

TINY GUEST HOME

MAJOR DESIGN PORTFOLIO



Project Duration: Term 4 (2023) - Term 4 (2024)

Contents

SECTION 1:

- Presentation and communication techniques + Identification of the 'NEED' ----> **page (3)**
- Brief + Existing Designs + SWOT Analysis -----> **page (4)**
- Concept Board + Factors Affecting Design -----> **page (5)**
- Criteria For Success -----> **page (6)**
- Areas Of Investigation -----> **page (7)**
- Time Management GANTT Chart -----> **page (8-13)**
- Resource Table And Finance Plan -----> **page (14)**

SECTION 2:

- Size Of SHipping Container + Base For Flooring + Interior Aesthetic -----> **page (15)**
- Space For Losted Bedding + Flow Plan + FLOOR Plan -----> **page (16)**
- Ways To Maximise Space -----> **page (17-20)**
- Investigating Bathroom -----> **page (21-22)**
- Investigating Natural Lighting -----> **page (23-25)**
- Investigating Dry Wall + Insulation + Paint -----> **page (26)**
- Eletrical Lighting -----> **page (27)**
- Investigating Flooring -----> **page (28)**
- Investigating Kitchen -----> **page (29)**
- Dimensions of Container + Existing Designs + Site Location -----> **page (30)**
- Exterior Concept Board + Sustainability Ideas/sketches -----> **page (31)**
- Exterior Sides Final Designs And Aesthetics -----> **page (32-33)**

SECTION 3:

- Learning AutoCAD Architectural 3D modeling + Production -----> **page (34)**
- Physical Architectural Modeling + production -----> **page (35-36)**

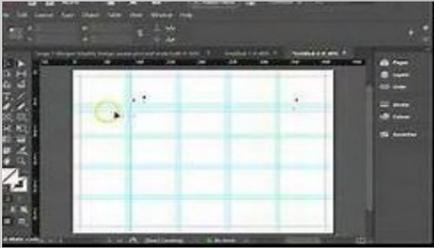
SECTION 4:

- Final Modeled product -----> **page (37)**
- Surveys And Analysing Feedback -----> **page (38)**
- Evaluation Against Criteria For Success And Proposal -----> **page (39)**
- Bibliography, referencing -----> **page (40)**

SECTION 1

Project Proposal And Management

Presentation And Communication Techniques:

Techniques	Chosen Technique	Example	Juxtaposition
Body Font	I have chosen to use the font Courier New instead of Times New Roman in the size 12pt.	Lucida Console 12pt Lucida Console 12pt (Times New Roman)	I chose to use Lucida Console as my text because it is easily readable and spaced out well. Additionally it is aesthetic and corresponds well with my other fonts within my portfolio.
Header Font	I decided to go with Agency FB as my header font	Agency FB Agency FB (Times New Roman)	I have chosen to go with Agency FB for my Headers as I believe it complements my portfolio aesthetic.
Page layout	The layout for my portfolio is in A3 Landscape		I decided to go with A3 landscape for my portfolio as I would like to display my floor plans as large as possible to view fine details through my design process.
Application of conclusion	My Application of conclusion boxes will be in the font Agency FB		I made these summary boxes appear brighter and bolder to stand out more as there is significant information to be read as a summary of the page or experiment to put into simple terms.
	My Re-design boxes will be in the font Courier New		I made these Re-design boxes to stand out in brighter colours to catch the attention that I or my clients have come up with new ideas that can alter my design.

Identification Of The Need:

Identifying target market: Clients, Nadine and Stuart Date: 27th October 5:20pm

I am designing to meet my clients needs but many of these ideas would appeal to the general public with similar needs.

Questions For Consulting Clients	Client Response	Conclusion
What size of space are you looking for?	We would like a space that is appropriate for 1 to 2 people visiting	Holds 1 to 2 people/visitors for bedding and dining
I suggested similar sizing of a shipping container to gather a rough idea.	Having a shipping container for storage	Home is to be towable
What aesthetic (internal and external) are you looking for.	We'll like to see particular colours and materials that reflect the surrounding environment	Earthy colours

- Problem and opportunity

Problem	Opportunity
How to use a shipping container and have it not feel like staying in a uncomfortable container. The way a place is created may have a significant mental impact on the owner's or visitors general well-being, if something is truly plain and simple, the space lacks appeal and satisfaction.	To find ways around making a small space as homely and functional as possible for the comfort and satisfaction of the owners or visitors.

Brief

I intend to design a fully laid out plan of my clients tiny home to create a cozy, inviting, and functionable space for visitors to stay in, seeking privacy and comfort.

BUDGET = \$30-40000.00

Existing Designs

			
<p>Pros</p> <ul style="list-style-type: none"> - The slide doors to minimise space. - Use of Natural light <p>Cons</p> <ul style="list-style-type: none"> - Plain exterior - Plain exterior. no personality 	<p>Pros</p> <ul style="list-style-type: none"> - Privacy <p>Cons</p> <ul style="list-style-type: none"> - push/pull doors, waste of space - small windows - Plain exterior. no personality 	<p>Pros</p> <ul style="list-style-type: none"> - Privacy - sliding doors <p>Cons</p> <ul style="list-style-type: none"> - small windows - Plain exterior. no personality 	<p>Pros</p> <ul style="list-style-type: none"> - sliding doors - Big windows/doors= Natural Light <p>Cons</p> <ul style="list-style-type: none"> - small windows - Plain exterior. no personality

Conclusion For Existing Designs:

Making pros and cons for the existing designs above allowed me to develop an understanding of the problem that is occurring throughout all these examples of having a basic, bland home with no personality or aesthetic appeal to the exterior design. Through investigating these existing designs, my clients have discovered that they like the use of natural lighting through the windows, however exploring ways of improving the homes exterior aesthetic will need to be investigated to my clients needs.

SWOT

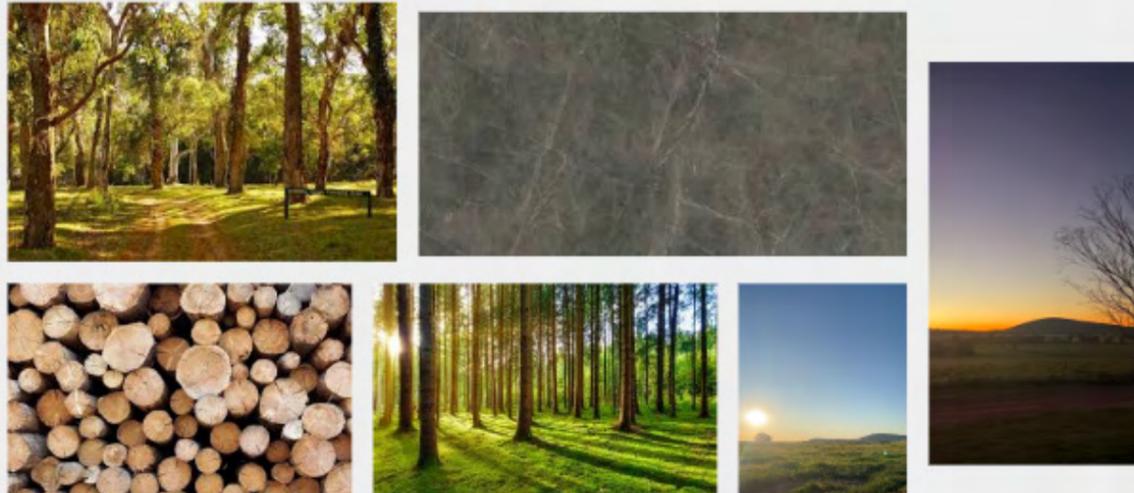
Strengths	Weaknesses	Opportunities	Threat
<p>Sustainability: Using shipping containers as building blocks is an environmentally friendly choice, as it repurposes existing materials and reduces waste.</p> <p>Cost-Effective: Shipping containers are readily available and cost-effective building materials, which can make the project more affordable.</p> <p>Durability: Shipping containers are built to withstand harsh weather conditions and transportation, making them a robust choice for low cost housing.</p> <p>Faster Construction: The modular nature of containers can significantly reduce construction time, leading to faster project completion.</p>	<p>Size Limitations: Shipping containers have fixed dimensions, which may constrain the interior space and limit design options.</p> <p>Insulation Challenges: Containers require proper insulation to regulate temperature, which can add to the cost and complexity of the project</p> <p>Design Creativity: Creating an aesthetically pleasing and functional living space from containers may require creative architectural solutions.</p>	<p>Affordable Housing: Tiny homes made from shipping containers can address the need for affordable housing, especially in urban areas.</p> <p>Customization: The modular nature of containers allows for easy customization to meet the specific needs and preferences of homeowners.</p> <p>Eco-Friendly Trend: Growing interest in sustainable and eco-friendly living can create a niche market for container-based tiny homes.</p> <p>Remote Locations: Containers can be transported to remote or off-grid locations, providing opportunities for unique and sustainable housing solutions.</p>	<p>Opporating AutoCAD 3D: Utilising autocad for my final rendered model is going to be a challenge for me to learn within a short amount of time is a huge threat.</p> <p>Other competing tiny homes on the market offering different prices.</p>

Evaluation:

Therefore, designing a tiny home out of shipping containers offers various advantages, such as sustainability and cost-effectiveness. However, it also comes with limitations, including size constraints and regulatory hurdles. To succeed in my design process, it's important to creatively address weaknesses, leverage opportunities, while keeping sustainability and affordability in mind.

Concept Board

CONCEPT BOARD INSPIRATION



Conclusion For Concept Board:

By creating a concept board, my clients and I found this helped us to see the different types of materials, textures, and colours of their chosen aesthetic that reflects their surrounding environment. Therefore, my clients have approved of this concept board aesthetic.

Factors affecting design

In my project of developing a modelled replica of a tiny home for my clients, I will consider four primary factors affecting my design: Functionality, Aesthetics, Sustainability, and Quality.

SIGNIFICANT --> Function. For such a small space I will need to design the home to be as functional as possible to ensure space is used appropriately to meet the client's needs. Due to such a small confined space, areas will need to serve more than one purpose to increase the functionality of the space. Otherwise, my design will be deemed an unsuccessful design due to not managing and planning space correctly and appropriately for the comfort of my clients. Therefore, the factor of functionality in my design of the tiny home model must not only replicate a real-life home to detail but also illustrate how the space is well-planned for the comfort of my clients and visitors.

MAJOR --> Aesthetics are how the client's personality can be displayed. Successful homes have character, with decorations that represent their owner. The visual appeal of a space may have a considerable influence on how it is perceived, creating uniqueness and being appropriate to the client's selected aesthetic concept. Therefore, aesthetics is extremely important to get correct to ensure the satisfaction and comfort of my clients. If this is achieved then it will link the project of guest accommodation with the rest of the home. Creating a cohesion between existing and the new home on the allocated site.

IMPORTANT --> Sustainability is influencing many of our modern day designs due to customers' greater understanding, and awareness of our impact on the environment. Sustainability is a significant component to this project. Due to this awareness, many people desire to reduce the consumption of raw materials through the repurposing of existing objects that require little to no alteration. In this project, the repurposing of a shipping container allows the client to achieve a secure dwelling that 'locks up' the resources consumed to produce the container by extending its use phase. If completed successfully, the repurposing of a container will demonstrate the sustainable ideology of the client and myself.

The structural integrity of the container, originally engineered for transport, ensures robustness and resilience against environmental elements due to the high **quality**. A key quality consideration is the inspection and treatment of the container for rust and corrosion, enhancing its longevity. Reinforced insulation and high-quality interior finishes contribute to comfort and durability. Attention to detail in the construction and design processes is crucial in lifting the project's aesthetic. Ultimately, if the quality of the design is poorly finished, it will result in a home that does not live up to living standards, therefore I am to thoroughly investigate ways of making this design as premium as possible.

By prioritising these factors, a shipping container tiny home attains a high standard of Aesthetics, Functionality, Sustainability, and quality. Guaranteeing a lasting, sustainable housing solution.

Conclusion for factors affecting design:

The factors affecting design allowed me to see my main areas that I'm focusing on and how they will play a role in the process and overall success of my design.

Criteria for success

Criteria	Analysis	How will it be assessed?
Functionality	<p>My design is an efficient and effective down scaled model of my clients tiny home, producing a well-thought-out floor plan to complement my clients setting, especially given the limited space. As a result, my clients will be able to see the design space.</p> <p>Ensuring that everything within the home is appropriately planned to serve its functionable purpose, such as any storage holding cabinets, hidden drawers and pocket doors. To ensure there are no difficulties with manganging and manoeuvring around the space.</p>	<p>This can be assessed by a 3rd party</p> <ul style="list-style-type: none"> - clients - Survey
Quality - Type/choice of materials and finish	<p>The tiny home must be completed to a high finish, in which is influenced by the type and choice of material being investigated to uphold my clients chosen aesthetic appeal.</p> <p>Matches my clients existing home and surrounding environment to create cohesion between builds.</p>	<p>This can be inspected by a 3rd party evaluator.</p> <ul style="list-style-type: none"> - clients - Survey
Aesthetics - Style to appeal to Target Market - Finish is high quality	<p>All the resources applied to design must complement each other well, developing an earthy palette to mirror the surrounding nature aesthetic</p> <p>The home must be completed to an excellent level, whether it is a premium finish for wood and paint that is aesthetically pleasing to my target market/clients. This can result in the design being more aesthetically appealing also giving the home a more premium look and feel. Resulting in the satisfaction of the client.</p>	<p>This can be assessed by a professional 3rd party evaluator.</p> <ul style="list-style-type: none"> - Clients - Survey

Application Of Conclusion For Criteria For Success:

By developing a criteria for success allows me to see the parts of my design that are to be achieved successfully. If my design is not meeting my design criteria, my design may result in being deemed an unsuccessful design.

Areas Of Investigation

Interior

Category	Explained	How Will This Be Investigated
Interior Aesthetic	Explore the aesthetic appeal and how does it affect the client's mood, mirroring their personality as well as the surrounding nature/environment	Internet Experiments with environment Target market feedback
Size of shipping container - size of components	Measureing the dimensoins of the home, to prepare for a scaled down floor plan	Research the type of shipping containor my clients have and measure
Floor plan of the shipping container - Bedroom -Toilet and shower - Kitchen -Dining Table	Clients and I will begin laying out our ideas on floor plan	Sketchings from clients inspiration ideas Youtube- managing space
Ideas and concepts for managing space - storage bedding - Dining Table	Identifying problems and finding ways for more storage etc.	Research expirements Sketches
Investigate flooring material	What materials are durable as well as aesthetically appealing complementing the home space and environment Craft material - Fake liminate	Client Research
What doors to use to minimise space	Which door is suitable and appropriate for limiting space Craft material - Plastic	Research Client
Hardware - Lighting and other electicals	Laid out plan of wiring for scaled down model. Craft Material - LED lights	Research Internet Adobe Illustrators
Natural lightng - Orientation of home	Explore ways of managing heat loss in winter and cool air conditioning in summer, saving energy and costs. - sustainability	Types of windows Sustainable impact
CAD software	Learn an appropraite CAD software in order to finalise plans	Design tutorials Tutors

Exterior

Category	Explained	How Will This Be Investigated
Exteria Aesthetic	Explore the aesthetic appeal and how does it affect the client's mood, mirroring their personality as well as the surrounding nature/environment	Internet Experiments with environment Target market feedback
Size of shipping container	Measureing the dimensoins of the home, to prepair fora scaled down exteria plan	measure CAD
Exteria plan of the shipping container Materials - colours/Textures	Clients and I will begin laying out our ideas	Sketchings from clients I can generate some inspiration/Existing designs
Any concepts for managing space	Identifying problems and finding ways for more storage ect.	Research expirements Sketches
Investigate sustainable materials for exteria - eg Solar and wind systems	What material in durable as well as being aesthetically appealing complementing the home and environment	Client Research
Waste plans	lay out of plumbing for wastage.	Research sketches
outside enterainment - eg retractible shade awnings	Explore ways of managing space.	sketches research
Technical plan measurements	Detailed sketch of exteria.	Ways of presenting CAD

Application Of Conclusion For Areas Of Investigation:
 By developing areas of investigation allowed me to plan out when and what I am to further plan and investigate for my project to be successful.

GANTT CHART - TIME MANAGMENT

 = Expected time of completion

 = Actual time completed

TERM 4 2023

	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
Communication and presentation techniques							
Conclusion or Comment: - Where I adressed my font types, and others ways of communication.							
Target Market - clients							
Conclusion or Comment: - I was fortunant to have clients come to me and inform me about the							
Client discusion							
Conclusion or Comment: - This allowed my clients and I to gather a rough idea on what they're looking for me to design.							
Problem And Opportunity							
Conclusion or Comment: - By creating problems and opportunities allowed me to see the gap in the market.							
Brief							
Conclusion or Comment: - This allowed me to briefly discuss my intensions on this project.							
Existing Designs							
Conclusion or Comment: - This allowed me to further investigate and physically see the problem and opportunity for my design project.							

	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
SWOT Analysis							
Conclusion or Comment: When developing the existing designs, this lead me to fall a bit behind on my SWOT analysis							
Concept Board							
Conclusion or Comment: - Evaluating the environment allowed me to find materials that would reflect these elements for the home.							
Factors Effecting Design							
Conclusion or Comment: - Factors effecting design took me a little longer then expected to write up.							
Criteria For Success							
Conclusion or Comment: -Ensuring everything is planned and designed appropriately for the success of my design							
Areas Of Investigation							
Conclusion or Comment: - Finding every individual investigation took a little longer then expected due to planning every element of the home.							
Design Presentation							
Conclusion or Comment: - The presentation allowed me to develop a stonger understanding of what and why I have chosen to design for my project.							

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Term 1 2024

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
Size of shipping container	 									
Conclusion or Comment: Getting my base measurement down to see what my clients and I are working with.										
INTERIOR Aesthetics		 								
Conclusion or Comment: - This allowed my clients and I to gather a rough idea on what aesthetic they're looking for.										
INTERIOR Floor plan and Flow plan ideas -lofted bedding		 								
Conclusion or Comment: - The floor plan allowed my clients and I to see roughly where things will be laid. Aswell as the flow plan to see if there are any restrictions throughout the home.										
INTERIOR Ways to maximise space			 	 						
Conclusion or Comment: - Both my clients and I found this investigation really enjoyable, finding way to maximise the most of space in the shipping container. However drawing many sketches did set me back a few weeks to ensure they are well planned and thoughtout.										
INTERIOR Natural lighting windows				 						
Conclusion or comment: - Investigating the windows for the home allowed me to finalise my measurements on the dry wall and installation to ensure i'm not wasting any material for accurate measurement.										
INTERIOR Lighting					 					
conclusion or comment: - by choosing the lightng for the setting of the home allowed me to investigate my clients mood and characteristics. Furthermore, allowed me to seeing lighting is to be appropriatly placed to ensure the lighting is not competing with the natural lighting.										
INTERIOR Walling and installation						 				
Conclusion or comment: - Measuring the drywall and installation after the windows allowed for accurate measurement and reduce waste.										

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Term 1 2024

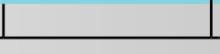
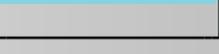
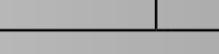
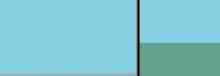
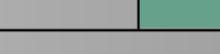
	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
Bathroom and bathroom sketches						<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>				
Conclusion or Comment: - By creating sketches for my client allowed them to visualise where things will be placed.										
INTERIOR Timber framing for bathroom						<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>	<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>			
Conclusion or Comment: - This allowed my clients and I build the base foundation of the bathroom in order to begin precice measurement.										
INTERIOR Natural lighting and experim-ent.							<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>			
Conclusion or Comment: - This experiment was really fun to visualise the layout of the windows and analise where additional lighting will be needed.										
INTERIOR calculating to-tal amount of drywall								<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>		
Conclusion or Comment: - Allowed me to build the foundation of the home.										
INTERIOR Electrical lighting								<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>		
Conclusion or comment: - Investigating the lighting for the home allowed me to finalise where lighting is needed.										
INTERIOR Flooring and experiment									<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>	
conclusion or comment: - My clients and I came to a conclusion with a flooring that is suitable and cost worthy for the home.										
INTERIOR Kitchen									<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>	<div style="background-color: #ADD8E6; width: 100%; height: 10px;"></div> <div style="background-color: #3CB371; width: 100%; height: 10px;"></div>
Conclusion or comment: - In conclusion my clients and I found a kitchen that is appropriate for the small space provided.										

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Term 2 2024

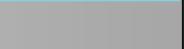
	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
EXTERIOR Dimensions of shipping container	 									
Conclusion or Comment: - Getting my base measurement down to see what my clients and I are working with.										
EXTERIOR existing designs of exterior aesthetics	 									
Conclusion or Comment: - Allowed me to analyse what materials I will be using that best mirrors my clients personality and characteristics.										
EXTERIOR Concept Board of aesthetics		 								
Conclusion or Comment: - The concept board allowed me to explore materials that best mirrors my clients personality and characteristics.										
EXTERIOR Sustainable actions		 								
Conclusion or Comment: - investigating ways arounds conservation of water and exploring traditional techniques.										
EXTERIOR Sketches of all sides			 	 	 					
Conclusion or comment: - Investigating the lighting for the home allowed me to finalise where lighting is needed.										
Final design sketches					 	 				
conclusion or comment: - My clients and I came to a conclusion with a flooring that is suitable and cost worthy for the home.										
EXTERIOR Using AutoCAD 3D						 	 	 		
Conclusion or comment: - Learning autocad was quite a challenge for me to understand within a short period of time, falling behind 2 weeks.										

GANTT CHART - TIME MANAGMENT

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Term 2 2024

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10
AutoCAD 3D Production							 	 		
Conclusion or Comment: - As I was learning, I was gradually adding the techniques I learnt to my AutoCAD production.										
Physical model production						 				
Conclusion or Comment: - Behind my AutoCAD production, I was gradually progressing in my production of my physical model to ensure I am keeping up with in my time frame.										
Industry practices and safe measures								 	 	
Conclusion or Comment: - finding safe practices within the production on autoCAD, physical production, and future on site production.										
Surveys on final design									 	
Conclusion or Comment: - Surveys towards my target market.										
Risk Assessments										 
Conclusion or comment: - Allowed me to find risk that may occur with in the production stages of my design process, and finding the preventions.										
Bibliography										 
conclusion or comment: - Harvard referencing and my sites I visited for my investigation stages.										
Term 3 2024	Wk 1	Wk 2	Wk 3 Trials	Wk 4 Trials	Wk 5 Trials	Wk 6 03:00pm	FINISH			
Final Evaluation	 									
Editing				 						
Submission						 				

Resource table and finance plan

Materials for House

Item/resource	Unit Cost	N#	Estimated Cost	Actual Cost
1200 x 600mm 18mm Plywood Red Oak	\$56.00 each	21 boards	\$1000	\$1176.00
Dining table and chairs Tasmanian Oak Timber 1200 x 600mm 19mm	\$86.00 per board	2	\$160.00	\$172.00
Dining table and chair legs. Steel Tubing Metal Mate 30 x 30 x 1.6mm 3m Galvanised Steel Square Tube	\$41.43 per 3m length	2 6me-tres	\$82.00	\$82.86
Matte black spray paint for steel legs aesthetic and protection of steel	\$15.50 per can	1	\$15.50	\$15.50
Ozito 2300W 356mm Corded Metal Cut Off Saw MCS-2355 for table and chair legs	\$169.00	1	\$169.00	\$169.00
Lane 25 x 20 x 1.6mm Brass Hinge	\$9.94	3 packs	\$30.00	\$29.82
Pinnacle 70mm Fixed Pin Butt Hinge - 2 Pack	\$4.20 per pack of 2	3 packs 6 to-tal	\$12.00	\$12.60
Prestige Steel Desk Stay to lock in table and chair legs.	\$10.08 per pack of 2	3 packs 6 to-tal	\$30.00	\$30.24
lamine timber boarding for the making of storage drawers	\$51.90	x5 boards	\$250.00	\$259.50
70 x 45mm Outdoor Framing H3 Treated Pine 6.0m	\$34.50	x2	\$68.00	\$69.00
Drywall Plaster Baords	\$20.24	x32	\$640.00	\$647.68
PVC Double Skin Folding Door Bi Folding Door	\$154.36	x1	\$154.36	\$154.36
70 x 45mm Framing MGP10 H2 Blue Pine 6.0m	\$31.50	x10	\$300.00	\$315.00
Dry wall 16x2400x1200	\$59.00	x32	\$1800.00	\$1888.00
Duluxe white paint 10L	\$166.50	x1	\$166.50	\$166.50
Tongue & Groove base flooring	\$59.00	x6	\$350	\$354.00
IKEA kitchen	\$624.00	x1	\$624.00	\$624.00
1000LT Colorbond Kingspan Steel Slimline Water Tank	\$1105.00	x1	\$1105.00	\$1105.00
Total ~				\$7271.06
Shipping container fixed price =				\$20000.00
Total including shipping container ~				\$30000.00

Materials for Modled House

Item/re-source	Unit Cost	N#	Estimated Cost	Actual Cost
QU BRD FOAM A2 WHITE	\$10.39	2 boards	\$20.00	\$20.78
BOX CUTTER 18MM	\$4.25	1	\$4.25	\$4.25
YK-QU CHIPBRD A2 GREY	\$5.19	2	\$10.00	\$10.38
Clear glue	&7.70	1	\$7.70	\$7.70
TOTAL =				\$43.11



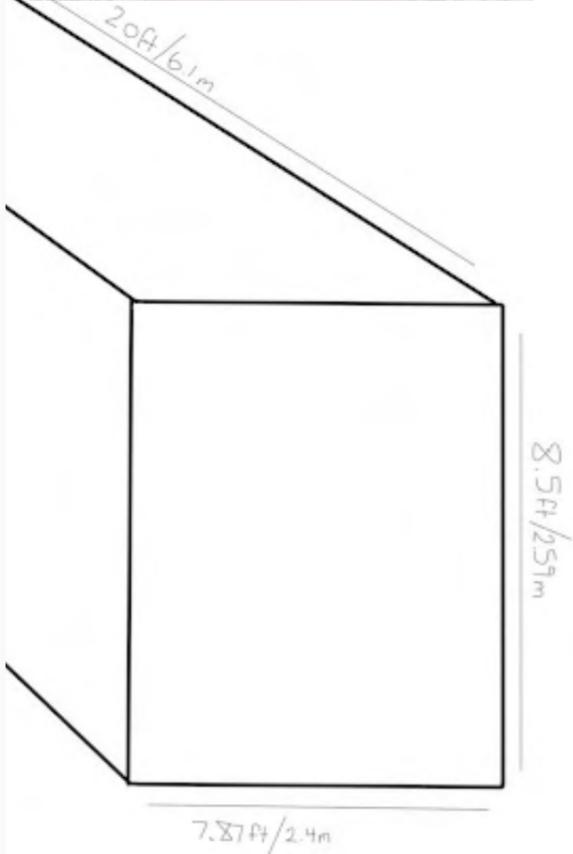
SECTION 2

EVIDENCE OF CREATIVITY: INVESTIGATION - INTERIOR

Size Of Shipping Container

Base For Flooring

Interior Aesthetics

Image	Description	Type	Image	Description	Total meas-ure	Existing Aes-thetic	Analysis
	My clients already own a shipping container for storage purposes, however is a little too big being around 8 ft wide and 20 ft long	1200 x 600mm 18mm Plywood Red Oak \$59.00 x21 = \$1239.00		Red Oak Plywood is strong and moisture-resistant, while being cost effective.	2.4 x 6.1 = 14.64m ² Total amount of sheets needed = 21 sheets		Pros: - Stairs are accessible to bedding space - Plenty of storage under stairs Cons: - Dislike the aesthetic of different wood types created a more outdated style in my clients point of view. - Less natural lighting
		2418 x 1210mm 12mm Particleboard Panel Standard \$36.00 x5 = \$180.00		suitable for interior use in a wide range of options where moisture will not be an issue.	Total amount = 5 sheets		Pros: - Plenty of storage - Open living - Comfortable - Natural lighting - Nice clean aesthetic Cons: - Difficult to get in and out of bed - Perhaps replacing the lounge area with the bedding space as a lost bed can be restricting for visitors of older age or disabled.
		12 x 2400 x 1200mm Tongue & Groove Pink \$59.00 x 6 = \$354.00		durable panel well suited for interior wall linings	Total amount = 6 sheets		Pros: - landscape window as backsplash - Use of natural light - Open makes space appear larger - Plenty of storage space - More accessible to bedding - Stairs with storage - Loft bedding develops space - Clean Aesthetic Cons: - Height in the image is taller than my client's home which may cause concerns for designing loft bedding.

Conclusion:

Therefore my clients have decided to use their existing container for another purpose and to use the space inside more appropriately.

Conclusion for dimensions on shipping container:

In conclusion by performing these measurements allowed my clients and I to visualise the space that we are working with creating a foundation for the design to proceed.

Application Of Conclusion For Base Flooring:

We've chosen to go with Tongue and groove particle boarding, although it is not the cheapest option, the grooves allow for easier installation and less equipment needed.

Application of conclusion for interior aesthetic:

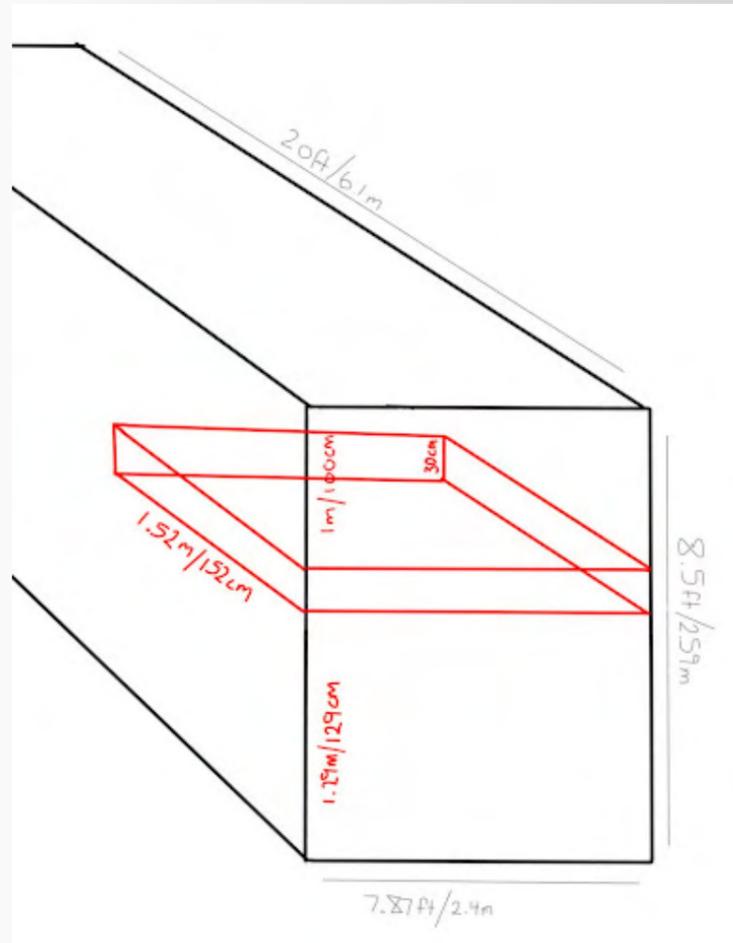
Clients agree with the aesthetics in images 2 and 3, and add more of their own characteristics. However, research is needed for including a lofted bedding to maximise space.

Space for lofted bedding

Research:

For optimum safety and comfort, it is recommended that the loft bed be positioned at least 1 metres away from the ceiling. This ensures that there will be ample space for different mattress sizes and freedom to move around without any restrictions or concerns.

Bed Description - Queen Size



Annotate:

- Average mattress height is 30cm
- 1 metre gap from mattress to ceiling
- Measurement from floor to ceiling = 129cm!

Judgment:

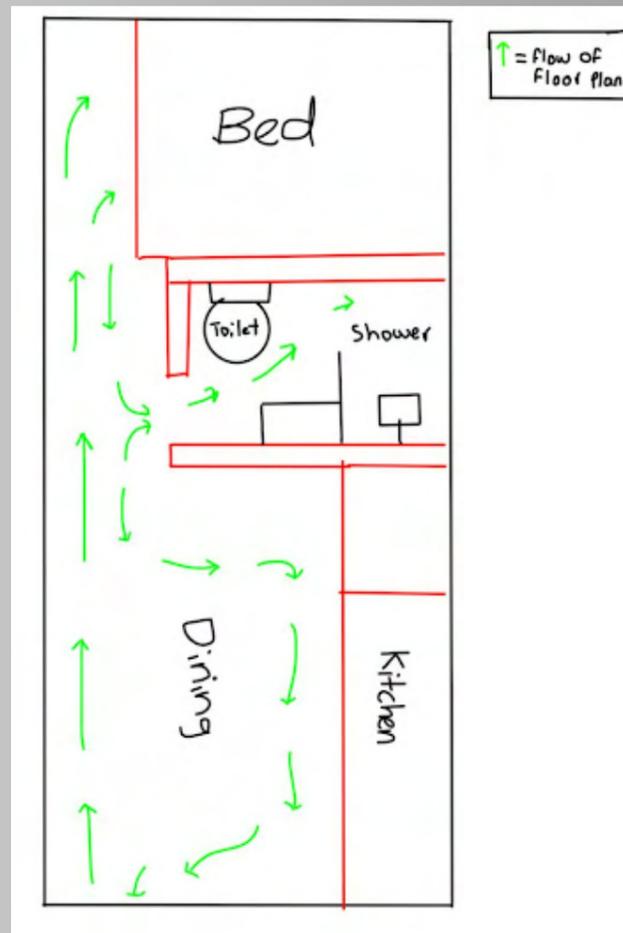
Cons

- Not enough space to sit up straight.
- Not enough space to walk under.

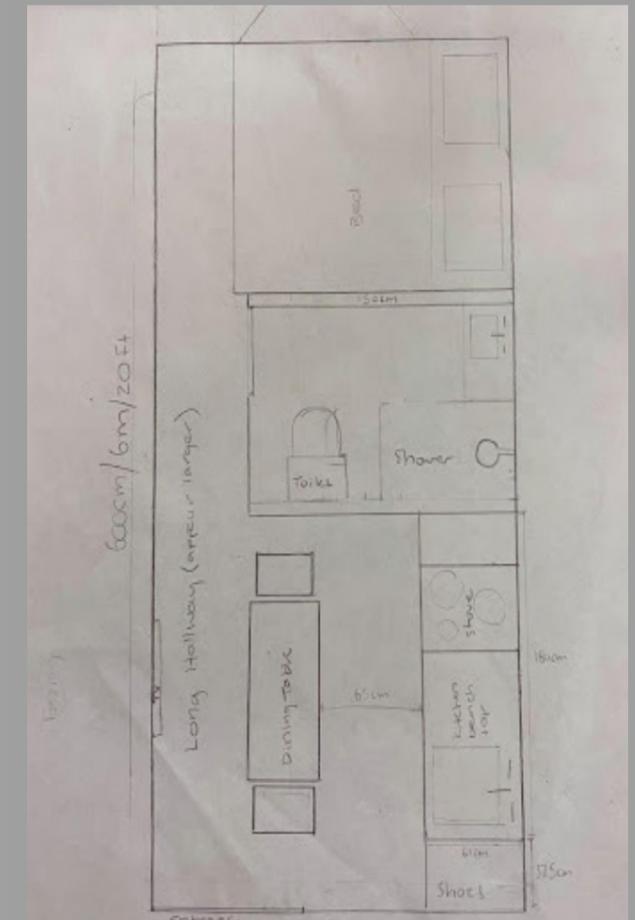
Flow plan

Overview:

I provided my clients a sketch of the flow and floor plan to allow them to view the practicality and appropriateness of the designed space.



Floor plan



Conclusion for determining is a lofted system is suitable:

My clients have come to the conclusion that although a lofted bedding system for their tiny home would be nice to maximise space usage. However, we found in our calculations of measurements that unfortunately the shipping container was not tall enough to have this capability and would create an extremely restricting refined space that is very uncomfortable for my clients to move freely in.

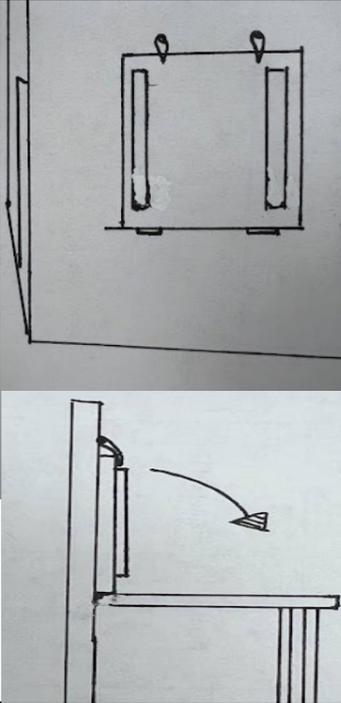
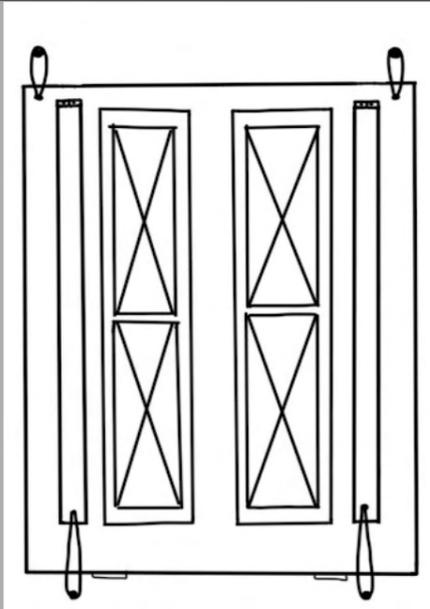
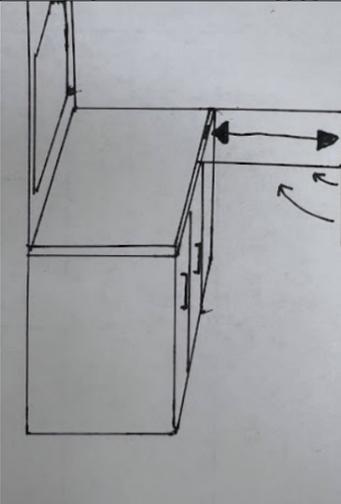
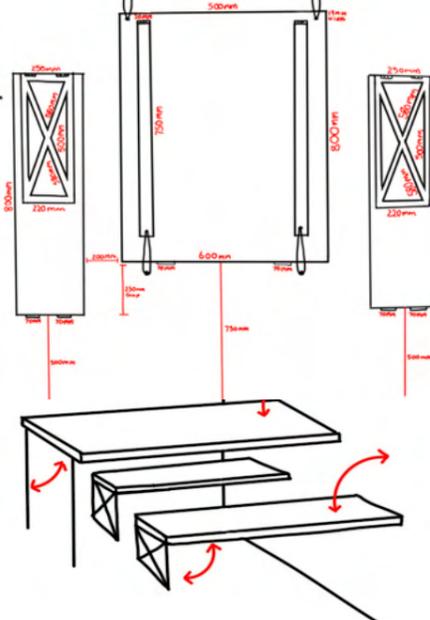
Conclusion for flow plan:

My clients and I designed a floor plan we both agreed on. My clients really liked the inspiration from the existing designs on the long hallway to make the space appear larger, open, and flow better. However, may be altered if further implications occur.

Conclusion for floor plan:

My floor plan allowed me to roughly analyse where things will be placed within the home. Providing my clients and I with a layout that is easy to comprehend.

Ways To Maximise Space

Object	Idea	Sketch	Justification	Object	Idea	Sketch	Justification
Dining table - seating of two people	Idea 1) Table attached to side wall and able to swing down for its purpose and swing up to wall if not in use. Therefore, this will maximise space in the home.		My clients and I like this design of the dining table being tied up sitting flush against the wall. With the table placed against the bathroom wall. My clients are able to enjoy the option of watching TV on the back wall while dining. As well as provided with plenty of appropriate space.	Chairs for dining table	Idea 1) Attaching the chairs to the tabletop's underside. enables them to be neatly packed, elevated off the ground, and maximising available space. Less room is taken up on the side wall.		Clients really liked this as it's able to be neatly packed up to create more space in their tiny home. However, preparing these chairs may cause a lot of effort to assemble all the legs before dining. Pros: <ul style="list-style-type: none"> - Sits flush against wall - Tied down securely - Creates more space when the table is against the wall and not in use. - Suits clients clean, country aesthetic of the timber. Cons: <ul style="list-style-type: none"> - Chairs take longer to assemble - protrudes out from wall
Dining table	Idea 2) Next idea was to design a table that slides out of the kitchen bench top		My clients and I have justified that the table would be good and also play as an additional bench for the kitchen, however may cause difficulties if there's others working in the kitchen space. Also being placed against the window entrance caused discomfort and restricted access to the table deeming it unfunctional.	Chairs for dining table	Idea 2) The idea of attaching the chairs to each side of the table on the side wall. This will decrease the amount of assembling before and after the dining table is in use.		The chairs can be assembled more easily, rest flat against the wall, and be tied down for security. Pros: <ul style="list-style-type: none"> - Sits flush against wall - Tied down securely - Creates more space when the table is against the wall and not in use. - Chairs are easier to assemble only needing to swing the end leg out. Cons: <ul style="list-style-type: none"> - Unadjustable, however, is appropriately measured for the comfort of the client.

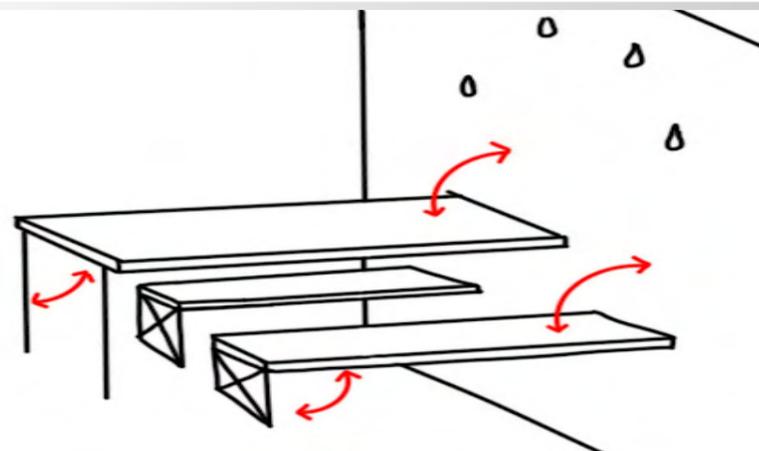
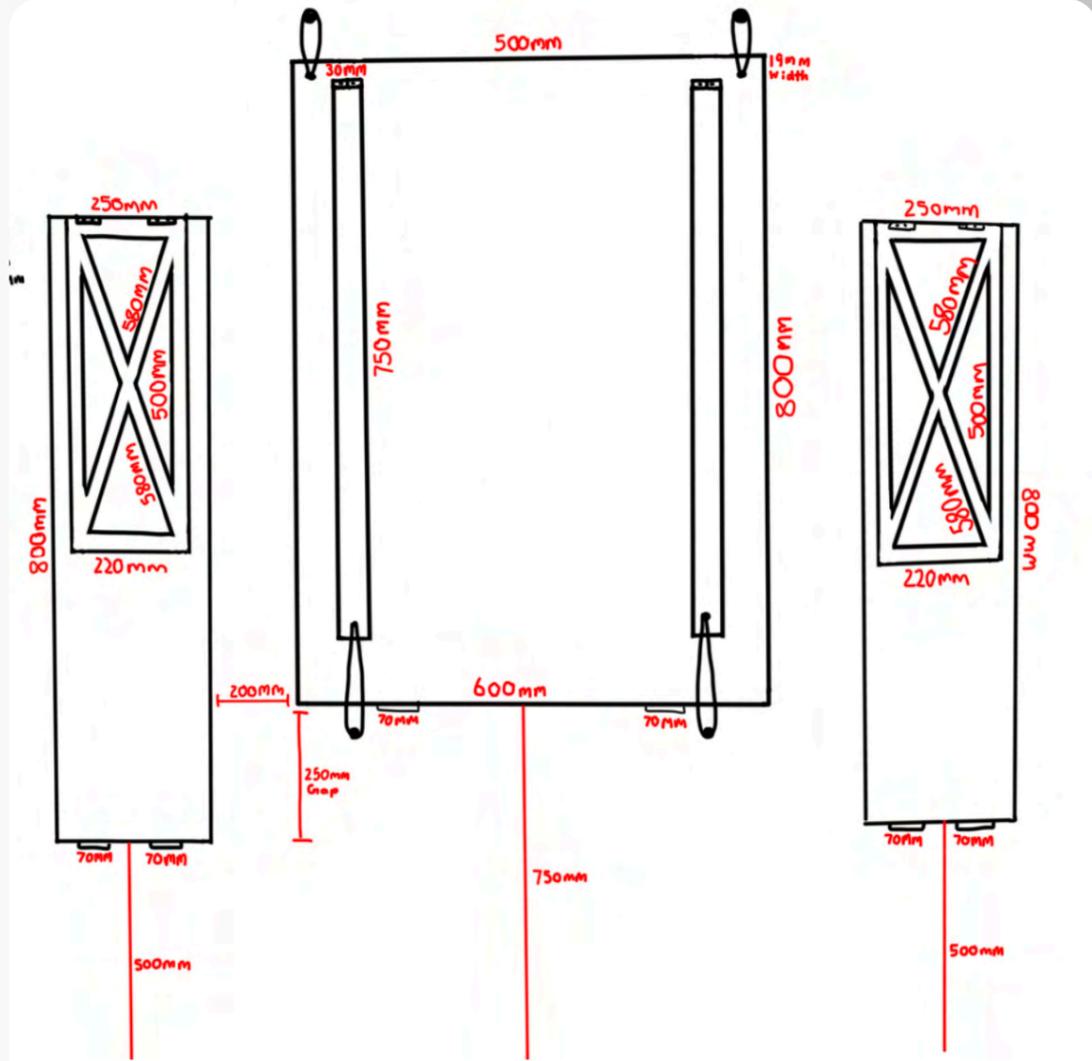
Application of conclusion for maximising space for dining room:

We have decided that (Idea 1) would allow the table to rest flush against the side wall, giving my clients enough space for dining and a place to relax for entertainment. For the chairs, more investigation will be required. If the table is not in use, where will the chairs go?

Application of conclusion for maximising space for dining room:

My clients like this design, however, they would like the table to serve as more than one function. Therefore, more investigation will be needed.

Final Design of Dining Table



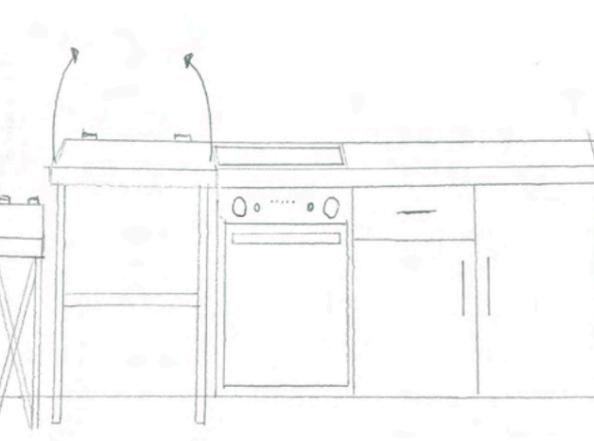
Application Of Conclusion For Redesign Of Dining Table:

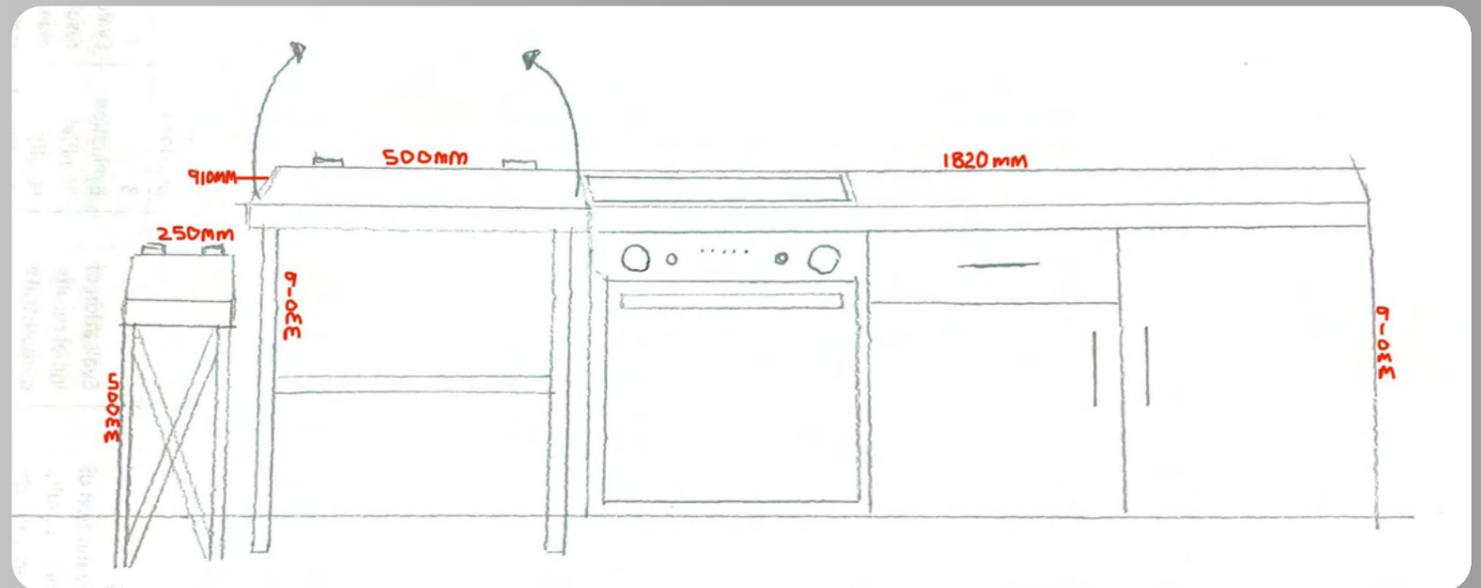
Therefore, my clients and I have decided they like the re-design of the dining table due to its multiple purposes, being both a dining table and an extension of the kitchen. This design provides maximum space when not in use and is positioned in a more functional and practical spot for dining and entertainment purposes. Ultimately maximising space in the living area creates further opportunities for entertainment in this space.

RE-DESIGN Of Dining Table

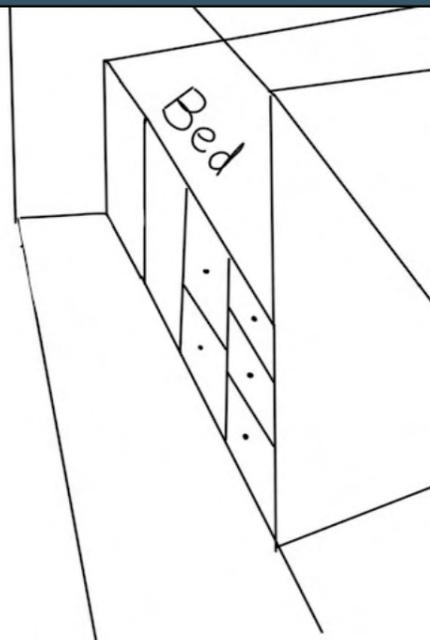
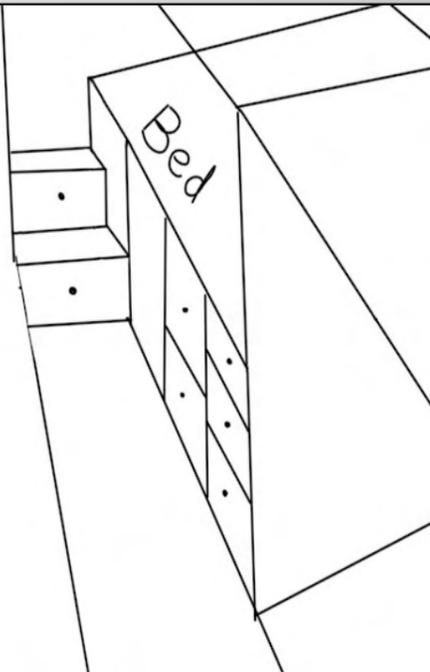
REASONING :

I am redesigning as I have thought of another Idea that will serve greater purpose and practicality. My clients have agreed with the alteration to proceed, discussing **extra kitchen bench top space** to be intergrated into the design.

Object	Idea	Sketch	Justification
Dining table	An Idea around making the dining table also act as an extension of the kitchen bench if not in use. Allowing for further practicality within the kitchen.		Like the idea of the table serving two purposes, creating extra kitchen bench space if needed for serving or preparing. Also acting as a dining table if chair swings down.



Ways to maximise space

Object	Idea	Sketch	Justification
Storage for bedroom	Idea 1) Having storage drawers underneath bedding for clothes, shoes ect. Appropriate storage for two people.		My clients really liked the idea of having storage beneath the bedding, they found it was a great way to store any clothing, shoes, accessories etc. However, they did have a concern for the height of the drawers causing the bed to be quite high above the ground. Pros: - Large amount of storage - Easy access Cons: - Concerns are raised about the bed's accessibility due to its height.
	Idea 2) Following idea 1's design, I decided to alter and make some changes around the access to the bed. Many concerns were raised towards the safety of my clients. Therefore, I designed a small set of stairs with inbuilt storage leading to the bed and providing greater access.		My clients preferred this design much better due to greater access to the bed. They were amazed with the amount of storage I have laid out in the sketch. Pros: Larger amount of storage with the set of stairs. Greater accessibility to the bed. Adds to the aesthetics Cons: Restrictions for individuals with physical disabilities. However none of my client's family members are physically impaired

Application of conclusion for maximising space for bedroom storage:

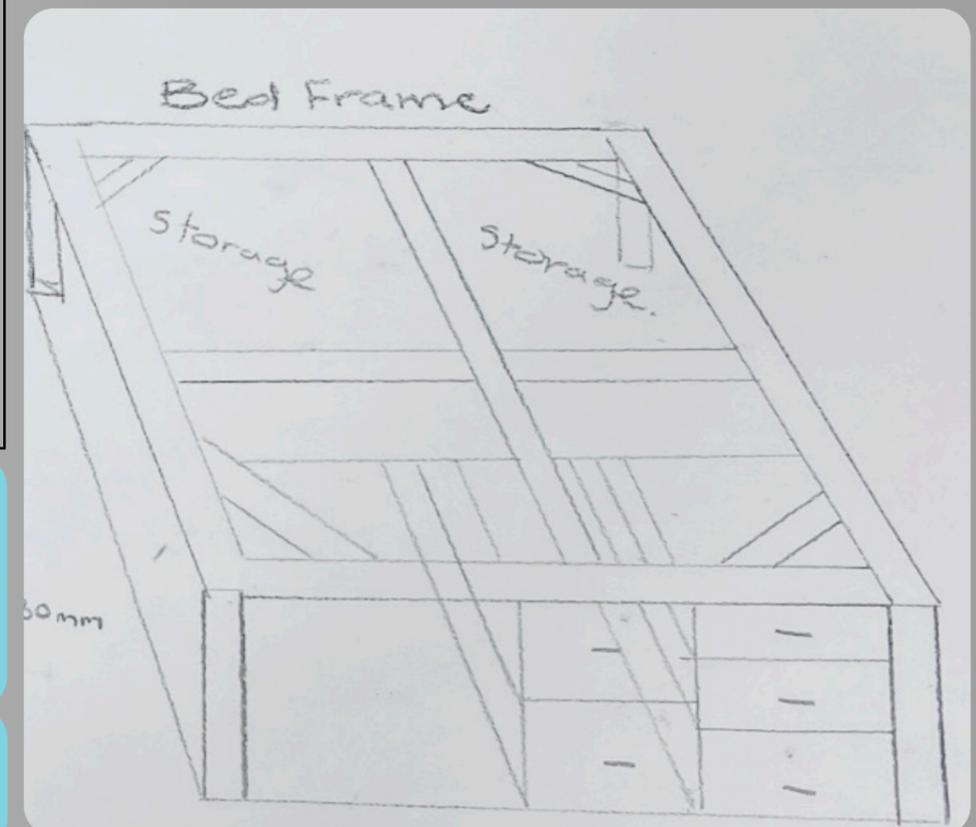
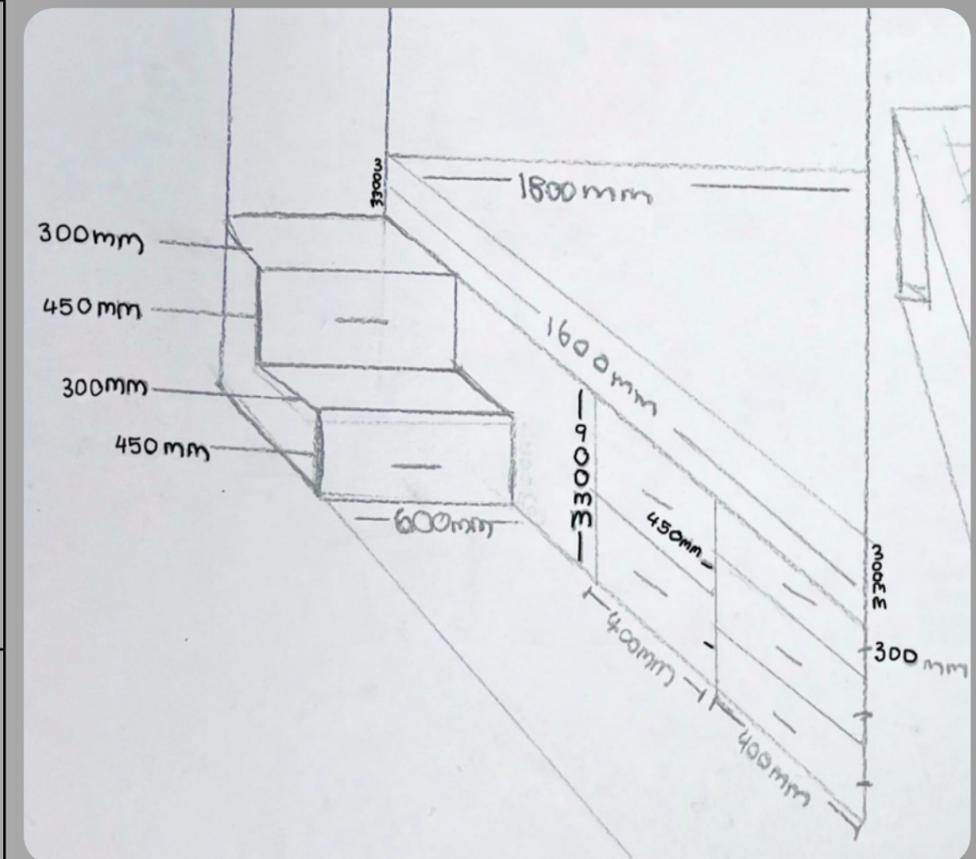
Therefore, my clients and I preferred the second design (Idea 2) much better due to greater access to the bed. They were amazed with the amount of storage I have laid out in the sketch. Ultimately storage place under the bedding will be incorporated into my design of my client's tiny home.

Measurement of white laminate timber boarding and framing for the making of storage drawers:

Laminate boardng Total = 12.9m²

Timber framing Total=

Measured design

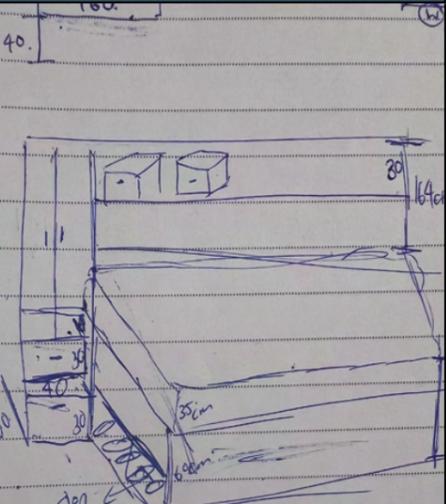


Ways To Maximise Space

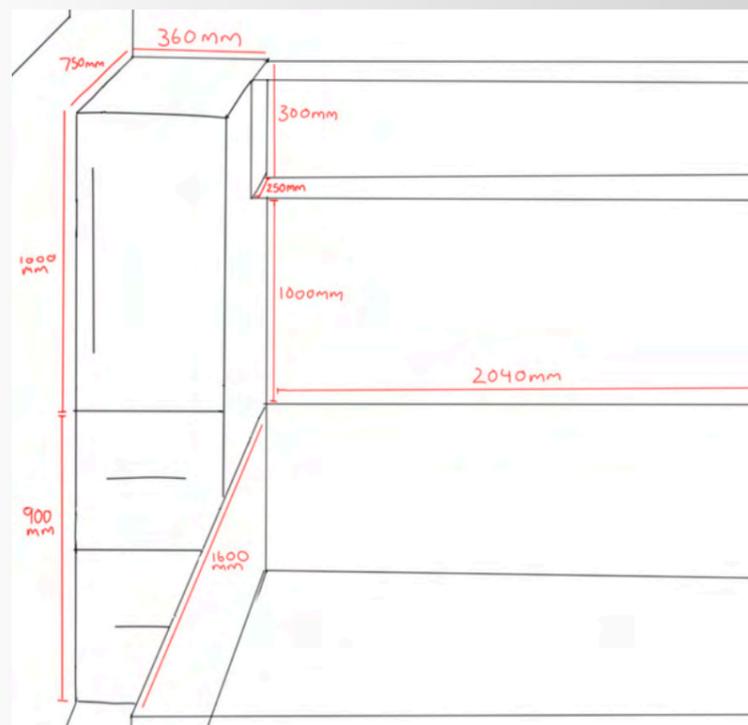
REDESIGN OF BEDDING

REASONING:

I am redesigning as there was a measurement of the hallway that would ultimately lead to an unfunctionable design. Aswell as the bedding being too short

Object	Idea	Clients Sketch	Justification
Bed- ding and storage	Idea 1) My clients and I have chosen to go with a longer bed. Therefore, a rearrange of storage will be needed. Sotrage at the end of the bed for clothes shoes ect...		My clients dicided they would like to have a long skinny cupboard, and 2 draws for storage of clothes. They would also like to have a recess at the bottom of the bed for shoes to be stored, aswell as storage above the bed for additional storage.

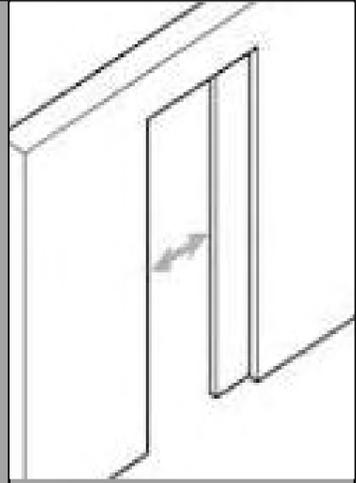
NEW Measured Bedroom Design



Conclusion for Bedroom:

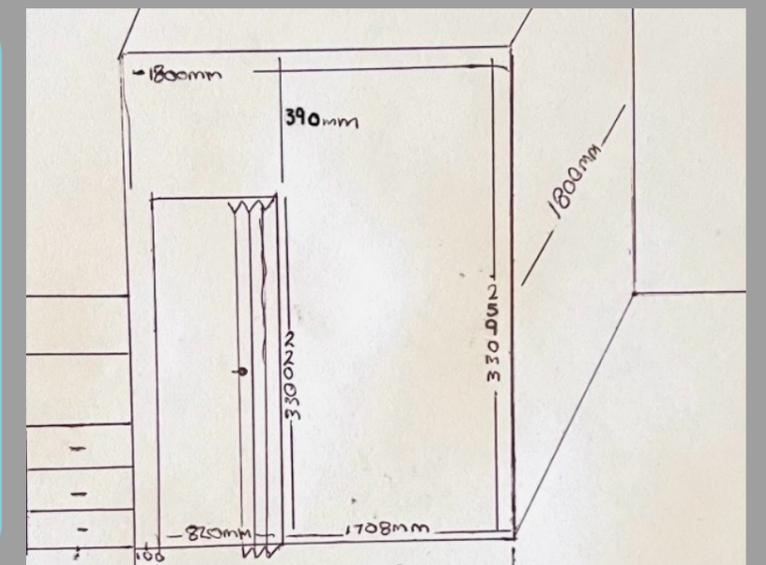
As a result, my clients liked the redesign of the storage and bedding. They found there was an appropriate amount of storage for the little amount of space which they really liked. They also appreciated the redesigning of the size of the bed, changig from a double to a Queen sized bed.

Bathroom

Object	Idea	Sketch	Justification
Bathroom door	Idea 1) Adding in a sliding door also known as pocket door, allows for minimising space while still serving its purpose.		My clients liked this idea of having a pocket door. Pros: - Neatly stored when opened. - Less space used - Durable Cons: - Difficult to maintain - Side wall may not be wide enough for the door to pocket. - Not as sound proof
	Idea 2) Adding in a PVC shutter door allows for minimising space still serving its purpose yet at a lower cost. KIT FOLDING DOOR SINGLE SHUTTER PVC 82cm x 220cm		My clients really liked the existing design of the shutter door. Pros: - stackable - Less space used - Neatly stored when open - Easier to install - Affordable Cons: - Easily exposed to damage however with the chosen pvc the door will be more durable than a canvas one. - No sound proofing

Application of conclusion for Bathroom door:

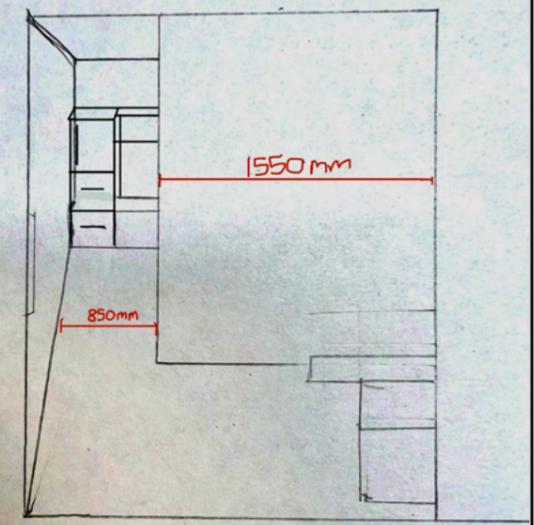
As a result my clients have chosen to go with the stackable shutter door for easy installation and for a lower cost for bathroom door.



RE-DESIGN Of Bathroom Measurements

REASONING:

I am redesigning as there was a measurement on the hallway that would ultimately lead to an unsuccessful design making restricted access to both the bathroom and bedroom.

Object	Idea	Sketch	Conclusion
Bed- ding and storage	Idea 1) My clients and I have chosen to go with a longer bed. Therefore, a rearrange of storage will be needed. Storage at the end of the bed for clothes shoes ect...		By shortening the bathroom wall, it allowed for more practicality in the movement of the hallway allowing easier access to both the bedroom and bathroom. Changing from a 600mm wide hallway to a 850mm wide hallway.

Bathroom

Bathroom concept board



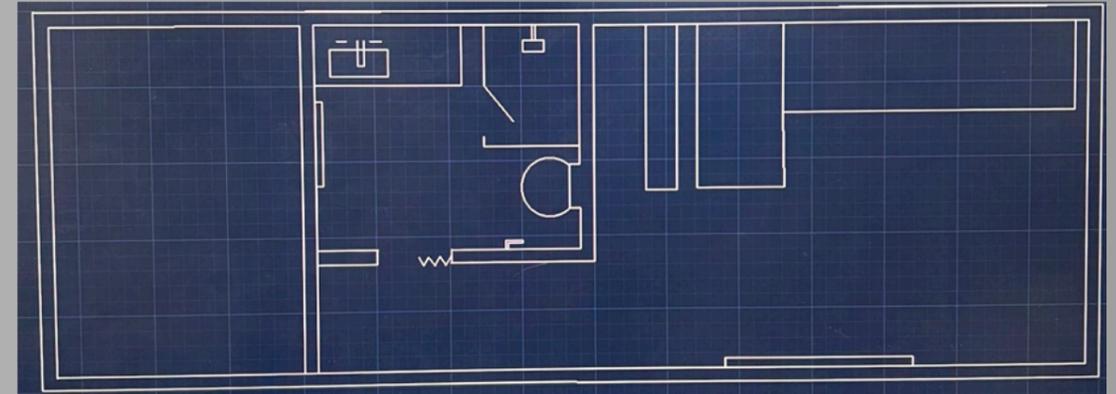
Application Of Conclusion for Bathroom Aesthetic:

I will use this styling when structuring and rendering the plan.

Conclusion for Bathroom Aesthetic:

By providing a concept board, allowed me to see what my clients prefer around the aesthetic appeal of the bathroom.

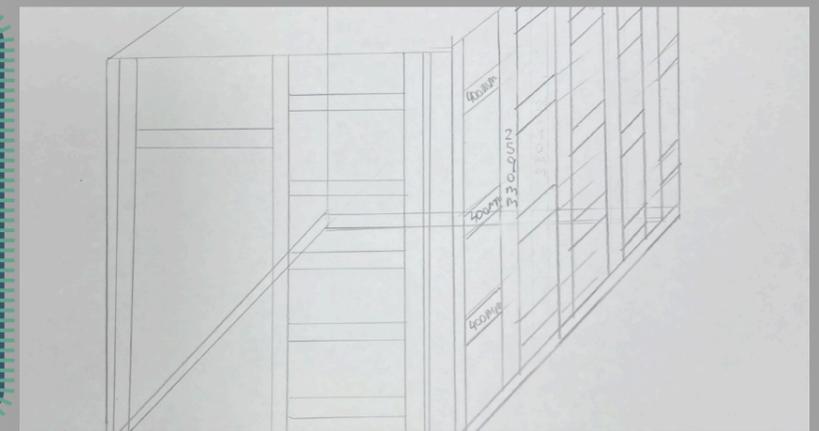
Layout



Conclusion for Bathroom layout:

My clients were happy with the layout plan of the bathroom made on AutoCAD 2D.

Timber Framing for Bathroom



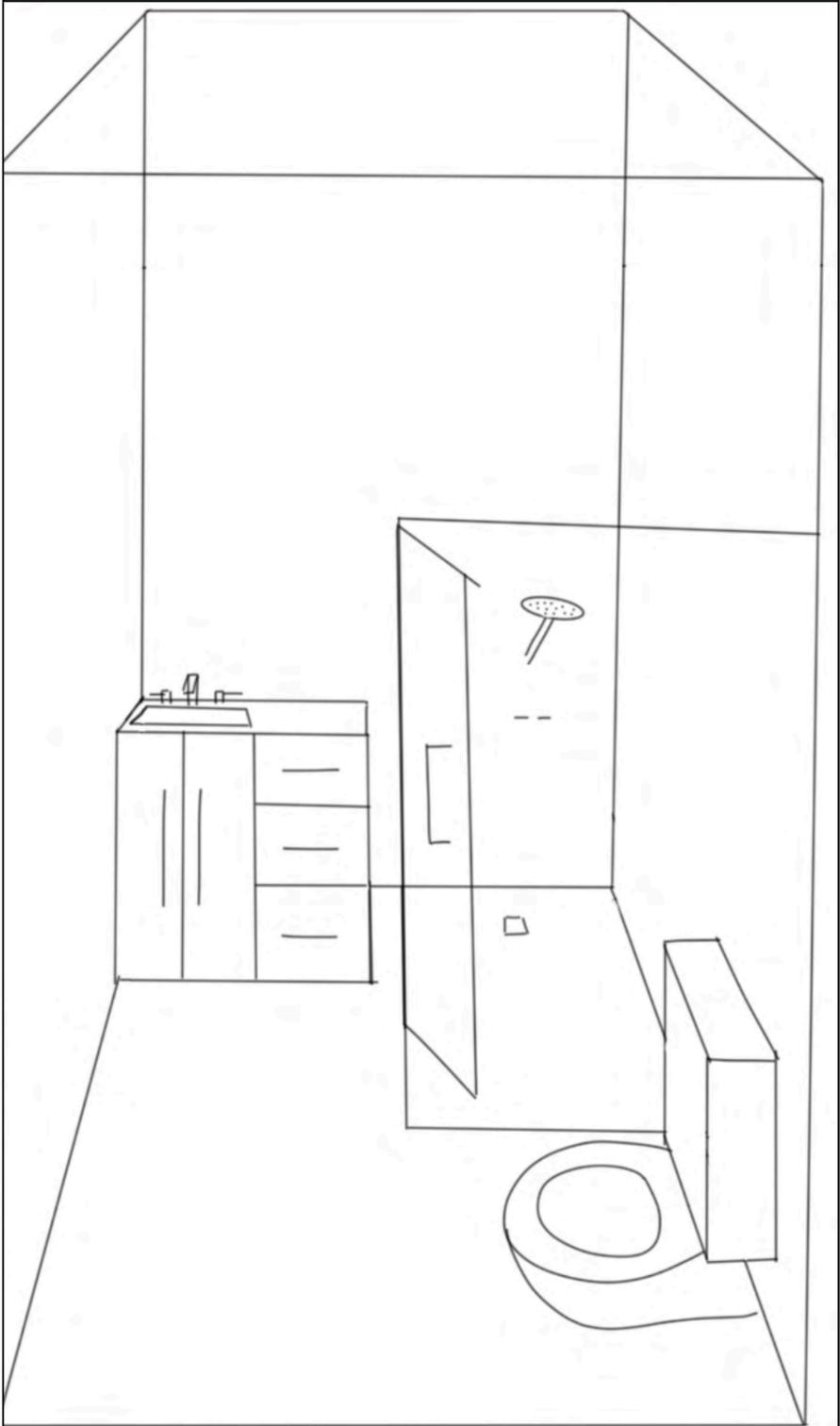
Type	Image	Description
70 x 45mm Framing MGP10 H2 Blue Pine 6.0m		Performs well in moist areas, and resistance against termites. Comes from sustainably managed Aussie plantations, and timber is renewable and carbon-absorbing. INDUSTRY STANDARD
Amount of timber needed $16, 2.59m = 41m = 7, 6m$ timber frames $0.4 \times 3 = 1.2m$ $1.2 \times 11 = 13.2m = 3, 6m$ timber frames Total = 10, 6.0m timber frames for bathroom.		

Application Of Conclusion For Bathroom Timber Framing:

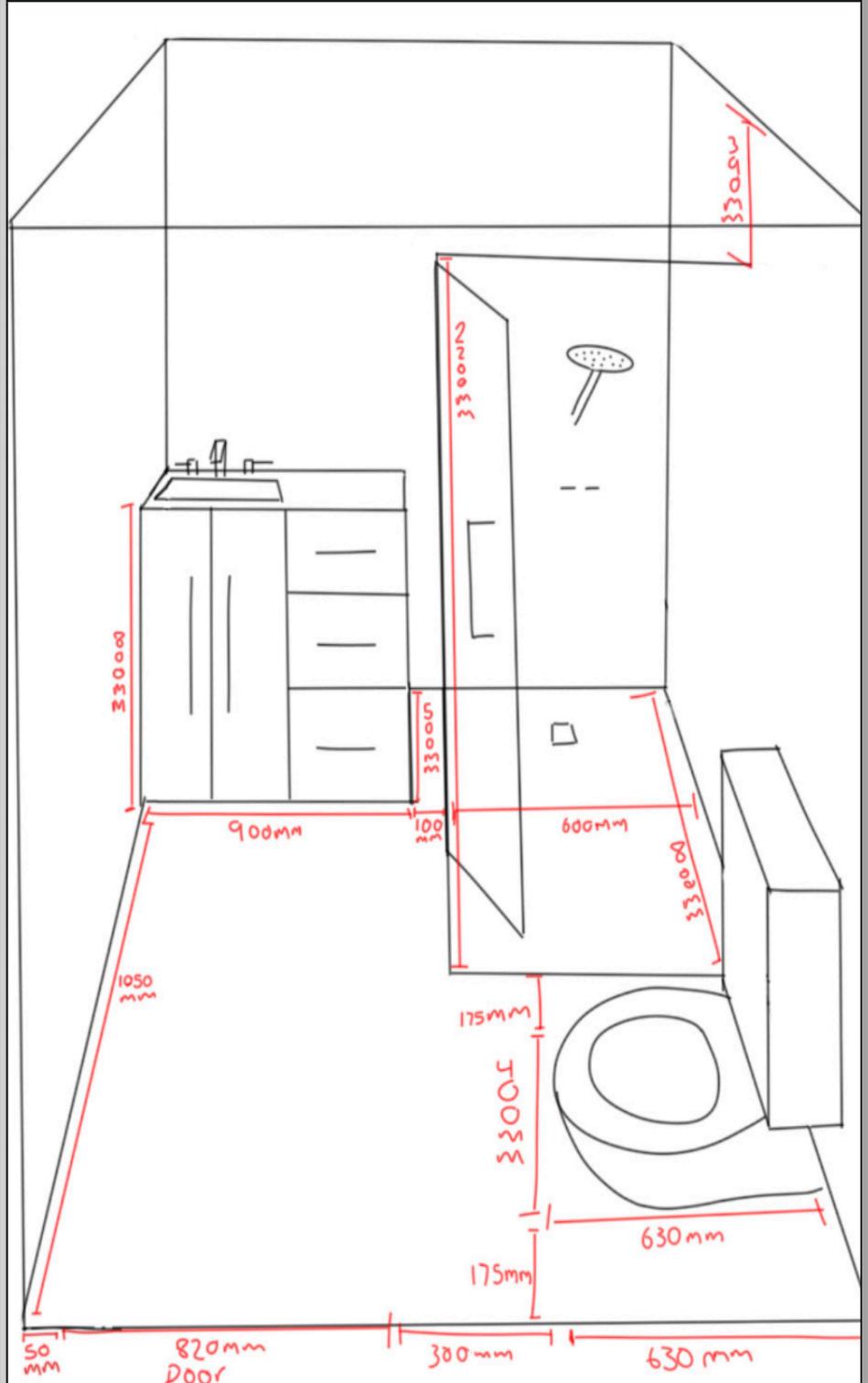
Therefore, with the chosen timber of blue pine, is found suitable for the environment of a bathroom.

Bathroom Sketch

Final design UNMEASURED



Final design MEASURED



Final rendered design



Conclusion for Bathroom:
My clients really liked how the design of the bathroom turned out. As a result of this, I made sure that I stuck to the bathroom aesthetics board to utilise the material my clients found visually appealing.

Natural lighting facing WNW

CONCEPT BOARD for windows



Type	Description	Justification
	<p>Double glazed windows are designed to keep heat in or out of the home. To ensure there is no energy loss for powering heating/cooling. Extremely important as the homes windows will be facing the western heat.</p>	<p>Pros: Great at keeping heat/cooling inside the home Allows for natural light inside the home. Reduces energy cost saving %16.2 on gas consumption Protective</p> <p>Cons: cost</p>
	<p>The single glazed window would still serve its purpose. However, it doesn't keep heat in or out of the home very well. This can lead to concerns of high energy consumption.</p>	<p>Pros: Serves its purpose Allows for natural light inside the home.</p> <p>Cons: Waste less than 20% of energy consumption More affordable in the long run.</p>

Application of conclusion for glazed windows:
Therefore, my clients have chosen to go with the double glazed windows to be more sustainable on energy consumption within the home while still serving its purpose of supplying natural light into the home.

Orientation of site

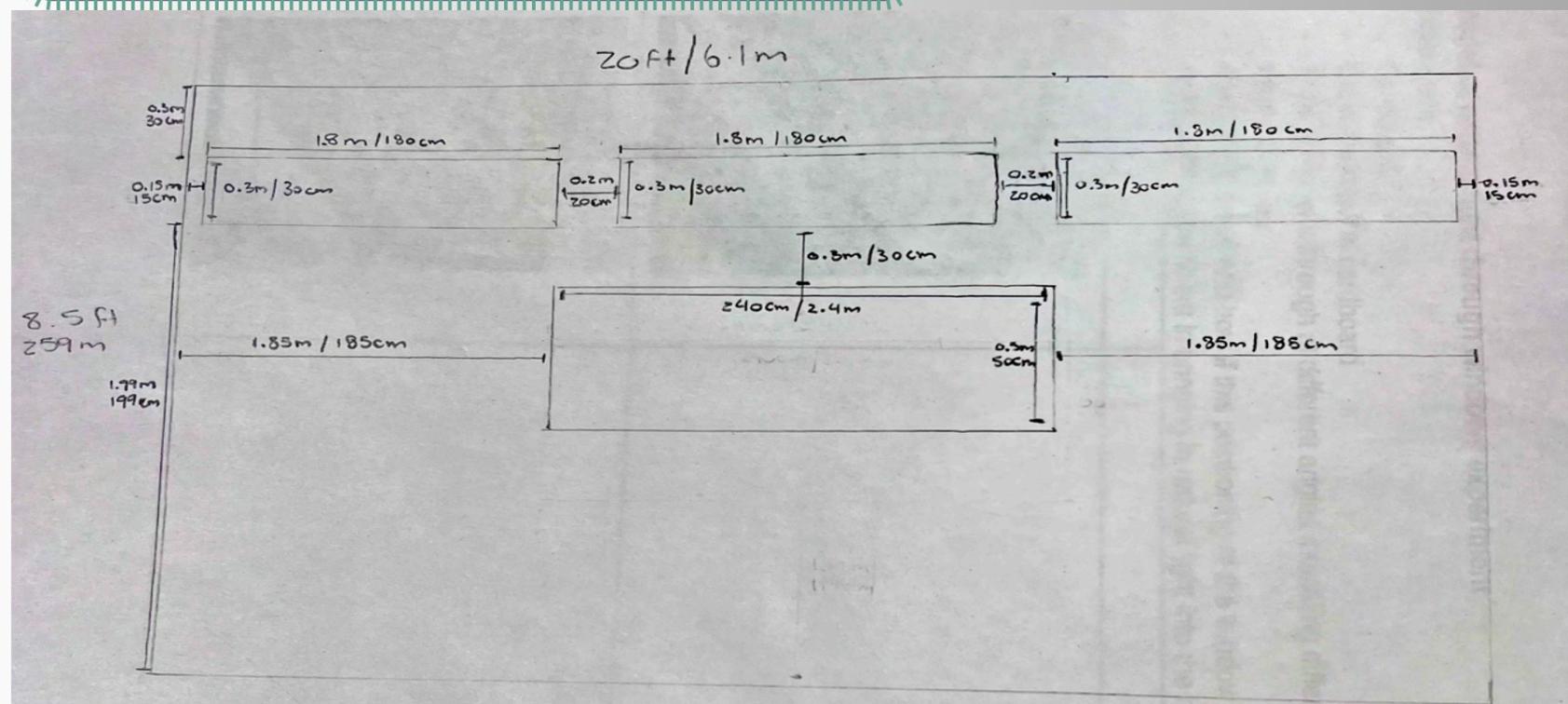


Conclusion for For Site Of Home:
My clients would like to have windows facing the west side for the sunset, meaning the home will be exposed to lots of heat. Therefore, this will need to be something to consider when designing windows.

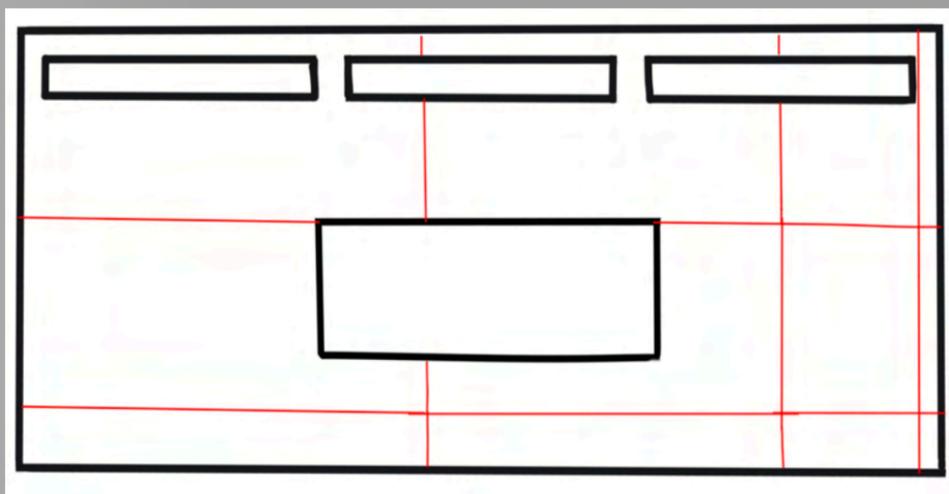
Sketch On WEST SIDE Of home	Justification
	<p>Pros: - Skylight for natural light - Head height windows Privacy</p> <p>Cons: - Clients prefer a window that stretches along the hallway for a whole landscape (Non restricted) view for natural lighting.</p>
	<p>Pros: - Skylight for natural light - Head height windows - Stretches along the hallway for a whole landscape view. - Complements the skylight window shape (Both rectangle)</p> <p>Cons: - My clients and I have no cons for this design.</p>

Application of conclusion for natural lighting windows:
Therefore, my clients have chosen to go with the second design of the landscape (Non restricted view) and skylight windows. As it was a more appropriate use of natural lighting and entertainment.

Measured sketch of window design



calculating amount of drywall

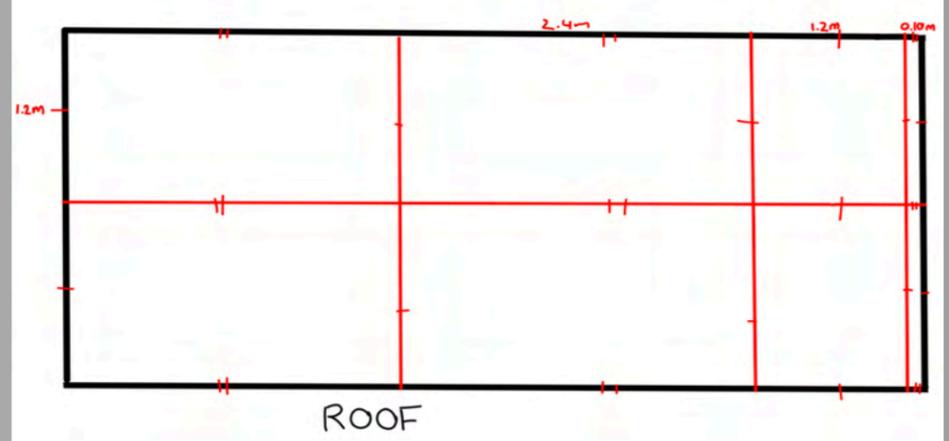
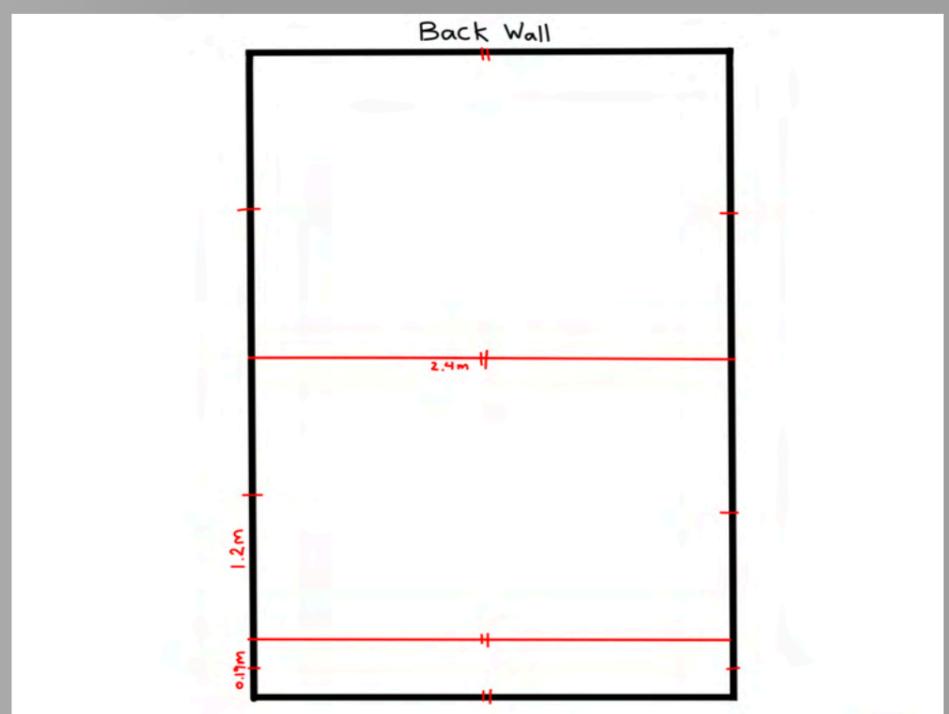
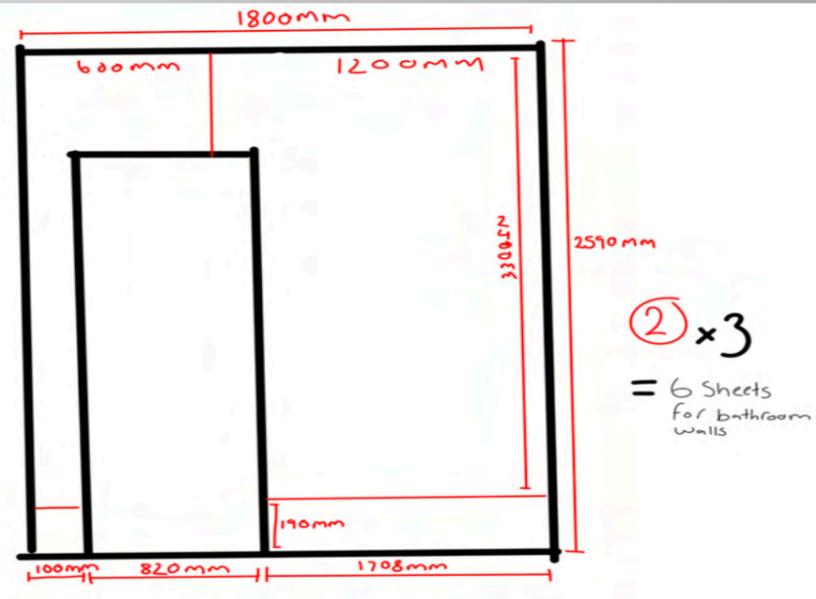


calculating total amount of drywall for home

Skylight windows
 $6.1 \times 2.59 = 15.799 \text{ m}^2$
 $1.8 \times 0.3 = 0.54$
 $0.54 \times 3 = 1.62 \text{ m}^2$
 Hallway landscape window
 $2.4 \times 0.5 = 1.2 \text{ m}^2$
 Total = $15.799 - 1.62 - 1.2 = 12.979 \text{ m}^2$
 Dimension of each drywall = $2.4 \times 1.2 \text{ m}$
 $\frac{6.1}{2.4} = 2.54 \sim 2 \frac{1}{2} + 0.1 \times 1.2 \text{ m sheets}$
 $\frac{2.59}{1.2} = 2.16$
 $\frac{1.2}{1.2} = 1$
 = 7 sheets x 2 sides = 14
 back wall = 3 sheets
 roof = 7 sheets
 Bathroom exterior wall = 6 sheets
 Front of home = 2
 Total sheets of drywall = 32 = \$640.00

calculating area of wals with windows

Skylight windows
 $6.1 \times 2.59 = 15.799 \text{ m}^2$
 $1.8 \times 0.3 = 0.54$
 $0.54 \times 3 = 1.62 \text{ m}^2$
 Hallway landscape window
 $2.4 \times 0.5 = 1.2 \text{ m}^2$
 Total
 $15.799 - 1.62 - 1.2 = 13 \text{ m}^2$



Conclusion for drywall:
 The calculations allowed me to continue foward in the development of my design.

Window Experiment

Model of natural light through windows experiment

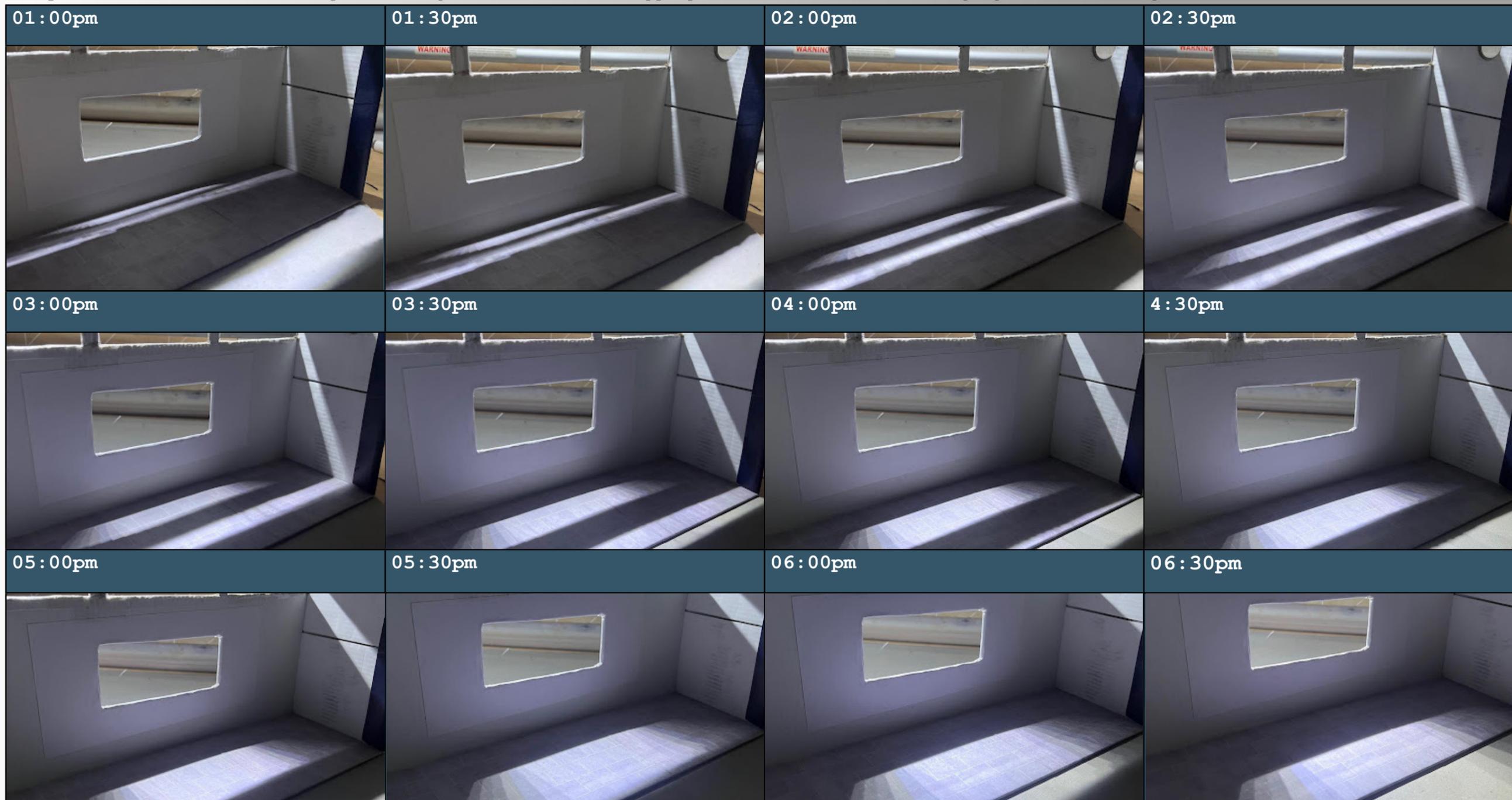
Experiment

Cardboard

Cut out windows in cardboard box

Shine the light through the cutout at different angles indicating different times of the day if windows are facing WNW.

Analyse the views and how this positioning of the window is appropriate and efficient in bringing in natural light into the home.



Conclusion for natural lighting windows experiment:

As a result of the experiment this allowed my clients to visualise the windows purpose, to indicate where electrical lighting may be needed, and to support my reason to apply double glazed windows. This ensures that there is no waste in energy cost.

Walling For Inside Bathroom

Type	Image	Description	Justification
Green board drywall		Greenboard dry-wall is a type of drywall with a paper facing that has been treated with a waxy coating and chemicals that resist moisture and mildew. It is well suited for finishing walls in humid locations	Pros Suitable for rooms with humidity and moisture. Cons Clients and I believe there are no cons for this dry-wall.

Conclusion:

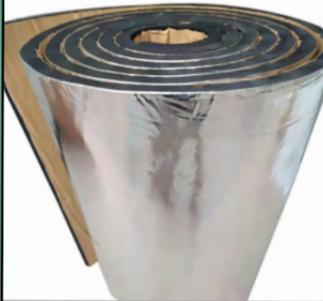
Therefore, green board dry wall will be the best option of dry-wall for my clients bathroom due to its water resistance.

Total amount

$$3 \times (1.8 \times 2.59) = 14m^2$$

total = 6 sheets

Insulation

Type	Image	Description	Justification
Instulation mat 10m ² GlassMAT XR Foil Faced Self Adhesive Insulation		The high-quality material of the insulation mat effectively blocks the heat, keeping the home cooler and more energy-efficient. Thin, however, serves the purpose of trapping and controlling temperatures within the home.	Due to the shipping container performing as existing installation for the home, the thin installation mat will serve as another layer of installation for the home without taking up space. easy assemble by being adhesive.

Conclusion:

Therefore, my clients and I have chosen to go with the thin insulation mat.

Total Amount:

$$2 \times (6.1 \times 2.59) = 31.59m^2$$

$$2.4 \times 2.59 = 6.216m^2$$

$$3 \times (1.8 \times 2.59) = 14m^2$$

Total = 51.8m squared or 4 rolls of insulation matts

Type	Image	Description	Justification	Type	Image	Description	Justification
Regular dry-wall From: Bunnings warehouse 1200x2400x13		Most common type of dry-wall used in homes, it's suitable for most rooms. It is made of gypsum, but it does not feature special mould and mildew resistance like other types that are more suitable and durable in moist areas.	Pros Suitable for all rooms except bathroom cost effective Cons Not suitable for a bathroom as it does not feature mould and mildew resistance in moist areas.	Dulux 10L white paint \$166.50			

Conclusion:

Therefore, my clients have chosen to go with the regular drywall for most of the walls and rooms. Further research will need to be done for water resistant walling for the bathroom.

Total amount for base frame:

$$2 \times (6.1 \times 2.59) = 31.59m^2$$

$$2.4 \times 2.59 = 6.216m^2$$

$$3 \times (1.8 \times 2.59) = 13.986m^2 \text{ bathroom exterior walls}$$

Total = 32 sheets

Measurement on how many Litres of paint.

$$6.1 \times 2.59 = 15.799m^2$$

$$15.799 - (1.8 \times 0.3 \times 3) = 14.179m^2$$

$$6.1 \times 2.59 = 15.799m^2$$

$$2.4 \times 2.59 = 6.216m^2$$

$$1.8 \times 2.59 \times 6 = 27.972m^2$$

$$= 64.166m^2$$

$$= 64.166 \text{ divided by } 6.5$$

$$= 9.87 \text{ Litres of paint} = 1 \text{ 10L can}$$

Conclusion for walls and insulation:

Therefore, The industry standard materials will be included in my finance and resource plan on the home, moving further into the design project.

lighting

Justification:

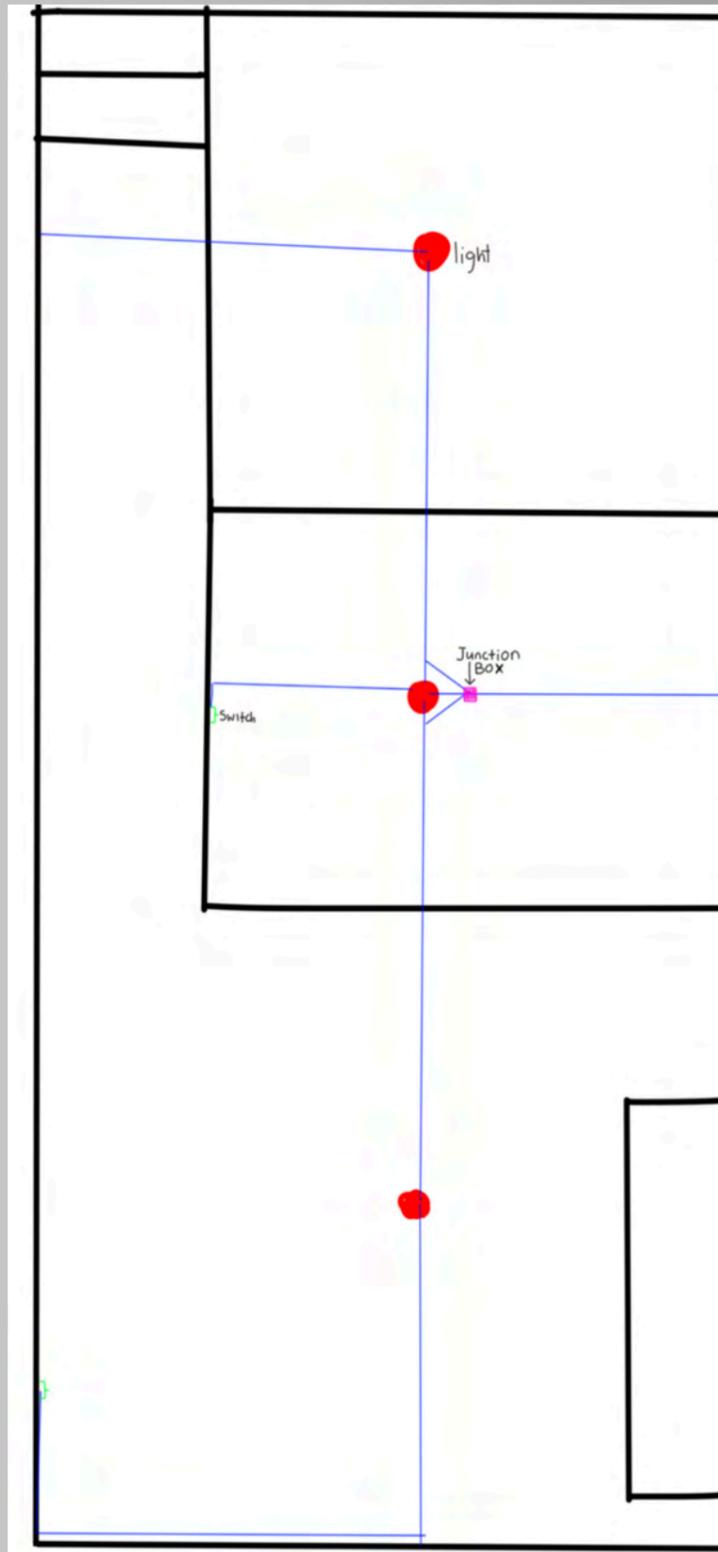
With the assistance from the window experiment allowed me to visually see and calculate where some additional lighting may be needed in the home.

Tone	Mood	Image
subtle white lighting	Subtle white lighting creates a cosy, inviting atmosphere. diffused light adds depth and creates an ambiance/environment.	
Warm dim lighting	While a warm and cosy atmosphere can be desirable, avoid extremely dim lighting that hinders visibility and makes it difficult to enjoy meals or engage in conversations.	
Cool White lighting	Too much colour in the dining space can be distracting and take away from the overall dining experience. It can be difficult for people to focus on their food and conversation if there are constant blaring bright lights.	

Application of conclusion for lighting:

Therefore my clients have chosen to go with the subtle white lighting for the setting of the space.

Placement of electrical lighting

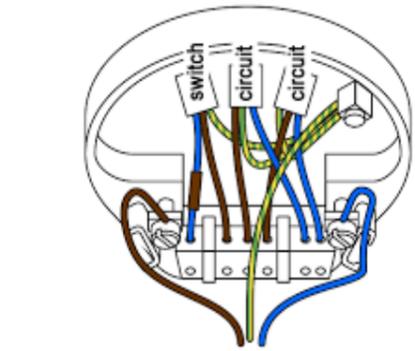


Light bulb Type	Analysis
LED Bulb 	Pros High energy efficiency 75% less energy being produced. Last 25 times longer than other bulbs. Cons LED lights can be damaging to the eyes if the globe is not installed correctly without a light shade.

Conclusion:
Therefore, LED white lights are energy efficient and are the appropriate for my clients home

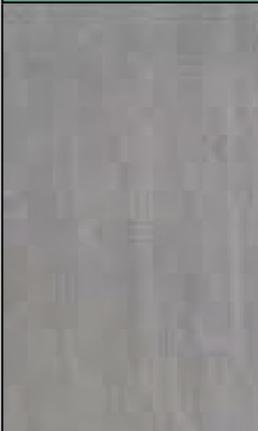
Junction box	Analysis
	A junction box is mounted securely to the house framing containing the connection (splice) of two or more circuit cables. Able to twist these cables into one electrical cording out the other end of the box.

Conclusion:
The junction box is deemed necessary.

Attaching light to ceiling	Analysis
	Three types of wires Attachment of positive, negative and ground wires.

Conclusion:
Essential to get right, as well as the earth wire being deemed legal in Australia

Flooring

Type	Description	Justification
Tasmanian wood laminate bunnings: \$63.93per m2 total cost for home will = \$63.93x15m = \$959.00		
	A fine textured surface with low reflectivity. Colour: A warm, natural red, yellow and brown based, realistic tasmanian oak colour and timber structure	<p>Pros</p> <ul style="list-style-type: none"> Like the colour Cost effective <p>Cons</p> <ul style="list-style-type: none"> Different tones and grains of timber may clash with the cabinetry Cost
Grey stone tile 625 x 320mm 1sqm \$63.45 per m2 total cost for home will = \$63.45x15 = \$951.00		
	Grey goes with absolutely everything due to its versatile colour and can be layered throughout a room in darker and lighter shades. Porcelain tiles are high quality and durable if treated correctly.	<p>Pros</p> <ul style="list-style-type: none"> Like the colour Matches the clients existing home aesthetic Clean Makes the space appear elongated due to the length of the tile <p>Cons</p> <ul style="list-style-type: none"> Expensive Easily exposed to damage eg chipping, cracking if not treated properly.
Grey tile laminate Elite Stone - 8mm Tile Effect Laminate Flooring - Venetian Grey - 2.367m2 per pack of \$95.14 total = around 7 packs = \$665.00		
	Easy Installatio. Laminate flooring is scratch-resistant and requires minimal up-keep. Compared to other flooring options, laminate floors are affordable. lastly they mimic the apeal of regular porcelain tiles or hard wood.	<p>Pros</p> <ul style="list-style-type: none"> Like the colour Matches clients existing home aesthetic Clean Make space appear elongated Cost effective Less exposure to damage <p>Cons</p> <ul style="list-style-type: none"> repeditive patton may effect the appearence on the room. Experiments will be needed.

Application of conclusion for flooring:
Ultimately, my clients have chosen to go with the grey laminated tile to elevate and make the space appear larger due to the light colour adding contrast the the cabinetry.

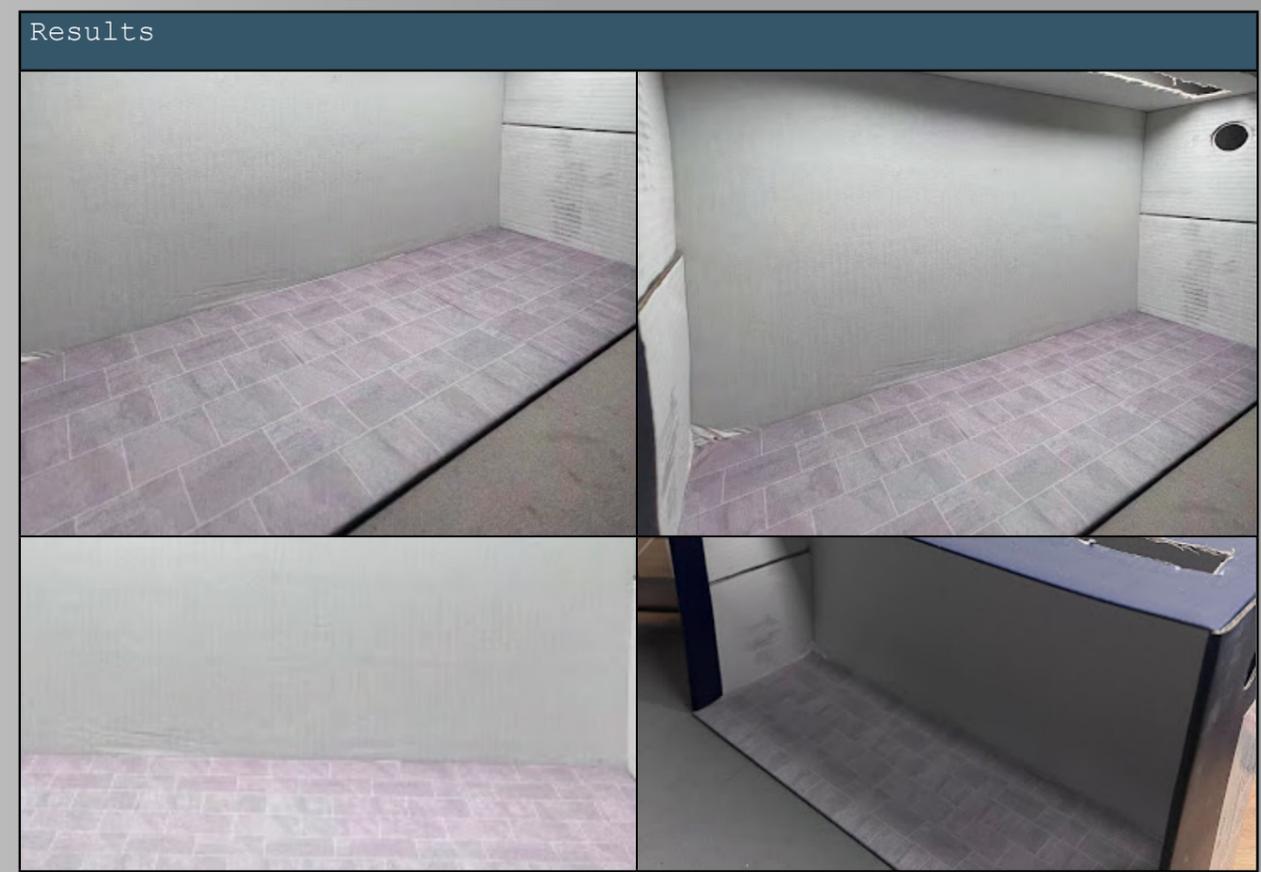
Experiment

Aim:
To see if the chosen flooring will complement the lighting. Determine how it makes the space feel, to get client approval

Method:
cardboard box to represent the home. Print out the chosen flooring and glue it down onto the inside floor of the box. Shine a light with the correct chosen colour/tone into the box and analyse how the flooring and lighting work together to make the foundation for a cosy inviting environment.

Equipment:

- Ruler
- Greylead pencil
- Eraser
- Skissors
- Gluestick
- Printer
- Paper (Laminate flooring)
- Cardboard (Shoe Box as example)



Application of conclusion for flooring:
In conclusion, My clients were super happy with the result as they really like the natural stone tile aesthetic as their choice of flooring. This experiment has supported the choice of the 'concrete effect' tiles as the flooring due to the cost.

Kitchen

Concept board for kitchen

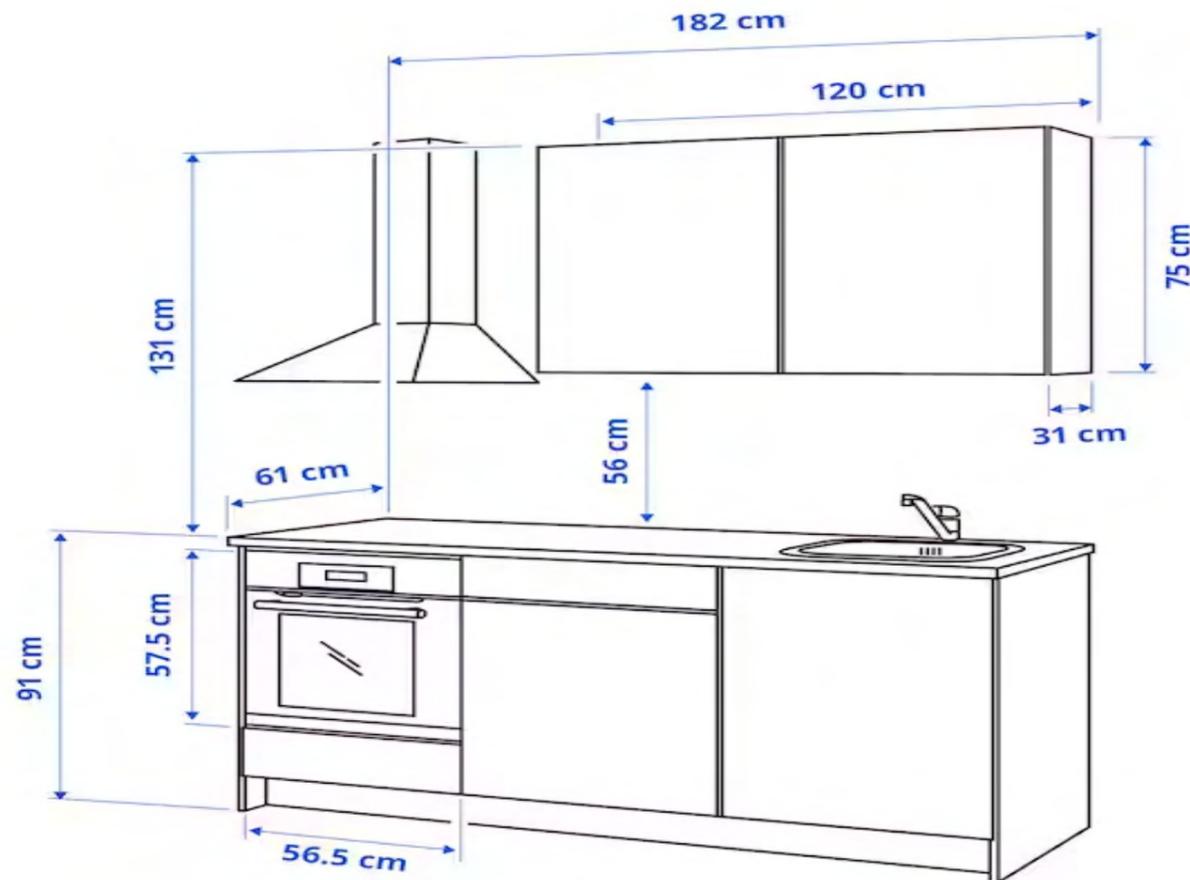


180x61x220 cm



Conclusion for kitchen concept:

By providing a concept board of my clients ideas around the aesthetics, and practicality in order to suit their own needs.



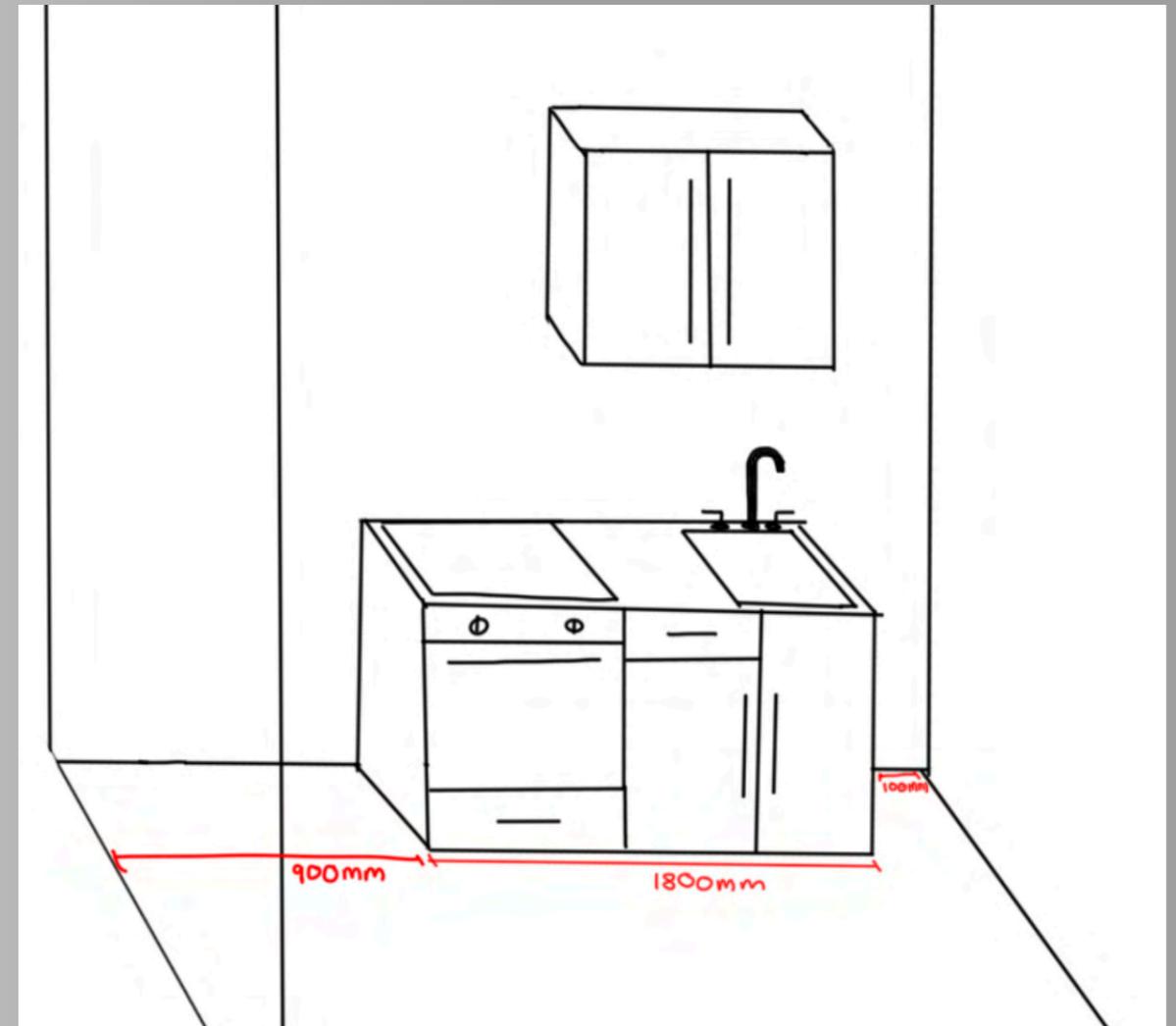
Reference:

Knoxhult kitchen, white, 180x61x220 cm (no date) IKEA. Available at:

<https://www.ikea.com/au/en/p/knoxhult-kitchen-white-s79304485/> (Ac-

cessed: 22 June 2024).

Measured design to home

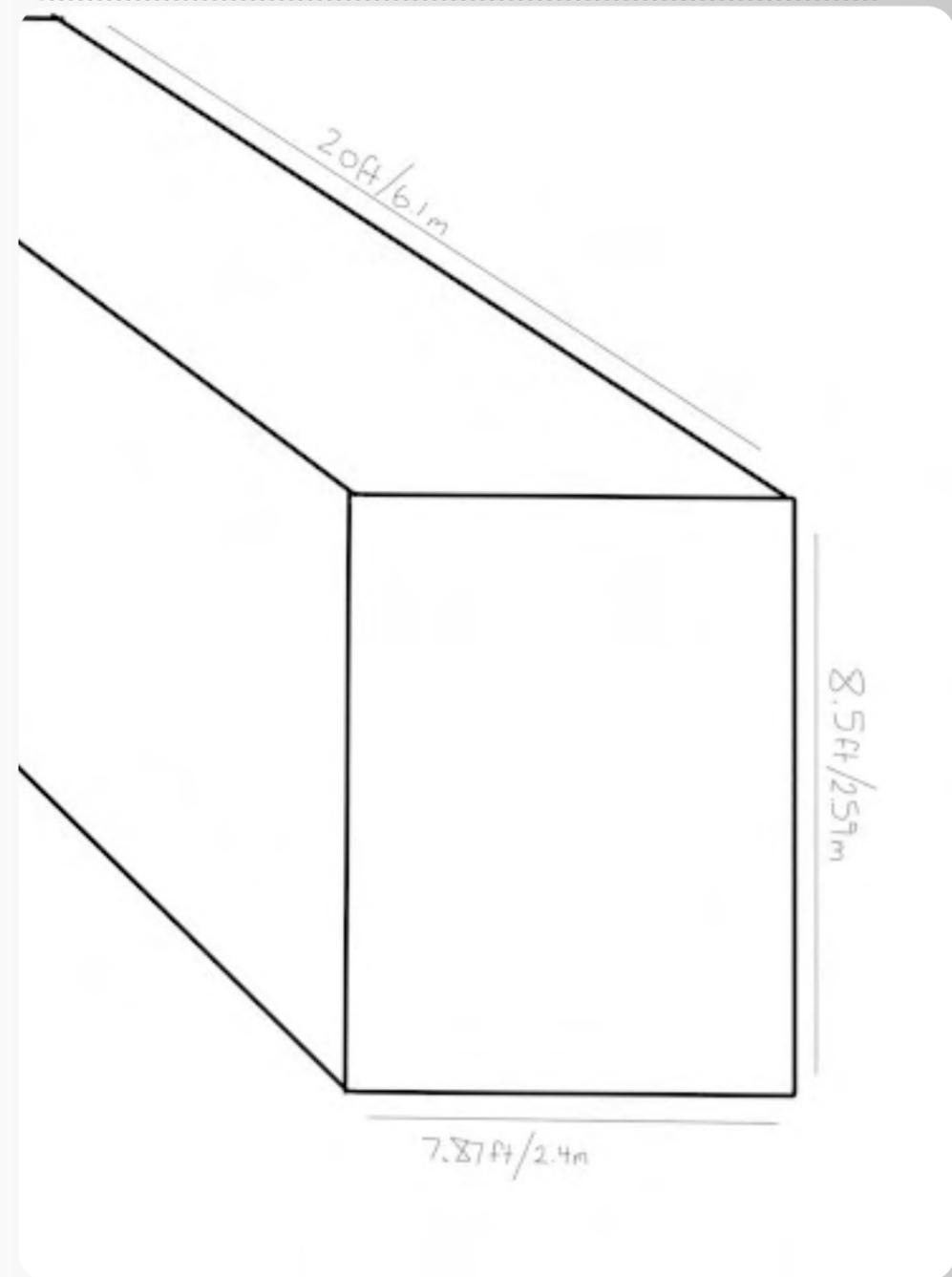


Conclusion for Kitchen:

The kitchen set from Ikea is the perfect size for my clients home, allowing for maximum storage with cabinet above.

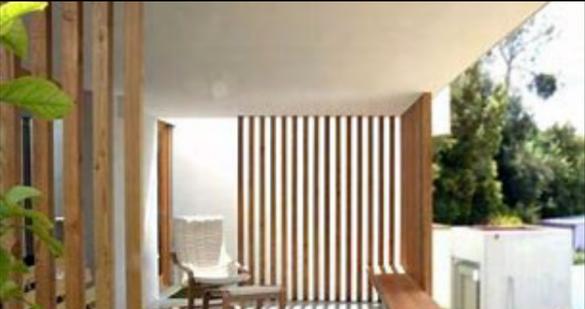
INVESTIGATION - EXTERIOR

Dimensions of shipping container



Conclusion for dimensions on shipping container:
 In conclusion by performing these measurements allowed my clients and I to visualise the space that we are working with creating a foundation for the design to proceed.

Existing designs

Type	Description	Justification
	My clients really like the appeal of the timber being in complimentary with the white tone of the exterior walls. White walls make the black window trimming/frame stand out in contrast.	Pros: looks clean modern chic Cons: cost
	My clients really like the appeal of the timber slats as its complimenting the natural environment into the home, and is paired well with a bit of greenery.	Pros: provides life to the plain boring white walls of the shipping container. modern chic Cons: cost

Conclusion for aesthetic of shipping container:
 In conclusion these existing designs assisted me and my clients in finding their aesthetic of the home they are after and to be appropriate as I am working with a small canvas of a shipping container.

Placement Site Of Home



Conclusion for Site of home:
 By gathering information on where the home will want to be built provides me with ideas around what design that will be appropriate and complement this preferred site.

Exterior Aesthetic Concept Board

Exterior Concept Board



Conclusion for Exterior concept board:

My clients really liked the use of applying natural materials that symbolise the surrounding environment.

Finalised Sustainable Idea

Traditional Chain Draining System



Traditional Chain Draining Systems, also known as a rain chain or kusari-doi, is used to guide rainwater from the roof to the ground.

Conclusion for Chain Draining System:

After discussions on a range of drainage system. My clients agreed with and liked the visual aesthetic of the chain draining system, as well as its purpose of directing rain water runoff into a tank or garden bedding system.

Gutter system for chain draining

Discussion with clients on draining systems:

- My clients have agreed with adding a gutter system on the home to provide rain water to be sourced in a side tank.

Above view



1000L Colorbond Kingspan Steel Slimline Water Tank
\$1105.00

Colour: Grey

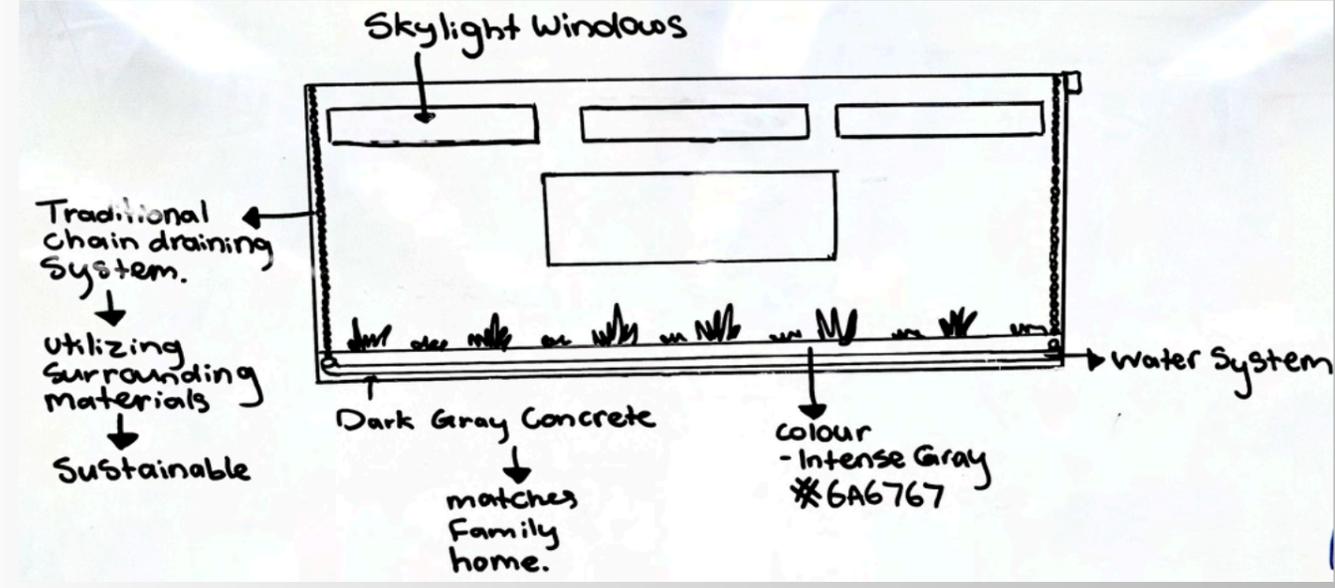
Dimensions: 550mm x 1560mm x 1400mm

Conclusion for Gutter System:

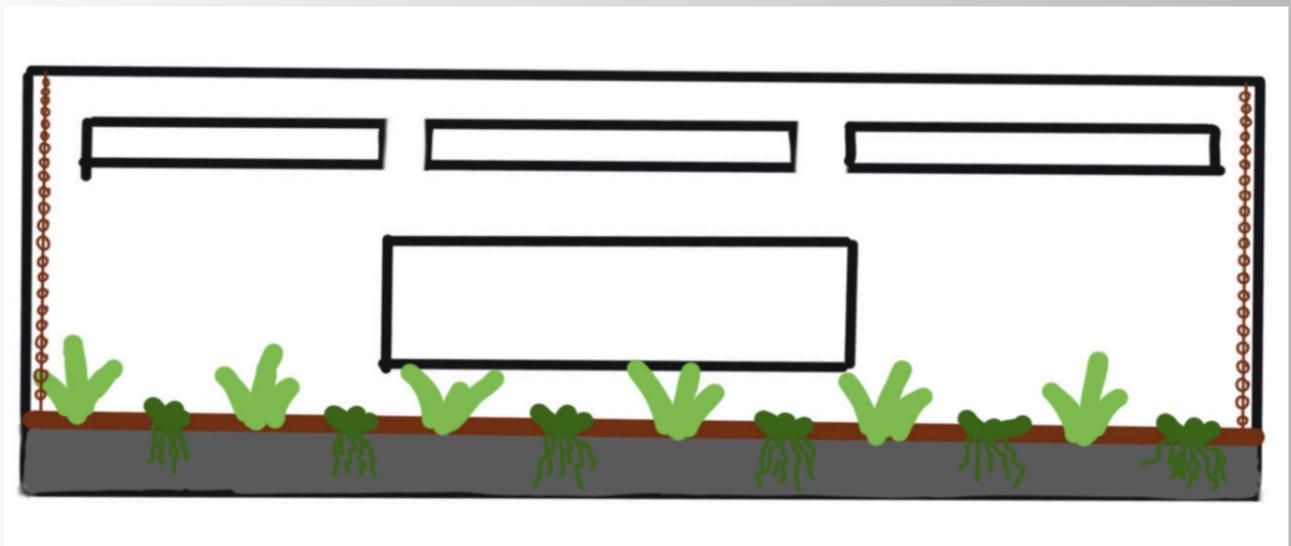
By building the gutter into the roof allows the ridges from the original steel of the shipping container to act as pathways for rain water flow. Therefore, allowing the inbuilt gutter system to catch the runoff rain water.

Exterior Design Sketches

Window left Side Design Facing WEST <--



Conclusion For Rough Sketch Of Side Design Of Home:
 By performing a rough sketch on the whiteboard in class allowed me to spill out all my ideas around what does and does not work well. My clients are happy with these ideas.



Conclusion For Left Side Design Of Home:
 The design of the window side of the home matches my clients aesthetic and they are very happy with it. They said that the garden and drainage system matches their surrounding materials and overall environment, providing a more homely appeal.

Front Of House Design



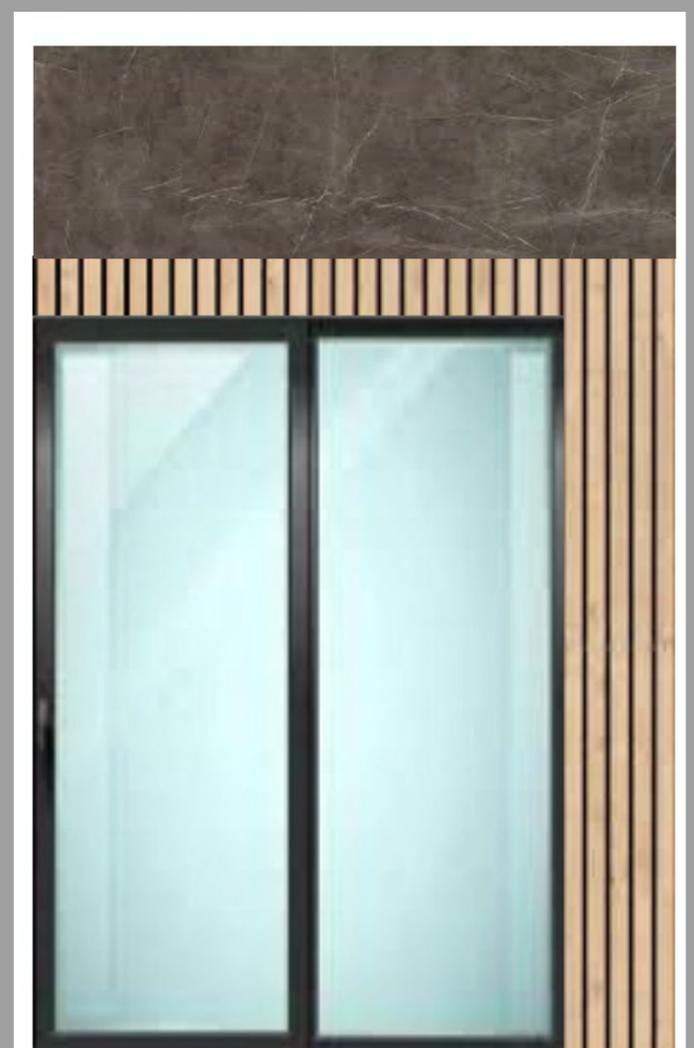
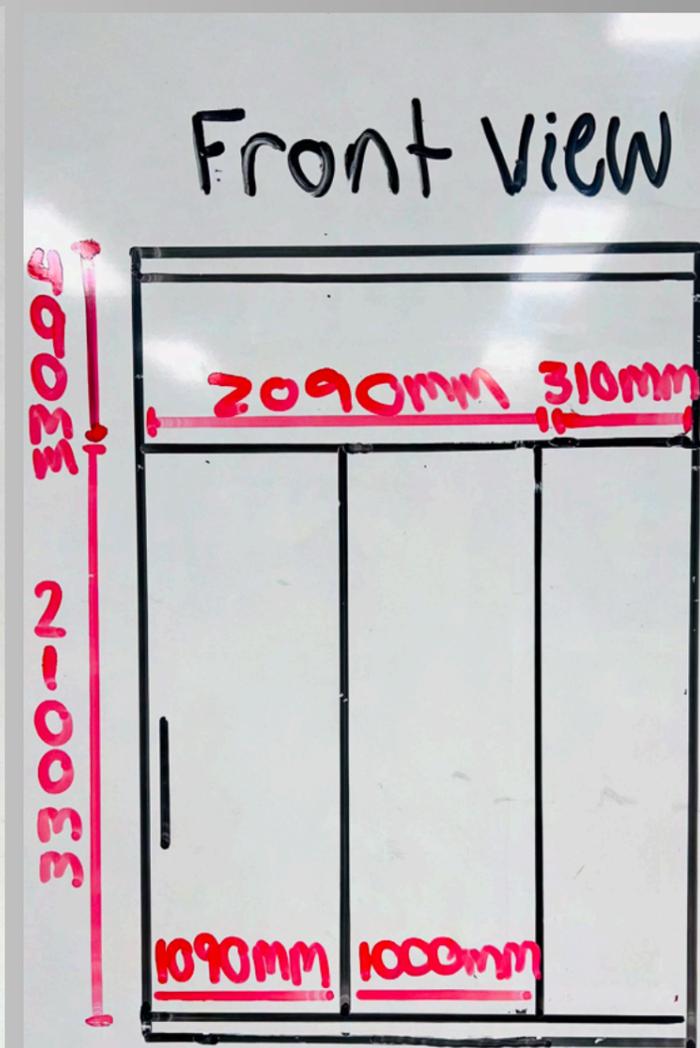
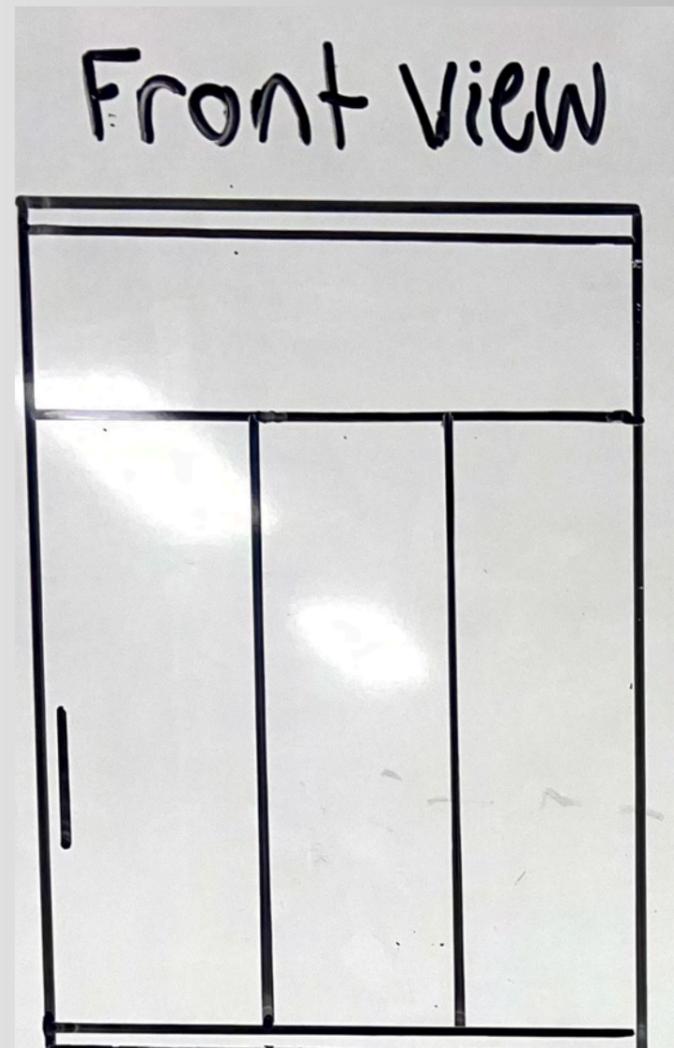
Application of Conclusion For Front Of Home Design:
 My clients and I have come to conclusion on **design 2**, due to the timber and stone having more of a balanced aesthetic appeal. Making the shipping container have more of a modern homely feel.

Right Side Of House Design



Application of Conclusion For Right Side Of Home Design:
 My clients and I both agree that the use of the timber slats will flow onto the timber slats on the entress side of the home. creating a flow in the design.

Front slide door development



Conclusion for front door:

My clients really liked the visual appeal of the entrance into the home matching their overall aesthetic. Particularly, they really like the sliding doors as it maximises space appropriately and efficiently as possible.

SECTION 4

RISK ASSESSMENTS IN RELATION TO INDUSTRY PRACTICE OF MY MDP

Risk assessment: Before starting any construction, and modelling of the shipping container tiny home, it is important to conduct a thorough risk assessment. This involves identifying potential hazards and evaluating the risks associated with each task. For instance, on my MDP I will need to investigate the potential risks around working on desktop computers for the production of my tiny home model, hazards during the production of my physical model, as well as the future on site production if the home is to be constructed. By understanding the risks, appropriate safety measures are MANDATORY to prevent the risk from occurring. Supported by "The Occupational Health and Safety Act 2011" created to protect the health, safety and welfare of all people in the workplace. OHSa aims to address the increasing rates of injuries and illnesses caused by the workplace. This is achieved by enforcing legislation made by parliament to make compulsory guidelines for Australian workers.

Working On Desktop Computer

Potencial RISK	Possibility Of Risk	Severity Of Risk	Contingency
Neck Pain	Likely	Minimal 8/10	- Adjust ergonomic Chair - Adjust computer monitor
Poor Blood Circulation In The Legs	Likely	Minimal 7/10	- Adjust ergonomic desk chair - Ensuring work breaks are taken. Eg 20 min intervals.
Back pain	Likely	Minimal 8/10	- Adjust ergonomic Chair - Adjust computer monitor
Headache	Feasable	Minimal 8/10	- Assess noise levels - Work Break - 20-20-20 screen time rule - Assess lighting and screen brightness - Assess ventilation
Fatigue	Likely	Minimal 8/10	- Work Break - Assess lighting/screen brightness - Assess ventilation - Assess hydration
Light Headed/ Dizzy	Slight	Significant 5/10	Assess ventilation Work break Assess lighting and Hydration

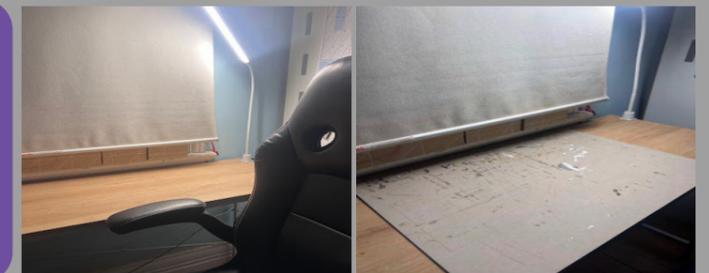
Working On Physical Model

Potencial RISK	Possibility Of Risk	Severity Of Risk	Contingency
Neck Pain	Likely	Minimal 8/10	- Adjust ergonomic Chair - Adjust computer monitor
Poor Blood Circulation In The Legs	Likely	Minimal 7/10	- Adjust ergonomic desk chair - Ensuring work breaks are taken. Eg 20 min intervals.
Foreign body penetration - blade	Minimal	Minimal 8/10	- Adjust ergonomic Chair - Adjust computer monitor
Headache	Feasable	Minimal 8/10	- Assess noise levels - Work Break - 20-20-20 screen time rule - Assess lighting and screen brightness - Assess ventilation
Fatigue	Likely	Minimal 8/10	- Work Break - Assess lighting/screen brightness - Assess ventilation - Assess hydration
Light Headed/ Dizzy	Slight	Significant 5/10	Assess ventilation Work break Assess lighting and Hydration



EVIDENCE

Participating in small breaks away from the screen, eg, getting a drink, decreases and or prevents eye strain, nausea, neck/back pain from occurring. A clear bench leaves me clear of mind, increasing my productivity in my work. Eliminates all possible hazards associated when it come to loose tools and materials on benchtops eg, off cuts of materials.



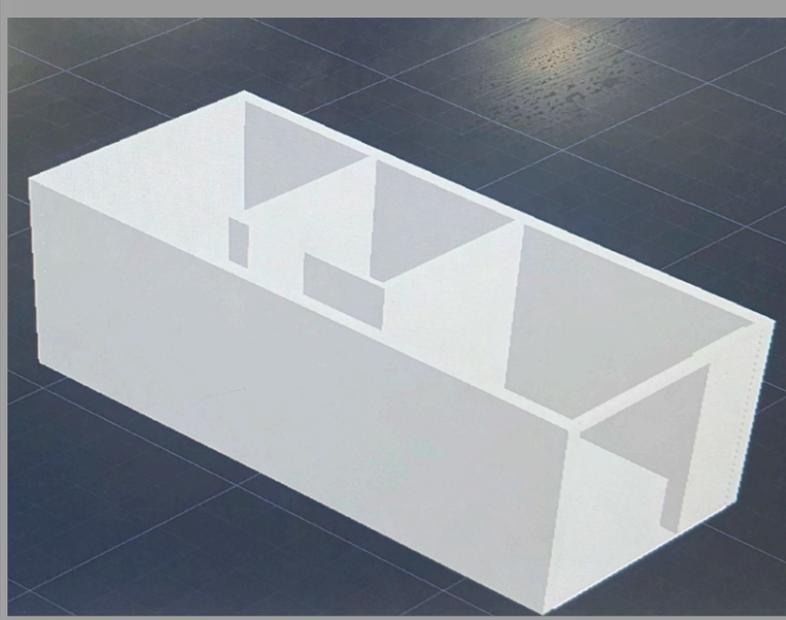
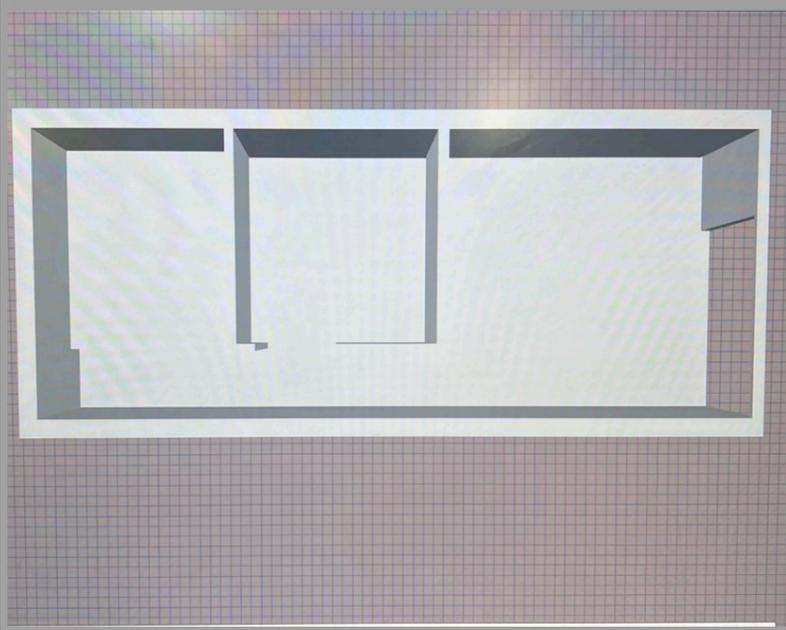
Conclusion For Working On Desktop Computer:

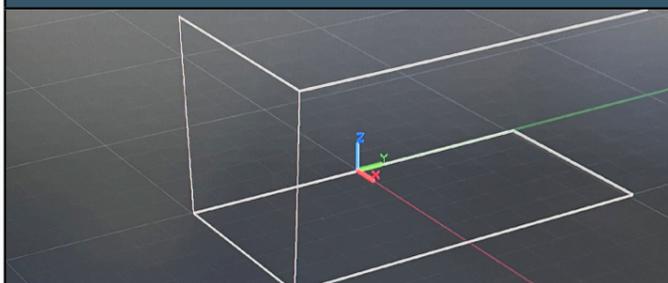
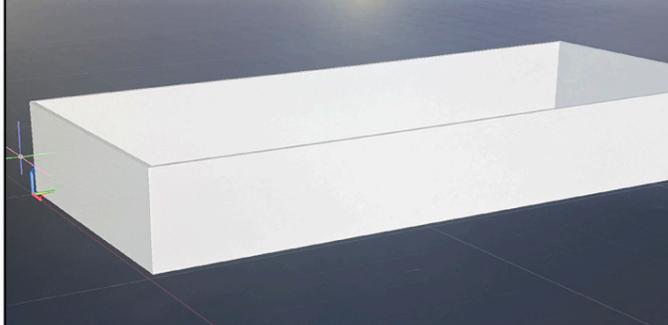
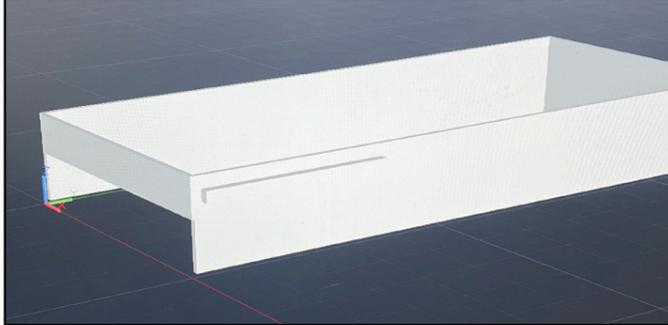
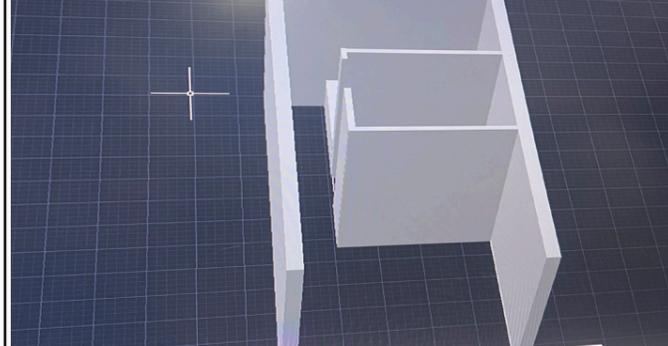
Developing a risk assessment for working on a desktop computer for the production of my MDP, allowed me to plan out the potential risks that may arise if utilised over a long period of time.

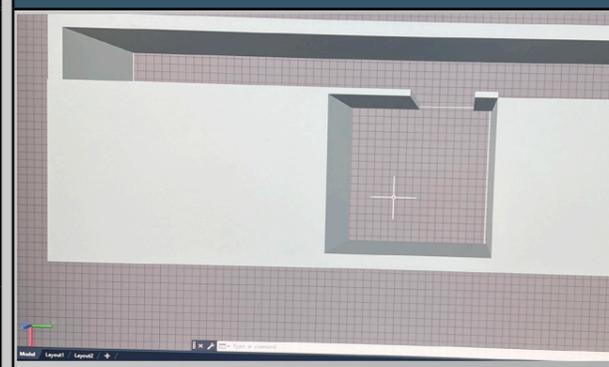
SECTION 3

Final Design - Learning AutoCAD 3D Architectural Modelling Production

Exterior Design Model In AutoCAD 3D Architecture

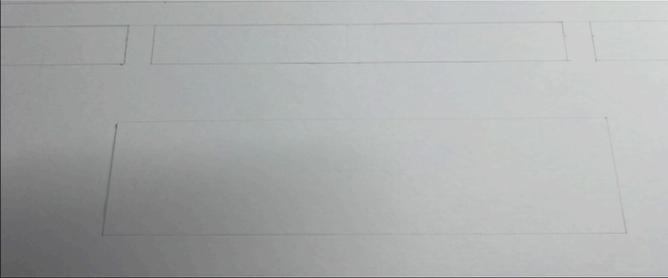
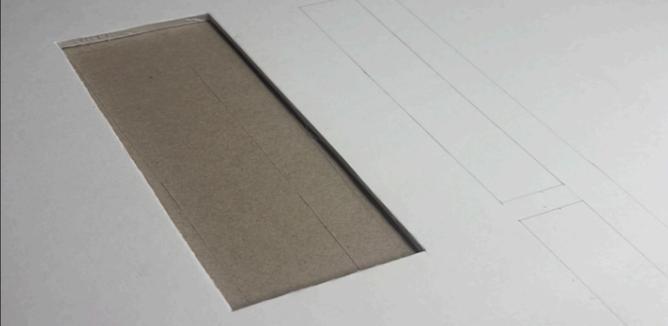
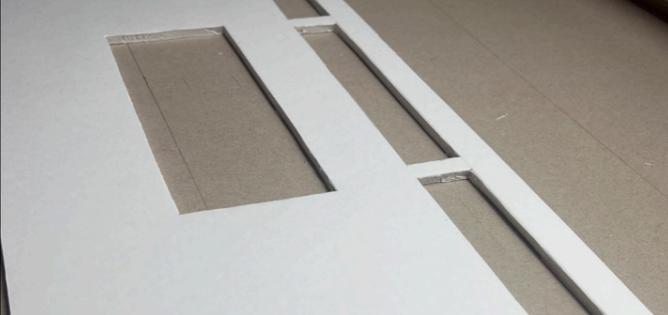


STEPS OF PROGRESS	DISCRIPTION
	Assistance - Design and support teachers Me doing simple connection lines to begin.
	Assistance - Support teacher and youtube tutorials. Me learning the Box tool, and extending using the axis X,Y,Z.
	Assistance - Support teacher and youtube tutorials Me learning how to raise walls and using the extrude button.
	Evidence of me learning autoCAD 3D at my school.
	Assistance - youtube tutorials Adding in the interior rooms and ceiling.

STEPS OF PROGRESS	DISCRIPTION
	Assistance - youtube tutorials Adding in the interior rooms and ceiling.
	Ensuring im maintaining my hydration as working on the computer for a long amount of time, I can get quite nauseous.
	Assistance - youtube tutorials I learnt how to place the flooring on the home which really brung the design together. Adding the front door through the extusion tool.

Conclusion for AutoCAD production:
 The the multiple amounts of online readings, step by step tutorials on youtube, and supporting teachings explaining all the tools and how to use them correctly to ensure the success in my 3D modeled design.

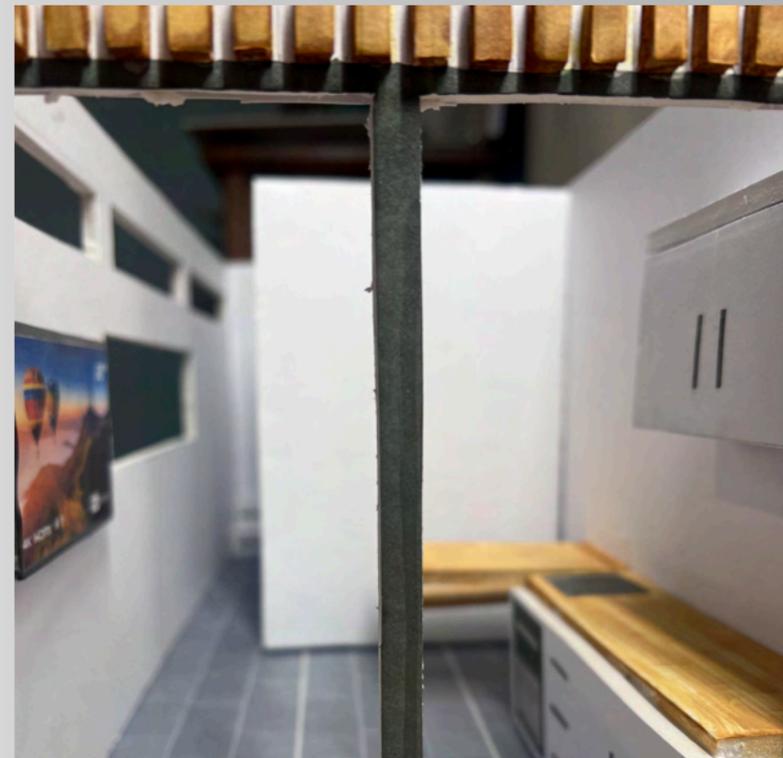
Final Design - Architectural Modelling Production

STEPS OF PROGRESS	DISCRIPTION	STEPS OF PROGRESS	DISCRIPTION	STEPS OF PROGRESS	DISCRIPTION
	Began by finding my scale that fits the size of the foam board. 1:12.5 (cm)		Proceeding with the timber slats. Cutting out door on the front of home. - Stanley knife - Ruler - Paint pens		Adding in shower glass wall. - plastic film - stanley knife -ruler - glue
	Began cutting our the large landscape window on WEST facing side of the home. - Ruler - Stanley Knife		Cutting out bathroom walls - Ruler - Stanley knife - Glue		Began cutting and glueing floor down. - stanley knife - ruler -glue
	Cutting out the skylight windows on the WEST facing side of home. - Ruler - Stanley Knife		cutting out the dining table. - Ruler - Stanley knife - Paint pen		Flooring complete
	Began cutting out the foam pieces mimicing the timber slats. - Ruler - Stanley knife		Gluing down the kitchen and dining table/chairs to EAST side wall. - Glue		
	Colouring the timber slats. - Brown paint pen.		Making interior cabinate for bathroom. - stanley knife - ruler - paints pen - glue		

Final Design - Architectural Modelling Production

STEPS OF PROGRESS	DISCRIPTION
	<p data-bbox="724 281 976 380">Above shot of completed tiny home.</p>

Exterior Design Model complete



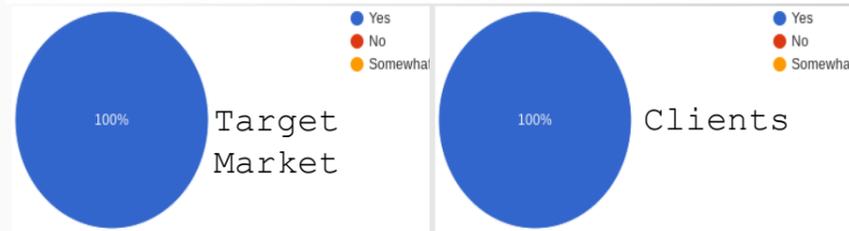
Conclusion for physical model production:

The process of making and developing my clients tiny home model was enjoyable and rewarding to see. I found it fun to see all the criterias that I have investigated truly come to life with colour and further dimension, which enabled me and my clents to visually analyse what went well and gain a greater perspective on what the final design of the home will be.

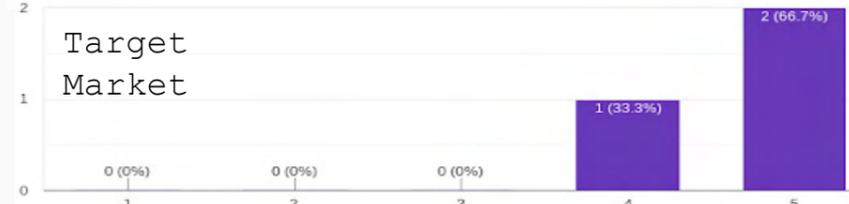


Surveys On Criteria For Success - Clients and Target Market

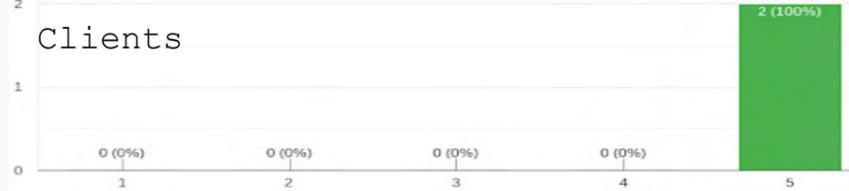
Do you believe this shipping container has been elevated through design and sustainable considerations to feel welcoming and homely?



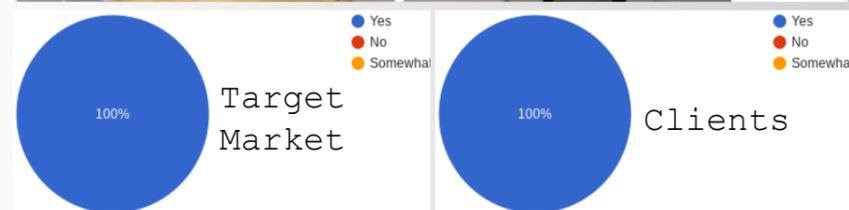
To what extent does the tiny home reflect the concepts and characteristics explored in the mood board below?



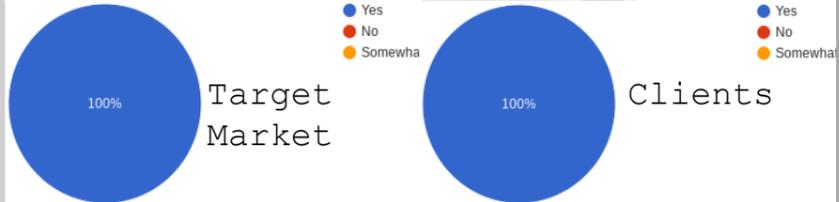
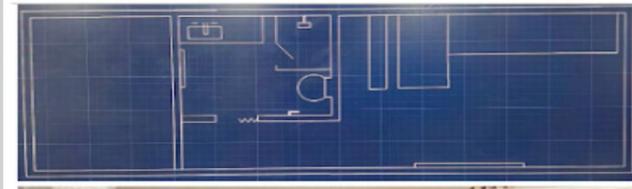
How well does the designs aesthetical appeal compliment it's environment and your expectations as a client?



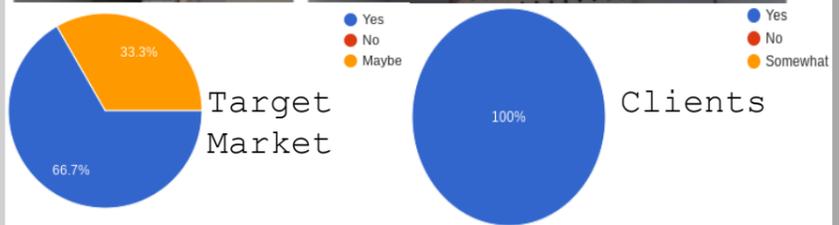
Would you agree that the space saving design of this dining table and seating is practical and functional within the kitchen area?



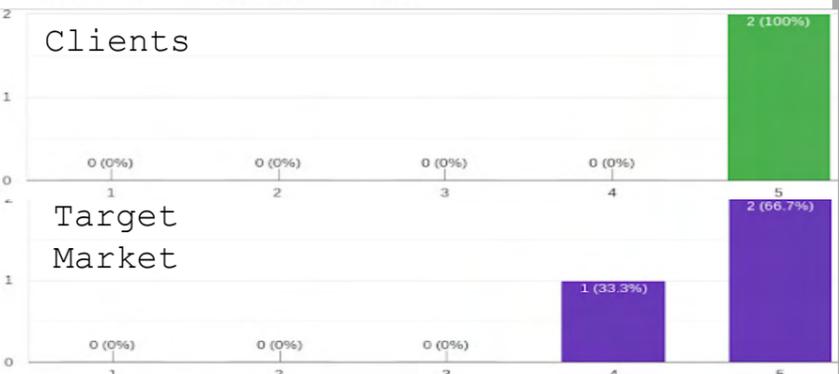
Within the challenging peramiters of using space effectively within the tiny home, do you believe that this floor plan below would provide a functional and enjoyable stay for your guest?



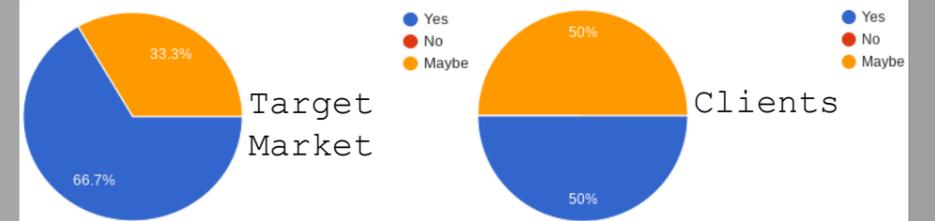
Do you think these intergrated methods of storage and space saving techniques would appropriately contain the luggage brought for your guest to stay a short period of time in the tiny home?



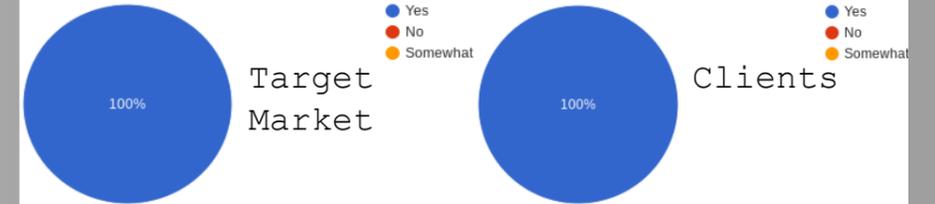
To reduce the cost and energy usage of air conditioning, heating, and lighting, the wide Western facing windows both provide natural light during the afternoons, and is double glazed in order to reduce heat transmission and reflect heat rays during warm summer days. To what extent do you believe this to impact the success of the design?



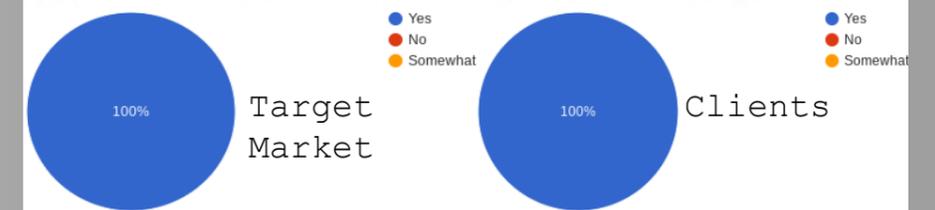
The tiny home is equipped with a rain water tank that collects water run off from existing roof corrregation of the container and traditional Japanise draining systems that use the laws of physics to draw water from the gutters to the tank and self-sustaining garden bed. Do you believe this design will reduce cost of water bills and impact on the environment?



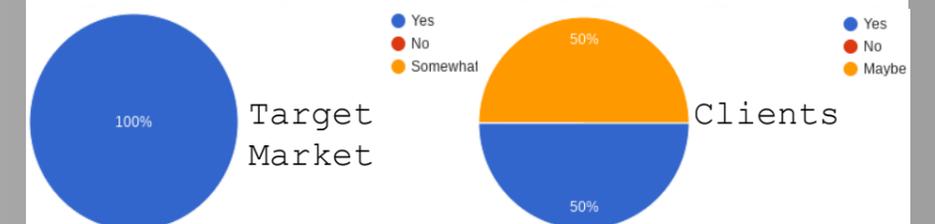
Sustainability considerations were made to reduce the energy costs per watt in the selection of LED lighting over traditional domestic light bulbs, is this something you find ethical?



To maintain adequate tempratures and avoid humity damage within the walls of the tiny home, the choice to install green board and insulation was made and is supported by the Australian industry standards for homes. Is this a feature you see nessary within your future tiny home?



The desired effect of the flooring was to appear luxurious and high quality without the excessive price of stone or marble tiles. The solution is to install floor laminate tiles that mimic the texture of granite, do you think this concept achieves the objective?



Conclusion For Surveys:

Therefore, creating a survey from my Criteria Of Success allowed me to collect quantitative data on various aspects of my design, such as Aesthetics, Functionality, Sustainability, and quality/finish of materials. The feedback being received from my clients and target market (visitors) provide me with insights into sudden readjustments/alteration to my overall design, also helps to reveal the strengths in my design.

EVALUATION AGAINST PROJECT PROPOSAL AND CRITERIA FOR SUCCESS

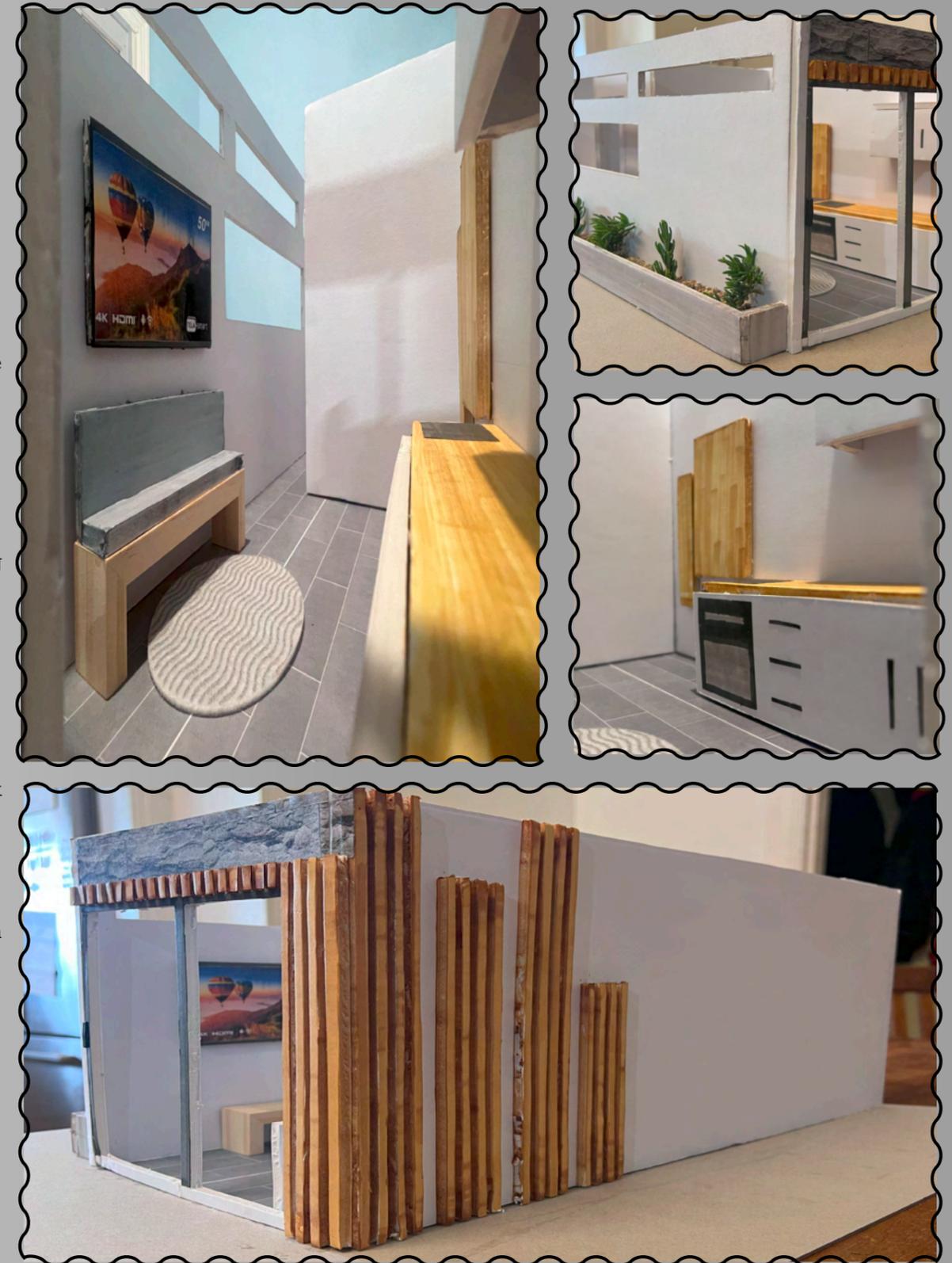
The proposal of this project was to design a fully laid out plan of my clients tiny home to create a cozy, inviting, and functionable space for visitors to stay in, seeking privacy and comfort. The opportunity for the home was to find ways around improving a small space to be as homely and functionable as possible for the comfort and satisfaction of the owners or visitors. Though this, structured my identification of the need not only towards my clients, but for the targetted market of those seeking for a cost effective and functionable home. Therefore, pushing myself to design the best possible shipping container tiny home that will fulfill the criteria for success.

The first category in my criteria for success was to produce a design that will be functional for my clients visitors to live in. The visitors are provided a functional and practical space that will allow manoeuvring throughout the space with ease and comfort. The investigation on the appropriate amount of storage allows for the visitors to feel at home with multiple amounts of storage compartments for luggage for a short amount of time stayed. As a result, ensures my clietns visitors are provided with a inviting and functional space for seeking privacy and comfort.

The next element on my criteria for success is quality. I did this by utilising materials that are cost effective whiles still mimicing that primium high finished appeal for the home, which ultimately offered my clients with higher satisfaction and pleasment with the homes attention to detail. Another aspect of quality throughout the design of the home is the application of industry standard materials to ensure the success and safety for my clients and visitors.

My next criteria is Aesthetics. My aim was to develop a design that would look aesthetically presentable for my clients, creating a dwelling cohesion between my surrounding environment of my clients home to the design of the tiny home. I did this by utilising material that compliment my clients concept board of aesthetics, ensuring i'm always reverting back to these boards to allow me to progressively incoorporate the chosen aesthetic all throughout the homes design to provide a comfortable and homely feeling for my clients visitors.

Arfter surveying my clients and preferred visitors of the final design of the tiny home, it has been noted that each aspect of my criteria of success has been addressed and exicuted to high quality. In consiquence, the home will successfully house the visitors, providing them with practicality and comfort. Therefore, after comparing the final product to the project proposal and the aspects explored in the criteria for success: My design meets the breif and everything it was intended to do.



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