

6 REPORTS

6.1 TITAHİ BAY BEACH COMMUNITY SAFETY AUDIT

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PURPOSE

The purpose of this report is to provide the findings from the Safety Audit of the North and South ends of Titahi Bay Beach and to outline proposed next steps.

RECOMMENDATIONS

That Te Puna Kōrero:

1. Receive the report
2. Agree to recommend that Council support further investigation into medium to longer term safety improvements at the North and South ends of Titahi Bay Beach and report back on progress in the first quarter of 2022
3. Note the Titahi Bay Beach Safety Audit Findings, including immediate actions and longer-term considerations
4. Note the independent Lighting Assessment findings and recommendations

Reports contain recommendations only. Refer to the meeting minutes for the final decision.

BACKGROUND

1. It was agreed through the Long-term Plan 2021-51 that Council would undertake a Safety Audit of the North and South ends of Titahi Bay beach and address any issues resulting from the audit within the existing budget. This was following ongoing concerns from the community around safety in this area.
2. The community safety audit was carried out, alongside nine local residents, on Saturday 30 October at 2pm and 8pm, at the North and South ends of the beach. Separate audits were also conducted with Council staff as well as a group of young people from Titahi Bay School. The findings of the audit, including the process and engagement results, is included as attachment 1.
3. Following international best practice methods, Council carried out the safety audit using the Crime Prevention through Environmental Design method (CPTED). CPTED is a multi-disciplinary approach for using urban design and the management of built and natural environments to improve public areas.
4. Council staff also sought expert advice around lighting and CCTV and looked at qualitative and quantitative data to align with audit findings. A lighting report is included as attachment 2.
5. In addition to the safety audit, Council has been consulting on the Transport Bylaw, which includes whether the rules around cars on the beach should be changed. A collaborative approach has been taken to allow the community to easily participate in both processes. The formal Traffic Bylaw submission process asked people to comment on general safety in the area. The Transport Bylaw received over 500 comments about safety at Titahi Bay beach.

FINDINGS

6. The safety audit findings are heavily weighted towards Titahi Bay beach being in much need of safety improvements. This is not unexpected for two reasons; firstly, the safety audit was designed to solicit feedback on areas where safety improvements can be made. Secondly, the key stakeholders involved in the safety audit were involved because they have serious concerns about safety in the area.
7. Residents spoken to over the course of the review exhibited a sense of pride about living in Titahi Bay and spoke passionately about the beauty of the beach and its rugged, windswept and “beachy” feel but this was coupled with a general consensus that Titahi Bay beach felt tired and has been neglected over a long period of time. This has contributed to a perception of increasing and frequent antisocial behaviour, and observations of poorly maintained facilities and a lack of lighting at both ends of the beach.
8. The attached report includes immediate actions such as fixing existing lighting, trimming back shrubbery to increase sightlines, replacing broken seats, putting up clearer toilet signage and reviewing the opening times of the toilets. These actions are already underway.
9. Medium to longer term improvements are also outlined and include (but are not limited to) planning and exploring additional lighting, improved parking and signage, renewal of toilet facilities, and looking at ways to better capture safety concerns and work alongside partner agencies.
10. The recommendations are underpinned by timing considerations, interdependencies and taking a strategic approach to replacement and maintenance of assets rather than a “like for like” approach.
11. The external consultant engaged by Council to provide specialist CPTED and security advice has strongly expressed the importance of having well thought out and sequenced solutions if they are to be successful.
12. Any safety improvement programme needs to be completed in stages, with a detailed longer programme of work to enable Council to trial additional preventative methods and work through a more comprehensive reporting and enforcement approach. This will also need to take into account the outcome of the Transport Bylaw Review (cars on the beach).
13. It is not recommended that safety improvements be done in isolation as they need to be well thought out and complementary to the overall goal of improving safety in the area. The correct sequencing of those works is an essential part of the next phase of safety improvement considerations.
14. An update on progress will be provided to Council early in 2022 which will provide further commentary on the medium- and longer-term actions.

ATTACHMENTS

1. **Titahi Bay beach Community Safety Audit - Findings report**
2. **Titahi Bay beach CPTED Lighting Assessment**

SUPPORTING INFORMATION

CONTRIBUTION TO COUNCIL'S STRATEGIC DIRECTION

The issues in this report contribute to:

- Advocating for and providing a safe, healthy, and thriving community and are provided in response to Council agreeing as part of the Long-term Plan deliberations, to conduct a safety audit.
- Putting children and young people at the heart of our city, by improving safety for families at Titahi Bay beach.

FINANCIAL CONSIDERATIONS

Immediate actions identified as a result of the safety audit can be undertaken within existing budgets. A cost analysis will need to be undertaken for further improvements including whether these improvements can be undertaken within existing budgets. This will be included as part of the next progress update.

STATUTORY REQUIREMENTS

There are no statutory requirements considered as part of this report.

FOUR WELLBEINGS

The issues in this report relate to all four of the wellbeings

- a. Social
- b. Economic
- c. Environmental
- d. Cultural

RECOGNITION OF TREATY PRINCIPLES

There are no specific treaty considerations as part of this report.

ENGAGEMENT AND COMMUNICATIONS

Officers will maintain engagement with key stakeholders to ensure they are kept up to date with planning and improvements as a result of the safety audit. This includes updates to audit participants (community and young people) and local residents.



Titahi Bay beach Community Safety Audit – Findings report

November 2021

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Executive summary

Following ongoing concerns from residents regarding community safety and anti-social behaviour at Titahi Bay Beach, the Council agreed, through the Long-term Plan 2021-51 process, that a community safety audit would be undertaken. The audit, involving community members, was to identify issues and solutions that would address safety concerns. Council staff also sought expert advice around lighting and CCTV and looked at qualitative and quantitative data to support the audit findings.

At the time of undertaking the community safety audit, Council were also consulting on the Transport Bylaw, which included the issue of cars on the beach. A collaborative approach was taken to allow the community to easily participate in both processes. The formal Traffic Bylaw submission process asked people to comment on general safety concerns in the area.

Residents spoken to over the course of the review exhibited a sense of pride about living in Titahi Bay and spoke passionately about the beauty of the beach and its rugged, windswept and "beachy" feel. This was coupled with a general tone that Titahi Bay beach is tired and has been neglected over a long period of time.

The audit findings support the sentiments of residents and there are clear recommendations for immediate maintenance. This includes actions such as fixing existing lighting, trimming back shrubbery to increase sightlines, fixing handrails and seating and reviewing the opening times of the toilets. Medium to longer term improvements are outlined and look at lighting, parking and access master planning as well as capturing safety concerns and responses more effectively, working alongside our partner agencies.

The recommendations are underpinned by timing considerations, interdependencies and taking a strategic view to replacement and maintenance of assets rather than a "like for like" approach. Immediate actions, prior to the 2021/22 summer period, are being carried out and a larger programme of work has been identified for further consideration.

Background and scope

Scope

The scope of the community safety audit covered the North end of Titahi Bay beach from Bay Drive to Vella Street, the Bothamley Lane Carpark towards the South end of the beach and South Beach Access Road entrance and facilities.

Method

Following international best practice methods, Council carried out the safety audit using the Crime Prevention through Environmental Design method (CPTED). This method has been successfully implemented across the country in various safety initiatives and strategies, notably in Christchurch and across Auckland.

CPTED is a multi-disciplinary approach for reducing crime and the fear of crime. It uses urban design and the management of built and natural environments to improve public areas and a sense of community ownership by users and aims to design out opportunities for crime and antisocial behaviour.

Specifically, a CPTED audit utilises a structured approach to identify practical solutions to improve safety across the following areas:

1. *Access*: logical, well defined paths, spaces and entrances that provide safe movement and connections
2. *Maintenance*: quality environments that are well managed and maintained
3. *Surveillance and safety*: clear sightlines and good lighting that provide maximum visibility
4. *Signage*: clear and logical orientation and way-finding

The audit process involves the community and asks different user groups about their feelings of safety while moving around a site – what contributes to these feelings, and what changes they would make to improve safety. It encourages a subjective interpretation of the environment from the perspective of particular user groups that may have a different perception than professionals and experts.

Alongside the audit, expert advice has been sought around lighting and CCTV.

Intelligence gathering

Prior to undertaking the community audit, Council staff reviewed information to further understand the current concerns in the audit areas. This included a review of Police statistics, security company data, and internal Council contact centre data which logs complaints.

Council data

General complaints

Council staff have received approximately 40 logged general complaints since 2018 related to the Titahi Bay beach area covering graffiti, signage, rubbish/debris, compliance with rules, anti-social behaviour and a range of other issues, as outlined below.

8	Graffiti	Request for removal of spray-painted tags
8	Signage	<ul style="list-style-type: none"> • 7 damaged signs • 1 incorrect information

7	Rubbish/debris	Request to clear up litter and beach debris
7	Damage/vandalism (non-signage or graffiti)	<ul style="list-style-type: none"> • missing bollards • litter bin fire • damage gate
5	Compliance	Complaints about compliance with rules about parking on the beach and gate rules
4	Other	Request for designated no-boat area for swimmers or specific boat lanes, offer to pay for a memorial seat, bulldozer on the beach, sewerage leak etc
2	Anti-social behaviour	Fast cars and loss of traction

Facilities

In addition to the above, the majority of customer complaints were concerning the condition of the public toilets at both the North and South ends. There were 57 complaints logged which were specifically about the beach toilets from 1 January 2018 to 6 October 2021. The complaints were evenly split between calls about the South End toilets and calls about the North end (Vella Street and Bay Drive).

Issues logged ranged from:

- maintenance (water overflows or leaks/no water)
- complaints about standards of cleanliness/cleaning required,
- vandalism/damage to facilities
- no toilet paper
- signage

Security

Over the past 12 months, there were 19 recorded instances from Council's security company which indicated damage to the beach gates, rendering the gates ununlockable.

Police statistics

Police data indicated that the most recorded crimes in the area were most likely to occur on a Thursday, Friday, or Saturday. The time of day that the crimes occurred varied and were not necessarily at night.

- In the 12 months (ending 30 Sept 2021) there were 43 recorded victims of crime in the relevant area.
- From 1 October 2019 to 30 September 2020 there were 47 recorded victims of crime
- From 1 Oct 2018 to 30 Sept 201 there were 44 victims of crime¹

Reported crashes

¹ Statistics are available from publicly available data at [policedata.nz](https://www.police.govt.nz/about-us/publications-statistics/data-and-statistics/policedatanz/victimisation-time-and-place) and contain data from the Recorded Crime Victims Statistics (RCVS) and the Recorded Crime Offenders Statistics (RCOS) collections. RCVS is about victims of crime, so only includes crimes that clearly have an identified victim.

<https://www.police.govt.nz/about-us/publications-statistics/data-and-statistics/policedatanz/victimisation-time-and-place>

We also looked at reported crashes on Titahi Bay beach which resulted in police attendance. A 10-year search in the Crash Analysis System (CAS) database indicated only one serious crash in 2020 which was an unregistered tractor hitting rocks and rolling over. It must also be noted that under-reporting of crashes is typical in non-injury type crashes.

Engagement

What we did



Community safety audit

The engagement process was designed to gather feedback from local residents, young people and beach users and encourage people to be involved in undertaking the audit alongside Council staff.

The audit followed a Crime Prevention Through Environmental Design model (CPTED) which looks at environment factors that contribute to people feeling safe in an area. The questions asked community members taking part in the audit to comment on things like lighting, accessibility, facilities and signage on a Saturday at 2pm and 8pm.

It asked people to comment on how they felt in the area, what improvements could be made, and what would make the area more welcoming. Conversations were had with community members which gave the team further insight into any past or ongoing issues and are included in the report findings.

Transport Bylaw

The safety project was linked closely with the Transport Bylaw consultations, which asked people whether the rules around cars on Titahi Bay beach should be changed. Feedback was shared and integrated between the two processes to ensure people were heard on all safety concerns and ideas they had for the area.

How we got the word out there

- Letter drops inviting residents to be involved (100 in total)
- Letter to all registered boatshed owners outlining the process and inviting them to be involved in the audit
- Social media posts explaining the process and how to be involved

- Dedicated website with information and key contacts (<https://poriruacity.govt.nz/your-council/city-projects/titahi-bay-community-safety-audit/>)
- Engagement with the local school
- Conversations with organisations and residents who had previously raised concerns
- Engagement with Titahi Bay Residents Association and Titahi Bay Community Group

What we were told

Feedback from young people

We took a group of 9 young people from year 5 and 6 to do the safety audit of the North end of the beach. They all love coming to the beach, but said it was scary at night with people drinking and loud music. One young person mentioned that they used to come walking on the beach with their parents before bed but don't anymore. They had heaps of ideas of what to do with Cable House (21 Bay Drive, above the North end toilets), and everyone agreed that it looked "abandoned and scary". They didn't think everyone could access the area and thought the signs could be improved. They spoke about cars on the beach and all 9 young people said they didn't want cars to use it because it was dangerous and bad for the environment. They didn't see why cars should be on the beach when there is lots of parking.



Young people investigating the Vella Street toilets

Access

"Need to get a better path for the wheelchairs to get up the hill safely, clearer crossing"

"There needs to be a rail to hold along the footpath down to the beach"

"I think people can get down to the beach easily but not wheelchairs"

"You can't see the road when you are walking down the path behind the boatsheds"

*"Need a new handrail, it looks rotten"
(at the start of Vella Street from the pathway behind boatsheds)*

Things they liked

"Lots of places to sit, like the flowers and that some of the boatsheds are colourful"

"the flags, the benches, memorial"

"the trees"

"the beach is beautiful"

Things they didn't like

"the signs are confusing, why are there so many?"

"the toilets are dirty and dark"

“abandoned, scary old house”

“we can’t tell the girls and boys toilets apart”

“we don’t like cars and motorbikes on the beach”

“the toilets aren’t clean and they smell”

Ideas for improvements

- Repaint the boat sheds
- more lights
- bigger and clearer signs (especially on the toilets)
- A special section for cars to drive and park
- Make water pump station more colourful
- Railing along by the rocks (Vella St).
- Proper toilet paper
- More Maori signs
- A picnic area and more picnic tables
- add more flowers.
- There could be an ice-cream shop.
- Add another park.
- A slide going into the water.
- Water fountains
- Add a change table to toilets
- More rubbish bins



Young people talking about the drop onto the beach from Vella Street

Community safety audit feedback

Nine local residents took part in the audit on Saturday 30 October at 2pm and 8pm. The local Police attended the night time audit.

General comments included:

- the unease of cars on the beach and associated antisocial behaviour that feels intimidating.
- General lack of maintenance – of the toilets, some pathways and Cable House on Bay Drive
- The need for more welcoming and wayfinding signage rather than regulatory
- Ideas for improved lighting and surveillance in key areas
- Liquor ban signage and times

More detailed commentary for each location is included in the audit findings section on pages 9 – 23.

Feedback from representatives of key stakeholder groups

Conversations were had with residents and stakeholders in the area, who had specific concerns and experiences with safety at Titahi Bay beach. This included individual residents who lived adjacent to the surrounding beach and audit areas as well as:

- Titahi Bay Fisherman's Club
- Titahi Bay Residents Association
- Titahi Bay Community Group
- All About Children Daycare
- Police
- Maori Wardens



Community members starting the audit at Bay Drive

The information provided intel on the hot spots for anti-social behaviour and included anecdotal evidence that antisocial behaviour had increased over the past few years.

There were also several questions raised about the current state of Cable House (21 Bay Drive), the large trees and restricted lines of sight/poor lighting surrounding it, and the potential to better utilise the land.

Feedback through the Transport Bylaw Review

We asked people about any additional safety concerns at Titahi Bay Beach, through the formal consultation on the Transport Bylaw. We received a total of 519 comments regarding safety concerns at Titahi Bay Beach. 61% people said that they did feel safe visiting the beach at Titahi Bay, and 31% of people said they didn't feel safe. (8% didn't comment)

61% of people said they did feel safe at the beach, below are some of the answers:

"A lot of the people are responsible and respectful. There has NEVER been an incident where I would fear for my family safety"

"there are always locals walking, keen to stop for a chat and people look out for each other and care for the environment"

"I generally feel safe but choose not to visit in the evening when the party crowd can be there."

"I have felt safe for 40 years"

Many submitters commented on anti-social behaviour associated with cars on the beach. This included reports of excessive alcohol consumption, drug-use, and/or aggressive or intimidating behaviour. Some examples of comments from submissions concerned about anti-social behaviour include:

"There is a HUGE amount of anti-social behaviour that goes on at the beach and usually ALWAYS associated with those that drive their vehicles on the beach. They intimidate, mock, smoke drugs, litter profusely, do skids and don't pay any mind to the safety of those using the beach recreationally"

"For a young single female walking the beach line, I feel very intimidated by the groups that park there."

"People feel intimidated by the cars that congregate and play their music. (Some have their speakers on the roof of their car). There is often alcohol and unpredictable, intimidating behaviour."

Other comments on safety related to the risk to other beach goers, particularly children. Submitters expressed concern that someone will get hurt, or that they avoid the beach because of the vehicles.

Access and mobility feedback

We asked people about access at Titahi Bay beach. 410 people commented on how we could improve mobility access for people.

There were comments suggesting additional mobility parking in key locations, beach friendly wheelchairs, and improvements to current access points.

There was a large number of suggestions about how to improve access to the beach for elderly and people with mobility issues. Ideas included having wheelchairs available for use at the Surf Lifesaving Club and plastic matting.

Audit Findings

North End – Bay Drive Beach Access and Vella Street



Scope area



Broken concrete in front of boatsheds, looking South



Sharp drop and broken steps - Vella Street



21 Bay Drive – Cable House



Bay Drive Toilets and pathway leading to beach



Paint peeling on boatsheds, picture taken from pathway leading to Vella Street



Handrail and footpath needing maintenance, taken from Vella Street looking towards the toilets

It is understood that the North end of the beach is a hot spot for anti-social behaviour. Specifically, the area around Cable House, with limited lighting and large trees, has been noted as a hotspot and an easy area to disappear from if Police do attend the scene.

This end of the beach is the main point in which cars access the beach and park up. Through the Transport Bylaw consultation, it was noted that there were concerns around the type of behaviour happening, mainly at night, in cars parked on the beach. Comments outlined reports of people drinking/using drugs, congregating, playing loud music and driving dangerously.

General impressions from auditees was that the beach was beautiful but that current signage was unclear, facilities had an appearance of being poorly maintained and that the area was seen as a "paradise for disrespect and vandalism". In the evening, a lack of lighting was also evident, and many comments were made about the state of Cable House (21 Bay Drive above the toilets).

<p>1. Access and layout</p>	<p>Feedback was received on access and layout at the North end which included safety concerns associated with pedestrian and vehicle conflict on the beach.</p> <p>Key observations by auditees:</p> <ul style="list-style-type: none"> a. Dangerous for small children, elderly and people with mobility issues due to footpaths being too steep and/or not adequate. b. Car parking is seen to be mostly adequate and probably under-utilised currently due to parking on the beach. There are no mobility car parks. Parking may be an issue if cars are banned. c. The pedestrian crossing and the sloped curbs on either side of the access road down on to the beach do not align. d. The extended concrete on the end of the ramp is very slippery and hazardous when wet and sandy, as are the concrete slabs that cover the culvert over the drain (between the vehicle ramp and the boatsheds). e. The area is well planted and has enough rubbish bins. <p>Additional feedback as a result of Officers safety audit:</p> <ul style="list-style-type: none"> f. Lack of an all-weather connecting footpath between the toilets and the viewing area about the toilets could easily become a slip hazard. g. Handrails required along the path to and around the toilets/down to the beach. h. No line of sight to the road when driving up from the beach. i. Vella Street footpath connections are poor.
<p>2. Signage</p>	<p>There was a strong consensus and consistency regarding suboptimal signage which was seen as too small, too cluttered, hard to read and not very welcoming.</p> <p>Key observations by auditees:</p> <ul style="list-style-type: none"> a. The area does not need any more signage added. b. Signs are regulatory heavy, not very welcoming or informative (i.e. minimal maps of the area or wayfinding signage about where the paths lead), there is too much of it, it's hard to read and not adhered to. c. Toilet signs are not adequate or visible at both Bay Drive and Vella St (including directional signage on where they are).

	<ul style="list-style-type: none"> d. The (old) resource consent sign for the Treatment Plant is out of date and requires removal. e. The alcohol ban signs are too high, and the font size is too small to easily read
3. Maintenance	<p>Key observations by auditees:</p> <ul style="list-style-type: none"> a. Cable House (21 Bay Drive) is an "eyesore". b. The seats are in poor condition. c. Some boatsheds need maintenance and there is broken concrete all along the front of the sheds. d. Vella St is a poorly maintained area, the wooden rail alongside the road/path needs a paint, broken step down to the beach, very little lighting. e. Titahi Bay has a beautiful outlook and rugged landscape but is neglected in terms of maintenance of facilities. f. The vegetation along the Bay Drive footpath/car park needs cutting back. g. The open drain adjacent to Vella Street needs some delineation/protection. h. The road edge by Vella St is badly potholed and footpath/connection from the footpath behind the boatsheds down to Vella St needs to be improved.
4. Toilets and showers	<p>Key observations by auditees:</p> <ul style="list-style-type: none"> a. Bay Drive toilets are preferable to use over the South End toilets but there is a perception that they are not well maintained, signage is not adequate and that they need to be painted. b. No lighting at night c. Water runs out onto the beach when they are cleaned. d. Toilets are inaccessible for people in wheelchairs.
5. Surveillance and safety	<p>Key observations by auditees:</p> <ul style="list-style-type: none"> a. Feedback was received with regards to the North end being a 'hostile' environment due to antisocial behaviour. b. General hesitancy of being in the area at night. c. No lights working in or on the toilets at Bay Drive (with only one streetlight working above the toilets). d. It was very dark looking out towards Vella Street and down the path behind the boatsheds.
6. Additional general comments (received as a result of all stakeholder engagement)	<p>General comments raised, and discussion noted:</p> <ul style="list-style-type: none"> a. the unease of cars on the beach and antisocial behaviour that feels intimidating. b. Questions were also raised about what is happening with the Council land by Cable House (21 Bay Drive) which was viewed as looking derelict and feeling unsafe. c. questions were asked about why the liquor ban is in place from 5pm to 7am thus allowing people to drink all day. d. Anecdotally, antisocial behaviour at the North end has been particularly bad since the 2019/20 summer and has stayed at a heightened level. The comment was also made that at least two

	<p>households adjacent to the area had moved due to ongoing anti-social behaviour.</p> <ul style="list-style-type: none"> e. Council needs to have a stronger relationship with GWRC in terms of enforcement and communication (signage rules). f. concerns about stream contamination at North and South ends - young people play frequently along these areas.
<p>7. What stakeholders told us they would change</p>	<p>Stakeholders commented that they would change:</p> <ul style="list-style-type: none"> a. The pathway behind the boatsheds needs barriers like Arnold Park to stop trail bikes. b. Reinstate the annual beach clean-up. c. Alternative boat ramp and parking (also submitted via the bylaw consultation) and additional parking if beach access is restricted. d. Initiate the "Tiaki" concept (to care for people and places) and get Tourism New Zealand on board. e. Encourage more businesses to open up to cater to crowds - food, tourism. f. Develop a proper, agreed beach management plan. g. Develop more angle parking overlooking the beach including more mobility parking. h. Do something with Cable House (21 Bay Drive). i. Put speed bumps in at Vella Street. j. Paint the toilets (included feedback on doing murals or adding some colour to the buildings). k. Improve the lighting and signage. l. Make the alcohol ban operable during the daytime. m. Put handrails at steps to the toilets. n. Paint the back of the boatsheds. o. Regular police patrols at all beach areas where antisocial behaviour regularly occurs.

Lighting and safety commentary

As part of the safety audit, officers commissioned a technical report from Stephenson & Turner to look at current lighting levels and recommend any improvements. A night time audit was undertaken.

The key findings of this report were:

- a. Both public toilets (Bay Drive and Vella Street) present entrapment risks for the public and are not illuminated.
- b. It was noted that there were several people sitting in parked cars on both Vella Street and Bay Drive and combined with the lack of lighting it made the space feel unsafe.
- c. The pedestrian pathway at the back of the boat sheds presents both trip and entrapment hazards.
- d. The street lights on Vella Street are blocked by vegetation.
- e. The pathway behind the boatsheds is not lit, people were using their phones as torches at night
- f. Diagonal parking bays along Bay Drive required vehicles to reverse, which presents higher risks for vehicles and pedestrians and the standard considers that angled parked cars offer more opportunities for concealed activities.

Recommendations

1. Immediate improvements

- a. Trim the trees which cause obstructions to street lights at Vella Street) and Bay Drive car parks, footpaths, 21 Bay Drive and behind the boatsheds.
- b. Trial closing Vella Street toilets at night, aligned with the gate closing times
- c. Working with Police, Maori Wardens and Pacific Patrols to look at increasing the night time presence

2. For further consideration

- a. Consider lighting improvements and costs identified in the Titahi Bay Beach lighting CPTED lighting assessment, specifically:
 - Including sensor lighting by key facilities
 - Lighting the pathway behind the boatsheds leading to Vella Street.
 - Close the public toilets at night
 - Trim the tree that is blocking the light on Vella Street
- b. The long-term plans around 21 Bay Drive (where Cable House is located) should be considered in line with the CPTED design principles and associated perceptions of safety, in the medium term consider
- c. possible treatments such as painting the building to evoke activity in the area
- d. review planting around Cable house to ensure no entrapment / hiding places
- e. Review the ongoing maintenance of toilets and long-term renewal plan
- f. Look to masterplan improvements to the overall layout of Vella Street and pathway behind the boatsheds, including consideration of mobility access of footpaths and location of handrails
- g. Investigate the overall maintenance of boatsheds (particularly painting the back of the boat sheds along the footpath), and Councils role, if any, in supporting these improvements
- h. The location, access and safety of current street parking (to be considered in line with the results of the Transport Bylaw consultation)

Bothamley Carpark and Beach Access



Scope area



Narrow entry to carpark



Road markings fading, maintenance required



Carpark with cars parked up



Bench needing removal and a potential new picnic area planned



Stairs leading to beach, limited access to all mobilities and abilities

Audit findings

The overall feedback along with supporting information indicated that this area is underutilised in terms of parking and access to the beach.

If you didn't know the area, you may not know that there was a carpark and beach access due to poor signage, and a narrow access way from the road with high speedbumps, which could be mistaken for a private driveway.

Local residents were concerned with the speed in which cars travel up the narrow laneway with limited visibility and pedestrians, including children, using this area. At night, it was reported that the area is a hot spot for cars pulling up, loud music, and anti-social behaviour such as

drinking and a known location for drug dealing. One resident has had terrible feedback from Airbnb guests about night-time behaviour and that they did not feel safe to leave the premises.

This behaviour was not observed during the night time audit, but broken alcohol bottles in the carpark were noted during the day and on a day time site visit noted numerous cars parked up with groups congregating, smoking and playing music, and someone sitting in the carpark drinking alcohol.

<p>1. Access and layout</p>	<p>Mixed views on accessibility were noted including:</p> <ul style="list-style-type: none"> a. Difficult to get a pram/wheelchair down to the beach. b. Path to the beach is not well maintained, narrow and overgrown making access difficult. c. Plenty of parking. d. Unforgiving speed bumps
<p>2. Signage</p>	<ul style="list-style-type: none"> a. Entry is like a private driveway with no further signs to the carpark and would be hard to find if you didn't know it was there. b. More directional signage is required (but noted that this could be difficult with the houses/narrowness of the road). c. Signage/wayfinding to South End Beach Access Road toilets/facilities could be improved.
<p>3. Maintenance</p>	<p>There are no facilities (toilets) in this carpark but the following was noted:</p> <ul style="list-style-type: none"> a. Marks from a burnt-out car remains with glass from years ago. b. One bench seat in the area is rusting away and requires removal and replacement c. Beach end of sealed path (at northern end of this area) 'hangs' above the sand/ground creating a trip/fall hazard. d. Fence needs repainting.
<p>4. Surveillance and safety</p>	<p>All though not observed on the day of the safety audit, comments were made about antisocial behaviour.</p> <ul style="list-style-type: none"> a. Motorbikes use the path down to the beach to access the beach b. The area is very dark at night with no lighting in the carpark or on the pathways down to the beach
<p>5. Additional Comments</p>	<ul style="list-style-type: none"> a. In March 2016 a Concept Report was produced by Opus on behalf of Council to aid designing a new play space in Arnold Park (accessed via South Beach Access Road). The report noted some key outcomes for the Bothamley Lane Carpark, "<i>The Bothamley Lane carpark is underutilised therefore the design brief called for new paths, ramps and steps to encourage better connectivity between the carpark and Arnold Park. The driveway entrance into this carpark from Windley Ave has restricted visibility and also has a domestic driveway appearance making it not as legible as it could be. We propose that improved signage and landscape treatment...is also incorporated into the overall concept for Arnold Park to improve the use of the Bothamley Lane</i>". b. The existing play equipment was replaced at Arnold Park, but there was no budget available for an additional redesign of the Bothamley Lane Carpark area

<p>6. What stakeholders told us they would change</p>	<ul style="list-style-type: none"> a. Lock off the Bothamley Lane carpark at night to the stop anti-social behaviour. b. Consider more welcoming and wayfinding signage c. Add BBQs/picnic spots in front of the Bothamley Lane carpark to allow people to enjoy the views. d. Undertaken some maintenance at the Bothamley Lane area (cut back trees and shrubbery to ensure clear sightlines, replace seat). e. Improve lighting in area f. Clear pathways to the beach. g. Add lighting and cameras
--------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Lighting and safety commentary

As part of the safety audit, officers commissioned a technical report from Stephenson & Turner to look at current lighting levels and recommend any improvements. They did a night time audit of the areas in scope.

The findings for this location noted the following observations and areas of concern:

- No lighting is installed on both car park and pathway to the beach.
- The lower end of the stairway to the beach connects with another pathway. This end could be used as a concealment spot

Recommendations

1. Immediate improvements

- a. Remove and replace the rusty park bench
- b. Replacement of the light down the steps

2. For further consideration

- a. Further investigation, including consultation with immediate residents as to the benefits of locking off public access to the carpark at night or lighting the carpark area to deter anti-social behaviour.
- b. Investigate ways to enhance the area that would encourage legitimate users and increase passive surveillance in the space such as picnic tables on the lawn area
- c. Replace existing wayfinding signage to improve look, feel and tone and consider the use of educational and informational signage
- d. Review both pathways to the beach and recommend pathway improvements and maintenance improvements. This would include consideration of lighting report recommendations, in sequence with carpark lighting decisions.

South End – Beach Access Road



Scope area



Toilets – accessibility considerations with narrow pathways and doorways



Narrow pathway leading down to carpark and beach



Multiple signage posts leading into the beach



Carpark



Cars parked on the side of the road, making access difficult and narrow

Audit findings

Overall, people agreed that this location was iconic, and had spectacular ocean views which was a draw card to locals and people from outside the area. There is some maintenance work that could be carried out to uplift the area, but it was noted that it's important to retain its rugged "beachy" feel. Parking is limited and unmarked which results in cars parking in unsafe locations. Access to and from the boatsheds is narrow, and often sightlines are blocked by parked cars. It is not accessible for everyone and there are some safety concerns with the different activity uses. The external appearance and design of the toilets is iconic but not well maintained or fit for purpose and has ongoing vandalism issues. The lighting of the area is not adequate at night, and the area is very dark. The gates to the beach are closed at 9.30pm every night but are subject to ongoing vandalism. This area has been noted as a hot spot for anti-social behaviour at night including ongoing vandalism to the toilets, such as graffiti and arson.

<p>1. Access and layout</p>	<p>Findings are summarised as:</p> <ul style="list-style-type: none"> a. Walkway down to the beach is a fall risk for children and elderly due to steepness b. Carparks not marked (but mixed views about whether they need to be marked) c. No rail at the steps to the toilets d. Pathway beside bollards is too narrow for people to walk on. e. Gate access control is prone to deliberate damage. <p>Additional feedback as a result of Council staff safety audit:</p> <ul style="list-style-type: none"> f. Non-observance of no parking markings (and the fact that the yellow lines are often covered in sand) is likely to create a hazard and frustration for other users of the area/road (limits the ability to use it as a turnaround area and to access the ramp down to the beach).
<p>2. Signage</p>	<p>Findings are summarised as:</p> <ul style="list-style-type: none"> a. Feedback was similar to that received for the North end i.e. too many, too cluttered and too regulatory focussed b. Signage could be more welcoming and improved with educational/informational signage about flora and fauna
<p>3. Maintenance</p>	<p>General comments were made about:</p> <ul style="list-style-type: none"> a. The run-down boatsheds. b. The playground area being very dark at night. c. The new (Mac's slabs) table that has been vandalised and burnt. d. Lights not working (streetlights and toilet lights) e. Broken concrete all over the beach (boatshed ramps).
<p>4. Toilets and showers</p>	<p>Feedback was not kind on the state of these toilets. The consensus was that the toilets need an upgrade/maintenance and would be hard to access in a wheelchair.</p> <ul style="list-style-type: none"> a. Lighting not working b. The shower water flows over the footpath creating a slip hazard. c. The toilets are left open all-night encouraging abuse/vandalism and that the building is an eye sore. d. The toilets often have broken toilet holders/seats, no toilet paper. e. Many people stated they would not use them.
<p>5. Surveillance and safety</p>	<ul style="list-style-type: none"> a. The majority of comments were about the need for more lighting which made it feel unsafe. b. We also note that Council received a petition as part of the Long-term Plan submissions on South Beach safety and security issues. A submission was made by two residents in June 2021 with a petition signed by 375 residents requesting <i>"that PCC take additional action to prevent antisocial behaviour, (including drunkenness, high speeding, burn outs and vandalism) at the South Beach Access Road Playground and Car Park at the South end of Titahi Bay."</i> c. Additional stakeholder feedback received: <i>"Friday and Saturday nights are often a bit raucous in the South Beach Access Rd carpark and toilets. Particularly last summer there could easily be 50+ youths drinking in the carpark..."</i>

<p>6. Additional General Comments (received as a result of all stakeholder engagement)</p>	<p>We receive the following general comments and concerns:</p> <ul style="list-style-type: none"> a. The beach is a natural area and needs to remain as that. b. Same social behaviour as all locations at the beach - drinking, cars on the beach at night and driving on the beach to other end, wheelies etc. c. Motorbikes are also an issue. d. Drain that discharges contaminated waste into our sea. e. The tattered sign warning of polluted water. f. Rubbish bins used as dumping grounds for household rubbish g. Antisocial behaviour, speeding up and down south beach access road, locals having to clean up broken bottles often etc. h. Power poles and a proliferation of power lines – <i>“has the Council any jurisdiction on the environmental requirements? These power poles are Wellington Electricity’s attempt to provide electricity the most cost-effective way, with no thought to the aesthetics of Titahi Bay”</i>.
<p>7. What stakeholders told us they would change</p>	<ul style="list-style-type: none"> a. New toilets. b. Put the gates at the top of South Beach Access Road to avoid antisocial behaviour. c. Make the signs more welcoming. d. Put handrails at steps to the toilets. e. Have the showers at the side of the South end toilets (so the water does not flow onto where people are walking - makes it a slip hazard). f. Install detector lighting for inside toilets and get outside toilet lights going again. g. Improve the carparking

Lighting and safety commentary

As part of the safety audit, officers commissioned a technical report from Stephenson & Turner to look at current lighting levels and recommend any improvements. A night time audit was undertaken.

The findings for this location noted the following observations and areas of concern:

- a. Streetlight not working by first boatshed
- b. Vegetation is blocking light leading down the pathway to the beach and picnic tables
- c. The current level of light on the pathway is too bright, which reduces visibility beyond a certain point and could create easy concealment spots
- d. The carpark is not illuminated
- e. The playground and surrounding pathway weren't lit at all, which encourages opportunities for use by people who don't want to be seen.

Recommendations

1. Immediate improvements

- a. Trim vegetation back on the pathway by the beach leading North
- b. Toilet lights are checked and appropriate lux level
- c. Adjust lighting levels to current lighting on the pathway by the beach leading North

- d. Fix broken streetlight by the first Boatshed
- e. Trial closing the public toilets at night, aligned with the gate closing times

2. For further consideration

- a. Further investigation, including consultation with immediate residents as to the benefits of lighting strategic areas around the playground and carpark to deter anti-social behaviour and increase passive surveillance.
- b. Replace existing wayfinding signage to improve look, feel and tone and consider the use of educational and informational signage
- c. Review the pathway leading North and consider the use and location of current picnic table, as well as overall lighting levels and general maintenance. This would include consideration of lighting report recommendations.
- d. Repaint carparking markings within the existing car park footprint to facilitate safer parking and movement

Additional considerations

There are a number of considerations that will be applied across all three locations and form the ongoing programme of work.

1. *Ongoing safety reporting*

It is noted that many safety concerns, that do not present an immediate threat, are not reported to Police or Council. This can often affect the amount of resourcing allocated to areas as they are not identified as a "hot spot". Council staff are working on how we more effectively capture safety issues, alongside partner agencies, to help us compile a larger picture of safety issues and respond appropriately. Staff are looking at trialling a survey tool for the public to report safety concerns by dropping a pin on a map and commenting on the issue. Wellington City Council has used similar interactive reporting systems through the Pōneke Promise project.

2. *Signage*

Across all three locations, there was a large amount of commentary around signage. Following the outcome of the Transport Bylaw, further investigation will be done into how best to consolidate the appropriate information at each location. Staff will also look at changing the overall tone of the signage to feel more welcoming and include wayfinding and educational information.

3. *Timing and sequencing*

All safety improvements need to be sequenced correctly and need to be well thought out and complementary to the overall goal of improving safety in the area. The correct sequencing of those works is an essential part of the next phase of safety improvement considerations. For example, there is no value in installing cameras if lighting is not adequate, there is no point in changing the rules around usage of an area if monitoring and enforcement is not in place. Staff will further examine the technical advice, audit finding and comments on safety and factor these into longer term planning.

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TITAHI BAY BEACH LIGHTING
CPTED LIGHTING ASSESSMENT



Prepared for:
Porirua City Council

24618

8 November 2021

Revision No. 0

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Introduction

Background

PCC wish to improve public safety at Titahi Bay Beach north and south ends, including Bothamley Lane Carpark and the South Beach access road's playground. Some undesirable activities have been reported for the playground area.

Scope of Report

S&T Lighting was engaged by PCC to carry out a CPTED lighting survey of the existing lighting within Titahi Bay beach north and south ends, including Bothamley Lane Carpark and the South Beach access road's playground, recommend lighting improvements and appropriate lighting performance with reference to standard *AS/NZS 1158.3.1: Lighting for roads and public spaces*.

Executive Summary

In the north end of Titahi Bay beach, both public toilets present entrapment risks for the public and are not illuminated. We recommend either closing these facilities at night or adding lighting controlled via presence sensors.

The pedestrian pathway at the back of the beach sheds presents both trip and entrapment hazards. We recommend adding light to this pathway.

The Bothamley Car Park and the associated beach access is not illuminated. Adding lighting would facilitate passive surveillance and also signal to people they can use these spaces at night.

For South Beach Road zone, we recommend lighting the car park, changing a glary streetlight on the pedestrian pathway and adding lighting to eliminated dark parts of the pathway.

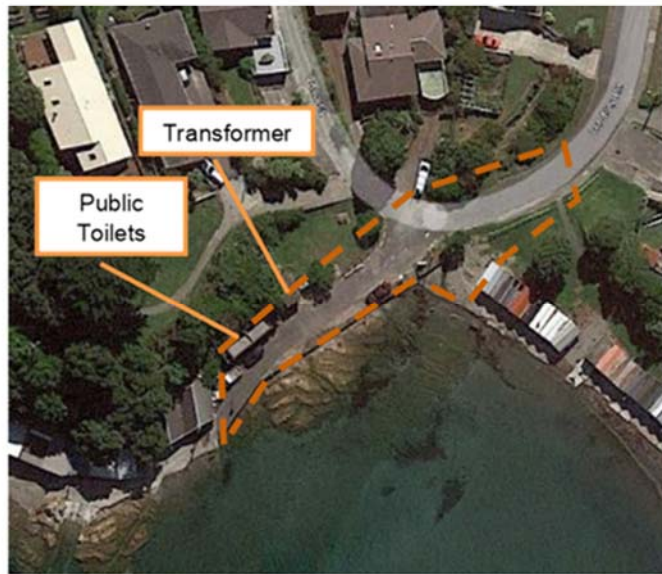
The playground area is not illuminated and enables undesirable activities. We recommend adding lighting specifically to the pathway in order to increase passive surveillance into this area.

Maps of assessed areas



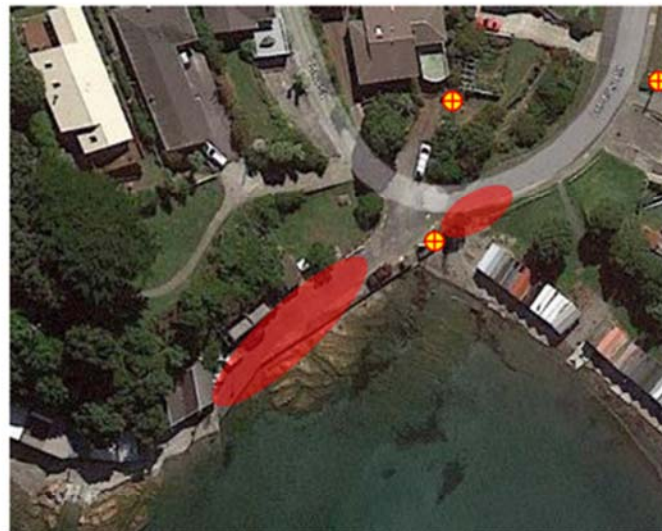
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Area 1: North End - Lambley Road to Public Toilets



Extent of the area

This area is lit with 3 pole mounted LED street lights. Light is blocked by vegetation creating a dark area on Lambley Road.



Locations of existing lights and dark areas (red)

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The road appears safe, however the area in front of the public toilets is not illuminated. We noticed several cars with people parked in the dark, which makes the space feel unsafe.

The public toilets are not illuminated and remain open. It creates both a risk of concealment and entrapment. There is also possible concealment opportunity between the transformer and the toilets.



View in direction of the Public Toilets.



View of female toilet entry with powerful torchlight

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We recommend closing these facilities at night and adding a presence sensor-controlled light on the driveway side wall.



Measured Illuminance Levels

Lighting performance recommendation:

The following lighting performance sub-categories are defined with standard AS/NZS 1158.3.1: *Lighting for roads and public spaces*.

Recommendation for the dead end facing the public toilets is PR2 as "Fear of crime" criteria is medium.

TABLE 2.1
LIGHTING SUBCATEGORIES FOR ROAD RESERVES IN LOCAL AREAS

1	2	3	4	5	6
Type of road or pathway	Selection criteria ^{a,b}				Applicable lighting subcategory ^{c,d}
General description	Basic operating characteristics	Pedestrian/cycle activity	Fear of crime	Need to enhance amenity	
Collector roads or non-arterial roads which collect and distribute traffic in an area, as well as serving abutting properties	Mixed vehicle and pedestrian traffic	N/A	High	N/A	PR1
		High	Medium	High	PR2
		Medium	Low	Medium	PR3 or PR4
		Low	Low	Low	PR5
Local roads or streets used primarily for access to abutting properties, including residential, commercial and industrial precincts		N/A	High	N/A	PR1
		High	Medium	High	PR2
		Medium	Low	Medium	PR3 or PR4
		Low	Low	Low	PR5
Common area, forecourts of cluster housing		N/A	N/A	N/A	PR6 ^e
		N/A	High	N/A	PR1
	High	Medium	High	PR2	
	Medium	Low	Medium	PR3 or PR4	
		Low	Low	Low	PR5

Details on the subcategory selection

TABLE 3.3
VALUES OF LIGHT TECHNICAL PARAMETERS
FOR ROADS IN LOCAL AREAS

1	2	3	4
Lighting subcategory	Light technical parameters (LTP)		
	Average horizontal illuminance ^{a,b} (\bar{E}_h)	Point horizontal illuminance ^{a,b} (E_{ps})	Illuminance (horizontal) uniformity ^c Cat. P (U_{r2})
	lx	lx	
PR1	7	2	8
PR2	3.5	0.7	8
PR3 ^c	1.75	0.3	8
PR4 ^{c,e}	1.3	0.22	8
PR5 ^{c,e}	0.85	0.14	10
PR6 ^d	0.7	0.07	10

Details of the PR2 subcategory performance parameters

New lights need to be added to meet the recommended levels on the dead-end facing the public toilets.

Recommendations:

- Add presence-controlled lighting to meet PR2 subcategory criteria.
- Close the public toilets at night
- Trim tree blocking light

Area 2: North – Bay Drive beach access



Extent of the area

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Pathway to Lambley Road:

This pathway is used by several people at night as observed during the site visit. It is not illuminated. People are using their phone torches to see.

We note there is ditch on the side of the pathway which could be a fall hazard.



View of the pathway with powerful torchlight aimed at the ditch

Lighting performance recommendation:

As the pathway doesn't have an alternative escape route, the "Fear of crime" criteria should be considered as Medium.

TABLE 2.2
LIGHTING SUBCATEGORIES FOR PEDESTRIAN AND CYCLIST PATHS

1	2	3	4	5
Type of pathway		Selection criteria ^{a,b,c}		Applicable lighting subcategory
General description	Basic operating characteristics	Pedestrian/cycle activity	Fear of crime	
Pedestrian or cycle orientated pathway, e.g. footpaths, including those along local roads ¹ and arterial roads ² , walkways, lanes, park paths, cyclist paths	Pedestrian and/or cycle traffic only	N/A	High	PP1 ^c
		High	Medium	PP2 ^c
		Medium	Medium	PP3 ^c
		Medium	Low	PP4
		Low	Low	PP5

Details on the subcategory selection

TABLE 3.4
VALUES OF LIGHT TECHNICAL PARAMETERS FOR PATHWAYS AND CYCLIST PATHS

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b} (\bar{E}_h)	Point horizontal illuminance ^{a,b,d} (E_{hs})	Illuminance (horizontal) uniformity ^c Cat. P (U_{h2})	Point vertical illuminance ^{a,b} (E_{vs})
	lx	lx		lx
PP1	10	2	5	1
PP2	7	1	5	0.3
PP3	3	0.5	5	0.1
PP4	1.5	0.25	5	0.05 ^c
PP5	0.85	0.14	5	0.02 ^c

Details of the PP3 subcategory performance parameters

Recommendation: Add lighting on the pathway to comply with PP3 subcategory.

Beach access and park:

The night visibility in this area is good and feels safe. However the Public Toilets are unlit. This could lead to concealment and entrapment.



Measured Illuminance Levels



Entrance of one of the two toilet

Lighting performance recommendation:

TABLE 2.1
LIGHTING SUBCATEGORIES FOR ROAD RESERVES IN LOCAL AREAS

1	2	3	4	5	6
Type of road or pathway		Selection criteria ^{a,b}			Applicable lighting subcategory ^{c,d}
General description	Basic operating characteristics	Pedestrian/cyclic activity	Fear of crime	Need to enhance amenity	
Collector roads or non-arterial roads which collect and distribute traffic in an area, as well as serving abutting properties	Mixed vehicle and pedestrian traffic	N/A	High	N/A	PR1
		High	Medium	High	PR2
		Medium	Low	Medium	PR3 ^e or PR4 ^f
		Low	Low	Low	PR5
Local roads or streets used primarily for access to abutting properties, including residential, commercial and industrial precincts		N/A	High	N/A	PR1
		High	Medium	High	PR2
		Medium	Low	Medium	PR3 ^e or PR4 ^f
		Low	Low	Low	PR5
Common area, forecourts of cluster housing		N/A	N/A	N/A	PR6 ^e
		N/A	High	N/A	PR1
	High	Medium	High	PR2	
	Medium	Low	Medium	PR3 ^e or PR4 ^f	
		Low	Low	Low	PR5

Details on the subcategory selection

TABLE 3.3
VALUES OF LIGHT TECHNICAL PARAMETERS FOR ROADS IN LOCAL AREAS

1	2	3	4
Lighting subcategory	Light technical parameters (LTP)		
	Average horizontal illuminance ^{a,b} ($E_{h,av}$)	Point horizontal illuminance ^{a,b} ($E_{h,p}$)	Illuminance (horizontal) uniformity ^c Cat. P ($U_{h,2}$)
	lx	lx	
PR1	7	2	8
PR2	3.5	0.7	8
PR3 ^e	1.75	0.3	8
PR4 ^{d,e}	1.3	0.22	8
PR5 ^{d,e}	0.85	0.14	10
PR6 ^d	0.7	0.07	10

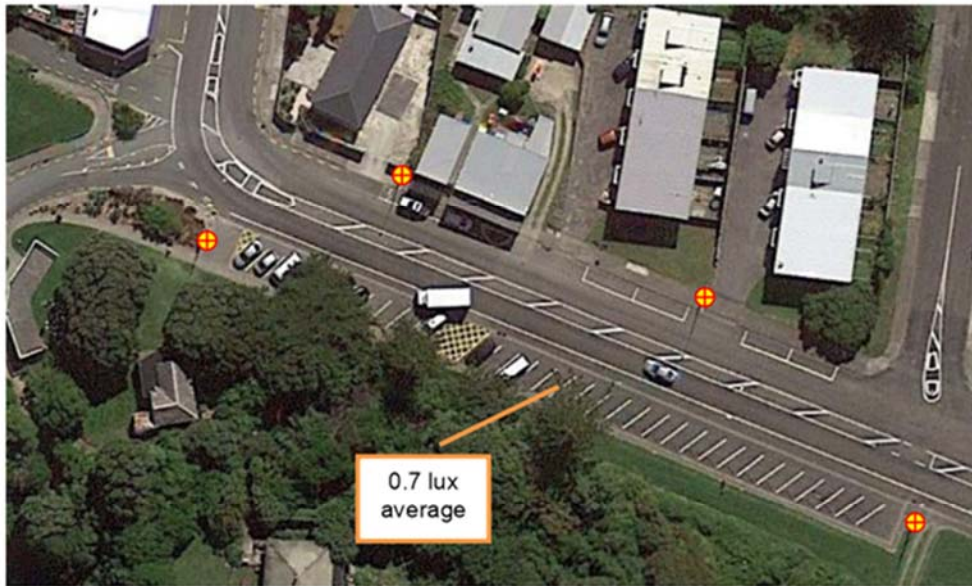
Details of the PR5 subcategory performance parameters

The measured lighting levels exceed the recommended lighting levels on the driveway.

Recommendation: Close public toilets at night or add presence-controlled lights.

Bay Drive parking:

Diagonal parking bays along the roadside require vehicles to reverse, which presents higher risks for vehicles and pedestrians. Also, the standard considers that angled parked cars offer more opportunities for concealed activities. Therefore, the parking area should be considered as a separate space to the road and will require additional lighting.



Measured Illuminance Levels

The measured illuminance was 0.7 lux average. When no cars are parked the vision is not obstructed, but when cars are parked, the risk of concealment is higher. We note that some people park and stay in their cars, which results in pedestrians choosing to cross to the other side of the road.

Lighting performance recommendation:

TABLE 2.5
LIGHTING SUBCATEGORIES FOR OUTDOOR CAR PARKS
(INCLUDING ROOF-TOP CAR PARKS)

1	2	3	4
Type of area	Selection criteria ^{a,c}		
	Night time vehicle and/or pedestrian movements	Fear of crime	Applicable lighting subcategory ^b
Parking spaces, aisles and circulation roadways	High	High	PC1
	Medium	Medium	PC2
	Low	Low	PC3
Designated parking spaces specifically intended for people with disabilities	N/A	N/A	PCD
For any designated areas for pedestrians to cross	N/A	N/A	PCX

Details on the subcategory selection

TABLE 3.7
VALUES OF LIGHT TECHNICAL PARAMETERS FOR OUTDOOR
CAR PARKS (INCLUDING ROOF-TOP CAR PARKS)

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b} (\bar{E}_h) lx	Point horizontal illuminance ^{a,b} (E_{hs}) lx	Illuminance (horizontal) uniformity ^c Cat. P (U_{h2})	Point vertical illuminance ^{a,b} (E_{vs}) lx
PC1	14	3	8	3
PC2	7	1.5	8	1
PC3	3.5	0.7	8	—
PCD ^d	—	≥ 14 and $\geq (\bar{E}_h)^e$	—	—
PCX ^e	21	5	8	—

Details of the PC2 subcategory performance parameters

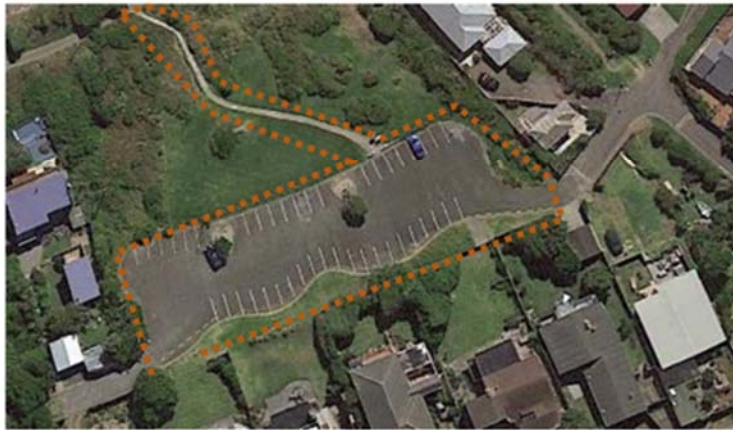
Recommendation: Add lighting to diagonal car parking side to comply with PC2 subcategory.

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Area 3 : South – Bothamley Car Park and beach access

Car Park:

This carpark can be accessed by car via Bothamley Lane or Windley Avenue. A pathway leads to the beach. No lighting is installed on both car park and pathway to the beach.



Extent of the area



View of the car park

We noticed several cars with people sitting in them. This can create a feeling of insecurity. However, no pedestrian was seen during the site visit.

Lighting performance recommendation:

If undesirable activities have been reported on the Parking, we recommend to install lighting to standard detailed below. Lighting would make the space less inviting for those staying in cars.

Lighting could be controlled via presence sensors.

As the parking doesn't offer escape routes, the "Fear of crime" should at least be considered Medium.

TABLE 2.5
LIGHTING SUBCATEGORIES FOR OUTDOOR CAR PARKS
(INCLUDING ROOF-TOP CAR PARKS)

1	2	3	4
Type of area	Selection criteria**		
	Night time vehicle and/or pedestrian movements	Fear of crime	Applicable lighting subcategory ^b
Parking spaces, aisles and circulation roadways	High	High	PC1
	Medium	Medium	PC2
	Low	Low	PC3
Designated parking spaces specifically intended for people with disabilities	N/A	N/A	PCD
For any designated areas for pedestrians to cross	N/A	N/A	PCX

Details on the category selection

TABLE 3.7
VALUES OF LIGHT TECHNICAL PARAMETERS FOR OUTDOOR
CAR PARKS (INCLUDING ROOF-TOP CAR PARKS)

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b} (\bar{E}_v)	Point horizontal illuminance ^{a,b} (E_{vs})	Illuminance (horizontal) uniformity ^c Cat. P ($U_{1/2}$)	Point vertical illuminance ^{a,b} (E_{vs})
	lx	lx		lx
PC1	14	3	8	3
PC2	7	1.5	8	1
PC3	3.5	0.7	8	—
PCD ^d	—	≥ 14 and $\geq (\bar{E}_v)^{1/2}$	—	—
PCX ^e	21	5	8	—

Details of the PC3 subcategory performance parameters

Recommendation: Add lighting to the car park to comply with PC2 subcategory.

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Pathway to the beach:

The pathway to the beach includes stairs. No lighting is installed along the pathway.



View of the stairs (brightness +40%, Contrast +40%)

The lower end connects with another pathway (see next chapter). This end could be used as a concealment spot



End of the pathway on beach side

The pathway looks not to be used at night and does not lead to any property.

Lighting performance recommendation:

If no issues have been recorded, the Council could decide to leave it without lighting. However, if the Council wish to increase the safety feeling and make this access available at night, we recommend following the following lighting subcategory.

TABLE 2.4
LIGHTING SUBCATEGORIES
FOR CONNECTING ELEMENTS

Type of area	Applicable lighting subcategory
Subways, including associated ramps or stairways	PE1
Steps and stairways, ramps, footbridges, pedestrian ways	PE2
Ramps and footbridges associated with low use pathways (e.g. in parks and reserves)	PE3

Details of subcategory selection

TABLE 3.6
VALUES OF LIGHT TECHNICAL PARAMETERS
FOR CONNECTING ELEMENTS

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b,d} (\bar{E}_h)	Point horizontal illuminance ^{a,b} (E_{rh})	Illuminance (horizontal) uniformity ^c Cat. P (U_{rh})	Point vertical illuminance ^{a,b} (E_{rv})
	lx	lx		lx
PE1	35	17.5	8	17.5
PE2	Same as for highest lighting subcategory applying to areas that abut the connecting element but, where forming part of a road or pathway, to be not less than subcategory PA3 in Table 3.5			
PE3	Same as for highest lighting subcategory applying to areas that abut the connecting element but, where forming part of a road or pathway, to be not less than subcategory PP3 in Table 3.4			

PE3 refers to PP3 subcategory

TABLE 3.4
VALUES OF LIGHT TECHNICAL PARAMETERS
FOR PATHWAYS AND CYCLIST PATHS

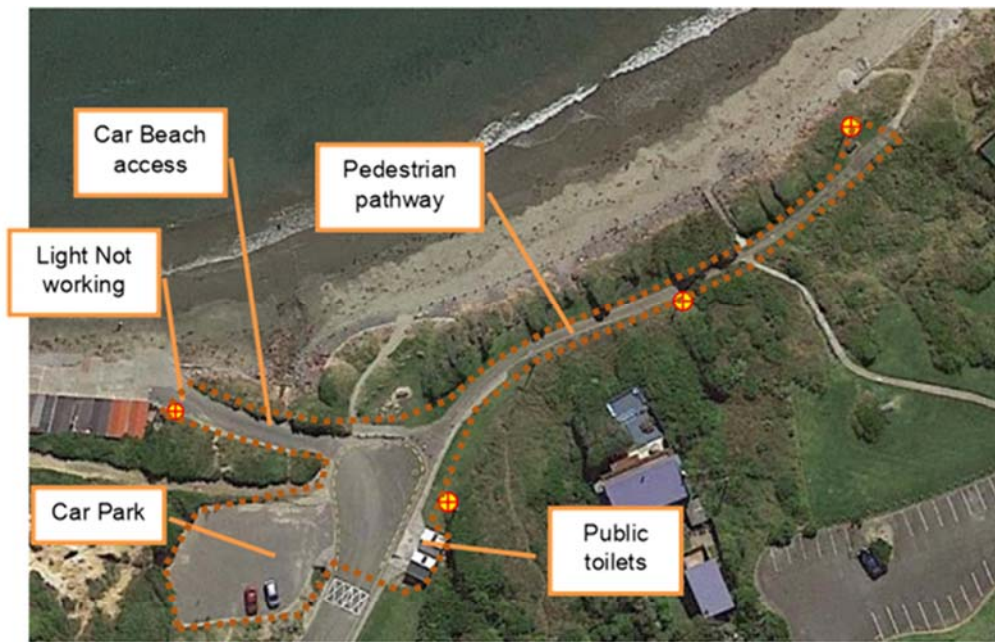
1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b} (\bar{E}_h)	Point horizontal illuminance ^{a,b,d} (E_{ps})	Illuminance (horizontal) uniformity ^c Cat. P (U_{k2})	Point vertical illuminance ^{a,b} (E_{pv})
	lx	lx		lx
PP1	10	2	5	1
PP2	7	1	5	0.3
PP3	3	0.5	5	0.1
PP4	1.5	0.25	5	0.05 ^c
PP5	0.85	0.14	5	0.02 ^c

Details of the PP3 subcategory performance parameters

Recommendation: This pedestrian access could remain not illuminated if the Council doesn't want to encourage people use it at night. However, this pathway is a potential escape route for the parking area.

Add lighting to comply with the PP3 subcategory except if Bothamley Car Park is not illuminated.

Area 4 : South beach access road



Extent of the area

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Carpark:

This carpark is not specifically illuminated.

During the site visit two empty cars were parked here.



We recommend installing lighting.

Lighting performance recommendation:

TABLE 2.5
LIGHTING SUBCATEGORIES FOR OUTDOOR CAR PARKS
(INCLUDING ROOF-TOP CAR PARKS)

1	2	3	4
Type of area	Selection criteria**		
	Night time vehicle and/or pedestrian movements	Fear of crime	Applicable lighting subcategory ^b
Parking spaces, aisles and circulation roadways	High	High	PC1
	Medium	Medium	PC2
	Low	Low	PC3
Designated parking spaces specifically intended for people with disabilities	N/A	N/A	PCD
For any designated areas for pedestrians to cross	N/A	N/A	PCX

Details on the subcategory selection

TABLE 3.7
VALUES OF LIGHT TECHNICAL PARAMETERS FOR OUTDOOR
CAR PARKS (INCLUDING ROOF-TOP CAR PARKS)

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b} (\bar{E}_h)	Point horizontal illuminance ^{a,b} ($E_{h,s}$)	Illuminance (horizontal) uniformity ^c Cat. P ($U_{h,2}$)	Point vertical illuminance ^{a,b} ($E_{v,s}$)
	lx	lx		lx
PC1	14	3	8	3
PC2	7	1.5	8	1
PC3	3.5	0.7	8	—
PCD ^d	—	≥ 14 and $\geq (\bar{E}_h)^{0.5}$ ^e	—	—
PCX ^e	21	5	8	—

Details of the PC3 subcategory performance parameters

Recommendation: Add lighting to comply with PC3 subcategory.

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Car beach access:

The access to the beach is closed after 9PM. Therefore, no light is needed in this area after 9PM. However, there is a streetlight installed next to the first boat shed. This streetlight is not working.

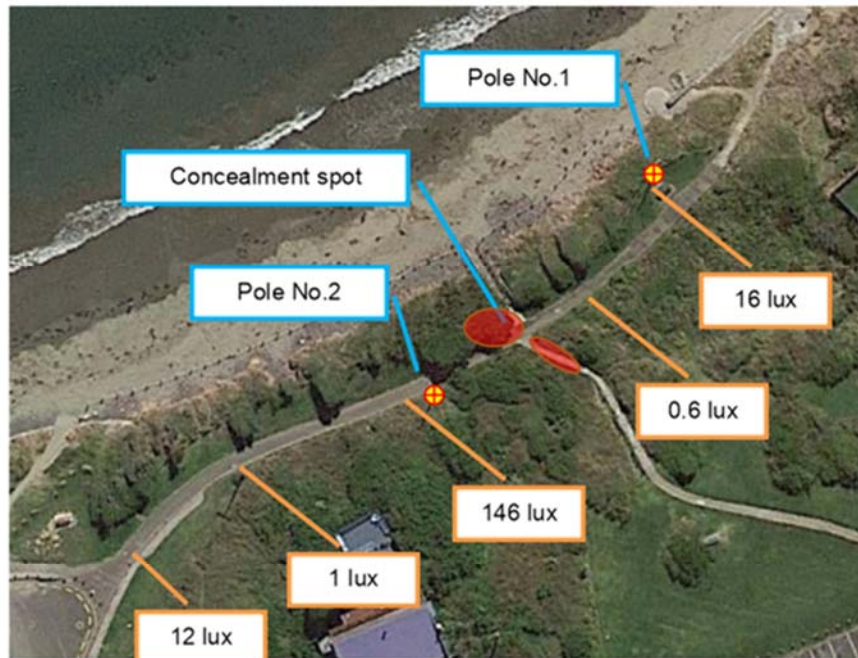


View of the car beach access

Recommendation: make existing light operational.

Pedestrian pathway:

This pedestrian pathway leads to a picnic area. One pole light is located near the picnic table (Pole No.1) and another one is located in the centre of the pathway (Pole No.2).



Measured Illuminance Levels

Pole No.2 is too powerful. The illuminance measured under the pole is 146 lux. This causes glare, which reduces the ability of users to see beyond this point and creating an easy concealment spots (areas circled in red above). We recommend dimming or changing this light to reduce the glare.

Vegetation is blocking light. We recommend trimming this vegetation to improve safety and allow more spread of light.

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View from the picnic area in direction of Pole No.2



View of and from Pole No.2

Lighting performance recommendation:

TABLE 2.2
LIGHTING SUBCATEGORIES FOR PEDESTRIAN AND CYCLIST PATHS

1	2	3	4	5
Type of pathway		Selection criteria ^{a,b,c}		Applicable lighting subcategory
General description	Basic operating characteristics	Pedestrian/cycle activity	Fear of crime	
Pedestrian or cycle orientated pathway, e.g. footpaths, including those along local roads ^d and arterial roads ^e , walkways, lanes, park paths, cyclist paths	Pedestrian and or cycle traffic only	N/A	High	PP1 ^c
		High	Medium	PP2 ^c
		Medium	Medium	PP3
		Medium	Low	PP4
		Low	Low	PP5

Details on the subcategory selection

TABLE 3.4
VALUES OF LIGHT TECHNICAL PARAMETERS FOR PATHWAYS AND CYCLIST PATHS

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
	Average horizontal illuminance ^{a,b} (\bar{E}_h)	Point horizontal illuminance ^{a,b,d} (E_{hs})	Illuminance (horizontal) uniformity ^c Cat. P (U_{h2})	Point vertical illuminance ^{a,b} (E_{vs})
	lx	lx		lx
PP1	10	2	5	1
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PP3	3	0.5	5	0.1
PP4	1.5	0.25	5	0.05 ^e
PP5	0.85	0.14	5	0.02 ^e

Details of the PP3 subcategory performance parameters

Recommendations: Add lighting to comply with PP3 subcategory:

- Add one streetlight on an existing concrete pole
- Add a new pole between pole No. 1 and No.2
- Dim or replace light on Pole No.2

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Public toilets:

The Public Toilets area is illuminated by a street light mounted on a concrete pole. The area in front of the toilet block feels safe. We measured 17 lux on the stairs. Light inside the toilets also provides a feeling of safety.



Measured Illuminance Levels

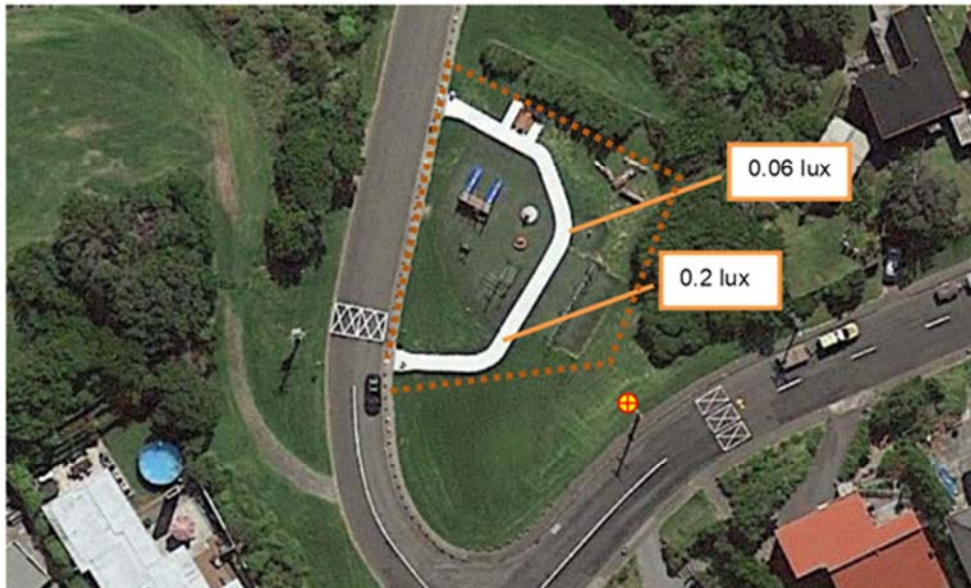


View of the public toilets from the parking

Recommendation: We recommend retaining lighting in the toilet blocks as it is.

Area 5 : South beach access playground

Some undesirable activities have been reported. The only light close to the playground is situated on Tiretti Road. Tiretti Road's ground level is higher than the playground. The backlight from the light provides a very low 0.2 lux to the lower half of the playground. We consider this space is not illuminated.



Extent of the area

The lack of light deters the use of the playground at night and the associated noise.

However, the space can still be used by people who don't want to be seen and leads to unwanted behaviours. One CPTED recommendation would be to increase passive surveillance.

One option could be to light the pathway with seating situated in different spots of the pathway. Light is only directed to the pathway and not to the play structures.

A second option would be a floodlight controlled via presence sensor. This will signal when people are in the area, increasing passive surveillance from neighbourhood.

Lighting performance recommendation:

TABLE 2.2
LIGHTING SUBCATEGORIES FOR PEDESTRIAN AND CYCLIST PATHS

1	2	3	4	5
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		High	Medium	PP2 ^c
		Medium	Medium	PP3
		Medium	Low	PP4
		Low	Low	PP5

Details on the subcategory selection

TABLE 3.4
VALUES OF LIGHT TECHNICAL PARAMETERS FOR PATHWAYS AND CYCLIST PATHS

1	2	3	4	5
Lighting subcategory	Light technical parameters (LTP)			
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PP3	3	0.5	5	0.1
PP4	1.5	0.25	5	0.05 ^e
PP5	0.85	0.14	5	0.02 ^e

Details of the PP3 subcategory performance parameters

Recommendation: Add lighting for pedestrian use (increase of passive surveillance) to comply with PP3 subcategory for the pathway, but not light play structures.