



SOC1.7

# Safety and security



## Objective

Our objective is to devise a design concept that prevent dangerous situations in buildings and their immediate vicinity as much as possible.

## Benefits

A high sense of security makes a vital contribution to people’s comfort. By contrast, uncertainty and anxiety restrict freedom of movement. Measures which increase the sense of security are generally also suitable for reducing the danger of attack by other people.

## Contribution to overriding sustainability goals



	CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS (SDGS) OF THE UNITED NATIONS (UN)	CONTRIBUTION TO THE GERMAN SUSTAINABILITY STRATEGY
<b>1</b> Low	11.7 Access to public spaces and green spaces	16.1 Crime



## Outlook

Hazardous incident risks is also part of safety and security. This topic may be added to this criterion in a later version.

## Share of total score

	SHARE	WEIGHTING FACTOR
Office	1.0%	1
Education	1.8%	2
Hotel	2.0%	2
Residential Consumer market	1.1%	1
Shopping centre Business premises		
Logistics Production	4.3%	4

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## EVALUATION

The type and scope of building measures required in order to increase people's sense of security and to prevent dangerous situations in buildings and their immediate vicinity are assessed using indicator 1. Safety measures that fall outside of the scope of the proposed topics can be credited as an alternative under the Innovation area indicator. In this criterion, a maximum of 100 points can be achieved.

NO. INDICATOR	POINTS														
<b>1 Subjective perception of safety and protection against assault</b>															
<b>1.1 Level of visibility</b>	<b>40</b>														
General areas (entrance areas, main thoroughfares, inner courtyard paths) and underground garages, ground-level car parks and multi-storey or rooftop car parks (where available) that offer clear visibility															
<b>1.2 Level of lighting</b>	<b>30</b>														
Well-lit main thoroughfares, paths to car parks and bicycle parking areas															
<b>1.3 Technical safety equipment</b>															
<table border="0" style="width: 100%;"> <tr> <td style="background-color: #e0e0e0;">Office</td> <td style="background-color: #e0e0e0;">Education</td> <td style="background-color: #e0e0e0;">Hotel</td> <td style="background-color: #e0e0e0;">Consumer market</td> <td style="background-color: #e0e0e0;">Shopping centre</td> <td style="background-color: #e0e0e0;">Business premises</td> <td style="text-align: right;"><b>Max.</b></td> </tr> <tr> <td style="background-color: #e0e0e0;">Logistics</td> <td style="background-color: #e0e0e0;">Production</td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: right;"><b>30</b></td> </tr> </table>	Office	Education	Hotel	Consumer market	Shopping centre	Business premises	<b>Max.</b>	Logistics	Production					<b>30</b>	
Office	Education	Hotel	Consumer market	Shopping centre	Business premises	<b>Max.</b>									
Logistics	Production					<b>30</b>									
Residential	<b>Max.</b>														
	<b>20</b>														
Number of technical safety installations (emergency telephones, CCTV, PA systems (in offices), voice alarm systems or comparable installations):															
■ 1	15														
	Residential 10														
■ ≥ 2	30														
	Residential 20														
<b>1.4 Preventive safety measures</b>															
Residential	<b>10</b>														
Measures to prevent burglaries, e.g. roller shutters on the lower storeys, alarm system, RC protection class															
Does not apply to															
Office	Education	Hotel	Consumer market	Shopping centre											
Business premises															
Logistics	Production														



Re 1 **INNOVATION AREA**



As in  
1.1–1.4

Explanation: Safety measures that cannot be assigned to any of the categories or measures listed above but demonstrably make people feel safer and more secure and protect them from assault

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## SUSTAINABILITY REPORTING AND SYNERGIES

### Sustainability reporting

The number of safety installations and measures provided are good key performance indicators (KPIs) to report.

NO.	KEY PERFORMANCE INDICATORS (KPIs)	UNIT
KPI 1	Number of technical safety installations and preventive measures	[number]

### Synergies with DGNB system applications

- **DGNB BUILDING IN USE (BIU):** There are synergies with criterion TEC9.1 in the BIU scheme.
- **DGNB RENOVATED BUILDINGS:** High synergies with criterion SOC1.7 in the REN scheme.



## APPENDIX A – DETAILED DESCRIPTION

### I. Relevance

Building measures can help increase people's sense of safety and prevent dangerous situations.

### II. Additional explanation

Building users' subjective perception of safety can be raised, for example, by ensuring that there is adequate visibility and lighting in the outdoor areas, clear layout of paths, and by using technical safety equipment. These measures serve to prevent danger and limit attacks and accidents.

### III. Method

#### **Indicator 1: Subjective perception of safety and protection against assault**

A sense of safety and security and protection from assault should be improved using suitable measures. Indicators for this are as follows:

##### **Indicator 1.1: Level of visibility**

People's sense of safety and security on the site and within the building itself should be increased by improving visibility, comprehensive sign-posting. Open spaces and outdoor paths are here assessed. The evaluation takes into consideration the visibility in all general areas and rooms as well as the visual links between rooms and general areas, e.g. main thoroughfares, entrance areas, inner courtyards and an underground car parking design that affords clear visibility.

##### **Indicator 1.2: Level of lighting**

Well-lit main thoroughfares, publicly accessible outdoor spaces and the ability to reach destinations (bicycle parking areas, car parks, bus stops) directly avoiding circuitous route help increase people's sense of safety and security.

##### **Indicator 1.3: Technical safety equipment**

Technical safety equipment suggests that help is accessible and available in a dangerous situation. This feature gives users a feeling of increased safety while discouraging possible offenders. Technical safety equipment includes CCTV, emergency telephones and PA systems.

Only those areas in which data protection laws will not be violated can be monitored by using CCTV equipment.

##### **Indicator 1.4: Preventive safety measures**

Measures to prevent burglaries, e.g. roller shutters on the lower storeys, alarm systems or burglary-resistant doors/windows (rated using resistance classes (RC)) are here evaluated.



## APPENDIX B – DOCUMENTATION

### I. Required documentation

A range of different forms of documentation is listed below. The submitted documentation must comprehensively and clearly demonstrate compliance with the requirements for the target evaluation of the individual indicators.

#### **Indicator 1: Subjective perception of safety and protection against assault**

##### **Indicator 1.1: Level of visibility**

- Excerpt from the detailed design plans showing the visual relationship between rooms and general areas such as main thoroughfares, paths and roads, the entrance areas and inner courtyards and clear visibility of the underground car park.
- Written explanations of the plans
- Photo documentation

##### **Indicator 1.2: Level of lighting**

- Plan of the paths
- Lighting concept for the paths
- Documentary evidence demonstrating the light intensity (illuminance) or light densities (luminance), e.g. from data sheets for the lighting used or by measuring, simulating or calculating these values
- Documentation showing the location of the car parks, e.g. on the site plan or the underground car park plan
- Documentation showing the location of the bicycle parking areas, e.g. on the site plan or the underground car park plan

##### **Indicator 1.3: technical safety equipment**

- List and documentary evidence of the technical safety installations present, e.g. through the functional specification created or contracts made
- Location of the technical safety installations, e.g. on plans
- Photo documentation of the safety installations that have been provided, specifying their location

##### **Indicator 1.4: Preventive safety measures**

- As in indicator 1.3



## APPENDIX C – LITERATURE

### I. Version

#### Change log based on 2018 version

PAGE	EXPLANATION	DATE
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### II. Literature

- ASR A3.4/3 Sicherheitsbeleuchtung [Technical regulations for workplaces A3.4/3 Safety lighting]. May 2009 <https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/ASR/ASR-A3-4.html>; [http://en.licht.de/fileadmin/Publications/licht-wissen/1611\\_lw10\\_E\\_Emergency-Lighting\\_web.pdf](http://en.licht.de/fileadmin/Publications/licht-wissen/1611_lw10_E_Emergency-Lighting_web.pdf); [http://www.ceag.de/sites/ceag.de/files/resource\\_download/files/03\\_requirements\\_en.pdf](http://www.ceag.de/sites/ceag.de/files/resource_download/files/03_requirements_en.pdf)
- EN 12464-1. Light and lighting – Lighting of work places – Part 1: Indoor work places. Berlin: Beuth Verlag. August 2011. [http://www.aget.it/app/webroot/files/uploads/filemanager/File/info/EN\\_12464-1.pdf](http://www.aget.it/app/webroot/files/uploads/filemanager/File/info/EN_12464-1.pdf)
- EN 12464-2. Light and lighting – Lighting of work places – Part 2: Outdoor work places. Berlin: Beuth Verlag. October 2007. <http://svstsv.com/assets/files/content/norms/bur/EN-12464-2.pdf>
- DIN 32975. Designing visual information in the public area for accessible use. Berlin: Beuth Verlag. December 2009. [https://www.bmu.de/fileadmin/Daten\\_BMU/Pool/Broschueren/barrierefreies\\_bauen\\_leitfaden\\_en\\_bf.pdf](https://www.bmu.de/fileadmin/Daten_BMU/Pool/Broschueren/barrierefreies_bauen_leitfaden_en_bf.pdf); [https://www.pro-retina.de/media/dateien/21/ea\\_barrierefreie\\_kontraste\\_boehringer1.pdf](https://www.pro-retina.de/media/dateien/21/ea_barrierefreie_kontraste_boehringer1.pdf)
- State building regulations
- Sustainable Development Goals, United Nations/globalgoals.org
- VDI guideline: VDI 6010 sheet 1 Technical safety installations for buildings – System-overlapping description of communication. [https://www.vdi.de/uploads/tx\\_vdirili/pdf/2238803.pdf](https://www.vdi.de/uploads/tx_vdirili/pdf/2238803.pdf)
- Risk maps (CEDIM Risk Explorer)