ROBBEN ISLAND MUSEUM OLD POWER STATION

Permit application to SAHRA in terms of the National Heritage Resources Act, 25 of 1999

VOLUME 2. Significance, timeline and references

Contents

2.1. STATEMENT OF SIGNIFICANCE

1. LEGAL REQUIREMENTS

The heritage statement was commissioned by Groenewald Preller Architects on behalf of the national Department of Public works to supplement the permit application to SAHRA in terms of section 27 of the National Heritage Resources Act, 25 of 1999. The scope of the development triggers a Heritage Impact Assessment in terms of section 38 of the NHRA. Section 38(7) of the NHRA, however, exempts the development from an HIA unless SAHRA decides otherwise. An advisory was requested from SAHRA on 21 June 2011 to clarify the process. The SAHRA Built Environment and Landscape Committee [BELCom] responded on 1 July 2011.

SAHRA will require a S27 Application with a heritage statement. Supporting documentation to be submitted with the application to include a Site plan, Photographs, Plan, Scope of works, Motivation and the Heritage Statement. It is advised that a management plan for the maintenance should be developed as part of the application.

2. INTRODUCTION

Robben Island Museum [RIM] identified the Old Power Station [OPS] as an opportunity to create space for their collection of artefacts in the Integrated Management Plan for 2007-2012. Some of the artefacts, mostly on temporary loan to the collection, are housed at the Mayibuye Centre at the University of the Western Cape. The major portion of the collection is housed in various parts of the Political Prison not open to visitors.

The collections manager for RIM/Mayibuye has provided baseline requirements for the conversion of the OPS to create a compact space to accommodate the storage of a selection of the RI collection on a permanent basis and according to acceptable museum preservation standards. This project includes the rehabilitation of the various structures that make up the Old Power Station site as well as the refurbishing of the interior.

The collection includes artifacts of organic (wooden, textiles) and inorganic (stone, metal) origin that needs to be preserved by means of a stable climate (humidity, light, temperature) and adequate safety and security. The space needs

to facilitate easy retrieval and controlled access for purposes of research, education and exhibitions and offer facilities for interventive conservation such as workshop space and the storage of materials, some combustible.

3. LOCATION

The OPS is located immediately behind House number 49 and the Post Office on Church Street. The main entrance faces approximately NE towards the Club House/Chief Medical Superintendents residence.

Fig.1. Location in relation to associated landscape.

4. SITE PLAN

Fig. 2. Site plan showing alignment and coordinates.

5. FLOOR PLAN

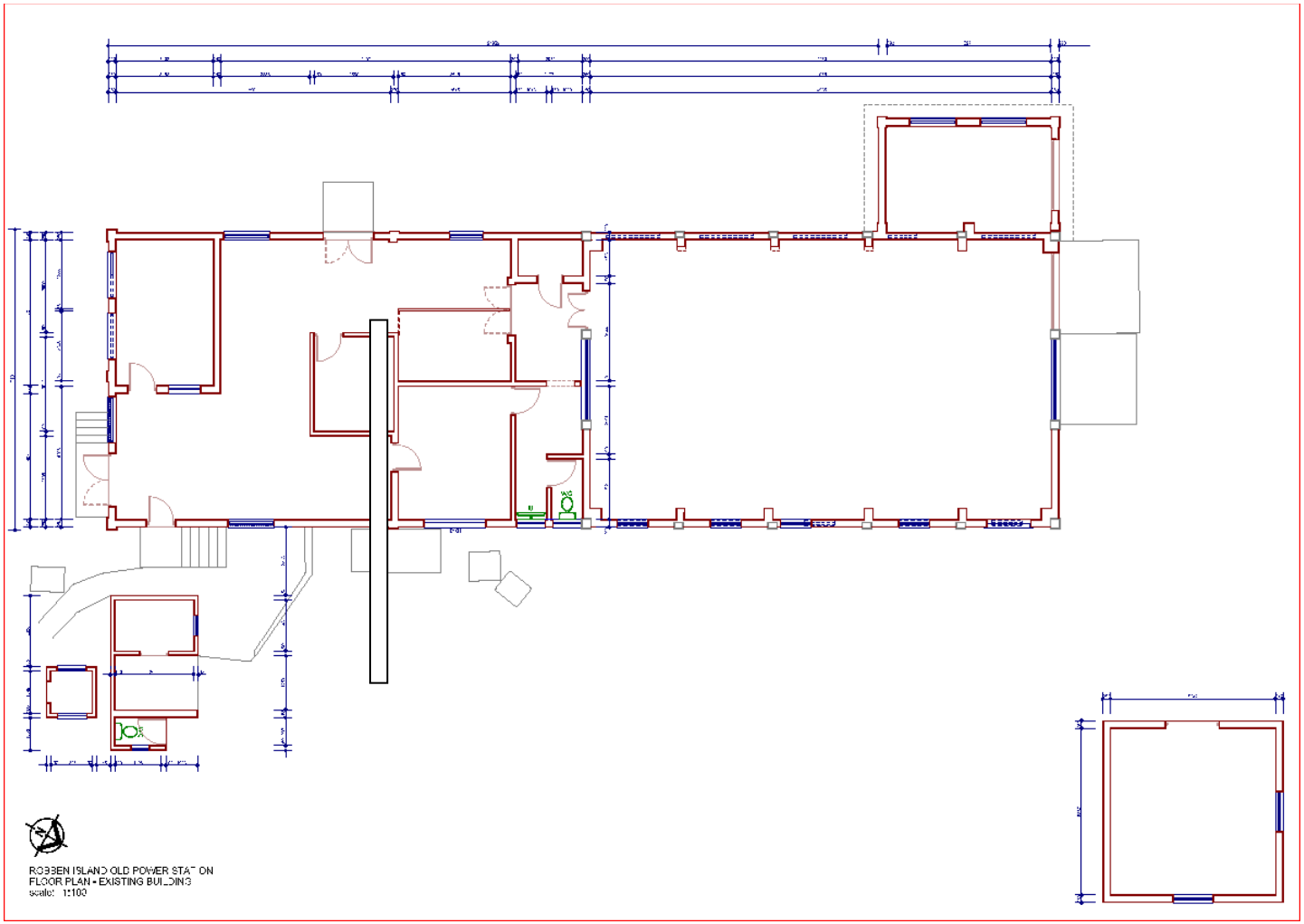


Fig.3 Floor plan ca. 2011.

7. STATEMENT OF SIGNIFICANCE AND VALUE

The OPS supplied electricity to the expanding Village during World War II and continuously over the next 50 years for the village, light house, harbour and from 1967 to the Maximum Security Prison.

8. EXPANDED STATEMENT OF SIGNIFICANCE AND VALUE

8.1. AESTHETIC

Much of the industrial aesthetics of the War time structure was removed in the 1970,s.

8.2. ARCHITECTURAL

As with many other structures the OPS has changed considerably from when it was built, but distinct parts of the building can be isolated by observation. Certain observations have been strengthened with the research material. The main structure was built ca 1943 with a cooling pond. Prior to this the plinth, staircases, columns and possibly some of the walling of the extension to the south of the main building was build in ca 1941. This was covered in corrugated iron. Major changes were made in 1972 to house three new Rolls Royce gensets, when the floor channels, the control panels and the small building adjoining the older section on the north west corner of the front façade was built as the transformer room. In 1987 additions were again made which gave the building and the guard house its present floor plan.

The general feel of and interpretation of the Main building is congruent with that of the floor plans and architectural drawings from 1963, 1967 and 1987. The architecture is functional and has a distinct industrial resonance.

The architectural description and state of conservation of the site is produced in Vol. 1, Report No. 1.

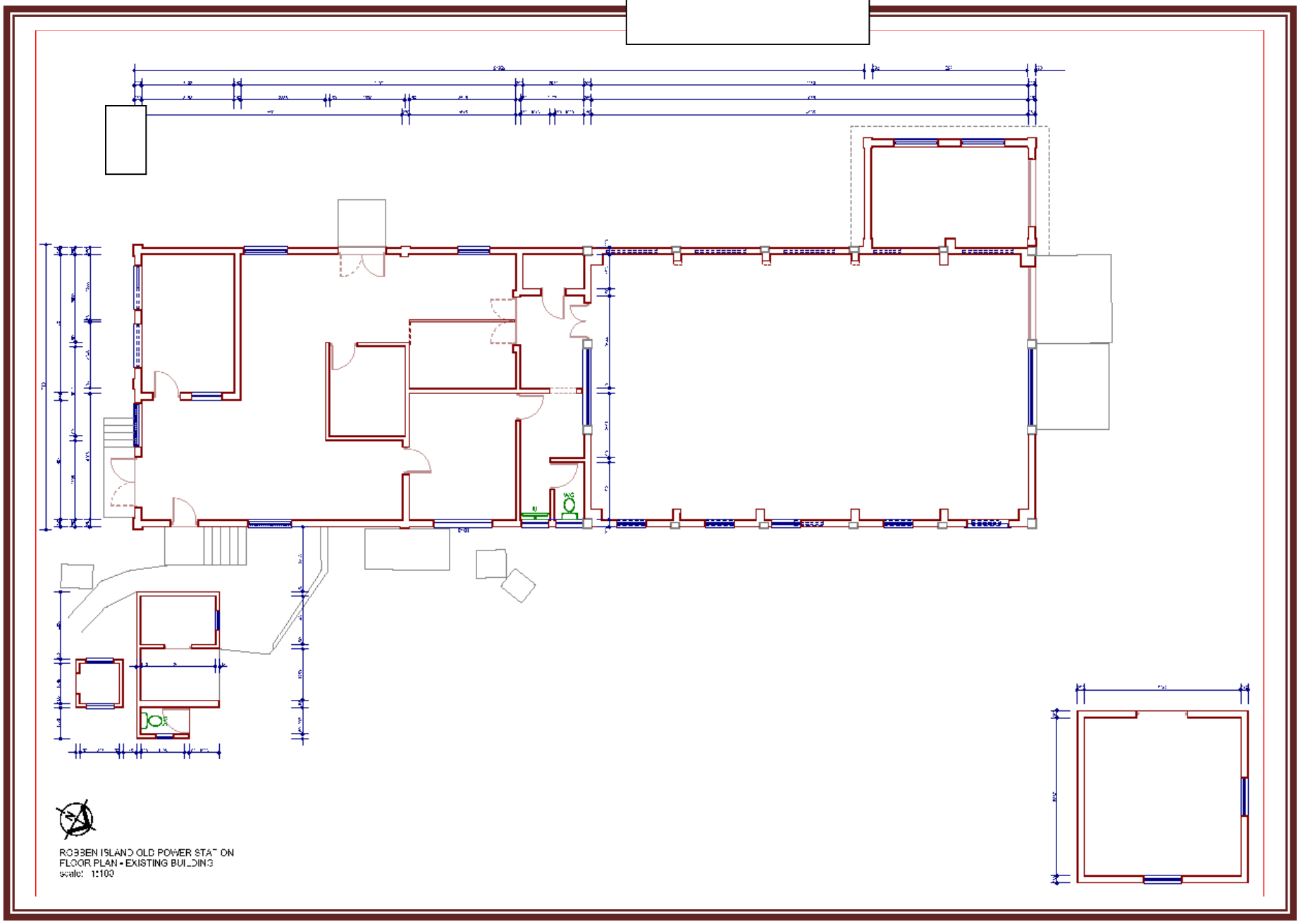


Fig.4. Floor plan ca 2011

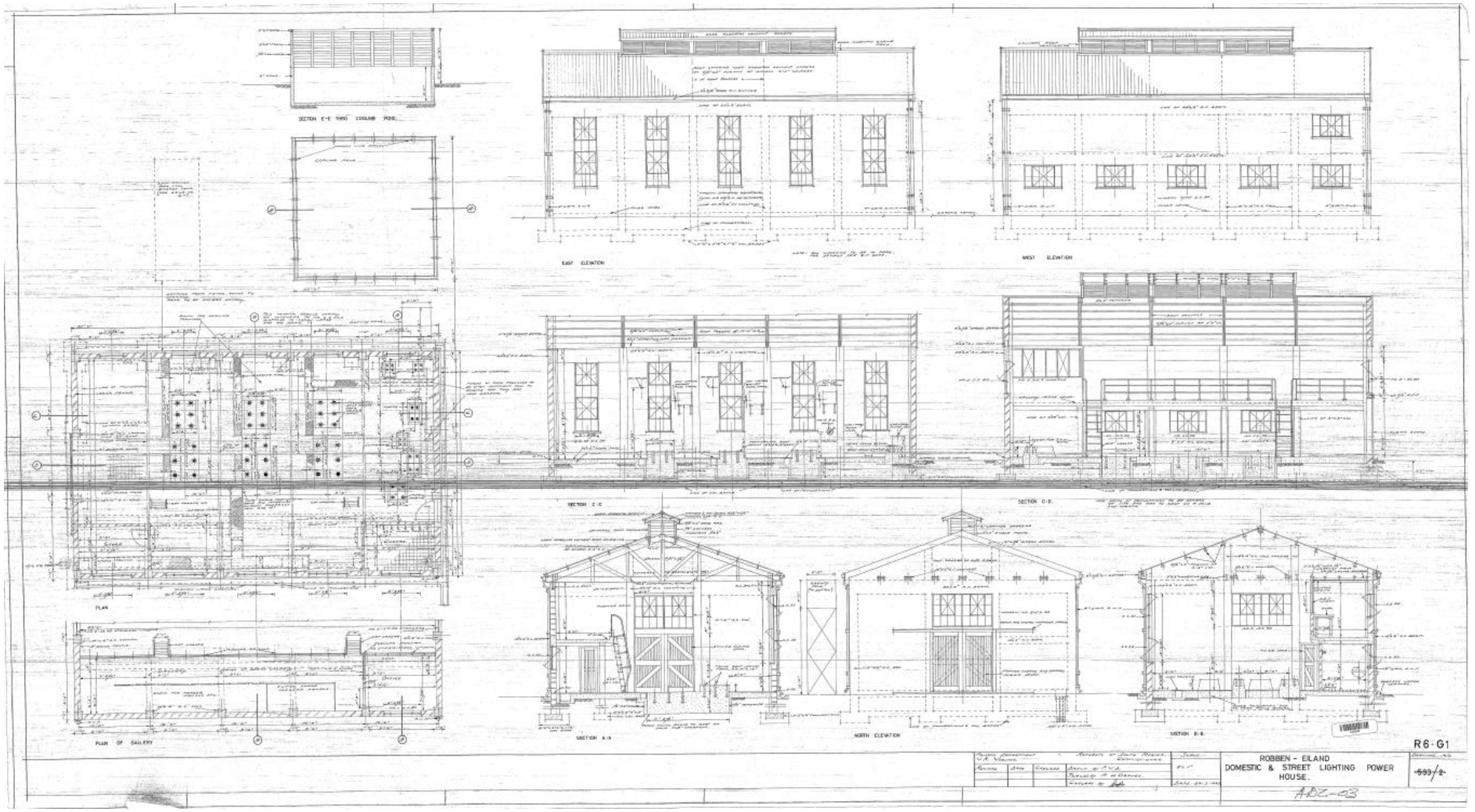


Fig.5. Copy of 1967 architect's tracing of Ca. 1943

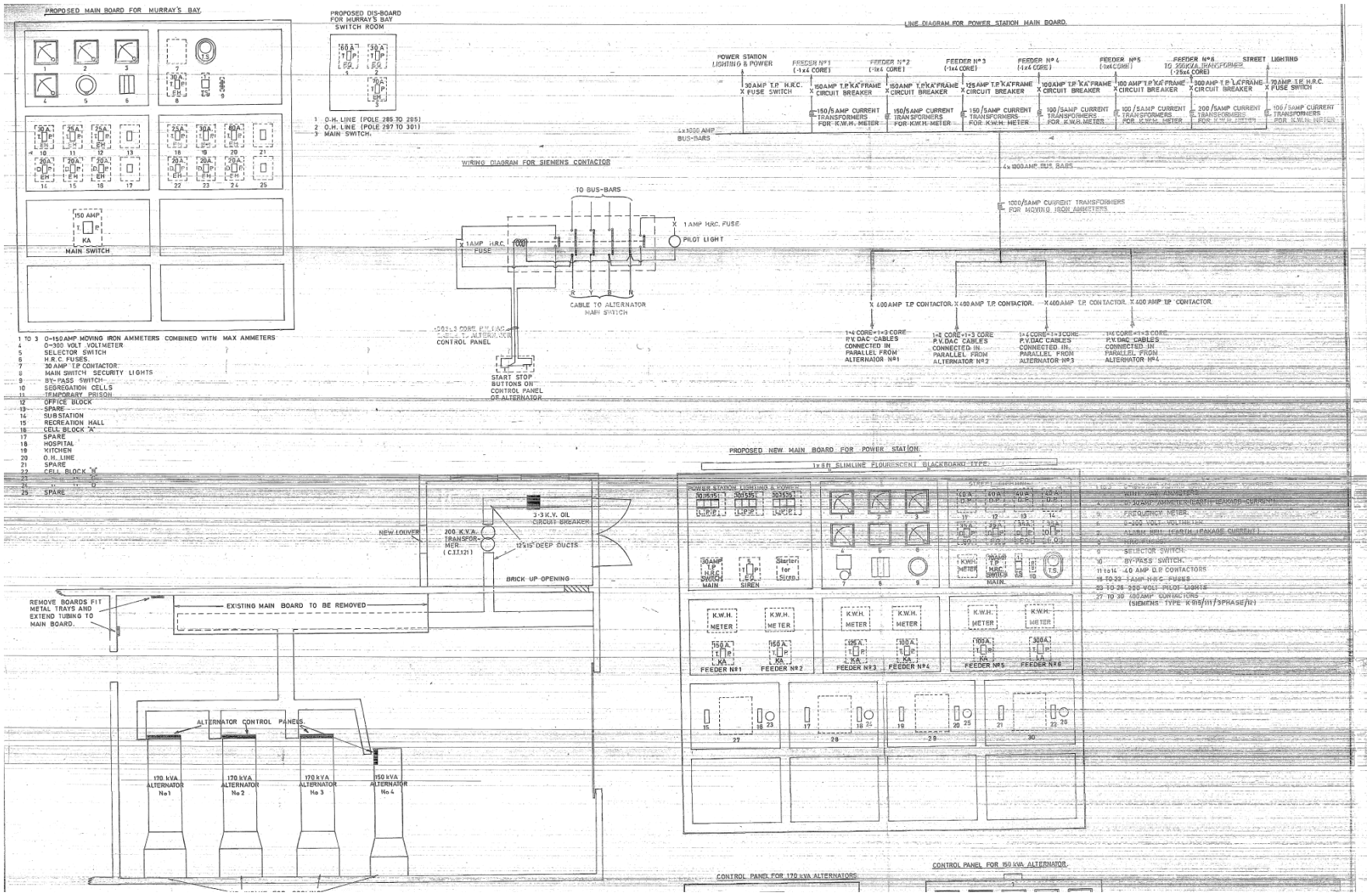


Fig.6 Ca 1972 modifications

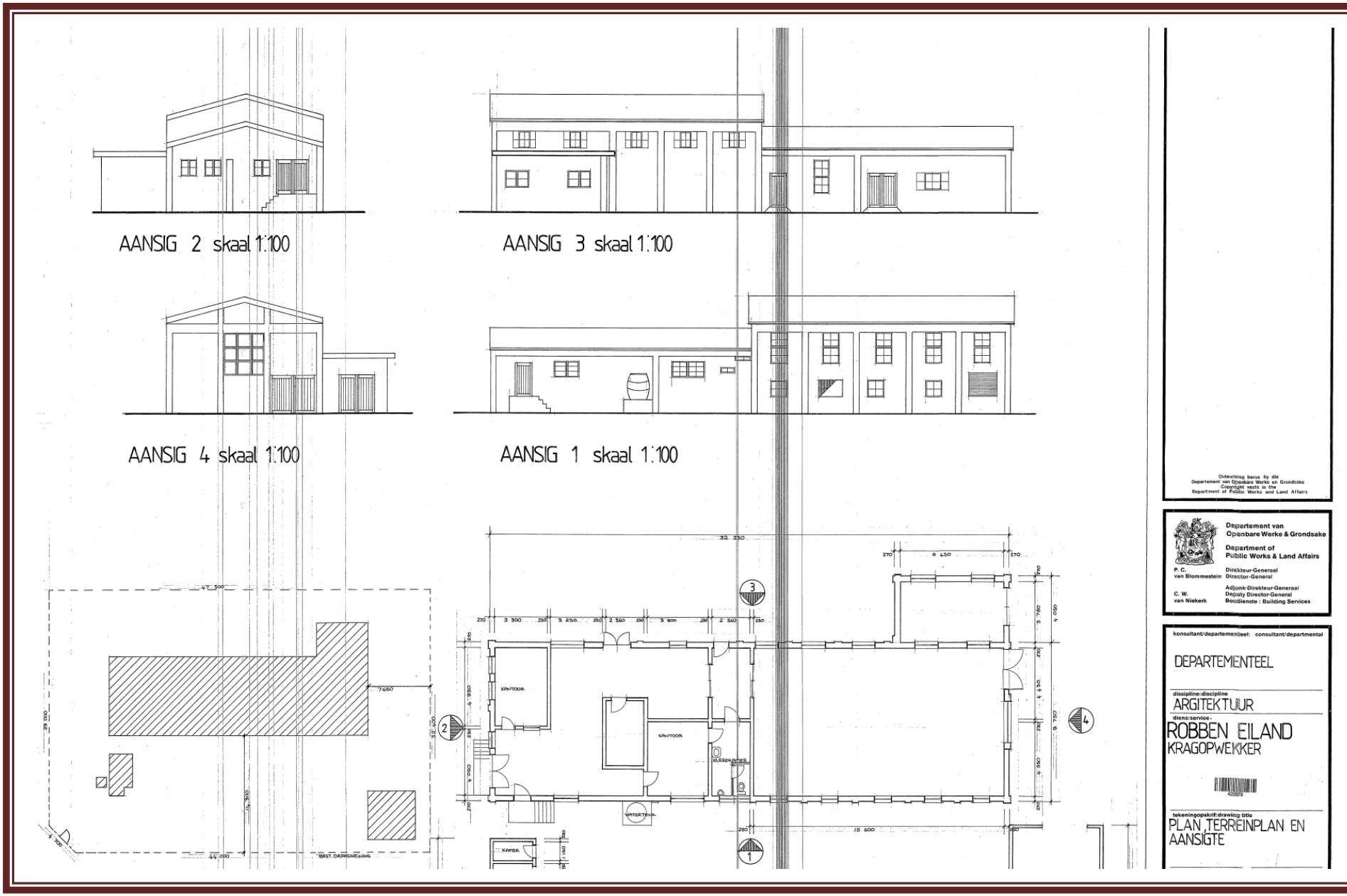

AANSIG 2 skaal 1:100
AANSIG 3 skaal 1:100
AANSIG 4 skaal 1:100
AANSIG 1 skaal 1:100
Departement van Openbare Werke & Grondsake
Department of Public Works & Land Affairs
DEPARTEMENTEEL
ARGITEKTUUR
ROBBEN EILAND
KRAGOPWEKKER
PLAN TERREINPLAN EN AANSIGTE

Fig. 7. Ca 1987

Fig.8. Ca 1996

Fig.9. Ca 2009

Fig. 10. Ca 2009

Fig.11. Ca 2010

8.3. HISTORICAL

The OPS is situated in the NE corner of what used to be known as Retief Park. The centre piece to this park was a monument to a French saint erected in 1870. The plinth to this memorial is still extant but the urn has disappeared. The memorial formed the centre piece to the park from which a path radiated out to the cardinal points. The early prisoners' band stand was also located in the park. The band stand was demolished in ca 1964 along with the Catholic Chapel.

In ca. 1940 a road was cut or formed between what was the Chief Medical superintendents house, now known as the Club House, and the position of the OPS and the Garrison Engineer's offices. This road was called Power Street and disappeared some time in the mid 1980's when it was covered up by the sports fields and the extension of the terrace from the Club House.

Before the construction program undertaken by the military, except for a small generating unit at the lighthouse for operating the light, there was no other source of electrical power on the island. It appears that everyone who had occupied the island before, had made use of candles and oil lamps.

In late 1939 Captain George Anderson was seconded from the Royal Engineers to the Union Defence Force's Directorate of Fortifications and Coastal Works. His responsibilities amongst other things would be to upgrade the Union of South Africa's coastal defence systems. Robben Island had no electrical power apart from the small generator operated by the light house keeper, Mr Auret. In late 1940, early 1941 a temporary generator was used by the builders. In mid 1941 Anderson visited the Island to arrange for additions to the temporary electrical system used by the builders. He also disguised the temporary building as a corrugated iron shack, which would house two Paxman Ricardo's until the main building was built in 1943. The contractor running the temporary generator at the time had connected some street lights in the village on Church Street. A faulty light switch on one of the poles had the effect of providing shocks to anyone touching the old steel telephone poles.

Fig. 11.a. Ca. 1920. The area where the OPS is now situated is parkland with large close knit trees

Fig.12. Ca 1939 showing site before war time construction

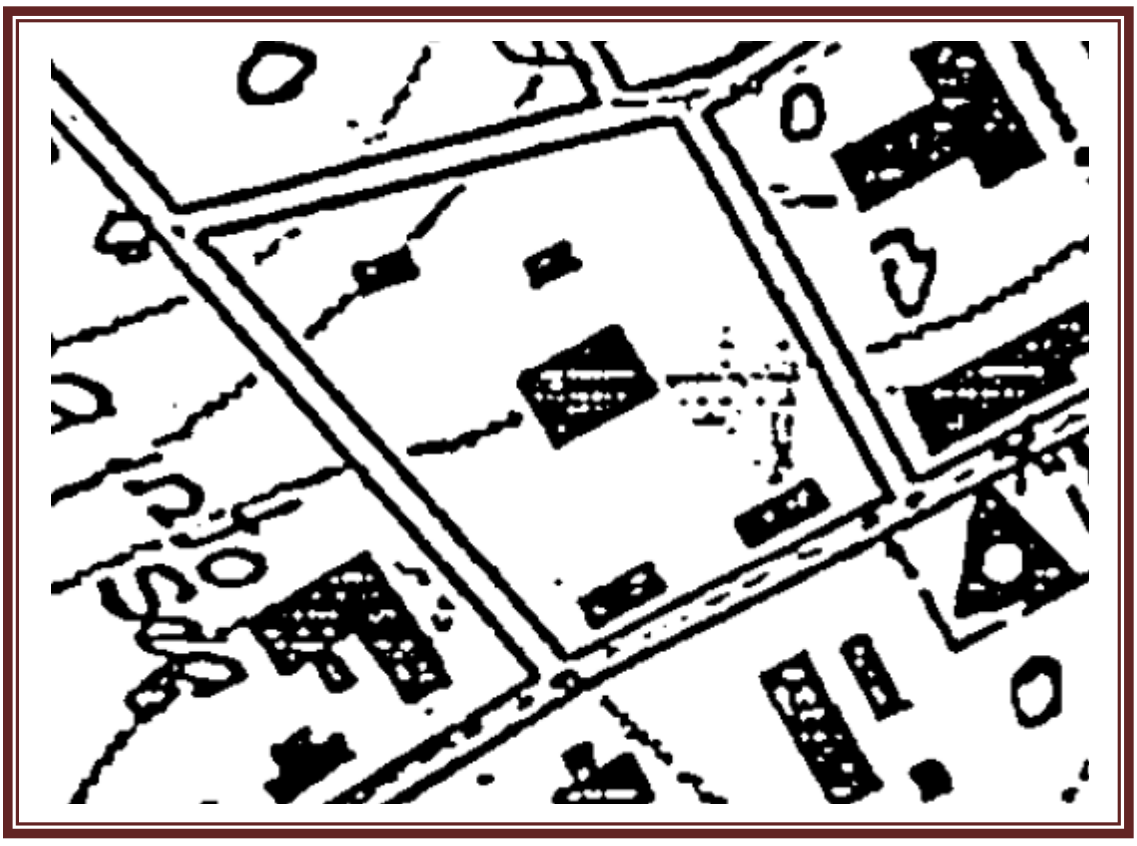


Fig.13. Landscape Ca 1955. Triangle is Garrison Church

In mid 1941 Anderson was tasked with designing a domestic power station and reticulation network for the existing village and new houses being built along shearer Avenue. The completed design was forwarded to the Authorities Committee in Pretoria for the necessary funds to be allocated. His original design provided for 3 diesel driven alternators. Anderson's design was sent to the Cape Town City Electrical Engineer, Mr. Eastman, to vet the design. This design would not be built until 1943.

The war being well on its way by then he had to go scrounging in Johannesburg for second hand equipment and only two generators were installed. The truck switchgear was manufactured in Johannesburg and sent down to Cape Town. The captain of the fishing vessel who transported the switchgear to Robben Island dropped two crates of these overboard. Anderson and two of his crew dived to save the crates and opened them to dry the equipment. Some of this was sent to the City of Cape Town Electricity Department to dry out and test.

The Vichy French on Madagascar surrendered in November 1942 and were brought to Robben Island as prisoners of war. Anderson was responsible for providing electricity and security flood lighting in the prison enclosure. The Vichy French appear not to have been too friendly towards him while he was working near the enclosures.

With the completion of the domestic electrical system, its performance and construction was equal to that of Cape Town. The power station operated 24 hours per day with three shifts.

In November 1942 the then South African Railways and Harbours [SAR & H] requested an electricity supply to the lighthouse. Negotiations were finalized in about November 1943. On 20 April 1944 the cables to connect the light house had been laid by Defence but the SAR & H did not have their end linked as yet. In typical bureaucratic fashion it took almost two years for the light house to be supplied by the OPS when the connection was completed in February of 1944. Much hinged around negotiations on procedure for reading the metre and cost per

unit. The cost per unit was fixed at 2d in March 1943 with the connection costing £12. In 1953 the SAR&H also requested to be included in the proposed investigation into the laying of the underwater cable.

With the Korean War almost a year old, having reached a stalemate, the use of the island for defence of the Cape started to scale down. In April 1949 the operation of the Old Power Station was handed over to the Union Department of Public Works [UDPW], although the costs of running the Power Plant was still covered by the UDF budget. The cost of supply to the lighthouse had gone up from 2d to 9.6d. Shortly after taking over the UDPW, in about October 1952, the possibility of laying an under water cable from Blouberg to the Island was being considered. The laying of the cable was widely reported in the press at the time. The SAR&H appeared quite concerned at this point and hastened to stake their claim to a supply from the under water cable. In the event it would take the UDPW more than 6 years in their investigations and by the time the prisons took over the idea was quite dead.

The main reason for investigating the laying of the cable was financial as by this time the costs of operating the Power Station had escalated considerably. Ageing machinery could be retired and used as a standby source. The monthly costs of running the plant amounted to approximately £1000. The Electricity Supply Commission [ESCOM] would make available their Blaauwberg substation as the point from which to lay the cable. The supply would then be charged at a fixed rate of £132 per month. The laying of the cable from Blaauwberg to the Island was estimated by SAFIMEX to be between £14 000 and £19 000. In all the costs of the capital outlay would be recovered within two years from the savings of £725 per month estimated if the plant was no longer operated. By 1955 the OPS expenditure amounted to £5066.6.0 per year.

The Power Station was run by Public Works until 1964 when Prisons, for security reasons took over the running of the Power Station with their own staff. Public Works it would appear still, however, provided the budget for capital expenditure. Wardens were inducted in a 4 week course to enable them to operate the OPS. Prisons then purchased Rolls Royce Diesel engines in the 1960's as the older

machinery had reached the end of their lifespan. Rolls Royce would be the genset of choice right to the decommissioning of the OPS in ca. 1992. Over the decades, notably in the mid 1970's and early 1980's demand for electricity increased as prisoner numbers and the concomitant number of warders needed also increased.

8.4. SOCIAL

Electricity and lighting expands people's ability to extend their activities. During the war electricity powered lighting for the dances held in the John Craig Hall, as well as providing opportunity for film shows and general socialisation.

For the warders and their families extra mural activities, dances, parties, films and later television would not have been possible without the Power Station.

The Power Station played a major role in the activities of the prisoners on the Island. Lighting was used as a form of control and of punishment. Prisoners would be rewarded with extended light hours for good behaviour or later on for studying. Search and spotlights provided night time vigilance against escape. The ability of light as a source of punishment should not be underestimated.

In the late 1940's the OPS working hours were reduced from 24 to 16 hours per day to save costs of fuel, wear on engines and attendants wages. This would have repercussions when a whooping cough outbreak on the island required that a 24 hour service be reinstated in the early 1950's. The 24 hour service had been discontinued again by 1953 and affected people who were studying and mothers with babies and small children. It is clear that by this time the machinery was very long lived and needed to be replaced, something that would only happen in the early 1960's when Prisons took over and purchased the first Rolls Royce's. The Rolls Royces of the early 70's appeared to be badly made as one after the other major problems occurred within 2 years of their installation.The early 1970's also saw major changes to the fabric of the OPS.

8.5. TECHNOLOGICAL

8.5.1. ELECTRICAL

Anderson's original design for the Village Power Station and reticulation was based on a low tension generating system operating at 380/220 volts 50 cycles with a three phase four wire network with an earthed neutral. A single phase connection would be provided to each house, balancing house against house and street against street. This was unlike the more expensive system used in Cape Town where a three phase four wire connection to each house was the norm. Calculations on the basis of installed loading less a diversity factor was used to size the overhead conductors. Again unlike the rule of thumb used by Cape Town, which was a relic from the past. Murray's Bay harbour and wharf had been completed by this time so Anderson included in his design an underground cable with the two necessary transformers to the harbor at 11 000v to compensate for loss of transmission.

The power lines were mostly overhead until they were placed underground in 1991 with the upgrading of the reticulation system from the OPS in anticipation of the building of the new Power Plant.

Provision was made for three diesel driven alternators in the power station with truck mounted control panels for the alternators and distribution feeders, as well as an earth leakage detection and indicator panel.

The two Paxman diesel engines sourced by Anderson in Johannesburg had no alternators. He eventually sourced two old 200 HP slip ring motors, which he had rebuilt, fitted with exciters and rewound as alternators for direct coupling to the two diesel engines.

Two other power plants were also erected, one to exclusively serve the gun batteries and another to serve the SWAN radio station. In 1943 Anderson was allotted the task of completing installation of diesel generators in the underground engine room for the 9.2" gun battery.

During the 1940's and 1950's Paxman Ricardo model RW diesel engines were used in the Power Station. In 1948 they were joined by Crossley QVD4 and a Crossley TVD 3. The Paxman's were a great favourite with the military at the time. The Paxman's were completely overhauled and refurbished in ca 1950 after

spares were ordered from England in 1949. In 1955/1956 the two Crossley's had to be completely overhauled, an indication of the work that these machines had to deliver. Replacement of coal stoves for cooking and heating water by electrical stoves and geysers increased demand for electricity exponentially.

The Paxman's and Crossley's lasted until ca 1962 when Prisons took over, purchased and installed 3 Rolls Royce C6SFL gensets. Rolls Royce started manufacturing diesel engines in 1951. These gensets lasted for a full decade until 1972 when new RR C6TFL sets were introduced, one of which was still operating in 1988.

With time and changing technologies the fabric of the building was changed to suit. Understanding what the gensets looked like helps to understand the layering and changes to the building. The Paxmans and Crossleys required water to cool down. This was supplied from a cooling pond outside the Power Station. Water with a solution of sodium chromate inhibitor 0.5 lbs per 100 gallons was pumped through the engines jacket sleeves, to prevent rust and corrosion. Copper sulphate was added to prevent algal growth. It is not certain whether the earlier 1950's/ 1960's Rolls Royce engines required water for cooling or air. Certainly in 1972 the engines were air cooled with radiators, which saw major structural changes to the building. In the 1980's the OPS ran, with one exception, the Rolls Royce 1482 series. These would be the main power generators until the new Power Station was built in ca 1992. The early Rolls Royces were fitted with Macfarlane alternators. Later Petbow supplanted these as power units.

Fig. 14. The Paxman Ricardo RW range of diesel engines.

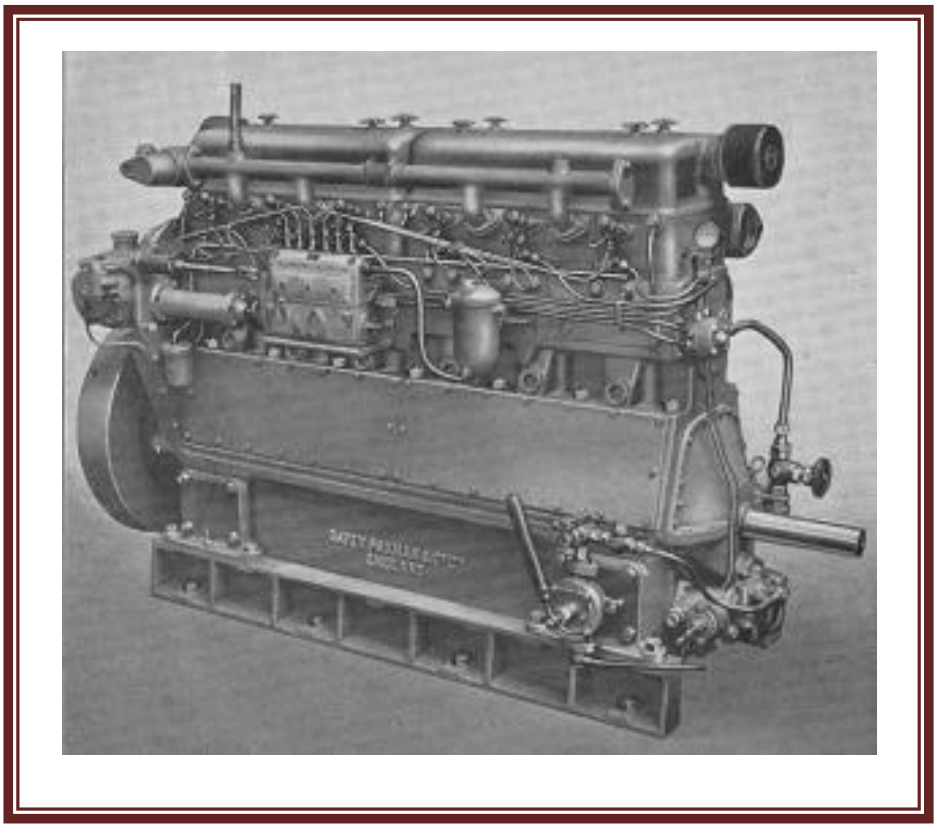
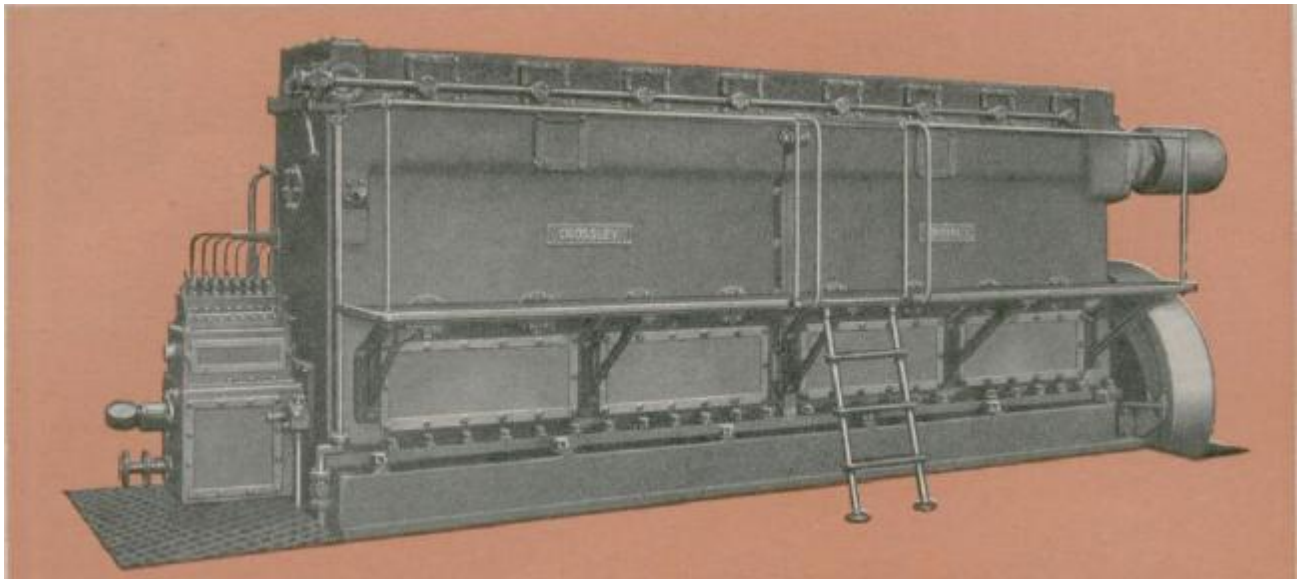
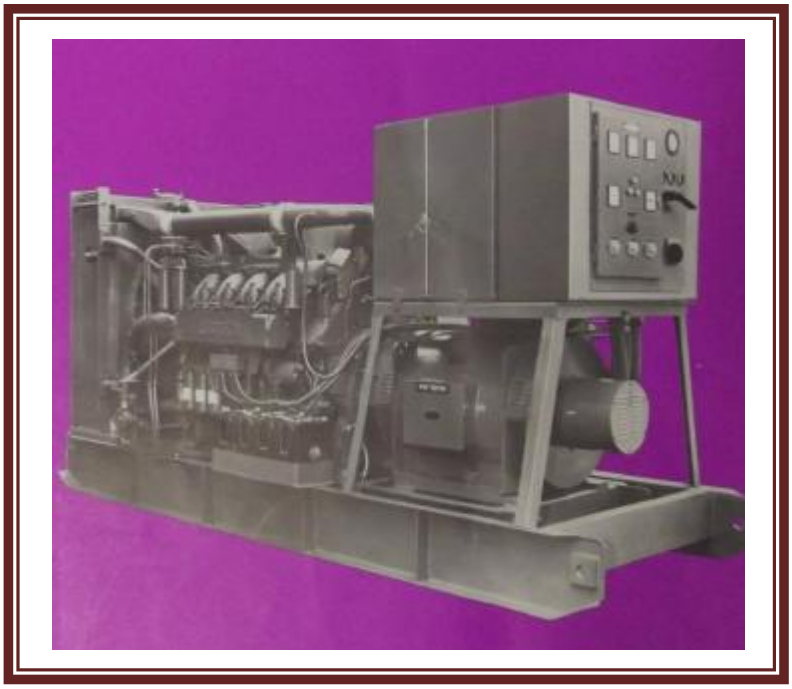


Fig. 15. Below. The Crossley QVD 4





.

Fig. 15. The Rolls Royce GR range from the mid 1970's.

Fig.16. The Rolls Royce C8TFL below [courtesy of ian32uk-England]

Fig. 17, 18 & 19. Below-. The last of the 1972 Rolls Royce gensets was still operating as a standby unit in early ca 2012 at the Maximum Security Prison. This was decommissioned in June 2012.

8.5.2. HOIST AND GANTRY

The hoist in the OPS was built into the original building in 1943. The hoist was made by Herbert Morris Ltd of Loughborough. Herbert Morris started his company in 1884 with the British agency for a German pulley block of advanced design. The gantry was constructed by the Rietfontein Engineering Works, Elandsfontein, Pretoria. The sole distributors for Morriss hoists was The National Trading Company, Johannesburg. The hoist was used to service the engines in the power station.

Fig. 20. Gantry with wheels on rail. SW corner of building left.

Fig. 21. Block of Morris hoist right.

Fig.22. Hoist runner along gantry and gantry gear and pulleys left.

Fig. 23 Morris hoist Hook right.

2.2 TIMELINE

TIME LINE 1939 TO 2012.

	Date	Description	Source	
	1800's	Area generally known as Retief Park. Source of name unknown at this time. Band Stand situated here where the prisoners band used to perform. A few large trees recorded in 1986.	Basset& Rudner, p.10, 1986 [SAHRA file ref.: 9/2/018/0004]	
	1870	Monument, made of concrete, to a French Saint erected. Has Latin inscription. Plinth with decorated urn. Urn no longer present.	Basset& Rudner, p.10, 1986 [SAHRA file ref.: 9/2/018/0004]; Pers obs	
	1894	Open area, band stand shown as small circle, road between Medical Superintendents House and open space. No pathways shown.	SG No. 8051/1993 -12/7/(18)94	
	1905	Park is still extant with monument and pathways to the cardinal points. Major road runs diagonally across from Chief Medical Superintendents [now the Clubhouse] house towards female asylum, bisecting the space currently occupied by OPS.	Map ca 1905, SAHRA File 9/2/018/0004 vol. 3	
	1914	Park is depicted in front of Garrison Church with paths crossing at centre.	Map of female leper compound.	
	1920	Area where OPS stands today viewed from cricket fields from NE seen as heavily wooded area.	Photograph from Sarah Winter dd. Ca. 1920.	
	1931	Park is still extant.	PWD Map: Plan Shewing approximately buildings for sale….' Also timelines courtesy of Sarah Winter.	
	1939	Island is surveyed by the Surveyor General for use by the UDF. Results in secret map No. 7.	J.P.F. fick. Memories of a stay on Robben Island. Ca 1983, SAHRA file ref. 9/2/018/04 vol. 1,	
		Capt. George Anderson first visits the island. Only light house has small generating plant.	Anderson: 1996, p.151	
	1940-1950			
	1941	Anderson on Robben Island mid 1941 to arrange additions to the temporary electrical system for builders. Also disguises generator building, built from concrete as corrugated iron shack.	Anderson: p.170; Weideman pp.24-25; Personal observations J. Marx and Ron Viney on building fabric July 2011.	
	1942	Vichy French from Madagascar interned on Island. Anderson provides floodlighting and electricity to camp.	Anderson p. 200.	

	Late 1942/ Early 1943	Power station and electrification as per Andersons Design, which caters for 3 generators on plinths. He sources 2 Paxman Diesel engines and couples them to two converted old 200hp slip ring motors and are the first two generators in OPS.	Anderson: p. 178; 1963 tracing of WWII drawing.	
		Supply of Railway admin property, light house and staff from village power station. Negotiation of tariff to charge SAR&H. Capital expenditure for transmission line – erected primarily for supplying current to Defence buildings and construction was not dependent on SAR&H taking a supply. SAR&H to use 2280 units per month.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Union SA Directorate fortifications to District Representative PWD CT dated 21 Jan 1943	
		Directorate Defence & Coastal Works 24 hr supply of electricity from Domestic Power Station to light house agreed with SAR&H. Defence can't guarantee supply due to exigencies of war. Should hostilities cease and DPS operation discontinued then termination of 1 month for SAR&H to provide own supply	PWDC 81, CT 1/8132 v1 Gen building, Internal memo from Union SA Directorate fortifications to Q.M.G. Pretoria dated 23 Nov 1943	
	1943	John Craig Hall, Post Office and House 49 are built.		
	1947	Certain plant transferred from the Berg River when E.S.C line reached Langebaan.	Memo to Director PWD from District Representative, dd 22 Nov 1952, PWD CT 3/8132	
	1948	Appointment of PWD staff to control Robben Island not yet approved.	PWDC 81, CT 1/8132 v1 Memo Secretary from D.R. : Cape dd 11 Aug 1948.	
	1949	Engines No. 1 set QVD 4 Crossley 200 hp. In fair condition. Awaiting spares from England. No.2 set RW Paxman Ricardo 120 hp. In fair condition. Crankshaft metal sprayed but no guarantee. Spare crankshaft being built up by welding. No spares in stock awaiting spares from England. N0.3 set 112 hp RW Paxman Ricardo needs full overhaul. Only capable of running at 60% to 90% of full load. No spares in stock. Awaiting order. No. 4 set TVD 3 Crossley 300 hp. Only to be used as urgent standby. Excessive wear of cylinder liners pistons and fuel injectors. Will only run for short periods with minor adjustment and improvised spares. Awaiting spares from England. Piston rings and fuel injectors manufactured locally – Cape Town. Wear of cylinder liners because of insufficient lubrication. Existing foot oil pump to be replaced with direct coupled electric oil pump. Spare set RW Paxman Ricardo 160 Hp dismantled and used as spare parts in Nos 2 & 3 sets. Electrical	Report on Robben Island domestic Powerhouse dd 3March 1949, PWD CT 3/8132	For full description and specs on all 5 sets refer to RViney Document –Timeline For Diesel Engines

		Nos 1,3 & 4 sets. Alternators, exciters and oil switches very dirty.Windings should be cleaned and varnished. Oil switches to be overhauled and oil tested. No.2 set Alternator and exciter windings cleaned and varnished. Oil switches to be overhauled & oil tested. Switchboard Alternator & feeder cubicles to be cleaned. Feeder oil switches overhauled. Overload trip gear checked and put in good working order. Ammeters and voltmeters checked.		
		Arrangements to transfer Defence furniture to PWD Resident Engineers office as T73 to be taken over from Defence by PWD	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD Robben Island to OC Cape Command dated 4 March 1949.	
		Staff consists of 5 Swithboard operators and 5 plant attendants. Fitters work on Power Station but also on water pumps.	Letter from Secretary of Public works to Quartermaster General, UDF General HQ, Pretoria dd 14 March 1949.	
		Building T73 lately used as the Garrison Engineers office now used as Resident Engineer PWD's office to be transferred to PWD. Request alterations and additions to accommodate additional staff. No WC's. nearest convenience in corrugated iron shed at rear the entrance of which is sometimes used as a urinal by natives. Proposed to remove structure and provide two WC's in building one being for females. Estimated cost of work £450. Architects drawing submitted to show alterations. Also show WWII floor plan. Confirmation that brick structure built during war. Shows corrugated iron roof. Alterations authorized on CT2/1212, 18 July 1949.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD Robben Island to Secretary Public Works Vermeulen Street Pretoria dated 18 Mar 1949,12 April 1949; Architects drwng No. R.1./1/49 Dated 18 Mar 1949;	
		List of spare parts for Paxman Ricardo engines.	PWDC 82, CT 2/8132 v2, Memo and list from Resident engineer dd 5 Apr 1949.	
		WC and urinals installed in T73 by Defence prior to hand over to PWD	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to Secretary PWD, Pretoria dated 9 May 1949	
		Breakdown of No. 1 set 200 HP QVD 4 Crossley Engine No. 121731. Connecting rod of cylinder piston forced through the crank case housing on right hand side of big end inspection cover. Set was installed on 27/1/1948. Set dismantled and ready for inspection. Note: This is presumably one of the sets transferred from the Berg River- xref 1947	PWDC 82, CT 2/8132 v1, Report from Resident Engineer RI PWD to Inspector of Factories, Labour Dept, CT dd 21 Apr 1949; xref Memo to Director PWD from District Representative, dd 22 Nov 1952, PWD CT	

			3/8132	
		Order for spares for Paxman Ricardo engines, list of spares required.	PWDC 82, CT 2/8132 v1, Indent on the High Commissioner London from Storekeeper PWD dd 29 April 1949. – foto taken	
		Proposed reduction in working hours DPS from 24 to 16 to save costs of fuel, wear on engines and attendants wages. Will require discharge of personnel and may be difficult to reinstate 24 hr service again later. Proposed 2 shift from 6am to 2 pm and again from 4 pm to 12 midnight. Resident Engineer also provides motivation for not interrupting supply- 1] Domestic fridges would defrost in summer and food would spoil; 2] Street lighting increase of crime at night; 3] PWD Workshop production would suffer if 2 hr break in power supply; 4] Civil Aviation wireless beam would not be functional during shut down.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to Secretary PWD, Pretoria dated 9 May 1949	
	April 1949	Spares required listed and ordered from Britain for sets No. 2&3 two 120hp Paxman Ricardo engines and one 112 hp Paxman Ricardo set. One 160 hp set as emergency replacement.	Memo from Resident engineer to PWD, dd 8 Apr 1949, PWD CT 3/8132	
		RI DPS and pumping plant operational costs, inspections, repairs and replacements costs born by defence amounting to £11 900 estimated	PWDC 81, CT 1/8132 v1 Gen building, Memo from Office of QMG to Secretary for Defence dated 2 November 1949	
	1950	Request for rubber gloves for work on overhead power lines	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to Secretary PWD, Pretoria dated 6 Feb 1950.	
		Robben Eiland : kragstasie en pomptoestel vir watervoorsiening. Begroting vir dienste – salarisse, onderdele ens	PWDC 82, CT 2/8132 v1, Letter from Resident Engineer PWD Robben Island to Secretary Public Works, Pt add 2 Feb 1950 includes appendix - foto taken	
		Spare parts for Crossley engine no. 121731 ordered by Defence in 1948 through the Cape Town agents for Crossley engines, Mssrs Rogers-Jenkins, have arrived. Balance of order ready for shipment subject to import permits.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to Secretary PWD, Pretoria dated 5 Jun 1950	
	Jul 1950	Spare parts for Paxman 6 cylinder and 8 cylinder RW engines duplicated request for use elsewhere.	Meno from Resident Engineer to Officer Commanding Cape Command, The Castle dd 11 July 1950, PWD CT 3/8132	
		Despatch of on new camshaft for 8 cyl Paxman-Ricardo diesel engine from Robben Island for use in Port Alfred.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to OC	

			Cape Command, Castle; dated 25 Jul 1950	
		£11 800 authorised for DPS operational, inspection, repair and replacement costs. Increased estimate 16 300 as the spares ordered from England underestimated.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to Secretary PWD, Pretoria dated 30 Oct 1950	
		Entrance lights and foghorn at Murrays Bay harbor proposed. RE PWD opposes and provides alternative because only Defence vessels use harbor. Radio beam already in existence. Motor Boat Squadron had installed a pair of coloured lights and a small motor hooter which worked.	PWDC 81, CT 1/8132 v1 Gen building, Letter from Resident Engineer PWD to Secretary PWD, Pretoria dated 7 Nov 1950	
		Surplus spares for Paxman engines, order duplicated when placed with High Commissioner in 1949.	PWDC 82, CT 2/8132 v1 Letter from Resident Engineer PWD [BE Gardner], Robben Island to Officer commanding Cape Command, Castle, CT dd 11 Jul 1950.	
		PWD Resident Engineer on Island is Basil Erle Gardner. Has 43 European and 65 coloured and native staff employed. The OPS is operated by 8 people.	Proses-Verbaal van 'n Raad van Offisiere, Union Defence Force [UDF], 20 November 1950, D.C.[E] 671/2/69 Robben Island General. 1941 to 1959	
		A.W.I.O Pieter Gilmour is acting E & M Officer for the power stations previously supervised by Coastal Works and fortifications . He has been doing this for 11 years and is a qualified electrical engineer and member of the Institute of Electrical Engineers. Power station run 24 hours per day average expenditure p.a. not exceeding £7,000.	Proses-Verbaal van 'n Raad van Offisiere, Union Defence Force [UDF], 20 November 1950, D.C.[E] 671/2/69 Robben Island General. 1941 to 1959	
	1951-1960			
	1951	Operational costs of Power station amount to an estimated £ 18,380 including labour and plant operators.	Memo from Resident Engineer RI to D.R. Cape Town dd 3 Feb 1951, PWD CT 3/8132	
	Mar 1952	Brown Boveri automatic voltage regulators fitted to alternators.	Correspondence from Brown Boveri JHB to Messrs Rogers-Jenkins Pty Ltd dd 24 March 1952, PWD CT 3/8132	
	Aug 1952	Spares required and ordered ordered for 300hp Crossley QVD 4 cylinder engine and 200 hp TVD 3 cylinder engine from England	Order from PWD Storekeeper in CT to High Commissioner London dd 8 Aug 1952, PWD CT 3/8132	
	Nov 1952	Lists 1 x 300 hp Crossley, 1 x 200hp Crossley, 1x 160 hp Paxman and 1x 120 hp Paxman engines in good working order.	Memo to Director PWD from District Representative, dd 22 Nov 1952, PWD CT	

			3/8132	
	1953	Power to village only supplied 18 hours per day from 6 a.m. to midnight. Light house feeder takes the most load and often trips, which leaves light house and village without power. Request for 24 hours to be instituted as this would not cost more than 18 hours because generators have to run 24 hours regardless of power consumption. The 24 hour spread would assist in preventing light house feeder from tripping. Also mentions that 24 hour service was operating in whooping cough epidemic.	Hand written motivation from PWD Robben Island [J. Taylor] to Senior Inspector of Works Mechanical and Electrical, PWD Cape Town dd 29/1/1952, PWD CT 3/8132	
	March 1954	List of spare parts required and placed on order from Britain for 2 x Crossley engines. One 300 hp model QVD 4 cylinder and one 200 hp model TVD 3 cylinder.	Memo and list from Resident Engineer dd 6 March 1954, PWD CT 3/8132	
		"Corrosion problems Robben Island. Algae in cooling water. The circulating cooling water [treated with sodium chromate inhibitor 0.5 lbs per 100 gallons] after being pumped throught the water jackets of the diesel engines is discharged into a large cement reservoir [capacity 15 000 gallons]. The surface being open and exposed to light encourages a flourishing algae growth. Understand that 10 lbs of copper sulphate has been added to combat this. Apart from this dosage being far too high [1 in 15 000], metallic copper is deposited on the interior of pipes and cooling surface and a high corrosion rate is to be expected. The use of copper sulphate in such cooling systems is to be deprecated. Algae growth can be arrested by preventing light from reaching the surface of the cooling water by means of suitable light proof covers." Report from CSIR. "The dosing of the cooling water in the diesel –electric plant at Robben Island by means of chromate has been found to be effective in inhibiting rust in the cooling system as well as suppressing algal growth." Resident Engineer is Mr Gardner.	PWDC 81, CT 1/8132 v2 Gen building, Letter and report from Department of Agriculture, Chemical Laborotories, Portswood Rd, CT to District Representative PWD, CT dated 24 December 1952, p.2 of 3; PWDC 81, CT 1/8132 v2 Gen building, Letter from CSIR, National Chemical Laboratories to District Representative PWD, CT dated 3 December 1953.	
		Robben Island: Defence Department: Repairs to buildings ,etc. Cost estimates for electrical and mechanical repairs to power station.	PWDC 81, CT 1/8132 v2, Letter to PWD CT dd 23 Sep 1952 – foto taken	
		Robben Island : proposed submarine power cable. Report on operations at power station, mentions engines, costs etc	PWDC 82, CT 2/8132 v1, Memo from District Representative PWD to Director PWD dd 22 Nov 1952.	
		Order for spares for Crossley engine no. 121731	PWDC 82, CT 2/8132 v1, Indent on high Commisioner London from Storekeper, PWD Stores, Buitenkant str., CT dd 8	

			August 1952. – foto taken	
		Robben Island 24 hour electricity lighting service – reinstatement of and motivation for.	PWDC 82, CT 2/8132 v1, Memo from PWD RI to Senior Inspector of works-Elctr & Mech, PWD dd 25 Jan 52 – foto taken	
		Cost of operating power station approx £6000 p.a.	PWDC 81, CT 1/8132 v2 Letter to District Representative Cape Town from Director of Public Works dd 29-9-1953	
		RIM OPS no. of people employed as at 23 March 1953. 1952 – 1x Foreman electrician, 2x linesman and electrician, 4x power station shiftsmen, 11 x Native labour, 2x native Electrician labourers, 1x coloured electrician laberour, 1x coloured power station labourer;1953 figures the same except Native labour at power station reduced to 8	PWDC 81, CT 1/8132 v2 opname dd 23 March 1953, no author apparent.	
	1954	Spare parts for "Crossley" engines at the power station. Importation of for engine Q.V.D. – 4 Type, no. 121731.	PWDC 81, CT 1/8132 v2 Letter to Chairman Union Tender Boad Pta from Director of Public Works dd 17-3-1954.	
	1955	When new shelter for cows was erected the electrical connection was installed with a meter. The Farm is non profit for benefit if the residents on Island. Cow shed pays flat rate of £1 pm for electricity. Kus en Lugafweer Artillerieskool Klub farms with cows and requests to move to a building T24, which they will renovate at own cost and install eclectricity.	PWDC 83,CT 6/8132/1, Internal PWD memo dd 4-4-1955, Letter dd 8 Nov 1954 –	
		Minor new works for 1956/57. Installation of 4 floodlights and siren as convicts had escaped in the dark. Note: Must refer to 'ou tronk'	PWDC 82, CT 2/8132 v1, Terrein plan Nov 1955, cost estimates 8.11.55, Memo from QMG [MW Estment] to Director of Public Works dd 24 Dec 1955	
	1956	Report on status of Power supply and generators as well as recommendations. Crossley QVD & TVD, as well as 2x Paxman Ricardo RW sets still in use but now very worn and reached end of useful life. Recommends replacement within 5 years.	PWDC 82, CT 1/8132 v. 1/56 to 6/57, Annexure "B" to RI[wks] 982/163 dated 20 April 1956	
		Annual expenditure up to 30 Nov 1955 expenditiure amounts to £5066.6.0 consisting of operational upkeep –shiftmen's wages, oil, petrol, grease,etc £4068.1.3 and repairs –incl fitters wages £998.4.9	Internal memo dd 7-1-1955 DCCE 672/2/69	
	May 1956	"(a) Nuwe opleidings verpligtinge wat aan bevelvoerder, Vlootskutopleidingsentrum opgedra is bring aansienlike uitbreiding ….wat elektriese krag eis. Ter stawing….. gemiddelde maandelikse gebruik van elektrisiteit	Memo from HQ, Naval Chief of Staff to Quartermaster General, dd 30 May 1956, D.C. [E] 671/2/507.	

		in 1952/53, 503287 eenhede was; nou is die syfer 73,800 hoer" "Drie van die vier kragbronne is nie meer in staat om doeltreffend te wees nie……..hulle afgeskryf is…]." "2. Die ligtoring [SAS & H] en die vlootradarinstallasiegebruik nou hulle eie, afsonderlike, diesel-elektriese kragbronneomdat die voorraadvan die kragstasiehopeloos te onegalig is. Hierdie……."		
	October 1956	Closure of Salisbury island. All future A.C.F. training to be done on Robben Island. This necessitates an increase in housing and resultant increase in use of electricity.	Memo from Secretary for Defence to Director Public works, dd 21-12-1956, D.C. [E] 671/2/507.	
	Feb 1957	Peace time accommodation should cater for 1200 military personnel.	Memo from HQ Naval Chief of Staff, Pretoria to Quartermaster General, dd. 5 February 1957, D.C. [E] 671/2/507.	
		Cost of production of electricity is 5 and a half d per unit. Suggested £8.5.0 per mensem , instead of £3.	Letter from Department of Public Works to Secretary for Defence, dd. 13 Feb 1957, D.C. [E] 671/2/69.	
	October 1959	"Weens die geweldige toename in uiters geharde en gevaarlike nie-blanke manlike gevangenes teen wie spesiale stappe gedoen moet word om die publiek te beskerm het dit gebiedend noodsaaklik geword dat hierdie Departement onmiddelik 'n gedeelte van Robbeneiland oorneem. As gevolg van die moord en aanrandings gepleeg deur bendes wat in ons oorbevolkte maksimum-sekuriteitsinrigtings gevorm word, …..die Hoogeregshof baie sterk meanings uitgespreek dat spesiale stappe gedoen moet word om die publiek sowel as ander gevengenes teen hierdie tipe misdadigers te beskerm."	Letter to Secretary of Public Works from Commissioner for Prisons [V.R. Verster], dd. 22/10/1959, D.C. [E] 671/2/69.	
	February 1960	Meeting between representatives of Department of Prisons and Naval HQ re closing down of SAS Robbeneiland and its transfer to Prisons. Trianing would need to continue on RI until new training base at Simonstown completed and ready for occupation. Prison staff urgently require suitable accommodation. Handover all available buildings like the married quarters and 'Bantu' compound, which are not required by Navy to be handed over to Prisons. Prisons would have their own work section and may absorb PWD artisans.	Memo from Naval Chief of Staff to Quartermaster General, dd. 28/3/1960, D.C. [E] 671/2/69.	
	1961-			

	1970			
	1963	Power Station was a cement paint colour [as with many military nuildingson the Island] Four Rolls Royce engines were used to run the OPS for 24 hours a day. **Note:** Mehnert transcript asserts machines were there from WWII times. Rolls Royce only started Diesel manufacture in 1951. Other evidence suggests RR much later, possibly early 1960's. 1972 letter from Commanding Officer RI to Commissioner of Prisons looks at restoration of old RR gensets and placement with other prisons. Xref-1972	Mehnert interview with Moolman 3 June 2004; also extract from RIM data base No. 135, pp 181-182; Letter from Bevelvoerende OffisierRI to Commissioner of Prisons dd 30/11/72, SANA, 342-4/1/4R-6;	
	1964	Prisons Department takes over from PWD to run OPS on 30 July 1964 ito directive 5/8132/11 [BBW/L].	Letter from District Representative PWD to Bevelvoerder RI dd. 1987-09-02, SANA 1607 4/1/4R-6	
	1970-1980			
	1972	New RR engines installed 11 July 1972. Units no.s 2,3 & 4 replaced with new RR 175 KVA with "….beheerpanele wat so gemonteer is dat sinchronisering van die masjiene baie makliker gedoen kan word as voorheen. Een van die drie ou eenhede is by GIE se werkswinkels en sal in masjien no. 1 se plek geinstalleer word" Kleiner bystands masjien vir noodkragopwekking moet nog geinstaller word."	Loose typed sheet undated with costs of machines and amounts for installation; Letter from Bevelvoerende Offisier to Kommissaris van Gevangenisse dd. 31/7/1972; SANA, 342-4/1/4R-6	
	1973	Two 170 kva and one 150 KVA gensets in storage on RI. Note: this may refer to the old RR gensets from 1960's. xref.	Letter from Grosvenor Industrial Engines to Officer Commanding dd. 19/2/1973; SANA 342-4/1/4R-6	
		No. 1 unit catches fire. Bew Smith on shift and promptly puts it out. 1 year guarantee on machines.	Report from BEw Smith dd. 3/7/1973; Report from H/Bew Bokkelmans dd. 4/7/1973; SANA 342-4/1/4R-6	
		Unit No. 2 breaks down. Bew. C.F. Gunter and Ellis are on shift.	Report from Bew Gunter to Bevelvoerende Offisier dd. 8/7/1973	
	1974	H/Bew Cillie, Bens, Ellis, Smit, Gunter, Veldsman & Roux all qualified to work in OPS. General schedule of weekly shifts outlined.	Minute from Kragstasie to Magasynmeester dd 16/1/74, SANA, 342-4/1/4R-6	
		The old 1960's RR gensets originally bought by Prisons and proposed to be transferred to DPW to be refurbished and transferred from Robben Island to other	Letter from Acting Secretary for Public Works to District Representative DPW, CT	

		Prisons. The 2 x 170 KVA sets go to Rooigrond Prison and the 1 x 150KVA set to Grootvlei.	dd 17/7/1974; Letter from Sekretaris Openbare Werke to Streeksverteenwoordiger DOW dd. 14/12/1975; SANA 342-4/1/4R-6	
		Overhaul of gensets and alternators but not to rewind. RR C6S engine may need major overhaul as it has been standing in corrosive conditions.	Letter & quote from Grosvenor Industrial Engines to Regional Representative DPW dd. 29/1/1974; SANA 342-4/1/4R-6	
		RR Gensets serviced under monthly contract with Grosvenor Industrial Engines LTD	Report on Contract Service dd. 4/3/74; 27/6/74; 31/7/74, SANA, 342-4/1/4R-6	
		Query as to when gensets to be shipped to GIE in reference to letter from Secretary of Public Works dd 14/12/1973 and Regional Representative DPW letter dd. 3/11/1972. **Note: These may be the old 1960's gensets replaced in July 1972.**	Letter from Bevelvoerende Offisier to Streeksverteenwoordiger DOW dd. 27/6/1974; SANA 342-4/1/4R-6	
		Generating equipment transferred to Grosvenor Industrial Engines Ltd on 4/9/1974	Letter from Officer Commanding: Prison command to commissioner of Prisons dd 30/9/74, SANA, 342-4/1/4R-6	
		Machines replaced in 1972 at a cost of R45 000, repair and maintenance costs amount to approximately R2200 p.a. The life span of the machines is about 10 years.	Memorandum to Minister of Prisons, 7/11/1974 [RI CS 50 File No. 4/1/3/R-6] Extract from RIM data base Number 135, pp. 181-182	
	1975	One of the 170KVA sets needs a new radiator core.	Letter from Grosvenor Industrial Engines to Regional Representative DPW, CT dd. 7/1/1975, SANA 342-4/1/4R-6	
		No. 1 set wiring removed and shipped to CT for repair. Machine running without emergency failsafe. No.3 set knocked hole in block. Lubricating oil landed on hot exhaust. "Slegs flinkse optrede deur die skofman Bew Gunter het 'n erger brand voorkom."	Report from Kragstasie to Bevelvoerende Offisier dd. 5/5/1975, SANA 342-4/1/4R-6	
		Bew Coetzee resigns. One 'skofman' short. Will take 4 weeks to train a new 'skofman'	Memo from Kragstasie to Bevelvoerende Offisiers dd 20/5/1975, SANA 342-4/1/4R-6	
		Repairs on No. 1 set – 'vasbrand van 'n klep'; No. 2 set compression ring broken. Spares awaited from JHB	Memo from Kragstasie [Sers Bokelmans] to Bevelvoerende Offisier dd 12/5/1975, SANA 342-4/1/4R-6	

	July 1975	Emergency genset Ford Engine no. 785352 with Le Roy Somer S.A. alternator no. 6012.	Letter from Bevelvoerende Offisier to Kommisaris van Gevengenes dd 29/7/75, SANA 342-4/1/4R-6	
		OPS has 4 gensets, 3 are controlled electronically and one is controlled mechanically [unit no.4] and not compatible with other units. It is underutilized because it can't be used in conjunction with other units. Not cost effective to change mechanical unit over to electronic. The unit is still in very good condition. Expansion on the Island has increased demand for electricity. Proposes transferring unit 4 and obtaining new unit. Quote from Grosvenor Industrial Engines to replace unit with new RR GR150s with Petbow alternator or to refurbish unit no.4 RR C6T with 187 KVA Petbow alternator. Unit 4 would not, however, be powerful enough to generate 187KVA and output would remain at 170KVA.	Letter from Bevelvoerende Offisier RI to Commissioner of Prisons dd. 12/8/75; Quotation from Grosvenor Industrial engines dd. 7/5/1975; SANA 342-4/1/4R-6	
	1976	Unit No. 1 taken to Grosvenor Industrial Engines Cape Town to repair No. 1 unit. Piston went through block. "Die saak is ondersoek en geen nalatigheid kon op die operateur vasgepen word nie". The block can be repaired and not replaced.	Letter from Bevelvoerende Offisier RI to Kommisaris van Gevangenes dd. 24/3/1976, SANA 342-4/1/4R-6	
	June 1976	Complaint about long time taken to repair unit No. 1.	Letter from Officer Commanding RIM to Manager Grosvenor Industrial Engines Ltd dd. 15/6/1976; SANA 342-4/1/4R-6	
		N0. 3 unit RR 6 cyl Engine No. 1482A-7 overhauled. **Note**: Unit still in operation 1988. Xref 1988 stock sheets	Letter from Commanding Officer RI to Commissioner of Prisons dd 27/7/1976; Grosvenor Industrial Engines Ltd quotation dd 19/7/1976; SANA 342-4/1/4R-6	
	1977	Mcfarlane alternator on unit 4 replaced with new Petbow AGA 696 alternator.	Report from Grosvenor Industrial Engines dd 4/7/1977; Minute from Waterwerke RI to Bevelvoerende Offisier dd 11/7/1977, SANA, 342-4/1/4R-6	
		In use Ford emergency genset engine no. 785352 alternator Le Roy Somers S.A. no. 6012. 60KW	Letter from Bevelvoerende Offisier RI to Kommissaris van Gevangenisse dd. 31/12/1977	
	1979	Decommissioned units are transferred to other prisons. 1. Rolls Royce [RR] model C6TFL 170KVA Engine no. 603110 with Mcfarlane 232 TIM alternator/ Petbow 20224 to Witbank Prison in Pretoria. 2. RR- C6TFL 170 KVA eng. No.603112 with McFarlane 230 TIM alternator/ Petbow no.20222 to Brandvlei prison.	Letter from Regional Representative DPW to Bevelvoerende Offisier RI dd 19/7/1979,; Letter from Bevelvoerende Offisier RI to Streeksverteenwoordiger DOW dd. 25/2/1980; Typed note No.	

		3.RR- C65FL 125 KVA eng. No. X101-391 with Compton Parkinson alternator no. SOD1525A105 to Youngsfield Military Base. 4. Ford 60 KVA with Le Roy Somers alternator to Allandale prison at Daljosephat.	O.E.71 D370 unknown date, SANA 1600 4/1/4R-6	
	1980-1990			
	1986	New genset of 312 KVA to be installed, old generator to be removed and upgrade of distribution board in Feb 1986. Cost of replacing Genset amounts to R71 000.	Letter from Director General DPW to Kommissaris van Gevangenisdiens dd. 31/01/1986; Letter from DOW & G Pretoria to Commissioner of Prisons dd. 31/01/1986; Memo from Hoof: Finanasies to ABO Stafdienste dd. 15/12/1987; SANA 1607 4/1/4R-6	
		Genset of 186KVA already 14 months in workshops of Power Torque Industrials which was replaced by a 300 KVA set in Feb 1986.	Letter from District Representative PWD to Bevelvoerder RI dd. 1987-09-02, SANA 1607 4/1/4R-6	
	1987	Set No.4 187 KVA broke ring on 7/10/87. Had reading of 55 900 hours run time on 30/6/1987	Memo to KOMVANG dd 9/10/1987, SANA 1607 4/1/4R-6	
	1989	Plans for new reticulation and new power station started ca 1989-09-19	Drawing: Electrical Engineers Di Villiers and Moore No. EE 8440/4-LS dd 1989-09-19	
	1990	Request for transfer of transformers and genset No. 2 to DPW workshops as they are unusable. Emergency genset from Victor Verster Prison to be transferred to Robben Island.	Fax from Bouwerke [Lt. Wagener] to DOW Elecktries [Mnr smith] dd 5/4/1990, SANA 1602- 4/1/3	
		A/O Cillie is head of 'Verwante Dienste' which includes OPS.	Beroepsveiligheids verslag from A/O Cillie dd 2/7/1990, SANA 1603-4/1/3	
		Budget and planning - New Power station planned from September 1989, Tender closed for new electrical reticulation system and budget for new gensets for new power station.	From Bevelvoerende Offisier Gevangeniskomandement RI to Kommissaris van Gevangenisse dd. 17/8/90, SANA 1603-4/1/3	
		R5000 needed for repairs to machine No. 1. Machine already repaired as it could not be out of order because of workload. Money needed for servicing machines 2, 4 & 5. Machines need to be serviced every 2 weeks.	Fax from BO RI to KOMVANG dd. 22/11/90, SANA 1611-4/2/3-R6	
	1991-2000			

	1991	Geboue wat herstel moet word: Opknapping van Kragstasie 100%	Notule van Eerste Vergadering 30/1/1991: Instandhouding, SAN A 1603-4/1/3	
		Repairs to machine No. 2 needs R10807. Urgent as only 3 machines operational. Other 3 machines must also be serviced.	Fax from BO RI to KOMVANG dd. 91/02/01, SANA 1611-4/2/3	
		"Kragopwekker is ontvang en daar word gewag op instruksie vir installering"	Fax from BO Robbeneiland [Kapt Wagener] to DOW & Grondsake [Mnr Le Grange] dd. 91/02/15, SANA 1607-4/1/4	
		"1. Die 4 [vier] masjienkragopwekkers by kragstasie moet na elke 200 uur gediens word". Request for additional funds for servicing engines.	Fax from BO RI [Kapt. Wagener] to KOMVANG [Kol Koekemoer] dd 91/02/22, SANA 1611-4/2/3-R6	
		Tweedehandse kragopwekker is geinstalleer. [OPS is still in use]	Notule van die derde vergadering gehou op 3/4/1991: Instandhouding, SANA 1603 - 4/1/3	
		"Bevestig per faks dat alle aspekte rakende die terrein in orde is waar kragstasie gebou opgerig sal word."	Fax from RI [Kapt. Wagener] to DOW & G dd 16/8/1991, SANA 1607-4/1/4	
		De Villiers & Moore start with new electrical reticulation system from OPS but to be able to switch over to new plant when ready.	Faxes and various other correspondence from August 1991; Electrical Engineers Drawing E2283/LS2 R6-T11/7 Sheet no. 8 of 10 dd 24 Jul 1990, SANA 1607-4/1/4	
		'Eerste oorskakeling van elektrisiteit van ou stelsel [overhead lines] na nuwe stelsel [underground] was op 91-09-17.' Needed to be done a number of times thereafter to find faults in system.	Fax from RI to DOW & G Cape Town dd 1991/04/10, SANA 1607-4/1/4	
		Request for funds to repair genset no. 2. Tender for generator no. 5 submitted to State Tender Board.	Fax dd 13/9/91 SANA 1607-4/1/4	
		Minister announced 'afskaling van Gevangenis bedrywighede op RI oor volgende 5 jaar.	Prioriteite vir 92/93 jaar dd 13 12 1991, SANA 1604-4/1/3	
	1996	OPS not in use and mothballed. Condition deteriorated.	Photograph ca 1996 Mayibuye Archive and courtesy Sarah Winter	
	2001-2012			

2.3. REFERENCES

REFERENCES

Published material

Laver, M.P.H., et al; *Sailor Women, Sea Women. SWANS. The history of the Women's Auxilliary Naval Services, 1943-1949.* SWANS Hitorical Publishing Fund, 1982.

Documents

R. Viney. *Heritage Statement House 49*, 3 February 2011.

SAHRA correspondence to Robben Island Museum 12 May 2011.

Robben Island Museum Integrated Conservation Management Plan, 2007-2012.

Basset, B.W. and J.R. Rudner. *Annotated Survey of buildings and sites of architectural, historical and contextual importance, and recommendations concerning a conservation policy for the Island*. National Monuments Council, 1985.

Theses and unpublished manuscripts

Anderson, Capt George: The Vicissitudes of Life; an Autobiography. Extracts from unpublished manuscript, pp. 130-183, 190-203. Copy with RIM HR Box file 1931-1959.

Base Line Archaeological Assessment Of Robben Island. Archaeology Contracts Office, University of Cape Town, October 1998.

Fick, J.P.F.: Memories of a Stay on Robben Island. SAHRA file ref.: 9/2/018/004.

Le Grange, Lucien: Robben Island: Survey of the Built Environment. 1998.

Le Grange, L, N.Bauman, T Hart: Robben Island Conservation and Use Plan. 2000.

Phase 1 Archaeological Assessment Of Robben Island World Heritage Site. Archaeology Contracts Office, University of Cape Town, 2001.

Reilly, Patricia: Conservation Survey of Robben Island. National Monuments Council. 1993.

Village Conservation and Use Plan; Policy Document. Robben Island Museum Conservation Plan Technical Team, November 2001.

Weideman, Marinda.: *Robben Island Coastal Defence 1931-1960*. M.A. Dissertation, University of the Witwatersrand, 1997.

Articles

"Look in after 40 years: The Story of the Artillery Specialists W.A.A.S. 1941-1945" *ASWAAS Magazine* 1985.

"The Industry" , *Flight: Supplement to the London Gazzette*, 12 December 1952, Paragraph on development of Petbow alternator.

Weideman, M.: "Robben Islands Role in Coastal Defence, 1931-1960". *South African Military History Journal*, Vol. 13, no.1, June 2004.

Interviews

Informal interview with Ernst Zauchenberger of Nolitha Engineering, 16 September 2011

Informal interview with Grant……., EPP Robben Island, 16 September 2011

Interview with Mrs S. Cillie, wife of A/O C.J. Cillie who was in charge of the OPS, 24 September 2001, Mayibuye Archive, UWC.

Informal discussions with Andre vom Hagen, 17 January 2011.

E-mail and informal discussions with Lionel Crook, January, June, August September 2011.

E-mail and informal discussion with Andy Selfe regarding Paxman Engines, 24 May 2012, 17 July 2012.

E-mails to and from Paul Evans [contacted via Andy Selfe] in the UK re Paxman and Crossley engines.

Transcript of interview with Mr. Jan Moolman by Anza Mehnert, 3 June 2004, Courtesy of Sarah Winter.

Collections

Sarah Winter; Photographs, documents, interviews and student management plans.

Photographs

Trudi Groenewald, Groenewald Preller and Associates, 21 January 2009. Ca June 2010.

Mayibuye archive, ca 1996.

Ron Viney, 12/10/2010, 20/06/2011, 09/09/ 2011, 16/09/2011, 03/11/2011, 29/11/2011, 30/1/2012, 9/03/2012

Cape Archaeological Survey CC, 05/03/2012 to 09/03/2012

Gillian Castle, 23 April 1983.

Internet

"http://en.wikipedia.org/wiki/Rolls-Royce_marine_diesel_engines"

"http://en.wikipedia.org/wiki/Rolls-Royce_Bergen_C_series"

"http://en.wikipedia.org/wiki/Rolls-Royce_Limited"

"http://en.wikipedia.org/w/index.php?title=Crossley&oldid=492059384"

"http://en.wikipedia.org/wiki/Paxman_(engines)"

Richard Carr's Paxman's History Pages, History of Paxman's Ownership and Corporate Identity

Richard Carr's Paxman's History Pages, Identifying Paxman Diesel Engine Types

Richard Carr's Paxman's History Pages, Paxman Diesel Engines since 1934

Richard Carr's Paxman's History Pages, Paxman Heavy duty Diesel engines, Types VZ, VX, VY and VYL – 1931 Owards

"http://en.wikipedia.org/wiki/Ruston_(engine_builder)"

"http://en.wikipedia.org/wiki/R_A_Lister_and_Company"

www.cummins.com/cmi/ [For Petbow alternators]

http://www.cummins.com/cmi/navigationAction.do?nodeId=2&siteId=1&nodeName=Our+History&menuId=1000 [for Petbow alternators]

Archives

SAHRA file ref.: 9/2/0018/0004 Robben Island General

SAHRA [NMC] file ref.: 5/k/rob E/1

Union Defence Force file ref.: D.C.[E] 671/2/69 Robben Island General. 1941 to 1959. Photocopies deposited at RIM HR courtesy of Capt Chris Dooner, Simons Town Naval base: Logistics

Union Defence Force file ref.: D.C.[E] 671/2/507, 23/10/1942 to 27/9/1959. Photocopies deposited at RIM HR courtesy of Capt Chris Dooner, Simons Town Naval base: Logistics

Western Cape Archives and Records Service: PWD CT 1/8132, 1957-1962

Western Cape Archives and Records Service: PWD CT 3/8132, 1954-1962

Western Cape Archives and Records Service: PWD CT 6/8132, 1954-1962

Robben Island Museum Data Base, Number 135: Power Station, pp.181-182 of 875 pages.

Department of Public Works

The DPW has a registry and an archive – contact Letitia in room 117, tel.: 021 402 2188. The registry was very helpful and pointed to archived material housed at the Roeland Street Archive. They could not, however, assist with material after 1962 as this is in their basement and unaccessioned, awaiting transfer to the archives.

South African National Archives [Pretoria]

	BOX	File/ vol. no.	Description	Period	Comments/ information	
	364	B16	A. Moolman		Embargo. Personal file needs permission.	
	377	G4	Voucher files: Requisition: A bouafdeling	89-90	Vouchers and codes need further research	
	378	G4	Voucher files: Requisition: A bouafdeling	88-89	Vouchers and codes need further research	
		G4	Requisition: D werkswinkels	89-90	Vouchers and codes need further research	
		G4	Requisition: D werkswinkels	88-89	Vouchers and codes need further research	
	379	G4	Requisition: D werkswinkels	88-89	Vouchers and codes need further research	
	380	G4	Requisition: D werkswinkels	89-90	Vouchers and codes need further research	
	381	G4	Requisition: D werkswinkels	89-90	Vouchers and codes need further research	
	382	G6	Requisition: A bouafdeling	88-89	Vouchers and codes need further research	
		G6	Requisition: A bouafdeling	89-90	Vouchers and codes need further research	
	383	G6	Requisition: D werkswinkels	89-90	Vouchers and codes need further research	
	384	G6	Requisition: D werkswinkels	88-89	Vouchers and codes need further research	
*	390		Elektrisiteit: G huis 2 kaart en planne		Arch drawings – Scanned	X
	473		Misc corresp file		20 year embargo still in force	
	474		Misc corresp file	92-93	20 year embargo still in force	
	475		Misc corresp file	86-87		
*	478		Kragstasie: Verlofmeesters	88	Embargo – requested names of people only	X
	557	3/1/25	Voorrade en uitrusting: Roetine navrae	1994	20 year embargo still in force	
	561	3/8/4	Herstelwerk	1984-93	Not accessed	
	566	4/1/B	Bouwerke en beleid	83-90	Letter from Bevelvoerende Ofisier Kol AKJ Ritter dd 86-07-25 appointing A/O C. Cillie as 'Veiligheidsverteenwoordiger vir kragstasie	x
	566	4/1/3	Geboue	81-93	Vol. 1 Letter dd 88-03-08 subkragstasie vervanging van draad MSP	

					Vol.2 Gaste huis fase II voltooi 89/11/16-89-06-26; Prioriteitslys Mei 91 Opgradeer riool network te gastehuis 91-02-04 to 91-02-22; Prioriteitslys Mei 91 Opknapping Kragstasie 90-10-18 to 91-01-25 voltooi Letter dd 18 sep 1990 use of pvc for all electr install –fot taken Letter dd 1990-10-03 restricting use of half bricks – foto taken Notule van veiligheidsvergadering dd 90-07-02 Hoof kragstasie given certain tasks. Foto taken.	
	567	4/1/3-R6 vol 25 & 26	Geboue	93-94	20 year embargo still in force	
	568	4/1/4 –R6 vol5	Water riool elekritsiteit en stoominstallasies	85-94		
		4/1/7-R6	Tenders en kontrakte	87-93		
		4/2/2	Boubegroting: nuwe en klein werke	84-93	N/A	
		4/2/3-R6	Toekennings en opgawes van boufondse		N/A	
	568	4/3/1	Bouwerk masjiene en gereedskap aankope	87	N/A	
		4/3/2	Masjiene en gereedskap: oorplasings, herstelwerk en afskrywings	85-89	N/A	
		5B	Werkswinkels en washuise: beleid	86-93	N/A	
		5/1	Werkswinkels en washuise: navrae en opgawes	82-90	N/A	
		5/5	Veiligheids aspekte: fabrieke	88-92	N/A	
*	624	A6	Elektrisien [no.1]	83-88	Inventory of minor tools and items –drill bits, screws etc	X

*	625	A08	Elektrisien	83-88	Volume 1 -1978-1982 Inventory of tools and minor items. Interesting entry No. 50 – 'Motor Elec. COMPTON PARKINSON 57/3033 dated 12-7-78 Volume 2 – 83-88 Logistiek Inventory of tools and minor items. Volume 3 -83-88 W/W	X
*	628	B6	Kragstasie	83-88	Kwartaalverslae 1. 31 maart 1988 Inspeksie verslag van uitrusting op inventaris: geen surpluses and geen tekorte. Volume B6 Inventory Register-Inventarisregister Kragstasie 1/4/83 to 31/3/88 Generators pp.2, 3, 9 entry 19-26,40, 70 Round diesel tanks entry 71 19&20 Rolls Royce Engine no. 603-111 C6T?/?TFL; Petbow alternator AGA696/24 21&22 Rolls Royce Serie no. 606600B, engine no.1482-5; Petbow alternator A518/24 23&24 Rolls Royce engine, seri no. 1482A, engine no. 107074; Petbow alternator AG518-40 25&26 Rolls Royce Eng Ser no. 606600B[14825] Eng no. 106714; Petbow alternator AG518-16	X

					40 Rolls Royce engine serie no. 1739-5; Petbow alternator no. AGA 524-364 with 2 12 v Batteries. 70 Rolls Royce Kragopwekker met verkoeler serial no. 47854 + 2 x 12 v batterye – only appears on sheet dated 26/5/ 87 [overleaf] appears that records from entry 70 to 79 is stock taken up after 18/6/86. Entries 1 to 69 all date from 16/11/83 to 26/05/87 71. 2x Dieseltenk 800x800x2200 mm [round tanks] Foto taken	
*	664	G5[33]	Inventaris elektriese werkswinkel	78-83	Not available at time	X
	735	SM123255520	Cillie, MJ: medies	94-95	Personal file no access	
	743	SP45578D vol2	Cillie, MJH	91-95	Personal file no access	
		SP47413D	Cillie, MJH:persoonlik:persal	90	Personal file no access	
	763	SV45578	Cillie, MJH:persal 12325520	79-94	Personal file no access	
*	775		10.Elektriese terreinplan	1985	Volume 1 R6-T2/6 blueprintdated 2-10-61 foto taken EE44/2429/12 foto taken. Plan shows overhead wires from pole on N face dd not known R6-T4 first date on this is 1966. Shows pathways retief park still extant. Cooling pond and one other structure??? Contains two typewritten sheets dd 1984-09-18. 1. Bill of costs and quantities for electrical supply to 'ontsouttings apparaat: elektriese toevoer 2. 'ontsouttings apparaat' voorsiening vir elektriese toevoer	X

					na toekomstige magasyn.' Deals with positioning of substation and cabling links.	
	776		26. Huis planne		Foto taken	
	778	10898	A/O Cillie	90-91	Personal file no access	
	1462-1470		Beramings en begrotings			
	1462	2/7/3 Vol.6	Beramings en begrotings	88-10-26 to 89-08-29	No info on power station	
		Vol. 7	Beramings en begrotings	89-08-29 to 89-11-03	No info on power station	
	1463	Vol. 8	Beramings en begrotings	89-11-03 to 90-02-21	No info on power station	
		Vol.9	Beramings en begrotings	90-02-21 to 90-04-03	No info on power station	
	1464	Vol. 10	Beramings en begrotings	90-04-03 to 90-05-21	No info on power station	
		Vol. 11	Beramings en begrotings	90-05-21 to 90-09-10	No info on power station	
	1465	2/7/3	Rekeninge Begroting van uitgawes. verantwoordelikhede	85-04-30 to 91-08-05	Vol 1. Info is accounting of nature and has no benefit without vouchers as only voucher numbers are used. Vol. 2. No info on power station	
	1466	Vol. 12	Beramings en begrotings	90-09-10 top 91-02-04	No info on power station	
		Vol. 13	Beramings en begrotings	91-02-04	No info on power station	

				to 91-07-17		
	1467	Vol 14&15	Beramings en begrotings		No info on power station	
	1537	3/1/7	Verkoop/koop van staatseiendom van en aan ander statsdept	91		
	1552	3/3/2	Voorrade en vervoer: beskikking oor uitgediende items	90-93		
#	1600	4/1/2 or 4/1/2-R6	Bouwerk: bouwerke, geboue en gronde:grond Bouwerke:bouwerk, geboue en gronde; geboue[vol.1-2]	71-91	R6 no info	
#	1602	4/1/3	Bouwerke:bouwerk, geboue en gronde; geboue[vol.15-16	89-09-01 to 90-06-20	Vol. 15 Gastehuis: Requisition gastehuis dd 1990-02-22 foto taken; fax transmission sheet dd 90-02-15- foto taken; corrugated roof sheeting dd 5 feb 1990- foto taken; cost estimates-foto takne;toilet blocks demolished-foto taken;letter to H.O. dd 90-02-01;letter to H.O. dd 89-12-12-foto taken; letter and permit from NMC dd 4 Des 1989 at 3/K/Rob E/1-foto taken;prisoners used as labour 1989-10-16; Elctric: Rugby fields electrified Buildings progress reports-foto taken Kragstasie: Januarie 1990; a. Bouwerk: Vorderingsverslag; Dienste nie gemagtig-foto taken b. Kontrak dienste – foto taken Vol. 16 Kragstasie	

					1990-05-23 Internal memo removal of transformers- foto taken Gaste huis Tender doc tiles-foto taken; gebuigde dakplate-foto taken; Requisitions and specs for tiles, carpets, furniture, etc Electric Kragopwekker KHK-foto taken; kragopwekker masjien 2?-foto taken	
	1603	4/1/3 or 4/1/3-/r6	Bouwerke:bouwerk, geboue en gronde; geboue[vol.17-18	90	Gastehuis: Funksie uitnodiging opening na voltooi 1990-06-20-foto taken;dakplate 1990-06-11-foto taken; roldeur-foto taken; final cost 90-12-11-foto taken; kroeg gordyne-foto taken; Electr. Air cooled Diesel Lister request for tender 1990-07-25-foto takende Jongh, JK elektrisien[sers] geb dat 63-11-02 nr.61488; Kragstasie: [fell under 'Hoof Verwante dienste'] Internal memo 90-08-17 Koste beraming vir nuwe kragstasie gebou-foto taken; memo 90-07-02 veiligheids inspeksie-foto taken; Veiliheidsinspeksie, A/O C.J. Cillie, 1990-10-05 - foto taken; Progress report Oct 1990-foto taken; veiligheids verslag 90-10-01 – foto taken; veiligheids inspeksie 90-09-04 – foto taken;	
	1604	4/1/3	Bouwerke:bouwerk, geboue en gronde; geboue[vol.19-20	91-92	Kragstasie Nuwe kragstasie beplanning geskrap en vanaf gevangenis	

					budget afgehaal91-12-13 – foto taken; beroepsveiligheids vergadering 1991-07-01,1991-03-04 – foto taken; Elctr Gastehuis Misc Original opgawe departementele huise 1991-06-06 – fot taken	
	1605		Bouwerke:bouwerk, geboue en gronde; geboue[vol.21-22	92	No admission- 20 year embargo still in place.	
	1606		Bouwerke:bouwerk, geboue en gronde; geboue[vol.23-24	92-93	No admission- 20 year embargo still in place.	
*	1607	4/1/4 or 4/1/4 R6	Bouwerke: bouwerk, geboue en gronde: water riool en elktr [vol2-3	88-92	Electr & Kragstatsie Letter from DPW to De Villiers & Moore dd 88-05-11 lists plans *xref with own plans – foto taken;Fax to De Villiers & Moore with reticulation plans 1991-11-29 – foto taken; Energy Research institute UCT dd 4 September 1991 – foto taken; fax from De Villiers & Moore 1991-10-17 – foto taken; reticulation inspection fax 22 oct 1991 – foto taken; Fax oorskakeling vanaf ou na nuwe stelsel dd 1991-10-04 – foto taken;kragopwekker vir Radar 1991-09-17 - foto taken;	X
*	1608		Bouwerke: bouwerk, geboue en gronde: water riool en elktr [vol. 4	92-93	Foto taken	X
*	1609		Bouwerke: bouwerk, geboue en gronde: water riool en elktr [vol. 1 en 1 leer	85-88	Foto taken	X
	1610	4/1/7	Bouwerke: bouwerk, geboue en gronde: tenders en kontrakte	86-87	Foto taken	X

	1611	4/2/3 or 4/2/3-R6	Bouwerke: bouwerk, geboue en gronde:toekennings en opgawes van boufondse; vol.4	88-89	Foto taken	X
	1612		Bouwerke: bouwerk, geboue en gronde:toekennings en opgawes van boufondse; vol.5-6	89-92	Foto taken	X
	1613	4/3/2	Bouwerke; bouwerkmasjiene en gereedskap; oorplasing, herstelwerk en afskrywing;vol. 3-4	89-90	N/A	X
	1613		Bouwerke; bouwerkmasjiene en gereedskap; oorplasing, herstelwerk en afskrywing; vol.5	90-91	N/A	X
	1614		Bouwerke; bouwerkmasjiene en gereedskap; oorplasing, herstelwerk en afskrywing;vol.6	91-92	N/A	
	1616	4/2/3	Bouwerke: boubegroting: toekennings en opgawes van bou fondse; vol. 2-3	80-88	Kragstasie No info Elektr Vervang oorhoofse kraglyne, opwekker, koelkamer dd 81-02-05 – foto taken;	x
	1617	5/1	Werkswinkels en washuise: navrae en opgawes; vol.2	88-92	N/A	
	1619	5/3/1	Werkswinkels en Washuise: aankope: masjienerie [ook inwin van tenders] vol.1	71-91	N/A	
			STRONGROOM 44			
	339	4/1/3	Korrektiewedienste-bouwerke, geboue en gronde; vol. 10-11	1987-		
	340	4/1/3	Korrektiewedienste-bouwerke, geboue en gronde; vol. 12-13	88		

	341		Korrektiewedienste-bouwerke, geboue en gronde; vol. 14	89		
*	342	4/1/4R-6	Bouwerke, geboue en gronde: water, riool, elektr en stoominstallasies; vol. 2-3	1961-	Foto taken	X
*	343	4/1/4R-6	Bouwerke, geboue en gronde: water, riool, elektr en stoominstallasies; vol. 1	79	Foto taken	X
	344	4/1/7	Bouwerke,geboue en gronde: tenders en kontrakte	82		
	345	4/2/3	Bouwerke,geboue en gronde: tenders en kontrakte	86		
	347	5/5	Werkswinkels en washuise veiligheid fabrek, masjienerie		74	
	MAPS					
	32/2		Plan shewing approx buildings for sale	March 19?	RI ref map	
	T6		Robben Island	May 1972	Map [grond voorbehou vir gebruik deur SAW]	
	E8440/ 6		DPW and land	Oct 1989	Elek verspreid straat verlig	
	E8440/ 8 HS		DPW	Sept 1989	Elktr verspreid hoogspanning	
	/8132/2		DPW	1972	Map	
	E8440/ 04-HS		DPW	Sept 1989	Elektr verspreid en hoogspanning	
	R6-T11/9		Surveys &map	Sept 1988-1989	Aerial photo	
	E8440/ 8-SL		DPW	Sept 1989	Elek verspreid straat verligting	
	8132/1		DPW	May 1972	Map	
#	Org. no. 3 – no		A.S. Joffe & Co. Cape pty ltd Reinf Conc Engineers CT	July 1943	Recreational hall – RC details foundations	

	G959959					
#	959		A.S. Joffe & Co. Cape pty ltd Reinf Conc Engineers CT	July 1943	Recreational hall – RC details of beams & slab	

Maps and drawings

Type [map, arch draw, etc]	Date	Reference	Source	Scale	Description	Purpose
Architectural drawings						
Electr/arch	11/11/1942	Q.F./EM. 21.	RIM HR	1/8th of inch =1'	Internal wiring diagrams of B.Q.M. store, guard room for W.A.A.S. quarters, laundry.	
Kichen& boiler house	24/11/1960	EE27/150 3/2	DPW archive Pta [digitized and rescaled to 1:100 metric]	1/8th of an inch =1"	Electrical distribution kitchen and boiler house MSP	
OPS	29/3/1963	R6-G1	DPW archive Pta [digitized and reduced to 1:100]	4'=1"	Floor plan, mountings, facades, cooling pond – assume as original design from WWII	
OPS	26/6/67	8132/E3	DPW archive Pta [digitized]	unknown	Electrical reticulation, details of power station layout and boards	Machinery updgrade and new reticulation system
OPS	June 1987	2/8132/46	DPW archive Pta [digitized]	1:100, 1:200	Extensions and modifications to building showing facades, floor plan, guard house, outside toilet and outbuilding	
Line drawing	26/6/1967	8132/E2	DPW archive Pta [digitized]	unknown	Electrical reticulation line diagrams of overhead lines and reticulation	

Line drawing	26/6/1967	EE27/150 3/1A	DPW archive Pta [digitized]	unknown	Elctrical line diagram of overhead lines and substations	
Electr engineers	26/6/1967	EE27/150 3/1REVL TB	DPW archive Pta [digitized]	unknown	OPS new electrical reticulation and layout of boards, shows extension to south of older part of building as well as addition of transformer addition of structure to house it on SE facade	Machinery updgrade and new reticulation system
New Power station	Jan 1990	5/8132/4	RIM HR	1:100	Plan of new power station built at harbour	To replace OPS
Maps						
Cape Works Department	12/7/1894	SG. No. 8051/1993	National Geo-spatial Information	1 inch – 600ft	Map of whole Island with village, tramway, male & female lepers, lighthouse	Survey
Line drawing	1905	9/2/018/00 04;	SAHRA	Approx 1:4000	Structures and sites in village.	
Contour	1939	CA 5/1 Secret copy No. 7	Courtesy Sarah Winter	1: 5000 English feet Contour interval 5 English Feet [there was a difference from Cape Feet before Imperial Feet implemented]	Appears to be the first contour map of the Island. All other subsequent contour maps until the first ortho photos in 1985 were based on this.	Use by UDF during WWII for strategic planning
Contour	15/10/1942	Drawing no 10	RIM HR centre	1 inch to 200 feet or 1 in 2400 imperial	Whole Island, shows OPS as plain square with cooling pond, Post office and house 49 not yet extant, Power Road shown.	unknown
Contour	14/10/1942		RIM HR	unknown	Shows OPS with Power Road.	

			centre			
Contour	4/5/1955	D.2078	DPW archive Pta [digitized rescaled to metric]	1:5000 imperial	Whole island, Water supply, lists and shows all boreholes and stats	
Contour part site plan	21/9/1961	EE27/150 3/1	DPW archive Pta [digitized and rescaled 1:2500 metric]	1'=100'-0"	MSP and harbor layout , electr distribution in MSP, traced from enlarged photo print 8132/71, traced from trig survey 1939	
Contour part site plan	13/12/1961	EE27/150 3/1 EAV04	DPW archive Pta [digitized]	unknown	MSP and harbor layout , electr distribution in MSP	Formal approval of part site plan EE27/1503/1 dd 21/9/1961
Contour	27/12/1962	Part of drawing 8132/71	SAHRA archive file ref 3/k/robe/1	Unknown	Based on 1939 Trig survey, shows SE corner of Island, Village, Alpha 1, Edmonds pool, T Numbers still used, some buildings intended for demolition	Demolition of bldgs
Site plan	6/6/1966	R6-T4	DPW Archive Pta [digitized and rescaled to 1:2500]	1"=200'	Robben Island part site plan electrical, traced from drwg no.Q7/EM 423, shows western part of island with village, MSP and harbor, HT lines from OPS to substations,additions: 1. Plasing van hondehokke en kombuis 31/3/1977 2.Aanbouing R6-G21 9/7/1981 3.Watertenks 15/1/1985 4.Tydelike enkelkwartier 22/10/1982 5. Plasing van hondehokke 4/4/1989	

	May 1972	D2078/1	DPW archive Pta [digitized]	1:5000 metric	Whole Island, reduced from drawing No 8132/11 by F.R. Bartley. Original contour drawn by contour survey of topo party [x ref J.P. Fick: Memories of A Stay on Robben Island at SAHRA ref 9/2/018/004] shows MSP	
Contour	May 1972	1/8132/2	DPW archive Pta [digitized]	1:5000 metric	Whole island	unknown
	18/5/1972	EE44/242 9/15	DPW archive Pta [digitized]	1:5000 metric	Whole island, HT cable and substations	
	18 May 1972	R6-T6	Dpw archive Pta [digitized]	1:5000 metric	Whole Island, reduced from drawing No 8132/11 by F.R. Bartley. Original contour drawn by contour survey of topo party [x ref J.P. Fick: Memories of A Stay on Robben Island at SAHRA ref 9/2/018/004] shows MSP	
	May 1972	1/8132/2	DPW archive Pta [digitized]	1:5000 metric	Whole Island, reduced from drawing No 8132/11 by F.R. Bartley. Original contour drawn by contour survey of topo party [x ref J.P. Fick: Memories of A Stay on Robben Island at SAHRA ref 9/2/018/004] shows MSP	
	May 1972	1/8132/1 WAJ-01	DPW archive Pta [digitized]	1:5000 metric	Whole island	Activities in and around Murray's Harbour
	May 1972	1/8132/1 [8132/10 croosed out]	DPW archive Pta [digitized]	1:5000 metric	Whole island	unknown
Contour	Nov 1973	D2078/1	DPW archive Pta	1:5000 metric	Whole island general, shows MSP	

			[digitized]			
	18/09/1989	Ref. 5/8132/23 B drawing no. C4120/01	RIM HR	1:3000 metric	Eastern half of island, 4 sections drawn by Van Niekerk, Kleyn & Edwards Consulting engineers and Urban Planners, OPS resembles current site plan.	Opgradering van watervoorsienin g en brandbestryding [Upgrading of water supply and fire]
Part site plan	19/9/1989	EE8440/4-LS	DPW archive Pta [digitized]	1:1000 metric	HT reticulation from substation 1 to harbor and ou tronk, sheet 4 of 10 HT reticulation from OPS prior to construction of NPS	Planning reticulation for NPS
Contour site plan	Jan 1990	1/8132/24 WBS 4088	DPW archive Pta [digitized]	1:1000 metric	Shows position of new power plant at harbor, drawen by Barnes, Hirschman & woodhead architects, Cape Town	
Ortho photo						
Digitised print	1985		Map & survey	1:4692 metric	Whole island	
film	1989	929/4/ 1615	Map & survey	1:10000 metric	Whole island	