
Media Info Pack

Abu Dhabi: November 05th, 2013
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Press Release:


The Manual will ensure the creation of safe, secure and sustainable communities for new developments and existing areas.

Abu Dhabi, November 5th 2013: To guide the development of safe and secure communities, the Abu Dhabi Urban Planning Council (UPC) has introduced the Abu Dhabi Safety & Security Planning Manual (SSPM), developed in close collaboration with a large number of Government and private stakeholders. The process for preparing the SSPM included a series of workshops over a nine-month period with senior representatives of the UAE’s Federal Ministries, Abu Dhabi Government departments, along with a high level of collaboration and coordination with the Department of Municipal Affairs, representatives of the private sector and higher education institutions.

HE Major General Obaid Salem Al Ketbi, Deputy General Commander of Abu Dhabi Police, said, “Forces are joining towards the realization of Abu Dhabi 2030 Vision by building firm foundations and safe and secure infrastructure that meets the standards of 21st Century whilst addressing the safety and security requirements of sustainable projects being undertaken Emirate-wide. The Manual therefore offers safety and security-centric principles for planning and design as well as design kit that will help planners undertake informed decisions enabling developers to promote stable and safe places and communities that are in line with Abu Dhabi’s development.”

Stressing the Manual will provide guidelines and directions for world-class service facilities and new developments in Abu Dhabi, HE added, “The encompassed elements of the Manual such as policies, strategic laws, planning for areas and public places, developments, and existing buildings, will have long-term and positive impacts on the lives of residents whilst ensuring sustainable and quality life. It is therefore a vital tool to help enhance living standards and national identity by promoting safety and security in building and landscape design as well as in new and existing communities.”

The Manual integrates the diverse needs of the stakeholders to guide developers, property owners and a wide range of professionals,
including urban planners, designers, transport engineers and safety 
& security specialists, towards creating solid foundations for safe, 
secure and sustainable communities. Government agencies will assess 
the appropriateness of community safety and protective security 
arrangements for existing developments using the Manual as a 
reference. For developments in planning,

The SSPM contains eight overarching principles for planning and 
designing buildings and communities with safety and security at 
their core. In addition to driving the direction for safety & 
security in the Emirate of Abu Dhabi, the principles complement the 
planning and design directions of the UPC’s framework plans while 
playing a pivotal role towards the overall realisation of the Abu 
Dhabi Urban Planning Vision 2030. Whether the Manual is being used 
during the early stages of the development process or to make 
improvements at existing buildings, it is designed to promote 
innovative and aspirational solutions that addressing the 
specificities of the local context.

As stated by HE Falah Al Ahbabi, General Manager of UPC: “The 
importance of embedding the eight safety and security principles at 
the project inception phase ensures that we are always in a position 
to balance competing development objectives with safety & security 
measures and able to incorporate unobtrusive measures into the built 
environment right from the start and before construction takes 
place. Such an approach prevents the need for retrofitting, which 
could alter design quality and add to overall costs.”

The Integrated Development Process that is central to the SSPM 
clearly describes how safety and security need to be integrated in a 
project while highlighting who will be directly involved, when they 
will be involved and their roles and responsibilities. Following the 
release of the Manual, all new developments shall implement the SSPM 
planning and design principles. The eight pre-defined principles 
cover a comprehensive range of safety & security issues, such as 
access and connectivity, structure and spatial layout, ownership, 
surveillance, activity, physical security, public image and 
adaptability. The Manual is to be used for all developments, both 
those to be constructed in the future and where enhancements are 
required at existing buildings. As such the planning and design 
toolkits are essential to guide owners of existing facilities 
through a wide range of options for increasing safety & security 
levels. The planning toolkit is designed to assist urban planners to 
ensure their project site will comply with the relevant safety and 
security regulations, while the design toolkit is intended to 
support architects, engineers and urban designers. The process of
preparing the SSPM included a major benchmarking study, which examined both community safety and protective security practices at an international, regional and domestic scale. As a result, the UPC had an opportunity to ensure best practice while also taking specific factors into account to reflect Abu Dhabi’s culture and religion, climate, pace of development and built form.

Al Ahbabi concluded: “While the Manual does not set out to offer detailed guidance for each sector, it presents fundamental principles and guidance that are applicable to a large geographical area and a wide range of projects. It intends to be a clear starting point to identify those projects that shall be treated with high priority in regards of the incorporation of safety and security features. In the future, I am convinced that adopting this type of manual, along with meeting the UPC’s other key regulatory documents, will have a determinant positive impact on creating cohesive Complete Sustainable Communities (CSC) and enhance the use of our urban environments.”

Aligned with a clear prioritisation methodology, strategic urban planning and design are central to community safety and protective security. Therefore, the core SSPM principles and requirements are embedded into the UPC’s Development Review process to ensure stakeholders will correctly apply the safety and security regulations for their developments.

For more information and pictures, please go to: http://upc.o2-cafe.net/sspm/index.html
INFO MEDIA KIT:

Purpose of SSPM:

The purpose of the Manual is to ensure that Abu Dhabi remains safe and secure and welcoming as it continues to grow and attract a range of diverse activities, peoples and opportunities.

The purpose of the Manual is to ensure that safety and security are embedded in development proposals and this is best achieved using an Integrated Development Process. This process will be used to implement safety and security planning and design principles that are bespoke to Abu Dhabi. It will ensure that neither the development community, nor those tasked with safety and security enforcement loses sight of the Plan 2030 overarching principles. The vision for the Manual is to ensure the creation of safe and secure communities that enhance quality of life and reflect the Emirate’s unique identity.

Work on the initiative that produced the Manual included a series of workshops over a nine month period with senior representatives of Federal Ministries, Abu Dhabi Government departments, representatives of the private sector and Higher Education institutions. The initiative included a major benchmarking study that for the first time, examined both community safety and protective security practices at an international, regional and domestic scale. Where good practices were observed, these have been amended to take into account the following Abu Dhabi factors: Culture & Religion, Climate, Pace of Development and Built Form.

Safety and Security Definition:

Safety and security refers to the following:

Community Safety - comprises strategies and measures that seek to reduce the risk of crimes occurring and their potential harmful effects on individuals and society, including fear of crime, by intervening to influence their multiple causes.

Protective Security - is an organised system of protective measures implemented to achieve and maintain security. It combines the three disciplines of personnel, information and physical security in a manner to create ‘defence in depth’, where multiple layers work together to Deter, Delay, Detect and Deny an attack.
WHY SSPM? Key concerns addressed:

SSPM is based on eight Abu Dhabi Safety and Security Planning and Design Principles. All development in Abu Dhabi will now follow the below listed principles:

1. Access and Connectivity
2. Structure and Spatial Layout
3. Ownership
4. Surveillance
5. Activity
6. Physical Security
7. Public Image
8. Adaptability

1. Access and Connectivity

Safe and secure places balance the need for access control with connectivity and circulation.

Safety and security can be compromised if:
- Pedestrian routes are poorly lit, indirect and segregated from traffic;
- There is easy, anonymous access to targets, buildings and plots;
- There is no means of controlling who can enter a development;
- There are several uncontrolled escape routes from an area; and
- There is inadequate access for emergency vehicles.

2. Structure and Spatial Layout

Safe and secure places are structured in a way that manages risk and conflict.

Safety and security can be compromised if:
- The designated use of space is unclear;
- Places are underused and derelict;
- Conflicting user groups congregate in the same places;
- Public spaces are not overlooked physically or visually;
Areas of concealment and entrapment exist; and
Places at risk of vehicle attack do not benefit from stand-off.

3. Ownership

Safe and secure places are those over which occupants and users have a sense of ownership and responsibility.

Safety and security can be compromised if:
• It is unclear whether space is public or private;
• Private space is open to the public;
• There is limited communal interest or supervision over a space; and
• Offenders are not afraid of being seen or reported.

4. Surveillance

Safe and secure places have appropriate levels of surveillance.

Safety and security can be compromised if:
• The balance between surveillance and privacy is not achieved;
• The balance between surveillance and the need for shading is not achieved;
• Offenders are not afraid of being seen or reported;
• There is restricted natural surveillance of the public realm;
• Vulnerable areas do not have active surveillance systems; and
• Places are not well lit.

5. Activity

Safe and secure places are active and welcoming to legitimate users.

Safety and security can be compromised if:
• An area is very quiet (for most crime types);
• An area is very crowded (for security risk and pick-pocketing);
• Communities are not supported by the facilities they need;
• Opportunities are not provided for comfortable walking and cycling; and
• Operators are unprepared for sudden changes in activity levels.
6. Physical Security

Safe and secure places are appropriately and proportionately protected

Safety and security can be compromised if:
• Physical security is not appropriate or proportionate to risks;
• Physical security components are not fit-for-purpose;
• Defence in depth is not achieved; and
• If risks have not been assessed when determining physical security needs.

7. Public Image

Safe and secure places are well maintained and managed, and promote a positive public image

Safety and security can be compromised if:
• There is no sense of place;
• Places are untidy or unattractive;
• People think that they can commit offences with little risk of people caring;
• Signs of disorder and neglect are not dealt with at the earliest opportunity;
• Management and maintenance is not considered during planning and design; and
• Vacant or disused plots are left in poor condition.

8. Adaptability

Safe and secure places are adaptable to change

Safety and security can be compromised if:
• Places cannot respond to changes in use or users;
• Places do not respond to changing threats;
• Places cannot respond to special events;
• There is no planning for incident management; and
• Places cannot adapt to different modes of operations.
SSPM Toolkits:

SSPM contains a toolkit of planning and design guidance to be used to address safety & security risks. Decisions relating to which tools to adopt and to what extent they are applied are to be made as part of the Integrated Development Process. Neither the Planning Toolkit nor the Design Toolkit prescribes any particular solutions. Best practice and experience shows that safety & security risks differ from one place to another and that the solutions that work in one place might not work in another. There is a need to take into account the local situation and for all those involved in developing, managing and maintaining the built environment, to work collaboratively and holistically to address safety and security risks.

Planning Toolkit
Design Toolkit

PT1 Site Selection
This tool highlights the importance of selecting the right use for the right place. It deals with land use compatibility, scale of development and how to deal with constrained sites where, because of gifting or competing development objectives, it is not possible to develop at a different location.

PT2 Access & Circulation Routes
PT3 Vehicle Access Control
PT4 Pedestrian Access Control
PT5 Service Access Control
PT6 Parking Placement
Tools PT2–PT6 are all directly related to a project’s movement framework. High Priority Projects tend to require increased levels of access control and physical security to mitigate security risks. This requirement can influence spatial layout and, if these tools are ignored or not used correctly, can have a significant impact on the movement of people, vehicles and services at a development.

PT7 Infrastructure Planning
PT8 Topography
PT9 Building Orientation & Shape
Tools PT7 – PT9 deal with other safety & security planning requirements that will likely influence space allocation and site spatial planning.

PT10 Development Delivery
Tool PT10 highlights how important it is to consider development phasing at the project planning stage, particularly for larger developments where there is likely to be partial occupation before a development is complete.
DT1: Landscape & Urban Design

This section deals with exterior design elements at the plot level, plot boundary and within the surrounding district.

DT2: Architectural Design

This section outlines the role of architectural design in asset protection and reducing safety and security vulnerabilities. It covers design decisions relating to interior space, structure and the envelope of the building (façade).

DT3: Systems Design

This section provides design guidance for infrastructure protection and the deployment of safety and security systems.
How and When SSPM will be implemented?

The Abu Dhabi Urban Planning Council has been applying the Principles of the SSPM in its policies, plans and Regulations for some time. From September 2013, the development community will be expected to follow the Principles and guidance of the SSPM in all new development projects submitted to the UPC for planning approval. In addition, a programme of surveys will be initiated at existing buildings by the newly formed Abu Dhabi Safety & Security Working Group which is being led by the UPC. The surveys will identify vulnerabilities that can be addressed by utilising the SSPM and a safety & security advisor will advise the building owner of any necessary improvements.

New Development
All new projects shall implement the Abu Dhabi Safety and Security Planning and Design Principles (SSPM Chapter 2) regardless of the type, scale or location of development. Those projects requiring a UPC planning approval will automatically be subject to a safety & security review as part of the development review process. Projects that normally pass immediately to the Municipalities for Building Permitting will require a No Objection Certificate (NOC) from the Abu Dhabi Safety & Security Working Group, only if they are identified as High Priority by the Decision Support Tool, available online at http://www.upc.gov.ae/sspm/index.html

The Decision Support Tool supplements the SSPM and is both simple and user friendly. It may be used as early as the pre-planning stage of a project to gain an appreciation of how much influence safety & security will have on development proposals. There are only two outcomes from the Decision Support Tool. A project will either be identified as a ‘Low Priority’ project or a ‘High Priority’ project.

High Priority - These projects will be reviewed by the UPC led Abu Dhabi Safety & Security Working Group.

Low Priority - The SSPM Principles will be applied as part of the normal UPC development review process.
Integrated Development Process Stages

Existing Buildings:

In the existing built environment, certain constraints will reduce opportunities for owners to make community safety and protective security enhancements. This explains why the Government is focusing so much effort in ensuring that developers integrate safety and security early in the development process. However, the principles outlined in the Manual are universally applicable and the Toolkits (SSPM Chapter 4&5) will be useful to owners wishing to improve their security and install retrofit measures. The toolkits will help them achieve design quality and fit-for-purpose solutions.

Advisors from the Abu Dhabi Safety & Security Working Group will be initiating a programme of site vulnerability surveys across the Emirate, although these will be restricted to ‘High Priority’ buildings. A notification will be received if your site is to be subject to a survey.

In the spirit of transparency and fairness, the advisors will explain why the site has been selected and will share the results with the owner. The cost of any improvements will be the responsibility of the owner and a reasonable implementation timeframe will be agreed during ongoing discussions.
Case Studies (Al Bandar / Saadiyat Island Cultural District)

Al Bandar
Al Bandar demonstrates the implementation of the Principles, Planning Toolkit and Design Toolkit outlined in this Manual.

Al Bandar is located at the eastern end of Al Raha Beach, within close proximity to Abu Dhabi International Airport, Etihad’s headquarters and the main Abu Dhabi-Dubai Highway.

The developer’s intention was to create a living community in Al Raha Beach, and Al Bandar forms one part of it, fostering a multi-cultural community and encouraging a sense of place.

Within the development there is a full-service marina, supermarket, beverage store, laundry, tennis court, swimming pools, dining areas, an optician, pharmacy, nail salon as well as other retail, plus a residents’ clubhouse with multi-purpose facilities.
Principles and Toolkit in Practice

Al Bandar consists of spaces to which different users have varying degrees of access rights and ownership. The plan below broadly divides the types of spaces open to users into four zones - Private, Semi-Private, Semi-Public and Public. The scheme benefits from clearly defined boundaries and transitions between each zone.

Combined with good access control, landscape design and features, these measures help to create a safe and secure environment.
Spatial Definition

Throughout the development, there are clearly defined spaces. In the example to the right, psychological and physical cues are used to deter unwanted access, without resorting to physical barriers.

Ownership

In the example to the right, changes in paving and signage have been used to define ownership of space.

Where physical barriers have been used, they are attractively designed, blending in with the streetscape. It is clear to different users where Semi-Public and Semi-Private areas begin and end; in this case the space beyond the gate is for residents’ use only.

Vehicle Access Control

Designers have introduced a single access control point to the development. By minimising entry to the development via a singular route, it is easier to prevent and monitor unauthorised vehicular access.

Vehicle movement is also restricted to the edges of the development, the exception being for deliveries and emergency response.

Residents and visitors’ parking areas are located in underground basements, again these are accessed near the entrance of the
development, away from the main residential and commercial buildings.
Public Image

The decision taken during the planning and design stages to create high-quality spaces throughout the development (that are easy to manage and maintain) has had a positive impact on safety and security.

In addition, the open spaces offer opportunities to enhance natural surveillance and are also adaptable and can be utilised to support emergency response and special events.

Signage and Wayfinding

The movement framework is well-defined, offering convenient movement between public destinations and discouraging use of more private areas.

Routes and destinations are clearly signed and oriented, helping users move from place to place safely. Evacuation routes and emergency meeting points are well-planned.

The high-quality signage and street furniture contribute to community and place identity.

Activity

The variety of uses, shops, cafes, marina, housing and other leisure facilities helps create a mixed-use community. As a result more people are around at all times, keeping more eyes on the street.
Surveillance

There are high levels of natural surveillance throughout the development. Public spaces, facilities and movement routes can be observed by residents. In the context of this mixed-use community, this is highly
desirable as good natural surveillance is more of a deterrent than active systems.

**Saadiyat Island Cultural District**

The Cultural District on Saadiyat Island is to be devoted to culture and the arts. It aims to be a centre for global culture drawing local, regional and international visitors with unique exhibitions, collections and performances at iconic institutions housed in buildings, which constitute a statement of the finest architecture.

The Saadiyat Island Cultural District Master Plan project is featured as a case study in this document because it:

- Is a new master plan that includes four high profile, iconic, cultural buildings requiring protective security;

- Demonstrates the advantages of early project engagement and integrated planning; and

- Illustrates the benefits of addressing safety and security requirements using the tools presented in this Manual.

The development is predominantly mixed use but will be home to the Zayed National Museum (ZNM), Louvre Abu Dhabi (LAD), Guggenheim Abu Dhabi (GAD) and Performing Arts Centre. Each museum is considered a crowded place and will require protection against security risk and specific types of crime, particularly art theft.

Co-location of the four museums is an example of clustering buildings of similar risk profile.
The Process

An integrated development process was adopted by the Tourist Development Investment Company (TDIC). This approach was successful for several key reasons:

- Security was identified by the client as a primary planning and design requirement;
- A safety and security specialist was included as part of the multidisciplinary team in the earliest stages of planning to help identify and balance requirements for the project;
- The project adopted a risk-based approach to identify and address safety and security needs;
- Early involvement enabled each design team to achieve the security objective through very different, innovative solutions;
- The master plan resulted in a significant reduction in risk through planning and design; and
- Security requirements were achieved without negatively impacting on aesthetics or function.

This process resulted in the following five solutions:

1. Realignment of the canal
2. Maritime boundary treatment
3. Remote logistics delivery
4. Pedestrian screening
5. Movement framework enhancements
Solution 1: Realignment of the Canal

The canal was realigned and the ZNM relocated to create a natural protective barrier around the museums. This natural barrier was later supplemented by the deployment of HVM measures at the bridge locations crossing the canal, which will enable the establishment of a security zone during times of heightened threat or special events.
Solution 2: Maritime Boundary Treatment

Both the LAD and GAD have extensive maritime boundaries that make them vulnerable to boat borne security risk and high value art theft. The security requirement to achieve maritime denial and access control was achieved through two different but equally innovative solutions.

The LAD design team achieved maritime access control through the development of a concept based on Venetian piles. The piles of different heights and sizes were reinforced to security specifications, and deployed in an apparently random pattern of layers to prevent an unappealing ‘stockade perimeter’.

The GAD design team achieved maritime access control through the incorporation of the security requirement into the design of their wave attenuation barriers. The specification and alignment of the barriers was amended to satisfy both requirements.

In addition the large platforms surrounding the museum served a dual purpose, providing a secondary layer to keep vessels away from the museum facade, while enabling visitors to walk around the outside of the museum.
Solution 3: Remote Logistics Delivery

Delivery vehicles and loading bays present significant vulnerabilities in the design of a museum, potentially facilitating a security risk in the form of large VBIEDs and providing a location for high value art theft. In order to address these risks, innovative solutions were developed for the three museums.

A shared remote logistics system is to be incorporated into the design for the Museum Park between the LAD & GAD museums.

This below grade facility will provide secure, dedicated delivery to the two museums, as well as providing below-grade public parking.

This design greatly increases the level of deterrence and protection afforded to the museums, enabling vehicle exclusion zones to be maintained on each site.

Deliveries for the ZNM are processed through a dedicated delivery reception area on the plot of the ZNM. The facility is located a considerable distance from the museum, with internal movement through tunnels on electric vehicles. This design also provides high levels of deterrence and protection and enables a vehicle exclusion zone at ground level to be enforced.
Solution 4: Pedestrian Screening

The museums were directed to incorporate screening of visitors into their designs, to mitigate against security risk (particularly PBIEDs and armed attack) as well as crimes such as armed robbery, theft and vandalism.

For the LAD, the screening locations were pushed to the extremities of the development area on the pedestrian approach bridges. These are located a considerable distance from the museum gallery and public spaces and independent of the main structures of the museum buildings.

The GAD project team have created a security control point for pedestrian screening that achieves a high level of protection without impacting on the aesthetics of the museum entrance. During design the screening location was moved away from its initial location at the heart of the museum to its new position below grade, independent of the main structure.
Solution 5: Movement Framework Enhancements

Main entrances present significant vulnerabilities in the design of a museum, being susceptible to both security risk, in the form of large VBIEDs, and high value art theft, particularly armed robbery.

Several options for adapting the vehicle movement framework for the ZNM were considered, each offering differing levels of access control from vehicle inclusion through to exclusion schemes. An inclusion scheme was taken forward and the design team elected to close the approach road with access limited to a small number of invited users only.
Examples:

- The same space is transformed by programming of space and public realm design improvements.
- Poorly planned and managed spaces with no clear function can become unsafe.
- Well-connected neighbourhoods with convenient access to local facilities are full of life and frequented by members of the community.
- Well-designed parks are welcoming and make it easier for people to orient themselves.
Shading and natural surveillance are carefully balanced.