

Collaborate or thread the eye of the needle

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Abstract:

The Woodend Corridor Investigations project, being conducted by MWH Global in partnership with the NZTA, is used in this paper as a case study to reflect on various impacts of collaboration and its importance on major project proposals through the different stages of their development cycle.

Network improvements in the Woodend Corridor have been considered since the days of the 1960's Christchurch Master Transportation Plan. Even at this point, construction of a final project appears some years away. Over the years, there have been changing legislative and funding contexts and on-going regional growth and developments as well as shifting views of key authorities and the community. This has resulted in a changing range of proposals, directions and levels of support and collaboration. The project is now at a point where key decisions are needed due to options progressively being eliminated – finding an optimum option now has taken on aspects of threading the eye of a needle.

The paper will highlight, through this case study, the needs of collaboration between the key players to reduce the challenges of threading needles, and outline the key benefits of cost savings, community certainty and integrated, effective planning leading to better outcomes for communities and businesses.

INTRODUCTION

Typically as projects get larger, so too does their complexity. Not only do the projects get more technically complex, so too do a number of other aspects. One other aspect is often the number of participants involved with the project's development and delivery, which leads to an exponential growth in the number of relationships and the related challenge of keeping the relationships positive and functional.

This challenge exists for strategic transport projects that usually take a long time from identification through to delivery. Strategic transport projects typically affect and deliver more obviously on a wider range of outcomes, such as urban growth management, community development, and environmental enhancement. With the longer lead times and the wider range of potential outcomes, changes within participant groups and their associated, divergent objectives again add to the complexity of the relationships associated with delivering (or obstructing) the project. The players include affected road controlling authorities, government agencies, iwi, road users, local residents and businesses, developers and key interest groups. Each participant needs to play their role positively and collaborate with others to bring the best possible overall outcomes for the project to fruition. However, no contributors are required to co-operate.

The Woodend Corridor project investigations, currently being conducted by MWH Global on behalf of the New Zealand Transport Agency (NZTA), is used in this paper as a case study to reflect on various aspects of collaboration on major project proposals. Over the past 50 years, there have been a number of transport plans for this area pursuing a long term solution, but currently there is little certainty of direction. This project has a long history of variable collaboration, and as a case study will show the consequences and areas of impact of its mixed collaboration history.

This paper will demonstrate, through this case study, the need for collaboration between the key players to maximise opportunities and minimise the challenges and constraints that may be placed on finding a final design, which can take on the appearance of threading the eye of a needle.

CONTEXT

Geography

Woodend is a small town 24km north of Christchurch (see figure 1), lying 2 kilometres north of the northern end of the existing Christchurch Northern Motorway. It has been identified as a growth area by Waimakariri District Council (WDC) and in the Greater Christchurch Urban Development Strategy (UDS) (GCUDS, 2007). Woodend has State Highway 1 (SH1) running through its centre with a two lane configuration. The Woodend main urban area runs along both sides of the highway for approximately 1.2km, bounded by residential and commercial properties, and community facilities. The Woodend urban area has a population of just over 2,600 people.

Pegasus town, to the northeast of Woodend, is under development at present and when fully developed, Pegasus could accommodate up to 7000 residents.

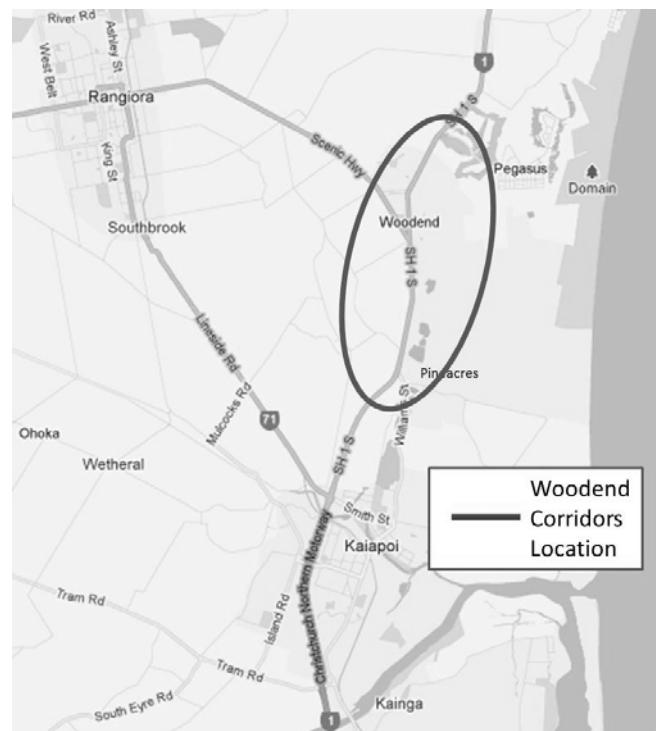


Figure 1: Location of Woodend Corridor area

Woodend's southern limits are marked by a distinct transition from urban land-uses to lifestyle blocks and small agricultural and commercial holdings. Much of the land on both sides of the road, from Woodend to Pineacres is part of Maori Reserve 873 in various types of ownership.

The residential settlement of Pineacres is located about 2 kms south of Woodend, focused on the intersection of SH1 and Williams Street, near around the Cam River.

The Woodend Corridor area extends from just north of the Pegasus town entrance south to the Pineacres intersection. Overall, the general corridor is mainly flat rural land.

The area around Woodend is of significant Maori interest, with Maori Reserve 873 to the west and south, and numerous historic sites that include Kaiapoi Pa to the north. Additionally, large areas of the Woodend township and the surrounding countryside through to Kaiapoi are within Silent File areas¹.

There are six sites on the Historic Places Trust Register (HPTR) in the general Woodend area. There are 8 Listed Land Use Register (LLUR) sites in the wider area that could influence options for the project.

The Problem

Due to its proximity to Christchurch, it is anticipated that future traffic growth from the development of Woodend, the adjacent sizeable developments of Pegasus Town and Ravenswood, and state highway traffic growth will lead to deterioration of state highway function in Woodend and adjoining areas along with a range of growing adverse effects.

The Woodend urban area is already experiencing community severance issues related to the state highway, with many of the services on the west side including the primary school, community centre and retail centre being separated from a large proportion of the residential area on the east side by SH1. SH1 is currently carrying approximately 14,300 vehicles per day through Woodend, with 9% of these being heavy vehicles. As the highway volume continues to grow, severance increases and becomes more of a strain on the community.

UDS growth predictions and related transport modelling (adjusted for post-earthquake changes) indicate that the main urban 2 lane road (SH1) through Woodend would exceed link capacity by 2026 and that for traffic operation purposes, signals would be required on the main side roads from about 2016. Similarly SH1 to the south of Woodend through to Lineside Interchange would approach capacity around the 2026.

The Key Potential Participants

Like all complex and strategic infrastructure projects, the Woodend Corridor Improvements have historically had a number of key groups who have vital interest in its delivery and operation. In this instance, these include:

¹ A silent file allows a whanau, hapu or iwi to identify the location of a wahi tapu and to keep that information safe from the public [Section 42 of the RMA]. If anyone wanted to use that particular location then the local authority would be under an obligation to contact the guardians of the silent file to make sure that the wahi tapu would not be affected by the proposed use.

Group Type	Example Organisation	Role/Interest
Government Roding Agency	National Roads Board, Transit, NZTA	Infrastructure owner and operator, principal funder
District Councils	Eyre County Council, Waimakariri District Council	Regulatory and representative
Regional Council	Christchurch Regional Planning Authority, Environment Canterbury	Regulatory and regional land transport
Iwi	Ngai Tuahuriri	Representative
Local Community	Private individuals, local businesses, residents and business groups, school, pre-school	Personal and representative interests
Emergency services	Fire, Police	Special purposes
Developers	Infinity Group, Todd Family	Land development/ associated infrastructure funding
User Representative Groups	Automobile Association, Road Transport Forum, Spokes	Advocacy for road users
Interest/Lobby Groups	Fish and Game Council, Historic Places Trust	Advocacy for interest area

PROJECT HISTORY

The Woodend Corridor improvements were initially identified and reported publically in the early 1960s, and so have a history of some 50 years to date.

1960-1990

There was a significant amount of planning work undertaken in the greater Christchurch area, including transport planning, from the late 1950s. This was led primarily by the Christchurch Regional Planning Authority (RPA), in partnership with a wide range of local Councils, other local authorities/Boards, government ministries and departments and the Institute of Architects.

In 1957, the RPA set up a committee to undertake the necessary investigations and studies to produce a Master Transportation Plan (MTP), which it completed in 1965. Most contributions and collaboration involved in producing the MTP was technocratic and came from the political and technical inputs of the RPA committee member organisations. Input from other sources was limited to particular project stages and constrained by access to information. Interestingly, this committee did not just focus on identifying, programming and promoting the major road network needs for vehicles, but also recommended employment of landscape designers in design teams as well as promoting the needs and considerations of environmental planning, and planning for public transport, pedestrian and cycle in the wider implementation of the component projects.

The Woodend Corridor improvements did not appear in the 1962 Christchurch Master Transportation Plan (CRPA 1962) contrary to popular belief, as evidenced by it stating "*The Plan contains the main proposals for the development of the roading system, for that part of the Region south of the Waimakariri River...*" (CRPA 1965, page 10), and all maps have a northern extent of the Waimakariri River. Nevertheless, a parallel document "*The Christchurch Master Transportation Plan – A Simple Brief Description*" (CRPA 1966), whilst discussing its parent document, contains a diagram of the Christchurch Regional Road Network 1985 that extends north of the River and indicates proposals for the south end of the Woodend Corridor area (see figure 2). During the mid-1960s, a designation was placed for a Woodend Bypass, enabling an ultimate network with a motorway standard bypass of Woodend (see figure 3) connecting SH1 north of the Ashley River (near Saltwater Creek) with Pineacres. This was to be constructed by 1991. Given the extensive professional input and investigation, the proposed project was very technically effective.

Later documents (CRPA 1971) further highlight the limited inputs of non-RPA groups, when they outlined administrative and legal procedures for developing the included projects and programmes, which involved key agencies but no explicit mention of other parties.

Even with little engagement and collaboration occurring beyond the RPA, there was a strong expectation of commitment and collaboration amongst its members and related organisations. The introduction to Second

Transport Study Report 210 (CRPA 1975b) includes: "The Regional Scheme must represent a committed plan and a breach of agreement by a single authority may prejudice the future of the whole community and negate the effort and investments already made. This obligation to adhere to a single plan lies not only with the Councils as road authorities, but with all who are responsible for controlling the distribution and investment in land uses, services and facilities and community welfare."

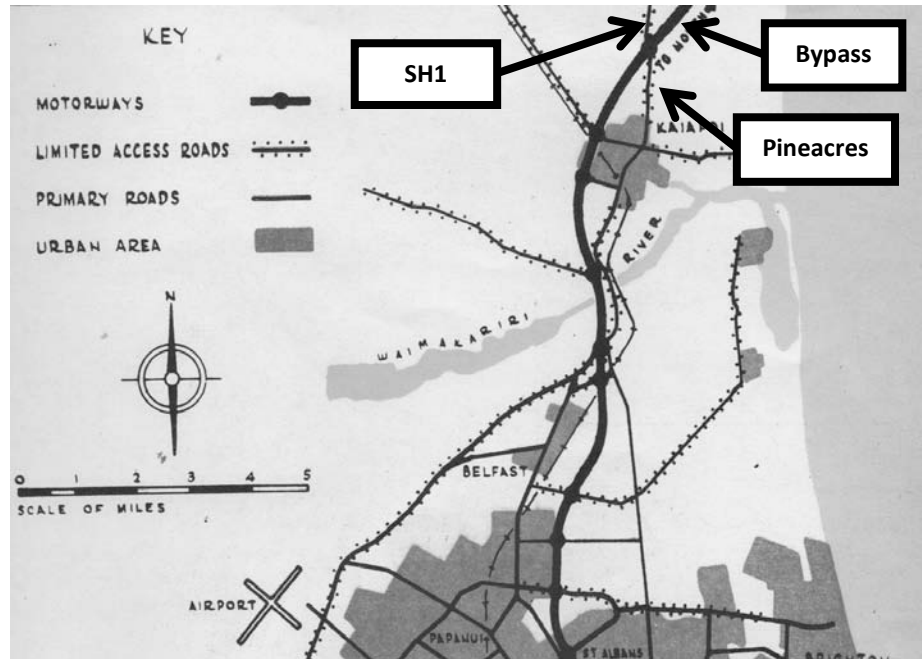
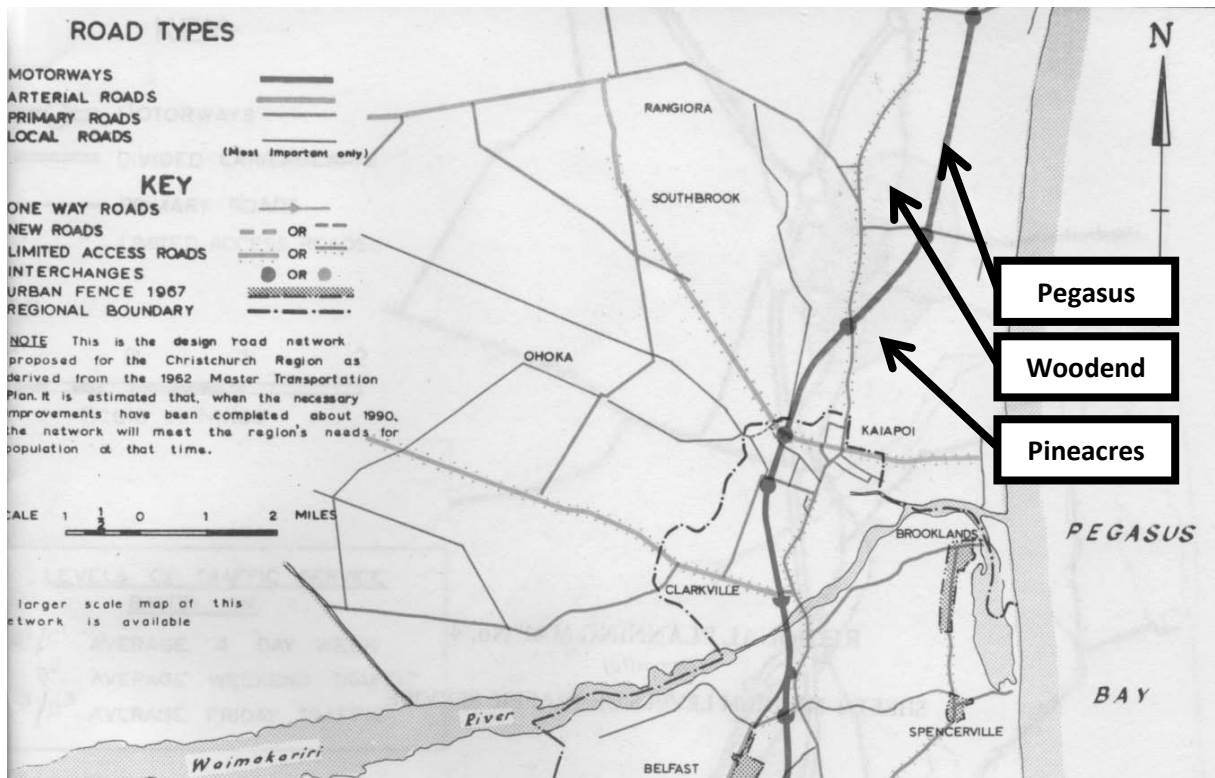


Figure 2: Christchurch Regional Road Network planned for 1985 (CRPA 1966)



However, by the mid-1970s, concerns were being raised about the cost of the proposal (see figure 4), such as “the timing of this facility will be related to the programme and costs of bridging on the Ashley River. This bridge is a long bridge and will represent about half the cost of the first stage construction of this motorway by-pass” (CRPA 1975a).

It would appear that when the CRPA's Transport study reports were released (CRPA 1975a, 1975b), there was still a strong paternalistic attitude towards the non-technical public. The study was very strongly technical in its transport and land use planning focus with modest engagement beyond the organisations involved. The report is strongly defensive of its conclusions, particularly in its section “Community Attitudes and Traffic in Towns” where it commented “There is much misunderstanding about the way towns work and it is necessary to preserve a sense of realism about the urban transport situation. Ignoring it will not solve it.”

Those people who see cars as anti-social may, by thwarting urgently needed and overdue schemes of improvement, actually inflict far worse damage on the environment than the roads they are afraid of. The critics of the car who, with sweeping generalisations about the assumed roles of public transport, cycling and other modes, may be overlooking the social value of so many car journeys which add up to a way of life.” (CRPA1975b)

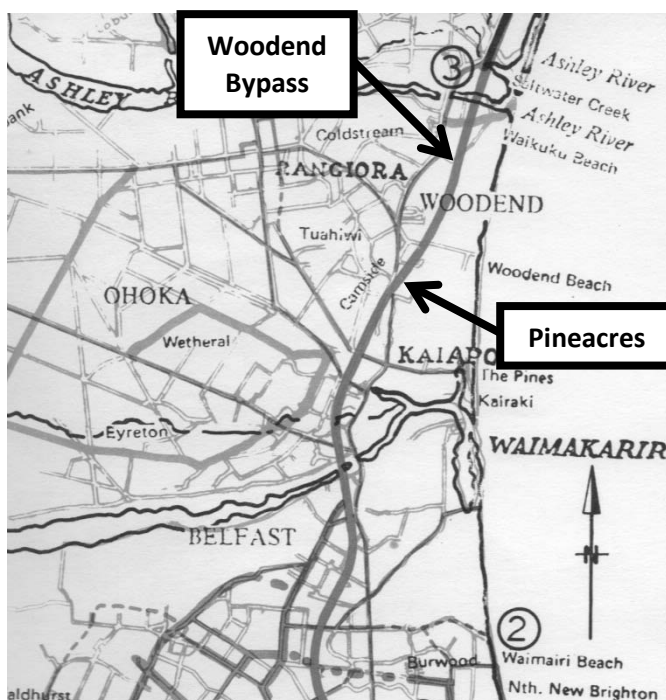


Figure 4 Road Network for Planning Protection (Canterbury Region) (CRPA 1975)

In 1986 the National Roads Board published the TR9 economic appraisal manual (NRB 1986). This manual's processes became the primary determinant of rationing national land transport capital improvement funding. Any project seeking funding would need to have a benefit cost ratio (BCR) above a pre-determined value for approval, irrespective of any views or collaboration amongst key interested parties. Due to this new funding allocation process, the Woodend Corridor project did not feature on any short or medium term works programmes through this period as it had a low BCR and key parties considered other projects to have higher priorities.

1990's

In 1991 the Resource Management Act replaced the Town and Country Planning Act 1977 (MfE 1991), and introduced a range of new requirements related to designations. In response to this new context, Transit New Zealand undertook a wide ranging review of designations for which it held responsibility. Many designations were uplifted or let lapse, including the planning protection for the Woodend bypass. This was on the basis that there were no committed short to medium term plans for significant improvements through this corridor at that time and the by-pass would not be built in the foreseeable short-medium term. Transit had little alternative given the prevailing context, irrespective of the views of any other key agencies or affected groups. No alternative future solution was put in place, leaving the community uncertain. Nevertheless, the designation for road widening of SH1 between Pineacres and the Ashley River was retained (allowing widening to approximately 30m corridor) and some assumed future improvements would focus on the remaining state highway designation along SH1.

Early – mid 2000's

Through the early 2000's statutory planning processes occurred for the development of a new town, Pegasus, to be located to the north-east of Woodend. The overall development would extend eastward from SH1 across to the dunes and lagoons on the coast, with an international golf course located in the western portion with housing intermingled and the main town toward the east. This town stood across the alignment of the previous eastern by-pass routes. Given that no designation, other planning protection nor programmed project existed for a by-pass of Woodend, no consideration was given to any potential by-pass in the planning processes decisions. Site works for Pegasus began in 2006, with the first residents moving into the new town in 2008. Several major golfing events have occurred at the golf course.

As a result of Pegasus town development decisions in the early 2000's, and WDC developing the Waimakariri District Transport Strategy (WDC 2001), the Council needed to review its position on a Woodend By-pass. However, for some years, it had no official preference or stance on a preferred network improvements strategy to deal with the growing traffic through this corridor. The issue became very difficult politically with a split Council and divided community (Press Council 2008, Northern Outlook 2009) with many options being promoted: long eastern bypass, short eastern bypass, western bypass and upgrade existing State highway 1. A series of urban planning and development studies for Woodend were subsequently initiated (e.g. UrbanismPlus 2007), and Transit was requested to determine the location of a by-pass as part of those studies. Due to difficulties developing between WDC and Transit, the latter decided to set the issue to one side as intractable and to do no more work at that point. This left the community with considerable uncertainty about how and where their town could or should grow, develop and invest.

Mid 2000's to now

In June 2006 Transit and WDC, having re-engaged on the Woodend issues, completed the Woodend Transportation Issues Position Paper (TNZ & WDC 2006b) which documented the expansion of the Woodend township and discussed the rapid land development and population growth of the area. It recognised that with development of Pegasus and likelihood of other potential developments (e.g. Ravenswood), the number of realistic bypass options was becoming limited. The paper recommended that as Transit had not formally consulted on a bypass in the recent past that public consultation be undertaken on the issues, objectives and constraints facing the Woodend community.

In response to the recommendation, a public engagement process occurred, involving a letter and feedback form to all properties within the study area, media releases, advertisements and articles included in the local community newsletter, open days and a project website. The initial feedback received (TNZ & WDC 2006a) showed that 88% of respondents expressed that the future state highway should be accommodated outside of the Woodend township and of those who gave a preference for the location of a future bypass more than twice as many preferred an eastern route over a western route.

Following these investigations, the Transit Board in 2007 eliminated the western bypass and a long eastern bypass and supported on-going investigations of a short eastern bypass and the four laning of the existing State highway 1.

The UDS was developed through the same period (being adopted in 2007) and provides the primary strategic direction and integrated planning framework for addressing future land use change, development and population growth in the greater Christchurch area to the 2041 planning horizon. It was developed in a highly consultative and collaborative process over several years involving many partners (Christchurch City Council, Waimakariri District Council, Selwyn District Council, Environment Canterbury and Transit NZ), agencies (e.g. Employers Chamber of Commerce, District Health Board), groups (including iwi) and public through public fora, media, open days, consultation and submission processes. One key focus is to seek to integrate future

land use development with transport networks.

In July 2007, the Canterbury Regional Council notified Proposed Change 1 (PC1) to the Regional Policy Statement. PC1 provided statutory direction for future growth within Greater Christchurch by setting out land use distribution in line with the UDS. The amended RPS, as a consequence of Plan Change 1, sets urban limits for Woodend township.

The Woodend Corridor project is set in the context of enabling UDS guided growth and development within Woodend. The bypass particularly supports this by removing the State highway from the centre of the township. Two of the UDS partners (the NZTA and WDC) see the bypass as being integral with the vision of the UDS that seeks to align the current and future land use patterns with those of transport infrastructure in a sustainable way – particularly as the bypass is seen as providing a clear boundary to the growth areas of Woodend township. The Key Transport Projects and Programmes section of the UDS Appendix 2 includes the Woodend Bypass with an indicative timeframe of post-2026.

During the late 2000's, a number of plan changes for subdivisions in the Woodend/Kaiapoi area were submitted. These were generally in line with the proposals in the UDS. Since the earthquakes of 2010 and 2011, a number of private landowners have hastened submission of private plan changes to enable rezoning and subdivision of their land holdings, including to the north-east and south-east of Woodend. This has been in response to seeking options for the many householders who have been displaced due to earthquake effects, and has increased housing demand in Christchurch's surrounding townships. Not all these plan changes comply with the proposed Metropolitan Urban Limits proposed for Woodend.

CURRENT PROJECT

As noted above, there is a current NZTA investigation of the Woodend Corridor underway, which had as a starting point the two corridor improvement options of a short eastern bypass and the four laning of the existing State highway 1. This project seeks to respond to predictions of rapid land use development both within and surrounding Woodend, particularly following the 2010-11 Christchurch Earthquakes. The overall objective of this latest investigation is the identification of a preferred long term solution which is considered to be the best treatment for the current and future safety, capacity and community severance/environmental issues anticipated from the continued traffic growth on the existing State Highway 1 through Woodend and subsequently determine the best means to protect and deliver this solution. Recently, from the results of the current investigation, the NZTA has resolved to support the Short Eastern (SEA) Bypass (see attachment A), and to seek a designation to protect the route until construction.

Alignments and options

During the current project, a wide range of options was identified and assessed against the project objectives. There were some 6-7 options for each corridor explored, which were reviewed and developed until one optimum option was compared from each corridor to determine the recommended corridor and option.

The final Bypass option has recognised a range of constraints (waterways, housing, historical and culturally sensitive sites, listed land use sites) and the views of the local community (which wished to have the bypass as far east as possible). The chosen alignment traverses a landfill which investigations have indicated as being benign to avoid new developments, historical properties and maintain correct geometric standards. The need to avoid or appropriately recognise the constraints and community feedback in determining alignments significantly impacted on potential alignment choices.

In line with current policy and practice, the overall solution makes provision for public transport,

cycling and walking (with input from public consultation and key interest groups). It is acknowledged that a bypass would successfully separate local traffic from the strategic inter-regional and inter-district traffic. This would make it safer and more attractive for the community to encourage public transport, walking and cycling, and provides opportunities for WDC to improve and enhance walking and cycling facilities within Woodend and enable a strong network between Woodend and Pegasus, as well as to local community facilities.

Timing

Post-earthquake traffic growth is projected to be at a modest rate and linear for the next 10 years and then slow over the following 15 years. By 2026 there is estimated to be over 20,000 vehicles per day (vpd) on SH1 between Lineside Road and Pineacres, requiring upgrading to a four lane configuration. At the same time, should the bypass be built, there would be approximately 16,000 vpd between Pineacres and Pegasus, growing to approximately 18,500 vpd by 2041.

However, the benefit cost ratio for the options, even if delayed until 2026 is positive but below 1.0 for both corridors. Notwithstanding the Benefit Cost ratio, the range of other decision criteria and issues surrounding the project has prevailed to the extent of the NZTA supporting the SEA as the appropriate long term solution.

Public Consultation and Collaboration

The current investigations began with a project area walk over that included participants from the NZTA, WDC, iwi and local developers. This walk-over introduced the study team and announced the study to key partners and garnered initial contemporary views from them. Environment Canterbury was invited to participate in this activity as well as at several other stages of the project, and at each point declined. ECan's input was largely confined to providing information on request. This highlighted a significant reduction in leadership and involvement in key regional transport infrastructure planning by the regional council over the past two decades; this appears to be largely the result of changing legislative, planning and funding environments over time.

Subsequently in August 2011 a public consultation process was run and there is on-going liaison with key stakeholders and directly affected people, which has guided option development. The feedback has been strongly in favour of the bypass option (about three to one of submitters), with almost all opposition coming from those affected property owners along the by-pass corridor route. The Woodend Community Association has actively engaged with the NZTA project team, and strongly supported the SEA throughout. The local iwi were engaged through the investigations, and were generally supportive of the bypass which, unlike upgrading the existing state highway, avoids all Maori land and matters in silent file areas. The two major developers of Pegasus and Ravenswood (both north of Woodend) have had regular contact with the project team, sharing information and data as well as programme coordination and joint construction opportunities.

Decision Making And Consequences

With the decision to pursue the Short Eastern Bypass and the likelihood that it would not be constructed for some 15 years, a key subsequent decision is whether to immediately protect a preferred corridor from build out or not place any protections and seek to acquire land for the project just prior to construction. Internal NZTA discussions considered a range of potential protection mechanisms for the preferred alignment, and concluded that a designation should be sought. Protecting a corridor for 15 years, via designation is an on-going challenge and would require support and collaboration from a number of parties to minimise risks to the project.

Demand for early property purchase following designation - Once a designation is in the District Plan, there is the potential for land owners to request early purchase of the land. There is likely to be considerable opposition to any Notice of Requirement process, mostly from some of the directly affected landowners. There is subsequently likely to be pressure from some owners for

early purchase of properties, including where the designation renders subdivision impractical.

Ravenswood developers have clearly indicated that they want early certainty so they can proceed with their development with no surprises. They want to minimise the land required by the NZTA and have indicated a desire to avoid the need for designation of their land.

Based on contact with the directly affected landowners during consultation, it is anticipated that approximately 25% of the landowners may seek early purchase of the land for a range of reasons.

Route Protection for effects mitigation - The need for route protection beyond the designation needs consideration, given the significant development pressure in the surrounding area. Even when the designation is in place, there will be no specific control to avoid incompatible development establishing within 80m of the proposed road edge line (the nominal distance for noise mitigation intervention). Without protection mechanisms for the designated land from incompatible development, unacceptable environmental outcomes or future additional operating costs could easily result.

Extending the designation beyond the reasonable works footprint is not the preferred option for route protection. Instead, appropriate zoning of land in the vicinity of proposed roads for route protection appears preferable. A change to the Waimakariri District Plan (WDP) to introduce appropriate controls, such as setbacks from the designation and acoustic treatment of new noise sensitive activities, would be highly desirable. Future collaboration between the NZTA, WDC and developers would be the best way to implement a response to this matter.

IMPACTS OF WOODEND COLLABORATION ON THE CURRENT OPPORTUNITY

The current Woodend project has been significantly affected by the variable and mixed collaboration which has occurred through its history, especially over the past decade. The following are areas of the project which have been impacted by the outcomes and consequences of its (recently poor) collaboration history.

Financial – Due to the on-going changes and unclear final solution, there have been extra costs of many additional studies, for example, the series of studies to identify the preferred solution which have occurred since 2008.

It is known from consultation that North End Sand and Shingle Supplies, who operate quarrying activities in pits on the alignment of the Bypass at the south end, have focussed their recent quarrying activities under the future line of the bypass. For every tonne of metal taken from under the Bypass alignment, the project will need to pay to backfill the hole when the project is built. This activity will only be preventable when a designation is again in place, and would have been prevented had the previous designation been still operational.

As development has occurred in and around Woodend, the cost of the land has been increasing more rapidly as it changes value from rural land to residential/urban land. Acquisition cost of the land for the bypass is now therefore increasing more rapidly than if it remained simply rural land. Similarly development has been able to occur on the bypass alignment which increases the *improved* value of the land when property acquisition is needed. A designation would have both protected the land from such significant increases in property costs, and allowed developers to recognise and plan to integrate their developments with the new bypass to the benefit of both.

With an existing road widening designation remaining along State highway 1 which would not be relinquished until an alternative improvement option was protected, the NZTA is exposed to property owners seeking to sell the severances at the front of their properties, and indeed there have been many severances taken.

Operational – The best alignment now available is broadly similar at the south end to earlier proposals, but has now had to fit through a very narrow window of sites between Woodend and Pegasus. This has meant designing to lower operating speeds (80 kph rather than 100 kph) through the curves. It has also meant that the distance between the south end of the Waikuku straight (to the north of Pegasus) and the bypass curve at Gladstone Road is at least 500m (or about 40 seconds) longer for State highway traffic. Notwithstanding this lost opportunity, the requirement for a substantial volume of trucks to continue to be slowed through the current corridor is a significant on-going cost (the bypass will save at least one minute travel time for State highway trucks, despite being a kilometre longer). These are noticeable impacts on the efficiency of freight and commercial travel through this national strategic State highway.

Safety – The introduction of reverse curves at maximum cross-falls to wind through the gap at the north end of the bypass between Gladstone Road and Pegasus Boulevard is inevitably less safe than if the bypass design had either been able to run straight north to the Waikuku straight or take more gentle curves to re-join State highway 1 further south. Nevertheless, the bypass will provide a much safer network compared to having all traffic continue to travel through the Woodend main street. The removal of 80% of traffic from the Woodend main street will also improve safety in such a way as to encourage walking and cycling within the township again, as users would no longer be discouraged by the threat of the State highway traffic. There are already a number of promotional and educational programmes with which collaboration can occur to optimise these opportunities for increased sustainable travel in the area.

Urban Form – The lack of a long term State highway solution was a significant unknown in the work of Waimakariri District Council and the Woodend community when developing Woodend Futures (a blueprint plan for the future development and expansion of Woodend) (UrbanismPlus 2007). This prevented confidence and definitive plans in some section of that report, and caused a number of conditional or uncertain elements to be left unresolved pending a State highway solution. An known bypass alignment would have at least provided a known line against which an eastern urban boundary for Woodend could have been based.

As noted above, there have over the past decade been significant urban development pressures in and around Woodend, and no protections for potential routes have been possible. As a consequence, a number of lifestyle blocks and other sub-division developments (most notably Pegasus) have occurred that now have either prevented or constrained alignment options. Additionally, there are a number of owners/occupiers of nearby properties who will experience stress and poor quality outcomes after bypass construction due to a lack of opportunity to adjust their property developments to recognise the proximity of the bypass or compromises to accesses.

Social – The absence of a long term State highway solution has created much community uncertainty, and some stress as various groups have made decisions and investments based on different assumptions of the ultimate outcome. Recently, near the end of the current investigations, the Woodend Community Association submitted a letter not only reinforcing its support for the bypass but also seeking the strongest possible protections for the route to minimise any risks to it in the future. A further message that the community provided from groups supporting both options was that they were increasingly frustrated with a lack of decision and what they saw as never-ending studies and on-going consultation– they want certainty to build their lives and businesses on with regard to this issue.

A strong message from those supporting the bypass was the opportunities to develop their town centre as a more people focussed, more pleasant environment which was safer for vulnerable modes and users. There is a sense that these opportunities have not been able to be pursued, or even interim options whilst there was no decision regarding a solution.

Economic – While the Woodend Futures plans outlined opportunities and options for developing the Woodend town centre, little real progress has occurred in this area. This is being constrained by the on-going and growing impact of significant State highway traffic, especially the volume of

trucks. Investment in this area of Woodend appears to be impeded by the uncertainty of future road network developments. Notwithstanding this, the business community was noticeable by its generally passive responses in the recent consultation processes, despite being approached on a number of times and in various ways.

The economic efficiency of the project has been adversely affected by a number of the above effects: higher land costs, higher construction costs (including backfilling pits), less optimised safety, and lost travel time and distance improvement opportunities.

BENEFITS OF COLLABORATION

In considering the history of this corridor, it is worth considering what are the potential benefits and dis-benefits areas of collaborating on major projects. This list is perhaps developed more from the "can-do-better" file than from the gleaming positive examples as evidenced by the previous section. In summary, gleaned from this project's situation, a proposed list is:

- **Integration/coordination:** can occur through integrated programming of work, joint or innovative funding, consenting support, mutually supportive elements (e.g. shared surface water infrastructure), integration of investigations and design of the whole rather than a series of stand-alone elements connected at key interfaces and potentially using different assumptions and information.
- **Optimisation:** can occur for the project itself or for initiatives that rely upon or are influenced by it, such as urban areas. Collaboration can result in better lateral thinking in arriving at more optimised, innovative solutions than if the solutions are created to minimise risks and responsibilities of an individual agency.
- **Efficiency:** can occur through savings in cost and time through early delivery on programme, less churn and innovative, integrated solutions with fewer legal, political or community obstructions which all add costs of varying types to a project.
- **Consistency:** can occur from long-term, common understanding, collective reviews and trust in other parties fulfilling their undertakings that lead to across the board support and commitment through excellent communication and relationships between parties.
- **Community certainty:** occurs when there is consistency towards a project from those delivering it, and enables the community to plan, invest and grow confidently including in ways which can ultimately support the project (or at least not obstruct it). Effective planning leads to better outcomes for the affected communities and businesses. Certainty in the community also reduces the likelihood or quantum of on-going, costly debate and conflict over the project which can be destructive to community well-being.
- **Cost of collaboration:** occurs through the requirement of those collaborating to invest time, resources and good-will in the meetings and relationship building/maintenance exercises. It can also cost from at times needing to set aside or moderate organisational or personal objectives in the name of the benefit of the whole. This up-front investment needs to be accounted for in project programmes, budgets and objectives, but does usually result in a sound return over the life of the project development and delivery.

CONCLUSIONS

In the early days (from the 1960's to 1990), there appears to have been good collaboration between the agencies responsible for developing and managing the road network in the Woodend area. There were large committees with many contributing organisations, which existed for lengthy periods and undertook substantial studies. These processes produced a fairly consistent position on the Woodend Bypass and generally the wider programme for many years. It is notable however that there appears to have been relatively little engagement more widely, and consequently much less collaboration with other affected parties.

However with the removal of the planning protection of the bypass in the 1990's, considerable uncertainty was created as no long term solution was agreed in its place amongst the key parties. This left a planning vacuum on the matter, little collaboration occurred and various decisions were made not recognising any impacts on potential long term solutions (Infinity 2006). Dissatisfaction also occurred in the community about lack of action on a number of related growing issues such as community severance (e.g. impacting on primary school access for students), town centre development and the connections or relationship between Woodend and Pegasus.

Since WDC and the NZTA have re-engaged over the corridor in the mid-2000's, considerable effort to collaborate has occurred. It is notable that the investigations began with a wide scope in terms of solutions and have made considerable successful efforts to engage with the key and affected parties. Importantly, in terms of the objectives of collaboration, the current NZTA corridor investigation has as one of its prime objectives to give the community certainty.

Even though the current collaboration and recent decisions have generally created a positive environment for the project to move forward, the fact that it is not likely to be constructed for many years raises many more challenges to maintain the collaboration which is occurring and its benefits.

From the history of the Woodend Corridor, it can be seen that collaboration on it has been a mixed bag, which when going well can have positive effects, and when not, can have negative effects on integration and co-ordination, optimisation, consistency, efficiency and community certainty.

The project is now at a point where clear, definitive support and commitment to the preferred solution is needed. This needs to be consistently pursued collaboratively by key parties (public and private) over time and recognised in their planning, processes and decision-making, due to options progressively becoming more compromised or being eliminated – delivering an optimum option in the current environment now has taken on aspects of threading the eye of a needle. Achieving this will enable the greatest opportunity to achieve remaining benefits.

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REFERENCES

- Greater Christchurch Urban Development Strategy Forum (2007). *Greater Christchurch Urban Development Strategy and Action Plan 2007*, Greater Christchurch Urban Development Strategy Forum, Christchurch
- Christchurch Regional Planning Authority (1962). *Christchurch Master Transportation Plan*, Christchurch Regional Planning Authority, Christchurch
- Christchurch Regional Planning Authority (1966). *Christchurch Master Transportation Plan – A Simple Brief Description*, Christchurch Regional Planning Authority, Christchurch
- Christchurch Regional Planning Authority (1971). *Christchurch Regional Planning Scheme Section Two – Communications 1971 Scheme Statement Code of Ordinances*, Christchurch Regional Planning Authority, Christchurch
- Canterbury Regional Planning Authority (1975a). *Second Transport Study Report 209 A Consideration of Major Elements*, Canterbury Regional Planning Authority, Christchurch
- Canterbury Regional Planning Authority (1975b). *Second Transport Study Report 210 Summary Report and Recommendations*, Canterbury Regional Planning Authority, Christchurch
- Canterbury Regional Planning Authority (1975c). *Second Transport Study Report 212 Programming*

- Principal Road Improvements*, Canterbury Regional Planning Authority, Christchurch
- Infinity Investment Group Holdings (2006), <http://www.scoop.co.nz/stories/BU0609/S00419/work-begins-on-pegasus-town.htm>, accessed 13 March 2013
- Ministry for the Environment (1991). *Resource Management Act 1991*, <http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html>, accessed 1 March 2013
- National Roads Board (1986). *TR9 economic appraisal manual*, National Roads Board, Wellington
- New Zealand Transport Agency (2008), *Woodend Transportation Study – Feasibility Estimates Report*, New Zealand Transport Agency, Christchurch
- Northern Outlook (2009), <http://www.stuff.co.nz/the-press/news/mail-outlook-ccn/northern-outlook/210496/Fears-vote-may-go-west>, accessed 7 March 2013
- Press Council (2008), http://www.presscouncil.org.nz/display_ruling.php?case_number=2033, accessed 7 March 2013
- Transit NZ & Waimakariri District Council (2006a), *Summary of Public Feedback on Woodend Transportation Issues*, Transit NZ, Christchurch
- Transit NZ & Waimakariri District Council (2006b), *Woodend Transportation Issues Position Paper*, Transit NZ, Christchurch
- Transit New Zealand (2007), *Woodend Transportation Study – Accompanying Report for Public Consultation Round Two*, Transit New Zealand, Christchurch
- Transport Study Working Group (1985). *Report 322 1985 Summary Report Discussion Document*, Canterbury United Council, Christchurch
- UrbanismPlus (2007), *Urban Design Options Assessment Report Woodend Futures*, Waimakariri District Council, Rangiora
- Waimakariri District Council (2001), *Waimakariri District Transport Strategy*, Waimakariri District Council, Rangiora

Attachment A: Proposed Short Eastern Bypass of Woodend

