

### Appendix 3: Barrier dimensions and barrier elements

Physical barriers		
<b>Off-site barriers</b>	Transportation infrastructure	<ul style="list-style-type: none"> <li>▪ <i>Lack of transport connections</i></li> <li>▪ <i>Intersecting transportation corridors (e.g. major car roads and bikeways)</i></li> </ul>
	Surrounding neighbourhood characteristics	<ul style="list-style-type: none"> <li>▪ <i>Sidewalks preventing (pleasant) walking or missing</i></li> <li>▪ <i>No crossings</i></li> <li>▪ <i>Missing connections between transportation and entrances to UGS</i></li> </ul>
<b>Boundary barriers</b>	Linear elements	<ul style="list-style-type: none"> <li>▪ <i>Adjacent major transport lines</i></li> <li>▪ <i>Adjacent natural barriers e.g. water of hedges</i></li> </ul>
	Built structures	<ul style="list-style-type: none"> <li>▪ <i>Buildings and built-up blocks</i></li> <li>▪ <i>Fences</i></li> </ul>
	Entrances and access point characteristics	<ul style="list-style-type: none"> <li>▪ <i>Unequal distribution</i></li> <li>▪ <i>Shape limiting access (e.g. lacking waling frames, no platform for wheel chairs)</i></li> </ul>
<b>On-site barriers</b>	Limited usability of 'enabling' facilities	<ul style="list-style-type: none"> <li>▪ <i>Features supporting passive activities</i></li> <li>▪ <i>Features supporting active activities</i></li> </ul>
	Facilities and structures constraining activities	<ul style="list-style-type: none"> <li>▪ <i>Built-up elements e.g. fences</i></li> <li>▪ <i>Natural elements e.g. hedges</i></li> </ul>
Personal barriers		
<b>Individual capacities</b>	Conditions	<ul style="list-style-type: none"> <li>▪ <i>Poor or reduced physical fitness</i></li> <li>▪ <i>Poor or reduced health</i></li> </ul>
	Resources	<ul style="list-style-type: none"> <li>▪ <i>Restricted time budget</i></li> <li>▪ <i>Restricted financial means</i></li> </ul>
<b>Cognitive capacities and outlook</b>	Capacities	<ul style="list-style-type: none"> <li>▪ <i>Language skills</i></li> <li>▪ <i>Level of education</i></li> <li>▪ <i>Professional relationships (e.g. being employed as gardener)</i></li> </ul>
	Outlook	<ul style="list-style-type: none"> <li>▪ <i>Cognitive framework (e.g. religion)</i></li> <li>▪ <i>Preference, attitude, willingness</i></li> <li>▪ <i>Individual beliefs</i></li> </ul>
<b>Interpersonal relations</b>	Voluntary exclusion	<ul style="list-style-type: none"> <li>▪ <i>Lack of confidence</i></li> <li>▪ <i>Self-retreat</i></li> </ul>
	Involuntary exclusion	<ul style="list-style-type: none"> <li>▪ <i>Discrimination</i></li> <li>▪ <i>Exclusion by appropriation</i></li> </ul>
Institutional barriers		
<b>Planning and management</b>	Planning and policy	<ul style="list-style-type: none"> <li>▪ <i>Lack in design / implementation</i></li> <li>▪ <i>Legal restrictions</i></li> </ul>
	Maintenance	<ul style="list-style-type: none"> <li>▪ <i>Closure or neglect</i></li> <li>▪ <i>Use restrictions</i></li> <li>▪ <i>Protection status constraining activities</i></li> </ul>
	Management	<ul style="list-style-type: none"> <li>▪ <i>Opening hours, fees, user rules</i></li> <li>▪ <i>Features for a certain purpose</i></li> <li>▪ <i>Property restrictions (e.g. semi-private UGS)</i></li> </ul>
<b>Decision contexts and power relations</b>	Power asymmetries	<ul style="list-style-type: none"> <li>▪ <i>Informal hierarchies</i></li> <li>▪ <i>Lack of agency</i></li> <li>▪ <i>Lack of understanding/learning</i></li> <li>▪ <i>Lack of partnerships/networks</i></li> </ul>
	Decisions	<ul style="list-style-type: none"> <li>▪ <i>Conflicts of interests and goals</i></li> </ul>

		<ul style="list-style-type: none"> <li>▪ <i>Lacking exchange / interaction</i></li> <li>▪ <i>Different strategic interest</i></li> <li>▪ <i>Imbalanced strategic coalitions</i></li> </ul>
<b>Cultural norms and practices</b>	Informal practice of authorities	<ul style="list-style-type: none"> <li>▪ <i>Resistance against innovation</i></li> <li>▪ <i>Pragmatism in decision making</i></li> </ul>
	Unwritten norms, rules, values relevant for users	<ul style="list-style-type: none"> <li>▪ <i>Societal rules for behaviour, norms and use restrictions</i></li> <li>▪ <i>(Non)compatible activities</i></li> <li>▪ <i>(Non)openness, (in)tolerance</i></li> </ul>
<b>Contextual barriers</b>		
<b>Temporal context</b>	Event-related	<ul style="list-style-type: none"> <li>▪ <i>(Sudden) disturbance of use by inter-personal (e.g. drug scene) or natural (e.g. storm damage) events</i></li> </ul>
	Process-related	<ul style="list-style-type: none"> <li>▪ <i>Heatwaves, droughts</i></li> <li>▪ <i>Lack of learning, information gathering and negotiating</i></li> </ul>
	Season-related	<ul style="list-style-type: none"> <li>▪ <i>Poor weather conditions</i></li> <li>▪ <i>Temporary closure</i></li> <li>▪ <i>Lack of illumination during night</i></li> </ul>
<b>Spatial context</b>	Place-dependency	<ul style="list-style-type: none"> <li>▪ <i>Neighbourhood characteristics (residential/industrial, attractive/non-attractive)</i></li> </ul>
	Scale dependency	<ul style="list-style-type: none"> <li>▪ <i>Housing market mechanism (rising rents, upgrading)</i></li> <li>▪ <i>Governmental arrangements and social shifts</i></li> </ul>