

Typical Scopes and Benchmark Costs of Local Infrastructure Draft Report – November 2021

Submission to IPART by Ku-ring-gai Council
Due date: 10 December 2021

Preamble

Ku-ring-gai Council welcomes the opportunity to contribute to the papers supporting Typical Scopes and Benchmarked Costs of Local Infrastructure. This submission is one of two and should be read in conjunction with the submission concerning the review of the essential works life, nexus, efficient design and benchmark costs for local infrastructure on Typical Scopes and Benchmarked Costs of Local Infrastructure.

It must be emphasised that, like the concurrent DPIE exhibition, the submission deadlines of 10 December 2021 for documents that were placed on public exhibition concurrent with the commencement of the caretaker period and concluding before the declaration of the 4 December 2021 Local Government elections, means that this submission has been made by council officers acting in their capacity to support and defend existing adopted policies of the council and their potential for future review. It is the intention to present the submissions to the first ordinary meeting of council (OMC) for 2022, however the scheduled date of that OMC, being the first meeting where ordinary business will be discussed, is Tuesday 15 February 2022. We note this date after the deadline for the final report to be submitted by IPART to the NSW State Government.

Overview

Ku-ring-gai Local Government Area is an established area of approximately 8,540 hectares including parts of the Ku-ring-gai Chase, Garigal and Lane Cove National Parks. Earlier development followed the northern railway line along the ridgeline. Successive suburban expansions from the inter-war period, post-WWII and through to the 1980s expanded suburbia to the edges of the National Parks. Currently, intensive redevelopment and densification is occurring in the railway / Pacific Highway corridor and in St Ives together with on-going urban renewal throughout the suburban areas, including provision of medium density on selected sites outside the local centres as well SEPP Seniors housing, also outside the core centres.

Ku-ring-gai's current s7.11 contributions plan provides for a variety of works to support on-going densification and urban renewal including:

- Provision of additional new parks in areas that currently have poor access to local parks and which are in or adjoining areas of intensive redevelopment on a pro rata per capita basis. These parks serve the needs of residents of new multi-unit developments who have limited private and shared open space.
- Provision of additional works to existing parks and sportsfields to increase their carrying capacity and extend their hours of use, with an emphasis on parks in the intensively redeveloping areas near the railway stations.
- Provision of new roads where the studies for the initial up-zonings indicated poor transport circulation and access.
- Provision of intersection upgrades and works where the studies indicated the level of service would be reduced to unacceptable levels as a direct result of the concentration of new development.
- Provision of public domain works to facilitate pedestrian and cycling access to local centres and to enhance the street as an area of recreation as well as transport.
- Provision of community floorspace on a pro rata per capita basis apportioned as applicable.

- Delivery of some works in the above list as major projects that combine civic open space, public domain works, road upgrades and community floorspace.

As a consequence of being a redeveloping established area, each work is a bespoke project, although the current contributions plan utilised benchmarked costs for open space embellishment work and standardised costs prepared by quantity surveyors for the public domain works. In this context, our comments on the current benchmarking exercise are below.

The issue of adequately funding infrastructure for more intensive use in an intensively redeveloping area is of enormous importance to Ku-ring-gai. We have also [delivered](#) six new local parks, two new roads and are in the process of delivering our first major project, the Lindfield Village Green (due to open within the month) with extensive public domain works underway in Gordon. We have many more projects in the pipeline including a major hub that is at tender stage. Most of the works listed above were 100% funded being directly required by the development. There have been other works, including upgrades to recreation facilities and sportsgrounds which were heavily apportioned to the existing population where contributions played a small but important part. Naturally the Hub projects have a broad range of budget sources, but apportioned contributions are still a critical component.

Please see the following webpage for images of our more recent projects including projects delivered by Planning Agreement: <https://www.krg.nsw.gov.au/Planning-and-development/Building-and-renovations/Development-contributions/Projects-funded-by-development-contributions>. In this context, Hanson Way was delivered by Planning Agreement, whereas Beans Farm Road was delivered by Council.

Ku-ring-gai Council would be happy to work with IPART in refining benchmark costs for built-up urban areas and we hope this comprehensive submission will be of assistance. We anticipate we will, as of our next review, be working closely with IPART on the next iteration of our s7.11 contributions plan.

List of issues for stakeholder comment

Issue 1: Are there other items that we should benchmark?

Response by Ku-ring-gai Council

Transport works – Intersection treatments

While the benchmark items include new traffic signal installations, it is common in the Works Schedule of our Contributions Plan to also collect contributions for modification/upgrade to existing traffic signal intersections. This is justifiably development-contingent as no upgrade would be necessary but for the additional impact of intensive redevelopment. This is also likely to be the case for other urban/metro councils, for works in intensively redeveloping brownfield areas.

Although the extent and nature of modification can vary (e.g. widening to accommodate additional approach/es lanes for capacity, modified phasing or introduction of one-way traffic flow etc), it would be useful if there was benchmark items on two or three typical modifications to traffic signal intersections.

Transport works – active transport and cycleways

Also, with Net Zero emerging and more focus (from government and the community) on "Movement and Place" and active transport, separated cycleways (not shared user paths) are becoming a more suitable/appropriate form of infrastructure to achieve emissions reductions and mode share targets and are being included as transport infrastructure in response to development in centres. Typically, these are provided either by reallocating road space (a parking lane) and *either*:

- integrating the separated cycleway into the public domain by using "at-grade with footpath" configuration being cycle path at grade with the footpath and separated by a horizontal buffer of

planting/contrast paving and other devices. (In this example, parked cars and cycle path are separated by a kerb and separation zone of contrast paving flush with the cycleway); or

- integrating the separated cycleway into the public domain by using a "2-step cross" section where cycleway on distinct level down from footpath with adjacent separation zone adjacent to parked cars, with cycleway denoted by contrasting pavement. (In this example, parked cars and cycle path are separated by a kerb).

Given the relatively standard configuration/cross-section of separated cycleway infrastructure, it would also be useful if this could be included as a benchmark item.

Transport works – elements that can be individually costed

In order for Council to effectively deliver traffic projects of a similar nature to those in current contributions it would be beneficial to either provide the following as stand-alone items or alternatively incorporate them as sub-items against other similar listed items:

- Kerb and gutter/laybacks etc – these are covered only for road works as an inclusion.
- Raised thresholds (wombat crossings), Kerb Blisters & Slow points and the like. These could be incorporated alongside or as a component of pedestrian crossings as an item called Traffic Calming devices or similar.
- DDA compliant bus-stops – These could be listed as a sub-item of 1.23 Bus Shelter where no shelter is proposed.

Open Space Embellishment

Council acknowledges the difficulty in benchmarking the wide variety of base infrastructure that would be required to ascertain an estimate of Open Space Embellishment work for either upgrading facilities or delivering new parks (which tend to be bespoke projects). The current contribution system has facilitated a typical baseline budget applied per square metre which has been refined following public consultation concerning the actual elements for inclusion in any one particular new park. This freedom to respond to community input is important and it is concerning that the preparing of a new contributions plan with more structured and specific cost elements could potentially make the task of responding to the community far more onerous. Ku-ring-gai regards community consultation and public exhibition as a core part of the final design process.

Open Space – Sportsfield and court upgrades

Upgrading existing infrastructure to keep up with new demand is an integral part of contributions plans. The acquisition of new land for additional sportsfields in an area like Ku-ring-gai would be prohibitively expensive. The only way to address the increasing demand for active recreation spaces that are highly land-intensive is to make existing spaces work harder. In some cases this involves upgrades to an existing sportsfield. In some cases it involves co-locating additional courts adjacent to or within existing sporting facilities.

Whilst the exhibition document covers works to sportsfields and courts, it falls short of covering the complete gambit of works currently undertaken for upgrades to these facilities. It would be beneficial to expand the benchmarking of these areas either through the provision of additional stand-alone items such as: turf field, tennis court, netball court upgrades and the like – which would have additional sub-items to deal with specific elements such as – sand slit drainage, water harvesting, irrigation, surface finish (turf/asphalt & line-marking etc), floodlighting etc.

Alternatively, a unit rate could be provided, for example, listing a sportsfield / court upgrade item with sqm rates for specific uses: i.e. \$100/sqm for a turf-sportsfield which is the indicative cost council currently pays for an upgrade that is inclusive of drainage, irrigation, grading, turfing and water harvesting.

Open Space – New Urban Parks

Whilst the benchmarked items include playgrounds and other typical elements found in urban parks it would be difficult to base price the urban parks council has recently delivered to support the intensive redevelopment in the local centres within the proposed benchmarked costs.

It would be useful to have a stand-alone item priced at a base per square metre rate for the creation of an urban park. The experience of recent park upgrades indicates that Ku-ring-gai's actual expenditure would be spending \$600-\$900/sqm inclusive of house demolition and the delivery of the new park in today's dollars.

Ku-ring-gai Council has an active program of acquiring land and creating new parks, since 2010, six new parks have been constructed providing an additional 13,000sqm (1.3Ha) of new open space in high priority areas including: Balcombe Park, Curtilage Park, Cameron Park (which existed but was doubled in size), Boyds Orchard Park, Lapwing Reserve, and Greengate Park. Lindfield Village Green is under construction and the next park to be delivered is an extension to Bedes Forest.

A review of the cost of these shows the typical cost is about \$750 per sqm, typically the park size is about 2,600sqm. It is noted that the *Benchmark Datasheets - Benchmark Costs for Local Infrastructure* do not provide an overall rate per sqm for a new park so it is not possible in the time available to make a high-level comparison – which would be useful benchmark for comparison purposes

In infill areas where Council is acquiring residential land for new parks there are demolition costs associated with removal of existing dwelling, and frequently a pool, as well as existing services and asbestos removal. The costs of **demolition for this work** have not been considered.

New parks in Ku-ring-gai are expected to be multi-function and serve a variety of active and passive uses for users of all demographics and abilities. Typically these new parks are either already surrounded by unit development (of which Greengate Park in Killara and Cameron Park in Turramurra are the most recent examples) or near the periphery of (and accessible to) current zone edges (such as Bedes Forest extension in St Ives and Boyds Orchard Park in Turramurra).

New parks in Ku-ring-gai typically contain the following elements:

- Open turfed areas
- A fenced playground
- Picnic shelters
- Barbeque facilities
- Toilets
- Landscaped garden areas
- Tree planting
- Furniture including seats, tables, bubblers
- Concrete pavement, paths and steps
- Retaining walls
- Mature tree planting
- Recreation equipment catering for informal activities such as a basketball half-court, outdoor table tennis, outdoor exercise equipment etc.
- Play equipment catering for people with a disability
- Shade sales
- Disabled parking

It is noted that the following typical elements of new parks appear to be absent from the benchmarked costings:

- **Retaining walls, steps and ramps** are not included in the *Benchmark Datasheets - Benchmark Costs for Local Infrastructure*. Ku-ring-gai has widely varying topography and **retaining walls** are typically required to create flat areas for recreation.
- The costs of **Mature tree planting** is not included in the *Benchmark Datasheets - Benchmark Costs for Local Infrastructure*. These are necessary for early provision of shade and shelter
- **Recreation facilities catering for informal activities** such as basketball half-court, outdoor table tennis, outdoor exercise equipment are not catered for in *Benchmark Datasheets - Benchmark Costs for Local Infrastructure*. These elements are essential to ensure we are catering for people from broad age and demographic groupings

- **Play equipment catering for people with a disability** in accordance with the *Everyone Can Play Guidelines* is not included in *Benchmark Datasheets - Benchmark Costs for Local Infrastructure*.
- **Disabled parking** catering for people with a disability is not included in *Benchmark Datasheets - Benchmark Costs for Local Infrastructure*.

Topography represents a significantly challenge to urban park design in Ku-ring-gai. Images of the recently delivered Boyds Farm Orchard Park (2020) in Turramurra and Greengate Park Killara (2013) are illustrated.



Image of Boyds Farm Orchard Park on Duff Street Turramurra elevation

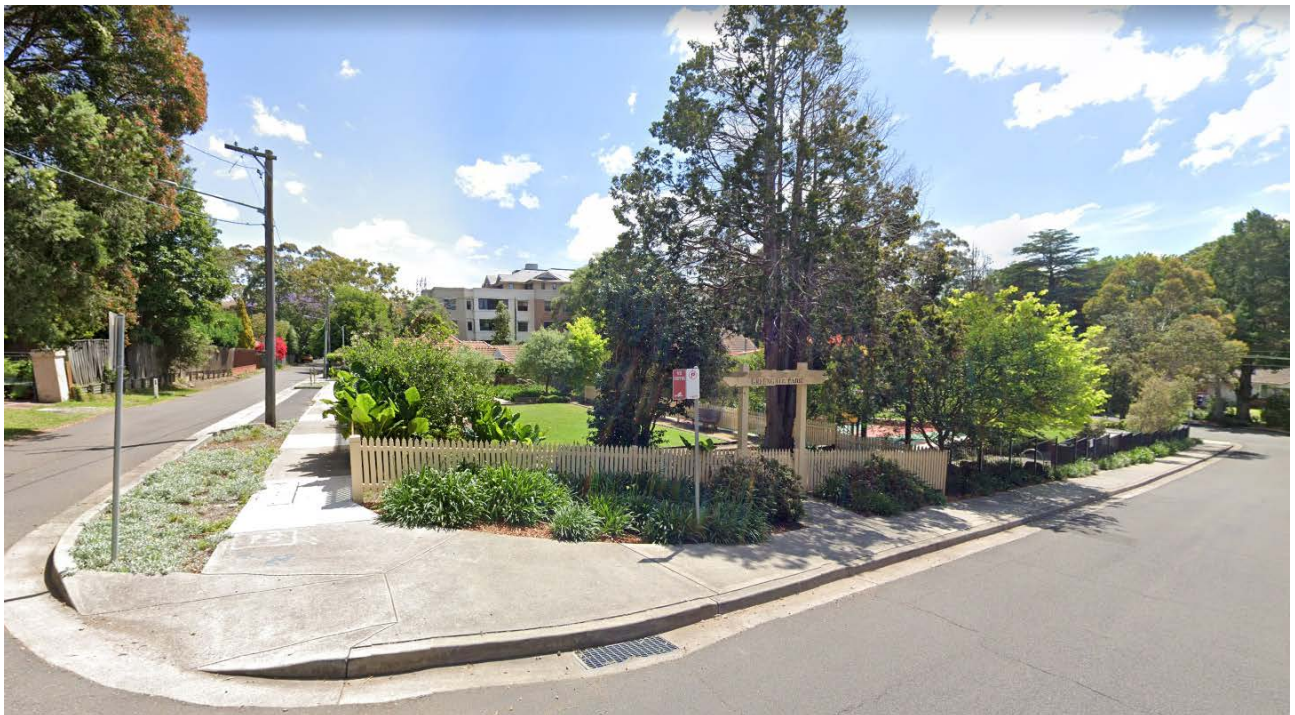


Image of Greengate Park on the Bruce Avenue / Greengate Lane corner in Killara

Benchmark Datasheets - Benchmark Costs for Local Infrastructure appear to focus on a limited definition of what a park comprises and sets low benchmarks for parks with basic equipment. This approach is not consistent with the State Government's *Greener Places Design Guidelines* which identifies Diversity and Quality as two core criteria that can help guide performance outcomes which drive the planning of open space for recreation. The Design Guidelines state on page 19:

"Provision of a diverse range of recreation opportunities reflects the diversity of the community. Diversity is important not just in the range of activities but in the settings that create the spaces and places for these activities. Within any urban area, the public open space network should offer both a range of landscape settings for activity and a range of activities."

"Quality is just as important as adequate quantity. Feedback from many studies indicates the community would much rather limited funds for investment be used for a single high-quality park with a number of activations and opportunities than development of, for example, three smaller parks with basic equipment."

Benchmark Datasheets - Benchmark Costs for Local Infrastructure make no reference to a hierarchy of open space as set out in the State Government's *Greener Places Design Guide*, page 19 which references 11 different types of recreation space each with individual facility requirements. The types are as follows:

- Local play for the very young
- Local children's play
- Older children's activity space
- Youth recreation space
- Local recreation space
- Active recreation space
- Large community outdoor recreation area
- Fitness and exercise space
- Trail and path-based recreation
- Organised sport and recreation
- Off-leash dog exercise area

Examples are provided below where the State Government's *Greener Places Design Guide* (pages 57-60) identifies performance criteria and detailed planning considerations for each type of outdoor recreation. The inconsistencies with the *Benchmark Costs for Local Infrastructure* are highlighted.

EXAMPLE 1 - GREENER SPACES DESIGN GUIDELINES, Older Children's Activity Space (OCA) p57

The *Benchmark Datasheets - Benchmark Costs for Local Infrastructure* provide few if any benchmark costings for Older Children's Activity Spaces. Extracts from the *Greener Places Design Guidelines* highlight the type of facilities to meet the needs of the user group:

- "Older children's activity space (OCA) Locally accessible ride-to or walk-to play and active recreation space for older children (10–15 yo)"
- "Large multi-age play space provided in large park Natural bush exploration and activity space"
- "Adventure play equipment and structured play equipment, Water-play and creek-play areas, Bike tracks, small pump tracks, skate plazas and outdoor courts, Active play trail with features along a linear system such as a creek or bushland trail"

EXAMPLE 2 – GREENER SPACES DESIGN GUIDELINES, Youth recreation space (YRS) p58

The *Benchmark Datasheets - Benchmark Costs for Local Infrastructure* provide few if any benchmark costings for Youth recreation space (YRS). Extracts from the *Greener Places Design Guidelines* highlight the type of facilities to meet the needs of the user group:

- "Neighbourhood-level, larger, youth-focused area suitable for youth (13–20 yo) and providing both active recreation and space to gather and interact"
- "Designed for longer stays so should have access to public toilets"
- "Activation options include a small jump park or BMX track, parkour elements, exercise and fitness equipment sports courts, half courts, exercise area provided as part of a district park, youth "plaza" with Wi-Fi and versatile group spaces"
- "Youth recreation spaces should aim for diversity across districts including parkour, skate or BMX tracks, mountain-biking trails and trail head shelter facilities; sports court / half court; exercise area"

Additional to the above there are several items that would be beneficial to include for open space works that are not benchmarked in the document - alternatively if not stand-alone items they could be incorporated as sub-items against other similar items. These include:

- Furniture/Fixtures:
 - Rather than stand-alone picnic area/seating area have a combined item called furniture/fixtures, with additional sub items Bin enclosure/bollards/bike racks/drinking fountains etc:
- Include exclusion for paved area (4.17) and add concrete slab to 4.17.
- Commonly utilised retaining walls – i.e. Sandstone block wall/Brick wall
- Turf wicket
- Synthetic sports field

Modifications/additions to the proposed items should also be considered:

- 4.09 - Council installs swing mounted posts for ease of maintenance

Public Domain works

Evidence from around the world has repeatedly demonstrated that planning and building cities and regional areas around public open space, active recreation areas, green streets, and walking and cycling infrastructure will deliver improved health, social cohesion, vibrant local economies, productivity, and environmental benefits.

In stark contrast the *Benchmark Costs for Local Infrastructure* have ignored this evidence and focused on basic facilities and engineered infrastructure to provide community benefit.

There is no allowance for public domain works to existing streets and lanes within centres. Benchmark costs have not been provided for:

- Upgrading pedestrian infrastructure on existing or new local/collector/arterial roads such as wider footpaths, furniture, improved lighting, accessibility
- Green infrastructure - street tree planting and tree vaults, landscape areas
- Paved civic spaces as focus points for community life
- Cycling infrastructure
- Narrowing of roads to provide for greater pedestrian/cycle amenity
- High Street/Urban Laneway/Shared zone classifications for roads – these would incur higher cost inclusions than the roads benchmarked
- The basic public domain inclusions allowed for under roads are inadequate for Council to benchmark public domain improvements i.e.:
 - Only concrete footpaths included, no high quality unit paved finishes
 - No planting allowed for, only turf
 - Spacing of trees – very sparse inclusions - 45L trees for 15m apart for a local road, 50m apart for sub-arterial. We would be planting min. 100L trees at 10m spacings or closer.
 - No allowance for street furniture, seats, bins, bike racks, bubblers, bollards etc.
 - Pedestrian crossing benchmark doesn't include a raised crossing. For a raised crossing it refers to a separate item 1.9.1 which doesn't exist?
 - Demolition is only allowed for as an item in Open Space embellishment. Does this apply to Transport sections also? As large cost of public domain projects in existing road areas is demolition costs.

In relation to civic spaces, Council has provided a more detailed overview of the Lindfield Village Green Major Project at **Attachment 1** which gives an example of a civic space in the heart of Lindfield's centre that will be delivered by Council in December 2021.

The Lindfield Village Green was largely funded by development contributions (with funding for additional underground commuter car parking from TfNSW) however it would not have been possible under the new *Benchmark Costs for Local Infrastructure*.

The Lindfield Village Green is the heart of the town centre and designed as an economic driver for the revitalisation of the eastern side of Lindfield aiming to generate a range of property investment and business development opportunities adjoining the new space. Local Infrastructure inclusions that are not covered by the *Benchmark Costs for Local Infrastructure* are:

- paved areas in high quality paving materials befitting a town centre
- mature tree planting
- gazebos and other structures
- water capture, storage and reuse systems
- water features
- a café pavilion building
- basement parking for both short stay and commuters
- extensive waterproofing and drainage systems
- lifts



Lindfield Village Green is due for completion in December 2021



Issue 2: Are the inclusions, exclusions and typical scopes appropriate and clear?

Response by Ku-ring-gai Council

Council acknowledges the work that has gone into putting together the benchmarked items and finds them over all well scoped. However, there is a distinct lack of specific requirements that will lead to ambiguity during project delivery. Items such as paved areas and fencing, for example, have little in the way of specification to determine what constitutes a foundation slab or what thickness of proposed elements are required for the fencing. Some of these items have been further highlighted later in this section.

Transport

Ku-ring-gai Council has identified areas for potential modifications to the proposed scope of works listed below:

- to 1.04 & 1.07/1.08 specify a pathway at odds with 1.16 specification.
- 1.16 consider including backfilling and turfing to disturbed areas.
- 1.27 Could glare shields could be listed as either an exclusion or an inclusion?
- Any new/modification to existing traffic device would require consideration of lighting as such street lighting should be listed as an exclusion for items such as Roundabout and Pedestrian refuge to enable the use of 1.27.

Stormwater

Council has identified areas for potential modifications to the proposed scope of works listed below:

- 2.01/2.13/2.15 no indication of turfing and/or reinstatement of hard surface to disturbed areas.

- 2.14/2.16/2.17 indicates exclusion of reinstatement of hard surface but does not indicate inclusion of any reinstatement other than backfilling.
- 2.16/2.17 lists Camden Council 2009 standards as applicable?

Open Space Embellishment

Council has identified areas for potential modifications to the proposed scope of works listed below:

- 4.01 consider listing the following as inclusions or exclusions:
 - Painting/anti-gravity coating
 - Stainless steel bathroom fit-out
 - External lighting
- 4.01/4.02/4.03 consider listing appropriate standards i.e. BCA, AS1428 etc.
- 4.03 consider:
 - inclusion of backfilling/turfing.
 - Further specifying the elements – what size steel posts/rails etc.
 - Different areas require a different level of sturdiness to ensure less ongoing maintenance – how can council account for this?
- 4.04 consider listing lighting and WSUD installation as exclusion.
- 4.07 consider listing as exclusion and risk disposal of contaminated waste.
- 4.08 the listing of Drainage and irrigation as exclusion seems counter-productive, we would not install a field without it.
- 4.08 shows a cricket pitch with 50m from wicket to boundary – confirm what grade of cricket this allows for?
- 4.09 KMC installs swing mounted posts for ease of maintenance
- 4.12 does not specify depth of mulch.
- 4.12 consider inclusion of backfilling and turfing disturbed areas.
- 4.09/4.15 consider listing connection to existing cloudmaster system as inclusion and provision/connection to new cloudmaster system as exclusion.
- 4.17 consider listing for inclusion or exclusion infill pit lids.
- 4.18/4.20 consider listing for inclusion or exclusion sub-ground installation as opposed to surface mount.
- 4.19 the description of fencing includes mesh yet the picture and rest of description indicate vertical steel posts. Also refer item 4.03 above.
- 4.21 include anti-graffiti coating.

Works in the Public Domain

The benchmarked costs provided for infrastructure works do not include upgrades to footpaths to meet Australian Standards in brownfield areas, although the IPART report states a requirement to comply with accessibility standards. The report acknowledges that the standards change from time to time, however upgrades over time are not included in the benchmarking.

Increasing population through developments increases pedestrian demand and leads to a higher density of pedestrians using the footpaths. It is not possible or reasonable to deliver new public domain works to historic standards. New work must meet current requirements. This is not a matter of higher standards being sought as a preference by residents of the developments that front these streets but what is baseline under today's standards regardless of the historic standard.

Items like seats for resting or improved lighting along footpaths between the extent of the new development and the heart of the local centre have not been included. Adequate lighting and regular seating is critical to supporting a pedestrian friendly environment and discouraging car use, especially for shorter trips like accessing the railway station or bus interchanges and daily shopping.

Tree planting along the footpaths for shade at local centres has also not been included and yet resilience to Climate Change is noted as a community need. Increasing density adds to the urban heat island effect and the need for street tree planting is an essential mitigation of the direct impact of denser development.

Issue 3: Do the base costs reflect efficient costs?

Transport works

Traffic Signal Intersections

Looking at the benchmark costs for new T-intersection traffic signal installations, and using the worked example in the Cardno report as a guide, a sample costing was developed for new traffic signal installations on arterial roads.

	Traffic signal installation		Single lane	Dual lane	Triple Lane (arterial road)
	Base price		\$ 250,000	\$ 325,000	\$ 487,500
Adjustment factors	Regional/Raw material factor	0			
	Constraints	40%	\$ 100,000	\$ 130,000	\$ 195,000
	Soil condition	1			
	Indexation	1			
	Sub-total		\$ 350,000	\$ 455,000	\$ 682,500
	On-cost	15%	\$ 52,500	\$ 68,250	\$ 102,375
	Cultural Heritage	5%	\$ 17,500	\$ 22,750	\$ 34,125
	contingency	20%	\$ 70,000	\$ 91,000	\$ 136,500
	Total cost		\$ 490,000	\$ 637,000	\$ 955,500

A linear extrapolation was used to get the base cost for a 3 lane intersection (the Cardno report only goes up to 2 lanes). This could represent a new traffic signal intersection on Pacific Highway (Ku-ring-gai Council has a few already in the current Contributions Plan e.g. at Turramurra Ave, Ravenswood Ave, Beaconsfield Pde, Strickland Ave).

Even with the various adjustment factors, the forecast cost of less than \$1M is likely to underestimate the actual cost. Utility adjustments and nightworks are probably a key factor which would further increase this forecast cost. These could be additional factors affecting brownfields sites that should be included separately. Perhaps a constraint factor of 50%, on-cost factor of 25% and a contingency factor of 50% should be contemplated specifically for works on state/arterial roads in urban areas due to their complexity, to provide a more realistic adjusted benchmark cost. In this example, applying the suggested modified factors would result in a project cost of approximately \$1.3M, which appears more reasonable.

Roundabouts

A sample costing was developed for a new single lane roundabout on a local or collector road in Ku-ring-gai (overleaf).

This would parallel situations in our local centres, where roundabouts have been required on local or collector roads in close proximity to retail cores and train stations, to manage growth from development in those centres.

	Single lane roundabout		
	Base price		\$ 42,000
Adjustment factors	Regional/Raw material fac	0	
	Constraints	25%	\$ 10,500
	Soil condition	1	
	Indexation	1	
		Sub-total	\$ 52,500
	On-cost	15%	\$ 7,875
	Cultural Heritage	5%	\$ 2,625
	contingency	20%	\$ 10,500
		Total cost	\$ 73,500

Again, an adjusted benchmark costing of \$73,500 for a new roundabout appears to be low. Council recently constructed a single lane roundabout in the Gordon local centre close to the station and retail/commercial core and the cost of this infrastructure exceeded \$200,000. In this particular case, there was additional costs due to traffic control/constrained work hours, and lighting designs for street light relocation. Other single lane roundabout estimates in brownfield areas have typically exceeded \$150,000.

Pedestrian Crossings/Refuges (retrofitted) - A sample costing was developed for a new pedestrian refuge retrofitted on a local or collector road:

	Pedestrian crossing/refuge		
	Base price		\$ 13,000
Adjustment factors	Regional/Raw material fac	0	
	Constraints	20%	\$ 2,600
	Soil condition	1	
	Indexation	1	
		Sub-total	\$ 15,600
	On-cost	15%	\$ 2,340
	Cultural Heritage		\$ -
	contingency	20%	\$ 3,120
		Total cost	\$ 21,060

In this instance, an adjusted benchmark costing of just approximately \$21,000 for this facility seems a reasonable estimation.

Stormwater

Council delivers a majority of stormwater infrastructure projects through our tendered Minor Works Schedule (MWS) which comprises 10 approved contractors for the works. The Overall prices benchmarked appear low in comparison to our rates. For instance for 2.13 the prices listed are at least half the price KMC pays thru the MWS.

Open Space Embellishment

The given rates provided appear to be quite low in comparison to some recent installations undertaken by Council. Further efficient cost needs to take into account the need for more robustly specified items to ensure Council is not delivering projects that will result in ongoing maintenance costs that could have been reduced through the installation of more fit for purpose infrastructure – i.e. sturdier fencing, thicker concrete, etc.

Example of where the cost estimates are considered to be inadequate:

- 4.05 the price listed is around 50K less than recently paid for a three-bay cricket wicket at Roseville. Council has a standard specification that includes extras over the Australian Standard, for example chain-wire ties at every second diamond every rail as opposed to every fourth rail in the standard to allow for greater longevity and reduced maintenance costs.

Issue 4: Do the sub-items and adjustments appropriately deal with project variability?

General

Ku-ring-gai takes the opportunity to emphasise that we have an established history of efficiently designing for the maximum possible uses in limited space due to the high costs of land. Land costs are currently ranging from \$2,200 to \$3,000 per square metre for the acquisition of existing dwelling houses and the typical property purchased is around 700-1,000 sqm. Usually 3-4 properties are required to deliver a local park of a suitable size to efficiently accommodate a range of activities.

For certain items such as sportsfield upgrades and urban parks the list of important sub-items would be exceedingly long. As per response above, it is recommended that a benchmark per sqm rate be considered inclusive of all core elements for a range of park sizes. Ku-ring-gai targets an average size of around 3,000sqm to deliver a local park that provides for a broad range of active and passive recreation activities in a tightly designed space.

Traffic Works

Additional sub-items could be considered for:

- 1.25 this item is specifically outlined and detailed as a pedestrian refuge with a crossing as opposed to a stand-alone pedestrian crossing. It would make sense to have the sub items as:
- Pedestrian crossing – which would include line-marking/signage pedestrian laybacks for crossing
- Pedestrian refuge – which would include the median islands and additional line-marking/signage required.
- Raised Pedestrian crossing (Wombat) – which would include the threshold and additional line-marking
- Kerb blisters – would be beneficial to include kerb blisters at m2 rate
- 1.16 sub items to include distinction between pathways accommodating vehicles vs standard pedestrian pathway. KMC typically use 130mm reinforced for vehicle and 100mm unreinforced for pedestrian.

Stormwater

Additional sub-items could be considered for:

- 2.13 expanded to include Class 4 pipes.
- 2.15 extras/reductions for larger/smaller lintels.

Open Space Embellishment

Additional sub-items could be considered for:

- 4.03 renamed to Fencing and expanded to include:
 - Chainwire fencing
 - Tennis Court Fencing
 - Picket Fence
 - Park Fence etc.
 - Vehicle access gates.
- 4.12 expanded to include:
 - additional common edging types – timber / brick
 - consider turfing as item here. 4.24 seems to be for larger areas of turfing and includes irrigation.

Issue 5: Do the project allowances for on-costs and contingency reflect efficient practice?

Response by Ku-ring-gai Council

Cost analysis using the proposed project allowances against similar open space projects undertaken at Council found that the figures are largely reflective of what Council would expect to pay. There are naturally instances where there are unforeseen site constraints that led to significantly increased project delivery costs however it would be difficult to account for these at the contributions planning stage of infrastructure delivery. An efficient method/avenue for Council to either modify project scope or to recoup over expenditure is essential

However, a vast majority of KMC works have additional constraints in terms of additional works required for the protection of native fauna and flora:

- Arborists
- Root mapping
- Tree protection
- Increase to scope to accommodate and/or protect

It would be beneficial that the cultural heritage on-cost could be combined to read Cultural Heritage/Environmental (where applicable) and be used in the instance where an Environmental Impacts Assessment has identified that the project would likely require additional scope to accommodate such things as the protection of an EEC etc.

Council would request that more thought go into the terminology used to define the level of constraints found at areas proposed for open space embellishment.

For example, how can Council capture the gradient of a site as a constraint?

The provision of accessible and inclusive play spaces for the community are a requirement of Council's Capital Works program and the principles outlined in the state Government's Everyone Can Play guidelines are adhered to.

The requirement for retaining walls for the provision of accessible access, accessible carspaces etc and the increased costs associated with their delivery need to be accounted for as a constraint. Currently the documents terminology around constraints concentrates on town and city centres but, again, the implementation of an accessible playspace / urban park etc on a sloping site needs to be considered. For Ku-ring-gai, where most of the intensive redevelopment is centred along the ridgeline where the Pacific Highway and Northern Train line runs, virtually all parks are on a considerable slope. A further example of Boyds Orchard Park Turramurra (2020) is illustrated.

Council is further obliged to provide either offset planting onsite for removed trees or pay a proportion of the project cost towards an offset planting fund – how does Council recoup these costs within the current allowances?



Boys Orchard Park on the Allen Avenue / Duff Street corner elevation in Turrumurra

Conclusion

Within the constraints of the exhibition timeline, Ku-ring-gai Council has presented a submission that addresses our primary concerns and issues. We would welcome any opportunity for further engagement with IPART concerning the challenges of efficient infrastructure delivery within densifying established urban areas.

Lindfield Village Green

Ku-ring-gai Council

The Lindfield Village Green is an innovative project that uses S 7.11 as the primary funding source to deliver a new public plaza and park which is seamlessly integrated with public parking and commuter parking delivered in partnership with Transport for NSW. Construction commenced in April 2020 and is due to be complete at the end of December 2021.

The **Lindfield Village Green** is a project that has developed out of Council's award winning [Open Space Acquisition Program](#); the aim of the program is to deliver new open space in areas where residential densities and population are increasing. Since 2010, Council has been actively acquiring land for new parks and civic spaces in Gordon, Lindfield, Killara, Turramurra, St Ives and Wahroonga. To date Council has created, or is in the process of creating, over 25,000sqm of new parks and civic spaces.

The **Lindfield Village Green** project involves the creation of a new park and public plaza and a café in a prime location in Lindfield local centre just 50 metres from the rail station. The project challenges traditional conceptions of open space by seeking to provide new civic spaces within the heart of the commercial centres that provide valuable social and leisure roles as part of a comprehensive open space network.

Construction involves demolition of an existing at-grade Council car park, excavation of the site and construction of a 3-storey underground car park with 241 car parking spaces. The carpark comprises 105 spaces for commuters and 136 spaces for short-stay users along with two elevators. The project also includes various landscaping, pavement and roadworks improvements on and around the Site.

The project will be a showcase for local and state government (TfNSW) working collaboratively to deliver innovative developments conceived in partnership with the local community that will provide wide ranging benefits at a local and regional level. The expected end result will be a well-designed and well-integrated built environment that improves people's experience and use of public transport and public spaces - setting a benchmark for the design and delivery of commuter carparks in Sydney.

The LVG project is largely funded by development contributions, collected under the *Ku-ring-gai Contributions Plan 2010 (KCP 2010)*, which have been used to pay for the cost of constructing the underground car park on the site (\$7.11 funds are not used for the commuter spaces which are funded by TfNSW and an additional level of public parking is separately funded by Council). By relocating the carpark underground the surface will be freed to create a new public plaza and park which will be more than 3,500sqm in area. This is an innovative use of such funds and is specifically allowed under Part 3.11 of KCP 2010 where it can be demonstrated that such an approach is economically efficient and results in well-locate open space. In 2018, Council engaged land economists to quantify the cost to acquire a similar parcel of land within close proximity to Lindfield station, the independent review found that the cost of constructing an underground car park was similar to the cost of acquiring up to four residential properties each with land parcels large enough (840m² each) to accommodate a 3,500m² park.

The funding of projects like the LVG and other new parks is only possible because Council sought, and was given, an exemption to the development contributions cap applied to all Sydney councils in 2009 by the then Department of Planning and Infrastructure. Negotiations over a number of years, supported by numerous economic feasibility studies, resulted in the state government accepting Council's argument. The

Ku-ring-gai Contributions Plan, which provides funding for the open space acquisition program, was approved by the Minister for Planning in 2010. The Plan identifies approximately \$63.7 million (2010 dollars) to be collected for the acquisition and design of new parks and civic spaces.

The vision for the LVG project is to become a 21st Century exemplar of sustainable urbanism. The future civic space is envisaged to play a central role in community life for Lindfield residents, business-people, commuters, shoppers and visitors. The project is striving for high environmental ratings by showcasing water sensitive urban design; water capture, storage and reuse; and water conservation systems. The LVG is also planned to be an economic driver for the revitalisation of the eastern side of Lindfield aiming to generate a range of property investment and business development opportunities adjoining the new space.

See a video time-lapse of construction courtesy of Kane Constructions [HERE](#)



Aerial view of the site in use as an 'on-grade' car park.



Artists view from Tryon Road looking into the future Village Green



Artists view of the basement lift and stairwell (left) and new cafe to the right.



Artist's view of the café with the village green's lawn, trees and water feature in the background.