

Request for Proposals – Architecture and Engineering Services

Summary

The International Institute for Tropical Agriculture (IITA) seeks an innovative, technically skilled, and reliable Architecture and Engineering (A&E) firm to provide technical support for the design, and serve as Architect-of-Record for a Scientific Center of Excellence for the IITA campus in Nkolbisson, Yaoundé. The project consists of a Distance Learning Center (DLC) approximately 370 m² in size, with capacity to seat 100 people. The A&E firm will also be asked to design one small, modular, self-contained housing unit for up to four people.

The A&E firm will partner with the U.S.-based firm Gensler (Design Architect). Drawing upon the A&E firm's local knowledge and expertise regarding local codes, building practices and materials, the responsibilities of the selected firm will be:

- (1) Review and comment on Gensler's existing Conceptual Design Package (to be provided by IITA) for buildability, suitability to climactic conditions and conventions of use, and compliance with the stated budget. Based upon this input, Gensler will produce a Revised Conceptual Design Package.
- (2) Review and comment on the Revised Conceptual Design Package.
- (3) Transcribe Gensler's drawings into a Design Development (DD) package. During and upon completion of the DD package by the A&E firm, Gensler shall review and comment upon the A&E-produced DD package, for compliance with the design intent.
- (4) Complete the Construction Documents as required for submission to local authorities for building approval.
- (5) Secure all needed permits and approvals.
- (6) Prepare environmental and other safeguards certifications.
- (7) Oversee the construction.
- (8) Communicate regarding the progress of the project to Gensler and IITA, to ensure it proceeds and is completed in accordance with both the design intent, Construction Drawings and specifications.

Contents

Summary	1
I. Background	3
II. Communications and Questions.....	4
III. Qualifications	4
IV. Scope of Work.....	5
A. Lead Collaborative Design Process with IITA, UCLA, and Gensler.....	5
B. Finalize Design Documents and Pursue Building Permits.....	5
C. Preparation of Designs and Certification for Review	6
D. Oversight of Construction	6
E. Budget	6
V. Response Format.....	6
A. Response Format.....	6
B. Response Template	6
VI. Project Timeline and Selection Criteria	8
A. Project Timeline	8
B. Selection Criteria.....	8
Appendices.....	9
Appendix A: 30% design drawings	9

I. Background

IITA in collaboration with the University of California, Los Angeles (UCLA) seeks to build local scientific capacity to develop and find solutions to African challenges. It does this by hosting classes, workshops, seminars, conferences, mentorship, and undertaking collaborative research on topics related to science, technology and innovation.

IITA and UCLA provide training, classes, and workshops for young scientists from throughout Central Africa at its campus in Yaoundé, Cameroon. They offer courses in a wide range of scientific and technical topics like sustainable food systems, natural resources management, genomics and bioinformatics and computer programming. They also offer professional skills trainings on grant writing, communications and scientific writing.

IITA, with funding from the U.S. Agency for International Development (USAID), plans to construct a Digital Learning Center (DLC) including a learning and meeting space approximately 370 m² in size that seats approximately 100 people, on IITA's campus in Yaoundé, Cameroon. The DLC will provide an environment for learning and collaboration between American and scientists in Cameroon.

UCLA and IITA have already worked with the international design firm Gensler to develop a Conceptual Design Package—approximately 30% design documents for the DLC and guest house (see Appendix 1). The initial designs are innovative and sustainable, with a focus on natural heating and cooling, use of renewable local materials, energy and storm water, and creating welcoming spaces that are conducive to learning and collaboration. The current design has not been scrutinized for compatibility with “on the ground” conditions in Cameroon—climate, building materials and methods, and use/local lifestyle.

IITA seeks a Cameroonian A&E firm to adapt, refine and finalize the design in collaboration with Gensler, providing the local knowledge and expertise regarding local codes, building practices and materials necessary, and from which the selected A& E firm may prepare the design documents, acquire all approvals necessary for construction, and monitor construction to ensure it is in accordance with the design intent, construction drawings and technical specifications.



Figure 1: Artist's initial rendering of the conceptual design of the DLC building by Gensler. Yellow arrows show reflection of solar radiation; blue arrows show wind flow and cross ventilation.

As this project is funded by USAID through a grant to UCLA, the successful applicant must be able and willing to accept flow down terms from the funding agreement with USAID.

II. Communications and Questions

Responses are due

April 23, 2021, 1700hr

Responses must be submitted in hard and soft copies to IITA's office in Nkolbisson:

IITA-Cameroon

Eco-regional Center HFS

BP 2008 (Messa) IRAD Main Road

Nkolbisson, Yaoundé, Cameroon

Attention: Monique Tegantchouang, Administrative Secretary

Applicants should submit five hard copies (one original and four copies), and a USB drive including electronic versions of all of the documents in Word (.doc or .docx), Excel (.xls or .xlsx) or searchable PDF (.pdf) format. The five hard copies should be printed double sided, and do not need to be bound. Responses should follow the format described in Section V. below.

All questions regarding this RFP should be directed to iitaca-hrs@cgiar.org.

III. Qualifications

Applying A&E firms must:

- Possess all necessary current licenses and approvals to practice architecture and engineering in Cameroon
- Be insured
- Possess the capacity to perform the scope of work within the time and budget proposed
- Be willing and able to work collaboratively across international borders, including being able to complete all design work via design software and digital file sharing. Softwares

required are the most current versions of Revit, Rhino, Autocad, Adobe Creative Suite, Excel and Word. All digital deliverables are to be in pdf format

- Be able to work in English

IV. Scope of Work

The successful applicant will be expected to complete the following scope of work:

A. Lead Collaborative Design Process with IITA, UCLA, and Gensler

Develop 100% Design Development and Contract/Construction Documents for:

- An approximately 370 m² DLC that can seat approximately 100 people. Architect to collaborate with Gensler as it evolves the above design (see Fig 1) to meet budgetary, construction, climatic, and code requirements. The facilities should be wired for video conferencing and distance learning.
- A single modular guest house with an in-suite bathroom that can house up to four people

The designs must include all structural, mechanical, electrical, and plumbing components of the building required by code and in response to climate and “best practices”. The contract documents should be developed consistent with and in collaboration with Gensler’s design, while ensuring they are adapted for the Cameroonian context, and are able to be constructed within the project budget.

All final designs must comply with the following:

- Cameroonian building standards and requirements
- Awardee Initial Environmental Examination: will be based on the USAID ASHA Global Initial Environmental Examination (https://www.usaid.gov/our_work/environment/compliance/22cfr216)
- Climate Risk Management: Mandatory Reference ADS 201mal: Climate Risk Management for USAID Projects (<https://www.usaid.gov/ads/policy/200/201mal>)
- Standards For Accessibility For The Disabled In USAID Assistance Awards Involving Construction: 2010 ADA Standards for Accessible Design (<https://www.usaid.gov/sites/default/files/documents/1868/303maa.pdf>)
- Gender Integration: ADS 205: Integrating Gender Equality and Female Empowerment in USAID’s Program Cycle. (<https://www.usaid.gov/ads/policy/200/205>)

B. Finalize Design Documents and Pursue Building Permits

Complete design documents including Technical Specifications, Construction Drawings, Engineers Cost Estimate, and Bill of Quantities (BOQ) after integration of all environmental impact mitigations and climate change mitigative actions during the design and construction phases as well as updating of the existing Facility Operation and Maintenance Plan.

Prepare the application materials for and procure all needed approvals and permits for construction. IITA will pay for the permit costs associated with permitting separately from the A&E budget.

C. Preparation of Designs and Certification for Review

Must be willing to sign the A&E Service Provider Certification of Compliance (https://docs.google.com/document/d/1dC2S0_0jTrh0yQrw4_HTI5xgzvW5E22vNB_ayBYUHDQ/edit), certifying that the design meets the following standards:

- The final design and construction documents incorporate all findings from the Initial Environmental Examination (IEE)
- The final design and construction documents incorporate all findings from the Climate Risk Management (CRM) screening
- Adhere to the Standard Provision entitled “Standards For Accessibility For The Disabled In USAID Assistance Awards Involving Construction”
- Ensure that gender integration is considered during the design and construction phase

The successful applicant will be responsible for incorporating any feedback from IITA and UCLA technical team and the funder into the design documents.

D. Oversight of Construction

The successful applicant will be expected to regularly tour the facility during construction and ensure building is proceeding according to the design intent, construction drawings and technical specifications. The firm is also responsible for monitoring the implementation of environmental mitigation measures that are included in the IEE and CRM.

E. Budget

The maximum budget for the A&E services for this project is 7,500,000 CFA. This figure includes any applicable taxes. Bids for less than the maximum budget will be viewed favorably and score better in the review process. Please see Section VI.B. for additional details on proposal scoring.

V. Response Format

A. Response Format

Applications should be submitted following the directions in section II above. All documents must be either searchable pdf or Microsoft Word or Excel files.

B. Response Template

1. A cover letter signed by the bidder or an authorized representative
2. Information about your company:
 - a. Name of Firm
 - b. Address of Firm
 - c. Point of Contact
 - d. Contact information (phone and email)
3. Qualifications – confirm that your firm meets the following qualifications:
 - a. Has all necessary approvals to practice architecture and engineering in Cameroon
Attach a copy of all relevant licenses to your submission
 - b. Is insured. Please provide level of insurance coverage.
 - c. Has the capacity to perform the scope of work within the time and budget proposed
 - d. Attestation from Tax Department confirming no outstanding tax liability
 - e. Copy of Bank Certificate
 - f. Is willing and able to work collaboratively across international borders, including being able to complete all design work via design software and digital file sharing
 - g. Is able to work in English
4. Brief History of the Firm
 - a. Size of Firm/Staff
 - b. Years in Business
 - c. Organization chart of Firm
5. Design Team Background
 - a. Architectural Team – list all anticipated team members and any specializations they have
 - b. CV of Team Members, including educational attainment and years of experience
 - c. List licensing status of all team members, including any license suspensions in the last five years
6. Representative Projects – List a minimum of five (5) projects completed by your firm that best represents a similar scope, budget, program and complexity. Projects performed with U.S. funding or for international entities or the private sector are preferred. For each project, please include:
 - a. Completion Date
 - b. Name and Location
 - c. Budget
 - d. Graphic Description
 - e. Brief description of the project, including any sustainability measures incorporated in the design
 - f. Photographs
 - g. Total square meters
 - h. Cost per Square Meter – Exclude Site Costs and Architectural Fees
 - i. Owner Representative
7. References – provide at least contact info for five past clients as references for your firm's work
8. Cost Effective Design

- a. Please list the cost per square meter for your new construction projects in the past five years. Please exclude all Site Costs and Professional Fees.
 - b. For projects completed in the last five years please list the Cost Estimate, Bid Amount, and Difference. Please list any changes in scope if appropriate and if this change in scope resulted in an increase in your fee.
 - c. Provide a proposed budget for this project that includes all costs, fees, and taxes.
9. Use of technology and experience with collaborative design processes
- a. Provide details about the design software you intend to use for this project, including your experience with the software
 - b. Provide examples of any times you have collaboratively designed with other firms remotely/virtually.
 - c. Explain your planned approach to collaborative design
10. Proposal for this project
- a. Explain how your firm would approach the proposed scope of work, including technical design and management
 - b. Confirm that you have reviewed the relevant funder's standards regarding environmental impact, gender, and disability access (see §IV.A. above), and confirm that your firm will be able to assess whether the final designs comply with the standards.
 - c. Anticipated staffing, including roles and responsibilities. Any tasks that will be handled by contracts outside the firm should be clearly noted
 - d. Provide the expected timeline for the project
 - e. Provide Lump Sum Fee proposal broken out per phase for Design Review, Design Development, Construction Documents and Bidding and Permitting. Break out fees separately for architect and separate engineering consultants as needed by discipline. Provide not-to-exceed fee limit for Construction Administration Services, which are to be provided on a Time and Materials basis.
 - f. Detail quality control measures

VI. Project Timeline and Selection Criteria

A. Project Timeline

Proposals due: 23 April 2021

Expected decision: 28 May 2021

Contract finalized: 25 June 2021

Beginning of engagement: 28 June 2021

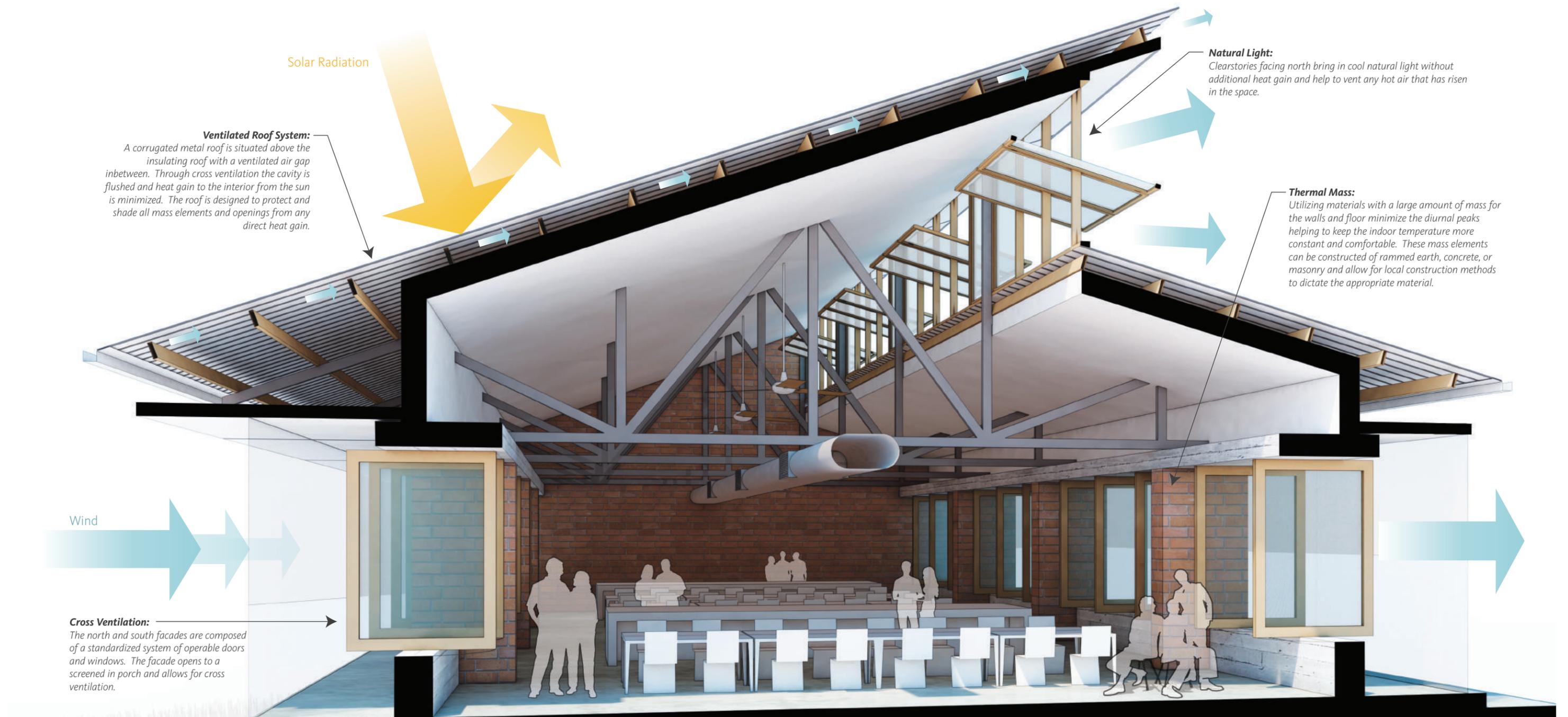
B. Selection Criteria

In order to be considered, a firm must meet all of the qualifications listed in section III, and submit a complete application following the format in section V.A. Applicants who meet the qualifications and submit a complete application will be judged based on the following rating system:

RFP Criteria	Weight
Qualifications of Firm (quality of work, projects of similar type, character, size and complexity) and Design team (staff background and experience)	25 points
Bonding and insurance capacity	5 points
Adhering to funder's subject matter requirement	5 points
Prior successful projects (client references)	15 points
Vision for collaboration and sustainable design	15 points
Familiarity with computerized design tools	10 points
Proposal/Approach/Work Plan	25 points
TOTAL	100 points

Appendices

Appendix A: 30% design drawings



Solar Radiation

Ventilated Roof System:

A corrugated metal roof is situated above the insulating roof with a ventilated air gap inbetween. Through cross ventilation the cavity is flushed and heat gain to the interior from the sun is minimized. The roof is designed to protect and shade all mass elements and openings from any direct heat gain.

Natural Light:

Clearstories facing north bring in cool natural light without additional heat gain and help to vent any hot air that has risen in the space.

Thermal Mass:

Utilizing materials with a large amount of mass for the walls and floor minimize the diurnal peaks helping to keep the indoor temperature more constant and comfortable. These mass elements can be constructed of rammed earth, concrete, or masonry and allow for local construction methods to dictate the appropriate material.

Wind

Cross Ventilation:

The north and south facades are composed of a standardized system of operable doors and windows. The facade opens to a screened in porch and allows for cross ventilation.

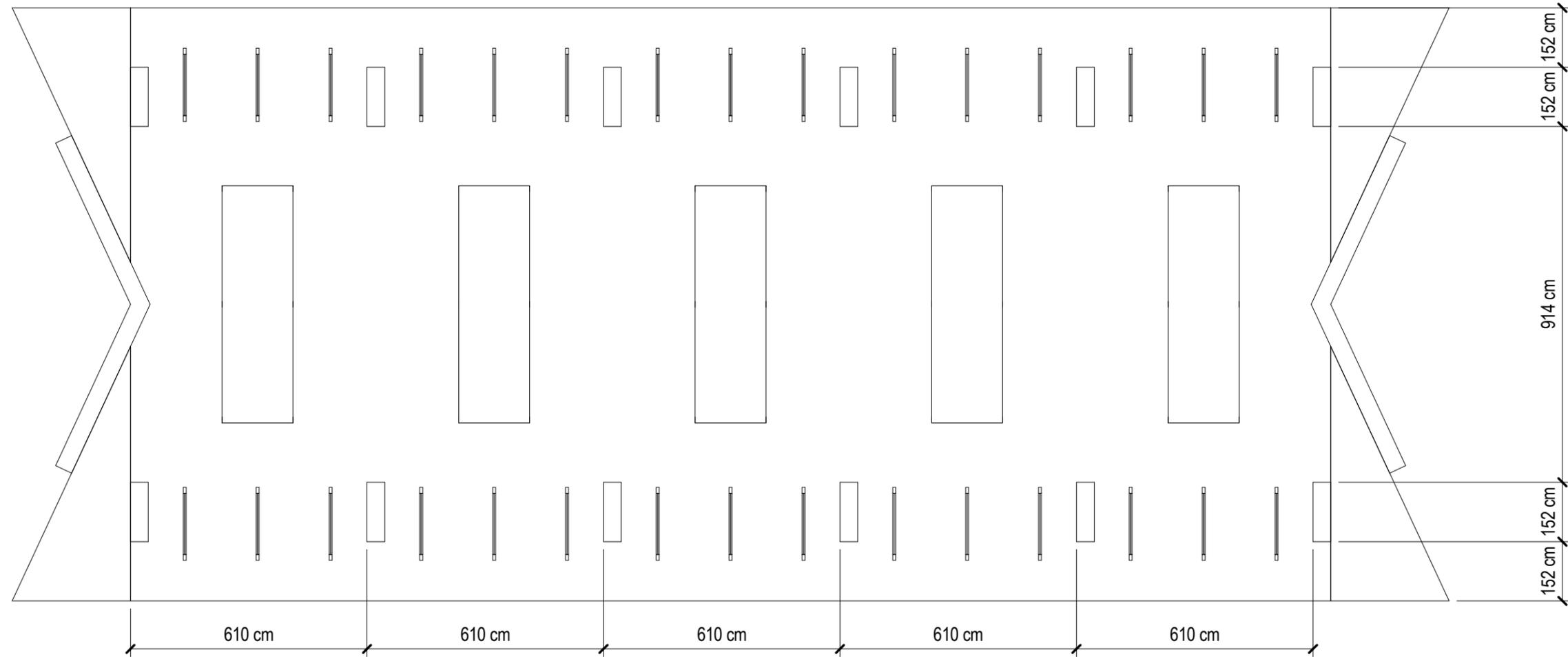
Section through Learning Center

The construction typology used for the Learning Center will be implemented for other buildings and programs, including technical training, equipment repair facilities, remote sensing research facilities, research and training labs, molecular and genetic laboratories, and administrative offices.

The construction techniques employed for the distance learning center allow the building to function passively by taking advantage of the cross ventilation and limiting any direct and indirect heat gain from solar radiation. Furthermore, the building strategy is designed to efficiently utilize mechanical cooling as required.

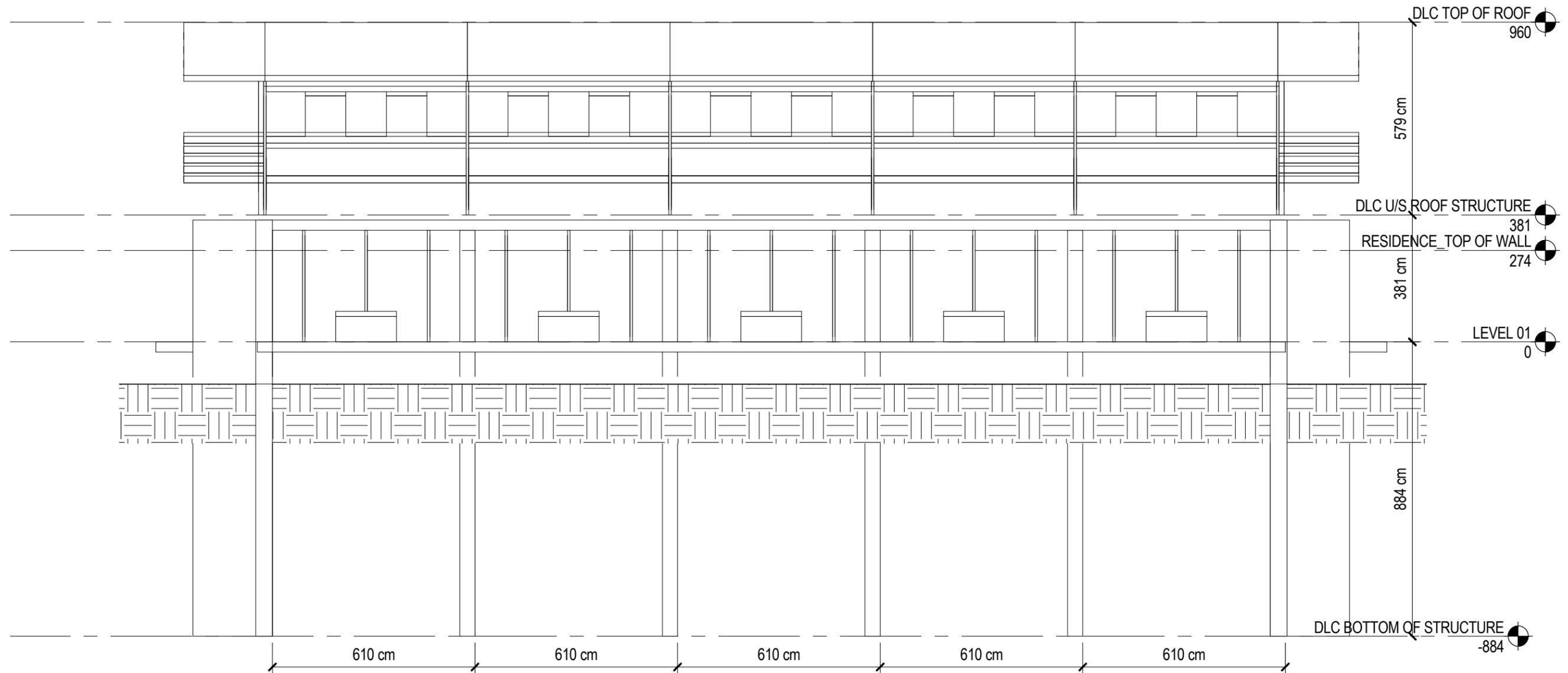
Concept Design

30% Drawings



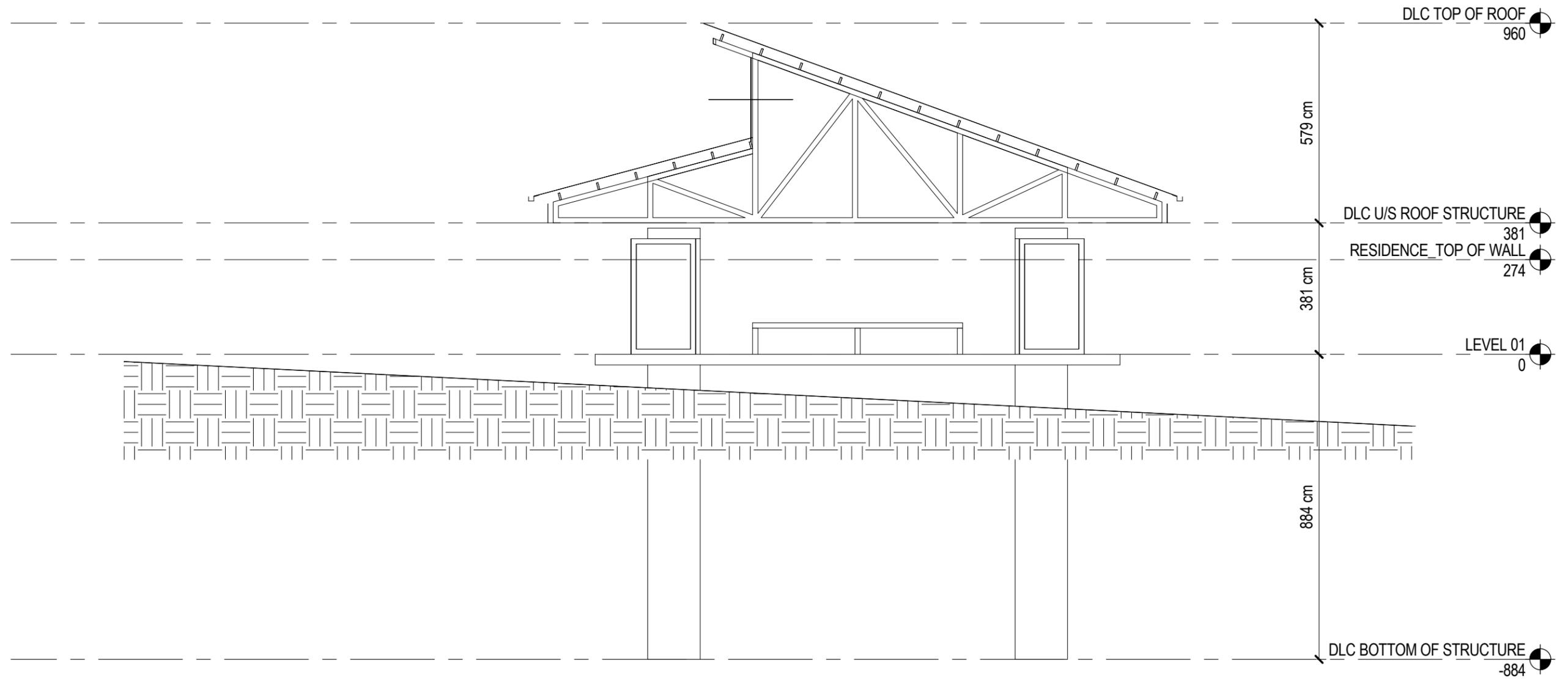
Concept Design

30% Drawings



Concept Design

30% Drawings



Concept Design

30% Drawings

MEP/FP Systems:

- Natural Ventilation, Thermal Mass Cooling
- PV Energy Supply w/ Battery Backup
- Low energy LED lighting
- Occupancy / Daylight Controls (if available locally)
- Ceiling Fan for passive thermal comfort
- Rain Catchment, treatment and re-use
- Ultra Low-Flow Plumbing Fixtures

