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TRANSPORTATION PLANNING RENAISSANCE

by

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Synopsis:

In September 1961, just 40 years ago, the first National Road Symposium organised by NZIE (now IPENZ) was held in Wellington. Where have we been and what has happened to Integrated Transportation Planning over 40 years?

This paper is a tribute to those pathfinders and the baton carriers since. The paper describes the 1960's rise and the 1980's fall of support for integrated transportation planning. The audience is assumed to have an interest in integrated transportation planning but you may not have personally been there during the 1960 to 1980 era and also you may not have been aware of the profound impacts of the reforms of the 1980s and 1990s.

The fundamental importance of integrated transportation planning, as part of strategic and corporate planning for public authorities, is again gaining support and respect. Integrated transportation planning is necessary as part of a systematic understanding of both national and regional economies and the role of transportation networks. The present renaissance seeking a revival of integrated transportation studies and regional strategic transportation planning is timely. These initiatives will be an essential ingredient as the new breed of independent transport providers, ie contract road service providers, rail operators and public transport companies, in their individual corporate domains, become more firmly established. Integrated transportation planning, leading to soundly based and operative Regional Land Transport Strategies which are put together jointly with all the regional 'owners' involved, has never been so important as it will be in the first two decades of this millennium.

1. Historic Situation on Transportation Planning 1961 to 2001

Transport has always been a vital part of central and local government activity from the outset of European settlement in New Zealand. This relates to the conversion of bridle trails to bullock tracks to roads, to highways, to motorways. It relates to the establishment of a national rail network last century, port improvements especially in the 1860s then the 1970s and airports in the 1960/70s.

The welfare state of the 1930's to the 1980's included, amongst its social goals a transport policy for the generation of jobs, increased rural and urban accessibility and the provision of cheaper more reliable transport. For example, in 1931 over half of the 40,000 relief workers were engaged in the formation or improvement of streets and remote rural roads.

Traffic demand, highway and transportation planning moved forward in 1961 when traffic engineering was recognised as a new feature of civil engineering. By 1973 it was estimated that about 150,000 people or 14% of the labour force was, one way or another, employed in transport. Up to the mid 1980's the transport sector was largely managed by central government through regulation, subsidy and operations. Both national and local government also provided, until 1989, ports, airports, passenger transport, road networks, national airline and railway services.

The basic transport networks were established by the 1970s so it became possible, in the mid 1980's, for the "new right" government policies of market led self reliance, to reform the transport sector, separate the operational from the strategic planning aspects and undertake a sell down to private enterprise and SoEs. This included a dramatic reduction of people employed by government in transport. There was a corresponding growth of private transport operators for both goods and people movement. These new organisations were short of resources concerned with planning and environmental qualities. These changes had a dramatic effect on the role of transportation planning and it largely disappeared from view.

2.

Looking to the revival of this planning work it will be greatly assisted by the use of current information technology which will enable robust transport policies to be rapidly tested and developed. Policies that can be widely acknowledged both within and outside government as being essential, logical and practical strategies. With agreement to such strategies there will be greater leadership and wider acceptance of transport systems and transport network improvements. Such investigations are best initiated by those authorities who also have regional planning responsibilities.

2. 40 Years Since 1961 Road Symposium

Just 40 years ago this week the first National Road Symposium, which was sponsored by NZIE (ie IPENZ) and was held in Wellington 14-15 September 1961. Some quotations from those who contributed are appropriate here just to demonstrate that in some measure the discipline of integrated transportation held a high profile art that time , has suffered a decline since and is again due for a renaissance and revival.

D B (Bruce) Dallas (MOW) in introducing his paper ‘ Roading implications of the Town and Country Planning Act’ suggested

- (1) The town planner must be brought into his rightful place as an increasingly important member of the team’ and ‘the highway engineer associated with traffic planning should acquire an alert acquaintance with the role of the land use planner’*
- (2) More research is needed into the many phases of the overall relationship between highway planning and comprehensive urban planning. The time appears to have arrived when perhaps the National Roads Board should set up a research group for this purpose. Such a group could well include research officers in both economics and sociology to give basic purpose to this planning.*
- (3) There is urgent need to establish a widespread understanding of the role of limited traffic roads and limited access roads. This is essential if we are to secure the benefits available from the varying functional uses of our (existing) roads and streets’*

Miss Nancy Northcroft (Regional Planner, Christchurch)

‘I would agree wholeheartedly with Mr Dallas’ paper. The key issue I would draw your attention to in the paper is the point about the need for integration of land use with transportation, and the problem of integrating one with the other. Though we have a very fine Town and Country Planning Act, I would suggest that it falls far short , not only in preparing integrated schemes but also in putting them into operation. Regional Planning Authorities can do quite a lot, but some (key) points remain unanswered. Let us assume the RPAs plan a good highway system integrating land use and traffic. Who then approves it? Who is to pay for it? Who is to decide the priorities? Who is to maintain the research? Who is to see that the land uses in the different localities is not changed and so change the traffic pattern? I think that the emphasis on District Planning under the Act will not produce the type of highway planning that we want. We have not yet answered these key points’.

C (Charles) G Beale (MOW)

‘The problem of ribbon development on our arterial routes has been tackled in some measure, but the position regarding sporadic development, isolated shops, stalls, petrol stations, is not satisfactory. New Zealand cannot hope to build hundreds of miles of autobahns and freeways, but we can ,with foresight, make our two-lane highways serve us reasonably well for many years to come – if we act to preserve them now. At present most local bodies are unwilling to refuse any permits for buildings on State Highways. (let alone their own arterial roads) At the present rate we will hand over a very poor legacy to future generations unless the NRB (and Councils) take the initiative and declares a definite policy aimed at preserving the freedom of our highways’.

3.

F W O Jones (Director of Planning, Auckland Regional Planning Authority)

In presenting his paper 'The Highway and its Environment' commented

'We have accepted the motorcars' mobility, flexibility and convenience. Our movements are now confined only by the limitations of the highway system. It is apparent that the efficiency, safety and amenity of a

very great part of our highway system is limited not by roadway width, alignment, grade or surface, but by the conditions arising out of the abutting land use'

G (Geof) C Suggate (MOW recently seconded to the Christchurch Regional Planning authority)

In presenting his paper 'Origin and Destination Survey and Forecasting Future Traffic in Christchurch

'This paper introduces the principles of O and D surveys, its purpose and practice as the means of establishing a sound basis for predicting future traffic in complex urban areas. Twenty years for forecasting is not long enough..Studies were available to provide reasonably reliable 1980 predictions. A tentative 40 year (to 1999) land use forecast has been made so that proposals designed to deal with the 1980 situation will not be too limited in scope or incapable of development for requirements beyond 1980.'

M R (Ross) Palmer (Ministry of Transport) -"Driver Characteristics and Road Design"

'One of the most perplexing problems for road designers is the driver. The road vehicle driver insists on his right to travel when and where he wants, at relatively high speeds, with a minimum of understanding of his vehicle and the law, and in many cases very little experience'

These quotations clearly establish the 1960s as a period of increasing understanding of the issues. They could all be the basis of questions, not satisfactorily answered, here at this conference 40 years on in 2001.

3. Too Lean Too Mean 1970's to 1990's.

It is evident that by the mid 1980's a wide level of consensus on the longer term network solutions and transportation balance in most New Zealand communities had been established. In some communities e.g. Christchurch there had been 2 rounds of transportation analysis, including dramatic reductions in the extent of the network which was recommended in 1986 in contrast to that which was formally adopted as part of the regional Transportation Plan in 1964 and 1971.

Tragically the 1989 restructuring of local government, the changed relationships between regional councils and city/district councils, the withdrawal by Transit New Zealand from being an effective party supporting former regional plans, all affected the commitment to the plans proposed. The final blow to the commitment to those earlier regional transport and land use strategies was the withdrawal of the statutory status of those earlier regional plans for urban growth and transport through the introduction of the Resource Management Act in 1991. As a result much of the good work from the 1960s to 1980s was effectively lost during the reforms and institutional loss of knowledge in the 1990s. This has also coincided with the trend to again separate land use control and transportation planning in a new array of agencies, departments and business units of central, regional and city/district government.

In spite of all the 'political transport gossip' with the profusion of speeches and promises from politicians at all levels, we have neither reduced our dependency on the motor vehicle or developed, ahead of foreseeable demand, a safer or more effective road hierarchy based on a sound transport framework. In the 1960's this was a reasonable possibility. It has not, regrettably, been achieved because we have moved from long term, to intermediate to shorter term project selection as the funding shrank.

4.

The lack of roading funds during the 1970' s and 80' s ,plus the loss of political continuity, meant that a full generation of changing land use and urban development has occurred without a corresponding effort to maintain levels of traffic service, segregate heavy traffic flows from the urban environment or reduce flows noise fumes and accidents in the residential suburban areas.

Fortuitously a few elements (eg road network hierarchy, and a range of new route or widening designations) had already been included in the District Plans of the 1970' s and 1980' s. Also a few of the professional officers who had been involved in the earlier work were retained by the new organisations. This resulted in some transportation objectives and policies established in the Regional Transport Plans of the 1970' s and 1980' s being retained. The extent of political discontinuity resulting in the 1990s has affected government policy and weakened the support, and resources, for forward planning programmes in most regions throughout New Zealand.

Good long term transport strategies and network policies take a long time to prepare, to gain agreement and to implement. 20 years is a short time and even in 40 years the proposals from earlier comprehensive transportation studies will not necessarily be in place. We are talking here about 10 cycles for the terms of office of our elected politicians. Certainly a shaky base for stability in developing long term transportation strategies. This points to the necessity of having some form of contractual agreement secured under due statutory process, ie using the RMAct with a formal National Transportation Policy and also Regional Plans under the RMAct as part of the Regional Land Transport Strategy..

4. The Current Fate of Long Term Strategic Improvements.

Emphasis in the recent past has been placed on projects to meet existing deficiencies not on integrated transport strategies for the future. Much good maintenance and some enhancement of the existing network has been undertaken in the past 20 years. However, through a lack of vision or understanding, very few really significant strategic improvements have been initiated. We have regrettably lost a lot of ground on the overall situation of congestion, safety and enhanced environment in the past 20 years. In addition a major estate of land which had been resumed for future road construction by the Crown and Territorial Councils has been sold off ,(probably an irreplaceable resource).

Our councils and politicians have generally been indifferent to the consequences of ribbon development, urban spread and dispersed growth (i.e. sprawl) the inappropriate use of ordinary streets as major traffic arterials and the effects this has had on delaying transport facility development as well as the social and community effects and implications. It has just crept up on us !. We are just too adaptable !.

Transport planning in addition to its primary function of communication and accessibility is a tool for regional structuring and also a framework for the community' s ' corridors and rooms' . However the major arterial routes have to be put in place BEFORE the demand and development takes place. Only in this way will our metropolitan regions, our cities and provincial towns be built with confidence so they are more convenient, environmentally sustainable, avoid needless congestion and be relatively free from accidents in all travel modes in the future.

Transfunds problems, Transit' s problems, (and government' s problems) have not primarily been structural or institutional in nature. They flow from declining road funds, an over concentration on project based benefit cost ratios, geared to supporting short term congestion removal programmes and, above all, the loss of a clear view on long term growth strategies, land use and transport policies. Obviously there must be dollars spent putting in place the jigsaw of long term strategic elements, parallel with the other dollars spent on good housekeeping and maintenance of existing systems. Only in this way can the system be developed hand in hand with the increasing urban growth and increasing traffic demand.

5.

Key innovative and new strategic improvements generally involve a high capital outlay early in the process. While the immediate economic transport advantages may be marginal, compared with other more expedient short term congestion relieving transport investment, they are essential to a satisfactory future regional form. This includes transport structures that protect the urban environment, a satisfactory segregation of truck traffic, support to the non vehicle travel modes as well as contributing to safer networks.

From the recent experience on motorway improvements in the Wellington region, (such as the strategic Inner City Distributor and Transmission Gully), and in Christchurch (the development of an effective northern outlet through St Albans and a southern outlet around Wigram), and the Auckland situation (with the development and completion of a satisfactory urban motorway network and a public transport and light rail system), these big ticket items have all failed, in the past, to enter the projects lists. Something is dramatically wrong with the present system of priority setting for such significant works not to enter the priority lists at all.

It is obvious that now is the time to be applying the intellectual effort and planning skills, in particular at a regional level, to develop a better and creative philosophy on growth strategies, community policies, land use projections, transportation packages and strategic transportation investments as part of regional and community strategic development and RLTSs for the 2000' s.

5. Revival of Integrated Transportation Planning.

New Zealand has emerged from an era when commercial and user pay models have been the prevailing dogma. The last 15 years have been an era when short and medium term expedient decisions have been made assisted by cost benefit analysis, as codified more recently with the advent of Transfund. There has been an absence of longer term comprehensive transportation strategies and planning, and an absence of a clear understanding of regional growth. There has been an air of confusion in the vain hope that market led initiatives could avoid the necessity of public authorities developing longer term land transport and regional growth and change strategies.

Recently there has been an increasing concern expressed by professionals, elected members and informed lay people on the lack of planning integrating land use and multi-modal transport planning. This is evident at national, regional and city/district government levels. The issues related to road network planning, environmental standards, energy demand, integrated strategies related to urban growth and redevelopment and a rational understanding of the contributions of each transport mode, must again be addressed within the process of integrated transportation planning. (And this is not a hobby job that can be done on Saturday!! It requires the best skills and intellects and an ongoing application of resources).

There are, of course, two horizons of transportation planning. The most common is short term related to traffic management, including road improvement programmes. This 5 or 10 year horizon relies on detailed 'tactical models' suited to project selection including cost benefit analysis. On the other hand the 20 or 30 year horizon for regional and integrated transportation planning relies on 'strategic model' and an arterial network alone and includes processes suited to quickly testing broad strategic policy issues including a variety of future growth options and a variety of mode choices and several mixes in transport mode solutions.

The strategic and comprehensive plans prepared in the 1960' s and 1970' s for over 20 cities, have run their course. A few third generation Transportation Plans were undertaken in the late 1980s but there are now few up to date long term comprehensive transportation plans in place. Relatively small resources have, in the past 15 years, been applied to testing long term urban and strategic alternatives, or to the testing of multi-modal or comprehensive integrated land use and transportation options. It seems we have lost the plot.

6.

In the two largest regions the Auckland "growth forum" and the Wellington Regional Council have successfully maintained an ongoing presence in the Regional Land Transport Strategy area. In Auckland you have, of necessity, reinvented urban growth planning. However the solutions and any programmes arising from the strategies are circumscribed by the reluctance of Transfund, Transit, City Councils and other road authorities and transport agencies to accept and implement the recommendations arising from such regional strategies. This has also been clearly highlighted in the Wellington Regional Council's recent report called "The Wishbone Study". on the restraints acting against implementation of the WRLTS

The legislation is written so that the road controlling authorities, while not being permitted to undertake work which is contrary to the RLTS are also not required to take initiatives that put the regional strategic proposals in place. This is a fundamental drawback as we move into the corporatised road provider structure. There is at present no directive requiring adherence to planning agreements and funding commitments contained in a RLTS.

Outside Auckland and Wellington the other regional councils, apart from an obligation to consider public transport services and funding, have mostly left the transportation planning field and preparation of comprehensive and technically based Regional Land Transport Strategies. As a result they now have little direct influence. (Even less than their precursor United Councils had). Some district councils amongst them Northshore, Hamilton, Napier and Christchurch, (and a few others) continue with transportation modelling related to land use and traffic assignment. But these are used primarily for assignments related to road cost benefit and road project selection purposes, not longer term integrated forward planning..

In major metropolitan areas the intricacies of integrated regional land transport studies would take advantage of the most sophisticated techniques currently used and take full benefit of modern information technology. In the smaller and provincial regions the processes need not be so elaborate but the principles are the same..

An increasing body of technical and professional opinion believe it is now appropriate to bring this gap in planning effort, to the attention of Transfund, politicians, senior executives and the public at the national, regional and city/district levels. The fundamental importance of undertaking the planning exercise, not just as a highway project study, but as an integrated comprehensive land use, transportation and energy planning investigation to be used as a strategic tool for effective decision making is vital

Such strategies will include support for a more diverse transport system and greater use of non-vehicle travel modes, in addition to the major roading and public transport programmes. Increased funding must be linked to strategic network outcomes, including a user pay road pricing system and ongoing environmental standards. These are a pre-requisite to the outcomes from a renaissance in integrated transportation planning.

6. The Prospect,

Some recent articles in Planning Quarterly in March PQ Number 140 (Transportation) were an excellent reminder of the variety and complexity of transportation issues and the need for a systematic means of developing policy and implementing programmes. John Hutchings 'Moving Forward on Transport Policy' summarised Local Government NZ's policy and provided a good 'key hole' view into the future. The article and Local Government policy does not, however, emphasise sufficiently the fundamental importance of the planning processes and the regional land transport strategy framework in particular.

In the immediate future the government seems ready to pursue the objective of significant ongoing investment in roading and public transport. This must be seen as a 'spring board' to ensure that a new generation of regional transportation strategies are prepared and confirmed. These must be developed within a framework of integrated transportation, land use, environmental, economic and social goals.

7.

It would be disastrous to continue to rely solely on Benefit/Cost ratios as the process for determining strategic policies for levels of service, or intermodal travel choices, or selection of innovative strategic network improvements. While B/C is one of the tools for prioritising road projects, the continued adherence to its outcomes will merely result in 'more of the same' with an ongoing expedient concern for more capacity at congestion spots. It is not a good tool, on its own, for innovative strategic regional network planning.

The need to provide leadership and some stability for all modes of travel based on comprehensive and integrated transportation planning is now urgent. The renaissance in integrated transportation planning in this new context is a pre-requisite.

7. Will the RLTSs Fly.

Transportation planning spans across arbitrary administrative and local government boundaries. Transportation planning, therefore, has to be integrated at a regional level through the use of multi-disciplinary professional groups, rigorous systematic techniques, sensible consultations, widely accepted assessments and confident recommendations. For this to occur a substantial organisational support is required, preferably from a Regional Council and at the least from a properly established Joint Committee under the Local Government Act.

The statutory requirements appear to be :-

- Central government must develop and adopt the 'national transportation strategy' and provide the general framework and economic strategies within which transport in all its forms can develop
- Each Regional Council or 'cluster' of District/City Councils shall be responsible for maintaining a Regional Land Transport Strategy involving all aspects of integrated, multi mode, transportation planning, reconciled with the environmental strategies, and Regional Policy Statements including social and economic impacts.
- It is practical for adjacent regions and councils to be "clustered" and work together in developing such strategies using shared technical resources. These "clusters of regions of transportation planning excellence," naturally focus on Auckland, Hamilton, Palmerston North, Wellington, Christchurch and Dunedin where each cluster could provide lead agency oversight/expertise in this specialised area of developing Regional Land Transport Strategies.
- The work includes identifying visions, setting objectives, undertaking integrated investigations of the community, testing alternative future projections, establishing agreed networks, agreeing improvement programmes, monitoring progress. The investigations should also cover a realistic time frame of 20 or 30 years, with rolling reviews every 10 years, so providing that essential policy stability with deliberate flexibility.

In addition to central and regional government's governance role it is necessary that there are wider commitments including:

- It is essential that elected representatives, community leaders, chief executives and senior staff in local government, planning and transport agencies give their support to the principle for such important and systematic investigations and the preparation of an RLTS in all regions.
- The support of all professions including Engineers, Planners, Economists, Sociologists, Landscape Designers, Architects and those members of the legal profession having an interest in this area of Resource Management to assist with understanding and influence.

8.

Regional Land Transport Strategies should be increased in status and effect. They can become the regional focus for planning by central and local government in land use, transport, economic and strategic growth policies in any new or amending legislation.

This convergence of local government and central government transportation effort within a widely supported process, would validate a new legislative framework such as that being proposed by Local Government New Zealand and the Government.

It will require universal acceptance of the pivotal role of each region's Regional Land Transport Strategy. This should flow from the demonstrated utility and benefits of the current renaissance in Integrated Transportation Planning. Its not difficult, it is time consuming and it has been done before, but generally it got forgotten during the reform processes of the 1980s and 1990s.

.In this way we can all enable a balanced renaissance in integrated transportation planning. There are good reasons why the RLTS for each region (or group of councils) can fly. We are in deep trouble in several inter-related planning and transportation areas if the process does not take off.

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