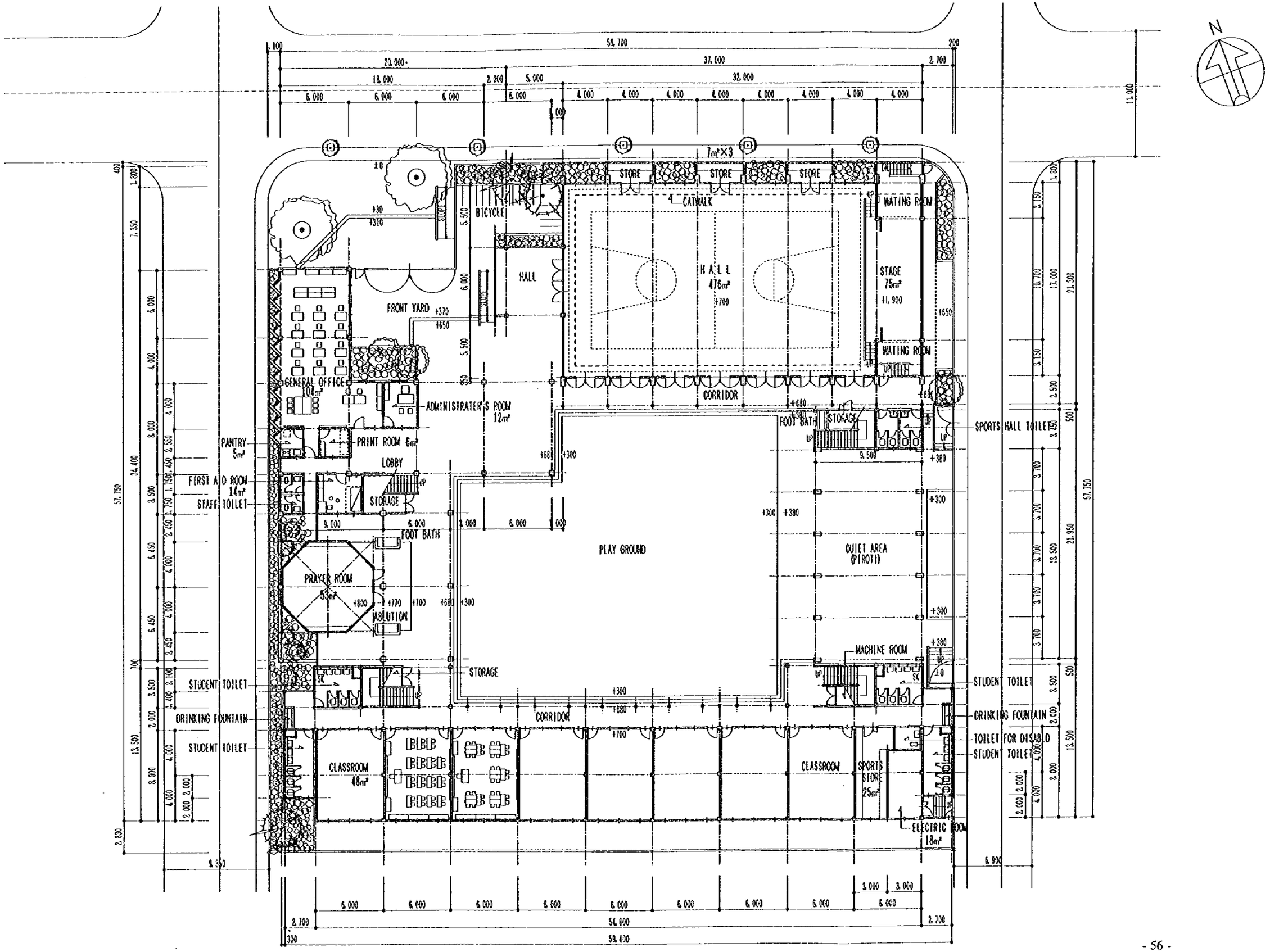
(4) Basic Design Drawing



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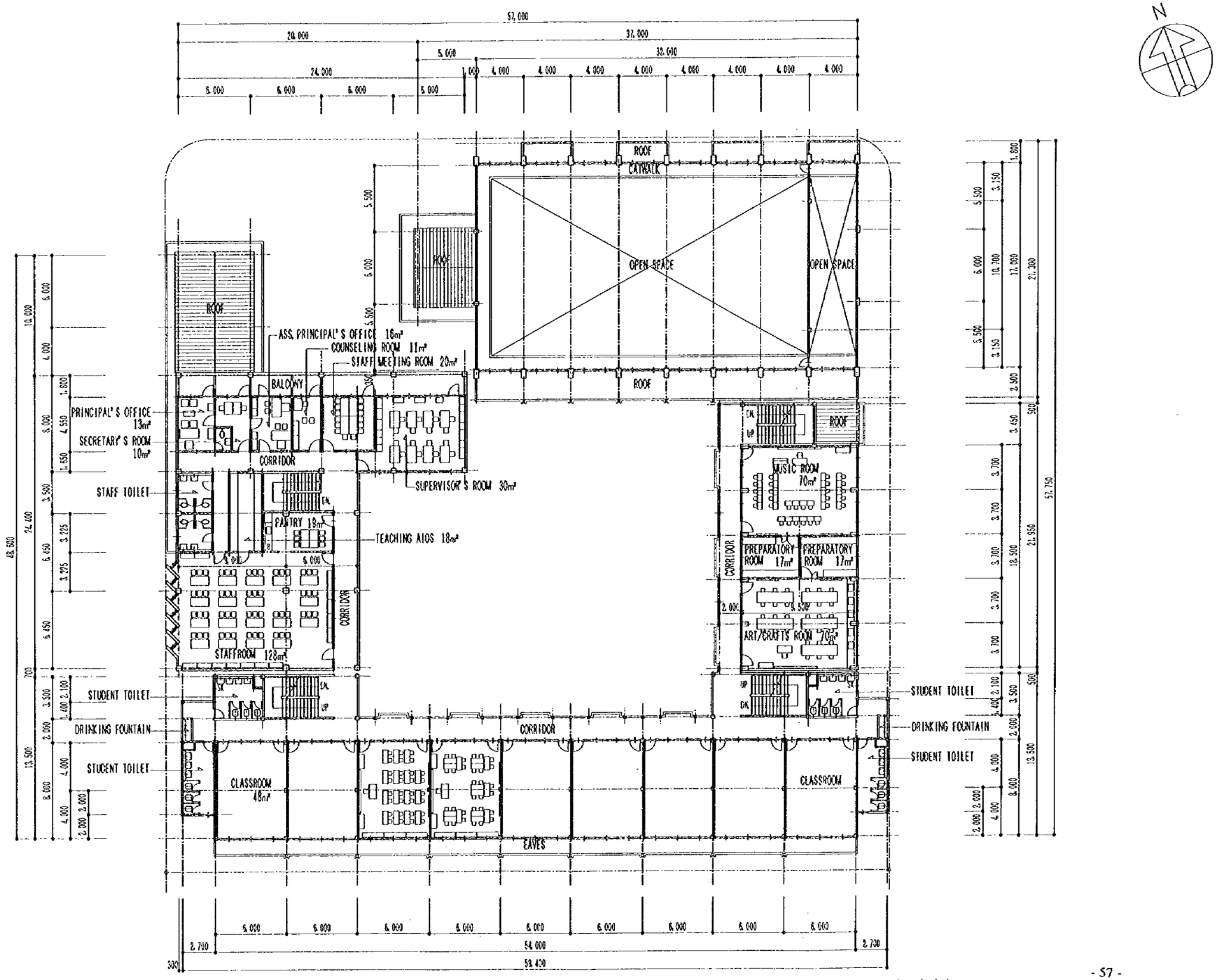
GROUND FLOOR PLAN S=1/300



FIRST FLOOR PLAN S=1/300

N

ROOF

ROOF

EAVES

TERRACE

LIBRARY 98m²

TERRACE

AUDIO VISUAL ROOM 70m²

PREPARATORY ROOM 17m²

PREPARATORY ROOM 17m²

CORRIDOR

SCIENCE ROOM 70m²

STUDENT TOILET

DRINKING FOUNTAIN

STUDENT TOILET

CLASSROOM 48m²

CORRIDOR

CLASSROOM

EAVES

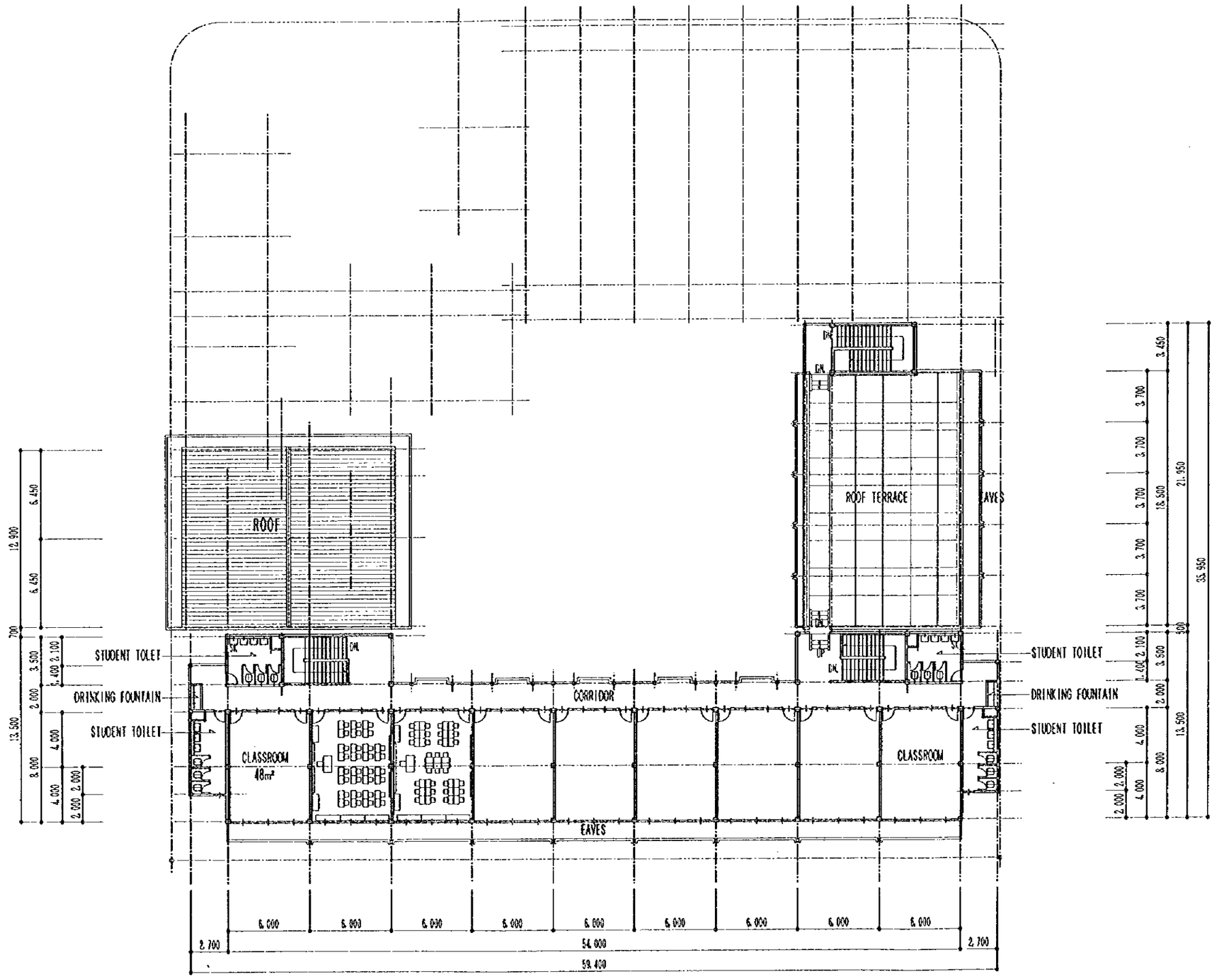
STUDENT TOILET

DRINKING FOUNTAIN

STUDENT TOILET

SCALE 0 5m 10m 20m

SECOND FLOOR PLAN S=1/300



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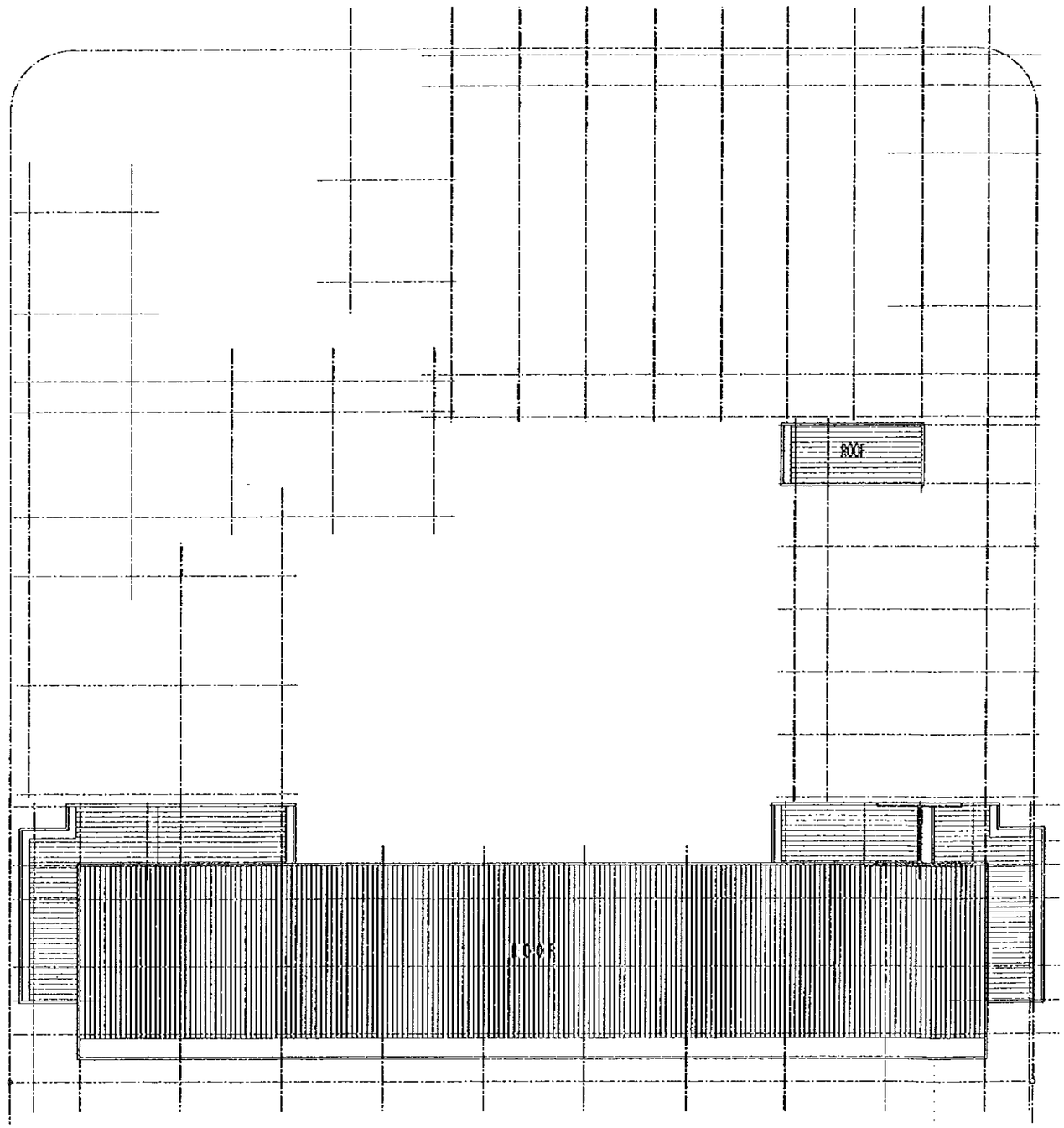
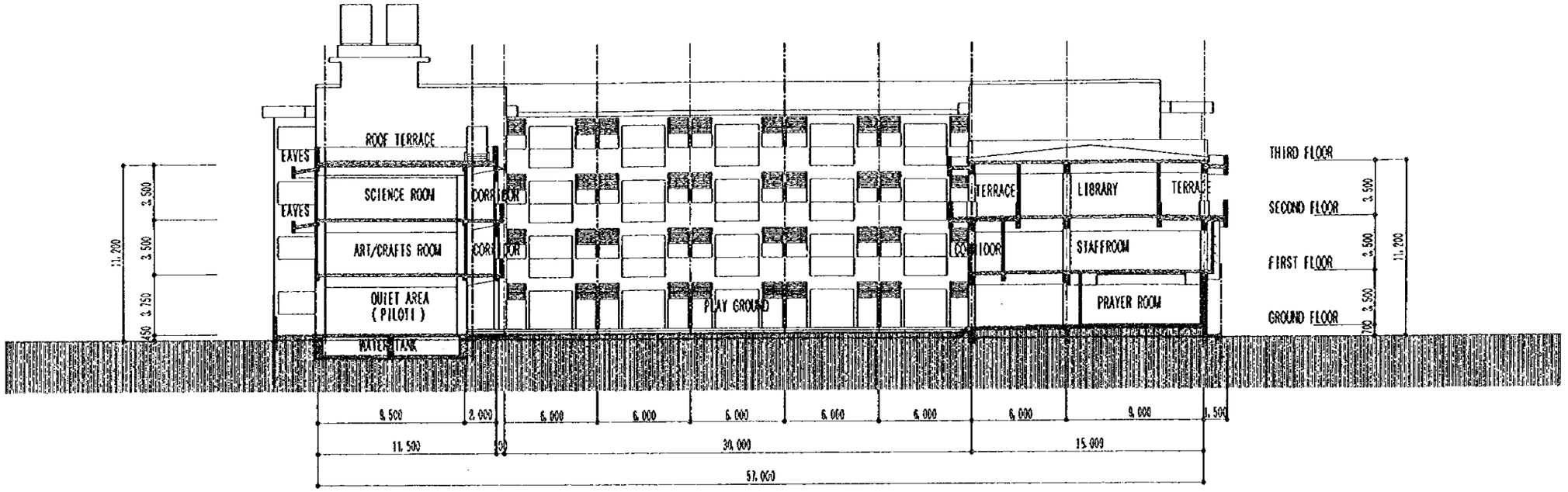
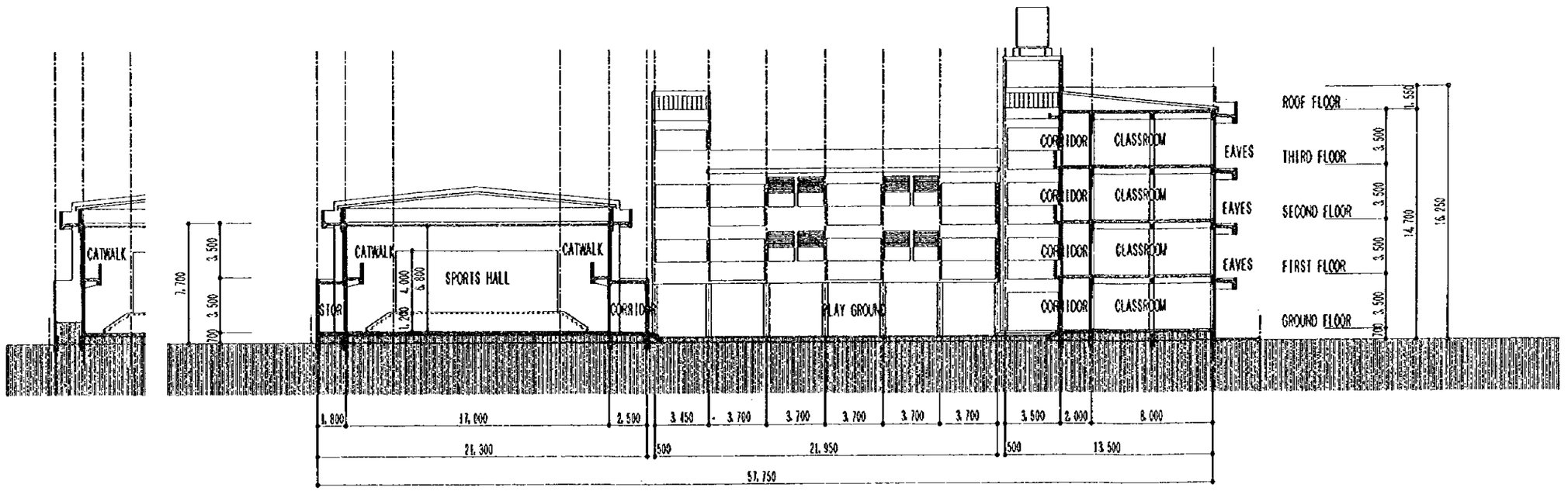
THIRD FLOOR PLAN S=1/300



SCALE 0 5m 10m 20m

ROOF PLAN S=1/300

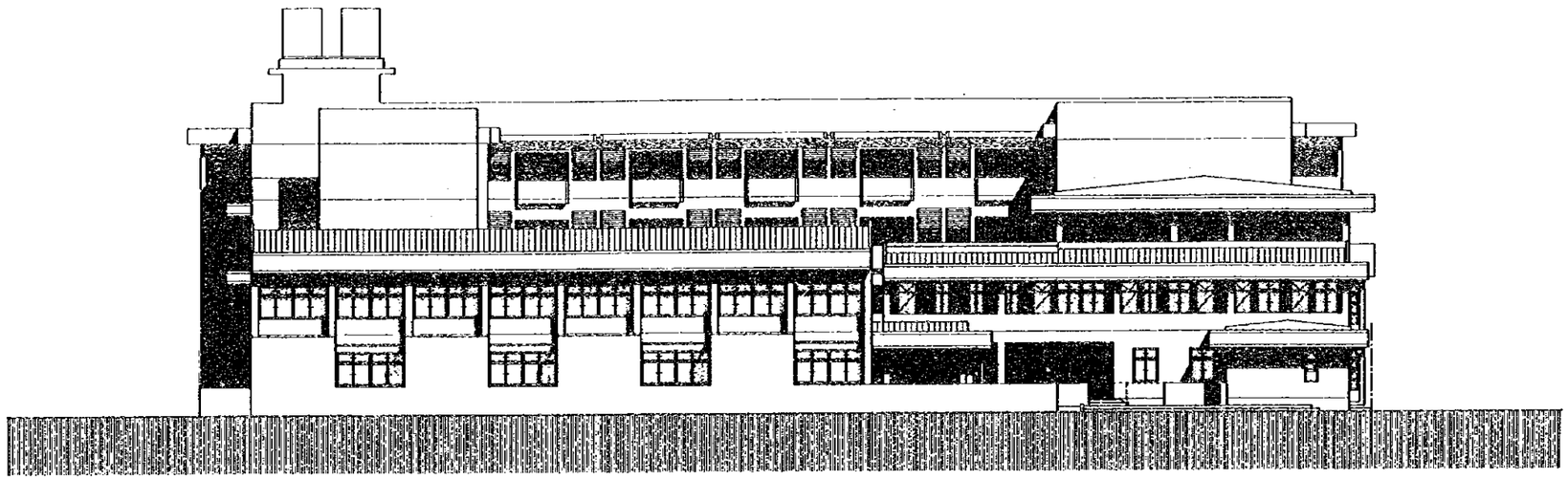




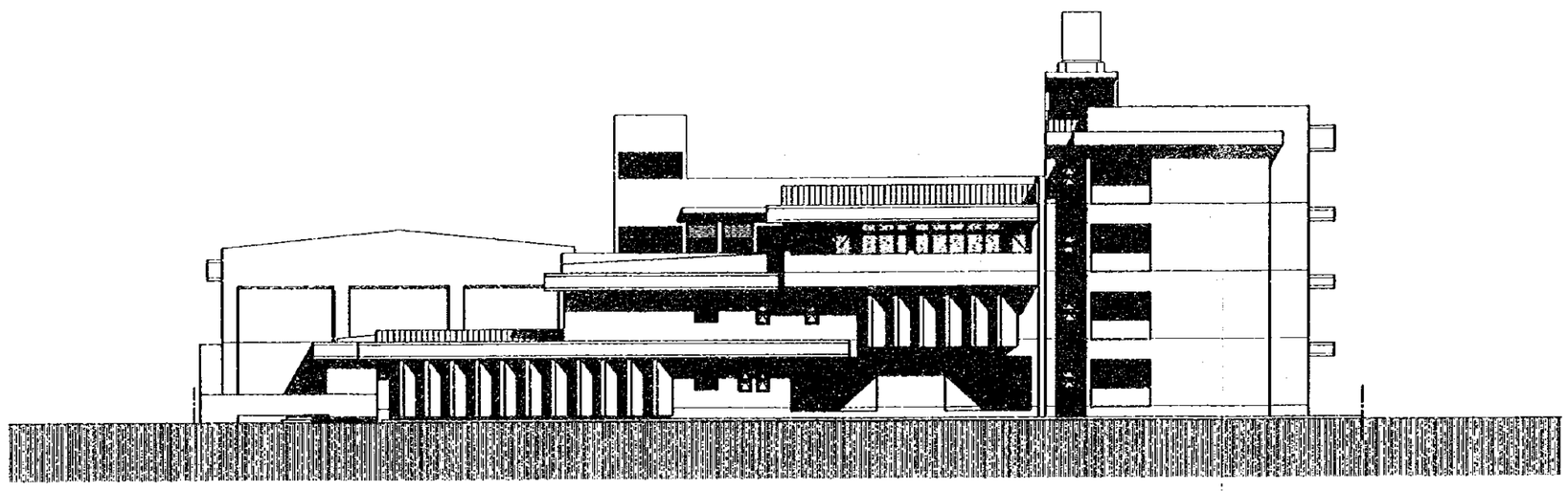
SCALE 0 5m 10m 20m

SECTION

S=1/300



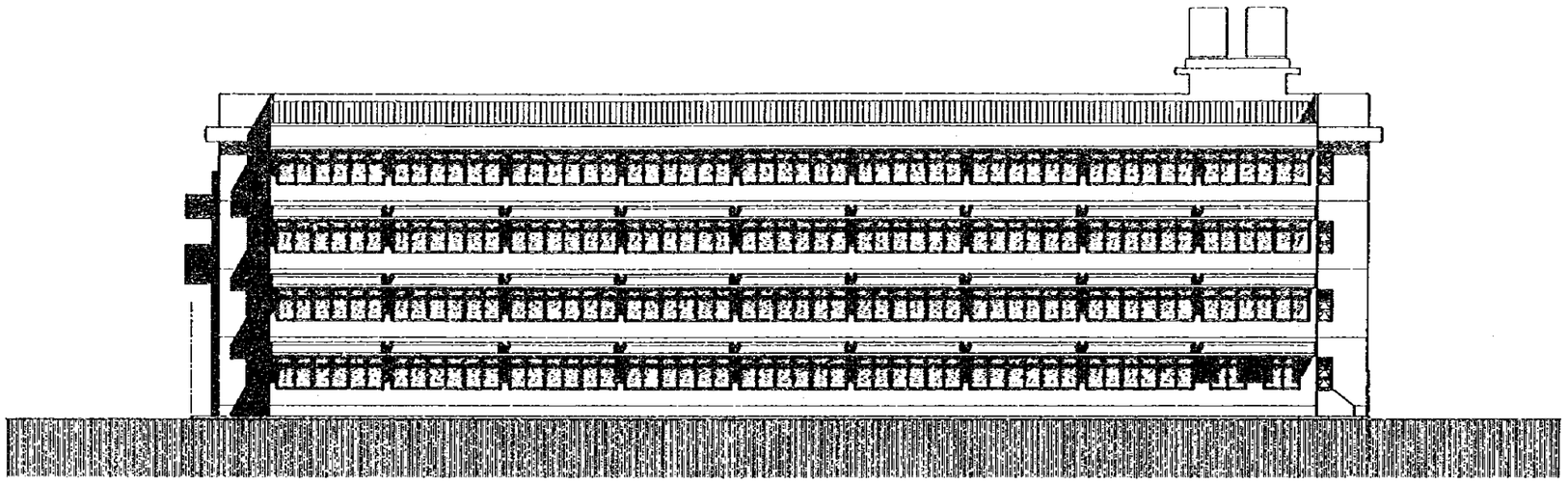
NORTH ELEVATION



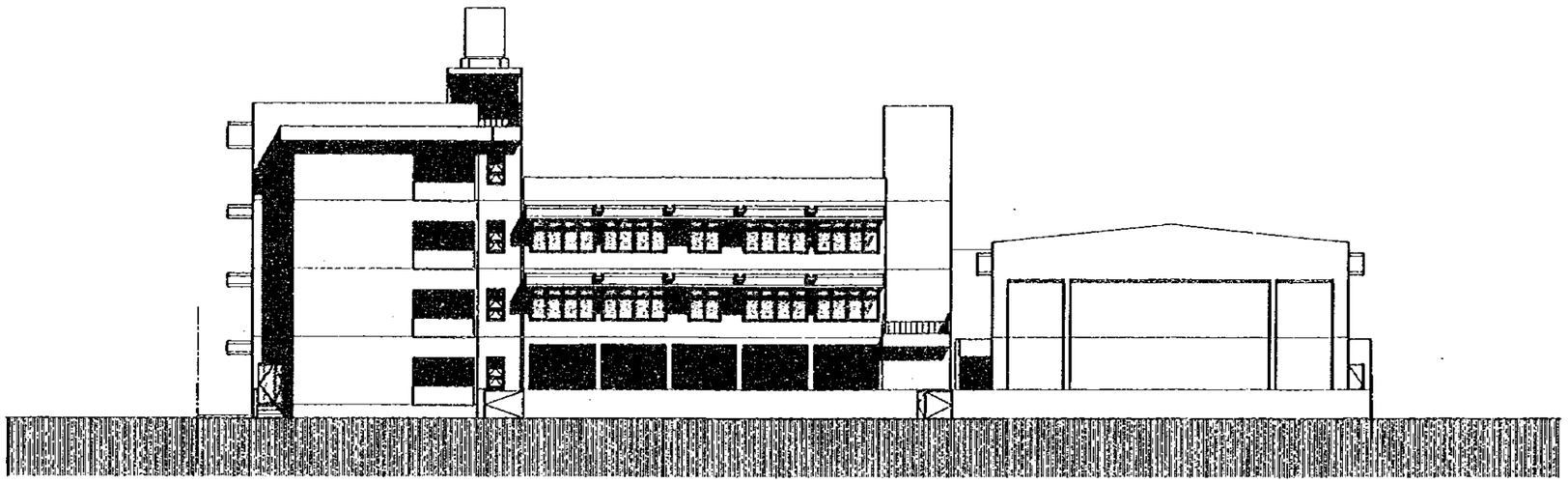
WEST ELEVATION

SCALE 0 5m 10m 20m

ELEVATION -1 S=1/300



SOUTH ELEVATION



EAST ELEVATION

SCALE 0 5m 10m 20m

ELEVATION -2 S=1/300

CHAPTER 3 IMPLEMENTATION PLAN

Chapter 3 IMPLEMENTATION PLAN

3-1 Implementation Plan

3-1-1 Implementation Concept

After the construction of the Project has been approved and the Exchange of Notes detailing the Grant Aid has been signed by both countries, the selected consultant will enter into a design and construction supervision contract with the Government of Maldives, preparing a detailed design based on the basic design policy, conducting the tender and assisting the MOE in making a construction contract with a prime contractor. As for construction, detailed meetings with the Government of Maldives will be conducted in order that the construction work by both sides will be carried out without delay and that the work will be conducted smoothly. Power for the construction work will be temporarily supplied by a diesel power generator. However, the power and telephone works for the actual facility are the responsibility of the Maldives side. In order that the facility may run smoothly upon completion of the Project, it must be confirmed that these works are finished before the completion of the Project facility. Furthermore, the construction material must be simplified and unified. The procurement of material from a third country must be carried out promptly, as well as timing the arrival of the material, adjusting the construction schedule and dispatching technical specialists. Thus, the construction plan must be prepared so that time is not wasted and that the material and personnel are dispatched within the decided limits.

The construction plan for implementing the Project will be prepared according to the principles and policies mentioned below.

(1) Principles for the Implementing of the Project

When the Project has been approved by the Japanese Cabinet and the Exchange of Notes has been signed by both countries, the Project will be implemented according to the following principles.

1) This Project will be implemented using the taxes of the Japanese people and according to the budget system of Japan.

2) In order to implement the Project, the Government of the Republic of Maldives will enter into a contract with a Japanese consulting firm. It will entrust that company with the preparation of the detailed design based on the results of the basic design study, act as an assistant in choosing contractors and also supervise the construction.

3) Under the cooperation of the consultant, the Government of the Republic of Maldives will conduct a public tender with pre-qualification screening and will select a Japanese construction company. After entering into a package contract, the construction company will be entrusted with the construction of the Project facility as well as the procurement of equipment.

(2) Basic Policy for Preparing the Construction Plan

1) In order to implement an effective Project with the local construction situation in mind and to transfer construction technology, a local consultant and contractor knowledgeable in both the local construction situation and material procurement will be fully used.

2) In order to maintain safety control, quality control and schedule control on the construction site, the Japanese construction company will provide the Maldives side with technology transfer as much as possible.

3) Care must be taken to maintain security and prevent items from being stolen on the site during the entire construction period.

4) Cooperation with the local builders is absolutely necessary for the success of the construction. The organization structure should be set up so that allotment of work between the contractor and sub-contractor is clarified and the appropriate personnel is dispatched for the smooth supervision of the work.

3-1-2 Implementation Conditions

The smooth progress of the construction depends greatly on the work that is to be completed by the Maldives side. If the site is not adequately prepared, the construction work may not be started. Detailed discussions must be conducted between the representatives of Maldives and Japan to set up a detailed construction schedule in order that the existing facilities on the site are demolished and the site prepared without delay. The procurement and delivery schedules for the construction material and equipment must also be set up. The period for the procured material and equipment to arrive on the site must be carefully considered so that time is not wasted and the construction is completed without delay.

3-1-3 Scope of Works

(1) Work to be Borne by the Maldives side:

The following work shall be borne by the recipient country under the Grant Aid System of Japan:

1) Securing the site.
2) Securing the access roads.
3) Installing infrastructure such as electricity, water, telephone and sewer facilities.
4) Constructing walls and gates around the site.
5) Landscape and gardening.
6) Procuring furniture and office equipment that is not included in the Project equipment.

(2) Relocating and Demolishing Existing Facility:

The Project site is currently being used as a material storage space by the State Trading Organization (STO). For the implementation of this Project, it is necessary for the Government of Maldives to relocate the STO and remove the existing facilities (material shed, office, garage). The Minutes of Discussions were signed at the site survey time of the Basic Design Study, stating that the Government of Maldives would do the relocation and removal by the end of December 1997.

(3) Landfill and Ground Preparation

After the relocation and removal of the existing facilities, ground preparation is necessary before the construction can begin. As the sea level of Male' is low, it has experienced several floods in the past. In order to prevent such floods, the present ground level will be raised, and this will be the design ground level. Based on the Grant Aid Scheme, landfill and ground preparation will be borne by the Maldives side.

(4) Installation of Infrastructure

Infrastructure, such as electricity, water, sewer system and telephone, will be installed by the Maldives side.

1) Electricity
The Japanese side will install a pole within the site along the road to connect the electric wires. The Maldives side will conduct the wiring outside the site, install the electricity meter and connect the wires to the meter.

2) Telephone
The Japanese side will install only indoor conduits. Connection of power cables and telephone wires from outside sources to switchboards and distribution panels in the Project site, cable and wire installation in Project buildings, and the installation of telephone switchboards shall be borne by the Maldives' side.

3) Water Supply
The Japanese side will install a stop valve on the site along the road, and connect this to the pipes within the site.

4) Sewer System
The Japanese side will install two septic tanks, one on the east and another on the west side of the site along the road. The Maldives side will do the piping outside the site and the connection of the sewer pipe to the septic tanks.

(5) Outdoor Work

1) In accordance with the rules of the Grant Aid Program of the Japanese Government, construction of fences along the eastern road and the southern boundary of the site shall be borne by the Maldives' side. However, as fences along the northern boundary must be built together with a portion of a Project

building because space limitation, the fence construction will be borne by the Japanese side. Fence construction is not necessary along the western boundary of the site.

2) Landscaping, such as planting and installing flower beds, is the responsibility of the Maldives side.

3) Pavement works for the entrance will be done by the Japanese side.

(6) Securing Site for Material Storage and Site Office

As the Project site is small, a material storage and site office cannot be constructed on the site. Therefore, the Maldives side will have to secure a place near the site.

(7) Others

Procurement and installation of equipment, educational materials, copy machines, computer units, other office equipment units, and stage lighting fixtures that will not be covered by the Project shall be borne by the Maldives' side.

3-1-4 Consultant Supervision

This Project will be implemented under the special circumstances of the Republic of Maldives and under the budget system of Japan. The construction comprises of a four-storied reinforced concrete building with a total floor area of approximately 5,500 m^2 and the construction schedule is rather tight. Frequent reports and meetings with the implementing agency are necessary, as well as providing appropriate supervision, guidance and construction management to the contractors. Thus, the Project will be implemented by the following two types of supervision: general supervision and permanently stationed supervision.

(1) General Supervision

1) Main Work
Supervision of the entire construction work, total technical judgement, technical judgement on areas outside the specialty of the resident engineer, guidance, support and regular reports to JICA's head office.

2) Supervision System
Engineers participating in the detailed design come under the Project Manager, who has been with the Project since the Basic Design Study.

(2) Permanently Stationed Supervision

1) Main Work
Daily schedule management, evaluation of construction plan, guidance, approval of material and equipment, general technical supervision, regular reports to the Maldives side, regular reports to the JICA office and embassy concerned, intermediate and final inspections, and preparing of management reports.

2) Supervision System
A Japanese architect selected from those participating in the detailed design will reside in Male and act as a permanent stationed engineer with the cooperation of the local consultants.

3-1-5 Procurement Plan

As none of the required building materials and equipment are produced in the Maldives, most Project use building materials and equipment, as well as education equipment, should be procured from third countries. It is believed that the materials and equipment will be easily procured and that the Project construction will be conducted smoothly. By taking into account the easy operation and maintenance of completed Project facilities, material and equipment procurement countries should be decided upon item by item. As educational furniture units are manufactured in the Maldives based on MOE's standards, no problems concerning them should arise and, they will be used for the Project. Educational equipment units presently used in the Maldives are mostly made in England. For easy procurement and maintenance, educational equipment units made in England will be procured for the Project.

Countries from which Project use major materials and equipment are to be procured are listed in the following table:

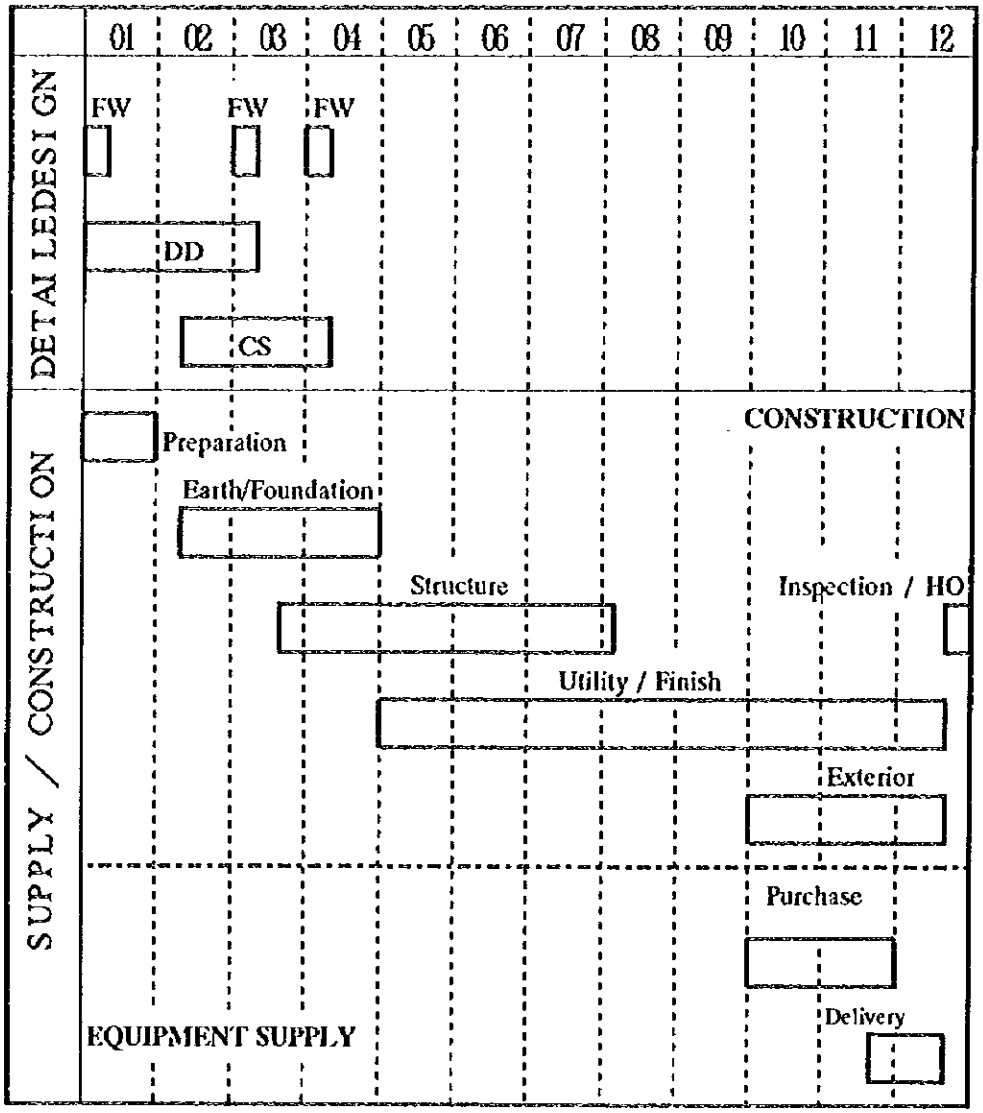
Table 3-1 List of Countries Where Project Use Materials and Equipment are to be Procured

Material and Equipment Name	Procurement Country	Reason for Selection
Aggregate	Maldives	Gravel and sand produced in India are obtainable at low prices in Maldives.
Cement	Maldives	Sulphuric acid resisting cement is obtainable at a low price in the Maldives.
	Singapore	Stable supply of portland cement at a low price.
Reinforcing bars	Singapore	Low price, high quality and stable supply.
Wood	Singapore	Low price and stable supply
Steel building furnishings	Singapore	Good quality and commonly used
Wooden building furnishings	Singapore	Low prices and good quality
Paints	Singapore	Low price and commonly used
Waterproof materials	Singapore	Good quality
Sanitary equipment	Singapore	Low price and good quality
Pipes	Singapore	Various selection and stable supply
Distribution panels	Singapore	Good quality
Wires and cables	Singapore	Low price
Lighting fixtures	Singapore	Good quality and stable supply
Educational furniture	Maldives	Low price and long use
Educational equipment	England	Commonly used and easy operation and maintenance

3-1-6 Implementation Schedule

The Project shall be implemented within a single fiscal year in accordance with the following schedule:

Table 3—2 Project Implementation Schedule



FW: Field works in Maldives DD: Detailed design and tender document preparation
CS: Client support for pre qualification, tender and contract

3-1-7 Obligations of recipient country

The objective of the Grant Aid Program of Japan is to provide assistance to those countries who are willing to accept the self- help concept. Based on this policy, the Government of Japan requests recipient countries to bear a certain share of project implementation. This policy is equally applied to all recipient countries. Thus, when the Government of Japan decides to implement the Project under the Grant Aid Program, the Maldives shall undertake the following:

1) To provide data and information necessary for the Project.

2) To remove the existing storage and to clear the project site by the end of December, 1997.

3) To prepare the land for the Project and secure the rights to build a building.

4) To secure, clear, level and fill in the site for the Project prior to the project implementation.

5) To provide proper access road to the project area.

6) To provide a land for material storage, site office and boarding facility for labors as close to the project site as possible.

7) To undertake incidental outdoor works, such as landscaping, fencing, exterior lighting and other incidental facilities in and around the project site, if necessary, but not for the use of contractors.

8) To provide facilities for distribution of electricity, water supply, telephone, drainage, sewage and other incidental facilities into the project site, if necessary.

9) To bear commissions to the Japanese foreign exchange bank for its banking service based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission.

10) To ensure prompt unloading and customs clearance at ports of disembarkation in the Republic of Maldives and internal transportation therein of the products purchased under the Grant.

11) To meet the charge of customs duties, internal taxes and other fiscal levies which may be imposed in the Republic of Maldives with respects to the supply of the products and services under the Verified Contracts.

12) 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 Maldives and stay therein for the performance of their work in accordance with the relevant laws and regulations of the Republic of Maldives.

13) To provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary.

14) To bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.

15) To allocate appropriate budget and teaching and administrative staff members for proper and effective operation and maintenance of building and equipment provided under the Grant Aid.

16) To maintain and use properly and effectively the facilities constructed and the equipment provided under the Project in responsibility of the GOM.

3-2 Operation and Maintenance Plan

(1) Operation, Maintenance and Management Plan

After the completion of the Project building, the school will be the responsibility of the C-Section of the MOE which handles the budget of all the schools in Maldives.

1) Operating Staff

After the completion of the Project building, the MOE plans to allocate the teaching and administrative staff as shown below. This is based on previous experience from existing primary schools in Male', on the supposition that there are 1,000 students, and 35 classrooms under a double shift. The principal will be responsible for both the morning and afternoon classes. There will be one

assistant principal in the morning and one in the afternoon. A supervisor will be responsible for supervising eight teachers. The new principal, assistant principals and supervisors will be dispatched by the MOE from the existing schools. The teachers for the 6th and 7th grades will be transferred from the existing secondary schools. However, due to the increase in students in Male', the MOE will have to hire new teachers. As a new school will be constructed, administrative staff also need to be hired. The same number of teaching and administrative staff need to be secured for the fifth Male' Primary School, constructed through the Financial Assistance of the IDB. The MOE will have to hire these personnel prior to the completion of the Project, however, there should be no problems.

Table 3-3 Operating Staff

Position	Number Required	
	Morning Shift	Afternoon Shift
Principal	1 *	
Assistant Principal	1	1
Supervisor	4	4
Teachers	35	35
Quran Teacher	3	3
Islam Teacher	3	3
Dhivehi Language Teacher	3	3
Music Teacher	2	2
Assistant Teacher	4	4
Sports Director	1	1
Science Lab . Assistant	1	1
Accounting / General Affairs	1 *	
Secretary	2	2
Treasurer	1	1
Office Clerk	4	4
Counsellor	1	1
Librarian	2	2
Health Worker / Nurse	1	1
Printer	1	1
Caretaker	1	1
Messenger	2	2
Janitor	5	5

* Double Shift system does not apply to these two positions

2) Maintenance and Management of Facility and Equipment

The school will be responsible for the maintenance and management of the Project facility. The janitors and office clerks will be responsible for painting walls and floors, replacing lighting fixtures, repairing and replacing window panes, repairing equipment and furniture under the guidance of the Principal. As for equipment units, such as copying machine and computers, they will be repaired by the agents concerned. The budget for these will be provided by the school's maintenance and management fee. The budget also covers expendable items, such as stationary, equipment parts and cleaning items. As with the existing

schools, the principal of the two new schools may hire extra cleaning staff at any time, and the salary will be paid from the expendable items budget. From the experience of Kalaafaanu Primary School, the janitors must be told not to wash the walls with salt water.

3) Stationing of Teachers

The assigning of teachers is the responsibility of the School Administration Section of the MOE. In August of every year, each school estimates the number of students and necessary number of teachers for the following year and submits a report to the School Management Section conducts interviews of teachers registered with the ITE and hires them. For subjects, such as music or other subjects, where teachers are not registered, those teachers are hired mostly from Sri Lanka and India. The table below shows the estimated number of teachers to be registered in Male'.

Table 3-4 Number of ITE Registered Teachers

	School Teachers	Primary School Teachers
1998	35	24
1999	35	30
2000	35	30

Source: ITE

4) The MOE estimated the future number of necessary teachers in Male', based on the estimated student number and this is shown in Table 3-5. This table has been estimated based on the assumption that sixth grade students will be merged into the primary school system in 1998, and seventh grade students in 1999. However, this will be conducted a year later than assumed. With the construction of the Fifth and Sixth Male' Primary Schools and the merging of the sixth and seventh grades, it seems obvious that there will be shortage of teachers. However, together with the merging of sixth and seventh grade students, the teachers will also be transferred. Of course, the number of classrooms will be increased. However, the increase in the total number of students will be alight. Therefore, only this increase has to be considered. The MOE believes that the number of teachers trained annually at the ITE should be able to cope with the natural increase in students.

Table 3-5 Shortage of Teachers

	1998	1999	2000	2001	2002	2003	2004
No. of Necessary of Teachers	336	401	405	412	421	430	440
Shortage of Teachers	6	13	4	7	9	9	10

Source: MOE

(2) Maintenance and Management Costs

1) School Operating Costs

The Project school will consist of 35 classrooms from 1st to 7th grade. Based on the operation costs of Kalaafaanu Primary School, the project school's maintenance and management costs for one year is estimated to be as follows:

Table 3-6 School Operating Costs

Item	Details	Cost (Rf)	Assumption / basis of Estimation
Personnel Expense		4,746,000	2,100 students x 2,260 / students
Transportation Expense	Domestic and overseas transportation fee	26,000	104 people x 250 / teachers
Expendable Items	Office supplies, parts	252,000	2,100 x 120 / student
Maintenance and Management Costs	Maintenance & Management of building, machinery and equipment.	193,830	35 x 5,538 / classrooms
Communication Expense	Telephone, postal, electric.	316,878	104 x 3,047 / teacher
Material & Equipment Purchase	Books, furniture, equipment	145,097	1 x 145,097 / schools
TOTAL		5,679,805	

① The personnel expense for one student was estimated from the personnel expenses for the years 1995 and 1996 of Kalaafaanu Primary School.

② The transportation expense is for foreign teachers. As the number of foreign teachers will decrease in the future, this was estimated using the expense for foreign teachers in Kalaafaanu Primary School in 1995 and 1996, as this school has a small number of foreign teachers.

③ The expense for expendable items was also estimated using the 1995 to 1996 expense at Kalaafaanu Primary School.

④ The maintenance and management costs were estimated using Kalaafaanu Primary School as a sample, as it is the newest school with similar specifications.

⑤ Communication expenses include postal fees, electricity, water supply, telephone and transportation fees. This was also based on Kalaafaanu Primary School's expenses.

⑥ The costs for material and equipment were estimated using the 1995 to 1996 costs in Male's four primary schools.

2) Additional Expenses of the MOE

The additional expenses that will be incurred in this Project facility will be the personnel expenses for the new staff estimated to be 774,000 Rf, and other expenses (907,805 Rf) listed on the previous page, excluding transportation expense (26,000 Rf), totalling 1,681,805 Rf. Furthermore, in the first year of implementing this Project, office computers, copying machines and an offset printing machine will be needed.

As the MOE will have two new schools to deal with (5th and 6th Primary Schools), it will have to secure double the above expense of 3,363,610 Rf. However, as the schools will be new, the costs for repainting, maintenance and management for the first few years will be low. The amount (9,759,610 Rf) is approximately 1.3% of the 1997 total MOE budget (approximately 250 million Rf).
The additional portion is not thought to be an excessive amount.

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATION

CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATIONS

4-1 Project Effects

(1) Project Implementation Effects

Construction of the Sixth Male Primary School having 35 normal classrooms will have the following effects:

a) Alleviation of Classroom Shortages at Primary Schools and Improvement of Educational Qualities:

When MOE changes the present primary education calender from five years to seven years in 1999, there will be a 56 classroom shortage in Male'. Project implementation will provide 35 new classrooms that may eliminate 62.5% of the classroom shortage.

b) Alleviation of the Crowded Conditions in Secondary Schools and the Effects on Secondary Schools:

There are two public lower secondary schools and one public upper secondary school in Male'. Both the lower (sixth through tenth grades) secondary schools are very large, each having more than 50 classrooms which are overcrowded and operated under the double shift system. Once the Project is implemented, classroom shortage at primary schools will be alleviated. When the primary school year is changed to a seven year term system, 3,115 students of the public lower secondary schools will be shifted to the primary schools.Thus, the present overcrowded condition of 35.7 students per classroom in the secondary schools will be alleviated.

Further more, more children may attend the lower secondary schools. In addition, part of the less crowded lower secondary school classrooms may be used by the upper secondary school (eleventh and twelfth grades) and it will be able to expand the public upper secondary school that presently limits the number of the students to 400.

c) **Indirect Effects:**

Due to an insufficient number of public facilities for community residents because of the lack of land in Male', public schools' facilities, such as gymnasiums, classrooms, athletic grounds, are opened for public use when they are not being used for school activities.

After completing Project facilities, it is also expected that they will indirectly contribute to the community residents by providing a place for sporting events and social education when they are not being used for ordinary school activities.

(2) Method of Evaluating Project Appropriateness

Regarding school districts, Male' was considered as one complete school district because it is a small island and students can walk from their homes to any school. Thus, the number of lacking classrooms for the total number of students in Male was calculated based on the 30 students per classroom recommended by MOE and the total number of existing classrooms at all primary schools in Male.

Presently the four primary schools in Male have 116 classrooms. As these schools conduct a double shift system, it is possible to secure 232 classes. However, in 1999 the total number of primary school age children in Male will be 10,316. By placing 30 students per classroom, 344 classes shall be secured for them and 172 classrooms will be needed to conduct a double shift system. Thus, 56 classrooms (172 minus 116) were considered to be in shortage.

After 35 classrooms are constructed by this Project and an additional 35 classrooms are constructed for the Fifth Male Primary School by IDB in 1999, these classrooms may solve the classroom shortages by conducting a double shift system. However, due to the population increase, a classroom shortage problem will arise again in the year 20 04. This fact was estimated based on the following data:

a. Educational Statistics 1996 and 1997, by MOE
b. Statistical Year Book of Maldives, 1996 and 1997, by the ministry of Planning, Manpower, and Environment
c. Estimated Students Enrolment in Male' Government Primary School, 1995 to 2005, by MOE
d. Number of Public Primary School Students in Male, March 1997, by MOE

4-2 Recommendation

Once the following items are accomplished, the Project may be smoothly implemented and effective educational improvement may result:

a) Accomplishment of Undertakings to be Borne by the Maldives Side:

As the Project is to be implemented under the cooperation of the two countries, it is absolutely necessary that the undertakings to be borne by the Maldives shall be completed in accordance with the Maldives side's schedule. In particular, removal of existing facilities and land clearing work at the Project site must be accomplished without delay. For this purpose, both sides should maintain close communications and the Maldives side's schedule shall be periodically confirmed.

b) Securing of Teachers and Staff Members

In order to effectively and efficiently utilize completed Project facilities, it is necessary to secure teachers and staff members, including both a principal and assistant principal. MOE plans to recruit teachers for first to fifth grade students at the Project school from those registered in ITE and to transfer present teachers at lower secondary schools to the Project school for sixth and seventh grade students. MOE has to assign a principal and assistant principal and hire clerical personnel. To fully utilize Project facilities, MOE's recruitment plan must be conducted without delay.

c) Appropriate Operation and Maintenance of Completed Project Facilities

One percent of the budgetary funds of the public primary schools is allocated to facility operations and maintenance costs. In addition to the permanent janitors, each school periodically hires temporary janitors to conduct appropriate facility operations and maintenance work. However, the promoting of school facility operations and maintenance work by community residents and students as a part of the ordinary educational program is recommended.

Consumable items and office use items will not be provided under the Project. Consumable items and office use items necessary for smooth educational activities shall be procured by the Government of Maldives.

d) Problems Regarding Sixth and Seventh Grade Boys and Girls

The Government of Maldives has a policy to educate sixth grade boys and girls separately. After finishing fifth grade education at primary schools, boys and girls receive secondary education at the boys schools and girls schools respectively. It is planned to conduct sixth and seventh grade coeducation at the Project schools. Thus, the Government of Maldives shall take necessary measures in this matter.

APPENDICES

1. Member List of the Survey Team

Basic Design Study Team (July 28 through August 24, 1997)

1 .Leader	/	Yoshie Muramatsu Second Project Study Division, Grant Aid Project Study Department Japan International Cooperation Agency
2 .Chief Consultant Educational Planner	/	Kenichi Tanaka Mohri, Architect & Associates, Inc.
3 .Facility and Equipment Planner	/	Nobuhiro Mohri Mohri, Architect & Associates, Inc.
4 .Structural Planner	/	Akira Sugiura Mohri, Architect & Associates, Inc.
5 .Construction Planner and Quantity Surveyor	/	Akira Yokoyama Mohri, Architect & Associates, Inc.

Draft report explanation team (October 12 through October 21, 1997)

1 .Leader	/	Hideyuki Suzuki Deputy Resident Representative Sli Lanka Office Japan International Cooperation Agency
2 .Chief Consultant Educational Planner	/	Kenichi Tanaka Mohri, Architect & Associates, Inc.
3 .Facility and Equipment Planner	/	Nobuhiro Mohri Mohri, Architect & Associates, Inc.

2. Survey Schedule

(1) Itinerary of the Basic Design Study Team

No	Mon/ Day	Wk	Itinerary				
			Leader Yoshie Muramatsu	Chief Consultant / Educational Designer Kenichi Tanaka	Facility and Equipment Planner Nobuhiro Mohri	Construction Planner & Quantity Surveyor Akira Yokoyama	Structural Akira Sugiura
1	7/28	Mo	Narita 1:30(JL719)→17:25 Singapore 22:30(SQ452)→23:55 Male'				
2	29	Tu	Courtesy Call to MOF & MOE, Meeting with MOE, Site Investigation				
3	30	We	Investigation of Male' 4th Primary School, Inspection at EDC・ITE, Survey of Existing Schools				
4	31	Th	Meeting with MOE regarding the Minutes of Discussions, Meeting with MCPW				
5	8/1	Fr	Meeting among Team Members, Preparing Minutes of Discussions				
6	2	Sa	〃				
7	3	Su	Meeting with MOE, Signing of Minutes of Discussions				
			Male'→ Colombo	Survey of Educational Situation, Preparing Tentative Equipment Plan	Survey of Related Facilities in Maldives	Collecting Data on Construction and Material at Male'	Collecting Data on Structural Condition at Male'
8	4	Mo		〃	〃	〃	〃
9	5	Tu		〃	〃	〃	〃
10	6	We		〃	〃	〃	〃
11	7	Th		〃	〃	Male'18:20(UL104) →20:45 Colombo	Attendance at Topographic Survey and Soil Investigation
12	8	Fr		Examination of Equipment Plan	Analysis of Collected Data	Collecting Data on Estimation	Analysis of Collected Data
13	9	Sa		〃 , Meeting among Teem Members, Analysis of Collected Data		〃	Meeting among Teem Members, Analysis of Collected Data
14	10	Su		Survey of Educational Situation, Preparing Equipment Plan	Survey of Related Facilities, Preparing Facility Plan	Analysis of Collected Data	Survey of Buildings and Structural Materials
15	11	Mo		〃	〃	Collecting Data on Estimation	〃
16	12	Tu		〃	〃	〃 Colombo 23:55 (SQ401) →	〃
17	13	We		〃	〃	5:50 Singapore Collecting Data on Estimation	Attendance at Topographic Survey and Soil Investigation
18	14	Th		〃	〃	〃	〃
19	15	Fr		Meeting among Team Members, Finishing Plans of Facility and Equipment		〃	Meeting among Team Members, Analysis of Collected Data
20	16	Sa		〃		〃 Singapore 22:45 (JL710)→	
21	17	Su		Meeting with MOE		6:30 Narita	〃
22	18	Mo		〃	〃		〃
23	19	Tu		Courtesy Call to MOE Male'21:10(UL104)→23:40 Colombo			Courtesy Call to MOE
24	20	We		Data Collection	Collecting Data for Estimation		Analysis of Collected Data
25	21	Th		Reporting to the EOJ & JICA in Sri Lanka → Colombo 23:55(SQ101)			Male'→ Via Colombo →
26	22	Fr		→5:50 Singapore Survey of Purchasing Equipment	Collecting Data for Estimation		→ Bombay Survey of Purchasing Construction Machinery and Equipment
27	23	Sa		〃 → Singapore 22:45(JL710)	〃		Bombay → Via Singapore →
28	24	Su		6:30 Narita			6:30Narita

(2) Itinerary of the Draft Report Explanation Team

No.	Mon/ Day	Wk	Itinerary		
			Leader Hideyuki Suzuki	Chief Consultant / Educational Designer Kenichi Tanaka	Facility and Equipment Planner Nobuhiro Mohri
1	10/12	Su	Narita 12:00 ((SQ997) →17:45 Singapore 21:00 (SQ402) →22:30Male'		
2	13	Mo	Courtesy Call to MOF & MOE		
3	14	Tu	Explanation of Basic Design Report to MOF & MOE		
4	15	We	Meeting with MOE Explanation of Basic Design Report to MOF & MOE		
5	16	Th	Signing of Minutes of Discussions		
6	17	Fr	Data Analysis, Internal Meeting		
7	18	Sa		Study Team Meeting, Data Analysis	
8	19	Su		Supplementary Survey	
9	20	Mo		Supplementary Survey	
10	21	Tu		Male'0:55 (SQ451) →8:40 Singapore 9:45 (SQ12) →17:35Narita	

3. List of Party Concerned in the Recipient Country

Ministry of Education

Dr. Mohamed Latheef	Minister	
Mr. A.Hameed A. Hakeem	Deputy Minister	
Mr. Hussain Mohamed	Director General	G-Section
Mr. Midhath Hilmy	Director General	B-Section
Mr. Ibrahim Ismail	Director General	School Section
Mr. Abdulla Salih	Director	B-Section
Mr. Ali Moosa	Director	C-Section
Mr. Ibrahim Shiham	Senior Under Secretary	G-Section
Mr. Adam Moosa	Under Secretary	
Mr. Ahmed Ali Didi	Deputy Director	Planning Section
Mr. Mohamed Yoosuf	Civil Engineer	G-Section
Mr. Mohamed Bushry	Planning Off.	G-Section

Ms. Khadeeja Adam	Deputy Director	EDC
Mr. Ahmed Ali Manik	Director	ITE
Ms. Nadira Ismail	Teacher Educa. Coordinator	ITE

Mr. Mohamed Rasheed	Principal	Kalaafaanu School
Mr. Abdulla Ismail	D. Principal	Iskandar School
Ms. Sameera Ali	S.A. Principal	Ameeniyya School
Mr. M. Fahmy Hassan	D. Principal	Jamaaludeen School
Dr. Abdul Mohsin	Principal	Majeediyya School
Mr. Ahmed Shareef	A. Principal	Majeediyya School
Mr. Fathuhulla Ismail	Head Master	Ra Atoll School
Mr. Adam Saeed	Head Master	Ra Atoll Education Center
Mr. Ahmed Zaki	Head Master	Vilingili School
Mr. HUssain Rasheed	Coordinator	School Health Program

Ministry of Foreign Affairs

Mr. Ahmed Latheef	Director	Department of External Resources
Mr. Mohamed Ahmed Didi	Deputy Director	Department of External Resources

Ministry of Construction and Public Works

Mr. Mauroof Jameel	Director	Physical Planning & Design
Ms. Fathimath Rasheed	Architect	Physical Planning & Design
Mr. Ibrahim Shiaz	Civil Engineer	
Mr. Fayaz Mansoor	Quantity Surveyor	

United Nations Children's Fund (UNICEF)

Dr. Ramesh M. Sherestha	Assi. Representative
Ms. Hanaa Singer	Programme Officer

Maldives Monetary Authority

Mr. Mohamed Jaleel	Manager	Economic Research & Statistics Division

Maldives Electricity Board

Mr. Abdul Shakoor	Managing Director

Male' Water & Sewerage Company Ltd.

Mr. Mohamed Rasheed	Deputy Technical Manger

JICA Sli Lanka Office

Mr. Hideyuki Suzuki	Deputy Resident Representative

Embassy of Japan in Sli Lanka

Mr. Kaname Kanai	First Secretary

JOCV

Mr. Kazunori Ono	Coordinator
Mr. Tatsuya Komatsu	Badminton Coach
Ms. Ikuko Wakai	Badminton Coach
Mr. Kenji Chihara	Basketball Coach
Ms. Keiko Makino	Architect

4. Minutes of Discussions

Minutes of Discussion

on

the Basic Design Study on the Project for Construction

of the Sixth Male' Primary School

in the Republic of Maldives

(Consultation on Draft Report)

In July and August, 1997 the Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Team on the Project for Construction of the Sixth Male' Primary School (hereinafter referred to as "the Project") to Maldives, and through discussions, field survey, and technical examination of the result in Japan, has prepared the draft Basic Design report of the study.

In order to explain and consult the Government of Maldives (GOM) on the components of the draft report, JICA sent a study team, which is headed by Mr. Hideyuki Suzuki, and is scheduled to stay in Maldives from 12th to 21st October, 1997.

As a result of discussion, both parties confirmed the main items described on the attached sheets.

Male, the 16th October, 1997

Hideyuki Suzuki
Leader
Basic Design Study Team
(Consultation of Draft Report)
Japan International Cooperation Agency

Ahmed Latheef
Director of External Resources
Department of External Resources
Ministry of Foreign Affairs

Hussain Mohamed
Director General
Ministry of Education

ATTACHMENT

1. Components of the Draft Basic Design Report

The GOM has agreed and accepted the components of the draft Basic Design report proposed by the Team.

2. Responsible and Executing Organization

The Department of External Resources (DER) of the Ministry of Foreign Affair is the executing agency and is responsible for coordination between the Government of Japan and the GOM. The Ministry of Education (MOE) is the implementation agency for the Project. The MOE will be also responsible for the maintenance of the school and equipment granted under the Japan's Grant Aid.

3. Content of the Items of the Project

Both sides have confirmed the items, as given in Annex -1, which will be constructed or procured under the Japan Grant Aid .

4. Japan's Grant Aid Programme

The GOM has understood the system and characteristics of Japan's Grant Aid Programme given in Annex-2 .

5. Necessary Measures to be taken by the GOM

On condition that the Grant Aid Programme by the Government of Japan is extended to the Project, the GOM will take all the necessary measures to ensure the smooth implementation of the Project. In this context, the GOM agreed to undertake the tasks given in Annex-3.

6. Further Schedule of the Study

JICA will complete a final report of the Study in accordance with the confirmed items, and send it to the Maldivian side by January, 1998.

Annex-1 Items to be provided under the Japanese Grant Aid Project
(please see attached plan & list of Rooms, Funiture and Equipment)

1) School Building

• Major rooms

Teaching Area	No.	ADM. Area	No.	Service Space	No.
Normal Classroom	35	lobby	1	Counseling room	1
Art & Craft room	1	General Office	1	First aid room	1
Music room	1	Meeting room	1	Prayer room	1
Science room	1	Principal room	1	Storage	2
Audio Visual room	1	Ass. Principal	1	Staff toilet	2
Library	1	Staff room	1	Student toilet	13
Hall	1	Superviser room	1	Quiet area	1
Storage	3	Print room	1	Sports storage	1
				Machine room	2
				Electric room	1

2) Basic Educational Equipment

- Furniture
- Equipment

List of Rooms, Furniture and Equipment

1) Rooms and Furniture

NAME OF ROOM	No.	Educational Furniture	No.	Size(W*D*H)	Notes
GENERAL TEACHING AREA					
Classrooms(1 ~ 35)	35	Student's Desk (L:Grade 6,7)	30	600* 400* 720	
		(M:Grade 3,4,5)	15	1100* 450* 490	For Two Students
		(S:Grade : 1,2)	15	1000* 400* 440	For Two Students
		Student's Chair (L:Grade 6,7)	30	340* 430* 665	
		(M:Grade 3,4,5)	30	310* 445* 588	
		(S:Grade : 1,2)	30	300* 418* 540	
		Student's Cabinet	3	1800* 400* 900	
		Teacher's Chair	1	390* 450* 920	
		Teacher Table	1	1200* 600* 760	
		Teacher's Cabinet	2	1200* 450*1875	
		Blackboard	1	3600* 125*1200	
		Signboard	2	1800* *1500	
Art / Crafts Room	1	Student's Table (For 6students)	5	3000* 900* 850	
		Student's Stool	30	300* 300* 420	
		Teacher's Desk	1	1200* 600* 760	
		Teacher's Chair	1	390* 450* 920	
		Cabinet	1	1200* 450*1800	
		Blackboard	1	3600* 125*1200	
		Signboard	2	1800* *1500	
		Counter、Sink	5		For Washing
Preparatory Room	1	Built-in Shelves			
Music Room	1	Student's Desk	30	600* 400* 580	
		Student's Chair	3	360* 360 *420	
		Teacher's Chair	1	390* 450* 920	
		Teacher's Desk	1	1200* 600* 760	
		Cabinet	1	1200* 450*1800	
		Blackboard	1	3600* 125*1200	
		Signboard	2	1800* *1500	
Preparatory Room	1	Built-in Shelves			
Science Room	1	Student Table (For 6students)	5	3000* 900* 850	
		Stool	31	300* 300* 420	
		Demonstration Table	1	2400* 900* 850	
		Cabinet	1	1200* 450*1800	
		Blackboard	1	3600* 125*1200	
		Signboard	2	1800* *1500	
		Counter、Sink	5		For Washing
Preparatory Room	1	Teacher's Desk	1	1200* 600* 760	
		Teacher's Chair	1	390* 450* 920	
		Cabinet	3	1800* 450*1800	
		Chemical Refrigerator	1		
Audio Visual Room	1	Student's Desk	30	600* 400* 580	
		Student's Chair	30	360* 360 *420	
		Teacher's Chair	1	390* 450* 920	
		Teacher's Desk	1	1200* 600* 760	
		Cabinet	1	1200* 450*1800	
		Blackboard	1	3600* 125*1200	
		Signboard	2	1800* *1500	
		Blackout Curtain			
		Video Projector	1		
		Screen	1	3600* *2700	
Preparatory Room	1	Built-in Shelves		* 600	

NAME OF ROOM	No.	Educational Furniture	No.	Size(W*D*H)	Notes
GENERAL TEACHING AREA					
Library	1	Reading Table (For 6persons) Reading Chair Book Shelf Magazine Rack Counter Librarian's Table Librarian's Chair Cabinet	5 30 10 1 1 2 2 2	1800* 750* 700 360* 360* 420 1800* 350*1800 700* 450*1000 1800*1200* 750 1200* 600* 760 390* 450* 920 1200* 450*1800	
Hall	1	Steel Folding Chair	600	462* 440* 735	
Stage	1	Speech Desk Folding chair's Carrier (For 80) Drop Curtain Batten	1 8 2	880* 650*1470 1000*4050*752	 A Set For Stage Lighting & Setting
Store	3	Built-in Shelves		* 600	

NAME OF ROOM	No.	Educational Furniture	No.	Size(W*D*H)	Notes .
ADMINISTRATIVE AND STAFF SPACE					
Lobby		Signboard	4	1800* *1500	
General Office	1	Office Desk	12	1000* 700* 700	
		Office Chair	12	390* 450* 920	
		Cabinet	12	1200* 450*1800	
		Staff Table (For 3persons)	2	1500* 750* 750	
		Staff Chair	6	390* 450* 920	
		White Board	2	2400* 120*1200	
Administrator's Room	1	Administrator's Desk	1	1400* 800* 700	
		Administrator's Chair	1	680* 700* 900	
		Book Shelf	1	900* 450*1800	
		Locker	1	600* 450*1800	
		Chair (For Guest)	2	390* 450* 920	
Print Room	1	Built-in Shelves		* 300	
Pantry	1				
Staff Meeting Room	1	Meeting Table (For 3persons)	4	1500* 750* 750	
		Chair	14	390* 450* 920	
		White Board	1	2400* 120*1200	
Principal's Room	1	Receiving Furniture Set	1		
		Principal's Desk	1	1600* 800* 700	
		principal's Chair	1	680* 700* 900	
		Book Shelf	1	900* 450*1800	
		Locker	1	600* 450*1800	
Toilet	1				Mirror etc.
Secretary's Room	1	Office Desk	2	1000* 700* 700	
		Office Chair	2	390* 450* 920	
Ass. Principal's Room	1	Ass. Principal's Desk	2	1600* 800* 700	
		Ass. Principal's Chair	2	680* 700* 900	
		Book Shelf	2	900* 450*1800	
		Locker	2	600* 450*1800	
		Chair (For Guest)	4	390* 450* 920	
Staff Room	1	Staff Table (For 3persons)	18	1500* 750* 750	
		Staff Chair	54	390* 450* 920	
		Staff Locker (For 16persons)	7	1200* 400*1850	
Teaching Aids	1	Built-in Shelves		* 600	
Pantry	1	Staff Table (For 3 Persons)	6	1500* 750* 750	
		Staff Chair	6	390* 450* 920	
		Refrigerator	1		
Supervisor's Room	1	Supervisor's Desk	8	1400* 800* 700	
		Supervisor's Chair	8	680* 700* 900	
		Book Shelf	8	900* 450*1800	
		Locker	8	600* 450*1800	
		Chair (For Guest)	8	390* 450* 920	

NAME OF ROOM	No.	Educational Furniture	No.	Size(W*D*H)	Notes
ANCILLARY SERVICE SPACE					
Counselling Room	1	Counsellor's Desk Counsellor's Chair Cabinet	1 3 2	1000* 700* 700 390* 450* 920 1200* 450*1800	
First Aid Room	1	Health Assistant's Desk Health Assistant's Chair Cabinet Stool Steel Bed	1 1 2 2 1	1000* 700* 700 390* 450* 920 1200* 450*1800 φ 300* 450 2050* 910* 750	
Sports Store	1	Built-in Shelves		* 600	
Storage (1),(2)	1				
Prayer Room	1	Book Shelf for Koran	2	1200* 450*1800	
Staff Toilet	2				Mirror etc.
Student Toilet	8				
Sports Hall Toilet	1				
Machine Room	1				
Electric Room	1				
Circulation	—				

2) Educational Equipment

List of Science Equipment

No.	ITEMS	Specification	Number		Purpose of Use	Requested	
			Reason	QTY		NO	QTY
1	4mm ` plugs	L= 250mm red (connection wire)	G5/T5	30	Study of electricity	S1	30
2	4mm plugs	L=250mm yellow (connecting wire)	G5/T5	30	Study of electricity	S2	30
3	4mm plugs	L=250mm black (c0nnecting wire)	G5/T5	30	Study of electricity	S3	30
4	Acrylic blocks, rectangular	114 × 65 × 17mm	G1/F 1	6	Propety of light	S4	5
5	Acrylic blocks (prism)	59 mm 60° 60° ,60°	G1/T 1	6	Propety of light	S5	12
6	Ammeter	Dual Range 0A-5A	G2/12	12	Study of electricity	S7	12
7	Balance	200g mass set	G1/F 1	6	Measurement	S9	7
8	Bar magnets	Chrome Steel L=100mm	G2/12	12	Physical process	S11	12
9	Beaker	Pyrex 100ml	G1/T 1 ※	12	Science basic use	S12	12
10	Beaker	Pyrex 250ml	G1/F 1 ※	12	Sciencce basic use	S13	12
11	Beaker	Pyrex 600ml	G1/F 1 ※	12	cience basic use	S14	12
12	Bell jar	H=300mm D=200mm	T1	1	Study of respiration	S15	1
13	Bimetalic strip	Nickel chrominumalloy and invar, 150 × 15 × 1mm with handle	T 1	1	Heat & expansion	S16	1
14	Boss for retort stand	120m × 30mm	G2/12	12	Basic use for science	S17	12
15	Bulbs	1:5v holders	G2/12 ※	24	Electricity	S18	24
16	Butane burner	220g	G1/12	7	Heating	S19	7
17	Clamp	250 × 90 × 8	G2/12	12	Science basic use	S20	12
18	Concave lends	D=75, F=2 0	G1 /T1	6	Propety of light	S22	6
19	Conical flask	Pyrex 250ml	G1/T1	12	Basic use for science	S23	12
20	Convex lends	D=75, F=2 0	G1/T1	6	Propety of light	S24	6
21	Crocodile clips	D= 4mm	G10/T10	60	Electricity	S25	60
22	Max. & min. thermometer	50 × 10 × 4cm	I/SCI room	1	Instrument for measuring temperature	S26	2
23	Deflagrating spoon	L=150mm without needle	T 1	1	Combustion of chmical	S27	1
24	Droppers	D=1.7 cm L=110mm	G6/16 ※	72	Science basi cuse	S28	72
25	Evaporating basin	D= 90mm	T 1	1	Heating & evaporating	S29	1
26	Filter flask	250 cc Stopper =33	T 1 ※	2	Basic use for science	S31	2
27	Forceps	L=110mm Blunt end	T 1	1	Biology observation	S32	2
28	Funnel	D=89mm polythene	G2/12	12	Filtration and other use	S33	12
29	Glass Rod	D= 5 L=250mm	G1/T1 ※	12	Stiring use	S35	12
30	Glass tube	D=5mm 30'pack	G3/T3	1	Set up for basic exp.	S36	18
31	Helical Spring	D=37mm L=32mm	G1/T1	6	Study of weight	S37	8
32	Magnifiying glass	D=63mm L=145mm	G1/1	6	Bio Observation	S40	6
33	Mass set	100g case	G1/T1	6	Force & materials	S41	6
34	Mass set	10g case	G1/T1	6	Force & materials	S42	6
35	Measuring cylinder	100ml polypropylene	G1/T1	6	Measurement	S43	6

No.	ITEMS	Specification	Number		Purpose of Use	Requested	
			Reason	QTY		NO	QTY
36	Measuring cylinder	10ml polypropylene	G1/T1	6	Measurement	S44	6
37	Measuring cylinder	250m polypropylenel	G1/T1	6	Measurement	S45	6
38	Measuring Tape	L=2m W=13mm	G1/T1	6	Measuring an object	S46	6
39	Microstope mini	× 40, × 100, × 400	G1/T1	6	Observation	S48	6
40	Molecular model set	oxgen, water, co2	T 1	1	Sstudy of molecules	S49	1
41	Mortar pestles	Porcelain D= 11cm	T1	1	To grind into powder	S52	1
42	Newton meter	0-10N	G1/T1	6	Study of weight /force	S53	6
43	Newton meter	0-50N	G1/T1	6	Study of weight /force	S54	6
44	Plane mirror	Plastic 100mm × 100mm	G1/T1	6	Study of light	S55	6
45	Plotting compass	D=20mm	G1/T1	6	Sstudy of magnetic force	S56	6
46	dry cell holders		G3/T3	18	Electricity	S57	18
47	Round bottom Flask	pyrex 250ml	G1/T1 ※	12	Basic use for science	S59	12
48	Rubber tube	D= 5mm L=2m	G1/T1	1	Basic use for exp. operation	S60	7
49	Safty Spectacles	middle school students	Stud.1/T1	31	To protect students' eyes	S61	35
50	Scalpels	L=113mm Blade=45mm	T1	1	Study of a plant	S62	1
51	Slide	76,26, 0.8-1.0 100/box	G1/T1	1	for microscope	S63	12
52	Slide cover	18mm 、18mm 、100/box	G1/T1	1	for microscope	S64	12
53	Spatula	Stainless steel L=100mm 、W=4	G3/T3	18	Basic use for reagent	S65	18
54	Stande retort	Base 250 × 160mm 、Rod l=60cm	G2/T2	12	Basic use for exp.	S66	12
55	Stopper	Size 21mm	G1	5	For an experiment	S67	5
56	Stopper	Size 21mm one hole	G1	5	For an experiment	S68	5
57	Stopper	Size 31mm one hole	G1/T1 ※	12	For an experiment	S69	12
58	Stopper	Size 31mm two holes	G1/T1 ※	12	For an experiment	S70	12
59	Syringe	Plastic 100ml	G1/T1 ※	12	Study of pressure	S71	12
60	Test tube holders	wooden L=180mm	G1/T1	6	To hold a test tube	S73	6
61	Test tube rack	12holes	G1/T1	6	To keep test tubes	S74	6
62	Test tube	Pyrex 150 × 16 mm	G6/T6 ※	72	Science basic use	S75	72
63	Test tube	pyrex 150 × 24 mm	G6/T6 ※	72	Science basic use	S76	72
64	thermometers	red spirit, −10 ~ 110 ℃	G1/T1	6	Science exp. use	S77	12
65	Tile	L=150, W=150 white	G1/T1	6	Observation of an plant	S78	6
66	Tongs	Brass L= 200	G1/T1	6	Heating Experimental use	S79	6
67	Tripod stand	H= 200, Side125mm	G1/T1	6	Heating experimental use	S80	6
68	Voltmeter	0-15v	G2/T2	12	Study of electricity	S82	6
69	Wall thermometer	−30 ~ 50 ℃ wooden case	1/sci room	1	To observe temperature	S83	5
70	Watch glass	D=80	G1/T1	6	To put chemical	S84	6
71	Wire gauze	L = 150, W = 150 ceramiocenter	G1/T1 ※	12	Heating experimental use	S85	12
72	Test tube brush	L=200	G1/T1	6	Cleaning a test tube	—	—

NOTE) 1 For the items with the sign of ※ in column 3, extra (twice as many as calculated based on the column of the reason) is held,

2 Though any test tube brush is not requested, it is defenitly needed to clean the test tubes. Therefore, NO.72 is added in the listed above.

List of Social Studies & Environmental Equipment

No.	Item	Specification	Number		Purpose of use	Requested	
			Reason	QTY		NO	QTY
73	Globe	Political 300mm	1/School	1	Geographical study	SE1	3
74	Globe	Physical Relief 300mm	1/ School	1	Geography	SE2	3
75	World map	1130 × 1300mm	1/School	1	Geography	SE6	3
76	Basic Celestrial Globe	D=300mm	1/ School	1	Constellation	SE8	1

List of Mathematics Equipment

No.	Item	Specification	Number		Purpose of use	Requested	
			Reason	QUR		NO	QUR
77	Area Work with Square	、25 × 25cm ^ ,,	1 / School	1	Concept of area	MA1	5
78	Centicube	wooden 1cmcubes 1000 base 10 cube	1 / School	1	Concept of volume	MA2	5
79	Classroom Clock Face	40cm × 40cm	1 / School	1	'Study of time	MA3	2
80	Clock face Rubber Stamp	D=5cm stamp ink	Stud2	15	Study of time	MA4	100
81	Geometrical Model set	wooden、 27shapes (9 different shapes)	1/ Stud	1	Concept of shape	MA6	5
82	Giant protractor	wooden D=60cm	1/Grade	7	Study of angle	MA9	3
83	Giant ruler	Wooden 1m (cm、mm)	1/Grade	7	To draw a straight line	MA10	5
84	Giant Compass	wooden L=60cm	1/Grade	7	Blackboard use	MA11	5
85	Multi-shape liter set	5 containers	1 /school	1	Volume of liquid	MA13	10
86	Giant Set Square	Wood 45° & 60° ,30° Side=60cm	1/school	7	Study of angle	MA14	10
87	Netwight general Purpose registering 5kg	5kg、	1 /school	1	Weight	MA15	5
88	Geoboard	225 × 225 11 × 11pins	01/T1	6	Study of polygon	MA16	5
89	Visual Fraction Apparatus	wooden 23c m × 25'1/2cm	1/ School	1	Concept of Fractions	MA23	5

List of Physical Education Equipment

No.	Items	Specification	Number		Purpose of use	Requested	
			Reason	QTY.		No.	QTY
90	Floor Mat	6'× 4'× 1 1/4'	2/15 Stud	4	Basic tumbling	EA1	4
91	Spring board		1 /30 Stud	1	For vaulting box	EA5	3
92	Vaulting box (junior)	5 section (1.02m)	1 / 30 Stud	1	Jump with leg parting	EA6	1
93	Balance beam	wooden、W=6.5cm H=16.5cm、24cm	1 / 30 Stud	1	Balancing	EA7	1
94	Foot ball	mini goal 2.4m × 1.2m、	1 / 30 Stud	1	Study of foot boal	EA13	1
95	Volley ball posts	net & antennae	1 / 30 Stud	1	Study of volley ball	EA19	2
96	Volley boal Judge stand	H=1.8m	1/school	1	For a judge	EA22	1
97	Net boal posts	H=2.4~3m D=50mm one set with nets & rings	1 / 30Stud	1	Study of net ball game	EA27	2
98	Relay batons	L=300 D=32 6 different colore	5/ 30 Stud	1	Baton pass	EA46	7
99	Badminton Posts	D=50mm net	1 / 15 Stud	2	Study of badminton	EA61	4
100	Table tennis table	T=19mm	1 / 15 Stud	2	Study of Table tennis	EA68	4
101	Table tenis post	net	1/ 15 Stud	2	For teble tennis table	EA69	8
102	Basket boal	goals & nets	1 / School	1	Study of basket ball	EA40	3
103	Ball cabinet	wheelaway 1.4m × 0.6m × 1.5m	1/ School	1	Storage of ball for ball use	EA92	2
104	Ball cabinet	wheelaway 600 × 1000 × 1050	1/ School	1	Storage of balls for ground use	-	-
105	Scoring unit	table top	1/ School	1	Scoring	EA23	5

List of Art Equipment

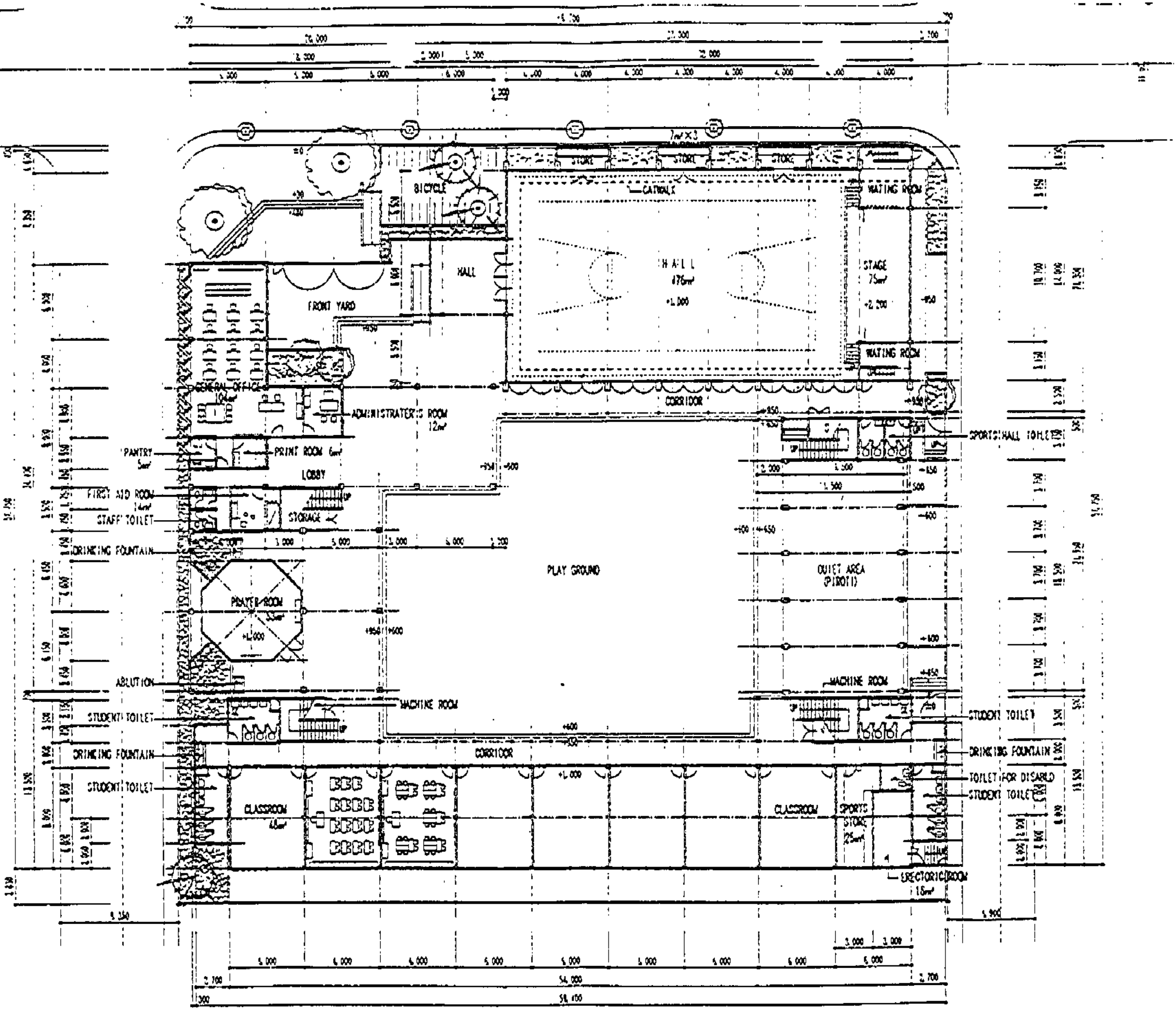
No.	Items	Specification	Number		Purpose of use	Requested	
			Reason	QUY		No	QUY
106	Drawing Board	Board 45 × 60 × 0.35	1/Stud	30	Drawing a picture	A8	40
107	Display board	1800 × 900 、pole (4) Stabiliser foots (4)	1/2 group	3	Display students' wor	A13	8

List of Music Equipment

No.	Items	Specification	Number		Purpose of use	Requested	
			Reason	QTY		No.	QTY
108	Side Drum	30 × 14cm belt sticks	2/class	2	Study of percussion instrument	M1	4
109	Tenor Drum	30 × 20 belt, stick	2/class	2	Study of percussion instrument	M2	2
110	Bass Drum	46 × 25 belt, stick	2/class	2	Study of percussion instrument	M3	2
111	Melodica	Alto 32 keys	SI/TI	31	Study of melody and notes	M4	20
112	Accordian	(junio rsize) 27 keys	2/class	2	Study of melody and notes	M5	4
113	Cymbals	D= 25cm	1/class	1	Study of percussion instrument	M6	2
114	Mouth Organs	soprano with case	SI/TI	31	Study of melody and notes	M7	40
115	Bass Drum	56 × 25cm belt, stick	2/class	2	Study of percussion instrument	M8	1
116	Side Drum	35 × 17 belt, sticks	2/class	2	Study of percussion instrument	M9	4
117	Cymbals	D=18cm	1/class	1	Study of percussion instrument	M10	2
118	Cymbals	D=30cm	1/class	1	Study of percussion instrument	M11	2
119	Triangle	L=20cm with a beater	6/class	6	Study of rhythum	M12	12
120	Tambourines	D= 20cm	6/class	6	Study of rhythum	M13	20
121	Clappers	wooden	6/class	6	Study of rhythum	M14	8
122	Bells	Jingle stick	6/class	6	Study of rhythum	M15	12
123	Xylphone	soprano, with half xylophone	6/class	6	Study of melody and notes	M16	1
124	Mini oragan	49keys (electric 220v)	1/music room	1	Teacher's use	M17	1
125	Piano	88keys	1/hall	1	Teacher's use	M18	2
126	Recorders	soprano with carrying case	SI/TI	31	Study of melody and notes	M20	40
127	Metronome	40-208 beat/min	1/music room	1	Study of rhythum	M21	2

List of Clinical Equipment

No.	Item	Specification	Number		Purpose of use	Requested	
			Reason	QTY		No.	QTY
128	Eye sight test chart	Distance=5m ring pattern	1/Health room	1	Eye sight test	EE02	1
129	Sitting Height Measure	Sitting Hight 30 ~ 100cm	1/Health room	1	Physical examination for students	EE03	1
130	Weight Scale	Auto weight scale, calibrated 200g	1/Health room	1	Physical examination for students	EE04	1
131	Height measure	range 70 ~ 200cm	1/Health room	1	Physical examination for students	EE05	1
132	Heacmadyna mo meter	range 0-300mmHg with stand	1/Health room	1	For blood pressure	EE06	1
133	Stethoscope	80cm	1/Health room	1	For item No. 132	EE07	1
134	Stretcher	alminum with casters 54cm × 203cm	1/Health room	1	For emergency use for a sick student	EE11	1



GROUND FLOOR PLAN S=1/300

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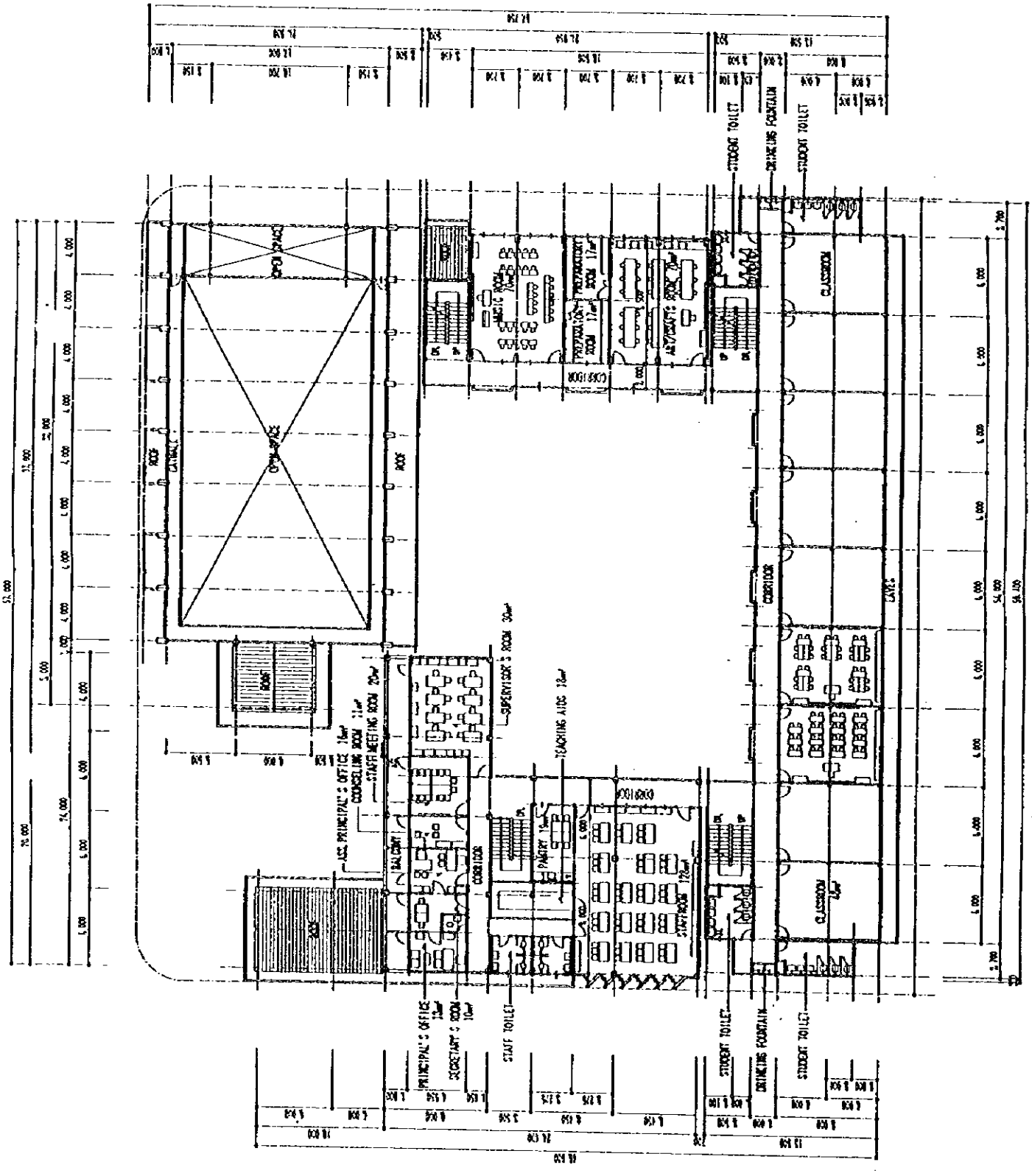
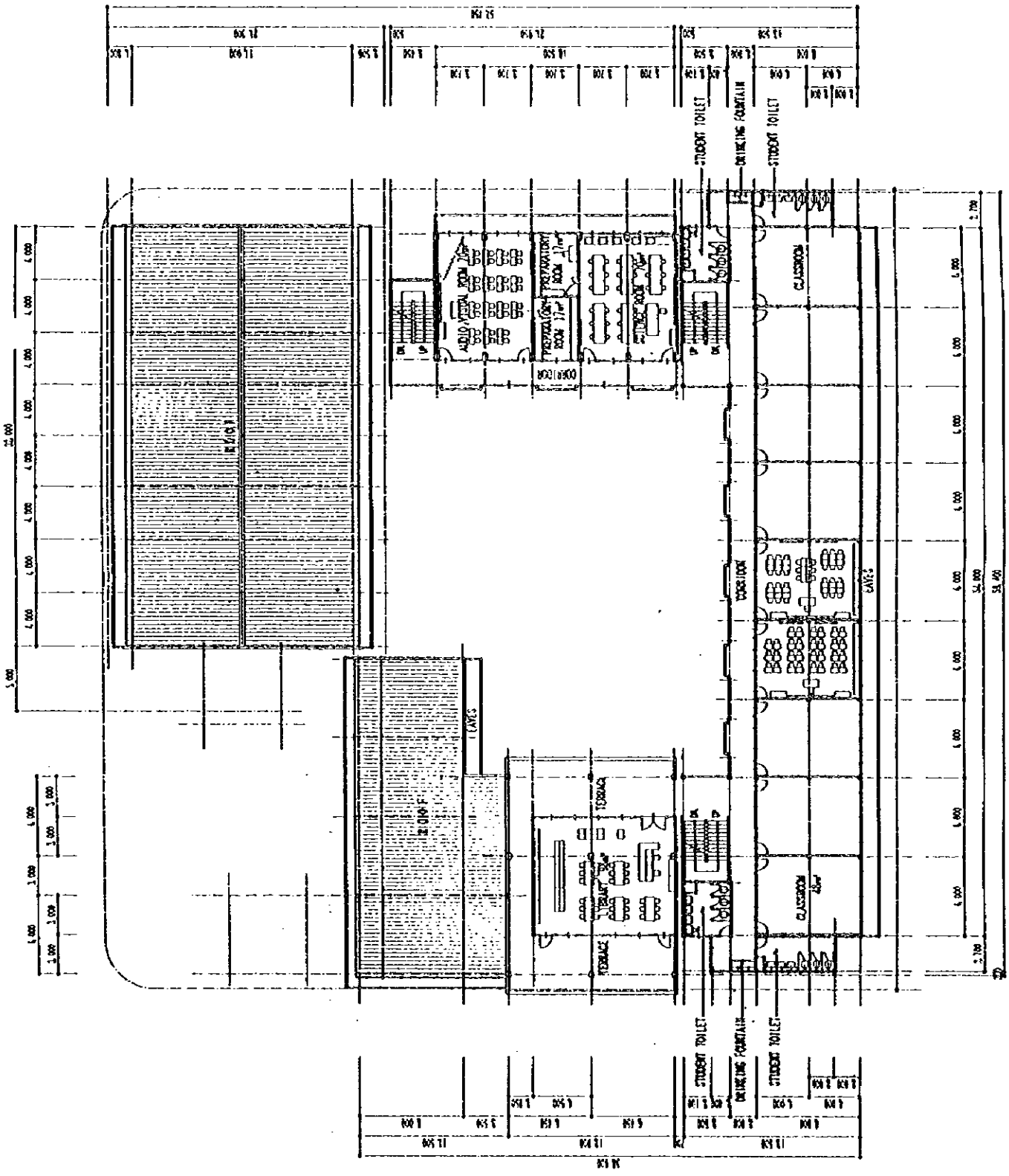
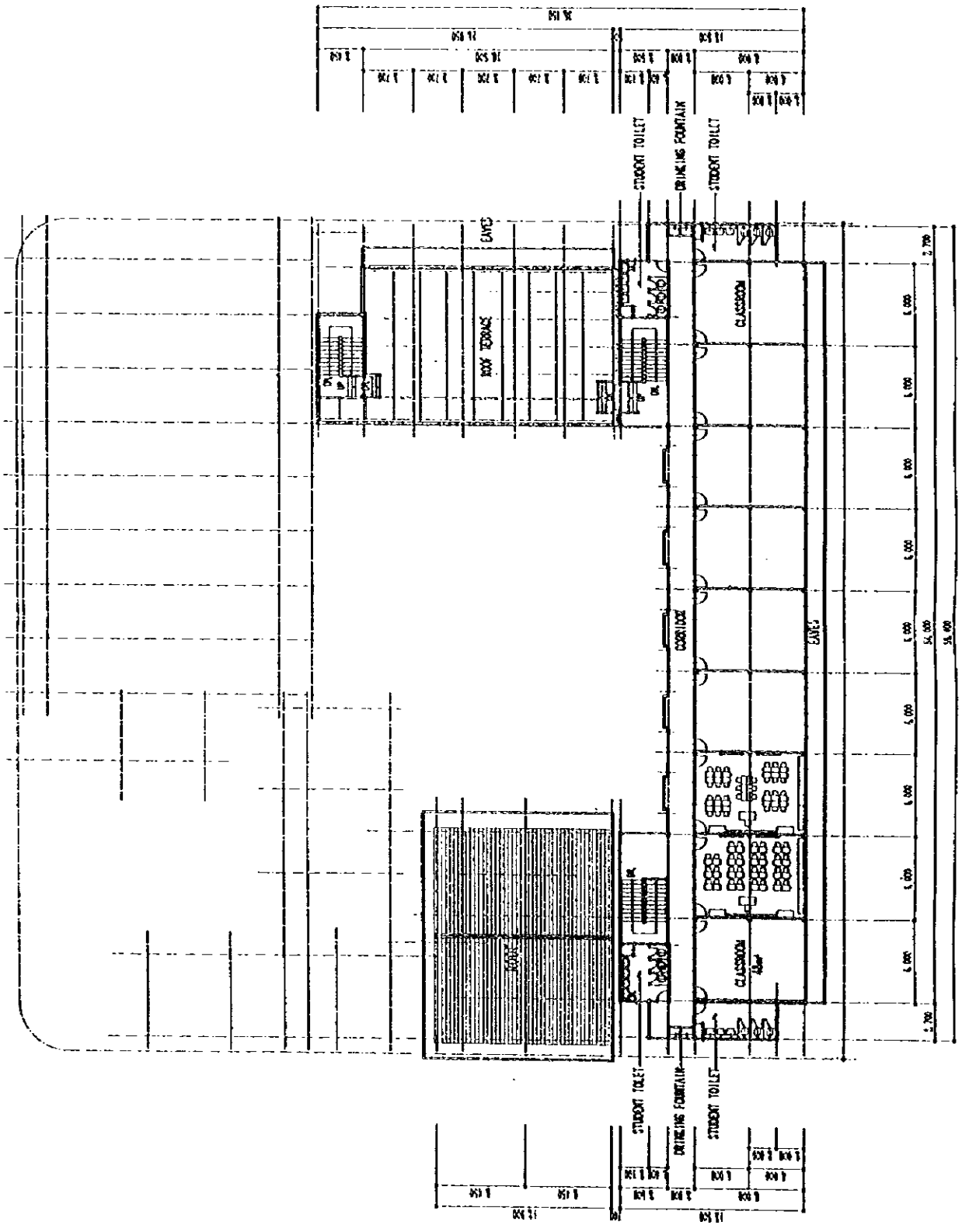
FIRST FLOOR PLAN S=1/300





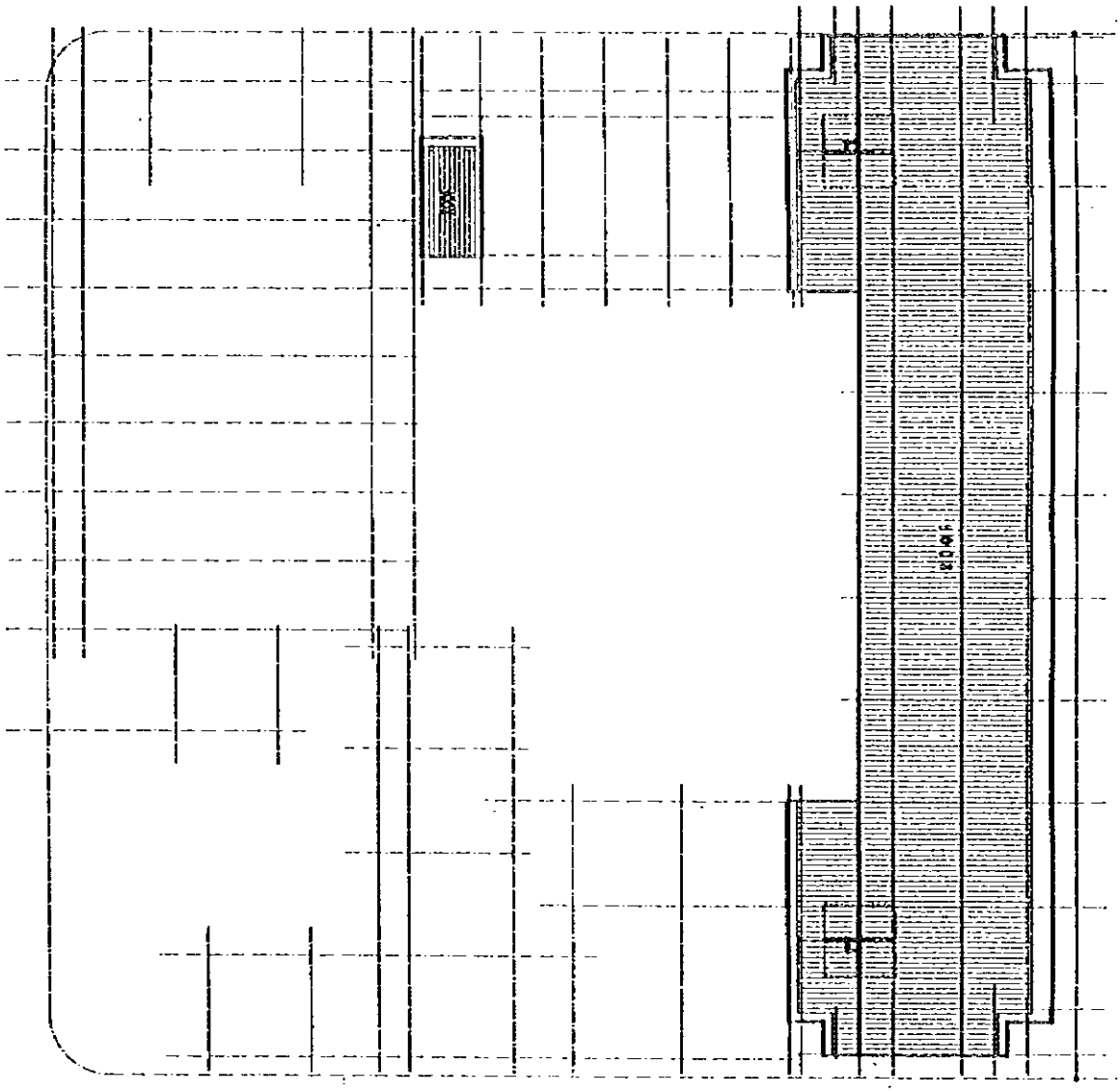
SECOND FLOOR PLAN S=1/300

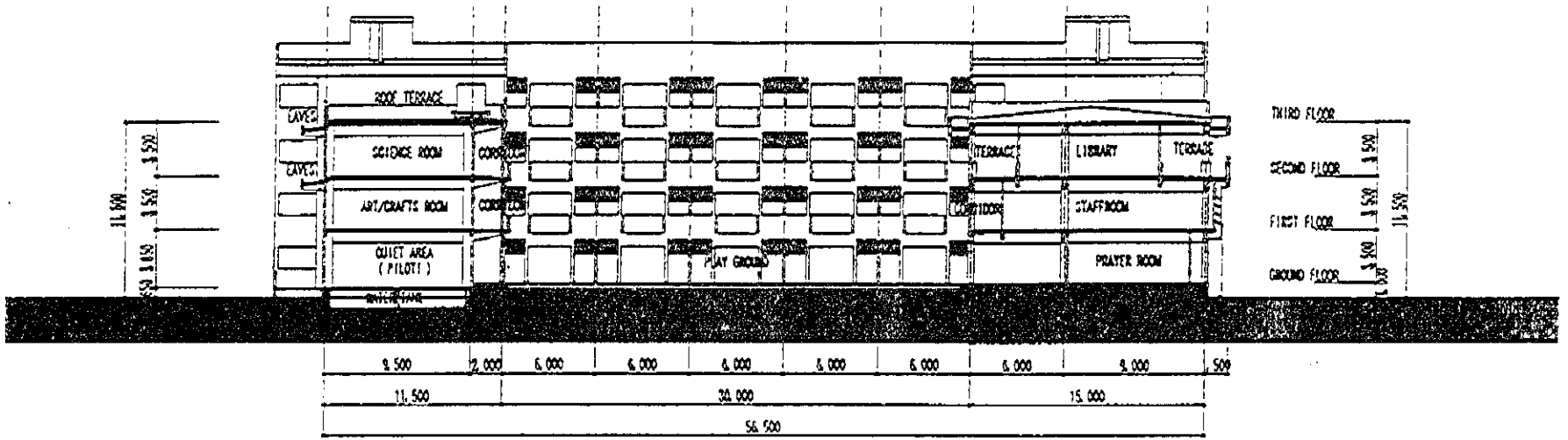


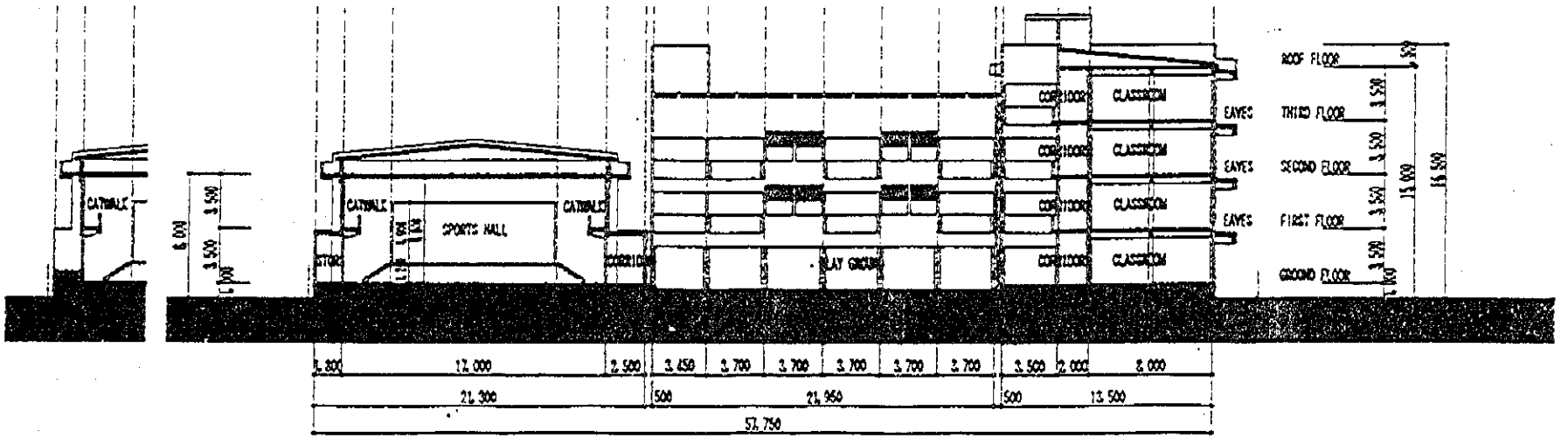
THIRD FLOOR PLAN S=1/300

S=1/300

ROOF PLAN







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AP--23

17

Annex-2 Japan's Grant Aid Programme

1. Grant Aid Procedures

1) Japan's Grant Aid Programme is executed through the following procedures.

•Application	(A request made by the recipient country)
•Study	(Basic Design Study conducted by JICA)
•Appraisal & Approval	(Appraisal by the government of Japan and Approval by the Cabinet of Japan)
•Determination of Implementation	(Exchange of Notes between the Government of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study)using (a) Japanese consulting firm(s).

Thirdly,the Government of Japan appraises the Cabinet, becomes official with the Exchange of Notes signed by the Government of Japan and recipient country.

Finally, for the implementation of the Project, JICA will assist the recipient country in such matters as preparing tenders, contract and so on.

2 Basic Design Study

1) Contents of the study

The aim of the Basic Design Study (hereafter referred to as " the Study") conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the study are as follows:

a) Confirmation of the background, objectives and benefit of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.

b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.

c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.

d) Preparation of a basic design of the Project.

e) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is concerned considering the guidelines of the Japan's Grant Aid Scheme.

The Government of Japan requests the Government of the recipient country to take necessary measures to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even through they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA select (a)firm(s) based on proposals submitted by interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report,based upon terms of reference set by JICA.

The consultant firm(s) used for the Study is (are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency and also to avoid undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid

1) Grant Aid

The Grant Aid Programme provide a recipient country with non-reimbursable funds to procure the facilities, equipment and service (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid, etc., are confirmed.

3) Period

"The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However,in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Purchase of the Products and or Services

Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting constructing and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "verification" is deemed necessary to secure accountability to Japanese taxpayers.

6) Undertaking required from the Government of the recipient Country

(As described in ANNEX 3)

7) Proper Use

The recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

8) Re-export

The products purchased under the Grant Aid should not be re-exported from the recipient country.

9) Banking Arrangements (B/A)

a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in an authorized foreign exchange bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant aid by making payment in Japanese Yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payment will be made when payment requests are presented by the Bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

Annex -3 Necessary Measures to be taken by the GOM

Following necessary measures should be taken by the GOM on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. To provide data and information necessary for the Project.
2. To remove the existing storage and to clear the project site by the end of December, 1997.
3. To prepare the land for the Project and secure the rights to build a building.
4. To secure, clear, level and fill in the site for the Project prior to the project implementation.
5. To provide proper access road to the project area.
6. To provide a land for material storage, site office and boarding facility for labours as close to the project site as possible.
7. To undertake incidental outdoor works, such as landscaping, fencing, exterior lighting and other incidental facilities in and around the project site, if necessary, but not for the use of contractors.
8. To provide facilities for distribution of electricity, water supply, telephone, drainage, sewage and other incidental facilities into the project site, if necessary.
9. To bear commissions to the Japanese foreign exchange bank for its banking service based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission.
10. To ensure prompt unloading and customs clearance at ports of disembarkation in the Republic of Maldives and internal transportation therein of the products purchased under the Grant.
11. To meet the charge of customs duties, internal taxes and other fiscal levies which may be imposed in the Republic of Maldives with respects to the supply of the products and services under the Verified Contracts.
12. 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 Maldives and stay therein for the performance of their work in accordance with the relevant laws and regulations of the Republic of Maldives.
13. To provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary.
14. To bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.
15. To allocate appropriate budget and teaching and administrative staff members for proper and effective operation and maintenance of building and equipment provided under the Grant Aid.
16. To maintain and use properly and effectively the facilities constructed and the equipment provided under the Project.ig responsibility of the GOM.

5. Cost Estimation Borne by the Recipient Country

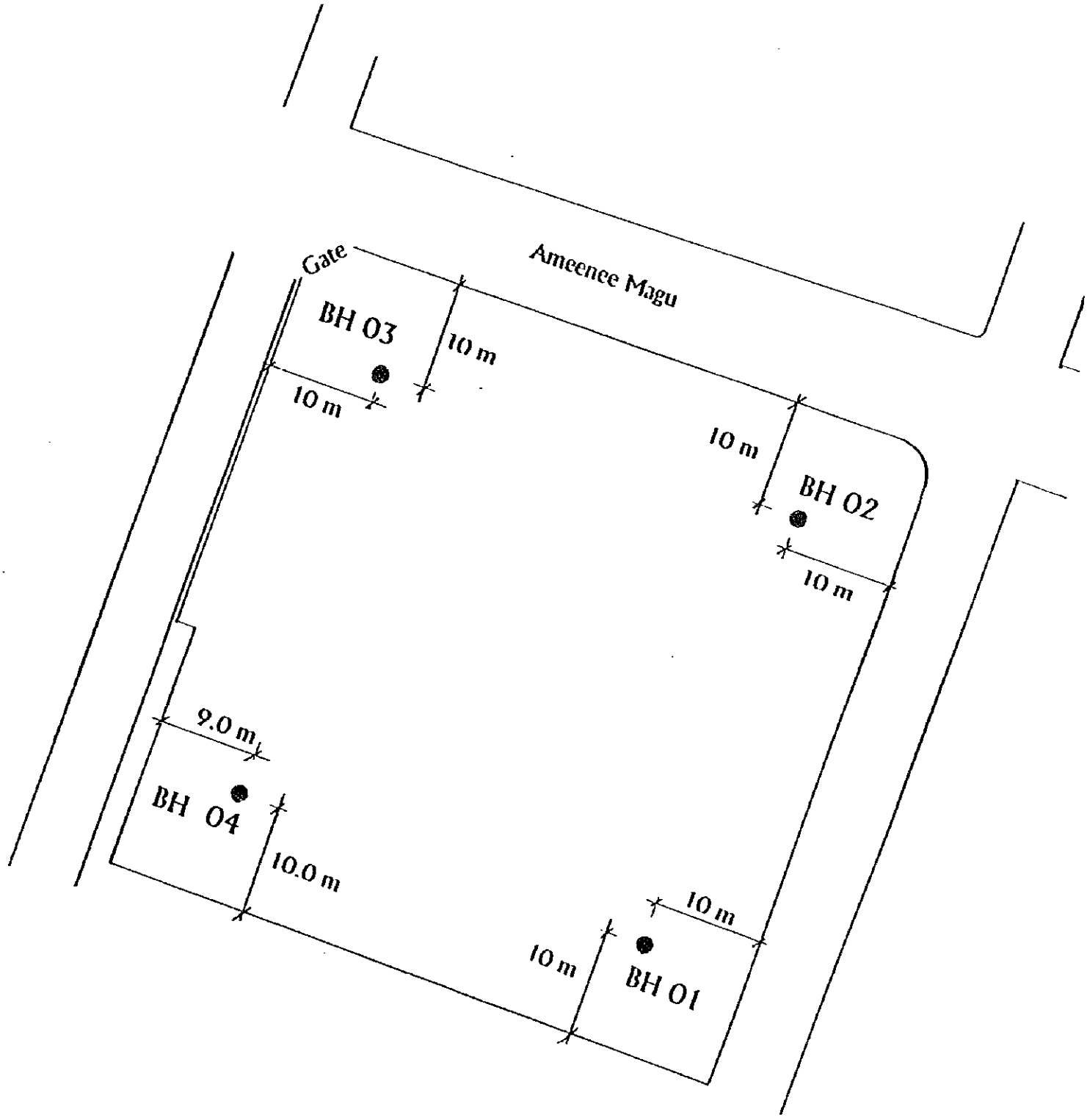
Work Item	Work Volume	Unit Price (Rf)	Cost (Rf)
1. Demolishing Existing Facility	1,511 m²	45.00	67,995.00
2. Landfill	2,232m³	40.00	89,280.00
3. Ground Preparation	3,721 m²	20.00	74,420.70
4. Installation of Infrastructure			
1) Electricity	—	—	5,000.00
2) Telephone	5 lines	1,500.00	7,500.00
3) Water Supply	1 line	3,187.00	3,187.00
4) Sewer System	2 lines	2,050.00	4,100.00
5. Outdoor Work			
1) Boundary Wall			
Excavation GL-700, W=0.8m, L=108.2m	60.59m³	5.96	361.12
Backfilling T=360, W=0.65, L=108.2m	25.32m³	37.40	946.97
Gravel T=100, W=700, L=108.2m	7.57m³	730.47	5,529.66
Blinding Concrete T=60, W=700, L=108.2m	4.54m³	1,187.21	5,389.93
Concrete 600x180+150x2120, L=108.2m	46.09m³	1,432.79	66,037.29
Form H=2.3m (Both Side), L=108.2m	497.72m²	165.77	82,507.04
Reinforcing Bar 0.15t/m³ x33.14	6.91 t	4,822.88	33,326.10
Plaster H=1800×2 (Both Side) L=108.2m	389.20m²	59.13	23,032.32
Painting H=1800×2 (Both Side) L=108.2m	389.20m²	39.40	15,347.09
2) Planting Tree	6	500.00	3,000.00
Total			486,960.22

6. Soil Investigation and Topographic Survey Result

FIGURE I

APPROXIMATE LOCATION OF BORE HOLES

(Not to Scale)



Vertical Soil Profiles BH-1

GEOLOGICAL RECORD OF BORING

HOLE No. BH - 01

PROJECT	PROPOSED 6TH PRIMARY SCHOOL			LOCATION	AHLENEE MAGU - MALE
GROUND ELEVATION	OL+9.48 m	DEPTH OF HOLE	10.45m	ANGLE FROM VERTICAL	0
DIAMETER OF HOLE	100 mm	MACHINE	YOM - 05	DATE OF DRILLING	13th & 14th August 1997
CORE RECOVERY		DEPTH TO GROUND WATER LEVEL IN HOLE		0.72 m below ground level	
		DRILLED BY	H.M. Weerasinghe	LOGGED BY	B.S. Yapa

ELEVATION (m)	DEPTH (m)	THICKNESS (m)	FIELD OBSERVATION: COLUMN SECTION	SOIL OR ROCK CLASSIFICATION	COLOUR	DESCRIPTION	CORE RECOVERY %	CORE RECOVERY cm	STANDARD PENETRATION TEST: DEPTH (m)	NUMBER OF BLOWS N (N)
OL+8.4	0.08	0.42		SP/SW	Brown	DENSE POORLY TO WELL			1.0	18
	0.50			SW/GW	White to Brown	GRADED CORAL SANDS WITH SOME CORAL FRAGMENTS			2.0	11
OL+6.4	3.00	2.5				DENSE TO MEDIUM DENS COARSE TO FINE CORAL SANDS WITH SOME CORAL FRAGMENTS			3.0	10
				SW	White to Brown	MEDIUM DENSE TO DENSE FINE TO COARS WELL GRADED CORAL SANDS WITH CORAL FRAGMENTS			4.0	28
OL+4.4	5.00	2.00							5.0	18
OL+3.5	5.91	0.91		SW/GW	White to Brown	DENSE POORLY GRADED CORAL SANDS			6.0	27
				SP	White to Brown	DENSE WELL GRADED CORAL SANDS			7.0	50/ 8cm
OL+2.4	7.00	1.09							8.0	31
				SW/GW	White to Brown	VERY DENSE FINE TO COARSE POORLY GRADED CORAL SANDS			9.0	34
OL-0.9	10.45	3.46							0.0	38
						BORE HOLE TERMINATED AT 10.45 m BELOW GROUND LEVEL				

Vertical Soil Profiles BH-2

GEOLOGICAL RECORD OF BORING

HOLE No. BH - 02

PROJECT	PROPOSED 6TH PRIMARY SCHOOL			LOCATION	AMPARAI HAGU - MALE
GROUND ELEVATION	DL+9.06 m	DEPTH OF HOLE	10.45 m	ANGLE FROM VERTICAL	0
DIAMETER OF HOLE	100 mm	MACHINE	YBM - 05	DATE OF DRILLING	15th & 16th August 1997
CORE RECOVERY		DEPTH TO GROUND WATER LEVEL IN HOLE		0.39 m below ground level	
		DRILLED BY	H.M. Weerasinghe	LOGGED BY	B.S. Yapa

ELEVATION (m)	DEPTH (m)	THICKNESS (m)	COLUMN SECTION	SOIL OR ROCK CLASSIFICATION	COLOUR	DESCRIPTION	CORE RECOVERY %	CORE RECOVERY cm	DEPTH (m)	NUMBER OF BLOWS N (N)
DL+8.76	0.30	0.30		PT	Black & Brown	PARTIALLY DECAYED ORGANIC MATTER				
DL+8.06	1.00	0.70		SP	White & Brown	LOOSE POORLY GRADED CORAL SANDS			1.0	06
				SP/SW	White & Brown	LOOSE TO MEDIUM DENSE COARSE TO FINE CORAL SANDS WITH SOME ROCK FRAGMENTS			2.0	09
DL+6.06	3.00	2.00							3.0	26
				SW/GW	White & Brown	DENSE COARSE TO FINE POORLY TO WELL GRADED CORAL SAND WITH SOME CORAL FRAGMENTS			4.0	29
									5.0	28
									6.0	23
DL+2.06	7.00	4.00							7.0	17
				SP/SW	White & Brown	DENSE COARSE TO FINE POORLY TO WELL GRADED SANDS WITH CORAL FRAGMENTS			8.0	21
									9.0	18
DL-0.94	10.00	3.00							10.0	25
DL-1.39	10.45	0.45		SP	White & Brown	DENSE POORLY GRADED CORAL SANDS				
						BORE HOLE TERMINATED AT 10.45 m BELOW GROUND LEVEL				

GEOLOGICAL RECORD OF BORING

HOLE No. BH - 03

PROJECT	PROPOSED 6TH PRIMARY SCHOOL			LOCATION	ANEENE MAGU - MALE
GROUND ELEVATION	GL+9.05 m	DEPTH OF HOLE	10.45 m	ANGLE FROM VERTICAL	0
DIAMETER OF HOLE	100 mm	MACHINE	YBM - 05	DATE OF DRILLING	16th & 17th August 1997
CORE RECOVERY		DEPTH TO GROUND WATER LEVEL IN HOLE		0.51 m below ground level	
		DRILLED BY	R.H. Weerasinghe	LOGGED BY	B.S. Yapa

ELEVATION (m)	DEPTH (m)	THICKNESS (m)	FIELD OBSERVATION: COLUMN SECTION	SOIL OR ROCK CLASSIFICATION	COLOUR	DESCRIPTION	CORE RECOVERY %	CORE RECOVERY cm	STANDARD PENETRATION TEST: DEPTH (m)	NUMBER OF BLOWS N (N)
				SP/SW	Whitish Brown Blackish Brown Whitish Brown Greyish Brown	VERY LOOSE TO LOOSE COARSE TO FINE POORLY TO WELL GRADED CORAL SANDS WITH SOME CORAL FRAGMENTS			1.0	02
									2.0	04
GL+6.05	3.00	3.00				- DO -			3.0	21
GL+5.14	3.91	0.91		SP	Whitish Brown	DENSE IN PLACE			4.0	19
				GW	Whitish Brown	DENSE COARSE TO FINE POORLY GRADED CORAL SANDS WITH POCKETS OF CORAL FRAGMENTS			5.0	21
									6.0	25
GL+1.15	7.86	3.95							7.0	21
				SW/GW	Whitish Brown	DENSE CORAL FRAGMENTS WITH SOME CORAL SAND			8.0	17
GL+0.05	9.00	1.14							9.0	32
				SP	Whitish Brown	VERY DENSE FINE TO COARSE CORAL SANDS & CORAL FRAGMENTS			10.0	32
GL-1.40	10.45	0.45				BORE HOLE TERMINATED AT 10.45 m BELOW GROUND LEVEL				

GEOLOGICAL RECORD OF BORING

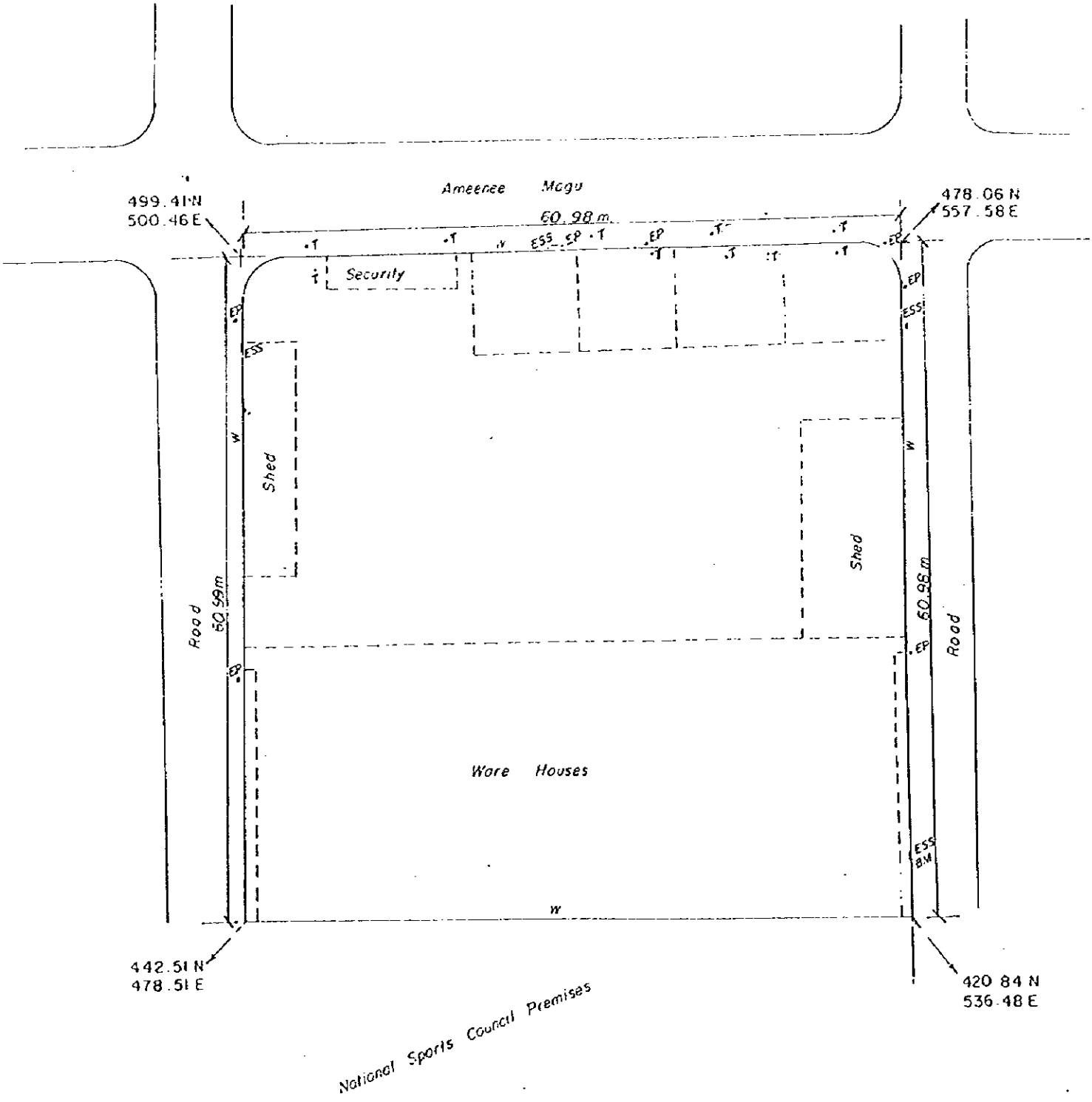
HOLE No. BH - 04

PROJECT	PROPOSED 6TH PRIMARY SCHOOL			LOCATION	ANELNDE MAGU - MALE
GROUND ELEVATION	GL+9.51 m	DEPTH OF HOLE	10.45 m	ANGLE FROM VERTICAL	0
DIAMETER OF HOLE		MACHINE	YDM - 05	DATE OF DRILLING	17th & 18th August 1997
CORE RECOVERY		DEPTH TO GROUND WATER LEVEL IN HOLE		0.91 m below ground level	
		DRILLED BY	H.H. Weerasinghe	LOGGED BY	B.S. Yapa

ELEVATION (m)	DEPTH (m)	THICKNESS (m)	FIELD OBSERVATION: COLUMN SECTION	SOIL OR ROCK CLASSIFICATION	COLOUR	DESCRIPTION	CORE RECOVERY %	CORE RECOVERY cm	STANDARD PENETRATION TEST: DEPTH (m)	NUMBER OF BLOWS (N)
				SW/GW	Whitish Brown	DENSE CORASE TO FINE WELL GRADED CORAL SANDS WITH CORAL FRAGMENTS			1.0	24
									2.0	16
GL+6.51	3.00	3.00							3.0	13
				SW	Whitish Brown	MEDIUM DENSE TO DENSE COARSE TO FINE WELL GRADED CORAL SANDS WITH SOME CORAL FRAGMENTS			4.0	22
									5.0	25
GL+4.02	5.49	2.49								
				SP	Whitish Brown	DENSE COARSE TO FINE POORLY GRADED CORAL SANDS			6.0	24
									7.0	18
									8.0	25
									9.0	13
GL-0.9	10.45	4.96							10.0	24
						BURL HOLE TERMINATED AT 10.45 m BELOW GROUND LEVEL				

MECCA

Site Plan



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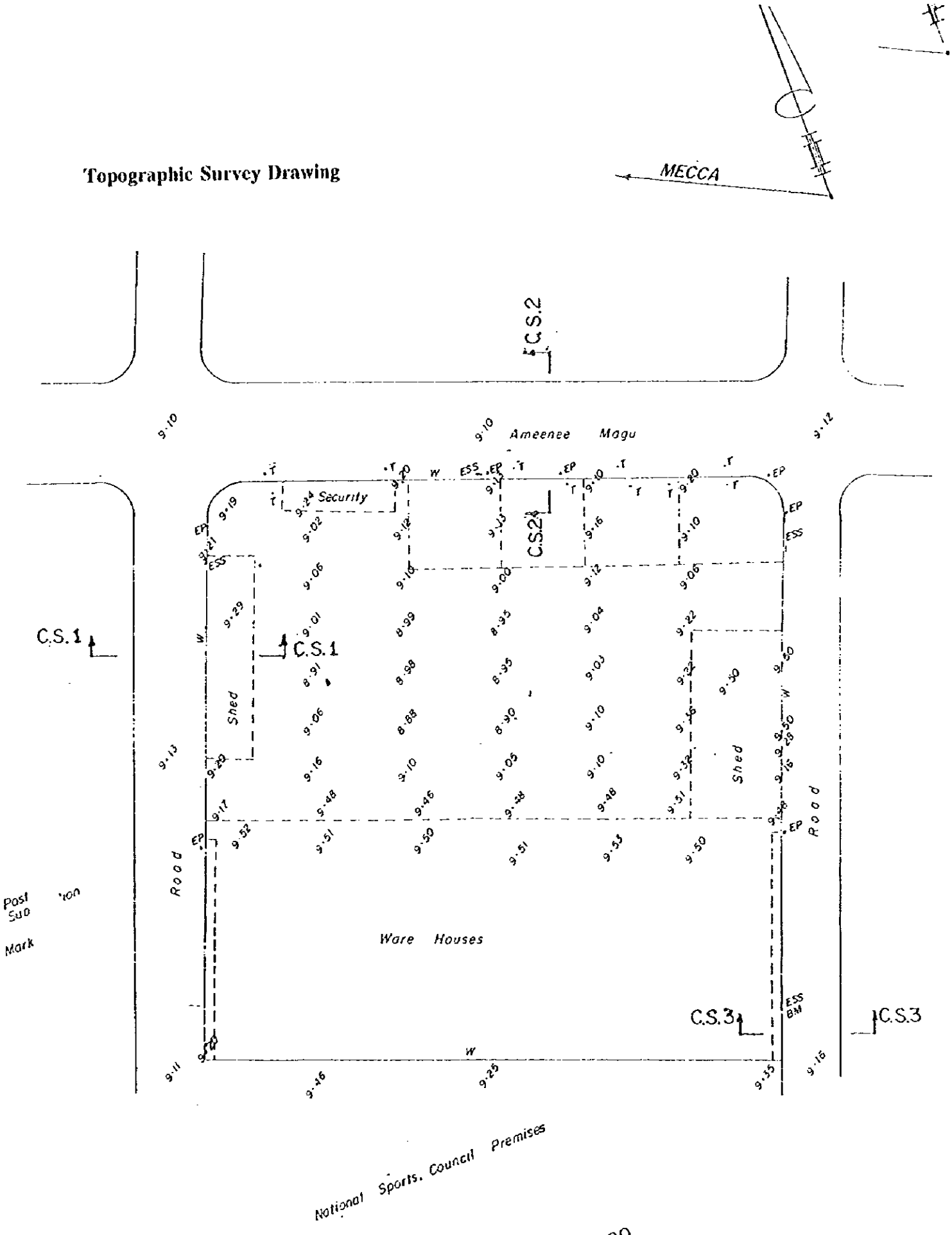
AP — 35

Topographic Survey Drawing



SCALE :— 1 : 500

7. References

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