



GET – Gestão de Energia Térmica Lda. (Thermal Energy Management Ltd.)

Grantees Specialists in Acclimatization Engineering by de Portuguese Professional Association of Engineers, and Qualified Experts by the Portuguese Energy Agency "ADENE"

The company "GET-Thermal Energy Management Ltd." is a limited company founded in 1985 and owned by its two partners:

Alfredo Costa Pereira
&
Raul Vasconcelos Bessa

"GET" - Management



Founding Partner of the company:

Alfredo Costa Pereira - Managing Partner

He is M.Sc. Mechanical Engineer from the Faculty of Engineering of University of Porto;

Was proposed by the INIC and FEUP to conduct a Research Master (master after Master level) Post-Graduate Diploma Course, option Environmental and Industrial Fluid Dynamics in the von Karman Institute for Fluid Dynamics in Brussels, which concluded with 18 points and the title of "Honors".

Was Professor Coordinator of Institute of Engineering of Porto, and vice president of "CIDEM" Research Center of Mechanical Engineering, having performed among others, a research project funded by the Foundation for Science and Technology (FCT) on "radiant cooling "by chilled ceilings; Maker's "Qualified Expert" and Qualified Expert of the National EPBD National Service for Certification Energy and Indoor Air Quality in Buildings (SCE) and granted with the title of "Acclimatization Engineering Specialist" by the Engineers Portuguese Association;



"GET" - Management

He is a member A.S.H.R.A.E n. N° 02036552 and senior member of the Portuguese Association of Engineers;
Qualified Expert for the National (EPBD) National Service for Energy Certification of buildings and IAQ;
Founding Member of the National Observatory of Respiratory Diseases, and the Portuguese Society of Lung, acting as expert in Indoor Air Quality in buildings.

"GET" - Management



Raul Vasconcelos Bessa

Managing Partner of the company, and Executive Director:
Mechanical Engineer from the Faculty of Engineering of University of Porto;
Qualified Expert in all aspects of the National EPBD- National Service for
Energy Certification and Indoor Air Quality in Buildings (SCE).
Granted with the title of "Specialist in acclimatization engineering" by the
Portuguese Association of Engineers.
Member A.S.H.R.A.E No. 8083446;

The GET company is recognized by the Portuguese Agency for Energy, “ADENE”, as an entity with the authority to develop draft climate and to issue their statements of Regulatory Compliance, and then issue the relevant certificates Energy new buildings and existing ones also, that comply with the regulations of the National Service for Energy Certification and Indoor Air Quality in buildings (SCE).

The Founding and Managing Partner Alfredo Costa Pereira is a Qualified Trainer Expert (SCE) in IAQ, and the executive Managing Partner Raul Vasconcelos Bessa is Qualified Expert in all aspects of the (SCE).



The GET company currently consists at its Headquarters in Oporto for 26 employees including engineers and designers.

In 2006 a branch was established in Lisbon, with 4 employees.



COMPANY MISSION

The company consists of nine departments to interact in different areas:

1. HVAC mechanical installations in office buildings, industrial, commercial and residential;
2. Fluid mechanics, mechanical ventilation, smoke control and natural ventilation;
3. Using the “Revit” platform since 2010;
4. Installations of gas networks;
5. Bioclimatic engineering and Renewable energy;
6. Energy audits, rational use of energy in buildings;

7. Energy audits, and rational use of energy in industry (SCGIE);



8. Energy and environmental certification of buildings;



9. Innovation - Research & Development.

OPORTO HEADQUARTERS



GOALS OF GET WORK

Comprehensive analysis of the surrounding buildings, in partnership with the architecture.

The Principles of heating and cooling for each particular case, are reached at a meeting with the architect in order to respect the architectural criteria, maintaining occupant comfort without excessive expenditure of energy.

The GET-"Management of Thermal Energy," has studied over more than 29 years the best air conditioning system that allows a high human comfort without excessive expenditure of energy.

We learned that a good design is the first step to a good air conditioning system.

GOALS OF “GET” WORK

Whenever possible are introduced along with bioclimatic architecture solutions like:

- ✓Buried pipes;
- ✓Thermal inertia, combined with natural ventilation;
- ✓External thermal insulation;
- ✓Sun protection glazing in South oriented;
- ✓Blackouts in glazing oriented to the west;
- ✓Trombe walls.

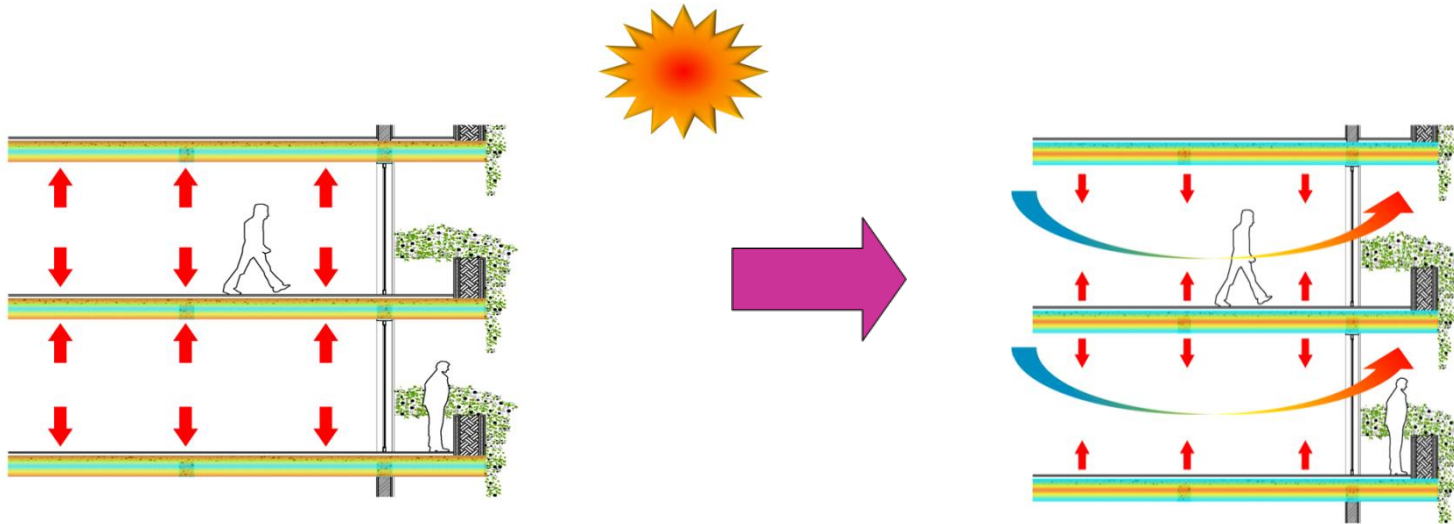


The implementation of these measures, results in an average reduction of energy consumption in the order of 30%.

GOALS OF “GET” WORK

Bioclimatic Solutions:

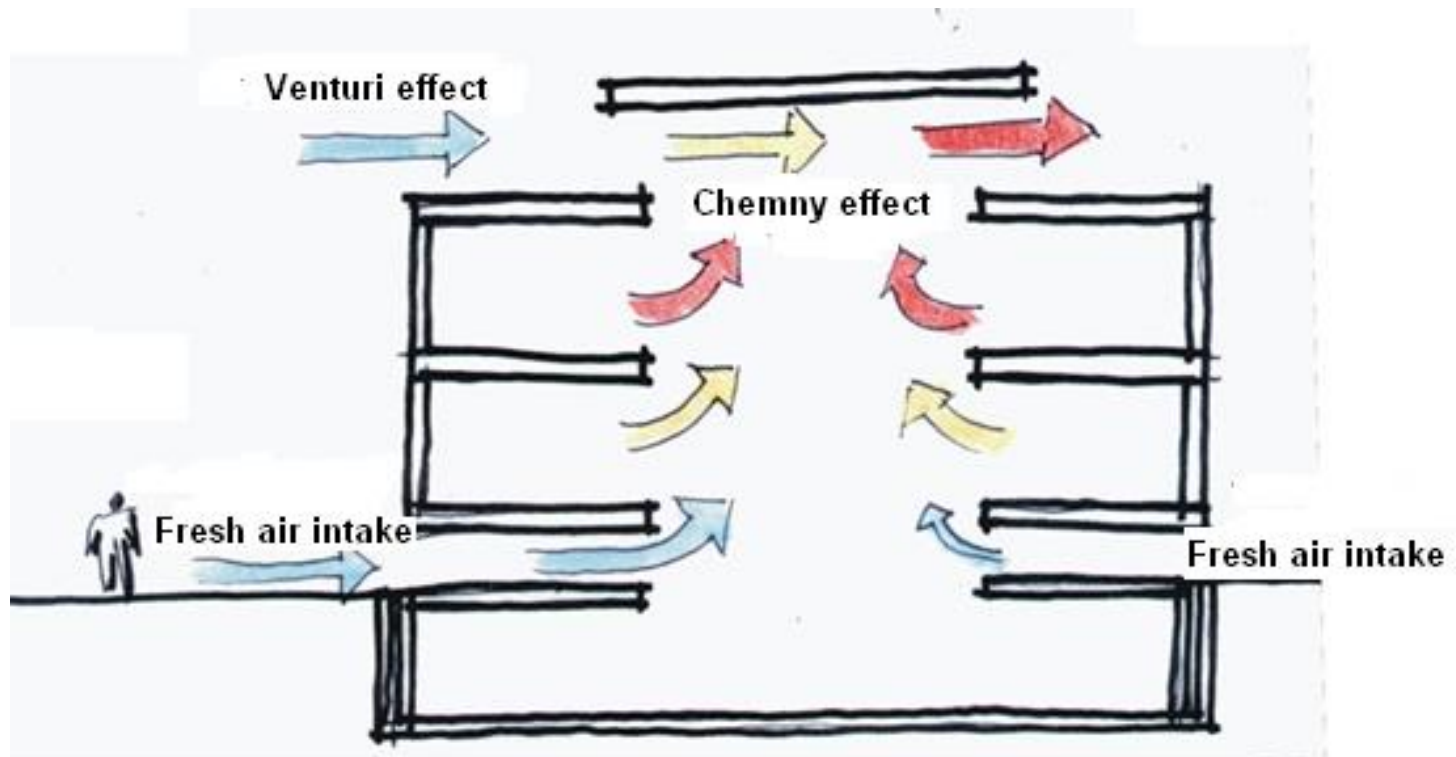
- ✓ Thermal inertia combined with natural ventilation



GOALS OF “GET” WORK

Bioclimatic Solutions:

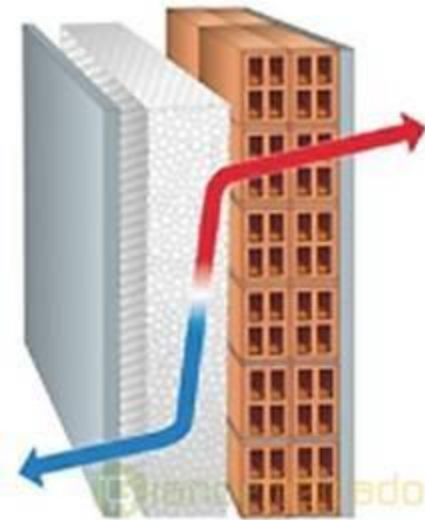
- ✓ Thermal inertia combined with natural ventilation



GOALS OF “GET” WORK

Bioclimatic Solutions:

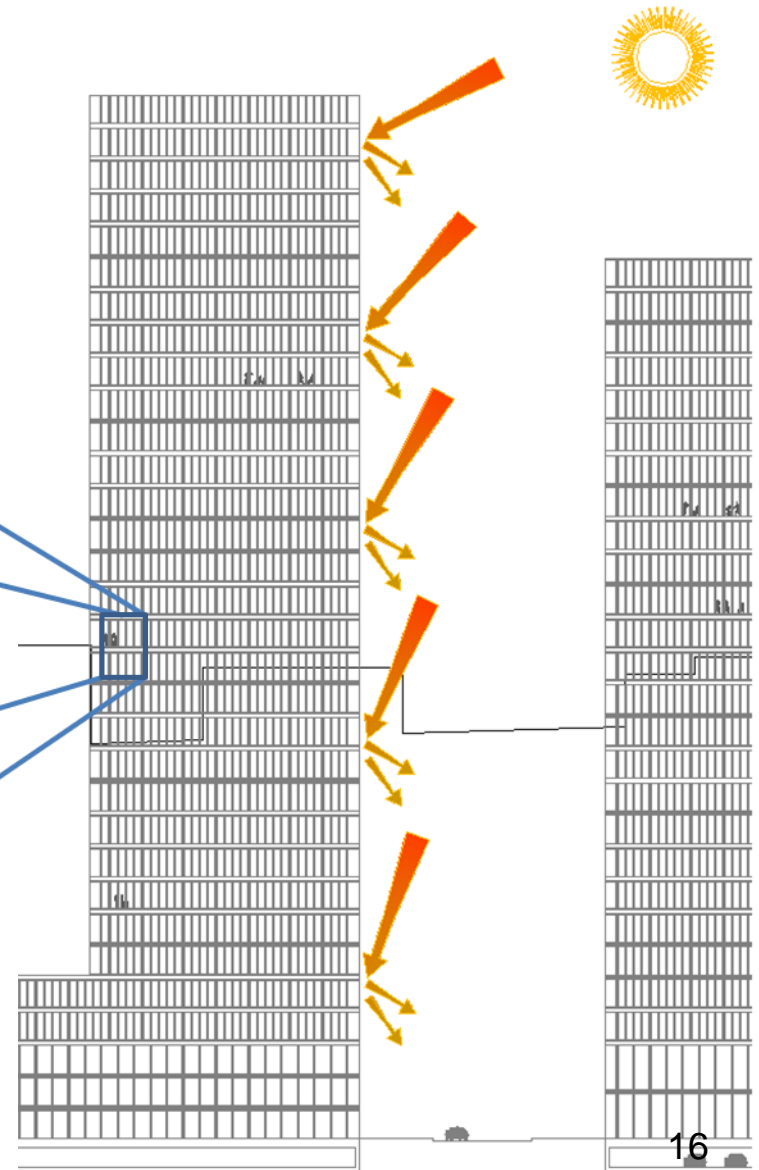
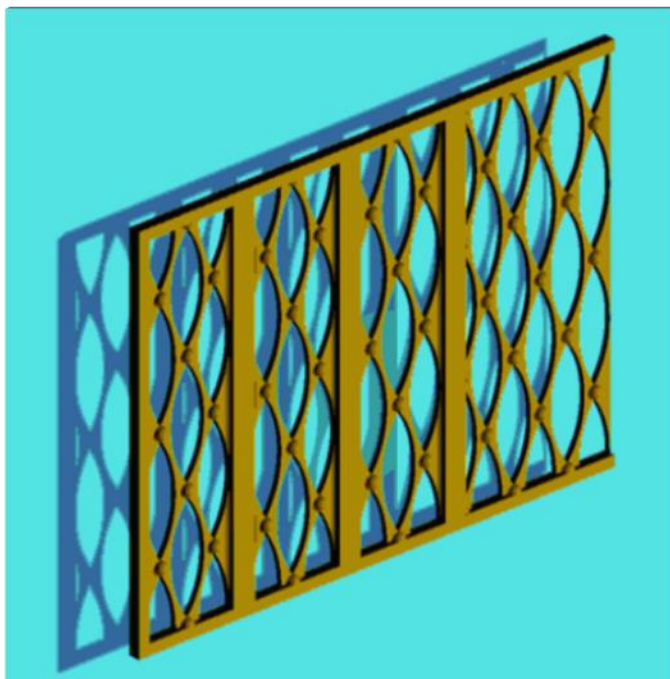
- ✓ External thermal insulation



GOALS OF “GET” WORK

Bioclimatic Solutions:

- ✓ Shading devices



GOALS OF “GET” WORK

Bioclimatic Solutions:

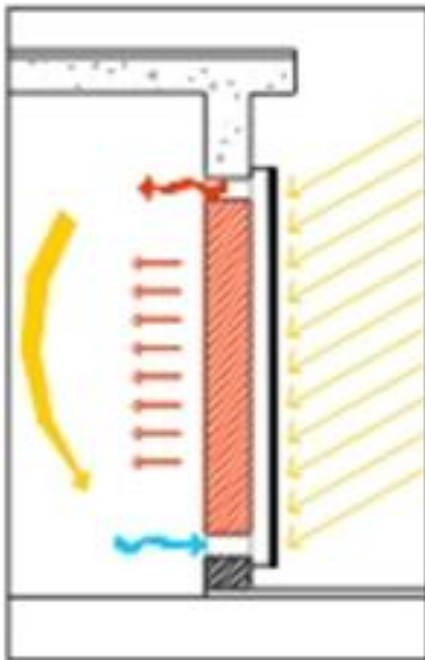
- ✓ Shading devices



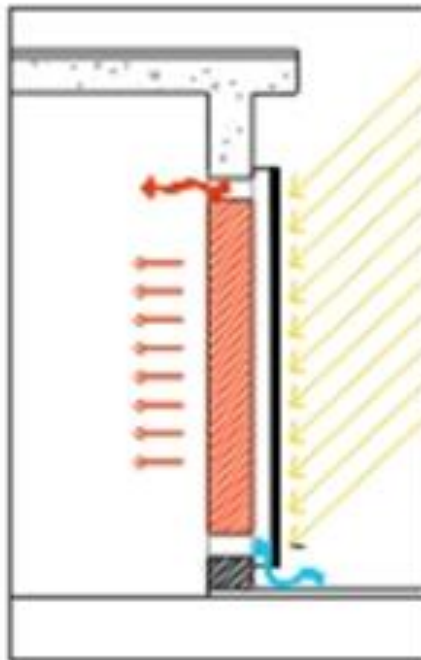
GOALS OF “GET” WORK

Bioclimatic Solutions:

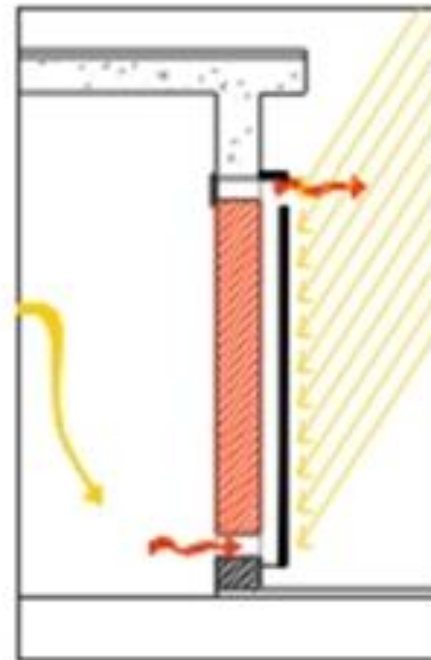
✓ Trombe Wall



WINTER



SPRING/AUTUMN



SUMMER

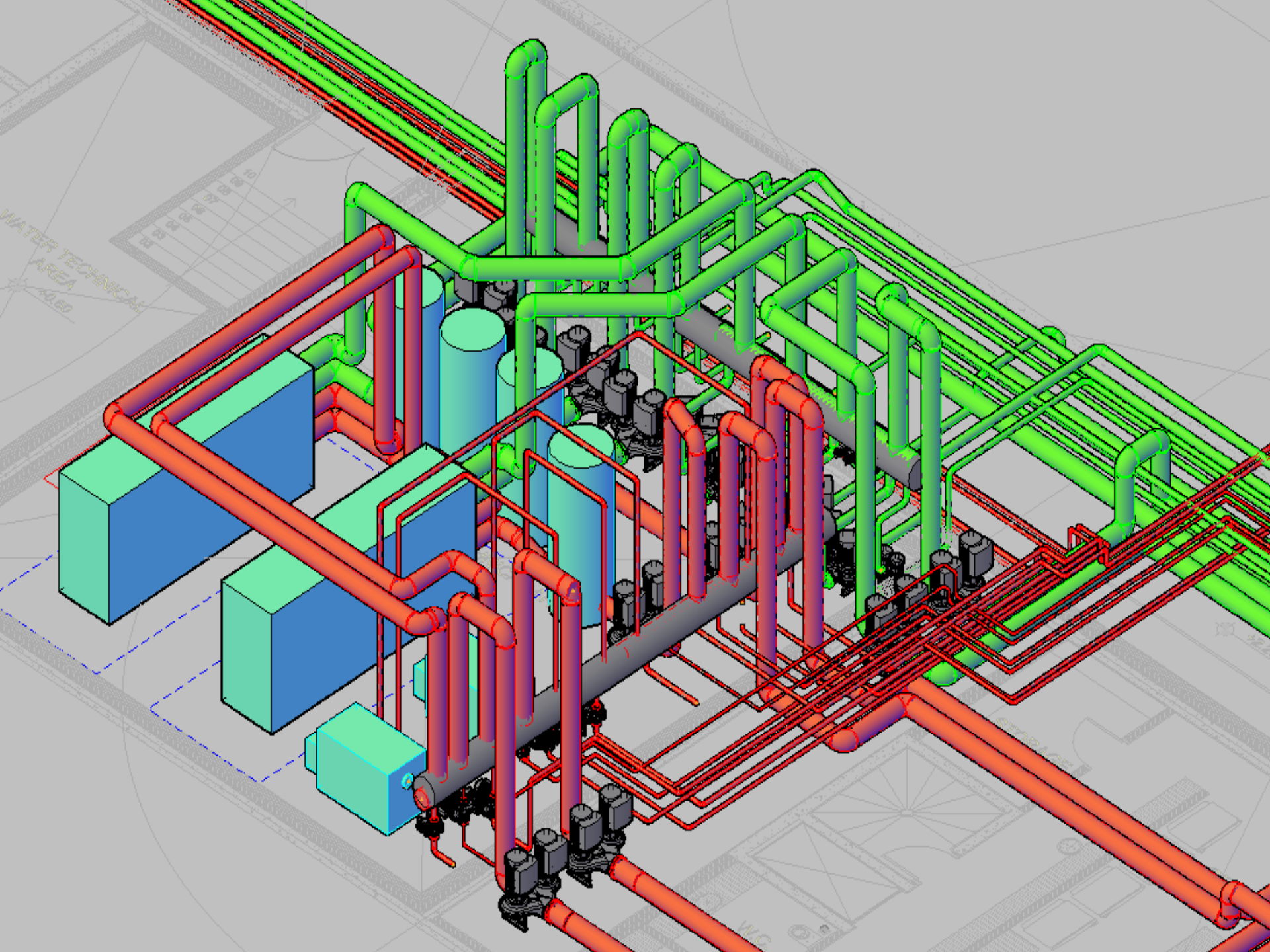


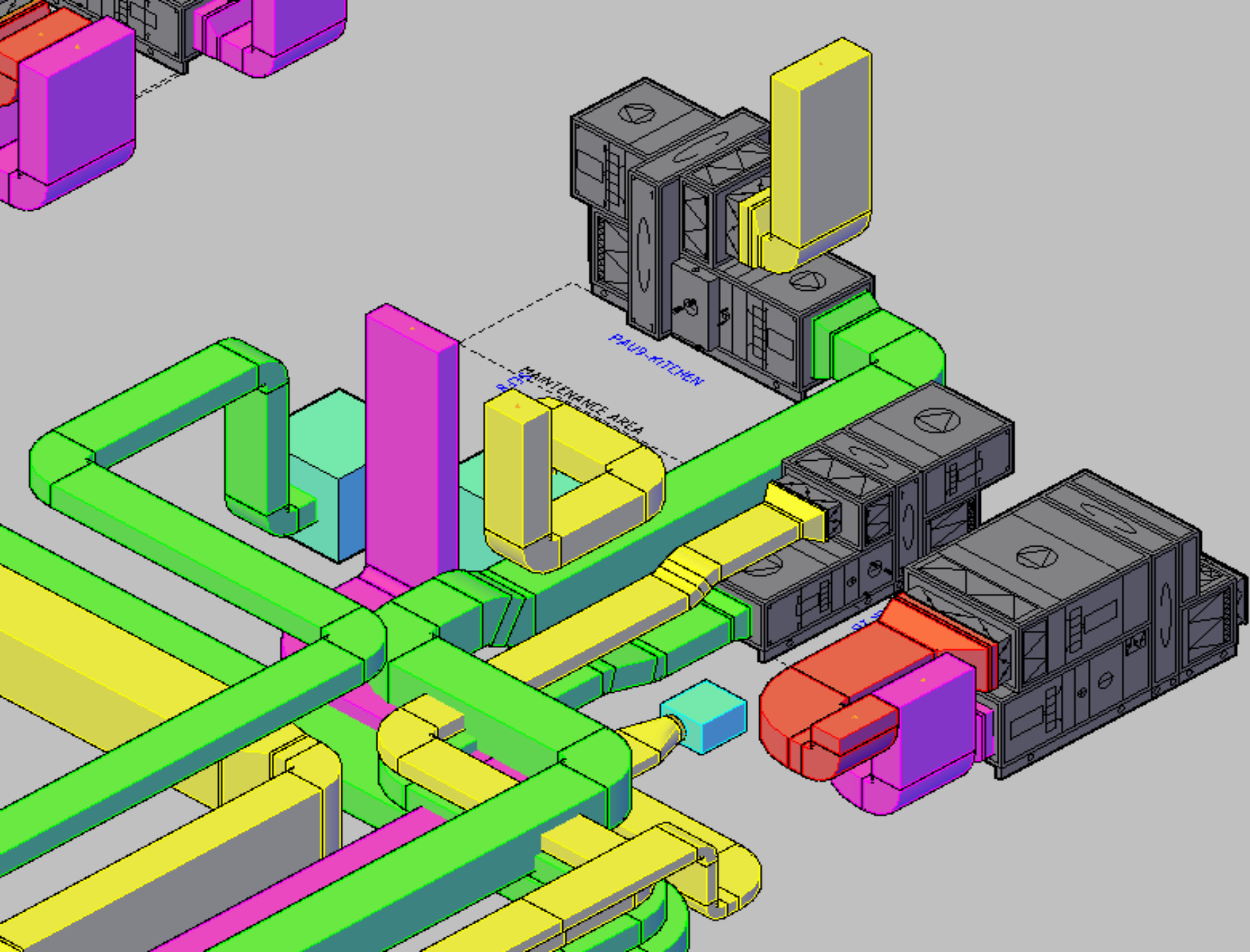
VALUATION AND REPUTATION AS LEADERS IN SERVICE IN LARGE COMMERCIAL BUILDINGS AND SERVICES

Whether a job is big or small, customer satisfaction is our main objective.

We pay close attention to detail, and we will continuously exceed our expectations for the performance of our buildings.

Given the great detail of Spare Parts Designed and Written, of our HVAC designs, any installer will be able to easily build them in order to achieve high levels of human comfort with very low energy consumption.





VALUATION AND REPUTATION AS LEADERS IN SERVICE IN LARGE COMMERCIAL BUILDINGS AND SERVICES

The low power consumption vary according to the design, method of operation, operating standards, maintenance of control systems, system monitoring, and competence of the operators.

Some ways to increase the energy efficiency of a building does not have any additional investment, while others will require some investment. Generally, the implementation of a maintenance plan, the installation of controls and updating of equipment, when possible, are good practices to save building energy costs.

ARCHITECTS AND REFERENCES

Our company "GET" proud to work with the best architects in the world:

- ✓ Álvaro Siza Vieira;
- ✓ Eduardo Souto de Moura;
- ✓ Fernando Távora
- ✓ Óscar Niemeyer;
- ✓ Acácio Borsoi;
- ✓ Frederico Valsassina;
- ✓ Carrilho da Graça Arquitectos;
- ✓ Bernades Jacobson;
- ✓ Herzog & De Meuron.
- ✓ Alcino Soutinho

MAJOR DESIGNS OF MUSEUMS / FOUNDATIONS

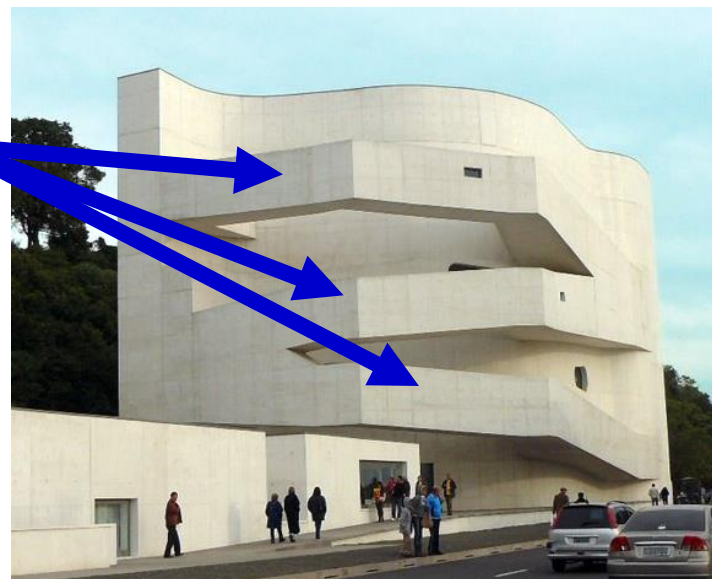
- ✓ Foundation / Museum of Contemporary Art Ibero Camargo (Brazil);
- ✓ Contemporary Art Museum Sao Paulo (Brazil);
- ✓ Museum Soares dos Reis; (Portugal)
- ✓ Owner Regina Museum (Naples);
- ✓ Mimesis Museum (South Korea);
- ✓ Museum of Art and Archaeology of the Coa Valley; (Portugal)
- ✓ Cargaleiro Foundation; (Portugal)
- ✓ Bauhaus Museum (China);
- ✓ Palacio Pombal; (Portugal)
- ✓ Cultural Complex Luz (Brazil)
- ✓ Fundação/Museu de Arte contemporânea Ibero Camargo (Brazil);
- ✓ Museu arte contemporânea São Paulo (Brazil);

INNOVATIVE CASES

- ✓ Museum / Serralves;
- ✓ College of Communication and studies of Santiago de Compostela (Spain);
- ✓ Clinical diagnostic Matosinhos;
- ✓ Beach House Doha (Doha);
- ✓ Keells City (Sri Lanka);
- ✓ Center Odebrecht (Brazil).
- ✓ Museum of Contemporary Art of S. Tiago de Compostela (Spain).

Iberê Camargo Foundation (Brazil)

Detailed study of circulation for cooling with radiant walls and ceilings.



Iberê Camargo Foundation (Brazil)

Detailed study of circulation for cooling with radiant walls and ceilings.



IBERE CAMARGO FOUNDATION (BRAZIL)





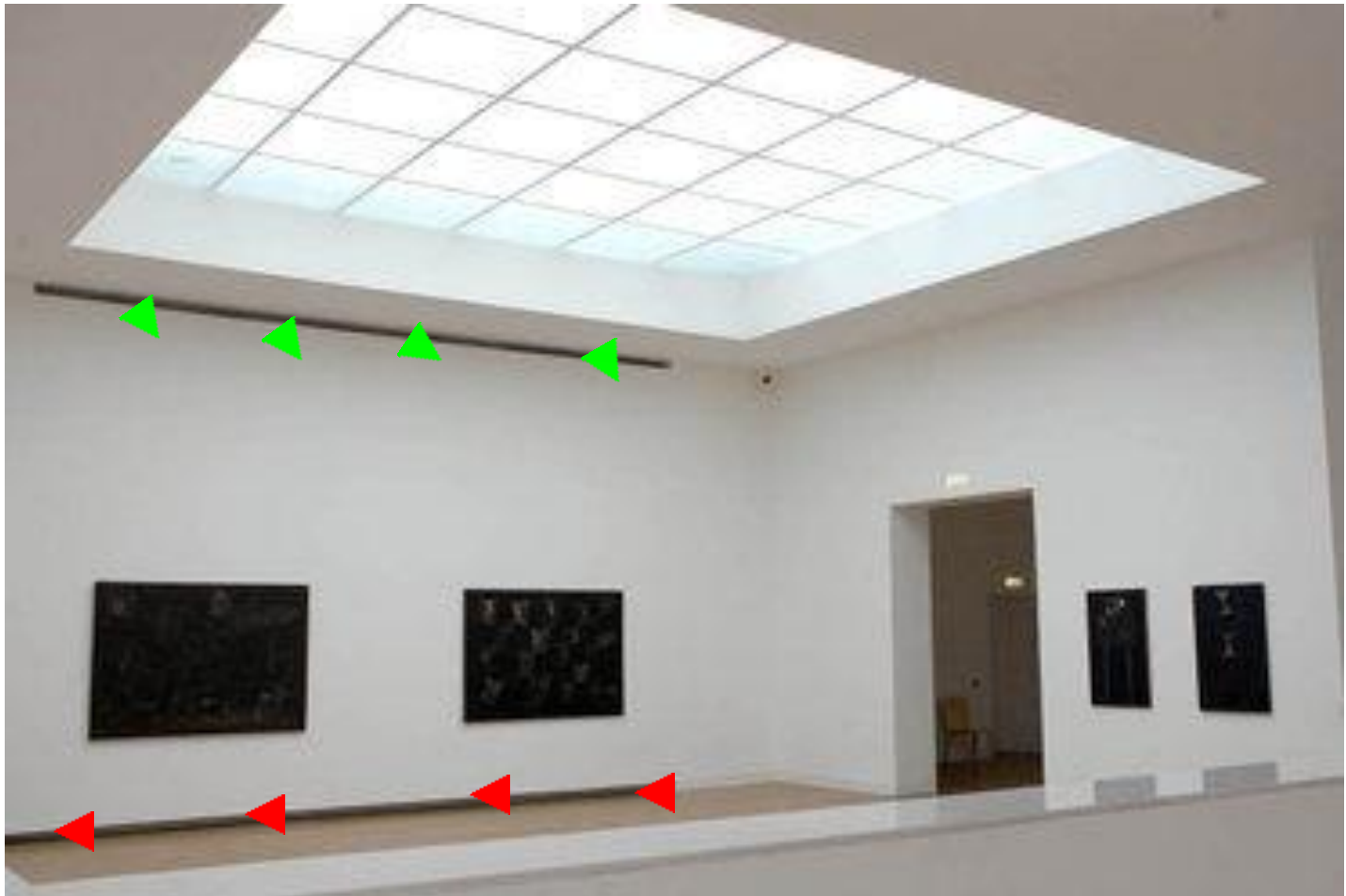
SERRALVES FOUATION MUSEUM OF CONTEMPORARY ART

Air conditioning of spaces from inflation with slits in the double wall, and likewise return the bottom wall.

Example with great success.

Thermal storage using ice banks.

SERRALVES FOUNDATION



SANTIAGO DE COMPOSTELA (Spain) COLLEGE OF COMMUNICATION AND SCIENCES



SANTIAGO DE COMPOSTELA (Spain) COLLEGE OF COMMUNICATION AND SCIENCES

Details of the cooling system
the auditorium, with one
insufflation slit in the left side of
the ceiling and return /
extraction slits along the floor
and the stage.

Project awarded by the
architect Álvaro Siza.



MATOSINHOS (PORTUGAL) MEDICAL DIAGNOSTIC CENTER

In this case, since this is a clinic with offices with reduced dimensions, the traditional solution of fan coil was abandoned at the outset.

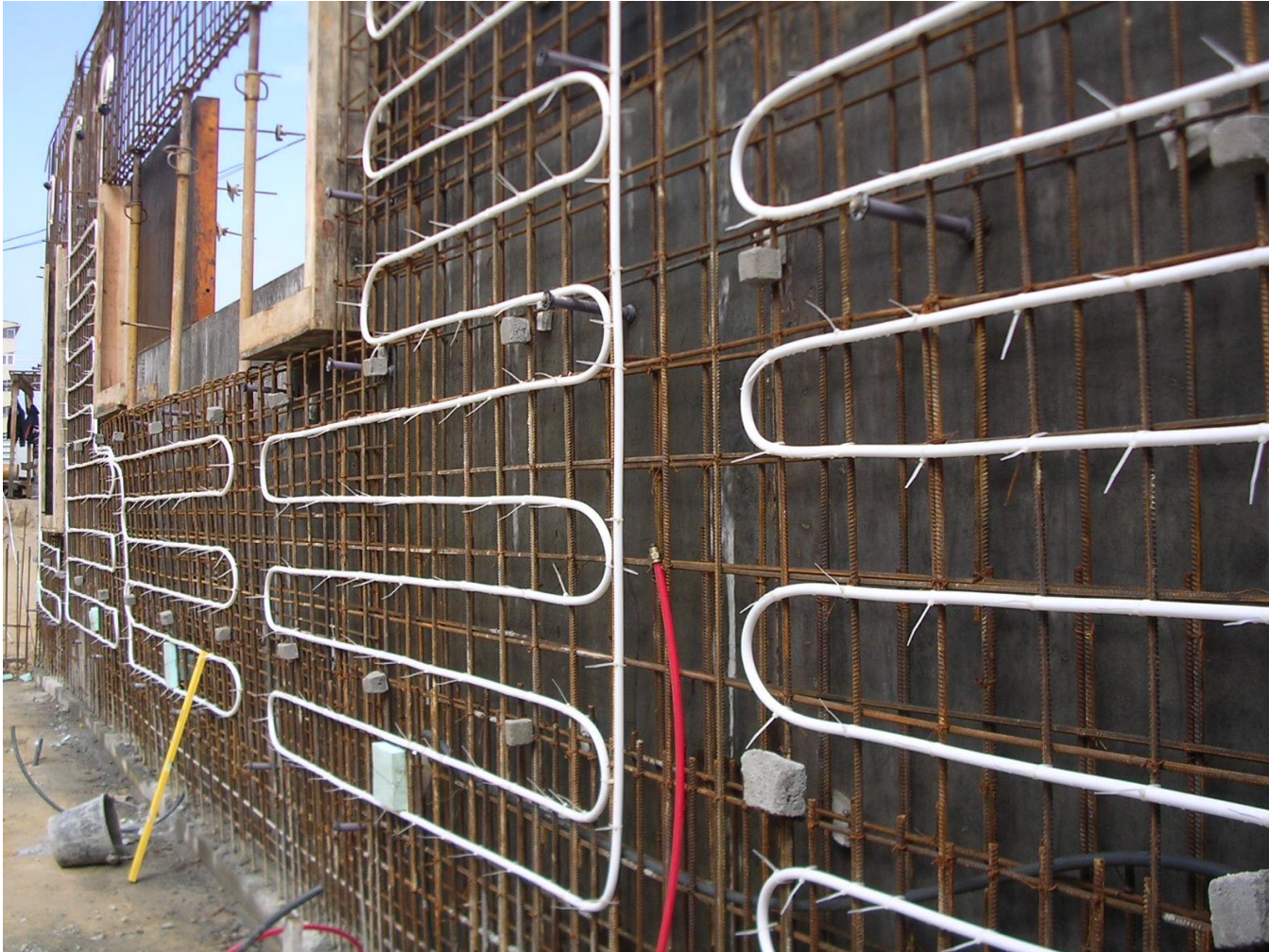
The only viable solution would be to design a radiant cooling/heating system inserted into the concrete structure itself of the building.

Polystyrene tubes were installed for cooling and heating, positioned in the neutral plane of slabs and concrete walls, referred to as "Batiso" or "Concrete core" radiant HVAC system.

MATOSINHOS (PORTUGAL) MEDICAL DIAGNOSTIC CENTER



MATOSINHOS (PORTUGAL) MEDICAL DIAGNOSTIC CENTER



DOHA BEACH HOUSE



DOHA BEACH HOUSE

The great difficulty of this project was mainly due to the high temperatures and humidity outside.

Since this is a house with a floor area of about 10.000m², you would need to find a HVAC system with a high SEER, in order to reduce energy consumption.

The solution passed through a central cooling using a sea water-cooled chillers, with a high energetic efficiency.

The fresh air is admitted through a system of pipes buried.

KEELLS CITY



KEELLS CITY

Solution for Centralized HVAC building typology, using river water cooled chillers , characterized by a high SEER.

Climate, using air handling units with heat recovery.

ODEBRECHT CENTER



ODEBRECHT CENTER

Detailed study to increase the energy efficiency of the building.

- ✓ Study the architecture of the building, especially layout, type spaces and the building envelope.
- ✓ Study of passive components, such as external envelope walls, roof, glazed openings, shading, thermal insulation.
- ✓ Building Energy Simulation in the current conditions of architecture.
- ✓ Study solutions to improve the energy efficiency of the building.
- ✓ Cost analysis for different simulations of energy.
- ✓ Initial approach of active systems proposed by the project.
- ✓ Comparison system with a direct expansion system water.

MAJOR PROJECTS DONE IN MOZAMBIQUE

- FACIM MAPUTO WATERFRONT COMPLEX
- MAPUTO TOWERS
- REDES DE BANCOS “MOZA BANK”
- MILLENIUM PARK
- MACULOSSO TOWER
- OFFICE BUILDINGS “SAL E CALDEIRA”



Thank you for your attention!

Alfredo Costa Pereira & Raul Vasconcelos Bessa

GET – GESTÃO DE ENERGIA TÉRMICA
Lda. (Thermal Energy Management Ltd.).
(since 1985)