

BEST PRACTICE GUIDE FOR SOCIAL INFRASTRUCTURE



July 2019

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Introduction

This *Best Practice Guide* is designed to support the *Strategy for Social Infrastructure*, which outlines Queensland's long-term direction for social infrastructure. The guide identifies seven success factors that can be adopted into the planning, design, location and use of social infrastructure.

By showcasing the great work being done by human service infrastructure providers – private, not-for-profit and government – the *Best Practice Guide* provides a practical basis to enable further integrated thinking and practical innovation to meet the changing needs of Queenslanders. This guide promotes human service agencies working collaboratively and innovatively to address current and arising social infrastructure challenges.

These examples demonstrate that through collaborative place-specific responses there are many options available to address social infrastructure needs in different communities while ensuring wise infrastructure investment.

Successful approaches include making better use of existing infrastructure by repurposing or sharing facilities, using alternative methods like technology to deliver services, or collaborating on solutions that leverage funding or encourage co-location. None of these great initiatives can occur without holistic long-term planning that allows for appropriate timing and sequencing of infrastructure provision.

What is Social Infrastructure?

While all infrastructure can provide a social benefit, this strategy is focused on the physical facilities and spaces of the following infrastructure classes from the *State Infrastructure Plan*, which include a broad range of facilities such as community hubs.



Figure 1 Social infrastructure classes

Success factors

Planning for the future

Identifying and protecting effective locations and ways to deliver social infrastructure to meet future community needs.

Exploring the best mix of approaches

Using combined government, community and private sector management and implementation to deliver the best mix of physical infrastructure and non-physical systems and services.

Encouraging partnerships through co-location

Planning, designing and locating social infrastructure to facilitate effective partnerships with complementary infrastructure and service providers.

Sharing and integrating facilities

Encouraging shared use and management of facilities across government, market and community providers, covering a range of social functions and uses.

Locating for access and convenience

Ensuring access to social infrastructure is convenient, easy and affordable for users.

5 Repurposing for the community

Maximising the use of existing well-located physical infrastructure, including re-use, to meet evolving community needs.

Designing for adaptability

Ensuring social infrastructure is, by design and management, appropriately flexible to grow and adapt to evolving needs.







Planning for the future

Identifying and protecting effective locations and ways to deliver social infrastructure to meet future community needs.

Achieving the right social infrastructure in the right places – with the right neighbours, tenure, contexts and transport access – calls for regular review of infrastructure in established urban areas and forward planning for the significant structures required in growth areas. Policies and systems have an important role in facilitating appropriate change in established areas – when opportunities and needs arise – and preserving opportunities in greenfield areas.

Long-term collaborative planning and coordination of social infrastructure provides a wide range of benefits such as improved community services, cost sharing to obtain more from an investment, more efficient allocation of land and higher levels of innovation in solving complex community requirements.

Multi-sector cross-disciplinary planning may also be informed by and delivered in partnership with the private sector, not-for-profit (NFP) organisations and the community. This may lead to agencies taking a lead role in the ownership, planning and coordination of private and public development to ensure the best whole-of-community outcomes (Figure 2).

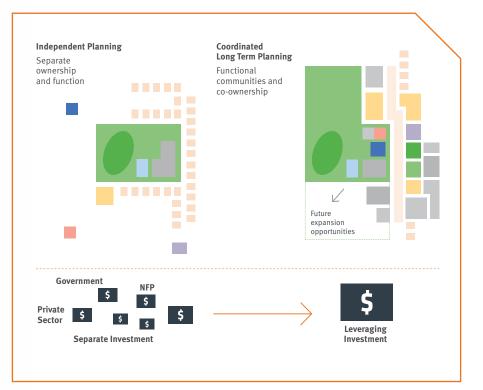


Figure 2 Planning for future expansion and needs



Ensuring planning for growth areas integrates land use, transport and social infrastructure planning and identifies key locations for future infrastructure.

Ensuring key locations in both new and existing areas are protected for future development and use.



Using the clarity and certainty of infrastructure planning to attract complementary development to those locations.



Leading the visioning, planning and delivery processes to deliver social infrastructure in the right places and contexts, to the right standards and in the most effective way.

Effective long-term planning acknowledges that each community has its own specific requirements that shape the type and combination of infrastructure required, while allowing flexibility and adaptation as community needs evolve and methods of service delivery change. Social infrastructure also needs to consider and respect a community's cultural identity, family structures and traditions, as would apply in Aboriginal and Torres Strait Islander Communities. In response, continuous strategic review and planning for social infrastructure enables the best responses to identify:

- what the community needs
- the mix of infrastructure and systems required
- where to locate facilities
- how to deliver infrastructure to best enhance community well-being
- longer term uses of the infrastructure.

Master planning can create a holistic vision for integrated precincts, including their location, composition and management structure. Co-locating various types of communityoriented social infrastructure – for example health, culture and education with retailing and commercial spaces – in highly accessible mixed-use places provides many benefits. It is therefore critically important that the opportunity and location for successful mixeduse precincts is identified early and protected. For this to be successful it is also important to have an effective planning system including regional plans and local planning schemes informed by the State Planning Policy.

Establishing the right governance models will help drive holistic and cost-effective outcomes, rather than agency-specific priorities.

The Queensland Schools Planning Reference Committee demonstrates a successful collaboration between the public, Catholic and independent education sectors that informs decisions on the location and timing of new schools. Regional Managers Coordination Networks also coordinates cross-agency initiatives at the regional level, while the Community Hubs and Partnerships program facilitates place-specific responses to infrastructure and service planning. Early planning for and designation of social infrastructure sites and corridors in new and emerging communities helps ensure that decisions regarding co-location, agency functions and building standards are identified and considered early.

For example, where areas of land are identified for accelerated development these are established as Priority Development Areas (PDAs). Economic Development Queensland works closely with local government and the private sector to plan, assess and guide development within PDAs and help deliver collective social infrastructure that addresses specific community needs.

Master planning can create a holistic vision for integrated precincts, including their location, composition and management structure. Different infrastructure providers and planning authorities can then work with the site developer to identify how best to implement this shared vision.



Greater Springfield is an example of collaborative long-term planning where planning instruments were used to ensure the location and nature of future urban centres were protected. The developer obtained support from all levels of government and established long-term commercial partners to create integrated health, education and technology precincts seamlessly connected to commercial and residential dwellings.

Significant urban sites can be transformed into desirable mixedprecincts, often repurposing historic sites and buildings in the process. The Kelvin Grove Urban Village resulted from a partnership between the state housing agency and Queensland University of Technology. It provides higher education, health, secondary education, cultural and social housing infrastructure mixed with shops, offices, research labs, cafes and both upmarket apartments and student housing. Its visionary urban design and planning is coordinated through a local plan developed with Brisbane City Council.

Such large-scale, mixed-use renewal opportunities are not always available, therefore existing single-use precincts need to be used to facilitate change because:

- they are usually highly accessible locations with strong public transport connections
- their staff and customers would benefit from expanded facilities
- diversification can enhance individual and group performance
- inter-relationships across boundaries create opportunities for innovation.

The opportunities to deliver better precincts need to be identified, negotiated and protected through lateral thinking and better use of existing sites and locations. In some cases, this calls for ideas and commercial partnerships to be negotiated for the planning and development of land. In other cases, it requires leadership by public agencies to deliver infrastructure by a variety of methods. A major renewal project is occurring at the health, research and education precinct at Herston. Private developers are exploring ways to increase the variety of uses in ways that deliver enhanced social infrastructure. Through the PDA process, Economic Development Queensland will help facilitate community responsive development in the Herston precinct.

Taking a long-term and future-focused approach to planning, and considering every development and renewal as an opportunity for diversification, integration and partnership will help ensure that investments provide the best value and service for the community, now and in the future.



Exploring the best mix of approaches

Using combined government, community and private sector management and implementation to deliver the best mix of physical infrastructure and non-physical systems and services.

The way services are delivered, and how, when and where they are accessed is changing. The type, location, fit-out and size of built infrastructure needed for service delivery is adapting to these changes.

Digital systems can enhance, supplement or replace physical infrastructure and provide virtual services to remote, isolated or regional communities. This can reduce or delay the need for new infrastructure, or provide opportunities to re-purpose old facilities.

Despite these opportunities, non-physical responses will never fully replace the need for physical service delivery. Personal and place-specific social contact remains important not only for practical service delivery, but for the well-being of people and communities. Therefore, a mix of approaches is needed, tailored to the unique situation and location (Figure 3).

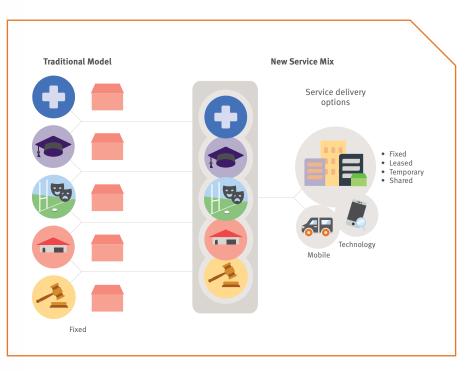


Figure 3 Using different tenure and delivery models to provide effective services



Considering the best use and balance of physical infrastructure and digital services to meet growing and changing needs.



Employing a range of property and building tenures.



Exploring the multi-use of underutilised facilities for a mutually beneficial outcome.



Developing incentives for private and community stakeholders to develop social infrastructure or establish community-oriented services.



Considering alternatives to building infrastructure, including leasing and temporary structures, particularly for shortterm needs.

Technology is being used more and more by human service agencies to change both the need for and the way physical infrastructure is used. Through technology, Queensland Courts can progress some matters by video link, reducing the need for physical court facilities and court circuits to progress matters. Video link facilities can also reduce the risk to the community by minimising prisoner transfers and, where appropriate, allow vulnerable parties to participate in court matters from alternative locations.

Distance Education utilises even more sophisticated teaching and student interaction, and universities use technology to deliver lectures and share information. Technology enables some service providers to provide more services remotely, reducing the need for travel. The Queensland Police Service is adopting a more mobile approach to delivering services, which allows police officers to spend more time in the field and less time at their desks. For example, Mobile Police Facility vehicles provide an instant mobile police station at major crime scenes.

Changes in digital health care are transforming service delivery settings and the patient experience. Telehealth services and digital health tools are increasingly delivering more health care and self-treatment services within the home. The use of in-community service delivery is also being used to support effective and convenient health service delivery.

Arts Queensland and its partners including the Queensland Performing Arts Centre (QPAC) is enabling Queenslanders to have greater access to diverse and high quality arts and cultural experiences through a range of technologies including live simulcasts to regional centres.



Mobile police facilities

The state government is also developing the next generation of government services which could connect people with services available across all levels of government. The approach will harness technologies, like interactive assistance on Google, and personalise services to individual circumstances to predict customers' needs.

Examples include using technology to provide seniors with advice on senior's cards and concessions when they become available, and young Queenslanders accessing real-time assistance such as emergency housing services.

An emerging area of innovation is using investment incentives to motivate private and community investment in social infrastructure or communityfocused services. Social Benefit Bonds are being piloted by the state government. The three bonds are aimed at improving outcomes for vulnerable cohorts in the community, including youth justice reoffending, reunifying children with their families from the child protection system and reducing youth homelessness. The bonds will fund long-term early intervention services that may reduce the need for social infrastructure. For example, through the reoffending Social Benefit Bond, Youth Justice will be able to deliver intensive family and community-based therapy programs for at-risk offenders to potentially reduce youth reoffending rates. The bonds work through private investors providing funding to non-profit organisations, with the investor receiving a return on investment based on agreed outcomes. Social Benefit Bonds are a new and unique way of delivering outcome-funded investment that may have positive impacts on future social infrastructure requirements.

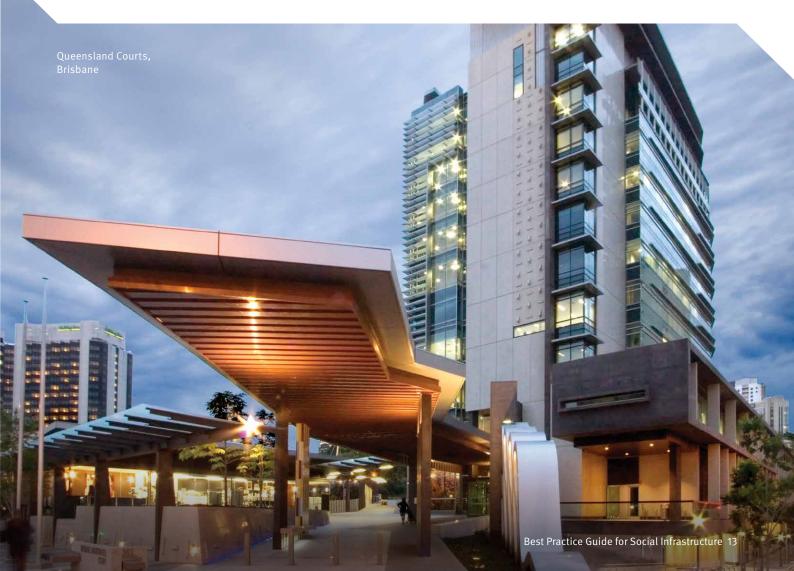
Co-investment and partnerships across government, involving commercial and not-for-profit partners, can provide effective ways to provide community facilities. The state government partnered with Redland City Council to use adjoining land to their mutual advantage, creating the Russell Island Sport and Recreation Park. Through the state's provision of additional land, and the council's application for a Commonwealth funding grant, the council was able to create a multipurpose sport and community space for use by both the school and local community.

A whole-of-government approach is increasingly needed and one such critical area is how governments manage their ownership of public land and buildings. Options for consideration include:

- developing or using existing infrastructure
- owning or renting the physical places or spaces
- permanent or temporary arrangements
- sub-letting to other parties.

Different levels of governments, agencies and sectors use a range of approaches to manage resources. Processes and incentives therefore need to encourage the right mix of infrastructure responses to fit placespecific needs and planning. In a rapidly changing world, flexibility and diversity in technology, management, ownership and control are increasingly critical.

Through technology, Queensland Courts can progress some matters by video link, reducing the need for physical court facilities.





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Encouraging partnerships through co-location

Planning, designing and locating social infrastructure to facilitate effective partnerships with complementary infrastructure and service providers.

Effective partnerships can provide more integrated, efficient and innovative outcomes to use infrastructure and deliver services. Governments have historically organised human services based on functions, such as education, health or housing. In both existing and emerging communities, agencies largely plan and deliver facilities independently, often collaborating only when obvious opportunities are identified or partnerships already exist.



Figure 4 Moving from a dispersed to an integrated delivery model

While this approach has traditionally served government and communities well, changing needs provide the opportunity to rethink cooperation and partnerships. Strengthening relationships and partnerships through co-location of service providers can deliver more convenient, appropriate and cost-effective services (Figure 4).



Locating infrastructure where it can best foster collaboration and cooperation between service providers for mutual benefit.



Maximising the potential for cooperation and integration through careful design, tenure and management of infrastructure.



Exploring traditional and emerging partnership and tenure opportunities within and across government, community and private providers, to address changing needs.



Using co-location within precincts, whether owned or rented, to deliver integrated, collaborative, shared or new services and facilities.



Considering the location of infrastructure within a precinct, and its relationship to neighbouring services and facilities, to maximise partnerships and flexibility.

While it is not appropriate to co-locate all types of infrastructure, most social infrastructure has the potential to create positive partnerships that 'cross boundaries'. Sometimes unusual and less traditional partnering can provide unexpected outcomes. For example, an on-site TAFE campus co-located at the Borallon Training and Correctional Centre has enabled inmates to develop new trade skills in areas such as horticulture, engineering, literacy, numeracy and construction.

Broader thinking by agencies is generating creative and effective partnerships by combining complementary services in one place. This blurring of edges is achieving active inter-connection, cooperation and sharing of ideas between human service agencies and other social infrastructure providers. In the rural town of Alpha, a new multi-purpose community facility has been developed through integration and partnership. Jointly funded by the Department of Health and Department of State Development, Manufacturing, Infrastructure and Planning, the Alpha Multi-purpose Health Service combines health and clinical services, police and fire and rescue services, staff accommodation and community meeting rooms to create a convenient and efficient services hub. The hospital has been designed to enable future State Emergency Service and ambulance colocation as well as telehealth services.

In established areas, significant benefits can be obtained by working across sectors, including identifying funding or appropriate sites for services. Where one agency alone may not be able to fully fund infrastructure or have a site available for expansion or redevelopment, partnerships between agencies can create mutually beneficial outcomes. For example, the Central Queensland University Sports Precinct has been made possible through a collaboration of Mackay, Isaac and Whitsunday regional councils, in partnership with local businesses and the Central Queensland University (CQU). CQU has provided the land and facilities to construct the sports precinct, which can be used by schools, sporting clubs, community groups, organisations, businesses and the public.

The precinct will also provide a public community clinic, to be operated in conjunction with CQU's Allied Health and Medical Science programs providing a practical educational environment for students. The health clinic is a working partnership with the Central Queensland Hospital and Health Service.

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Locating a range of social agencies and infrastructure in a mixed-use precinct is usually a highly rewarding strategy. Precincts allow diverse public and private investments to be located together and are powerful opportunities to serve the community better. Cost-sharing opportunities can also be realised, supported by planning and governance arrangements. Due to these benefits, co-location is often preferable to developing new stand-alone or detached social infrastructure, which is best considered only where it is:

- supported by adequate transport
- the first stage of a master plan within a more comprehensive precinct
- used as a catalyst for renewal
- an integrated facility that delivers a range of human services in a central location

Co-location is often preferable to developing new stand-alone or detached social infrastructure.

Social infrastructure planned for major mixed-use precincts at Herston and Dutton Park each demonstrate the opportunities available for the adaptive re-use of existing human service facilities by adopting a partnership approach.

The Herston Quarter Redevelopment Project is a partnership between the Metro North Hospital and Health Service and Australian Unity to create a heath-focused mixed-use precinct.

Herston Quarter will combine a new state-of-the art public health facility and rehabilitation services, a private hospital, a range of accommodation including residential, student, aged care and retirement living, plus commercial, retail and public and green spaces. The health heritage buildings will be reinvigorated and this existing social infrastructure will be repurposed. The precinct will encourage collaboration and innovation through the co-location of healthcare, education and research organisations and professionals, and will benefit from its adjacency to the world-class health, training and research institutions at the Herston Health Precinct. The addition of mixed-use development will foster social interaction and transform Herston Quarter into a hub where people can work, innovate, collaborate, learn and live and reshape the traditional hospital and healthcare environments.

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The Herston Quarter Redevelopment Project artist impression





The redevelopment of the Boggo Road Gaol at Dutton Park – which lies within a broader health, research and hospital district – is transforming a cultural heritage area into a vibrant cultural and recreation hub. The area will combine a museum with markets, restaurants, entertainment and open space. This will breathe new life into ageing social infrastructure while balancing the heritage preservation of existing social assets with commercial re-use.

Some agencies are successfully colocating services in new spaces, such as retail hubs and shopping centres. Major shopping centres provide opportunities for social agencies within or adjacent to them. Equally the focus and scale of local main streets provide opportunities for co-locating services such as schools, local health services, family support and libraries. Faced with changing demographic needs and isolated community facilities, the City of South Perth created a vibrant new heart for the community. The Manning Community Hub facility co-locates a library, community hall, meeting spaces, early years and cultural spaces, child health clinic, sporting ground and clubhouse with open space in one central location.

The library has also been relocated to the precinct to provide a connected and collaborative community space. Importantly, the precinct is designed to adapt to future needs, with future plans including residential accommodation and direct linkages to the commercial district. The focus and scale of local main streets provide opportunities for co-locating services such as schools, local health services, family support and libraries.



Manning Community Hub master plan







Locating for access and convenience

Ensuring access to social infrastructure is convenient, easy and affordable for users.

Locating infrastructure in the right place ensures it is both well used and convenient for people to access, contributing to community vitality and well-being.

Co-locating appropriate social infrastructure in accessible, convenient and pleasant places such as mixed-use precincts, and places people already visit, provides a critical mass of services that makes public transport viable and can in turn enhance the use of facilities and spaces within the precinct (Figure 5).

Within new communities – for example Springfield, west of Brisbane – social infrastructure has been successfully integrated into master planning of town centres, enabling people to access educational facilities, health clinics, libraries, and community and leisure facilities near to where they work or shop.

Redevelopment of large sites provides the opportunity to locate social infrastructure in areas that are already serviced by transport, such as new rail or bus stations, or in mixed-use precincts that may include commercial, residential or other uses.



Figure 5 Locating services to maximise community access



Adopting a place-specific planning and design approach to locate infrastructure in accessible locations.



Utilising mixed-use precincts with integrated public transport.



Ensuring precincts around infrastructure are safe, pleasant, convenient and connected.



Encouraging greater social contact through the design, location and management of infrastructure.



Prioritising active transport i.e. walking and cycling in the planning, design and development of facilities and precincts.

As the population ages, and people change their mobility patterns, it will become even more important to ensure infrastructure is located in areas that can be easily and readily accessed. Successful location of social infrastructure ensures people have a choice in how they travel there – whether by car, public transport, walking or cycling – and can get there quickly and affordably.

Within an emerging PDA north of Brisbane, the proposed Petrie Mill Town Centre will include a new university campus in a mixed-use precinct adjacent to a railway station. Integrated planning aims to develop a unique, vibrant mixed-use precinct with good access to facilitate partnerships between educational, civic, commercial and potential health infrastructure. The connection of social infrastructure with transport will help create an enjoyable place that invites people to interact and spend more time.



Gold Coast Light Rail at Griffith University, Gold Coast campus

For health facilities, such as large hospitals, equity of access is an important consideration in site selection and design. For example, the Gold Coast Health and Knowledge Precinct incorporating the Gold Coast University Hospital and Griffith University, is well serviced by the Gold Coast Light Rail and convenient road, walking and cycling networks. This enhanced connectivity supports the planned development of the precinct into a vibrant mixed-use community, co-locating residential, commercial and open space with the university and hospital.

The Sunshine Coast University Hospital at Birtinya adopted a precinct-wide design to improve accessibility, including cycleways and a bus station, as an integral part of the facility. The bus station was then leased back to TransLink.

Throughout Queensland, there is a move towards greater integration of land use and transport planning. The master planned community of Aura in Caloundra South promotes walking and cycling through a cycle network that has more than 50 kilometres of cycle facilities, including separated cycle tracks and shared walking paths. These provide physical separation between cyclists, vehicles and pedestrians. The South Bank Precinct, taking in the broader Cultural Precinct and Mater Hill Health Precinct, demonstrates an effective inner-city mixed-use precinct. It is well connected to the city and suburbs by several modes of transport, making it highly accessible and convenient. From the central South Bank area has emerged an expanded precinct which now includes educational, health and other social infrastructure, both public and private. This example demonstrates that equitable access can both lead and support the provision of social infrastructure and encourage further expansion of practical partnerships.

Integrated land use, transport and social infrastructure planning for the revitalisation of the Maroochydore Town Centre will see social, commercial and retail services provided in easy to access locations in the heart of the Sunshine Coast. Successful location of social infrastructure ensures people have a choice in how they travel there – whether by car, public transport, walking or cycling – and can get there quickly and affordably.

This integration has a number of benefits for social infrastructure provision:

- equitable access for those with reduced mobility
- efficient use of existing infrastructure in established areas
- effective provision of public transport in new areas
- convenience for users
- sustainable walkable mixed-use precincts around the transport.

Ensuring the community has access to valuable human services can occur by simply providing services at places where people already go. Mater Health Services has opened a conveniently located renal dialysis unit in Brookwater Village Shopping Centre. The location of this new service enables patients to receive treatment closer to home with immediate access to retail and other services.

These examples demonstrate that consideration of access and convenience in planning, design and site selection has benefits for both human service providers and users, and can be achieved in both new greenfield developments and within existing urban areas.



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Repurposing for the community

Maximising the use of existing well-located physical infrastructure, including re-use, to meet evolving community needs.

The community has a significant investment in publicly-owned and funded land and physical infrastructure. However, some infrastructure is no longer suited to addressing needs, is poorly located or difficult to access due to changing demographics and patterns of development.

In these cases, it is often appropriate to upgrade and renew buildings or open space infrastructure. This may include physical changes to maintain its original use, or entirely changing the purpose or function.

Altering and re-focusing social infrastructure for a different purpose can meet changing community needs, while protecting the community's investment. This can also free up resources to plan enhanced services nearby or elsewhere, delivering cost-effective mutually beneficial outcomes (Figure 6).

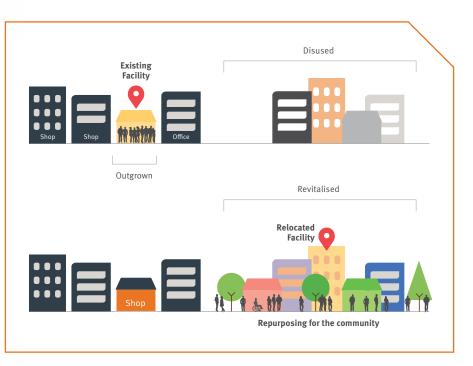


Figure 6 Revitalising buildings and precincts to meet evolving community needs



Considering repurposing appropriately located infrastructure that no longer meets its original function.



Respecting the social, cultural and heritage value of the infrastructure when evaluating renewal options.



change or demolition. Making land or infrastructure available

Considering the financial cost-benefit

and embodied energy and environmental

resources, when considering significant

to other agencies, sectors and groups to re-purpose in ways consistent with community values and their functional needs.

There are a number of social, environmental and economic reasons why past investments in physical infrastructure should be protected. Physical infrastructure involves considerable expense and energy to develop. Some places and structures are highly valued for social, cultural and historical reasons. Demolishing, replacing or radically altering such places and structures beyond recognition can sometimes raise community concerns.

However, change may be required if infrastructure is no longer appropriate or accessible for its purpose. In these cases, strategic and creative thinking is needed to re-purpose in ways that are sensitive to community values to arrive at a positive outcome.

Where social infrastructure is no longer suitable for its existing service provision, but is conveniently located, the following options can be considered:

- detailed and sensitive upgrades
- substantially altering or expanding the structure or space
- retaining parts while adding greater capacity or different new functions
- demolishing the existing and creating a new facility.

Issues such as community views, building heritage, structural suitability, availability of space, relationships with neighbours, the staging of change and maintenance of services all need to be considered in the change process. Careful, practical creativity and rigorous evaluation is needed to consider the suitability of site repurposing.

Repurposing is particularly effective in existing community areas, especially where land availability is constrained. In conjunction with precinct stakeholders, the Queensland Children's Hospital applied smart solutions to resolve the lack of car parking across the broader South Brisbane hospital precinct. A multi-storey car park was built on the playing fields of an adjacent private school and the playing fields were subsequently reconstructed on top of the car park, at a more accessible and convenient level for the school.

This creative initiative re-purposed the school's playing fields for greater functionality and convenience, while providing much-need car parking for the hospital precinct. The partners worked together to re-purpose existing infrastructure and provide social benefits across different sectors.



Queensland Children's Hospital, South Brisbane

Where a location is no longer appropriate, agencies must look to develop resources elsewhere in an appropriate location. It may be possible to repurpose existing infrastructure where:

- the infrastructure and location is suitable for other government or non-government uses
- it is practical or socially acceptable to change it to fulfil another use
- creative design and appropriate tenure arrangements would enable it to meet a different community use
- it could be made available on commercial terms for non-community purposes.

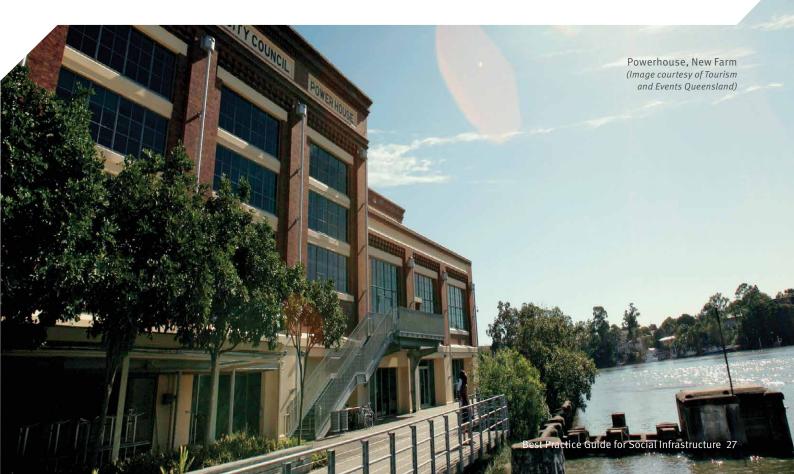
Strategic and creative thinking is needed to repurpose in ways that are sensitive to community values to arrive at a positive outcome.

The Advancing our cities and regions strategy provides an innovative approach to renewing and repurposing government property that is no longer required, while maximising economic and community outcomes. Examples of projects include developing health and knowledge precincts on surplus university land or revitalising regional centres in collaboration with local councils to create useful and vibrant spaces for the community. Through smart thinking and creative solutions, both government and nongovernment agencies have creatively re-purposed a range of disused facilities for cultural, health, recreation, entertainment and health purposes.

The revitalisation of the Victoria Barracks in Brisbane demonstrates creative and adaptive re-use that has helped preserve a site of important heritage, while establishing a new cultural destination. The area is accessible by public transport and a walkable distance to a major sporting precinct and open space, with pedestrian linkages throughout. The integration of office space with retail, cafes and cinemas has made this historical site a vibrant and well used precinct close to the city centre.

The Powerhouse in New Farm is a fine example of creatively transforming a redundant coal-fired power station into a vibrant and successful cultural complex. It was designed and developed in a way that acknowledges its former life and use, and maintains connections to adjacent spaces and uses, including the Brisbane River and New Farm Park.

The Lady Bowen Complex at Spring Hill has breathed new life into historical health facilities, repurposing them to provide housing for those in need. The maternity hospital and nurses quarters, dating back more than a century, had fallen into disuse and disrepair. They are now part of a complementary group of separately managed facilities comprising emergency housing, social housing, boarding house and office space for advocacy groups. Working sensitively with the heritage requirements of the earliest two buildings, the project respectfully and creatively repaired and built new structures while delivering a range of well-located socially important facilities.



Yarrabilba Family and Community Place

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Sharing and integrating facilities

Encouraging shared use and management of facilities across government, market and community providers, covering a range of social functions and uses.

Combined or shared services, within a whole-of-community setting, can create service efficiency, promote positive cultural change and strengthen local communities. In both established and new communities, radical combinations of previously stand-alone services in a well-designed built form have been proven to promote efficient, modern and innovative ways of delivering outcomes (Figure 7).

In rural, remote or emerging communities, the smaller scale of infrastructure needed to deliver separate social services can naturally lend itself to sharing and integration. This in turn promotes strong working relationships between service providers as well as convenience for those accessing them.

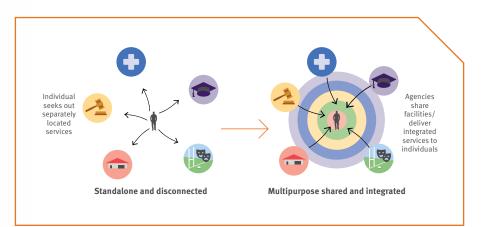


Figure 7 Integration and a people-focused delivery approach



Designing infrastructure to maximise current and future sharing arrangements, with government, non-government and community users.



Creatively designing infrastructure to encourage interaction with other peopleoriented uses such as retail, business, open spaces and transport.



Effectively integrating infrastructure into communities so that it contributes to community wellbeing, celebrates cultural identity, attracts investment, and is valued and encourages a sense of ownership.



Designing and developing infrastructure that extends beyond simply meeting an agency's central needs to deliver facilities that further benefit the community.

Success depends on agencies or service providers having common goals to ensure the social infrastructure is planned and delivered in a way that contributes to whole-of-community wellbeing and liveability. Even then, compromise is required to ensure the fundamental needs of each partner can still be met.

Integration of schools within communities allows them to access local facilities such as council swimming pools and opens up school facilities such as halls and sporting grounds to community use. This is a highly desirable, effective and cost-efficient use of community resources. Sharing and integration ensures neighbourhood libraries, theatres, gyms, ovals, tennis courts and pools are fully utilised multi-purpose community facilities, regardless of which agency or community provider funded and delivered them. Additionally, government can potentially create increased value for the private sector and other providers by purposefully integrating social infrastructure with commercial developments, thereby delivering broader benefits to the local community.

Particularly in smaller communities, co-location may practically and logically lead to even further sharing and integration. For example, human service providers may occupy rooms with others in a genuine sharing of one facility or space or on a bigger scale, larger agencies or communities may share land or buildings.

The same strategy can be applied in the early stages of new communities, with infrastructure being developed as the community grows. Major master-planned communities often integrate community-accessible social infrastructure into the heart of neighbourhood and town centres to promote well-being and enhance a sense of community.

The Baringa State Primary School at Aura is an example of integrated planning and design. The school has been designed to share sporting facilities with Sunshine Coast Council, creating a community sporting hub that services both educational and community needs.

Doveton College in Victoria demonstrates a successful cross-sector partnership involving the Victorian Government, The Colman Foundation and the Australian Government. Innovative funding arrangements and place-specific planning has created a purpose-built school to cater for children from early years to Year 9, while providing holistic and fully integrated health, family and community services in one convenient location. Residents and groups use the college's performing arts centre, fitness centre, internet café and community meeting spaces.

The Gordonvale Early Years Centre (EYC) was planned and designed directly in response to community needs and provides essential early childhood services in an inclusive, integrated environment. The EYC is located on the Gordonvale State School site and comprises three main facilities including a licensed kindergarten, specialty consulting rooms and a community hub. The mixed-use precinct and community hub provides a place for families to engage and demonstrates the potential to redesign the process for the delivery, role and staging of schools, early year's centres and community health facilities within new communities.

Integration of schools within communities allows them to access local facilities such as council swimming pools and opens up school facilities such as halls and sporting grounds to community use. Making better use of existing infrastructure includes unlocking underutilised land such as existing school sporting facilities. Parks, sport and recreation activities are important enabling infrastructure underpinning healthy, active, liveable, connected and engaged communities.

Demand for council green space and sporting areas at peak times inspired an ongoing and mutually beneficial partnership between the Gold Coast City Council and the Department of Education. This collaboration has facilitated broader community use of sporting facilities at participating schools. The school's needs are retained and administration is streamlined via the council's booking system.

The community is able to access underutilised open space, while participating schools receive council support and training in oval maintenance, as well as funding to upgrade sporting infrastructure. For example, Ormeau Woods State High School has received a little athletics centre and senior athletics training facility funded by the council and grants from the Department of Housing and Public works, Sport and Recreation. A one-stop-shop approach is a desirable way to design and locate a range of people-focused services with a shared point of contact and shared management. This reduces fragmentation, which make services and support difficult to locate and navigate. Where a shared facility is not located in a mixed-use area such as a precinct, adding cafes and shops to the one-stopshop environment, or opening up space to community uses, can further improve the user experience.

The Queensland Government Customer Centres, along with the extensive Queensland Government Agent Program network, provide an extensive range of services on behalf of multiple state government agencies facilitating more effective use of state infrastructure.

Another successful approach has been the partnership between the Department of Justice and Attorney-General and the Department of Transport and Main Roads. Under this partnership over 30 Regional Services Outlets have been rolled out across rural, regional and remote Queensland to increase the productivity of existing courthouses. Court-related services continue to be provided, but the community can now access all transport services under one roof and increased community police resources are available in stations previously performing licensing services.

The Beaudesert Customer Centre provides an extensive range of services on behalf of multiple state government agencies facilitating more effective use of state infrastructure.

Ultimately, social infrastructure is about meeting community needs and enhancing broad community vitality and well-being. Each project should therefore set out to meet the service objectives of the agency, however, explore whether other community needs and improved liveability might also be met by the way the project is designed, implemented or managed.



Spring Mountain State School

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Designing for adaptability

Ensuring social infrastructure is, by design and management, appropriately flexible to grow and adapt to evolving needs.

Queensland is experiencing economic, environmental and social change, driven by local, national and international trends. We must also adapt to realities such as climate change, economic restructuring, technological advances and changing service delivery models. An increasingly diverse community now also expects more accessible and personalised services.

To respond to these changes and opportunities, infrastructure will need to be adaptive. It makes sense to respond to continual processes of change in the way our social infrastructure is designed, managed and owned to deliver the robustness and flexibility needed to adapt and remain effective. A collaborative, place-specific urban design approach can help achieve this (Figure 8).

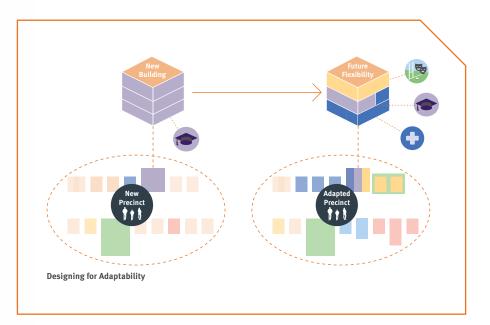


Figure 8 Enabling change and adaptable uses



Designing infrastructure that is adaptive and responsive to changing community needs.



Acquiring, planning and designing structures with inbuilt flexibility to accommodate changes directly.



Ensuring infrastructure is appropriately integrated yet responsive to a changing urban environment.

Our towns and cities continually change and will continue to do so – growing at their edges, changing in their centres, accommodating new technologies and lifestyles, experimenting and seeking better outcomes for the community.

Adaptation and future-proofing is best achieved where grouping of facilities and public spaces make a single place that can accommodate change within while, as a grouping, grow at its edges in controlled ways. This promotes compact development, enables better sharing and co-location and flexibility. Planning that surrounds individual pieces of infrastructure with a ring of vacant land to allow expansion in every possible direction, generally does not provide convenient or accessible services or enable easy adaptation.

Moreton Bay Regional Council's proposed Petrie Mill Town Centre demonstrates an alternative approach. Initial stages of the university, community, cultural and retail developments will be concentrated together around the existing railway station to create a single urban place.

The street system will allow subsequent expansion in each direction – the main street shopping in one direction and the university in another – while allowing development of adjacent infrastructure such as health, commercial and aged housing. It will be designed to accommodate expansion by growing outwards from an initial integrated mixed-use core, by adopting a placemaking approach to its overall precinct.

The design of Doveton College lends itself to alternative uses. This successful partnership has created a community hub where access to the school can be easily closed off to ensure student safety as community and shared uses are built along the perimeter. The purpose-built facilities include flexible buildings with operable walls, open plan teaching spaces, and a multi-purpose reception and administration building, encouraging community interaction while maintaining student safety.

For some infrastructure it has been - and remains - challenging to design individual buildings for future expansion, particularly those with complex and technical specifications. Nevertheless, schools, universities, hospitals and cultural facilities must accommodate and adapt to change. Adaptation options include:

Employing a range of flexible planning,

Designing infrastructure and precincts to

high sustainable environmental standards.

tenure and delivery responses.

- constructing new/replacement facilities within an existing precinct
- changing the mix of tenants and partnerships, both public and private
- adapting, enhancing or expanding existing on-site facilities
- changing internal layouts to meet different needs/providers over time
- repurposing existing structures, which may include relocating or discontinuing a previous use
- using nearby off-site facilities, whether existing, delivered by others or through a partnership.





Similarly, adaptive design of social housing is making it easier to meet the needs of different groups or to enable residents to age in place. This involves providing a diverse range of social housing that is fit-for-purpose and tailored to meet the changing needs of individual households and communities. such as age-friendly housing that enable seniors to remain in their communities. Considerations include how to make homes easier and safer to use, through 'universal housing design' features, and suitable for all occupants including older people, people with special needs and families with young children.

In growing urban areas, there will always be a need for new infrastructure. In new developments, space may be set aside for future delivery or expansion and leased to others until it is needed. Structures can be designed to expand vertically at later stages, maintaining the benefits of the central location within the precinct.

Temporary facilities, such as those used at cultural festivals and sporting events, can provide flexible and adaptable spaces or alternatives to expensive built infrastructure. Particularly in new master-planned communities, the use of thoughtful temporary structures may sometimes be appropriate, particularly ones that can be converted to other uses or relocated on or off-site at a later date.

Within the context of competing resources and climate change, it is important that social infrastructure is developed with appropriately high standards of sustainable design. Infrastructure will need to adapt to a changing climate to be more resilient to storms and sea level rise, while remaining comfortable for people to use through sustained heatwaves. This involves passive climatic and water sensitive design, as well as design that lowers carbon emissions through for example detailed energy management and generation. This enhances future performance and represents a responsible use of resources.

At Griffith University's Nathan campus, the Sir Samuel Griffith building demonstrates a high level of sustainable design. It generates, stores and redistributes electricity enabling it to be off-grid, while delivering a sophisticated research and educational environment.

Sophisticated or complex technology is not always necessary. The recent Common Ground project in South Brisbane delivers environmental amenity through natural cross ventilation for its 140 residences through thoughtful inter-connected design of apartments, corridors, and communal spaces. Well-located with access to other inner-urban facilities, this social infrastructure provides its residents with a rooftop vegetable and herb garden adjacent to library and other uses, while demonstrating simple, yet effective environmental design.

Designing for and facilitating adaptability enables infrastructure to grow and adapt to meet increased demand or different needs. It also enables appropriate responses to environmental and social changes, to appropriately future-proof infrastructure through flexibility and place-specific thoughtful design.

Designing for and facilitating adaptability enables infrastructure to grow and adapt to meet increased demand or different needs.

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