

Thursday 15 September 2016

## **Home Modification Forum – Occupational Therapists & Project Managers working together in an insurance environment.**

### **THE FIVE Cs OF HOME MODIFICATION – COLLABORATION, CLIENT FOCUS, COST, CALIBRE AND COMPLIANCE**

Presented by Aaron Stowe, Home Modification Specialist Project Manager, Architecture and Access and Clare Perry, Clare Perry Occupational Therapy Services

#### **SLIDE 1**



**ARCHITECTURE  
& ACCESS**  
Creating environments,  
transforming lives.



**Clare Perry**  
Occupational Therapy Services

### **Five Cs of home modification in an insurance setting**

Client Focus, Collaboration, Quality, Cost, and Compliance.

Presented by Aaron Stowe specialist home modification project manager, Architecture & Access and Clare Perry OT, Clare Perry Occupational Therapy Services.

**SLIDE 2**

**Aaron Stowe:** Over the many years home modification has been practiced, specialities have emerged in this field for highly skilled insurance case managers, occupational therapists, project managers building designers, builders, and others. We also have the people with disability and their families who have the lived experience of disability and are the experts in their own experience and in developing plans for the future, and are now being placed in control of their own insurance packages.

But at the moment, the specialised practice for us generally as professionals is fairly ill-defined as we all use a range of different approaches and processes to deliver somewhat inconsistent products. The success of our work in achieving the intended outcomes is not well evaluated.

I think it is very important to recognise our shared commitment to delivering home modification solutions that improve the safety and independence for the person, their family and carers, and the specialist knowledge and skillsets we bring between us. These include:

- Our capacity to respond to the needs of people with different experiences of disability
- Our pragmatic focus on solutions to achieve outcomes - to deliver home modifications that result in improved safety and independence for the participant, their family and carers

### SLIDE 3

#### Introduction — Specialist knowledge and skills

- Home modification team:
  - Insurance agents
  - Occupational therapists
  - Project Managers
  - Designers, Builders etc.
  - People with disability and their families.
- Specialist knowledge and skills include:
  - Responsive to the needs of people with different experiences of disability
  - Solutions-focus - to deliver home modifications that result in improvement in safety and independence for the participant, their family and carers
  - Fluent in the application of universal design principles
  - National Construction Code and standards related to access in the residential setting
  - Project management skills
  - Design and construction knowledge and practice
  - Applied understanding of insurance principles

### SLIDE 4

#### Introduction — Specialist knowledge and skills

- Insurance principles at a glance:
  - Reasonable and necessary.
  - Appropriate for funding by the insurer.
  - Maximise client control, choice and participation in decision-making.
  - Address individual goals and needs which are articulated in participant plans, including participation in occupational activities, social and economic life.
  - Represent value for money (by project and in comparison with alternatives.)
  - Effective and beneficial with regard to the existing structure and site of the home.
  - Good quality and compliant with building codes and regulations.

- Applied knowledge of universal design principles
- And, the National Construction Code and standards related to access in the residential setting
- Our project management skills
- And technical knowledge covering design and construction
- Our applied knowledge of insurance principles for the provision of client-centred, quality home modifications.

I'll just go over the a basic summary of insurance principles as they apply to the NDIS:

Home modifications must:

- Be reasonable and necessary.
- Be appropriate for funding by the insurer.
- Maximise client control, choice and participation in decision-making.
- Address individual goals and needs which are articulated in participant plans, including participation in occupational activities, social and economic life.
- Represent value for money (by project and in comparison with alternatives.)
- Be effective and beneficial with regard to the existing structure and site of the home.
- Be of good quality and compliant with building codes and regulations.

**SLIDE 5****Introduction — Specialist knowledge and skills**

- Practice standards are needed to articulate best practice in areas that improve consistency and quality of the process and outcomes.
- Client Focus, Collaboration, Compliance, Cost and Quality.
- Core relationship between the participant, the occupational therapist and the project manager.

I think we are all welcoming the opportunity to apply greater rigour and practice standards around our service delivery.

And to develop a more standardised service model that clearly articulates best practice in home modification delivery in the insurance setting.

This will lead to more consistent positive outcomes for the participants and their families as well as greater satisfaction for us as home modification specialists.

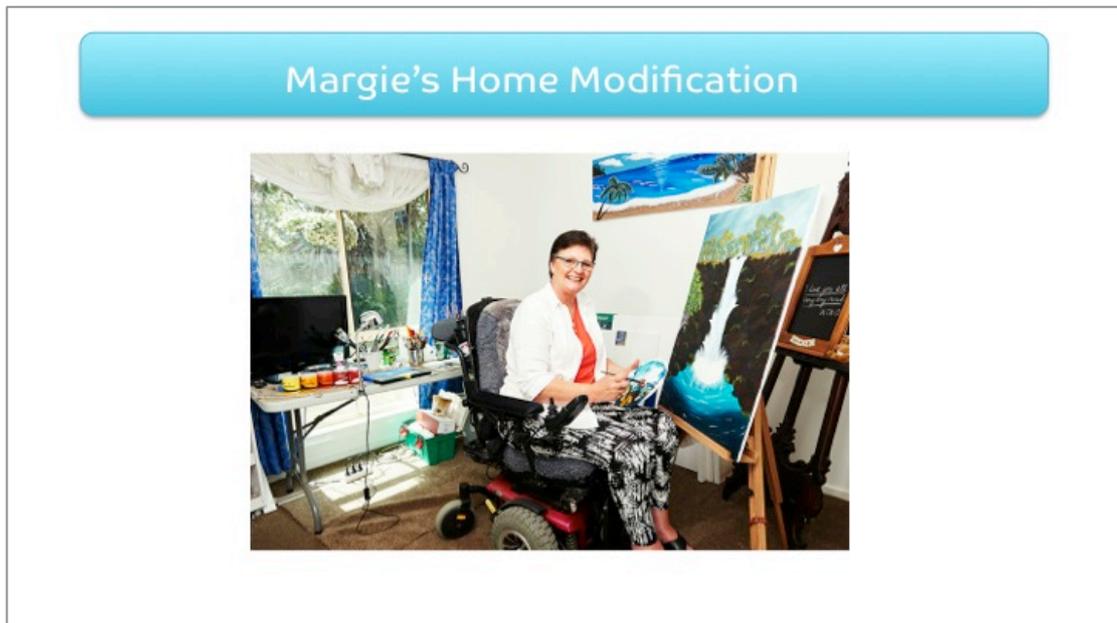
With this in mind, the presentation Clare and I have put together comes from the practical point of view of what has worked well for us at a project level, but with an eye on the kind of practice standards that can be more broadly applied to the design and delivery of home modifications in the insurance setting.

Our presentation focuses on five key areas that impact directly on the process and the outcomes of home modification delivery.

We will be covering the areas of client-focus, collaboration, compliance, cost and calibre (or quality), and not just because they start with C, but also because we believe that they are the top five factors critical to guiding the success of a home modification project.

It also focuses on the relationship between the OT, the project manager and the person with disability as the core relationship that is the basis for good process, solutions and outcomes.

I'll hand over to Clare to now, introduce our case study of Margie's home modification.

**SLIDE 6**

Clare Perry: Today, we are using the case study of Margie's home modification.

When I first met Margie had suffered a back injury at work, but she was ambulant. After unsuccessful back surgery, she became a paraplegic. When I met her for the second time, she was living alone in her own home which she designed and built 20 years ago and raised her family in.

Margie's goal was to live as much as possible with minimal reliance on carers for personal care, cooking and assistance with activities of daily life. It was also her goal to set up a studio for her painting practice.

The home presented significant barriers to access and independence needed to reach these goals.

She needed to be able to get in and out of the house safely and independently, shower herself when she felt like it, attend to her own personal care, to prepare her own meals and do her own laundry.

Margie was very worried that her house, which she had designed and built herself, would end up looking like a "disabled house" – her words.

Aaron and myself collaborated and consulted closely with Margie to develop a design solution.

**SLIDE 7**



**SLIDE 8**



**SLIDE 9**

Margie's Home Modification



**SLIDE 10**

Margie's Home Modification



**SLIDE 11**



Margie was very hands-on with the design development and enjoyed close involvement in the discussion and decision-making. She used brochures, the Internet and visits to local suppliers to research design ideas, fittings and fixtures. One of the things she tells us that she appreciates most about the experience is that we always asked her what she thought.

Thanks to her professional experience with interior and lighting design, she had no problem reading the design plans, and was happy to sign off on the schematic and final designs.

Then under Aaron's supervision, the builder could be appointed and extensive construction work began.

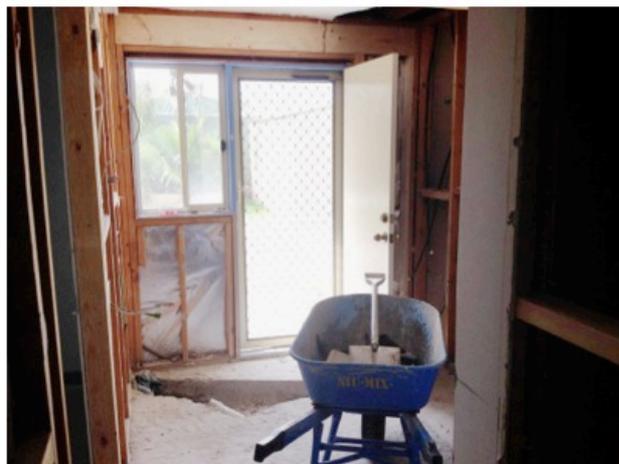
**SLIDE 12**

Margie's Home Modification



**SLIDE 13**

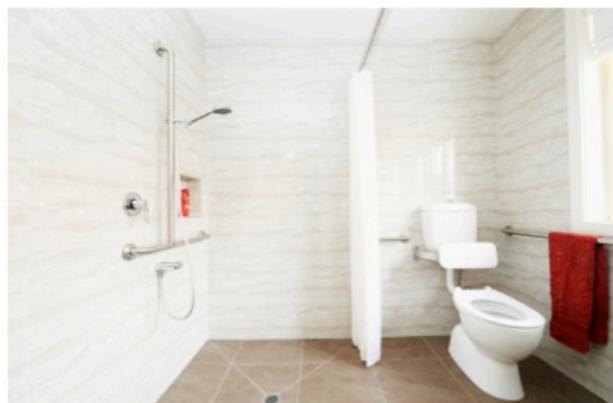
Margie's Home Modification

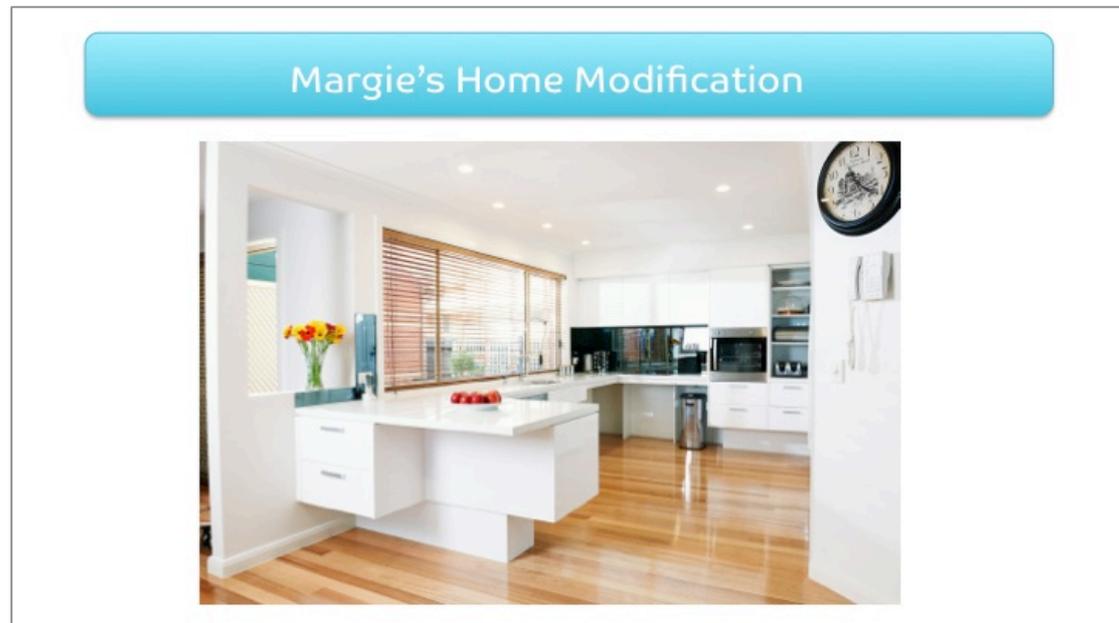


**SLIDE 14****Margie's Home Modification**

Margie's personal preference was for the location of the ramp to be at the rear of the house, this was a safety and security issue for her.

The placement of the toilet and grabrails accommodated her left-sided transfer. The height and depth of the kitchen benches were also customised to accommodate her larger chair.

**SLIDE 15****Margie's Home Modification**

**SLIDE 16**

Margie had some preferences that were deemed to be outside the scope of the modification, including some of the kitchen and bathroom fittings, and tiles and lighting. It was negotiated that she would pay for the cost of these materials and fittings.

Margie also collaborated on the design and paid for installation of a kitchen bench extension to allow her to position her chair, to enable her to eat at the bench.

Over the about 10-week construction stage, she planned regular site visits and the supply of home made cakes.

Upon return to her home Margie considerably scaled back her formal care to assistance her at the pool in the mornings and some help with cleaning.

In evaluating the success of the home modification in assisting her to achieve her access and occupational goals Margie said – You can't give someone their legs back, but this is as good as it gets.

## Client-focus

A number of the areas of practice standards are covered in this case study.

For us as occupational therapists, probably the most important is our client-centred approach.

A client-centred approach essentially focuses on the needs, wishes and preferences of the person who is to benefit from the service – at least to the extent that those wishes relate to enhanced access and independence.

It is important for the person with the disability to understand their role in the process, which is primarily to communicate about their own experience of disability, and to articulate their goals.

Their role & responsibilities cover...

- Communicating with the OT and the project manager about their needs and wants in relation to independence, safety and activities of daily life.
- Initially, they are collaborating with the OT and project manager on the design solution and making their suggestions on how things should be done
- Making choices between available options
- Approving the home modification schematic design and the final home design
- Entering into a contract with, and paying the builder (if they are home owner
  - Just to note that by law it is the home owner that enters into the building contract with the builder – so this may actually be another family member)

The participant also needs to maintain open communication with the project manager during the design and construction stages.

In an insurance setting, the needs and wishes of the client need to be balanced with the insurance principles that relate to home modifications that are reasonable and necessary in relation to the disability and individual circumstances.

It is up to us to make the clear links between our recommendations, the person's disability and their goals.

The client-focus in home modification delivery is solution-orientated – so the person's needs, wants and preferences are interpreted into a design solution that responds to them. The hierarchy we are looking at is almost always around improving independent and safe access to the home, emergency egress, and capacity to manage their own personal care and

participate in activities of daily living – so essentially entrances, bathrooms, perhaps the kitchen and maybe through to other spaces in the home.

**SLIDE 17**

### Client focus

**Participant’s role and responsibilities:**

- Communicate with OT and home mods specialist project manager about needs and wants at assessment and planning stage.
- Initially, make suggestions on how things should be done.
- Make choices between available options.
- Approve home modification schematic design and final plans.
- Enter into a domestic building contract. (home owner).
- Communicate with the project manager during the design and construction stages.



**SLIDE 18**

### Client focus – Role of the Occupational Therapist

**Clinical and prescriptive role:**

- Prescribe home modification in consultation with client and home modifications specialist project manager.
- Consult on schematic design of home modification.
- Produce report and recommendations for the insurer.
- Sign off on design plan and specifications.
- Generally providing support to the participant.



Our role & responsibilities as OTs cover...

- Assessing the person to look at their specific disability, what the home has to offer, and options for bridging that gap.
- Prescribing home modification in consultation with the person with disability
- Consulting on proposed design solutions with the project manager and the person – considering their perspectives and advice
- Consulting with the project manager on compliance, technical, site and cost issues that impact on the solution
- Consulting on the schematic design of home modification
- Producing a report including clinical reasoning and justification for and recommendations for the insurer in consultation with the project manager
- Signing off on the design plan and specifications produced by the project manager.

A supportive approach to developing the design solution which encourages people to participate in their own project is very important as we are working with people who have experienced a loss of capacity to manage aspects of their own lives because of their disability or ageing.

In practice, we are often having many sensitive conversations with the person, providing lots of information and reassurance

If we were to develop some practice standards to capture our approach to client focus, they would include:

- Conveying information about roles and responsibilities of all team members to the person with disability and their family
- Providing support and information in accessible formats to encourage people with disability to be active participants in their project
- Consulting with people with disability to integrate their input into the development of the design solution
- Practise in a way that respects the individual circumstances, needs and values of the person with the disability
- Maintain consultation with team members and provide feedback throughout the design process.

This client-centred approach is particularly critical to the collaboration that takes place in the assessment and planning phase of home modification.

**SLIDE 19**

## Client Focus – Practice Standards

Practice standards to apply to all team members:

- Convey information about roles and responsibilities of all team members to the person with disability and their family,
- Provide support and information in accessible formats to encourage people with disability to be active participants in their project,
- Consult with people with disability to integrate their input into the development of the design solution,
- Practise in a way that recognises the individual circumstances, needs and values of the person with the disability,
- Maintain consultation and provide feedback throughout the design process.

## Collaboration

As we saw at the start with all our caps representing our team members, the team is a multi-disciplinary group of practitioners and support staff with defined roles and responsibilities and complementary knowledge and skillsets.

Consultation and collaboration happens at every stage in the process of home modification, between different team members who are drawn into different relationships throughout the process to exchange information and ideas and make decisions – so practice standards for collaboration should apply to everyone.

### SLIDE 20



Today, I am going to focus on design development as the critical process and outcome of successful collaboration between the OT, the project manager and the person with disability - all working within the scope of their roles:

- The person with the disability is talking about their specific experience of disability, their goals, needs and wants in relation to participation in activities of everyday life.
- The OT talking about what kind of modifications might bridge the gaps in the current home to create better access and independence for the person and to enhance their access to and participation in activities of everyday life.

- The specialist Project Manager talking about the design options for changes to the home that may meet the requirements of the OT and the individual, and be functional, cost-effective and compliant within the structure of the home.

**SLIDE 21**



And it is from this collaboration, **because** of this collaboration that home modification takes shape, and all three parties are needed to define the right design solution and process for each home modification project.

I'd really like to emphasise this point because it's so important. We've called this the **core relationship**, and it is essential that all three consult and collaborate to define the design solution and set expectations around the project from the outset. We believe that this doesn't currently happen all that consistently or well at the moment.

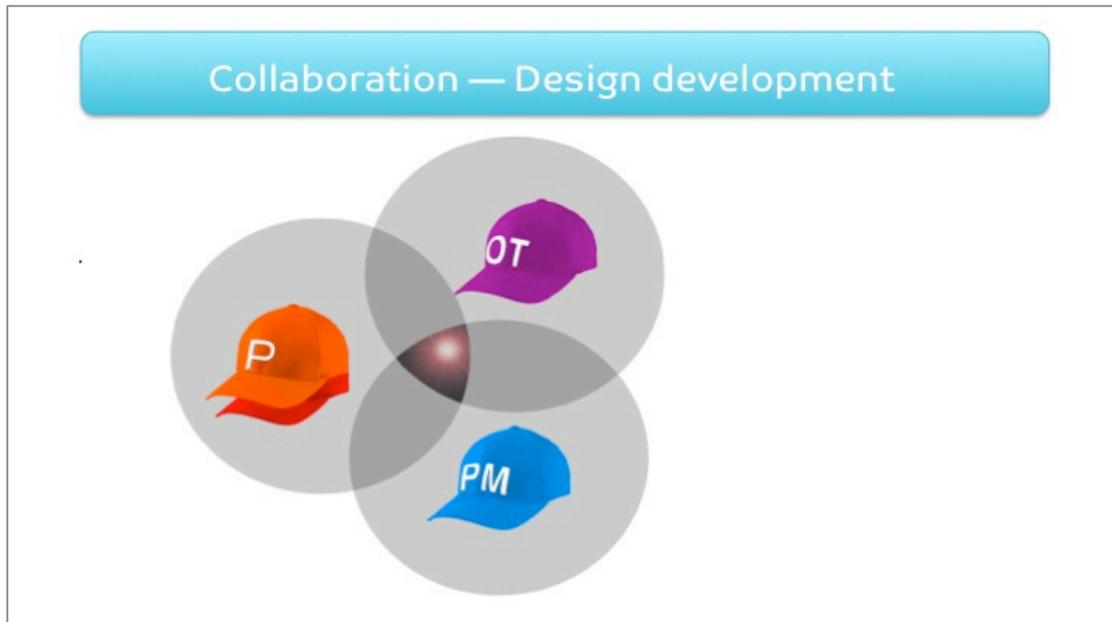
We would also include the family and supports in this early consultation process, as their views need to be considered as well, so we've tucked their cap in under there.

But the core relationship is between the person with disability, the OT and the project manager.

Ideally, we want to see these three people physically sitting together around the same table right at the beginning, at the assessment and planning meeting.

They all contribute their expertise, knowledge, information and ideas in line with the roles.

**SLIDE 22**



Where these perspectives intersect – **there is the home modification. Right here, this sweet spot in the middle.**

The best solution, where the viewpoints intersect – this **has to be** the result of input from these three parties to define this really tightly scoped area.

If we were to develop some practice standards for collaboration that were to apply to all team members, they might include:

- Effectively communicate with team members to share relevant information and advice within the scope of the role
- Demonstrate participation and leadership in developing a culture of collaboration within the team
- Engage all members of the team in collaborative practice and decision-making
- Build and maintain professional relationships with team members including with the person with disability and their family.

The definition of roles and responsibilities for each team member is a pre-requisite to collaboration. Because **collaboration is actually a function** of the team, not just a desired behaviour.

**SLIDE 23****Collaboration – Practice Standards**

Practice standards for all team members:

- Effectively communicate with team members to share relevant information and advice within the scope of their role.
- Demonstrate participation and leadership in developing a culture of collaboration within the team.
- Engage all members of the team in collaborative practice and decision-making.
- Build and maintain professional relationships with team members, including with the person with disability and their family.

I'll hand back to Aaron now to talk about Compliance, Cost and Quality.

**Aaron Stowe:** While we are back on the subject of roles and responsibilities I would like to summarise my role as project manager.

I have a very objective and outcomes focus – thinking about the issues, facts and the next steps – What is the best solution to achieve the functional outcomes? What is it possible to achieve within the available resources? How can this project be designed and delivered on time and budget to the required standard?

The project manager role covers...

- Assessing the suitability of the home for modification and advising on structural and compliance issues
- Consulting and advising the OT, and person with disability on design options and cost-saving ideas to achieve good outcomes
- I'm always collecting facts, considering all people's perspectives, and mindful of how any decision may impact on costs and resources. I also bring a good understanding of the insurance principles including what will most likely fall inside and outside the scope of the modification covered by the insurance
- I prepare the technical part of the report to the insurer including technical reasoning, cost estimation and the project plan

- I lead the schematic design process in consultation with the person with disability and the OT,
- Then develop the design brief and facilitate design documentation and specifications with the draftsman
- I engage a building certifier and building permit applications as required, and also engaging other professional such as engineers if needed
- The project manager handles the tendering, contracting and project delivery – taking responsibility for the cost control, quality and timely delivery of the project.
- This includes:
  - Client liaison throughout construction
  - Ensuring the building code requirements and accessibility standards are met
  - And driving the project to completion with regard to time, cost, quality and compliance.

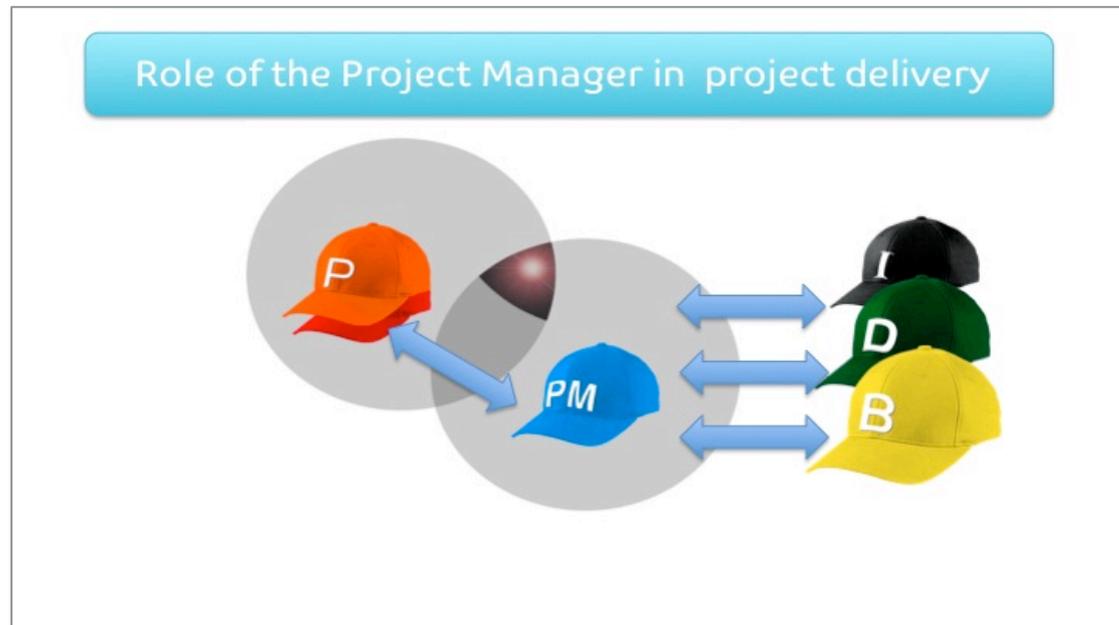
**SLIDE 24**

## Role of the specialist Project Manager

**Objective and outcome-focused role:**

- Assess the suitability of the home for modification and advising on structural and compliance issues.
- Design and construction solutions and ideas.
- Applied understanding of the insurers principles.
- Prepare report, cost estimate and project plan for insurer.
- Develop schematic design in consultation with participant and OT.
- Develop design brief and facilitate design documentation.
- Engage building certifier and building permit applications.
- Manage tendering, contracting and delivery.
- Delivery of project to required scope and standard.
- Client liaison throughout construction.
- Ensure building code and accessibility requirements met.
- Managing cost control, quality and compliance.



**SLIDE 25**


So if we take a look at a diagram of my role at the project contracting and delivery stage, I am taking care of everything and coordinating the input of other team members, liaising with the client as required the client as needed – to ensure the home modification is delivered as originally designed. The OT does not have a role at this stage, and should be confident on knowing that the home modification they signed off will be delivered as designed.

## Compliance

Which brings me to the third area of critical importance for process and outcomes — Compliance. This is a major issue for home modification. Poor quality, defective or non-compliant work is obviously a poor outcome for the homeowner and the insurer.

There are, unfortunately, a large number of home modification projects being done without the necessary permits and adherence to the building code and standards. This approach leaves us all exposed and is not sustainable long term for the individual or the system.

Insurers require compliant work and won't cover rectification of work done by unqualified or unregistered practitioners or without the required building permits.

The National Construction Code includes a list of Standards, which set the technical, and performance requirements for buildings. Compliance with the Standards is mandatory whenever they apply to any work.

We use AS1428 Design for access and mobility as the standard reference for relevant projects, particularly in relation to ramp design, doorway widening, circulation spaces, toilets, grabrails, reach ranges, furniture and fittings and luminance contrast, although not mandatory for residential buildings they are the benchmark.

## SLIDE 26

### Compliance – Practice Standards

Compliance practice standards for all parties:

- Use registered practitioners to undertake work.
- Undertake all work in compliance with the National Construction Code and state-base laws and regulations.
- Undertake all work with reference to relevant and applicable Standards inclusive of AS1428 as it applies to the individual residential project requirements.
- Administer domestic building contracts as required by law.

The practice standards we put in place to ensure compliance include:

- Using registered practitioners to undertake work
- Undertaking all work in compliance with the National Construction Code and state-base laws and regulations,
- Undertaking all work with reference to relevant and applicable Standards inclusive of AS1428 as it applies to the individual project requirements,
- Administering domestic building contracts as required by law.

At a project level this includes:

- Briefing sub-contractors onsite to ensure they are clear about expectations
- Ensuring certificates of compliance are provided by contractors as required by law
- Project manager to 'sign-off' at key stages.

## Cost

Home modification projects can be expensive and likely to be one of the single most important projects a person with disability will undertake. Under the NDIS it is proposed as a once in a lifetime project.

For the sustainability of the system as a whole, the cost per project is important, but not as much the cost-effectiveness over time and the return on investment in terms of the increase in people's independence, social participation and reduced dependence on formal care.

As a project manager, I have direct responsibility for cost control through the following practice standards that could equally apply to other team members:

- Developing a scope of work including accurate cost estimates
- Developing and agreeing on the cost management in consultation with the insurer
- Managing variations by ensuring the variation is in writing, is accurately described and costed; and stating the impact on the contract period
- Managing service agreements and tenders to be inclusive of the cost on all inputs.

### SLIDE 27

## Cost

Cost practice standards for all parties:

- Develop a scope of work including accurate cost estimates,
- Agree on the cost management in consultation with the project manager/insurer,
- Ensuring variations are in writing, accurately described, costed and state the impact on the project,
- Service agreements and tenders to be inclusive of cost on all inputs.

At a project level, I can't emphasize enough the importance of the Assessment and Planning stage, resulting in an accurate scope of work, schematic design and cost estimate.

In addition to poor scoping and cost-estimation, in our experience, the majority of problems that relate to cost increases after project approval are traceable to some combination of:

- Design-related issues
- Variations to the contract
- Poor execution or non-compliance.

The project manager's role is to provide guidance on cost estimation and management by determining resource requirements.

This will include costing of all construction and structural issues to be addressed, consultants' fees, permit applications – everything needs to be included in the project plan and the tender.

For tenders, the less ambiguity in terms of design documentation and specification, the more straightforward the job for builder to provide a fixed cost, and lower the potential for variations and associated cost increases.

Variation-related issues are a major cause of delays and increases to the cost of the project.

A variation is any change to any aspect of the work in the signed contract. It may involve changes to the design, the extent the work, the timing, the materials, the standard quality or appearance of any material finishes, dimensions, and so on. There are also occasions when the homeowner insists on wanting to add or change something in the contract.

In some cases, permit amendments will also be required before a variation can proceed; this will involve further delays and costs.

Unforeseen things can come up – such as water damage, or structural issues, which may vary our approach and the final costs.

But the message is when it comes to cost control – is to get the design right the first time, and don't make variations unless they are unavoidable.

## Quality

Quality in home modification service delivery is essentially about the team being able to predict that they will consistently provide a certain level of service and product that improve the independence and safety of the person with the disability.

Having a quality system in place gives all parties confidence that the products and services are of consistently good quality and are meeting the required standards.

For example, as it applies to our case study, Architecture & Access has a certified quality system in place to provide assurance protection around the process of design development.

It is quite a detailed set of checks and balances, but it simply steps out good practice and insists everyone follows it. We undergo regular internal and external audits to make sure people are adhering to the system.

This quality process ensures design documents are prepared with care and precision following the same process every time.

And as we have mentioned, good design solutions and documentation are the key to avoiding mistakes and variations that add to the cost and compromise the quality of the finished project.

There are many existing standards in the area of quality assurance that can be drawn upon, but as a starting point we would include:

- Having or working towards having a quality system in place
- Inviting people with disability, families and carers to participate in project feedback and evaluation
- Participating in quality improvement activities
- Conducting or participating in audits to identify quality issues within the service or contractor's business.

At the service provider and the system level, quality assurance should also mean the agency or insurer is evaluating service quality to make sure the service is delivering the required outcomes and meeting people's needs. Slide 28

## Quality

Quality standards assure service and outcome consistency:

- Having, or working towards having, a quality system in place.
- Inviting people with disability, families and carers to participate in project evaluation.
- Conducting or participating in audits to identify quality issues within the service or contractor's business.
- At service provider and system level – regular evaluation ensures the service is delivering the required outcomes and meeting people's needs.

## Conclusion

### Next steps

Practice standards are important for the team to recognise and meet the required standard of service delivery within the scope of our roles.

- Client-focus, collaboration, compliance, cost and quality and are areas of significant impact on the process and outcomes of home modification.
- Practice standards can guide practitioners, individual projects and the service sector as whole.
- Utilise pre-existing standards already developed by the various peak and professional bodies for each practice area, and devise or adapt others where needed.

Client-focus, Collaboration, Compliance, Cost and Quality are the top five factors critical to the success of a home modification project.

Practice standards around these areas are useful to guide the service delivery of team members and the service sector as whole, so that we have a shared reference point for people to recognise their responsibility to meet required standards for service delivery, flowing through to better consistency in process and outcomes for people with disability.

We can utilise the pre-existing standards already developed by the various bodies for each practice area, and devise or adapt others where needed.

To finish up, we'd like to come back to Margie's home modification.

We have made this video to promote our project management services, but it is based on the foundations of why and how we deliver home modification services and the importance of the core relationship between the OT, the project manager and the individual in producing the desired outcomes.

[Link to Margie's home modification video.](#)

## **ACKNOWLEDGEMENTS**

Architecture & Access acknowledges the valuable contribution from a number of people involved in the process of home modification whose input and feedback informed the development of this presentation – including people with disability and their families, occupational therapists, builders, and professionals from the insurance sector.

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## **ACCESSIBLE FORMATS**

This document is available in a Word doc by contacting Architecture & Access.

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## **ABOUT ARCHITECTURE & ACCESS**

Architecture & Access is a specialist consultant for the built environment, creating safe and accessible community facilities, workplaces and homes for people with disability and the wider community.

Our services include:

- Home modification design and delivery
- Access consulting
- Occupational health and safety consulting
- Project management
- Architecture, landscape and interior design
- Training and professional development.

Architecture & Access home modification specialists are the new generation of professionals – responsive to the needs of people with different experiences of disability, fluent in the application of universal design principles and the National Construction Code, and committed to delivering home modifications that promote safety and independence for the individual, their family and their carers.

Architecture & Access has more than 15 years experience in the design and delivery of home modification for people with disability on behalf of the Transport Accident Commission (TAC), WorkSafe insurance scheme, the National Disability Insurance Scheme (NDIS) and private clients.

Architecture & Access is:

- a registered provider for the National Disability Insurance Scheme
- pre-qualified as a consultant with the whole of Government Construction Supplier Register to supply OHS, architectural and project management services
- an Independent Assessor for the Livable Housing Australia guidelines.
- an A-Plus member – Australian Institute of Architects.

