

# Mitigating occupational violence and aggression through the built environment

A resource guide for architects and designers

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Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

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Mitigating occupational violence and aggression through the built environment | Version 1.0 | May 2019

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# Executive summary

Exposure to the risk of occupational violence and aggression (OVA) is a reality of the modern public sector context. OVA involves incidents in which a person is abused, threatened or assaulted in circumstances relating to their work. OVA includes a range of actions and behaviours that can create risk to health and safety of employees. Employees can be exposed to OVA from a range of sources including clients, consumers, patients, residents, visitors and members of the public. Creation of a safe workspace through the built environment was one of five national priorities identified in the Australian Work Health and Safety Strategy 2012-22. This document supplements the full report on OVA mitigation, and is designed to provide architects, engineers, building design professionals, drafter, or designer-builders (architects and designers) who work on designs of buildings or structures which are not private residential dwellings but are intended to be used as a workplaces with practical guidelines to reduce the risk of OVA through the built environment. The document applies to government buildings and includes public private partnerships. The resource guide highlights the information required to inform appropriate design choices and outlines the key elements of the design process in the context of OVA risk mitigation.

In line with the Australian Work Health and Safety Strategy a number of Victorian Public Sector (VPS) offices have been purpose built or redesigned however, key stakeholders have noted that safe design principles are not always employed in a manner that effectively minimises OVA risks. Health and Safety Representatives and union bodies have attributed the suboptimal design solutions to a lack of upfront consultation and engagement with end users. In some instances, users are exposed to avoidable OVA risks as a result of flawed building design. As such, this guide provides practical assistance to architects and designers on how to incorporate the legislative obligations of consultation in the design phase.

Effective implementation of safe design principles requires architects and/or designers to consult with and engage end users, conduct a thorough risk assessment, and review findings before identifying solutions which minimise OVA risks. Consultation with senior management, end users, OHS, subject matter experts, and health and safety representatives is essential during all phases of VPS building projects. OVA risks identified during the consultation process will inform preliminary and detailed risk assessments conducted during the building process, severity and probability of potential OVA risk must be considered when identifying solutions to mitigate or reduce risk. Solutions chosen to address OVA risk should comply with all legal and industry standards while seeking to accommodate human factor needs. This process informs the creation of a safe, 'fit for purpose' design which balances human factor needs with relevant legislative requirements.

The tools and guidelines included in this document are expected to assist architects and designers in managing the design process, engaging stakeholders, ensuring VPS buildings are as free from OVA as possible and above all meeting their obligations pursuant with s28 of the OHS Act 2004. It is anticipated that this document will provide a clear step by step process for architects and designers contracted by the VPS to build or refurbish public buildings.

# Safe design principles

How an area is designed, maintained and managed contributes to its safety as it can directly influence individual and group behaviour. The following safe design principles need to be considered by architects and designers throughout the design process in order to minimise the likelihood of OVA. It is expected that much of this information will be supplied in the initial project brief before being further interrogated and confirmed by the contacted architect and designers in the return brief. During consultation, architects and designers should seek to confirm their understanding of the service philosophy, operational context, and human factors of the relevant VPS building with a view to exploring how their needs may best be met while implementing known OVA risk controls and CPTED principles, and adhering to industry standards, and legislative requirements. A consultation schedule should be prepared prior to meeting with stakeholders, and record of each consultation meeting kept using the form provided in appendix B4. These records will assist architects to integrate the feedback of key stakeholders into the building design, ensuring VPS built environments are fit for purpose and minimise OVA risk. These include, but are not limited to:

## 1. Awareness of the legislative requirements

In determining an appropriate design solution, architects and designers must also have a clear understanding of the applicable laws and building codes for the design of the particular built environment in question. When designing any built environment in Australia, architects and designers must consult The Building Code of Australia (BCA) which forms part of the National Construction Code (NCC). Designers in Victoria must also ensure compliance with the Building Act 1993 and the Occupational Health and Safety Act (Victoria, 2004), particularly Section 28 Duties of designers of buildings or structures. In addition there may be other legislative requirements particularly to certain sectors such as the Justice, Health or Disability sectors that are relevant to building design.

It may also be necessary to understand particular town planning laws of the location of the built environment. For example, an organisation may wish to place bollards at the front of their building to minimise the risk of vehicles being used to drive through the building entrance. However, the local council may regulate modifications to the external environment which may need to be navigated through consultation.

Knowing these legislative requirements can provide architects and designers with clarity on which design features are modifiable/negotiable. It is the responsibility of the architects and designers to help balance user requirements or suggestions against what is permissible by law and industry codes.

## 2. Clarifying the service philosophy

A key strategic question that is critical for architects and designers to understand is the aspirational image, culture and service philosophy that the organisation wishes to project to the public. For example, some public facing office environments where members of the public attend for information, support or assistance with community based services, the desired image and underlying service philosophy may be one of creating a safe and welcoming environment for vulnerable people. As such, the design considerations for such an environment must reinforce the desired image in terms of waiting areas, interior furnishings, lighting, counter designs, etc.

However, a secure facility such as a youth justice custodial centre, may wish to project a stronger focus on security. While youth justice centres provide a rehabilitative environment for young offenders, they also need to project an image of discipline and structure for young people. As such, the design considerations may need to include more visible security features like fences, positioning of staff posts, cameras, secure entry and exit points, signage about contraband, etc. All these design considerations can help the organisation project a stronger focus on security.

The service philosophy should be stated in the vision statement in the initial project brief however it is critical for architects and designers to confirm their understanding of this when consulting with senior management at the start of any project to ensure that the built environment can protect staff from OVA and meet the image, culture and service philosophy of the organisation.

### 3. Understanding the operational context

An understanding of the operational context of the built environment is an important consideration for safe design. This involves ensuring an in depth understanding of factors such as:

- **Who will be using the building?** This could include staff, clients, volunteers, members of the public, other professional services, etc. It will be critical for architects and designers to understand the demographics of people that will be utilising the premises. The design considerations would vary depending on these demographic differences. For example, facilities where external service providers are meeting with clients facing mental health issues would have very different design considerations to facilities dealing with child protection matters.
- **Which parts of the building will be accessible to clients and/or members of the public?** In many VPS buildings, non-staff members are only provided access to limited areas within the building. Some areas do not permit non-staff members to proceed without being escorted. This may impact on the positioning of secure entrances, public versus staff entrances, consideration of car park access, etc.
- **What is the nature of the work undertaken in this building?** In exploring this, architects and designers need to understand the types of functions that will be carried out on the premises. For example, a building where members of the public are required to meet with staff in private consultation rooms, would require consideration of how clients will be received by staff, the path through which they will need to travel to get to the consultation room, design of the consultation room to provide egress options, placement of furniture and duress buttons, etc.
- **Is it a multi-use facility?** When the same built environment is utilised by two or more different operational groups with different types of operational requirements, this becomes an additional variable for the architects and designers to consider. For example, if a building was occupied by a justice agency and a human services agency, the architects and designers would need to attend to the different risks inherent in each operational environment. They would also need to consider potential risks associated with the intersection of these two operational environments.

Each of these considerations is imperative to help understand the inherent OVA risks that could be reasonably anticipated within any operational environment. This information should be clearly articulated in the initial brief to provide architects and designers with a broad understanding of the operational context. Consultations with end users and Health and Safety Representatives is critical to assist architects and designers to build on their understanding and integrate these factors in to developing the specifications for the built environment.

### 4. Integration of the CPTED principles

Dealing with violent and aggressive behaviours are a common challenge for a number of publicly accessed environments, including parks, streets, office buildings, carparks, etc. Crime Prevention Through Environmental Design (CPTED) is a set of globally recognised and researched principles that help reduce the incidence and likelihood of criminal and aggressive behaviour through effective design and implementation. It enhances community through improved planning and design decisions that serve as practical crime prevention tools for organisations and communities. Effective application of the CPTED approach has been proven to deter criminal behaviour and substantially improve the quality of work life, often through subtle changes to the design of the built environment.

Whilst the use of CPTED is historically applied to the external or urban environment to prevent crime, utilising the CPTED principles is now recognised as an effective tool to minimise OVA risks within the

internal and external built environment. In an appropriate context, practically applied CPTED principles that are based upon an assessment of risk can help minimise the likelihood of OVA. These strategies can also help improve user perception of safety and security for any VPS workplace.

The key principles of CPTED are:

1. **Natural surveillance** – the design and placement of physical structures and features to maximise visibility and opportunity for effective surveillance. Many practitioners seek to connect eyes between those in and around buildings or areas and those passing by;
2. **Natural access management** – physical guidance of people and vehicles using real or perceived barriers such as fencing, vegetation, lighting and signage;
3. **Territorial reinforcement** – involves the use of physical indicators to delineate space and express a positive sense of control. The approach indicates a space is cared for and protected;
4. **Physical maintenance** – includes the repair, replacement and general upkeep of a space, building or area. This can involve removal of graffiti, collection of rubbish, maintaining shrubbery, trees, hedges, etc. and a strategy to maintain the area as clean and orderly; and
5. **Target hardening** – making potential targets resistant to criminal attack. Strategies include access control, presence of capable guardianship, and physical security devices such as perimeter barriers, signs, locks, alarms and CCTV.

It is essential for the design process of VPS government buildings to consider the integration of the CPTED principles to create a safer environment which minimises the likelihood of OVA risks. Architects and designers need to explore the relevance and appropriateness of applying the CPTED principles through their consultations with users and HSRs, to meet their obligations contained within s28 of the OHS Act 2004

## 5. Consideration of human factors

Consideration of human factors refers to designing products, systems and systems of work, or processes to take realistic account of the interaction between them and the people who use them. How well a design incorporates such human factors may lead to the difference between safe and unsafe design of the built environment.

Designing an environment that suits the user can reduce human error and avoid accidents by encouraging the most effective response or resolution to a potentially violent situation. Architects and designers need to consider human factors in their initial and ongoing consultation with user groups and doing so early in the design process will result in a safer and fit-for-purpose built environment.

Consideration of human factors should also include the impact of indoor environmental quality and its effect on occupant wellbeing and safety. There are well established links between occupant wellbeing and indoor environmental factors such as air quality and thermal, visual and acoustic comfort which need to be considered in the context risk mitigation.

Where possible, a good design must encourage and reinforce consistent application of safe procedures in a practical way that minimises the possibility of human error in judgement and individual preferences. By creating a safe place, that is fit-for-purpose for people to work in, architects and designers can mitigate all impacts of human error and OVA incidents.

### **Example of design considerations: positioning of fixed duress alarms**

If fixed duress alarms are to be placed in a Victorian Public Sector Buildings, consideration needs to be given as to how practical they are to use in case of emergencies. For instance, if a fixed duress alarm requires the staff member to turn away from a potentially violent or aggressive client in order to activate the alarm, doing so may further compromise the safety of the staff member as it takes their attention away from the immediate risk in the situation.

# Key elements of the design process

The building design process should involve four key elements to ensure that the design appropriately eliminates the identifiable OVA risks within the environment (so far as is reasonably practicable). If it is not reasonably practicable to eliminate risks to health and safety using the four key elements, then the responsibility is to ensure that these key elements reduce those risks so far as is reasonably practicable. These elements do not replace the standard design protocols. Rather they are meant to complement existing protocols and integrate an effective risk management approach within the building design process pursuant with obligations within the OHS Act 2004. The Consultation and Risk Assessment Checklist provided in **Appendix B2** should be utilised during the design process, ensuring that all OVA risks are systematically identified, considered and controlled so far as is reasonably practicable.

**i** Complete the Consultation and Risk Assessment Checklist during the design process to ensure OVA risk mitigation.

**Figure 1: Design Process**

## Consultation and Engagement

- Consult with key stakeholders
- Consultation and communication with senior leaders, users and experts
- Consultation before and during the design process

## Post-Occupancy Evaluation

- Consult with key stakeholders
- Evaluate effectiveness of OVA risk mitigation solutions
- Document learning's for future application



## Risk Assessment

- Initial risk assessment to develop the brief
- Detailed risk assessment during the design

## Identifying Solutions

- Consult with key stakeholders
- Consider solutions to mitigate the risk
- Ensure compliance with legal and industry standards
- Decision making



## Consultation and engagement

Consultation and engagement with key stakeholders plays a critical role in ensuring fit-for-purpose built environments. A consistent criticism of the current process was the perceived lack of consultation and engagement with all key stakeholder groups, prior to making critical design and procurement-related decisions.

Effective ongoing consultation is essential to ensuring appropriate input into the risk assessment process. As such, due emphasis must be placed on carrying out an exhaustive consultation process during a building design.

An effective consultation process needs to consider a number of key factors:

## Who to consult

The first issue to address in an effective consultation process is to identify who needs to be consulted to get a well-rounded view on potential OVA risks and challenges. The following stakeholder groups must be consulted:

### Stakeholders to consult

Stakeholder Group	Why Consult Them?
<p><b>Senior Management</b></p>	<p>Engaging Senior Management is critical to help get buy-in and commitment for the design initiative. As key decision makers, Senior Management often have the final say on approving design variations, budget implications, and project extensions.</p> <p>Senior Management also help provide a clear estimation of the image, culture and service philosophy of the intended facility. Getting clarity on these issues up front can minimise potentially costly re-work at later stages of the process.</p>
<p><b>User Groups</b> (Note: If there are multiple user groups for any given facility, all user groups must be included in the consultations to provide a balanced perspective)</p>	<p>Consulting with intended user groups of the building or workplace is very important to undertake an accurate risk management process. User groups include staff (that are either directly affected or likely to be affected by the design), contractors, volunteers, clients and members of the public.</p> <p>Users can help the architects and designers understand the typical functions undertaken in a facility of this nature and the systems of work that do or will operate within it. They are able to provide an account of a 'day in the life of' within such premises. Mapping typical activities and protocols can help architects and designers get a realistic preview of the how the building facilities are likely to be used.</p> <p>User groups can also provide insights into their 'lived experiences' within similar facilities. They can cite relevant examples to illustrate potential OVA risks and incidents that they have encountered in the past. In addition, they would also be well placed to share their reflections on any potential structural solutions that may have prevented these issues. User groups can also be consulted to test different design solutions for mitigating identified OVA risks (note – only a subset of user groups may be identified to participate in the design solution testing phase). Their involvement will help instil higher levels of confidence amongst staff and contractors on the safety and security of the premises.</p> <p>Clients should be consulted in situations when a co-design is appropriate (e.g. patients in hospitals, elderly in aged care homes, children in protective custody, etc.). Their engagement and involvement in the design process would help ensure a positive experience on their part. Naturally, co-design is not an appropriate option for the design on correctional facilities where the environment is designed to meet stricter restrictions and limits on the client behaviours.</p>
<p><b>Health and Safety Representatives (HSRs)</b></p>	<p>Including HSRs in the OVA risk consultation process can provide architects and designers with useful insights into the history of risk and types of OVA incidents that are commonly encountered in such buildings.</p> <p>HSRs typically have data on incidents and injuries that have occurred in the past as a result of OVA risks. On account of their role, they are also well placed to help inform and test the accuracy of the risk assessment process undertaken and explore potential strategies to mitigate identified OVA risks.</p> <p>With regard to consultation, in accordance with the OH&amp;S Act 2004 (2) if the employees are represented by a Health and Safety Representative, the consultation must involve that representative (with or without the involvement of the employees).</p>

Stakeholder Group	Why Consult Them?
<b>Health and Safety Professionals</b>	<p>Internal health and safety professionals can be utilised as a great source of knowledge when identifying OVA risks and potential design solutions. Health and safety managers and advisors are positioned to have a well-developed understanding of the potential OVA risks within an organisation as well as possessing the skills to be able to identify effective solutions through a risk management process.</p> <p>Consulting with health and safety professionals who are familiar with the organisation will contribute to a more effective outcome in the design process.</p>
<b>Property management staff</b>	<p>Consulting with internal staff in the areas of capital management, building, maintenance or property services will allow existing knowledge to be drawn upon as well as allowing for the feasibility of designs to be tested in the first instance.</p> <p>Property management staff can provide key information and input throughout the design process.</p>
<b>Subject Matter Experts (SMEs)</b>	<p>For particularly complex or high risk environments, it may be beneficial to seek expert advice on conducting risk assessments and considering all the relevant built environment solutions that could be applicable within a specific context.</p>
<b>Relevant union bodies</b>	<p>Relevant unions will often have valuable insight in to the challenges faced in a specific environment. Unions should be included in consultation groups as coordinated by the project lead.</p>

## When to consult

Once the key stakeholders that need to be consulted have been identified, the next step is to consider the appropriate points in the design process to carry out the consultation:

1. **Before Commencing the design (for the Organisation)** – consultation should start prior to the preparation of the initial brief. Once a built environment project is identified, the Project Lead must carry out initial consultations to help develop an accurate brief and obtain a preliminary read on anticipated OVA risks. A summary of the risks identified through this initial consultation must be included within the initial brief as key challenges/issues that need to be addressed through the built environment.
2. **During the design (for Designers)** – once the architects and designers are appointed, they need to undertake a thorough consultation process to identify OVA risks and to test the suitability of potential strategies to effectively control these risks. This part of the consultation has to include an active 2-way dialogue process whereby the designers need to communicate potential limitations within the design solutions on account of complying with legislation and relevant industry codes/standards. Consultation at this stage needs to be quite extensive as it helps inform the risk management strategies that are eventually incorporated into the building design. Any agreed changes/modifications to the original design need to be clearly documented and approved by Senior Management.
3. **Post Completion of the Build (for the Organisation)** – finally, key stakeholders also need to be consulted post completion of the build to help integrate the building’s design and safety features into relevant training practices, incident protocols and safe working guidelines. Consultation with key stakeholders at this time also supports post-occupancy evaluation.

## How to consult

When effective consultation plays such a critical role in enabling fit-for-purpose built environments, due consideration must be given to 'how' such consultation is carried out. We recommend the development of a Consultation Schedule that must include a description of the following:

- Parties to consult with
  - Initial consultation (exploratory)
  - Ongoing consultation (testing and feedback of solutions)
- Location/forum for consultations
- Roles and responsibilities
- Explaining brief/context to parties
- Feedback mechanisms
- Dispute mechanisms
- Questions to ask parties

These strategies will help ensure a planned approach to consultations and assist with the management of expectations throughout this process. Please note that all stakeholders (as detailed above) must be consulted throughout all stages of the design process, the nature and extent of the consultation required would be decided in conjunction with the Project Lead and Senior Management sponsoring the build project.



Use the Consultation Record Form and Consultation Question Guide to assist with and record all consultation

**Appendix B3: Consultation Questions Guide** includes a number of questions that could be utilised as a starting point for different consultations.

**Appendix B4: Consultation Record Form** provides a consistent way of documenting the outcomes from different consultations undertaken by the architects and designers. A consultation record form should be kept for each meeting attended by architects or designers during the building process.



## Risk assessment

Good consultation provides the basis for effective risk assessment. Risk assessment involves the application of a risk rating to inform the nature of solutions that need to be considered in the design process. While risk assessment is an important part of the process for controlling unknown risks, you may not need to conduct a formal assessment if a risk is well known to the client and the solution is obvious. For example building design solutions to control OVA risks may be outlined in specific building standards and guidelines such as those listed in **Appendix B7. Building design codes and standards**, which are already used by Government Departments, in these instances a risk assessment is not required unless new risks have been identified which have yet to be assessed and controlled and/or new controls have been identified. Also, refer to resources six to eight in the Whole of Victorian Government publication *Occupational Violence and Aggression guide for the Victorian Public Service*.

### Risk assessment process

A risk assessment builds knowledge and understanding about hazards and risks that have been identified so that informed decisions can be taken about controlling them.

It does not always have to be a long, complex process involving lots of paperwork. Risk assessment is a means to an end, not an end in itself. As such, it should be **straightforward, purposeful** and **actionable**.

A risk assessment process involves:

- Identifying potential risks or hazards (undertaken by the employer and outlined in the initial design brief)
- Understanding their likelihood/probability of their occurrence
- Understanding the severity/consequence of their impact
- Classifying the potential risks as High, Medium or Low risks using a risk assessment matrix (as shown below)

**Figure 2: Risk assessment matrix**

		Likelihood/Probability		
		1	2	3
Severity/Consequence	1	Low	Low	Medium
	2	Low	Medium	High
	3	Medium	High	High

## When to Assess Risks

There are two points within the design process where a risk assessment must be undertaken:

1. **Initial risk assessment to develop the brief** – the initial risk assessment to develop the design brief must be undertaken by the Project Lead. This process would involve a rapid risk assessment to clarify the basic requirements of the build and identify key OVA challenges that are inherent within this environment. The outcomes of this rapid risk assessment must be summarised and included in the design brief for procurement. This will provide prospective architects and designers the opportunity to better understand the OVA challenges that need to be addressed through the design brief.
2. **Detailed risk assessment during the design** – once appointed, architects and designers must build on the initial risk assessment and carry out a more extensive consultation process, as coordinated by the Project Lead to understand the key risks that need to be addressed as part of the design of the built environment. As part of this process architects and designers must systematically categorise the risks identified to gauge their level of risk. Architects and designers must work closely with the HSRs at this point to ensure the accuracy of the risk assessment process. Please refer to **Appendix B5: Risk Assessment Form** for a systematic approach to documenting risks as part of the consultation process.



Complete the Risk Assessment Form to document OVA risk during the consultation process



## Identifying solutions

Once a clear set of risks have been assessed for a proposed building, the next step in the design process is identifying potential solutions to address these risks through the built environment.

An effective process for identifying design solutions for OVA risks must include the following:

### Consider built environment solutions to mitigate the risk

Depending on the nature of the risks identified, a number of design solutions could be explored through the consultation process with key stakeholders. The design solutions could consider factors such as, but are not limited to:

- **Visibility** – Is there sufficient visibility of areas so that staff can identify the potential for violence early and take action? Are there any potential blind spots that need to be covered by additional surveillance like CCTV?
- **Egress** – Are there mechanisms through which staff can exit an area and remove themselves safely from the risk? Are the duress buttons available and easily accessible? Are there mechanisms for incident responders/security to gain access?
- **Access** – Do the solutions allow staff to gain access or exit an area whilst preventing violent or aggressive individuals from gaining access? Are there secure access points beyond which visitors or clients cannot proceed? Can violent or aggressive individuals be easily segregated from others by closing access points? Are there separate facilities for staff and visitors/clients (e.g. restrooms, smoking areas, car parks)? Can visitors and clients reach across counters and barriers to assault/harm staff?
- **Interior design** – Are there objects/furnishings within the built environment that could be used as a weapon? Are there objects with sharp corners? Are there objects that could be easily dislodged? (e.g. artwork, desk lamps, seats, etc.)
- **Territoriality** – Are there fences and cameras placed strategically to emphasise security? Are there options for using appropriate signage to prevent entry or access to restricted areas? Do the signs clearly specify who can and cannot enter? Do the signs clearly prohibit any potential contraband or unauthorised equipment being carried in past a point?
- **Stress-reduction**: Are there design solutions that can reduce the stress levels of visitors and clients to prevent violence (e.g. cooling, lighting, noise, visual features such as windows, paint colour, art work, plants, open space)?
- **Flexibility** – Does the built environment design allow for rapid changes in scaling security features up or down to be implemented (based on situational factors like threat levels)?
- **Upstream solutions**: Are there solutions that could be implemented 'earlier' to prevent OVA risks from eventuating (e.g. placement of a security checkpoint at a gated entry to prevent unauthorised access or the use of an electronic identification system that requires a personalised access code for entry)?

### Ensure compliance with legal and industry standards

In exploring different design solutions to OVA risks, it is imperative for the architects and designers to maintain their roles as the technical experts in the process. It would be incumbent upon them to ensure that the proposed solutions remain compliant with the relevant legal requirements and industry codes and standards. Different types of built environments may have different legal requirements and standards that affect the opportunities for implementing certain types of solutions within the built

environment in question. Architects and designers need to be able to clearly communicate these requirements during consultations to manage the expectations of the stakeholders.

## Decision making

Architects and designers play a critical role in making the final decisions on the appropriate design solutions. They need to carefully consider and weigh up a number of variables to arrive at the final decision. These may include, but not be limited to:

- **Compliance with minimum standards:** Do the solutions meet the minimum standards of applicable building codes and all legislations?
- **Compliance own duties under the OHS Act:** Does the solution ensure, as far as reasonably practicable, that it is designed to be safe and without risks to the health of persons using it as a workplace for a purpose for which it was designed?
- **Solution alignment with service philosophy:** Do the solutions reinforce or detract from the underlying service philosophy?
- **Structural limitations:** Are there limitations within the existing built environment?
- **Cost implications:** Are the solutions cost prohibitive and out of budget? Which solutions are likely to offer greatest return on investment within a limited budget?
- **Balancing competing variables:** Do different user groups have different and competing requirements? Are there different risks and priorities expressed by different user groups?
- **Solution effectiveness** – Is the proposed solution likely to address the risk? Are there human factors to consider? Is there an opportunity / budget to facilitate simulated testing of the design solutions?
- **Unforeseen consequences/transferring the risk elsewhere** – Are the proposed solutions likely to create additional risks further up or down the workflow?

Architects and designers must be able to consider all these factors in recommending preferred solutions to risks. They must be able to advocate for particular solutions or advise the relevant parties as to why a solution may or may not work, given an analysis of all these variables.

Please utilise **Appendix B6. Solution Record Form** to help clearly document and communicate the solutions that are agreed upon for each identified risk and why they were seen to be the most appropriate option. There may be some risks which cannot be addressed through the built environment design. In such cases, these risks must be recorded as residual risks that need to be addressed by the organisation through additional induction, training and policy/procedure interventions.



Use the **Solution Record Form** to document and communicate solutions chosen to mitigate OVA risk



## Post occupancy evaluation

Following a new build or refurbishment, organisations need to put in place a rigorous monitoring and review process to assess the ongoing effectiveness of the OVA design solutions. Documenting and monitoring any near misses and injuries associated with instances of OVA could help the organisation identify potential opportunities for systemic improvements. Some of these improvements could involve additional modifications to the built environment. Others could require a consideration of human factors and require a stronger emphasis on bridging inconsistencies in practices through targeted training, coaching and debriefing.



The information captured by organisations will assist designers and architects in adding value to their post occupancy evaluation giving focus to OVA risk mitigation. An effective post occupancy evaluation is essential to ensure that learnings can be documented and drawn upon in future designs. The state of knowledge in OVA risk mitigation is growing and evolving; documenting the efficacy of design features will add to the state of knowledge and allow for better outcomes achieved more efficiently through a collaborative effort and shared learnings.

# Appendix B2. Consultation and risk assessment checklist

## Purpose of this checklist

This checklist is designed to ensure that the appropriate steps are taken throughout the building process (from brief, through design, to construction) to mitigate the risk of occupational violence and aggression (OVA). The checklist should be completed for all builds, including refurbishments, where a risk of OVA has been identified. The checklist should be completed by an employer representative (ER) overseeing the build with input from external consultants, designers and architects (CDA) as required and should be viewed as an addendum to existing checklists required as part of the standard building design process.

**Note:** Key stakeholders refers to senior management, user groups, health and safety representatives, health and safety professionals (including ARREOs), property management staff and other specialists who are deemed appropriate based on the nature of the risks identified.

Stages	Action	In progress	Completed	Responsibility
<b>Project Proposal</b>	Notify relevant stakeholders about the proposed works.			ER
<b>Planning and Feasibility Study</b>	Clarify the basic requirements including the type of facility, the service philosophy and the nature of the business undertaken.			ER & CDA
	Consult with key stakeholders to further explore the nature of the business undertaken to develop an understanding of the demands that can be expected in the work environment.			ER & CDA
<b>Schematic Design and Development</b>	Ensure a suitably qualified representative forms part of the design team with demonstrated knowledge and experience of OVA risk mitigation through the built environment.			ER & CDA
	Consult with key stakeholders to identify OVA risks in the proposed work environment.			ER & CDA
	Identify OVA risks within the operational context by reviewing incident data and conducting risk assessments.			ER & CDA
	Consider design solutions drawing upon previous experience and work in similar environments.			ER & CDA
	Consult with key stakeholders to explore possible design solutions to mitigate OVA risks.			ER & CDA
	Test the feasibility of identified design solutions against relevant standards and legislations.			CDA
	Seek feedback from key stakeholders on identified design solutions.			CDA
	Update plans to document the necessary changes and safety features and document how stakeholder feedback has been considered.			CDA

Stages	Action	In progress	Completed	Responsibility
<b>During Construction</b>	Review by relevant stakeholders.			ER & CDA
	Formal pre-handover review and sign-off by relevant OH&S representative.			ER & CDA
<b>Post Occupancy Evaluation</b>	Review and analyse incident data.			ER
	Consult with key stakeholders to gather feedback on the success of design features to inform the evaluation.			ER & CDA

## Appendix B3. Consultation questions guide

Effective consultation and input from key stakeholders that will be utilising a building is essential for ensuring the best outcomes for the minimisation and mitigation of OVA risk through the built environment. Consulting with those who do the work on the ground not only makes good sense, it is required under the OHS consultation guidelines.

The following questions could be utilised by architects and designers to initiate the consultations with key stakeholders. Please note, these questions are not an exhaustive list as they would need to be tailored to the type of facility/building required. Rather, they should be used as a starting point to exploring the complex factors that underpin OVA risks within any given environment.

### Service philosophy

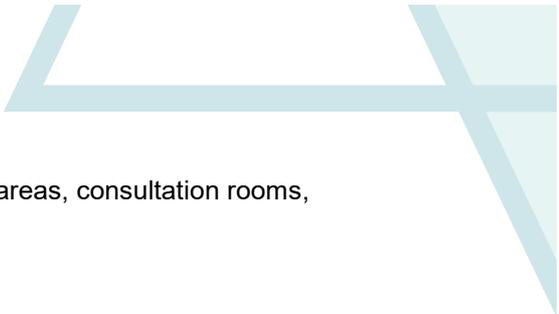
1. What is the nature of the work conducted at the location?
2. What type of image or service culture do you want the building to portray?

### User groups

3. What kind of user groups will be utilising the building?
4. What is the typical demographic of visitors or clients accessing the building?
5. What type of behavioural issues or challenges do they present with?
6. What are potential OVA triggers across this client demographic?
7. What factors positively contribute towards creating a safe environment for this demographic?

### Workflow

8. What activities do you typically undertake as part of your day-to-day work activities?
9. How much interaction do you have with visitors and clients in your day-to-day work?
10. Is your interaction contained in one environment?
  - (a) If yes:
    - (i) What does that environment look like at present?
    - (ii) Do you think it is an effective setup? Why/Why not?
    - (iii) Have you ever felt unsafe at work because of the behaviours exhibited by clients/visitors?
    - (iv) What were the circumstances surrounding that?
    - (v) How often have you or your colleagues encountered similar issues?
    - (vi) What kind of environmental factors would have made you feel safer?
  - (b) If no:
    - (i) At what points do you interact with clients?
    - (ii) How do you escort them to the next location?
    - (iii) What precautions do you take to maintain your own safety and that of your clients while escorting them from one location to another?

- 
- (iv) What kind of facilities do you escort them to (e.g. living areas, consultation rooms, kitchen, restrooms, etc.)
  - (v) Please describe each of these facilities.
  - (vi) Do you witness a higher degree of OVA in some facilities over others?
  - (vii) What about these environments trigger an escalation in OVA?
  - (viii) How do you typically respond if you feel unsafe?
  - (ix) What practices do you adopt to ensure your own safety and safety of others in the environment?
  - (x) What kind of environmental factors would make you feel safer?

## Access

- 11. How do you enter the building?
- 12. At what points do you have to use your security key?
- 13. Are there areas open to the public that should be further restricted?
- 14. Do you have access to an undercover secure car park or on-street parking?
- 15. Do you feel safe when you enter and exit the building?
- 16. What makes you feel unsafe?
- 17. Are there environmental factors that could make you feel safer (e.g. street lighting, CCTV, etc)?

## Human factors

- 18. Do you and your colleagues follow the safety and incident management protocols prescribed for your environment?
- 19. What prevents/discourages you from following them?
- 20. What kind of environmental/design features may improve the responsiveness to emergency situations?

## Appendix B4. Consultation record form

The following Consultation Record Form is to be completed following every design consultation carried out by the architects and designers during the build process.

### Project Details

Project type	Details
Name of the project	
Location	
Type of build	
Nature of work	

### Consultation details

Consultation information	Details
Date of Consultation	
Consultation record number	
Type of Consultation	Senior Management / Staff / Clients / HSRs / OHS / Subject Matter Experts
Individuals Consulted	
Key OVA Challenges Identified	
Emerging Structural Risk Factors	
Follow-up / feedback Commitments	

# Appendix B5. Risk assessment form

Description of OVA risk	Likelihood of occurrence	Severity of impact	Risk rating

# Appendix B6. Solution record form

OVA risk	Solutions explored	Solutions selected	Reasons for selection
	1. 2. 3.		

Signature of the Architect / Designer

\_\_\_\_\_

Signature of Senior Management

\_\_\_\_\_

Date of Signature

\_\_\_\_\_

Date of Signature

\_\_\_\_\_

# Appendix B7. Building design codes and standards

## Specific industry or organisational codes

### Whole of government

- The Building Code of Australia
- Department of Treasury and Finance Accommodation Guideline

### Department of Education and Training

- Building Quality Standards Handbook, Victorian Schools Building Authority (VSBA)

### Department of Health and Human Services

- Disability Services Accommodation Standards and Design Guidelines for the Provision of Shared Supported Accommodation, Department of Human Services (2004)

### Department of Justice and Community Safety

- Contact Department of Justice and Community Safety for specific guidance material

### Victoria Police

- Victoria Police – Police Station Design Guidelines

### Health services

- Australasian Health Facility Guidelines: Part C – Design for Access, Mobility, OHS and Security.