DOCUMENT RESUME

ED 199 853 EA 013 354

TITLE	Core Curriculum in Preventing and Reducing School Violence and Vandalism. Course 6: Environment. Participant Guide and Reference Notebook.
INSTITUTION	Center for Human Services, Washington, D.C.; National School Resource Network, Washington, D.C.
SPONS AGENCY	Department of Justice, Washington, D.C. Office of Juvenile Justice and Delinquency Prevention.
PUB DATE	Jan 80
GRANT	OJJDP-79JS-AX-0019
NOTE	55p.; For related documents, see EA 013 348-355.
AVAILABLE FROM	National School Resource Network, 5530 Wisconsin Ave., NW, Washington, DC 20015 (free).
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Check Lists; *Core Curriculum; Educational Facilities Design; Educational Facilities Improvement; Elementary Secondary Education; *Environmental Influences; Information Sources; *Learning Modules; Physical Environment; *Prevention; *School Vandalism; *Violence; Worksheets; Workshops

ABSTRACT

This guide, intended for participants in the sixth course of the National School Resource Network Core Curriculum, contains an activity/content summary for each module of the course, worksheets, and background materials. The purpose of this course is to increase awareness of comparatively low-cost approaches to crime prevention through environmental design. A full range of physical design strategies that can be implemented in schools is presented. Many of the strategies can be applied by school personnel and students. An assessment checklist can be used by school personnel to identify environmental problems. (Author/MLF)

National School
Resource Network

Core Curriculum in Preventing and Reducing School Violence and Vandalism

Course 6

Environment

Participant Guide and Reference Notebook

January 1980

Prepared by
Center for Human Services
Washington, D.C.

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Prepared under Grant No. 79JS-AX-0019 from the Office of Juvenile Justice and Delinquency Prevention, Law Enforcement Assistance Administration, U.S. Department of Justice.

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Course 6

ENVIRONMENT

ABOUT THE CORE CURRICULUM ON PREVENTING/REDUCING SCHOOL VIOLENCE AND VANDALISM

THE NATIONAL SCHOOL RESOURCE NETWORK APPROACH

The National School Resource Network (NSRN) was established under a grant from the Law Enforcement Assistance Administration, Office of Juvenile Justice and Delinquency Prevention, as a resource to schools troubled by crime, violence, vandalism and disruption. The network provides nationwide training events, technical assistance, and information dissemination to assist schools in preventing and reducing these problems. The focus of all Network activities is on the collection, sharing, and dissemination of resources--most particularly the ideas and strategies that schools and communities have tried.

A National Center, managed by the Center for Human Services and based in Washington, D.C., and Regional Centers in Boston, Massachusetts; Atlanta, Georgia; Chicago, Illinois; and San Rafael, California, will carry out the mandates for the Network. Also participating in the Network are 34 national organizations which form an active consortium to enhance service and delivery efforts.

THE CORE CURRICULUM

The Core Curriculum includes seven courses designed for delivery either in a comprehensive 5-day workshop incorporating all the courses or in separate special presentations. The seven courses are as follows:

Course 1: Putting It All Together and Taking It Home

This course provides an overview of a planning and evaluation process that participants can apply in implementing ideas and strategies in their own schools and communities. The course also allows participants the opportunity to reflect on workshop content and select from among the ideas and strategies presented those which best meet their schools' needs.

Course 2: Discipline

This course covers a range of issues and practices surrounding the development and implementation of an effective school discipline program. The focus will be on clarifying reasons for discipline, building conceptual frameworks for understanding behavior problems, describing policy considerations, and providing specific examples of programs and strategies.

Course 3: School Climate

The purpose of the course is to introduce a conceptual overview "school climate" with the goal of effecting positive change. The of improving school climate without administrative or community act first defines school climate, and then discusses ways to assess and These include formal and informal assessment, improvement of in erpe tions, stress reduction and management, student involvement in inge related education as a relevant curriculum approach.

Course 4: Interpersonal Relations

The goal of the course is to introduce approaches and resources to identify, manage, reduce, resolve and prevent crisis and conflict in schools. There is an underlying assumption that hostile incidents and disruptive behavior are expressions of deep hurt, frustration, confusion, anger and misunderstanding. Specific attention will be given to crisis and conflict intervention and management, gang problems, problems of victims, and intercultural relations.

Course 5: Security

This course is designed to address a full range of preventive measures used to improve the security of the school both during and after school hours. It will provide a variety of alternative approaches to school security which will enhance schools' ability to improve the safety and security of the people and property. Special attention will be given to an overview of security problems, use of non-security staff to prevent problems, physical plant security, and design and upgrading of security programs.

Course 6: Environment

The course on environment provides guidance to school staff on ways to change school environments and make them safer. A full range of physical design strategies that can be implemented in schools is presented. Many of the strategies can be applied by school personnel and students. An assessment checklist will allow school personnel to identify environmental problems.

Course 7: The Community as a Problem Solving Resource

Community involvement in the school can help the schools greatly in solving problems of violence and vandalism. In this course a rationale for community involvement is presented, along with specific approaches for increasing school-community linkage. Use of parents and volunteers, the criminal justice community, and community agencies, businesses, and organizations are stressed. Interagency cooperation is also discussed.

About the Course

Course 6 - Environment

Background and Rationale

This course extends the concepts and strategies presented in Course 5, Module 5.3, Physical Plant Security. However, the theme of the strategies presented here is that it is possible to design or redesign schools to reduce the need for security devices or the use of electronic surveillance equipment or security personnel. The idea is that indoor and outdoor spaces can be designed so that they are less vulnerable to vandalism, do not provide opportunities for crime, and do not support fear of crime. Security conscious design can reduce the costs and hardships associated with violence and property damage, and costs related to plant maintenance and security systems. At the same time such design can enhance the school's overall climate.

Purpose

The purpose of the course is to increase awareness of comparatively low-cost approaches to crime prevention through environmental design. The unit is based on a recognized need to implement physical design change in schools with serious crime and vandalism problems but with little money to do so.

The three modules address issues and strategies from different perspectives. Module 6.1 presents design concepts through an introductory slide show. A process for school design assessment is presented in Module 6.2. Module 6.3 presents an advanced treatment of rationales and approaches for changing physical design features within the context of specific problem settings.

Course Agenda by Module

Course 6 - Environment

Module 6.1 - Designing Safe School Environments

Total Time 20 minutes

Module Summary

A slide show presentation on "Designing Safe School Environments" is the focus of this module. The vital role that environmental design has in creating a positive school climate and in improving school security is also discussed.

Activity/Content Summary	Time
1. Introduction to the Course	5 min.
A. Purpose of the Course This course explores the relationship between physical design characteristics, school security, and a positive school climate. Our focus will be to implement marginal changes in already-built schools to make them safer, rather than a total redesign of the school environment.	
B. Interconnection of Climate, Security, and Environment Climate and security go hand in hand. Unsafe schools are also places that tend to be dull, gray, confining, and unyielding to human needs. An explosive situation exists when school people feel alienated, and the physical environment can contribute to that alienation.	
2. Slide Show Presentation, "Designing Safe School Environments"	10 min.
3. Conclusion Background materials offer more information on environmental strategies and approaches.	5 min.

About the Module

Course 6 - Environment

Module 6.1 - Designing Safe School Environments

Objectives

Participants will be able to--

1. Identify three environmental design strategies that prevent crime and vandalism and reduce fear of crime

2. List specific tactics that could be applied in their own schools.

Description of Materials

Audiovisual

6.1.1 Slide Show, "Designing Safe School Environments"

Background Materials

6.1.1 Professionals Who May Assist
6.1.2 Some Things Think About
6.1.3 An Environmental Design Example: Girls' Bathroom Mural

Course 6 - Environment

Module 6.1 - Designing Safe School Environments

Background I-D 6.1.1.

Background Materials

Professionals Who May Assist

in Modernizing a Facility for Health and Vitality and for Reducing Violence, Vandalism, and Crime

Acoustical Design Engineers
Audiovisual Design Engineers
Behavioral Scientists
Building Systems Designers
Community and Press Relations Specialists
Ecological Advisors
Electronic Data Processing Hardware Specialists and Programmers
Facilities Use Trainers and Managers
Financial Planners
Food Service Planners
Graphic Designers
Health Care Planners
Information Management Specialists
Installation Supervisors
Interior Designers, Landscape Planners
Laboratory Planning Engineers
Lighting Designers
Management Consultants
Project Planners and Directors
Safety Engineers
Site Planners
Technical Equipment Specification Experts
Urban Planners
Vocational Planning Specialists

Propst, Robert. High School: The Process and the Place. Ruth Weinstock, ed. A Report from Educational Facilities Laboratories, August 1975, p. 107. Adapted by Jean Chen, August 1979.

Course 6 - Environment

Module 6.1 - Designing Safe School Environments

Background I-D 6.1.2

Background Materials

Some Things to Think About

Think about the various physical environments within your school. Do you have places which can accommodate various groups and activities or might you be able to modernize an underused area to stimulate new activities, channel the flow of traffic, and provide a sense of territorial identification? Think about ways in which you might alter your built environment in order to reduce and prevent violence, vandalism and crime and to make your school a safer place for students, teachers, and the community.

1. If class sizes are large, are there carrels, seminar rooms, study lounges, partitions or miniareas where some students may work, thereby allowing the teacher to work with a smaller number of students?

2. Does the environment maintain a rigid time schedule by giving a message to students and teachers, "Get out at the end of the day"? Students, teachers, and community members who are involved in school-based activities round the clock will serve to protect the environment. The environment may be modified to accommodate small groups after school hour activities.

3. Do students feel they have places of their own? Have they been encouraged to design their own display areas, social interaction areas, classrooms, cafeterias, restrooms, and courtyards? Territorial reinforcement will result in protection for the school environment.

4. Are teachers and students able to see from their classrooms out to hallways? This natural surveillance of the corridors will result in another type of protection for students, their lockers and the environment.

5. Have there been projects involving community/parents lately in modernizing and improving school grounds, spaces, and activities?

6. Have you asked students about the specific areas in the school which they avoid; where they are afraid they'll be harrassed; and what might be done to protect them in these areas?

7. What specific ways may students be allowed to personalize their spaces in and outside of the school? Would the enlisting of an architect/designer to work with students and teachers help to produce some projects which would improve the environment as well as enrich the students' curriculum?

8. Do your students feel they have one of the better schools around or do they feel that theirs is inferior to other schools in the vicinity? Pride in one's school will result in more protection than a situation where students think that the facility in which they learn isn't worth protecting.

9. Are there places in the school where students may put their feet up, argue loudly or listen to loud music, as well as spaces where they might have visual and auditory privacy to meet a stranger and make a new friend?

10. Have you invited parents and community members in to take a fresh look at the existing facility and to suggest things that might be changed? Invite some neighboring group of teachers over to exchange ideas on facilities built for diverse and educational purposes.

Course 6 - Environment

Module 6.1 - Designing Safe School Environments

Background I-D 6.1.3

Background Materials

An Environmental Design Example

A Tale Describing the Modification of the Physical Environment and Its Result

GIRLS' BATHROOM MURAL

Initiation of Project:

In November, I overheard Sheila and Nutricia, two third graders, arguing over who could claim credit for which scatalogical scrawl on a closet in the girls' bathroom. The girls, who had been frequent visitors at my free time center, were quite willing to show me their work and to try to erase it. I said that some people paint on walls to make places more pleasant, that if they wanted to try to make the bathroom more attractive, I could help them paint a mural on the closet doors. I checked with the principal and he gave his permission.

Process:

We met at our mutual convenience for half hours after school. First we looked at pictures, then we measured the cabinet and made a scale drawing. Nutricia's younger sister Kendra joined the project and came up with the drawing that the girls liked best. It showed two girls jumping rope under a cherry tree. We painted it during a week in early January.

Results:

Soon after the work was completed, I arrived at school one day and was stopped numerous times in the halls by second graders who told me, "Kendra took Nicole to the principal's office!" in awed voices. It transpired that Kendra had discovered one of her classmates scratching at the paint and, outraged, had hauled her off promptly to Mr. Akery. No one has defaced the mural since that time.

Comments:

The girls all enjoyed the painting process and are proud of the results, but seem to regard the undertaking as one of my more bizarre ideas. Occasionally they say fondly, "Remember when we did that painting...."

Contributed by the AIS/Artists-in-Schools, Architects-in-Schools Program, Educational Futures, Inc., Philadelphia, Pennsylvania.

Course Agenda by Module

Course 6 - Environment

Module 6.2 - Assessing Environmental Design

Total Time 1 hour

Module Summary

A presentation on the benefits of environmental design assessment is supplemented by small group work on a design problem. A "Design Accountability Checklist" provides the basis for small group work and back-home assessment.

Activity/Content Summary	Time
1. Introduction and Review of Concepts	10 min.
A. Preliminary Comments	
B. Review of Basic Concepts	
Environmental design strategies concerning access control, natural surveillance, and territorial reinforcement are reviewed briefly, and additional resource materials are suggested.	
2. Presentation of Assessment Checklist	5 min.
A. Overview of Design Accountability Checklist Topics	
Use of Worksheet 6.2.1, "Design Accountability Checklist" is explained.	
B. Example of Use of Checklist for Assessing Corridors	
An illustration of use is drawn from Section 3-1, "Corridors," in Worksheet 6.2.1.	
3. Introduction to Design Problem	5 min.
A. Explanation of Activity	
A description is given of the drawing of school building and grounds that everyone will work on.	
B. Example of How to Proceed	
Group analyzes graphic display in terms of checklist section 1-1, "Parking Lots," (Worksheet 6.2.1).	

Activity/Content Summary	Time
4. Small Group Activity: Design Problems Participants divide into groups consisting of 4 to 8 persons. Trainer distributes Handout 6.2.1, which reproduces the graphic display. Group selects group leaders and recorders. Trainer selects subsections within worksheet that each group will begin with so that each group addresses a different set of design issues.	25 min.
5. Reporting Out of Small Group Solutions Participants reconvene and display design solutions. Group leaders briefly review design decisions/recommendations of the groups. Discussion follows.	10 min.
6. Conclusion Applications of the Design Accountability Checklist are discussed; background resources are introduced.	5 min.

About the Module

Course 6 - Environment

Module 6.2 - Assessing Environmental Design

Objectives

Participants will be able to--

1. Identify design features that provide opportunities for crime and vandalism as a result of inadequate access control, natural surveillance, or territorial reinforcement
2. List a large number of access control strategies for a specific "problem" environment
3. List a large number of natural surveillance strategies for a specific "problem" environment
4. List a large number of territorial reinforcement strategies for a specific "problem" environment
5. Apply an assessment methodology to their back-home problems.

Description of Materials

Transparencies

6.2.1 - 6.2.4 Transparencies review basic concepts referenced in the minilecture.

Graphic Display

Outdoor view of school for trainer-led demonstration of procedures.

Handout

6.2.1 Graphic Display

Participant Worksheet

6.2.1 Design Accountability Checklist

Background Materials

6.2.1 Basic Concepts

Resource Materials

R.6.2.2	Parking Lots
R.6.2.3	Bus Loading Zones
R.6.2.4	Social Gathering Areas
R.6.2.5	Informal Play Areas
R.6.2.6	Walkways and Landscaping
R.6.2.7	Exterior Lighting
R.6.2.8	Structure
R.6.2.9	Entrances
R.6.2.10	Corridors and Stairwells
R.6.2.11	Classrooms
R.6.2.12	Physical Education Locker Rooms

These materials explain and illustrate how environmental modifications that promote school security can be used in these areas of a school.

Course 6 - Environment

Module 6.2 - Assessing Environmental Design

Worksheet I-D 6.2.1

Participant Worksheet

DESIGN CHECKLIST FOR ASSESSING SCHOOL ENVIRONMENTS

1. Outdoors

   1.1 Parking Lots
   1.2 Bus Loading Zones
   1.3 Gathering Areas
   1.4 Play Areas
   1.5 Walkways and Landscaping

2. Structural Characteristics

   2.1 Entrances
   2.2 Windows
   2.3 Walls
   2.4 Rooftops
   2.5 Fixtures

3. Indoors

   3.1 Corridors
   3.2 Stairwells
   3.3 Gathering
   3.4 Walls, Ceilings, and Floors
   3.5 Fixtures
   3.6 Assembly

Adapted by Imre Kohn from Stopping School Property Damage, by John Zeisel. Publication is available through the American Association of School Administrators, 1801 North Moore Street, Arlington, Virginia 22209.

About the Checklist

This design accountability checklist is a modified, expanded version of a checklist developed by John Ziesel in "Stopping School Property Damage." Also included are additional design issues which came to light during the Crime Prevention Through Environmental Design Project in Broward County, Fla.

Using the Checklist

The checklist has 16 sections in 3 major categories. Each section is subdivided into general questions followed by specific statements requiring response. For example, the general question--

> What has been done to prevent or reduce congestion or blind spots in the corridors?

is followed by specific statements such as--

> There are no lockers that stick out into the corridor.

YES	NO	DK	NA
( )	( )	( )	( )

"DK" stands for "don't know" and "NA" stands for "not applicable".

This checklist is intended to help you systematically evaluate design features in your school so that you can create appropriate design solutions. It will be of special value to you during a site walk-through, because the checklist will suggest what design features you should look for--and plan for--as you search for realistic solutions based on actual conditions in your school.

1. Outdoor Areas

1.1 Parking Lots

What provisions have been made to increase the security in and around parking lots?

	YES	NO	DK	NA
Illegitimate users cannot use the parking lot without being detected.	( )	( )	( )	( )
Only essential access points to public thoroughfares are provided.	( )	( )	( )	( )
The lot is close to the school building.	( )	( )	( )	( )
The lot is bordered by a low barrier, such as curbing, hedges, or some other "symbolic" barrier.	( )	( )	( )	( )
The lot is bordered by a wall, chain link fence, or some other "real" barrier.	( )	( )	( )	( )
The lot is overlooked by many windows.	( )	( )	( )	( )
Access points have gates.	( )	( )	( )	( )
Cars can be routed through internal spaces near school buildings to increase surveillance potential.	( )	( )	( )	( )
Cars are prevented from taking shortcuts with curbing, low hedges, chains.	( )	( )	( )	( )
The lot can be moved to (exchanged for) another outdoor space that requires less protection.	( )	( )	( )	( )

What have you done to increase the security for bicycle parking?

Bicycle parking is close to buildings.	( )	( )	( )	( )
Bicycle parking is overlooked by windows.	( )	( )	( )	( )
Bicycle parking is fenced with gates.	( )	( )	( )	( )

1.2 Bus Loading Zones

What provisions have been made to increase the security of bus loading zones?

	YES	NO	DK	NA
The number of buses parked in the zone is small.	( )	( )	( )	( )
The zone does not interfere with pedestrian traffic to school entries.	( )	( )	( )	( )
The zone does not interfere with vehicle traffic.	( )	( )	( )	( )
The line of buses does not create a visual obstacle to areas where crime may occur.	( )	( )	( )	( )
The bus zone is visible from school offices or other interior areas.	( )	( )	( )	( )
The bus loading zone is located near an entrance.	( )	( )	( )	( )
There are waiting areas near the bus loading zone.	( )	( )	( )	( )
There are durable benches in the waiting area.	( )	( )	( )	( )
There are no fixtures or hardware items in the bus waiting area.	( )	( )	( )	( )
School entry areas are planned as hangout areas with limited hardware, glass, and fixtures.	( )	( )	( )	( )

1.3 Gathering Areas

What provisions have been made for formal gathering areas and the security of these areas?

There are specific formal areas, such as mini-plazas, patios, or courtyards.	( )	( )	( )	( )
The formal areas provide natural surveillance for other outdoor areas, such as an entrance to the school, a parking area, or playgrounds.	( )	( )	( )	( )

	YES	NO	DK	NA
Activities in the formal gathering area can be easily overseen.	( )	( )	( )	( )
The formal gathering area cannot be easily preempted by nonschool people.	( )	( )	( )	( )

What provision has been made to minimize damage when students sit on--hangout on--convenient walls, steps, planters, ledges, and near play areas, pickup play places, entries, and pathways? What has been done to minimize damage in areas around schools which students use after hours as clubhouses--partially hidden places adjacent to buildings which are large enough for small groups?

There are no fixtures in or near hangout areas.	( )	( )	( )	( )
All fixtures in hangout areas have tamperproof screws.	( )	( )	( )	( )
All hardware and fixtures in hangout areas are extra durable.	( )	( )	( )	( )
There are no windows in or nearby hangout areas.	( )	( )	( )	( )
Windows in hangout areas are specially protected.	( )	( )	( )	( )
Planting in hangout areas is flexible, resilient, and grows quickly.	( )	( )	( )	( )
There is no stiff, breakable planting in hangout areas.	( )	( )	( )	( )
Wall surfaces are extra durable.	( )	( )	( )	( )
Walls can be easily cleaned.	( )	( )	( )	( )
Walls can be painted.	( )	( )	( )	( )
There are benches, steps, or ledges for sitting in hangout areas.	( )	( )	( )	( )
All probable sitting places in hangout areas are far from breakable windows and fixtures.	( )	( )	( )	( )

	YES	NO	DK	NA
Low walls, ledges, and steps in hangout areas are made of extra durable material.	( )	( )	( )	( )
There are heavy-duty trash containers in hangout areas.	( )	( )	( )	( )
Trash containers in hangout areas are designed and located to act as targets for litter.	( )	( )	( )	( )
There are no planters in hangout areas which can be used as trash baskets.	( )	( )	( )	( )
Replacements for small units of the building materials used in hangout areas, like bricks, or panels, can be easily stored.	( )	( )	( )	( )
There are no modular wall panels.	( )	( )	( )	( )

What has been done to eliminate or minimize damage in small niches created by recessed doorways, loading docks, fire stairs? If use of particular spaces or niches is undesirable, what has been done to discourage such use?

All niches around buildings are essential for purposes of safety when doors are open.	( )	( )	( )	( )
There are no nonessential niches.	( )	( )	( )	( )
There are no fixtures in niches.	( )	( )	( )	( )
There is no reachable hardware in niches.	( )	( )	( )	( )
Doors in niches are glass-free.	( )	( )	( )	( )
There is no exterior door hardware on doors in niches.	( )	( )	( )	( )
Spaces not desired for use as niches have been blocked off with barriers.	( )	( )	( )	( )
Spaces not desired for use as niches have been made less comfotable by using plants that prick or rough-surfaced materials.	( )	( )	( )	( )

1.4 Play Areas

What has been done to minimize breakage of objects around playgrounds and basketball courts?

	YES	NO	DK	NA
There is sufficient space around formal play areas for normal play.	( )	( )	( )	( )
Ground surfaces in and around formal play areas have no major irregularities or other hindrances to play.	( )	( )	( )	( )
Wall surfaces around formal play areas can be used to bounce balls back to players.	( )	( )	( )	( )
Low lighting fixtures and other hardware are out of the way of ball playing.	( )	( )	( )	( )
Lines on walls and on the ground accommodate local street games.	( )	( )	( )	( )
There is a buffer between formal play areas and the school building.	( )	( )	( )	( )
There are no windows or glass doors around formal play areas.	( )	( )	( )	( )
Glass around formal play areas is specially protected.	( )	( )	( )	( )
There is no damageable planting immediately adjacent to formal play areas.	( )	( )	( )	( )

What have you done to be sure that playground equipment can withstand the especially rough treatment it receives?

Playground equipment needs special tools to be disassembled.	( )	( )	( )	( )
Official play equipment can accommodate extra rough play by groups sometimes older than those for whom equipment is officially specified.	( )	( )	( )	( )

What has been done to be sure that objects will not be broken around pickup play areas--for example, an entryway or a pathway near a building with a hard ground surface, a wall, and enough room to throw or hit a ball?

	YES	NO	DK	NA
There are consciously designed areas for pickup play.	( )	( )	( )	( )
There is no low lighting or other fixtures that can be hit by balls in pickup play areas.	( )	( )	( )	( )
Walls and ground surfaces in pickup play areas are the same as in formal play areas.	( )	( )	( )	( )
There are no windows in pickup play areas.	( )	( )	( )	( )
Any windows near pickup play areas are protected from balls and sticks.	( )	( )	( )	( )

What provisions have been made to accommodate informal pickup play in parking lots?

What have you done to be sure that there will be no damage to grass and other soft materials next to formal parking areas caused by extra cars and cars turning around?

	YES	NO	DK	NA
Parking lots are planned to accommodate pickup play games.	( )	( )	( )	( )
There are fences in selected spots around the parking lot to protect nearby windows.	( )	( )	( )	( )
Parking lots are big enough for both partial parking and pickup play.	( )	( )	( )	( )

What has been done to predict, avoid, or accommodate legitimate graffiti, for example, the lines students paint on walls so they are able to play informal pickup games?

	YES	NO	DK	NA
Some walls in pickup play areas, such as parking lots, formal playgrounds, and entryways, have been planned to accommodate legitimate graffiti in the form of game lines.	( )	( )	( )	( )

	YES	NO	DK	NA
Students have been consulted to determine needed pickup game lines.	( )	( )	( )	( )
Game lines for local pickup play games, like street hockey and stickball, have been painted on walls.	( )	( )	( )	( )
Stencils have been prepared so that local street groups can apply their own pickup game lines to walls where they are appropriate.	( )	( )	( )	( )

1.5 Walkways and Landscaping

What has been done to minimize trampling of grass adjacent to paved pathways and along natural shortcuts?

Paved pathways are located so that they provide the shortest walk between the two points they connect.	( )	( )	( )	( )
Natural shortcut paths have been predicted.	( )	( )	( )	( )
There are subtle barriers between hard paved pathways and adjacent soft grass or dirt areas.	( )	( )	( )	( )
There is no grass or other soft material immediately adjacent to narrow pathways.	( )	( )	( )	( )

What has been done to minimize damage to shrubs, bushes, and trees?

Near active areas, all planting is flexible and resilient.	( )	( )	( )	( )
There is no thick planting which will be difficult to clean around.	( )	( )	( )	( )
There is no climbable planting near edges of buildings.	( )	( )	( )	( )

2. Structural Characteristics

2.1 Entrances

What has been done so that people can see from a distance that the school is closed when it is closed--but open when it is open?

	YES	NO	DK	NA
There are large sliding grills or garage-type doors to cover transparent doorways in the main entrance which are visible from a distance when school is closed.	( )	( )	( )	( )
Deep recesses at entries are inaccessible when school is closed.	( )	( )	( )	( )
The entryway looks open when it is open--but closed when school is closed.	( )	( )	( )	( )
There are no blind spots near entrances.	( )	( )	( )	( )

What has been done to minimize unnecessary damage to exterior door hardware, especially potential problems caused by highly visible and easily accessible panic hardware?

All doors that are primarily exit doors have no locks or door handles.	( )	( )	( )	( )
Where there is a series of connected doors, only one of these doors has exterior door hardware.	( )	( )	( )	( )
There are astragals on all single doors.	( )	( )	( )	( )
Double doors are extra-duty strength.	( )	( )	( )	( )
Double doors have astragals.	( )	( )	( )	( )
Double doors have sturdy center mullions.	( )	( )	( )	( )
Panic hardware requires a minimum amount of mechanical movement.	( )	( )	( )	( )
Panic hardware is easily repaired.	( )	( )	( )	( )

2.2 Windows

What has been done to increase natural surveillance?

	YES	NO	DK	NA
Classroom windows provide easy and convenient visual access to the outdoors for teachers and students.	( )	( )	( )	( )
Office windows provide easy and convenient visual access.	( )	( )	( )	( )
There are no clouded (translucent) window-panes.	( )	( )	( )	( )
Windows are not too small or too narrow to see out of.	( )	( )	( )	( )
Windows are not too high in the room to see out of.	( )	( )	( )	( )
There are interior windows providing surveillance between corridors and classrooms.	( )	( )	( )	( )

What has been done to minimize potential damage to vulnerable windows?

There are no windows in formal play areas.	( )	( )	( )	( )
In vulnerable areas windows are made of several small panes - rather than one large one.	( )	( )	( )	( )
There are no windows less than 3 feet from the ground.	( )	( )	( )	( )
There is no acrylic or plexiglass in windows in hangout places.	( )	( )	( )	( )
Ground-floor windows are made of extra-thick tempered glass.	( )	( )	( )	( )
Ground-floor windows are made of thick acrylic or plexiglass.	( )	( )	( )	( )

	YES	NO	DK	NA
Ground-floor windows are covered with protective screens.	( )	( )	( )	( )
Windows adjacent to interior hangout areas on upper floors, as well as on ground floors are especially durable.	( )	( )	( )	( )
There is extra-thick tempered glass or double-layered glass where acrylic or plexiglass is not advisable.	( )	( )	( )	( )
There are no windows in student stores.	( )	( )	( )	( )
There are no windows in administration storage offices.	( )	( )	( )	( )
There are no windows in industrial arts storage areas.	( )	( )	( )	( )
There are thin wire mesh screens over specially vulnerable ground-floor windows.	( )	( )	( )	( )

2.3 Walls

What has been done to minimize the possibility of damage to exterior walls and to fixtures and signs attached to exterior walls?

Large expanses of easily marred wall space are composed of small, easily replaced sections.	( )	( )	( )	( )
Wall surface materials in vulnerable areas are inexpensively and easily repaired.	( )	( )	( )	( )
Paint on walls is the same color as the material underneath.	( )	( )	( )	( )
Epoxy paint, glazed tile, or other highly durable, easily cleaned material is used as high as students can reach in high-damage areas.	( )	( )	( )	( )
Quick drying paint is used in high-damage areas.	( )	( )	( )	( )

What have you done to plan for expressive and decorative graffiti and to minimize the negative consequence of such forms of self-expression?

	YES	NO	DK	NA
There are some walls for possible graffiti, lighter in color than other walls and with blocked-out sections, in hangout areas, and entryways.	( )	( )	( )	( )
There are some formally labeled graffiti boards in high-use public areas.	( )	( )	( )	( )
There are designated informal graffiti walls which have easily and inexpensively cleaned or painted surfaces.	( )	( )	( )	( )
Walls on which graffiti is to be discouraged have inexpensively and easily cleaned or painted surfaces.	( )	( )	( )	( )
Informal and formal graffiti walls have surfaces on which sections can be selectively cleaned.	( )	( )	( )	( )

2.4 Rooftops

What has been done to be sure that rooftops accessible from the ground are able to withstand rough play?

What has been done to be sure that people cannot climb onto vulnerable rooftops from the ground or from accessible parts of the roof?

	YES	NO	DK	NA
Glass on accessible rooftops is ground-floor type.	( )	( )	( )	( )
Fixtures on accessible rooftops are ground floor type.	( )	( )	( )	( )
Hardware on accessible rooftops is ground-floor type.	( )	( )	( )	( )
Doors on accessible rooftops have minimum exterior hardware.	( )	( )	( )	( )
Windows on accessible rooftops have no exterior hardware.	( )	( )	( )	( )

	YES	NO	DK	NA
There is no climbable planting, or planting which will grow to be climbable, located near building walls.	( )	( )	( )	( )
There are no built-in footholds on telephone poles adjacent to the building.	( )	( )	( )	( )
Walls are too high to be climbed with 12-foot two-by-fours or other ladder substitutes, i.e., walls are over 14 feet high.	( )	( )	( )	( )
Fixtures on buildings do not provide footholds for getting onto roofs.	( )	( )	( )	( )
Incinerators and incinerator housing on roofs cannot be climbed upon or used to get from one roof to another.	( )	( )	( )	( )
Gas meters cannot be climbed upon.	( )	( )	( )	( )
Fixtures on rooftop walls cannot be used as footholds for climbing to other parts of the roof.	( )	( )	( )	( )
Permanent custodian ladders are replaced by convenient storage for portable ladders.	( )	( )	( )	( )
Heights of roofs adjacent to rooftops accessible from the ground are too high to be climbed using 12-foot two-by-fours.	( )	( )	( )	( )

2.5 Fixtures

What has been done to accommodate the rough use given to fixtures and hardware reachable from the ground--both on walls and scattered around the site, like lamp posts, bike racks, and guardrails?

Highly visible fixtures on otherwise blank walls are covered by extra heavy grills.	( )	( )	( )	( )
Highly visible fixtures on otherwise blank walls are recessed.	( )	( )	( )	( )
All fixtures are out of reach of students on each other's shoulders or holding sticks.	( )	( )	( )	( )
All fixtures are higher than ground level so they cannot be kicked or stood on.	( )	( )	( )	( )

	YES	NO	DK	NA
There are no unnecessary fixtures on building exteriors.	( )	( )	( )	( )
All fixtures are recessed.	( )	( )	( )	( )
All fixtures are covered with heavy-duty protective plate.	( )	( )	( )	( )
There are no vulnerable rainwater pipes less than 6 feet from the ground.	( )	( )	( )	( )
There are no lighting fixtures with plastic covers.	( )	( )	( )	( )
Lighting fixtures are covered with armor-plate glass.	( )	( )	( )	( )
Site fixtures are sturdy enough to be climbed on and used as targets.	( )	( )	( )	( )
Site fixtures do not challenge students to damage them.	( )	( )	( )	( )

3. Indoors

3.1 Corridors

What has been done to prevent or reduce corridor congestion and blind spots?

	YES	NO	DK	NA
There are no lockers that stick out into the corridors.	( )	( )	( )	( )
There are no benches that stick out into the corridors.	( )	( )	( )	( )
The doors in the corridors are large enough so that they do not cause bottlenecks.	( )	( )	( )	( )
There are no open-sided corridors outdoors that are adjacent to public thoroughfares.	( )	( )	( )	( )
There are no right angles in the corridors.	( )	( )	( )	( )
Right angles in the corridors have good surveillance because of interior windows in classrooms or offices, or see-through wall panels.	( )	( )	( )	( )
There are designated hangout areas that support natural surveillance but do not interfere with traffic.	( )	( )	( )	( )
Classrooms are located along corridors in ways that do not allow classes to see other classes.	( )	( )	( )	( )
Offices and teacher assignment areas are located in places that provide corridor surveillance.	( )	( )	( )	( )
Corridor spaces are clearly defined, through visual treatment, as part of supervised zones.	( )	( )	( )	( )
There are no windows between the classrooms and corridors.	( )	( )	( )	( )
Corridors have see-through panels.	( )	( )	( )	( )
Classroom doors have see-through panels.	( )	( )	( )	( )

	YES	NO	DK	NA
Corridors have sufficient light so that everything that happens can be seen.	( )	( )	( )	( )

3.2 Stairwells

What provisions have been made to prevent or eliminate blind spots or isolated areas at stairwell landings?

Blind spots in stairwells have been eliminated by being converted into locked storage areas.	( )	( )	( )	( )
Blind spots have been converted into teacher assignment planning cubicles.	( )	( )	( )	( )
Blind spots have been converted into sanctioned hangout areas.	( )	( )	( )	( )
See-through wall panels provide visual access to potential blind spots.	( )	( )	( )	( )

3.3 Gathering Areas

What has been done to be sure that students have places to meet in public and to be sure that damage will be minimized in informal, active hangout areas?

What has been done to accommodate behavior in and minimize damage to out-of-the-way places where students gather for more private discussions?

Hangout areas are consciously identified and prepared for heavy use.	( )	( )	( )	( )
There are no wall fixtures and adjustments located in hangout areas.	( )	( )	( )	( )
There are some wall fixtures in hangout areas, but these are out of reach of students on each other's shoulders or holding sticks.	( )	( )	( )	( )
Fixtures within reach in hangout areas are extra durable.	( )	( )	( )	( )

	YES	NO	DK,	NA
There are convenient and durable trash containers in hangout areas.	( )	( )	( )	( )
There are planned seating places in hangout areas.	( )	( )	( )	( )
Walls are painted with epoxy paint.	( )	( )	( )	( )
Walls are covered with glazed tile.	( )	( )	( )	( )
Some walls in watering holes are lighter than other walls and have blocked out surfaces in order to attract and thereby channel graffiti.	( )	( )	( )	( )
Fixtures and ledges in hangout areas which might be used as seats by groups of students are durable enough for this use.	( )	( )	( )	( )
Fixtures and hardware on hangout area walls and ceilings which might be hung upon or climbed upon have reinforced attachments.	( )	( )	( )	( )
Both formal and informal sitting places in hangout areas are far from breakable windows and equipment.	( )	( )	( )	( )
There are some walls in hangout areas which are lighter and more evenly scored than other walls and which can be predicted to attract graffiti.	( )	( )	( )	( )
There are formally identified graffiti boards in hangout areas.	( )	( )	( )	( )
Equipment in student hangout areas likely to be used as benches are reinforced and made extra durable.	( )	( )	( )	( )
There are no glass and no windows in potential watering holes.	( )	( )	( )	( )
There is no glass in student hangout areas which is less than 3 feet from the floor.	( )	( )	( )	( )

	YES	NO	DK	NA
There are trash containers in potential student gathering areas.	( )	( )	( )	( )
There are alternative legitimate lounges for students to use as an alternative to student gathering areas.	( )	( )	( )	( )
Legitimate student lounges are not visible from offices or classrooms and are accessible without having to pass through such places.	( )	( )	( )	( )
There are legitimate ways for students to personalize student gathering areas, for example, on graffiti-receptive wood or painted walls.	( )	( )	( )	( )

What has been done to minimize the probability of damage in niches, small hidden doorways, and corners?

There are no niches around doorways, under stairwells, or other places within the school.	( )	( )	( )	( )
Where there are niches within the school, they are necessary for reasons of safety.	( )	( )	( )	( )
There are no fixtures, windows, or door glass in necessary niches.	( )	( )	( )	( )
Walls in necessary niches are tiled or painted with epoxy paint.	( )	( )	( )	( )
Ceilings in necessary niches are solid.	( )	( )	( )	( )

What has been done to maximize cleanliness in cafeterias and maintenance of furniture?

There are trash receptacles at the ends of each row of tables in the cafeteria.	( )	( )	( )	( )
Cafeteria furniture cannot be disassembled with conventional hand tools.	( )	( )	( )	( )

What has been done to minimize potential damage to restrooms?

	YES	NO	DK	NA
There are no exposed plumbing pipes.	( )	( )	( )	( )
There are no exposed bathroom accessories.	( )	( )	( )	( )
Bathroom fixtures can be easily and inexpensively repaired if damaged.	( )	( )	( )	( )
Air vents are located so they cannot easily be used as ashtrays.	( )	( )	( )	( )
Walls are completely covered with heavy-duty material.	( )	( )	( )	( )
Floors in lavatories are extra durable.	( )	( )	( )	( )
Ceilings in lavatories are solid.	( )	( )	( )	( )
Ceiling elements in lavatories are specially specified to withstand poking with a stick.	( )	( )	( )	( )
Vertical elements holding up toilet partitions are attached to structural members in floors and ceilings.	( )	( )	( )	( )
Toilet partitions have tamper-proof screws.	( )	( )	( )	( )
Toilet partitions can be easily painted without looking shoddy.	( )	( )	( )	( )
There is some formally identified place in lavatories on which students can legitimately write--wood plank, painted wall, chalkboard.	( )	( )	( )	( )
There are designated, private social places for students--other than lavatories.	( )	( )	( )	( )
There are durable benches in alternative social places for students.	( )	( )	( )	( )

	YES	NO	DK	NA
Any drop-in ceiling is made of firmly attached, heavy ceiling tiles that give only slightly when under pressure.	( )	( )	( )	( )
Ceilings are painted with epoxy paint.	( )	( )	( )	( )
Paint on ceilings is the same color as the subsurface.	( )	( )	( )	( )
Paint on ceilings is quick drying.	( )	( )	( )	( )

What has been done to minimize damage to floors in wet, dirty, and particularly rough places?

Carpeting is installed in small squares or other easily replaced units.	( )	( )	( )	( )
All floor material can be repaired easily and quickly if damage occurs.	( )	( )	( )	( )
There are hard-surfaced floors where rough or dirty activity will be taking place.	( )	( )	( )	( )
In quiet areas, there are soft-surface floors.	( )	( )	( )	( )
There are no carpets in arts and crafts areas, in snack areas, or near sinks or easels in classrooms.	( )	( )	( )	( )
Carpets specified for noise reduction in work areas are attached to walls instead of floors, or accoustical tile is used.	( )	( )	( )	( )

3.4 Walls

What has been done to be sure that walls can be easily repaired and cleaned--in order to minimize the possible "epidemic" effect of wall damage?

	YES	NO	DK	NA
Large expanses of walls are made of small wall sections which can be individually repaired or inexpensively replaced.	( )	( )	( )	( )
Paint on walls is the same color as the sub-surface.	( )	( )	( )	( )
In damage-prone areas, walls are made of harder materials.	( )	( )	( )	( )
Walls in highly traveled areas are covered with epoxy paint or glazed tile.	( )	( )	( )	( )
Quick-drying paint is used.	( )	( )	( )	( )

What has been done to accommodate students' need to personalize their surroundings and to have some public recognition of what is theirs in a school--thus avoiding random graffiti?

Walls on which graffiti is to be channeled are lighter colored than other nearby walls and have regular lines or squares as patterns to minimize an appearance of chaos.	( )	( )	( )	( )
Walls on which graffiti is to be discouraged are easily painted or washed.	( )	( )	( )	( )
There are some strategically placed, formal graffiti boards for students to write on.	( )	( )	( )	( )
Walls in areas prone to graffiti are painted with epoxy paint or are tiled from floor to ceiling.	( )	( )	( )	( )

What has been done to minimize damage to ceilings, especially active passageways, informal gathering places, and lavatories?

There are hard-surfaced ceilings in lavatories, and hangout areas.	( )	( )	( )	( )
There are no drop-in ceilings in lavatories, or hangout areas.	( )	( )	( )	( )

3.5 Fixtures

What has been done to minimize the probability of damage to doors and door hardware, and to maximize easy maintenance of these items?

	YES	NO	DK	NA
Door knobs and door closures are specified to withstand especially rough use.	( )	( )	( )	( )
Door closures cannot be disassembled with ordinary hand tools.	( )	( )	( )	( )
Built-in door hardware can be easily repaired if damaged.	( )	( )	( )	( )

What has been done to minimize damage to glass on interior walls and doors, and to windows in informal gathering places?

There is no glass in the lower half of doors.	( )	( )	( )	( )
There is no glass less than 3 feet from the floor in passageways and other highly used areas.	( )	( )	( )	( )
There is no acrylic or plastic used as a glass substitute in heavily used areas.	( )	( )	( )	( )
Extra-thick tempered glass or metal panels are specified in heavily used areas where thin glass is inappropriate.	( )	( )	( )	( )
Windows adjacent to interior hangout areas on upper floors, as well as on ground-floors, are especially durable.	( )	( )	( )	( )
There is extra-thick tempered glass or double-layer glass where acrylic or plexiglass is not advisable.	( )	( )	( )	( )
There are no windows in student stores.	( )	( )	( )	( )
There are no windows in administration storage offices.	( )	( )	( )	( )
There are no windows in industrial arts storage areas.	( )	( )	( )	( )
There are thin wire mesh screens over specially vulnerable ground-floor windows.	( )	( )	( )	( )

What has been done to accommodate predictable sitting, climbing, and rough use of attached wall fixtures?

	YES	NO	DK	NA
All fixtures or equipment which protrude from walls are extra heavy duty.	( )	( )	( )	( )
There is no hardware or fixtures that can be climbed upon or played with in informal gathering or formal play areas.	( )	( )	( )	( )
All equipment has tamper-proof screws.	( )	( )	( )	( )
Light fixtures are located out of reach of students on each other's shoulders or carrying sticks.	( )	( )	( )	( )
Light fixtures are recessed.	( )	( )	( )	( )
Thermostats are located out of reach of passing students.	( )	( )	( )	( )
Thermostats are recessed.	( )	( )	( )	( )
Air conditioners are placed out of view on an inaccessible part of the roof.	( )	( )	( )	( )
Fixtures and hardware do not make loud sounds when hit, touched, or damaged.	( )	( )	( )	( )
Fixtures and hardware do not remain in one piece when damaged, and thus do not provide students with trophies.	( )	( )	( )	( )

3.6 Assembly

What has been done to minimize damage to seats, walls, stage and equipment during informal and formal use of auditorium?

	YES	NO	DK	NA
The design of auditorium takes into account special informal uses as well as standard activities.	( )	( )	( )	( )
Auditorium seating is comfortable but does not offer materials to play with like string, buttons, knobs, or leather.	( )	( )	( )	( )
Auditorium seating is assembled with tamper-proof screws or sunken bolts.	( )	( )	( )	( )
Walls as high as can be reached in auditoriums are painted with epoxy paint or tiled.	( )	( )	( )	( )
Fixtures around the stage, especially at foot level or along the stage apron, are especially durable.	( )	( )	( )	( )
All control boxes are covered with heavy-duty lockable grilles.	( )	( )	( )	( )
Fixtures in auditorium are located out of reach of students standing on seats or armrests.	( )	( )	( )	( )

What has been done to be sure that wall hardware and floors in gymnasiums will be damaged as little as possible?

There are large uncluttered walls in the gymnasium for impromptu ball playing.	( )	( )	( )	( )
There are no wall fixtures within reach of people sitting on the bleachers.	( )	( )	( )	( )
Wall fixtures in the gymnasium are located in corners or on side walls out of the way of stray balls.	( )	( )	( )	( )
There are no clocks behind the basketball backboard.	( )	( )	( )	( )
Equipment storage lockers are visible to permanent staff offices.	( )	( )	( )	( )
Gymnasium floor surfaces can stand up to non-sport uses involving contact with tables, chairs and walking shoes.	( )	( )	( )	( )

	YES	NO	DK	NA
If gym floors requiring special maintenance are installed, commitments have been secured for ongoing maintenance training programs.	( )	( )	( )	( )

What has been done to be sure that community programs can be run effectively and with least probability of conflict with the rest of the school?

The school is zoned for different ~~evening~~ and weekend community uses as well as for alternative daytime school uses.	( )	( )	( )	( )
Different zones are separated by gates strategically placed at corridor entrances.	( )	( )	( )	( )
Zones, when separated, have separate entries from the outside.	( )	( )	( )	( )
Offices of school and community supervisory personnel are located near multiple-use entries to the school building.	( )	( )	( )	( )
Some supervisory offices are located near entries to recreational facilities.	( )	( )	( )	( )
There are places for people to gather comfortably near entrances and exits so that groups can serve as potential "people locks."	( )	( )	( )	( )

Course 6 - ENVIRONMENT

Module 6.2. - Assessing Environmental Design

Background I-D 6.2.1.

Background Materials

Basic Concepts

When the environmental design approach is used, the design and use of school facilities can produce behavioral results that reduce the likelihood of inappropriate activities. In designing physical space, the needs of legitimate users of a given space, the normal or intended use of that space, and the predicted behavior of legitimate users and offenders are taken into account. Acts that are destructive to the physical and social environment as well as acts that engender fear and loss of confidence in security can be prevented by using environmental design strategies.

The double emphasis on both design and use means that security-conscious architecture and planning need not lead to constraints on use, access, and enjoyment of the environment. It also means that the focus is on creating opportunities for natural access control and surveillance. The term "natural"[1] refers here to achieving control over who uses space and being able to monitor what happens in the space as a consequence of the normal and routine use of such space. Thus, it is possible to adapt the normal and natural uses of the school to accomplish security objectives.

Prevention

Although the term "prevention" can encompass all strategies taken to forestall the commission of an offense, in the environmental design approach it is useful to distinguish between efforts to forestall the development of offender motives and efforts to frustrate offender opportunities. This distinction also may be characterized as corrective versus mechanical prevention.[2] In mechanical prevention, the strategy is to place obstacles in the way of the potential offender. In corrective prevention, the strategy is more fundamental and focuses on preventing or eliminating criminal motives. Environmental design can be corrective to the extent that design encourages the formation of territorial cognitions and behaviors that function to establish and maintain desired environmental uses and treatment.

1 Tien, J.M., Repetto, T., Hanes, L.F., Elements of Crime Prevention through Environmental Design, Arlington, Va.,: Westinghouse Electric Corporation, 1976.

2 Lejins, P., "The Field of Prevention," Delinquency Prevention: Theory and Practice (Englewood Cliffs, N.J.: Prentice-Hall, 1967).

Defensible Space

Until recently the only crime prevention model that focused on the role of the physical environment was "defensible space".[3] Defensible space postulates that in any setting a person who uses that setting perceives the system of outdoor and indoor spaces as forming a territorial hierarchy. The first level of the hierarchy is space that users consider private and toward which they adopt strong proprietary attitudes, such as desks or lockers. Next in the hierarchy is space that is semiprivate in character, such as classrooms, where use is limited to a particular subpopulation. Third is the semipublic corridor shared by several classes, followed by the main entry, which is shared by all legitimate users and the exterior grounds, which may fall within the domain of other community users who do not necessarily use any of the interior spaces. The last level is the public streets. As individuals proceed from their personal desks to the public streets their territorial responses change accordingly. As their sense of intimacy with the features of the space and with personal control over events in that space diminish, so do their personal involvement and sense of responsibility.

These hierarchial zones are separated by transition spaces. If the transition of zones is not an apparent part of the hierarchy, then the environment becomes more vulnerable, because users will perceive all spaces as public in character and, hence, belonging to everyone and no one at the same time. However, if the territorial hierarchy is supported by design, users will not only feel confident that undesired intrusion can be controlled but will also be inclined to ensure the continued security and maintenance of that setting. Transition spaces can, in theory, be affected by changes in elevation, scale, visual separation, traffic control, and the manipulation of other environmental elements. These elements need not be used to construct real barriers, but, rather to create symbolic barriers - that is, boundaries that are easily penetrated in a physical sense but nevertheless operate to inhibit intrusion.

Types of Strategies

A strategy is a design method for affecting the nature of interaction between the physical environment and human behavior through the creation, redesign or elimination of environmental features. A tactic describes the means by which a given strategy can be implemented. Since tactics must be considered within the context of a specific site, we will not attempt to offer a complex list of tactics, but instead give examples of tactics for illustrative purposes.

Three overlapping strategies are involved: access control, natural surveillance, and territorial reinforcement.

Access Control: These strategies are to be distinguished from deterrence measures that involve site or target hardening. Although the objective is the same--keeping unauthorized persons out of a given area when they do not have legitimate reasons for being there--access control strategies focus on the creation of symbolic barriers that reinforce the privacy, integrity, or uniqueness of spaces. Symbolic barriers are effective in demarcating areas that are intended for specific uses of specific groups, thus promoting physical and social control of these areas.

Natural Surveillance: These are design techniques that involve channeling the flow of activity so that more potential observers are near a potential crime area or creating improved observation capacity by using transparent barriers. Lighting can facilitate surveillance. Proper handling of walkways and landscaping can channel pedestrian traffic away from dangerous areas through areas where natural surveillance is likely. Moreover, appropriately designed and placed amenities can attract legitimate users to gather in easily observed areas for social purposes.

Territorial Reinforcement: Here the focus is on instilling proprietary attitudes and related territorial cognitions and behaviors through improved quality of built elements, alteration of scale, and reinforcement of school identity and desired image. The appearance of the school might be upgraded to promote school pride and a sense of cohesiveness, thus reversing conditions that appear to attract vandalism and support fear of crime.

Although these categories of strategies are distinct in theory, it is important to realize they tend to overlap in practice. Territorial reinforcement may be thought of as the umbrella concept, embodying all natural surveillance principles; and natural surveillance principles in turn embody all access control principles. It is not practical to think of these as independent strategies, because, for example, access control, as defined here, operates to denote transitional zones, rather than impenetrable barriers. If these symbolic or psychological barriers are to succeed in controlling access by demarcating specific spaces for specific individuals, potential offenders must perceive that unwarranted intrusion will elicit protective territorial responses from those who have legitimate access.

Similarly, natural surveillance operates to increase the likelihood that intrusion will be observed by individuals who care but are not officially responsible for regulating the use and treatment of spaces. If people observe inappropriate behavior but do nothing about it, then the most elegant natural surveillance tactics are useless in terms of stopping crime and vandalism.

In thinking about tactics that can be implemented, there are four basic environment/behavior principles that should be considered. The term "environment/behavior" refers generally to the relationship between architectural design and human activities. In more specific terms, we are concerned about ways the design of schools can reinforce territorial attitudes and behavior.

1. Sphere of Influence: People adopt proprietary attitudes toward their immediate personal spaces, even in the most public settings. For example a student becomes territorially attached to his seat in an auditorium for the period of occupancy. If someone tries to take his seat, the legitimate occupant, however temporary his status, will defend his space. In spaces occupied for longer periods and serving multiple functions, the individual implicitly defines boundaries and establishes a sphere of influence--an area over which he or she has interest in regulating intrusion and use. The larger the sphere of influence adopted by an individual or group, the safer the environment.

   Architectural design can influence user perception of spheres of influence. For example, the positioning of buildings and subdivision of grounds can convey to users that all outdoor areas are within their sphere of influence, thus requiring users to act on any observed inappropriate activities. Entry paths, approaching buildings, parking lots and play areas, should be within these perceived spheres to encourage bystander intervention when needed. The location of building entries and the use of symbolic barriers can help reinforce this perception.

2. Number: As a general rule, the fewer people sharing a space, the stronger is each person's personal involvement in what happens in that space. This number principle applies to all of the territorial zones described earlier in relation to defensible space. It is important to consider how many students share a classroom, how many classrooms share a corridor, how many people use a particular stairwell or entrance. If it is possible, the number of people in a given location at a given time should be reduced to increase the security of that location. This can be accomplished by rescheduling the use of indoor and outdoor spaces by a formally established policy. Access control strategies can support policy through the construction of real or symbolic barriers.

3. Placement of Activities and Amenities: The location of smoking areas, snack bars, and other activities that serve as a natural magnet for students can influence the degree to which users will extend their territorial concerns and provide continual surveillance. The juxtaposition of activities can also effectively decrease or increase the use of passages. For example, because people can enter a building at one place, use one stairwell to get to their floor and use another stairwell and entrance to leave, security people find it difficult to keep track of who comes and goes. The environment becomes vulnerable because there are critical intensity zones,[5] that is, unsupervised passages used frequently enough to attract offenders but too little used to provide adequate natural surveillance. Teacher planning cubicals can be built under stairwells, or informal gathering areas can be designed in under-used corridors and entry lobbies. With the latter, students can meet relatively free from formal supervision yet themselves watch who comes and goes. Although there is a risk that these spaces may be preempted by individuals for illegitimate purposes, such as intimidation or extortion, it is also likely that the increased number of people using these spaces will discourage such activities.

4. Visual Access and Functional Distance: People are more likely to watch their environment if it is convenient for them to do so and they can easily get to the location where an event is observed. This is an important issue in assessing where windows face, where doors are located, and how spaces with windows are structured. Windows can be effective in creating a sense of apparent surveillance from the outside, but instructional areas in schools, such as classrooms and libraries, are usually designed to use windows as light sources rather than to provide visual access. As a result, there is little natural surveillance. When an event is observed, the functional distance from the point of observation to the location of the event comes into play. If observers feel that the distance is too far in relation to their perceived need to intervene, they will probably choose to ignore what is happening. For example, in some new schools windows cannot be opened, so that when teachers see littering or some minor rule infraction they are less likely to leave their classrooms and walk down the

5 Shlomo Angel, Discouraging Crime Through City Planning, (National Aeronautics and Space Administration, Working Paper No. 75, 1968).

corridor to the nearest entrance to intervene. Aware of this inconvenience, teachers may not bother to look out of their windows. In effect, the design of the environment has discouraged them from adopting areas outside of their windows as part of their sphere of influence.

Additional References:

Crowe, T.D., Pesce, E.J., Reimer, A., Hanes, L.F., CPTED School Demonstration Plan (Arlington, Va.: Westinghouse Electric Corporation, 1976).

Kaplan, H.M., Bickman, L., Pesce, E.J., Szoc, R., CPTED: Final Report on Schools Demonstration (Arlington, Va.,: Westinghouse Electric Corporation, 1978).

Zeisel, John, Stopping School Property Damage: Design and Administrative Guidelines to Reduce School Vandalism (Boston, Mass.: American Association of School Administrators and Educational Facilities Laboratories, 1976).

Course Agenda by Module

Course 6 - Environment

Module 6.3 - Environmental Design Strategies (Advanced Session)

Total Time 1 hour and 15 minutes

Module Summary

This module provides examples of environmental modifications in schools that are already built. The focus is largely on changes that can be implemented by school people themselves. Some of the strategies require technical assistance from architects and facility planners, but the participants should leave the session feeling that they, too, can articulate and apply the design principles.

Activity/Content Summary	Time
1. Introduction	5 min.
A rationale is presented for using an environmental design approach to prevent or reduce opportunities for violence and vandalism.	
2. Design Concepts	10 min.
Definitions of five basic design concepts are presented.	
A. Natural	
B. Prevention	
C. Defensible Space	
D. Territorial Hierarchy	
E. Transitional Zones	
3. Design Strategies	5 min.
A. Access Control	
B. Natural Surveillance	
C. Territorial Reinforcement	
4. Environment/Behavior Principles	10 min.
A. Design Principle One - Spheres of Influence	
B. Design Principle Two - Numbers	

Activity/Content Summary	Time
C. Design Principle Three - Placement of Activities/Amenities	
D. Design Principle Four - Visual Access and Functional Distance	
5. Slide Show Presentation: Problems and Solutions	35 min.
A. Parking Lots	
B. Bus Loading Zones	
C. Social Gathering Areas and Courtyards	
D. Landscaping	
E. Building Design	
F. Entrances and Entry Ways	
G. Corridors and Stairwells	
6. Conclusion	10 min.
A. Illustration of a Security Conscious Environment	
B. Some More Solutions	
C. Final Comments	

About the Module

Course 6 - Environment

Module 6.3 - Environmental Design Strategies (Advanced Session)

Objectives

Participants will be able to--

1. Define design strategies of natural surveillance, access control, and territorial reinforcement
2. Identify design concepts of natural, mechanical, and corrective prevention, defensible space, territorial hierarchy, and transition spaces
3. Identify four principles of environment and behavior affecting environmental design
4. List examples of environmental modifications that can be used in promoting greater school security.

Description of Materials

Transparencies

6.3.1 - 6.3.12 Transparencies highlight lecture on prevention concepts.

Slides

6.3.1 - 6.3.110 Slides illustrate actual application of principles.

Resource Materials

R.6.2.2	Parking Lots
R.6.2.3	Bus Loading Zones
R.6.2.4	Social Gathering Areas
R.6.2.5	Informal Play Areas
R.6.2.6	Walkways and Landscaping
R.6.2.7	Exterior Lighting
R.6.2.8	Structure
R.6.2.9	Entrances
R.6.2.10	Corridors and Stairwells
R.6.2.11	Classrooms
R.6.2.12	Physical Education Locker Rooms

These materials explain and illustrate how environmental modifications that promote school security can be used in these areas of a school.

R.6.3.1 "Synthesis of Research on Environmental Factors Relevant to Crime and Crime Prevention Behaviors"

Resources/ Bibliography

Course 6 - Environment

Module

Audiovisual Reference Materials

THE AMERICAN SCHOOLS: FLUNKING THE TEST

To many young people, school is a place to get out of. Along with many of these young people, have the American schools flunked the test? Have they become babysitters who graduate people who cannot read a newspaper or map, fill out a job application or file an income tax form? Many would say yes...including "Peter Doe" who sued the San Francisco School District for educational mal practice. The reasons offered for this sad state of affairs range from the adverse impact of television on reading, to teacher tenure, to public apathy, to unions. But it is not that simple. Today, more than ever, people are asking why education is costing more but the results are less satisfactory. This ABC News Closeup film brings us important interviews with students, teachers, parents, union leaders, testers, school administrators and school board directors in an attempt to determine where the accountability for this condition rests. The perplexing conclusion appears to be there is no accountability. And there won't be any accountability until people become involved in the critical issues raised in this film which is a must for anyone interested in the present and future of American education. Recommended for secondary grade levels and adults.

Two Color Films (Part I and II), 51 minutes
Purchase: $695
Rental Fee: $51
Videocassette Purchase: $525
Distributor: Deborah Richmond
McGraw-Hill Films
McGraw-Hill Book Company
110 - 15th Street
Del Mar, CA 92014
Call Collect: (714) 453-5000, ext. 34

Previewed by NSRN staff.

Course 6

Environment

ACKNOWLEDGEMENTS

This course was developed and written by Dr. Imre Kohn. The slide presentation was written by Ms. Jean Chen, with production coordination by Mr. Gerardo Martinez. Our thanks to the Educational Facilities Laboratories in New York and their publisher the American Association of School Administrators for permission to use materials from John Zeisel's Stopping School Property Damage in developing the design problem and analytic procedures.

Resource Request Form

Please send me the following *National School Resource Network* Resource Materials:

Name **Phone**

Title **School**

Address

(Street)

(City) **(State)** **(Zip)**

Course Ref. I-D	*Title*	*No. Copies*