Report No. 35, March 1997

Tilt Train Project

LEGISLATIVE ASSEMBLY OF QUEENSLAND

PUBLIC WORKS COMMITTEE

TILT TRAIN PROJECT

Report No. 35

PUBLIC WORKS COMMITTEE

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PREFACE

The committee supports the tilt train project for two main reasons. First, it sees the project as being a good solution to improve quality on the Brisbane to Rockhampton service. Second, it views the employment created, and the potential for high technology rail exports generated by the project as worthwhile achievements.

While the committee supports the project it does have some reservations. It makes recommendations concerning market research and economic and commercial evaluations to ensure Queensland Rail undertakes the right projects for the right reasons. Operating costs for the project are also the subject of a recommendation which aims to allow government to make an assessment of the full cost of the project.

Queensland Rail's concern for the users of the service was an issue during the inquiry. The committee recommends that Queensland Rail look at upgrading stations along the route and also that it consult widely with passengers on the timetable for the new service.

Safety was also an issue, particularly safety at level crossings. As a result the committee recommends that the Travelsafe Committee consider to inquire into standards of safety at level crossings. The committee also recommends that Queensland Rail monitor safety at level crossings on the Brisbane to Rockhampton line.

The committee is happy with the way Queensland Rail has managed the project. The project is six months behind schedule but this is understandable given the nature of the new technology the project is implementing.

My thanks to my fellow committee members. The committee thanks all those who helped the committee during the inquiry, made a submission or appeared at a public hearing. On behalf of the committee I also thank the committee secretariat staff for their efforts.

Len Stephan MLA
Chairman

RECOMMENDATIONS

The committee makes the following recommendations:

RECOMMENDATION 1: *(Paragraph 22)*

The committee recommends that Queensland Rail undertake detailed market research, analysis and testing before it introduces new rail services which require major infrastructure investment.

RECOMMENDATION 2: *(Paragraph 24)*

The committee recommends:

(a) That Queensland Rail undertake a review of all railway stations along the north coast line between Brisbane and Rockhampton to assess their suitability to accommodate the new tilt train service

(b) That public consultation form part of Queensland Rail's review process

(c) That where Queensland Rail finds a station to be substandard the Minister for Transport allocate funding to upgrade the substandard stations along the north coast line between Brisbane and Rockhampton.

RECOMMENDATION 3: *(Paragraph 32)*

The committee recommends:

(a) that the Minister for Transport ensure that no major transport infrastructure project proceed without the responsible government agency carrying out economic and financial evaluations

(b) that the evaluations show whether the project will return either an economic or commercial return on capital invested in the project

(c) that, notwithstanding community service obligations, if the project will not return an economic or commercial return the responsible government agency provide justification why the project should proceed

(d) that the economic and financial evaluations and justifications, if necessary, form part of the public consultation process for major infrastructure projects.

RECOMMENDATION 4: *(Paragraph 33)*

The committee recommends:

(a) that Queensland Transport conduct an evaluation of the procurement process for the tilt train

(b) that Queensland Transport conduct an evaluation of the performance of the tilt train

(c) that the Minister for Transport table the results of these evaluations in parliament.

RECOMMENDATION 5: *(Paragraph 36)*

The committee recommends:

(a) that when submitting a major infrastructure project for cabinet approval Queensland Rail include estimates of operating costs in its bid

(b) that the operating cost estimates include community service obligation payments.

RECOMMENDATION 6: *(Paragraph 41)*

The committee recommends that Queensland Rail carry out an environmental impact assessment for major infrastructure projects and for expansions of existing infrastructure.

RECOMMENDATION 7: *(Paragraph 43)*

The committee recommends:

(a) that Queensland Rail continually monitors safety at level crossings along the north coast line from Brisbane to Rockhampton

(b) that public consultation form part of the Queensland Rail monitoring process

(c) that the Minister for Transport table in parliament an annual report of Queensland Rail's monitoring of level crossings on the Brisbane to Rockhampton line

(d) that the Minister for Transport allocate appropriate funding to upgrade those level crossings which Queensland Rail finds are unreasonably dangerous

(e) that the Parliamentary Travelsafe Committee consider to undertake an inquiry into standards of safety at level crossings.

RECOMMENDATION 8: *(Paragraph 46)*

The committee recommends that Queensland Rail undertake a wide ranging consultation process with residents in towns and cities along the north coast line between Brisbane and Rockhampton to establish the most appropriate timetable for the tilt train service.

INTRODUCTION

THE COMMITTEE

1. The *Parliamentary Committees Act 1995* (Qld) establishes the Public Works Committee. It consists of six members of the Legislative Assembly. Both the Government and the Opposition nominate three members. The chairperson must be a government member and has a casting vote if the votes are equal (s. 4A.(1)). The all-party committee adopts a non-partisan approach to its inquiries.

2. The committee's role is to scrutinise the government's capital works program. This can occur at any stage from planning to completion. The committee may determine to conduct a particular inquiry, or the Legislative Assembly may refer specific works for investigation. Amendments contained in the *Parliamentary Committees Legislation Amendment Act 1996* (Qld) allow the committee to consider major works conducted by Government Owned Corporations (GOCs) (s. 20(1)(b)).

3. The committee takes a variety of matters into consideration in the conduct of its inquiries, many of which also form the basis of its decisions to inquire into particular areas or projects. The committee endeavours to review projects from as wide a selection of departments and other constructing authorities as is practicable, in a variety of locations throughout Queensland, of differing cost and scale, and at various stages of their implementation.

4. When investigating a work, the committee may consider:

   - the stated purpose of the work and the apparent suitability of the work for the purpose
   - the necessity for, and the advisability of, the work
   - value for money achieved, or likely to be achieved, by the work
   - revenue produced by, and recurrent costs of, the work or estimates of revenue and costs for the work
   - the present and prospective public value of the work, including consideration of the impact of the work on the community, economy and environment
   - procurement methods for the work
   - the balance of public and private sector involvement in the work
   - the performance of -
     - the construction authority for the work and
     - the consultants and contractors for the work

     with particular regard to the time taken for finishing the work and the cost and quality of it and
   - the actual suitability of the work in meeting the needs and in achieving the stated purpose of the work (s. 20(2)).

5. The committee considers that when investigating public works, it is essential to listen to the views of end users as well as those held by people and organisations either affected by, or with an interest in, a particular project. One of its roles in facilitating this process is providing a public forum in which the community can express an opinion, whether it be a suggestion, praise or criticism. This enables the committee to assess the extent of public acceptance of the state's capital works program.

6. The committee believes the focus of all state government capital works projects must be upon maximising the benefits to the community. It is determined to ensure Queensland gets best value for money from the development of capital assets, and that state government agencies manage such assets to provide the best possible outcomes.

SCOPE OF INQUIRY

7. The committee's terms of reference for this inquiry were as follows:

- the purpose of the work and the suitability of the work for the purpose
- the necessity for and advisability for the work
- the value for money achieved, or likely to be achieved, by the work
- the concurrent costs or estimates of concurrent costs of the work
- the present and prospective public value of the work, including the impact of the work on the community, economy and environment
- procurement methods for the work
- the balance of public and private sector involvement in the work
- the performance of the constructing authority, consultants and contractors for the work and
- the suitability of the work in meeting the needs and in achieving the stated purpose of the work.

SUBMISSIONS, INSPECTION AND HEARINGS

8. The committee sought public submissions in relation to the Tilt Train Project by public advertisement and by direct mail to selected interest groups and individuals. A copy of the advertisement is at Appendix A. A list of submissions is at Appendix B.

9. On 9 December 1996 members of the committee inspected the construction of the tilt train at Walkers Ltd in Maryborough.

10. The committee held public hearings in Maryborough on 9 December 1996 and at Parliament House on 12 February 1997. A list of those who appeared at the hearings is at Appendix C.

RESPONSIBILITY OF MINISTERS

11. This report makes recommendations for action by the government. Section 24(4) *Parliamentary Committees Act 1995* requires the responsible minister to table a response in the parliament within 3 months after the committee tables the report.

THE PROJECT

WHAT IS A TILT TRAIN?

12. A factor which slows the speed of normal trains is passenger comfort. As a train accelerates, brakes or rounds a curve, passengers feel certain stresses. The faster a train travels, the greater the stress on the passengers. By tilting into a curve, in much the same fashion as a motorbike rider leans into a curve, the tilt train is able to negotiate curves at a much faster speed than traditional trains, resulting in a shorter journey time.

13. Tilting of the train operates by rollers, attached to the car body, supported by curved transverse beams attached to the bogies. This leaves the car body free to tilt from side to side within controlled limits. The design of the tilt train distributes weight within the car body to ensure the body always remains stable. An air pressure actuated system is added to control the tilting movements.

14. An amount of curve is already built into the track. In a curve, the outside rail of the track is positioned higher than the inside rail to assist the train through the curve. The total tilt is the sum of the tilt of the track plus the tilt of the train body. The total tilt dictates the speed a train may travel around a curve within the limits of passenger comfort and safety.

15. A computer on board the train stores information about the track and curves ahead. The computer system calculates the position of the train as the journey progresses, reads the train speed and calculates the correct amount of tilt to apply to provide optimum passenger comfort. The tilting mechanism allows up to 5 degrees of tilt either side of upright.

16. By using this system, tilt trains are capable of travelling through curves at a much higher speed than normal passenger trains. The train achieves speed increases of around 25-45 per cent. The Queensland tilt train will reach speeds of 160 km per hour on straight track and easy curves.

DETAILS OF THE PROJECT

17. Queensland Rail have designed the tilt train project to provide a competitive (with other forms of land transport) rail service between Brisbane and Rockhampton by reducing travel time by 2 hours and improving the quality of services on the train. Specifically, the project will deliver:

- 2x6 car 25kV electric tilt trains capable of travelling at 160 km per hour — each train will have one first class carriage (30 seats) and 5 economy class carriages (280 seats) — the trains include communications services such as videos, radios, telephones and faxes — two galleys will provide a catering service
- track upgrading work reducing sharp curves and installation of six high speed turnouts
- construction of walkways on selected bridges to provide additional safety
- provision of support facilities at Rockhampton station

- alterations to power signalling systems, upgrading protection at certain level crossings, provision of dynamic speed indicators and introduction of an automated train protection system (submission 3: 1).

18. A real benefit of the tilt train project is that it will provide a 2 hour reduction of travel time between Brisbane and Rockhampton without the need for a major track upgrade. Queensland Rail suggest the tilt train *'…is a proven technology that maximises speeds and minimises travel times over existing infrastructure, thereby avoiding the cost of laying new track'* (transcript: 14). This significantly reduces the cost of providing better travel times. Aside from the transport aspects of the train there are two other benefits from the project — employment and potential export of tilt train technology. In correspondence to the committee Queensland Rail estimate that the project will create approximately 1000 direct and indirect jobs. There is also the possibility of Walkers Ltd being able to export tilt trains to the South East Asian market, particularly as Walkers are already exporting trains to Malaysia.

TERMS OF REFERENCE

1. THE PURPOSE OF THE WORK AND THE SUITABILITY OF THE WORK FOR THE PURPOSE; AND

9. THE SUITABILITY OF THE WORK IN MEETING THE NEEDS AND IN ACHIEVING THE STATED PURPOSE OF THE WORK

19. Queensland Rail state (submission 3: 4):

> *"The purpose of introducing tilt trains into Queensland Rail's Traveltrain fleet is to provide a competitive, high speed train service attractive to commuters and tourists. The service is aimed at promoting a high market profile for Queensland Rail and the state tourism industry."*

20. The purpose of the tilt train project is an admirable one. The committee believes that improving the state's long distance train travel services to reduce car travel, reduce greenhouse gas emissions and increase tourism within the state are all worthwhile objectives. That the project provides employment in regional Queensland and enables a company based in Queensland to compete for train construction contracts in the growing Asian market are added benefits.

21. In regard to Queensland Rail's stated objective of making the service attractive to commuters and tourists, the committee would like to have seen more up to date market research to support these objectives. Queensland Rail suggest that a July 1996 AGB McNair market survey found, that 55 per cent of respondents on the Spirit of Capricorn service indicated that faster travel times should be a priority and would lead to increased patronage (submission 3: 5). Queensland Rail also suggest research indicates that the attractiveness of rail is time dependant for short journeys (submission 3: 5). The research does not indicate how many passengers a shorter travel time would actually convince to travel by rail. It does show an incremental increase in intrastate passengers which seems to be based on population growth (Travers Morgan; 1992: 13). Both the international tourism and interstate figures show moderate yearly growth over 10 years (Travers Morgan; 1992: 14, 15). The committee does not know how accurate these predictions have been since the consultant made them in 1992.

22. The committee does believe, however, that as the tilt train service will provide travel times shorter than road transport and will provide many modern communications and service facilities, there is a good chance the service will compete with coach and car traffic. The committee acknowledges that the original 'Evaluation of NCL and Gold Coast Passenger Rolling Stock Requirements', on which Queensland Rail justified the project, completed in 1992, contains market research data. Nonetheless, the lack of detailed, up to date, concrete market research, analysis and testing by Queensland Rail concerns the committee.

Recommendation 1:

The committee recommends that Queensland Rail undertake detailed market research, analysis and testing before it introduces new rail services which require major infrastructure investment.

Station upgrade

23. It is evident that Queensland Rail has no plans to upgrade train stations in line with the upgraded train service. Given that the purpose of the work is to provide a superior train service, it seems odd that Queensland Rail would invest $100 million in a high performance train and not look at upgrading substandard stations along the line. In evidence to the inquiry the state members for Maryborough and Bundaberg suggested to the committee that the stations in Maryborough and Bundaberg need upgrading (transcript: 17, 20). The committee inspected the Maryborough station and was surprised to find that the station did not have a weather awning, appropriate waiting rooms or a public telephone. These items are basic requirements in a train station.

24. Queensland Rail told the committee that both suburban and long distance station upgrade programs were cut back because of a lack of government funding (transcript: 27). Queensland Rail offered the committee several alternative means by which it could upgrade the stations — all of which required the government to give Queensland Rail more money. The committee believes that Queensland Rail should have included station upgrades in the initial cost of the project. It is interesting to note that Queensland Rail is to invest large amounts of government money in a luxury train to run between Cairns and Brisbane. The committee hopes that passengers on the luxury train have no cause to use the substandard Maryborough or Bundaberg stations.

Recommendation 2:

The committee recommends:

(a) That Queensland Rail undertake a review of all railway stations along the north coast line between Brisbane and Rockhampton to assess their suitability to accommodate the new tilt train service

(b) That public consultation form part of Queensland Rail's review process

(c) That where Queensland Rail finds a station to be substandard the Minister for Transport allocate funding to upgrade the substandard stations along the north coast line between Brisbane and Rockhampton.

2. THE NECESSITY FOR AND ADVISABILITY FOR THE WORK

25. Queensland Rail describes the necessity for the work as (submission 3: 7):

> *"…three modes of transport - air, road and rail - compete in the transport market. To remain competitive and be a viable transport option, Queensland Rail must invest in and take advantage of the latest technology. Without this investment, rollingstock and rail operations will become obsolete, resulting in dwindling patronage and an uneconomic service.*
>
> *The tilt train technology is the most cost effective technology capable of achieving reduced travel times along the Brisbane - Rockhampton corridor. The technology compliments the major capital investment already undertaken by Queensland Rail in upgrading the mainline track between Brisbane and Cairns."*

26. Other factors related to the necessity for the work are the potential for the tilt train service to reduce traffic volumes on the road as people switch from their cars to the train, and the potential for the project to assist the government to achieve its greenhouse gas emission targets. Assuming that the tilt train does attract road traffic it is not unreasonable to assume that it may go a small way in assisting to achieve these ends.

27. One submission argues that the project is unnecessary, suggesting that the majority of people travelling on the train, pensioners and railways employees, do not need to arrive 2 hours earlier. It also suggests that the existing service is not fully used so there is no need to introduce a tilt train and that there are more worthwhile projects than the tilt train (submission 1). The committee acknowledges these views, but believes the project is necessary to enable Queensland Rail to compete effectively in the land transport travel market between Brisbane and Rockhampton.

3. THE VALUE FOR MONEY ACHIEVED OR TO LIKELY TO BE ACHIEVED BY THE WORK

28. Without having a reasonable idea of the effect the tilt train will have on improving the efficiency of rail transport, the transfer from road usage to rail and the possible reduction in greenhouse gas emissions it is difficult for the committee, at this stage, to make an assessment of value for money.

29. Queensland Rail suggest that the creation of new employment offers good value for money (submission 3: 8). Not only has the project created jobs, but they are jobs in a new technology area. The project has positioned Walkers to provide tilt train technology to South East Asia. The committee agrees with this.

30. Rail rollingstock generally has a longer life expectancy than other forms of transport and so offers good value for money (submission 3: 8). Queensland Rail anticipates the tilt trains will be in operation for 30-35 years. The long life expectancy of the train mitigates the high capital cost of the project.

31. While Queensland Rail points to employment, innovative technology industry and the nature of rail rollingstock as indicators of value for money, it does not address the value for money of the train service itself. Long distance train travel in Queensland already receives considerable government subsidy (Queensland Rail Annual Report; 1995/96: 56). The committee asks — to what extent will the tilt train generate a reasonable return for the government's investment? Will a 2 hour reduction in travel time attract the necessary extra passengers to make the initial investment worthwhile? Evidence provided by Queensland Rail leaves some doubt in the committee's mind about the answers to these questions.

32. The committee notes that when justifying the project Queensland Rail *'were not required to return an economic and commercial return on the capital'* (transcript: 4). This is unacceptable. The cost of capital is a real cost to government and agencies should include the cost of capital in their economic evaluation of projects. The committee acknowledges that there are other value for money issues, but to ensure that money is spent on the best value for money projects, it believes government policy should require infrastructure projects to produce a commercial return at best and an economic return at the worst.

Recommendation 3:

The committee recommends:

(a) that the Minister for Transport ensure that no major transport infrastructure project proceed without the responsible government agency carrying out economic and financial evaluations

(b) that the evaluations show whether the project will return either an economic or commercial return on capital invested in the project

(c) that, notwithstanding community service obligations, if the project will not return an economic or commercial return the responsible government agency provide justification why the project should proceed

(d) that the economic and financial evaluations and justifications, if necessary, form part of the public consultation process for major infrastructure projects.

33. In its submission to the inquiry Queensland Rail did not explain how it intended to evaluate the performance of the tilt train. The committee believes it is essential, to properly assess value for money, that Queensland Transport carry out a formal evaluation of the procurement process for the tilt train project and for operation of the tilt train. The evaluation should include Queensland Transport setting down measurable performance indicators and a transparent system of assessing performance. Queensland Transport should publish the results of its evaluation.

Recommendation 4:

The committee recommends:

(a) that Queensland Transport conduct an evaluation of the procurement process for the tilt train

(b) that Queensland Transport conduct an evaluation of the performance of the tilt train

(c) that the Minister for Transport table the results of these evaluations in parliament.

4. THE COST AND CONCURRENT COSTS OR ESTIMATES OF CONCURRENT COSTS FOR THE WORK

The project budget

34. The budget for the tilt train project is $106 million. Details of the budget are:

Rollingstock	$72.2 million
Signalling upgrading and level crossing protection	$27.9 million
Track upgrading, curve easings	$2 million
Walkways on bridges	$1.2 million
Rockhampton terminal	$0.2 million
Contingencies, project management	$2.5 million
Total	**$106 million.**

35. Spare parts, training and provision of train operating manuals are included in the rollingstock contract (submission 3: 9). Also, the project will benefit from the $589 million mainline upgrade project and the Bundaberg to Gladstone prestressed concrete re-sleepering project. These projects have improved track alignment and quality.

36. Queensland Rail suggest operating costs will be similar to the current inter city train service (transcript: 1). The committee has no reason to believe this is not the case, however, it believes Queensland Rail should have been able to provide concrete evidence of a comparison of operating costs between the current service and the tilt train service. Operating costs are part of the total cost of the project. The committee believes including the estimated operating costs in the initial bid would assist the cabinet in making its decision whether to proceed with the project. It would enable cabinet to gain an idea of how much the project will cost year after year. The operating cost estimate should clearly identify any community service payments the project attracts.

Recommendation 5:

The committee recommends:

(a) that when submitting a major infrastructure project for cabinet approval Queensland Rail include estimates of operating costs in its bid

(b) that the operating cost estimates include community service obligation payments.

5. THE PRESENT AND PROSPECTIVE PUBLIC VALUE FOR THE WORK, INCLUDING THE IMPACT OF THE WORK ON THE COMMUNITY, ECONOMY AND ENVIRONMENT

37. According to Queensland Rail the impact of the tilt train on the community, economy and environment can be summarised by the following (submission 3: 10):

- reduction in road damage because of the shift from road to rail
- reduction in the social cost of accidents caused by buses and cars
- employment generation, both direct and indirect, from manufacturing and engineering works and the procurement of the components
- reduction in petroleum based fuel consumption because of the modal shift from road to rail
- reduction in greenhouse gas emissions because less fuel is being consumed for the same passenger task
- catalytic effect on growth of industry and tourism by providing a fast, efficient transport service.

38. The committee does not believe the project only has positive impacts. There are three issues which the committee considers Queensland Rail should address — possible environmental concerns, level crossings and the timetable for the service.

Environmental concerns

39. In evidence to the committee the Queensland Conservation Council pointed out that Queensland Rail has not carried out an environmental impact assessment for the project (submission 11). Neither has it developed an environmental management plan. In evidence to the committee Queensland Rail told the committee that it has an obligation under the *State Development and Public Works Organisations Act* to consider the need for an environmental impact assessment (transcript: 30). However, Queensland Rail believed that as an increase in train speed from 120 km per hour to 160 km per hour is only a marginal increase, it need not carry out an environmental impact assessment (transcript: 30). The committee does not agree. It is interesting that Queensland Rail point to a reduction in travel time due to an increase in speed as a highlight of the project. Yet, when considering the need for an environmental impact assessment Queensland Rail describe a 30 per cent increase in speed as only marginal.

40. The Queensland Conservation Council highlights two environmental issues — coal dust and noise. It points to data put out by the International Energy Agency which shows that *'…the speed of the particular vehicle does in fact cause more and larger particles of coal dust to be thrown up into the atmosphere and distributed widely.'*

(transcript: 35). Queensland Rail have offered no evidence to show that increased speed will not cause the tilt train to distribute more coal dust into the atmosphere.

41. In regard to noise Queensland Rail state they have designed the train to reduce noise (transcript: 30). On the other hand the Queensland Conservation Council believes the increase in speed of the tilt train will cause significant noise pollution (transcript: 36). The committee shares the Queensland Conservation Council's concerns considering the number of small towns, schools and government buildings along the track. The uncertainty about environmental issues would not be such an issue if Queensland Rail had carried out some form of environmental impact assessment. However, the committee acknowledges that the cost of conducting an environmental impact assessment would have increased the cost of the project.

Recommendation 6:

The committee recommends that Queensland Rail carry out an environmental impact assessment for major infrastructure projects and for expansions of existing infrastructure.

Level crossings

42. The committee asked Queensland Rail detailed questions over the issue of level crossings. As a result of this questioning Queensland Rail supplied the committee with additional information on its policy toward level crossings. There are 157 level crossings on the line from Brisbane to Rockhampton. Queensland Rail has, or plans to, upgrade 31 of these level crossings to accommodate the requirements of the tilt train. Queensland Rail has upgraded crossings where there has been an increase in train speed at the crossing, assuming a 45 per cent overspeed. If there is not an increase in train speed Queensland Rail will not upgrade the crossing (transcript: 24).

43. Safety at level crossings concerns the committee. The tilt train will travel at considerably faster speed than the train it is replacing. It is as well that Queensland Rail are to clear undergrowth to improve visibility at level crossings and have a public campaign to educate local residents about the new train and the danger it poses at level crossings (transcript: 10).

Recommendation 7:

The committee recommends:

(a) that Queensland Rail continually monitors safety at level crossings along the north coast line from Brisbane to Rockhampton

(b) that public consultation form part of the Queensland Rail monitoring process

(c) that the Minister for Transport table in parliament an annual report of Queensland Rail's monitoring of level crossings on the Brisbane to Rockhampton line

(d) that the Minister for Transport allocate appropriate funding to upgrade those level crossings which Queensland Rail finds are unreasonably dangerous

(e) that the Parliamentary Travelsafe Committee consider to undertake an inquiry into standards of safety at level crossings.

Timetable

44. What should be the proper timetable for the tilt train service is a concern for residents in regional cities along the route. Queensland Rail told the committee that they are still looking at options for the timetabling of the service. There are several issues which Queensland Rail must take into account (transcript: 7). Long distance passenger trains should not interfere with city train operations, therefore they need to time their arrival and departure for outside of the peak commuter periods. Also, Queensland Rail prefers not to schedule long distance train departures at main meal times as it presents them with problems for on-board catering.

45. Clem Campbell, Member for Bundaberg, proposed a timetable which had the trains revolve around Bundaberg to allow residents of that city to travel to Brisbane, do some business and return to Bundaberg on the same day (transcript: 17). Queensland Rail stated that it is currently wrapping up research conducted in the Bundaberg area with a view to establishing a dedicated service to Bundaberg which will allow residents to get down to Brisbane and back in a day (transcript: 7).

46. The timetable should be a compromise between Queensland Rail's requirements and the best interests of all the communities which the line services. The committee believes that if Queensland Rail is to get the increase in passengers numbers it has predicted, it is essential that they consult with the residents in towns and cities along the line. Queensland Rail should go through much the same process as its consultants working on the dedicated Bundaberg service. They should conduct telephone surveys, run a public information campaign and hold public meetings to enable people to put their views.

Recommendation 8:

The committee recommends that Queensland Rail undertake a wide ranging consultation process with residents in towns and cities along the north coast line between Brisbane and Rockhampton to establish the most appropriate timetable for the tilt train service.

6. PROCUREMENT METHODS FOR THE WORK

47. Procurement of the project involved a mix of private sector and internal Queensland Rail resources (submission 3: 11). The major cost components are:

- design and manufacture of the trains
- signalling design and installation.

48. The procurement methods used for these components was competitive tendering involving a publicly advertised pre-registration. Tenders were invited from approved tenderers. The tender process had three stages (transcript: 3):

1. a call for expressions of interest
2. submission of a detailed offer including prices, details of technology and operations
3. a best and final offer stage.

Queensland Rail acquired some specialist equipment, such as signalling, under a sole supplier agreement in accordance with the State Purchasing Policy (submission: 11).

49. Despite this tender process being a relatively new procedure Queensland Rail suggest it provided them with the opportunity with getting the best value for money and that it complied with the State Purchasing Policy (transcript: 30).

50. Queensland Rail has penalty clauses in its contract with Walkers Ltd. These penalties allow Queensland Rail to claim damages in relation to construction falling behind schedule or late delivery of the project. The project is currently behind schedule, however, Queensland Rail has not claimed any damages as Walkers Ltd have come across some unexpected technical details. With a new technology project Queensland Rail adopt a cooperative approach to addressing these delays by working with the manufacturing and design engineers to ensure the final product is fit for purpose. The committee endorses this approach.

51. The committee believes the procurement processes for the project were satisfactory.

7. THE BALANCE OF PUBLIC AND PRIVATE SECTOR INVOLVEMENT IN THE WORK

52. Queensland Rail has contracted out most of the project. The activities directly supplied by the private sector are (submission 3: 11, 12):

- design and manufacture of 2x6 car tilt trains with spare parts, manuals and training
- signalling alterations enhancements and Automatic Train Protection System
- materials pre purchased for signalling alterations
- materials for trackwork upgrading and bridge walkways
- construction of walkways to bridges
- consultancies for design, legal services, project management, interior decoration and livery and customs duty minimisation.

53. Particular private sector participants are (submission 3: 13, 14):

Evans Deakin, Hitachi, Itochu consortium (Walkers Ltd is a subsidiary of Evans Deakin)	Design, supply, manufacture, test, commissions and provide warranties covering defects ad reliability of 2x6 car tilt trains and provide spare parts, manuals and training
Union Switch and Signal — Kilpatrick Green	Design, supply, construct, test and commission signalling alterations and enhancements

Tracy Brunstrom and Hammond	Project management services
CMPS&F	civil engineering of bridge walkways
Connell Wagner	civil engineering of bridge walkways
Manton Crab International	customs duty administration
TDI	interior design and ergonomic study
ABMIDJI	communications consultant
Booz Allen Hamilton	transport consultants
Corcoran and Associates	interior design and livery consultants

54. Services provided by Queensland Rail are:

- design, contract administration, project management, procurement, survey and testing
- minor trackworks
- research and development regarding permissible overspeed issues
- construction of bridge walkways
- curve easings.

55. Queensland Rail is responsible for (submission 3: 12):

- project planning and implementation, including procurement strategy
- project control including schedule, budget and quality
- project safety and compliance validation
- life cycle cost effectiveness
- design of selected works in accordance with legislation, standards and codes of practice
- specification of works for design and provision by others
- project procurement
- administration of contracts
- integration of testing and commissioning of works
- acceptance of works
- administration of defects liability and works reliability periods.

56. The committee believes the balance of public and private sector involvement in the work is satisfactory.

8. PERFORMANCE OF THE CONSTRUCTING AUTHORITY, CONSULTANTS AND CONTRACTORS FOR THE WORK

57. Due to technical difficulties the project is behind schedule. Queensland Rail suggest the following completion dates:

	Original	Extended	Forecast completion
Train 1	9/12/96	14/4/97	11/6/97
Train 2	20/3/97	2/7/97	26/8/97

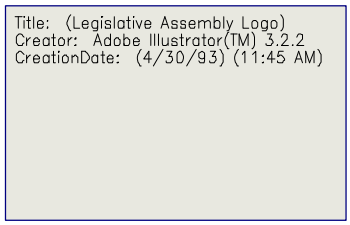
58. As described in paragraph 50, the committee does not see these delays as a problem. The performance of the contractors and consultants on the work is satisfactory.

REFERENCE LIST

Queensland Railways Passenger Group, Travers Morgan Pty Ltd, Hughes McNaughton Consultants Pty Ltd, (1992), *Evaluation of NCL and Gold Coast Passenger Rollingstock Requirements.*

APPENDIX A — CALL FOR SUBMISSIONS

The following advertisement appeared in the Courier-Mail on Saturday 28 September 1996.



PUBLIC WORKS COMMITTEE

Call for Submissions
Tilt Trains Project

The Public Works Committee, an all-party Committee of the Legislative Assembly of Queensland, inquires into public works constructed by the Queensland Government and its Government Owned Corporations.

The committee is currently undertaking an inquiry into the Queensland Rail Tilt Trains Project. To help in its inquiry, the committee is asking for submissions from interested individuals and organisations. You should base your submission on the terms of reference for the inquiry. The terms of reference for the inquiry are:

1. the purpose of the work and the suitability of the work for the purpose
2. the necessity for and advisability for the work
3. the value for money achieved, or likely to be achieved, by the work
4. the concurrent costs or estimates of concurrent costs of the work
5. the present and prospective public value of the work, including the impact of the work on the community, economy and environment
6. procurement methods for the work
7. the balance of public and private sector involvement in the work
8. the performance of the constructing authority, consultants and contractors for the work
9. the suitability of the work in meeting the needs and in achieving the stated purpose of the work.

Submissions can be made to the committee by writing to:

The Research Director
Public Works Committee
Parliament House
George Street
Brisbane Qld 4000.

The closing date for submissions is Wednesday 30 October 1996.

If you need further information, contact the committee's research director on (07) 3406 7689 or the research officer on (07) 3406 7926.

Len Stephan MLA
Chairman

APPENDIX B — LIST OF SUBMISSIONS RECEIVED

1. Mr Brian Webber
   8 Coachwood Street
   KEPERRA QLD 4054

2. Mr John Wheeler
   24 Greer Street
   BARDON QLD 4065

3. Mr Vince O'Rourke
   Chief Executive
   Queensland Rail
   GPO Box 1429
   BRISBANE QLD 4001

4. Mr Phil Lee
   Director - Queensland
   Tracey, Brunstrom & Hammond Pty Ltd
   Friends Provident Building
   301 Coronation Drive
   MILTON QLD 4064

5. Mr Stephen Pahl
   General Manager
   Capricorn Tourism &
   Development Organisation Inc
   PO Box 1313
   ROCKHAMPTON QLD 4700

6. Cr Paul Bell
   Central Queensland Regional Economic Development Organisation
   PO Box 68
   CENTRAL QLD UNIVERSITY POST OFFICE QLD 4701

7. Mr Clem Campbell MLA
   Member for Bundaberg
   PO Box 589
   BUNDABERG QLD 4670

8. Mr G W Roberts OBE
   Chairman
   Wide Bay-Burnett Regional Economic Development Association (Inc)
   Enterprise House
   7 Hillyard Street
   HERVEY BAY QLD 4655

9. Mr Michael Renshaw
   General Manager
   Gladstone Area Promotion
   & Development Ltd
   PO Box 5186
   GLADSTONE QLD 4680

10. Mr Syd Collins
    President
    Maryborough Chamber of Commerce
    PO Box 282
    MARYBOROUGH QLD 4650

11.. Mr Brian Clark
   Adviser
   Queensland Conservation Council
   PO Box 12046
   Elizabeth Street
   BRISBANE QLD 4002

APPENDIX C — LIST OF WITNESSES

Maryborough 9 December 1996

1. Mr John Atkin
   Group General Manager
   Traveltrain
   Queensland Rail
   GPO Box 1429
   BRISBANE QLD 4001

2. Mr Tony Drake
   Group General Manager
   Business Services
   Queensland Rail
   GPO Box 1429
   BRISBANE QLD 4001

3. Mr Clem Campbell MLA
   Member for Bundaberg
   PO Box 589
   BUNDABERG QLD 4670

4. Mr Bob Dollin MLA
   Member for Maryborough
   PO Box 445
   MARYBOROUGH QLD 4650

Brisbane 12 February 1997

1. Mr Dan Hunt
   Executive Director
   Transport Coordination Division
   Queensland Transport
   GPO Box 1549
   BRISBANE QLD 4001

2. Mr Chris Warnock
   Group General Manager
   City Train
   Queensland Rail
   GPO Box 1429
   BRISBANE QLD 4001

3. Mr Tony Drake
   Group General Manager
   Business Services
   Queensland Rail
   GPO Box 1429
   BRISBANE QLD 4001

4. Mr John Wheeler
   24 Greer Street
   BARDON QLD 4065

5. Mr Brian Clark
   Adviser
   Queensland Conservation Council
   PO Box 12046
   Elizabeth Street
   BRISBANE QLD 4002

6. Ms Frances Herbert
   Project Officer
   Queensland Conservation Council
   PO Box 12046
   Elizabeth Street
   BRISBANE QLD 4002

7. Mr James Whelan
   Queensland Conservation Council
   PO Box 12046
   Elizabeth Street
   BRISBANE QLD 4002

PUBLIC WORKS COMMITTEE

No.	Report	Date Tabled
1	Annual Report for the Period Ending 30 June 1989	6 July 1989
2	Inquiry into the Proposed Construction by the Brisbane and Area Water Board of a Dam on the Albert River at Wolffdene (September 1989)	28 September 1989
	Report for the Period 1 July to 19 October 1989	19 October 1989
3	No Public Works Committee Report No. 3 was issued	
4	Annual Report for the Period 6 March to 30 June 1990	23 August 1990
5	Bundaberg Hospital Redevelopment - Stage Two (October 1990)	24 October 1990
6	Aboriginal and Torres Strait Islander Housing - The Future (May 1991)	28 May 1991
7	Annual Report for the Period 1 July 1990 to 30 June 1991	18 July 1991
8	Building Another Mental Institution or Housing a New Mental Health Service? - A Report on Community Debate Concerning Construction of the New Kirwan Psychiatric Rehabilitation Unit (October 1991)	24 October 1991
9	Consultation and Planning for Schools and Colleges between State and Local Authorities (November 1991)	5 December 1991
10	The Proposal to Build a 33-Level Office Block at 111 George Street (November 1991)	5 December 1991
	Annual Report for Year 1991-1992	25 November 1992
11	Kirwan Psychiatric Rehabilitation Centre	2 March 1993
12	The Proposed Upgrade of the Townsville Correctional Centre	3 March 1993
13	Public Housing in Toowoomba	19 March 1993
14	The Development of the Sciencentre - the Old Government Printery	13 May 1993
15	Queensland Centre for Advanced Technologies	13 May 1993
16	Cairns Courthouse, Police Headquarters and Watchhouse Complex	20 May 1993
17	Replacement Schools for Herberton and Mission Beach	15 July 1993
	Annual Report for Year 1992-1993	1 September 1993

No.	Report	Date Tabled
18	Brisbane Convention and Exhibition Centre	13 October 1993
19	The Construction of New Government Office Accommodation in Rockhampton	18 November 1993
20	Health Facilities in Far North Queensland - Preliminary Report	3 December 1993
21	Health Facilities in Far North Queensland - Final Report	25 February 1994
22	Cairns Convention Centre	28 April 1994
23	Landsborough Highway, Jessamine Creek, and University Road, Townsville	28 April 1994
	Annual Report for Year 1993-94	2 August 1994
24	The Development of Mountain Creek High School	31 August 1994
25	Nambour Hospital Block 6 and Associated Matters	9 September 1994
26	Queensland Cultural Centre - Stage Five	28 October 1994
27	Technology Facilities Toowoomba College of Technical and Further Education	23 February 1995
28	Development of the Teemburra Dam and Associated Irrigation Areas	24 March 1995
29	Development of the Mackay Small Craft Harbour	31 March 1995
30	Development of the Hervey Bay Courthouse	6 June 1995
31	Development of the Bundaberg Police Headquarters and Watchhouse	6 June 1995
	Annual Report 1994-95	19 October 1995
32	Redevelopment of the Cairns Base Hospital	23 July 1996
33	Expansion of the Lotus Glen Correctional Centre Farm	23 July 1996
	Annual Report 1995-96	8 October 1996
34	Construction of the new Woodford Correctional Centre	29 October 1996
35	Tilt Train Project	26 March 1997

This committee tables transcripts of evidence; however, they are not numbered and they are not included in this list.