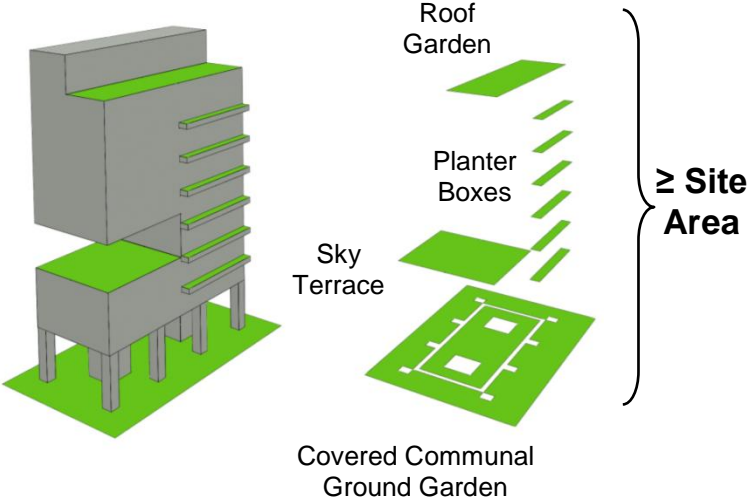


GUIDELINES FOR LANDSCAPE REPLACEMENT AREAS WITHIN NEW DEVELOPMENTS AND REDEVELOPMENTS

NO.	PARAMETER	DETAILS
1	Definition	<p>Landscape Replacement Areas (LRAs) are landscape areas provided on the first storey or upper levels of the development. The total size of the landscape areas must be minimally equivalent to 100 per cent of the development site area. The diagram below shows the various types of LRAs that could be incorporated within a development.</p>  <p>Legend: ■ Landscape Replacement Areas</p> <p>For developments outside of Central Area with a technical height constraint equal to or below 80m Above Mean Sea Level (AMSL), the required LRA is lower at 70 per cent of the development site area.</p>

NO.	PARAMETER	DETAILS
2	Computation Requirements	<p>The computation of the LRAs is determined by the <u>horizontal surface area</u> of the landscape areas.</p> <p>These landscaped areas have to be computed as part of the LRAs within developments:</p> <ul style="list-style-type: none"> a Unenclosed and exposed to the sky; or b If covered, to be open sided, naturally ventilated and qualify for GFA exemption under the prevailing development control guidelines for Communal Planter Boxes, Sky Terraces and Covered Communal Ground Gardens. <p>The public and/or building users should be able to access these communal landscaped areas easily during the normal opening hours of the development².</p> <p>At least 40 per cent of the development site area, or overall proposed LRAs, whichever is higher, should be for permanent planting, i.e. softscape.</p>
3	Performance Requirements	<p>The LRAs should meet the following performance requirements:</p> <ul style="list-style-type: none"> a Designed with safety in mind (e.g. consider wind / structural loading issues associated with upper storey landscape areas) and easily maintained (e.g. with irrigation and maintenance systems); and b Well-designed, lushly-landscaped, and integrated with the overall form and architectural treatment of the building.
4	Softscape Requirements	<p>Planting should be incorporated on permanent and sunken planting beds to enhance the spatial and visual quality of the sky terrace. The sunken planting beds should have sufficient soil depth to accommodate plants and landscaping. If it is not possible to provide sunken planting beds due to FSSD's fire safety requirements, building owners can provide well-landscaped, low-raised planting beds at 300mm high, planted with trees or shrubs (i.e. no turfing allowed). Otherwise, they will be treated as habitable spaces for determining fire safety requirements.</p> <p>Requirements for the 40 per cent softscape areas:</p> <ul style="list-style-type: none"> a As a guide, a minimum soil depth of 1000mm should be provided for trees and palms, 500mm for shrubs and climbers, and 300mm for ground covers; b The softscape area will be determined by the horizontal area of the permanent planting bed;

² For example, the communal landscaped areas in a shopping mall should be open and accessible to the public during the mall's normal operating hours. Similarly, the communal landscaped areas in an office development should be accessible to the larger office community and not limited to users of one specific office premises.

NO.	PARAMETER	DETAILS
		<ul style="list-style-type: none"> c A combination of trees, palms, shrubs, ground covers and creepers is required; and, d Potted plants will not be counted as part of the softscape area as they can be easily removed.
5	Planting References	<p>Please refer to the following publications for more detailed planting references:</p> <ul style="list-style-type: none"> a 1001 Garden plants in Singapore (2nd edition)(2006), NParks b CS E09:2012 - Guidelines on planting of trees, palms and tall shrubs on rooftop (2012), NParks c A Selection of Plants for Green Roofs in Singapore 2nd Edition (2008), NParks d Trees of our Garden City, 2nd edition (2009), NParks e Concise Guides to Safe Practices on Rooftop Greenery and Vertical Greenery (2013), NParks
6	Hardscape Areas	<p>The remaining LRAs can be considered as hardscape areas provided that the surrounding areas are lushly landscaped. The following elements may be included:</p> <ul style="list-style-type: none"> a Scenic footpaths within the garden area; b Seating; c BBQ pits; d Events plazas; e Water features; f Playgrounds; g Recreational facilities e.g. tennis courts and swimming pools, etc.
7	Areas to be excluded from Landscape Replacement Areas	<p>The following areas will not be considered as part of the required LRAs:</p> <ul style="list-style-type: none"> a All service facilities, e.g. vehicular drop-offs and drive ways, vehicular ramps, surface car parks, top of M&E or lift core, and BMU tracks, etc; b Outdoor Refreshment Areas (ORAs); c Key circulation for the building, e.g. access stairs, ramps, and covered walkway, etc.
8	Exemption	<p>The URA will exercise flexibility on the above requirements when evaluating individual developments affected by specific constraints (e.g. developments with conserved buildings, party wall developments, developments subject to specific urban design requirements and developments with storey height constraint of four-storeys and below).</p>
9	Maintenance	<p>Building owners should retain the required LRAs, which will form part of the common property for strata subdivided developments. Consideration should be given to the choice of plant species, relative to the level of sunlight and maintenance required. Irrigation and maintenance systems should be well designed to ensure the safety of the maintenance personnel.</p>

NO.	PARAMETER	DETAILS
10	Alterations to the required Landscape Replacement Areas	<p>URA's approval is required if there are changes to the softscape areas (e.g. planting and structure of the planting beds) and hardscape areas that result in an overall reduction in area for the <u>required</u> LRAs.</p> <p>URA's approval is not required for changes to the planting species as long as the softscape requirements are complied with.</p>