TABLE OF CONTENTS

Acronyms

- CDC — Centers for Disease Control, DHHS
- CDHS — Chuuk Department of Health Services
- COU — Concrete Masonry Unit
- CED — Continuing Education Classes
- COM — College of Micronesia
- CSH — Chuuk State Hospital
- CSLA — Chuuk State Leadership Academy
- Compact — The Compact of Free Associations
- DHSA — Department of Health, Education and Social Affairs
- DHESA — Department of Health, Education and Social Affairs (FSM)
- DHHS — United States Department of Health and Human Services
- DHS — Department of Health Services
- DOI — Department of Interior
- EDA — Economic Development Agency
- EMPAT — Economic Management Policy Advisory Team
- FFPN — Family Food Production and Nutrition
- FP — Family Planning
- FSM — Federated States of Micronesia
- FY — Financial Year
- GDP — Gross Development Product
- GER — Gross Enrollment Ratio
- HA — Health Assistant
- HESA — Health Education and Social Affairs
- HIV/AIDS — Human Immune Virus Infection/Acquired Immune Deficiency Syndrome
- HRD — Human Resource Development
- HRSA — Health Services and Research Agency
- IEC — Inclusive Education Coordinators
- IEP — Intensive English Program
- ILO — International Labor Organization
- IMR — Infant Mortality Rate
- JHET — Junior High Entrance Test
- JTPA — Job Training Partnership Act
- KDHS — Kosrae Department of Health Services
- KSH — Kosrae State Hospital
- MCH — Maternal and Child Health
- MO — Medical Officer
- NER — Net Enrollment Ratio
- NGO — Non-Government Organization
- NHSO — National Health Statistics Office
- NIP — National Health Insurance Program
- NST — National Standardized Test
- OI — Outer Islands
- OIHS — Outer Island High School
- OMIP — Operations and Maintenance Improvement Program
- PATS — Pohnpei Agriculture and Trades School
- PH — Public Health

- PHC Primary Health Care
- PICS Pohnpei Island Central School
- PDHS Pohnpei Department of Health Services
- PMA Pacific Missionary Aviation
- PSH Pohnpei State Hospital
- PTA Parent and Teachers Association
- QA/QI Quality Assurance/Quality Improvement
- SAMH Substance Abuse and Mental Health
- SAMSA Substance Abuse and Mental Health Services Adm.
- SCBM School and Community Based Management
- SDOE State Department of Education
- SEED State Enterprising Education Department
- SPC South Pacific Community
- STD Sexually Transmitted Diseases
- SY School Year
- T-3 Trades, Training, Testing Vocational Program
- TB Tuberculosis
- TFR Total Fertility Rate
- TRC Technical Review Committee
- TTPI Trust Territory of the Pacific Islands
- UOG University of Guam
- UNFPA United Nations Fund for Population Activities
- UNICEF United Nations Children's Fund
- VAD Vitamin A Deficiency
- VPD Vaccine Preventable Disease
- WHO World Health Organization
- WIA Workforce Investment Act
- YDHS Yap Department of Health Services
- YSH Yap State Hospital

Social Sector: Education

PART I: EDUCATION

Background and Analysis: Understanding the Educational Systems in FSM

1st Draft - September 2001

Prepared by Henry H. Kellam III, Social Planning Specialist
Under Contract for Nathan Associates, Inc.
From June through September, 2001

I. Background and Analysis of Education[1]

I.1. Background to Education in the FSM

Responsibility for carrying out the functions of the national Government in education rests with the Division of Education of Health Education and Social Affairs (HESA). The division works in collaboration with the state departments of education (DOE), and the College of Micronesia (COM) in planning, developing and promoting the national education goals. The constitution does not clearly delineate the powers and responsibilities of the states and the national Government. A constitutional convention in 1990 sought to clarify the issue by proposing that for education, the national Government's role should be limited to "setting minimum nationwide standards, coordinating state activities and foreign government assistance, providing training, technical assistance and support for post-secondary education programs." However, the states have autonomy in setting their own curricula, tests and standards.

A National Strategic Plan (NSP)[2] for education was put together in 1997 that required representatives/participants from every state. The NSP provided overall principles, goals, and strategies. The NSP was never formally adopted by congress. However, in 1999, the Economic Summit did adopt an education policy as highlighted below:

- Improve the accountability and quality of education, notably by increasing community involvement.
- Ensure a better linkage between the education system and the overall economic environment.
- Develop early childhood education.
- Improve the quality of education staff.
- Improve education financing

The total school-age population will grow to just under 40,000 by the year 2010 based on the growth scenarios forecast by the Statistics Unit of the Department of Economic Affairs. The modest population growth rate indicates that the most pressing need is to improve the quality of the education system rather than to expand its physical capacity. At the state level, where there are population flows to urban areas or particular islands, a reallocation/transfer of human resources (primarily teachers) may be required to meet the changing pattern of settlement. Minor expansion in physical capacity may also be needed in the expanded population centers to cope with increased demand.

[1] The Social Sector Study relied greatly on the information (both in Health and Education) found in the Asian Development Bank Human Resourse Study: Health and Education, Development Associates, December 1999 by Lowry, P., and Rorris A.
[2] Facilitated through the Economic Management Policy Team (EMPAT)

There is no formal public system of preschool education within the FSM. The existing preschool education is provided through the US-funded Headstart Program, private kindergartens or centers funded from the US federal program "special education."

I.2. Elementary School Education

The overall dropout rate overall for the FSM for elementary education is about 5%. 7th and 8th grade accounts for the highest dropout rate. Pohnpei is highest at almost 8%. Kosrae has the least at only about a 1% dropout rate.

Table A: 1999-2000 Indicators for Elementary Education in the FSM

Key Indicator	National	Chuuk	Pohnpei	Yap	Kosrae
General					
Total number of schools	166	*89	35	35	7
Number of private schools	12	4	3	4	1
Total enrollment	25,915	13,895	7,621	2,502	1,897
Private school enrollment (% of total)	8.9	8.8	8.0	16.3	2.6
Average annual private school tuition fees (US$)	333	578	692	125	280
Effectiveness					
Percentage of unqualified teachers	29.0	39.5	11.3	40.2	8.9
Mathematics National Standards Test result, grade 8 (percent score)	37	31	55	40	47
National 8th grade Language Standards Test result by percent score	61	N/A	62	62	62

SOURCE: 1999 ADB Health Education Report, FSM HESA (projected from 1994 census)

*The actual number of Elementary Schools is higher, but several small Annex Schools and pre-schools, with student enrollments of 20 or less, are not included in the overall number of schools. However, some sources state the higher numbers.

The national elementary student-teacher ratio is about 18 to 1, although, these vary from state to state, i.e. a high of 21:1 in Pohnpei to a low 12:1 and 13:1 in Yap and Kosrae. The dropping numbers of teachers is reflected in the reduction in elementary level enrollments. Kosrae is lower due to lower populations and Yap because of the dispersed population in outer islands.

Consolidation of schools within major population areas and multi-grade teaching in remote schools with low enrollments would help teachers to be used more efficiently.

Elementary schools in the FSM are not producing graduates of national or state standards frameworks. The FSM National Standardized Test results are the most useful national guide to the quality of the education provided by the public elementary system. Tests for Language arts and mathematics show performance to be especially low in Mathematics. National grade 6 mathematics performance (as a percentage of correct answers) ranged from 37 percent to 39 percent while national grade 8 mathematics performance ranged from 48 percent to 49 percent. Language arts reflect higher scores

for 6th and 8th Grades (49 percent - 52 percent and 59 percent). There was also a steady national score improvement occurred across Grades 6, 8 and 10, suggesting developmental growth in English Language Arts.

The number of unqualified teachers throughout the FSM is very high. About 30% of teachers nationally do not possess any post-secondary qualifications. In Yap and Chuuk, 40% of teachers do not possess a degree from a post-secondary institution.

Many certified teachers that have not received the training to properly undertake their duties as teachers, although the State's DOE encourage teacher certification. Present teachers should be required to obtain an AA or AS degree and to supplement this with attendance at state level training sessions on teaching methods and new recruits should be required to possess post secondary training specializing in education (a minimum being the AA and AS degrees in education offered by the COM.

High levels of teacher absenteeism and low levels of teacher motivation are a major problem for State DOE and principals. Excuses for absentee range from –funerals, family celebrations, sickness and caring for sick family members. There is a policy controlling student absentee - but not for teachers who often abused the system.

Some schools have had success in reducing elementary teacher absenteeism – mostly due to individual principals. However, real improvement will only take place when the community becomes more involved in the education system, i.e. PTA. A community that is involved in the school and showed a concern for the student performance was more likely to exert pressure on the teachers to fully assume their responsibilities. Where communities are divided or not participating in the school the teachers are more likely to lose motivation and commitment.

The National minimum standards and multiple curricula are the underpinning of the education systems. Each state has their own curriculum agenda and a special grant is available to them for this. However, curriculum development at a state and national level is often duplicated.

Vocational education is slowly being introduced into the elementary school curricula. In 1999 a national workshop proposed national standards for tourism, agriculture and marine/fisheries vocational education courses. Textbooks and Instructional Materials

In all the elementary schools visited by this study, everyone complained that there were not enough textbooks and other instructional materials, even though state curricula require the development of textbooks. Yap State has developed textbooks for the new curriculum in five languages that will be printed locally when adopted.

There is no program to develop and provide textbooks or instructional materials. Instructional materials mostly come from the United States at a high cost. The community could play a big role in this by financing a textbook loan or purchase program for textbooks.

I.3. Secondary School Education

The overall enrollment level for FSM secondary education is only about 60% - though down from 67% some 5 years ago. However this stills means 40% of children never go beyond the 8th grade. This suggest there needs to be a greater emphasis on the coverage of the system.

Table B: 1999-2000 Indicators for Secondary Education in the FSM

Key Indicator	National	Chuuk	Pohnpei	Yap	Kosrae
General					
Total number of schools	28	17	5	4	2
Number of private schools	16	6	4	1	1
Total enrollment	6,809	3,827	1,693	780	509
Private school enrollment (% of total)	19.3	23.4	22.0	4.9	0.6
Average annual private school tuition fees (US$)	419	578	692	125	280
Effectiveness					
Mathematics National Standards Test result, 10th grade (percent score)	43	29	43	38	49
National 10th grade Language Standards Test result by percent score	66	53	62	55	76

SOURCE: 1999 ADB Health Education Report, FSM HESA (projected from 1994 census)

Students graduating from elementary schools to secondary schools still do not have high-test scores. As a result, they either have to struggle or dropout. Moreover, the secondary school system is not well equipped to address the 'front-loaded' needs of new students. Therefore, the FSM must improve the quality of elementary education if it is to ultimately improve the overall quality in the secondary system.

The problems faced by the secondary system are reflected in the National Standards Tests. Mathematics passing scores are only about 40% -10th graders tested at only about 6-8th grade levels levels. English language arts showed improvement.

Nearly all secondary school teachers have an AA or AS degree, but few receive any specific teacher training courses.

Assumptions Regarding Elementary and Secondary Education

Figures on school enrollment have to be “interpreted” in FSM, as they might mean one of two things:

1. Total students enrolled in a school in a given year; or
2. Cumulative total of students entering into the beginning grade.

Thus, in Table A, enrollment in all public and private elementary schools is estimated to reach 25,915 in the year 2000. In that year, the total number of children in the 5-14 age span in FSM was 28,389 (preliminary 2000 census figure). Since the age span is ten years and the number of elementary grades is only eight, it should be expected that not all of the children in the 5-14 age span would be in school at any given time. The enrollment figure, however, is 91.3 percent of the population figure, which is quite high, and probably should be interpreted, not as actual enrollment, but rather as the cumulative total of student entrance into elementary school over an eight-year period. This interpretation is supported by information on the school dropout rate, which is high. That is, actual enrollments are significant less than the cumulative eight-year totals of students entering a school in first grade. In Pohnpei, for example, Ohmine Elementary School statistically has over 1,000 students, but actual student numbers are below 800.

This discrepancy between indicated and actual enrollments does not make a real difference when it comes to planning. However, the reason for this is that it is an objective of the sector to keep all children of elementary school age in school until they graduate. Thus, in planning for future school capacity, it is the number of children of elementary school age that is important, and planning will attempt to satisfactorily accommodate the growth of that number. For example, if a state currently has an actual enrollment that is equivalent to 75 percent of entering first graders, over eight years, (i.e., one-quarter of students have dropped out) and the increase in school age children is anticipated to be 50 percent over some period, then planning must aim at doubling the number of children accommodated by elementary schools in the period in question.

I.4. Post Secondary Education

The main national campus of the College of Micronesia (COM) is in Palikir, Pohnpei and there are satellite campuses located in each state. COM began in 1963 as a teacher-training center. The COM now provides academic, vocational and technical education/training. COM receives 50% of its revenues from tuition, which is sometimes difficult to collect. However, in recent years COM has managed a modest surplus.

They’re close to 1,000 students at COM, of which one-half live on campus. Pohnpeians account for almost one-half of the students enrolled.

Liberal arts accounts for the most courses offered, followed by business then accounting.

There are some discussions to develop COM as a 4 year BA/BS oriented College. The reasoning is to draw students that would otherwise seek degrees outside the FSM, and most likely remain and work outside FSM – "the brain drain syndrome". However, this will be very expensive as well as not being appropriate in meeting the real needs of the FSM. Graduates need skills/training that will enable them to better function, manage and operate to maximum efficiency and effectiveness according to existing and future FSM needs. In other words, COM's strength will remain in providing courses tailored to suit the needs of Micronesia. Students enrolling into vocational programs at COM are not required to pass the college entrance test and certificates of attendance or participation are awarded at the conclusion of the courses. Below are examples of the kind of courses and training that should be strengthened/promoted in FSM appropriate the islands needs:

- Teacher training courses matching elementary/secondary curriculum to improve the percentage of students passing and continuing to COM.
- Content learning balanced with practical skills.
- New/more courses in island history, culture and traditional lifestyle.
- New/more courses in private business, public and educational administration.
- Teacher training in a wide array of vocational courses appropriate to FSM needs.
- Internet education.
- Hospital management, nursing, hospital equipment management, etc.
- A wide array of courses geared towards the operation and maintenance of infrastructure in FSM.

I.5. Vocational Education and Training

Relevant skills are lacking in FSM, which must be addressed by the vocational education system. The elementary system, along with the commitment and participation of the communities, must play a more important and active role in better preparing children to enter the vocational training system in greater numbers with a higher quality of education.

The Workforce Investment Act (WIA), formally the Jobs Training Partnership Act (JTPA) provides the greater funding for vocational programs. WIA coordinates with the national T-3 program. However, coordination between the two programs needs to be strengthened.

The T-3 Program was established to provide continuous training and upgrading schemes to both youth and adults in air conditioning and refrigeration, automotive mechanics, plumbing, small engine mechanics, electrical trades, construction trades, solar energy, and welding. The T-3 Program on **Pohnpei** employs three full-time instructors who can teach skills in mechanics, carpentry, welding, air conditioning, and automotive mechanics. There is also a part-time instructor for electrical repair.

The T-3 Program on **Kosrae** employs three full-time instructors who can teach skills in outboard and small engine repair, automotive repair, carpentry, electricity, welding, air

conditioning, and washing machine and small appliance repair. Unfortunately, no instruction is taking place at this time because the program is housed in an inadequate, substandard structure that does not have facilities to support training initiatives.

The study found no visible elements of the T-3 Program in **Chuuk**. The buildings previously used for this program are located adjacent to the Chuuk High School. They are beyond repair.

The COM is the best option for building partnerships with he public and private sectors to meet the training needs of employees. *(See COM-FSM Summaries and Recommendations (state by state and National) in Part II of the Infrastructure Development Plan).*

Table C: Educational Attainment, FSM: 1994 to 1998

Educational Attainment	Number			% Change		% of Population		
	1998	1997	1994	1997-98	1994-97	1998	1997	1994
Total Persons Aged 25+ years	40,700	44,985	38,494	-9.5	16.9	100.0	100.0	100.0
No school	1,781	4,817	8,765	-63.0	-45.0	4.4	10.7	22.8
Elementary	18,715	19,111	11,682	-2.1	63.6	46.0	42.5	30.3
Some high school, no diploma	7,464	7,876	5,807	-5.2	35.6	18.3	17.5	15.1
HS graduate-included GED	5,268	6,330	5,230	-16.8	21.0	12.9	14.1	13.6
Some college, no degree	3,334	2,930	2,879	13.8	1.8	8.2	6.5	7.5
Associate Degree – occupational	1,209	1,051	1,191	15.0	-11.8	3.0	2.3	3.1
Associate Degree – academic	1,440	1,601	1,138	-10.1	40.7	3.5	3.6	3.0
Bachelor's Degree	1,172	900	1,181	30.2	-23.8	2.9	2.0	3.1
Master's Degree and higher	317	369	621	-14.1	-40.6	0.8	0.8	1.6

Sources: FSM 1994 Census; 1997 Labor Force Survey; 1998 Household Income and Expenditure Survey

I.6. State Civic Action Teams (CAT)

The CAT Program on Chuuk assists the state government by providing training to the local population in general engineering and construction skills through cooperative construction projects and apprenticeship training programs. The Team is ready and willing to work closely with the hospital and DPW in an effort to develop a qualified local workforce to maintain their facilities. The Team is also available to do vertical (construction or renovation) work. The CAT Team has constructed/renovated several school buildings over the years and are generally of high quality. They recently assisted in renovation and painting of various school buildings.

The CAT Program on Kosrae assists the state government by providing training to the local population in general engineering and construction skills through cooperative construction projects and apprenticeship training programs. A mandatory requirement is that all personnel working under CAT direction must comply with safety practices, including the use of hard hats and steel-toed shoes. The CAT Program can work with up to 15 apprentices at one time and provide training in preventative maintenance scheduling and inventory control, basic electrical and plumbing, purchase and requisition procedures, and material specifications. The CAT also has the capability of testing workers to identify their skill levels and training needs. Comments received from the Kosrae CAT Team on the draft report indicate that they are ready and willing to work with the hospital and DPW in an effort to develop a qualified local workforce to implement the report's recommendations subject to the hospital facilities.

The CAT Program on Pohnpei assists the state government by providing training to the local population in general engineering and construction skills through cooperative construction projects and apprenticeship training programs. The CAT is ready and willing to work closely with the hospital, especially in the area of plumbing. The Team is also available to do vertical (construction or renovation) work. The CAT Team has constructed/renovated several school buildings over the years and are generally of high quality. They recently assisted in renovation and painting of school buildings at PICS.

I.7. Pohnpei Agriculture and Trade School (PATS) [3]

The Pohnpei Agriculture and Trade School (PATS) is Micronesia's only four year high school specifically dedicated to vocational training programs in the construction and building trades, mechanics, and the agricultural and aqua-culture sciences. PATS has produced over 1,000 graduates. Since the days when Micronesia was a United Nations Trust Territory, PATS has served the development needs of the region by providing young men for direct entry into the work force. Today, with the economic uncertainties facing the renewal of the Compact of Free Association, funds available for the type of education that promotes entrepreneurial skills are becoming more limited in Micronesia. In the years to come, graduates from PATS will continue to play an even more critical role in helping to build the private sector in the island nations of Micronesia.

PATS is the only institution in FSM that is truly tailored, in it's curriculum focus and courses/hands on raining, that might begin to meet the needs of the 100's of millions of dollars the 15 Year Infrastructure Development Plan is recommending in-so-far as appropriate skilled labor to implement the infrastructure investment needs of the FSM, i.e. contractors, carpenters, mechanics. It was a surprise to the Social Planning specialist that all the buildings at PATS were built and are maintained solely by students for "hands-on" training experience. Therefore, this Plan highly recommends monetary assistance in order for PATS to expand their curriculum base for vocational trade areas with will assist FSM in becoming more self-sufficient in terms of a well rounded labor force.

[3] Gregory F. Muckenhaupt, SJ, is the Director of PATS, See Part II of Education for a more detailed description of the School.

I.8. Education Financing/Expenditures

Public School Financing (excluding post-secondary and private school eduction) in the FSM for education is mostly from US funding. Compact funds accounted for about 56% and US Federal grant programs for about 42%. 2000 funding for education totaled close to $30 million and local revenues contributed less than $1 million towards financing education, which is only about 2% of total funds for education.

Expenditure for education was between 30% and 36% of total state expenditure in all states. Pohnpei was 31%, Chuuk 36%, Yap 32% and Kosrae 30%. Salaries are the greatest part of education budgets. At the National level it was (91%), Pohnpei (90%), Chuuk (96%), Yap (59%) and Kosrae (72%).

Education planning is mostly hampered because of the inconsistency of funding for education both at the National and State levels. National Education programs are subject to change and sometimes even terminated. In the FSM these programs are critical for the delivery of education services.

Since salaries take-up most of education's budget, there is little funding left over for educational materials and the maintenance of facilities. Funds for schoolbooks, supplies and materials are received at the state level from federal grants, but there are no schedules or quantities set in their disbursement. Funds for maintenance usually require individual schools to pressure their local politicians.

Not all state budgets report on the total source of funds for education – especially in the identification of federal grant money - hampering state and national educational planning systems.

I.9. Community Participation

Community participation is the key to improving public education, particularly at the elementary level, throughout the FSM. Responsibilities for maintenance must be transferred more to the communities themselves in order to instill a real sense of ownership - a partnership between communities and state education officials. Communities care greatly for the upkeep of their churches because of this sense of ownership – why not schools? Communities must also take a more active role in the school's curriculum and activities, not only for Christmas and graduation, but to contribute their time and energy in areas such as: assisting teachers, giving educational talks on things they are good at, school field trips, etc.

For the most part, state education systems are attempting to promote greater community participation in schooling. However, there is not set program to activity promote this. The differences in community structures across and within states require different strategies for integrating communities and the schooling process.

Improved partnerships between schools and communities will lead to a more effective educational system and greater support (economic and moral) for local schools. These strategies offer the potential to both help improve the quality of education and to help reduce the cost to government of education.

The local Boards of Education must play an import role as well as the individual Parent Teachers Association (PTA). How active these Boards or PTA's are vary throughout the states, often depending upon individual community leaders or Principals, etc.

Various models of community participation are presently being tried throughout the FSM and it will be important to monitor their achievements and possible extension to other sites. For example, in Yap, virtually all communities provide support to the schools, which is apparent when one sees the good conditions of the school grounds and buildings – given the lack of State funds for maintenance. The State Department of Education as even changed its name to the State Enterprising Education Department (SEED) in order to devolve more ownership of schools to the community. Carrying it one step further, the name Elementary schools in Yap were changed to the name of Community schools.

While elements of all these community participation strategies may be working, in all states there is a need to strengthen community participation. Current efforts are limited in their success because of: limited capacity of community members to become involved in activities beyond social events and maintenance; inappropriate structures at the school/community level; institutional resistance at the school level; and prevailing alienation of communities from schooling.

The cultural distance that exists between the schooling system and communities is the result of various historical and institutional factors. There is a cultural gap between the traditional system of learning and the schooling system introduced through the process of colonization. The traditional system relied on families and the community assuming responsibility for imparting knowledge and cultural values. The educational structures and values introduced by the various colonial administrations and institutions were alien to the traditional society. Remnants of this alienation still exist because current education practices do not sit comfortably with practices of learning and teaching within the family/community. The public school today continues to be seen as an institution of the government and this limits the participation of community members. Various other specific factors may limit community participation:

- Lack of formal education for parents means they may lack the interest or confidence to become involved in school or homework activities
- The experience of education for some parents was alienating and they may not have found the schooling process relevant to their day to day activities.
- Community participation tends to be limited to forms of engagement such as social events at school and school maintenance because these are understandable within traditional cultural norms
- School facilities are not designed to encourage community use

- Parent and Teacher Associations (PTAs) can be weak organizations because they may exclude important members of the community
- In rural areas, distance from schools can affect the participation of some parents and communities

Improved partnerships between schools and communities will lead to a more effective educational system and greater support (economic and moral) for local schools. These strategies offer the potential to both help improve the quality of education and to help reduce the cost to government of education. *(see proposed Terms of Reference for Elementary and Secondary Schools in the Executive Summary)*

I.10. The Chuukese Problem - Land and Schools

Certain measures by the government, such as eminent domain, property taxes and zoning laws, are intended to insure that land, the scarce resource that it is, is used wisely and with the best interests of all in view. The government must not use these laws as an excuse to take what it wants, but as a means of insuring that the common interests of all are served. Even if these measures are rejected, the government must exercise some surveillance of the use of land if society is to develop, as it should.

The Attorney General in Chuuk remarked that a certain amount of land should be used to develop a tourist industry and the fishing industry. In addition, some land needs to be set aside for such government purposes as airfields, port facilities, parks and industrial centers. Land must be made available by people and by the state to provide the kind of services that people expect in today's world. The common good must be a factor in determining how to use land, even private land.

About 95 percent of the total land in Chuuk are private land. Most of the people in Chuuk instinctively reject any government authority over their private land. There are many reasons for this. Land is regarded as a family possession, something that is beyond the authority of the government, which has a way of reaching into almost all other areas of our life. Some participants admitted that they simply do not trust government officials, since they suspect them of acting out of self-interest more than concern for the good of the whole community. Others fear a decline in the market value of their land if government should intervene.

One of the most sensitive issues discussed at this conference was whether government should have any authority over private land. Mitaro Dannis, Senior Land Commissioner, argued that the government should have some authority in this area. He indicated three ways in which the governments of other countries maintain supervision over private land: eminent domain, property taxes, and zoning laws.

1) ***Eminent Domain***. This refers to the right of the government to condemn land for an important project and pay the landowner a fair compensation if the government and landowner cannot reach agreement on the lease or purchase of the land parcel needed. Although this concept is disliked by nearly everyone in Chuuk, the government is responsible for the common welfare of its people. If a project which is

to benefit the whole population of an island is blocked by one or two people, the government would seem to need some way of protecting the interests of the majority of people. When landowners hold out for a very large payment and stop water tanks or roads or airfields from being built, they could be hurting many others through their opposition. Sometimes there is reason to think that landowners are motivated by greed.

2) ***Property Taxes***. The idea of paying taxes on private land is repugnant to Chuukese, although it is common practice in other societies. The purpose of taxes is to force people to do something useful with their land or get rid of it. It discourages wealthier people from acquiring vast landholding that they will never use. It is one of the means that societies use to encourage people to use land well.
3) ***Zoning Laws***. Zoning laws are those laws that limit what land may be used for, depending on the location. One area of the island might be reserved for residential use. Another might be used for commercial enterprises. Still another could be a park and nature life area. Zoning laws restrict what a person can do with his land, but they also offer the hope of planning and sound land management.

These measures certainly curtail the freedom of the person to use land any way he wishes, but they also provide for the common good. Some participants remained strongly opposed to such measures; others claimed that they changed their mind after hearing some of the presentations. Whatever our position on this, the discussion should serve to remind us that we are obligated to use our land--like all other gifts--for the good of all. [4]

I.11. Physical Conditions of the School Verses Learning Standards

"In a secluded village there is a school that is in need of some extreme remodeling. A tree branch, broken off by a typhoon, smashed into a two-classroom building rendering one of the rooms useless. Only one class uses the building and, as a result, it is not well taken care of. Obscenities are written on the walls, windows have been torn open, and an inch of mud covers the floor. Betelnut spit adds red stains to the floor. Some windows have been boarded up to keep people from breaking into the classroom. In another building, one classroom is so dimly lit that students must crouch over their notes to read and write. This room is so crowded that a person has to climb over chairs and desks to get to the front of the class. The outhouses, some 25 feet away from the school buildings, have obscene graffiti on the walls. The walls, seats, and floors are wet with urine. Just in front of the outhouses is the garbage area. Appalling litter, ranging from paper to spoiling food, covers the grass, attracting flies.

At Nett Elementary School, the schoolyard is a spacious area that is well groomed and litter-free. There is no graffiti on the buildings. There is some minor damage, such as leaking roofs and broken windows, but there has been considerable effort to keep these areas neat-looking and taken care of. Wherever there is a window that has been pulled open, the open fringes are trimmed off neatly to prevent children from getting hurt. Some windows are boarded up completely to prevent people from breaking in. In a first grade classroom, students are taught to say "Kaselehlie!" as soon as someone enters the room. The classrooms are clean and tidy because the teachers employ rules that make a big difference, such as the rule stipulating that all footwear must be kept outside. Students always keep their chairs organized and are not allowed

[4] Land Issues in Chuuk , Francis X. Hezel, S.J. October 1994

to move them around. Not only are visuals new and relevant to the school lessons, but they also point out correct behavior in class.

The first school has a poor reputation matched by a 29% passing rate in the entrance exam. It is typical of schools with poor reputations and very low passing rates to have conditions that match the preceding description. Classrooms are not well cared for and show no organization. They have unswept floors with crumpled pieces of paper littering certain areas. Chairs are clumped together where friends wish to sit by each other, and these students often whisper and converse during class. Some students sit alone and have free reign to stare out the window. Blackboards are so damaged and so old that the eyes are strained when one tries to recognize anything written on them.

By contrast, Nett, a school with a fine reputation, has made efforts to keep the school looking its best. This is typical of good schools. At Seinwar Elementary School, another school with a fine reputation and a high passing rate, trees have been planted around the well-groomed and litter-free schoolyard to provide shade for the children and to create an aesthetic atmosphere. Nanpei Memorial School is fortunate enough to have parents voluntarily clean the schoolyard nearly every other weekend. The baseball field is always groomed and the basketball court has been undergoing renovations. Lights have even been added to the basketball court to permit evening games. Throughout the 12 schools in this study, a pattern was observed: the better the school, the better the school's physical conditions". [5]

The above correlation between the upkeep of school grounds and maintenance by a community and learning motivation was apparent in this study. For instance, almost all of Yap and Kosrae State schools are supported by the communities. As a result of this community participation, test score and retention rates tend to be higher at those schools.

I.12. Teacher Quality and Effectiveness

This sector is a synopsis from the National Strategic Plan.[6] The quality of staff is a key factor in the development of an effective education system. The quality of academic and administrative staff is defined by their competence in their respective fields as well as their motivation and commitment and understanding of education reform efforts. Central to improving the quality of staff in education is improving the quality of teachers. At present approximately 30% of all practicing teachers have not obtained any degree and less than 20% have obtained a Bachelor's degree or higher.

The current national requirement for certification of teachers is that they obtain as a minimum either an Associate of Arts or Science (AA/AS) degree. While more than 50% of teachers have such a qualification, their actual post-secondary study may not have included any training on methods of teaching, content of academic subjects or associated theories and practical classroom experience. As a result, even most of the certified teachers are not academically prepared or vocationally trained to assume their responsibilities within the classroom.

[5] Teach Our Children Well: A look at public elementary schools in Pohnpei Jasmine Johnson, April 2000
[6] Facilitated through the Economic Management Policy Team (EMPAT)

Table D: Teacher's Education Levels in FSM

Teachers	Yap	Chuuk	Pohnpei	Kosrae	FSM Total	%
No Degree	113	357	60	15	545	30.0
AA/AS	137	414	376	98	1025	54.4
BA/BS	28	120	90	53	291	15.5
MA/MS	3	12	4	2	21	1.1
Ph.D.	0	0	0	0	0	0
Total	**281**	**903**	**530**	**168**	**1882**	**100.0**

There is a pressing need to improve the quality of staff in education. This has been recognized for a long time by the education system and significant efforts have been made by all states and at the national level to promote staff development. These initiatives have produced some good results, but in general staff development efforts have been constrained by some common weaknesses;

- Staff development opportunities are independently planned within administrative units and are not effectively coordinated across governmental agencies. This increases the costs of such programs and limits their frequency
- There is insufficient follow up on the job and limited reporting requirements for staff after staff training and development activities. Consequently, feedback is not obtained on the applicability of training to work activities.
- Staff development is rarely sequenced or cumulative. This undermines the impact of training and can lead to confusion and weaken performance of staff.
- The absence of any staff development/human resource development-planning framework within departments makes it difficult to systematically address the human resource needs of the education sector. This can result in abuses, a lack of coordination and disincentives for staff to pursue further training.
- Staff development activities (like other education activities) are highly reliant on externally sourced project funding. This limits planning activities and leads to ad hoc training initiatives that may be tied to the availability of funds and specific training programs that may not match staff training needs.
- An emphasis on degree status courses can detract from the design and delivery of short term courses that are targeted at meeting the more specific needs of teachers and other staff.

The successful implementation of educational reforms will rely on the development of competencies and staff motivation. The creativity and flexibility needed for managing change can only be sustained where staff share a collective spirit and commitment to the new goals and directions of the education system. Staff must be properly trained and motivated to effectively assume their responsibilities.

Staff development initiatives need to be focused on both pre-service and in-service training. The pre-service training activities need to be adjusted to ensure that all graduates entering the teaching profession have the requisite skills in teaching to perform effectively. The in-service training activities will focus on addressing the weaknesses of existing staff and to provide ongoing training for all staff so that that they can improve their performance and keep abreast of pedagogical and academic content changes.

In addition to training, management procedures need to be put in place to ensure that teachers and all education staff are performing to the best of their abilities. It is not adequate for staff to be under performing when the state is providing for their training and their salaries. The managerial and administrative procedures need to be put in place that can best ensure the satisfactory performance of all staff.

I.13. Teacher Certification and Pre-Service Training

The current teacher certification requirements do not require any pedagogical training to be undertaken by applicant teachers prior to their commencement of duties. It is proposed that a revision of FSM Teacher Certification requirements be undertaken to include content and teaching skills. This will be practically implemented at the school level through the use of a checklist of competencies. The competencies of new teacher recruits can be verified by the school principal and/or the use of school inspectors who will monitor the performance of teachers.

The revision of teacher certification requirements will have significant value in introducing better qualified teachers. It will also have the important additional benefit of helping to professionalize the teaching occupation. The current free entry situation creates the impression within the community and prospective teachers that there are no specific teaching skills. This under-valuing of the profession makes it difficult to recruit people with the right attitude for teaching and to get current teachers to undertake training to improve their performance.

The proposed changes to the entry requirements for the teaching profession will be accompanied by a renewal of the pre-service training system. The COM has an important role to play as the major provider of formal training to teachers. Currently the COM provides elementary education programs leading to AA and AS degrees. Both programs offer trainees teachers some consolidation of foundation skills and specific training in teaching methods. Both courses do not however provide enough education theory or practical experience for teachers. Graduates are therefore better prepared to teach than those with non-education AA and AS degrees do, but they are still inadequately trained to ensure they have the skills to effectively teach.

To overcome the limitations of these two year courses the COM has developed a third year certificate program for teaching. The third year program offers educational foundation and methods courses in elementary and special education. These include language arts methods, reading methods, classroom management, assessment skills and remedial teaching, curriculum development and family involvement. The third year certificate in teacher education has the benefit of being available to all AA and AS degree holders so they can receive an intensive teacher training. The COM should consider the third year course as an essential requirement for completing the AA and AS programs in teacher education.

I.14. In-Service Teacher Training

To meet the current outstanding and future training needs of teachers, the appropriate systems/structures need to be developed by the state education departments. These include:

- A network of trainers – bringing together: existing cadres within the curriculum and instruction divisions of state education departments; the expertise available at the COM; and experienced practicing teachers.
- Adequate facilities and use of technological advances to support and expand distance education programs as a major means for upgrading teachers and all education staff.
- Technical capacity and facilities for the development, production and dissemination of training materials

Staff development programs will be focused on providing sequenced and cumulative training modules that will take into account the practical training requirements of teachers. These will be guided by the staff development needs as defined by each department and articulated through a comprehensive human resource development plan.

I.15. Management and Administration for Improving Effectiveness

The management and administrative systems of education need to be reviewed to deal with internal inefficiencies. The problem of low teacher motivation and morale is well documented. This has obvious detrimental effects on the quality of education. Parallel with the efforts to improve the capacity, incentives and morale of teachers there will be changes to ensure that teachers perform to the best of their ability. All aspects of personnel systems deserve to be reviewed in order to improve the monitoring and evaluation capacity of the education system. Specifically, performance based contracts for teachers and other education staff will be considered for implementation.

The databases of state education administration systems need to be upgraded to include comprehensive data on the qualifications and training needs of all teachers. This will enable the development of a system wide classification and merit system for teachers. Such a system will help identify training needs, enable a reward system to be put in place and for the monitoring teacher performance.

I.16. Important Issues/Recommendations

- *The relevance of training* always needs to be considered in relation to the job and responsibilities of the targeted trainees. Where personnel have access to training programs there should be a clear link to an expected improvement in their performance. The applicability and relevance of training to the workplace will need to be established before training activities are authorized by management.
- *Sequenced and cumulative training* is essential if the benefits of training are to be maximized. The core training program for teachers will need to be an integrated set of modules that provide a cumulative learning experience for effective professional development.
- *Equitable access* to training programs maximizes the learning benefits for the education system and prevents resentments and dissatisfaction developing within an organization.
- *Incentive structures* help to encourage staff to undertake and complete training activities. There should be a clear link between competencies and salary levels and other forms of remuneration. The development of a comprehensive database of teachers will enable a reward system to be developed that can extend beyond recognition of years of service.
- *The practical orientation of training* will be emphasized. Training will be designed to meet the needs of the classroom and the activities of non-teaching staff. Where possible it will be delivered on-site to reinforce the importance of it having a practical relevance.
- *Supporting managerial authority and responsibility* for implementing administrative changes. Where education management decides to implement changes in personnel administration systems (such as the introduction of performance based contracts) it will need the support of government. Such significant changes in employment relationships are likely to generate strong and negative responses. Their successful implementation will need government endorsement and support.

I.17. Education Infrastructure and Maintenance

The condition of school facilities is most acutely affected by the absence of any systematic maintenance program. Minimal financial allocations for maintenance and repairs are budgeted for at the state level. The bulk of state funds go towards salaries leaving little for anything else, including repairs and maintenance.

Education facilities in the FSM vary from new concrete classrooms to falling down/beyond repair structures with leaking tin roofs and no ceilings making it impossible to hear or teach during frequent rain downpours. Most of older structures were built approximately 30-35 years ago, for the exception of older foundations adapted and renovated from sound foundations. What makes matters worse for buildings is the tropical conditions in the FSM. Some high islands can get between 200 and 400 inches of rainfall per year with very high humidity. The outer island schools and high island schools are exposed to direct ocean wind its high salt content. However, the real enemy of school building in the FSM is the almost non-existence of regular or established maintenance programs and planned construction programs to accommodate the increasing enrollment of the FSM. Historically, maintenance has never been a priority in the FSM. This has more to do with attitudes in the FSM that the USA Government will continue to provide money combined with the changing political

scenarios due to State Governor's changing every 4 years that leads to changes in the entire administration, Department Directors, etc. They're no real continuity.

There are no National or state standards for educational facilities nor are there established building codes at either the National or State level. Construction and maintenance of educational facilities are the state's responsibility. Although there are education building works departments at the state level, it seems they are ineffective to carry out even simple maintenance. The National Governments role is to establish in cooperation the states, standards for facilities.[7]

Community participation is an important element in the preservation of school facilities. Where communities support a local school there is generally less vandalism and deterioration of the facilities. Community participation is also important to assist in school maintenance. Parents and community members often take responsibility for cutting the grass and providing free labor for the repair of school buildings. This reduces the costs of the school maintenance and helps bring the school and communities closer together. [8]

I.18. ADB Facilities Maintenance Scheme

In the recent ADB - MOU Health and Education loan program, the following states their intended involvement regarding maintenance of facilities:

- The condition of health and education facilities is acutely affected by the absence of any systematic maintenance program. Structured programs for facilities improvement need to be implemented, and phase 2 will support additional investments in these areas in the states that will successfully implement phase 1.
- A comprehensive baseline facilities audit will be undertaken before establishing a community grants system. A facilities inventory for the school and dispensary will be designed and updated annually. It will include recommendations for initial maintenance priorities.
- Community grants system based on the facilities inventory will be set up to match school and dispensary maintenance contributions by communities. Funding guidelines and operational procedures for a facility maintenance scheme (FMS) will be developed. FMS will offer grants to schools and dispensaries to fund maintenance activities based on matching community contributions. The state DOEs and DHS personnel implementing the FMS will receive guidelines for monitoring and evaluation.

[7] FSM Strategic Plan for Improvement of Education/Aug 1997 Catalino L. Cantero, PhD, Secretary, FSN Dept. of Education
[8] ADB, Human Resource Study, December 1999.

Social Sector: Education

PART II: EDUCATION

Facilities Inventory Study: Costings, Maintenance and Recommendations

September 2001

II. Facilities Inventory Study: Costings, Maintenance and Recommendations

Comments and Recommendations Regarding the Public School and Tertiary Facilities Inventory Assessment

When reviewing the following inventory assessment study findings/recommendations undertaken by the Social Planning Specialist, between June and September 2001, one should bear in mind the following factors, issues and circumstances.

Three months is a very short time to conduct a "comprehensive" inventory of all school facilities in the FSM – there are in excess of 2,000 buildings to review (including COM-FSM Campus and State Campus facilities, Hospital Facilities, Dispensaries, Super Dispensaries and Health Centers). Therefore, the study is more of a prelimary analysis of facilities. The Study, for the most part, was conducted during the Public School's summer break, and many key people such as Principals and Teachers were not available during site visits to interview. The Social Planning Specialist was able to visit all schools on all main islands (Pohnpei Proper, Kosrae, Yap Proper, Weno and approx. 65% of Chuuk's lagoon island schools). Other than a few outer islands of Yap, the Specialist was not able to visit many outer island schools due to time restraints and transportation problems/logistics. However, the Specialist had worked in the FSM previously for more than 3 years, and had the advantage of seeing many of these schools and health facilities previously. Through a combined concerted effort, the Specialist relied heavily on individuals whom had visited these facilities recently and was able to provide reasonable updates for his final inventory, calculations, costings and recommendations.

The Specialist also had the advantage of several important documents[9] relevant to his survey/study as well as some very qualified, knowledgeable and helpful individuals who gave a great deal of their time to assist the specialist in filling in critical gaps. The key documents and individuals the Specialist relied upon for the study were: The 1999 ADB Human Resource Study for Health and Education (Lowry, P., and Rorris, A); The Ostgren Asso. Inc., 1995 Facilities Inventory of Kosrae and the assistance of Wilson Kepas; The 1993-95 School Inventory Survey by Steven Richmond in Chuuk; The 2001 DOI/OMIP FSM State Hospitals Rehabilatation Study (Barboo J., Fujiki M), Senator Solomon of Pohnpei (Vice-Chairperson, Health & Social Affairs Committee), Henry Falan (Director of SEED), John Mangafeld (Former Yap Governor and Special Advisor to SEED) and John Waayan (Facilities Engineer) for the Auto-CAD renderings of all outer island school facilities and his field assistance on Yap Proper. Rev. Francis X. Hezel S.J. was a great resource for this Plan, as well as all the publications produced by the Micronesian Seminar. One can obtain all of these publications through their Web Site at micsem.org. Lastly, Corinna R. Ocampo, Civil Engineer 2 of SEECO assisted with all field work and provided all the photographs for the Social Sector study.

[9] Most of the numerous documents needed for the Study were compiled by Robert Hadely and Robert Goodwin of the FSM TCI.

The Social Sector Perspective and Methodology

Objectives of the Study for the Social Sector Plan are spelled in the Main Executive Summary Volume of the overall Infrastructure Development Plan Report. Moreover, the Team Leader (Don Fritz) for the FSM Infrastructure Development Plan has produced Terms of Reference for Elementary and Secondary Schools as well as for COM-FSM National and State Campuses.

The purpose of the study is to institutionalize sustainable improvements to the maintenance of the school's infrastructure by undertaking rehabilitation projects that will improve each schools overall physical facilities and by recommending (Terms of References) community participation strategies and other initiatives. The study identified the following: Physical condition of the education infrastructure; Preventative maintenance and Expansion needs of schools.

The Project Scope involved the examination of existing physical conditions of infrastructure (buildings, systems, equipment) including corrosion, deterioration, and general upkeep. Review of adequacy and capacity of the buildings, systems, and equipment to serve current needs and any future or projected needs and the identification of school infrastructure rehabilitation projects to repair, improve, and upgrade the facilities.

Established liaison with government officials from selected agencies and departments on each island to inform them of the upcoming site visits:

- FSM Department of Health, Education, and Social Affairs (HESA)
- Office of the Governor (Kosrae, Pohnpei, Chuuk, and Yap States)
- State Departments of Health Services
- State Departments of Education
- State Departments of Public Works
- College of Micronesia - all state campuses

Dates of Site/Field Visits:

Kosrae	2 - 10 July 2001
Pohnpei	Field work performed on and off between June-August 2001
Chuuk	15 - 24 July 2001
Yap	18 - 24 August 2001

State Visit Activities

In-briefings meeting upon arrival on each island with the Governor and key state government department representatives to discuss assessment process; arrange individual follow-on meetings; and request relevant data (reports, statistics, data, studies as-built drawings, etc.).

Conducted comprehensive site inspections of Educational facilities. During the site visits the Social Planning Specialist and Civil Engineer II (Corinna Ocampo) took detailed notes and recorded the physical conditions utilizing a digital camera. These images are located in the Annex.

Conducted follow-up interviews with the Director of Education and other related specialist.

Interviewed key personnel from various government departments, agencies, and programs involved in education and vocational training, as well as those providing related services to the hospitals, to determine existing training resources and level of expertise on-island:

Conducted daily meetings attended by all assessment team members every evening to review the day's activities; share findings, data, and information; and discuss concerns, issues, recommendations, solutions, and alternatives.

Directed out-briefing meetings with the Governor and key state government department representatives at the end of each island site visit to discuss initial findings and possible recommendations for education and hospital facility repair, renovation and expansion.

Prepared and distributed draft reports for each state. Requested review comments and feedback from various government officials and other interested parties. Concurred comments were incorporated into the final state reports.

The Social Planning Specialist made observations and noted key issues that contributed to building deterioration:

- Conditions affecting building life and upkeep are the harsh (rain, humidity, salt) climate conditions, hard use of buildings and inadequate maintenance due to poor planning policies and economic limitations.

- Galvanized steel sheet, components, fixtures and equipment corrode rapidly and are not suitable. Aluminum is the preferred metal.

- Buildings constructed on concrete slabs with Concrete Masonry Unit (CMU) walls are more durable and suitable than wood frame buildings.

The Plan made observations and noted appropriate building design and detail:

- The use of wide overhangs is recommended, particularly for the fronts of the buildings for people to gather and have shelter/shade, and for the protection of walls, reduction of heat and prevention of wind blown rain into classrooms. Second floor buildings require an even greater overhang due to higher winds and possible intrusion to the first floor. Yap State is the only place that this was employed, on a consistent bases for school buildings.

- Simple sloping roof forms discharging water directly/clear of fascias, soffits and walls. Guttering is recommended for all buildings connected to functioning water tanks to utilize water usage and minimize erosion around the buildings. Use PVC gutters in addition to PVC down-spouts.

- There should be adequate cross ventilation of interior and roof space. Site planning is an important part of this, i.e. align buildings in the best direction to catch cross-breezes and minimize long exposure to direct sun time.

- The appropriate selection, location and drainage of air conditioning equipment.

- The use of non-ferrous metals such as aluminum, stainless steel, bronze, brass, PVC, etc. Aluminum roofs are generally recommended over concrete because they don't retain heat. However, these roofs need to be wire-brushed and painted with an anti-rust proof paint every 3 years. Lighter colors are preferable to deflect heat.

- Use of plastic coated screens and chain link fencing.

- Raised concrete curbs below wood framed walls and partitions to protect from water. Always pitch building walkways out-ward from the building.

- The use of pressure treated termite/rot resistant wood and plywood.

- Location of steel bent frames internally in Pre-Engineered Metal (PEM).

- A pale or pastels, reflective and pleasing color-paint for all buildings. All exteriors of school buildings should be scraped, cleaned and painted every year. Interior painting can go for 3 years.

- The Specialist highly recommends that all schools obtain a gasoline powered Pressure Washer (at least at 2200 PSI) for a variety of uses. The pre and clean any surfaces prior to painting. On a regular bases, to clean away mold/mildew on all surfaces. This is particularly important for all walkways since mold/mildew builds up quickly and makes the surfaces slick and dangerous. A simple solution of corlox and ammonia, 1 to 10 parts with water is recommended. This is cheap and readily throughout the FSM.

- Lastly and most importantly, always consider a pleasing and more local or indigenous design and character for buildings which includes good site design

planning with appropriate consideration towards the land lay-out, topography and landscaping.

Methodology for maintenance of school facilities:

The Social Planning Specialist proposed a total budget amount annually for the maintenance of schools facilities, which was approx. 20% of the cost estimates to renovation buildings. The maintenance budget should allocate 40% to ongoing work and 60% to special repair projects.

The Plan recommends the following section composition of DOE/SEED (below are the minimum operations recommended) to be responsible for school facilities maintenance:

1 fully qualified full time Facilities Engineer (3 for Chuuk)
1 full time Field Service Coordinator
3 full time assistants.
1 full time Plumber
1 full time Electrician
1 full time Secretary
8 Total

The states should also move toward privatizing the maintenance of school facilities. The state should make agreements with the communities to maintain the school grounds and supply them materials to do so properly. All other major grounds maintenance should be tendered to the private sector.

II.1. KOSRAE

Kosrae State has 6 elementary schools, one secondary school and a COM campus. There are approximately 2,500 elementary and over 500 secondary students presently enrolled. Private schools supports almost 300 elementary and 300 secondary students.

Kosrae's population is clustered into a number of communities, which in effect plays out as one big community. Because of the strong sense of community in Kosrae, participation with the between the state DOE and the communities are much more successful than in other states – but needs more organization and improvement. There also seems to be a high level of transparency between the two. It is also a distinct advantage that all public schools are on government owned land.

All Kosrae schools are recommended to develop/establish the following:

- *Establish an active PTA that will work in partnership with DOE in not only grounds maintenance, but also regular building maintenance (this should be established as a responsibility in ownership of the school).*
- *Encourage community and parents to assist in education.*
- *Encourage community to utilize school building (in after hours) for community meetings, workshops and extra curricular activities.*
- *Establish a parent book-loan-purchase program.*

Key Notes	Descriptions
∗**Construction Type:**	Concrete Floors (CF), Concrete Walls (CW), Wood Walls (WW), Concrete Roof (CR), Tin Roof (TR). Pre-Fabrication Building Type (PF).
***Ranking:**	Demolition Recommended (DR), New Construction Recommended (NCR), Poor (P), Fair (F), Good (G), New (N).
***Site Design (SD):**	Poor (P), Fair (F), Good (G).
***Toilet:**	Port-a-John (PJ), Concrete with Tin Roof (CTR), Poor (P), Fair (F), Good (G)
***Room Type:**	Classroom (CR), Office (O), Dormitory (D), Library (L), Computer Lab (CL) Cookhouse (CH), Home Economics (HE), Music Room (MR).
***Cost Estimate:**	Immediate Needs (2001-2006) plus Expansion needs (2006-2016)
Cost Bases ∑:	▪ New School: $50/SqF Includes: Materials, Labor, Transport in addition to: Student/Staff Desk/Chair, Work Tables, Shelves, Cabinets, Books/ Educational Materials and 2 Aircons. (Excludes Computers and lab equipment. ▪ Renovation: (P)= $25/SqF, (F)= $15/SqF, (G)= $10/SqF. ▪ Additional Transport Cost: Beyond paved road +10%.
Recurrent Cost/Year (RC)	Based upon 55 cents X sq./Year, except Walung at 65 cents.. Includes: Materials, Transport and casual labor. ***Note**: Ground maintenance should be the responsibility of the DOE/PTA/Community**.***

KOSRAE (Tofol) HIGH SCHOOL'S BUILDING INVENTORY

TOFOL HIGH SCHOOL	Construc-tion Type	SQ Ft	Stat-us	*Cost Estimate	Maint-enance Per Yr.	Maint-enance 15 Yrs.
1. Home Arts Building	CF/CW/TR	4345	P	108,625	2,390	35,846
2. Language Building	CF/CW/TR	6741	P	168,525	3,707	55,613
3. Shops Building	CF/CW/TR	6532	P	163,300	3,592	53,889
4. Main Office Building	CF/CW/TR	4047	P	101,175	2,226	33,388
5. Math Building	CF/CW/TR	5765	P	144,125	3,171	47,561
6. Mechanics Building	CF/CW/TR	3416	P	85,400	1,879	28,182
7. Office Building	CF/CW/TR	724	F	10,860	400	5,973
8. Science Building	CF/CW/TR	2535	P	63,375	1,394	20,914
9. Library Building	CF/CW/TR	6000	P	150,000	3,300	49,500
10. Argiculture Building	CF/CW/TR	3413	P	85,325	1,877	28,157
11. Social Studies Building	CF/CW/TR	3840	P	96,000	2,112	31,680
12. Staff Development Building	CF/CW/TR	1115	P	27,875	613	9,199
13. Warehouse Building	CF/CW/TR	1500	P	37,500	825	12,375
14. Head Start Building	CF/CW/TR	1299	P	32,475	714	10,717
15. Carpentry Building	CF/CW/TR	1660	P	41,500	880	13,200
16. Kool Cats Building	CF/CW/TR	1600	P	41,500	880	13,200
17. Toilets	CF/CW/TR	300	F	4,500	165	2,475
18. Classrooms	CF/CW/TR	3840	P	96,000	2,112	31,680
TOTAL		**58672**		**$1,458,060**	**$32,237**	**$483,564**

II.1.1. Kosrae (Tofol) High School

Kosrae (Tofol) High School has approximately 522 students enrolled (272 boys and 248 girls), 32 teachers with 11 buildings and 30 classrooms. The Principal is Iuhusa Dyia.

The Kosrae high school is located on government owned land close to the State DOE offices and the municipal library. Both library and DOE are two good resource points for the school. The condition of school buildings are generally of poor to fair quality. Most of the facilities at Tofol High School were built in the 1960's and early 1970's. There has been very little maintenance on these structures other that roof and other vital replacements. This, of course, is not really maintenance, but a "must do" project only after things are beyond repair. The site layout of the school buildings is pleasant, being connected by walkways with roofs and ample trees for spot shading. The science laboratories are in good condition since their 1999 renovation with external donor assistance (AusAID). Classrooms were well lit and spacious for the size of classes. A computer laboratory had 15 functioning computers and was used exclusively by the grade 12 students. A language laboratory had been procured through Japanese aid – current technical problems were preventing the use of its electronic facilities. The vocational education facilities varied widely in quality. The carpentry workshop was spacious and well equipped while the auto mechanics workshop was in very poor condition.

Other than the science laboratories, all buildings would receive a poor rating @ $25/SqF for renovation.

However, the study **highly recommends that the school's site plan be reevaluated in order to reduce the total area taken up so as to provide more space for COM expansion.** In this event, the study has not performed a detailed buildings conditions analysis and recommends the State DOE hold off on any new construction/plans until the aforementioned study is completed. *However, for the sake of a complete inventory of all schools in Kosrae State, the Specialist costed the schools existing buildings.*

Priorities/Recommendations:

1. Requires a separate detailed site plan (based upon topographic renderings) /cost analysis/feasibility study to accommodate increasing enrollment in the next 15 years. Study should be secured ASAP (by years in). *See the Terms of Reference in the Executive Summary.*
2. Priority given to 2 story to redesign site layout to provide more space for COM expansion.
3. Present facilities will not meet near to long-term needs of Tofol High School or COM.
4. Major renovation/redesign of all buildings is required.

II.1.2. Kosrae College of Micronesia (COM)

The COM-Kosrae has a vocational education program, which includes a certificate of achievement in carpentry (techniques and methodology of component construction). The students just completed building a workshop for training experience, which will be used for carpentry classes. However, the building is too small for long-term purposes. They need a much larger and better-equipped building if they are to provide adequate courses in carpentry.

The college also has part-time instructors in electronics and plumbing, but again, only theory is taught. The college has a computer lab and offers training in basic word processing, and spreadsheets.

The Kosrae COM occupies/shares a small portion of the total site (approx. 1/7th) with Tofol High School (adjacent to the Department of Education) in the Southern portion of their site. A new multi-purpose building was constructed in 1997 with assistance from AusAid. The building accommodates the administration section and has three classrooms – a general classroom, a computer laboratory and a science laboratory. The building and facilities are all in very good condition. The campus has five full-time teachers and two administration staff.

The national COM administration has set teacher education as the priority for the state campus. The campus is offering three education courses, (i) third year education, (ii) elementary education A and AS degrees, and (iii) Intensive English Program (IEP). The Kosrae campus is concerned this is pushing students to go to Pohnpei if they wish to pursue non-education sector degrees.

Kosrae campus has been charging students for their textbooks unlike other campuses. The campus reports some success but the textbook-buying scheme would work better if students had paid for textbooks (through purchase or loans schemes) at the high school level.

COM/Kosrae is badly in need of more land to expand. It is hoped, as cited above, that Tofol High can be redesigned with higher density buildings in order to provide more space for COM to expand. COM is entertaining a new building adjacent to their site just over the creek close to the main road that they envision will connect with an existing building (over the creek) by a walk bridge. This is not a bad idea, given the terrain and natural beauty along the creek, but this proposed land must receive perk test to see if it will be suitable to support the proposed 2 story structure.

Another alternative for COM can only be entertained if Kosrae State relocates their existing hospital to another site. The existing hospital's floor plan is poorly suited for hospital's present/future needs. The 1999 ADB – FSM Health and Education Report stated: "Although all hospitals in FSM are behind in maintenance, repair and renovation activities, their physical condition and design are generally adequate for provision of secondary and low level tertiary care. The design of Kosrae State Hospital (KSH) is the only exception to this observation. KSH seems not to have been designed but built by accretion over the 20 plus years since its initial construction".

In this event, the existing hospital and site would adapt well, as say a nursing school with dorm facilities. If this idea would be given precedence, relocating/building a new expensive hospital (approx. $15 Million) might be justified/rationalized. There are 2 good site identified by the State for the Hospital on Government land.

1. Requires a detailed site plan/cost analysis/feasibility study (combine-complement Kosrae High School) to accommodate expansion of COM, giving priority to possible Nursing School. *See the Terms of Reference in the Executive Summary.*
2. Proposed building design and placement (across the creek to link by bridge with 2-story building) is plausible if land perk-test is positive for type/size load bearing.
3. Present facilities will not meet near to long-term needs of COM.

The Infrastructure plan recommends **$5 million** for the next 15 years to adequately meet the expansion needs of the Campus.

II.1.3. Kosrae Elementary Schools

Lelu Elementary School

Lelu Elementary School has approximately 493 students enrolled (272 boys and 251 girls), 22 teachers with 6 buildings and 26 classrooms. The Principal is John Edwin.

The general site design is good with plenty of space for student recreation. There's one basketball court on the grounds. Access to the main road is good. The school is fenced

in. The classroom buildings are all single story and generally in poor condition. Mr. Edwin stated they needed better (replace) toilet facilities, replacement of all light fixtures, replace guttering, more furniture's and books.

Facilities:

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Estimate
Lelu Elem School	**22/493**	4 CR	120x25	CF/CW/TR	3000	Y/Y		G	G	30,000
		5 CR/1 O 1 L	180x28	CF/CW/TR	5040	Y/Y		F	G	75,600
		7 CR	210x25	CF/CW/TR	5250	Y/Y		F	G	75,600
		7 CR	210x25	CF/CW/TR	5250	Y/Y		P	G	131,000
		2 CR	60x25	CF/CW/TR	1500	Y/Y		P	G	37,500
		4 toilet	8x6	CF/CW/TR	48	Y/Y	P	DR	P	2,400 NCR
			133x31		9100					455,000 RC=6,026
Total	**22/493**	**26**			**20088**					**$813,126**

Priorities/Recommendations:

1. The general site design at Lelu is good. Buildings are from poor to fair. There is not adequate toilet facilities or an operating water system.
2. There is an approximate 30' x 250' strip parallel to the main road that is being leased by the government. It is referable the government obtain clear title, however if the landowner refuses - one building/classroom should be reduced to within government boundaries and one access (entrance) closed.
3. General renovation to all facilities and erect operational water catchment systems.

Malem Elementary School

Malem Elementary School has approximately 400 students enrolled (220 boys and 180 girls), 22 teachers with 6 buildings and 18 classrooms. The Principal is Socoman Tallex.

Malem Elementary school/municipality is located on the SE corner of Kosrae Island. Its original site plan was poorly designed. The center grounds that should be exclusively utilized for student recreation is dominated by public traffic as a threw road. The public uses the school grounds as a road primarily because the access road running along the West section of the school property is in bad condition. This West road must be paved, the bridge closed off and all vehicle through traffic restricted. The school ground must then be fenced off to restrict all vehicles. The Study Team spoke with the residents how would be affected by the change (East of the school). They stated they would be in favor of this proposal.

The existing 210x26 six classroom building should be demolished to open up the school grounds and a new 2 story L shaped 12 classroom, 2 offices, a library and computer lab building constructed in the extreme North section of the school grounds at a cost of $755,000.

Facilities:

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Estimate
Malem Elem School	22/400	5 CR/1 CL/1 L	180X25	CF/CW/TR	4500	Y/Y	Y/Y	P	F	112,500
		6 CR/1 0	210X25	CF/CW/TR	5250			P	F	DR
		1 CR	25X25	CF/CW/TR	625			DR	F	
		1 CR	25X15	CF/CW/TR	375			DR	F	
		1 CR	25X20	CF/CW/TR	500			DR	F	
		3 CR	60X30	CF/CW/TR	1800			P	F	45,000
		12 CR/ 2 O 1 L/ 1 CL	New 2/S 155x31 x70	CF/CW/TR	14100					NCR 2/S 755,000 RC 22,312
Total		**20**			**13050**					**$743,750**

Priorities/Recommendations:

1. Redirect road that runs through the center of the school's property to the West Side of the school's property with security fence (requires the relocation of the existing basketball court approx. 120' east).
2. Discontinue public traffic and vehicles through school grounds.
3. Close off East Bridge to all vehicles and convert to pedestrian bridge.
4. Improve (pave) alternative west road for diverted traffic.
5. Demolish 3 Buildings SW Corner for new community road access and to provide parking in SE corner of school property.
6. Demolish Building in North section and rebuild a new L shaped (@$455,000), 2-story classroom building in the extreme N portion of the school's property (remove large tree).
7. Renovate toilet and build new one to standard.
8. Improve accessibility and needs for exception children (handicapped), i.e. ramps, all specialized rooms (computer lab, library on 1st floors).
9. Aerate open area grounds, plant grass and landscape to complement the school's appearance relative to the community.
10. Secure clear title to small strip of road (easement) access.
11. General renovation to all remaining buildings to standard at $25/sq ft. @$288,750.

Sansrik Elementary School

Sansrik Elementary School has approximately 140 students enrolled (80 boys and 60 girls), 8 teachers with 3 buildings and 8 classrooms. The Principal is Takitson Isaac.

Sansrik Elementary School in Tofol municipality is located closest to the government center on the East section of Kosrae. There is a new 2 story 6 classroom building being constructed and 2 existing buildings being merged in the center that would accommodate 3 classrooms, 1 library and one computer lab. This would provide enough space for the existing student and afford some increases in growth. However, the site to too restrictive at present in space and there is virtually no recreation area. The study highly recommends the school relocate ½ its students to another site close-by to allow ample space for expansion. The school requires new toilet facilities.

Facilities:

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Estimate
Sansrik Elem School	8/140	2/S 6 CR/1 O/1 Toilet	125x25	CF/CW/TR	3125	Y/Y	Y	N	P	N/A
		3 CR/1 L/1 CL	125x25	CF/CW/TR	3125	Y/Y		P	P	78,125
			100x18	CF/CW/TR	1800	Y/Y		DR	P	
		6 CR/1O 1 L/1 CL	120x25 2 story	CF/CW/TR	6000			New site		NRC@ 300,000 RC 3675
TOTAL					**12250**					**$381,800**

Priorities/Recommendations:

1. The completion of the construction enclosure of one building and the completion of the new building will accommodate classroom space for student population at Sansrik for the 1st phase. The open space is inadequate for student recreation, etc. Existing toilet facilities need to be replaced by new ones as well as erecting operational water catchment systems to meet standards.
2. Like Utwe Elementary School, Sansrik's land site is sufficient for the present school population. There is nowhere for the school to expand. The school should be split to another location nearby to accommodate expansion.

Tafunsak Elementary School

Tafunsak Elementary School has approximately 520 Students enrolled, 31 teachers with 6 buildings and 30 classrooms. The Principal is Tulen Kinere.

Tafunsak Elementary School is located about half way between the government center and the airport in the North of Kosrae. It is the largest elementary school on Kosrae. It as a good site design relative to other FSM schools except for the buildings built closest to the main road – these should be demolished and replaced with a 2 story 8 classroom building. Otherwise, there is sufficient open area & the general L shape layout is good.

Most of the buildings and all toilet facilities are in poor condition. The toilets in the NW corner of the school should be demolished.

The existing Health Center should be demolished and relocated. It is not compatible with school activities. Its location also restricts the main entrance to the school presenting a safety hazard. Moreover, the classroom walkways are pitched/slanted towards the classrooms and should be redirected.

The overhangs on the 2nd story are not designed properly and when it rains the classrooms are often flooded.

There is a tennis court on the West grounds built by the community.

Facilities:

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Estimate
Tafunsak Elem School	31/520	3 CR 7 CR/1 O 8 CR 8 CR/1 O 1 L/ 1 CL	60x25 150x25 150x25 NCR 155x31	CF/CW/TR CF/CW/TR CF/CW/TR CF/CW/TR	1500 3750 3750 9100	Y/Y Y/Y Y/Y	Yes	F P P NCR	G G G	22,500 93,750 93,750 455,000 RC 5,430
TOTAL		**22**			**18100**					**$665,000**

Priorities/Recommendations:

1. Demolish and relocate the Municipal Health Center. Its location is poor zoning next to the school and it limits the main access, which presents a safety hazard.
2. The concrete toilet facilities at the South end of the school need to be demolished and relocated. The present site is not suitable for a septic system (low area blocking school site drainage patterns).
3. Renovate existing toilets in building one building.
4. Demolish 150x25 building with temporary 2nd floor teachers lounge and rebuild 2 story with toilet facilities.
5. Demolish existing buildings closest to the road and rebuild.

Utwe Elementary School

Utwe Elementary School has approximately 280 students enrolled (130 boys and 150 girls), 15 teachers with 7 buildings and 18 classrooms. The Principal is Aliksa J. Killin.

Utwe is more than 15 miles away from the government center on the South of the island. The original school structures were built with traditional materials. These were slowly torn down and replaced with new structures. However, it is evident there was no attention paid to site placement. The site is completely restricted, cramped and unsuitable for the present student population (barely one-acre site). All buildings are in poor condition except for the wooden structure classrooms (Australian built) on the Western boundaries.

The study highly recommends finding an entirely new site for the school, or at the very least, relocating ½ the population elsewhere. (There are 2 site nearby government owned).

Facilities:

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Estimate
Utwe Elem School	15/280	2/story	120x25	WF/WW/WR	3000	Y/Y	Yes	F	-P	60000
			30x30		900			DR	-P	*NRC 8 CR*
		8 CR	30x25		850			DR	-P	*1 O/1 L/1*
		1 O/1	60x25	WF/WW/TR	1500			DR	-P	*CL*
		L/1 CL	40x25		1000			DR	-P	*455,000*
			40x25		1000			DR	-P	
			25x25		625			DR	-P	*NRC 8 CR*
		8 CR	80x25		2000			DR	-P	*1 O/1 L/1*
		1 O/1								*CL*
		L/1 CL								*455,000*
TOTAL					**10875**					**$970,000**

Priorities/Recommendations:

1. Utwe Elementary School deserves the highest priority out of all other elementary schools in Kosrae because of the cramped conditions of the site – with no room to expand.
2. There are three alternatives to address the site's limited space. 1) Relocate the school entirely to accommodate the present and future student population; 2) split one half the school's population to another government owned site, (the study identified 2 possible sites within walking distance known to the DOE); 3) Completely demolish the buildings on the existing site and redesign site and building designs to accommodate the schools present and future needs.

Walung Elementary School

Walung Elementary School has approximately 73 students enrolled (33 boys and 40 girls), 9 teachers with 3 connected buildings and 9 classrooms. The Principal is Selik Swinfied.

Walung Elementary School was move approximately 3 years ago because the site was being overtaken by the tides. One building will remain at the old site and be renovated for the Municipal Health Center/Dispensary.

The new site design, architecture/building layout (U shaped @ 7,900 Sq. Ft.) and general quality is the best existing in the FSM. **Walung Elementary School should be used as an example throughout FSM in what the State DOE can plan and implement in close partnership with the community.** Not only was the buildings architecture design planned in sink with the lot size, but the School size (classrooms) was build to accommodate more than a 3 fold increase in student population for the future. The toilet facilities are also sufficient - having separate facilities for boys, girls and teachers. However, it is recommend that new toilet facilities be built when the student population reaches 150. The cost would be at $20,000 @ 50 sq.

The Study does not recommend any renovations or expansions to Walung Elementary School for the next 15 year. However, it is recommended that a regular maintenance

schedule be put in place where recurrent cost would be in the order of approximately $5,135 per year on an average. This is primarily for material and casual labor. Actual maintenance work should be coordinated between the Principal, the community and the PTA. This includes the upkeep of the general grounds and landscaping.

Walung Elementary needs a recreation area for the students, i.e. soccer ground, basketball court. The present site of Walung Elementary was previously their recreation grounds. The cost to develop this is estimated at $75,000 (including land acquisition).

The total cost required for Walung Elementary for the next 15 years is estimated at $77,025.

Priorities/Recommendations:

1. The main priority for Walung Elementary School is to make sure that a good regular maintenance program is in place that fully involves the community.
2. The water system/catchment tanks are sound and in place, but need minor maintenance to work to optimal efficient, i.e. speckets.

II.1.4. Kosrae State Education Facilities Total Cost Estimate

SCHOOL	Renovation/ Const. Cost	Total Sq. Ft.	Maintenance Cost/Year	Maintenance Cost 15 Yrs
Tofol High School	1,458,060	58,672	32,237	483,564
Lelu Elementary School	813,126	20,088	11,048	165,726
Malem Elem School	743,750	13,050	7,177	107,662
Sansrik Elem School	381,800	12,250	6,737	101,062
Tafunsak Elem School	665,000	18,100	9,955	149,325
Utwe Elem School	970,000	10,875	5,981	89,719
Walung Elem School	0	7,900	5,135	77,025
Sub-TOTAL	**$5,031,736**	**140,935**	**$78,270**	**$1,174,098**
Kosrae COM Campus	**$5,000,000**			
Total	**$10,031,736**			

II.2. POHNPEI

Pohnpei State has 32 Elementary Schools and one High School with more than 7,500 students. Most of these schools are concentrated within 10-15 miles of Kolonia. The exceptions are Kitti, Madolenihmw and the Outer Islands

The Pohnpei state constitution mandates the Pohnpei State DOE to develop and implement a comprehensive plan for the improvement of educational standards and services. This latest plan was developed by a special task force of education specialists and participants (teachers, academics, departmental representatives) and politicians and community representatives.

The Department of Education (DOE) was established by the Pohnpei State Government under the Executive Branch to perform the following responsibilities:

Provide and enforce educational services for the public;
Set and regulate the educational standards of all public and private educational institutions to the minimum and ensure its compliance;
Establish and execute comprehensive plans for the continuos improvement of the educational standards and services;
Establish and maintain library, museum and archives.

The Department is headed by the Director, a political appointee of the Governor through the consent and approval of the Pohnpei State Legislature. The Director manages the overall department's daily operation and who is also the allotted of the fund. Operational funding for the department comes from the compact current account, special Block grants, Energy grants, Federal grants and Congress of the FSM grants.

Four areas of educational improvement have been identified as the major areas for the development of education:

- *Professional development*
- *Vocational education*
- *Standards, assessment, instruction and reporting (SAIR)*
- *School community partnership*

Professional development is intended for teachers, area/program specialists and principals. It will enable teachers to complete their academic training and become certified teachers, and for everyone to attend short term training to improve their competencies and performance.

Vocational education is seen as a critical process in developing the skills of students so they can meaningfully participate in future economic activities. Vocational education programs will be extended downward to all elementary schools to support the recommendations made by the previous state and national economic summits.

The SAIR component is seen as critical to the effective improvement of the education system because it goes to the heart of the education process at the school and class levels. Considerable resources are being allocated to developing standards for content, assessment, instruction and reporting. Particular emphasis is being given to Pohnpeian languages and cultural values.

Parent and community involvement is an important part of building school effectiveness. Partnerships between schools, parents and communities will be built by strengthening the activities of PTAs and encouraging the development of Family Resource Centers at schools. These resource centers will provide educational toys and resources for families and act as gathering points for parents and communities in the schools.

Key Notes	**Descriptions**
***Construction Type:**	Concrete Floors (CF), Concrete Walls (CW), Wood Walls (WW), Concrete Roof (CR), Tin Roof (TR). Pre-Fabrication Building Type (PF).
***Ranking:**	Demolition Recommended (DR), New Construction Recommended (NCR), Poor (P), Fair (F), Good (G), New (N)
***Site Design (SD):**	Poor (P), Fair (F), Good (G)
***Toilet:**	Port-a-John (PJ), Concrete with Tin Roof (CTR), Poor (P), Fair (F), Good (G)
***Room Type:**	Classroom (CR), Office (O), Dormitory (D), Library (L), Computer Lab (CL) Cookhouse (CH), Home Economics (HE), Music Room (MR)
***Cost Estimate:**	Immediate Needs (2001-2006) plus Expansion needs (2006-2016)
Cost Bases ∑:	▪ New School: $50/SqF Includes: Materials, Labor, Transport in addition to: Student/Staff Desk/Chair, Work Tables, Shelves, Cabinets, Books/ Educational Materials and 2 Aircons. (Excludes Computers and lab equipment. ▪ Renovation: (P)= $25/SqF, (F)= $15/SqF, (G)= $10/SqF. ▪ Additional Transport Cost: Kitti, Madolenihmw and Outer Islands: +20%
Recurrent Cost (RC) Maintenance	Based upon 55 cents X sq.ft./Year on Pohnpei Proper and 75 cents for outer islands. Includes: Materials, Transport and casual labor. *Note: Ground maintenance should be the responsibility of the Staff/PTA/Community.*

Municipality Kitti

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Est *Phase
Enpein Elementary	8/205	2 story 8 CR/1L/1CL 1 O/1 L/1 Str	150x33 33x60	CF/CW/TR CF/CW/TR	9900 1980	Yes/ N/well Y/Y	Yes Yes	F P	F F	91,000 *Nrc 198,000* 49,500
Pehleng Elementary	9/248	3 CR 2 CR 1 CR 2 CR 1 CR 1 New O	90x25 60x25 30x25 60x25 30x25 30x25	CF/WW/TR CF/CW/TR CF/CW/TR CF/TW/TR CF/CW/TR CF/CW/TR	2250 1500 750 1500 750 750	Y/Y	Yes	DR DR DR DR DR P	P P P P P P	*1 New12 CR* *1 O/1L/1 CL* *@* *755,000* 18,750
Wenik E	5/108	2 CR 2 CR	80x30 80x30	CF/CW/TR CF/CW/TR	2400 2400	Y/Y	Yes	DR DR	P P	*1 New 8 CR* *@ 455,000*
Rohi Elementary	9/160	2 New CR 4 CR 2 CR 2 CR	60x30 120x30 74x19 60x30	CF/CW/TR CF/CW/TR CF/CW/TR CF/CW/TR	1800 3600 1406 1800	Y/Y	Yes	F P F P	F F F F	27,000 90,000 21,090 45,000
Salapwuk E	1/32	2 CR	60X30	CF/CW/TR	1800	N/N	Yes	DR	P	*1 new @ 150,000*
Seinwar E	12/276	8 CR 2 story	120x30	CF/CW/TR	7200	Y/Y	Yes	P	F	180,000
Wone Elementary	12/284	1 new 8 CR 1 O/1 CL	150x33	CF/CW/CR	9100	Y/Y	Yes	G	P	*1 new @455,000* *RC 13,000*
Total	**56/1313**				**43306**					**$2,498,400**

Enpein Elementary School serves 205 students with 8 teachers. It has one 2 story, 8 classroom building in fair condition and a second building for the principal, library and computer lab in poor condition. The school requires another 2 classroom, music room and home economics room (120x33). The total cost estimate for Enpein is **$338,500**

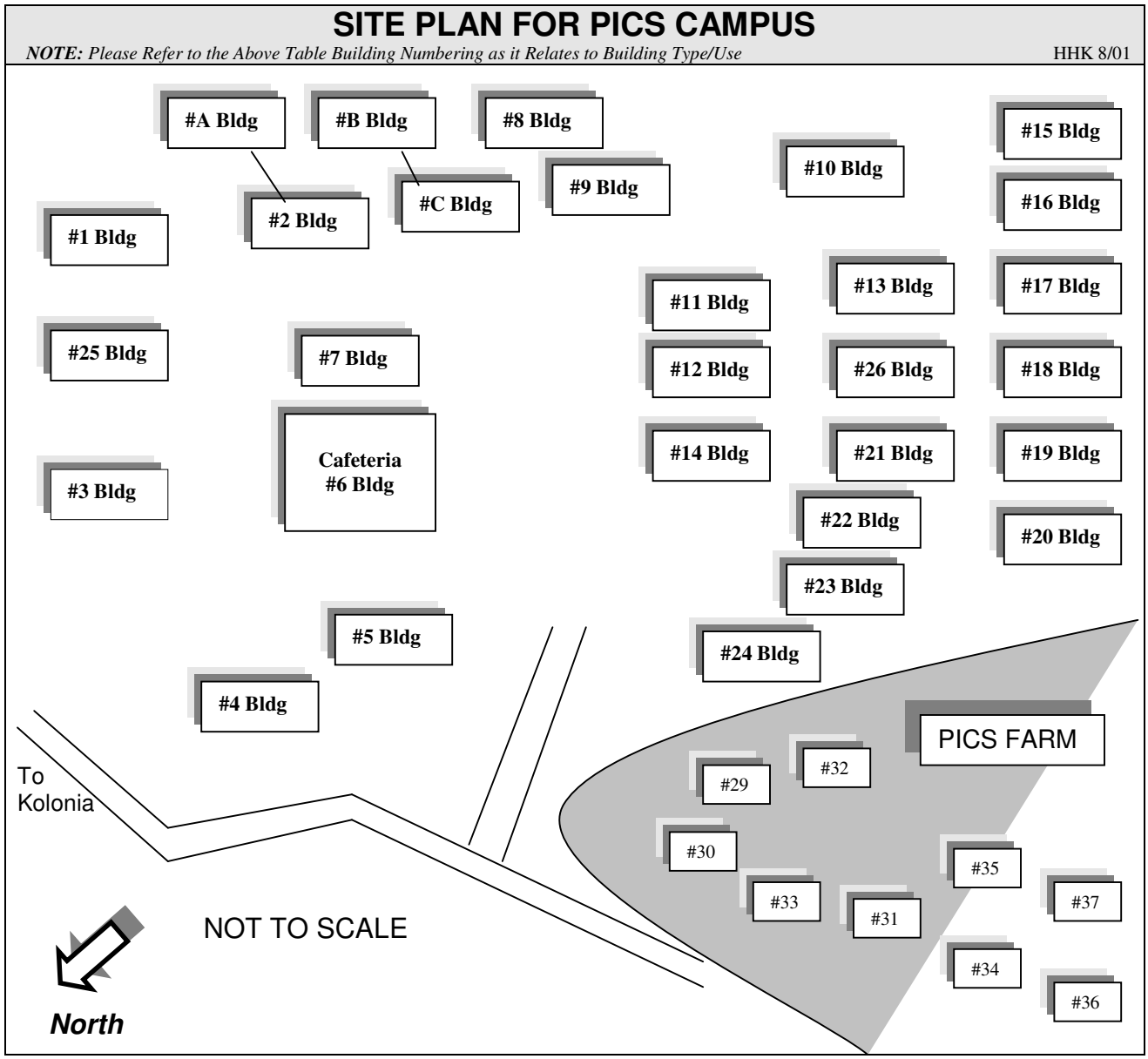
Pehleng Elementary School serves 248 students with 9 teachers. All buildings, for the exception a 1 newer building, need to be demolished and replaced with a 2 story, 10 classroom, 1 library, 1 computer room and 1 office building (180x33') at a total cost of **$755,000.**

Wenik Elementary School serves 108 students with 5 teachers. The school consist of 2 (80'x30') classroom buildings in poor condition. It is recommended they demolish the existing buildings and repair with a 2 story (150x33) 6 classroom, 1 office, 1 computer lab and one library at a total cost of **$455,000**.

Rohi Elementary School serves 160 students with 9 teachers. It is planned that the building under construction will accommodate the elementary students. One of the older buildings will be a 'feeder school' for PICS. It will provide classes for 9th graders who will go on to PICS the following year if their grades are up to standard. The total cost estimate for the school is **$184,000.**

Municipality Kolonia

PICS HIGH SCHOOL	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
1. Business Bldg-A	6 CR/ 2 Office	CF/CW/TR	180x28	5040	Fair	75,600
2. Business Bldg-B	2 Classrooms	CF/CW/TR	86x28	2838	Fair	42,570
3. Maintenance Bldg	Now Special Ed	CF/CW/TR	100x33	3300	Fair	49,500
4. Office Bldg-A	Weight room/Ofc	CF/CW/TR	100x30	3000	Poor	75,000
5. Office Bldg-B	4 Offices	CF/CW/CR	125x30	3750	Good	37,500
6. Cafeteria	Cafeteria/meeting	CF/CW/TR	130x115	14950	Good	149,500
7. Cafeteria Expansion	*Cafeteria Expand*	*CF/CW/TR*	*130x100*	*13000*	N/A	*650,000*
8. Storage Bldg-A	Storage	CF/TW/TR	36x27	972	Poor	14,580
9. Trade & Industry-D	Classrooms	CF/CW/TR	N/A	0	Demo	0
10. English Bldg-A	5 CR/1O	CF/CW/TR	210x33	6930	½ P ½ G	69,300
11. Science Bldg	6 Classroom/Labs	CF/CW/TR	186x30	5580	Poor	139,500
12. Math Bldg	6 CR/2 Toilet/1 O	CF/CW/TR	195x33	6435	Fair	96,525
13. Social Studies Bldg	5 CR/ 4 Toilets	CF/CW/TR	195x33	6435	Poor	160,875
14. Trade & Industry Bldg-C	3 Ofc/1 Draft Rm	CF/CW/TR	66x58	3828	½ P ½ G	57,420
15. Library Bldg	Open Library	CF/WW/TR	150x33	4950	Demo	0
16. New Library Construction	*Open Library*	*CF/CW/TR*	*150x33*	*4950*	*NRC*	*247,500*
17. New Bldg-A (2 story)	10 Classrooms	CF/CW/CR	160x27	8640	Good	86,400
18. New Bldg-B (2 story)	10 Classrooms	CF/CW/CR	160x27	8640	Good	86,400
19. English Bldg-B	5 Classrooms	CF/CW/TR	175x33	5775	Roof P	32,875
20. Home Arts Bldg-A	3 CR/2 toilets	CF/CW/TR	150x36	5400	Roof P	29,580
21. Trade & Industry Bldg-B	Open Auto Repair	CF/TW/TR	90x45	4050	Poor	60,750
22. Trade & Industry Bldg-A	Open Auto Repair	CF/TW/TR	100x45	4500	Poor	67,500
23. Home Arts Bldg-B	3 Classrooms	CF/CW/TR	50x35	1750	½ P ½ G	21,000
24. Storage Bldg-C	Storage	CF/TW/TR	36x27	972	Poor	14,580
25. Girl's Dormitory Bldg	17 Rm/Toilet/wash	CF/CW/TR	135x30	4050	New reno	12,000
26. Boy's Dormitory Bldg	17 Rm/Toilet/wash	CF/CW/TR	135x30	4050	New reno	12,000
27. Toilets	12 Toilets	CF/CW/TR	88x30	2640	Poor	39,600
28. Nahs Shed	Local canoes	Shed	27x27	0	N/A	0
29. Laundry Bldg	Open Room	CF/CW/TR	24x24	576	Poor	8,640
30. Trade & Industry Bldg-E	Not in use	CF/TW/TR	45x33	1485	Demo	0
SUB-TOTAL PICS CAMPUS				**138486**		**$2,335,695**
PICS AGRICULTURE FARM						
31. Agricultural Classroom	Classroom	CF/CW/TR	45x21	945	New reno	2,000
32. Agricultural Classroom	Classroom	CF/CW/TR	45x21	945	New reno	2,000
33. Agricultural Classroom	Classroom	CF/CW/TR	45x21	945	New reno	2,000
34. Agricultural Classroom	4 Classrooms	CF/CW/TR	120x35	4200	Poor	105,000
35. Shop and Equipment	Storage/Equip	CF/TR	75x45	3375	Poor	33,750
36. Plant Nursery	½ open w/ fencing	Partial bldg	45x100	4500	Poor	20,000
37. Poultry Unites	N/A	N/A	N/A	N/A	Poor	12,000
38. Piggery Unites	N/A	N/A	N/A	N/A	N/A	12,000
39. Agricultural Classroom	CR Not in use	CF/CW/TR	30x25	750	Poor	18,750
SUB-TOTAL PICS FARM				**15660**		**$207,500**
GRAND-TOTAL				***154146***		***$2,544,195***



The Current Subjects Taught at PICS High School

9th grade	10th grade	11th grade	12th grade
Subjects:			
Gen. Math	Eastern Hemisphere	Bookkeeping 1	Computer
Civics	Oral english	Bus. Math	Reading/Writing
Reading/Writing	Reading/Writing	Chemistry	Bookkeeping 2
Oral english	Biology	Reading/Writing	Gen. Business
Gen. Science	Algebra 1	Oral english	Oral english
Home arts	Home arts	Typing 1	World History
Agriculture	Agriculture	Agriculture	Trade and Industry
7 subjects	7 subjects	7 subjects	7 subjects

II.2.1. Pohnpei Island Central School (PICS)

Pohnpei Island Central School (PICS) is located on a large site in the SW sector of Kolonia, and serves 1,600 students with a total of 108 teachers, 2 Assistant Principals, 4 Councilors, 2 Secretaries and an Accountant. The Principal is Solpisio Sanvator. Classrooms are generally in a fair condition. The science laboratories are in very poor condition and practical classes in science have not been conducted at the school for more than 15 years. There are vocational education facilities provided for a wide range of courses including home economics, plumbing, auto mechanics, construction, electrical as well as agriculture. PICS attracts students from Pohnpei island proper and many of the students from the more isolated parts of the island need accommodation. The school has 2 dormitories for spaces up to 120 students (60 for boys/60 for girls), however, they need enough rooms to house up to 800-900 students. The remaining students prefer to locate off campus either to stay with extended family members and/or to obtain cheaper rental accommodation. They just completed renovating both dormitories and begun renovations to various other buildings. Part of the foundation on the girls dorms is eroding and needs attention. Moreover, the PICS Principal stated that as many as 1,000 students would request Dorm space if more capacity was provided. The study specialist did not include this in the above cost estimate, however, to duplication the exact Dormitory building at PICS, the cost for each 135'x30' new building would be about $182,250.00; housing 60 students each.

The Pohnpei CAT Team has begun a painting project for several other buildings, however, it seems there was no real prep work prior to painting and peeling is already occurring. This is equally true of other contracted painting. It is estimated that if painting of school building exteriors is done without preping, i.e. scraping, cleaning surfaces, prime-painting – the job will only last 2 years, whereas prepping first will last up to 8 years, even in this climate.

As for the numerous single story buildings (being of the same style and construction as the newly renovated dorms), the average ranges from 33'x100' to 33'x200'+, many urgently need roof replacements, as well as general renovations. These buildings were constructed in the early 1970's, and for the most, were constructed very well, even over-constructed with 18 inch foundations, oversized load bearing and joist beams, etc. But, water is getting to the roof framing & needs to be preserved. The cost to undertake the quality of construction that took place 30 years ago would prove cost-prohibitive today.

The Study Specialist noted that the first floor load bearing beams supporting the second floor of New Buildings A & B (No's. 15 & 16) were cracking. This is due to poor construction standards. The electrical wiring was also done improperly at the time of construction. Several of the newly renovated building by 'Wilson and Helgenberger Company' are leaking. Again, this is due to poor workmanship and those responsible for the contract inspections by not insisting upon 'proper renovation'. Buildings 19 and 20 (Trade & Industry A & B) need immediate roof replacements. The iron framing is still good for the most part, but is deteriorating. The Library building is in the worse condition

on PICS Campus and needs to be demolished and replaced with a new facility. Number 10, the Science Building B is also in very bad condition and urgently requires renovation. The Cafeteria is in reasonable condition, but requires expansion since it is used by Pohnpei for a great number of events and presently does not meet the school's needs.

PICS is not severally constrained by space, they can afford to renovate rather than opting solely for 2 story structures. In fact, if the new Pohniangas High School Project *(see Pohniangas High School Proposal)* is approved and proceeds, the study recommends looking at the possibility of sharing a portion of PICS grounds for the Pohnpei COM Campus whom is severely restricted in land that they can expand to. When/if t Pohniagas is built, PICS's student population will decline to some degree and it may even be possible to give over some of their existing buildings to Pohnpei COM for their extended Campus. *(See the Infrastructure Developments Plan's Terms of Reference on COM-Pohnpei Campus).* A detailed site plan design/analysis is required for this – much like the Kosrae/Tofol High School/COM site combination.

The PICS Agricultural Farm is a valuable assist for Pohnpei and should be renovated to maximise on their services/training. 3 buildings (No's. 29,30, 31) were recently renovated, but the piggery, nursery, poultry and 2 other buildings need renovation.

The total cost estimate by the study to bring PICS to an acceptable standard is $2,335,695 for the main campus and $207,500 for the Agricultural Farm which comes to a grand total of $2,544,195.

Municipality Kolonia

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Est *Phase
Kolonia Elementary School	32/722	8 CR/1 O/1 CL	150x33 2 story	CF/CW/CR	9100	Y/Y	Yes	New	P	Completed
		6 CR/1 L	215x33	CF/CW/TR	7095	Y/Y	No	DR	F	455,000
		8 CR/1 O	150x33 2 story	CF/CW/CR	9100	Y/Y	Yes	F	F	136,500
		8 CR/1 O	35x130 2 story	CF/TW/TR	9450	Y/Y	No	DR	F	455,000
		3 CR	115x33	CF/CW/TR	3795	Y/Y	Yes	P	F	94,875
				CF/CW/TR	3795	Y/Y	No	F	F	56,925
Ohmine Elementary School	36/793	9 CR/1 O/1 CL/4 toilet	250x27 2 story	CF/CW/CR	13500	Y/Y	Yes	F	F	202,500
		3 CR	90x45	CF/CW/TR	4050	Y/Y	No	DR	G	455,000
		7 CR	200x30	CF/TW/TR	6000	Y/Y	No	DR	G	455,000
		2 CR	66x30	CF/CW/TR	2178	Y/Y	No	DR		
		4 CR	115x33	CF/CW/TR	3795	Y/Y	No	F	F	56,925
		3 CR	42x33	CF/CW/TR	1386	Y/Y	No	DR		
		6 CR/1 L	240x33	CF/CW/TR	7920	Y/Y	No	DR	G	455,000
Total	**68/1515**				**81164**					**$2,822,725**

Kolonia Elementary School is located in the SE sector of Kolonia, and serves more than 700 students with a total of 32 teachers. The school shares a border with the

Pohnpei COM Campus. There are presently 28 classrooms, 5 buildings and a 6th new 2 story eight classroom is near completion. The slope and drainage for the new building is poor and will experience problems as a result. There are 2 accesses to the school, both are very poorly situated and present serious traffic/safety problems during rush-hours. The actual site design of the school is not bad, however future site planning is a priority since this study will recommend some demolition and new construction. The land is underutilized since 4 of the 5 building in use are single story. The 2 story building presently in use was not designed as such and in general is in such a state of disrepair that it should be demolished and replaced with a new 2 story identical to the one almost complete. In addition, the 215x33 single story directly across the new building construction and adjacent to the basketball court should be demolished and replaced with a similar structure. This would bring the school up to 38 classrooms, enough for enrollment growth. The total cost estimate for Kolonia Elementary for the next 15 years is **$1.2 Million**.

Ohmine School is located in the northwest sector of Kolonia, and serves more than 800 students. The school principal is Dan Yo. He indicates that Ohmine is not adequate for the number of students enrolled, and overcrowding in the classrooms results. Although the school has a fairly sizable land area, it is not efficiently used, as most school buildings are single-story structures. Only one building, at the east end of the campus has two stories, and administration is located at one end of this building. This building has an adequate power supply, and houses, as well, the computer training area. Except for this building, others do not have adequate power, in part because of exposed wires, necessitating the shut down of electricity for safety reasons. The water supply is adequate in the sense that water, supposed to be potable, is available at external pipes, but drinking from such pipes is inconvenient for the students. (Students are instructed to bring water from home.) Toilet facilities are more-or-less satisfactory, and are connected to the Kolonia sewerage system. Except for the two-story building, building condition is generally poor. Some of the buildings were not constructed to good standards to begin with.

Mr. Yo indicates that the schools once provided training in arts and crafts and in home economics, but does not provide such training regularly any longer. He has tried to continue the schools involvement with crafts by inviting skilled craftsmen to demonstrate their crafts. He has also scheduled occasional cultural training, such as training in traditional dances. Mr. Yo regrets that the school can no longer provide much of a foundation for vocational training. He considers it important that the school have facilities to recommence arts and crafts and home economics training, and extend such practical training to shop (wood and metal working), drafting, basic mechanics, and music. He argues that the demonstrated ability of the students to learn quickly how to use computers, shows their intelligence and their aptitude for “hands-on” learning.

The school has a newly constructed basketball court, a project that Mr. Yo had pressed for a number of years, before it was finally approved. The court has helped considerably to provide a more balanced education program, but, with more than 800 students, the single court is not really adequate for this purpose.

Most of the campus requires redevelopment, excluding only the two-story building at the east end of the campus. Buildings must be built to two stories in order to conserve land area, and must be build to a higher standard of construction. There must be a diversity of classroom capacity, with some classrooms being specially designed for arts and crafts, home economics, shop, drafting, biology labs, basic mechanics, and music, as well as expanded area for computer training. There also needs to be an expanded area for sports activities, which is possible if land area for buildings is used more efficiently. The new sports area should preferably be covered, but does not need to be enclosed.

The total cost estimate for Ohmine Elementary for the next 15 years is **$1.6 Million**.

Municipality Madolenihmw

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	S D	Cost Estimate
ESDM Elementary School	7/181	1 8 CR new 2 Story	135x30	CF/CW/CR	9100	Yes/Y	Yes	G	G	Toilets
									G	14,000
		2 CR	60x30	CF/CW/TR	1800			P	G	45,000
		1 Comm	55x45	CF/CW/TR	2475			DR	G	1 MR/1 HE @90,000
Lukop Elementary Shool	7/218	2 CR	60x30	CF/CW/TR	1800	Yes/Y	Yes	DR	F	*Nrc/455,000*
		3 CR	100x30	CF/CW/TR	3000			P	F	75,000
		3 CR	60x30	CF/CW/TR	1800			P	F	45,000
Mand Elementary School	4/106	2 CR	60x30	CF/CW/TR	1800	Yes/y	Yes	F	G	27,000
		2 CR	50x30	CF/CW/TR	1500			F	G	22,500
		1 O	20x30	CF/CW/TR	600			F	G	9,000 toilet 12,000
Nanpei Memorial Elm	6/104	1 8 CR new 2 Story/1998	150x33	CF/CW/CR	9100	Yes/Y	Yes	F	F	91,000
Sapwalap Elementary	13/311	*Nrc 8 CR*	150x33	CF/CW/CR	9100	Yes/Y	Yes	N/A	F	*Ncr 455,000*
		Ncr 6 CR	130x33	CF/CW/CR	8580			N/A		*Ncr 429,000*
		3 CR/1 O	90x33	CF/CW/TR	2970			F		44,550
		2 CR	60x33	CF/CW/TR	1980			F		29,700
		2 CR	60x33	CF/CW/TR	1980			F		29,700
Temwen Elementary	6/124	2 CR	100x33	CF/CW/TR	3300	Yes/Y	Yes	P	F	82,500
		2 CR 1 CR/1 O	80x30	CF/CW/TR	2400					60,000
Wapar Elementary	5/111	2 CR	45x30	CF/CW/TR	1350	Yes/Y	Yes	P	G	33,750
		2 Office	45x30	CF/CW/TR	1350					33,750
		1 CR	45x30	CF/CW/TR	1350					33,750
		1 L	45x30	CF/CW/TR	1350					33,750
		3 CR	100x30	CF/CW/TR	3000					75,000
Total					**71685**					**$2,222,600**

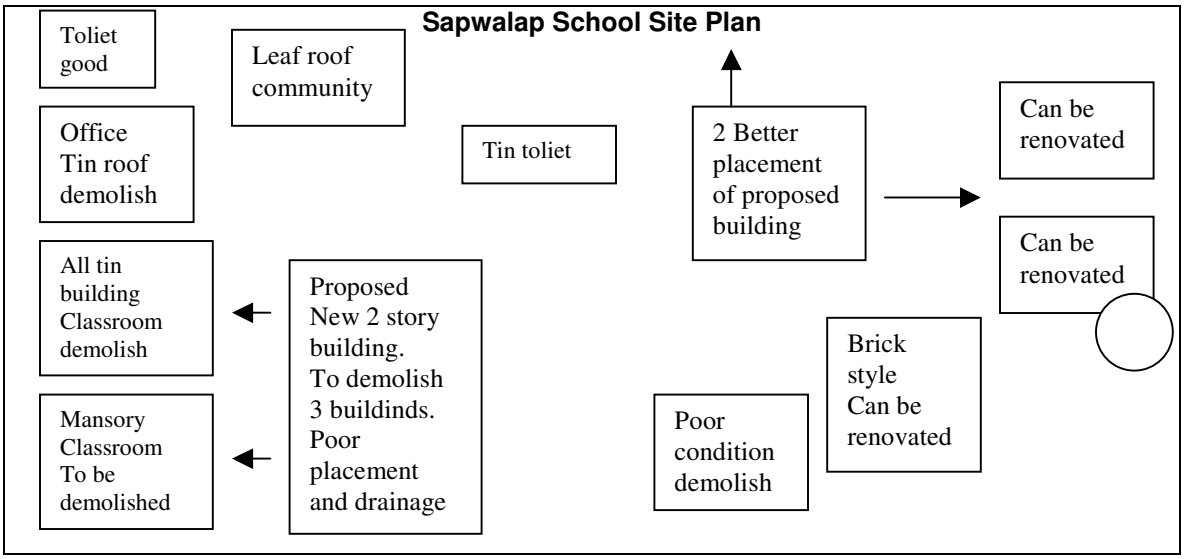
Esdm Elementary School serves 181 students with 7 teachers. The site design is fair. It has a new (150x33) 8 classroom, computer lab and office building. The other 2 classroom building is in fair-good condition and can be renovated. The study recommends a third building for home economics/music at $90,000. There is a basketball court on the grounds. There is also a half open community structure on the grounds. The total cost estimate is **$149,000**

Lukop Elementary School serves 218 students with 7 teachers. The School is approx. 1 mile off the main road on a fair-good coral compacted secondary road. The are presently 3 buildings, 8 classrooms, one office and a basketball court. The 2 clasroom building needs to be demolished and replaced with a 5 classroom, 1 computer lab, home economic room and one music room 2 story 150x33). The total cost estimate with new construction and renovations is **$575,000.**

Mand Elementary School 106 students with 4 teachers. It is off the main road approx. 2 miles on a very poorly maintained gravel road. The site design and landscaping is good. The study recommends renovation of the existing building at a total cost estimate of **$70,500.**

Nanpei Memorial Elementary School serves 104 students with 6 teachers. It has a new 2 story (150x33) 8 classroom building built in 1998. Because there was probably no proper inspections of the construction throughout it being built, one corner of the buildings foundation is already eroding badly. There was not proper infill/compaction at the time the foundation was erected. This is more the responsibility of the Pohnpei State Construction/Inspections Division to insure the contractor is using the proper construction methods. This building is typical in that not maintenance has been provided, i.e. few lights working, paint peeling, mold, no attention to drainage cleaning, etc. There is insufficent furniture, desks and books for students. The toilets (4x4) are in fair-good condition.

Sapwalap Elementary School serves 311 students with 13 teachers. The Principal is Samual Rospel. All existing buildings are generally in poor condition and the present capacity does not meet the student population requirements. A new 2 story (150x33) 8 classroom, 1 office, I library is being constructed. The Study was very discouraged to learn there was no real consideration for site planning for the proposed new 2 story building. The area they surveyed is inaproiate for a number of reasons, i.e. drainage/slope problem, crowed site, poor placement as jucsaposed to other buildings. The study high recommends the proposed building is re-sited to the NW of the property. It is recommended that the 2 classroom buildings in the SW are demolished. Demolish the center building close to the road and replace with a 2 story (130'x33') 6 classroom building. Renovate the remanding buildings and reserve one in East for music/home economics. The total estimated cost would be **$943,400.**



Municipality Nett

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Est *Phase
Nett Elementary School	32/849	10 CR New	180x33 2 story	CF/CW/CR	11880	Y/Y	Y	G	F	N/A
		8 CR/1 O/ 1 CL	150x33 2 story	CF/CW/CR	9100	Y/Y	Y	G	F	136,500
		8 CR/1 HE/ 1 MR (Ncr)	180x33 NCR 2/s	CF/CW/CR	11880					*NCR 594,000*
		8 CR/1 O NCR	150x33 NCR 2/s	CF/CW/CR	9100					*NCR 455,000*
Parem Elementary School	6/105	4 CR/1 O	75x60	CF/CW/TR	4500	Y/Y	Y	F	F	67,500
		1 CR	30x30	CF/CW/TR	900			DR		
		3 CR/MR/HE NCR	150x33	CF/CW/TR	4950			NRC		*NCR 247,500*
Total	**38/954**				**52310**					**1,500,500**

Nett Elementary School serves 850 students with 32 teachers. The Principal is Maria Hadley. The school is presently overcrowed at well above 30 students/classroom. The master plan for this school proposes/is in the process of moving all the students from the Nett Muncipal Government site to this site. Presently 4th to 8th grade attends at this site. After the new (under construction) 2 story (180x33) 10 classroom building is completed, more students will be shifted. There is an 8 classrom, 1 office, 1 computer room building one the site in fair condition. However, some flooding occurs here in heavy rains. The School requires 1 additional 2 story buildings that would add more classrooms, computer room, music room and a home economic room at a total cost of approximatily **$1.2 Million**.

Parem Elementary School serves 105 students with 6 teachers. The 4 classroom building is in fair condition, but the single classroom building needs demolished and replaced with a 3 classroom, 1 music room, 1 computer lab and 1 home economics room at a total cost estimate of **$315,000.** This would alow the school to double in student population in the next 15 years.

Municipality Sokehs

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Est *Phase
Lewetik Elem	4/74	4 Classroom *2nd floor Ncr*	120x33	CF/CW/TR	3960	Y/Y	Yes	F	F	2nd flloor *Ncr 198,000*
Pakin Elem 1st to 4th grade	1/15	1 classroom	40x30	CF/CW/TR	1200	No	Yes	P	F	30,000
Palikir Elem	15/350	2 story 8 CR/1 O 3 CR NCR 6 CR/ 1 O/1 CL/1 L 1 MR/1 HE	150x33 110x33 150x33	CF/CW/CR CF/CW/TR CF/CW/CR	9100 3630 9100	Y/Y Y/Y	Yes Yes	G P	F F	91,000 90,750 *NCR @ 455,000*
Sekere Elem	15/390	2 story 7 CR 1 O/1 CL/1 L *5 CR/ DR* 3 CR 1 O/Sp Ed	140x30 135x30 80x30 45x27	CF/CW/TR CF/CW/TR CF/CW/TR CF/CW/TR	8400 4050 2400 1215	Y/Y	Yes	F *NCR* F G	F dr F F	126,000 *202,500* 36,000 New Const.
Sokehs Pah (RSP) Elementary	1/158	4 CR/1 L 1 O/ 1 CL 2 CR *Nrc 2 story*	160x33 60x33 80x33	CF/CW/TR CF/WW/TR	5280 1980	Y/Y Y/Y	Yes No	G DR	P	52,800 Nrc 264,000
Sokehs Powe	16/330	7 CR/1 CL 4 toilets 6 CR 3 CR 2 Offices	270x33 165x33 60x33 48x33	CF/CW/CR CF/CW/TR CF/WW/TR CF/CW/TR	8910 5445 1980 1584	Y/Y Y/Y Y/N Y/N	Yes No No No	DR DR DR DR	P P P P	NCR 2 story L shape *@650,000* *NCR 1 story @247,500*
TOTAL					**68234**					**$2,444,500**

Sokehs Pah Elementary serves 158 students with 7 teachers. The Principal is Albert Alfred. Sokehs Pah Elementary was previously known as RSP Elementary. The present site is too restricted with no areas to expand. The Study recommends that the older (50+ years old) building with wooden walls is demolished and a 2 story, 5 CR, 1 music room and one home economics room replace this building. There is a basketball court on the grounds. The toilets are in poor condition and need replacement. The newly build one story 4 classroom building (5 years old) is in fair-good condition and has handicap ramps. The total cost estimate for **Sokehs Pah Elementary is $316,800.**

Sokehs Powe serves 330 students with 16 teachers. The Principal is Wisc Aisuk. The School is situated completely on infill land and an old Japanese jetty. The land is actually unsuitable for heavy construction like school buildings. They have recently built a 270x33 single-story 7 classroom, 1 library, 4 toilet building on the jetty. This building is already settling, cracking and quickly becoming unsafe. It is unlikely there was any soil test taken prior to construction. This is also obvious when one observes the numerous extreme cracking in the nearby basketball court. The Pohnpei State Engineer stated they could correct the problem of this building by constructing a retaining wall around the jetty to prevent any further damage/cracking of the building. However, in the Study Specialist's opinion, this structure should have never been planned and built on this site and therefore recommends condemning the building and complete demolition. Constructing a retaining all would fail in time and prove too costly. The only structures suitable for the jetty site are light wooden frames for recreation, storage or temporary shelter, etc. There is also a 165x33 one-story building running parallel to the road having less than a 5-foot setback from the main road. The other classroom building is 50 years old. The study recommends the entire building site is demolished/leveled and compacted for new construction to support 2 story buildings with deeper footings. The design should be an L shape 2 story (fully connected) located at the NW corner having 14 classrooms, 2 offices. A separate, one story (150x33) building can be constructed for 1 computer lab, 1 library, one home economics room and a music room**. The total cost estimate is $897,500.** The other alternative is to bus the students to another school. There is no nearby suitable site to relocate the school.

Municipality Uh

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Est *Phase
Awak Elem	9/230	9 CR/1 O 4 CR/1 O/ 1CL/ 1 HE	360x33	CF/CW/TR	11880	Y/Y	Yes	P	G	297,000
		New 2 story	120x33	CF/CW/CR	7920	Y/Y	Yes	NCR	G	396,000
Saladak Elem	16/380	12 CR 2 story	200x36	CF/CW/CR	14400	Y/Y	Yes	F	G	144,000
		1 CR	36x36	CF/WW/TR	1296	Y/Y		F	G	19,440
		1 O/1 L	60x33	CF/CW/TR	1980	Y/Y	Y	G	F	19,800
		Ncr 5 CR	150x33	CF/CW/TR	4950					*Ncr 247,500*
Total	**19/505**				**42426**					**$1,123,740**

Awak Elementary School is located in Uh and serves 230 students with 9 teachers. The Principal is Walt Joesph. The site design is good with open area for recreation. There is only one school building in fair-poor condition with 9 classrooms, 1 library and one office. There is 1 four toilet facility. This just meets the student population's needs at 25 students/classroom. The study recommends a new 2 story, 5 classroom, 1 computer room, 1 music room and one home economics room. The total cost estimate to renovate the existing building and new constructions is approximately **$700,000.**

Saladak Elementary School is also located in Uh and serves 380 students with 16 teachers. The Principal is Regina Joseph. The main building is in fair condition, but built

on a slope with poor drainage. It is 2 stories with 12 classrooms and is at over-capacity. There is another 1 classroom in fair-poor condition. All classrooms have insufficent lighting. There is a building previously used as a dispensary that the school plans on using as a future school building. This building is in fair condition, but there is some bad cracks in the concrete structure and leakage occurs. There is a building is about 500 yards from the school grounds beside the main road and surrounded by a security fence used as the Principal's office and library. This building is in good condition. The school will require another 5 classrooms for future growth. The grounds are good and there is enough land for another school building. There is a basketball court on the school grounds. The total cost estimate for school renovation/expansion is **$430,740.00.**

Municipality Outer Islands

SCHOOL	Teacher/ Student	*Room Type	Size L'x W'	*Construc-tion Type	SQ FT	Power Water	Toil-et	rank-ing	SD	Cost Est *Phase
Kapingamaer-angi Elem	6/104	*DR/NCR*	130x30	CF/CW/TR	3900	No/No	Yes	DR	F	195,000
Mwoakilla Elm	4/36	*DR/NCR*	60x30	CF/CW/TR	1800	No/No	Yes	DR	P	90,000
Nukuoro Elem	5/116	*DR/NCR*	145x30	CF/CW/TR	4350	No/No	Yes	DR	F	217,500
Pingelap Elem	8/129	*DR/NCR*	155x30	CF/CW/TR	4650	No/No	Yes	DR	F	232,500
Sapwuahfik E	7/165	*DR/NCR*	180x30	CF/CW/TR	5400	No/No	Yes	DR	P	270,000
Total					**20100**					**$1,005,000**

II.2.2. Feasibility Study for the New Pohnlangas High School [10]

The total cost estimate for this project is approximately $3.0 million for the first phase targeted for 2001-2002. The expansion phase is estimated at another $2 million, **totaling $5 million.**

In 1991, the Department of Education adopted the Five-Year Development Plan to balance the distribution of educational facilities and occupants throughout the island. The Department of Education has realized the need for its implementation to alleviate the overcrowding population at PICS school and to reduce cost of transporting students from Madolenihmw and neighboring villages in Kitti to Kolonia.

The municipality of Madolenihmw is approximately 25 miles southeast from Kolonia. It is the second largest local government in Pohnpei in terms of land area with approximately 6,000 in population in 1998. Madolenihmw has a land area of 12 square miles. In projecting the number of students who are going to enroll at the Second High School in the year 2000, the occupancy will be based upon the number of students graduating in school year 1997-1998 from the elementary schools in the Municipality of Madolenihmw and the three (3) villages in Kitti, namely: Enipein,

[10] The following Draft Study was prepared by Ehroque Architects for the State of Pohnpei Governor's Office and edited for this study by the Education Specialist. Copies and detailed site plan/floor plan renderings can be obtained at either of the above offices.

Wone/Mwoakot and Rohi schools. These graduating students are the projected population in the year 2000 and thereafter, in the following order: the 5th grade will be the freshmen in 2001, 6th grade/ sophomore, 7th grade/junior and 8th grade/senior in the same year. Below shows the public elementary school statistics for School year 1997-1998, in Madolenihmw and the three (3) schools in Kitti Municipality:

	5th Grade		6th Grade		7th Grade		8th Grade		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
MADOLENIHMW									
ESDM	14	10	4	13	8	5	5	13	72
Lukop	12	12	6	12	8	9	8	7	74
Sapwalap	19	20	18	13	25	15	12	14	136
Temwen	5	8	11	12	17	12	14	11	90
Mand	12	14	8	9	7	4	5	9	68
Wapar	7	7	10	6	5	7	6	9	57
	69	71	57	65	70	52	50	63	
	140		122		122		113		497
KITTI									
Enipein	11	10	20	13	17	10	14	9	104
Wone/Mwoakot	19	15	20	20	18	19	12	12	135
Rohi	11	10	17	13	10	5	7	8	81
	41	35	57	46	45	34	33	29	
	76		103		79		62		320
	216		225		201		175		817

The following table describes the student population growth, from year 2001 to 2005. It is assumed that one (1) student for every 15 students for each gender will be added to the current statistics for school year 1997-1998.

Students/Gender	Year 2001	Year 2002	Year 2003	Year 2004	Year 2005
Male	422	452	454	455	475
Female	395	431	446	436	466
	817	883	900	891	941

Madolenihmw 5-Year Development plan

In 1991 the Madolenihmw Municipal Government has developed a five year development plan. The plan was made by an outside contractor in collaboration with the Office of Planning and Statistics and the other regulatory agencies of Pohnpei State Government. The plan identified the primary development of Second High School and Elementary School facilities in Pohnlangas which is now the center of Madolenihmw. Other future developments in Pohnlangas consisted of industrial and commercial centers.

The Second High School was not immediately implemented as scheduled in the Five-Year Development Plan. As a result, the cost of the plan has already inflated.

The Department of Education realize the need for the implementation of the facility to balance the distribution of educational facilities and occupants throughout the island.

But in consideration of limited funding the Department of Education has decided to simplify the development plan by downsizing the entire facility.

The Madolenihmw Municipal Government on the other hand has designated a new suitable location for the school facilities in Pohnlangas.

Objectives and benefits

- To develop school facilities that can accommodate the need of the outgrowing number of students.
- To provide students opportunities to develop their skills while living closely with their families.
- To upgrade the standards of elementary and second high schools by centralizing school facility.
- To consolidate the elementary schools in Temwen, Pohnlangas and Mand so that the graduates will enter secondary school in the same location.
- To provide better education for students and in the end, better jobs for them.
- To reduce the cost of transporting student from Madolenihmw and nearby Kitti
- villages to Kolonia and vice versa.

Needs Statement

Alleviate the overcrowding population at PICS school and to reduce cost of transporting students from Madolenihmw and neighboring villages in Kitti to Kolonia and vice versa.

Promote the well-being of students and prepare them more academically considering that the time they spent coming to Kolonia can now be used for studying and assisting their families in household chores.

Land use - The Second high school needs an adequate land area to accommodate the entire needs of the campus. The 10 acres is assigned to accommodate the present requirement and additional 3 acres for future expansion in the next 5 years.

Educational curriculum - The second high school curriculum framework required by the Department of Education will be basically patterned to the curriculum adopted and currently used by Pacific Island Central School (PICS) in Kolonia. Mr. Ewalt Joseph, the principal of PICS has provided the information pertaining to the curriculum and statistics (population). The curriculum program was composed of two (2) studies, such as: Academic and Vocational.

Requirements

- Must have a minimum Land use area of 13 acres including the future expansion to accommodate additional 150 students after 5 years.
- Infrastructures - needed are complete facilities as outlined in Chapter 4.
- Develop the infrastructure and eliminate adverse environment affected within the campus.
- Enrollment - The initial enrollment is 817 that is projected to start in year 2001.

- Students -Teacher ratio - It will be similar to PICS high school that the maximum student in class is 30. Therefore the ratio is 30:1, 28 Teachers are required based on the population and each teacher would have 4 to 5 loads a day.

Classrooms The classrooms needed based on the 817 students with the current class subjectsis calculated as follows:817 population, 30 maximum load per class = 28 min. classroom for full session OR 204 30 = 7 sections x 4 grade level = **28 rooms.** Maximum 7 subjects/ loads can be taught everyday. Assuming that the average students per class load is 24 students. 817 24 = 34 rooms needed as a start

Summation of classrooms:

Bldg. D	Standard classrooms	7
Bldg. D	Standard classrooms	7
Bldg. E	Specialized and Standard	6
Bldg. F	Vocational Business and Home arts	7
Bldg. H	Vocational Trade and Industry	2
Bldg. G	Vocational Agriculture	4
		33

Faculty rooms needed: Using Average loads of 34 sections x 7 subjects 238 Load/hour Therefore: 238 5 loads/Teacher = 48 teachers needed.
Number of Teachers per building.

Bldg. D	11
Bldg. D	11
Bldg. E	11
Bldg. F	9
Bldg. H	2
Bldg. G	4
	48

Maximum capacity of Faculty rooms: The size of room is 24x28 - (8x10 electrical rooms) = 592 SF 592 SF area of room 45 SF space requirement = 13 teachers capacity / room

PICS Secondary School

The PICS school current students population is 1,600. Out of this population, there are 253 students who are living in Madolenihmw and Kitti, and nearby Pohnlangas (Enipein, Wone and Rohi).

Statistics: Students attending in PICS Kolonia who lives in Madolenihmw and nearby.

	9th grade		10th grade		11th grade		12th grade		Total
	Male	Female	Male	Female	Male	Female	Male	Female	Total
Madolenihmw	24	33	16	22	9	21	25	21	171
Kitti	13	19	5	7	4	12	8	14	82
	37	52	21	29	13	33	33	35	253
Total Grade level	**89**		**50**		**46**		**68**		

Number of male	104
Number of female	149
Total students	253

Description of the Proposed Facility

Within the campus site, the Madolenihmw Municipal Hall is also situated along the circumferential road. The proposed campus site is a forest containing huge number of mahogany trees and different species of large vegetation.

In addition to the future industrial and commercial plans, the Madolenihmw Municipal Government has proposed to build an athletic facilities like Olympic type that will include the following amenities; baseball field, track and field, gymnasium and swimming pool. These facilities are intended to become an integral part of the elementary and second high school campus.
Two (2) elevated water tanks will be erected at the back of the Municipal Hall to supply water for the entire campus.

Conceptual Plan

Building character is one of the concept to be considered in architectural design. The building must signifies the aesthetic value of the physical environment. It must provide a sense of identity with the culture and traditions of the island. The landscape of the building shall also contribute to its aesthetic value.

Environment - Pohnlangas area is the land mark where the State Agriculture and Forestry have been developed. The proposed second high school campus will be developed next to the agriculture, because of the following reasons: To preserve the natural environment; the terrain of the land is sloppy that is conducive to landscape; the landscaping may provide convenient shelter for the students while studying; effective for pollution control design like waste water system; can enhance the natural ventilation and can control *Noise-Land Development and Orientation* -The complete facilities shall be designed and shall be laid out within the designated land. All building structures shall be oriented to North and South axis so that the window openings shall not be exposed directly to the sunlight most especially during the hottest hours of the day. Although, the prevailing wind is coming from Northeastern that will be provide

adequate wind ventilation, it is exposed to direct solar radiation and the heat gain in the room may increase due to direct sunlight through the wall especially in the afternoon. Lesser air ventilation may eliminate the heat gain by using the window openings that produce at least 90% air penetration. Thermal protection roof may also control the heat gain in the room.

Description of Buildings

Building AB - Administration building - the purpose of the administration building is to provide internal and external communications, meeting place for public, conference for faculty, students, administration, routine office center and record keeping. The administration building shall consists of the following office spaces:

- Principal office
- Registrar and cashier's office
- Conference room
- Radio/computer network room
- Lobby, storage, lockers and mail room
- Rest rooms

Library - the library can be attached to the administration building on the side wing or it can be independent building and shall be accessible to the classrooms, faculty and administration. It shall consists of the following:

- Circulation area
- Reading area
- Reference area
- Periodical section
- General and government section
- Stock room
- Office and archive room
- Audio visual room
- Rest room

Building C - Cafeteria - The proposed Cafeteria is a one-story building with access road and accessible to the students.

The cafeteria shall consist of two (2) major areas, such as; Dining hall and Kitchen.

The Dining hall - shall be able to cater minimum of 800 students. It should also serve as multi-purpose hall that can hold variety shows, graduation and other large school activities. The stage can be provided in one side.
The Kitchen - shall provide a complete kitchen equipment adequate to cater 800 students. It shall serve also for group cooking demonstrations. It shall include adjacent rooms such as: Chill room, stock room, locker's room, rest room, office and etc.

3 & 4 are Academic classroom buildings - the academic classrooms shall consist of two categories; the Standard classroom and Specialized classroom.

Building D - The Standard classrooms shall have adequate spaces that can accommodate 30 students, the maximum load per class. Subjects for these classes are: Math, Language and History.

Building E - Specialized classrooms shall house Computers, General Sciences, Biology, Physics and Chemistry. The classrooms shall be equipped with laboratory tables, safety devices and shall be fully furnished as outlined under Furnishings. The rooms shall be accessible to the preparation room, where equipment are stored and experiments are performed.Both classrooms shall be equipped with proper electric lights and ventilation. Each building shall have room space for faculty and restroom.

5,6 & 7 Vocational classroom buildings - consist of classrooms, laboratories, workshops, faculty toilet and bath, storage and lockers.

Building F - Business and Home Arts building The Business classrooms are also standard classrooms that can accommodate maximum of 30 students (25 is recommended). The subjects are: typing, business mathematics, general business, and bookkeeping. Home arts classrooms are standard rooms that can accommodate furnishings and students for maximum of 30. Subjects taught are: Home economics, food and nutrition, sewing and child development.

Building G - Agriculture classrooms are standard classrooms that can accommodate maximum of 30 students (25 is recommended). The subjects are: vegetable production, animal production, agronomy, farm mechanic, poultry production and meat processing.

In addition, the agriculture classrooms must be situated in a large farm that can accommodate spaces for garden, nursery/green house, poultry/piggery house and a slaughter house.

Building H - Trade and Industry rooms are moderate work shops that can accommodate equipment, tools and demonstrations. Maximum student load is 25 (20 is recommended). Subjects taught are: carpentry, drafting and blue print reading, building construction, cabinetry, finishing and auto mechanics.

Building AC - Student Services - the student services shall consist of the following:

- Bookstore
- Student council
- Counselor's room
- Student activities
- Clinic/Nurses room
- Storage/lockers and restroom

This building can be separated from the Administration building.

Future building expansion - The site development plan shows the allotted expansion for the next five years.

Land area required

The Department of Land has allocated the land areas designated for elementary school and second high school and other development.

Land use area

- Elementary school 4.2 acres
- Second high school 10 acres
- Madolenihmw Town hall 18.5 acres
- Industrial area (future plan) 6 acres
- Commercial area (future plan) 7 acres
- Agriculture/Forestry 120 acres

The residential areas were allocated for 53 acres covering the north and south areas.

The land area needed for the Pohnlangas second high school development will be10 acres and additional 3 acres for future expansion. This assumption was based upon the projected increase in population and facilities for the next 5 years after the implementation of the program.

Location - The location of the proposed project and the other future development such as industrial, commercial and expansion of agriculture are in Pohnlangas, Madolenihmw Pohnpei. It is approximately 25 miles away from the Kolonia proper. It is almost at the center of Madolenihmw where the municipal hall is just across of it.

Site suitability - The allocated area designated for the school campus is adequate. All building are clustered with sufficient distances with each other. The orientation with respect to interrelationship is favorably functional. Walkways and parking are in place in a way that accessibility is adequate.

All room spaces needed for the campus are accommodated in the allocated land area including future expansion. The access road is the circumferential road which is now under development.

Island power is available in the site with 13.8 KV primary line. The power supply to the campus would be extended from main primary line and would be provided with step down transformers to supply the power distribution. Water line is not available on the site, however, there is a potential source of water from drilled well. In fact, the Madolenihmw municipal hall has already built one well recently and the water is sufficient. For the campus water supply a two locations of drilled well is required in order to supply the demand.

There is also no sewer line in the vicinity. The type of sewer system that will be built within the site is the sewer disposal that collects the sewer for every building. The system though has a large septic tank and cesspool. A leaching field is also provided for future expansion in case the cesspools are inadequate in terms of percolation.

Annual Operating Budget

The Pohnlangas second high school is a public school. The annual operating budget will be appropriated annually through legislature appropriation. DOE also receives several federally funded project that are restricted for specific purposes. The operation and maintenance budget of the proposed building is very important aspect needed during the implementation of the project in order to properly maintain its facility in its good conditions and minimize its wear and tear. *The maintenance work are enumerated below:*

Activities	Interval
- Mowing grass	once a month
- Fertilizing and pruning of plant	once a month
- Sweeping and disposal of waste	once a week
- Cleaning of swales and drainage	as needed / once a week
- Sweeping floors	once a week
- Mopping floors	once a week
- Cleaning and disinfecting toilet	once a week
- Maintaining elevator (lift)	once a month
- Replacement of light bulbs	as needed / once a month
- Repainting (after 5 years)	5 years
- Disposal of garbage	twice a week
- leaning gutters and catch basins	as needed / biweekly
- Checking water line and sewer manholes	once a month
- Checking septic tank and cesspools	once a month
- Checking and cleaning AC unit filters	once a month
- Checking all lighting and switches	as needed / once a month

Ground Maintenance Cost Per year

- Mowing grass (once a month) 80 MH @ $3.00 x 12	2,880.00
- Pruning and fertilizing 40 MH @ $3.00 x 12	1,440.00
- Disposal of Waste / Garbage 32 MH @$3.00 x 12	1,152.00
- Clearing of swale & drainage 16 MH @$3.00 x 12	384.00
- Gas and oil (for motors) 8 gals @2.00 x 12	192.00
	$6,048.00

Building Maintenance Cost Per Year

- Sweeping floors (2 hrs/building) (9x2)x4 @$2.00 x 12	1,728.00
- Mopping floors (9x2) x 4 @$2.00 x 12	1,728.00
- Dispose garbage (2 laborers) 4/week/8 hours/$3.50 x 12	1,344.00
- Cleaning 9 toilets @ 2 hours @ 2.00 x 12	432.00
- Cleaning doors/windows 9 buildings	864.00
- Maintaining elevator (lift) 1x8 hours @ 3.00 x 12	288.00

* Replacement of light bulbs assumed 4 bulbs per building (in second year) 9x4@2.00 x12	*864.00
- **Repainting (at 6th year) 9 buildings @ 1,800.00 on sixth year	**16,200.00 $23,448.00
Expense for 1st year	$ 6,384.00
Expense for 2nd to 5th year	$ 7,248.00
Expense for 6th	$23,448.00

* This maintenance cost will be executed in the second year of operation.
** This repainting cost will be executed in the sixth year of operation.

Operation and Maintenance 10-year projection

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ground maintenance	6,048	6,048	6,048	6,048	6,048	6,048
Building maintenance	6,384	7,248	7,248	7,248	7,248	23,448
Basic supplies	7,715	3,755	3,755	3,755	7,715	3,755
Others	2,688	2,688	2,688	2,688	2,688	2,688
Power consumption	37,785	37,785	37,785	37,785	37,785	37,785
	60,620	57,524	57,524	57,524	61,484	73,724

Construction problems

Weather condition: Due to constant rains, construction projects encounter delays in the completion of the projects. As a consequence, the delays resulted to an added cost on the projects. Contractors who are familiar with Pohnpei weather will approach the situation by prolonging the duration of the construction period. For example, a project that can normally finish for three months, will be estimated to last for five months by the contractor because of the anticipated "rainouts" during construction. On the other hand, contractors who are not used to the Pohnpei weather, resort to project extension that eventually affects the timely completion of the project.

Materials - The availability of materials on the island are another factor that the contractors should consider when submitting proposals to do construction projects. In some cases, special types of materials are not available on the island and therefore, materials are ordered off-island. When it happens, the timely completion of the project are affected and also increase the cost of construction because of the shipping, insurance and other incidental expenses.

Conclusion/Recommendations:

In line with the Department of Education's (DOE) mission to alleviate the overcrowding of High school in Kolonia as well as to reduce the cost of transporting students from Madolenihmw and neighboring villages in Kitti to Kolonia and vice versa; a tangible proof of the DOE's objective should be visible.

The construction of high school in Pohnlangas is also seen as a means of promoting students spirits and well being. The geographical location of the school provides students more time to study and assists their families in the household chores. Therefore, the construction of the high school is a necessity that should be implemented as early as possible.

II.2.3. Pohnpei Agriculture and Trade School (PATS) [11]

The Pohnpei Agriculture and Trade School (PATS) is Micronesia's only four year high school specifically dedicated to vocational training programs in the construction and building trades, mechanics, and the agricultural and aqua-culture sciences. PATS has produced over 1,000 graduates. Since the days when Micronesia was a United Nations Trust Territory, PATS has served the development needs of the region by providing young men for direct entry into the work force. Today, with the economic uncertainties facing the renewal of the Compact of Free Association, funds available for the type of education that promotes entrepreneurial skills are becoming more limited in Micronesia. In the years to come, graduates from PATS will continue to play an even more critical role in helping to build the private sector in the island nations of Micronesia.

PATS is the only institution in FSM that is truly tailored, in it's curriculum focus and courses/hands on raining, that might begin to meet the needs of the 100's of millions of dollars the 15 Year Infrastructure Development Plan is recommending in-so-far as appropriate skilled labor to implement the infrastructure investment needs of the FSM, i.e. contractors, carpenters, mechanics. It was a surprise to the Social Planning specialist that all the buildings at PATS were built and are maintained solely by students for "hands-on" training experience. Therefore, this Plan highly recommends monetary assistance in order for PATS to expand their curriculum base for vocational trade areas with will assist FSM in becoming more self-sufficient in terms of a well rounded labor force.

The vocational education services provided at PATS promote vocational training activities for potential employers by:

- Increasing private sector employment;
- Providing connections between academic learning activities and work-based learning;
- Implementing specific workforce development strategies specified in the FSM's economic development, education;

[11] The materials for this Section were prepared by the Director of PATS, Gregory F. Muckenhaupt, SJ, and edited/revised by the Social Planning Specialist for the Infrastructure Development Plan.

- Building employer capacity to participate in services to adults and youth;
- Increasing access and service to special target groups such as individuals with limited English proficiency and basic skills.

PATS, in partnership with the Pohnpei State and FSM National Workforce Investment Act (WIA) offices, looks forward to increasing its services to Micronesia's youth by providing them with the entrepreneurial skills that will expand their employment opportunities and help build a strong, self-reliant private sector.

Target Groups to be Served

The students at PATS board during the school year from August through May. The yearly enrollment of the school averages 160 students ranging in ages from thirteen to twenty-one. As shown in the table below, these students come from all the Pacific Island nations of Micronesia:

Most of PATS students are from Pohnpei with 89 presently enrolled. Chuuk has 24, Yap 19, Marshall Islanders 11, Palau 7 and Kiribati 3.

PATS' programs are specifically aimed at educating the youth from all sectors of society, but especially the rural sector, where trade skills are especially necessary to build and maintain an infrastructure that will improve the standard of living. While many educational opportunities are available to the youth living in the growing urban centers of Micronesia, PATS enrolls students from all areas, and the majority of PATS students are enrolled from rural districts and outer islands where opportunities are limited. PATS also makes available for women its vocational training programs. The change to a market economy over the last twenty years, and the subsequent economic constraints more recently, have placed women at a significant disadvantage. Women have suffered losses in their traditional economic roles and have not always been given equal access to new roles in the modern economy. As governments begin to downsize, and opportunities become more limited, women will again become economically marginalized, particularly in rural sectors. For this reason PATS enrolls women to help improve their economic status and impart to them important vocational skills in the fields of electronics, plumbing, mechanics, agriculture and aqua-culture with which they too can participate fully in regional development.

Statement of Need for Services

The vocational programs at the Pohnpei Agriculture and Trade School are very much in line with the development goals of the Micronesian governments, and these governments have been strong in their praise of what PATS has done through the years. However, recent trends in regional economy are almost certain to limit public funds available for education and the development of entrepreneurial skills. Under the terms of the Compact of Free Association ratified in 1986, the United States began a fifteen-year period of economic assistance to the region. It was hoped that this period of aid would initiate private sector and infrastructure development. The United States

delivered the financial aid to the Micronesian governments in the form of block grants intended for government operations and infrastructure development. The US also granted entitlement to many US domestic programs and services. To promote self-reliance, incremental decreases or "step downs" in financial aid were programmed into the funding period. Today the FSM receives US $ 80 million, down from US $ 110 million four years ago.

Instead of increasing private sector activity, the provision of government services dominated the economy during the initial Compact period. Today government services in the FSM contribute to over 80 % to the nation's Gross National Product, which are currently stands at US $ 1,836. This has not change since 1986. Money has entered the private sector primarily through government employees' spending in retailing and wholesaling. As recent trends demonstrate, this economy was adversely positioned to sustain any decrease in external revenues. During the 1990's, step-downs in Compact aid clearly controlled economic performance in the region and necessitated a decrease in government expenditures. This had an immediate detrimental impact on the second largest sector in the economy - wholesaling and retailing - that has fallen by five percent annually since 1996. Subsistence activity, the third largest sector, while insulated from constraints in the public sector, has been unable to compensate for the economic downturn underway in the region. As a result, the real GDP of the FSM has suffered a net decrease every year over the last four years.

Failures in private sector development over the last fifteen years have been accompanied by a decline in the quality and availability of public education. This has further hindered the growth of entrepreneurial skills in the private sector. Financing for education has been almost totally supported by US funding either through Compact aid or US Federal Grant programs. Without these external sources of funding, the education system in the FSM would collapse. For example, only two percent of the nation's local revenues are allocated toward education (less than $ 0.6 million). Salaries absorbed the greatest part, almost ninety percent, of all funds allocated for education. Elementary school education (grades 1 through 8) is compulsory in all states of the FSM; however, poor student performance, inadequate transportation for students, poorly developed curricula and teacher absenteeism adversely affect incentive and enrollment in rural areas. Just over sixty-percent of the elementary school-age population graduates from eighth grade. Of these elementary school graduates, roughly one-third enrolls and completes a high school education.

The massive expansion of the public sector has left a large portion of the population in the rural sectors with little or no means to participate in the cash economy. Outside of the urban areas, most live a subsistence lifestyle and it is estimated that somewhere between a third and half of the population of the FSM have neither electricity nor running water in their homes. Since this is the population, which also lacks access to proper education, opportunities for improving one's living standards are limited. As the current period of financial assistance under the Compact comes to a close later this year, hopes to strengthen the private sector and improve the living standards in rural areas become more and more uncertain. Given these trends in the local economy,

vocational programs such as those sponsored at PATS are becoming increasingly important for the nations' economic self-reliance.

Project Activities/Courses Provided.

The educational programs at PATS are aimed at educating youth from all sectors of society. The PATS curriculum consists of four hours of classroom lecture in the morning (five periods), three hours of hands-on practical field experience in the afternoon, and two hours of supervised study in the evening. The course of studies includes both academic and trade related courses. As shown below, the underclassmen (freshmen and sophomores) receive an introduction to all fields of study. In April of the sophomore year, each student is required to select the trade field in which he or she will specialize during the remaining two years at PATS (agriculture, construction, or mechanics). In junior and senior years the students earn their PATS diploma by receiving intensive training in their chosen trade field.

PATS COURSES OF STUDIES			
FRESHMAN	English Lit I, Intro to Mechanics I, English Skills I, Intro to Construction I, Math I, Religion		
SOPHOMORE	English Skill II, Intro to Horticulture, Math II, Intro to Construction II, General Science, Intro to Mechanics II, Religion		
	Construction	***Agriculture***	***Mechanics***
JUNIOR	Architecture Construction Math Construction Physics Plumbing Building Technology English Skills Religion Micronesian Studies	Animal Science I Invert/Vert Zoology Advanced Horticulture Business Math/Statistics English Skills Religion Micronesian Studies	Auto Technology I Machine Technology I Physics Diesel Engines English Religion Micronesian Studies
SENIOR	Electrical Wiring Cabinet Making Concrete Technology Estimating Construction Management Surveying English Literature Religion	Aquaculture Animal Science II Advance Algebra Ecology Physical Oceanography English Literature Religion	Welding Auto Technology II Machine Technology II Electricity Outboard Engines English Literature Religion

Agriculture

Since the early 1970's PATS has set the standard for education in agriculture and animal husbandry in Micronesia. PATS graduates have filled government positions that have determined policy and provided extension services. Despite the efforts by PATS and government extension programs, a viable agriculture sector in the islands has failed to develop. The chief reason for this was the rapid change from a subsistence to a market economy that triggered a shift from the desire for local farm produce to a

demand for imported foods with little nutritional value. As a result, diabetes, cardiovascular diseases, and vitamin A deficiencies are now common among Micronesians. The neglect of farming has also weakened the understanding of traditional farming practices among young people.

It became clear that the island economy did not favor large-scale commercialized farming, for not a single PATS graduate returned to his home island to find the machinery, acreage or capital he had at his disposal during four years at PATS. PATS' years of experience in agriculture also showed that Western-style, open-field farming is not appropriate given the soil conditions on tropical islands. Such techniques leave the shallow surface soils exposed to heavy tropical rains and quickly deplete the availability of nutrients. As a result, large farm areas cleared for commercial production of field crops do not produce sustainable yields without careful soil management and extensive fertilization, both of which require considerable capital and labor. At the same time, years of foreign aid hindered economic diversification in all sectors, and made it cheaper to import many agricultural products than to raise them locally.

In early 2000 PATS began to shift its focus away from Western-style commercial farming, PATS inaugurated a Traditional Agro-forestry Management Project. To date PATS is the only institution in Micronesia with sufficient land and experience to implement such a research and extension program. PATS' Agriculture program is now modeled on the traditional farming techniques practiced for years on the high islands of Micronesia and well suited for the tropical forest ecosystem. This type of agro-forestry employs the simultaneous cultivation of species with different growth patterns in order to optimize the use of solar energy, preserve nutrients, and reduce nutrient leaching by rainfall. While these methods are still effective, they have been practiced in the community without any scientific or systematic understanding, and so have yet to be improved upon. As indicated above, even these practices are being abandoned as the material expectations of islanders shift to Western goods and commodities.

PATS' agriculture program trains students in traditional farming practices and involves them in extension program that promote community nutrition and increase the production of high value, local cash crops for export. There are three main activity areas:

Research and Extension to Enhance Traditional Farm Systems: This area includes demonstration, research, and extension components each with their own goals. The demonstration goals model farm systems for PATS students and community members and cultivate crops representative of these systems. The research goals document the variety of species available in traditional agroforest systems, build a germ plasm collection of appropriate species, and explore ways to improve traditional methods. The extension goals are to assess the current constraints on traditional farming in the community and to make available to the community techniques for irrigation, reduction of nutrient leaching, organic fertilization and soil management. Efforts that currently combine research and extension explore the use of value-added crops from the

agroforest in cottage industries. Examples currently be worked on are dried banana chips, wild cinnamon, mushrooms and ornamentals.

Production of High Value Crops: Past experience suggests that the ideal product for the island nations of Micronesia are those which do well in the local climate of abundant rainfall, warm air and water temperatures, and relatively infertile, mildly acidic soils. Products that satisfy these requirements have been spices and fruits easily available on Pohnpei, but in limited supply elsewhere. Representative of such crops is the Pohnpeian black pepper of which PATS students have planted over a half-acre on PATS' farm.

Students are also learning improved techniques to cultivate over one thousand sakau plants and yams, bananas and weipwul (merinda citrifolia) plots have also been established. The sale of planting materials for these and other favored crops has increased now that communities have discovered during the past year that PATS' Agriculture Department is propagating these species.

Intensive Vegetable Horticulture: PATS continues to maintain its nursery and horticulture program for the production of vegetable crops. The crops cultivated are green onions, Chinese cabbage, okra, eggplant and bell pepper. These crops have been successfully cultivated, with a focus on tissue culture techniques and the development of organic fertilizers to promote production. This has already proven to be a valuable research project for PATS students and local communities. Research in this area will continue particularly in growing large-scale green manure crops and mulches for composting and use on the intensive vegetable garden.

As a model training site for animal husbandry and business management, PATS' swine production farm is the premier facility in the Federated States of Micronesia. For over twenty-five years the training received at PATS' piggery has been unmatched across the region and the courses taught in this program still provide management techniques vital for private sector development. Instructional topics include: general animal biology, life cycle and metabolism; reproduction and development, manipulative skills (care at farrowing, care of suckling pigs, feeding and growth, weighing and slaughtering); disease and parasite control; nutrient requirements and feed sources; breeding practices (breeding systems, genetics, heritability estimates); and marketing and managerial practices.

In contrast to PATS' success, local farmers and piggery businesses rarely realize significant profits. This is surprising in a culture where pigs are prized as a source of food and prestige. Large size pigs in the 300 to 400 pound range are especially in demand as the expected tribute of those with high titles or those desiring special recognition. The demand for large pigs is so great that local farmers sell pigs for about forty cents more per pound than what PATS sells for. As explained below, however, the poor profit record of local piggery businesses is not only due to custom but also, and more importantly, inadequate management and feeding practices. Since the highest potential for growth is in the early years, PATS trains its students in the proper use of

commercial and local feed to produce fast growing large-size pigs, so as to yield the highest profits.

The techniques and training received at PATS are necessary to promote effective management and marketing practices in the community. Only with improved management skills will subsistence families be able to participate in the cultural practices, which have found their way into the market economy. A healthy, productive herd and favorable profit levels have been maintained by periodically upgrading the breeding capacity of PATS' herd with pure-breed boars.

Aqua-culture

Then most recent innovation in PATS' Agriculture Department has been the Aquaculture training program sponsored at PATS' new marine laboratory completed in 1999. In an effort to develop local businesses and address problems associated with the exploitation of natural resources, PATS sponsors community extension program to promote small aqua-culture businesses. Formal training is given to the PATS Agriculture students via the courses described above and the afternoon field experience in sponge, coral and clam farm maintenance. In addition the students learn how to SCUBA dive, how to spawn and rear animals in a land based Aquaculture facility and how to plumb and maintain tanks, raceways and a flow-through sea water system.

As Micronesia's only Aquaculture center devoted solely to education, PATS marine laboratory is in a unique position to implement extension programs in rural communities. PATS lagoon-based sponge and coral farms are specifically used for extension purposes in rural communities. PATS students assist marine staff in supporting local communities establish their own sponge and clam farms. To date three separate are maintaining their own sponge farms with technical assistance from PATS staff and students. Planned for later in 2001 is the construction of the FSM's first pearl hatchery at PATS, which will serve as both a training and extension vehicle to promote pearl farming.

Construction

Strategies that create training programs in entrepreneurial skills are a key factor in building the private sector and strengthening self-reliance. One such strategy at PATS is the Construction Training Program. The Construction Program has been one of the most successful programs both at PATS and throughout Micronesia. Since its inception over twenty years ago, the program has grown to include not only the basics of building construction and masonry, but also technical and architectural drawing, electrical wiring, plumbing and woodworking. Effective hands-on training for the students is achieved through daily involvement in construction projects at PATS. Since the mid 1960's, PATS students have honed their construction skills and gained experience as work site supervisors by constructing all the buildings located on the PATS campus. Most recently, in August 2000, the school's Construction students completed a new dormitory, which provides living quarters for up to twenty women students. The

department is currently renovating new staff housing for the coming year. The woodworking division of this department provides experience for our students by fulfilling public and private sector contracts for a large variety of furniture and cabinetry.

The upperclassmen that have chosen to specialize in Construction have had the most success in job placement immediately following graduation. This success rate is well known in the region, and of PATS' 965 graduates to date, over half have chosen to graduate with a specialty in construction. This trend continues with the enrollment of our women students, some of whom have broken with traditional attitudes and have chosen construction as their specialty.

In addition to educating high school students, next year PATS construction program will include adult members from the local community who have not had the opportunity of a high school education. Members of the rural community frequently need to rely on their own skills for the construction of their own homes, feast houses and furnishings. Their construction skills, while limited, have been handed down from father to son, and are frequently used during family or village construction projects. All too often the added expertise and expense of trained tradesmen is required to supplement the limited skills in a local village. Frequently, communities on Pohnpei turn to PATS for assistance in this regard. For the reasons described above, income to pay for such expertise is becoming scarcer. Strengthening construction skills at the community level will not only provide new opportunities for individuals, but also enable community's members to assist one another in exchange for traditional forms of compensation.

Adult community members will be selected to participate in construction courses and the afternoon field training. Selection will be based on interest, motivation, economic need, and potential to utilize skills. The selection process will include a written placement test, a skill performance rating to assess potential, interviews and a recommendation from the pastor or minister in each village. Depending on the background of an individual, some adult participants may be asked to attend selected Math or English courses. Each adult participant will be required to select and focus on one of the following specialty areas within the Construction program: Field Construction and Building Technology, Electrical Wiring and Plumbing, Wood working and Cabinet making, or Drafting and Construction Management.

Since this program is designed to assist those at an economic disadvantage, adults from the community will not be charged any fees. The hands-on construction and woodworking training component takes place through the participant's involvement in routine renovation and construction projects on PATS' campus, and the fabrication of wood products in the woodshop. The participant's involvement in such projects is considered by PATS adequate compensation for the training.

Mechanics

The Mechanics Department is PATS' oldest training program and has five divisions, which operate throughout the year: welding, automotive mechanics, machine shop,

small engine mechanics, diesel and outboard motors. In addition to the course curriculum described above, hands-on skills stress fundamentals of automotive technology, safety procedures, operation and repair of diesel fuel systems, theory, diagnosis and repair of automotive electrical systems, welding theory and practice, all aspects of machining and various techniques employed metal working, and the repair of small and outboard engines. The graduating Senior is expected to diagnose automotive problems and perform a tune-up, fully understand engine service and repair, understand automotive drivetrain and axle system construction, function and maintenance, as well as automotive suspension, steering, and brake system construction, function and maintenance. This program continues to attract top students, many of whom finds jobs as mechanics both locally and abroad upon graduation.

Staff Trainee Program

Another important part of the PATS vocational education program is the two-year, post-graduate Staff Trainee Program. Vocational Education systems throughout Micronesia are very much in need of well-trained and experienced trade teachers. The Staff Trainee Program at PATS is designed for exceptionally motivated and highly skilled PATS graduates who show potential as vocational educators. Six seniors from each graduating class are selected to remain at PATS for two years to live and work with their trade supervisors. During this time they work closely with the PATS vocational teachers and specialize further in their chosen trade field. In addition, staff trainees enroll in College of Micronesia - FSM courses sponsored at PATS and taught by PATS academic staff. Staff Trainees receive college credit for these courses which include college Math, English Writing and Reading, Educational Theory and Teaching Methods. The goal of the program is to prepare these PATS graduates for further vocational and educational training at the tertiary level. Upon completion of their training beyond PATS, many graduates from this program have returned to Micronesia as vocational teachers in regional programs. The Staff Trainee Program has enabled PATS to hire many Micronesians and keeps PATS' policies close to the traditions, values, and way of life of Micronesia.

PATS and the T-3 Program

PATS also aims at preparing the participants to achieve the standards required for the FSM National Government's Vocational T-3 Certification. Each Spring PATS Seniors take the FSM National Government T-3 Vocational Trade Skills Exams in Construction, Carpentry, Auto-mechanics, Welding, Horticulture, Animal Husbandry and Aquaculture. Achievement levels in this nationally recognized certification, job placement as well as PATS' own evaluation of the students are the chief indicators that assess the vocational skills level of each student. Upon the completion of four years of training, each PATS student receives a high school diploma and the T-3 Vocational Certification.

Collaboration and Linkages with Potential Employers

PATS many vocational programs have brought it into partnership with a number of governments and regional development agencies. PATS Agriculture programs have received contracts from the College of Micronesia Land Grant Services, the Center for Tropical and Subtropical Aqua-culture (CTSA), and the University of Hawaii's Sea Grant Program. As shown below, the governments of Japan, Australia, Canada, Switzerland and the United Kingdom have been partners with PATS in the effort to provide Micronesian youth with the means to build regional self-reliance:

In addition to these public agencies and government programs, a number of private foundations from around the world have helped to support the work of PATS. All of these agencies, especially the nations of the Pacific Rim, have a vital interest in the economic development of the Micronesian region. These partners with PATS regard the training at PATS as a critical element in the economic development of the region.

Collaboration with potential employers and partners in the job sector is achieved through career days, field days and student internship programs. On career days PATS invites potential employees from the private and public sectors to address the students on the experience of being a tradesman. Personnel from government agencies, local automotive repair shops and public utility corporations attend these days and become well acquainted with our students. Our students familiarity and appreciation of the job market increases during the field days in which an entire department will visit the work sites of potential employers for a first hand look at what the job site is like. Students gain further first hand experience during the senior year internship program. During their internships seniors work with private sector employers such utility corporations, construction firms, and automotive ships and learn more about duties and responsibilities at typical job sites. Businesses sponsoring the internship program often seek out their intern for employment upon his or her graduation from PATS. These programs have enhanced the chances of the PATS graduates to obtain jobs after graduation and have also provided a means for PATS to remain well informed of the skills required by the job sector. PATS graduates in general maintain an eighty-five percent employment rate, well above the national average.

II.2.4. College of Micronesia (COM), Pohnpei State Campus

The Director the COM-Pohnpei Campus is Penny Weilbaeher. COM-Pohnpei has an active vocational education program that includes certificates of achievement in carpentry (techniques and methodology of component construction as well as hands-on training), and construction electricity. The campus has a fully operational carpentry shop with equipment (lathes, drill presses, and table saws) purchased under a matching grant from OMIP. Theoretical electricity courses are being offered, and a new building for hands-on training is being constructed. Australian instructors with Pohnpeian counterparts teach both programs. While only COM students can take these courses, the college is receptive to developing short-term training for hospital workers. The

college does not have the capability to teach electronics or plumbing. Small business entrepreneurial courses may be utilized for the hospital's privatization initiatives, and the two computer labs on campus are available for training. A maintenance-planning expert at the COM-National campus may be able to provide preventative maintenance planning and strategy training for hospital staff. He may also be available to assist in organizing the maintenance shop and developing an inventory system.

The Pohnpei campus is located on the site formerly used by the national campus in Kolonia. The facilities are of varying standard - generally well kept but overcrowded. A large number of enrollments at this state college flow onto the national campus. In some ways it is used as a preparatory institution by the students before progressing to the large campus. The campus had more than 200 full-time enrollments in 2000 and currently has 10 permanent and 3 contract teaching staff.

The three metal buildings used at the Campus are substandard and need to be demolished. The space they occupy is too narrow for new construction. The newer Australian Aid buildings are in good condition. They are presently constructing a Gym behind the Campus. The Study recommends that Pohnpei COM negotiate with PICS and the Pohnpei DOE to propose/plan that a portion of the PICS campus be made available to Pohnpei COM. This can be particularly relevant if the new Pohnlangas High School is built – thus reducing the required expansion needs of PICS. There is plenty of suitable building land at PICS and a detailed site plan can identify the two schools shared usage. Combining the campus has made good sense in Kosrae whereby a transition for secondary students is provided for COM entry – not to mention sharing some of the facilities, i.e. library.

Pohnpei COM has been very active in moving towards providing vocational education and training. It has worked hard at establishing links with national and state public departments and authorities so that it can meet their training needs. It provides flexible course delivery and has supplied specifically designed training to Telecom, Pohnpei Department of Education, and a number of embassies. It has also helped provide apprenticeship standard courses (in plumbing, auto mechanics and electricians) for the Power Company of Pohnpei. It is continuing to be approached by other public and private sector entities seeking in-service training for their employees.

The campus offers certificate courses in vocational education – specifically in electronics, construction electricity and carpentry. These courses suffer from the fact they do not offer any certification of standards that is recognized by industry. The success of the courses is affected by weaker enrollees, compared to the academic stream.

The outstanding achievement of the Pohnpei campus is in providing short-term courses targeting the needs of local business. The campus now wants to take that further and is seeking funding to establish a business incubator center by tapping US federal grant money through the Economic Development Agency. The government has committed $30,000 and the EDA will contribute $120,000 for the building of the incubator center on

the upper campus. The purpose of the Business Incubator Center will be to provide training, matched with shared office space and personnel to assist new businesses establish themselves.

Pohnpei COM has been the most active in moving towards providing vocational education and training. It has established links with national and state public departments and authorities so that it can meet their training needs. It provides flexible course delivery and has supplied specifically designed training to Telecom, Pohnpei Dept. of Education, and a number of embassies. It has also helped provide apprenticeship standard courses (in plumbing, auto mechanics and electricians) for the Power Company of Pohnpei. It is continuing to be approached by other public and private sector entities seeking in-service training for their employees.

The campus offers certificate courses in vocational education – specifically in electronics, construction electricity and carpentry. These courses suffer from the fact they do not offer any certification of standards that is recognized by industry.

The outstanding achievement of the Pohnpei campus is in providing short-term courses targeting the needs of local business. The campus now wants to take that further and is seeking funding to establish a business incubator center by tapping US federal grant money through the Economic Development Agency.

II.2.5. Pohnpei State Education Facilities Total Cost Estimate

HIGH SCHOOL	TOTAL COST ESTIMATE
PICS High School	$2,544,195.00
Proposed Pohnlangas High School	**$5,000,000.00*
	Sub-Total $7,544,195.00
MUNCIPALITY	
Kitti Municipality	$2,498,400.00 ***+20% Transport $499,680.00***
Kolonia Municipality	$2,822,725.00
Madolenihmw Municipality	$2,222,600.00 ***+20% Transport $444,520.00***
Nett Municipality	$1,500,500.00
Outer Islands	$1,005,000.00 ***+20% Transport $201,000.00***
Sokehs Municipality	$2,444,500.00
Uh Municipality	$1,123,740.00
Sub-Total	**$13,617,465.00**
TOTAL	**$22,306,860.00**
Pohnpei COM Campus	**$5,000,000.00**
Grand Total	**$27,306,860.00**

**See Preliminay Architectural Report, Roque, E. H.*

II.2.6. Pohnpei State Education Facilities Maintenance Costs

HIGH SCHOOL	Sq. Ft.	Maintenance Cost/Year	Maintenance Cost 15 yrs.
PICS High School	154,146	84,780	1,271,704
Proposed Pohnlangas H. S.	*51,989*	*28,594*	*428,909*
MUNCIPALITY			
Kitti Municipality	43,306	23,818	357,274
Kolonia Municipality	81,164	44,640	669,603
Madolenihmw Municipality	71,685	39,426	591,401
Nett Municipality	52,310	28,770	431,557
Outer Islands	20,100	*15,075	226,125
Sokehs Municipality	68,234	37,528	562,930
Uh Municipality	42,426	23,334	350,014
TOTAL	**379,225**	**$212,591**	**$3,188,904**

* Additional 20 cents per sq. ft. for outer island maintenance.

II.3. CHUUK

Chuuk State has 89 Public Elementary Schools[12], 11 Public Secondary Schools serving almost 20,000 students in Elementary Schools and 2,000 in Secondary Schools. This represents more than ½ of all the Public Schools and students in the FSM. One of the greatest burden to the Chuuk State School System is in land disputes and rental paid for schools on private property. The State pays out over $400,000 per year for leasing lnd of public schools on private land. This seems to only be getting worse and the students suffer more and more each year. The highest funding recommended by this Plan for FSM elementary and secondary schools, will be recommended by far for Chuuk. However, the Plan cannot recommend implementation of school renovation/new construction for those schools that are not clear of land disputes. The State must, at some point, begin to negotiate settlements for the school's land or begin the arduous process of condemning the land in favor of eminent domain in the court system.

The Chuuk Public School system is in dire need of reform. Not only do land issues hamper the system, but general apathy by the community as well. This is reflected in the lowest passing rates, least qualified teachers, and highest absentee's rates of both teachers and students throughout FSM. Few people know that there is a rule for student absentees but not for teachers. The general conditions of school buildings and maintenance is the worst in the FSM. Moreover, the study identified that most new construction and renovation of school structures (since the Trust Territory constructed buildings) are sub-standard. What's worse, many of the Municipalities are opting to build pre-fab type buildings from a local Korean Contractor. In the Social Planning Specialist opinion, these structures are inappropriate as school buildings. They were designed as temporary structures, lasting 5-10 years. Probably the lower figure - given how hard school children are on structures. The State Planning Department stated that the Municipals bypassed their office when planning these structures and negotiated directly with the Korean Contractor. When the Social Planning Specialist queried as to the cost of these structures, he received varying cost of construction for the same size/type buildings. It is also very unfortunate to learn that the State Department of Health are contracting the use of these same pre-fab buildings for Super-Dispensaries.

The Social Planning Specialist was able to visit all schools (elementary and secondary, excluding private) on Weno and approx. 60% of the lagoon island schools. No outer island schools were visited because there was no means of transportation available during the visit time. Since Chuuk has an inordenent number schools (including Annex Schools) and individual buildings at each school, a detailed description of the of the schools visited, in narrative form was not possible without sacrificing time and energy compiling/calculating facilities in order to come up with overall cost estimates on renovation and expansion needs, etc. Although all schools were not the same, there were many general conditions observed of the facilities that can give the reader a good snapshot of the following description in Chuuk.

[12] The actual number of Elementary Schools is higher, but several small Annex Schools and pre-schools, with student enrollments of 20 or less, are not included in the overall number of schools. However, some sources state the higher numbers.

The general conditions of most facilities are not good. Many schools (particulary in Weno) has a vandalism problem related mostly to out of school youth. Unrepaired glass windows were seen on many of the school buildings. Many classrooms had been partitioned into half their design size to increase the number of classes and cater for the extra enrollments. This has affected the natural lighting and ventilation of the rooms – they can be very hot and uncomfortable to work in. Many schools have been affected by a land dispute covering some or all of its buildings. There is a high percentage of buildings badly needing roof replacements. It is very rare to seen any evidence of maintenance. School desk, furnishings, books, etc., are lacking in most schools. If the schools have electricity, most of the outlets/bulbs were not regularly maintained or replaced. It was rare to see potable water sources at the schools as well as properly functing and adequate toilet facilities.

Regarding individual Schools, there are exceptions where Principals, Teachers and the community do care, which is reflected both in the general conditions of the buildings, grounds and student achievement statistics.

Chuuk State DOE organized a summit attended by approximately 1,000 people drawn from the education sector and other interested parties. This summit extended over a number of days and endorsed a series of reform measures for the improvement of the education system. The reforms were drafted in the form of goals, objectives and strategies and were adopted as part of a communiqué at the conclusion of the summit. These are outlined below.

Goal 1*; Improve the quality and accountability for improvement in the education system*. Proposed strategies include; (i) introduction of a 180 day calendar with strict enforcement, monitoring of schools and enforcement of leave policies, (ii) development of a 5 year education plan by the end of the 2001 school year, (iii) elimination of substance abuse from the school system, (iv) incorporation of all schools within a School Community Based Management System, (v) continue and expand the operation of the Chuuk state leadership academy for professional development of teachers, (vi) design and implement a career education program in the school system.

Goal 2; *Improve collaboration and partnership relations between the education system and all parts of the community and government*. Proposed strategies include organizing regular education symposia and the publication of an education newsletter to update on developments and highlight achievements.

Goal 3*; Determine basic financial needs of the education system and seek additional resources to assist in the delivery of education*. Proposed strategies include developing a comprehensive facilities improvement plan for education facilities, and developing a financial model that can project financial costs of quality improvements in education.

Goal 4*; Seek assistance from the national government and other agencies for the development and implementation of a teacher quality improvement program.*
Goal 5; Improve mechanisms to assist education in meeting the manpower needs of Chuuk state for economic growth and social development.

Key Notes	Descriptions
*Construction Type:	Concrete Floors (CF), Concrete Walls (CW), Wood Walls (WW), Concrete Roof (CR), Tin Roof (TR). Pre-Fabrication Building Type (PF).
*Ranking:	Demolition Recommended (DR), New Construction Recommended (NCR), Poor (P), Fair (F), Good (G), New (N)
*Site Design (SD):	Poor (P), Fair (F), Good (G)
*Toilet:	Port-a-John (PJ), Concrete with Tin Roof (CTR), Poor (P), Fair (F), Good (G)
*Room Type:	Classroom (CR), Office (O), Dormitory (D), Library (L), Computer Lab (CL) Cookhouse (CH), Music Room (MR), Home Economics (HE).
*Cost Estimate:	Immediate Needs (2001-2006), Expansion needs (2006-2016)
Cost Bases ∑:	▪ New School: $50/SqF Includes: Materials, Labor, Transport in addition to: Student/Staff Desk/Chair, Work Tables, Shelves, Cabinets, Books/ Educational Materials and 2 Aircons. (Excludes Computers and lab equipment. ▪ Renovation: (P)= $25/SqF, (F)= $15/SqF, (G)= $10/SqF. ▪ Additional Transport Cost: Lagoon +20%, Outer Islands +30%
Recurrent Cost (RC) Maintenance	Based upon 55 cents X SqF/Year for Weno, 65 cents lagoon islands and 75 cents for outer islands. Includes: Materials, Transport and casual labor. *Note: Ground maintenance should be the responsibility of the Staff/PTA/Community*
References:	Chuuk DOE, Chuuk Dept. of Planning, 1996 Chuuk School Building. The Social Planning Specialist relied greatly (particularly for Outer Island Schools) on a School Condition Study by Steven Richmond 1993-95.

II.3.1. Chuuk Educational Facilities Inventory

Faichuk, Paata Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Epin Elem	4/130	6 CR	1964	200x30	CF/CW/TR	No/no	6000	P	G	150,000
Epin Elem	"	2 CR	1975	57x50	CF/CW/TR	No/no	2850	P	G	71,250
Epin Annex	1/42	1 CR	1985	38x22	CF/CW/CR	No/no	836	P	P	20,900
Nukaf Elem	3/116	6 CR	1987	66x60	CF/TW/CR	No/no	3960	G	G	39,400
Sapota Elem	4/136	4 CR	1980	78x15	CF/WW/CR	No/no	1170	F	G	11,700
TOTAL	**12/424**	**23**		**14850sf**						**$293,250**

Faichuk, Polle Island

SCHOOL	Teacher/ Student	*Rooms/ Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Malaio Elem	2/80	4 CR	1977	88x16	CF/WW/TR	No/no	1408	P	F	35,200
Malaio Elem	"	2 CR	1977	56x16	CF/WW/TR	No/no	896	P	F	22,400
Neirenom Elem	6/163	2 CR	1973	40x20	CF/CW/TR	No/no	800	P	P	20,000
Neirenom Elem	"	3 CR	1994	60x20	CF/TW/TR	No/no	1200	P	G	30,000
Nethon Elem	4/78	3 CR	1969	62x32	CF/CW/TR	No/no	1984	P	G	49,600
Sapou Elem	4/79	7 CR	1965	170x31	CF/CW/TR	No/no	5270	P	F	131,750
Winika Annex	4/62	1 CR	1989	30x24	CF/CW/TR	No/no	720	P	P	18,000
Winika Annex	"	2 CR	1995	40x20	CF/WW/TR	No/no	800	P	F	20,000
TOTAL	**20/462**	**24**		**14005sf**						**$326,950**

Faichuk, Tol Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Amwachang	6/153	3 CR	1989	60x30	CF/CW/TR	No/no	1800	P	F	45,000
Amwachang	"	2 CR	1995	20x40	CF/CW/TR	No/no	800	F	F	12,000
Chukieno Elem	4/46	7 CR/1 O	1995	152x25	CF/CW/TR	No/no	3800	P	F	57,000
E. Wonip Anx	2/91	6 CR/1 O	1995	160x26	CF/CW/TR	No/no	4160	P	F	104,000
Faichuk Jr. H	8/121	3 CR	1964	73x24	CF/CW/TR	No/no	1752	F	F	43,800
	"	4 CR	1964	100x31	CF/CW/TR	No/no	3100	F	F	46,000
Faichuk Jr.	"	6 CR	1964	154x31	CF/CW/TR	No/no	4774	P	F	119,350
To upgrade to	"	5 CR	1964	124x31	CF/CW/TR	No/no	3844	P	F	96,100
a High School	"	4 CR/1 O	1964	118x31	CF/CW/TR	No/no	3658	P	F	91,450
Faro Elem	8/122	8 CR/1 O	1971	240x30	CF/CW/TR	No/no	7200	F	F	108,000
Fason Elem	7/197	4 CR	1970	125x30	CF/CW/TR	No/no	3750	F	F	56,250
Fason Elem	"	4 CR/1 O	1970	125x30	CF/CW/TR	No/no	3750	G	F	37,500
Foupo Elem	6/226	3 CR/1 O	1988	60x24	CF/WW/TR	No/no	1440	P	F	36,000
Foupo Annex	"	2 CR	1986	38x32	CF/CW/TR	No/no	1216	P	F	30,400
Munien Elem	11/113	4 CR/1 O	1975	106x49	CF/WW/TR	No/no	5194	F	F	77,910
Nechocho Elm	7/72	2 CR	1988	40x37	CF/WW/TR	No/no	1480	F	F	22,200
Nechocho Elm	"	2 CR/1 O	1974	58x34	CF/CW/TR	No/no	1972	F	F	29,580
Netiw Elem	5/101	4 CR	1988	110x48	CF/WW/TR	No/no	5280	P	F	132,000
Netiw Elem	"	1 O	1988	28x16	CF/WW/TR	No/no	448	P	F	11,200
W. Wonip Anx	6/76	2 CR/1 O	1995	57x31	CF/CW/TR	No/no	1767	G	F	17,670
W. Wonip Anx	"	1 CR	1985	20x32	CF/CW/TR	No/no	640	F	F	9,600
E. Wonip Elem	8/132	8 CR	1964	200x30	CF/CW/TR	No/no	6000	P	F	150,000
Wichukuno Em	6/88	3 CR	1967	70x20	CF/TW/TR	No/no	1400	P	F	35,000
Winifei Elem	5/70	1 CR	1983	36x24	CF/CW/TR	No/no	864	P	F	21,600
Winifei Elem	"	2 CR	1993	36x24	CF/TW/TR	No/no	864	G	F	8,640
Winifei Elem	"	1 O	1994	36x24	CF/WW/TR	No/no	864	G	F	8,640
TOTAL	**108/1678**	**89**		**71560sf**						**$1,406,890**

Faichuk, Wonei Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Penieta Elem	10/130	1 CR	1990	24x15	CF/TW/TR	No/no	360	F	F	5,400
"		1 CR	1990	24x15	CF/WW/TR	No/no	360	F	F	5,400
"		1 CR	1990	24x15	CF/WW/TR	No/no	360	F	F	5,400
"		1 Store	1980	27x15	CF/TW/TR	No/no	405	P	F	4,050
"		1 CR/1 O	1994	32x16	CF/TW/TR	No/no	512	G	F	5,120
"		3 CR	1991	75x21	CF/CW/TR	No/no	1575	F	F	23,625
Sapitiw Elem	7/109	4 CR/1 O	1991	101x18	CF/WW/TR	No/no	1818	F	F	27,270
Tonokas anex	2/50	1 CR	1992	26x21	CF/CW/CR	No/no	546	G	F	5,460
Tonokas anex		2 CR/1 O	1990	60x16	CF/WW/TR	No/no	960	F	F	14,400
TOTAL	**19/289**	**18**		**7012sf**						**$96,125**

Mortlocks, Ettal Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Ettal Elem	5/69	3 CR/1 O	1991	93x72	CF/CW/CR	No/no	6600	P	F	**$165,000**

Mortlocks, Kuttu Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Kuttu Elem	8/290	4 CR	1964	93X31	CF/CW/TR	No/no	2883	P	F	72,075
"		1 CR/1 C	1975	40X28	CF/WW/TR	No/no	1120	P	F	28,000
"		1 CR	1972	30X21	CF/CW/TR	No/no	630	F	F	9,450
"		1 CR	1972	36X34	CF/CW/TR	No/no	1224	F	F	18,360
"		2 CR	1972	50X27	CF/CW/TR	No/no	1350	F	F	20,250
"		1 CR	1972	33X25	CF/CW/TR	No/no	850	P	F	20,625
"		1 O	1972	33X30	CF/CW/TR	No/no	990	P	F	24,750
TOTAL	**8/290**	**12**		**8600sf**						**$193,510**

Mortlocks, Lekinioch Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Lekinioch Elm	8/272	4 CR	1968	96x32	CF/CW/TR	No/no	3072	P	F	76,800
"		4 CR	1935	92x30	CF/CW/TR	No/no	2760	P	F	69,000
"		2 CR	1966	48x21	CF/WW/TR	No/no	1008	P	F	25,200
"		1 CR/1 O	1968	39x18	CF/CW/CR	No/no	702	P	F	17,550
TOTAL	**8/272**	**12**		**7340sf**						**$188,550**

Mortlocks, Losap Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Losap Elem	9/138	2 CR/1 O	1994	61x31	CF/CW/CR	No/no	1891	G	F	18,910
"		2 CR	1947	42x21	CF/CW/TR	No/no	882	P	F	22,050
"		3 CR	1968	71x26	CF/CW/TR	No/no	1846	P	F	46,150
"		1 CR/1 O	1970	44x20	CF/WW/CR	No/no	880	P	F	22,000
"		2 CR	1947	49x31	CF/CW/TR	No/no	1519	P	F	37,975
TOTAL	**9/138**	**12**		**7013sf**						**$147,085**

Mortlocks, Moch Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Moch Elem	11/216	4 CR/1 O	1991	120x24	CF/CW/CR	No/no	2880	F	F	43,200
"		3 CR	1991	90x24	CF/CW/CR	No/no	2160	F	F	32,400
"		STORE	1980	16x12	CF/WW/TR	No/no	192	P	F	1,920
TOTAL	**11/216**	**11**		**5304sf**						**$77,520**

Mortlocks, Namoluk Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Namoluk Elem	9/108	3 CR	1995	60X30	CF/CW/TR	No/no	1800	G	G	18,000
"		3 CR	1987	80X20	CF/CW/TR	No/no	1600	F	G	24,000
"		3 CR/1O	1966	80X20	CF/WW/TR	No/no	1600	P	G	40,000
TOTAL	**9/108**	**10**		**5100sf**						**$82,000**

Mortlocks, Nema Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	S D	Cost Estimate
Nema Elem	14/305	4 CR	1968	102x28	CF/WW/TR	No/no	2856	P	F	71,400
"		3 CR	1967	73x19	CF/WW/TR	No/no	1387	P	F	34,675
"		2 CR	1947	54x37	CF/CW/TR	No/no	1998	DR	F	99,900
"		2 CR	1947	36x24	CF/CW/TR	No/no	864	DR	F	43,200
"		1 CR	1980	34x28	CF/CW/TR	No/no	952	P	F	23,800
"		2 CR	1981	47x39	CF/CW/TR	No/no	1833	P	F	45,825
"		1 CR	1980	34x30	CF/CW/TR	No/no	1020	P	F	25,500
"		1 CR	1980	31x24	CF/CW/TR	No/no	744	F	F	18,600
"		2 CR	1967	37x30	CF/CW/TR	No/no	1110	DR	F	55,500
"		1 CR	1967	25x16	CF/WW/TR	No/no	400	DR	F	20,000
"		2 CR	1995	52x26	CF/CW/TR	No/no	1352	F	F	20,280
"		1 O	1980	24x14	CF/WW/TR	No/no	336	DR	F	16,800
TOTAL	**14/305**	**22**		**14901sf**			**14901**			**$475,480**

Mortlocks, Oneop Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	S D	Cost Estimate
Oneop Elem	9/247	3 CR	1971	60X24	CF/wW/TR	No/no	9100	DR	F	NCR @
"		4 CR	1972	93X30	CF/CW/TR	No/no	NCR	DR	F	455,000
"		2 CR	1986	40X35	CF/wW/TR	No/no	1400	P	F	35,000
"		1 CR/1 O	1980	37X24	CF/CW/TR	No/no	888	P	F	22,200
"		2 CR	1993	60X40	CF/CW/TR	No/no	2400	F	F	60,000
TOTAL	**9/247**	**13**		**13788sf**			**13788**			**$572,200**

Mortlocks, Piisemwar Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Piisemwar Elm	9/138	1 O	1983	24x16	CF/WW/TR	No/no	384	P	F	9,600
"		2 CR	1984	37x26	CF/CW/TR	No/no	962	P	F	24,050
"		1 CR	1984	30x18	CF/WW/TR	No/no	540	P	F	13,500
"		2 CR	1989	40x24	CF/CW/TR	No/no	960	P	F	24,000
"		1 CR	1983	30x24	CF/CW/TR	No/no	720	P	F	18,000
"		2 CR	1989	49x24	CF/CW/TR	No/no	1176	P	F	29,400
"		1 CR	1983	24x16	CF/WW/TR	No/no	384	P	F	9,600
TOTAL	**9/138**	**10**		**5126sf**			**5126**			**$128,150**

Mortlocks, Satawan Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	S D	Cost Estimate
Mortlocks Jr. H	19/161	1 D	1974	108x20	CF/CW/TR	No/no	2160	P	F	54,000
"		1 D	1974	108x20	CF/CW/TR	No/no	2160	P	F	54,000
"		1 D	1974	108x20	CF/CW/TR	No/no	2160	P	F	54,000
"		1 D	1974	108x20	CF/CW/TR	No/no	2160	P	F	54,000
"		8 CR/1 L	1964	224x28	CF/CW/TR	No/no	6272	DR	F	*313,600*
"		1 CH	1970	77x30	CF/CW/TR	No/no	2310	DR	F	*115,500*
"		2 O	1970	48x24	CF/CW/TR	No/no	1152	P	F	28,800
"		5 CR	1993	124x24	CF/CW/TR	No/no	2976	F	F	44,640
"		1STORE	1967	73x25	CF/CW/TR	No/no	1825	P	F	18,250
"		2 CR	1964	60x31	CF/CW/TR	No/no	1860	P	F	46,500
"		1 CR	1964	30x20	CF/CW/TR	No/no	600	P	F	15,000
"		1 STORE	1976	24x18	CF/CW/TR	No/no	432	DR	F	0
Satawan Elem	12/204	5 CR/1 O	1977	131x24	CF/wW/TR	No/no	3144	P	F	78,600
"		2 CR	1988	40x22	CF/TW/TR	No/no	880	P	F	22,000
"		2 CR	1961	40x20	CF/CW/TR	No/no	*NCR*	DR	F	*NCR*
"		1 CR	1970	30x30	CF/WW/TR	No/no	*3000*	DR	F	*150,000*
TOTAL	**31/365**	**37**		**31560sf**						**$1,048,890**

Mortlocks, Ta Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Ta Elem	5/81	2 CR/1 O	1970	62x31	CF/CW/TR	No/no	1922	P	F	48,050
"		2 CR	1968	54x24	CF/wW/TR	No/no	1296	*DR*	F	*64,800*
"		1 CR	1969	30x20	CF/CW/CR	No/no	600	P	F	15,000
Ta Annex	2/20	1 CR/1 O	1991	32x18	CF/CW/TR	No/no	576	P	F	14,400
"		1 CR	1992	36x24	CF/CW/TR	No/no	864	P	F	21,600
"		1 CR	1994	29x22	CF/CW/TR	No/no	638	F	F	9,570
TOTAL	**7/101**	**10**		**6805sf**						**$173,420**

Nomiisofo, Eot Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Eot Elem	8/92	4 CR/1 O	1965	140x31	CF/CW/TR	No/no	4340	*DR*	F	*217,000*
"		1 CR	1970	30x20	CF/CW/TR	No/no	600	P	F	15,000
"		1 CR	1984	18x12	CF/TW/TR	No/no	216	*DR*	F	10,800
TOTAL	**8/92**	**7**		**5230sf**						**$242,800**

Nomiisofo, Fanapanges Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	S D	Cost Estimate
Fanapanges E	4/143	4 CR	1965	77x31 **2390sf**	CF/CW/TR	No/no	2390	*DR/2 story*	P	*NCR @* ***$355,000***

Nomiisofo, Romanum Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Romanum Elm	6/193	1 CR	1965	138x31 **4290sf**	CF/CW/TR	No/no	4290	*DR/2 story*	P	*NRC @* ***$455,000***

Nomiisofo, Udot Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Udot Elem	**11/400**	4 CR/	1964	124x31	CF/CW/TR	No/no	3844	P	P	96,100
"		4 CR/1 O	1964	154x31	CF/CW/TR	No/no	4774	P	P	119,350
"		*Ncr 6 CR 1 O/1 L*		*2 story*	CF/CW/TR		9100	*NCR*		*NCR @ 455,000*
Udot Annex	**2/42**	1 CR/1 O	1989	47x28	CF/WW/CR	No/no	1316	P	P	32,900
"		1 CR	1993	28x24	CF/CW/TR	No/no	672	F	P	10,080
TOTAL	**13/442**	**14**		**10700sf**						**$713,430**

Nomwin Pattiw, Alei Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Pattiw Jr. High	7/90	1 D	1984	60x30	CF/CW/TR	No/no	1800	P	F	45,000
		1 D	1984	60x30	CF/CW/TR	No/no	1800	P	F	45,000
		1 CR	1984	120x30	CF/CW/TR	No/no	3600	P	F	90,000
		1 CH	1984	60x38	CF/CW/TR	No/no	2280	P	F	57,000
TOTAL	**7/90**	**4**		**7200sf**						**$237,000**

Nomwin Pattiw, Houk Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Houk Elem	7/161	6 CR/1 O	1986	122x33 **4030sf**	CF/CW/CR	No/no	4026	P	F	**$100,650**

Nomwin Pattiw, Pollap Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Pollap Elem	11/137	2 CR/1 O	1994	60x30	CF/CW/TR	No/no	1800	P	F	45,000
"		1 CR	1969	25x20	CF/CW/TR	No/no	500	P	F	12,500
"		2 CR	1980	62x31	CF/CW/TR	No/no	1922	P	F	48,050
"		1 Store	1967	32x14	CF/TW/TR	No/no	448	DR	F	11,200
TOTAL	**11/137**	**6**		**4680sf**						**$116,750**

Nomwin Pattiw, Polowat Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Polowat Elem	7/186	2 CR/1 O	1968	64x22	CF/CW/TR	No/no	1408	P	F	35,200
"		4 CR	1991	81x25	CF/CW/TR	No/no	2025	F	F	30,375
"		1 CR	1968	32x30	CF/TW/TR	No/no	960	P	F	24,000
"		1 CR	1989	30x20	CF/TW/TR	No/no	600	P	F	15,000
TOTAL	**7/186**	**8**		**5014sf**						**$104,575**

Nomwin Pattiw, Tamatam Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Tamatam Elem	6/81	2 CR/1 O	1967	60x20	CF/CW/TR	No/no	1200	P	P	30,000
"		1 CR	1975	34x18	CF/TW/TR	No/no	612	P	P	15,300
"		1 CR	1962	32x18	CF/TW/CR	No/no	576	DR	P	28,800
TOTAL	**6/81**	**5**		**1880sf**						**$74,100**

Nomwin Wiitee, Magur Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Magur Elem	4/46	2 CR	1969	42x21	CF/CW/TR	No/no	882	P	F	22,050
		1 CR/1 O	1973	26x14	CF/WW/TR	No/no	364	P	F	9,100
		1 CR	1972	33x20	CF/CW/TR	No/no	660	P	F	16,500
TOTAL	**4/46**	**4**		**1906sf**			**1906**			**$47,650**

Nomwin Wiitee, Onou Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Weipat Jr. High	9/107	2 CR	1973	61x42	CF/CW/TR	No/no	2562	P	F	64,050
"		4 CR/1 O	1973	112x28	CF/WW/TR	No/no	3136	P	F	78,400
"		1 D	1973	109x28	CF/CW/TR	No/no	3052	P	F	76,300
"		1 D	1973	121x28	CF/CW/TR	No/no	3388	P	F	84,700
"		4 CR/1 O	1968	112x28	CF/WW/TR	No/no	3136	P	F	78,400
"		1 D	1973	96x28	CF/CW/TR	No/no	2688	P	F	67,200
"		1 D	1973	96x28	CF/CW/TR	No/no	2688	P	F	67,200
"		1 O/1 S	1973	60x20	CF/WW/TR	No/no	1200	P	F	30,000
"		1 CR	1973	22x22	CF/CW/TR	No/no	484	P	F	12,100
"		1 STORE	1973	22x22	CF/CW/TR	No/no	484	P	F	12,100
"		1 CH	1979	88x22	CF/CW/TR	No/no	1936	P	F	48,400
"		1 BATH	1973	16x10	CF/WW/TR	No/no	160	P	F	4,000
Onou Elem		1 CR	1972	33x20	CF/CW/TR	No/no	660	P	F	16,500
"		4 CR	1968	93x31	CF/CW/TR	No/no	2883	P	F	72,075
"		2 CR/1 O	1973	65x32	CF/CW/TR	No/no	2080	P	F	52,000
TOTAL		**30**		**29870sf**						**$763,425**

Nomwin Wiitee, Piherarh Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Piherarh Elem	3/50	2 CR/1 O	1986	80x40	CF/CW/CR	No/no	3200	P	F	80,000
"		2 CR	1968	42x21	CF/CW/TR	No/no	882	P	F	22,050
TOTAL	**3/50**	**6**		**4090sf**						**$102,050**

Nomwin Wiitee, Unanu Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Unanu Elem		1 CR	N/A	28x16	WW/TR	No/no	448	DR	F	*NCR @*
"		1 CR	N/A	34x18	Dirt/thatch	No/no	612	DR	F	*3000sqf*
"		1 CR	N/A	25x18	Dirt/thatch	No/no	450	DR	F	*150,000*
TOTAL		**3**		**2270sf**						**$150,000**

Northern Namoneas, Fono Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Fono Elem		2 CR/1 O	1964	78x31	CF/CW/TR	No/no	2418	*DR*	F	*120,900*
"		2 CR	1980	38x26	CF/CW/TR	No/no	988	P	F	*24,700*
TOTAL		**5**		**3500sf**						**$145,600**

Northern Namoneas, Piis Paneu Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Piis Paneu Elm		2 CR/1 O	1964	78x31	CF/CW/TR	No/no	2418	P	F	60,450
		2 CR	1972	40x20	CF/CW/TR	No/no	800	P	F	20,000
TOTAL		**5**		**2940sf**						**$80,450**

Northern Namoneas, Weno Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
DOE Offices	34 Staff	Office	1964	153x31	CF/CW/TR	Y/Y	4743	P	P	118,575
"		Office	1989	24x11	CF/CW/TR	Y/Y	264	P	P	6,600
"		Office	1964	156x30	CF/CW/TR	Y/Y	4680	P	P	117,000
TOTAL	**34**			**16200sf**						**$242,175**

Northern Namoneas, Weno Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc tion Type	Pwr Wter	Sq. Ft.	rank-ing	S D	Cost Estimate
Weno High School	**58/1005**	CR	1964	102x33	CF/CW/CR	Y/Y	3366	F	F	50,490
		CR	1989	102x33	CF/CW/CR	Y/Y	3366	F	F	50,490
"		CR	1964	102x33	CF/CW/CR	Y/Y	3366	F	F	50,490
"		CR	1973	102x33	CF/CW/CR	Y/Y	3366	F	F	50,490
"		CR	1973	102x33	CF/CW/CR	Y/Y	3366	F	F	50,490
"		CR	1973	102x33	CF/CW/CR	Y/Y	3366	F	F	50,490
"		CR	1973	48x24	CF/WW/TR	Y/Y	1152	F	F	17,280
"		GYM	1973	90x65	CF/CW/CR	Y/Y	5850	G	F	0
"		Toilet	1973	84x24	CF/CW/CR	Y/Y	2016	P	F	50,400
"		CR	1989	140x120	CF/TW/TR	Y/Y	16800	G	F	168,000
"		CR	1989	93x31	CF/CW/TR	Y/Y	2883	F	F	43,245
"		CR	1973	124x31	CF/CW/TR	Y/Y	3844	F	F	57,660
"		D	1973	120x30	CF/WW/TR	Y/Y	3600	F	F	54,000
"		Toilet	1989	51x18	CF/CW/TR	Y/Y	918	P	F	22,950
"		D	1964	156x31	CF/CW/TR	Y/Y	4836	F	F	72,540
"		D	1964	180x31	CF/CW/TR	Y/Y	5580	F	F	83,700
"		Toilet	1973	22x18	CF/CW/CR	Y/Y	396	P	F	9,900
"		D	1973	122x30	CF/WW/TR	Y/Y	3600	F	F	54,000
"		Toilet	1973	28x16	CF/CW/TR	Y/Y	448	P	F	11,200
"										
Weno Jr. High School	**22/727**	5 CR	1968	121x30	CF/WW/TR	Y/Y	3630	F	F	54,450
		5 CR	1968	122x23	CF/WW/TR	Y/Y	2806	F	F	42,090
"		2 CR	1968	60x25	CF/WW/TR	Y/Y	1500	F	F	22,500
"		4cr/1 O	1968	121x23	CF/WW/TR	Y/Y	2783	F	F	41,745
"		1 CR	1968	25x24	CF/WW/TR	Y/Y	600	F	F	9,000
TOTAL	**80/1732**			**122000sf**						**$1,117,600**

Northern Namoneas, Weno Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	S D	Cost Estimate
Iras Elem	**27/839**	7 CR	1970	168x28	CF/CW/TR	Y/Y	4704	P	F	117,600
"		9 Cr/2 O	1964	296x31	CF/CW/TR	Y/Y	9176	P	F	229,400
		NCR					4500	*NCR*		*225,000*
Iras Tunuk Anx	"	1 CR/1 O	1989	36x24	CF/CW/TR	Y/Y	864	P	P	21,600
"		1 CR	1989	24x16	CF/CW/TR	Y/Y	384	P	P	9,600
Mechitiw Elem	**17/326**	8 CR/1 O	1994	80x40	CF/CW/CR	Y/Y	6400	G	P	64,000
"		9 CR	2stry	2 story		Y/Y				
"		1 CH	1979	40x24	CF/CW/CR	Y/Y	960	P	P	24,000
Mwan Elem	**11/336**	4 CR	1965	95x30	CF/CW/TR	Y/Y	2850	P	F	71,250
"		5 CR	1974	121x30	CF/CW/TR	Y/Y	3630	P	F	90,750
"		1 O	1974	20x20	CF/CW/TR	Y/Y	400	P	F	10,000
Neauo Elem	**13/378**	7 CR	1964	168x31	CF/CW/TR	Y/Y	5208	P	F	130,200
"		5 CR/1 O	1964	140x31	CF/CW/TR	Y/Y	4340	P	F	108,500
Neauo Annex	"	2 CR/1 O	1963	60x30	CF/CW/TR	Y/Y	1800	*DR*	P	*NCR @*
"		2 CR	1979	40x20	CF/CW/TR	Y/Y	800	*DR*	P	*130,000*
P & P Elem	**7/231**	4 CR	1981	90x39	CF/CW/TR	Y/Y	3510	P	F	87,750
"		2 CR/1 O	1976	50x24	CF/CW/TR	Y/Y	1200	P	F	30,000
Sapuk Elem	**12/250**	6 CR/1 O	1960	170x31	CF/CW/TR	Y/Y	5270	P	F	131,750
"		5 CR	1960	137x31	CF/CW/TR	Y/Y	4247	P	F	106,175
Sapuk Annex	**2/41**	2 CR	1976	50x35	CF/WW/TR	Y/Y	1750	P	P	43,750
"		1 O	1993	20x16	CF/WW/TR	Y/Y	320	P	P	8,000
TOTAL	**89/2401**	**90**		**68800sf**						**$1,639,325**

Pafeng, Fananu Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Fananu Elem		5 CR	1992	112x24	CF/WW/TR	No/no	2688	F	F	40,320
		1 O	1992	30x20	CF/WW/TR	No/no	600	F	F	9,000
TOTAL		**6**		**2880sf**						**$49,320**

Pafeng, Murilo Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Murilo Elem	5/121	2 CR/1 O	1979	68x24	CF/CW/CR	No/no	1632	F	F	24,480
"		1 CR	1979	32x24	CF/CW/CR	No/no	768	F	F	11,520
"		2 CR	1979	48x24	CF/CW/CR	No/no	1152	F	F	17,280
TOTAL	**5/121**	**5**		**3556sf**						**$53,280**

Pafeng, Nomwin Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Nomwin Elem	6/134	4 CR	1967	84x19	CF/CW/TR	No/no	1596	P	F	39,900
		1 CR/1 O	1980	40x24	CF/CW/TR	No/no	960	P	F	24,000
TOTAL	**6/134**	**6**		**1780sf**						**$63,900**

Pafeng, Ruo Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Ruo Elem	7/102	3 CR	1993	64x24	CF/CW/CR	No/no	1536	F	F	23,040
		3 CR	1993	64x24	CF/CW/CR	No/no	1536	F	F	23,040
		1 O	1995	18x18	CF/WW/TR	No/no	324	F	F	4,860
TOTAL	**7/102**	**7**		**3396sf**						**$50,940**

Southern Namoneas, Etten Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Etten Elem	3/64	3 CR/1 O	1964	77x31	CF/CW/CR	No/no	2387	P	F	**$59,675**

Southern Namoneas, Fefan Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Inaka Elem	8/135	3 CR	1980	61x24	CF/CW/TR	No/no	1464	F	F	21,960
"		2 CR	1990	40x26	CF/TW/TR	No/no	1040	F	F	15,600
"		1 O	1985	24x18	CF/CW/TR	No/no	432	F	F	6,480
Kukku Elem	7/92	5 CR	1984	122x24	CF/CW/TR	No/no	2928	P	F	73,200
"		1 CR/1 O	1993	46x24	CF/WW/TR	No/no	1104	F	F	16,560
Messa Elem	9/114	4 CR	1964	93x31	CF/CW/TR	No/no	2883	P	F	72,075
"		5 CR/1 O	1964	154x31	CF/CW/TR	No/no	4774	P	F	119,350
Pwene Elem	6/145	3 CR/1 O	1986	87x28	CF/CW/CR	No/no	2436	F	F	36,540
"		4 CR	1986	87x28	CF/CW/TR	No/no	2436	F	F	36,540
Sapore Elem	8/179	4 CR	1970	124x31	CF/CW/CR	No/no	3844	F	F	57,660
"		1 O	1980	20x16	CF/CW/TR	No/no	320	F	F	4,800
UFO Elem	9/200	4 CR/1 O (2 story)	1984	96x30	CF/CW/TR	No/no	*9100*	*DR*	G	*NCR @ 455,000*
W. Fefan Elem	10/279	2 CR/1 O	1968	37x24	CF/TW/TR	No/no	888	P	F	22,200
"		5 CR	1995	120x24	CF/CW/CR	No/no	2880	F	F	43,200
TOTAL	**57/1144**	**49**		**37111sf**						**$981,165**

Southern Namoneas, Parem Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Parhem Elem	7/90	3 CR/1 O	1965	78x50	CF/CW/TR	No/no	3900 *new 8000*	*DR* *NCR*	F	*+ I new 5 CR/O/L/ CL 355,000*
Total				**3980sf**						**$400,000**

Southern Namoneas, Siis Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Siis Elem"	**5/125**	2 CR/1 O	1965	78x31	CF/CW/TR	No/no	2418 *4 CR*	F *NCR*	G	43,524 *233,000*
TOTAL	**5/125**	**5**		**2418sf**						**151,524**

Southern Namoneas, Tonoas Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Estimate
Kuchuwa Elem	**9/128**	3 CR	1988	80x45	WF/WW/TR	No/no	3600	F	F	54,000
"		5 CR	1983	136x36	CF/CW/CR	No/no	4896	F	F	73,400
"		1 O	1975	21x17	WF/WW/TR	No/no	357	F	F	5,355
Nechap Elem	**6/80**	8 CR/2 O	1964	308x31	CF/CW/TR	No/no	9548	F	F	143,220
Nechap Annex	"	4 CR	1983	83x18	CF/WW/TR	No/no	1494	P	F	37,350
"		1 CR/1 O	1983	37x30	CF/CW/CR	No/no	1110	P	F	27,750
Nukuno Elem	**7/154**	5 CR	1979	121x24	CF/CW/TR	No/no	2904	P	F	72,600
"		2 CR/1 O	1979	60x30	CF/CW/TR	No/no	1800	P	F	45,000
"		1 CR	1979	24x20	CF/CW/TR	No/no	480	P	F	12,000
									F	
Sino M. Elem	**14/401**	4 CR/1 O	1964	155x31	CF/CW/TR	No/no	4805	F	F	86,490
"		4 CR	1964	121x31	CF/CW/TR	No/no	3751	F	F	67,518
								NCR		*546,000*
Tonaos	**21/415**	1 CR	1988	32x20	CF/WW/TR		640	F	F	11,520
High School		2 CR	1972	98x31	CF/CW/TR		3038	F	F	54,684
"		3 CR	1972	130x31	CF/CW/TR		4030	F	F	72,540
"		3 CR	1972	130x31	CF/CW/TR		4030	F	F	72,540
"		4 CR	1972	130x31	CF/CW/TR		4030	F	F	72,540
"		3 CR	1972	108x20	CF/CW/TR		2160	F	F	38,880
"		1 O	1994	32x18	CF/CW/CR		576	F	F	11,000
"		Toilet	1994	50x22	CF/CW/TR	No/Y	1100	P	F	19,800
"		CH	1972	99x64	CF/CW/TR	No/Y	6336	P	F	158,400
"		D	1964	109x21	CF/CW/TR		2289	P	F	51,502
"		D	1964	109x21	CF/CW/TR		2289	P	F	51,502
"		D	1964	119x21	CF/CW/TR		2499	DR	Dr	*NCR @*
"		D	1970	97x21	CF/CW/TR		2037	DR	Dr	*260,000*
TOTAL	**57/1178**	**78**		**65400sf**						**$2,045,591**

Southern Namoneas, Uman Island

SCHOOL	Teacher/ Student	*Room Type	Year Built	Size L'x W'	*Construc-tion Type	Power Water	Sq. Ft.	rank-ing	SD	Cost Est *Phase 1
Kuchu Elem	**11/281**	3 CR/1 O	1964	93x32	CF/CW/TR	No/no	2976	P	F	74,400
"		4 CR	1964	68x24	CF/WW/TR	No/no	1632	P	F	40,800
Panitiw Elem	**10/241**	1 CR/1 O	1976	49x35	CF/CW/CR	No/no	1715	P	F	42,875
"		1 CR	1976	36x32	CF/CW/CR	No/no	1152	P	F	28,800
"		1 CR	1976	28x28	CF/CW/TR	No/no	784	P	F	19,600
"		2 CR	1976	39x30	CF/CW/TR	No/no	1170	P	F	29,250
"		2 CR	1976	40x35	CF/CW/TR	No/no	1400	P	F	35,000
Sapota Elem	**9/209**	5 CR/1O	1964	184x31	CF/CW/TR	No/no	5704	P	P	142,600
"		5 CR	1964	170x31	CF/CW/TR	No/no	5270	P	P	131,750
								NCR		*200,000*
TOTAL	**30/731**	**28**		**21980sf**						**$745,076**

II.3.2. College of Micronesia (COM), Chuuk State Campus

The Chuuk State COM campus is the largest of the state campuses with more than 50 staff and 600 enrollments in 2001. Because of the limited space, Chuuk COM had to turn away 200 students this year. The campus consists of four buildings spread across the town. The buildings are all rented and generally are in a poor condition that makes learning and administration very difficult. To solve this problem, the COM has acquired 3 hectares of land for the purpose of establishing its own campus. The government has appropriated $500,000 towards construction, but preliminary budget estimates put the total cost at $1.5 million. The improvement of facilities on Chuuk campus is an important priority for the campus (and the COM as a whole) because of the population of Chuuk and the size of current enrollments on the Chuuk campus.

However, the new Campus will only accommodate 1,000 students – having no dorm facilities for out-of-Weno students.. Even if ground was broken soon, the school wouldn't be completed for 2 – 3 years and the school would be full and even turning away students the day it opens. However, there are few alternatives and students have been suffering for a long time at the present facilities. Therefore, the Plan recommends Chuuk COM begins now to identify expansion solutions as well as accommodations (room and board) for students coming from the Lagoon Islands and in particular – the Outer Islands. The Plan recommends that a new Campus is identified either Toniwas or Fefan (whom ever is willing to donate 15 acres for the proposed project) and a new High School is combined with the Campus. Therefore, the total cost for this recommendation is **$5 million for the COM Campus and $5 million for the New High school totaling $10 million.** *(see the Plans Terms of Reference on COM-FSM in the Executive Summary).*

The campus offers a two-year Degree program leading to an AA or AS degree in Elementary Education. This degree is taken as a pre-service course as well as in-service by a smaller number of enrollees. In-service training is provided during the summer break or through normal classes where teachers have been granted leave to undertake training. Evening classes are not successful, apparently due to safety problems associated with travel during the night in Chuuk.

Chuuk also offers a third year program for principals and teachers in cooperation with the Chuuk State Leadership Academy (CSLA). The CSLA has been established by the Board of Education and the SDOE to provide further training for principals and teachers earmarked for principal positions. The CSLA selects the teachers and makes arrangements with the SDOE to arrange leave for the trainees.

Chuuk COM sees vocational education as an emerging priority. It is very limited in its capacity to spread into this field given the lack of space and facilities it has for it academic courses. Some vocational education in the broadest sense is provided through its book keeping and accounting course. It is currently investigating cooperating

with the T-3 vocational program to jointly offer courses in carpentry that will lead to internationally recognizable certificates.

A range of short-term courses (usually 3 months or less) are provided through the US Land Grant program. These are targeted at the broader community and cover topics such as home economics, health and nutrition, sewing, farming and small business.

The COM-Chuuk has a fledgling vocational education program, which includes a certificate of achievement in carpentry (techniques and methodology of component construction). At this time, the program offers technical math, blueprint drawing, small business management, and basic computer applications. There is no carpentry shop to provide hands-on experience and training for the students. Fifteen students are currently enrolled in the program.

The college does not have electrical or plumbing skills programs. However, a proposal is being developed to obtain OMIP funding to establish a certificate program in construction electricity. The college has a computer lab and offers training in basic word processing and spreadsheets. While the current vocational education programs are offered to COM students only, short-term training opportunities could be developed for hospital and other government workers (although they would not be eligible for financial assistance, e.g. Pell grants).

II.3.3. Chuuk State Education Facilities Total Cost Estimate

GROUPED BY ISLAND	TOTAL COST ESTIMATE
1. Faichuk, Paata Island	293,250
2. Faichuk, Polle Island	326,950
3. Faichuk, Tol Island	1,406,890
4. Faichuk, Wonei Island	96,125
5. Mortlocks, Ettal Island	165,000
6. Mortlocks, Kuttu Island	193,510
7. Mortlocks, Lekinioch Island	188,550
8. Mortlocks, Losap Island	147,085
9. Mortlocks, Moch Island	77,520
10. Mortlocks, Namoluk Island	82,000
11. Mortlocks, Nema Island	475,480
12. Mortlocks, Oneop Island	572,200
13. Mortlocks, Piisemwar Island	128,150
14. Mortlocks, Satawan Island	1,048,890
15. Mortlocks, Ta Island	173,420
16. Nomiisofo, Eot Island	242,800
17. Nomiisofo, Fanapanges Island	355,000
18. Nomiisofo, Romanum Island	455,000
19. Nomiisofo, Udot Island	713,430
20. Nomwin Pattiw, Alei Island	237,000
21. Nomwin Pattiw, Houk Island	100,660
22. Nomwin Pattiw, Pollap Island	116,750
23. Nomwin Pattiw, Polowat Island	104,575
24. Nomwin Pattiw, Tamatam Island	74,100
25. Nomwin Wiitee, Magur Island	47,650
26. Nomwin Wiitee, Onou Island	763,425
27. Nomwin Wiitee, Piherarh Island	102,050
28. Nomwin Wiitee, Unanu Island	150,000
29. Northern Namoneas, Fono Island	145,600
30. Northern Namoneas, Piis Paneu Island	80,450
31. Weno Island (DOE Offices)	242,175
32. Weno Island (High School & Jr. High)	1,117,600
33. Weno Island (Elementary Schools)	1,639,325
34. Pafeng, Fananu Island	49,320
35. Pafeng, Murilo Island	53,280
36. Pafeng, Nomwin Island	63,900
37. Pafeng, Ruo Island	50,940
38. Southern Namoneas, Etten Island	59,675
39. Southern Namoneas, Fefan Island	981,165
40. Southern Namoneas, Parem Island	400,000
41. Southern Namoneas, Siis Island	151,524
42. Southern Namoneas, Tonoas Island	2,045,591
43. Southern Namoneas, Uman Island	745,076
Sub-TOTAL	***$16,663,081.00**
Additional	****$9,000,000.00**
New High School Located with new COM	**$5,000,000.00**
New COM Campus	**$5,000,000.00**
GRAND TOTAL	**$35,663,081.00**

* The Social Planning Specialist based the estimated total cost for Chuuk mainly upon renovation for existing building. Recommendation for new construction was avoiding in most cases (unlike other states) for two reasons. 1) There was no transportation available to visit outer islands as well as the time limitations to see all lagoon schools. Cost figures would be skewed if only the schools visited

were included for new construction cost; 2) The majority of schools in Chuuk are not free of land disputes, it was felt the state must take steps to resolve this before major new construction/ expansion can be legitimately recommended. Based upon the Social Planner's knowledge of the calculation factors needed to cost-out new construction/expansion, Chuuk State would require another **$9 million in addition to $10 million to develop a new high school combined with a new COM State Campus on land no less than 14 acres, which would bring the grand total required for Chuuk to $35,663,081.00 - to meet the needs up to 2017.

II.3.4. Chuuk State Education Facilities Maintenance Cost Estimate

GROUPED BY ISLAND	Sq. Ft.	Maintenance Cost/Year	Maintenance Cost 15 Yrs
1. Faichuk, Paata Island	14,850	9,652	144,780
2. Faichuk, Polle Island	14,005	9,103	136,545
3. Faichuk, Tol Island	71,560	46,514	697,710
4. Faichuk, Wonei Island	7,012	4,557	68,355
5. Mortlocks, Ettal Island	6,600	4,950	74,250
6. Mortlocks, Kuttu Island	8,600	6,450	96,750
7. Mortlocks, Lekinioch Island	7,340	5,505	82,575
8. Mortlocks, Losap Island	7,013	5,259	78,885
9. Mortlocks, Moch Island	5,304	3,978	59,670
10. Mortlocks, Namoluk Island	5,100	3,825	57,375
11. Mortlocks, Nema Island	14,901	11,175	167,625
12. Mortlocks, Oneop Island	13,788	10,341	155,115
13. Mortlocks, Piisemwar Island	5,126	3,844	57,660
14. Mortlocks, Satawan Island	31,560	23,670	355,050
15. Mortlocks, Ta Island	6,805	5,104	76,556
16. Nomiisofo, Eot Island	5,230	3,399	50,992
17. Nomiisofo, Fanapanges Island	2,390	1,553	23,302
18. Nomiisofo, Romanum Island	4,290	2,788	41,827
19. Nomiisofo, Udot Island	10,700	6,955	104,325
20. Nomwin Pattiw, Alei Island	7,200	5,400	81,000
21. Nomwin Pattiw, Houk Island	4,030	3,022	45,337
22. Nomwin Pattiw, Pollap Island	4,680	3,510	52,650
23. Nomwin Pattiw, Polowat Island	5,014	3,760	56,407
24. Nomwin Pattiw, Tamatam Island	1,880	1,410	21,150
25. Nomwin Wiitee, Magur Island	1,906	1,429	21,442
26. Nomwin Wiitee, Onou Island	29,870	22,402	336,037
27. Nomwin Wiitee, Piherarh Island	4,090	3,067	46,012
28. Nomwin Wiitee, Unanu Island	2,270	1,702	25,537
29. Northern Namoneas, Fono Island	3,500	2,275	34,125
30. Northern Namoneas, Piis Paneu Is.	2,940	1,911	28,665
31. Weno Island (DOE Offices)	16,200	8,910	133,650
32. Weno Island (High School & Jr. High)	122,000	67,100	1,006,500
33. Weno Island (Elementary Schools)	68,800	37,840	567,600
34. Pafeng, Fananu Island	2,880	1,872	28,080
35. Pafeng, Murilo Island	3,556	2,311	34,671
36. Pafeng, Nomwin Island	1,780	1,157	17,355
37. Pafeng, Ruo Island	3,396	2,207	33,111
38. Southern Namoneas, Etten Island	2,387	1,551	23,273
39. Southern Namoneas, Fefan Island	37,111	24,122	361,832
40. Southern Namoneas, Parem Island	3,980	2,587	38,805
41. Southern Namoneas, Siis Island	2,418	1,571	23,575
42. Southern Namoneas, Tonoas Island	65,400	42,510	637,650
43. Southern Namoneas, Uman Island	21,980	14,287	214,305
TOTAL	**661,442**	**$426,535**	**$6,398,131**

II.4. YAP

The Yap State Department of education has undergone re-structuring during the past three years and now have changed their name to the State Enterprising Education Department (SEED) in order to streamline its processes. SEED seeks to give greater power and decision making of schools to the municipality and community. They have even eliminated the title of “elementary” schools in favor of the name of “community” schools. The state is divided into four zones that correspond to the four major language groups on Yap, which are: Satawal, Ulithi, Waab and Woleai. The Zones are headed by ‘Inclusive Education Coordinators’ (IEC). This is a new title for the former municipal inspectors– the intention is to promote a cultural change in the operation and functions of the district officers towards more innovation and flexible delivery of education services. A key function of the Coordinators is to provide mentoring to the school principals.

There are a total of 34 public and 2 private schools in Yap. Out of 3 High Schools, 2 are on outer islands. There is 1 Middle School on Yap Proper. Out of the 31 Community Schools, only 10 are located on Yap Proper, the rest reside in the Outer Islands.

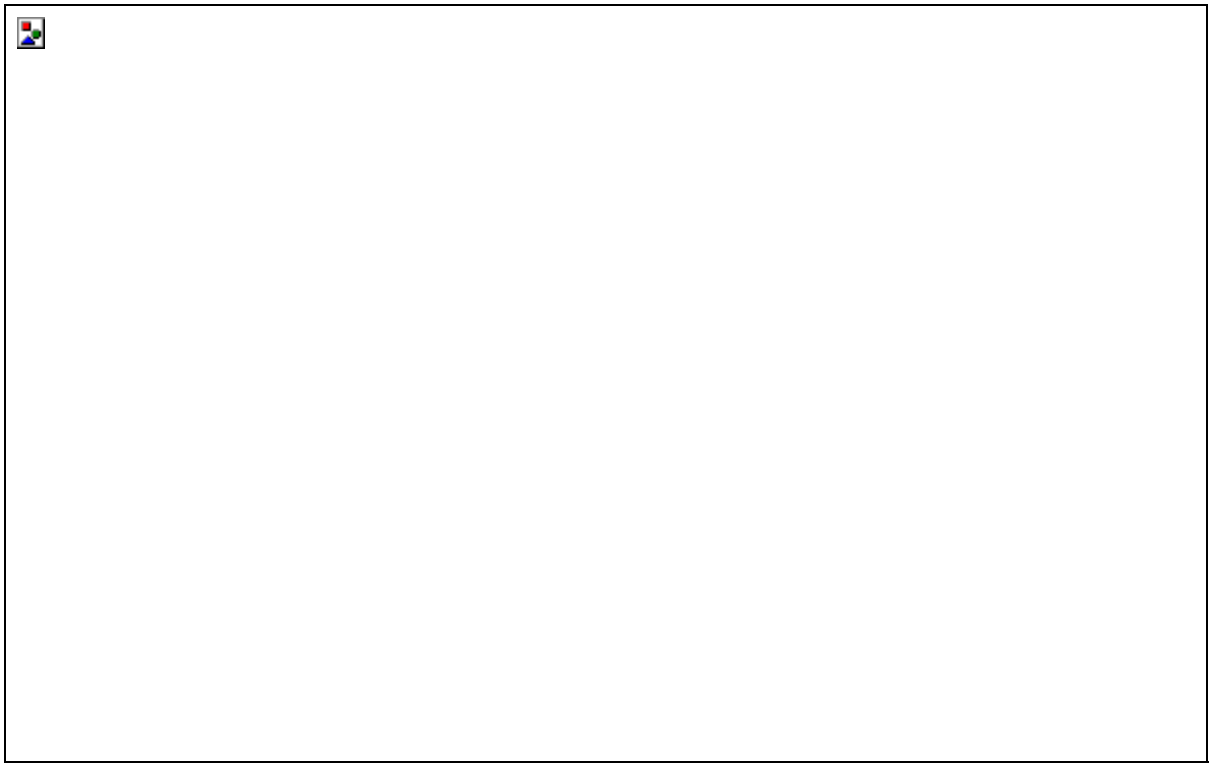
At the central state office the SEED structure has the following separate offices: Director’s Office; Special Programs; Curriculum Designers and Instruction; Vocational Education, and Yap-Star. The PREL organization has a support office located next to the SEED offices and is closely involved in curriculum changes. SEED also has a highly qualified Facilities Engineer/Planner (John Waayan) who is in the process of inventorying all school buildings on an Auto-CAD Program. He has completed the Outer Islands. This plan relied greatly on his surveys. *(Refer to the Appendix for the Yap Outer Islands School Survey Site Plans – Yap Proper School Site Plan Surveys should be complete by year’s end).*

Yap has adopted a holistic approach to promoting community participation. SEED encourages communities and education staff to re-think their perceptions and expectations of the education system. In this respect, Jim Steven’s is spearheading the introduction of computers in the school system. The new SEED building houses more than 30 computer stations, Internet infrastructure and maintenance center. They are in the process of connecting all public schools, even Outer Islands, with computer labs/stations by microwave.

Yap State has opted for a broad definition of its vision and has similarly defined a broad mission for its activities. The emphasis has been on nurturing and developing local culture in partnership with other educational activities. SEED’s vision is one where “children will have a strong sense of identity and self-esteem, be confident, creative, friendly, responsible, respectful and have high moral values and a deep appreciation of life and its many challenges”. The vision incorporates some specific references to the role of SEED and its relationship with communities “We envision a future where the school curriculum will be appropriate, relevant and responsive to the needs of the

Yapese child while being fully supported by the parents, communities, traditional leaders and government". Further on " We envision a future where the SEED administration will communicate and collaborate with traditional leaders, and other government and non-government agencies in providing full support for the schools and communities."

Yap State with School Locations



SEED has defined the mission of the organization in the following terms:

- *To nurture our children's sense of cultural identity, self-esteem, confidence, creativity, friendliness, responsibility, high moral values and deep appreciation of life and its many challenges;*
- *To form a cooperative enterprise with the parents, community members, traditional leaders and other government and non-government agencies which support schools and communities;*
- *To develop programs and policies which reflect the changing needs of students, teachers, parents and communities through open communication, training and workshops, periodic re-examination of curriculum, collaborative decision making, and an equitable distribution of funding;*
- *To value, respect and support local culture within each school;*
- *To create public facilities which are accessible to all students including those with special needs.*

At the school level, there is a School Community Board (SCB) that has some joint responsibilities with the principal for the running of the school. The SCB also is responsible for nominating the principal of a school – unlike other States where the Director of Education does so. The SCB convenes a meeting when the principal's position becomes vacant to develop a short list of local candidates –this is then discussed with the relevant local chief to develop another short list. The final short list is presented to staff and the SCB jointly with the staff make a recommendation to the Director of SEED. The Director will normally accept the recommendation unless the candidate is clearly unsuitable. In this case the Director of the SEED asks the SCB to re-consider its choice. If there is conflict the Director's judgment prevails.

The Director of SEED (Henry Falan) strongly believes that the community participation approach is helping to bring schools and communities closer together. The participation of communities is reflected in the generally high standard of upkeep of the schools and ongoing community interest to improve conditions. SEED is also very fortunate to receive volunteer assistant/advice from John Magefeld, the highly respected former Yap Governor and one of the fathers of FSM's independence/Compact negotiations. His breath of the culture and how to integrate this successfully into the ever-changing education system is well received and appreciated by SEED.

Virtually all Community Schools in Yap employ, in addition to regular teachers, an agricultural specialist and a CRT specialist. Many of the schools have Peace Corp and Japanese (JOCV) Volunteers as well.

Key Notes	**Descriptions**
***Construction Type:**	Concrete Floors (CF), Concrete Walls (CW), Wood Walls (WW), Concrete Roof (CR), Tin Roof (TR). Pre-Fabrication Building Type (PF).
***Ranking:**	Demolition Recommended (DR), New Construction Recommended (NCR), Poor (P), Fair (F), Good (G), New (N)
***Site Design (SD):**	Poor (P), Fair (F), Good (G)
***Toilet:**	Port-a-John (PJ), Concrete with Tin Roof (CTR), Poor (P), Fair (F), Good (G)
***Room Type:**	Classroom (CR), Office (O), Dormitory (D), Library (L), Computer Lab (CL) Cookhouse (CH), Home Economics (HE), Music Room (MR)
***Cost Estimate:**	Immediate Needs (2001-2006) plus Expansion needs (2006-2016)
Cost Bases ∑:	▪ New School: $50/SqF Includes: Materials, Labor, Transport in addition to: Student/Staff Desk/Chair, Work Tables, Shelves, Cabinets, Books/ Educational Materials and 2 Aircons. (Excludes Computers and lab equipment. ▪ Renovation: (P)= $25/SqF, (F)= $15/SqF, (G)= $10/SqF. ▪ Additional Transport Cost: Kitti, Madolenihmw and Outer Islands: +20%
Recurrent Cost (RC) Maintenance	Based upon 55 cents X Sq.Ft./Year on Yap Proper and 75 cents in the Outer Islands. Includes: Materials, Transport and casual labor. *Note: Ground maintenance should be the responsibility of the Staff/PTA/Community.*

II.4.1. Yap State High Schools

SCHOOL YAP HIGH	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
1. Math Building	4 classrooms	CF/CW/TR	135x33	4455	Fair	66,825
2. Computer Lab Building	2 computer labs	CF/CW/TR	66x33	2178	Poor	54,450
3. Home Economics Bldg	2 classrooms	CF/CW/TR	66x33	2178	Poor	54,450
4. Science Building	2 CR/ 1 lab	CF/CW/TR	90x33	2970	Fair	44,550
5. English Building	4 classrooms	CF/CW/TR	146x33	4818	Fair	72,270
6. Math & Science Building	4 classrooms	CF/CW/TR	146x33	4818	Fair	72,270
7. Art Building	1 classroom	CF/CW/TR	43x21	903	Poor	22,575
8. Construction/Auto Shops	2 shop rooms	CF/CW/TR	130x55	7150	Poor	178,750
9. Vocational Ed Bldg	4 classrooms	CF/CW/TR	125x33	4125	Fair	61,875
10. Social Studies/Japanese	4 classrooms	CF/CW/TR	142x36	5112	Good	51,120
11. Administrative Building	5 offices/1 CR	CF/CW/TR	90x33	2970	Poor	74,250
12. Library Building	Library/1 AV room	CF/CW/TR	115x33	3795	Fair	56,925
13. Physical Ed Building	Multi-purpose	CF/CW/TR	61x60	3660	Poor	91,500
14. Cafeteria	open	CF/CW/TR	120x45	5400	Poor	135,000
15. Agricultural Building	Multi-purpose	wooden bldg	45x40	1800	DR/NCR	90,000
16. Toilets	Burned down	CF/CW/TR	N/A	0	DR/NCR	16,500
TOTAL				**56332**		**$1,143,310**

Yap High School serves almost 600 students with 36 teachers as well as other staff. The Principal is Domingko Techur and the Vice Principal is Joe Xavier. The facilities in Yap are generally in a good condition. The toilet facilities recently burned down and need replacement urgently. Buildings are maintained and classrooms are large enough for all the classes observed on the field visit. Computing facilities were provided for students and a library was established, although it was in need of some repair. Separate buildings have been provided for vocational programs with workshops for construction and mechanics. The workshops are in a good condition but lacking in some equipment. Land has been allocated for the agricultural program and this has been used for cultivation of vegetable crops. The grounds are kept very tidy but suffer to some extent because their low-lying position makes them vulnerable to flooding. The school is presently constructing a dormitory for teachers to reduce the annual recurrent costs of rental accommodation. The dormitory is being constructed as part of the vocational education construction program using the labor and skills of students as well as staff and builders.

Yap high school has been one of the most innovative and pioneering in its expansion into vocational education and training. It is currently offering courses in business, construction, auto mechanics, agriculture and home economics. There have been some creative attempts to apply the skills learnt in the courses and to generate income for the school from the vocational courses. The agriculture program sells produce at the local market to generate income. The agriculture course has been operating for four years and many graduates go on to work for the Yap Agriculture Department. The course has had difficulty in attracting enrollees because agriculture is not seen as an attractive career option. The courses are run for a short time (1-2 years) on private land and the land is then returned to the private owner for their use. The agricultural course helps in a limited way to disseminate new agricultural techniques and practices to the community.

ULITHI HIGH SCHOOl	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
1. Construction Class Bldg	2 CR	WF/TW/TR	28x24	672	Poor	16,800
2. Dormitory 3 Bldg	40 Capacity	All Concrete	90x22	1980	Poor	49,500
3. Shower/Toilet Bldg	8x4	CF/CW/TR	32x26	832	Poor	20,800
4. Dormitory 2 Bldg	40 Capacity	All Concrete	90x22	1980	Poor	49,500
5. Construction Shop Bldg	2 CR	CF/CW/TR	86x25	2150	Poor	53,750
6. Mechanic Shop Bldg	2 CR	CF/CW/TR	88x26	2288	Poor	57,200
7. Dormitory 1 Bldg	30 Capacity	All Concrete	80x22	1760	Poor	44,000
8. Basketball Court	N/A	All Concrete	98x60	5880	Poor	147,000
9. Coast Guard Station	To Demolish	All Concrete	120x22	2640	DR	66,000
10. Old Library Bldg	To Demolish	CF/CW/TR	70x20	1400	DR	35,000
11. Shower/Toilet Bldg	To Demolish	CF/CW/TR	32x26	832	DR	0
12. Girl's Dormitory Bldg	To Demolish	CF/CW/TR	70x22	1540	DR	0
13. Agriculture Bldg	4 Rooms	CF/CW/TR	50x20	1000	Poor	25,000
14. Dental Bldg	1 Room	CF/CW/TR	34x24	816	Poor	20,400
15. Water Tank	N/A	All Concrete	58x24	1392	Poor	34,800
16. IEC Office Bldg	3 Rooms	CF/CW/TR	84x20	1680	Poor	42,000
17. Teacher's Quarter Bldg	N/A	CF/CW/TR	86x22	1892	Poor	47,300
18. Home Economics Bldg	5 CR	CF/CW/TR	120x24	2880	Poor	72,000
19. Student Center Bldg	1 Room	CF/CW/TR	48x24	1152	Poor	28,800
20. Office/Classroom Bldg	5 Offices	CF/CW/TR	98x30	2700	Poor	67,500
21. Student Store Bldg	2 Rooms	CF/CW/TR	48x24	1152	Poor	28,800
22. Computer Lab Bldg	2 Rooms	CF/CW/TR	48x24	1152	Poor	28,800
23. Toilet Bldg	4x2	CF/CW/TR	30x8	240	Poor	6,000
24. Classroom Bldg	4 classrooms	CF/CW/TR	112x26	2912	Poor	72,800
25. Classroom Bldg	2 classrooms	CF/CW/TR	56x28	1568	Poor	39,200
26. New Library Bldg	Open	CF/CW/TR	58x46	2668	Poor	66,700
27. Teacher's Quarter Bldg	N/A	All Concrete	140x24	3360	Poor	84,000
28. Teacher's Quarter Bldg	N/A	All Concrete	32x22	704	Poor	17,600
29. Teacher's Quarter Bldg	N/A	All Concrete	42x22	924	Poor	23,100
30. Teacher's Quarter Bldg	To Demolish	All Concrete	42x22	924	DR	0
31. Teacher's Quarter Bldg	To Demolish	All Concrete	42x22	924	DR	0
32. Teacher's Quarter Bldg	To Demolish	All Concrete	42x22	924	DR	0
33. Guest House Bldg	N/A	All Concrete	42x22	924	Poor	23,100
TOTAL				**55842**		**$1,267,450**

Note: Building numbers correlate to the ULITHI HIGH SCHOOL Site Plan in the Appendix

Ulithi High School serves 95 students with 14 teachers. Ulithi High School served more than twice the present number of students, up to the time Woleai High School was opened. The total cost to renovate all of the above structures for Ulithi High School is **$1,267,450**. These buildings are sprawled over a large track of land by the sea that was once used during the Japanese period as an airstrip, and latter by the US Coast Guard as a station listening outpost. Many of the previous US Coast Guard buildings are still standing and present a safety hazard, not to mention an eyesore. Rather than spending the over $1 million for renovation, the entire site should be demolished and redesigned with a more appealing lay-out and one which would meet the needs of the present and future student population. With only 95 students enrolled, there is no reason for the number of buildings there. Two - 2 story (8 classrooms, computer lab, library, home economics) and 2 - 1 story buildings would be sufficient. The estimated cost of this alternative would be approximately **$876,000.00**

WOLEAI HIGH SCHOOL	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
Two Story Office, CL & IEC	Administration	CF/CW/TR	74x30	4440	Good	47,400
Classrooms	3 classrooms	CF/CW/TR	100x24	2400	Good	26,000
Classrooms	2 classrooms	CF/CW/CR	50x24	1200	Good	13,000
Classrooms	4 classrooms	CF/CW/TR	100x24	2400	Good	29,000
Vocational Education	under construction	CF/CW/TR	75x36	2700	Good	27,000
Tool House	Tool Room	CF/CW/TR	20x19	380	Good	34800
Storage	Storage Building	CF/CW/TR	20x15	300	Good	3,800
Carpentry Shop	Carpentry Bldg	CF/CW/TR	15x15	225	Good	2,450
TOTAL (includes recurrent $)				**14045**		***$158,000**

Woleai High School is fairly new and was built so students would no longer have to travel to Ulithi and board there. The school serves 125 students with 11 teachers. The above cost are the **15 year maintenance/recurrent cost* to insure these buildings are maintained in good condition. A regular maintenance/recurrent cost program must be implemented, one which reserves these funds solely for maintenance purposes.

II.4.2. Yap State Community Schools (By Zone)

II.4.2.1. Waab Zone 1 (Yap Proper) Community Schools

COMMUNITY SCHOOL	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
Bael Community School	3 classrooms	CF/CW/TR	67x21	1407	Fair	21,105
	2 CR/1 L/ 1 O	CF/CW/TR	78x27	2106	Poor	52,650
Colonia Middle School	6 classroom	CF/CW/TR	155x24	3720	Poor	93,000
	2 CR/1 L/1 O	CF/TW/TR	120x24	2880	Poor	72,000
Dalipebinaw Community School	8 CR/2 story	CF/CW/TR	118x30	7080	Good	*70,800
	1 O/1 L/1 CL	CF/CW/TR	60x27	1620	Good	*16,200
Fanif Community School	6 CR/1 L *(L Shape)*	CF/CW/TR	250x33	8250	Good	82,500
	3 classroom	CF/CW/TR	55x30	1650	Fair	24,750
Gaanelay Community School	5 classroom	CF/CW	137x30	4110	Good	41,100
	3 classroom	shingle roof	82x27	2214	Fair	33,210
	1 O/1 L/1 CL	CF/CW/TR	76x27	2052	Poor	51,300
Gagil Community School	5 classroom	CF/CW Shingles	135x27	3645	Good	36,450
	3 CR/1 Sp Ed	CF/CW/TR	126x33	4158	Fair	62,370
	1 O/1 L/1 CL	CF/CW/TR	78x24	1872	Poor	46,800
Gilman Community School	4 classroom	CF/CW/TR	84x21	1764	Good	17,640
	3 CR/1 O/ 1 L	CF/CW/TR	95x21	1995	Fair	29,925
Kanifay Community School	3 CR/1 O	CF/CW/TR	79x27	2133	Poor	53,325
	2 CR *DR/NCR*	CF/TW/TR	25x12	300	*DR/NCR*	48,000
	1 CR/storage	CF/CW/TR	42x21	882	Poor	22,050
Maap Community School	6 classroom	CF/CW/TR	135x21	2835	Fair	42,525
	2 CR/1 O, CL, L	CF/CW/TR	105x30	3150	Fair	47,250
North Fanif Community School	4 classroom	CF/CW/TR	87x21	1827	Good	18,270
	1 O/1 L/store	CF/CW/TR	52x33	1716	Poor	42,900
Rumung Community School	4 CR/1 L	CF/CW/TR	80x20	1600	Poor	40,000
	NCR 2 CR	CF/CW/TR	60x30	1800	*NCR*	90,000
Tomil Community School	8 classroom	CF/CW/TR	165x33	5445	Poor	136,125
	1 O/1 L	CF/WW/TR	33x33	1089	Poor	27,225
	NCR	CF/CW/TR	60x33	1980	*NCR*	99,000
TOTAL				**75280**		**$1,418,470**

Bael Community School serves 62 students with 5 teachers. The Principal is James Manguon. The access from the main road is poor and needs attention. The general site design is good. There is a community leaf house on the grounds. The total cost estimate for school renovations is **$73,755.00.**

Colonia Middle School serves 185 students from 5th to 8th grades. The students are generally coming from either Gaanelay or Fanif Community Schools. There are 8 teachers and the Principal is John Sangog. The general site design is good, but the buildings are in very poor condition and the classrooms are over-crowed. The 6-classroom building has no ceilings and the other office/classroom building has ½ tin walls. The basketball court is not in use and deteriorating. The estimated cost to renovate these buildings is **$165,000.00**, however, demolition is recommended to replace with 1 new building (2 story, 8 classroom, library, offices and computer lab @ 180'x33, 11,880 sq. ft. building) at an estimated cost of **$455,000.00**.

Dalipebinaw Community School serves 90 students with 8 teachers. The Principal is Timothy Tomed. This school has very strong community support, which is evident in the new 2-story building for which the community is responsible for. The site is very impressive, as it is located on top of a hill overlooking the sea. There is an equally impressive 48,000-gallon tank serving the new structure. The only recommendation is to provide a second access for the 2nd floor. The cost estimate for the school of **$87,000.00** are the **15 year maintenance/recurrent cost* to insure these buildings are maintained in good condition. A regular maintenance/recurrent cost program must be implemented, one which reserves these funds solely for maintenance purposes.

Fanif Community School serves 77 students with 9 teachers. The Principal is Mark Robofel. The site design is good, but access from the main road is poor. There's a new L shaped building appropriately designed for the site layout and another single story in alignment with the L shaped building. The money for the new building came from the Senator's fund. The school is building a playground below the site. The cost estimate for the school is **$107,250.00.**

Gaanelay Community School serves 193 students with 8 teachers and a Principal. Two of the buildings have shingles. At this time, it is hard to determine whether shingles are appropriate for buildings in the FSM with the heavy rainfall, etc. Time will tell. The Office/Library building needs a new roof replacement. The cost estimate for the school is **$125,610.00.**

Gagil Community School serves 90 students with 8 teachers. The Principal is Victor Pluw. The toilet facilities are particularly good since the school sponsored guest for the FSM Olympic games. The 5-classroom building is in good condition, but the Offices, library and Computer Lab are in poor condition and the 3-classroom building also needs attention. The site design is good. The basketball court is also good. The cost estimate for the school is **$145,620.00.**

Gilman Community School serves 66 students with 7 teachers and a Principal. There is a new 4-classroom building and a 3 classroom, office; library building which just had the roof replaced. They plan to extend this building for the computer lab. It is important to note that almost all school buildings in Yap State have an extended overhang to the front of the buildings, which serves an important purpose in preventing rain from blowing in as well as giving people areas of shade to relax. The general site design of the school is good. There is a basketball court on the grounds. The access road from the main road is in poor condition. The cost estimate for the school is **$47,565.00.**

Kanifay Community School serves 48 students with 3 teachers. The Principal is John Kadad. The site design is good, but the school buildings are in poor condition and the study recommends demolition/new construction of the 2 classroom tin building. The cost estimate for the school is **$123,375.00.**

Maap Community School serves 122 students with 7 teachers. The principal is Nazarius Ganangred. The school has poor access from the main road. The site design is a bit tight, but adequately laid-out. The 2 buildings are in fair condition. The rain water catchment tanks are operating. There is a long extended locally built sitting, resting, eating area that is appropriate to the school functions. The cost estimate for the school is **$89,775.00.**

North Fanif Community School serves 30 students with 8 teachers. The Principal is Tony Garazway. This school experienced problems with an out-flow of students because the community had conflicts with the former Principal. There is now a new Principal and it is hoped the problems are resolved. The site design is good and the 2 buildings are in poor to fair condition – one being newer than the other is. The cost estimate for the school/office buildings is **$61,170.00.**

Rumung Community School serves 38 students with 4 teachers. The Principal is Elizabeth Rebelayan. There is only one building (4 classrooms, 1 library) in poor condition. They need to extend the building to accommodate another classroom and Computer lab. The total cost estimate to renovate and extend the school building is **$130,000.00.**

Tomil Community School serves 115 students with 8 teachers. The Principal is Patrick Pitmatg. The access road of the school is poor. The classrooms are in very poor condition and the school needs expansion to accommodate present and future students. The 8-classroom building was originally build as a 4-classroom building, but has been split in half to provide more rooms and as a result are cramped. The toilets are in good condition. There is a basketball court in operation. The cost estimate to renovate and expand is **$262,350.00.**

II.4.2.2. Ulithi Zone 2 Community Schools

COMMUNITY SCHOOL	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
Asor Community School 18 students / 3 teachers	4 classroom/1 O	CF/CW/TR	80x20	1600	Poor	40,000
Fadraii Community School 42 students / 2 teachers	3 CR *under const* *storage/water* Library Office Bldg Storage	CF/CW/TR Concrete CF/CW/TR CF/CW/TR CF/CW/TR	86x26 80x30 26x16 18x12 12x8	2236 2400 416 216 96	New Fair Fair Fair Fair	0 0 6,240 3,240 1,440
Mogmog Community School 39 students / 5 teachers	5 classroom 1 O/1 L	CF/CW/TR CF/CW/TR	84x25 30x20	2100 600	Poor Poor	52,500 15,000
Ngulu Community School 6 students	No information On facilities	CF/CW/TR				
Fais Community School 98 students / 7 teachers	3 classroom 2 classroom 1 Office 1 Storage	CF/CW/TR CF/CW/TR CF/CW/TR CF/CW/TR	92x35 76x30 30x16 30x20	3220 2280 480 600	Poor Poor Poor Poor	80,500 57,000 12,000 15,000
Falalop Community School 72 students / 6 teachers	2 CR/1 office 5 classroom 1 CR extension	CF/CW/TR CF/CW/TR CF/CW/TR	60x20 86x24 30x18	1200 2064 540	Poor Fair Fair	30,000 30,960 8,100
TOTAL				**20048**		**$351,980**

II.4.2.3. Woleai Zone 3 Community Schools

COMMUNITY SCHOOL	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
Eauripik Community Sch 20 students / 2 teachers	3 CR/1 Office	CF/CW/TR	82x34	2788	Poor	69,700
Falalis Community School 35 students / 2 teachers	3 CR/1 O/1 L Storage	CF/CW/TR CF/CW/TR	98x24 20x16	2352 320	Poor Poor	58,800 8,000
Faraulap Community School 72 students / 6 teachers	5 classroom 2 CR/1 office 1 CR/1 L	CF/TW/TR WF/WW/TR CF/CW/TR	74x25 44x24 30x20	1850/DR 1056/DR 600	*NCR* *NCR* Poor	92,500 52,800 15,000
Ifalik Community School 182 students / 8 teachers	7 CR/2 L 4 CR/1 Office	CF/CW/TR CF/CW/TR	141x32 110x30	4512 3300	Fair Poor	67,680 82,500
Piig Community School 21 students / 1 teacher	2 CR/1 office	CF/CW/CR	50x21	1050	Poor	26,250
Seliap Community School 20 students / 2 teachers	3 classroom 5 classroom office/library	CF/CW/CR CF/CW/TR CF/CW/TR	50x24 60x24 24x18	1200 1440 432	Fair Fair Poor	18,000 21,600 10,800
Tegailap Community School 24 students / 2 teachers	2 CR/1 O/1 L/1 CL	CF/CW/TR	80x20	1600	Poor	40,000
Woleai Community School 90 students / 8 teachers	5 classroom 3 CR/1 O/1 L 1 office	CF/CW/CR CF/CW/TR CF/CW/TR	140x34 103x22 24x16	4760 2266 384	Good Good Good	47,600 22,660 3,840
Wottegai Community School 27 students / 2 teachers	3 classroom 3 CR/1 office storage	CF/CW/TR CF/CW/TR CF/CW/TR	60x25 70x24 16x12	1500 1680 192	Fair Poor Fair	22,500 42,000 1,920
TOTAL				**15454**		**$230,920**

II.4.2.4. Satawal Zone 4 Community Schools

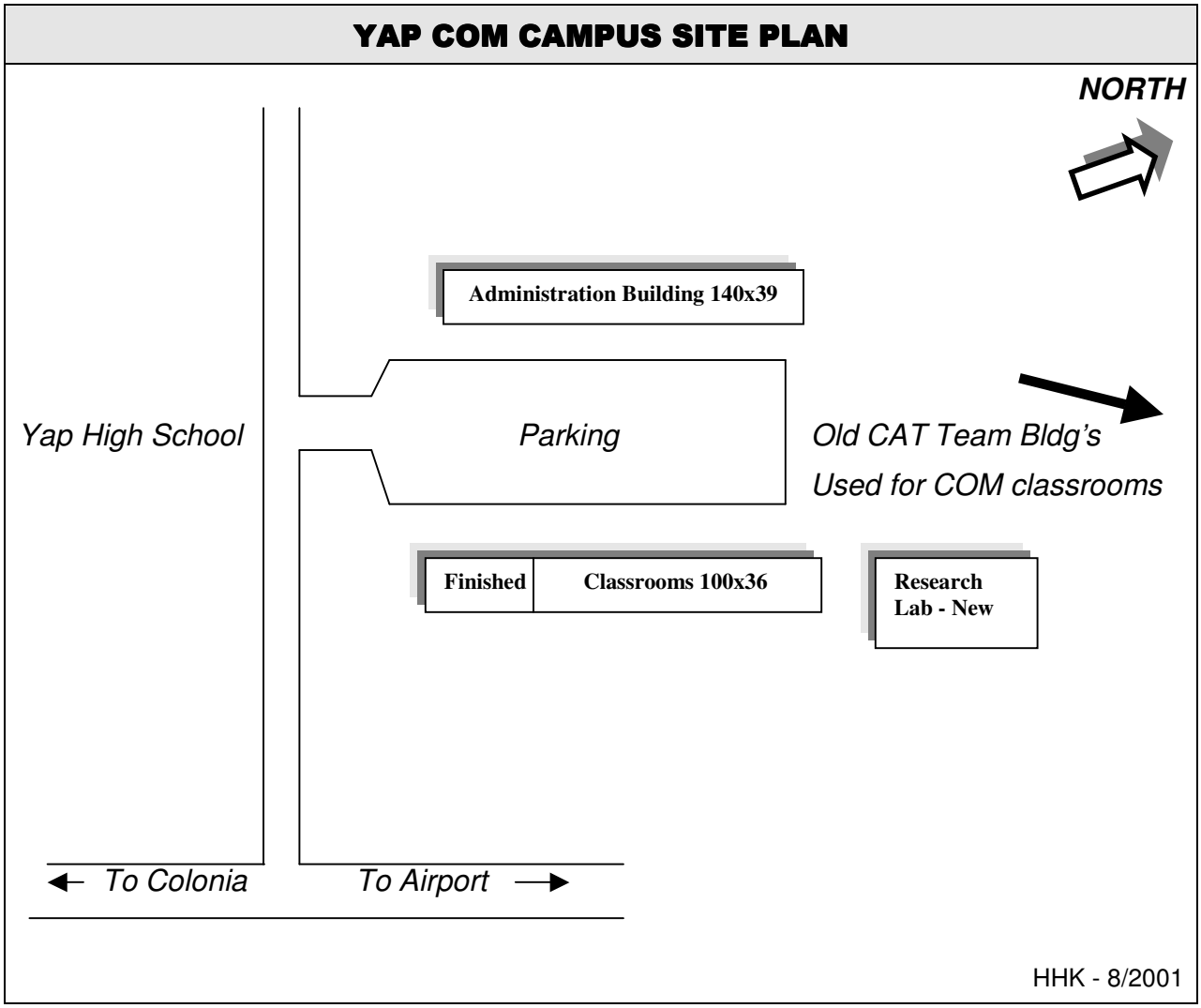
COMMUNITY SCHOOL	*Room Type	Construc-tion Type	Size L'x W'	SQ Ft	Status	Cost Estimate
Satawal Community Sch 169 students / 9 teachers	5 CR/1 O/ 2 store 4 CR/1 L	CF/CW/TR CF/CW/TR	168x32 120x24	5376 2880	Poor Fair	134,400 43,200
Lamotrek Community Sch 128 students / 7 teachers	4 classroom 4 CR/1 O/1 L 1 classroom	CF/CW/CR CF/CW/TR CF/CW/TR	100x20 140x30 20x16	2000 4200 320	Poor Poor Fair	50,000 105,000 4,800
Elato Community School 35 students /2 teachers	1 CR/1 office 2 CR/1 L 1 Storage	CF/CW/TR CF/CW/CR CF/CW/TR	30x20 50x20 20x14	600 1000 280	Fair Poor Fair	9,000 25,000 4,200
TOTAL				**16656**		**$375,600**

II.4.3. Yap COM State Campus:

Yap has the smallest of the COM campuses with 3 full-time staff (only one filled), 9 part-time teachers with approximately 85 full-time students. The Director is Lourdes Roboman. It offers degree programs in Elementary Education and Early Childhood Studies. The remainder of courses offered by the campus are either certificate or non-credit courses. The campus provides an Intensive English Language Program (IEP) that is very popular. Many of the students use the campus to pursue preparatory courses before transferring to the national campus in Pohnpei.

Yap COM management is targeting vocational education for increased attention. It has recently employed one staff member to develop and deliver a Hospitality and Restaurant Management course. The course will be adopted from the one currently offered through the Pohnpei campus. The course seeks to tap a significant labor market need for trained staff in the hospitality industry. Yap is also working to extend its program into other areas of vocational education. It has provided computer training to Telecom staff and is looking at establishing relationships with the private sector.

The Yap campus is in the process of a major renovation of its facilities. Current premises are located on rented land outside of Colonia town adjacent to the Yap High School. The COM has obtained access to land next to the currently rented premises. This land has been provided free of rent for the first five years. Australian aid has assisted in the construction of a new administration building that will be ready to occupy when fitted out. Classroom facilities inherited from the departed CAT-Team, are in poor condition, have little natural light and are often hot. These will need to be demolished and rebuilt to provide a suitable learning requirement. They have also begun construction on a 100'x36' classroom building adjacent to the administration building and have just completed a new Research lab building. The total cost estimate to meet the expansion demands (Classrooms/Dormitories) of the Yap-COM campus is **$674,806.00.** Yap-COM should also consider sharing facilities with the Yap High School to maximize on resources, i.e. library, computer labs, recreational grounds and facilities, etc.



II.4.4. COM Maritime Academy in Yap State

Marine resources are the most important natural assets of all FSM states. However the FSM is unable too fully exploit these resources for its own benefit because it does not have an internationally competitive fishing fleet. The FSM 2nd National Development Plan identified the "lack of technical and managerial training as the major bottleneck in the development of the fishing industry". Fishing vessels and equipment frequently break down due to lack of maintenance, and many small fishing businesses are short lived due to ineffective management. Training staff and retaining them within the FSM states is a pre-requisite for the development of the fishing industry. What is true for the fishing industry and their vessels is equally true of the state government run ferrying transport services. *For details on these problems, condition and recommendations, please refer to the volume in this Infrastructure Plan on Seaports and Shipping Transportation.*

The COM has taken an active role in assuming responsibility for training in the maritime industry. In 1990 the Micronesian Maritime and Fisheries Academy (MMFA) was established as an autonomous institute at Yap. The MMFA ceased operations in 1997. The reasons for its closure have not been officially analyzed but it appears financial and managerial conflict emerged between the FSM government and the Pacific Missionary Association (PMA) that managed the MMFA.

Maritime Academy is under the administrative control of the COM-FSM. Funding for the Academy is being provided by JICA. There are four JICA Experts presently assisting at the campus. Initially the campus will be the responsibility of the national campus but this may be transferred to the state level after the first year of operation. A director of the Academy (Matthias Ewarmai) has been appointed. Goals for the Academy included;

- Initial enrollment target is 50 students *(there are presently as of August 2001, 19 students)*
- Fisherman already working on boats are the initial target trainees – training will focus on safety for small boat operations
- Renovation and upgrading of facilities in Yap will enable the development of longer courses in the medium term. (*The Academy's buildings are presently undergoing renovation and particularly complete roof repair at approx. $200,000)*
- Medium and long-term objective is to produce graduates with internationally recognized training for the merchant marine industry. This will include oilers, engineers, able-bodied seaman and fisherman.
- A specific objective is to produce graduates with Class 5 Masters and Class 5 Engineers qualifications. These graduates will be qualified to work on boats up to 24 meters and will meet the needs of the FSM fishing fleet.
- Consultations with the local marine industry have suggested engineer courses be made a priority– these should provide re-training for current engineers and a smaller component of new recruits.

II.4.5. Yap State Education Facilities Total Cost Estimate

SCHOOL/ZONE NAME	TOTAL COST ESTIMATE
Ulithi High School	$1,267,450 Renovation or $876,000 New Const.
Yap High School	$1,143,310 Renovation
Woleai High School	$158,0060 Renovation / Maintenance
Waab Zone 1 (Yap Proper) Community Schools	$1,418,470
Ulithi Zone 2 Community Schools	$351,980
Woleai Zone 3 Community Schools	$230,920
Satawal Zone 4 Community Schools	$375,000
Sub-TOTAL	**$4,927,580**
Yap COM Campus Expansion	**$3,000,000**
Yap COM Maritime Academy	**$2,000,000**
GRAND TOTAL	**$9,927,580**

II.4.6. Yap State Education Facilities Maintenance Cost Estimate

SCHOOL/ZONE	Total Sq. Ft.	Maintenance Cost/Year	Maintenance Cost 15 Yrs
Ulithi High School	56,332	42,249	633,735
Yap High School	55,842	41,881	628,222
Woleai High School	14,045	10,533	158,000
Waab Zone 1 (Yap Proper) Community Schools	75,280	41,404	621,060
Ulithi Zone 2 Community Schools	20,048	15,036	225,540
Woleai Zone 3 Community Schools	15,454	11,590	173,857
Satawal Zone 4 Community Schools	16,656	12,492	187,380
TOTAL	**253,657**	**$175,185**	**$2,627,809**

II.4.7. Additional Recommendation for Yap

The Social Planning Specialist had several discussions with the Director of SEED, as well as many Principals, Teachers and concerned community members regarding the needs of their community schools. There was a strong conscience, by all stakeholders, that there is a need to include a "Cultural Multi-Purpose" building for all community schools. This building should be one in which the community decides upon the architectural design, appearance and floor plan configuration, etc. The building would be one shared by the community and school functions, often blending activities, i.e. elderly providing cultural folklore, cultural handicraft techniques, special educational lessons in awareness such as traffic safety, littering, emergency readiness and to invite other specialist on career planning, etc.

This study concurs with the above request, particularly since Yap is a forerunner in community participation in the education system in FSM. Yap's methods and ideals in community school participation can be a 'model' throughout the FSM and should therefore be encouraged to test multi-purpose buildings. The estimated cost (not included on the above table) would be approx. $50,000.00/building (about 1,000 sq. ft.) for 31 Community Schools and 1 middle school at a total of **$1,600,000.00.**

II.5. Total Costing for all FSM Education Facilities

STATE	TOTAL COST ESTIMATE
CHUUK	*$16,663,081.00
KOSRAE	$5,031,736.00
POHNPEI	**$16,161,660.00
YAP	$4,927,580.00
Sub-Total **GRAND TOTAL**	**$42,784,057.00** ***$64,784,057.00

COM-FSM	
COM-FSM National Campus and all COM State Campus	$5 million (Phase 1: 5 years) $4 Million (Phase 2: 10 years
Total for all Campuses	**$45,000,000.00 15 Years**

All FSM Educational Facilities Total	**$109,784,057.00**

* The Social Planning Specialist based the estimated total cost for Chuuk mainly upon renovation for existing building. Recommendation for new construction was avoiding in most cases (unlike other states) for two reasons. 1) There was no transportation available to visit outer islands as well as the time limitations to see all lagoon island schools. Cost figures would be skewed if only the schools visited were included for new construction cost; 2) The majority of schools in Chuuk are not free of land disputes, it was felt the state must take steps to resolve this before major new construction/expansion can be legitimately recommended. Based upon the Social Planner's knowledge of the calculation factors needed to cost-out new construction/expansion (which were calculated on present enrollment and expansion/projected needs @ a maximum of 25 students per classroom), Chuuk State would require another $9 million. In addition, The Plan recommends a new High School in either Fefan or Tonwas @ $5 million and to upgrade Faichuk Jr. High to a High School @ $3 million. Therefore, the total estimate to meet the needs for Chuuk State Elementary/Secondary education, up to 2017, is **$33,663,081.00.**

** Excludes the estimated $5.0 Million for the proposed new Pohnlangas High School.

*** Therefore, based upon aforementioned additional $17 million for Chuuk and the $5.0 million for the proposed Pohnlangas High School, the total cost estimate for all of FSM Elementary and Secondary Schools through 2017 is **$64,784,057.00.**

II.5.1. Maintenance Cost for all FSM Educational Facilities.

STATE	Total Sq. Ft.	Maintenance Cost/Year	Maintenance Cost 15 Yrs
*Chuuk	661,442	426,535	6,398,131
Kosrae	140,935	78,270	1,174,098
Pohnpei	379,225	212,591	3,188,904
**Yap	253,657	175,185	2,627,809
TOTAL	**1,435,259**	**$892,581**	**$13,388,957**

* It is ironic that the amount Chuuk State presently pays each year in school land leases/disputes comes to about the figure the Plan has recommended for a comprehensive maintenance program.

** Yap's overall maintenance cost are proportionally higher because of the greater number of outer island schools and sq. ft., as opposed the Kosrae with no outer island schools.