

## 摘要

都市公園是都市環境中自然資源較為豐富的開放空間，公園具有調節都市景觀、生態保育、休閒遊憩、景觀美質、避難防災等各項機能，對都市環境來說，是相當重要的綠化空間。

依「停車場法」、「都市計畫公共設施用地多目標使用方案」等法令規定，都市計畫停車場不足時，公園准予興建地下停車場，因此，許多舊市區或發展飽和地區為解決都市停車空間不足問題，而有利用公園用地增建地下停車場的趨勢，在公園中建立地下停車場雖有用地取得容易的優點，但對公園而言，其既有機能、使用行為與管理維護均可能造成負面影響，如何兼顧公園綠化與停車機能，並確實了解增建地下停車場對地上植栽生長之影響成為重要課題。

本研究藉由文獻回顧瞭解公園增設地下停車場之相關法令、政府政策演變、人工地盤綠化、木本植物根系特色以及台北市公園闢建地下停車場趨勢。藉由案例公園與對照公園之喬木樹高、樹冠與米高徑量測結果進行統計分析，證明公園增設地下停車場對多數樹種確實造成明顯影響，惟仍有鳳凰木及樟樹並不明顯，推測是因為兩者生理習性與適應力的特性能克服地下停車場上方的立地條件，因此建議除了覆土深度外，覆土品質也應加入法令規範內，以保障公園之機能。

關鍵詞：公園增設地下停車場、人工地盤、米高徑

## Abstract

Urban parks are open space that has rich nature resources in the city. An urban park is functioned for its regulation of city environment, ecological conservation, leisure tourism, scenic beauty, social culture, and refuge and protection against natural calamities. It is one of important green space in the urban environment.

A park is allowed to have an underground parking structure when parking space around the park is insufficient. Construction of the underground parking has to be in accordance with the laws including parking law and regulation titled "Multi objective Use of Urban Public Facilities ". Consequently, it has become a tendency to construct underground parking whenever parking space is not enough. Although it is fairly easy to construct an underground parking structure, the underground park will limit the park in its function, planning and design, behavior, and administration and maintenance. However, currently there is no clear regulation and law to manage these underground parking in parks. Therefore, environmental quality of park, the index of greenery, the performance of soil water retention associated with the parking has become an important issue.

This study reviews the literatures of urban parks with underground parking, associated laws and policies, greening of artificial ground, woody plant root types, and the trend of current urban parks in Taipei that have underground parking. With statistical analysis of tree height and tree crown, and diameter at one-meter height measurements for case parks and control parks, the study proves that parks with an additional underground parking have a significant effect on most trees, with the exception of *Delonix regia* (Boj.) Raf.; *Poinciana regia* Bojer and *Cinnamomum camphora* (L.) Ness & Eberm. It is likely that the habits and physiological characteristics of these two trees allow them to adapt well the conditions of the park with an underground parking. Therefore proposed that apart from the depth of soil covering, the soil covering the quality of legal regulations should also be joined in order to protect parks function.

**Keyword:** Urban Parks with Underground Parking Structure , Artificial Ground ,  
Diameter at one-meter height