Dreaming and Designing a Child-Friendly Neighbourhood for Brooks Reach, Dapto.

My dream town has lots of friendly people in colourful houses
Dreamer, Designer and Horsley resident, Noah male age 6.

Child Friendly Research Workshops
Report 2011
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UNICEF Child Friendly Cities Initiative
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1. Introduction

The Dapto dreaming project was implemented from April to July of 2011. Funded by Stockland developers it was a child friendly research activity to support the new Brooks Reach urban development located in the West Dapto Urban release area. The aim of the project was to provide an opportunity for children, through research, to have authentic input into the design of the new development in order that it will incorporate the visions and dreams of children growing up in the area. The project was implemented through a series of child friendly community children's research workshop with residents and children from the local Dapto community. In particular, the focus was to connect with and scaffold the involvement of children and staff from Dapto Public School through participatory workshops so they could have authentic input into the design of the development, in particular the playground and streetscape. On completion of a series of workshop and data collection opportunities with 150 school children in Kindergarten and Grade 5, the task of a small invited reference group of children was to work with the adult research team to collate and analyse the children’s data and from this construct a list of child friendly indicators. These indicators and the data were then used to construct a children’s report that was circulated to all the children at Dapto Public School and the community. The reference group then devised a series of design recommendations for Stockland for a play space at the new development and an adventure pathway that would connect the old and new neighbourhoods. Play consultant and artist, Ric McConaghy, local indigenous advisors, Stockland staff and the Stockland landscape architect worked alongside the children. The project will culminate in a celebration of the children's designs and the opportunity for children and local community members to discuss their visions with Stockland and city council staff.

The Horsley Neighbourhood

Horsley is a neighbourhood in the small town of Dapto that is located on the outskirts of the City of Wollongong. Wollongong is a seaside city located in the Illawarra region of New South Wales, Australia. It lies on the narrow coastal strip between the Illawarra Escarpment and the Pacific Ocean, around 80 kilometres south of Sydney. With a population of 305,345 Wollongong is the 3rd largest city in New South Wales after Sydney and Newcastle and the 9th largest city in Australia. The area around Dapto was originally inhabited by the Dharawal (or Thurawal) Indigenous Australians. The first Europeans to visit the area were the navigators George Bass and Matthew Flinders who landed at Lake Illawarra in 1796. The first settlers in the region were cedar cutters in the early nineteenth century, followed by graziers in 1812. The name Dapto is said to be an aboriginal word either from the word Dabpeto meaning, "water plenty", or from "tap-toe" which described the way a lame aboriginal chief walked. The aborigines called the area Mookoonburro meaning grub. Dapto is located on the western shore of Lake Illawarra. Lake Illawarra is a shallow coastal lagoon with a predominantly urban and industrial shoreline. Natural resources provide habitat for a variety of animals including many water birds such as pelicans, cormorants, ducks, swans, herons and ibises who are attracted to the wetland areas. To the west of Dapto lies the Illawarra escarpment. The cliff line of the escarpment is formed from Hawkesbury sandstone up to 130 metres thick. From the children's houses the escarpment is a constant reminder of the unique physical location of their community and in children's photographs it became a familiar backdrop. Although rainforest was widespread on the escarpment, there are only a few areas where continuous rainforest brush now occurs. The natural vegetation of most of the Dapto area is drier grassy woodland. The following satellite map provides view of the Horsley neighbourhood where the majority of children who engaged in the project lived. There is one main road (Bong Bong Road) connecting Dapto to Horsley, creating a buffer between the neighbourhood and the main town and creating a safe environment in terms of strangers and through traffic. The extension of Bong Bong road will also connect the new development of Brooks Reach. The neighbourhood boosts a number of large and smaller playgrounds and parks. Reed Park is a large sporting facility and open space park at the south-
eastern entry to the neighbourhood. The Horsley community centre is located central to the neighbourhood along with a small strip of shops and pocket park. On the whole it was established every child in the neighbourhood has a playground or park within walking distance of their home. Dapto Public School can be seen in the very southeast corner of the neighbourhood. Dapto public school is a large school with approximately 700 children enrolled from Kindergarten to grade 6. The new Brooks Reach development is to be located south of the neighbourhood and is connected by a number of wooded areas and existing roads. The majority of children of the who will live within the new development will attend Dapto public school in the future and therefore the school showed great interest in establishing a link between the school and the new neighbourhood. The idea of a adventure pathway between the two neighbourhoods connecting the school to the playground evolved originally from the view there could be a natural flow on between the two neighbourhoods and help to establish friendships and opportunities for children to explore, interact and engage with the affordances of the old and the new development.

![Figure 1: Horsley neighbourhood, City of Dapto (source: http://maps.google.com/)](image)

Below are images of the site and the proposed development of Brooks Reach taken from the project brief, Stockland August 2010. The red areas on figure 2 illustrates the site as proposed on the land, this project is only concerned with the first urban release the red section closest to the Horsley, Dapto community. Figure 3 is a plan of the development; the open space in the middle left-hand side is the proposed playground site. In the brief Stockland state: “Stockland is committed to the adoption of child-friendly principals to create a nurturing, supportive and stimulating environment for the children of Brooks Reach and surrounding communities” and that “the current plan for Brooks Reach proposes 430 housing lots, and is intended to contain a local park of 0.5Ha”. It is the park area and the walkable path connecting the two communities (old and new) that was the focus of the physical environment recommendations from the children.

In this study we have worked with the children and parents of Dapto in order to consider key planning factors that could be learnt through looking at the way the Horsley neighbourhood is providing for children’s needs and using this as the blueprint for designing a child friendly Brooks Reach. It is brave move for an urban developer to value children’s insights and to allow them to participate fully in a genuine planning process. Therefore, this report is testimony to a new way forward in a reciprocal relationship between children and urban developers and reinforces the important role children play as key agents in community planning.
Figure 2: Aerial view of Brooks reach development site (source Stockland)

Figure 3: Plan of development, including local play park (left) and forested area (right). (Source Stockland)
2. Background

A child friendly city or community is a place where children’s rights and needs are at the centre of good community planning and design. It is place where adults listen to children and young people and take what they say seriously. The principles of the United Nations Convention on the Rights of the Child (CRC) highlight the responsibility of the States Parties to uphold the child's right to live in a safe, clean and healthy environment and the right to engage in free play, leisure, and recreation. A key characteristic of a child-friendly city is its capacity to provide opportunities for children to have freedom of movement to explore, uninhibited by physical, social or cultural constraints. Using this criterion, many Australian cities rate poorly in terms of their child-friendly status. But this hasn’t always been the case. A generation ago, children were far more likely to be able to play independently in their own neighbourhood. When Australian parents have been asked to reflect on their childhoods, they usually remember having far more freedom than their own children have today and this is again evident in our research – mostly this is due to increased fear of strangers (Malone 2007). Children also now have less time available to play outside because they and their families are busy and children’s leisure time is often full of scheduled activities. Children are usually to be driven to these activities, partly because of the greater distances involved, and partly because of the increased fear of traffic and ‘stranger’ danger. Other reasons for the loss of children's freedom include: the erosion of natural or wild spaces in urban areas and increased social pressure to be seen as ‘good risk-version parents’. These issues and more will be explored as a background to the study results.

UNICEF Child-Friendly Cities Initiative

A Child-friendly City is a system of good local governance committed to the fullest implementation of the Convention on the Rights of the Child (see Box 1). Large cities, medium-size towns as well as smaller communities even in rural settings are all called to ensure that their governance gives priority to children and involve them in decision-making processes (UNICEF 2008). UNICEF’s Child-Friendly Cities (CFC) initiative was first conceived in response to the United Nations Conference on Environment and Development in 1992 and then more vehemently in the meetings leading up to and around the development of the Habitat II meetings in Istanbul in 1996. It came at a time when it was being recognised that the situation of urban children around the world was of critical concern and that discussions on sustainable development, the management of human settlements and the rights of children could not be done in isolation. The emerging child-friendly cities philosophy was underpinned by the view that to actively implement at a national and local government level the Convention on the Rights of the Child (CRC) you needed a healthy environment, good governance and sustainable development.

Rights of the Child in a Child-Friendly City

- Influence decisions about their city
- Express their opinion on the city they want
- Participate in family, community and social life
- Receive basic services such as health care and education
- Drink safe water and have access to proper sanitation
- Be protected from exploitation, violence and abuse
- Walk safely in the streets on their own
- Meet friends and play
- Have green spaces for plants and animals
- Live in an unpolluted environment
- Participate in cultural and social events
- Be an equal citizen of their city with access to every service, regardless of ethnic origin, religion, income, gender or disability.

Box 1: Rights of a Child in Child Friendly-City (Source: UNICEF 2001: 3).
According to UNICEF a child-friendly city ensures that all children have the opportunities to express their views and participate in decision-making about their community in the same way as any other citizen of the city. In this study there was a fundamental shift in thinking about urban development, from where children's needs which are normally decided by adults on behalf of children, to a view that children should be partners with adults (urban developers, researchers, parents and architects) in dreaming and designing a neighbourhood for children.

This study utilises the framework of the global child friendly cities initiative, basing its study design and outcomes on a rights-based paradigm and replicates a number of studies particularly in Australia that have been conducted by the author utilising a similar research design. Additionally, the methods and tools used have grown out of the authors involvement in the ten-year UNESCO Growing Up In Cities project (Chawla 2001; Driskell 2001) which takes at its core a significant focus on building relationships and discussions between key partners in children's lives; children, parents, community, city council and urban developers and planners. Provided next is a short summary of key research literature around children and outdoor play, children's independent mobility and children and urban planning.

**Children’s Outdoor Play**

The outdoor environment is perceived as a social space which influences children's choice of informal play activities and promotes healthy personal development (Thomas & Thompson, 2004). Through outdoor exploration nature allows for unstructured play, generating a sense of freedom, independence and inner strength which children can draw upon when experiencing future incidents of stress (Wells & Lekies, 2006). Furthermore children’s relationship with nature is a fundamental part of their development, allowing opportunities for self-discovery and natural environmental experience (Bird, 2007). However, access to high quality natural environments is unequally distributed, especially between children living in rural and urban areas. Taylor et al. (1998) found that nearly twice as many children chose to play in open spaces with trees compared with barren spaces lacking nature. They engaged in much more creative play and were more likely to spend time with adults, which facilitated social development. Scandinavian research demonstrates that factors such as children's social play, concentration and motor ability are all positively influenced following play in nature (Fjortoft, 1999; Jorgensen, 2001). With recent research from the UK revealing that the amount of time and contact children have with nature is ever declining, with less than 10% of children playing in natural places such as woodlands, countryside and heaths, when compared with 40% of children 30-40 years ago (Natural England, 2009). Children now wander less, and discover less, and perhaps are losing some important connections to nature and place. With children spending less time outdoors today than they used to (Orr, 2002; Louv, 2005) there is a concern that children have become more disconnected from the natural environment, thus understand it less (Bird, 2007) and are less likely to develop the environmental cognition to be able to feel safe and secure when moving around the outdoors (Malone 2007). This was particularly apparent in a study involving children with attention deficit hyperactivity disorder (ADHD) (Taylor et al., 2001). Children worked better and their concentration improved after participating in activities in green surroundings. In a recent study of 1200 families with 5-6 years and 10-12 years (Salmon et. al 2004) the findings highlighted that between the ages of 5-12 years, physical activity declines substantially; they also highlight that the family environment is important in terms of children’s physical activity and sedentary behaviour. Recent national data show that participation in organised sport peaks at 11 years of age, and declines by 10-15% by the age of 14 years. In addition, children spend a great deal of time being inactive. According to the Australian Bureau of Statistics Australian children also watch an average of 2.5 hours of television each day. While children may be engaged in formal physical activity programs such as organised sport, research conducted in the UK suggested that children used more energy when they went places on their own, and they used more energy in unstructured play activities (Mackett, et. al 2007) then organised activities. The results indicate that children's physical health and wellbeing is related to children's opportunity for unstructured exploration and active play in urban environments. With research suggesting so many key
beneficiaries of access and exposure to play in nature it is concerning that opportunities for children in both urban and rural neighbourhoods to join in safe play are rapidly diminishing, mainly because of parental fear of crime and road traffic. Other reasons include loss of natural spaces for free play and the attractions of indoor alternatives, such as computer games, TV and the Internet. These sentiments have been supported by a recent research study by Nickelodeon Australia, which found that Australia children are pocket money rich but time poor and lacking basic life skills. The study A Day in the Life of an Aussie Kid based on more than 500 focus groups and 40,000 interviews of children aged between 7 and 14 revealed that “Though much of their free time is now taken up with organized activity (after school sport, dancing, various clubs etc.), kids are yearning for more unstructured time to do their own thing” (Houlihan 2005: 14). The study identified that 87% of the children participated in an organised sporting activity on a regular basis and yet it was 8th on their list of priorities - play and hanging out being number 4. The top priorities for the children in the study were family, parents, friends, happiness, and play/hanging out. The consequence of this change in children’s lifestyles has meant many children feel they are losing independence in their urban environments.

**Children’s Independent Mobility**

As children lose the freedom to create, explore and gain mastery over their physical and social environments they also lose opportunities that will be significant in developing healthy lifestyles, social networks and environmental competence. The opportunity for children to move freely in the environment without an accompanying adult is defined in the literature as children’s independent mobility (Hillman, Adams, & Whitelegg, 1990). Children’s independent mobility is measured in terms of spatial range or roaming range, this measure can be determined by parents or caregivers in terms of the boundaries they set or through a negotiation between children, parents or caregivers and even the community. Children’s spatial range may change according to a child’s maturation, health and cultural background, social and cultural influences in parenting styles and boundary making (often influenced by issues of safety and risk), physical attributes of the environment and differences in the role of the community to act ‘in loco parentis’. Empirical studies about children’s travel modes, physical activity and free play have demonstrated that fewer children are allowed to go to fewer places and they travel shorter distances than in the past. Representing these trends, are lower levels of active school travel and declining participation rates in informal outdoor activities, both of which have been associated with issues of childhood obesity and changing lifestyles (Peddie & Somerville, 2005; VicHealth, 2003). Research suggests that factors affecting parents’ decisions about permitting or restricting children’s mobility and factors affecting children’s decisions about their mobility are place-based. These placed based decisions are influenced by children’s age, what the physical, social and traffic environment offers, as well as cultural issues such as parenting styles and norms and views of childhood and children’s competence. In their publication, *One False Move… A Study of Children’s Independent Mobility* Hillman et al (1990) documented a decline of independent mobility amongst children aged 7-15 years in the UK. They compared survey results from 1971 with the results of a similar study conducted in 1990 in the UK and Germany. Continuing to replicate the study comparisons have been made over the past ten years in Finland, Belarus, New Zealand, Japan and Australia. These studies illustrate significant contrasts in children’s independent mobility around the world according to urban design, parenting norms and issues around fear and safety. Australian data consistently illustrates children have far less independent mobility than their counterparts in other countries (this study will replicate these earlier studies using the same survey instrument for further comparison). Recently in Australia, Timperio et. al (2005) conducting a study on children’s leisure time also asked 10-12 year olds and their parents (677 families) what were their main concerns with children using the streets. Parents as their greatest concerns identified stranger danger and road safety with heavy traffic coming in next. In all three of these categories parents concerns were at least 20% higher then their children’s. Other reasons for the loss of children’s freedom include: the erosion of natural or wild spaces (Louv 2006); increased social pressure to be ‘good conforming parents’, for example by driving
their children rather than allowing them to walk or cycle even if they felt children would benefit from the experience; the increasing choice of the ‘best’ schools and child care centres due to the de-zoning of neighbourhood schools that often require children to be transported by car rather than being able to access schools in their local neighbourhood (Honore, 2004; Stanley et al., 2005). Regardless of urban form, parents living in many different environments from around the world have indicated that traffic, like stranger danger, is one of their greatest concerns. A combination of high car use, urban design and traffic regulation that favours private transport is believed to create poor pedestrian environments that make people feel unsafe (Aicher, 1998).

Parents and children are worried about roads with high traffic volumes, speeds, and poor driver behaviour. In industrialised nations, parents cite traffic as a major reason for driving their children to school, even though ironically they are contributing to the situation (Tranter 2006).

Children and Urban Planning

In studies of human-environment relationships, there is a strong assertion that humans learn through engagement with their environments. The rationale for this study is based on the evidence that children who do not have direct access to their environments, are unable to learn the necessary spatial, physical, psychological, social and analytical skills required for urban competence (Hillman et al., 1990; Kytta, 2004; Prezza et al., 2005; Spencer & Woolley, 2000); nor will children be socialized into ways of being that associate environmental engagement with living active lifestyles which will prevent health issues now and in their future lives. Sipe, Buchanan and Dodson (2006) noted that historically, the aim of urban planning was to separate children from the social and physical decay of working class environments by supporting suburban development. Now, health promotion and planning initiatives are trying to reintegrate children into suburban and urban environments (Planning Institute of Australia, 2007; VicHealth, 2008) and get children back outside to engage with the outdoor spaces. Researchers have also asserted that urban spaces with higher density development can offer greater opportunities for mobility for children than suburban spaces (Hillman et al., 1990; Kytta, 2004; van Vliet, 1985). They believed that children can meet other children visit friends locally, travel to school on their own, and access community and commercial services, and these all contributed to their health and wellbeing through active lifestyles and quality of life. In Australia there are cultural and functional issues concerning urban form. Suburban spaces in Australia have long been viewed as providing healthy environments for children (Gleeson & Snipe, 2006). They can offer lower traffic in residential areas and greater areas of open spaces for children to play. This potential for suburban spaces to be valuable, healthy spaces for children is reliant on the quality of the urban planning to provide safe and accessible places for children to meet, socialise and play and also the capacity for parents to grant children the independence to be able to access those places.

Research illustrates that for children to gain the developmental benefits of their physical and community surroundings urban policy and planning must be informed by real research with and by children about their life experiences and genuine participation of children in the planning process. Kevin Lynch (1977) added empirical credence from a planning perspective through his observations of cognitive mapping exercises. He found that adult and child knowledge of their urban environments correlated with their actual use of space (Lynch, 1960). Chawla (2005: 220) writing on the Growing up in Cities project states: “...if cities are well planned, they can provide many advantages for children and for the attainment of a sustainable future”. According to Driskell (2001: 35) an urban planner himself, the benefits of young people’s participation for planners and policy-makers is that they will “make better and more informed planning and development decisions”, they will “more fully understand the needs and issues of the communities they serve”, they can “educate community members on the inherent complexities and trade-offs involved in policy and development decision-making” and most of all they will “create urban environments that are more child friendly and humane”.
3. Children’s Research Methodology

Participatory Research Methods Overview

Participatory projects, such as the Dapto Project, aim to ensure that participants feel engaged, significant and comfortable in expressing their ideas. Children’s participation in such a project should be transparent, inclusive, interactive, responsive, educational and relevant to the local communities involved (Driskell, 2002). It allows the researchers and children to engage in deeply enriched interactions that enable the children to identify their concerns, ideas and desires of what is important for them as active members of a community. Participatory methodologies work on the premise of crosschecking triangulation as a way of validating the correlation between the quantitative and qualitative data that is collected across the entirety of the project. Therefore a number of tools and possibilities for engagement are normally available for children of different ages, abilities, experiences and interest. Children from the Dapto Public School conducted research about their local neighbourhood through drawings, photographs and by collecting surveys – a multiple or mixed method study design. A mixed-method participatory approach is often used in Child Friendly cities research projects worldwide. There are obvious advantages to using a mixed-method approach with children, including for validity and also to increase research access. From validity perspective the use of mixed-methods helps the researcher to establish triangulation that is by seeing the same data arising regularly even if in totally different data forms, significance can start to be established. Additionally, the use of more expressive and creative data collection techniques (photography, drawings) along with the more formal research methods (surveys and interviews) allows the children to engage in the research in a more participatory manner, that is they have choices and opportunities to select styles of data gathering that suits their own skills, strengths and interests. Photography and drawing approaches for instance allows even very young children to be involved while not relying on heavily on adult’s facilitation and interpretation. The age of the participants for this project was also an important factor to consider when deciding on the research design. The target age was children in their Kindergarten years (5-6 years) and children in Grade 5 or upper primary years (10-11 years). Therefore, a mixed method using visual, verbal and textual tools was determined to be the most useful in this study.

Stage One: Children’s Research Workshops

The aim of the research workshop activities was to provide the opportunity for children to collect data about their experiences of their neighbourhood and evaluate the quality of the community in order to propose to Stockland how to design a child friendly urban development. It was important the structure and the timing could be accommodated within a busy kindergarten and primary classroom setting. The team conducted two research workshops with children in two different age settings at Dapto Public school: Kindergarten (30 X 5-6 years olds) and grade 5 (120 X 9-10 year olds). The workshops were conducted with approximately 150 children from the Dapto public school providing a sample of around one sixth of the school population. All children and parents involved in the project completed an ethics consent form before they are able to participate and ethics was obtained from the university ethics committee and the Department of Education, NSW.

Kindergarten children

One grade of kindergarten children were engaged in two sessions – the first exploring how they feel and experience the local area, the second session focused on their dreams of what a child friendly community in Dapto would look like. All kindergarten grades were invited to complete the
drawing activities but no other grades took up this offer. Children had the opportunity to share discuss their opinions and explain their drawings to the researchers. Adult researchers through a storytelling strategy conducted with each individual child completed surveys.

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**Children's Research Workshops Overview – Kindergarten**

**Session 1: How Child-friendly is my community?**
1. My neighbourhood picture – “draw a picture of your town/local area and include all your favourite places and places you don’t like on it” Discussion with individual children about their drawings, notes on drawing recorded.
2. Individual discussion on drawing – adults fill in surveys during dialogue with children.
3. Focus group – where I go and what I do in my neighbourhood?

**Session 2: My dreams for a child-friendly community**
1. My dream/imaginary place – “draw a picture of your dream place- putting all the things on it would make a place great for children”. Discussion with individual children about their drawings, notes on drawing recorded.

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**Box 3: Children's Research workshop overview – Kindergarten**

**Grade 5 children**

All Grade 5 children were engaged in three sessions – the first exploring their mobility around the neighbourhood using a predetermined children’s independent survey that has been conducted in a number of locations around the world. The second session explored how children feel and experience the local area, including giving children disposable cameras for a weekend so they can take images of their local community. The third session focused on their dreams of what a child friendly community in Dapto would look like and their ideas and indicators of child friendliness that could be applied in the new urban design.

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**Children's Research Workshops Overview – Grade 5**

**Session 1: Children's Independent Mobility**
1. Home activity – children and parents will fill in a short children’s independent mobility survey. A package will be sent out with ethics forms.

**Session 2: How Child-friendly is my community?**
1. My neighbourhood picture – “draw a picture of your town/local area and include all your favourite places and places you don’t like on it” Discussion with individual children about their drawings, notes on drawing recorded.
2. Individual discussion on drawing - fill in surveys
3. Distribute cameras and describe task, provide information handout for parents.
4. Pick up cameras and develop photographs ready for the next session

**Session 3: My dreams of a child-friendly community**
1. My dream/imaginary place – “draw a picture of your dream place- putting all the things on it would make a place great for children” 2. While drawing children will have an individual interview about their photographs. Start with favourite picture - identify places in photograph – why took photo, what they like or dislike about their community. Discussion also with individual children about their drawings, notes on drawing recorded.

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**Box 4: Children's Research workshop overview – Grade 5**
Stage Two: Participatory Design Workshops

The aim of the participatory design workshops was to enable a smaller group of children to work in collaboration with adults on the data analysis, evaluation and support the development of a play space and pathway design for the Brooks Reach urban development. From 100 year 5 students, 16 were initially selected for the reference group. Of the 16 in total, half of were female with 4 students representing each of the four classes. By the last of the five sessions, 12 young people remained. The workshops participants included the selected reference group children; UOW team researchers, play consultant, two Indigenous advisers, Stockland staff and the Stockland employed landscape architect. There were five participatory design workshop sessions, one held every Friday for two hours at the school and also on the Brooks reach site. The weekly workshops were semi-structured, child centred and based on the utilisation of a number of participatory tools including children’s drawings, guided tours, photography, use of technology and mapping techniques, focus groups and discussions with adults documenting outcomes using informal observations and photography and feeding this back to the group.

The small reference group of children worked with the adults project team to complete three key participatory research activities. Research activity 1: Child Friendly Neighbourhood where they analysed the data presented by the children and construct a list of child friendly indicators. These indicators and the data were then used to construct a children’s report on the project and support the final stage of the project that was the design recommendations for the play space and pathway. Research activity 2: Dreaming Play space where the children devised a series of design recommendations to Stockland staff around key elements and conceptual themes for the play space in the Brooks reach site. Research Activity 3: Emu adventure pathway where children explored the potential for a walkable/adventure pathway between the old and new neighbourhoods. A final event was then held to share and celebrate the work children and adults had completed together and to pass on the final reports.
4. Children’s Research Results

Children’s Research Workshops Results

These results combine the many modes of data that was received through the mixed method approach used in the research collection process. The children’s independent mobility (CIM) survey was only conducted with the older children and the older children’s parents so it relates only to the children in the 10-12 year age group. The child friendly communities survey (CFC) was conducted with a small sample of 5-6 year olds and the 10-12 year old children. The graphs will be labelled accordingly so that it is clear which age group and which survey is being represented. All drawings and photographs are also labelled according to the children’s ages.

My Neighbourhood

“My neighbourhood is safe, not many strangers and my neighbours are friends” Jaida, 5

To understand how children felt about their neighbourhood and the places important to them within it, the child friendly community survey asked children to list what they liked and disliked about their neighbourhood, their most favourite and least favourite places and also the places they identified as child specific places in the neighbourhood. They were also asked to identify issues for children in the neighbourhood.

Like about neighbourhood

From graphing children’s survey results on what children like about their neighbourhood we can see that having a quiet neighbourhood with friendly people was very important to children, especially the older group. Over a quarter or 25% of all the children surveyed said what they liked most about their neighbourhood was the friendly people, 18% parks and playgrounds and another 18% identified wild places. Natural wild places such as the bush, creeks, ponds and the natural waterslide close to the neighbourhood were all places discussed by children. Having a quiet neighbourhood also rated high on children’s what I like most about my neighbourhood list.

Dislike about neighbourhood

In terms of what they disliked about the neighbourhood over one fifth of the older children identified speeding cars, dangerous people and the streets as things they didn’t like. For the younger children they were less inclined to identify negatives about the community, with 20% of
the young children saying there was nothing they disliked about the neighbourhood. With less access and therefore less personal interactions in the neighbourhood without adults the young children are buffered from these individual negative issues. Unfriendly animals were high on the neighbourhood list of dislikes especially by the younger children. This referred to mainly dogs not on leashes in parks and on the streets and also the fear of snakes and spiders in the bush areas.

Graph 2: CFC Dislike about neighbourhood

In the CIM survey children were asked what they worried about when in the neighbourhood – there is a correlation here to what they disliked about the neighbourhood, issues of strangers and traffic. Beyond this the girls in particular were worried about getting lost and not knowing what to do to be safe in their neighbourhood.

Graph 3: CIM Worried about in neighbourhood

**Most Favourite Places**

Supporting the importance children placed on community, community and public places rated highest on children’s list of significant neighbourhood places. Parks and playgrounds are the most favourite place in the Dapto community for children. Next category was outdoor community facilities that included places such as the skate park, swimming pool tennis court, outside public malls. Adding to this, 13% of the places children like most included community indoor facilities such as community centres, library and schools where community met. Whereas commercial shops rated low with only 10% and food shops such as McDonalds, KFC rating even lower (4%).
This is very usual especially for the 10-12 year old age group who are normally at this age starting to become very interested in shopping and shopping malls. Again supporting the theme of the value of the natural environment 14% of children identified wild natural places as favourite places and over 20% or 1/5 of children saying it was what they liked the most about their neighbourhood.

![Most favourite places](image)

**Graph 4: CFC Favourite places all children**

As captured by this photograph by Paul of his favourite place, wild places in Horsley included fields, bush land, riverbanks, forests, abandoned or vacant lots, and creeks. The following comment by Brendan reiterates the value of these wild places for the children: “My favourite place is seeing the frogs at the river with my mum and brother” Brendan age 6.

![Photograph 1](image)

**Photograph 1: Favourite places, Paul age 10.**

**Least Favourite Places**

For children’s least favourite places we can see that indoor places, including commercial shops and community indoor (predominantly school) are identified by approximately one third of the children. What was interesting about dislikes was children’s high response to commercial shops (19%) and food shops (17%) - these commercial facilities usually rate much higher on the likes then dislikes. The younger children especially stated they disliked being taken by parents to the shopping mall for extended periods of time as the space was loud and noisy and didn't have
many attractions for them. Community indoor referred mainly to those children identifying school as their least favourite place. Those children identifying the parks as a negative were mostly referring to the local skate park where some children had experienced some bullying by older children. Choosing wild places as negative was again mainly the younger children who felt the paddocks surrounding the neighbourhood might harbour snakes or other scary animals.

Graph 5: CFC Least Favourites places – all children

**Places especially for children**

Close to two thirds of the children identified that either playgrounds or schools were the key places located in their neighbourhood as place for children. Interestingly though it was quite unusual to see that 13% of the children believed the wild or natural space were also places especially for children, this is not something often seen in these types of surveys. This questions helps us to recognise what children believe are the places they have free access to, it was great to see that some many children do see the natural environment as place unique for children. Food shops didn't feature which is strange as the experience has been many children will identify places like McDonalds as child specific places, shops was higher on this graph as a child place but if we take what they say about it being a place they dislike then having shops does little to increase the number of physical affordances available to children in the neighbourhood.

Graph 6: CFC Places especially for children - all children
Key issues for children in neighbourhood
The graph on key issues for children again establishes the concerns children have for the traffic and driver behaviour in the neighbourhood. Even though the roads carry very little through traffic and are therefore uncongested the wide open streets with only limited street calming means drivers can drive fast. People as an issue is interesting as this contradicts in many ways the positives of the neighbourhood noted earlier where children felt their neighbours were friendly and supportive this is also highlighted in the comments below. The issue of stranger danger seems to be a concern here even though the evidence illustrates that there is little likelihood of stranger danger encounters. This may just be a residue of a ‘cultural’ fear of strangers pervading Australian media.

Graph 7: CFC Issues for children – all children

For example, comments below illustrate the important role the neighbourhood community has in the children’s lives in Horsley and how they believe supporting community is key to a child friendly community. This was further emphasised when children in the reference group identified as key theme for a child friendly neighbourhood as “creating communities”. The following are comments made by children during the workshops focusing on the importance of community: “Safe communities and communities we can trust” Tegan 11, “So we can share ideas and we can make more friends” Olivia 10, “Create good atmosphere, socialise and make new friends” Lachlan 11. “I have lots of neighbours, I know all of their names” Kate aged 5

Play and Playgrounds
“Big, big, big playground” Brendan & Zane, aged 6

The results for this section on play and playgrounds came from questions in the CFC survey addressing activities children engaged in - their most favourite and least favourite activities, the playgrounds they knew about and used in the neighbourhood (including the question on favourite places identified in the previous section), whether children were able to go outside of their garden gate alone and if children engaged in organised play activities.

Playground use
From the survey results we can see that 45% of kindergarten aged children said parks and playgrounds were their favourite place. For both age groups parks came out as the most important place for children with 79% saying they visited playgrounds regularly. Access for
opportunities to play in their community was important for all groups with over 80% of the 10-12 year old children saying they were allowed to play outside their front gate, but only 38% of the younger were allowed the same freedoms (see the next results section on children’s independent mobility). In terms of favourite activities play was significant over 73% of activities were related to ‘play’, only 8% could be seen as more passive home based activities and a huge 17% said their favourite activities was interacting with animals and nature.

Graph 8: CFC Playground use – cross ages

Photograph 2: Local playground, Georgia, age 10

Photograph 3: Local playground, Jye age 10
Playground and play spaces in the Horsley neighbourhood are significant for children. The reference group identified this during their analysis of the data and specifically identified supporting play and playgrounds as one of the key indicators of a child friendly neighbourhood. The following comments illustrate the reasoning behind why children at Dapto believe it is important get out to the parks and playgrounds.

“Instead of kids just sitting around on the lounge and getting unfit we could run around” Kim 11
“Children can have fun and develop their climbing skills” Logan 10
“So children can play and have fun together and make friends” Connor 10

**Organised play activities**

Children in the neighbourhood were very committed to the value of exercise and being healthy and that an active life was part of that. Being active is important to children in Dapto with nearly 60% of the children surveyed playing an organized activity, mostly sport in the local parks and sports facilities. The younger were less likely to play in an organised sporting activity. Over 30% of all children said playing sport was their most favourite activity. Ironically, although children do have this commitment to play and activity there is still the issue of freedoms to be enabled to do this, as will be discussed in the next session on children moving around the neighbourhood.

![Graph 9: CFC Engagement in organised play activities.](image)

The photograph below by Shawn illustrates the extent that places like the skatepark are well utilised in the community by young people.

![Photograph 4: Local Skatepark, Shawn age 11.](image)
Even though there were some issues around bigger boys being bullies most of the young boys and some girls in the 10-12 age group said they engaged in active play activities at the skate park on a regular basis. For those who were a little nervous about playing on the skate ramp they did talk about skating and using their scooters in the pathways around the park, so still being connected and active but not directly immersed in the skate ramp culture.

The following are a sample of some of the comments by children about the importance of having places for being active and its benefits for children:

“We need more places to ride bikes” Brad Nickel, aged 10
“Exercise keeps everyone fit and healthy, as well as living a long life.” Tiegan 11
“Let kids run free” Jack 10
“It is fun” Logan 10
“I like to ride on my scooter around the block” Zane age 6

Having places where you could be active was significant throughout the survey data and the visual data therefore it also became one of the key indicators of a child friendly neighbourhood.

Favourite Activities
Supporting the previous survey questions when asked what were children’s favourite activities they identified sport, physical activity, playing with other people and interacting with animals and nature were selected most often. Interestingly watching TV, DVD, using computers was very low on their favourite activities. It was clear from this and the other data that many of the children especially the older children play structured sport on a regular basis and the favourite non-sporting past time was to play with friends in the local parks and wild natural spaces on the neighbourhood periphery. The proceeding photograph below by Lachlan taken at point in the park where its leads into the wooded forests on the edge of the neighbourhood provides a wonderful perspective of the real and potential affordances these spaces provide for children.

Fishing, catching frogs, going for walks, riding bikes, just generally hanging around the creeks and woodlands was an especially common activity for the older boys on the weekends and after school. Some of the young children also made reference to activities in nature: “My favourite activity is fishing with my family” Tyler aged 5.
Photograph 5: Natural spaces to play, Lachlan, age 11.

This drawing by Logan of his neighbourhood illustrates how natural elements of the environment, rocks, bushes, trees, and the pathways to get to them are central and interwoven to his experience and perception of the neighbourhood.

Drawing 1: My neighbourhood, Logan, age 10.

The younger children also spoke of how their parents took them to these wild spaces on the edges of the neighbourhood to engage with nature. This awareness of the integration of nature with their neighbourhood experience was also embedded in a strong sentiment for the importance of protecting and valuing existing natural and indigenous elements of the landscape. This came through in the instance of the reference group children to view the importance of nature not just as a physical element available to them but also of the important role they had to play in protecting nature, including plants and animals. These following comments illustrate how children of Horsley’s have taken up high environmental awareness and stewardship roles:

“If the flora dies it won’t be beautiful anymore.” Kimberley 11
“It can let the animals have freedom and feel safe” Jason 11
“We need to protect nature so no animals die and become extinct.” Olivia 10

**Moving Around**

“I want to be able to walk home on my own…” – Bluerock, aged 11

The data providing insights on how children and parents view the opportunities and constraints of children moving around their neighbourhood freely was predominantly from the children’s independent mobility survey. CIM on the graph title illustrates this and a reference to child or parent shows whether it is the child or parents survey data being used. Data available from the
CFC survey on the mode of travel children usually use to go to school and the capacity for children to go outside their garden gate to play contributed to these results on moving around.

Travel to School
The data on children’s school journeys illustrate that most children in the neighbourhood travel to school by car even though they predominantly live within 5 minutes journey away. The CIM data on time spent travelling to school illustrates that 50% of children travel for less than 5 minutes, 40% between 5-15 minutes and 10%, 16-30 minutes.

![Graph 11: CIM Child 10-12 year old travel to school](image)

There is a trend in the data that boys tend to use more alternative modes of transport than girls. When asked what their desired travel mode was 21% of children surveyed said they would like to walk, 35% chose cycling and only 28% said by car. The data on who children travel with to school identifies girls are almost twice as likely to travel to school with parents then boys, boys are more likely than girls to travel with children their own age and just as likely to travel with a friend as they are to travel with parents, and around 1 in 10 boys (no girls) travelled to school alone. To illustrate the generational shift in travel mode to school, 70% of parents stated they walked to school as a child, 12% travelled by bus and only 9% were driven by car.

![Graph 12: CIM who did you travel with to school](image)

Key parental licences
Licences are the way we describe parents giving children permission to do certain activities that allow children to move around in the neighbourhood freely and independent. In the CIM survey
parents were asked to nominate if they had given children permission for certain activities. Journeys to school by foot and crossing main road were the main activities supported by the parents for their children, though it is clear from the gender division of the data that boys are permitted more independence then girls on all parameters of CIM.

Graph 13: CIM Key parental licences of Children independent mobility

Parents reasons for not giving licences
When parents were then asked what were the main reasons attributing to giving less CIM licences to their children than they had as a child, stranger danger was significantly the highest especially for parents of girls with traffic danger being the next highest. Bullying was also a significantly more important reason for not allowing freedoms for male children than females.

Graph 14: CIM Parent: reasons for not giving CIM licences

Parental perceptions of other adults
Research into children’s independent mobility consistently reveals that parents are more confident to give children freedoms if they can trust other adults to care for their children’s well being. In the survey parents were asked if they felt there were other adults able to care for their children. The data revealed 60% of parents strongly agreeing or agreeing that other adults would care for their child, with another 20% not sure if they agree or not, less than 15% disagreed.
Mobile phone ownership and parental confidence
With the introduction of mobile phones as a possible tool to improve children’s safety in public space the CIM survey asked parents, first if their children had a phone and if they did, if it gave parents more confidence to allow their children more freedoms. Overall the evidence seems to indicate having a mobile isn’t a strong indicator of confidence for parents in improving their child’s safety.

Play outside garden
The results of the question can you play outside your garden (without an adult) bellows, illustrates overwhelmingly age that is a significant issue with children being allowed to go outside their garden. In the 4-6 year group we find less than 40% of children being allowed to play outside the garden but by the 10-12 year age group over 80% are allowed.
Graph 17: CFC Play outside the garden

This drawing by Alexis illustrates a key phenomenon expressed in theories on cognitive mapping and children’s environmental literacy. Empirical evidence from cognitive mapping exercises continues to support the view that adults and children’s environmental literacy is correlated with their actual use of space (Freeman & Quigg, 2009; Lynch, 1960; Malone & Tranter 2003). It was evident from the level of detail in drawings and the range of the photographs from both age groups that children in this neighbourhood aren’t just viewing their environment in a mediated sense from a car window but actually engage with the physical landscape in a personal and embodied way.


Extending on the question of whether children were able to go outside their front garden to play we asked the children to share with us where they went if they did go outside the garden and if they weren’t why not. The results of this data illustrate that most children due to the rich physical affordances available in the environment did not go far from their houses and tended to stay within the neighbourhood.
Graph 18: CFC If you do play outside garden, where?

When asking children why they felt they weren’t allowed to or didn’t want to play outside their garden, traffic and strange danger came out again as the two most significant issues. The third was hurting themselves that relates very much to the younger age group who are still building their confidence and environmental competencies.

Graph 19: CFC If doesn’t play outside garden, why not?

Again you can see from Corey’s photographs of his play places, that the open paddocks of the countryside that butt on to the edges of the neighbourhood area are important play spaces for children. The large old trees that were planted as a wind break for the farmhouse now provide shelter for animals and children alike, and a haven for engaging in rough and tumble play with an abundance of loose materials for cubby building.
More freedoms
Finalising the discussion of the results on children’s capacity to access their neighbourhood riches, we asked children if they would like to have more freedoms then they were presently given. The results below illustrate that the boys definitely have strong desires for more freedom with 74% saying yes and 26% saying no. For girls it was much more even with 52% saying yes and 48% no.

Pathways and access
Moving around safely using paths and having pathways was important especially for the older children when over 80% played in places outside of their homes and for both ages as close to 1/3 of the children walk to school. Issues around safety and danger concerning traffic, pedestrian access meant children’s discussions on independent mobility had a strong focus on the role footpaths, pedestrian crossings and other measures were available to ensure that speeding dangerous drivers did not cause harm to them. The role of pathways as providing access to the streets safely and the role they would play in order to allow engagement with natural play settings was seen as such a priority by the children it became one of the eight key themes for children for a child friendly neighbourhood. This dream drawing by Bridget illustrates the detail given to providing bike paths from her home into the neighbourhood so she could access many of the play elements (lake, playground, pool) of her child friendly neighbourhood. In the photographs Bridget took of her neighbourhood she again picked up on this theme of pathways and showed
some of the existing pathways in the neighbourhood. These nicely capture the symbiotic relationship of affordances and accessibility in a child friendly neighbourhood.

![Drawing 3: My dream neighbourhood, Bridget age 11.](image)

The following are some comments made by children about the importance of pathways: “Having pathways means I can walk without having to worry about being hurt or run over by cars or motorbikes.” Connor, 10 “People walk on the pathways to let people feel safe and keep nature safe” Jason, 11 “A pathway in nature means you aren’t stepping on flora” Georgia, 10 “I go to the playground near my home, I can ride a bike there around the track” Sienna, 5 “I wish for paths on both sides of the road and more parks” Gummybear, 10

**Dreams and Wishes**

**Why am I lucky?**
“Peace and quiet and having a creek next to my house” Brendan, 6
“My friends like me I get to play with my friends” Charlotte, 5
“I have great neighbours” Bridget, 11
“I’m with my family” Harrison, 10
“I have lot’s of parks, walking tracks and a tennis court in my area” Connor, 10
“I get to ride to the shops with no adults but with my friends” Jade, 11
“I have a great street” Sara, 11

The results to the question Why am I lucky? illustrate a very strong focus on children appreciating their neighbours, family, friends and the physical environment. 45% of children believed they were lucky because of their family and friends, 38% felt lucky because of their neighbours and 17% lucky because of physical and natural environment. Below is a collection of the children’s comments.

**Why am I lucky?**
Being with my mum and dad, I love my mum, I go somewhere fun, I always play with my big sister, I live in a beautiful house and neighbourhood, I got really nice friends, Lot's of kids on my street, I have a great world to live in I have a good family, I have a safe community, I have a great place to stay, I have great neighbours, I have a nice house and a farm behind my house and I have a nice neighbourhood, I live near a park and the lake and we can walk or drive down there whenever we want, I have a nice house and a big backyard, I have a big house and a nice street, My step dad gets me anything and I’m allowed to have facebook and I have a iphone, I have a cool and friendly neighbourhood, I have a family that loves me, I get to ride my bike with my friends in my neighbourhood, I have hardly any cars on my street and am close to the bush, My friends live in my street, I have a nice family, I have good neighbours and a nice place, I have lot's of parks and areas to play near my house, I have a good home, I have the best family, I have friends I have a nice family, I get to ride to the shops without my parents, I have lot's of toys and a wonderful mum, I have a caring family, I have a friendly neighbourhood, I have a family that loves me.

Box 6: Children’s comments to question: Why am I lucky?

**Child friendly dream neighbourhood**

Analysing the elements of the children’s dream drawing we can see that natural features (sun, sky, animals, people) were more prevalent on the younger children’s drawings with older children including more built environment features (buildings, streets, parks) and sporting facilities.

![Child friendly dream place key drawing elements](image)

Graph 21: Dream place drawing elements

Children were asked what there wishes were to make life better for themselves and other children. Essentially the comments illustrate most children were very satisfied with their lives and their comments were essentially altruistic with 17% commenting on issues to do with environmental preservation. “Every family should have a home” – Logie, 10.

“To have all of my friends in my street and to play lots” – Kimmy, 11. “To tell people not tease other kids” – Squishy, 10 “To donate money to the poor…” – Peanuts Panthers, 10.

“To help all those sick kids” Cutie, 10 “No more bad people” Grace, 10.

“To make everyone happy and safe” Sally, 11 “For children to have the love that I have” Cat, 10.
Participatory Design Workshop Results

Research activity 1: Child Friendly Neighbourhood
“Create good atmosphere, socialise and make new friends” Lachlan, age 11

The building block of any child friendly neighbourhood project is the development and importance placed on indicators/themes that help identify a community to be deemed, Child Friendly. Throughout the entire project we wanted the children to focus on the development and recognition of positives that are already available in the neighbourhood as well as areas for improvement. To start the tuning-in process, the reference group children were asked to brainstorm a list of things they believed they would find in a child friendly community and then in an unfriendly community. The list below is a summary of key characteristics identified during a brainstorming session. They were also asked to draw a picture of a child friendly environment and the key elements were listed and given back to them, again as further data for their own brainstorming and focus group discussions.

<table>
<thead>
<tr>
<th>In a child friendly community</th>
<th>In a child unfriendly community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zebra crossings for little kids</td>
<td>Unfriendly people, Drunk people</td>
</tr>
<tr>
<td>Lollipop lady with stop and go signs</td>
<td>Other kids fighting, Traffic</td>
</tr>
<tr>
<td>Wide roads, Chocolate factory</td>
<td>Stranger danger, Graffiti</td>
</tr>
<tr>
<td>Superheros, Parks and football fields</td>
<td>Broken glass, Stalkers</td>
</tr>
<tr>
<td>Paths wide and flat, Corner shop</td>
<td>Dangerous litter, Burglars</td>
</tr>
<tr>
<td>Bike track, Schools, Mall/ Arcade</td>
<td>Kidnappers, People who smoke</td>
</tr>
<tr>
<td>Farm, Zoo, Fair, Body guards</td>
<td>Massive holes in the ground, Dogs off the leash</td>
</tr>
<tr>
<td>Fishing, Lots of parents and kids</td>
<td>Road workers not making allowances for people walking</td>
</tr>
<tr>
<td>People walking dogs, Kids playing handball on the path, Kids riding bikes with their helmets</td>
<td>Maintenance workers fixing dangerous things</td>
</tr>
</tbody>
</table>

Box 8: Child Friendly and Child Unfriendly characteristics

Figure 5: Child Friendly Environment, drawn by Lachlan age 10

The children from the reference group were then asked to analyse the data collated from the survey’s, drawings and photographs previously completed in the school. The brainstorming on key themes for a child friendly neighbourhood them started to emerge from the group discussions. The emerging themes were then finalized with support from the adult researchers and the completed eight themes for a child friendly neighbourhood were then established. These themes then become critical as a mirror for ensuring that as ideas, visions, dreams and recommendations emerged from the group about what they wanted at the Brooks Reach site and on the adventure pathways, they were still representing the majority of children’s opinions and their experiences of what being child friendly meant. As representatives who have been put in the position to provide the ongoing children’s voice in
In this project it was essential that they continued to utilise the data from the children as the stepping off point and the grounding for their ideas.

![Children's drawings of a place with playgrounds and a place where you feel safe.]

**Figure 6: Children’s emerging list of child friendly and not so friendly indicators**

<table>
<thead>
<tr>
<th>Icon</th>
<th>Indicator /theme</th>
<th>Comments from children why these indicators are important</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Playground Icon]</td>
<td>A place supporting play and has playgrounds</td>
<td>To let children have fun – Jason; So children don’t just sit on the lounge and get unfit, so they could be running around – Kimberley; So people can develop their climbing skills and have fun – Logan; To have safe playgrounds – Paul;</td>
</tr>
<tr>
<td>![Tree Icon]</td>
<td>A place that keeps and protects nature</td>
<td>Saves old trees, keeps our heritage and your families future – Aaron; Keep scar trees and indigenous things- Jack; To keep animals and plants from extinction and let animals have freedom and feel safe – Jason;</td>
</tr>
<tr>
<td>![Community House Icon]</td>
<td>A place where we create communities</td>
<td>Have street parties, where people can get together, be nice to neighbours, share ideas- Aaron; So other people meet people and make more friends – Georgia; Groups or parties to get to know your neighbourhood, create a good atmosphere, socialize and make new friends – communal gardens – LA; So we can share our ideas and make friends - Olivia</td>
</tr>
<tr>
<td>![Sports Icon]</td>
<td>A place that allows you to be active</td>
<td>It can be fun and children will be healthy and a good weight – Georgia; Let kids run free – Jack; It can be fun and you can run and play – Kimberley; So we can be healthy and fit – Olivia; Exercise keeps everyone fit and healthy and living a long life – Tiegan; It can be fun – Logan.</td>
</tr>
<tr>
<td>![Trash Bin Icon]</td>
<td>A place that promotes learning</td>
<td>People don’t throw rubbish, play safe and learn to look after the environment – Jason; Important to teach children about the environment – Aaron; To teach kids to respect the environment, like at out school we have a green team – LA;</td>
</tr>
<tr>
<td>![No Pollution Icon]</td>
<td>A place that is safe and clean</td>
<td>No pollution keeps us, animals and plants safe so there should be no litter – Connor; So no animals or people step on needles or pins and other sharp objects – Georgia; Keep us healthy and nature healthy – LA; Prevents animals, plants and ourselves from injury – Tiegan.</td>
</tr>
<tr>
<td>![Future Icon]</td>
<td>A place that values children</td>
<td>The future lies in our hands, so if you don't educate us the future generation, to look after the community it will be a bad place – Connor; Because the future is in our hands – Paul; Valuing children is important because we can pass on out education to future generations - Tiegan</td>
</tr>
<tr>
<td>![Pathways Icon]</td>
<td>A place that has pathways</td>
<td>Have pathways so you don’t have to be worried about being hurt or run over by cars and motorbikes – Connor; Keep safe and so you don’t step on nature - Jack; Keep safe so you’re not walking on the road – Paul; So you don’t tramp on plants – Logan.</td>
</tr>
</tbody>
</table>

Box 9: Final list of Child Friendly Neighbourhood themes/indicators, representative icons derived from children’s drawings and the children’s rationale
From these indicators it is clear that the children of Dapto cared about their neighbourhood and the opportunities for community members to come together and share their lives. They also valued the spaces which enabled them to learn, play and be active with friends and that these places should be safe and clean. Nature also featured highly with a focus on protecting the existing wild places and animals not just considering constructing new green spaces. Once the indicators were designed, in groups of 3 or 4, children were asked to design a thematic collage using photos and drawings from the children’s workshop data. These collages then became the blueprint for the children’s report ‘Dapto Dreaming’ that was produced for children by the children.

Written by the child the introduction to the report explains the organisation of the report:
“Our Dapto dreaming report is about the things we like about our neighbourhood and the things we think could be changed to make it even better. It’s about making sure adults listen and value us and include our dreams in their designs for our place. The report is organised around the eight things children told us help make this neighbourhood child friendly. These eight themes are discussed on each page of our report alongside the information provided by the children of Dapto”.

Research activity 2: Dreaming Play Space
“Instead of kids just sitting around on the lounge and getting unfit we could run around”
Kimberley, age 11

In order for the reference group to gain a better insight into the designing of the play space they had the opportunity to participate in a guided tour to the Brooks Reach development site. Children met staff from Stockland, the landscape architect and Aboriginal custodians of the local area. This prompted children to ask questions about the history of the site and for the developers to explain the complexities of the urban development process. The primary focus of this excursion was to support the research group to contemplate the context of the playground and its relevant geographical features. Following the field trip the group was asked to identify which playground structures they thought best suited the playground. Keeping in mind the indicators they had agreed on in the previous session the group participated in an activity that asked each member to select 8 favourite structures from a collage of 30 different structures/features. After the selection of these structures a graph was then created illustrating the popularity of certain features. The graph illustrated the spider net structure was most popular with every child choosing this with the next being the giant embankment slide. Both these structures indicate that the children wish to engage in some level of risk and adventure, as both are elevated structures and ‘thrill seekers’. Followed closely behind these two came the Diprotodon dig (a large sand pit with dinosaur bones embedded in its floor), secret and shady places and loose parts for cubby building.
Children stated they wanted a play space where they could create their own space, away from others, a place that supported imagination and mystery. Play structures less favoured by the children included sand digger, totem, balance beam, decks and fences. Having expressed their likes and dislikes of particular playground structures, alongside the child friendly indicators, the reference group were then given the opportunity to evaluate local play spaces that already existed within the local area using the child friendliness indicators.

**Box 10: Evaluation of Local parks and play spaces**

The reference group exercised their frustration with the typical ‘KFC’ (Kit, fence, carpet) playground designs and their narrow potential for exploratory play. “It always leads to one central place”, as one member, said. There can be a perception that children are content
with the pre-structured playgrounds because children use them, but do they have a choice? The comments from the children indicate, play and the use of playgrounds that are malleable, actively engaging and exciting are highly desirable and KFC playgrounds have limited capacity. They felt there “are enough of these already in the area”. This was summed up by one child who stated, “We want something different and unique for this new playground not something we already have”. The recommendations from the group included a combination of natural elements with some structured elements, a focus on indigenous plants and the opportunity to attract wildlife into the play space. The reference group expressed strongly that safety was a key concern, particularly regarding the playground. They also signified that the lack of space or accessibility for natural surveillance should be considered. Community and the thought of others was always on the mind of the reference groups members being testimony to their beliefs and understanding that people make a child-friendly community. Feeling like the play space represented something of a ‘meeting point’ for all members of the community therefore became a significant theme. A place where children could have adventures, dream, and imagine by creating their own play opportunities while also being safe were also key points of discussion. While the data showed there was a high concern for dangers presented in the natural world, it did not deter from them their desire to be immersed in nature and that it should be kept and protected. Children understood the elements of danger and surprise that came with exploring nature yet celebrated the chance to participate in ‘dangerous fun’, and the thrill of the adventure.

**Research activity 3: Emu Adventure Path**

“A pathway in nature means you aren’t stepping on flora” Georgia, age 10

The reference group was asked to think about the significance of a path and what it means for them. They were asked if they were to design a child friendly path, what would it look like, what key features, and for comparison, what makes a path unfriendly? Rather then dictate an appropriate pathway route, the children were asked using a Google map on a smart board to identify what they thought was a safe, fun and logical pathway leading from the old to the new neighbourhood.

![Figure 11: Jack drawing out his preferred pathway route on a smart board with goggle map](image)

From the selection of possibilities proposed by the children that showed which way they thought was best, the majority thought it would be best to create a path that is south of
Purrungully Woodland. The issues around where a pathway would go depended on a number of issues identified and discussed by the reference group (see Box 11).

The final step was to brainstorm the possibilities for what might be contained on the pathway. A number of images from child friendly pathways and streets and paths generally were used to stimulate group discussions (see figures 12-15). The following images were the ones that stimulated the most discussions illustrating interest in such things as pathway construction, creativity through sculptures, natural elements and structural elements such as seating, drink fountains and child friendly signage.

**Pathway issues identified and discussed by children**

*Personal safety* - in order to limit the possibility of stranger danger incidents having a street front at least on one side of the pathway ensured natural surveillance by the homeowners and possible safety houses

*Traffic* - how to ensure riding a bike and or walking was not on a shared roadway with fast moving cars that were an issue for children in the neighbourhood;

*Efficiency versus adventure* – providing diversity and a number of alternative routes that accommodated for those who might want to take a direct and efficient trip, as opposed to those path walkers who may want to meander playfully along alternatives routes.

*Risk taking and creativity* – having the wooded spaces close by for dipping into for optional activities to ensure there were some opportunities for creativity and manageable risk elements that helped to support a sense of adventure;

*Wayfinding* - Providing a pathway location that supported sculptural and wayfinding elements such as signage and icons to allow for building spatial, environmental and creative competences.

Box 11: Pathway issues identified and discussed by reference group

During the final pathway workshop session the group reinforced the child-friendly indicators developed in earlier weeks. Selecting a scribe the group then began to brainstorm once more on what they believed to be a Child-friendly pathway. They indicated the need for play,
community, activity, safety, clean spaces, and opportunities to learn. They expressed the desire for a pathway that keeps, protects and enables them to engage in nature. Visibility too was important and the constant referral to sign use, way-finding icons and colour codes reflected these concerns and desires. The proud fact that they were all Australian could not have been ignored either, the fascination of the local scar trees in the area - an icon of congregational meaning and dance; the recommendations for Aboriginal artworks being placed along or on the path; and the use of iconic Australian animal footprints, like the Emus, stenciled on the path to mark the pathway as child friendly. As a show of respect and sustainable-development understanding the reference groups recommendation of “a box at the start to feed birds along the way” should not be taken lightly. When asked how these seeds were to drop from the box, the group replied promptly, with the idea of a small coin donation as the mechanism. This donation evidently was to be collected at particular intervals throughout the year and given back to the community through avenues that ensure the maintenance, and proud ownership of a child friendly neighbourhood. Box 12 provides an open list of ideas and elements for the pathway identified by the children.

<table>
<thead>
<tr>
<th>Wide, alternate and flat paths</th>
<th>Fenced out areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses &amp; Dogs</td>
<td>A box at the start to feed birds; use money from the box to keep parks child-friendly</td>
</tr>
<tr>
<td>Knowing a lot of people</td>
<td>Opportunity to create shelter</td>
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<tr>
<td>Aboriginal artwork on the path</td>
<td>Solar lighting</td>
</tr>
<tr>
<td>Little emu foot prints</td>
<td>A path for all ages</td>
</tr>
<tr>
<td>Signs to direct us</td>
<td>Concrete</td>
</tr>
<tr>
<td>Colour coded signs to direct us</td>
<td>Stepping stone into the bush</td>
</tr>
<tr>
<td>Nature paths</td>
<td>Soft path (rubber)</td>
</tr>
<tr>
<td>Opportunity to play games on the way</td>
<td>Sculptures to make it more interesting, colourful and feel like you have company</td>
</tr>
<tr>
<td>Places to rest</td>
<td>Way finding children icons</td>
</tr>
<tr>
<td>Places to plant your own trees and design</td>
<td>Bike features off to the side</td>
</tr>
<tr>
<td>Footprints with grass growing inside it</td>
<td>Lanes</td>
</tr>
<tr>
<td>Ensure use of native plants not foreign</td>
<td></td>
</tr>
<tr>
<td>Lots of noise</td>
<td></td>
</tr>
</tbody>
</table>

Box 12: Ideas for elements on a child friendly pathway

To complete the participatory research workshops reference group members were asked to write a personal letter recommending elements they felt were indicative of a Child-friendly community and should be included at Brooks reach. Each letter was signed and sent to Stockland. Figure 16 and 17 provide two examples.

Figure 16: Letter from Logan to Stockland

Figure 17: Letter from Lachlan to Stockland.
4. Conclusions

When evaluating the potential value of existing suburbs or planning urban environments for children there are two key elements that should be considered, affordance and accessibility. Affordances are the functional possibilities within environmental features and settings that have the potential to be perceived, discovered, shaped and used by children (Heft 2001). Accessibility is the opportunity for children to be able to access these physical affordances (Kytta 2004). In the Dapto project the data predominantly emanating from the independent mobility survey is how accessibility was measured. Children devising a series of child friendliness indicators and evaluating the environment against those was how children measured actual and potential affordances of their neighbourhood and the Brooks Reach neighbourhood of the future.

The data from both the child friendly cities and the children’s independent mobility survey illustrated that children in this neighbourhood have a strong connection to their community and especially the ‘people’, the neighbours who they share their space with. While issues around stranger danger are keenly discussed by both children and parents (as is found with most other Australian communities), in reality it seems less of an issue for children’s accessibility then traffic dangers, fast drivers, litter and lack of maintenance in public spaces and bullying by older teens. A child in this community tends to have a significantly high level of independent mobility then is the norm in studies from other suburban sites around Australia. While school travel by car is still quite high, the opportunity for children to visit local parks, engage in natural play in the surrounding wild places and to ride their bikes and scooters in the streets in their free time indicate that the licence to travel to school is not probably the best indicator for independence. In fact it would seem driving children to school is more about convenience then fears of safety as many more children walk or take the bus on the travel home then do going to school. Finally, the data on why children believe they are lucky strongly illustrates children’s opinions that they live in a quality environment with many social and physical affordances. Having a loving family, caring and friendly neighbours, parks, the bush and other places to play with friends support the view that this neighbourhood has many of the characteristics important to a child friendly community.

The key recommendations from the reference group’s work during the participatory design workshops include the following. The play space was to be different then the regular tubular structured playground. It would have lots of nature and interesting and unique features, including such features as a long slide down a steep embankment, lots of trees, a connection to the scar tree notion of a ‘connecting, meeting’ place for communities, hand-on experiential and malleable nature elements and loose materials. Finally, they wanted a play space that presented challenges and supported measured risk taking, was clean, accessible and encourages children and families to spend time together.

The pathway was to be a walkable and creative corridor through the neighbourhood connecting the school and the dreaming play space. It would have more than one route – though one route would be the most efficient and safest and be marked that way. The alternative routes and /or stepping off points would provide for diversity in the way children (and adults) might move through the space. Sculptural elements, malleable materials and resources, cultural and or natural elements guides and signs on points of interest would all be included on the main and the alternative routes. Signs would be child friendly (height and content) and provide learning and fun elements with an icon (such as an emu footprint) showing the way. The pathway could be evolving ‘added to’ over time therefore there could be different wayfinding themes and possibilities for personal contribution (i.e. ephemeral and permanent sculptures, planting trees at certain locations).

Through data carefully and thoughtfully composed by children for children, the project has provided a rich and vibrant array of possibilities for designing a child friendly Brooks Reach.
5. References


This is me at my nan’s house with my sister and cousin. This is the best day. There are rabbits at my nan’s house. My neighbourhood has lots of trees, lots of cars. I am lucky because I get to play with my friends. I wish kids could be mermaids –

Dreamer, Designer and Horsley resident, Charlotte female, age 5