

A stylized topographic map with concentric contour lines in a light green color, located on the left side of the page.

## Review of Environmental Factors Barton Park Precinct

---

### **Appendix J: Crime Prevention Through Environmental Design (CPTED) Report (The Design Partnership, 2021)**

---

August 2021



THE DESIGN PARTNERSHIP  
CRIME PREVENTION THROUGH  
ENVIRONMENTAL DESIGN (CPTED) REPORT

**BARTON PARK  
PRECINCT MASTERPLAN**

AUGUST 2021





MODE

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) REPORT  
BARTON PARK PRECINCT MASTERPLAN  
BARTON PARK, 88-96 Bestic Street, Banksia

PROJECT NUMBER: 21.016

PREPARED BY



Kristy Ryan | Managing Director, Architect & CPTED consultant.

1.0 Introduction ..... 5

2.0 The Wider Context .....7

3.0 Detailed Assessment..... 11

4.0 Crime Risk Assessment Summary .....13

5.0 Surveillance .....16

6.0 Lighting and Technical Supervision ..... 20

7.0 Territorial Reinforcement..... 22

8.0 Environmental Maintenance..... 24

9.0 Activity and Space Management..... 25

10.0 Access Control..... 26

11.0 The 3 D’s..... 27

12.0 Conclusion..... 29

Appendix A .....31

Quality Control Plan

ISSUE	DATE	DESCRIPTION	AUTHOR	CHECKED BY
A	18.08.21	DRAFT CPTED Report	KR	KR

Report prepared by:

THE DESIGN PARTNERSHIP  
TDP2 Pty Ltd ATF The Design Unit Trust T/A The Design Partnership  
Central Coast – PO Box 6110 Long Jetty NSW 2261  
T 02 4324 8554  
E info@thedesignpartnership.com.au  
W www.thedesignpartnership.com.au

Disclaimer The Design Partnership is committed to ensuring the safety of members of the community and their property. By using the recommendations contained in this document, any person who does so acknowledges that it is not possible to make areas absolutely safe for the community or their property. The Design Partnership hopes that by using recommendations contained within this document, criminal activity will be reduced and the safety of members of the community and their property will be increased. However, it does not guarantee that the area evaluated will be free from criminal activity if its recommendations are followed.

Copyright I This document and the information contained therein is solely for the use of the authorized recipient. This document may not be used, copied or reproduced in whole or in part for any purposes other than that for which it was supplied by The Design Partnership. The Design Partnership makes no representation, undertakes no duty and accepts no responsibility to any third party who may use or rely on this document for the information contained therein.





# 1 INTRODUCTION

The Design Partnership has been engaged by MODE to prepare a Crime Prevention Through Environmental Design (CPTED) Report for the Barton Park Precinct Masterplan. This report provides an assessment and recommendations for the design produced for the development.

## 1.1 WHAT IS CPTED?

Crime Prevention Through Environmental Design (CPTED) is a strategy that aims to reduce crime by designing the built environment according to a set of guidelines.

CPTED is based on the principle that many offenders are guided by rational thought and make a cost/benefit analysis of their actions prior to committing a crime. Applying CPTED methods aims to discourage offenders by maximising the risk and effort of committing a crime, while minimising the benefits and opportunities of committing that crime.

CPTED also identifies ways to create a feeling of safety, leading to increased use of an area, which in turn improves natural surveillance and deters offenders.

In NSW, CPTED is largely administered by Safer By Design, a co-operative made up of NSW Police, local councils, government departments and private sector organisations. The Design Partnership structures its CPTED reports according to Safer By Design guidelines.

Safer By Design identifies seven key areas where CPTED principles can be applied: surveillance; lighting/technical supervision; territorial reinforcement; environmental maintenance; activity and space management; access control; design/definition/designation.

## 1.2 SCOPE & METHODOLOGY

The scope of this project is an assessment of the proposed Barton Park Precinct Masterplan (The Precinct). The Masterplan has been prepared by MODE and this CPTED Report will form part of a Development Application and Part 5 Submission. To prepare the report, The Design Partnership's undertook the following Methodology:

1. Desktop review of the design. Note: A site visit was not possible due to COVID19 Lockdown orders in place at the time.
2. Review of crime data available through the Bureau of Crime Statistics and Research (BOSCAR).
3. Contact with local Police was not possible at the time of preparing this Report due to the COVID19 Lockdown and Banksia being identified as an Area of Concern.
4. Review of media and similar publications.
5. Email discussions with MODE.
6. Preparation of draft Report reviewed by MODE
7. Preparation of final Report for lodgement with Council with the Development Application.

## 1.3 STRUCTURE OF THE REPORT

The basis of this report is a Crime Risk Assessment (CRA), which is used to identify overall crime risk for the project and the appropriate level of CPTED treatments. A summary of the Crime Risk Assessment has been provided as a diagram in Section 4.

Using the Crime Risk Assessment as a template, this report then assesses each of the seven areas outlined below and provides recommendations for each. The remainder of the report is structured as follows:

- Section 5 – Surveillance;
- Section 6 – Lighting/Technical Supervision;
- Section 7 – Territorial Reinforcement;
- Section 8 – Environmental Maintenance;
- Section 9 – Activity and Space Management;
- Section 10 – Access Control;
- Section 11 – Design/Definition/Designation;
- Section 12 – Conclusion;
- Section 13 – References.





## 2 THE WIDER CONTEXT

### 2.1 THE CONTEXT OF BARTON PARK

Barton Park is located within the suburb of Banksia, within the Bayside Council Local Government Area (LGA). Banksia is located 12 km south of Sydney CBD and is located close to Sydney Airport. Barton Park is currently an active recreation precinct. The development of this park will upgrade existing facilities and provide new public amenities.

Banksia is predominately residential comprising low and medium density housing. The Princes Highway runs through the western end of the LGA and is lined by commercial developments. The site is located 1 km from Banksia Train Station, 1 km from the foreshore of Cook Park in Kyeemagh and is adjacent Muddy Creek which is located within the Rockdale Wetlands Corridor. Rockdale Town Centre and Brighton-Le Sands are both approximately 1.5km away. The end of the Sydney Airport runway is located only 600m north east of the site.

Data from Profile.Id.com.au shows Banksia as having a population of 3,388 (2016 Census). The population statistics identify professionals as the highest percentage of occupation (20.3%) followed closely by clerical and administrative workers (15.0%). Nearly 50% of the households comprise couples with children (47.8%) followed by couples without children (33.3%).

The subject site is bounded by Bestic Street to the south, low density residential and market gardens to the west, wetlands and Muddy Creek to the north and east.

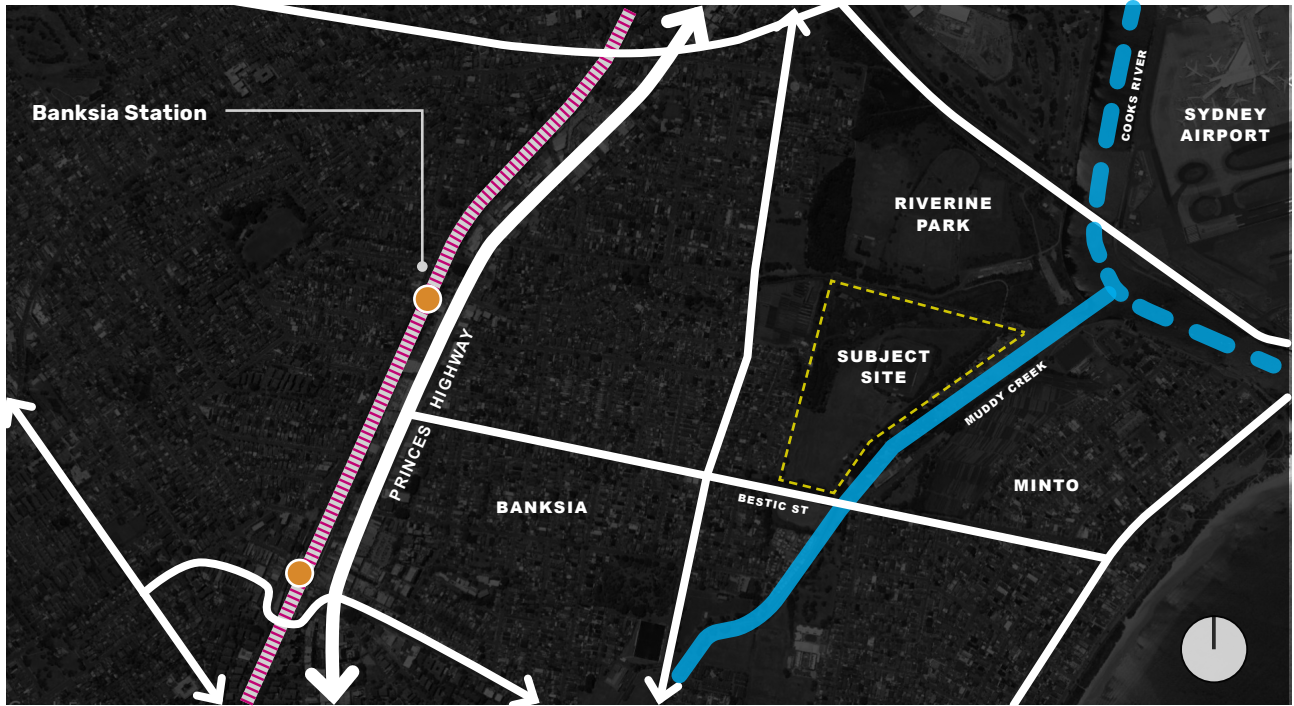


Figure 1: Context plan showing the location of the subject site within Banksia (TDP / Google Earth 2021)



2.2 BARTON PARK MASTERPLAN

Barton Park is currently utilised for active recreation and contains the following existing facilities:

- St George Football Stadium including, fenced grandstand, buildings & spectator mounds
- Other sports fields and lighting
- Barton Park Cycleway along the banks of Muddy Creek connecting to Riverine Park
- Landing Lights Wetland
- Overland flow path from Bestic Street to Landing Lights Wetland

The Barton Park Masterplan characterises the Precinct into four (4) zones.

**Zone 1 The Active Centre** - Active and passive park; large grassed area at the top of the embankment. Designed as the active heart of the new park.

**Zone 2 The Waterfront** - Foreshore and environment; environmentally significant mangrove trees along Muddy Creek including opportunities to walk and cycle along the foreshore.

**Zone 3 The Open Space** - Open space adjacent residential; low lying grassed area between the neighbouring suburb.

**Zone 4 The Wetlands** - Significant environmentally sensitive Landing lights wetlands; Saltmarsh habitat for migratory birds and some threatened species. A space for the community to interact, enjoy and learn about the environment.

The upgrade of Barton Park seeks to achieve the following objectives:

- Provide playing fields and other sporting facilities for active recreation to meet sporting group and user needs
- Improve amenity and lighting to meet user groups and regulatory requirements
- Improve interface with the Landing Lights Wetland and other adjacent open space
- Improve landscape and biodiversity outcomes through increased plantings
- Identify integrated movement network with connections to adjacent areas
- Increase safety using Safety by Design (Crime Prevention Through Environmental Design (CPTED) principles.

Barton Park has road access from Bestic Street connecting to arterial roads West Botany Road to the west and General Holmes Drive to the east, as well as from adjacent residential streets to the west. The site is serviced by a cyclepath that is well used by cyclists commuting to the airport and beyond.

Refer to Appendix A for reference design plans prepared by the project architects.

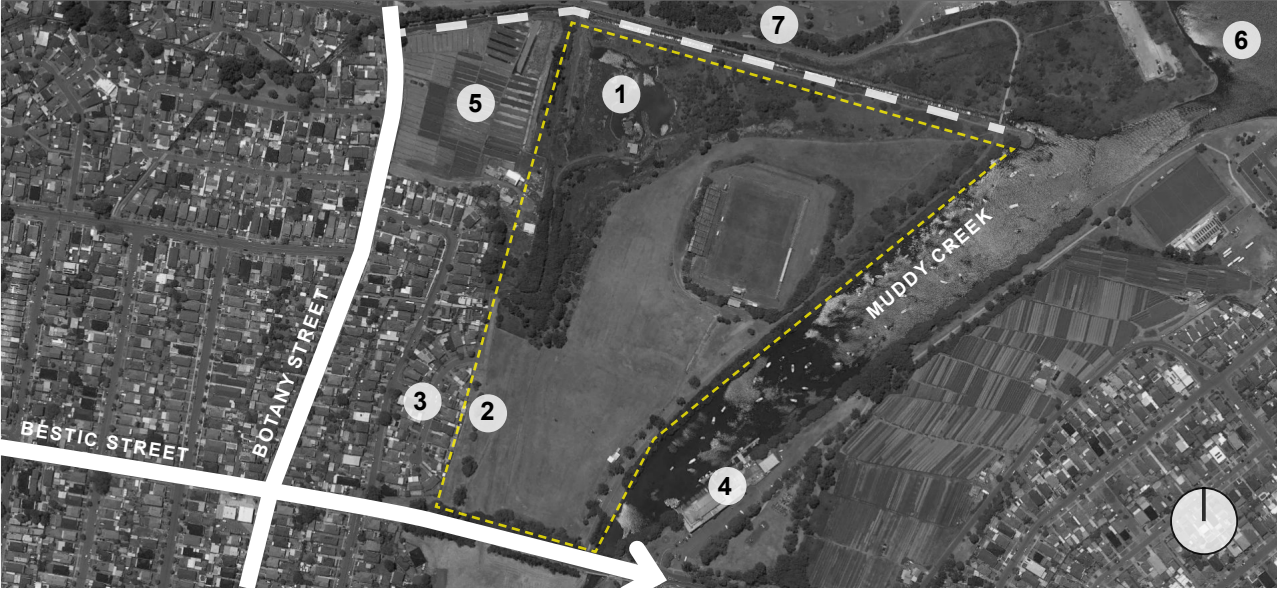


Figure 2: The Precinct within the immediate street context (TDP / Google Earth 2021)  
1. Landing Lights Wetlands 2. Open Space 3. Existing low density residential  
4. Bayside Community Recreation Club 5. Market Garden 6. Cooks River 7. Riverine Park

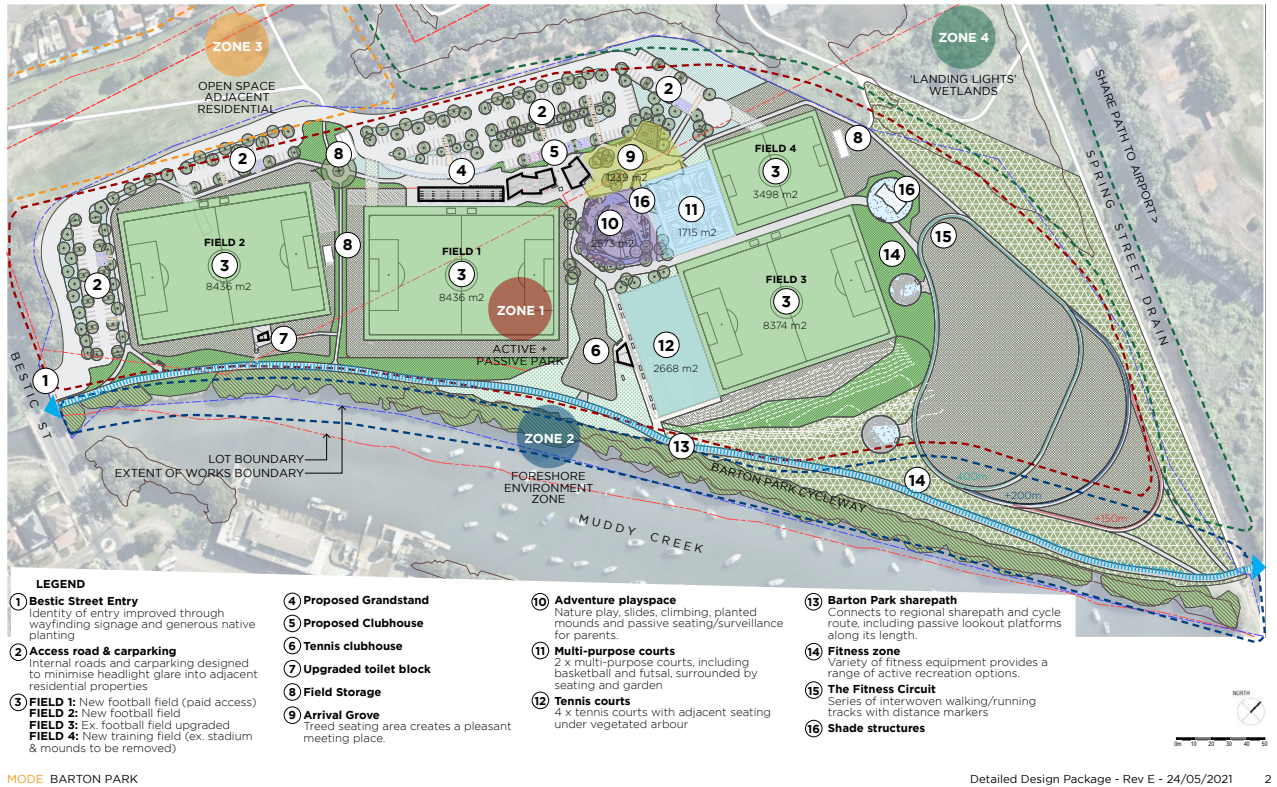


Figure 3: Masterplan showing the four zones. Zone 1 and 2 are the subject of this report, however all zones are considered. (MODE 2021)





## 3 DETAILED ASSESSMENT

### 3.1 STRUCTURE OF THE DETAILED ASSESSMENT

The basis of Sections 4 - 12 is a Crime Risk Assessment, which is used to identify overall crime risk for the project and the appropriate level of CPTED treatments.

A summary of the Crime Risk Assessment (CRA) has been provided as a diagram in Section 4.

Using the Crime Risk Assessment as a template, this report then assesses each of the seven areas outlined below and provides recommendations for each.

The remainder of the report is structured as follows:

- Section 4 - Crime Risk Assessment Summary
- Section 5 - Surveillance
- Section 6 - Lighting/Technical Supervision
- Section 7 - Territorial Reinforcement
- Section 8 - Environmental Maintenance
- Section 9 - Activity and Space Management
- Section 10 - Access Control
- Section 11 - Design/Definition/Designation
- Section 12 - Conclusion
- Section 13 - References.





## 4 CRIME RISK ASSESSMENT SUMMARY

### 4.1 CRIME PREVENTION ASSESSMENT SITE ANALYSIS

Site analysis helps in the understanding of a place – how the built form, landform and local user groups can increase or decrease criminal activity.

The following diagrams are a visual representation of the Crime Risk Assessment (CRA) undertaken for this project. The outcomes of this analysis are incorporated into the Assessments and Recommendations provided in Sections 5 – 12.

Analysis of BOSCAR data for the surrounding area does not identify any hotspots near the site. Generally, the activity is localised around Banksia Station and the commercial corridor along the Princes Highway. Some illegal graffiti was noted at the rear of the existing grandstand in photographs within the Masterplan Report prepared by Council however, the data does not show any hotspots within the park. This is also likely due to the limited amount of infrastructure in the current park.

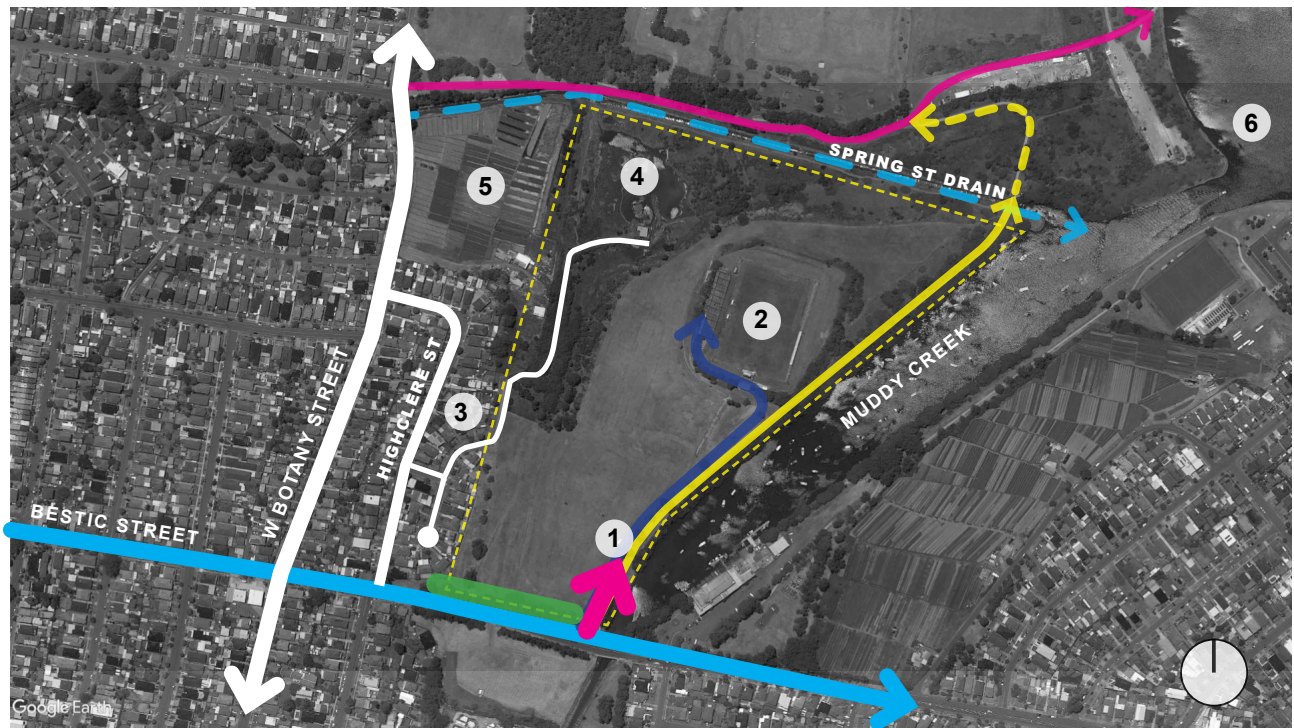


Figure 5: Crime Prevention Assessment Context Site Analysis (TDP/Google Earth 2021)

- |   |  |
|---|--|
| --- The subject site.   | 1 Existing amenities block.  |
| ↔ Bestic Street - Main Entry & Vehicular entry.   | 2 Existing soccer field and grandstand. Generally has poor surveillance.                         |
| → Entry from Bestic St.   | 3 Low density residential backs onto the park but has no surveillance due to fencing and batter. |
| ↔ Existing entry driveway to existing grandstand from Bestic Street.                        | 4 Wetlands present no surveillance.  |
| ↔ Barton Park Cycleway is popular and provides some surveillance but is inhibited by trees. | 5 Existing market garden provides no surveillance but is clearly designated from the park.       |
| ↔ Existing shared path to the airport   |  |
| Existing batter and vegetation screening views.   |  |



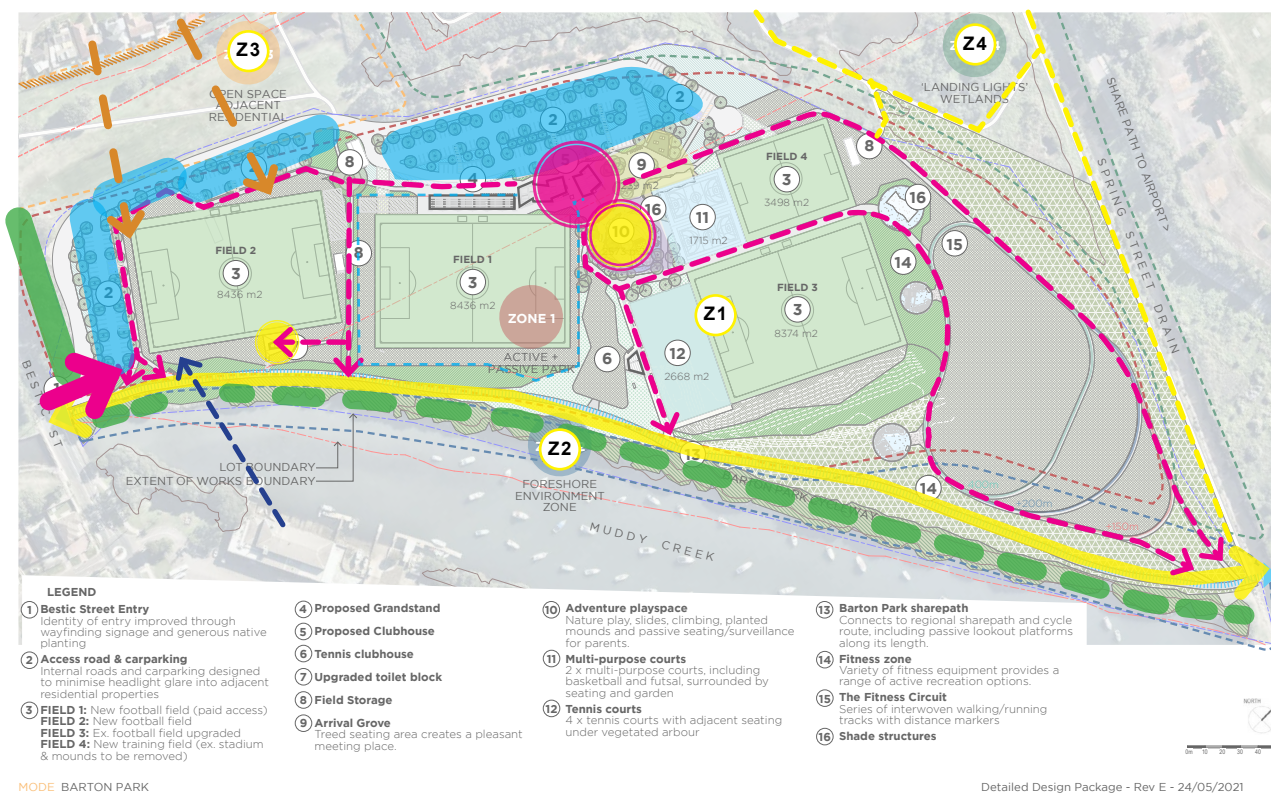


Figure 6: Summary Crime Prevention Assessment - Masterplan (MODE/ TDP 2021)

- Barton Park Cycleway: Upgrade of existing cycleway. Provides a connection to regional level shared path and provides opportunity for surveillance of the Park when events are not taking place.
- The Bestic St frontage is screened by existing trees which inhibit surveillance from the road. It is noted, the site is linear and activities are located a significant distance from the road. Clearer sightlines are likely to only improve views of the western part of the site.
- Vehicular and pedestrian entry to the Precinct from Bestic Street. Entry point to be identified through wayfinding signage and lighting.
- Masterplan Zones  
Zone 1 The Active Centre  
Zone 2 The Waterfront  
Zone 3 The Open Space  
Zone 4 The Wetlands
- Precinct permeability. The precinct has good connections to key areas which will encourage movement and surveillance.
- Vegetated edge of cycleway provides an attractive outlook however, needs to be well maintained and ensure no spaces of entrapment and concealment area created.
- View from Bayside Community Recreation Club towards the Precinct however, views are distant.
- Proposed central hub which connects the core uses of the Precinct, carpark and pedestrian paths.
- Centrally located playground is likely to attract visitors during non event timeframes. Opportunity to activate the Precinct.
- Carparks located along north eastern perimeter of the Precinct proposes landscaping and lighting to create an attractive space however, landscaping will need to be designed to facilitate sightlines. Carparks provide a clear separation between the fields activities, adjoining residential and bushland trails.
- Limited or no surveillance from adjoining residential. Surveillance limited by batter and rear fencing backing onto the fields.
- 1.8 metre high fence secures fields when not in use. Locking down the fields reduces the opportunity for casual users who could provide surveillance however, is likely to reduce opportunity for malicious damage.



Figure 7: Floor plan of clubhouse and change rooms. (Mode 2021)  
Public amenities open out onto the communal space (blue arrow) which reduces spaces for entrapment. The sports field area is designed to be secured when not in use. It will also be visible from the playspace which could reduce instances of malicious damage.

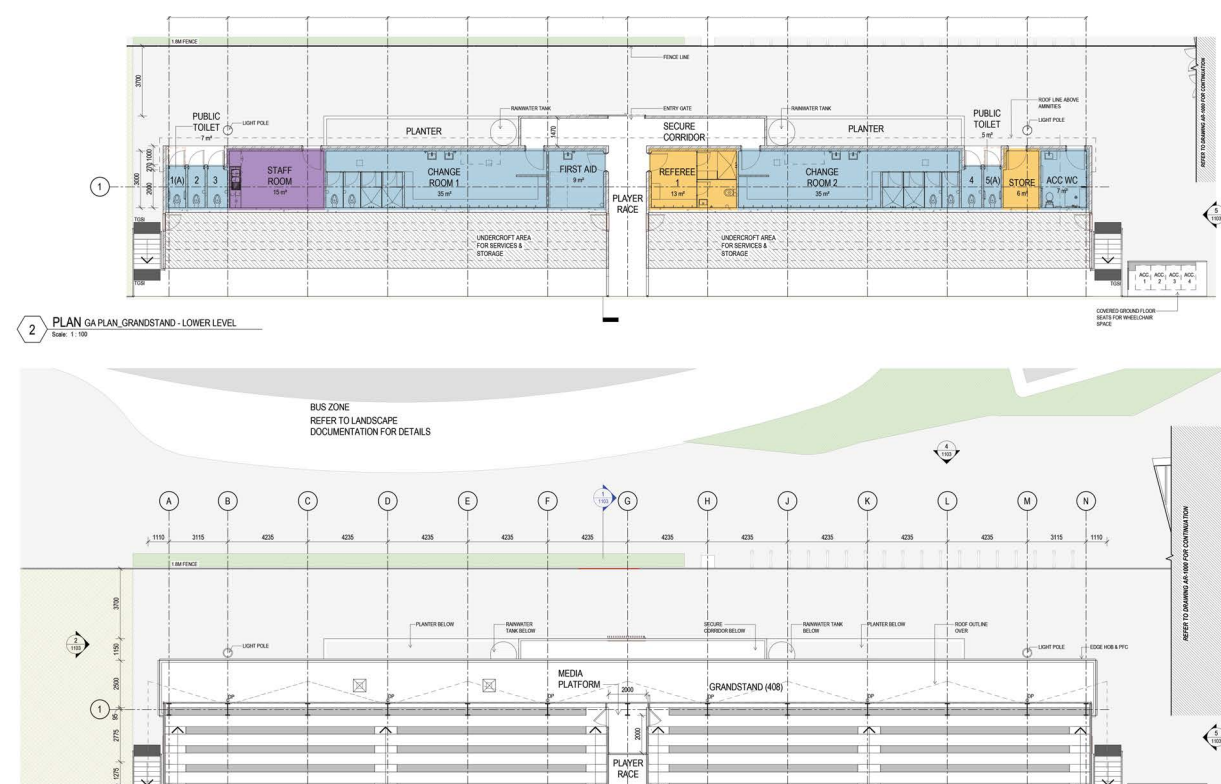


Figure 8: Ground and first floor of the proposed grandstand. (Mode 2021)  
Grandstand and its uses are secure behind proposed 1.8m high fence. Individual public toilets are proposed which open out onto the communal space which reduces spaces for entrapment. These are not accessible except for event times.



## 5 SURVEILLANCE

Surveillance is a core element of CPTED. There are three types of surveillance – Natural, Technical and Formal. The concept of surveillance seeks to discourage anti-social behaviour by creating an environment where people can see and interact with others. When people feel they are being watched, they are less likely to commit a crime.

Surveillance is achieved through well considered urban design, careful selection of landscaping solutions and lighting. This can create a safer environment. Successful surveillance outcomes are the product of good design.

### 5.1 ASSESSMENT

#### 5.1.1 Existing Conditions Assessment

At this stage, detailed designs have not been prepared. This assessment and the following recommendations provide guidance for the future development of the site.

The site is the existing Barton Park Sporting Precinct. The site has four areas designated as zones in the Masterplan. Zone 1 is the existing sportsfields and Zone 2 is the existing Barton Park Cycleway. The existing cyclepath comprises an aged bitumen surface and overgrown vegetation both sides of the cycleway. To the north east is an open space which is identified as Zone 3. Beyond that is existing low density residential. Some residential dwellings with solid fencing back onto the site. There is also an elevated embankment that limits surveillance. To the east is the Spring Street Drain and a shared path that connects to Sydney Airport. Zone 4, Landing Lights Wetlands, is located between the Subject Site and the drain. Muddy Creek defines the Precinct's south eastern boundary and is crossed by a bridge at Bestic Street before emptying into the Cooks River.

Existing surveillance of the site is limited with the exception of:

- Active users during events
- Passive users who use the cyclepath
- Passive users of the open spaces (dog walking)
- Vehicles passing the site on Bestic Street

#### 5.1.2 Proposed Design Assessment

The role of the sporting precinct is to provide public recreation. People using the precinct will provide surveillance when it is use. Neighbouring developments and passing traffic will also provide surveillance however, is limited due to the existing embankment, long sight lines, existing and proposed vegetation and rear fences.

The Masterplan proposes upgrades which increases the number and types of activities within the Precinct. The uses are a mix of active and passive activities which can take place at different times of the day, week and year. This diversity in activities increases opportunities for passive surveillance as follows:

##### Passive – Anytime Activities

- Cyclepath (for walking and riding a bike).
- Adventure Playground.
- The Fitness Circuit (for walking and running).
- Fitness Zone.
- Multi purpose courts (also active).

##### Active – Programmed Activities

- Football Field(s) and associated grandstand and clubhouse.
- Tennis courts and associated clubhouse.
- Multi purpose courts (also passive).

### 5.2 RECOMMENDATIONS

#### 5.2.1 Sight lines

Sight line considerations are multi-directional. They are important for the public looking into the development and for the those within the development looking out into the public domain.

- Bestic Street provides the only street frontage to the Precinct. Sight lines into the precinct from Bestic Street are limited due to the existing screening vegetation and the embankment. Due to the narrow frontage to Bestic Street the majority of the Precinct's functions are deeper into the site and not visible. Maintenance of the vegetation fronting Bestic Street (a clear zone of 700mm to 2 metres in height) is recommended to improve views.
- The existing cycleway provides a visual and physical connection between users of the path and the Precinct's activities on a regular basis. Maintenance of existing vegetation to reduce opportunities for entrapment and concealment are recommended.
- There are seven proposed access points along the cycleway making it highly connected to the site which is supported. Increase sight lines to access points by providing and maintaining clear breaks in the vegetation (existing and proposed).
- The playground is centrally located which creates a space which is likely to attract users who will provide surveillance to the Precinct. Sightlines in and out of the space are important. Ensure the design of the playspace provides a range of vantage points to all corners of the Precinct. If the playspace is to be used at dusk provide a combined landscaping and lighting approach that facilitates clear sightlines between the playspace, the carpark and access paths leaving the Precinct.
- An arbour is proposed adjacent the tennis courts. Arbours are attractive spaces however, the growth of vegetation should not inhibit views due to overgrowth.

#### 5.2.2 Vegetation

The Precinct is proposed to be enhanced with a high quality landscape treatment. This provides the opportunity to implement positive CPTED outcomes from the outset.

##### a. Places of concealment and entrapment

Places of concealment and entrapment can be easily created in the public and private domain. These are spaces which may enable someone to hide or trap a person.

Landscaping within Zone 1 is recommended to be limited to ground covers, shrubs and taller trees with no significant branches below 2 metres. Shrubs are recommended to be a maximum of 700mm in height.

Landscaping within Zone 2 is recommended to be maintained to reduce opportunities for concealment and entrapment. Views lines created by breaks in vegetation to Muddy Creek and Zone 1 is encouraged.

##### b. Vegetation blocking lighting

Shadowy spaces are created where the trees obscure light fall from light poles and internal lighting. Consider the location of lighting and trees so as not to block the fall of light. This is particularly important in the parking areas where good lighting at night is important.

Future advice on lighting design, in conjunction with the landscape design (during the construction documentation and construction phase) is strongly recommended. Modelling of proposed lighting in conjunction with landscaping is recommended to test light spill and shadows.



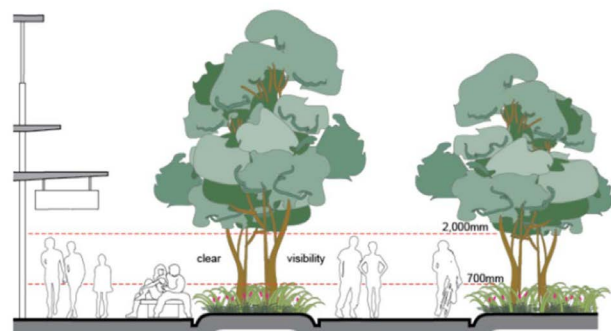


Figure 9: Example of **tree and shrub clearance zones** for good sight lines. The diagrams shows a clear space between 700mm (tops of shrubs) and 2.0m (lower limbs of branches) to provide clear sightlines. (source Cairns Plan 2016) .



Figure 10: The playspace, located in the centre of the Precinct, is likely to have good surveillance over the Precinct, with the exception of the high mounded portion which will limit views in part. However, the playspace is in the round and should attract activity from all sides. It is likely the playspace will be popular amongst families. Families are a positive user group and activities which increase their presence should be encouraged (source MODE 2021).



Figure 12: View between clubhouse and change rooms. This space is secured by a 1.8 metre high fence. The amenities block to the right of the image proposes toilet doors which open out to the forecourt which is the contemporary approach to public amenities, as it reduces opportunities for concealment and entrapment. (source MODE 2021).



Figure 11: View of the proposed development viewed from the carpark looking south east. This image shows the cluster of main activities in the Precinct. The playspace is likely to attract passive users such as families which could assist in moderating anti social or criminal activities such as malicious damage which has been noted on the existing facility. (source MODE 2021).



Figure 13: The open nature of the grandstand provides good surveillance back over the carpark and across the Precinct when in use. (source MODE 2021).



## 6 LIGHTING & TECHNICAL SUPERVISION

Lighting and Technical Supervision refers to the role that lighting and products such as CCTV have in improving safety in the public domain. Many public spaces have lighting however, the specified products are often inappropriate, or are not wisely located. Often lighting creates new issues, as poorly located lighting can create shadows that previously didn't exist. Likewise, CCTV can often be a waste of money if there is low risk of crime, is poorly located or if no one is monitoring the footage. The following assessment and recommendations identifies methods to use lighting and technical supervision to achieve the best outcome.

### 6.1 ASSESSMENT

#### 6.1.1 Existing Conditions Assessment

At this stage detailed designs have not been prepared. This assessment and the following recommendations provide guidance for the future development of the site.

Due to the COVID19 Lockdown and Banksia being identified as an Area of Concern, a site visit was not undertaken during the preparation of this report. Existing lighting surrounding the development was identified from Google Street View. Lighting identified as follows:

- Street lighting on Bestik Street
- Street lighting on Oakleigh Avenue
- Lighting of St George football field.

#### 6.1.2 Proposed Conditions Assessment

Lighting has been considered during the design process. Lighting design is at a high level and will be further developed during the construction documentation phase.

The following recommendations can be used by the project architects and landscape architects to incorporate lighting and lighting enhancing features into their designs.

### 6.2 RECOMMENDATIONS

#### General Lighting comments:

Lighting strategy and design should be undertaken by a qualified lighting engineer for the development to test light spill and identify any spaces of shadow and concealment – particularly at the Bestic Street entry, around the clubhouse forecourt space, the playspace, existing toilet block and the carparks.

#### Lighting design:

Design the lighting approach to fulfil the following recommendations:

#### General Lighting and CCTV

- All pathways should have effective lighting which improves visibility and as a result reduces fear. Bollard lighting is discouraged as it is prone to vandalism and is not particularly effective at illuminating faces. Ground surface lighting is recommended along paths of travel to key areas. Ground surface lighting can assist with wayfinding as long as it does not result in night blinding when a person looks down.
- All lighting should comply with relevant Australian Standards, particularly AS 1158.
- Avoid using low-pressure sodium lamps.
- Vandal-resistant lamps are recommended.
- Avoid the use of coloured lighting
- Lighting can lose up to 20% capacity within 12 months, resulting in inadequate light levels. This should be considered when selected lighting type and brightness.

#### General

- Ensure no shadowy spaces are created by the buildings, the gaps between the lights themselves and the landscape.
- Any signage should be as legible at night as it is during the day
- Landscaping within Zone 1 is recommended to be limited to low ground covers and shrubs a maximum of 700mm high. Trees should have no significant branches below 2.0m to facilitate good view lines at night and reduce shadows.
- Lighting in the evening can provide opportunities for evening exercise (for non events). Evening lighting trials can be undertaken by Council (e.g turned off at 8pm) however should anti social behaviour occur, lighting may need to be switched off earlier. Smart lighting could be considered when the grounds are not in use.

#### Barton Park Cycleway

- Solar lighting and intelligent lighting is encouraged to be installed along the cycleway to improve safety at dusk and in the evening when spaces are likely to be used after work. But care should be taken to ensure that the transition between light and dark does not give rise to concealment opportunities.
- Lighting should not interfere with existing residential on Oakleigh Street

#### Parking Areas

- Lighting should be bright and even to allow an observer to see into a parked car.
- Ensure any landscaping around the parking spaces does not obscure views into the car.
- Areas where pedestrians and vehicles are in close proximity such as the interface between the carpark and field / clubhouse edges and the Bestic Street entry should be well lit to enable a person to be clearly visible.



## 7 TERRITORIAL REINFORCEMENT

Territorial Reinforcement recognises the importance of ownership of public spaces. Spaces that are well used and cared for are less likely to attract crime and anti-social behaviour. The role the community plays is often important to the success of the public space.

This principle seeks to remove the confusion from the public domain – to make the purpose of each space clear. This includes the definition of boundaries, function and operation of a space.

### 7.1 ASSESSMENT

At this stage detailed designs have not been prepared. This assessment and the following recommendations provide guidance for the future development of the site.

#### 7.1.1 Existing Conditions Assessment

At present, the site is a sporting precinct. All maintenance and control of the space is currently managed by Bayside Council as the owner of the land.

#### 7.1.2 Proposed Design Assessment

The new development will expand upon the current Territorial Reinforcement framework of the site. The inclusion of new activities and user groups to the site will establish new levels of control and ownership over the Precinct.

##### Management

All parts of the Precinct will be managed by Council. This includes the sportfields, ancillary structures (such as the clubhouse and grandstand), cyclepath, carpark, tennis courts, multi-purpose courts and playground.

Individually, the users and operators of each facility will manage and control their facilities/spaces. However, there will be an overarching responsibility to Council who will coordinate the precinct. This results in a multi-layered management of the Precinct.

##### Barton Park Cycleway

The cycleway is located along the Precinct's Muddy Creek boundary. This space is likely to be used by the wider public opposed to just users of the specific sporting activities. This group will provide a level of Territorial Reinforcement however, will only do so if they feel safe and continue to be users of the cycleway.

##### Carparks

Carparking is proposed along the Bestic St and Zone 3 and 4 boundaries. The carparks provide a distinct separation between zones, signalling a change in uses. The Arrival Grove provides a separation between the playspace and the carpark. This helps reduce potential conflicts between pedestrians (in particular children) and cars. Clear sightlines at the edge of the carpark and the footpaths opening onto the Clubhouse forecourt and the Arrival Grove will be important.

##### Adventure Playspace

The Adventure Playground is likely to be used by passive users of the Precinct on a daily basis. High quality playgrounds draw families from the immediate area and from further afield. Families are positive user groups and can discourage anti social behaviour and assist with ownership over the site.

### 7.2 RECOMMENDATIONS

#### Entry points

Establish a distinct point that defines the entry to the Precinct. Oakleigh Street should be viewed as secondary. Use landscaping and signage to achieve this outcome.

#### Signage

Signage should be used to clarify ownership and responsibility. In the case of damage, signage should assist the public in reporting damage. Clear signage should be installed throughout the Precinct. Overuse of signage is not supported as it becomes less effective. Consistency of design will add to the overall sense of a cohesive community and sense of place.

#### Lighting

Lights in the ground can be used to reinforce paths of travel within the development. Refer to Section 5 for detailed recommendations regarding lighting.

#### Maintenance

Maintenance of the Precinct is a powerful tool in Territorial Reinforcement. A Maintenance Plan for the development should be identified at the Construction Certificate stage. The Maintenance Plan should include the selection of durable materials and plant species that do not require extensive maintenance.

#### Public Domain Treatment

Landscaping is useful in reinforcing the difference between the Zone 1 and adjoining Zone 3 (adjacent residential) and Zone 4 (the wetlands). Zone 1 is a public space with a range of public recreation. The public domain treatment should demonstrate that this is a high quality development with strong local ownership. This can be achieved by incorporating bespoke treatments such as bespoke street

furniture, lighting, paving inlays and public art. Opportunities for local community involvement, including local sporting groups, can help identify themes and images to influence the treatments.

#### Separation of cars and pedestrians

The site has been well planned to provide separation between pedestrians and cars. The cycleway and sporting fields are co-located to create a seamless interface.

The interface between cars and the Clubhouse forecourt and the Arrival Grove present the greatest risk to pedestrians. Use landscaping and different pavement treatments to clearly distinguish between footpaths and parking areas.



## 8 ENVIRONMENTAL MAINTENANCE

Environmental Maintenance is the maintenance and management of physical assets. This takes place during the operational stage of the Precinct. The assessment and recommendations provided below are guidance for the current design process and for future management. Public spaces that are poorly maintained, damaged, vandalised, appear abandoned and full of rubbish are unlikely to attract positive user groups. These types of spaces show a lack of pride by the community. Well maintained spaces send a positive message and tells potential offenders that people are watching and using this space. It is a good deterrent. Good design can help with maintenance in the future.

### 8.1 ASSESSMENT

Environmental Maintenance will generally occur in the detailed design and operational stage however, there are opportunities to integrate solutions during the design phase which will assist in the management of the new development. The aim is to create a development that is easy to maintain. The recommendations in the following section may be issued as conditions of consent at Council's discretion.

#### 8.1.1 Existing Conditions Assessment

The site is currently a sporting precinct. Existing Environmental Maintenance is relevant as it will be continued and improved upon.

#### 8.1.2 Proposed Design Assessment

The Development Application documentation does not provide detail for an Environmental Maintenance assessment. However, the following recommendations are provided to assist with the next stage of design development.

### 8.2 RECOMMENDATIONS

Regular maintenance and well designed landscaping will demonstrate to the public that the Precinct has a site guardian and is safe.

#### Environmental Management Design:

- Walls and fences of the Precinct are at risk of malicious damage. The use of anti-graffiti coatings is recommended.
- Select materials that are robust and durable. Materials/elements should not be easily removed. However, the final outcome should not appear overly harsh, thereby reducing the amenity of the space and create fear.
- Provide rubbish bins in the public spaces and plan for regular removal to avoid build up of waste.
- Use low maintenance and drought-resistant plant species throughout the site.

#### Environmental Management Operational:

- Establish an Environmental Maintenance Plan.
- Graffiti should be removed quickly. The longer tags are left on display, the greater the reward for offenders.
- Avoid the use of porous materials in areas with the greatest risk of graffiti tagging.
- Establish a reporting system that allows users and visitors to quickly report damage or anti social behaviour.
- Repair or replace broken or damaged furniture/ bins/signs quickly.
- Review the current trends in crime in the area with the local Police and regularly update Environmental Maintenance Plan.

## 9 ACTIVITY & SPACE MANAGEMENT

Activity and Space Management identifies strategies to establish natural community control.

These strategies include:

- Formal supervision
- Control of the space
- Maintenance of the space.

Activity and Space Management has strong correlations to earlier sections of this report. For instance, poor Environmental Maintenance results in urban decay which sends a negative image. This section explores how to improve community safety by increasing visitation and use of a space

### 9.1 ASSESSMENT

Activity and Space Management will generally occur in the operational stage however, there are opportunities to integrate solutions during the design phase which will assist in the management of the new development. The aim is to create opportunities for natural community control. The recommendations in the following section may be issued as conditions of consent at Council's discretion.

#### 9.1.1 Existing Conditions Assessment

The management of the subject site will not change significantly following the construction of the new development. The addition of new user groups is likely to increase the number of groups managing the Precinct.

#### 9.1.2 Proposed Design Assessment

The proposed design will upgrade the existing park into a high quality sporting Precinct for the community. It will comprise a combination of public and semi public spaces. There will be no full time formal guardianship from the Council. It will rely on the user manager groups active at the site at the time.

### 9.2 RECOMMENDATIONS

#### Public versus Semi Public and Private Space

The design should enforce clarity of land use - making it clear what is public and what is semi public.

Methods that can be adopted include:

- Use paving treatments that are distinctly different to footpaths outside the Precinct.
- Provide entry features/statements/structures that reinforce the pedestrian thresholds into the Precinct.
- Clearly identify areas within the Precinct which are not accessible by the public such as the grandstand and clubhouse outside of active hours. However, be cautious of the over use of signage as it may become less effective.

#### Maintenance Planning

Establish a Maintenance Plan that ensures the site retains the appearance of a clean and well maintained sports precinct.

The Maintenance Plan should include routines for rubbish removal and steps to take when rubbish accumulation exceeds the norm. Rubbish should be removed as soon as practical. The plan should also include:

- reporting of waste
- methods for reporting damage
- time frames for quick repair of damage.



10 ACCESS CONTROL

Access Control identifies methods to manage access to and within a site. Methods may range from site restrictions through to helping people leave a site safely. Three methods are generally used: Natural Control, Technical or Mechanical Control and/or Formal Access Control. Natural Control Solutions seek to restrict and channel people into specific areas. Restrictions/channeling can be a good deterrent for criminals as it increases the risk of being caught. Methods are typically Natural Control solutions which may include:

- Landscape site planning such as fencing, water features, paths and vegetation
- Building site planning
- Wayfinding signage
- Control of lines of sight

Technical or Mechanical Control Solutions may include the use of Closed Circuit Television (CCTV) equipment. Lastly, Formal Access Control solutions would be the use of security officers.

10.1 ASSESSMENT

Access Control is determined during the design and operational stage which will assist in the management of the Precinct.

10.1.1 Existing Conditions Assessment

The existing controls are still relevant as the site will remain a sporting precinct. However, new user groups will add to existing controls making it more complex.

10.1.2 Proposed Design Assessment

The design proposes four distinct zones. The formation of the zones allows for separation between different uses of varying sensitivity e.g. sporting and residential and sporting and wetlands.

The existing vehicle entry point will remain and will be clearly identified through landscaping and signage treatments. This creates the opportunity to control vehicular movement during events or if there is an issue.

Within the Precinct there is a series of pedestrian entry points. These are not controlled points but have the opportunity for control via lines of sight. A 1.8m high security fence is proposed around the Sports fields.

10.2 RECOMMENDATIONS

- Provide wayfinding signage to identify what is public and what is private. Signage should clearly direct people to key buildings/destinations in the Precinct.
- Secure access into the grandstand, clubhouse and amenities.
- Use signage to identify the location of public toilets. Lock the toilets at dusk or when lights are turned off. Management of the Precinct may need to adjust the toilets hours of operation if there is anti social/criminal behaviour.
- Provide clear sightlines around the pedestrian entry points onto the cycleway.
- Establish a management plan that allows for communication between the different user / management groups.

11 3 D's : DESIGN/DEFINITION/DESIGNATION

It is important for the design, definition and definition of a public space to be in harmony. If a space comprises uses that conflict with another use, dangerous situations could arise. Offenders often exploit situations that are confusing.

This can be described as the three D's.

Designation

- What is the designated purpose of this space?
- What this its original purpose?
- How well does the space support its current or its intended use?
- Is there a conflict between its current and intended use?

Definition

- How is space defined?
- Who owns the space and is it clear?
- Where are its borders?
- Is the space defined by social or cultural factors – does this affect how space is used?
- Are the legal or administrative rules clearly set out and reinforced in policy?
- Are there signs?
- Is there conflict or confusion between designation and definition?

Design

- Does the physical design support the intended function?
- Does the physical design support the desired or accepted behaviour?
- Does the physical design conflict with proper functioning of the space?
- Is there confusion or conflict in the physical design which is intended to control behaviour?

11.1 ASSESSMENT

If the recommendations in previous sections are carried out it will be clear which spaces are public and which are semi-public..

Ongoing maintenance by Council and the user management groups and a clear plan for maintenance work will be beneficial.

Spatial boundaries throughout the site will reinforce intended function if the recommendations in this report are carried out.

11.2 RECOMMENDATIONS

- Undertake a 3 D's assessment regularly.
- Implement recommendations from Sections 5 – 11.





## 12 CONCLUSION

The proposed development will maintain and enhance the current use of the site – from single sports field to a multi use sporting precinct. Analysis of BOSCAR data for the surrounding area does not identify any hotspots near the site. Generally, the activity is localised around Banksia Station and the commercial corridor along the Princes Highway.

The documentation is at a Development Application level. Therefore, many specific details are yet to be fully established and will be documented during future stages. However, this report endeavours to provide recommendations to guide the plans for future development, to ensure the development is set in the right direction.

The key recommendations address all principles including Surveillance (including Lighting), Territorial Reinforcement, Environmental Maintenance, Activity and Space Management and Access Control. As the base for a number of sporting groups, there is likely to be strong ‘ownership’ over this site. This ownership will come from sporting group managers as well as sporting participants who have a vested interest in the success of the Precinct. However, it should also be noted that passive or casual users of the Precinct will also have a role to play in protecting and supporting this space on a daily basis – between the events. However, the location lacks basic levels of passive surveillance and this could result in issues such as malicious damage or anti social behaviour. This will need to be collaboratively managed between Council and the sporting groups to respond to new circumstances as they arise.

A high level of consistent maintenance and the delivery of high quality landscaping and finishes will demonstrate to the public that this is a well loved public space – demonstrating there is guardianship over the Precinct. Therefore, it is important that there is a strong visible presence of people and management so there is no perception of vulnerability which could turn this Precinct into a target.

Consultation with local area police is highly recommended to monitor the area and the proposed development.

The key recommendations include:

- providing clarity between public and private spaces using landscaping, fencing, signage and materials.
- highlighting the primary entry into the Precinct from Bestic Street.
- providing clear delineation between people and vehicles between the carpark and the public domain.
- Clearly naming each building so it can be easily identified by emergency services or users of the facility.
- low maintenance landscaping which does not inhibit sight lines e.g. landscaping is recommended to be limited to groundcovers, shrubs and taller trees with no significant branches below 2 metres.
- using appropriate and high quality lighting designed by a lighting engineer.
- establishing a Maintenance Plan and implementing it on a regular basis. This includes inspecting the grounds to identify if new CPTED issues have arisen and liaising with local police on a regular basis
- using anti-graffiti coatings, fast removal of graffiti and rubbish.





**APPENDIX A - DESIGN DRAWINGS**