Peter Loveday Director Traffic Planning Pty Ltd New South Wales AUSTRALIA

Bob Morris Regional Manager Western Region Department of Main Roads New South Wales AUSTRALIA

ABSTRACT :

The idea of privatisation of main roads and associated facilities is a seemingly attractive concept to highway authorities, construction cosortia and the community at large

This paper identifies the expectations of all of the three groups from the basis of knowledge of negotiations of potential schemes to date as well as overseas information that is relevant in New South Wales.

Highway authorities invariably have a backlog of new road proposals they wish to construct quickly so as to maximise potential benefit. Unfortunately the total funds available to construct new roads appears to be diminishing.

Construction and financing consortia wish to provide continuous work for its plant and labour as well as reasonable returns for investors. The user may be willing to pay directly for new facilities via tolls. The community has a long term expectation of ownership and operation There are additional opportunities for development adjacent to main roads which could provide revenue for highway authorities.

In order to make all of the above opportunities and expectations workable there will be a need to change the way that road schemes are discussed with the private sector as the opportunity for their involvement is more likely/

All of the above topics are discussed and then summarised in this paper.

INTRODUCTION

The concept of privatising new roads is attractive to many groups involved in large infrastructure projects.

In the case of NSW with a population of 5.58 million in 1986, a classified road network alone of 39046 km and an annual main road construction budget of \$A543 M (road maintenance accounts for an additional \$A180 M), it is apparent that a relatively small number of people have to fund a large network of roads. Any opportunities for defraying the costs of roads effectively must be investigated.

In this paper the concept of privatisation means 100% private ownership and operation of new road facilities although it is acknowledged that there are opportunities for varying mixes of public and private sector equity involvement in such projects.

In NSW there are already examples of operational private transport links such as the Skitube or planned transport links such as the Sydney Harbour Tunnel. The concept of having transport links such as main roads included in a privately funded and operating system is feasible and attractive under the right conditions.

This paper developes the concept of privatisation of roads further and considers suitable road types and locations for privatisation opportunities as well as the expectations of the constructing group and the public. Finally this paper discusses how privatisation can be integrated with established strategic and statutory planning procedures. The subject of tolls is not discussed in this paper except in so far as tolls impinge directly on the process of planning or constructing a private road.

PRIVATISATION OPPORTUNITIES

There are a number of privatisation opportunities in new road construction including:

- where a highway authority plans a route which is offered to a construction/financing group which then constructs and operates the project. The initial project cost is funded completely from revenue subsequently generated by tolls applied to the road;
- where a construction/financing group initiates a concept which it markets to both the highway authority and the public. The consortium constructs and operates the road as a toll road with the tolls collected as the only source of revenue;
- where a highway authority plans a route, a construction/financing group constructs the road and the highway authority operates it while paying back a predetermined figure each year. The highway authority may or may not impose a toll on the road during the pay back period. This type of privatisation input is known as "royalty financing".

Under any of these opportunities, there would be a definite financing/administration time scale related to the period required for capital payback and acceptable profit to be delivered. Upon completion of this period, ownership and/or operation of the facility could revert to the public authority.

The above examples are the most likely privatisation opportunities that are feasible for the NSW road network at present. This paper addresses the options (a) and (b) described above. Option (c) is not addressed in this paper as it is a funding alternative rather than a privatisation scheme. Obviously it is possible to replace the term 'road' or 'route' with the term 'bridge' or 'tunnel' and not change the above general comments.

Figure 1 shows the funding for main roads in NSW (at 1986/87 prices) over the period 1976/77 to 1986/87. It can be seen that funding from both Commonwealth and State sources during this period has been contained within an envelope of A800 - A1,100 million per annum. With many road schemes currently proposed in excess of A100 million, it is apparent that resources have to be carefully allocated and not all worthy schemes can proceed quickly. Privatisation schemes offer highway authorities a way of providing new schemes without having to pay construction costs from their annual budgets.

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SUITABLE TYPES OF ROADS AND ASSOCIATED FACILITIES

General

Road projects that are suitable for privatisation are generally those that are part of the overall road strategy. In NSW the Department of Main Roads published its strategy for the state in the Roads 2000 series of documents (Department of Main Roads 1987). These documents include future corridors for main roads to the year 2000 for each administrative region. Ideally the road proposal should be a 'stand alone' project and not the critical link in a chain of previous publicly invested road schemes. A 'stand alone' project is one that has obvious community benefits without requiring significant investment from the highway authority before or after the project completion.

Location

There is no one ideal location for privatisation schemes. Discussions between the authors and groups interested in privitisation schemes indicate that the consortia would prefer outer urban or rural schemes which invariably involve shorter construction times because of fewer service alterations, reduced number of land owners, and easier construction techniques.

There are locations for private investment in such areas as bridges and tunnels whereby the perceived travel cost savings are substantial. Any location where there is likely to be a substantial volume of traffic to ensure future revenue is a most important consideration in the selection of candidate projects.

The location of a privatisation scheme must generate substantial user benefits or it will not attract enough use. It should be remembered that there is usually an alternative route and the new route will never attract all of the traffic.

Туре

All types of roads can be suitable for privatisation schemes. Opportunities ranging from rural two lane roads to dual four lane freeways can be considered for privatisation schemes provided they meet the requisite investment criteria. Obviously the scheme must conform to the same or better geometric and construction standards as other roads on the network.

EXPECTATIONS OF THE ROAD PLANNING AUTHORITY

One of the major expectations of a road planning authority of road privatisation schemes would be an accelerated road construction programme. If the NSW road programme as presented in Roads 2000 is used as an example, it is proposed to spend approximately \$A400 million per annum on new roads over the thirteen year period 1987 to 1999. Based upon discussions with interested private groups a reasonable expectation for the private sector would be to boost this construction programme by 25% (ie. \$A125 million per annum). This would result in a 25% acceleration in the programme timing. It could be argued that roads are part of the community infrastructure and should be funded solely from public funds. However there is a growing tendency for government to divest itself of projects or commitments that the community can provide for itself. A strong theme of the 1987 Royal Australian Institute of Public Administration Conference (see Self P. 1987) was that the public sector should fund regulatory activities such as the provision of law and order and traffic regulations but roads and health services or facilities are areas which can be funded from the private sector under public guidance.

By the private sector providing a new road in advance of the publicly funded option there is an opportunity for benefits to be generated earlier. It is a fallacy to debate the merits of a private sector scheme versus a publicly funded option as in many cases the choice is a private sector scheme or no scheme at all.

In addition to the acceleration of an improvement of the road network with its associated early benefits, there is the opportunity for the road construction to be let at a fixed price whereby the consortium offers to provide a facility for a fixed sum within a well defined time scale and to an appropriate standard. Current attempts to obtain economy of construction through contract works often fail as the contract turns into a legal battle for 'extras'. Most road planning authorities have set geometric and construction standards for road and bridgeworks and a private sector scheme would have to adhere to the same standards as publicly funded and designed schemes.

A consortium bearing the full cost and depending on low construction costs for profit has no incentive to update the costs and timely completion of the project.

There is also a requirement that the appropriate planning and environmental procedures be adhered to during the preparation of the final privately funded scheme. In NSW the planning and environmental procedures are well defined in the case of new road projects with the public and government agencies given an opportunity to provide their comments on all aspects of the proposals. This procedure would be applicable to a private sector scheme.

Any public sector construction authority is wary of a construction agency not carrying out its obligations. In the case of a private road scheme, apart from the case of bankruptcy, it would be in the interest of the consortium to complete the project as quickly as possible in order to generate revenue as soon as possible.

EXPECTATIONS OF THE COMMUNITY

The motoring public is attracted to new large road facilities which provide obvious user benefits. A recent study identified that the Australian motoring public was willing to pay increased fuel levies if all of the revenue was directed towards new roads. (Reark Research Pty Ltd 1986)

Segments of the public appear to accept that there is a finite period to paying road tolls. In the case of a privately funded scheme the community would eventually own the facility. The tolls at the end of the private operation period could be adopted by government to generate finance for other road schemes.

The public is aware of the high cost of road schemes and see tolls as a way of redressing the shortfall in road investment that exists in some areas. The users pay the tolls so those not using that facility do not contribute directly to that road. This user-pay principle offers a means of countering the bias of spending a large part of a country wide fuel levy on one major project at one location.

There can be some public concern about private groups providing public services on the basis that there will be a short cut taken in either the planning, the operational standards or the selection criteria. In the case of roads, these areas must be publicly addressed and acted upon. Any privatisation schemes would have to comply with all planning requirements.

THE CONSORTIA VIEW

A number of groups in NSW have already identified themselves as being able to fund, design, construct and operate road schemes up to \$A100 million in value. Ideally the consortia would like to be given an opportunity to provide a whole package to the road planning and construction authority. On that basis they would be in control of the progress of the project.

From initial discussions with consortia representatives there would appear to be no potential problems for a private consortium to provide a public highway. It is not only urban schemes that offer attractive returns but also rural or inter-urban routes.

These consortia are keen to construct schemes which will generate income for 20 to 25 years. Income would be derived from traffic so the consortia must be sure that the proposed highways offers perceived benefits to users. These benefits could be travel time savings, travel distance savings and improved road geometry. These benefits would attract road users to the new routes in order to guarantee their continued revenue. The consortia might consider providing additional features such as restricted types of traffic, recreational areas or service centres along the routes. These features might be planned at the initial stages of project but may not be implemented at the time of opening the routes.

Inter-urban routes have some advantages to construction consortia. These advantages include reduced construction costs, reduced development density (and thus reduced environmental and land acquisition problems), available material and manpower resources and reasonable levels of traffic because of lack of other attractive alternative routes. The urban freeways are more complex so construction costs are higher. The route length is usually less than 15km so perceptions of user benefits in terms of toll charges versus travel time savings are not as clear cut and alternative route choices abound.

As far as the use of land is concerned, an arrangement whereby a consortium leases a parcel of land from the state or federal government is not an unusual arrangement. What would be unusual is that the parcel may be 25km long and 100m wide. The provision of long leases (say 99 years) with opportunities for rent escalation, withdrawal procedures and maintenance and right of way facilities is similar to other lease arrangements for development sites.

The consortia financing of the scheme is likely to come from a group of financial interests. With relatively low interest rates being generated by other investment opportunities, a major highway with a high degree of traffic and revenue looks attractive. Investment opportunities in Australia are taken up by domestic and overseas groups and highway projects are no different in this respect. Any overseas investments would be subject to the Foreign Investment Review Board procedures but these do not constitute a constraint to such sources of finance. An alternative might be the floating of a public company using small and large investors funds to support the development of a new road. Whatever the financing arrangement, it is apparent that the consortia will only consider schemes which show a profit within 12 to 15 years as viable. The volatility of money markets in the last decade has meant that the private sector will not invest in schemes which generate their return only after 25 to 30 years.

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ROAD PLANNING WITH PRIVATISATION IN MIND

Future road planning in NSW faces the spectre of a continuing reduced budget for new transport projects. If State and Federal Governments were willing to invest more funds raised via additional fuel taxes then the opportunities for the private sector to invest in highway infrastructure would not be as attractive as they are now. If a proposed road scheme has high economic benefits and yet cannot be constructed due to lack of public funds it is the communuity which loses the benefits if the road is not constructed.

Until the last five years there has been little interest from the private sector funds for Australian road building. The result of recent interest shown by the private sector in funding new road transport links has meant a change in attitude in road planning. The road planning authority should now be seriously looking to identify potential private sector opportunities that would allow the public sector to spread its road construction allocation on other less economically attractive schemes. As mentioned previously the proposal should be part of the overall future transport policy for the region.

The planning of new roads in future population growth areas such as Western Sydney is clearly the responsibility of government agencies. It is invariably the policies of government which are likely to increase or decrease the rate of such growth areas and the provision of transport infrastructure is often the key to the success of these areas. The provision of publicly funded new roads in areas of developing population, industry and commerce is an area that government is keen to support as it is appropriate and necessary that communities in their infrancy are offered public support. This argument reinforces the idea that public finance should support those infrastructure schemes that the private sector cannot or will not provide.

There is a need to identify the potential privatisation schemes as soon as possible in the planning process as there are potential detailed differences such as toll plazas and greater areas of land acquisition.

The road planning authority should be aware in the planning stage of the impact of tolls and their diversionary effects. As an example a by-pass can attract trips away from an existing congested route but for some travellers the perceived benefits are not worthwhile with the new road and will continue to use the existing road network.

AIR RIGHTS DEVELOPMENT

The sale or leasing of air rights is another example of a privatisation opportunity for highway authorities to consider. Air rights leasing is where a highway authority leases to a private developer the right to develop the space adjacent to, above or below a highway yet still within the right of way. The development opportunities include parking stations, storage areas, shopping complexes, commercial developments and hotels.

The NSW Department of Main Roads chose to sell the air rights over the Kings Cross Tunnel in Sydney having built the tunnel with sufficient structural strength to support development above the tunnel. The sale of the air rights at public auction raised in excess of A\$ 11 million for the Department of Main Roads. As well as selling air rights, there are examples in the USA of leasing of air rights development which generate substantial annual revenue, for the relevant highway authorities as set out overleaf:

- The Massachusetts Turnpike Authority receives a rental in excess of \$US 1 million per annum for an office, hotel, retail and associated parking development over the turnpike;
- The Nevada Department of Transportation receives approximately \$US 100,000 per annum for the lease of air rights below Interstate 80 for a casino expansion project (OECD 1984).

There are many examples on a worldwide basis of where private developers have funded improvements to allow improved access to development sites but this is not comparable to developing and operating roads which will be the sole source of the project funding. The opportunities for development of air rights depends very much on the surrounding topography, land use, community attitudes and commercial opportunities in the adjacent area.

Private Sector Involvement in the Road Planning Process

In order to encourage the participation and understanding of the private sector in financing highway proposals it is necessary to change the way that private groups are involved in road planning. It is the existing arrangement in NSW to make transportation plans available to the private sector as members of the public but if they are to be a substantial funding agency then perhaps additional information and discussion is needed with this group. There is nothing to stop highway authorities having initial consultations with development groups at the planning stage in order that development opportunities are identified at an early point in the development process. This suggestion identifies the need for a change in involvement of the private sector in road planning and construction.

Annual workshops or conferences would be an effective way of distributing information to the private sector. Distribution and discussion of transport plans would allow the private sector an opportunity to identify potential projects that may be suitable for development. The workshops and conferences would identify the interested parties who can then be included in a register of private sector development agents. Any future privatisation schemes can then be advertised publicly or by registration of interest from selected agents and subsequent detailed bid procedure be used as the means of selection.

CONCLUSIONS

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As state and federal funding for new road schemes in Australia is shrinking in real money terms there is now an opportunity for the private sector to finance new highway schemes. This opportunity assumes that the public continues to expect a high level of road network. This level of expectancy calls for greater public expenditure or private sector involvement.

Private sector involvement in highway development calls for the following guidelines:

the road network for the next 15 to 20 years to be well defined in strategic terms (eg. corridors);

schemes offering early benefits when identified to be fully and publicly assessed using the appropriate planning and environmental procedures.

all locations or types of road are suitable. The major consideration for the private sector is that there will be sufficient traffic to generate a return on investment in a 12 to 15 year period.

roads in development areas to be constructed at the expense of government agencies in order to encourage the connection of such areas to the rest of the road network.

there are opportunities for private sector involvement in the development of air rights which can be integrated with existing highways or form part of future highway proposals.

in order to provide a better understanding of road planning the private sector should be directly involved in the road planning process.

the process for the involvement of the private sector in future road proposals should be well defined. The following checklist has been formulated as a basis for future privatisation of new roads in NSW.

CHECKLIST FOR THE INVOLVEMENT OF THE PRIVATE SECTOR IN NSW ROADS

- * Establish strategic plan for existing arterial roads and the proposed improvement required.
- * Establish a clear indication of future public financial expenditure.
- * Identification of an initial set of future 'stand alone' schemes by the public highway authority.
- Discuss with construction/financing groups to identify potential highway schemes.
- Circulate design guidelines on road construction standards and planning procedures to private groups.
- Produce a shortlist of schemes suitable for construction and administration by the private sector.
- Publicly advertise for expressions of interest for individual schemes.
- * Evaluate expressions of interest and evaluate.
- * Develop a brief for the design, financing and administration of the proposed scheme.
- * Select three/four groups from expressions of interest for a detailed proposal and then evaluate and select.
- Selected group starts planning and initial design process.
- Produce and exhibit Environmental Impact Statement (E.I.S.) for public comment and review.
- * Proceed to final design if E.I.S. and review are favourable.
- Establish and publish detailed financial and administrative procedures.
- Proceed with land purchase.
- Construct project.
- Commission new facility.
- Administer new facility.

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