located in the east side of the two general classroom buildings to be demolished, and Special Classroom Building will be located in front of the General Classroom & Administration Building across the premise road. Sports Shell will be located to the east of the existing cafeteria to secure space for 200m of field track.

Dormitory will be located in the site where the existing dormitory will be demolished. Parking space will be placed by the existing cafeteria in addition to the parking space along the public road. The outline of the layout plan in the campus of MIHS is illustrated below.

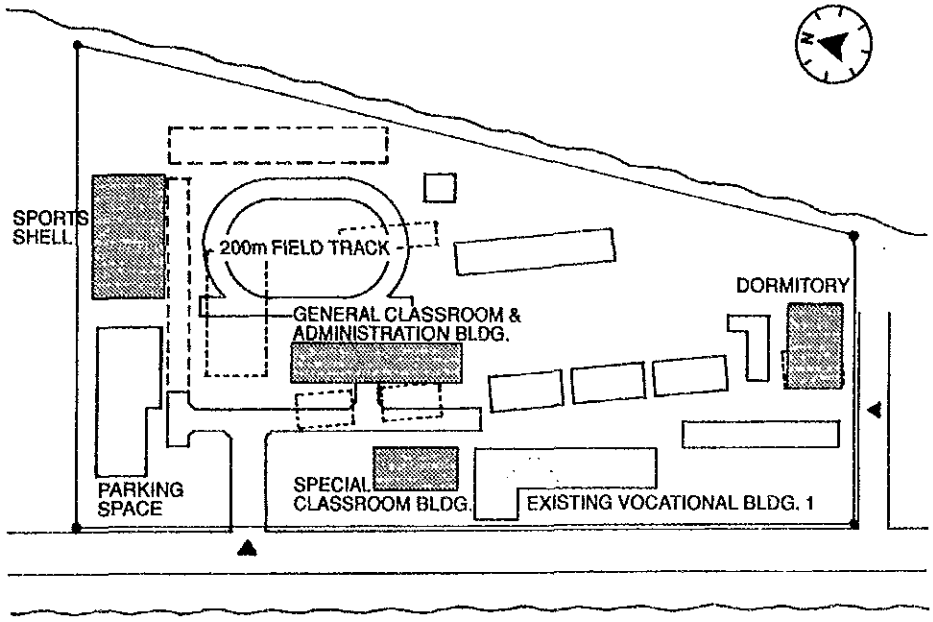


Figure 4 Outline of Layout Plan of MIHS Campus

(2) Educational and Cultural Center

The construction site for the Educational and Cultural Center is located to the east of the Nitijela Hall and the Administration Block, spreading about 150m from north to south and about 70 m from east to west. The layout plan of the Center is to be formulated based on the following policies.

(i) Infrastructure

The rain water on the roof of the Administration Block is sent through the pipes to the filtering and sterilizing facility. These pipes are installed from the center of the west side of the site to the southeast corner of the site, collecting the roof water of the Center to these installed pipes. Electricity will be distributed from the high voltage power line installed between the sites of the Center and Nitijela Hall.

(ii) Layout Plan

The premise road will be constructed in the west side of the site adjacent to the Nitijela Hall. The building of the Center will be constructed in the north half of the site to avoid the pipes are installed there. The south half of the site where pipes are installed will be used for parking space, which is to be upgraded by the government of the RMI. The entrance of the Center will be installed along the premise road. The outline of the layout plan in the site for the Educational and Cultural Center is illustrated below.

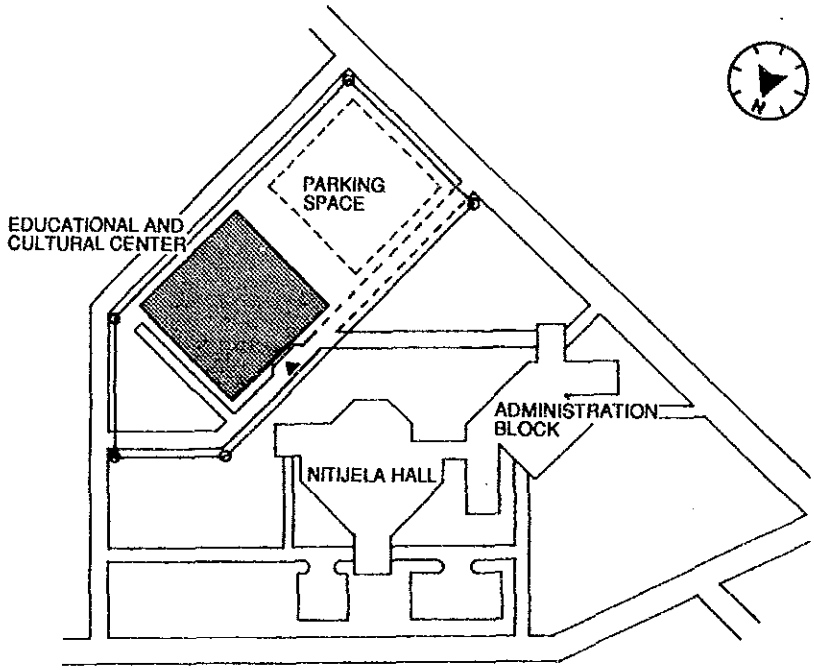


Figure 5 Outline of Layout Plan of the Educational and Cultural Center

4.3.2 Architectural Design

(1) Floor Plan

The floor plan is to be formed based on a design policy in accordance with the number of enrollments in the target year, quantity and size of the equipment, furniture and appliance, required indoor environmental conditions, etc. The floor plans of MIHS and the Educational and Cultural Center are described as follows.

1) MIHS

(i) General Classroom & Administration Building

This building is two-story building with an administration related room on the first floor and general classrooms on the second floor. A staircase is installed in three places at both ends and the center of the building. In the staircase on the second floor a wire net door is installed to avoid accidents by children outside the school.

(1st Floor)

The administration rooms are located on the first floor. The entrance hall built in void is located in the center of the building to be used for bulletin boards for class information, tests, etc. In the north of the hall the administration department rooms including Principal's Room, Office and Conference Rooms, etc. are located and the library will be built on the south side.

The rooms to be located in the north of the hall include the followings.

* Counselor Room : Two rooms for male and female students. Two full-time counselors provide counseling and guidance to the students and parents.
* Office : Office is used for accounting work including payment for purchasing instruction materials and goods, and general office work. Furthermore, waiting space for students to perform registration is included beside the office space.
* First Aid Room : First aid room will contain two beds for students and a desk for the school nurse.
* Principal's Room/Deputy Principal's Room/Conference Room : Currently as principal's room and deputy principal's room are located in a separate building, and there is no conference room, discussion and communication of important matters is not effectively carried out between administration staff. Moreover, the existing principal's room and deputy principal's room containing many textbooks and instruction materials which should be stored in other rooms are not effectively used. Therefore, Principal's Room, Deputy Principal's Room and Conference Room will be closely located in the Project and a Storage will be constructed and used by the principal and deputy principal to ensure that the required documents are stored efficiently and administration staff can devote their time to their own work.

In addition, toilets for male and female teachers will be installed by the north staircase.

The layout in the south of the hall is described as follows.

* Water Reservoir : Water Reservoir is installed in the south of the hall to collect rain water from the roof of the building through water pipes down to the

reservoir tank. In this system the rain water in the tank is pumped up to be distributed.

* Library : Next to the water reservoir an open-shelf library will be installed composing of a desk front, library office, shelf space and reading space. The existing furniture in the current library including book shelves, tables, chairs, cabinets, etc. will be used for the new library.

Toilets for male and female students will be installed by the south staircase.

(2nd Floor)

Seven general classrooms will be located in the second floor. The current classroom has the capacity of 30 to 35 students, with a width of 9.9 m and a depth of 9.3 m. In each classroom a storage for instruction materials is installed. According to the number of students by class in the target year shown in the section 3.2.5 (1), the capacity of the general classroom to be upgraded in the Project is 27 to 30. Therefore, one classroom will have a capacity of 30 students, with a width of 9 m and a depth of 8m with a storage for instruction materials. The column spacing of the General Classroom & Administration Building is planned at 9 m x 8 m. The floor plan of the general classroom is illustrated below.

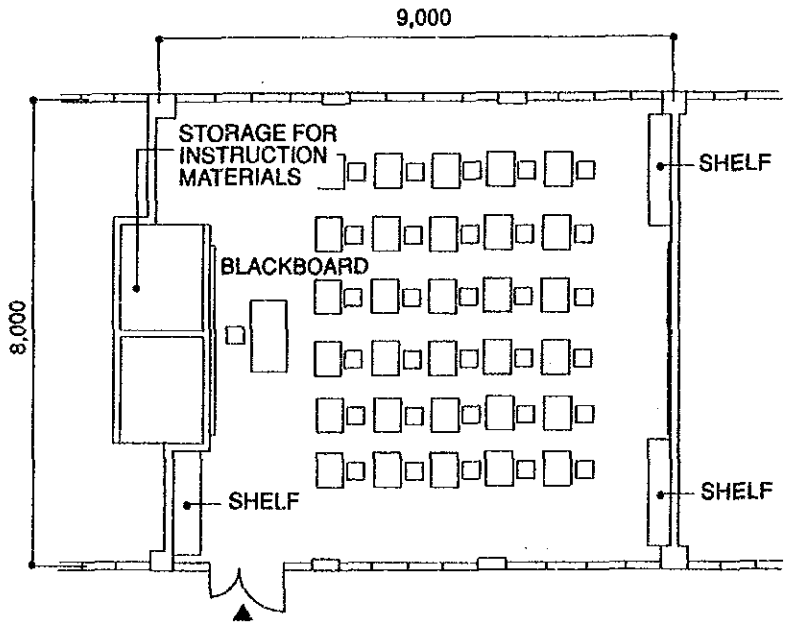


Figure 6 Floor Plan of General Classroom

(ii) Special Classroom Building

This building is two-story building containing cooking training room and secretarial type training room on the first floor and computer training room and sewing training room on the second floor. The staircase is to be installed at both ends of the building, and as in the General Classroom & Administration Building, a wire net door will be installed in the staircase on the second floor.

(1st Floor)

* Cooking Training Room : In the cooking training room space for home cooking and restaurant food service training is provided. Six model kitchen sets with a serving table will be installed for the total number of 24 students (4 students per group). For restaurant food service training six tables for four persons, a cash register counter and a serving counter will be installed. A refrigerator for storing food and a cupboard will be installed next to the training area to be used for the preparation. The layout of the cooking training room is illustrated below.

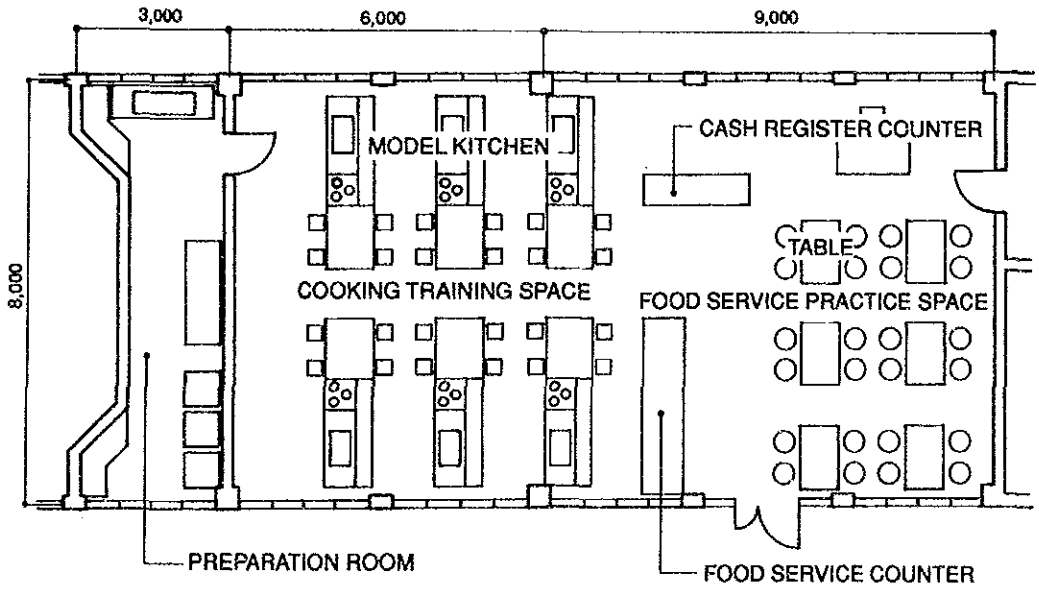


Figure 7 Layout of Cooking Training Room

* Secretarial Type Training Room: Secretarial type training room which is used for training of maximum 30 students at a time will be large enough to install 15 typing tables for two students each and one for the teacher. Storage will also be provided for typing and instruction materials separate from the training room.

(2nd Floor)

* Sewing Training Room : Sewing training room requires space for work such as pattern making, cutting, sewing and fitting. As pattern making and cutting work is performed in a group of four students, six cutting boards for students and one for the teacher will be provided. As 24 students perform training, space to install 12 electric sewing machines and 12 manual sewing machines, 24 in total, by the windows will be secured. Further, space for storing uncompleted work on dress hangers and fittings will be provided where cutting and sewing work will not be disturbed. The floor plan for Sewing Room is illustrated below.

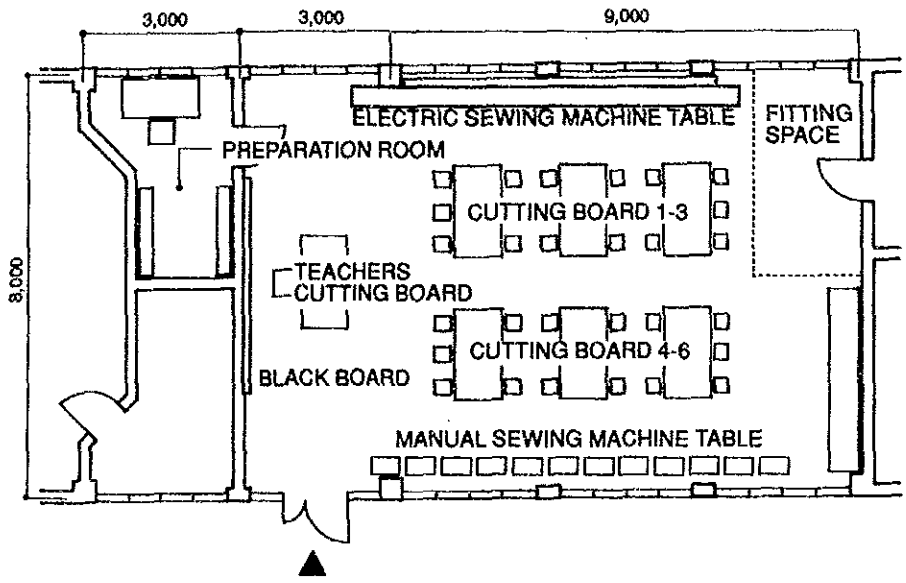


Figure 8 Layout of Sewing Room

* Computer Training Room : As 24 students perform the computer training, space to install eight computer tables for three students each will be secured.

The column spacing of the Special Classroom Building will have a length of 8m and a width of 3m in module in accordance with the layout of the equipment and furniture.

(iii) Sports Shell

Following the layout of the existing sports shell, one basketball court, stage, locker rooms and storage will be provided. The size of the basketball court will be 15m x 28m as in the colleges in Japan, and a space of 5m wide along the long side will be secured to avoid rainfall. Thus, the depth of the Sports Shell

will be 25m, and the width of stage, locker rooms and storage will be devided in this range.

(iv) Dormitory

Dormitory is to be a one-story building which contains nine bedrooms shared by two students each to accomodate 18 ninth grade students. After the students find their own lodgings to stay in until they graduate, the dormitory will be used as the temporary lodgings for teachers. Kitchen and dining room are of common use.

(v) Renovation of the Existing Vocational Training Building

In the Auto-Mechanics training room of the existing vocational building I beam and manual chain block will be installed to the existing H shaped steel girder to deal with heavy load materials. In the training rooms of the Auto-Mechanics and Wood Working and storage, electric wiring will be installed to secure power supply for operating the installed equipment.

(iv) Sports Ground

200 m Field Track will be layouted in a location surrounded by Sports Shell, General Classroom Building and the existing Science Classroom Building. As the ground in the location is inclined, it will be leveled flat.

2) Educational and Cultural Center

The main space in the Center consists of an arena with two basketball courts, indoor bleachers with a capacity of about 600, stage, office room, toilet and locker rooms.

(1st Floor)

* Arena : Two basketball courts with the size of 15m x 28m will be installed. Space with a width of 5m between the two courts and 3m on the remaining three sides will be secured. Thus, the effective area of the arena will be 41m x 34m.

* Indoor Bleachers : Indoor bleachers for spectators will be installed in each side of east and west of the arena. Seat space per spectator will be 0.75m x 0.50m, and the width of the aisle is 1.5m at the end and 0.8m between the stands to keep the design standards of Japan.

Entrance hall will be installed in the center of the west side of the arena, and an emergency exit will be installed in the center of the east side, dividing the stand into the right and left sides. Thus, the number of seats will be as follows.

Table 34 Number of Seat in Indoor Bleachers

Location	No. of Stand	No. of Seat in One Stand	No. of Seat
West Side	6	8 Rows 6 Steps (48)	288
East Side	8	7 Rows 6 Steps (42)	336
Total			624

As the indoor bleachers will be a step-style, the space under the bleachers will be used as temporary locker rooms when many teams participate in the sports tournament matches. The layout of arena and indoor bleachers is illustrated below.

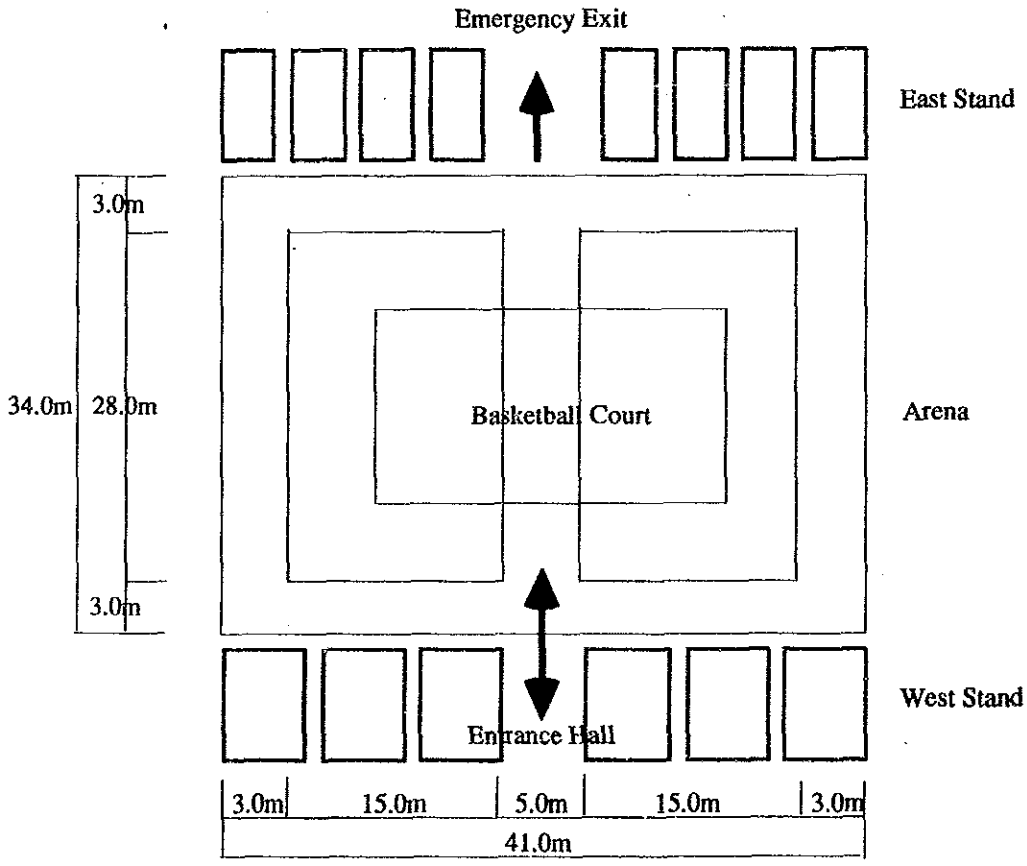


Figure 9 Layout of Arena and Stand of Indoor Bleachers

* Office Room : In the back of the rear part of the indoor bleachers which has a height of mezzanine and an aisle will be placed between the stands. Thus, passage space will also be secured below the aisles, where an

office room will be located facing the entrance hall. This room will be used for three staff members of the Center.

* Stage and Storage : Stage will be planned to be 15m in width and 7m in depth. Events at the stage such as lectures, debates, dramas, etc. are to be viewed from the Arena, and indoor bleachers which cannot be installed in front of the stage are to be used for watching sports performed in the Arena. On both sides of the stage storage for tools will be installed across the emergency aisle which will be used for carrying stage tools.
* Locker Room and Toilet : Locker rooms with shower booths will be installed in two locations for two teams, and toilets will be installed in two locations for male and female. Toilet and locker rooms will be located to the south of the arena on both sides of the corridor not inside the building as stipulated by the government.

(2nd Floor)

* Water Reservoir : Rain water collected on the roof of the Center will be stored in a water tank installed above the locker room on the first floor and will be used for the shower and toilets. FRP assembly tank will be installed as a water tank.
* Storage : Storage facilities will be installed next to the water reservoir.

It is planned that an arena with two basketball courts and indoor bleachers with a capacity of about 600 will be located in a large roofed room without any column in the middle. The distance from east to west in the arena and indoor bleachers is approximately 45m, and the large roof will be supported by a girder with a horizontal projection distance of about 45m. As an economical structure, a column supporting the girder will be located at every one-fifth point of the 42m distance running north to south.

The floor area of the planned buildings is shown in the following table.

Table 35 List of Name of Rooms in Planned Buildings (1/3)

Name of Room	Area (m^2)	Remarks
1. General Classroom & Administration Building		
A (1st Floor)		1st Floor Area : 847.44m^2
1) Entrance Hall	59.76	
2) Principal's Room	24.00	
3) Deputy Principal's Room	30.00	15.00 m^2 x 2
4) Counselor Room	24.00	12.00 m^2 x 2
5) Office	75.00	Including Teacher Work Room
6) Conference Room	48.00	
7) First Aid Room	15.00	
8) Library	168.00	
9) Toilet for Students	48.00	
10) Toilet for Teachers	10.08	
11) Storage	24.00	Storage Total Area
12) Machine Room	12.60	
13) Water Reservoir	48.00	
14) Corridor, Staircase	261.00	Staircases in 3 Locations
B (2nd Floor)		2nd Floor Area : 847.44m^2
1) General Classroom 1	72.00	
2) General Classroom 2	72.00	
3) General Classroom 3	72.00	
4) General Classroom 4	72.00	
5) General Classroom 5	72.00	
6) General Classroom 6	72.00	
7) General Classroom 7	72.00	
8) Storage	7.92	Storage Total Area
9) Machine Room	12.60	
10) Corridor, Staircase	263.16	Staircases in 3 Locations
11) Void	59.76	
Floor Area	1,694.88	
Construction Area	847.44	

Table 35 List of Name of Rooms in Planned Buildings (2/3)

Name of Room	Area (m^2)	Remarks
2. Special Classroom Building		
A (1st Floor)		1st Floor Area : 333.84m^2
1) Cooking Practice Room	120.00	
2) Cooking Preparation Room	14.00	
3) Secretarial Type Practice Room	58.00	
4) Storage	12.96	
5) Machine Room	12.96	
6) Corridor, Staircase	115.92	
B (2nd Floor)		2nd Floor Area : 333.84m^2
1) Sewing Practice Room	96.00	
2) Sewing Preparation Room	7.00	
3) Computer Practice Room	82.00	
4) Computer Preparation Room	7.00	
5) Machine Room	12.96	
6) Storage	12.96	
7) Corridor, Staircase	115.92	
Floor Area	667.68	
Construction Area	333.84	
3. Sports Shell		
1) Arena	813.00	
2) Locker Room	38.50	19.25 m^2 x 2
3) Stage	89.00	
4) Storage	22.00	
Floor Area	962.50	
Construction Area	962.50	
4. Dormitory		
1) Bedroom	129.60	9 Bedrooms (Including toilet shower. One bedroom is shared by two persons and the area is 14.40m^2)
2) Kitchen	9.00	Common Use
3) Dining Room	29.70	Common Use
4) Laundry	5.40	Common Use
5) Machine Room	7.20	
6) Corridor, Hall	24.30	
7) Terrace	97.20	
Floor Area	302.40	
Construction Area	302.40	

Table 35 List of Name of Rooms in Planned Buildings (3/3)

Name of Room	Area (m^2)	Remarks
5. Existing Vocational Training Building (Renovated Portions)		
(1st Floor Training Room)		
1) Storage	132.00	Lighting and fixtures and electric wiring
2) Wood Working Room	221.00	Electric wiring
3) Auto-Mechanics Room	238.00	Installation of chain block for lifting heavy loads and electrical wiring
6. Educational and Cultural Center		
A (1st Floor)		1st Floor Area : 2,640.00 m^2
1) Entrance Hall	63.00	
2) Arena	1,470.00	
3) Office Room	10.50	
4) Locker Room	60.00	30.0 m^2 x 2 Including shower booths
5) Stage	150.00	
6) Storage	96.00	48.0 m^2 x 2
7) Corridor, Staircase	196.00	
8) Toilet	60.00	30.00 m^2 x 2
9) Storage	524.50	Including downstairs of Indoor Breachers
10) Machine Room	10.00	
B (2nd Floor)		2nd Floor Area : 870.00 m^2
1) Water Reservoir	30.00	
2) Storage	40.00	Storage Total Area
3) Indoor Bleachers	367.00	2.5 m higher from 1st Floor by staircase
4) Corridor, Staircase	220.00	
5) Void	213.00	Above Entrance Hall
Floor Area	3,510.00	
Construction Area	2,640.00	

(2) Section Plan

Ceiling height of the buildings to be constructed in the Project is shown in the following list.

Table 36 Ceiling Height by Building

Name of Bldg.	Ceiling Height	Remarks
(High School)		
(1) General Classroom & Administration Bldg.		
(i) Administration related Rooms	2.7 m	Ceiling height is lowered due to air-conditioning.
(ii) General Classrooms	3.3 m	To comply with Japanese school standard of ceiling height of 3.0m.
(2) Special Classroom Bldg.		
(i) Training practice rooms	3.3 m	To comply with Japanese school standard of ceiling height of 3.0m.
(3) Sports Shell		
(i) Highest part in basket ball court	9.0 m	7m is to be secured for the height of goal of basketball court.
(ii) Lowest part in basket ball court	7.0 m	
(iii) Column Part	5.5 m	
(4) Dormitory		
(i) Bedroom	2.7 m	To comply with similar facility in the field.
(Educational and Cultural Center)		
(1) Arena		
(i) Highest part	13.5m	Height of the last row in the rear of Bleachers is 6.0m. Height of each location is determined as arch is installed from the pillar in the same position.
(ii) First Row in Bleachers	8.5 m	

(i) Standard Section of High School Facilities

First floor level is to be about 0.5m higher than the ground to avoid the humidity.

The windows of the general classrooms are to be jalosie, which will be partially installed in the lower parts near the floor for better ventilation in the classrooms. (See the following figure.)

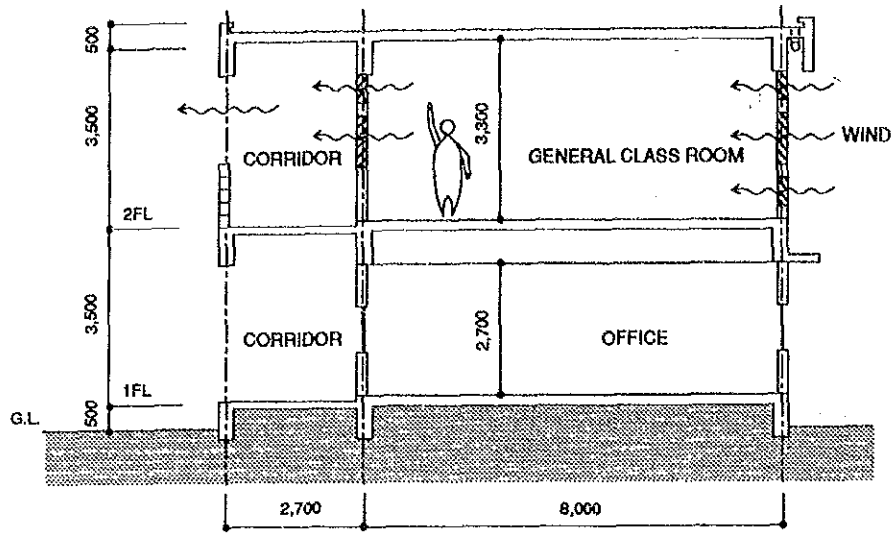


Figure 10 Standard Section of General Classroom

(ii) Standard Section of the Educational and Cultural Center

An outer wall will be installed around the Center building at the strong request of the government of the RMI. As air-conditioning requires great construction and maintenance costs, natural ventilation will be provided to some extent near the bleachers. A part of the outer wall will be covered by such materials as concrete hollow block to ventilate air, and the open risers of the seats in the bleachers forming steps will be open to let the air blow in from underneath the seats. The heated air inside will be sent out by installing holes in the gable side of the Arena. (See the following figure.)

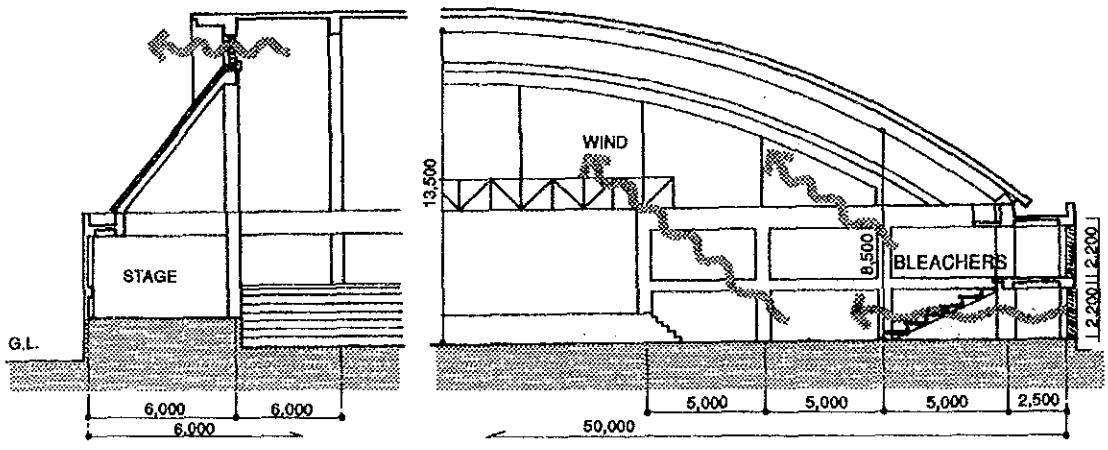


Figure 11 Standard Section of the Educational and Cultural Center

(3) Structure Plan

As stated in section 3.3.3 (2) (ii) Properties of Soil, extremely loose soil was detected at the construction site, indicating N-value of 2 at the section minus 5m to minus 7m from the surface. As a result of this test, the bearing capacity of soil is estimated to be 5 ton/m^2. The basic structure of the building is planned based on the following policies.

(i) High School Facilities

In the General Classroom and Administration Building and Special Classroom Building the floor slab, girder and columns are to be constructed in a rigid frame structure, and the foundation will be of a continuous footing in the length of the building and will be connected with footing beams. (See the following figure.)

(ii) Educational and Cultural Center

In the arena and indoor bleachers columns cannot be installed due to limited space and the roof is supported by a small number of columns. As a result, a great load is placed on the columns. Therefore, the columns, indoor bleachers forming steps and continuous footing will be constructed in a rigid frame, and the load will be distributed through the continuous footing, to prevent the load on the columns from being placed directly on the ground. (See the following figure.)

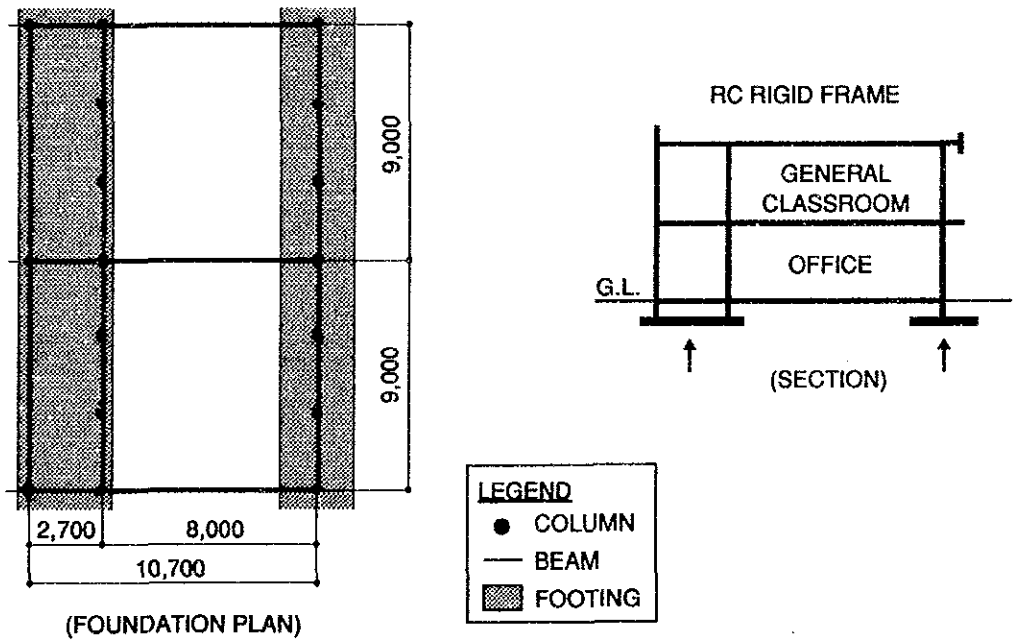


Figure 12 Foundation Pattern of General Classroom

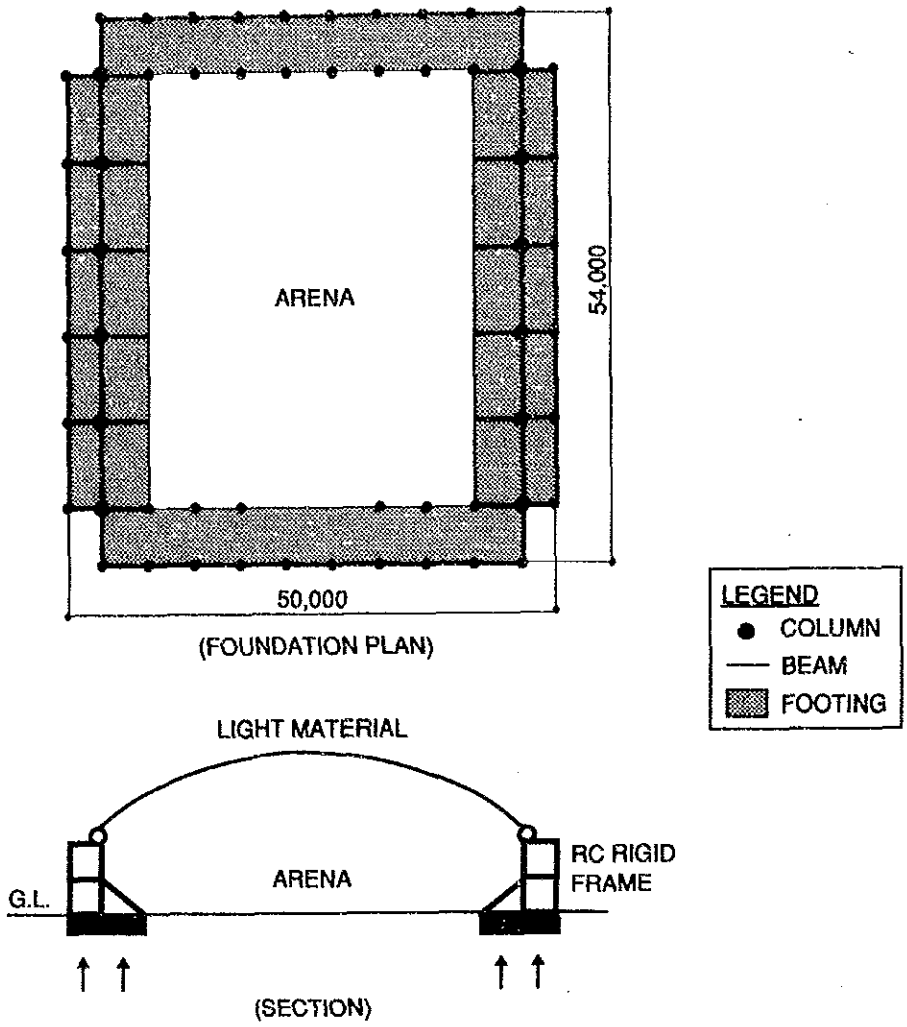


Figure 13 Foundation Pattern of the Educational and Cultural Center

(4) Building Equipment Plan

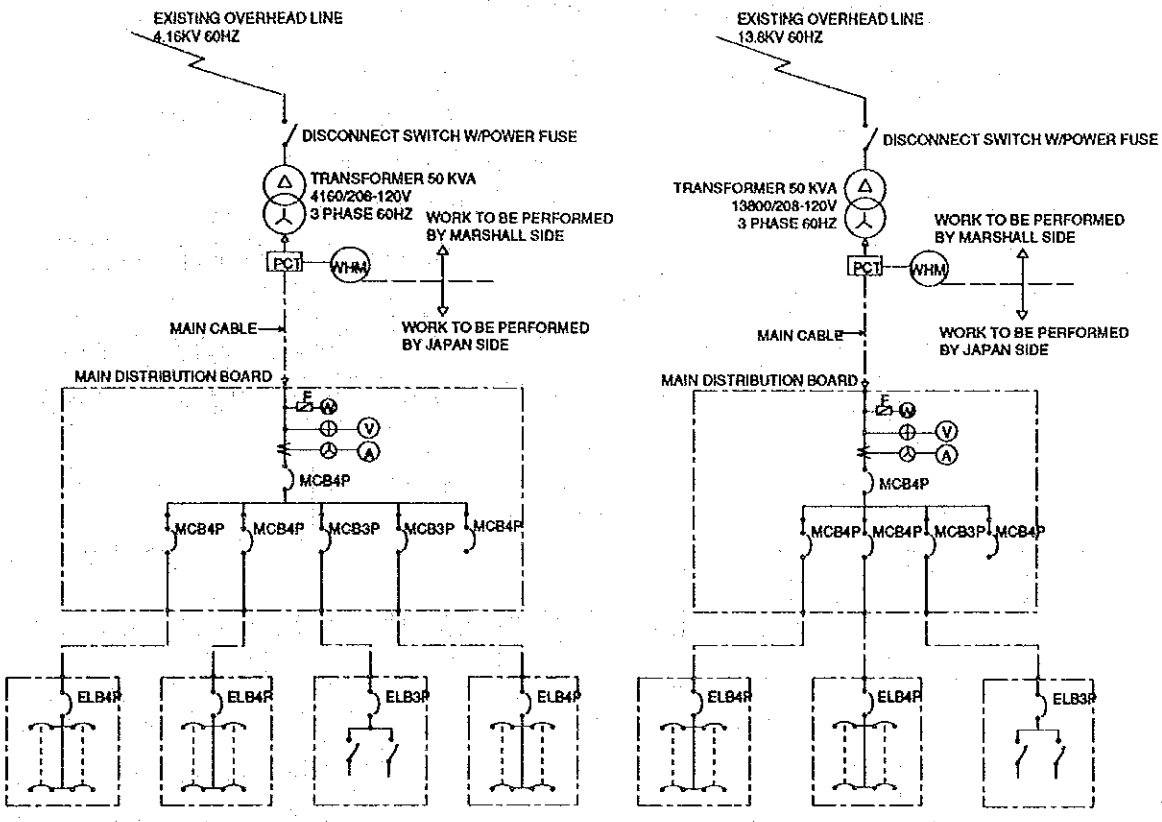
1) Electrical Equipment Plan

(i) Electrical Equipment

Power supply to the buildings of MIHS to be upgraded in the Project will be provided through a transformer on the pole to be newly installed in the site by the government of the RMI to the machine rooms of the special classroom building and dormitory by an underground line method with a low voltage of 208/120 V. Power supply to the Educational and Cultural Center is provided in the same way as in MIHS via the main distribution board installed next to the stage in the Center.

Emergency power supply equipment will not be installed both in MIHS and the Educational and Cultural Center as the power supply in the field is in

relatively good condition, and the buildings do not require emergency power supply. The single line diagram is illustrated below.



MIHS ECC

Figure 14 Single Line Diagram

(ii) Main Feeder Equipment

Power supply is provided from the main distribution board to each lighting distribution board, power distribution and control panel through the main feeder. The outdoor main feeder is to be installed in the underground in compliance with general construction methods in the field.

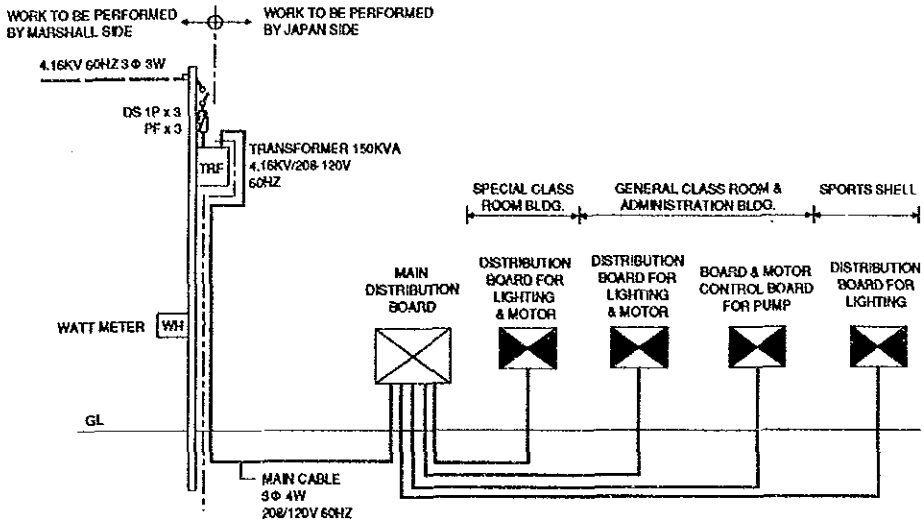


Figure 15 Main Feeder Diagram (MIHS)

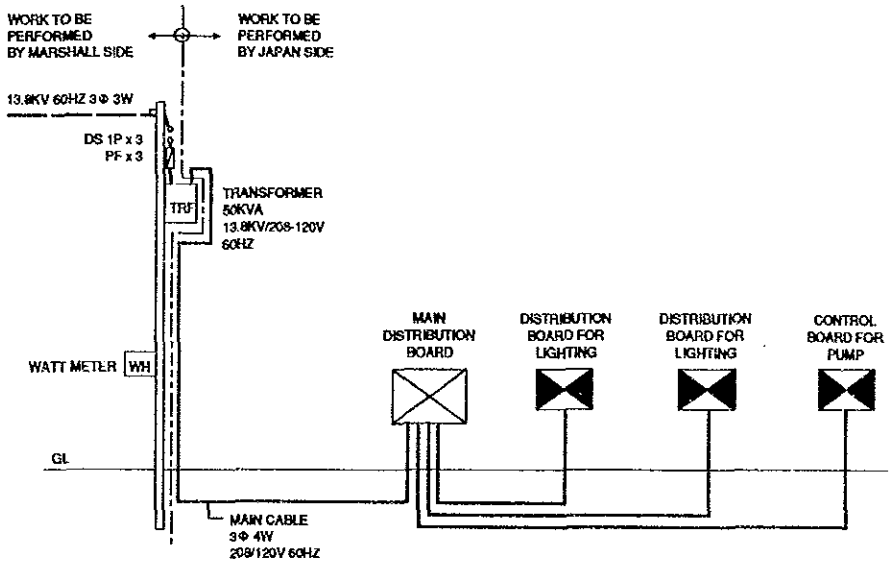


Figure 16 Main Feeder Diagram (ECC)

(iii) Electrical Power Equipment

Power supply is provided from the power distribution board to the pumps, power equipment, etc. The equipment and materials used for the power distribution board should be water-proof and protected from damage by the salt breeze.

(iv) Lighting and Outlet Equipment

For general lighting fixtures fluorescent lamps are mainly used. Indoor lighting fixtures include emergency lamps with built-in batteries. In the arena of the Educational and Cultural Center highly bright discharge lamps for high ceilings will be installed.

The outlets for power supply, equipment and air-conditioning/ventilation apparatus should be exclusive circuits. The outlets installed outdoors should have earth grounding for safety, and the breakers for these branch circuits should be earth leakage breakers. The wiring for the lighting fixtures and outlets should be basically exposed wiring.

Illumination was calculated according to room, based on the JIS Illumination Standard (JIS Z 9110), and the number of lighting fixtures was determined. The illumination of the major rooms is shown below.

Table 37 Illumination Plan

Name or Room	Illumination (Lx)
General Classroom, Training Room, Office	300
Arena	250

(v) Telephone Equipment

The main equipment of the push-button phones will be installed in the office of the General Classroom & Administration Building and the office room of the Educational and Cultural Center; the terminals in the rooms will be required with the function of the interphone to enable communication between extensions.

(vi) Emergency Equipment

Emergency lights with built-in batteries will be installed at the staircase on the second floor of the General Classroom & Administration Building and Special Classroom Building.

In the Educational and Cultural Center transmitters and alarm bells will be installed in the locations required as emergency alarm equipment in addition to the emergency lights. Receivers of the emergency alarm equipment will be installed in the office room.

2) Air-Conditioning/Ventilation Equipment

(i) Air-Conditioning Equipment

In Majuro the temperature is constantly high at 27 C° throughout the year, and offices and most of the vocational training rooms in the existing high schools are equipped with air-conditioners. In the Project air-conditioners will be installed mainly in the offices and vocational training rooms. Wall mounted air-conditioners will be installed in the rooms with a small floor area; a floor mounted type in the rooms with a large floor area like vocational training rooms.

(ii) Ventilation Equipment

Ventilation fans will be installed in rooms which require forced ventilation like the machine room, toilets, etc. In the general classrooms fans will be installed on the ceiling.

In the arena of the Educational and Cultural Center natural ventilation will be used.

3) Water Supply and Sanitary Equipment

(i) Rain Water Supply Equipment

A system will be constructed in which rain water collected on the roofs of the buildings is sent through water pipes down to the water tank, and pumped up to be supplied to the locations required. The water tank is connected with the city water main pipes to receive the water supply. A small pressure pump which does not require a large installation area and an elevated tank will be used to supply water. The piping diagram of the rain water supply is illustrated below.

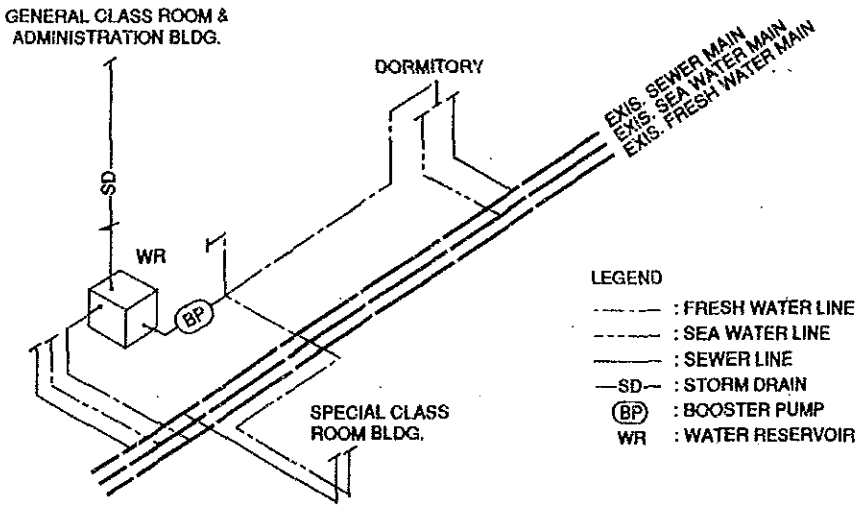


Figure 16 Piping Diagram (MIHS)

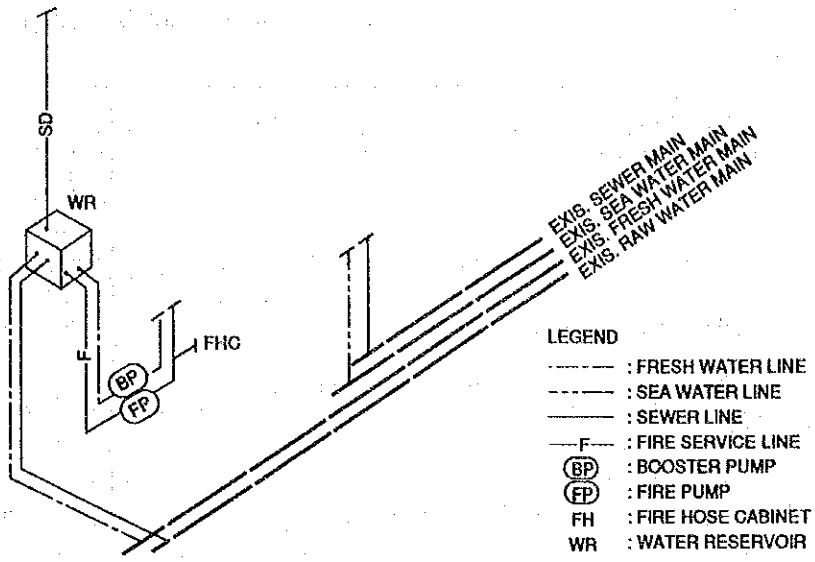


Figure 17 Piping Diagram (ECC)

(ii) Sea Water Supply and Sewer Equipment

Sea water will be used for flushing toilets by connecting them to public sea water lines. As toilets are located on the first floor, the pressure is strong enough to supply water. A joint sewer system to treat sewage and drainage will be installed, connecting with public main sewerage pipes.

(iii) Fire Fighting Equipment

Fire extinguishers will be installed in the locations required in the newly constructed buildings of MIHS. In the Educational and Cultural Center a fire hydrant will be installed to operate a system in which water is sent from the water tank with a fire pump. Besides, fire extinguishers will be installed in the locations required.

(5) Construction Material Plan

Among the construction materials available in the field only concrete aggregate and concrete block are produced in the RMI. Most of the construction materials are imported from the US, Australia and Japan. In the Project the products available in the domestic market will be procured first, and instead of those materials with limited stock and lower quality will be imported from Japan. The specifications for the finishing and fitting materials of the buildings are described in the following table.

Table 38 Specifications for Finishing & Fitting Materials

Part of Bldg.	Specifications for Finishing & Fitting Materials	Remarks
1. Exterior		
(i) Roof	-Reinforced Concrete with Water-proof Agent	Conventional Method
	-Wooden Assembly Truss with Corrugated Metal Roofing	Protected from salt
	(Sports Shell, Educational and Cultural Center)	damage and leaks
(ii) Outer Walls	Concrete Block with Paint Finish	Conventional Method
(iii)Windows/	-Aluminum Sliding Window	Conventional Method
Doors	-Wooden Doors	Conventional Method
2. Interior		
(i) Floor	-PVC Tiling	Conventional Method
	-Mortar with Steel Trowel Finish	Conventional Method
	-Synthetic Resin Painted Floor	Absorbing Shocks.
(ii) Wall	-Concrete Block with Mortar with Paint Finish	Conventional Method
(iii) Ceiling	-Mortar with Paint Finish	Conventional Method
	-Suspended Plaster Board Ceiling	Conventional Method

4.3.3. Equipment Plan

The equipment upgraded in the Project is to be used for the practice of the following vocational training courses and maintenance: Wood Working, Construction, Auto-Mechanics, Drafting, Cooking, Sewing, Computer, Secretarial Type, Agriculture and Workshop. The equipment list is shown in the table in the following pages.

Table 39 Equipment List (1/7)

Number	Name of Equipment	Quantity	Specification
	Wood Working		
A-1	Belt Sander	1	For wood surface processing
A-2	Disc Sander	1	For wood surface processing.
A-3	Band Saw	1	For wood cutting.
A-4	Scroll Saw	1	For cutting & processing of carved plates.
A-5	Wood Shaper	1	
A-6	Industrial Grinder	1	For sharpening materials.
A-7	Disc Grinder	1	For sharpening materials.
A-8	Planner Blade Sharpener	1	For sharpenin planner blades
A-9	Wood Turning Lathe	1	For wood lathe processing.
A-10	Drill Bits Sharpener	1	for sharpening drill bits.
A-11	Plastic Strip Heater	1	For heating materials
A-12	Router	3	For processing carved plates.
A-13	Portable Belt Sander	3	For wood surface processing.
A-14	Finishing Sander	3	For wood surface finishing.
A-15	Electrical Skill Saw	3	For wood cutting.
A-16	Electrical Drill	3	For wood drilling.
A-17	Electrical Polisher	3	For surface polishing.
A-18	Wet Stone Machine	1	For sharpening knives.
A-19	Laminate Trimmer	1	
A-20	Air Compresor	1	
A-21	Auger Bit Stone	1	For sharpening auger bits.
A-22	Wood Chisel Set	6	
A-23	Nail Set	6	
A-24	Cross Cut Swa	12	
A-25	Rip Saw	12	
A-26	Hack Saw	12	For curved cutting.
A-27	Plier	12	For level checking.
A-28	Level	6	
A-29	Jack Plane	12	
A-30	Smoothing Plane	6	
A-31	Brace	6	For drilling lumber.
A-32	File Set	6	
A-33	Screw Driver Set	12	
A-34	Phillip Set	12	
A-35	Try Square	6	
A-36	Combination Square	6	
A-37	Frame Clamp	24	For fixing lumber.
A-38	Mallet Hammer	12	
A-39	Nail Claw Hammer	12	Hammer with pincers.
A-40	Safety Goggle	30	
A-41	Carpenter Vice	12	For fixing materials.
A-42	Tool Cabinet	2	For storing tools.
A-43	Work Bench	4	

Table 39 Equipment List (2/7)

Number	Name of Equipment	Quantity	Specification
	Construction		
B-1	Wood Chisel Set	4	
B-2	Brace	4	For drilling lumber.
B-3	Nail Set	4	
B-4	Cross Cut Saw	8	
B-5	Rip Saw	8	
B-6	Hack Saw	8	For curved cutting.
B-7	Mallet Hammer	8	
B-8	Safety Goggles	24	
B-9	Screw Driver Set	8	
B-10	Phillip Set	8	
B-11	Plier	8	
B-12	Level	8	For level checking.
B-13	Frame Clamp	16	For fixing materials.
B-14	Tog Lock Plier	4	For fixing materials.
B-15	Pointing Trowel	16	For painting mortar.
B-16	Regular Trowel	16	For painting mortar.
B-17	Edger	8	For painting mortar.
B-18	File Set	8	
B-19	Electric drill w/Concrete Bits	2	For drilling lumber.
B-20	Tape Measure	4	For measuring.
B-21	Wooden Scale Set	4	For measuring.
B-22	Claw Hammer	8	Hammer with pricers.
B-23	Tool Box	4	For storing tools.
B-24	Tool Cabinet	1	For storing tools.
	Auto-Mechanics		
C-1	Air Compressor	1	
C-2	Bench Grinder	1	For sharpening materials.
C-3	Truck Jack Stand	4	For lifting vehicles.
C-4	Air Powered Parts Washer	1	For parts oil washing.
C-5	Steam Jet Cleaner	1	For washing vehicle engine.
C-6	Coil Spring Compressor	1	For spring comression.
C-7	Shop Press	1	For pressing materials.
C-8	Reversible Electric Drill	1	For drilling materials.
C-9	Disc Grinder	1	For polishing materials.
C-10	Finishing Sander	1	For finishing polish.
C-11	Soldering Gun Kit	4	For wiring.
C-12	Tire Hammer	4	For tire removing.
C-13	Tire Bead Breaking Hammer	4	For tire removing.
C-14	Curved Tire Spoon	4	For tire removing.
C-15	Straight Tire Spoon	4	For tire removing.
C-16	Tubeless Tire Spoon	4	For tire removing.
C-17	Lock Ring Remover Iron	4	Pliers for ring.

Table 39 Equipment List (3/7)

Number	Name of Equipment	Quantity	Specification
C-18	Battery Tool Service Kit	2	For checking battery liquid.
C-19	Inductive Timing Light	2	For adjusting engine rotation.
C-20	Compression Tester	2	For measuring pressure.
C-21	Respirator	12	
C-22	Spray Gun Set	2	For painting.
C-23	Chain Hoist w/Trolley	2	For transporting heavy materials.
C-24	Tool Cabinet	2	For storing tools.
	Drafting		
D-1	Drafting Board	24	
D-2	T-Square	24	
D-3	Pencil Pointer	24	For sharpening pencils.
D-4	Rolled Drafting Tape	24	For fixing Drafting paper.
D-5	Bottled Black Ink	24	
D-6	Plastic Architect's Scale	24	
D-7	Bow Compass	24	Small compass.
D-8	Metal Erasing Shield	24	For erasing parts of letters.
D-9	Irregular Curve Scale	24	Scale for curves.
D-10	Protractor	24	For measuring angles.
D-11	Triangle Scale, 30 x 60	24	
D-12	Triangle Scale, 45	24	
D-13	Eraser	24	
D-14	Lettering set	24	For lettering.
D-15	Lead Holder w/Lead	24	Sharp pencils for drafting.
D-16	Combination Drawing Set	24	
D-17	Drawing Supply Cabinet	2	
D-18	Drafting Machine Set (Architecture)	1	Parallel slide.
D-19	Drafting Machine Set (Mechanical)	1	Track slide.
D-20	Blue Printing Machine	1	
D-21	Drafting Table	24	
D-22	Drafting Stool	24	
	Sewing		
E-1	Electric Sewing Machine	13	For sewing cloth.
E-2	Manual Sewing Machine	13	For sewing cloth.
E-3	Iron & Ironing Board	6	For ironing.
E-4	Mirror	6	Full-length mirror.
E-5	Cutting Board	7	For cutting cloth.
E-6	Sleeve Board	6	For finishing sleeve.
E-7	Tailor's Ham	6	For chalking pattern on cloth.
E-8	Press Cloth	6	For finish press.
E-9	Press Mitt	6	Gloves for finish press.
E-10	Seam Roll	6	For marking sewing lines.
E-11	Point Pressor	6	For marking location.
E-12	Pounding Black clapper	6	For finish ironing.

Table 39 Equipment List (4/7)

Number	Name of Equipment	Quantity	Specification
E-13	Electric Shear	6	For cutting cloth.
E-14	Text Books	24	Instruction materials for design & pattern.
E-15	Book shelf	1	
E-16	Pinking Shear	24	For cutting cloth.
E-17	Shear	24	For cutting cloth.
E-18	Tape Measure	24	For measuring.
E-19	Loop Turner	24	For passing elastic strings.
E-20	Hem Gauge	24	Gauge for invisible sewing.
E-21	Yard Stick	24	For measuring.
E-22	French Curve	24	For marking curves.
E-23	Curve Ruler	24	For marking curves.
E-24	Scissors set	24	For cutting cloth.
E-25	Scissors Sharpener	6	For sharpening scissors.
E-26	Working Table	6	
E-27	Student's Chair	24	
E-28	Teacher's Table	1	
E-29	Teacher's Chair	1	
	Cooking		
F-1	Kerosene Stove	6	For heating.
F-2	Rice Cooker	6	For cooking rice.
F-3	Frying pan Set	6	For cooking.
F-4	Sauce Pan Set	6	For cooking.
F-5	Brazier	6	For warming.
F-6	Stock Pot Set	6	For stocking soup.
F-7	Double Botler	6	For steam cooking.
F-8	Cake Pan Set	6	For cooking.
F-9	Roost Pan	6	Roast bread.
F-10	Griddle Plate	6	Plate for cooking.
F-11	Thermometer Set	6	For measuring temperature.
F-12	Bowl Strainer	6	For draining.
F-13	Food Drainer	6	For preparing materials.
F-14	Mixing Bowl Set	6	For cooking.
F-15	Double Roast Pan	6	Roast bread.
F-16	Salad Tong	6	For making salad.
F-17	Cake Server	6	For cutting cakes.
F-18	Cooking Turner	6	For cooking.
F-19	Kitchen Shear	6	For cutting materials.
F-20	Dripper	6	For straining.
F-21	Potatos Masher	6	For mashing potato.
F-22	Mixing Paddle	6	For mixing.
F-23	Scrapper Set	6	For peeling vegetables.
F-24	Flour Shifter	6	For shifting flour.
F-25	Serving Spoon Set	6	For serving.
F-26	Skimmer	6	For serving.

Table 39 Equipment List (5/7)

Number	Name of Equipment	Quantity	Specification
F-27	Soup Ladle	6	For serving soup.
F-28	Measuring Spoon Set	6	For measuring seasonings.
F-29	Measuring Cup Set	6	For measuring seasonings.
F-30	Glass Measure Cup	6	For measuring seasonings.
F-31	Egg Beater	6	For mixing eggs.
F-32	Meat Tenderizer	6	For tenderizing meat.
F-33	Can Opener	6	
F-34	Bottle Opener	6	
F-35	Weighing Scale	6	For measuring weight.
F-36	Kitchen Timer	6	For measuring cooking time.
F-37	Cutting Board	6	
F-38	Bread Board	6	
F-39	Knives Set	6	
F-40	Knife Sharpener	6	
F-41	Utility Cart	6	For serving and other purposes.
F-42	Toaster	6	
F-43	Kitchern Mixer	6	For smashing.
F-44	Tableware Set	24	For serving practice.
F-45	Electric Hand Mixer	6	For mixing.
F-46	Ice Maker	1	For making ice cube.
F-47	Microwave Oven	2	For cooking.
F-48	Refrigerator	3	
F-49	Table for Food Service	6	For serving practice.
F-50	Chair for Food Service	24	
F-51	Chair	24	
F-52	Teacher'sTable	1	
F-53	Teacher's Chair	1	
	Computer		
G-1	Computer	24	With software.
G-2	Printer	8	Bubble-Jet Type.
G-3	Computer Table	8	For 3 persons.
G-4	Bench Chair	8	Bench type for 3 persons.
G-5	UPS	8	For power breakdown.
G-6	Teacher's Table	1	
G-7	Teacher's Chair	1	
	Secretarial Type		
H-1	Electric Typewriter	30	
H-2	Typing Table	15	For 2 persons.
H-3	Chair	30	
H-4	Teacher's Table	1	
H-5	Teacher's Chair	1	

Table 39 Equipment List (6/7)

Number	Name of Equipment	Quantity	Specification
	Agriculture		
I-1	Chain Saw	1	For cutting lumber.
I-2	Grass Mower	2	
I-3	Power Mist Blower	1	For spraying antiseptic, pesticide,etc.
I-4	Power Tiller w/ Attachment	1	For tilling soil.
I-5	Burner Sprayer	3	For burning weed.
I-6	Axes	3	
I-7	Crowbar	6	
I-8	Crafting Budding Knife	6	
I-9	Garden Hoe	12	For gardening.
I-10	Machete	6	
I-11	Manure Fork	6	For lifting manure.
I-12	Spading Fork	12	For gardening.
I-13	Pick Axe	6	For digging holes.
I-14	Pruning Saw	6	For pruning.
I-15	Pruning Scissors	6	For pruning.
I-16	Rakes Metal	6	
I-17	Shovel w/ Round Nose	12	For gardening.
I-18	Shovel w/ Flat Nose	12	For gardening.
I-19	Compost Scooper	3	For gardening.
I-20	Spade	6	Forgardening.
I-21	Sickle	12	
I-22	Trowel	12	Small shovel for transplanting.
I-23	Sharpener (File & Stone)	6	
I-24	Hose	3	For watering.
I-25	Measuring Container	12	For measuring crops & manure.
I-26	Tape Mesure Set	3	For measuring land.
I-27	Scale Set	3	For measuring size.
I-28	Soil Testing Kit	3	For testing soil.
I-29	Sighting Level & Transit	2	For measuring land.
I-30	Hand Sprayer	6	For spraying antiseptic, pesticide,etc.
I-31	Thermostat (for Soil Sterilization)	6	For sterilizing soil and adjusting temperature.
I-32	Watering Can	12	For watering.
I-33	Wheelbarrow	6	For carrying soil and manure.
	Maintenance		
J-1	Bench Lathe	1	For processing metal.
J-2	Drill Press	1	For drilling metal.
J-3	Metal Abrasive Saw	1	For cutting metal.
J-4	Bench Grinder	1	For polishing metal.
J-5	Power Hack Saw	1	For cutting metal.
J-6	Arc Welder	1	For welding metal.
J-7	Sheet Metal Shear	1	For cutting metal plate.
J-8	Air Compressor	1	

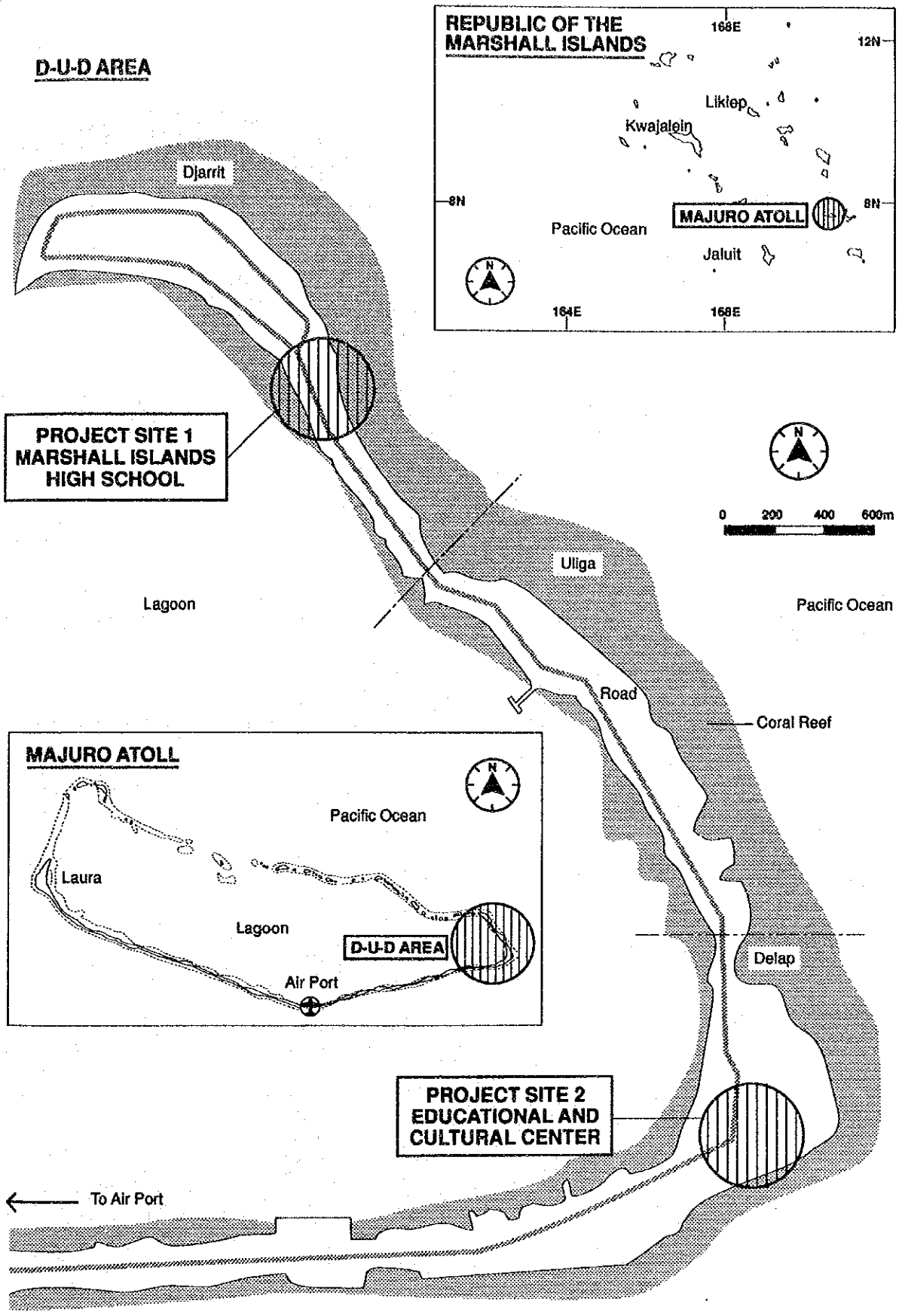
Table 39 Equipment List (7/7)

Number	Name of Equipment	Quantity	Specification
J-9	Portable Electric Drill	2	For drilling metal.
J-10	Portable Electric Sander	1	For polishing metal.
J-11	Bench Vice	4	For fixing materials.
J-12	Cast Steel Anvil	2	For beating metal.
J-13	Chisel Set	2	For cutting metal plate.
J-14	Center Punch Set	2	
J-15	Tap & Die Set	2	For threading.
J-16	Vernier Caliper	2	For measuring.
J-17	Micrometer	2	For minute measuring.
J-18	Steel Rule Set	2	For measuring.
J-19	Hack Saw	2	For cutting materials.
J-20	File Set	2	For finishing.
J-21	Swivel Machine Vice	2	For drilling & fixing.
J-22	Multitester	2	For measuring power.
J-23	Soldering Kit	2	For wiring.
J-24	Welding Protection Kit	2	Protection tool for welding.
J-25	Safety Goggle	6	Protection tool for welding.
J-26	Metal working Tool set w/Case	2	
J-27	Tool Cabinet	1	
J-28	Work Bench	2	

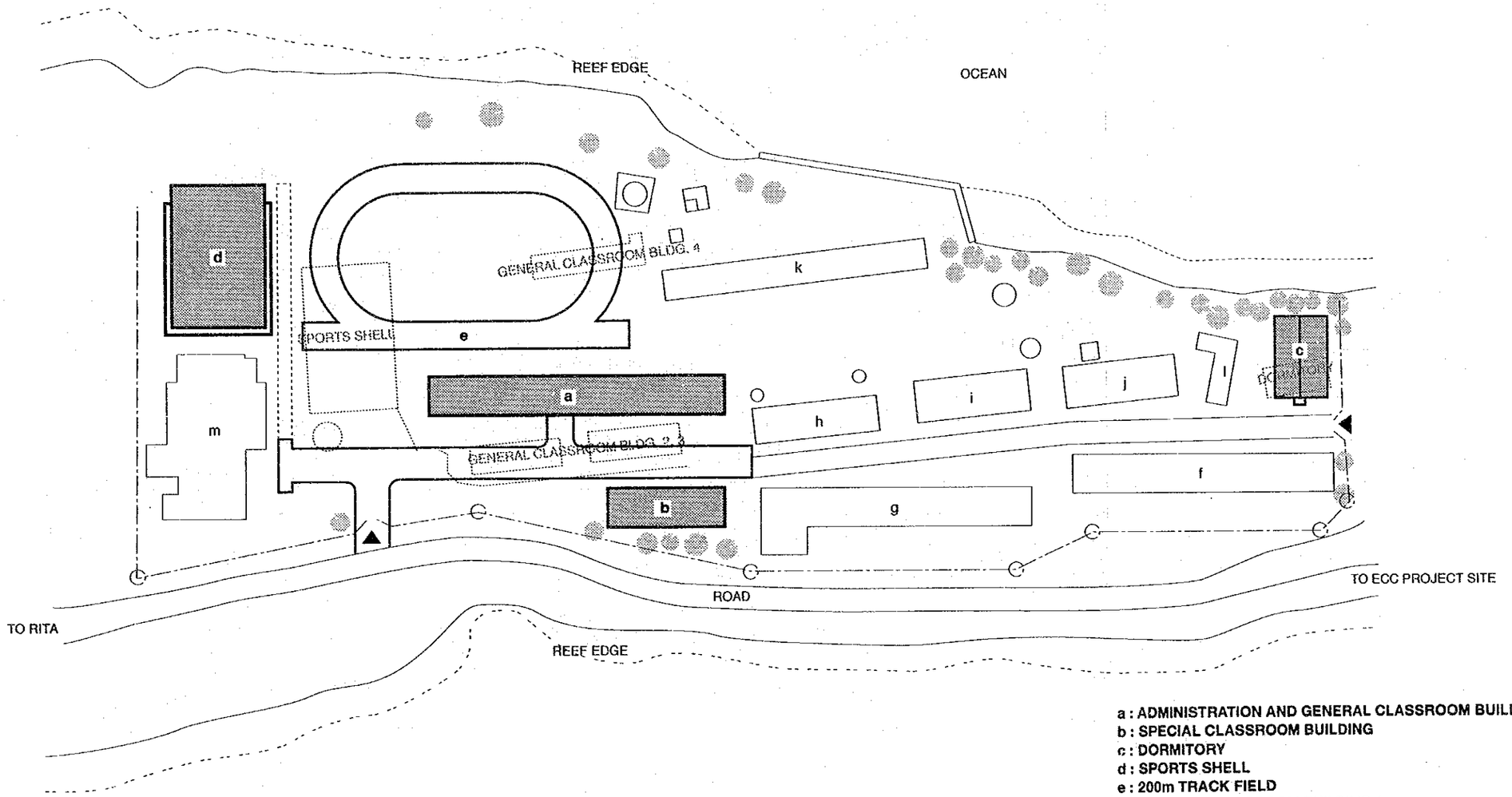
4.3.4 Basic Design Drawing

The basic design drawings of the facilities in the Project are shown in the following pages.

1 Project Site
2 Layout Plan Of Marshall Islands High School
3 General Classroom & Administration Building (Floor Plan/Elevation/Section)
4 Special Classroom Building, Dormitory (Floor Plan/Elevation/Section)
5 Sports Shell (Floor Plan/Elevation/Section)
6 Existing Vocational Training Building (Equipment Layout Plan)
7 Layout Plan Of Educational And Cultural Center
8 Educational and Cultural Center (Floor Plan)
9 Educational and Cultural Center (Elevation/Section)



PROJECT SITE	1
REPUBLIC OF THE MARSHALL ISLANDS MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT	



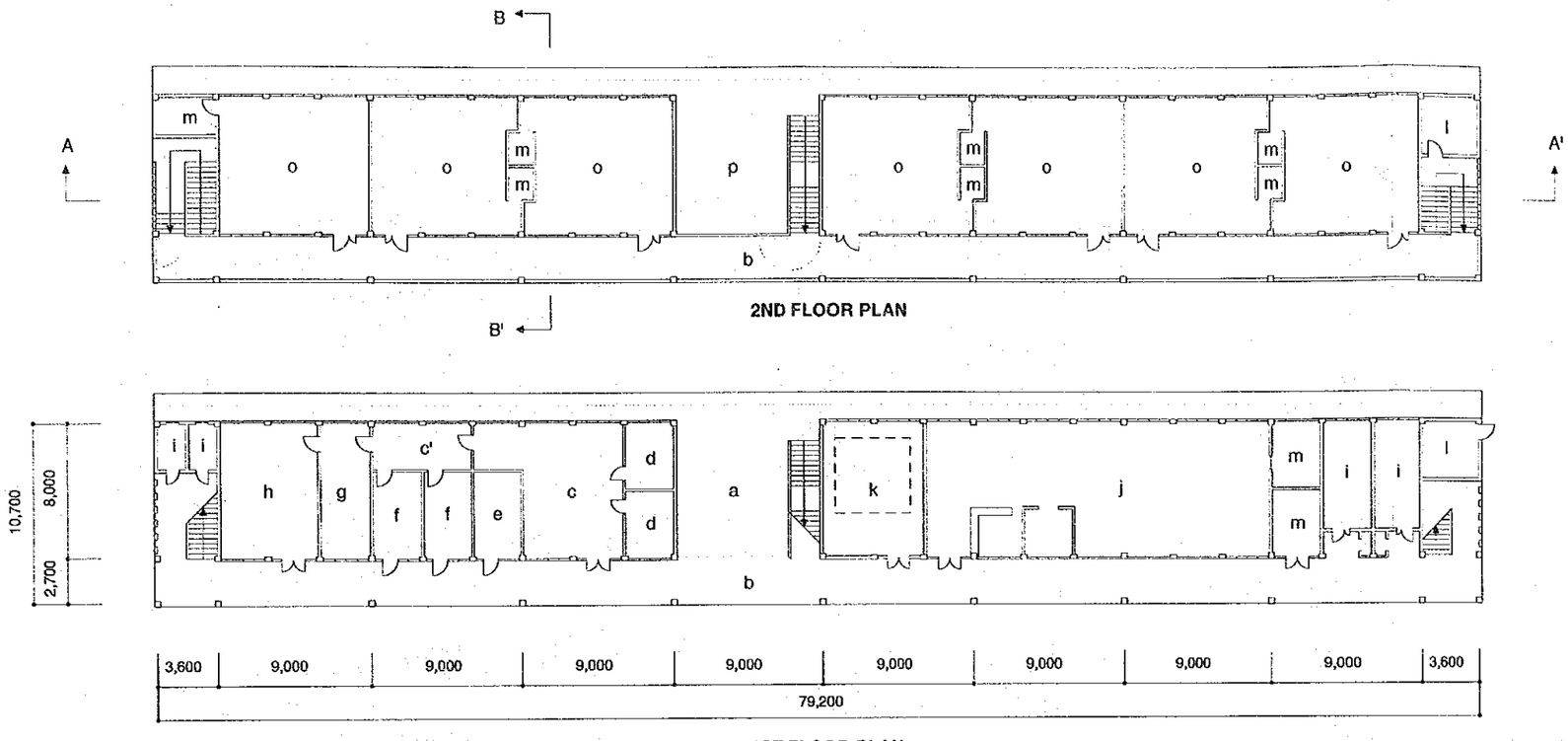
a : ADMINISTRATION AND GENERAL CLASSROOM BUILDING
b : SPECIAL CLASSROOM BUILDING
c : DORMITORY
d : SPORTS SHELL
e : 200m TRACK FIELD
f : GENERAL CLASSROOM BUILDING 1
g : VOCATIONAL TRAINING BUILDING 1
h : VOCATIONAL TRAINING BUILDING 2
i : COMPUTER MEDIA CENTER
j : ADMINISTRATION BUILDING
k : SCIENCE BUILDING
l : PRINTING BUILDING
m : CANTEEN

LAYOUT PLAN OF MARSHALL ISLANDS HIGH SCHOOL

0 10 25 50 100m

REPUBLIC OF THE MARSHALL ISLANDS
MARSHALL ISLANDS HIGH SCHOOL
UP-GRADING/DEVELOPMENT PROJECT

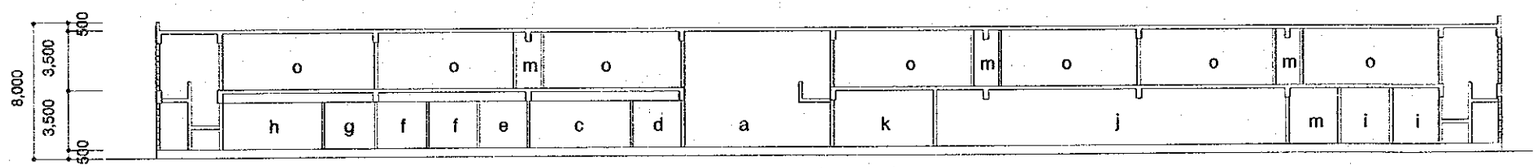
2



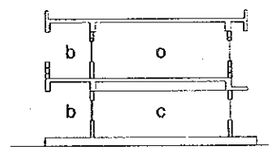
2ND FLOOR PLAN

1ST FLOOR PLAN

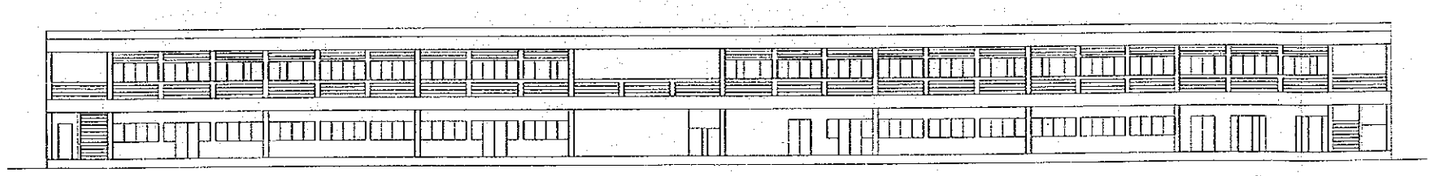
a : ENTRANCE HALL
b : CORRIDOR
c : OFFICE
c': TEACHER WORK ROOM
d : COUNSELOR ROOM
e : FIRST AID ROOM
f : DEPUTY PRINCIPAL'S ROOM
g : PRINCIPAL'S ROOM
h : CONFERENCE ROOM
i : TOILET
j : LIBRARY
k : WATER RESERVOIR
l : MACHINE ROOM
m : STORAGE
o : GENERAL CLASS ROOM 1-7
p : VOID



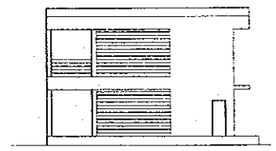
A-A' SECTION



B-B' SECTION



WEST ELEVATION



SOUTH ELEVATION

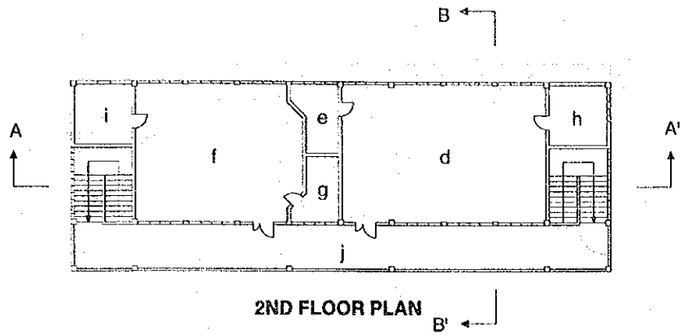
GENERAL CLASS ROOM & ADMINISTRATION BUILDING

3

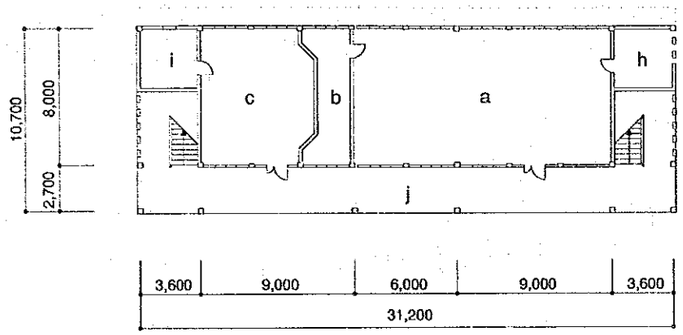
0 2 5 10 20m

PLAN ELEVATION SECTION

REPUBLIC OF THE MARSHALL ISLANDS
MARSHALL ISLANDS HIGH SCHOOL
UP-GRADING/DEVELOPMENT PROJECT



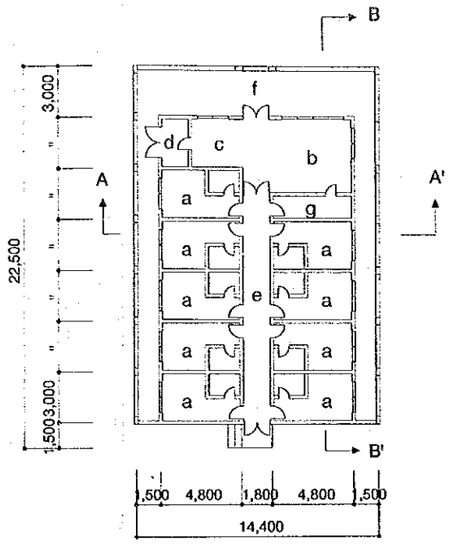
2ND FLOOR PLAN



1ST FLOOR PLAN

SPECIAL CLASS ROOM BUILDING

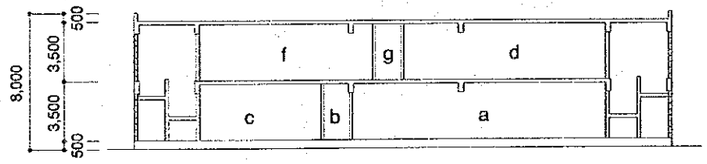
a : COOKING PRACTICE ROOM
b : COOKING PREPARATION ROOM
c : SECRETARIAL TYPE PRACTICE ROOM
d : SEWING PRACTICE ROOM
e : SEWING PREPARATION ROOM
f : COMPUTER PRACTICE ROOM
g : COMPUTER PREPARATION ROOM
h : MACHINE ROOM
i : STORAGE
j : CORRIDOR



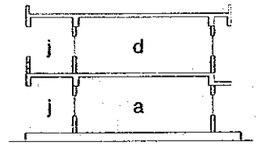
FLOOR PLAN

DORMITORY

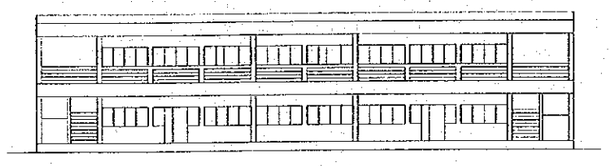
a : BEDROOM
b : DINNING ROOM
c : KITCHEN
d : LAUNDRY
e : CORRIDOR
f : TERRACE
g : MACHINE ROOM



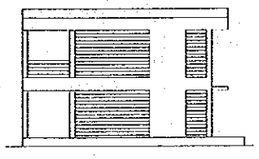
A-A' SECTION



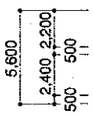
B-B' SECTION

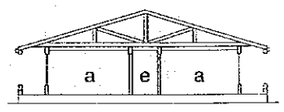


WEST ELEVATION

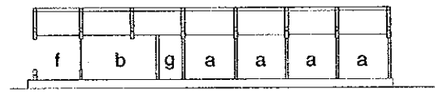


SOUTH ELEVATION

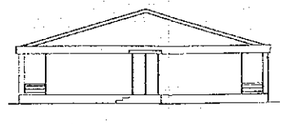




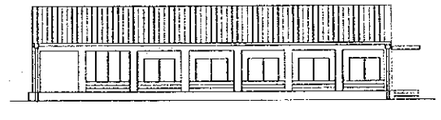
A-A' SECTION



B-B' SECTION



WEST ELEVATION



NORTH ELEVATION

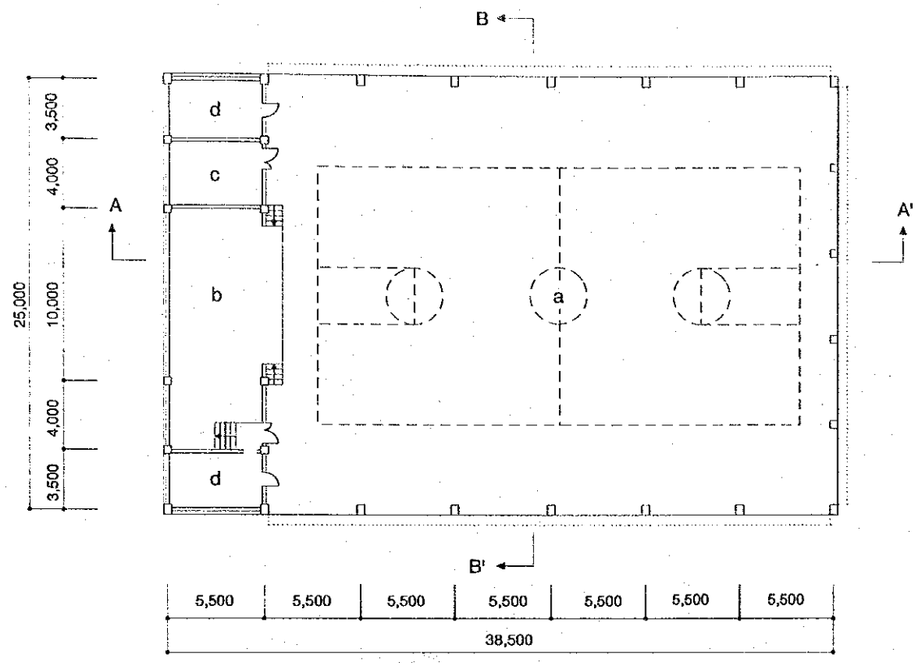
SPECIAL CLASS ROOM BUILDING, DORMITORY

0 2 5 10 20m

PLAN ELEVATION SECTION

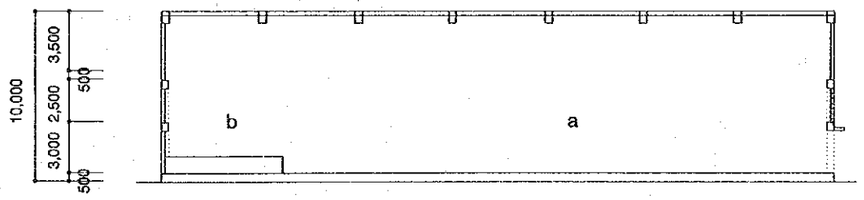
REPUBLIC OF THE MARSHALL ISLANDS
MARSHALL ISLANDS HIGH SCHOOL
UP-GRADING/DEVELOPMENT PROJECT

4

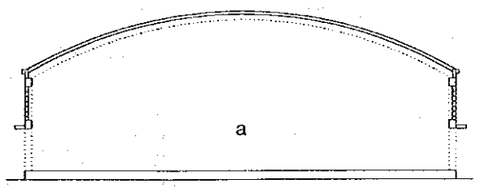


FLOOR PLAN

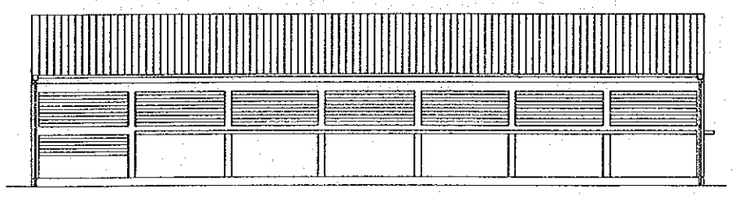
a : ARENA
b : STAGE
c : STORAGE
d: LOCKER ROOM



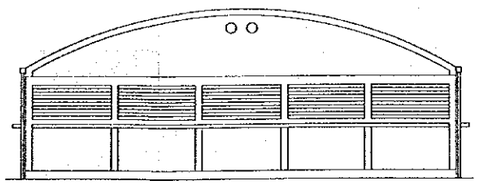
A-A' SECTION



B-B' SECTION

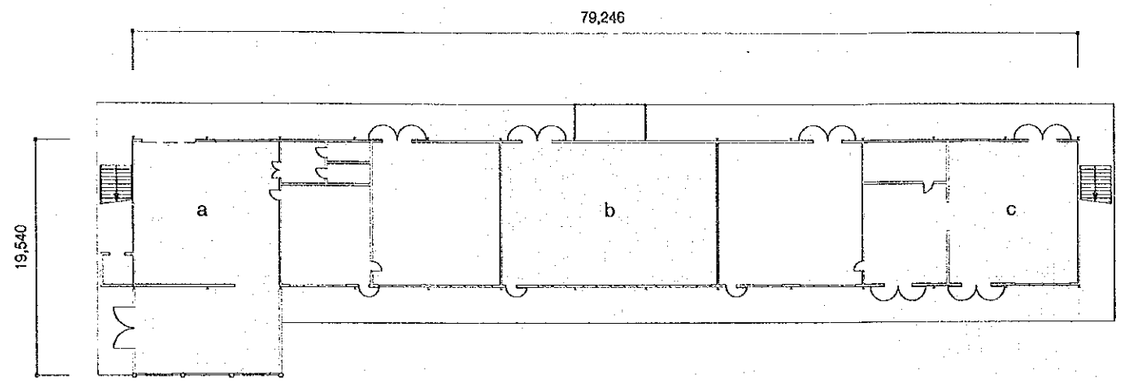


NORTH ELEVATION



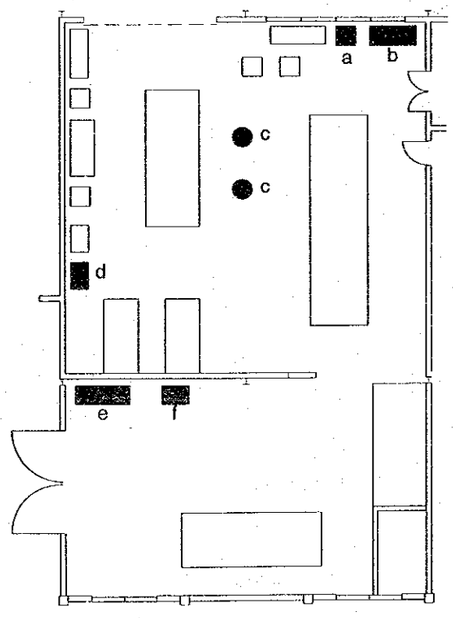
WEST ELEVATION

SPORTS SHELL			5
0 2 5 10 20m	PLAN ELEVATION SECTION	REPUBLIC OF THE MARSHALL ISLANDS MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT	



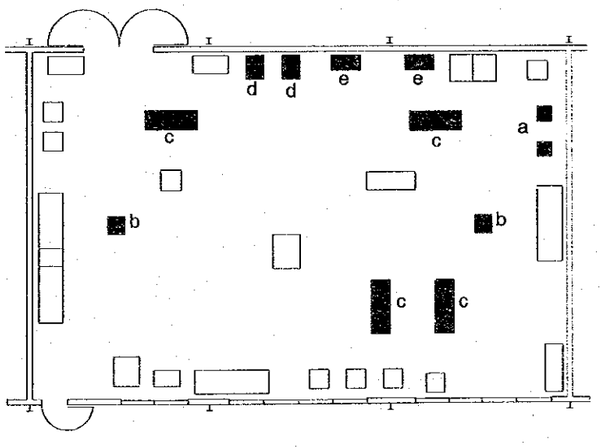
a : AUTO MECHANICS ROOM
b : WOOD WORKING ROOM
c : STORAGE

PLAN S : 1/500



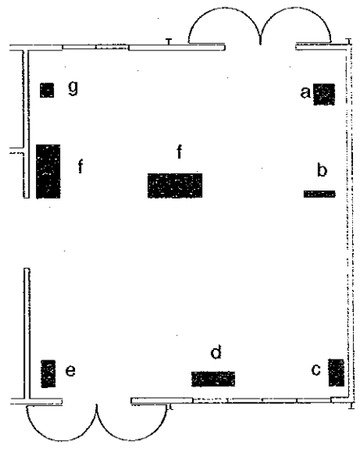
a : TOOL CABINET
b : AIR COMPRESSOR
c : CHAIN HOIST W/TROLLEY
d : SHOP PRESS 20 TON
e : AIR POWERED PARTS WASHER
f : STEAM JET CLEANER
etc.

AUTO MECHANICS ROOM



a : WOOD SHAPER
b : BAND SAW
c : WORK TABLE
d : DISK SANDER
e : BELT SANDER
etc.

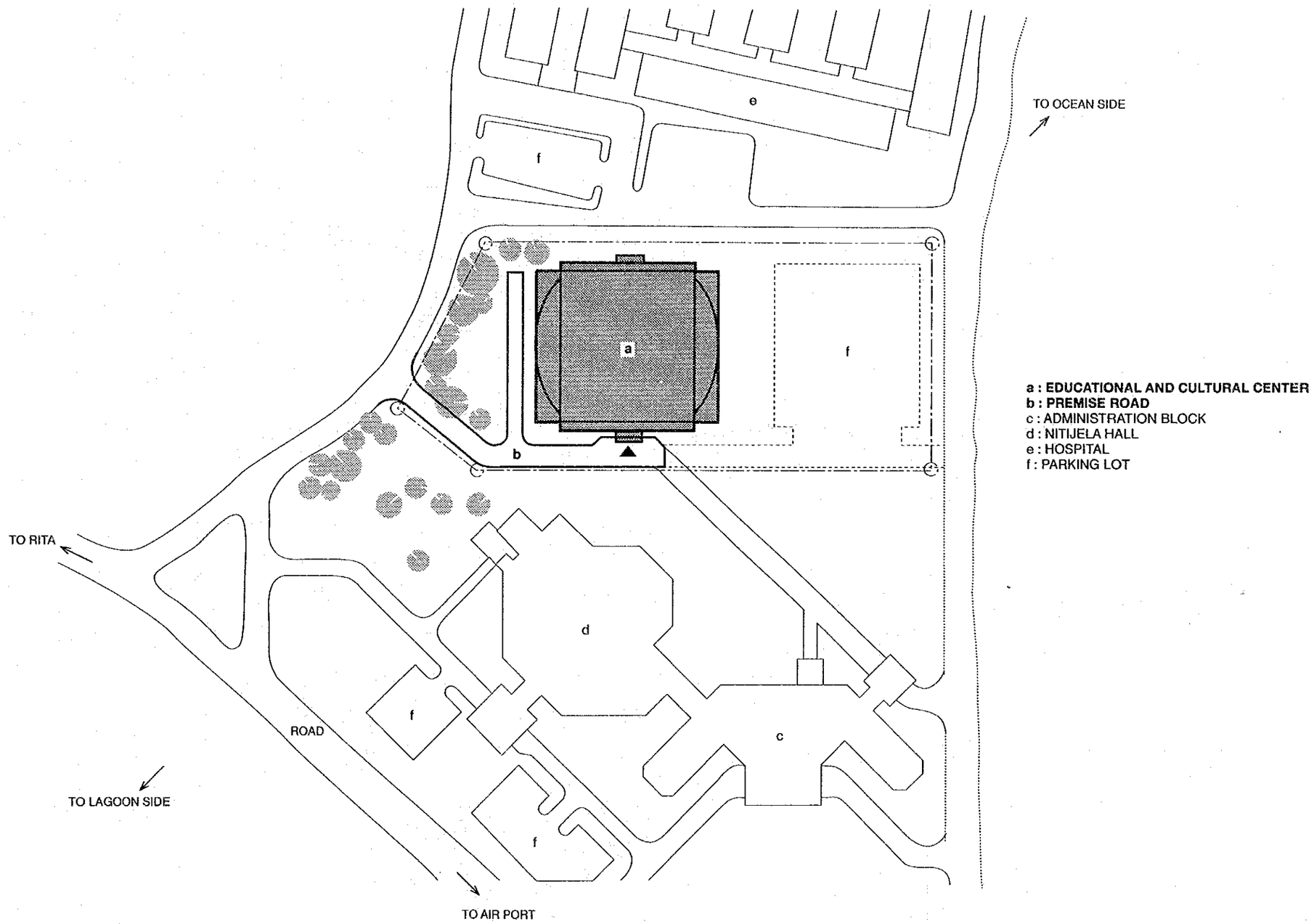
WOOD WORKING ROOM



a : BENCH GRINDER
b : POWER HACK SAW
c : TOOL CABINET
d : BENCH LATHE
e : AIR COMPRESSOR
f : DRILL PRESS
g : ARC WELDER
etc.

STORAGE

EXISTING VOCATIONAL TRAINING BUILDING			6
0 2 5 10m	EQUIPMENT LAYOUT PLAN	REPUBLIC OF THE MARSHALL ISLANDS MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT	



a : EDUCATIONAL AND CULTURAL CENTER
b : PREMISE ROAD
c : ADMINISTRATION BLOCK
d : NITIJELA HALL
e : HOSPITAL
f : PARKING LOT

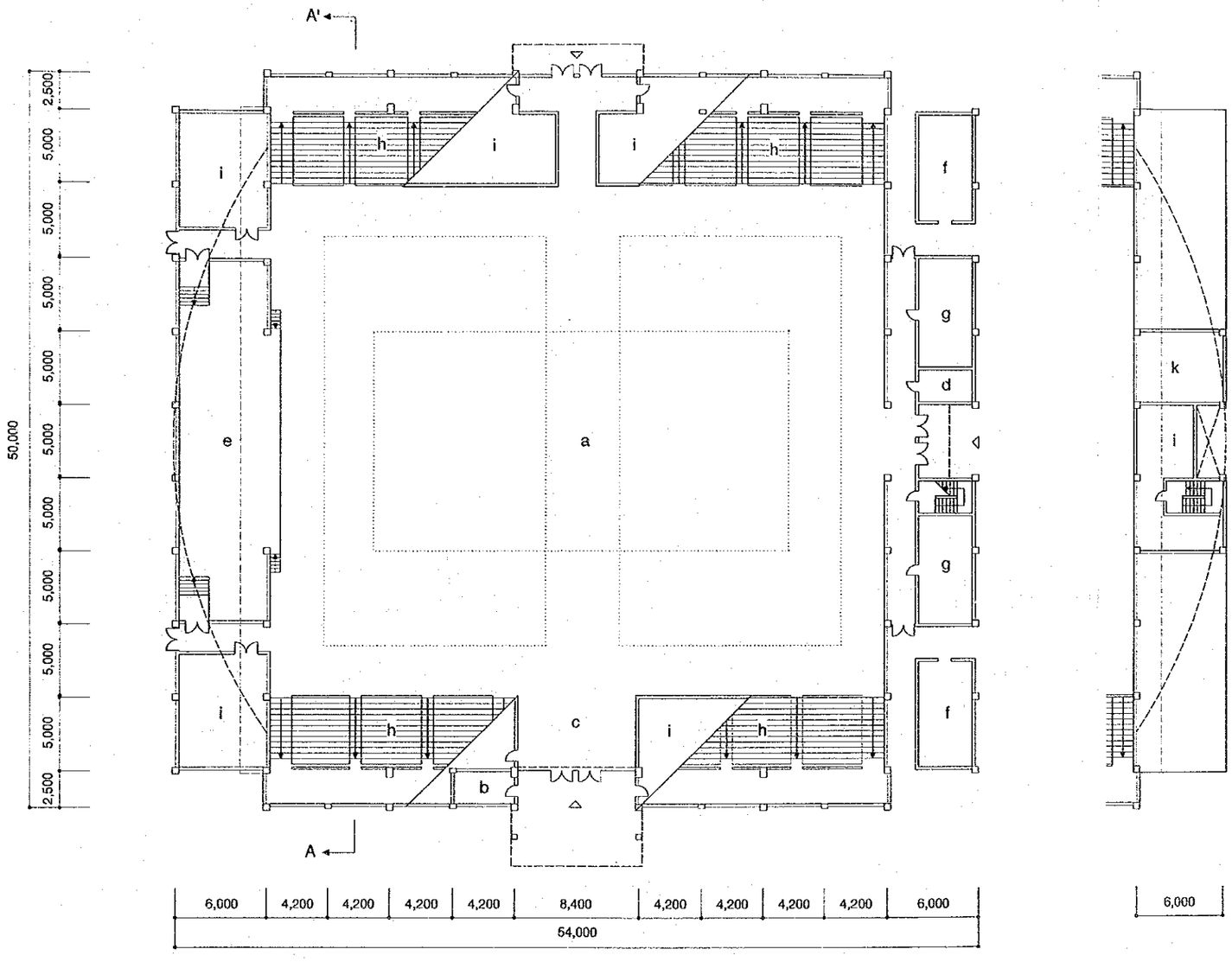
N

LAYOUT PLAN OF EDUCATIONAL AND CULTURAL CENTER

0 10 25 50 100m

REPUBLIC OF THE MARSHALL ISLANDS
MARSHALL ISLANDS HIGH SCHOOL
UP-GRADING/DEVELOPMENT PROJECT

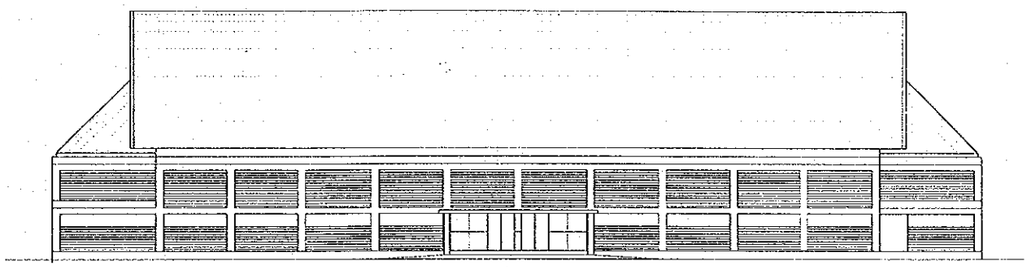
7



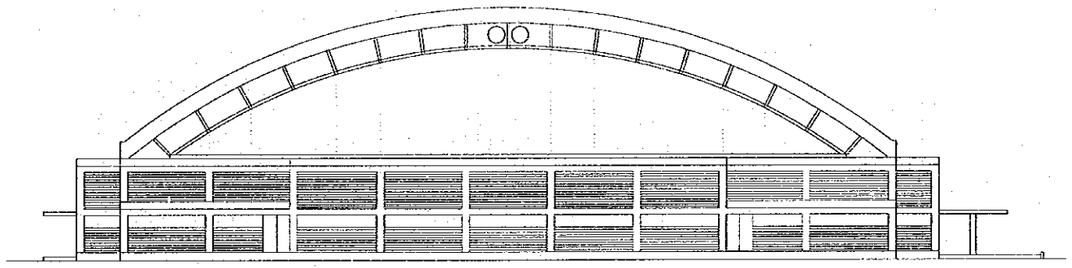
FLOOR PLAN

a : ARENA
b : OFFICE ROOM
c : ENTRANCE HALL
d : MACHINE ROOM
e : STAGE
f : TOILET
g : LOCKER ROOM
h : INDOOR BLEACHERS
i : STORAGE
k : WATER RESERVOIR

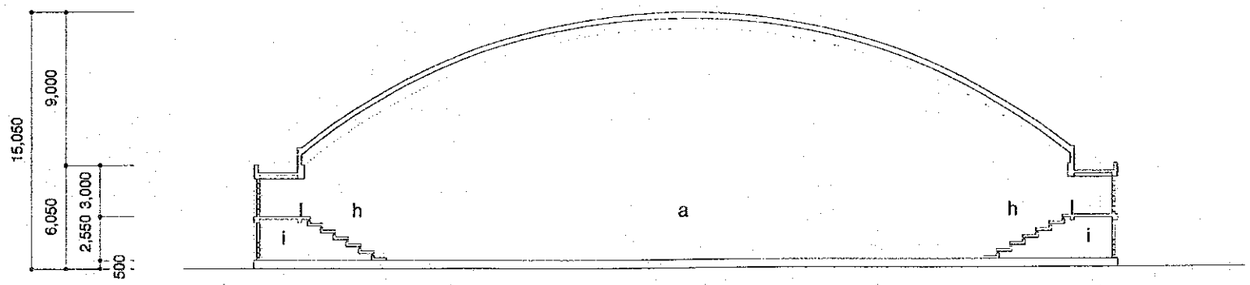
EDUCATIONAL AND CULTURAL CENTER		8
0 2 5 10 20m	PLAN	REPUBLIC OF THE MARSHALL ISLANDS MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT



WEST ELEVATION



NORTH ELEVATION



A-A' SECTION

a : ARENA
h : INDOOR BLEACHERS
i : STORAGE

EDUCATIONAL AND CULTURAL CENTER			9
0 2 5 10 20m	ELEVATION SECTION	REPUBLIC OF THE MARSHALL ISLANDS MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT	

4.4 Implementation Plan

4.4.1 Implementing Organization

The executing agency of the Project is the Ministry of Education. After the Exchange of Notes is concluded between the government of Japan and the government of the RMI, the consultant in Japan will promptly enter into contract of the detailed design and supervision with the government of the RMI. Then, a Japanese construction company will enter into contract with the government of the RMI to conduct the work and procure the equipment under the supervision of the consultant. After the work is completed, MIHS will be responsible for the operation and maintenance of the Project facilities and equipment.

4.4.2 Construction Work Policy

Considering that the Project will be implemented under the Japanese grant aid program, it is to be implemented based on the following policies.

(1) Good communication should be maintained so that the opinions may be exchanged openly and freely between the Ministry of Education, the consultant and the construction company in order to facilitate the execution of the work.

(2) As skilled workers are in shortage in the field, the construction work plan is to include as much as possible methods used in the field, and flexible supervision should be conducted to meet the conditions in the field.

(3) The following points should be taken into consideration in carrying out the construction work.

- As the Project site is located by the sea, construction materials which are not easily damaged by salt breezes should be selected, and measures should be taken to protect construction materials and equipment against salt breezes during the construction.
- As the aggregate available in the field is coral sand and rock, salts in the aggregate should be washed away thoroughly to avoid corrosion of reinforcement bars. As the coral aggregate does not have high strength in general, it should be properly mixed with concrete. Slump and compression tests should be performed to secure design strength.

- As the temperature is constantly high, appropriate measures should be taken, such as providing expansion joints between materials which differ in the heat expansion rate in order to avoid warping through heat expansion.
- As works on the large roof requires skilled workers, it is to be conducted by foreign workers including Japanese.

4.4.3 Construction Condition and Implementation

In the RMI most of the buildings are one-story or two-story buildings, but recently five-story medium-rise buildings and those equipped with elevators have been built. These large-scale or equipment centered buildings are constructed by foreign-affiliated firms. Owing to the housing shortage and increasing income level, apartments for high income earners have been built.

Since most of the construction materials are imported and foreign workers are employed to meet the requirements for high level skills and specifications, the building cost has been increasing. It is necessary to establish a lower cost grade for the facilities in the Project.

In constructing public buildings it is required to inform CIP under the Ministry of Public Works and the Environment Protection Authority of the outline of the planned building and to obtain approval before starting the work. It is also necessary to obtain approval for moving soil from the Environment Protection Authority at the time of construction. Furthermore, the existing plants in the site will be preserved as much as possible. Thus, thorough explanation will be provided to the relevant authorities on implementation of the Project.

4.4.4 Construction Supervisory Plan

The basic policies and important points in supervision of construction of the Project are as follows.

(1) The consultant should coordinate closely with MIHS and MOF in order to conduct the work and delivery/installation smoothly. Especially in the demolition and removal of the existing buildings and installation of the infrastructure which is to be carried out by the government of the RMI, the timing of the work is so important that it is necessary to hold meetings beforehand concerning the work schedule and specifications to coordinate with the works done by Japanese side.

(2) Before starting the work, the execution plan and shop drawings submitted by the construction company will be carefully reviewed and the appropriateness of the temporary work plan, work schedule, quality of planned materials and the construction methods will be examined.

(3) In the completion and handing over the work, construction work and delivered equipment will be examined to see that they meet design specifications, and appropriate instructions will be provided in case revision is required.

(4) Architects and equipment engineers will be sent to the field for the required period to supervise the construction.

4.4.5 Procurement Plan

The materials and equipment required for the execution of the Project will be procured and transported in the following way.

The major construction materials to be procured from Japan include reinforcement bar, corrugated metal roofing material, electric appliances except fluorescent lamps, water supply and sewer instruments except sanitary ceramic materials, air-conditioning apparatus, vinylchloride eaves and water pipes. All the vocational training equipment are to be procured from Japan, and other equipment will be procured from supplies stocked in the RMI.

Table 40 Materials & Equipments Procurement List

Materials & Equipments	Japan	RMI	Transportation Method
1. Construction Materials			
(i) Reinforcement bar, Corrugated metal roofing material	O		Shipped from Japan
(ii) Others		O	
2. Equipment Materials			
(i) Fluorescent Lamps, Sanitary Pottery		O	
(ii) Others	O		Shipped from Japan
3. Vocational Training Equipment	O		Shipped from Japan

4.4.6 Implementation Schedule

The scope of work assigned to Japan and the RMI is described in the following table.

Table 41 Scope of Work of the Project

Scope of Work	Japan	RMI
1. To secure land.		O
2. To construct the parking lot.		O
3. To provide facilities for the Project site. (Electricity, Water, Sea Water, Drainage, Telephone)		O
4. Demolition and removal of the existing school buildings		O
5. To clear, level and reclaim the site when needed.		O
6. To provide furniture in general classroom and administration section.		O
7. To construct the buildings. (General Classroom & Administration Bldg., Special Classroom Bldg., Sports Shell, Dormitory, Electric Wiring for Existing Vocational Bldg., Leveling of 200m Field Track, Educational and Cultural Center)	O	
8. To procure and install equipment (Vocational Training equipment)	O	
9. To ensure customs clearance		
(1) Transportation to RMI and Internal Transportation	O	
(2) Tax Exemption & Customs Clearance		O
10. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the B/A		O
11. To accord Japanese nationals in connection with the Project such facilities as may be necessary for their entry into the RMI and stay therein for the performance of their work. .		O
12. To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant..		O
13. To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.		O
14. To perform all the approval application procedures required for the construction work.		O
15. To exempt Japanese nationals from internal taxes including value added taxes which may be imposed in the RMI with respect to the supply of the products and services under the verified contracts.		O

If the Project is executed under grant aid from the government of Japan, tender documents will be prepared after the Exchange of Notes is concluded between the two

countries. Then, the tender and contract pertaining to the construction work and equipment procurement will be conducted, and the construction work, procurement/installation of the equipment will be executed. Implementation work is divided into two phases ; Firstly, construction of facilities in MIHS; Secondly, upgrading of equipment and construction of the Educational and Cultural Center. The implementation schedule will follow the sequence below. However, the implementation schedule was prepared based on the Project site for the Educational and Cultural Center which was confirmed at the basic design study.

(1) Detailed Design Work

The detailed design is conducted and tender documents are prepared based on this basic design study report. The work period required is expected to be 2.7 months for the first phase, and 2.7 months for the second phase.

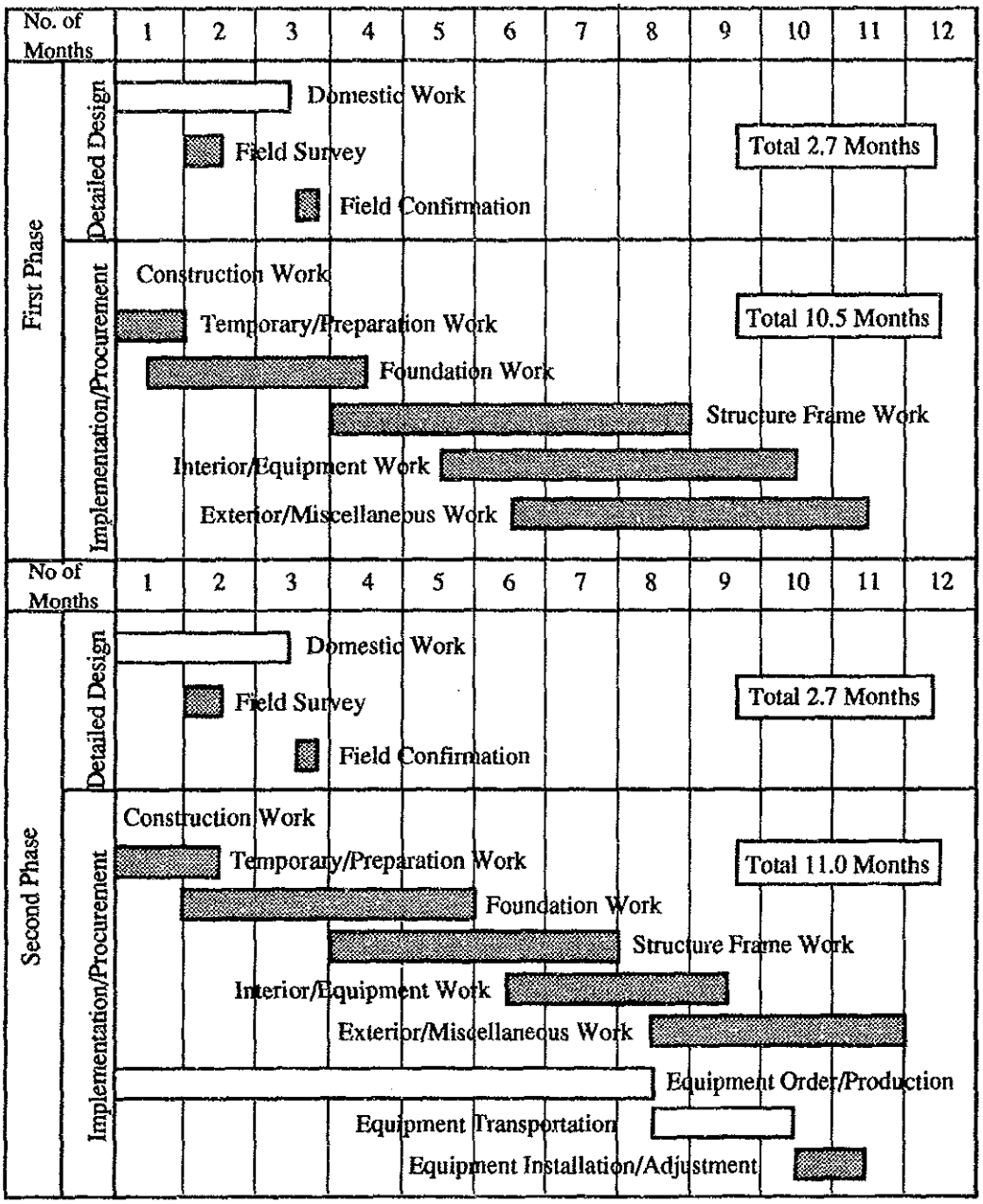
(2) Tender Work

After the completion of the detailed design, participants in the tender concerning the construction work and equipment procurement for the Project will be invited by public announcement, and the qualifications will be examined to select participants in the tender. Based on the result of the pre-qualification, the executing agency will invite the participants in the tender and conduct the tender in Japan with the presence of those who are concerned. The period required from the time of tender announcement to the contract is expected to be 1.3 months for the first phase, and 1.3 months for the second phase.

(3) Construction Work and Equipment Procurement/Installation Work

After the contract is signed, the work will start with the approval of the government of Japan. If the work assigned to the government of the RMI is conducted smoothly, the period required is expected to be 10.5 months for the first phase and 11.0 months for the second phase. The implementation schedule is illustrated as below.

Table 42 Implementation Schedule



4.4.7 Cost Allotted to the RMI

The cost allotted to the RMI is expected to be $255,000 and the breakdown is shown as follows. However, the estimation of the construction cost was conducted based on the premise that the Educational and Cultural Center will be built on the site which was confirmed at the basic design study.

1)	Demolition/Removal of the existing buildings	$121,000
2)	Parking Lot	$ 43,000
3)	Infrastructure Installation	$ 29,000
4)	General Furniture	$ 39,000
5)	Gardening	$ 23,000

It is necessary to conduct the demolition/removal work of the existing buildings before the work, and the infrastructural installation work before the power and water supply work starts by the Japan side.

CHAPTER 5 PROJECT EVALUATION AND CONCLUSION

CHAPTER 5 PROJECT EVALUATION AND CONCLUSION

5.1 Project Evaluation

The government of the RMI requested a grant aid from the government of Japan pertaining to the construction of some additional school buildings of MIHS, upgrading of vocational equipment, and the construction of the Educational and Cultural Center. The current problems in secondary and social education in the RMI, the measures to be taken and the effects /improvements in the Project are summarized as follows.

Table 43 Project Evaluation

Current Problems	Measures Taken in the Project	Effects & Improvements
(1) In the RMI about half of the population is under 15 years of age. In MIHS, the only public high school in the capital Majuro, the capacity of the current school buildings is too small to cope with the rapid increase of the enrollment population. The educational policy for public high schools to emphasize vocational training was formulated to improve the employment structure. Thus, it is necessary to upgrade the facilities and equipment for vocational education. It is also essential to construct some additional school buildings of MIHS as they are too deteriorated to provide a proper educational environment and some of them have safety problems due to the damage caused by typhoon.	-To secure general and vocational classrooms to cope with the increasing number of students. -To install a new conference room and concentrate location of administration offices for effective school operation. -To renovate sports shell with safety problems due to deterioration, and upgrade the sports ground. -To construct dormitory for the students from outer islands until they find their lodgings. -To improve the training equipment for vocational courses for which employment opportunities are increasing, and carry out electricity renovation work for the existing vocational training building.	-Expansion and improvement of the school facilities will be facilitated as shown in the educational policy of the RMI. MIHS will increase about 20 % capacity, and thus expand opportunities for secondary education. -Improvement in advancement and graduation rate is expected as a result of enhanced effective learning and training environment. -Improvement of dormitory for students from outer islands will contribute to equal opportunities for secondary education in the urban area as well as the outer islands. -It is expected that effective classes using vocational training equipment will produce human resources with skills that meet the requirement of public and private sectors.

(2) As a self-sustaining economy has just been launched in the RMI, skilled personnel are preferred in employment. Thus, youth without experience and high skills have few opportunities, and most of the unemployed youth find no hope for the future. On the other hand, interest in sports is very high, but the environment to foster sound youth has not been formed due to shortage of sports and recreation facilities. Furthermore, as the community people have few opportunities to participate in education, interest in school and social education is low. Thus, it is essential to promote social education mainly for the youth.	- To construct Educational and Cultural Center. - An arena will be installed in the Center which is large enough to conduct tournament matches in basketball, and other popular sports in the country. - In the Center a stage will be installed for lectures to provide non-formal education to unenrolled youth as a place for social education, and teacher in-service training programs conducted by the Ministry of Education.	- Shortage of sports facilities will be improved by securing areas for indoor sports, and thereby enhance sports activities. - Special classes will be provided in MIHS including traditional craft class by the community group. Thus, the exchange between community people through school education will be facilitated, and interest in education will be enhanced in the communities. - Non-formal education will be provided with sufficient classrooms, and thereby education for unenrolled youth will be facilitated. - Programs to foster sound youth will be conducted regularly, which will contribute to a good environment for the youth.

5.2 Conclusion

The Project aims at the construction of some additional school buildings of MIHS, the upgrading of equipment for vocational training, and the construction of the Educational and Cultural Center.

The elementary schools in Majuro where the population is concentrated does not have the adequate capacity to accept grade 8 students and conduct classes in the deteriorated school building of MIHS due to a rapid increase of the enrollment population and a shortage of school facilities. As the number of students going on to high schools as well as enrolled students in elementary education have been increasing, and few high schools are planned to be built due to severe financial conditions, the existing high schools

with limited facilities are forced to accept more students and urgently required to renovate the facilities to cope with this increase.

The long-term objective of the policy of the secondary education in public high schools is to provide vocational training to meet the demand of the industries in the country, to improve the unemployment rate of the youth and to reform the employment structure which depends on foreign labor. Therefore, MIHS which is the only public high school in Majuro is greatly expected to provide training of skills required in vocational fields where the demand for labor will continue to be high. Upgrading proper equipment for vocational training will raise the level of skills of students in the effective vocational training and thereby provide better human resources for the industries in the country.

As mentioned earlier, about half of the population is under 15 years of age, and the high unemployment and unenrollment rate of the youth has been a big burden to families and communities both economically and mentally. Furthermore, due to the limited opportunities for non-formal education in which youth learn to acquire self-sustaining capabilities, it is important to form an environment to foster ambitious and broad-minded youth. Considering the situation which face the youth, it is essential to cultivate the self-sustaining abilities in youth out of the secondary education and to provide the opportunities for sports. Under such circumstances, the Educational and Cultural Center will provide a place for the exchange between youth and the community through sports and social education. This will make a great contribute to the sound formation of the youth who are the potential leaders of the next generation irrespective of whether they receive a secondary education or not.

In view of afore-mentioned circumstances as well as the role of the Project and the necessity to implement the Project, it has been concluded that it will be appropriate to implement the Project under the Japanese grant aid program.

5.3 Recommendations

We would like to suggest that the government of the RMI would take the following measures if the Project is proceeded in order to realize more effective use of the facilities and equipment.

(i) The expansion of the General and Special Classrooms in MIHS will provide classes to the increasing number of students. Simultaneously, it is necessary to raise the level of teachers as a whole by employing new teachers with a higher level of the Professional Certificate I of the new Teacher Certificate System and to provide teacher in-service training without fail.

(ii) As to vocational courses for which equipment will be upgraded in the Project, guidelines for teachers should stipulate that students not only acquire the operational skills of the equipment during training but also recognize the importance of maintaining it. In daily training it is necessary to cultivate the ability to operate and maintain equipment through the joint responsibility.

(iii) The Ministry of Education need to secure an adequate budget to meet the increasing expenses of the maintenance for the new classrooms and Educational and Cultural Center. It is also necessary to use the newly installed equipment such as air-conditioners and lamps properly and save maintenance costs.

(iv) The implementation schedule should be based on sports activities of youth and social education programs provided by MIHS and the Ministry of Education in order to use the facilities of the Educational and Cultural Center properly. Basically, cleaning after use should be carried out by users since most of them are the youth. Regulations on using the Center should be prepared to cultivate responsibility for public facilities. Staff member who are exclusively responsible for the operation and maintenance of the Center should be employed.

APPENDIX

Appendix 1. Member List of the Study Team

(Basic Design Study)

(1) Masao TAKAI (Leader)	Director of Basic Design Study Division II Grant Aid Study and Design Department, JICA
(2) Kyoichi SUGIYAMA (Architectural Planning)	System Science Consultants Inc.
(3) Yukitaka DATE (Architectural Design)	System Science Consultants Inc.
(4) Hiroshi KISHIMOTO (Facility Planning)	System Science Consultants Inc.
(5) Sohichi TAKAI (Equipment Planning)	System Science Consultants Inc.

(Draft Report Explanation)

(1) Eiichiro CHO (Leader)	First Project Management Division, Grant Aid Project Management Department, JICA
(2) Kyoichi SUGIYAMA (Architectural Planning)	System Science Consultants Inc.

Appendix 2. Field Survey Schedule

(Basic Design Study 1/2)

No	Date	Activities	M. TAKAI	SUGIYAMA	DATE	KISIMOTO	S. TAKAI
1	June 1	Departure from Narita. Arrival at Guam	○	○		○	
2	2	Departure from Guam. Arrival at Majuro	○	○		○	
3	3	:Courtesy call to Minister of Foreign Affairs :Courtesy call to Minister of Education and explanation of Japan's Grant Aid system :Explanation of Inception Report (MOE & MIHS) :Site Inspection(MIHS)	○ ○ ○	○ ○ ○		○ ○ ○	
4	4	:Site Inspection(MIHS & Center) :Discussion of Project component and planned middle school (MOE & MIHS)	○ ○	○ ○		○	
5	5	Departure from Narita. Arrival at Guam :Explanation and discussion of Alternative Plan (MOE & MIHS)	○	○	○	○	○
6	6	Departure from Guam. Arrival at Majuro :Meeting within Team	○	○	○ ○	○	○ ○
7	7	:Discussion of Alternative Plan and confirmation of Undertakings by Marshall Govt. (MOE & MIHS) :Data collection at MEC and Site inspection	○	○	○	○	○
8	8	:Preparation of Draft Minutes :Site inspection :land survey and instruction of boring survey :Discussion with MEC & NTA	○	○	○ ○	○ ○	○
9	9	:Signing of Minutes of Discussion :Site inspection :land survey and instruction of boring survey :Discussion with MEC	○	○	○	○ ○	○
10	10	Departure from Majuro. Arrival at Guam. :land survey and instruction of boring survey :Discussion of school system (MIHS) :Data collection at MWSC, EPA, CIP and local contractor	○	○	○	○	○
11	11	Report to Consulate General of Japan :Site inspection of MIHS :Discussion with MOE	○	○	○	○	○
12	12	Departure from Guam. Arrival at Narita :Data collection at local contractor :Data consolidation	○	○	○	○	○
13	13	:Data consolidation		○	○	○	○
14	14	:Inspection of CMI and Assumption high school :Discussion with MEC and MWSC		○	○	○	○

Note: MOE; Ministry of Education, MIHS; Marshall Islands High School,
MEC; Marshall Energy Company, MWSC; Majuro Water & Sewer Co. Ltd
EPA; Environment Protection Authority,
CIP; Capital Improvement Project Administration
NTA; National Telecommunications Authority

(Basic Design Study 2/2)

No	Date	Activities	M. TAKAI	SUGIYAMA	DATE	KISIMOTO	S. TAKAI
15	15	:Inspection of 7th Day Adventist school and Calvary school :Discussion of site plan(MOE & MIHS) :Data collection at local contractor		○ ○	 ○ ○	 ○ ○	○ ○
16	16	:Survey of existing class rooms :Discussion with CIP and MWSC :Discussion of vocational equipment (MIHS)		○	○	 ○	 ○
17	17	Departure from Majuro. Arrival at Guam. :Preparation of site plan :Discussion of vocational equipment (MIHS)		 ○	 ○	○	 ○
18	18	Departure from Guam. Arrival at Narita :Discussion of site plan(MOE & MIHS)		 ○	 ○	○	 ○
19	19	:Survey of existing workshop :Discussion of utilization of general & special class rooms (MIHS)		○	○		○
20	20	:Preparation of floor plan :Data consolidation		 ○	○		 ○
21	21	:Preparation of floor plan :Discussion of curriculum and enrollment (MIHS)		 ○	○		 ○
22	22	Departure from Majuro. Arrival at Guam. :Discussion of Questionnaire (MIHS) :Data collection at local contractor		 ○	 ○		○
23	23	Departure from Guam. Arrival at Narita :Discussion of Questionnaire (MIHS) :Preparation of floor plan		 ○	 ○		○
24	24	:Discussion of Questionnaire (MIHS) :Preparation of floor plan :Site investigation of water pump station		○ ○	 ○ ○		
25	25	:Discussion of floor plan(MOE & MIHS)		○	○		
26	26	:Data consolidation		○	○		
27	27	:Data consolidation		○	○		
28	28	:Confirmation of results of field survey(MOE)		○	○		
29	29	Departure from Majuro. Arrival at Guam. :Discussion of Questionnaire (MIHS)		 ○	○		
30	30	Departure from Guam. Arrival at Narita :Data consolidation		 ○	○		
31	July 1	Departure from Majuro. Arrival at Guam.		○			
32	2	Departure from Guam. Arrival at Narita		○			

Note: MOE; Ministry of Education, MIHS; Marshall Islands High School,
MEC; Marshall Energy Company, MWSC; Majuro Water & Sewer Co. Ltd
EPA; Environment Protection Authority,
CIP; Capital Improvement Project Administration
NTA; National Telecommunications Authority
NTA; National Telecommunications Authority

(Draft Report Explanation)

No	Date	Activities	CHO	SUGIYAMA
1	Sep. 12	Departure from Narita. Arrival at Guam		○
2	13	Departure from Guam. Mr. Cho is from Pohnpei. Arrival at Majuro	○	○
3	14	:Courtesy call to Minister of Education :Explanation and discussion of Draft Report (MOE & MIHS)	○ ○	○ ○
4	15	:Courtesy call to Minister of Foreign Affairs :Discussion of Draft Report (MOE & MIHS)	○ ○	○ ○
5	16	:Preparation and discussion of Draft Minutes (MOE & MIHS)	○	○
6	17	:Explanation of ECC to the Cabinet Member :Signing of Minutes of Discussions	○ ○	○ ○
7	18	Departure from Majuro. Arrival at Guam. :Data consolidation	○	 ○
8	19	:Data consolidation(in Guam) :Data consolidation(in Majuro)	○	 ○
9	20	Report to Consulate General of Japan Departure from Guam. Arrival at Narita. :Explanation of the facilities of the Project to CIP	○ ○	 ○
10	21	:Discussion of the site of ECC (MOE)		○
11	22	:Discussion of the site of ECC (MOE)		○
12	23	:Discussion of the site of ECC (MOE) Departure from Majuro. Arrival at Guam.		○ ○
13	24	Report to Consulate General of Japan Departure from Guam. Arrival at Narita.		○ ○

Note: MOE; Ministry of Education, MIHS; Marshall Islands High School
CIP; Capital Improvement Project Administration
ECC; Educational and Cultural Center

Appendix 3. Member List of Concerning Party

(Basic Design Study)

[Marshall Islands Side]

1 Ministry of Foreign Affairs
(1) Senator Thomas Kijiner — Minister
(2) MR. Kalimen Jinuna — Undersecretary for Administration
(3) MR. Mack Kaminaga — Undersecretary for Pacific Affairs

2 Ministry of Education
(1) Hon. Phillip H. Muller — Minister
(2) Madam Hilda Heine-Jetnil — Secretary
(3) MS. Cathy Relang — Deputy Secretary
(4) MR. Valekuta Mateni — Head Advisor of Secondary/Vocational Education
(5) MR. John H. Nelson — Construction Supervisor
(6) MR. Mothy Andrew — Acting Director of Secondary Vocational Education

3 Marshall Islands High School
(1) MR. Jimmy Kemen — Principal
(2) MR. Troy Barker — Secondary Curriculum Specialist
(3) MR. Nelson J. Akoang — Directing Counselor of Education Department

4 College of Marshall Islands
(1) MR. Cent B. Langidrik — Chairman of Teacher Training Program Department

5 Assumption High School
(1) MS. Carmen S. Chong Gum — Principal

6 Seventh Day Adventist School
(1) MR. Tim Oliver — Maintenance Supervisor

7 Calvary School
(1) Rev. Eraksik Samuel — Pastor
(2) Rev. Mitten Lamille — Principal

8 Marshall Energy Company
(1) MR. William F. Robertas — General Manager

9 Majuro Water & Sewer Company
(1) MR. Bernard Cotter — General Manager

10 National Telecommunications Authority
(1) MR. Alan E. Fowlwe — President
(2) MR. Thomas H. Debrum — Vice President

11 Environmental Protection Authority
(1) MR. Kasuo Helgenberger — General Manager

12 Capital Improvement Project Administration (Ministry of Public Works)
(1) MR. Jim Barber — Inspector
(2) MR. James A. Abernathy — Administrator
(3) MR. Johnny Lasao — Civil Engineer
(4) MR. Herculano lagunay — Architect

[Japan Side]

1 Consulate-General of Japan
(1) MR. Yoshio Koshio — Acting Consul-General

2 Japan Overseas Cooperation Volunteer Marshall Office
(1) MR. Toshiro Sato — Coordinator

(Draft Report Explanation)

1 President

Hon. Amata Kabua	President

2 Ministry of Foreign Affairs

(1) Senator Thomas Kijiner	Minister

3 Ministry of Education

(1) Hon. Phillip H. Muller	Minister
(2) Madam Hilda Heine-Jetnil	Secretary
(3) MS. Cathy Relang	Deputy Secretary
(4) MR. Valekuta Mateni	Head Advisor of Secondary/Vocational Education
(5) MR. Allison J. Nashion	Assistant Secretary for Secondary/Vocational Education

4 Marshall Islands High School

(1) MR. Jimmy Kemen	Principal
(2) MR. David Minert	Deputy Principal

5 Capital Improvement Project Administration (Ministry of Public Works)

(1) MR. James A. Abernathy	Administrator
(2) MR. Herculano lagunay	Architect

[Japan Side]

1 Consulate-General of Japan

(1) MR. Yoshio Koshio	Acting Consul-General

Appendix 4. Minutes of Discussions

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON
MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT

In response to a request from the Government of Republic of the Marshall Islands, the Government of Japan decided to conducted a Basic Study on Marshall Islands high school up-grading/development project (hereinafter referred to as " the Project"), and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to the Marshall Islands a study team, which is headed by Mr. Masao Takai, Director, Second Basic Design Study Division, Grant Aid Study and Design Department, JICA, and is scheduled to stay in the country June 2 to July 1, 1993.

The Team held discussions with the officials concerned of the Government of the Marshall Islands and conducted field surveys at the study area.

In the course of discussions and field survey, both parties have confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Majuro, June 9, 1993

高井正夫
Masao Takai
Leader,
Basic Design Study Team,
JICA

Hon. Phillip H. Muller
Minister of Education,
Republic of the Marshall Islands

ATTACHMENT

1. Objectives of the Project

The objective of the Project is to upgrade and develop educational facilities and equipment for offering opportunities of educational equality.

2. Project site

The sites of the Project are located at Majuro.
(Project area and site map are attached as ANNEX-I.)

3. Executing Organization: Ministry of Education

4. Necessary items for the realization of the Project requested by the Government of the Marshall Islands

(1) After discussions with the Basic Design Study Team, the items shown in ANNEX-II were judged necessary for the realization of the Project. However, the final items of the Project may be decided after further studies in Japan.

(2) Multi-Purpose Hall (hereinafter referred to as "Educational and Cultural Center") was confirmed to be utilized for the purpose of education programs, mainly consisted of programs of Marshall Islands High School, under the operation and maintenance of the Ministry of Education.

(3) Workshop for vocational courses requested was confirmed not to be constructed. Existing workshop will be reviewed for rehabilitation. Equipment for vocational courses in Marshall Islands High School will be considered to be included within the scope of the Project.

(4) Students Dormitory was not originally requested. Due to the earnest request from the Ministry of Education and in consideration of the present situation of education in Marshall Islands High School, the team will examine the necessity and appropriateness of the Dormitory for the Project.

5. Grant Aid system

(1) The Government of the Marshall Islands has understood the system of Japanese Grant Aid explained by the team.

(2) The Government of the Marshall Islands will take necessary measures, described in ANNEX-III, for smooth implementation of the Project on condition that the Grant Aid by the Government of Japan is extended to the Project.

M.J

6. Schedule of the Study

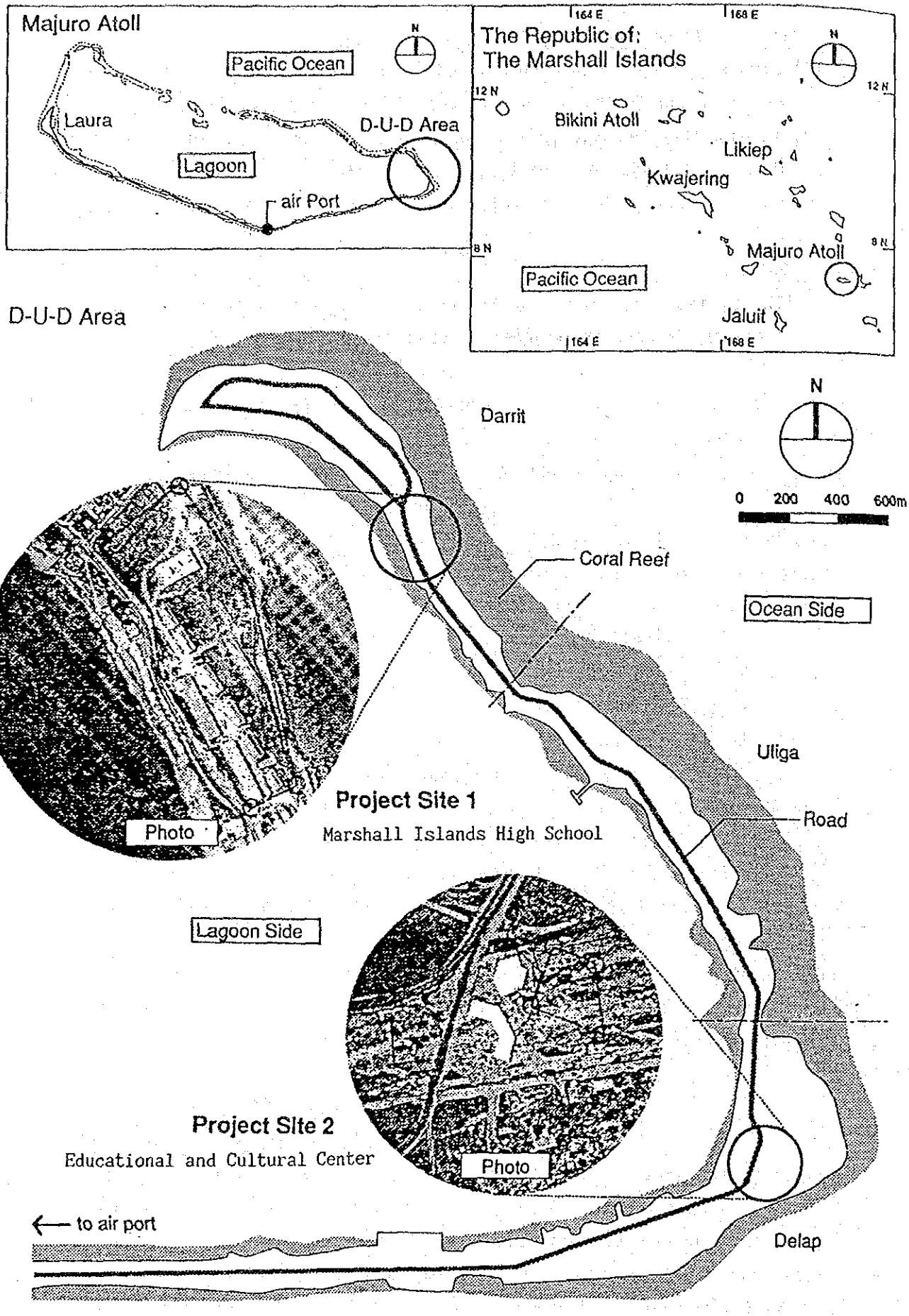
(1) JICA will prepare the draft report in English and dispatch a mission in order to explain its contents around September 1993.

(2) In case that the contents of the report is accepted in principle by the Marshall Islands, JICA will complete the final report and send it to the Government of the Marshall Islands around December 1993.

7. Aquisition of Site

The Ministry of education fully assure the site acquisition which is necessary for smooth implementation of the Project.

The above action shall be undertaken prior to the commencement of the Project.



Project Site

ANNEX-II

1. Construction of High School facilities
   (1) Entrance Hall
   (2) Seven General Class rooms
   (3) Six Special Class rooms
   (4) Library
   (5) Office
   (6) Conference room
   (7) First Aid room
   (8) Toilet
   (9) Sports Shell
   (10) Students Dormitory
2. Rehabilitation of High School facilities
   (1) Four Workshops for vocational courses
   (2) Workshop for maintenance
3. Construction of Educational and Cultural Center
4. Renovation of Sports Ground
5. Supply of Equipment for vocational courses

ANNEX-III

Necessary measures to be taken by the Government of the Marshall Islands;

1. To secure the site for the Project site.
2. To clear, level and reclaim the site prior to commencement of the construction, if required for the execution of works.
3. To demolish or remove existing facilities, if required for the execution of works.
4. To undertake incidental outdoor works such as gardening, fencing, gates and exterior lighting in and around the site.
5. To provide facilities for distribution of electricity, water supply, telephone, drainage, sewage and other incidental facilities to the Project site.
   1) Electricity distributing line to the site.
   2) City water distribution main to the site.
   3) Drainage city main to the site.
   4) Telephone trunk line to the main distribution panel of Building.
   5) General furniture such as carpets, curtains, table chairs and others.
6. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.
7. To ensure prompt unloading, tax exemption, and custom clearance of the materials and equipment for the Project at port of disembarkation.
8. To accord Japanese Nationals whose services may be required in connection with the supply of the products and services under the verified contract such facilities as may be necessary for their entry into the Marshall Islands and stay therein for the performance of their work.
9. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the Marshall Islands in respect to the supply of the products and services under the verified contracts.
10. To maintain and use properly and effectively that the facilities constructed and equipment purchased under the verified contracts.
11. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.
12. To coordinate and solve any issues related to the Project which may be raised from third parties and inhabitants in the Project area during implementation of the Project.

MINUTES OF DISCUSSIONS

BASIC DESIGN STUDY

ON

MARSHALL ISLANDS HIGH SCHOOL UP-GRADING/DEVELOPMENT PROJECT

IN THE REPUBLIC OF THE MARSHALL ISLANDS

(CONSULTATION ON DRAFT REPORT)

In June 1993, the Japan International Cooperation Agency (JICA) dispatched a Basic Design Study team on Marshall Islands High School Up-Grading/Development Project (hereinafter referred to as "the Project") to the Republic of the Marshall Islands, and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

In order to explain and to consult the Marshall side on the components of the draft report, JICA sent to Marshall Islands a study team, which is headed by Mr. Eiichiro Cho, First Project Management Division, Grant Aid Project Management Department, JICA, and is scheduled to stay in the country from September 13 to 23, 1993.

In the course of discussions, both parties have confirmed the main items described on the attached sheets.

Majuro, September 17, 1993

長 英一郎

Eiichiro Cho
Leader,
Draft Report Explanation
Team JICA

Hon. Phillip H. Muller
Minister of Education,
Republic of the Marshall Islands

ANNEX I

Necessary measures to be taken by the Government of the Republic of the Marshall Islands in case Japan's Grant Aid is executed.

1. To secure the site for the Project.
2. To clear, level and reclaim the site prior to commencement of the construction, if required for the execution of works.
3. To demolish or remove existing facilities, if required for the execution of works.
4. To undertake incidental outdoor works such as gardening, fencing, gates, exterior lighting and parking lot in and around the site.
5. To provide facilities for distribution of electricity, water supply, telephone, drainage, sewage and other incidental facilities to the Project site.
   1) Electricity distributing line to the site.
   2) City water distribution main to the site.
   3) Drainage city main to the site.
   4) Telephone trunk line to the main distribution panel of Building.
   5) General furniture such as carpets, curtains, tables, chairs and others.
6. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.
7. To exempt taxes and to take necessary measures for customes clearance of the materiales and equipment brought for the project at the port of disembarkation.
8. To accord Japanese Nationals whose services may be required in connection with the supply of products and the services under the verified contract such facilities as may be necessary for their entry into the Marshall Islands and stay therein for the performance of their work.
9. To maintain and use properly and effectively that the facilities constructed and equipment purchased under the Grant.
10. To bear all the expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.

ATTACHMENT

1. Components of Draft Report

The Government of the Republic of the Marshall Islands has agreed and accepted in principle the components of the draft report proposed by the team except for the site of Educational and Cultural Center(ECC).
The Government of the Republic of the Marshall Islands requested strongly to change the site of ECC.
The team told to convey this matter to the related officials in Japan and asked to send a request letter on the present situation of new site to the Ministry of Foreign Affairs by way of Japanese Consulate in Agana.

2. Japan's Grant Aid system

(1)The Government of the Republic of the Marshall Islands has understood the system of Japanese Grant Aid explained by the team.

(2)The Government of the Republic of the Marshall Islands will take the necessary measures, described in Annex I, for smooth implementation of the Project on condition that the Grant Aid assistance by the Government of Japan is extended to the Project.

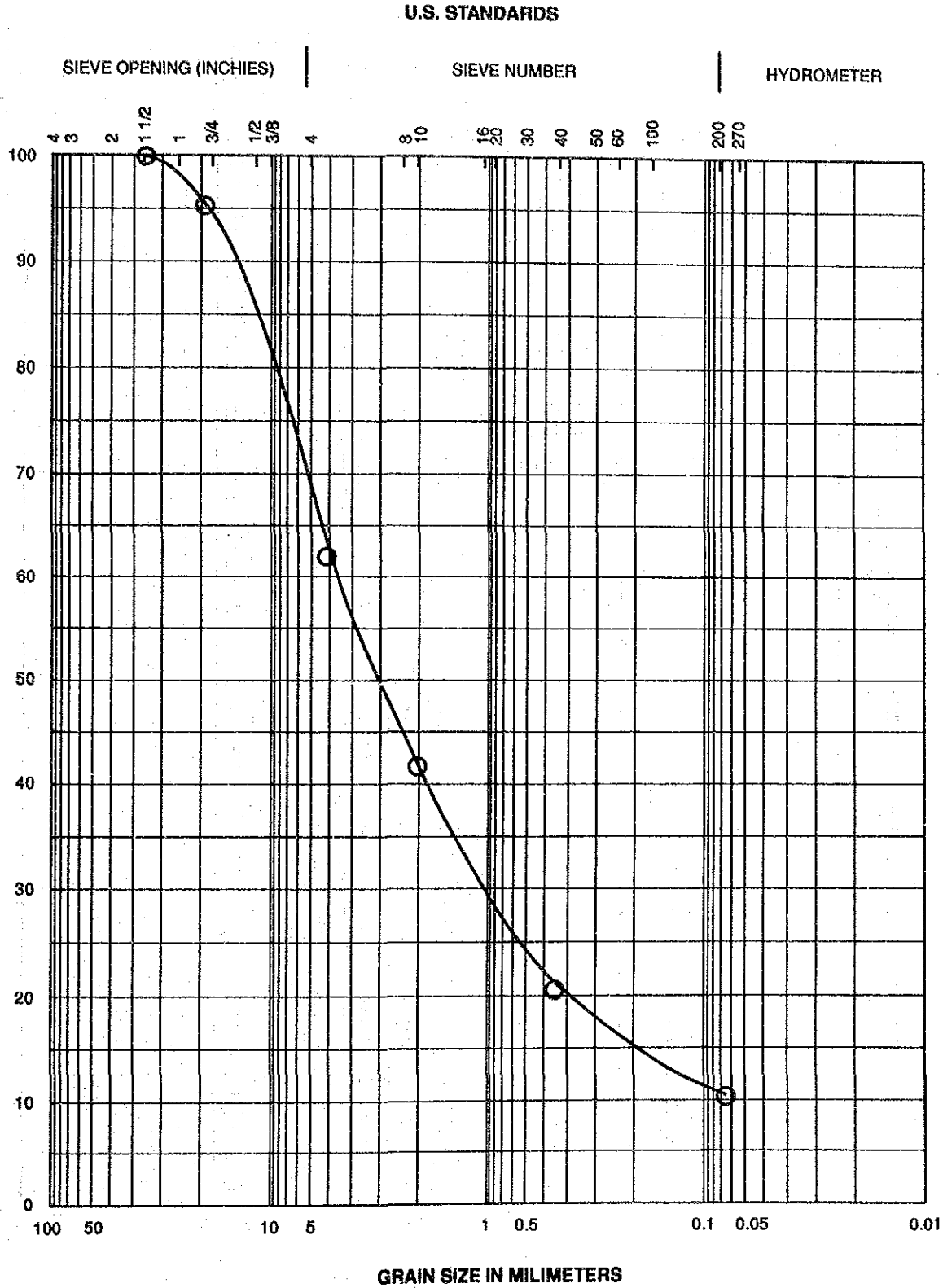
3 Further schedule

The team will make the Final report in accordance with the confirmed items, and send it to the Government of the Republic of the Marshall Islands by the end of December 1993.

Appendix 5. List of Data

1. MIHS UPGARDING PROJECT, MIHS
2. Proposal for Evening High School, 1992.10/1, MOE
3. Revised Proposal- Evening High School(EHS) , 1993. 6/5, MOE
4. Land Use agreement, 1986 between the republic of the Marshall Islands and the landowers of ERAM WETO. First extension, 1990.12/21
5. Memorandum of undertaking between the Government of the Republic of the Marshall Islands and the Asian Development Bnk Appraisal Mission for the Basic Education Development Project, 1993. 5/10
6. The Dreams and Needs of the College of the Marshall Islands, CMI
7. Teacher Traning Program, Summer 1993 sponsered by CMI and Ministry of Education
8. Expand your Horizons, CMI
9. Ground Lease Agreement in respect to a portion of Eonmaj I Weto, Delap Island, Majuro Atoll
10. Toward Self-Reliance: Republic of the Marshall Islands, Ten-Year Education Master Plan VOL1 & VOL2
11. Organization CHART of Ministry of Education and MIHS
12. Social concerns, 、MIHS
13. Budget in the Ministry of Education, MOE
14. Budget in MIHS, MIHS
15. Socio-Economy, MOE
16. Marshall Islands Curriculum Framework, Overview,Philosophy and Goals, MOE 1989

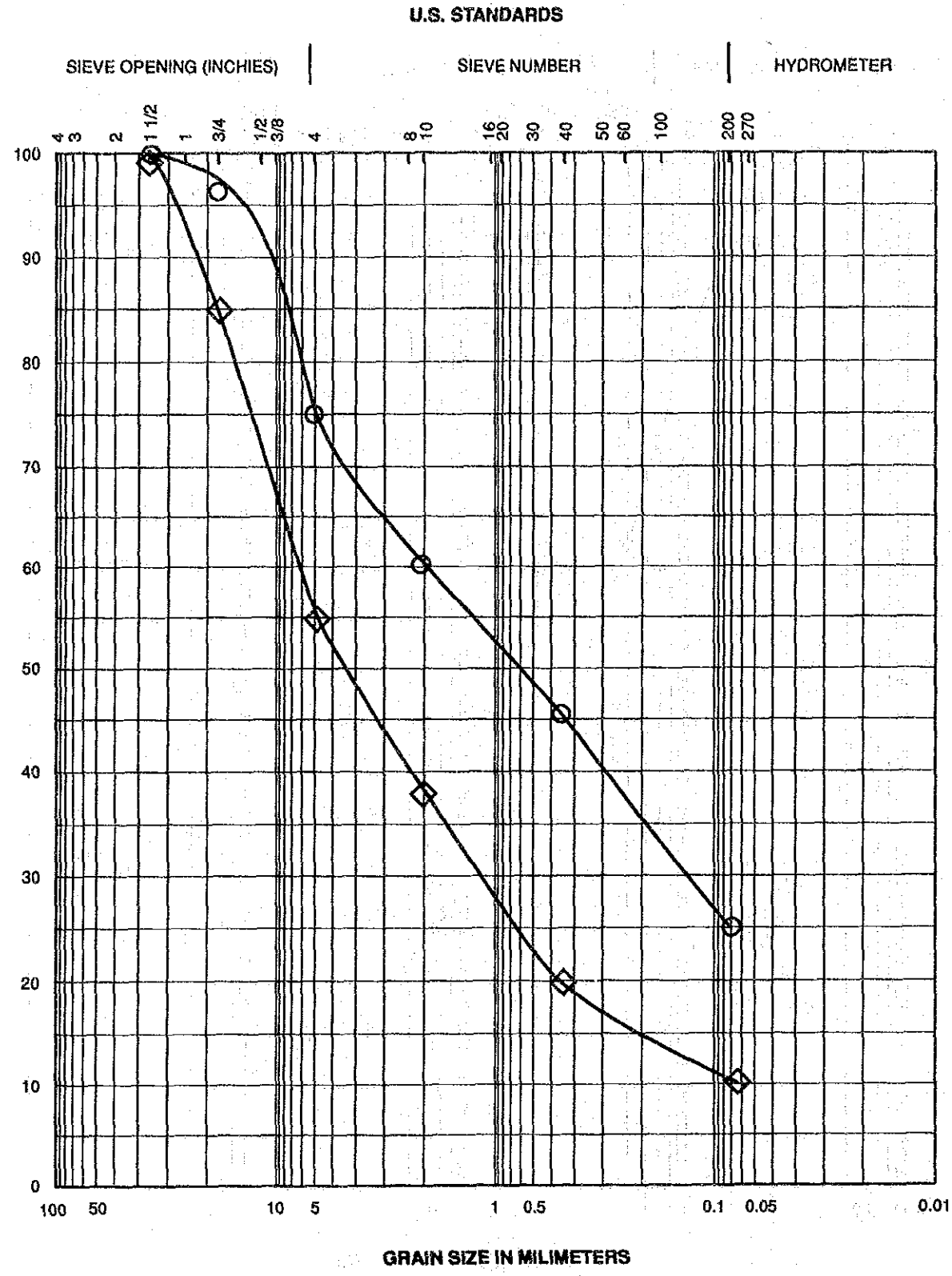
Appendix Figure 1. Grain-Size Accumulation Curve (1/2)



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SYMBOL	SAMPLE SOURCE	CLASSIFICATION
O	Boring 2-1 at 1.45 m	LIGHT BROWN-WHITE GRAVELLY SAND (SP)

Appendix Figure 1. Grain-Size Accumulation Curve (2/2)



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SYMBOL	SAMPLE SOURCE	CLASSIFICATION
○	Boring 2-1 at 4.0 m	LIGHT BROWN-WHITE GRAVELLY SILTY SAND (SM)
◇	Boring 2-1 at 8.0 m	LIGHT BROWN-WHITE CORALLINE LIMESTONE