



(Formerly)

0 825

0825

PUBLIC WORKS DEPARTMENT.

CONNECTED FILES.

NUMBER

| | |
|--------|--|
| 0327A | P. w. A concrete. |
| 0528 | concrete Blocks |
| 0521 | Scientific equip. and stores. |
| 0615 | P. w. D staff. |
| 08257B | P. w. A Repair of equip. in u. k. |
| 08259C | contract of piece-work |
| 08257D | Power House staff |
| 08257E | write ^{off} Lot revenue. |
| 08257F | ammunition purchased from admiralty |
| 19 | loss of stores. |
| H | steam Roller |
| I | Major works programme. |
| J | Imported actions |
| K | Suspected fraud |
| L | Proposed construction of P. w. D store |
| M | Issue of stores |
| N | Storage |
| 0279 | P. w. D - Complaints. |

11th. September 1952

To: The Hon. Col. Secretary,
Stanley.

From: Ag. Controller of
Communications,
Stanley.

Message Boy.

H.C.S.

There is no Messenger employed by the P.W.D. to serve them and this block of buildings wherein this office is situated, and it is very unaccommodating to find your messenger unable by some regulation of the Secretariat to carry odd letters and papers to other Departments he visits from us except as a favour or when same are addressed to you, Treasury or Auditor.

Could he not take an odd A.V. say from here to S.M.O. and the like without physical discomfort, and leave myself and clerks more time to be actually operative in the Office?

John P. Blair
Ag. Controller of Communications.

Am.

A

~~St~~ Karsell - the Messenger has no such instructions either from HCS or myself. He has now been instructed to make Departmental deliveries on his rounds

B

~~J~~
16.9.

H.C.S.

Noted Thank you.

John P. Lewis

A.H.M.

16/X/52

~~Mr~~ Little

C.

Do note A above, pl

~~J~~
16.9.

D.

acs notes t.y.

W.H. 11

MEMORANDUM ON SOME ASPECTS OF PUBLIC WORKS IN PORT
STANLEY, FALKLAND ISLANDS.

4

At the request of the Honourable the Officer Administering the Government following the completion of my investigations and field-work on the scheme for the improvement of Port Stanley water supply, and before my departure from the Colony, a few days have been spent examining some of the engineering problems confronting the Public Works Department in carrying out Government's policy on roads and drainage and in connection with the fuel supply at the Power Station, the Air Service slipway and repairs to the Public Jetty. In the time at my disposal it has not been possible to make more than a very general survey and this memorandum discusses only those aspects of the problem which appear from a cursory examination on the ground and after conversations with Mr. Northwood, Acting Superintendent of Works and Mr. Gutteridge, Superintendent at the Power Station. My thanks are due to these gentlemen for their readiness to give me several hours in their busy days and to their great assistance in presenting their problems so clearly.

2. There is a general appreciation by everyone with whom I have spoken, of the crippling effect on all schemes of the acute shortage of labour. This is of such a serious nature that until some means of overcoming it has been devised the works potential of any scheme will be insufficient to keep the scheme moving at a rate which will produce results or enable construction programmes based on acceptable dates to be met. The unskilled labour force at present employed by the Public Works Department is, I understand, twenty five men. Only sufficient to meet the day-to-day demands for labour to load, unload and transport materials, to wait on tradesmen engaged on building and to cut peat. It is not sufficient to provide labour for the proper maintenance of roads and buildings. For example such maintenance as is at present being carried out on roads in Port Stanley is being done by three men and is limited almost entirely to scavenging. The inevitable result will be that road surfaces, which have already deteriorated to a condition of loose metal and potholes, will continue breaking up at an increasing rate that will make them impassable to motor traffic within a year or two.

3. The labour problem in the Public Works Department is not, I think, as great as is generally accepted and should be capable of solution if Government is prepared to give it a high measure of priority. I estimate that a permanent additional labour force of twenty unskilled men, properly directed and supervised would enable the Public Works Department to meet their normal maintenance commitments and provide a gang of labourers for road or other special works. This would not raise the works potential of the department to a very high level, but it would, at least, permit some works of the highest priority to be started with a chance that they move forward at a steady pace.

Extracted to 0041 II - February
Regarding shortage of labour

4. At present, owing to demands on the department for unskilled and skilled labour outstripping what is available, it appears to be impossible to plan employment in accordance with definite programmes. Labour is sent day by day to what appears to be the most pressing need and is diverted from the less obvious, but most important, tasks of routine maintenance. I suggest that it is important that the present labour resources of the department be examined in this light and that the department be relieved wherever possible of the responsibility of supplying to other departments general labour paid from the votes of these departments. As a general principle it is desirable that the vote from which the expenses of work are met should be under the control of the department which carries it out: only in this way can the real commitments shouldered by a department be judged.

5. The problem of attracting and keeping about twenty additional labourers is, doubtless, a difficult one and one on which, with my brief acquaintance of the Colony, I am not competent to advise. It is, however, I feel, of vital importance and is the starting point for any scheme of special works. Security of employment through winter and summer and for a period of years with the promise of appointment to the establishment and a pension at the end of it is one means by which recruitment can be stimulated. Incentive bonuses, piece-work and similar methods which raise earnings by increasing output are others.

6. The value of the services to be obtained from labour depends upon the extent and effectiveness of its supervision and control and on planning and arrangements for the adequate supply of material tools and plant. This supervision on schemes, of even quite small size, is a full-time job and I recommend that all special works projects should be directly and continuously supervised on site by a foreman to whom proper authority has been delegated and from whom full responsibility for progress and quality of the work is required.

7. The immediate new major tasks facing the Public Works Department are, if I interpret Government's policy correctly, the improvement of the water-supply and the rehabilitation of roads in Port Stanley. The first of these will be the subject of the report for the preparation of which my services have been sought. The second, so far as my information and study of minute papers goes, has not yet crystallised into a definite scheme with an engineering plan, covering labour, materials and plant, and its accompanying estimate of cost. The time seems ripe for the preparation and assessment of two, or perhaps three, plans based on alternative specifications and methods of construction to enable Government to appreciate the magnitude of the whole task and to frame a practical programme, spread over a period of years, within the works capacity of the Public Works Department (either by an expansion within the department or with the assistance of contractors).

Extracted to 0041/II - Policy Regarding Employment of Labourers.

8. The full programme will probably comprise - in order of priority

- (a) Ross Road from the Air Service Hangar to the Slaughter House - approximately 2 miles of 20 feet wide road.
- (b) Other town roads in Port Stanley - approximately 5 miles of road of average 18 feet width.
- (c) Roads leading from Port Stanley to Surf Bay, Eliza Cove, Sappers Hill and to the Wireless Station, approximately 12 miles of 15 feet wide road.

This is no ^{small} ~~small~~ task with the resources - particularly the labour resources - likely to be available. The engineering plan probably will show that it will require to be spread over about ten years at the rate of about 20,000 square yards a year. Even this is a considerable task. For instance Phase (a) Ross Road, involves 24,000 square yards of surface, would take about 15 months to reconstruct and, if rebuilt in tar-surfaced water bound macadam, would require approximately 2,000 cubic yards of road metal. If it were reconstructed as a concrete road, 4,000 cubic yards of concrete would be required and the time taken might be 3 - 6 months longer.

9. Under the first specification, which uses the lesser amount of material, it would be necessary to quarry and crush approximately 8 cubic yards of road metal a day for 250 days of the construction period. Under the second specification about 13 cubic yards of aggregate - excluding sand - would have to be produced daily for 250 days of the 15 months. The first is just within the capacity of the portable crusher purchased from Ajax Bay, provided it is served by a gang of about 8 men. In the second case it might be possible to find an adequate source of supply of suitably sized and graded shingle but if it were decided to use crushed rock aggregate a second crusher and gang should be employed.

10. The proposal to adopt a concrete slab specification is attractive mainly on the score that maintenance after construction would be reduced; although too much should not be made of this as the skilled maintenance of joints in this type of construction is important if the road is to be kept in good condition. There are several factors to be weighed against it, notably, higher cost, larger material and labour requirements, greater tonnage of imported materials (cement against bitumen) and the slower rate of construction. The skill necessary to obtain a strong hard wearing surface and a smooth grade line is greater than in other forms of road surfacing, accurate setting out of formwork using survey instruments is essential. The disadvantages of covering existing drains and water-pipes with material which requires a great effort to open up should also be considered. On the other hand on the steeply sloping sections of road, where it will be difficult to operate a road roller successfully, construction in concrete might be an easier method than in water-bound macadam or tar-macadam. In my opinion it would not be wise to make the concrete slab less than 6" thick. Steel

Extracted to O.S.S. - Repairs of Roads in and around Stanley.

re-inforcement could be omitted except, perhaps, at the corners of the slab. Load transference between slabs should be provided for by steel dowel bars. The existing road surface should be lightly scarified without disturbing the road foundations and the scarified material spread back and rolled to shape to receive the concrete slab.

11. An alternative specification providing a durable more flexible and hard-wearing road surface at lower cost and with less labour and materials would be:-

- (a) Scarify the existing road surface, taking care not to disturb the foundations of the road. Collect, screen and grade the scarified material for re-use.
- (b) Provide additional road metal at the rate of about 1 cubic yard to 12 square yards of road surface.
- (c) Spread the mixture of new and salvaged road metal to a loose depth of about 5". Roll to shape, spreading clay hoggin material on a well watered surface in the later stages of the operation. The hoggin would be used at the rate of about 1 cubic yard per 40 square yards of surface to produce a closed and well cemented surface.
- (d) After an interval of some weeks and in fine dry weather clean the road surface by brooming with stiff brooms and apply a surface dressing of cut-back road bitumen (liquid at 50° F) at the rate of $\frac{3}{4}$ of a gallon per square yard.
- (e) Blind the surface with $\frac{3}{4}$ " gauge chippings, preferably, or, alternatively, but not so desirably, with coarse sand. Roll well in.

In my opinion this specification would produce a road surface adequately strong and durable to resist the traffic it will be required to carry and the winter climate of the Falkland Islands for several decades if it is treated at intervals of about 3-4 years with surface dressing of road bitumen as described in (d) and (e) above. It will be appreciated that this specification is the one under which the majority of country roads in the United Kingdom have been developed. The original water-bound macadam surfacing of these roads in general was treated between the years 1912-1925 with a tar - or bitumen - surface dressing - usually applied hot and they have been maintained in their present excellent condition by subsequent surface dressings using either tar or bitumen applied hot or cold.

12. Before deciding upon a specification - and there are others such as bitumen grouted construction

Extracted to D452 - Report of Roads
in and around Stanley.

of Roads
/bitumen

Extracted to 0452 - Report
in and around Stanley.

and pre-coated tar-macadam - it will be advisable to give careful consideration to the cost and engineering effort involved in each. No attempts have been made to give comparative costs of concrete slab and bitumen surfaced macadam construction as I have been unable to find in the time available sufficient reliable data on which to base them. It may be, however, that water-bound/surfaced macadam construction will prove to cost about 40% less than concrete slab construction.

13. Around Port Stanley, quartzite, a tough metamorphic rock forms the rock outcrops, stone runs and beach deposits which are available as sources of stone for road metal. This rock shows varying degrees of hardness depending on the extent to which it has been weathered; metal crushed from it is of good cubical shape, resists abrasion and brittle fracture and can be classified as a good roadstone. Considerable quantities of rock lie around in boulders and smaller stones thus reducing the effort required in quarrying. The beach material at Eliza Cove was, until about 15 months ago, used for building concrete aggregates and roadstone when the two crushers installed there became unserviceable. The intention, I understand, is to rehabilitate at least one of the crushers. The distance the crushed rock requires to be transported is an important factor in the choice of a site for the setting-up of a crusher. For phase (a) of the road programme the site should be as near Port Stanley as possible. The proposed site on the shoulder of Sappers Hill should prove a good one. I suggest that when the crushing plant is erected there, it should be enclosed and protected from the weather, so that work can continue during the winter months. Only in this way will it be possible to produce sufficient road metal to carry on road reconstruction throughout the summer months. Thus the best use will be made of the labour available, providing continuous work through summer and winter and guaranteeing the men the security of a permanent job.

Extracted to 0040/F
Sewage Disposal.

14. The main drainage of Port Stanley is on the combined system of carrying sewage and surface drainage in the same sewers, Disposal is by discharge, without treatment, into the harbour at some five or six points along the water-front. The gradients down to the discharge points are steep and the system appears to work reasonably well. About 200 houses are not connected and a night-soil collecting scheme still operates on the bucket system. The desirability of connecting these houses to the sewers and dispensing with night-soil collection is obvious but, as the latter is provided free of charge to the householder, there is no strong incentive and not more than three or four new connections are made yearly. Compulsory connection by enacting legislation has been proposed but has not yet been carried through. One aspect is the ability of the sewers to carry the extra load which would result from the connection of a further two hundred, or so, water-closets. A detailed study of the drainage system would be necessary before a definite opinion could be given

K.C. 247
150 M
The Office

and doubtless some, at least, of the smaller sewers would require to be relaid to larger sizes and others extended and lowered. It may well be, however, that the main sewer lines, which at present adequately carry surface water during heavy storms have the comparatively small extra capacity to absorb the additional sewage flow.

/ differs

15. The sewerage system/in some degree from the full requirements of good practice. In particular, the surface flow from the town roads is discharged direct into the sewers without the conventional trapped gully pot intervening between the road grating and the sewer connection. There is thus nothing to prevent sewage odours rising from the sewers into the streets. At the same time it is desirable and usual to provide free ventilation to sewers by ventilation pipes installed at the head of each house drain. The position then is the sewers are ventilated through the road gratings instead of through ventilation pipes carried up above roof level. A smell nuisance does not arise at present because, owing to the comparatively few houses connected, the ratio between sewage flow and surface flow is low, very considerable dilution taking place. If sewage flow were increased by about two hundred additional connections the smell nuisance may arise.

*Extracted to 0040/F
Sewage Disposal.*

16. It appears that the sewers have not been laid on concrete bases and there is evidence, at some parts of the system, that pipes have collapsed for this reason. The extent of the collapse is not apparent by visual inspection but if it is considerable then a good deal of the flow in these sewers must be soaking away into the ground. Relaying of sewers should be undertaken wherever there are indications that they have collapsed or are leaking to any great extent. It is most desirable that, when new connections or repairs to existing sewers are made, the pipes shall be laid on a bed of weak concrete (1.8 mix.). It is also very desirable that new and reconstructed sewers should be tested for water tightness under a head of from two to eight feet before they are put into service: this should be enforced particularly in the case of house drains constructed by building owners.

17. The scheme for oil storage at the Power Station comprises a 300 ton steel tank (30 feet diam. by 18 feet deep) sited behind the Power Station and a 3" diam. galvanised steel pipe line from the tank to the Government Jetty with an electrically driven pump to lift oil from a lighter at the jetty and deliver it into the tank. The proposal to found the tank on a hand-pitched, concrete covered, rock fill, retained with concrete walls and supported on an 8" thick concrete plinth, is soundly conceived and adequate to carry the load imposed by the tank when full of oil (a pressure of about $\frac{1}{2}$ ton per square foot). I advise that the rock fill shall be levelled off with shingle and sand, well compacted by hand ramming, before the 4" concrete surface is placed. I also advise that the

steel tank bottom (through which rivet heads will project) should be set in a bed of tar-sand mixture about $\frac{5}{8}$ " thick. The mixture should be about 1 part tar to 6 parts sand, adjusted to give a firm plastic material. Suitable tar is available in the Public Works Department store.

18. It is proposed that 500 tons of diesel fuel oil (specific gravity 0.84) shall be passed through the 3" diameter pipe in a period of 10 hours. This rate (130 gallons per minute) will induce a velocity of 6.5 feet per second in the pipe and result in a friction loss of about 120 feet of head. If possible, a pumping rate of not more than 75 gallons per minute should be accepted, reducing the velocity of the oil in the pipe to a more usual rate (3.75 feet per second) and the friction loss to about 50 feet of head. I understand that the Crown Agents are advising on this and will specify and arrange the supply of a suitable pump and motor. Flanged pipes, gaskets and jointing compound suitable for diesel fuel oil have been ordered; this should ensure oil tight joints.

19. I inspected some cracks which appeared about 18 months ago through the Power Station walls. In each case the cracks start at the top of the wall immediately under the roof truss shoes and run, via the window openings, down to the base of the wall. The cracks appear to have resulted, either from some movement of the roof under wind loading or from the local overloading of the walls under the roof trusses by the concentrated load transmitted to them by the latter. The building was constructed about 2½ years ago and the cracks are said to have appeared about one year later. The condition of the walls may not be critical as little change, it is said, has been observed in the cracks for some time. I suggest however that the cracks be kept under observations by installing cement block tell-tales across the cracks so that any further movement will be shown by the tell-tales cracking. The plan of the original design for the Power House shows that the intention was to found the roof trusses on steel stanchions set on short concrete piers and I understand these stanchions were delivered at Port Stanley and are still available. If this is so, they should be held ready so that if progressive cracking appears they can be used as intended. It is unfortunate that the design was altered and no provision made, either by steel stanchions or piers, in the walls to carry the concentrated loads from the roof trusses directly down to the foundations of the building.

20. I also inspected the Public Jetty for which re-decking is proposed. The timber piles and bracings have been inspected by naval divers and have been reported sound: the under deck woodwork is also sound, it appears, except for some upper surfaces of beams where the decking spikes have caused local disintegration. These parts can be treated by adzing out to a depth of about 3" and replacing with new timber spiked on. The deck planks (9" x 3" section) span 7'-6" between centres of beams: this is a large span for a 3" depth of timber and reduces the safe load on the deck considerably (theoretically to a wheel-load of somewhat less than 1 ton). It has been

Extracted to 00401
- New Power Station

Extracted to
0144/B. Repairs
to Public Jetty.

Extended to 0646/B
Revised to Public
J.P.P.

suggested that intermediate beams be placed during the re-decking thus halving the span between centres of beams to 3'-9"; I consider this to be advisable if it is intended to permit loaded 3 ton lorries to use the jetty. It has also been suggested that the timber deck be dispensed with on the masonry, rock filled, shore-end of the jetty and the surface made up in concrete, this will be a good move, will save a considerable quantity of timber and may result in some salvagable timber becoming available for re-use as deck beams.

Extended to 0270/F Local Air
Service - Seaplanes

21. The air-service slipway is too short to permit the Norseman aircraft to be taken from the water at low spring tides. Three feet depth of water is required to allow the wheeled under-carriage to be fitted to the Norseman's floats. It is necessary therefore that there should be this depth over the end of the slipway at the time of the lowest water for which provision for withdrawal is to be made. Levels at low water on the spring tide of the 17th of November, 1952 were taken and it is suggested that the slipway should be extended to permit the Norseman to be withdrawn from the water at all states of the tide down to and including a low water level of - 1.00 feet on the War Office Survey datum (i.e. one foot below the level of Mean Low Water springs). If a depth of three feet is to be provided on a - 1.00 feet low tide then the end of the slipway must be extended to a level - 4.00 below datum. The slope of the existing slipway is 1 in 16 and the level of the end of it is 0.20 above the datum. The extension therefore must be $4.20 \times 16 = 67.20$, say 70 feet long measured on the slope. This extension will slope into the natural bed of the harbour and it will, therefore, be necessary to construct an approach channel from deep water to the end of the slipway with a minimum depth of - 4.00 feet below datum. It is suggested that the approach channel should be the same width as the slipway at the slipway end and should fan out at angles of 45° to give sufficient width to manoeuvre the aircraft when berthing or launching. The channel excavation, probably, can most easily be done by grabbing from a scow after the bed has been loosened by prodding with an iron-shod spar and, where necessary, blasted with explosives. The slipway extension should commence at the end of the existing concrete slip after the cement bag extension has been removed. The slipway extension, which will/mainly in excavation, probably, can most easily be constructed with pre-cast concrete units of 18" x 6" section, each section equal in length to the width of the slipway. These units can be cast at a point convenient for loading into a scow, conveyed to site by this means and lowered in to place in the excavated bed at low tide from the scow with the aid of ropes and guides. The nearest bench mark to the slipway is the one established by me on the concrete slab at the S.W. corner of the landplane hangar. Its value is 34.3 feet above mean low water springs datum.

/be

Extracted to O.D. 2. III - New
Down Hall.

22. Cracks have occurred in the flat concrete roof section of the Town Hall and in the walls in that part of the building. The concrete roof slab has been constructed without expansion joints and in cracking has provided its own joints to accommodate the temperature changes. It is unlikely that further cracks will form in the roof slab. I understand that weather leaks through the cracks have been sealed by veeing out the upper side of the cracks and running them with a bitumastic jointing compound. So long as the compound remains sufficiently elastic to permit the opening and closing of the cracks which occurs under temperature changes without the seal being broken, the cure should be satisfactory and permanent. It appears to me that the cracks in the walls have resulted from the alternate expansion and contraction of the concrete roof slab. This occurrence is not uncommon if a large concrete slab bears on walls without an efficient sliding joint intervening between the slab and the walls. As the temperature rises the concrete slab (concrete having a co-efficient of expansion as high as steel) expands and not being able to slide over the walls pushes them outwards. When the temperature drops the concrete slab contracts but does not pull the walls back with it. Constant expansion and contraction therefore has the effect of pushing the walls progressively outwards until some measure of stability is achieved by the formation, ~~and~~ by cracking, of a sliding joint between walls and roof slab. It would appear that this stability has been reached but it would be advisable to insert cement tell-tales across the wall cracks to confirm this.

23. The foregoing is a general and hasty survey of the various engineering problems carried out at the request of the Honourable, the Officer Administering the Government and with the assistance of the Acting Superintendent of Works and the Power Station Superintendent in a period of about one week. In judging and acting on the memorandum the limitations imposed by these condition should be kept firmly in mind.

G. Rawlings Page

B. Eng., Member Institution of Civil Engineers, Member Institution of Water Engineers.

Mr. Pape

13

4-12.

Remind you P.W.D.

Memorandum for perusal of
Signatures - plus 2 copies
for your retention.



19.11.

Hon. Mr

O. A. G

Signed copy enclosed.

Two copies retained - one for delivery to
Sir Miles Clifford, one for my use.

G. K. Pape 20.11.52.

Extracted to 0041H
Done Policy Regarding Employment of Labour

CS Extracts sh^d be made for relevant files & s/o sh^d comment on return.

2) I w^{ld} like you to discuss Secs 4 & 5 with a/c Pres. & see if any improvements can be made, but especially as regards 5, we presumably must have int. v.c. & Camp or competition will creep in & ways rocket up.

3) Comm. Council sh^d have copies of Secs 14, 15, & 16

4) S.P.C. - - - - - 17 & 18.

5) Pres. H.C. sh^d see Sec 22 in the file.

6) Pres. sh^d have copy of whole report (I think they have)

Done
Extracted to 0270/F. Sampson

ACS above for p.l.
JCB
24/11

24/11
ACS 3, 5, 6 under
C.S.?
I have done with 3 & 6 & 26/11
26/11/32

Extract from minute by H.E. the Governor to Hon. Col. Sec.
of 19/5/53).

(Original filed in O234/V1/34-41 - Estimates 1953/54).

Expenditure.

.....

XVIII. (5) This will have to be considered with water supply scheme, drainage, sewerage and paving as a single project for a contractor and labour ex G.L.; we shall never get it finished with local resources and CDE grant runs out in 1957. S/W to furnish plan of requirements which we can send back with Mr. Page's scheme for consideration by G.L. Discuss meanwhile in ex. co.

.....

Settlement
Schools.

Note taken
(incl) J.R.

| | | |
|-----------------|---------|--------------------------|
| Copies filed in | 0040/F. | Sewage Disposal Scheme |
| | 0452 | Repair of Stanley Roads. |
| | 0491 | Water Supply. |
| | 0372 | Importation of Artisans. |
| | 0355 | Settlement Schools. |

Page

ag. Sw.

18

For your early comments on para. of
attached p.

D. King
4/8/54

H.E.S.

The only contract for which I have been solely responsible for
(Joe Bay P.H.) was supplied with ample drawings and a very
detailed specification.

In this instance it so happened that the contractor was a man
of sufficient intelligence to understand, and work to them. In a
good many cases however - where the contractors are merely navvies,
with no technical training or qualification - it is a waste of time.

I agree from a business point of view, that a spec. should
always be produced, but I cannot answer for S/W's views.

Call the sub man 11/11

P/A

No. _____

It is requested that, in any reference to this memorandum the above number and date should be quoted.



MEMORANDUM.

12th. May, 19 55.

From/ Supt. of Works.

Public Works Dept.,

Stanley.

To/ The Honourable,

The Colonial Secretary,
Stanley, Falkland Islands.

SUBJECT :-

I have the honour to state that the estimate of the damage caused by the fire on Tuesday evening at approximately 5.30 p.m. to two Government sheds is to the value of £230 (Two Hundred & Thirty Pounds).

The above mentioned sheds were totally burnt out and will have to be replaced before the peat cutting season commences.

Supt. of Works.

Handwritten notes:
A. J. Swenson
18/5

Handwritten number: 203

Handwritten notes:
A. J. Swenson
1/6

0825

No. _____

MEMORANDUM.

It is requested that, in any reference to this memorandum the above number and date should be quoted.



27th June 19 56

To: The Honourable,
The Colonial Secretary,
Stanley.

From: Superintendent of Works,
P.W.D.
Stanley, Falkland Islands.

SUBJECT :- Storage of time sheets etc.

I have the honour to request that a ruling be given as to how long we are to keep timesheets, copies of Treasury vouchers, accounts etc.

We have timesheets and copies of vouchers etc. which are several years old and are taking up quite a lot of storage space.

A. J. G. ...
Supt. of Works.

*Agct.
Auditor.*

*for your comments pl.
Reply at 27.
19/7/56*

Handwritten scribbles and numbers in the top right corner.

Handwritten mark at the bottom right corner.

2/5

Hon C.S.

The destruction of records is the subject of C.S. 2437.

Hon C.S.

Before any action can be taken regarding the destruction of Prod. Time sheets etc it will be necessary to know to which year they correspond.

JH
2/17/52.

L.S.
2/17/52

0825

2

1st August,

56

To: Supt. of Works,
From: Acting Colonial Secretary,
Public Works Department,
STANLEY.

Storage of time sheets etc.

24.

I am directed to refer to your Memorandum of 27th
June, 1956, regarding the preservation of timesheets, vouchers
etc. and to inform you that these must be kept for seven years.

(Sgd.) D. R. Morrison.

for ACTING COLONIAL SECRETARY

DRM/MF

PAH
2/8

cc Supt of Works P.W.D.

825/2
28
1

CIVIL ENGINEERING DEPARTMENT,
STANLEY, FALKLAND ISLANDS.

September 8th 1956...

The Hon: the Colonial Secretary
Stanley.



Handing Over Notes.

29
Sir,

I have the honour to forward two copies of my
Handing Over Notes - one for transmission in due course to my
successor; and the other for your files.

2. A copy is being forwarded to the Superintendent of Works.
3. I take this opportunity of acknowledging with gratitude
the ready assistance at all times afforded me by all Departments
of Government during my tour of service.

P. J. G. 8-9-56
I am Sir,
Your obedient Servant,
Macneil
Civil Engineer

HANDING OVER NOTES. 1956.

The writer arrived in the Colony on 11th March 1955 to initiate a programme of Road repair including necessary sewer and drainage extensions and to implement a Water Supply Scheme investigated by Major Pape, B.Eng. M.I.C.E. in 1952 and adopted by Government in 1953.

Before leaving the U.K., the writer examined Major Pape's comprehensive report and recommended to the Crown Agents that the Pumping and Filtration Plant which had been provisionally designed by the Paterson Engineering Company was satisfactory and that firm orders be placed with this Firm for earliest possible delivery.

The Filtration and Pumping Plant has been designed for an output of 6,000 gallons of water per hour - duplicate pumps being provided as standby. All machinery will be electrically driven - current being supplied by an overhead transmission line from Stanley Power House.

On arrival in the Colony the writer investigated the trace for the 6" pumping main from Moody Brook to the High Level Tank, via the Dairy Paddock Reservoirs as well as a possible alternative route which would have entailed the construction of a service reservoir nearabout the Mount William filter beds adjacent to the Stone Run. Although having a much shorter rising pumping main; (the supply from such a projected Reservoir gravitating to the Town Reservoirs) this advantage was ruled out on the matter of additional cost, particularly as the existing storage amounts to 455,000 gallons (355,000 gallons at Dairy Paddock and 100,000 gallons at the High Level Tank). In addition to the cost of such a new Reservoir the length of Trunk Main would be increased by approximately half a mile. It was decided therefore to adhere to a direct line from Moody Brook to the Dairy Paddock Reservoirs with slight deviations to avoid rock outcrops. The trace was levelled and a section plotted and the necessary bends, washout valves, and air valves ordered together with the requisite quantity of Class B, $\frac{1}{4}$ inch cement lined, Stanton spun iron 6" internal diameter spigot & socket pipes with flexible screwed gland joints. The pipes were delivered in 18 ft lengths for a total length of 15,480 feet. Actual requirements are 15,352 ft as far as the High Level Tank - 128 ft being allowed for breakages in transit (vide page 15 of Estimate Calculation Book)

It was originally intended to erect the Filtration Plant at Moody Brook dam, but after excavating the foundations for the structure, it was considered that there would be substantial savings in cost in construction on account of necessary de-watering of the foundation pits and length of access road through peat land, if the site were moved to nearer the main road. Levels indicated that this new site would avoid excessively deep foundation work and also that the hydraulic gradient of the intake was eminently suitable for this new location; moreover erection would be speeded up.

The trench for the 6" Trunk Main has been excavated by the use of an Aveling Barford Trench Cutting machine with considerable difficulty (a) because stretches of the route are peat bogs and (b) a number of sub-soil boulders were met with. Lengths in category (a) have been left undone as manual digging will be simpler, whilst a number of replacements to the tines, tine carriers and other components of the digging chain have been found necessary through breakage. All spare parts necessary to restore the machine to its original condition have been ordered. This machine is designed to cut 11" wide trench with the necessary adaptors to permit an 18" width to be excavated.

The section of trench between the football field and Dairy Paddock Reservoirs has not yet been cut. This may present some difficulty for the machine and it may be advisable to excavate this short distance by hand. The length between Dairy Paddock Reservoirs and the High Level Tank (also not yet done) is suitable for machine cutting.

Six air-valves and six washout valves have been ordered for the trunk main and their most suitable location is indicated on the longitudinal section.

As mentioned at the foot of page 1 of these notes, the new location for the Filtration plant will, if necessary, enable the intake to the filtration plant from the Dam to be laid in earthenware pipes as there will be a gravity flow. This will release some fifty lengths of pipes for other purposes - extensions, repairs, etc also for trapping the dry weather flow from the Stone Run stream.

Roofing for the Dairy Paddock Reservoirs has been ordered - plans of the existing structure having been sent to the Crown Agents. No action has been taken on an improved supply to the Met: Station. This must await completion as far as the High Level Tank. Major Pape suggested that a fractional H.P. electrical pump might be required as a booster. It may well be, however, that there will be sufficient residual pressure on the pumping main to pump direct if the High Level tank is by-passed. One 6" x 4" reducer has been obtained for such a connection at the High Level Tank.

The Slipway is supplied by a tapping from the 4" gravity main from the Mount William intake to the Dairy Paddock Reservoirs and it will probably be advisable to continue this source of supply as a considerable amount of water is required for washing down the aircraft; moreover the use of filtered water for such a purpose would be an extravagance. The 4" main on the town side of this tapping should however be recovered and used for the supply via Gallagher Road to the Met Station (vide previous paragraph).

A crane attachment for the Chaseside loader will be most useful for laying the 6" trunk main. The crane has a lifting capacity of one ton - the 18' pipes each weighing 4 cwt approx:

Filtration Plant and Power House. The plans for this building were received in June 1956 but sufficient advance drawings were sent in November 1955 to enable quantities to be taken out so that the fabrication of pre-cast concrete building blocks could proceed. The structure panel walls, which are not load-bearing, will be hollow cavity, suitably bonded. Below ground level the cavities will be filled with cement mortar - as an alternative to in situ concrete poured thin walls. This will simplify construction and minimize shuttering - timber being very expensive in this Colony. The approximate number of concrete blocks required is 10,400 and it is intended that the German labour gang manufacture these blocks when inclement weather prevents outdoor work. Using quarry dust as "fines", and by systematic production it is anticipated that the production of blocks will be less costly than those available from the P.W.D - in any case the P.W.D. have an appreciable demand for the blocks already in store and it is doubtful whether they would be able to meet fully our requirements without detriment to their own important and pressing work.

In discussing the plant house construction with the Crown Agents and the Paterson Engineering Company, Major Pape rather under-estimated the abilities of local artisans. However this is all to the good as the Company's Architects have sent very full and detailed drawings of the structure which will greatly simplify erection. Although a number of the German labour force are excellent handymen and good at rough work they lack the skill required for the building trade - carpentry, bricklaying, masonry work and in all probability it will be necessary to obtain skilled assistance in these trades from the Public Works Department. The construction of the Filtration Plant and Pump House has been given high priority by Government.

Poles and cable for the high tension Transmission line have been obtained by the Supt: Power & Electrical Department and he has prepared a location diagram for the pole route. Erection of the poles could probably best proceed simultaneously with the laying of the trunk water main, using the Chaseside Crane to facilitate erection. Some of the poles have been specially drilled for cross-bars (not all are identical) so care must be exercised in erecting them in their correct positions, as indicated on the aforementioned diagram.

The necessary Transformers for the power supply have come to hand - and one has been placed in the Stanley Power Station; the other being temporarily housed in the old Army camp opposite the Hangar.

The purification plant and other equipment for erection in the building is also being held in the old Army camp buildings.

The structural framework and roofing of Filtration Plant building is awaited from the Horseley Bridge and Thomas Piggott Ltd, the Paterson Engineering Co's sub-contractors.

Operation of Filtration Plant.

The raw water from Moody Brook is conducted by pipe line (cast iron or earthenware - vide page 2 of these notes) and flows by gravity to a small sump below ground level. It is pumped via chemical mixing tank to a reaction tank from whence it gravitates to the steel filters and after filtration passes into the clear water reservoir. Water is pumped to the Town reservoirs from this clear water reservoir.

Chemical solutions of sulphate of alumina, washing soda and sodium aluminate - all of which are required for coagulation - are fed into the small sump mentioned at the beginning of this paragraph and when the water has passed through the filters, the filtrate is sterilised by the addition of a solution of electrolytic sodium hypochlorite which is manufactured in a Clorocel unit which possesses a rectifier and salt saturator by the use of a solution of common salt. The filtered water reservoir also receives a solution of washing soda to control the pH value of the treated water

Amongst the equipment provided are: a Chloroscope to enable the chlorine content of the treated water to be determined; an Aquascope to determine the pH values of the raw and treated waters, and a Chlorimeter to determine the colour of the waters.

It will be realised that as the raw water collecting basin is peaty the pH value of the raw water may vary from time to time. The use of the Aquascope simplifies the control of washing soda additive.

The Clorocel steriliser will use about 2 lbs of salt per hour for the treatment of 6,000 gallons of water per hour - which is the output of the filtration plant and one filling with a 10% solution will last about 75 hours of operation. The electrical energy consumed is very low indeed, being only of the order of 300 watts per hour.

The rapid gravity filters are cleaned by compressed air agitation of the filtering media and the impurities dislodged are flushed by a reverse flow of filtered water which is stored in a wash-water tank 16 ft x 16 ft x 4 ft deep above the filters.

The filtering media comprise graded sand and pebbles and the requisite quantity is being supplied by the Paterson Engineering Co.

Sulphate of alumina, sodium aluminate, and washing soda have not yet been ordered, owing to storage difficulties. An appropriate time to place the necessary orders with the Crown Agents would be when the filter house is under construction. It should be noted that sodium chloride (common salt) is the most suitable raw chemical required for the Clorocel...i.e. a vacuum salt such as is used for the regeneration of water softeners, and one which contains a minimum of calcium and magnesium chlorides.

Operating technique and testing for correct dosage of the chemicals is a matter of simplicity and can readily be mastered in a few hours.

Stanley Roads.

It is reported that the roads in Stanley before the war were, in general, in fairly good condition - the principle thoroughfares being tar-macadamized. Considerable damage to their surfaces was done during the war by the Military - using Bren gun carriers and other track vehicles. The pot-holes which appeared were neglected during the ten years following the departure of the Military and owing to lack of maintenance there has been progressive deterioration.

Ross Road, from the Public Jetty to the west entrance of Government House, has been reconstructed in 6" thick concrete - the portion of the road from Hospital Road corner westwards widened and completely new pavements on the south side of this stretch laid in concrete. Where necessary, new gulleys and additional cross drainage have been provided.

The North end of Philomel street as far as Crozier Place has also been re-laid in concrete to connect up with a new concrete Road constructed by the Falkland Islands Co in front of their offices.

Where necessary underground ducts have been inserted to enable Power transmission lines, telephone cables, and electrical supply for domestic purposes to be buried and thus avoid the unsightly mass of overhead wires and poles which detract so much from the natural beauty of the Town.

Much of Ross Road was previously highly cambered - the north kerb being substantially lower than the south side pavement. Reconstruction has rectified this defect, but it has naturally slowed down progress.

The road has been divided longitudinally and homogeneous concrete slabs - each 25 feet in length - have been laid with $\frac{1}{2}$ " expansion joints. Hot bitumen has been used for sealing all expansion joints.

The concrete mixture used is a nominal 4: crushed metal, 2: sand and 1: cement - by volume, but owing to "fines" in the metal rather less sand has for the most part been necessary to fill the voids.

Periodic batch tests have been carried out and the proportions altered to produce the densest and strongest concrete.

The concrete is laid on waterproof paper; the bed having been compacted by 7 ton roller before and after a sub-base of crushed stone and sand was laid. A vibrator was used further to compact the concrete slabs during laying.

In the initial stages a few of the concrete slabs cracked, but improved technique has obviated this trouble. Some of the cracks may require bitumen filling in the dry weather.

In spite of initial lack of experience on road construction, workmanship has reached a high standard, and the workmen are justly proud of the results of their labours. Peat pockets have been dug out and a hard core base provided wherever necessary and as the slabs have been finished off with a ribbed non-skid (?) surface, many years of trouble-free road surface may be confidently anticipated.

The actual construction cost of Ross Road works out at rather less than £3 per lin ft of road for the 20 ft width. This does not include Capital expenditure nor salaries of the Engineer and Clerk. The pavement cost about 8s.0d per running foot. It is 5 ft in width.

It is intended that the other Town roads should be re-surfaced with water bound macadam and tar-grouted. Application of tar being at the rate of $\frac{3}{4}$ gallon per square yard. The road metal will be laid to a thickness of 5" and consolidated to 3" Estimated cost of re-surfacing the roads to this general specification is £1 per running foot. Opportunity should however be taken of widening the roads where necessary and constructing pavements where none exist.

An 18 ft width road tar applied at the rate of $\frac{3}{4}$ gallon per square yard will require 7,920 gallons per mile. The P.W.D ordered 100 drums for my use and last year I indented for a further 100 drums...Total stock at the end of June 1956 was therefore approx 200 drums or 8,728 gallons.

An indent for 200 drums (approx 8,728 gallons) was placed in July 1956. As soon as work on re-surfacing the macadam roads starts, additional supplies of tar should be ordered. The total tar requirement is of the order of 50,000 gallons (1,200 drums) including stocks already obtained or ordered.

Owing to the limited labour force the speed of road re-surfacing is dependent upon the rapidity with which the filtration plant is erected and the pipe line laid, but if it is at all possible I suggest that arrangements be made for tar to come out on R.S.S Biscoe and/or R.S.S. Shakleton as freight cost of tar barrels actually exceeds the cost of the tar (Tar 1s.2 $\frac{1}{2}$ d per gallon; Freight charges 1s.3d per gallon). The same suggestion applied to cement transport, but it is possible that stocks of cement already in hand will be adequate.

The P.W.D carry reserve stocks of cement in their unallocated stores but much of it is ancient vintage and some has hardened. It would be advantageous to Government to liquidate this old stock in preference to ordering fresh cement for immediate consumption. Some 90 barrels of old cement was obtained from P.W.D in Feb/March and replaced with new cement on arrival of my own shipment. I suggest you discuss the matter with the Supt. P.W.D before ordering further stocks of cement, as the unallocated stores stock is substantial, and may well exceed the P.W.D immediate requirements.

Re-alignment of Crozier Place.

In consideration for having surrendered to Government the plot of land on which the Infants' School has been built the F.I.Co were given the section of Ross Road between East and West boundaries of the Marine lot at East Jetty. A further consideration was that Crozier Place should be re-constructed to a specification approved by Government - the road being 20 ft in width with a five foot pavement on south side. Road slab 6" concrete (4:2:1 mixture) Pavement slab 3" thickness. In order to provide reasonable access to floors of existing buildings on south side of the road and to facilitate drainage the west end of the road, which was originally designed with an uniform level, was slightly graded.

Before plans were accepted by the Company, the Company objected to a pavement on the south side of the road. It was however considered by Government that a pavement was necessary for pedestrians visiting the Company's offices and also for visitors to the Globe Hotel, and one was accordingly provided.

The Company in order to improve access from the jetty and water side store buildings to the Engineering store adjoining their Offices have built a ramped road connecting Crozier Place with the Jetty approach road. It is understood that this will be a private means of access.

Further in order to minimize the area which would otherwise be absorbed in the embankment on the north side of the road, the Company has adopted the mass retaining wall alternative support shown on the revised plan (January 1956). This though more expensive to the Company increases the area available to them for storage.

Much of the sub-base and other filling was provided from material excavated from Ross Road during re-construction.

The length of re-alignment is approximately 700 ft (excluding the Company's connecting road referred to above) and as stated on page 5 of these Notes the North end of Philomel Street has also been concreted to provide continuity. It is intended also that the concrete road will be extended along the water front as far as Hebe St Junction. Weather permitting this small section should be completed by mid-September 1956, at latest, thus providing a continuous stretch of about 4,800 lin feet of concrete roadway, from Hebe Street Junction to the West Entrance of Government House.

The cost of the concrete road (Crozier Pl) is not known. It would obviously depend upon whether cement, crushed stone and other materials are charged out at actual production or landed cost or whether establishment and other charges are included.

Sewer Extensions.

In November 1955, at a meeting attended by the Chairman, Town Council and the Supt. Public Works and Supt P & T Dept. it was decided to recommend to Government that certain sewers be extended in order that all sewage be water-borne.

It was considered that about 2,000 ft of 9" glazed earthenware pipes would be required for the purpose and that the extensions should be as follows:-

| | | |
|---|-------|------------|
| South of Dairy Paddock Road | 600 | feet |
| Villiers St (Davis St to Callaghan Rd) .. | 300 | |
| Callaghan Rd (H.L.Tank to Dean St Jn) .. | 600 | |
| Dean St. (Callaghan Rd to Davis St.).. .. | 300 | |
| Davis St (East of Dean St Junction) | 200 | |
| | TOTAL | 2,000 feet |

A rough estimate of probable cost is £2,000 (i.e Twenty shillings per foot run) based on the following calculations:-

2,000 ft 9" glazed earthenware pipe (e x P.W.D store)
@ 6s.0d per ft run£600

Laying and jointing including concrete haunching where necessary @ 4s.0d. per ft run.....£400

Allow for Specials, including Bends, Junctions, gulleys, manholes£400

Allow for service connexions to property boundaries £300

Contingencies £100

£2,000 was included in my Draft Estimates for expenditure this financial year but was not allowed. As water-borne sewage is considered to be a sanitary improvement and is being pressed for by the Medical Authorities, you may wish to re-include an appropriate amount next financial year when preparing the 1957/58 Draft Estimates. N.B

The Supt. P.W.D who was at the meeting in November and approved the draft estimate before submission to Government holds stocks of 9" pipes on his unallocated store account.

It would be advisable to lay these sewer extensions before re-surfacing these sections of road.

Underground Cables.

At a meeting held in November 1955 attended by the Chairman, Urban Council, Supt P & T Dept, and Supt P.W.D. it was agreed to recommend to Government that wherever practicable the electric power cables, telephone and rediffusion lines should be carried in underground cable ducts and that when new cables and extensions are required the provision of ducts would enable the cable-laying to be carried out at a minimum of cost and without disrupting traffic or road surfaces.

The meeting recommended that four-section cable ducting should be used so that telephone, rediffusion, high and low tension electric power cables could each be isolated,

It was recommended that, except along Ross Road, the ducting be laid under the pavement or side-walk because (a) the work could be done without extensive interruption of traffic, (b) on peaty sub-soil there is less liability of movement and consequent fracture of the ducts under pavements than under road surfaces carrying much heavier loads and (c) in rocky sections less cover is required and the cost of excavation is minimized.

Along Ross Road in those sections where there is no North side pavement, the ducting would be laid in the grass verge. As mentioned on page 5 of these Notes, cross road ducting has been laid at various points on Ross Road and under the road opposite the West Store where there is no Government verge on the North side of the Road

The approximate quantity of ducting required is 20,400 lin ft (plus 15% for transit breakages) to comply with the following:-

| | |
|---|----------|
| Ross Rd & Ross Rd East (From Secretariat to Cemetery) | 4,000 ft |
| John Street | 1,800 |
| Barrack St & St Mary's Walk | 1,500 |
| Fitzroy Road | 1,900 |
| Allerdyce St & Drury St | 1,700 |
| Moddy St & Pioneer Row | 1,500 |
| Brandon St | 1,500 |
| Davis St (Brisbane St to Glasgow Rd) | 2,600 |
| Philomel St (North of Davis St) | 1,100 |
| Dean St -do- | 1,100 |
| Villiers St -do- | 1,100 |
| Brisbane St -do- | 600 |

Estimated cost (based on a prime cost of 2s 6d per lin ft FOB U.K. Port) is £6,000 or about 6s.0d per ft run. /NB

I believe the Supt P.W.D will order ducting on unallocated Store Account and suggest that the item be again included in next year's draft Estimates. A detailed breakdown of the estimate appears in my file No X.

EXPENDITURE.

Expenditure on Water Supply during the current Financial year is estimated at £29,575, of which £15,000 will be provided from Colonial Development and Welfare Funds if the Government's application for continued assistance is successful.

The remaining £14,575 will be financed as follows :-

| | | | | | |
|-----------|-------------------------------|----|----|----|--------|
| Head XVII | Sub-head 19 | .. | .. | .. | £5,000 |
| | Revote from 1955/56 Estimates | | | | £9,575 |

No expenditure against the revote may be incurred without prior approval of the Colonial Secretary.

Details of estimated expenditure are shown in the Schedule in File XI.

Expenditure on the Road Improvement System during the current financial year is estimated at £18,000, of which £3,000 will be met from Head XVII Sub-head 17 and the balance £15,000 from Colonial Development and Welfare Funds if the Government's application for assistance is successful.

Details of estimated expenditure are also shown in the Schedule in File Xi.

A system has been introduced whereby all expenditure is correctly allocated to the appropriate sub-head as soon as it is incurred - a special ledger having been opened for the purpose. (the "sub-heads" are those of the detailed breakdown appearing in the Schedules in File XI)

All commitments are posted in the Vote Ledger, including estimated freight and handling charges of stores supplied on Indent and the actual balance is reconciled with the Treasury books once monthly. This reconciliation does not include liabilities and other commitments in respect of outstanding claims but merely provides a physical check on completed transactions.

Stores urgently required which are not available on the P.W.D Unallocated Stores stocks may be obtained locally by purchase from private sources. The approval of the Colonial Secretary is required for the purchase of stores exceeding £50 in value.

All stores are normally obtained on Indent on the Crown Agents or by requisition on the P.W.D Unallocated Stores and private purchase, which is expensive, is seldom resorted to except in the case of special lubricants, motor spares, hand tools and timber.

The Labour Force.

The labour force consists of 23 Germans plus local casual labour. The advance party comprising 6 men arrived on 30th June 1955 and the main body on 30th July 1955. One German (not included in the above total) was medically boarded and re-patriated at the end of 1955.

The Germans are on a three-year contract and are paid at local rates. They are entitled to one week's paid leave each year. In order that work is not disrupted owing to such leave, it is usually staggered - some going on leave after 9 months others after 14 or 15 months. Extension of leave if approved is on "no pay".

Although paid at local rates, their conditions of service differ from casual employed local labour in that single men get free lodging in furnished quarters and are provided with free electricity, heating etc. Married men with wives and/or families pay an inclusive rent of one shilling per day for their furnished quarters (including electricity and heating).

Accompanying the labour force are four domestic servants. The passages of these women were paid for by the labour force. They receive free furnished quarters including electricity and heating and are paid a boarding allowance of three shillings and sixpence each (total fourteen shillings) per day to meet the cost of their subsistence.

It has been agreed that the labour force will in future cut their own peat i.e. in their own time. Transport of the peat will however remain a charge against Government.

The agreements are in Secretariat File 0825/J

Many of the German labourers are highly skilled tradesmen. They are industrious, abstemious, gentlemanly, and take considerable pride in their work - and justifiably so for the quality and quantity of their output have received very favourable comment.

In the event that local labourers seek employment, the Foreman should be consulted before they are engaged. A number of those engaged have drifted away as they have found the pace too strenuous. As there is no real "light work" I have made it a rule that any youths employed must be first medically examined as physically fit (free from hernia) and until 18 years of age will not be required, nor allowed, to work overtime. This ruling has the approval of Government.

A number of accidents have occurred and I would draw attention to the unrealistic compensation at present awarded under the Workmen's Compensation Ordinance. Compensation is limited to £3.2.6 per fortnight - being based on a maximum wage of £12.10.0 per month. I have pressed for revision of this Ordinance as a matter of equity.

General

A Land Rover (1952 model) is shared with the Agricultural Officer and so far this arrangement has proved satisfactory.

During construction of the Purification Plant there will be a much greater demand on this vehicle by this Department than was the case when the main activities of the labour force were concentrated in the Town - within easy walking distance of the office. However the Agricultural Officer's demands on this vehicle - never very great - can doubtless be met without undue inconvenience.

Gas Oil

Government recently arranged for Gas Oil to be delivered in bulk at substantial saving in cost. Unfortunately existing stocks are inadequate to enable this Department to continue to obtain Gas Oil from this source and it has been necessary to send 25 empty drums (marked - C.E. Gas Oil) to Montevideo. This quantity (1,000 gallons) is ample to meet all contingencies and should enable 400 gallons to be held in reserve, provided that (say) ten drums are replenished whenever consumption requires it, until such time as Government is again able to build up its bulk stocks.

Clerical Assistance

Mr. W.E. Spencer is in charge of the office and is now fully conversant with procedure.

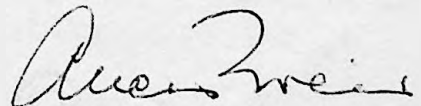
Surveying Instruments.

The P.W.D have a stock of Surveying Instruments which the Superintendent (Mr.A.E.Livermore) loans on request. They include Theodolite, Plane table and Dumpy Level. For convenience, the Dumpy level-and-Staff is kept in the Civil Engineers Office. This instrument has been put into perfect collimation adjustment and is now in first class order.

Conclusion.

The writer hopes that these brief Notes will be of value to his Successor and will assist him to embark on an interesting and successful career in the Colonial Engineering Service.

September 1956



A.P.Weir, I.S.O.,M.I.C.E.,M.I.W.E.

Handwritten initials

CIVIL ENGINEERING DEPARTMENT,
STANLEY, FALKLAND ISLANDS.

41

Mr Gustav Boehme
Foreman.

10 Sept 1956.....19.....

Programme Instructions.

Until the new Civil Engineer arrives, the following will be your programme of work:-

Note:- It will be for you to decide which work is to be done first, second, third etc: and which jobs should go on simultaneously.

Quarry: Hydraulic starters to the Lister engines to be fitted. Lister Engine to be repaired when cylinder head arrives. Crushed stone to be stock piled (a) for concrete; (b) for Roads and (c) for building blocks.

Note:- crushed stone for Roads (b) may have to be screened

Water Supply

Laying of pipe line to continue. Plan in office shows approximate positions for wash-out valves and air-valves.

Overhead transmission line poles to be erected. If in doubt consult Mr Gutheridge, Supt: Power & Electrical Dept. He has already pegged out positions for poles.

Pump House. You will assume that the levelled site is at level 19.50 O.D. and the tops of the foundations for the columns will all be 4.25 feet below this newly levelled ground site.

Plan of Bases 534-55-2 shows lengths of holding down bolts, and my set of squared paper drawings gives details of size of foundations. Wherever possible the foundation holes should be dug to clay below peat level, but the tops of the foundations must all be at the same level. This will mean that where the peat layer is more than three feet thick the depth of concrete will be more than three feet.

If it is necessary to erect columns a heavy endless chain pulley block can be borrowed from the Wireless Station, but it may be desirable to await the arrival of the new Engineer before the columns are erected, so that he can check with instruments that the columns are correctly aligned.

Concrete Blocks. Making of these should continue.

General

Recreation hut flooring to be laid. Garages from Nissen huts to be erected. All vehicles and machine to be kept clean and greased. Lorry body to be fitted when new lorry arrives.

Reporting

You should report to H.E., O.A.G every Wednesday and Saturday at the Secretariat at 9 o'clock and tell him how work is progressing. (take interpreter with you)

Road Work

Continue scarifying and levelling Ross Road West towards the Hangar.

Handwritten signature
Civil Engineer

Ca file.
2.11.56

42

There should be brought up for me
to hand over to the new Capt. Court
Engineer when he arrives in October.

W. J. P.
3.2.57.

Bu. 24/2

3/4.

Bu 29/10/57

Amalgamate fl

S.W.

I understand that about ten years ago some headstones from Port Louis cemetery were sent in for renovations and repairs. Do you know anything about these stones and their whereabouts? I should not like to think that they have completely disappeared and perhaps you would go into the matter and see what needs doing.

2. I understand that the bridge just to the east of Canopus on the peninsula has been damaged and could do with repair before it gets very much worse. Would you please look into this.

3. How are the sea walls progressing?

AGDT/SJA

R. G. J. J.
13/1/58

53

HEL I have found two wooden facings from Port Louis and will do them up first opportunity. However I have been told that a new stone some years ago was fixed for Gov Brisbane.

- (2) I have inspected this bridge and repairs are under way.
- (3) The Sea Wall has been repaired from the East End to the West Store Jetty

R. G. J. J.
23/1/58.

54.

On file after get back plan.

55

AGDT

to you accy. pl.

Bur. 11/2/58

2
21/1/58

Supt. P.W.

How are the bridge repairs going? Presumably they are completed.

What is your programme for the sea walls?

HCB

57

24/1/58
17/2/58.

(1) Bridge repairs completed

(2) No further work done on sea walls owing to shortage of labour.

A.G.H.

19/2/58.

58

S.P.

Supt. P.W.

Yes - but what is your programme.
When do you propose to continue with sea walls repairs?

24/1/58

24/2/58

59

HCB

I expect to start work again on the sea walls on Monday March 3rd 1958

A.G.H.
20/2/58.

24/1/58

1/2/58

P.C.
2
2/2/58

WORK LIST.

APRIL MAY JUNE.

MASON. T. PERRY.

- Complete W/T Station Store Shed.
- Lay Tiles at Operating Theatre.
- Lay Tiles Police Cottage Bathrooms.

When J Lawrance returns from South Georgia, hand him over to C Engineer.

CARPENTERS: Davis.

Erection of Port Howard House ex Ajax Bay.

A Biggs.

Repairs to Alert etc.

Go to Ajax Bay when job is ready with Perry & McKimmon.

Pollard.

Repairs to Govt. Buildings prior to painting.

Painter. Black.

Interior of Junior Officers Qtrs No 3.

Exterior of Double House when weather is fine.

After June 30th, 1958.

Jobs as in my list presented to the A.C.S. in order as put down if possible but I know there may be some alterations both from the point of view of Labour and weather conditions.

(Sgd) A.E. LIVERMORE.

r.m.s. DARWIN.

4/4/58.

20. 8. 10/6/58

60

PUBLIC WORKS DEPARTMENT.

GARAGE ORDERS.

1. Drivers will be responsible for greasing and oiling their vehicles and for cleaning the engine and body-work. The Foreman Mechanic will make frequent inspections of all vehicles to see that this order is carried out and will inform the Superintendent of Works if it is disregarded.
2. Drivers will be responsible for ensuring that their brakes, lights and horns operate efficiently.
3. Drivers will repair their own punctures.
4. Drivers will report all mechanical faults to the Foreman Mechanic without delay and, unless required for other duties, will assist in repairing their vehicle.
5. The Foreman Mechanic will examine all vehicles once each month (whether faults have been reported, or not) to ensure that they are being properly maintained. This maintenance examination will be made in addition to the frequent inspections as in paragraph 1 above. The date of the maintenance examination will be entered on the vehicle maintenance record card and signed by the Foreman Mechanic.
6. Drivers will be responsible for tools issued to them.
7. If a tractor is required to extricate a bogged lorry the fact will be reported to the Foreman Mechanic who will, if he considers it necessary, detail a mechanic who will be responsible for extricating the vehicle.
8. The Foreman Mechanic will be responsible for ensuring that the vehicle maintenance record cards are kept up to date and that the total cost of repairs, including labour and materials, is properly entered.

75

M E M O R A N D U M

Ref: 0825.

Circular No: 7/64.

21st January, 1964.

From: The Colonial Secretary,
STANLEY.

To: All Heads of Departments,
STANLEY.

Public Works

I am concerned about the amount of work to be done and the lack of labour to do it and I am of the opinion that at the beginning of each financial year the Superintendent of Works should confer with Heads of all Departments and then do a complete tour, if necessary by air, of all Government works compiling a list of work priorities for discussion, and, if necessary, direction by the Governor in Council.

2. The Superintendent of Public Works has been directed to make all the necessary arrangements.

COLONIAL SECRETARY

WT/IM.

BU 1.7.64

82

MEMORANDUM

It is requested that, in any reference to this memorandum the above number and date should be quoted.



8th. July, 1969.

To: Colonial Secretary,

From; Superintendent of Works, P.W.D.

STANLEY.

Stanley, Falkland Islands.

SUBJECT :-

CARETAKER.

On Thursday 3rd. July, Mr. H. Halliday approached me and asked me why he had been removed from the Public Works Dept. As this was new to me I made enquiries. On Friday I discovered that the Acting Senior Clerk had transferred this man and his wages to another Department, on the instructions of the Treasury.

Mr. Halliday came for his wages as he has always done, and discovering it was not here, became very abusive and was quite disturbed about serving the Government for so many years and being thrown out without a word from the head of the department.

I did not have much success in assuring him that he had not been dismissed, this being the end product of outside interference anyway.

Results:- Unknown, to quote Mr. Halliday 'I work for P.W.D. I dont work for the Medical department and never will.

General Clerk
AK on 29/7/69
[Signature]

J. W. Royans

Supt. of Works.

Sm 17-7-69

83

ALS
P. 82.

Mr. Haliday is a government employee whom
that government has named, as it has every right to do,
from one department to another.

2 I think it would be best if this matter is
allowed to lie until? S.P.W. is on duty again when I
shall, as a final step, wish to see him about it.
Could he be so informed - orally?

84

C.S.

I have mentioned to SPW who is now back in the chair.
You will let him know when it is convenient to see him?

ALS. Please let him know I should like to see him as soon
as possible after Exco. 11.7.69

J 10/7

PA

C.S.

I have advised
S.P.W. You will see
him tomorrow morning.

11/7/69
11/7/69
11/7/69