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## **Project Value for the Engineer**

I was approached in August 2015 and asked if I would be interested in Mentoring a group from Methven Primary School for their first Transpower Neighbourhood Engineer Awards Project. I thought this was a great opportunity to be involved with.

I thoroughly enjoyed my involvement with this group and their work on the project. It was a great opportunity to share a career with I enjoy and a field I am passionate about with a diverse range of students. It was also an excellent opportunity to showcase the problem solving inherent in the day to day life of an engineer and encourage broad thinking and appeal to some students who may not always be that interested in the academic side of school works.

## **Project Overview**

I joined the project team in late August 2015, the children were a Year 5 and 6 Class with ages from 10 – 12 years led by their teacher Mrs Robinson.

The project brief was to investigate ways that the access to Methven Primary School for students could be improved. This was an excellent brief as this is a very topical issue and has been popping up from time to time throughout the eight years I have lived in the Ashburton District.

For the project the children started with a fairly broad brush approach and came up with a number of alternative options to investigate and carried out a user survey for these options. From there I helped encourage them to delve into these options further in order to develop a list of pros and cons for the various initial options.

We then met and had a group discussion where we talked about the pros and cons further which lead to coming to a consensus as to the best option to move forward with which was the upgrading of McDonald Street.

The group then got really underway with this option, I assisted with explaining some of the engineering constraints they need to consider, road geometry, underground services, etc. They also brought in the local Policeman and Ashburton District Council Roading Engineer to assist them with this aspect of their investigation. They then went further and involved the local community board to seek their thoughts on the proposal they had come up with.

The final stage was carried out on a Saturday morning where the group set up the road as a mock solution and then asked a number of the parents to carry out a “dummy run” to check that the solution they had designed would work in practice.

## **Teamwork**

The project group were a pleasure to work with, there was great participation from the whole group during group discussions on the project and in their individual task groups an immense amount of information was gather collated and analysed.

Mrs Robinson had the larger group split into sub groups who were responsible for various aspects including surveys, drawing up plans, lists of pros and cons, mock solution etc and then when we got together as a whole each group presented their findings for group discussion. This was especially effective as the group was large and this ensured that all group members were involved and had an opportunity to participate and contribute to the project.

## **Constraints**

The largest constraints we faced were probably the range of solutions and the relative complexity of each scenario the group investigated. The other major constraint was time, we were relatively late getting underway in August but the team did a great job of getting to the end result within the tight timeframe we were left with.

## **Improvements I could make next time**

If this opportunity was to arise again I would love to be involved again. I would like to get the project off the ground a little earlier to enable a bit more time to be spent on the investigation stage early on so that once a final solution was arrived at more time could be spent of fine tuning this and tidying up on the details.

## **Summary comment on my involvement with the Transpower Neighbourhood Engineer Awards**

Being involved with the group from Methven Primary School was thoroughly enjoyable experience. The team did a great job and jot through an immense amount of work in a very short timeframe. I was really impressed by the level of interest shown by the students and this flowed through into the quality of the data they gathered.

The final solution the team came up with was a very different to what I initially thought they would lead to, this showed the results form excellent data collection, in depth analysis of the issues and listening to the various experts they were able to talk to. The end result is truly not what I thought it would be but due to a robust and thorough process I have to concur fully with want the group has settled on as the best solution

Moving forward the group are really keen to turn this project into a reality and I wish them well with their efforts to achieve this.

This process has been immensely satisfying for me to be able to share my passion for Engineering and help a group of young people better understand the role of engineers in their communities. I hope this may stimulate some of the group to seriously consider engineering as a viable and interesting career path.