

LANDMARKS

- painted power pole walk
- Trumpeters corner
- wind farm
- Dingo fence
- Dingo Sculpture

LOCATION

- 258km North west of Brisbane
- 49km North of Dalby

About Jandowae

Needs

- A park fence
- Designed to relate to Jandowae
- To improve safety

Wants

- possible designs
 - livestock
 - bottle tree
 - farming
 - timber
 - Symbols of peace
 - Dingoes
 - creek
 - community
- To reflect jandowae as a whole
- Create a positive experience

KNOWN FOR

- 2nd longest man made Structure in the world (Dingo fence)

HISTORY

- 1st Settled in 1868 referred to as 'Jindowie' an aboriginal word meaning 'waterhole'

WHAT IS FARMED

- wheat
- Barley
- Sorghum
- Beet

Park Fence Design for Jandowae

Stakeholders

- Community of Jandowae
- Darling Downs Regional Council

Principles of Good Design

- Sustainable
- long-lasting
- Aesthetic

Social Factors

Gender

- 48.6% male
- 51.4% Female

Age

- main age in Jandowae is 53

Religion

- Main Religion in Jandowae is Christianity

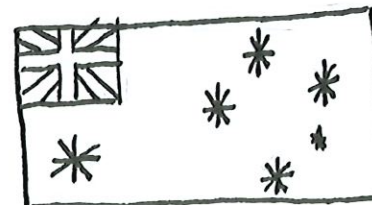
Cultural factors

Cultural languages

- Australian
- English
- Irish
- German

Ethnicities

- 35.4% Australian
- 29.8% English
- 9% Irish



- 8.5% Scottish
- 8.2% German

Economic Factors

Economy

⇒ Council covers all costs

Resources

⇒ Corten steel
⇒ Led lights

Socio-Economic Status

⇒ Jandowae is a low/mid Economic Status.



Stakeholders

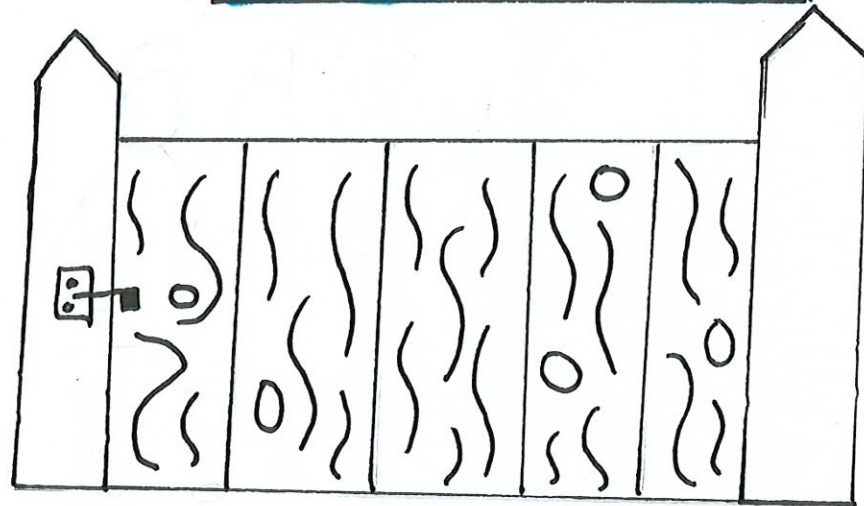
The Community of Jandowae

NEEDS

- park fence
- Designs that relate to Jandowae
- park fence needs to consider
 - Social factors (how the community will feel)
 - Economic factors
 - Cultural factors (values, beliefs & culture)

WANTS

- Designs for fence
 - livestock
 - bottle tree
 - farming
 - timber
 - Symbols of peace
 - Dingoes
 - Creek
 - Community



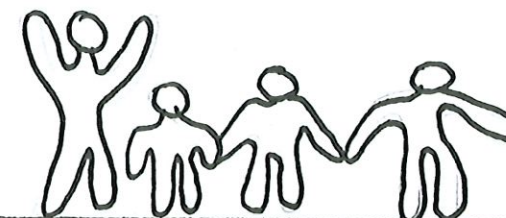
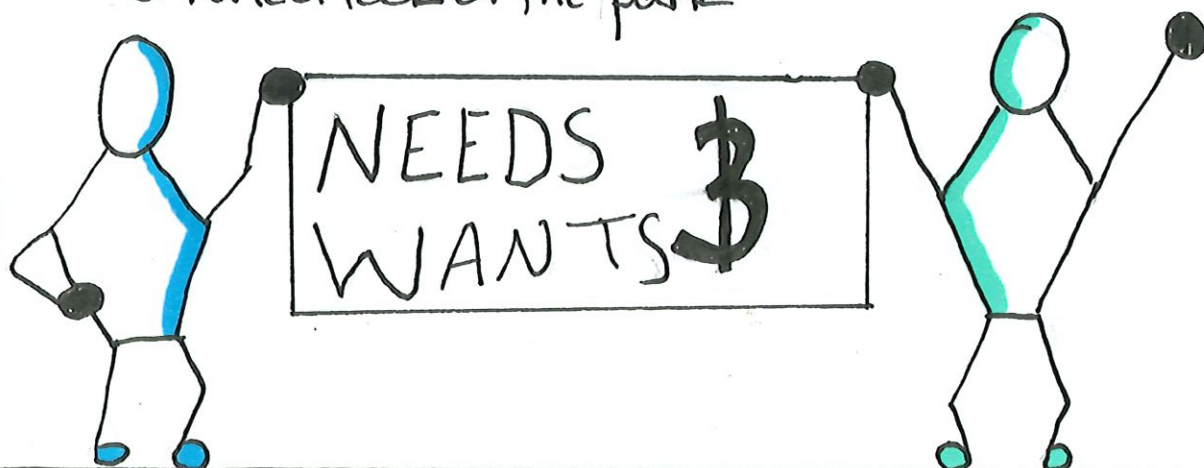
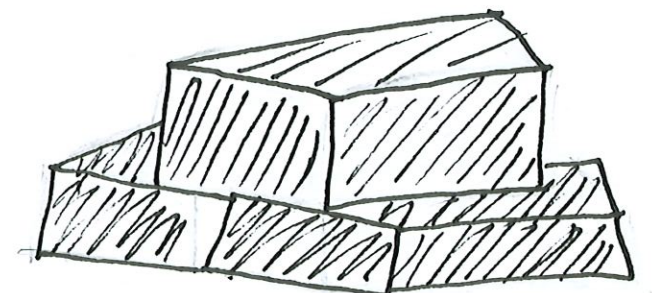
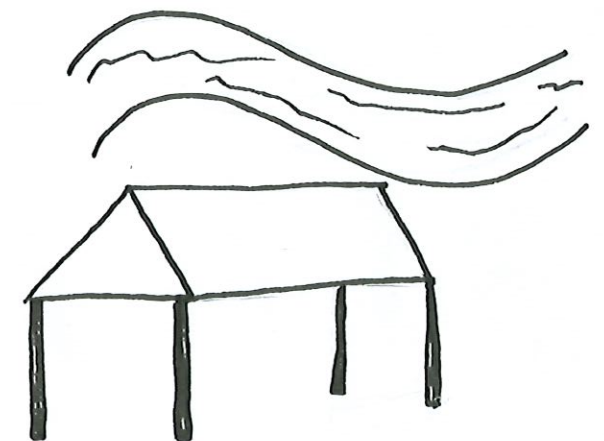
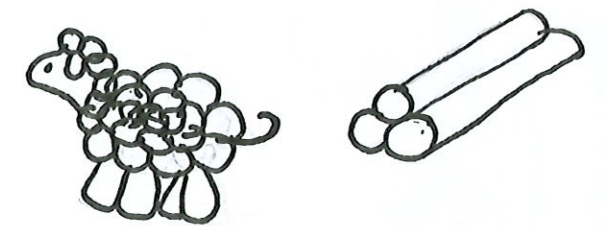
Darling Downs Regional Council

NEEDS

- to deliver Jandowae a park fence.
- to Improve Safety
- to reflect the history and story of Jandowae
- reflect look of the park

WANTS

- to reflect Jandowae as a whole
- to create a positive experience in the community
- provide an opportunity to tell a story about Jandowae and what the community feels is important.



Primary Data

Questions for the Council



- + Stable
- + keeps wildlife out with the small gaps
- + long-lasting
- Not a lot of support.
- I Colour (paint) could wear down over time would have to be repainted.



- + Aesthetically pleasing
- No barrier to keep wildlife in or out
- I Weather could rust the nails.

Q3. Can other elements be included?

- o Yes, other elements such as LED Lights and 3-dimensional illusions can be included in the Design.

Q4. Is there anything that the council believes the fence needs in order to be successful?

- o To reflect the Jandowae community and history of the town
- o reflect the look and feel of the park.

Q5. What is the council's overall goal with the project?

- o To improve safety
- o Improve Aesthetic (Draw more people in)
- o Deliver a project made by students that will have a positive impact

Q6. Any Specific Restrictions (Height)?

- o Corten Steel sheet 1.2m high
- o gap at bottom of fence 600mm
- o total height of fence 1.8m
- o length of fence approx. 29.5m

Q1. Are there any limits to the design in terms of overall costs and resources?

- o Depending on the design will determine the funds available.

Q2. Are there any non-negotiable components of the design that must be included?

- o The fence must have a Dingo Fence look and feel as the council had to work with and make sure the park neighbours were in agreement.



Questions for Jandowae community.

Q1. How old are you?

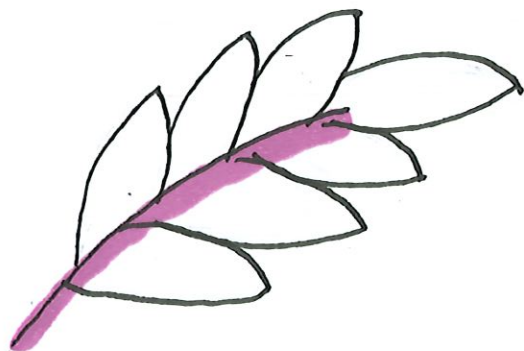
o between the ages of 25 to 53.

Q2. Are you male, female or other...?

o Gathered from the interview questions from the 7 people that replied 70% were male & 30% female.

Q3. How long have you been living in Jandowae?

o Some citizens have been living in Jandowae for over 25 years.



Q4.

What is your favorite thing about Jandowae?

- o The friendliness
- o The community Spirit.
- o Family Oriented
- o Community involvement.

Q5.

What makes Jandowae unique & how does it differ to other rural communities?

- o A lot of interesting history
- o very friendly and peaceful
- o Has a range of facilities for a small population.
- o welcoming

Q6.

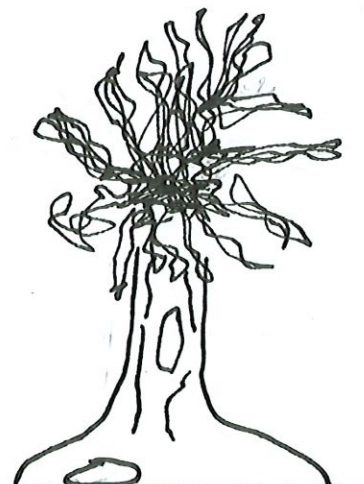
What three words do you believe accurately describe Jandowae?

- | | |
|---------------|-------------------|
| o livestock | o family |
| o bottle tree | o self sufficient |
| o quiet | o Small town |
| o friendly | o rural |
| o peaceful | o timber |

Q7.

What symbol/s would be best to represent your community?

- | | |
|---------------|-----------|
| o Livestock | o unity |
| o bottle tree | o Grain |
| o wheat | o farming |
| o Timber | |
| o peace | |



Secondary Data

Resources

Material → O Corten steel
Costs → O All costs funded by council.
Construction → O made at Dalby State High School by trade training students.

Factors of Jandowae

**IMPORTANT
NOTE!!**

X This design does not require the Jandowae community to put money in.

Social factors

People → Languages
O Australian
O English
O Irish
O German

Gender → O 48.6% male
O 51.4% female

Age → O median age in Jandowae is 53.

Population → O 1,004 people

Religion → O Not stated 10.7%
O No Religion 31.3%
O Anglican 19.9%
O Catholic 17.1%
O Uniting Church 8.3%

Cultural factors

Beliefs → O Having town Identity

O rural spirit
O Strong support network

Values → O timber town
O Sporting groups
O Healthy lifestyle
O Peace and quiet

Culture → O Aboriginal and/or Torres Strait Islanders 5.9%.

O Non-Indigenous 83.4%
O Indigenous status not stated 10.4%

Socio-Economic

Economy → O worked full time 46.6%
O worked part time 33.7%
O Away from work 10.4%
O Unemployed 8.7%

Hours worked → O 0 hrs Away from work 7.9%
O 1-19 hrs 12.8%
O 20-29 hrs 13.1%
O 30-34 hrs 11%
O 35-39 hrs 11.9%
O 40-44 hrs 14%
O 45+ hrs 24.4%

Weekly Income → O Personal \$495
O Family \$1,204
O Household \$959

All information on this page gathered from 'Handout' and 'abs.gov.au'

Secondary Data.



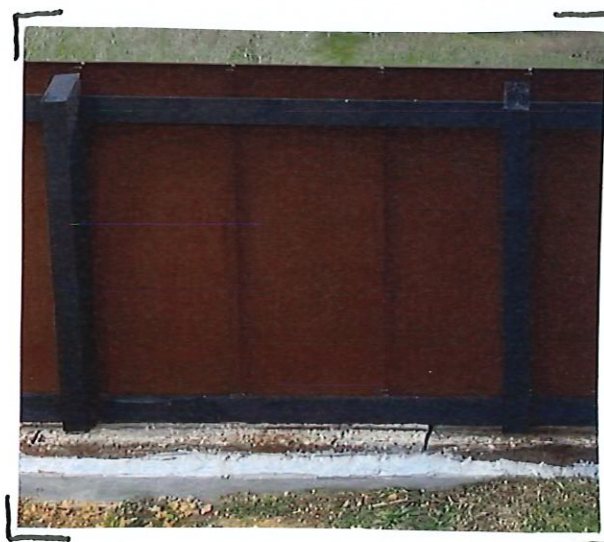
- + The stability of the fence would be overall better. (less cuts)
- Not much designed on panel
- i thin cuts



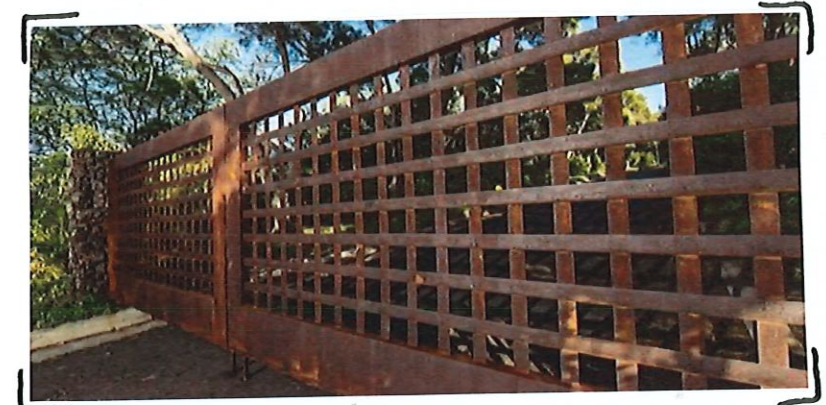
- + Extra support to hold wood up
- could be flimsy wood
- i wood deteriorates over time



- + Design could help the process of Design for the Jandowae fence
- thin gaps could break over time.
- i weather could rust steel.



- + Extra support also looks good
- wood holding up steel
- i weather could effect the wood.



- + thick borders
- thin footing into ground
- i footing could snap.



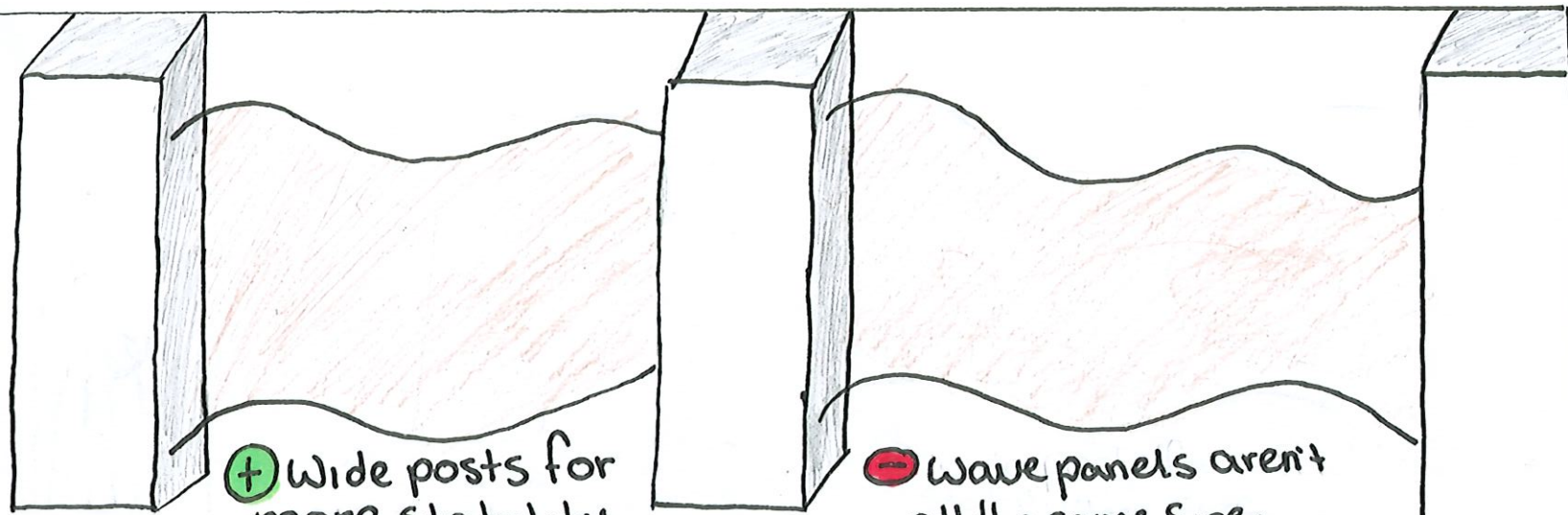
- + Nature theme & Aesthetically pleasing.
- To many gaps could ruin stability.
- i The little pieces could snap over time.



- + Stable fittings to wood
- different coloured wood for support
- i different thickness within the fence.

Ideation Sketches

1.



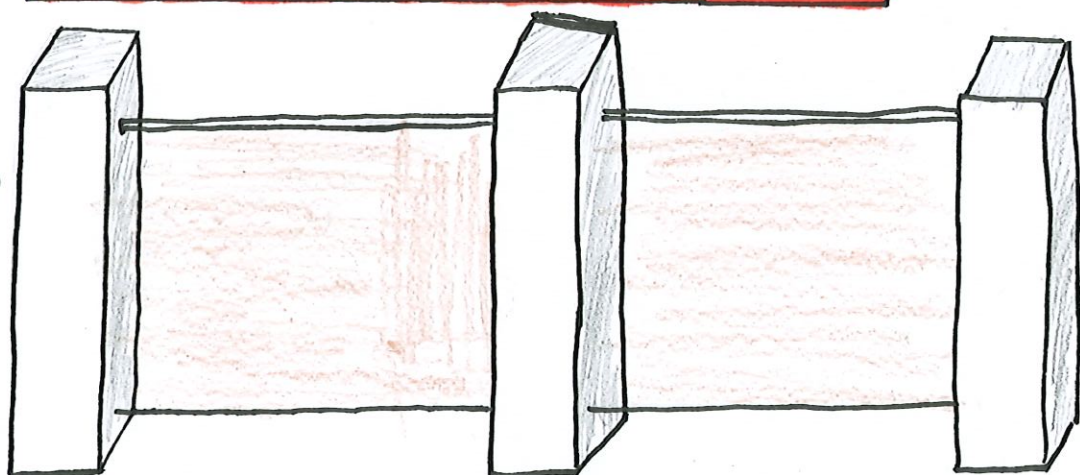
+ Wide posts for more stability

- Wave panels aren't all the same size.

→ Continues in pattern.

i animals could get underneath the fence.

2.

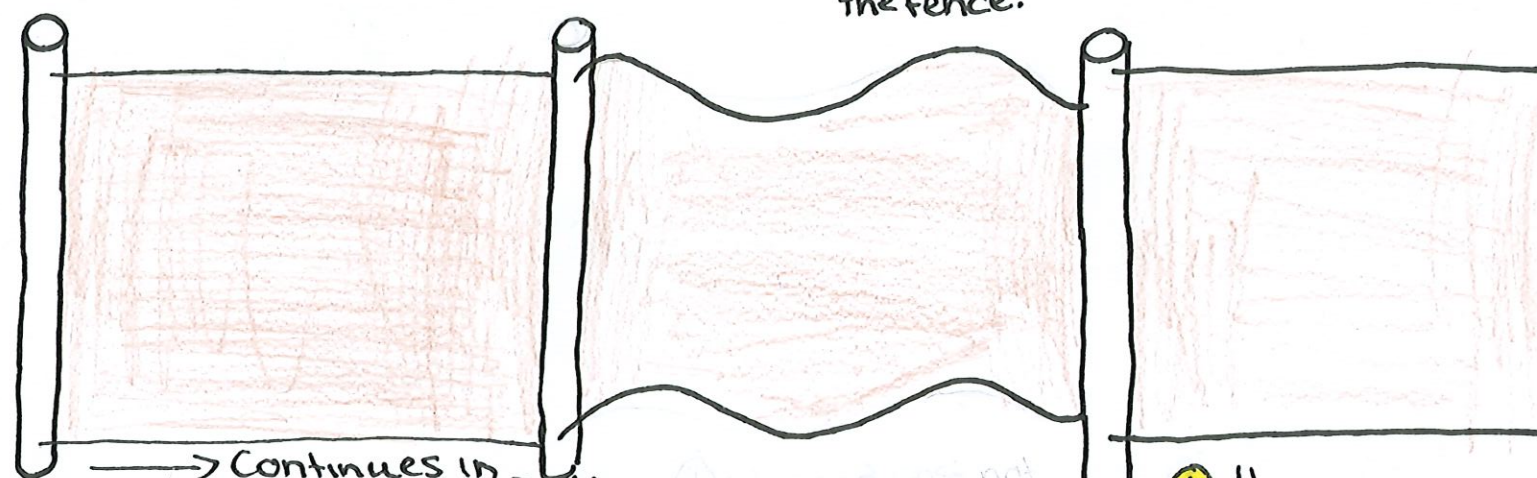


→ Continues in pattern.

+ Stable wide square fence posts.

- Standard fence not a lot of divergent thinking included.

3.



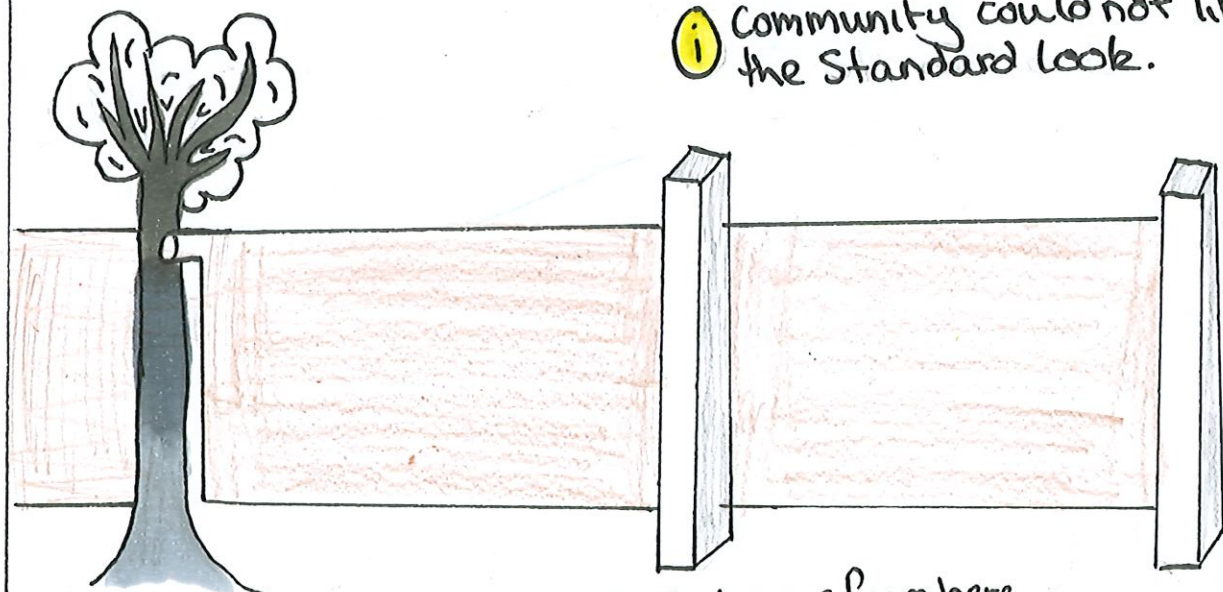
→ Continues in pattern

+ standard post not difficult to put into the ground.

- Change in pattern could decrease stability

i thin posts moves around over time.

4.



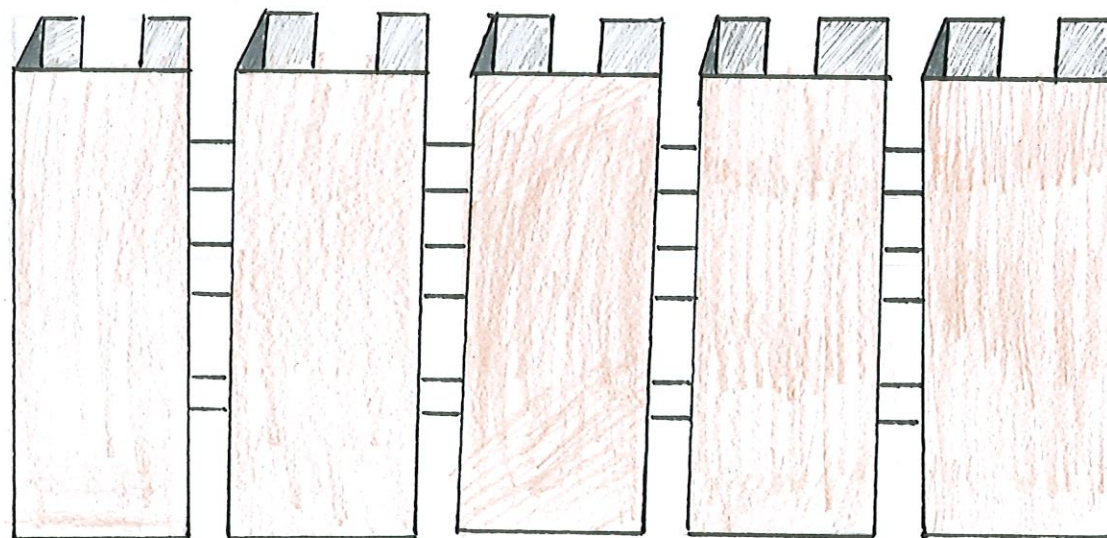
+ include design in the structural build

→ Continues from here

- 'tree' could weaken overall strength.

i 'tree' post could weaken before the other standard posts.

5.



→ Continues in pattern.

+ more of a complex design.

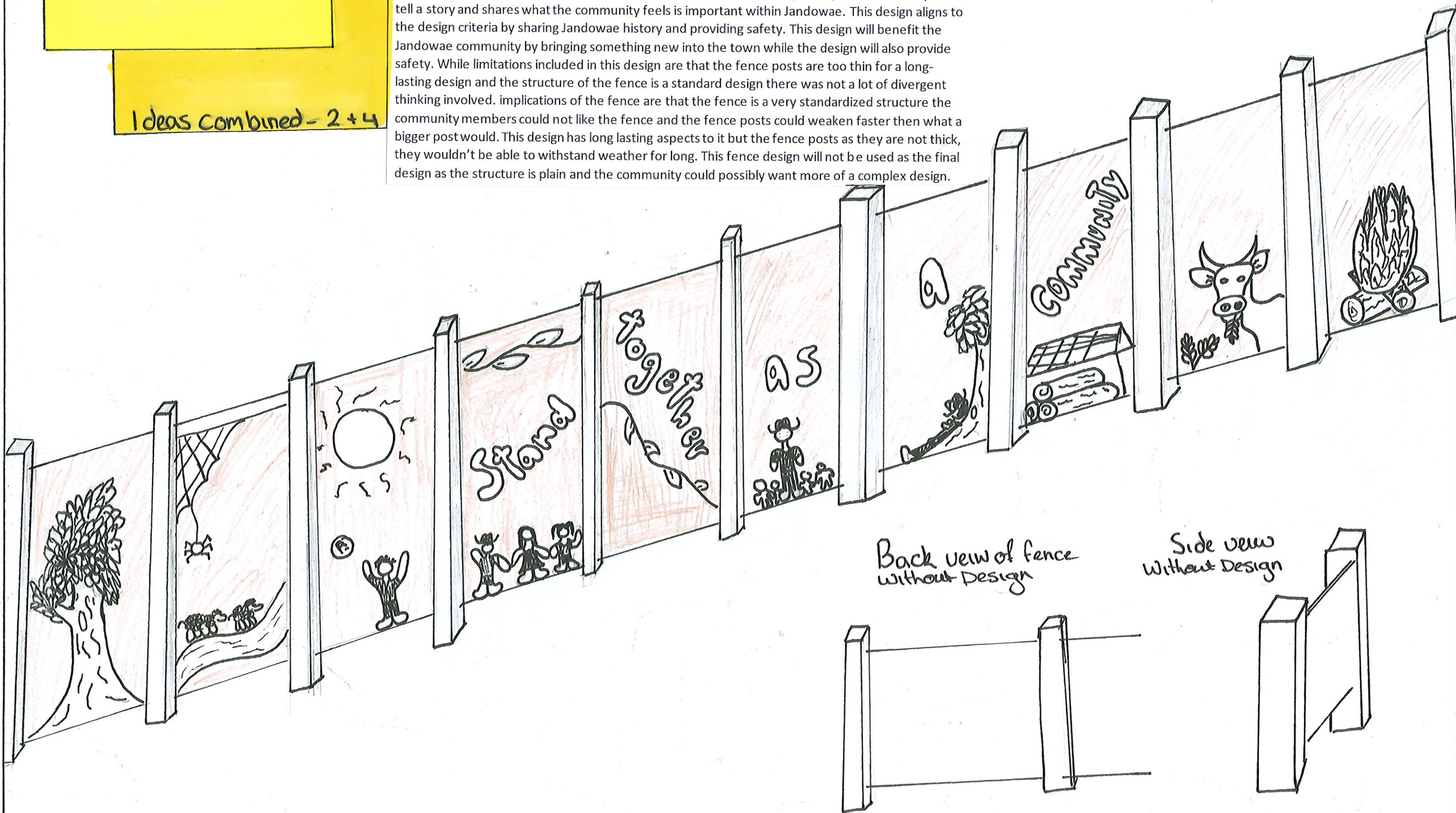
- Gaps in between panels.

i Extra support would need to be considered.

1

Ideas combined - 2 + 4

The ideas combined together in this first synthesis are ideation sketches 2 and 4. These two ideation sketches have been joined together to create an improved fence structure. The idea from sketch 2 is the straight fence panels with no additions and the idea gathered from sketch 4 are the slim straight square posts. The straight panels purpose is so it will be easier to add design and patterns to the panels. While the purpose of the slim fence posts is to keep the fence panels and the fence itself stable. The purpose of this design itself is to be a new addition to the community of Jandowae in the town park. This fence will provide safety within the park as the fence in the local park at this point in time is dilapidated and to create an excitement within Jandowae. Strengths of this design include the stability of the fence provided by the slim fence posts and the design and patterns on the panels tell a story and shares what the community feels is important within Jandowae. This design aligns to the design criteria by sharing Jandowae history and providing safety. This design will benefit the Jandowae community by bringing something new into the town while the design will also provide safety. While limitations included in this design are that the fence posts are too thin for a long-lasting design and the structure of the fence is a standard design there was not a lot of divergent thinking involved. implications of the fence are that the fence is a very standardized structure the community members could not like the fence and the fence posts could weaken faster then what a bigger post would. This design has long lasting aspects to it but the fence posts as they are not thick, they wouldn't be able to withstand weather for long. This fence design will not be used as the final design as the structure is plain and the community could possibly want more of a complex design.

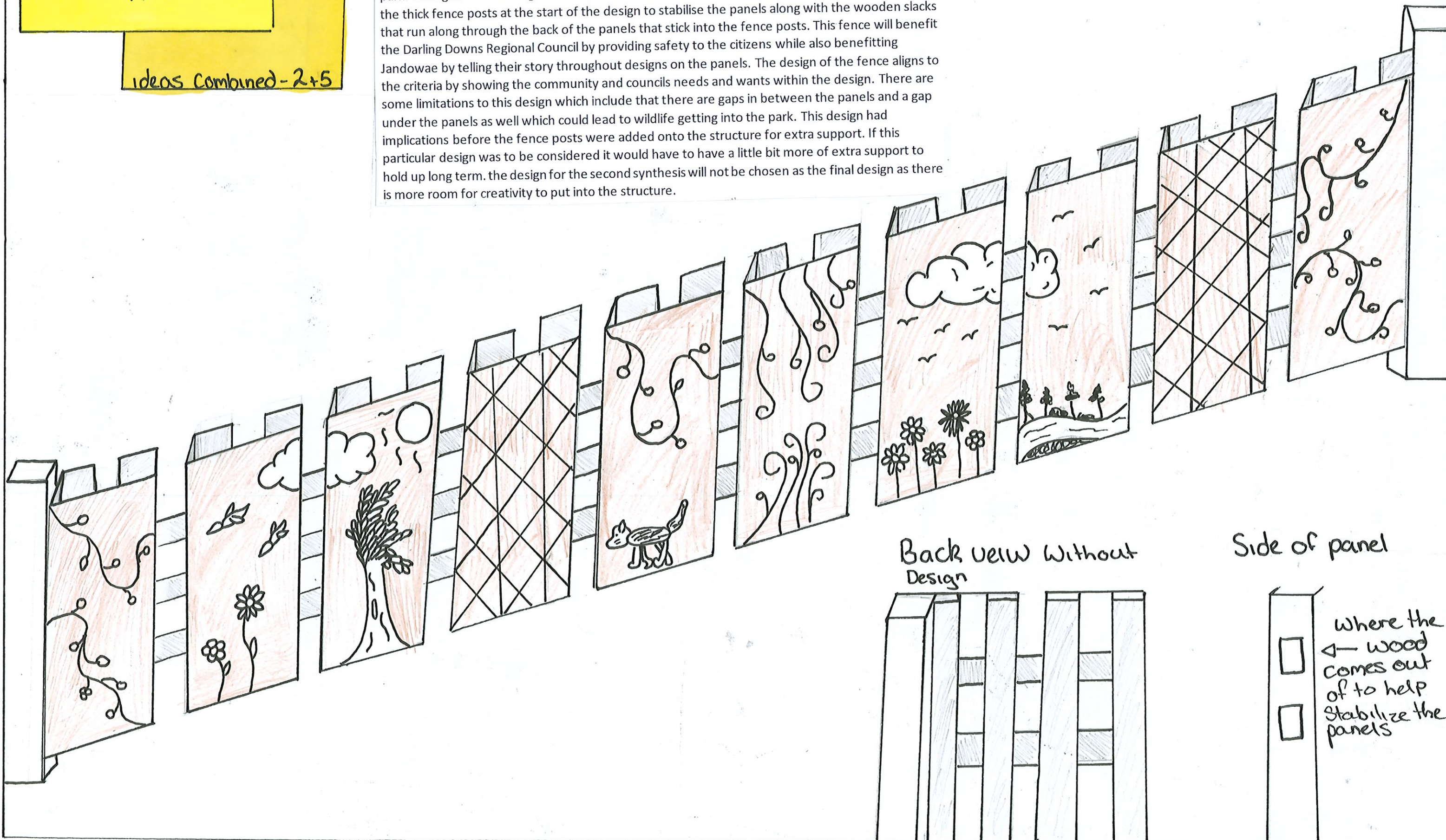


Synthesis

#2

ideas combined - 2+5

Ideation sketches combined within this second synthesis are 2 and 5. The idea pulled from ideation sketch 2 is the thicker poles and the idea from ideation sketch 5 is the actual structural design itself. The purpose of the thick fence post is to help stabilise the panels and structure of the fence. While the structural design used is to look more aesthetically pleasing to the eye of people in Jandowae. The design fence's purpose is to provide more safety to the children and people that will play in the park. Strengths of this design is that this structural design is more complex and aesthetically pleasing the thick fence posts at the start of the design to stabilise the panels along with the wooden slacks that run along through the back of the panels that stick into the fence posts. This fence will benefit the Darling Downs Regional Council by providing safety to the citizens while also benefitting Jandowae by telling their story throughout designs on the panels. The design of the fence aligns to the criteria by showing the community and councils needs and wants within the design. There are some limitations to this design which include that there are gaps in between the panels and a gap under the panels as well which could lead to wildlife getting into the park. This design had implications before the fence posts were added onto the structure for extra support. If this particular design was to be considered it would have to have a little bit more of extra support to hold up long term. the design for the second synthesis will not be chosen as the final design as there is more room for creativity to put into the structure.

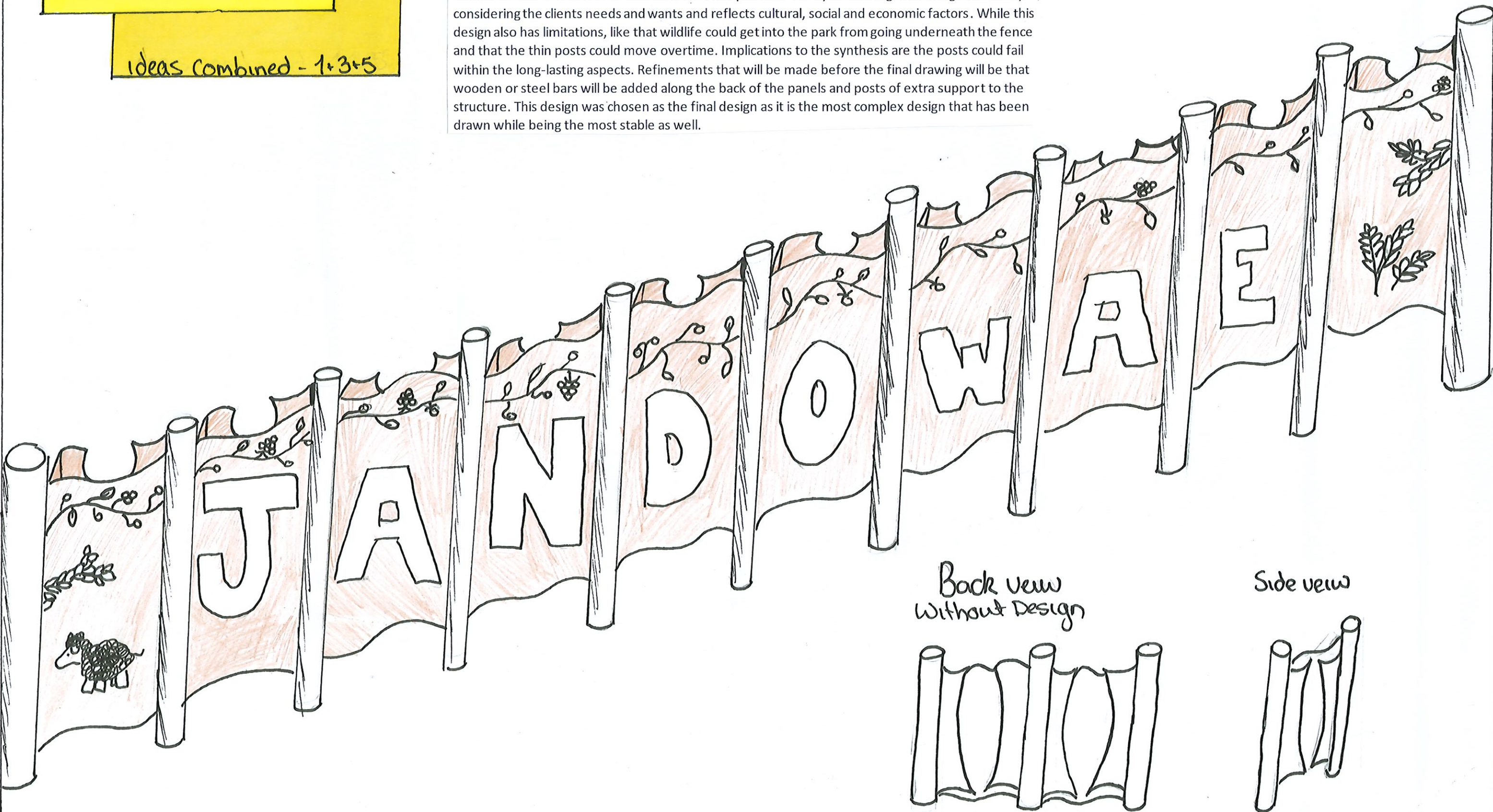


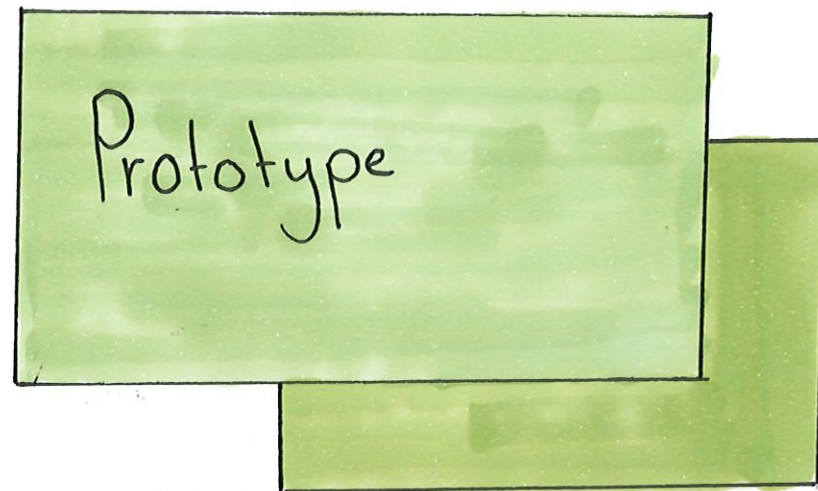
Synthesis

#3

Ideas Combined - 1+3+5

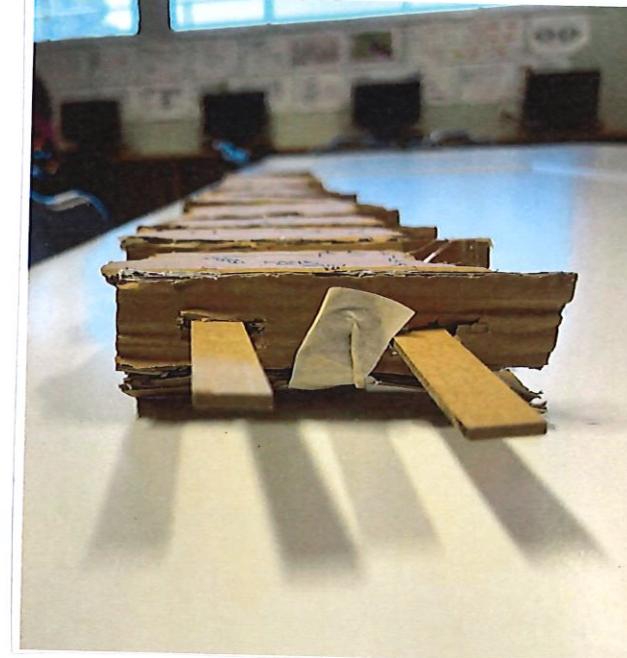
The ideations sketches involved in the final synthesis include sketches 5, 3 and 1. From ideation 1 the waves throughout the panels, while ideation 3 are the fence posts for stability and ideation sketch 5 is the design of the structure itself. The purpose of the structural design and design is to bring safety to Jandowae while also being aesthetically pleasing to the eye of the community, to reflect the history of the town and to create a positive environment for the citizens. The strengths to this design are that the structure is stable and long lasting while also being aesthetically pleasing. Benefits of the fence to the community is that the fence will create a positive outlook to the park and show how a new look for small town can be positive. The synthesis aligns to design criteria by considering the clients needs and wants and reflects cultural, social and economic factors. While this design also has limitations, like that wildlife could get into the park from going underneath the fence and that the thin posts could move overtime. Implications to the synthesis are the posts could fail within the long-lasting aspects. Refinements that will be made before the final drawing will be that wooden or steel bars will be added along the back of the panels and posts of extra support to the structure. This design was chosen as the final design as it is the most complex design that has been drawn while being the most stable as well.





The prototype has made it easier to picture what the final product will look like. The prototype has also progressed my understanding of what the original drawn design will look like when built. In further research after building the prototype it was noticed the wave like design that was implemented within this structure is not a normal Corten Steel fence design therefore the design is authentic. The materials used to create this prototype consisted of cardboard, wooden planks, hot glue and tape. The ideas of this design are communicated well enough to understand what the design is and that the prototype would not have to be remade. Refinements made is within the structure is the extra support with the wooden planks going across the back of the structure, there would be no need to make any other refinements than what has already been made. The strengths of the prototype itself would be that it held up well by itself and did not fall over and that the final drawing and third synthesis are represented within the prototype by the structure looks very similar to the drawings. As for limitations of the prototype is that it took a lot of hot glue to make sure the cardboard would stay together, the way the cardboard was cut made it very fragile and easy to break and the wooden planks added as a refinement were hard to get through the holes that were cut for them in particular.

Right end side



Top view



left end side.



Back view



Opposite under view



full back view



Under view

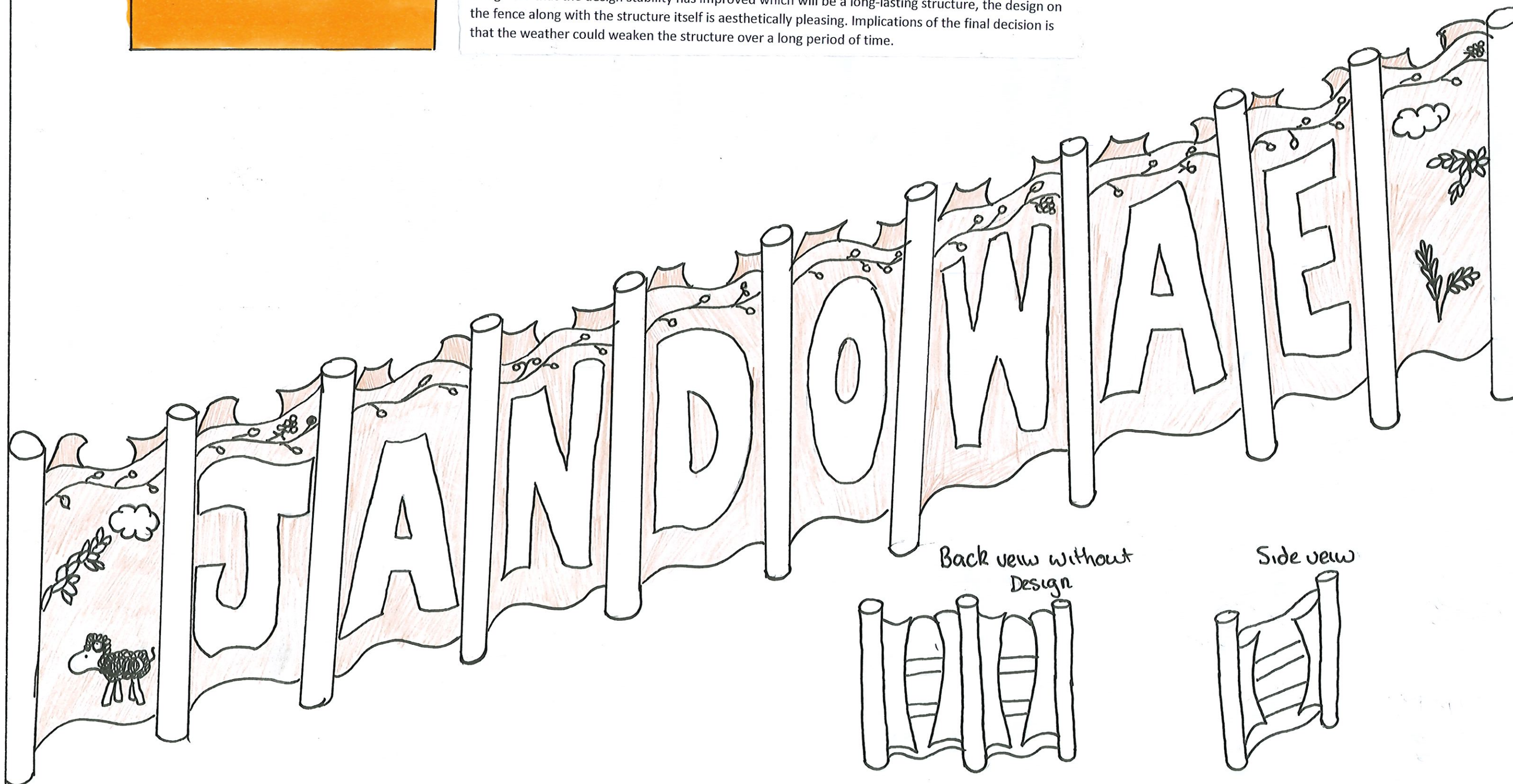


Final Evaluation

\$

Final Drawing

After considering all of the strengths, limitations and implications of all the synthesis's I have chosen to lead with the design from synthesis 3 as it is a more eye-catching design. The refinements that have since been added include extra support along the back of the fence panels that also go through the posts and side of the panels, this is so the fence has that little bit of extra strength to help hold up the structure and make the fence long-lasting. This design still has limitations such as the panels are far enough off of the ground so wildlife could still get into the park and the thin cylinder posts could move around after time but with the extra support that is less likely to occur. Strengths of this design are that the design stability has improved which will be a long-lasting structure, the design on the fence along with the structure itself is aesthetically pleasing. Implications of the final decision is that the weather could weaken the structure over a long period of time.



Supporting page #1

Needs and wants of Jandowae

The Community of Jandowae

NEEDS

- park fence
- Designs that relate to Jandowae
- park fence needs to consider
 - Social factors (how the community will feel)
 - Economic factors
 - Cultural factors (values, beliefs & culture)

WANTS

- to reflect Jandowae as a whole
- to create a positive experience in the community
- provide an opportunity to tell a story about Jandowae and what the community feels is important.

WANTS

- Designs for fence
 - live stock
 - bottle tree
 - farming
 - timber
 - Symbols of peace
 - Dinagies
 - Creek
 - Community

Needs and wants of Council

Darling Downs Regional Council

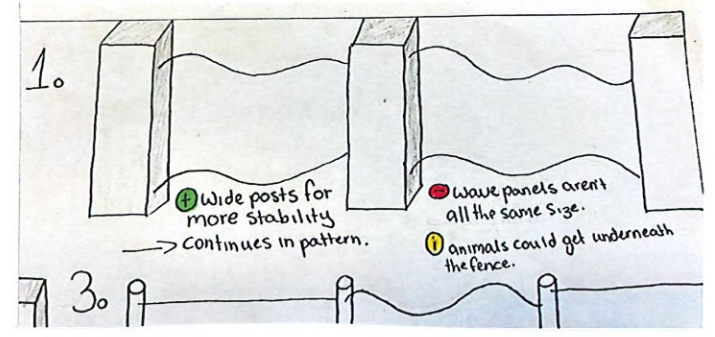
NEEDS

- to deliver Jandowae a park fence.
- to improve safety
- to reflect the history and story of Jandowae
- reflect look of the park

WANTS

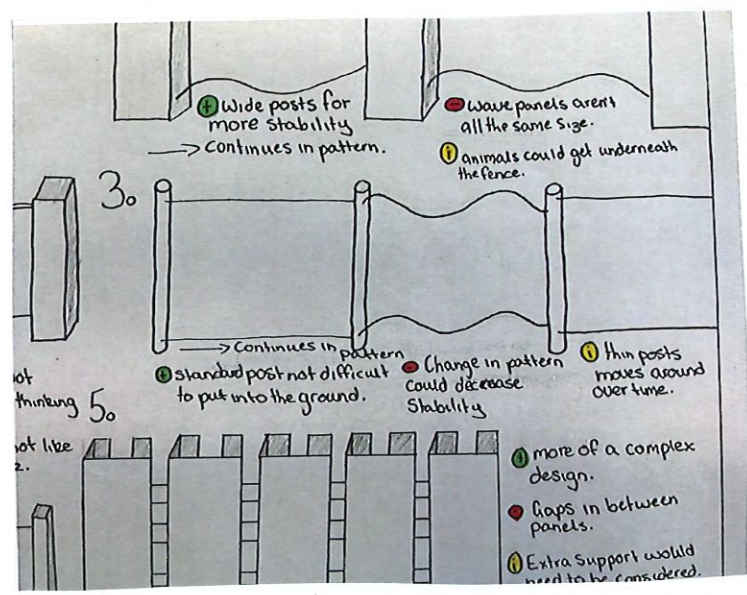
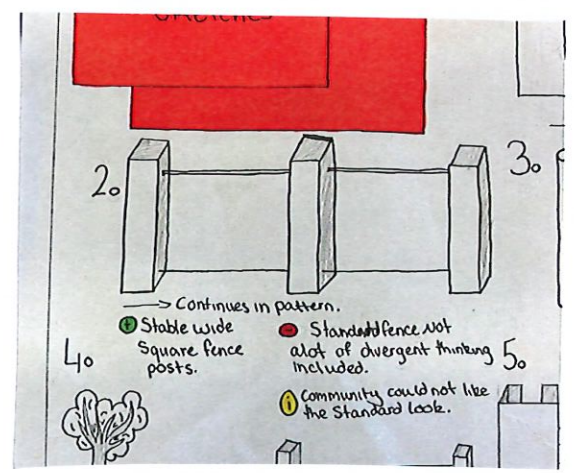
- park fence
- Designs that
 - Social factors
 - Economic factors
 - Cultural factors

Communicating with council to know boundaries of the design.

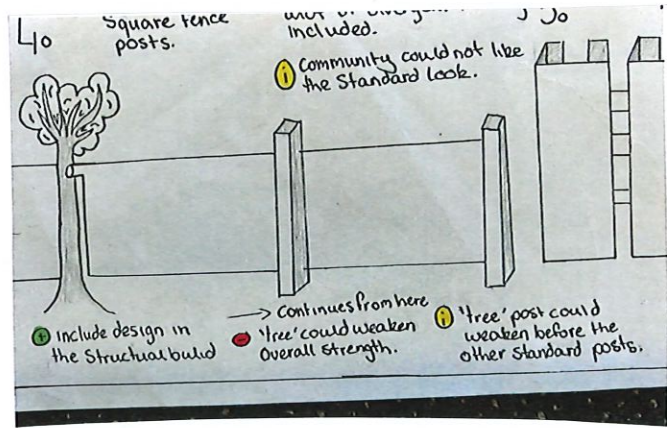


1. Was used to create the final design. (wave panel design)

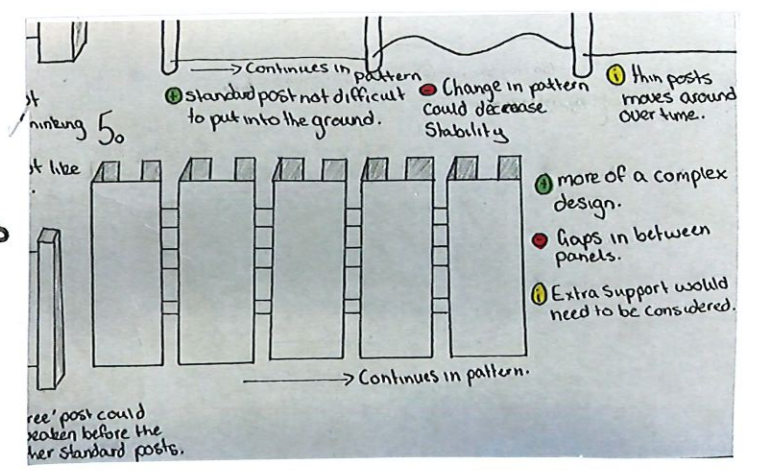
finding Needs and wants to develop Structural Designs



3. The fence posts were used in the final design.



5. The Structures Design itself was used to create the final Structural Design.



Supporting
page #2

DESIGN Proposal

The aim of the project was to create a design of a fence structure with a design cut out on the fence that relates to the Jandowae Community. 16 weeks was the time given to develop and create the final design solution. Needs and wants of the stakeholders (Jandowae Community and Darling Downs Council) I needed to consider in the process of design was that the fence needed to relate to the history and community itself and to improve safety within central park. Wants of these stakeholders included Designs for the fence such as 'Community and farming' while council also wants to create a positive experience in the town and provide Jandowae with an opportunity to help Dalby State High School students tell their story. The features in my final design that meet the needs and wants of the stakeholders are that it includes the town name and little farming cut outs within the design. I feel like this design will provide Jandowae with the positive experience that the council are wanting to give to the community. Stakeholders should consider the fence design that I have created and drawn for them as I have considered the needs and wants of the community and council. I have taken my time to make sure the design to not appear rushed or messy as such and I feel that if this particular design was implemented within the town of Jandowae, the citizens would enjoy visiting the park more often and taking their families to see and use central park with safety.