

CONTEXTUALISING THE

MUIZENBERG

CIVIC CENTRE

AN INVESTIGATION INTO URBAN AND ENVIRONMENTAL CONTEXTUALISATION and environmental contextualisation



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CONTEXTUALISING THE MUIZENBERG CIVIC CENTRE

[an investigation into urban and environmental integration]

- amy schofield

This Design Dissertation is submitted in partial fulfilment of the degree of Master of Architecture (Professional) in the School of Architecture, Planning and Geomatics, University of Cape Town.

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13.09.2022

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To
Mom, Dad and Mathew,
your unwavering support, unconditional love
and incessant encouragement
is what kept my fire burning.
This would never have been possible without you.

to Stella, thank you for your gentle guidance and perpetual
patience over every obstacle.

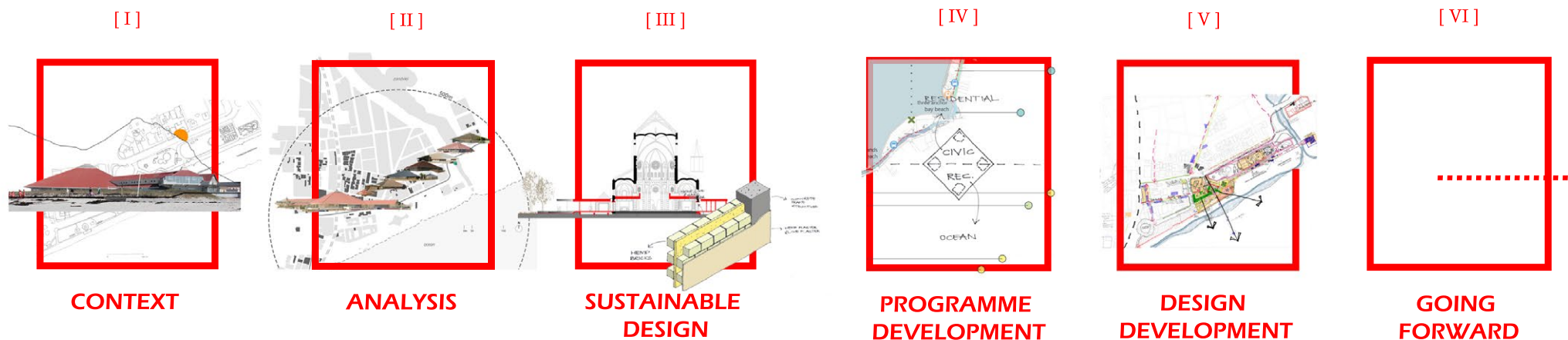
Lastly, to all the kind strangers who have shared their
knowledge, resources, and time- it was invaluable.

ABSTRACT

The Muizenberg Civic Centre currently expels an attitude of inhospitality and abandonment which has resulted in its utter lack of interaction with, and use by, the community. Hence, it acts as both a physical and visual blockade between the bustling Surfer's Corner and the forsaken open-air amusement park. This paper aims to utilise the sustainable practice of adaptive reuse to articulate a design that allows the Muizenberg Civic Centre to seamlessly integrate into both its surrounding urban and natural context. This is achieved by first understanding its physical, social and architectural context before analysing the opportunities and challenges that the site and surrounding urban fabric presents. It extracts lessons from Muizenberg Civic Centre replicas, Fish Hoek Beach and the Sea Point Promenade to inform both the urban and site design proposals that are innately driven by the desire for integration and accessibility, whilst taking full advantage of its prime beachfront location.



initial conceptual collage indicating a desire to sustainably transform Muizenberg into a recreational hub.

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INTRODUCTION

“The beach is the scene of the most celebrated and inexhaustible synthesis between nature (sea) and culture (city), the best and cheapest urban park, the most frequented and sought-after place, the setting for countless games and joys, the birthplace and feeding ground of one of the most important modern economic activities.”

- (Gausa, 2003, p.75)

The beach is recognised as a transitory space that effortlessly mediates the evident contradiction between the incomprehensible scale of the ocean and the immediate tangible urban context. Muizenberg’s unique location at the juncture where flat countryside meets steep, rocky mountains and sandy beaches allows it to feel completely enclosed by an abundance of natural amenities. The Muizenberg Civic Centre, although located on prime property along the Indian Ocean’s shoreline, currently expels an attitude of inhospitality due to its overpowering scale, which has resulted in its utter lack of interaction with, and use by, the community.

The purpose of this dissertation is to investigate sustainable design through the lens of adaptive reuse as an approach for reimagining the Muizenberg Civic Centre to seamlessly integrate into both its surrounding urban and natural context. It aims to propose a design that overcomes its perception as being a physical and visual blockade between the bustling Surfer’s Corner and now forsaken open-air amusement park and extended promenade.

The document begins by introducing Muizenberg, unpacking its physical, social, and architectural environment before divulging into an analysis hereof that recognises both the opportunities and constraints that the site, its existing structure and the extended promenade precinct present.

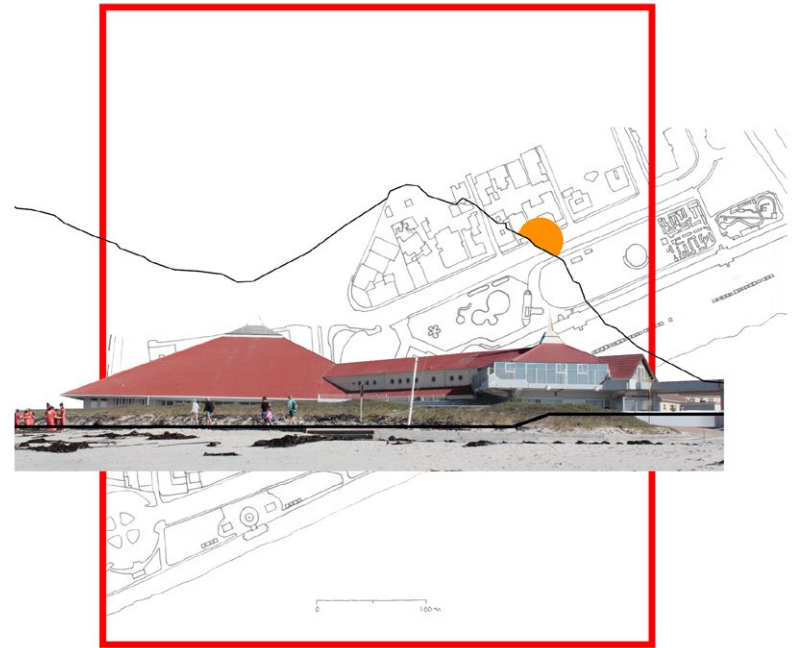
It goes on to unfold the practice and various approaches of adaptive reuse that are most appropriate for the site as proposed by Wong, Louw and Papanicolaou, as an entry point into the concept of sustainable design that still acknowledges the latent memories and meanings that the civic centre embodies. This provides the tools to guide the transformation of existing, no longer relevant, building stock whilst advocating for more sustainable building practices that perpetuate a continuum of growth and transformation

The research further extracts lessons from existing civic centre replicas and popular beachfront interventions to establish programmatic interventions that could reactivate the site. This is dictated by a desire to find a balance that satisfies Muizenberg’s civic citizen and beachgoer in a design that both considers and engages with the community through the introduction of public and recreational amenities.

Finally, the document concludes by illustrating several mixed-use adaptations of this neglected civic centre that reimagine its currently idle relationships with the sky, the earth and its neighbouring urban fabric with the intention of pre-empting a design that will restore its once iconic value in the coastal landscape. This is achieved by the actions of inserting, mimicking, cutting, protruding, and fragmenting its previously confined pyramidal envelope to regenerate a civic and recreational hub that is human-centred and can, once-again, become a place of celebration, as opposed to enduring as underutilized event space.

The relevance of this paper is in contributing to research on adaptive reuse and recognising the innate contribution that a civic building, built in a unique location, can offer back to society without the need to completely eradicate that which exists.

[I]



CONTEXT

PHYSICAL CONTEXT

Muizenberg, referred to as 'Muizies' by the locals, is a beach-side town in the Western Cape. It seamlessly flows into the surrounding suburbs of St James, Lakeside and Capricorn, without any borders delineating one from the other (figure 1). Due to its unique location at the juncture of the impressive Silvermine Nature Reserve Mountain range, the curving shore of the False Bay coast and the Zandvlei Estuary (figure 1), Muizenberg feels entirely enclosed by natural amenities. The vistas around Muizenberg are bountiful and the view over the ocean appears to be never ending.

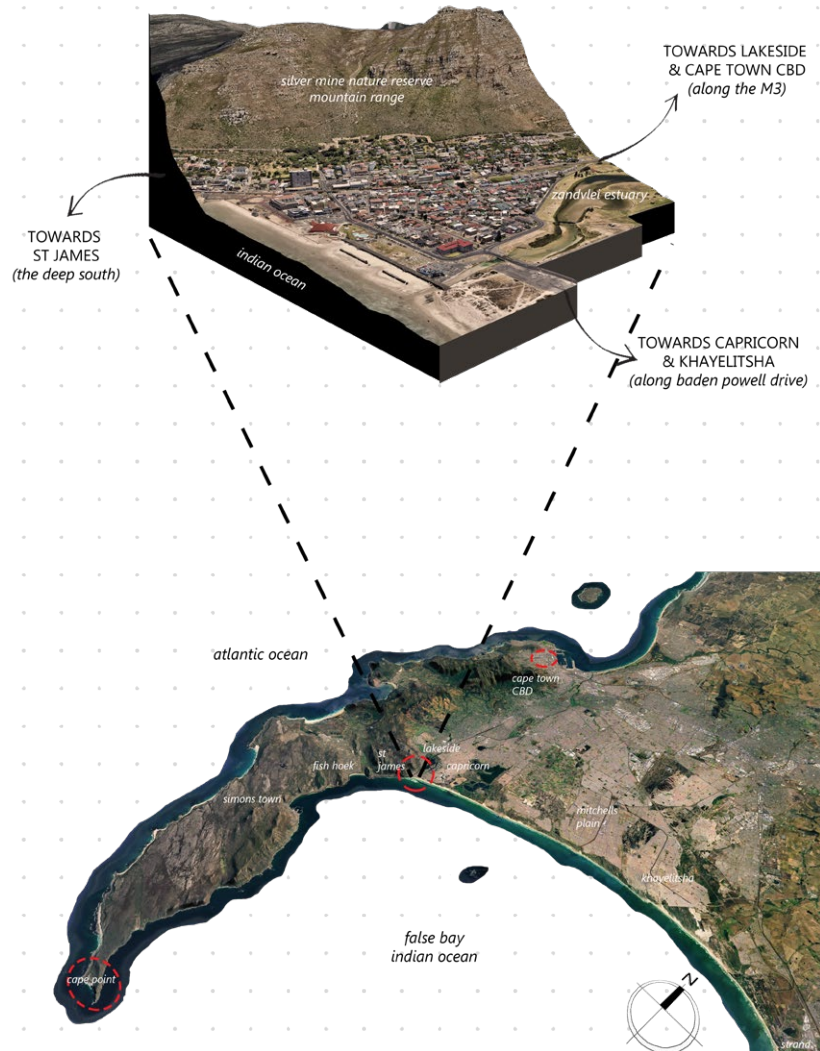


Figure 1: locating Muizenberg within the wider Cape metropole within False Bay.

Although, these unprecedented views do not come without its drawback of unobstructed south-easterly winds (known as 'The Cape Doctor') which blow straight across the Indian ocean, twisting its way through the town. This causes Muizenberg to be predominantly windswept for more than half the year from September to March (figure 2&3).

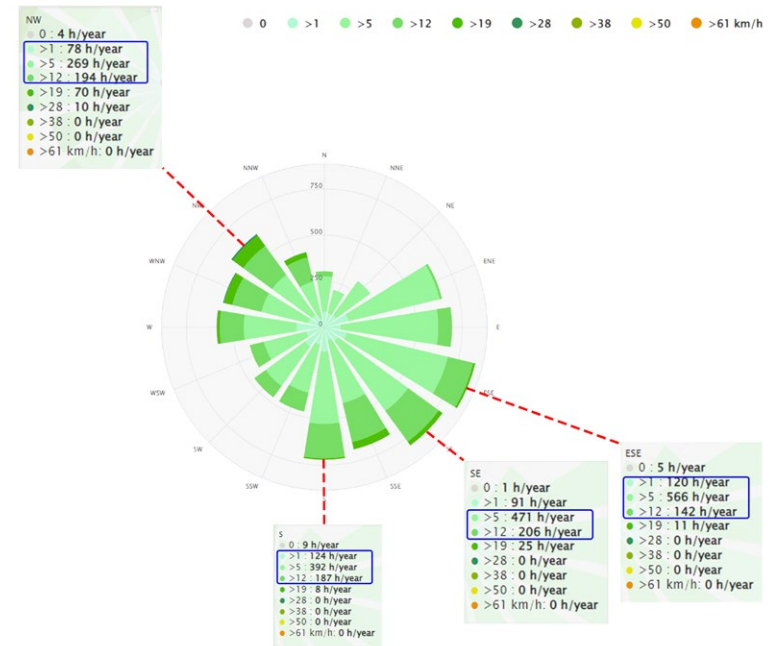


Figure 2: A wind rose illustrating the number of hours the wind blows and the speeds and direction from which they blow over the course of a year in Muizenberg. The 4 directions from which the wind blows the most have been highlighted (meteoblue, n.d.).

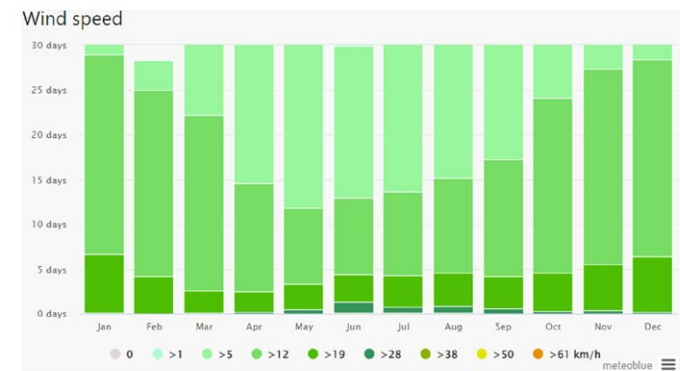


Figure 3: A bar chart showing the days per month the wind reaches a certain speed in a year (meteoblue, n.d.).

HISTORICAL DEVELOPMENT

Muizenberg was known as one of the most popular seaside holiday and recreation destinations in South Africa, becoming popular amongst the rich white community, such as Cecil John Rhodes, Ernest Oppenheimer and Herbert Baker (*Gasson, 2019, p.50*), who built their holiday homes here. These more affluent individuals had private cars, making Muizenberg an easily accessible destination.

Due to an increasing popularity, the City of Cape Town municipality decided to extend the railway beyond Muizenberg to Kalk Bay and construct the grand Muizenberg Railway Station, which was completed in 1913 (*Muizenberg Historical Conservation Society, 2012*). This transformed Muizenberg into a seaside retreat accessible to anyone in the Cape metropole, further “driving its popularity and spurring a market in seaside property” (*Gasson, 2019, p.41*).

However, Muizenberg lost its status as the prestigious mountainside coastal destination when the improvement of Sea Point’s amenities became the Council’s focus after the war (*Gasson, 2019, p.66*) and cars became more popular (*Winter & Bauman, 2004*). This allowed people to move more freely without having to rely solely on trains. These two factors had a major impact on the pervasive urban decay of the town which often lead to crime and related drug and social issues (*Winter & Bauman, 2004*).



Figure 4: photograph of a road sign in Surfer's Corner pointing to the various landmarks in Muizenberg.

URBAN CONTEXT

**Sidenote: The urban context being analysed in this paper refers to the area bounded by the Zandvlei Recreation Park to the north, Main Road to the west, the False Bay coastline to the south and the parking lot along Royal Road to the east of the Zandvlei Estuary mouth (refer to figure 8).*

Muizenberg comprises of large open recreational spaces that follow the shoreline and Zandvlei Estuary edge (*figure 5*). However the main attraction remains the ocean with its consistent waves and gently sloping shore, earning its name: ‘Surfer’s Corner’. It has always been a surfing hub for amateurs and experts alike. However, after the Covid-19 pandemic there was a shift that occurred, making Muizenberg more popular than ever as people recognised the importance of living near nature and being able to spend time outdoors. Hence, a massive surge of inner-city residents moving to the suburbs or coastal towns.



Figure 5: map highlighting the green and blue spaces in Muizenberg in relation to the public parking available.

The pandemic also forced small, local businesses to shut down due to being unable to survive the economic destruction that the pandemic caused. This in turn provided opportunities for big, commercial chain stores such as Starbucks and Spur to take their place, commercialising the beachfront (figure 6). This is the beginning of the change that has always been bound to occur in Muizenberg. However, the introduction of these big franchises makes it more difficult for local brands to reintroduce themselves back into the market, distilling the home-grown, 'support-local' ethos of Muizenberg.

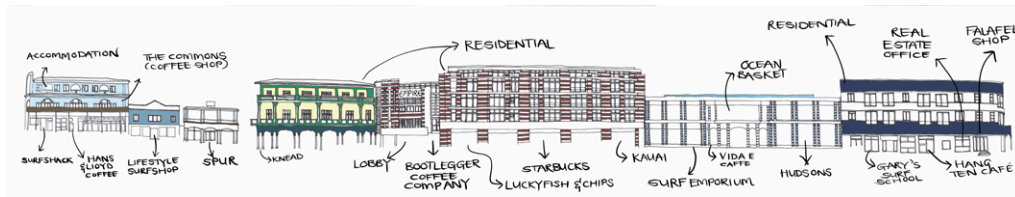


Figure 6: elevation sketch of Beach Road's facade indicating its various functions.

The mixed-use developments, which contains the majority of the commercial-retail core, are predominantly confined to Beach Road, Atlantic Road and Main Road stretching up towards Lakeside (figure 6, 7 & 8).



Figure 7: map illustrating the various town functions, highlighting that retail and commercial functions occur predominantly along Beach Road, Atlantic Road and Main Road.

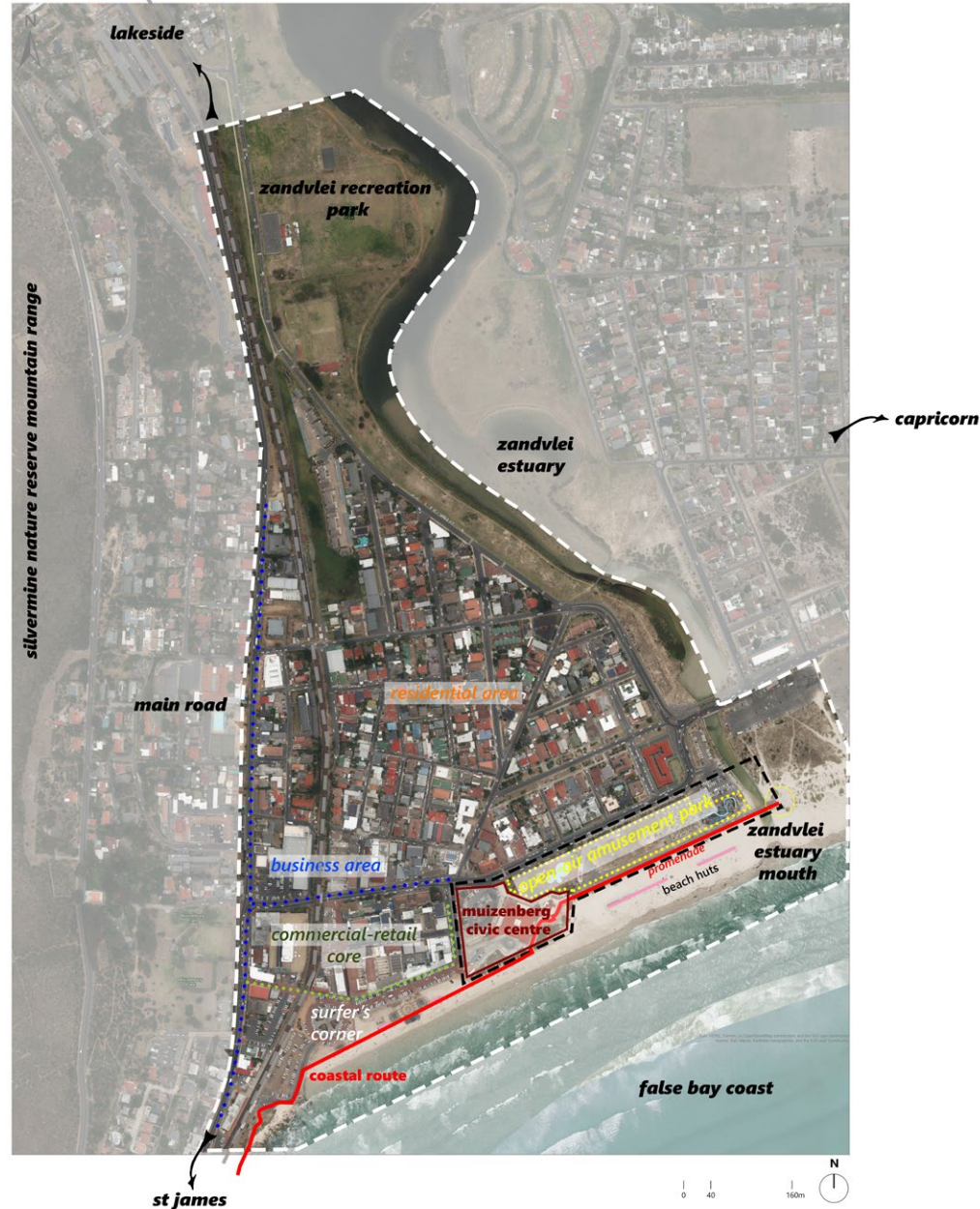


Figure 8: Map of the study area in Muizenberg which highlights various points of interest surrounding the Muizenberg Civic Centre

The Muizenberg Civic Centre sits on the western edge of the Muizenberg Promenade which flanks the open-air recreational park (figure 8 & 9), running parallel to the shore. The promenade runs from the eastern edge of the civic centre, parallel to the shoreline, ending abruptly just across the Zandvlei Estuary mouth. There are no amenities or buildings at the end of the promenade.



Figure 9: aerial photograph highlighting the Muizenberg Civic Centre's alternative massing to its surrounding urban context and the promenade's questionable ending over the Zandvlei Estuary mouth.

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The austere promenade was built 3,5 meters high, offering its users an uninterrupted view of False Bay. Curved masonry walls were built as wind barriers underneath the promenade as a tool to keep the south-easter from blowing through to the open-air amusement park and into the affluent houses across the street (figure10). However, this merely blocked the pedestrian's view of the beach, and the wind inevitably came over it, dumping into the recreational park beyond (Wessels 2017).

This large urban 'park' is owned and maintained by the City of Cape Town, whose offices, storerooms, workshops and staff rooms are tucked under the raised promenade in the spaces created between the structural columns. This is significant as the promenade houses habitable spaces, with both electrical and water points.

There are also several male, female and disabled bathrooms scattered along the underside of the promenade. The enclosed spaces under the promenade end with a law enforcement office alongside the western edge of the estuary mouth.

Figure 10: photos and sketches of the wind barriers built underneath the promenade.

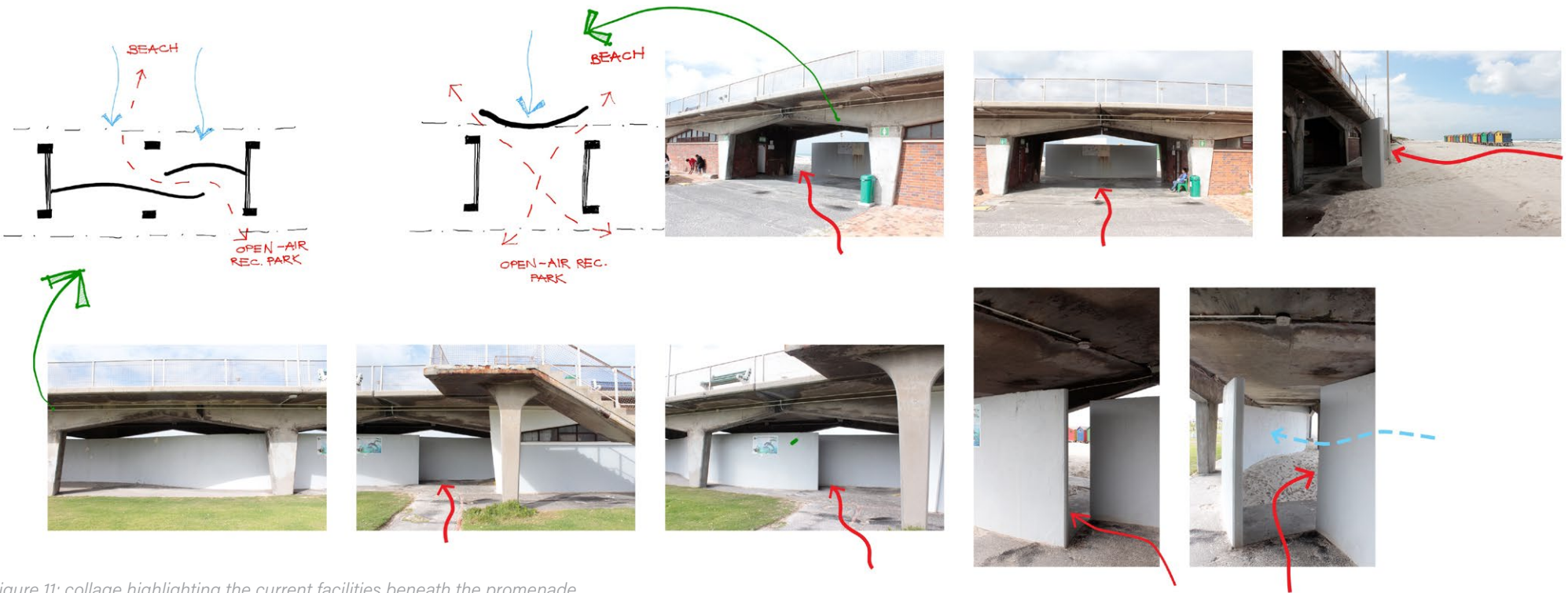
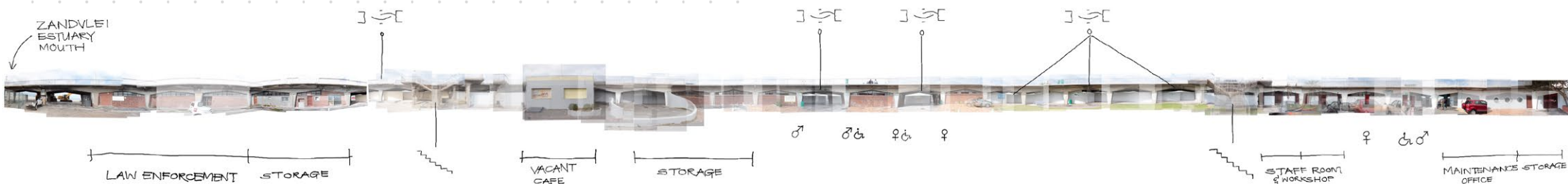


Figure 11: collage highlighting the current facilities beneath the promenade.



I The open-air recreational park is well-used during summer and on wind-free weekends when putt-putt and swimming are viable outdoor activities. However, on days of bad weather, this unprotected park remains predominantly vacant as the summer south easterly and winter north westerly winds make it unpleasant for outdoor activities. This 'park' also has very little formal shading or landscaping that caters to picnicking or the informal use thereof.

The vacancy of this urban play park is not only due to poor weather conditions and lack of infrastructure but also influenced by the closure of the Muizenberg Water Slides and the Muizenberg Swimming Pool from the beginning of May to the end of October (SA-V, n.d.). Thus, the only activity drawing any attraction during these months is the Muizenberg Putt-Putt course, which is open daily from 10am- 5 pm on weekdays and 9am-7pm on weekends. The vacancy of these properties in the winter months result in negative economic and social impacts on the surrounding community as it creates uncertainty which results in illegal occupation and vandalism.

Hence, this area is functionally and economically obsolete as it no longer meets the community's needs.



Figure 12: map indicating the pedestrian routes along the beachfront and the Zandvlei Estuary. It also highlights the route that the security guards walk every hour.

Muizenberg is renowned for being a highly pedestrianised town (*de Villiers, personal communication, 2022*), catering to the surfers and beachgoers. It is easily accessible by both public and private transport due to the bus stops, train stations and numerous public parking areas scattered within the study area (*figure 12*).

The main roads that crisscross through Muizenberg are interconnected by numerous quieter streets. The irregular grid pattern creates a haphazard, intimate network of narrow streets (*figure 13*). The village's irregular grid pattern originated from the towns earlier farm boundaries.



Figure 13: diagrams highlighting the haphazard street patterns of Muizenberg, created due to the irregular earlier farm boundaries, which can be easily recognised as abnormal in comparison to the rectilinear, regular street patterns of the Cape Town CBD. The Muizenberg Civic Centre is also easily recognisable due to its alternative orientation in comparison to the rest of Muizenberg.

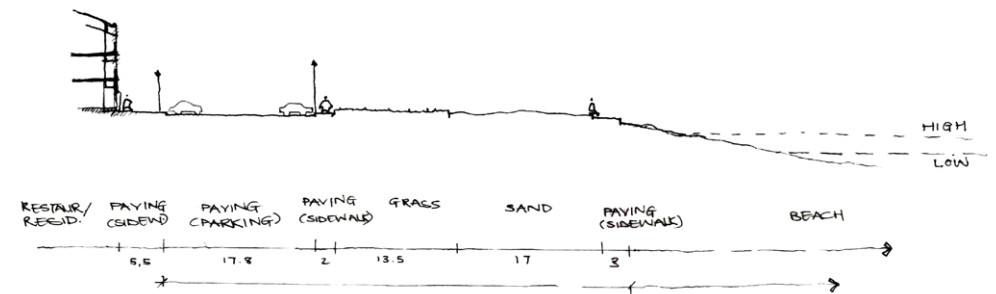


Figure 14: section through Beach Road to understand the commercial edge's connection with the ocean.

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CLOVELLY-MUIZENBERG COASTAL ROUTE

The coastal route is a pedestrian-oriented path that starts in Clovelly and ends 5km later at the end of the promenade (figure 15). It is characterised by uninterrupted ocean views and constant motion (Lynch, 1960, p.45) as it serves as one of the most dominant networks along which Muizenberg visitors meander experience the False Bay coastline (Gasson, 2019).

The civic centre breaks the continuity in the coastal route, acting as an obstacle that prevents users from seeing that the route continues to the end of the promenade. This IS then reinforced by a complicated, non-linear, transition between the linear coastal route along Muizenberg's beachfront and the promenade.

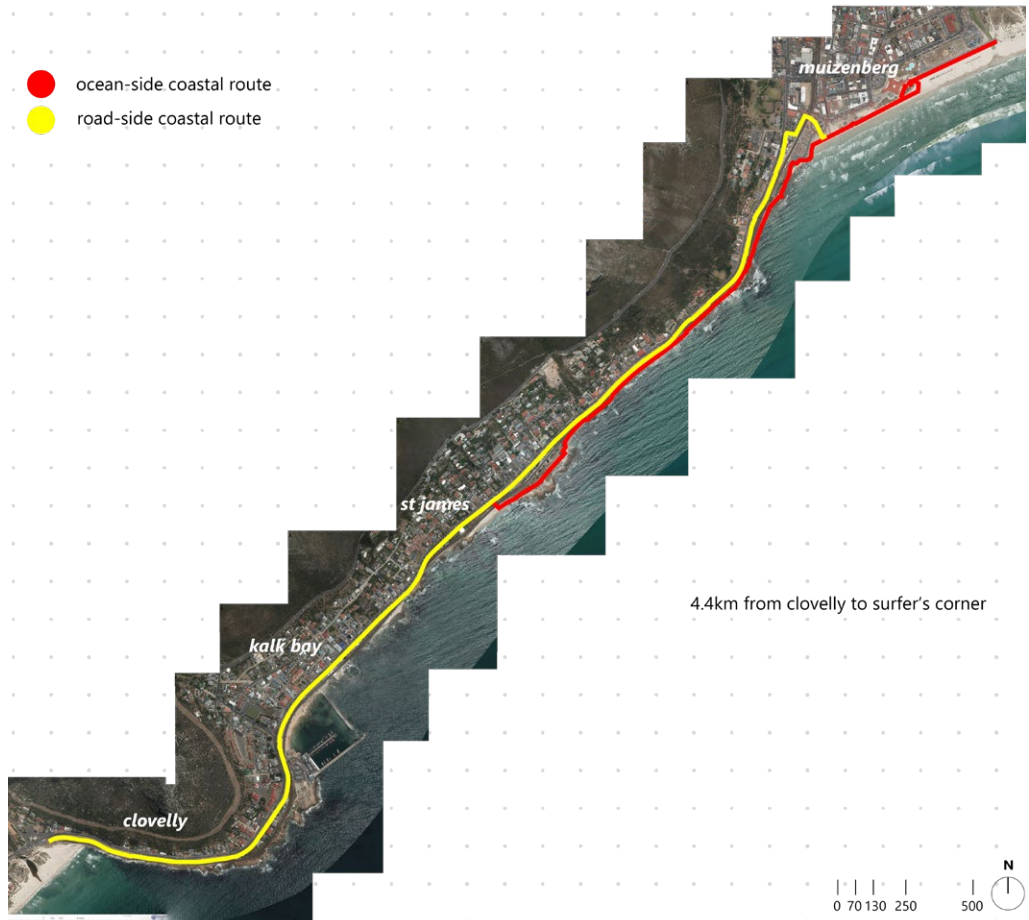


Figure 15: coastal route from Clovelly to the Muizenberg Promenade, highlighting the gentle changes in direction which become more rigid as one enters Muizenberg and changes level to the promenade.

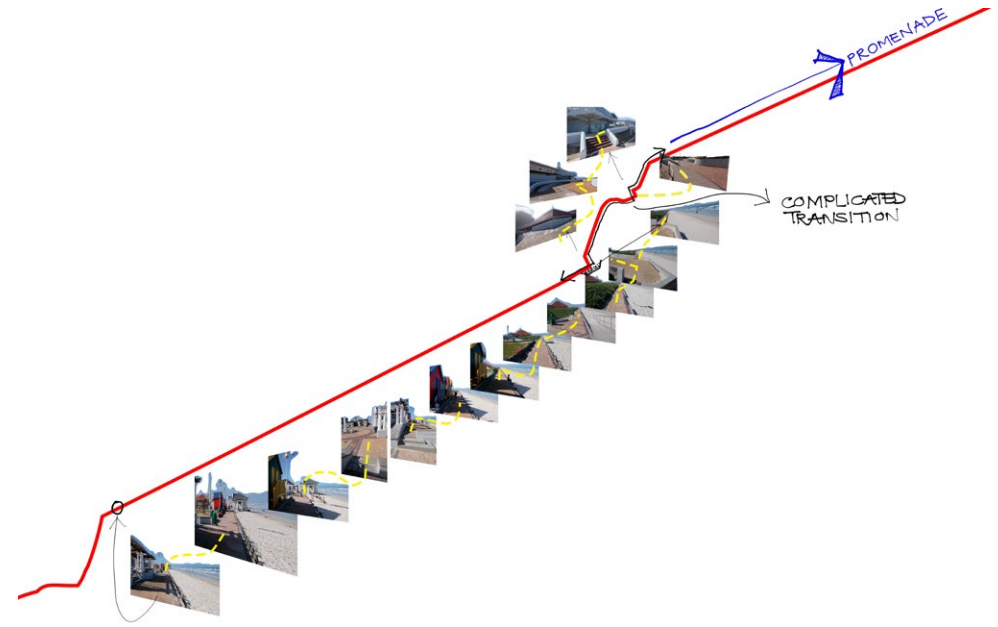


Figure 16: photo montage replicating a walk down the coastal route from Surfer's Corner to the promenade that extends to the east of the civic centre.



Figure 17: photo taken on the coastal route showing how the civic centre blocks the pedestrian's view of the promenade.

CURRENT SITE DESCRIPTION- MUIZENBERG CIVIC CENTRE

The Muizenberg Civic Centre sits on the corner of Beach Road, in front of an open parking lot and alongside the beachfront on prime real estate. It is off-centre from the established Surfer's Corner.

Figure 18: The first model made to understand the site and the varying levels surrounding the Muizenberg Civic Centre. This model also clearly articulates the building's isolation and lack of integration with its surrounding context.



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 The Muizenberg Civic Centre's design was inspired by the idea of "putting everything under one roof" (Parker, personal communication, 2022) producing a "rude, crude, squashed pyramid" (Parker, personal communication, 2022) structure. It was built on a raised plinth, intended to provide the building with extensive views of the beach. The building was rotated 45 degrees on its axis as a response to the parking lot. This 'twist' was considered refreshing as it contradicted the 'perpendicularity' of its surrounding urban context (Parker, personal communication, 2022).

The goal for the design was to ensure that the space catered to flexibility in its use as a multi-purpose venue (Parker, personal communication, 2022). Thus, as figures 20 and 21 show, the building could be cordoned off into quadrants with sliding screens and used for various functions at the same time. Alternatively, the entire hall could serve one event such as a theatre performance or indoor sporting event (figure 19). However, these sliding screens, evident in the plans were never built. Instead, the hall remained as one large open space which is predominantly vacant, except when used for workshops by the Shark Spotters or surrounding colleges for lectures. Occasionally on weekends the hall is used as a wedding venue.



Figure 19: photographs taken by G. Parker indicating the different ways in which the Muizenberg Civic Centre, could be utilised.

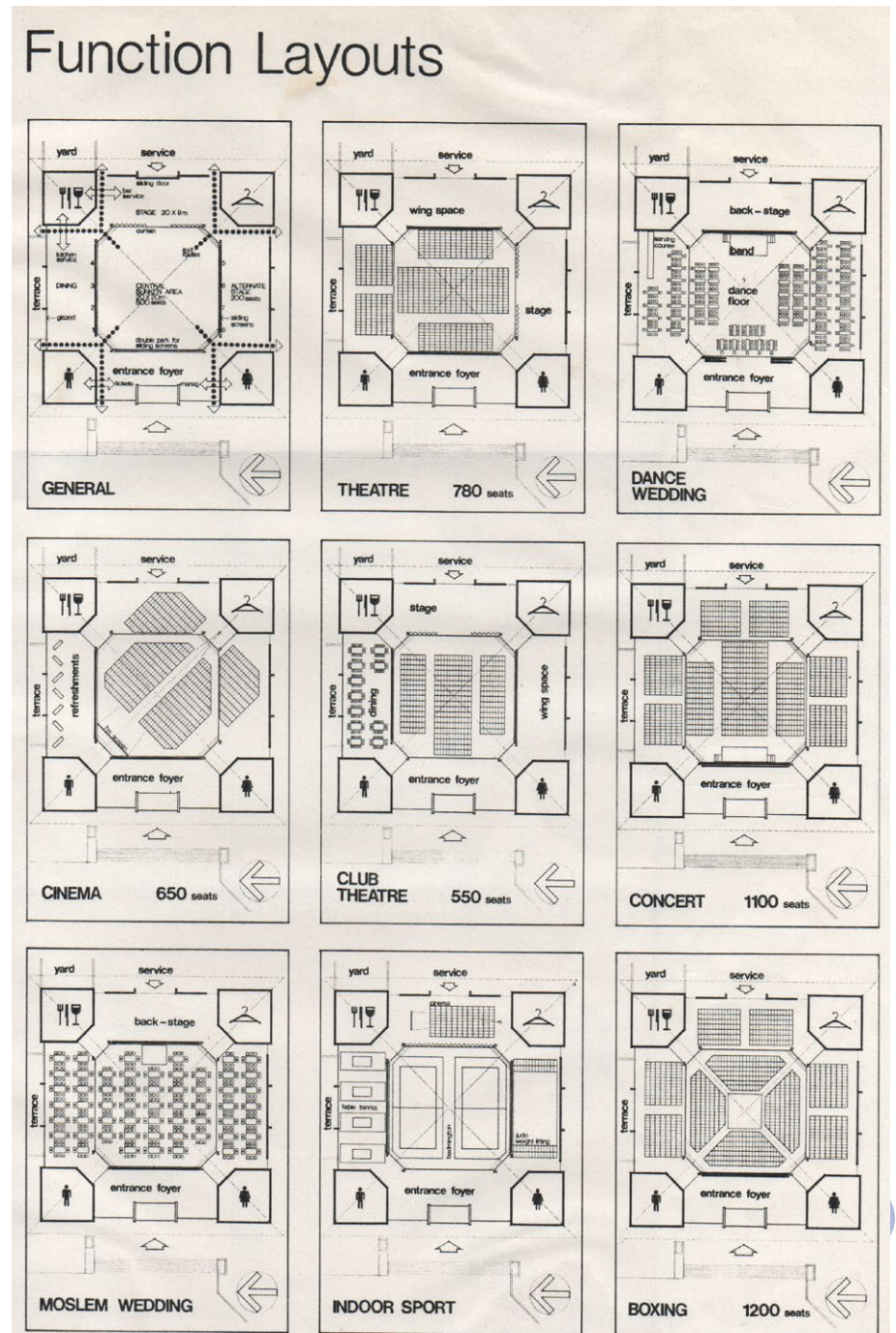


Figure 20: drawings of different layouts that the Muizenberg Civic Centre could cater to.

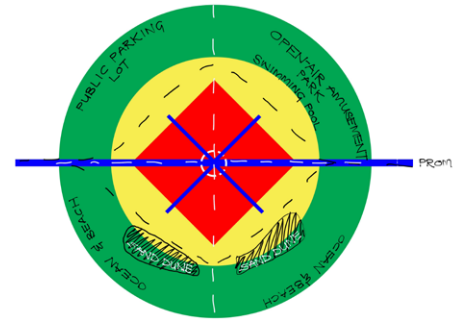
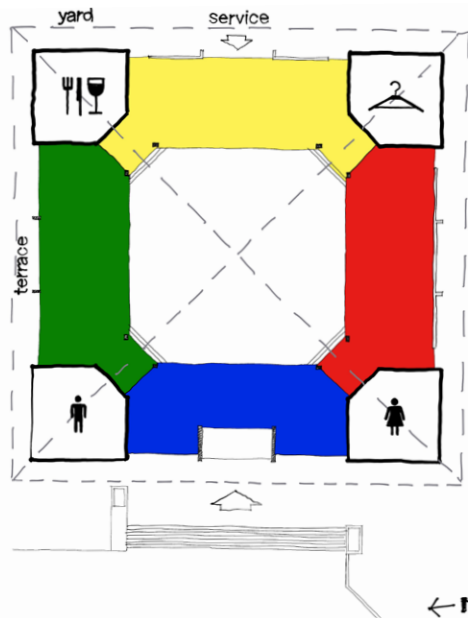


Figure 21: general plan of the Muizenberg Civic Centre, highlighting the four quadrants that were intended to be used separately to the sunken event space by the initial idea to implement sliding screens.

Figure 22: conceptual diagram illustrating the boundaries surrounding the civic centre.

The civic centre is fringed by pedestrian routes that diverge and reunite on the promenade's eastern edge. It is also flanked by the Muizenberg Swimming Pool, a spacious public parking lot and two beach-facing, vegetated sand dunes which one can presume was meant to assist in preventing sand from blowing across the site (Wessels, 2017) and dune rehabilitation (figure 22). Hereafter, the building is ringed by busy streets and the beach. These amenities create weak boundaries around the civic centre, causing it to appear as though it is floating and isolated (figure 18).

The civic centre is a 42x42m monolithic pyramidal building with two office wings protruding either side of it, thus making the full length of the building 107m. The building's large multi-use hall contains four 65m² service spaces in each corner which house a woman's and disabled bathroom, men's bathroom, storage room and a kitchen (figure 22). The entrance lobby houses a reception desk and a ticketing booth on either side, flanking the men's and women's bathroom. The lobby is the only section in the building that is cordoned off from the multi-use hall with drywall. It is simultaneously used as a screen for the projector within the open event space.

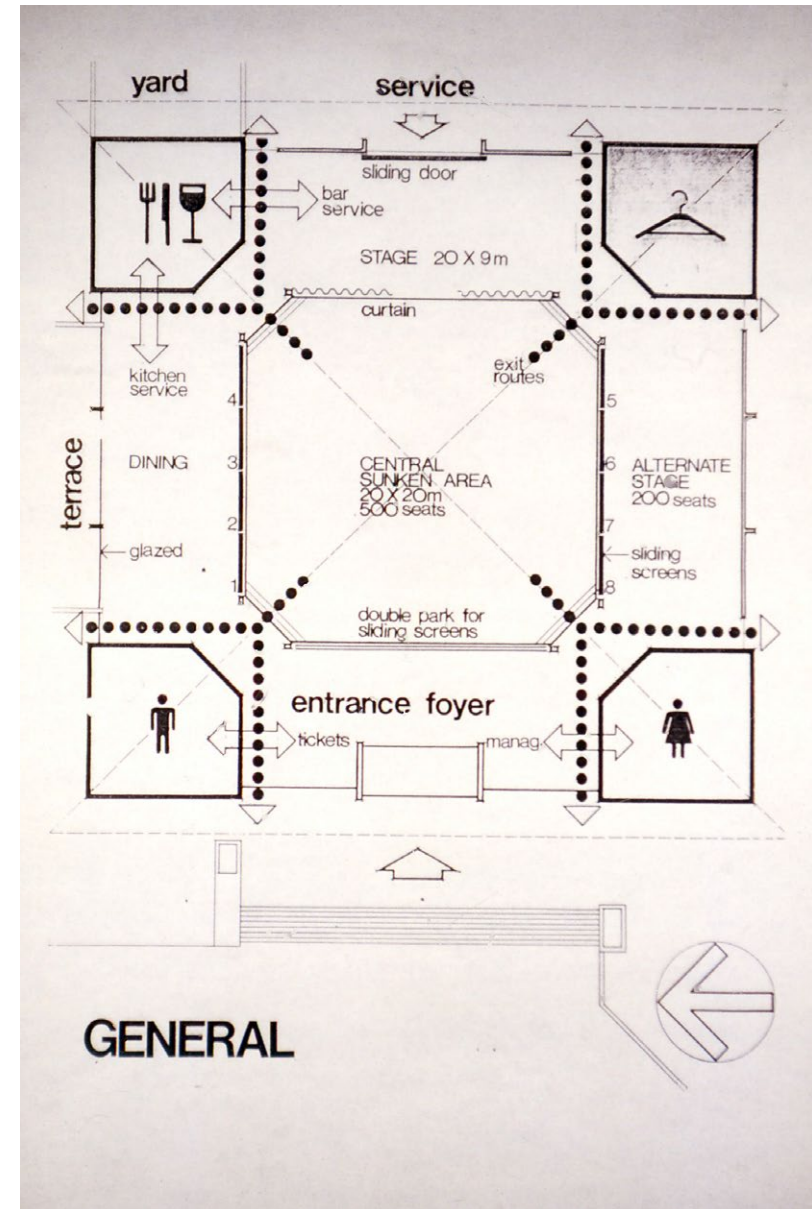


Figure 23: original plan of the muizenberg civic centre indicating the various programmes within.

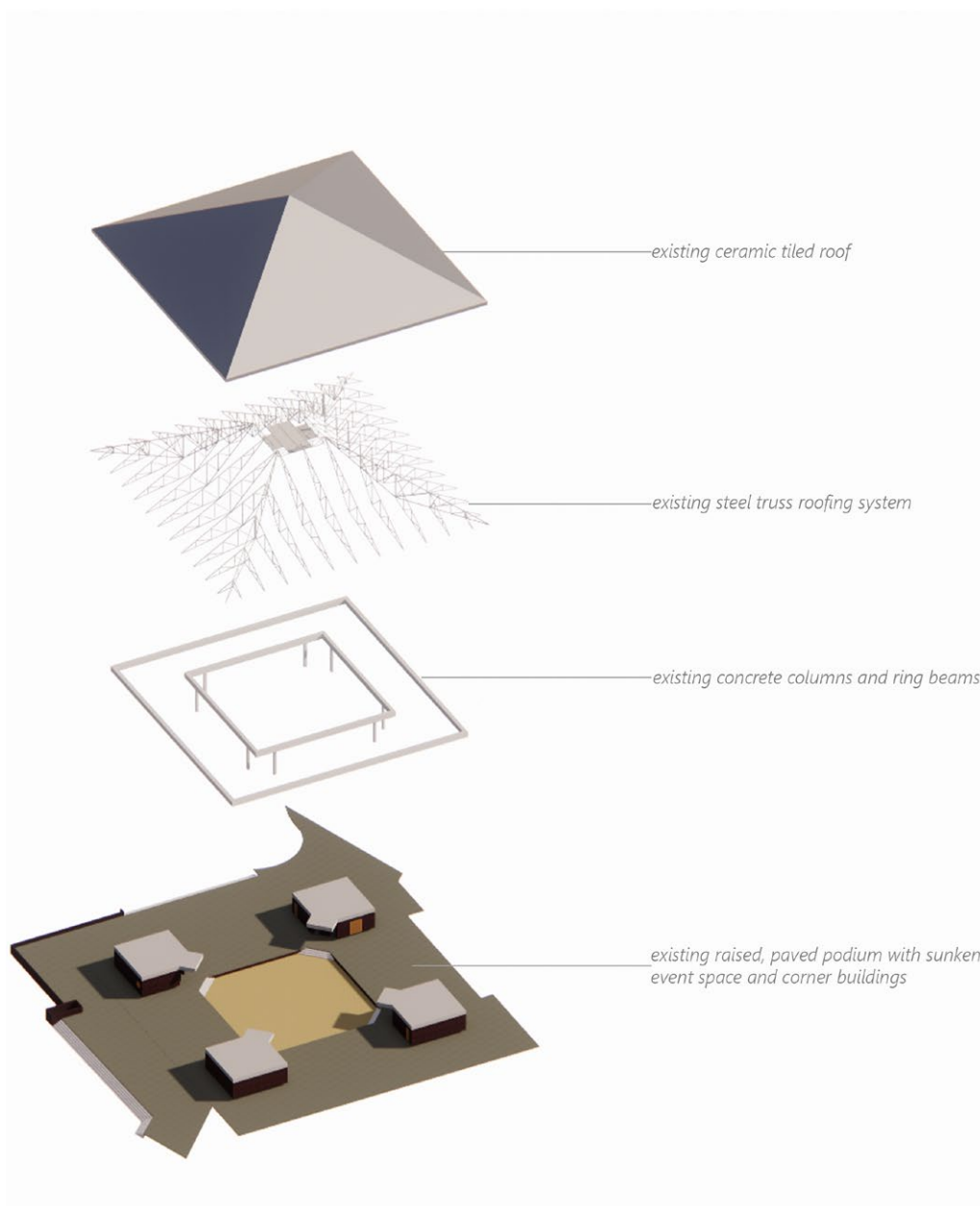


Figure 24: exploded axonometric of the Muizenberg Civic Centre's original elemental composition.

The building's external envelope is punctured with glass doors which was a design decision implemented to open the building up to its surroundings and promote the seaside experience.

The Muizenberg Civic Centre is supported by a RC frame structure infilled with brickwork upon which a ring beam rests. Within the building there are eight 400x300mm reinforced concrete columns around a central sunken event space that are connected by an 800mm deep ring beam. This provides the support for the enormous pyramidal roof which is constructed using 44 yellow-painted steel trusses that in turn support the ceramic roof tiles (figure 24).

During the week there is a caretaker who sits at the reception desk overseeing the operations inside the civic centre. There are two administration offices wings that protrude to the east and west, out of the civic centre and parallel to the shore. These two buildings are home to the Parks and Recreational District Office and Sub-Office. The eastern wing of the building ends in a smaller pyramidal structure which originally served as a restaurant (figures 25 & 26). This was eventually converted into offices and a security booth (figure 27). A security guard is present 24 hours a day, 7 days a week, and walks a circular route along the beachfront (figure 12) every hour to ensure the safety of the beachfront and promenade precinct.



Figure 25: photographs taken by G. Parker of the original restaurant building.



Figure 26: photographs taken by G. Parker of the interior of both the ground floor cafe (above left) and upstairs restaurant (above).

The image on the left is indicative of the earlier popularity of the Muizenberg Civic Centre and recreational park. It also indicates the success of the restaurants before they were converted into offices.



Figure 27: photographs of the current east wing civic offices and security booth. As is evident in the image on the left, the site is largely vacant due to a lack of activated recreational and commercial facilities.



STAKEHOLDERS

Proposing a new design for the Muizenberg Civic Centre and extended open-air recreational park entails the consideration of those who will be effected by the new development. These stakeholders include, but are not limited to: local residents, surfers, children, pedestrians, local retailers, car guards, ecologists and the City of Cape Town's Coastal Management Department, City of Cape Town employees, the building's caretakers as well as the security.



Figure 28: photograph taken by G. Parker of the populated open-air recreational park



SOCIAL CONTEXT

WHO IS MUIZENBERG?

Muizenberg is made up of an assortment of ‘ocean-loving, beach-cleaning, wave-chasing, kombucha-making, trail running, dog-walking’ residents who are unified through their laidback choice of lifestyle, their intrinsic love for the environment and their desire to protect it.

This conglomerate of unique individuals run “quite domestic lives” (*de Villiers, personal communication, 2022*). Hence the appeal for connectivity and community, which is relatively unique for an area in Cape Town. This is ultimately facilitated by Muizenberg’s distinctly pedestrian nature.

Muizenberg is peppered with creatives and hustlers who are empowered through local opportunities such as the weekly Blue Bird Night Market or the Muizenberg Flea Market where residents congregate in support, irrespective of the weather.

‘Muizenberg-ers’ live alternative lifestyles which are deeply intertwined with the beach and the ocean, attaching a sense of identity to this. Their desire to live sustainable, community-driven lifestyles is influenced by their unified protectiveness of their bountiful landscape.



Figure 29: the ‘Muizenberger’s’

ARCHITECTURAL CONTEXT

The following section draws on architectural elements in Muizenberg that will ultimately help to understand and contextualise the Civic Centre.

THE PAVILIONS AND THE PROMENADE

Because of Muizenberg’s previously unprecedented popularity, its buildings often fell prey to upgrades or replacements by more modern and luxurious structures. One such example is the Muizenberg Pavilion which was demolished, renovated, and replaced on three separate occasions (*figure 30, 31 & 32*).

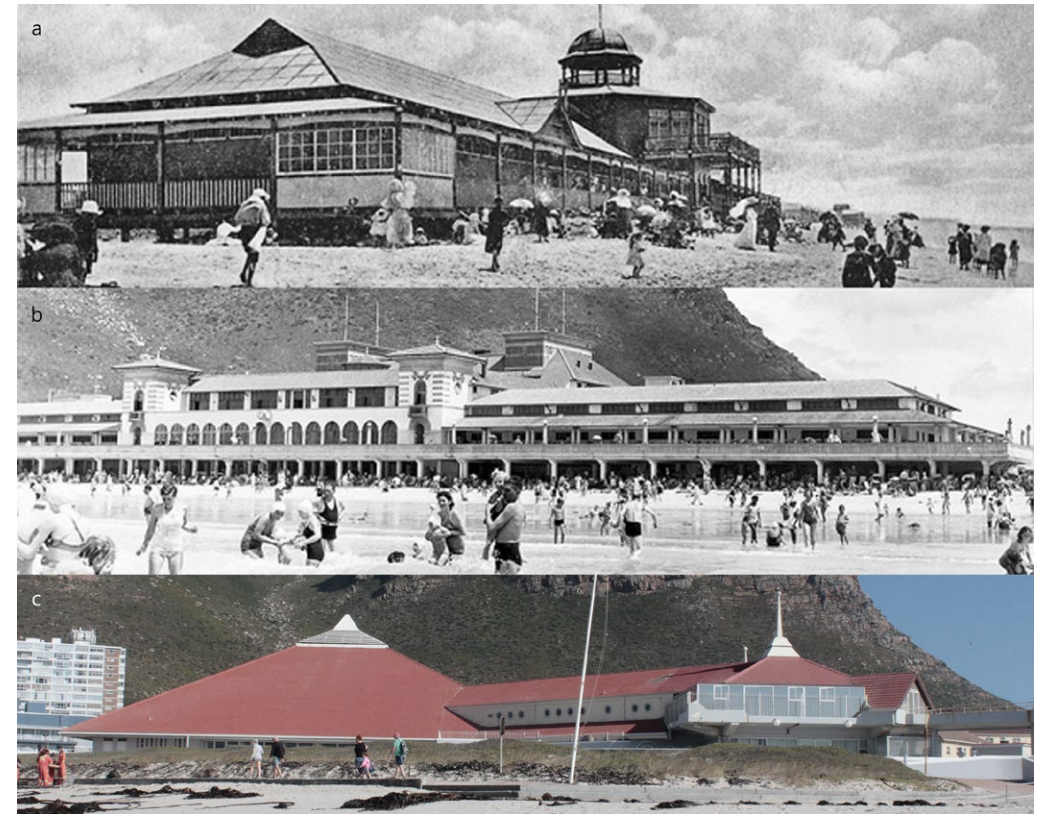


Figure 30: A graphic depiction of the evolution of a beachfront site in Muizenberg. The timber-constructed Muizenberg Pavilion built in 1910 (a) was replaced almost two decades later with a brick and stone pavilion (b) in 1929. This second pavilion was demolished in 1979 and replaced a couple years later with what is today known as the Muizenberg Civic Centre (c).



Figure 31: Black and white aerial photographs, taken decades apart, comparing the three very different interventions built on the same beach along Muizenberg's coastline. The various dates below the photographs indicate the year the photos were taken.



Figure 32: map indicating the various positions of the 2 beachfront pavilions (highlighted in pink and yellow) in relation to the existing civic centre (orange), coastal route (red) and Surfer's Corner.

muizenberg pavilion 1: 1910-1930

The first pavilion in Muizenberg was designed and completed by Municipal Engineer Mr D. P. Howells under the Kalk Bay – Muizenberg Municipality's (KB-MM) instruction (Walker, Mike, 2000, p. 15). It was opened to the public in 1910. This first beach pavilion's location is indicative of the desirability of the beach's more wind-protected corner for recreational purposes.

This timber pavilion was such a success that it was extended almost as soon as the original design was complete. This extension was completed by Mr W. Delbridge in December of 1911, increasing the pavilion's original size by a third, now measuring 100m x 20m (Walker, 2000, p. 15). It was carefully erected on stilts (Walker, 2000, p.15) to allow the ocean to continue to ebb and flow in its natural path up the beach and beneath the pavilion, without much resistance. This encouraged a very intimate relationship between the pavilion's users and the ocean as they were able to engage directly with the ocean from a raised vantage point under the protection of a lean-to veranda which wrapped the structure (Walker, 2000, p. 15).

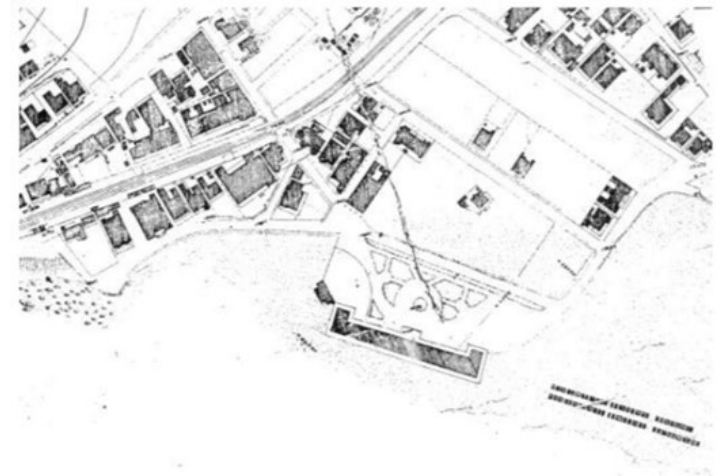


Figure 33: : a plan of the first pavilion. It was designed for recreational use, housing an enlarged tearoom which overflowed onto the covered veranda, a hairdressing salon and 174 changing cubicles (97: men; 77: women). An open-air theatre was constructed on its left and a formal garden was designed behind the pavilion yet in front of the buildings beyond. It also effectively replaced the need for bathing boxes as the pavilion now provided more suitable facilities (Gasson, 2019, p.43).



Figure 34: historic image of Muizenberg showing the extensive open backshore, holiday homes built in the dunes along Beach Road and the first pavilion built along the high-water mark.



Figure 35: the formal garden built between the first pavilion and buildings beyond (figure 33) was converted into a parking lot when the motor car gained popularity in the 1920's and established a need for parking which was not originally anticipated (Gasson, 2019, p.52).



Figure 36: a) diagrammatic plan of the original urban context in Muizenberg in 1910. b) the urban context from 1910 is overlaid over the existing urban context, highlighting the change in level of the ocean's edge i.e. beachfront reclaimed by the ocean and the location of the pavilion as being originally built in front of the present string of retail buildings and restaurants in Surfer's Corner.

I muizenberg pavilion 2: 1929-1972

A design for a second pavilion was put in motion towards the end of 1920, which was far more elaborate than its predecessor. It was built easterly of the first pavilion (figure 37), on the same site as the current civic centre. It was completed in December 1929 in accordance with architect W. H. Grant's design and commissioned by the Cape Town City Council. Grant's grand 105m long pavilion was built using brick and stone, which were costly materials at the time, thus "[symbolising] Muizenberg as the premier holiday resort in Southern Africa" (Walker, Michael, 2011, p.71). It was shifted 60m east of the first pavilion and set 15m back to be further away from the high-water mark (Gasson, 2019, p.53).

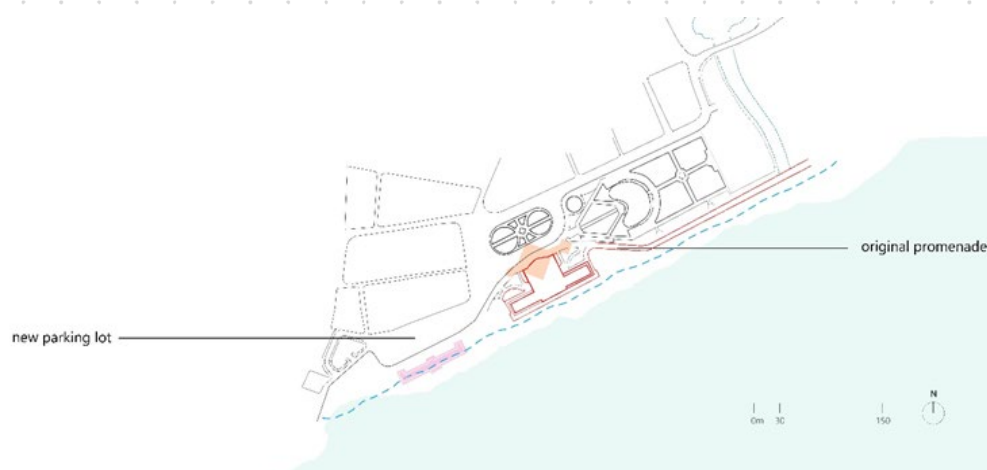


Figure 37: diagrammatised plan highlighting the positions of the second pavilion, new promenade and existing civic centre in relation to the first pavilion's location.

Both the wooden pavilion and the more permanent brick pavilion stood alongside one another (figure 38) until 1930 when the first pavilion was deemed as being redundant and thus demolished to make way for a chalet and 51 more bathing boxes (figure 39 & 40). The new pavilion's master plan also included the conversion of the beach area north of the first pavilion into a formalised parking lot (figure 40), which is the second pavilion's only remaining legacy. Simultaneously, a raised promenade (5m above sea level), 201m long and 9m wide was constructed to the east of the second pavilion's site, crossing the Zandvlei Estuary's mouth (figure 8). This was done in an attempt to formalise the beach edge and provide protection for a formal garden and parking on its landward side (Gasson, 2019, p.53). However, this was done at the expense of usable beach space.



Figure 38: Historic photograph capturing the first and second pavilion co-existing alongside one another (Gasson, 2019, p. 57).

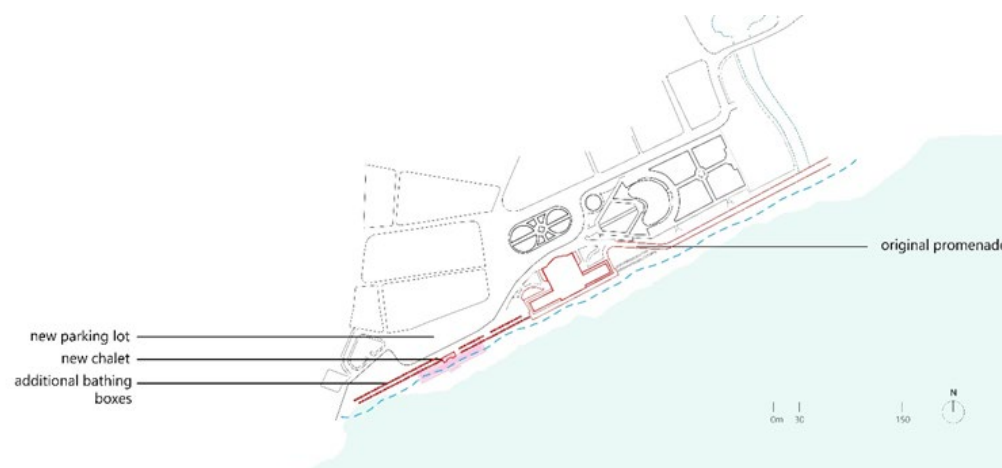


Figure 39: diagrammatised plan indicating the position of the first (pink) and second pavilion (red), highlighting the new additions that came along with the construction thereof including the Chalet. This was built on the centre point of the first pavilion, taking advantage of the underground services already installed (Gasson, 2019, p. 56). The second pavilion included all the same recreational functions as the original pavilion with several ancillary features such as a dance hall, restaurant, theatre, showers and a viewing deck.



Figure 40: historic photograph indicating the replacement of the first pavilion with the Chalet (centre) and a double row of bathing boxes, protecting the parking area that lay beyond.

This promenade was demolished around 1965 and a new, similar, promenade was built 50m landward, along the central axis of the sunken gardens to its present alignment (figure 41). The now abandoned seaward half of the sunken gardens were reverted to beach, allowing for a restored use thereof and additional bathing boxes to be built thereon.

The area between the promenade and the road began to establish itself as an open-air amusement park with the introduction of a small lake, circular railway for children and a putt-putt course (figure 42).

By 1968, the second pavilion was beginning to fall into disrepair due to the harsh coastal climatic conditions influenced by the spring tides and storm surges which exacerbated the buildings deterioration through corrosion and spalling of the concrete column and beam structure (Walker, 2000, p.21). Facilities within the building were being closed off and thus it was eventually demolished in 1972.

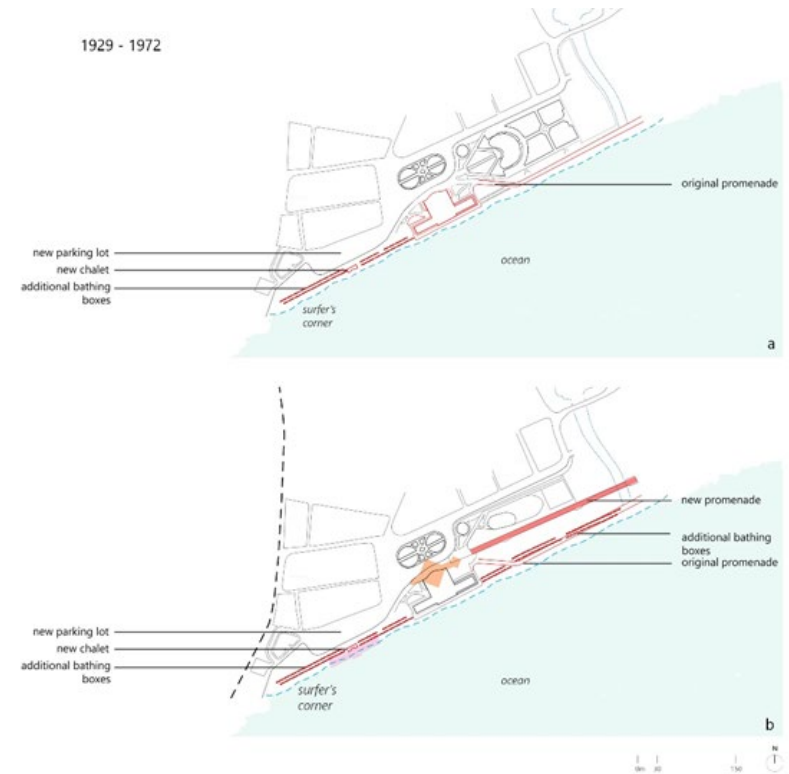


Figure 41: a) diagrammatic plan of the urban context in Muizenberg in highlighting the original promenade's position. b) a plan indicating the position of the existing promenade and the beginning of the establishment of a recreational park for children.



Figure 42: historic photograph taken by G. Parker of the small lake and parking lot that was originally built in the recreational precinct after the relocation of the promenade landward.

I the muizenberg civic centre: 1982-present

After a decade of the site standing vacant, the Muizenberg Civic Centre was built on the same site as the second pavilion and completed in 1982. This structure was designed by architect Graham Parker and also commissioned by the Cape Town City Council.



Figure 43: map of the current civic centre indicating the new functions in the open-air amusement park and the coastal route.

The design of the new civic centre appears to be a reaction to the harsh climatic conditions experienced along the coast both in its alternative orientation, its use of robust materials and its relocation further inland. The previous two pavilions were much more responsive to the ocean in their parallel orientation to the beach which provided direct views of and an uninterrupted association with the beachfront. Whereas the current civic building was rotated 45 degrees on its axis, placing a corner towards the wind, shying away from the precedent set by its two forerunners. This created a disruptive relationship between the current civic centre and the ocean, as well as its surrounding context.

All three of these structures were built under municipal instruction and were thus public buildings. However, the first two pavilions catered to the wealthy, white holiday-goers. The change in function of the third building, I suspect, was due to the waning interest and usage seen in the second pavilion because of the way people began to use the beach more freely paired with the necessity of a civic space that could support the entire Muizenberg community and its surrounding civic functions. This building is illustrative of the beginning of the fall of the Apartheid regime (Parker, personal communication, 2022) as it was built to accommodate people of all races (figure 44).



Figure 44: photograph taken by G. Parker of a market taking place within the boundary walls of the Muizenberg Swimming Pool. This photo also highlights the Muizenberg Civic Centre and its surrounding development as being a 'place for all'.

AN ECLECTIC ARCHITECTURAL STYLE

Muizenberg constitutes one of the richest concentrations of historical architecture in the Cape metropole as it presents an invaluable sample of architectural styles illustrated in figures 45 & 46 (Muizenberg Historical Conservation Society, 2012). Its informal order is what provides Muizenberg with its eclectic character, reflective of the residents' lackadaisical attitude.

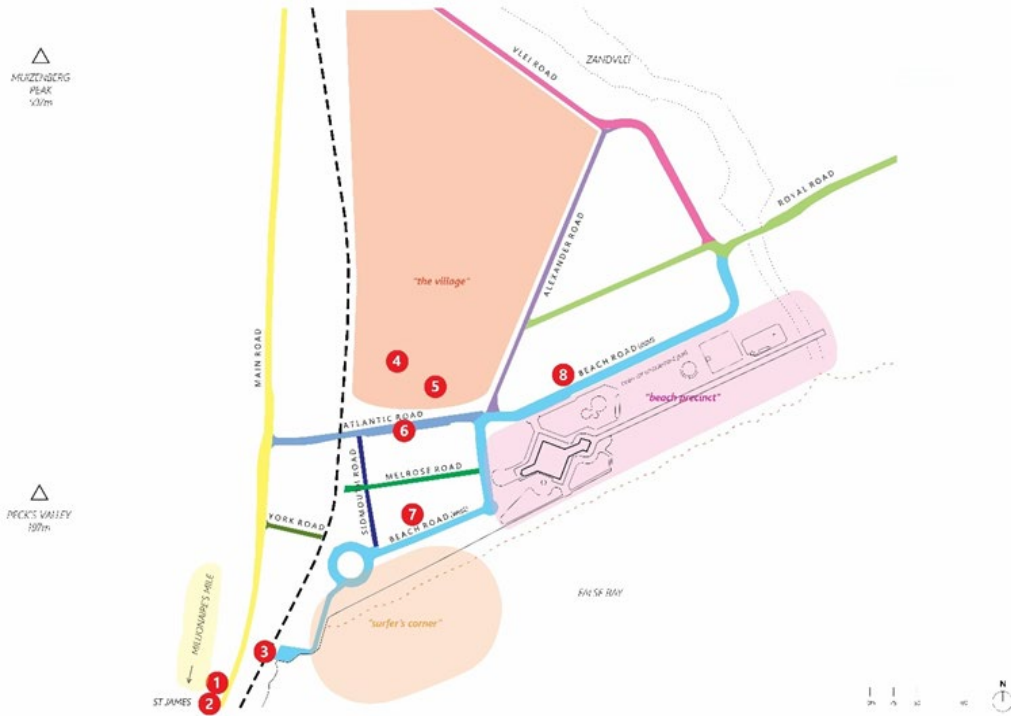


Figure 45: map highlighting the roads in Muizenberg and the various "areas" including Surfer's Corner, the beach precinct, the village and 'Millionaire's Mile'. The numbers are used to indicate the location of 8 buildings photographed in Muizenberg with 8 very different architectural styles.

HET POSTHUYLS



1

CAPE DUTCH VERNACULAR

SAPS MUSEUM



2

CAPE DUTCH REVIVAL

MUIZENBERG TRAIN STATION



3

EDWARDIAN

SEMI DETACHED SHOPS (PALMER RD)



4

VICTORIAN

APARTMENT BLOCKS (FRASER RD)



5

LATE-VICTORIAN

EPIC PRINT SHOP



6

ART DECO

THE EMPIRE



7

LATE ART DECO

EPIC PRINT SHOP



8

ITALIANATE

Figure 46: photographs illustrating 8 distinct architectural styles in Muizenberg. The numbers indicated on the images relate to their positions shown in figure 45.

Muizenberg's eclectic architectural style is most evident today in the Muizenberg Village (figure 45- orange highlight). There is a dense concentration of low-rise (1-2 storeys) Victorian, semi-detached dwellings (no. 4, figure 28), which were predominantly owner-designed, adding to its present haphazard character (figure 47).



Figure 47 (above): the Muizenberg Village residents are stereotyped as being the 'artsy-craftsy' folk and eccentrics who express this in the way they decorate their boundary walls and gardens.
 Figure 48 (below): painted wall along Main Road indicative of Muizenberg's surf culture and creatively driven community.



Beach Road also has a very distinct architectural style due to its column-dominated facades that create a continuity and rhythm along the elevation.

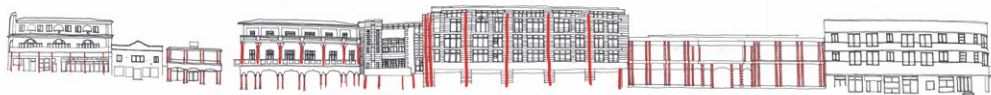


Figure 48: Elevational drawing of the column-dominated facades along Beach Road which create their own rhythm and connection to the ground.

Understanding the various architectural styles of the areas surrounding the Muizenberg Civic Centre will assist in integrating the new design into the existing urban fabric, by adopting some of these existing architectural elements.

BATHING BOXES

Muizenberg is renowned for its iconic red, yellow, green and blue beach huts, originally known as 'bathing boxes'. They were introduced as part of the suite of recreational amenities built along the Peninsula by Cape Town City Council during the first half of the 20th century (Gasson, 2019, p.34). The Kalk Bay- Muizenberg Municipality enforced standardised regulations to which all bathing boxes had to conform in both design and colours in 1910 (Gasson, 2019, p.34) (figure 49 & 50).

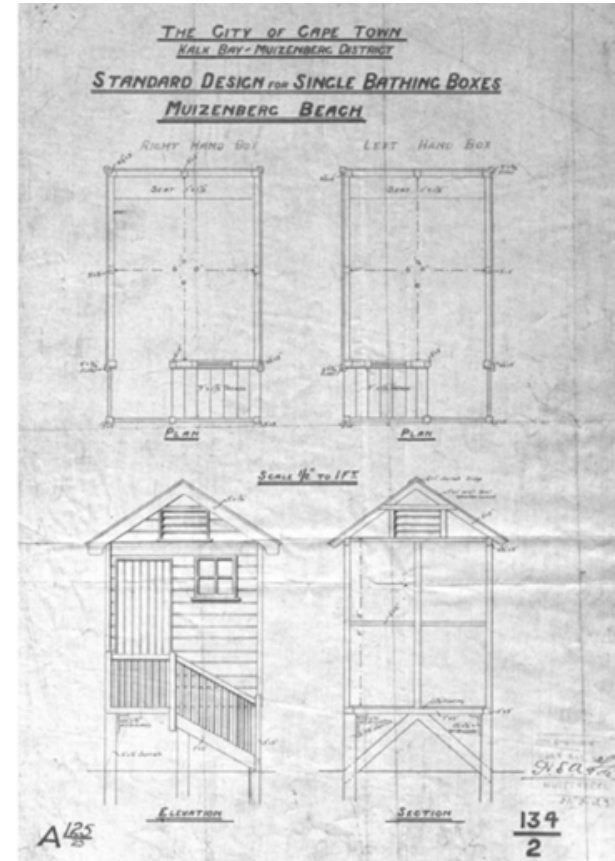


Figure 49: the original standardised design for the single bathing boxes was designed in 1910 by the same architect who designed the first pavilion- Mr Howells. This design has remained unaltered for over a century.



Figure 50: the standardised design for a double bathing box, also designed by Mr Howells in 1910.

Around 1970 there were as many as 241 bathing boxes on Muizenberg Beach. However, with a growing practice by car-owning families of using their cars to change instead of hiring a bathing box or using the pavilion's facilities, the bathing box's use became redundant, and slowly disappeared (Gasson, 2019, p. 63). Essentially, beachgoers were using the beach free of charge, which I suppose simultaneously led to the decline of the second pavilion.

Today, there are only 44 bathing boxes remaining on Muizenberg Beach with 36 huts located on the shore in front of the promenade and 2 groups of 4 bathing boxes on either side of the Chalet. Although vandalism, neglect and the harsh weather conditions have taken their toll on these huts, they are ritually restored and repainted. I believe this is because of locals and tourists fond association with them, ensuring they are not removed and remain iconic to the area.



Figure 51: The top left image shows the dilapidated beach huts in front of the promenade which have yet to be restored. The 3 remaining images are of the freshly repainted beach huts located on either side of the Chalet in Surfer's Corner.



MUIZENBERG BEACHFRONT UPGRADES

The City of Cape Town is proposing an upgrade to the western edge of Muizenberg Beach along Beach Road within Surfer's Corner. The city proposes to refurbish the public coastal infrastructure and services along Muizenberg beachfront due to key structural elements such as the seawall and wooden revetment beginning to deteriorate.

The first public participation event, held in the Muizenberg Civic Centre, took place on 07.09.2023 where 'Muizenberger's' marched in, guns blazing, to share their uncensored opinions in protection of their beachfront. Although the refurbishments are necessary, I'm not convinced that this crude initial proposal is the solution.

*(Refer to Appendix 1 for more information)**



FIRST PUBLIC PARTICIPATION PROCESS



Figure 51: photographs taken by author at the first public participation event.

UNDERSTANDING MUIZENBERG IN SCALES

As previously mentioned, the popularity and development of other seaside towns along the Cape's coast had a major impact on the pervasive urban decay of Muizenberg. This led to crime and related drug and social issues (*Winter & Bauman, 2004*) such as homelessness. Although Muizenberg is being slowly and more carefully developed today, these issues still linger, and public areas remain inactivated leading to uninvited habitation.

URBAN ANALYSIS

Beach Road has taken on a predominantly semi-public character that is particularly recreational and leisure oriented i.e. restaurants, cafes, surf shops and water sport rentals. It exploits a permeable boundary, such as enclosed canopies and glass fronted facades, to distinguish between public-private zones. These balconies and colonnades are also a strategic response to the solar orientation, harsh climatic conditions (wind) and the obvious sea views.



ANALYSIS

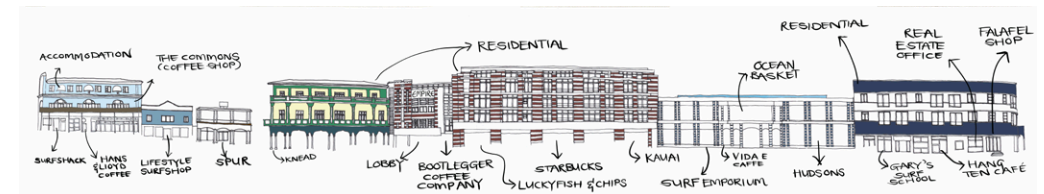


Figure 52: elevational sketch of Beach Road's facade indicating its various recreational and leisure oriented functions.

To the west of the Muizenberg Civic Centre, is the frequented Surfer's Corner, buzzing with restaurant goers, surfers and barefooted dog walkers. However, this hustle and bustle ends at the roundabout alongside the civic centre as neither the civic centre nor the promenade currently pose many attractions that draw people to, or past, the building.

II

York Road (figure 45) is an important pedestrian link between Main Road and Surfer's Corner. It is bustling with restaurants, bars and shops, making it a safe and pleasant pedestrian connection. Sidmouth Road is the dominant pedestrian link between the village and the beachfront. However, it currently lacks consumer-driven enterprises and public initiatives to engage the community that would convert it from being an uneventful connection into one of joy and energy such as York Road.



Figure 53: Sidmouth Road, pictured on the left, has street facing windows and entrances however these are mostly inactivated and residential. York Road, pictured on the right, is much more activated with street side cafes, covered walkway and shops. The flags strung across the street give it a playful, inviting atmosphere.

Due to the civic centre's lack of engagement with its surrounding urban context, Melrose Road (figure 45) remains a residential connection without any inkling of development to engage the pedestrian along its street facades. It does not provide any amenities that could draw the public away from the hustle and bustle within Surfer's Corner to create an activated connection to the civic centre.



Figure 54: photo taken looking down Melrose Road towards the Muizenberg Civic Centre illustrating its unengaging street interface.

Muizenberg comprises of free-standing buildings of a varied scale that predominantly range between 1- 6 storeys (figure 55). Within a 500m radius of the Muizenberg Civic Centre, there are only five other buildings, excluding the Muizenberg Civic Centre, that are, or exceed, 5 storeys. These 5 buildings are residential blocks, which naturally strive for apartments with an ocean view.

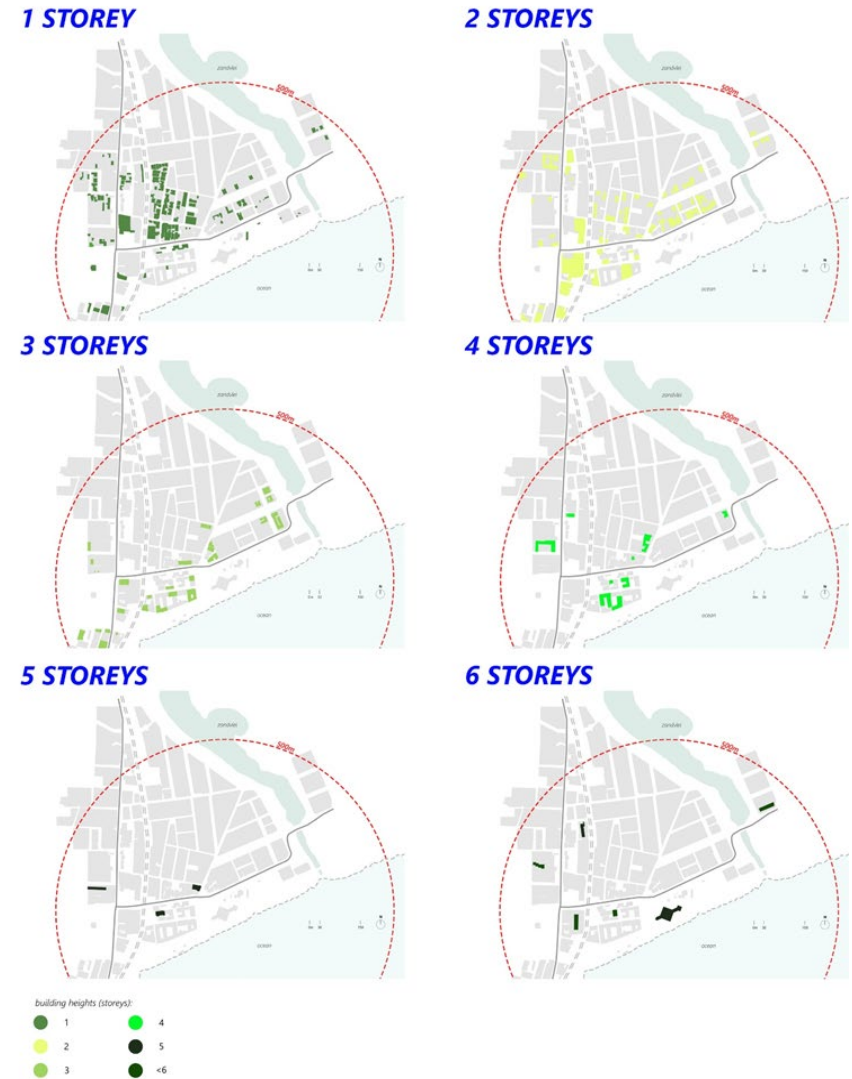


Figure 55: the heights of the buildings surrounding the Muizenberg Civic Centre are illustrated according to the number of storeys. The varying storeys are shown on their own map to give an idea of the concentration of buildings within that 'height category.'

- building heights (storeys):
- 1
 - 2
 - 3
 - 4
 - 5
 - <6



a

- building heights (storeys):
- 1
 - 2
 - 3
 - 4
 - 5
 - <6



b

- building heights (storeys):
- 1
 - 2
 - 3
 - 4
 - 5
 - <6



Figure 56: two maps comparing the number of buildings within a 500m radius of the Muizenberg Civic Centre that are between 1-2 storeys (a) and 3 storeys or more (b).

- schools (pre - college)
- public facilities
- government buildings
- landmarks



Figure 58: map of Muizenberg's current civic functions which indicates that the civic centre is central to all the civic functions within Muizenberg.

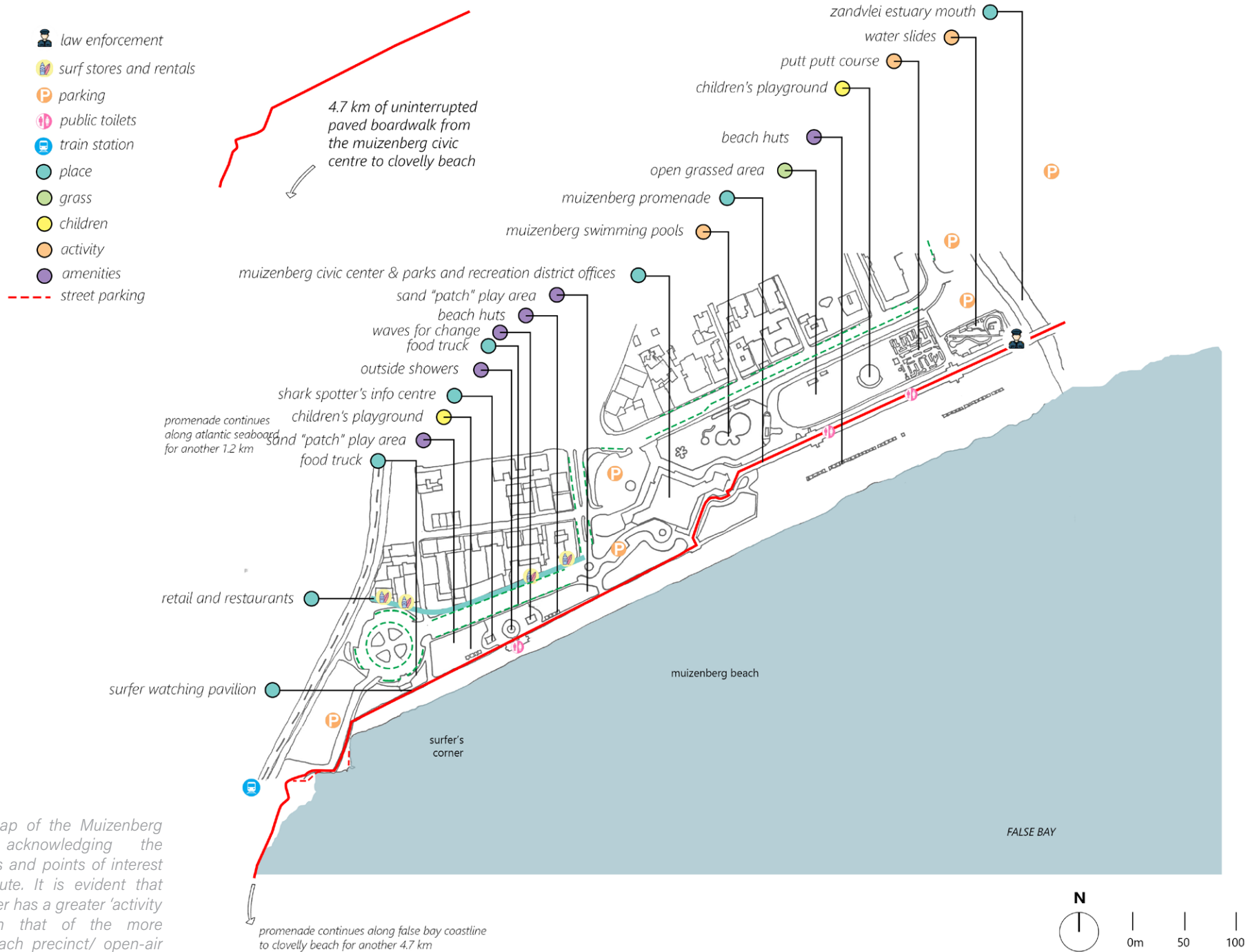


Figure 59: map of the Muizenberg beachfront acknowledging the activity nodes and points of interest along the route. It is evident that Surfer's Corner has a greater 'activity density' than that of the more dispersed beach precinct/ open-air recreation park.

SITE ANALYSIS

The Muizenberg Civic Centre does not serve the tourist hub that Surfer's Corner has created and is not a destination that tourists or residents seek out. It remains disconnected from its rich natural surroundings and provides no recreational or commercial opportunities for visitors to engage with. Instead, it denies visitors the opportunity to visually engage with the vast expansiveness of the ocean upon arrival as its overindulgent roof blocks the view.

To provide a reference of scale to the civic centre's excessive dimensions, the 42m² footprint of the civic centre itself, can be compared to a city block in Cape Town which is approximately 65x65m. Hence, if you were to place the Muizenberg Civic Centre in town, it would fill 2/3 of a city block (*figure 60*). Alternatively, the length of the Muizenberg Civic Centre falls approximately 20m short of being the same length as a soccer field (*figure 60*). Lastly, the Civic Centre is a single storey of approximately 15,5m in height. This can be likened to stacking 5 homes, with an average height of 3m, on top of one another (*figure 60*), and would still fail to meet the building's full height.

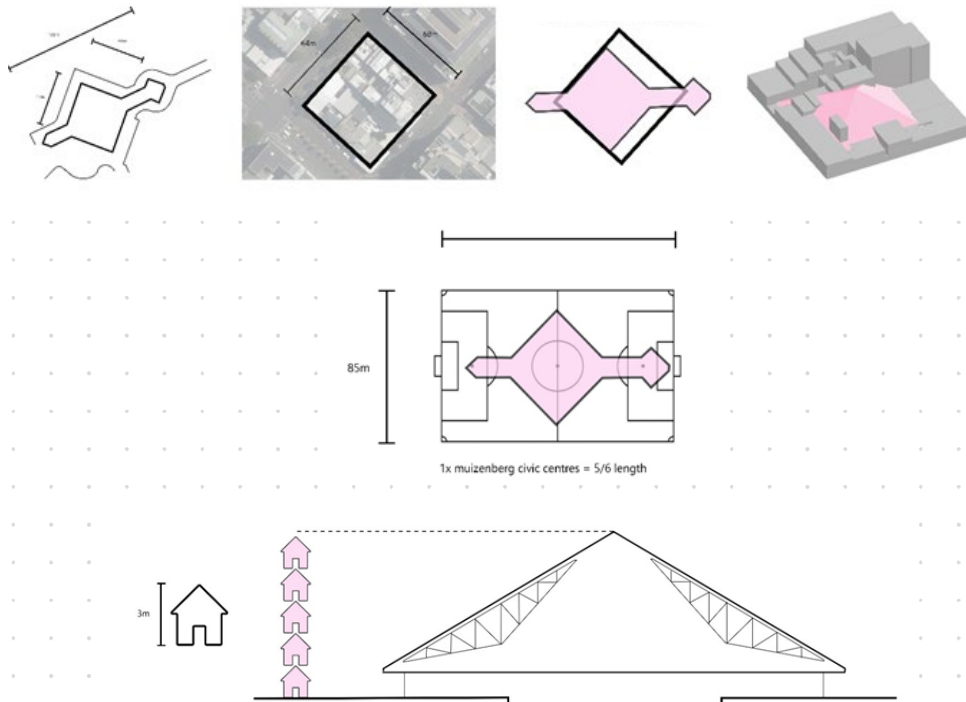


Figure 60: scale comparisons of the Muizenberg Civic Centre to a city block in Cape Town, a soccer field and an average house's height (3m).

The building's low hanging eaves were designed as a way of referencing the residential scale in which the building is located, however, its monolithic, pyramidal roof structure overpowers its immediate fabric and Muizenberg's understated nature.

The roof has a gradient of approximately 30 degrees. This was perhaps designed with the intention of diverting the wind upwards, away from the residential buildings behind it. However, it created an internal space which is nearly impossible to adapt because of the vast number of trusses required to support the roof.

All four facades of the civic centre are punctured with 2-pane glass which intended to open the building to its natural environment and promote the seaside experience. However, in the 4 years that I have lived in and around Muizenberg, I have never once seen the civic centre's ocean-facing doors open. The building's partially tinted glass and internal curtains, which are often drawn shut, reemphasizes its unapproachability whilst conveying the impression that it is never in use.

Drawing on interviews conducted during my Theory and Technology paper's research (APG5088Z), for which ethics approval was already given, it is evident that the community is divided in its opinion of the civic centre. One interviewee, owner of Surfstore Africa adjacent to the civic centre, believes it is a wasted space that blocks the view (*Klaus, personal communication, 2022 March 18*) and should be replaced by an Olympic-standard skatepark. Another interviewee, who has worked in the civic centre for over 25 years, identifies it as a landmark in Muizenberg's landscape and an "asset" to the Cape Town community (*McLaughlin, personal communication, 2022 March 18*). The last two interviewees (*de Villiers, personal communication, 2022 April 6*) (*Urbain, personal communication, 2022 April 1*), both practicing architects, recognise the potential of the site and the current inadequacy of the building due to its lack of engagement with, and by, its community.

I believe the Muizenberg Civic Centre has become redundant due to its unapproachability and monolithic view-blocking form. It was insensitively built upon prime property and longs to be reimagined into a structure that can better serve its community and extend the activity node created in Surfer's Corner to include the promenade and open-air recreational park.

II

The building still has value, be it intangible, as it provides insight into past local architectural heritage, forming part of a suite of symmetrically designed buildings that exist in Cape Town (pg. 36). Although the Muizenberg Civic Centre may not be an exemplary building that should be replicated again, it is important to acknowledge our current climate crisis and past architectural heritage by taking advantage of the building stock that exists and contextualising it through its history. In doing this one can pay homage to the past, reimagine the present and design for a future where the building integrates itself into both its urban and natural context.

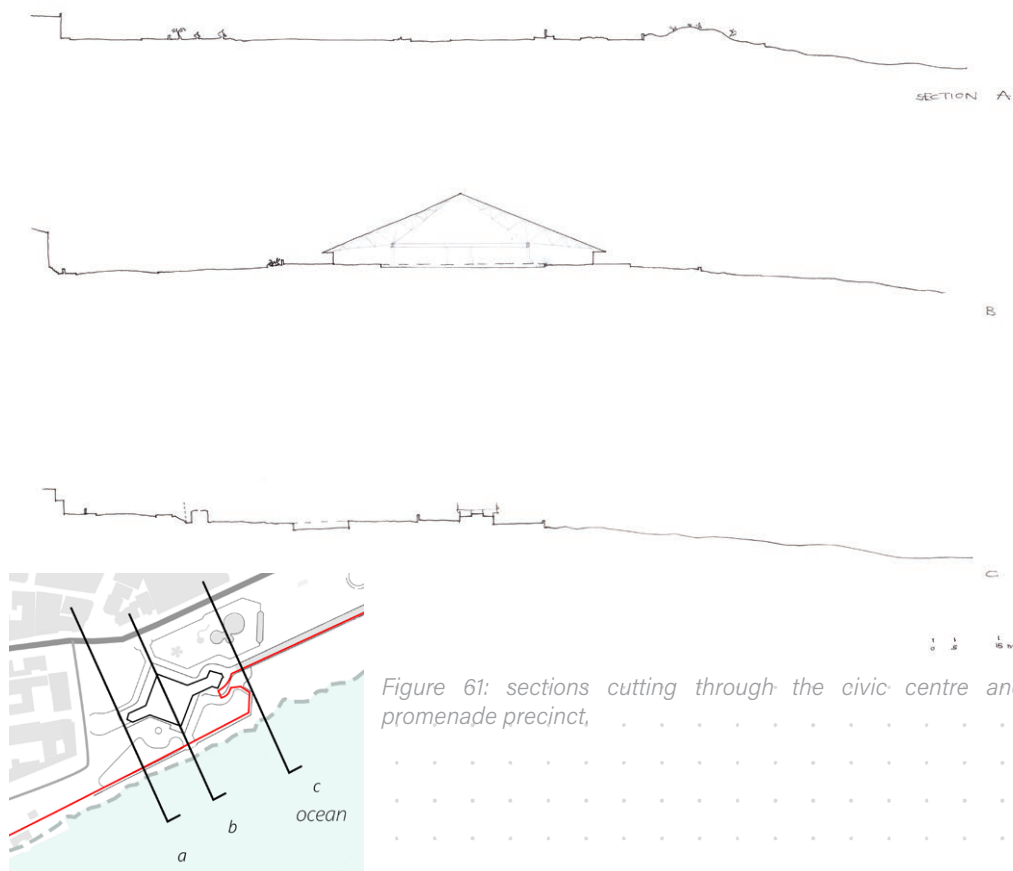


Figure 61: sections cutting through the civic centre and promenade precinct,

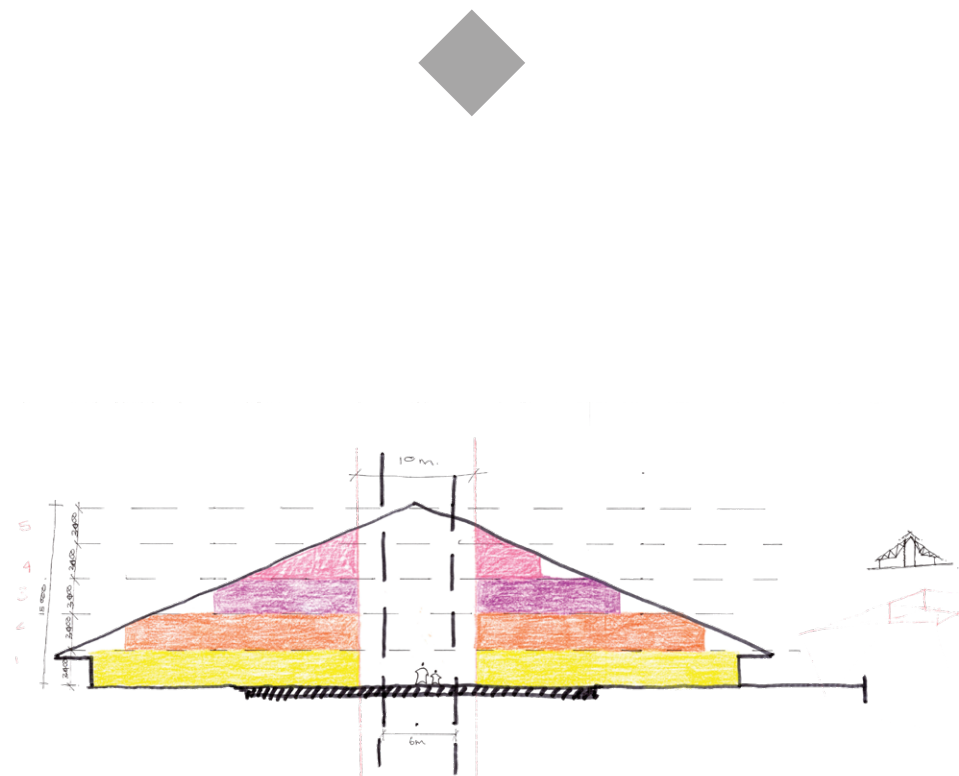


Figure 62: initial sketch coming focused on grasping the scale of the civic centre.

II MUIZENBERG CIVIC CENTRE REPLICAS AND LOOKALIKES

The Muizenberg Civic Centre is not unique. The monolithic, pyramidal roof structure appears in seven additional locations scattered around Cape Town (figure 41). However, the Muizenberg Civic Centre is the only civic centre built along the coast.



Figure 63: map locating the eight structures that replicate the Muizenberg Civic Centre. They are almost all within 20km of one another, Monwabisi Beach Pavilion (highlighted in blue) is classified as a pavilion as opposed to a civic centre. It is the furthest away at 21.2km and the only other 'lookalike' built along the coast.

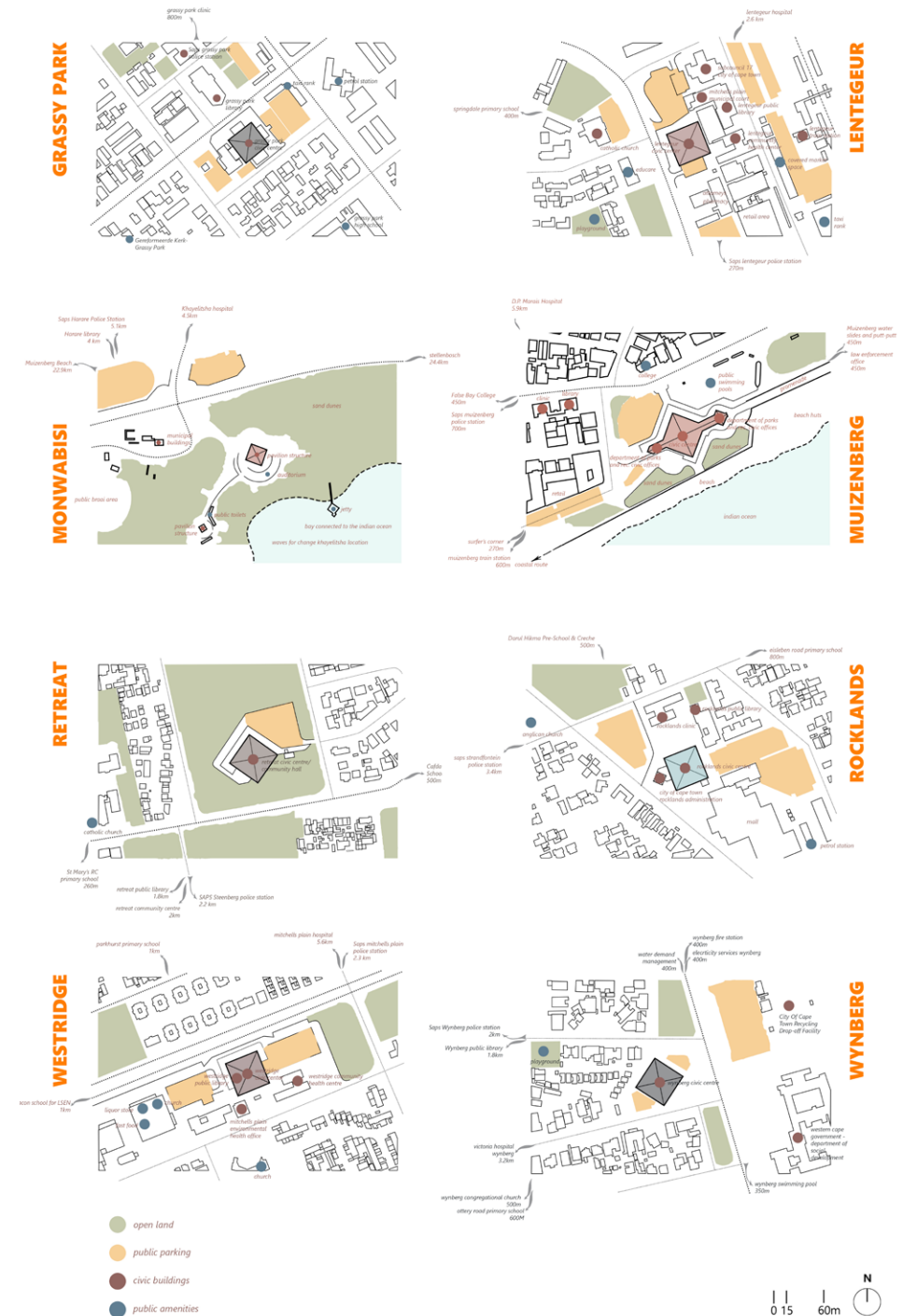


Figure 64 (right): analytical diagrams comparing the 8 civic centres and replicas around Cape Town by locating important civic and public functions within the vicinity of each building to assess the buildings' value to its surrounding urban context.

The Westridge Civic Centre, Mitchells Plain, was the first in this suite of pyramidal structures and is of equal scale to the Muizenberg Civic Centre. According to Parker (2022), this was the first “crack” in the Apartheid regime as it was initially built to accommodate all races (Parker, personal communication, 2022).

This civic centre has been modified from its original function of a multi-purpose hall into accommodating the public library under the same roof (figure 65). It is supported by an Environmental Health Office and Community Health Centre which are built alongside and can make use of the civic centre hall if the need arises. This civic precinct illustrates how environmental, community, mental and social health can be addressed in one area. Issues such as sustainability and pollution can be addressed by the environmental health office, the community’s physical wellbeing can be addressed at the clinic, their mental health can be stimulated in the library and lastly their social well-being can be sustained in the civic hall. This building will serve as precedent to be addressed in ‘Programme Development’.

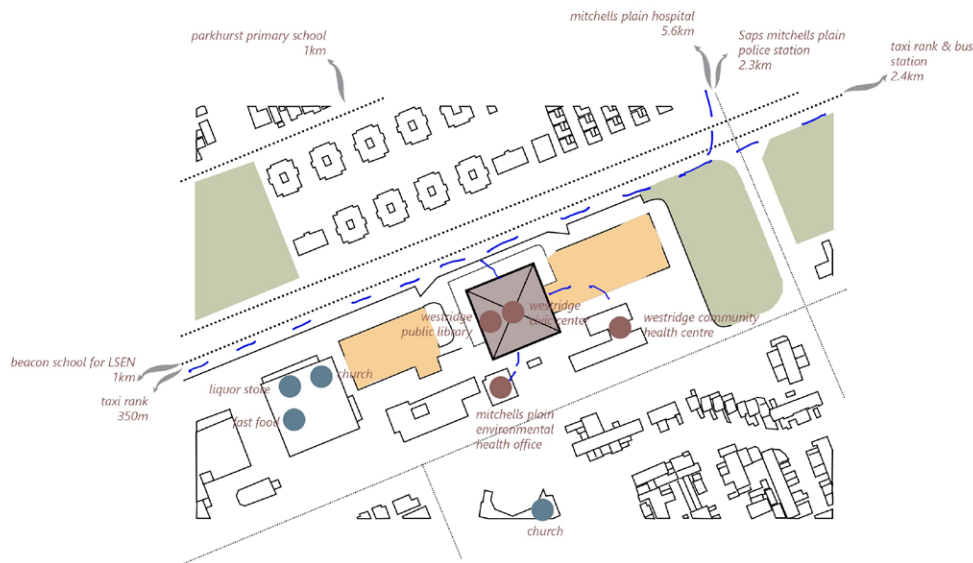


Figure 65: Westridge Civic Centre is built parallel to a main transport route, housing the public library as well as the civic hall. Considering the size of the building it seems like a sensible decision to increase the programme inside the building as a way of fragmenting its enormous scale.



Figure 66: aerial view photograph taken by G. Parker of the first pyramidal structure built in Mitchells Plain, Cape Town.

On the other hand, the Retreat Civic Centre appears to suffer from a lack of integration and contextualisation (figure 67) like the Muizenberg Civic Centre. It is essentially floating in open land, unsupported by any civic or commercial functions.

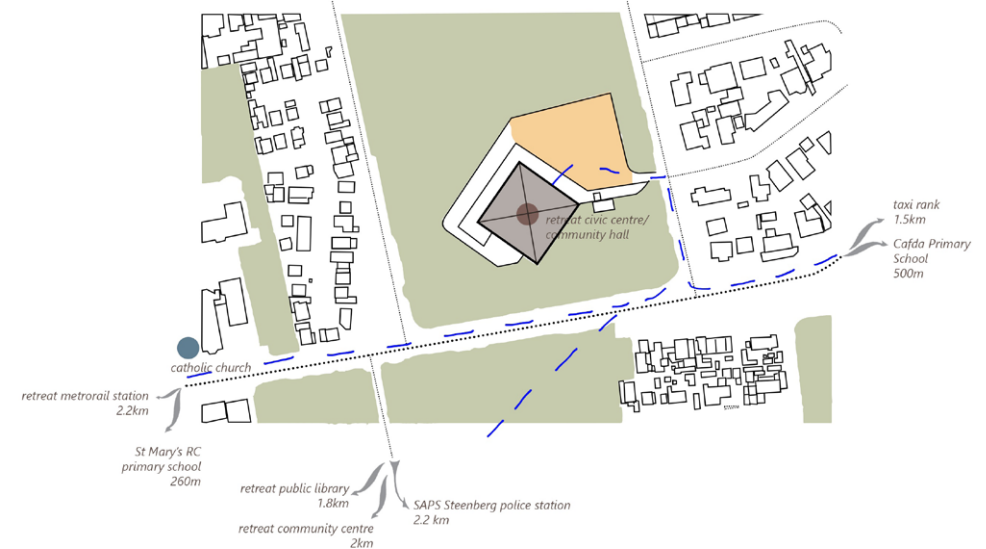


Figure 67: the Retreat Civic Centre is disconnected from its surrounding context. There are no civic buildings or public amenities nearby to support it. It is also rotated 45 degrees on its axis, giving it an adverse orientation to its surrounding context.

II

The Monwabisi Beach structure, Khayelitsha, is the only 'lookalike' that is not a civic centre but instead serves as shading pavilion with a central core for commercial or retail functions that can be used to serve take-aways or sell beach-related items (figure 69). This pavilion is completely isolated from an urban context (figure 68). It lacks urban integration, support from ancillary civic functions and basic infrastructure such as shading on the site. This would encourage a more regular use of the pavilion than being strictly summer and weekend based.

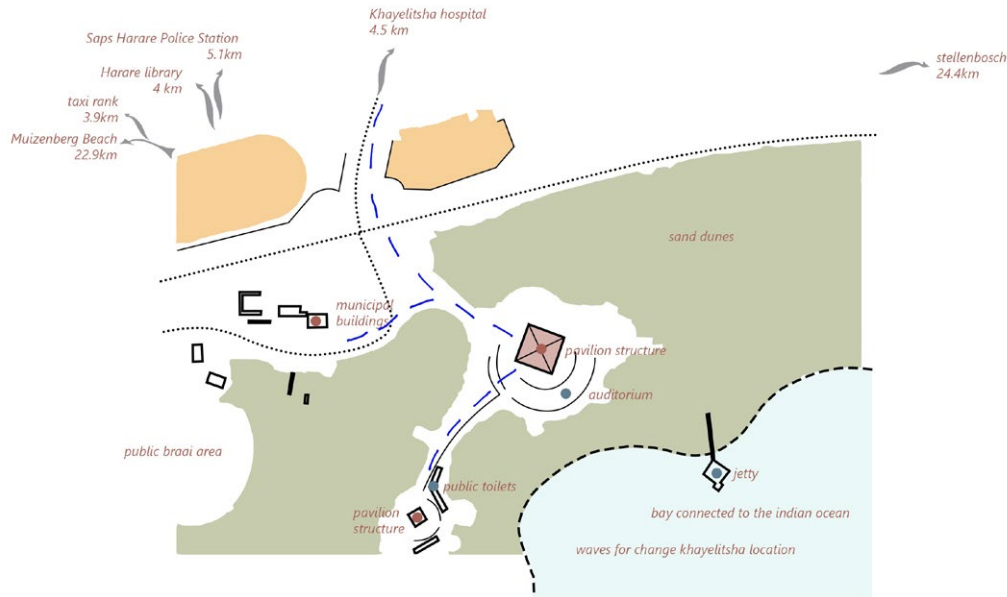


Figure 68: the Monwabisi Beach Pavilion is an anomaly. It is not built in an urban fabric but was instead placed upon a beachfront that is not a part of a coastal town, thus making it relatively difficult to access. It also does not have many ancillary functions that have permanent occupation to justify its daily use and maintenance. It's view to the ocean is blocked by the auditorium which presumably acts as a wind-barrier simultaneously.

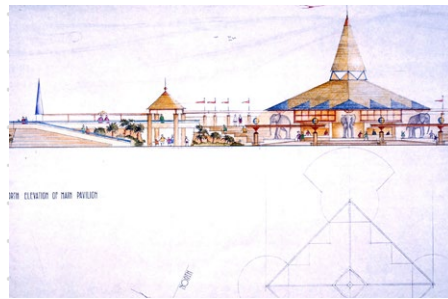


Figure 69: a photograph and drawing provided by G. Parker of the Monwabisi Pavilion.



Figure 70: Grassy Park Civic Centre is surrounded by a dense urban fabric and within walking distance of the public library, police station and a high school. The taxi rank was built adjacent to the civic centre's site, making this intersection a hub of activity and the civic centre easily accessible. Public parking encircles the building to ensure that users with private transport are also accounted for.

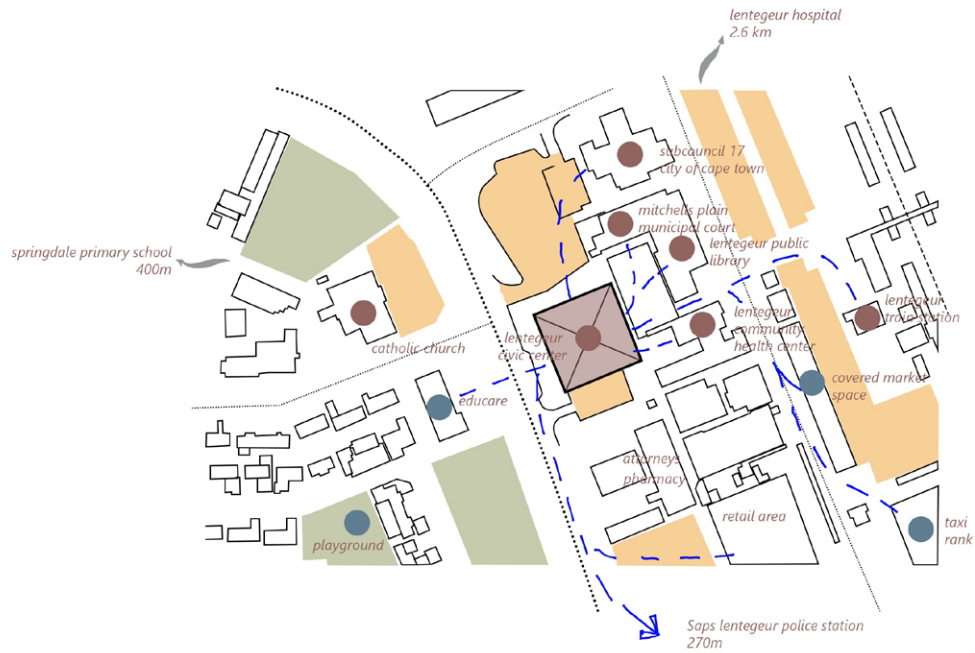


Figure 71: 'Lenteguur Civic Centre is ideally located in' a dense, mixed-use neighbourhood that is easily accessible by train and taxi. Those with private transport are also accommodated for with the generous public parking lots surrounding the building. The civic centre is encircled by municipal buildings and is within walking distance of the police station. Its only recognisable downfall is that it is over 2km away from any healthcare facilities.



Figure 72: Muizenberg Civic Centre is built along Muizenberg's beachfront and like the Retreat Civic Centre, is not integrated into its surrounding urban fabric due to the large open spaces flanking it. Its alternate 45-degree orientation creates a disjuncture between the building and its surrounding neighbourhood. However, it is easily accessible by train, bus or private transport.



Figure 73: Rocklands Civic Centre is supported by civic and commercial functions adjacent to its site. However, it was not built near any public transport hubs or police stations.

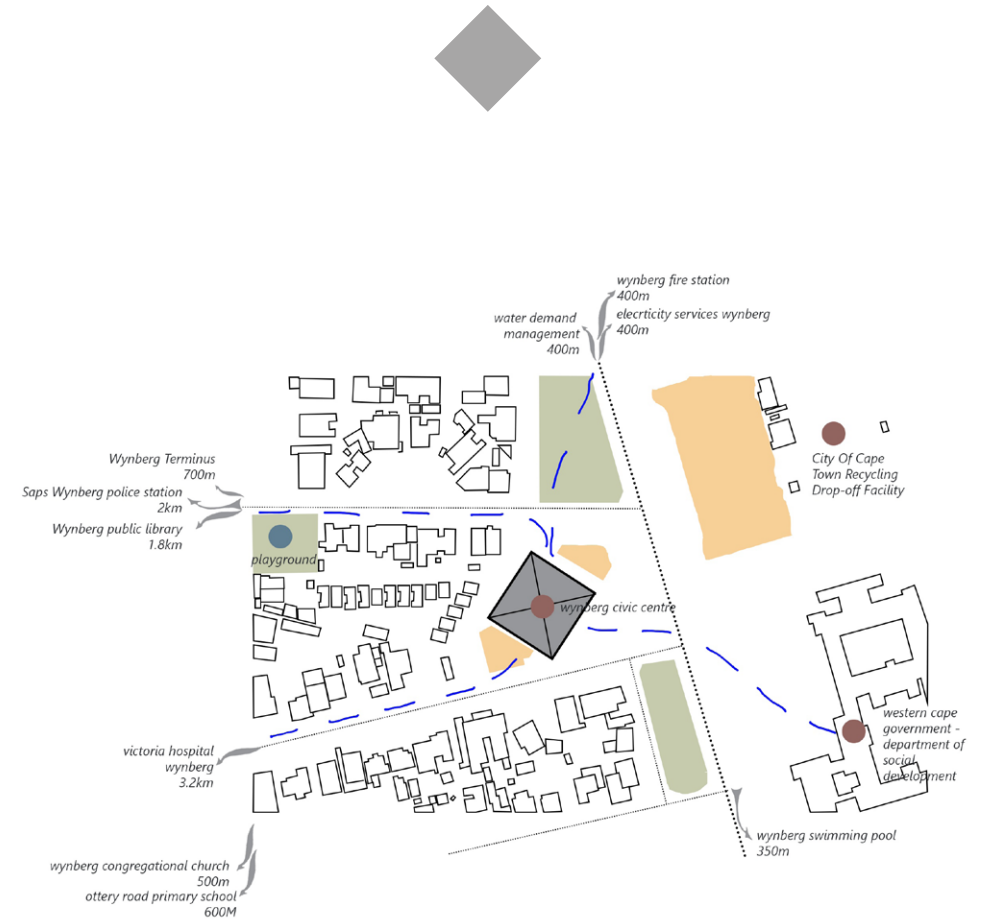


Figure 74: the Wynberg Civic Centre is located in a residential area with the Department of Social Development as the only other civic function nearby. Like the Retreat Civic Centre, the public library and police station are about 2km away and there aren't many retail stores or businesses nearby that could entice visitors to visit the centre. Lastly, the Wynberg Civic Centre has also been rotated 45 degrees on its axis, emphasizing the centre's disconnection from its context.

This study has provided clues on how this type of building can be integrated into its surrounds as well as help identify programmatic functions (supplementary civic buildings, public facilities, and transport hubs) which reinforce a civic centre's role in its community. These supplementary civic buildings most evident in creating a 'civic precinct' include a library, police station, clinic and public transport depot.

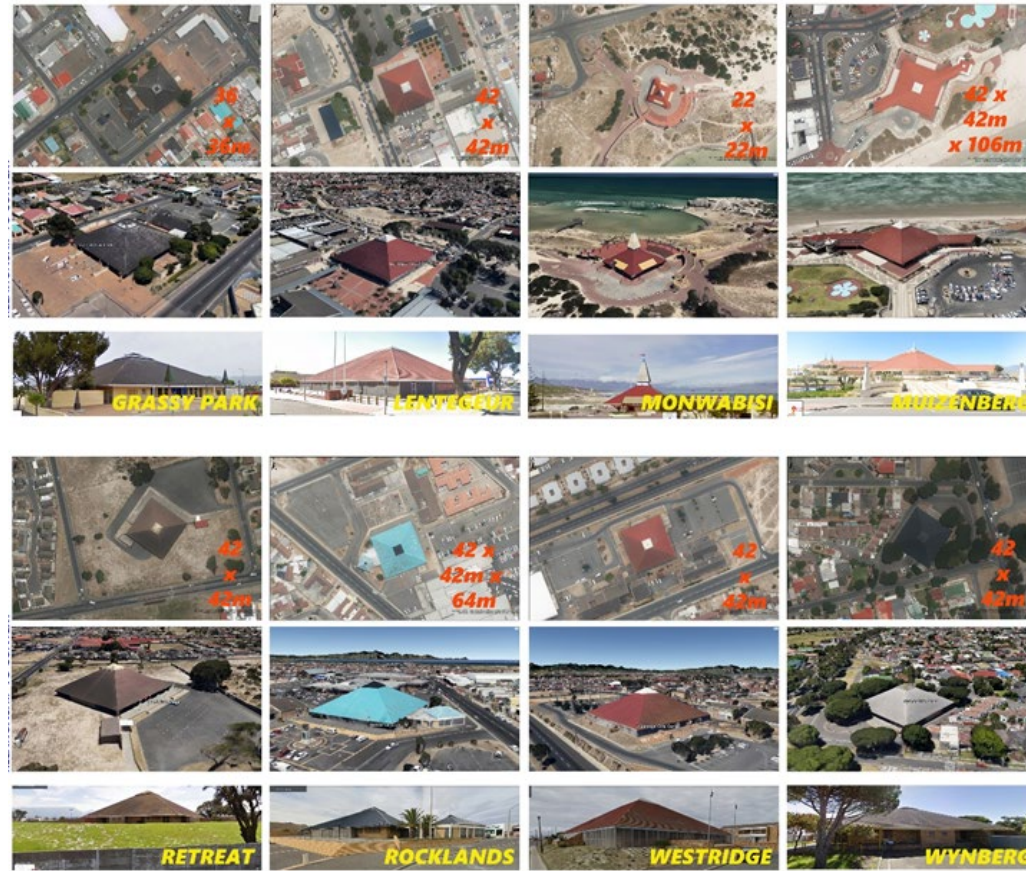
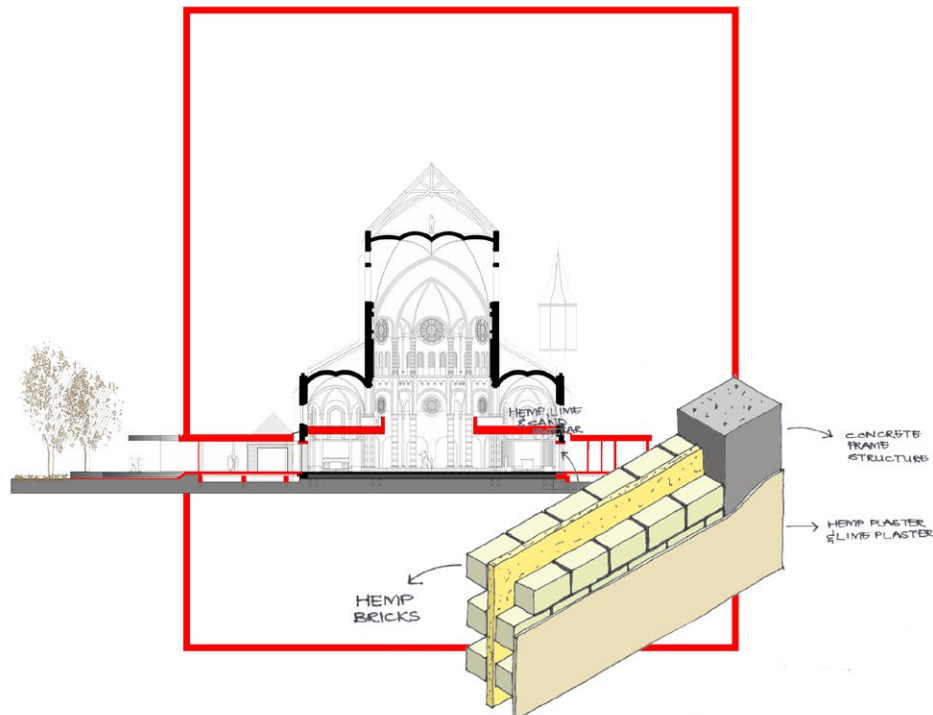


Figure 75: the 8 civic structures shown in their surrounding urban context from various views that range from a plan view to eye-level assisting in understanding their relationship to their surrounding urban contexts.



Figure 76: eye-level views of the 8 civic structures.

[III]



SUSTAINABLE DESIGN

SUSTAINABLE DESIGN

“The concept of sustainability is the result of seeing a world with limited resources and limited capacity to absorb waste, where every act involves future consequences. This leads us to conceive of the construction of a building as an act which does not start with the delivery of materials to the site and end when inhabitants move in... maintenance and disassembly are also planned.”

- (Gausa, 2003, p.580)

In most industrialised countries, the building sector accounts for approximately 39% of the total carbon emissions a year (Jones, 2019). Thus, a shift has occurred recognising the need for more sustainable development patterns (Cleempoel et al., 2013) and materials by reimagining existing un(der)used building stock (Stone, 2020, p.iii) as opposed to demolishing and erecting anew. This not only helps to reduce carbon emissions but also saves large quantities of energy and countless resources.

This paper investigates sustainable design through the lens of adaptive reuse to formalise a design that ensures environmental, physical and social integration by valuing the existing and its intangible heritage and reinterpreting it to create an environment that better serves the community. All this, without having to exert valuable energy to demolish.

HEMP

Hemp is an *extraordinary* plant that could have a massive impact on reducing the construction industry’s carbon emissions if widely adopted. I began the year by wanting to use hemp as the driving force to adapt this project, and was thoroughly investigated in my Theory and Technology research paper. However, I have recognised that it is preventing my project from achieving its full potential as it has no structural properties and has absorbed too much of my focus, causing the design to remain in limbo and unresolved. Therefore, I have decided to put it on hold for the time being, until my design is fixed before potentially reintroducing it as an infill material to sustainably adapt the building in a material way.

Although it feels as though a lot of time and energy has been “wasted” on researching and developing my knowledge and understanding of hemp, it has clarified my stance on sustainable design for this project and the desire to strengthen the building’s transformation both contextually and socially so that it becomes physically integrated into its context. (It has also enlightened me of a plausible carbon negative material solution for our industry.)

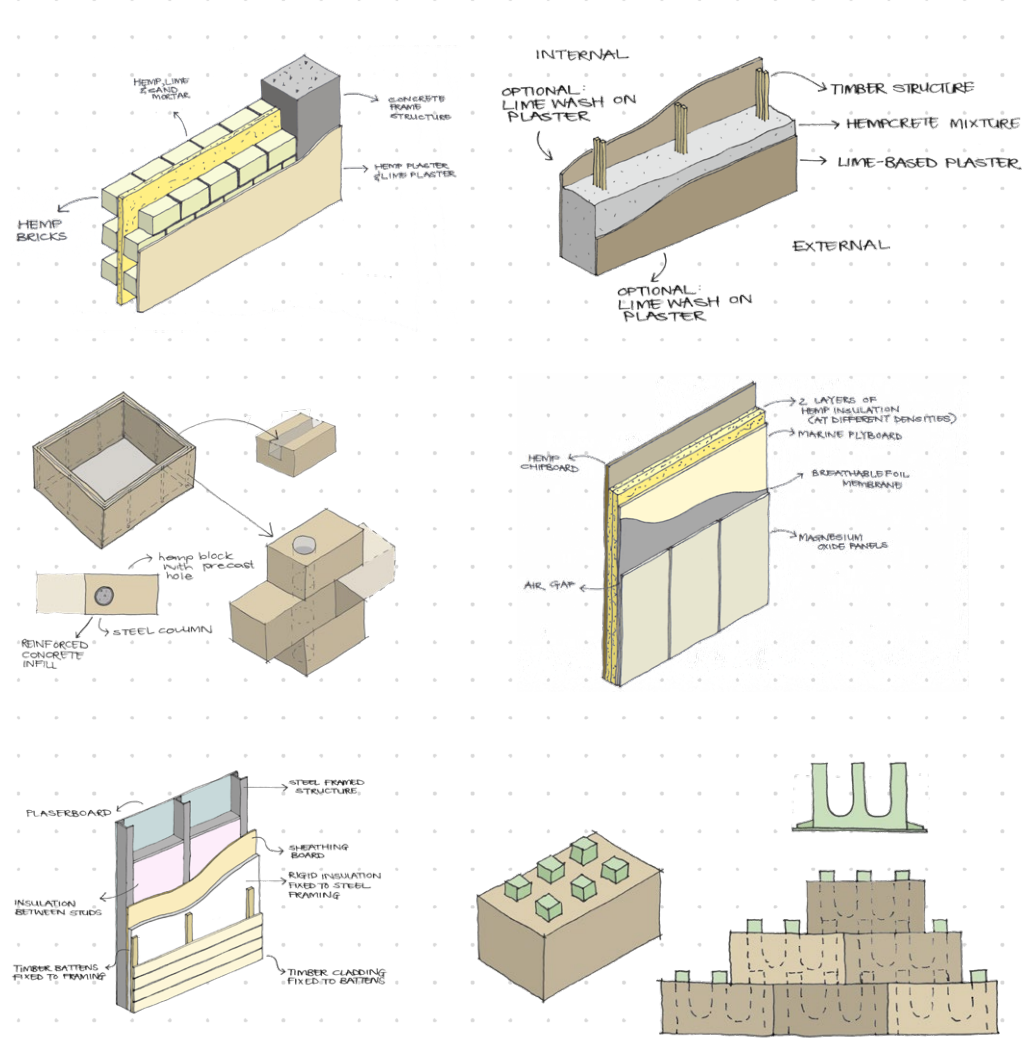


Figure 77: hemp construction methods investigated throughout the year.



Figure 78 (all images on right): photographic representation of the process followed for making 2' hemp panels and a square brick. Hemp-shiv was combined with a lime binder and water to create a moist mixture that was then tamped into shape and left to dry. The square brick investigated the effect on cast hemp if indentations were made into the wet hemp mixture.

THE PRACTICE OF ADAPTIVE REUSE

“...Adaptive reuse, in contrast to demolition and preservation, perpetuates a continuum of growth and change... transforming an unused or underused building into one that serves a new use.”

-(Wong, 2017, p. 30)

A building's obsolescence is dependent on numerous factors such as its physical condition, function, location, the economic situation, and environmental conditions (Baker & Moncaster, 2018). The two suggested ways to avoid this obsolescence is to either demolish the building and build something afresh or to adapt the building and its site to revitalise a currently underutilised site. However, there are many factors to consider before this decision can be made.

Buildings are demolished for several reasons including structural instability, age and quality related deteriorations, water penetration, outdated services or because the architecture is less valuable than its site or location (Gausa, 2003, p.155).

Adaptive reuse, on the other hand is a practice that intervenes in an existing building, the host, either due to being un(der)used or having lost its relevance (Wong, 2017, p.104). Building stock of this nature is in excess in cities with constantly changing economies as a building's inflexibility causes it to become redundant. Demolition can occur within the practice of adaptation where parts of the building, internal or external, are removed to support the new design without eradicating the building in its entirety.

The adaptation of an existing building is classified as being more than standard maintenance (Baker 2019) and allows for new relationships to be fostered in what is an ever-changing urban environment (Gausa, 2003, p.518). This can be likened to the Japanese practice of Kintsugi, which not only increases the host's value but simultaneously acknowledges its history, allowing for the **perpetuation of time as a continuum** (Wong, 2017, p.30).

This practice is also referred to as urban recycling, which requires acknowledging that a structure has reached the end of its lifecycle and that a new cycle needs to begin physically, culturally, economically, and socially (Gausa, 2003, p.518). However, parts of the building are retained due to its heritage value, local or national importance, profound architectural quality, or the advantage it provides in speeding up construction time which makes it worth safeguarding.

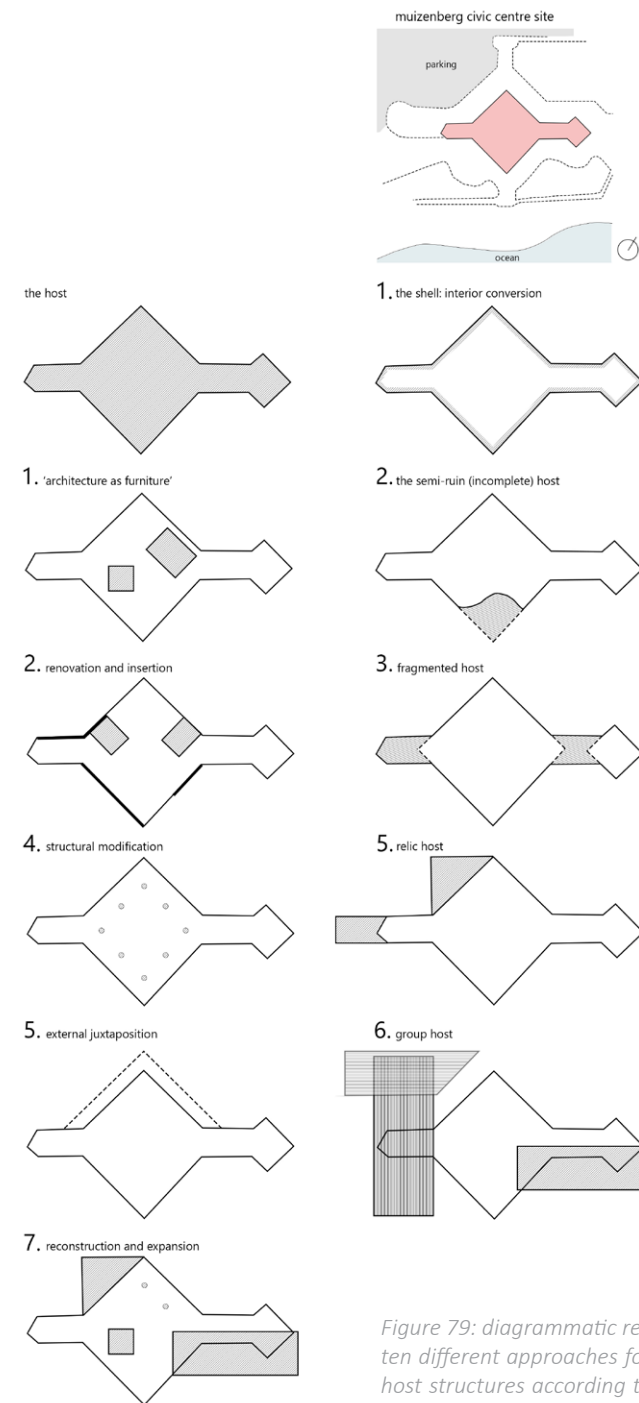


Figure 79: diagrammatic representation of the ten different approaches for adapting existing host structures according to Wong, Louw and Papanicolaou.

III

ten approaches for adapting existing host structures

Interventions in adaptive reuse projects have been categorised according to the approaches proposed by Wong, Louw and Papanicolaou. These methods differ between authors as they recognise and value different ways in which the new interventions respond to the host and the way the host can be harnessed as a tool to dictate the design.

Wong organises adaptive reuse projects into five categories, which she refers to as: interior conversions within a shell structure, incomplete host buildings (semi-ruins), fragmented hosts, relic hosts and group hosts.

Louw and Papanicolaou, on the other hand, believe that the new intervention needs to have as much or more meaning than the heritage building for there to be a harmonious dialogue. These new interventions were categorised into the following groups: architecture as furniture, renovation and insertion, structural modification, external juxtaposition and reconstruction and expansion.

I will describe these 10 different approaches offered by Wong, Louw and Papanicolaou and represent them using the Muizenberg Civic Centre's footprint as a diagrammatic reference that initiates the design process. It must be noted that these approaches are not exhaustive but help to focus the intent of a design within an adaptive reuse project. They will serve as a palette from which I will draw throughout the design process as a tool to determine and emphasize what is valuable about the Muizenberg Civic Centre and what can be reimaged to encourage a new experience.

1.1 shell: interior conversion

This strategy leaves the host building's envelope, structural system and floor plates largely untouched (Wong, 2017, p.162). Instead, the host structure acts as a mere shell that houses the, usually minor, interventions (Wong, 2017, p. 107) such as exhibition or retail spaces.

(untouched; shell)

1.2 'architecture as furniture'

The existing building is valued for its found state and thus creates a distinct juxtaposition between the insertion and the existing. These insertions are often removable, which leaves the existing building intact.

(values the existing; removable; intact)

The De Petrus Library, Museum and Community Centre is a noteworthy representation of this approach. Although the new reinforced concrete walkway is not necessarily detachable, it does not appear to have had an invasive impact on the host's existing shell.

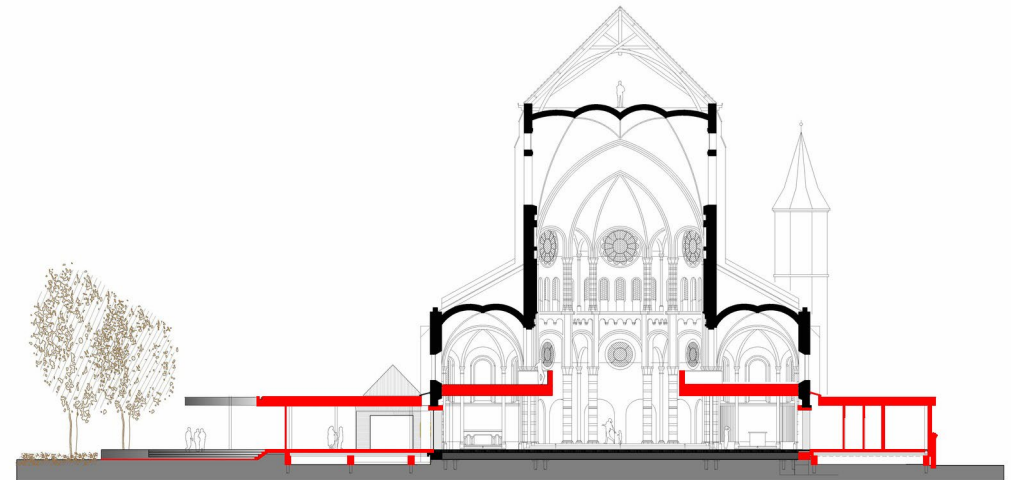


Figure 80: a section through the De Petrus Library, Museum and Community Centre which highlights the new intervention using the 'black-yellow-red' convention developed by Elisabeth and Martin Boesch. (The red overlay was added onto the original image by the author).

2.1 the semi-ruin (incomplete) host

Occasionally a host building is missing large portions of its original structure, which requires insertions and additions, both internally and externally, to restore it. The designer determines whether the new insertion and the existing host are in harmony with each other by ensuring the same methods and materials are used or whether they are completely contradictory and juxtapose the building's original style.

(missing parts; additions; whole)

2.2 renovation and insertion

Similarly, this approach merges the new intervention with the host's existing fabric although it often contrasts the old structure as a way of both retaining and acknowledging the host's history.

(merges; contrasts)

The Neues Museum in Berlin, Germany, by David Chipperfield (*figure 81c*) is an example of a semi-ruin host where the introduction of modern materials still acknowledges the passage of time (*Wong, 2017, p.114*). In this way, the past can co-habit the space of the present without having to erase it.



Figure 81: a photographic comparison of the grand staircase in the Neues Museum, Berlin. The first image was taken before the museum was bombed (a), the second photo shows the semi-ruin that was left after it was bombed (b) and then the last image reveals how this semi-ruin was restored by David Chipperfield Architects (c).

2.3 fragmented host

Incomplete buildings require intervention in either the infrastructure, façade, or structure before they can be adapted for a new purpose. This method of adaptation finds similarities in Kintsugi as it also restores missing 'pieces' with new materials that do not necessarily match the original material. Therefore, this approach adds value by completing what was previously an incomplete structure and allowing it to function again.

(incomplete, kintsugi)

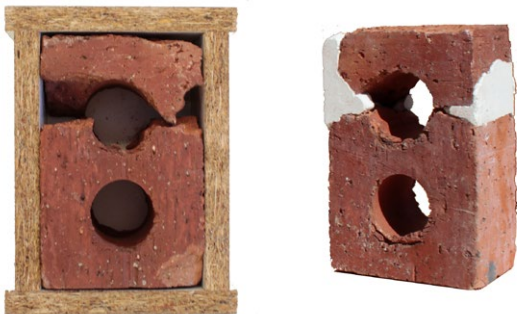


Figure 82: photographs of my first 'ArchiMaki' exercise where I used the practice of Kintsugi to restore a fragmented host (the broken brick). This not only increased its "value" by restoring it to its 'original form' but simultaneously reinstated its 'structural capabilities'.

3. structural modification

According to Louw and Papanicolaou, this approach alters the existing fabric of the structure by providing additional structural support for the new building or replacing missing structural elements (*Studio Adapt ClfA Presentation 2019, 2019*) all the while respecting the existing fabric of the building.

(alter the existing; new intervention; respecting the old)

This approach is well illustrated in the conversion of the grain silos in the V&A Waterfront, Cape Town, into the Zeitz Museum of Contemporary Art Africa and Silo Hotel. Both the host's envelope and its interior structure were modified to accommodate the various new programs (*figure 83 c-d; figure 84*). The actual silos themselves required structural intervention before they could be "cut" and manipulated into the desired shape (*figure 84*).



Figure 83: A sequence of images illustrating how the original grain silos at the V&A Waterfront (a) were structurally modified (d) to become the museum and hotel that they are today (b-c).

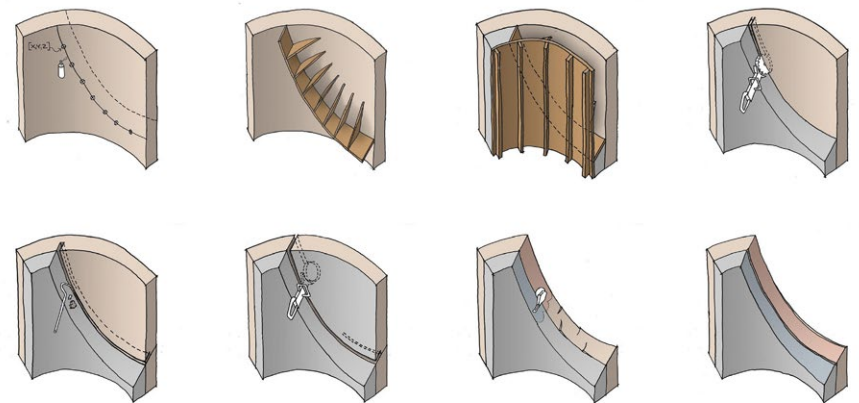


Figure 84: A series of drawings exhibiting the formwork and the concrete 'skin' required to be cast within each grain silo before they could be 'cut' into the desired forms.

4.1 relic host

Occasionally an existing structure's purpose is to act as a reminder of the past, thus the new insertion does not necessarily directly interact with the host but rather leaves it untransformed. This passive approach acknowledges the existing building as being somewhat sculptural.

(untransformed)

4.2 external juxtaposition

Similarly, this approach focuses on a juxtaposing dialogue between the existing structure and the new intervention to create stimulating spaces between the new and the old.

(juxtaposing dialogue)

The Kolumba Museum in Cologne, Germany, by Peter Zumthor is an example of these two strategies. The host relic is left largely untouched as Zumthor respectfully uses it as the foundation upon which the modern intervention is built.

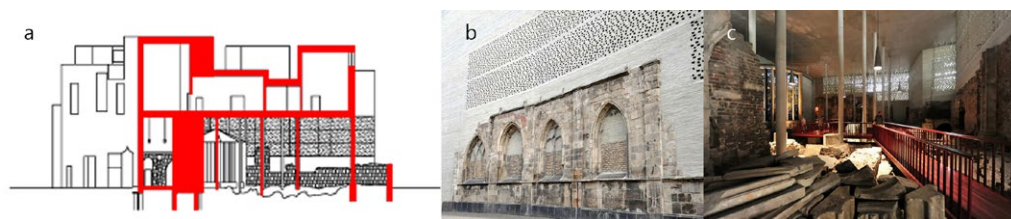


Figure 85: a section of the Kolumba Museum by Zumthor uses the 'black-yellow-red' convention, developed by Elisabeth and Martin Boesch, to highlight the new intervention that is gently placed on top of the existing relic. Images b&c reveal the juxtaposition of the existing relic with the new intervention which guides the new-spatial experience through the building whilst remaining reminiscent of the old:

5. group hosts

A host does not necessarily refer to one single building but can extend to include multiple individual structures spread over an entire site. This specific strategy forces the designer to consider the existing works and provide an intervention that continues the buildings' history (Wong, 2017, p.121). It is imperative in this approach that all the structures included in the adaptation are unified through a single identity.

(site; unified through a single identity)

The post-industrial landscape of the Zollverein coal mine and coking plant in Essen, Germany, was converted and retrofitted into a museum as a means of preserving the history of the site.

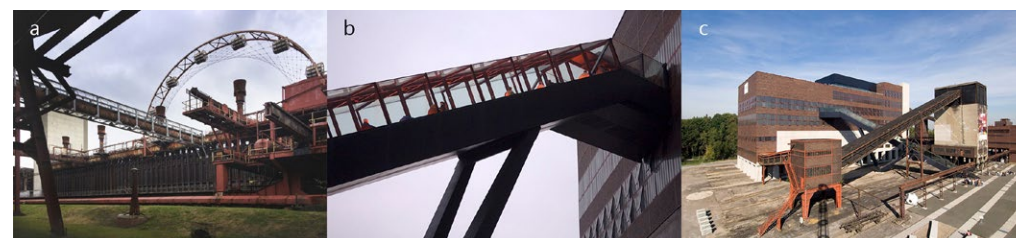


Figure 86: this series of images captures three of the interventions implemented into the Zollverein coal mine which assisted in transforming the site into a publicly accessible museum.



6. reconstruction and expansion

This last strategy is believed to be the most radical strategy (Louw & Papanicolaou, 2019) as it requires the greatest intervention into the existing fabric, combining several of the previously mentioned approaches into one project.

(drastic; incorporates numerous approaches)

The restoration of the Castelvecchio Museum by Carlo Scarpa is an example of a project that exemplifies this approach in its restoration and conversion of the original medieval castle into a Romanesque sculpture museum (Wong, 2017, p.74). The entire site acts as the host. The various buildings within the castle's original complex are distinguished from one another as Scarpa recognised and exposed the building's heritage, often juxtaposing it with modern materials that were distinct from the host building. This is evident in Scarpa's introduction of steel elements for the circulation (figure 87- a). This adaptive approach can be likened to Kintsugi in its desire to glorify and reveal the castle's previous transitions.

Simultaneously, Scarpa blurred the line between the old and the new, bringing the new intervention into direct contact with the existing relic of the castle (figure 87- c), or designing them to slip past one another, allowing the 'old' to recede almost into non-existence (figure 87-d).

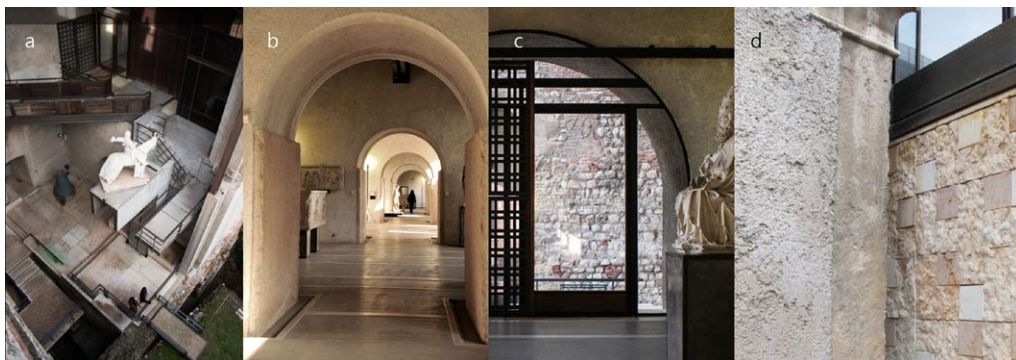


Figure 87: these images highlight moments in the Castelvecchio Museum that Scarpa curated to acknowledge and juxtapose the relationship between the existing castle and new interventions for the museum.



As insinuated in the reconstruction and expansion (6) approach, each new adaptive reuse project does not only use one approach, but oftentimes combines several approaches into one project, with one championing the others. This is the most likely approach to be adopted in the adaptation of the Muizenberg Civic Centre as it requires drastic intervention to improve its relationship with its urban and natural surroundings.

These approaches serve as the theoretical underpinning that will guide my design and form the palette from which to draw to adapt the Muizenberg Civic Centre.

Having analysed these methods, I recognised there were several approaches that had not been mentioned yet I wanted to incorporate, along with the 10 approaches previously mentioned, into my palette. Thus I have created a palette of my own which includes: inserting, mimicking, cutting, puncturing and fragmenting.

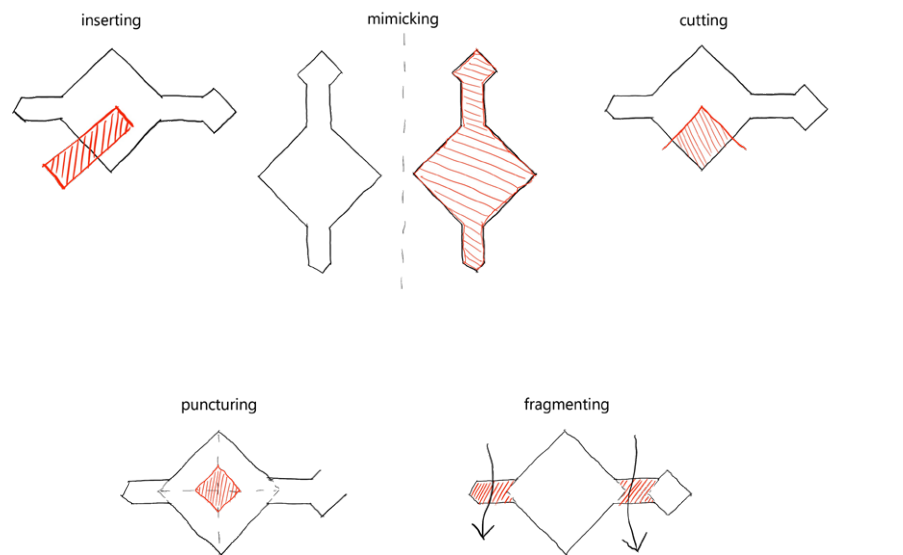


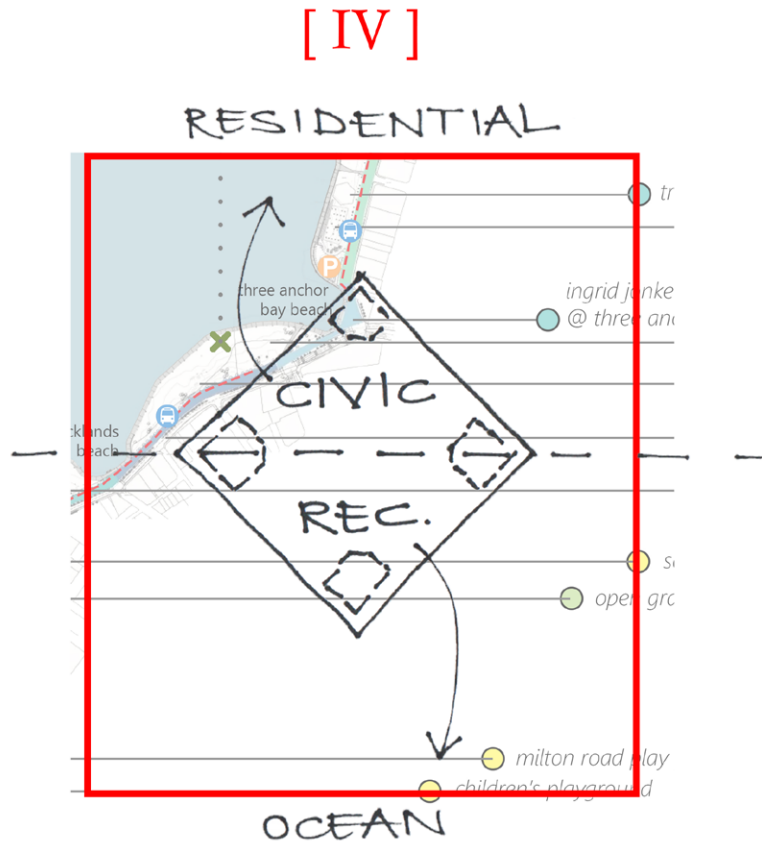
Figure 88: the five additional adaptive reuse approaches added to my palette.



PROGRAMME DEVELOPMENT

The demolition of the civic centre would leave Muizenberg without a civic space for community gatherings to occur. Thus, adapting it by revamping its programme will justify its preservation. The multi-purpose hall, however, is much bigger than necessary. Fragmenting its internal space to accommodate for smaller workshop spaces as well as large events, would better serve the community.

The programme for the Muizenberg Civic Centre is influenced by the conceptual notion of splitting the building according to a civic and recreational half (figure 89). The residential urban edge will relate to the civic functions within the building whilst the recreational side spills out towards and responds to the beach and the ocean.



PROGRAMME DEVELOPMENT

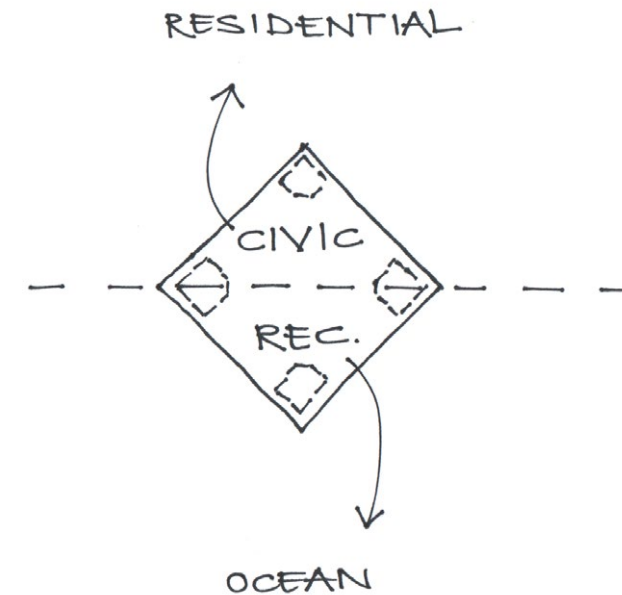


Figure 89: conceptual diagram to dictate the programme of the building.

IV

Creating a civic core in Muizenberg, like that in Westridge, will justify the civic centre's preservation as it acts as the glue that holds all the civic functions in relation to one another and can simultaneously be utilised for overflow activities. For example: if the clinic needs space to administer vaccinations, if the library hosts a book launch or a workshop for the community or if the nearby schools and colleges need an additional exam venue or space to host a play (figure 91 & 92), the civic centre presents itself as the solution.

The current Muizenberg Library is a third of the size of the libraries adjacent to the other civic centre replicas (figure 90) previously mentioned yet is meant to cater to the entire Muizenberg population of approximately 37 000 people, in accordance with the 2011 census. Muizenberg has the second largest population of the 8 towns being compared, yet it has the smallest library and clinic. These facilities could nearly triple to align with the sizes of the other Muizenberg Civic Centre replicas.

| location | Civic centre (m ²) *(including roof overhang) | Library (m ²) | Health Centre/ Clinic (m ²) | Environmental health office | Population (in accordance with the 2011 census) |
|--------------------|--|-----------------------------|---|-----------------------------|---|
| Grassy Park | 1296 | 900 | 1574 | | 19 212 |
| Lentegeur | 1764 | 232 | 824 | | 40 341 |
| Monwabisi | 484 | n/a | n/a | | 2 185 |
| Muizenberg | 1764 | 308 | 308 | | 36 857 |
| Retreat | 1764 | 881 | 3249 | | 25 745 |
| Rocklands | 1764 | 883 | 830 | | 29 782 |
| Wynberg | 1764 | 555 | 645 | | 14 472 |
| Westridge | 1764 | (Inside civ. Centre - 1764) | 710 | 1264 | 19 373 |

Figure 90: table comparing the approximate areas of the various civic functions surrounding the civic centre replicas.

The Muizenberg Clinic currently shares facilities with the library, which are both approximately 300m² and could equally benefit from being expanded. Hence, a proposal to relocate the library into the civic centre, mimicking the Westridge Civic Centre, and extend the clinic to absorb the old library's space will allow both civic functions to better serve the community.

Simultaneously, an Environmental Health Office could be introduced into the newly adapted civic centre, housing offices for the City of Cape Town's Coastal Management and departments that facilitate the wellbeing of the Cape Peninsula's coastline.



Figure 91: civic functions surrounding the Muizenberg Civic Centre that could potentially benefit from preserving the civic centre for overflow activities.

Figure 92: schools and colleges within the study area that could benefit from both the expansion of the library and the civic centre's event space.

These new programmes introduce new stakeholder who may play a part in the way the adapted design functions.

A civic centre also ensures that the community's mental, environmental, and physical well-being is catered for. The library stimulates mental health, the environmental office addresses the issues of sustainability, dune rehabilitation, air, water, and beach pollution, the clinic ensures the physical well-being of the community whilst social well-being is encouraged within the civic hall. Lastly, being located right on the beachfront also has a positive impact on the community's "health" by providing opportunities for both their physical and mental wellbeing.



POPULAR BEACHFRONTS AND PROMENADES IN THE CAPE METROPOLE

Fish Hoek Beach and the Sea Point Promenade are analysed as examples of popular beachfront interventions in the Cape Metropole. They highlight how carefully curated and well-maintained beachfronts provide the foundation for urban enjoyment. These investigations are supplemented by maps that illustrate various interventions that assist in creating an integrated, accessible, and inclusive beachfront. These investigations will inform the urban design of the project's extended site i.e. the open-air recreational park.

fish hoek beach

Fish Hoek Beach is a short 1,3km stretch of beach, shared with Clovelly Beach. It is one of the most frequented family and dog-friendly beaches along the peninsula. The various points of interest spread along the beach's edge provide both direct and passive surveillance, which makes its users feel safe.

The earth creates a bay within the natural landscape causing beachgoers to feel protected, which is further enhanced by the daily placement of a shark net in the southern corner of the beach and lifeguard supervision.

The following list itemises opportunities provided along Fish Hoek Beach that make it a popular beachfront and improve the users' comfort:

- It is well maintained. Bulldozers are used to clear unwanted seaweed off the swimming beach in the southern corner; municipal workers are often sweeping the promenade and picking up litter off the beach.
- A beachside restaurant and takeaway hatch
- Public changing rooms and bathrooms
- Large open parking lots for both cars and busses
- Children's playground
- Within 500m of the taxi rank and train station
- Raked seating which improves the accessibility of the beach and gives beachgoers a place to sit or leave their belongings whilst swimming.
- Permanent seating all along Jagger's Walk for relaxing and picnicking

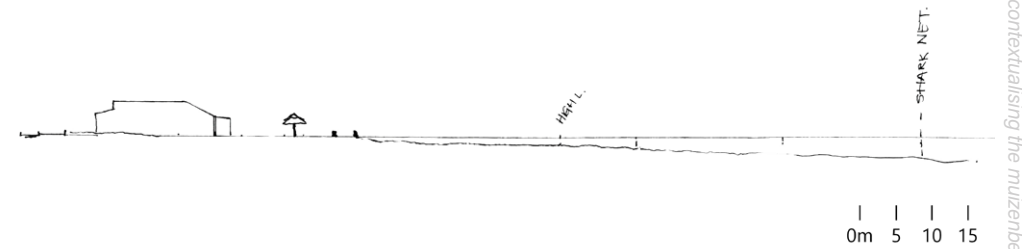


Figure 93: section cutting through the fish hoek beach and restaurant to understand the building's interface with the beach.

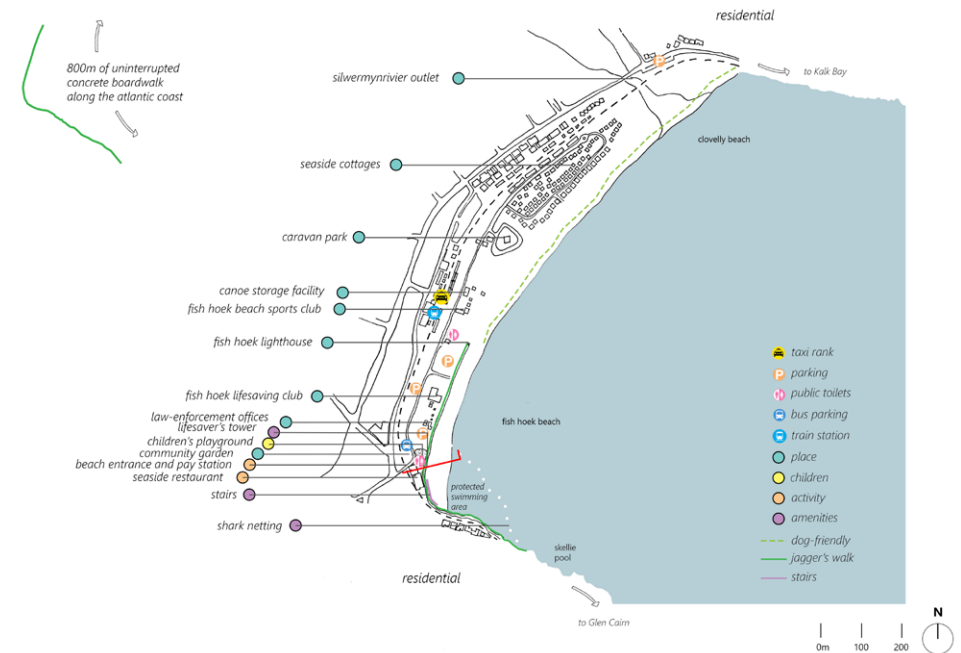


Figure 94: A map of the various points of interest along the Fish Hoek and Clovelly beachfront, highlighting Jagger's Walk along the southern edge of the bay. Jagger's Walk has stairs with balustrades that plunge into the smaller rockpools.

sea point promenade

The Sea Point Promenade is the most popular urban walk along the Cape Peninsula. It runs for 5 km from Bantry Bay to Mouille Point beach. It is considered a destination by both locals and tourists alike, attracting runners, walkers, dog owners, families, skateboarders, cyclists and mothers pushing strollers. This is not only because of its flat terrain but it also affords users a constant connection to nature through views over the Atlantic Seaboard, Lion's Head and Signal Hill.

One of the biggest advantages of the Sea Point Promenade is its safety which is due to its incessant use throughout the day. The dense urban environment that runs parallel to the promenade, consisting of hotels, apartments, and restaurants, add another layer of passive surveillance over the promenade.

The following list itemises opportunities offered by the Sea Point Promenade that makes it a popular beachfront and improves the users' comfort:

- It is constantly being maintained and upgraded. A massive refurbishment of the promenade recently took place that included open grassed areas to be relandscaped after the Cape's droughts and the implementation of new seating walls (SJ de Klerk, 2021). This not only provides the public with opportunities to rest and enjoy the view but simultaneously prevents large washes of sea water from flooding the areas behind, hence creating functional barriers.
- Intermittent urban art installations which add a completely different layer of cultural diversity to the coastal walk.
- The Sea Point Swimming Pool and Bathing Pavilion has facilities that accommodate both competitive swimmers and families alike.
- A viewing deck alongside the swimming pools has been populated with food trucks, seating, and bicycle rentals. This creates a node of activity which adds to the experience of enjoyment whilst walking along the promenade (SJ de Klerk, 2021).
- Stairways that lead off the promenade provide respite within its continuity, allowing for its users to directly engage with the ocean and beaches.
- An outdoor gym in both Three Anchor Bay (85m²) and in the nearby Green Point Park (476m²) encourages an active lifestyle without the exorbitant membership fees that usually come along with it.

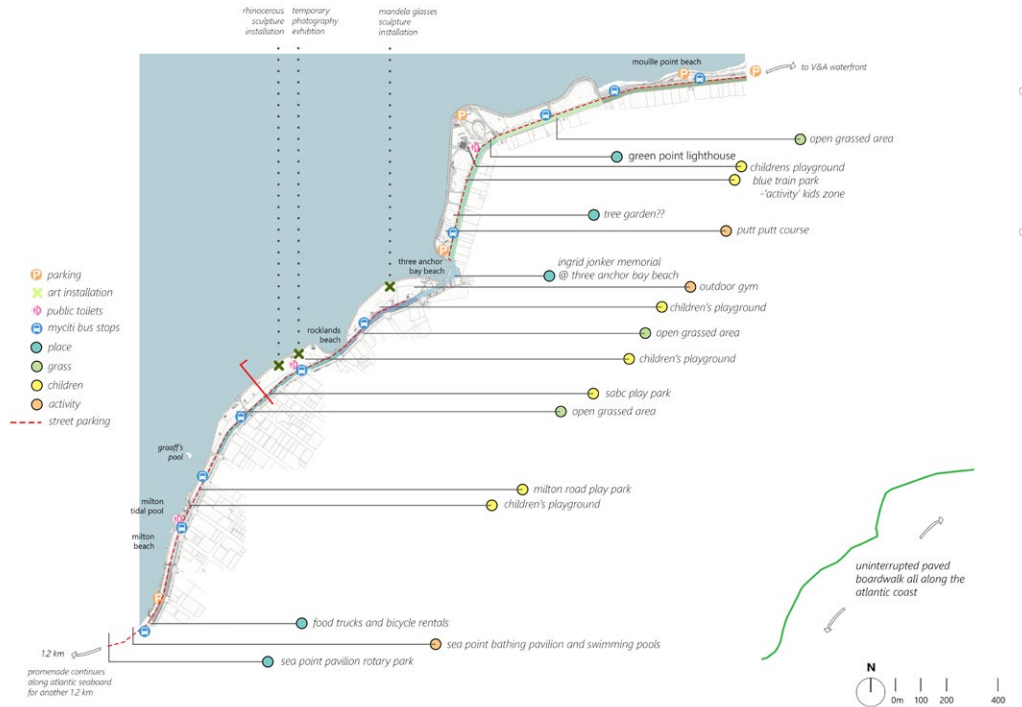
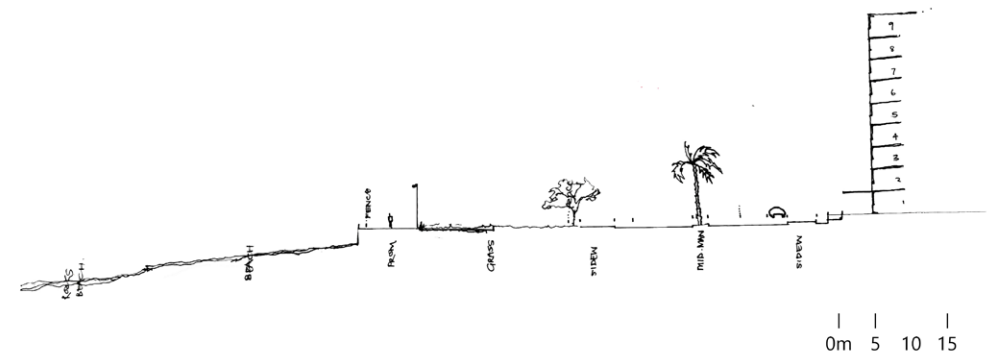


Figure 95 (above): a map illustrating the various activity nodes along the Sea Point Promenade that has allowed it to establish itself as a user-friendly, inclusive waterfront recreational park.

Figure 96 (below): section cutting through the sea point promenade to understand the promenade's relationship with the beach below and the grassed areas alongside.



In both investigations, it is evident that grassed open spaces, playgrounds and activities for children, 'dog-friendliness', a sense of continual, uninterrupted motion and elements of visual enticement are important. They create nodes of interaction along a route that provide opportunities for a wide range of users to interact at various scales: the community, the environment, and the human body.

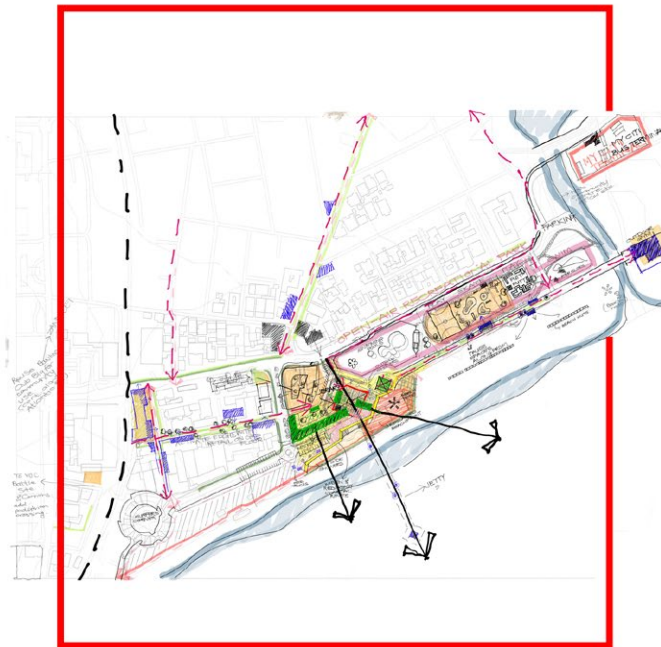
DESIGN DEVELOPMENT

The Muizenberg Civic Centre's lack of contextual integration and loss of relevance justifies the need to adapt the building to encourage mental, environmental, social and physical transformation.

To achieve such transformation, the civic centre development needs to engage more directly with its surrounding urban context and extensive natural landscape to expel its previous attitude of loneliness. Thus, the open-air amusement park, Muizenberg Civic Centre and adjacent parking lot need to be transformed to seamlessly integrate into its surroundings.

The goal is to propose a finer-grained, human-scaled mixed-use design that combines a civic and recreational, public and semi-public, program that will allow the beachfront activity to extend beyond Surfer's Corner, activating the site both during the day and at night. Thus, the buildings physical form and function need to be reimaged to re-establish itself as a focal point along Muizenberg's beachfront.

[V]



DESIGN DEVELOPMENT

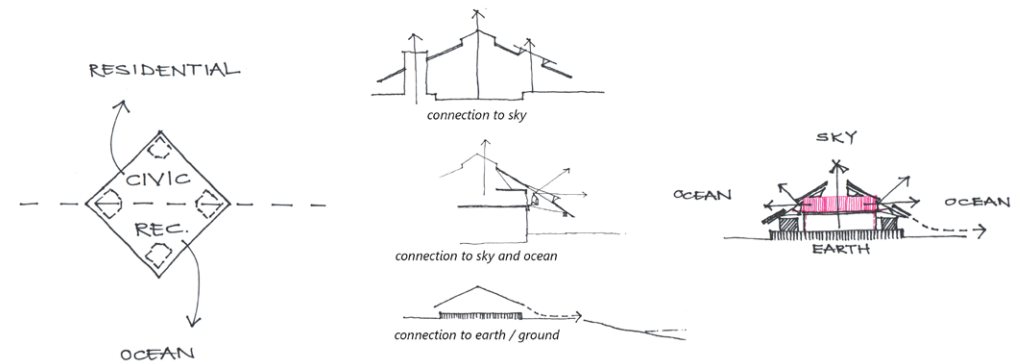


Figure 97: conceptual diagrams that illustrate the guiding principles for the final design

OPEN AIR RECREATIONAL PARK & PROMENADE - URBAN PROPOSAL

The open-air recreational park and promenade has been identified as the key area to assist in Muizenberg Civic Centre's "rebirth". The intention is to create a 'low-key' Surfer's Corner imbedded within the existing infrastructure.

The following design decisions have been made:

- Converting the habitable spaces underneath the promenade with programmes that cater to both the open-air recreational park and the beach i.e. fast-food take-aways, tuckshop, umbrella and lounge rental facilities, water sport related rentals.
- The municipal offices and staff rooms will be relocated to the civic portion of the building, whilst leaving the workshop and storage facilities for easy access to the park by the municipal workers.
- Providing infrastructure such as shading and platforms to be used by ice cream vendors or for the Muizenberg Flea market to utilise on Sundays. This would help reinforce the promenade's new identity as a recreational walkway by creating nodes of activity.
- Painting the promenade a bright, jovial colour will enliven it's appearance and draw more attention.
- Getting local artists and graffiti artists to paint the wind barrier walls or designating space for photographic exhibitions revolving around the Cape Peninsula. This would add a cultural dimension to the project.
- Installing an outdoor gym at the end of the promenade would further reinforce the already active lifestyle of the Muizenberg community. Alternatively, a seafood restaurant with a public 'surf-watching' deck could be constructed to give the end of the promenade a purpose and hold the space.
- A route from the open parking lot to the east of the Zandvlei Estuary mouth could be converted into a MyCiti Bus depot with formalised walkways that edge the estuary and connect to the promenade.
- Constructing a staircase alongside the law enforcement offices, behind the water slides, would make access from the adjacent parking lot to the promenade more obvious.
- The restoration of the beach huts will also hopefully catalyse their reintroduction to the beachgoers experience and be used as changing rooms again.
- The open patch of grass between the putt-putt courses and swimming pool will be converted into an outdoor multi-sport court alongside a concrete

- skatepark and children's playground, which can be used throughout the year.
- Shading to be provided throughout the recreational park.
- The promenade's connection to the coastal route needs to be simplified and intuitive to reinforce the routes continual movement.

By encouraging restoration, social interaction and sustainable economic development along the promenade, the commercial-retail core within Muizenberg will be spatially extended beyond Surfer's Corner to create a self-sustaining recreational hub of its own. It will create differences in use along the beachfront that will mediate pedestrian intensity (*Lynch, 1960, p.39*) whilst encouraging a porosity that flows from the open-air recreational park to the beach, to create a second activated beach node, independent of Surfer's Corner.

This revitalisation of the promenade will simultaneously increase the safety of the area due to an increased usage providing passive surveillance over the area.

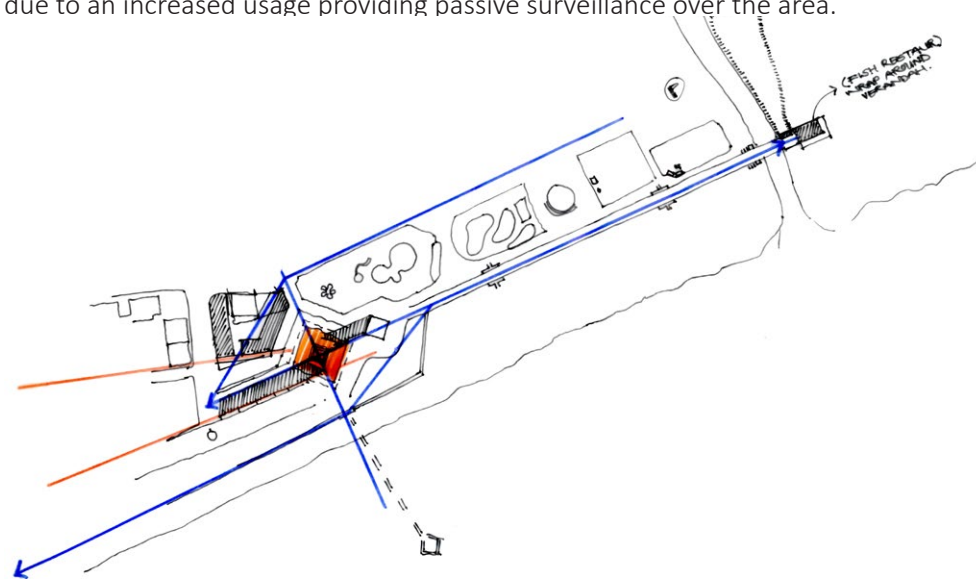


Figure 97 (above): initial urban sketch highlighting the dominant pedestrian routes across the site.

Figure 98 (below): initial sketch looking at the redirection of the coastal route and its relationship to both the newly adapted building and coastal route.

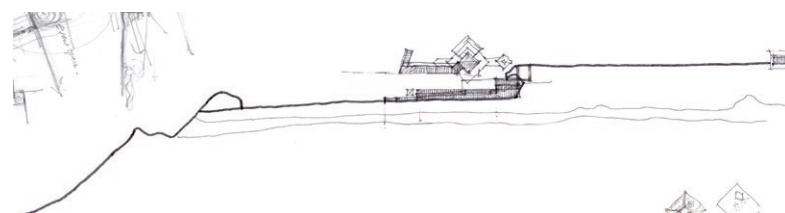
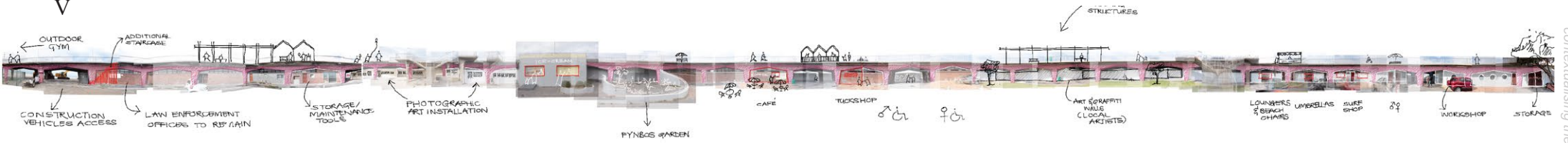




Figure 99: palimpsest of urban interventions onto the site.



reimagining the promenade

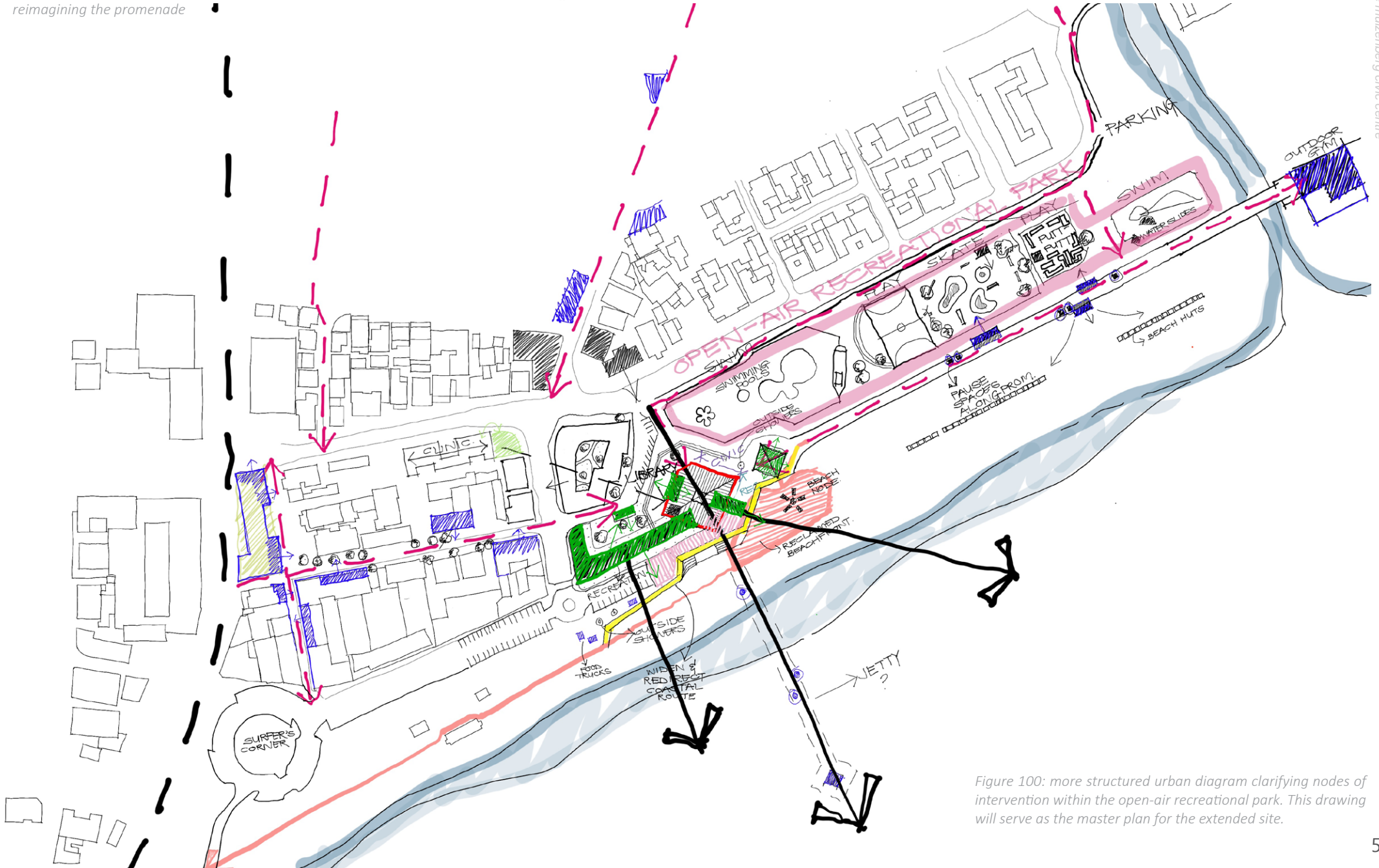


Figure 100: more structured urban diagram clarifying nodes of intervention within the open-air recreational park. This drawing will serve as the master plan for the extended site.

MUIZENBERG CIVIC CENTRE ADJACENT SITES

The development of the parking lot adjacent to the Muizenberg Civic Centre is crucial to the contextualisation and de-alienation of the site. This corner site needs to be developed to have strong edges which hold the corner intersection, mimicking the massing of the retail stores and accommodation on the opposite side of the street.

This building could provide a space for local initiatives that were squeezed out during Covid to be reintroduced. Whereas the second and third storeys could be designated residential accommodation, legal offices or specialist practitioners that feed off the neighbouring clinic in Atlantic Road.

The massings proposed in the design proposals (1-6 - pg. 59-62) require fragmentation and intervention to allow for a more porous façade that engages with the pedestrian through glazing, colonnades and canopies.

DESIGN PROPOSALS

The process I've followed for developing the proposal of this complex site has been predominantly physical and design-based as opposed to theoretical. Hence, the following proposals for the adaptation of the Muizenberg Civic Centre have varied drastically.

My gut response in all the responses has been to remove the wings flanking out of either side of the civic centre as they not only block the view but don't respond appropriately or engage with the civic centre itself.

The following proposals have been beneficial to the design process but were not fully resolved due to a hunch of the response being inappropriate or lacking substance.

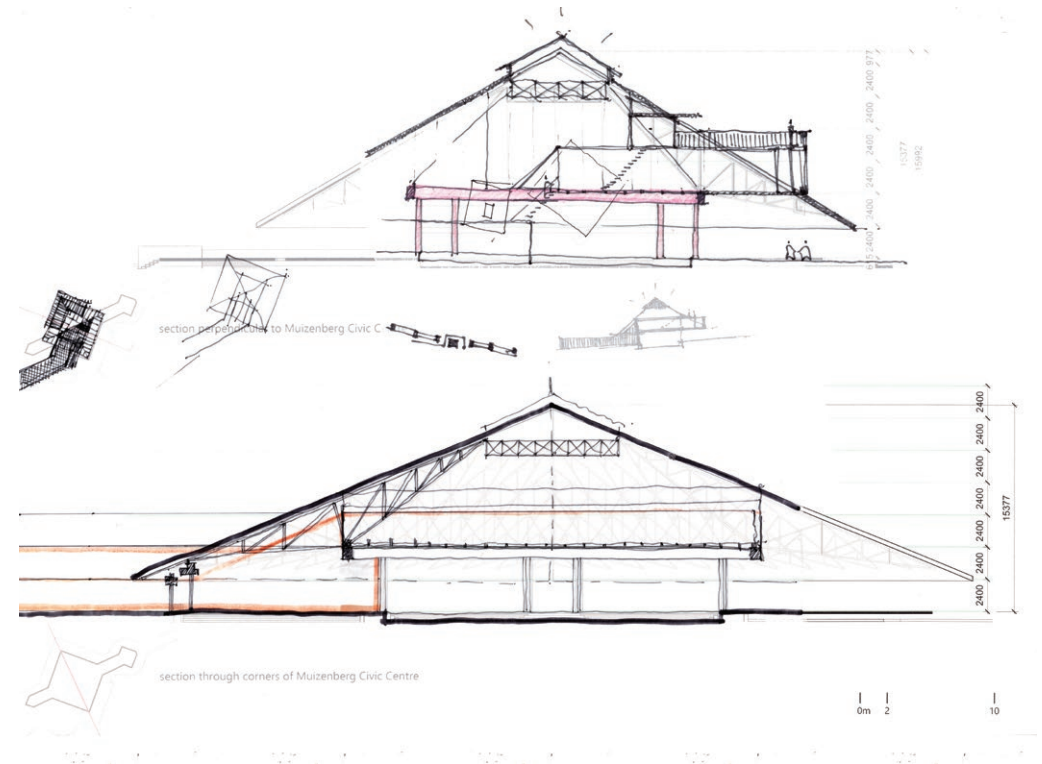


Figure 101: sectional development- inserting levels inside the civic centre.

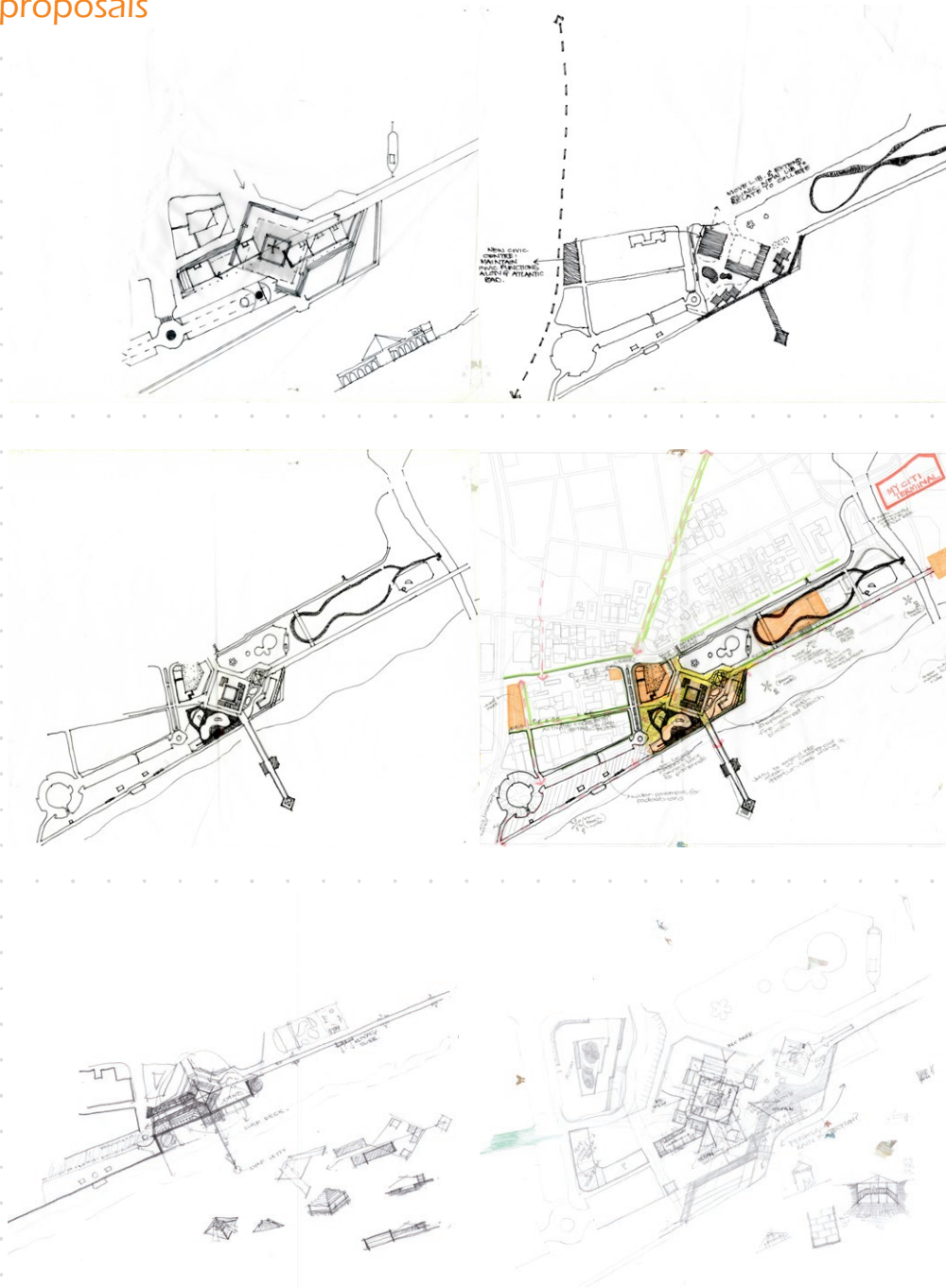


Figure 102 : initial design sketches investigating various ways of adapting the civic centre.

1



Figure 103: conceptual design presented at the first review illustrating the insertion of 3 additional levels inside the building. The split in the building was an attempt to bring additional light and ventilation into the centre of the building. However, the overall design was dubbed as being too polite and not transformative enough. It was the beginning of a space-making as opposed to the desired form-making exercise.



V
2

Initially, I wanted to cut away half of the building to re-establish a commercial edge that directly engaged with the ocean and views whilst protecting an open “courtyard” beyond that had an urban recreational function.

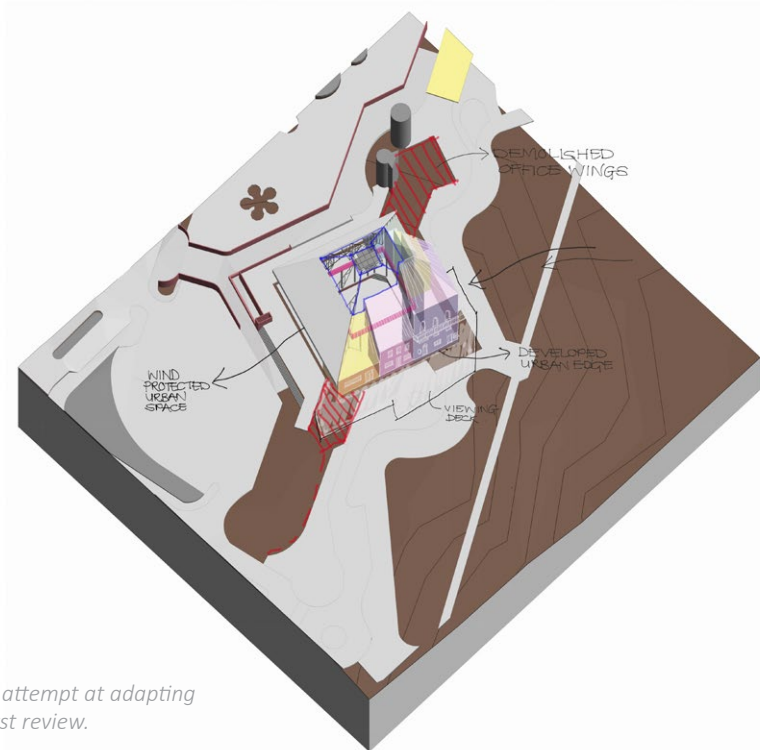
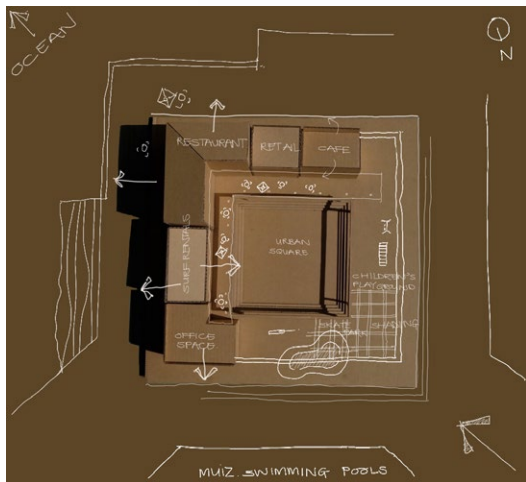


Figure 104: second attempt at adapting the site after the first review.



The scale of these new buildings were not in harmony with the existing civic centre and was not developed enough to understand its relationship to the surrounding urban context.

Figure 105: scale model built prior to the digital model. Pen overlay highlights the thoughts surrounding the proposal

3

This concept was informed by the existing urban fabric, aligning the new intervention with Beach Road (west). This proposal took advantage of the views and continued the commercial-retail strip from Surfer’s Corner into the civic centre.

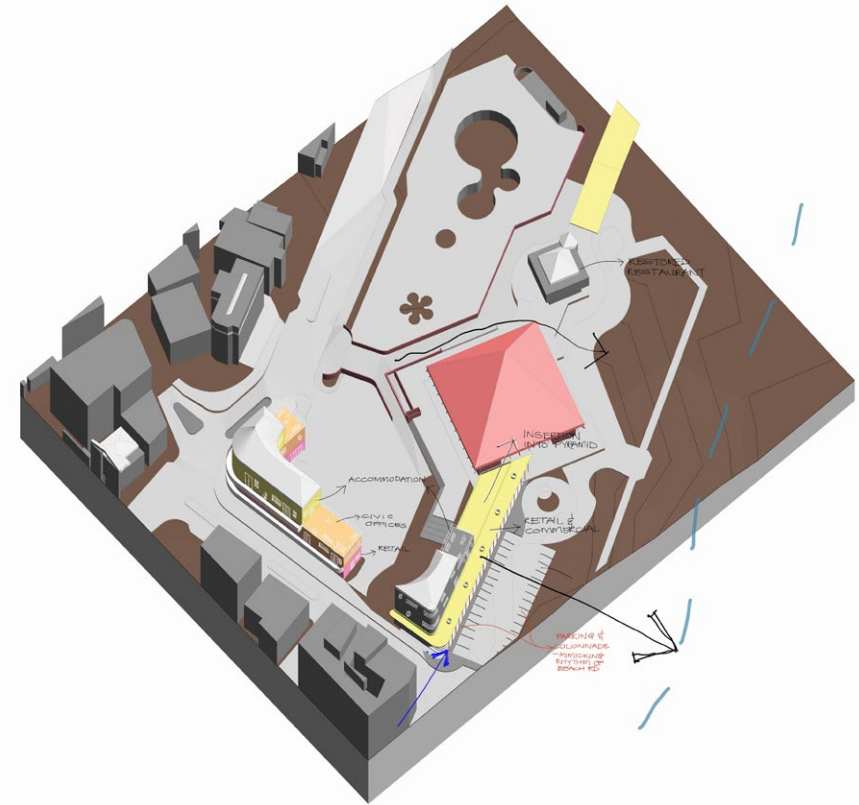


Figure 106: initial look at the adjacent parking lot site in conjunction with the civic centre intervention that slipped under the roof’s eaves, mimicking the orientation of the first and second pavilion. Thus, the intervention would have a more direct and engaged relationship with the ocean.

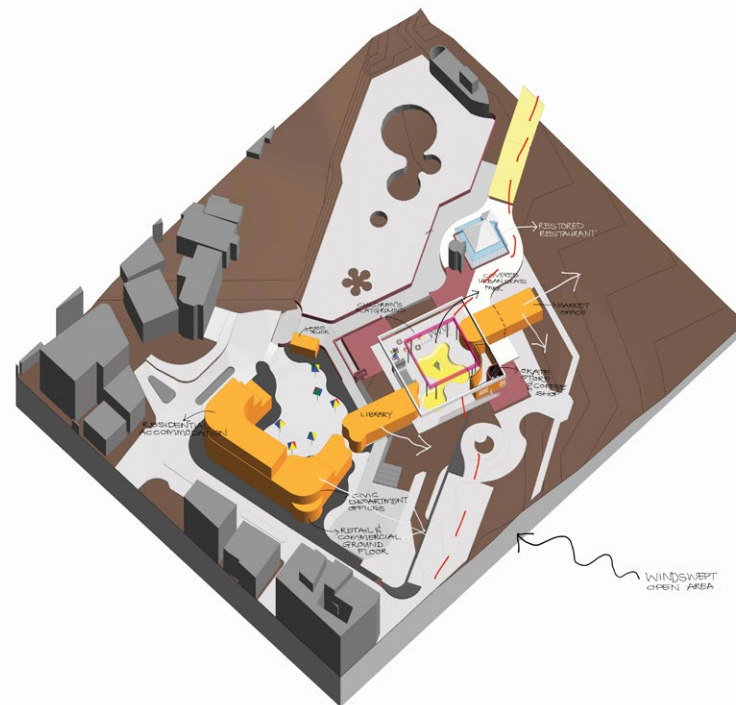
This proposal could have been taken further by crashing into the building as opposed to slipping underneath the pyramidal roof’s eaves.

The civic centre was treated as an 'umbrella', removing the external envelope to create a protected urban park with new interventions fitting and slipping under the roof's eaves.



Figure 107: imagining the civic centre as an umbrella to protect an urban park catering to skaters and children. The intention was to continue the rhythm of the open-air recreational park. The adjacent parking lot site was also further developed to better hold the space.

This proposal did not protect the covered internal park from wind and did not engage crudely enough with the civic centre. The urban park would also have been very dark and created spaces for vagrants to congregate, reducing the likelihood of being used by the public. It also would have created a lot of noise for the adjacent office buildings.



I took several elements from previous proposals and carefully combined them into one design for the second review. This design incorporated approaches from my own 'adaptive reuse palette' including inserting, slipping, extruding, protruding, cutting and fragmenting in an attempt to engage with the civic centre more directly, whilst acknowledging its natural environment.

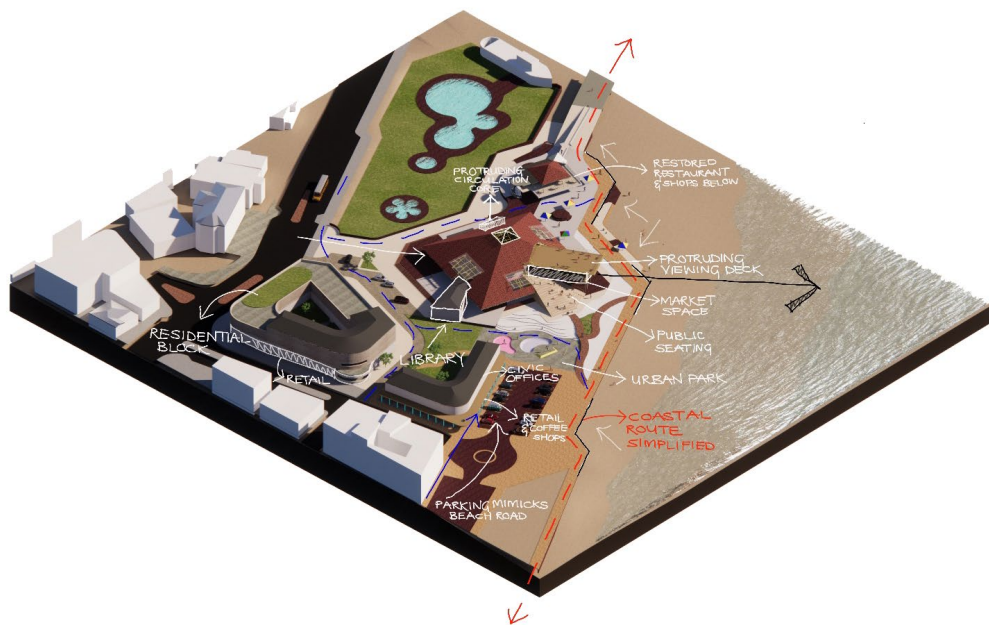
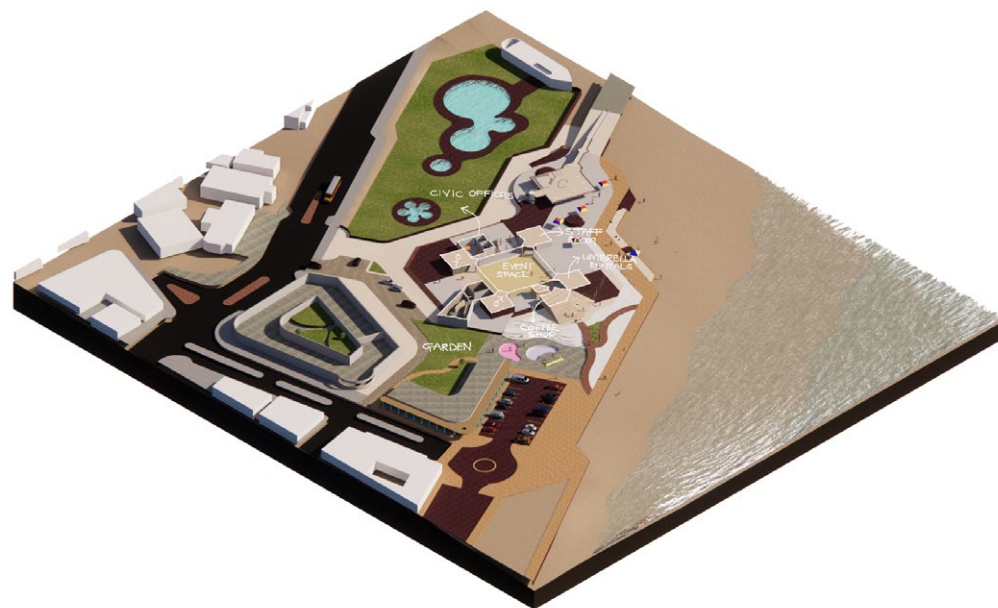


Figure 108: final concept presented at the second review.



This final proposal was not socially just but was endorsing a capitalist system. It should have been about giving space back to the public, without having to pay for it. It also didn't engage directly enough with the natural environment or elaborate on the external contribution of the building. The programme for the building was also very disjointed, a combination of standalone ideas which did not have enough of a formal spatial idea that tied it all together.

6

The latest proposal is a much cruder adaptation that references the second pavilion, in orientating the new insertion parallel to the shoreline whilst acknowledging and continuing the rhythm created along Beach Road (west). The form of the building is used as a tool to reinforce the site's civic and recreational integration, and not to negate it (*Lynch, 1960, p.46*).

This will ensure that the memory of the original Muizenberg Civic Centre is maintained whilst increasing its functionality and creating a direct linkage to the promenade, the coastal route, Beach Road, Melrose Road and the recreational activities beyond. It will also provide the urban space beyond with protection from the wind.

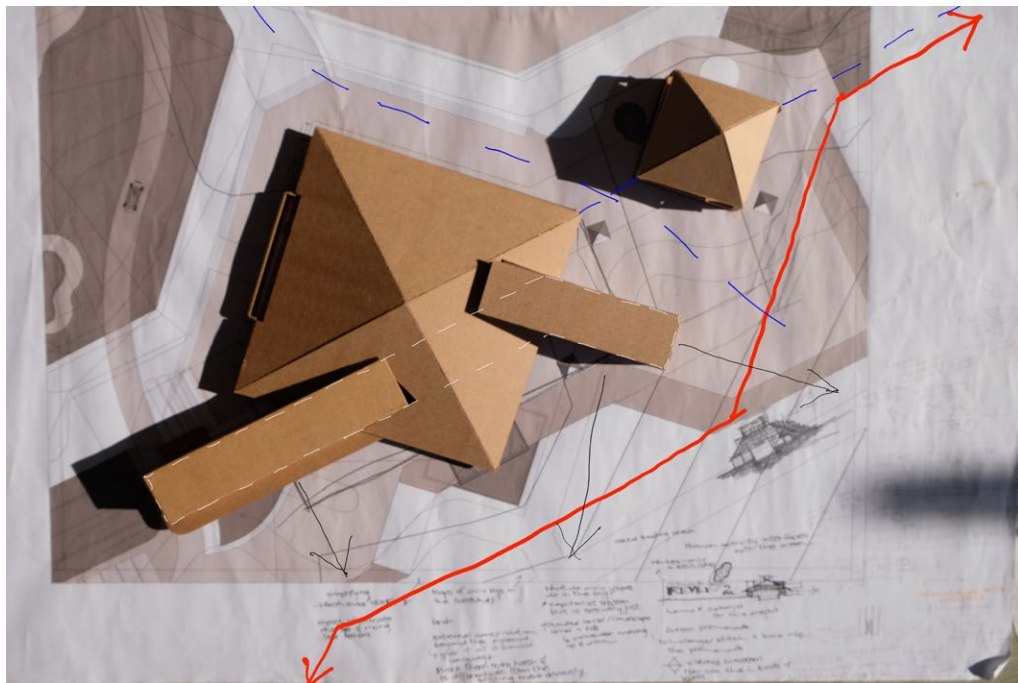


Figure 109: rethinking my design to be less disjointed and have one solid intervention that interrupts the building. After building this model I thought it would be more impactful to have the two insertions be connected (shown in white). The red line indicates the simplified, redefined coastal route.

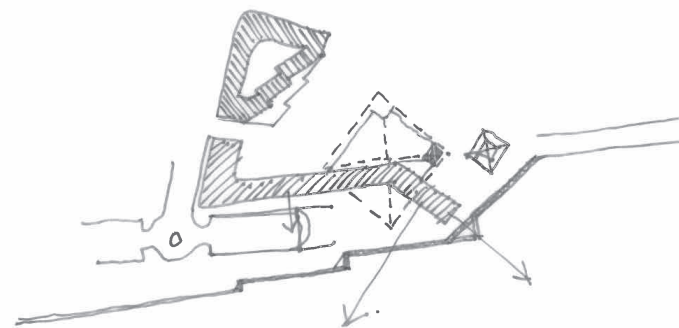
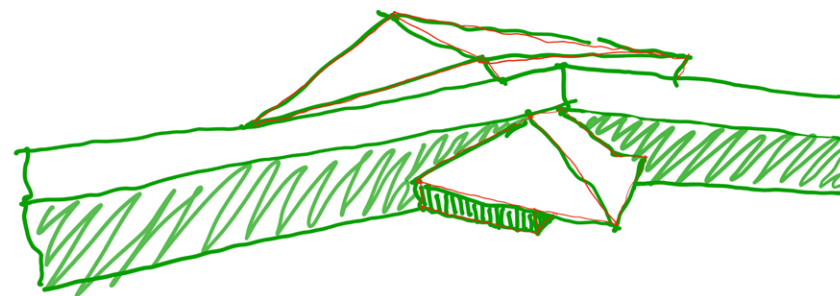
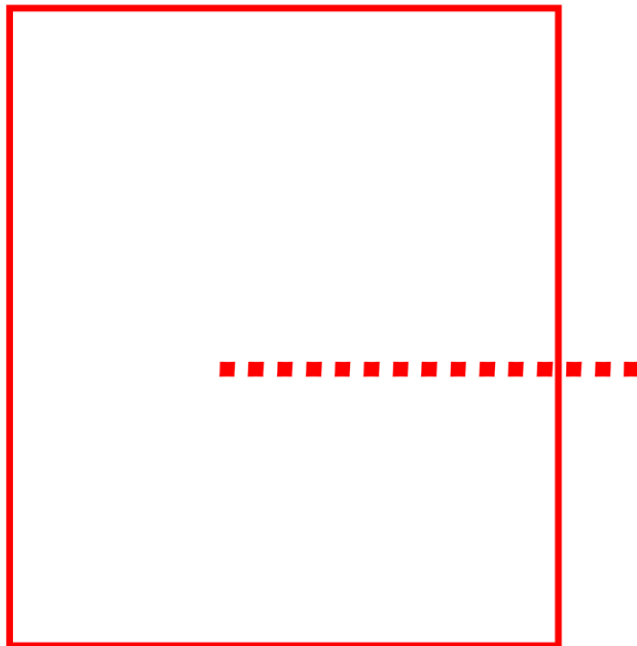


Figure 110: sketches illustrating my final design thoughts.

[VI]

**GOING FORWARD**

DESIGN APPROACH GOING FORWARD

The design, so far, is lending itself toward being less alienated and more integrated into its surrounding urban context by referencing and extending the existing rhythm that exists along Beach Road, developing the adjacent parking lot site and re-establishing the open-air amusement park and promenade as a destination. However, a vital element that is lacking, yet the focus of this project, is an appropriate adaptation of the Muizenberg Civic Centre that creates a socially just landscape that gives back to the locals without establishing a consumer-driven beachfront.

The remainder of this year will focus on finding the 'sweet spot' between inserting into the building, adapting it and maintaining its iconic value to finalise a design that will provide Muizenberg's residents and visitors with an environment that will heighten the potential depth and intensity of the human experience and thrive because of its obvious function, appropriate size, pedestrian consideration, and engagement with the natural landscape.

It is imperative that the overriding principles that guide this adaptation reinforce the desire for integration and accessibility whilst taking full advantage of its prime location.



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- [45]..... Figure 79: diagrammatic representation of the ten different approaches for adapting existing host structures according to Wong, Louw and Papanicolaou.
- [46]..... Figure 80: a section through the De Petrus Library, Museum and Community Centre which highlights the new intervention using the 'black-yellow-red' convention developed by Elisabeth and Martin Boesch. (The red overlay was added onto the original image by the author).

- [47]..... Figure 81: a photographic comparison of the grand staircase in the Neues Museum, Berlin. The first image was taken before the museum was bombed (a), the second photo shows the semi-ruin that was left after it was bombed (b) and then the last image reveals how this semi-ruin was restored by David Chipperfield Architects (c).
- [47]..... Figure 82: photographs of my first ‘ArchiMaki’ exercise where I used the practice of Kintsugi to restore a fragmented host (the broken brick). This not only increased its “value” by restoring it to its ‘original form’ but simultaneously reinstated its ‘structural capabilities’.
- [47]..... Figure 83: A sequence of images illustrating how the original grain silos at the V&A Waterfront (a) were structurally modified (d) to become the museum and hotel that they are today (b-c).
- [47]..... Figure 84: A series of drawings exhibiting the formwork and the concrete ‘skin’ required to be cast within each grain silo before they could be ‘cut’ into the desired forms.
- [48]..... Figure 85: a section of the Kolumba Museum by Zumthor uses the ‘black-yellow-red’ convention, developed by Elisabeth and Martin Boesch, to highlight the new intervention that is gently placed on top of the existing relic. Images b&c reveal the juxtaposition of the existing relic with the new intervention which guides the new spatial experience through the building whilst remaining reminiscent of the old.
- [48]..... Figure 86: this series of images captures three of the interventions implemented into the Zollverein coal mine which assisted in transforming the site into a publicly accessible museum.
- [49]..... Figure 87: these images highlight moments in the Castelvecchio Museum that Scarpa curated to acknowledge and juxtapose the relationship between the existing castle and new interventions for the museum.
- [49]..... Figure 88: the five additional adaptive reuse approaches added to my palette.
- [50]..... Figure 89: conceptual diagram to dictate the programme of the building.
- [51]..... Figure 90: table comparing the approximate areas of the various civic functions surrounding the civic centre replicas.
- [51]..... Figure 91: civic functions surrounding the Muizenberg Civic Centre that could potentially benefit from preserving the civic centre for overflow activities.
- [51]..... Figure 92: schools and colleges within the study area that could benefit from both the expansion of the library and the civic centre’s event space.
- [52]..... Figure 93: section cutting through the fish hoek beach and restaurant to understand the building’s interface with the beach.
- [52]..... Figure 94: A map of the various points of interest along the Fish Hoek and Clovelly beachfront, highlighting Jagger’s Walk along the southern edge of the bay. Jagger’s Walk has stairs with balustrades that plunge into the smaller rockpools.
- [53]..... Figure 95 (above): a map illustrating the various activity nodes along the Sea Point Promenade that has allowed it to establish itself as a user-friendly, inclusive waterfront recreational park.
- [53]..... Figure 96 (below): section cutting through the sea point promenade to understand the promenade’s relationship with the beach below and the grassed areas alongside.
- [54]..... Figure 97: conceptual diagrams that illustrate the guiding principles for the final design.
- [55]..... Figure 97 (above): initial urban sketch highlighting the dominant pedestrian routes across the site.
- [55]..... Figure 98 (below): initial sketch looking at the redirection of the coastal route and its relationship to both the newly adapted building and coastal route.
- [56]..... Figure 99: palimpsest of urban interventions onto the site.
- [57]..... Figure 100: more structured urban diagram clarifying nodes of intervention within the open-air recreational park. This drawing will serve as the master plan for the extended site.
- [58]..... Figure 101: sectional development- inserting levels inside the civic centre.
- [59]..... Figure 102 : initial design sketches investigating various ways of adapting the civic centre.
- [59]..... Figure 103: conceptual design presented at the first review illustrating the insertion of 3 additional levels inside the building. The split in the building was an attempt to bring additional light and ventilation into the centre of the building. However, the overall design was dubbed as being too polite and not transformative enough. It was the beginning of a space-making as opposed to the desired form-making, exercise.

- [60]..... Figure 104: second attempt at adapting the site after the first review.
- [60]..... Figure 105: scale model built prior to the digital model. Pen overlay highlights the thoughts surrounding the proposal.
- [60]..... Figure 106: initial look at the adjacent parking lot site in conjunction with the civic centre intervention that slipped under the roof's eaves, mimicking the orientation of the first and second pavilion. Thus, the intervention would have a more direct and engaged relationship with the ocean.
- [61]..... Figure 107: imagining the civic centre as an umbrella to protect an urban park catering to skaters and children. The intention was to continue the rhythm of the open-air recreational park. The adjacent parking lot site was also further developed to better hold the space.
- [62]..... Figure 108: final concept presented at the second review.
- [63]..... Figure 109: rethinking my design to be less disjointed and have one solid intervention that interrupts the building. After building this model I thought it would be more impactful to have the two insertions be connected (shown in white). The red line indicates the simplified, redefined coastal route.
- [64]..... Figure 110: sketches of my final design thoughts.

BACKGROUND INFORMATION DOCUMENT MUIZENBERG BEACHFRONT UPGRADES

Project Background

The City of Cape Town proposes to refurbish public coastal infrastructure and services at Muizenberg Beachfront. The proposed upgrades will take place at Surfers Corner, on the western part of the beachfront along Beach Road in Muizenberg, see **Figure 1** site map. The main upgrade area boundary includes the main promenade area, Surfers Corner steps, St James walkway connection area and the western and eastern parking area.

Muizenberg beachfront is a coastal destination place and is one of the most utilised and diverse coastal beachfronts in Cape Town. However, public coastal infrastructure and services along this beachfront are in decline. Key infrastructure

such as seawall and wooden revetment have passed their designed life and are beginning to fail. Should the public coastal infrastructure and services not be replaced with well-planned robust, new coastal defence structures, it could result in loss of the public amenity, risk to public health and safety, as well as inappropriate and/or high costs of emergency interventions.

The City of Cape Town has appointed a professional team to investigate and prepare designs for the proposed upgrades to be undertaken at the beachfront. The project design team includes civil and coastal engineers as well as architectural and landscaping consultants.



Project proposal

The proposed upgrades and repairs include:

- New stepped revetment coastal protection structure to replace the wooden seawall and degraded stone steps;
- Refurbishment of hard and soft landscaping and amenities along beachfront as well as improved connection to the St James coastal walkway;
- Incorporate 3 metre-wide universally accessible promenade;
- Formalising of the eastern and western parking areas;
- Upgrade of the land-side recreational areas and Playground;
- Realignment of existing services as required for the above mentioned works; and
- Demolition of existing ablution facility in the wave run-up zone and construction of new ablution.

Environmental Process

An application will be made for environmental authorisation to undertake activities listed in terms of the National Environmental Management Act, 1998 and the Environmental Impact Assessment Regulations, 2014 (GNR 326 of 2017). These include activities 15, 19A and 52 of Listing Notice 1 (GN 327 of 2017), relating to construction or expansion of structures in the coastal public property and infilling or excavation of material within 100 metres of the high water mark.

Infinity Environmental (Pty) Ltd, has been appointed as the independent Environmental Assessment Practitioner to undertake the required environmental statutory process, and will also be responsible for facilitating the public engagement processes.

How to participate

You are invited to attend a public Open Day where project information will be on display and the design team will be available to answer questions and discuss your inputs.



The Open Day will take place on **Wednesday, 7 September 2022** at the **Muizenberg Civic Centre** between 3:00 PM and 7:00 PM. Please come at any time that suits you.



You are also invited to register as an interested and affected party for an Environmental Impact Assessment of the proposed upgrades. The first public participation commenting period will start on **25 August** and end on **26 September 2022**.



Project information is available at www.infinityenv.co.za/muizenbergbeachfront Information displayed at the Open house will be made available online after 7 September 2022

For more information, to comment, or to arrange alternative ways of participating, please contact the Environmental Assessment Practitioner, **Tarryn Solomon of Infinity Environmental**:

comments@infinityenv.co.za

www.infinityenv.co.za

(021) 834 1602 079 086 1453

Suite 17, Private Bag X11, Mowbray 7705

Tips for participating effectively

- 1 **Register** as an Interested and Affected Party to stay informed on the process and secure your right to comment and give inputs. There will be further opportunities to participate in the coming months, and all registered I&APs will be notified of these.
- 2 **Be as specific as possible** in your comments or queries to ensure that they can be addressed and responded to appropriately.
- 3 **Ask for help** at the details above if you need any assistance accessing information or giving your inputs. Hard copies or translations of documents can be made available on request.

PROCESS OVERVIEW

Muizenberg Beachfront Upgrades

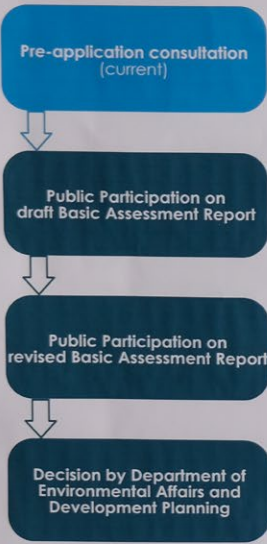


ENVIRONMENTAL BASIC ASSESSMENT

Basic Assessment Process



Participate



Thank you for attending today's **Open Day!**
Register as an Interested and Affected Party to stay informed throughout the process.
 Provide your **comments** on the concept designs online, by email, via post or Whatsapp, or by completing a comment form today.
 The first comment period closes on **26 September 2022**.

All Registered Interested and Affected Parties will be informed of the publication of the draft Basic Assessment Report.
 Review the reports and provide your comments during a 30-day comment period.

All Registered Interested and Affected Parties will be informed of the publication of the revised Basic Assessment Report.
 Review the reports and provide your comments during a 30-day comment period.

All Registered Interested and Affected Parties will be informed of the decision.

What is an EIA?

Developments that may cause negative effects on the environment require **environmental authorisation** from the competent authority before they can go ahead.

Environmental impact assessment - in this case, a **Basic Assessment** - is a tool used to examine the impacts the development might have, so that an informed decision can be made. It helps the authorities to determine if, and on what conditions, a development should be allowed to proceed.

A Basic Assessment must comply with the regulated requirements of the **National Environmental Management Act** and the **EIA Regulations, 2014**.

An EIA must be conducted by an independent **environmental assessment practitioner**.

The City of Cape Town has appointed **Infinity Environmental** to conduct a Basic Assessment.



For more information, to comment, or to arrange alternative ways of participating, please contact the Environmental Assessment Practitioner, Tarryn Solomon of Infinity Environmental.

- comments@infinityenv.co.za
- www.infinityenv.co.za
- (021) 834 1602
- 079 086 1453
- Suite 17, Private Bag X11, Mowbray 7705

Both options propose: the demolition of the Chalet (existing ablution block) which currently sits on the beach and is beginning to deteriorate, a new children's playground (highlighted in blue), reshaping of the soft landscaping, relocation of the bathing boxes further eastwards and westwards as well as the formalisation of the currently gravel parking lot on the western edge of Surfer's Corner. A new raked seating area is also being proposed in Surfer's Corner that replaces the weakening sea wall and improves the connection to the coastal route.

The most obvious difference between the first and second proposal is the relocation of the ablution block to either just behind the current Shark Spotters and Waves for Change facilities (Option A) or their relocation to alongside the train tracks and new parking lot (Option B).

OPTION A





MUIZENBERG
BEACH UPGRADE
DESIGN DEVELOPMENT
OPTION A
23 September 2023

CITY OF CAPE TOWN
DIVISION OF URBAN DESIGN & PLANNING



Figure 70: graphic renders of the proposed relocation of the ablution block and demolition of the Chalet to ensure an uninterrupted, 3-metre wide, universally accessible promenade along the beach edge.

Figure 70: rendered view showing the new raked seating, improved connection to the coastal route and formalised parking lot.

OPTION B





CIVIC FUNCTIONS IN MUIZENBERG



GREEN SPACES VS. PARKING IN MUIZENBERG



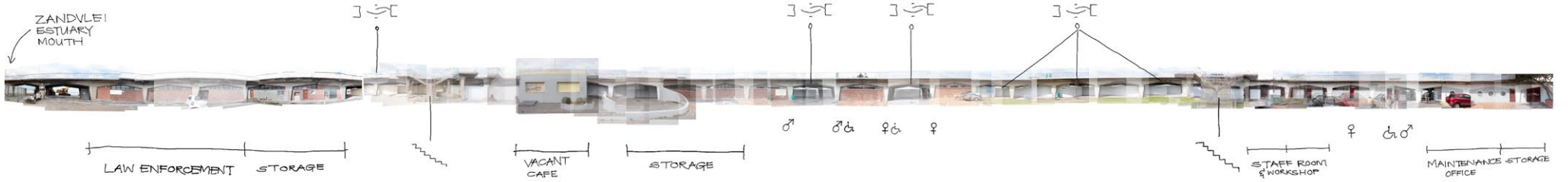
TOWN FUNCTIONS



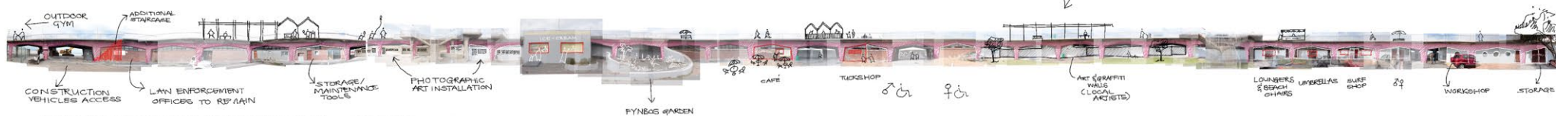
PADESTRIAN ROUTES



EXTENDED SITE PROPOSAL

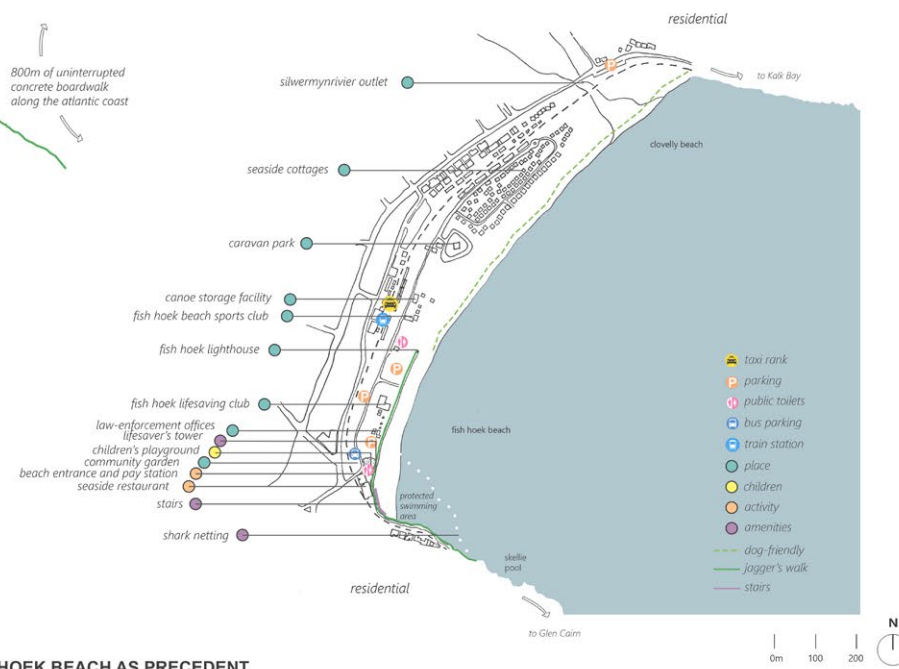
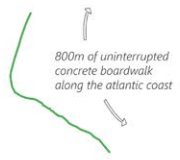
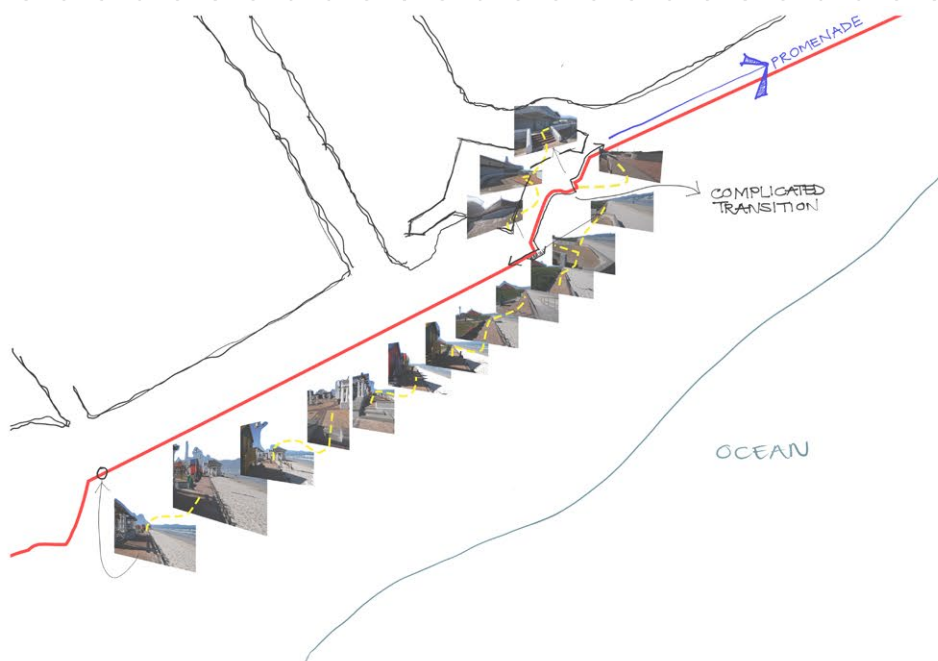


THE PROMENADE'S CURRENT CONDITION - (BEFORE)
not to scale



THE PROMENADE'S NEW PROPOSAL - (AFTER)
not to scale

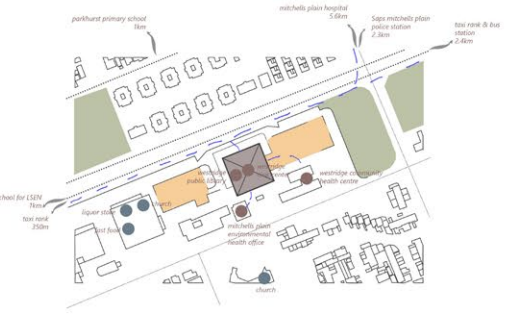
contextualising the muizenberg civic centre



COASTAL ROUTE



CIVIC CENTRE LOOKALIKE LOCATIONS



WESTRIDGE CIVIC CENTRE

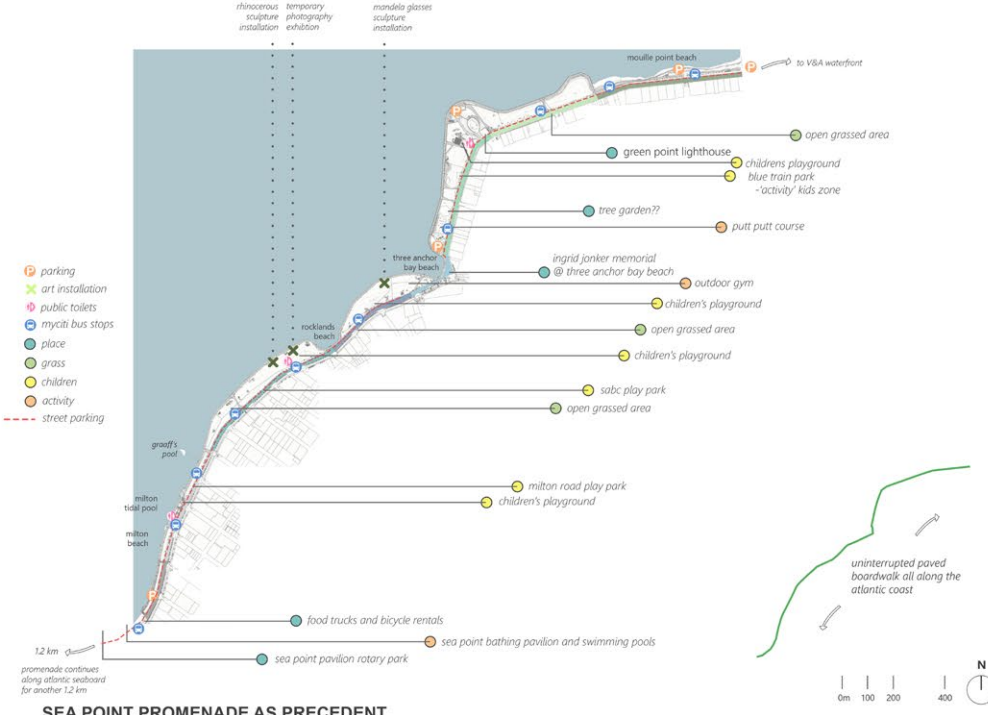


MUIZENBERG CIVIC CENTRE

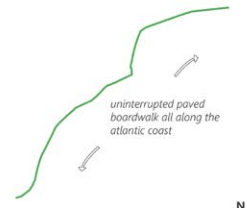


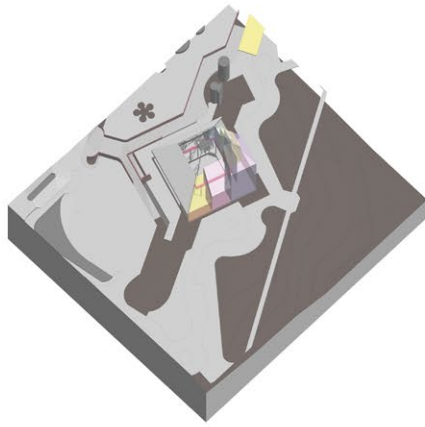
RETREAT CIVIC CENTRE

FISH HOEK BEACH AS PRECEDENT

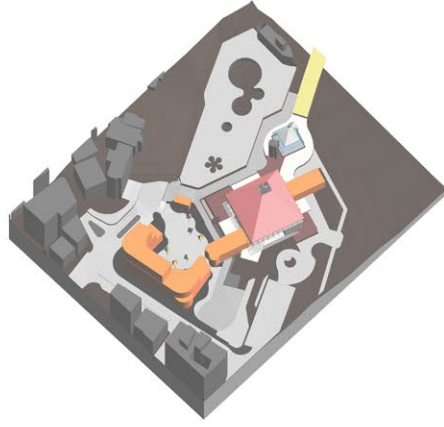


SEA POINT PROMENADE AS PRECEDENT

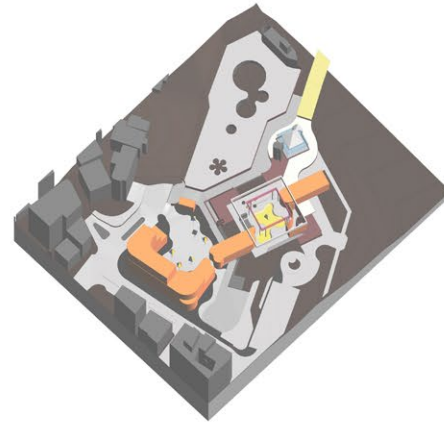




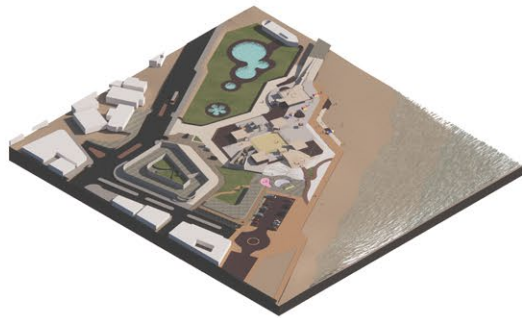
CONCEPT 1



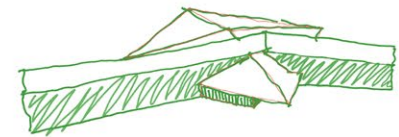
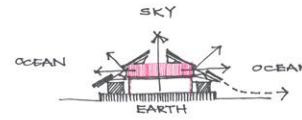
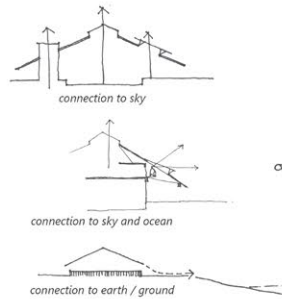
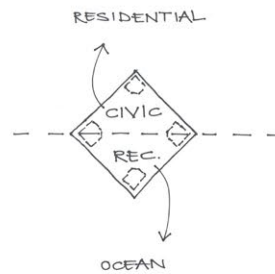
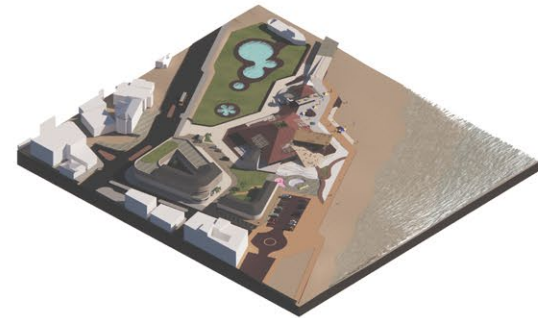
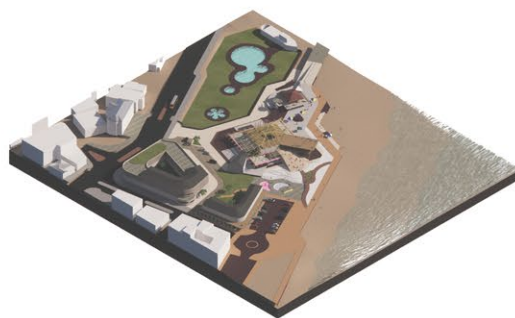
CONCEPT 2



CONCEPT 3



CONCEPT 4



CONCEPT 5

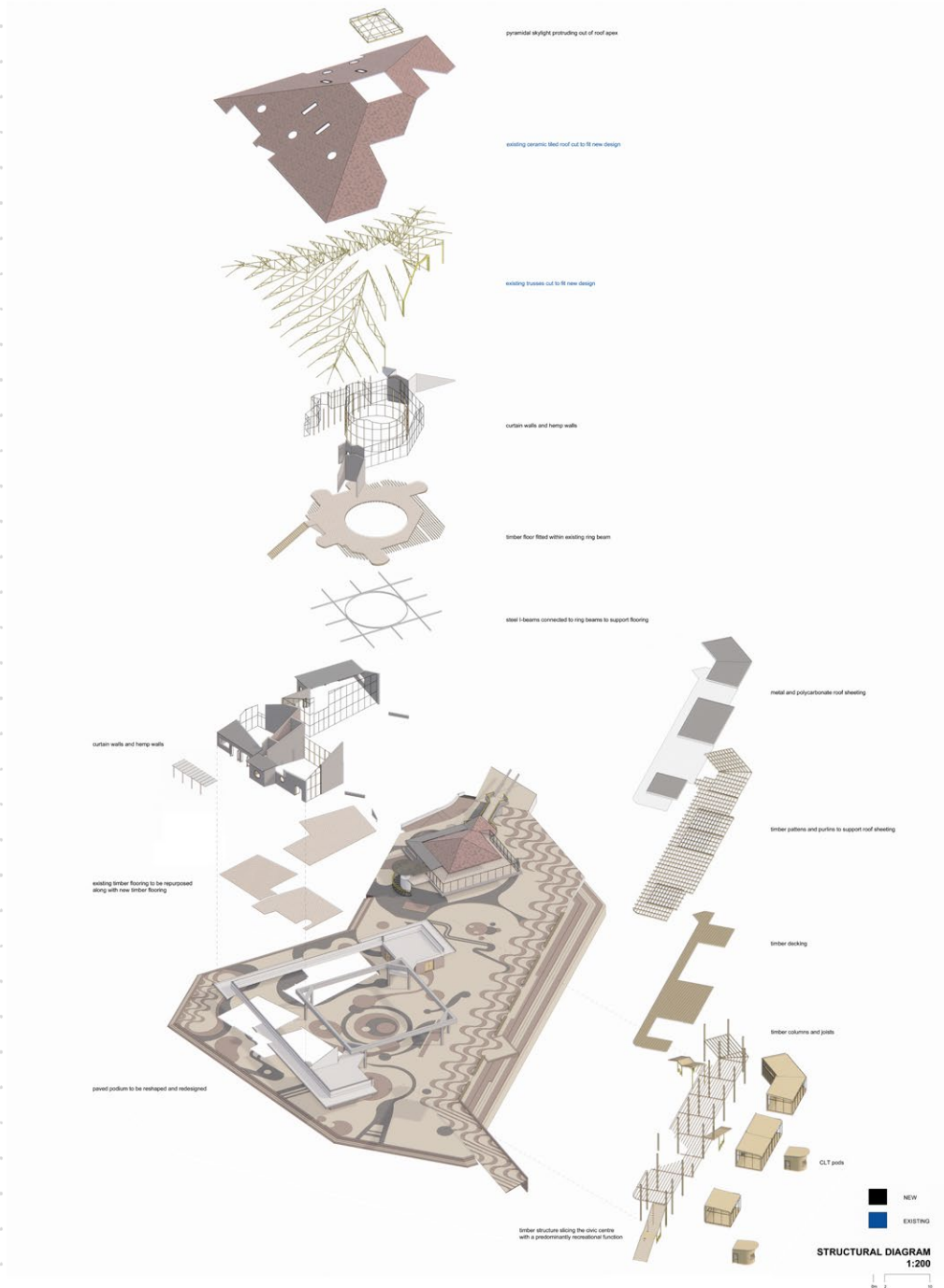
CONCEPTUAL & DESIGN PROCESS

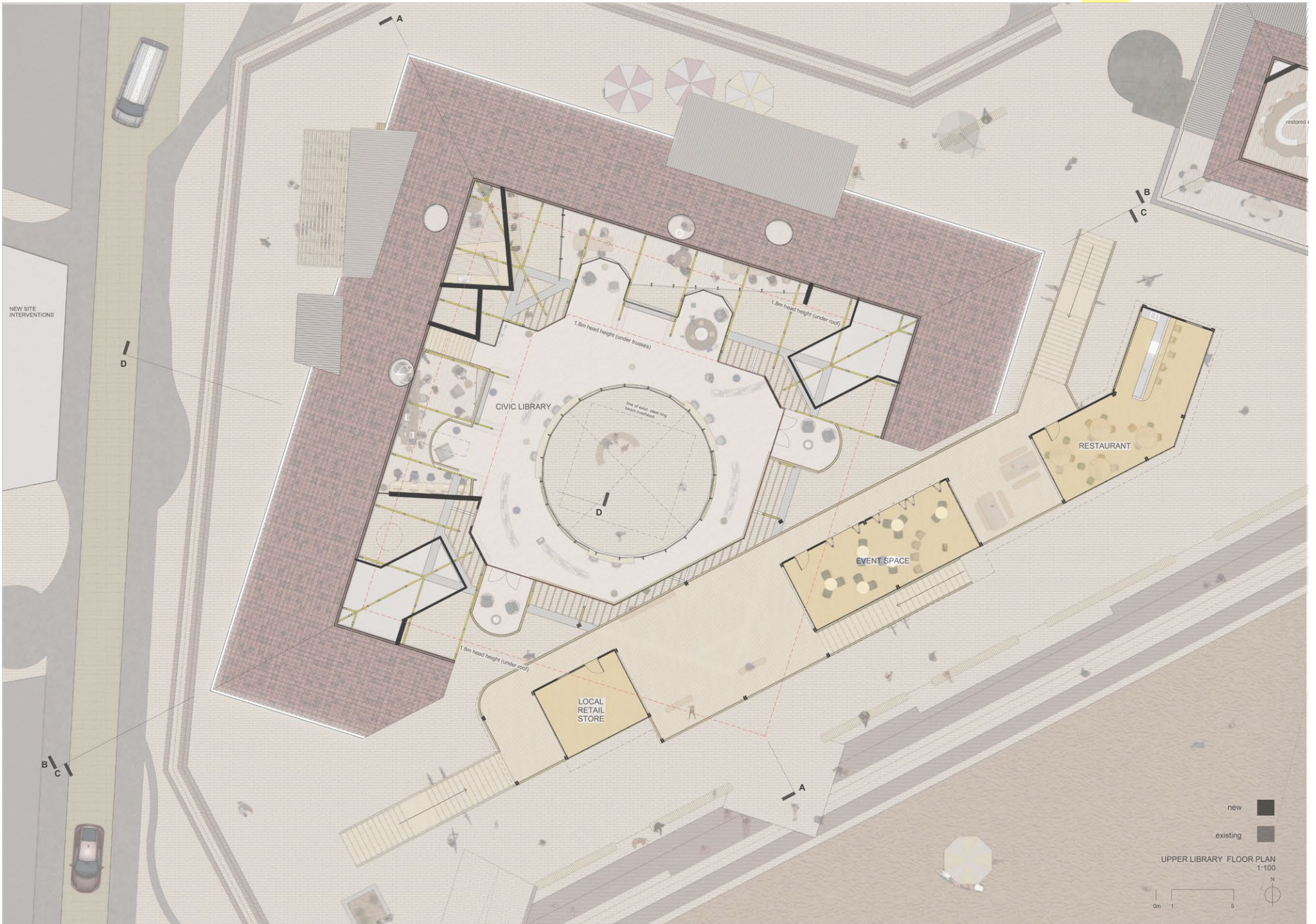


SITE PLAN
1:1500

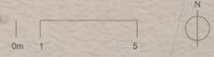


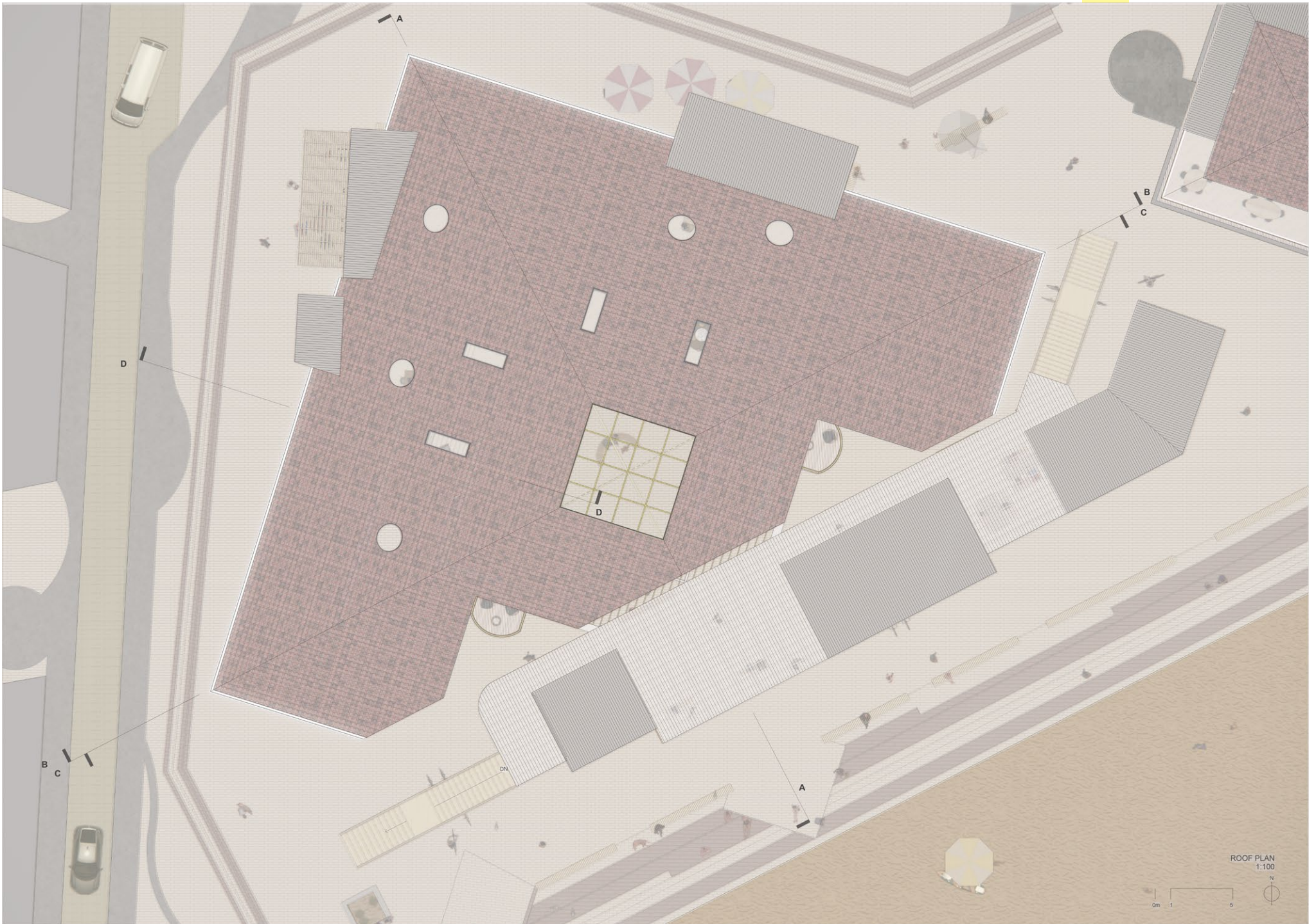
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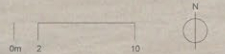
UPPER LIBRARY FLOOR PLAN
1:100

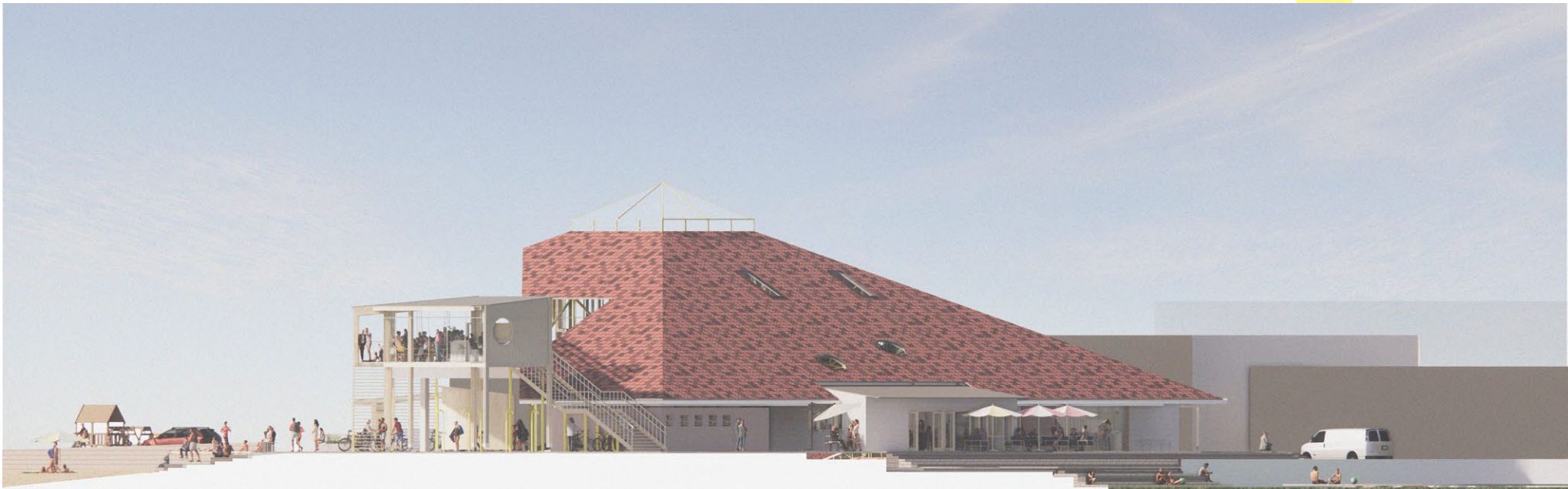




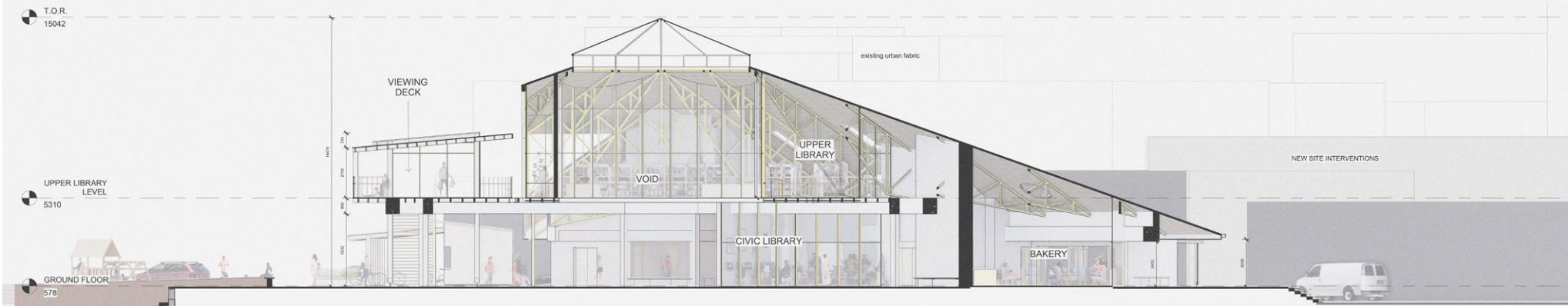


FLOORING PATTERN PLAN
1:200





WEST-FACING ELEVATION

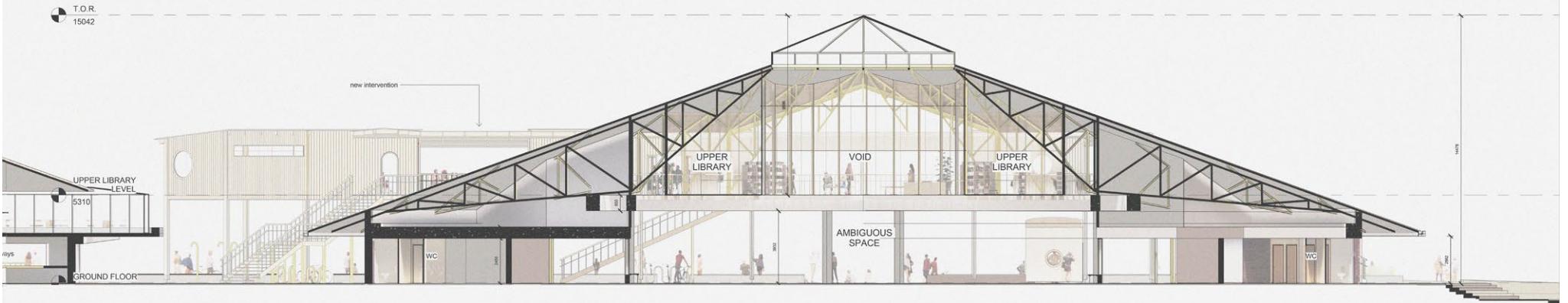


WEST-FACING SECTION
1:100

1:100



SOUTH-FACING ELEVATION

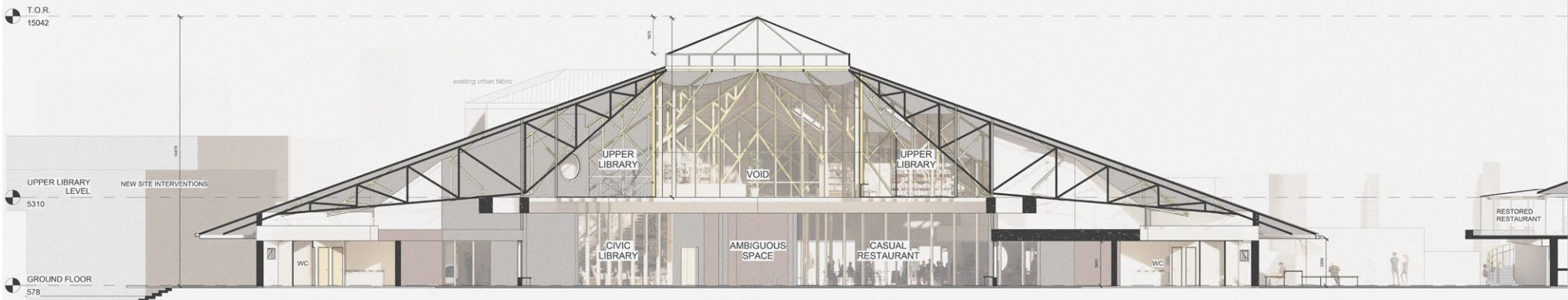


SOUTH-FACING SECTION
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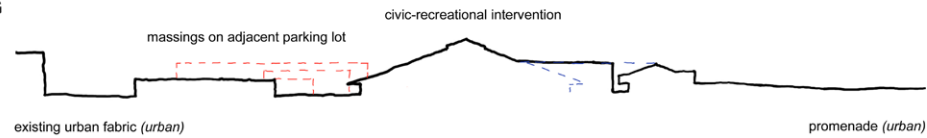
NORTH-FACING ELEVATION



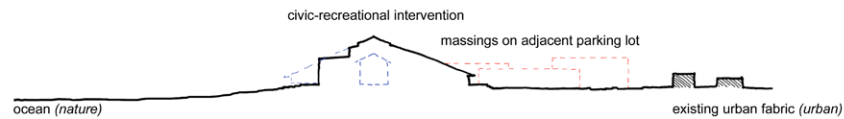
NORTH-FACING SECTION
1 : 100



CONTEXTUALISING ELEVATION : NORTH-FACING
not to scale



CONTEXTUALISING ELEVATION : WEST-FACING
not to scale



| | |
|---|----------|
| ■ | EXISTING |
| ■ | NEW |

ENTRANCE BETWEEN BAKERY AND RESTAURANT



CIRCULAR VOID



LIBRARY INTERIOR



LIBRARY ENTRANCE



STAIRWAY UP TO NEW TIMBER INTERVENTION



RESTAURANT



BEFORE - FRONT ELEVATION



AFTER





BEFORE - (images taken by architect Graham Parker)

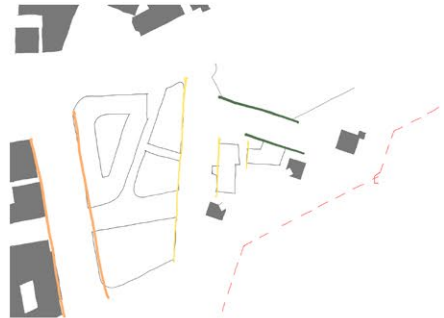


FRONT ENTRANCE

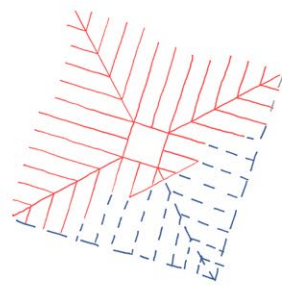
AFTER - (rendered images)



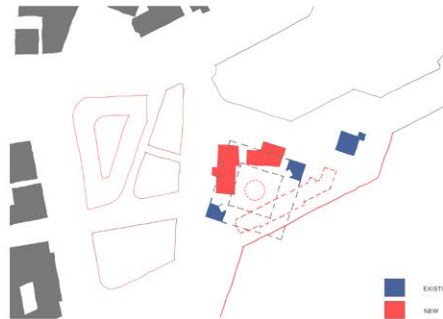
WEST-FACING VIEW



ORIENTATING NEW INTERVENTIONS



ALTERATION TO EXISTING TRUSS SYSTEM



EXISTING VS. NEW



GROUND FLOOR

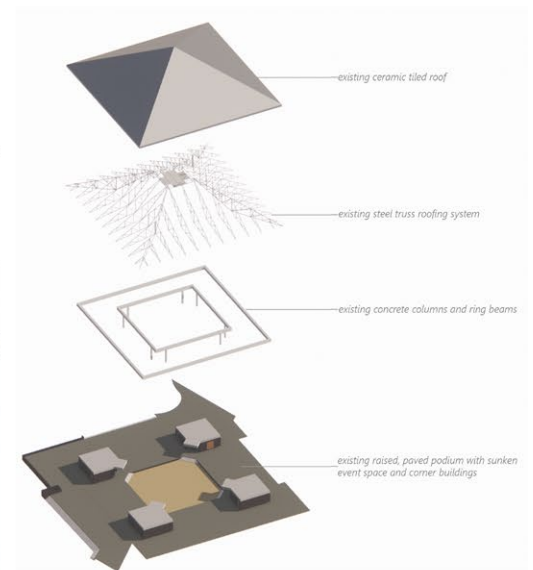
CIRCULATION



UPPER LIBRARY FLOOR



SITE



EXISTING STRUCTURE



ETHICS APPLICATION FORM

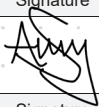
Please Note:

Any person planning to undertake research in the Faculty of Engineering and the Built Environment (EBE) at the University of Cape Town is required to complete this form **before** collecting or analysing data. The objective of submitting this application *prior* to embarking on research is to ensure that the highest ethical standards in research, conducted under the auspices of the EBE Faculty, are met. Please ensure that you have read, and understood the **EBE Ethics in Research Handbook** (available from the UCT EBE, Research Ethics website) prior to completing this application form: <http://www.ebe.uct.ac.za/ebe/research/ethics1>

| APPLICANT'S DETAILS | |
|--|---|
| Name of principal researcher, student or external applicant | |
| Department | |
| Preferred email address of applicant: | |
| If Student | Your Degree: e.g., MSc, PhD, etc. |
| | Credit Value of Research: e.g., 60/120/180/360 etc. |
| | Name of Supervisor (if supervised): |
| If this is a research contract, indicate the source of funding/sponsorship | |
| Project Title | |

I hereby undertake to carry out my research in such a way that:

- there is no apparent legal objection to the nature or the method of research; and
- the research will not compromise staff or students or the other responsibilities of the University;
- the stated objective will be achieved, and the findings will have a high degree of validity;
- limitations and alternative interpretations will be considered;
- the findings could be subject to peer review and publicly available; and
- I will comply with the conventions of copyright and avoid any practice that would constitute plagiarism.

| APPLICATION BY | Full name | Signature | Date |
|--|-----------|--|------------|
| Principal Researcher/ Student/External applicant | |  | 04.03.2022 |
| SUPPORTED BY | Full name | Signature | Date |
| Supervisor (where applicable) | | | |
| APPROVED BY | Full name | Signature | Date |
| HOD (or delegated nominee) Final authority for all applicants who have answered NO to all questions in Section 1; and for all Undergraduate research (Including Honours). | | | |
| Chair: Faculty EIR Committee For applicants other than undergraduate students who have answered YES to any of the questions in Section 1. | | | |



PRE-SCREENING QUESTIONNAIRE OUTCOME LETTER

STU-EBE-2022-PSQ000056

2022/10/25

Dear Amy Schofield,

Your Ethics pre-screening questionnaire (PSQ) has been evaluated by your departmental ethics representative. Based on the information supplied in your PSQ, it has been determined that you do not need to make a full ethics application for the research project in question.

You may proceed with your research project titled:

An investigation into hemp as a sustainable construction material for the adaptation of the Muizenberg Civic Centre

Please note that should aspect(s) of your current project change, you should submit a new PSQ in order to determine whether the changed aspects increase the ethical risks of your project. It may be the case that project changes could require a full ethics application and review process.

Regards,

Faculty Research Ethics Committee