



SAN FRANCISCO LEARNING CENTER GABALDON CONSERVATION

CONTEXT & HISTORY OF GABALDON SCHOOLS

In the Philippines, Education is highly valued by every Filipino. It is the subconscious goal by everybody which was engraved & thought by the parents & ancestors. That's why Filipinos are well-versed in English & adopted it as its second natural language. This value is reinforced by the education system in the Philippines. The Department of Education is the same educational system established & institutionalized by the Americans when they arrived in the Philippines in 1898. Because the Americans wanted to educate the Filipinos as well as to make it easier for them to transmit their ideas of colonization, it is best to teach the people how to speak English. Moreover, Americans wanted to train Filipinos good citizenship & Governance in order to prepare them as independent & self-sufficient People.

When the Americans came in the 19th Century, one of their primary goals is to establish the education system in the Philippines. The first big delegation of educators arrived in a ship called Thomas and that's why the foreign educators were famously known as the Thomasites.



Fig. 1 The Location & Perfect cone shaped Mayon Volcano in Albay, Philippines

They needed to provide schools to facilitate the education of the Filipinos. There were existing 534 schools constructed by the Spaniards and the Americans added 1,000 more school buildings & it had steadily grew in the first 10 years. They have adopted three kinds of school buildings, the barrio school, the municipal school, and the group of high school buildings.

Starting 1900s, they built sturdier schoolhouses that later known as American Colonial Schools. A well known American Architect and Yale University Graduate named William Parsons was commissioned in order to design several proto-type designs for the schoolhouses. There were twenty prototypes made that varies from one classroom to more than ten classrooms. Prototypes were designed also for Elementary Schools and High Schools. And in 1907, Assemblyman Isaura Gabaldon allotted a budget of One Million Pesos or 60 Thousand Dollars for the construction of these prototypes all over the Philippines. These schools were later known as "Gabaldon Schools".

The schoolhouse prototypes ranged from 2 to 20 classrooms & depending on the budget & requirements, these are normally in straight, L-shape, U-shape & square with a courtyard in the middle. The materials were made of wood or concrete depending on the availability of materials in the vicinity. The roof is normally made of Corrugated G.I. sheets on a truss system made of wood members. There are two distinctive construction system of a Gabaldon school, one is the vertical member of truss is made of round steel bars & if the walls are made of concrete, it is made of reinforced concrete built-in wall. See Fig. 2.



Fig. 2 Gabaldon type Standards (from top, clockwise) Type 1, Type 2, Type3, High School Type, Elementary Type & Type 6

In 2003, The Department of Education has allotted budget for the conservation of several Gabaldon schools in order to commemorate its centennial celebration. The Gabaldon School is projected as the Image of the department & icon of education system. Since most of the Gabaldon schools are left abandoned & deteriorating, restoring these schools will add more classrooms for the public schools which are a current problem in the education system. The restored Gabaldon School will also be the central hub of the campus as it will house not only classrooms but also the common facilities making it ideal for all the students to use & appreciate an old school.

In 2006, Philippines was hit by a strong typhoon called "Reming" & the place that was hit most is the province of Albay. The Gabaldon Schools were hit hard & left with great damage. One of these is the San Francisco Learning Center in Malilipot, Albay. Malilipot, Albay is located in the southeastern part of Luzon, the biggest island north of the Philippines. See Fig. 1. It faces the Pacific Ocean so typhoons frequently strike the area & the area is hit first once the typhoon enters the country. It is in the Bicol region & incidentally it produced one of the Secretaries of the Department & the place was even planned to be the location of the Department. It shows that the region is producing or maintaining a better education system. In fact, the school has long since implemented the Instructional Management by Parents, Community and Teachers (IMPACT) program since its launching in 1981. Three years ago, the school has undergone changes, with the Revised Basic Education Curriculum or RBEC. The learning materials of the IMPACT system were subjected to evaluation and revision to match the competencies of RBEC. In addition, the learning materials are now supported and enhanced by educational technologies such as the computers and audio video instructional materials. These technology based enhancements led to the new name E-IMPACT.

THE DOCUMENTATION / CULTURAL HISTORIC VALUES

In the collection of data for the said building, historical accounts were gathered only through interviews but an immense data on the History of Gabaldon schools are available. Even the design standards of the building, landscaping & site development were collected and used for the conservation study of the building. There are

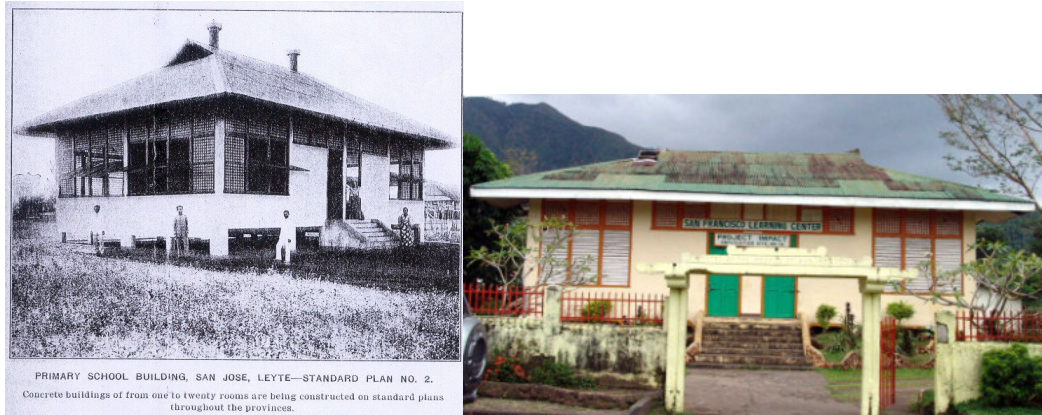


Fig. 3 Old Picture Type 2 Gabaldon (Left) & existing Type 2 Gabaldon San Francisco Learning Center, Albay

no available old picture of the building itself but other schools of the same type were found that was used also as basis for the restoration of the façade.

The Cultural Value

In the documentation stage, the most worthy data gathered is the historical account on the designs of the building & its site development. Since the intention is to educate the Filipinos well, the only effective way to achieve it is to build structures that is conducive to learning. **Effective Education through a well designed school house that is conducive to Learning.** And in order to do that is to have a well ventilated & lighted school building. Plus, it should be durable enough for at least 50 years as they discovered that frequent repairs delays & decreases the quality of education. The building has to be dignified & monumental in order to attract students & it has to be the prominent structure in the locality during that time. That's why Gabaldon sites have wide front lawns & nice landscaping. Since there was a mass production of schools to be made, standard designs were produced. Basic & simple designs with inclusions of value engineering were created making it attractive yet economical. These ideas can be the basis of motivation for the conservation of the old school. As it is only the spacious covered structure in the place, it was frequently used for town meetings, performances & special events. As the research & documentation progresses, the memory accounts from the alumni showed how important the Gabaldon school for them & the locality. Students studied in the Gabaldon Schools have more superior intellectual level. And today, numerous foundations headed by prominent alumni were formed in order to restore & maintain their Gabaldon schools.

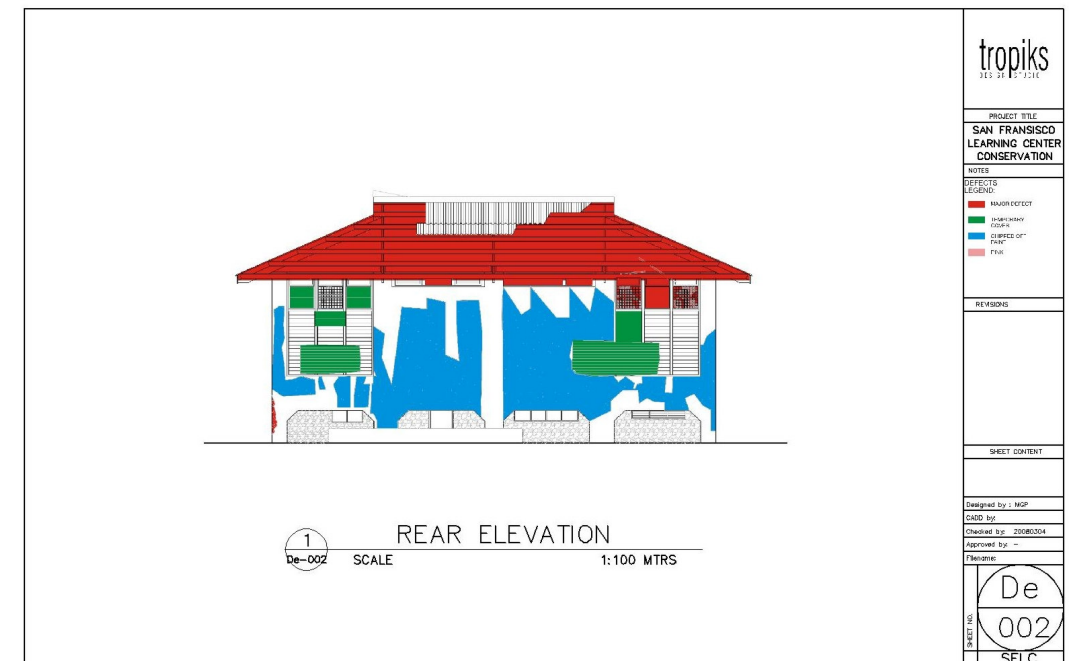


Fig. 4 Color Coding of Defects at the rear portion where it was damaged heavily by the typhoon

Based on the Gabaldon History, the cultural values are reflective to all Gabaldon Schools constructed from 1901 up to 1935 or before World War 1. So, when a Gabaldon School is studied & conserved specifically the San Francisco Learning Center, it has to be kept in mind to consider all these values whether small or big Gabaldon school.

History of Interventions

When typhoon "Sesang" hit the country in 1975, the capiz awning type windows were destroyed and it was replaced by the current wooden jalousies. The ceiling material was replaced to plywood & ceiling eaves made of plywood & wooden fascia was placed also. In the 1980's, the semi-basement which is 1.5m high was converted into a canteen. In an unknown date, the right classroom was converted to computer room and they added mezzanine for storage. The left-wing was converted into Principal's room and they added a small Toilet in the corner of it. It also has a new waving landscaping in the front of the building.

Description of Building

The school is two-classroom structure & categorized as Gabaldon Type-2 building. It has of floor area 132 SQM making the area of each classroom at 66 SQM. It has a ceiling height of 4.2 mtrs. & the first floor is raised by 1.5 mtrs from the Natural Grade line. The building was constructed as permanent building that is made of concrete & wood. The columns, beams & walls are made of reinforced concrete. It is distinct to have a reinforced concrete wall making the whole structure framing more rigid. With this, the walls act both as frame & beam therefore reducing the size of the concrete beams. It has no roof beam as the trusses rest on each column making unnecessary to put up one. The foundation is made of concrete with big stone aggregates but without reinforcements and it is embedded one meter deep. In this school, they have put up basement exposing the inner foundations. It was supported then by reinforced concrete wall. The semi-basement wall is made of concrete hollow blocks to hold off the natural soil. The floor joists, flooring, interior wall, door, window, ceiling & trusses are made of wood. The floor joists are made of hardwood while the T&G flooring, interior wall panel & ceiling nailers are made of Tanguile finishing wood. The doors are made of hardwood built in solid door panels. The remaining part of the window is the transom which is made of wood & Capiz shells as glazing. Through old pictures, the window has the same material in awning type style. It is said to be awning as evidence of awning mechanism can be seen in the existing window jamb. The truss is a combination of wood & wrought iron rods. The roofing is made of corrugated iron sheets with a thick gage. The wooden jalousie is a replacement already when the capiz awning was destroyed. There were traces of the downspout & gutter even if nothing is left as it can be seen from the remaining metal gutter holders & holes at the concrete wall that serve as the nail anchorage of the downspout. The existing color of the building is off white for walls,

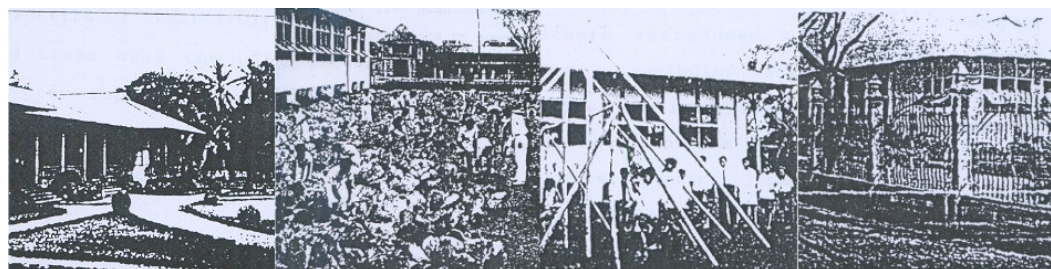


Fig . 5 Old Pictures of (from left to right) Front lawn landscaping, Garden, Playground & fence

ROOM EQUIPMENT CATALOG		DESCRIPTION OF CONSTRUCTION/ CONDITION/ DAMAGES/ MEASURES/ QUANTITIES										PRINCIPAL'S OFFICE	SHEET NO.			
Project: San Francisco Learning Center Gabaldon		LOCATION/ BUILDING:					ROOM NAME:									
SKETCHES WITH MAPPING DAMAGE: INTERNAL ELEVATION, DETAILS CONSTRUCTION JOINTS													LEGEND FOR COLLECTION IF CONSTRUCTION UNITS			
WALL A													No.	CONDITION/DAMAGE	No.	REPAIR/MEASURE
													1	Not Accessible	1	Uncovering
													2	Re-usable	2	Re-use
													3	No damage	3	Nothing Necessarily
													4	Dirt	4	Clean
													5	Damp	5	Rust Proofing
													6	Corroded	6	Adjusting
													7	Uneven/ Warped	7	Renovation
													8	Crumbly/ Flaking	8	Consolidation
													9	Loose	9	Bonding Injection
													10	Wood damaging Pest	10	Wood Protection
													11	Joint Failure	11	Repointing/ Grouting
													12	Crack	12	Filling w/ wooden splint
													13	Rupture	13	Reinforcement
													14	Unsound/ Rotten	14	Removal
													15	Missing	15	Completion
													16	Not Re-usable	16	Adding Structure
													17	Historically Valuable	17	Coating
													18	Chipped off	18	Wax/ Finish
													19	Holes	19	Sanding
													20		20	Plaster Base
													21		21	Protection
													22		22	Gravel/ Crossbreed/Gasket
													23		23	Retraining
													24		24	Re-paint
													25		25	
													26		26	
													27		27	
													28		28	
													29		29	
													30		30	
WALL A		sgm	T	W	H	ln/sgm	CONDITION	ln/sgm	MEASURE	ln/sgm						
CONSTRUCTION	Mineral	Concrete / Layer - Cement, sand, aggregate, twisted square bar	0.3	0	4.2	13.8	3									
	Organic															
FRAME FILLING	Mineral	Concrete / Layer - Cement, sand, aggregate, twisted square bar					3									
	Organic															
PLASTER BASE	Mineral	Cement														
	Organic															
	Other															

Fig. 6 Room Equipment Catalog based from Konrad Fischer's Method

Orange for the window & door jambs & apple green for the doors. When parts of the building were scraped to reveal the original colors, the assumed colors based on other Gabaldon schools were discovered. The walls are colored off white beige & the windows & doors are colored choco brown.

Site Description

The building is located at the main entrance of the school & offset by 20 mtrs from the street. It has a front lawn & a central driveway. New landscaping is placed already in the front of the building. The site has retained big open playfield at the back portion & gardening & nursery are located at the back part of the lot. See Fig. 5 for the old pictures of a typical Gabaldon site.

Authentic Parts

The authentic remaining part of the building are the concrete parts, the wooden flooring & frame, doors, Window transom made of Capiz, ceiling nailers, interior wall partition, truss system & parts of the corrugated iron roofing sheets. The original use of the rooms were classrooms & it was last used as Principal's Office, Computer room & canteen at the basement.

Legal Protection

Since the school is under the administration of Department of Education, it has the responsibility to preserve the Gabaldon schools & the institution really recognize the Historical value of it but there are no written laws stating the protection & preservation. There are several efforts to pass a legal protection such as the bill proposed by CONGRESSMAN FLORENCIO "BEM" G. NOEL on May 31, 2005 with a full title: AN ACT PROVIDING FOR THE REHABILITATION AND REPAIR OF GABALDON SCHOOLHOUSES NATIONWIDE, APPROPRIATING FUNDS THEREFORE AND FOR OTHER PURPOSES.

The bill seeks to rehabilitate and repair the "Gabaldon schoolhouses" nationwide to preserve their historical significance and to address the need for more school buildings. Unfortunately, it has passed only up to second reading. The National Historical Institute also recognizes the value of the Gabaldon School issuing letters of their importance & value but it's not under their protection since it's not filed yet to them as historically important structure to preserve.

EXISTING CONDITION

Existing Building Condition

Since the typhoon in 2006 destroyed the roofing & consequently the interior wooden parts of the building, it was left to its current state of continuing deterioration due to exposure to weather. But before that, the additions & repairs of the building were dictated by low budget & lack of knowledge of its architectural use & value resulted to a distasteful restoration of the building thus reducing the character & original intention of the Gabaldon School. The documentation of the building aims to discover the authentic parts of the building, identify the later additions & pinpoint the damages incurred by the building after it was destroyed by the typhoon. The methods used are verification of the old photographs, studying the other existing gabaldon buildings in the vicinity, color coding the materials, authenticity, and defects, & using the Room Equipment Catalog that became very useful in the identification of works to be done & its cost. See Fig. 6.

The building's condition can be summarized as a result of the damages caused by the typhoon. It caused the roofing to be ripped out & destroying half of the purlins & some parts of the end rafter. The damaged part is located at the rear portion as the wind came from the big open playfield. See Fig.7. Other parts destroyed due to the typhoon are the new ceiling eaves, half of the plywood ceiling w/ nailers & some capiz transom windows. Since then it was not repaired and when it was visited & studied last December of 2007, continuing deteriorations due to exposure to rains were found out. The most deteriorated one is the flooring & wood floor joists. Some floor joists are in wet condition making it soft leaving some floor areas sagging and



Fig. 7 (left) Back portion heavily damaged while interior (right) is exposed to weather.

hazardous to walk on. The wooden trusses are constantly exposed to rainwater making the joints where the bolts & wrought iron rods are located stagnated with water. The said metal parts became rusted too due to this condition. The basement walls & flooring became dirty & moist as rainwater end up on this lower floor. The concrete exterior & interior walls have molds due to the rainwater that drops directly to it without eaves. There are still some metal gutters in the end rafter that proves it has gutter before. This is supported by the evidence of the holes left by the downspout holders. See. Fig. 8 for building Materials Analysis.

The new wooden jalousie windows were temporarily locked by nailing solid wood for security reasons. The additional Toilet placed on top of the wooden flooring has left deteriorations in its sub-support due to water leaks. These leaks created damage also to the reinforced concrete wall that can be seen from the exterior part of the building. The additional storage room & attic when the other classroom was converted into a computer room made the room dark & produced additional loading to the structural system. The new color combination of off white, Orange & apple green were assigned by the Municipal Government who sponsored the re-painting. It is found out that the color scheme is the color theme of the Mayor's Image. That's why other buildings in the vicinity whether old or new have the same color combination.

Existing Site Condition

There is a new entrance arc constructed in unknown date placed directly in front which blocks the view of the Gabaldon building. A concrete pavement was added in front driveway that fits only for the two wheels of a car. The Flagpole in front was removed & only the pedestal is left intact. A new planter box with contemporary design of wavy riprap wall was constructed in front of the building. The playfield at the back was cemented to give way for the basketball court & being used as school assembly area.

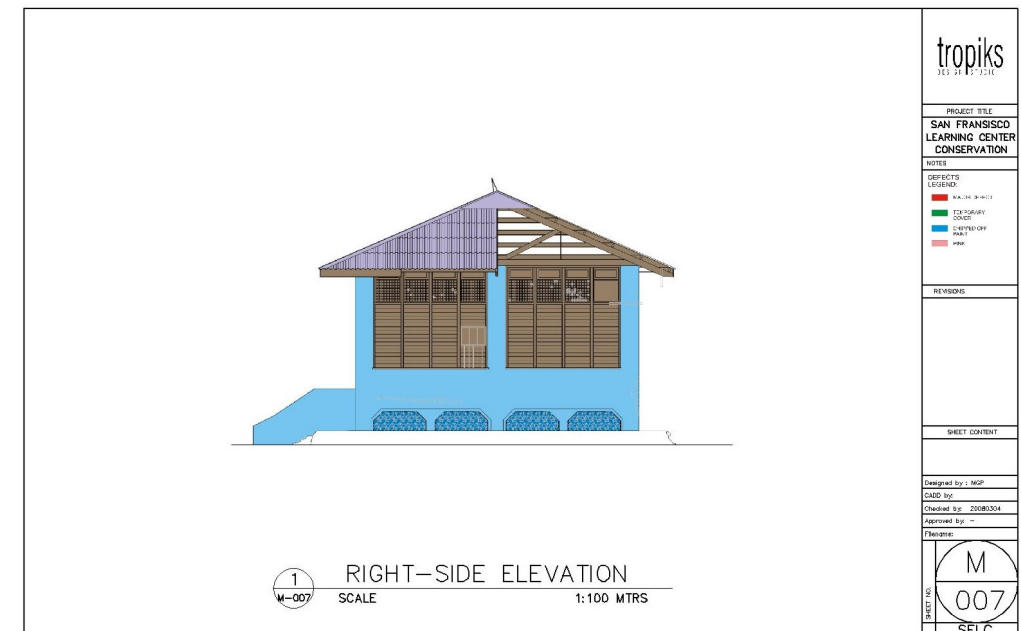


Fig. 8 Color coding of Materials

Funding Resources

Due to lack funds of the school, the principal requested for the assistance from the Chief Officer of the Secretary of Department of Education who is alumnus of the school. He has allotted a budget for it but when he resigned mid-2008, the funding was shelved. The PTA or Parent-Teacher Association has to raise additional funds for the repair of the school building. Instead of major restoration, I suggested to the Department to allot budget initial repair works enough to prevent further deterioration & make it usable.

ANALYSIS

The conservation work will take into account the original intent of the design of the Gabaldon School that is a **School CONDUCIVE TO LEARNING in order to teach & prepare Filipinos the ideas of good citizenship & governance. The design of the building maximizes natural air ventilation for the students to have a cool & pleasant environment.** This is achieved by providing high ceiling for hot air to go up, awning windows to take 100% air flow & raised flooring for air to circulate around the building. The students experienced also visual comfort as they are not hit directly by sunlight. The capiz shells in the windows produced a pleasant opalescent light. The school building was built to be last a long time by using durable materials. It was also ECONOMICAL as it used local materials, employed local workers & accepted volunteer students & locals to help in the construction at the same time value engineering was introduced. The building was designed to be termite-free even if it's made of wood. This is done by raising the floor so that the columns below can be checked if termites are going up to the structure. The site still has the characteristics of having an imposing structure as it has retained the wide front lawn & open playfield at the back. Retaining it will be useful in educating the people that intellect can be gain not through number of school buildings but through how conducive to learning the place is. These ideas have to be considered in the conservation program of the Gabaldon School.

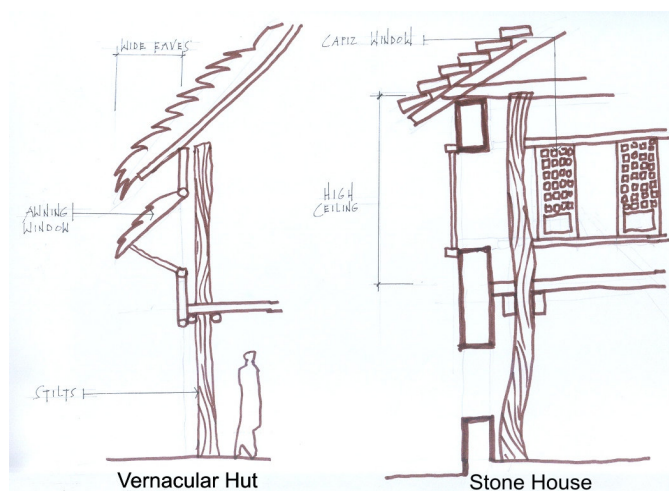


Fig.9 Design Ideas extracted from existing structures

Phases

But due to budgetary constraints, three phases are proposed. First is the immediate repair of the building to prevent deterioration & make it usable. Second is the completion of the conservation program. Third is to ensure continuing maintenance program by educating the Teachers, students, alumni & community the importance & how to maintain the Gabaldon School.

Design Inspirations from the Heritage School

As a practicing Architect, it is natural to get inspirations from the designs of old structures. With the data gathered from this Gabaldon school/s, abundant design inspirations were gathered that will help me in my future designs as well as for other architects & students learn from these concepts. First, the measurement of the school was also based on the available sizes & strength of wood. They used a module of 7x9 mtr classroom as the wood can have a good carrying capacity span of 3 -3.5 mtrs which is divisible to 7 & 9 mtrs. Second, value engineering was introduced by designing the building's structural frame to be a rigid type thus eliminating the need for roof beam. Third, whenever possible the pattern of the windows are perfect square in order to achieve that classical proportion and also no unnecessary walls were created by placing the windows directly adjacent to the columns. Fourth, the use of awning windows has two-fold effect. One, it provides 100% air intake and two, it bounces the direct sunlight & reflecting it to the ceiling giving additional indirect lighting inside. See Fig. 10. Fifth, the truss used wrought iron rods as vertical members which is still unknown today on its use. But with the analysis done on the forces reacting on the truss through the use of drawing, it is found out that the vertical members of the truss act as tensioning member instead of compression as the popular knowledge goes. With this the use of steel is appropriate as it is good in tension.

Design Evolution

It is also good to consider the origins of the designs used in the school since Gabaldon schools are designed by the Americans but no structure of these types can be found in America. See Fig. 9. And historically, the building designs were intended to adapt to local condition & the only way to do that is to be inspired from the previous existing structures in the Philippines which are the "Bahay Kubo" Vernacular Hut & "Bahay na Bato" Stone House. The raised flooring & awning windows of the Gabaldon School were extracted from the stilts constructions system & awning windows made of leaves of the vernacular Hut. This provides good air

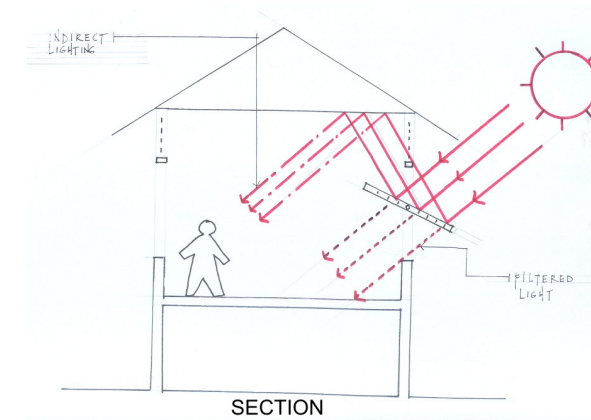


Fig.10 Lighting effect of Capiz awning type window

ventilation to the building & protecting it from other elements such as animals, termites, even people, etc. The high ceiling, Capiz windows & wooden door panels were inspired from the Bahay na Bato. Of course the high ceiling helps in cooling the interior but what is significant is the capiz windows which diffuses the direct sunlight eliminating the glare thus providing pleasant visual appeal inside the classroom. The bahay na bato is known also for its solid beautiful doors and it was adopted also by the Americans in these school buildings for longevity & security reasons.

ACTIONS

Awareness through Seminar

While the Conservation study is being undertaken, a heritage awareness campaign was conducted among the people involved in the conservation. These people are the Teachers, students, Parent-Teacher Association, Barangay Officials, Alumni & Neighborhood. A conservation lecture was given that tackles on the History of Gabaldon schools, its Values & the Conservation Process. See Fig. 11 Several lessons learned were taken from the said



Fig. 11 Gabaldon School Values & Importance of Conservation Lecture given to the Principal, Teachers, Parent-teacher Association, Parents, Barangay Officials & students.

lecture after their reactions were heard. First, the basic thing of History of Gabaldon should be spread as it enriches their idea of the value & importance of Gabaldon. Second, the idea of conservation is clarified to them as they thought that it can be done by anyone & now they that there has to be a study before implementing anything in the old structure. This thing helped a lot in their cooperation for the restoration of the structure & also will prevent future unstudied intervention. Third, it showed the potential immense human resources in the maintenance of the building by stimulating them to participate in the conservation & maintenance of the structure.

Conceptual Stage

Since the use will not be altered, it was also considered to study the functions of the rooms. A space programming was done for the new functions that will be used in the two classrooms. These are the Principal's Office & Computer Room. Originally, the rooms are plain classrooms. It is found out that the computer room will have 20 computers and if placed along the wall, the awning windows might hit the computers so, island type computer tables were proposed. It will entail also lots of wiring & cabling works so raised flooring is proposed so as not to damage or alter the original flooring & for easy access & maintenance for the wires.

Before the conservation planning started, it was kept in mind the values & original intent of the building in order to come up again with a conducive learning environment. Schemes for the plan of the building & immediate site development were proposed to the central Office & also to the stakeholders of the school & they readily approved it. It is important to come up with a master plan for the campus in order to prevent construction of new building without respect to a historical building, worse they might even put up buildings in front of the old building as what happened to other old structures in the country. In order to come up with a master plan for the campus, History of construction of the buildings were analyzed and even without any written documents, the school officials agreed on the stages of the construction. From this analysis, the building growth & pattern were produced. Basing from historical data that the Gabaldon is the center piece of a site, the analysis proved that as the other buildings were constructed around the original Gabaldon School. See Fig. 12.

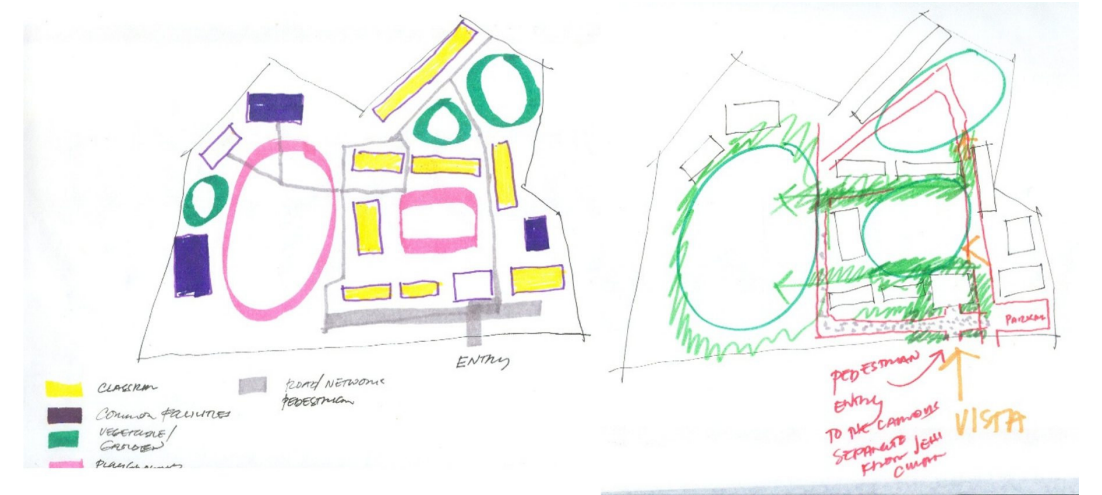


Fig. 12 Schematic study of the School Campus Historical Development & Conservation

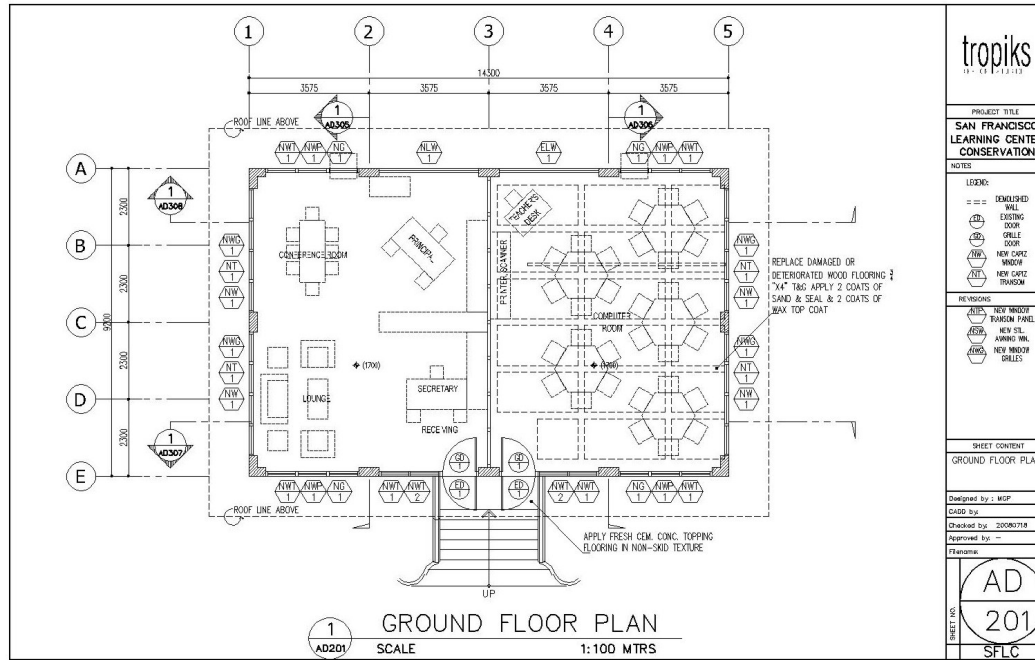


Fig. 13 Proposed Conservation Plan for the school

The first thing that was taken into consideration is the current interior condition of the rooms. Since the windows were replaced with wooden jalousies it became dark & air circulation is limited. In order to solve this, the reconstruction of the awning capiz windows is proposed. This will provide again good ventilation & pleasant atmosphere to the classroom thus making it conducive for studying again. This will bring back the fond memories of the Alumni who studied in a Gabaldon school. It will then be enjoyed & experienced also by future students of the school. But restoring the capiz windows is not an easy task as it is quite expensive to make. Local artisans will be tapped again to make this kind of windows thus reviving the industry as it will not be done only for this building but also to the thousands of other Gabaldon schools. Historically, it was part also in the students' workshop to repair a capiz window. So, it's an opportunity for the students to learn this craft at the same time strengthening the maintenance workforce of the building. But in order convince the people on the usefulness & effectiveness of the capiz window to ventilate a room, I have made a scientific of the airflow inside a classroom using capiz awning type windows. This will help convince the stakeholders to use again the capiz windows. To make it identifiable as reconstructed one, the interior side shall be stained natural finish while the exterior is semi-gloss painted as protection against dampness. See Fig. 13.

Repair works

Most of the repair works will be done on the wood. With prevention of deterioration first in mind, the repair of the trusses will be done first in order for the new roofing will be installed. See Fig. 14. A wood joint repair schedule was created so that there's a standard reference repair for wood and this will be useful also to other Gabaldon schools conservation. See Fig. 15. Missing wood purlins will be replaced with new ones & the destroyed end rafter will be replaced with a jointing system depending on the extent of the damage. It can be

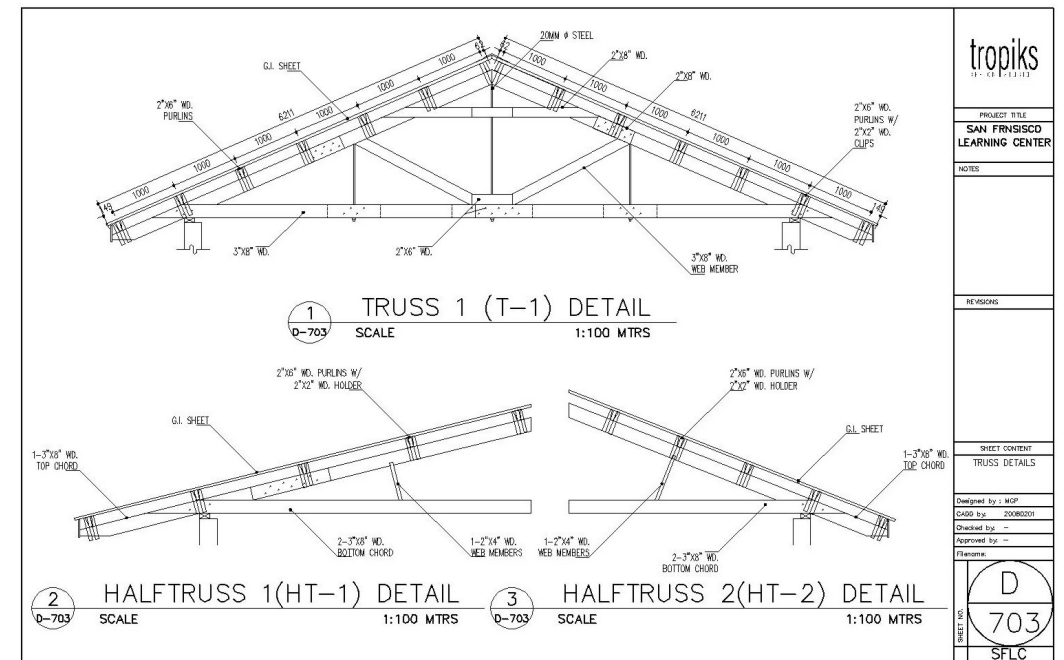


Fig. 14 Proposed truss repairs

then verified from the wood joint repair schedule. The trusses will be cleaned to see if there are deteriorations or termites especially in the joints where the Machine bolts are located. If these joints are found to be deteriorated, bolts will be unbolted & repair works will be done based on the extent of the deterioration. If there is only a stagnation of water in the joints, bolts will be unbolted then it will be dried up by blower & constant wiping of the interior to suck the water. After these, it will then be applied with 3 coats of preservative locally known as Solignum to protect it from termites. Once done, a thicker corrugated iron roofing sheets will be installed that is pre-painted & short-span instead of long span. Short-span roofing can be readily available if it will be replaced in the future. The new ceiling eaves will be removed as theorectically it might be also the cause why the roofing flew off, Instead of the wind passing through the roof interior, it just lifted the eaves together with the roofing as can be seen in the damage. Without the eaves, the air will flow directly inside the roof, blowing off hot air stored there. Historically, Gabaldon schools have no eaves and if there is it is made of wood strips spaced with big gaps to let the air to flow. New roof Louvers will be added in the left & right sides. The capiz panes shall be cleaned by using soft toothbrush with soap & water. The oldness will differentiate it from the new capiz panes.

The damaged ceiling nailers will be re-aligned & deteriorated ones replaced. Before, the ceiling is made of T&G wood but due to its expensive cost, 6 mm Ficemboard in 1200x1200mm module will be placed in order to identify it's a contemporary one. The missing parts of the interior wooden wall partition will be substituted with new ones but will be differentiated from the existing ones with the type of joint to be used. The additions to the structure will be removed as it caused deteriorations & further damage. These are the Toilet & the attic storage in the computer room. With these, the former will eliminate further deterioration of the

New Design & Technology

WOODWORKING LIST mapping system for the necessary remodelling						
Building Part : TRUSS						Sheet
1	2	3		4		5
Damage Type	Description of Damage	Building Damage	Repair Description	Building Repair	Repair Number	Mapping Samples
1	Damaged end part of rafter or top chord		Half-lap joint w/ 6 machine bolts or Nails spaced as shown. 2 x		1	
2	Missing or damaged all bottom part of rafter or topchord		Butt Joint with fish plates w/ 8 machine bolts. 4 x		2	
3	Missing or damaged part of Purfin		Splayed Scarf w/ shoulders either bolted or nailed to the topchord.		3	

Fig. 15 Wood working list for the repair of wood derived from the method of Konrad Fischer

flooring & the latter's removal will bring back again the cross ventilation inside the room & making the room brighter. The basement will be retained as usable space for canteen but cooking will not be allowed as it might pose fire hazard to the building. The existing foundations were studied & there are no cracking have been traced so the structure is safe.

The dirty & mold stricken floor joists will be cleaned first in order to expose the existing condition & check if there are deteriorations. Once deteriorations are detected and based on its condition, repair works will be done based from the wood repair schedule. The sagging flooring is caused mainly by the defective bridging & deteriorated ends of the floor joists. So, it has to be checked first when repair works start. For the T&G flooring, it is best to re-use the flooring and if found defective, minimal replacement should be done & a standard floor replacement pattern was made to be used as reference. Normally, carpenters will only replaced a certain area, and without regards to aesthetics they will make patches of squares & uneven materials making the building look old & deteriorated.

The concrete walls will be cleaned first by using pressurized water to remove the molds & stains before painting. The big cracks will be cleaned first with pressurized air, inject with structural epoxy & top it with cement plaster. Chipped off concrete will be plastered and the holes for the downspout holder will be left as is in order to indicate its use before. There are no signs of spalling which is a normal defect of old concrete structures.

To address security, weather & electrical engineering issues, there are some new elements & details that have to be added to the building but considering in mind that it has to be distinguishable, complementing & sympathetic to the old building, & long lasting. In the windows, security grilles were added but making sure the awning windows are easy to operate by placing the upper grilles in the exterior side & the lower grille in the interior side of the window jamb. It can be verified in the detailed drawings. Security grille doors were also placed as requested by the Principal. It is located in the inner side of the building so that the original wooden door can be seen from the outside. Its pattern is in lattice type inspired from the pattern of the lattice capiz windows. Discrete small eaves was placed in the front entry doors so that the students will be protected from the rains when entering the rooms. It is made of acrylic plastic on metal frames colored darker choco brown. From afar it can be identified as part of the Capiz window transom frame above making unnoticeable but looking closer you will find the difference by the darker shade of choco brown. The computer room will need a lot of wiring & cabling & in order to hide it & prevent intervention on the existing flooring, raised flooring is proposed in order to store the wirings. It is made of 20mm thk marine plywood in actual side spaced at 100mm from each other. The spacing in between will be the wiring duct & to be covered with wooden planks stained in different color from the plywood creating a grid like pattern in the flooring. With this type of flooring, it will be easy to put island type Computer furniture. The computer furniture were designed inspired from the gabaldon system of construction that is durable, materials easily available & forms are functional. See Fig. 16. Since the Department of Education ordered the use of energy saving lights in all schools, a specially designed lighting fixture was created. A pair of hat-type light reflector will be used to house the light & connected together by a steel hollow pipe that goes down from the ceiling by 1.2 mtrs, these pipes are cut based on the commercial

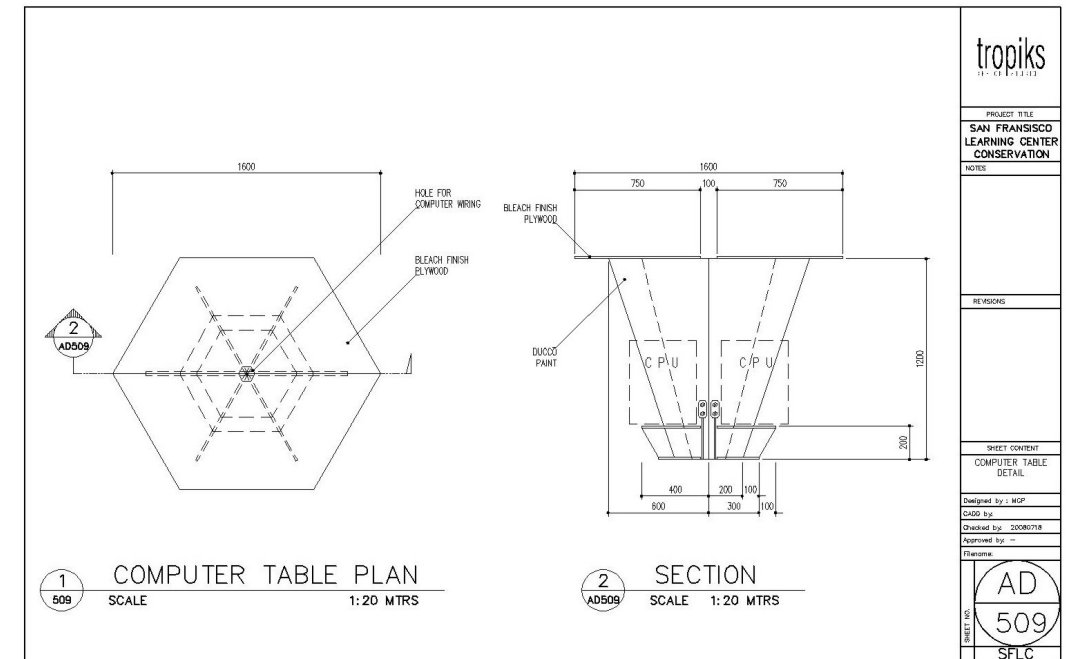


Fig. 16. Computer Table Design inspired from the old building's construction system

size so, no part is wasted. This design is reflective of the old chandelier type lighting normally used in the corridors of the old school.

Color

The color to be used shall be the original color that was taken when the walls & windows were scraped. The wall was originally off white beige while the windows & doors are colored choco brown and this will be the same color to be applied except for the new awning capiz windows as the interior side will be stained natural color in order to show that it is a reconstruction. The Metals such as the window & door grilles, & entry cover shall be colored darker choco brown to make it unnoticeable. The roof shall have the same color green and can use the manufacturer's standard color green.

Site Development

As site grounds & landscaping are part of the historical design requirements of a Gabaldon school, it is proposed to develop the master plan campus using these concepts. The existing plants & plant box which are not original that surround the building will be removed and it will be planted with hedges half a meter from the building. The new hedges to be used shall be vernacular or endemic to the place such as santan, san Francisco or golden duranta. The front walkway will be planted with different type of ornamental hedge making it attractive. A pocket of clustered plants will be placed in the corners to provide highlight. All these, are part of the historical design requirement for school grounds requirements.

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT COST		TOTAL COST		GRAND TOTAL
				MATERIAL	LABOR	MATERIAL	LABOR	
	NSW 3(1.620m x 1.150m = 1.86sq.m. each)	set	2.00	2,790.00	502.20	5,580.00	1,004.40	6,584.40
	Replace missing capiz pane	pcs	182.00	95.00	17.10	17,290.00	3,112.20	20,402.20
	Replace damaged top frame/Truss Platform 3"x4" Wood	bd.ft.	47.40	120.00	21.60	5,688.00	1,023.84	6,711.84
	Door Lockset							
	Stainless Steel Door Pull w/ Padlock	pcs	3.00	580.00	104.40	1,740.00	313.20	2,053.20
	Window Awning Accs							
	12" Hook & Eye	pcs	112.00	25.00	4.50	2,800.00	504.00	3,304.00
	Steel Middle Hinge	pcs	56.00	35.00	6.30	1,980.00	352.80	2,312.80
	Sub-total							204,572.29
6.00	Carpentry & Woodworks							
	<i>Structural</i>							
	Replace damaged & deteriorized Floor Framing							
	2"x8" Hardwood Floor Joists	bd.ft.	170.00	120.00	21.60	20,400.00	3,672.00	24,072.00
	2"x2" Hardwood Bridging 1	bd.ft.	17.00	120.00	21.60	2,040.00	367.20	2,407.20
	2"x4" Hardwood Bridging 2	bd.ft.	20.00	120.00	21.60	2,400.00	432.00	2,832.00
	Nails	kg	5.00	75.00	13.50	375.00	67.50	442.50
	Rehabilitate Wooden Trusses							
	2"x6" Hardwood Purlins	bd.ft.	280.00	120.00	21.60	33,600.00	6,048.00	39,648.00
	2"x2" Hardwood Purlins	bd.ft.	28.00	120.00	21.60	3,360.00	604.80	3,964.80
	3"x8" Hardwood Truss Chord Member	bd.ft.	31.95	120.00	21.60	3,834.00	690.12	4,524.12
	Nails	kg	3.00	75.00	13.50	225.00	40.50	265.50
	<i>Architectural</i>							
	New Interior Wooden Wall							
	2"x4" Wood Frame	bd.ft.	40.00	120.00	21.60	4,800.00	864.00	5,664.00
	1/2"x6" Bead Design T&G	bd.ft.	50.00	120.00	21.60	6,000.00	1,080.00	7,080.00
	2"x2" Wood Frame	bd.ft.	40.00	120.00	21.60	4,800.00	864.00	5,664.00
	1"x1" Quarter Round Wood Moulding	bd.ft.	50.00	120.00	21.60	6,000.00	1,080.00	7,080.00
	Nails	kg	3.00	75.00	13.50	225.00	40.50	265.50
	Replace damaged or Deteriorated 3/4"x4" T&G Flooring							
	3/4"x4" T&G Wood (tongue)	bd.ft.	1,051	45.00	8.10	47,295.00	8,513.10	55,808.10
	Nails	kg	3.00	75.00	13.50	225.00	40.50	265.50
	New Wooden Raised Platform for Computer Room							
	3/4"x4"x8" thick Marine Plywood	pcs	38.00	895.00	161.10	34,010.00	6,121.80	40,131.80
	Nails	kg	3.00	75.00	13.50	225.00	40.50	265.50
	Refurbish Ceiling Nailers							
	2"x4" Hardwood Nailer	bd.ft.	30.00	120.00	21.60	3,600.00	648.00	4,248.00
	2"x2" Hardwood Nailer	bd.ft.	30.00	120.00	21.60	3,600.00	648.00	4,248.00
	Nails	kg	3.00	75.00	13.50	225.00	40.50	265.50
	6mm thick Ficebnd in 1200mmx1200mm Module w/ 6mm Gaps							
	1/4"Thk x 4"x8" Ficeboard	pcs	96.00	980.00	68.40	36,480.00	6,566.40	43,046.40
	Nails	kg	3.00	75.00	13.50	225.00	40.50	265.50
	New Wooden Louver Vent	set	2.00	560.00	100.80	1,120.00	201.60	1,321.60
	1"x2" Wood Chicken Wiremesh Holder	bd.ft.	53.00	80.00	14.40	4,240.00	763.20	5,003.20
	Sub-total							258,778.72

Fig. 17 (left) Part of Detailed costing

The Cost

An estimate was done in order to achieve this conservation program. The total Estimated construction cost P1.5M pesos (\$30t). This is half the price if the same area of school will be constructed and this is a normal requirement in the Department of Education if a structure will be repaired. In short, the budget is passed the requirements. But due to political reasons, this school has low priority. This calls for the First Phase to come up a usable school with preventions of further deteriorations. The first phase will involve repair of wooden trusses, repair of existing roofing, new roofing for the half part, repair of existing wooden jalousies, repair of floor joists if there are any, some electrical works, rehabilitation of interior partition & painting works. This phase will amount to P300T or (\$6T) only. With this, the Department can allot budget for the initial repairs.



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF EDUCATION
PHYSICAL FACILITIES AND SCHOOLS ENGINEERING DIVISION
DepEd Complex, Meralco Avenue
Pasig City



PROGRAM OF WORKS
DepED-2008-Region V-Albay Division

School: SAN FRANCISCO LEARNING CENTER	Date: SEPTEMBER 8, 2008
Region: V	Budget Allocation: PHP 2,660,000.00
Division: ALBAY	Estimated Government Expenses: PHP 93,100.00
Project Title: CONSERVATION OF SAN FRANCISCO LEARNING CENTER	Approved Budget for Contract: PHP 2,566,900.00
Plan: MALILIPOT, ALBAY	Completion Period:
Location: MALILIPOT, ALBAY	Minimum Required Manpower:
	Minimum Required Equipment:

Item I.D.	Item Description	% of Total	Unit	Quantity	Total Cost	Remarks
I. DIRECT COST						
1	Siteworks	0.008	lot	1.00	10,856.00	
2	Demolition & Removal	0.011	lot	1.00	15,500.00	
3	Superstructure	0.001	cu.m	0.12	1,642.00	
4	Substructure	0.013	sq.m	86.00	19,632.20	
5	Doors and Windows	0.144	lot	1.00	204,572.29	
6	Carpentry & Woodworks	0.182	lot	1.00	258,778.72	
7	Steel Works	0.058	lot	1.00	83,197.32	
8	Moisture Protection	0.080	sq.m	269.00	114,271.20	
9	Finishes	0.145	sq.m	1,181.00	205,718.00	
10	Miscellaneous	0.024	lot	1.00	33,795.20	
11	Plumbing	0.000	ls	1.00	0.00	
12	Electrical	0.073	lot	1.00	103,186.00	
13	School Involvement	0.000	ls	1.00	0.00	
	Sub-Total				1,050,146.93	
II. INDIRECT COST 21% of (I)						
	Overhead Expense (5%)	0.037			52,507.35	
	Contingencies (3%)	0.022			31,504.41	
	Miscellaneous (1%)	0.007			10,501.47	
	Contractor's Profit (12%)	0.089			126,017.63	
	Sub-Total				220,530.85	
III. TAX 12% of (I+II)						
	Sub-Total	0.107			152,481.33	
	IV. TOTAL CONSTRUCTION COST (I + II + III)	1.000			1,423,159.11	

Prepared: _____ Noted: _____
 Project Engineer, PFSED School Principal **ALEXANDER Z. OLOTEO**
 Division PFC

Checked: _____ Approved: _____
 NEHRU RAINIER P. SARMENTO RAMON CLENIO B. DE VEYRA OLIVER R. HERNANDEZ
 Area Supervisor, PFSED Cost and Assessment Supervisor Chief, PFSED

Fig. 18 Summary of Estimate for Phase 2

Bidding Stage/ Contractor Training on Heritage

During the bidding stage, the conservator will make sure that qualified contractors will handle the Project. In order to assure that contractors know the process of conservation, 3d animation was done to show the process from the existing condition up to repair works & final finishing. In this way, it is assumed Contractors are very unfamiliar with this kind of process & it will help to visualize the conservation process & avoid making their own decisions that will harm the building. This animation will then be a tool for educating people on how to conserve a heritage structure.

Sustainability

Once conserved, the maintenance of the heritage structure must be sustainable. Sustainability has been included from the schematic stage up to the use of the structure itself. During the schematic stage, it is considered that the rooms will have to be well-ventilated in order to eliminate the use of Air-conditioning system by adapting again the use of capiz awning windows thus maximizing 100% intake of air. It was also considered to use energy-saving lights to cut the cost of electricity and with the use of awning window, additional indirect lighting will enter the room through the reflection of sunlight from the awning window

towards the ceiling. Once budget permitted, gutter & downspout can be installed in order to collect rainwater for watering the plants & garden. In the design stage, details of light were made wherein it will house energy-saving bulbs but sympathetic to the original designs of the lights. The specified materials are readily available in the region so that replacements will be done quickly such as the short-span roofing sheets & capiz windows. In landscaping, local ornamental plants shall be used in order to grow & maintain it easily. The pavement was specified to be water absorptive such as concrete pavers or just plain combination, seashells & aggregates. Before bidding stage, the bidding contractors will be required to get local materials & manpower thus saving fuel costs of transportation. During construction, the teachers & students will be oriented & updated on how the restoration progresses so that it will prepare to maintain well the building. After conservation, Teachers, students & caretakers will be educated on how to maintain the building. For example, the careful cleaning of capiz windows & importance of wiping & brushing the wood flooring daily will be instructed. The students & caretakers will be instructed the proper cleaning, watering & trimming of the grounds & plants & guide them on how to schedule it. The Maintenance Program & Maintenance Plan was created in order to have a daily maintenance guide & to project how much it cost. Lastly, an effective way of sustainability is the involvement of the Alumni. A foundation for the alumni should be informed in order to raise funds for the continuing maintenance of the building. This has worked in other provinces wherein the Alumni abroad can easily shell out money for the conservation or maintenance of the building.

A curriculum will be created on the History, Importance, Conservation & Maintenance of Gabaldon schools so that the students these Values will be thought to them. So that it will ensure the continuing transmission of the Value of their Heritage. Sooner or later as what happened to other places, when these students became successful in their careers they will come back & contribute for the support of the Maintenance of their Gabaldon School.

Interpretation Plan

In order to transmit the Values of the Gabaldon School to the people, Interpretation Plan is designed & created. A museum will be put up in the semi-basement showcasing the History of gabaldon schools & the conservation process of the building. This will be placed in posters mounted in a shelf with acrylic plastic covering. It will posted in the walls so anybody can see it while eating or if there are visitors or tourists come, they can take a look of it. A sign will be placed in front of the building. Its design will make it very identifiable for the passersby that it is a Gabaldon Building. There will be a brief statement on the history of the school for the information of everybody. This interpretation plan will pioneer in the spreading of information on the value of Gabaldon schools.

MAINTENANCE PROGRAM & MAINTENANCE PLAN

Some parts were deleted in order to fit in the Final Report. The whole Maintenance Program & Maintenance Plan can be seen in the actual Binder

1. PROJECT SUMMARY

The Gabaldon School was constructed in 1910 during the time of the American Occupation in the Philippines. In order to systematize the Education system & easily communicate as a colonizer, they concentrated a lot in

educating the Filipinos but there were not enough classrooms at that time. This brought to the construction of thousands of schools around the country, and they designed up to twenty standard designs of plans & elevations. Due to this, in 1907 Assemblyman Isauro Gabaldon allotted one million budget for the construction of these schools. The main architectural & structural features are:

- It is one of the few remaining 2-classroom type Gabaldon in the Philippines.
- It has no roof beam or girt.
- The capiz (sea shell) transom windows are intact.

When typhoon "Sesang" hit the country in 1975, the capiz awning type windows were destroyed and it was replaced by the current wooden jalousies. In the 1980's, the semi-basement which is 1.5m high was converted into a canteen. In an unknown date, the right classroom was converted to computer room and they added mezzanine for storage. The left-wing was converted into Principal's room and they added a small Toilet in the corner of it. In 2006, typhoon "Reming" struck the central East region of the country and it destroyed the half back portion of the roofing exposing it to elements. It became unusable from that time on.

Back in 2003, The Department of Education (DepED) started to restore several Gabaldon buildings in order to commemorate the centennial anniversary of the Department. In line with this & current condition of the building, a budget was allotted in order to restore the San Francisco Learning Center.

2. INFORMATION ON THE BUILDING

Data of the Building

- Address: Brgy. Malilipot, Albay, Albay, Philippines

Data of the Premises

- Ground Floor Area: 132 Sqm.
- Semi-Basement Floor Area: 132 Sqm.
- Used Area: 264 Sqm.
- Ground Floor Volume: 555 m3
- Semi-Basement Volume: 300 m3

Legal Protection

- It can have a protection also from the National Historical Institute if the Gabaldon School was found to be Historically significant. They can recommend on what level of protection can be done once they investigated it. First move is to file a letter to the Historic Preservation Division requesting for the investigation of the gabaldon school & make a recommendation for preservation, enlist it as a historical landmark or provide it with a NHI marker. See Annex

Several laws were read up to second reading but not yet passed

- FULL TITLE : AN ACT PROVIDING FOR THE REHABILITATION AND REPAIR OF GABALDON SCHOOLHOUSES NATIONWIDE, APPROPRIATING FUNDS THEREFOR AND FOR OTHER PURPOSES
ABSTRACT : The bill seeks to rehabilitate and repair the "Gabaldon schoolhouses" nationwide to preserve their historical significance and to address the need for more school buildings.

BY CONGRESSMAN/WOMAN FLORENCIO "BEM" G. NOEL
DATE FILED ON 2005-05-31

The Owners & Users

The school is owned & under administration of the Department of Education. The Users are the community elementary students.

3. THE VALUES & THREATS

Intangible Values

- The school represents the aims of the Primary Education system established by the Americans which is good citizenship & governance.
- The school represents also that the children educated here were more intellectually superior, more socially & emotionally mature, more flexible & better physical health.
- The school was also used as community public place for gathering as it was the only covered building space during that time conducive for meetings.

Tangible Values

- One of the remaining 2-classroom type Gabaldons in the Philippines.
- A structure without roof girt by locating the trusses on every column. It is indication that in order to minimize construction cost, value engineering was implemented to come up with this idea.
- The reinforced concrete, capiz transoms & wooden flooring & truss are authentic as it represents the goal of having a sturdy structure & using local materials.

Threats

- Future typhoons
- Change of leadership (Principal, Secretary of Education) as protection & conservation of the Gabaldons will not be given with importance compared to current leaders.
- Lack of knowledge on the importance of Gabaldon schools & its architectural & structural features.

4. PROTECTION GOALS

Maintenance Goals

- Retain the building use as a two-classroom structure.
- No alternation of structural materials when restoration works will be done.
- The exterior painting shall always be the original color.

Other Goals

- Promote gardening & up-keeping of school grounds.
- Promote awareness on the values of Gabaldon schools among the Teachers, students, alumni & community.
- Create programs that will sustain the dissemination of these values.

5. SPECIAL MAINTENANCE REQUIREMENTS

There are 4 types of materials in the building:

1. Concrete
2. Wood
3. Metal
4. Capiz

5.1 Special Maintenance Requirements/ Concrete

INTERIOR

- 5.1.1 Inspect for cracks every 6 months as spalling is a normal defect in concrete structures. Spalling occurs when rebars get rusted & pushes out the concrete cover exposing the rebars. It normally can be seen in the lower interior portion of the building.
- 5.1.2 Do not create openings in the walls below the windows. Walls are made of reinforced concrete. The building was designed as a frame system to make it rigid therefore providing openings will lessen its sturdiness.
- 5.1.3 Cracks can be repaired by applying pressurized air & injecting structural epoxy.

EXTERIOR

- 5.1.4 Basically, same treatment as the Interior.
- 5.1.5 Painting shall be semi-gloss type so that dirt & moisture will not accumulate easily.
- 5.1.6 If downspouts will be used, holders can be nailed to the existing downspout holes in the columns.

5.2 Special maintenance Requirements/ Wood

STRUCTURAL

- 5.2.1 Inspect every six months traces of termites.
- 5.2.2 Apply wood preservatives every five years. Check manufacturer's maintenance requirements.
- 5.2.3 Apply 3 coats of preservatives & wait to dry before applying the next layer.

Special treatment for wooden floor frame: (Joists, bridging)

- 5.2.4 Inspect annually the wood floor frame joist if there are bends. This will cause the floor to sag.
- 5.2.5 Inspect annually if the floor bridging is disconnected. This will be an indication that the flooring is sagging.
- 5.2.6 Clean the floor frame every four months by using dry cloth or broom for spider webs.

Special treatment for wooden Truss:

- 5.2.7 Inspect annually the truss frame joints & bolts for bends, water accumulation & deteriorations.
- 5.2.8 Inspect & clean every six months the truss space.
- 5.2.9 Inspect every six months top chord ends for water deteriorations as it is always exposed to weather.

FINISHING

Special Treatment for Wooden windows

- 5.2.10 Clean every week with dry cloth. Use soap & water to remove dirt in painted portions.

- 5.2.11 Use QDE paint in the exterior side of the window. Paint every 3-5 years. Interior side can be sand & seal or semi-gloss painted. Paint every 3-5 years.
- 5.2.12 Inspect mechanical pivoting hinge if working properly. Check screws if still intact or pulling out. Check every 2 Years.

Special Treatment for Wooden Panel Doors

- 5.2.13 Clean every week with dry cloth. Use soap & water to remove dirt in painted portions.
- 5.2.14 Use QDE paint in the exterior side of the door. Paint every 3-5 years. Interior side can be sand & seal or semi-gloss painted. Paint every 3-5 years.
- 5.2.15 Check door hinge & lockset if working properly. Check screws if still intact or pulling out. Check every 2 years.

Special Treatment for Wooden Walls

- 5.2.16 Clean every quarter with dry cloth the edges that accumulate dirt. Use soap & water to remove dirt.
- 5.2.17 Paint every 3-5 years with either semi-gloss or flat paint.
- 5.2.18 Inspect for misalignment, cracks, bends or loosening of joints annually.

Special Treatment for Wooden Flooring

- 5.2.19 Apply with floor wax every month.
- 5.2.20 Clean the wooden flooring with broom & dry cloth daily.
- 5.2.21 Scrub using coconut husk every week.

5.3 Special Maintenance Requirements/ Metal

Special Treatment for Corrugated Iron sheets Roofing

- 5.3.1 Inspect for leaks every six months by tracing watermarks in the Purlins & ceiling & spotting for holes from inside the roof space.
- 5.3.2 Inspect annually nails or Tek screw if the tin or rubber is deteriorated. Replace with a new one or apply with sealant if found deteriorated.
- 5.3.3 Inspect every month gutters & roofing if there are materials (leaves, twigs, bird or cat wastes, dirt) stuck in the roof. This will cause water stagnation and start of rust formation.

Special treatment for truss vertical rods & bolts

- 5.3.4 Inspect for rusts annually.
- 5.3.5 Clean annually by using dry cloth.
- 5.3.6 When found with rust, apply with rust remover then paint with 3 coats of epoxy primer.

5.4 Special Maintenance Requirements/ Capiz

- 5.4.1 Clean with damp cloth monthly.
- 5.4.2 If dirt cannot be removed, Use toothbrush and brush it with water & soap.
- 5.4.3 Every 5 years, Clean by brushing using water & soap to keep its clean glow.

5.5 Special Maintenance Requirements/ Landscaping

Special Maintenance Treatment for School Grounds & Landscaping

- 5.5.1 Clean once a week the school grounds.
- 5.5.2 Water the plants daily.
- 5.5.3 Trim Hedges every four months.

Special Maintenance Treatment for Fence

- 5.5.4 Fence shall be made of Iron grilles in order to have a view of the Gabaldon. The zocalo is made of painted CHB 1 mtr. High. It should not cover the Gabaldon from the public view & should be seen with Vista.
- 5.5.5 Fence is used for protection from human & animal intrusion.

Special Maintenance Treatment for Playgrounds

- 5.5.6 Inspect playground facilities every six months playgrounds for deteriorations
- 5.5.7 Clean playground facilities every week.
- 5.5.8 Provide trees at the borders for shading.

6. HISTORY

History of the Building

Please refer to the Context

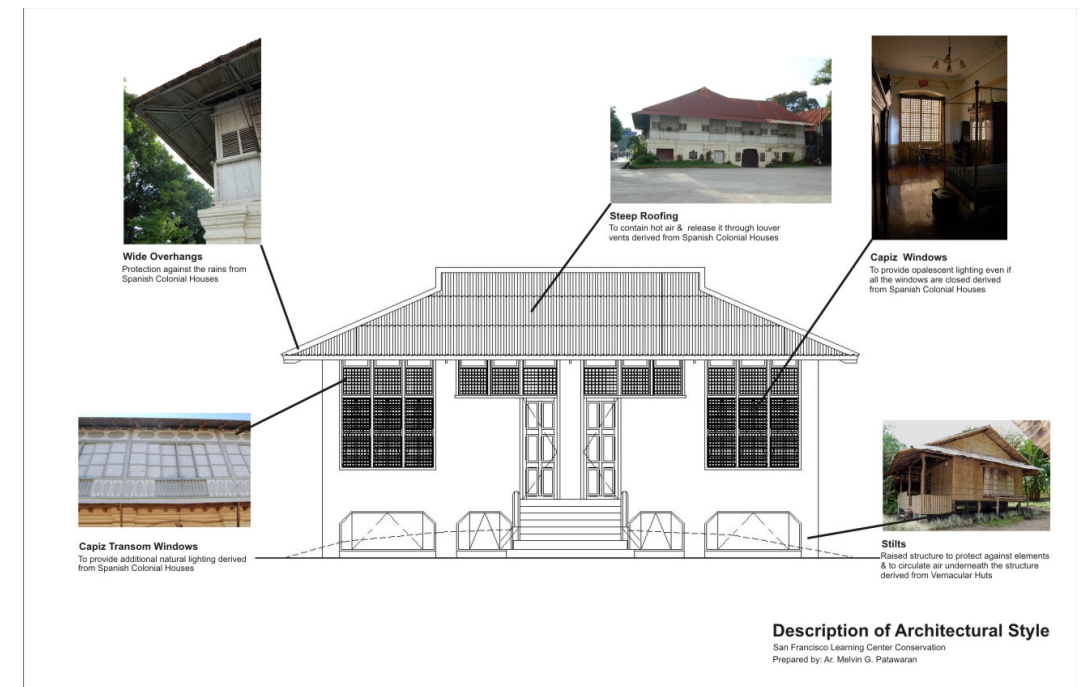


Fig. 19 Description of Architectural Style

7. PRESENT SITUATION

After it was damaged in 2006 specifically the ripping off of the roof, it was left untouched and exposed to weather. The wooden parts are exposed to weather & potential deterioration is expected. And it is now closed and not being used due to the hazardous condition of the flooring & roof trusses.

The Department of Education has the full hand to the conservation of the Building and it has allotted budget coming from the emergency funds for the other school buildings in the region that were damaged by the typhoon.

In the meantime, the PTA Parents-Teacher Association have been sounded off to raise funds that will be used as other Resources for the conservation of the Gabaldon. Some of the projects can be the landscaping, school grounds improvement & gate.

Conservation Plans & budget for the restoration works have been submitted to the PFSED Physical Facilities & Schools Education Division. They are now reviewing the conservation program & Program of works or Estimate.

8. DESCRIPTION OF THE INTERIOR

The Plan

- Dark Green- the authentic T&G flooring of the classroom that needs some repair & replacement works due to rainwater deterioration. It has to be replaced with proper jointing layout in order to have a visually pleasant floor pattern when repaired. Verify floor pattern layout in repairing T&G flooring. The Area with the additional Toilet is assumed to be deteriorated.
- Green- replacement of windows to wooden jalousie when the original capiz windows were destroyed by the Typhoon in 1975.
- Light Green- in an unknown date, left classroom was converted into Principal's office with additional small Toilet, & the right-wing was converted into Computer Room with storage area & mezzanine addition. The mezzanine flooring added dead load to the structural wood frame making it vulnerable to weakening.
The semi-basement was excavated and converted into a Canteen. The Foundations were supported on the sides & bottom by retaining walls.

The Inner façade

- Dark green- the original architectural & structural features of the school that is still remaining. The wooden wall partition has been damaged & deteriorated parts will have to be replaced by the same material & design.
- Green- replacement of windows from capiz awning windows to jalousie wooden windows destroyed in 1975. The original ceiling of T&G was replaced by plywood. The roof eaves were covered with plywood & vent. The wooden jalousie windows will have to be replaced with transom capiz windows with the same design as the original. The eaves ceiling will have to be removed so that strong winds will just pass-thru the ceiling via the eaves opening. The design of windows will have to be consulted to a conservation Architect.

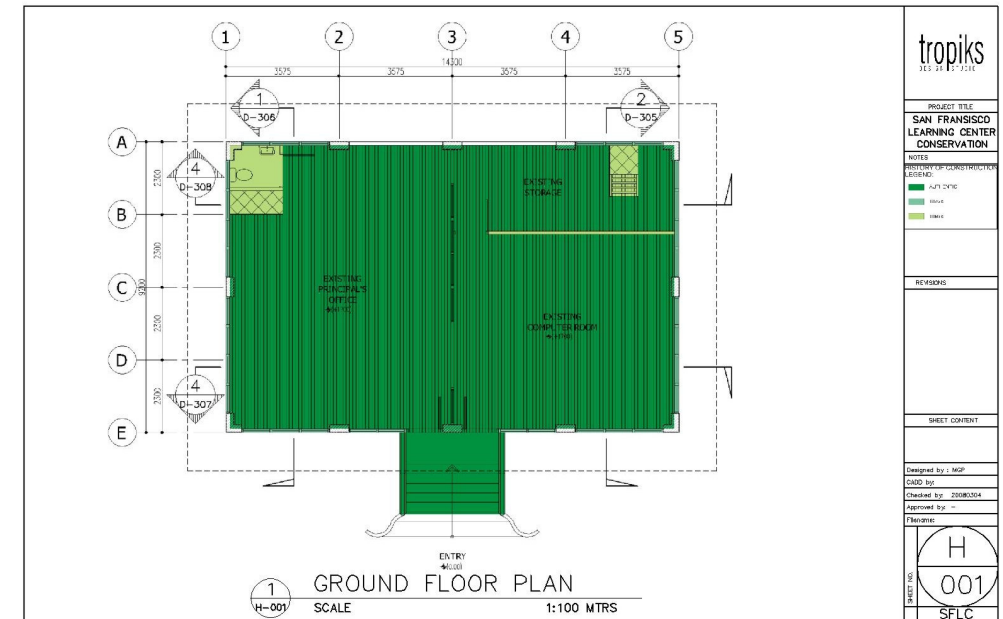


Fig. 20 Authenticity of Plan

- Light Green- additional rooms constructed in an unknown dates, these rooms are the Toilets, Storage & Mezzanine. These areas will have to be removed as the Toilet may further deteriorate the floor framing due to leaks & damage the floor joists. The mezzanine adds load to the floor framing which is not designed to accommodate the load at the same time, making the room warmer by reducing the air space & blocking the cross ventilation.
The semi-basement was dug & used as canteen the walls retaining the soil are only made of CHB. Reinforcements or solidification should be done on this wall. Observation should be done to check the movement if there are movements of the foundation.

9. REGISTER OF PRINTED & NON PRINTED SOURCES AND OF PERSONS

- Site Development Plan— coming from School's rendered Site School map
- History of Gabaldon Schools Archives—
 - Annual report of the General Superintendent of Education, Manila, Bureau of Printing, 1904
 - Ninth Annual Report of the Director of Education 1909
 - Seventh Annual Report of the Director of Education 1907

10. PRACTICAL CONTACT DETAILS

- DepED Chief, PFSED – Engr. Oliver Hernandez
 - Mobile Phone: 0928 5505354
 - Email Add: oliverrhernandez@yahoo.com

LONG-TERM WORK PLAN

WORK PLAN & TIME SCHEDULE

Building name: San Francisco Learning School Gabaldon

Owner: Department of Education

Year:
Sheet No:

WORK PLAN		F	2	5	7	10	12	15	17	20	22	25	27	30	32	35	37	40	42	45	47	50	52	55	57	60	62	65	67	70	72	75	77	80	82	85	87	90	92	95	97	100													
FLOOR																																																							
WALL																																																							
	Int. Conc. Wall	5Y	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
	Ext. Conc. Wall	5Y	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
	Wd. Int. Wall	5Y	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
DOOR & WINDOWS																																																							
	Window Pivoting Hinge	2Y	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I				
	Wd. Door Panel	5Y	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
	Door Lockset & Hinge	2Y	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I				
	Capiz Panes	5Y	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL			
ROOF																																																							
STRUCTURAL																																																							
	Wd. Flr. Frame Preservative	5Y	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
SCHOOL GROUNDS																																																							
	Zocalo Fence	5Y	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			

ACTION				Frequency Code			Abbreviation								
F	Frequency	I	Inspect	A	Re-Apply	W	Water	D	Daily	4	Every 4 Months	2Y	Every 2 years	Conc.	Concrete
☉	Priorities	P	Re-Paint	S	Scrub	T	Trim	W	Weekly	6	Every 6 Months	5Y	Every 5 Years	Wd.	Wood
		CL	Clean	Ct	Cut			M	Monthly	12	Annually			Flr.	Floor

12. RESOURCES NEEDED

RESOURCES NEEDED

Building name: San Francisco Learning School Gabaldon
 Owner: Department of Education

Year:
 Sheet No:

WORK ITEM	ACTION	F	Material Needed	Expert/ Craftsmen	Materials Needed	Expert/ Craftsmen
FLOOR						
Wd. Flooring Waxing		M	1	1 /4	1 Floor wax	1 Students
Wd. Flooring	Clean	D	1 / 2 /3	1 /4	2 Broom	2 Maintenance Person
Wd. Flooring	Scrub	W	4	1 /4	3 Dust Pan	3 Painting Contractor
Wd. Flooring deteriorations	Inspect	6	5	2	4 Coco Husk "Bunot"	4 Community Volunteers
WALL						
Conc. Int. Cracks	Inspect	6		2	5 Flashlight	5 PTA
Conc. Ext. Cracks	Inspect	6		2	6 Paint Materials	6 Teachers
Conc. Exterior Watermarks	Inspect	6		2	7 Dry Cloth	7
Termites	Inspect	6		2	8 Brush & Soap	8
Wd. Int. Defects	Inspect	12		2	9 tree Knife	9
Wd. Int. Defects (Lower Frame)	Inspect	6		2	10 Water spray	10
Int. Conc.Wall	Re-Paint	5Y	6	3 /5 /4	11 Wood Preservative	11
Ext. Conc. Wall	Re-Paint	5Y	6	3 /5 /4	12 water hose	12
Wd. Int. Wall	Re-Paint	5Y	6	3 /5 /4	13 Plant cutter	13
DOOR						
Wd. Frame	Clean	W	7	1 /4	14	14
Wd. Frame Defect	Inspect	12		2	15	15
Wd. Jamb Bottom part termites	Inspect	6		2		
Wd. Door Panel	Repaint	5Y	6	3 /5 /4		
Door Lockset & Hinge	Inspect	2Y		2		
WINDOW						
Wd. Frame	Clean	W	7	1 /4		
Wd. Frame Defect	Inspect	12		1		
Capiz Panes	Inspect	M	7	1		
Capiz Panes	Clean	5Y	8	1 /4		
Window Pivoting Hinge	Inspect	2Y		2		
ROOF						
Leaks	Inspect	6	5	2		
Tekscrew or Nails	Inspect	12		2		
Dirt	Inspect	M	10 /2	2		
Trees' leaves & twigs nearby	Cut	6	9	2		
Rust	Inspect	12		2		
STRUCTURAL						
Wd. Fir. Joists bends/cracks	Inspect	12	5	2		
Wd. Fir. Bridging connection	Inspect	12	5	2		

13. BUDGET

BUDGET

Building name: San Francisco Learning School Gabaldon
 Owner: Department of Education

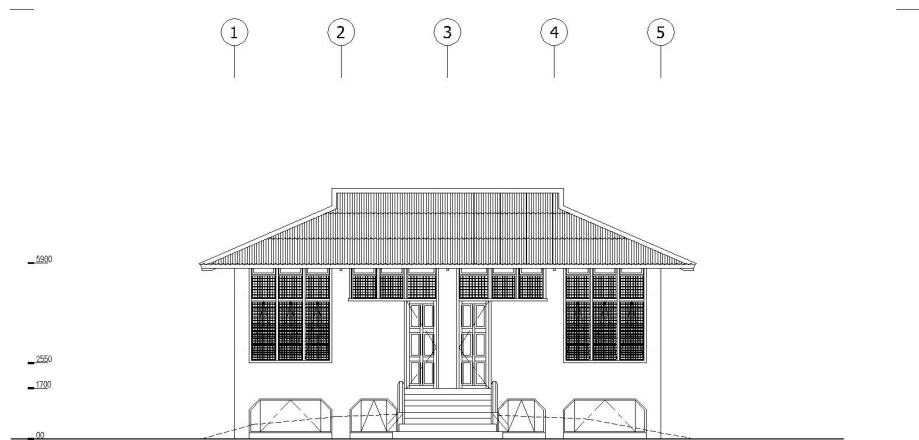
Year:
 Sheet No:

WORK ITEM	ACTION	F		Material Needed	Cost	Labor	Cost/Year	Materials Needed	Expert/ Craftsmen
FLOOR									
			X					1 Floor wax	1 Students
Wd. Flooring Waxing		M	12	1	150.00		1,800.00	2 Broom	2 Maintenance Person
Wd. Flooring	Clean	D	1	1 / 2 / 3	150.00		150.00	3 Dust Pan	3 Painting Contractor
Wd. Flooring	Scrub	W	1	4	150.00		150.00	4 Coco Husk "Bunot"	4 Community Volunteers
Wd. Flooring deteriorations	Inspect	6		5				5 Flashlight	5 PTA
WALL									
Conc. Int. Cracks	Inspect	6						6 Paint Materials	6 Teachers
Conc. Ext. Cracks	Inspect	6						7 Dry Cloth	7
Conc. Exterior Watermarks	Inspect	6						8 Brush & Soap	8
Termites	Inspect	6						9 tree Knife	9
Wd. Int. Defects	Inspect	12						10 Water spray	10
Wd. Int. Defects (Lower Frame)	Inspect	6						11 Wood Preservative	11
Int. Conc.Wall	Re-Paint	5Y		6	26,700.00		5,340.00	12 water hose	12
Ext. Conc. Wall	Re-Paint	5Y		6	19,650.00		3,930.00	13 Plant cutter	13
Wd. Int. Wall	Re-Paint	5Y		6	11,400.00		2,280.00	14	14
15								15	15
DOOR									
Wd. Frame	Clean	W	53	7	150.00		150.00		
Wd. Frame Defect	Inspect	12							
Wd. Jamb Bottom part termites	Inspect	6							
Wd. Door Panel	Repaint	5Y		6	16,000.00		3,200.00		
Door Locket & Hinge	Inspect	2Y							
WINDOW									
Wd. Frame	Clean	W	53	7	150.00		150.00		
Wd. Frame Defect	Inspect	12							
Capiz Panes	Inspect	M	12	7					
Capiz Panes	Clean	5Y		8	150.00		150.00		
Window Pivoting Hinge	Inspect	2Y							
ROOF									
Leaks	Inspect	6		5					
Tekscraw or Nails	Inspect	12							
Dirt	Inspect	M	12	10 / 2	1,000.00		1,000.00		
Trees' leaves & twigs nearby	Cut	6	6	9	500.00		500.00		
Rust	Inspect	12							
STRUCTURAL									
Wd. Fir. Joists bends/cracks	Inspect	12		5					
Wd. Fir. Bridging connection	Inspect	12		5					

		ACTION					Frequency Code					Abbreviation			
F	Frequency	I	Inspect	A	Re-Apply	W	Water	D	Daily	4	Every 4 Months	2Y	Every 2 years	Conc.	Concrete
⊙	Priorities	P	Re-Paint	S	Scrub	T	Trim	W	Weekly	6	Every 6 Months	5Y	Every 5 Years	Wd.	Wood
		CL	Clean	Ct	Cut			M	Monthly	12	Annually			Fir.	Floor

14. RESULTS: FORMS FILLED IN, ACTIVITIES DONE & LESSONS LEARNED

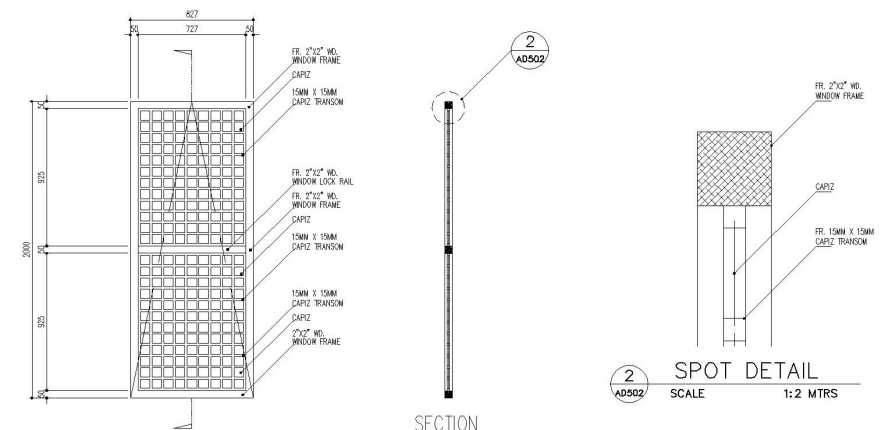
15. FORMS FOR INSPECTION



1 FRONT ELEVATION
SCALE 1:100 MTRS

Date of Inspection/ Activity: _____
Inspected by: _____
Signature above Name: _____
Building Name: _____

Observation: _____



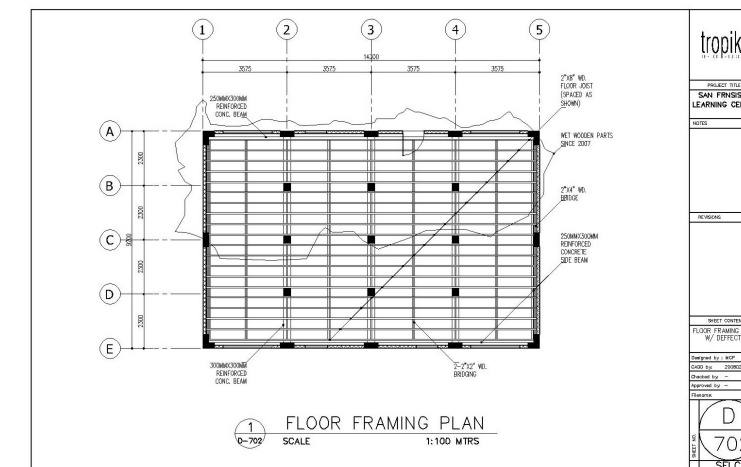
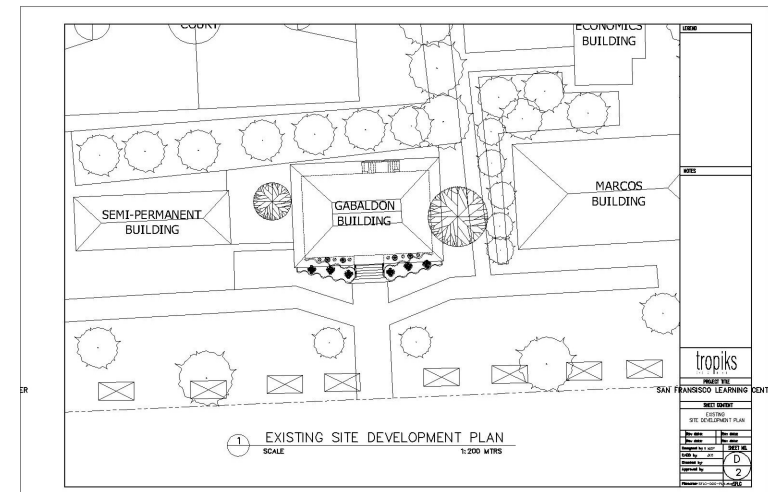
1 CAPIZ WINDOW DETAIL
SCALE 1:10 MTRS

2 SPOT DETAIL
SCALE 1:2 MTRS

Date of Inspection/ Activity: _____
Inspected by: _____
Signature above Name: _____
Building Name: _____

Observation: _____

16. DOCUMENTATION



CONCLUSION ON MAINTENANCE PROGRAM & MAINTENANCE PLAN

The Maintenance Program & Maintenance Plan produced a lot of benefits in the strategy on how to maintain the building. Given the needed resources & budget for its upkeep, the stakeholders are informed & can plan out ways in order to maintain the building in the most cost-effective way at the same time spreading the importance of the gabaldon school. Some examples are the cleaning of the building, in the materials to be used most expense will go to the buying of dry cloth and instead of buying, students can organize donations of old clothing & make it into a cleaning cloth. And the most expensive of the maintenance is the Painting works to be done every 5 years. The school & alumni can raise funds earlier lets say 2 years before so that they will not be pressured to raise money immediately.