



Counterterrorism Protective Security as Part of the Planning, Design & Development of Crowded Places in Australia: Where are we now?

Journal:	<i>Journal of European Real Estate Research</i>
Manuscript ID	JERER-06-2021-0034.R1
Manuscript Type:	Research Paper
Keywords:	Anti-terrorism, Property Development Process, Protective Security, antiterrorism, counter-terrorism, urban resilience

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Counterterrorism Protective Security as Part of the Planning, Design and Development of Crowded Places in Australia: Where are we now?

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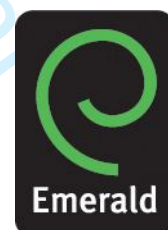
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Dr. Pernille H. Christensen has over twenty years of experience in the built environment spanning a mix of planning and design practice, financial services, and academic research experience. She has conducted research projects for industry, professional bodies, government and quasi-government agencies, domestically and internationally. Using a multi-disciplinary approach, her research over the past decade has centred around various aspects of urban sustainability and resilience, with particular focus on developing strategies for improving community resilience to social and environmental disruptions and the role that the built environment plays in helping cities to meet targets in this area. Recent research projects have investigated the role of the built environment in protecting people in crowded places, developed a framework for integrating best practice protective security and risk assessment into the property development process, and investigated the impacts of flooding and heat island effect on people and the built environment. In each project, the research has focused on developing frameworks for improved, evidence-based decision-making and more robust adaptation and mitigation strategies to enhance the resilience of urban communities.

Structured Abstract [Mandatory] – Please structure in sections as shown in the author guidelines

Design/methodology/approach: This paper presents the results from 33 in-depth, semi-structured, one-hour interviews with property developers, property investors, property managers, security consultants, designers, planners, and government/policy officials in Sydney, Canberra and Melbourne, Australia. A purposive, snowball sampling method was used to identify participants in the study.



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Purpose: Between 2013 and 2016 Western countries experienced a nearly 600% increase in terrorist attacks. Among the most significant shift in terrorism trends during this time is the recent focus on civilians in crowded places as a frequent target. Although crowded places have become critical targets for terrorist attacks, there remains a dearth of research studying crowded places or the built environment practitioner's role in creating crowded places that are as resilient as possible against terrorism.

Findings: This research extends the existing literature base on counterterrorism protective security, a distinctly under-researched component of the terrorism research discourse, by developing a baseline of threat considerations considered during the planning, design, and development process. This paper presents the Australian results of a first-of-its-kind international study that connects the planning, design, and development of real estate in crowded places with planning for protective counterterrorism and investigates *what, when* and *how* counterterrorism protective security (CTPS) is considered in the development process of crowded places. The findings show that a series of common threats were identified across the stakeholder groups, including development risk, development location/site selection, natural phenomena, and human-induced issues.

Research limitations/implications: This research extends the current knowledge base on CTPS and has the potential to influence decision-makers in both the counterterrorism policy landscape and those influential in developing standards for the planning, design, construction, and management of real estate assets.

Originality/value: An original contribution of this research is detailing the significant range of threats, impacts of events, and organizational influences that exist in informing the real estate development process.

Keywords [Mandatory]: counter-terrorism, counterterrorism, protective security, urban resilience, anti-terrorism, antiterrorism, Property Development Process,

JEL Classification:

Article Classification [Mandatory]:

Research

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1.0 Introduction

International related terrorism has been become a regular fixture in mainstream media in recent times with attacks highlighting a shift in focus away from disruptive phenomena (on critical infrastructure) towards high impact and often low sophistication attacks in the crowded places of global cities (McIlhatton et al., 2018; McIlhatton et al., 2019). These attacks have, in turn, resulted in a further refocusing of counterterrorism strategies towards a more protective posture resulting in the most significant repositioning since the events of September 11, 2001 (9/11). In the United Kingdom, the National Counter Terrorism Security Office responded to these attacks by publishing the ‘Crowded Places Guidance’ document in 2017 (NaCTSO, 2017, 2020) which amalgamated advice from multiple existing documents into a new guidance document. Following this, Her Majesty’s Government (HMG) released a revised version of the UK Counter Terrorism Strategy (CONTEST) in June 2018. The former was *‘primarily aimed at those in the security sector and those who own or run businesses, organisations, amenities or utilities’* while the latter sets the strategic operating environment for counterterrorism. In a similar vein, the United States Department for Homeland Security published their *Soft Targets and Crowded Places Security Plan* and its associated resource guide in May 2018. This was closely followed in October 2018 by the publication of a new *National Strategy for Counterterrorism of the United States of America* developed by the Trump Administration (The White House, 2018).

In the Australian context, the National Terrorism Public Alert Level was raised to ‘High’ for the first time in September 2014, and the terrorism threat level remains at ‘Probable’ as of this writing, reflecting the Australian Security Intelligence Organisation (ASIO) judgement that “credible intelligence, assessed to represent a plausible scenario, indicates an intention and capability to conduct a terrorist attack in Australia” (Commonwealth of Australia, 2020). Since the terror level was raised in 2014, there have been 41 counterterrorism operations, resulting in 93 people being charged with terrorism offences, and 15 major terrorist plots being disrupted. During this same time, seven attacks were committed in Australia (Barker and Biddington, 2019). A rethinking and refocusing of their counterterrorism protective security approach during this time resulted in the release of *Australia’s Counterterrorism Strategy: Strengthening our resilience* (Commonwealth of Australia, 2015) and then *Australia’s Strategy for Protecting Crowded Places from Terrorism* (ANZCTC, 2017), the latter of which provided owners and property managers of crowded places with guidance designed to enhance resilience and safety.

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3 Interestingly, limited emphasis in the above guidance and policy documents is placed on anti-
4 terrorism, commonly known as counterterrorism protective security (CTPS), measures to guide
5 the design and development of crowded places by built environment practitioners and instead
6 promulgates the importance for the property management profession. Particularly in the
7 Australian context, this is surprising, given that in 2016 the then-Prime Minister, Malcolm
8 Turnbull, urged the planning and development community to “rethink the way we design and
9 protect places where large numbers of Australians gather” (22. July 2016, SBS News). This
10 lack of prominence is also articulated in the extant literature base where a distinct lack of
11 attention has been directed towards the planning, design and development of crowded places
12 and its potential role in counterterrorism.
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21 The research presented in this article seeks to extend the scholarly knowledge base by
22 developing an understanding of whether this lack of attention on CTPS is reflected, in reality,
23 in the earlier stages of the real estate development process of crowded places in Australia and
24 aims to better understand the current considerations of terrorism by property professionals and
25 contributing built environment stakeholders. The research presented here is part of a larger
26 international study and builds on preliminary results presented at the Pacific Rim Real Estate
27 Society (Christensen, 2019). Although the larger study also investigated the barriers to
28 implementation of CTPS measures and developed potential solutions to overcome those
29 barriers, these discussions are outside the scope of this paper. For detailed discussions on these
30 components of the research, please refer to McIlhatton et al (2018) and McIlhatton et al (2019).
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39 In the following section a review and analysis of the current literature base relating to terrorism,
40 real estate and the development process is presented. The methodological approach is then
41 detailed, and the results and findings from the interviews are presented. Finally, the paper
42 concludes with a discussion of the key lessons from the research.
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49 **Terrorism, Real Estate and the Development Process**

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51 The impact of terrorism within commercial real estate has been substantial in recent times and
52 has instigated a change in how governments enhance resilience from such attacks. Examples
53 include, the Provisional IRA bombs at Baltic Exchange and Bishopsgate in the City of London
54 in the early 1990s which resulted in over \$3 billion of damages collectively (McIlhatton et al.,
55 2018; CAIN, 2017; Cole et al., 2011), and which also led to the development and introduction
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of ‘London’s Ring of Steel’, a physical security posture that was designed to protect the City (Coaffee, 2004) through advanced technological measures and hostile vehicle mitigation. Indeed, the bombing of the Murrah Building in Oklahoma City in 1995 generated over \$650 million in damages (OKCNMM, 2019) and led to the development of Executive Order 12977 in October 1995, which directed the General Services Administration (GSA) and other related federal agencies to create construction standards designed to increase the security and blast resistance of US federal buildings through the introduction of new design features (e.g. shatter proof glazing) (Coaffee and Lee, 2016). The outcome of the work by the Interagency Security Committee (ISC) was the *ISC Security Design Criteria for New Federal Office Buildings and Major Modernization Projects* (2001) which set forth criteria aimed to reflect a “flexible and realistic approach to the reliability, safety, and security of Federal office buildings.”

Although Western countries remain the safest in the world, violence in and against them has been on an upward trajectory. Between 1978 and 2013, there was a total of 7,400 terrorist attacks with an average of 4.2 mass-fatality events¹ per year (Miller, 2015). The primary target for attacks during this period was transportation infrastructure. Attacks began increasing exponentially in 2014, where 26 mass-fatality events were carried out in a single year (Miller 2015). In 2015, Western countries recorded the “deadliest year in terrorism in nearly a decade ... [with] [c]ivilians, rather than the state, increasingly the target of terrorist attacks in the West and against Westerners overseas” (AON 2016, pp. 7). This trend continued in 2016 when, for the second consecutive year, Western countries experienced the greatest percentage increase in the frequency of terrorist violence of all regions, with a 174% rise in incidents and a 25% rise in casualties than what occurred in 2015 (Bolton and Wilkinson 2017). It should be noted that most of the recent terror targets had limited physical resilience against terrorism because previously-adopted counterterrorism protective security (CTPS) measures and investment have focused on securing critical sites, leaving softer targets, such as crowded urban places, vulnerable (Chaurasia et al, 2016). Of increasing concern in Oceania, Western Europe, and North America is the surge of far-right political terrorism, which has increased by 250% between 2014-2019, with over 35 far-right terrorist events in the West every year during this period as well as a 709% increase in deaths related to these incidents over the same period (Institute for Economics & Peace, 2020). Because far-right terrorism is more likely to be carried out by individuals unaffiliated with a specific terrorist group, with nearly 60 per cent

¹ Defined as occasions in which terrorist attack(s) kill more than 100 people in a single country on a single day.

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3 of far-right attacks from 1970 to 2019 were carried out by unaffiliated individuals (*ibid*), this
4 also makes it more difficult for intelligence to identify and protect against these potential
5 threats. Bardwell and Iqbal (2020) estimate that from 2000 to 2018, terrorism cost the world
6 economy \$US 855 billion.
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11 Despite the increased risk of terrorist attacks in the last decade, limited scholarly attention has
12 been paid towards investigating the property development process and its inter-relationships
13 with counterterrorism. The majority of attention has predominantly centred on the impact that
14 terrorism has had on real estate markets internationally (DeLisle, 2001; Dermisi, 2007; Abadie
15 and Dermisi, 2008), with limited empirical research existing on how to best counter and
16 mitigate these impacts when developing crowded places of global cities. The majority of
17 research investigating research emerges from a number of different perspectives.
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24 As noted, much of the current research construct focuses on the assessment of critical
25 infrastructure resilience against terrorist attack (Chaurasia et al 2016). Kulawiak and Lubiewski
26 (2014) note that the first step in protecting critical infrastructure is identifying and evaluating
27 potential negative factors, commonly referred to as either a risk assessment or a security
28 vulnerability assessment (SVA). With the shift in terrorist attack strategy toward easy-access,
29 low-capability tactics, businesses and commercial activity in and around crowded
30 places should be considered as the front line of mitigating terrorism. Crowded public places
31 and the activities which take place in them are vital to the socio-economic performance and
32 reputation of urban areas (McIlhatton et al 2016; McIlhatton et al, 2018). It is therefore
33 essential to understand *what* CTPS considerations are being thought about and *at what*
34 *development stage* they are being considered in order to improve the development process and,
35 consequentially, enhance its resilience to terrorist events. Bolton and Wilkinson (2017) explain
36 that the development of mitigation solutions is best informed when we better understand what
37 threats might impact our cities.
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49 From a property management perspective, there is growing attention to the role that the
50 insurance industry can have in enhancing the resilience of commercial real estate against the
51 effects of terrorism. Early studies from scholars (e.g. Shillum, 1997; Mixter and Owendoff,
52 2003) reviewed the historical nuances of insurance against acts of terrorism and how the losses
53 that were experienced, particularly by the reinsurance industry, helped redefine insurance cover
54 for property owners and managers. This redefinition came against a backdrop of a sustained
55 terrorist bombing campaign in the early 1990s by loyalist and republican paramilitary
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3 organisations that was resulting in significant property damage and consequentially, monetary
4 losses and the development of the Terrorism Risk Insurance Act of 2002 after 9/11,
5 respectively. More recently, initiatives by reinsurers such as Pool RE (2021) in the United
6 Kingdom have sought to mitigate terrorism risk through the incentivisation of risk assessment
7 and CTPS considerations by property managers, owners and operators. This scheme, based on
8 the application of a vulnerability self-assessment tool (VSAT), is utilised to assess the
9 organisation's vulnerability against terrorism and provide meaningful and proportionate advice
10 on physical and personnel security, as well as on how they can mitigate terrorism risk to their
11 business and its surrounding areas (JLT, 2018).
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19 Research has also focused on the potential role that facilities management could have within
20 the counterterrorism environment. Historically, much of the research that originated from a
21 facilities management perspective focused on the relative distance that exists between the
22 knowledge of terrorist threat, of the vulnerability of buildings to terrorist attacks, and the
23 preparedness of buildings (and the people that use those buildings) as understood by facilities
24 managers (Then and Loosemore, 2006; Loosemore and Then, 2006). More recently, this
25 disparity has been the subject of much attention, albeit predominantly from a practice-based
26 approach with organisations such as the British Institute for Facilities Management (now
27 Institute of Workplace and Facilities Management) publishing guidance for facilities managers
28 that more effectively considers the current terrorism threat landscape (Grewal, 2017). Other
29 scholarly activity in this area has been more sector specific, with significant crowded places
30 (e.g. stadia) providing the backdrop for research in this area (e.g. Applebaum et al., 2005; Baker
31 et al., 2007; Hall, et al., 2010; Hall et al., 2018). In this regard, and consistent with that of
32 property management, most of the research conducted has been operationally focused rather
33 than strategically positioned to consider CTPS within the development process of new stadia.
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45 From a property development perspective, much less attention has been paid towards the
46 potentiality of the real estate development process to enhance the resilience of property from
47 terrorism. Until recently, limited focus was demonstrable in the extant literature, with only a
48 limited number of studies providing an understanding of the opportunities and challenges of
49 the real estate development process in countering and mitigating terrorism. These studies
50 (McIlhatton et al., 2018; McIlhatton et al., 2019) were, however, focused on more macro-level
51 analysis of a substantial number of interviews across multiple international jurisdictions and
52 therefore provide little insight in the way of in-depth, country-specific understanding. While
53 these papers broke new ground in the counterterrorism discourse and provided useful insights
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3 for the academic, practitioner and policy-making communities, there was a need to explore the
4 intricacies at a country-specific level to better inform local policy-makers within specific
5 jurisdictional contexts. The research presented here moves the discussion forward about the
6 current considerations of counterterrorism within the real estate development process in
7 Australia.
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12 At the point of writing, there are no legislative requirements for developers to adopt
13 counterterrorism security measures in Australia. Consequently, there have been no decision
14 frameworks developed to advise counterterrorism security advisors and built environment
15 practitioners on CTPS best practice during the development process. Currently, no research
16 exists investigating the link between the property development process and terrorism in
17 Australia and also no research existing that investigates the link between the property
18 development process and terrorism in Australia. This research aims to fill that void and
19 demonstrate the need to further explore the potential intervention options available to investors
20 and developers at the early pre-construction stages of the development process.
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29 **3.0 Research Design and Methodology**

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31 The research presented here focusses on the Australian component of a larger international
32 study. The research design used in Australia was consistent with the research design and
33 methods of the larger international study (see McIlhatton et al, 2018; McIlhatton et al, 2019 for a
34 more detailed methodological discussion). The first phase of the Australian study was conducted
35 between April and November 2017. The research utilised 33 in-depth, semi-structured,
36 interviews with built environment practitioners in Sydney, Canberra and Melbourne. The focus
37 cities were selected based on three determinants, each city either: 1) has been the focus of
38 international-related terrorism in recent times; 2) has developed, or is the process of
39 developing, policies specifically focusing on protecting crowded places; and/or 3) attracts
40 significant numbers of tourist annually to crowded places in the city. The rationale for using
41 semi-structured interviews was to gain both breadth of information and a depth of
42 understanding into the perceptions of practitioners in order to develop a contemporary
43 understanding of counterterrorism protective security.
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54 Each one-hour interview was conducted face-to-face and began with an initial set of interview
55 questions aimed at understanding *whether* practitioners involved with creating and developing
56 crowded places currently consider counterterrorism protective security (CTPS) during the real
57 estate development process and, if yes, *what types* of measures are included in the decision-
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making process. The next set of questions focused on understanding *when* in the planning, design and development process are CTPS measures are currently considered (e.g. is this a final checklist activity or is CTPS considered early in the process with the potential to influence the final product).

The participant sample represents the range of built environment disciplines involved in creating crowded places, including: property development, property investment, property management, security consultancy, design (engineering/architecture), city planning and urban design, and government/policy sectors (see Table 1). It should be noted that approximately half of the participants had worked across multiple disciplines over the course of their careers which, on average, included over 20 years of experience. This cross-disciplinary perspective from many participants resulted in many discussions having multi-disciplinary perspectives; this was particularly apparent among the participants representing the three property disciplines, between the city and federal planning/government/policy participants, and among the security consultancy and design engineer participants. As a result of this, the research reached ‘theoretical saturation’ (Lincoln and Guba, 1985) – where “gathering fresh data no longer spark[ed] new theoretical insights” (Charmaz, 2006, p.113) - within the individual disciplines quickly. The principle of theoretical saturation guided the recruitment of participants for this study; the number of participants was not fixed in advance, but was guided by the sampling strategy and the research team’s judgement, based on the on-going, iterative analysis of the data, of when ‘category saturation’ was achieved. The participants’ quotes included below were chosen as representative of participant’s feedback to illustrate saturated themes.

Built Environment Discipline	# of Participants	Project Locations
Property Development	5	Australia-wide
Property Investment	4	Australia-wide
Property Management	4	Australia-wide
Security Consultancy	4	Australia-wide
Design/Engineering	8	Australia-wide
City Planning	5	Sydney, Canberra, Melbourne
Federal Government / Policy / Strategy	3	Canberra
Total Participants	33	

Table 1: Descriptive Participant Information by Stakeholder Discipline and Project Location

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3 The sample size was further supported by Marshall et al (2013), who reviewed 83 qualitative
4 studies and found that for phenomenological studies, a range of 6 (Denzin and Lincoln, 2005),
5 6-8 (Kuzel, 1999), and 6-10 (Morse, 2000) participants were recommended by seminal
6 qualitative researchers, with Galvin (2014) noting that 6-10 participants is the second most
7 common sample within their study of 54 papers. When the cross-disciplinary experience of this
8 research study's participant sample is considered, at least 6 participants have represented each
9 of the disciplinary stakeholder groups. The exception to this is that fewer than six participants
10 were able to be recruited for to represent the federal government/policy/strategy discipline.
11 This was partly the result of all foundational guidance documents being issued by the
12 Australian Security Intelligence Organisation (ASIO). From these, each state develops their
13 own requirements for their implementation in development. As the ASIO guidance documents
14 impact decision-making at the State level, they were discussed in the context of their impact
15 on planning, design and development in the three cities investigated. Finally, the results were
16 discussed with an ASIO representative and their feedback was incorporated into the analysis
17 and conclusions.

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19 A purposive, snowball sampling method was used to identify participants in the study, with the
20 first group of participating practitioners identified from the project team's existing professional
21 networks. A purposive sample was chosen for this phenomenological study as recent research
22 demonstrates the greater efficiency of purposive sampling compared to random sampling in
23 qualitative studies (van Rijnsouwer, 2017). The initial participants were selected based on 1)
24 whether they are actively involved with the creation and/or development of crowded places
25 and/or 2) whether they are actively involved with security decision-making for crowded places.
26 Additional participants were identified through interviewee recommendations of key actors/
27 disciplinary stakeholders with expertise in the planning, design and development of crowded
28 places - and were included if the recommended practitioner was currently, or had been
29 previously, actively involved in the creation and/or development of crowded places.

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4.0 Results and Findings

Unsecured crowded places with the potential to yield mass casualties and elevated levels of
disruption have become the primary targets, globally, for international-related terrorism and
domestic-extremism events since 2015. Many Western governments have responded to this
increased threat by publishing guidance on how to mitigate the impact of terrorism on crowded
places, which has also resulted in increased attention to the issue by some professional bodies

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3 related to the real estate profession. However, many of these documents lack specific guidance
4 on selecting CTPS measures or any discussion about which CTPS interventions are appropriate
5 for varying risk levels, and most countries worldwide still have no legislative requirement to
6 integrate CTPS measures into new private sector developments/redevelopments. It is therefore
7 important to better understand the real estate development professions' (all of those involved
8 in the development process) considerations of *what* and *how* CTPS measures are being pro-
9 actively considered during the decision-making process(es), as well as *when* such measures are
10 considered during the development process. In this context, we can then improve the
11 integration of counterterrorism protective security considerations during the planning, design,
12 and pre-development stages of crowded place development.

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21 This section presents the results of the analysis of the interview transcripts. The discussion
22 reflects the four question sets participants were asked to consider. First, the range of threats
23 currently considered by participants are discussed. Next, the impact of recent terror events
24 (domestic and international) on the consideration and adoption of CTPS measures for crowded
25 places developments is investigated. Finally, the research sought to understand the CTPS
26 considerations being deliberated at the organizational level. This section concludes with a
27 discussion about whether CTPS should become a core consideration in the development
28 process. Quotes from interviews, *in italics*, de-identified for the protection of the interviewees
29 but with an indication of discipline, are used as supporting evidence in each section.

30 31 32 33 34 35 36 37 **4.1 Threat Considerations in the Real Estate Development Process**

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40 Respondents were first asked about the specific threats that they consider in the planning,
41 design and development of real estate assets directly associated with the different crowded
42 places sectors discussed previously. A small group of participants presented an 'all threats &
43 hazards' approach to their decision making, and this was primarily the result of the location of
44 the development, the type of development their practice focused on (e.g. government, transport
45 hub, stadia, shopping malls, health care), whether a security consultant was utilised (either in-
46 house, or external) during the early stages of the planning, design and development process,
47 and whether there was a mature organizational security culture in the client organisation that
48 was driving the involvement of other involved organisations.

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60 Similar to the results from the larger international study, most of the Australian interviewees
were heavily influenced in their decision making by what they were *mandated* to consider (e.g.
via building codes, fire safety requirements, Crime Prevention Through Environmental Design

(CPTED)), and/or by client-specified requirements. A series of common threats were identified across the stakeholder grouping which, when aggregated, fell into four key themes: human-induced risk, development risk, environmental risk, and location risk (see Figure 1).



Figure 1: Main Threats Considered in the Real Estate Development Process (Source: Author)

Terrorism was not initially identified as a major threat consideration in the planning, design and development process for most participants. For those participants who identified terrorism as a risk consideration, it was primarily as a consequence of: (1) the size of the contracting agencies (major multinational development companies with in-house security specialists were more likely to include terrorism as a consideration), (2) the location and type of development (projects in major cities and related to critical infrastructure, stadia, or mass transit), and/or (3) whether the client/development brief clearly articulated the requirement to consider CTPS (particularly evident in the distinction between public and private client briefs). However, all participants believed there would likely be increased pressure to include CTPS considerations in the planning, design and development process in the future. For this reason, terrorism is included as a human-induced risk in Figure 1 and noted with an * to identify that this threat was identified by the researchers rather than specifically listed by the participants.

Participants representing small- to medium-sized practices and projects commonly indicated that CTPS is not currently a core consideration in their decision making and that it would likely require a regulatory requirement before risk assessment and CTPS mitigation became commonplace for smaller- to mid-sized projects. The lack of a unified process to measure the risk of a terror attack happening at or near a property, and a lack of understanding about what mitigation strategies are appropriate for a given risk level, was identified as a further impediment to the adoption of CTPS considerations in the decision process.

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“There is no one process... I would probably admit up front that there isn’t a very high awareness or clear process to take into account the type of risks [associated with terrorism]. There is probably a more developed approach to the more environmental sustainability and other climatic, traffic, pedestrian, transport ... those kind of considerations.” [Developer 4b]

The findings suggests that improving the awareness of terrorist threat within private-sector development projects is a key challenge. Interviewees generally believed the lack of awareness about the terrorist threat and the potential impact of a terror event in their city is, at least in part, the result of the deep-seated societal belief that Australia is far from the attacks happening in Europe and the US. This is discussed more in the following section.

“Distance from the global events makes a difference – when shooting happened in Parramatta that had a bigger impact than European events.” [Investor-07]

“People just feel it is so far away... it’s a cultural issue, in part. There is an innocence to Australian culture. We’re the lucky country, the country down under, and it is hard to relate to things that you can’t see firsthand...” [Investor-05a]

Interviewees also noted that, currently, the Australian property industry is more focused on higher-frequency threats, e.g. insider threat and crime-based threats, where there is clearer guidance on how to counter and mitigate the threat. While the broader, international sample included in McIlhatton et al (2018) also placed a greater emphasis on higher-frequency threats, which have clearer mitigation recommendations, the reasoning was fundamentally based upon a practical consideration of overall threat analysis. In contrast, the discussions with Australian participants demonstrated how impactful less evidence-based considerations, such as the perceived distance from global terror events and the associated sense of safety, can be in influencing (a lack of) CTPS consideration in the industry.

Research participants unanimously described the aim of development as aiming to fulfil client requirements while meeting all requirements in the planning and building codes, and noted that the addition of CTPS mitigation features beyond such requirements are unlikely to be accounted for in the project budget. It was also noted that after construction begins, it is both difficult and costly (from a design and legal perspective, e.g. in relation to aspects such as planning permissions) to revisit the development design and finance model(s). Therefore, increased risk awareness across the planning, real estate investor and developer groupings was identified as a critical areas of focus if project decision-making is to be expanded to include

CTPS considerations as an integral part of the early planning and design phases of crowded places projects. Interviewees generally believed that there is a need for pro-active (rather reactive) CTPS decision-making, and that achieving this will require thorough risk assessments throughout the design, planning, pre-construction, construction and occupancy phases of projects. However, almost all participants also noted that an integrated approach, where CTPS is considered throughout the entire development process, is unlikely to experience significant uptake until it is mandated via government regulation and/or client requirement.

“... haven't seen any evidence of it coming through in terms of changed policy in property, per se. If you were to over-engineer every public space at the expense of public engagement that those spaces offer people, then that's going too far. But we do need to be aware of the densities that are likely to attract those types of perpetrators – what are the target rich spaces? ... Can see why some spaces definitely need more thought, but not all spaces. How can we make it as safe as possible without killing the purpose of the public space?” [Planner-01b]

4.2 Impact of Recent High-Profile Terrorist Events on the Adoption of CTPS Measures in the Development of Crowded Places

It is essential for those tasked with protective security advice and guidance in government, law enforcement and the private sector to understand whether and how the global threat landscape impacts the consideration and adoption of CTPS measures within real estate development in Australia. This understanding can help ensure that vulnerabilities that may have otherwise been exposed and exploited by recent international attacks are not present, or that they are at least considered and mitigated, in the development of new crowded places in our cities. To explore this, interviewees were asked about the impact of recent events - such as those in Paris 2015, Tunisia 2015, San Bernardino 2015, Brussels 2016, Nice 2016, London 2017, and Manchester 2017 – to understand *whether* and *how* these events have influenced decision making for new crowded places developments.

Two clear and distinct groups emerged in the analysis. The majority indicated that recent global terror events only minimally impacted decision making. While participants acknowledged a recent increase in the implementation of bollards or other barriers around high-pedestrian areas as reactive measures to protect existing crowded places, they did not believe recent terror events prompted them to think differently in any significant way or that decision making was

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3 substantively changed when considering strategies for new or retrofit development of crowded
4 places.
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7 *“There still is a very relaxed view on the requirements. Australia is a long way from*
8 *the rest of the world. Social consideration is still that we are a long way from anywhere,*
9 *we are fairly relaxed - we are open to a diverse racial mix of people. I think we just*
10 *have a particular ... the separation of distance, not saying that that by any means*
11 *protects you, as we’ve seen it now around the world in different places ... I don’t know*
12 *whether that’s a naïve perspective and whether it [terror events] would change things.*
13 *But [CTPS] certainly is not high on the agenda for current developments, current*
14 *design, current thinking.” [Developer-02]*
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21 In contrast to the majority opinion, a smaller group of respondents that these events have raised
22 their awareness of the possible challenges and felt that the industry was reacting in a pro-active
23 manner. These participants generally represented large organisations working on large-scale
24 development and infrastructure projects or industry bodies. Most of these organisations had
25 internal policies and procedures in place to consider security-related issues, and several
26 respondents noted they are reviewing their policies to consider the potential future challenges
27 that terrorism may assert on their organisations.
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34 *“Yes, at every meeting international events are on the standing agenda, we are being*
35 *asked by the CEO how they are protecting against those types of events. It is the same*
36 *as the non-conforming building products, we saw it overseas and have been*
37 *responding in a proactive way. [We] realise if we wait it will cost a lot more to*
38 *address than if we get ahead of the curve.” [Property Manager-02]*
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43 While was also evident in the larger sample included in the McIlhatton et al (2018) study, this
44 finding was significantly amplified in the Australian sub-sample. Overall, participants
45 indicated there is still a fundamental *“culture of believing we are so far away from the world*
46 *... a kind of inertia”* amongst policy and place makers in Australia. The group also
47 acknowledged that this is not a sustainable perspective and has led some people and
48 organisations in the industry to have a false sense of security.
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54 *“The world is a small place and, really, we are as close to London as we can get.*
55 *And the more we involve ourselves in the world ... then everything that is involved*
56 *in being a city will come to us, including CT. It is just a matter of time.” [Planner-*
57 *01a]*
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3 The difference between the two groups are motivated by four key factors (see Figure 2):
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6 1. Frequency: the relatively low frequency of terror attacks when compared to other issues,
7 such as petty crime, made CTPS a lower-priority consideration for those not working on
8 projects immediately considered high-risk targets.
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10 2. Proximity: the perceived distance from global terror attacks reduces their impact on
11 development decision making in Australia. The reactive impact of global terror events also
12 diminished with time. Participants also indicated that the project's proximity to other
13 crowded places might increase the impact of events on localised decision making.
14
15 3. Client-Driven Requirement: while those in the practitioner community mindful of the
16 terrorist threat can advise clients on threats and appropriate mitigation response, the final
17 decision to include/exclude CTPS measures are ultimately made by the client. For example,
18 CTPS measures generally need to be requirements of the investor/owner or lease before a
19 developer or property/asset manager decides to make an investment in CTPS.
20
21 4. Mentality: there was a strong belief that the 'it won't happen to us' and the 'lucky country'
22 viewpoints were a major influence in decision making (or lack thereof). Some respondents
23 considered the current threat landscape to mainly be an external community issue, and not
24 an individual asset responsibility. Others believed that developments outside the CBD and
25 those in smaller cities would be less attractive targets and, consequently, the risk of a
26 terrorist attack was reduced.
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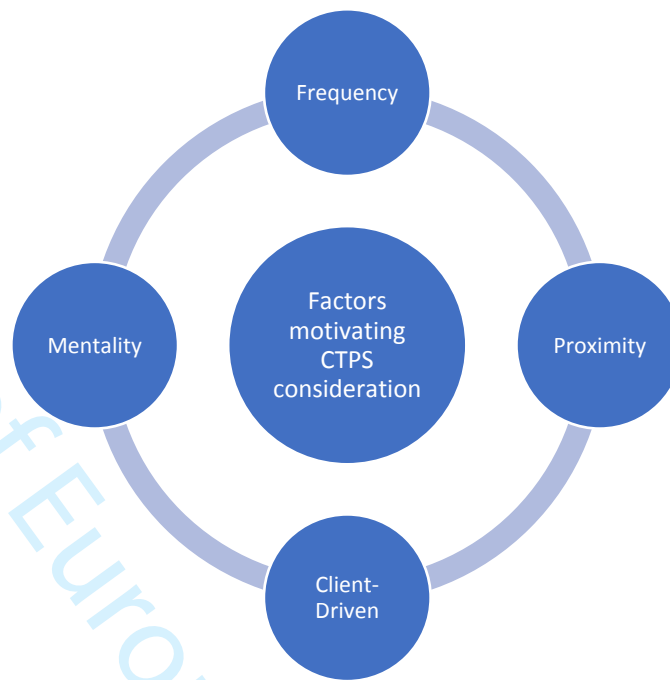


Figure 2: Four factors influencing consideration and uptake of CTPS measures as part development decision making process (Source: Author)

It is important to note that these factors can have a significant effect on the proportionality of a proposed CTPS response for mitigating the impact of a potential terror event in areas that are perceived to be higher-risk target areas relative to other previously unaffected, but still potentially vulnerable, areas positioned in close proximity. As noted earlier by Chaurasi et al (2016), this approach may result in cities creating a limited overall resilience against terrorism because softer targets, such as crowded places, may continue to receive limited physical intervention and would therefore remain vulnerable to attack.

Interestingly, client requirement of CTPS consideration emerged as the most influential factor for the Australian sub-group with regard to whether recent global terrorism events influenced how decisions were made, and was one of the few areas in which responses varied significantly by stakeholder discipline. Participants in the design and consultancy stakeholder groups noted that when CTPS was not stipulated in the design or lease brief by the investor, owner or client it was very difficult for the design and consultant teams to open discussions about CTPS with the client or to influence them to include these considerations, thus making it is unlikely that CTPS would (or could) be included or prioritised. Meanwhile, property management and brokerage participants believed that global events had more of an impact on their leases, property managers and owner-occupier buyers of property than on the planning and design approaches for the developments. This was supported by their perspective that business continuity concerns and relatedly, insurance concerns, would be a more influential for

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3 influencing the adoption of CTPS strategies for those occupying buildings – who have a vested
4 interest in mitigating the threat, risk and harm of terrorism – than for those simply designing,
5 developing and selling properties.
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9 ***4.3 CTPS Considerations at the Organizational Level and in Professional Education***

11 Significant attention was spent in the interviews in discussing the considerations of CTPS in
12 the overall development process, which has provided insight into the current modus operandi
13 of the planning, design and property sectors. Perhaps equally as important, is developing an
14 understanding of the considerations of CTPS at the organizational level within the sectors that
15 contribute to the development process. It is important to understand this so that we can better
16 ascertain whether any positive/negative influences on developments are a consequence of
17 contractor considerations of counterterrorism protective security.
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21 Across the stakeholder spectrum, participants acknowledged that consideration and integration
22 of CTPS measures is likely to become more prominent within the development decision-
23 making process as the awareness and understanding of the terrorist threat increases among
24 industry stakeholders. In slight contrast to earlier statements about CTPS consideration (or lack
25 thereof), most interviewees suggested that they appropriately consider CTPS, as relevant and
26 appropriate to their role.
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29 However, many also added the caveat that that the ability to integrate CTPS measures into the
30 design process is exclusively enabled (or inhibited) through the specification requirements
31 outlined in the developer's brief. In the context of the core considerations integral to the
32 development process, some respondents highlighted the difference between public-sector and
33 private-sector clients, noting that CTPS consideration is more commonly required in public
34 sector project briefs while private sector clients are primarily concerned with getting the "best"
35 building for the most cost-effective price. The implication of this discussion is that the private
36 sector needs to be more open to the inclusion of protective security, as is the case in the public
37 sector.
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51 *"At a strategic level, yes, we consider it. But it doesn't always get integrated into*
52 *every design, as the client has to want it. If they don't, it is very hard to convince*
53 *them that it needs to be there and, consequently, itemized in the budget"*
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56 *[Design/Engineering -02]*
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58 In alignment with the larger international study, Australian respondents observed that security
59 is increasingly becoming a core facet of their offering. Many of their organizations employed
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3 either in-house security specialists or contracted security consultants to advise on measures
4 related to mitigating terrorist and general crime-related threats, and this investment was
5 anticipated to increase in the future.
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9 *“I really can’t see any organisation where they’re still not actually investing in*
10 *dedicated security resource going forward. I think people are coming to the*
11 *realisation that it’s a necessary evil. I would not be surprised if within the next twelve*
12 *months that we need someone whose sole responsibility is reviewing security across*
13 *our portfolio.” [Developer-01]*
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18 There was a concern among the property development stakeholders that architectural (and other
19 engineering and design) professionals located outside of major global practices lack training
20 and skills in innovative and integrated design practices related to mitigating terrorist attacks.
21 As a result, there was a general discontent that the CTPS-integrated designs generated by firms
22 often resulted in disproportionate recommendations and significant additional costs which the
23 development budget could not sustain. Perceived higher costs and lack of design innovation
24 has, in turn, negatively impacted upon organizational acceptance for the inclusion of CTPS
25 measures, particularly because these are not mandated by law.
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32 *“Should some of our designers be better skilled in the considerations of security, or*
33 *should the security experts be brought in earlier? Probably a combination of both.*
34 *Our design consultants need to be brought up to speed on risk identification, risk*
35 *awareness so that they know ... look ... big principles I can get, however, do I need*
36 *to bring that security expert in [to create the right CTPS solution].” [Planner-06]*
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42 There was a feeling that more options and solutions are available for inclusion in the design of
43 crowded places – but that industry practitioners were simply unaware of them, and/or how to
44 integrate them. Overwhelmingly, participants noted the need for clearer guidance in developing
45 an integrated threat analysis process, more clearly defined threat levels for development
46 projects, and recommended CTPS measures associated with each threat level.
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50 *“... there is not a very good resource [developers/designers] can reference to know*
51 *what they should be thinking about at the various development stages. Guidance is*
52 *missing...” [Security-06]*
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56 Participants acknowledged that anti-terrorism measures were not part of their academic or
57 professional, on-going education. In response to this, many recommended that the inclusion of
58 terrorist threat assessment and mitigation in both the academic education of and professional
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3 on-going training for professionals practicing across the built environment disciplines.
4 Participants predominantly believed increased exposure to risk assessment, threat analysis and
5 mitigation strategies would enable practitioners involved with creating and developing
6 crowded places to better determine what the potential terror threats to a project might be and
7 when it is appropriate to bring in a security expert for a project.
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13 ***4.4 Should CTPS be a Core Consideration within the Development Process in Australia?***

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15 The general expectation that terrorism would be included as a core consideration in the real
16 estate development process is a more complex idea than the research team had initially
17 anticipated. To varying degrees, all participants believed that CTPS should be, and will need
18 to be in the future, integrated as a core consideration within the real estate development process;
19 however, many believed it will be difficult to initiate and implement such a requirement.
20 Practitioner recommendations on how to proceed differed based on the contracting authority,
21 project team role, and the types of project scale and location on which they work. Participants
22 all highlighted the need for more specific guidance, but also cautioned that CTPS requirements
23 should support the functionality, design and operations of the buildings, and that solutions must
24 be proportional to potential threat levels.
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33 *“HVM [Hostile Vehicle Mitigation] is [a] big [consideration] and architects/designers*
34 *don't like a sea of bollards ... it is a lazy design solution. It looks over securitized and*
35 *puts people off using the space. They want to understand how to use impact resistant*
36 *furniture, seating, planter boxes, - meandering streets/paths, etc. Wide open spaces offer*
37 *natural surveillance, but accessible space is harder to protect against hostile vehicles.*
38 *The challenge is to balance between accessibility and security” [Design/Engineering-01]*
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44 Many participants expressed concern about who was providing security advice, recognizing
45 that security consultants feel obligated to propose solutions to every potential threat, however
46 unlikely. It was also noted that most of security consultants have no design, development or
47 construction experience and, therefore, don't fully understand the impacts that their proposed
48 mitigation strategies may have on the aesthetics and finances of a development. Similarly,
49 respondents noted that police and government protective security advisors often do not
50 understand real estate development, design considerations, and costs associated with
51 mitigation. The perceived resultant impact is that recommendations are often disproportionate
52 to the threat, making it near impossible for the site to function as planned, provide a high-
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3 quality design, and comply with proposed CTPS recommendations. Combined, participants
4 felt that this disconnect was a significant barrier inhibiting CTPS uptake in the industry.
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7 Respondents suggested that counterterrorism security advisors need to also have a background
8 in design and/or engineering, feeling that this would enable recommendations that not only
9 create safe places, but also solutions that more effectively address the professional complexities
10 associated with real estate development projects. Similarly, participants felt strongly that
11 designers, developers and construction management professionals should be trained to
12 understand these threats – even at a basic level – and be able to identify appropriate design and
13 construction solutions to mitigate specific threats. All respondents indicated a belief that
14 increasing professional understanding of threat, and appropriate proportionate CTPS measures
15 to mitigate those threats, of all actors involved with creating and developing crowded places
16 might be *the* solution to overcome the current chasm between the knowledge base of those
17 creating crowded places, and that of those tasked with identifying and mitigating threats to the
18 places by facilitating the ability for all parties of communication knowledgably in the
19 discussion.
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30 *“[CTPS] should be a core consideration in the planning and design stages and the*
31 *consideration should respond to advice from people with knowledge of intelligence*
32 *and threat level of site ... it should be a requirement of the development approval*
33 *process. Difficulty will be determining where and how much is required ... private*
34 *developers need better guidance (example then discussed: a hierarchy of threats and*
35 *levels of appropriate response).” [Gov-05]*

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41 Additionally, discussions suggested that future considerations of CTPS must be based on an
42 integrated security management approach to avoid exposing additional vulnerabilities. It was
43 highlighted the importance of future CTPS considerations not being based solely on protecting
44 buildings against specific threats or methods of attack, as these continue to evolve, and such
45 strategies result only in protected buildings. A key take-away from this research for property
46 managers is the ability to identify a weak link in their process - if the people employed as
47 security in buildings are not well-trained, educated and vetted, and/or if policies and procedures
48 around other security-related issues are not present, then the physical protective security
49 measures will become limited in their effectiveness. It is therefore important that an integrated
50 security management approach be embedded into property management requirements.
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59 **Conclusions**

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3 This research extends the existing literature base on counterterrorism protective security, a
4 distinctly under-researched component of the terrorism research discourse, by developing a
5 baseline of threat considerations considered during the planning, design and development
6 process. The findings show that a series of common threats were identified across the
7 stakeholder groups, including: development risk, development location/site selection, natural
8 phenomena, and human-induced issues.
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14 The impact of the current terror threat landscape on the consideration and adoption of CTPS
15 measures was motivated by four key factors: the frequency of attacks, the perceived distance
16 from attack, a requirement by the client in the design/development brief, and whether the
17 respondent communicated a mentality that “it won’t happen to us “in the lucky country”. It
18 was, however, recognized across the stakeholder spectrum that counterterrorism measures are
19 likely to become more prominent in the decision-making process as the terrorist threat and
20 understanding of that risk increases. It was interesting to learn that factors such as cost and
21 aesthetics, in reality, are not the sole determining factors in excluding counterterrorism
22 protective security measures from developments, but instead, issues such as awareness,
23 education, and client requirement (or lack thereof), are equally influential in the decision-
24 making process. For European property investors seeking to invest in the Australian property
25 market, these lessons may be influential in understanding how their requirements have the
26 potential to impact the uptake of CTPS in new crowded places developments. For property
27 investors, developers and managers working on crowded places development projects in
28 Europe, the results from this research can begin to inform dialogues about threat awareness and
29 CTPS mitigation strategies, as well as informing client and design team professionals about the
30 impact of client (and lessee) requirements on improved uptake of CTPS measures.
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44 An original contribution of this research is detailing the significant range of threats, impacts of
45 events, and organizational influences that exist in informing the real estate development
46 process. The study, by differentiating the current considerations that exist, provides an evidence
47 base from which policymakers can seek to inform decisions, particularly those relating to the
48 protection of crowded places. The significance of the results of this study extends the current
49 knowledge base on counterterrorism protective security, particularly related to the potential of
50 the built environment to contribute to protecting people and crowded places, and has the
51 potential to reach decision informers in both the counterterrorism policy landscape, and those
52 influential in developing standards for the planning, design, construction, and management of
53 real estate assets. Indeed, they could also provide opportunities for both property management
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and facilities management to improve their preparedness by better considering anti-terrorism measures. Implicit in the findings are pointers to the ways in which small changes in approaches to policy, such as in education, and in the combined impact of some counterterrorist design tactics for other health and safety considerations, could bring significant and positive change - not only in Australia, but to other Western countries as well.

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Counterterrorism Protective Security as Part of the Planning, Design and Development of Crowded Places in Australia: Where are we now?

Abstract

Design/methodology/approach: This paper presents the results from 33 in-depth, semi-structured, one-hour interviews with property developers, property investors, property managers, security consultants, designers, planners, and government/policy officials in Sydney, Canberra and Melbourne, Australia. A purposive, snowball sampling method was used to identify participants in the study.

Purpose: Between 2013 and 2016 Western countries experienced a nearly 600% increase in terrorist attacks. Among the most significant shift in terrorism trends during this time is the recent focus on civilians in crowded places as a frequent target. Although crowded places have become critical targets for terrorist attacks, there remains a dearth of research studying crowded places or the built environment practitioner's role in creating crowded places that are as resilient as possible against terrorism.

Findings: This research extends the existing literature base on counterterrorism protective security, a distinctly under-researched component of the terrorism research discourse, by developing a baseline of threat considerations considered during the planning, design and development process. This paper presents the Australian results of a first-of-its-kind international study that connects the planning, design and development of real estate in crowded places with planning for protective counterterrorism and investigates *what, when and how* counterterrorism protective security (CTPS) is considered in the development process of crowded places. The findings show that a series of common threats were identified across the stakeholder groups, including development risk, development location/site selection, natural phenomena, and human-induced issues.

Research limitations/implications: This research extends the current knowledge base on CTPS and has the potential to influence decision-makers in both the counterterrorism policy landscape and those influential in developing standards for the planning, design, construction, and management of real estate assets.

Originality/value: An original contribution of this research is detailing the significant range of threats, impacts of events, and organizational influences that exist in informing the real estate development process.

1.0 Introduction

International related terrorism has been become a regular fixture in mainstream media in recent times with attacks highlighting a shift in focus away from disruptive phenomena (on critical infrastructure) towards high impact and often low sophistication attacks in the crowded places of global cities (McIlhatton et al., 2018; McIlhatton et al., 2019). These attacks have, in turn, resulted in a further refocusing of counterterrorism strategies towards a more protective posture resulting in the most significant repositioning since the events of September 11, 2001 (9/11). In the United Kingdom, the National Counter Terrorism Security Office responded to these attacks by publishing ~~a new the~~ ‘Crowded Places Guidance’ document in 2017 (NaCTSO, 2017, 2020) which amalgamated advice from multiple existing documents into a new guidance document. ~~F,~~ and following this, Her Majesty’s Government (HMG) released a revised version of the UK Counter Terrorism Strategy (CONTEST) in June 2018. The former was *‘primarily aimed at those in the security sector and those who own or run businesses, organisations, amenities or utilities’* ~~and while~~ the latter ~~setting-sets~~ the strategic operating environment for counterterrorism. In a similar vein, the United States Department for Homeland Security published their *Soft Targets and Crowded Places Security Plan* and its associated resource guide in May 2018. This was closely followed in October 2018 by the publication of a new *National Strategy for Counterterrorism of the United States of America* developed by the Trump Administration (The White House, 2018).

In the Australian context, the National Terrorism Public Alert Level was raised to ‘High’ for the first time in September 2014, and the terrorism threat level remains at ‘Probable’ as of this writing, reflecting the Australian Security Intelligence Organisation (ASIO) judgement that “credible intelligence, assessed to represent a plausible scenario, indicates an intention and capability to conduct a terrorist attack in Australia” (Commonwealth of Australia, 2020). Since the terror level was raised in 2014, there have been 41 counterterrorism operations, resulting in 93 people being charged with terrorism offences, and 15 major terrorist plots being disrupted. During this same time, seven attacks were committed in Australia (Barker and Biddington, 2019). A rethinking and refocusing of their counterterrorism protective security approach during this time resulted in the release of *Australia’s Counterterrorism Strategy: Strengthening our resilience* (Commonwealth of Australia, 2015) and then *Australia’s Strategy for Protecting Crowded Places from Terrorism* (ANZCTC, 2017), the latter of which provided owners and property managers of crowded places with guidance designed to enhance resilience and safety.

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3 Interestingly, limited emphasis in the above guidance and policy documents is placed on anti-
4 terrorism, commonly known as counterterrorism protective security (CTPS), measures to guide
5 the design and development of crowded places by built environment practitioners and instead
6 promulgates the importance for the property management profession. Particularly in the
7 Australian context, this is surprising, given that in 2016 the then-Prime Minister, Malcolm
8 Turnbull, urged the planning and development community to “rethink the way we design and
9 protect places where large numbers of Australians gather” (22. July 2016, SBS News). This
10 lack of prominence is also articulated in the extant literature base where a distinct lack of
11 attention has been directed towards the planning, design and development of crowded places
12 and its potential role in counterterrorism.
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21 The research presented in this article seeks to extend the scholarly knowledge base by
22 developing an understanding of whether this lack of attention on CTPS is reflected, in reality,
23 in the earlier stages of the real estate development process of crowded places in Australia and
24 aims to better understand the current considerations of terrorism by property professionals and
25 contributing built environment stakeholders. The research presented here is part of a larger
26 international study and builds on preliminary results presented at the Pacific Rim Real Estate
27 Society (Christensen, 2019). Although the larger study also investigated the barriers to
28 implementation of CTPS measures and developed potential solutions to overcome those
29 barriers, these discussions are outside the scope of this paper. For detailed discussions on these
30 components of the research, please refer to McIlhatton et al (2018) and McIlhatton et al (2019).
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39 In the following sections ~~we first a~~ review and analysis ~~of~~ the current literature base relating
40 to terrorism, real estate and the development process ~~is presented~~. The methodological
41 approach is then detailed, and the results and findings from the interviews are presented.
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43 Finally, ~~we the paper concludes~~ with a discussion of the key lessons ~~and take-aways~~ from the
44 research.
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51 **Terrorism, Real Estate and the Development Process**

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53 The impact of terrorism within commercial real estate has been substantial in recent times and
54 has instigated a change in how governments enhance resilience from such attacks. Examples
55 include, the Provisional IRA bombs at Baltic Exchange and Bishopsgate in the City of London
56 in the early 1990s which resulted in over \$3 billion of damages collectively (McIlhatton et al.,
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2018; CAIN, 2017; Cole et al., 2011), and which also led to the development and introduction of ‘London’s Ring of Steel’, a physical security posture that was designed to protect the City (Coaffee, 2004) through advanced technological measures and hostile vehicle mitigation. Indeed, the bombing of the Murrah Building in Oklahoma City in 1995 generated over \$650 million in damages (OKCNMM, 2019) and led to the development of Executive Order 12977 in October 1995, which directed the General Services Administration (GSA) and other related federal agencies to create construction standards was designed to increase the security and blast resistance of US federal buildings through the introduction of new design features (including e.g. shatter proof glazing and reinforced placed) (Coaffee and Lee, 2016). The outcome of the work by the Interagency Security Committee (ISC) was the ISC Security Design Criteria for New Federal Office Buildings and Major Modernization Projects (2001) which set forth criteria aimed to reflect a “flexible and realistic approach to the reliability, safety, and security of Federal office buildings.”

Although Western countries remain the safest in the world, violence in and against them has been on an upward trajectory. Between 1978 and 2013, there was a total of 7,400 terrorist attacks with an average of 4.2 mass-fatality events¹ per year (Miller, 2015). The primary target for attacks during this period was transportation infrastructure. Attacks began increasing exponentially in 2014, where 26 mass-fatality events were carried out in a single year (Miller 2015). In 2015, Western countries recorded the “deadliest year in terrorism in nearly a decade ... [with] [c]ivilians, rather than the state, increasingly the target of terrorist attacks in the West and against Westerners overseas” (AON 2016, pp. 7). This trend continued in 2016 when, for the second consecutive year, Western countries experienced the greatest percentage increase in the frequency of terrorist violence of all regions, with a 174% rise in incidents and a 25% rise in casualties than what occurred in 2015 (Bolton and Wilkinson 2017). It should be noted that most of the recent terror targets had limited physical resilience against terrorism because previously-adopted counterterrorism protective security (CTPS) measures and investment have focused on securing critical sites, leaving softer targets, such as crowded urban places, vulnerable (Chaurasia et al, 2016). Of increasing concern in Oceania, Western Europe, and North America is the surge of far-right political terrorism, which has increased by 250% between 2014-2019, with over 35 far-right terrorist events in the West every year during this period as well as a 709% increase in deaths related to these incidents over the same period

¹ Defined as occasions in which terrorist attack(s) kill more than 100 people in a single country on a single day.

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3 (Institute for Economics & Peace, 2020). Because far-right terrorism is more likely to be
4 carried out by individuals unaffiliated with a specific terrorist group, with nearly 60 per cent
5 of far-right attacks from 1970 to 2019 were carried out by unaffiliated individuals (*ibid*), this
6 also makes it more difficult for intelligence to identify and protect against these potential
7 threats. Bardwell and Iqbal (2020) estimate that from 2000 to 2018, terrorism cost the world
8 economy \$US 855 billion.
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15 Despite the increased risk of terrorist attacks in the last decade, limited scholarly attention has
16 been paid towards investigating the property development process and its inter-relationships
17 with counterterrorism. The majority of attention has predominantly centred on the impact that
18 terrorism has had on real estate markets internationally (DeLisle, 2001; Dermisi, 2007; Abadie
19 and Dermisi, 2008), with limited empirical research existing on how to best counter and
20 mitigate these impacts when developing crowded places of global cities. The majority of
21 research investigating research emerges from a number of different perspectives.
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28 As noted, much of the current research construct focuses on the assessment of critical
29 infrastructure resilience against terrorist attack (Chaurasia [etalet al](#) 2016). Kulawiak and
30 Lubiewski (2014) note that the first step in protecting critical infrastructure is identifying and
31 evaluating potential negative factors, commonly referred to as either a risk assessment or a
32 security vulnerability assessment (SVA). With the shift in terrorist attack strategy toward easy-
33 access, low-capability tactics, businesses and commercial activity in and around crowded
34 places should be considered as the front line of mitigating terrorism. Crowded public places
35 and the activities which take place in them are vital to the socio-economic performance and
36 reputation of urban areas (McIlhatton [etalet al](#) 2016; McIlhatton [etalet al](#), 2018). It is therefore
37 essential ~~that we to~~ understand *what* CTPS considerations are being thought about and *at what*
38 *development stage* they are being considered in order to improve the development process and,
39 consequentially, enhance its resilience to terrorist events. Bolton and Wilkinson (2017) explain
40 that the development of mitigation solutions is best informed when we better understand what
41 threats might impact our cities.
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53 From a property management perspective, there is growing attention to the role that the
54 insurance industry can have in enhancing the resilience of commercial real estate against the
55 effects of terrorism. Early studies from scholars (e.g. Shillum, 1997; Mixter and Owendoff,
56 2003) reviewed the historical nuances of insurance against acts of terrorism and how the losses
57 that were experienced, particularly by the reinsurance industry, helped redefine insurance cover
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3 for property owners and managers. This redefinition came against a backdrop of a sustained
4 terrorist bombing campaign in the early 1990s by loyalist and republican paramilitary
5 organisations that was resulting in significant property damage and consequentially, monetary
6 losses and the development of the Terrorism Risk Insurance Act of 2002 after 9/11,
7 respectively. More recently, initiatives by reinsurers such as Pool RE (2021) in the United
8 Kingdom have sought to mitigate terrorism risk through the incentivisation of risk assessment
9 and CTPS considerations by property managers, owners and operators. This scheme, based on
10 the application of a vulnerability self-assessment tool (VSAT), is utilised to assess the
11 organisation's vulnerability against terrorism and provide meaningful and proportionate advice
12 on physical and personnel security, as well as on how they can mitigate terrorism risk to their
13 business and its surrounding areas (JLT, 2018).
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22 Research has also focused on the potential role that facilities management could have within
23 the counterterrorism environment. Historically, much of the research that originated from a
24 facilities management perspective focused on the relative distance that exists between the
25 knowledge of terrorist threat, of the vulnerability of buildings to terrorist attacks, and the
26 preparedness of buildings (and the people that use those buildings) as understood by facilities
27 managers (Then and Loosemore, 2006; Loosemore and Then, 2006). More recently, this
28 disparity has been the subject of much attention, albeit predominantly from a practice-based
29 approach with organisations such as the British Institute for Facilities Management (now
30 Institute of Workplace and Facilities Management) publishing guidance for facilities managers
31 that more effectively considers the current terrorism threat landscape (Grewal, 2017). Other
32 scholarly activity in this area has been more sector specific, with significant crowded places
33 (e.g. stadia) providing the backdrop for research in this area (e.g. Applebaum et al., 2005; Baker
34 et al., 2007; Hall, et al., 2010; Hall et al., 2018). In this regard, and consistent with that of
35 property management, most of the research conducted has been operationally focused rather
36 than strategically positioned to consider CTPS within the development process of new stadia.
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49 From a property development perspective, much less attention has been paid towards the
50 potentiality of the real estate development process to enhance the resilience of property from
51 terrorism. Until recently, limited focus was demonstrable in the extant literature, with only a
52 limited number of studies providing an understanding of the opportunities and challenges of
53 the real estate development process in countering and mitigating terrorism. These studies
54 (McIlhatton et al., 2018; McIlhatton et al., 2019) were, however, focused on more macro-level
55 analysis of a substantial number of interviews across multiple international jurisdictions and
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3 therefore provide little insight in the way of in-depth, country-specific understanding. While
4 these papers broke new ground in the counterterrorism discourse and provided useful insights
5 for the academic, practitioner and policy-making communities, there was a need to explore the
6 intricacies at a country-specific level to better inform local policy-makers within specific
7 jurisdictional contexts. The research presented here moves the discussion forward about the
8 current considerations of counterterrorism within the real estate development process in
9 Australia.

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12 At the point of writing, there are no legislative requirements for developers to adopt
13 counterterrorism security measures in Australia. Consequently, there have been no decision
14 frameworks developed to advise counterterrorism security advisors and built environment
15 practitioners on CTPS best practice during the development process. Currently, no research
16 exists investigating the link between the property development process and terrorism in
17 Australia and also no research existing that investigates the link between the property
18 development process and terrorism in Australia. This research aims to fill that void and
19 demonstrate the need to further explore the potential intervention options available to investors
20 and developers at the early pre-construction stages of the development process.

3.0 Research Design and Methodology

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23 The research presented here focusses on the Australian component of a larger international
24 study. The research design used in Australia was consistent with the research design and
25 methods of the larger international study (see McIlhatton [et al](#), 2018; [McIlhatton et al](#), 2019 for
26 a more detailed methodological discussion). The first phase of the Australian study was conducted
27 between April and November 2017. The research utilised 33 in-depth, semi-structured,
28 interviews with built environment practitioners in Sydney, Canberra and Melbourne. The focus
29 cities were selected based on three determinants, each city either: 1) has been the focus of
30 international-related terrorism in recent times; 2) has developed, or is the process of
31 developing, policies specifically focusing on protecting crowded places; and/or 3) attracts
32 significant numbers of tourist annually to crowded places in the city. The rationale for using
33 semi-structured interviews was to gain both breadth of information and a depth of
34 understanding into the perceptions of practitioners in order to develop a contemporary
35 understanding of counterterrorism protective security.

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38 Each one-hour interview was conducted face-to-face and began with an initial set of interview
39 questions aimed at understanding *whether* practitioners involved with creating and developing

crowded places currently consider counterterrorism protective security (CTPS) during the real estate development process and, if yes, *what types* of measures are included in the decision-making process. The next set of questions focused on understanding *when* in the planning, design and development process are CTPS measures are currently considered (e.g. is this a final checklist activity or is CTPS considered early in the process with the potential to influence the final product).

The participant sample represents the range of built environment disciplines involved in creating crowded places, including: property development, property investment, property management, security consultancy, design (engineering/architecture), city planning and urban design, and government/policy sectors (see Table 1). It should be noted that approximately half of the participants had worked across multiple disciplines over the course of their careers which, on average, included over 20 years of experience. This cross-disciplinary perspective from many participants resulted in many discussions having multi-disciplinary perspectives; this was particularly apparent among the participants representing the three property disciplines, between the city and federal planning/government/policy participants, and among the security consultancy and design engineer participants. As a result of this, ~~we~~ the research reached ‘theoretical saturation’ (Lincoln and Guba, 1985) – where “gathering fresh data no longer spark[ed] new theoretical insights” (Charmaz, 2006, p.113) - within the individual disciplines quickly. The principle of theoretical saturation guided the recruitment of participants for this study; the number of participants was not fixed in advance, but was guided by the sampling strategy and the research team’s judgement, based on the on-going, iterative analysis of the data, of when ‘category saturation’ was achieved. The participants’ quotes included ~~on~~ below were chosen as representative of participant’s feedback to, ~~and~~ illustrate saturated themes.

Built Environment Discipline	# of Participants	Project Locations
Property Development	5	Australia-wide
Property Investment	4	Australia-wide
Property Management	4	Australia-wide
Security Consultancy	4	Australia-wide
Design/Engineering	8	Australia-wide
City Planning	5	Sydney, Canberra, Melbourne
Federal Government / Policy / Strategy	3	Canberra
Total Participants	33	

Table 1: Descriptive Participant Information by Stakeholder Discipline and Project Location

~~Our~~ The sample size was further supported by Marshall et al (2013), who reviewed 83 qualitative studies and found that for phenomenological studies, a range of 6 (Denzin and Lincoln, 2005), 6-8 (Kuzel, 1999), and 6-10 (Morse, 2000) participants were recommended by seminal qualitative researchers, with Galvin (2014) noting that 6-10 participants is the second most common sample within their study of 54 papers. When the cross-disciplinary experience of ~~our~~ this research study's participant sample is considered, at least 6 participants have represented each of the disciplinary stakeholder groups. The exception to this is that ~~we acknowledge that~~ fewer than six participants were able to be recruited for to represent the federal government/policy/strategy discipline. This was partly the result of all foundational guidance documents being issued by the Australian Security Intelligence Organisation (ASIO). From these, each state develops their own requirements for their implementation in development. As the ASIO guidance documents impact decision-making at the State level, they were discussed in the context of their impact on planning, design and development in the three cities investigated. Finally, the results were discussed with an ASIO representative and their feedback was incorporated into the analysis and conclusions.

A purposive, snowball sampling method was used to identify participants in the study, with the first group of participating practitioners identified from the project team's existing professional networks. A purposive sample was chosen for this phenomenological study as recent research demonstrates the greater efficiency of purposive sampling compared to random sampling in qualitative studies (van Rijnssoever, 2017). The initial participants were selected based on 1) whether they are actively involved with the creation and/or development of crowded places and/or 2) whether they are actively involved with security decision-making for crowded places. Additional participants were identified through interviewee recommendations of key actors/disciplinary stakeholders with expertise in the planning, design and development of crowded places - and were included if the recommended practitioner was currently, or had been previously, actively involved in the creation and/or development of crowded places.

4.0 Results and Findings

Unsecured crowded places with the potential to yield mass casualties and elevated levels of disruption have become the primary targets, globally, for international-related terrorism and domestic-extremism events since 2015. Many Western governments have responded to this increased threat by publishing guidance on how to mitigate the impact of terrorism on crowded

places, which has also resulted in increased attention to the issue by some professional bodies related to the real estate profession. However, many of these documents lack specific guidance on selecting CTPS measures or any discussion about which CTPS interventions are appropriate for varying risk levels, and most countries worldwide still have no legislative requirement to integrate CTPS measures into new private sector developments/redevelopments. It is therefore important to better understand the real estate development professions' (all of those involved in the development process) considerations of *what* and *how* CTPS measures are being proactively considered during the decision-making process(es), as well as *when* such measures are considered during the development process. In this context, we can then ~~to~~ improve the integration of counterterrorism protective security considerations during the planning, design, and pre-development stages of crowded place development.

This section presents the results of the analysis of the interview transcripts. The discussion reflects the four question sets participants were asked to consider. ~~We first, discuss~~ the range of threats currently considered by participants are discussed. Next, ~~we investigate~~ the impact of recent terror events (domestic and international) on the consideration and adoption of CTPS measures for crowded places developments is investigated. Finally, ~~we seek the research sought~~ to understand the CTPS considerations being deliberated at the organizational level. This section, and concludes with a discussion about whether CTPS should become a core consideration in the development process. Quotes from interviews, *in italics*, de-identified for the protection of the interviewees but with an indication of discipline, are used as supporting evidence in each section.

4.1 Threat Considerations in the Real Estate Development Process

~~We first asked r~~espondents were first asked about the specific threats that they consider in the planning, design and development of real estate assets directly associated with the different crowded places sectors discussed previously. A small group of participants presented an 'all threats & hazards' approach to their decision making, and this was primarily the result of the location of the development, the type of development their practice focused on (e.g. government, transport hub, stadia, shopping malls, health care), whether a security consultant was utilised (either in-house, or external) during the early stages of the planning, design and development process, and whether there was a mature organizational security culture in the client organisation that was driving the involvement of other involved organisations.

Similar to the results from the larger international study, most of the Australian interviewees were heavily influenced in their decision making by what they were *mandated* to consider (e.g. via building codes, fire safety requirements, Crime Prevention Through Environmental Design (CPTED)), and/or by client-specified requirements. A series of common threats were identified across the stakeholder grouping which, when aggregated, fell into four key themes: human-induced risk, development risk, environmental risk, and location risk (see Figure 1).



Figure 1: Main Threats Considered in the Real Estate Development Process (Source: Author)

Terrorism was not initially identified as a major threat consideration in the planning, design and development process for most participants. For those participants who identified terrorism as a risk consideration, it was primarily as a consequence of: (1) the size of the contracting agencies (major multinational development companies with in-house security specialists were more likely to include terrorism as a consideration), (2) the location and type of development (projects in major cities and related to critical infrastructure, stadia, or mass transit), and/or (3) whether the client/development brief clearly articulated the requirement to consider CTPS (particularly evident in the distinction between public and private client briefs). However, all participants believed there would likely be increased pressure to include CTPS considerations in the planning, design and development process in the future. For this reason, terrorism is included as a human-induced risk in Figure 1 and noted with an * to identify that this threat was identified by the researchers rather than specifically listed by the participants.

Participants representing small- to medium-sized practices and projects commonly indicated that CTPS is not currently a core consideration in their decision making and that it would likely require a regulatory requirement before risk assessment and CTPS mitigation became commonplace for smaller- to mid-sized projects. The lack of a unified process to measure the risk of a terror attack happening at or near a property, and a lack of understanding about what

mitigation strategies are appropriate for a given risk level, was identified as a further impediment to the adoption of CTPS considerations in the decision process.

“There is no one process... I would probably admit up front that there isn't a very high awareness or clear process to take into account the type of risks [associated with terrorism]. There is probably a more developed approach to the more environmental sustainability and other climatic, traffic, pedestrian, transport ... those kind of considerations.” [Developer 4b]

The findings suggests that improving the awareness of terrorist threat within private-sector development projects is a key challenge. Interviewees generally believed the lack of awareness about the terrorist threat and the potential impact of a terror event in their city is, at least in part, the result of the deep-seated societal belief that Australia is far from the attacks happening in Europe and the US. This is, which we discussed more in the following section.

“Distance from the global events makes a difference – when shooting happened in Parramatta that had a bigger impact than European events.” [Investor-07]

“People just feel it is so far away... it's a cultural issue, in part. There is an innocence to Australian culture. We're the lucky country, the country down under, and it is hard to relate to things that you can't see firsthand...” [Investor-05a]

Interviewees also noted that, currently, the Australian property industry is more focused on higher-frequency threats, e.g. insider threat and crime-based threats, where there is clearer guidance on how to counter and mitigate the threat. While the broader, international sample included in McIlhatton et al (2018) also placed a greater emphasis on higher-frequency threats, which have clearer mitigation recommendations, the reasoning was fundamentally based upon a practical consideration of overall threat analysis. In contrast, the discussions with Australian participants demonstrated how impactful less evidence-based considerations, such as the perceived distance from global terror events and the associated sense of safety, can be in influencing (a lack of) CTPS consideration in the industry.

Research participants unanimously described the aim of development as aiming to fulfil client requirements while meeting all requirements in the planning and building codes, and noted that the addition of CTPS mitigation features beyond such requirements are unlikely to be accounted for in the project budget. It was also noted that after construction begins, it is both difficult and costly (from a design and legal perspective, e.g. in relation to aspects such as planning permissions) to revisit the development design and finance model(s). Therefore,

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3 increased risk awareness across the planning, real estate investor and developer groupings was
4 identified as a critical areas of focus if project decision-making is to be expanded to include
5 CTPS considerations as an integral part of the early planning and design phases of crowded
6 places projects. Interviewees generally believed that there is a need for pro-active (rather
7 reactive) CTPS decision-making, and that achieving this will require thorough risk assessments
8 throughout the design, planning, pre-construction, construction and occupancy phases of
9 projects. However, almost all participants also noted that an integrated approach, where CTPS
10 is considered throughout the entire development process, is unlikely to experience significant
11 uptake until it is mandated via government regulation and/or client requirement.
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19 *“... haven't seen any evidence of it coming through in terms of changed policy in*
20 *property, per se. If you were to over-engineer every public space at the expense of*
21 *public engagement that those spaces offer people, then that's going too far. But we*
22 *do need to be aware of the densities that are likely to attract those types of*
23 *perpetrators – what are the target rich spaces? ... Can see why some spaces*
24 *definitely need more thought, but not all spaces. How can we make it as safe as*
25 *possible without killing the purpose of the public space?” [Planner-01b]*
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32 ***4.2 Impact of Recent High-Profile Terrorist Events on the Adoption of CTPS Measures in*** 33 ***the Development of Crowded Places*** 34 35

36 It is essential for those tasked with protective security advice and guidance in government, law
37 enforcement and the private sector to understand whether and how the global threat landscape
38 impacts the consideration and adoption of CTPS measures within real estate development in
39 Australia. This understanding can help ensure that vulnerabilities that may have otherwise been
40 exposed and exploited by recent international attacks are not present, or that they are at least
41 considered and mitigated, in the development of new crowded places in our cities. To explore
42 this, interviewees were asked about the impact of recent events - such as those in Paris 2015,
43 Tunisia 2015, San Bernardino 2015, Brussels 2016, Nice 2016, London 2017, and Manchester
44 2017 – to understand *whether* and *how* these events have influenced decision making for new
45 crowded places developments.
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53 Two clear and distinct groups emerged in the analysis. The majority indicated that recent global
54 terror events only minimally impacted decision making. While participants acknowledged a
55 recent increase in the implementation of bollards or other barriers around high-pedestrian areas
56 as reactive measures to protect existing crowded places, they did not believe recent terror
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3 events prompted them to think differently in any significant way or that decision making was
4 substantively changed when considering strategies for new or retrofit development of crowded
5 places.
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9 *“There still is a very relaxed view on the requirements. Australia is a long way from*
10 *the rest of the world. Social consideration is still that we are a long way from anywhere,*
11 *we are fairly relaxed - we are open to a diverse racial mix of people. I think we just*
12 *have a particular ... the separation of distance, not saying that that by any means*
13 *protects you, as we’ve seen it now around the world in different places ... I don’t know*
14 *whether that’s a naïve perspective and whether it [terror events] would change things.*
15 *But [CTPS] certainly is not high on the agenda for current developments, current*
16 *design, current thinking.” [Developer-02]*
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23 In contrast to the majority opinion, a smaller group of respondents that these events have raised
24 their awareness of the possible challenges and felt that the industry was reacting in a pro-active
25 manner. These participants generally represented large organisations working on large-scale
26 development and infrastructure projects or industry bodies. Most of these organisations had
27 internal policies and procedures in place to consider security-related issues, and several
28 respondents noted they are reviewing their policies to consider the potential future challenges
29 that terrorism may assert on their organisations.
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36 *“Yes, at every meeting international events are on the standing agenda, we are being*
37 *asked by the CEO how they are protecting against those types of events. It is the same*
38 *as the non-conforming building products, we saw it overseas and have been*
39 *responding in a proactive way. [We] realise if we wait it will cost a lot more to*
40 *address than if we get ahead of the curve.” [Property Manager-02]*
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45 While was also evident in the larger sample included in the McIlhatton et al (2018) study, this
46 finding was significantly amplified in the Australian sub-sample. Overall, participants
47 indicated there is still a fundamental *“culture of believing we are so far away from the world*
48 *... a kind of inertia”* amongst policy and place makers in Australia. The group also
49 acknowledged that this is not a sustainable perspective and has led some people and
50 organisations in the industry to have a false sense of security.
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56 *“The world is a small place and, really, we are as close to London as we can get.*
57 *And the more we involve ourselves in the world ... then everything that is involved*
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3 *in being a city will come to us, including CT. It is just a matter of time.” [Planner-*
4 *01a]*
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7 The difference between the two groups are motivated by four key factors (see Figure 2):
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10 1. Frequency: the relatively low frequency of terror attacks when compared to other issues,
11 such as petty crime, made CTPS a lower-priority consideration for those not working on
12 projects immediately considered high-risk targets.
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- 14 2. Proximity: the perceived distance from global terror attacks reduces their impact on
15 development decision making in Australia. The reactive impact of global terror events also
16 diminished with time. Participants also indicated that the project’s proximity to other
17 crowded places might increase the impact of events on localised decision making.
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- 19 3. Client-Driven Requirement: while those in the practitioner community mindful of the
20 terrorist threat can advise clients on threats and appropriate mitigation response, the final
21 decision to include/exclude CTPS measures are ultimately made by the client. For example,
22 CTPS measures generally need to be requirements of the investor/owner or lease before a
23 developer or property/asset manager decides to make an investment in CTPS.
24
- 25 4. Mentality: there was a strong belief that the ‘it won’t happen to us’ and the ‘lucky country’
26 viewpoints were a major influence in decision making (or lack thereof). Some respondents
27 considered the current threat landscape to mainly be an external community issue, and not
28 an individual asset responsibility. Others believed that developments outside the CBD and
29 those in smaller cities would be less attractive targets and, consequently, the risk of a
30 terrorist attack was reduced.
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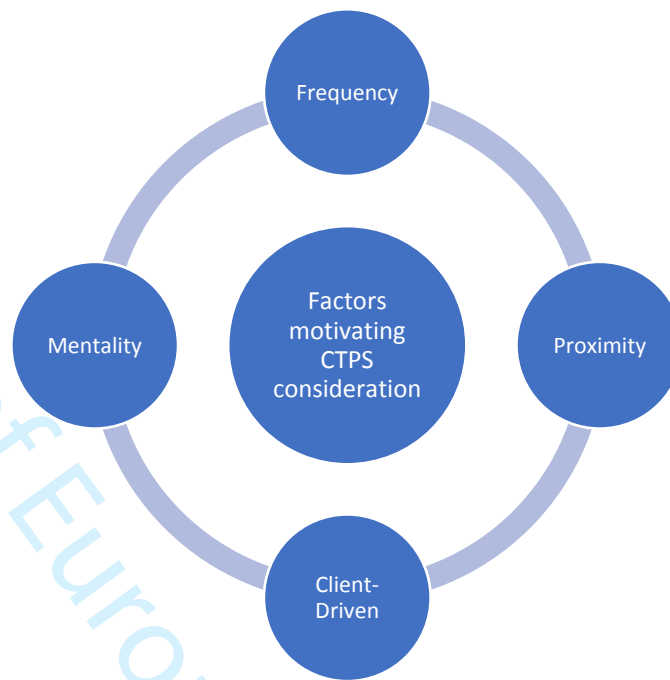


Figure 2: Four factors influencing consideration and uptake of CTPS measures as part development decision making process (Source: Author)

It is important to note that these factors can have a significant effect on the proportionality of a proposed CTPS response for mitigating the impact of a potential terror event in areas that are perceived to be higher-risk target areas relative to other previously unaffected, but still potentially vulnerable, areas positioned in close proximity. As noted earlier by Chaurasi et al (2016), this approach may result in cities creating a limited overall resilience against terrorism because softer targets, such as crowded places, may continue to receive limited physical intervention and would therefore remain vulnerable to attack.

Interestingly, client requirement of CTPS consideration emerged as the most influential factor for the Australian sub-group with regard to whether recent global terrorism events influenced how decisions were made, and was one of the few areas in which responses varied significantly by stakeholder discipline. Participants in the design and consultancy stakeholder groups noted that when CTPS was not stipulated in the design or lease brief by the investor, owner or client it was very difficult for the design and consultant teams to open discussions about CTPS with the client or to influence them to include these considerations, thus making it is unlikely that CTPS would (or could) be included or prioritised. Meanwhile, property management and brokerage participants believed that global events had more of an impact on their ~~leasees~~leases, property managers and owner-occupier buyers of property than on the planning and design approaches for the developments. This was supported by their perspective that business continuity concerns and relatedly, insurance concerns, would be a more influential for

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3 influencing the adoption of CTPS strategies for those occupying buildings – who have a vested
4 interest in mitigating the threat, risk and harm of terrorism – than for those simply designing,
5 developing and selling properties.
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9 ***4.3 CTPS Considerations at the Organizational Level and in Professional Education***

11 Significant attention was spent in the interviews in discussing the considerations of CTPS in
12 the overall development process, which has provided insight into the current modus operandi
13 of the planning, design and property sectors. Perhaps equally as important, is developing an
14 understanding of the considerations of CTPS at the organizational level within the sectors that
15 contribute to the development process. It is important to understand this so that we can better
16 ascertain whether any positive/negative influences on developments are a consequence of
17 contractor considerations of counterterrorism protective security.
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21 Across the stakeholder spectrum, participants acknowledged that consideration and integration
22 of CTPS measures is likely to become more prominent within the development decision-
23 making process as the awareness and understanding of the terrorist threat increases among
24 industry stakeholders. In slight contrast to earlier statements about CTPS consideration (or lack
25 thereof), most interviewees suggested that they appropriately consider CTPS, as relevant and
26 appropriate to their role.
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29 However, many also added the caveat that that the ability to integrate CTPS measures into the
30 design process is exclusively enabled (or inhibited) through the specification requirements
31 outlined in the developer's brief. In the context of the core considerations integral to the
32 development process, some respondents highlighted the difference between public-sector and
33 private-sector clients, noting that CTPS consideration is more commonly required in public
34 sector project briefs while private sector clients are primarily concerned with getting the "best"
35 building for the most cost-effective price. The implication of this discussion is that the private
36 sector needs to be more open to the inclusion of protective security, as is the case in the public
37 sector.
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51 *"At a strategic level, yes, we consider it. But it doesn't always get integrated into*
52 *every design, as the client has to want it. If they don't, it is very hard to convince*
53 *them that it needs to be there and, consequently, itemized in the budget"*
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55 *[Design/Engineering -02]*
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58 In alignment with the larger international study, Australian respondents observed that security
59 is increasingly becoming a core facet of their offering. Many of their organizations employed
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3 either in-house security specialists or contracted security consultants to advise on measures
4 related to mitigating terrorist and general crime-related threats, and this investment was
5 anticipated to increase in the future.
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9 *“I really can’t see any organisation where they’re still not actually investing in*
10 *dedicated security resource going forward. I think people are coming to the*
11 *realisation that it’s a necessary evil. I would not be surprised if within the next twelve*
12 *months that we need someone whose sole responsibility is reviewing security across*
13 *our portfolio.” [Developer-01]*
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18 There was a concern among the property development stakeholders that architectural (and other
19 engineering and design) professionals located outside of major global practices lack training
20 and skills in innovative and integrated design practices related to mitigating terrorist attacks.
21 As a result, there was a general discontent that the CTPS-integrated designs generated by firms
22 often resulted in disproportionate recommendations and significant additional costs which the
23 development budget could not sustain. Perceived higher costs and lack of design innovation
24 has, in turn, negatively impacted upon organizational acceptance for the inclusion of CTPS
25 measures, particularly because these are not mandated by law.
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32 *“Should some of our designers be better skilled in the considerations of security, or*
33 *should the security experts be brought in earlier? Probably a combination of both.*
34 *Our design consultants need to be brought up to speed on risk identification, risk*
35 *awareness so that they know ... look ... big principles I can get, however, do I need*
36 *to bring that security expert in [to create the right CTPS solution].” [Planner-06]*
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42 There was a feeling that more options and solutions are available for inclusion in the design of
43 crowded places – but that industry practitioners were simply unaware of them, and/or how to
44 integrate them. Overwhelmingly, participants noted the need for clearer guidance in developing
45 an integrated threat analysis process, more clearly defined threat levels for development
46 projects, and recommended CTPS measures associated with each threat level.
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50 *“... there is not a very good resource [developers/designers] can reference to know*
51 *what they should be thinking about at the various development stages. Guidance is*
52 *missing...” [Security-06]*
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56 Participants acknowledged that anti-terrorism measures were not part of their academic or
57 professional, on-going education. In response to this, many recommended that the inclusion of
58 terrorist threat assessment and mitigation in both the academic education of and professional
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3 on-going training for professionals practicing across the built environment disciplines.
4 Participants predominantly believed increased exposure to risk assessment, threat analysis and
5 mitigation strategies would enable practitioners involved with creating and developing
6 crowded places to better determine what the potential terror threats to a project might be and
7 when it is appropriate to bring in a security expert for a project.
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13 ***4.4 Should CTPS be a Core Consideration within the Development Process in Australia?***

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15 The general expectation that terrorism would be included as a core consideration in the real
16 estate development process is a more complex idea than the research team had initially
17 anticipated. To varying degrees, all participants believed that CTPS should be, and will need
18 to be in the future, integrated as a core consideration within the real estate development process;
19 however, many believed it will be difficult to initiate and implement such a requirement.
20 Practitioner recommendations on how to proceed differed based on the contracting authority,
21 project team role, and the types of project scale and location on which they work. Participants
22 all highlighted the need for more specific guidance, but also cautioned that CTPS requirements
23 should support the functionality, design and operations of the buildings, and that solutions must
24 be proportional to potential threat levels.
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33 *“HVM [Hostile Vehicle Mitigation] is [a] big [consideration] and architects/designers*
34 *don't like a sea of bollards ... it is a lazy design solution. It looks over securitized and*
35 *puts people off using the space. They want to understand how to use impact resistant*
36 *furniture, seating, planter boxes, - meandering streets/paths, etc. Wide open spaces offer*
37 *natural surveillance, but accessible space is harder to protect against hostile vehicles.*
38 *The challenge is to balance between accessibility and security” [Design/Engineering-01]*
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44 Many participants expressed concern about who was providing security advice, recognizing
45 that security consultants feel obligated to propose solutions to every potential threat, however
46 unlikely. It was also noted that most of security consultants have no design, development or
47 construction experience and, therefore, don't fully understand the impacts that their proposed
48 mitigation strategies may have on the aesthetics and finances of a development. Similarly,
49 respondents noted that police and government protective security advisors often do not
50 understand real estate development, design considerations, and costs associated with
51 mitigation. The perceived resultant impact is that recommendations are often disproportionate
52 to the threat, making it near impossible for the site to function as planned, provide a high-
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3 quality design, and comply with proposed CTPS recommendations. Combined, participants
4 felt that this disconnect was a significant barrier inhibiting CTPS uptake in the industry.
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7 Respondents suggested that counterterrorism security advisors need to also have a background
8 in design and/or engineering, feeling that this would enable recommendations that not only
9 create safe places, but also solutions that more effectively address the professional complexities
10 associated with real estate development projects. Similarly, participants felt strongly that
11 designers, developers and construction management professionals should be trained to
12 understand these threats – even at a basic level – and be able to identify appropriate design and
13 construction solutions to mitigate specific threats. All respondents indicated a belief that
14 increasing professional understanding of threat, and appropriate proportionate CTPS measures
15 to mitigate those threats, of all actors involved with creating and developing crowded places
16 might be *the* solution to overcome the current chasm between the knowledge base of those
17 creating crowded places, and that of those tasked with identifying and mitigating threats to the
18 places by facilitating the ability for all parties of communication knowledgably in the
19 discussion.
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30 *“[CTPS] should be a core consideration in the planning and design stages and the*
31 *consideration should respond to advice from people with knowledge of intelligence*
32 *and threat level of site ... it should be a requirement of the development approval*
33 *process. Difficulty will be determining where and how much is required ... private*
34 *developers need better guidance (example then discussed: a hierarchy of threats and*
35 *levels of appropriate response).” [Gov-05]*

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41 Additionally, discussions suggested that future considerations of CTPS must be based on an
42 integrated security management approach to avoid exposing additional vulnerabilities. It was
43 highlighted the importance of future CTPS considerations not being based solely on protecting
44 buildings against specific threats or methods of attack, as these continue to evolve, and such
45 strategies result only in protected buildings. A key take-away from this research for property
46 managers is the ability to ~~identification of~~ y a weak link in their ir process - if the people employed
47 ~~to~~ as security in buildings are not well-trained, educated and vetted, and/or if policies and
48 procedures around other security-related issues are not present, then the physical protective
49 security measures will become limited in their effectiveness. It is therefore important that an
50 integrated security management approach be embedded into property management
51 requirements.
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Conclusions

This research extends the existing literature base on counterterrorism protective security, a distinctly under-researched component of the terrorism research discourse, by developing a baseline of threat considerations considered during the planning, design and development process. The findings show that a series of common threats were identified across the stakeholder groups, including: development risk, development location/site selection, natural phenomena, and human-induced issues.

The impact of the current terror threat landscape on the consideration and adoption of CTPS measures was motivated by four key factors: the frequency of attacks, the perceived distance from attack, a requirement by the client in the design/development brief, and whether the respondent communicated a mentality that “it won’t happen to us “in the lucky country”. It was, however, recognized across the stakeholder spectrum that counterterrorism measures are likely to become more prominent in the decision-making process as the terrorist threat and understanding of that risk increases. It was interesting to learn that factors such as cost and aesthetics, in reality, are not the sole determining factors in excluding counterterrorism protective security measures from developments, but instead, issues such as awareness, education, and client requirement (or lack thereof), are equally influential in the decision-making process. For European property investors seeking to invest in the Australian property market, these lessons may be influential in understanding how their requirements have the potential to impact the uptake of CTPS in new crowded places developments. For property investors, developers and managers working on crowded places development projects in Europe, the results from this research can begin to inform dialogues about threat awareness and CTPS mitigation strategies, as well as informing client and design team professionals about the impact of client (and lessee) requirements on improved uptake of CTPS measures.

An original contribution of this research is detailing the significant range of threats, impacts of events, and organizational influences that exist in informing the real estate development process. The study, by differentiating the current considerations that exist, provides an evidence base from which policymakers can seek to inform decisions, particularly those relating to the protection of crowded places. The significance of the results of this study extends the current knowledge base on counterterrorism protective security, particularly related to the potential of the built environment to contribute to protecting people and crowded places, and has the potential to reach decision informers in both the counterterrorism policy landscape, and those influential in developing standards for the planning, design, construction, and management of

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3 real estate assets. Indeed, they could also provide opportunities for both property management
4 and facilities management to improve their preparedness by better considering anti-terrorism
5 measures. Implicit in the findings are pointers to the ways in which small changes in approaches
6 to policy, such as in education, and in the combined impact of some counterterrorist design
7 tactics for other health and safety considerations, could bring significant and positive change -
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11 not only in Australia, but to other Western countries as well.
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Figure 1: Main Threats Considered in the Real Estate Development Process (Source: Author)

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