

C.S.

PUBLIC WORKS  
(Stanley Improvement Scheme)

1924.

No. 265/220

A. A. P. Neave, Esq.,

SUBJECT.

192 4

STANLEY IMPROVEMENT SCHEME

8th July.

Report by Mr. A. A. P. Neave on.

Previous Paper.

257/23.

MINUTES.

*Report by Mr. A. A. P. Neave of 8th July 1924 — Encl ①*

22 Sept.  
24

*Y.S.  
Submitted*

*Should the m. p. in the improvement schemes be circulated for Ex. Co. now? The remainder are I think with Y.S.*

*10 July 24*

*H.C.S.*

*Will you please have this circulated for consideration in Ex. Co.*

*12 July 1924*

Subsequent Paper.

*See 257/1923.*

Hon. Ag. Treasurer.  
Hon. Colonial Surgeon }  
Circulated

W. H. Brown

Clerk, Executive Council

14 July 1924

note:

1. The proposals for the improvement of Stanley were considered at a meeting of the Executive Council on 25th July 1924.
2. Mr. Neave's report of 21<sup>st</sup> July 1924 on the possibility of water supply from artesian wells was read: it had not been circulated having been received too late: it is enclosed 34 in M.P. 704/23.
3. Mr. Neave repeated the advice which he had given some time ago on several occasions that one half of the sum available for improvements should be spent on providing a good water supply: he stated that he did not think that, although increased storage for rain water from roofs of houses was provided, there would be an adequate supply in all cases: he also drew attention to need for a water supply for prevention of fire.
4. Mr. Neave considered that an underground drainage scheme for surface + stop water could be provided at a somewhat less cost than estimate of £9000 - perhaps £4000 to £8000: He estimated that a good macadamized road could be made at an average cost of £1000 a mile.
5. The Colonial Surgeon gave it as his opinion that
  - (1) although rain water collected from roofs of houses could be used for drinking purposes yet in Stanley owing to dust carried to roofs by easterly high winds roof water should be filtered.
  - (2) A water supply which required treatment with lime + alumina, as in schemes for supply from Mill Pond or a catchment area,

[2] <sup>Item</sup> requires very careful supervision <sup>Item No. 2.</sup>  
& that in local conditions it would be very  
difficult to ensure efficient supervision.

(3) a good water supply would bring about a  
large decrease in minor ailments which  
were prevalent in Stanley.

(4) <sup>By</sup> the scheme for an underground drainage  
system for surface & stop water (summit to  
cost £9000) was proceeded with, it was  
pointed out that an adequate supply of water  
should be provided for flushing the drains  
& that a supply by water cart or pump  
was inefficient.

N.B. - at page 6 of (1) construction of two  
reservoirs to be fed by drainage pipes with  
cur deep common at back of town is suggested  
a non-potable supply. Summit cost with  
1 mile of 3" fire main & hydrants is £3,500.

6. Mr. Colonial Surgeon will embody his  
views as stated in 5 (1) (2) (3) above in a  
brief report.

J.M.  
25 Aug 1924.

H.C.S.  
For information.  
J.M.  
5 August 1924

1

Port Stanley,

PARKLAND ISLANDS.

6th July, 1924.

STANLEY IMPROVEMENT SCHEME.

Sir,

With reference to my previous reports under various headings and interviews and discussions with His Excellency the Governor and yourself from time to time I now beg to forward the following details showing how the sum of £30,000 may be expended profitably, in accordance with the Executive Council's decision of 29th March, 1923:-

(a).	Plant. ....	£ 3,500.
(b).	Drainage Works. ....	8,000.
(c).	Base Road Improvement .....	7,500.
(d).	Improvement of other roads.....	8,000.
(e).	Incinerator, etc. ....(say).	1,000.
(f).	Subsidies for augmentation of water storage tanks...(say)	1,000.
	TOTAL.	<u>£30,000.</u>

2. Taking the above items one at a time, I beg to make the following observations :-

(A). Plant.

I have placed this item first on the list as it is absolutely essential that suitable plant shall be

provided

provided before any programme - large or small - of constructional works can be undertaken either economically or efficiently.

The chief items required were detailed in the appendix to my preliminary report dated February, 1923.

I recommend that very early steps be taken to obtain the necessary plant, observing that certain useful items will very shortly be available for purchase on the closing down of the Admiralty works at Navy Point.

Such items as stone crushers, etc., would be invaluable for normal repair and maintenance work. Services on completion of major new works, the need of crushed stone for roads and concrete work being a constantly recurring item; and the present system of laboriously breaking stone by hand can only be described as antiquated when it can be done far more efficiently and at a fraction of the cost mechanically.

#### (B). Drainage.

This work should naturally precede road construction and is dealt with fully in my report dated 31st May, 1924 accompanied by 3 No: drawings showing the modified drainage scheme now proposed.

On account of shortage of funds the original scheme for draining the whole town into two main outfalls has been reduced to a scheme for draining the town proper into three outfalls (including the extreme East and West ends of the town; Government House, etc.); drainage system to remain as at present.

#### (C). Ross Road Improvement.

This work is dealt with fully in my report dated 30th April, 1924 accompanied by 3 No: drawings on the subject. I have recommended that this road be made up in good manner from end to end and particularly the central portion, (i.e. from the Public Jetty to the Eastern entrance to Government House) which should be provided with a concrete pavement.

Ultimately the aim should be to complete this road in the manner of an esplanade and to lay out Victory Green properly, to which an impetus will be given if the Battle Memorial is erected on the Green as now contemplated.

(D). Improvement of other roads.

The roads in the town other than Ross Road are also all badly in need of proper making up and surfacing. Altogether there are roughly 5 miles of road inside the town fence of which Ross Road is roughly 1 1/2 miles long, leaving 3 1/2 miles of other roads to be reconditioned inside the town fence. The cost of this work may be put at \$8,000 to include also a new road from the Eastern gate to the proposed incinerator site.

In places where on opening up the existing roads an appreciable depth of peaty sub-soil is found it will be desirable to lay a thin raft (say 5" thick) of concrete reinforced with wire mesh and to lay the road metal on top of this foundation; where such peat is shallow it should be excavated and the road made up with stone.

(E). Incinerator, etc.:

The Board of Health has I understand for some years recommended the provision of an incinerator, and this was confirmed at the Executive Council Meeting held on 24th March, 1923. I have advised getting incinerator materials complete ready for erection ex. England on other papers. Whilst strongly of the opinion that this is the only satisfactory and sanitary method of disposing of foul refuse, especially in view of the fact that funds are not available for a proper water borne sewage system for the town, I have to point out that to work this system properly will entail considerably more attention and work than the present unsatisfactory system of collection and disposal of R.C. soil contents. An efficient system of sanitary inspection will have to be carried out, and the bye-laws rigidly enforced. All night soil and domestic refuse and offal should be incinerated, and only peat ashes allowed to be dumped on the foreshore from ash pits.

To carry out this system satisfactorily the "two pail system" for earth closets must be instituted, a disinfected pail being left when the foul pail is removed with lid to the incinerator where it should be emptied and disinfected. It will also be necessary to clear all R.C.'s at least twice if not three times a week in lieu of the once weekly removal effected at present.

Proper sanitary dust bins of galvanised iron with lids should be provided for the reception of domestic refuse and offal by the landlords of all dwellings.

These

These bins should be of circular section and of convenient capacity for lifting and tipping into a scavenging cart. Peat ashes from peat fires should not, however, be allowed in these bins but should be deposited in ash pits as at present, and a regular house to house scavenging system should be instituted by the Government Authority.

(2). Water Supply.

As regards water supply I consider it unfortunate that lack of funds would appear to preclude the possibility of the provision of a proper water supply system unless other portions of the above mentioned works are sacrificed, and that it therefore appears necessary to continue to rely on roof water for domestic purposes.

Under these circumstances I recommend that bye-laws be framed requiring a minimum storage capacity of say 1,200 gallons per house in tanks to be approved by the Government Authority, and that in order to avoid hardships, particularly as regards the smaller property owners, the Government should arrange to supply tanks up to a certain date at reduced terms, after which date any landlord not complying with the bye-law would be liable to be prosecuted.

The 1,200 gallons suggested should be regarded as a minimum and landlords should be allowed to purchase subsidised tanks up to say a total of 2,000 gallons capacity per house if willing.

Taking the average size of a small house as roughly 500 feet super and the rainfall as 24 inches, nearly all of which is available for storage, gives roughly 6,000 gallons as collectable yearly per house; tanks of 1,200 gallons capacity will thus at one time store about 20% of the total quantity available annually which may be regarded as a reasonable minimum under the circumstances.

The adoption of the device mentioned in my preliminary report dated February 1925, whereby the first of each shower of rain is utilised for washing the roof and then run to waste allowing only clean water to enter the storage tanks subsequently, is also worthy of serious consideration.

The Tanks

The tanks must be in at least two units to ensure periodical cleansing, and the periodical cleansing and inspection of tanks and also roof gutters should be made obligatory under the bye-laws.

I do not recommend the general adoption of underground concrete tanks on account of the difficulty of keeping them clean but rather the importation of metal tanks all to be placed above ground with facilities for inspection.

3. The question of water supply is one to which I have devoted a large amount of time as I regard this matter as being of very considerable importance to the health and amenity of the population, whilst the absence of a proper system of street fire hydrants entails very grave fire risks.

My investigations have not, however, led to the discovery of what, having regard to the size of the town and the limited funds available for the several branches of public works which call for execution, might be termed a really cheap source of supply as the geographical and topographical siting of the town renders this impracticable.

Several alternative schemes (e.g. Mill Pond, Sapper's Hill and Hoody Valley) have been put forward on other papers and discussed at some length with His Excellency, but even a modified scheme to supply water mainly from half a dozen street fountains distributed over the town with a reasonable lay out of 3" mains and fire hydrants would involve the expenditure of at least £10,000 with extra for house connections.

In this connection I have also considered the suggestion made at the Executive Council Meeting of 29th March, 1923 to provide a non-potable supply from the Magazine Valley for

flushing



flushing and fire purposes, but I do not recommend sinking money in a non-potable supply and would suggest that it is preferable to leave the question till such time if and when funds sufficient for a potable supply be available.

As regards flushing sewers the new sewers have been designed to self-flushing gradients, and, provided the roof tanks supply is increased as recommended in paragraph 2 (f) above, should give little trouble if proper use is made of them; such flushing as might be desirable occasionally at times of prolonged drought could be carried out by utilising the water cart, which must be supplied for road construction.

If, however, the question of a non-potable supply is considered to warrant expenditure of funds I would suggest the construction of two reservoirs on the Common to be fed by the drainage grips to be cut across the Common at the back of the town one to be constructed to the South of Hebe Street gate and the other to the South of Dairy Road gate. The cost of two such reservoirs with a total of say 1 mile of 3" fire main and a number of fire hydrants scattered over the upper parts of the town might be put at roughly £3,500, but such supply would of course be unfit for potable purposes on account of the animal contamination from the Common.

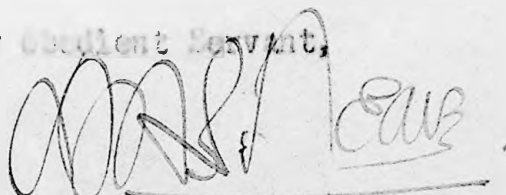
4. This report should be read in conjunction with preliminary report dated February 1923 as much of the

matter contained in that report has an important bearing on the modified proposals now put forward and which has not been re-iterated herein. Whatever programme is adopted I strongly advise that the organisation and plant put forward in my preliminary report should be provided and a definite programme laid down for the expeditious execution of such works over a period of two or three years. Money wisely expended on organisation and preliminary works will effect very considerable savings in the execution of the main works, and such organisation is in fact essential to the proper execution of the main works. A works depot with stone crushing and concrete mixing plant, etc., should be established in the vicinity of the quarry in the Magazine Valley where the bulk of the metal for road construction etc: should be quarried and crushed and moulded concrete work carried out subsequent to transport over the town being performed by motor lorries, provision of which last is, I understand, now under consideration.

I am,

Sir,

Your obedient servant,



Assoc: M. Inst: C.E.  
Chartered Civil Engineer.

The Honourable

The Colonial Secretary,

Port Stanley,

PALM LAND ISLANDS.