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CRIMINOLOGY RESEARCH COUNCIL

GRANT NO. 9 OF 1983

DESIGN GUIDELINES FOR MEDIUM-DENSITY
PUBLIC HOUSING IN AUSTRALIA TO REDUCE
CRIME, SECURITY AND VANDALISM PROBLEMS

REPORT ON FINAL SUBMISSION

BY

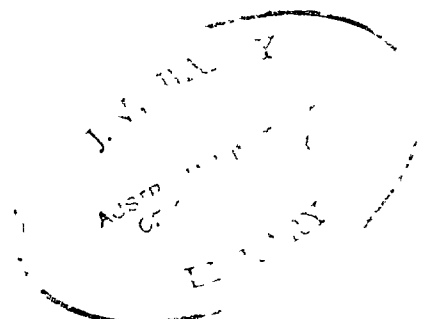
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MAY 1984



INTRODUCTION

This research project has focussed on one major product: the preparation of a Manual of site-planning guidelines for medium-density public housing in Australia. That manual has been produced, together with an extensive bibliography of references related to the topic and an annotated slide lecture designed to accompany the Manual.

METHODOLOGY

The process of preparing the Manual involved the editing and updating of a chapter of a forthcoming book on the design of medium-density housing by the researcher and Clare Cooper Marcus, Professor of Architecture and Landscape Architecture at the University of California, Berkeley. That book, Housing as if People Mattered, allocated one chapter of approximately 50 pages to "security and vandalism" issues. Although the book drew on some Australian research, its design guidelines had never been tested in Australian field situations and much of the research had an American and British bias. Some recent research had not been assessed when the manuscript was completed in 1983.

Therefore, the task was to give the chapter to people with expertise in this area and ask them to annotate it, add suggestions from their own experience and correct obvious errors. In total 12 people responded to the request for assistance. Their names are included in Appendix A. As a general comment, assistance from architects in Housing Authorities proved much less useful than the extensive, detailed notations of field management and maintenance staff, local police and regional managers, all of whom had a very clear idea of the problems which the chapter addressed.

The extent to which individual guidelines had to be modified is shown by two sample pages from the rough working draft

(notes by the author) and an annotated sheet ready for typing. These are included as Appendix B.

The input from the practitioners was supplemented by three other sources. First, an extensive post-occupancy evaluation was conducted by the author in Minto, Campbelltown, outer-suburban Sydney during the period of this research project. Funded by the Housing Commission, this research allowed me to test certain hypotheses about crime and vandalism in four sites, one of which is particularly high in crime. The results of the survey of 212 households, which were not available until late February 1984, were used to modify certain guidelines, especially regarding parking and window design and location.

Second, extensive field observations were made on sites in Victoria, New South Wales and South Australia, concentrating on "problem" areas in city environments where crime is a problem. These site visits were documented by hundreds of slides and photographs, which became the illustrations for the Manual and the slide presentation.

Third, in-depth discussions and meetings were held with individuals and groups to discuss the issues arising from this research. In particular, field management staff in Elizabeth, South Australia and the Liverpool Region, Sydney, provided invaluable assistance. Work-in-progress was discussed with two professional colleagues, Professor Clare Cooper Marcus (during her one month visit to Australia in 1983), and Donald Perlmut, who is a leading authority in the field.

The slide presentation was presented by Donald Perlmut to the 54th ANZAAS congress in Canberra on 17 May, 1984 at a combined Architecture/Criminology session and was enthusiastically received. The material presented to the ANZAAS Congress and a summary of the contents of the individual "annotation" slides is included as Appendix C.

THE MANUAL

A fully illustrated Manual containing 90 guidelines and accompanying colour illustrations will be tabled at the June meeting of the Criminology Research Council. For Council Members to understand the format before seeing the complete manual, selected extracts have been reproduced with this report as Appendix D. Unfortunately, photocopying does nothing to enhance colour photographs, but Members will have the opportunity of examining the complete Manual at the meeting.

FUTURE PLANS FOR THIS MATERIAL

This material should be published and widely distributed. With the exception of one person (a former academic now working in a housing authority), every person who read and commented upon the draft manuscript chapter expressed great enthusiasm for the content, the organisation and the style of the Manual. Several people spent many hours writing comments and discussing them with me in person or over the telephone. All these participants expressed the view that the Manual would be extremely useful for staff training and community crime prevention.

At present, plans for publication of the Manual and the accompanying slides are unclear. However, the Criminology Research Council will be given 12 free copies of any publication resulting from this research grant.

CONCLUDING COMMENTS

This has been a very interesting and satisfying research project, which has generated a great deal of enthusiasm among workers in a field where good practical information is hard to find. The author acknowledges with thanks the support of the Criminology Research Council and the Housing Commission of New South Wales, which generously provided the word processing to make the Manual possible.

APPENDIX A
PERSONS CONSULTED IN THIS STUDY

SYDNEY

NSW HOUSING COMMISSION

*N.K. SMITH	ESME WHITE
BOB COLES	WARWICK HATTON
*LAURIE ARTHUR	GARETH ROBBÉ
ALEX BREEN	GRAHAME KNIGHT
ROZANNE PAZ	KEITH GORDON
*HENRY TRANBY	*TARAK GHALY
JOHN O'GRADY	MICHAEL BRAY
GARY COLLITON	DON GEE
*IAN GORDON	*JOHN CULBERT

STAFF OF THE DESIGN AND PLANNING BRANCHES
STAFF OF THE LIVERPOOL REGIONAL OFFICE
*SERGEANT DENIS DACK, CAMPBELLTOWN POLICE STATION

ELIZABETH AND ADELAIDE, SOUTH AUSTRALIA

SOUTH AUSTRALIAN HOUSING TRUST

*JOHN BYRNE
GRAHAME BETHUNE
*IAN HALKETT
*T.J. PEARS
*KEVIN BURGERMEISTER
*JOHN GIRARDI

*ROBERT J. POTTS, DEPUTY CHIEF INSTECTOR, ELIZABETH C.I.B.

MELBOURNE

(SELECTED SITE VISITS AND CONSULTATIONS WITH THE VICTORIAN MINISTRY OF HOUSING)

CANBERRA

(SELECTED SITE VISITS AND POST-OCCUPANCY EVALUATION OF N.C.D.C. AGED PERSONS UNITS IN GARRAN, RIVETT AND WARAMANGA.)

*PROVIDED WRITTEN AND/OR VERBAL COMMENTS ON THE DRAFT CHAPTER OF THE MANUSCRIPT.

208. Avoid detailing designs which will assist entry into upper floor windows.

I: window placement

Some architectural solutions can innocently provide the burglar with easy access to upper floor windows, which, once a burglar has gained access to one, allows easy access to other ~~apartments~~ ^{units} on the same floor.

possible design responses

(references?)

Avoid porches, ^{carports}, concrete platforms ~~outside windows~~ which can be used as ladders.

Avoid continuous private balconies, ^{awnings, carports or adjoin fences which could give access} unless they are high - security skylights which are available on the Australian market.

Avoid skylights in high-crime areas; otherwise do not place them next to trees or other easily accessible places.

Avoid external pipework which could serve as a ladder.

Avoid flat-roofed appendages and extensions.

- all above seen as major problem in HC townhouses

Avoid use of "stepped" brickwork or bricks laid in a vertical "chequerboard" pattern which provide ladder-like toe holds.

o ^{high} avoid slatted fences which can act as ladders.

~~o avoid roof tiles and lock top doors from inside~~

o ^{avoid} ensure that intruders cannot gain entrance by removing tiles & entering via top doors.

o avoid attached carports

o roof alarm system on top door into ceiling or security lock on door

Sheet materials (eg. corrugated steel) virtually impossible to enter.

o avoid glass louvre windows or replace with orthodox windows small security grilles installed into brickwork

throw things
over fences, yard,
noise, weeds, kears.
walkways: a disaster

now called
Footpath
Security 15/12

SAFE PATHS

EEF

I: paths

2.23. Design paths with no obstructing barriers or hiding places.

Particularly in high-crime areas, paths through a project should be designed to allow pre-scanning before use, and should not include places for potential criminals to be in wait. At the same time, however, "visibility" does not necessarily mean an undifferentiated

or uninteresting site. In Kfarabat, S.A., almost all walkways which were initially sited between units to provide easy access to in-hood S. centers, have been closed because of vand. to neighboring properties.

Possible design responses

Memo seen as "classic" by loc. police.

o Design landscaping so that it cannot easily conceal intruders.
Set taller ^{shrubs} bushes back from pathways and buildings.

o Avoid dense shrubbery around paths; or use plant material with thorns or other repelling characteristics, provided it can still be cleared & trimmed w/o prov. to staff or children.

I: plant selection

o Orient paths and planting so that the whole route between bus or parking and building entry can be clearly seen. 60

o Make paths straight for better visibility, so long as it does not spoil the appearance for mtce. ^{+ access} keep plants away from paths.

o Avoid ^{provided} alleyways and accessways in areas where little pedestrian traffic will be expected.
See also Footpath Security (190).

In some "pedestrian-oriented" public housing developments in ~~the~~ Australia difficulties have been experienced with paths, and especially "alleyways" or "accessways" provide cover for potential criminal activity. In Etiz. Corneil now closing under pressure from local residents

- o avoid short-cutting
- o avoid paths passing by windows / raise windows / reorg - interiors
- o avoid underpasses - school kids attached
- o through "buffer" areas
- o avoid ways between 2 adj. houses

FOR
RETYPE

12/11

Alert management to its role in minimizing
crime

Good Management can have a major positive impact on crime and security problems in medium-density housing. Some strategies which work are: to develop self-help approaches to

1. Encourage ^{tenant} resident organisation/concerning security issues, including the landscaping and maintenance of ^{all} common spaces.
2. Utilise existing local crime-prevention programmes, or assist in their establishment.
3. Institute ^{tenant} resident security education programmes (if they are not otherwise available) in conjunction with local police. A door-to-door programme, supplemented by displays in local centres, using mobile facilities, is an effective method.
4. Develop a system of orientation (including handbooks ~~and~~, verbal instructions ^{and} introduction to neighbours) for new ^{tenants} residents.
5. Encourage ^{tenant} resident neighbourliness and dwelling personalisation.
- ~~6. Make judicious use of resident patrols;~~
67. Develop special "escort" programmes as needed.
78. Take great care in allocating residents to dwelling units, ^{and consider the} using a ^{benefits of transferring households from inappropriate} system which follows recommended methods; ^{located dwellings of inappropriate size or location.}
- ~~9. Enforce high standards of resident screening and utilise eviction~~ ^{use}
only when really necessary.

9 8. 10. Generally co-ordinate all security efforts with residents, ^{tenants}

10 9 11. Contact police directly and negotiate to alter or increase patrol and other services. This is often difficult because ^{heavy} demands on police in high-crime areas mean that they can act only in a "reactive" capacity and do not have staff for preventive work.

11 10. 12. Make use of police and other outside security experts to inspect ^{plans for} ~~the~~ development ^{and the developments themselves} for ~~unsafe areas~~ possible security problems.

12 11 13. Utilise any available outside sources to supply funds for security personnel and other strategies.

13 12 14. Develop a comprehensive crime reporting system, encourage reporting of all crimes, and keep accurate statistics.

14 13 15. Provide informal surveillance, and maintain high visibility of management and maintenance workers around the housing development;

15 14 16. Actively co-ordinate security planning with neighbouring developments, ^{local government, government departments} ~~city agencies~~, and other relevant parties. ~~and~~

16 15 17. ^{Ensure that adequate funds are available to} Maintain ^{all} buildings and grounds at a high level of repair ^{and to} modify obvious design faults at an early stage.

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SELECTED REFERENCES

APPENDICES

SOURCES OF ILLUSTRATIONS USED IN THIS MANUAL

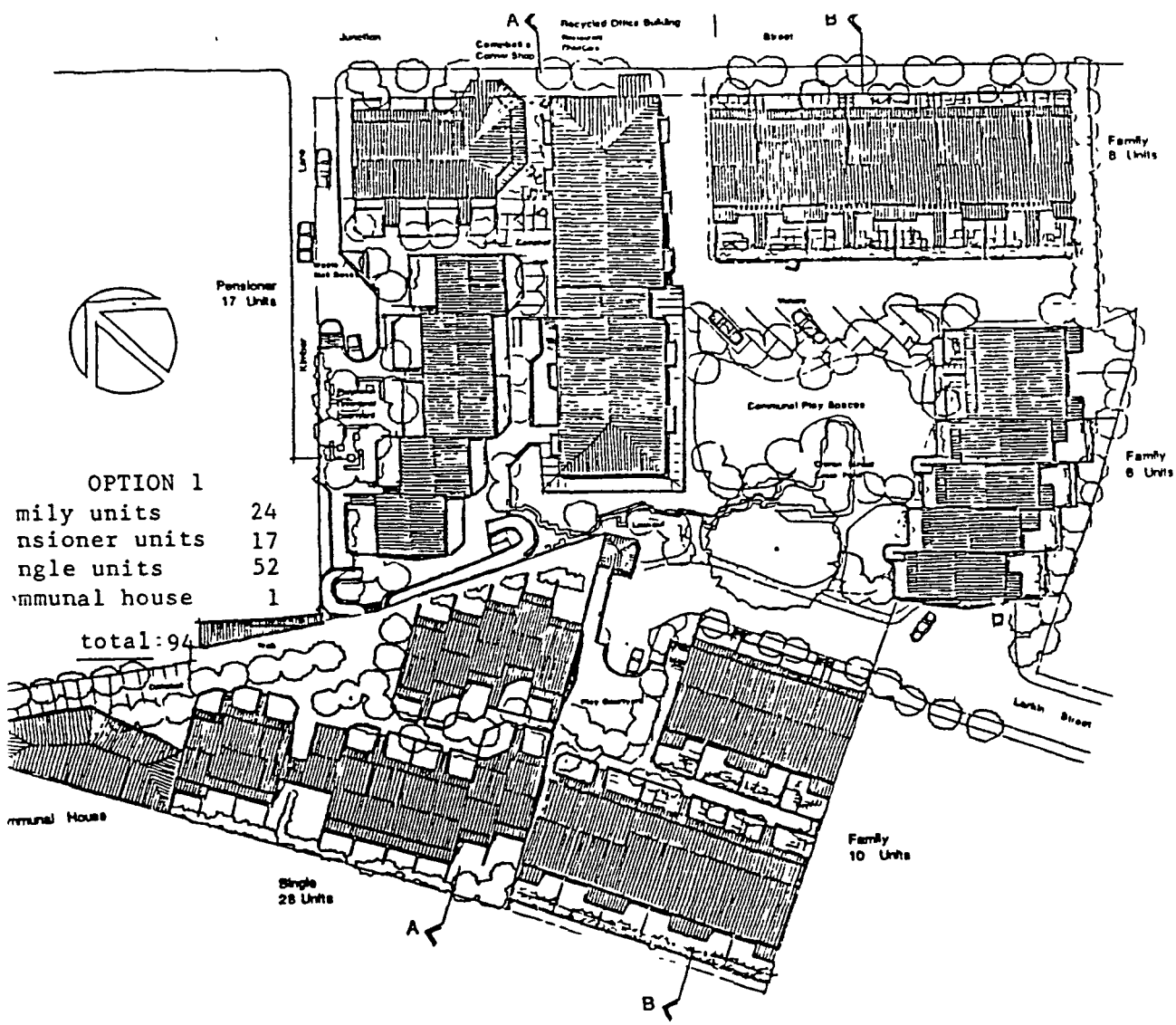
TERRITORIAL EXPRESSION

- 16 PROVIDE OPPORTUNITIES FOR RESIDENTS TO EXPERIENCE OR EXPRESS A SENSE OF TERRITORY AROUND THEIR DWELLINGS.

WHETHER TERRITORIAL BEHAVIOUR IN HUMANS IS INSTINCTIVE OR LEARNED, MOST PEOPLE FEEL A DEEP NEED TO KNOW WHERE THEIR DOMAIN ENDS AND ANOTHER BEGINS. THIS IS PARTICULARLY IMPORTANT IN PUBLIC HOUSING, WHERE TENANTS MAY FEEL A LACK OF CONTROL OVER THEIR ENVIRONMENT.

POSSIBLE DESIGN RESPONSES:

- o PROVIDE FRONT AND BACK YARDS.
- o ALLOW RESIDENTS TO DEFINE THEIR SPACE WITH FENCING, PLANTING, ETC.
- o ESTABLISH RENTAL AGREEMENTS WHICH PERMIT RESIDENTS TO ALTER FENCING OR PLANTING AROUND THEIR PRIVATE OPEN SPACE.
- o WHERE UNFENCED LANDSCAPING IS PROVIDED AT THE FRONT OF NEW ROW OR SEMI-DETACHED HOUSING, PERMIT RESIDENTS TO MODIFY THIS TO REFLECT THEIR PERSONAL TASTES.
- o DESIGN ENVIRONMENTS WHICH OFFER HINTS TO RESIDENTS THAT TERRITORIAL DEFINITION IS POSSIBLE.



OPTION 1

Family units	24
Penaloner units	17
Single units	52
Communal house	1
total:	94

This proposal provides separate territories for aged, single persons and families for children in one public housing estate.

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ENSURE THAT CIRCULATION PATTERNS ENHANCE OTHER SECURITY MEASURES.

PEDESTRIAN ENTRANCES TO THE SITE SHOULD BE CLEAR FOR THE SAKE OF RESIDENTS AND LEGITIMATE VISITORS BUT NOT SO 'WELCOMING' THAT OUTSIDERS FEEL THEY HAVE THE RIGHT TO ENTER AND USE THE SPACES INSIDE.

PARTICULARLY IN HIGH-CRIME AREAS, PATHS THROUGH A DEVELOPMENT SHOULD BE DESIGNED TO ALLOW PRE-SCANNING BEFORE USE, AND SHOULD NOT INCLUDE PLACES FOR POTENTIAL INTRUDERS TO BE IN WAIT. AT THE SAME TIME, HOWEVER, 'VISIBILITY' DOES NOT NECESSARILY MEAN AN UNDIFFERENTIATED OR UNINTERESTING SITE. IN ELIZABETH, SOUTH AUSTRALIA, ALMOST ALL OF THE WALKWAYS WHICH WERE ORIGINALLY SITED BETWEEN UNITS TO PROVIDE EASY ACCESS TO NEIGHBOURHOOD SHOPPING CENTRES HAVE BEEN CLOSED IN RESPONSE TO RESIDENTS' PETITIONS BECAUSE OF VANDALISM TO NEIGHBOURING PROPERTIES. SIMILAR PROBLEMS ARE BEING EXPERIENCED IN SOUTH-WESTERN SYDNEY. PATHS HAVE GENERALLY BEEN PROBLEM AREAS: PEOPLE THROW THINGS OVER FENCES, ENGAGE IN NOISY BEHAVIOUR AND VANDALISM. CHILDREN AND YOUTH ARE THE MAJOR OFFENDERS.

POSSIBLE DESIGN RESPONSES:

- o DESIGN LANDSCAPING SO THAT IT CANNOT EASILY CONCEAL INTRUDERS. SET TALLER BUSHES BACK FROM PATHWAYS AND BUILDINGS.
- o AVOID DENSE SHRUBBERY AROUND PATHS, SET SHRUBS WELL BACK FROM PATHS OR USE PLANT MATERIAL WITH THORNS OR OTHER REPELLING CHARACTERISTICS, PROVIDING THAT IT CAN STILL BE TRIMMED AND GROUND COVER CLEANED AND IT PROVIDES NO HAZARD TO CHILDREN.
- o ORIENT PATHS AND PLANTING SO THAT THE WHOLE ROUTE BETWEEN BUS OR PARKING AND BUILDING ENTRY CAN BE CLEARLY SEEN.
- o MAKE PATHS RELATIVELY STRAIGHT FOR BETTER VISIBILITY WHERE THAT DOES NOT CREATE A MONOTONOUS APPEARANCE.
- o AVOID PROVIDING ALLEYWAYS AND ACCESSWAYS IN AREAS WHERE LITTLE PEDESTRIAN TRAFFIC WILL BE EXPECTED.
- o AVOID 'SHORT-CUTS' THROUGH SITES WHICH ENCOURAGE NON-RESIDENTS TO MOVE THROUGH ENROUTE TO ANOTHER LOCATION. THIS IS PARTICULARLY IMPORTANT IN AGED PERSONS UNITS.

SALISBURY PARA NEWS

North-East Leader (Elizabeth S.A.), April 17, 1984

Farm residents living in fear

PACKS of teenagers hanging around an Ingle Farm lane are holding a family "prisoners" in their own home.

One frustrated resident living next door to the walkway said she had found dead cats in her pool, house windows smashed, items stolen and an attempt had been made to burn down her home.

And according to the woman, authorities refuse to acknowledge the problem that has existed for years.

Speaking from her now fortress-like SA Housing Trust home, the woman, whose name has been withheld for fear of reprisals, said her family wouldn't dare go out at night.

"If we're away, I'm scared to come around that corner in case our house has been burned down," she said.

Even wire over windows, graffiti-splattered high brick walls, extended fences and trees cannot keep out the terrorists.

A charred verandah roof shows the sign of a fire started from the lane, and serves as a reminder of the nightmare resi-

dents say they must live with.

Producing years of correspondence with Salisbury Council pleading for the closure of the walkway, the woman said residents had got "nowhere" in their battle.

A letter from city engineer John Gronow said council would not close

the lane because it lead to a primary school.

"I wish all the people in Salisbury who live near lanes could come together to make council realise what's happening," she said.

"It's disgusting. We pay all these rates and they don't even care."

Council has got to lis-

ten because we can't go on living like this.

"When we moved in about 15 years ago we never dreamt that vandalism would get to this extent."

"This type of thing was almost unheard of."

"Now we can't afford to move away from here."

"I think people should be warned: please don't buy a house if it's on a lane!"

Walkway closed by Council

SALISBURY Council has moved to close a Pooraka walkway in response to residents' claims that it is a meeting place for armed youth gangs and drunken teenagers.

The walkway is between Albert and Bramble courts.

Residents called on council to close the walkway because it had become a haven for vandals, people with criminal tendencies and trail bike riders who used it as a drag strip.

"There is frequent wanton damage to private and council property," residents said.

Council's move to close the lane was supported by Cr Reg Atkinson.

Cr Atkinson said gangs of armed youths had created an atmosphere of terror.

He said such walkways were havens for these people to carry out their intimidation.

"This type of social pressure is not good enough," Cr Atkinson added.

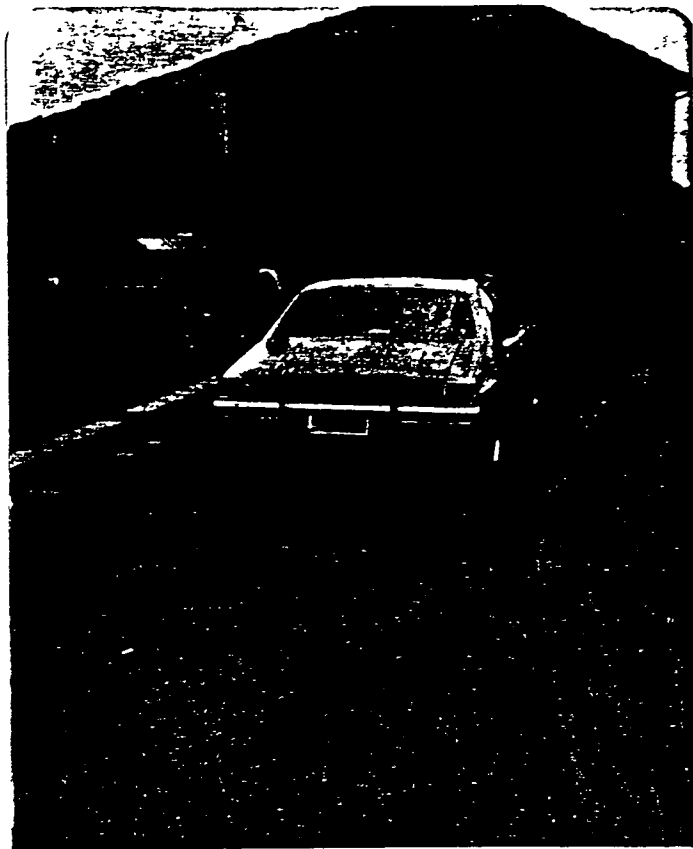
A buffer is needed between this window and the path. Full-length windows should be avoided.

FOOTPATH SECURITY CONT.

- o AVOID PATHS PASSING BY WINDOWS SO THAT PEDESTRIANS DO NOT VIOLATE THE PRIVACY OF NEARBY DWELLINGS.
- o ENSURE THAT PEDESTRIAN SITE ENTRANCES CLEARLY INDICATE THE PASSAGE FROM PUBLIC TO SEMI-PRIVATE SPACE.
- o ENSURE THAT ALL FOOTPATHS ARE VISIBLE FROM ADJACENT DWELLINGS.
- o CHANNEL PEDESTRIAN TRAFFIC SO THAT PEOPLE USING FOOTPATHS, ESPECIALLY IN THE EVENING, MEET OTHER RESIDENTS.
- o ALIGN LIGHTING AND LANDSCAPE FOOTPATHS SO THAT IT IS POSSIBLE TO SEE A CONSIDERABLE DISTANCE AHEAD, AND THEREFORE AVOID THE CHANCE OF ATTACK BY A HIDDEN INTRUDER.
- o AVOID THE USE OF UNDERPASSES.
- o ENSURE THAT PATHS DO NOT ENCROACH ON VISITORS' CARPARKS.



This is a highly vulnerable window on a public accessway.



Traditional kerbs might discourage this tenant from parking on the lawn near the unit.



Traditional kerbs and gutters (instead of roll-back kerbs) in this location could reduce the temptation to drive on the grass.

PARKING ACCESS

- 38** PROVIDE DIRECT PAVED ACCESS FROM PARKING AREAS TO DWELLING ENTRIES.

WHETHER PARKING IS IN SHARED LOTS OR IN INDIVIDUAL SPACES, A DIRECT ROUTE SHOULD BE PROVIDED.

RESEARCH SHOWS THAT RESIDENTS WOULD RATHER HAVE THEIR CARS EVEN CLOSER TO THEIR DWELLINGS, AND PUT UP WITH EVEN MORE FUMES AND NOISE, IF A TRADE-OFF WERE POSSIBLE. IN HIGH-CRIME AREAS SAFE ACCESS IS A MAJOR CONSIDERATION.

POSSIBLE DESIGN RESPONSES.

- o LOCATE PATHS ALONG THE MOST DIRECT ROUTE FROM PARKING TO DWELLING ENTRIES.
- o ENSURE THAT PATHS ARE:
 - WELL-DRAINED
 - WELL-LIT
 - LEVEL, WITH NON-SLIP FINISHES
 - AWAY FROM DENSE SHRUBBERY WHICH MIGHT CONCEAL INTRUDERS
 - WIDE ENOUGH TO PERMIT ACCESS BY PEOPLE IN WHEELCHAIRS
 - SHELTERED FROM RAIN
 - ORIENTED SO THAT PATHS WILL BE PROTECTED FROM SUMMER SUN
- o LOCATE DWELLING ENTRIES NO MORE THAN 60 METRES FROM PARKING.
- o AVOID SHARED DRIVEWAYS.
- o IN PARTICULAR LOCATIONS TO PREVENT RESIDENTS FROM PARKING THEIR CARS CLOSE TO DWELLINGS IN AREAS NOT DESIGNED FOR CAR ACCESS, AVOID LOW PROFILE/UNIVERSAL ROLL-BACK KERBS AND EMPLOY TRADITIONAL RIGHT-ANGLE KERB AND GUTTERING METHODS.
- o SITE UNITS TO AVOID NUISANCE TO ADJOINING UNITS FROM VEHICLE HEADLIGHTS.
- o WHENEVER POSSIBLE, ORIENT UNIT ENTRIES TO MAIN STREETS SO THAT UNIT ACCESS (AND PARKING) IS NOT FROM THE REAR OR VIA LANEWAYS.

SAFE AS HOUSES: GUIDELINES FOR DESIGNING MEDIUM-DENSITY
PUBLIC HOUSING TO REDUCE SECURITY AND
VANDALISM PROBLEMS

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Paper presented to Section 4, 54th ANZAAS Congress, Australian
National University, Canberra, 17 May 1984

Under a grant from the Criminology Research Council, Canberra, the authors have prepared a draft manual of guidelines for use in planning medium-density public housing. The manual draws on the work of Perlgut (1982, 1983), emphasising 'manageable space', a concept which emphasises concerted and coordinated security planning for subsidised housing. The focus is on creating, through physical design and site layout, spaces which can easily be 'managed' by residents, which are responsive to human imprint and welcome and reflect the presence of human beings. 'Hard' architecture and management styles, which discourage tenant participation and responsibility, are rejected in favour of an approach which, while not permissive, may be characterised as 'soft' management.

The manual's framework builds on work by Marcus and Sarkissian (1983, 1984), who have prepared a major study containing site-planning guidelines for medium-density private and public housing. Sections of the manuscript of this forthcoming book (University of California Press, 1984) were distributed for review to staff of public housing authorities and police departments in New South Wales and South Australia and structured field observations were conducted in Canberra, Melbourne, Sydney and Adelaide by Perlgut, Sarkissian and Marcus. The results of two 1983 post-occupancy evaluations of public housing (in Sydney and Canberra) were also used to refine the guidelines.

The manual provides specific guidance on site-planning subjects such as: parking, pedestrian access, lighting, landscaping, surveillance of common open space, fencing, image, building form, design and location of doors and windows, rubbish collection, services and facilities, needs of children and youth and management approaches. Each guideline is accompanied by a number of possible design responses.

The illustrated manual, comprising approximately 100 guidelines, is accompanied by a set of annotated slides for use in lectures, group discussions, community crime prevention, and staff development programmes. It is intended to submit the draft manual for further assessment by police and housing authority specialists before its publication. A videotape, incorporating the annotated slides, will also be prepared.

Selected References

- Cooper, Clare (1975) Easter Hill Village: Some Social Implications of Design. New York: Free Press
- Marcus, Clare Cooper (1977) "User Needs in Housing" in Sam Davis (ed.) The Form of Housing. New York: Van Nostrand Reinhold
- * Marcus, Clare Cooper and Wendy Sarkissian (1983) The Medium-Density Housing Kit: Guidelines and Resources for Designing Better Housing at Higher Densities. Sydney: Social Impacts Publications
- Marcus, Clare Cooper and Wendy Sarkissian with Donald Perlgut and Sheena Wilson (1984) Housing as If People Mattered: Site-Planning Guidelines for Medium-Density Family Housing. Forthcoming, University of California Press, Berkeley
- Newman, Oscar (1976) Design Guidelines for Creating Defensible Space. National Institute of Law Enforcement and Criminal Justice. Washington, D.C.: USGPO
- Perlgut, Donald (1981) Crime Prevention and the Design and Management of Public Developments. Selected and Annotated References from Australia, the United States and the United Kingdom. CPL Bibliography No. 53. Chicago, Illinois: Council of Planning Librarians
- Perlgut, Donald (1982) "Manageable Space: Proposals for Crime Prevention in Subsidized Housing", in H.J. Schneider, (ed) The Victim in International Perspective: Papers and Essays Given at the Third International Symposium on Victimology, 1979. New York: Walter de Gruyter
- * Perlgut, Donald (1983) Manageable Space: Crime Prevention and the Design and Management of Public Developments in Australia: Selected Case Studies. Sydney: Social Impacts Publications
- * Perlgut, Donald and Wendy Sarkissian (eds.) (1982) Vandalism and Arson: a Partially Annotated Bibliography. Sydney: Social Impacts Publications
- * Wendy Sarkissian (ed.) (1982) The Australian Vandalism Prevention Information Kit. Sydney: Social Impacts Publications

* Social Impacts Publications are available from P.O. Box 814, Armidale, N.S.W. (067) 72 8107

CRIME PREVENTION GUIDELINES

1. ENVIRONMENTAL CRIME PREVENTION

- . Both physical and social environment involved
- . Ground-floor units most vulnerable in medium-density housing
- . Ambiguous spaces have greatest risk
- . Greater safety in developments with hierarchy of spaces from public to private.

2. DEFENSIBLE SPACE: DESIGN-MANAGEMENT MECHANISMS

- . Household Allocation: Residents in areas they can best use and control
- . Territoriality: Defined spaces of influence
- . Surveillance: Interiors and exteriors designed for natural surveillance
- . Environment: Incorporate the street into the sphere of influence of Residential environment
- . Image: Avoid stigma, vulnerability, isolation

3. PENETRABILITY

- . Make access to spaces by intruders more difficult

4. SITE-ENTRY BARRIERS

- . Real or symbolic
- . Discourage intrusion into residents' communal landscaped spaces
- . Minimise number of entries
- . Locate site entries to permit surveillance
- . Avoid "fortress" fencing
- . Eliminate "short-cutting"
- . "Private Access" signs
- . Use Bollards (non-collapsible)
- . Aged persons units especially vulnerable

5. NEIGHBOURLY SURVEILLANCE

- . Locate windows to allow surveillance from frequently used rooms
- . Solid or mixed fencing to permit views out but not in
- . Lighting to illuminate entries and approaches
- . Each unit entry visible from two other units
- . Homogeneous population encourages cohesion

6. SPACE HIERARCHY

- . Public (Streets)
- . Community (shared open space, play areas, community facilities)
- . Private (dwelling and private open space)

7. AMBIGUITY

- . Environment lacks symbolic, functional or verbal cues to use
- . No "readable" hierarchy of well-defined public, communal and private space.
- . Unclear use of spaces
- . Clear uses in unacceptable locations
- . "Unclaimed" areas
- . Unfurnished spaces
- . Outsiders loitering or short-cutting
- . Often a problem with Radburn designs: Front-back entry confusion

8. TERRITORIAL ZONES

- . "Belong" to residents
- . Identifiable clusters visible by all units served
- . Avoid short-cuts by non-residents
- . Permit resident modification through tenant management policies
- . Fencing around private and semi-private areas
- . Distinctive paving

9. ENTRANCE GROUP

- . 3 to 8 households sharing an entrance
- . Separate stairs rather than corridor access

10. BUFFER ZONE

- . Between dwellings and common open space
- . Clearly delimited yards and gardens
- . raised planting beds
- . low fences more effective than planting

11. INCORPORATING THE STREET

- . Give preference to housing forms with direct street access ("Town Houses")
- . Avoid "Fortress" appearance
- . Include city streets in plan
- . Orient buildings to adjacent streets
- . Building entries serving only a few households
- . Units identify with the street

12. TRANSITIONAL FILTERS

- . From the public spaces to unit gate, path or foyer
- . Planters, porch
- . Ensure that filters do not block visual access to main entry

13. VANDALISM

- . May be normal wear and tear
- . Related to child density
- . Provide adequate facilities for youth
- . Vandal-proof materials

14. CHILD DENSITY

- . Vandalism increases as child density increases
- . There is a relationship between vandalism and lack of facilities for children
- . Fewer than 15 children per ha. if possible
- . Liaison with allocations staff necessary to avoid high child densities

15. CHILDREN PLAY EVERYWHERE

- . Facilities for adventurous play
- . Structures for climbing and exploring
- . Alternative challenging play areas
- . "Natural" places
- . Real "Adventure" playgrounds
- . Play activities, leaders

16. VULNERABLE MATERIALS

- . Vandalism and poor maintenance can set up a vicious cycle
- . Specify materials to withstand normal hard use
- . Easily replaced, standard-sized panels, panes, fittings, etc
- . Maintenance manual

17. ATTRACTIVE MATERIALS

- . Avoid "Hard Architecture" approach
- . Avoid "problem" materials
 - . soft-textured wall finishes
 - . light-coloured walls
 - . glass in vulnerable places
 - . tiles or glass below window sills
 - . flimsy panelling or light wood fencing in public areas
 - . plastic light fittings
 - . loose pebbles, pine bark in open areas or near paths.
- . Avoid external piping
- . Use textured or fluted surfaces to reduce graffiti

18. UNOBTRUSIVE IMAGE

- . Blend in with neighbourhood
- . Avoid "Faddish" materials
- . Conform to local heights, colours, materials

19. CONFORMING IMAGE

- . Home-like image
- . Avoid "industrial" materials
- . Avoid "avant-garde" forms, colours and shapes
- . Use non-staining materials

20. LOCALLY ACCEPTED MATERIALS

- . Avoid innovative, cheap or experimental materials
- . Avoid "indestructible" materials
- . Use materials which weather well
- . Avoid use of "lower status" materials

21. LANDSCAPE INSTALLATION AND MODIFICATION

- . Established landscape before tenants move in
- . Budget for tenant modifications

22. CONFLICTING USES

- . Do not place potentially conflicting uses next to each other.
- . Separate noisy activities from units
- . Locate in partly sunken or screened places
- . Relocate conflicting activities
- . Screen activities dangerous to bystanders (ball games)
- . Buffer with dense planting, mounding
- . Dense planting against high wire fences

23. RUNNING THE GAUNTLET

- . Through an area dominated by others should be discouraged
- . Vulnerable groups located close to services and facilities
- . Locate spaces for potentially intimidating groups away from routes used by others

24. SAFE PATHS

- . Avoid obstructing barriers
- . Avoid hiding places
- . Set taller shrubs back from paths and buildings
- . Avoid dense shrubbery near paths
- . Use "unfriendly" vegetation, thorns, etc.
- . Clearly seen route, straight where possible

25. FOOTPATH SECURITY AND LIGHTING

- . Side entrances clearly "private"
- . Footpaths visible from dwellings
- . Night-time use along major paths
- . Clear sight-lines along paths
- . Clearly lit
- . Light-sensitive timer or resident-only switches inside and outside
- . vandalproof lighting
- . Avoid loose paving bricks which can be lifted out

26. DIRECT ACCESS

- . To buildings from parking, public transport streets
- . Night-time accessibility
- . Short, direct walk to entry
- . Well-lit
- . Unobscured by planting

27. LIGHTING FOR SAFETY

- . Glare-proof lights which do not cast dark shadows
- . Vandal-resistant: high-mounted
- . Ease of maintenance
- . Bright lights in heavily used spaces
- . Aged persons require extra brightness but are very susceptible to glare
- . Resident-operated outside lighting (turn on and off in unit and outside point)
- . Lights not shining into bedroom windows

28. SITE MAP

- . Erected before residents move in
- . At every entry point
- . Indicate unit numbering system
- . "You are here"
- . Lit, under glass, readable from car
- . Low enough to be read by children

29. STREET NAMES

- . Name all internal streets and walkways
- . Prominently displayed
- . Well-lit signs
- . Name courtyards
- . Locate all names on central map

30. SYSTEMATIC NUMBERING

- . Logical system
- . Visible numbers on front and back doors
- . Well-lit numbers
- . Visible from automobiles
- . Central sign indicating location of units.

31. VISIBLE DWELLING NUMBERS

- . Large numbers
- . Well-lit by porch or street lights
- . On wall near door in shared entries (not on door)

32. VISIBLE ENTRY

- . Clearly visible from nearest path
- . Avoid narrow shadowed paths
- . Avoid garage access where possible

33. LOCKED GARAGES

- . For each dwelling if possible
- . Very close to (or part of) units
- . Within property boundary
- . Secure roofs

34. SMALL PARKING LOTS

- . Close to dwelling
- . Within view of dwelling
- . Lowered area lessens visual impact and permits surveillance
- . Well-lit
- . Use landscaping to reduce impact of larger lots

35. SECURE UNDERGROUND PARKING

- . "Garages within garages"
- . Lockable
- . Well-lit and ventilated
- . Open form construction permits casual surveillance

36. YARD SURVEILLANCE

- . Avoid very high fences which provide cover for intruders
- . Allow surveillance into spaces while protecting privacy
- . Mixed fencing types
- . Allow fence modification
- . Ranch-style fencing (to enable looking out)

37. UPPER WINDOWS

- . Avoid porches, balconies, carports with horizontal footholds
- . Avoid continuous balconies
- . Avoid skylights or use high-security skylights not available
- . Avoid external pipework "ladders"
- . Avoid flat-roofed extensions to buildings
- . Locate fences and elevated walkways away from upper windows
- . Ensure that roof tiles cannot be removed to give access to loft doors

38. APPROPRIATE FENCING

- . For private and semi-private areas (front and back)
- . Avoid "soldier" brick work
- . Avoid "foothold" brick work
- . Use non-institutional materials
- . Views out but not in

39. SECURE STORAGE

- . Lockable, weatherproof
- . Essential for residents and personnel
- . Entry storage for bicycles, carts
- . Lockable bicycle racks
- . ventilated storage for petrol, etc
- . outside storage for garden furniture, tools

40. UTILITY METERS/FIXTURES

- . Enclosed if permitted: accessible
- . Not in hazardous locations, pathways
- . Lockable: not tempting "targets"
- . Out of way of trail bikes, cars
- . At front of dwellings
- . Lockable taps and sprinklers
- . Use metal pipes to protect water meters

41. MAIL SLOTS

- . Generally not permitted in doors
- . If in door, as small as possible, away from lock
- . Locate in fence to private yard
- . Avoid grouped mail boxes unless sturdy and in visible locations

42. STURDY DOORS

- . New fire and glazing standards apply
- . Solid core wood: adequate thickness
- . Avoid canadian redwood, western red cedar jambs: use higher density material
- . Avoid hollow core doors
- . Narrow or no glass panels
- . Strong security fly screening

43. SLIDING DOORS

- . Especially vulnerable: avoid in high-crime areas
- . Use standard swinging doors
- . Sliding patio doors with dead-bolt, key-operated locks, laminated glass, sturdy frames
- . Slide into inside or stationery glass panel

44. STURDY LOCKS

- . Tenants should not change locks
- . Key-in-door, dead-bolt or dead-locks on front and back doors
- . Key-operated on doors with glass panels providing glass panel area minimised

45. REFUSE DISPOSAL

- . Linked to tenant satisfaction
- . Poor arrangements leads to poor appearance and then to vandalism
- . Adequate sized bins
- . Fenced enclosure, screened from view
- . Regular maintenance, collection
- . Design for ease of maintenance
- . Consider aged persons' ability to lift lids of large hoppers/skips/dumpsters

46. SAFE LAUNDRY ROOMS

- . Provide each unit with Laundry if possible
- . Locate on every floor or near lobbies, offices, popular routes
- . Furnish attractively
- . For residents use only
- . Individual power points (metered)
- . Regular inspections and repairs
- . Well maintained

47. OUTDOOR DRYING

- . Drying line in private open space
- . Sunny area
- . Protected from smoke
- . Safe from theft
- . Avoid communal drying areas

48. TEEN ACTIVITIES

- . Outdoor space for different activities
- . Minimise noise
- . Centre with kitchen and toilets
- . Informal gathering areas
- . On-site sports facilities
- . Facilities for boys and girls
- . Inexpensive commercial recreation
- . Space to work on cars or motorbikes
- . Places for "dangerous" activities

49. TEEN ENTERTAINMENT

- . Access to sporting facilities
- . Space to work on cars and motorbikes
- . Inexpensive commercial recreation
- . "Dangerous" activities like skate-boarding and dirt bike riding

50. SAFE MEETING ROOMS

- . Central, visible location
- . Toilet and tea-making facilities
- . Storage
- . Close to heavily used areas for surveillance
- . Avoid basement locations
- . Larger facilities buffered from units (noise problems)
- . Adequate size, furnished
- . Separate areas for youth

51. MANAGING SECURITY

- . Encourage tenant organisation
- . Orientation for new tenants
- . "Escort" programmes in high-crime areas
- . Careful allocation procedures
- . Co-ordination of security efforts with tenants
- . Security experts, police inspect plans before approval
- . Crime reporting and statistics
- . Highly visible management and maintenance workers on site
- . Police security education programme (house-to-house)
- . Tie to crisis alarm system

52. LANDSCAPE MAINTENANCE

- . Resident caretaker if possible
- . Core maintenance personnel
- . Operating budget
- . Specify responsibilities in tenants handbook or manual

53. MANAGEMENT OFFICE

- . At central visible point
- . Avoid overpowering management presence
- . Access by residents and outsiders
- . Security precautions re: money and valuables

54. RESIDENT CARETAKER

- . Full-time if not resident
- . "Regular" team of maintenance workers
- . Avoid mobile services

55. CONSULTATION IN THE DESIGN PROCESS

- . With prospective tenants
- . With neighbours
- . With security personnel, police, emergency services

56. PROMPT REPAIRS

- . Lack of repair is cue to further misuse
- . "Quick-fix" policy reduces vandalism
- . Allocate funds to repair damaged or worn items speedily
- . Give authority to management or tenants group to insist on responsible behaviour

57. TELEPHONE LOCATION

- . Installed before first residents move in
- . Clearly visible, central spots near entries
- . Well-lit
- . Locate on site maps and tenants' guides
- . Accessible to children and people in wheelchairs
- . Avoid location in a room which may be locked
- . Provide emergency number indicating "true emergencies" only

58. TENANTS HANDBOOK

- . Spell out all rights and responsibilities
- . Clear, non-bureaucratic language
- . Emergency contact numbers

Wendy Sarkissian

28th May, 1984

Mr. W.W.A. Miller,
Assistant Secretary,
Criminology Research Council,
P.O. Box 28,
WODEN. A.C.T. 2606

(By Courier to 10-18 Colbee Court, Phillip, A.C.T. 2606)

Dear Mr. Miller,

Re: Criminology Research Council Grant No. 9 of 1983:
"Design Guidelines to Reduce Security and Vandalism
Problems in Medium-Density Public Housing In Australia"

It is with great pleasure that I enclose the results of the work I have been doing under this grant from your Council. As agreed in recent discussions with Mr. David Biles, the final product consists of four components, not all of which are enclosed with this letter.

1. An illustrated Manual for the site planning of medium-density public housing in Australia. Entitled "Safe As Houses", it relies both on extensive Australian and international research and a review of a draft document by crime prevention and public housing staff in New South Wales and South Australia, notably in Campbelltown and the Liverpool Region, Sydney and Elizabeth, an outer-Adelaide new town built by the South Australian Housing Trust. The work has also been reviewed by Donald Perlgut and Professor Clare Cooper Marcus, both authorities in this field.

I enclose a photocopy of the final Manual which is being presented to a meeting of senior staff of the New South Wales Housing Commission on 30th May, 1984. The original will be forwarded to you for perusal by your members at your June meeting.

2. An annotated slide presentation, taking one hour to present using two slide projectors. This presentation was given by Donald Perlgut at the ANZAAS Congress in Canberra on 17th May 1984 to a joint Criminology/Architecture session and was very well received. Because of the postal strikes in Sydney, it has not been possible to duplicate the slides for presentation at your meeting. However, a presentation could be made to the September meeting, if it were thought appropriate. Mr. David Biles attended the lecture and has agreed to speak about the slide presentation at your meeting.

2/.....

While a "slide show" is the logical first stage in preparation of a visual illustrative programme for staff training and community crime prevention, it is an awkward system. Synchronised slide-tape arrangements are prone to technical problems. As the videotape recorder is growing in popularity, it may be appropriate to produce a videotape, using the slide materials prepared as part of this research.

3. A comprehensive list of Selected References in the areas of medium-density housing, post-occupancy evaluation and environmental crime prevention. This is enclosed.
4. A short report for distribution to members of the Council, outlining briefly the method used in this research and containing extracts from the Manual. This is enclosed.

I should point out that because of the size of the grant requested and the preliminary work which had already been done in this field, the emphasis of this work has been to produce a practical handbook which can be published and used by practitioners. It was assumed that the "scholarly" research had already been conducted and I relied rather on planners, architects, police and field management and maintenance staff to evaluate critically the working draft and provide suggestions for alterations and additions. Nevertheless, I firmly believe that the Manual could be subjected to academic scrutiny and pass that test with flying colours.

In the original proposal, I stated my intention to publish the Manual through Social Impacts Publications, of which I am a Director. I still intend to pursue this option and can assure you that the Criminology Research Council will receive twelve copies of any publication, journal article or review which results from this work and that the Council's support will be acknowledged. It will be made clear, however, according to the terms of the grant, that responsibility for errors or omissions rests solely with me as author.

The production of a videotape and the preparation of the Manual manuscript in a form suitable for printing involve expenses far beyond the resources provided by this grant. It will be necessary, as a first step to send the manuscript to all participants for further review. Fortunately, owing to the support of the N.S.W. Housing Commission, the work is on a word processor, thus facilitating easy alterations. The Council may wish to consider whether funding of this next stage would be appropriate. Excellent audio-visual services are available at reasonable rates at the University of New England, where I hold a half-time lectureship, thus enabling an efficient work programme to be undertaken despite the limitations of some services in this small community.

I hope that your Council will be as excited about the Manual and its prospects as I am. I wish to thank the Council most sincerely for funding this research, which has enabled me to be "in the field", talking to the people who really understand crime and vandalism in public housing. I have been able to correct many misconceptions and greatly broaden my own understanding. I believe that this project has generated an enormous amount of positive energy and enthusiasm and with your permission I would like to send copies of the Manual to all the participants in the study.

Thank you again for your support for this valuable work and your patience with the data processing problems experienced in the final stages of the work.

Sincerely,

Wendy Sarkissian

Wendy Sarkissian,
Honorary Associate,
Centre for Environmental
and Urban Studies and
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Armidale, N.S.W.

N.B. Please address all correspondence to me at the address on this letter.

c.c. Professor Leonie Sandercock, Macquarie University
Professor David Lea, University of New England
Ms. Angela Lindstad, Macquarie University
Mr. Keith Gordon, Housing Commission of New South Wales
Professor Clare Cooper Marcus, U.C. Berkeley
Mr. Donald Perlmut