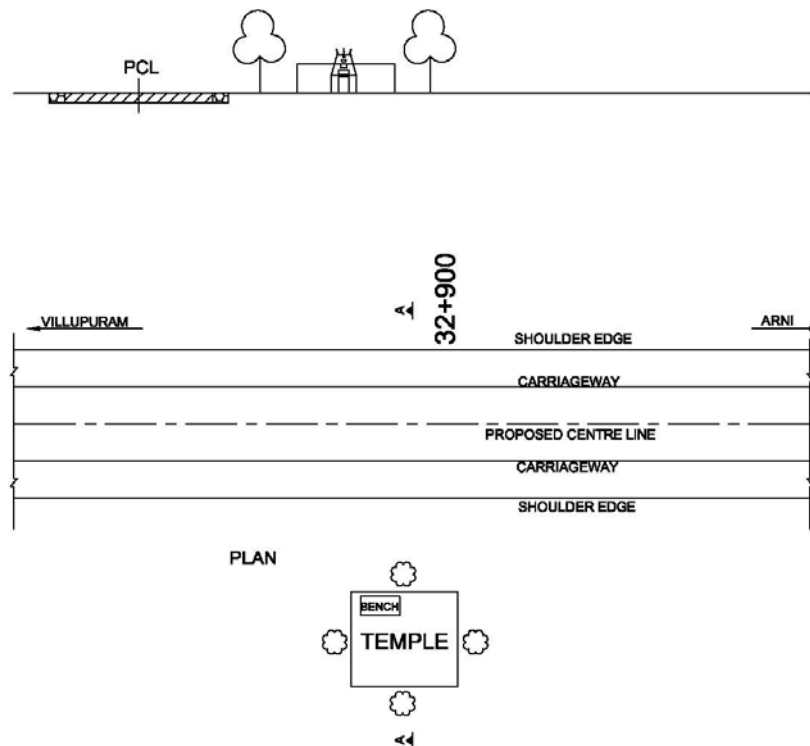
Chainage (km)	31+500	
Structure ID No	Temple	
Village Name	Sitheri	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	18 x 15	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	23	19	437	6.0
2	Construction of boundary Wall	rm	18	1600	28400	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					46037	

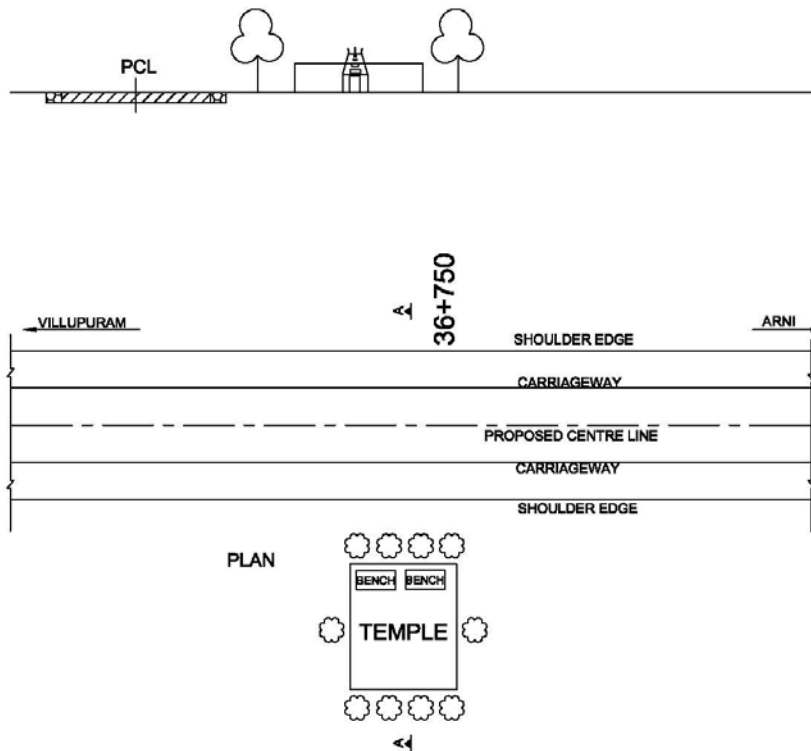
Chainage (km)	32+900	
Structure ID No	Temple	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	9.8 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	12	19	228	6.0
2	Construction of boundary Wall	rm	9.8	1600	15580	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					33008	

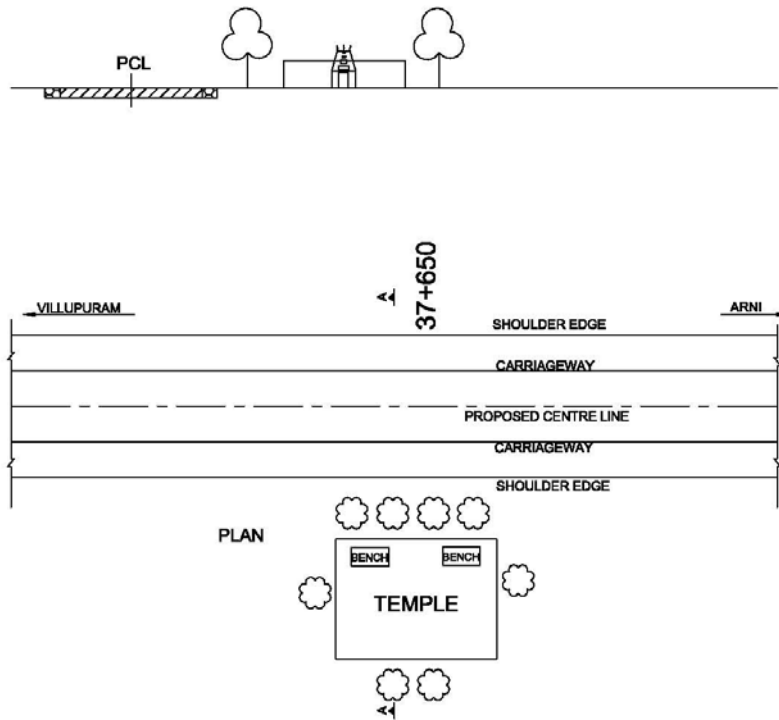
Chainage (km)	36+750	
Structure ID No	Temple	
Village Name	Nesal	
Side (Left/Right)	Right	
Distance from PCL (m)	11	
Length x Breadth (m)	19 x 32	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	20	19	380	6.0
2	Construction of boundary Wall	rm	19	1600	30400	6.0
3	Seating bench	No	2	1200	2400	6.0
4	Tree Plantation	No	10	1500	15000	2.1
5	Gate	no	1	10000	10000	6.0
Total					58180	

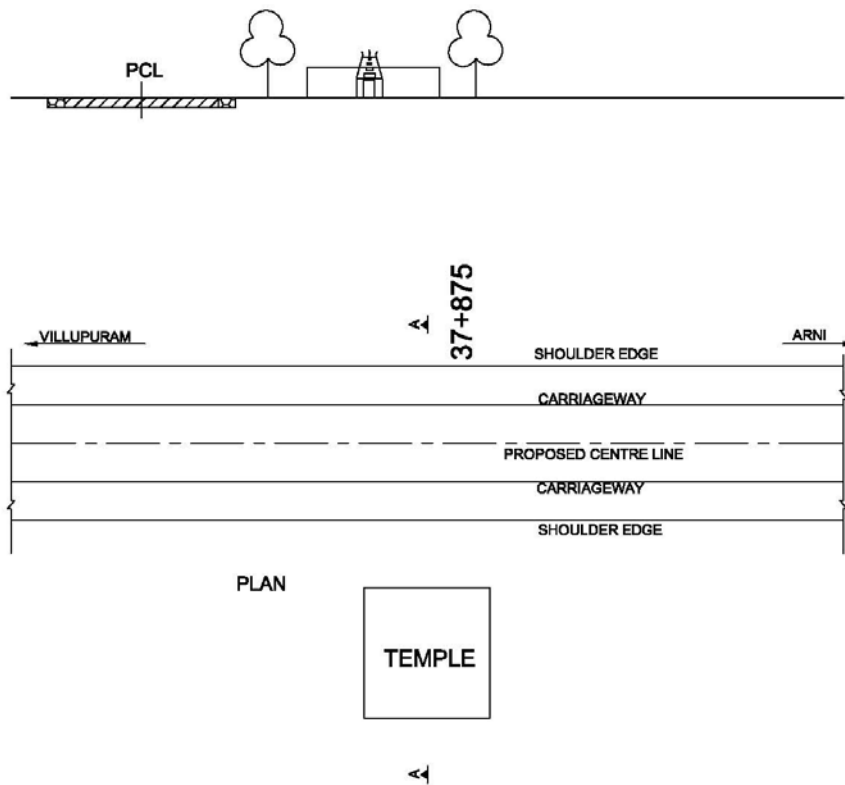
Chainage (km)	37+650	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	35.5 x 28.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of Gate	rm	1	325	325	6.0
2	Seating bench	No	2	1200	2400	6.0
3	Tree Plantation	No	10	1500	15000	2.1
4	Gate	no	1	10000	10000	6.0
Total					27725	

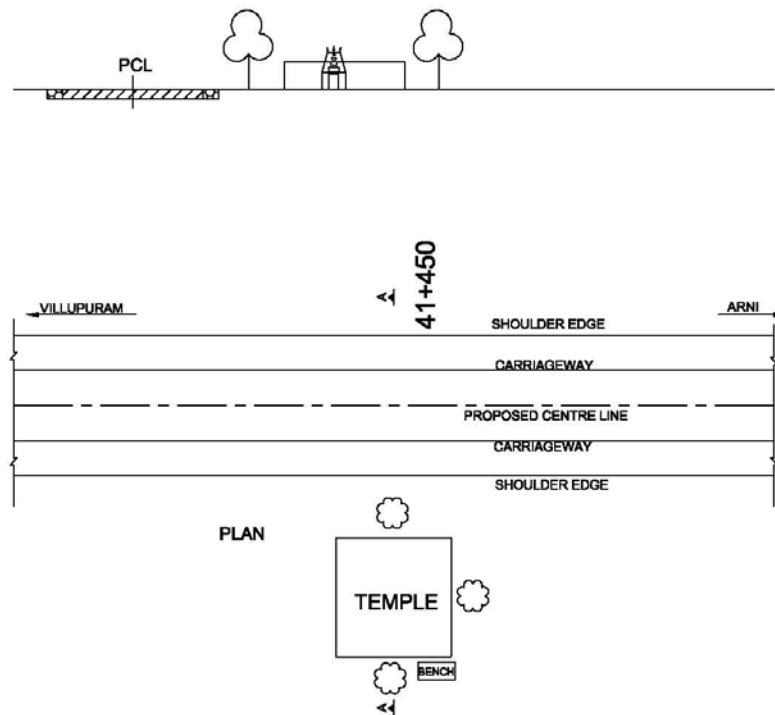
hainage (km)	37+875	
Structure ID No	Temple	
Village Name	Vinnamangal	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	41+450	
Structure ID No	Temple	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

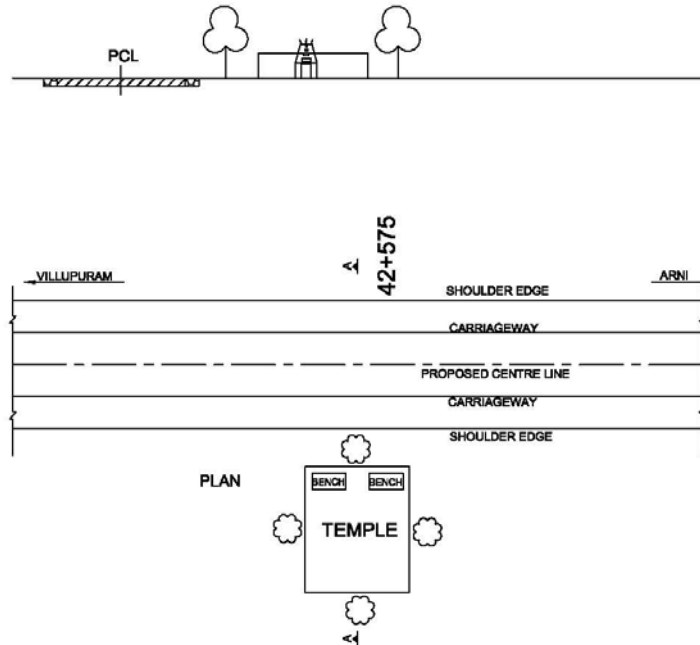


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of mandapam	No	1	600	600	6.0
2	Seating bench	No	1	1200	1200	6.0
3	Tree Plantation	No	3	1500	4500	2.1
Total					6300	


Chainage (km)	42+575	
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Structure ID No	Temple	
Village Name	Kollappalur	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	8 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

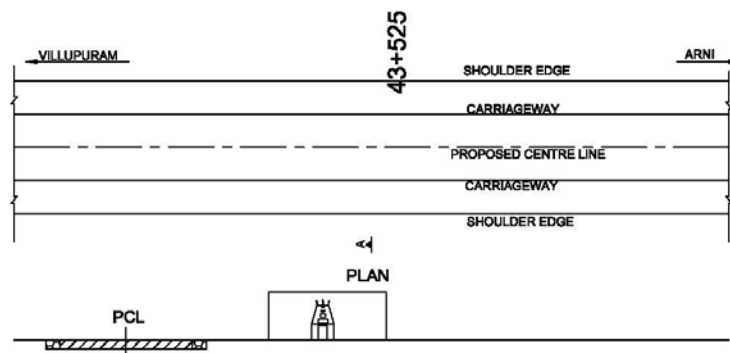
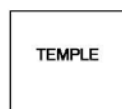


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of Structure	rm	13	58	754	6.0
2	Seating bench	No	2	1200	2400	6.0
3	Tree Plantation	No	4	1500	6000	2.1
4	Gate	no	1	10000	10000	6.0
Total					19154	


Chainage (km)	43+525	
Structure ID No	Temple	
Village Name	Indravarnam	
Side (Left/Right)	Left	
Distance from PCL (m)	6.5	
Length x Breadth (m)	3 x 2.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

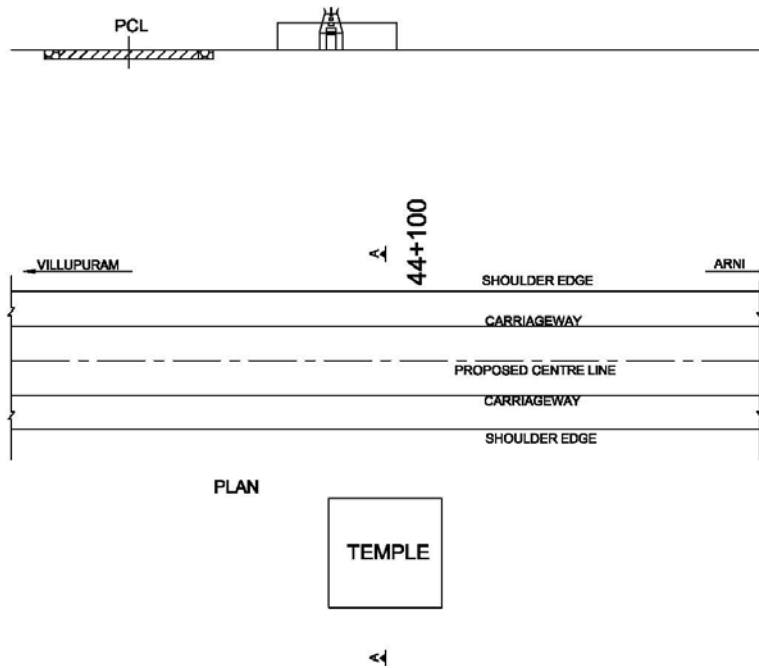
←



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

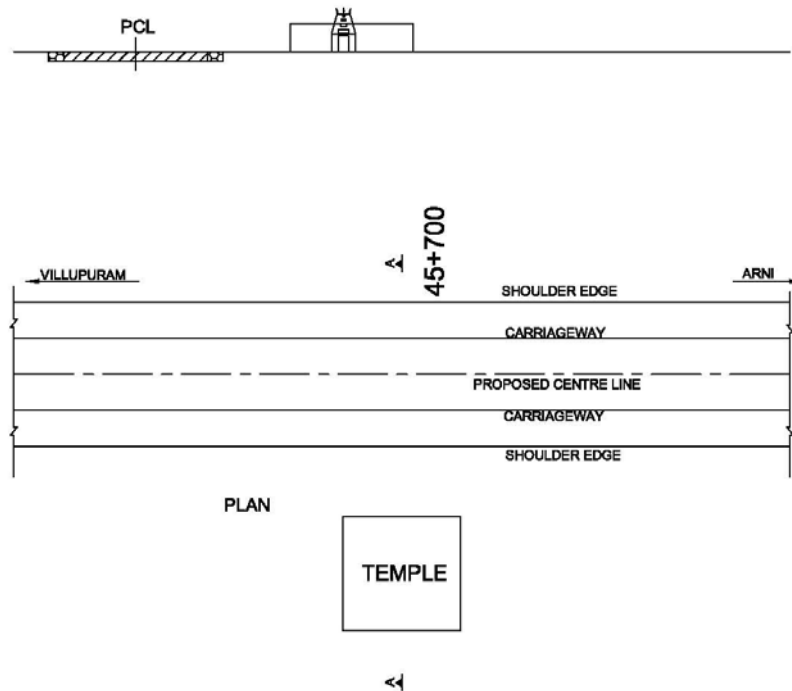
Chainage (km)	44+100	
Structure ID No	Temple	
Village Name	Indravanam	
Side (Left/Right)	Right	
Distance from PCL (m)	7.7	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition	nil	nil	nil	nil	nil
Total						

Chainage (km)	45+700	
Structure ID No	Temple	
Village Name	Chammambadi	
Side (Left/Right)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	6.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



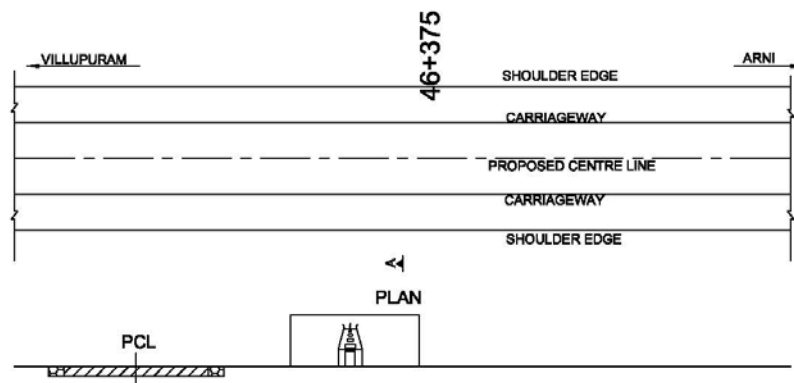
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	46+375
Structure ID No	Temple
Village Name	Chammambadi
Side (Left/Right)	Left
Distance from PCL (m)	9.8
Length x Breadth (m)	1 x 1
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



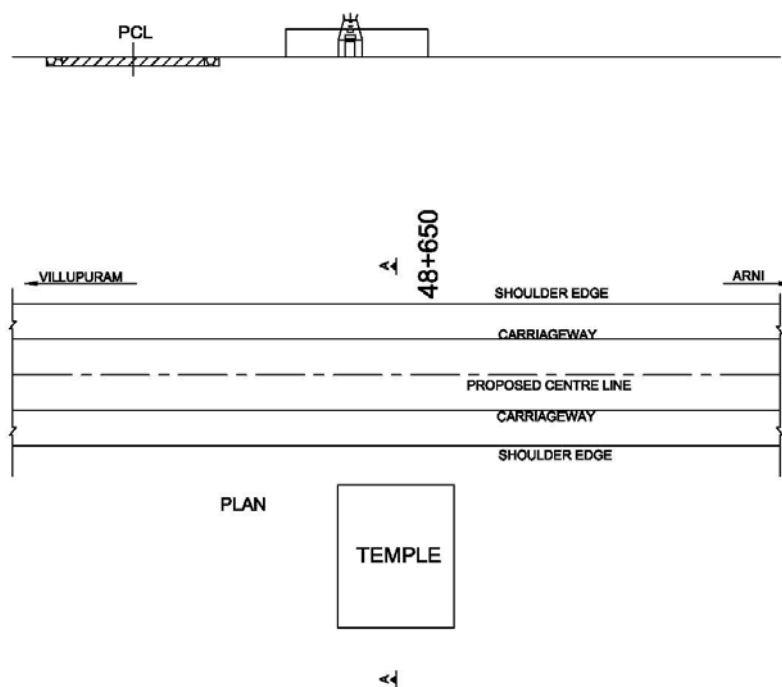
4



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition	nil	nil	nil	nil	nil
Total						

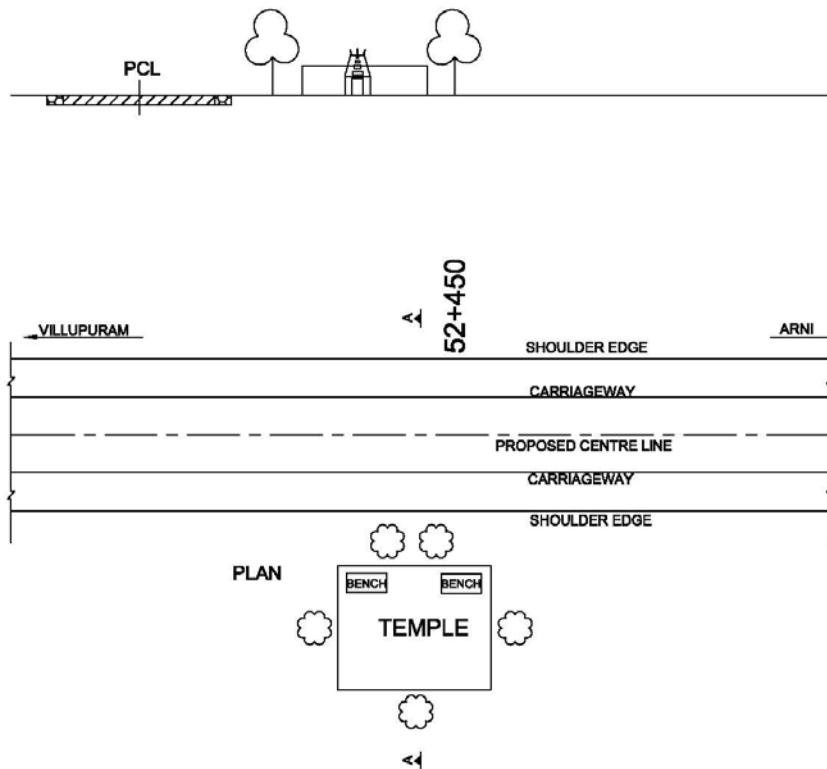
Chainage (km)	48+650
Structure ID No	Temple
Village Name	Yangasudamani
Side (Left/Right)	Right
Distance from PCL (m)	7.7
Length x Breadth (m)	1 x 2
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition	nil	nil	nil	nil	nil
Total						

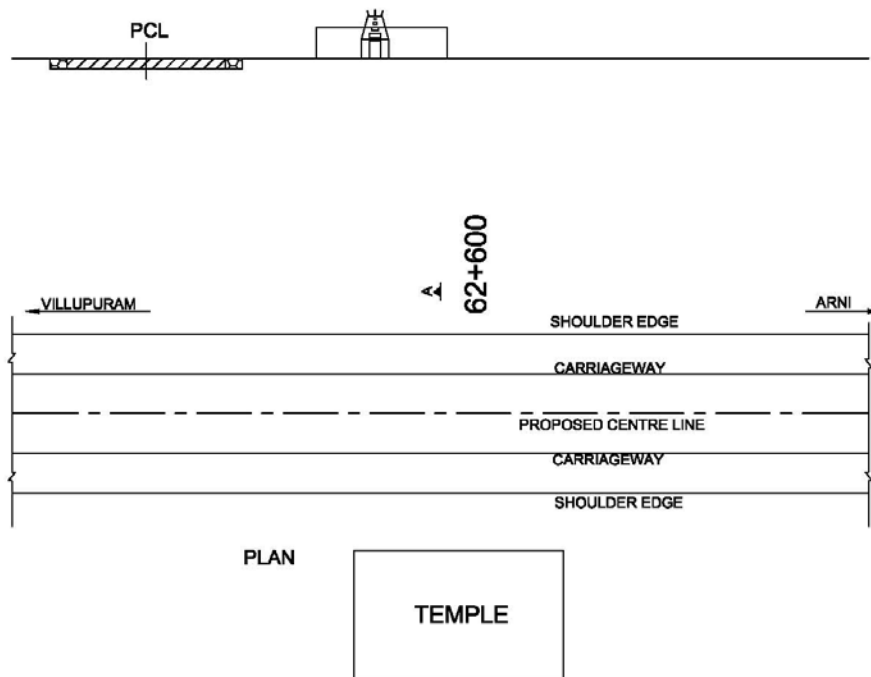
Chainage (km)	52+450	
Structure ID No	Temple	
Village Name	Chetpet	
Side (Left/Right)	Right	
Distance from PCL (m)	7.7	
Length x Breadth (m)	25.5 x 19.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	26	19	494	6.0
2	Construction of boundary Wall	rm	25.5	1600	40800	6.0
3	Seating bench	No	2	1200	2400	6.0
4	Tree Plantation	No	5	1500	7500	2.1
5	Gate	no	1	10000	10000	6.0
Total					61194	

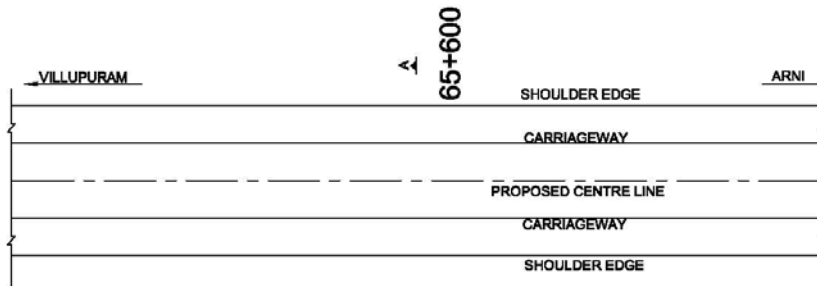
Chainage (km)	62+600	
Structure ID No	Temple	
Village Name	Devanur	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	4 x 2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



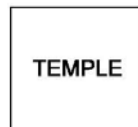
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition	nil	nil	nil	nil	nil
Total						

Chainage (km)	65+600	
Structure ID No	Temple	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	5.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	




PLAN

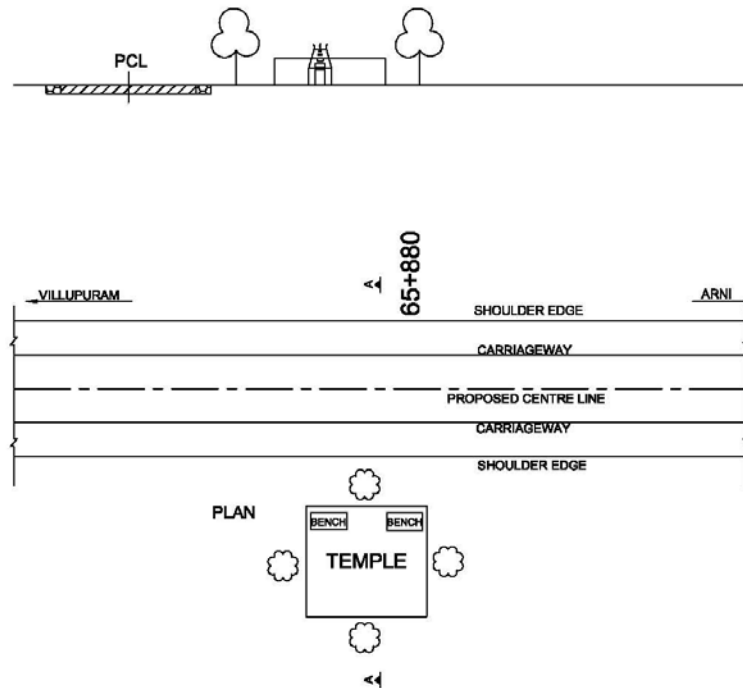


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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	65+880	
Structure ID No	Temple	
Village Name	Valathy	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	21 x 21	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

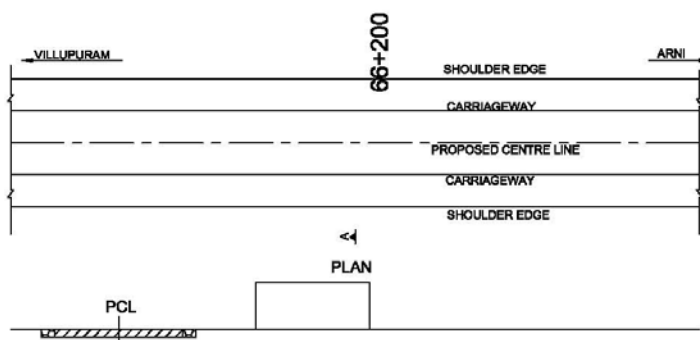
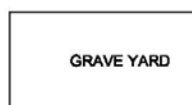


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	28	19	532	6.0
2	Construction of boundary Wall	rm	21	1600	35600	6.0
3	Seating bench	No	2	1200	2400	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					54532	


Chainage (km)	66+200	
Structure ID No	Grave yard	
Village Name	Valathy	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	35 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

4



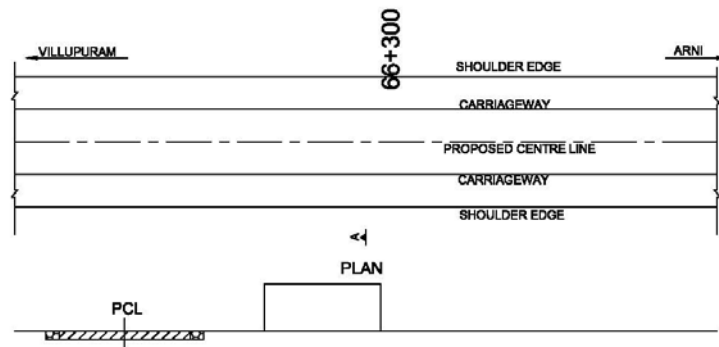
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	66+300	
Structure ID No	Graveyard+crematoria	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	35 x 32	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	


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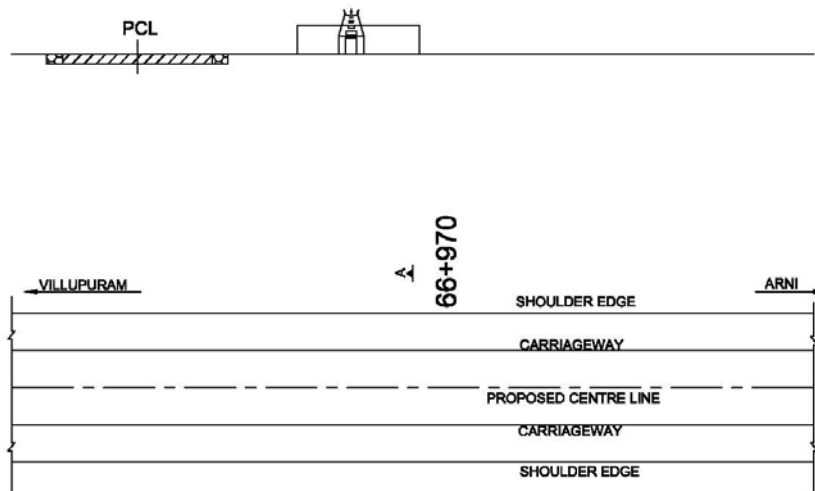
GRAVE YARD
+CREMATORIA



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	66+970	
Structure ID No	Statue	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL (m)	7.5	
Length x Breadth (m)	1 x 2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	




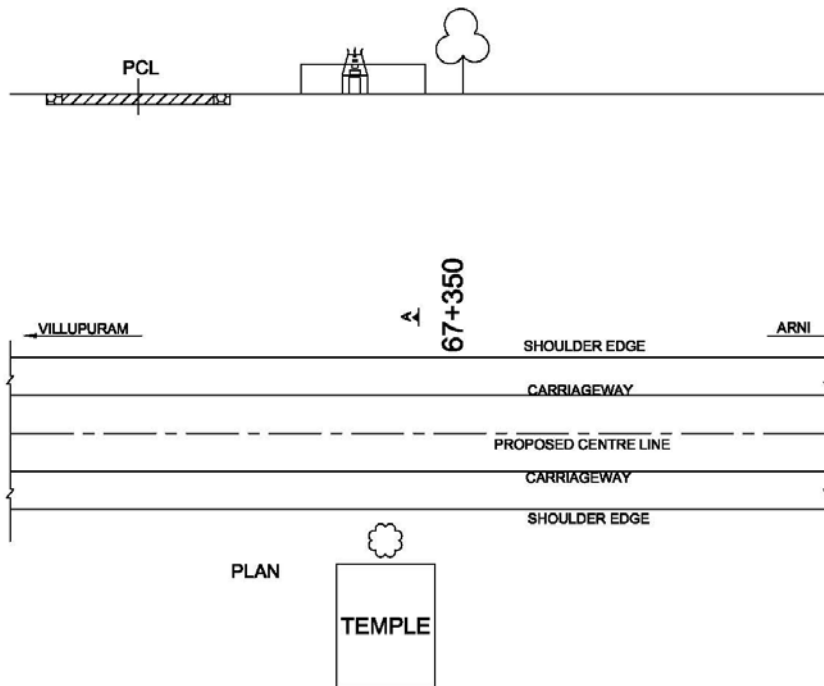
PLAN



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition	nil	nil	nil	nil	nil
Total						

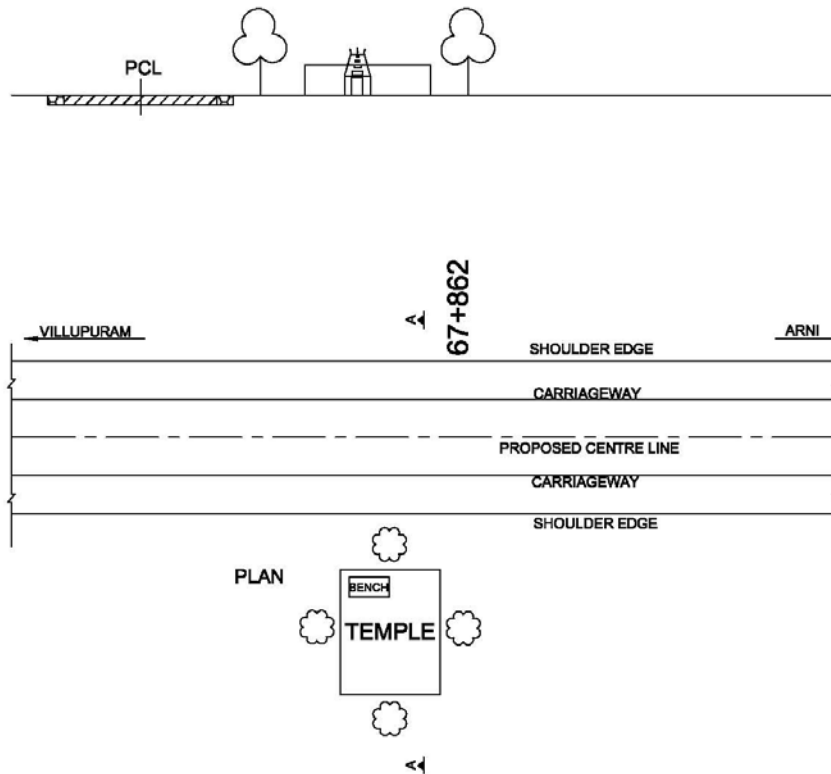
Chainage (km)	67+350	
Structure ID No	Temple	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL (m)	6.3	
Length x Breadth (m)	11 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition	rm	11	145	1595	6.0
2	Tree plantation	No	1	1500	1500	2.1
Total					3095	

Chainage (km)	67+862	
Structure ID No	Temple	
Village Name	Kannalam	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	12.5 x 13	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

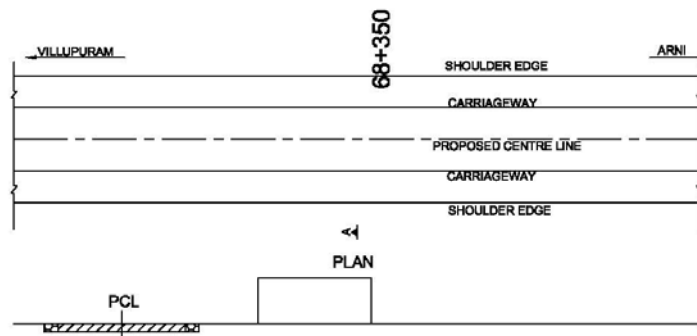
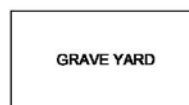


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	18.5	19	352	6.0
2	Construction of boundary Wall	rm	12.5	1600	20000	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					37552	


Chainage (km)	68+350	
Structure ID No	Grave yard	
Village Name	Kannalam	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	14 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

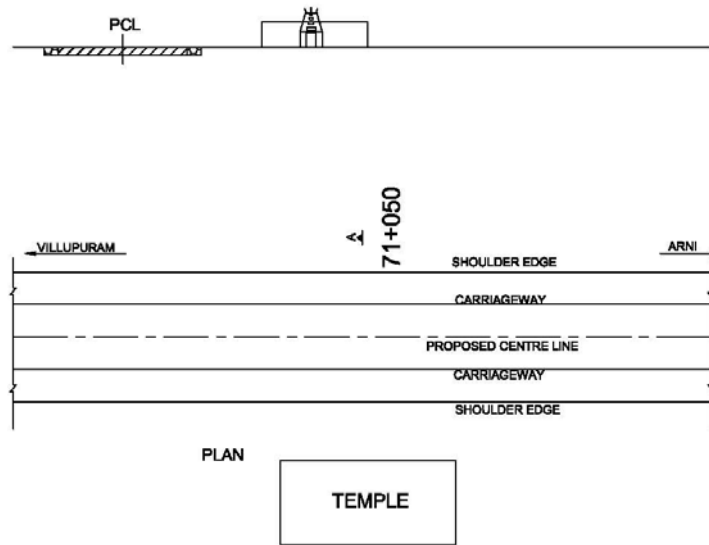
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MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	71+050	
Structure ID No	Temple	
Village Name	Neelampoondi	
Side (Left/Right)	Right	
Distance from PCL (m)	4	
Length x Breadth (m)	17.5 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



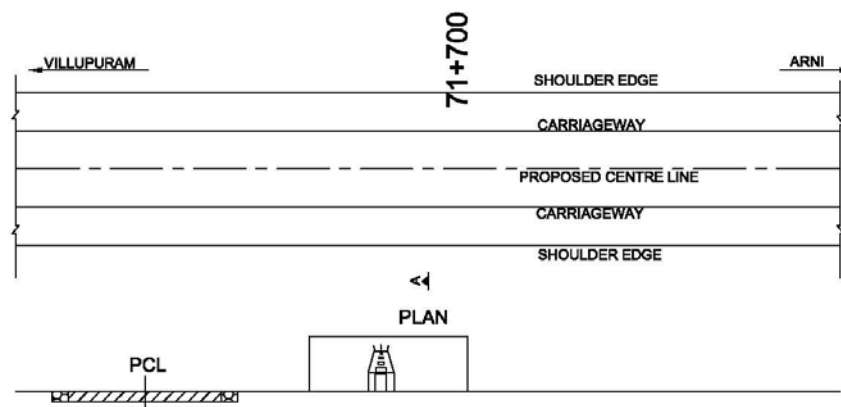
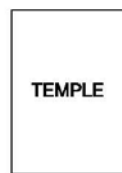
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

Chainage (km)	71+700
Structure ID No	Temple
Village Name	Neelampoondi
Side (Left/Right)	Left
Distance from PCL (m)	7
Length x Breadth (m)	1 x 2
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact




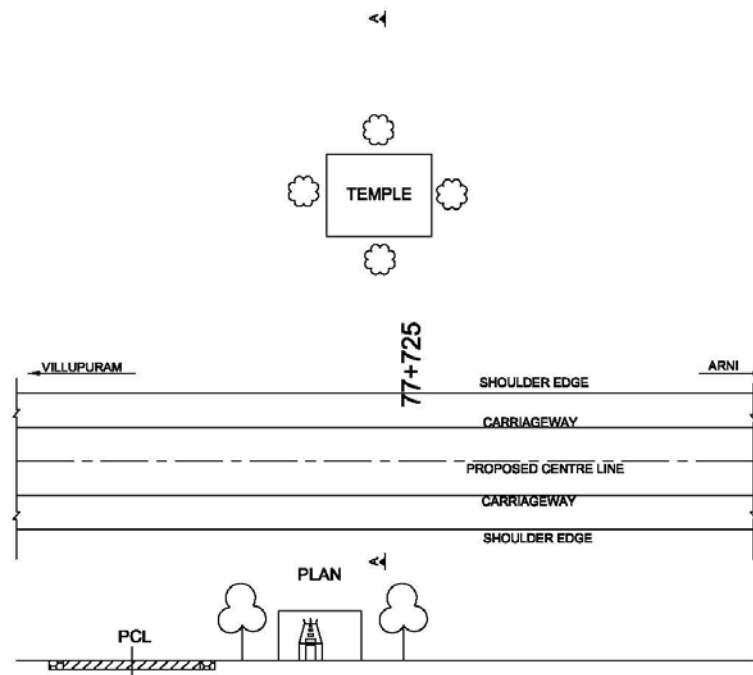
A



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						

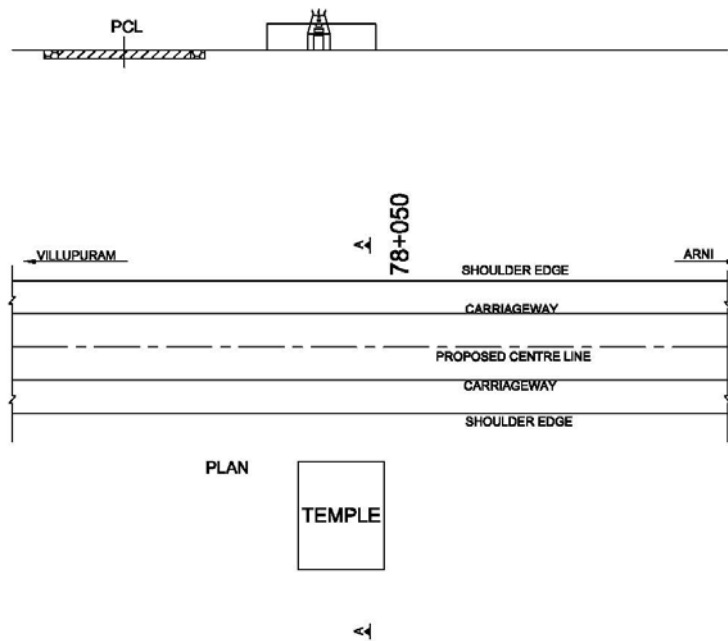
Chainage (km)	77+725	
Structure ID No	Temple	
Village Name	Kariyamangalam kut road	
Side (Right/Left)	Left	
Distance from PCL (m)	9.8	
Length x Breadth (m)	11.2 x 11	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	4	19	76	6.0
2	Construction of boundary Wall	rm	11.2	1600	17920	6.0
3	Tree Plantation	No	4	1500	6000	2.1
4	Gate	no	1	10000	10000	6.0
Total					33996	

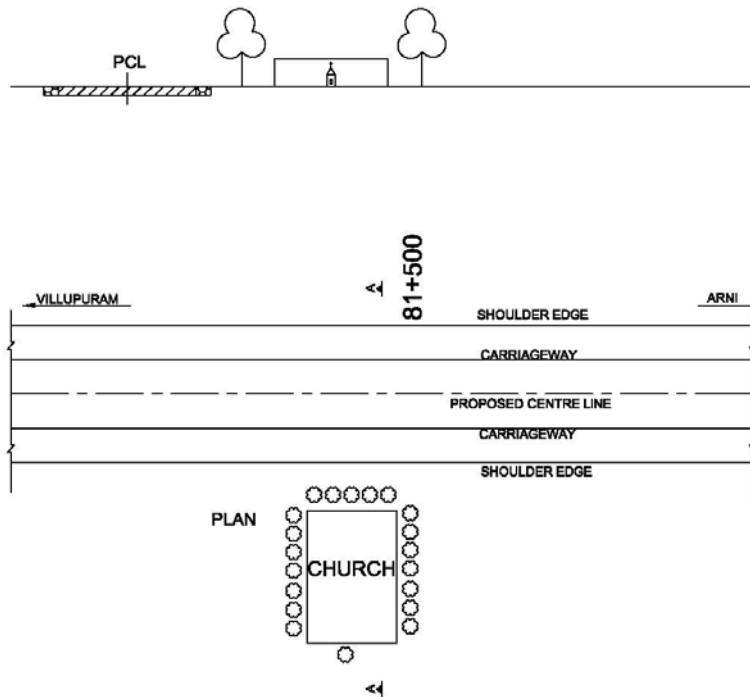
Chainage (km)	78+050	
Structure ID No	Temple	
Village Name	Gingee	
Side (Right/Left)	Right	
Distance from PCL (m)	2	
Length x Breadth (m)	10.5 x 21	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

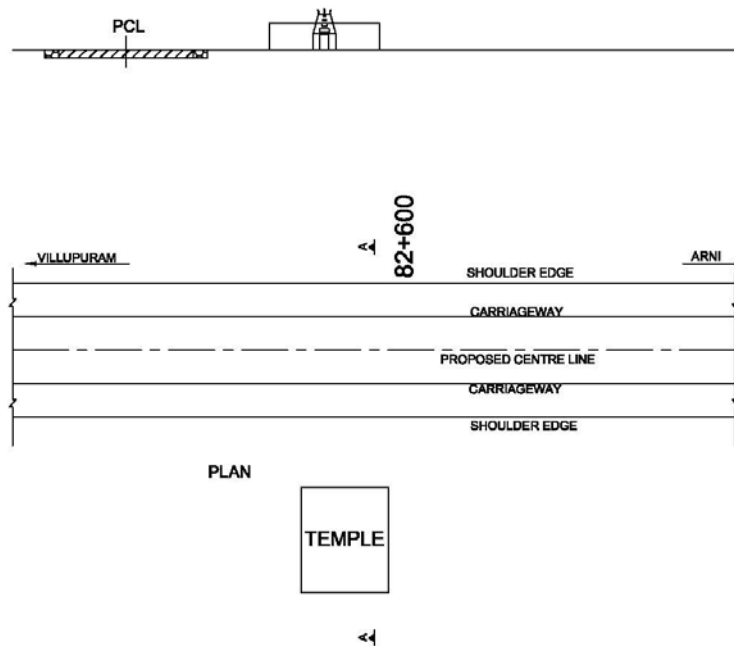
Chainage (km)	81+500	
Structure ID No	Church	
Village Name	Gumiyanguttai	
Side (Right/Left)	Right	
Distance from PCL (m)	10	
Length x Breadth (m)	29.5 x 72.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	32.5	19	618	6.0
2	Construction of boundary Wall	rm	29.5	1600	47200	6.0
3	Tree Plantation	No	20	1500	30000	2.1
4	Gate	no	1	10000	10000	6.0
Total					87818	

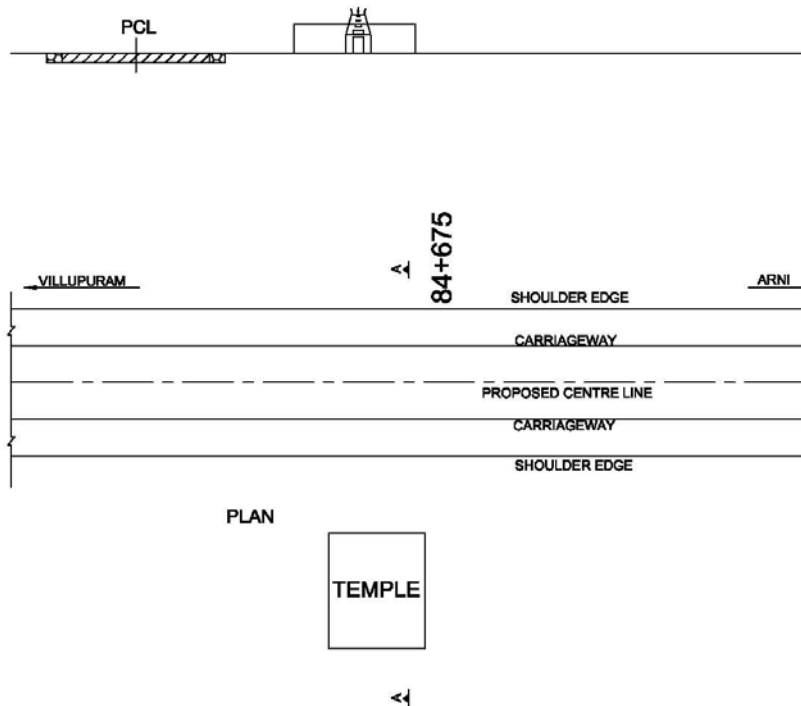
Chainage (km)	82+600	
Structure ID No	Temple	
Village Name	Appampattu	
Side (Right/Left)	Right	
Distance from PCL (m)	6.5	
Length x Breadth (m)	5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

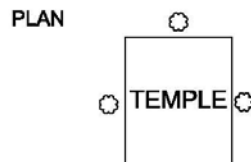
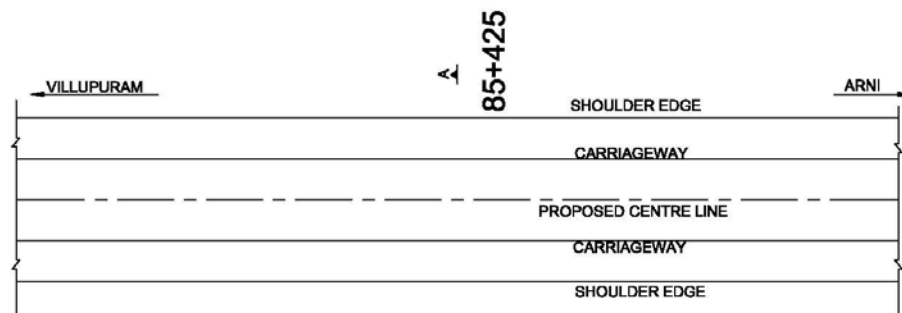
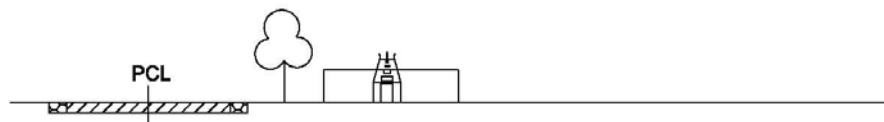
Chainage (km)	84+675	
Structure ID No	Temple	
Village Name	Appampattu	
Side (Right/Left)	Right	
Distance from PCL (m)	9	
Length x Breadth (m)	3 x 4.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						


Chainage (km)	85+425	
Structure ID No	Temple	
Village Name	Kavarai	
Side (Right/Left)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	6.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

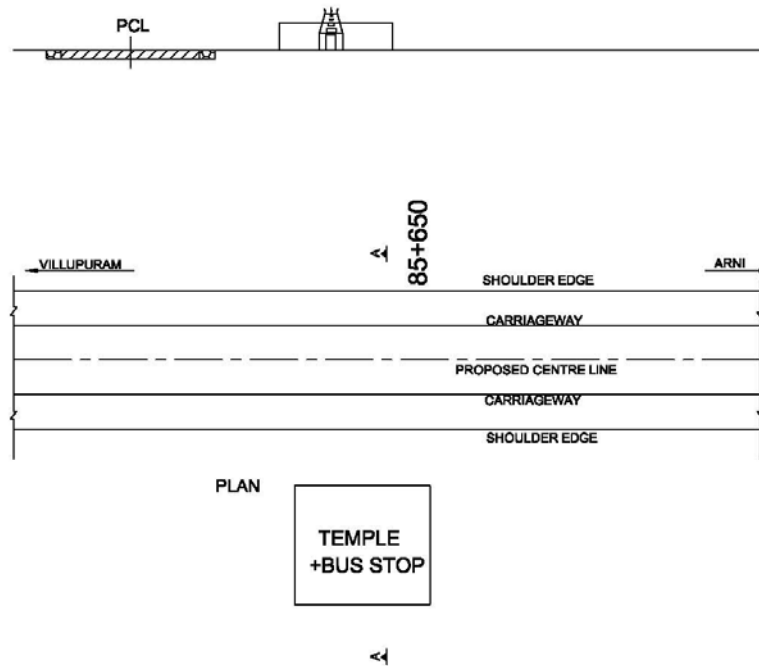


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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	8.5	19	162	6.0
2	Construction of boundary Wall	rm	6.5	1600	10400	6.0
3	Tree Plantation	No	3	1500	4500	2.1
4	Gate	no	1	10000	10000	6.0
Total					25062	

Chainage (km)	85+650	
Structure ID No	Temple + Bus stop	
Village Name	Kavarai	
Side (Right/Left)	Right	
Distance from PCL (m)	6	
Length x Breadth (m)	1 x 1, 6 x 3	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

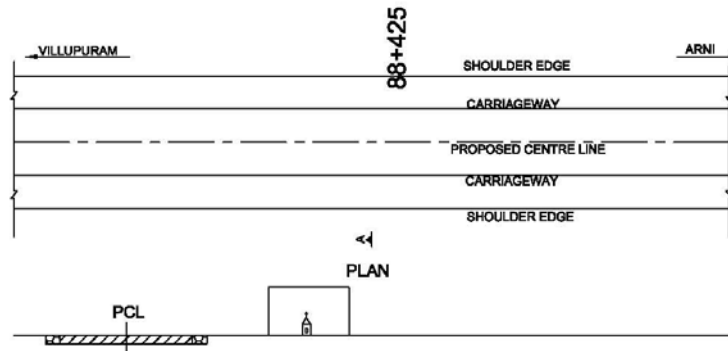


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						


Chainage (km)	88+425	
Structure ID No	Church	
Village Name	Palappattu	
Side (Right/Left)	Left	
Distance from PCL (m)	8.4	
Length x Breadth (m)	1.5 x 1.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

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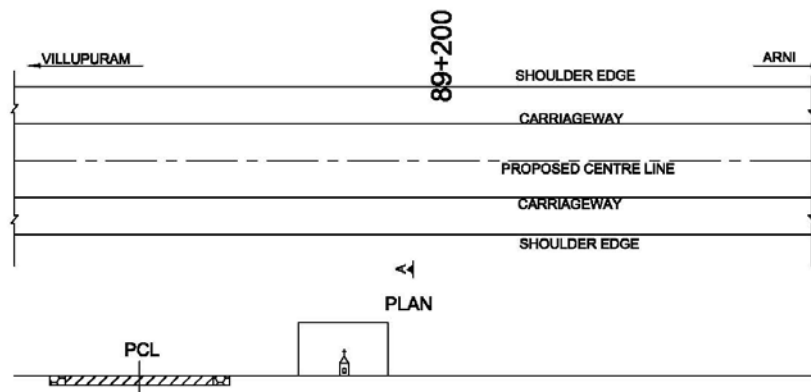


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						


Chainage (km)	89+200	
Structure ID No	Church	
Village Name	Ottampattu	
Side (Right/Left)	Left	
Distance from PCL (m)	8.5	
Length x Breadth (m)	6.5 x 6.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

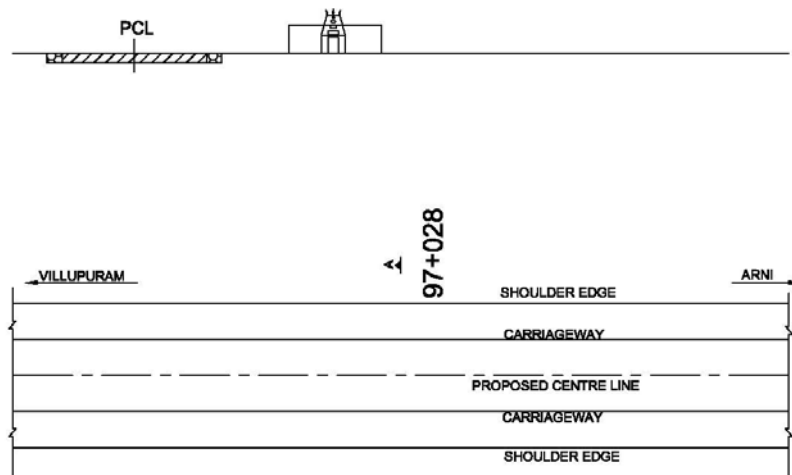
4



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Shed demolition	nil	nil	nil	nil	nil
Total						

Chainage (km)	97+028	
Structure ID No	Temple	
Village Name	Arsalapuram	
Side (Right/Left)	Right	
Distance from PCL (m)	3.5	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	




PLAN

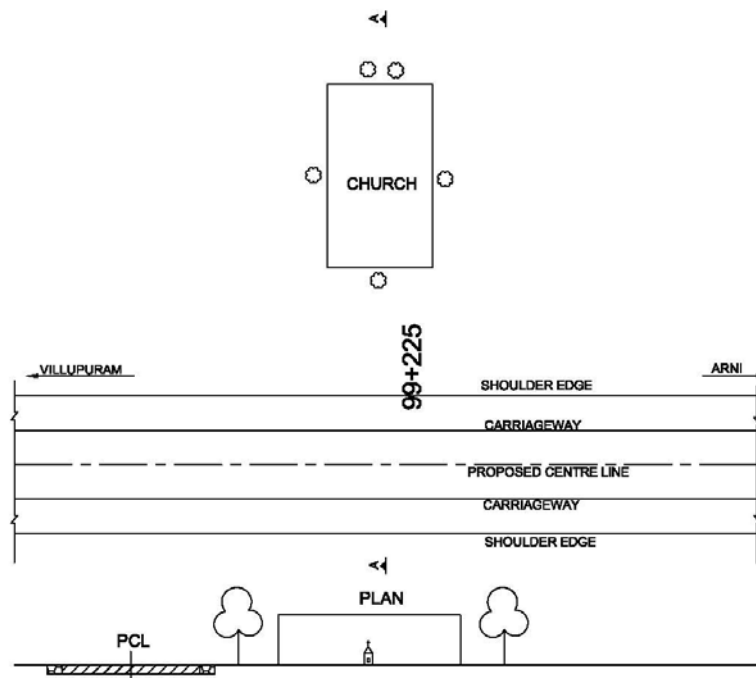


<<

MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						

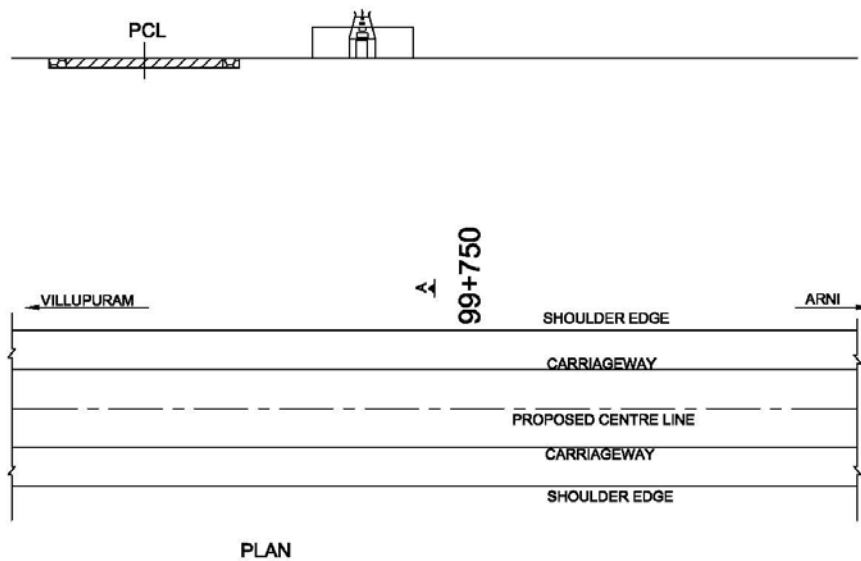
Chainage (km)	99+225	
Structure ID No	Church	
Village Name	Nembur	
Side (Right/Left)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	4.5 x 15	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Construction of boundary Wall	rm	4.5	1600	7200	6.0
2	Tree Plantation	No	5	1500	7500	2.1
3	Gate	no	1	10000	10000	6.0
Total					24700	

Chainage (km)	99+750	
Structure ID No	Temple	
Village Name	Nandivadi	
Side (Right/Left)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	

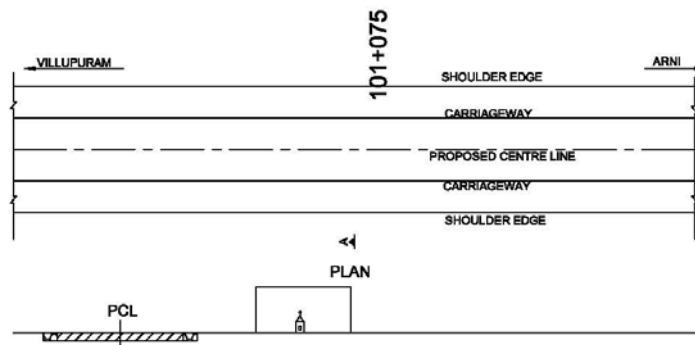
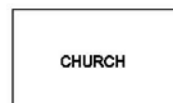


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						

Chainage (km)	101+075	
Structure ID No	Church	
Village Name	Narsinganur	
Side (Right/Left)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	14 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

<<

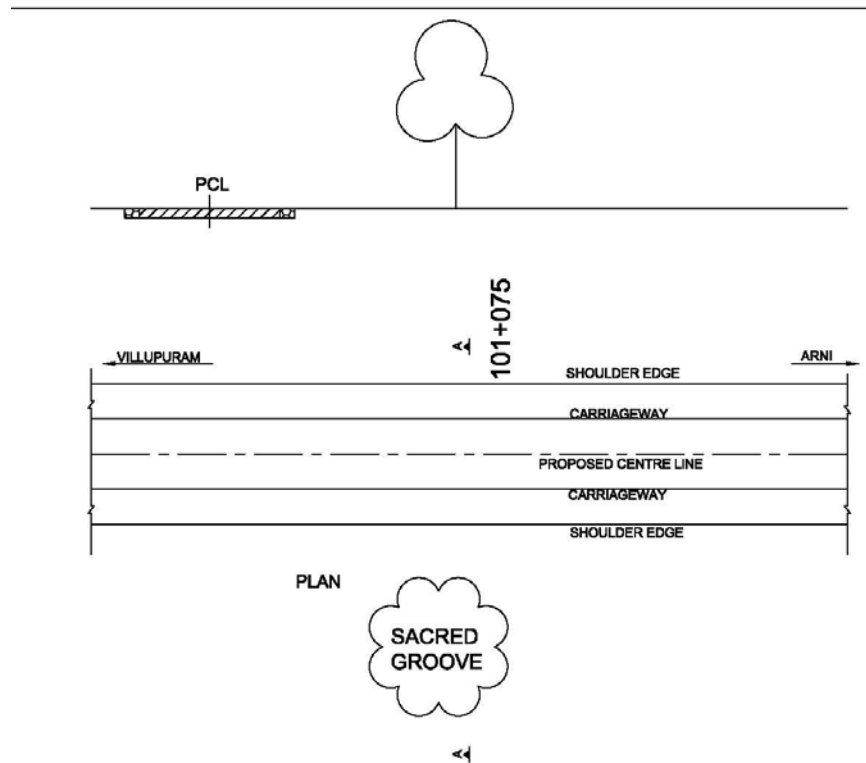


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						


Chainage (km)	101+075	
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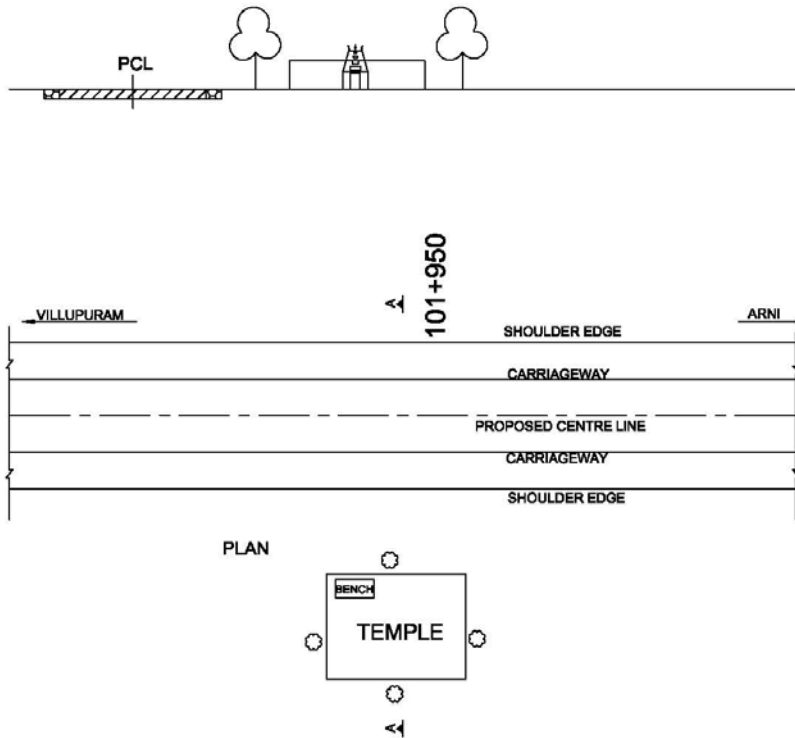
Structure ID No	Sacred groove	
Village Name	Narsinganur	
Side (Right/Left)	Right	
Distance from PCL (m)	7.7	
Length x Breadth (m)	3 x 4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

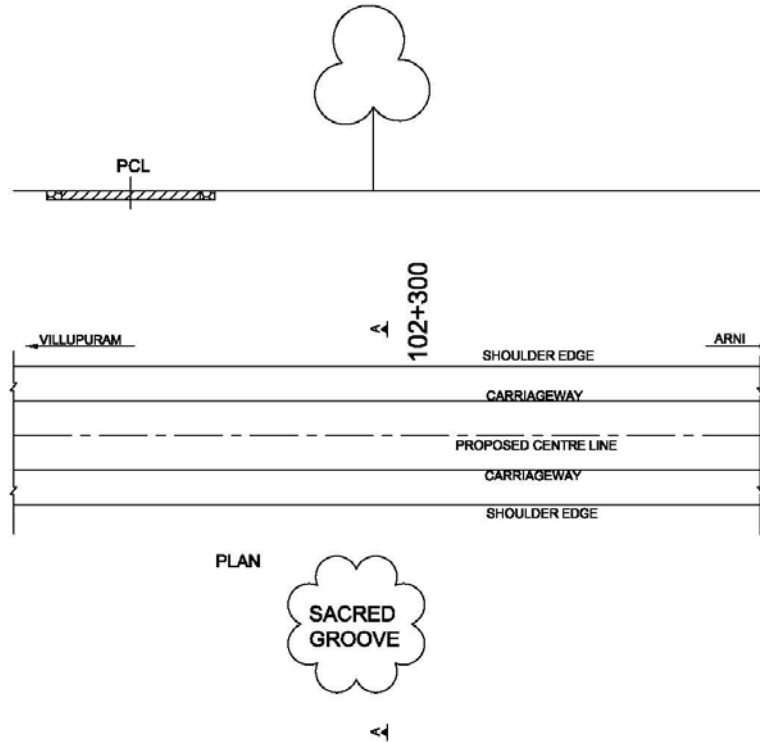
Chainage (km)	101+950	
Structure ID No	Temple	
Village Name	Kanjanur	
Side (Right/Left)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	13.5 x 5.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	15.5	19	295	6.0
2	Construction of boundary Wall	rm	13.5	1600	21600	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					39095	

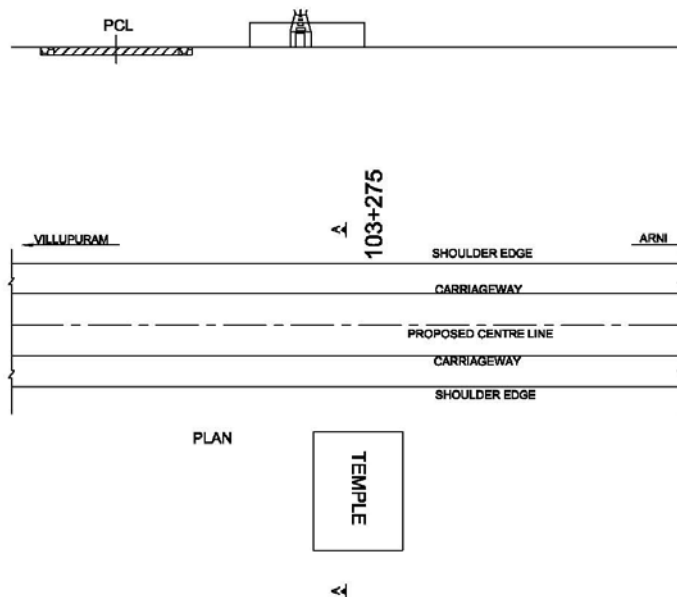
Chainage (km)	102+300
Structure ID No	Sacred groove
Village Name	Kanjanur
Side (Right/Left)	Right
Distance from PCL (m)	5
Length x Breadth (m)	0.6 girth
Proposed ROW (Equal on either side of PCL) (m)	8
Impact	direct impact



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

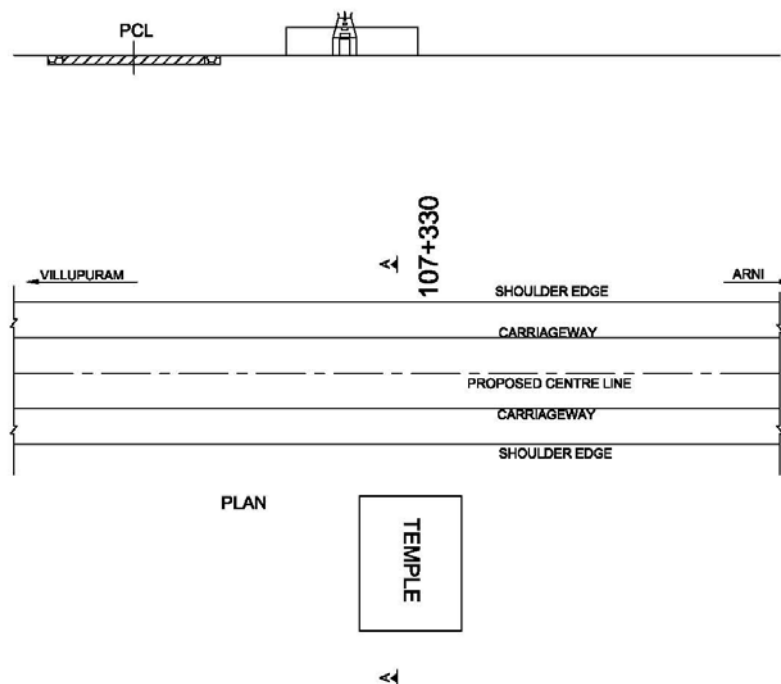
Chainage (km)	103+275	
Structure ID No	Temple	
Village Name	Poondi Kannima	
Side (Right/Left)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	5.5 x 7	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

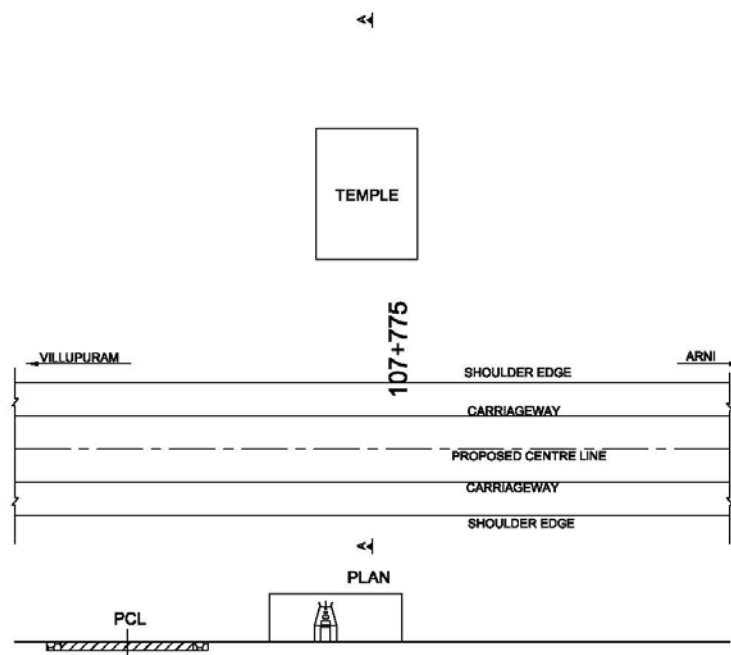
Chainage (km)	107+330	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Right/Left)	Right	
Distance from PCL (m)	7.5	
Length x Breadth (m)	6.5 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Shed Demolition	nil	nil	nil	nil	nil
Total						

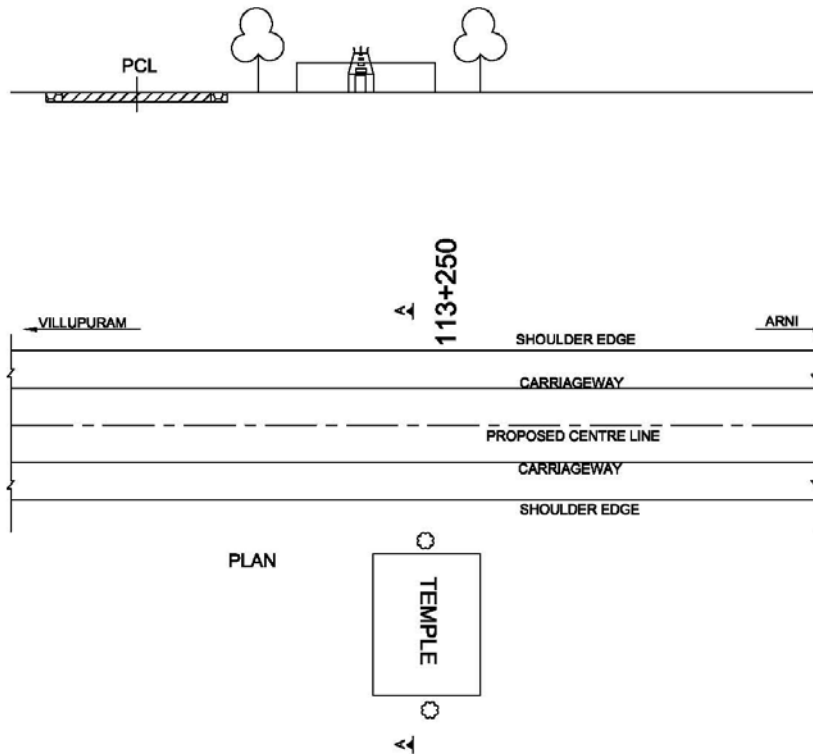
Chainage (km)	107+775	
Structure ID No	Temple	
Village Name	Thumbur	
Side (Right/Left)	Left	
Distance from PCL (m)	5	
Length x Breadth (m)	3.5 x 4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	demolition	nil	nil	nil	nil	nil
Total						

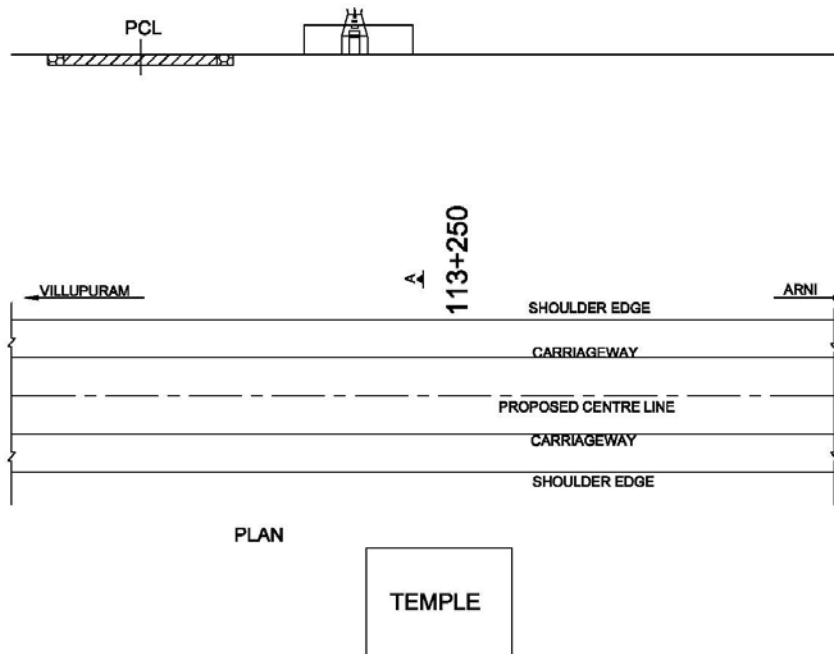
Chainage (km)	113+250	
Structure ID No	Temple	
Village Name	Muthiyalpatem	
Side (Right/Left)	Right	
Distance from PCL (m)	7.5	
Length x Breadth (m)	5 x 9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	6	19	114	6.0
2	Construction of boundary Wall	rm	5	1600	8000	6.0
3	Tree Plantation	No	2	1500	3000	2.1
4	Gate	no	1	10000	10000	6.0
Total					21114	

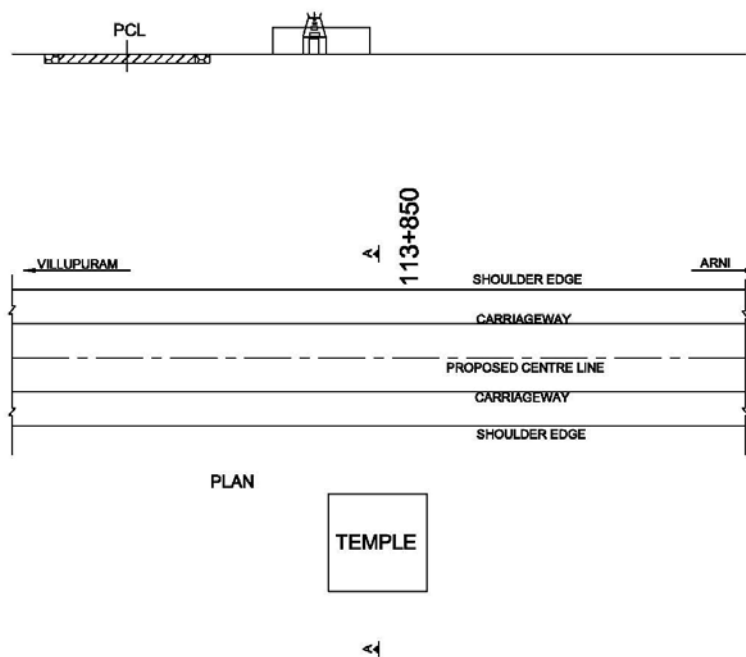
Chainage (km)	113+250	
Structure ID No	Temple (2 nos)	
Village Name	Muthiyalpatem	
Side (Right/Left)	Right	
Distance from PCL (m)	6	
Length x Breadth (m)	7.5 x 6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Shed demolished	nil	nil	nil	nil	nil
Total						

Chainage (km)	113+850	
Structure ID No	Temple	
Village Name	Ayanampali	
Side (Right/Left)	Right	
Distance from PCL (m)	6	
Length x Breadth (m)	3.5 x 3.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Realignment explored	nil	nil	nil	nil	nil
Total						

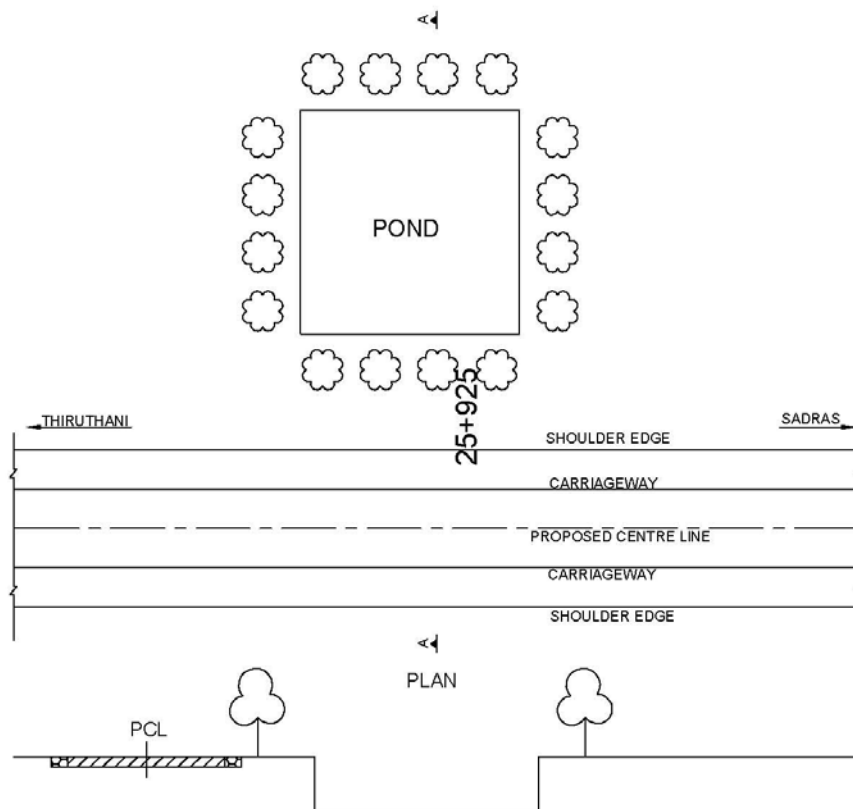
ANNEXURE 8. 15: Environmental Enhancement Drawings - SH 58

Mitigation/Enhancement of Community Properties

Surface Water Bodies along SH 58


THIRUTHANI → SADRAS

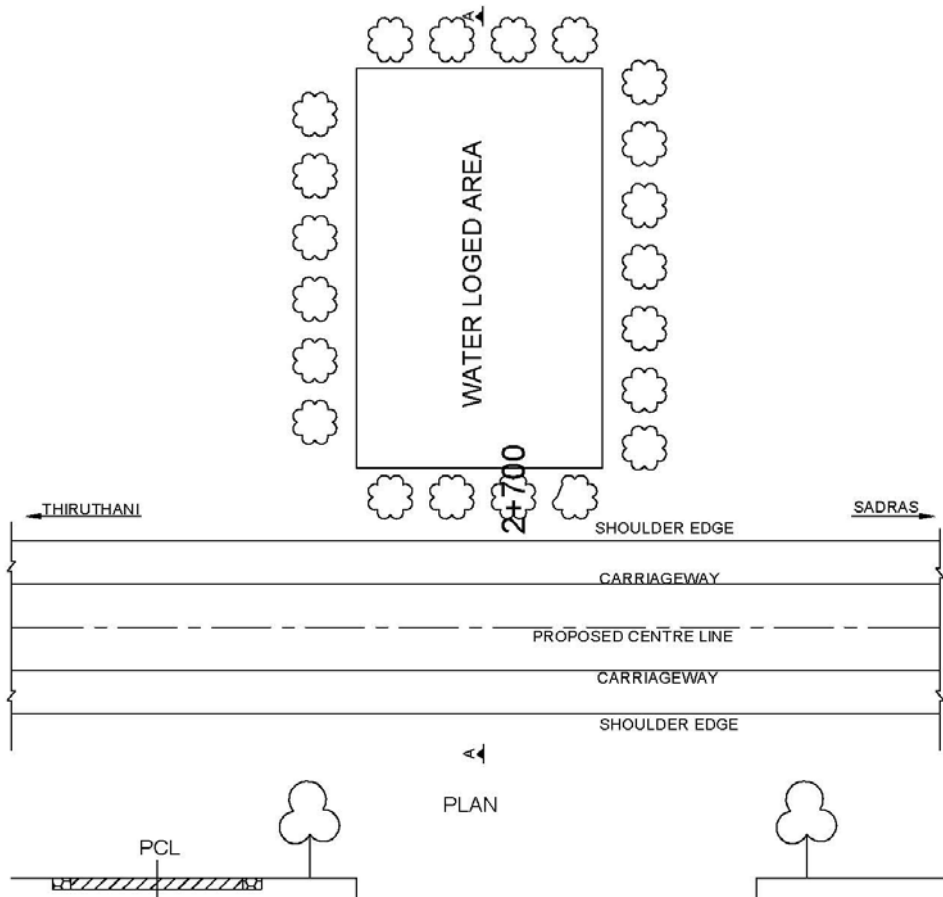
Chainage (km)	25+925	
Structure ID No	Pond	
Village Name	Chengalpattu	
Side (Left/Right)	Left	
Distance from PCL (m)	7.0	
Length x Breadth (m)	39 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	16	1500	24000	2.1
2	Retaining wall on road side	rm	39	55900	2180100	6.3
3	Disilting	No	1	150000	150000	
Total					2354100	

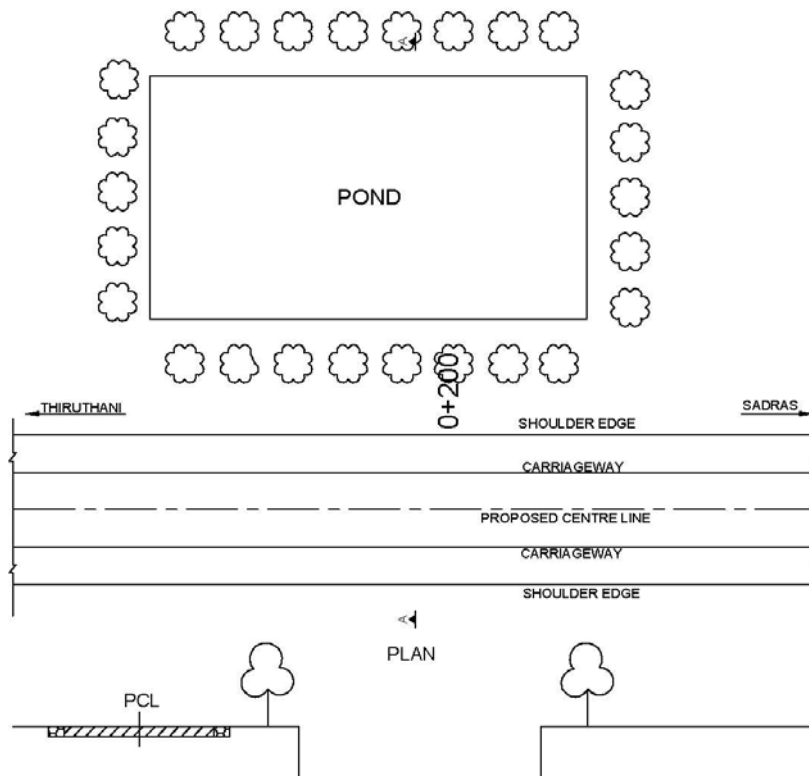
Chainage (km)	2+700	
Structure ID No	Water logged area	
Village Name	Vengapakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	3.2	
Length x Breadth (m)	40 x 65	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	21	1500	31500	2.1
2	Retaining wall on road side	rm	40	55900	2236000	6.3
3	Disilting	No	1	150000	150000	
Total					2417500	

Chainage (km)	0+200	
Structure ID No	Pond	
Village Name	Mayur	
Side (Left/Right)	Left	
Distance from PCL (m)	5	
Length x Breadth (m)	82 x 45.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	26	1500	39000	2.1
2	Retaining wall on road side	rm	82	55900	4583800	6.3
3	Disilting	No	1	150000	150000	
Total					4772800	

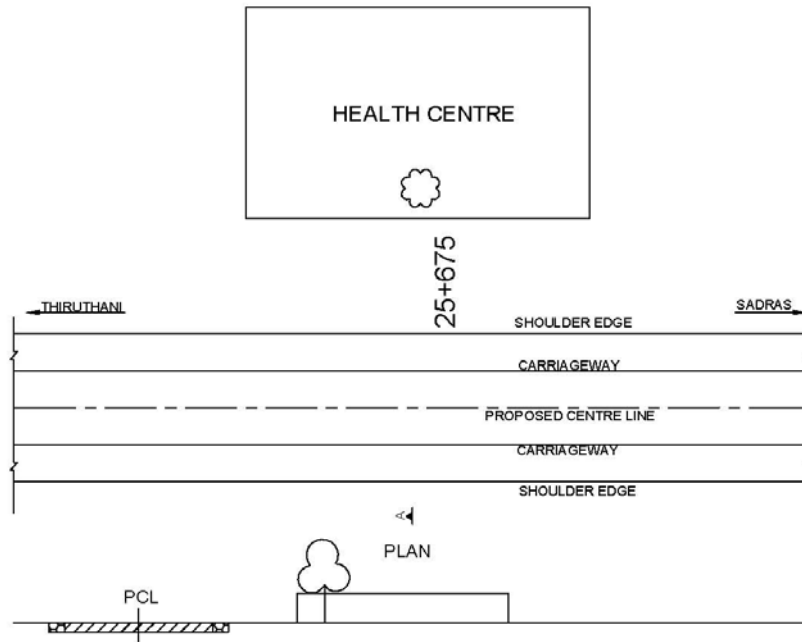
Sensitive Receptors along SH 58

THIRUTHANI




SADRAS

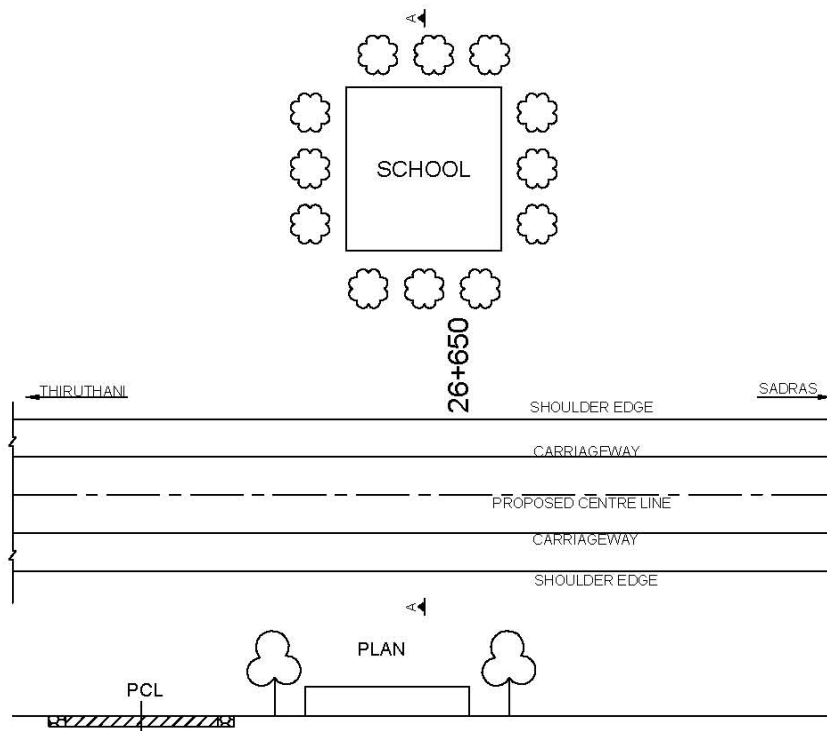
Chainage (km)	25+675	
Structure ID No	Health Centre	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	13.50	
Length x Breadth (m)	7 x 5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Existing boundary wall will be raised and develop as noise barrier	rm	7	1917	13419	6.0	
2	Tree Plantation	No	1	1500	1500	2.1	
3	Horn prohibited sign post	Covered in engineering works					
Total					14919		

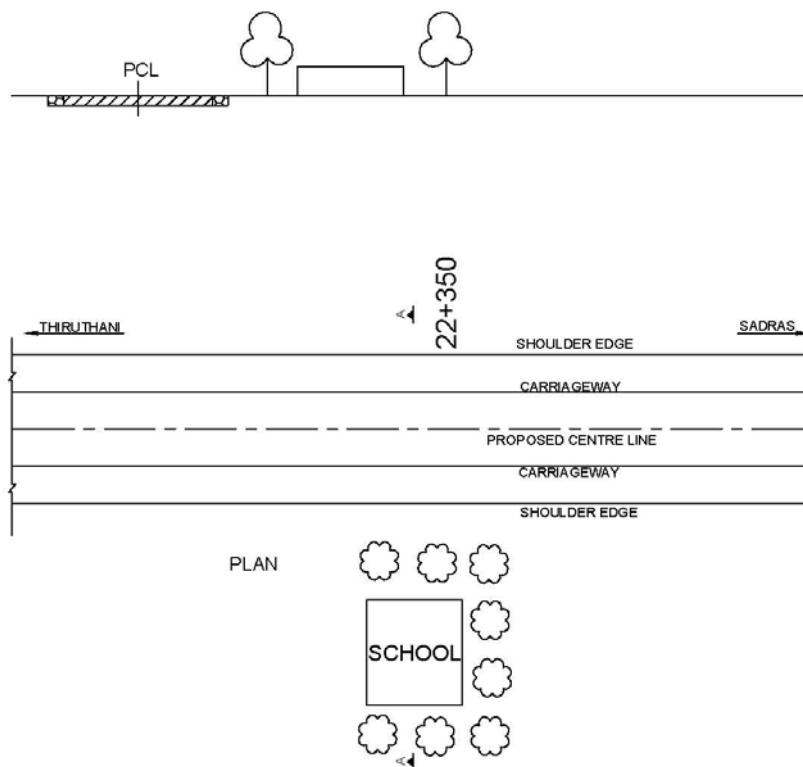
Chainage (km)	26+650	
Structure ID No	School	
Village Name	Alatakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	11	
Length x Breadth (m)	28.5 x 30	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Existing boundary wall will be raised and develop as noise barrier	rm	28.5	480	13680	6.0
2	Tree Plantation	No	12	1500	18000	2.1
3	Horn prohibited sign post	Covered in engineering works				
Total					31680	

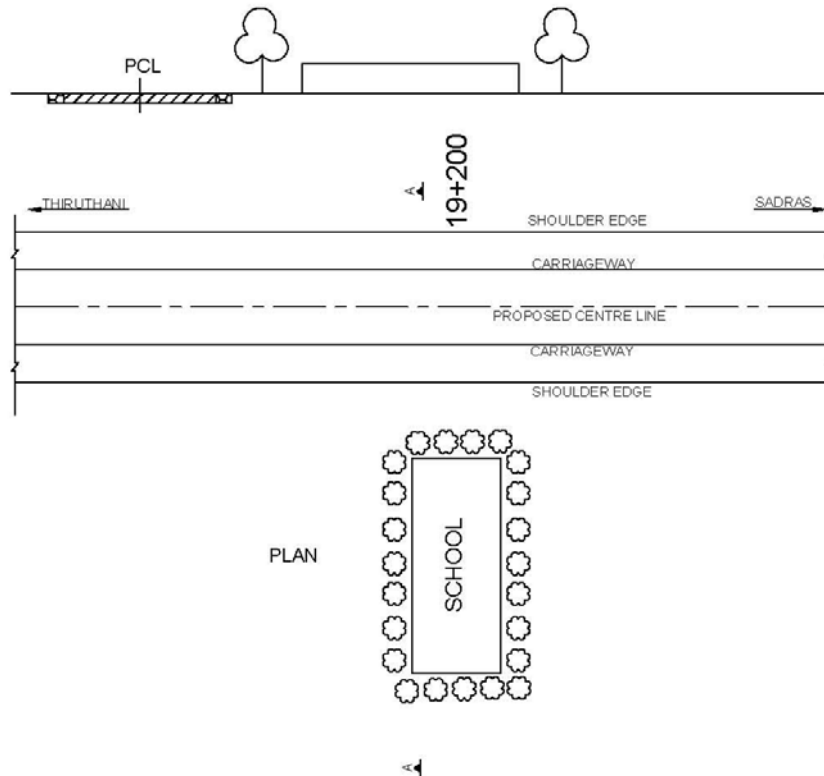
Chainage (km)	22+350	
Structure ID No	School	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	8.5	
Length x Breadth (m)	18 x 20	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Existing boundary wall will be raised and develop as noise barrier	rm	18	479	8626	6.0	
2	Tree Plantation	No	8	1500	12000	2.1	
3	Horn prohibited sign post	Covered in engineering works					
Total					20626		

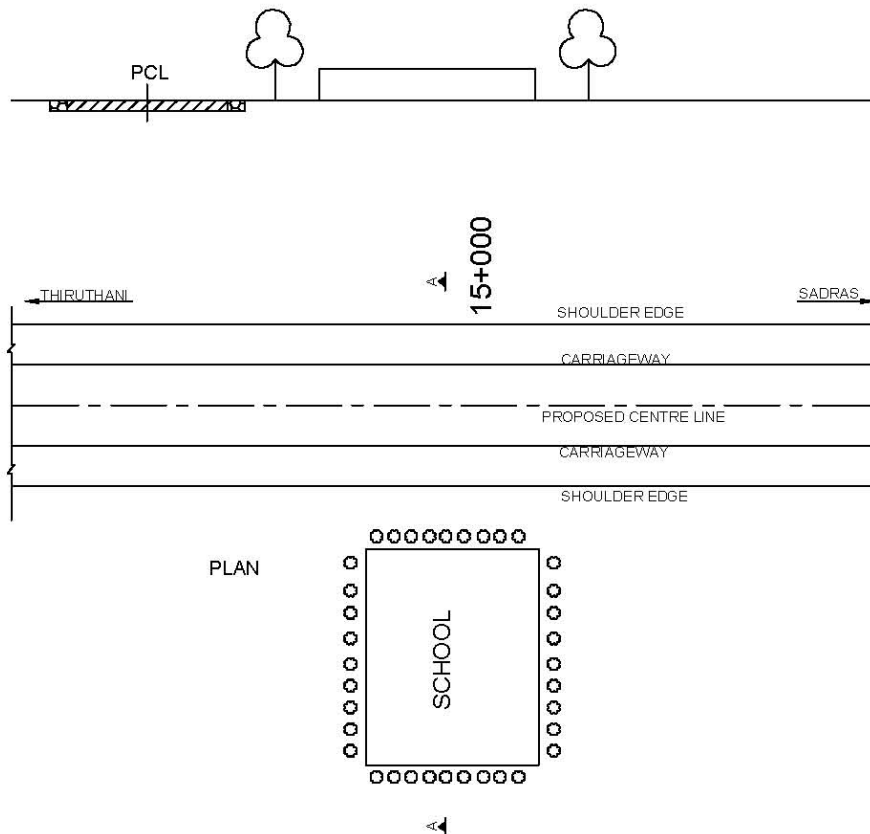
Chainage (km)	19+200	
Structure ID No	School	
Village Name	Keerapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	32.5 x 80	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Existing boundary wall will be raised and develop as noise barrier	rm	32.5	479	15567.5	6.0
2	Tree Plantation	No	23	1500	34500	2.1
3	Horn prohibited sign post	Covered in engineering works				
Total					50067.5	

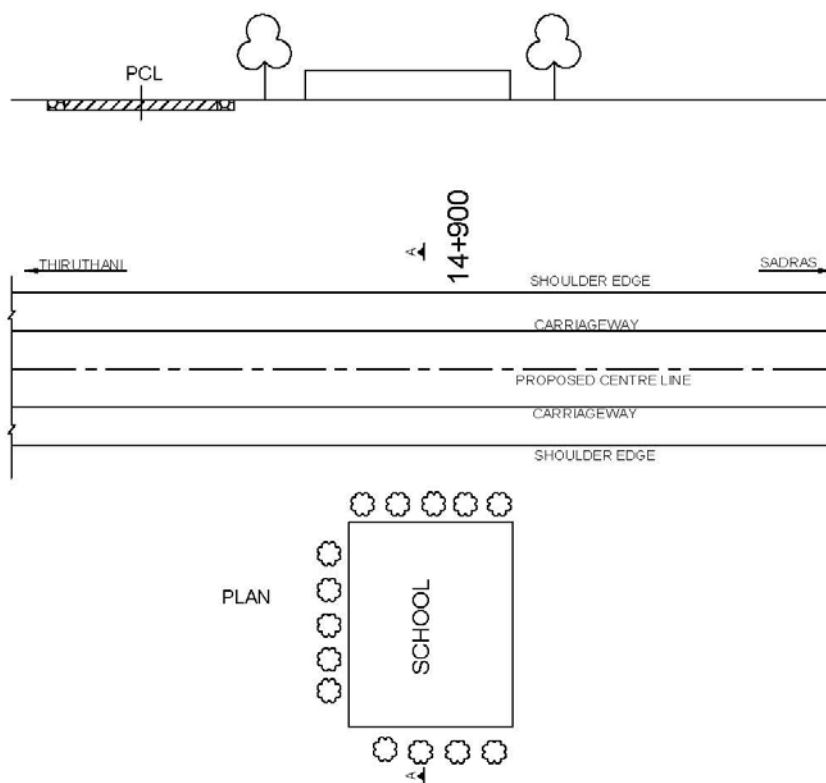
Chainage (km)	15+000	
Structure ID No	School	
Village Name	Erumallai	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	80 x 100	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Existing boundary wall will be raised and develop as noise barrier	rm	80	479	38320	6.0
2	Tree Plantation	No	36	1500	54000	2.1
3	Horn prohibited sign post	Covered in engineering works				
Total					92320	

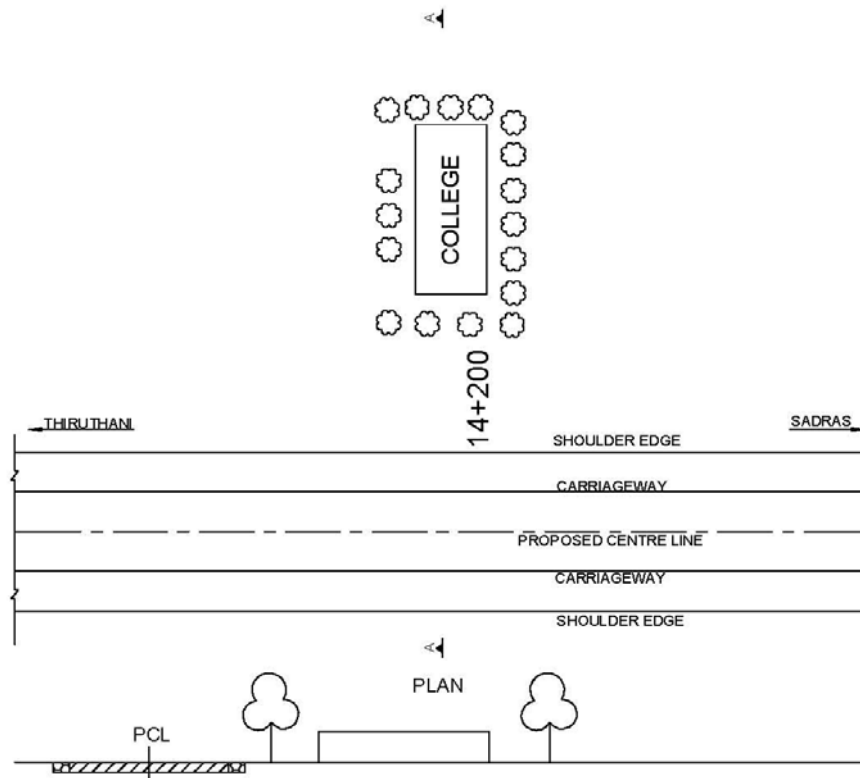
Chainage (km)	14+900	
Structure ID No	School	
Village Name	Erumallai	
Side (Left/Right)	Right	
Distance from PCL (m)	11.2	
Length x Breadth (m)	29.4 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	14	1500	21000	2.1	
2	Horn prohibited sign post	Covered in engineering works					
Total					21000		

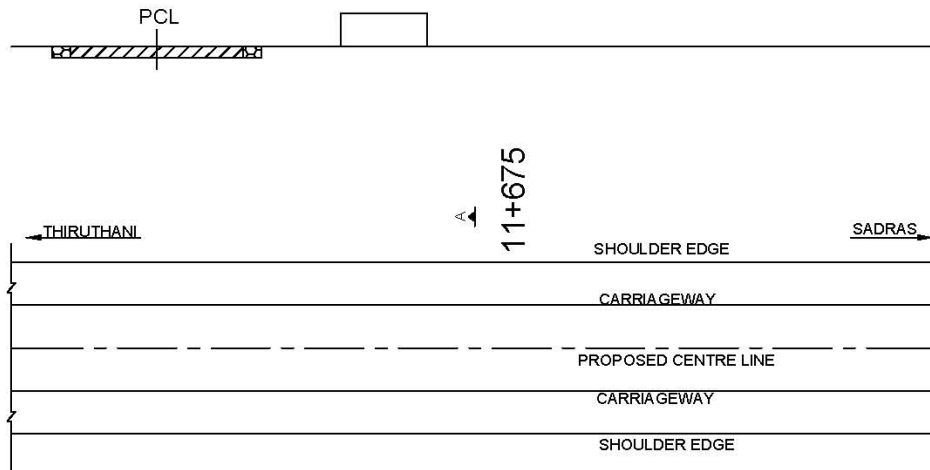
Chainage (km)	14+200	
Structure ID No	College	
Village Name	Kothimangalam	
Side (Left/Right)	Left	
Distance from PCL (m)	28	
Length x Breadth (m)	25 x 60	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	17	1500	25500	2.1	
2	Horn prohibited sign post	Covered in engineering works					
Total					25500		

Chainage (km)	11+675	
Structure ID No	ITI/College	
Village Name	Kotimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	7 x 23.8	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	




PLAN

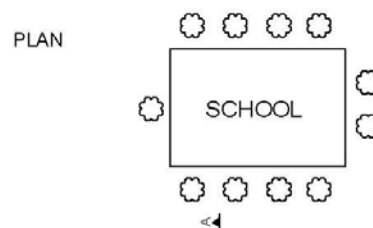
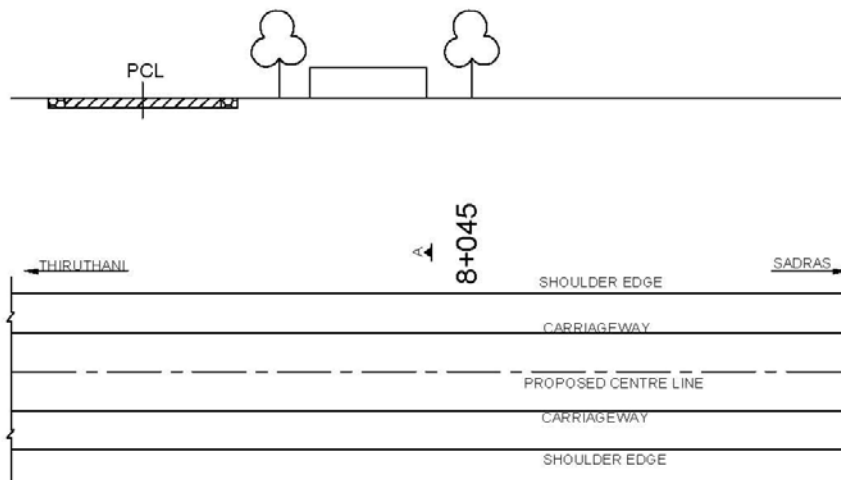
ITI / COLLEGE

A

MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Demolition)	Nil	Nil	Nil	Nil	Nil
Total					NIL	

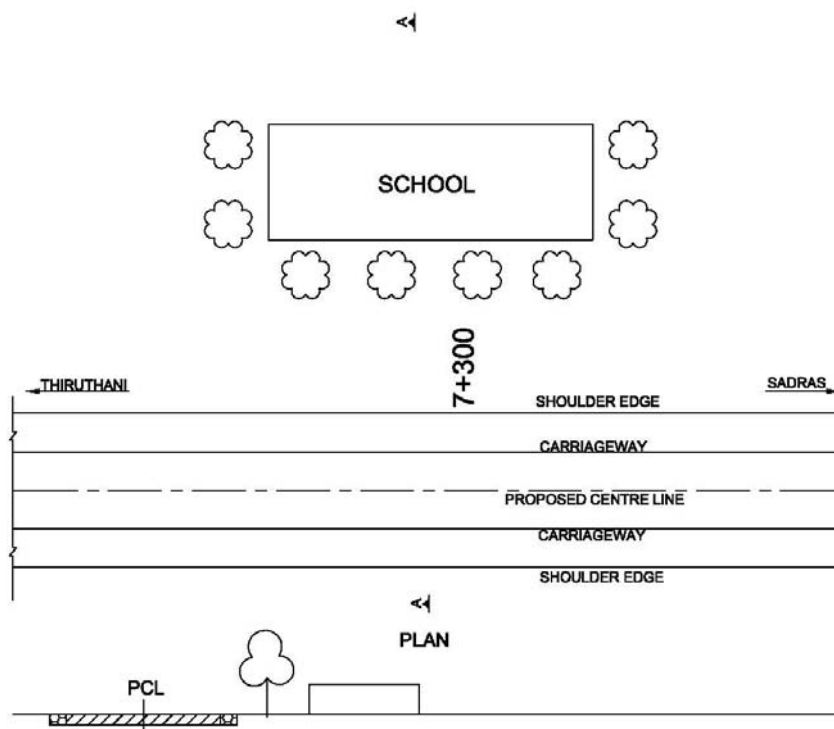
Chainage (km)	8+045	
Structure ID No	School	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	4.2	
Length x Breadth (m)	31.5 x 21	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	rm	40	29	1160		
2	Construction of Boundary Wall	rm	31.5	2396	75474	6.0	
3	Tree Plantation	No	11	1500	16500	2.1	
4	Gate	no	1	10000	10000		
5	Horn prohibited sign post	Covered in engineering works					
Total					103134		

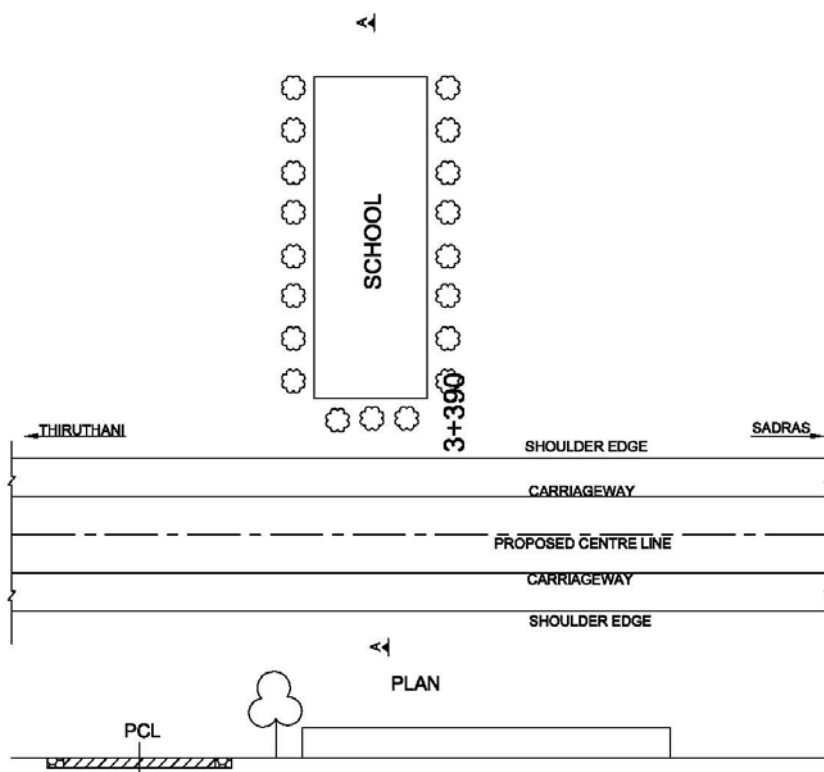
Chainage (km)	7+300	
Structure ID No	School	
Village Name	Narasogapuram	
Side (Left/Right)	Left	
Distance from PCL (m)	15.4	
Length x Breadth (m)	29.4 x 10.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	rm	29.4	2396	70442.4	6.0	
2	Tree Plantation	No	8	1500	12000	2.1	
3	Gate	No	1	10000	10000		
4	Horn prohibited sign post	Covered in engineering works					
Total					92442		

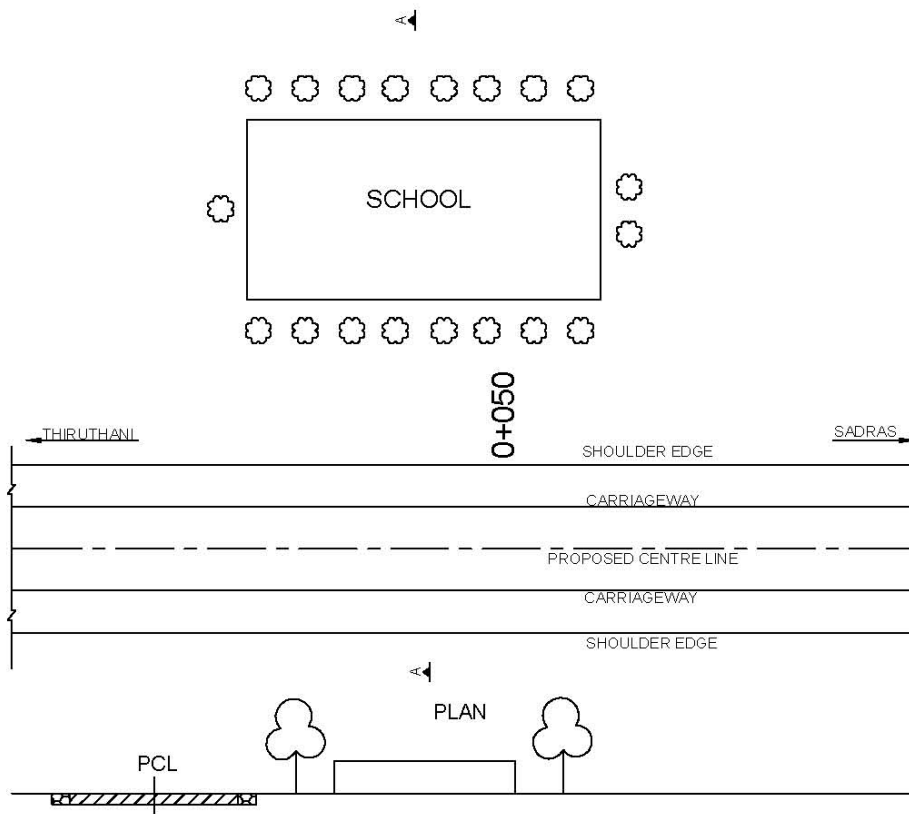
Chainage (km)	3+390	
Structure ID No	School	
Village Name	Vembakkam	
Side (Left/Right)	Left	
Distance from PCL (m)	14	
Length x Breadth (m)	17 x 80	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	19	1500	28500	2.1	
2	Horn prohibited sign post	Covered in engineering works					
Total					28500		

Chainage (km)	0+050	
Structure ID No	School	
Village Name	Meyur	
Side (Left/Right)	Left	
Distance from PCL (m)	23.8	
Length x Breadth (m)	30 x 11.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	




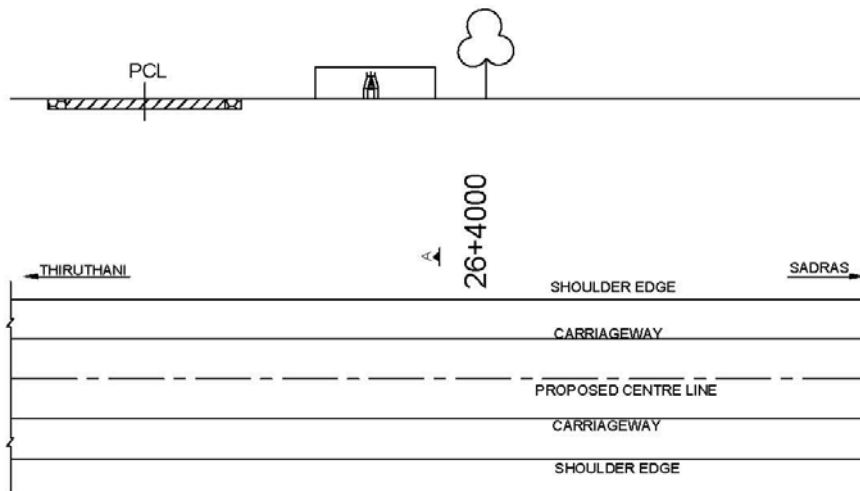
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree Plantation	No	19	1500	28500	2.1
2	Horn prohibited sign post	Covered in engineering works				
Total					28500	

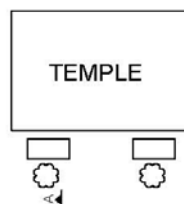
Community Structures along SH 58

THIRUTHANI ➔ SADRAS

Chainage (km)	26+400	
Structure ID No	Temple	
Village Name	Chengalpattu	
Side (Left/Right)	Right	
Distance from PCL (m)	7.7	
Length x Breadth (m)	14.4 x 9.1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	




PLAN

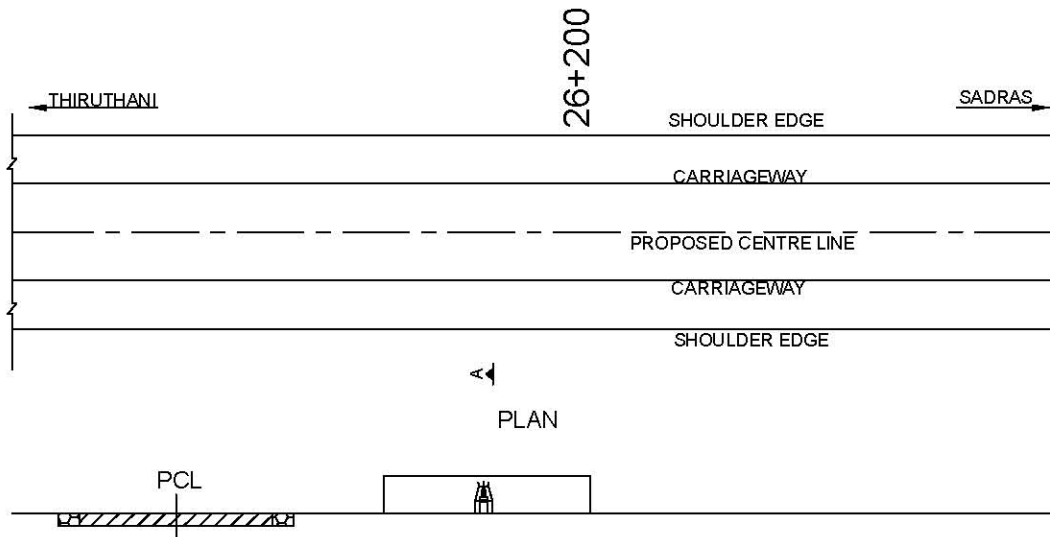
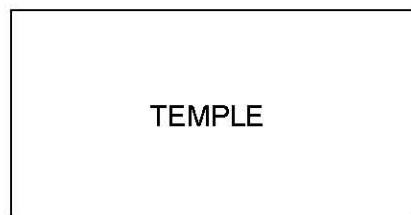


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of temple Wall	rm	14.4	43	619.2	6.0
2	Construction of temple Wall	rm	14.4	2343	33739.2	6.0
3	Seating bench	No	2	1200	2400	6.0
4	Tree Plantation	No	2	1500	3000	2.1
Total					39758	

Chainage (km)	26+200	
Structure ID No	Temple	
Village Name	Chengalpattu	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	29 x 11.6	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

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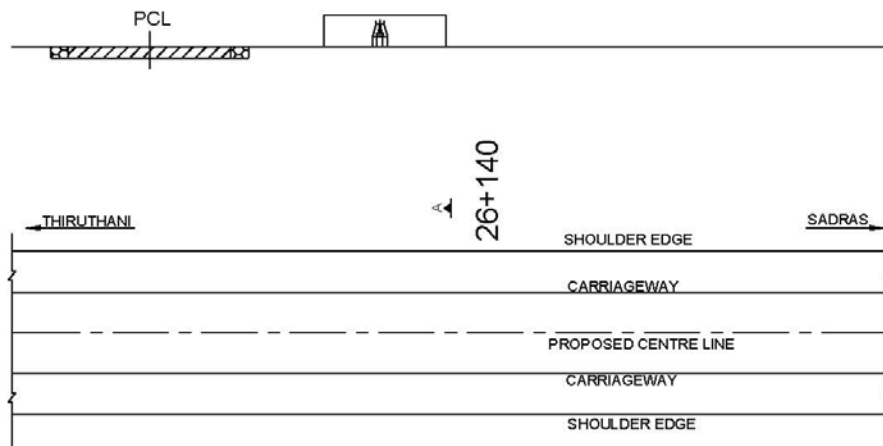
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PLAN

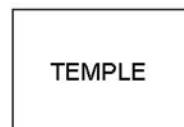
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (demolition)	nil	nil	nil	nil	nil
Total					NIL	

Chainage (km)	26+140	
Structure ID No	Temple	
Village Name	Chengalpattu	
Side (Left/Right)	Right	
Distance from PCL (m)	4.2	
Length x Breadth (m)	7.7 x 4.9	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	




PLAN

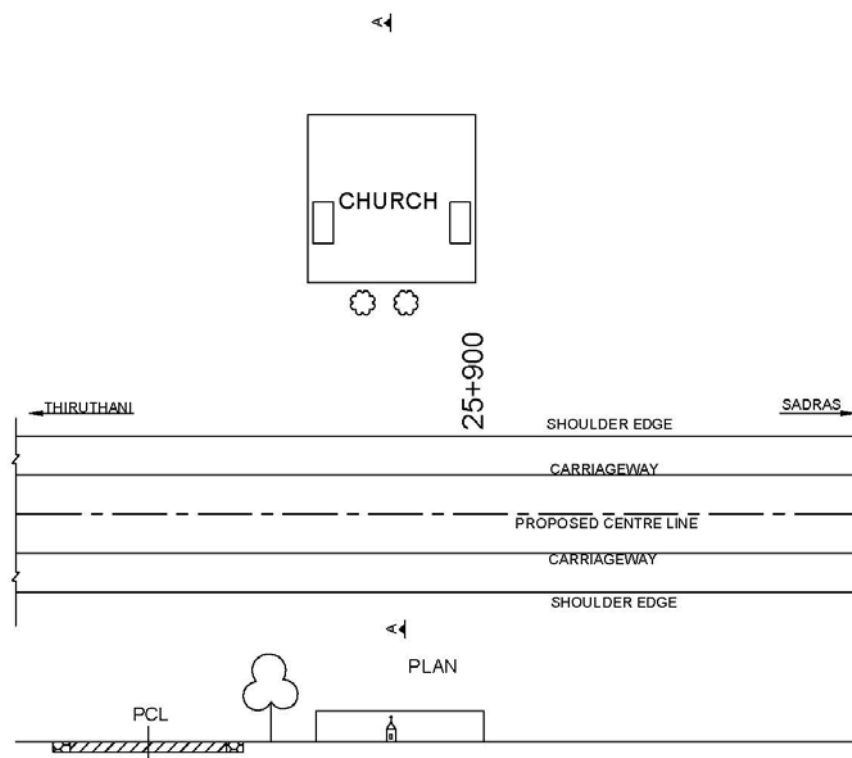


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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					NIL	

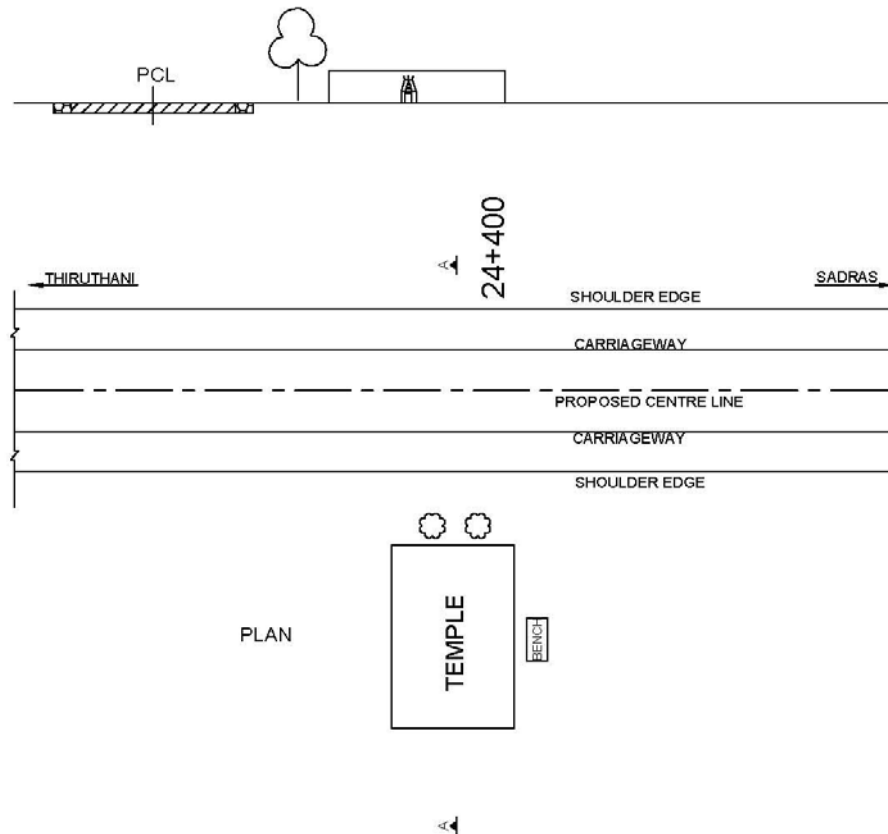
Chainage (km)	25+900	
Structure ID No	Church	
Village Name	Chengalpattu	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	15 x 12.50	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	17	29	493	6.0
2	Construction of boundary Wall	rm	15	1600	24000	6.0
3	Seating bench	No	2	1200	2400	6.0
4	Tree Plantation	No	2	1500	3000	2.1
5	Gate	no	1	10000	10000	6.0
Total					39893	

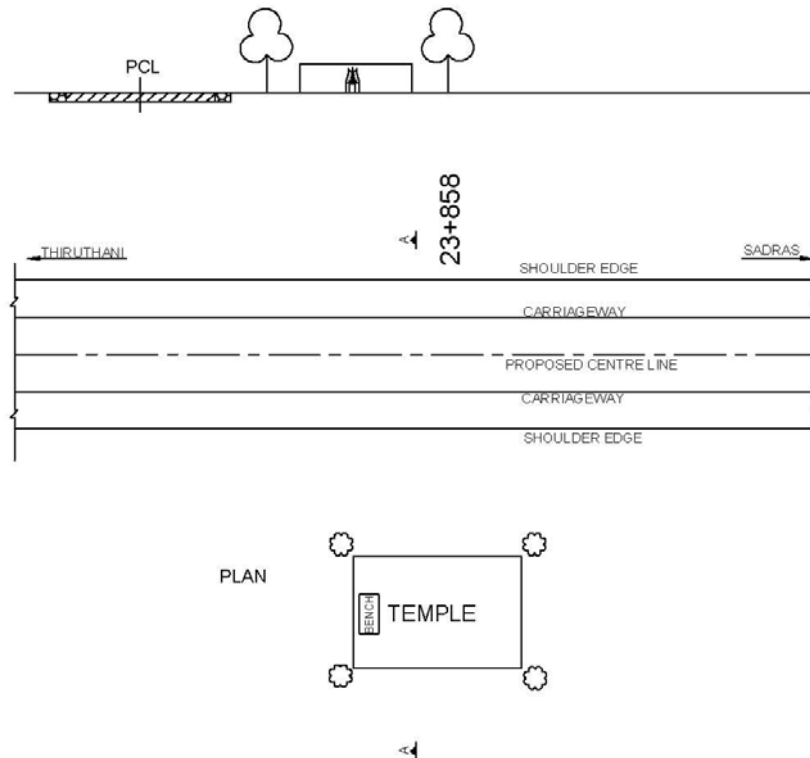
Chainage (km)	24+400	
Structure ID No	Temple	
Village Name	Mairinattam	
Side (Left/Right)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	3.5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of platform	rm	3.5	101	353.5	6.0
2	Seating bench	No	1	1200	1200	6.0
3	Tree Plantation	No	2	1500	3000	2.1
Total					4553.5	

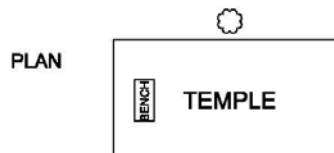
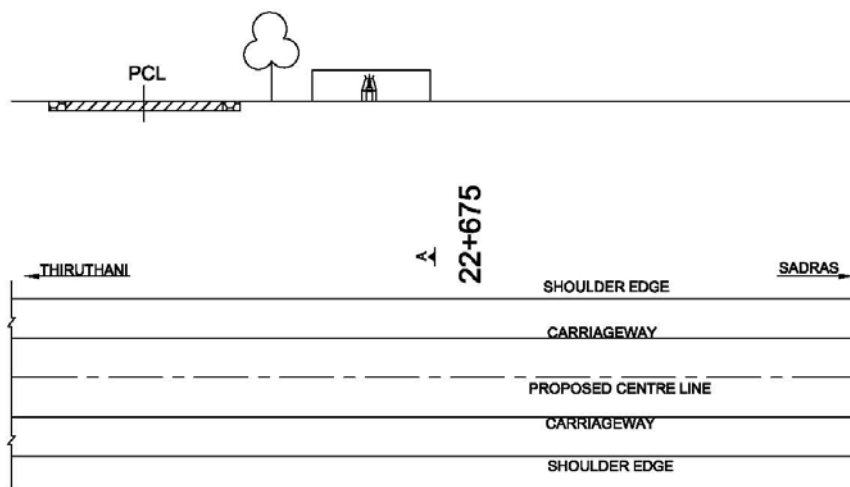
Chainage (km)	23+858	
Structure ID No	Temple	
Village Name	Nehru Nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	10.5 x 8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	12.5	19	237.5	6.0
2	Construction of boundary Wall	rm	10.5	1600	16800	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					34237.5	


Chainage (km)	22+675	
Structure ID No	Temple	
Village Name	Nenmeli	
Side (Left/Right)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	3.5 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

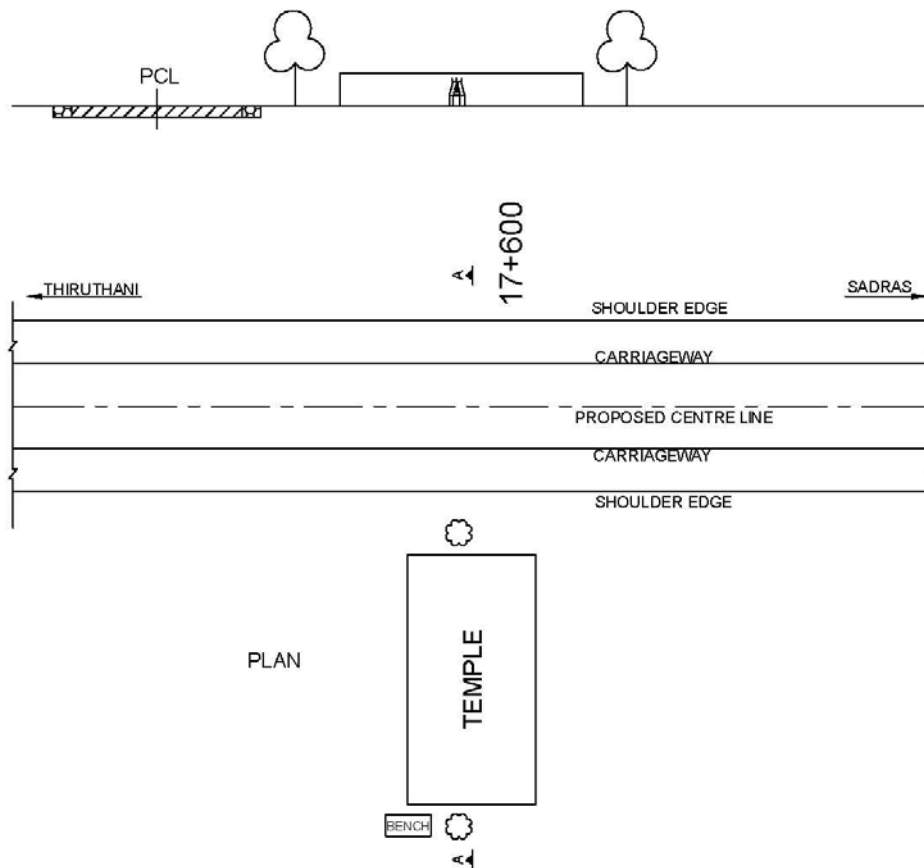


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MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of mandapam	No	1	600	600	6.0
2	Seating bench	No	1	1200	1200	6.0
3	Tree Plantation	No	1	1500	1500	2.1
Total					3300	

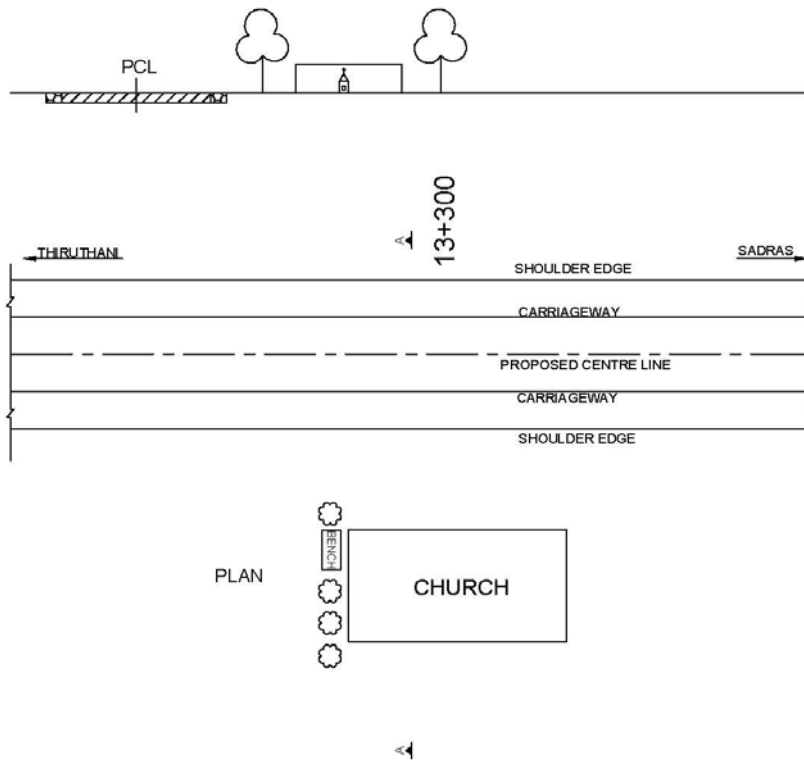
Chainage (km)	17+600	
Structure ID No	Temple	
Village Name	Thirukazhukundram	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	4 x 18	
Proposed ROW (Equal on either side of PCL) (m)	LHS 9 RHS 11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of platform	rm	3.5	101	354	6.0
2	Seating bench	No	1	1200	1200	6.0
3	Tree Plantation	No	2	1500	3000	2.1
Total					4554	

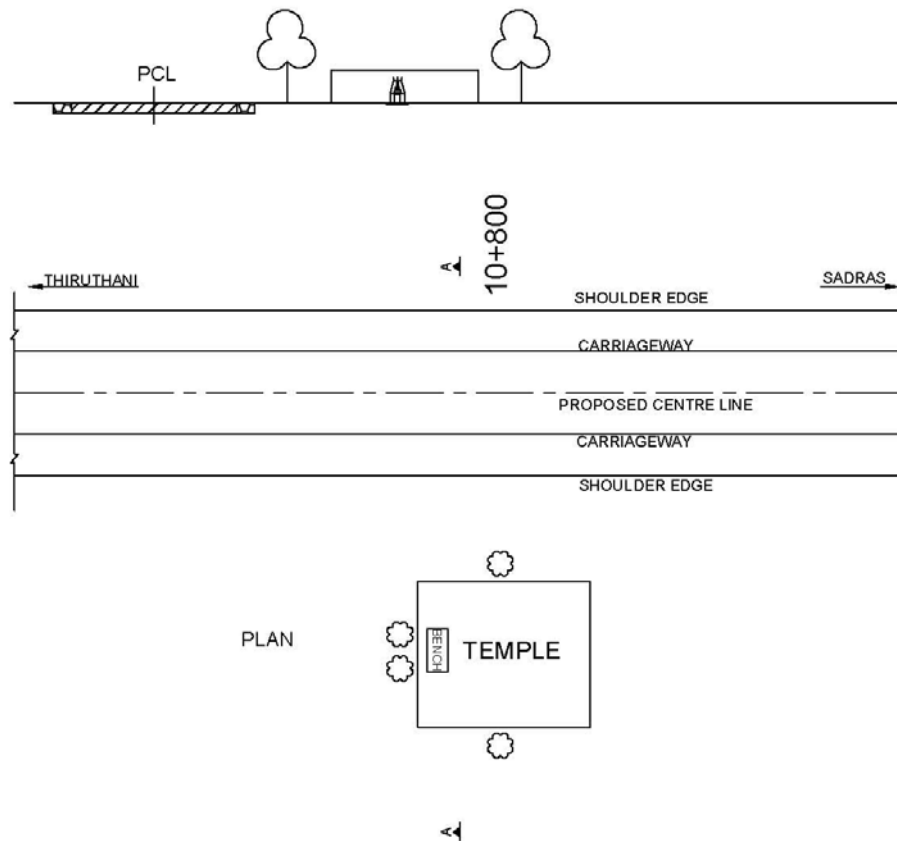
Chainage (km)	13+300	
Structure ID No	Church	
Village Name	Kottimangalam	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	9.3 x 6.2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of porch	No	1	600	600	6.0
2	Seating bench	No	1	1200	1200	6.0
3	Tree Plantation	No	4	1500	6000	2.1
Total					7800	

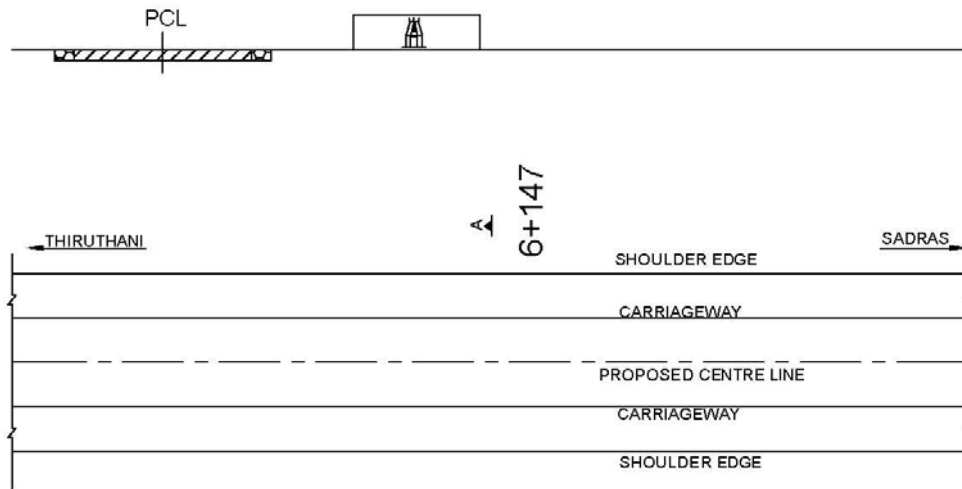
Chainage (km)	10+800	
Structure ID No	Temple	
Village Name	Mullikolathur	
Side (Left/Right)	Right	
Distance from PCL (m)	9.5	
Length x Breadth (m)	19.5 x 16.5	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	19.5	19	370	6.0
2	Construction of boundary Wall	rm	19.5	1600	31151	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					48721	

Chainage (km)	6+147	
Structure ID No	Temple	
Village Name	Anupuram	
Side (Left/Right)	Right	
Distance from PCL (m)	8.4	
Length x Breadth (m)	15 x 27	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	




PLAN

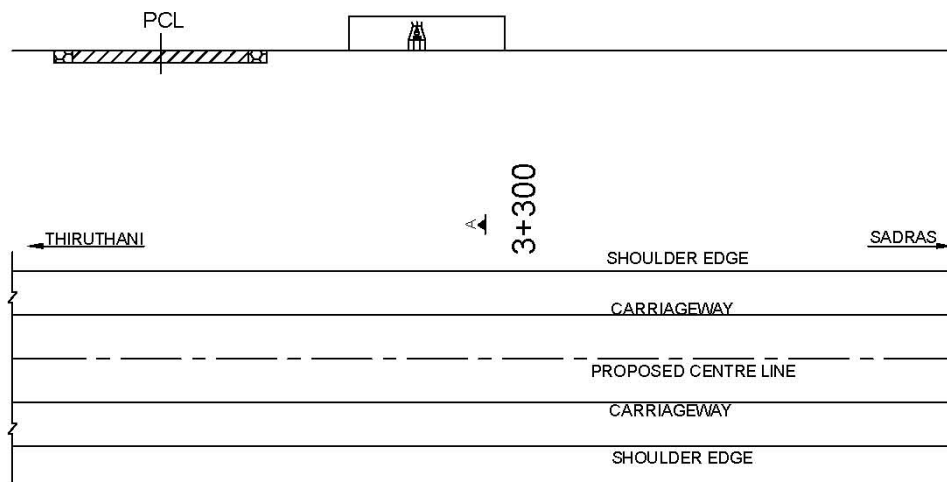


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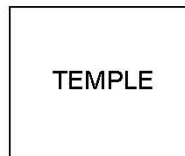
MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

Chainage (km)	3+300	
Structure ID No	Temple	
Village Name	Vembakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	5.5	
Length x Breadth (m)	3 dia	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	




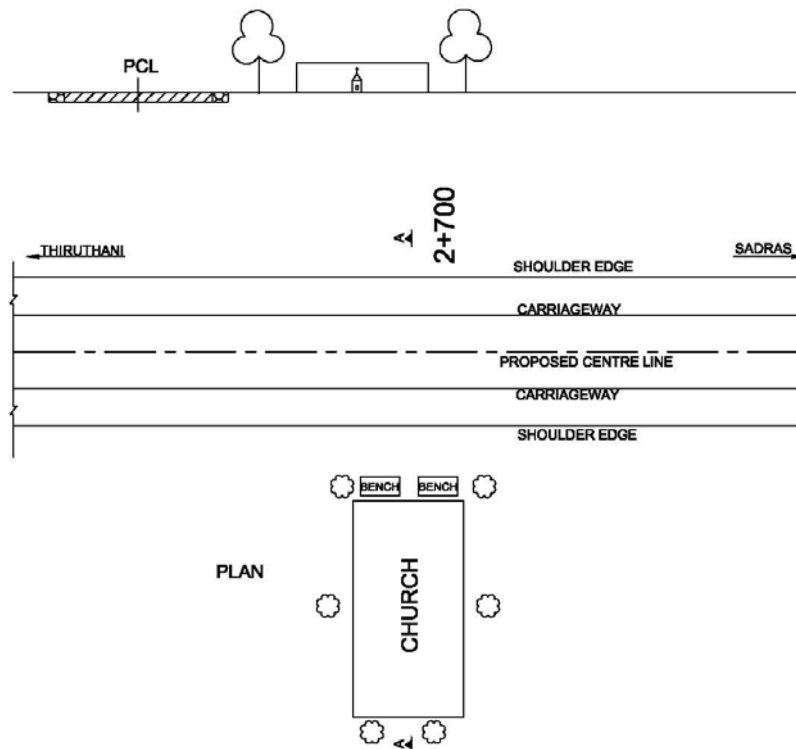
PLAN



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolish	No	1	600	600	
Total					600	

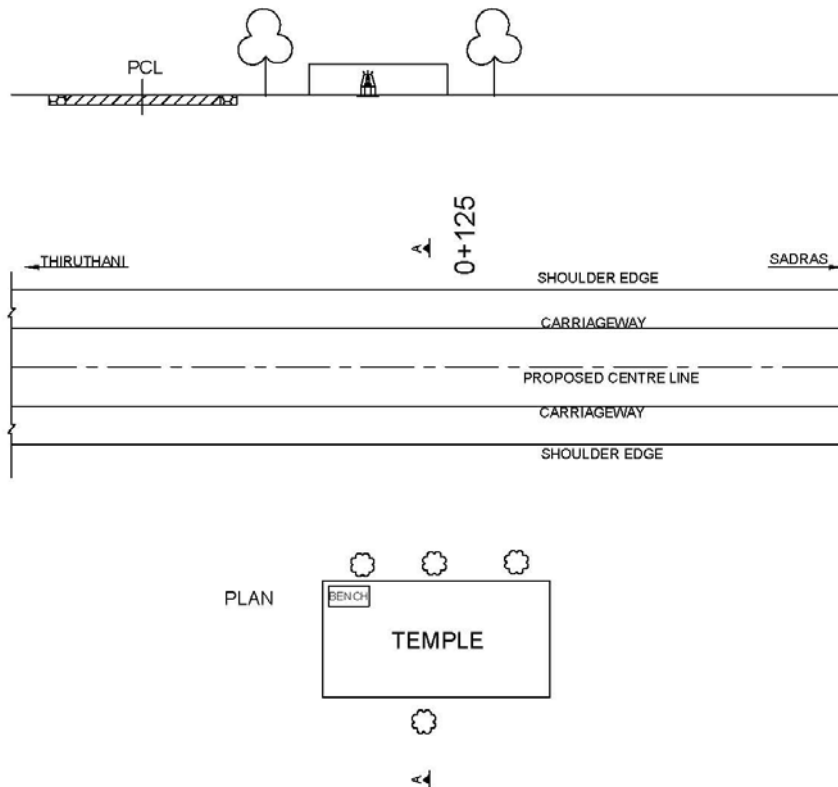
Chainage (km)	2+700	
Structure ID No	Church	
Village Name	Vengapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	9.5	
Length x Breadth (m)	10.5 x 16	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of porch	No	1	600	600	6.0
2	Seating bench	No	2	1200	2400	6.0
3	Tree Plantation	No	6	1500	9000	2.1
Total					12000	

Chainage (km)	0+125	
Structure ID No	Temple	
Village Name	Meyur	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	31.5 x 15.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	rm	33.5	19	637	6.0
2	Construction of boundary Wall	rm	31.5	1600	50321	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					68158	

ANNEXURE 8. 16: Environmental Enhancement Drawings - SH 116

Mitigation/Enhancement of Community Properties

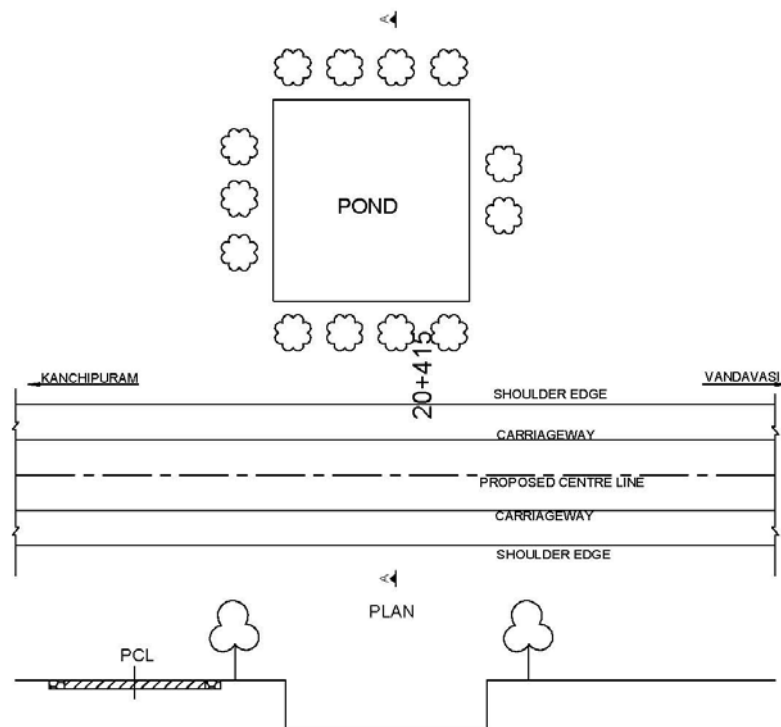
Surface Water Bodies along SH 116

KANCHIPURAM




VANDAVASI

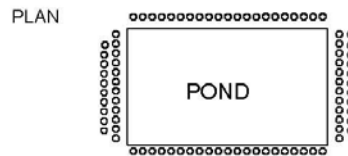
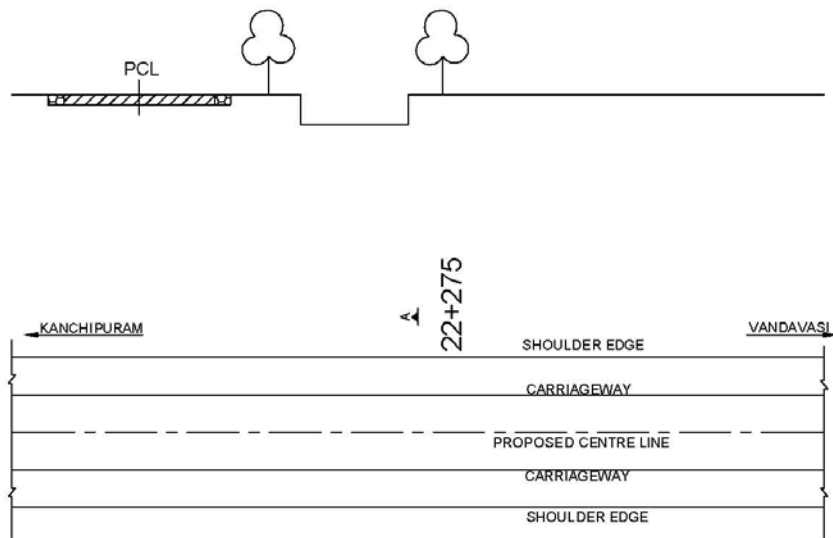
Chainage (km)	20+415
Structure ID No	Pond
Village Name	Peru nagar
Side (Left/Right)	Left
Distance from PCL (m)	10.5
Length x Breadth (m)	32.5 x 30
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	13	1500	19500	2.1
2	Retaining wall on road side	Rm	32.5	55900	1816750	6.3
3	Desilting	No	1	150000	150000	
Total					1986250	


Chainage (km)	22+275	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	6.3	
Length x Breadth (m)	275 x 160	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

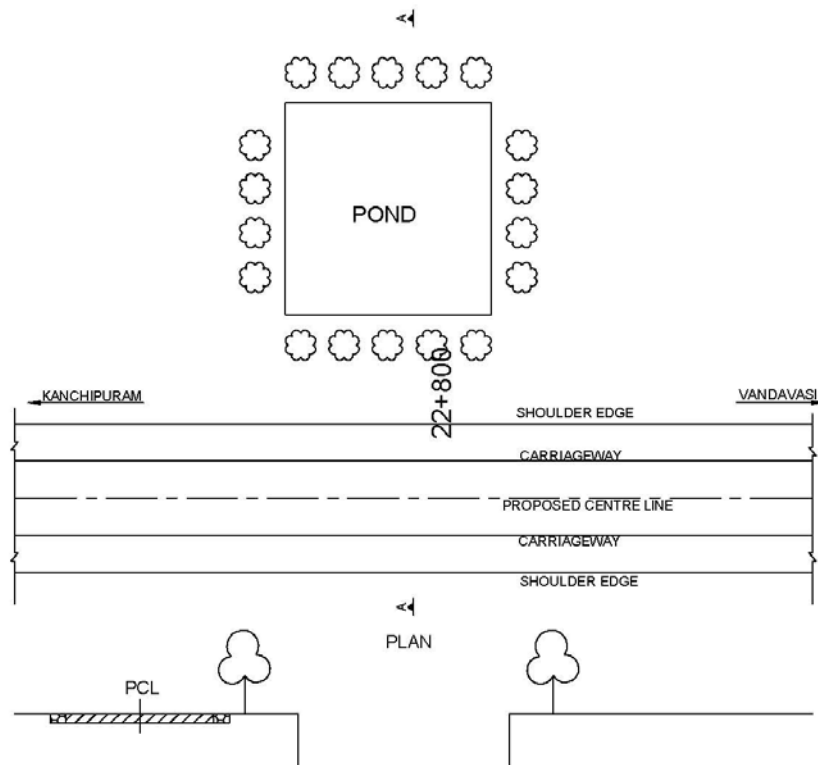


←

MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	87	1500	130500	2.1
2	Retaining wall on road side	Rm	275	55900	15372500	6.3
3	Desilting	No	1	150000	150000	
Total					15653000	

Chainage (km)	22+800	
Structure ID No	Pond	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	7.7	
Length x Breadth (m)	45 x 45	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	

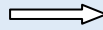


MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Tree plantation	No.	18	1500	27000	2.1
2	Retaining wall on road side	Rm	45	55900	2515500	6.3
3	Desilting	No	1	150000	150000	
Total					2692500	

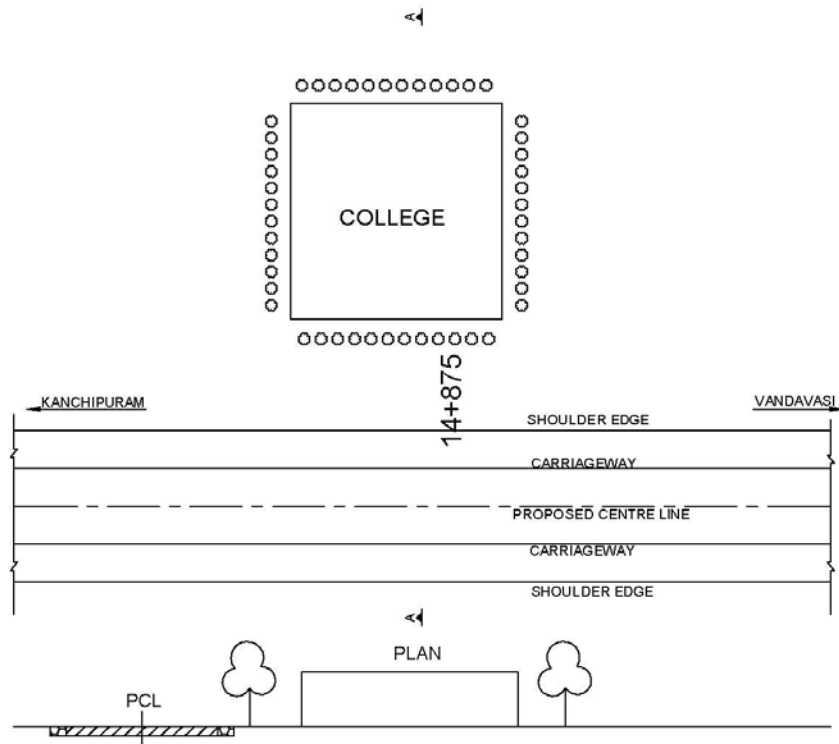
Sensitive Receptors along SH 116

KANCHIPURAM




VANDEVASI

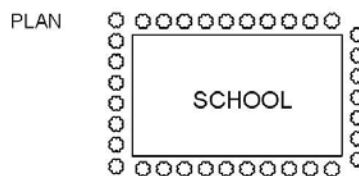
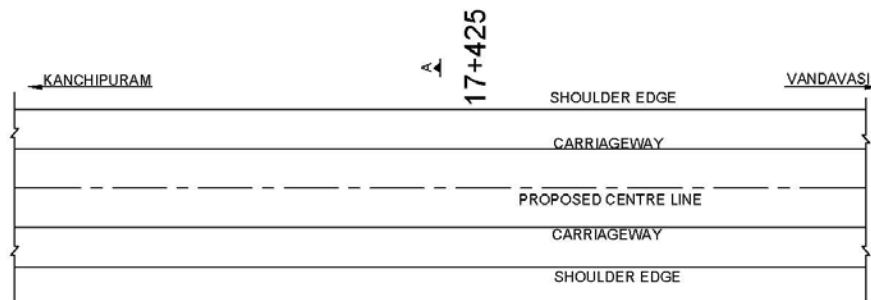
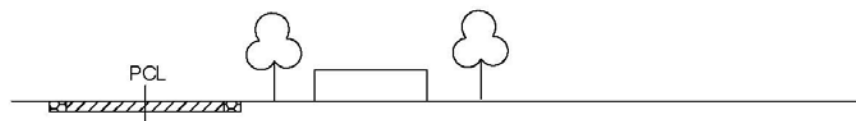
Chainage (km)	14+875	
Structure ID No	College	
Village Name	Mangle	
Side (Left/Right)	Left	
Distance from PCL (m)	11.4	
Length x Breadth (m)	125 x 116.2	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Existing boundary wall will be raised and develop as noise barrier	Rm	125	479	59875	6.0	
2	Tree Plantation	No	48	1500	72000	2.1	
3	Horn prohibited sign post	Considered in engineering works					
Total					131875		

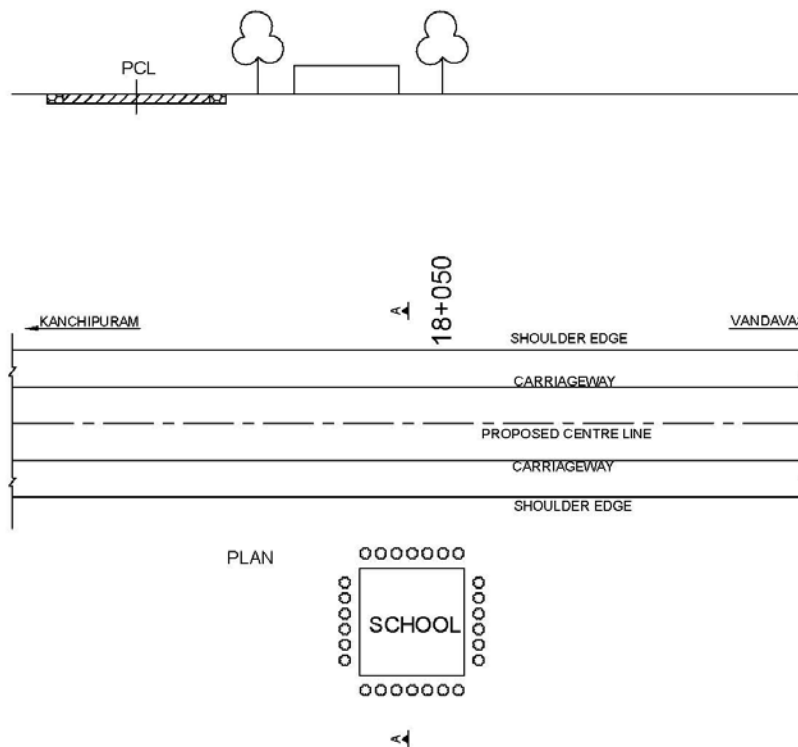
Chainage (km)	17+425	
Structure ID No	School	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	14.7	
Length x Breadth (m)	125 x 49	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Existing boundary wall will be raised and develop as noise barrier	Rm	125	479	59875	6.0
2	Tree Plantation	No	35	1500	52500	2.1
3	Horn prohibited sign post	Considered in engineering works				
Total					112375	

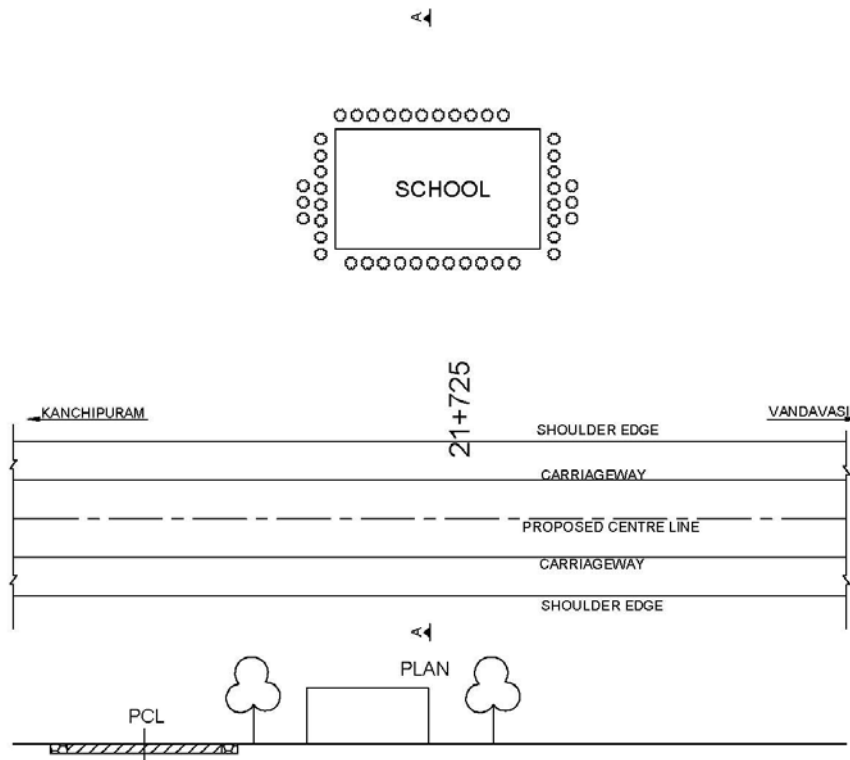
Chainage (km)	18+050	
Structure ID No	School	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	16	
Length x Breadth (m)	60 x 70	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Existing boundary wall will be raised and develop as noise barrier	Rm	60	479	28740	6.0
2	Tree Plantation	No	26	1500	39000	2.1
3	Horn prohibited sign post	Considered in engineering works				
Total					67740	

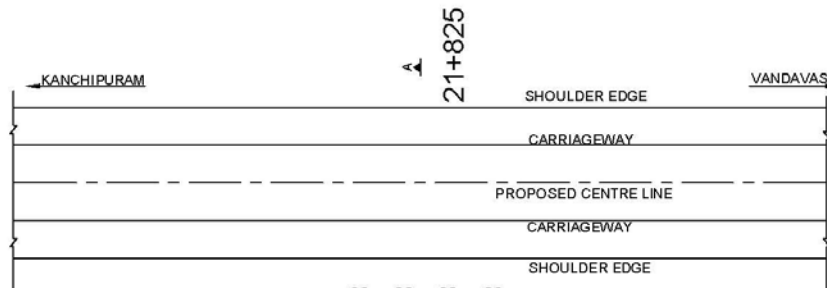
Chainage (km)	21+725	
Structure ID No	School	
Village Name	Peru nagar	
Side (Left/Right)	Left	
Distance from PCL (m)	10.5	
Length x Breadth (m)	165 x 60	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Demolition of Boundary Wall	Rm	170	29	4930	6.0	
2	Construction of Boundary Wall	Rm	165	2396	395340	6.0	
3	Gate	no	1	10000	10000		
4	Tree Plantation	No	45	1500	67500	2.1	
5	Horn prohibited sign post	Considered in engineering works					
Total					477770		

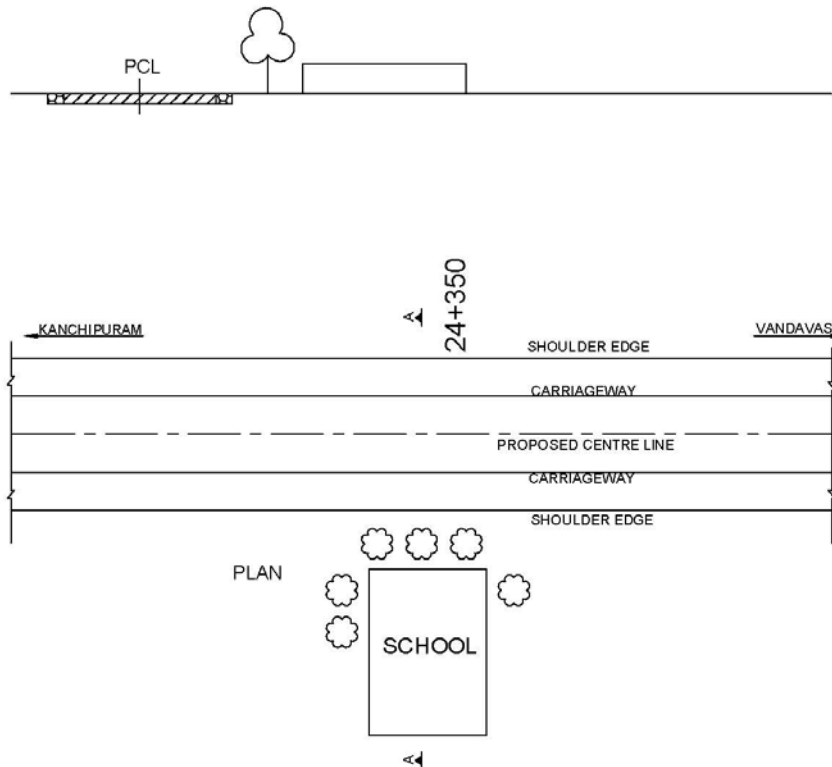
Chainage (km)	21+825	
Structure ID No	Hospital	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	14.7	
Length x Breadth (m)	20 x 16	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Construction of Boundary Wall	Rm	40	2396	95840	6.0	
2	Tree Plantation	No	8	1500	12000	2.1	
3	Gate	no	1	10000	10000		
4	Horn prohibited sign post	Considered in engineering works					
Total					117840		

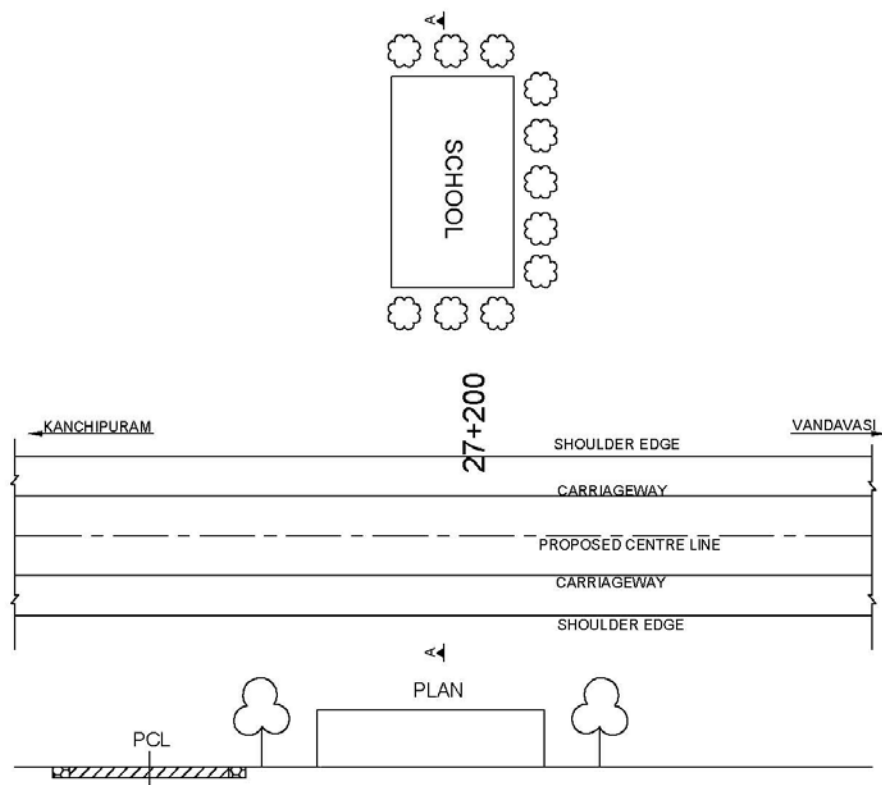
Chainage (km)	24+350	
Structure ID No	School	
Village Name	Mannamathy kut road	
Side (Left/Right)	Right	
Distance from PCL (m)	14	
Length x Breadth (m)	9 x 18	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	6	1500	9000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					9000		

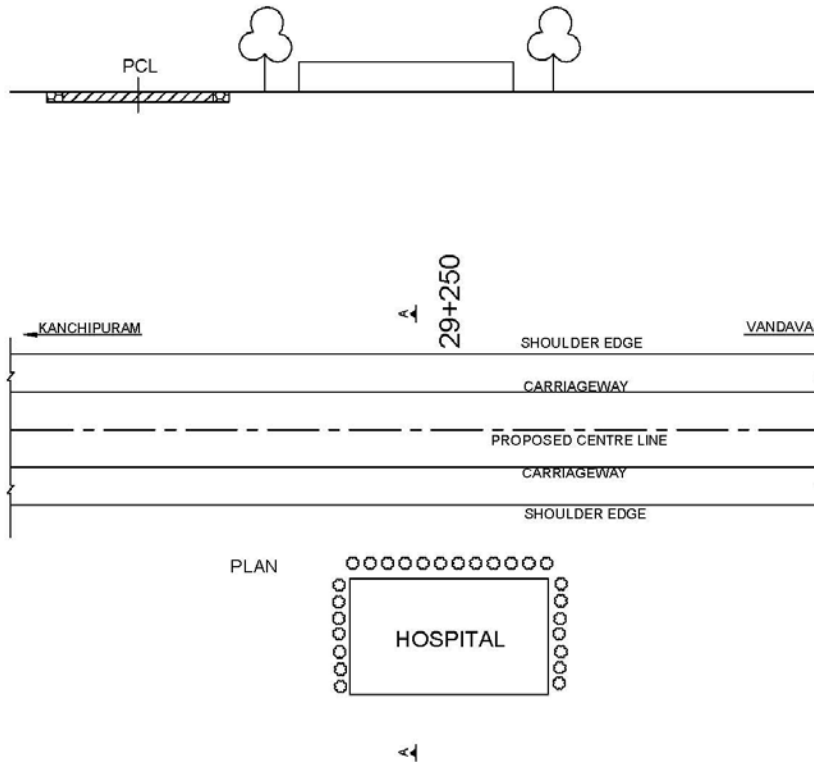
Chainage (km)	27+200	
Structure ID No	School	
Village Name	Thethurai	
Side (Left/Right)	Left	
Distance from PCL (m)	8.3	
Length x Breadth (m)	19 x 35.8	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	11	1500	16500	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					16500		

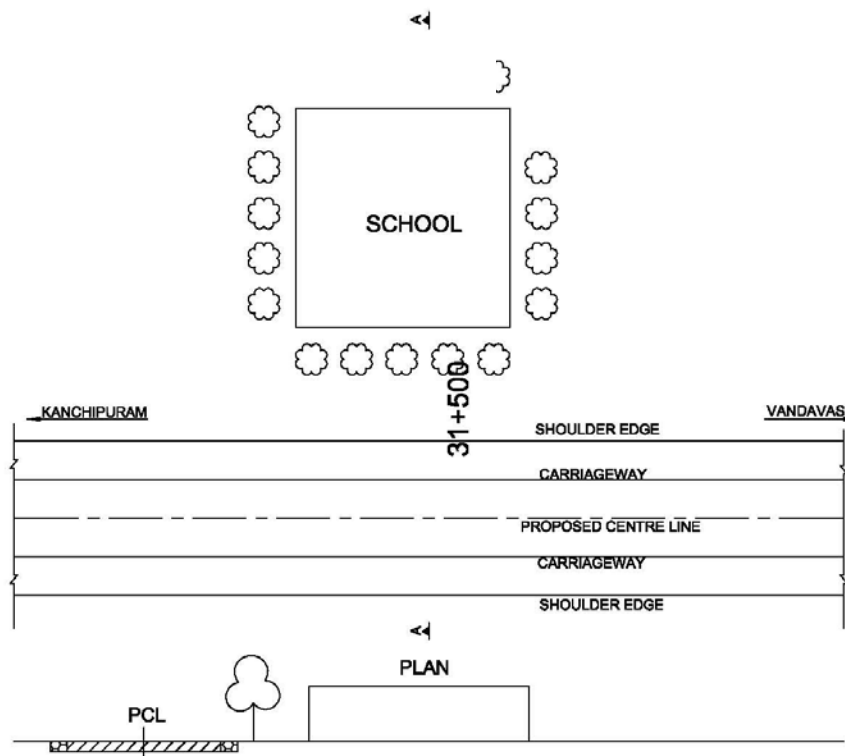
Chainage (km)	29+250	
Structure ID No	Hospital	
Village Name	Virapakkam	
Side (Left/Right)	Right	
Distance from PCL (m)	29.7	
Length x Breadth (m)	91 x 40	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	No direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	26	1500	39000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					39000		

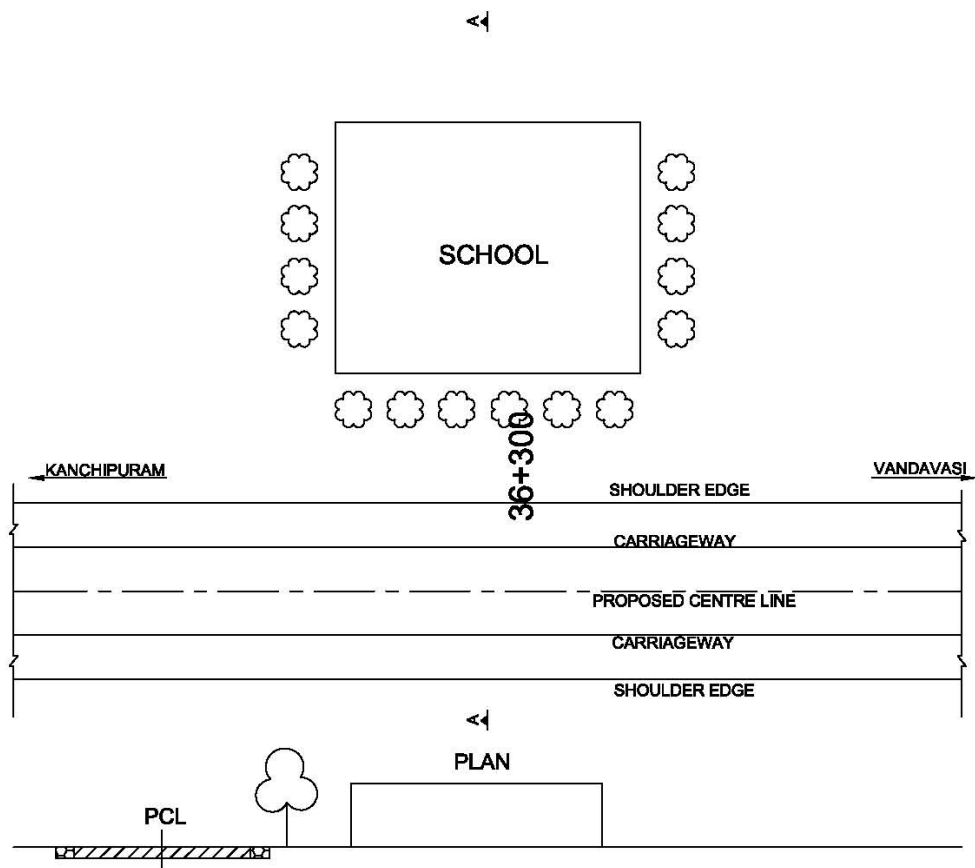
Chainage (km)	31+500	
Structure ID No	School	
Village Name	Palitakuppam	
Side (Left/Right)	Left	
Distance from PCL (m)	14.2	
Length x Breadth (m)	34 x 30	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Existing boundary wall will be raised and develop as noise barrier	Rm	34	479	16286	6.0	
2	Tree Plantation	No	13	1500	19500	2.1	
3	Horn prohibited sign post	Considered in engineering works					
Total					35786		

Chainage (km)	36+300	
Structure ID No	School	
Village Name	Venukundaram	
Side (Left/Right)	Left	
Distance from PCL (m)	18	
Length x Breadth (m)	70 x 50	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	No direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.	
1	Tree Plantation	No	24	1500	36000	2.1	
2	Horn prohibited sign post	Considered in engineering works					
Total					36000		

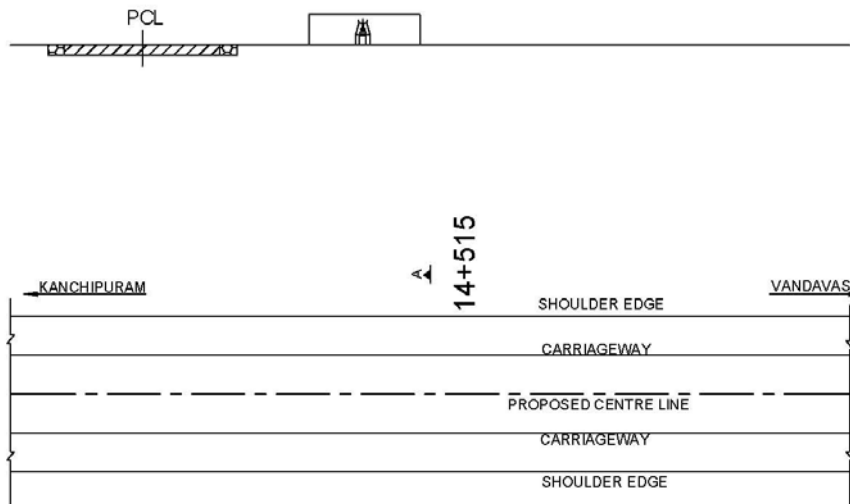
Community Structures along SH 116

KANCHIPURAM

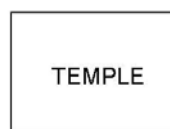


VANDEVASI

Chainage (km)	14+515	
Structure ID No	Temple	
Village Name	Mangal	
Side (Left/Right)	Right	
Distance from PCL (m)	4.5	
Length x Breadth (m)	4.9 x 3.4	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	




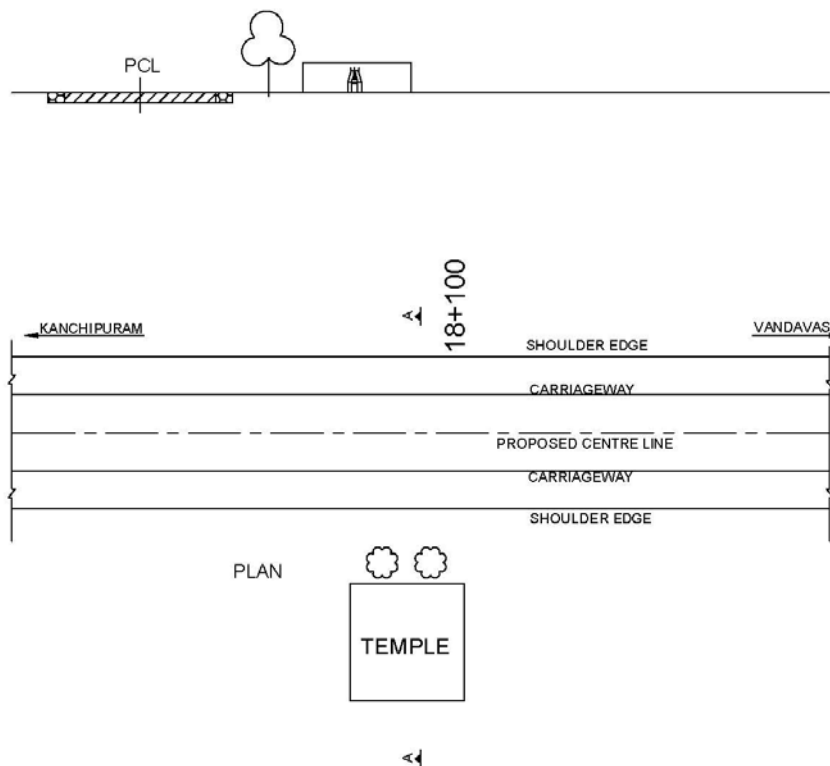
PLAN



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

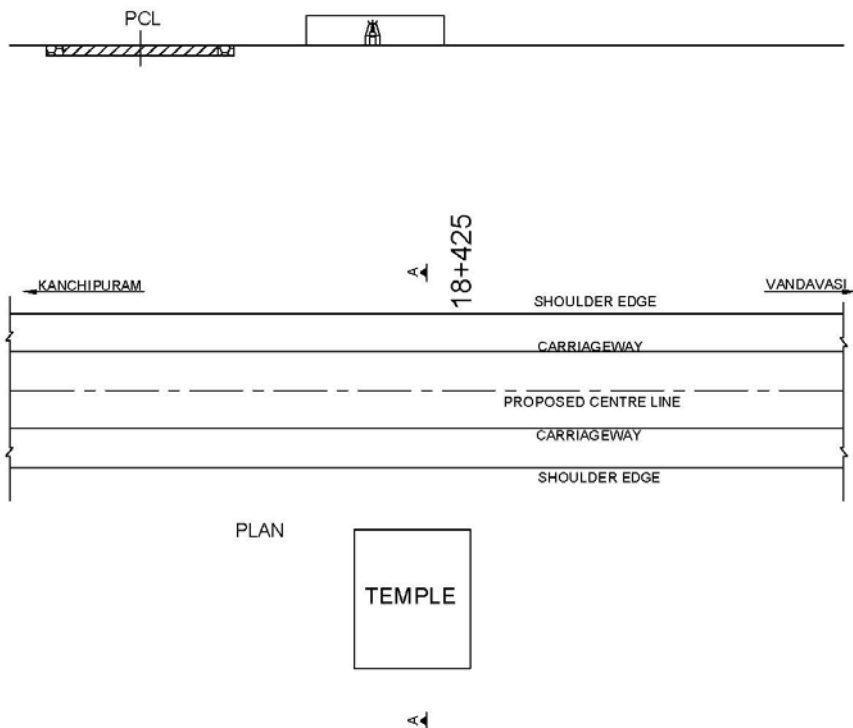
Chainage (km)	18+100	
Structure ID No	Temple	
Village Name	Kuzhamandal	
Side (Left/Right)	Right	
Distance from PCL (m)	7	
Length x Breadth (m)	17.5 x 17.5	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of gate	No	1	300	300	6.0
2	Construction of boundary wall	Rm	17.5	1600	27956	6.0
3	Gate	No	1	10000	10000	6.0
4	Tree plantation	No	2	1500	3000	2.1
Total					41256	

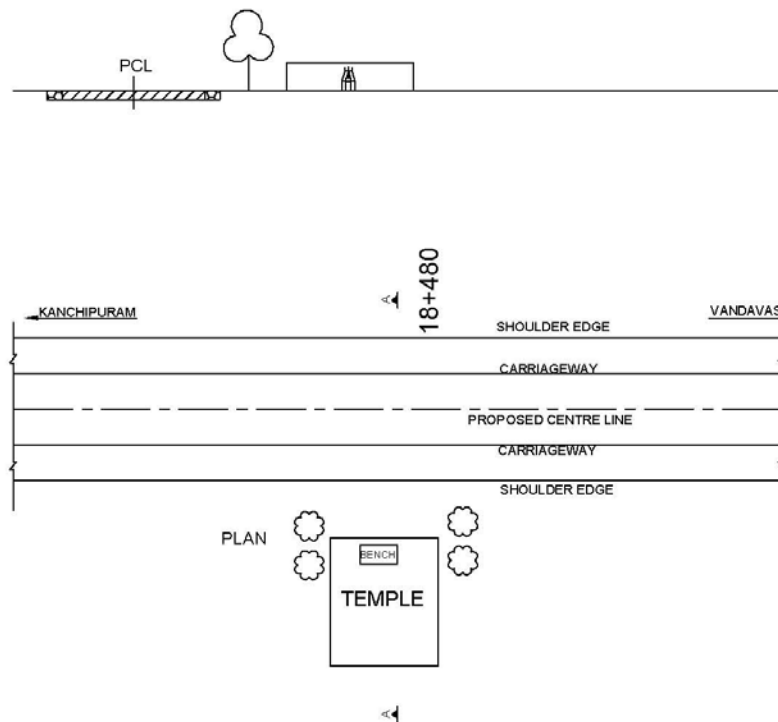
Chainage (km)	18+425	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	10.5	
Length x Breadth (m)	3.5 x 4.9	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

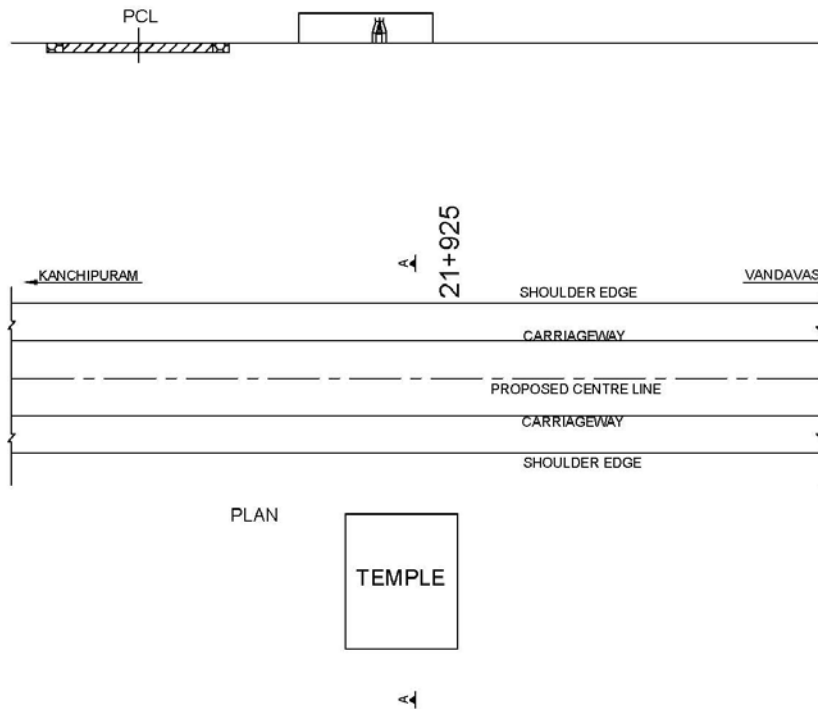
Chainage (km)	18+480	
Structure ID No	Temple	
Village Name	Vellamalai	
Side (Left/Right)	Right	
Distance from PCL (m)	11.2	
Length x Breadth (m)	9.1 x 34	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	Rm	10	19	190	6.0
2	Construction of boundary Wall	Rm	9.1	1600	14560	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	4	1500	6000	2.1
5	Gate	no	1	10000	10000	6.0
Total					31950	

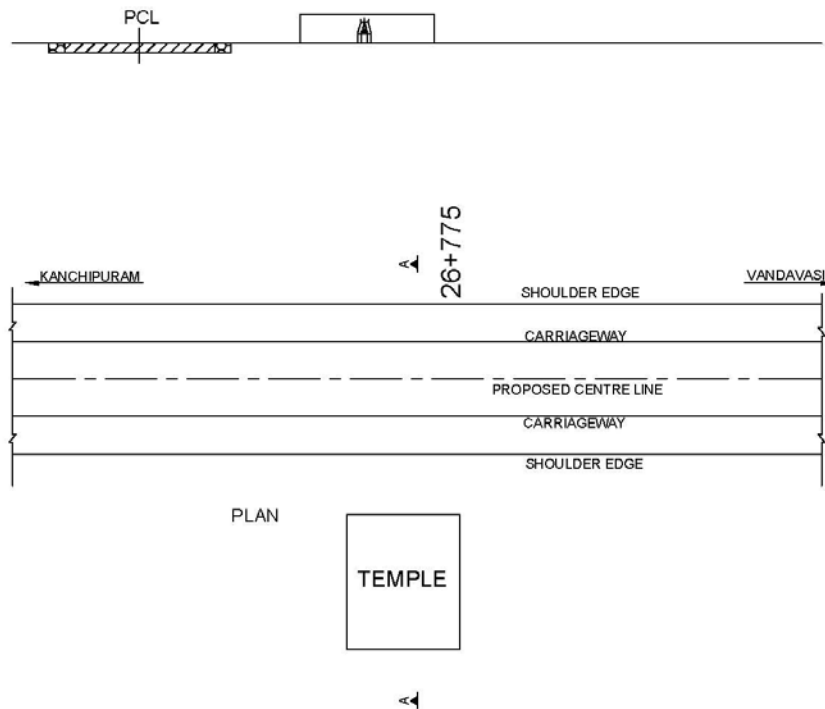
Chainage (km)	21+925	
Structure ID No	Temple	
Village Name	Peru nagar	
Side (Left/Right)	Right	
Distance from PCL (m)	6.3	
Length x Breadth (m)	6 x 10	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

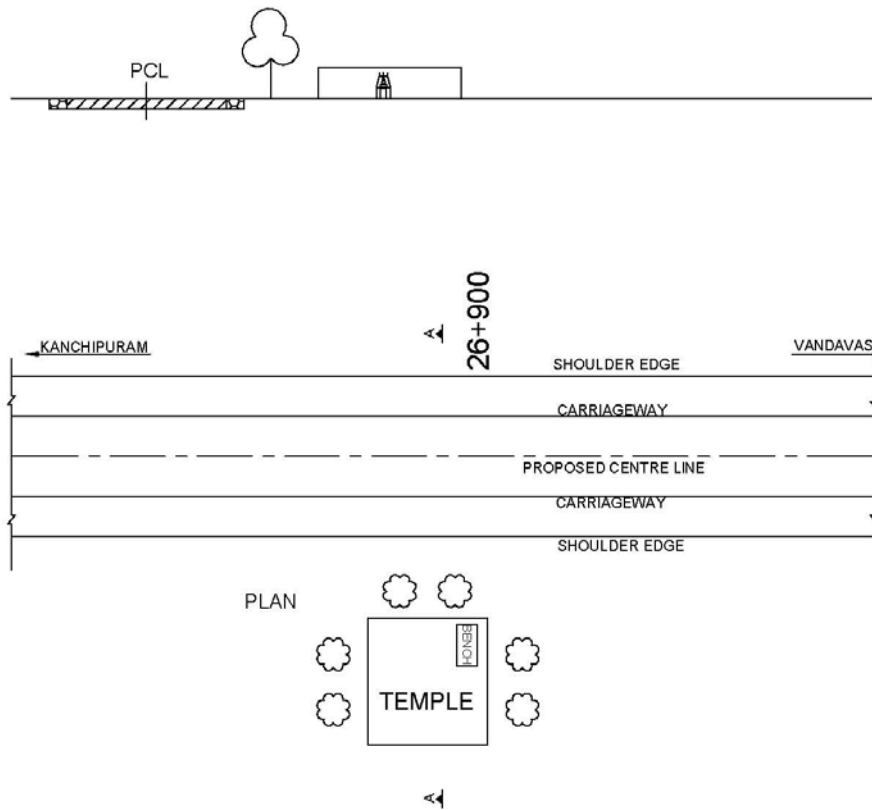
Chainage (km)	26+775	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	5.6	
Length x Breadth (m)	9.8 x 14	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

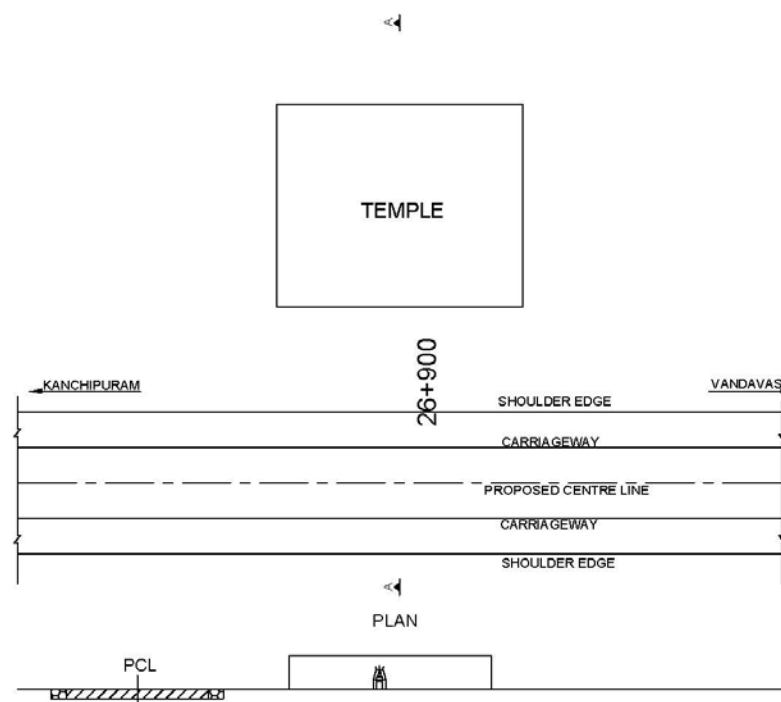
Chainage (km)	26+900	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Right	
Distance from PCL (m)	10.8	
Length x Breadth (m)	14.3 x 14.4	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Demolition of boundary Wall	Rm	15.8	19	300	6.0
2	Construction of boundary Wall	Rm	14.3	1600	22880	6.0
3	Seating bench	No	1	1200	1200	6.0
4	Tree Plantation	No	6	1500	9000	2.1
5	Gate	no	1	10000	10000	6.0
Total					43380	

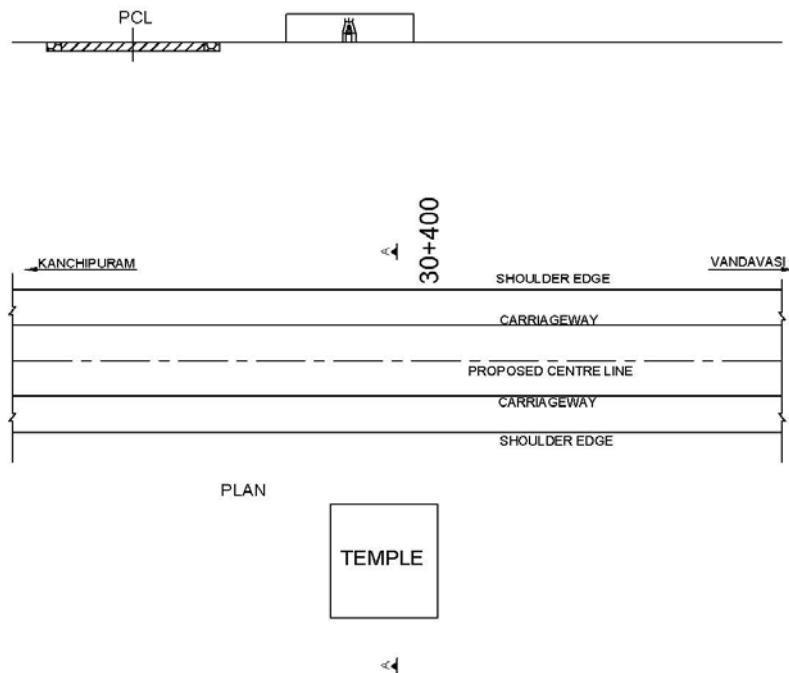
Chainage (km)	26+900	
Structure ID No	Temple	
Village Name	Thethurai	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	2 x 2	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (demolition)	nil	nil	nil	nil	nil
Total					Nil	

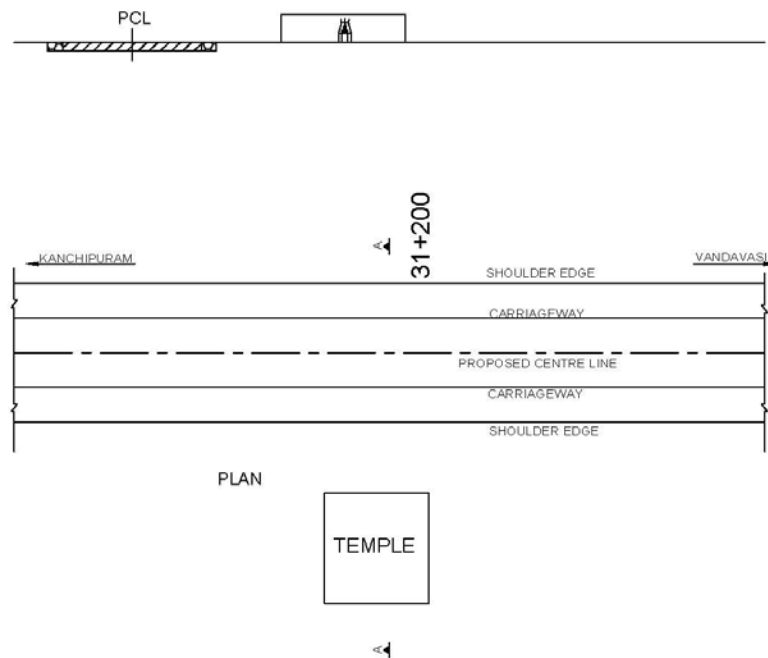
Chainage (km)	30+400
Structure ID No	Temple
Village Name	Poodur
Side (Left/Right)	Right
Distance from PCL (m)	4.6
Length x Breadth (m)	16.8 x 20
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

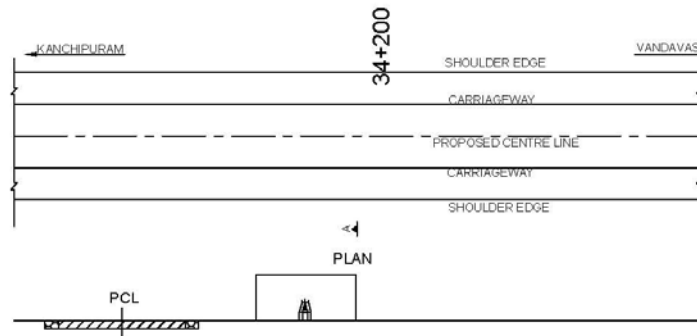
Chainage (km)	31+200
Structure ID No	Temple
Village Name	Poodur
Side (Left/Right)	Right
Distance from PCL (m)	5.6
Length x Breadth (m)	7 x 9
Proposed ROW (Equal on either side of PCL) (m)	11.5
Impact	direct impact



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

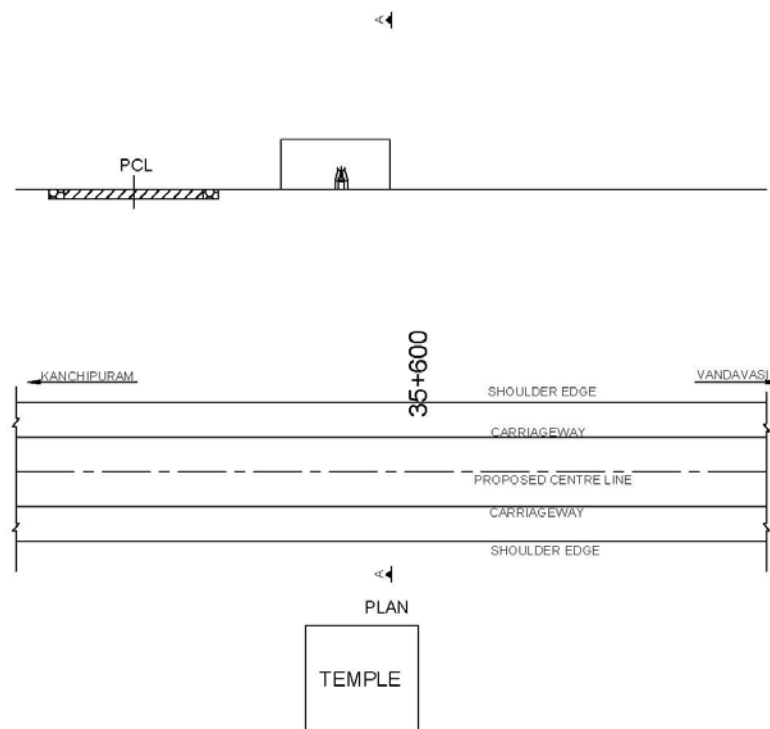
Chainage (km)	34+200	
Structure ID No	Temple	
Village Name	Thanangoor	
Side (Left/Right)	Left	
Distance from PCL (m)	7	
Length x Breadth (m)	1 x 1	
Proposed ROW (Equal on either side of PCL) (m)	8	
Impact	direct impact	



MITIGATION/ENHANCEMENT


S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (demolition)	nil	nil	nil	nil	nil
Total					Nil	

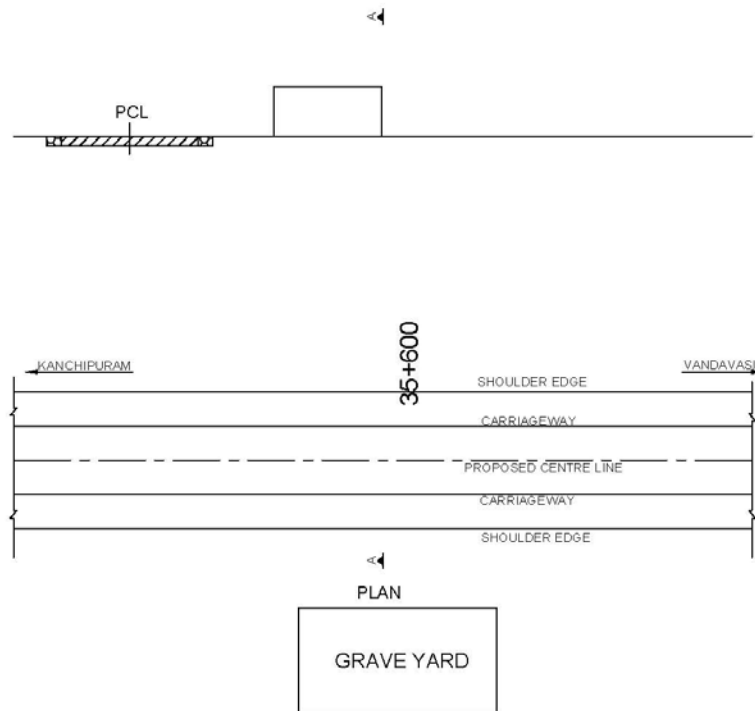
Chainage (km)	35+600	
Structure ID No	Temple	
Village Name	Venukundaram	
Side (Left/Right)	Right	
Distance from PCL (m)	5	
Length x Breadth (m)	10 x 10	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	

Chainage (km)	32+900	
Structure ID No	Grave yard	
Village Name	Thanangoor	
Side (Left/Right)	Right	
Distance from PCL (m)	8	
Length x Breadth (m)	70 x 35	
Proposed ROW (Equal on either side of PCL) (m)	11.5	
Impact	direct impact	



MITIGATION/ENHANCEMENT

S. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)	BOQ Item No.
1	Nil (Realignment explored)	nil	nil	nil	nil	nil
Total					Nil	