

Papers relating to the 1991 Audit Review

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Works Branch

5. Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads

5.1 Introduction. Hong Kong's roads have one of the highest vehicle densities in the world. In December 1990, there were 1 484 kilometres of roads used by about 405 000 registered vehicles. In addition to their function as routes for vehicles and pedestrians, the roads accommodate the Government and the utility companies' pipes, cables and other apparatus for the distribution of essential services to the public. To facilitate the provision and maintenance of such services, road openings for utility works are required. Such works may be initiated by utility undertakings or they may be carried out in conjunction with government roadworks projects.

5.2 Disruptions caused by roadworks have long been a subject of public concern and the social costs of disruptions in terms of both time and money can be high. In early 1990, the Commissioner for Transport, in response to a request by the Highways Department, conducted surveys at a number of sites where roadworks were actually in progress and provided the following figures on the traffic delay costs per day:

| Location | Traffic delay costs/day \$ |
|---|--------------------------------------|
| Nam Cheong Street near Cornwall Street | 10,910 |
| Granville Road between Shun Yu Street and Granville Circuit | 9,350 |
| Sau Mau Ping Road near Hiu Kwong Street | 5,930 |
| Choi Hung Road outside Choi Hung Playground | 3,090 |
| Chai Wan Road near A Kung Ngan Road | 3,050 |
| Lai Chi Kok Road near Tonkin Street | 890 |
| Saigon Street between Canton Road and Battery Street | 770 |
| Tai Tam Road near Shek O Road | 110 |

The Commissioner however pointed out that it was very difficult to estimate traffic delay costs as numerous factors such as class of road, traffic volume, traffic capacity, length and width of roadworks, gradient, degree of traffic diversion, composition of traffic, occupancy of vehicles etc. were involved. Hence such costs could vary from as low as a few dollars for a feeder road serving a small number of buildings, to a few million dollars for, say, the Cross Harbour Tunnel.

5.3 A recent audit review indicated that there is room for improvement in the road opening procedures.

Utility works initiated by utility undertakings

5.4 The excavation permit system. Under the Crown Land Ordinance, any opening on a carriageway or a footpath has to be authorized by the Highways Department by the issue of an excavation permit. No fee is charged for the issue of the permit. The permit is normally valid for a stated period of time, and any extension has to be authorized. The Ordinance also requires the permittee to reinstate and make good the land before the expiry of the permit, failing which the Highways Department can carry out the works and recover the cost from the permittee. Normally, road openings are not allowed on a carriageway constructed or reconstructed within the previous five years, or on a carriageway resurfaced within the past year, unless there is a strong justification such as emergency works.

5.5 Statistics of road openings in recent years are given below:

| Year | No. of openings | Total length of roads (km) | No. of openings per km |
|------|-----------------|----------------------------|------------------------|
| 1987 | 30 463 | 1 395 | 21.8 |
| 1988 | 35 658 | 1 434 | 24.8 |
| 1989 | 43 147 | 1 465 | 29.4 |
| 1990 | 47 413 | 1 484 | 31.9 |

Of the 47 413 road openings in 1990, 67% were for utility works and the remainder for road maintenance purposes. Under current arrangements, the utility undertaking, whether a government department or a utility company, is required, after completion of the works, to carry out backfilling and temporary reinstatement of the road surface. Permanent reinstatement works are carried out by the Highways Department's contractors, following receipt of a reinstatement notice from the utility undertaking. The time gap between the completion of the temporary reinstatement by the utility undertakings and the commencement of the permanent reinstatement is usually in the range of one to three weeks. In the case of road openings by utility companies, the cost of permanent reinstatement is charged to the company concerned, together with a 20% overhead charge.

5.6 Because of the time gap between temporary and permanent reinstatement works and to avoid wasting resources by requiring the utility undertakings to construct a temporary reinstatement which is removed when the permanent reinstatement is constructed, a pilot scheme was introduced in January 1985 on Hong Kong Island under which the Hong Kong Telephone Co. Ltd., the Hong Kong and China Gas Co. Ltd. and the Hong Kong Electric Co. Ltd. would undertake the permanent reinstatement of their trenches in concrete footpaths. The scheme excluded footpaths paved with bituminous surfacing materials or precast paving slabs. An assessment of the pilot scheme was completed in April 1987. The conclusion reached was that permanent reinstatement works carried out by the utility companies were generally of an acceptable quality and that such an arrangement would serve the public better by reducing the number of temporary reinstatements and the time gap between backfilling and permanent reinstatement. However, while Hong Kong Electric Co. Ltd. was keen to make the pilot scheme arrangement permanent, both Hong Kong Telephone Co. Ltd. and Hong Kong and China Gas Co. Ltd. withdrew from the scheme. Subsequently in 1988, the China Light and Power Company Ltd. began carrying out its own permanent reinstatement works in Kowloon and the New Territories and currently only the two power companies are carrying out permanent reinstatements in concrete footpaths.

5.7 In 1987, at the request of the Highways Department, the Finance Branch of the Government Secretariat conducted a study on the feasibility of charging utility companies for road opening works. The study, which was confined to an examination of the problem in the Hong Kong region, concluded that utility companies should be encouraged to minimize the disruption caused by trench works by a tightening of control over the excavation permit system and by charging them a fee for each excavation permit application made. However, the specific recommendations made in the report to a large extent have not been implemented and have apparently been held in abeyance pending detailed consideration of a proposed lane rental scheme.

5.8 **The lane rental scheme.** In 1989, the Director of Highways proposed the introduction of a lane rental scheme. This was a scheme developed in the United Kingdom to provide a financial incentive to contractors and utility undertakings to shorten the period they occupy a highway, or a part thereof, for the purpose of carrying out construction or maintenance works. In February 1990, a working group on 'Lane Rental Form of Contract' was established by the Director of Highways to investigate the feasibility of introducing a lane rental scheme for Highways Department road contracts, waterworks mainlaying contracts and public utility operations. For public utility operations, the initial proposal was to follow the example of the United Kingdom by

introducing a charging system whereby a condition would be included in the excavation permit requiring the utility companies, after the expiry of a stated free period, to pay a daily rental charge which would reflect the traffic delay costs. The free period would be determined having regard to the nature of the utility works, the traffic condition of the road concerned, any special restrictions to be complied with in carrying out the works and allowance for such matters as inclement weather, likely underground obstructions etc. Roads would be classified under several categories, with the highest rental being charged for road openings on those roads in the busiest category. There would be no charging for emergency works and works of short duration.

5.9 It was originally intended to introduce the scheme for utility works by late 1991, subject to enactment of the necessary legislation. However, problems were identified in the following areas:

- difficulty in classifying the road network into categories for charging purposes;
- difficulty in determining reasonable free periods for the various utility works;
- the need for additional resources to administer the charging scheme; and
- perceived opportunities for corruption.

The working group is endeavouring to overcome these difficulties.

5.10 Audit review. In my recent review of the road opening procedures, which excluded the lane rental scheme as it is currently under active consideration by the working group, the possibility of improvements was noted in two areas: the excavation permit procedures and permanent reinstatement works.

5.11 Excavation permit procedures. In its report in 1987 (see paragraph 5.7 above), the Finance Branch recommended that:

- a fee should be charged for each excavation permit application received;
- the loosely controlled approval procedures should be tightened up and in particular, the duration of the excavation permits should be based on the volume of works;
- excavation standards should be established and detailed works programmes requested;
- penalty charges should be imposed where permit extensions were required; and
- the system of issuing permits after the event (covering permits) for emergency works should be rationalized.

In making these recommendations, it was stated in the report that a fee should be introduced to cover administrative costs which would also have the effect of reducing the large proportion (26% of total permits in the Hong Kong region) of permits which were issued and subsequently cancelled. The introduction of penalty charges would be an incentive to utility companies to complete the works within the originally approved time, whilst rationalization of the procedures for issuing covering permits would prevent abuse of the system.

5.12 The Director of Highways initially considered it reasonable to charge a fee for an excavation permit but he subsequently said that the administrative cost was already covered by the imposition of a 20% overhead charge on the cost of permanent reinstatements recovered from the utility companies. The matter was not then further pursued. Regarding the tightening of the control of the excavation permit system, he agreed that utility companies should be required to submit detailed works programmes and that the duration of the excavation permit should be based on the volume of works. But he pointed out that with his limited staff resources it would not be possible to check that the utility companies submitted a detailed works programme for every permit application and that, without effective reprimands for over-running the approved duration stated in the permits, the administrative effort involved in checking the works programmes would be wasted. However, he considered that the imposition of penalty charges for permit extensions

was not a practical proposition because there would be technical difficulties and resource limitations in ascertaining the causes of extensions and the utility companies would pass on the penalty charges to consumers. The Director agreed that to avoid abuse of the system, there was a need to ascertain the real cause of emergency openings and said that consideration would be given to developing control measures.

5.13 In my recent review, I noted that permit extensions were granted for over 30% of the total excavation permits issued and that 24% of the permits issued were for emergency openings, a position not materially different from that in 1987 when the Finance Branch conducted its review. I also noted that there was still no requirement for the submission of a detailed works programme when application was made for an excavation permit. I have suggested to the Director of Highways that, in view of the high social cost of utility works on roads, the duration of those works has to be kept to a minimum by measures such as the setting and monitoring of excavation standards. I have pointed out that the cost of any such measures can be recovered through the charging of an appropriate fee for each excavation permit application, as was recommended in the Finance Branch study. I have also suggested that the recommendation to impose penalty charges for inordinate delays in completing utility works should be pursued. In order to reduce the likelihood of non-emergency works being accorded emergency status, I have further recommended that a definition of emergency works should be drawn up for general guidance.

5.14 The Director of Highways has stated that no fee is currently chargeable under the Crown Land Regulations for the issue of an excavation permit, but the method of charging utilities for permit extensions on major road networks which are traffic sensitive would be examined in detail including the staffing implications. He considered it appropriate for a fee for an excavation permit application and for a permit extension to be considered together. The Director has also said that the present procedure for determining the duration of an excavation permit is generally adequate given the limited powers provided under the Crown Land Ordinance but, to ensure consistency of approach in determining the duration, a rational system based on standard working periods per unit trench length will be examined. Consideration would also be given to requiring the submission of a works programme to support each permit application. Regarding the need to define emergency works, he has said that a working group will be established to look into the arrangements and control of emergency works.

5.15 Permanent reinstatement works. Following the evaluation in 1987 of the pilot scheme under which permanent reinstatement works were carried out by the respective utility companies, only the two power companies have continued to carry out permanent reinstatement works in concrete footpaths (see paragraph 5.6 above). In February 1989, in an address to the Office of Members of the Executive and Legislative Councils, the Director of Highways stated that the carrying out of permanent reinstatement by utility companies would be extended to carriageways. This has not yet been put into effect. As the Government can insist on the utility companies carrying out the permanent reinstatement works and as the pilot scheme evaluation in 1987 was successful and could largely eliminate the time gap between temporary and permanent reinstatement, I have suggested that expansion of the scheme to embrace all utility companies and reinstatement in all types of road surface should be expedited.

5.16 The Director of Highways has informed me that, as far as practicable, the utility companies should be made responsible for permanent reinstatement of their road openings in order to reduce disruption and inconvenience to the public. However, it is important to ensure that permanent reinstatement works are properly carried out to an acceptable standard. Permanent reinstatement works in carriageways are more critical than those in footpaths because carriageways are subject to high traffic volumes and any subsequent repair or maintenance works can cause significant disruption to road users. He has also informed me that the subject is under regular discussion with the utility companies and when staff resources permit, a guidance note on permanent reinstatement works will be prepared. Regarding government utility works, both the Water Supplies Department and the Drainage Services Department have indicated their willingness to undertake permanent reinstatement of footpaths as well as carriageways.

Utility works carried out in conjunction with government roadworks

5.17 Road openings are normally not allowed on a carriageway constructed or reconstructed within the previous five years, or on a carriageway resurfaced within the past year. Accordingly, when the Government carries out any major roadworks, utility undertakings are given the opportunity of phasing their new construction and renewal works to fit in with the roadworks. This also minimizes inconvenience to the general public. Such utility works are required to be completed prior to the commencement of the roadworks or they may be carried out in conjunction with the roadworks subject to agreement by the Government. In addition, where alterations to utility services are necessitated by the roadworks, the Government may, under the Roads (Works, Use and Compensation) Ordinance, give notice to the utility undertakings requiring them to alter the course or position of any cable, pipe or other apparatus affected by the roadworks. The utility undertakings are required to carry out such works and to repair any road surface thereby disturbed at their own expense within a period stipulated by the Government, after consultation with the utility undertaking concerned. If the notice is not complied with, the Government can execute the works and recover the cost from the utility undertaking.

5.18 In practice, the utility undertakings do not enter into agreement with the Government for the completion of their works where such works are to be phased in with the roadworks. The Government also does not specify a time within which alterations to utility services necessitated by roadworks have to be completed, as provided for in the Roads Ordinance. After the nature of the utility works has been determined, the contractor employed by the Government for the roadworks is given the responsibility for agreeing with the utility undertakings a programme for the utility works. The government contractor has also to make full allowance for time and provision of facilities and working space for the utility undertakings. The actual utility works are carried out by contractors employed by the utility undertakings concerned and there is no contractual relationship between the contractor employed by the Government and the contractor employed by the utility undertakings. Furthermore, under the General Conditions of Contract for government works, the government contractor is normally not allowed to claim for any cost of delay caused by the utility undertakings or their contractors. Consequently, a prudent contractor undertaking government works would normally price in his tender for the cost of possible delays. Thus the cost would be included in his tendered sum and borne by the Government.

5.19 Audit review. Delays in roadworks projects resulting from delays in utility works are not infrequent. During a recent audit review of 450 roadworks projects involving utility works completed after 1 January 1984, I found that progress on 36 of them (or 8%) had been disrupted by the related utility works, resulting in extensions of time being granted to the roadworks contractors and delays in completion of the projects. Of these 36 contracts, the delays in percentage terms of the original time for completion of the whole contract works were as follows:

| | |
|------------------|--------------|
| —less than 10% | 15 contracts |
| —between 10%-25% | 13 contracts |
| —exceeding 25% | 8 contracts |

Based on the amount of liquidated damages payable by the contractors for delays not otherwise allowed, I estimated that the cost of these delays could amount to some \$7.6 million. In one case, which involved the construction of two footbridges in a contract period of one year, the delay caused by utility works amounted to 175 days and has prompted the government contractor to submit a claim for \$8 million to the Government, notwithstanding the clause in the General Conditions of Contract prohibiting such claims. The matter is under arbitration.

5.20 My examination into the causes of delays revealed that whilst some delays were unavoidable, e.g. inclement weather, others could be attributable to the absence of effective

control by the Government over the progress of such works, either through the use of an agreement with the utility undertaking or a notice under the Roads Ordinance. As the existing legislation empowers the Government to stipulate a reasonable period of time within which utility undertakings have to complete the works, I have suggested to the Director of Highways that the statutory provisions should be strictly enforced, and the utility undertakings held responsible to the Government for the cost of any delays caused by them.

5.21 The Secretary for Works has informed me that he is considering suggestions to improve the control over utility works carried out in conjunction with government roadworks projects and a paper will be submitted to the Standing Committee on Conditions of Contract. I have also been informed by the Director of Highways that in some recent roadworks contracts involving utility works, arrangements were made for utility works such as laying of water mains, sewers and ducts and trench excavations, to be entrusted to the Highways Department and undertaken by the roadworks contractor, thus avoiding conflicts on site and consequent delays and claims. This latter development stems from the Public Accounts Committee's recommendation in paragraph 5.31 of their Report No. 12 (Problems caused by using separate contracts to execute roadworks and related waterworks at the same site) that 'where roadworks and waterworks have to be carried out in conjunction with each other, the works should be carried out under one contract, but the waterworks should be executed by a contractor on the government list of approved waterworks contractors'.

Extract from P.A.C. Report No. 17 - January 1992

WORKS BRANCH

6.10 Paragraphs 5.1-5.21: Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads

In response to the Committee's concern over the continued increase in the number of road openings during the past few years, **the Secretary for Works** said that—

- he fully appreciated the seriousness and magnitude of the problem, as indicated by the fact that there were some 47 000 road-openings in 1990 in the 1 484 kilometres of roads in Hong Kong;
- he was pursuing the suggestion of requiring the utility companies to carry out the permanent reinstatement works in connection with road openings;
- he was looking into ways of tightening up the excavation permit system, including the suggestion to impose penalty charges for permit extensions; and
- in order to improve the overall co-ordination among Government and the utility companies, two new committees, namely, the Joint Utilities Policy Group which was chaired and run by the utilities companies, and the Utilities Technical Liaison Committee chaired by the Government, had been established. These two new committees would complement the existing Regional Road-Opening Co-ordinating Committees of Highways Department.

6.11 On the control over utility works carried out in conjunction with government roadworks projects, the Secretary said that the entrustment of utility works to the main roadworks contractor

could minimize problems of co-ordination and save time. These arrangements had been adopted for certain utility works such as the laying of water mains, sewers and ducts. Consideration was being given to extending these arrangements to other utility works. He also said that although there was no formal contract between the roadworks contractor and the utility contractor, the reason why the responsibility to co-ordinate the utility companies was put onto the roadworks contractor under the present Government Conditions of Contract was because the road works contractor himself was under a contractual obligation to complete the works and would face the possibility of liquidated damages if delay was caused by the utility contractor by reason of any failure on the part of the utility company. If the risk for utility matters was taken away from the roadworks contractor, there would be cost implications and the possibility of more claims. He was re-looking at this particular aspect of risk management and was having discussions with the construction industry.

6.12 On the question of the reasons for the drastic increase in the number of road openings in the recent years, **the Director of Highways** identified two main causes. First, the increasing rate of redevelopment in the existing urban area and the general rise in living standards had called for an upgrading of services including utility services. Secondly, the Highways Department had allocated more resources for road maintenance.

6.13 Responding to the question as to whether the Department had the power to sanction utility companies for delays in utility works, the Director said that under the Crown Land Ordinance, the only recourse available to the Department in the case of an unacceptable delay was that the Department could complete the work for the utility company and recover from the company concerned the related costs. However, this was unlikely to happen because the Department lacked the resources.

6.14 On the question as to whether the delays were partly attributable to a slackening of attitude on the part of the utility companies, **the Secretary for Works** opined that it was not the case.

6.15 The Secretary undertook to look into the Committee's suggestion that consideration should be given to carrying out the works at night-time in order to minimize disruptions to traffic. The main objections, he anticipated, would be on the environmental side.

6.16 In response to the Committee's observation that roads were frequently dug up with no works in progress, the Secretary said that this could well be attributed to the fact that, despite the availability of drawings of existing services and utilities, the reality was that once the road was opened up, very often there were problems which could not possibly have been foreseen at the time the permits were originally issued.

6.17 The Committee asked why it was necessary to put all the utilities below, and not beside, a road. The Secretary replied that in most cases, the footpaths were not large enough. Generally speaking, only the larger utilities such as the larger pipes and power supply cables were actually put below the roads whereas the smaller utilities, which had to be accessed more frequently, were put underneath the footpaths. **The Director of Highways** added that the problem of road openings was not so acute in the new towns as an amenities space was provided alongside the roads for the utilities.

6.18 Referring to paragraph 5.12 of the Director of Audit's report, the Committee asked the Director why he considered the imposition of penalty charges for permit extensions not practicable. The Director said that the conclusion was reached in 1987 when the Department did not have the benefit of the experience in other countries. Since then, there had been a lot of development on this issue in the United Kingdom, culminating in the enactment of a new Roads and Street Works Act, which empowered the Highway Authorities to introduce a rental scheme under which a charge was made where the works were not completed within a reasonable period.

In the light of this recent development, the Highways Department was working towards the introduction of a similar scheme.

6.19 In response to the Committee's request to elaborate on the proposed lane rental scheme, the Director said that the Department had carried out a study on lane rental and had looked at three possible options—

- the first option was that the permittee would initially be allowed a free period, which could be extended where adequate justifications were provided, to carry out the utility works. A lane rental would be payable for the use of road space if the necessary works had still not been completed upon expiry of the free period;
- the second option was to have a free period but with no provision for further extension; and
- the third option, which was his favoured option, was to have no free period at all.

6.20 In response to the Committee's enquiry as to when the lane rental scheme was likely to be introduced in Hong Kong, the Director said that—

- the Transport Advisory Committee would first have to be consulted, probably in December 1991, as all options under the proposed scheme would have traffic implications;
- the utility companies and the District Boards would then be consulted and the process could take four to five months; and
- the consultation stage would then be followed by a legislative amendment stage.

6.21 On the question as to whether the problems envisaged in the introduction of a lane rental scheme as detailed in paragraph 5.9 of the Director of Audit's Report were still valid, the Director said that—

- the first problem identified concerned difficulties in classifying the road network according to traffic intensity. The current thinking was that there was no real need for such a classification as the rental would in any case be inadequate to cover the costs of delays. The more important consideration was that the rental should be pitched at a level sufficient to provide an incentive for completion of the works on time; and
- the three other difficulties as listed in the Director of Audit's Report were all related to the need to determine a reasonable free period. Such difficulties would not arise if the decision was that there should be no free period under the scheme.

6.22 In response to the Committee's question as to whether the lane rental scheme was really feasible, the Director said that further study was required in order to overcome the difficulties. **The Secretary for Works** said that whilst the lane rental scheme should be pursued, he considered that meanwhile, everything possible should be done to improve co-ordination, shorten the time given for road openings, and monitor the performance of the utility companies and the contractors during the road opening period, which would produce more immediate results than the lane rental scheme.

6.23 **Conclusions and recommendations.** The Committee—

- note with grave concern the increase in the number of road openings and the related social costs;
- urge the Administration to expedite its review of the proposed lane rental scheme and to ensure that resources are made available for its early implementation;
- urge the Administration to introduce, in the meantime, measures to improve the existing road-opening system having regard to the importance of forward planning and effective co-ordination among parties concerned; and

—urge the Administration to seriously consider the suggestion of carrying out the utility works at night-time.

The Government Minute
(dated 13 May 1992)
in response to the
Report of the Public Accounts Committee No. 17
dated January 1992

WORKS BRANCH

Paragraphs 6.10 - 6.23 - Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads.

44. Mock trials of the lane rental scheme will be carried out in the latter part of 1992 and will last for about six months. No actual lane rental charges would be payable in these trials the purpose of which is to assess potential charges, financial implications and any problems that may arise.

45. The Joint Utilities Policy Committee and the Utilities Technical Liaison Committee have been established to supplement the three Regional Road-Opening Co-ordination Committees of Highways Department. As a result, there has been further improvement to the overall co-ordination among Government and the utility companies.

46. Utility works in heavy traffic areas are being carried out at night in consultation with Environmental Protection Department, Transport Department, Police and District Boards. However, night works are constrained by the permissible noise levels for residential areas and are therefore much more costly. The Administration is now consulting other Asian countries on the general application of night works.

Extracted from P.A.C. Report No. 19 - January 1993

3.15 Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads. (Paragraphs 6.10-6.23 of P.A.C. Report No. 17). The Committee were informed that—

- mock trials had been carried out since the end of July 1992. Initially about 30 sites had been chosen for this purpose with participation from the utility operators. No actual lane rental charges were made in these trials. A working group had been set up to monitor the progress and assess any problems that might arise;
- the Joint Utilities Policy Committee and the Utilities Technical Liaison Committee had been established to supplement the three Regional Road-Opening Co-ordination Committees of the Highways Department. As a result, there had been further improvement to the overall co-ordination among the Government and the utility companies;
- utility works in heavy traffic areas were being carried out at night in consultation with the Environmental Protection Department, the Transport Department, the Police and District Boards. However, night works were constrained by the permissible noise levels for residential areas and were therefore much more costly; and
- consultation with other Asian countries on the general application of night works was continuing. Replies from Japan and Singapore had been received and further clarification on certain issues was being taken up with the authorities concerned.

3.16 The Committee note the various courses of action taken by the Director of Highways with a view to implementing the Committee's recommendations and wish to be kept informed of further progress.

The Government Minute
(dated 5 May 1993)
in response to the
Report of the Public Accounts Committee
dated January 1993

Paragraphs 3.15 - 3.16 - Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads.

23. Of the 93 sites selected for the mock trial of the lane rental scheme, 65 have been completed. No comprehensive conclusion can be made at this stage due to limited data. Works on all the selected sites will be completed in June 1993 when a final evaluation will be made.

24. Utility companies have agreed to display publicity signboards at utility work sites showing the key information and reasons for the works. Arrangements are also being made to incorporate in the Conditions of Permit additional requirements for improved precaution and protection to existing utility installations.

25. Information obtained from Japan and Singapore indicates that there are control measures on construction noise similar to those in Hong Kong - night works are permitted at locations where noise level can be kept within the required limits. In Singapore, for example, night works are allowed only in city commercial areas, and are generally prohibited in residential areas.

Extract from P.A.C. Report No. 21 - January 1994

5.9 Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads. (Paragraphs 3.15 - 3.16 of P.A.C. Report No. 19). The Committee were informed that:

- the mock trial of the lane rental scheme was completed. A draft report had been prepared and would soon be circulated among government departments involved for comments;
- additional conditions for improved precaution and protection to existing utility installations had been incorporated into all excavation permits; and
- other Asian countries had been consulted on utility works at night time. The control measures on construction noise implemented by Japan and Singapore were similar to those in Hong Kong. Night works were carried out at locations where construction noise level could be kept within the required limits.

5.10 The Committee wish to express their concern at the slow progress of the Administration's evaluation of the trial of the lane rental scheme and urge the Administration to complete the evaluation without further delay.

Extract from Government Minute - April 1994

Paragraphs 5.9 - 5.10 - Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads

11. A draft report on the "Lane Rental Trial Study" has been prepared and was circulated to parties concerned, including all the utility companies. Strong reservations about the scheme were expressed, especially on the proposed penalty arrangement and the proposed method of assessing the free permit period. These are being reviewed and the report incorporating the various comments and ideas will be re-circulated soon. It is expected that a conclusion can be drawn within the second half of the year, as to how to proceed with the scheme or whether other alternative control means can be exercised to serve the same purpose of reducing the time of occupation of the roads by utility works.

Extracted from P.A.C. Report No. 23 - January 1995

5.7 Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads. (Paragraphs 5.9 - 5.10 of P.A.C. Report No. 21). The Committee were informed that -

- the Director of Highways had concluded, arising from the Lane Rental Trial Study, that it was difficult and ineffective to implement in Hong Kong a lane rental scheme. There were strong reservations from the utility companies citing problems in determining a reasonable permit period. The costs both for administering the scheme and on the part of the utility companies were high. In view of such unfavourable findings, this idea had been shelved; and
- the Secretary for Works had set up an inter-departmental Working Party to consider effective measures to reduce problems caused by road excavations. These measures, some of which had been introduced, included peak hour restrictions, temporary decking of trenches, improved supervision, permanent reinstatement works by utility undertakers direct, improved standards and methods of trench works, improved co-ordination and communication links, improved publicity and performance pledges by utility undertakers.

5.8 The Committee -

- are dissatisfied with the slow progress and the apparent lack of effective action to reduce the road opening problem; and
- urge the Administration to take more proactive action to resolve the problem.

THE GOVERNMENT MINUTE

in response to the

REPORT OF THE PUBLIC ACCOUNTS

COMMITTEE

dated January 1995

Government Secretariat: Finance Branch

10 May 1995

Para 5.7 - 5.8 Measures to reduce the incidence of delays in the completion of utility works on Hong Kong roads

12. The Administration has noted the Committee's concern over the apparent lack of effective action in addressing the road opening problem. We are pleased to report that as a result of the following measures taken by the relevant departments over the last six months, the situation has improved -

- (a) starting from December 1994, we have banned day time road opening for utility works in 45 major roads. Such works are now required to be carried out at night and the trench will be covered up temporarily during day time;
- (b) since September 1994, we have required utility companies seeking to carry out road opening works in major roads to conduct a Traffic Impact Assessment (TIA) before works can be carried out. The TIA will include associated temporary traffic arrangements and mitigation measures to be approved by Transport Department. This new arrangement is being implemented in stages to cover all major roads by April 1995. We will review the effectiveness of the scheme later this year;

- (c) the Highways Department is closely monitoring road opening works. The department has imposed additional conditions in the Excavation Permits (EP), requiring utility undertakers to provide adequate supervision of their contractors. The proportion of unattended sites have been reduced from about 32% in 1992 to less than 8% in late 1994;
- (d) utility undertakers are now required to carry out their own permanent reinstatement works, thus avoiding “double opening”;
- (e) we have introduced improved standards and methods of trench works. For example, “trenchless” techniques like pipe-jacking are used where practicable;
- (f) since October 1994, for large scale works or works on major roads, the utility companies are required to submit the work programme at least three to six months in advance to the Road Opening Co-ordinating Committee for better co-ordination and communication;
- (g) for more efficient and effective planning, co-ordination and control of such works, the Highways Department is planning to introduce a computerised utility management system. We will be seeking the approval of the Finance Committee to implement this system in due course. Our aim is to have this system implemented in early 1997. Separately, utility companies are also introducing map-based computer record systems;
- (h) we have drawn up a list of road works contractors with satisfactory performance to assist utility companies in choosing their contractors. Consideration is being given to introducing terms and conditions in the EPs to tighten control over the contractors, including refusal to issue EPs to those with a consistently poor track record. Contractors with poor performance in respect of road opening works will be suspended from tendering for Government contracts; and
- (i) the Highways Department is carrying out research and investigation to identify reliable detection equipment to locate underground utilities, so as to avoid unnecessary digging of holes in roads and reduce the chance of inadvertent damage to underground utilities.

13. These measures have significantly reduced delays in road opening works and the disturbance caused to traffic and pedestrians. We will continue to make progressive improvements through inter-departmental efforts.

14. In addition, notwithstanding the difficulties identified during the Lane Rental Trial Study, the Administration is still considering the viability of introducing a charging scheme which can provide an incentive for the relevant parties to speed up road opening works.