## 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)300/2/4 Group : 12

24 April 2024

#### <u>Development Bureau</u> <u>Technical Circular (Works) No. 3/2024</u>

#### Allocation of Space for Quality Greening along Roads

#### Scope

This Circular sets out the policy and requirements for allocation of space to road projects for enhancing quality greening and landscape environment.

#### **Effective Date**

2. This Circular takes immediate effect on new at-grade road projects from 24 April 2024 at planning and inception stage prior to the approval of Technical Feasibility Statement (TFS) if applicable. Projects in advanced stages with issuance of gazette notice on road scheme under Cap. 370 on or before 23 July 2024 are not affected.

#### **Effect on Existing Circulars**

3. This Circular supersedes DEVB TC(W) No. 2/2012. It should be read in conjunction with the following Circulars:

Circular No.	Subject
DEVB TC(W) No. 6/2015	Maintenance of Vegetation and Hard Landscape
	Features
DEVB TC(W) No. 1/2018	Soft Landscape Provisions for Highway
	Structures
DEVB TC(W) No. 9/2020	Blue-Green Drainage Infrastructure

#### Background

4. The Development Bureau has been striving to uplift the quality of our living environment through quality greening and landscape planning and design, and proper tree management. The target is to bring about noticeable improvements in greenery, to enhance existing greened areas and optimize opportunities for quality greening and landscape during the planning and development of public works projects.

5. One of the key potential improvements for our urban landscape is to enhance greening on public roads, including carriageways and footways. Trees, when suitably planted, will contribute substantially to our streetscape with lush canopy and enhance walkability. However, inadequate at-grade and below ground space which hamper healthy plant growth, are frequently the major constraints for promoting greening along roads. Clear requirements on the allocation of adequate space for quality greening along roads, with provision of adequate soil volume that can support healthy growth of trees to their mature sizes, are necessary as most environmental benefits associated with trees are accruing until they reach their mature stage. Landscaped area plays a significant role in the blue-green infrastructure. Departments shall also plan and design for open soil vegetated areas for greening at the early stage of their projects.

## Policy

6. To align with the Administration's commitment to greening, provision of quality greening in the public road networks should be enhanced in the feasibility, planning, design and construction stages.

7. This circular outlines the requirements for allocating adequate space for tree planting and greening on at-grade public roads with a view to promoting quality

greening. It applies to all new road projects<sup>1</sup> in the Public Works Programme, during the feasibility, planning, design and construction stages. Rehabilitation maintenance, reconstruction works, and road resurfacing of existing roads are excluded<sup>2</sup>. Relevant departments should review their circulars or guidelines to establish procedures to ensure compliance with the requirements in this Circular for public works projects.

#### Allocation of Greening Zones along Roads

8. To achieve quality greening along roads, it is essential to allow adequate space provision for greening at the early project planning stage. To ensure sufficient greening coverage on roads, the following Greening Zones<sup>3</sup> (GZs) should be allocated during the planning and design of the new road projects:

- (i) Central Median Greening Zone (CMGZ)
- (ii) Roadside Verge Greening Zone (RVGZ)

9. The requirements for allocating space for greening along roads are stipulated in Appendix A. GZs should be free of utilities along roads in general except those for necessary utilities crossing roads, essential lighting and irrigation which should be appropriately located to minimise constraints to planting. Localised discontinuities of GZs for standard provision of traffic and transport facilities, such as vehicular run-in/out, pedestrian crossings, designated areas for pick-up and drop-off of passengers, designated bays for loading or unloading activities, bus stops, taxi stands, etc. would be allowed, but should be planned and grouped together as far as practicable to ensure each GZ is of adequate length to achieve meaningful landscape effect. Project Landscape Architect shall be involved at the preliminary planning or design stage of the road scheme to review the layout and landscape as well as tree planting proposals to achieve optimal greening effect. Sufficient clearance between proposed trees and roadside facilities should be allowed for consideration of road safety, for example, to maintain clear visibility near road junctions, road crossings, traffic signs, etc. Planting proposals should comply with prevailing planning, design, maintenance and management guidelines of relevant departments. Exemption of the above space

<sup>&</sup>lt;sup>1</sup> New road projects exclude road widening works (e.g. additional traffic lanes on existing road) and road improvement works (e.g. upgrading from sub-standard to current standard width but maintaining the same number of traffic lanes).

<sup>&</sup>lt;sup>2</sup> When an existing tree on a road requires replanting due to road rehabilitation maintenance/reconstruction works/road resurfacing, it is pertinent to carefully review the appropriateness of the site situation for tree planting instead of simply planting a new tree in the unimproved tree pit/location. When assessing the feasibility of tree replanting on existing roads, departments are required to make reference to the recommended minimum soil volume in the 'Guidelines of Soil Volume for Urban Trees'.

<sup>&</sup>lt;sup>3</sup> Greening Zones (GZs) are provided for planting of trees, shrubs and/or groundcovers. If tree planting is not recommended due to the principles of 'Right Plant, Right Place', shrubs and/or groundcovers should be provided on GZs.

requirements in Appendix A may apply to situations as detailed in Appendix B.

10. To ensure that sufficient spaces are allocated above and below ground for planting of trees and providing a suitable condition for the long-term, sustainable and healthy growth of the trees, the requirements of the Guidelines of Soil Volume for Urban Trees<sup>4</sup> should be complied with.

#### **Interfacing with Greening Master Plans (GMPs)**

11. A GMP provides a coherent, overarching greening framework, defined by a greening theme and a palette of plant species, to guide the planning, design and implementation of greening works in a district. As such, in designing for greening on new roads, reference to the GMP themes should be made as far as practicable.

#### Maintenance of Planting in various GZs

12. The maintenance responsibility and requirements of the greening works and associated features in various GZs along roads shall be agreed among the respective maintenance parties during the project feasibility and design stages with reference to the relevant technical circular.

## Enquiries

13. For enquiries of this Circular, please contact AS(GL)3 of the Greening, Landscape and Tree Management Section of the Development Bureau.

## ( Ricky C K LAU ) Permanent Secretary for Development (Works)

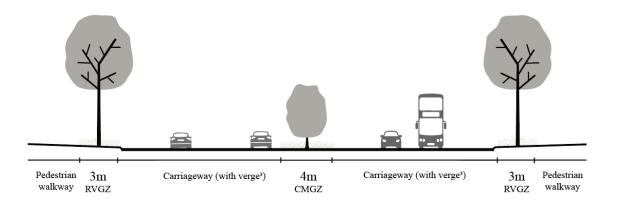
<sup>&</sup>lt;sup>4</sup> The 'Guidelines of Soil Volume for Urban Trees' is accessible under https://www.greening.gov.hk/filemanager/greening/en/content\_77/Guidelines\_on\_Soil\_Volume\_for\_Urban\_Trees.pdf

## **Space Requirements of Greening Zones along Roads**

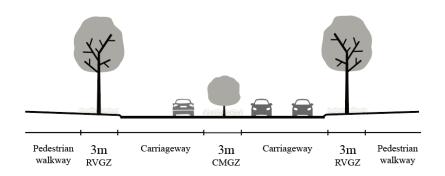
Central Median Greening Zone (CMGZ) and Roadside Verge Greening Zone  $(RVGZ)^1$ 

1. For road hierarchies<sup>2</sup> with central reserves to be provided, the following requirements for CMGZ and RVGZ shall be followed:

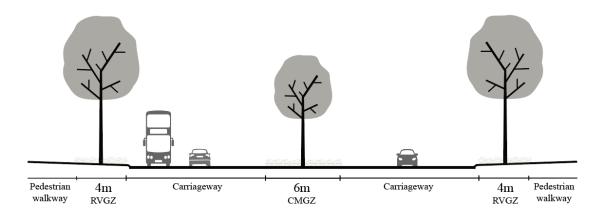
(a) For trunk road and primary distributors, 4m minimum width shall be reserved for CMGZ and 3m minimum width shall be reserved for RVGZ.



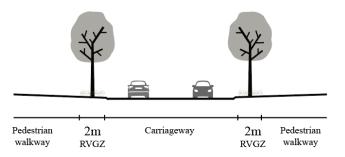
(b) For roads other than trunk road and primary distributors, 3m minimum width shall be reserved for CMGZ and 3m minimum width shall be reserved for RVGZ.



2. In addition to the above, the Greening Zones (GZs) along the boulevard or main road<sup>4</sup> leading into a large scale development shall have 6m minimum for CMGZ and 4m minimum width for RVGZ, to create distinct identity of the development and maximise the opportunity to incorporate blue-green elements within GZs.



3. For roads other than paragraphs 1 and 2 above without central reserve, 2m minimum width shall be reserved for RVGZ.



4. Tree planting along all GZs should be encouraged for enhanced environmental benefits and visual effect. Trees shall be planted along the RVGZ to provide shade cast along its adjacent footpath and along the CMGZ under paragraph 2 for creation of distinctive identity.

5. The planting strips in CMGZ and RVGZ should fulfill the following -

(a) Free of constraints such as underground utilities or footings and above ground structures (except essential roadside signs, signals, traffic equipment and their foundations) along the roads that will limit plant growth. Necessary utilities such as lighting cables, and water supply pipes for irrigation systems crossing the GZ can be exempted provided they are grouped together with minimal occurrence. Project Landscape Architect shall be involved at the utilities planning stage to review the crossing location(s) of the necessary utilities with a view to minimising disturbance to the trees and vegetation in future maintenance of utilities (see Illustration 1);

- (b) Open soil planting in continuous strip should be maximised for better air and water infiltration into the soil;
- (c) Covered soil planting methods<sup>5</sup>, such as adoption of the 'Connect, Extend and Link' concept, should be considered to achieve the recommended soil volume for tree planting when open soil planting is not feasible;
- (d) The planting area should have an open base with good quality planting soil<sup>6</sup> of at least 1m in depth to allow drainage and root extension,
- (e) The CMGZ and RVGZ with dimensions in paragraphs 1, 2 and 3 above, include clear soil width only and do not include central profile barriers, hard shoulders and marginal strips, if required;
- (f) Low-level continuous shrub or hedge to replace installation of railings may be considered for CMGZ and RVGZ where appropriate<sup>7</sup>; and
- (g) Landscape requirements in Chapter 5.6 of Transport Planning and Design Manual (TPDM) Volume 2 shall be followed.

<sup>1</sup> RVGZ should be applied to both sides of roads.

<sup>2</sup> Road hierarchies shall be in accordance with the Transport Planning and Design Manual (TPDM) Volume 2.

<sup>3</sup> No trees, shrubs, hedges or similar should be planted within 3m verge on expressways, trunk roads and primary distributors according to Para. 5.6.2.9 of TPDM Volume 2. The verge referred in TPDM is not RVGZ.

<sup>4</sup> The boulevard or main road should have one or more of the following characteristics, according to Chapter 3.4 of the TPDM Volume 2:

- as major transport and pedestrian corridors in a district
- clustering with major community and tourist attractions
- developing with line of high-grade offices, retail and hotel developments
- as important district retail street
- a road of wide scale (e.g. dual 2 or 3 lane carriageway)
- <sup>5</sup> See Appendix A of 'Guidelines on Soil Volume for Urban Trees'.

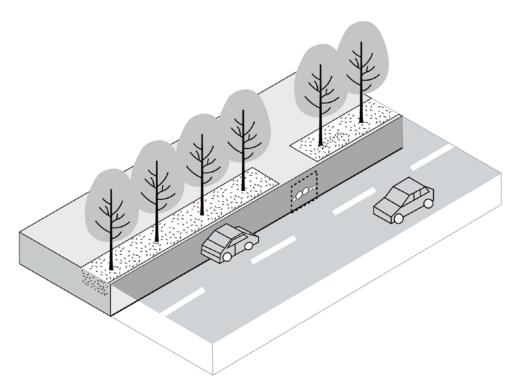
https://www.greening.gov.hk/filemanager/greening/en/content\_77/Guidelines\_on\_Soil\_Volume\_for\_Urban\_Trees.pdf

<sup>6</sup> See Chapter 1 of 'Guidelines on Soil Improvement'.

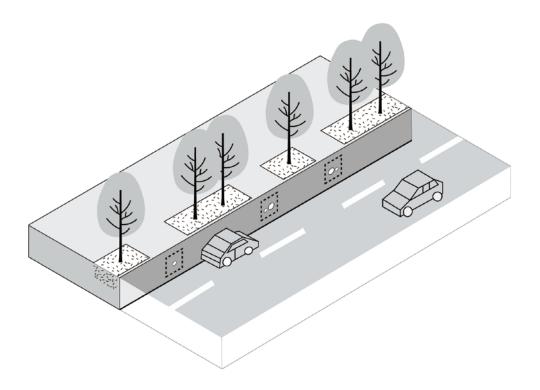
https://www.greening.gov.hk/filemanager/greening/en/content\_77/Guidelines%20on%20Soil%20Improvement\_2022Oct.pdf

<sup>7</sup> See joint Departmental Circular No. 3/2017 of Transport Department and Technical Circular No. 2/2017 of Highways Department 'Guidelines for the Provision and Design of Pedestrian Railings'; and Departmental Circular No. 2/2020 of Transport Department 'Supplementary Guidelines on Provision of Pedestrian Railings'.

## Illustration 1:



Acceptable situation – Necessary underground utilities grouped together.



Unacceptable situation – Necessary underground utilities not planned/grouped and crossed the greening zone at different locations.

#### **Exemptions from Space Requirement**

If the space requirements of Greening Zones (GZs) along roads, as stipulated in Appendix A, cannot be met due to reasons beyond those described under paragraph 9<sup>1</sup>, the project proponents may apply for exemption from the space requirements from the Works and Maintenance Committee on Greening.

2. Possible grounds for exemptions include -

- Road safety considerations such as to maintain clear visibility near road junctions, road crossings, bus stops, traffic signs, traffic equipment, approaches to roundabouts etc.; and
- Provision of space for essential street furniture like directional signs, traffic signs, signal posts, traffic equipment, and maintenance and operation requirements of all these furniture etc.

3. When applying for exemptions, the project proponents should provide sound justifications as well as alternative greening measures. Examples of justifications may include:

- (i) Difficulty in maintenance of the planting at traffic-sensitive locations such as high speed roads or expressways;
- (ii) Significant constraints on existing site areas (e.g. road widening projects restricted by buildings, locations with unfavourable conditions for planting, or locations surrounded by well-wooded areas); and
- (iii) Not cost-effective to allocate GZs, for example, at locations requiring resumption of a substantial amount of private land; requiring a substantial amount of slope works or site formation works in return of a greening effect that is disproportionate to the costs or resources involved, etc.

<sup>&</sup>lt;sup>1</sup> In paragraph 9 of this Technical Circular, localised discontinuities due to standard provision of traffic and transport facilities, such as vehicular run-in/out, pedestrian crossings, designated areas for pick-up and drop-off of passengers, designated bays for loading or unloading of goods, bus stops, taxi stands, etc., are allowed.