

COLLABORATIVELY SOLVING AUCKLAND'S CITY CENTRE ACCESS

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ABSTRACT

The City Rail Link has been a hot topic in the New Zealand Transport industry over recent times. SKM were employed by Auckland Transport (AT) to carry out the Auckland City Centre Future Assess Study (CCFAS). The study was to develop a robust and achievable multimodal programme for development of transport to the city centre to enable and sustain growth in the CBD to 2041. Further objectives were to increase multimodal network reliability and reduce travel times.

The study required a collaborative approach from the project team, client representatives, central government and other key stakeholders. In order to obtain buy in along the journey, key stakeholders were engaged early and involved in the study process to ensure a sense of ownership with the study outcomes. Agreement of key issues was completed early in the study between key stakeholders to reduce rework.

The output from the study was a comprehensive report that detailed the process undertaken and conclusions reached, that clearly set out assumptions and final analytical outputs. It provided the client with a robust assessment of access options and developed the programme of transport initiatives for accessing Auckland's City Centre.

This paper focuses on the collaborative working processes that were implemented throughout the study and the lessons learnt from the process.

INTRODUCTION

The City Rail Link (CRL) has been a hot topic in the New Zealand transport industry over recent years. In July 2011, the then Minister of Transport wrote to the Mayor of Auckland noting that before undertaking a further Business Case, the development of a 'robust and achievable multimodal programme for transport into the Auckland City Centre which considers a thorough analysis of alternatives and identifies the optimal mix of modes to meet future demand' would be required that included 'consideration of the prioritisation and sequencing of projects'.

In March 2012, Auckland Transport (AT) commissioned Sinclair Knight Merz (SKM) to undertake the City Centre Future Access Study (CCFAS or Study). The Study was to address the Minister's request and develop the multimodal transport programme to enable and sustain growth in the CBD to 2041 that will increase network reliability and reduce travel times.

The optimal solution would be a combination of measures across all modes but would most-likely be organised around a "headline" public transport solution and contain components to both encourage and discourage certain behaviours. As reported in several sources (Kittleston and Associates Inc 2003, UITP 2009), public transport schemes are sensitive to components such as improved modal integration i.e. bus interchanges or Park-and-Ride which offer improvements to the public transport offering making it more attractive; but also to mechanisms such as parking controls, road pricing and reallocation of road space away from private car which reduce the relative attractiveness of private car travel.

Recent work on the CRL identified two fundamental issues:

- Key stakeholders were not convinced that the CRL represented the best value approach to transport issues in Auckland and were particularly concerned about the testing of alternative strategies; and
- The case for the CRL seemed likely to depend on differential growth forecasts with and without the CRL. The traditional incremental approach to economic appraisal, whereby the growth takes place irrespective of transport infrastructure delivery, would make the business case for transformational investment difficult.

The CCFAS addressed both these key issues, giving clear and thorough assessments of all options and showed how future employment and economic growth in Auckland would be affected by the different infrastructure scenarios.

A REVISED STUDY APPROACH

Another outcome of the 2009 study on the CRL was identified as being a lack of on-going engagement with the key stakeholders. That study began strongly with the stakeholders being involved, but as it progressed the engagement reduced which led to the study team progressing on a course that was not fully supported by the stakeholders. The eventual outcome of the study was one where no agreement was reached with strained relationships and a lengthy review process. In order to take positive steps forward, the CCFAS needed to achieve the study goals with agreement from both the client team and other stakeholders.

Our approach

In order to obtain meaningful outcomes for the CCFAS, a collaborative approach from the project team, client representatives and the other key stakeholders was required throughout the entire study. To obtain acceptance of the Study and its outputs, key stakeholders needed to be engaged early and involved in the study process rather than just presenting information to them at the completion of each milestone. This on-going involvement gave the stakeholders an ownership stake in the study. Obtaining agreement on key issues was achieved throughout the process with all key stakeholders in an open and collaborative manner before proceeding to the next phase. By not progressing without collective agreement we were able to minimise the need to revisit earlier

work later on and reduce the likelihood of study outcomes being rejected.

Figure 1 below outlines the process used for the study and highlights the major tasks that made up the CCFAS. Tasks in the white boxes involved discussion with the Project Working Group (PWG), which included representatives from all of the key stakeholders. As described above, the outcomes of these tasks were agreed before moving onto the next task with the intention of allowing the study to progress more smoothly and spend time focusing on the important issues.

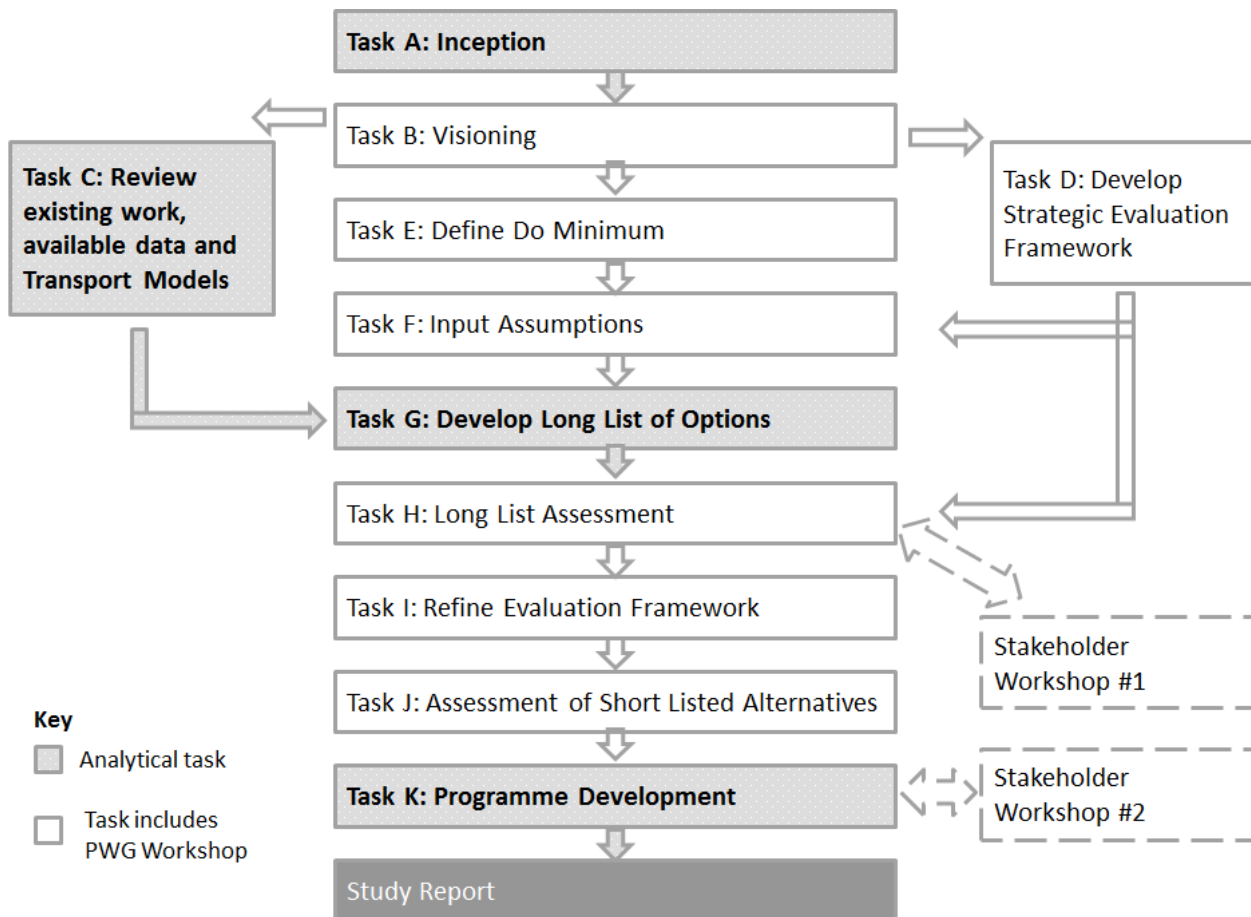


Figure 1: Study process

KEY STAKEHOLDERS

While the CCFAS was commissioned by Auckland Transport, as discussed earlier, it involved a number of key stakeholders:

- Auckland Transport
- Auckland Council
- New Zealand Transport Agency
- Ministry of Transport
- Treasury

Visioning - understanding stakeholder concerns

Learning from the earlier studies, we realised it was critical to obtain an understanding of each of the different stakeholders' issues, concerns and priorities. Given the diverse nature of the stakeholders it was considered important to understand each group individually which led to us undertake stakeholder interviews in a one-on-one manner. This allowed each stakeholder group

the ability to outline their views in a constructive way without the concern of entering into areas of conflict with other stakeholders prematurely.

We outlined this approach to all the stakeholders prior to beginning and there was consensus that this would be an excellent first step.

Following the individual stakeholder interviews, we were able to establish a list of common issues that all stakeholders considered important. It was critical that these were addressed throughout the study. In addition, we identified a broader list of issues for consideration so that all stakeholder concerns could be incorporated as the study progressed.

The common issues are summarised below:

- 1) Consensus that stakeholder involvement throughout the process and buy in along the journey was important;
- 2) A thorough assessment of the alternatives including bus based (surface and underground) options was important;
- 3) The do-minimum case needs to be agreed;
- 4) Bus based options are not just alternatives, they are also complimentary to the rail option;
- 5) CCFAS faced the challenge of bringing together a number of studies;
- 6) Quality of the study outcomes was more important than a timely outcome and appropriate time allowances for escalations through approval channels needed to be allowed for when required;
- 7) Wider Economic Benefits (WEBs) needed to be incorporated into the economic assessment;
- 8) Land use was a critical component that needed to be agreed by all parties prior to moving forward to the do minimum and options; and
- 9) Clear definition of the issues related to City Centre access was required. What was the question the study tried to answer?

The first point noted above made it very clear that the stakeholders wanted a high level of engagement and put value on the collaborative study process in order to produce quality outcomes, even if it meant this was at the expense of deadlines (point 6 above). Naturally this presented some challenges with maintaining a tight study timeline, however AT was also dedicated to maintaining the engagement, and understood the other stakeholders' concerns in terms of obtaining the best study outcomes.

COLLABORATIVE APPROACH

Part of the challenge of working with a large number of key stakeholders was maintaining this level of involvement for the duration of the study, as the best intentions often have a habit of slipping during busy periods or when difficulties and conflicts arise.

Stakeholder workshop approach

In addition to regular informal communication, we utilised a workshop based approach to engage with stakeholders at critical stages in the study where differing views were debated. The workshop debates were open, constructive and enabled joint decision making. Two different types of workshops were held:

- Regular PWG workshops as part of the tasks in the white boxes in the process chart (see **Figure 1**).
- Wider stakeholder workshops at key milestones shown in dashed boxes in the process chart (see **Figure 1**). These workshops were focussed on presenting outcomes and allowed the stakeholder groups to invite additional people from within their organisations who had an interest in, or would potentially be affected by the study outcomes.

We found that engaging with a wider group of individuals from each stakeholder organisation through workshops was important because there were multiple individuals within each organisation with differing positions. This helped gain acceptance of the process and enabled any issues arising to be closed out in a timely manner.

We supported these workshops with one-on-one discussions throughout the project to examine particular issues as they arose, which contributed to the 'no surprises' environment of the study.

Resolving difficulties

From the individual stakeholder interviews that we conducted during the visioning process, there were differences of opinions reflecting the varied objectives of different organisations. Whilst the aim was to establish a consensus decision at each stage, on occasion a decision needed to be escalated to a governance group for agreement. This group, the Transport Planning Senior Officials Group (TPSOG) consisted of senior members of each stakeholder organisation who were required to reach agreement on a decision when requested. Throughout the CCFAS, the TPSOG made two critical decisions as discussed in the following sections. Decisions made by the TPSOG were final and everyone involved understood and was accepting of the process.

Information provision

Prior to the PWG workshops, we circulated pre-reading information and then were able to utilise the workshop to reach agreement on the matters at hand. The output of the PWG workshops were working papers identifying agreements reached and any further steps required to resolve outstanding issues with a specified period for feedback from the stakeholders.

Small, detailed working groups

As the study progressed and the technical level of information to communicate with stakeholders increased, we found that making progress at workshops became more challenging. This was mainly due of the following reasons:

- Stakeholders had varied levels of technical expertise and understanding;
- Concepts were being misunderstood; and
- Additional time was spent explaining background, context and technical details.

This meant that the workshops were running over time and did not make efficient use of the participant's time. With up to 20 people in attendance at the PWG workshops, this was a problem that needed rectification.

Once this problem arose, we discussed it with the PWG and agreed the following way forward. Instead of working through the technical detail with the large group, a representative from each stakeholder group was nominated who would attend sessions as required prior to the main PWG workshop. These sessions were the time when in depth analysis was explained and technical questions were discussed and debated. Following these sessions, sometimes up to half a day in length, representatives could pass on technical details to the relevant portions of their organisation in preparation for the PWG workshops.

GAINING CONSENSUS

Agreeing a do minimum and global assumptions

A robust and defensible do minimum was important as a comparator for the different options developed, especially for the economic evaluation.

These were the first workshops that the PWG took part in, during which they worked together to obtain consensus on what should or should not be included in the study do minimum. Also the PWG discussed and reached general consensus on what assumptions should be included in the modelling that was undertaken.

Obtaining consensus was a difficult task as views on which major projects to include in the do minimum varied considerably between the stakeholders.

The standard or traditional approach of including only those projects which have committed funding was an issue of contention amongst the PWG as it was not considered by all stakeholders to be realistic.

This discussion led to the agreement that the projects listed in the Auckland Plan (many of which have no current funding) outside the City Centre would be included, and those within the City Centre would be excluded. The rationale for this approach being that as the CCFAS was concerned primarily with access to and movement within the City Centre, any proposed projects in that area should not be included as they could potentially influence the outcomes of the study. For example, the proposed Quay Street boulevard project would have impacted on the range of options that were proposed by the CCFAS. The exception to this was the inclusion of the Additional Waitemata Harbour Crossing which was referred to the TPSOG for a final decision. The TPSOG reached the decision that it should be included.

This created a scenario that represented the best possible future transport network outside the City Centre as it included a large number of uncertain projects and upgrades. This meant that travel demand across the Auckland region would not be constrained. In the City Centre however, it represented a do nothing scenario. This meant that the do minimum scenario was a split scenario of do everything/do nothing and became known as the 'reference case'.

Through a number of recent studies, all the stakeholders had a sound appreciation of the modelling assumptions used and reaching agreement on the majority of them to use for the CCFAS was a simple process. The remaining few assumptions were deferred for later discussion prior to the modelling taking place and were eventually agreed following the provision of additional information, expert advice and another PWG workshop.

The foundations of the CCFAS were beginning to take form and by working together, all stakeholders had the opportunity to provide input and take part in shaping the study.

Evaluation framework

Our consensus based approach was used to develop a transparent evaluation framework. This framework was:

- Broadly Land Transport Management Act (LTMA) themed;
- Designed to reflect the project objectives;
- Designed to clearly differentiate between options and
- Designed to capture any specific elements that stakeholders considered crucial.

Using this framework a number of objectives were established and within each objective, a number of criteria were developed. These criteria were used to evaluate the options for comparative purposes. The criteria incorporated a mixture of quantitative and qualitative assessments. Where possible, qualitative assessments were supported by numerical data to strengthen the evidence base of each assessment. A 5 point scoring mechanism was used for each criterion that allowed both positive and negative outcomes to be clearly identified when compared against the reference case.

We also incorporated an objective weighting aspect so that sensitivity testing could be carried out. This allowed for weighting each objective differently based on the outcomes sought by each stakeholder. For example, Treasury valued cost and economic performance more highly, so these were weighted accordingly. Previous experience on other projects such as the Additional Waitemata Harbour Crossing and the Puhoi to Wellsford Road of National Significance had shown that this was a good way of sensitivity testing options and confirming the robustness of option ranking, including the preferred option.

The final evaluation criteria are shown below in **Table 1**.

Table 1: CCFAS evaluation criteria

| Objective | Description |
|---------------------------------|---|
| City Centre Access | Increasing the overall level of access to the City Centre, while also taking into account wider network effects |
| Regional Movement | Allowing the wider effects of any transport option to be assessed |
| Economic Performance | Improving the overall economic performance of the Auckland City Centre and improving the potential for economic development |
| Environment and Amenity Impacts | Reducing environmental impacts, greenhouse gases, energy use, impacts on amenity |
| Implementation | Assessing the construction, costs and overall implementation of a particular transport option |
| Health and Safety | Reducing the number of crashes, injuries, exposure to harmful emissions and exposure to harm |
| Cost | The capital and operating costs associated with an option |

There was consensus that agreement needed to be reached on the evaluation framework prior to commencing option development. At the same time, all stakeholders considered it important to revisit the performance measures early on in the evaluation process to sense test the outcomes of applying the framework.

Long list options development and evaluation

Long list options were developed under the headline transport initiatives of:

- Underground rail;
- Surface bus;
- Underground bus; and
- Other options (i.e. light rail, elevated rail, Personal Rapid Transit (PRT)).

With the significant amount of work already carried out on developing CRL, all stakeholders agreed it would be counterproductive to spend a large amount of time on the underground rail option. It was further agreed that the CRL, as developed by AT at the time of the Study, would be the underground rail option to take through to the short list.

For the remaining three headline options, we prepared initial sub-options for discussion and inspiration at the long list option development workshop. The option development workshop involved all stakeholders in an interactive session to develop a comprehensive list of alternatives for City Centre access.

In total, 46 options were developed with some distinct subsets forming in each of the bus headline options. **Figure 2** below shows an example of one of the many surface bus options developed.

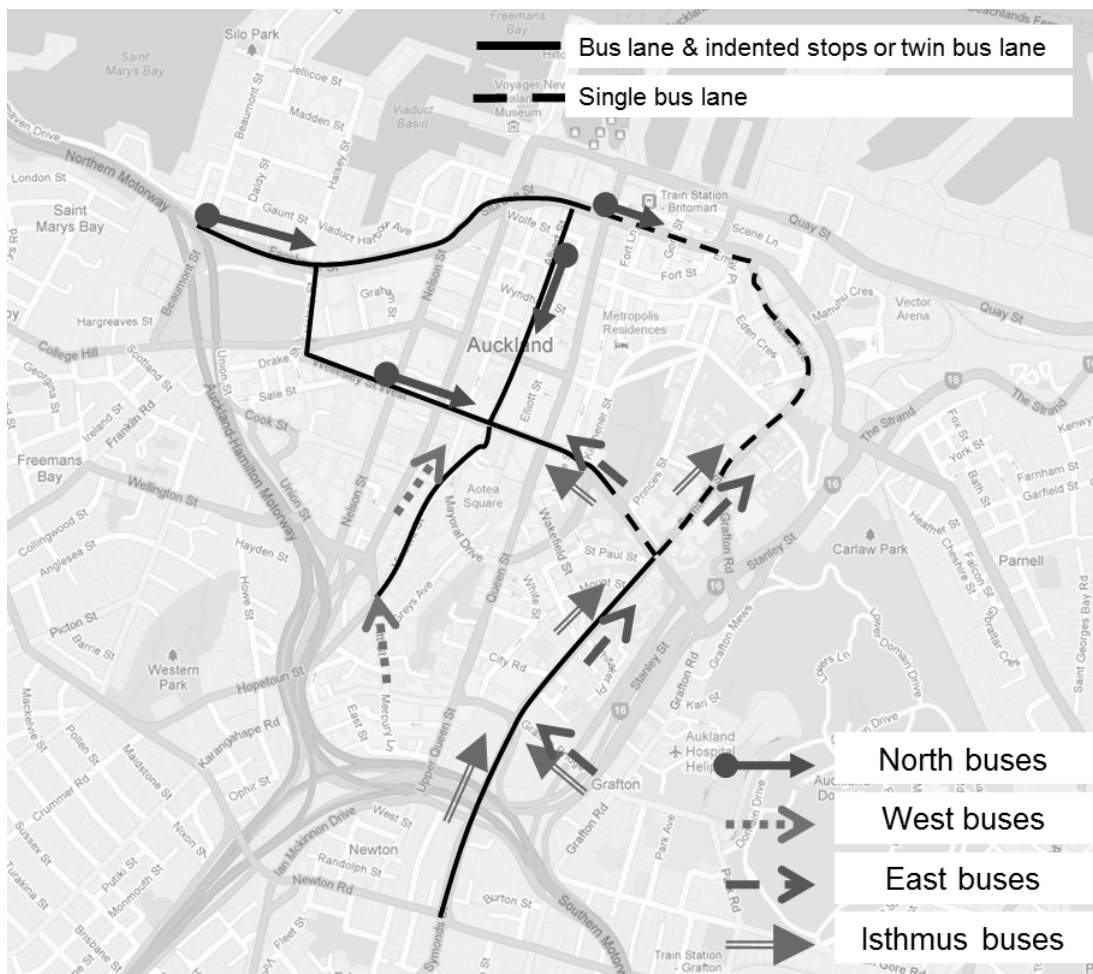


Figure 2: Example of a long list surface bus option

In the absence of any in depth analysis, the initial long list evaluation workshop was based on the qualitative assessment of the 46 options. Whilst there was consensus that this could differentiate between certain options, there was an overwhelming desire from the stakeholders for more evidence to ensure a more informed and robust evaluation was undertaken.

Deficiency analysis and the need for quantitative measures

Following the initial long list evaluation, it became apparent that due to the vast differences in the options that had been developed, a purely qualitative assessment would be somewhat ineffectual to differentiate sufficiently between them and identify the best performing option to take forward and develop further at the short list stage.

At the first long list evaluation workshop, the stakeholders agreed on two additional requirements that would be needed to complete this phase of the study. These were:

- Undertake a deficiency analysis of the public transport network based on the do minimum to help inform both the location and scale of the problem that the study is addressing;
- Prepare numerical data to support the qualitative assessment of the long list options

The deficiency analysis used the reference case scenario modelled in the Auckland Regional Transport model (ART3) to identify deficiencies in the network using public transport service patterns, vehicle capacities and predicted travel times. **Figure 3** below summarises this information by displaying the volume to capacity ratio (VCR) for the 2041 morning peak hour.

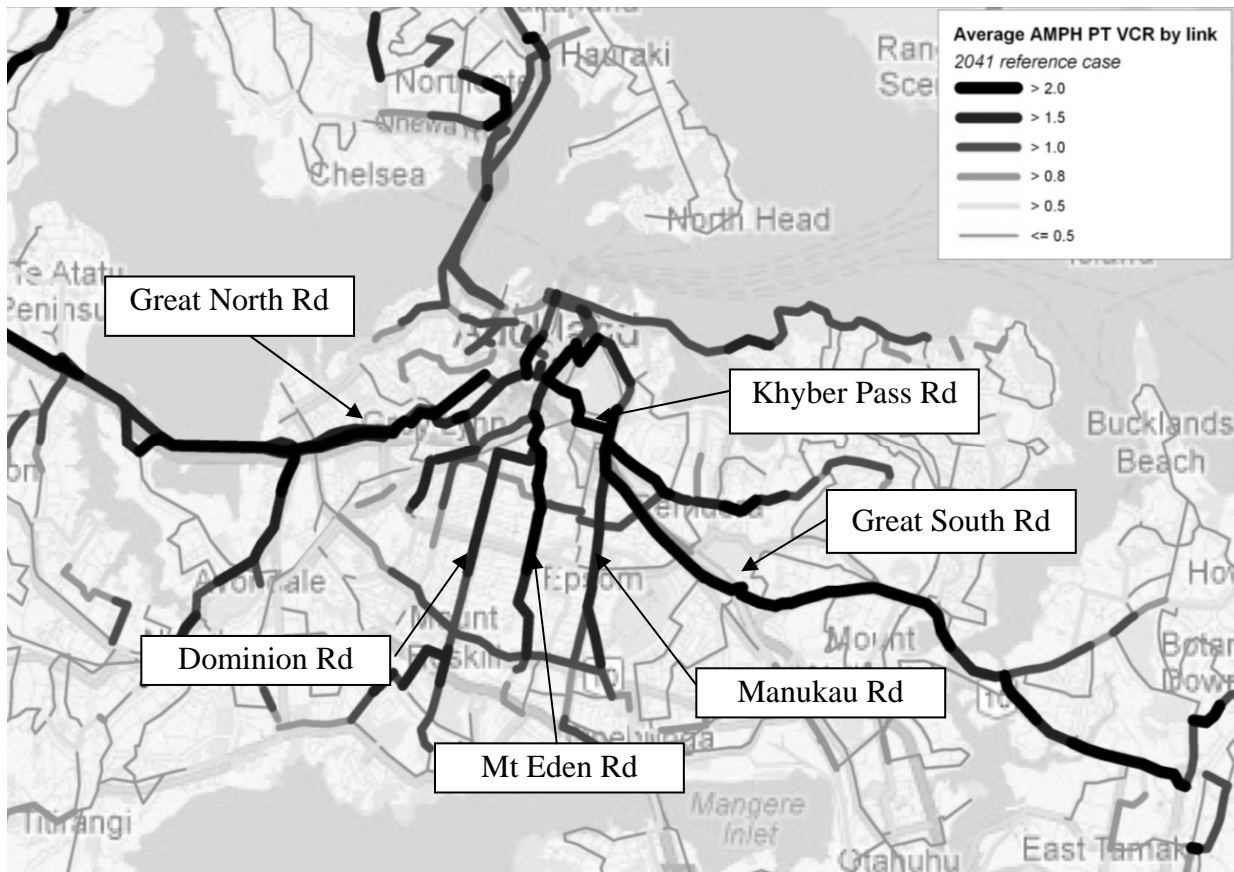


Figure 3: 2041 morning peak hour public transport VCR plot

For each of the 46 options, the potential impacts on public transport travel time and patronage were estimated using the measures extracted from the ART3 reference case. This involved making a large number of assumptions.

Assumptions for quantifying the impacts of each option related to:

- Travel speeds (with and without the option);
- Average signalised intersection delay;
- Mode split from areas where mode choice was viable based on existing data;
- Number of intersections that would be affected through removal, separation or avoidance; and
- Travel distance changes caused by implementing the option.

For the quantitative assessment, the effect on both public transport and general traffic users were incorporated. A constant level of demand, as generated by the ART3 reference case, was used for simplicity and was considered appropriate for the level of assessment that was undertaken.

Once the assessment for each option had been completed, a simplified matrix approach was adopted to determine an indication of the monetised effect of each option.

The options were then compared within a number of option subsets as agreed with the stakeholders. An example of the type of quantified analysis is shown in **Table 2**. It involved using high level cost estimates and a calculation of project travel time benefits as a proxy to inform a benefit cost ratio (BCR) for ranking purposes.

Table 2: Long list quantification

| | HLE Capital Cost (\$M) | Project Travel Time Benefits (\$M) | TT BCR Indicator | Sub Group Rank | |
|-----------------------------------|----------------------------|------------------------------------|------------------|----------------|---|
| Option 2 - Enhanced Bus Operation | Option 2a: Bus only Albert | 187 | 237 | 1.27 | 2 |
| | Option 2b: Bus only Hobson | 178 | 112 | 0.63 | 3 |
| | Option 2c: Bus only Queen | 137 | 245 | 1.79 | 1 |
| | Option 2d: 1 way bus circ | 139 | -464 | -3.33 | 6 |
| | Option 2e: 2 way bus circ | 302 | -458 | -1.52 | 5 |
| | Option 2f: Figure 8 loop | 221 | 47 | 0.21 | 4 |

This quantitative analysis at the long list stage was complex and highly technical and it was at this point that we had the first small, detailed working group session as discussed earlier.

This approach of getting a small group together to work through a complex process proved extremely useful and rewarding as the logic behind the analysis could be better discussed and interrogated. We ended up having three of these sessions to work through the evaluation of all 46 options at this stage of the study.

Following these sessions, we were then able to present a summary of the assessment to the PWG in a concise workshop and obtain agreement on the options that were to be shortlisted.

At the workshop, following the summarised assessment, the PWG agreed to take the following long list options forward to the short list evaluation:

- **Underground rail:** The CRL option developed by AT.
- **Surface bus:** Enhanced bus priority on Wellesley Street, Symonds Street (between Wellesley Street and Grafton Bridge) and Albert / Vincent Streets. This option was assessed both with and without improvements to the regional approach corridors.
- **Underground bus:** Underground bus tunnel along the Wellesley Street alignment with enhanced bus priority on Symonds Street between Wellesley Street and Grafton Bridge along with surface improvements on Albert / Vincent Streets. This option was assessed both with and without improvements to the regional approach corridors.
- No other options were short listed.






FINAL EVALUATION

With the short listed options agreed, they were refined and developed further and then modelled in the suite of modelling tools used in the CCFAS (ART3, APT and City Centre SATURN model).

They were then evaluated using a traditional economic evaluation in line with NZTA's Economic Evaluation Manual (EEM) as well as being evaluated using the previously agreed framework. In the framework evaluation, a number of the measures were revised following an initial evaluation workshop to make use of a better fitting model output.

Table 3 below summarises the key statistics from the evaluation of the short listed options.

Table 3: 2041 morning peak period (2 hours) evaluation summary

| | 2011 | Balanced Reference Case | CRL | Surface Bus | Underground Bus | Integrated (CRL + Surface Bus) |
|--|--------------------------|-------------------------|--------------|--------------|-----------------|--------------------------------|
| City Centre speeds ¹ (kph) | 16 | 5 | 8 | 5 | 6 | 5 |
| Total motorised City Centre commuters ² | 71,800 | 116,500 | 123,300 | 121,000 | 119,800 | 126,200 |
|  ³ | 39,100 (55%) | 49,400 (42%) | 46,200 (37%) | 47,200 (39%) | 47,800 (40%) | 43,300 (34%) |
|  | Included in above figure | 3,900 (3%) | 3,900 (3%) | 3,900 (3%) | 3,900 (3%) | 3,900 (3%) |
|  | 5,600 (8%) | 18,200 (16%) | 31,200 (25%) | 17,400 (14%) | 17,500 (15%) | 29,900 (24%) |
|  | 23,400 (33%) | 40,300 (35%) | 37,400 (30%) | 48,300 (40%) | 46,300 (39%) | 45,000 (36%) |
|  | 3,700 (5%) | 4,700 (4%) | 4,600 (4%) | 4,200 (3%) | 4,300 (4%) | 4,100 (3%) |
| Capital cost (\$m 2012) | - | - | 2,400 | 477 | 1,677 | 2,877 |
| Comparative Benefit Cost Ratio | - | - | 0.9 | 0.4 | 0.2 | 0.9 |

The inclusion of all the stakeholders throughout the study and agreement in the closing out phase and finalising the evaluation framework meant that there were relatively few areas of debate in the final evaluation.

The final part of the CCFAS was the development of the multimodal programme of transport for travel to the City Centre following the evaluation of the alternative options. The programme had two key aspects:

- The package of option components that should be incorporated; and
- The timing associated with bringing each component online.

Through the evaluation of the individual options, the CRL and surface bus improvements were agreed as being required together; neither of the headline options alone would be able to cater for the future growth in demand for travel around Auckland. The final recommendation of the CCFAS was to develop the rail network with CRL early as it was a strategic fit and it would be a proactive response rather than a reactive one once the ability to travel was severely degraded. In parallel with this, surface bus improvements should be made to cater for the areas that are not served by rail.

However opinion amongst the stakeholders was divided on the timing and implementation of the package of options. This was both in terms of when each component would be required from a

¹ Within City Centre cordon (excluding motorway) – morning peak hour (City Centre SATURN model). The speed for 2011 is actually from the model base year of 2010.

² Excludes those commuters who originate within the City Centre, as the figures below relate to those commuters crossing the City Centre screenline (both for observed (2011) and modelled). This may slightly underestimate car and PT commuters in the future years due to zone/screenline correspondence.

³ Private vehicle passengers. 2011 figure is from screenline counts, modelled figures are the number of vehicles multiplied by 1.3 (persons per vehicle)

demand perspective and in which order the components should be implemented. This differing opinion on timing meant that the CCFAS had successfully identified the components of a programme for transport to the Auckland City Centre, and now the stakeholders could move forward and engage in further work to reach agreement on the implementation of them.

LESSONS LEARNT

With the CCFAS complete, we were able to reflect on the positives and negatives of the approach we took to completing the study, identifying any areas that could be improved and any processes that we would be able to implement again on future projects.

Positive aspects of collaboration

There were a number of the collaborative working aspects in the CCFAS process that worked well and are considered to have had positive outcomes.

Taking time to understand the individual stakeholder concerns at the outset was a great way to begin the CCFAS. It enabled us to gain an appreciation for what the crucial issues were and also obtain an understanding of some of the history associated with each stakeholder's involvement to date. It also provided value to the stakeholders as it introduced the ownership that they held of the Study. It further assisted in establishing the working relationships that were key throughout the remainder of the Study.

Those working relationships were again drawn on in another positive aspect of the CCFAS which were the use of small technical working groups. When we were struggling to make progress at the long list evaluation stage, stepping back to a small group who were more comfortable with a high level of technical detail turned out to be an excellent innovation for the Study. We were able to work together to thoroughly interrogate the finer details to give the stakeholders confidence in the assessment. This enabled them to summarise and provide recommendations to their organisations which streamlined the following workshops.

One of the keys to the CCFAS methodology was agreeing on the process or assumptions before proceeding with the related phase of the study. There were two distinct benefits in gaining agreement at each stage:

- No complaints with the process or assumptions used further down the track as agreement was documented at the appropriate stage; and
- Removed the need for any reworking of earlier stages.

The use of these tactics along with working in an engaged manner with all the stakeholders throughout the study led to more robust outcomes overall. This was evident at the completion of the study and while there were differing views on when the transport programme would be required or should be implemented, we achieved general agreement on the programme of transport itself.

Another positive was the development and use of the TPSOG when required as an excellent way to settle disputes on any issues in the study team. When all debate was exhausted and a consensus was still not reached, having a senior group who were required to reach a final decision was a benefit. In the CCFAS, it was by exception that this process was required due to the good work undertaken at the various workshops by all participants in reaching a common view.

Challenges of collaboration

Whilst working through the CCFAS collaboratively with the wider stakeholder group had many benefits, there were three major areas that presented some challenges.

The first is that there is still no guarantee that the final recommendations will be agreed with, even with the high level of engagement throughout the study and the fact that there was agreement on the processes and assumptions used in the study. At the completion of the study, the recommendations were made based on an informed interpretation of the information gathered

throughout, but they essentially remained an opinion that others are entitled to disagree with. We found that a key area of contention that remained was the rate of growth in the early future years and while it was agreed that the assumptions associated with it were fine to use for the comparative purpose of the CCFAS, questions still remained over the likelihood of it occurring. This led to disagreement on the timing of the improvements to Auckland's public transport and when they would be warranted.

Another of the challenges was managing the scope of the Study. As we found out, certain areas of the study require significantly more focus, energy, effort and work than others. For example, the requirement to undertake a deficiency analysis to establish the location and scale of the problems was something that was not envisaged at the outset of the study; nor was working through such a high volume of technical assessment at the long list stage. There were many positives that came from this additional work, but it presented challenges associated with resourcing, prioritisation and timeframes along the way.

Linked closely with the scope challenges was the final major challenge of needing to be flexible. Without the ability to be flexible, working in such a collaborative way would not have been possible and the progress that the CCFAS managed to achieve would not have happened. Flexibility was required with regards to time and cost and this provided a number of challenges for us as the consultant completing the study and our client. AT were committed to conducting the CCFAS robustly and were accommodating of the additional requirements to carry out the work that the stakeholders felt to be crucial. This had the largest implications for the Study programme which ended up expanding from 5 months to 9 months. If timeframes had been more constrained, major changes to the Study methodology would have been required and the collaborative working environment would have been unlikely to succeed.

CONCLUSIONS

The CCFAS dealt with addressing the need to examine a range of alternatives for access to Auckland's City Centre into the future as the city continues to grow and expand, with the aim of developing a multimodal programme of transport initiatives to facilitate that growth.

Whilst undertaking the CCFAS was challenging, both through the technical work and incorporating the sometimes widely differing views of multiple stakeholders, the collaborative approach employed throughout the study had many benefits along with a few challenges.

By engaging regularly and meaningfully with all the stakeholders throughout the study, we were able to effectively and efficiently:

- Reduce risk to the study programme;
- Maintain interest and a positive working environment with no surprises;
- Gain agreement following each phase of the project prior to moving onto the next;
- Reduce the scope for late stage large scale changes to the study reporting which would mean revisiting earlier work that was closed out;
- Ensure all stakeholders had a chance to provide input and express their opinions;
- Reduce the amount of rework that may otherwise have been required;
- Resolve difficulties and points of difference;
- Focus attention at workshops to the critical areas rather than having to cover everything in detail;
- Manage changes and requests with flexibility;
- Allow stakeholders the chance to understand the technical details as the study progressed rather than being bombarded by detail at the conclusion of the study; and
- Undertake the study with confidence of stakeholder buy in.

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