

# NGAHINAPOURI VILLAGE CONCEPT PLAN.

N1 / N2 / N3 GROWTH CELLS & NGAHINAPOURI VILLAGE.

24<sup>TH</sup> MAY 2021

REVISION: H

FINAL



Boffa Miskell





Conceptual Artist's Impression of Village Commercial Precinct building with al-fresco dining, covered pedestrian frontage and on-street parking.

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## Document Quality Assurance

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Cover image: Artist's Impression: Village Commercial Centre

# INTRODUCTION.

## VISION.

The vision of the Ngahinapouri Village community is to develop a blueprint for sustainable growth, future development and look and feel of the Ngahinapouri township and community to 2050.

## PURPOSE.

The purpose of the Ngahinapouri Village Concept Plan is to provide overall guidance for the sustainable growth, future development and look and feel of the township to 2050, by focusing on the specific needs, aspirations and vision of the community.

## EXISTING DRAFT VILLAGE CONCEPT PLAN.

A Draft Village Concept Plan for part of Ngahinapouri was developed in 2014 by BECA, with a focus on the Reid Road entry and intersection with Kakaramea Road (SH39). The Draft Plan was developed in response to forecasted growth pressures for the Ngahinapouri and traffic safety concerns at the Reid Road / Kakaramea Road intersection and Ngahinapouri School. In particular, the Draft Plan provided direction on the following matters:

- Guidance on Reid Road alignment, landownership, community amenities, and parking and access for the school;
- Improvement of safety and connectivity for pedestrians;
- Provision for adaptable land use areas for future community amenities and car parking;
- Improvement of views and sightlines to enhance connectivity and a sense of arrival for the community and visitors.

### Draft Village Concept Plan (BECA, 2014)



The community had direct involvement in developing the existing Draft Village Concept Plan and were consequently looking forward to seeing planned improvements being delivered. A subsequent engineering review identified certain constraints and cost impediments with the implementation of the Draft Plan, in particular, the recommended roading solutions. As such, Council decided it was prudent to further investigate the options by developing a wider Village Concept Plan that saw the inclusion of the three adjoining N1, N2 & N3 growth cells along Reid Road. This approach facilitates a cohesive, well-considered and connected future village development, with a consistent look and feel that is representative of the community's vision and aspirations.

### Revised Village Concept Plan Extent of Scope



- ▨ Draft Village Concept Plan Extent of Scope (BECA)
- ▭ Revised Village Concept Plan Extent of Scope (Boffa Miskell)

The revised scope of the project is to deliver an updated Village Concept Plan for the wider Ngahinapouri township, including not only the village core centred around Ngahinapouri School and the Reid Road / Kakaramea Road (SH39) intersection, but also the three adjacent growth cells (N1, N2 & N3). The existing Draft Village Concept Plan has been incorporated into this revised Village Concept Plan.

## NGAHINAPOURI GROWTH.

The village of Ngahinapouri is forecast to grow by 380-650 people (+190%-225% growth) by 2050. To provide for this growth, structure plans for the growth cells located in Ngahinapouri are required, as identified in the Waipa 2050 Growth Strategy (2017) and Waipa District Council (WDC) 2018 – 2028 Long Term Plan. Provisions within this village concept plan are based on a minimum forecast 2050 population.

## CONTENTS OF THE VILLAGE CONCEPT PLAN.

This document outlines the process in preparing the Village Concept Plan, describes the design drivers identified to enable the sustainable growth and future development of the village and defines the design pillars that represent the fundamental elements to be included in the Village Concept Plan to achieve the community vision.

As part of the development of the Village Concept Plan, early engagement has been undertaken with the Ngahinapouri Community Group, key landowners, Iwi, Ministry of Education, and the New Zealand Transport Agency to better understand the key issues in the local community. Further consultation is also planned with the wider community. One of the key issues raised in the engagement to date has been the perceived traffic safety issues at the intersection of Kakaramea Road (SH39), Ngahinapouri Road, and Reid Road. Taking into account the feedback received from stakeholders in the early engagement, the Village Concept Plan has identified six options for the intersection:

1. Do Nothing (Except Local Road Upgrade)
2. Staggered Intersection
3. Traffic Signals
4. Standard Roundabout
5. Offset Roundabout
6. Three Leg Roundabout

A Multi-Criteria Analysis (MCA) was undertaken to carefully consider each option using evaluation criteria related to the community, urban design, and transport. The MCA provides a subjective comparative analysis of the option variations for the intersection of SH39 and Reid Road and is weighted to mitigate any bias within the scoring of any one option. The MCA concluded that the preferred intersection form is a three leg roundabout. The MCA is attached to this VCP in Appendix 4, and needs to be read in conjunction with the T+T Ngahinapouri Concept Plan: Transportation Assessment, dated February 2021, ref: 1008305.1000.

## PROCESS FOR PREPARING THE VILLAGE CONCEPT PLAN.

The Village Concept Plan is developed by following an iterative design approach, underpinned by the growth management functions of the Council and needs and aspirations of the Ngahinapouri Community. Waipa 2050 identifies a strong vision around matters relating to urban and rural living, employment, multi-modal transport and pedestrian movement, infrastructure and protection of the environment. This Concept Plan builds upon the Waipa 2050 vision and seeks to provide a framework for how Ngahinapouri may contribute to achieving the Waipa 2050 vision through sustainable future growth.

Preparation of the Village Concept Plan has been delivered following a staged approach, consisting of the following key tasks:

- **Stage 1: Background, inception and analysis** – review of existing Draft Concept Plan, background documentation and technical reports, and site visits.
- **Stage 2: Key stakeholder consultation** – initial engagement with key stakeholders, including community groups, Ngahinapouri School, landowners, NZTA, Ministry of Education, Waikato Regional Council, and mana whenua.
- **Stage 3: Concept Development** – refinement of key design drivers, preparation of preliminary concept options for the village and growth cells and further stakeholder engagement on concept options.
- **Stage 4: Detailed Village Concept Plan** – development of Detailed Village Concept Plan, including intersection design options, overall design guidelines, and infrastructure requirements, consultation with key stakeholders and wider community, refinement and completion of Concept Plan following community feedback.

The Village Concept Plan development has further been informed by supporting technical assessments including a Transportation Assessment, Three Waters Engineering Assessment, and a desktop Liquefaction Assessment.

### Transportation Assessment & Three Waters Engineering Assessment (Tonkin & Taylor, 2021)



## DESIGN DRIVERS.

Several key design drivers have been identified by Waipa District Council to achieve the vision and purpose of the Concept Plan and the outcomes sought by the community, including:

- Options relating to the Reid Rd, Kakaramea Rd (SH39) and Ngahinapouri Road intersection form and design;
- Recommended local transport network for N1, N2 and N3 growth cells, considering pedestrians, cyclists, community connectivity and landownership;
- Assessment of need for, and location of, commercial activity and community amenities, including toilets, parking and access to the school and reserve areas;
- Assessment of, and provision for, drainage and flood hazards;
- Facilitating improved safety and connectivity for pedestrians (including residents and pupils likely to use the area), potentially including a town cycle/walkway around the village.

The primary design drivers in the development of this Village Concept Plan, is the need to consider the options for the form and function of the Reid Rd, Kakaramea Rd (SH39) and Ngahinapouri Road intersection and inform any decision making on its final form by the relevant road controlling authorities.

The design of this main intersection has direct impacts on several key components within the village, including:

- Speed of vehicles travelling in both directions along the Kakaramea Road corridor and the direct impact of these vehicles on the character, safety and liveability of Ngahinapouri Village;
- Safety and ease of access for residents within the existing village and future residents within the N1, N2 and N3 growth cells;
- Form and function of proposed future town centre / mixed use commercial area;
- Considerations of cost and practicality of roading, infrastructure and land availability;
- Opportunities for expansion of Ngahinapouri School and related open space requirements;
- Quality, character and community well-being considerations for residents and visitors to Ngahinapouri.

The speed of vehicles travelling through the village on SH39 has been taken into account in the Multi-criteria Analysis (MCA) in terms of road safety objectives, however it is noted that changing speed limits is a separate legal process. There are numerous steps that must be followed under the Waka Kotahi Speed Management Guide and the Setting of Speed Limits Rule. Waka Kotahi has completed the engagement phase of the speed review process for State Highways 23, 31 and 39 and received considerable feedback including the community's views on the speed limit in Ngahinapouri. Along with a technical analysis, the insights provided by the community are being used to finalise Waka Kotahi's recommendation for what the safe and appropriate speeds should be for this road. The next step is to commence the required formal consultation with the recommendations for the speed limits. It is expected that the announcement of the consultation dates will take place mid-2021. This consultation will give the local community, and others who are interested and affected, an opportunity to let Waka Kotahi know if there are any other factors that they should consider when making their decision on the safe and appropriate speeds. More information about the speed review can be found on this link: <https://nzta.govt.nz/projects/sh23-sh31-and-sh39-west-waikato-speed-review/>.

## DESIGN PILLARS.

For the purposes of developing the Village Concept Plan, we have grouped the key design drivers into the following 6 design pillars:

- **Roads & Transport**
- **Community Facilities & Amenities**
- **Pedestrian & Cycle Connectivity**
- **Visibility & Sense of Place**
- **Open Space Network**
- **Three Waters**

The design pillars are the key elements required to meet the aspiration and vision of the community and key stakeholders and are used to assess the qualities of each design option in achieving sustainable growth and a future development representative of the community vision and values.

## INTERSECTION DESIGN OPTIONS.

The Village Concept Plan has been informed by the Tonkin & Taylor Transportation Assessment and subsequent MCA, which considered a range of options to address the impacts of the main intersection design and demonstrates several alternatives that have been considered. The options have each been formed in the context of the key design pillars. Using a MCA, which includes urban design, community and traffic considerations, a preferred option has been identified for further consultation with key stakeholders and the wider community.

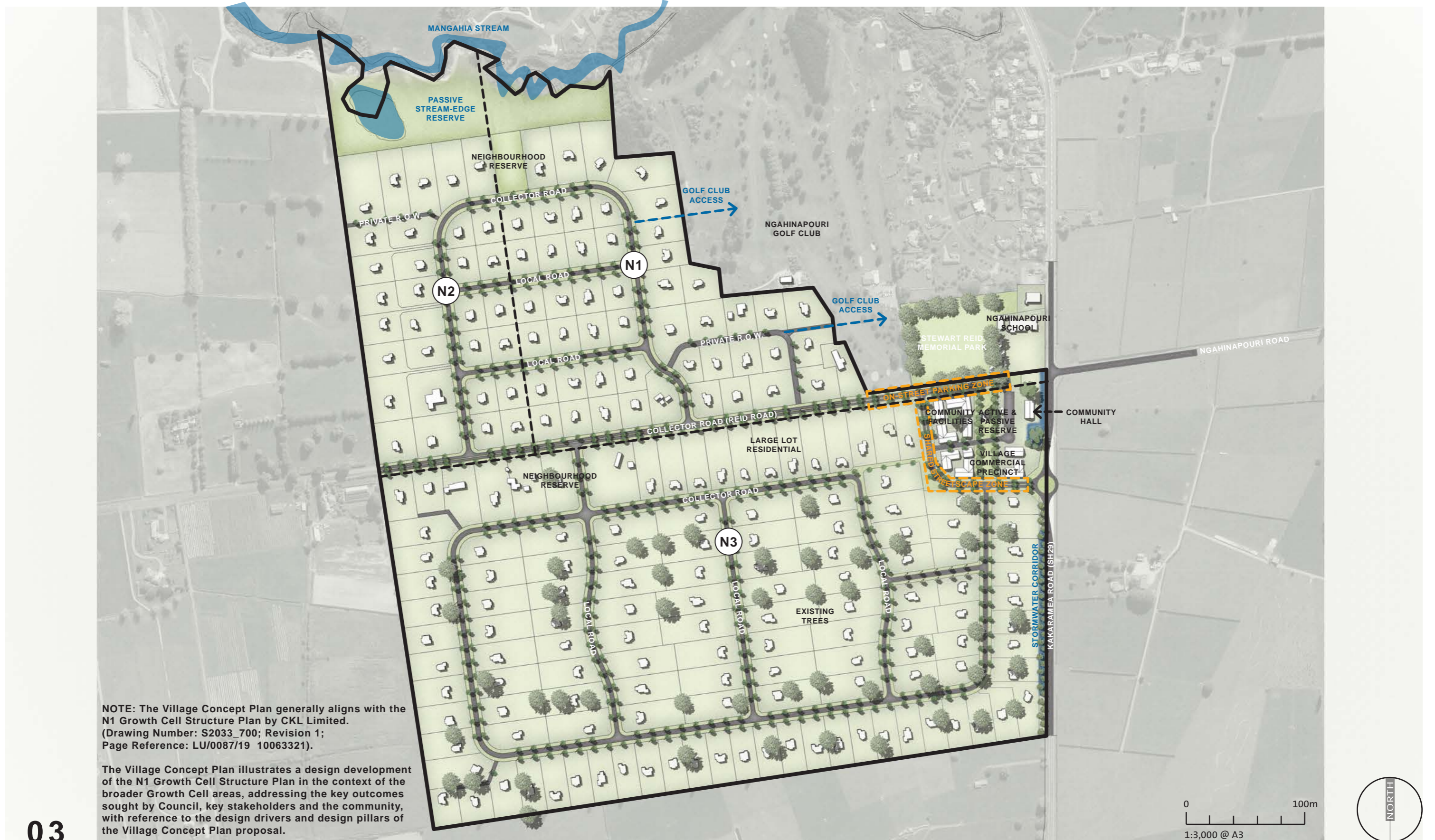
To fully test a possible design approach, six potential intersection and related town centre layout options have been developed, based on the MCA, as follows:

1. **Do Nothing (Except Local Road Upgrade)**
2. **Staggered Intersection**
3. **Traffic Signals**
4. **Standard Roundabout**
5. **Offset Roundabout**
6. **Three Leg Roundabout**

The following section of the Concept Plan Report discusses the preferred intersection and town centre development options in more detail, including the various options (see Appendix One).

# VILLAGE CONCEPT PLAN.

## N1 / N2 / N3 GROWTH CELLS & NGAHINAPOURI VILLAGE.



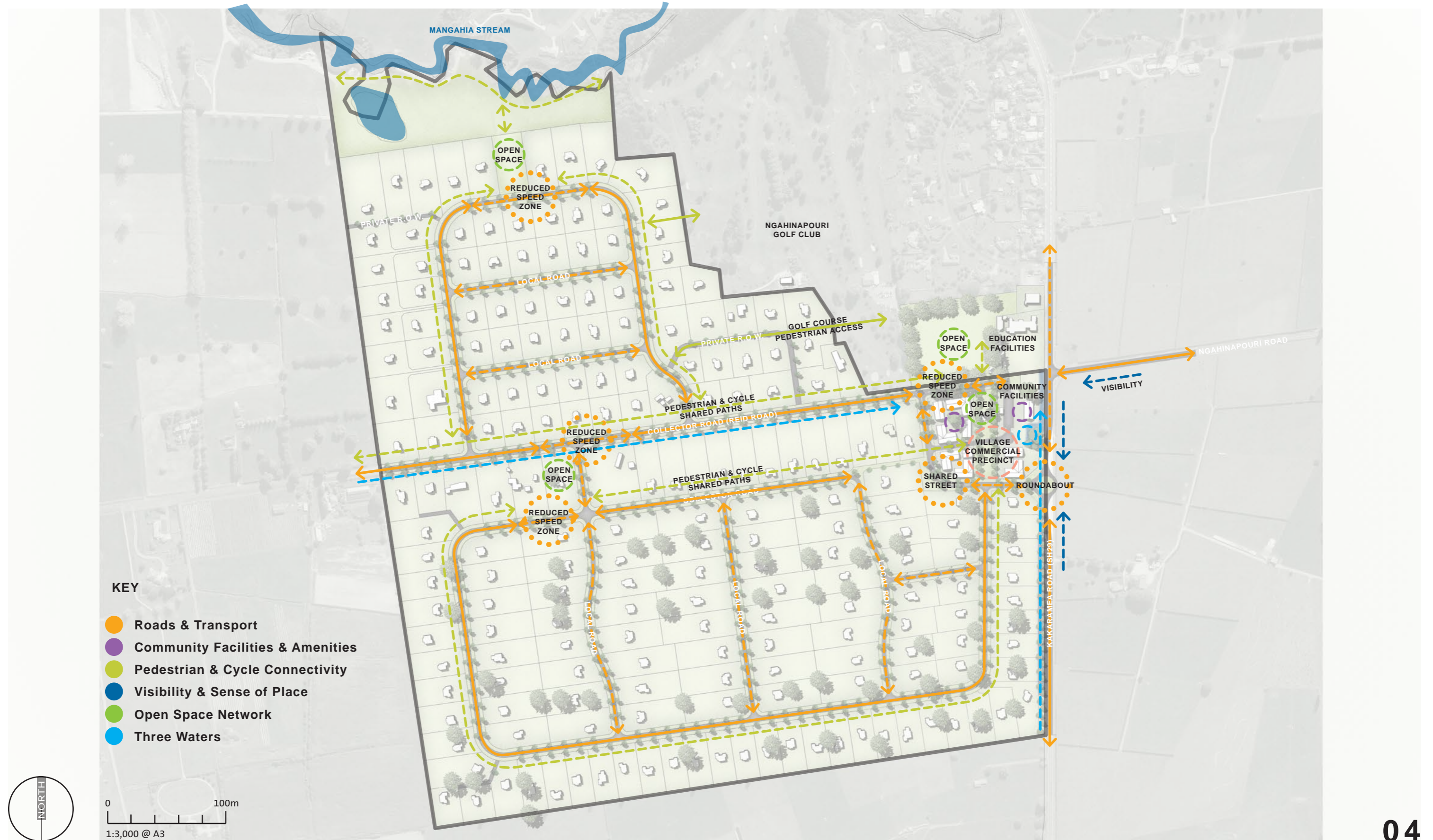
NOTE: The Village Concept Plan generally aligns with the N1 Growth Cell Structure Plan by CKL Limited. (Drawing Number: S2033\_700; Revision 1; Page Reference: LU/0087/19 10063321).

The Village Concept Plan illustrates a design development of the N1 Growth Cell Structure Plan in the context of the broader Growth Cell areas, addressing the key outcomes sought by Council, key stakeholders and the community, with reference to the design drivers and design pillars of the Village Concept Plan proposal.



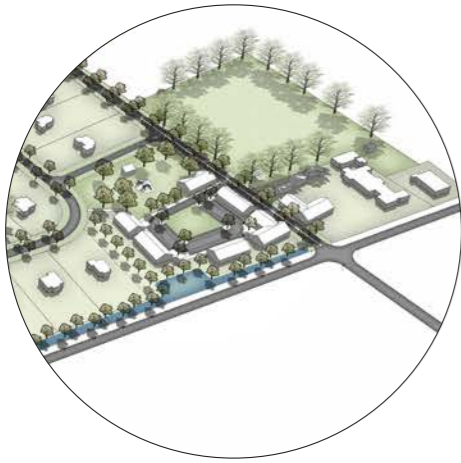
# VILLAGE CONCEPT FEATURES.

## OVERALL VILLAGE CONCEPT FEATURES.

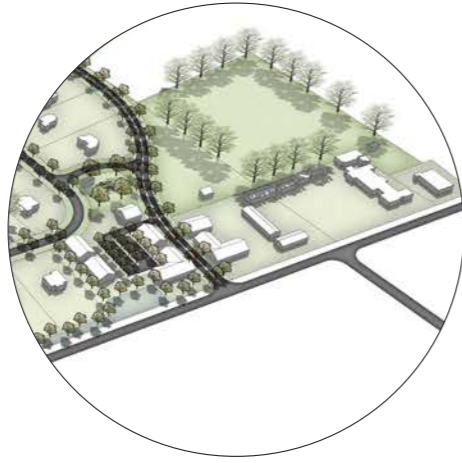


# INTERSECTION OPTIONS.

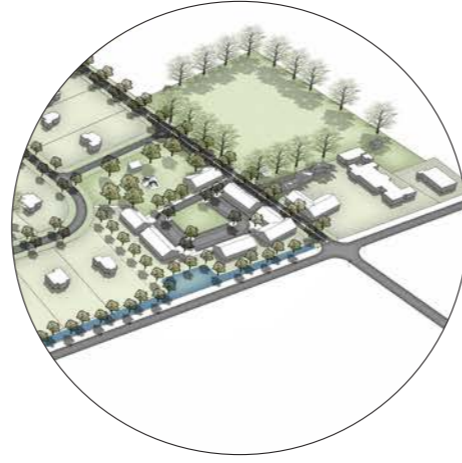
**OPTION ONE:**  
Do Nothing  
(Except Local Road Upgrade).



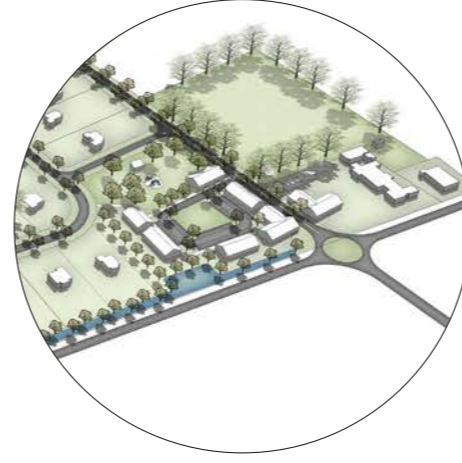
**OPTION TWO:**  
Staggered Intersection.



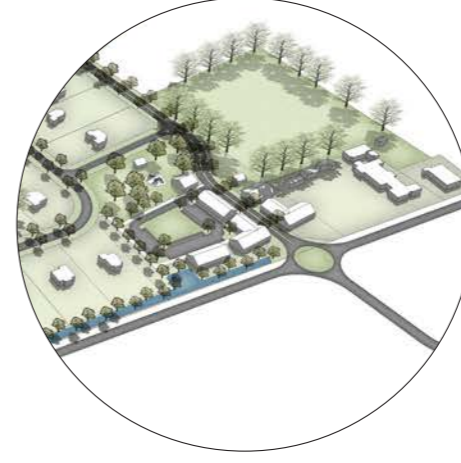
**OPTION THREE:**  
Traffic Signals.



**OPTION FOUR:**  
Standard Roundabout.



**OPTION FIVE:**  
Offset Roundabout.



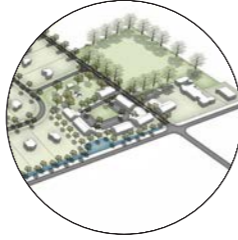


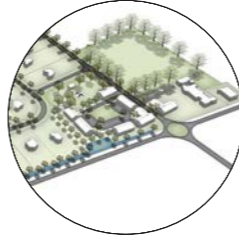


**OPTION SIX:**  
Three Leg Roundabout.





# OPTIONS MATRIX.

## DESIGN OPTIONS.

OVERALL SELECTION FACTORS.	OPTION ONE: Do Nothing. 	OPTION TWO: Staggered Intersection. 	OPTION THREE: Traffic Signals. 	OPTION FOUR: Standard Roundabout. 	OPTION FIVE: Offset Roundabout. 	OPTION SIX: Three Leg Roundabout. 
MCA SCORING.	-14.00 (-0.85)	-3.00 (-0.55)	3.00 (0.20)	20.00 (1.25)	19.00 (1.15)	29.00 (1.85)
MCA RANKING.	6 <sup>TH</sup>	5 <sup>TH</sup>	4 <sup>TH</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	1 <sup>ST</sup>
RECOMMENDED MCA OPTION.						RECOMMENDED MCA OPTION.
ROUGH ORDER COST.	\$3.75M	\$6.15M	\$6.70M	\$8.95M	\$10.45M	\$8.75M
COST ESTIMATE RANKING.	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	5 <sup>TH</sup>	6 <sup>TH</sup>	4 <sup>TH</sup>
SCORE VALUE RATIO.	-0.23	-0.09	0.03	0.14	0.11	0.21
OVERALL RANKING.	6 <sup>TH</sup>	5 <sup>TH</sup>	4 <sup>TH</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	1 <sup>ST</sup>

NOTE: Refer to Appendix 4: Multi-Criteria Analysis (M.C.A.) Assessment (Tonkin & Taylor, 2021) & Appendix 3: Transportation Assessment & Three Waters Engineering Assessment (Tonkin & Taylor, 2021) for detailed information on MCA scoring criteria, process and outcomes, and rough order costings.

**RECOMMENDED  
OPTION.**

# OPTION SIX.

## THREE LEG ROUNDABOUT.



# OPTION SIX.

## THREE LEG ROUNDABOUT FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** Offset roundabout 200m south of Reid Road and Ngahinapouri Road, with the intersection between the two to be closed. Including roundabout and road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors, surrounding a central, linear open space.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Re-Aligned Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village and through central open space, to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

**10. Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

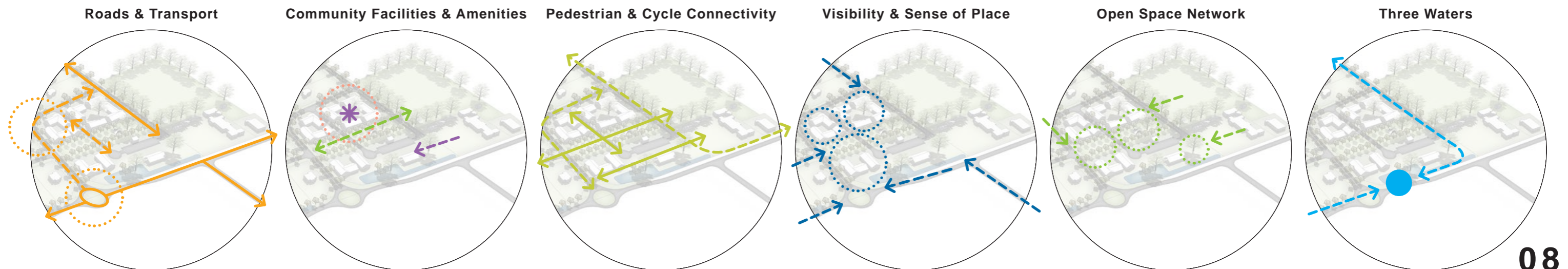
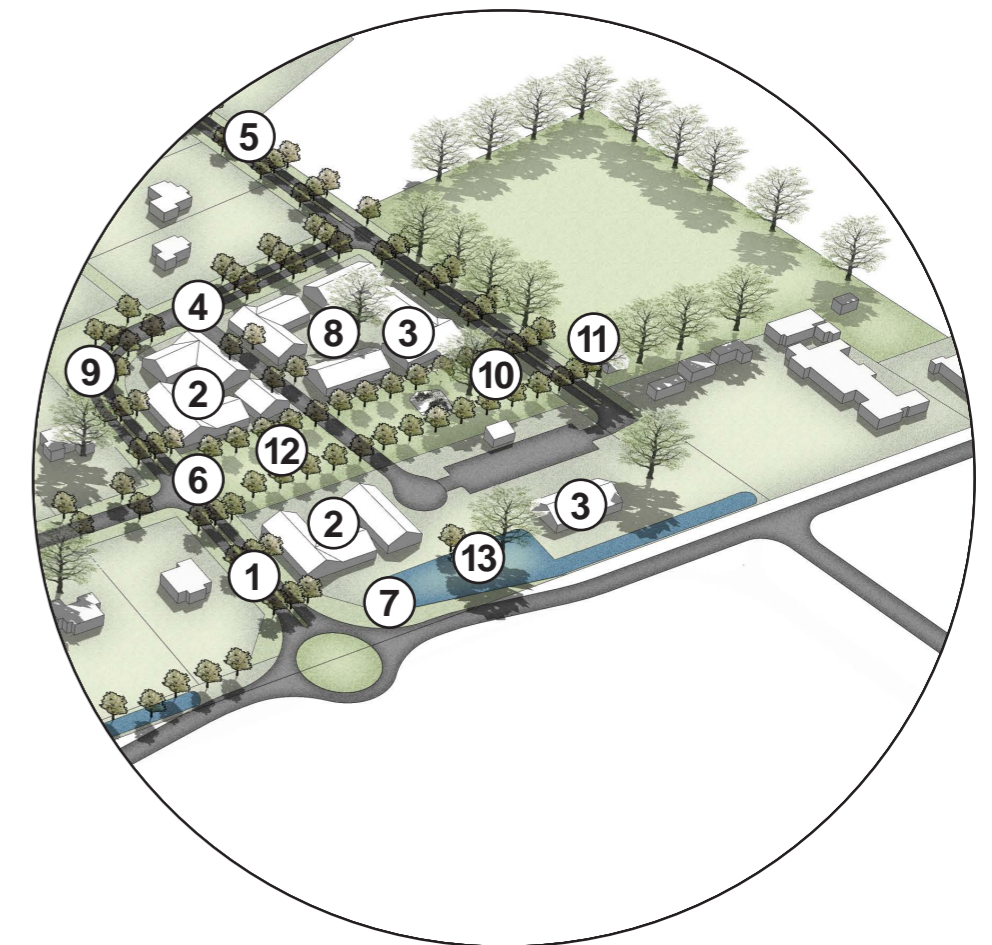
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

## OPTION 4: BIRD'S-EYE PERSPECTIVE.



# OPTION SIX.

## THREE LEG ROUNDABOUT. DEVELOPMENT VISION & POTENTIAL.

Community Facilities & Amenities.



**Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities.

**Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

Village Commercial Precinct & Open Space.



**Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors, surrounding a central, linear open space.

**Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

Pedestrianised Shared Streetscape & Stormwater Treatment.

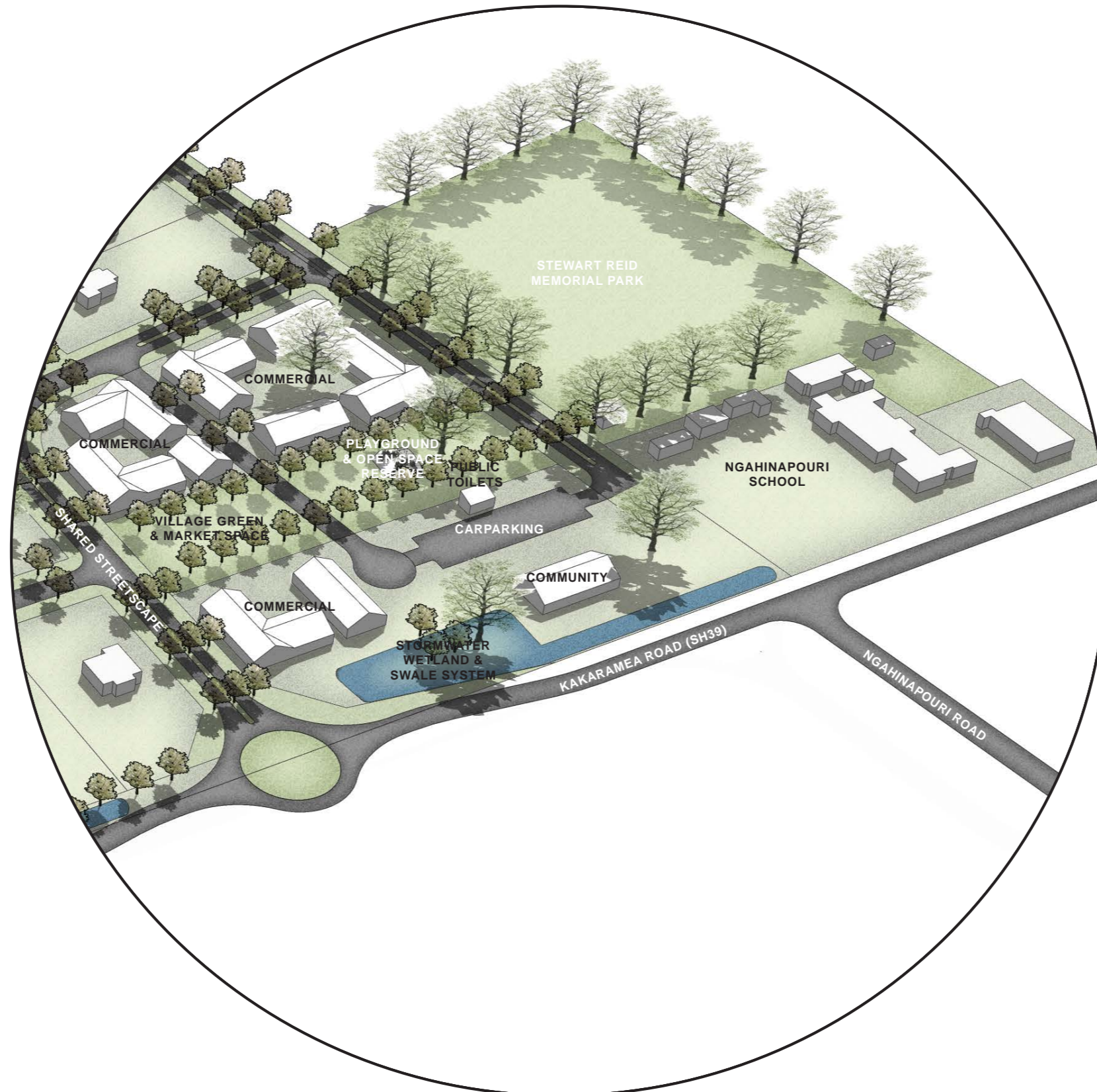


**Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

# OPTION SIX.

## THREE LEG ROUNDABOUT. DEVELOPMENT VISION & POTENTIAL.







#### **About Boffa Miskell**

Boffa Miskell is a leading New Zealand professional services consultancy with offices in Auckland, Hamilton, Tauranga, Wellington, Christchurch, Dunedin and Queenstown. We work with a wide range of local and international private and public sector clients in the areas of planning, urban design, landscape architecture, landscape planning, ecology, biosecurity, cultural heritage, graphics and mapping. Over the past four decades we have built a reputation for professionalism, innovation and excellence. During this time we have been associated with a significant number of projects that have shaped New Zealand's environment.

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# APPENDIX ONE.

## INTERSECTION DESIGN OPTIONS.

# OPTION ONE.

DO NOTHING (EXCEPT LOCAL ROAD UPGRADE).



# OPTION ONE.

## DO NOTHING INTERSECTION FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** Potential opportunities for limited areas of traffic calming measures. Including road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

**10. Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

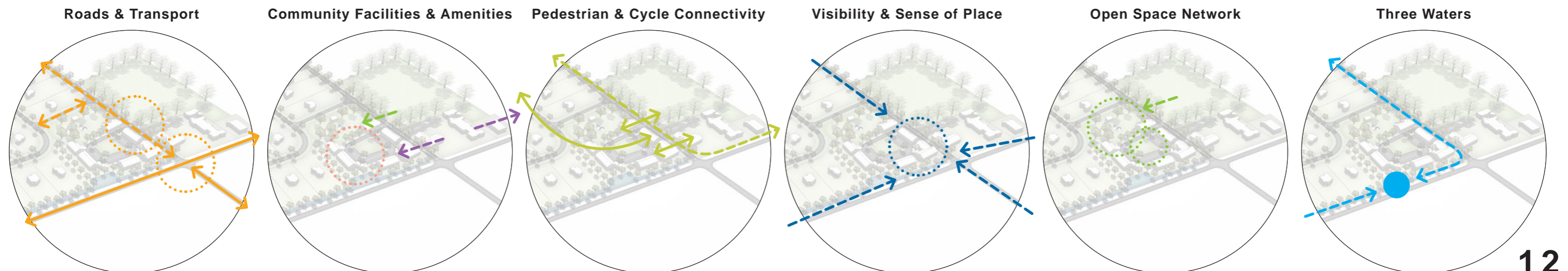
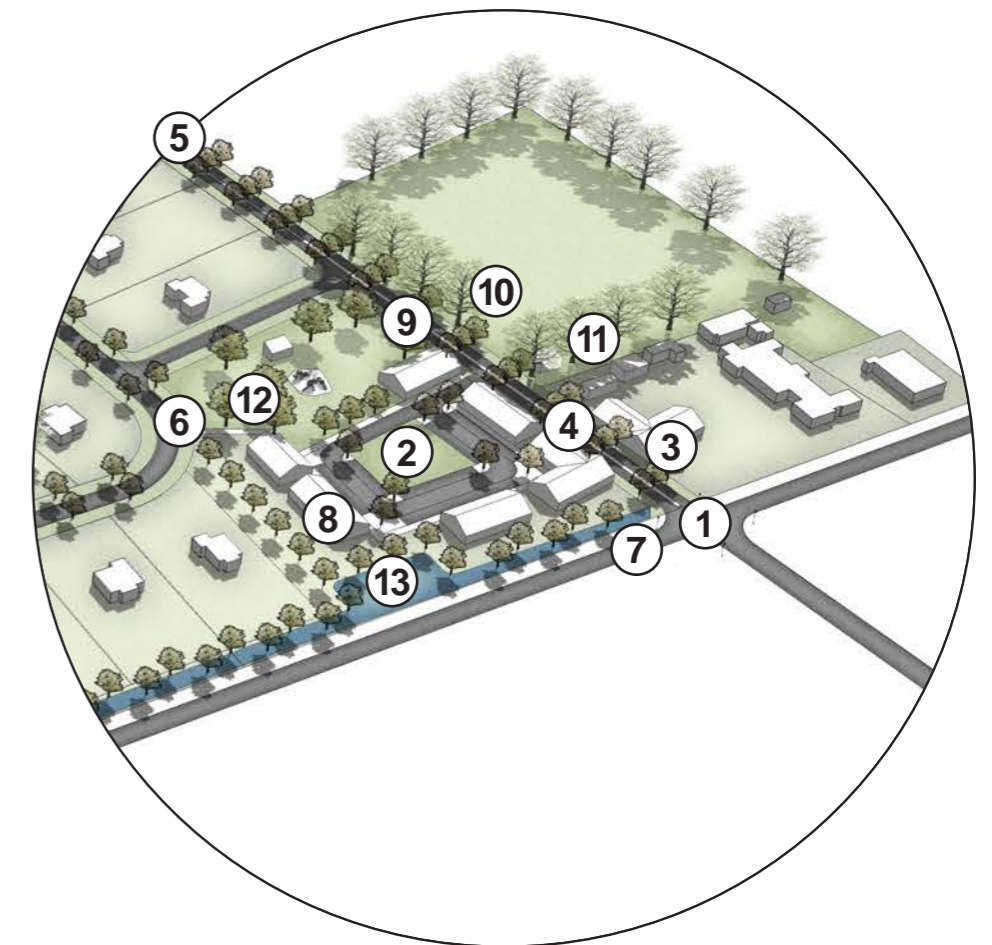
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

## OPTION 1: BIRD'S-EYE PERSPECTIVE.



# OPTION TWO.

## STAGGERED INTERSECTION.



# OPTION TWO.

## STAGGERED INTERSECTION FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** SH39 between Reid Road & Ngahinapouri Road. Including dedicated right-turn lane and road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

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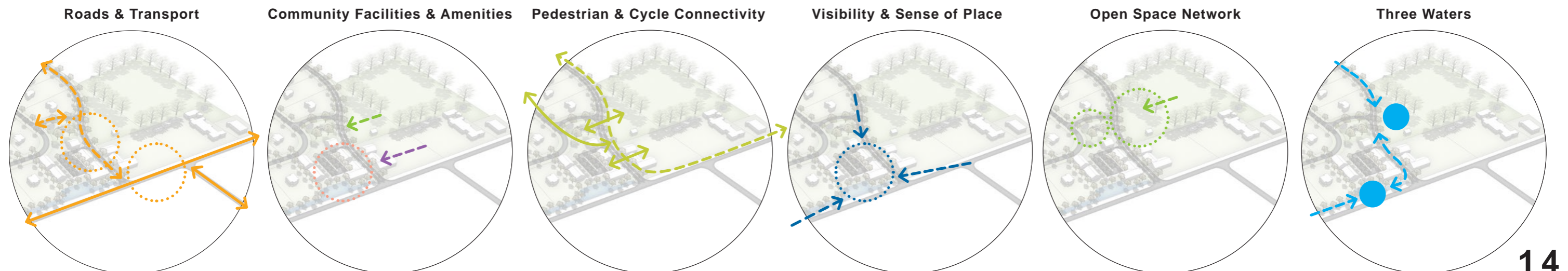
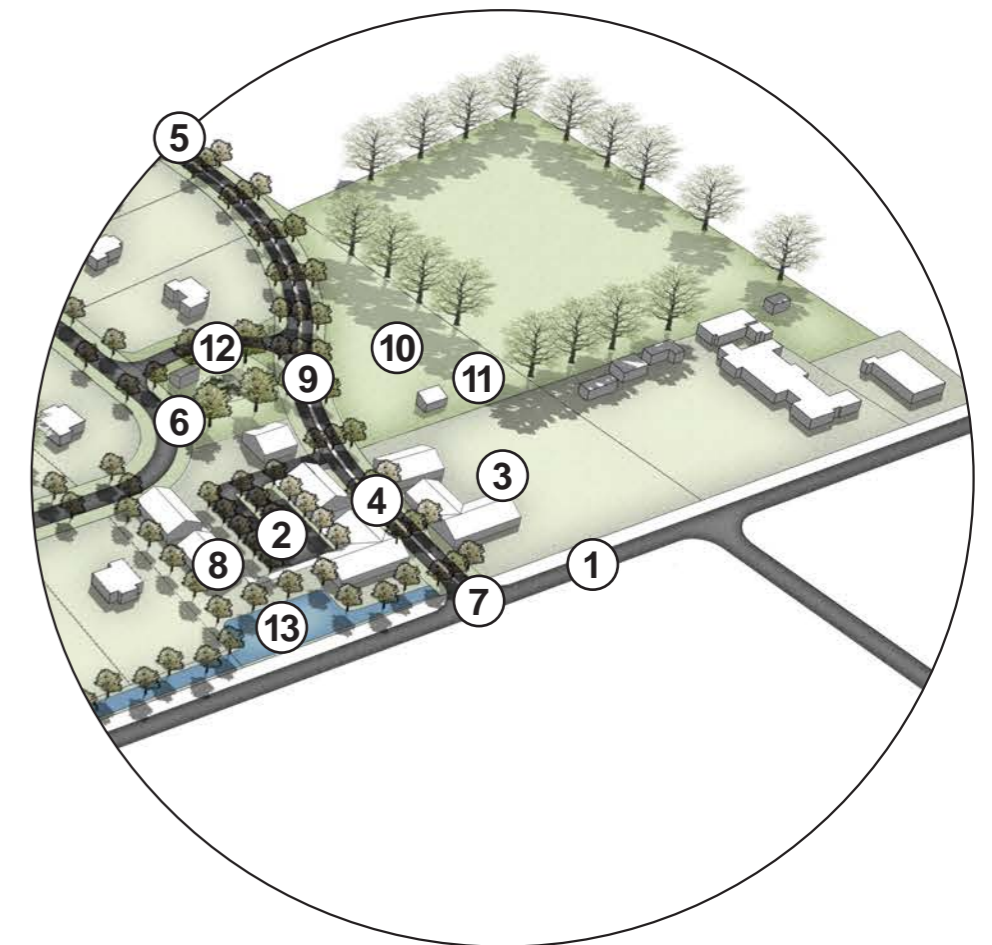
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

## OPTION 2: BIRD'S-EYE PERSPECTIVE.



# OPTION THREE.

## TRAFFIC SIGNALS.



# OPTION THREE.

## TRAFFIC SIGNALS FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** Traffic lights at the intersection of Reid Road, Ngahinapouri Road & SH39. Including road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

**10. Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

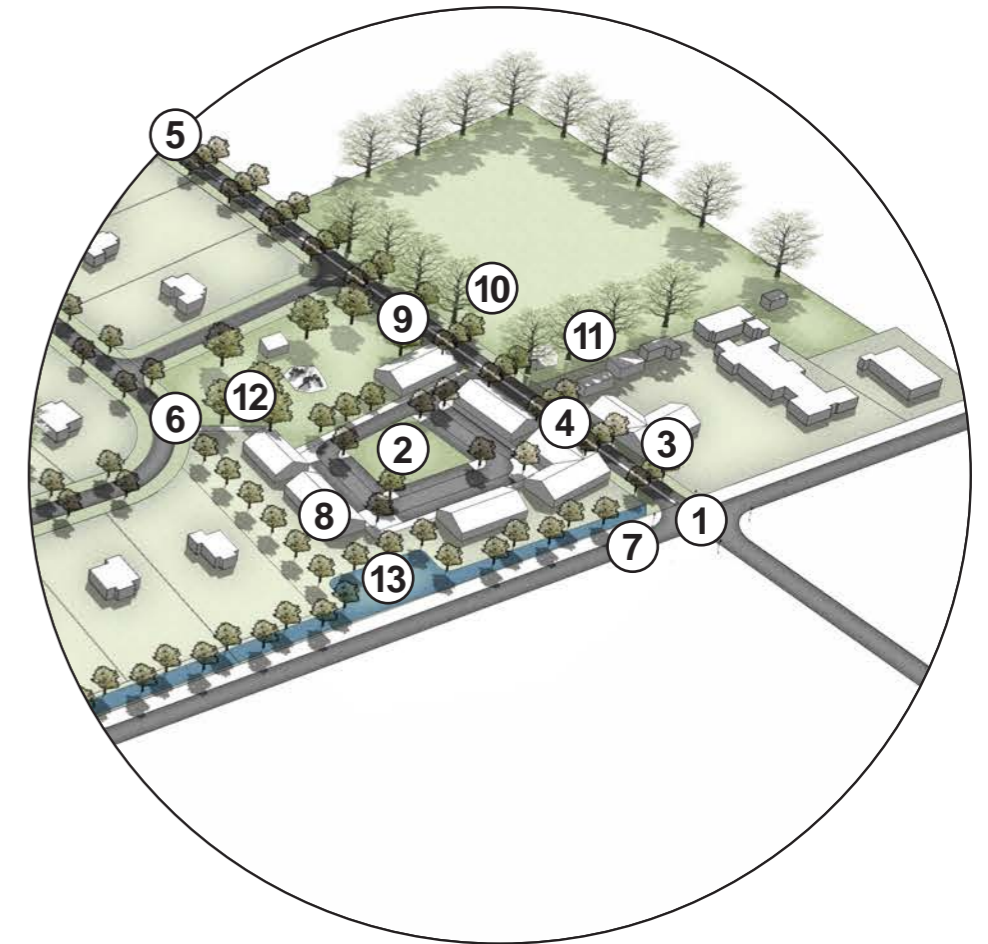
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

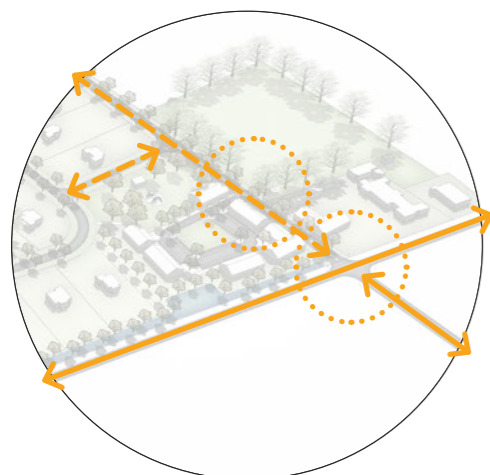
### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

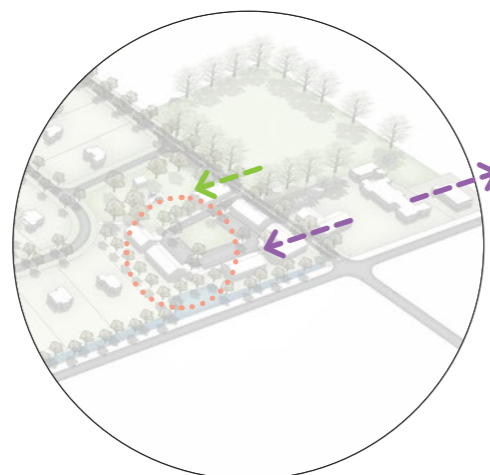
## OPTION 3: BIRD'S-EYE PERSPECTIVE.



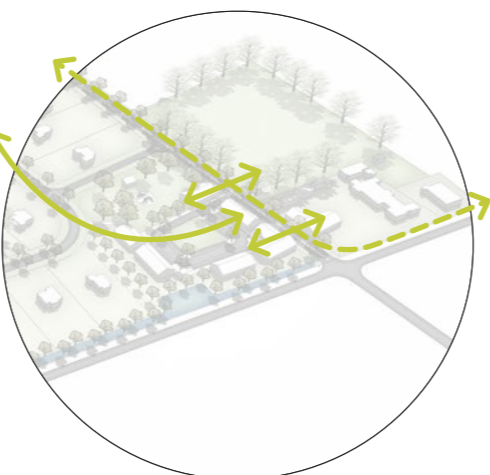
Roads & Transport



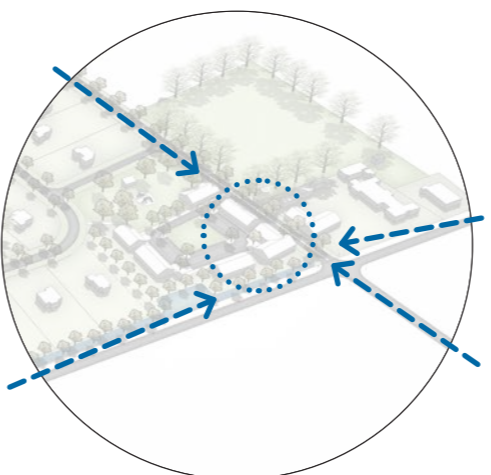
Community Facilities & Amenities



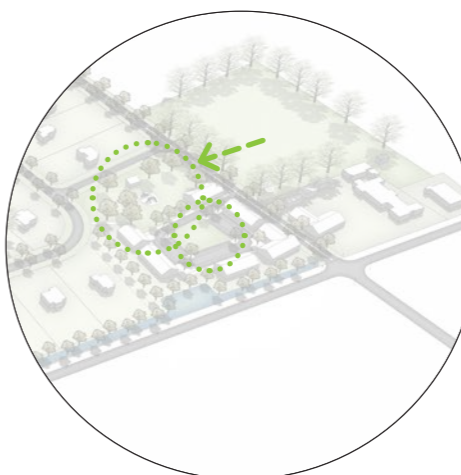
Pedestrian & Cycle Connectivity



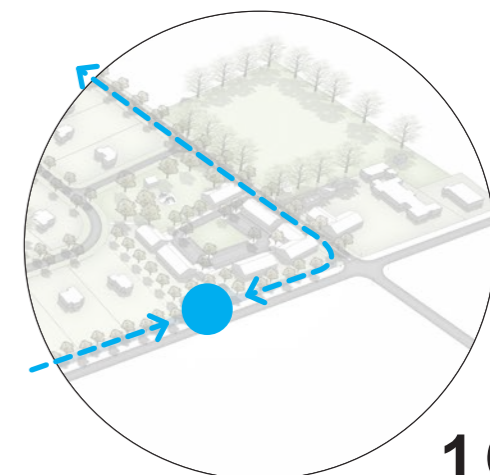
Visibility & Sense of Place



Open Space Network



Three Waters



# OPTION FOUR.

## STANDARD ROUNDABOUT.





# OPTION FOUR.

## STANDARD ROUNDABOUT FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** Roundabout at intersection of Reid Road, Ngahinapouri Road & SH39. Including roundabout and road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

**10. Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

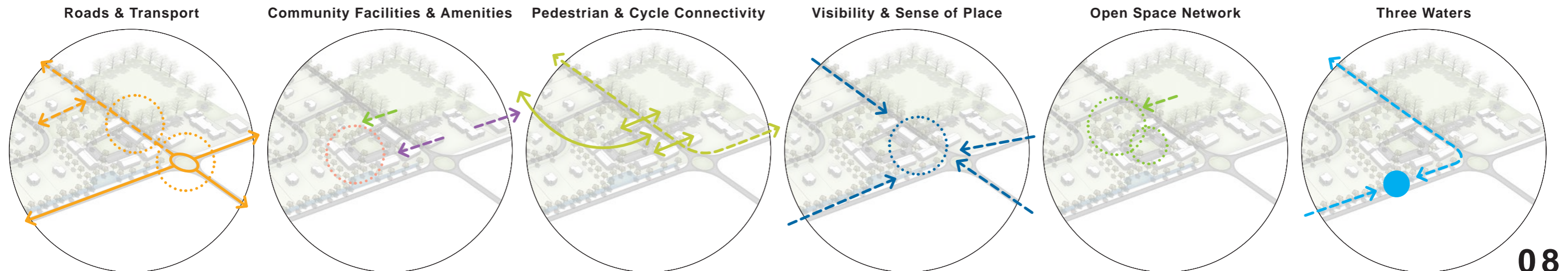
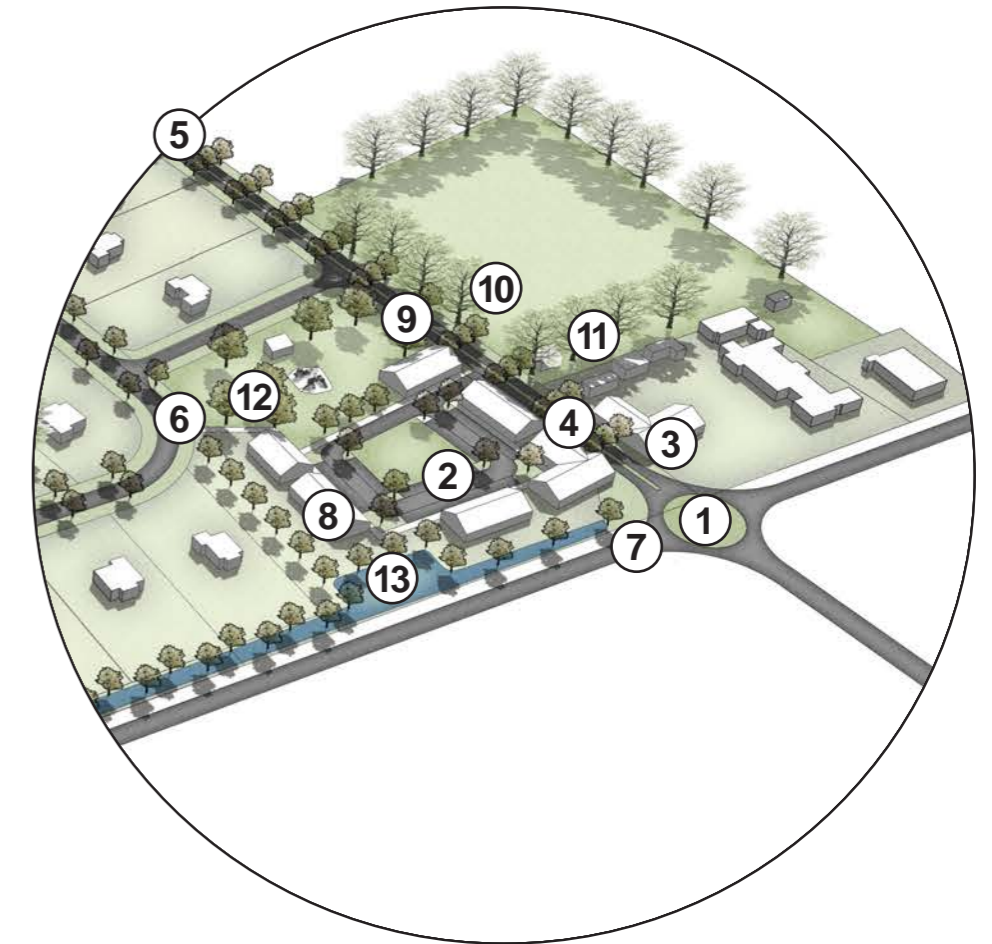
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

## OPTION 4: BIRD'S-EYE PERSPECTIVE.



# OPTION FIVE.

## OFFSET ROUNDABOUT.



# OPTION FIVE.

## OFFSET ROUNDABOUT FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** Roundabout at intersection of Reid Road, Ngahinapouri Road & SH39, with staggered approach from Reid Road & Ngahinapouri Road. Including dedicated right-turn lane and road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

**10. Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

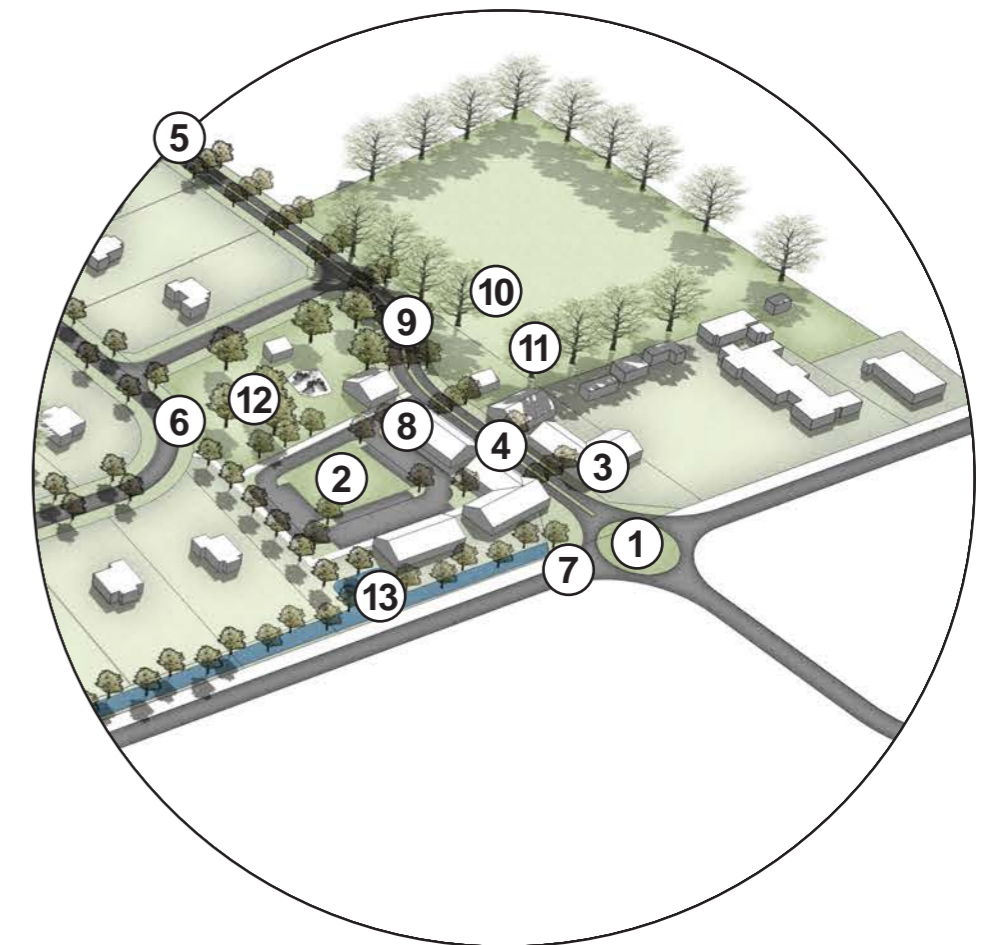
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

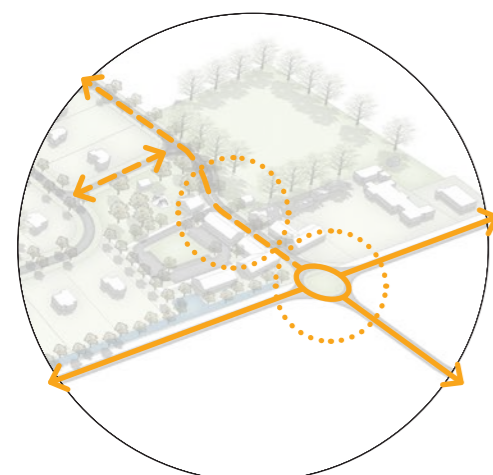
### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

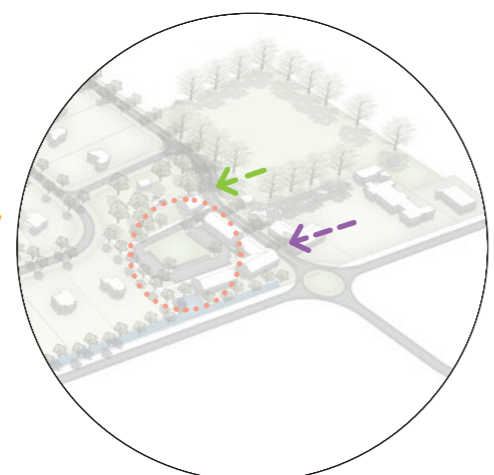
## OPTION 5: BIRD'S-EYE PERSPECTIVE.



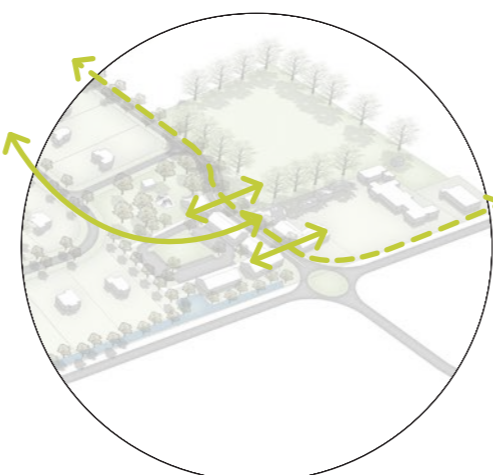
Roads & Transport



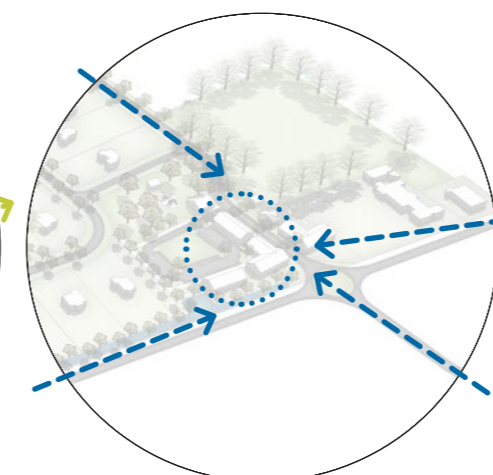
Community Facilities & Amenities



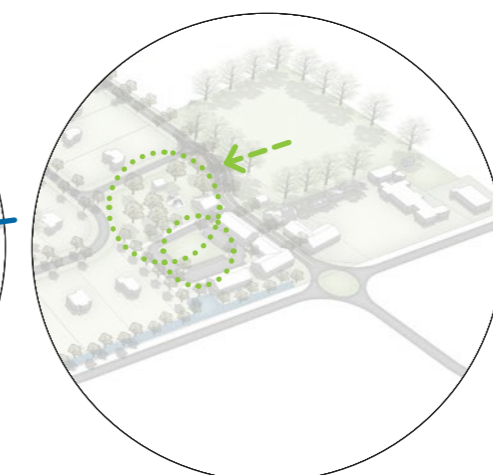
Pedestrian & Cycle Connectivity



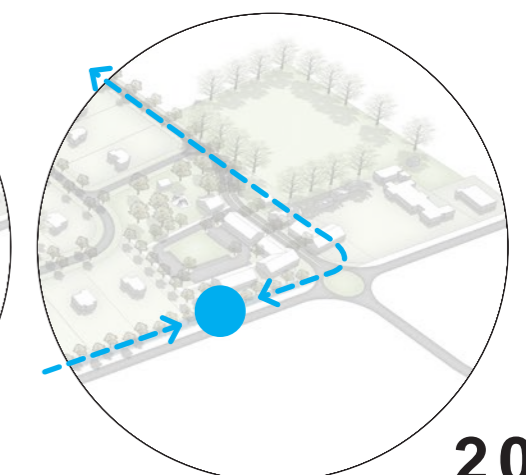
Visibility & Sense of Place



Open Space Network



Three Waters



# OPTION SIX.

## THREE LEG ROUNDABOUT.



# OPTION SIX.

## THREE LEG ROUNDABOUT FEATURES.

### Roads & Transport.

**1. Reduced Speed Zone:** Offset roundabout 200m south of Reid Road and Ngahinapouri Road, with the intersection between the two to be closed. Including roundabout and road-side landscaping.

### Community Facilities & Amenities.

**2. Village Core / Commercial Centre:** A mixed-use centre providing goods, services, hospitality, entertainment and office space offerings to the community and visitors, surrounding a central, linear open space.

**3. Community Facilities Expansion:** Community orientated facilities including healthcare, childcare and exercise facilities. Option to redevelop community hall.

### Pedestrian & Cycle Connectivity.

**4. Re-Aligned Reid Road Shared Streetscape:** Allocation of space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

**5. Golf Course Access:** Direct public pedestrian and golf cart access to Ngahinapouri Golf Course.

**6. Shared Paths:** Broad paths along connector roads within the village and through central open space, to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.

### Visibility & Sense of Place.

**7. Visual Prominence of Village Core / Commercial Hub:** A larger catchment of frequent and transient visitors and customers are captured by locating commerce at the visually prominent intersection with State Highway 39.

**8. Building Typology, Form & Scale:** Buildings that reflect the enduring rural character of Ngahinapouri and the surrounding landscape through appropriate colour and material use, building form, configuration and scale.

**9. Landscape & Streetscape:** Hard landscape materials that prioritise safety and wayfinding, while preserving and building upon a sense of rural character through considered allocation of space. Planting at a range of scales that compliment roading and built-form scales, with species that are cohesive with those existing within the surrounding landscape. Retention of existing vegetation where possible.

### Open Space Network.

**10. Diversity of Use:** Provision of active and passive recreational areas that have strong pedestrian and cycle connection between them and existing open space areas. Opportunity for amenities including playgrounds, trails, sports areas and facilities.

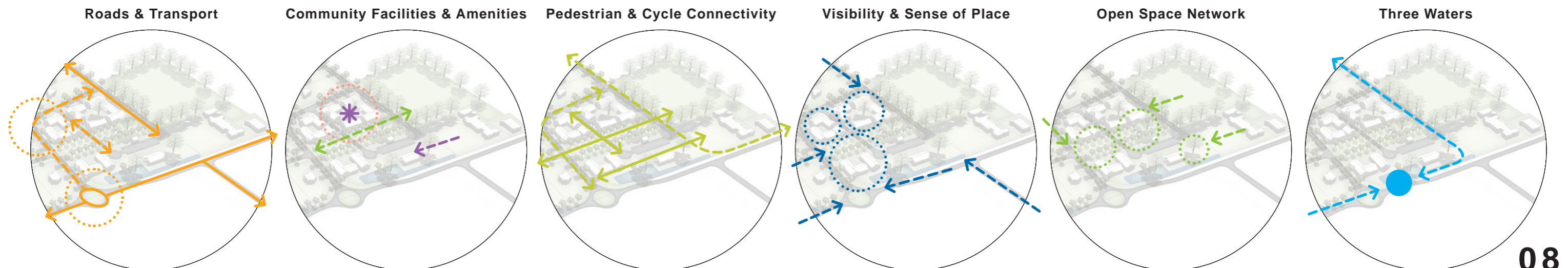
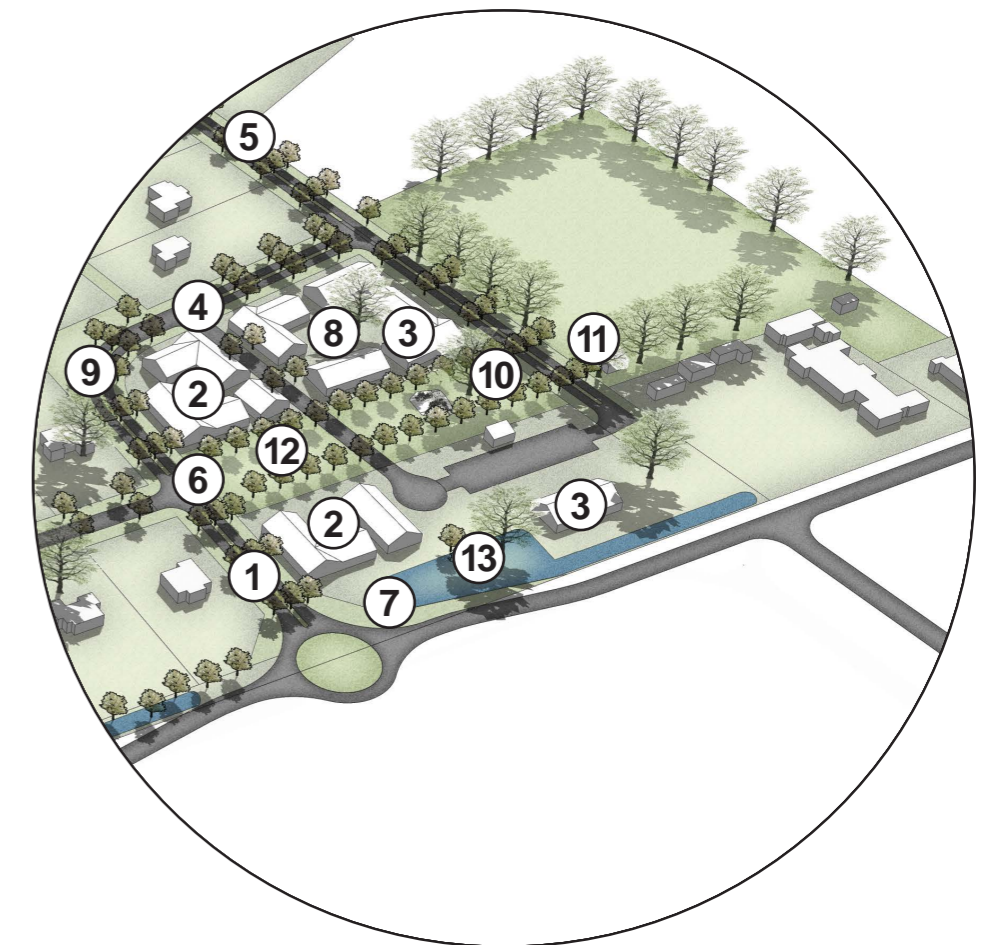
**11. Complimentary Facilities & Amenities:** Supporting amenities including public bathrooms, rubbish bins, drinking fountains, shelters and signage located within the open space network.

**12. Planting:** Provides for increased amenity for users, expansion of habitat, nature play and opportunity for integrated stormwater treatment.

### Three Waters.

**13. Integrated Design:** Stormwater treatment devices including planted swales, ponds, raingardens and engineered solutions where appropriate for a responsible and resilient development that respects the wider landscape catchment and contributes to increased water-quality.

## OPTION 4: BIRD'S-EYE PERSPECTIVE.





# APPENDIX TWO.

## VILLAGE CENTRE & RESIDENTIAL DESIGN GUIDELINES.

# DESIGN GUIDELINES.

## PURPOSE OF THE GUIDELINES.

The Design Guidelines for the Village Commercial Centre and Large Lot Residential Growth Cells are not intended to be either overly complex or prescriptive but are aimed at providing guidance to potential future developers and to consent authorities on the outcomes supported by the local community and key stakeholders.

Where applications for resource consent are made, the guidelines provide a means of compliance with design-related assessment criteria.

## VILLAGE COMMERCIAL CENTRE.

Design guidelines for the Ngahinapouri Village Commercial Centre are intended to provide guidance around the community's aspirations for the development of a vibrant, community focused village core for Ngahinapouri. This commercial centre will provide smaller scale services to support the day to day needs of the community. A range of activities are promoted within the Village Commercial Centre, and pedestrian frontages identified to reinforce the pedestrian focus and vibrancy of this area.

### Village Character and Community Focus

Traditionally a village centre is more than a conglomeration of commercial activities and services. A well-designed village centre creates opportunities and spaces for communities to gather, interact, do business and take part in passive and sometimes active recreation activities. Traditionally the village square or village green has provided a central open space for informal trade, markets and associated recreation activities.

The vision for Ngahinapouri Village is to develop a small but well-conceived and well-used village centre, providing local service offering and incorporating a mixed use of commercial, office and recreation activities.

The proposed gateway location of the village centre is of fundamental importance to ensure the viability and sustainability of the centre from a commercial perspective. Good visibility from the Kakaramea Road corridor is essential to ensure that passing trade is captured to support the viability of the small commercial node. The village centre will be accessed directly off Reid Road, with a mix of external angled on-street parking and longer stay off street parking being provided.



### Mixed-Uses and Activities

The following components would be provided to support the retail and service functions of the village centre:

- Village Green or Public Square for markets and passive recreation functions
- Multi-age and abilities children's play space
- Community centre and related social infrastructure
- Live-work office or small-scale manufacturing component
- High-amenity open space and quality planting
- Electric vehicle charging station

### Built Form, Bulk and Scale

The built form of the village centre should be of a high quality and of an appropriate scale that is sympathetic to the unique character of Ngahinapouri. The architectural design should be reflective of the smaller scale village character of the township, using simple and appropriate materials and finishes.

- Building heights are limited to 14m in height within the village centre.
- Building should incorporate a 3m minimum depth continuous covered shopfront on all key building frontages.
- The architectural design should incorporate vertical elements or components with a permitted maximum height of 14m on key nodes or landmark corners of the development.
- Future built form at the corner of SH39 and Reid Road should be designed to address both SH39 and Reid Road.
- Buildings adjacent to SH39 should be consistently set back along the Highway, with a passive frontage facing the Highway and an active frontage and yard facing the proposed car park.





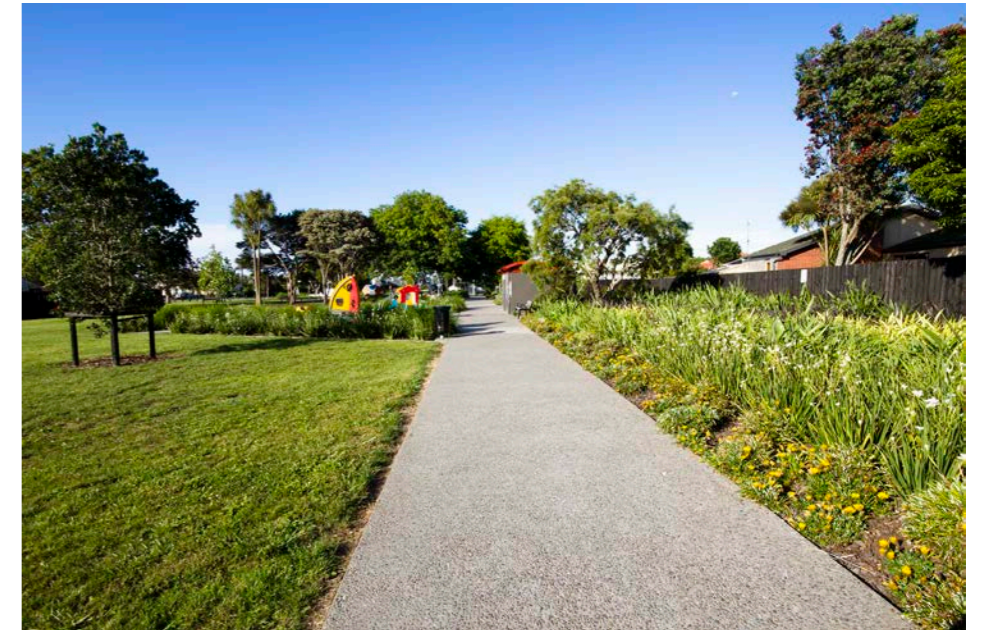
**Pedestrian Focus**

The overall design for Ngahinapouri Village is centred on providing strong connectivity for pedestrians and cyclists. The Reid Road Shared Streetscape allocates space to promote and prioritise pedestrian and cycle use and connectivity between community, school, open space and commercial amenities and facilities.

The concept design also provides safe pedestrian access and connectivity between the Village Commercial Centre and the Ngahinapouri Golf Course to the west via Reid Road. Direct public pedestrian and golf cart access to Ngahinapouri Golf Course is provided to promote overall connectivity through-out the village and ensure that the golf course and existing residential areas to the north are fully integrated into the overall vision for the village.

**Connection to Residential Growth Cells**

Shared Paths of 3m width should be provided as shown along key collector roads within the village to provide quality and safe pedestrian and cycle connections to community, school, open space and commercial amenities and facilities.



# DESIGN GUIDELINES.

## N1, N2 & N3 LARGE LOT RESIDENTIAL.

Design guidelines for the N1, N2 & N3 Large Lot Residential Growth Cells are centred around ensuring that the overall rural lifestyle character and amenity of Ngahinapouri are maintained and enhanced.

It provides guidance around the community's aspirations for the development of a sustainable residential development that provides quality and multi-mode transport networks, diverse public space, exercise facilities and opportunities to develop private homes and properties that promote a greater quality of life and sense of community.

### Building Placement.

#### Lot Size

2500 - 5000m<sup>2</sup> Typical Lot Size.

#### Building Placement and Integration into Landscape

Buildings should be located a minimum distance of 15m from the front and back boundaries of the lot and a minimum of 10m from the side boundaries for sites larger than 2500m<sup>2</sup>.

For sites smaller than 2500m<sup>2</sup> road frontage setback of 15m for collector roads and 10m for local roads should be applied, with side and rear yard setbacks of 5m.

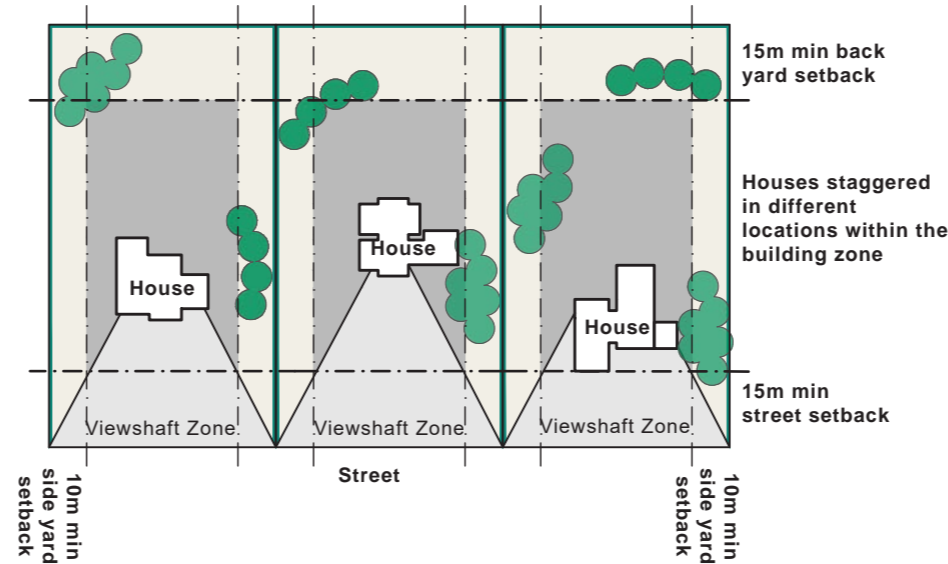
Buildings are recommended to be integrated into the surrounding landscape or vegetation pattern and the design should consider the effect of its location on views from public places such as roads, parks, reserves and neighbouring houses. The house should avoid being located where it will dominate the view from public places or neighbouring houses.

Landscape development of properties should include clusters of specimen tree planting around the buildings on site, to ensure buildings are viewed from the streetscape and distant views as sitting nestled within a green landscape framework.

Proposed building platforms and dwellings should be staggered and avoid being developed in a straight line. This visually blends better with the surrounding landscape and improves privacy between neighbouring dwellings.

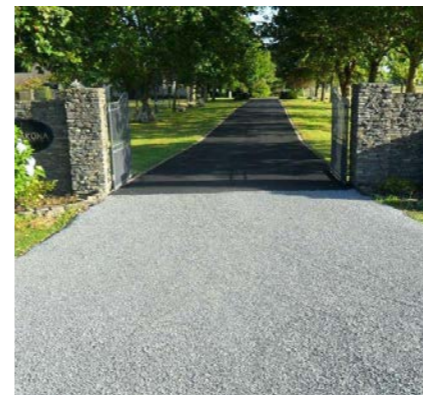
Retention of existing vegetation and tree plantings which extend above the house roof height will help integrate the building into the existing landscape setting. Planting of new vegetation will also help to filter views of the houses from the surrounding landscape.

To enhance passive street surveillance over the streetscape, an unobstructed viewshaft zone should be maintained in front of each house where no large vegetation is recommended. This is to ensure the street can still be viewed from each dwelling and vice versa.



### Driveways

Driveways should follow the contour of the landscape and not require unnecessarily large retaining walls or battered slopes. Visually recessive materials should be used such as asphalt, exposed aggregate concrete, charcoal-coloured concrete or metal. Use of bright or plain concrete, and material such as lime chip is discouraged.



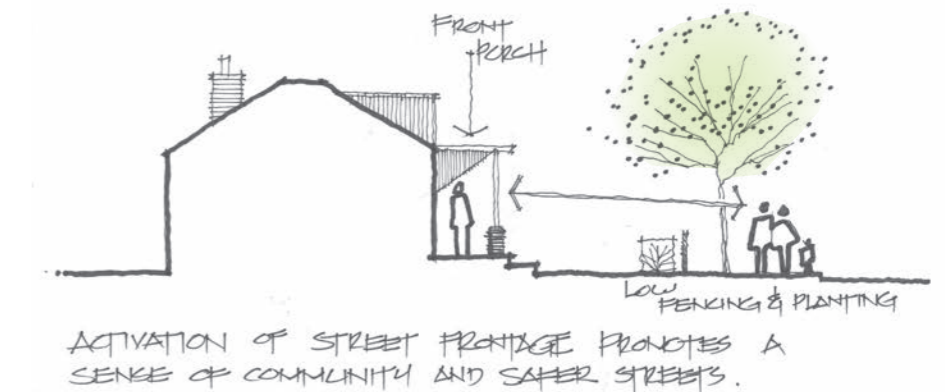
### Street Frontage

Street frontage is important as it allows neighbours to interact with one another and therefore increases the neighbourhood's passive surveillance. It is important that a strong visual connection exists between residential frontages and the adjacent streetscape. Houses should be designed to have primary living areas within the dwelling facing the street frontage, with large windows allowing residents within the dwellings to visually connect with the streetscape environment.

Front yard landscaping should take the form of low shrub and groundcover planting, to a maximum height of 1.2m, combined with informal clusters of specimen trees with clear stems, to allow visual connection below the crown of the trees.

Large shrubs and low branching trees should be avoided, as these can block views both outward and inwards to properties and have a detrimental impact on safety and security within the neighbourhood.

By having an attractive street frontage, it also makes for a high-quality neighbourhood that people will enjoy and want to spend time in.



### Site Fencing

Front boundary fences and hedges should be 1.2m high, while side and rear fencing can be between 1.2m high and 1.8m high. A clipped hedge can be used as an alternative or in combination with the front, side or rear boundary fencing.

All fencing within the development should be stained with an environmentally friendly exterior waterborne timber stain. This colour should be co-ordinated with the colours of the house.

### Retaining Walls

Where retaining walls are required they should not exceed a height greater than 1.5m, and if greater height is required, stepped retaining should be used.

Any retaining walls that can be seen from a public viewpoint should be enhanced by plant cover using a suitable shrub, groundcover, or creeper. Retaining walls on site boundaries should be avoided, and where possible they should be incorporated into the house structure.

## Building Design.

### Height

N1, N2, N3 large lot residential zone maximum building height is 8m.

### Building Size & Site Coverage

Maximum total building coverage on each site should be designed to comply with Rule 3.4.2.7 of the District Plan.

### Impermeable Surfaces

Impermeable surfaces on each site should be design to comply with Rule 3.4.2.8 of the District Plan.

### Roof Form & Style

Generous building eaves, overhangs and roofs that are darker than the walls can give off the impression of the building sitting into the landscape. The following roof forms are recommended:

- Gable End Roof
- Monopitch Roof
- Combination Gable And Hip Roof

The following roof designs are discouraged:

- Flat Roof
- Full Hip Roof



Monopitch Roof



Gable End Roof



Combination Gable And Hip Roof

## Balconies, Porches & Landings

Houses are recommended to be designed with a usable front porch to define the entry of the house. The porch must be accessible from a primary living area. The front porch should have a minimum depth of 2.5m and be wide enough to make it is a usable space. A minimum size of 15m<sup>2</sup> is required. The front porch creates a sense of visual connectivity and promotes community interaction. community and active surveillance over the streetscape.



TYPICAL HOUSE FRONTAGE WITH A MIXTURE OF FACADE MATERIALS

## Materials and Colours

The preference within the development is the use of natural and muted colour tones which blend into the surrounding landscape.

Two to three complimentary materials should be used per house. The front facade cladding should be applied in a ratio of 1:3, however brick cladding should not exceed 50 percent of any publicly visible frontage.





# APPENDIX THREE.

TRANSPORTATION ASSESSMENT & THREE WATERS ENGINEERING ASSESSMENT (TONKIN & TAYLOR, 2021).



# APPENDIX FOUR.

MULTI-CRITERIA ANALYSIS (M.C.A.) ASSESSMENT (TONKIN & TAYLOR, 2021).