Guidance Notes on Tree Preservation and Removal Proposals for Building Development in Private Projects

Compliance of Tree Preservation Clause under Lease

Purpose

The purpose of the guidance notes is to set out the mandatory requirements for preparing Tree Preservation and Removal Proposal (“TPRP”) for building developments in private projects under the tree preservation clause under lease. These Guidance Notes should be read in conjunction with Lands Administration Office Practice Note (“LAO PN”) Issue No. 2/2020 “Tree Preservation and Removal Proposals for Building Development in Private Projects Compliance of Tree Preservation Clause under Lease”.

Mandatory information to be provided in the submission of TPRP

(A) Tree survey plans

2. Tree survey plan(s) (“the plan(s)”) should indicate the accurate locations of all existing trees (each assigned with a serial number for identification – i.e. Tree ID No.) with their spot elevations at trunk base and an overlay of the latest submitted / approved site formation plan / building plan showing development layout / proposed works including the extent of excavation works, proposed utilities and vehicular access (preferably in dotted line). The plan(s) should delineate the boundary of the Lot, any area required to be handed back to Government or formed outside the lot boundaries including government land designated by colour (“coloured areas”) on the lease plan. The plan(s) shall be scaled drawing(s) with adequate topographical survey information showing both existing and proposed levels across the site, and above ground features (both existing and proposed).

3. Tree canopy should be drawn proportional to the spread of the tree with reasonable presentation of its physical form. Tree ID Nos. shall be clearly marked adjacent to each tree, in bold and legible letters, on the plan(s) correspondingly.

4. Relevant illustration(s) such as cross-section(s) should be appropriately provided to demonstrate why any tree is in conflict with the proposed development/works; i.e. genuine unavoidable conflict without other reasonable alternatives, showing the existing and proposed levels of the features that would affect preservation of trees and cannot be shown on the plan(s). If slope work is involved, supporting drawing(s) and statement from the Geotechnical Engineer shall be provided to demonstrate the extent and scope of interference to the existing trees.
5. For those trees proposed to be retained in-situ irrespective of any ground level change within the root-zone / drip-line\(^1\), existing levels in the vicinity of these trees (i.e. the ground area within the drip-line or surrounding the root collar/flare) and an indication of the future development proposal (e.g. formation levels, finished levels, etc.) as well as the extent of temporary works should also be shown, ensuring that there is adequate vertical and horizontal space reserved for tree protection zone ("TPZ").

6. All the affected trees (including any trees to be retained\(^2\), transplanted or felled) located within and/or outside the boundary of the Lot should be explicitly highlighted and differentiated in colour from those located inside the Lot (i.e. within the Pink Area under the lease). Any area required to be handed back to Government or other coloured areas associated with the subject Lot under the lease shall also be highlighted on the plan(s). In addition, proper legend shall be used to differentiate the proposed treatment of individual tree to be affected. Whereas appropriate, different colour codes and/or graphics shall be adopted to facilitate comprehension. Tree survey plan(s) should be based on the on-site findings of tree surveys conducted within two years (24 months) prior to the initial submission, provided that there have been no substantial deviations to the quantity and/or condition of the concerned trees within the same affected area.

(B) Tree assessment schedule

7. The tree assessment schedule should be based on the current condition, or on on-site findings conducted within two years prior to the initial submission.

8. Assessment on existing tree(s) in construction site shall be carried out by a Registered Landscape Architect ("RLA")\(^3\) or a Qualified Professional\(^4\). A standard format of tree assessment is suggested as:

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\(^1\) "Drip-line" of a tree means the imaginary vertical plumb line that extends downward from the tips of the outermost tree branches and intersects the ground.

\(^2\) "Retained tree" means an existing tree to be retained in situ. Appropriate protective and/or precautionary measures would be provided during all stages of development to ensure its survival and long term well-being.

\(^3\) RLA as registered under the Landscape Architects Registration Ordinance (Cap. 516).

\(^4\) A service provider or an individual with recognised qualifications and expertise to undertake tree risk assessment and associated arboricultural works / operations as defined in Appendix I – “Requirements of Qualified Professionals for Arboricultural Works” of the “Handbook on Tree Management” promulgated by the Greening, Landscape and Tree Management Section of the Development Bureau.
9. If over 50 existing trees are to be affected, a summary (see below format) and an electronic format in excel file of the Tree Assessment Schedule shall also be provided in the submission package.

Summary of the proposed treatment to existing trees

<table>
<thead>
<tr>
<th>Existing trees surveyed</th>
<th>within the Lot (Pink Area)</th>
<th>within Green Area</th>
<th>within Yellow Area</th>
<th>within Green Hatched Black Area</th>
<th>within other Coloured Areas (please state)</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td>to be retained</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
</tr>
<tr>
<td>to be transplanted</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
</tr>
<tr>
<td>to be felled</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
<td>nos.</td>
</tr>
</tbody>
</table>

Total of existing trees surveyed nos.
10. Whilst any means of disturbance to existing trees should be minimized, a realistic assessment of the probable impact of the proposed development/works including the extent of temporary works (such as site office and storage, etc.) on any preserved tree (i.e. to be retained in situ or transplanted) should be undertaken with due consideration of the visual/ecological/cultural values, characteristics and condition of the concerned trees.

11. Relevant recognized standards and/or practices on tree preservation, protection and transplanting shall be specified in written statement. Submission of a method statement on specific tree preservation measures for retaining or transplanting large mature tree(s) that will be subject to disturbance from construction activities shall be provided if required. Also, any pruning proposals to the retained or transplanted trees should be highlighted in the submission giving the reason and proposed extent of tree surgery, canopy and root pruning.

(C) Photographic record of existing trees

12. The photos shall be of reasonable size and quality, in colour and date imprinted showing the entire tree as far as possible (i.e. the canopy, tree trunk and surrounding ground near the root collar of each tree). Sensible labeling and annotation of the photo is required without blocking the imagery of the canopy, tree trunk and the root collar of the concerned tree. Photo(s) of trees in group at distant view will not be considered unless the tree group will be retained for preservation and will not be affected during all work stages. Caption of each photo shall include information on corresponding Tree ID No. of respective tree and its proposed treatment (i.e. to be retained or transplanted or felled).

(D) Compensatory planting proposal

13. Compensatory planting should be realistic, practical and sustainable. The principle of “right tree for the right place” should be adhered to so that trees are selected to match the site, environmental conditions and design intent. As far as possible, implementation of compensatory tree planting, of a ratio not less than 1:1 in terms of quantity within the subject Lot would be acceptable. That is, the total numbers of compensatory trees within the site should not be less than that of the lost tree(s), including all felled dead trees and trees of undesirable species and any transplanted tree that is subsequently deceased. Deviation from this compensatory principle is acceptable for slope works with replanting of whips or seedlings in form of woodland mix and any other situations supported with full justification.

14. Should the requirement of compensatory planting ratio of 1:1 in terms of quantity be satisfactorily met, and sufficient space for planting can be identified, additional
tree planting 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 felled trees should be undertaken as far as practicable.

15. Notwithstanding the minimum ratio of compensatory planting, reasonable amount of compensatory trees should be provided to suit site condition and land use with greening opportunity optimized where feasible. Also, sufficient area should be designated for tree planting taking into account the growing space required by the retained, transplanted and compensatory trees up to their maturity catering for their successful establishment and healthy growth and to avoid planting that would lead to over-congestion in the long run. In general, compensatory trees shall be of good health and in good vitality, with a well-balanced branching head, or a well-defined straight and upright leader with branches growing out from the stem with good symmetry in a given clear height.

16. The TPRP submission shall be supported by the following:

(a) a building layout plan / floor plan(s) indicating the location of retained trees and individual planting area(s) and/or tree pit(s) to be reserved for transplanted and/or new compensatory tree planting;

(b) a written statement to confirm whether there is any rare or endangered flora species, trees in the Register of Old and Valuable Trees (“OVTs”), trees potentially registrable in accordance with the criteria for OVTs as set out in the Works Branch of Development Bureau (“DEVB”) (formerly known as Environment, Transport and Works Bureau (“ETWB”)) Technical Circular (Works) (“TC (W)”) No. 29/2004 or trees of particular value found within the site and to confirm whether they on any newly formed slope and/or retaining structure;

(c) a written statement on the quantity of compensatory new trees and its respective size, species mix and proposed spacing;

(d) an indication on the ground level and surface treatment of each recipient locations of the retained/transplanted/compensatory trees;

(e) a written statement supported with a typical section to demonstrate adequate soil allowance for tree planting (min. 1.2m excluding drainage layer);

(f) a compensatory planting plan;

(g) a schedule of compensatory trees in a suggested format as below:

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5 DBH means Diameter at Breast Height. It refers to the diameter of tree trunk measured at 1.3 m above ground level. Guidance on measurement of DBH is given in Agriculture Fisheries and Conservation Department’s (AFCD) Nature Conservation Practice Note No. 2, which can be viewed from AFCD’s internet homepage (www.afcd.gov.hk).
(h) a written statement explaining the landscape treatment provisions, demonstrated with sections and elevation, if necessary.

17. Formats of a compensatory planting plan are listed as below:

(a) Compensatory planting plan shall be in a format of a scaled representation with an overlay of the latest submitted / approved site formation / building plan. It shall include information on the species (in scientific and Chinese names), size (DBH, spread and height) and location of individual compensatory trees and any trees to be retained or transplanted, and the finished floor level of respective planting areas.

(b) The boundaries of the subject Lot, any area required to be handed back to Government and any “coloured areas” associated with the Lot under lease shall also be clearly delineated on plan.

(c) In case of any portion of planting areas under cover, the overhead building line shall be clearly indicated in plan(s) with its minimum height clearance specified at each locality.

(d) Each retained and transplanted trees shall also be marked up on the plan(s) with corresponding reference number (Tree ID no. in the initial Tree Survey Plan).

(e) If any tree works are to be handed over to the government upon completion of the development, the applicant should provide adequate information to meet the requirements of the concerned departments.

Criteria (Hierarchy) for considering TPRP

18. At planning or early design stage, a tree survey should be carried out within and, if appropriate, adjacent to the site in order to identify trees or tree groups that deserved to be retained, in particular the following types of trees with high value for priority preservation:

(a) Trees included in the Register of OVTs as mentioned in the ETWB TC (W) No. 29/2004 or any subsequent amendments thereof issued by DEVB; or

(b) Trees potentially registrable in accordance with the criteria for OVTs as set out in aforementioned ETWB TC (W) 29/2004 or any subsequent amendments thereof issued by
DEVB; or

(c) Stonewall trees, trees of particular interest, trees of particular value, trees of rare species and other trees designated to be preserved under leases.

19. Apart from paragraph 18(c) where identified stonewall trees, tree of particular interest, trees of particular value, trees of rare species and other trees designated to be preserved under leases should not be felled, removed or interfered with, the OVT or potentially registrable OVT as mentioned in paragraphs 18(a) and 18(b) should be preserved at their original locations, and their removal should be prohibited except under very special circumstances with full justifications.

20. For other trees not covered under paragraph 18, the following criteria (hierarchy) should be adopted for considerations:

(a) retain the tree(s) at its/their original location(s); or

(b) if paragraph 20(a) is not practicable having balanced all relevant considerations, transplant the affected tree(s) to other permanent locations within the site, so as to increase the tree’s survival rate after transplantation and minimize the loss of greenery on the local environs; or

(c) if both paragraphs 20(a) and 20(b) are not practicable, transplant the affected tree(s) to other permanent location(s) outside the site, which should preferably by nearby location(s) with subsequent maintenance responsibility identified and agreed in order to maintain its/their amenity value to the vicinity; or a temporary holding nursery ex-situ prior to transplant the affected trees back to the site when the site is ready for planting. Location of the temporary holding nursery should preferably be in proximity to the site for minimising the disturbance to the affected trees during transportation; or

(d) felling of trees will only be considered as the last option under the following circumstances:

- if both retaining and transplanting are considered not practicable (with reference to the factors as detailed in paragraph 21 below) and the tree(s) to be felled is not covered under paragraph 18 above; or

- to strike a balance between cost and benefit, the tree(s) is(are) considered not suitable for transplanting as assessed with reference to paragraph 22 below; or

- tree has unrecoverable health problem(s), structural problem(s) or in poor form, or any tree irreparably damaged by inclement weather; or

- other justifications provided by the Lot owner/RLA.
21. For trees that are considered impracticable to be preserved in-situ, justification for the proposed trees transplanting should be provided and following considerations should be taken into account:

(a) conditions of the tree to be transplanted (including form, health and structure which will affect success of the proposed tree transplanting);

(b) size, species, survival rate after transplanting;

(c) amenity value and conservation status of the tree to be transplanted;

(d) availability and suitability of a permanent receptor site within the site and/or a temporary holding nursery outside the site;

(e) adequate time for preparation of transplanting operation;

(f) identification of a long term maintenance party for the transplanted tree(s);

(g) access to the existing location and transportation to the permanent receptor site and/or temporary holding nursery (including availability of access to accommodate the tree, topography of the proposed route, engineering/transport limitations, etc.); and

(h) cost-effectiveness.

22. Although tree transplanting should be considered as far as possible instead of felling if retaining is considered not practicable, trees with the following features should not be considered suitable for transplanting under normal circumstances:

(a) low amenity/conservation value;

(b) irrecoverable form after transplanting (e.g. if substantial crown and root pruning are necessary to facilitate the transplanting);

(c) low survival rate after transplanting;

(d) very large size (unless the feasibility to transplant has been considered financially reasonable and technically feasible during the feasibility stage);

(e) with evidence of over-maturity and onset of senescence;

(f) with poor health, structure or form (e.g. imbalanced form, leaning, with major cavity/cracks/splits); or

(g) undesirable species (e.g. *Leucaena leucocephala* which is an invasive exotic tree).
23. In the case of tree transplanting, the Lot owner/RLA should submit a method statement detailing the procedures, program, required personnel with their qualification, equipment and machinery, site safety scheme, tree protection measures, maintenance schedule, etc. for LandsD’s approval prior to the commencement of the tree transplanting operation.

24. To avoid willful damage to any existing trees, consideration for removal of trees in poor condition should be assessed on a case-by-case basis. In addition, every practicable opportunity should be explored to restore the conditions of the tree as far as possible, and the trees in question should not be felled unnecessarily. Also, compensatory planting should be implemented wherever tree felling is involved but it is recommended that such planting itself should not be the only justification for removing the trees affected by the development on site.

**Amendment or re-submission of TPRP**

25. It is not uncommon that the first set of GBPs approved by BD will be subsequently amended. Should there be revisions to the approved TPRP due to the amended GBPs, the lot owner or his RLA is required to submit an updated TPRP and highlight the revisions for approval.

26. All relevant parts of the submission documents (inclusive of drawings, schedule & plans etc.) so amended shall be suitably highlighted (preferably in colour) to indicate the alteration/change/amendment. The revised document shall be clearly shown with a drawing title, number, date and corresponding revision serial number as appropriate. Any amendment or re-submission failed to comply with this will not be processed.

27. For deemed approval/compliance application for the TPRP as part and parcel of the landscape submission in connection with planning application, any changes are considered as Class A amendments according to the TPB PG-No. 36B “Town Planning Board Guidelines for Class A and Class B Amendments To Approved Development Proposals”, the RLA should indicate these changes in the TPRP and certify that they are Class A amendments. For Class B amendments as detailed in the said TPB PG-No. 36B, the RLA is required to seek further approval from PlanD/ TPB prior to LandsD’s subsequent processing of deemed approval/compliance application.

28. Any re-submission or amendment made to the already-approved TPRP shall not bring on any diminishing effect on tree preservation/transplanting/ compensation planting as shown on the already approved plans and/or schedule. Otherwise, good cause and full justification shall be demonstrated.
**Good practice to note when preparing TPRP**

**(A)  Existing / retained trees**

29. Tree preservation during different stages of development, in particular identification of TPZ, should be made reference to the *Guidelines on Tree Preservation during Development* and *Design for Tree Protection Zone* issued by DEVB.

30. In any event, any excessive pruning of the crown, lopping or topping to any existing/retained trees, in particular mature trees, is not acceptable and should be avoided. Improper tree pruning is detrimental to the appearance and healthy growth of trees and may result in irrecoverable damage to trees. Extensive crown, limb or root pruning as unavoidable tree surgery works that might significantly affect the tree form, shall be fully justified with the extent and method statement clearly outlined by a RLA or a Qualified Professional. All tree works shall be conducted according to good arboriculture and horticultural practices. The *General Guidelines on Tree Pruning, Dos and Don’ts in Pruning, Tree Care during Construction*, and other relevant information promulgated by DEVB provide basic information on tree pruning and issues requiring particular attention during execution of works (the guidelines in English and Chinese can be viewed from DEVB’s internet website (http://www.greening.gov.hk/en/home/index.html). Tree pruning should be carried out and supervised by qualified and experienced personnel (i.e. Qualified Professional).

**(B)  Transplanting trees**

31. To assure reasonable survival rate and long term well-being of the transplanted tree, the *Guidelines on Tree Transplanting* promulgated by DEVB and the following shall be allowed as far as practicable:

(a) Preparatory works (e.g. root trenching) shall be carried out subject to detailed assessment by a RLA or a Qualified Professional.

(b) Site planning and sequence of works shall be well thought-out to enable one-off transplant operation within the Lot as far as possible for all affected trees. In other words, temporary transplanting to a transit nursery shall be avoided to minimize the physical disturbance to the canopy/root and to allow early re-establishment of the transplanted tree at its final location.

(c) Appropriate post transplanting treatment is crucial for the establishment of the newly transplanted tree/palm and its long-term well-being. Recommendation on follow up actions shall be given by a RLA or a Qualified Professional. A minimum 12-month
establishment period shall be provided for carrying out aftercare actions such as irrigation, application of fertilizer and mulching, staking and re-staking, pest control, etc..

(d) Under no circumstance the central main leader of the tree shall be pruned or adversely interfered during the transplant process.

(C) New tree planting

32. Adequate allowance and space shall be provided for their long term well-being and future growth with reference to those Proper Planting Practices promulgated by DEVB.

33. Planter and/or planting bed shall preferably be continuous in trench with a minimum internal width and depth of 1.2m for new tree planting. For new tree planting inside toe wall planters of slopes, a minimum internal dimension of 1.2m for both width and depth (excluding subsoil drainage layer and finishes) shall be considered. For retained/transplanted trees, adequate space (width and depth) must be allowed to accommodate respective size of the root-balls.

34. In addition, adequate growing space shall be assured to accommodate the anticipated size in maturity of the preserved trees and proposed new trees. Planting densities for different plant species should be properly recommended and stated for healthy growth and long term well-being of the trees. A clear height of not less than 4.5m for planting areas under elevated structures is required for natural sunlight and adequate headroom.

35. Indigenous species shall be selected as far as possible for ecological enhancement and biodiversity to supplement the ornamental planting.

Tree maintenance

36. It is the responsibility of the lot owner to ensure that the management and maintenance of all trees including the new trees would be undertaken in a sustainable manner. Regarding the future maintenance of all trees, the lot owner shall ensure carrying out arboricultural works according to a maintenance schedule including but not limited to tree risk assessment (refer to the Guidelines for Tree Risk Assessment and Management Arrangement promulgated by DEVB) to be conducted at appropriate time to facilitate proper tree care.
37. Each planting area with retained/transplanted/new trees shall be provided with reasonable maintenance access, in a functional and financially viable manner, for general upkeep and routine horticultural operations in long-term.

38. Upon completion of the development project, the lot owner has to, except in an emergency situation, make a prior application to the District Lands Office (“DLO”) of LandsD and obtain a written consent under tree preservation clause of the lease before removing or pruning trees within the lot. To apply for tree removal or pruning, the private lot owner is required to submit a report prepared by a RLA or Qualified Professional, providing sufficient justifications and evidence for consideration. In granting a written consent, DLO may impose conditions on transplanting, compensatory landscaping or replanting as deemed appropriate.

39. All rights to modify the whole or any part of these guidance notes are hereby reserved.

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Building Plan Unit
Development Control Section
Lands Department
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