

**Seychelles Fishing Authority
The Republic of Seychelles**

**IMPLEMENTATION REVIEW
STUDY REPORT
ON
THE PROJECT
FOR
THE CONSTRUCTION OF
ARTISANAL FISHERIES FACILITIES
ON MAHE ISLAND
IN
THE REPUBLIC OF SEYCHELLES**

February 2008

**JAPAN INTERNATIONAL COOPERATION AGENCY
ECOH CORPORATION**

PREFACE

In response to a request from the Government of the Republic of Seychelles, the Government of Japan decided to conduct a implementation review study on the Project for the Construction of Artisanal Fisheries Facilities in Mahe Island and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Seychelles a study team from November 25 to December 8, 2007.

The team held discussions with the officials concerned of the Government of Seychelles, and conducted a field study at the study area. After the team returned to Japan, further studies were made. Then, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of Seychelles for their close cooperation extended to the team.

February, 2008

Masahumi Kuroki
Vice-President
Japan International Cooperation Agency

February, 2008

LETTER OF TRANSMITTAL

We are pleased to submit to you the implementation review study report on the Project for the Construction of Artisanal Fisheries Facilities in Mahe Island in the Republic of Seychelles.

This study was conducted by ECOH CORPORATION, under a contract to JICA, during the period from November, 2007 to February, 2008. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of Seychelles and formulated the most appropriate basic design for the project under Japan's Grant Aid scheme.

Finally, we hope that this report will contribute to further promotion of the project.

Very truly yours,

Hitoshi Takemoto
Project manager,
Implementation review study team on
The Project for the Construction of
Artisanal Fisheries Facilities in Mahe Island
ECOH CORPORATION

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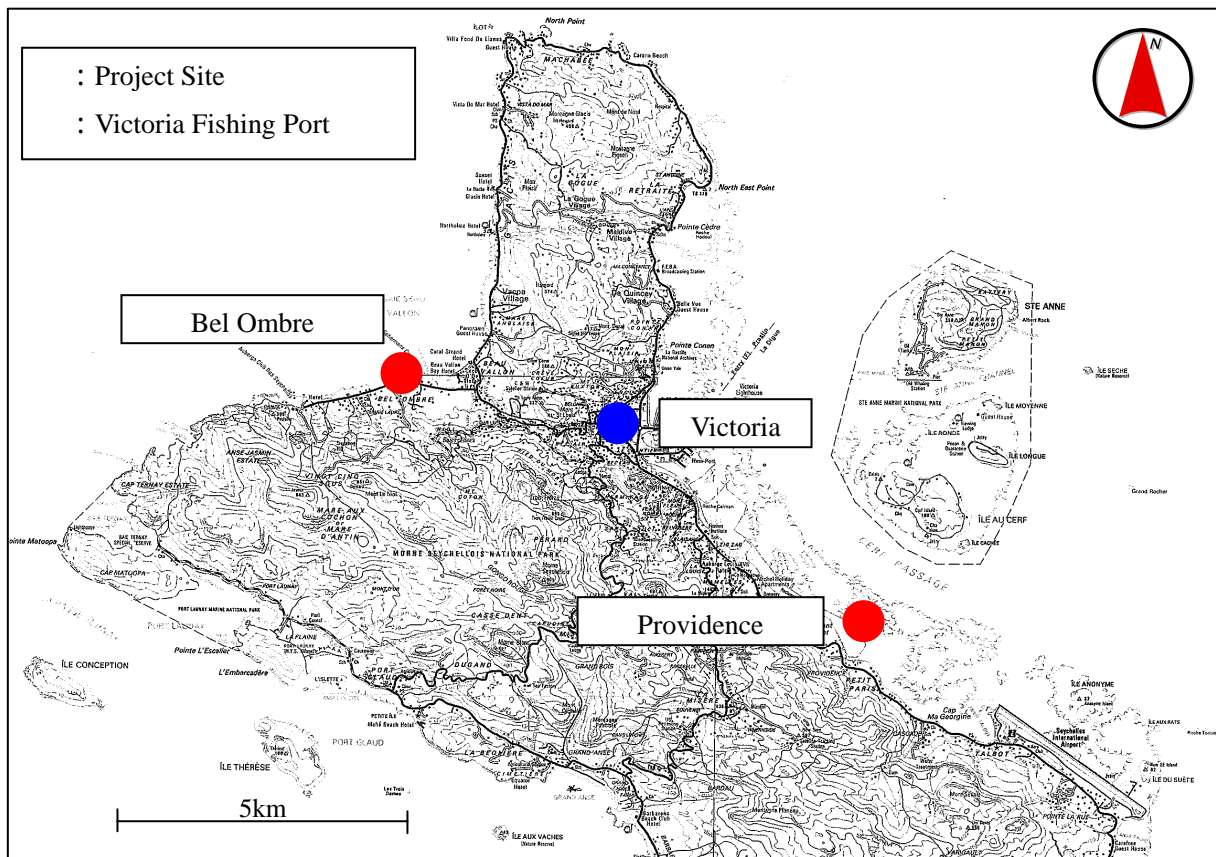
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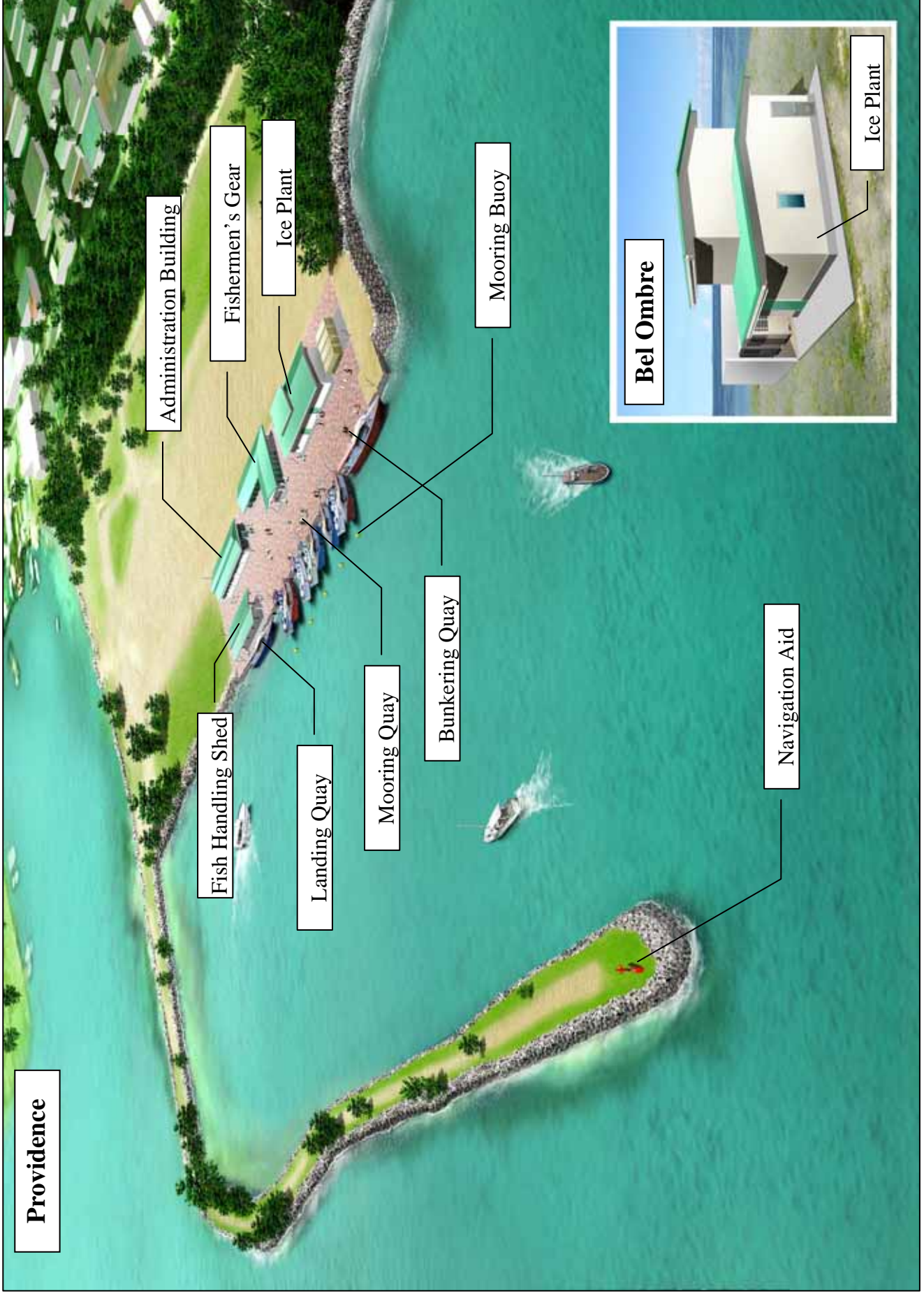
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Location of Seychelles



Location of Project Site



Providence

Administration Building

Fish Handling Shed

Fishermen's Gear

Ice Plant

Landing Quay

Mooring Quay

Bunkering Quay

Mooring Buoy

Navigation Aid

Bel Ombre

Ice Plant

Perspective

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Abbreviations

BD	Basic Design Study
CD	Candela
DBD	Draft Basic Design
DL	Datum Level
EEZ	Exclusive Economic Zone
E/N	Exchange of Notes
FL	Floor Level
GDP	Gross Domestic Product
GL	Grand Level
GST	Goods and Sales Tax
IR	Implementation Review Study
JICA	Japan International Cooperation Agency
LED	Light Emitting Diode
LPG	Liquefied Petroleum Gas
MENRT	Ministry of Environment , Natural Resources and Transport
NGO	Non Governmental Organizations
OFCF	Overseas Fishery Cooperation Foundation
PUC	Public Utilities Corporation
SCAA	Seychelles Civil Aviation Authority
SFA	Seychelles Fishing Authority
SPA	Seychelles Port Authority
SR	Seychelles Rupee

Chapter 1

Background of the Project

Chapter 1 Background of the Project

1-1 Background of the Project

The Government of Seychelles has placed the most important industry for their economic development making “Development of the Fisheries Sector Strategy 2017” and promoted sustainable and responsible Fisheries Development.

Victoria Fishing Port is the center for semi-industrial and artisanal fisheries. The quay, fish handling shed and etc. have been constructed by the grant aid of the Government of Japan in 1997. Since then, the quay became congested with the increase of fishing boats and losing freshness of fish by poor landing efficiency and unsafe mooring of fishing boats has been occurred. While Bel Omble is the 2nd largest fishing port next to Victoria Fishing Port and the Government of Seychelles is now under the expansion of fishing port. However, there is no ice plant here main fishing boats land and moor in Victoria Fishing Port and it leads to the congestion of Victoria Fishing Port.

The Government of Seychelles has requested the Grant Aid to the Government of Japan for the promotion of artisanal fisheries and solving the congestion of Victoria Fishing Port through the construction of fishing facilities in Providence which is a new industrial estate and the construction of ice plant in Bel Omble Fishing Port.

Upon the request, Basic Design Study has been conducted from January through October, 2006 and the Basic Design Study Report has been made covering the civil facilities (Quay, Pavement, Mooring buoy, Navigation aid), the building facilities (Ice making plant, Administration Building, Fish handling shed, Fishermen’s gear storage, External facilities) and the equipment (Forklift, Fish box, Pallet box) in Providence and Bel Ombre Fishing Ports. However, the Grant Aid has been shelved because of various reasons.

The conduction of implementation review is required since almost one year has passed from the Basic Design Study. Therefore, unit price of construction material and machinery in Seychelles have been changed and the re-estimation of such prices were necessitated.

Considering the above background, the Implementation Review Study is conducted aiming the review of existing price estimation and reconfirmation of the responsibilities of recipient country.

1-2 Consideration of Environmental Impact

The validity of Environmental Authorization concerning the fishing port facilities of Providence and the ice making plant of Bel Ombre Fishing Port approved on September 29, 2006 was confirmed as valid by the letter dated November 20, 2007 issued by Department of Environment (Appendix 5-1)

1-3 Other Regulations

(1) Acquisition of Permissions for Development

Seychelles side has already acquired the permissions for development (the fishing port facilities in Providence dated November 24, 2006 and the ice making plant in Bel Ombre Fishing

Port dated December 21, 2006) and submitted them to the Study Team. These Permissions have included the certificates of approval for the building operations (Appendix 5-2)

(2) Security of Project Site

The Study Team has confirmed that the project site in Providence is already secured based on the plan of Basic Design Study with the letter issued .by Town & Country Planning Authority dated November 26, 2006. (Appendix 5-3)

Chapter 2
Contents of the Project

Chapter 2 Contents of the Project

2-1 Outline of the Project

Being reviewed the fisheries development plan, it was confirmed that the content was not changed concerning the project goal and the project outline.

The name of the Project was confirmed to change to "The Project for Construction of Artisanal Fisheries Facilities on Mahe Island" from "The Project for Construction of Fishery Facilities and Supply of Equipment" by the Minutes of Discussions (Appendix 4).

2-2 Basic Design of the Requested Japanese Assistance

2-2-1 Design Policy

(1) Basic Policy for Civil Facilities

As well as the Basic Design Study (hereinafter referred to as "BD2006") with the purpose of solving the congestion in Victoria Fishing Port, the minimum fisheries facilities are to be constructed so as to relocate the increased number of fishing boats from the designed number of fishing boats in the Basic Design Study for Improvement of Victoria Artisanal Fishing Port done in 1997 (hereinafter referred as "BD1997") to Providence and Bel Omble.

The definition of solving the congestion of Victoria Fishing Port is to reduce number of fishing boats to 40 boats per day at the time of BD1997 from 58 boats which is the current number of boats mooring per a day. As 6 boats per day relocate from Victoria Fishing Port by installing ice making plant in Bel Omble, the mooring number of boats per a day in Providence will be 12 boats per day (58-40-6) and this number will be the base of number of design boat.

The number of fishing boat in Victoria Fishing Port has increased to 113 boats from 83 boats originally planned in 1997 and at the time of this Implementation Review Study (hereinafter referred to as "IR2007") the number has been increased to 119 boats.

In this IR2007 same as the time of BD2006, the study for the congestion at the Quay of Victoria Fishing Port was conducted.

It has been confirmed that fishing boats were multiply moored at the Landing Quay and the fishing boats are moored in full at the Mooring Quay also. As the result of survey for the number of mooring fishing boats, 56 boats per day were confirmed to be moored .with the Quay in this 2007IR. As the result was a little bit few in comparison with the number of 58 boats per day at the time of January BD2006, the congestion was still sever and confirmed remain unchanged.

1) Basic Design Study in 2006 (BD2006)

113 fishing boats were confirmed to use Victoria Fishing Port at the time of BD2006 based on the data base of fishing boat registration as of the year of 2007 as shown in the Table 2-2(1). And, by the survey for the number of fishing boats in port per day, 58 boats per day was set as number of design fishing boat and the result is shown in Table 3-2(2).

Table 2-2(1) Number of Boats Utilizing Victoria Fishing Port (BD2006)

Type	Leconomie	Whaler	Lavenir	Schooner	Semi-industrial	Total fishing boats	Other boats	Grand Total
No. of Boats	14	41	17	29	12	113	7	120

Table 2-2(2) Results of Fishing Boat Survey (BD2006)

Date	Leconomie	Whaler	Lavenir	Schooner	Semi-industrial	Others	Total
16/1/2006 Mon	11	19	12	11	8	2	63
17/1/2006 Tue	8	20	11	12	7	2	60
18/1/2006 Wed	6	18	9	14	7	2	56
19/1/2006 Thu	11	16	10	11	7	2	57
20/1/2006 Fri	12	19	9	10	5	1	56
21/1/2006 Sat	12	19	8	9	5	1	54
22/1/2006 Sun	10	13	10	9	5	1	48
23/1/2006 Mon	10	16	10	9	6	1	52
24/1/2006 Tue	11	21	9	13	5	0	59
25/1/2006 Wed	8	19	12	13	3	0	55
26/1/2006 Thu	10	19	12	13	3	0	57
27/1/2006 Fri	9	20	11	14	5	0	59
28/1/2006 Sat	10	21	12	14	5	0	62
29/1/2006 Sun	9	19	12	16	5	0	61
Total	137	259	147	168	76	12	799
Average	9.8	18.5	10.5	12	5.4	0.9	57.1

[Number of design boats in BD2006]

Leconomie class	10
Whaler, lavenir, schooner class	42
<u>Semi-industrial class</u>	<u>6</u>
Total	58

2) Implementation Review Study in 2007 (IR2007)

In this IR2007, the number of fishing boats to utilizing Victoria Fishing Port based on registration data base of 2007 is confirmed to be 119 boats as shown in Table 2-2(3). And, the survey result of the number of fishing boats in Port was 56 boats per day as shown in Table 2-2(4). The survey duration was 14 days at the time of BD2006 and 7 days at this IR2007. Therefore, the designed number of fishing boats is settled to 58 boats per day which was a result taken in long duration for survey at the time of BD2006.

Table 2-2(3) Number of Boats Utilizing Victoria Fishing Port (IR2007)

Type	Leconomie	Whaler	Lavenir	Schooner	Semi-industrial	Total fishing boats	Other boats	Grand Total
No. of Boats	16	41	17	33	12	119	5	124

Table 2-2(4) Results of Fishing Boat Survey (IR2007)

Date	Leconomie	Whaler	Lavenir	Schooner	Semi-industrial	Others	Total
2007/11/29 Thu	6	13	9	10	7	0	45
2007/11/30 Fri	8	15	11	14	9	0	57
2007/12/1 Sat	8	17	11	14	9	1	60
2007/12/2 Sun	8	17	11	14	9	1	60
2007/12/3 Mon	9	17	10	12	9	1	58
2007/12/4 Tue	8	16	10	12	9	0	55
2007/12/5 Wed	8	17	8	11	9	0	53
Total	55	112	70	87	61	3	388
Average	7.9	16.0	10.0	12.4	8.7	0.4	55.4

[Number of design boats in IR2007]

Leconomie class	8
Whaler, lavenir, schooner class	39
<u>Semi-industrial class</u>	<u>9</u>
Total	56

Note: Ratio of mooring boats in port = number of boats moored per day/number of boats using the quay.

Ratio in BD1997: 40/83=0.48

Ratio in BD2006: 58/113=0.51

Ratio in IR2007: 56/119=0.47

This means that the number of fishing boats which is moored in Victoria Fishing Port is almost the same as number of fishing boats in sailing out for fishing in a day.

(2) Basic Policy for Building Facilities

The basic policy for building facilities is the same as BD2006 except the following two additional items.

In this IR2007, it was found that Town & Country Planning Authority has issued the Development permissions (Appendix 5-2) concerning building facilities in Providence and ice making plant in Bel Ombre adding the installation of fire-extinguishing equipment and rain water tank. These equipment are not included in BD2006. As the fire extinguisher is the consumable equipment, SFA confirmed to install by them. As the Installation of fire-extinguishing equipment (fire alarm call and fire hose reel) and the rain water tank are included as part of building facilities, these equipment are included in this project.

1) Installation of Fire-Extinguishing Equipment (Instruction by Fire Brigade)

The installation layout of fire-extinguishing equipment is shown in Appendix 5-4.

[Providence Fishing Port]

Administration Building (2 points)

a. 3kg carbon dioxide gas (CO²) fire extinguisher 2 units [SFA]

b. 9 liters foam type fire extinguisher	2 units	[SFA]
c. Electrically operated manual fire alarm call	2 points	[Japan]
d. 30m fire hose reel with water supply pipe	1 unit	[Japan]

Fishermen's Gear Storage (1 point)

a. 4.5kg dry powder type portable fire extinguisher	1 unit	[SFA]
b. 9 liters foam type fire extinguisher	1 unit	[SFA]
c. Manual fire alarm gong	1 unit	[Japan]

Ice Plant

a. 3kg carbon dioxide gas (CO ²) fire extinguisher	2 units	[SFA]
b. 9 liters foam type fire extinguisher	1 unit	[SFA]
c. 30m fire hose reel with water supply pipe	1 unit	[Japan]

[Bel Ombre Fishing Port]

Ice Plant (1 point)

a. 6kg dry powder type portable fire extinguisher	1 unit	[SFA]
b. Manual fire alarm gong	1 unit	[Japan]

2) Installation of Rain Water Tank (Instruction by Town & Country Planning Authority)

Rain water tank	2 units	[Japan]
-----------------	---------	---------

As rainwater is used for toilet flush water, one each rainwater tank (2 tons) under the eaves of outer wall of toilet of administration building and fishermen's gear storage in Providence Fishing Port. The basic concept to install rainwater tank is shown in Appendix 5-5.

(3) Basic Policy for Equipment

Basic Policy for Equipment is the same as BD2006.

2-2-2 Basic Plan

Design criteria of Civil Works, Building Facilities and Equipment follow the design and specification of BD2006.

2-2-3 Basic Design Drawing

2-2-3-1 Outline of the Project

The planned facilities and equipment in the Project are shown in Table 2-2(5) to 2-2(7).

(1) Civil Facilities

Table 2-2(5) Outline of Civil Facilities

Name of Facility	Size	Content of Plan
Providence		
Quay	Length: Landing quay: 20m Mooring quay: 59m Bunkering quay: 20m Structure: Steel sheet pile type (Vertical pile anchorage)	Crown height: D.L+2.5m Depth: D.L-2.5m Steel sheet pile: SP-3, length 12.5m Anchorage pile: 350H, length 14m
Pavement	Landing quay: length 20m width 10m	Concrete pavement Thickness: 20cm
Mooring buoy	5 units	Polyethylene type Diameter: approx. 1,400mm Height: approx. 990mm
Navigation aid	Buoy type: 3 units Land type: 1 unit	Power source: Solar cell module type Light source: Light emitting diode (LED) type Effective luminous intensity: approx. 8 cd Luminous range: approx. 4.5 km

(2) Building Facilities

Table 2-2(6) Outline of Building Facilities

Name of Facility	Size	Content of Plan
Providence		
Ice plant	Total floor space: Ground floor 276m ² First floor 48m ² Ice making machine: 5 ton/day x 2 units Ice storage capacity: 15 ton Blast freezer: 1 ton/8 hours Cold storage: -25 degrees, capacity 30 ton Water tank: 30 ton Fire-extinguishing equipment: 2 points	Steel-frame two-story, continuous footing Column: steel structure Wall: heat insulating siding Roof: V-shaped steel roofing
Administration Building	Total floor space: 204m ² Fire-extinguishing equipment: 3 points Rain water tank: 2 ton	Steel-frame one-story, continuous footing Column: reinforced concrete Wall: Concrete block Roof: V-shaped steel roofing
Fish handling shed	Total floor space: 96m ²	Steel-frame one-story, continuous footing Floor: floor hardner Column: reinforced concrete Roof: V-shaped steel roofing

Fishermen's gear store	Total floor space: 177m ² (with toilet and shower room) 2.5m × 2m 24 stores Fire-extinguishing equipment: 1 point Rain water tank: 2 ton	Steel-frame one-story, continuous footing Column: reinforced concrete Wall: concrete block Roof: V-shaped steel roofing
External facilities	Pavement: 3,200m ² Outdoor Light: 11 nos. Reefer container power source: 4 units Fire hydrant: 2 units Water tap: 3 nos. Power supply: 5 nos.	Interlocking block Height 4.5m, 250 watts
Bel Ombre		
Ice plant	Total floor space: ground floor 68m ² first floor 39m ² Ice making machine: 3 ton/day 2 units Water tank: 15 ton Ice storage capacity: 9 ton	Steel frame one story, continuous footing Column: steel structure Wall: heat insulating siding Roof: V-shaped steel roofing

(3)Equipment

Table 2-2(7) Outline of Equipment

Name of Equipment	Quantity	Content of Plan
Providence		
Forklift	1 unit	Load capacity: 1 ton Fuel: LPG system
Fish box	20 boxes	Plastic Capacity: 500 liter
Pallet box	1 box	Plastic, one side door Capacity: 850 liter
Bel Ombre		
Forklift	1 unit	Load capacity: 1 ton Fuel: LPG system
Pallet box	1 box	Plastic Capacity: 500 liter

2-2-3-2 Basic Design Drawings

Figure 2-2(1) General Layout Plan (Providence)

Figure 2-2(2) Plan of Quay (Providence)

Figure 2-2(3) Cross Section of Quay (Providence)

Figure 2-2(4) Layout Plan of Administration Building (Providence)

Figure 2-2(5) Elevation View of Administration Building (Providence)

Figure 2-2(6) General Layout Plan (Bel Ombre)

Figure 2-2(7) Layout Plan of Ice Plant (Bel Ombre)

Figure 2-2(8) Elevation View of Ice Plant (Bel Ombre)

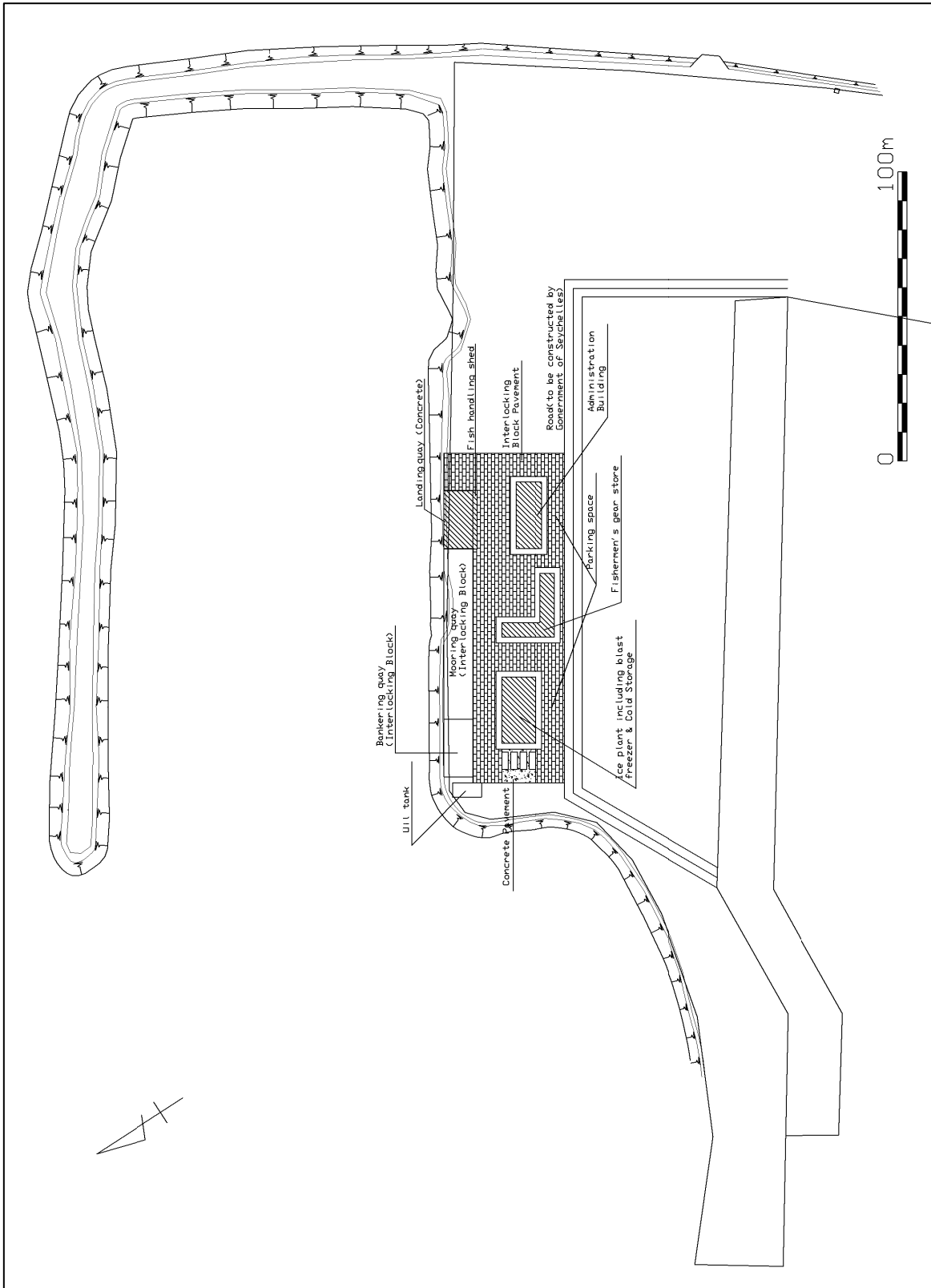


Figure 2-2(1) General Layout Plan (Providence)

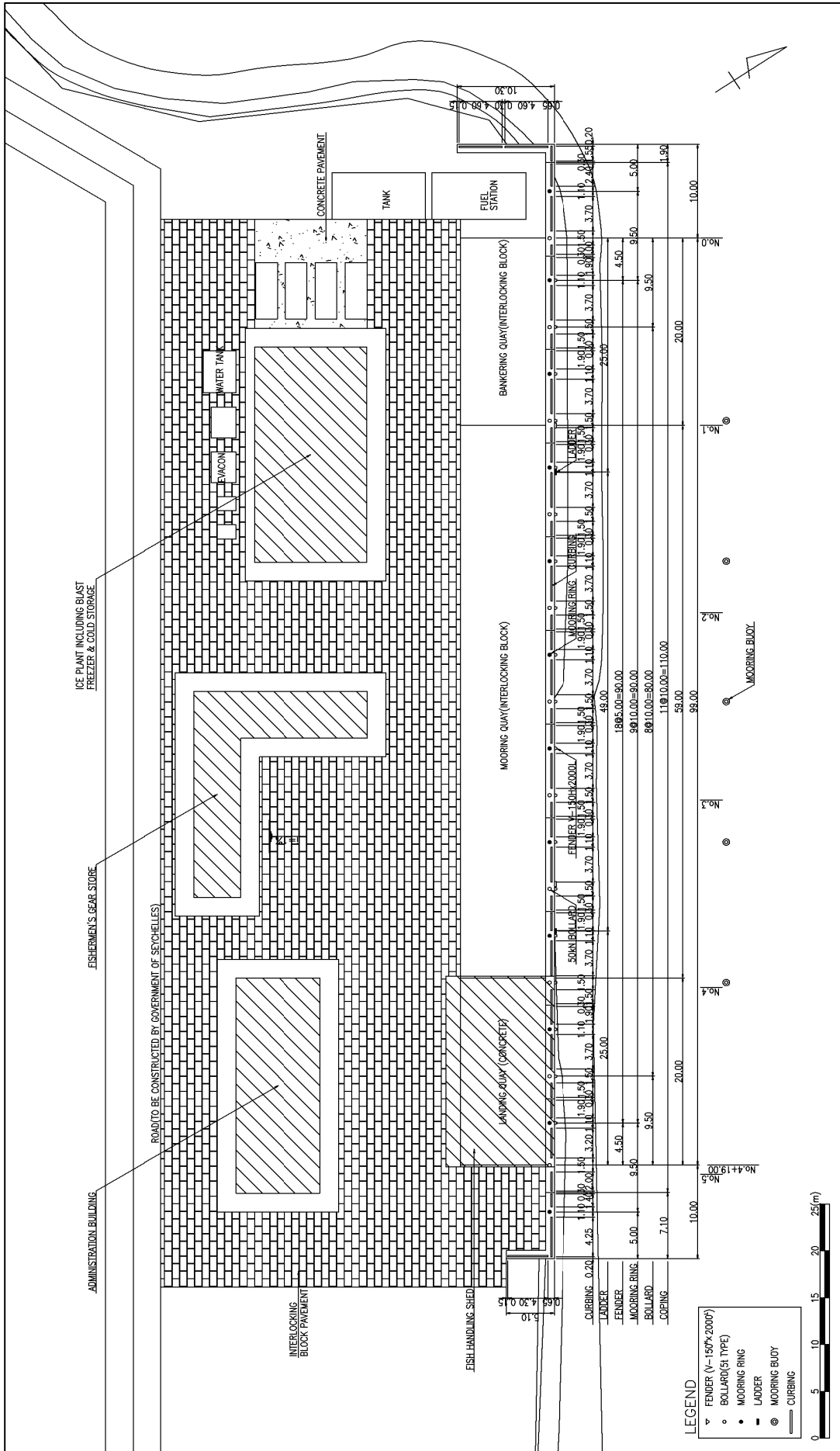


Figure 2-2(2) Plan of Quay

WHARF (-2.5m) TYPICAL SECTION

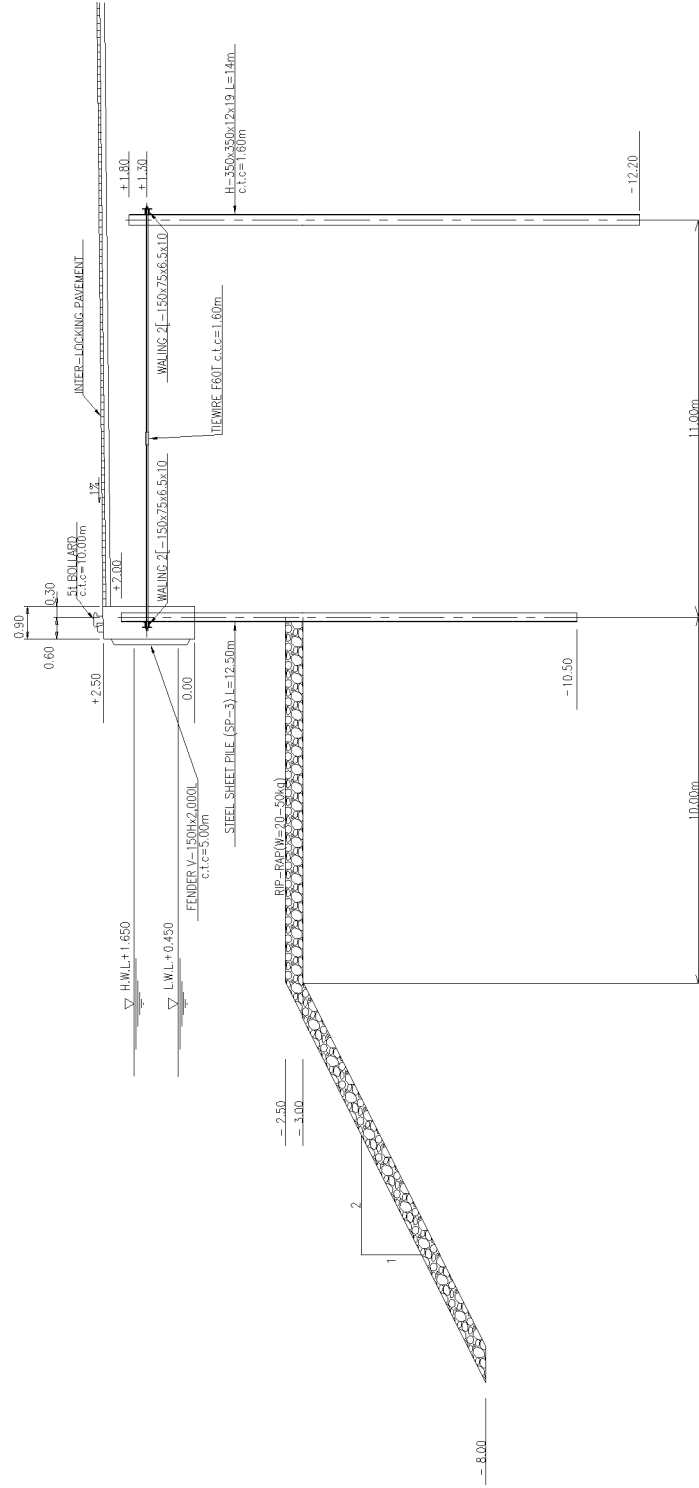


Figure 2-2(3) Cross Section of Quay

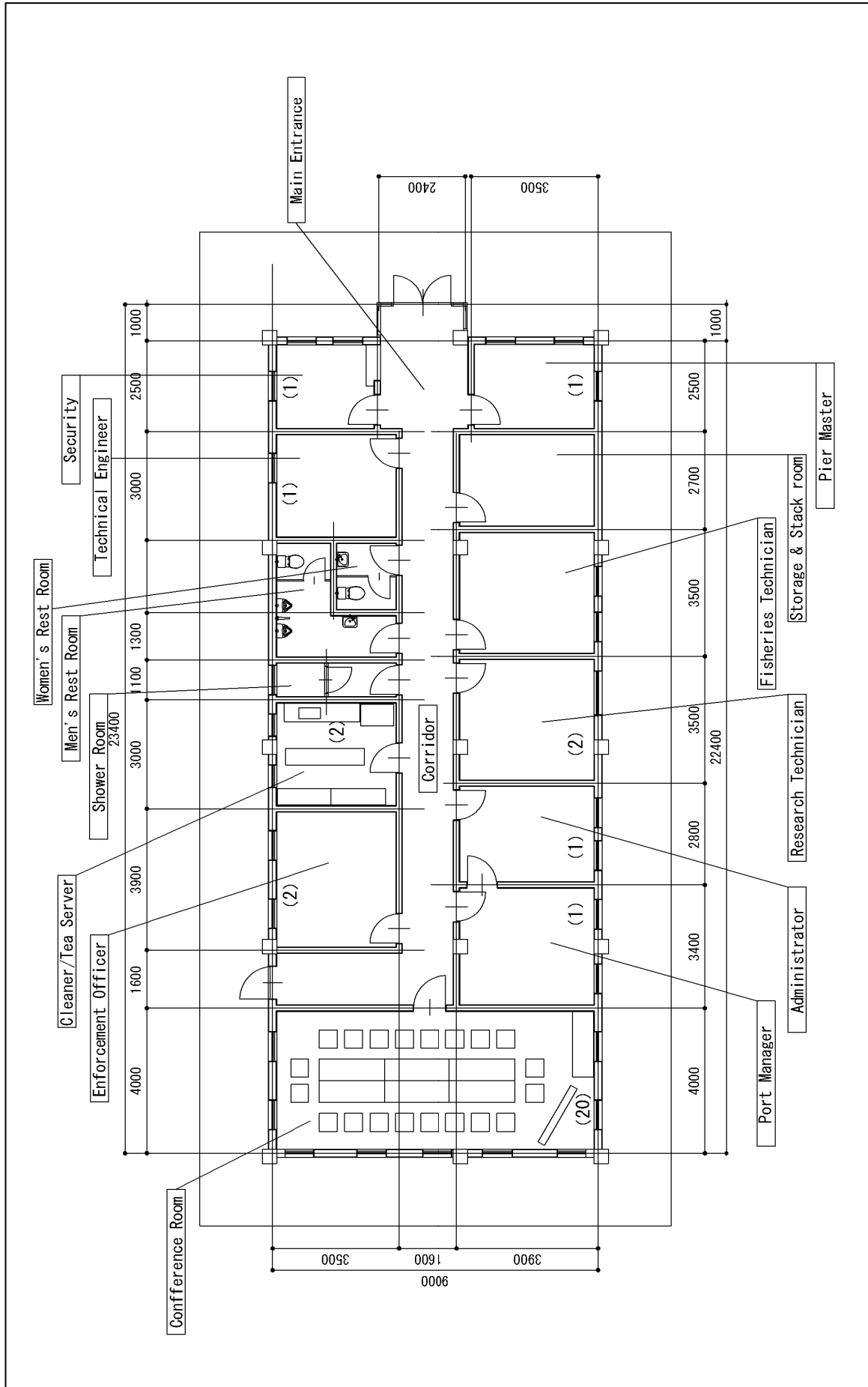


Figure 2-2(4) Layout Plan of Administration Building (Providence)

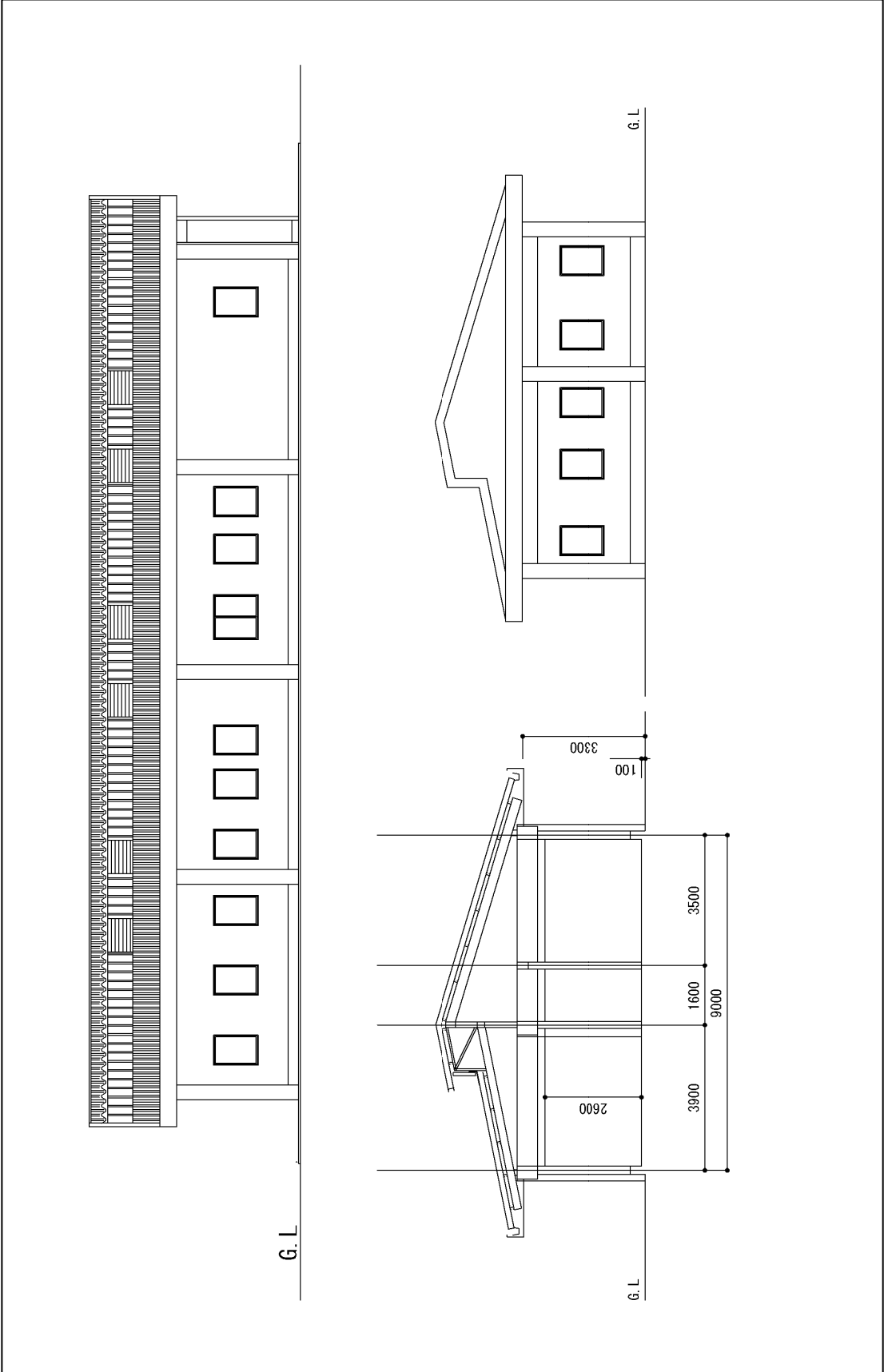


Figure 2-2(5) Elevation View of Administration Building (Providence)

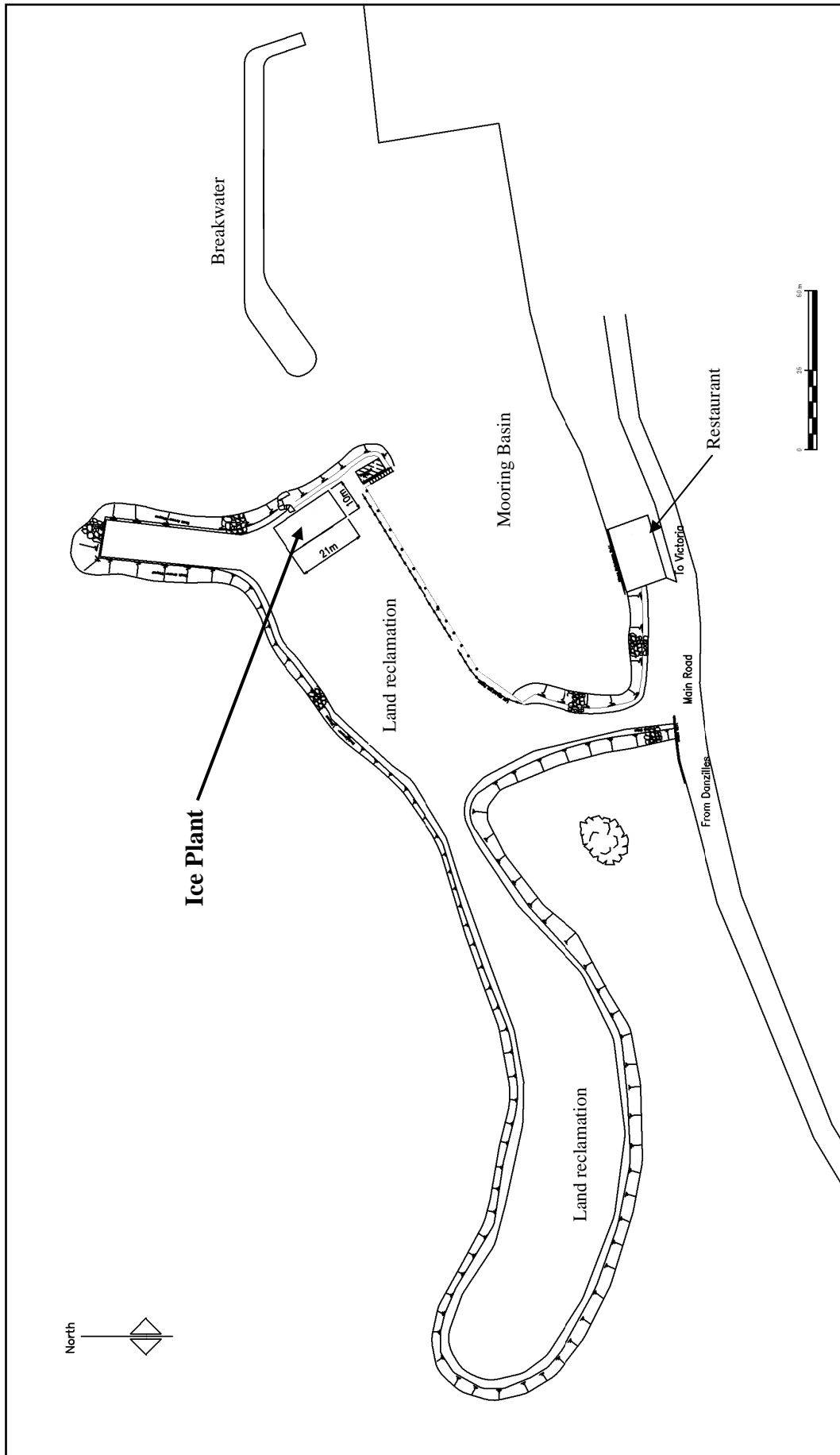


Figure 2-2(6) General Layout Plan (Bel Ombly)

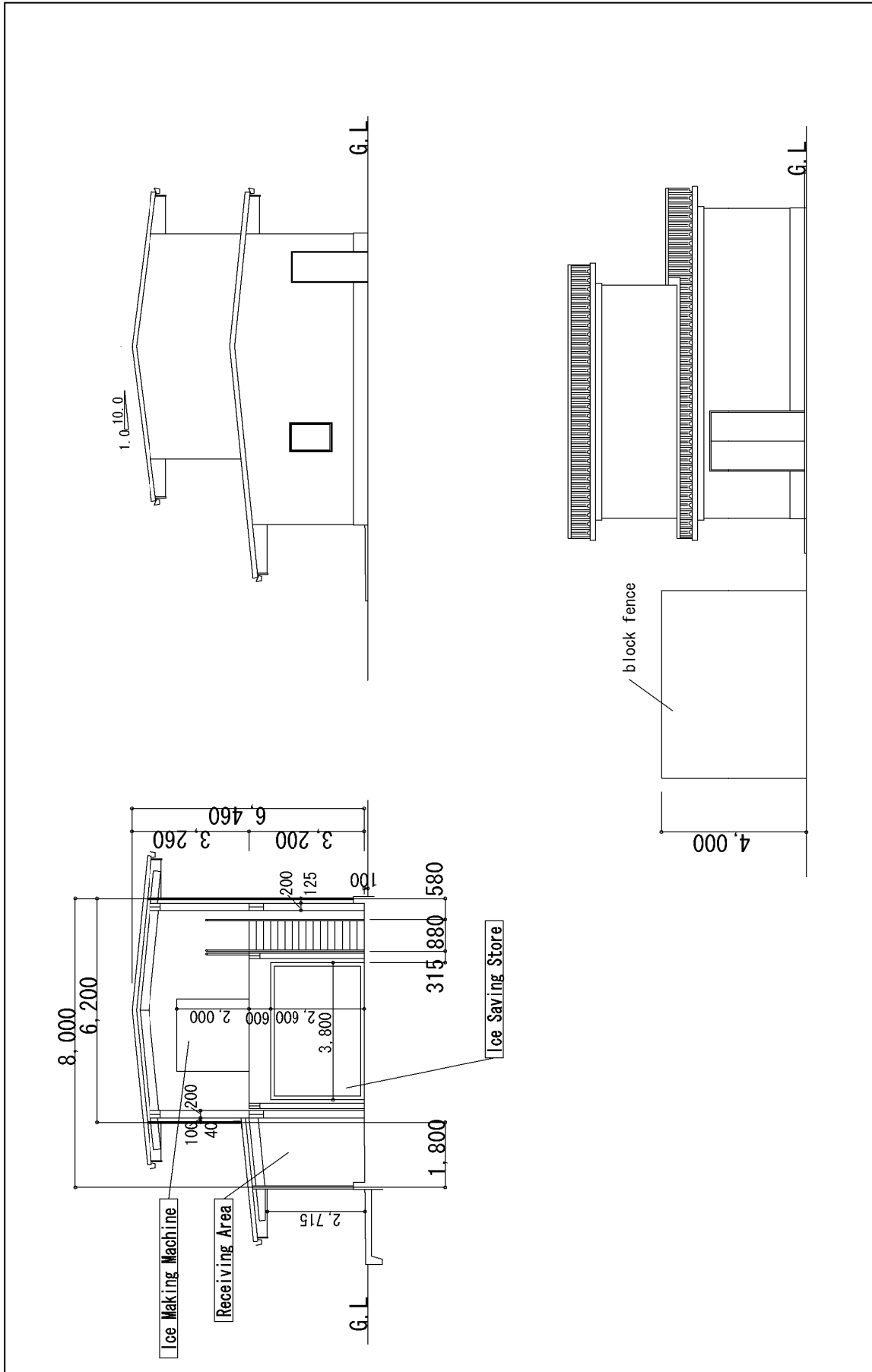


Figure 2-2(8) Elevation View of Ice Plant (Bel Omble)

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

The overall work period is expected to be 5.5 (five) months for detailed design, and 12 (twelve) months for construction, allowing for the scale and contents of the Project as well as the site conditions.

2-2-4-2 Scope of Works

The scope of works to be undertaken by the Government of Japan and the Government of Seychelles is as follows.

(1) Scope of works to be undertaken by the Government of Japan

[Construction works]

1) Providence Fishing Port

- Construction of quays (landing, mooring and bunkering)
- Construction of an administration building
- Construction of fishermen's gear storage
- Construction of an ice plant including ice making machine, blast freezer and cold storage
- Construction of a fish handling shed

2) Bel Ombre Fishing Port

- Construction of an ice plant (ice making machine)

[Procurement of Equipment]

1) Providence Fishing Port

- Forklift: 1 unit
- Fish box: 20 boxes
- Pallet box: 1 box

2) Bel Ombre Fishing Port

- Forklift: 1 unit
- Pallet box: 1 box

(2) Scope of works to be undertaken by the Government of Seychelles

1) Providence Fishing Port

- (a) Services and utilities, e.g. electricity, water, sewage and telephone lines connected to the project site, will be provided.
- (b) A 420m-long access road with rain water drainage will be constructed from the existing road to the project site.
- (c) A 370m-long fence and gate will be erected around the project site.
- (d) A fuel station including fuel tanks

(e) Installation of fire distinguishers in building facilities

2) Bel Ombre Fishing Port

(a) Services and utilities, e.g. electricity, water and telephone lines connected to ice plant, will be provided.

(b) Installation of fire distinguisher in ice plant

2-2-4-3 Consultant Supervision

Same as the Basic Design Study Report

2-2-4-4 Procurement Plan

Based on the above, the procurement plan of the main materials and equipment to be used in the Project will be established as indicated below.

(1) Construction Materials

Table 2-2(8) Procurement Plan of Construction Materials

	Construction Material	Procurement Country			Remarks
		Local	Japan	Third	
Civil work	Fender, bollard for quay wall		X		
	Stone and aggregate	X			
	Reinforced steel bar		X		
	Steel sheet pile		X		
	Tie-wire		X		
	Cement	X			
	Concrete	X			
	Formwork material	X			
	Timber	X			
	Building work	Sand and aggregate	X		
Reinforced steel bar			X		
Cement		X			
Concrete		X			
Formwork material		X			
Concrete block		X			
Timber		X			
Steel fittings			X		
Wood fittings			X		
Roofing material			X		
Paint and varnish			X		
Lighting fixture		X			
Air-conditioning equipment		X			
Ice plant			X		
Blast Freezer			X		
Cold Storage		X			
Equipment	Other equipment		X		

(2) Construction Machinery

Table 2-2(9) Procurement Plan of Main Construction Machinery

Machinery	Country			Remarks
	Local	Japan	Third	
Crawler crane 80 ton		x		
Barge with crane 6 ton	x			
Tugboat	x			
Backhoe 0.8m ³		x		
Backhoe 1.4m ³		x		
Dump truck 10 ton	x			
Bulldozer 15 ton		x		
Truck crane 25 ton		x		
Trailer 20 ton	x			
Vibrating roller 10 ton	x			

2-2-4-5 Quality Control Plan

Same as the BD2006.

2-2-4-6 Implementation Schedule

(1) Preparation of Detailed Design Document

The duration required for the detailed design will be approximately 3.0 (three) months.

(2) Tendering

The tender will be conducted in the following order: public announcement of tendering, receipt of requests to participate in the tender, examination of pre-qualifications, distribution of tender documents, submission of tenders, evaluation of the tenders, designation of the contractor and conclusion of the construction contract. The whole procedure will require 2.5 (two and half) months.

(3) Execution of Construction Works

The work will start after the construction contract is concluded and the contract is verified by the Government of Japan. As a result of estimation of the construction period, taking into account the scale and contents of the project facilities including problems relating to the local construction conditions, and on the assumption that no force majeure will occur, a period of approximately 12 (twelve) months will be required.

The process of carrying out the Project from the Exchange of Notes (E/N) to its completion is as shown in Table 2-2(10).

Table 2-2(10) Implementation Schedule

Month	1	2	3	4	5	6	7	8	9	10	11	12	Remarks	
Detailed Design	█												Consultant Agreement	
													Design / Tender Documents / Tender	
Procurement and Construction			█										Approval of Tender Documents	
													Civil Work	
												█	Preparation / Shipping / Clean up	
													Excavation for foundation	
													Rip-rap works	
													Quay wall	
													Supplemental facilities	
													Pavement	
													Building Work	
													█	Preparation / Shipping / Clean up
														Ice plant building (Providence)
														Ice making machine / Blast freezer and Cold storage (Providence)
													Administration building (Providence)	
													Fisherman's gear storage (Providence)	
													Fish Handling shed (Providence)	
													External works (Providence)	
													Ice plant building (Bel Ombre)	
													Ice making machine (Bel Ombre)	
													Procurement of Equipment	
													Procurement / Shipping	

2-3 Obligations of Recipient Country

The following is a summary of the obligations of the Government of Seychelles as confirmed in the Minutes of Discussions and other documents during the Implementation Review Study.

- a) Securing land (temporary construction yard) necessary for the Project
- b) Cutting down trees and removing obstacles (scrap, garbage, etc.) from the construction site
- c) Securing a disposal site (nearby) for construction waste soil
- d) Providing electricity, water supply and sewerage, and telephone lines
- e) Constructing the access road with rain water drainage to the site
- f) Constructing a fence and gate around the site
- g) Constructing a fuel station with fuel tanks at Providence Fishing Port
- j) Installation of fire distinguisher in building facilities
- k) Conducting maintenance dredging in the mooring basin at Providence Fishing Port
- l) Conducting maintenance works of the existing breakwater at Providence Fishing Port
- m) Establishing the Providence Fishing Port Management Committee in order to start utilizing fishing port facilities
- n) Exempting and clearing through customs equipment and materials imported into Seychelles
- o) Exempting taxes and other physical levy by Seychelles on Japanese personnel coming into Seychelles in order to carry out the verified contracts by the Government of Japan and work relating to the contracts
- p) Providing the necessary arrangements in terms of entering and residing in the country to Japanese personnel coming into Seychelles in order to carry out the verified contracts and work relating to the contracts
- q) Paying the fees for banking arrangement and authorization to pay
- r) Obtaining any approvals and permissions necessary in Seychelles in order to carry out the construction works
- s) Appropriate and effective use of the facilities constructed through grant aid by the Government of Japan
- t) Paying all expenses that are necessary to the project and not covered by the grant aid by the Government of Japan

Concerning the exemption of taxes shown in the above n) and o), they were confirmed with the same content as DBD explanation of Basic Design Study in this IR2007 through the Minutes of Discussions. According to Ministry of Finance, any tax or levy which will not be exempted (GST concerning procurement of local materials by sub-contractor, GST for the machinery and labor services rendered by sub-contractor and etc.) were confirmed to be paid by SFA.

2-4 Project Operation Plan

As the result of review of Project Operation and Maintenance in this IR2007, the content was confirmed as no change.

2-4-1 Operation and Maintenance Organization for the Facilities

Providence Fishing Port will be operated and managed by 18 SFA staffs. A port manager will be appointed from present staffs of SFA head office and the other 17 staffs will be newly recruited by the SFA. At present, Victoria Fishing Port is properly operated and managed by staffs of SFA head office. Fishery facilities in Providence Fishing Port constructed by this project are able to be technically maintained and managed due to the technical supports and instructions conducted by staffs of SFA head office.

Ice plant at Bel Ombre Fishing Port will be operated by an ice plant operator and a forklift driver who will be recruited by the SFA. Ice making machine will be concurrently maintained by an ice plant/cold storage engineer recruited for Providence Fishing Port.

The SFA will establish the Providence Fishing Port Management Committee as an adjust committee between port users and related government agencies in order to discuss and resolve management and usage problems at the fishing port and ensure effective use of the facilities. The committee will be composed of the following part-time members, being Managing Director of SFA as the chairman, Ministry of the Environment, Natural Resources and Transport, SFA, SPA, PUC, Boat Owner's Association, an NGO and fish processing companies.

2-4-2 Operation and Maintenance Organization

The operation and maintenance organization and work content of Providence Fishing Port are shown in the following Table 2-4(1) and Figure 2-4(1).

Table 2-4(1) Work Content for Operation and Maintenance of Providence Fishing Port

Personnel	Work Contents	Number
Port manager	General management representative, Coordination with the SFA, Ministry of Environment and Natural Resources and Fishing Boat Owner’s Association etc.	1
Administrator	In charge of general affairs, such as accounting, clerical tasks etc.	1
Pier master	Responsible for quay use, such as indication of mooring spot etc.	1
Enforcement officer	To monitor illegal operation of fishing boats based in Providence Fishing Port	2
Research technician	To collect fish configuration data and conduct biological analysis immediately after landing	2
Fisheries technician	To collect fisheries statistics such as amount of catch and number of fishing boats to sail in/out	2
Security	Responsible for security at port	1
Ice plant/blast freezer/cold storage engineer	Engineer responsible for operation and management of refrigeration equipment	1
Maintenance engineer	Engineer responsible for maintenance of electricity and water supply and drainage	1
Cleaner/tea lady	Janitor who cleans port area	2
Ice plant operator	To sell ice and collect payment	1
Blast freezer/cold storage operator	To transport bait and fish	1
Forklift driver	Forklift driver	1
Fuel pump/water operator	To supply water/fuel and collect payment	1
Total		18

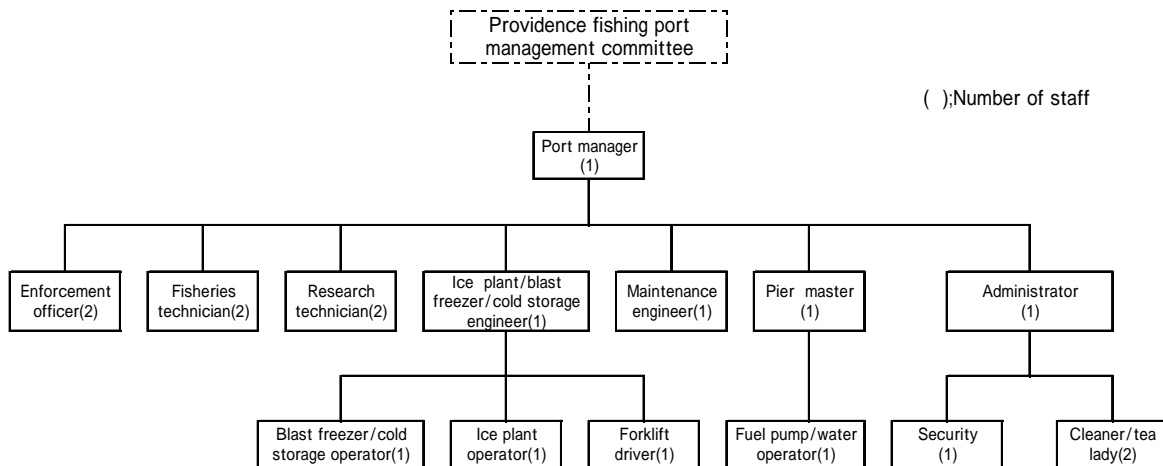


Figure 2-4(1) Organization of Providence Fishing Port

2-5 Project Cost Estimation

2-5-1 Cost Borne by the Government of Seychelles

The cost borne by the Government of Seychelles is estimated tentatively. Total cost will be 2,859,000 Seychelles Rupees (SR). Details are as shown in Table 2-5(1).

This will be budgeted as the cost for the implementation of this project out of National Budget for the SFA. Though this cost exceeds repairs and maintenance cost (410,000 SR) in SFA 2007

budget, it is confirmed to secure by special budget of Ministry of Finance in IR2007 and therefore it will be possible to bear by SFA.

Table 2-5(1) Cost Borne by the Government of Seychelles

Items	Cost (SR)
Providence Fishing Port	
Electric power supply to site (250m)	453,000
Water supply to site (250m)	210,000
Waste water pipe connected to site (250m)	210,000
Telephone line to site (250m)	47,000
Access road construction to site with rain water drainage (420m)	1,252,000
Fence and gate installation around site (370m)	66,000
A fuel station including fuel tanks	382,000
Fire distinguishers (9 units)	7,000
Sub total	2,627,000
Bel Ombre Fishing Port	
Electric power supply to site (125m)	92,000
Water supply pipe to site (125m)	75,000
Fire distinguisher (1 unit)	1,000
Sub total	168,000
Comission on banking arrangement	64,000
Total	2,859,000

2-5-2 Operation and Maintenance Cost

(1) Operation and Maintenance Cost

Operation and Maintenance costs of fisheries facilities of Providence and Bel Ombre Fishing Ports can be estimated as shown in Table 2-5(2) and 2-5(3). The SFA has properly been managing Victoria Fishing Port. The SFA will also directly manage Providence and Bel Ombre Fishing Ports. Operation cost is calculated based on the cost of existing ice plants managed by SFA and salary scale mentioned in the utilization plan for fisheries facilities in new Providence Fishing Port prepared by SFA and water and electricity provided by Public Utilities Corporation (PUC).

Table 2-5(2) Operation and Maintenance Cost at Providence Fishing Port

Unit : Seychelles Rupees (SR)

Expenditure		
(1) Personnel cost		
Port Manager	5,150 SR x 12 months	61,800
Administrator	4,150 SR x 12 months	49,800
Pier Master	2,250 SR x 12 months	27,000
Enforcement Officer (2)	3,150 SR x 2 persons x 12 months	75,600
Research Technician (2)	3,150 SR x 2 persons x 12 months	75,600
Fisheries Technician (2)	2,250 SR x 2 persons x 12 months	54,000
Security	2,250 SR x 12 months	27,000
Ice plant/Cold Storage Engineer	5,150 SR x 12 months	61,800
Maintenance Engineer	3,150 SR x 12 months	37,800
Cleaner/Tea Server (2)	2,250 SR x 2 persons x 12 months	54,000
Ice plant Operator	2,250 SR x 12 months	27,000
Blast Freezer/Cold Store Operator	2,250 SR x 12 months	27,000
Forklift Driver	2,250 SR x 12 months	27,000
Fuel Pump Operator	2,700 SR x 12 months	32,400
	Sub total	637,800
(2) Operation cost		
1) Electricity		
Basic Charge	125KVA x 12months x 27.49SR	41,235
Administration building	17.67kw/hr x 8hr x 25days x 12months x 0.69SR	29,262
Fishermen's gear storage	2.83kw/hr x 2hr x 25days x 12months x 0.69SR	1,172
Ice plant/blast freezer & cold storage	73.75kw/hr x 24 hr x 365days x 0.69SR	445,775
	6.51kw/hr x 8hr x 25days x 12months x 0.69SR	10,781
Fish handling shed	2.26kw/hr x 10hr x 25days x 12months x 0.69SR	4,678
Outdoor lights	3.3kw/hr x 10hr x 25days x 12months x 0.69SR	6,831
2) Water		
Administration building	2m ³ x 25days x 12months x (8.42+3.32)SR	7,044
Fishermen's gear storage	2.4m ³ x 25days x 12months x (8.42+3.32)SR	8,453
Ice plant/blast freezer & cold storage	25m ³ x 365days x 13.16SR	120,085
3) Bait expense	(35ton x 12months) x 1000kg x 2.7SR x 0.8	907,200
4) Maintenance cost for facilities	0.1% of direct cost of construction	28,000
Cost 1)+2)+3)+4)	Sub total	1,610,516
Operation and Maintenance Cost	Total	2,248,316

Income		
(1) Sales of ice and bait		
1) Sales of ice	((10ton/day x 25days x 12months)/0.05ton) x 14SR	840,000
2) Sales of bait	(35ton x 12months) x 1000kg x 2.7SR	1,134,000
(2) Rental fee of fishermen's gear storage	24 units x 12 months x 255 SR	73,440
Income	Total	2,047,440

Table 2-5(3) Operation and Maintenance Cost of Ice Plant at Bel Ombre Fishing Port

Unit : Seychelles Rupees (SR)

Expenditure		
(1) Personnel		
Ice plant Operator	2,250Rs x 12months	27,000
Forklift Driver	2,250Rs x 12months	27,000
	Sub total	54,000
(2) Operation Cost		
1) Electricity		188,896
Basic charge	50KVA x 12months x 27.49SR	16,494
Ice plant building	27.58kw/hr x 24hr x 365days x 0.69SR	166,705
	3.44kw/hr x 8hr x 25days x 12months x 0.69SR	5,697
2) Water		48,034
Ice plant building	10m ³ x 365days x 13.16SR	48,034
3) Maintenance cost of facility	0.1% of direct cost of construction	7,131
Cost 1)+2)+3)	Subtotal	244,061
Operation and Maintenance Cost	Total	298,061

Income		
(1) Sales of Ice		
1) Sales of ice	((6ton/day x 25days x 12months)/0.05ton) x 14SR	504,000
Income	Total	504,000

(2) Balance

Operation and maintenance cost for Providence Fishing Port after completion of this project will be SR 2,248,316 per year while the income of SFA from the sales of Ice and Bait will be SR 2,047,440 therefore, the operation and maintenance cost will be about SR 200,876 in short. And, the operation and maintenance cost of ice making plant in Bel Ombre Fishing Port will be SR 298,061 per year while the income by the sales of ice will be expected to be SR 504,000 per year and the profit of SR 205,939 is expected.

As the loss of Providence Fishing Port is covered by the profit of Bel Ombre Fishing Port, the balance of both ports will be considered to barely break even and the operation and maintenance is considered to be possible. As both ports will be under the direct management of SFA, in case of the unbalance, the loss will be compensated from total budget of SFA (SR 12,144,000 in 2007).

2-6 Other Relevant Issues

The following are items that should be dealt with promptly following the signing of E/N in order to ensure that the project is carried out smoothly.

- a) The SFA shall secure the disposal site near the project site for surplus soil from excavation for foundation work.
- b) There are some abandoned discharge pipes and some trees growing in the project site where construction is planned that need to be removed. Since any delays in clearing the site for construction will have a major impact on the implementation of the project, it is essential that the removal, clearing and grubbing work shall be carried out quickly.
- c) SFA shall instruct residents to keep off the project site from land and sea under instructions of the SFA duration of construction works, which is a reclamation area although there is no residence near the project site.
- d) Aircraft runway approach is lining above the project site. The contractor should inform Seychelles Civil Aviation Authority (SCAA) of crane works before its commencement. The SFA shall provide for the smooth handling of above procedure.
- e) The SFA shall instruct residents to keep off the project site duration of construction works at the Bel Ombre site.
- f) The SFA shall establish the Providence Fishing Port Management Committee and prepare for fishing boats to be transferred from Victoria Fishing Port to Providence in order to commence to use the facilities in Providence Fishing Port after completion of the project.

Chapter 3

Project Evaluation and Recommendations

Chapter 3 Project Evaluation and Recommendation

3-1 Project Effect

The following effects are expected in particular, so this project is considered appropriate as the project under Grant Aid same as the Basic Design Study Report.

<Direct Effects>

1) Dissolution of port congestion in Victoria Fishing Port

Fishing boats using Victoria Fishing Port will be reduced in number from present 119 boats to 83 boats by the relocation of fishing boats to Providence and Bel Omble. (Mooring boats per day will be reduced from 58 boats to 40 boats)

As the result, the port congestion will be resolved.

2) Promotion of artisanal fisheries in Providence

24 fishing boats will use this fishing port after being relocated from Victoria Fishing Port.

3) Promotion of artisanal fisheries in Bel Omble

21 fishing boats together with 12 boats relocated from Victoria Fishing Port will use this fishing port.

<Indirect Effects>

1) Together with 7 medium and small fish processing companies wishing to move in fish processing facilities to be constructed by the Government of Seychelles in parallel with the construction of fishing port in Providence, 2 processing companies already operating in the area will make fish processing complex. With this complex a new market is born and the economic effect such as the export promotion of fishery products, labor employment and multiplied effects to related industries like distributions and sales are expected.

2) The economic effects having impacts on the related industries like distributions, sales promotion, labor employment and etc are expected by means of the vitalization of fishing activities in Bel Omble Fishing Port.

The effect and the improvement degree from the present is shown in Table 3-1(1).

Table 3-1(1) Effect and the Improvement Degree from the Present

Current status and issues	Countermeasures (Project)	Effect & Improvement degree
1. The quay in Victoria Fishing Port is extremely congested by the increase of fishing boats and it leads to lowering freshness of fish due to the bad landing efficiency in landing quay.	<ul style="list-style-type: none"> · Construction of fishing port facilities in Providence · Construction of ice plant in Bel Omble Fishing Port 	Since the number of fishing boats in Victoria will be reduced to 83 boats from 119 boats, the port congestion will be resolved.
2. Providence has the land for fishing port facilities, a breakwater and mooring water basin however, the fishing port facilities like a quay and ice plant are not made, Victoria Fishing Port is congested a lot.	<ul style="list-style-type: none"> · Construction of fishing port facilities in Providence 	Relocating 24 fishing boats using Victoria Fishing Port to Providence Fishing Port will contribute to solve the congestion of Victoria Fishing Port
3. Major fishing boats in Bel Omble are now landing and mooring in Victoria Fishing Port due to no ice supply there and this leads to the congestion of Victoria Fishing Port.	<ul style="list-style-type: none"> · The installation of ice plant in Bel Omble Fishing Port 	Relocating 12 fishing boats using Victoria Fishing Port but registered in Bel Omble, to Bel Omble Fishing Port will contribute to solve the congestion of Victoria Fishing Port

3-2 Recommendations

After the completion of the project, it is recommended that the implementing agency (SFA) shall make use of the facilities and operate them paying much attention to the following points same as the Basic Design Study Report.

(1) Proper Operation and management

The balance of payment for the operation cost in Providence Fishing Port will show about SR 200 thousand deficit while Bel Omble is expected to the same amount surplus which the balance will even out each other. However, it is necessary to operate efficiently and pay attention to cutting the costs.

(2) Safe and effective quay management

Quay for landing, mooring and bunkering have been minimized against number of fishing boats to use in Providence. The SFA is required to instruct proper landing order or mooring spot and operate and manage the quay with safe and effective utilization when boats will be gathered one time at the time of sailing out and landing. The mooring of non operated boats could be the cause of port congestion. Therefore, it is necessary to make fishermen respect fishing port utilization rules including to move non operated boats from fishing port facility to other spot like rubble mound seawall located at inner part of basin.

(3) Periodical facility inspection

In order to extend life span without losing facility function, it is important to inspect the facilities periodically and usual maintenance work. It is said that a constructed facility after 10 years from its completion requires checking and repair. Concerning the corrosion of steel structure, if the re-painting is done when the rust is found the cost of repair will be small and prevent the deterioration and the expected lifetime can be extended. Therefore, after the completion of these facilities, the SFA which manages the facilities is expected to set up the items to be checked (For example rust on structures and etc.) and if some defects are found by execution of regular checking the immediate repair is required.

(4) Bait sales for semi-industrial and artisanal fishing boats

After this goes to the operation, the SFA is to sell bait other than sales of ice and it could be competed with the prices of two fish processing companies in Victoria Fishing Port. The fish processing companies are supplying bait (imported) and ice cheaper than general retail price to contracted boats subject to getting their fish catch on a priority base. Therefore, the SFA can not expect the profit by the sales of bait but should aim to have good balance in buying and selling of bait that is the price adding necessary expenditure on bait purchasing cost price.

(5) Garbage control in Providence Fishing Port

The project site of Providence is located on extension line of runway of Seychelles International Airport. So, Seychelles Civil Aviation Authority is anxious about some troubles for takeoff and landing of aircraft by means of sea birds which are gathered after raw garbage and fish snuffs. This project does not include such facilities to process fishes. However, the SFA should entirely control raw garbage like from food stuff.

(6) Repair of armor stone of existing breakwater

The breakwater has been constructed by the Government of Seychelles in Providence. As the weight of present armor stones is 500 ~ 1,000kg/piece it is considered poor against extreme storm waves. The Government of Seychelles should execute the remedial work in case that the breakwater is damaged by such wave.

(7) Maintenance dredging of basin

The mooring basin of this project site in Providence has been dredged keeping water depth of 9 ~ 10m by the Government of Seychelles. It will not be considered that the beach littoral drift or immediate erosion by sediment transport from rivers however, some changes like sedimentation in long time viewpoint will be imperative. Therefore, periodical sounding survey should be conducted and the maintenance dredging should be executed by the Government of Seychelles when necessary.

(Appendices)

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Appendix-1 Member List of the Study Team

Name	Assignment	Organization
Official Member Mr. TOKUHASHI Kazuhiko	Leader/ Project Coordinator	Deputy Resident Representative, Kenya Office, Japan International Cooperation Agency (JICA)
Consultant Member Mr. TAKEMOTO Hitoshi	Chief Consultant	ECOH CORPORATION
Mr. YAMAMOTO Yuhei	Procurement Planning / Cost Estimation	ECOH CORPORATION

Appendix-2 Survey Schedule

No	Date	Day	Itinerary	Accommodation	Activities
1	Nov 24	Sat	Tokyo – Bangkok – Dubai JL717 (10:55-16:00) EK373 (20:25-23:55)		Consultant Members
2	25	Sun	Dubai – Mahe EK705 (02:30-07:00) Nairobi – Mahe KQ450 (09:00-13:30)	Victoria	Consultant Members Official Member Site Inspection
3	26	Mon		Victoria	Official Member and Consultant Members Courtesy call to SFA Official Member and Consultant Member (Mr.Takemoto) Courtesy call to Ministry of Environment and Natural Resources and Ministry of Foreign Affairs Consultant Member (Mr.Yamamoto) Study and Data Collection
4	27	Tue		Victoria	Official Member and Consultant Member (Mr.Takemoto) Discussion with SFA Consultant Member (Mr.Yamamoto) Study and Data Collection
5	28	Wed		Victoria	Official Member and Consultant Member (Mr.Takemoto) Discussion and Signature on the Minutes of Discussions Consultant Member (Mr.Yamamoto) Study and Data Collection
6	29	Thu	Mahe – Nairobi KQ451 (14:20-16:40)	Victoria	Official Member leaves Mahe Consultant Members Study and Data Collection
7	30	Fri		Victoria	Consultant Members Study and Data Collection
8	Dec 1	Sat		Victoria	Consultant Members Study and Data Collection
9	2	Sun		Victoria	Consultant Members Study and Data Collection
10	3	Mon		Victoria	Consultant Members Study and Data Collection
11	4	Tue		Victoria	Consultant Members Study and Data Collection
12	5	Wed		Victoria	Consultant Members Study and Data Collection
13	6	Thu	Mahe – Nairobi KQ451 (14:20-16:40)	Nairobi Victoria	Consultant Member (Mr.Takemoto) leaves Mahe Consultant Member (Mr.Yamamoto) Study and Data Collection
14	7	Fri	Nairobi – Dubai EK720 (17:25-23:25)	Victoria	Consultant Member (Mr.Takemoto) reports Japanese Embassy and JICA Office Consultant Member (Mr.Yamamoto) Study and Data Collection
15	8	Sat	Dubai – Osaka JL5090 (02:50-16:40) Mahe – Dubai – Bangkok EK708 (01:15-05:45) EK372 (09:40-18:40) JL718 (22:30-06:15+1)		Consultant Member (Mr.Takemoto) reaches Japan Consultant Member (Mr.Yamamoto) leaves Mahe
16	9	Sun	– Tokyo		Consultant Member (Mr.Yamamoto) reaches Japan

Appendix-3 List of Parties Concerned in the Recipient Country

Ministry of Environment , Natural Resources and Transport

Hon. Joël Morgan	Minister
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Ministry of Foreign Affairs

Mr. Callixte d'Offay	Ambassador, Principal Secretary
Mr. Jean C. Adrienne	First Secretary

Seychelles Fishing Authority

Mr. Rondolph Payet	Chief Executive Officer
Mr. Clifford Toussaint	Technical Adviser
Mr. Michel Marguerite	Technical Adviser
Ms. Peggy Carosin	Senior Accountant

Ministry of National Development

Ms. Veronique Herminie	Principal Secretary FSA Chairperson
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Embassy of Japan in Kenya

Mr. Shinichi Maruo	Secretary
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JICA Kenya Office

Mr. Yoshiyuki Takahashi	Resident Representative
Ms. Etsuko Masuko	Assistant Resident Representative

Appendix-4 Minutes of Discussions

Minutes of Discussions on the Implementation Review Study on the Project for Construction of Artisanal Fisheries Facilities on Mahe Island in the Republic of Seychelles

In November 2007, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Implementation Review Study Team on the Project for Construction of Artisanal Fisheries Facilities on Mahe Island (hereinafter referred to as "the Project") to the Republic of Seychelles (hereinafter referred to as "Seychelles"). The Team is headed by Mr. Kazuhiko Tokuhashi, Deputy Resident Representative, Kenya Office, JICA, from November 25, 2007 to December 8, 2007.

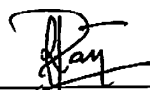
The Team held discussions with the officials concerned of the Government of Seychelles and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further work and report the findings to the Government of Japan.

Mahe, November 26, 2007



Kazuhiko Tokuhashi
Leader
Implementation Review Study Team
Japan International Cooperation Agency



Rondolph Payet
Chief Executive Officer
Seychelles Fishing Authority
Republic of Seychelles

ATTACHMENT

1. Objective of the Project

The objective of the Project is to alleviate congestion in Victoria fishing port through construction of a fishing port and related infrastructure facilities.

2. Japan's Grant Aid Scheme

The Government of Seychelles understood the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Seychelles as explained by the Basic Design Team and described in Annex-4 and Annex-5 of the Minutes of Discussions signed by Basic Design Study Team and the Government of Seychelles on January 18, 2006.

3. Components of the Project

Both sides confirmed the final Basic Design components as shown in Annex-1.

4. Further Schedule of the Study

JICA will complete the final report taking into account the results of the last study and send it to the Government of Seychelles by the end of June 2008.

5. Other Relevant Issues

5-1. Project Title

Both sides confirmed that the Project Title should be changed from "The Project of Construction of Fishery Facilities and Supply of Equipment" to "The Project for Construction of Artisanal Fisheries Facilities on Mahe Island".

5-2. Operation and Maintenance

- 1) The Seychelles side shall ensure enough budget and personnel for operation and maintenance of the facilities and equipment provided by the Project.
- 2) The facilities and equipment provided by the Project shall be owned by the Seychelles Fishing Authority and utilized by local fishermen.
- 3) The Seychelles side shall establish the Providence Fishing Port Management Committee by the completion of the Project to oversee the smooth transfer of fishing vessels from the Victoria fishing port to Providence fishing port.
- 4) The Seychelles side shall conduct following work to maintain the Providence fishing port;
 - Maintenance of the rock armoring of the existing breakwater
 - Maintenance dredging of mooring basin

5-3. Necessary Permissions and Confirmation

- 1) Both sides confirmed the validity of the environment authorizations for the Providence and the Bel Ombre sites, which was issued on November 20, 2007.
- 2) The Seychelles side has submitted a copy of Planning Permission to the Team.



3) Both sides confirmed that the land at Providence for the fishing port described in the Basic Design Study Report has been secured.

5-4. Obligations of the Seychelles side

- 1) The Seychelles side shall prepare temporary yard and dumping site as follows before the tender announcement;
 - Temporary construction yard near the project site at Providence
 - Disposal site near the project site at Providence for surplus soil
- 2) The Seychelles side shall clear the Providence site before the tender announcement.
- 3) The Seychelles side shall provide the following infrastructures at the Providence site by the end of construction work;
 - Communications network
 - Electric power
 - Water supply
 - Sewage pipe connection
 - Access road with rain water drainage
 - Fence and gates
 - Fuel station and fuel tank
- 4) The Seychelles side shall provide the following infrastructures at the Bel Ombre site by the end of construction work;
 - Electric power
 - Water supply
- 5) The Seychelles side shall exempt from the taxes and levies (including import duty, Gainful Occupation Permit (GOP), goods & services tax (GST), business tax for local subcontractors and so on) concerning construction materials, machinery and services exclusively used for the Project.



Final Basic Design Component of the Project

1. Facilities

Name of Facility	Size	Content
Providence (Civil Facilities)		
Quay	Length: Landing quay: 20m Mooring quay: 59m Bunkering quay: 20m Structure: Steel sheet pile type (Vertical pile anchorage)	Crown height: D.L+2.5m Depth: D.L-2.5m
Pavement	Landing quay: length 20m width 10m	Concrete pavement Thickness: 20cm
Mooring buoy	5 units	Polyethylene type Diameter: approx. 1,400mm Height: approx. 990mm
Navigation aid	Buoy type: 3 units Land type: 1 unit	Power source: Solar cell module type Light source: Light emitting diode (LED) type Effective luminous intensity: Approx. 8 cd Luminous range: Approx. 4.5 km
Providence (Building Facilities)		
Ice plant	Total floor area: ground floor 276m ² first floor 48m ² Ice making machine: 5 ton/day x 2 units Ice storage capacity: 15 tons Water tank: 30 tons Blast freezer: 1 ton/8 hours Cold storage: -25 degrees, capacity 30 tons	Steel-frame two-story, continuous footing Column: steel structure Wall: heat insulating siding Roof: V-shaped steel roofing
Administration building	Total floor area: 204m ²	Steel-frame one-story, continuous footing Column: reinforced concrete Wall: Concrete block Roof: V-shaped steel roofing
Fish handling shed	Total floor area: 96m ²	Steel-frame one-story, continuous footing Floor: floor hardner Column: reinforced concrete Roof: V-shaped steel roofing
Fishermen's gear stores	Total floor area: 177m ² (with toilet and shower) 2.5m×2m 24 stores	Steel-frame one-story, continuous footing Column: reinforced concrete Wall: concrete block Roof: V-shaped steel roofing

Name of Facility	Size	Content
External facilities	Pavement: 3,200m ² Outdoor Light: 11 units Reefer container power source: 4 units Fire hydrant: 2 units Water tap: 3 units Power supply: 5 units	Interlocking block Height 4.5m, 250 watts
Bel Ombre (Building Facilities)		
Ice plant	Total floor area: ground floor 68m ² first floor 39m ² Ice making machine: 3 tons/day 2 units Water tank: 15 tons Ice storage capacity: 9 tons	Steel frame one story, continuous footing Column: steel structure Wall: heat insulating siding Roof: V-shaped steel roofing

2. Equipment

Name of Equipment	Quantity	Content
Providence		
Forklift	1 unit	Load capacity: 1 ton Fuel: LPG system
Fish box	20 boxes	Plastic Capacity: 500 liters
Pallet box	1 box	Plastic, one side door Capacity: 850 liters
Bel Ombre		
Forklift	1 unit	Load capacity: 1 ton Fuel: LPG system
Pallet box	1 box	Plastic, one side door Capacity: 850 liters

Appendix-5 Other Relevant Confirmations

Appendix 5-1 Validity of Environmental Authorizations

MINISTRY OF ENVIRONMENT, NATURAL RESOURCES AND TRANSPORT
DEPARTMENT OF ENVIRONMENT
POLLUTION CONTROL & ENVIRONMENTAL IMPACTS DIVISION
Botanical Gardens, Mont Fleuri, P.O. Box 445, Republic of Seychelles
Telephone: (248) 670500, Telefax: (248) 610648 E-mail Address: cia@cnv.gov.sc



Please address all correspondence to the Principal Secretary

Your Ref: MENR/PCE/EIA/EA297/06
Our Ref: EA/1038/06

Enquiries To: M.Aise Mondon
Telephone: 670570
Date: 20th November 2007

22 4508

Managing Director
Seychelles Fishing Authority
Fishing Port,
Victoria

Dear Sir,

RE: CONFIRMATION OF VALIDITY OF ENVIRONMENTAL AUTHORISATIONS

The Department of Environment is pleased to confirm that the environmental authorizations for your two approved projects with reference numbers DC/160/06 - EA-297/06 namely FISHING PORT at Providence and DC/673/06 - EA/1038/06 ICE MAKING PLANT at Belombre is still valid.

Thank you for your cooperation.

Yours faithfully,

for Adeline
Mari-Aïse Mondon
Senior Inspector (EIA)
For: **DIRECTOR GENERAL (PC&ED)**

cc: Executive Chairman Planning Authority



Appendix 5-2 Permissions for Development

(1) Providence

Application No. DC/746/06

IMPORTANT

This permission does not support to convey any approval or consent required under any written law other than Part IV of the Town and Country Planning Ordinance 1970.

**TOWN AND COUNTRY PLANNING ORDINANCE 1970
TOWN AND COUNTRY PLANNING GENERAL DEVELOPMENT ORDER 1971
NOTICE OF CONDITIONAL PERMISSION FOR DEVELOPMENT**

To Seychelles Fishing Authority

Of C/o. Roy Benoiton, P O Box 1269, Victoria

The Town and Country Planning Authority **HEREBY GRANT** permission for the following development proposal in your application No. DC/746/06

dated the 18th day of August 2006

of the land situated at Providence Zone (6), Parcel V11162, Area = 945m² {Fishing Port Facilities}

in accordance with the accompanying plan (s) **SUBJECT** to the following condition (s):-

1. The development hereby permitted shall begin not later than the expiration of two years beginning with the date hereof.
2. The development hereby permitted shall be carried out and completed in every respect in accordance with the detailed plans and particulars.

Subject to the following conditions:

- Standard Conditions (attached)
- Environmental Authorisation with conditions (to follow)
- PUC (E) comments - " -
- Chief Fire Officers recommendations - " -
- Provide additional toilet for female.
- All toilet facilities, intervening spaces, shower/locker rooms should be directly ventilated to the external air.
- Structural design should be submitted for approval 28 days prior to commencement of work with a copy of the approved certificate attached.

Note: Commencement Notice & other notices (form attached) must be hand delivered to the Planning Counter 48 hrs in advance of required inspection. Commencement Notices should be endorsed by the Project Engineer.

for the following reasons:

1. To avoid the accumulation of unimplemented planning permission thereby assuring orderly and phased development.
2. To ensure satisfactory development.

Dated this 24th day of November 2006


Secretary, Town & Country Planning Authority

(Your attention is drawn to the Notes overleaf)

**STANDARD CONDITIONS – FISHING PORT FACILITIES AT PROVIDENCE,
ZONE (6) PARCEL V11162 – DC/746/06**

- 1). **LANDSCAPING**
A scheme for the landscaping and planting of trees to be submitted and approved prior to commencement of the works which are the subject of this application.
- 2). **COLOUR SCHEME**
A colour scheme for all the external surfaces to be submitted to the Planning Authority for approval prior to commencement of the Building Operations
- 3). **SAND & GRAVEL**
The attention of the developer is drawn to the Breadfruit and Other Trees Act and the Sand and Gravel whereby no felling of trees and no removal of Sand or Gravel should be carried out without a permit from the Department of Environment and the Controller of Sand and Gravel respectively. Only those trees essential to building should be cut.
- 4). **GROUND/STORM WATER**
The arrangement for the disposal of ground/storm water arising from the building and uses hereby permitted shall be agreed with the Control Unit Prior to commencement and provided to the latter's satisfaction.
- 5). **SULLAGE**
If waste water from the bathrooms & kitchen is to be directed to a common soak-away then this sullage is to be directed into a third chamber of the septic tank. If not then it has to be directed into a separate soak-away after passing through a grease trap.
- 6). **ROOF**
Roof to be green, grey or red (terracotta) colour base.

Provide guttering to roof, which should be directed to rain water down pipes. One rainwater down pipe should discharge into a water storage tank with a suitable cover.

Structural design of roof and construction to be checked on site and approved/amended as necessary.
- 7). **WATER STORAGE**
The developer to provide adequate water storage facilities.
- 8). **SOAK-AWAY**
Field drains/Soak-away to be minimum 5 meters from any boundary or building and a minimum of 15 meters from any watercourse or marsh where applicable. Manholes to be located such that incoming drains enter on an easy bend in the direction of flow.
- 9). **GLAZING**
All glazing should comply strictly to BS952 Part 1:1995, BS 6262 :1982 and BS 6206 class B or C as appropriate.
- 10). **ALUMINIUM FRAMES**
All aluminium frames to openings should comply with BS 4873: 1986 and BS 5286: 1978 as applicable.
- 11). **ELECTRICITY LINES**
Undertaking any building construction work within three metres of the electricity lines can be extremely hazardous and will be in violation of Public Utilities Corporation Act.



Secretary, Town & Country Planning Authority


DATE: 24 11 96

Fire Brigade
New Port

Date: 8th September 2006

Please find the following Fire Brigade comments for proposed Fishing port & facilities (DC/746/06) at Providence Industrial Estate - Zone 6


1. ADMINISTRATION AREA

- a. Provide fire point **FP** as indicated on drawing consisting of the following fire equipment:
 - 1 x 3 kg carbon dioxide gas (CO²) fire extinguisher
 - 1 x 9 litres foam type fire extinguisher
 - Electrically operated manual fire alarm call point
- b. Install emergency light within the corridor if the building is to be operated at night time.
- c. Exit sign should be provided above the ultimate exit doors.
- d. 30 metres fire hose reel should be effectively installed as per indication  on the drawing.

2. FISHERMAN'S GEAR STORAGE

- a. Provide fire equipment **FP** as indicated on drawing consisting of the following fire equipment:
 - 1 x 4.5 kg dry powder type portable fire extinguisher
 - 1 x 9 litres foam type fire extinguisher
 - One manual fire alarm gong

3. ICE PLANT

- a. Provide 2 x 3 kg carbon dioxide gas (CO²) and 1 x 9 litres foam type fire extinguishers.
- b. 30 metres fire hose reel should be installed as per indication  on the drawing.
- c. Emergency light should be installed within the building if it is to be operated at night time.

P.F. 11

DC/746/06

Application No.....
(TO BE QUOTED ON ALL CORRESPONDENCE)

IMPORTANT This certificate does not purport to convey any approval or consent required under the Town and Country Planning Act or any written law except as provided in the Town and Country Planning (Building) Regulations, 1975.

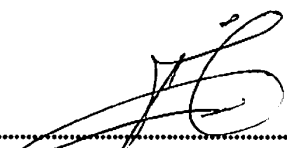
TOWN AND COUNTRY PLANNING ACT (CAP. 237)

TOWN AND COUNTRY PLANNING (BUILDING) REGULATIONS, 1975

CERTIFICATE OF APPROVAL

IT IS HEREBY CERTIFIED that the Town and Country Planning Authority has granted a certificate of approval for the *building operations/*change of use proposed by **Seychelles Fishing Authority** in application no. **DC/746/06** deposited on the **18th** day of **August 20 06** and situated at **Providence, Zone (6) Parcel V11162** namely the **FISHING PORT FACILITIES** in accordance with the accompanying drawing(s).

Dated this **24th** day of **November** **20 06**

(Signed) 
Secretary, Town & Country Planning Authority

WARNING

The building operations and/or change of use shown on the drawing(s) accompanying the application as approved must be closely followed. Variations may not be made except where prior approval to change the scheme of operations has been granted by the Authority.

NB. It is important to read the notes on the back of this form.

Application No. DC/903/06

IMPORTANT

This permission does not support to convey any approval or consent required under any written law other than Part IV of the Town and Country Planning Ordinance 1970.

**TOWN AND COUNTRY PLANNING ORDINANCE 1970
TOWN AND COUNTRY PLANNING GENERAL DEVELOPMENT ORDER 1971
NOTICE OF CONDITIONAL PERMISSION FOR DEVELOPMENT**

To Seychelles Fishing Authority
Of C/o. Roy Benoiton, P O Box 1269, Victoria

The Town and Country Planning Authority **HEREBY GRANT** permission for the following development proposal in your application No. DC/903/06

dated the 29th day of September 2006

of the land situated at Belombre, Parcel J2833, Area = 106.25m² {Ice Making Plant}

in accordance with the accompanying plan (s) **SUBJECT** to the following condition (s):-

1. The development hereby permitted shall begin not later than the expiration of two years beginning with the date hereof.
2. The development hereby permitted shall be carried out and completed in every respect in accordance with the detailed plans and particulars.

Subject to the following conditions:

- Standard Conditions (attached)
- Environmental Authorisation with conditions - " -
- PUC (E) comments - " -
- Developer to make provisions for adequate water storage of 5.0m³.
- Install one of 6Kg. dry powder fire extinguisher near the staircase on ground floor.
- If premises are to be operated at nighttime, install emergency light throughout, especially in the staircase.
- Install one manual fire alarm gong.
- ~~Structural design should be submitted for approval 28 days prior to commencement of work with a copy of the approved certificate attached.~~



Note: Commencement Notice & other notices (form attached) must be hand delivered to the Planning Counter 48 hrs in advance of required inspection. Commencement Notices should be endorsed by the Project Engineer.

for the following reasons:

1. To avoid the accumulation of unimplemented planning permission thereby assuring orderly and phased development.
2. To ensure satisfactory development.

Dated this 21st day of December 2006


Secretary, Town & Country Planning Authority

(Your attention is drawn to the Notes overleaf)

DC/903/06

Application No.....
(TO BE QUOTED ON ALL CORRESPONDENCE)

IMPORTANT This certificate does not purport to convey any approval or consent required under the Town and Country Planning Act or any written law except as provided in the Town and Country Planning (Building) Regulations, 1975.

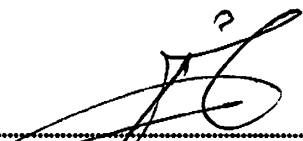
TOWN AND COUNTRY PLANNING ACT (CAP. 237)

TOWN AND COUNTRY PLANNING (BUILDING) REGULATIONS, 1975

CERTIFICATE OF APPROVAL

IT IS HEREBY CERTIFIED that the Town and Country Planning Authority has granted a certificate of approval for the *building operations/*change of use proposed by **Seychelles Fishing Authority** in application no. **DC/903/06** deposited on the **29th** day of **September** **20 06** and situated at **Belombre, Parcel J2833** namely the **ICE MAKING PLANT** in accordance with the accompanying drawing(s).

Dated this **21st** day of **December** **20 06**

(Signed) 
Secretary, Town & Country Planning Authority

WARNING

The building operations and/or change of use shown on the drawing(s) accompanying the application as approved must be closely followed. Variations may not be made except where prior approval to change the scheme of operations has been granted by the Authority.

NB. It is important to read the notes on the back of this form.

Appendix 5-3 Allocation of Land for Project Site at Providence

27/10 2007 08:35 FAX 225374

DEPT ECONOMIC PLANNING

001

**MINISTRY OF NATIONAL DEVELOPMENT
INVESTMENT, LAND USE AND INDUSTRIES DEPARTMENT**
Principal Secretary's Secretariat
Independence House, P. O. Box 648, Victoria, Mahe, Seychelles
Telephone (248) 284 444 - Fax (248) 225015



Please address all correspondences to the Principal Secretary

Your Ref:
Our Ref:
Enquiries to:
Telephone Ext:
Date: 26th November 2007

Mr Rondolph Payet
Managing Director
Seychelles Fishing Authority
P.O Box 449
Fishing port
Victoria

Dear Mr Payet

RE: Land on Zone 6

I refer to the various correspondences on the above.

This is to confirm that parcels V12832 and V12836 respectively located on Zone 6 at the Providence Industrial Estate have been allocated to the Seychelles Fishing Authority for its fish processing project


Should you have any further queries on the matter, please do not hesitate to contact the undersigned.

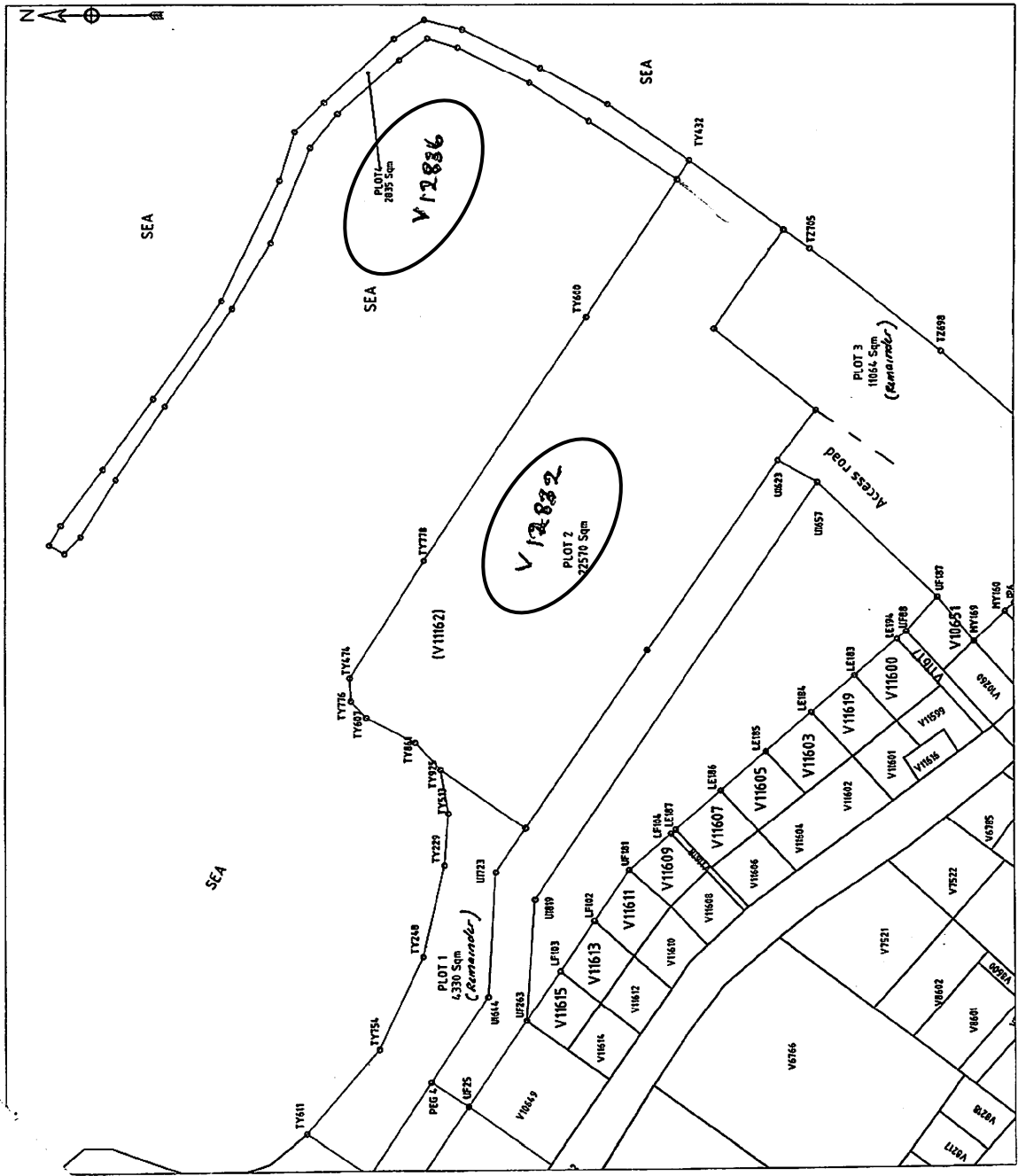
Yours sincerely

Veronique Herminie
Principal Secretary



SITE LAYOUT	
LOCALITY	Providence, Mahe
TITLE	Proposed subdivision of parcel V11162, & new plot

	
MINISTRY OF LAND USE & HABITAT	
SURVEY SECTION	
Surveyor:	Abikmaa
Drawn By:	
Date:	31/10/2006
JOB NUMBER:	2006472
SCALE	1/1500



Appendix 5-4 Location of Fire-extinguishing Equipment

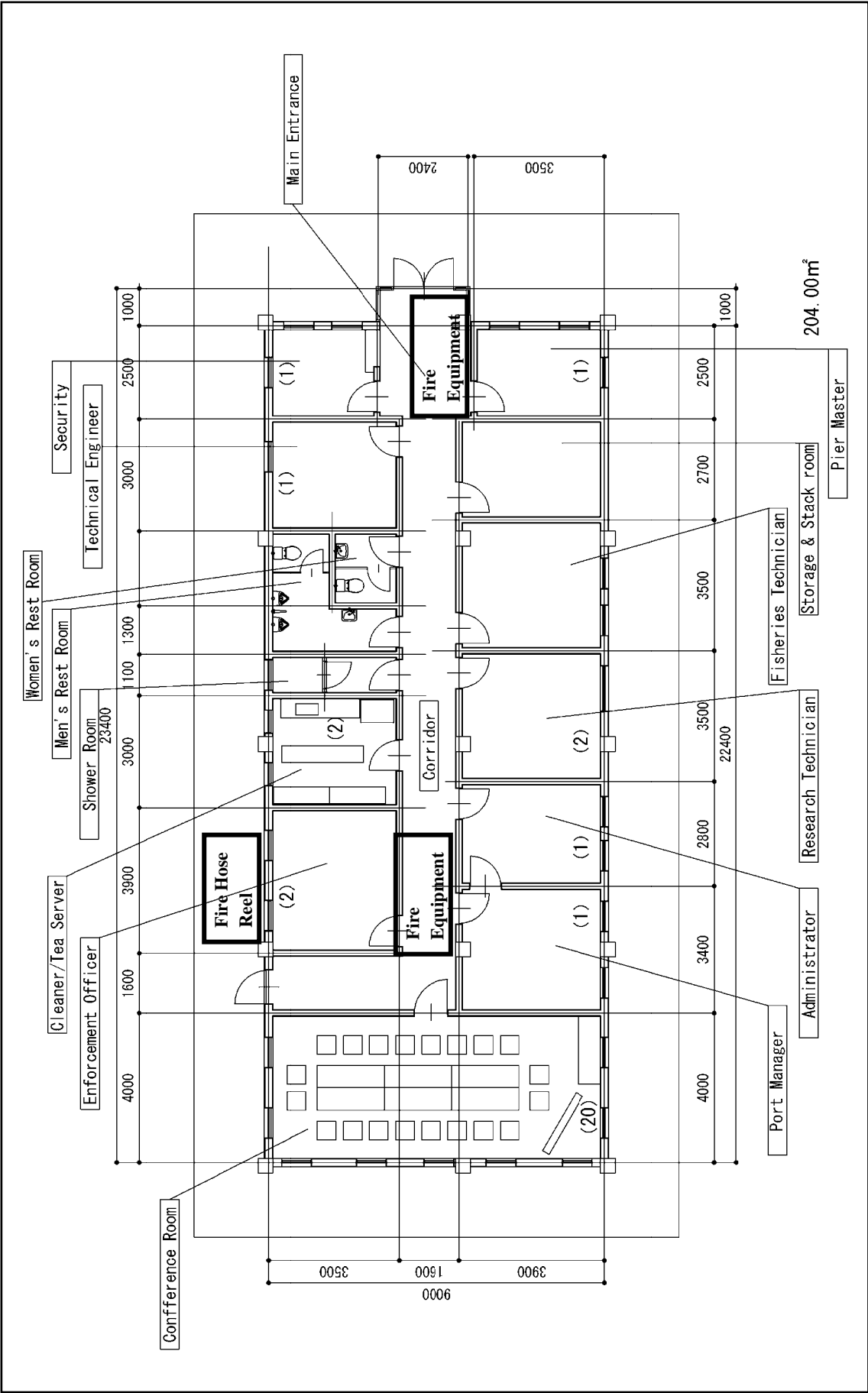


Figure 5-4(1) Location of Fire-Extinguishing Equipment (Administration Building at Providence)

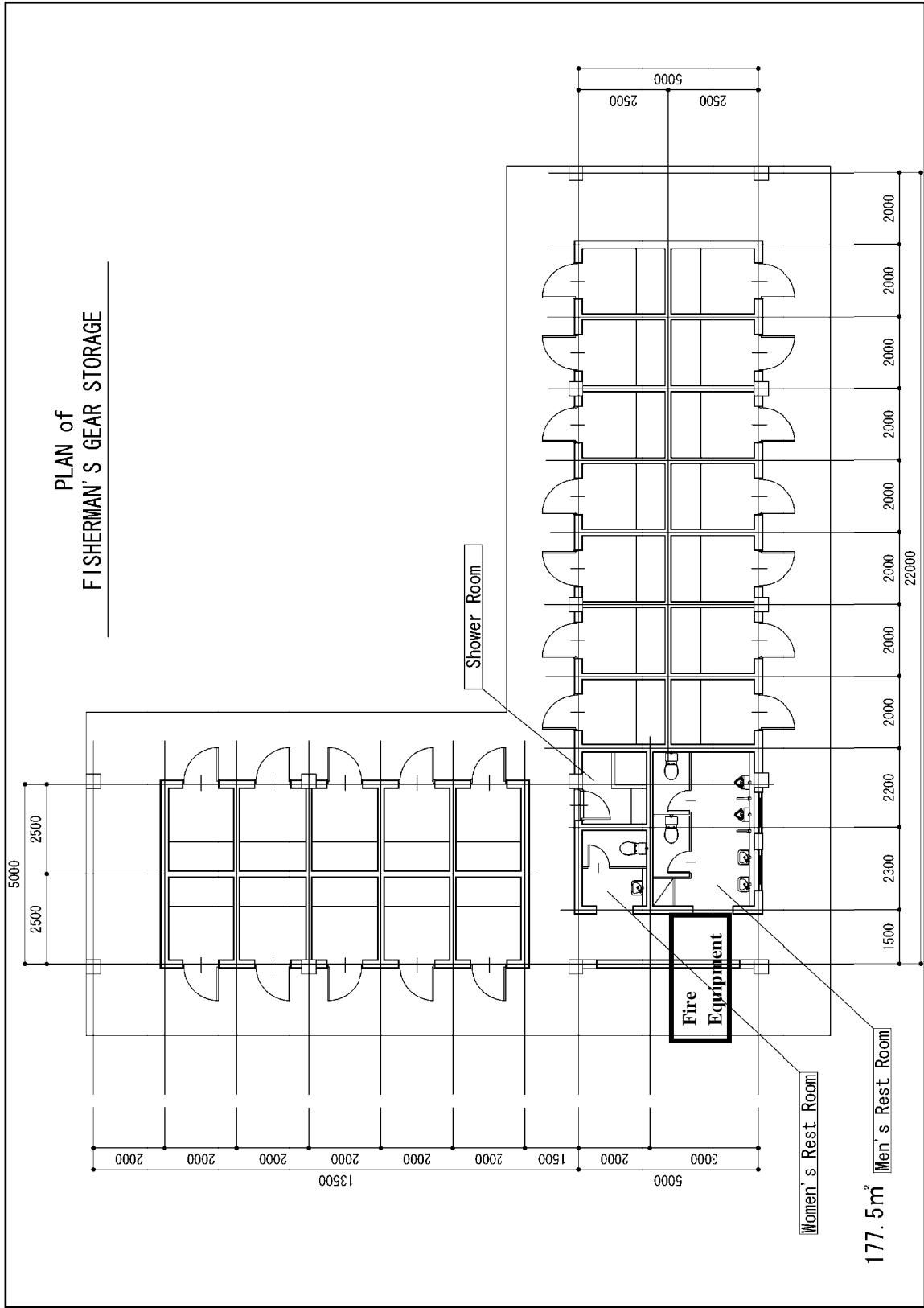


Figure 5-4(2) Location of Fire-Extinguishing Equipment (Fishermen's Gear Storage at Providence)

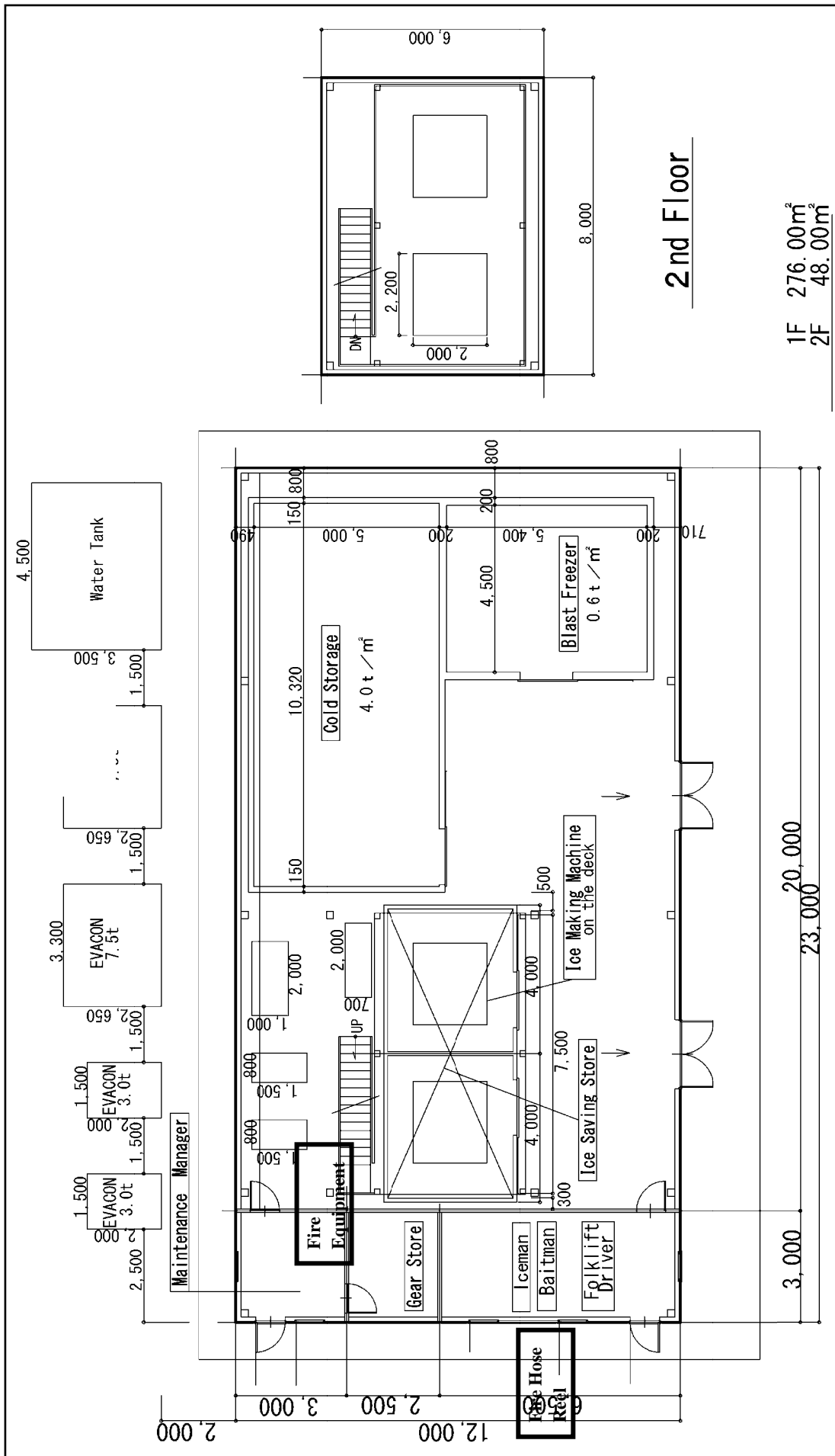


Figure 5-4(3) Location of Fire-Extinguishing Equipment (Ice Plant at Providence)

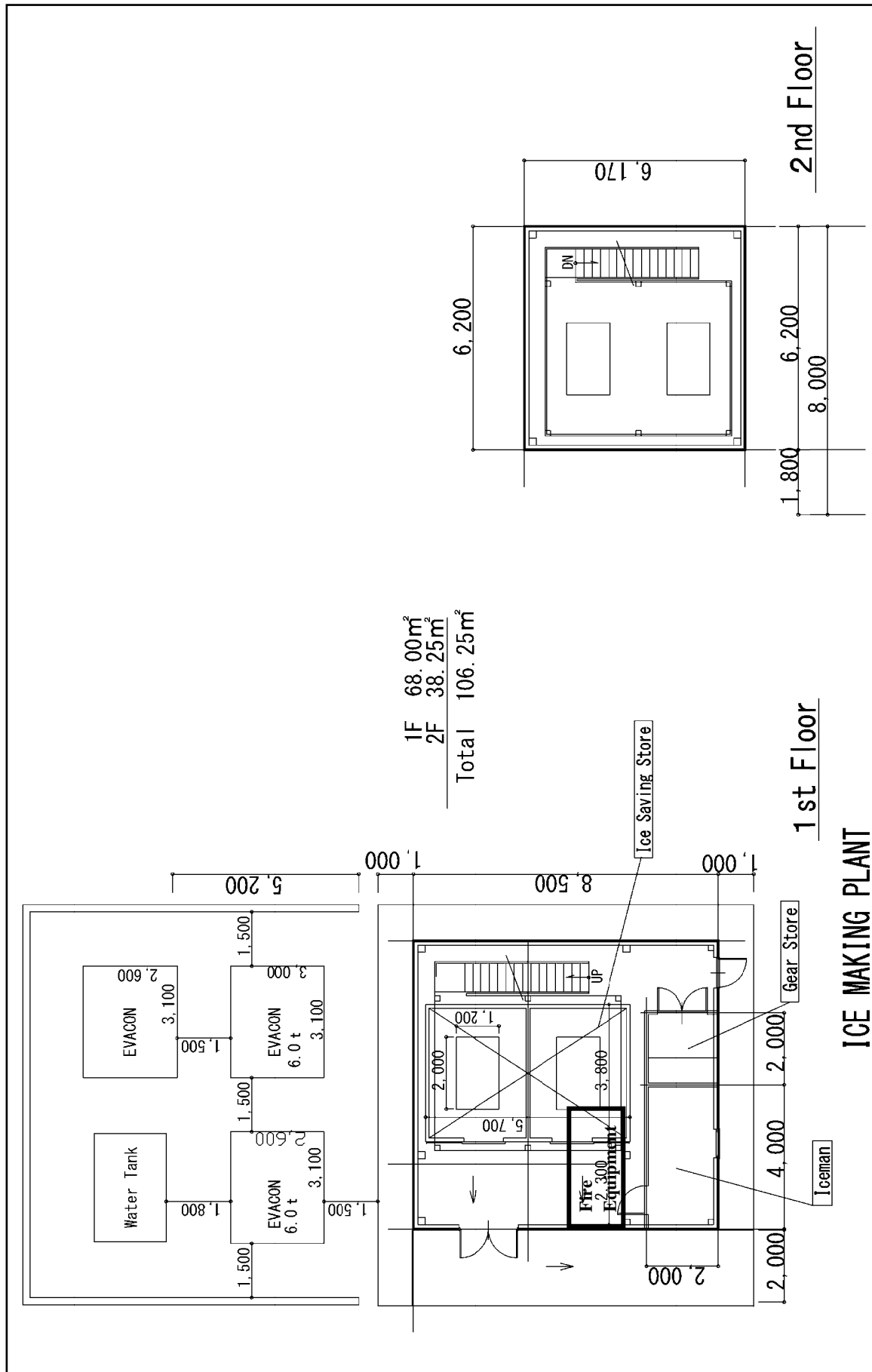


Figure 5-4(4) Location of Fire-Extinguishing Equipment (Ice Plant at Bel Ombre)

Appendix 5-5 Diagram of Installation of Rain Water Tank

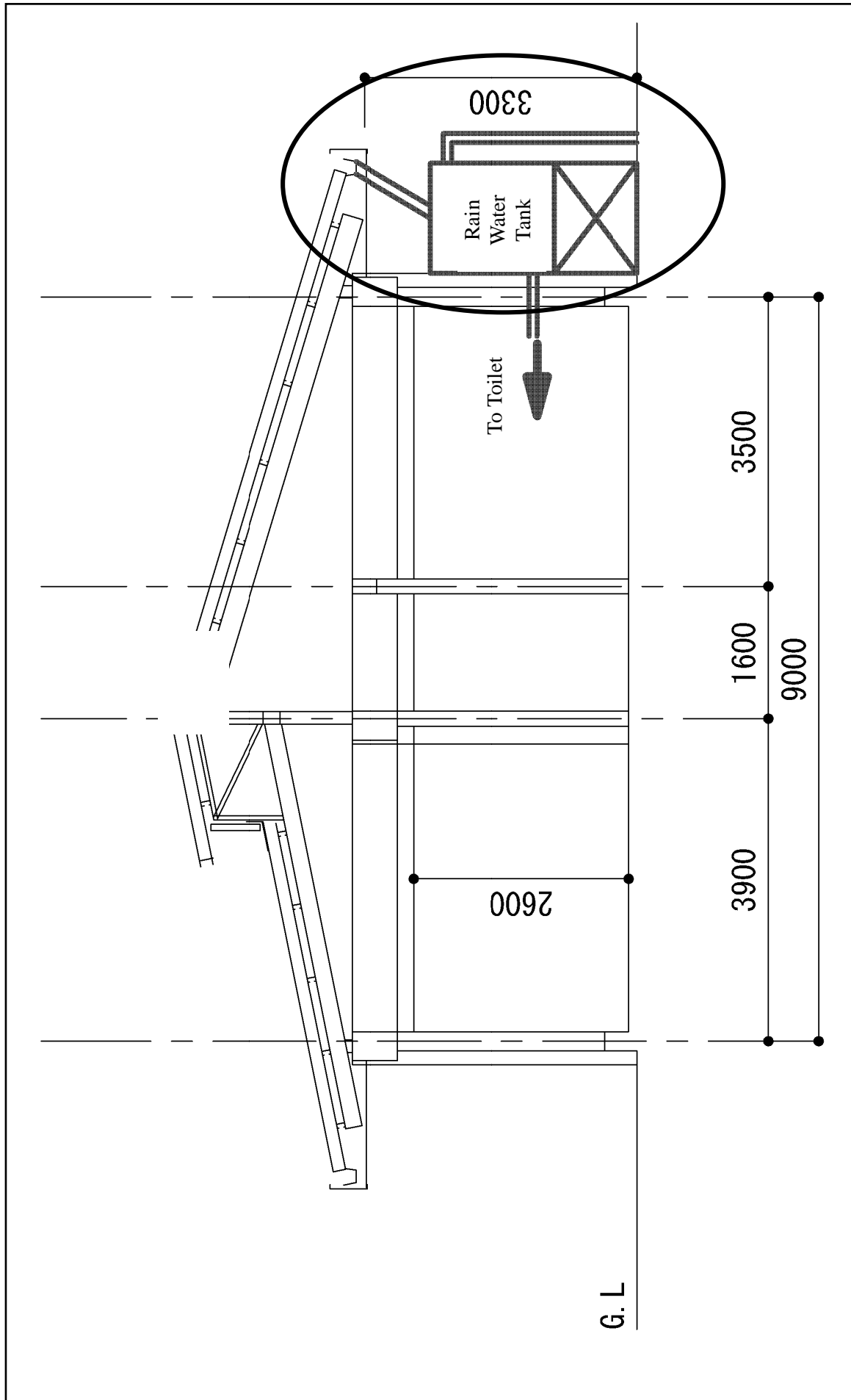


Figure 5-5 Diagram of Installation of Rain Water Tank

Appendix 5-6 Budgetary Provisions for Cost Borne by
the Government of Seychelles

MINISTRY OF FINANCE
PRINCIPAL SECRETARY'S OFFICE
Liberty House, P.O. Box 313, Victoria, Republic of Seychelles
Telephone: 332000, Fax: 225893, E-mail: ps-finance@finance.gov.sc



Our Ref: FIN/S/34
Enquiries To: Mr. A. Afif
Telephone Ext: 2004
Date: 22nd November 2007

Mr. Roudolph Payet
Managing Director
Seychelles Fishing Authority
Post Box 449
Fishing Port
Mahe

Dear Mr. Payet

Re: Japan Grant Aid Project for the construction of Port infrastructure, facilities and supply of equipment (Zone 6 and Bcl Ombre)

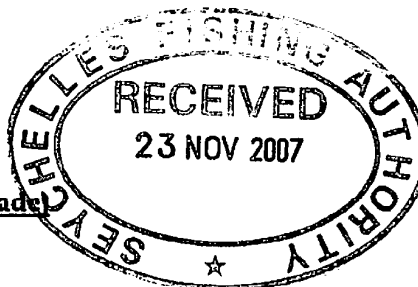
Reference is made to your letter dated 16th November 2007 on the above-mentioned projects.

We would like to confirm Government's commitment for the above-mentioned projects and budgetary provisions for counterpart funds which will be provided as necessary in order to complete the projects successfully.

Thanking you.

Yours sincerely,

Ahmed Afif
PRINCIPAL SECRETARY (Finance & Trade)



cc: Project file



"Together for the love of Seychelles"