

범죄예방 환경설계 매뉴얼 개발 방안 연구
A Study on the Development of the CPTED
(Crime Prevention Through Environmental Design) Manual

유광흠 Yu, Kwang Heum
조영진 Cho, Young Jin

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Crime that target socially disadvantaged people has been significantly increased in recent years, causing a serious social problem. The crime lowers the quality of life by causing the psychological anxiety and damages to the private property. Also, it directly affects regional decline by expending social and economic costs.

Such urban crime affected by factors of the environmental surroundings shows distinct temporal and spatial patterns. Therefore, it is necessary to establish fundamental anti-crime measures which concerned architecture and urban environmental design to prevent crime in advance. Urban space and facilities applied crime prevention strategy through environmental design are expected to reduce crime opportunities and improve the quality of life of residents by relieving the anxiety.

In Korea, the noticeable step towards setting up a CPTED plan was the CPTED plan of The National Police Agency(NPA). After this step, national and local government such as Ministry of Land, Infrastructure and Transport(MLIT) and Seoul Metropolitan City have established CPTED guidelines and have been implemented pilot projects. However, most of these CPTED guidelines are based on abstract concept which is difficult to understand and practically apply in real situation. Consequently, necessity of developing practical manual has been raised which can be used efficiently

according to various types of urban environment.

Researches and CPTED-related legislations have been increased since 2000 as the awareness of the quality of life had raised. Today, researches are closely related to the various fields such as urban planning and design. Research topics can be divided into three; a research on crime indicators, a research on residential standards, a research on development of CPTED policy and system. CPTED-related laws and legislations can be differently classified after 2010 when NPA required MLIT to revise legislations. While prior CPTED legislations provided fragmentary part of CPTED principles, the revised provisions took comprehensive consideration of CPTED.

These advanced researches, legislations and existing guidelines were analyzed and reviewed as a method to create a standard for development of a practical manual. As a result of the analysis, there are CPTED application indicators; 6 CPTED design elements, 8 architectural and urban planning elements, 48 CPTED application elements.

		Planning element							
		Building	Road	Land scape	Guida nce facility	Lighting	Public facility	Arrange ment	Parking
6 design elements	Surveil lance	Build ing · Surveil lance	Road · Surveil lance	Lands cape · Surveil lance	Guida nce facility · Surveil lance	Lighting · Surveil lance	Public facility · Surveil lance	Arrange ment · Surveil lance	Parking · Surveil lance
	Territori ality	Build ing · Territo riality	Road · Territo riality	Lands cape · Territo riality	Guida nce facility · Territo riality	Lighting · Territo riality	Public facility · Territo riality	Arrange ment · Territo riality	Parking · Territo riality
	Access control	Build ing · Access control	Road · Access control	Lands cape · Access control	Guida nce facility · Access control	Lighting · Access control	Public facility · Access control	Arrange ment · Access control	Parking · Access control

	Target hardening	Building · Target hardening	Road · Target hardening	Landscape · Target hardening	Guidance facility · Target hardening	Lighting · Target hardening	Public facility · Target hardening	Arrangement · Target hardening	Parking · Target hardening
	Activity support	Building · Activity support	Road · Activity support	Landscape · Activity support	Guidance · Activity support	Lighting · Activity support	Public facility · Activity support	Arrangement · Activity support	Parking · Activity support
	Maintenance	Building · Maintenance	Road · Maintenance	Landscape · Maintenance	Guidance · Maintenance	Lighting · Maintenance	Public facility · Maintenance	Arrangement · Maintenance	Parking · Maintenance

CPTED application elements

4 different guidelines from MLIT, NPA, Seoul Metropolitan City and Land & Housing corporation are analyzed with these 48 elements. The comprehensive analysis results are as follows.

Analyzing importance of 6 CPTED design elements of 4 guidelines, ‘Surveillance>Access control>Territoriality>Activity support>Target hardening>Maintenance’ is found as a result. In particular, all of the guidelines show Surveillance factor with a highest rate, 50% or more.

Analyzing importance of 8 planning elements of 4 guidelines, ‘Building>Public facility>Lighting>Landscape>Use and arrangement=Parking>Road >Guidance facility’ is found as a result. Building factor is occupied the largest percentage in all guidelines.

Analyzing importance of 48 CPTED application elements of 4 guidelines, ‘Lighting·Surveillance>Building·Surveillance>Building·Access control’ is founded as the top 3 crucial elements. all of the guidelines show Lighting·Surveillance and Building·Surveillance factors with a highest rate.

In this research, 6 CPTED design elements, 8 planning elements and 48 CPTED application elements show which element should be emphasized depending on architecture and urban space conditions, and the

how to produce the practical manual. Therefore, in consideration of this results, this research proposes the manual should be designed reflecting these CPTED application elements to promote practical use with understandable structure for hands-on worker.

Keywords : CPTED, CPTED manual, CPTED design elements, architectural and urban planning elements, CPTED application elements