# 香港特別行政區政府

# The Government of the Hong Kong Special Administrative Region

# 政府總部 發展局 工務科 香港添馬添美道 2 號 政府總部西翼 18 樓



# Works Branch Development Bureau Government Secretariat

18/F, West Wing, Central Government Offices, 2 Tim Mei Avenue, Tamar, Hong Kong

**Ref.** : **DEVB(GLTM)** 200/2/1/1

Group: 5, 12

**26 February 2020** 

# <u>Development Bureau</u> <u>Technical Circular (Works) No. 4/2020</u>

#### **Tree Preservation**

# Scope

This Circular sets out the policy, control procedures and detailed requirements that government departments have to observe and follow to preserve trees at different stages of government projects as well as those under arboricultural maintenance, including regular, complaint-initiated and all kinds of *ad hoc* maintenance.

#### **Definitions**

- 2. The terms and expressions used in this Circular are defined as follows
  - (a) "government project" refers to a works project funded by the Government, such as public works project, entrustment works and works undertaken by private party (or parties) which will be handed over to the Government for maintenance;
  - (b) "project department" refers to the government department implementing a government project;
  - (c) "project proponent" refers to the government bureau or department initiating a government project (through Project Definition Statement), entrusting individual project(s) to other project department(s) under a major works project or initiating any construction works under a minor works project(s); and

(d) "tree" refers to a plant with trunk diameter of 95 mm or more at a height of 1.3 m above the ground level<sup>1</sup>.

#### **Effective Date**

3. This Circular takes effect on 1 April 2020. Tree Preservation and Removal Proposals (TPRPs) being considered according to DEVB TC(W) No. 7/2015 shall continue until completion of the corresponding government projects or tree removals arising from arboricultural maintenance.

# **Effect on Existing Circulars**

- 4. This Circular supersedes DEVB TC(W) No. 7/2015 for TPRPs initiated on or after the effective date of this Circular.
- 5. This Circular should be read in conjunction with the following Circulars:

	Circular No.	Subject
1.	DEVB TC(W) No. 6/2015	Maintenance of Vegetation and Hard Landscape Features
2.	DEVB TC(W) No. 5/2020	Registration and Preservation of Old and Valuable Trees

# **Policy**

- 6. It is Government policy to preserve trees as far as practicable. No tree shall be unnecessarily removed or excessively pruned, both during implementation of government projects and under arboricultural maintenance.
- 7. The following order of priority shall be observed for preservation of healthy trees in government projects
  - (a) retain the tree(s) at its/their existing location(s);
  - (b) if (a) is not practicable, transplant the affected tree(s) to other permanent locations within the project site or the maintenance area to minimise the loss of vegetation in the local environs; or

<sup>&</sup>lt;sup>1</sup> Guidance on the measurement of tree trunk diameters is given in the Agriculture, Fisheries and Conservation Department (AFCD)'s Nature Conservation Practice Note No. 2, which can be viewed from the AFCD's website (http://www.afcd.gov.hk/english/conservation/con\_tech/con\_tech.html).

- (c) if both (a) and (b) are not practicable, transplant the affected tree(s) to other permanent location(s), which should preferably be in adjacent areas in order to maintain its/their amenity value to the neighbourhood.
- 8. When considering the need for transplanting trees under paragraphs 7(b) or 7(c) above, there is no need to transplant trees with the following features under normal circumstances
  - (a) low amenity value;
  - (b) poor health, structure or form;
  - (c) irrecoverable form after transplanting (e.g. transplanting requires substantial crown and root pruning);
  - (d) low chance of survival upon transplanting;
  - (e) undesirable species (e.g. *Leucaena leucocephala* which is an invasive, exotic and self-seeding tree); or
  - (f) trees grown under poor conditions which have limited the formation of proper root ball necessary for transplanting.
- 9. Tree removal arising from government projects shall only be considered and approved under the following circumstances
  - (a) preservation or transplanting is unsuitable or impracticable;
  - (b) the tree has been irreparably damaged by inclement weather;
  - (c) dead tree(s); or
  - (d) any other justifications or circumstances.
- 10. Similarly, in arboricultural maintenance, trees of undesirable species; trees that are beset with irrecoverable health problems(s), structural problem(s) or poor form; trees that have been irreparably damaged by inclement weather; dead trees; or trees classified as "Black" under the Triage System in the Guidelines for Tree Risk Assessment and Management Arrangement (TRAM Guidelines) shall be removed as soon as possible. Relevant guidance in paragraphs 22 and 25 of this Circular and in the TRAM Guidelines shall be observed. When considering the need for transplanting trees under paragraphs 7(b) or 7(c) above, considerations under paragraph 8 shall apply and trees shall be removed under the circumstances in paragraphs 9(a) or 9(d).

11. Paragraphs 6 to 10 above do not apply to emergency tree removal, which becomes imminently necessary if the tree shows immediate and obvious signs of danger such as cracked or broken trunks, uprooting or movement of the root plate, structural splits or cracks in the trunk etc., and there are no practicable mitigation measures to remove the risks of tree failure. The government department which decides on the emergency tree removal shall observe the requirements set out in paragraphs 27 to 29 of this Circular.

#### **Control Procedures for Tree Preservation**

12. Trees should be preserved as far as practicable. If removal of a tree or tree(s) is absolutely necessary, whether in government projects or arboricultural maintenance, a Tree Preservation and Removal Proposal (TPRP) shall be prepared to justify the need for tree removal. The TPRP shall be approved by the Tree Works Vetting Panel (TWVP) set up in accordance with paragraphs 13 to 16 below, except for the scenarios outlined in paragraph 25 and emergency removal as specified in paragraphs 27 to 29 of this Circular. For trees in government projects, the TPRP shall also comprise justifications to transplant trees and recommendations in respect of preservation arrangements for retained or transplanted trees.

# Tree Works Vetting Panel

- 13. The following departments, which are equipped with arboricultural expertise<sup>2</sup>, shall form one TWVP to handle TPRPs <sup>3</sup> for trees in government projects and arboricultural maintenance under their purview or if considered necessary, separate TWVPs for trees in government projects and arboricultural maintenance respectively under their purview
  - (a) Agriculture, Fisheries and Conservation Department (AFCD);
  - (b) Architectural Services Department;
  - (c) Civil Engineering and Development Department;
  - (d) Drainage Services Department;
  - (e) Highways Department;
  - (f) Housing Department (HD);
  - (g) Lands Department (LandsD); and
  - (h) Leisure and Cultural Services Department.

The above departments with TWVP(s) may be involved in a government project as project proponent, project department, existing tree maintenance department or future

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<sup>&</sup>lt;sup>2</sup> Arboricultural expertise refers to expertise possessed by the Forestry Officer Grade, Landscape Architect Grade and Leisure Services Manager Grade staff in tree maintenance departments.

<sup>&</sup>lt;sup>3</sup> Departments shall form their TWVPs as soon as this Circular is effective. In order to minimise disruption to departments' operations, before respective TWVPs are fully set up under paragraphs 13 to 16 hereof, the handling or processing of TPRPs as per the control procedures in DEVB TC(W) No. 7/2015 shall continue.

tree maintenance department. The responsibility for vetting and approving the TPRPs arising from the government project shall rest with the TWVP of the project department which oversees trees in government projects. Only when the project department has no TWVP, the relevant TWVP of the project proponent, the future tree maintenance department or the existing tree maintenance department shall act as the approving authority for the TPRPs arising from the government project in the order as listed.

14. The membership of a TWVP is set out below:

Chairperson: a public officer appointed by the Head of Department,

preferably at directorate level.

Members : a Senior Landscape Architect, Senior Forestry Officer or

Chief Leisure Services Manager; and

a public officer at Senior Professional rank or equivalent.

Secretary : a public officer at Professional rank or equivalent.

- 15. The membership of TWVPs shall be submitted, using the proforma at **Appendix A**, to the Greening, Landscape and Tree Management Section of the Development Bureau (GLTMS) for approval. If any member of the TWVP is a project team member of a particular TPRP submitted to the TWVP, he/she shall declare conflict of interest and refrain from the discussion.
- 16. For trees maintained by departments without arboricultural expertise, GLTMS will set up a TWVP to process their TPRPs.
- 17. For quasi-government or non-government projects or private projects involving government land being or will be governed by lease or any other land instrument (including Short Term Tenancies) to private party administered by LandsD as well as their associated arboricultural maintenance, LandsD is the approving authority of the TPRPs for the trees therein.
- 18. The LandsD is responsible for vetting tree removal applications of private projects with lease control on tree preservation. The Lands Administration Office Practice Note No. 2/2020 shall apply.
- 19. The HD has been given blanket approval from LandsD to process TPRPs in connection with the relevant leases, Vesting Order, Possession License, Short Term Tenancies (STTs), land allocations (temporary or permanent) and other approvals/permissions given by the relevant District Lands Officers of LandsD, which are issued to facilitate the construction and maintenance of the HD's housing developments. In the event that those sites held under leases, STTs or other documents include land to be delivered to other departments at later days, HD should directly

approach and consult those departments.

20. For land under permanent government land allocations, temporary government land allocations or other approvals/permissions given by the relevant District Lands Officers of LandsD, where prior written consent of the Director of Lands on tree removal is required in compliance with the Engineering Conditions under respective land allocation, LandsD has given blanket approvals to the responsible tree maintenance departments to form their own TWVPs which shall also follow the requirements in paragraphs 13 to 16.

# Tree Preservation and Removal Proposals

- 21. The processing procedures for TPRPs is summarised in **Appendix B(1)** for government projects and **Appendix B(2)** for arboricultural maintenance. TWVPs should seek to process TPRP applications upon receipt of all the necessary documents within 42 calendar days.
- 22. TPRPs for government projects should be prepared in accordance with the guidelines at **Appendix C**. For tree removal arising from arboricultural maintenance, where tree(s) is/are identified through tree group inspection (Form 1) and/or individual tree risk assessment (Form 2) in poor health and/or structural conditions and recommended for removal (with or without compensatory planting), a simplified TPRP containing relevant tree risk assessment reports and/or compensatory planting proposals may be adopted, if appropriate, as approved by the responsible TWVPs.
- 23. The actual tree removal works, transplanting and compensatory planting should adhere to those approved in the TPRPs and compensatory planting proposals, if any. The completion of the TPRPs should be reported to the relevant TWVPs for record.
- 24. Compensatory planting should be favourably considered if space and site conditions permit, with due regard to the planting guidelines promulgated by GLTMS. The species used should be compatible with the surrounding landscape and can enhance the vegetation diversity of the local environment. The principles of "right tree right place" should be adopted.
- 25. ATPRP is not necessary for the following types of tree removal
  - (a) removal of common undesirable species characterised by their aggressive and invasive growing habits and ability to prevent natural succession of native species;
  - (b) removal of trees classified as "Black" under the Triage System in the TRAM Guidelines or dead trees (except for dead trees of particular interest), and/or tree pruning during arboricultural maintenance; and

(c) tree removal for the purposes of woodland management, i.e. regular practice of maintaining trees in large groups for ecological restoration or habitat management, forest/woodland thinning, forming/maintaining landscape/woodland on a registered man-made slope, forming/maintaining visual or noise barrier, etc.

# Removal of trees of particular interest<sup>4</sup>

- 26. For removal of any tree of particular interest, irrespective of whether it is alive or dead, the procedures as set out in Section 2.6 of the TRAM Guidelines and the following enhanced protocol shall be followed—
  - (a) a TPRP should be considered on the basis of sufficient documentation and records showing deterioration in tree health and ineffectiveness of conservation methods and mitigation measures over time, or showing wilting of the tree in question;
  - (b) advice from experts, GLTMS and, if possible, the Urban Forestry Advisory Panel should be sought to confirm that the tree in question cannot be preserved with practicable measures;
  - (c) a comprehensive plan to engage members of the relevant district council, local residents, concern groups and other stakeholders in the affected community should be formulated; and
  - (d) where appropriate, suitable initiatives to commemorate the tree (e.g. a community involvement event, memorabilia, replanting, etc.) should be considered together with the local community.

# **Detailed Requirements for Tree Preservation in Different Situations**

### Trees in emergency removal

27. Arrangements should be made to remove trees with imminent danger or under other fully justified emergency situations as soon as practicable. For each emergency tree removal, full photographic records of the tree(s) before removal should be taken where possible. The photographs should be in colour, imprinted with date and time and covered the ground conditions surrounding each of the tree(s), the fallen parts and the exposed roots and/or root crown of the tree(s) if applicable. A tree failure report/tree assessment report (where applicable) for each of the tree(s) concerned should be prepared and submitted to GLTMS within 21 calendar days from the date of completion of the emergency tree removal. Regarding the removal of trees of particular interest which

<sup>&</sup>lt;sup>4</sup> "Trees of particular interest" are defined in the Guidelines for Tree Risk Assessment and Management Arrangement (9<sup>th</sup> Edition or the latest version).

pose imminent risk of failure and warrant emergency tree removal, GLTMS and the relevant District Officer should be alerted as soon as practicable.

- 28. If the tree cannot be removed within an acceptable timeframe due to inclement weather or other constraints, safety measures (e.g., cordoning off the fall zone, installation of warning notices and, if appropriate, closing off access ways, etc.) should be immediately put in place to ensure public safety.
- 29. If the emergency tree removal involves tree(s) covered by an approved TPRP, the department concerned shall submit an updated TPRP with full photographic and written record of the emergency tree removal to the responsible TWVP for record within 21 calendar days from the date of completion of the tree removal. The corresponding compensatory planting proposal shall also be submitted to the responsible TWVP for approval as appropriate.

### Trees in arboricultural maintenance

30. Arboricultural maintenance, irrespective of regular or *ad hoc* maintenance, includes but not be limited to pruning and removal of common undesirable species, overgrown or over-congested vegetation, unhealthy or structurally unstable trees, and damaged or dead trees. In addition, the TRAM Guidelines specifies that tree group inspections and individual tree risk assessments, together with the associated mitigation measures, should be undertaken to minimise risks of tree failure and protect public safety. Tree maintenance departments shall also observe relevant guidelines promulgated by the GLTMS related to arboricultural maintenance and requirements on tree risk assessment and management arrangement provided in the Cyber Manual for Greening (http://devb.host.ccgo.hksarg.)

#### Trees in government projects

31. The need to preserve and protect trees must be borne in mind in all stages of a government project from feasibility to post-construction maintenance stages including but not be limited to the establishment period of the government project.

# Feasibility stage

- 32. Due consideration should be given to ensure that the purposes of the government project can be satisfied while assigning priority to preserve valued tree assets. Trees of particular interest should be identified for priority preservation.
- 33. In accordance with DEVB TC(W) No. 5/2020, the removal of Old and Valuable Trees should only be permitted under very special circumstances with full justifications.

# Planning stage

- 34. A tree survey plan and a tree assessment schedule should be prepared that form part of the TPRP. The tree survey should be carried out for all the trees that will be affected, including dead trees, within and, if appropriate, adjacent to the project site (including works areas). Guidelines for preparing the tree survey plan and tree assessment schedule are given in **Appendices C and C(1)** respectively.
- 35. Comments from the tree maintenance department(s), including the tree maintenance department(s) of the subject site before the commencement of the government project and the tree maintenance department(s) which will take over the subject site for long-term tree maintenance if known at this stage, should be obtained before the formulation of the TPRP in order to draw the attention of the responsible TWVPs to noteworthy issues concerning the TPRPs for the affected trees.

#### Design stage

- 36. At the design stage, the maintenance responsibilities of the proposed new planting, retained trees and compensatory planting, if any, in the government project after the establishment period or the completion of the government project whichever is longer should be determined<sup>5</sup>. The views of the maintenance department(s) on the proposed new planting, retained trees and compensatory planting should be addressed in the TPRP.
- 37. Tree Protection Zones (TPZs)<sup>6</sup> should be provided in the design stage for trees identified for preservation. TPZs, which should be clearly demarcated in the overall layout plan, should be free from compaction, excavation, construction materials and debris throughout the construction stage and adequately protected by robust fencing at the commencement of the site formation and/or construction works. Any special measures required to preserve the tree(s) should be documented in the contract. For major works projects involving large number of trees to be retained, the demarcation of the TPZs could be in group for ease of illustration.
- 38. A tree protection plan, as part of the TPRP, should be formulated to eliminate the risk of construction damage to the retained trees. Guidelines for preparing the tree protection plan are set out in **Appendix C**.
- 39. Should works within a TPZ be considered unavoidable, a detailed arboricultural assessment should be made to assess the impacts of the proposed works to the tree(s) that are proposed to be retained. The project department should minimise the anticipated impacts and avoid irreversible and/or irreparable damage to these trees as far

<sup>&</sup>lt;sup>5</sup> For major works projects, the agreement from the future maintenance department(s) can be obtained at a later stage if the ultimate allocation of land is not yet determined or confirmed at the time of application or at the design stage.

<sup>&</sup>lt;sup>6</sup> Reference may be made to "Proper Planting Practice – Design for Tree Protection Zone" for the determination of a TPZ. If the area within a dripline does not fully cover the root zone of a tree, professional judgement should be exercised to determine the extent of the TPZ. Other methods for the determination of a TPZ as given in the "Guidelines on Tree Preservation during Development" may be referred to where applicable.

as practicable.

- 40. The TPRP should include the full justifications to transplant and remove trees and the proposed compensatory planting. The TPRP should be properly planned for implementation to ensure a balance of the following factors—
  - (a) tree-related factors such as health and structure of the trees, conservation status, ecological value and amenity value, and suitability for transplanting;
  - (b) environmental factors such as changes in water table and water sources, change in exposure (excessive shading or wind load caused by structures or increased exposure) which may result from not only the permanent works but also the temporary works during construction;
  - (c) social and cultural factors such as historical and cultural (e.g. Fung Shui) significance of a tree or tree group to the community;
  - (d) functional requirements of the government project such as site formation or excavation, space for TPZs and tree growth (both vertical and horizontal) in the future;
  - (e) engineering considerations such as feasibility and transport limitations, especially for off-site transplanting;
  - (f) identification of feasible receptor location(s) with adequate space to accommodate transplanted tree(s) and/or compensatory planting is/are explored and identified;
  - (g) cost-and-benefit consideration in the public interest such as cost-effectiveness of a transplanting operation; and
  - (h) other considerations such as the value of the existing habitat, and possible rehabilitation and restoration of the affected habitat by the compensatory planting proposal.
- 41. For major works projects with a long lead time before implementation on site, it is understandable that the compensatory planting proposal may be subject to change due to actual site conditions. The compensatory planting proposal should be reviewed and updated during the course of project, incorporating comments from the future tree maintenance department(s). The updated TPRP shall be submitted to the responsible TWVP for approval before commencement of the works contract on site. Any requirements stipulated in the environmental permit arising from the Environmental Impact Assessment Ordinance should be fully reflected in the TPRP and compensatory planting proposal as well.

# Construction stage

- 42. Before the commencement of any construction works on site, preparation works with regard to tree protection and transplanting operations should be undertaken with due care and considerations. These include setting up TPZ(s), preparatory works for trees to be transplanted (e.g. root ball treatment, root pruning support), preparation of the receptor site(s) (e.g. planting pits, soil conditions), transportation logistics with proper packaging and lifting but not excessive pruning, and post-transplanting treatment. The purpose is to prevent damage to trees during construction, as damage is irreparable even with remedial action in most cases.
- 43. All site construction personnel should be fully briefed to ensure thorough understanding of the tree preservation measures, with particular emphasis on protecting the TPZs from disturbance by construction activities. Throughout the construction period, diligent site supervision by staff with arboriculture knowledge (refer to **Appendix D** for qualification requirements) or the contractor's tree specialist<sup>7</sup> should be engaged for proper implementation of the following:
  - (a) tree protection (e.g. robust fencing) and material storage outside of the TPZs, vehicular and pedestrian access away from the TPZs to avoid compaction of soil around the trees to be preserved, prevention of level changes, and putting up signage to specify prohibited activities within the TPZs (e.g. digging, trenching, storage or dumping of materials and waste, root cutting, etc.);
  - (b) regular monitoring of the health conditions of the protected trees including transplanted trees by regular tree inspections and necessary tree risk assessments in accordance with the TRAM Guidelines;
  - (c) on-site supervision of the necessary tree pruning works as specified and approved in the TPRP. If excessive crown, limb or root pruning is required for trees to be retained or transplanted, the pruning proposal with justifications, method statements, and supervision requirements of the pruning works must be approved by the responsible TWVP. Approved pruning works should be carried out by the contractors on the DEVB's List of Approved Suppliers of Materials and Specialist Contractors for Public Works under the "Landscaping Class I (General Landscape Works)" category, or other contractors with equivalent arboriculture knowledge;
  - (d) regular maintenance works for the retained and transplanted trees; and
  - (e) any tree removal during the construction period should comply with the requirements as set out in paragraphs 12 to 29 above.

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<sup>&</sup>lt;sup>7</sup> Please refer to the minimum requirements for Technical Staff (Tree Specialist) under Annex 35 to Appendix 3C of the Contractor Management Handbook of the Development Bureau.

Any retained or transplanted trees or compensated plants in the development site and the receptor site that die, including but not limited to the establishment period, should be replaced by the same species with similar size, subject to agreement of the future tree maintenance department(s) and the relevant TWVP(s). Any modification and/or variation of the approved TPRP, including but not limited to tree removal, transplanting and/or compensatory planting, during construction stage should be updated and re-submitted to the relevant TWVP for approval before proceeding with the corresponding works on site.

# Post-construction stage during establishment period

45. The project department is responsible for tree and associated vegetation maintenance including the carrying out of tree risk assessments in accordance with the TRAM Guidelines, until formal handover of the area(s) to the future tree maintenance department(s)<sup>8</sup>. This includes the arrangement of any joint site inspection and formal handover inspection with the future tree maintenance department(s). Remedial and/or mitigation measures as recommended in the tree risk assessments conducted, such as tree pruning works, aeration of compacted soils, mulching, etc., should be performed and completed prior to the formal handover of the trees to the future tree maintenance department(s). Any tree removal during the establishment period should comply with the requirements as set out in paragraphs 12 to 29 above.

# Compliance checking

- 46. The actual tree removal works and compensatory planting should adhere to those approved in the corresponding TPRPs and compensatory planting proposals, if any. The approved TPRP(s), tree inventories, and as-built documentation should become the records for the future tree maintenance department(s). If the works contractor is found liable for the discrepancy, the non-compliance should be fully reflected in the Report on Contractor's Performance. The items "Preservation and Protection of Trees" and "Quality of Works" (e.g. workmanship, materials supplied) in the Report on Contractor's Performance should be rated as "Poor", unless the discrepancy is justifiable due to exceptional circumstances.
- 47. The completion of the TPRPs should be reported to the responsible TWVPs at an appropriate time as to suit individual government projects' programmes for record purposes. From time to time, GLTMS would request government departments to submit the approved TPRPs for audit purposes.

<sup>&</sup>lt;sup>8</sup> This includes updating of relevant tree inventories and registers forming a package for handover. For existing trees retained in a works project with identity (ID) already created in the inventories and registers, the ID shall be kept instead of creating a new ID.

#### Document preparation

### Public Works Subcommittee (PWSC) paper

48. A template to facilitate the incorporation of the tree preservation information in the PWSC paper is given in **Appendix E**. For Category B projects under the Public Works Programme, the project department must obtain the necessary approval or agreement in principle for the TPRP prior to submitting the PWSC paper for funding approval to upgrade the project to Category A for implementation of the construction works.

#### Contract documents

49. The contractual requirements to protect the retained and transplanted trees within the site should be included in construction contracts, as well as relevant maintenance and ground investigation contracts. A notification mechanism should also be introduced in the contract to ensure that the contractor will notify the project department before any major tree works such as heavy pruning of branches or roots commences. A set of sample contract provisions for inclusion in the Form of Tender, Special Conditions of Contract, Particular Specification (PS) and Method of Measurement available in the Cyber Manual for are Greening (http://devb.host.ccgo.hksarg/). Where appropriate, the sample PS and Method of Measurement may require customisation to suit specific project requirements.

# Reporting of Unauthorised Tree Removal or Damage of Trees

### Government projects

- 50. Where incidents of unauthorised removal or damage of trees occur in a government project, the project department shall thoroughly investigate and take necessary regulating actions should the contractor be found responsible for the incidents. For public works contracts, the contractor's performance on tree protection should be fully reflected in the Report on Contractor's Performance as appropriate. If the contractor is found liable for the damage or unauthorised removal of any tree within the site, the item "Preservation and Protection of Trees" in the Report on Contractor's Performance should be rated as "Poor", unless the incident is justifiable due to exceptional circumstances such as emergency situations.
- 51. An updated TPRP incorporating the detailed investigation report and the necessary mitigation actions shall be submitted to the TWVP at an appropriate time as to suit individual projects' programmes for record purposes. A corresponding compensatory planting proposal shall also be submitted to the TWVP for approval.

# Other government land

52. Any incidents of unauthorised removal or damage of trees that occurred within unleased and unallocated government land or allocated government land shall be promptly referred to the AFCD or the allocatee department respectively for investigation and necessary prosecution actions under the relevant legislation. The report shall also be copied to LandsD for information. Compensatory planting shall also be considered as far as practicable.

# For any incident attracting media attention and/or public scrutiny

53. For any incident of unauthorised tree removal or damage attracting media attention and/or public scrutiny within unleased and unallocated government land or allocated government land or private land, AFCD or the allocate department or LandsD respectively shall alert GLTMS immediately and submit an incident report to GLTMS in accordance with **Appendix F** within five calendar days from the date of the incident.

### **Further Enquiries**

54. For further enquiries on this Circular, please contact Head/Tree Management Office of this Bureau.

(LAM Sai-hung)
Permanent Secretary for Development (Works)

# Recommended Terms of Reference and Membership of Tree Works Vetting Panel

# (A) Recommended Terms of Reference

To vet and act as the approving authority for Tree Preservation and Removal Proposals (TPRPs) arising from government projects or routine arboricultural maintenance.

\*Remarks: Above terms is non-exhaustive and subject to amendment to suit the operational needs of individual departments.

# (B) Membership of the Tree Works Vetting Panel (TWVP)

The TWVP shall comprise of:

Chairperson: a public officer appointed by the Head of Department,

preferably at directorate level.

Members\* : Member (1) - a Senior Landscape Architect, Senior Forestry

Officer or Chief Leisure Services Manager; and

Member (2) - a public officer at Senior Professional rank or

equivalent.

Secretary : a public officer at Professional rank or equivalent.

#### \*Remarks:

- (1) Departments may consider adding more members as and when necessary.
- (2) Actual membership of TWVP shall be subject to the staff establishment of an individual department and approval from the Greening, Landscape and Tree Management Section of the Development Bureau.

#### Notes:

If any member of the TWVP is a project team member of a particular TPRP submitted to the TWVP, he/she shall declare conflict of interest and refrain from discussion.

# **Proforma**

# **Proposal for Membership of Tree Works Vetting Panel (TWVP)**

To: Greening, Landscape and Tree Management Section, Development Bureau (Attn.: Assistant Secretary (Tree Management)1)
(Fax. No.: 2186 6932 / E-mail: gltms@devb.gov.hk)

Name of Department

Please tick the following box(es) as appropriate:

□ Government Projects
□ Arboricultural Maintenance

Title of TWVP (if applicable)

Terms of Reference

Membership of TWVP

Chairperson: Members:

Secretary:

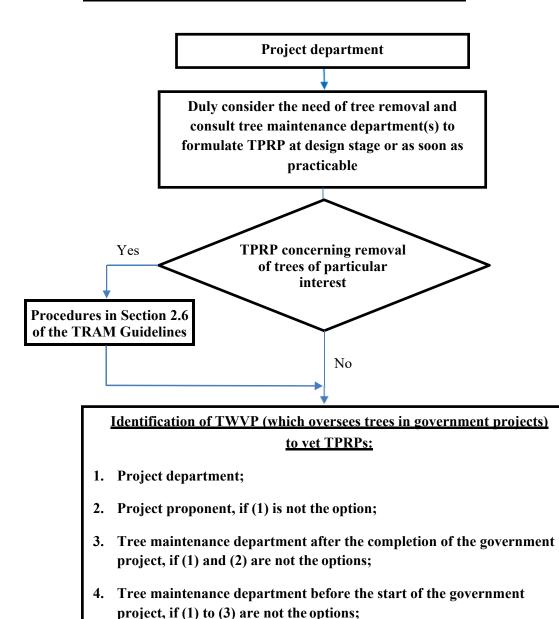
(1) (2)

Remarks:

- (1) The Chairperson shall be a public officer appointed by the Head of Department, preferably at directorate level.
- (2) Member (1) shall be a Senior Landscape Architect, Senior Forestry Officer or Chief Leisure Services Manager; and Member (2) shall be a public officer at Senior Professional rank or equivalent. Departments may consider adding more members as and when necessary.
- (3) The Secretary shall be a public officer at Professional rank or equivalent.
- (4) Actual membership of TWVP shall be subject to the staff establishment of an individual department and approval from the Greening, Landscape and Tree Management Section of the Development Bureau.

Prepared by:	
Signature:	
Name of Subject Officer:	(in BLOCK letters)
Post Title:	
Date:	

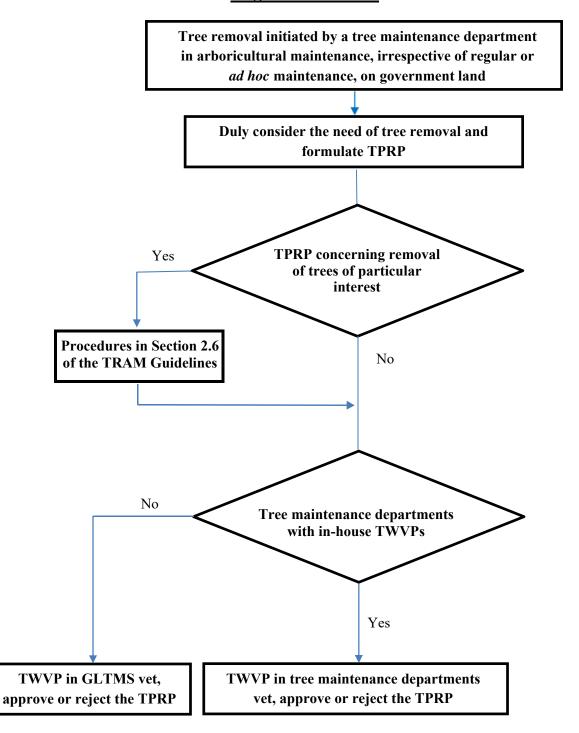
# Appendix B(1) – Processing procedures for Tree Preservation and Removal Proposals (TPRPs) involved in government projects



TWVP vet, approve or reject the TPRP

5. The GLTMS, if none of the above are the options.

# <u>Appendix B(2) – Processing procedures for Tree Preservation and Removal</u> <u>Proposals (TPRPs) involved in arboricultural maintenance</u> <u>on government land</u>



# **Guidelines on Preparation of Tree Preservation and Removal Proposal**

The Tree Preservation and Removal Proposal (TPRP) should contain all necessary details and information for assessing the impact to trees brought upon by the implementation of the proposed development or arboricultural maintenance. Fundamental information that should be provided include:

# I. Main content

- (i) Background and information;
- (ii) Impact to existing trees on site;
- (iii) Proposed treatment to existing trees on site and rationale to support the proposal;
- (iv) A summary of recommendations on tree preservation, in particular those in connection with the protection of trees of particular interest;
- (v) Compensatory planting proposal prepared in accordance with the following:
  - a. Basic principle

Compensatory plantings should be realistic, practicable and sustainable with a holistic consideration to balance the quantity and quality of tree planting. The principles of "right tree for the right place" should be followed so that trees are selected to match the site, environmental conditions, surrounding landscape character and design intent. Above and below ground space should be sufficient to cater for establishment and healthy growth of the selected tree species to The selection of tree species for compensatory planting proposal should be commensurate to its proposed amenity values, intended ecological value and costeffectiveness in subsequent maintenance and long-term management. Offsite compensatory planting should preferably be in proximity to the project site for retention of amenity and ecological values within the area. Prior mutual agreement from maintenance departments for long-term maintenance and management, for both onsite and offsite compensatory planting,

should be sought and appropriately accounted for from the design stage.

# b. Quantity of compensation

- 1. As far as practicable, implementation of compensatory tree planting should be of a ratio not less than 1:1 in terms of number, i.e. the number of compensatory trees onsite and offsite not be lower than that of the number of trees removed including dead trees, but excluding trees of undesirable species. In principle, size of compensatory trees at their maturity, should be appropriate to the location and function. For slope works, the ratio of 1:1 by number requirement may not apply due to site constraints; and the planting of whips or seedlings as a woodland mix would be more appropriate. Sufficient space should be provided for the compensatory trees from establishment to maturity to maximise tree health and stability. Proposals which deviate from the above requirements should be supported with full justifications and an alternative proposal in quantity and quality.
- 2. In case the requirement in the above paragraph can be met, and sufficient growing space<sup>1</sup> for tree planting can be identified, further planning and design consideration with an objective to achieve the compensatory planting ratio of 1:1 in terms of aggregated DBH, i.e. the total DBH of planted trees to have the same total DBH of removed trees <sup>2</sup> should be undertaken as far as practicable. In situations where this compensatory planting criterion cannot be achieved, the difficulties should be demonstrated.

<sup>&</sup>lt;sup>1</sup> Sufficient growing space implies aerial space for tree canopy/crown, ground level space for root collar and main steam, as well as below ground space for tree root system, all commensurable to growing habit of the selected tree species.

<sup>&</sup>lt;sup>2</sup> The compensatory planting in terms of aggregated DBH for removed trees should take into consideration of the space required for the normal growth of the proposed species up to maturity, and avoid planting that would lead to over-congestion in the long run.

#### c. Quality of compensation

In support of the compensation quantity, and in particular where the quantity ratio cannot be achieved, the project department shall highlight the quality aspect of the soft landscape proposal as a viable alternative. This includes, but not limited to – improving the vegetation diversity of native species mix, enhancing ecological value, re-creation of vegetation habitat, improving overall value of landscape setting, increasing overall site coverage with diverse vegetation mix, maximising soft landscape opportunities through long-term sustainable vertical and rooftop landscapes, etc.

# d. Offsite compensation

To minimise potential land-use conflicts regarding offsite compensation, recipient sites should avoid development zones on the statutory plan (e.g. residential, commercial, comprehensive development area, government, institution or community zonings, etc.) in order to minimise conflict with any potential / planned permanent development. Whereas applicable, respective DLOs in LandsD shall be consulted regarding unallocated government land.

#### (vi) Tree protection plan and method statement

- a. A tree protection plan should be formulated to eliminate the risk of construction damage to retained trees (including onsite preserved trees and those transplanted trees to be nurtured in transit site and holding nursery). The plan should identify both vertical and horizontal tree protection zones and specify robust protective fencing to be used throughout the construction period, and include any additional measures to be adopted to protect retained trees, particularly where construction works are likely to impact on the TPZ.
- b. For transplant and pruning operations, a method statement should be provided. In particular, pruning proposals for trees to be retained or transplanted should include reasons and proposed extent of pruning, such as canopy and root pruning.

# II. Tree survey plan (for government projects only)

The tree survey must be undertaken prior to the main site layout design to avoid potential land-use conflicts and ensure proper allocation of space for trees that will remain. The survey should document all trees within and if appropriate, adjacent to the site, and should include the following details:

- (i) location of trees together with their crown spread within and, if appropriate, adjacent to the site on a plan showing the spot height of existing levels and above-ground features, together with an identification number provided adjacent to each tree;
- (ii) trees to be retained, transplanted within the site, transplanted off-site or removed presented in different colour;
- (iii) an overlay of site formation plan showing the proposed layout of the development, extent of excavation works, proposed utilities, vehicular access and traffic sight line, the formation or finished levels as well as the extent of temporary works and facilities (e.g. site offices, storage areas, etc.) so as to ensure that the TPZs should not be encroached upon or affected by the works;
- (iv) TPZs around all trees proposed to be retained. Assessment should be made on the potential impacts of building foundations and other structures on the TPZs; and
- (v) where appropriate, a cross-section showing the proposed architectural and engineering features around the TPZs should be provided to show that sufficient vertical and horizontal space can be reserved for TPZs. On the other hand, for trees proposed to be removed due to changes in level, a cross-section showing the original and finished levels should be provided if the features that may affect nearby TPZs cannot be shown on a plan.

#### III. Tree assessment

Tree assessment should be conducted in accordance with current practice under the Tree Group Inspection (Form 1) and Individual Tree Risk Assessment (Form 2) in the Guidelines for Tree Risk Assessment and Management Arrangement (TRAM Guidelines) for trees in arboricultural maintenance or in form of *tree assessment schedule* specified as follows for trees in government projects:

- (i) The *tree assessment schedule* (**Appendix C(1)**) should include the following information for each tree:
  - a. the species (both scientific name and Chinese commonname);
  - b. measurements including height, trunk diameter (at 1.3m above the ground level) and crown spread;
  - c. amenity value;
  - d. form;
  - e. health and structural conditions;
  - f. suitability for transplanting;
  - g. conservation status (indicates rarity and protection status under relevant ordinances of a species in Hong Kong. References such as Rare and Precious Plants of Hong Kong<sup>3</sup>, the IUCN Red List of Threatened Species<sup>4</sup> and the Forestry Regulations (Cap. 96A) may be used.); and
  - h. recommendations, i.e. retain, transplant or remove.
- (ii) Colour photographs with imprinted dates of each whole tree as far as practicable and marked with tree identification numbers. The photograph should also show the defective part(s) of the tree(s) and the proposed treatment(s) with clear annotation.
- (iii) Where the project involves removal of trees of particular interest, paragraph 26 of the Circular and Sensitivity Analysis specified in the TRAM Guidelines shall be followed.
- (iv) For trees in government projects, the tree survey plan and assessment schedule should be based on the findings of tree surveys conducted within two years prior to submission, provided that there have been no substantial deviations to the number and conditions of the trees in the affected area. For trees in arboricultural maintenance, the current requirements on tree risk assessment as stipulated in the TRAM Guidelines should be followed.

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<sup>&</sup>lt;sup>3</sup> Agriculture, Fisheries and Conservation Department, *Rare and Precious Plants of Hong Kong* (Hong Kong: AFCD, the Government of the Hong Kong Special Administrative Region, 2003).

<sup>&</sup>lt;sup>4</sup> IUCN Red List of Threatened Species. The latest version can be accessed at www.iucnredlist.org.

# Tree Assessment Schedule<sup>1</sup>

Project Title:	
Date of Tree Survey:	_Surveyed by:

	Spec	Species <sup>3</sup>		Measurements		Amenity value <sup>5</sup>	Form Health condition Structural condition		Suitability for transplanting <sup>6</sup>			Recommendation	Maintenance department to provide			
Tree No. <sup>2</sup>	Scientific name	Chinese name		DBH <sup>4</sup> (mm)	crown spread (m)	(high(H)/ medium(M) /low(L))	(§	(good G)/average (A)/ poor (P))		(high(H)/ medium(M)/ low(L))	Remarks <sup>7</sup>	Conservation status <sup>8</sup>	(retain/transplant/remove)	comments on		Additional Remarks <sup>10</sup>
														201010	11101	

- For large-scale infrastructure works projects, such as site formation works and advance infrastructure works for new town development, tree group survey can be adopted subject to the justification(s) provided.
- <sup>2</sup> Tree(s) in the Register of Old and Valuable Trees should be highlighted with their registration numbers.
- <sup>3</sup> Guidance on proper use of scientific name of plants is given in the Agriculture, Fisheries and Conservation Department's Nature Conservation Practice Note No. 3, which can be viewed at AFCD's web page
  - $http://www.afcd.gov.hk/english/conservation/con\_tech/files/common/NCPC\_No.03\_The\_use\_of\_plant\_names\_rev\_2008\_2.pdf).$
- <sup>4</sup> DBH of a tree refers to its diameter at breast height (i.e. measured at 1.3 m above ground level). Guidance on DBH measurement is given in the Agriculture, Fisheries and Conservation Department's Nature Conservation Practice Note No. 2, which can be viewed at AFCD's web page <a href="http://www.afcd.gov.hk/english/conservation/con\_tech/files/common/NCPN\_No.02\_measurement\_of\_DBH\_ver.2006.pdf">http://www.afcd.gov.hk/english/conservation/con\_tech/files/common/NCPN\_No.02\_measurement\_of\_DBH\_ver.2006.pdf</a>).
- Amenity value of a tree should be assessed by its functional values for shade, seasonal interest, screening, reduction of pollution and noise and also its fung shui significance, and classified into the following categories.

High (H): important trees which should be retained by adjusting the design layout accordingly.

Medium (M): trees that are desirable to be retained in order to create a pleasant environment, which includes healthy specimens of lesser importance than "High" trees. Low(L): trees that are dead, dying or potentially hazardous and should be removed.

- Assessment shall take into account conditions of an individual tree at the time of survey (including health, structure, age and root conditions), site conditions (including topography and accessibility), and intrinsic characters of tree species (survival rate after transplanting).
- <sup>7</sup> Major determining factors for the rating on suitability for transplanting should be included if necessary.
- State the rarity and protection status of the species.
- <sup>9</sup> Refer to paragraphs 35 and 36 of the Circular.
- <sup>10</sup> Any additional information deemed necessary for consideration of the proposed management recommendation.

# Sample clauses for contracts that require a competent staff to supervise tree works onsite and related works offsite

#### PS clause for contracts

"The Contractor shall assign a competent member with arboriculture knowledge of the site supervisory staff to oversee and supervise tree works related to arboricultural operations and preservation of trees onsite and any compensatory planting both onsite and offsite including, but without limitation to, planting, transplanting, arboriculture work, and control of pests and diseases. The person assigned shall be working \*full-time/part-time onsite, but not necessarily working solely on tree works. The assigned person shall have attended relevant training in arboriculture organised by local and/or overseas training institutes with cumulative training of at least 30 hours in the past 3 years, and have at least two years practical experience in arboriculture. The Contractor shall submit to the \*Architect/Engineer/Supervising Officer for approval within 30 days of the date of the Employer's letter of acceptance of the Tender particulars of the assigned person (including his name, experience and position) together with a copy of the certificate(s) issued by the training institute(s) confirming "his/her satisfactory completion of the relevant courses" and supporting documents on the required experience."

# \* Please delete as appropriate

#### Notes to Tenderer

The following notes to tenderers should also be incorporated in contracts where the above PS clause is incorporated:

"Tenderers should note that the Particular Specification Clause \_ requires the Contractor to assign a competent member of the site supervisory staff to oversee and supervise the tree works under the Contract, and that such a person should possess the practical experience as required under the Particular Specification Clause."

# Examples for Incorporating the Information on Tree Removal and Planting Proposals into PWSC Paper

# A. For proposed projects (such as feasibility study / site investigation / design consultancy\*)

"The proposed *project* / *feasibility study* / *site investigation works* / *design consultancy*\*, will not directly involve any tree removal or planting proposals. We¹ will require the consultant to take into consideration the need for tree preservation during the planning and design stages of the project. We¹ will also incorporate tree planting proposals, where possible, in the construction phase in the future."

# B. For proposed projects which do not involve tree felling or planting proposals

"The proposed fitting out works will not involve any tree removal or planting proposals"

# C. For proposed projects which involve the felling of common trees with or without planting proposals

"Of the A no. of trees within the project boundary, B no. of trees will be retained. The proposed project / infrastructure works / site formation works / roads and drainage works / construction works\* will involve the removal of T no. of trees, including X no. of trees to be felled, Y no. of trees to be transplanted elsewhere and Z no. of trees to be replanted within the project site (subject to finalisation of design²) (Note: A = B + T; T = X + Y + Z). All trees to be removed are common trees that are not trees of particular interest<sup>3#</sup>. We¹ will incorporate planting proposals as part of the project, including estimated quantities of [aa] no. of trees, [bb] no. of shrubs, [cc] square metre of grassed area<sup>4</sup>."

<sup>&</sup>lt;sup>1</sup> "We" should be replaced by reference to the subvented organisation (e.g. "Hospital Authority" and "the school") for those subvented capital works projects under CWRF Head 708 where the subvented organisation is the works agent.

<sup>&</sup>lt;sup>2</sup> Only applicable to Design and Build contracts.

<sup>&</sup>lt;sup>3</sup> Trees of particular interest are defined in paragraph 2.6.1 of the Guidelines for Tree Risk Assessment and Management Arrangement promulgated by the Development Bureau. Examples of trees of particular interest are listed as follows:

<sup>•</sup> OVTs and trees that are potentially registerable in the Register of OVTs

<sup>•</sup> Trees of 100 years old or above

<sup>•</sup> Trees with trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m

<sup>•</sup> Stonewall trees or trees of outstanding form (taking account of overall tree sizes, shape and any special features)

Rare tree species listed in "Rare and Precious Plants of Hong Kong" (http://herbarium.gov.hk/PublicationsPreface.aspx?BookNameId=1) published by Agriculture, Fisheries and Conservation Department

<sup>•</sup> Endangered plant species protected under the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)

<sup>•</sup> Tree species listed in the Forestry Regulations (Cap. 96A) under the Forests and Countryside Ordinance(Cap. 96)

<sup>•</sup> Well-known Fung Shui trees

<sup>•</sup> Landmark trees with evidential records to support the historical or cultural significance of the trees

Trees which may arouse widespread public concerns

<sup>•</sup> Trees which may be subject to strong local objections on removal

<sup>&</sup>lt;sup>4</sup> If planting proposal is not included, the last sentence of this paragraph can be omitted. However, further explanation will have to be included for any tree removal plan without compensatory planting.

# D. For proposed projects which involve felling of common trees or tree of particular interest<sup>3</sup> with or without planting proposals

"Of the A no. of trees within the project boundary, B no. of trees will be preserved. The proposed project / infrastructure works / site formation works / roads and drainage works / construction works\* will involve removal of T1 no. of trees, including X1 no. of trees to be felled, Y1 no. of trees to be transplanted elsewhere and Z1 no. of trees to be replanted within the project site (Note: A=B+T1+T2; T1=X1+Y1+Z1). Besides, T2 no. of trees of particular interest<sup>3#</sup> will be affected during the implementation of the project. A summary of trees of particular interest<sup>3</sup> affected is provided at Enclosure. We¹ will incorporate planting proposals as part of the project, including estimated quantities of [aa] no. of trees, [bb] no. of shrubs, [cc] square metre of grassed area<sup>4</sup>."

- \* Please delete as appropriate.
- # Departments shall continue to use the term "important trees" in PWSC papers until the relevant Financial Circulars have been revised subject to the necessary consultation with B/Ds.

# Report of Incidents of Unauthorised Tree Felling or Damage of Trees Attracting Media Attention and/or Public Scrutiny

To: Greening, Landscape and Tree Management Section, Development Bureau (Attn.: Assistant Secretary (Tree Management)1)

(Fax. No.: 2186 6932 / E-mail: gltms@devb.gov.hk)

1.	Location of the incident:	
	(project name, site address,	
	location of incident(s) on location	
	map, tree(s) inventory number(s)	
2.	Number, size and species (if	
	known) of trees removed or	
	damaged:	
3.	Incident date and time:	
4.	Nature and brief account of the	
	incident:	
5.	Follow-up actions being taken:	
6.	Date of media reports and names of	
	the Media:	
	(copies of media reports to be	
	provided where appropriate)	
7.	Relevant background information:	
	(photos of the incident, eye-witness	
	statements, etc)	
Sub	nitted by :	(Name)
		(r (ame)
		(Post)
		(Department)
		, -
Date	<u> </u>	