

AN EVALUATION OF SECURED BY DESIGN HOUSING WITHIN WEST YORKSHIRE

Briefing Note 7/00

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Secured by Design

Secured by Design is an award scheme, run by the Association of Chief Police Officers, which aims to encourage housing developers to design out crime, with a particular emphasis on domestic burglary, at the planning stage. This note presents reliable indications of its success from an evaluation originally commissioned by the West Yorkshire Police. It is planned to publish a fuller account at a later date.

SBD is based largely upon the following principles:

Physical Security

SBD sets standards of physical security for each property and its boundaries. The aim is not to create a fortress in which residents are constantly reminded of the risk of victimisation, but to combine effective target hardening measures into the original build of the estate.

Surveillance

SBD estates are designed to achieve maximum natural surveillance without compromising the need for privacy. The informal social control which emerges from the design of SBD estates is accentuated through ensuring that each estate contains a mix of dwellings designed for the needs of a variety of resident types. In doing so, the likelihood that at least one neighbour will be at home throughout the day and night is increased.

Access/Egress

SBD estates are designed to include a minimum number of access/egress points in an attempt to avoid unnecessary entry onto the estate by non-residents and potential offenders. Through-routes and footpaths provide the opportunity for offenders to attach an area to what Beavon, Brantingham & Brantingham (1994) refer to as their 'awareness space'. Like everybody else, offenders become familiar with locations they frequent whilst travelling between work, school, home and

leisure activities. Giving an offender reason to pass through an estate not only increases their familiarity with the area, but also provides them with an excuse to be where they have no legitimate reason to be.

Territoriality

In an attempt to achieve maximum informal social control, SBD draws upon Newman's principles of 'Defensible Space' (1972). If space has a clearly defined ownership, purpose and role, it is evident to residents within the neighbourhood who should, and more importantly who should not be in a given area.

Management and Maintenance

The management and maintenance of SBD estates is an issue of continuing importance. Maintaining an area's cleanliness encourages pride amongst residents and portrays an image to offenders that crime and disorder will not go unnoticed.

Evaluation

The original evaluation of SBD housing in the West Yorkshire area took place between April and October 1999. The aims were:

- To establish whether crime is lower on the West Yorkshire SBD estates to which it was applied.
- To establish whether residents living within SBD estates feel safer in their homes and on the streets surrounding their homes.
- To ascertain to what extent any reductions in burglary offences, restricted by increased security, are simply being displaced onto alternative offences.
- To identify any weaknesses within SBD estates, focusing in particular upon the points and methods of entry.

Findings of the original report have now been updated to include the 11 month period following on from the period used for the original study. In addition, some preliminary research has been undertaken to determine what extra costs are involved in building estates to SBD standard.

Findings

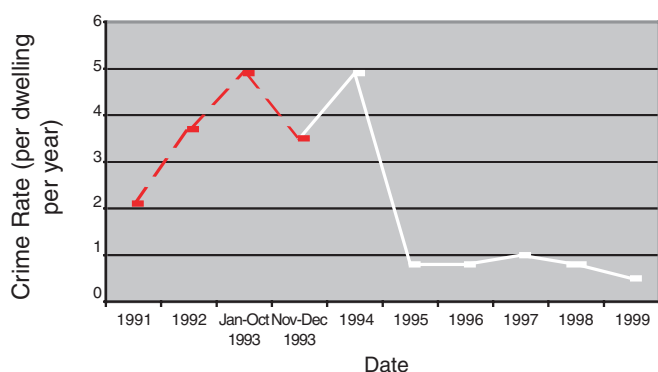
The analysis took place on three distinct levels:

1. Refurbished estates – pre and post certification.
2. New build estates – comparison with non-SBD estates.
3. Residents' crime survey.

Refurbished Estates

Estates which had been refurbished to SBD standard were analysed on a before and after basis. The two schemes for which this was possible, revealed that crime rates had been 67% (see figure 1) and 54% higher pre-SBD certification.

Figure 1: An example of crime rates at a refurbished estate (dashed line represents pre-SBD, white solid line represents post-SBD)



New Build Estates

Comparisons of recorded crime figures were made between 25 SBD and 25 Non-SBD estates comprising 660 and 522 dwellings respectively. The estates had been matched according to location, age, housing tenure (Registered Social Landlord/Housing Association owned) and Environmental Risk Factors (estates were selected which scored between 0-2 on Winchester and Jackson's Environmental Index of Risk, 1982). As far as was possible, the only relevant difference between the estates lay in their SBD status. More detailed analysis of estate layout and dwelling characteristics, and the associations between those characteristics and crime risks, will be reported in a fuller account of the work to be published subsequently. This will include details of analyses of unmatched estates, where differences between estates mask the effects of SBD.

Recorded crimes were analysed for the period between each estate's completion and 1st March 2000. Overall, there were 26% fewer **crime events** per dwelling in the SBD sample, a statistically reliable difference.¹

The **prevalence** rate of **total crime** (the proportion of dwellings which were offended against at least once) was again less within the SBD sample. 44% of dwellings were offended against one or more times on non-SBD estates, compared with 37% on SBD estates². This difference verges on statistical significance.

There were almost twice the number of **burglary** offences within the Non-SBD sample (0.42 against 0.24 per household) This difference is not statistically reliable. The **prevalence** rate for **burglary** offences was twice as high within the Non-SBD sample. This difference was statistically reliable.

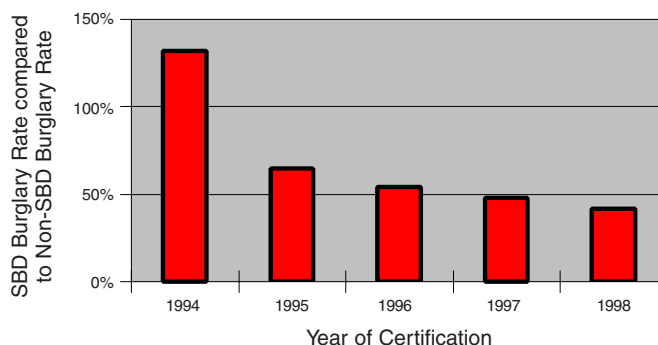
Vehicle crime is one of the most obvious alternative acquisitive offences chosen by an offender who finds entry to a dwelling restricted by security measures. However, for the three offences, Theft Of Motor Vehicle, Theft From Motor Vehicle and TWOC, there were 42% fewer offences within the SBD sample. This suggests there was no crime switch displacement.

SBD as an evolving standard

In an attempt to establish whether the standards of SBD are improving as lessons are learnt, the burglary rates of SBD estates built in 1994 through to 1998 were expressed as a percentage of the burglary rates of their Non-SBD matched pair. If lessons are being learnt, the more recently developed sites should experience lower levels of crime than those built in the early stages of SBD.

As displayed in figure 2, the performance of SBD estates has increased consistently between 1994 and 1998. It is suggested that following extensive changes in SBD standards throughout 1999, further analysis of sites built in 1999 and beyond, would reveal even greater improvements.

Figure 2: Comparison of Burglary Rates on SBD and Non-SBD estates between 1994 and 1998



Recent updates to SBD have given particular emphasis to the importance of evolution, flexibility and adherence

¹ In this and the following results the site was used as the unit of analysis, normality of distribution was achieved by log transformation, and paired comparison t-tests were employed, with a significance level of 0.05.

² Prevalence figures were calculated using recorded crime data spanning a number of years.

to principles rather than rigid application of fixed standards required for certification. Indeed, the need for continued movement in this direction is emphasised by the findings on repeat victimisation which revealed that SBD dwellings experienced a higher repeat victimisation (concentration) rate of burglary offences than their Non-SBD counterparts.

A plausible interpretation of these results is as follows: although burglary offences are lower within the SBD sample, those offenders who have successfully gained entry into SBD dwellings are continuing, unrestrained by security improvements, to attack the vulnerability that they have discovered. In an area where security has been maximised, opportunities for offenders become limited. Therefore the detection of any opportunity, be it a weakness in a particular design feature (crack one and you've cracked them all) or a resident who fails to make sufficient use of the security provided, will be exploited.

Scrutiny of *Modus Operandi* descriptions for burglary offences against SBD dwellings revealed the following most common methods and points of entry.

Table 1: Method of Entry	
Method of Entry	Percentage of cases in which method was used
Jemmy/Screwdriver	30%
Insecure	23%
Smash Window	15%
Remove Beading	6%

Table 2: Point of Entry	
Point of Entry	Percentage of cases in which point of entry was used
Rear Window	29%
Rear Door	15%
Front Door	10%
Patio Door	2%

This information is useful in identifying remaining weaknesses insufficiently addressed within the specific dwellings and throwing light on where SBD standards need adjusting more generically. To take this further will require highlighting the differences between vulnerabilities within SBD and Non-SBD dwellings and establishing whether dwellings which are repeatedly victimised are done so using the same methods and points of entry.

Residents' Survey

The residents of 250 SBD and 250 Non-SBD dwellings, randomly selected from the estates used in the

comparison sample, were asked questions relating to their experiences, fears and perceptions of crime and disorder within their estate. The response rate was 47%. 2.9% of SBD respondents had been burgled within the previous year, compared to 8.4% of Non-SBD respondents and 8.0% of British Crime Survey (BCS) respondents living in housing rented from a council or housing association (1998) (the 1998 BCS figure for burglary across all households was 5.6%).

11.4% of SBD respondents felt 'very unsafe' on the streets surrounding their home, alone at night, compared to 19% of Non-SBD respondents and 11% of all BCS respondents. 3.8% of SBD respondents felt 'very unsafe' when home, alone at night, compared to 7.6% of Non-SBD respondents and 2% of BCS respondents. Interestingly, these increased feelings of security amongst SBD residents cannot be attributed to suggestion alone as only 5% of respondents were aware that their estate was 'Secured by Design'.

Cost

Registered Social Landlords (previously known as Housing Associations), builders, architects and quantity surveyors were asked to provide figures relating to the additional costs involved in building a local estate to SBD standard.

Unsurprisingly, these figures vary dramatically based upon the baseline position from which the developers are building their typical Non-SBD dwelling.

For example, there was a general consensus that certain developers will choose their products based upon price not quality. In this instance, the additional costs of building to SBD standard may be as high as £1,250 (for a 3 bedroom property). Alternatively, certain developers have typically high standards of Non-SBD dwellings, in which case the difference could be as little as £90 (3 bedroom property).

In the case of RSLs, all dwellings funded by the Housing Corporation's Social Housing Grant must comply with basic security standards (Scheme Development Standards - section 1.4.2). Therefore, the additional funding involved in building a house to SBD standard for these RSLs is likely to differ considerably from those of a private developer who has no minimum standards imposed.

The average (median) additional cost of building a house to SBD standard based upon figures provided by RSLs, quantity surveyors and builders within West Yorkshire area was £440. Where estates had been refurbished to SBD standard as opposed to newly built, the costs were estimated at approximately £600 per dwelling, about a third more than the cost of designing and building to SBD at the development stage.

From the 1998 BCS, it is estimated that the average cost of a burglary to the victim is £1,670 (based on

estimated replacement value of stolen property, plus the cost of damage to property). Given the low incidence of burglary on SBD estates relative to non-SBD matched pairs observed in this study, the extra expenditure required to build or refurbish housing to SBD standards would appear to be a worthwhile investment in West Yorkshire.

Summary of key findings

- On both new build and refurbished SBD housing estates the incidence of recorded crime was considerably lower than on the Non-SBD counterparts.
- SBD in West Yorkshire has evolved as a crime prevention standard. More recently-developed SBD estates show consistently lower rates of burglary compared with those built in the mid 1990s.
- This evaluation produced no evidence to suggest that reductions in burglary have resulted in increases of likely alternative offences (i.e. vehicle crime) on SBD estates.
- Results of the survey of residents suggest that fear of crime is lower amongst those living on SBD estates.

Points for Action

- Those involved in housing, planning and development should be made aware of what can be achieved for such minimal extra costs, when set against the typical costs of burglary to victims. The public profile of SBD should also be raised. Demands to build/design estates to SBD are less likely to be ignored if they come from the customer.
- The Housing Corporation's Scheme Development Standards should include the need to build to SBD as an 'Essential' criterion.
- Further analysis is required to address issues such as geographical displacement, cost-effectiveness, and the process by which developers and others choose whether to build to SBD standards. Other key areas for further research are the interaction of SBD with social factors and the role of offenders' Modus Operandi in explaining the pattern of repeat victimisation. This may help to highlight vulnerabilities that SBD does not yet address. It is planned to cover these issues in a full report in due course.

In Conclusion

How far the results of this study can be generalised nationally, and what are the specific factors contributing to reducing burglary of SBD homes, is a matter for further study. Some suggestions will be included in the more detailed analyses presented in the longer report of the study described here, to be published at a later date. That report will be improvement-oriented, ie it will concern itself with the attributes of SBD homes which were burgled, features which make repeat burglary of SBD homes more probable, and so on. The work reported here demonstrates the relevance of design to crime rates, a point which should not be lost on Crime & Disorder partnerships, and planners in particular. It justifies qualified optimism. It acknowledges, as do the operators of SBD themselves, that SBD can never be a finished crime-reduction process but must continue to evolve.

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