

LAUREL HILLS EOI

Ladies Mile SHA, Queenstown

URBAN DESIGN ASSESSMENT

19th December 2018

Introduction

The Laurel Hills development forms part of the Ladies Mile SHA situated on the eastern approach to Queenstown from Arrowtown and Cromwell either side of the Frankton-Ladies Mile Highway (SH6) to the east of the Shotover River. The area was added to Category 2 of QLDC's Special Housing Area Lead Policy on 26 October 2017. This allows for a streamlined consenting process subject to compliance with the overall indicative masterplan.

The total SHA covers approximately 136 hectares and integrates with adjacent development in Shotover Country and Lake Hayes Estate development. It occupies one of the few undeveloped flat areas remaining in Queenstown which can also be connected to major infrastructure relatively easily. Although the area is intended to accommodate 2,500–3,000 dwellings in medium and high-density configurations subject to reticulated infrastructure upgrades, NZTA has indicated an 1,100 new dwellings threshold before upgrades to SH6 will be required.

Other key aspects sought for the SHA include:

- Any housing would be expected to be of a medium to high density
- 10% of development land is contributed the Community Housing Trust
- Open spaces are optimised
- Ensure a community focus including a focus on walking, cycling and encourage public transport
- A building set back from SH6 to create an attractive entry landscape

Laurel Hills is one of the first SHA components to be developed. It covers approximately 8.9ha and will deliver in excess of 156 dwellings which can be supported by existing reticulated networks and falls within NZTA's new dwellings threshold.

The concept developed for the site, as outlined in this Report, not only gives effect to the key outcomes sought, but utilises best practice urban design, engineering and landscape approaches to create a high-quality urban residential environment.

Context

Although the Ladies Mile SHA is approximately 8.5km from Queenstown CBD, it sits on the main transport corridor into Queenstown, and is in close proximity to the major commercial and retail areas along the Frankton Flats along with associated industrial zones.

The Laurel Hills site is located on the southern side of SH6 along with the existing development areas of Shotover Country (approximately 800 dwellings) and Lake Hayes Estate (700 dwellings), both of which sit on a lower plateau below the site and to the South. To the East of the site (and between the two development areas) across Stalker Road is the developing Queenstown Country Club project, which features a lower-density retirement concept of around 300 dwellings over 52ha.

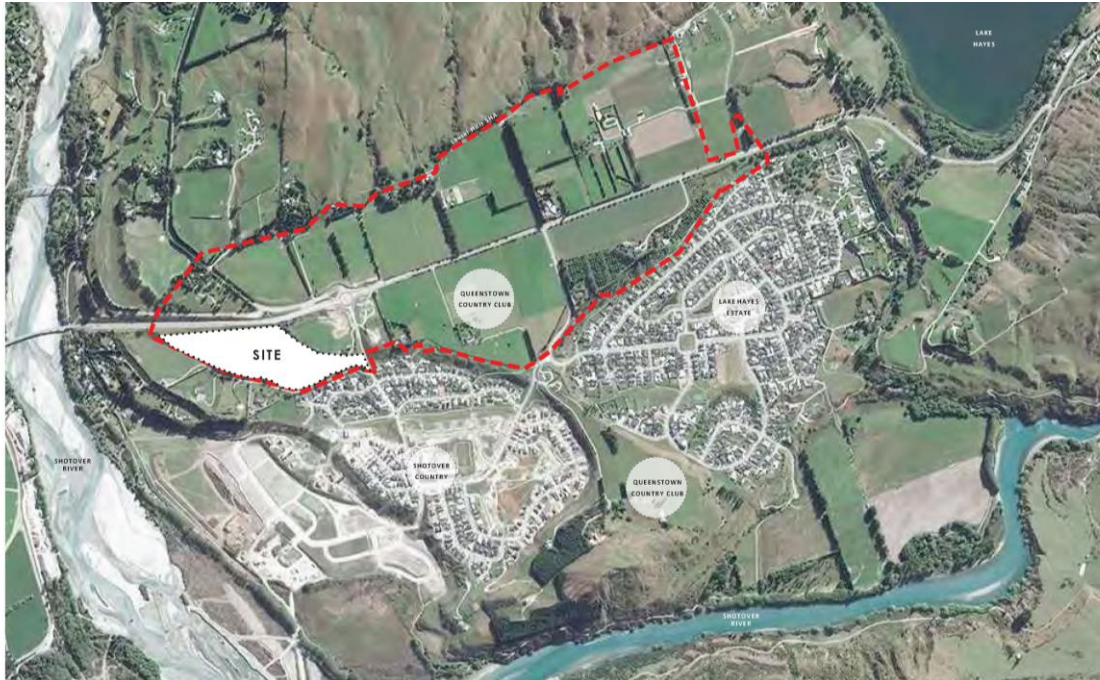


Image 1. Site location with neighbouring residential over aerial¹

While the Queenstown Country Club will eventually provide some publicly accessible amenity there are already local shops and amenities (including the Shotover Primary School) within walking distance of the site in the existing Shotover Country and Lake Hayes Estate neighbourhoods. The distance from the site entry to the further-most amenity is approximately 1.5km — still a manageable walk across a largely flat landscape.

In addition to new schools and recreational amenities, the SHA supports an intensive mixed use town centre less than 1km to the north across SH6 opposite Howards Drive (the entry to Lake Hayes Estate). Long-term this will place high-quality urban amenity and services within walking distance through a flat landscape corridor.

¹ Note all images are reproduced in Appendix 1 of the Landscape Assessment by DCM Urban.

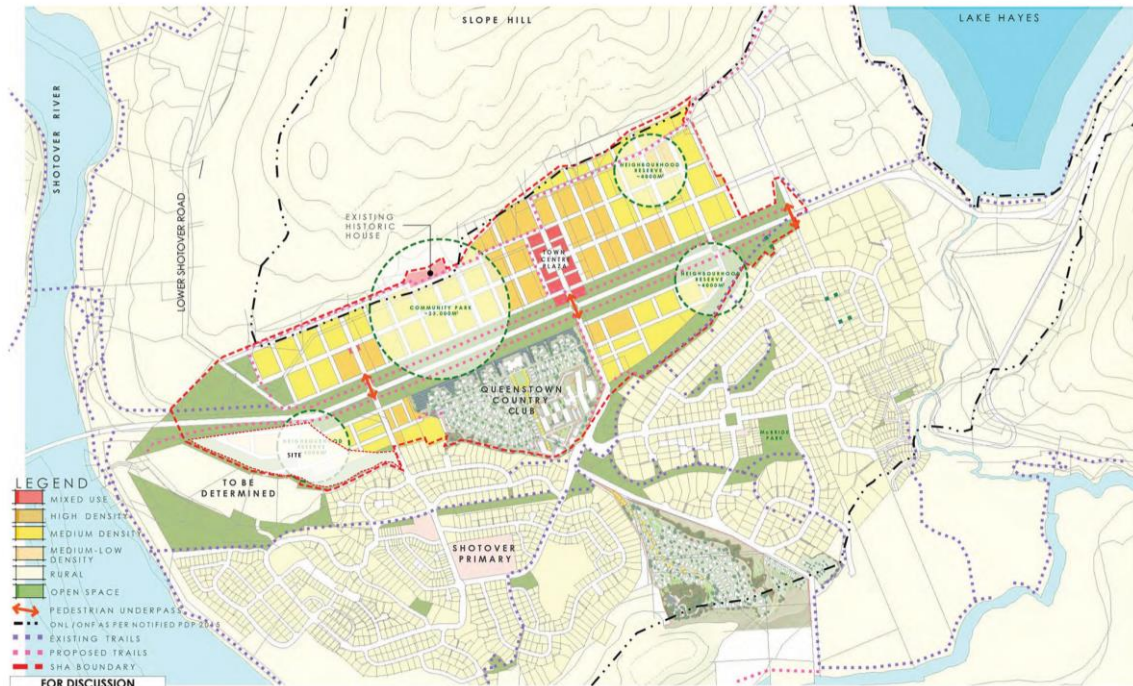


Image 2. The site located within the QLDC SHA Masterplan to illustrate proximity to current and future amenity

Multiple bus routes transit past the site and link back to the Frankton Flats / Five Mile area – arguably the largest and most significant amenity and employment centre for the District. Presently this is less than a 15min bus-ride. As the area develops further the range and frequency of these services will undoubtedly expand, although it is clear that the Frankton-Ladies Mile (SH6) route will remain the focal point for public transport.

Connectivity is further bolstered by an extensive network of pedestrians and cycle paths which also make non-vehicle transport a desirable option for the many of the journeys, in all but the most inclement of weather.

Because of this level of current and planned amenity provision, and the high level of connectivity and mode/route options, pursuing retail or commercial land uses was not considered appropriate for the Laurel Hills site.

QLDC's Masterplanned Objectives

Queenstown Lakes District Council's objectives for the area have been clearly articulated in the masterplan prepared for the SHA (see image 2). In relation to this site specifically, these objectives can be summarised as:

- Development of medium and high density residential
- Provision of a Neighbourhood Reserve (4,000m²+) capable of accommodating a 'flattish' area for play;
- Preservation / utilisation of the edge landscapes (southern embankment and SH edge) to create a landscape buffer, and;
- Facilitating a pedestrian cyclepath connection through the site along the SH edge between the Twin River trails of the Shotover River in the west, and the developing urban amenities of the Ladies Mile SHA.

The SHA Masterplan identifies an area which includes the Kelly property on the northern boundary. The total area in the masterplan was circa 10ha for which it was anticipated 170–220 dwellings could be delivered. On a pro-rata basis (8.9ha = 89%) this sets a target dwelling range of 151–196 dwellings for Laurel Hills.

The Site

As outlined above, the Laurel Hills site sits at the western-most end of the Ladies Mile SHA and can be generally described as a relatively long and narrow wedge-shaped plateau which sits above and remote from surrounding development and the state highway. The principal entry to the site is currently from a driveway access off a private lane (Maxs Way) to the south, however any future public access will need to be from Stalker Road (the main entry into Shotover Country). Access from the highway will not be supported, and additional linkages into the site from either the west or the east are not possible at this stage.

While the site borders the Frankton-Ladies Mile Highway (SH6) for over 450m, only a small fraction of this (circa 100m) is at-grade, being below the highway in the east and becoming increasingly elevated above the highway in the west as the road drops to cross the Shotover River. On the southern boundary, the site sits approximately 8m above Maxs Way with a steep embankment separating the two – except at the eastern end close to Stalker Road. Although relatively narrow and topographically-challenged, with appropriate design and engineering it is possible to create a new road entry from Stalker Road into the site.



Image 3. Aerial view over the site looking west to the Shotover River showing indicative site boundaries

The neighbouring Kelly property on the Stalker Road end sits approximately 8m above the site to the north, but this elevation differential decreases as the site rises to meet the highway. A strip of conifers have been planted at the top of the embankment separating the two, and represent the substantive vegetation component on the site.

The site itself (except for the entry section from Stalker Road) is essentially in two terraces with a smaller northern terrace sitting 3–4m above the lower terrace, although the transition between the two levels is relatively gentle. There has been some modification of the landscape over the years with bunding in places and creation of a pond area for the existing house. The only structure on site is a relatively-large footplate dwelling built in the early 2000's. The only other feature of note is a water-race that extends across the site from north to south, which although currently exposed, can easily be piped underground.

As image 3 and the earlier site aerial illustrated, the existing urban context can be broadly described as suburban with some remaining pockets of lifestyle properties. A private control (enforced through covenant) limits building height to 5.5m above natural ground level for the entire site. Given the relatively flat topography, this control has effectively limited buildings to single level, however Laurel Hills topographical variation and site proportions mean through careful design, placement and engineering two-level structures can be provided within that height-limit constraint.



Image 4. Existing housing in Shotover Country on the southern side of Maxs Way.

A more comprehensive landscape description and site analysis can be found in the landscape report, however in general terms the site can be described as ideal for further more-intensive urban development.

The Design Concept

The site conditions play a significant role in how the site can be developed to achieve both the Council’s and the developers objectives (which generally align). This is even more challenging with the private height control on buildings which effectively places a significant constraint on delivering any high-density built form. Notwithstanding, with good engineering and design, the topographical variation within the site is a critical aspect to accommodating two-level and more compact buildings within the site – and therefore the ability to attain the outcomes sought by Council.

Understanding these objectives and specific considerations has resulted in a development that is at the lower end of the yield/density range established by QLDC. This relatively lower-density response is reflected in the project name “Laurel Hills” which evokes a vision more akin to a traditional English village based around landscape amenity.



Img 5. Laurel Hills Concept Plan

The site development pattern is predominantly structured on connectivity requirements (both vehicular and pedestrian) however it is the open space framework that underpins all other aspects.

Open Space Framework and Modal Shift

This is comprised of two key components – (1) the SH6 buffer landscape and (2) a lineal park than runs through the site from north to south and incorporates the Neighbourhood Reserve.

The highway buffer landscape zone has been adapted to optimise the specific site conditions along this boundary. It is narrower than anticipated (roughly half of the 70m indicated by QLDC to the face of buildings) for a number of reasons:

- Buildings and associated north-facing living courts along this edge are going to be set lower, reducing their visual impact but still maintaining a high level of active interface with the space.
- The reserve 20m+ strip will be bunded and landscaped so that the walkway /cyclepath 'meanders through it – helping improve acoustic mitigation along this edge, creating a more varied and interesting environment and facilitate a 'gateway experience' for both pedestrian entry into Laurel Hills and for vehicles driving into Queenstown on SH6.
- For over 50% of this frontage the State Highway is well below the site boundary. This makes the space feel much larger and the slope banks between the site and the highway is set to remain as a landscape (difficult to develop further and/or maintain) for the foreseeable future.
- At the western end, the only functional locations for a pedestrian link (and therefore reserve strip) and any future road down to the Boyd land below align, resulting in another wider landscaped buffer.

Collectively this approach has reduced the land required for the highway buffer landscape and facilitated the creation of the central domain space. For this reason, the two reserve environments operate in tandem and are treated as a one space.



Image 6. Open space and pedestrian / cycle connectivity

The lineal park component of this space also leverages other infrastructure aspects to create a high-quality environment efficiently. Whilst the dedicated reserve ranges in width from around 17–36m, the placement of roads and lanes either side of this will make the space feel much more expansive, and the opening to both north and south making it appear much larger than the 120m length of the lower section.

The neighbourhood reserve is located at the bottom of this linkage at the juncture with the Maxs Way pedestrian pathway. This is not only a central location for Laurel Hills residents but provides easy, legible pedestrian connection to Shotover Country residents. Other considerations in locating the recreational reserve in that location included:

- Shape factor and terrain (flat)
- Proximity to on-street visitor parking
- Along the anticipated future bus route, and;
- Visual mitigation considerations for residents to the south



Image 7. Concept visualisation illustrating the proportion of the reserve space and surrounding built form

Overall, there are clear sight-lines to the lineal park along almost all roads and from most sites. This high level of legibility helps reinforce it as the focal point for the development, and the landscape treatment of this feature will help cement the character of the Laurel Hills community.

The intersection of the central domain with the buffer landscape is as significant as the main pedestrian entry point (gateway) into the site from the north. This gateway point also incorporates the intersection of the two 15m local roads and the intent (as the design develops) is to reduce the physical and visual impact of the road carriageway at this point to provide safe pedestrian crossings between the two open space components.

The other component is the adaption of the existing driveway and the foot of the bank along Maxs Way as an open space corridor and pedestrian route. This provides an off-road alternate down to the site entry off Stalker Road and the bus stop alongside that. Landscaping of this route, albeit limited by covenant to 3m height, will help facilitate bank revegetation, improve visual separation with neighbours to the south and deliver the strategic objectives outlined in the Councils SHA Masterplan.

The open space framework, in combination with the proposed pedestrian and cycle path routes, provides an environment that encourages modal shift (and therefore reduced car requirements) by making walking and cycling more efficient, attractive and safe.

Road Framework

Laurel Hills road networks is structured around a simple hierarchy of road types from a 15m local road down to 6m lanes. While the traffic report explains the technical aspects of this network, from an urban design perspective, the network has been set up to ensure:

- Easy wayfinding and route legibility;
- Natural delineation of spaces to reduce the need for signage and other streetscape 'clutter'
- Intrinsic vehicle speed control – using visual markers and other design techniques

Aligning these parameters with the site conditions (topography and aspect) has resulted in a simple primary road structure that uses two 15m local roads:

1. A loop connecting to Stalker Road at either end, and;
2. A lineal link from that to the west (towards the Boyd land)

While both routes ultimately rely on neighbouring property to complete the routes, the Lauren Hill proposal facilitates, but is not reliant on, these connections. Notwithstanding these main road linkages (a) support future urban development in neighbouring properties and (b) provide a high level of connectivity through the site itself. Until they are required for roading purposes, the future connection lots can be utilised as part of the open space network and/or accommodate driveways for house lots as required.



Image 8. Roading Hierarchy

The primary (sole at this stage) vehicular access is a local road access from Stalker Road clear of existing intersections (SH 6 and with Oxfordshire Ave/Banbury Terrace – the entry point to Shotover Country). The landscape along this relatively narrow strip of land will require substantial modification to accommodate this linkage, but in doing so it will provide direct pedestrian connection to the bus stop on Stalker Road (and hence on to Shotover Country and Lake Hayes amenities) as well as the potential to adapt/consolidate the Maxs Way entry if desired (by owners or Council).

Below this in the hierarchy is a single 12m lane which connects between the 15m road on the eastern side of the lineal park. This helps distribute traffic from the main entry road as early as possible and provides an alternate route if required. As the landscape details illustrate, this road type retains a standard road carriageway but the landscaping response includes no independent footpath and parking provision in informal bays and dedicated parking areas.



Image 9. Roading Hierarchy

Below this are a combination of 9m and 6m lanes. The selection of the appropriate lane type has been based on the intensity of the surrounding built form and the nature of frontage sought. The narrow lanes are typically shared surfaces with limited landscape and informal parking.

Built Form Responses

Laurel Hills built form responses are premised on four essential approaches:

1. Utilisation of natural contour where possible, and;
2. Wider and shorter
3. The value of the roof void
4. Embrace the porch and carport

These components are not only important in deliver an appropriate built-form response for this site, but are also important to achieving 'affordable by design' solutions generally.

Using contour, particularly where a site slopes up to the north enables multi-level dwellings with compact building footplates and sites – and in-turn supports increased residential density without necessitating attached apartment building typologies (which are more expensive to construct)

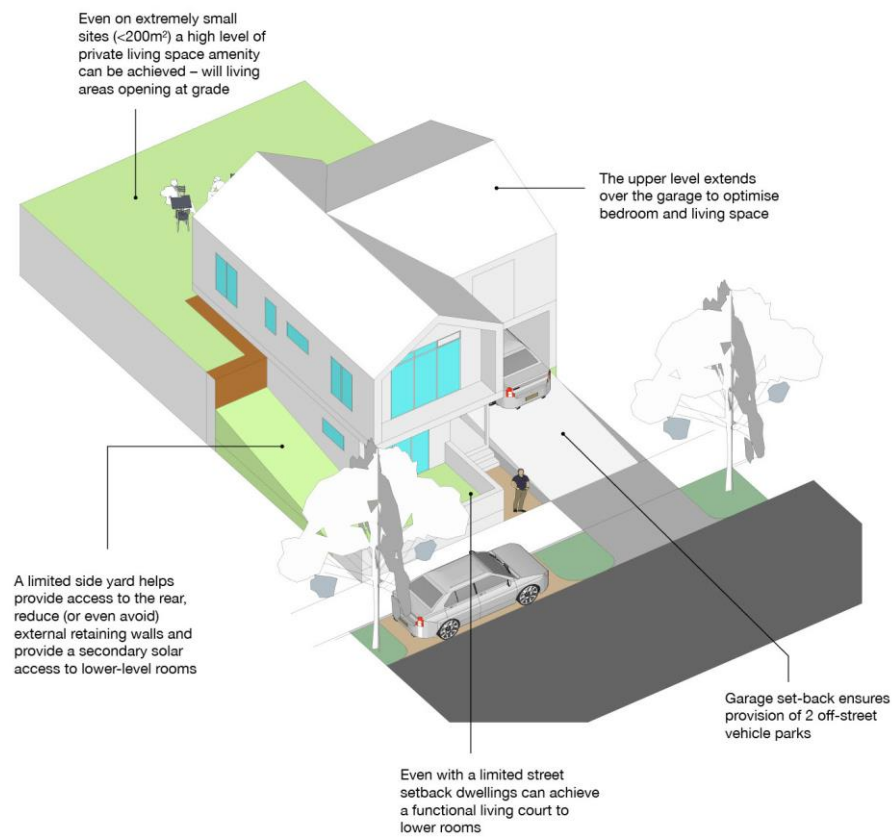


Image 10. Compact house type on a sloping site. This model is used in to great effect to achieve overall density and intensity in key locations whilst still ensuring quality private rear living courts

Such typologies allow for 3 bedroom family or dual-key dwellings on sites smaller than 200m² by using internal retaining to create the primary living space on the upper levels. This provides a 2 level appearance to the street with undercroft or enclose off-street parking, while the north-facing living court can be accessed directly at-grade from living areas on the level above. Even on the most compact sites 2 off-street parks can be provided.



Image 11. Recent development in Bullendale, Arthurs Point which uses terrain differential to create family-suitable compact house types.

This approach is used principally within the site from where the land rises from the lower to upper platform or against the north-east boundary (to the Kelly parcel), where relatively limited earthworks can create suitable building platforms and envelopes within the 5.5m 'above existing ground level' constraint. It enables increased housing density within the constraints of the private covenant.

The second design approach of **'wider and shorter'** is premised on (a) the ability to create 2 or more functional rooms facing either the street or rear living court and (b) the desire to ensure rear living courts are not unduly overly-looked by neighbouring properties – retaining privacy even in more-intensive residential environments. Other attributes of this approach include:

- Ability to create habitable rooms with outdoor amenity on lower levels
- Help facilitate porches and decks towards the street to improve sociability and surveillance to the street
- Ability to provide off-street parking (as above)
- Ability to provide street landscaping and on-street parking
- Help ensure even the tightest streetscapes can incorporate landscape and are not dominated (and undermined) by driveways

Whilst this is not an approach that can be applied verbatim, it needs to be acknowledged at the earliest stages of design as it effects block shape and roading design.

Another aspect which relates to this site specifically is the need to **utilise the roof void** to create habitable rooms, particularly (although not exclusively) the compact types. This means even sites which are cannot be adapted to accommodate two full level and still deliver generous dwellings on compact lots within the 5.5m constraint.



Image 12. Trelawns Cottage (Arthurs Point) – using the roof void to create a habitable room within a constrained building envelope

The final approach which is intrinsic to the evolving Laurel Hills concept and built-form is the inclusion of un-enclosed building appendages such as verandas' and porches to increase dwelling functional amenity and improve the interface with the street without significant cost. These elements allow the house to effective get closer to the street whilst still preserving privacy.



Image 13. Verndahs, porches and other non-enclosed building appendages add value to houses

This concept can be extended to include vehicle garaging – utilising carports in place of enclosed garages can not only help reduce construction costs but also provide an adaptable space for secondary living.

Collectively these approaches help facilitate variety and personalisation of buildings within a reasonably tight range of basic house types.

Affordability

In addition to Laurel Hills committing 10% of the developable land to the Queenstown Lakes Community Housing Trust (QLCHT), the approaches outlined above have a direct bearing on creating 'affordable by design' solutions for the development more generally – (a) through smaller, and therefore relatively cheaper sites, and (b) more cost effective built form solutions.

Providing porches and other un-enclosed building appendages is the best way to provide functional amenity without significant costs, and provide the home-owner the ability to adapt and upgrade their home in future without unnecessary compliance cost.

Ultimately affordable living is informed by reducing the need for larger lots to accommodate vehicle parking, and this means the site pattern, amenity provision (either within the site or close by) and the quality of pedestrian/cycling networks are critical aspects – all of which have been responded to thoroughly within Laurel Hills.

Development Density Distribution

Laurel Hills delivers 156 dwellings over 8.9ha, equating to a gross² development density of 17.5 dph (dwellings per hectare). There is a relatively even spread of density across the development although features to note are:

- Larger lots (450–500m²) in the south-west part of the site to accommodate larger footplate, single -level dwellings with larger set-backs from the southern boundary
- Although the Lots along the south-eastern boundary appear of similar size (typically 350–520m²), these are in fact compact lots as a large percentage of each lot is formed by the steep-south-facing bank down to Maxs Way.
- The upper half of the site is dominated by the split-level/internal-retaining house model to deliver compact lots for a range of dwelling sizes.



Image 14. Housing Typology Plan

Over 30 dwellings (19%) are identified as two bedrooms at this point in time. However, as outlined in *Built Form* above, the

² Gross development density includes all roads and open space in the land area.

design approach enables a range of mixed-tenure models within a single dwelling. There is also provision to include one bed dwellings by adapting some building types or including new types such as loft garages. While this may mean the final yield is higher than currently forecast, it is unlikely to be a significant increase as traffic and parking requirements will ultimately control any changes.

Parking Provision

QLDC's Code of Practice seeks, in addition to off-street parking for dwellings, 1 on-street space per dwelling where physically possible. Although the detailed car parking is yet to be resolved it is likely to be well below this objective, as the medium density housing objectives of the Ladies Mile SHA have been prioritised. This has been a conscious design and development response, and reflective of the desire to:

- Encourage and support modal shift (including the viability to public transport)
- Focus on quality streetscape provision, and;
- Create a high quality medium density built environment

Summary

Viewed in context of the developing Ladies Mile SHA and the existing neighbourhoods of Shotover Country and Lake Hayes Estate, the Laurel Hills proposal represents a logical, defensible and desirable development outcome that will help achieve a deliver a range of wider community outcomes – not the least of which is quality, affordable housing for Queenstown residents.

In straight functional terms, the Laurel Hills proposal exceeds to outcomes sought from QLDC in their SHA masterplan framework.

Summary of Outcomes

Criteria	Identified in the SHA Masterplan	Laurel Hills EOI Proposal
Area	9.97ha	8.9ha
Yield	170–220 dwellings	156+
Calculated Gross Density (Dwellings per hectare – dph)	17–22dph	17.5dph
Lot Size Range	200–600m ²	165–820m ²
Average Lot Size	Circa 350m ²	353m ²
Recreational Amenity	Neighbourhood Park 4,000m ² +	<ul style="list-style-type: none"> State Highway buffer landscape and lineal park in excess of 12,000m² (14% of site) Incorporates 4,000m²+ Neighbourhood Park
Access	From Stalker Road	From Stalker Road
Linkages	<ul style="list-style-type: none"> A network of connected streets with a hierarchy of types Preserve future link to area south and west of Maxs Way 	All objectives achieved
Pedestrian / Cycle connectivity	A pedestrian cycle trail linking to the twin River trail through the SH6 landscape strip	Objective achieved plus additional secure off-road pedestrian/bike path link to Stalker Road.

In addition to this, the Laurel Hills proposals delivers on all best-practice urban design criteria:

Design Principle	Responses
Context	The site is an integral part of the Ladies Mile SHA and is immediately adjacent the existing Shotover Country neighbourhood, providing it immediate access to existing amenity and the ability to integrate easily with developing amenity.

	The development preserves key landscape attributes to reinforce the character of the area.
Connectivity	<p>The site is within walking distance to a regular bus route to Queenstown Town Centre in one direction, and Arrowtown associated amenities in the other. It can be connected to all infrastructure with little difficulty.</p> <p>The site integrates to existing pedestrian and cycle networks providing residents with multiple mode and route choices.</p>
Permeability	The design is permeable and provides a safe and inclusive pedestrian environment. Both vehicle and pedestrian routes can be extended through neighbouring properties when development on these sites occur.
Concentration	There are sufficient households to create community and a sense of place. The more intensive built forms are generally located on the upper part of the site close to the buffer landscape pathways network and amenities of the lineal park.
Regeneration and Restoration	<p>Development along the southern boundary and embankment is lower density and buildings are setback from the edge. Where sites incorporate steeper banks these are larger left untouched to allow for appropriate revegetation planting.</p> <p>Within the site area, the landscaped street network radiates out from the lineal park to all edges enabling low-impact design. The use of compact high-performance housing reduces demands on network systems and infrastructure.</p>
Vitality	Critical mass and variety of housing types will encourage diversity among residents. The nature of the development and the amenity provision within it will encourage people from outside to walk to it.
Adaptability	<p>The design is safe, adaptable and resilient in the face of change – including energy efficient housing. It has alternative modes of transport available which supports a diverse community. It enables other amenity development in the future.</p> <p>The proposal provides a robust framework to support developed design of both public realm and architecture.</p>
Identity	<p>There is an intent to establish a distinct identity by respecting both the land form and heritage of the area. This will be reinforced through appropriate building designs and materiality.</p> <p>There is a sense of place and identity created through the landscape setting, the design and layout of the public realm and distinctive New Zealand architecture.</p>
Quality Public Realm	<p>The public realm is made up of public spaces and routes that are attractive, safe and inclusive that effectively function for all in society, including the disabled and elderly.</p> <p>The proposal integrates the state highway buffer zone as a functioning part of the public realm.</p>

Overall, the Laurel Hills proposal promises to be an exciting addition both within the Ladies Mile SHA, and to Queenstown generally. It establishes affordability-by design both through the ability to deliver compact housing options, and by reducing reliance on the private motor vehicle. This will help establish a distinct neighbourhood character and identity, and in doing so, create community.



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