

#### BRUHAT BENGALURU MAHANAGARA PALIKE

Office of the Deputy Conservator of Forests, Bruhat Bengaluru Mahanagara Palike N.R Square, Bangalore

No: DCF/PR. 884/2024-25

Date: 05.12.2024

To,

The Chief Engineer, Phase 2B, Package 02, BMRCL, Bengaluru.

#### **OFFICIAL MEMORANDUM**

Sub: Construction of Elevated Structure (Viaduct and Stations) and five Elevated Metro Stations at Metro Viaduct of Phase 2B, Package-2, Project alignment from Kempapura to Bagalur Cross including Portal Piers locations and LHS/RHS Service Roads and Station Areas of Phase 2B, Package-2, Bengaluru – reg

Ref: a) This Office OM No. DCF/PR-198/2022-23 dtd. 26.07.2022

- b) BMRCL/Ph-2B/Pkg-2/32/2024-25/1873 dtd 10.06.2024
- c) BMRCL/Ph-2/Pkg-2/32/2024-25/1985 dtd. 19.07.2024
- Member Secretary, TEC and ACF Letter No. ACF/PR.81/2024-25 dtd
   04.12.2024 along with Report and related documents of Tree Expert Committee

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1. A proposal on the above cited subject under Sections 8 (2) and 8 (3) (vii) of Karnataka Preservation of Trees Act, 1976 was received by the Tree Officer/DCF, BBMP from the Chief Engineer, Phase 2B, Package 02, BMRCL, Bengaluru regarding removal of 76 nos of trees for Construction of Elevated Structure (Viaduct and Stations) and five Elevated Metro Stations at Metro Viaduct of Phase 2B, Package-2, Project alignment from Kempapura to Bagalur Cross including Portal Piers locations and LHS/RHS Service Roads and Station Areas of Phase 2B, Package-2.

This is an additional proposal in continuation of the earlier proposal of BMRCL which was finalised by the Tree Officer/DCF, BBMP vide his Official Memorandum No. DCF/PR-198/2022-23 dtd. 26.07.2022 vide letter cited under reference (a).

The BMRCL in their letter no BMRCL/50/SEMU/2024-25/12394 dtd 13.11.2024 has stated that the present requirement for removal of trees is at spots located at Pier Nos. AP402, AP403, AP405, AP338, AP 343 & AP 423. Earlier in GAD (R-2) it was planned to utilize common lines for both Phase-2B and to be proposed Phase-3 (part of Phase-2B) between Piers AP 336 to AP 340. Accordingly BMRCL had earlier sought permission for removal of 429 trees for its Phase 2B Metro Project from the Tree Officer/DCF, BBMP. Subsequently the Official Memorandum No. DCF/PR-198/2022-23 dtd. 26.07.2022 was issued by the DCF, BBMP mentioning that out of 429 trees, 15 trees were to be Retained-on-site, 29 suitable trees were to be translocated and 382 trees were permitted to be removed/felled. Now BMRCL have requested for an additional requirement of 76 trees removal for the present Project duly stating the reasons for these additional requirement of trees are as follows:

- i. Tree Nos.197 to Tree No. 210 (total 14 trees) included in the felling category of the earlier OM and standing on central median was meant for constructing Piers of Phase-3 which was to be constructed along with Phase 2 works due to logistical issues. Later on, it was realized that there will be operational constraints due to common line in this stretch. Accordingly, GAD R-3 was finalized wherein Phase 2B lines were separated from the Phase 3 lines by introducing single piers AP 338 to AP 342. Hence, the slight change in alignment needs clearance of 11 trees (Tree Nos. 28, 29, 30, 31, 32, 33, 34, 35, 36, 37 & 38) which were earlier retained and now required for the present proposal.
- ii. Further between the Metro alignment from Pier No. AP 392 and AP 405, alignment is locally refined by shifting it from Centre of Road Median to the Open Ground beyond NH Service Road for avoiding bottlenecks of traffic congestion at the approach point of Hebbal Flyover towards Bangalore city, KR Puram and Tumkur Road. For this modified working in public interest, additional 51 trees are required which were not requested in the earlier proposal.
- iii. Due to local refinement of alignment at Kodigehalli Metro Station approach and limitations in Metro alignment curvature, track central line is slightly shifted away from its original location. Hence a new portal Pier AP 423R (Right) has been introduced in addition to original pier AP 423. The necessary land has been acquired at this location and 14 number of trees are required for construction of the Pier No. AP 423R. This too was not requested in the earlier proposal. Hence BMRCL has requested for permission to remove total number of 76 trees (11 Nos + 51 Nos + 14 Nos).

As such Public Notice dated 03.09.2024 was issued by the Tree Officer & DCF, Bruhat Bengaluru Mahanagara Palike as per Section 8 (3) of the Karnataka Preservation of Trees Act 1976 (as amended in 2015) with the intention to invite objections/remarks from public.

In this context, the Tree Officer has confirmed that no objection/post has been received from the public in response to the said public notice. Further, the Tree Officer, BBMP also emphasized that the first priority of the Forest authorities will be to save and retain more number of trees at the spot/site and in case that is not possible, the next option would be translocation of such trees which fulfill the desired criteria like having suitable girth, satisfactory status/health condition of the tree, feasibility of root-ball excavation of appropriate size and felling of the trees has to be last resort. The Compensatory Afforestation would involve planting of saplings duly following the norms of 10 saplings to be planted in lieu of each tree translocated/felled (i.e., in the ratio 1:10).

The concerned Field Forest Officer has carried out inspections on 28.08.2024, the ACF and DCF has visited the sites on 12.09.2024 & 13.09.2024 and had submitted the preliminary Assessment Report related to 76 trees. After receiving the necessary documents, the said locations of the project area were visited and the field inspection for assessment of 76 trees standing within the project area for the proposed BMRCL project was carried out by the TEC on 22.10.2024. The concerned Representatives of BMRCL Authorities and Forest Officers of BBMP were present at the project area with all necessary documents.

At the Project Area, during the course of Field Inspections, the following activities were carried out by the TEC for assessment of each tree.

- i. Physical verification of the tree number and the associated information collected by the Forest Department Officers including tree health / tree defects and general assessment as per provision under Section 8 (3) of the KPT Act, 1976.
- ii. Confirmation regarding those trees being inside the project area and standing at the construction activity sites/spots.
- iii. Review of preliminary assessment of trees as per the entries made by the Tree Officer.
- iv. Discussions with the BMRCL Authorities to explore possibility of carrying out the construction activities without removal of trees and identification of such trees which can be retained on-site as this is considered as first priority.
- v. Assessment of the general conditions of the trees to decide the feasibility of its translocation/transplantation in case of retention-on-site not possible, as that being the next option.
- vi. Recording of TEC's remarks and recommendations for on-site retention/translocation/felling of trees.

- 2. The total trees standing at the project area as per BMRCL Application are 76 in number and these trees are getting affected by the construction activities as stated by the CE, Phase 2B, BMRCL and the Tree Officer/DCF, BBMP
- 3. The TEC had thorough discussions with the BMRCL authorities regarding execution and construction activities without removal of trees and identifying the trees which can be retained on-site with respect to alignment, design and plan. As per field inspection, out of the total 76 trees, 15 trees standing in the project area, have been identified for retention-on-site as they are not affecting the development activities.
- 4. Therefore the remaining 61 trees will have to be suggested for removal/felling as they are standing within the proposed following physical features of the Project as per BMRCL Letter BMRCL/50/SEMU/2024-25/12394 dtd 13.11.2024.

Sl. No.	Physical features	Tree Nos	Location
1.	Modification and Construction of individual Metro Pier, Viaduct Alignment to accommodate Phase 03 Line	Tree No. AD 1 to Tree No. AD 11 = 11 Nos I Sub-total = 11 Nos.	Standing on the roadside median, from Hebbal to Kempapura, Bengaluru
2.	Construction of Metro Portal Piers viz., AP 402, AP 403, AP 405, Viaduct Alignment revised as per GAD R4 (New land acquisition done)	a) Tree No AD 15 to Tree No. AD 20, = 06 Nos b) Tree No AD 28 to Tree No. AD 34= 07 Nos c) Tree No. AD 43 to Tree No. AD 62 = 20 Nos. d) Tree Nos. AD 22, AD 23, AD 24, AD 25, AD 36, AD 37 = 06 Nos. II Sub-total = 39 Nos	Sy. Nos. 54/5A & 54/6, Embassy Lake Terraces Apartment, Hebbal, Bengaluru
3.	Construction of Metro Portal Piers viz., AP 423 (R), Viaduct Alignment revised as per GAD R4 (New land acquisition done)	a) Tree No AD 64 to Tree No. AD 74 = 11 Nos III Sub-total = 11 Nos	Sy No. 43/4, Godrej Platinum Apartment, Hebbal, Bengaluru
	Gran	d Total = Total I + II + III = 61	trees

Since these 61 trees are standing right in the construction zone and hindering the project activities, their removal becomes inevitable.

The next option considered by the TEC in case of those trees which could not be retained-onsite was translocation.

Having concluded that the retention of the above mentioned 61 trees are not possible, the TEC chose the next option of translocation of trees and assessed the suitability of each of these trees. In doing so, the TEC considered the following conditions, in addition to verification of the tree health / tree defects, etc..

- i. Proximity of tree to building structures, trunks proximity to the cement / concrete or tarred surface so as to examine the feasibility of extraction of root-ball of appropriate size;
- ii. The natural characteristics and aspects of species viz., ecologically and economically important species; species that could provide food (nectar, pollen, seeds and fruits) and nesting sources (materials and site) to various fauna.
- iii. The trees having below mentioned characteristics do not qualify for translocation.

Trees having multi-forked trunk, major wounds on the trunk, debarking, physical damage on the bark, scar due to fire, damage (girdling), rotting due to fungal infection (fruiting bodies of fungus, rotten core, hollowness) or pest infestation (presence of holes and frass as evidence of insect infestation), and dead / dried major branches, etc..

Taking into consideration the above mentioned assessment attributes, the TEC found that totally 06 trees at the said area are suitable for translocation.

Ultimately, the balance 55 number of trees standing within the project area which were not found to be suitable either for retention on-site or for translocation, will have to be removed/felled for the implementation of the BMRCL Project.

Having completed the above assessment of trees at the project area, the Committee also inspected the location/area which was identified by the BMRCL for translocation of trees and recommended by the Tree Officer as proposed area for translocation of trees.

Location Site – Vacant space at KIADB, Hi-Tech Defence & Aerospace Park (Adjacent to KIA, Huvinayakanahalli, Bengaluru)

The Tree Officer has stated that BMRCL have submitted letter No. BMRCL/50/SEMU/2024-25/12394 dtd 13.11.2024 issued by the EO-SEMU in which they have furnished the required

particulars of the said translocation area identified besides mentioning the Specific Receptor Sites Coordinates for the 06 trees to be translocated.

The TEC deliberated and concurred with the recommendations of the Tree Officer and DCF, BBMP regarding the tree translocation details including specific receptor sites coordinates.

The TEC opined that translocation of trees can be done in the proposed receptor sites in accordance with the advice and procedure as rendered by UAS, Bangalore.

The TEC carried out a thorough and multipronged scrutiny of all the 76 trees to make its recommendations regarding:

- a) Trees which could be saved by retaining on-site as it is;
- b) Trees which should be translocated depending upon their general condition as assessed and ecological importance, in the event of (a) above not being possible;
- c) Trees recommended for removal in the event of (a) and (b) not being possible including the trees which are silviculturally matured, softwood trees and trees suffering from defects /damages.

#### <u>ORDER</u>

Under the circumstances explained above and in exercise of the powers vested with the undersigned as per Section 8 (3) of Karnataka Preservation of Trees Act, 1976 and based on the guidelines and decisions taken as per the Field Inspection, Proceedings of the Meeting dtd. 29.10.2024 and TEC Report for retention-on-site, translocation, and removal of trees which are standing at the locations at Locations viz., Airport Line Pier (AP) No. 402, AP403, AP405, AP338, AP 343 & AP 423 of the Project area of Phase 2B, Package 02, BMRCL, the below mentioned schedule is approved subject to the conditions mentioned thereon. This Order will come into effect after fifteen (15) days from the date of uploading of the order on the Official website of BBMP and for that purpose separate directions will be issued from this Office.

## **SCHEDULE**

1. The Fifteen (15) trees which are listed with remarks, enclosed to this Official Memorandum as Annexure A have to be retained-on-site. Hence permission is declined to remove the said 15 trees and they should continue to stand at their present locations.

- 2. Based on the considerations, the Six (06) trees which are listed with remarks, enclosed to this Official Memorandum as Annexure B have to be translocated. Hence permission is accorded to translocate the said 06 trees to suitable places as mentioned below in the 'Conditions'.
- 3. The remaining Fifty Five (55) trees which are listed with remarks, enclosed to this Official Memorandum as Annexure C can be removed. Hence permission is accorded for removal of these said 55 trees only as per the felling of trees norms adopted by Karnataka Forest Department (KFD).

#### **Conditions**

- 1. No damage should be caused to the trees which are retained on the spot, while carrying out the civil works or any project related works.
- 2. The trees which are retained-on-site have to be properly protected and maintained.

  Accordingly BMRCL should give an assurance in this respect.
- 3. The translocation of trees should be done at the following proposed location in collaboration with the DCF, BBMP.

Location Site – Vacant space at KIADB, Hi-Tech Defence & Aerospace Park

(Adjacent to KIA, Huvinayakanahalli, Bengaluru)

- 4. The Persons/Agencies who are entrusted with translocation works should have sufficient knowledge and experience in such works.
- 5. The work of translocation of trees has to be executed under close supervision of Officials/Officers of Forest Wing of BBMP and according to the formulated guidelines of UAS, Bengaluru.
- 6. The trees so translocated have to be properly maintained and taken care of, for a minimum period of three years.
- 7. The entire process of translocation of trees has to be properly documented and records compiled in a systematic manner.
- 8. As per the Section 10 of KPT Act 1976, which provides that where any tree has fallen or destroyed due to force of nature or other natural causes, requires to plant a tree or trees in place of the tree so fallen or destroyed.

- 9. In lieu of the trees translocated and felled, 10 healthy and heighted saplings have to be planted in lieu of each tree either translocated or felled. The saplings have to be planted as per forestry practices and maintained for a minimum period of five years. Photographs and proper documentation has to be submitted for saplings/seedlings planted.
- 10. Regular monitoring must be done to ensure the conducive growth of translocated trees and planted saplings/seedlings.

Tree Officer and

Deputy Conservator of Forests Bruhat Bengaluru Mahanagara Palike, Bengaluru

#### Copy to:

- The Chairman, Tree Authority and Chief Conservator of Forests, Bangalore Circle, Bangalore for kind information
- 2. The Member Secretary Tree Expect Committee, and the Assistant Conservator of Forests, BBMP for information and further action.
- 3. The Assistant Conservator of Forests, BBMP for information and further action
- 4. The Range Forest Officers/Deputy Range Forest Officers for information and further action
- 5. Office Copy
- \* Any objections against the above Order of the Tree Officer, BBMP under Section 14 of the KPT Act 1976, an appeal can be made to the Tree Authority, Bengaluru.

# LIST OF TREES FOR RETENTION

Sl. No.	Tree No.	Tree Name	Girth (in Mtrs)	Height (in Mtrs)	Remarks
1	AD-12	Akash Mallige (Millingtonia hortensis)	0.50	3.00	The tree is standing abutting the construction activity (for pier no. AP 402) in the project area, and recommended for retention.
2	AD-13	Akash Mallige (Millingtonia hortensis)	0.69	4.00	The tree is standing abutting the construction activity (for pier no. AP 402) in the project area, and recommended for retention.
3	AD-14	Sampige (Michelia champaca)	0.13	6.00	The tree is standing abutting the construction activity (for pier no. AP 402) in the project area, and recommended for retention.
4	AD-21	Mango (Mangifera indica)	0.22	4.00	The tree is standing abutting the construction activity (for pier no. AP 402) in the project area, and recommended for retention.
5	AD-26	Kadamba (Terminalia catappa)	0.93	3.00	The tree is standing abutting the construction activity (for pier no. AP 402) in the project area, and recommended for retention.
6	AD-27	Sampige (Michelia champaca)	0.33	4.00	The tree is standing abutting the construction activity (for pier no. AP 403) in the project area, and recommended for retention.
7	AD-35	Akash Mallige (Millingtonia hortensis)	0.51	3.00	The tree is standing abutting the construction activity (for pier no. AP 403) in the project area, and recommended for retention.
8	AD-38	Akash Mallige (Millingtonia hortensis)	0.55	3.00	The tree is standing abutting the construction activity (for pier no. AP 403) in the project area, and recommended for retention.
9	AD-39	Akash Mallige (Millingtonia hortensis)	0.6	3.00	The tree is standing abutting the construction activity (for pier no. AP 403) in the project area, and recommended for retention.
10	AD-40	Peltophorum sp.	0.47	4.00	The tree is standing abutting the construction activity (for pier no. AP 405) in the project area, and recommended for retention.
11	AD-41	Kadamba (Terminalia catappa)	0.2	3.00	The tree is standing abutting the construction activity (for pier no. AP 405) in the project area, and recommended for retention.
12	AD-42	Buruga (Ceiba pentandra)	0.82	5.00	The tree is standing abutting the construction activity (for pier no. AP 405) in the project area, and recommended for retention.
13	AD-63	Sampige (Michelia champaca)	0.35	4.00	The tree is standing abutting the construction activity (for pier no. AP 423) in the project area, and recommended for retention.

	AD-75		0.27	1.00	The tree is standing abutting the construction
14	75A	Palm	0.23	1.00	activity (for pier no. AP 423) in the project area,
	75B	1	0.13	1.00	and recommended for retention.
		Sampige		2.00	The tree is standing abutting the construction
15	AD-76	(Michelia	0.22		activity (for pier no. AP 423) in the project area,
		champaca)			and recommended for retention.

# TOTAL NUMBER OF TREES FOR RETENTION = 15 Nos.

Tree Officer & Deputy Conservator of Forests,

BBMP, Bengaluru

### LIST OF TREES FOR TRANSLOCATION

Sl. No.	Tree No.	Tree Name	Girth (in Mtrs)	Height (in Mtrs)	Remarks
1	AD-23	Akash Mallige (Millingtonia hortensis)	0.48	4.00	The tree is healthy and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for transplantation.
2	AD-24	Akash Mallige (Millingtonia hortensis)	0.50	6.00	The tree is healthy and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for transplantation.
3	AD-29	Sampige (Michelia champaca)	0.15	4.00	The tree is healthy and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for transplantation.
4	AD-37	Akash Mallige (Millingtonia hortensis)	0.37	3.00	The tree is healthy and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for transplantation.
5	AD-44	Kadamba (Terminalia catappa)	0.62	4.00	The tree is healthy and standing within the project area proposed for construction of pier no. AP 405. In consideration to the tree and site condition, the tree is recommended for transplantation.
6	AD-64	Sampige (Michelia champaca)	0.4	3.00	The tree is healthy and standing within the project area proposed for construction of pier no. AP 423. In consideration to the tree and site condition, the tree is recommended for transplantation.

TOTAL NUMBER OF TREES FOR TRANSLOCATION = 06 Nos.

Tree Officer &
Deputy Conservator of Forests,
BBMP, Bengaluru

# LIST OF TREES FOR FELLING

Sl.No	Tree No.	Tree Name	Girth (in Mtrs)	Height (in Mtrs)	Remarks
1.	AD-1 - (Old no. 28)	Akash Mallige (Millingtonia hortensis)	1.15	3.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction of pier no. AP 388. In consideration to the tree and site condition, the tree is recommended for felling.
2.	AD-2 - (Old no. 29)	Akash Mallige (Millingtonia hortensis)	1.16	4.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 388 and pier no. AP 339). In consideration to the tree and site condition, the tree is recommended for felling.
3.	AD-3 - (Old no. 30)	Akash Mallige (Millingtonia hortensis)	1.30	4.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction of pier no. AP 339. In consideration to the tree and site condition, the tree is recommended for felling.
4.	AD-4 - (Old no. 31)	Akash Mallige (Millingtonia hortensis)	1.23	5.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction of pier no. AP 340. In consideration to the tree and site condition, the tree is recommended for felling.
5.	AD-5 - (Old no. 32)	Akash Mallige (Millingtonia hortensis)	1.02	6.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 340 and pier no. AP 341). In consideration to the tree and site condition, the tree is recommended for felling.

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6.	AD-6 - (Old no. 33)	Akash Mallige (Millingtonia hortensis)	1.00	4.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 340 and pier no. AP 341). In consideration to the tree and site condition, the tree is recommended for felling.
7.	AD-7 - (Old no. 34)	Akash Mallige (Millingtonia hortensis)	0.98	5.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 341 and pier no. AP 342). In consideration to the tree and site condition, the tree is recommended for felling.
8.	AD-8 - (Old no. 35)	Akash Mallige (Millingtonia hortensis)	0.87	5.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 341 and pier no. AP 342). In consideration to the tree and site condition, the tree is recommended for felling.
9.	AD-9 - (Old no. 36)	Akash Mallige (Millingtonia hortensis)	1.04	4.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 341 and pier no. AP 342). In consideration to the tree and site condition, the tree is recommended for felling.
10.	AD-10 - (Old no. 37)	Akash Mallige (Millingtonia hortensis)	0.98	5.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 342 and pier no. AP 343). In consideration to the tree and site

					condition, the tree is recommended for felling.
11.	AD-11 - (Old no. 38)	Akash Mallige (Millingtonia hortensis)	1.13	6.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete footpath and tar road on either side within the tree protection zone, prone for restricted roots), and standing within the project area proposed for construction (erection of U girder between pier no. AP 342 and pier no. AP 343). In consideration to the tree and site condition, the tree is recommended for felling.
12.	AD-15	Akash Mallige (Millingtonia hortensis)	0.41	5.00	The tree is defective (bent, partial bark distortion – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
13.	AD-16	Akash Mallige (Millingtonia hortensis)	0.55	4.00	The protection zone of the tree is compromised by adjacent tree (tree no. AD-17), thereby prone for root damage / decay during excavation of root ball / the relocation process, and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
14.	AD-17	Akash Mallige (Millingtonia hortensis)	0.54	6.00	The protection zone of the tree is compromised by adjacent tree (tree no. AD-16), thereby prone for root damage / decay during excavation of root ball / the relocation process, and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
15.	AD-18	Akash Mallige (Millingtonia hortensis)	0.65	5.00	The tree is defective (basal bark distortion – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
16.	AD-19	Akash Mallige (Millingtonia hortensis)	0.42	4.00	The protection zone of the tree is compromised by adjacent tree (tree no. AD-20), thereby prone for root damage / decay during excavation of root ball / the relocation process, and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.

17.	AD-20	Akash Mallige (Millingtonia hortensis)	0.53	6.00	The protection zone of the tree is compromised by adjacent tree (tree no. AD-19), thereby prone for root damage / decay during excavation of root ball / the relocation process, and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
18.	AD-22	Akash Mallige (Millingtonia hortensis)	0.48	5.00	The tree is defective (basal bark distortion – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
19.	AD-25	Akash Mallige (Millingtonia hortensis)	0.62	4.00	The tree is defective (bent, restricted roots due to concrete structure – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
20.	AD-28	Akash Mallige (Millingtonia hortensis)	0.85	7.00	The tree is defective (basal bark distortion – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
21.	AD-30	Akash Mallige (Millingtonia hortensis)	0.48	6.00	The tree is defective (restricted roots due to concrete structure – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
22.	AD-31	Akash Mallige (Millingtonia hortensis)	0.41	3.00	The tree is defective (decay compartmentalised – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
23.	AD-32	Akash Mallige (Millingtonia hortensis)	0.45	3.00	The tree is defective (basal bark distortion and decay – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
24.	AD-33	Akash Mallige (Millingtonia hortensis)	0.52	3.00	The tree is defective (basal bark distortion and decay – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the

					tree is recommended for felling.
25.	AD-34	Akash Mallige (Millingtonia hortensis)	0.44	3.00	The tree is defective (basal bark distortion and decay – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
26.	AD-36	Akash Mallige (Millingtonia hortensis)	0.69	4.00	The tree is defective (basal bark distortion and decay – prone to aggravate transplant shock), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
27.	AD-43	Madagascar almond, umbrella tree, or satellite tree (Terminalia mantaly)	1.19	5.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), defective (due to the concrete structure — boundary wall), and standing within the project area proposed for construction of pier no. AP 405. In consideration to the tree and site condition, the tree is recommended for felling.
28.	AD-45	Buruga (Ceiba pentandra)	0.53	6.00	Hard thick spines / thorns are one of the morphological character of the species, which is highly prone for causing injury to the people, especially under urban scenario. The tree is standing (with tree protection zone infringed), within the project area proposed for construction of pier no. AP 405. In consideration to the tree characters and site condition, the tree is recommended for felling.
29.	AD-46	Buruga (Ceiba pentandra)	0.58	6.00	Hard thick spines / thorns are one of the morphological character of the species, which is highly prone for causing injury to the people, especially under urban scenario. The tree is standing (with tree protection zone infringed), within the project area proposed for construction of pier no. AP 405. In consideration to the tree characters and site condition, the tree is recommended for felling.
30.	AD-47	Silver Oak (Grevillea robusta)	1.23	5.00	The tree is matured (larger girth limiting the possibilities of excavation with applicable root ball for relocation), and standing within the project area proposed for construction of pier no. AP 405. In consideration to the tree and site condition, the tree is recommended for felling.
31.	AD-48	Conocarpus sp.	0.21	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure

					creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
32.	AD-49	Conocarpus sp.	0.23	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
33.	AD-50	Conocarpus sp.	0.23	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
34.	AD-51	Conocarpus sp.	0.16	2.00	The tree is defective (closely planted to the outside boundary wall — highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
35.	AD-52	Conocarpus sp.	0.15	2.00	The tree is defective (closely planted to the outside boundary wall — highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
36.	AD-53	Conocarpus sp.	0.16	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 402. In consideration to the tree and site condition, the tree is recommended for felling.
37.	AD-54	Conocarpus sp.	0.18	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing

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					within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
38.	AD-55	Conocarpus sp.	0.21	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
39.	AD-56	Conocarpus sp.	0.18	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
40.	AD-57	Conocarpus sp.	0.16	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
41.	AD-58	Conocarpus sp.	0.2	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
42.	AD-59	Conocarpus sp.	0.18	2.00	The tree is defective (closely planted to the outside boundary wall — highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 403. In consideration to the tree and site condition, the tree is recommended for felling.
43.	AD-60	Conocarpus sp.	0.16	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for

					construction of pier no. AP 405. In consideration to the tree and site condition, the tree is recommended for felling.
44.	AD-61	Conocarpus sp.	0.18	2.00	The tree is defective (closely planted to the outside boundary wall – highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 405. In consideration to the tree and site condition, the tree is recommended for felling.
45.	AD-62	Conocarpus sp.	0.21	2.00	The tree is defective (closely planted to the outside boundary wall — highly prone for restricted roots, and deep pit like structure creates opportunities for rot fungi), and standing within the project area proposed for construction of pier no. AP 405. In consideration to the tree and site condition, the tree is recommended for felling.
46.	AD-65		0.35	1.50	The tree is defective (multi-forked with weak branch union and accumulated bark prone for
	65A	Plumeria sp.	0.25	1.50	fungal infection) and standing within the project area proposed for construction of pier no. Al
	65B		0.21	1.50	423. In consideration to the tree and site condition, the tree is recommended for felling.
47.	AD-66		0.27	1.00	
	66A	Palm	0.16	1.50	The palm tree is felled (under felling category)
	66B		0.18	1.50	
48.	AD-67		0.26	1.50	The palm tree is multi-forked from the ground
	67A	Palm	0.2	1.00	level, with restricted roots, and standing within the project area proposed for construction of pier no. AP 423. In consideration to the cost
	67B	raim	0.17	1.00	factor (no guidelines / regulation) for relocation, tree and site condition, the tree is recommended
	67C		0.18	1.00	for felling.
49.	AD-68		0.3	1.00	The palm tree is multi-forked from the ground
	68A	- Palm	0.26	1.00	level, with restricted roots, and standing within the project area proposed for construction of pier no. AP 423. In consideration to the cost
	68		0.23	1.00	factor (no guidelines / regulation) for relocation, tree and site condition, the tree is recommended
	68C		0.24	1.00	for felling.
50.	AD-69	Dolm	0.21	1.50	The palm tree is felled (under felling category).
	69A	Palm	0.21	1.50	The paint nee is felled (under felling category).

4	69B		0.18	1.00	
₹ 51.	AD-70	- Palm	0.27	1.00	The palm tree is felled (under felling category).
	70A		0.16	1.00	
	70B		0.25	1.00	
	70C		0.2	1.50	
52.	AD-71	Palm	0.23	1.00	The palm tree is felled (under felling category).
53.	AD-72	Palm	0.16	1.00	The palm tree is felled (under felling category).
	72		0.14	1.20	
54.	AD-73		0.2	1.20	The palm tree is multi-forked from the ground level, with restricted roots, and standing within
	73A	Palm 0.19 1.20 pier no. AP 423 factor (no guideli	the project area proposed for construction of pier no. AP 423. In consideration to the cost		
	73B		0.15	1.00	factor (no guidelines / regulation) for relocation, tree and site condition, the tree is recommended for felling.
55.	AD-74	Palm	0.29	1.00	The palm tree is multi-forked from the ground level, with restricted roots, and standing within the project area proposed for construction of pier no. AP 423. The shoots 74A, 74B, 74C were felled. In consideration to the cost factor (no guidelines / regulation) for relocation, tree and site condition, the tree is recommended for felling.
	74A		0.23	1.00	
	74B		0.22	1.20	
	74C		0.24	1.20	
	75A		0.23	1.00	
	75B		0.13	1.00	

**TOTAL NUMBER OF TREES FOR FELLING = 55 Nos.** 

Tree Officer & Deputy Conservator of Forests,

BBMP, Bengaluru