

ARTICLES INSIDE THIS ISSUE:



1-2 Editorial: The ICEB Technology: Its Direction



3 YP Annual Camp Held in APTC-2



4 YP Design Challenge: An ICEB Application Mechanism

Vol. 1 Issue 6; November - December 2009

JF & YP Exchange

An Official Newsletter Publication of the Young Professionals' Program in the Philippines – Visayas & Mindanao Chapter

Theme For This Issue:

The ICEB Technology: Its Direction

The demand for social housing has reached an alarming rate in view of the continued increase in population and the pervasive proliferation of informal settlements in urban areas. Currently, the housing backlog is more than three million houses. Such need necessitates a cost-effective construction technology that would enable the government and other housing providers to increase housing delivery while allowing the poor to have access to affordable decent shelter.

The application of earth construction technology is to be considered as one of the best alternatives from conventional technologies in view of the proven viability in significantly bringing down cost. Hence, a substantive advocacy for ICEB application is being done by the Young Professionals Association through trainings being conducted in academic institutions and other venues for its application.

With the concentration of advocacy efforts in the Visayas and Mindanao regions, trainings were conducted in the campus of Xavier University under the auspices of the ArchDiocese of Cagayan de Oro and in Mindanao University for Science and Technology (MUST).

Further advocacy for ICEB application is foreseen in the next year through the linkages of the YP association with local governments. The YP election of officers during the YP Camp would further establish new directions and impetus for viability.

ICEB Features: A Cost Analysis

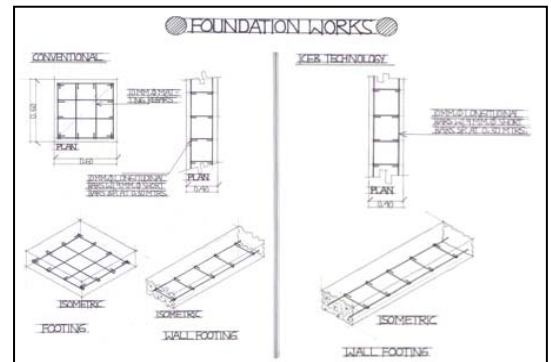
The YP Association and the JFLedesma Foundation, Inc. has made substantial study on the cost viability of the ICEB as an alternative construction technology. This is the basis for its promotion to address the significant housing backlog. The study presents the ICEB Technological Profile as well as its specifications creating distinct characteristics from the regular CEB blocks. Four (4) areas had been the focus of the study, namely: Foundation of the Construction Structure, Columns or Pillars, Walls and the Roof Beam.



ICEB Technological Profile and Specifications

Technical Specifications	
Length	30cm
Width	10cm
Thickness	15cm
Average weight	7.9kg
Shape	Rectangular
Profile	Solid
Color	Laguna white yellowish

Comparative Presentation of Foundation-Works between Conventional & ICEB



The comparative presentation as shown marks the comparative difference between the conventional construction methodologies from the ICEB technology construction procedures.

(Continued on page 2)

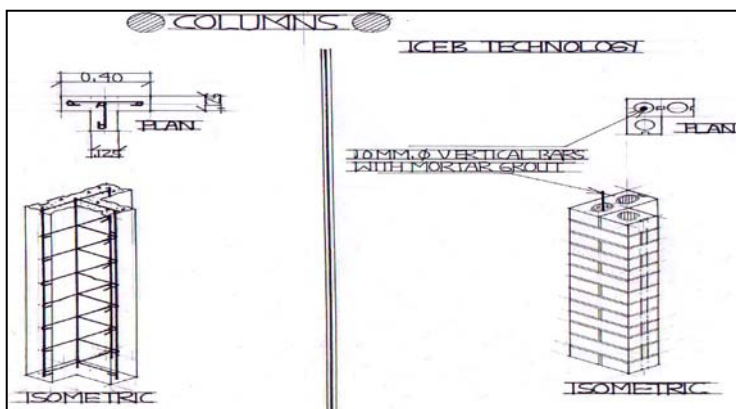
(from page 1 on ICEB Technology...)

Cost Effectiveness (in PhP Currency) of ICEB Technology “Foundation-Works” vs. Conventional Method of Construction

Description	Underlying Cost of Conventional Construction Methods	Underlying Cost of ICEB Construction Technological Method
1. Isolated Footing (Cement, Sand, Gravel, Def.Bar-10mm x 6m, G.I. Tie Wire-#16)	P 5,017.50	
2. Wall Footing (Cement, Sand, Gravel, Def.Bar-10mmx6m, Def.Bar-9mmx6m, G.I. Tie Wire-#16)	8,320.00	P10,452.50
Total Comparative Costing	P13,337.50	P10,452.50
Cost Difference of ICEB		P2,885.00
Saving in % of ICEB Application in Foundation Works		22%

The Table shows the 22 percent savings that can be generated from constructing the “Foundation Works” utilizing comparatively between the conventional construction methods and the ICEB technology procedures.

Comparative Presentation of Columns Establishment between Conventional Construction and ICEB Application



As presented in the Table, savings of almost 50 percent can be achieved in establishing or constructing the Columns or Pillars through the use of ICEB construction technology.

Cost Effectiveness (in PhP Currency) of ICEB Technology “Columns/Pillars Establishment” vs. Conventional Method of Construction technology.

Description	Underlying Cost of Conventional Construction Methods	Underlying Cost of ICEB Construction Technological Method
1. Concrete Column (Cement, Sand, Gravel, Def.Bar-10mmx6m, Def.Bar-9mmx6m, G.I. Tie Wire, #16)	P15,121.25	
2. Formworks (Plywood, Ordinary ¼”x4’x8’, Lumber 2”x2”x8’, Lumber 2”x2”x8’, Nail-C.W. Assorted)	4,038.00	
3. ICEB (ICEB Blocks, Def.Bar-10mmx6m, Cement, Portland, Sand)		9,702.00
Total Comparative Costing	P19,159.25	P9,702.00
Cost Difference of ICEB		P9,457.25
Saving in % of ICEB Application in Columns/Pillars Establishment		49%

Cost Effectiveness (in PhP Currency) of ICEB Technology “Walls Construction” vs. Conventional Method of Construction

Description	Underlying Cost of Conventional Construction Methods	Underlying Cost of ICEB Construction Technological Method
1. CHB Walling (Cement, Sand, CHB-4”x8”x16”, Def.Bar-10mmx6m, G.I.Tie Wire #16)	P18,360.00	
2. Plastering (Cement, Sand)	7,440.00	
3. ICEB Wall (ICEB Blocks, Cement, Portland, Sand, Def.Bar-10mmx6m)		23,820.00
Total Comparative Costing	P25,800	P23,820.00
Cost Difference of ICEB		P1,980.00
Saving in % of ICEB Application in Walls Construction		8%

Savings in constructing the walls utilizing the ICEB technology could likewise generate at least eight (8) percent. Likewise, the construction of Roof Beam utilizing the ICEB methodological process generates a significant saving of 40 percent. Moreover, painting works under the ICEB technology could give you a 100 percent savings since the color of the ICEB Blocks does not require the application of latex paint. Thus, zero expense on the part of the participating family or client if no application of expensive paints shall be made.

Cost Effectiveness (in PhP Currency) of ICEB Technology “Roof Beam Construction” vs. Conventional Method of Construction

Description	Underlying Cost of Conventional Construction Methods	Underlying Cost of ICEB Construction Technological Method
1. Beam (Cement, Sand, Gravel, Def.Bar-10mmx6m, Def.Bar-9mmx6m, G.I. Tie Wire #16)	P6,992.50	
2. Formwork (Plywood, Ordinary – ¼”x4’x8’, Lumber 2”x2”x8’, Nail C.W. Assorted)	3,503.20	
3. ICEB Beam (ICEB Blocks, Cement Portland, Sand, Def.Bar – 10mmx6m)		5,873.00
Total Comparative Costing	P9,743.70	P5,873.00
Cost Difference of ICEB		P3,870.70
Saving in % of ICEB Application in Roof Beam Construction		40%

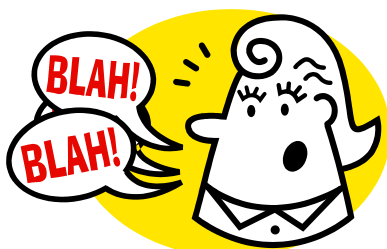
YP Annual Camp Held in APTC-2

As a venue for regular interaction and strengthening of professional relationships among Young Professionals, JFLFI and the Young Professionals Association for Sustainable Habitat regularly holds an annual camp. The camp is a means by which the Young Professionals are able to develop professional network during the formative years of their career. In the same way, the giving of technical lectures and inputs is also a manner by which new ideas and technologies could be learned and discussed.

Quote for this issue:

"The application of earth construction technology is to be considered as one of the best alternatives from conventional technologies in view of the proven viability in significantly bringing down cost."

- Dr. Nestor Abdon,
ARDEP Managing Director



Got Something To Say?

We're always searching for passionate and dedicated writers to contribute news of events, resources, articles and stories relevant to Young Professionals who are creating a better world for current and future generations.

Send your contents to:

JF Ledesma Foundation, Inc.

Cebu Ave., Business Center
San Carlos City, Neg. Occ.
Fax No. (+6334) 3125265 or
email at jflfi@yahoo.com

For this year, the YP Camp was scheduled on December 8-9, and held at the Agricultural Productivity Training Center-2 (APTC-2) of JFLFI and has a theme, "Urban Livability and Earth-based Technical Solutions: Academic Community Research Collaboration." The camp objectives for this year are:

1. To inculcate awareness and importance of urban livability and technical solutions among academic communities;
2. To identify the role and importance of Higher Education in Urban Development and Livability
3. To instill the importance and direction of Disaster Risk adaptation in Community Designs and Shelter delivery;
4. To update the new features of earth-based technology and application with fabricated production equipment as support system.

The keynote address was given by Dr. Nestor Abdon, the Managing Director of the Asian Rural-Urban Development and Peace Institute (ARDEP) who elucidated on the theme. The main topics were discussed by Greg Forbes of Chalice Philippines who discussed affirmation techniques for professional success. Dr. Alex Fillone dealt with the topic on Disaster Risk Adaptation in Transportation Design, and followed by Arch. Arlene Lusterio who provided inputs on Disaster Risk Adaptation in Community Design. A panel discussion was also made to have an interactive discussion on the role of Higher Education Institutions in Urban Development with the panel composed of Prof. Louie Gonzaga, Greg Forbes, Dr. Nestor Abdon, Mr. Reynic Alo of MUAD-Negros, and Arch. Arlene Lusterio. Dr. Billy Tusalem, the Director and Chief Operating Officer of JFLFI gave the synthesis to the brief inputs of the panel. As a process of technology transfer, Prof. Daniel Mostrales of MSU-IIT and Engr. Misael Hibionada, the Deputy Executive Director of JFLFI, gave considerable discussion on the Interlocking Compressed Earth Blocks. The Camp ended with the giving of awards for the YP Design Challenge and commitment ceremony through a Campfire. ☺



The YP National Camp Delegates



The YP National Camp Delegates having a pose with the San Carlos City Vice Mayor Gerardo Valmayor during the City Tour.



Dr. Nestor Abdon, ARDEP Managing Director as the Keynote Speaker of the YP Camp activity



Mr. Greg Forbes of Chalice Philippines with his discussion on the YP Operational Framework



Mr. Alex Fillone with the topic "Disaster Risk Adaptation in Transportation Design"



The panelists composed of Prof. Louie Gonzaga, Dr. Nestor Abdon, Mr. Reynic Alo, Arch. Arlene Lusterio, Prof. Daniel Mostrales and Dr. Billy Tusalem who gave the synthesis to the brief inputs of the panel.



The YP camp activity ended up with the giving of awards for the YP Design Challenge followed by the Commitment Ceremony through a Campfire. (below)



YP Design Challenge: An ICEB Application Mechanism

The YP Association initiated a call for Social Housing Design under the YP Design Challenge. The Challenge with a theme: "Incremental Housing Design & Development For The Slum Dwellers: The YP-VISMIN MDG Challenge" invited submissions from young professionals covering the Visayas and Mindanao regions in the field of architecture and engineering, as well as other interested parties, to apply their creative abilities and design skills to incremental housing projects addressing real community needs particularly the urban-poor sectors. The challenge was to design a social housing on a US\$1,000 budget with 54 square meter area utilizing the IHUD design framework.

Several schools in the Visayas and Mindanao area responded to the call for Designs and five were short-listed for final judging by a panel of jurors from national and international institutions. The five entries were showcased during the YP Camp in December and winning participants were given cash awards and free transportation and accommodation during the said Camp with the top award given to a combined team from West Negros University College of Engineering and La Consolacion College Department of Architecture. The goal of the YP Design Challenge is to generate ideas and design solutions for sustainable community development in urban poor settlements. The competition provides an opportunity for young design professionals to put forward innovative, environmentally-sound, appropriate and affordable design solutions that can benefit poor and informal communities and improve the livability of social housing sites. The YP Design challenge will be conducted every year with new criteria and focus. 🚀



Winning Entry: West Negros University,
Bacolod City, Negros Occidental



Registration Form

Name _____ Birthdate _____

Organization _____

Current Job/Work _____

Mailing Address _____

Contact Numbers/E-mail Address _____

Kindly indicate your priorities among the listed alternative construction materials by ranking them (1 – highest priority; 2 – second priority, etc.):

compressed earth blocks micro-concrete roof tiles

interlocking compressed earth blocks ferrocement

others (please specify): _____

YP Newsletter Editorial Board

Chairman

Julio A. Ledesma IV

Editor-In-Chief

Dr. Billy Tusalem

Associate Editors

Allen Del Carmen

Dr. Nestor Abdon

ENP Ma. Olivia C. Fillone, PIEP

Lilac Limpangog

Prof. Daniel Mostrales, CE

Dr. Jessica Salas

Ma. Paz Jaranilla

Publishing Staff

Maricel Binghay, MBA

Karen Leduna, RN

Engr. Misael Hibionada, CE

Ms. Elynn Villavelez