Best practice models for effective consultation: towards improving built environment outcomes for remote Indigenous communities

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EXECUTIVE SUMMARY

This Final Report investigates the consultation methods used in remote Aboriginal communities in Australia, particularly in the Ngaanyatjarra Lands and the Anangu Pitjantjatjara Lands of Western Australia and South Australia. Through the use of fieldwork and interviews with a range of practitioners, the research focused on the type and extent of consultation undertaken for the project definition, design and construction of various aspects of the built environments of Aboriginal communities. The research sought to identify where endurable best practice methods for cross-cultural and cross-disciplinary consultation have been employed, and particularly sought to investigate methods considered to effectively engage communities and service providers in determining appropriate and sustainable improvements to housing environments.

The AHURI Positioning Paper, Best Practice Models for Effective Consultation: Towards Improving Built Environment Outcomes for Remote Indigenous Communities (2004) reviewed published consultation practices with remote central Australian Aboriginal communities. It found a number of effective cross-cultural communication protocols and a limited range of cross-cultural consultation methodologies used to identify areas of need in community built environments. However, unless the expert coordination of design and consultative frameworks between Aboriginal communities and their service providers, consultants and suppliers is consistently employed, then the opportunities for Aboriginal self-determination and cultural sustainability are likely to be compromised by inappropriate and standardised built environments. In this regard there is a gap in the literature documenting the full range of consultation methodologies appropriate for the provision of housing and infrastructure. This gap includes cross-cultural consultation with specific reference to built environments and cross-disciplinary consultation between consultants, project managers and service providers in the implementation and evaluation of built projects.

While effective cross-cultural consultation practices have influenced regional policy, they have not been universal in their influence on State and National government policy. There is documented evidence that these methodologies fail when they are not applied consistently, especially when practitioners and contractors have limited experience in cross-cultural communication techniques.

The main area where there is little published information is how policy guidelines (or lack of them) translate to the realities of cross-disciplinary consultation between the numerous service providers. This issue appears to be pivotal in the process of housing provision and the broader issues of cultural and environmental sustainability in the built environment.

The findings in this report are based on interviews with consultants including architects, designers, engineers and planners; service providers including national and state government, regional councils and Indigenous agency bodies; builders and other contractors. Questions devised to correspond to the key research themes arising from the literature review have been directed to:

- Defining the context in which consultation processes occur;

- Identifying the housing and infrastructure design process in relation to cultural, social, environmental and economic issues;

- Defining the consultation process in relation to housing and infrastructure need and aspirations; and

- Defining the post occupancy evaluation process.

The research afforded an opportunity to speak with a broad range of practitioners and experts, and to travel through remote areas to observe specific issues of remoteness and the difficulties of appropriate housing supply and maintenance. The interviews involved a series of semi-structured discussions that focused on the identification of practices of cross-cultural and cross-disciplinary consultation used in the design and implementation of projects for housing and the wider built environments of remote communities.

Research questions for cross-cultural consultation were:

- What are the effective cross-cultural consultation practices of architects, building designers, builders, sub-consultants and service providers operating in the remote built projects of Indigenous communities?

- What methodologies can consultants and service providers employ to interpret community needs for housing and infrastructure in remote, Indigenous communities?

- How can effective protocols for consultation specifically for housing and infrastructure projects be formulated to provide cultural, environmental and economic benefits?

- How can effective working relationships be established with Indigenous communities?

Research questions for cross-disciplinary consultation were:

- How can consultation protocols and policies for service contract arrangements be formulated to provide effective housing and infrastructure outcomes with regard to cultural, environmental and economic benefits?

- What are the systems that impact upon the delivery of housing and infrastructure outcomes particularly in relation to the coordination of the service provision process?

- How can built projects be structured and managed towards enhancing Indigenous self-determination in community development?

An analysis of the interview responses enabled the identification of critical themes that affect consultation practices and their influence on built environment outcomes.

Practices for effective cross-cultural consultation, summarised from discussions with service providers, architects, educators, project managers, community advisors, and researchers, suggest the following actions:

- Clarify the process of consultation with the community, regional agencies and service providers early on in project inception;

- Develop a clear methodology for communicating with communities including protocols for engagement being mindful of; community and family hierarchies, knowing who to talk to and when, living arrangements on site and modes of transportation;

- Provide immediate and ongoing feedback through informing the community of the methods and expectations of the consultation processes and developing visual materials to be left with the community for ongoing internal discussion as an outcome to every meeting;

- Ensure the relevance of planning meetings for the community and consultants and service providers through delivering on the promises agreed upon during consultation;

- Promote involvement 'on the ground' to effect relationship building and to encourage community ownership of projects;

- Consider developing consultancy frameworks with the involvement of cross-disciplinary teams to balance technically and socially determined planning priorities;

- Consider that best practice may not be about determining the 'right' outcome, but rather to propose directions to work towards improved outcomes. To recognise that consultation is being undertaken in culturally, environmentally and economically changing contexts;

- Understand that the local council is the forum for ideas where the continuation and transfer of culture from the old people to the young people occurs. Input and ownership of ideas occurs when the community congregate at the place where the elders sit, talk and draw;

- Understand that a likely outcome from a lack of consultation will be a dysfunctional building, unless built environment projects are worked out with the community to gain understanding of local factors such as seasonal issues and physical conditions.

Barriers to effective cross-cultural consultation include:

- Limited budget allocations for consultation that are often based on timeframes for conventional rather than cross-cultural communication;

- Limited cross-cultural communication and consultation skills of consultants;

- Limited architectural design and technical expertise of consultants;

- A standardised approach to housing supply that infers less need for consultation and community engagement in planning and implementation processes

Failures in consultation and communication can be linked directly to problematic outcomes in settlement planning, influenced by ineffective cross-disciplinary consultation and the resulting impacts upon cross-cultural communication.

A summary of the findings into cross-disciplinary consultation suggests the following areas for improvement:

- Strategic planning in communities demands the coordination of a complex range of expertise and knowledge, based upon technical and cultural aspirations for development. It is essential to clarify which organisation(s) are charged with responsibility for the central role of coordination and communication across all parties;

- Uncoordinated and poorly conceived consultation of planning and reporting regimes imposed upon communities is compounded when the scope of projects are not properly thought through at inception;

- When consultants confine planning to specific areas of expertise without gaining awareness of alternative factors that may impact upon their solutions, effective implementation will often be compromised by unforeseen events and conditions;

- Evaluation of past projects suggests that where planning is not produced in a form where immediate implementation can occur without further detailed documentation and or consultation, even well-conceived plans may be abandoned. If plans are not written in terms of clear actions they are unlikely to be acted upon; and

- The consultation process is a cyclical process that includes data collection from a variety of sources and most importantly from post occupancy evaluations. A lack of a central database that is an accessible record of both the findings from consultation and planning and documented existing conditions and maintenance data is an impediment to effective implementation of housing and built environment programs.

Barriers to effective cross-disciplinary consultation include:

- The lack of a coordinated policy for service delivery;

- External influence brought upon the focus and direction of the implementation process due to the standard procedures of consultants, service providers and contractors; and

- Limited experience of community self-governance or in the coordination of the complex and interrelated issues involved in the built environment.

A great deal of practical and philosophical advice was forthcoming from interviewees who consistently reinforced the importance of informed consultation protocols and policies. The issues raised related to: the changing dynamics and aspirations of Aboriginal people living in remote places; the management regimes under which housing and infrastructure programs operate; the complex systems involved in working in remote areas; the need to provide sustainable and robust facilities for people within stringent budget guidelines; the importance of effective consultation and negotiation practices to promote relationship building between communities and consultants; and the principle that all consultation should to work to benefit the self-determination potential of communities.

In summary, practice and policy development for best practice consultation is informed by:

- Universal principles of consultation point towards developing protocols and/or guidelines for cross-cultural and cross-disciplinary consultation. They are the need for engagement, communication, reciprocation, feedback and continuity;

- Best practice consultation is a process that is ongoing and cyclical and one that facilitates the evaluation and documentation of built environment projects over the life of projects, from inception to completion, continuing through to maintenance programs and post occupancy evaluation;

- Planning processes imposed upon Aboriginal communities are reported to be uncoordinated, numerous and undertaken with a range of consultation styles that can only be regarded as effective when evaluated against the outcomes they produce. A simplified and outcome-oriented planning regime, based upon research and a robust consultation and communication methodology is essential to sustainable community development. Such methodologies currently do not appear in national guidelines that inform built environment programs;

- Good practices in built environment projects influence policy development on a local and a national scale. The policy principles adopted by project management, service provider and Indigenous agency regimes should be focused to support consultation that will influence consistent and ethical communication and negotiation necessary to inform built environment projects;

- Improved lines of communication developed between consultants, providers and communities through working together on formulating standards to promote innovative, technologically and socially driven reforms to standardised housing regimes. These standards become the basis to inform consistent policy development on a national and state level;

- Realistic budgets and timelines are essential components of effective and consistent consultation programs. At project inception, a clear philosophical and programmatic plan for consultation with both communities and with service providers and other consultants should be an agreed component of all built environment projects including housing and infrastructure. It is recommended that consultation methodologies that embrace consistent approaches to communication practices and which are tied to ongoing evaluation and to outcomes, are written into national and regional project management and housing standards guidelines;

- Standardisation of housing designs and project management regimes has been widely adopted to allow for economies of scale, and to facilitate more effective implementation of programs to provide shelter in areas of high demand. Where a standardised approach has resulted in less consultation between communities, consultants and service providers, a resulting lack of community engagement in the planning and delivery of housing has been the result. Mechanisms, reinforced by policy, that allow for review and evaluation of housing and infrastructure programs at a regional or state level, such as standards workshops, are ideally the forum where the management of built environment programs are debated and expertise shared; and

- Policy developed to foster a consultative and coordinated approach between service providers, consultants and the communities leading to providing sustainable housing and infrastructure in remote areas. One practical avenue for this initiative is in establishing forums to allow 'on the ground' standards workshops that provide for a range of people to negotiate directions for future development, based upon accessible information and evaluation of historical and practice based precedents.

This research has confirmed that effective consultation is widely accepted by practitioners and service providers as pivotal to the delivery of sustainable built environment projects to remote Aboriginal communities. It is clear that effective evaluation and dissemination of good practice can set the agenda for future housing and infrastructure development and has driven policy as a result. The development of a national and/or regional database documenting both cross-cultural and cross-disciplinary consultation practices in relation to evaluated built outcomes will further inform the development of workable and responsive consultation guidelines aimed at improving built environment outcomes for remote Indigenous communities.

1 INTRODUCTION

This research is concerned with improving built environment outcomes for remote Indigenous communities through effective consultation. The research sought to investigate the range of consultation methods used in remote Aboriginal communities in Australia, particularly in the Ngaanyatjarra Lands and the Anangu Pitjantjatjara Lands of Western Australia and South Australia. It focused on consultation methods used for the project definition, design and construction of various aspects of the built environments of Aboriginal communities. The research sought to identify a range of proven and endurable best practice methods for community consultation that more effectively engage communities in determining appropriate and sustainable improvements to their built environments.

The concept of housing is expanded in this research by the use of the term built environment, which encompasses infrastructure and associated community structures and external built works such as landscaping. The general focus on houses and services, by funding and project management agencies, often fails to adequately account for the social and environmental dynamics that affect local built outcomes. A predominant government and agency focus on providing shelter to improve the health standards of remote communities, has concentrated largely on numbers of houses and bedrooms, with arguably limited social and environmental success. The built environment describes a system that encompasses all aspects of the physical environment, including the social, cultural and environmental attributes of places.

This Final Report firstly states our developed research aims in response to a review of pertinent literature (chapter 2) and identifies the context in which consultation currently occurs and the variety of consultation practices that are undertaken. Central to the research are two main types of consultation: cross-cultural consultation that relates to communication with Aboriginal communities, and cross-disciplinary consultation between the range of consultants, contractors and service providers. A reading of the literature (see chapter 2 for further details) confirms that contemporary and professional consultation practices, exacerbated by a lack of meaningful communication by architects and service providers, have failed to adequately identify housing needs. This leads to design failings continuing to be replicated. Most importantly, a 'one size fits all' approach is one of the principle factors in the ongoing failure of governments and agencies in the provision of appropriate housing for Indigenous Australians.

From a non-Indigenous perspective, the function and purpose of a house described through the relationship of internal rooms and within the overall context of the yard and street, is typically understood in terms of the preferences for nuclear family living models and through ubiquitous standard housing types. However, the suitability of standardised housing for diverse and extended Aboriginal family structures has to be questioned. Standardised planning and housing is not necessarily suitable or appropriate for the diverse cultural, gender,

age and extended family structures evident in Aboriginal communities. It is reasonable to suggest that unless there are consultation methods that can objectify understandings about lifestyle patterns and their design implications, housing provision is likely to be based upon the cultural preferences of the consultant/provider over those of the recipient.

The research proposes that housing needs may only be determined through effective cross-cultural communication, which requires an understanding of cultural differences and an expertise in providing housing options responsive to particular requirements. Cross-cultural communication problems arise when assumptions and misunderstandings on the part of well meaning architects, builders or bureaucrats occur due to differences in language, values, assumptions, beliefs and experiences relating to the function and purpose of housing. Accordingly, the second part of the Final Report examines effective consultation methods and practices (chapter 3) in relation to built environment outcomes from information gained from interviews. It concludes with a review (chapter 4) of the potential for good consultation practices to improve the planning and implementation of projects and with recommendations where practice can inform policy development.

1.1 Research aims

The project investigated and documented the consultation and evaluation practices of recognised architecture and design practitioners, associated sub-consultants, builders and service providers working in the development of remote, built environments for Indigenous communities.

The research undertook:

- A review of relevant Australian research literature and other documentation focusing on cross-cultural consultation methods;

- Documenting the current cross-cultural consultation practices and procedures of design practitioners, associated professionals and service providers working with remote Indigenous communities;

- Examining methods of cross-disciplinary consultation between practitioners, service providers and communities and reviewing those methods in terms of their effectiveness in leading to improvements in built environment.

To inform the research aims above working definitions for best practice and consultation methods were proposed through:

- Defining the extent and context of the built environment in remote Indigenous communities;

- Clarifying the practical definition of best practice/s in consultation and documenting the outcomes of such practices;

- Reviewing design and consultation literature and practices involving cross-cultural and cross-disciplinary consultation practices.

This research has focused on South Australia, Western Australia and the Northern Territory as the survey area for interviews and case studies involving a range of professionals and experts drawn from: key State, Indigenous and local council agencies, architects, landscape architects, engineers, builders, project managers, anthropologists, services contractors, economists, health professionals, education professionals and community managers, all involved in the delivery of housing and infrastructure to communities.

1.2 Key aspects from the review of literature

The AHURI Positioning Paper, Best Practice Models for Effective Consultation: Towards Improving Built Environment Outcomes for Remote Indigenous Communities (2004) reviewed a range of published consultation practices undertaken with remote central Australian Aboriginal communities. The literature revealed a number of effective cross-cultural communication protocols and consultation methodologies used in a variety of areas such as health, education and housing. The review confirmed that although effective cross-cultural communication protocols have been identified, consultation methodologies specifically relating to the built environment are less well documented. Our examination of these practices also point to shortcomings in existing consultation practices relevant to the built environments of various communities.

'On the ground' consultation has been highlighted as good practice, due to the direct participation of Aboriginal people and resulting tangible outcomes. The participation of consultants in negotiation with Aboriginal families facilitates a level of cross-cultural engagement that is rarely achievable by more formal communication. 'On the ground' methods include surveys of housing employing 'test and fix' procedures where each house surveyed is provided with an immediate 'service' to the house residents. Other effective methods involve Aboriginal people in the community planning and house design employing various communication methods including scale models, drawings, on the ground full scale set outs and prototyping new full scale house designs.

While participatory approaches have influenced regional policy, this has not guaranteed that National and State government and agency management regimes responsible for providing housing and infrastructure in remote areas have been sufficiently influenced by such policy. Workable policy ensures that participatory consultation practices are an essential aspect of building programs. There is documented evidence that consultation practices fail when they are not applied consistently, especially when practitioners and contractors have limited experience in cross-cultural communication techniques.

Successes in the generalised project management area are evident where contractual guidelines have been set up to ensure consultation and negotiation occurs with Aboriginal people. However, these protocols are not also established

for the management, funding, services and housing implementation agencies. The significant area for which there is little published information is how policy guidelines (or lack of them) translate to the realities of cross-disciplinary consultation in the field. Cross-disciplinary consultation appears to be a pivotal component in the effective delivery of remote built environments which are culturally and environmentally sustainable.

Although much consultation is undertaken in a sensitive and inclusive way, many communities do not see the resulting built outcomes as successful. There remains a real disparity between consultation practices and the ultimate delivery of housing and improved conditions. Barriers that undermine good consultation practice include preconceived standardised housing options, and limited timelines and budgets that reduce the opportunities for consultation and relationship building with remote communities. Unless expert coordination of participatory design and consultative frameworks is consistently employed during construction and after occupation, then the opportunity for Aboriginal self-determination and cultural sustainability is likely to be compromised by the provision of inappropriate built environments.

1.3 Research questions: general themes and principles

This research has identified gaps in the literature that highlight the disconnection between the consultation process and systems of housing and infrastructure delivery. This disconnection has been the focus of research questions that seek to clarify the relationship between consultation and delivery and the effectiveness of that relationship in the provision of appropriate built environment programs. If the planning and housing aspirations of an Indigenous family or community are to be realised, both the consultative process and the systems of delivery need to be effective and coordinated: any failure in one of these areas is likely to compromise the eventual built outcome.

The research emphasis is divided into two general themes: cross-cultural consultation with Indigenous communities, and cross-disciplinary consultation between the various agencies responsible for the delivery of built outcomes.

The questions that arise in relation to the provision of effective cross-cultural consultation include: the expertise required of consultants, budgetary allocations for consultation, policy frameworks effecting consultation and service agency consultation practices. The following research questions focus on these issues:

- What are the effective cross-cultural consultation practices of architecture, design and building practitioners, associated sub-consultants and service providers operating in the remote, built environments of Indigenous communities?

- What methodologies can consultants and service providers employ to interpret community needs for housing and infrastructure in remote, Indigenous communities?

- How can effective protocols for consultation specifically for housing and infrastructure projects be formulated to provide cultural, environmental and economic benefits?

- How can effective working relationships be established with Indigenous communities?

The research questions that relate to the provision of effective cross-disciplinary consultation between the various agencies responsible for the delivery of built outcomes include: an appreciation of the cultural context, expertise required of agencies, service implications of limited budgets, policy frameworks effecting service delivery and inter-agency relationships, and coordination of service agencies consultation and service agency consultation practices. The following research questions focus on these issues: -

- How can consultation protocols and policies for service contract arrangements be formulated to provide effective housing and infrastructure outcomes with regard to cultural, environmental and economic benefits?

- What are the systems that impact upon the delivery of housing and infrastructure outcomes particularly in relation to the coordination of the service provision process?

- How can built projects be structured and managed towards enhancing Indigenous self-determination in community development?

1.4 Consultants and service providers involved in consultation

The range of consultants and service providers involved in the delivery of housing and infrastructure in remote Indigenous communities reflects the complexity of design and building processes. The complexity of these processes has been exacerbated by policies encouraging self-determination which, when not complemented by effective coordination, will involve communities in consultation on all aspects of the design and building process. When this occurs in an unstructured manner it is not conducive for effective negotiation and informed agreement.

This research has documented the complex communication that occurs during the implementation of built environment programs through investigating the current consultation practices of a number of consultants and service providers.

2 THE CONTEXT FOR CONSULTATION

The determination of effective cross-cultural consultation methodologies require analysis of the context in which such methodologies are applied. This context includes the: -

- Design and planning processes leading to community environments;

- Management and organisational regimes in communities;

- Current development of cross-cultural consultation methodologies.

The AHURI Positioning Paper, *Best Practice Models for Effective Consultation* (2004), proposed generalised terms relevant to the conceptual framework and context for consultation, which in common usage, are open to broad interpretation. The key concepts that inform this study summarised below are; '*effective*' *consultation*, the *built environment*, *remoteness* and *sustainable environments*.

Effective consultation is achievable when good working relationships are established with Indigenous communities. However, the diversity of participants and the range of communication processes involved in any consultation, underpins the difficulty of achieving measurable outcomes in complex consultation situations. Effective cross-cultural consultation in built environment programs is an essential component of a cycle that includes an evaluation of the outcomes of the entire project. Consultation methodologies will be effective when communication methods have led to timely and negotiated action leading to sustainable outcomes.

In the context of this research (as noted in chapter 1) the concept of housing is expanded by the use of the term **built environment** to encompass infrastructure and associated community structures and external built works such as landscaping. **Remoteness** affects access to design and building expertise, to building materials, to sustainable services for ongoing operations and for maintenance and upkeep, and to communication systems. Access and time are key components in the development of consultation programs with remote communities. The ability of service providers and design consultants to sustain communication practices throughout lengthy planning, design, and building and maintenance programs in remote places is often highly compromised.

The integration of economic, social and environmental factors is essential to developing and maintaining **sustainable environments** for Aboriginal communities. The relatively recent transition from a nomadic to the predominantly settled lifestyle of many remote communities has been at the expense of minimal use of environmental resources and a 'comfortable integration of the social, economic (labour) and environmental dimensions of sustainability' (Ross, 2002:138). Consultation methodologies that promote the design of sustainable places must acknowledge the diversity of remote physical environments and Aboriginal peoples changing housing aspirations and

preferences. A sustainable consultation method will encourage design and implementation solutions 'to be explored locally, through Aboriginal participation in and/or control of the design project' (Ross, 2002:140).

2.1 History and context in Aboriginal built environments

The built environments where Aboriginal people live in central Australia have no Indigenous cultural tradition. The historical origins of Aboriginal communities arose from the gathering of disparate kinship groups, often from different language groups, into pastoral settlements or missions. The notion that these communities were socially and culturally homogenous grew out of racial and cultural simplifications and a pervasive belief that within Aboriginal communities there was a strong ethic of sharing (Hirst, 2004:15). The fact that sharing is amongst kin and not a widespread community ethic means that existing communities are usually a group of families who are tied by a bore or a store but in other circumstances would not be living together (Tregenza, 2002).

This and many other aspects of Aboriginal social and cultural arrangement contrasts significantly with those of non-Indigenous people where community and family aspirations are satisfactorily accommodated by standardised planning and housing types. When these same housing types are applied to Aboriginal communities in remote areas, the consequences can often result in dysfunctional living environments.

Standardised planning and housing is not necessarily suitable or appropriate for the diverse cultural, gender, age and extended family structures evident in Aboriginal communities.

2.1.1 Standardised housing, infrastructure and planning practices

The provision of housing and infrastructure for Indigenous peoples is motivated by quite reasonable intentions to address discrimination faced by Indigenous Australians not only in direct housing provision but also in the wider services environment (SA State Housing Plan 2003).

> The quality of Indigenous housing in rural and remote
> areas should not be less than the standard applying to
> urban areas (Commonwealth State and Territory Housing
> Ministers' Working Group, 1999:3)

If such provision is not to be discriminatory, particularly in comparison with housing and infrastructure standards established for the wider Australian community, then it would appear reasonable to base housing and infrastructure provision on 'standard' practice if not 'best' practice in housing provision, in line with that provided for non-Indigenous communities.

The mainstream housing market is based on housing types produced by the building industry. The evolution of this type of housing has been pragmatically focused on economic cost savings and market demand; factors that discourage innovation in design and planning for diversity in social arrangements or for

sustainable solutions such as water and thermal systems management. House design options are typically based on house plan typologies suited for nuclear family arrangements of two parents and two to three children and house configurations of one or two inhabitants per bedroom. The choice of housing designs is based on the number and function of rooms afforded by a given budget and is usually made with the assistance of a draftsperson, builder or on the basis of comparisons represented by full scale 'display homes'.

Yet these mainstream models are often transferred from an urban non-Indigenous environment to remote Indigenous communities in support of a 'standardised' approach. The housing market has evolved without architects and therefore without the consultative processes the architectural design process normally provide. This is indicative of a market which judges such services as more expensive and unnecessary, and the degree to which standardised housing in its multiple permeations conforms to mainstream housing. This pattern of housing and planning development, while fostering aspirations to live in discrete nuclear family structures, has a questionable relevance to Indigenous cultural aspirations other than for housing preferences based on status (Memmott, 1997:23).

2.1.2   Patterns of housing and infrastructure in Aboriginal communities

The provision of standardised housing and infrastructure for Aboriginal communities in central Australia is ubiquitous. Overall community planning layouts are usually a function of the economical reticulation of power and water resulting in housing densities similar to Australian suburban subdivisions. Street layouts employ variations on grids, crescents and cul-de-sacs, which pragmatically achieve vehicular access to community buildings such as the store and to every house. Houses are usually sited on contiguous blocks or yards and face the street. Yards are usually enclosed with 1m high cyclone fencing.

House types are defined in terms of the number of bedrooms ranging usually from two to four bedrooms. Variations to house layouts are limited in spite of numerous alternative design proposals by architects and builders over many years (Refer section 2.2). In recent years, climatic responses have resulted in the provision of verandas around houses, and recommendations by the National Indigenous Housing Guide (Healthabitat, 2003) have resulted in changes to wet area layouts and their relationship to the overall house layout together with numerous other improvements to the function and amenity of houses, aimed at improving the health of inhabitants. Generally, construction systems include prefabricated steel framed and clad houses or masonry blockwork houses which are usually constructed on site.

The provision of standardised housing and associated planning patterns is justified on two principles: firstly, the imperative to maximise the number of houses within limited budgetary or funding regimes and secondly, to fulfil conservative housing preferences which arise out of a desire to achieve equality, acceptance and status through familiar housing types (Memmott, 1997:27).

The paradox for many Aboriginal people is that they retain their culturally unique forms of behaviour within a context of standardised housing and associated planning patterns. The dynamic factors in Aboriginal life effecting housing needs include: -

- Changing household numbers in relation to extended family transitions between houses and communities often resulting in overcrowding;

- Aggravations between family, language, age and/or gender groups exacerbated by either the close proximity of houses or the lack of traditional separation;

- Sensitivities arising from cultural protocols and living preferences not adequately accommodated by standardised housing layouts.

These factors at a housing and at community level often lead to stress, damage, disillusionment and abandonment. It needs to be questioned whether the economies of scale justifying housing standardisation account for the costs of maintenance, replacement and social dysfunction.

The other aspect of standardised housing and planning is the disregard for the climatic and topographical context in which houses are sited. Houses are generally oriented to the street rather than to the sun, so that the potential to maximise the benefits of the winter sun or to moderate the effects of the summer sun are not exploited. While these patterns are no different from the norms in non-Indigenous communities, the climatic extremes of desert environments and the costs to households for energy heating and cooling in such remote locations have compounding consequences. Many houses do not provide sufficient shading and insulation.

In spite of insulation and some recent building technology innovations, typical steel houses achieve an undesirable level of thermal conduction between outside and inside. Blockwork houses have no insulation and are renowned for their tendency to radiate accumulated summer solar heat into houses at night making internal environments unliveable. These houses are also difficult to heat and maintain a comfortable level of warmth in winter.

Examples of poor design and siting include houses that are susceptible to stormwater inundation due to ground run-off and inadequate drainage. The plethora of household failures associated with water supply, water heating, wastewater disposal and unsafe electrical installations has been the result of poor design and inadequate on-site supervision. Focus on these problems has led to Federal Government support for the National Indigenous Housing Guide, first adopted in 1999. While these guidelines provide minimum standards aimed at improving the health and safety outcomes for Indigenous housing, these recommendations are not uniformly adopted by housing and infrastructure providers.

2.2 Key themes and summaries established from the literature

2.2.1 Identifying housing and infrastructure needs through consultation

Paul Memmott's (1997) important review of consultation in remote Aboriginal communities confirms that housing needs continue to fail to be identified, predominantly due to the limitations of mainstream consultation practices and a lack of meaningful communication by architects and service providers. Cross-cultural communication problems arise from assumptions and misunderstandings on the part of well-meaning architects, builders or bureaucrats arising from differences in language, values, assumptions, beliefs and experiences relating to the function and purpose of housing (Memmott, 1997:23). The outcome is that planning and design failings are replicated over many housing programs. The tendency to operate within a 'one size fits all' commercial approach is one of the principle factors in the ongoing shortcomings in the provision of appropriate housing for Indigenous Australians.

It is reasonable to suggest that unless there are consultation methods that can encapsulate understandings about lifestyle patterns and their design implications, it is likely that housing provision will be based upon the cultural preferences of the consultant and/or provider rather than those of the recipient.

2.2.2 Scope of consultation with remote Aboriginal communities

Aboriginal self-determination is strongly supported by government and agency policies. However, such policies have significant implications for communities who have limited experience of community self-governance or in the coordination of the complex and interrelated processes involved in built environment programs. By comparison, local councils in non-Indigenous communities, coordinate a substantial component of local governance such as planning, infrastructure and services, where even minimal community consultation and feedback is expected.

The ranges of people with whom a single community or family may have to consult in the course of obtaining a house are very broad. These may include: government authorities, Indigenous regional councils and their local agencies, planners, architects, landscape architects, engineers, builders, project managers, anthropologists, services contractors, hardware suppliers, economists, health professionals, education professionals and community managers. Communication may be coordinated or mediated through an officer or manager employed by communities to assist in managing day to day business. Despite this assistance, the broad range of issues to be considered to ensure substantial community participation means that community spokespeople are kept extremely busy in often complex and protracted negotiations. Effective consultation is both a logistical and time-consuming requirement of the planning, design and construction process, needing a high level of coordination and integration.

2.2.3 General cross-cultural consultation principles and practices

Principles and practices for consultation, drawn from a review of cross-cultural consultation methods employed across a variety of sectors such as health and land management, can inform consultation methodologies for application to the built environment.

The cross-cultural consultation practices of Aboriginal communities and service providers are drawn largely from the accounts of facilitators employed by Aboriginal communities, councils and agencies who manage the legal, monetary and administrative affairs on a community's behalf (Walsh & Mitchell, 2002:18). The need for facilitators to be familiar with mainstream Western political and bureaucratic systems means that a large proportion of facilitators are currently non-Aboriginal. The extent to which facilitators have knowledge of Aboriginal and non-Aboriginal cultures and management regimes, is a significant issue in effective cross–cultural consultation and negotiation.

Recognition of the diverse cultural and social factors affecting Aboriginal community life together with knowledge of potential barriers to communication is essential for consultants seeking to employ cross-cultural consultation methodologies. Key aspects of these factors, summarised from section 4.2 of the AHURI Positioning Paper *Best Practice Models for Effective Consultation* include:

- Communication and talking - which recognises the dominant traditional visual and oral cultures and that English is a second language for many Aboriginal people, and that few consultants speak Aboriginal languages;

- Representation – where protocols for identifying whom to speak with are tied to family groupings. The notion of community and centralised decision making, which may be regarded as a concept arising from western planning regimes, runs counter to Aboriginal methods of speaking for their groups;

- Issues of seniority and gender – where traditional hierarchies, and the decision-making processes they support, are linked to restriction of information between genders and between various levels of initiates;

- Conversational protocols – where direct questioning is discouraged and story telling and informal conversations based upon experience and history are seen as more effective ways of engaging Aboriginal people in participatory methods;

- Shared responsibility and ownership – where consultation with Aboriginal people is based upon supportive partnerships between communities and their consultants which facilitate the responsibility and ownership for decision making processes and encourage the recognition and practice of mutual responsibility;

- Time – to recognise that the numerous factors affecting cross-cultural communication necessitates more extensive consultation processes to those usually adopted by design consultants. Potentially protracted decision making processes arising from family or political interests must be taken into account when planning consultation programs, and the people must be given sufficient time to develop a response.

2.2.4 Cross-cultural consultation principles and practices in the built environment

Communication through modelling techniques

One important innovation in cross-cultural communication is the use of graphic and physical modelling techniques. These techniques are effective in communicating the quantitative, physical and temporal relationships that pervade non-Indigenous managerial systems. Of particular relevance are physical modelling techniques that are very effective in conveying planning and spatial concepts in consultation aimed at improving built environment outcomes. Good consultation methodologies present the client with contrasting options to elicit values on particular design attributes related to family lifestyle needs, in the early stages of the architectural design process. This can be facilitated using photographs, drawings or videos of houses in other Aboriginal communities or, more effectively, showing clients existing houses that provide sufficient architectural diversity to generate contrasting values and choices

On this basis, Memmott argues that one-off housing design is justified so to address the problem of assessing Aboriginal housing needs from a relatively limited range of housing designs and the many failures and stresses that have resulted from poor consultation. He suggests that the one-off design approach could establish a portfolio of relatively successful designs to the point whereby the process of consultation involves tours of existing houses for prospective clients (Memmott, 1997:29).

While the modelling techniques and the 'display home' promotion of house design options are employed as effective modes of communication for non-Indigenous people, it paradoxical that these are not generally adopted by planning consultants and housing agencies as cross-cultural communication techniques.

Communication through participation

Three successful participatory planning, design and build practices undertaken by architects and multidisciplinary consultant teams are briefly discussed below. They demonstrate a variety of consultation practices, from direct communication to implied methods such as observation and developing relationships with communities.

- **Integrated living environments:** The approach involves 'on the ground' consultation through working directly with families on their

physical living environments leading to an understanding of health issues facing communities including crowding, family dynamics and day-to-day living activities. Post occupancy evaluations are also undertaken through quantitative monitoring of housing activities. The house 'test and fix' methodology was also established to encourage a formal maintenance system in Aboriginal communities to ensure that that each house survey provided some immediate 'service' to the house residents (Pholeros et al, 1993:vii). This functional participation of consultants with Aboriginal families facilitates a level of cross-cultural engagement that is rarely achievable by more formal communication;

- **Participatory design:** Tangentyere Design, an architectural design consultancy based in Alice Springs in central Australia, established a participatory approach to Aboriginal housing design. This practice advocates decision-making and control vested in the user/client group, and focuses on the architectural design process to inform the product, rather than limited optional choices from standardised models. Consultations employed aerial photographs, landscape plans and two and three-dimensional modelling techniques to model all aspects of settlements, houses and yards, together with a costing schedule, so that housing recipients could make decisions about their budgets (Tangentyere Design, 1997: 6);

- **Self-help housing:** Involves the consultant developing close relationships with the user/client group through becoming a quasi member of the community while acting as a live-in facilitator over the life of the building project. The active participation of Indigenous people in the planning and design of housing is reinforced in the principles behind the self-help approach to remote area housing, where 'concepts in design and construction are to be functionally and aesthetically appropriate and logistically feasible' (Haar 2000:223). Consultation included trialling various materials and construction methods, learning from slides and videos, discussing climatic issues and lifestyle aspirations, and by employing models in the design process (Haar 2000:224).

The participatory approaches described above bring a number of benefits to the process of building better community facilities. The potential for culturally and socially appropriate built outcomes is achieved through greater participation in and 'ownership' of the product. Building relationships between practitioners and communities, through consultation programs with practical and immediate outcomes, promotes understanding of new systems, facilities and skills transfer for communities who often struggle to gain access to education and training programs due to their remoteness.

2.2.5 The influence of consultation practices in the policy determination

The historic formulation of policies for working with Aboriginal peoples, determined by Local, State and National government and religious institutions, did not generally require nor foster a consultative relationship with Aboriginal people. The relatively recent evolution of policy frameworks for cross-cultural consultation has mainly originated from consultation and project implementation practices, which, while not based on policy, have been influential in determining policy.

Consultation methods that arise from the acknowledged effective practices of consultants working directly in built environment situations are described only in definitive studies rather than in policy protocols or agency guidelines. These studies demonstrate that working from analysis of the actual conditions in remote communities can provide the basis for development of effective consultation, design and implementation methods. These methods may then inform the development of published guidelines and/or protocols. *The Environmental Health Standards for Remote Communities in the Northern Territory*, the *National Indigenous Housing Guide* (Healthabitat, 1999) and the *Tangentyere Protocols* (Tangentyere Council, 2000) were all developed from practice based studies.

Many guidelines exist in the form of protocols that assist in developing ways of communicating within different cultural frameworks. In particular, protocols have been published to explain the methods for developing good working relationships between Indigenous and non-Indigenous peoples. Hence protocols can guide consultants to understand the existing political structures they must negotiate, rather than imposing a method based primarily on their culturally and professionally determined assumptions.

Specifically the *Tangentyere Protocols* require consultants to participate in a cultural awareness program and encourage consultants to access language services. They further advocate sectors working together, maintaining respect for culture and the values of the organisation and supporting Aboriginal leadership and governance. They give recognition to Aboriginal decision making processes, which are often less direct and transparent in comparison to professional organisation processes.

Policy makers and consultants with experience at working with remote Aboriginal communities confirm the importance of workable policy and guidelines to inform good practice consultation methods. However it is recognised that where protocols exist, consultation that makes a clear connection to implementation is not always the result.

2.3 Barriers to effective cross-cultural consultation and negotiation

Aboriginal self-determination is strongly supported by government and agency policies, which in varying ways, support and encourage consultation and negotiation with Aboriginal people. However, design consultants confirm that

funding required for lengthy consultative processes is discouraged by limited budget allocations that are often based on timeframes for conventional rather than cross-cultural communication.

Service providers with architectural expertise have noted the increasing curtailment of architect/community consultation. Architects, who practice a design methodology involving extensive community negotiations in on-the-ground participatory planning processes, find that budget limitations and implementation timelines affect their ability to develop good working relationships with communities. Fee agreements are increasingly based upon prescriptive project management regimes and standardised housing programs, which are seen by the commissioning agencies to need less consultation and negotiation.

The need for integration of organisations for delivery of housing, health infrastructure, and the involvement of non-Indigenous rather than Indigenous people as facilitators, increases the complexity and timeline for consultation and negotiation. These issues are further exacerbated by the particular difficulties associated with cross-cultural consultation including:

- The breadth and complexity of interrelated issues involving the built environment;

- Limited architectural (and design methodology) expertise in the design process;

- Lack of documentation of effective practice methods for communicating physical and spatial concepts to inform other practitioners;

Absence of a built tradition in Aboriginal culture to parallel housing and infrastructure provided by governments and service agencies. These factors, combined with limited funding for consultation, conservative preferences in housing type and the need for economies of scale, inevitably reinforce the trend toward standardised housing, with little opportunity for variation or innovation to effect sustainable improvements.

2.4 Built environment consultation: successes and barriers

In spite of the many barriers to effective cross-cultural consultation there are successes in the generalised project management area in establishing contractual guidelines to ensure consultation and negotiation occur with Aboriginal people. However, similar mechanisms or protocols established for the coordination of management, funding, implementation and post occupancy evaluation by service providers and housing agencies are not currently established practices.

As most architectural and other professional consultants, service providers and contractors are based in major cities or regional areas at some distance from their client group, a substantial component of professional dialogue occurs outside Aboriginal communities. The reality is that important decision-making

occurs outside the community forum, by the government service providers and Indigenous service agencies concerned with the central responsibility for overall management of housing programs and budgets.

A significant area, for which there is little published information, is how policy guidelines (or lack of them) translate to the realities of cross-disciplinary consultation, coordination and negotiation. This issue is pivotal in the process of housing provision and housing integration into the broader built environment in culturally and environmentally appropriate ways.

The standard procedures of professional architectural consultants, service providers and contractors can bring significant external influence upon the focus and direction of the implementation process, particularly when the process is not guided by clearly defined protocols or not effectively coordinated. If the process of implementation of housing and service provision is to respect the expressed aspirations of client families and communities, the process must be guided, coordinated and ultimately evaluated in terms of those aspirations.

The ATSIC *Protocols for Consultation and Negotiation with Aboriginal People* suggest that evaluation of what has occurred is critical. "Evaluation should be proactive and occur throughout the consultation, as well as at the end." (ATSIC, 1999:35). This document provides a checklist and suggested timeline for formal evaluation, and covers areas such as communication, resources, timing, assessment of outcomes, assessment of benefits to participants, use of information, decision-making processes and feedback mechanisms. The protocols confirm that further evaluations should be carried out "as programs, plans, strategies and tasks are implemented and after a defined time" (ATSIC, 1999:35-36).

There is almost no literature in the area of post occupancy evaluation techniques for built environment projects and the degree to which subsequent programs are informed by past experience. This suggests that documentation of both successful and poorly performing practices is not gathered as a matter of course through ongoing consultation beyond the life of initial planning and implementation, either through informed architectural expertise or as a component of project management regimes.

2.5 A coordinated consultation approach: informing architectural design and building processes

To achieve an appropriate and sustainable built outcome, it is essential to confirm client/community aspirations within the broader historical, physical, social and cultural context in which a building or settlement is to be sited. Typical effective architectural consultancy practices see good working relationships developed with clients affecting the principles of sustainable development appropriate to the living arrangements of clients over time. A central component of architectural services lies in the ability of the consultation aspect of the design process to establish a negotiated brief, confirmed by ongoing communication

during implementation and post occupancy. To achieve an effective brief, the architectural design process must integrate three fundamental requirements:

- The client's needs, aspirations and financial resources;

- The advice from professional experts such as planners, engineers, other design professionals and, in an Aboriginal context, the advice of anthropologists, health service providers and the like; and

- The expertise of an experienced architect to design, coordinate and communicate between the client, professional experts and building and services contractors.

The breadth and thoroughness of a professionally coordinated design process comes at a cost. This is due to the time required for a professional architect to undertake the substantial consultation and the resulting fees required in providing 'one–off' or non-standardised design solutions. However, not employing such professional expertise to gain apparent time and cost savings can have significant consequences:

- Damage and abandonment of dysfunctional, conventional houses that are unable to accommodate culturally unique lifestyles, leading often to stress and disillusionment in families and communities;

- Uncoordinated consultation with communities by a range of consultants and service providers, resulting in confusion as well the possibility of being over-consulted.

Live-in community advisors, who work alongside Aboriginal community leaders, are usually pivotal in the consultation and negotiation processes in remote communities, in that they are the translators of information between consultants and communities. In interviews, they have confirmed the often unstructured and uncoordinated communication that occurs with different government service providers responsible for the variety of services in settlements. This exacerbates the dislocation between community aspirations and agreements for development and the reality of implementation. Community advisors do not usually have architectural or building training and their capacity to effectively initiate, evaluate and coordinate the complex and often conflicting issues relating to the design of built environment projects, may be limited due to inexperience.

2.6 Summary of the context for consultation in the built environment

The provision of housing and infrastructure for Indigenous people is motivated by intentions to address discrimination faced by Indigenous Australians not only in direct housing provision but also in the wider built environment. In the context of this research, the term the built environment is adopted to reinforce the description of a system that encompasses all aspects of the physical environment, including the social, cultural and environmental attributes of places, and to expand the focus beyond housing.

Benchmarking housing and infrastructure provision on 'standard' practice has serious limitations when applied to the diverse family groups living in remote areas such as in central Australia. Planning models, originally intended for Non-Indigenous, suburban nuclear families, fall short of community aspirations for housing preferences when applied to remote settlements, other than those based upon status.

The pressing environmental and social issues facing people living in arid and remote places demand sustainable solutions that regard coordinated planning of both housing and infrastructure as a priority.

An essential component in the delivery of appropriate shelter lies in the effective identification of housing and infrastructure needs through best practice consultation. This consultation is based upon gaining knowledge of the cultural preferences of the client enabled through informed communication and negotiation between client, consultant and service provider.

While effective cross-cultural consultation methodologies for the built environment exist, there is documented evidence that these methodologies fail when they are not applied consistently, especially when practitioners and contractors have limited experience in cross-cultural communication techniques. Guiding protocols for consultation and negotiation with Aboriginal people exist in a number of forms, including those published by the national Indigenous agency, ATSIC; however these do not specifically encompass issues pertinent to the built environment.

This research has detailed the published guides, standards and protocols for improving the quality and responsiveness of design and built qualities of housing and infrastructure, through bottom up practices that have influenced policy and practice. None of these guides specifically include protocols for consultation and negotiation. However, the importance of workable policy and guidelines to make the connection between effective consultation and the implementation of appropriate built environment solutions cannot be underestimated.

Barriers to effective cross-cultural consultation and negotiation and gaps in the information have been identified in the literature, and include:

- Standardised approaches to housing provision lacking a broader built environment perspective;

- Contractual limitations to funding and project timelines, exacerbated by a lack of expertise and local knowledge in professional consultants and contractors; and

- A lack of integration in the services and supply organisations and poor pathways of communication between the various parties responsible for building and maintaining housing and infrastructure. Cross-disciplinary consultation is an essential component of the consultation cycle yet guidelines or protocols for this component currently do not exist.

3 CONSULTATION PRINCIPLES AND PRACTICES: CROSS-CULTURAL AND CROSS-DISCIPLINARY APPROACHES

3.1 Interviews: scope and approach

The primary focus of the interviews was to ascertain the form and extent of consultation and survey practices of a range of practitioners through semi-structured discussions on the history of building and infrastructure projects for Aboriginal communities living in central Australia. The interviews sought to uncover perceptions of the successes and/or failures of consultation processes in relation to whether and where they occurred and with whom, together with evaluation of consultation methodologies and recommendations for future practices. The interviewees' evaluations of the effectiveness of consultation were based upon descriptions of processes (such as project design, implementation and delivery, and the quality of the end product), the focus on housing or infrastructure and the expectations of both the client group and the consultants.

The selection criteria for interviewees involved identifying practitioners with experience working with remote Indigenous communities across Australia, in particular, in central Australia. Other interviewees included the representatives of service providers involved in establishing, implementing and funding housing and infrastructure programs in communities in the Ngaanyatjarra Lands and the Anangu Pitjantjatjara Lands of Western Australia, the Northern Territory and South Australia. The research methodology specifically excluded interviews with the residents of Aboriginal communities in the Lands, although permission to undertake the research was sought and received from the chairperson of each community visited, and community representatives were invited to meetings between the researchers and advisors. Concerns were raised in our positioning preamble regarding over-consultation and the ethical need to affect 'on the ground' benefits to communities as a direct result of consultation. As this research was concerned with documenting practices across the building and consultant sector we confined our interviews to people involved directly in built environment project design and delivery.

The nomination of consultants was based upon identifying people who had worked on a variety of built environment projects in remote communities; their practice reputations and/or from citation in research papers and books, and through practice-based journals. Participants were also identified through referrals and introductions from other participants and were contacted directly and invited to be involved.

Interview documentation was obtained primarily during a field visit to the Ngaanyatjarra Lands and the Anangu Pitjantjatjara Lands, where community advisors from five communities together with architectural project managers were interviewed through a semi-structured process. This approach encouraged

participants to offer observations on the conditions that impact upon consultation, and the processes involved in developing built environments in a number of settlements. Further interviews were undertaken in Alice Springs, Darwin, and Adelaide, with architects and anthropologists, service providers, project managers and builders, using the same semi-structured process based upon the concepts underpinning the interviews as described below. Transcription of the interviews was undertaken through note taking during discussions that were then written up and returned to each interviewee as a series to notes for feedback and confirmation of the accuracy of discussions.

The interview schedule was confined to the following interviewee groups: -

- Municipal Service Officers and Community Advisors working with Aboriginal communities in three communities of the Anangu Pitjantjatjara Lands and with a single community in the Ngaanyatjarra Lands;

- Representatives of AP Services, Umuwa, Anangu Pitjantjatjara Lands;

- Architecture, design and health consultants, project managers and building contractors in Alice Springs, Adelaide and Darwin;

- Representatives of the Indigenous Housing Authority, Northern Territory, and the Aboriginal Housing Authority, South Australia.

We originally intended to combine interviews and observations from the field trips and to compare this information with documented findings as detailed in the AHURI Positioning Paper, Best Practice Models for Effective Consultation, as a way to triangulate qualitative data results. In practice, the focus on observations was carried out in only a limited way, to reduce the need to enter people's homes and living environments. We were concerned that ethical research practices did not involve the sometimes-intrusive documentation methods that observations require for validation. The research has therefore sought to validate interview material through referencing where a number of responses have confirmed certain issues. The structure of Chapter Four is based upon a number themes identified and reinforced by practitioners and service providers interviewed.

3.2 Interviews: defining the context and process for consultation

The interview questions correspond to the key research themes arising from the literature review. Rather than posing set questions to each interviewee, the structure of the interviews was formulated to introduce general concepts as prompts, thus promoting free ranging discussions. These concepts sought to encourage community representatives, practitioners and services providers to critically reflect upon the complex processes which inform housing and infrastructure projects, and the pivotal role of consultation practices in determining outcomes. The interview concepts are defined below together with a brief summary of the intent behind the framing of each concept.

Defining the context in which consultation processes are framed.

Prior to consultation: identifying what the consultation intended to achieve, how the community of clients are identified and how the range of consultants, service providers and involvement of other specialist advisors are identified. It also entails the development of consultation methodologies appropriate to the specific expertise of the interviewee.

Identifying the context of the housing and infrastructure design process.

In relation to the design process: to seek to identify the consultants' experience, expertise and knowledge of the design process, the context and history of particular projects and the particular professional issues which an architect, planner or designer would bring to a project. Aspects for discussion included the consultant's background and experience in working in remote areas, with Indigenous communities and service providers. Examining the context for establishing the project including analysis of the structures of existing and new settlements, the processes and protocols involved in delivering built outcomes, and the issues that arise from working in remote areas.

Defining the consultation process.

Community representation, participation, communication and scheduling of meetings, significantly influence the effectiveness of the consultation process. Prompts sought to identify; the types of consultation that have occurred over the life of the project from inception to post occupancy evaluation and with whom, the processes and protocols involved in establishing the consultation process, identifying and evaluating effective cross-cultural and cross-disciplinary consultation practices and ethical and non-invasive survey methods.

Defining cultural, social, environmental and economic issues.

Significant differences and unmet expectations may arise between participants engaged in consultation due to cross-cultural understandings, bureaucratic regimes encompassing budget and timeline management, and poor communication practices. Areas for discussion included: identifying the issues arising from working in cross-cultural environments, the availability of background information to inform planning approaches to the project, the ability to conduct this research where information is lacking, and the structuring and managing of projects to enhance Indigenous self-determination.

Defining the post occupancy evaluation process.

A historical review of housing projects in remote areas reveals the changing living circumstances of Aboriginal communities. Although rarely undertaken, the availability of post occupancy evaluations that will inform and influence subsequent consultation processes has been mooted in the literature. Discussions sought to reveal when evaluation processes undertaken during the life of the project have occurred, the form and frequency of post occupancy surveys and any feedback mechanisms in place.

3.3 Policy, protocols and guidelines and their impact upon consultation and built environment outcomes

Professional consultation on projects with Aboriginal people is increasingly framed through protocols or guidelines that are often defined by policy or legal and contractual obligations. In particular, cross-cultural consultation protocols that have been developed for general use by a number of Indigenous and government agencies are applied to the participatory and non-participatory practices of the consultants and providers involved in housing and infrastructure provision for remote Aboriginal communities.

One of the aims of this research has been to uncover the gaps to effective consultation practices that adversely affect remote built environments. One conclusion drawn from the AHURI Positioning Paper, *Best Practice Models for Effective Consultation*, is the absence of information regarding cross-disciplinary consultation practices undertaken through architectural, building, service provider and project management regimes that are pivotal to the effective delivery of housing and infrastructure programs. Disjunctions between cross-disciplinary and cross-cultural consultation are evident in accounts of dysfunctional communication which leads to unworkable outcomes in some built projects. In response, the interviews focused on the coincidence of policy, project management and organisational issues, so to identify the conditions that affect best practice consultation that leads to improved built environment outcomes.

In the opinion of one service provider, effective consultation can guide the success or otherwise of Indigenous housing provision. The question has been posed:

> 'does consultation drive policy priorities in housing design
> and infrastructure provision – or is it the other way
> around?' (Service Provider)

The following sections summarise the opinions of the interviewees, focused on the influence of policy on housing and infrastructure outcomes.

Policy principles and consultation

Consultation must drive outcomes, but not at the expense of accountability and fiscal efficiency. It must be undertaken within a policy framework that guides decision making to ensure that public funds are spent appropriately and effectively. One service provider confirmed to the importance of consultation driving outcomes within an established policy environment that provides the end user with an asset suitable for their needs, and for which they feel they have a sense of ownership.

From the perspective of one Indigenous regional manager, consultation at the local level is dictated by policy and protocols that provide a hierarchy for communication, where all building and infrastructure projects are managed by the regional council as head authority prior to any direct communication with

communities or their advisors. Further, it was suggested that consultation regarding community projects requires parallel consultation with community representatives in association with community advisors.

Programs and practices that drive policy

Project managers confirm that a 'one size fits all' program and policy environment is unworkable and that regional and local perspectives must inform policy to ensure it is flexible and effective. Policy must also work at the local level for it to be useful and meaningful for communities, and to drive change at administrative and organisational levels.

Another aspect that informs policy development for built environment projects is through interagency review processes that debate and evaluates housing and infrastructure programs. Effective program documentation, evaluated through quantifiable performance indicators can inform policy development that can drive best practice. Precedence can be established to recommend the continuation of successful programs; and the methods for establishing new programs and policy development may be drawn from the documentation of these reviews.

Policy and flexible outcomes: successes and shortcomings

Policy can contribute to best practice when it has inbuilt flexibility to acknowledge Aboriginal living systems are continually changing, that knowledge is increasing over time, and that guidelines must be responsive to new situations. An experienced project builder, who has a long association with prefabricated housing systems in central Australia, described the example of the design of the best practice kitchen. Domestic kitchens can only be planned after gaining an understanding of the people's current cooking and eating habits that are affected by store supplies and the range of goods and provisions available. In turn, appropriate use of kitchens including cooking and cleaning can be influenced by education in home living skills. This is a cross-institutional issue that requires pathways of communication to be established across bureaucratic boundaries.

Problems arise when layers of policy require significant reporting and accountability procedures, and where the government agency and the government minister are held accountable for funds and outcomes. Additionally, a common reporting framework that operates under an eastern states bias, with little connectivity with the regions of central Australia, impedes setting appropriate goals for practice and delivery. Some service providers are concerned that national reporting frameworks that compel committees and subcommittees to manage programs cost effectively increasingly push to implement projects more quickly with the potential for less attention to planning and quality.

In reality, the community is given the responsibility to manage programs that include consultation and implementation, often with few systems in place to manage accountability or provide expertise in support of those programs.

An emphasis on health outcomes framed by policy has led to assumptions made about the number of bedrooms and the number of houses suitable for Aboriginal families. One architect reported that in reality houses are used differently to that implied by the numbers housed per bedroom. The norm is for communal sleeping to occur on verandas and in living rooms, and bedrooms are used as lockups to secure family valuables and supplies.

Well-intentioned government policies may not work at a local level, when the central agency insists on certain technologies as a matter of policy. One planner recounted the instance of the national policy that required the installation of solar pumps in remote areas as a sustainability measure. In reality, the pump kept breaking down, and eventually became unworkable as there was no expertise was available for repair. Despite local knowledge that the existing diesel system could be maintained through local expertise and spare parts the solar installation remained, although inactive, to support the policy imperative.

Policy documents and guidelines

Guidelines are more effective when they are performance based rather than prescriptive, but they can also set up conditions for a lack of innovation. When guidelines seek to achieve minimum standards, suggestions for design and technology improvements can be overlooked, as they can't be afforded in short term budgets. The project managers and builders interviewed suggested that investing in research and design would lead to practical solutions for trialling with users, an approach that comes with associated costs and commitment on the part of government agencies.

One project manager proposed that the National Indigenous Housing Guide be reviewed and updated to include a section on infrastructure, though acknowledging that the Guide requires further advocacy to become more widely adopted. One researcher reported that many people in central Australia were unaware of the existence of the Guide, and that its influence is diminished, as its recommendations are unenforceable by law. However, key policy documents can be instrumental in the development of housing and infrastructure policy and delivery. Building a Better Future and the Northern Territory Environmental Health Guidelines are regarded as flexible, workable and responsive documents by those who manage housing provision the Northern Territory.

3.4 The practice(s) of cross-cultural and cross-disciplinary consultation

The following section summarises responses on the physical and cultural contexts that influence cross-cultural and cross-disciplinary consultation methods, including selected personal reflections leading to recommendations for good communication and negotiation practices.

Evaluation of effective cross-cultural consultation practices

Suggested key principles for effective cross-cultural consultation are summarised from discussions with service providers, architects, educators, project managers, community advisors, and researchers:

- Clarify the process of consultation with the community, regional agencies and service providers early on in project inception;

- Develop a clear methodology for communicating with communities including protocols for engagement being mindful of community and family hierarchies, knowing who to talk to and when, of living arrangements on site and modes of transportation;

- Provide immediate and ongoing feedback through informing the community of the methods and expectations of the consultation processes and developing visual materials to be left with the community for ongoing internal discussion as an outcome to every meeting;

- Ensure the relevance of planning meetings for the community and consultants and service providers through delivering on the promises agreed upon during consultation;

- Promote involvement 'on the ground' to effect relationship building and to encourage community ownership of projects;

- Consider developing consultancy frameworks with the involvement of cross-disciplinary teams to balance technically and socially determined planning priorities;

- Consider that best practice may not be about determining the 'right' outcome, but rather to propose directions to work towards improved outcomes and to recognise that consultation is being undertaken in culturally, environmentally and economically changing contexts;

- Understand that the local council is the forum for ideas where the continuation and transfer of culture from the old people to the young people occurs. Input and ownership of ideas occurs when the community congregates at the place where the elders sit, talk and draw; and

- Understand that a likely outcome from a lack of consultation will be a dysfunctional building, unless built environment projects are worked out with the community to gain understanding of local factors such as seasonal issues and physical conditions.

Who should be consulted?

Gaining an understanding of who to ask is an essential component in preparations for cross-cultural and cross-disciplinary consultations. From a cross-cultural perspective, often the difficulty is ascertaining who is entitled to speak, and time is needed in the community to gain this information. If the wrong

people are asked, the wrong information can be imparted potentially causing embarrassment. Interviewees with experience in research, anthropology and in working closely with Aboriginal people, report that knowledge will be passed on if the people have the capacity to deal with knowledge and have developed trust in the consultant.

Who to consult may include the governance body, the future tenant, the broader clan group and the traditional owners, to name a few. To gain understanding of who to approach consultants can commence discussions with the regional agency or land council who may then facilitate a start-up meeting where small groups with responsibility for knowledge are identified. This process is best undertaken by Aboriginal communities as there may be a need to wait until the people have resolved their differences and are ready to discuss and negotiate the project. These differences are often influenced by external factors such as ceremony or past history.

Some community council structures decide they have sole responsibility to nominate housing recipients. In other less successful instances, where only individuals have been consulted, bypassing the community council can cause upset across the community or in other family groups. Good practice involves initial consultation with the local council or housing committee, with preliminary decisions about building projects based on background information in reports and documents. Only then are residents approached for individual feedback based upon family knowledge, in a process that is informed by known building parameters and budgets.

Architects have reported that it is becoming more usual for consultation on housing to be undertaken with the representative body rather than with individual families. They question who determines the makeup of the representative group and their expectations for consultation protocols and practices on behalf of the wider group. It has also been suggested that it is possible that generic designs may result when consultation is only undertaken with a generic client body.

It is important to acknowledge that continuity in the representative group is difficult to achieve, due to high mobility in remote communities. Outsiders may incorrectly assume that discussions have been held between the community members to exchange information. The spokesperson or people must be identified and it be determined who can best discuss the consensus view, as a single person's response is not necessarily the representative view. In a community, rather than seeking a group consensus, one family may be the key holders of information with the responsibility to negotiate and where the community chair may simply be the conduit.

Architects have also realised the value in engaging with young people as they may communicate a different and more contemporary perspective of community conditions and dynamics. The old people live in houses differently to the young, and in another generation there will be alternative attitudes to such activities as outdoor living, among other practices.

The capacity to engage in consultation

Varying capacities to engage in consultation will impact upon the development of communication methods and protocols and may influence the consultants' evaluation of received information.

Currently, English is usually not the first language, and communication systems must ensure that clients understand the consultation process and that the consultant accurately documents the feedback given to clearly incorporate community aspirations. An educator confirmed that the use of colloquial or professional terms or meanings could further impede direct verbal communication. Therefore, it is important to be very explicit and to balance talking with graphic communication methods.

The structural capacity and governance systems of communities vary enormously. Each community council's ability to reflect community views depends upon the functionality of the organisation. As confirmed by service providers, there is a direct relationship between good governance and the effectiveness of consultation.

The senior people in communities and regional councils are generally overcommitted in their ability to service requests for meeting attendance and involvement in cultural affairs and community development programs. One community advisor confirms that small communities possess an even smaller group of informed and interested decision makers, and it is they who are always expected to contribute to a range of situations. This is compounded by traditional obligations to community business which result in frequent absences or unavailability for meetings on housing and infrastructure.

Changing Aboriginal lifestyles and relationships to the built environment

Aboriginal people aren't really nomadic; rather, their lifestyles are characteristically mobile. People are allocated houses for life long tenure and families and extended family groups continue to dwell in the same house over time. Both community advisors and architects suggest that housing allocation could occur prior to site planning so that families are involved in negotiating the qualities, location and siting of their house and yard. Despite life long tenure, one community representative confirmed that what works for one community doesn't work for another especially with peoples' tendencies to move about:

> 'how long will the same people actually live in the
> houses, so do they need to be customised to individual
> requirements?'

One option is to conceive of housing with a more flexible design that is open to easy renovation and extension as required by changing needs. Design and construction flexibility will become more important as it is predicted that the number of people living in remote communities is set to rise, placing more pressure on the use of existing housing stock alongside the building of new houses.

General cross-cultural consultation protocols and methods

Architects and project managers confirm that key communication protocols stress the importance of undertaking consultation with two people, ideally a male and a female (to respond to the gender of the head of the household or spokesperson), a community liaison person and/or a translator. The logistics and costs associated with an expanded consultation group must be defined and planned for at the inception of the consultation program.

There are protocols to consider in consultations with men and women, especially in more traditional cultural environments. Typically, men will expect the upfront contact, and the women will take a less active role. However the consultants must understand that the final decisions are made through family discussion, which needs sufficient time for negotiation among the people concerned. Additionally, people are often loath to speak out in consideration of status and cultural issues and relationships. In meetings, while it may look like the people are totally disinterested, it is usually the case of politeness in not looking at the person speaking. A good method to counterbalance this is to work over drawings to discuss planning and design.

In cross-cultural consultation, the people need to be comfortable to talk with the consultant. The consultant should refrain from asking simple questions about preference, as the answer will inevitably be in the affirmative. Learning how to talk about things and gain useful information is an essential skill of experienced consultants who know that it is preferable not to ask direct questions about houses. The interviewees have confirmed the following methodological points:

- Consultation takes time, and the process is about building confidence with the people. A typical consultation for a town plan or a number of houses may take up to five days, and consultants should camp out in the community;

- On day one, sit in front of the store and wait for people to come and talk to you. If you are based in one place, then people may show you things. An informal or relaxed conversation rather than a formal agenda will allow for more direct questions to develop in time;

- Town planning consultation can start at the school and at the arts centre by asking the young people and the old people to draw their town. These drawings are the start of the brief and a design resource, as these maps really show how people regard their community. They assist in uncovering important stories to help develop a cultural agenda to inform planning. Through evaluating the people's drawings and paintings it is possible to obtain different views of the one subject;

- Ask key questions about preferences for cooking, sleeping and living and at the same time ask about the numbers people who will be living in the house and when?

- Developing a wish list has the potential to create false expectations, so showing a number of designs to the prospective tenant and by discussing the inherent possibilities in each option work towards developing a negotiated brief;

- The most effective meetings are where input occurs and people are able to discuss the project at another time and place. For this reason it is important to sustain consultation processes over time, and to remember that the people that are first consulted may not be the same people who give the final response;

- Consultants should remain open to new ideas through interaction with people who may hold a different world-view, and be aware that unexpected and important aspects may be brought up during consultation; and

- Finish the visit having put ideas on paper. This information is then left with the community to take time to mull over decision-making.

Cross-cultural consultation informed by design and project management methodologies

The reporting on various consultation methodologies shows that different approaches are taken by the various consultants and agencies, apparently in relation to their initial discipline training or tied to their contractual responsibilities and scope of work. A planner remarked that participatory planning, while generally accepted as a successful method, is not the only process that may be followed, especially as this work can look somewhat remote and overly time consuming to service providers who have a more pragmatic agenda to get houses and infrastructure on the ground.

A summary of key points raised through architectural and other design consultant methodologies:

- Develop consultation lists with the community governing council for projects for say three to four houses and ask them who they identify to speak with. Once the people are identified and meetings are confirmed then develop good relations with the community beginning with formal introductions and sitting down, then work through the design process to individual household groups over a minimum of three consultation sessions;

- The architect's scope for consultation includes discussion of the detail of the fitout to a reasonable level of detail. An environmental health approach will encourage industrial rather than domestic quality hardware and detailing, and conveying these qualities to the community through consultation and demonstration of achievable standards is essential;

- One architect's methodology is to devise a consultation checklist that can be worked through in one sitting, structured as a series of prompts to uncover how clients will live in houses and balanced against identified needs. The checklist covers social relationships, the ways people would prefer to live and work in rooms, comments on the way their previous house operated, how outside yard areas and verandas should work, orientation, materials and colours. There is also a section for the architect's own observations regarding site influences and site context such as pedestrian patterns and adjoining use, vehicle use and climatic conditions; and

- Architects and planners further reported on the need to utilise a simple modelling system for planning such as sketching the land in the dirt, mapping the existing using colour-coded symbols for houses and allowing time for people to identify where they want to live. Various modes of communication and a range of techniques are needed for different communities depending upon their ability to understand representation and scale. Full scale mock-ups and various marking out methods on the ground are useful techniques. This modelling assists in planning, enabling social and health issues to be discussed. One form of scaling houses based uses swag layouts and another utilises a toolkit of model parts to plan houses, yards and landscapes.

From a project management perspective, the ways that tenders for architectural services are evaluated should include community consultation prior to letting contracts. This allows communities to participate in the selection of their consultants.

Before tendering, one project manager's method is to fly out the shortlisted tenderers to meet with the community and the key stakeholders. This informs final assessment through observations made of the rapport established, the questions asked and from reports elicited from the community. The ability of the consultant or company to engage with the community is revealed in this first meeting, through demonstrating their expertise in working with the people to develop the necessary relationships.

A less participatory consultation process is based upon an initial consultation to establish the technical needs and wants for houses. Some months later, a follow up meeting is undertaken to present design options developed from a basic standard plan through a presentation of two-dimensional drawings. During the course of this meeting one viable choice is agreed upon. However, community advisors report that communities consider their options are effectively reduced in these negotiations, rather than having viable alternatives presented.

General reflections on good consultation practices note that those with experience ask good questions and give advice and feedback without giving preconceived answers. Further, these consultants are seen to take notice of past experience and knowledge without inserting professional prejudice rather than

good judgement. Better outcomes arising from good consultation have been achieved where the communication is instructive resulting in a project based upon a combination of the knowledge of the designer and of the community and client.

There is also the view, expressed by an architect and service provider, that physical scale models can significantly aid understanding in relation to showing scale and function particularly when scale models of swags and furniture are included.

Key aspects for planning

The process of identifying sites and developing a project to build a house is a multilayered one where 'big picture' planning ideally includes the whole community in discussion. One architect's account of the consultation process for developing a strategic town plan illustrates this need. An initial housing allocation list was developed by the community governing council where the principles included locating houses in areas close to relatives to avoid incompatibility between people. The consultants were able to observe in their early conversations that the council had decided where the houses were to be located. However they were also able to observe that the town structure operated on a set of relationships connected to surveillance of the day-to-day activities of the settlement. To view the shop from verandas was essential to make observations of community goings on. The consultants were able to bring these observations into the planning and negotiations surrounding the adoption of a final plan.

Architects confirm that an effective briefing expands the project beyond the house to include the yard to the fence boundary. Planning on site includes tanks, pit toilets, landscaping, materials, and an evaluation of the building systems that either work or have been seen to be inappropriate or too difficult to maintain. At the house scale planning needs to account for social and cultural issues such as visual and physical access to ablutions, visitor relationships, numbers and visitation timelines, expanding and contracting households, security and access issues and privacy, views and surveillance.

Architects and service providers must recognise that Aboriginal people's expectations have changed dramatically in their regard for a suitable house and they are no longer satisfied with dysfunctional housing.

Ineffective consultation practices

Cross-cultural consultation outcomes will be affected if poor initial methodologies are combined with a lack of clear guidelines for the management of consultation outcomes. A summary of key points confirmed by project managers and planners include:

- Community advisors and housing managers can make assumptions about the aspirations of the communities with which they work and can block access to the people. When this tendency is combined with inexperience, local council politics and power relations, information

given to consultants can be wildly inaccurate. It is important that consultation allows for observations of the way people live, and of family and extended family dynamics, in order to confirm what is being told;

- Where insufficient funding for consultation means that projects can only run at a loss if consultants choose to undertake sufficient meetings, then the number of ethical consultants will be diminished over time. Under certain project regimes there are instances of consultant firms lacking expertise and experience underbidding and running projects based on minimum services including streamlining consultation;

- The organisational structure of community councils and the relative transparency of management impact upon the quality of project outcomes;

- The different cultural backgrounds, the education and experience of most architects, consultants and their clients can impede communication and recognition of each other's aspirations;

- Over-consultation of the same senior people and communities is a recurring problem. Poor coordination of consultation processes, their timelines, complexity and requirements for community input can be a concern when using participatory planning models;

- Funding and service agencies need to allow for more regular briefing sessions for people so to combat the view that ideas are 'steamrolled' through in a single meeting. There is also a need to focus on the role of local people in communicating progress to their families and community groups.

Strategies for best practice cross-cultural consultation:

- Provide timely schedules for delivery of consultation and feedback together with project programs that enable shrinking planning to smaller steps to give more immediate results and avoid unnecessary meetings;

- Allow time to talk, to listen, and to let people consider design ideas before returning to consultation and negotiation, when they are ready. Try to get all the viewpoints. A workshop environment works well where key issues are written down on a board and where the full community participates;

- There is a perception in communities is that you'll get what you ask for, but good consultants need also to guide within agreed parameters, with a need to negotiate competing demands and desires within budgets and local conditions;

- Facilitate solutions that allow people 'ownership' of the project, and where there is a sense of being able to adjust things as the project develops. Best practice occurs when the project is identified as a local

project, and where capacity building for local people can engender knowledge and confidence;

- Experience with the people in the community for long enough gives consultants credibility; however, over-familiarity with the community can lead to inappropriate solutions being proposed with the best intentions. Ongoing review and negotiation is needed to initiate change by reviewing the project rationally and evaluating the competing needs of all parties in the process;

- The people are intuitive and can see if consultants are engaged. The message is to drive rather than fly in to communities, which demonstrates that the consultant appreciates the realities of distance and remoteness;

- There is a need to personalise the story to elicit, 'why do we live in shelter and what do we want to do and have?' More indirect verbal communication provides more useful information;

- Ask the right questions such as what are the features that makes a home and not a house, and unpack the relationships that determine planning principles, such as cultural, climatic and physical conditions;

- Give something tangible back during consultation, such as repairs or assistance, or booklets for recording what went on in order to develop relationships and mutual trust. The relationship building process has no set time frame;

- Also obtain the women's side of the story through undertaking a mapping that is a non-technical drawing of housing and landscape through sitting down with the people concerned. Allow men's and women's concerns to be developed separately;

- Work with quiet persistence and consult with the elders to find the right way and the best approach; and

- The results of consultation need to be made usable and palatable for funding agencies in order to influence the practice of architecture and building.

3.4.1 Evaluation of cross-disciplinary consultation practices

In most building and infrastructure projects consultation with other interested parties is held concurrently with community consultation. Consultants and housing providers ideally identify and confirm the many different agencies and service providers with whom they communicate in the coordination of construction and infrastructure. Architects confirm that they are obliged under their project agreements to consult with other agencies as appropriate. A consistent issue raised in many interviews that the avenues of communication between consultants and service providers often fall short of good practice.

To facilitate better communication between service providers, inter-government agency meetings have been instigated in the Northern Territory. Project managers have reported that these meetings have improved the coordination of major projects across all parties resulting in upgrades to infrastructure being planned alongside housing development. Contracted program managers are charged with coordinating this interaction.

Across Australia, building and infrastructure projects operate under a range of standards, building and licensing codes. These may vary from State to State, although South Australia and Western Australia have similar codes. Project managers and service providers generally oversee projects in accordance with technical and quality standards but rarely have the brief to review the social and cultural issues that have been identified as key to the delivery of successful built environment outcomes.

In the view of many community advisors and external consultants, communication with agencies and providers may be distant and lack a personal approach especially when key management is based in the major cities at some distance from the communities. Housing and infrastructure recipients have also identified that effective project establishment is adversely affected by the numbers of players involved which may lead to a haphazard approach to coordination of information and feedback.

A range of agencies and service providers are responsible for infrastructure across remote areas where different providers manage localities in close proximity. For example, in the Anangu Pitjantjatjara Lands, ATSIC have been responsible for the homelands and the State authority for the communities. Architects and builders are concerned that conventional delivery programs are sometimes structured to impede the development of their working relationships with communities, suppliers and building contractors. Limited consultation between communities, service providers, some regional councils and ultimately, consultants, has also resulted in reduced options for innovations in infrastructure planning and the provision of alternative technologies for houses across many communities.

Data and information

Prior to consultation, it is important for architects and planners to obtain as-built drawings for services and existing housing where possible. Readily available information detailing existing infrastructure is difficult to source as there is no central and coordinated repository for information. Often the architect, or the most recent consultant, is the only provider or organiser of information of existing conditions. This data is essential to support informed consultation and the communities are not in a position to store such documents. A major issue for effective resourcing of data is to establish a central repository for information collection. This initiative assists in preventing the loss of existing data and the expensive need for repeated physical and cultural surveys and information gathering.

Effective consultation between service providers ideally ensures effective coordination of projects. When this does not occur, poor outcomes result such as buildings wrongly sited in technically unsuitable places despite community and project manager involvement. Accurate data on existing conditions held in an accessible repository assists in identifying potential problems. Strategies for developing protocols for recording and communicating existing conditions, managed by the responsible service providers and contractors, remains an important area for development.

In the past, reviews of existing technologies through the now defunct AHA Standards Forum have led to improvements through a coordinated approach in South Australia. Through meetings with experienced architectural, building and anthropological consultants together with other members from government and Aboriginal agencies, the Forum promoted discussion on the operations of all facets of housing hardware. Informed agreement was needed from the Forum to change specifications for housing and hardware. The Forum enabled a consistent approach to the supply, installation and maintenance regimes for remote areas. Opportunities for feeding back post occupancy information regarding housing technologies were also possible within the Forum agenda.

Services responsibilities and coordination

Housing demand and provision through NAHS in the Northern Territory has grown from only two or three houses per year to up to twenty house lots per year. Service providers report this means that cost effective and efficient services planning has determined settlement layouts where all new houses are located in the one place and is driven by technical imperatives rather than by social and environmental considerations.

Community advisors report on accounts of houses constructed in places where infrastructure is missing due to a lack of communication between housing service providers and infrastructure bodies. There have also been instances when houses have been built with fittings and fixtures, but lacking supporting services such as the absence of power generation equipment. As a result of these failings, a whole of government approach is mooted for trialling in the Anangu Pitjantjatjara Lands to improve coordination.

The lack of capacity of regional or local agencies to maintain infrastructure results in an unmet need for skilled maintenance. This increases the importance of coordinated response to the installation of appropriate technology is required to reduce the need for expensive repairs when systems fail.

The coordination of consultant and service provider visits to communities need also take into account protocols that have been applied to cross-cultural and participatory consultation. There have been accounts of numbers of consultants gathered for meetings on site with the only outcome being the perception of a notable absence of action following the visit. Very remote communities have come to expect that these consultants will fly in and out quickly, engage in a

limited way, and where the result of the visit be communicated only through the eventual implementation of the project.

3.4.2 An evaluation of community planning and consultation practices

Analysis of the accounts of service providers and community advisors highlights the impact that consultation and negotiation practices have had on developments in Aboriginal communities, and reveals a range of predictable and unpredictable outcomes. One community has had no fewer than five different planning reports prepared since 1998. A brief report on the scope of these plans, their commissioning bodies and the eventual outcomes does show that well intentioned planning based upon good cross-cultural consultation methodology, may prove ineffective if the communication between service providers, consultants and communities is not linked to a clear implementation program.

The first planning cycle commenced in 1998 with ATSIC requiring all organisations in receipt of funding to prepare a five-year strategic community plan. This planning was facilitated through external consultants funded by ATSIC who developed a plan that considered health, social issues, housing and town planning infrastructure based upon the information that the people had prepared. In this instance the plan was useful for the central body but was not implemented at the community level due to a lack of clear proposals for action. It relied on the community advisor to interpret the findings into achievable projects.

Following this, the need to develop a town plan before basic infrastructure could be installed resulted in a State government initiated planning consultancy. The first planning document was produced based upon almost no community consultation or input. It was a technical and budgeting plan based upon grid planning with houses sited in lines. The community debated the proposal eventually concluding that the plan did not embrace the aspirations for the town. It had developed an original strategic plan that embraced houses, roads and community services and they were seeking a more responsive approach to the social and cultural concerns of their community.

The community advisor together with a consultant who had been working in the community on associated health and housing issues suggested to the community the need for a different town plan, more responsive to community and environment. The ensuing project included an experienced planning and design consultant who undertook extensive on site consultation that led to planning proposals, including landscape integration, creative uses of stormwater through mounds and berms, and siting of streets and housing based on an organic concept plan adapting to site topography and community dynamics. This was seen as a good plan from a practical aspect.

What was clear was that the plans changed dramatically from the first to the second option, informed by consultation with the community. However, this plan was not a document that the service provider could pick up and implement directly. Further facilitation by local infrastructure managers made these concept

plans into more workable documents through a number of visits to talk through the plans with the people. This included designs for cul de sacs with houses not in lines.

A new method of infrastructure funding now required the preparation of a land use community layout plan prior to project implementation. The newly commissioned planning consultants reworked the background material and produced new plans that replaced the organic with straight line (grid) planning. Although limited community consultation informed this approach, the community finally approved this plan during a consultation meeting.

The community seemed to change its mind quite radically during the process, possibly because nothing had been achieved over four years and they wanted to see some outcomes from all the talking and planning. It seemed easier to let the infrastructure bodies do what they liked so that at least houses could be built even though the outcome ultimately resulted in a less than ideal solution.

At the end of the consultancy process the community undertook a strategic in-house planning workshop. They employed a facilitator/consultant for two weeks for the workshop because the people needed time to talk about their plans. The outcomes were agreed upon, implemented and built. It is useful to speculate that had there been a similar exercise at the beginning of the entire planning process, a more effective use of time and resources and a better designed outcome for the social and environmental needs of the community may have been the result.

Implications for cross-disciplinary consultation

Failures in consultation and communication can be linked directly to problematic outcomes in remote community planning. Key aspects can be drawn from the example above:

- Strategic community planning demands the coordination of a complex range of expertise and knowledge based upon technical and cultural aspirations. It is necessary to determine who should be charged with the central planning role including responsibility for coordination.

- Beyond the consultation methods employed by consultants, the community and agencies, the main issue lies in the coordination of the range of imposed planning regimes. This is compounded by the fact that the scope of projects may not be properly conceived at inception;

- When consultants confine their planning to their narrow areas of expertise with little awareness of alternative environmental or technical factors it is unlikely that effective implementation can occur without further detailed consultation with other providers; and

- To make decisions based upon a range of consultation styles and products, the community and their advisors will respond to what most easily translates to 'on the ground' outcomes. If plans are not written in terms of clear actions they are unlikely to be acted upon.

4 CONSULTATION AND PROJECT IMPLEMENTATION

The interconnection between the management regimes adopted by housing and infrastructure programs and the consultation practices associated with these programs has been identified. Analysis of the interviews confirmed the context for consultation, identified and evaluated effective consultation practices and provided the background for the development of the themes below. These themes summarise the key issues identified by service providers and consultants regarding existing practices currently operating in remote built environments

As the scope of the research has not enabled a comparative review of a number of practices or organisations, this aspect of the report summarises the opinions of the interviewees on the critical issues facing consultation about project implementation for remote Aboriginal communities. It then proposes implications for consultation practices.

4.1 Standardisation of housing designs, consultation and design outcome

A standardised housing program, known as the Central Remote Model (CRM), was an IHANT pilot program for standardised designs and was developed through an extensive consultative process with communities and design consultants. Following a period of building new house designs every year it was decided to trial a standardised approach to enable different and potentially more 'streamlined' and cost effective delivery methods. This allowed for construction of a number of houses to be undertaken under major contracts.

A number of issues regarding the link between consultation and long-term outcomes have been identified in the evaluation of this program.

Community disengagement through standardisation

A flaw in the CRM is that communities may have been excluded from the planning loop. While the process does allow for limited consultation, the communities involved said that the management regimes for these projects result in a loss of control during the planning process. This ultimately leads to a lack of knowledge of what types of houses are available for families. The CRM provides economies of scale, but the people are reported to feel disengaged with the process of getting a house. To promote an extended life expectancy for houses, it is important to facilitate a sense of ownership through involvement and negotiation that leads to informed acceptance.

Implications for consultation from a standardised approach

Barriers to consultation include the perception within agencies and communities that standardised construction methods are appropriate to suit standardised and suburban designs with which they are familiar. Experienced consultants confirm that consultation with, and education of, Aboriginal clients is needed to turn around these perceptions including demonstration of the health and cultural benefits of living in more environmentally responsive houses.

Through standardisation service provider and project management regimes have been instrumental in reducing consultation scope and consequently consultant fees. Funders have identified the correlation between architecturally based consultation and increased construction costs and there is a perception that more complex housing solutions directly impact upon the difficulties involved in building a non-standard house**.**

In balance, there is a confirmed perception by some service providers and most experienced architectural consultants that communication with clients, be they individuals or community groups, remains an essential component in planning. This helps ensure that houses based upon standardised design and supply meet the needs of and are accepted by the Aboriginal community.

4.2 Funding and limits to consultation and program management

Federal, State, Territory and Indigenous agency housing organisations operate a range of funding regimes with associated levels of administration and communication overlap across State boundaries and Indigenous council areas. Government funding is insufficient to support housing need, and stringent budgets are expended in relation to strategic goals established by State and Indigenous service providers. Funding to communities is allocated on a needs basis through a competitive, politicised and potentially adversarial process that is based upon bidding among communities and families for numbers of houses and bedrooms.

Consultant fees, scope of services and program management

There is an increasing contractual requirement to define a scope for consultation within the project methodology in architectural and planning projects for Aboriginal communities. The scope specified by the various commissioning agencies is generally established through working to performance-based aims, with a minimum requirement for cross-cultural consultation based upon numbers of meetings.

Service providers acknowledge that fees are an issue for professional consultants whose methodologies embrace cross-cultural consultation as a 'whole of project' undertaking. For consultants involved in the preparation of project bids, based upon methodology and fees, there is often a difficult trade-off to be made between their desire to work effectively with clients and the limited

fees available. In the interest of the success of the project, it has been reported by a number of consultants that they frequently 'wear' the cost of consultation knowing that their fee bids will not cover costs. Consultation with other service providers and agencies is regarded as part of the day-to-day scope of services, and no consultants reported that special allowances had been made for this often protracted component.

As noted above, with the inception of programs based upon standardised designs, there is an expectation by project managers and government funders that standardisation will reduce consultants' fees by removing the up-front costs of the full design and implementation service of the consultant, together with reducing documentation costs. However, the shortcoming of these assumptions is the inability for consultants to be able to afford to build a culture of trust with their clients, if they intend to operate as a commercial consultancy. Funding simply cannot support the time and logistics to spend sufficient consulting time in communities.

Further into the process, the fee regime, especially in fixed fee bids, means that the contract administration component is stretched. At the point where quality control and ongoing community interaction regarding the progress of the project should be carried out consultants are financially unable to travel to remote places to do the necessary inspections once projects are let.

4.3 Project and program management regimes

Effective project management includes expert coordination, supervision and accountability and asset management of housing and infrastructure programs. Currently, the range of project management operations range from State authority and regional council managed and funded programs to contracted project management consultants who provide expert management on behalf of federally funded ATSIC housing programs under the NAHS program.

Project management and consultation

Self-determination has removed external professional support for communities particularly in the management of housing and infrastructure programs. Communities and their on-site advisors and community development officers are now expected to manage, engage in consultation and to negotiate in areas in which they have little training or expertise.

As part of the scope of project management services, annual reviews and workshops of standards are undertaken. These have produced general frameworks resulting in similar design and construction standards being achieved across a range of projects. An important requirement includes checking designs against cultural, environmental and community standards, as well as technological specifications. In addition, consultants have to demonstrate that their project methodologies, including consultation methodologies, are working with these parameters in mind.

During the assessment of project bids, the project managers weight the consultant's project methodology. There is an expectation that cross-cultural consultation will use techniques such as models, posters, and other visual tools to inform and communicate with clients. The effectiveness of consultation is later monitored through informal communication between the project managers and local councils. The contractual expectations for consultation under this particular regime are not a universal methodology for program management in remote areas.

Architects have confirmed that they would like to achieve more in the consultation process, beyond what is possible to allow for in bidding for projects. They find it morally hard to deliver what is now contractually a minimal service. They have to work backwards from the costs of running the business/project to see what services it is possible to provide and still 'break even'.

Best practice project management; consultation and delivery models

Project managers confirm that indicators of best practice achievements linked to effective project management extend beyond quantitative performance indicators such as house numbers achieved, cost per house per bedroom and numbers of houses connected to services. Additional benefits include qualitative indicators where project outcomes evolve into precedents for ensuing projects and achievements in employment and training leading to qualifications for Aboriginal people.

In the development of project delivery models that work towards improvements in project management practices, issues and opportunities can be highlighted that have implications for consultation and evaluation methods. Managers have suggested it is essential to continually review existing practices to keep formulating new methods, and confirm that project management that defines clear parameters for consultation and that monitors the outcomes of consultation, leads to improved built outcomes. There is a need for more consultation tied to innovation. This can be achieved by trialling new ways of defining project scope and delivering housing and infrastructure with involvement from a range of consultants and stakeholders.

Best practice consultation is limited when architects and builders are briefed through prescriptive and/or rigid project documents that curtail the consultant's ability to develop or improve existing methodologies. These constraints, combined with budgetary and timeline constraints, impact upon meaningful and timely consultation and feedback. Defining minimum standards for quality and for cross-cultural communication may result in the minimum becoming the benchmark, rather than achieving a responsive approach based upon varying local conditions.

4.4 Timelines for consultation and program implementation

The length of the time on waiting lists has been identified as one of the priorities for housing allocation. Aboriginal communities are faced by protracted timelines: firstly, in having their projects approved through regional and community processes for determining housing need and through the design and construction programs managed usually by external bodies on their behalf. However, Aboriginal people often have short and unpredictable time scales, which mean that outcomes need to be delivered promptly.

Consultation methodologies and timelines

The balance between contractual and budget responsibilities for timely outcomes and consultants' ethical position on effective consultation is an ongoing dilemma for project managers and consultants alike.

> 'In consultation, building long term relationships are as
> important as the built outcome, but how does this sit with
> funding agencies?' (Planner)

Advice from project managers is that the preparation of submissions for new projects by consultants needs to include an analysis of the number of days on the ground in comparison with the time spent travelling. Certain selection processes do not always support the lowest tender price, and a rigorous methodology is needed to achieve an improved outcome. Many lower priced consultancies are not inclusive of sufficient 'on the ground' consultation. Evaluation of housing and associated infrastructure projects that lack appropriate client consultation does not achieve best practice results with regard to either community acceptance or appropriate design.

4.5 Community practices and self-determination programs

Consultants who have worked closely with Aboriginal communities over many years have observed that the processes of self-management and self-determination have impacted upon peoples' daily lives in often negative ways, particularly because programs are under-resourced and they demand too many meetings and administration. While the philosophy behind self-determination is well meaning, the actuality does not necessarily lead to good outcomes. One result is that there is a high management burden on the people with little local assistance from centralised city-based bureaucracies.

Capacity building and self-determination

The goals of capacity building and self determination are to promote a sense of ownership in communities that leads to people being able to manage their own destinies. Without effective support, a hands-off approach by central organisations has resulted in a crisis in many communities. The process of working towards self-management is a more gradual process than that which has been put in place so far.

Empowerment is an important aim in the delivery of housing programs through providing funding together with construction manuals as tools for implementation. One suggestion is that the consultation process involves people in building programs so to encourage and support local communities in managing their programs. This is a process of engaging rather than directing consultants and contractors to work with this facilitation and education principle in mind.

Home living skills

Short-term training programs need reinforcement and accessible role models to successfully educate people on the techniques involved in modern living processes. Problems arise when people move from older, smaller transition houses to newer larger multi-bedroom houses. Family groups are dislocated and the unplanned occupation of extended family members in new houses leads to overcrowding. The perception that the people use their facilities in the 'wrong' way must be changed as it can be observed that in reality, the product is inappropriate.

During consultation, questions focused on what people eat, what is for sale in the local store, and the utensils available are more informative than the consultant and supplier making assumptions about the need for an internal stove of a particular size. Getting to the bottom of the problem of why things don't work is not necessarily about behavioural change and may rather be about gaining an understanding of living practices.

4.6 Communication with service providers and project managers

Community advisors have identified the potential for unstructured and uncoordinated communication that occur when a range of service providers, project managers and contractors are responsible for services and implementation in their communities. The resulting dislocation between community aspirations and agreements on development are manifest in built outcomes that exhibit poorly conceived and executed planning and buildings.

Community involvement

Housing project outcomes are affected by a lack of community involvement and are influenced by poor consultation planning. In the bidding process for jobs, consultants can overlook the need for effective consultation if they do not have cross-cultural consultation skills and a robust project methodology. This is compounded if they are driven by budget and implementation 'bottom lines' and reinforced by the different scope of work and contractual arrangements set up by the range of service providers involved in any single project. Architecturally based companies familiar with cross-cultural consultation practices often forgo tenders to lower bidding project management and construction focused companies. These companies may lack sufficient 'on the ground' experience and skilled resources to undertake informed consultation and negotiation.

Architectural consultants report on instances where communities have built houses without consultation and community relationship building. One documented outcome is that houses have been damaged during construction and building works left incomplete. This was due to a lack of community involvement and relationship building, and well-informed interaction on the part of consultants and contractors alike.

Consultation and communication practices

Extensive consultation meetings and feedback need to be managed well. During the development of the CRM project (a project conceived to engage a number of community representatives to develop a range of standard houses for wide application across communities) architects and designers with skills in consultation in remote areas and an awareness of social, cultural and environmental issues were involved. They worked collaboratively with communities to translate social and environmental considerations into workable house plans with appropriate fixtures and fittings.

Typical consultations for a new house may also be undertaken through a process with less direct community engagement with external bodies when central agencies and service providers are working in the initial stages of housing allocation and brief formulation. Accounts of the process from people living in remote areas indicate that the community advisor is then charged with consulting with the community to decide the house location and type, which is subsequently earmarked for a family. This information is then submitted to the central agency for final determination.

Problems can arise with this planning, where insufficient knowledge of site conditions together with a lack of cross-disciplinary consultation with other service providers, can result in poor decisions being made. In one instance, the community agreed upon a site only then to be informed that the preferred place had no services and that they would need to decide on an alternative within the service grid. This resulted in disappointment and a loss of trust in the experts.

4.7 Post occupancy evaluation and the cycle of consultation

Post occupancy evaluation (POE) is generally an informal process and is often anecdotal and gathered from accounts of local issues. Such results are difficult for broader application therefore POE methodologies need formulating with objective and transferable outcomes in mind. Consultants report that working statistics are required to support the anecdotal evidence of various living customs in Aboriginal communities not supported by the planning of the traditional house. For example, the widespread use of the outdoor kitchen is a common practice across central Australia. In the CRM model user satisfaction was evaluated on immediate responses following initial occupancy. However, service providers and project managers suggest that to be effective,

environmental surveys be undertaken over twelve months to two years to ensure that initial interpretations are robust.

Effective models for post occupancy evaluation consultation

A policy priority is to review how POE evaluation is fed back to the community in a consistent way. There are problems with comparability and the accuracy of the data if the information is collected by the agencies that were responsible for the project. There is a view that the best people to undertake POE are appropriately trained people living in the community.

Architects suggested that as part of the development of new housing models, which could also be considered as prototypes, POE's are undertaken twice over a two-year period. In consultation with the occupiers, data can be used to assess the successes and limitations of house designs including evaluations that assess the capacity of the house to facilitate social interaction. It has been noted that evaluations of the technical hardware occur, but rarely are the social or cultural aspects of the effectiveness of the house and its infrastructure reviewed. Additionally, POE will be effective if it is linked to maintenance regimes and built into the design and construction process. Experienced architects and planners regard independent evaluation as essential to documenting hard data in order to build up a technical database.

A model for POE has been suggested that includes a team of consultants with backgrounds in architecture, building and community welfare utilising methods that include:

- A quick survey that identifies whether things are working, for example, that the fireplace can accommodate the available firewood and whether the specification suits capacities to maintain firewood supplies;

- Observations of the occupant's living skills and patterns and the state of repair of the house and yard; and

- Interviews with the occupants, taking into account that this is a sensitive and possibly invasive method that requires insight into how to ask questions. Avoiding intrusive surveys undertaken with lists and clipboards should be an aim in developing POE programs. (Consultant and anthropologist)

Alternative survey methods include the data logging system which includes the community in a process that affords information and promotes engagement.

Architects report there is a greater opportunity for consultation during renovation and maintenance projects, as the development of consultant briefs based upon interviews and observations of existing conditions includes feedback on how people are living in their homes and communities. The involvement of architects in consultation with clients is thought to be valuable in upgrading and renovation projects.

Regular and cyclical technical and environmental health surveys result in documented knowledge of community histories that could eventually contribute to regional databases of local conditions. In the Northern Territory, maintenance grants are based upon the results of these yearly surveys that involve Indigenous housing officers and environmental health officers working with the women who are the homemakers in communities.

Barriers to post occupancy evaluation

POE is not a formal process or requirement, especially for new houses, and a lack of continuity in consultant contracts removes the possibility for this evaluation to be undertaken informally. Governments and service providers can also be slow to release POE information due to political and/or community sensitivities that could be used to inform future projects.

POE surveys are costly and time consuming when undertaken as separate contracts and programs have been curtailed more recently due to a lack of officers, especially Indigenous officers, to carry out the work. It has been suggested that there is a real difficulty in getting POE on the agenda of service providers mainly due to funding. Architects are at the front end of consultation but as direct consultation with communities is increasingly being curtailed POE becomes an important component of the consultation process.

4.8 The opportunity for design innovation through consultation

A number of conditions affect opportunities for real innovation through consultation in the provision of environmentally and socially sustainable projects for remote areas:

- Mainstream funding has not generally supported or resulted in innovative outcomes. In reality, projects sponsored through grants and/or charity organisations have provided the resources for projects that provide for the alternative needs of people. For example, specific grant funded consultation on yard designs has resulted in the development of a new raised external bed/platform for older people who prefer to sleep outside;

- A number of projects have been suggested for development that infers innovation in design and infrastructure leading to improved living conditions. These can be quite small in terms of incremental change, but effective in communicating to communities that change and innovation can be a good thing. For example, house abandonment is an ongoing condition of life in Aboriginal communities, which suggests an opportunity to devise movable technologies and services. Through community identification of need, one central agency has been encouraged to commit to a pilot project for the design and development of single men's quarters in recognition of the tradition where single men live separately; and

- Guidelines can set up conditions for a lack of innovation. Certain service provider guidelines seek to achieve minimum standards and as a result design improvements appear to be expensive. Guidelines defining principles of innovation and improvement can lead to practical solutions 'on the ground'. Innovation can be demonstrated through prototypes, but this approach comes with associated consultation, research and development costs.

4.9 An overview of principles for effective consultation

Investigations into the range of methods employed in consultation relating to built environment outcomes document a series of observations and recommendations from a range of practitioners, experts and managers working with Aboriginal people who live in places remote from effective infrastructure and services. The aim of this report has been to identify and document the concerns and recommendations of practitioners with experience in consultation, rather than propose a range of protocols or guidelines for effective consultation. It is evident, however that a number of general principles for effective consultation can be mooted. In seeking to achieve relevant and effective practices of cross-cultural and cross-disciplinary consultation between Aboriginal people and their consultants and service providers, the following simple principles, are suggested:

Engagement

The formulation of strategies for mutual engagement by all parties involved with making decisions about housing and infrastructure projects includes gaining negotiated understanding of the knowledge base and aspirations of clients, consultants, managers and providers, and the adoption of agreed protocols for communication is an essential factor in ethical engagement.

Communication

The development of appropriate methodologies based upon local conditions and experience facilitate varying capacities for communication through language and graphic tools. Databases of existing conditions including the histories and physical conditions of projects and places, readily accessible to consultants, communities and providers facilitate informed and timely communication.

Reciprocation

Consultation, inclusive of processes that allow for exchange and negotiation, builds reciprocal relationships based upon increasing knowledge and improvement to physical, cultural and environmental conditions. Consultation is therefore a multifaceted process across cultures and disciplines that enables change to be effected in a timely fashion.

Feedback

Surveys of existing conditions and post occupancy evaluations need to be embedded as part of the consultation cycle of built environment projects. The focus of such surveys extends beyond the physical and technical to embrace

social, cultural and environmental factors. Formulation of an accessible post occupancy evaluation database is essential for effective data resourcing for consultants, managers and providers.

Continuity

Ideally, consultation cycles extend beyond initial brief taking and design development, continue through the administration and implementation stages and extend throughout the life of project maintenance regimes. As strategic planning in community settlements is conceived over long time periods, continuity in communication systems and resources that lead to timely and well informed project management is an essential component in building both cross-cultural and cross-disciplinary relationships.

5 CONCLUSION AND POLICY IMPLICATIONS

This Final Report finds important implications for the development of national guidelines for cross-cultural and cross-disciplinary consultation. An overview of relevant published consultation practices and methodologies relevant to remote Indigenous communities was provided in the AHURI Positioning Paper, *Best Practice Models for Effective Consultation* (2004), as part of this research project. The aims of the overview were to position our research in relation to consultation methods used in the remote communities of the Ngaanyatjarra Lands and the Anangu Pitjantjatjara Lands of Western Australia and South Australia with a particular focus on the effectiveness of those methods in improving built outcomes for those communities.

The overview found that the complex, multi-dimensional and interrelated issues of the built environments of remote Aboriginal communities are not recognised by the limited or narrow meaning of housing and of standardised housing provision. Overcrowding, for example, a serious issue in most remote Aboriginal communities, is responded to by the provision of houses based on bedroom numbers. While addressing the basic human right to shelter and appearing to be non-discriminatory in providing housing similar to the aspirations of the mainstream community, this approach ignores significant cultural issues. The dynamic factors influencing Aboriginal lifestyles include; changing household numbers in relation to extended family transitions, aggravations between family, language, age and/or gender groups exacerbated by either the close proximity of houses or the lack of traditional spatial separation, and sensitivities arising from cultural protocols and living preferences which are not adequately accommodated by housing layouts, often leading to stress, damage, disillusionment and abandonment. It is questionable whether the economies of scale justifying housing standardisation account for the costs of maintenance, replacement and social dysfunction.

The other aspect of standardised housing and planning is the general disregard for the climatic and topographical context in which houses are sited. Planning layouts are generally determined by the expediencies of services reticulation and orientation to the street rather than to the sun. While these patterns are no different to the norms in non-Indigenous communities, the climatic extremes of the desert and the costs to households for energy heating and cooling in such remote locations have compounding consequences. Many houses do not provide sufficient shading and insulation and many are reported as being unliveable in extreme temperature conditions.

Another significant issue is the trend towards Aboriginal self-determination that is strongly supported by government and agency policies. Such policies however have significant implications for communities which have scant experience of community self-governance or the coordination of the complex and interrelated issues involved in the built environment. By comparison, local councils in non-Indigenous communities coordinate a substantial component of local governance such as planning, infrastructure and services through the employment of highly qualified professionals who share common cultural aspirations. In remote locations effective integration and coordination of planning, infrastructure and services is significantly compromised by dissimilar cultural aspirations between the client and provider, and by the remoteness of regional councils from the service providers they engage who are usually city based, autonomous entities. Deficiencies in coordination and the lack of effective cross-disciplinary consultation between service providers exacerbate dysfunctional outcomes in remote built environments.

Together, these cross-cultural, technical and coordination issues affect the functioning and sustainability of the environments in which Aboriginal communities live. These are the areas where policy is found to be inconsistent, deficient or non-existent across many levels of government and service agency agreements. It cannot be reasonably argued that this situation is a reflection of cultural diversity when the provision of remote area housing is so standardised. On the contrary, the implication of the findings of this research suggest that a nationally consistent approach to cross-cultural consultation would be more likely to identify the particular and diverse issues affecting built environment outcomes of Aboriginal communities that current ad-hoc policies fail to achieve.

In order to establish a nationally consistent approach there is a need to establish a database of all cross-cultural and cross-disciplinary consultation about built environment projects. Such records would serve the mutual interests of the client and service provider in establishing the client aspirations and contractual obligations of each party, and they would establish a basis for comparison between diverse communities, thus reducing the need for repeated and often invasive consultation.

This research identified that records relating to built projects in remote Aboriginal communities tend to document generic project management data rather than consultation outcomes, and are maintained by the service provider or former consultant rather than by a community or a centralised database. This tends to reflect and reinforce the unequal relationship of clients with service providers, affording the community little leverage and project scrutiny, contrary to policy trends encouraging Aboriginal self-determination. The widely publicised concern of Aboriginal people about being over consulted is an implicit consequence of a lack of records detailing community representation. If data such as; the consultants involved and their qualifications, the issues raised, the modes of communication, the number of meetings, the length of each meeting, the decisions agreed to, and the expected outcomes of those decisions were

recorded on standardised templates and entered on a national database, histories could be accessed and consultation effected through updating information rather than starting afresh.

The other important factor identified by this research is the need for Post occupancy evaluations (POE) following the implementation of built works, which is a necessary informant of future requirements aimed at improving outcomes. A policy priority is to review how POE is fed back to the community in a consistent way. There comparability and accuracy of data can be questioned if information is collected by the agencies that were responsible for the project. There is a view that the best people to undertake POE are appropriately trained people living in the community.

Summary conclusions that inform practice and policy development for best practice consultation are:

- Universal principles of consultation; engagement, communication, reciprocation, feedback and continuity point towards developing protocols and/or guidelines for cross-cultural and cross-disciplinary consultation;

- Best practice consultation is a process that is ongoing and cyclical and one that facilitates the evaluation and documentation of built environment projects over the life of projects, from inception to completion, continuing through to maintenance programs and post occupancy review;

- Planning processes imposed upon Aboriginal communities are reported to be uncoordinated, numerous and undertaken with a range of consultation styles that can only be regarded as effective when evaluated against the outcomes they produce. A simplified and outcome-oriented planning regime based upon research and a robust consultation and communication methodology is essential to sustainable community development. These methodologies currently do not appear in national guidelines that inform built environment programs;

- Good practices in built environment projects influence policy development on a local and a national scale. Policy principles adopted by project management, service provider and Indigenous agency regimes should be focused to support consultation that will influence consistent and ethical communication and negotiation necessary to inform built environment projects;

- Improved lines of communication between consultants, providers and communities can be effected through working collaboratively on developing standards to promote innovative, technologically and socially driven reforms to standardised housing regimes. These

standards may then be used as the basis to inform consistent policy development on a national and State level;

- Realistic budgets and timelines are essential components of effective and consistent consultation programs. At project inception, a clear philosophical and programmatic plan for consultation with communities, service providers and other consultants should be an agreed component of all built environment projects including housing and infrastructure. It is recommended that consultation methodologies which embrace consistent approaches to communication practices and are tied to ongoing evaluation of outcomes are written into national and regional project management and housing standards guidelines;

- Standardisation of housing designs and project management regimes has been widely adopted to allow for economies of scale, and to facilitate more effective implementation of programs to provide shelter in areas of high demand. Where a standardised approach has resulted in less consultation between communities, consultants and service providers, the result has been a lack of community engagement in the planning and delivery of housing. Mechanisms, reinforced by policy, that allow for review and evaluation of housing and infrastructure programs at a regional or state level, such as standards workshops, are ideally the forum where the management of built environment programs are debated and expertise shared; and

- An area for policy development is to foster a consultative and coordinated approach between service providers, consultants and the communities to providing sustainable housing and infrastructure in remote areas. One practical avenue is the establishment of forums to allow 'on the ground' standards workshops. These would allow a range of people to negotiate directions for future development, based upon accessible information and evaluation of historical and practice based precedents.

In summary, the research has confirmed that effective consultation is widely accepted by practitioners and service providers as pivotal to the effective delivery of built environment projects to remote Aboriginal communities. Evaluation and dissemination of good practice sets the agenda for future housing and infrastructure development and has been seen to drive policy as a result. The development of a national and/or regional database documenting consultation practices linked to the evaluation of built outcomes will encompass the results of cross-cultural and cross-disciplinary practices. This information will inform future development into workable and responsive guidelines that in turn will inform the development of specific policies for best practice consultation.

6 APPENDIX

6.1 Interviewees

The ethics protocols for this research require that the interviewees cannot be publicly identified. The following code has been developed for referencing interview findings throughout. The list of interviewees is held in University of South Australia files as required by the University Ethics Committee.

Service provider	July 29, 2003
Service provider	July 28, 2003
Indigenous regional council	June 20, 2003
Project manager	July 30, 2003
Research and Education	June 30, 2003
Project builder	February 20, 2004
Architect	July 1, 2003
Planner and biologist	July 1, 2003
Architect	July 29, 2003
Educator	June 20, 2003
Community advisor	June 19 and 21, 2003
Community advisor	June 20, 2003
Anthropologist	July 1, 2003
Architect/service provider	June 19, 2003
Community representative	July 28, 2003
Community advisor	June 18, 2003
Community advisor	June 25, 2003

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