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Acknowledgement of Country:

We acknowledge the Traditional Owners of the land on which we live and work We pay our respects to the Elders, past and present

Throughout time, Brisbane, the land by the river, has been a path of transport for all people

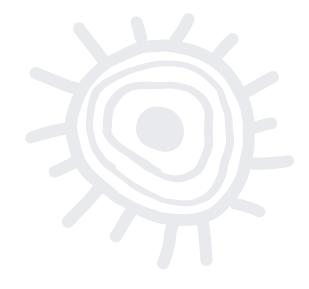
A place of connection, a place of many tracks

The Ancestors and Elders travelled this terrain long ago
Following tracks that we follow today
We recognise their connection to this country, the waterways and community

As we build this path through Country
While we tunnel deep beneath our river
Laying tracks for greater connection, creating new places for the future
We acknowledge the rich traditions and stories of the past
At the many places we are working to bring this Project to life
Across Brisbane, the Gold Coast, and greater South-East Queensland

With an open heart and mind, we hope to learn from the traditions, stories, customs and practices of Australia's First Nations people

Together, as we build this track for the future.



List of Abbreviations

ARG Accessibility Reference Group

CRR Cross River Rail

CRRDA..... Cross River Rail Delivery Authority

CRR-ARG Cross River Rail Accessibility Reference Group

DDA Disability Discrimination Act 1992

DSAPT Disability Standards for Accessible Public Transport 2002

DTMR..... Department of Transport and Main Roads

HCD Human Centred Design

NGCS..... New Gold Coast Stations

PPP Public Private Partnership

PTIM Public Transport Infrastructure Manual

QR Queensland Rail

UCD User Centred Design

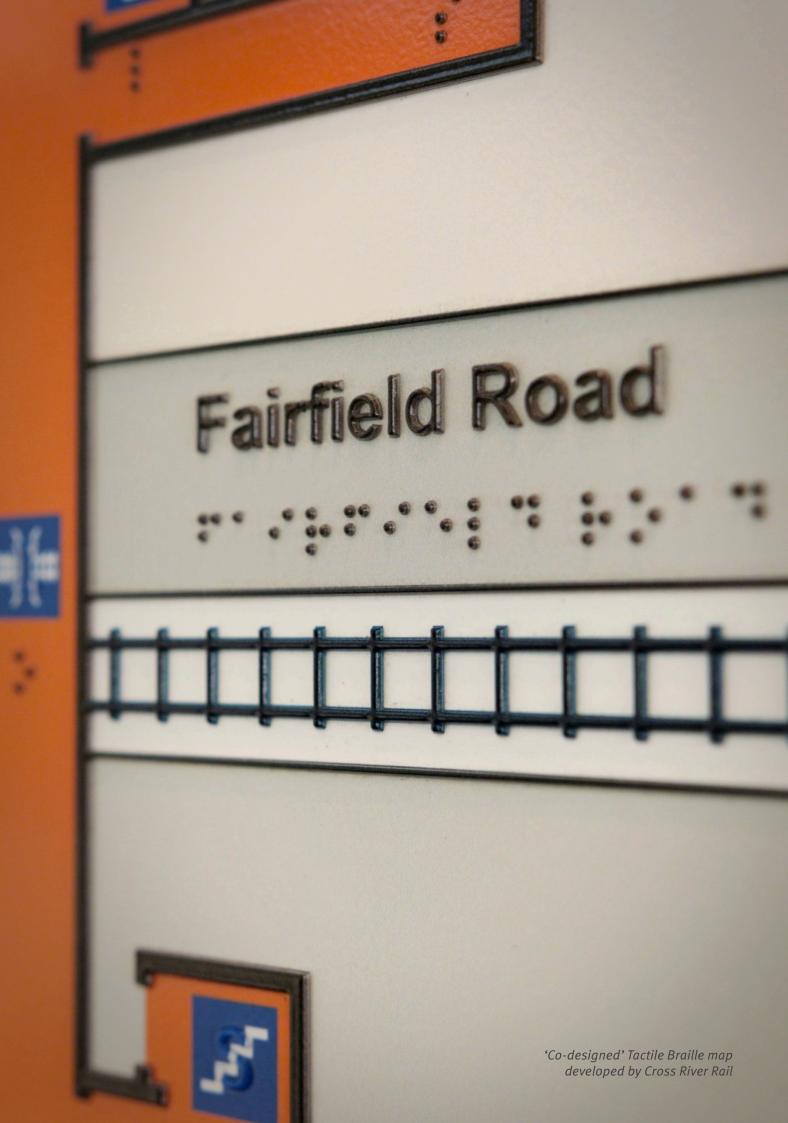


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Part 1 Context and Background

1.1 INTRODUCTION

1.1.1 OBJECTIVES OF THIS DOCUMENT

This document outlines a toolkit for incorporating an accessibility co-design approach into the delivery of new public transport infrastructure. It outlines when and how co-design can be integrated into the Queensland State Government's standard practices for delivering public transport infrastructure (both new infrastructure and upgrades to existing) and seeks to identify what supports are required on the ground for those tasked with 'doing' co-design.

The strategies outlined in this document have been informed by the research collaboration undertaken between the Hopkins Centre and the Cross River Rail Delivery Authority between 2021-2022.

1.1.2 RESEARCH APPROACH

A team of researchers from The Hopkins Centre undertook a review of the Cross River Rail Delivery Authority's accessibility engagement approach.¹ The research process involved the participation of the researchers in the co-design of the three New Gold Coast Stations with the Accessibility Reference Group (ARG) during design development stage. In-depth interviews with participants in the various accessibility engagement activities were undertaken to understand the process from the viewpoints of various stakeholders. (This included CRRDA project team members, ARG members, contractors, consultants, and institutional partners from other QLD transport agencies).

Following the review, the research team developed a set of recommendations for a toolkit to support co-design in future large-scale public transport infrastructure. These recommendations have been informed by both the literature and the lessons learnt during the Cross River Rail accessibility engagement activities. Input from the individuals involved in these activities was sought: a 'multistakeholder solutions building workshop' was held to further refine the toolkit focus and to establish strategies for embedding co-design in the delivery of public transport infrastructure. Discussion focussed on learning from both the successful aspects of the CRRDA accessibility engagement, and the aspects that could be improved.

The outcome of this process has established a clear set of strategic priorities to continue to support the change already underway in the sector — collaborating with the disability community in working towards an accessible public transport for network for all Queenslanders. This strategic approach is outlined below and described in further detail in **Appendix A**.



1.1.3 A STRATEGIC APPROACH TO EMBEDDING CO-DESIGN IN THE QUEENSLAND PUBLIC TRANSPORT SECTOR

Co-design of large-scale public transport infrastructure necessarily spans several different 'levels':

a) Co-designing the Accessibility Agenda

New large scale public transit infrastructure projects are determined years or even decades in advance of being implemented, and upgrades to existing infrastructure are planned in similar timeframes. Determining the key accessibility priorities of the program of future public transport infrastructure requires a nuanced understanding of the diversity of accessibility challenges across the sector and represents an opportunity to establish mechanisms for engaging with the disability sector in order to collectively drive decision making regarding accessibility priorities and opportunities.

b) Pre-Project Co-design

Once a specific infrastructure project is identified, significant 'pre-project' work occurs before the project commences: evaluating the project's feasibility; defining the technical requirements; creating a reference design; establishing budgets; undertaking options analysis; and developing the business case, before the project receives approval to proceed. Many decisions made during this stage can 'lock in' certain aspects of the design, and go on to have a major influence on the final project outcomes. This is also the point at which decisions about the procurement method and contractual arrangements are made, determining the type of relationship between the Principal and the contractor (and sub-contractors and consultants) during the later project stages. It is important that if a co-design approach is to occur during the project, the contractual requirements to support this are embedded now. While this stage of a project's development is necessarily subject to significant confidentiality restrictions, it is important that a co-design engagement occurs to ensure accessibility outcomes (or potential concerns) are identified before contracts are awarded, setting the project up for success.

c) Project Responsive Co-design

Once a project is established, the contract awarded and the designers and project delivery team appointed, a project responsive co-design engagement can occur in parallel with the design development process. In order to avoid late-stage re-work of the design and/or 'locking in' accessibility problems, the co-design process should commence shortly after the contract is awarded (at the beginning of the concept design stage), when the designers start to elaborate upon the reference design. This is the ideal opportunity to collectively identify the key accessibility challenges and priorities that the design needs to respond to, and to identify the metrics for success. This stage of the codesign process is characterised by direct engagement and mutual learning between the reference group members and those responsible for designing and delivering the infrastructure.

d) Organisation-Wide Culture of Accessibility

A clear and consistent strategy for undertaking accessibility engagement across the various organisations within the public transport sector is required – this should be informed by the accessibility agenda (A, above) developed in collaboration with the disability community. Foundational to this is an organisation-wide culture of accessibility to support the conditions for successful co-design. This entails both an educational aspect and a consolidated knowledge base, and requires pro-active sharing of information across the different transport organisations in the Queensland public service, institutional partners and with external stakeholders such as industry contractors and consultants.

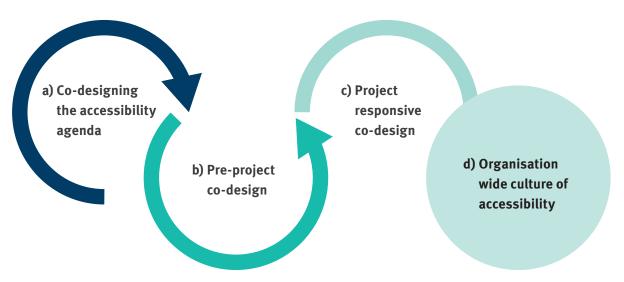


Figure 1: Co-design levels

Workshop participants identified that, in order for the co-design of specific projects to be successful, it is crucial that the larger accessibility agenda is also co-designed (A). Ideally, individual projects will be supported by a consolidated knowledge base that has been established across previous projects and engagements, and upon their conclusion also contribute to it, building not only this central knowledge base but an organisation-wide culture of accessibility (D).

However, the primary focus of this document is on the co-design of specific transport infrastructure projects - as such, the body of this document is focussed on the project, based co-design levels (B & C) described above.

For a more detailed outline of the strategy that emerged during the workshop, refer to **Appendix A**.

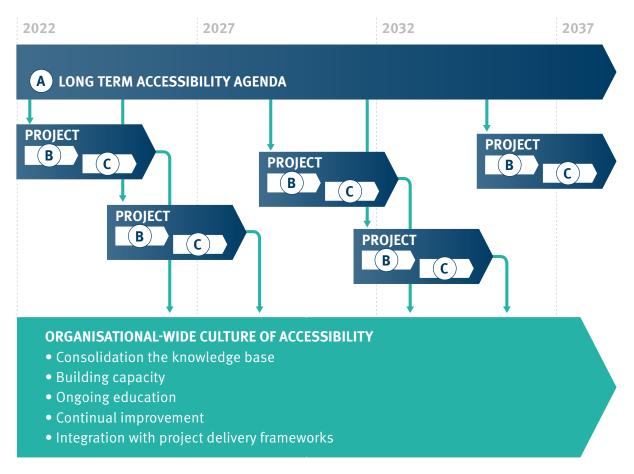


Figure 2: Long term strategic vision for accessibility

1.2 CO-DESIGN

1.2.1 BACKGROUND

Over the last few years, there has been a trend towards the early, 'genuine' and comprehensive engagement with people with disability across the Queensland public transport sector to achieve an accessible, functional non-discriminatory experience for passengers with disability. This has been prompted in part by the Commission of Inquiry into the New Generation Rollingstock procurements. Although this shift has been welcomed by the disability sector, significant challenges remain at the implementation level.

The CRRDA's approach to accessibility engagement has closely aligned with the general shift toward 'genuine' engagement. The CRRDA approach has matured and evolved over the course of the project, shifting from 'informing' to 'consulting' to 'co-designing'. This was supported by the creation of an action plan and a clear engagement strategy. The overall CRRDA accessibility engagement focussed on the experience of end users of public transport, as influenced by the Department of Transport and Main Roads 'customer first' focus – but has explicitly broadened this to encompass *all* customers rather than *typical* customers, based on the assumption that:



² Forde, M. (2018). New Generation Rollingstock Train Commission of Inquiry: Final Report. Recommendation 17 (Page 68).

- 1. passengers with disability are those most affected by inaccessible public transport environments and services, and
- 2. universally designed public transport benefits not only passengers with disabilities but the wider community.

'Doing' co-design in any context is difficult, and although there are frameworks available, none explicitly apply a co-design approach to the development of physical public infrastructure of this scale and nature with their inherent complexities associated with the interface between large-scale built environments and transport infrastructure (technical, legislative, organisational, contractual, and otherwise). Moving forward, a bridge is required between high-level policy statements about consumer engagement and co-design, and practical implementation on the ground – it is not sufficient to mandate co-design without an understanding of how to operationalise this approach in the context of large public infrastructure (and vice-versa). This document provides recommendations for the development of a toolkit that seeks to bridge this policy vs. implementation divide.

1.2.2 GUIDING PRINCIPLES AND PHILOSOPHY

What is co-design?

'Co-design' is a versatile term with broad application across numerous disciplines, and names a participatory methodology used to create products, services and even policies, through a collaborative process in which groups of end-users work alongside technical experts to innovate solutions to design problems. In relation to the disability sphere, Co-design advocates for the greater inclusion of and incorporation of people with a disability in the design of systems and policies affecting them. Co-design with people with disability entails additional challenges to ensure that the process itself is accessible to people who may have a variety of requirements to enable their full participation, which often entails additional planning and resourcing.

Co-design should involve a genuine commitment to power-sharing and be markedly different to previous 'consultation' practices.³ As explained by the Australian Federation of Disability Organisations, "co-design wasn't meant to be easy".⁴

³ Guide to Co-Design with people living with disability. PurpleOrange. (2021). https://purpleorange.org.au/application/files/7416/2510/1861/PO-CoDesign_Guide-Web-Accessible.pdf





Co-design for accessibility in public transport



What?

Involving the disability sector in the design and delivery of new public transport infrastructure to achieve functionally accessible and universally designed environments.

Who?



Those most affected by inaccessible public transport infrastructure (the disability sector – both individuals with lived experience of disability and their representatives/advocates) together with the individuals and teams responsible for designing and delivering the infrastructure.

Why?



Engaging with individuals with lived experience of disability in the design and delivery of new physical infrastructure is an efficient way to identify potential accessibility issues before the design is locked in or the infrastructure is built, minimising a series of risks associated with the provision of inaccessible infrastructure and avoiding the need for premature accessibility upgrades during the life of the infrastructure. It is also an important opportunity to ensure that outcomes are not only compliant with relevant accessibility legislation but are also functionally accessible.



When?

As early as possible (but crucially at the early stages of developing a conceptual design, when the technical requirements and project scope are 'locked in') and ongoing across the life of a project.



How?

A collaborative and iterative process involving direct communication and knowledge partnering between technical and lived experience experts, transparency regarding constraining factors and collective decision-making regarding design priorities.

The advantages of co-design

The rationale for taking a co-design approach to the delivery of public transport infrastructure is twofold:

- 1. Compliance with legislation in itself does not necessarily lead to an endproduct that is functionally accessible and non-discriminatory, and
- 2. The early engagement with the passengers most affected by inaccessible or discriminatory transport systems is an efficient way to identify potential accessibility and/or functionality issues before they are 'locked in' to technical specifications or physically built.

Similarly, as noted in the "Informing community engagement for Australia's infrastructure sector" report:

Substantial value could be gained from combining a better understanding of social risk profiles with the toolbox of community engagement approaches to allow for evidence-based, strategic matching between the two (without becoming overly prescriptive). If risk profiles and engagement approaches could be better aligned, this knowledge could also inform engagement planning and improved assessment of whether certain approaches are likely to be successful in particular situations.⁵

1.2.3 CO-DESIGN'S COMPATIBILITY WITH OTHER APPROACHES AND METHODS

Co-design can be characterised as both a guiding philosophical approach (that advocates for greater involvement of the people affected by certain products/ services/systems in their design and development), and also describes a method for achieving this.

Co-design as a Philosophy

Co-design vs. consultation

Co-design differs from other forms of engagement most notably through the increased level of project ownership and involvement in decision making.

Co-design is different to consultation. Consultation is a process whereby relevant stakeholder views are sought but the decisions are made by others. Co-design is a process whereby relevant stakeholder views contribute not only to the thinking but also the making of decisions.⁶ (PurpleOrange, 2021)

This has been articulated as an extension of the IAP2 Spectrum of Public Participation.⁷

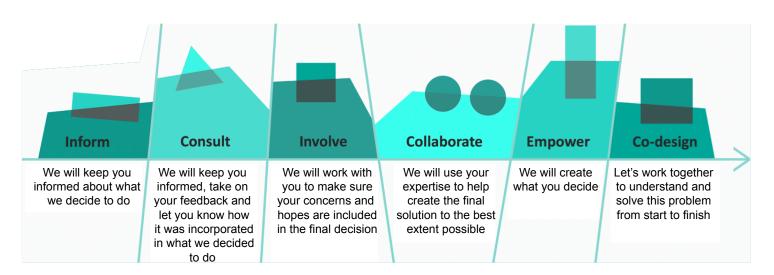


Figure 3: Co-design on the Spectrum of public participation. Source: VicHealth8



⁵ Informing community engagement for Australia's infrastructure sector - Next Generation Engagement Project report (Pilot Phase) December 2017. http://www.nextgenengagement.org/wp-content/uploads/2017/12/Next-Gen-Report-DEC17-FINAL-1183fkq.pdf

⁶ Page 5, Guide to Co-Design with people living with disability. PurpleOrange. (2021). https://purpleorange.org.au/application/files/7416/2510/1861/PO-CoDesign_Guide-Web-Accessible.pdf

 $^{^7} IAP2\ Spectrum\ of\ Public\ Participation\ \underline{https://iap2.org.au/wp-content/uploads/2020/01/2018_IAP2_Spectrum.pdf}$

⁸ Source: VicHealth (Victorian Government) https://www.vichealth.vic.gov.au/-/media/ VLGP/20210520LeadingTheWay-1-2.pdf?la=en&hash=8AA1C95117F954136CDF5F088C29FE348A559CAB%20

Co-design vs. Deliberative Democracy

Deliberative democracy is a theoretical account of participatory and shared political decision-making. In the same way that co-design transformed design practice with an emphasis on engagement and participation, models of deliberative democracy and engagement look to deepen participation in political decision-making beyond traditional mechanisms like elections and consultation.⁹

Its proponents suggest that it is an approach that can increase trust in government and the public service.

Both consultation and deliberative democracy focus on increasing participation of the public (or citizens, or end-users, depending on the context) in the decision-making processes that affect them, a philosophy that is inherent to the co-design approach. However, one significant divergence between these approaches is the focus on the making and doing aspects of designing that are integrated into co-design. Co-design without design risks becoming "endless meetings without action". There are various techniques that can be useful in ensuring that 'design activity' takes place within the co-design engagement (rather than just lots of talking), some of which are discussed below.

Co-design as a method

Co-design vs. Human Centred Design or User Centred Design

There are a variety of design techniques for considering the experience of endusers, including established approaches such as Human Centred Design (HCD) and User Centred Design (UCD). In these approaches, technical experts or individuals within organisations use a variety of techniques to elicit user experience and opinion, preference and aspirations of the people who will use a product (e.g., a piece of public transport infrastructure) and relay this to a designer for incorporation into the design. What distinguishes this from a co-design approach is the active (rather than passive) involvement of the users themselves in the process, and the direct interaction between users and designers, without intermediaries. As Sanders and Stappers describe:

⁹ For a detailed discussion of the similarities and divergences between the Deliberative Democracy and Co-design approaches, see Co-design and Deliberative Engagement: What Works https://www.democracy2025.gov.au/documents/Democracy2025-report3.pdf

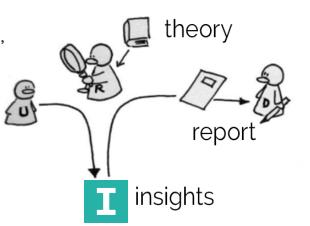




User Centred Design

In the classical user-centred design process, the user is a passive object of study, and the researcher brings knowledge from theories and develops more knowledge through observation and interviews.

The designer then passively receives this knowledge in the form of a report and adds an understanding of technology and the creative thinking needed to generate ideas, concepts, etc.



Co-design

In co-design, on the other hand... the person who will eventually be served through the design process is given the position of 'expert of his/her experience', and plays a large role in knowledge development, idea generation and concept development... The designer still plays a critical role in giving form to the ideas.¹¹

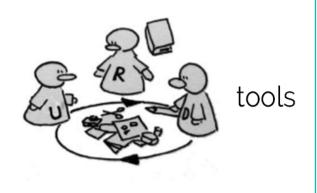


Figure 4: Illustration of the roles of User, Researcher and Designer in the 'classical' User Centred Design approach as compared with the co-design approach. (E. B. N. Sanders & Stappers, 2008).

Many HCD/UCD methods and techniques (such as journey mapping, mock-ups and prototypes) can and should be used in a co-design process, as they can both (1) elicit rich feedback in a way that discussions in meeting cannot and (2) sensitise all participants (including team members responsible for project delivery) to the needs of diverse users and the functional accessibility requirements. However, attention should be paid to the type of participation of users and the level of shared decision-making afforded to ensure that the philosophical foundations of co-design are maintained.

Co-design and frameworks for Design Innovation

The Design Council's Framework for Innovation uses the 'double diamond' methodology to articulate an iterative design process that allows for moments for both 'Divergent thinking' and 'Convergent thinking':

The two diamonds represent a process of exploring an issue more widely or deeply (divergent thinking) and then taking focused action (convergent thinking).¹²



¹¹ Page 11 Sanders, Elizabeth B-N., and Pieter Jan Stappers, (2008). Co-creation and the new landscapes of design. Journal of CoDesign, 4(1), 5-18 https://www.tandfonline.com/doi/full/10.1080/15710880701875068

^{12 &}quot;What is the framework for innovation? Design Council's evolved Double Diamond"

https://www.designcouncil.org.uk/news-opinion/what-framework-innovation-design-councils-evolved-double-diamond

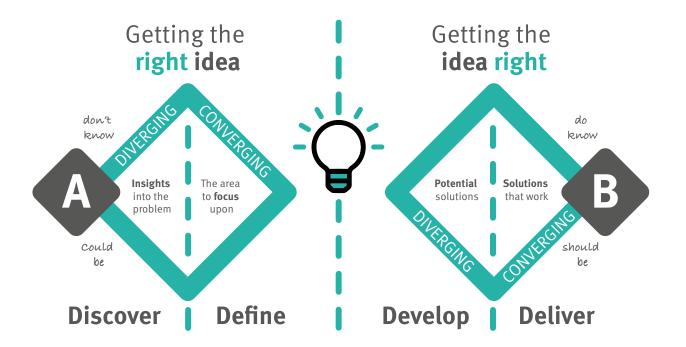


Figure 5: Visual representation of the 'double diamond' methodology¹³

This framing of moments of 'divergent' vs. 'convergent' thinking can be useful to articulate to all participants in the co-design process (both the project team/ technical experts and the experts by lived experience) when is the time for 'blue sky thinking', and when is the time for developing and refining ideas. This has been incorporated into the proposed timeline for the co-design process outlined in section 4 of this document.

Appendix E includes a number of examples of design approaches, methods and specific activities that can be adapted to support the co-design engagement approach.

1.2.4 A FRAMEWORK FOR QUALITY CO-DESIGN

The research team conducted a rapid literature review in response to the specific research question: 'What is best practice in developing a co-design process that engages people with disability in the development of public infrastructure?' We looked for guidelines on how to 'do' co-design and encountered several high-quality field guides from evidence-based grey literature, which provided a comprehensive set of recommendations.¹⁴

Within the literature, we have identified 19 variables that are indicators of quality in a co-design process, which we have organised into three categories: Representation, Process, and Outcomes.



¹³Source: https://openpracticelibrary.com/practice/double-diamond/

¹⁴The resulting evaluation criteria is indebted to three field guides from evidence-based grey literature, produced by Democracy25, the West Australian Council of Social Services (WACOSS) and The Australian Centre for Social Innovation (TACSI). A summary of each of these three documents in provided in Appendix B.

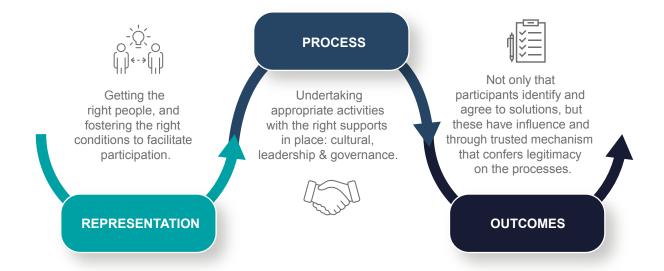


Figure 6: Characteristics of Quality Engagement

A list and description of each of these variables is outlined on the following page, and the full evaluation criteria, (including a rubric for measuring whether these variables are being fully, partially or not achieved) is listed in **Appendix B**.

CO-DESIGN QUALITY EVALUATION CRITERIA

Representation related variables

1a Inclusive representation

Comprehensive inclusion of a diverse range of affected people and professionals as co-design participants, both those who will use the product/services (and their families and carers as appropriate) as well as those who commission them. Special effort is made to involve people who are typically excluded from conventional engagement participation methods. (Who should be involved will vary depending on the context of the project).

1b Equality of all participants and recognition of experts by experience

All participants are equal partners, with solutions to be focused on product/service users. Lived experience and technical expertise are treated as being equally critical to an optimal outcome.

1c Knowledge partnering and mutual exchange

The professional knowledge of designers and technical experts is bought into dialogue with the lived experience of people with disabilities to facilitate mutual exchange that is more than consultation – characterised by direct, two-way communication between participants, without intermediaries and supported by appropriate contextual 'translation' where required.

1d Plurality and flexibility of engagement methods

The engagement approach is flexible, and makes participation and collaboration "accessible for people living with impairments and uses appropriate techniques to address any barriers that might prevent their participation".¹⁵

1e Cultural competency

Where possible, we work with people who are part of or in tune with their culture. We have co-design models created and delivered within different cultural worldviews.

1f Building lived experience capability

The host organisation invests in building the skills of people with lived experience to be active co-designers. Professionals are supported to check their power at the door and lived experience participants are supported to build their knowledge and confidence.

1g Relationships are cultivated/prioritised and based on respect and trust

There is an effective, facilitated process with freedom and safety to speak frankly so that issues can be genuinely addressed. Relationships between all participants are based on trust, respect, openness, and transparency, enabling meaningful participation and environment for different perspectives to be heard and supported.

Process related variables

2a Quality of process and methods

Appropriate selection of co-design methods and activities that are suited to the context and objectives of the project. The process of engagement moves beyond discussion of the issues and employs 'hands on' activities that test ideas that elicit rich learnings and valuable contributions from all participants.

2b Resourcing: Dedicated Facilitation and Convening

People who facilitate and convene co-design have dedicated time to do it (co-design facilitation isn't treated as an add-on to an otherwise full workload), and this role is not in conflict with any other roles they hold. Facilitators do not hold decision-making authority over project outcomes but are able to hold decision makers to account on behalf of the participants.



¹⁵ Page 71, Niels Hendriks, Karin Slegers & Pieter Duysburgh (2015) 'Codesign with people living with cognitive or sensory impairments: a case for method stories and uniqueness', CoDesign, 11:1, 70-82, https://doi.org/10.1080/1571082.2015.1020316

2c Resourcing: Financing the process

There is funding to run co-design projects and enable appropriate co-design activities to occur, including offering people with lived experience fair compensation for their contribution, and reimbursement of expenses incurred as part of their participation (which will vary according to each participant's circumstance, but may cover travel costs, meals, childcare, support worker/carer costs, printing, etc).

2d Timely Inclusion

Co-design participants (affected people and professionals as outlined in 1a) are engaged at the outset prior to critical decisions being made and are offered opportunities to be involved throughout all stages of the design and deliberation process, especially where critical decision making occurs.

2e Clarity of purpose, scope, and parameters of the co-design

There is shared clarity of the common goal(s) and anticipated outcomes, what is negotiable or not, the timeframes for participant input and the expectations for each participant's contribution. The host organisation is transparent with regards to potential constraints or limitations they may face in responding to recommendations that arise. Decision making processes are transparent.

2f Iterative process & ongoing commitment

The co-design process is treated as an iterative process that develops over time, with a culture of learning through prototyping, testing and refining. Time is spent understanding a challenge (which may take multiple feedback loops) before rushing to a solution.

2g Institutional culture

There is explicit permission and on-going support from the highest levels of the host organisation to undertake co-design, and engaging lived experience experts through co-design activities is seen as a critical part of delivering successful outcomes (rather than an addition to the 'business as usual' approach).

Outcomes measures

3a Agreed Solution or Recommendations

Participants agree upon or endorse a final set of solution(s) or recommendations that come out of the co-design process, are involved in deciding on priorities for action, and understand the criteria through which decision makers will assess the recommendations inside or outside the host organisation (where applicable).

3b Transmission

Transmission of co-design outcomes (including participant generated recommendations) to formal decision-making bodies.

3c Consequentiality

Defined as decision-making bodies accepting and acting on participant generated recommendations.

3d Legitimacy

Participants trust the legitimacy of the co-design and engagement process and its ability to influence decision-making and effect change.

3e Accountability

Decision-makers maintain accountability and transparency with co-design participants, with any subsequent decisions made (following closure of the co-design process) shared with the participants through a feedback loop, with a clear statement of how their recommendations were considered.

1.3 INTEGRATING CO-DESIGN INTO STANDARD DELIVERY PROCESSES USED IN THE TRANSPORT SECTOR

1.3.1 PROCUREMENT METHODS AND CONTRACTUAL MODELS

The delivery models used for the delivery of public transport infrastructure in Queensland, as outlined in the Department of Transport and Main Roads' *Transport Infrastructure Project Delivery System*, are:

Design and then Construct ('Traditional' Contract Type)

The department prepares a design brief, engages a consultant to develop a detailed design the project documentation. The contractor is engaged to undertake construction only.

Design and then Document and Construct (Novated Design and Construct)

The department develops the design of the project well beyond the concept stage, which is then novated to the contractor, allowing the department greater control over the end product. The contractor is engaged to take over responsibility for design and undertake construction.

Design and Construct (D&C)

The department enters into a lump sum contract with a single entity that is responsible for both design and construction of the project. The Contractor warrants that the design and completed works comply with the Scope of Works and Technical Criteria (SWTC) and are 'fit for purpose'. The Principal (the department) does not control the design development process.

• Design, Construct and Maintain (including Public Private Partnerships (PPP))

The department engages the Contractor to undertake the design, construction, and assume responsibility for maintenance for a significant period of time. A PPP is a long-term contractual arrangement and involves the private sector parties across the full spectrum of the infrastructure's delivery – planning, design, construction, operation and maintenance.

• Alliance Contract¹⁶

An alliance contract is an agreement to work cooperatively on the basis of sharing project risk and reward, to reach agreed outcomes. A two-stage tender process is utilised, with the preferred party selected before the price is bid. Evaluation criteria are developed to ensure transparency in the selection process. Alliances are effective where a strategy of embracing risk is more appropriate than transferring risk.¹⁷

Note: see Appendix F for a detailed overview of these delivery models and associated contract types.

Design Risk (and responsibility)

Assignment of both the risk and responsibility for the design changes in each of the delivery methods, as illustrated below. Similarly, the 'ownership' of the design development process passes from the Principal (the department) to the contractor. The higher the design risk to the contractor, the more limited the opportunity for the department to mandate the input or incorporation of feedback from an accessibility reference group while the design is progressed, potentially constraining the contractors' ability (or willingness) to integrate feedback.

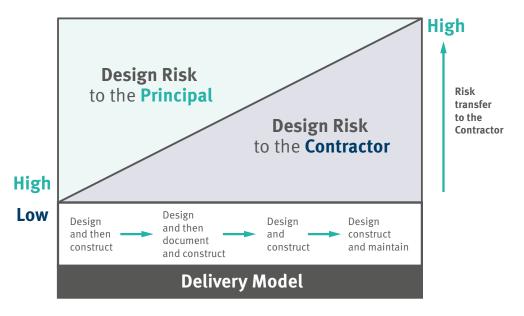


Figure 7: General relationships between delivery model and design risk transfer¹⁸



¹⁶ This contract type is not outlined in the Department of Transport and Main Roads' Transport Infrastructure Project Delivery System, however it is a contractual model that is used for the delivery of large-scale projects and should be considered in this toolkit

¹⁷ Source: Main Roads "Connecting Queensland: Contracts" information sheet, 2009 http://www.tmr.qld.gov.au/~/ media/busind/businesswithus/Public%20Private%20Partnerships/contractsjanuary2009.pdf

¹⁸ Source: Transport Infrastructure Project Delivery System: Manual Volume 1 (Selection of Delivery Options) - October 2020, page 21

Relationships

Similarly, the relationships between the principal, contractors and sub-contractors also vary across each procurement model.

In general, as the degree of complexity and unknowns increases, the success of the project is influenced more by the relationships between all of the parties involved. In the delivery of any infrastructure project, relationship management will provide benefits to both the department and the contractor.¹⁹

In the D&C or DCM/PPP delivery models outlined above, success is "measured by three primary factors:

- 1. being on budget;
- 2. on schedule, and
- 3. able to fulfil expectations,"²⁰ meaning that the contractual agreement between the department and the contractor may actually discourage or disincentivise the contractor from undertaking a higher than expected level of engagement (or incorporating feedback that comes out of the engagement process) if it is not stipulated in the contract.

An example of this is related to designing for compliance with accessibility legislation and standards, as opposed to designing for a best practice, functional outcome (which may necessitate proving compliance through a DSAPT equivalent access process, rather than through technical compliance, requiring more work from the contractor).

Implications

This has significant implications for the incorporation of a co-design approach into the delivery of public transport infrastructure delivered under any of the above models:

- Regardless of the delivery method, it is critical that the co-design process commences prior to the moment where design risk and responsibility pass to the contractor.
- 2. It is important to identify at the outset of the procurement process what the expectations are of contractors regarding the integration of the co-design process to ensure that allowances are made in the tender submission, and to avoid a situation where the opportunity for 'early, genuine'²¹ consultation is eliminated due to contractual constraints.
- 3. Mechanisms for achieving compliance with accessibility legislation and standards (relevant to the context of the project) and expectations for the contractor's engagement with the co-design group with regards to identifying best practice functional accessibility outcomes must be outlined during procurement stage, rather than after contract award.



¹⁹ ibid., page 27

²⁰ibid., page 43

²¹Forde, M. (2018). New Generation Rollingstock Train Commission of Inquiry: Final Report.

1.3.2 APPLYING A CO-DESIGN APPROACH TO PUBLIC TRANSPORT INFRASTRUCTURE

While there are various frameworks and toolkits for co-design, there is little available that speaks directly to the process of designing significant large-scale public infrastructure, in which the investment and thus the stakes and risk can be much higher than in other contexts. As the design of the final product moves across the typical developmental stages of a major public infrastructure project (from project initiation and planning stages, through the business case and options analysis stages to design development, procurement to construction and ongoing operation), the enabling constraints change and the opportunity to contribute design innovations reduces. As noted in the Next Generation Engagement project:

Community engagement needs to be better integrated throughout the project lifecycle.²²

The recommendations that follow for the development of a toolkit for co-design in public transport infrastructure are structured around the typical stages of public transport infrastructure project development.

1.3.3 INTEGRATION INTO EXISTING PROJECT DELIVERY METHODS AND FRAMEWORKS

In attempting to outline a typical process for incorporating co-design into the delivery of public transport infrastructure, we have taken the following project delivery methods and frameworks into consideration:

- The OnQ Project Management Framework developed by the Department of Transport and Main Roads for use in all DTMR projects.²³
- The Project Assessment Framework developed by The State of Queensland (Queensland Treasury) to assess projects throughout the project lifecycle, intended for all projects involving the acquisition, maintenance or improvement of significant assets.²⁴
- The Gateway review process, an independent review process developed by The State of Queensland (Queensland Treasury) to examine major programs or projects at key decision points.²⁵

These four frameworks have been integrated into the project chronology that is outlined in a visual format in the following section, with an overlay of the co-design engagement activities required at each project stage.



²² Informing community engagement for Australia's infrastructure sector - Next Generation Engagement Project report (Pilot Phase) December 2017 http://www.nextgenengagement.org/wp-content/uploads/2017/12/Next-Gen-Report-DEC17-FINAL-1183fkq.pdf

²³ OnQ project phases adapted from *Transport Infrastructure Project Delivery System: Manual Volume 1 (Selection of Delivery Options) - October 2020*, page 3 https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TIPDS/Volume-1

²⁴ Project Assessment Framework: Policy Overview (July 2015) https://s3.treasury.qld.gov.au/files/paf-policy-overview.pdf

²⁵ Gateway Review Process guidelines (May 2017) https://www.treasury.qld.gov.au/resource/gateway-review-process-guidelines/



Part 2 A proposed outline of the co-design process

2.1 TYPICAL PROJECT TIMELINE WITH ENGAGEMENT OVERLAY (TRADITIONAL CONTRACT)

In order to effectively incorporate a co-design approach into project delivery, it is important that it is identified as early as possible, and that planning is undertaken to ensure that the appropriate activities occur at each stage of the process. This will necessarily require an articulation of what co-design looks like in relation to each of the delivery methods (and associated contractual models) outlined earlier.

To this end, the following pages offer an articulation of what a co-design process integrated into a 'traditional' contract would look like.

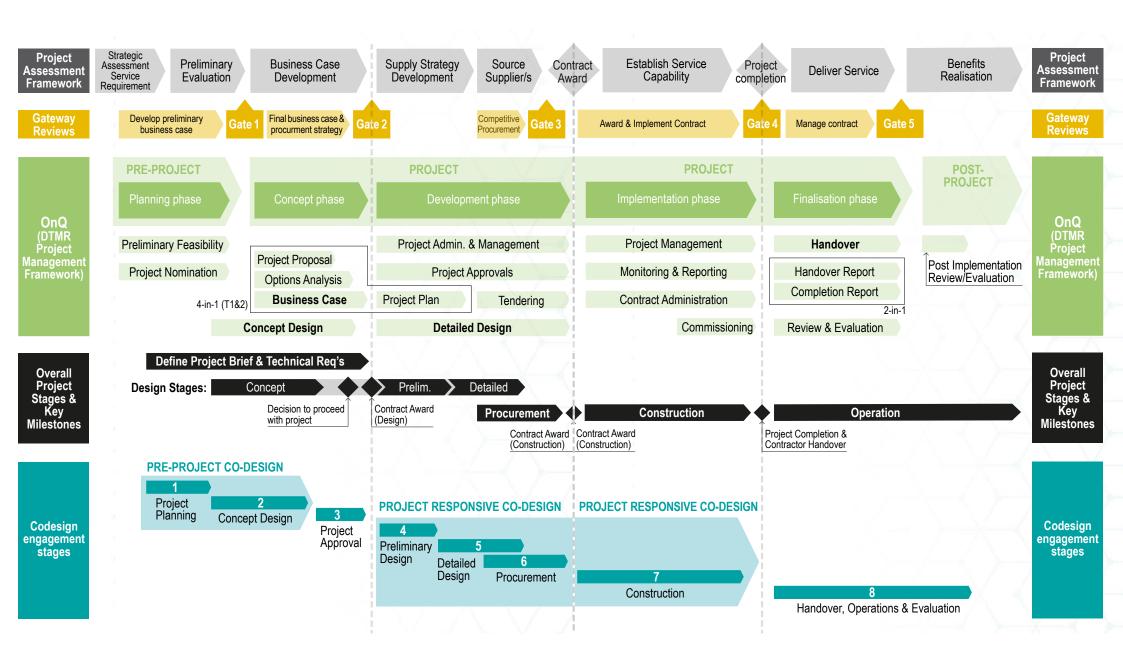
Stages 1 and 2 of the co-design engagement comprise the Pre-Project co-design phase (outlined in chapter 1.3), and stages 4 to 7 comprise the Project Responsive co-design phase. Within these 8 stages, it is stage 2 and 4 that are the high intensity stages, where a targeted and focussed co-design engagement occurs in parallel with the critical stages of establishing the reference design, scope and technical requirements (stage 2) and the design development process (stage 4).

A visual summary of the chronology of the proposed co-design engagement stages (as applied to a traditional contract) is provided on the following pages. This is also cross-referenced with the staging of the different project management frameworks outlined in the previous chapter.

Following this is a description of the focus of each of the proposed co-design engagement stages (as applied to a traditional contract) is provided. This includes detailed overview of stages 2 and 4 which are characterised by high intensity collaboration between the different stakeholders in the co-design group.

Notes:

- It is recommended that a version of this co-design timeline be developed for each
 of the typical contract types / procurement methods regularly used in the delivery
 of large-scale public transport infrastructure.
- The following timeline outlines an 'ideal' scenario where co-design planned for and integrated into the project from its initiation. It is important to note however that where this is not the case, there is still value in incorporating a co-design approach (or aspects of the approach), and the steps outlined can and should be modified to suit the timeline and relative progression of the project.



Framework	Stage					
Project Assessment Framework	• Strategic Assessment Service Requirement • Preliminary Evaluation	Business Case Development	Supply Strategy DevelopmentSource Supplier/sContract Award	Establish Service CapabilityProject completion	Deliver Service	Benefits Realisation
Gateway Reviews	• Develop preliminary business case • Gate 1	• Final business case & procurement strategy	• Competitive Procurement • Gate 3	• Award & Implement Contract • Gate 4	Manage contract Gate 5	
OnQ (DTMR Project Management Framework)	PRE - PROJECT: Planning phase • Preliminary Feasibility • Project Nomination	PROJECT: Concept phase Concept Design Project Proposal Options Analysis Business Case	PROJECT: Development phase Detailed Design Project Admin Management Project Approvals Project Plan Tendering	PROJECT: Implementation phase Project Management Monitoring & Reporting Contract Administration Commissioning	PROJECT: Finalisation phase • Handover • Handover Report • Completion Report • Review & Evaluation	POST - PROJECT • Post Implementation Review/ Evaluation
Overall Project Stages & Key Milestones	• Define Project Brief & Technical Requirements	 Concept Design Stage Decision to proceed with project Contract Award (Design) 	 Preliminary Design Stage Detailed Design Stage Procurement Contract Award (Construction) 	 Construction Project Completion & Contractor Handover 	Operation	Operation
Codesign engagement stages	PRE-PROJECT CO-DESIGN: 1: Project Planning	PRE-PROJECT CO-DESIGN: 2: Concept Design 3: Project Approval	PROJECT RESPONSIVE CO-DESIGN: 4: Preliminary Design 5: Detailed Design 6: Procurement	PROJECT RESPONSIVE CO-DESIGN: 7: Construction	8: Handover, Operations & Evaluation	8: Handover, Operations & Evaluation

2.2 OVERVIEW OF PROJECT CO-DESIGN STAGES

Pre-project co-design

Stage 1: Project Planning

Preparation for the engagement to occur in subsequent stages:

- Determine timing of co-design engagement.
- Consolidate knowledge base to be built upon relevant to the context of this project.
- Tap into previous working groups, identify key accessibility representatives to be involved in planning stage.
- Identify key accessibility concerns for this project.
- Establish codesign group and project team / facilitators for stage 2. (May be a different group to later co-design stages).

Stage 2: Concept Design

High intensity collaborative design process during business case development, options analysis and concept design stage between:

- Accessibility representatives (representative codesign group).
- Designers (responsible for design options and generation of finalised base/ reference design).
- Project Team (responsible for Business Case and Options Analysis).
- Organisational stakeholders (responsible for network integration).

This stage commences with an articulation of key accessibility priorities and concludes with group endorsement of the project brief and technical requirements and a finalised base / reference design for inclusion in the business case.

Refer to detailed view below and breakdown on the following page:

Detailed View – Accessibility Co-Design Phase 2: Concept Design

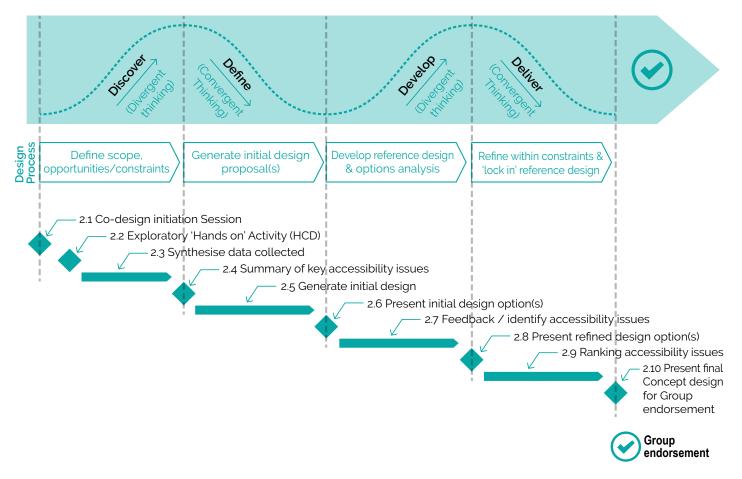


Figure 9: Detailed view of accessibility co-design activities in Concept Design stage

Stage 2: Detailed breakdown of suggested Accessibility Co-design activities in Concept Design stage

- 2.1 Co-design initiation session: Concept Design Stage
 - Introduction of all members (icebreaker).
 - Identify objectives and scope for co-design.
 - Overview of project stages and identify focus of this stage.
 - Briefing for Exploratory activity (2.2).

2.2 Exploratory 'hands on' activity (HCD)

Selection of appropriate hands-on activity using Human Centered Design methods (or similar) appropriate to context of the project. Note: there is no design produced at this stage - exploratory activity occurs prior to 'putting pen to paper'.

2.3 Synthesise data collected

Project team lead workshop(s) to synthesise outputs from exploratory activity, summarise key learnings for accessibility relevant to the project.

2.4 Summary of key accessibility issues

Presentation of above to group for endorsement, identification of gaps, etc. Ideally should occur shortly after hands on activity and inform the generation of initial design ideas by the design team.

2.5 Generate initial design (Design team)

2.6 Present initial design option(s) (Design team to whole group)

2.7 Group feedback / identification of accessibility issues

Comprehensive discussion(s) of the accessibility of the proposed solution for all cohorts ('blue sky thinking', all issues put on the table) (May occur over multiple sessions, depending on project scope / detail.) Followed by project team and design team to look into feasibility and impacts of the issues raised.

2.8 Present refined design option(s) (Design team and Project team)

2.9 Ranking accessibility issues

Group feedback and ranking / prioritisation of issues + Identification of issues to be addressed during Preliminary and Detailed design stages. (May occur over multiple sessions) Issues should be filtered into four (4) categories:

- 1. Items that can / will be incorporated into the design
- 2. Items that may be able to be incorporated but require further investigation or feasibility
- 3. Items that cannot / will not be incorporated into the design
- 4. Items that are not able to be determined or defined at this stage of the project and should be re-investigated in future stages. (Note: this category only applies to issues that will not be 'designed out' by other decisions made at this stage of the project). Followed by design team development of a final design solution.

2.10 Present final Concept Design for group endorsement

Revisit earlier categorisation of issues and identify which issues are / are not incorporated.

2.11 Group endorsement:

- 1. Finalised Concept Design.
- 2. Items to be defined in future project stage(s).

Stage 3: Project Approval

This may be a low activity period, and the project may be on hold for periods of time with no activity.

Ad hoc activities include:

- Regular progress updates to group.
- Accessibility rep's involved in tender review process (design contract).

Upon confirmation of project advancement:

- Consultation regarding any deviation from previous stage's endorsed outcomes.
- (Re)establishment of codesign group for following stage and identification of engagement activities*.

Project responsive co-design

Stage 4: Preliminary Design

High intensity collaborative design process between:

- Accessibility representatives (representative codesign group).
- Designers (may be different team to Concept Design Stage).
- Project Team (responsible for project management and delivery).
- Organisational stakeholders (responsible for operation and network integration).

This stage concludes with: group endorsement of preliminary design and identification of issues to be addressed in following stage; identification of priority accessibility outcomes and integration into contractor KPIs.

Refer to detailed view below and breakdown on the following page:

Detailed View - Accessibility Co-Design Phase 4: Preliminary Design

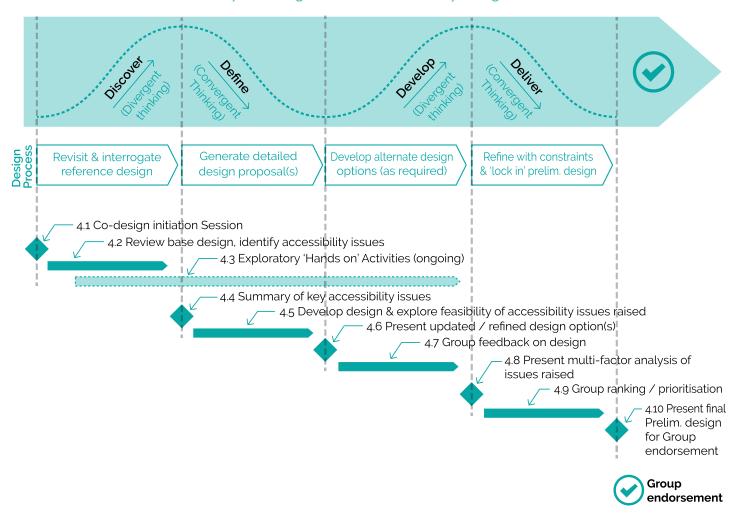


Figure 10: Detailed view of accessibility co-design activities in Preliminary Design stage

Stage 4: Detailed breakdown of suggested Accessibility Co-design activities in Preliminary Design stage

4.1 Co-design initiation session: Preliminary Design Stage

- (Re)introduce members (icebreaker)
- Overview of project timeline and identify the primary focus of this stage
- Summarise outcomes of previous co-design stages revisit issues previously identified to be addressed/developed during Pre-project and co-design stage (especially important if new design team)
- Overview of Base/Reference design

4.2 Detailed review of base design & project brief:

Group feedback and identification of key accessibility issues ('Desirable items') May occur over multiple sessions.

4.3 Exploratory 'hands on' activities (ongoing)

Selection of appropriate activities for this stage (as appropriate to project context and the key accessibility issues identified by the group).

4.4 Summary of key accessibility issues identified by group

Summarise all accessibility issues raised in review of base design (and in exploratory activities), presentation to group to identify gaps / missing items. Collective identification of priority items to be addressed by design team and project team moving forward in refining the design.

4.5 Develop design and explore feasibility of accessibility issues raised by group ('Feasible items')

Explore feasibility of incorporating the key issues raised by the group - Design team explore technical feasibility, legislative compliances, etc. Project team explore network integration, impacts on organisational stakeholders, etc. Both teams to review budget impacts.

4.6 Present updated / refined design option(s) (Feedback loop)

Design team to provide updated design with initial feedback regarding feasibility of integrating accessibility issues.

4.7 Group feedback on design (Feedback loop)

(Note: steps 4.6 and 4.7 may occur over multiple sessions, depending on project scope and complexity).

4.8 Present multi-factor analysis of issues raised

Project team presents multi-factor analysis of all accessibility issues identified by group, articulating the impact that incorporating each issue would have on project delivery (e.g.: budget impacts, network wide implications, timing and delivery, impacts on stakeholders, likelihood of being implemented.) Items should be filtered into four (4) categories:

- 1. Low impact items that can/will be incorporated into the design with low impact to project delivery
- 2. Moderate impact items that may be able to be incorporated but require further investigation or feasibility, or have cumulative impacts
- 3. High impact items that cannot/will not be incorporated
- 4. Undetermined impact items that are not able to be determined or defined at this stage of the project and will be re-investigated in future stages. (Note: this category should only apply to issues that will not be 'designed out' by decisions made at this stage).

4.9 Group ranking / prioritisation

An informed, collective decision-making process based on understanding of constraining factors: members review the impacts of each item and assess which items are highest and lowest priority when taken across the needs of all cohorts using a transparent, participatory decision-making or ranking method (appropriate to the group and the project context). Outcomes inform development of the detailed design.

4.10 Present final Preliminary Design for group endorsement

4.11 Group endorsement:

- 1. Finalised Preliminary Design
- 2. Items to be defined in future project stage(s)

Stage 5: Detailed Design

Ongoing collaboration focussed on refining the design and construction documentation in preparation for procurement.

Continued engagement with group regarding:

- 1. Implementation of outcomes of previous codesign stage
- 2. Refinement of detail design items identified during previous stages (may include fixtures and fittings, signage, finishes, etc) through exploratory / hands on activities.

The detailed design stage includes the group's endorsement of a finalised design for construction.



'Issued for Construction' milestone

This is the point at which the final set of documentation of the design (drawings and specifications) are 'issued for construction' by the contractor for approval by the Principal/client – following this, any changes to the design will attract a variation to the contract and may consequently effect on-time delivery and budget.

At this stage it is important to:

- Conduct 1-on-1 feedback sessions with all members of the co-design group to close the feedback loop. Suggested format:
 - Provide an update on design outcomes.
 - Present a comprehensive list of individual member feedback received through the engagement to date, and note where and how items have or have not been integrated into the final design.
 - Provide an opportunity for members to comment or ask questions relating to their feedback and project outcomes.
- Conduct an assurance check of the final documentation prior to sign-off, to review what feedback has been integrated, and confirm that all of the agreed-upon items are reflected in the final version of the design.

Following this:

- Ongoing engagement regarding issues outside scope of construction contract such as customer interface and network integration (dependent on project context, this may include comms systems, software, etc).
- Ongoing monitoring to ensure implementation of agreed outcomes from previous co-design stages.

Stage 6: Procurement

Ad-hoc activities include:

- Regular progress updates to group.
- Accessibility representatives are involved in the tender review process (construction contract).

Stage 7: Construction

Construction Initiation

Construction stage briefing meeting and presentation of key accessibility priorities to contractor team by codesign group. Attendees:

- Accessibility representatives
- Designers
- Project Team (responsible for contract management)
- Contractor representatives (responsible for construction management and quality assurance)

Ongoing During Construction Stage

Ad-hoc activities during this stage:

- Regular progress updates to group.
- Ongoing monitoring of the implementation of accessibility outcomes.
- Ongoing engagement regarding customer interface and network integration.
- Testing infrastructure and operational scenarios prior to opening.

Construction Completion

Identify opportunities for (and feasibility of) codesign group inspection of site at defects inspection stage, prior to the practical completion (contract milestone) and handover.

This should be assessed with group based on the physical accessibility of the construction site - if not possible, live video walkthroughs are an alternative method.

Stage 8: Handover, Operations and Evaluation

- Site inspection with group.
- Group celebration activity (on site?).
- Group involvement in public outreach activities engagement with different accessibility cohorts. (Opportunities identified for group members to co-lead these sessions).
- Project evaluation session (review codesign process, identify lessons learnt and opportunities for improvement in future projects).
- Consolidate and document co-design process and outcomes, and feedback into the central knowledge repository.



Part 3 On the ground: Facilitating the co-design process

Undertaking a co-design process over the course of a project requires significant planning, skilled facilitation and a commitment to resourcing the process. The following section outlines some of the considerations required in planning for and undertaking a co-design process and recommends a series of 'tools' required in the future development of a toolkit. Some suggestions and examples are provided, but this list is not exhaustive.

Preliminary note regarding the timing of engagement process

Ideally, the co-design process will begin during the pre-project stage, as outlined in the timeline in part 2. This should avoid 'locking in' accessibility challenges, and/or the requirement for late-stage re-work of the design. However, even where this has not occurred, there are still tangible benefits in commencing a co-design engagement at any point during the project. If this is the case, it may mean that the focus is on the co-design of bespoke elements of the project (rather than the project as a whole).

3.1 DETERMINING THE APPROPRIATE ENGAGEMENT APPROACH

Actions required at the outset of a project, when considering whether incorporating a co-design approach will be beneficial and feasible.

Define:

- The type of engagement
- The scope of the co-design process
- The target participants



Tool required:

Decision making flow chart for defining type of engagement approach best suited to the context of the project. Examples below.

Additional resources:

Case studies of successful co-design processes across the transport sector, including testimonials from a variety of individuals involved (from different stakeholder groups).

Example 1: Deciding if co-design is right for you

It is important to be honest about the level of engagement that can be achieved and if co-design is right for what you are planning. There will be times when co-design is not the best approach. Examples may include:

- an outcome has already been pre-determined
- a project that is time-critical
- it is not possible to obtain the relevant lived experience expertise
- resources to conduct co-design are not available.

It may be that an approach using consultation without co-design is more appropriate. (Source: Inclusive SA²⁶)

Example 2: Guide to Inclusive Community Engagement²⁷

Resources developed by The Policy Project and IAP2 Australasia for the New Zealand Government to support for choosing the right engagement methods to support the public sector undertake effective planning for community engagement at each level of the IAP2 Spectrum of Public Participation.

The following resources were developed to support the public sector increase the level of community engagement and select appropriate approaches. Of particular relevance to this toolkit are resources 4 and 5 below:

- 1. Good Practice Guide for Community Engagement
 A guide for policy advisors on good community engagement practice, including
 at each level of the IAP2 Spectrum of Public Participation.
 www.dpmc.govt.nz/publications/good-practice-guide-community-engagement
- 2. Principles and Values for Community Engagement A guide for government agencies and policy advisors on principles and values for good community engagement in policy making. www.dpmc.govt.nz/publications/principles-and-values-communityengagement
- 3. Getting Ready for Community Engagement
 A guide for government agencies on building capability and readiness for community engagement.

 www.dpmc.govt.nz/publications/getting-ready-community-engagement



 $^{{\}tt ^{26}Inclusive~SA~https://inclusive.sa.gov.au/resources/state-authority-resources/consultation-and-engagement-with-people-living-with-disability/extending-engagement-to-co-design}$

- 4. Community Engagement Design Tool
 - A tool to help policy advisors identify the level on the IAP2 Spectrum of Public Participation most appropriate for a specific policy project.
 - www.dpmc.govt.nz/publications/community-engagement-design-tool
- 5. Selecting Methods for Community Engagement
 - Resources to help policy advisors choose the right engagement methods to support good engagement planning.
 - www.dpmc.govt.nz/publications/selecting-methods-community-engagement
- 6. Guide to Inclusive Community Engagement

A guide for government agencies and policy advisors on inclusive community engagement in policy making.

www.dpmc.govt.nz/publications/guide-inclusive-community-engagement

3.2 PREPARING FOR THE CO-DESIGN PROCESS

Actions required once a decision is made to incorporate a co-design approach, and prior to concept design commencing.

Identify project timeline and key milestones

Outline the timing of the co-design process relative to project development stages, the delivery method selected and associated contract type.



Tool required:

Co-design timeline template (see previous section of this document).

Identify resourcing required

People	• Facilitation of the co-design process – how intensive will the co-design facilitation workload be? Who will run this, and do they have the capability to do so? Do they have time available within their current workload?
	• Governance administrative requirements – who will be responsible for reporting to the various governance bodies within the host organisation and/or across stakeholder organisations (e.g., preparation of briefing notes, presentations, etc)
	Ongoing monitoring – once the high intensity engagement stages are concluded, who will monitor the project's development, identify the processes required to implement recommendations, and work with contractors and institutional stakeholders to ensure codesign recommendations are implemented?
Activities	What costs are associated with the activities that will occur?
Finances	• Does the project budget cover the costs of the above items and renumeration of participant's time?

Identify who needs to be involved in the co-design process

(Whether directly participating in the core co-design group, or those being updated or monitoring progress.)



Tool required:

Project context mapping tool (for identifying potential co-designers) - Example of content below.

Example: Project Context Mapping Tool

STEP ONE:

Map and identify all users likely to be affected by the project and involved in project delivery, specific to the context of the project - aiming for a targeted recruitment of individuals that are representative of the likely future users.

Preliminary considerations:

- Geographic location and 'local' users
- Is there a higher representation of particular user cohorts that use this piece of infrastructure (now or in the future)?
- Are there any user cohorts that will be particularly affected by this project?

Disability sector

- Disability advocacy organisations AND independent (unaffiliated) individuals
- Advocates/representatives AND people with lived experience (Caution re: involving only advocates as proxies for people with lived experience)
- Individuals with longstanding relationships with DTMR (and associated organisations) AND individuals newer to this. There are two reasons for this:
 - transfer of knowledge and capacity building within the sector
 - creates a mix of 'super-users' (who have longstanding experience with advocacy and/or engagement processes, deep knowledge of the sector and institutional / legislative / industry context) and 'regular Joes' (who may be a closer representative of the typical user cohort that will use the infrastructure)

Host organisation - Leadership

- Who within the senior management or leadership team are supportive and will advocate for the increased level of engagement regarding accessibility?
 - Is there someone within the project executive team that can act as the champion for the accessibility engagement (this does not necessarily need to be the main focus of their role, but it is useful to have someone within the leadership team that is aware of what is occurring within the accessibility engagement, and tracking progress relative to the overall project objectives, KPIs and timelines.)
 - It is important that there is not only a mandate to 'do' co-design, but also a level of acceptance amongst the project leadership team that the accessibility co-design process may result in some changes to the design (and hence the importance of early engagement).

If this is not understood and accepted, is it appropriate to frame the engagement as 'co-design'? Or is another form of engagement a more appropriate way to proceed? (Refer to section *5.1 Determining the appropriate engagement approach*)

Host organisation – Project team

- Who will facilitate the engagement?
 - Individual(s) in this role should not hold decision-making authority over project.
 - Must have time made available within their workload to 'do' the facilitation.
 - Consider personality type(s) for this role (critical). They will be the main point
 of regular contact for participants and are responsible for maintaining the
 relationship.
 - Equally, this role needs to be well supported they should have the ability to escalate issues within the host organisation and act as the advocate for the co-design participants in ensuring the issues they raise are appropriately considered and responded to, or that commitments made are actioned. (If the participants sense that this person does not have this authority within the host organisation, there is a risk that the co-design process will be perceived as tokenistic).
 - Consider the administrative and governance duties required (preparation of briefing note, presentations to executive groups and project leadership, etc).

- Consider the ongoing monitoring required during and after the high intensity periods of the accessibility engagement: effective implementation will require ongoing review of the project's progression to ensure that key outcomes of the accessibility engagement (agreed upon with stakeholders) are delivered.
- Who are the individuals who are responsible for making decisions about the project scope and what does/doesn't get included in the project?
- Who are the individuals who monitor the project budget?
- Who are the individuals who interact with or oversee the contractors?
- Who oversees compliance with legislation?
- Who oversees consistency across network / compliance with stakeholder requirements/standards?

Organisational stakeholder(s)

• Are there other stakeholders who retain authority over decision making about aspects of the project? (e.g., other State Government agencies, QR, DTMR, Translink, Local Government(s), etc).

Contractor(s)

- Who is responsible for the design? Is it a consultant engaged by the department of the contractor? (See earlier discussion of delivery methods and associated contract types).
- Who is responsible for managing project scope and budget (contractor side)?
- Who is responsible for managing project compliance with relevant legislation, guidelines, etc (contractor side)?

STEP TWO:

Establish the ideal number of people to be involved and 'triage' accordingly:

- Who is the core nucleus that needs to be involved in the co-design process?
- Who is a larger group that needs to be aware of progress and outcomes of the co-design process?
- Who are the individuals that need to come in at key moments for input but aren't required ongoing?

This then begins to inform the appropriate governance structures that need to be put into place.

Outlining appropriate Accessibility Governance structure(s)

- Identify best format(s) for formalising participation in the co-design engagement (Reference Group, Steering Committee, etc)
 - Draft Terms of Reference
 - Recruitment strategies
- Identify relationship between the Accessibility Governance body/bodies and other governance bodies that oversee the project.

Additional Resources: Case studies of previous projects, examples of documents, Terms of Reference, Recruitment strategies, etc.

Undertake an audit of your organisation's mindset

- What are the primary objectives of the project?
- Do views on the importance of accessibility vary across your organisation's hierarchy?
- Is there high-level support from leadership to embed a genuine 'co-design' approach?
- How much influence will the accessibility engagement realistically have on the project outcomes?
- Who makes critical project decisions, and how?
- Has your organisation undertaken engagements with the disability sector before? How successful were they?
 - How satisfied were the participants with the outcomes of previous engagements?
 - In previous engagements with the disability sector, was your organisation primarily engaged with people with lived experience of disability, or professional advocates?
- Are there people within your organisation with experience of facilitating accessibility engagements?

Additional Resources:

TACSI "Maturity rubric for innovation" (See **Appendix G**).



Tool Required:

Tool to support leadership advocacy and a high-level mandate for co-design.

Establish a 'body of knowledge' to support the accessibility engagement in the project

- What guidelines exist? These may be internal (e.g., the QLD Public Transport Infrastructure M annual (PTIM), QR station design guidelines, etc) or general (Guidance documents for universal design of transport, etc.
- What accessibility legislation is applicable to the project, and what are the interactions (or contradictions) between them?
- What are the mechanisms for demonstrating compliance?
- What are the accessibility issues that frequently arise with this type of infrastructure or in projects from a similar context? (Review complaints data, etc)
- What previous engagement with the disability sector has occurred that is relevant to the context of this project?
 - What was the type of engagement process, what methods were used, and what were the outcomes?
 - What recommendations from the engagement were able to be integrated into the final outcome? What recommendations were not (and why)?
- Review the 'lessons learnt' from previous projects early
 - What frameworks, guidance documents and process documentation exist from these previous projects?



Tool Required:

Centralised repository of information relating to accessibility in public transport (across all state government organisations)

See discussion of an 'Organisation-Wide Culture of Accessibility' outlined in **Appendix A.** Note upon conclusion of all major projects, the documentation of your project (process, outcomes, guidance document and frameworks developed, etc) should be included in the central repository to contribute to continual improvement).

Strategic alignment with institutional partners

- Identify the broad strategic objectives of the institutional partners or stakeholders (e.g., other agencies within the QLD public transport sector) who are likely to be affected by the project outcomes or have input into project decision making
 - Identify constraining factors that may affect their ability to endorse outcomes of the co-design engagement (and be transparent about these constraining factors with participants when undertaking the co-design engagement)

- Identify key individuals from within these stakeholder organisations to collaborate with during the co-design engagement
- Understand the accessibility challenges and opportunities that face each stakeholder group or agency and review the outcomes of previous engagements they may have undertaken.

Additional Resources:

Case studies of previous projects or engagement undertaken by institutional partners and/or any relevant internal guidelines, etc.

Identify types of exploratory 'hands on' activities that will be useful to the context of your project



Tool Required:

Co-design activity selection tool.

This tool should have a detailed suite of human centred design and service design methods, workshopping and interactive/collaborative meeting techniques, and examples of what types of 'hands on' or 'exploratory' activities would be suited to particular types of hypothetical projects, and case studies of how these activities/methods/techniques were used in other projects.

Additional Resources:

For some examples of the types of design methods available, see **Appendix E**.

Reimbursement / renumeration strategy

- Identify the type of contribution being made by participants: Do they have knowledge, expertise or experience that is valuable to the project and is beyond that of a typical community member?
- How much time is expected that they will contribute, including preparation before and after formal sessions?
- What costs are they likely to incur over the course of their participation?
- For salaried employees of disability advocacy organisations, what is the funding model of the organisation?
- Note: the renumeration strategy should allow flexibility to suit each individual's needs and preferences. (Some individuals may not wish to receive cash payment and may prefer alternate methods such as gift cards – it is important that they are given a choice and that this is determined by the individuals rather than the host organisation.)

Additional Resources:

Health Consumers Queensland Position Statement for the Remuneration and Reimbursement of Consumers:

https://www.hcq.org.au/wp-content/uploads/2015/12/Consumer-Remuneration-Rates-Dec-2015.pdf



Build the co-design team

Recruiting and engaging the individuals that will form the core co-design group (disability sector representatives plus internal project team, organisational stakeholders and contractor representatives).



Tool Required:

Recruitment tool (for reaching out to potential co-designers) – Example of content below.

Example: Recruitment Tool

The disability sector and lived experience group

Recruiting - channels and avenues

- Pre-existing and long-standing relationships
- Identify whether there may be individuals with specific knowledge/experience related to the context of the project and channels for finding these individuals

Initial conversations and triage ('taking the temperature')

(This may be one or multiple conversations to establish all of the information outlined below).

- Understanding personality and personal style of communication.
- What is their previous experience (if any) with engagement processes/ activities?
 - Understand if they have had negative experiences that may influence how they approach this project (do bridges need to be re-built?).
 - If more experienced, are they interested in mentoring other participants if the need arises?
- What is the professional and personal experience that they bring to the project (broadly defined)?
- Do they have 'burning issues' (???) they want to bring to the project?
- Do any of the individuals already know each other?
- What is their availability and how much time are they able to dedicate to this project?
- Discuss reimbursement/renumeration.

Understanding the requirements of each individual and ensuring accessible participation

- Is there anything that can make their participation easier?
- Preferred methods for engaging (face to face, online, preferred software or other supports).

The designer(s)

Preliminary considerations.

- Establish which individuals within the design team are likely to be involved in the project on an on-going basis (where possible ensure the same individual(s) are present throughout the whole process.
- Consider the impact that the following factors may have on the contractor's ability/willingness to integrate the co-design process into their project delivery:
 - Delivery method and associated contract types.
 - Who the designer is engagement by (the department or the contractor)?
 - Contractor/subcontractor relationships.
 - Whether provisions for their participation were made in the procurement process.

Following this, undertake the same steps identified below for the project team.

The project team, stakeholder representatives

Initial conversations and triage ('taking the temperature').

(Understand their previous experience (if any) with engagement processes/activities).

- Understanding personality and personal style of communication.
- Understanding their views on the value of this type of engagement.
- See Additional Resource in Appendix H: 'Co-design Mindsets'.

Articulate the value of this approach and what is hoped to be achieved.

Case studies of previous successes.

Sensitisation of participants

- Reinforce key principles of the co-design philosophy and identify where this may require a departure from a 'business as usual' approach.
- Establish protocols for respectful interactions that adhere to the co-design philosophy (power-sharing, knowledge partnering and mutual exchange).
- Appropriate language and communication protocols.
 - See Additional Resources in Appendix D.
- Appropriate methods for presenting information.

Internal co-design preparation meeting(s)

Following establishment of the membership of the core co-design group, organise a meeting with the project team, stakeholders and designer/contractors who will be involved in the co-design process. The aim of this meeting is to ensure everyone is 'on the same page' regarding the co-design process that is about to begin, prior to meeting with the whole group (including disability sector representatives).



Tool Required:

Agenda - Example of content below.

Example: Internal Co-Design Preparation Meeting Agenda

Meeting objective: Establish scope of the co-design process and how it will be incorporated into the project.

Discuss project scope

- What is within and what is outside the scope of the project to influence?
- Who are the institutional stakeholders (whose services or infrastructure interact with that of this project) that will be involved in decision making in this project?
- Are there grey areas? (i.e., possibility to influence project scope if there is strong support?)

Discuss project timeframes

• Identify key project milestones and current project stage.

• Ensure there is adequate time in the overall project timeline for the iterative design review process (to occur in parallel with the concept design and preliminary detailed design stages), plus sufficient time to review and endorse the finalised design outcomes prior to the official close of each design phase

Review the 'knowledge base' that has been established.

Are there any pre-identified concerns regarding accessibility outcomes across any aspects of the project?

- How have these issues been identified?
- Have there been other projects that respond to similar issues? What have been examples of successful and unsuccessful responses to this issue?
- Are there potential solutions already identified?

 (Note: this is not the point in time to lock in decisions regarding appropriate solutions to these issues, it is about assembling the potential solutions to review together with the larger group as part of the co-design process)

3.3 DURING THE CO-DESIGN PROCESS

Actions required on an ongoing basis during the co-design process to support its success.

Cultivating and maintaining the relationships with the co-design group

Regular informal 'check ins' with participants to gauge how they are going, if they feel they are able to participate fully, if they have any concerns regarding the engagement process, etc.



Tool Required:

Examples and descriptions of how this was undertaken in previous accessibility engagements within the transport sector, which may include testimonials, project schedules, templates, etc.

Accessible and flexible methods of participation

A series of considerations for appropriate communication and methods to support the full participation of all co-design participants. This may include examples that have been developed in response the needs of specific individuals or types of disabilities, or a general list of recommendations for sensitising the different people who will interact with the co-design group.



Tool Required:

Examples of (and templates for) accessible methods of communication developed in previous accessibility engagements within the transport sector.

Additional Resources:

For a series of resources to support effective and inclusive communication with people with disabilities, see **Appendix D**.

Enabling input into decision making processes

Resources that provide tools and methods for supporting consensus building and effective approaches to facilitating input of the co-design participants into project decision making. This requires not only skilled facilitation, but also commitment within the project team to genuinely provide the opportunities for this input into critical project decisions. Examples may include consensus building activities for workshops, polling, raking or prioritisation methods, or examples such as the 'decision making matrix' (developed by CRRDA in relation to the New Gold Coast Stations) which included a multifactor analysis framework for communication of constraining factors to co-design participants prior to undertaking an exercise ranking the importance of issues to co-design participants.



Tool Required:

Models and frameworks to support consensus building and group decision making, and examples developed in previous accessibility engagements within the transport sector.

3.4 AFTER THE CO-DESIGN PROCESS

Actions required while wrapping up the engagement process (note: this does not need to occur after the project completion but can be progressed as soon as the intensive period of engagement in stages 2 and 4 have concluded). These activities are important to consolidate and build upon the body of knowledge within the sector, enhance the organisational capability to undertake high quality accessibility engagements, and consolidate the knowledge built during these engagements. Importantly, this also reduces the risk of participants from the disability sector sensing that they are constantly giving the same feedback to the different organisations or different projects.

Audit and evaluation tools:

Guidance documents and tools to allow the project team responsible for the engagement process to assess progress and ensure that the aims (and expectations) of the co-design process have been met.

- Self-evaluation (by project team) Identify and reflect on where there were issues and how it might be improved next time
- Participant evaluation (as above)



Tool Required:

Co-design Quality Evaluation Criteria (see **Appendix B**). This can be used informally over the course of the accessibility engagement, and/or formally at its conclusion.

Documentation of and critical reflection upon the co-design process

Template for both documentation of and critical reflection on the co-design process – identification of what occurred, what was successful and what wasn't, how you might do things differently if starting over again. This may include:

- What specific activities were undertaken that were particularly useful?
 (Describe what was involved, when it occurred relative to design development, why it was useful, what sort of information was elicited)
- Timeline of the project and the co-design/engagement activities –
 identification of the timing of the different activities relative to overall project
 milestones, and reflection on which activities happened at the right point in
 time, which didn't (and when they should have ideally occurred)
- Who was engaged, and what were the key outcomes of their engagement?
 (Individuals, organisations, which disability cohort/s they represent).

Summary of Key Recommendations

Documentation of the key recommendations that came out of the co-design engagement, possibly including metrics indicating how critical/important this was to the co-design group (if this was measured at the time)

- Which of these recommendations were integrated into project outcomes? How successful was this? Is there any way that this could have been improved?
- Which recommendations were unable to be implemented? Why? (e.g., budget, timing, network integration issues, technical feasibility, etc)
- Identify which items should be considered at business case stage for future projects, moving forward.



Appendices

Appendix A A strategic approach to embedding co-design in the Queensland Public Transport Sector

The recommendations made in this document come out of the Best Practice Review of the Cross River Rail Delivery Authority's accessibility engagement approach that was undertaken by the Hopkins Centre research team. This involved a desktop review of accessibility engagement activities that occurred across all areas of the project, and participation of the research team in the co-design of the three New Gold Coast Stations (NGCS) with the Accessibility Reference Group (ARG) during design development stage. The research process also included in-depth interviews.

The Hopkins Centre research team held a 'solutions building workshop' with participants in the CRRDA accessibility engagement activities (including various CRRDA project team members, ARG members, contractors, consultants, and institutional partners from other QLD transport agencies). This workshop served to establish strategies for embedding co-design in the delivery of public transport infrastructure. Discussion focussed on building upon both the successful aspects of the CRRDA accessibility engagement, and the areas for improvement. Many of the latter related to larger constraining factors that cut across multiple organisations within the public transport sector, and/or related to decisions made prior to project commencement. The workshop established a clear set of strategic priorities for continued support of the change already underway in working towards an accessible public transport for network for all Queenslanders. This strategic approach is outlined below:

Co-design of large-scale public transport infrastructure necessarily spans several different 'levels':

- A) Co-designing the Accessibility Agenda
- B) Pre-Project Co-design
- C) Project Responsive Co-design
- D) Organisation-Wide Culture of Accessibility



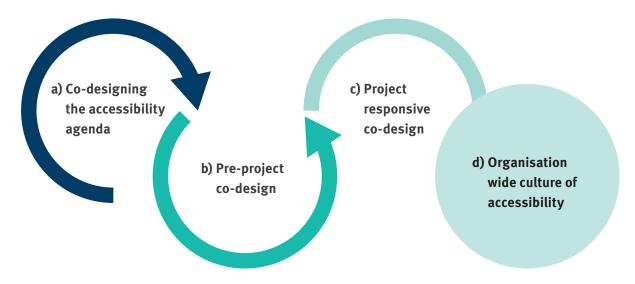


Figure 11: Co-design levels

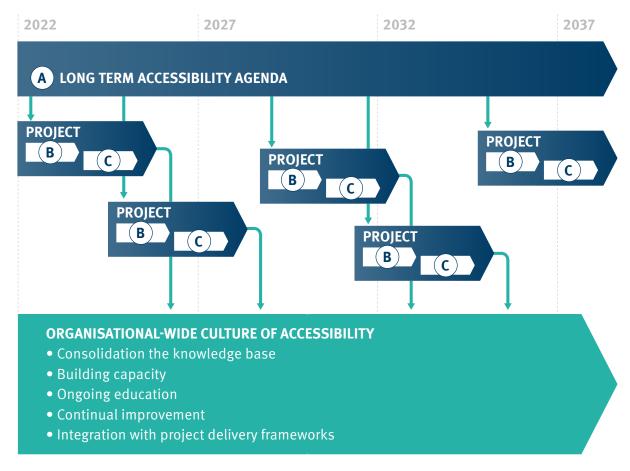


Figure 12: Long term strategic vision for accessibility

A) Co-designing the Accessibility Agenda

New large scale public transit infrastructure projects are determined years or even decades in advance of being implemented, and upgrades to existing infrastructure are planned in similar timeframes. Determining the key accessibility priorities of the program of future public transport infrastructure requires a nuanced understanding of the diversity of accessibility challenges across the sector and represents an opportunity to establish mechanisms for engaging with the disability sector in order to collectively drive decision making regarding accessibility priorities and opportunities.

Theme:

Long term planning and strategy

Long term strategic vision for accessibility

Determining the priorities of a long-term accessibility agenda through a co-design engagement with the disability sector. This requires multiple methods of engaging with the QLD disability sector in order to identify the key priorities for improving accessibility, identifying where the problems lie (both now and in the future) and bringing this information into discussion with the larger planning and strategy mechanisms across the various organisations in the QLD transport sector that drive decision making about future public transport projects (both new projects and accessibility upgrades).

• This may include: a large and wide consultation across the diversity of the QLD disability sector (with a focus on data collection), which is then analysed and subsequently evaluated by a more focussed group that includes the transport planners and key decision makers from the various QLD transport sector organisations together with individuals from the disability sector (a select group may be created out of those individuals who have a long-standing relationship with the different transport agencies, or QATAC may play a role in this) in order to determine priorities as articulated in the 'ground up' data collection. The outcome of this should include a clear plan for implementation, with KPIs and goals clearly articulated.

Figure 13: Multi-level engagement with the disability community on the long term accessibility agenda.



Theme:

Long term planning and strategy

- There are a number of different methodologies that may be employed to undertake this exercise, but the critical factor that differentiates this from other community surveying or engagement approaches is the involvement of the disability sector (including individuals with lived experience) not only in sourcing the community feedback (data), but also in the analysis and evaluation of this data, and their subsequent involvement in prioritising areas of action for implementation, together with technical experts.
- It should be noted that this is a significant undertaking, requires an ongoing commitment to the process from all parties, would involve high level confidential information and hence requires a high level of trust between the different participants, and transparency regarding the constraining factors that determine long term public transport plans.

Quote from Solutions Building Workshop:

"Setting the accessibility policy agenda (the long-term vision) through co-design - establishing mechanisms for engaging with the disability sector broadly: hearing from the voice of lived experience; a listening post, feeding from the ground up, and undertaking a prioritisation exercise. In general terms, "here are our priorities for accessibility outcomes". This then informs the parameters and KPIs for the accessibility program over next 20 or 40 years."

B) Pre-Project Co-design

Once a specific infrastructure project is identified, there is significant work that goes into evaluating the project's feasibility, defining the technical requirements, creating a reference design, options analysis and developing the business case before the project receives approval to proceed. Many decisions are made during this stage that 'lock in' certain aspects of the design and go on to have a major influence on the final project outcomes. While this stage of a project development is necessarily subject to significant confidentiality restrictions, it is important that a co-design engagement occurs to ensure accessibility outcomes (or potential concerns) are identified before contracts are awarded, setting the project up for success.

Theme:

Project establishment

- Co-designing the project scope through involvement of a targeted accessibility group during project feasibility, concept design, options analysis and business case and procurement activities.
 - Establish the previous knowledge base that can be built upon regarding accessibility outcomes (rather than 'reinventing the wheel' or duplicating engagements that have already occurred)
 - Identify project-specific accessibility concerns and establish key priorities for accessibility outcomes
 - Involvement in options analysis and the development of the business case reference design
 - Articulation of anticipated engagement required by different stakeholders (including contractors) in the project
- Integration of the outcomes of the above engagement into:
 - 1. **Project scope**, requirements and overall project budget.
 - 2. The **procurement process**, specifically the election of the contractual model, the expectations regarding future engagement processes (including equivalent access where applicable) and the accessibility KPIs to be met by contractors/consultants in final design solution.
- Note: At this stage, there is not necessarily a commitment made to the project advancing or being implemented, so engagement activities that occur during this stage must be suitably contextualised to reiterate this.

Discussion from workshop:

Participants identified that while the engagement approach undertaken in the Cross River Rail project once contracts had been awards was generally positive, there were many design decisions made during the reference design process and other constraining factors that could have been better addressed prior to the procurement process, before contracts, project scope and budgets are 'locked in'.

C) Project Responsive Co-design

Once a project is established, the contract awarded and the designers and project delivery team appointed, a project responsive co-design engagement can occur in parallel with the design development process. In order to avoid 'locking in' accessibility challenges, or late stage re-work of the design, this should commence at the beginning of the concept design stage, when the designers start to elaborate upon the reference design. This is the ideal opportunity to collectively identify the key accessibility challenges and priorities that the design needs to respond to, and to identify the metrics for success. This stage of the co-design process is characterised by direct engagement and mutual learning between the reference group members and those responsible for designing and delivering the infrastructure.

Theme: Mandate from leadership to undertake a genuine co-design process, from the outset. There is an expectation that the engagement process will influence **Foundations** the final design, which will be collaboratively developed with input from lived for project experience over the course of the engagement process. success **Host organisation commitment** to the engagement process, the creation of the enabling conditions and allocation of appropriate resourcing for the project team to facilitate the engagement process, and to monitor the implementation of the engagement outcomes over the course of the project. Theme: Early engagement, starting at the outset of the project before concept design development begins, and as soon as architecture/design consultants are **Process** engaged. **Continual improvement** - Build on learnings from previous engagements (knowledge base) Collectively establish the project's accessibility priorities and define metrics for success. This is the first engagement activity at the outset of the engagement process, prior to development of the design and before decisions are being made. This is then used to facilitate decision making process during design development in a clear and transparent manner. Accessibility is viewed holistically and in context, not just within the project scope. Accessibility is considered at a precinct level and/or through a 'wholeof-journey' lens, even where it challenges the scope of the project or requires additional inter-agency collaboration than anticipated. (Note: undertaking this early in the project can minimise disruption to project scope or timing in later stages) **Transparency re: project constraints** in a manner that doesn't stifle creativity Lived experience is at the table and in direct communication with contractors, designers, project team and institutional partners during design development.

Theme:

Engagement Activities

- Problem finding stage Undertaking a variety of exploratory activities before
 locking in design to elicit an understanding of the key accessibility challenges,
 and to complement technical activities and reviews. This may include site visits
 (structured or unstructured) at comparative locations. Structured site visits
 may use a variety of approaches, e.g., shadowing, journey mapping, customer
 experience, testing simulations
- Generating solutions stage Undertaking an iterative process with multiple feedback loops between designers, project team, and lived experience, in order to arrive at the final design solution. This may include prototyping proposed solutions for testing and refining with members (2D, 3D or virtual)

D) Organisation-Wide Culture of Accessibility

To create the conditions for co-design to be successfully implemented at these three levels, a foundation is required that supports an organisation-wide culture of accessibility. Education and a consolidated knowledge base are key components of this. This also requires pro-active sharing of information across the different transport organisations in the Queensland public service, institutional partners and with external stakeholders such as industry contractors and consultants.

Theme:

Overarching culture

- **EDUCATION** about accessibility in public transport (Articulating the vision and rationale, continuing the cultural shift already underway)
- Continual consolidation of knowledge base (and dissemination amongst all QLD Transport Agencies)
 - Dissemination of the co-design approach (What, Why, How and When)
 - Dissemination of work that has been done across the sector to achieve best practice accessibility outcomes based on previous engagements (case studies and testimonials, frameworks or guiding documents developed)
 - Production of multi-media illustrations of common accessibility challenges and solutions, through the eyes of those with lived experience of disability (to supplement/recreate 'on-site' in-person demonstrations)
 - Legislative issues:
 - < Legally accessible and compliant vs. functionally accessible.
 - The DSAPT Equivalent Access process and how to integrate it into project delivery
 - Obligations under the DDA
- Educational outreach to industry stakeholders (potential contractors and consultants, architects and access consultants) e.g., facilitation/hosting of *Continued Professional Development* events (or similar) that cover:
 - Best practice accessibility outcomes
 - Best practice accessibility engagement processes and contractor obligations



Theme: Legislative issues (DDA, DSAPT, Equivalent Access process) Quote from workshop: "Designers can be scared to depart from legislation, but **Overarching** understanding the performance solution and sign off process would encourage best culture practice outcomes to be adopted." Theme: A clear and consistent **mandate** is required for increased accessibility engagement and the integration of a co-design approach across the various **Strategic** organisations within the QLD public transport sector. In order to be effective, this mandate needs to come from the highest levels within the Department and policy associated agencies, providing consistency and encouraging collaboration direction across the different organisations in the sector. The QLD public transport sector needs facilitate capacity building within the disability sector in order to support this increased level of engagement. This is significant given the quantity of infrastructure projects in the pipeline in Oueensland, and the limited capacity that disability organisations (who typically have very limited funding) have to respond to an increased level of engagement. This is necessarily a long-term goal and recognises that just as the individuals within the transport sector require upskilling to undertake these engagements, so too do individuals within the disability sector. Dedicated strategies to support this capacity building will ensure that individuals who are experienced in engaging in the public transport sector are able to effectively transfer the knowledge they have built to the next generation. Integrating co-design into project delivery as standard practice – while this document outlines some strategies, continual work is required to work through some of the procurement/contractual issues that arise, with a view to integration of an increased engagement approach (whether co-design or other) into project delivery mechanisms and frameworks and documents used in the sector.

Appendix B Co-design Quality Evaluation Criteria (including measurement rubric)

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1a. Inclusive representation

Comprehensive inclusion of a diverse range of affected people and professionals as co-design participants, both those who will use the product/services (and their families and carers as appropriate) as well as those who commission them. Special effort is made to involve people who are typically excluded from conventional engagement participation methods. (Who should be involved will vary depending on the context of the project.)

Not achieved:

Participant group is non-inclusive demonstrated by lack of representation of affected people and relevant professionals

Partially Achieved:

Participant group is partially inclusive demonstrated by under representation across some affected person(s), communities, and relevant professionals

Fully Achieved:

Participant group is diverse and inclusive as demonstrated by representation of affected people and relevant professionals

1b. Equality of all participants and recognition of experts by experience All participants are equal partners, with solutions to be focused on product/service users. Lived experience and technical expertise are treated as being equally critical to an

optimal outcome.

Not achieved:

No evidence of power sharing and free deliberation among participants demonstrated through minimal participant contribution to critical decision-making.

Partially Achieved:

Some evidence of power sharing and free deliberation among participants demonstrated through intermittent participant contribution to critical decision-making.

Fully Achieved:

Evidence of power sharing and free deliberation among participants demonstrated through sustained participant contribution influencing critical decision-making.

1c. Knowledge partnering and mutual exchange The professional knowledge of designers and technical experts is bought into dialogue with the lived experience of people with disabilities to facilitate mutual exchange that is more than consultation – characterised by direct, two-way communication between participants, without intermediaries and supported by appropriate contextual 'translation' where required.

Not achieved: No evidence of open and respectful engagement between design decision makers and participants with lived experience in specific project activities, or creation of a space to freely exchange their perspectives to inform design decisions.

Partially Achieved:

Some evidence of open and respectful engagement between design decision makers and participants with lived experience in specific project activities, and the creation of a space to freely exchange their perspectives to inform design decisions.

Fully Achieved:

Evidence of open and respectful engagement between designers, decision makers and participants with lived experience throughout project activities, and the creation of a space to freely exchange their perspectives to inform design decisions.

1d. Plurality and flexibility of engagement methods The engagement approach is flexible, and makes participation and collaboration "accessible for people living with impairments and uses appropriate techniques to address any barriers that might prevent their participation" P71 (Hendriks et al., 2015)

Not achieved: Methods of engagement, communication styles and activities reflect a 'business as usual' approach, accommodating a typical group of participants in a with no adaption or introduction of further methods to meet the needs of all individuals, especially those living with impairment.

Partially Achieved:
Methods of
engagement,
communication styles
and activities are
adapted to meet the
individual needs of
most participants
however no further
methods are
introduced to ensure
full participation of all
participants.

Fully Achieved:
Methods of
engagement,
communication
styles and activities
are adapted to suit
the individual needs
of all participants,
especially where a
participant is living
with an impairment
that would otherwise
prohibit their full
participation.

1e. Cultural competency

Where possible, we work with people who are part of or in tune with their culture. We have co-design models created and delivered within different cultural worldviews.

Not achieved:

Participants cultural diversity and values are 'paid lip service' in the design and deliberation process.

Partially Achieved:

Participants cultural diversity and values are acknowledged, not wholly embedded into the design and deliberation process.

Fully Achieved:

Participants cultural diversity and values are embedded into the design and deliberation process.

1f. Building lived experience
capability The host organisation
invests in building the skills of
people with lived experience
to be active co-designers.
Professionals are supported to
check their power at the door
and lived experience participants
are supported to build their
knowledge and confidence

Not achieved:

The host organisation assumes all co-design participants bring a level of subject matter experience and confidence that allows them to fully participate in the design and deliberation processes without requiring additional support. Technical experts and other professionals interact with co-design participants in the same manner as with professional peers in a 'business as usual' approach.

Partially Achieved:

The host organisation is aware that not all co-design participants come to the process with the same level of subject matter experience and confidence and provides some support for participants to participate in the design and deliberation processes. Limited attention is paid to ensuring technical experts have the right mindset for constructive collaboration with lived experience participants.

Fully Achieved:

The host organisation

scaffolds engagement to meet the needs of all participants at their respective levels of experience and confidence, and actively creates additional support for participants to participate in the design and deliberation processes. Where required, time and energy is spent before, in between and after engagements in ensuring both lived experience experts have the information levels and technical experts have the right mindset for constructive collaboration.

1g. Relationships are cultivated/ prioritised and based on respect and trust There is an effective, facilitated process with freedom and safety to speak frankly so that issues can be genuinely addressed. Relationships between all participants are based on trust, respect, openness, and transparency, enabling meaningful participation and environment for different perspectives to be heard and supported.

Not achieved:

Minimal or no attempt by facilitator(s) to build relationships with participants or facilitate relationships between group members. 'Ground rules' for respectful interaction and conflict resolution strategies are not in place or applied.

Partially Achieved:

Facilitator(s) have built relationships with most participants, as well as some facilitation of relationships between group members. **Participants** feel somewhat comfortable to speak their minds in group settings. 'Ground rules' for respectful interaction and conflict resolution strategies are communicated on an as needed basis.

Fully Achieved:

Facilitator(s) have built relationships with all participants and facilitated relationships between group members. Participants feel comfortable to freely speak their minds in group settings and know who they can speak to if they have concerns. 'Ground rules' for respectful interaction are made clear to all participants at the outset and are reiterated if/when necessary, in a sensitive manner, along with conflict resolution strategies.

Process related variables

2a. Quality of process and methods

Appropriate selection of codesign methods and activities that are suited to the context and objectives of the project. The process of engagement moves beyond discussion of the issues and employs 'hands on' activities that test ideas that elicit rich learnings and valuable contributions from all participants.

Not achieved:

Lack of methods to support effective engagement demonstrated through low participant satisfaction with the process and little or no useful input into the development of the design

Partially Achieved:

Selection of methods to support engagement demonstrated through medium participant satisfaction with the process and some useful inputs into the development of the design

Fully Achieved:

Appropriate selection of methods to support effective engagement demonstrated through high participant satisfaction with the process and useful inputs into the development of the design

2b. Resourcing: Dedicated
Facilitation and Convening
People who facilitate and
convene co-design have
dedicated time to do it (co-
design facilitation isn't treated
as an add-on to an otherwise full
workload), and this role is not in
conflict with any other roles they
hold. Facilitators do not hold
decision-making authority over
project outcomes but are able to
hold decision makers to account
on behalf of the participants.

Not achieved: No expert facilitation is engaged and/or conflicts with project decision making

authority.

Partially Achieved: Some facilitation expertise is engaged (external or internally allocated) some conflicts with project decision making authority arise but are made explicit.

Fully Achieved: Expert facilitation is engaged (external or internally allocated) with dedicated capacity to perform role and duties and there are no conflicts with project decision making authority.

2c. Resourcing: Financing the process There is funding to run co-design projects and enable appropriate co-design activities to occur, including offering people with lived experience fair compensation for their contribution, and reimbursement of expenses incurred as part of their participation (which will vary according to each participant's circumstance, but may cover travel costs, meals, childcare, support worker/carer costs, printing, etc)

Not achieved: No or insufficient financial expenditure to cover facilitated activities. Disparity in recognition or remuneration offered across the different participant cohorts (professional vs. lived experience). No reimbursement of participant expenses

Partially Achieved: Ad hoc financial expenditure towards facilitated activities. All participants (especially people with lived experience) are recognised for their contribution (whether financial or otherwise), though disparities may remain. Ad hoc reimbursement of participant expenses incurred.

Fully Achieved: Appropriate financial expenditure towards facilitated activities. Consistent and fair commitment to recognition across the different participant cohorts, with lived experience experts recognised for professional for their contribution (whether financial or otherwise) in a manner that is equitable to other participants. Reimbursement of all participant expenses incurred.

2d. Timely Inclusion

Co-design participants (affected people and professionals as outlined in 1a) are engaged at the outset prior to critical decisions being made and are offered opportunities to be involved throughout all stages of the design and deliberation process, especially where critical decision making occurs.

Not achieved:

incurred.

Participant inclusion not initiated in a timely manner with respect to critical decision-making processes and participants have little involvement in decision making.

Participant inclusion initiated after some critical decision making has occurred but are actively involved in subsequent decision making throughout the remaining stages of the design and

deliberation process.

Partially Achieved:

Fully Achieved: Participant inclusion initiated at outset and actively involved throughout all stages of the design and deliberation process.

2e. Clarity of purpose, scope, and parameters of the **co-design** There is shared clarity of the common goal(s) and anticipated outcomes, what is negotiable or not, the timeframes for participant input and the expectations for each participant's contribution. The host organisation is transparent with regards to potential constraints or limitations they may face in responding to recommendations that arise. Decision making processes are transparent.

Not achieved:
Participants are
unclear as to what is
expected from them,
project scope and
limitations are not
made explicit, and
decision making are
not transparent.

Partially Achieved: Participants have some understanding of what is expected of them, project scope limitations are communicated to participants but in an ad hoc or untimely manner, decision making processes are articulated but transparency may vary across participant cohorts or is introduced after process initiated.

Fully Achieved:
Participants
understand the
expectations of them,
project scope and
limitations are clear
and communicated
at outset and
reinforced throughout
the engagement
process as needed,
the decision-making
processes are
transparent to all
group participants.

2f. Iterative process and ongoing commitment The co-design process is treated as an iterative process that develops over time, with a culture of learning through prototyping, testing and refining. Time is spent understanding a challenge (which may take multiple feedback loops) before rushing to a solution.

Not achieved:
No observable
iterative engagement
activities within a
project timeline, and
technical experts and
decision makers have
not demonstrated a
willingness to test
ideas before coming
to a final solution.

Partially Achieved:
Some observations of iterative engagement activities within specific periods of time, and technical experts and decision makers have occasionally demonstrated a willingness to test ideas before coming to a final solution.

Fully Achieved:
Clear observations of iterative engagement activities over a sustained period of time, and technical experts and decision makers have consistently demonstrated a willingness to test ideas before coming to a final solution.

2g. Institutional culture There is explicit permission and ongoing support from the highest levels of the host organisation to undertake co-design, and engaging lived experience experts through co-design activities is seen as a critical part of delivering successful outcomes (rather than an addition to the 'business as usual' approach)

Not achieved: No high-level support from within the host organisation for lived experience participation in the engagement process, demonstrated by lack of authorisation. genuine consideration of co-design outputs and/or tokenistic attitudes towards participant engagement across the host organisation. Partially Achieved:
Partial support from
high levels of the
host organisation
for lived experience
participation in the
engagement process,
demonstrated partial
authorisation, ad
hoc consideration of
co-design outputs
and varying attitudes
towards participant
engagement across
the host organisation.

Fully Achieved: Full support across all levels of the host organisation for lived experience participation in the engagement process, demonstrated through upfront authorisation, genuine consideration of co-design outputs and supportive attitudes towards participant engagement across the host organisation.

Outcomes measures						
3a. Agreed Solution or Recommendations Participants agree upon or endorse a final set of solution(s) or recommendations that come out of the co-design process, are involved in deciding on priorities for action, and understand the criteria through which decision makers will assess the recommendations inside or outside the host organisation (where applicable).	Not achieved: No evidence of agreement demonstrated by low participant satisfaction with the outcomes and support for the final solutions or recommendations.	Partially Achieved: Evidence of partial agreement demonstrated by inconsistent or lukewarm participant satisfaction with the outcomes and support for the final solutions or recommendations.	Fully Achieved: Evidence of agreement demonstrated by consistent high levels of participant satisfaction with the outcomes and support for the final solutions or recommendations.			
3b. Transmission Transmission of co-design outcomes (including participant generated recommendations) to formal decision-making bodies	Not achieved: No transfer of participant generated inputs or recommendations to relevant political actors, public service organisations or industry bodies.	Partially Achieved: Indirect transfer of participant generated recommendations to relevant political actors, public service organisations or industry bodies.	Fully Achieved: Direct transfer of participant generated recommendations to relevant political actors, public service organisations or industry bodies.			
3c. Consequentiality defined as decision-making bodies accepting and acting on participant generated recommendations	Not achieved: No evidence of consequentiality demonstrated by no or limited acceptance of participant recommendations by decision making authorities.	Partially Achieved: Some evidence of consequentiality demonstrated by partial acceptance of participant recommendations by decision making authorities.	Fully Achieved: Evidence of consequentiality demonstrated by comprehensive or full acceptance of participant recommendations by decision making authorities.			

3d. Legitimacy Participants trust Not achieved: Partially Achieved: Fully Achieved: the legitimacy of the co-design No evidence Some evidence Evidence of legitimacy and engagement process and of legitimacy of legitimacy demonstrated through its ability to influence decisiondemonstrated through demonstrated through high levels of trust making and effect change. low levels of trust medium levels of trust held by participants held by participants held by participants in the power of the in the power of the in the power of the engagement process engagement process engagement process to influence the to influence the to influence the decisions made by decisions made by decisions made by government. government. government. 3e. Accountability Decision-Partially Achieved: **Fully Achieved:** Not achieved: makers maintain accountability The host organisation The host organisation The host organisation and transparency with codemonstrates no provides some ensures ongoing design participants, with any accountability to updates to accountability to subsequent decisions made participants, does participants regarding participants by clearly (following closure of the conot inform them of subsequent decisions communicating any design process) shared with the any changes made or that are made after subsequent decisions participants through a feedback subsequent decisions the co-design process (possibly external to loop, with a clear statement of made that affect the ends, but this is adthe co-design process) how their recommendations were project outcomes. hoc or incomplete. or changes made considered. after the co-design engagement has been finalised, with a clear statement as to how their recommendations

Summary of key literature informing the Co-design Quality Evaluation Criteria

The Co-design Quality Evaluation Criteria Framework was adapted from three sources, summarised below:

Democracy 25²⁹

 Democracy 25 reviewed 33 case studies and 36 theoretical studies that examined both 'co-design' and 'deliberative democracy' approaches.
 Deliberative democracy is a theoretical account of participatory and shared political decision-making. In the same way that co-design transformed design practice with an emphasis on engagement and participation, models of deliberative democracy and engagement look to deepen participation in political decision-making beyond traditional mechanisms like elections and consultation.



were considered.

²⁹ Moore, N. (2019). Co-design and Deliberative Engagement: What Works. Democracy 2025 Report No. 3. https://www.democracy2025.gov.au/ documents/Democracy2025-report3.pdf

- Democracy 25 produced a model that summarises the key variables that produced positive outcomes. The advantage of considering both traditions of engagement, is that while co-design practice focuses on methods that structure sharing perspectives and innovating, the theory and practice of deliberative democracy examines issues pertaining to representation and shared decision-making.
- Democracy 25 differentiates between representation and non-representation variables. Representation refers to the identification and recruitment of participants with the aim of inclusion, recommending that the process be built such that participants have a sense that they are autonomous individuals who are equal to one another. Non-representation variables encompass the process or methods through which the co-design occurs, and the consequences of the co-design i.e. whether design ideas or recommendations are enacted and have influence on decision-makers.

Western Australian Council of Social Service (WACOSS)30

- The WACOSS field guide has a different structure and purpose. It was designed
 to support the practice of co-design within the landscape of social service
 provision, distinguishing between the role of government policymakers and
 community-based providers.
- Given the focus WACOSS conceptualise that co-design as a partnership model for building community services: co-design can take place at multiple levels, with an individual client/consumer with regards the kind of support or service that they receive, at the level of program design, service system design or the design of place-based interventions.
- Understanding that the process of co-design can be varied depending on the context and project, WACOSS nonetheless makes a series of recommendations pertaining to project initiation from selecting participants to managing expectations with clear processes and parameters.

The Australian Centre for Social Innovation (TACSI)3132

- TACSI have developed a suite of resources to build co-design capability. Like WACOSS, their focus is on service systems and programs that look to disrupt entrenched forms of social disadvantage.
- TACSI articulate both the conditions which are conducive to effective codesign, that is devoting time and resources, creating the right climate and culture—or authorising environment—as well as articulating clear commitments about the process and its consequences.



³⁰ West Australian Council of Social Services (WACOSS) Co-Design Toolkit https://www.wacoss.org. au/wp-content/uploads/2017/07/co-design-toolkit-combined-2-1.pdf

³¹The Australian Centre for Social Innovation (TACSI) - the conditions for co-design https://tacsi.org. au/wp-content/uploads/2019/02/Conditions-for-co-design.pdf

In separate advice, TACSI examine some of the more challenging aspects
of co-design, for example it is important to "encourage positive deviance"
that is a divergence of opinion as a prompt to creativity not conflict, but this
can nonetheless result in discomfort particularly if it challenges expertise or
power and/or dallies with new risks.

Appendix C **Examples of Toolkits and Guidelines for Co-design**

Resource title	Health service co-design toolkit
Resource type	Co-design Toolkit
Developed by	Auckland District Health Board (New Zealand)
Link(s)	https://www.healthcodesign.org.nz/tool-kit/
Description	This is a toolkit for co-design in the context of health services, with patients as the target audience for the co-design process. It recommends a suite of activities that can occur across the various stages of a project (and provides templates).
What is this resource useful for?	This is an excellent example of a web-based interactive toolkit. Many of the templates and example activities may be easily modified and adopted to the context of an infrastructure project

Resource title	Experience-based co-design toolkit:
Resource type	Co-design Toolkit
Developed by	The Point of Care Foundation (UK)
Link(s)	https://www.pointofcarefoundation.org.uk/resource/experience-based- co-design-ebcd-toolkit/
Description	This is a toolkit for co-design in the context of health services, with patients as the target audience for the co-design process. It is structured as a step-by-step guide using experience-based co-design (an approach to co-design developed for health settings) and includes case studies, short videos testimonials from staff and patients involved, and a resource bank.
What is this resource useful for?	This is an excellent example of a web-based interactive toolkit.

Resource title	Guide to co-design with people living with disability
Resource type	Co-design Toolkit
Developed by	Purple Orange
Link(s)	https://purpleorange.org.au/application/files/7416/2510/1861/PO- CoDesign_Guide-Web-Accessible.pdf
Description	This is a guide for conducting co-design in any setting with people with disability. The guide includes a step-by-step guide for co-design, a meeting agenda template and a terms of reference template.
What is this resource useful for?	The templates provided by the guide can be easily modified and adopted to the context of an infrastructure project. The guide also includes specific advice for large-scale Co-Design with people with disability.

Resource title	PWdWA co-design toolkit
Resource type	Co-design Toolkit
Developed by	People with Disabilities Western Australia (PWdWA) in partnership with the State Government of Western Australia
Link(s)	Co-design Guide: https://www.pwdwa.org/documents/connect_with_me/co-design-guide/index.htm Training Toolkit: https://www.pwdwa.org/documents/connect_with_me/co-design-toolkit/index.htm
Description	Both the guide and toolkit seek to assist organisations interested in improving services through Co-Design with people with disability.
What is this resource useful for?	The guide provides a simple step-by-step process for conducting Co-Design, with specific advice for Co-Design activities. The toolkit provides several useful resources, including a sample Journey Map template, an Assumption Busting tool, Stakeholder Needs comparison template, the Biggest Difference Tool, Service Blueprint and links to online engagement platforms.

Resource title	The WACOSS co-design toolkit
Resource type	Co-design Toolkit
Developed by	Western Australian Council of Social Service (WACOSS)
Link(s)	https://www.wacoss.org.au/wp-content/uploads/2017/07/co-design-toolkit-combined-2-1.pdf
Description	This toolkit gives specific advice for assisting both government and community organisations interested in conducting Co-Design with people with disability.
What is this resource useful for?	The toolkit includes a Government Preparation Tool to help plan for Co- Design and a Process Evaluation Survey Tool for post-evaluation of the Co-Design process.
	The toolkit also targets multiple government purposes including at the program or service level, systems or strategic policy level or place-based Co-Design.

Resource title	Experience based co-design: A toolkit for Australia
Resource type	Co-design Toolkit
Developed by	Consumer Health Forum of Australia
Link(s)	https://ahha.asn.au/EBCDtoolkit/files/downloads/EBCD%20toolkit%20 Final.pdf
Description	This is a toolkit for conducting Experience-Based Co-Design (EBCD) with patients in health service settings.
What is this resource useful for?	This guide contains various useful checklists and templates for: planning and conducting EBCD workshops, conducting observation and shadowing, collecting participant stories, surveying experience, creating a group action statement, and journey mapping.
	Much of this content can be adapted for use in other project contexts.

Resource title	TACSI co-design resource bank
Resource type	Online webpage with co-design resources
Developed by	The Australian Centre for Social Innovation (TACSI)
Link(s)	https://tacsi.org.au/co-design-training-resources/
Description	The Australian Centre for Social Innovation (TACSI) has developed a resource bank featuring a range of resources that can assist in planning for and delivering co-design, including co-design planning tool, a sample project plan and examples of activities that may be integrated into co-design projects.
What is this resource useful for?	Finding templates and examples of how to 'do' co-design which can be adopted and adapted to the context of your project.

Resource title	Walking the Talk: A framework for effective engagement with people with disability, families and people who support them
Resource type	Framework for Engagement
Developed by	Developed by Sally Robinson, Disability Studies and Research Institute and Jan Dyke for Disability Services Queensland
Link(s)	https://www.arts.unsw.edu.au/sites/default/files/documents/DSARI_5.pdf
Description	This is a framework for engaging with people with disability, their family and carers in the development and review of law, policy and practice.
What is this resource useful for?	The framework provides useful advice for the early stages of engagement, including how to determine appropriate engagement activities, the breadth of engagement needed, creation of accessible documents and venues and development of strategic relationships through engagement.

Resource title	Engagement and consultation with people living with disability
Resource type	Toolkit for consulting and engaging with people living with disability when developing policies and programs.
Developed by	Inclusive SA (State Government of South Australia)
Link(s)	https://inclusive.sa.gov.au/data/assets/pdf_file/0004/124636/ Engagement-and-consultation-with-people-living-with-disability-toolkit.
Description	This toolkit was developed to support government agencies engage in consultation with people with disability, including those within CALD communities. The plan contains legislative guidelines, resources and information for consultation activities.
What is this resource useful for?	The plan includes a useful and extensive checklist, advice for specific practical challenges and important cultural considerations for engaging with people with disability from CALD backgrounds.
	The plan also contains guidance for how to modify an engagement process already underway into a more extensive Co-Design process.

Resource title	Protocol for engaging people with disability
Resource type	Protocol for Engagement
Developed by	Services Australia
Link(s)	https://www.servicesaustralia.gov.au/protocol-for-engaging-people-with-disability?context=54672
Description	This is a protocol for engaging with people with disability in the Co- Design of social service delivery.
What is this resource useful for?	The protocol provides a number of useful online resources as well as specific advice for overcoming common Co-Design challenges. It provides three good examples for understanding how to build staff education, create intervention processes for vulnerable customers and ensure diversity and accessibility.

Resource title	Next generation engagement: Setting a research agenda for community engagement in Australia's infrastructure sector
Resource type	Journal Paper on Infrastructure Project Engagement
Developed by	Bicel, Sara; Neely, Kate and Einfeld, Colette
Link(s)	https://onlinelibrary.wiley.com/doi/pdf/10.1111/1467-8500.12381
Description	This is a journal paper examines community engagement activities involved in the Next Generation Engagement Project with a view of providing policymakers with key insights.
What is this resource useful for?	This paper overviews consumer engagement policy and regulation, digital engagement, social license to operate and associated challenges. The paper presents key strategies for successful community engagement in large scale infrastructure project and outlines scope for future community engagement in this sector.

Appendix D Resources (tools) for engaging with people with disabilities

Resource title	How To Be Disability Inclusive
Resource type	Guidelines
Developed by	Disability Advocacy Resource Unit
Link(s)	http://www.daru.org.au/wp/wp-content/uploads/2019/01/Disability- Inclusion-Final.pdf
Description	This is a general guide for organisations interested in being disability inclusive.
What is this resource useful for?	This guide contains useful and specific advice for disability etiquette, appropriate language, appropriate ways of communicating and for ensuring inclusive practice during consultation and engagement activities.

Resource title	Inclusive Innovation Guide: Key considerations for making social innovation activities more accessible for people with physical disabilities
Resource type	Guidelines
Developed by	The Office of Community Engagement (OCE)
Link(s)	https://www.concordia.ca/content/dam/concordia/offices/oce/docs/core-docs/T19-54791-OOCE-Inclusive-Innovation-Guide-design-Enable-Mtl_EN_V7-Final-web%20(2).pdf
Description	This guide draws upon key findings from a pilot project which co-created design solutions for a more accessible Montreal city for people with physical disabilities. The guide is focused on social innovation settings and is intended to be adapted to different social initiatives.
What is this resource useful for?	The guide provides helpful practical advice on planning logistics, how to support participants, and advice on implementation and follow-up. The guide can be modified to the context of an infrastructure project.

Resource title	United Nations Disability Inclusion Strategy: Guidelines on Consulting Persons with Disabilities
Resource type	Guidelines
Developed by	United Nations
Link(s)	https://www.un.org/sites/un2.un.org/files/un_disability-inclusive_ consultation_guidelines.pdf
Description	This document provides guidelines for conducting consultation with people with disability and organisations representative of people with disability. The guidelines are intended to assist UN personnel but contain information translatable to other settings.
What is this resource useful for?	The document provides helpful checklists for preparing for consultation and creating the conditions for inclusive consultation (including preparing for online engagement). The document also contains strategies for partnership building with people with disability, with valuable case studies to draw from.

Resource title	Communicate and consult with people with a disability
Resource type	Guidelines for communication with people with disabilities
Developed by	Department of Families, Fairness and Housing, State Government of Victoria
Link(s)	https://providers.dffh.vic.gov.au/communicate-and-consult-people- disability
Description	This online resource contains advice for consultation and engagement with people with disability in the development of services.
What is this resource useful for?	The webpage contains specific advice for communicating appropriately with people with disability and provides a list of organisations that can provide communication services. The webpage also contains specific tools and methods that can be adjusted to different purposes, such as for single-issue consultation or for ongoing consultation.

Resource title	Communication with people with disabilities
Resource type	Guidelines for communication with people with disabilities
Developed by	Australian Federations of Disability Organisations (AFDO)
Link(s)	https://www.afdo.org.au/resource-communication-with-people-with-disabilities/
Description	This online resource contains advice for communicating appropriately with people with disability.
What is this resource useful for?	This resource provides valuable information for appropriate communication with people with a diverse array of disabilities. The source also contains general tips as well as a list of language to avoid.

Resource title	Language Guide
Resource type	Guidelines for appropriate language to use when discussing disability
Developed by	Australian Federations of Disability Organisations (AFDO)
Link(s)	https://www.afdo.org.au/news/language-guide/
Description	This language guide was written by people with disability to assist media outlets and the general public understand what constitutes appropriate language when speaking about people with disability.
What is this resource useful for?	The guide is easy to access and contains a specific list of do's and don'ts. The guide also includes a list of terms and language that should not be used when speaking to a person with a disability or speaking about disability generally.

Resource title	"Words that work" Media Guide
Resource type	Guidelines for Media
Developed by	Disability Services Commission
Link(s)	https://www.disability.wa.gov.au/Global/Publications/ Understanding%20disability/words_that_work_media_guide.pdf
Description	This guide is intended to assist a media or general public audience understand what constitutes appropriate language when talking about or talking to people with disability.
What is this resource useful for?	This online resource contains useful 'rule of thumbs', a list of terms that should be avoided, ways of avoiding stereotyping, advice for creating a comfortable interview setting, and advice for assistance animals' considerations. This is a concise guide that can be used to quickly check the appropriateness of language and process.

Resource title	Social Model of Disability
Resource type	Website article
Developed by	Australian Federations of Disability Organisations (AFDO)
Link(s)	https://www.afdo.org.au/social-model-of-disability/
Description	This online webpage introduces the Social Model of Disability, which was developed by people with disability to help others recognise barriers that may exist for people with disability.
What is this resource useful for?	This resource provides good examples of possible barriers (attitudinal, environmental, institutional and communication-related) that may be experienced by people with disability. The information provided is useful for considering accessibility requirements that people with disability may need when being involved in engagement activities.

Appendix E Resources (tools) for design methods and activities

Resource title	The framework for innovation: Design Council's evolved Double Diamond
Resource type	Framework
Developed by	The Design Council (UK)
Link(s)	Overview: https://www.designcouncil.org.uk/our-work/skills-learning/tools-frameworks/framework-for-innovation-design-councils-evolved-double-diamond/ Step 1: Discover: https://www.designcouncil.org.uk/news-opinion/design-methods-step-1-discover Step 2: Define: https://www.designcouncil.org.uk/news-opinion/design-methods-step-2-define Step 3: Develop: https://www.designcouncil.org.uk/news-opinion/design-methods-step-3-develop Step 4: Deliver: https://www.designcouncil.org.uk/news-opinion/design-methods-step-4-deliver
Description	This resource outlines in detail the 4-step process of using divergent and convergent thinking to explore the design challenges (problems) and ideate potential solutions, (outlined in chapter 2 of this document) which underpins the high intensity collaborative design stages that form part of the co-design approach outlined earlier.
What is this resource useful for?	The link for each of the 4 stages above identifies a series of activities that might be useful to the context of your project at a different moment in the design development process. It further elaborates on the appropriate moments for and activities to support 'divergent thinking' (identifying the problems and challenges in an open-ended way) and moments and activities for 'convergent thinking' (identifying and testing potential solutions within the constraints of your project context) (Remember that in a 'co-design' approach, you need to bring your users into this process, rather than view them as objects of study.)

Resource title	"Double Diamond" applied to architecture
Resource type	Article
Developed by	
Link(s)	https://medium.com/architect-arena/double-diamond-applied-to-architecture-39e4f6cd8fb
Description	Blog article applying the principles of the 'double diamond' framework to the standard delivery of an architecture process.
What is this resource useful for?	This short article explains the 'double diamond' approach in layman's terms, as applied to a simple architectural project. This is a useful conversation starter or sensitisation piece for introducing the double diamond concept to people who are familiar with the practicalities of construction projects. (Remember that in the 'co-design' approach, rather than the architect or designer undertaking this process of divergent and convergent thinking alone, it is done in collaboration with a group of accessibility stakeholders who are able to provide direct input into this design process.)

Resource title	Designing for Public Services
Resource type	Toolkit
Developed by	IDEO, Nesta and Design for Europe
Link(s)	https://www.ideo.com/post/designing-for-public-services
Description	A toolkit with practical tools and methods for applying design thinking to the context of public programs and services.
What is this resource useful for?	This toolkit outlines a design thinking approach for tackling challenges in the context of public services. It identifies a number of different considerations that should be made and activities that may be useful across the life of a project, from establishment, identifying challenges, through to prototyping/testing, and then implementation. It is sensitive to the institutional challenges and governance requirements that are common in the public service. There is some overlap with the 'double diamond' approach outlined above. (Remember to apply a 'co-design' philosophical approach, involving those with lived experience in driving the activities and follow up analysis and decision making, rather than purely as objects of study!)

Resource title	Design thinking for policy
Resource type	Resource bank
Developed by	New Zealand Department of Prime Minister and Cabinet
Link(s)	https://dpmc.govt.nz/our-programmes/policy-project/policy-methods- toolbox/design-thinking
Description	A web-based resource bank with information on tools, methods and links to further resources for use in applying a design thinking approach to public policy
What is this resource useful for?	This page provides guidance on how to use 5 specific methods and outlines the advantages and limitations of each (Journey mapping, Role play, prototyping, experience interviews and personas). It also provides links to external resources with further information or examples. (Remember to apply a 'co-design' philosophical approach, as above)

Resource title	DesignKit: The Field guide to Human Centered Design
Resource type	Toolkit
Developed by	IDEO
Link(s)	https://www.designkit.org/
Description	A toolkit with a variety of methods and case studies for applying Human Centered Design techniques to a wide range of projects
What is this resource useful for?	This will give you ideas for a range of different activities that might be useful across all stages of an engagement process, from recruiting and facilitating, to the exploratory activities that may be useful eliciting useful information about the accessibility challenges specific to the context of your project. (Remember to apply a 'co-design' philosophical approach, involving those with lived experience in driving the activities and follow up analysis and decision making, rather than as objects of study!)

Resource title	From no design to co-design: How do we build co-design capability?
Resource type	Article
Developed by	KA McKercher
Link(s)	https://www.linkedin.com/pulse/from-design-co-design-how-do-we- build-capability-ka-mckercher/
Description	This short article is aimed at "aspiring co-design facilitators, organisational development professionals, and team leaders" and aims to increase capacity for co-design
What is this resource useful for?	This article addresses the risk of an engagement becoming "endless meetings without action" and highlights some approaches that can be useful in ensuring that 'design activity' takes place (rather than just lots of talking). There is also some overlap with the double diamond approach (times for divergent vs convergent thinking). An editable version of the framework outlined in this article is available for download here: https://docs.google.com/spreadsheets/d/15l_rnl_bc8Fn7IPWJvSsK9BghUtPzjoHm7ZJUeFdfrw/edit#gid=0

Appendix F Contract types used in the Department of Transport and Main Roads

Adapted from Transport Infrastructure Project Delivery System: Manual Volume 1 (Selection of Delivery Options) - October 2020, pages 22-52

https://www.tmr.qld.gov.au/business-industry/Technical-standards-publications/TIPDS/Volume-1

Delivery model: Design and then Construct (Traditional Contract Type)

Contract types:

- Minor Infrastructure Contract Construct Only (MIC-CO)
- Minor Infrastructure Contract Sole Invitation (MIC-SI)
- Transport Infrastructure Contract Construct Only (TIC-CO)
- Transport Infrastructure Contract Sole Invitation (TIC-SI)
- Small Scale Minor Works (SSMW)

Description:

A Traditional Contract is the most common contract type used by the department.

The contractor is engaged to undertake the construction phase of a project. The department will have already prepared a design brief, a detailed design and ultimately the project documentation. Interested contractors are invited to submit competitive tenders for the work. The contractor, once selected, assumes no risk for design or deficiencies in the design documentation. After project completion (and subject to any defect liability period), the department is responsible for operation and maintenance.

One of the attractions of a traditional contract for the department, is that there is generally low risk as the contractor bears the construction risks. The sustainability of the traditional form of contract is conditional upon the department retaining client leadership and competence in the detail design phase. Hence, the traditional contract form of delivery is dependent on the design and documentation competence of the department. Design risk remains with the department. For traditional/design then construct packaging, the designer warrants that the design is in accordance with the brief and design standards and is subject to changes under the direction of the Principal. The contractor, in turn, warrants that the completed works have been constructed in accordance with the design and to the department's construction standards.

Delivery model: Design and then Document and Construct

Contract types:

Document and Construct – Design Novation

Description:

In this delivery type, which can also be referred to as Novated Design and Construct, the department has developed the design of the project well beyond the concept stage. The design is then novated to the contractor. The Document and Construct method accordingly allows the department greater control over the end product.

The contractor is required to expressly take over and be responsible for all design completed prior to entry into the contract. The advantages of Document and Construct are: the department's increased level of control over design; reduced risk of design shortcomings; the design brief on which tenders are called is more defined than for a Design and Construct, increasing the capacity of the department to comparatively assess bids; the department is able to select and engage design consultants to its liking, and the process still permits the contractor to make certain changes to improve constructability.

Delivery model: Design and Construct

Contract types:

- Transport Infrastructure Contract Design and Construct (TIC-DC)
- Minor Infrastructure Design and Construct (MIC-DC) (to be developed)
- Collaborative Project Agreement (CPA) (Early Contractor Involvement)

Description:

Under a Design and Construct delivery model, the department enters into a lump sum contract with a single entity that is responsible for both design and construction of the project. The primary supplier is usually a contractor who then engages the designer through external consultants, or alternatively, the primary supplier consists of a contractor with a designer in a joint venture arrangement.

Involvement of the key parties in the earlier stages of the project maximises influence on the final cost or duration of the project. Conversely, the cost to change any aspect of the project while being low at the early stages increases rapidly at the final stages. Therefore, it pays for the Principal to fully examine all alternatives and factors that may be subject to change early in the project process before going to tender.

In D&C, the Contractor warrants that the design and completed works comply with the Scope of Works and Technical Criteria (SWTC) and are 'fit for purpose' (which shifts the design risk to the Contractor and may give rise to greater legal consequence to the Contractor).

Success of a D&C may be measured by three primary factors, being: (1) on budget; (2) on schedule, and (3) able to fulfil expectations (envisioned functional goals, effective risk transfer, fitness for purpose, meeting specifications, quality and so on). In order to achieve these goals, the most important task for the department is to prepare a reference layout, clear scope, performance and technical and quality criteria for the project (including objectives for durability, design life, operational criteria, standards of finish and aesthetics, community and environmental standards).

Unlike the design and then construct methodology, the Principal cannot control the design development process, which for a D&C is developed to suit the Contractor's program not the capability or capacity of the Principal.

Delivery model: Design, Construct and Maintain (DCM)

Contract types:

Design, Construct and Maintain Public Private Partnerships (PPP)

Note: The PPP Policy covers a range of relational contract types but with a focus on those types that place private sector equity at risk.

Description:

Under Design, Construct and Maintain (DCM), the department engages the Contractor to undertake the design and construction of a project after which the Contractor assumes responsibility for maintaining the networks covered by the project for a significant period of time. A major difference between Traditional and DCM delivery relates to maintenance and the defects liability period. Maintenance of the works in a traditional contract becomes the responsibility of the department during and after the defects liability period. In DCM, the maintenance (both during and after construction) and defects liability of the completed works remain the responsibility of the Contractor for an extended period (up to ten years).

The DCM method was developed in response to dissatisfaction with the contractor's lack of responsibility for the 'maintainability' of the facility - under Traditional and D&C, the Contractor is usually able to absolve itself of the project after the expiry of a (relatively short) defects liability period and has no incentive to execute its

design and/or construction tasks so as to ensure maintenance is affordable and easy in the longer term. Instead, there is the reverse incentive to use the cheapest materials available consistent with the quality specifications and other contractual requirements. By contrast, a DCM contract emphasises reducing the costs to be incurred during the maintenance phase. There is, therefore, reduced risk of an adverse trade-off between buildability and maintainability.

A Public Private Partnerships (PPP), in general, is a long-term contractual arrangement and involves the private sector party across the full spectrum of the infrastructure's delivery – planning, design, construction, operation and maintenance. The private sector party is usually comprised of a number of organisations that carry out the various elements of the contractual arrangement and deliver the infrastructure.

The private sector party contributes capital investment and carries risks and in return is given payments by the Government, pays a concession fee to the Government for the right to operate, collects fees from public users, or a combination of each.

Delivery model: Alliance Contract

Contract types:

Alliance Contract

Note: This contract type is not outlined in the Department of Transport and Main Roads' Transport Infrastructure Project Delivery System, however it is a contractual model that is used for the delivery of large-scale projects and should be considered in this toolkit.

Description:

An alliance contract is an agreement between two or more entities that undertake to work cooperatively on the basis of sharing project risk and reward, to reach agreed outcomes. Alliances take a team approach and are based on principles of good faith and trust. Parties involved agree on the target cost estimate for the project.

A Board is established to manage the contract with membership from each of the entities involved in the project. The Board is the decision making and managerial body, and participants relinquish any entitlements to legal or equitable courses of action against any other participants, except in situations of wilful default or possible insolvency.

A two-stage tender process is a feature of alliances, with an initial intensive period of relationship development. The preferred party is selected before the price is bid. Evaluation criteria are developed to ensure clear justification of value for money in the selection process.

Alliance contracts are characterised by proactive collaboration and strong relationships with all involved, working towards optimum project outcomes and minimisation of the conflicts and disputes sometimes associated with a traditional contract. By working together, risk is embraced, uncertainty is dealt with, and flexibility allows for issue resolution.

A feature of alliance contracts is a 'no disputes' clause, where partners agree not to use arbitration or litigation as a disputes resolution technique. Alliance contracts are used in situations such as:

- complexity and volatility of projects and their environment
- the need for state-of-the-art technology as well as the need for research and development
- the scope of the project cannot easily be defined
- time constraints dictate fast-tracking of the project is required
- substantial interfacing with existing infrastructure and interested organisations/ stakeholders.

Alliances are effective where a strategy of embracing risk is more appropriate than transferring risk. The department's alliance contracts have a strong emphasis on probity, and a probity auditor/ advisor is a key feature of all contracts.

Source of information regarding Alliance Contracts:

Main Roads "Connecting Queensland: Contracts" information sheet, 2009 http://www.tmr.qld.gov.au/~/media/busind/businesswithus/Public%20Private%20 Partnerships/contractsjanuary2009.pdf.

Appendix G TACSI maturity rubric for innovation

Source: TACSI Co-Design Capability Building - Course Book. Pages 34-35. https://docs.google.com/document/d/1bciv0TNyb4suPwwyDhhFoQKuPyvpwFm5a i4z5zA7GAs/edit#

"The following table sets out a rubric for you and your team to judge your organisational maturity for innovation. The rubric looks at practice, policy, resource flows, relationships, power dynamics and mental models. Use the last column to identify any problematic flags. Reflecting on this could help you identify the next actions to take to improve the conditions for your co-design projects."

Table: A maturity rubric for Innovation

A Practice	1 Nascent	2 Starting	3 Picking up pace	4 Reaching our stride	5 Accomplished learners	Any flags?
Consider your on-the ground innovation practice.	We'd like to be doing better innovation practice.	We're just starting to learn about: - Naming and testing assumptions - Design research - Prototyping - Service design	We've have had a few opportunities to get our hands dirty with: - Naming and testing assumptions - Design research - Prototyping - Service design	We've done this a few times and we have our go-to practice. - Naming and testing assumptions - Design research - Prototyping - Service design - We're becoming skilled in managing innovation.	We're heavily rehearsed in innovation, and our innovation practitioners are engaged in ongoing learning to improve their innovation practice. We are skilled in managing a portfolio of innovations.	Have you seen any of these in your organisation? Innovation is more about innovative ideas, or using technology, than processes for innovation. We're not using, or building on, proven innovation methodologies. We don't have innovation specialists on our team.

B Policies and resource flows	1 Nascent	2 Starting	3 Picking up pace	4 Reaching our stride	5 Accomplished learners	Any flags?
Consider the guidance, requirements, people and money for participation.	There is an interest in innovation and in finding resources to do it.	We're seeking funding and resources specifically for innovation. We're putting in place teams, or training individuals to support innovation.	We have resources and people for adhoc innovation projects	We have the policies, people and money to support at least two stages of innovation: - Discover - Design - Trial - Spread	We are actively managing a portfolio of innovations through: - Discover - Design - Trial - Spread	We promote innovation but we don't get funding specifically for it. Performance is measured by outcomes only, rather than by learning. There's no clear pathway for early-stage innovations to progress.

C Mental models	1 Nascent	2 Starting	3 Picking up pace	4 Reaching our stride	5 Accomplished learners	Any flags?
Consider the dominant mental model in your organisation.	A few of us hold the mindsets for innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	A small team who can deliver projects hold the mindsets for Innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	The work being done by a small team of believers is contributing to shifting mindsets cross the organisation to: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	People in power hold the mindsets and are supporting organisational change towards mindsets for innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	The majority of the organisation holds the mindsets for innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	Innovation is done by a specialist team, without any real connection to the main organisation. Funders ask for innovation but they don't provide resources or time to do it well.

D Mental models	1 Nascent	2 Starting	3 Picking up pace	4 Reaching our stride	5 Accomplished learners	Any flags?
Consider the dominant mental model in your organisation.	A few of us hold the mindsets for innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	A small team who can deliver projects hold the mindsets for Innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	The work being done by a small team of believers is contributing to shifting mindsets cross the organisation to: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	People in power hold the mindsets and are supporting organisational change towards mindsets for innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	The majority of the organisation holds the mindsets for innovation: - We believe in outcomes for people above everything else. - We see innovation as a rigorous process - We believe there are much better ways to create outcomes, and - We believe we need to try new things.	There is great discomfort with the uncertainty that comes with innovation. We see ourselves as the main experts in our domain. Innovation is seen as risky. Innovation is seen as a cost. We're paralised by doing the wrong thing.

Appendix H Co-design Mindsets

Extracted from Convivial Toolbox: Generative Research for the Front End of Design³⁴

We have seen four distinct mindsets emerge with regard to the key idea that all people are creative and can be involved in the ideation, design and development of new products and services that will affect their futures:

- Intuitives
- Learners
- Skeptics
- Converts

Intuitives

The intuitives already know that all people are creative. They don't need to be convinced that co-designing has value. They may, in fact, have been operating all along with a co-designing mindset without knowing there was a name for it. They are excited to find that this worldview is finally being given a formal description, which can help them to share their thinking with others.

Learners

Others are learners. They will come to understand the hows and whys of codesigning after a number of hands-on experiences. They may, through experience, come to see co-designing as their own mindset or they may choose to only pull out the tools and methods to support to their dominant worldview or to differentiate themselves in the marketplace.

Skeptics

The skeptics are those who do not believe that all people are creative. It is likely that they were rigorously trained to think of themselves as the experts in their domain. They are not open to co-designing with the people they consider to be less knowledgeable or less creative than they are. Or they may be those who have witnessed a failure of participatory processes before, such as in an ineffective focus group or a commercial co-creation scam that lead nowhere.

Converts

The last category includes the converts. These are skeptics who, for one reason or another are put into a learning situation about co-designing, and question it the entire time, only to become extremely strong advocates and sometimes even evangelists at the end. It is impossible to distinguish the convert from the skeptic during the learning experience. The converts are a small group of people who might turn out to play a very important role in the evolution of human-centered innovation.

The distribution of intuitives, learners and skeptics varies greatly between different parts of the world, and across gender and generational lines. ...

Would you consider yourself to be an intuitive, a learner or a skeptic? How you use the material presented in this book will probably be different in each case. As an intuitive, you may benefit most from the frameworks that provide some order and guidance to the process. As a learner, you will want to carefully consider both the theory and the practice of generative design research. And even if you consider yourself to be a skeptic, you may find the tools and techniques to be useful. You might find that you are actually a convert once you have the opportunity to learn by doing.