



fig. 17: Illustrative section of the wetland roads with native planting, boardwalks, and water treatment ponds lining the roadway

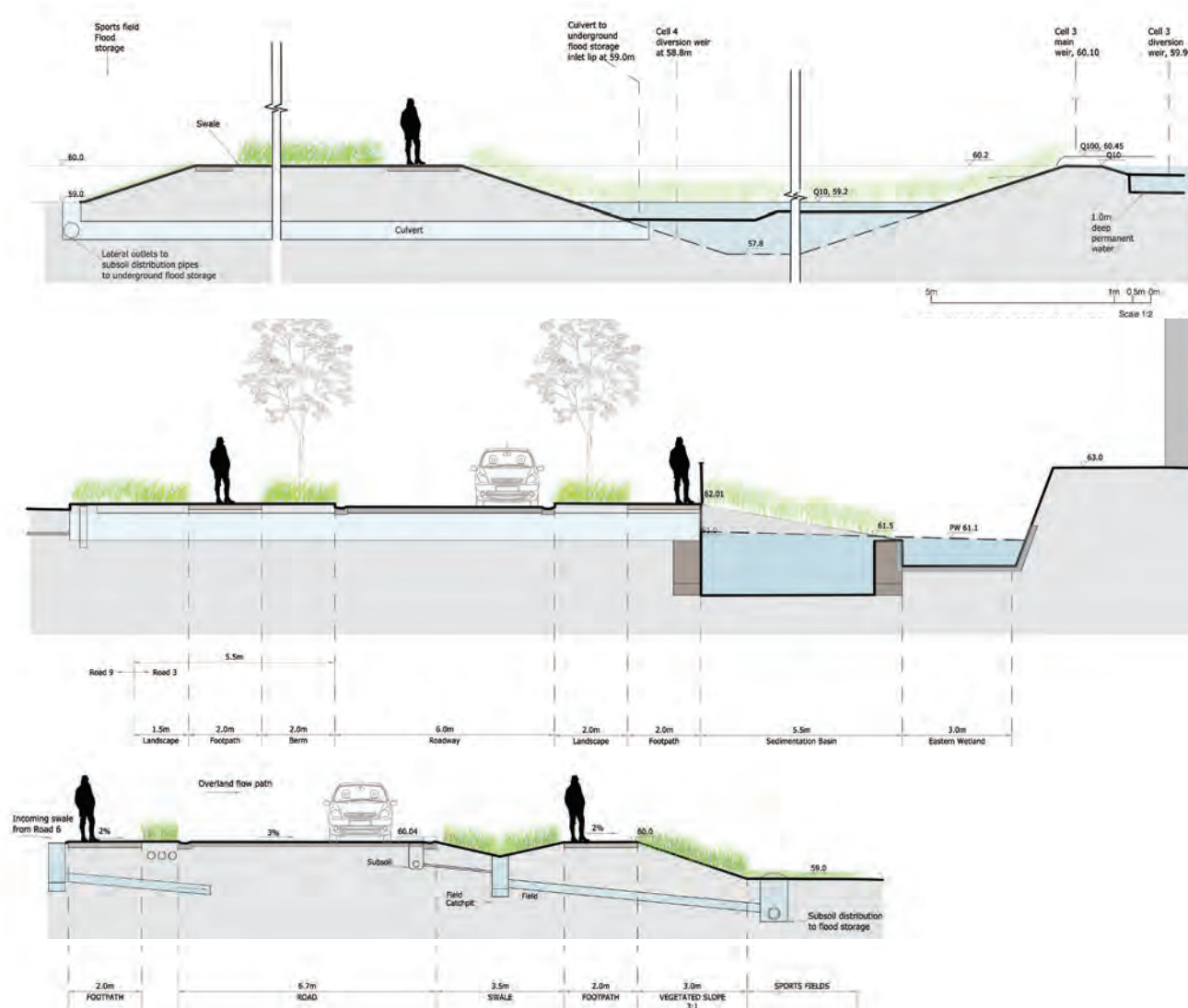


fig. 18: Sections of the engineered wetland treatment system integrated into the road network

The large opening in the ground left by former quarry activity funnels water from surrounding sites to the centre of the quarry, which currently deals with the excess water in the form of a scoria soak pit located in the south western corner. The site drains very well due to high permeability of the scoria substrate, recharging the large fresh water aquifer below the site. Our design currently takes advantage of the current hydrological strengths on-site and transforming it to integrate the storm water management capabilities with the landscape vision.

The use of open spaces for storm water management and drainage will be a key opportunity during the development of the community at Three Kings. While providing green open spaces for people is a key driver of the master plan, it is also essential that these spaces perform at a high level with regard to dealing with stormwater generated on the site. The sports fields at the centre of the development and subsequent green spaces act as retention ponds that are important tools during extreme flood events (greater than 10 year ARI). To aid in the matter, the master plan seeks to employ a wetland ring that runs along the inner face of the former quarry edge. This circular wetland will hold storm water runoff and act as preliminary filtration before feeding back to the permeable scoria layer and later to the aquifer. By efficiently and responsibly dealing with water on site the development has an opportunity to recharge the aquifer with clean water. Another benefit of using an extensive network of wetlands is that they provide a diverse and interactive amenity for those visiting the site. Pedestrians would be able to walk along and through the wetlands along a series of board walks that will bridge above reeds and open ponds. Once the stormwater has been treated and has passed through the four tiered wetlands, the groundwater of the highest purity within the fourth wetland cell is then pumped back to the north-west corner of the site. The waiora (highest purity ground water) can then be used as publicly accessible landscape water feature. The potential site for a new water feature will be situated at the top of the basalt rock outcropping nest to the Maunga, allowing for the waiora to cascade into a sacred outcropping of pools and terraces. The process of water treatment and environmental planning is now able to celebrate the cultural importance of waiora on the Three Kings site.

10. Open space and recreation

One of the largest opportunities provided for in this master plan is that of creating a connective open space experience for pedestrians. The site is located in the middle of a fragmented network of parks and reserves. The development could act as a primary linkage to a number of sites by providing accessible routes through and around the project. A new network of pathways, stairs, lifts, boardwalks, trails, and elevated structures can grant new access from Mt Eden Road and Grahame Breed Drive through the Three Kings site up to Big King, something that is virtually impossible at the current time.

In order to promote a healthy and active community in the future within the Three Kings area, a large connective open space network has been developed. Spaces devoted to play and leisure fold into the plan, allowing residents and the public access from a variety of entry points around the site. The plan connects park spaces, vistas, and trails that previous were difficult to navigate, with a new network of public pathways, boardwalks, and terraces. Overall, this proposal for Three Kings will add 8.9km of public pathways to the existing routes. See Appendices for an



outline of the trail opportunities the development presents.

From a landscape perspective, the central park known as The Green represents the heart of the new Three Kings open space network. While Big King is still the primary focus of the development's orientation, The Green sits as the epicentre of the site. The Green will hold two regulation sized grass soccer pitches oriented in the North-South direction, but will continually remain accessible for pedestrians to use as an open park space when matches are not being held. Connected to the soccer pitches to the east is an extension of The Green that is not devoted to a specific activity and acts more as true open space for play and relaxation. There is the opportunity for the Council and community to provide park amenities within the Green such as accessible play space, children play structures, restrooms, changing rooms, and storage space. Surrounding the southern half of The Green will be pohutukawa street trees that will act as shading as well as noise screens for apartments during larger events. On-street parking around the ring road will serve the area with 94 car park spaces that will be integrated with landscape elements that visually mitigates large expanses of hardscape and benefits storm water run-off to the tree pits for further treatment.

11. Matters to be included in plan change

We have assessed the provisions of the private plan change and consider that they are sufficient and appropriate to achieve the urban design outcomes of the master plan.

12. Conclusions

This design proposal for the Three Kings Renewal has been inspired by a dynamic volcanic landscape and the cultural actions that shaped that landscape over time. These strategies help to restore the virtues and connections of the surrounding network of open spaces to the last existing Maunga, Big King. The design promotes a holistic approach that engages with the local communities through a strong landscape narrative drawn from cultural considerations. The master plan offers a legible road network and unique landscape features that heal the current site environmentally, educate the community, produce engaging spaces for play and leisure, and an environment that creates cultural connections between Maori and European understandings of site



fig. 19: Potential pathways networks and distances within the new Three Kings Renewal development proposal