

Case Study #1

UK Government funded Sustainable Urban Economic Plans in Kenya

Planning consultancy:

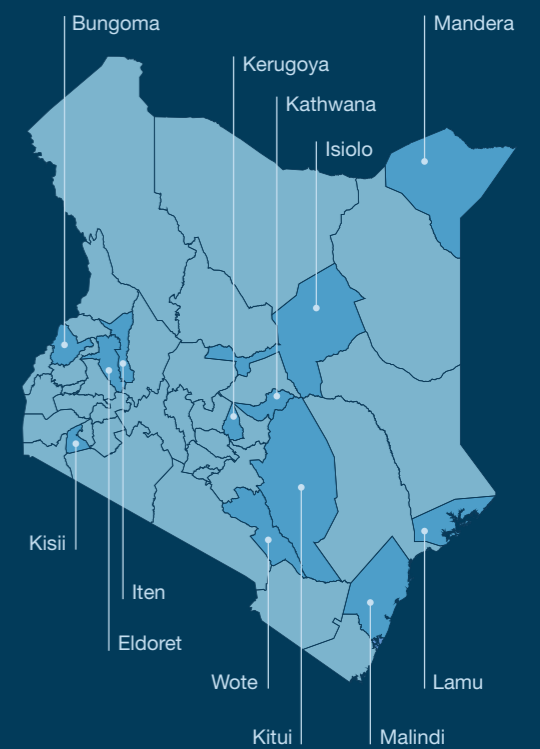
Atkins

Project team members:

Vassiliki Kravva (Technical Lead), Simon Elliott (Team Leader – Kenya), Godwin Ochieng (Stakeholder Lead/Urban Planner), Catalina Gallego Lopez (Planner), Holly Gelder (Economist), Leanne Kelly (Economist), Peter Alvey (Economist), Davide Minniti (Masterplanner), Maitreyee Kaushal (Masterplanner), Ben Smith (Climate change expert), Philippa Ross (Water/Wastewater expert), David Cox (Energy expert), Maina Gachoya (Transport planner), Jacinta Mbilo (Urban Transport planner), Lucrecia Bertelli (Social Development Specialist), Nadeem Ahmed (Urban Planning), David Green (Value Chain expert), Alex Evans (Waste expert)

Country:

Kenya, across 12 municipalities (Isiolo, Malindi, Kitui, Kisii, Iten, Kathwana, Kerugoya, Mander, Eldoret, Lamu, Bungoma and Wote)



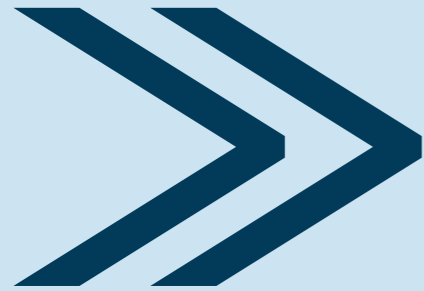
The Urban Economic Plans were developed as part of the Sustainable Urban Economic Development Programme (SUED) in Kenya. SUED is funded by the UK Government and managed by Tetra Tech International Development.



ATKINS

Member of the SNC-Lavalin Group





Project summary:

The UK Government, through its Sustainable Urban Economic Programme (SUED) is supporting smaller cities and localities across twelve Kenyan municipalities. Following a market-based approach, our team has developed Urban Economic Plans (UEPs) to provide a holistic development plan identifying and prioritising climate resilient infrastructure projects and value chain opportunities that can help promote economic growth, maximise economic potential and support sustainable urbanisation in the selected towns and municipalities. The SUED principles have guided the development of inclusive, climate-resilient interventions that will support job creation and economic growth.



Each of the municipalities has its own character with a range of comparative advantages to build on to develop a unique economy and urban environment. There are shared factors – for example similar climates, location within economic blocs, or existing assets – but there is a clear need to understand the competitive advantages of each municipality to ensure sustainable economic growth through value addition.

On SUED, we work to address some of the underlying challenges that hinder economic growth supply chain employment such as climate vulnerabilities, inadequate infrastructure, lack of skills and inclusion of marginalised groups.

Climate change is closely integrated into the process, including developing climate risk profiles, screening potential infrastructure projects and economic value chains for their resilience to climate change, and assessing potential sources of climate finance that could be mobilised to support the investments. Similarly, consideration of gender and social inclusion is assessed and developed across spatial, economic and social dimensions of the UEP and the identified interventions.

We are incorporating climate-smart solutions to make the economic sectors resilient, competitive and attractive to investors.

- > Nature-based approaches introduced to facilitate the sustainability of economic activities by focusing on the protection of its unique water and natural resources and enhanced environmental resilience. This, in turn, will soon improve the health and wellbeing of all citizens and foster a growing community.
- > Promoting sustainable industrial activity decoupling the prosperity generated from industrial activities from excessive natural resource use and negative environmental impacts.
- > Several UEPs include multi-functional river parks – sponge cities – which also act as flood storage, while sustainable urban drainage and natural flood management features have been incorporated in the revitalisation plans for the majority of SUED towns and cities.
- > Promoting value addition and job creation through circular economy: focus on creating value addition through processing and collection of previously overlooked waste and by-products such as banana fibres or use of sewage sludge to form charcoal briquettes, and the processing of abattoir waste to produce biogas, proteins for fertiliser/feeds, and filter cake.



High Commissioner, H.E. Jane Marriott, Kenya's Cabinet Secretary for Sports, Culture and Heritage, H.E. Dr. Amina Mohamed, Principal Secretary for Environment and Forestry, Mr. Chris Kiptoo and the Governor Elgeyo Marakwet H.E. Alex Tolgos officially launch the Iten UEP





Outcome:

> **UK-Kenyan collaboration towards climate-smart cities:** Through SUED, the UK Government is supporting 12 Kenyan municipalities to meet SDG 11 – making cities inclusive, safe, resilient and sustainable. SUED’s work has yielded nine out of twelve climate smart urban economic plans in the past three years. These nine plans, the first-ever municipal-level economic plans in Kenya, provide actionable economic strategies that merge climate mitigation and adaptation with economic growth and development.

“SUED is one of the best programmes in the country. It has worked closely with our local stakeholders to ensure that they have economic strategies that they can implement. It goes beyond strategy into how a county and municipality can change their economic outcome by providing actionable plans that are reflective of the local economic opportunities.”

H.E. Cabinet Secretary of Defence and Former Cabinet Secretary of Devolution and Arid and Semi-Arid Lands (ASALs).

Focus Area 1 in Kisii:
Nyanchawa River Park Design Proposal



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Nyanchawa River Park Design Proposal



> **Building a Climate-Resilient Nation:** Climate resilience of smaller cities is at the core of Kenya’s diverse economic challenges. SUED is supporting their sustainable growth to facilitate economic growth and diversity, creating new jobs that will grow national output and act as a disincentive for mass and uncontrolled migration into major urban centres.

“It’s important for us to identify opportunities that ensure our young population doesn’t migrate to the capital. By having a plan that identifies those economic opportunities we are able to see where the municipality and county should prioritise to mitigate brain drain”

Hassannoor Abdullahi
Mandera Municipal Manager

> **Promoting Environmental Protection through Infrastructure:** For example, in Isiolo, the waste formalisation project involves the organisation of waste management activities – including collection, sorting, and recovery – to create avenues for value addition, employment, and revenue generation for various stakeholders.

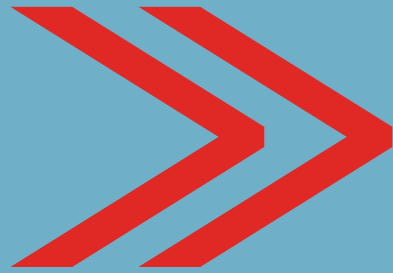
> **Applying Lessons from COVID-19 to the Climate Crisis:** Atkins undertook an impact study focusing on Kisii Municipality to understand the effects of COVID-19 on the wider community, including vulnerable groups as well as local government administration and businesses. By applying the lessons gleaned from the study, municipalities are able to put in place measures that better protect them against future climatic shocks and enable them to plan successful responses that protect everyone.

“SUED’s work on the COVID-19 impact study has enabled us as a County and Municipality to better understand how our structures need to be improved in order to reduce the effects of COVID-19 to the community.”

Jamil Shamji
Kisii Municipal Board Chair

> **Nature-based Solutions for Climate-Resilient Urban Economic Development:** In both Kisii and Kitui counties, linear river parks are essential to the revitalisation of the city centre: they enhance the natural environment and biodiversity, create natural flood storage, reduce heat island effects, and create important active transport and recreational spaces.



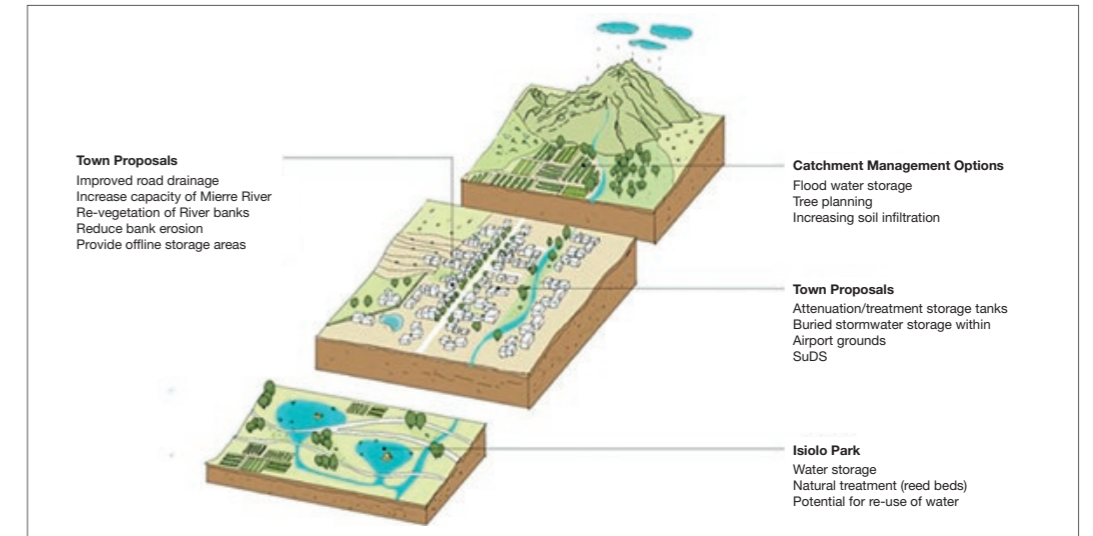


Fast facts

- > SUED is a £70 million, six-year programme supported by the UK Government through the Foreign, Commonwealth and Development Office (FCDO). The programme managing agent is Tetra Tech International Development
- > The programme supports 12 fast growing municipalities to develop sustainable urban economic plans and attract investment for critical infrastructure and value chain projects
- > Atkins has worked closely with 12 municipalities to complete their Urban Economic Plans (UEPs)
- > SUED has shared its work in various conferences such as the Global Green Growth Week -2021, Jumuiya Agribusiness and Blue Economy Investment Conference, UK Investment Forum and British Chamber of Commerce – Kenya.
- > SUED has put together knowledge pieces on our work sharing our success stories, lessons learned, and best practices and has shared these online through its knowledge sharing platform: Knowledge Centre | SUED Kenya



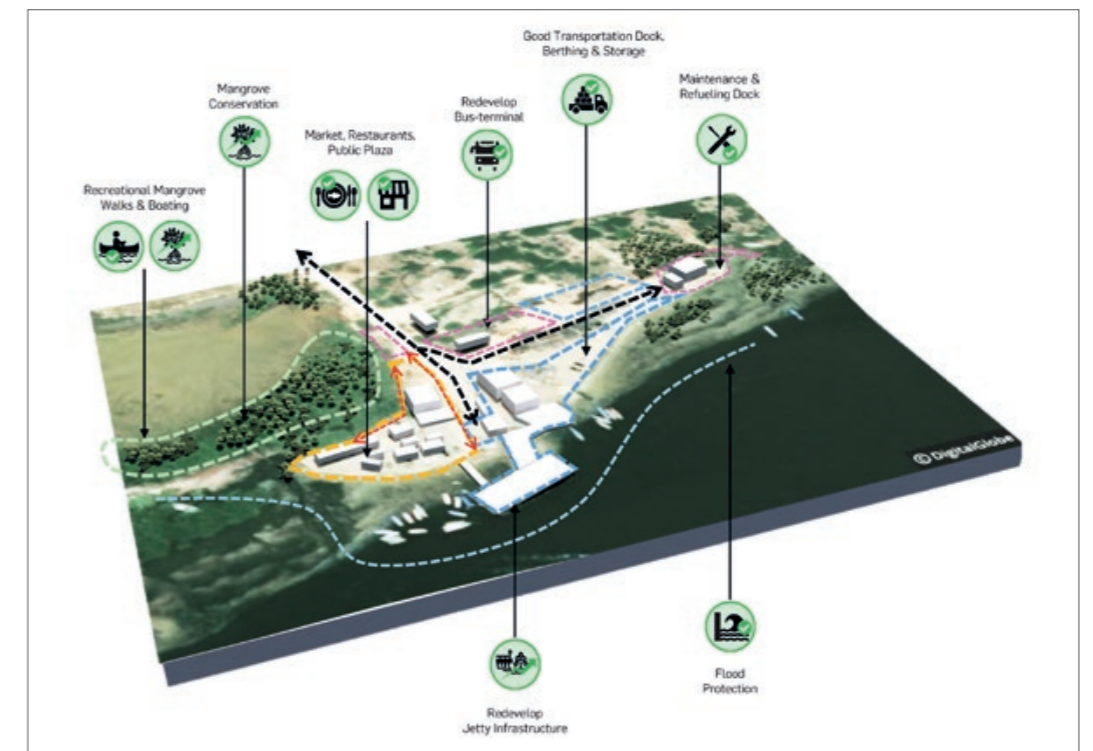
The then Cabinet Secretary for Devolution (currently Cabinet Secretary for Defence) H.E. Eugene Wamalwa and Bungoma’s Governor H.E. Wycliff Wangamati kick start the UEP development process in Bungoma Municipality



Using integrated water catchment and management system to address flooding in Isiolo



Using a nature based approach to support CBD regeneration in Eldoret



Coastal conservation and protection to support economic development in Lamu



Case Study #2

The Oman Regional Spatial Strategies (RSS) Project



Planning consultancy:

Jacobs and URBAN Silence
(overall team led by Khatib & Alami)

Project team members:

John Pounder, MRTPI (Jacobs Planner) MRTPI; Philip Edwards, MRTPI (Jacobs Planner), Faye Clamp (Jacobs Environmental Sustainability / Project Manager), John Siraut (Jacobs Economist), David Paddon (Jacobs Transport Planner), Martina Juvara (URBAN Silence Planning and Urban Design)

Country:

Oman

Project summary:

The Oman Regional Spatial Strategies (RSS) Project involved the preparation of strategic spatial development plans for four Governorates, within the framework of the emerging Oman National Spatial Strategy (ONSS) and Oman Vision 2040. A multi-national and multi-disciplinary team worked collaboratively with the client over four years from inception in 2017 to official adoption in 2021.

The strategies provided a comprehensive and coherent spatial development framework to enable and support sustainable development in Oman. They balanced economic development and diversification, urban growth, celebration of cultural heritage and traditional practices, with environmental protection and the management of natural resources. Through guiding all development, environmental management and infrastructure investment, the strategies now play a central role in shaping the future of Oman.



**URBAN
SILENCE**

Jacobs

Outcome:

A sustainable, equitable and resilient future for Oman was a fundamental driver of the project as set out in the Oman 2040 Vision.

In 2017, the Supreme Council for Planning (now Ministry of Housing and Urban Planning) launched the Oman National Spatial Strategy in tandem with 10 Regional Spatial Strategies. Our team was responsible for producing RSSs covering the four Governorates in the geographical centre of Oman (Ad Dakhiliyah, Adh Dhahirah, Ash Sharqiyah North and Ash Sharqiyah South) – about a quarter of the entire area of the country.

Oman’s recent and significant urban growth has improved people’s lives, but without a coherent spatial planning framework, it is also associated with inefficient use of land and sprawling development that threatens the natural environment and cultural heritage. This has created dispersed settlement structures and fragmented development, car-based lifestyles and poor quality placemaking.

The project included surveys and settlement studies, developing options for growth and conducting presentations and workshops with local stakeholders, the technical client team and key ministries.

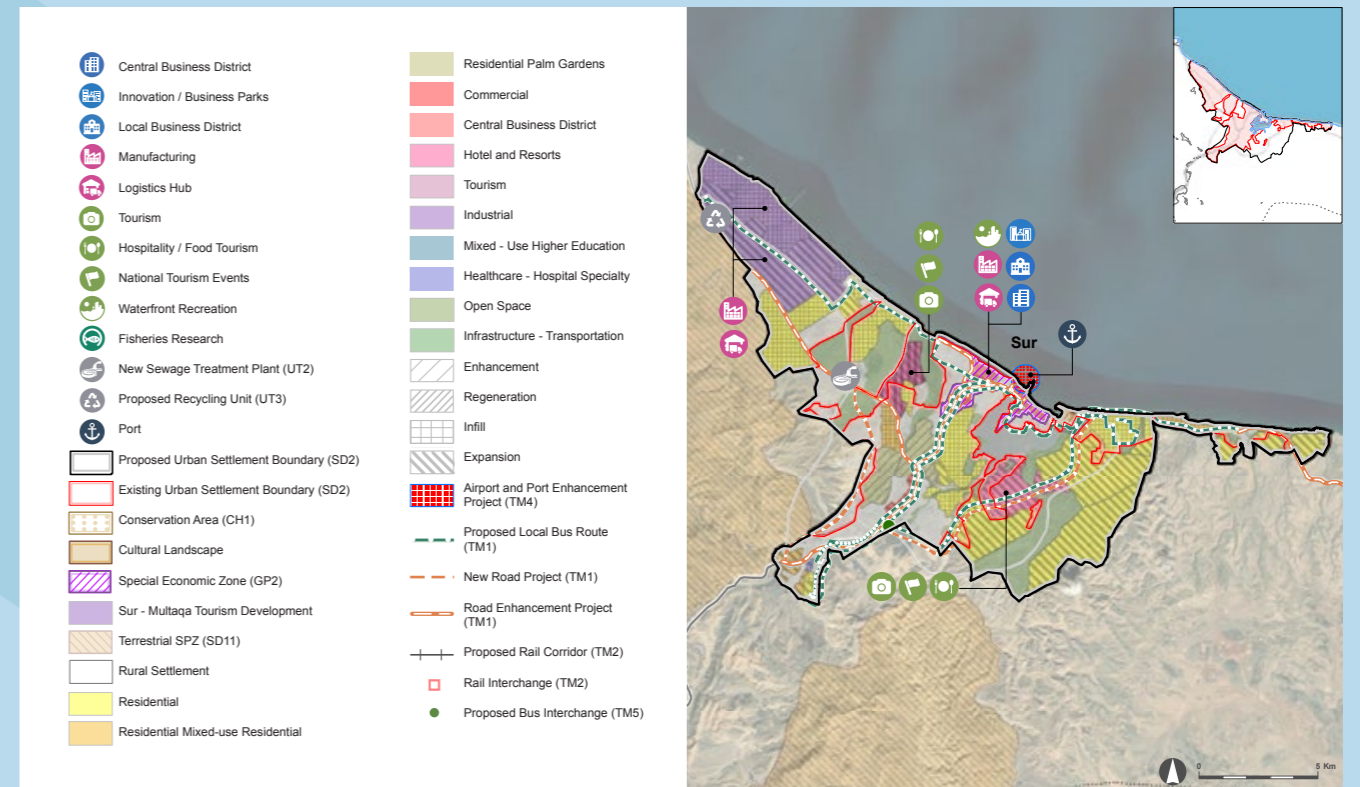
A major challenge of the project was the sheer scale of the area, including four regional centres, 12 other significant towns, as well as 50 major settlements and hundreds of villages. Recent investment in the cities focused on public sector services, with a limited role for the private sector. Our strategic focus was centred on understanding local distinctiveness and proposing a suitable economic framework which would create high value jobs for the local population and secure prosperity in future, in the context of increased environmental and heritage protection and respect of traditions. Each spatial strategy and associated planning policies have been assessed against the UN Sustainable Development Goals (and associated performance indicators) and refined before finalisation.

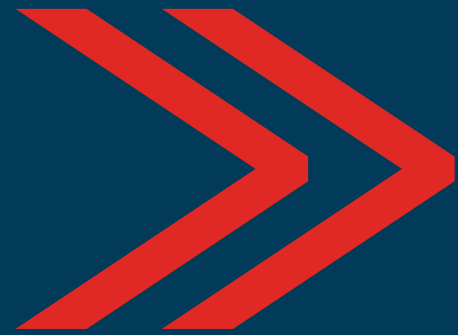
The RSS policies are sufficiently detailed to inform investment and urban growth in the absence of local plans, which have yet to be developed. Each RSS includes an Implementation Plan with recommendations for governance and skills requirements, development control regulations/ tools, environmental management strategy, and monitoring and evaluation. The Plan also includes a five-year capital investment programme and longer-term investment strategy to align public investment and spatial development.



Fast facts

- > The ONSS and RSSs were submitted in October 2020 and approved by His Majesty the Sultan of Oman in March 2021. This approval was followed by a Royal Order to all the public entities to deliver the spatial strategy.
- > All submissions were made on time to very tight project deadlines. The team remained flexible to adapt to last minute requests from the client, as recognised in the client satisfaction survey which scored 100%.
- > Jacobs and URBAN Silence planners worked in collaboration with Khatib & Alami and Jacobs colleagues from across the Middle East, and India, and a client team which included professionals from across Europe and Australia, achieving exceptional diversity of thinking.
- > The RSSs required a wide range of planning capabilities including: strategic planning, governance and legislation, economic development, environmental analysis, transport planning and strategic master planning.
- > Approximately 200 professionals were involved in the development of the ONSS and RSSs of which 90 were UK based.





Case Study #3

Lima 2019 Pan American and Parapan American Games, Lima: Shaping a lasting legacy for Lima

Planning consultancy:

Arup

Project team members:

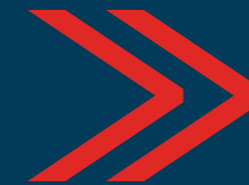
Nic Merridew, Ana Loreto Vasquez, Andrew Wilkinson

Country:

Peru

Project summary:

Arup, as part of the UK's Delivery Team, played a major role in helping Lima deliver the Pan American and Parapan American Games. This role comprised of two main components; providing technical design assurance for 14 new sports venues and the Athletes' Village and leading the operational planning and overlay design for all the competition and non-competition venues.



ARUP





Outcome:

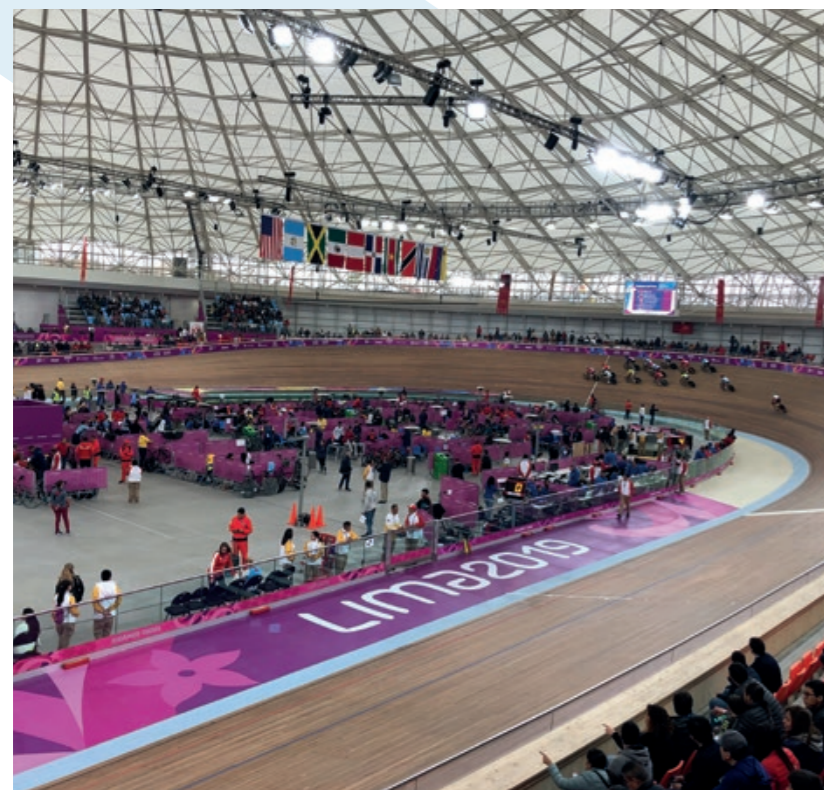
Using experience from previous major events including lessons learnt from the London Olympic and Paralympic Games, Arup's focus was to take a longer-term approach of the project, so it was fit for legacy. Venues were built using modern digital technology, to ensure they were sustainable and flexible in design to help respond to the city's future needs.

The design approach to add temporary components where necessary for the Games operation, was to ensure energy efficiency, low maintenance and connectivity to the surrounding areas to tackle local issues.

As part of the technical assurance role, Arup produced a series of programme wide guidance documents including fire and evacuation, commissioning, design reviews and an accessibility design guide. The accessibility design guide was prepared in collaboration with the International Paralympic Committee. This was adopted as guidance for all accessibility design issues for the Games and will become the reference document for all future sports venues design in Peru.

Transferring knowledge was key to the success of the project. The new ways of working through the UKTD delivered an open, transparent and collaborative approach to planning major infrastructure project. As part of the UK Delivery Team (UKDT), Arup were appointed to lead the design and technical assurance of the Lima 2019 permanent infrastructure programme.

Having been involved in helping to deliver several major aquatics venues around the world including London 2012, Arup collaborated with venue designers to adopt a 'whole systems approach' to accommodate Peru's first international standard aquatics centre and delivered this in record time working with short time-scales, they focused on creating an efficient and affordable legacy venue utilising a combination of fabrication methods and temporary facilities for the aquatics centre.

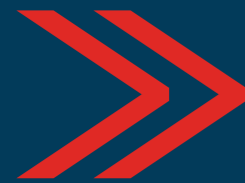


Fast facts:

- > The Pan American Games are the second largest multi-sport event in the world. The Games bring together athletes representing 41 countries from North and South America, in 39 sports.
- > The Parapan American games which followed, had 1,890 athletes representing 33 countries in 17 sports.
- > In July 2019, Lima hosted these games in 37 competition venues, making it the first time Peru hosted an event of this scale. The Games presented a huge opportunity to accelerate the city and change attitudes for the future, through the transformation of its sports infrastructure and governance structures.
- > Aquatics Centre
 - > By supporting the contractor team's proposal to use a prefabricated stainless-steel pool in lieu of an in situ concrete pool, typically used in Peru, the construction and installation time was greatly reduced, enabling the venue to be completed according to programme.
 - > Arup created a 3D study model which identified ways to improve spectator and athletes' accessibility.
 - > Outcomes: 2 x 50 metre pools, 1 x 21 metre diving pool.
 - > 70 weeks from start to finish.



Case Study #4



Flagstone, PEET
2014 - ongoing



Planning consultancy:

RPS Australia East Pty Ltd

Project team members:

Dan Gibson, Melissa Drake, Jason Chen, Penny Cooper, Louisa Sloane, Jo Cousins, Vicki Barclay, Andrew Galt

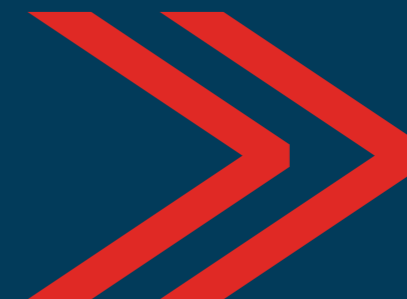
Country:

Australia

Project summary:

Flagstone master planned community, managed by PEET and jointly owned with MTAA, is a \$4 billion addition to the Queensland economy, located 45 minutes south of the Brisbane CBD.

Once complete the Flagstone will house 37,000 people (13,200 dwellings) and plans to generate 24,000 jobs and include some 780,000 square metres of retail and employment floor area in a significant Town Centre serviced by a future passenger rail station.



The design philosophy is centred on the creation of nostalgic principled 'villages', topographic icon preservation, connecting threads of nature and 'a walking community' centred around a mixed-use business district.



Outcome:

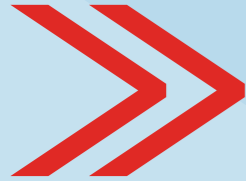
RPS has been engaged on this project since its inception in 2011 providing Urban Design, Town Planning, Economic and Spatial services advice to the PEET Development Management team in collaboration with State and Local Government agencies and an evolving co-consultant team.

Our key responsibilities to date on the project are as follows:

- > Development of a project vision with the PEET and MTAA teams setting the strategic 20 year direction for the project
- > Establishment of a core set of development and community creation principals based on the aforementioned vision and best practice Urban Planning concepts.
- > Establishment of a Strategic Approval framework addressing Local, State and Federal Government controls and considerations

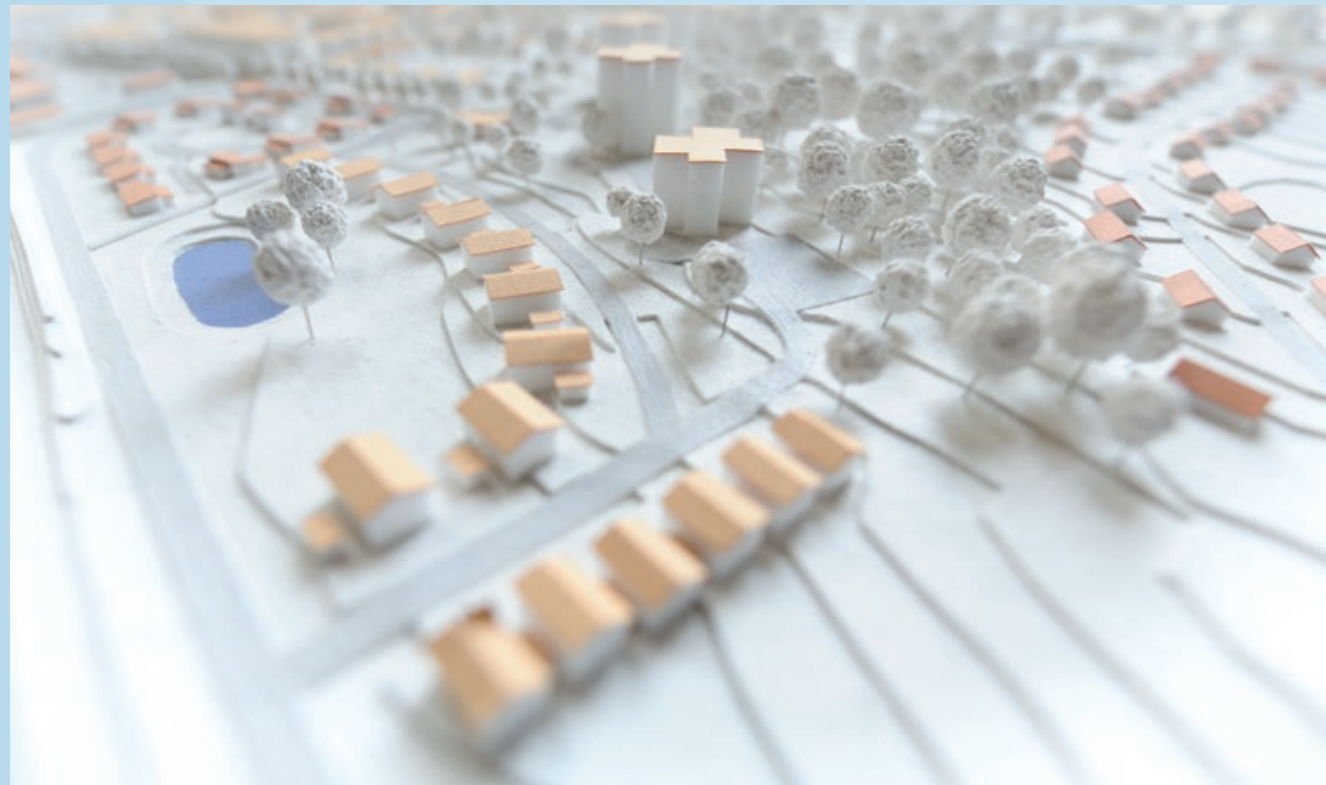
- > Establishment of a program of assessments required from the co-consultant team in support of the Strategic Approval framework including but not limited to:
 - > Engineering
 - > Traffic Engineering
 - > Environmental responses
 - > Bushfire Management
 - > Contamination assessments
 - > Economic development benchmarking
 - > Community Engagement
 - > Open Space Frameworks
 - > Community infrastructure requirements and provisions
- > Preparation of Strategic Land Use Plan options for client comment, financial review and market testing
- > Identification and refinement of an agree Strategic Land Use Plan (Structure Plan) identifying:
 - > Preferred Land Uses
 - > Preferred major transport infrastructure
 - > Environmental designations and controls
 - > Establishment of employment targets and solutions
 - > Sequencing and community engagement strategies
- > Preparation of detailed Master Plans for the Residential, Town Centre and Employment segments of the project, based on option development, testing with client and co-consultant groups, collaboration with local and State Government agencies and subsequent refinements
- > Establishment of detailed Approval Strategies addressing Local, State and Federal Government controls
- > Preparation, lodgement and negotiation of Approvals for all segments of the proposed development – residential, town centre and employment precincts.
- > Review of Draft Approval documents and identification of risk areas and mitigation strategies to assist client processes and profitability.
- > Preparation of a broad range of supporting material to influence and inform stakeholder communications and negotiations including limited architectural advice, floor plans, 2D and 3D renders, vision documentation and precedent imagery.
- > Preparation of Landscape Architecture driven masterplans for the residential precincts and Town Centre in collaboration with the project Architect





Fast facts:

- > Greater Flagstone will be home to over 50,000 people upon completion and our project for PEET will house 37,000 of those residents.
- > Greater Flagstone is a 20+ year project meaning that many of our team will get to work on this for an extended period and experience the growth and development of a significant community first-hand.
- > The Development Scheme requires a self-containment rate of 60% meaning that 6 out of 10 residents will be employed via opportunities generated by or accommodated in the masterplan
- > The masterplan includes 4 distinct Villages and a large-scale Town Centre, incorporating education, sports, recreation, community and institutional facilities
- > Our State Government has established an independent task force to assist with the delivery of a series of these significant communities making approvals, innovations and collaboration to achieve amazing results for our clients and the population easier.



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