Designing Out Crime Officer
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West Yorkshire Police
Kirklees District

To:	
Callum Harrison Kirklees Council Planning Services	Ref: 12022/92557 Date: 26th September 2022

Commercial Site Location: Fox View, Dry Hill Lane, Denby Dale, Huddersfield, HD8 8YN
Application Type: Erection of Grid connected Solar Farm

Dear Callum

Thank you for your request for consultation for the above outline application. Having read the available information, overall, West Yorkshire Police have no objections to the principle of this application in its current form, subject to the below advice being incorporated into the design plans.

The below information is intended for the applicant to include in any amendments to the application to maximise the security of the development.

Perimeter Security

Perimeter fencing should comprise a proven security fence. I recommend the installation of fencing which has been tested and approved to LPS 1175 SR 1-3 standard, this being the most appropriate. In many of this type of application, it has been proposed that a high tensile wire deer fence, 2.45 metres in height, with wooden posts as a perimeter treatment for this solar farm is installed. Fencing which is not of a specialist security type, is likely to offer at best only token resistance to intruders.

The site entrance security gate must be of similar construction to the fencing so the above comment also applies to any other site entrance gate, which should be of the same security standard as the fence.

Planting, especially defensible hostile planting with native species, up and alongside any fencing is acceptable providing there is no detrimental effect upon site surveillance.

Vehicular Access

There should be a minimum number of vehicular access points onto site, ideally only one reducing access points for the criminal.

The wider issues of access around the site should also be considered. If for instance the land surrounding the site is under the same ownership can this be made more secure by improving other fencing, gates, hedges, using bunds, ditches etc. to provide layers of difficulty for the criminal to overcome in trying to access the site.

Landscaping/Planting

It is noted that existing external planting to screen the site from passers-by on the adjacent Dry Hill Lane has been mentioned. See the above advice.

Electronic Security Measures

In order to monitor the site and detect any unauthorised access, remotely monitored, motion-activated Passive Infra- Red (PIR) security cameras should be installed which will avoid the need for any lighting on site. A site security policy is recommended along with the installation of such cameras but the DAS does not indicate who, in the event of an activation, will respond which I consider important. Also, the number and precise location of the cameras around the site does not appear to be indicated on the Solar Layout plan, so it is difficult to assess whether appropriate coverage will be provided.

The applicant should also consider the installation of a Perimeter Intruder Detection System (PIDS) which would alert the operator to any unauthorised intrusion and may negate the need for more substantial perimeter fencing and gate.

The facility also includes Battery Storage Units, Inverters and a Control Building, all of which are potential targets and should be secure and electronically protected by intruder alarms.

There are also ways of alarming the solar panels which will then activate upon any interference. This may, depending on circumstances, be able to be connected to a remote monitoring facility.

Security Personnel

Some sites are remotely monitored and not permanently staffed with periodic visits by employees only for maintenance. This obviously increases the potential vulnerability of the site and equipment contained within it, particularly during the hours of darkness.

The presence of site security personnel or patrols in some capacity should be considered including in terms of response to site CCTV and alarm activations.

Property Marking

Consideration should also be given to overtly marking the panel frames, tools and any other easily portable equipment on site with unique reference numbers to assist identification if stolen.

There are products now available which lock the panels together so as to make the removal of individual panels very difficult.

The panels should be installed correctly. This should be by security screw fixings requiring a specialist tool so making it more difficult for any opportunist criminal to easily remove panels

Some of the larger solar farms already in existence have suffered with instances of burglary, theft of tools and equipment, cabling and other metals in addition to vandalism of panels so it is important that the above recommendations are taken into account.

Additional security advice from Secured by Design

Boundary treatments

Security fencing must be installed around the site perimeter. Materials may include welded mesh and expanded metal available in numerous coloured coatings, which are sometimes used in conjunction with timber. Railings of various designs can be used to good effect and all fencing types 2.4m above ground level, can be fitted with hostile toppings to deter climbing. I would recommend the boundary treatments for the site be robust to a height of 2400mm with signage stating the use of hostile or defensive toppings to be placed around the exterior of the perimeter fencing at regular intervals.

Access must be restricted from public land by installing a lockable gate of the same material and same height as the fencing.

It is advised that the boundary fencing is defended with defensive planting to the outside of the fence.

A party or shared boundary should not compromise security and maintenance. It may be advisable to erect a separate security fence inside the party boundary, ensuring access for maintenance of both existing and new structures. It is important to take account of neighbours' amenity in the choice of structure, as they will be more likely to act as deterrents or witnesses in helping to maintain site security. This arrangement may create a new path around the boundary and measures may be required to obstruct this path at vulnerable points.

All steel used in manufacture should be galvanized to BS EN ISO 1461:2009 and/or stainless steel with a service life in excess of 25 years.

When the building is closed and unoccupied, it must be possible to lock all entrance gates onto the site. During partial occupation, whether by employee, cleaners or security staff, perimeter gates should be operable by appropriate means of secure access control.

It is essential that all fencing and boundary treatments be designed so that the external face is flat with no footholds for climbing. This applies to any gates used on the site as well.

Standard for security fencing for higher security risks

In circumstances where there is a higher risk of crime or there are high value goods on site, a fence that is resistant to intrusion will be required. The minimum standard for such a fencing system is one that is certified to LPS 1175: Issue 8, Security Rating 2+ or Sold Secure Gold standard or higher, depending upon risk. To meet this security standard, the fence may not be aesthetically acceptable in some settings. Should this be an issue the applicant must discuss the matter with myself and an alternative fencing system may be recommended. Higher standards for fencing are available, such as systems tested for use around government property. *The above LPS standard relates to both the height and penetrative resistance of the fence i.e. SR 3 is substantially more resistant to penetration than SR1. Such penetrative resistance may not always be required even though a height of 2.4m is necessary.*

All fencing systems and gates as described below must be installed by the manufacturer or to the exact installation specifications provided by the manufacturer. BS 1722 offers installation advice. Consideration must be given to the provision of a strip foundation if there is a perceived risk of the fence being bypassed or undermined by the removal of substrate, guidance is also provided in BS 1722.

Secured by Design currently accredits several fencing manufacturers and installers who between them can provide fencing solutions for all circumstances. They can be found in the Members and Products section of the SBD website **www.securedbydesign.com**

Hostile topping may be used in conjunction with the perimeter fencing above 2.4m from ground level. It is advised that appropriate signage is installed along the lengths of the perimeter with hostile topping deployed.

Any accessible areas of the roof around the building should be protected to prevent climbing access and roof intrusion by offenders.

Access must be restricted to the perimeter defensible space from public land by installing a lockable gate of the same material and same height as the fencing. It is advised that the gate construction is such that no footholds or cross members are accessible from the outside of the gate, especially around the locking mechanism to prevent climbing.

Gates

The design, height and construction of any gates within a perimeter fencing system should match that of the adjoining fence and not compromise the overall security of the boundary.

Access must be restricted to the perimeter defensible space from public land by installing a lockable gate of the same material and same height as the fencing. It is advised that the gate construction is such that no footholds or cross members are accessible from the outside of the gate, especially around the locking mechanism to prevent climbing.

Security bollards (including those intended for Hostile Vehicle Mitigation)

Where crime risks dictate that there is a realistic chance of a ram raid type attack, with the intent to aide theft of the contents, or a vehicular borne attack to enter the premises or penetrate the shell of the building to carry out an act of terrorism, the following standards for secure bollards that will prevent such an attack should be specified:

- Fixed bollards should have been successfully tested to PAS 68-1:2013 *Performance specifications for vehicle security barriers – fixed bollards*
- Rising Bollards should have been successfully tested to PAS 68-2:2013 *Performance Specification for vehicle security barriers – rise and fall bollards*
- Bollards providing passive protection to areas of a development or building that either are not required to have protection against an attack by a vehicle e.g. to keep a fire door (opening outwards) clear of obstruction, or where there is no means by which a vehicle may have access but a substantial barrier is still required may be tested to BS 170-1.

PAS 69: 2013 provides guidance on the appropriate selection, installation and use of such bollards and should be referenced in the first instance.

Other measures may be considered to address a possible vehicle borne attack as an alternative to bollards e.g. substantial planting boxes or raised kerb.

External lighting

All street lighting for both adopted highways and footpaths, private estate roads and footpaths and car parks must comply with BS5489-1:2020 standard. Where conflict with other statutory provisions occurs, such as developments within conservation areas, requirements should be discussed with the local authority lighting engineer.

Landscaping, tree planting and lighting schemes shall not be in conflict with each other.

The recommended Overall Uniformity of light for a development is expected to achieve a rating of 0.4Uo and should never fall below 0.25Uo. *The evenness of light distribution is almost always more important than the levels of illumination being achieved by the system (the levels are determined by BS 5489-1:2020) The British Standards Institute have issued an advisory note stating that they recommend that Uo be at least 0.25 or 25%. A 0.4 Uo value is the ideal standard for a lighting system, but where technical reasons prevent this we will still require the very best levels possible and under no circumstances may the rating fall below 0.25Uo.*

The Colour Rendering qualities of lamps used in an SBD development should achieve a minimum of at least 60Ra (60%) on the Colour Rendering Index

It is advised that LED lighting standards are installed to produce downward lighting. This lighting should give a uniform spread of light around the site and not have any large areas of shade or shadow.

The site should provide external lighting such as low energy photoelectric cell or dusk until dawn lighting above all access doors of the building. Any fittings and wiring should be vandal resistant and located within inaccessible positions to deter any criminal attack.

The lighting plan should work in harmony with any CCTV system, which should cover the same locations as mentioned above.

Wall construction

Due to the remoteness of some industrial and warehouse units and or reduced activity at night and over the Weekends, some buildings become prone to criminal attack through the wall, bypassing security doors and shutters. The walls should therefore be designed to withstand such attacks and materials resistant to manual attack or damage should be used to ensure the initial provision of security.

Where lightweight construction is being considered, for example the use of insulated sheet cladding, a reinforced lining such as welded steel mesh can enhance the security of the building fabric. Internal plasterboard walling to STS 202 Issue 7 BR1 Requirements for burglary resistance of construction products, should also be considered.

Roller shutters and grilles

Grilles and shutters can provide additional protection to both internal and external doors and windows. The minimum standard for such products, when required, is certificated to:

- LPS 1175: Issue 8:2019 Security Rating B10 or above
- STS 202: Issue 3, Burglary Rating 1

For roller shutters, the above minimum-security ratings are generally sufficient where:

- a shutter is required to prevent minor criminal damage and glass breakage or
- the shutter is alarmed and the building is located within a secure development with access control and security patrols or
- the shutter or grille is intended to prevent access into a recess or
- the door or window to be protected is of a high security standard

Security ratings higher than the minimum may be required and will be dictated by one or more of the following security considerations

- Type of crime risk
- Level of crime risk
- Location of the building
- Security level of the door or window being protected

External doorset apertures

It is important that the doorset aperture be protected. Due to the nature of some commercial building uses and locations, there is an expectation that the security will be required to meet the following minimum standards when the building is unoccupied:

- PAS 24:2016
- LPS 1175: Issue 8:2019 Security Rating B10 or above
- STS 201 or STS 202: Issue 3, BR2

Additional security may be gained by utilising additional protection such as a certified roller shutter or grille.

It is expected that all doorset products are fit for purpose and therefore certification to the following material specific standards is also required:

- BS 6510:2010 (Steel)
- BS 7412:2007 (PVCu)
- BS 644:2012 (Timber)
- BS 8529:2010 (Composite)
- BS 4873:2009 (Aluminium)

It is strongly recommended that any doors that include a euro cylinder lock be rated to standards; TS007 3 Star, STS 217 or Sold Secure Diamond Standards. These offer more resistance to this type of attack and will prevent crime. Consult the door supplier to make sure that the PAS24 rating is not affected if locks are upgraded.

Windows

The below are the recommended standards.

- BS PAS 24-2016
- STS 202 Issue 3:2011 BR 1
- STS 204 Issue 3:2012
- LPS 1175: Issue 8:2019 Security Rating B10 or above
- LPS 2081 Issue 1:2015 SR A

Ideally laminated glazing should be installed and certificated to BS EN 356 1A rating, so that if there are any attempts of entry the glass will remain intact.

Security glazing

All ground floor and easily accessible glazing must incorporate one pane of laminated glass to a minimum thickness of 6.4mm or glass successfully tested to BS EN 356:2000 *Glass in building. Security glazing - resistance to manual attack* to category P1A unless it is protected by a roller shutter or grille. With effect from 1st January 2014 the Secured by Design requirement for all laminated glass in commercial premises will be certification to BS EN 356 2000 rating P1A unless it is protected by a roller shutter or grille.

Occasionally, when large laminated glazed panels are used on south facing elevations, there have been incidents of glazing failure (cracking) due to thermal stress. Whilst the use of toughened glass would seem to be a simple solution to the problem of thermal stress, ordinary toughened glass offers no security resistance. It is therefore recommended that the inner pane of glass used in a double-glazed unit is 'laminated toughened'. This combination of the two sheets of toughened glass and the interlayer offers both resistance to intrusion and thermal stress associated with large, glazed areas. Specifiers are reminded that the minimum requirement for SBD is BS EN 356: 2000 category P1A.

When premises are assessed as being at significant risk to the effects of blast from a terrorist attack, blast resistant glazing or anti shatter film may be required to mitigate the risk of death or injury from the effects of flying glass. Separate information from a West Yorkshire Police Counter Terrorist Security Advisor will give further information on this matter.

Car parking

Provision should be for secure parking within the site perimeter in view of the building and be covered by CCTV. Rear parking court areas that are hidden from view are unacceptable. They are known to become associated with nuisance and anti-social behaviour as well as increasing the opportunity for car crime and rear access burglary.

CCTV

External warning signs should be installed all around the site stating that there is "MONITORED" CCTV recordings on site.

CCTV is not a universal solution to security problems. It can help deter vandalism or burglary and assist with the identification of offenders once a crime has been committed, but unless it is monitored continuously and appropriately recorded, CCTV will be of limited value in relation to the personal security of staff and visitors. That being said, the provision and effective use of CCTV fits well within the overall framework of security management and is most effective when it forms *part* of an overall security plan.

Developers of new commercial premises and managers of existing premises that are considering the use of CCTV must be very clear about the objectives they wish to meet and establish a policy for its use and operation before it is installed. It is important to seek independent advice before approaching an installer and to develop a comprehensive operational requirement for the system, which can be supplied to installers during the tendering process. An operational requirement will be used for the design, performance specification and functionality of the CCTV system. In effect, it is a statement of problems, not solutions and will highlight the areas that must be observed by the system and the times and description of activities giving cause for concern. A useful reference to help achieve this goal is the *CCTV Operational Requirements Manual 2009 ISBN 978-1-84726-902-7 Published April 2009 by the Home Office Scientific Development Branch*

The CCTV system must have a recording capability, using a format that is acceptable to the local police. The recorded images must be of evidential quality if intended for prosecution. Normally this would require a full 'body shot' image of a suspect. It is recommended that fixed cameras are deployed at specific locations for the purpose of obtaining such identification shots. An operational requirement must take account of this fact and decisions made as to what locations around the building are suitable for obtaining this detail of image. The recording of vehicle licence plates may also be practical and useful.

Whilst the location of cameras is a site-specific matter it would be normal practice to observe the main entrance to the premises and the reception area. In high crime areas CCTV cameras may need protection within a vandal resistant housing. CCTV coverage is advised of any current areas of the site that are known by the staff to be problematic for criminal offences. Early discussions with an independent expert and potential installers can resolve several matters including:

- Monitoring and recording requirements
- Activation in association with the intruder alarm
- Requirements for observation and facial recognition/identification
- Areas to be monitored and field of view
- Activities to be monitored
- The use of recorded images
- Maintenance of equipment and the management of recording
- Subsequent ongoing training of operatives

CCTV systems must be installed to BS EN 62676-4:2015 Video surveillance systems for use in security applications.

The design of a CCTV system should be co-ordinated with the existing or planned lighting system for the buildings and the external grounds, to ensure that the quality of the lighting is sufficient to support the CCTV.

CCTV systems may have to be registered with the Information Commissioner's Office (ICO) and be compliant with guidelines in respect to Data Protection and Human Rights legislation. Further information is available at this website: www.ico.gov.uk

For guidance on the use of CCTV images as legal evidence see also BS 7958: 2009 *Closed circuit television (CCTV). Management and operation. Code of practice*. This document provides guidance and recommendations for the operation and management of CCTV within a controlled environment where data that may be offered as evidence is received, stored, reviewed or analysed. It assists owners of CCTV systems to follow best practices in gaining reliable information that may be used as evidence.

Remotely monitored detector activated CCTV systems must be installed in accordance with BS 8418: 2015 *Installation and remote monitoring of detector operated CCTV systems - Code of practice*

Intruder alarms

System designers may wish to specify component products certificated to the following standards:
Suitable standards are to BS EN 50131 or PD6662 (wired alarm system) or BS 6799 (wire free alarm system).

Security fogging devices can be incorporated within the intruder alarm system to disorientate the intruder when the alarm system is activated. They must conform to BS EN 50131-8:2009 Security Device Fog Systems.

Secured by Design

https://www.securedbydesign.com/images/downloads/SBD_Commercial_2015_V2.pdf

Applicants are encouraged to apply for *Secured by Design* accreditation for all new dwelling developments in order to achieve a recognised award for security standards. Please see the web link below for further information.

https://www.securedbydesign.com/services/sbd-awards

West Yorkshire Police encourages applicants to seek to build / refurbish a development incorporating the guidelines of **C*rime Prevention Through Environmental Design* (CPTED)** [1&2], together with ***Secured by Design* (SBD)**, a crime prevention initiative operated by the Police Service and supported by the Home Office.

The purpose of SBD is to guide and encourage those engaged in the specification, design and build industry into adopting crime prevention measures. Academic research by Huddersfield University has proven[3] that building to SBD standards, reduces the opportunity for crime and the fear of crime as well as creating safer, more secure and sustainable environments.

Established in 1989, *Secured by Design* is the title for a group of national police projects focusing on the design and security for new and refurbished homes, commercial premises and car parks as well as the acknowledgement of quality security products and crime prevention projects. It supports the principles of 'designing out crime' through physical security and processes.

Secured by Design works with the industry and test houses to create high-level security standards responding to trends in crime and has given input on a number of key standards.

[1] Armitage R. (2013) *Crime Prevention through Housing Design: Policy and Practice.* Palgrave Macmillan: Crime Prevention and Security Management Book Series.

[2] Armitage, R. and Monchuk, L. (2018) What is CPTED? Reconnecting Theory with Application in the Words of Users and abusers. *Policing: A Journal of Policy and Practice.*

[3] Armitage, R, and Monchuk, L (2011) Sustaining the Crime Reduction Impact of Secured by Design: 1999 to 2009. *Security Journal*, 24 (4), p. 320-343.

IMPORTANT General information

This advice is based upon concerns following recent current Crime trends in the area concerned. The above advice expressed, is given as a view as to what measures might reduce the risk of crime; there can be no guarantee that the Recommendations / Concerns will prevent Crime.

Before any measures are implemented you are advised to consider current Health and Safety Legislation, Planning Permission and consult with your local **Fire Safety Officer** or any statutory body that my require notification or consultation.

Should you require any further advice or assistance, please do not hesitate to contact me directly.

Policy Guidance

The *National Planning Policy Framework (July 2021)*

Section 8. Promoting healthy and safe communities

Para 8. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways:

(b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and **safe places**, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.

Para 92. Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:

b) are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of attractive, well-designed, clear and legible pedestrian and cycle routes, and high-quality public space, which encourage the active and continual use of public areas.

Para 97. Planning policies and decisions should promote **public safety** and take into account wider **security and defence** requirements by:

a) anticipating and addressing possible **malicious threats** and natural hazards, especially in locations where large numbers of people are expected to congregate. Policies for relevant areas (such as town centre and regeneration frameworks), and the layout and design of developments, should be informed by the most up-to-date information available from the police and other agencies about the nature of **potential threats** and their implications. This includes appropriate and proportionate steps that can be taken to **reduce vulnerability**, increase resilience and **ensure public safety and security**; and

b) recognising and supporting development required for **operational defence and security purposes** and ensuring that operational sites are not affected adversely by the impact of other development proposed in the area.

Section 9. Promoting sustainable transport

Para 106. Planning policies should:

d) provide for attractive and well-designed walking and cycling networks with supporting facilities such as **secure cycle parking** (drawing on Local Cycling and Walking Infrastructure Plans).

Para 108. Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, **safe and secure**, alongside measures to promote accessibility for pedestrians and cyclists.

Para 110. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

b) safe and suitable access to the site can be achieved for all users.

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code.

Para 112. Within this context, applications for development should:

c) create places that are **safe, secure** and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards.

Section 11. Making Effective Use of Land

Para 119. Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring **safe** and healthy living conditions.

Section 12. Achieving well-designed places

Para 130. Planning policies and decisions should ensure that developments:

f) create places that are **safe**, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where **crime and disorder**, and the **fear of crime**, do not undermine the quality of life or community cohesion and resilience.

Kirklees Local Plan (February 2019)

Policy LP24 supports the above statement and mentions that new developments should incorporate crime prevention measures to achieve:

Section (e). – "*the risk of crime is minimised by enhanced security, and the promotion of well – defined routes, overlooked streets and places, high levels of activity and well –designed security features*".

Kirklees Supplementary Planning Documents (June 2021)

The applicants are referred to the adopted **Housebuilders Design Guide** and **Open Space Supplementary Planning Documents** (June 2021).

Crime and Disorder Act, 1998

This report is submitted in the interests of crime prevention and addresses our collective responsibilities under:

Section 17 - Duty to consider crime and disorder implications.

(1) Without prejudice to any other obligation imposed on it, it shall be the duty of each authority to which this section applies to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent,

a) **crime and disorder** in its area (including anti-social and other behaviour adversely affecting the local environment); and

b) the misuse of drugs, alcohol and other substances in its area; and

c) re-offending in its area.

Summary

Whilst there is no objection in principle to the application, West Yorkshire Police feel that the above recommendations would be beneficial to the security and safety of the site users. Therefore, it is advised that the points raised in this document should be implemented and any re-submitted plans from the applicant to be assessed by a Designing Out Crime Officer prior to a final planning decision.

Yours sincerely

Richard Thornton MSyI
Designing Out Crime Officer

Telephone Police Non-Emergency – 101
Kirklees Planning Office – 01484 221000

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