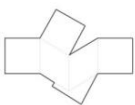
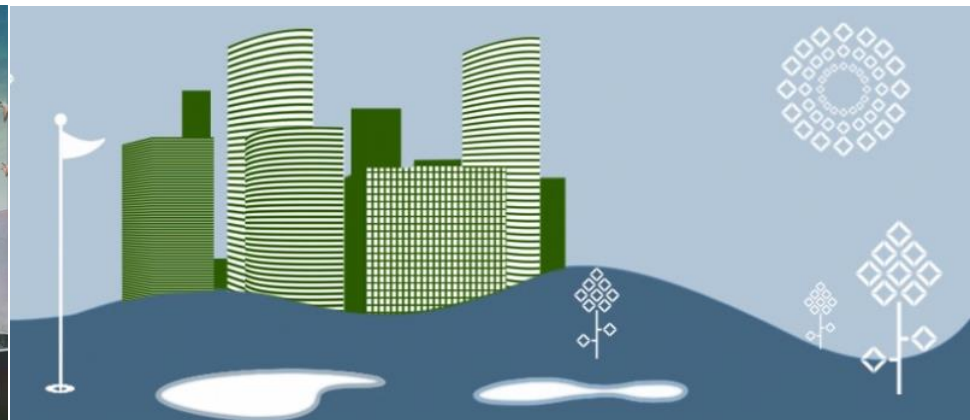


FACADE ENGINEERING & PROJECT MANAGEMENT



INTRODUCTION

Fairwood Group

Fairwood is a highly respected Project Management Company, specializing in managing the full lifecycle of real estate projects. With a unique ability to combine vast professional expertise, management competence and an outstanding customer service, Fairwood is definitely your true partner for managing your pre and post construction initiatives.

As a part of Fairwood Construction Management Facade team with rich experienced workforce are responsible for overseeing the facade executions process and approvals.

To further expand its reach to the path breaking technologies, Fairwood has established Joint Ventures with some of the leading firms. Going forward, Fairwood is focusing on new technologies, innovative ideas and Green Research to drive its business in India and internationally.

VS-A Group

The VS-A gathers three companies specialized in the design of building envelope, also called façade engineering, which is a relatively recent specialization.

We started in Paris in 1989 and since then, it has become more and more necessary to achieve expressive and cost-effective facades, with high quality and certified performances.

We work as designers, interacting with Architects, Developers and Contractors on all kinds of programs and building types: residential, hotels, cultural, office buildings, luxury retail, high-rise, recreational, car-parks, transport hubs, factories.

On any of these projects, we can be appointed by Architects or Developers from competition stage up till the final completion of the work. We are sometimes appointed as jury members, conference lecturers, norm-writers, product-designers.



WHY US

In order to have a better reach to our clients and provide end to end services of international standards from initial conceptualisation to the construction management a JV has been established between **VS-A** and **FAIRWOOD Group** and we believe with rich experience of both the companies in their particular field it will definitely add value to project.

OUR SERVICES

- Feasibility Studies for Building Envelope
- Building envelope systems design
- Economics and Planning
- Building performance systems
- Efficient Solar protections
- Glass engineering
- Building Physics and analysis
- 3D and complex geometry
- Wind engineering
- Building Envelope sustainability
- Building maintenance systems design
- Performance testing and visual Mockup
- Peer Review and Consulting
- Restoration for Building Envelope
- Value engineering
- Project Management

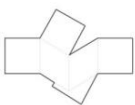
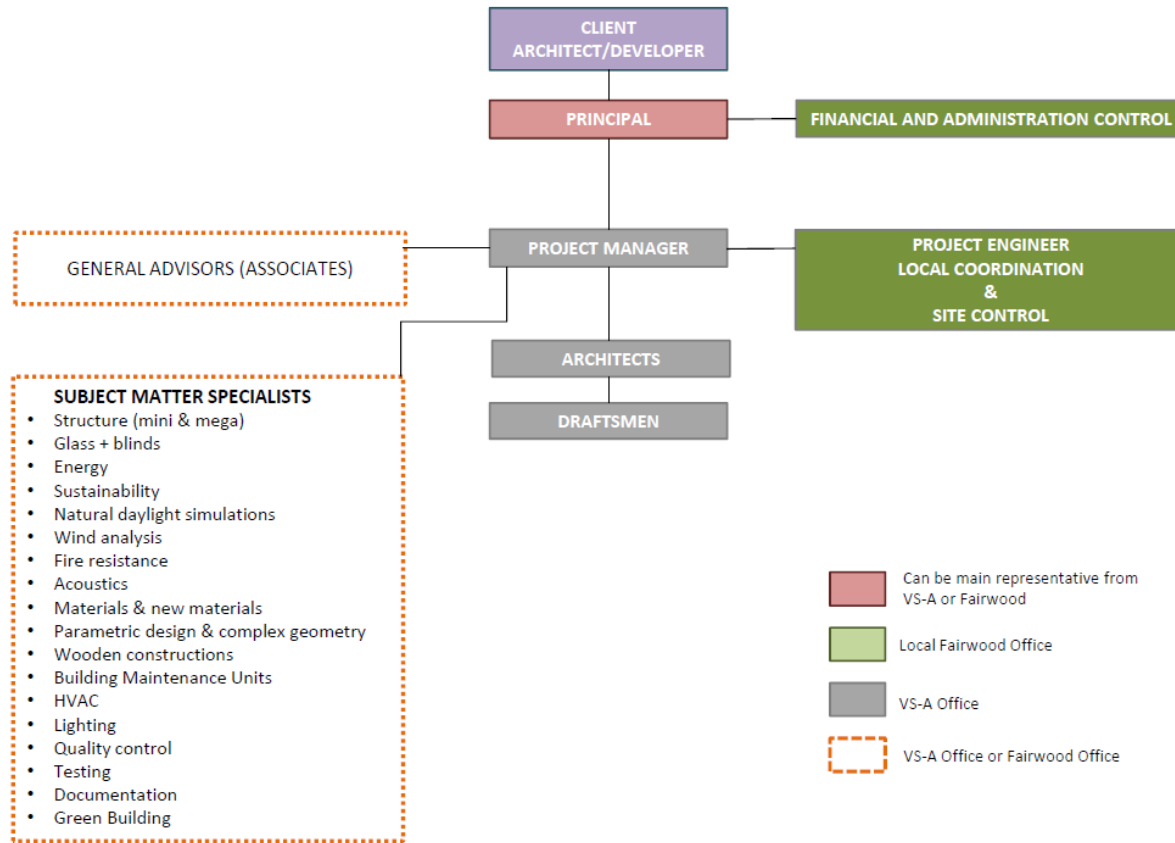


HOW WE WORK

Every project has a dedicated Project Manager and a referent Associate. The Project Manager sets up an appropriate team together with a network of our specialists.

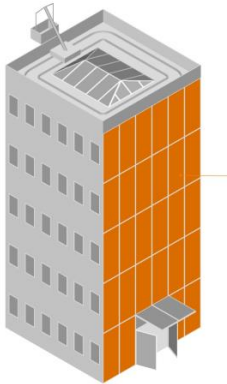
In order to deal with all the technical domains of building's envelopes, we have introduced specialized poles into all of the 3 offices and JV partner office . Each pole develops a specific knowledge with the help of its on-going training and shared experience.

To facilitate the management and the internal communication between the different offices, we have developed specific softwares for management, bespoke tools for calculations, standards for the deliverables, and data bases to share documentation and experience

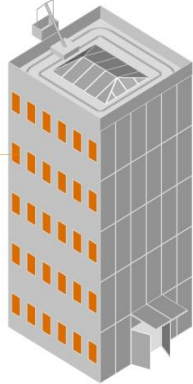


EXPERTISE

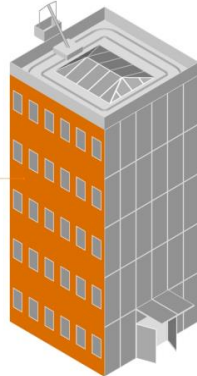
We are a part of a group of engineering office that deals with the envelope of construction and the experience not only ranges to the general building constructions but we do posses an engineering acume for high rise and complex geometries. Our expertise and engineering consultancy services includes for the following along with full scope project management services.



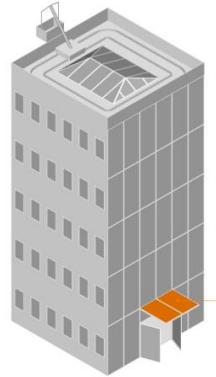
Curtain Wall



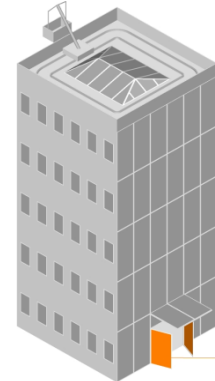
Windows



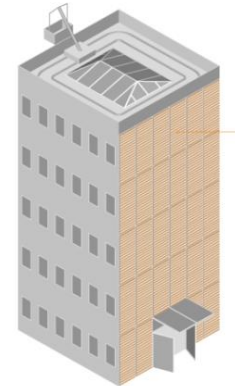
Cladding



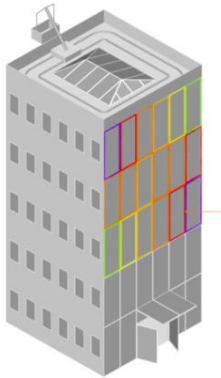
Canopy



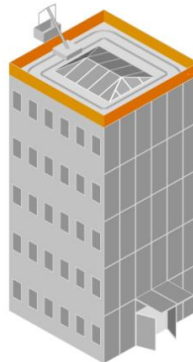
Entrance Facade



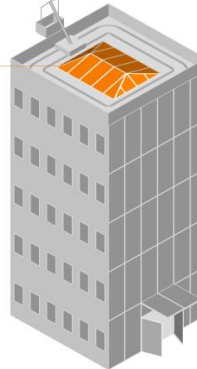
Solar Protection



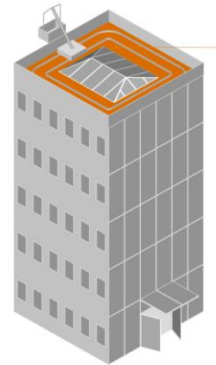
Lighting



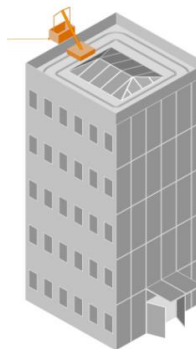
Balustrades



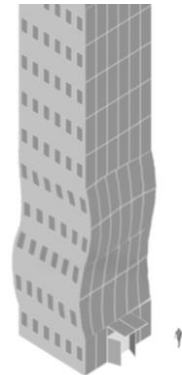
Skylight



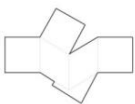
Roofing



Building
Maintenance

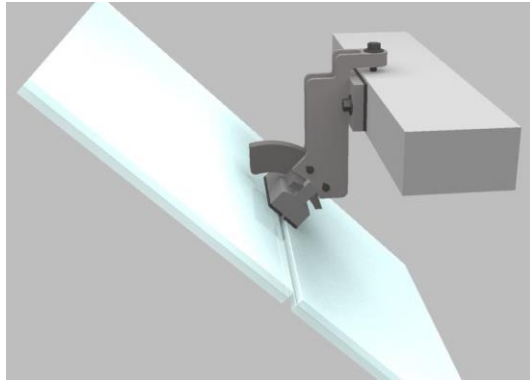
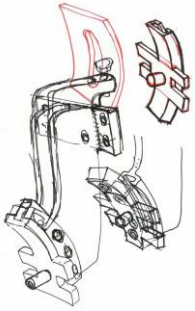


Highrise and
Complex
geometries

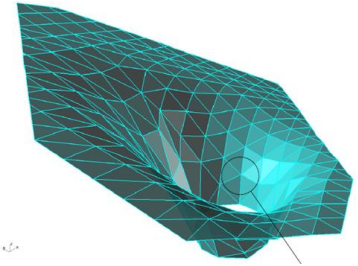
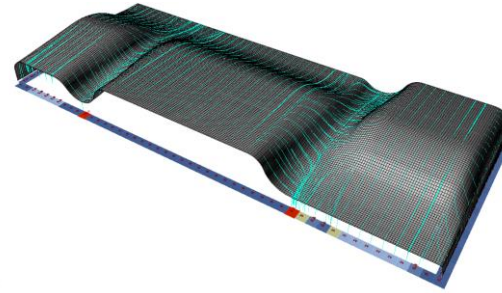


SKILLS

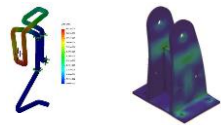
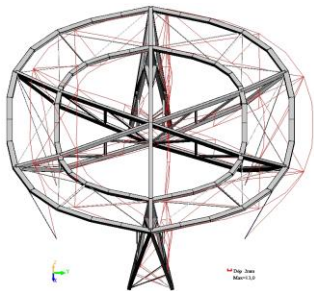
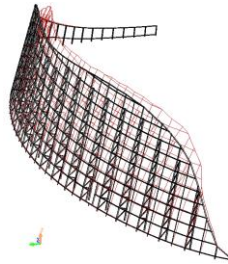
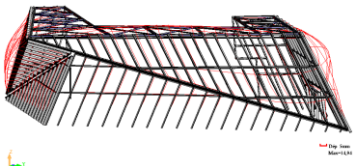
INNOVATION AND IMAGINATION



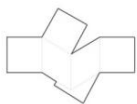
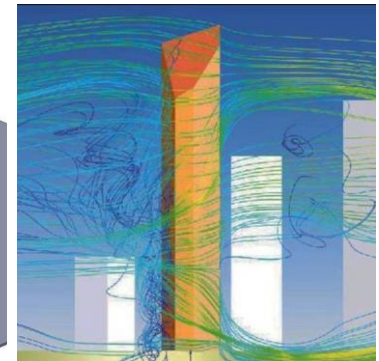
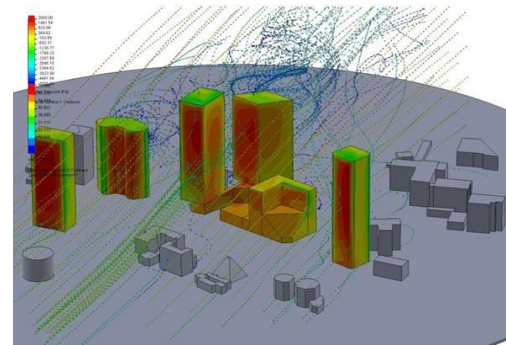
COMPLEX GEOMETRIES



MEGA MACRO STRUCTURES

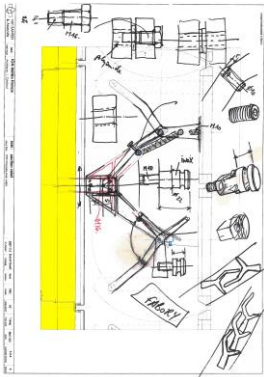


CFD WIND ENGINEERING

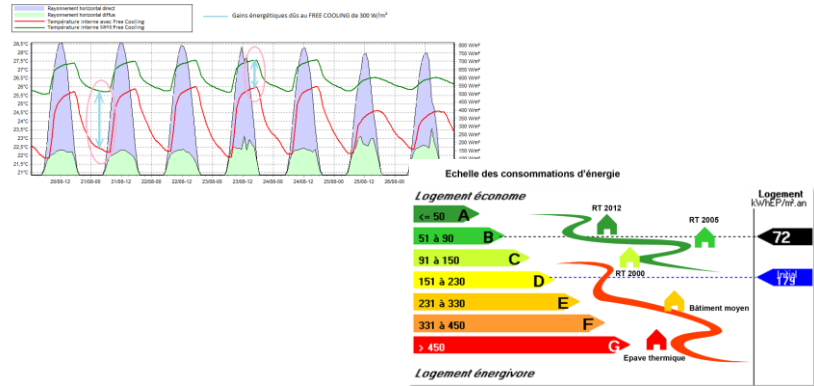


SKILLS

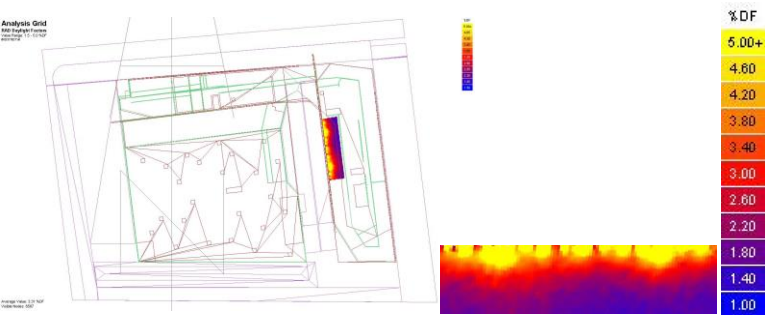
PROTOTYPE



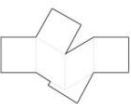
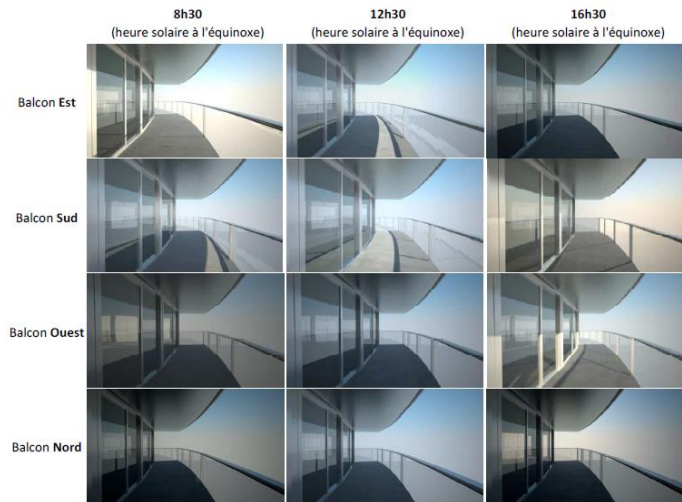
ENERGY SIMULATIONS



DAYLIGHT ANALYSIS

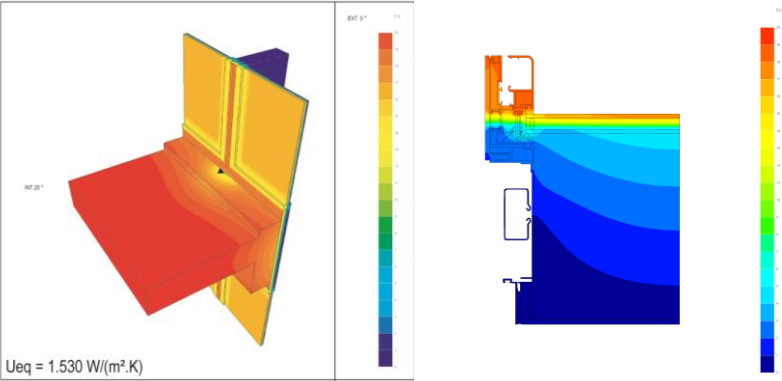


SUNPATH STUDY

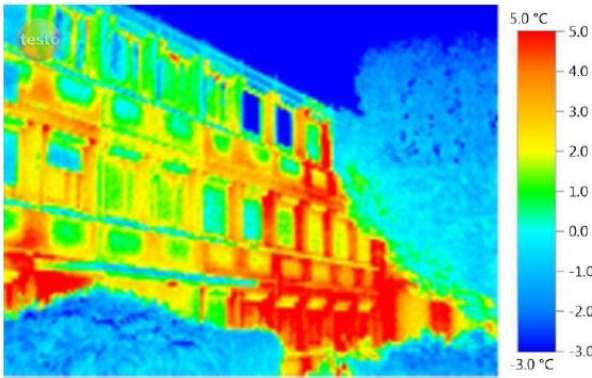


SKILLS

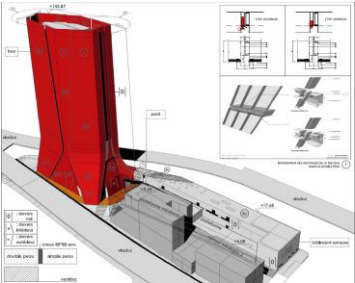
THERMODYNAMICS & HEAT FLOW ANALYSIS



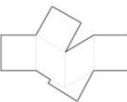
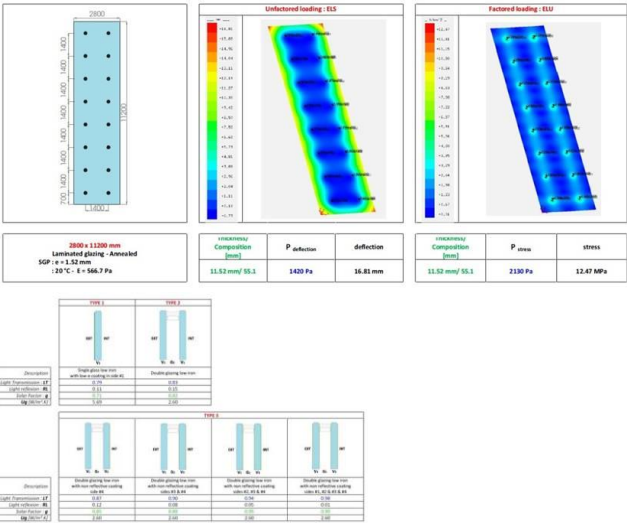
HEAT FLOW VERIFICATION



BUILDING MAINTENANCE



GLASS ENGINEERING



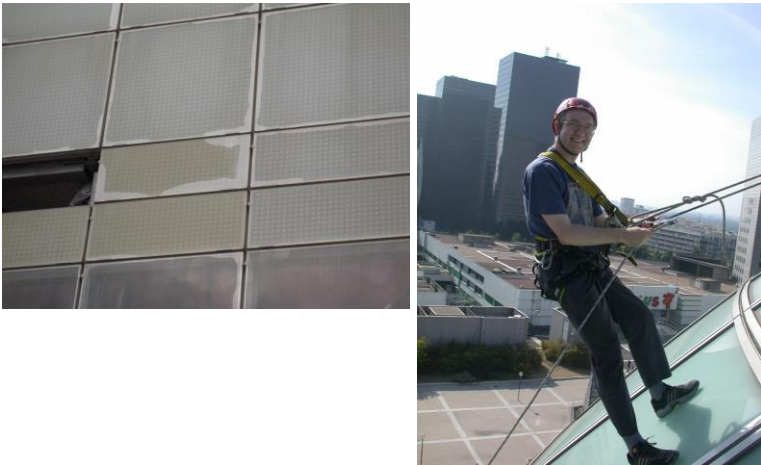
FAIRWOOD

SKILLS

CONSTRUCTION MANAGEMENT



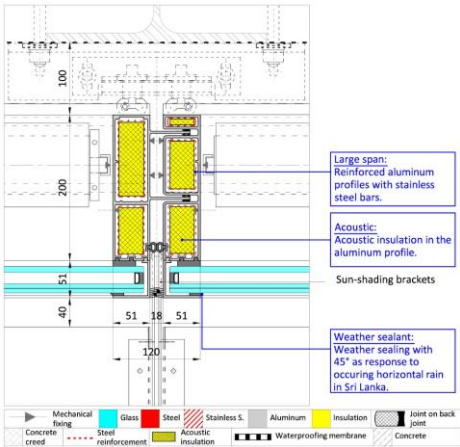
ONSITE DIGNOSTICS



MOCKUP REVIEW



CAD DRAWINGS

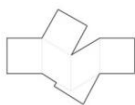


SCOPE OF SERVICES

Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Project Appraisal	Concept Design	Design Development	Tender Documentation	Tender Analysis	Contractor Documents Review	Construction Supervision
<ul style="list-style-type: none"> Identifying of client's/Architects needs and objectives and formalization of scope accordingly and the plan of action. Study of architectural drawings. Feasibility study and assessment of options to enable architect/developer for decision on the proposed building envelope in terms of performance and durability. 	<ul style="list-style-type: none"> Understanding of the local code requirements and regulations pertaining to the building envelope system. Pre-evaluation of materials/products related to building envelope in-terms of aesthetic, durability, LCA as well as sustainability. Assessment of loads imposed onto the building envelope & its elements (e.g. wind, seismic, snow, impact or any other loads). Analyze the requirements related to air, waterproofing, moisture and condensation for the building envelope. 	<ul style="list-style-type: none"> Assisting the architect and client for the finalization of the building envelope based on Schematic Design of the project. Optimization or value engineering of the proposal if needed. Updating the schematic design and adding of the precision to the schematic design based onto the review meetings with the project team. Determination and finalization of the structural, thermal, acoustic and other performances parameters for the building system. 	<ul style="list-style-type: none"> Setting a tender and bidding package based upon the Design Development package. Updating design development package drawings and including precise information. Updating and finalization of the project specification based onto the approved design during the design development stages. Bill of quantity for the work contract. Technical specifications, without mentioning any specific product, but performance requirements for building envelope. 	<ul style="list-style-type: none"> Bidding: qualifying criteria requirements brief, contractors' selection. Contribution to the analyzed returns back to the contractors bidding process documents. Technical conformity analysis of the returns. Returns cost analysis, including potential options and variants. Editing a synthetic report. Finalizing negotiations with contractors, dimmed to produce shop drawings and documentation as a base for contract documents. 	<ul style="list-style-type: none"> Technical review applied to shop drawings by the contractors, including all information relating to trade products selected by the contractor in view to complete its task. Technical review applied to requested or proposed adjustments. Technical review applied to calculation notes including all information relating to trade products selected by the contractors. Technical review applied to tests reports, materials presentation note. 	<ul style="list-style-type: none"> Assisting for perfecting features prototypes validation. Regular site attendance, as of needs in order to assist the Architect with the site management. Assisting to any investigations focusing on reported failures or defaults (leaks, finishes, protections, tolerances). Contract can be requested if any doubt is raised regarding the contractor competences and or its selected subcontractors for the completion. Inspecting a supplies production site aims at perfecting the quality auto control procedures, manufacturing, packaging and storage. Witnessing and reporting on onsite testing.

Design & Engineering Stages

Construction Management Stages



FAIRWOOD

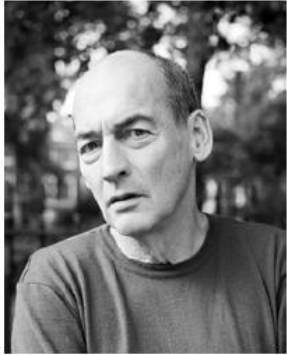
PROJECT

WITH

PRITZKER WINNING ARCHITECTS



2000



Rem KOOLHAAS

2008



Jean NOUVEL

1998



Renzo PIANO

1994



Christian de
PORTZAMPARC

2010



Kazuyo SEJIMA
Ryue NISHIZAWA

2004



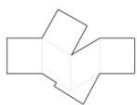
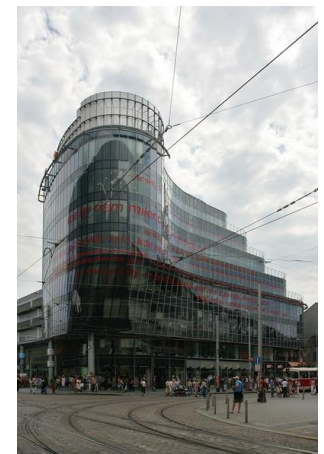
Zaha HADID

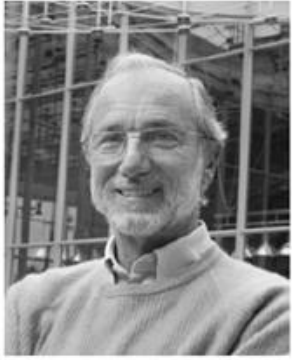


Rem KOOLHAAS



Jean NOUVEL

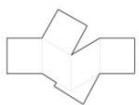




Renzo PIANO



Christian de
PORTZAMPARC

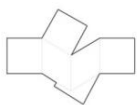
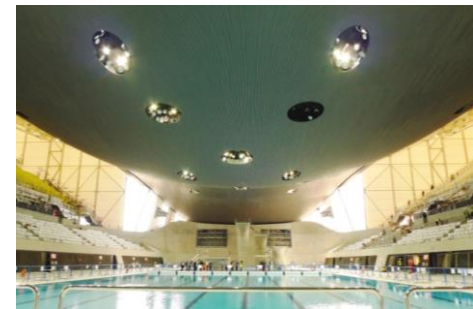
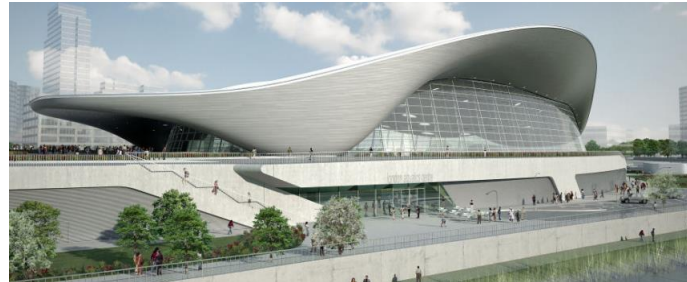




Kazuyo SEJIMA
Ryue NISHIZAWA



Zaha HADID

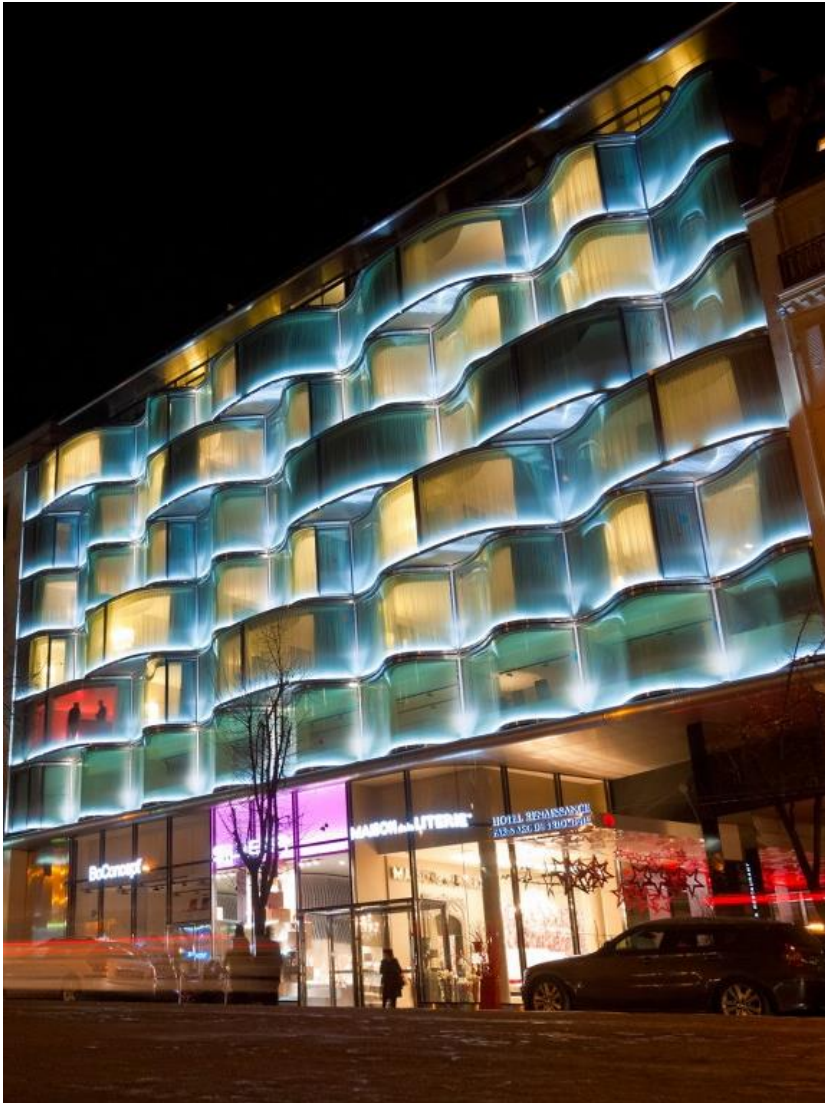


MAJOR PROJECT REFERENCES

FACADE ENGINEERING
AND
CONSTRUCTION MANAGEMENT

WAGRAM HOTEL

CURVED GLASS



ARCHITECTS :
ATELIER CHRISTIAN DE PORTZAMPARC

CONSULTING OFFICE :
VS-A

LOCATION:
PARIS, FRANCE

EXPERTISES:
CURVED GLASS, COMPLEX GEOMETRY, INNOVATIVE DESIGN

SCOPE OF SERVICES
FROM DESIGN DEVELOPMENT TO PRACTICAL COMPLETION –
FINAL SITE REVIEW

KOHINOOR SQUARE



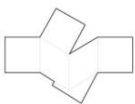
ARCHITECTS :
SANDEEP SHIKRE AND ASSOCIATES

CONSULTING OFFICE :
FAIRWOOD INDIA

LOCATION:
MUMBAI

EXPERTISES:
PROJECT MANAGEMENT

SCOPE OF SERVICES
END TO END PROJECT MANAGEMENT INCLUDING FACADE



FAIRWOOD

GODREJ BKC



ARCHITECTS :
SOM

CONSULTING OFFICE :
FAIRWOOD INDIA

LOCATION:
MUMBAI

EXPERTISES:
PROJECT MANAGEMENT

SCOPE OF SERVICES
END TO END PROJECT MANAGEMENT INCLUDING FACADE

MUSEE DES CONFLUENCES



ARCHITECTS :
COOP HIMMELB(L)AU

CONSULTING OFFICE :
VS-A

LOCATION:
LYON, FRANCE

EXPERTISES:
STRUCTURE, THERMAL SIMULATIONS, COMPLEX & PARAMETRIC
GEOMETRY, BUILDING MAINTENANCE, GLASS SPECIFICATIONS

SCOPE OF SERVICES
FROM CONSTRUCTION DRAWING TO PRACTICAL COMPLETION





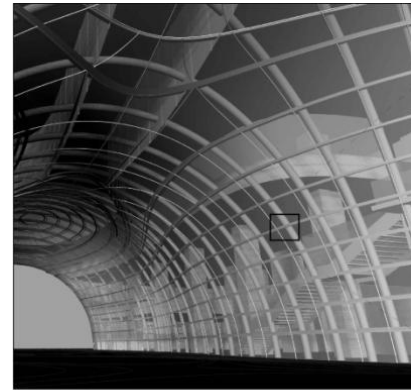
LOCATION:
UK

SCOPE OF SERVICES

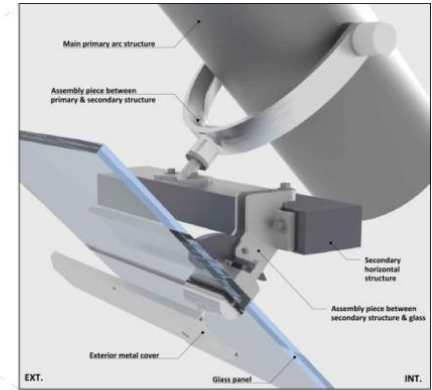
FROM DESIGN DEVELOPMENT TO PRACTICAL COMPLETION – FINAL SITE REVIEW



2 TOWERS SHENZHEN



GENERAL DOME PART VIEW



DETAILED 3D VIEW, MAIN FACADE ELEMENTS

ARCHITECTS :
ZHUBO

CONSULTING OFFICE :
VS-A.HK

LOCATION:
CHINA

EXPERTISES:
COMPLEX GEOMETRY & VALUE ENGINEERING

SCOPE OF SERVICES
SCHEMATIC DESIGN TO CONSTRUCTION DRAWINGS

CCI AMIEMS



ARCHITECTS :
CHARTIER CORBASSON

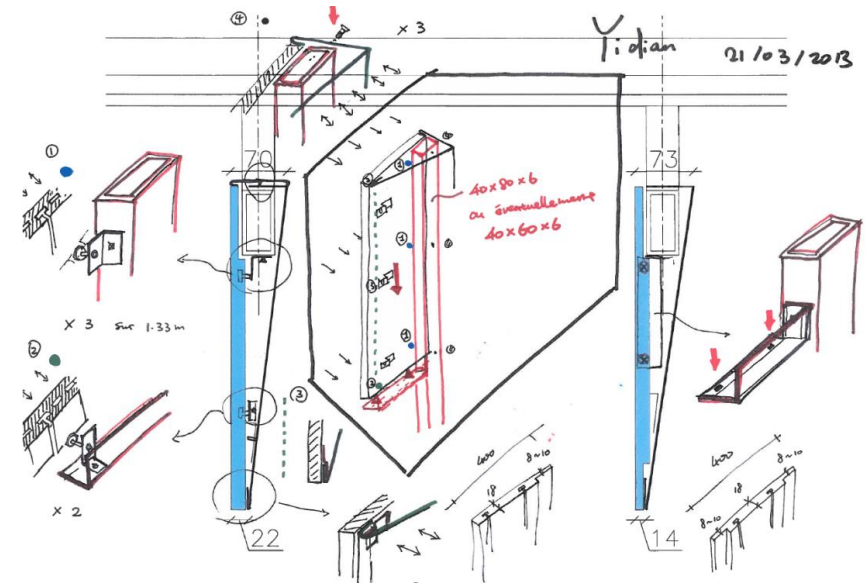
CONSULTING OFFICE :
VS-A

LOCATION:
FRANCE

EXPERTISES:
COMPLEX GEOMETRY

SCOPE OF SERVICES
CONSTRUCTION DRAWINGS TO PRACTICAL COMPLETION

YIDIAN SHANGHAI



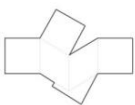
ARCHITECTS :
FERRIER

CONSULTING OFFICE :
VS-A.HK

LOCATION:
CHINA

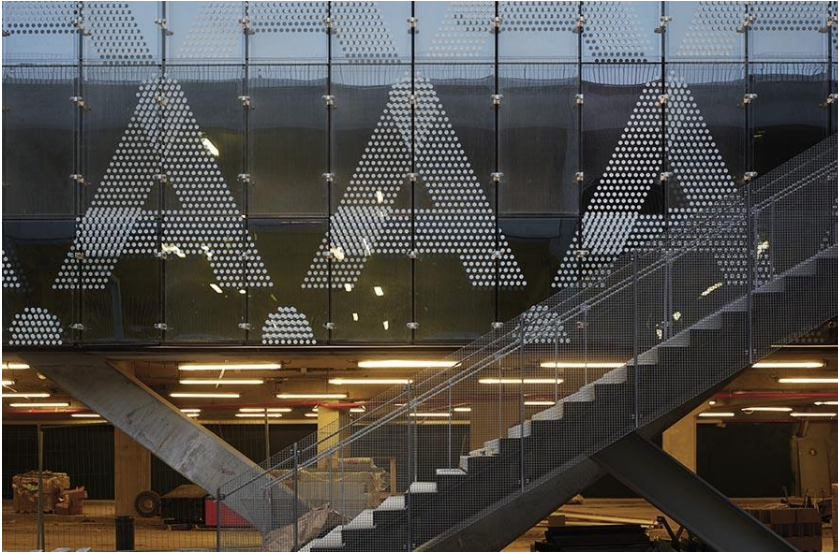
EXPERTISES:
PERMANENT SOLAR PROTECTION
CERAMICS & VALUE ENGINEERING

SCOPE OF SERVICES
DESIGN DEVELOPMENT CONSTRUCTION DRAWINGS TO PRACTICAL
COMPLETION



FAIRWOOD

ROISSY - AEROVILLE



ARCHITECTS :

PCA

CONSULTING OFFICE :

VS-A

LOCATION:

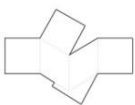
FRANCE

EXPERTISES:

CONCEPT AND VALUE ENGINEERING

SCOPE OF SERVICES

FROM SCHEMATIC DESIGN TO PRACTICAL COMPLETION



FAIRWOOD

TATA SQUARE



ARCHITECTS :
WOW SINGAPORE

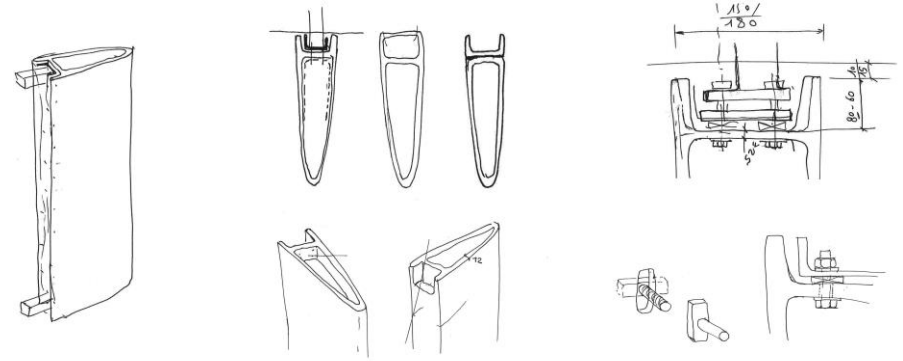
CONSULTING OFFICE :
FAIRWOOD INDIA

LOCATION:
GURGAON

EXPERTISES:
PROJECT MANAGEMENT

SCOPE OF SERVICES
END TO END PROJECT MANAGEMENT INCLUDING FACADE

TENCENT



Innovative use of local material "terracotta" fixed as vertical solar protection on facade



ARCHITECTS :

OMA

CONSULTING OFFICE :

VS-A.HK

LOCATION:

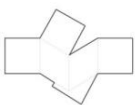
CHINA

EXPERTISES:

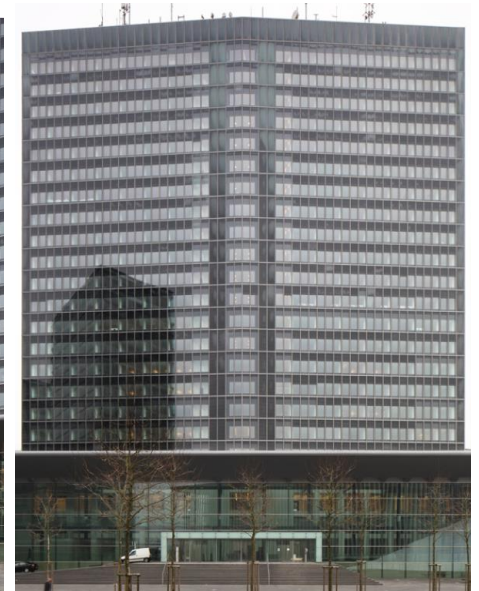
PERMANENT SOLAR PROTECTION CERAMICS & VALUE ENGINEERING

SCOPE OF SERVICES

CONCEPT DESIGN TO DESIGN DEVELOPMENT



ALCIDE DE GASPERI TOWER



INITIAL ARCHITECTS : (Original Building from 1966)

Michel MOUSEL
Gaston WITRY

ARCHITECTS : OP-EN

CONSULTING OFFICE : VS-A

LOCATION: LUXEMBOURG

EXPERTISES:
HIGH ENERGY EFFICIENT ENVELOPE, DOUBLE SKIN FACADE WITH
INTEGRATED MOTORISED LOUVERS

SCOPE OF SERVICES
TECHNICAL DIAGNOSIS OF EXISTING FACADE TO AS BUILT
DOCUMENTATION REVIEW

CMA-CGM TOWER



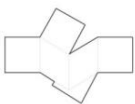
ARCHITECTS :
ZAHA HADID

CONSULTING OFFICE :
VS-A + ARUP

LOCATION:
FRANCE

EXPERTISES:
GLASS SPECIFICATIONS, SOLAR PROTECTION, COMPLEX
GEOMETRY, BUILDING MAINTENANCE UNITS

SCOPE OF SERVICES
CONSTRUCTION DRAWINGS TO POST CONSTRUCTION DEFECT
LIABILITY & MAINTENANCE PERIOD




FAIRWOOD

NATHANI HEIGHTS



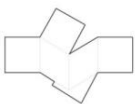
ARCHITECTS :
SKYLINE ARCHITECTS

CONSULTING OFFICE :
FAIRWOOD INDIA

LOCATION:
MUMBAI

EXPERTISES:
PROJECT MANAGEMENT

SCOPE OF SERVICES
END TO END PROJECT MANAGEMENT CONSULTANCY INCLUDING
FACADE




FAIRWOOD

SIKKA DOWNTOWN



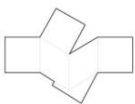
ARCHITECTS :

CONSULTING OFFICE :
FAIRWOOD INDIA

LOCATION:
NOIDA

EXPERTISES:
PROJECT MANAGEMENT

SCOPE OF SERVICES
END TO END PROJECT MANAGEMENT CONSULTANCY INCLUDING
FACADE



XIZHIMEN, BEIJING



ARCHITECTS :
AREP

CONSULTING OFFICE :
VS-A

LOCATION:
CHINA

EXPERTISES:
SOLAR SHADINGS, FACADE AND BMU

SCOPE OF SERVICES
SCHEMATIC DESIGN TO DESIGN DEVELOPMENT



WATERFRONT DEVELOPMENT



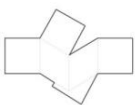
ARCHITECTS :
BALMOUND STUDIO,LONDON

CONSULTING OFFICE :
VS-A + FAIRWOOD INDIA

LOCATION:
SRI LANKA

EXPERTISES:
SOLAR SHADINGS,FACADE AND BMU

SCOPE OF SERVICES
SCHEMATIC DESIGN TO PROJECT MANAGEMENT



FAIRWOOD

HANKING CENTER



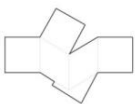
ARCHITECTS :
URBANUS

CONSULTING OFFICE :
VS-A,HK

LOCATION:
CHINA

EXPERTISES:
ENERGY STUDIES,COMPLEX GEOMETRY,DOUBLE SKIN FACADE

SCOPE OF SERVICES
SCHEMATIC CONCEPT DESIGN FOR COMPETITION STAGE



FAIRWOOD

COEUR DEFENSE



ARCHITECTS :
VIGUIER

CONSULTING OFFICE :
VS-A

LOCATION:
FRANCE

EXPERTISES:
TECHNICAL SUPERVISION

SCOPE OF SERVICES
CONSTRUCTION MANAGEMENT REPRESENTING CLIENT AND ARCHITECT

ODEON TOWER



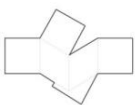
ARCHITECTS :
A GIRALDI

CONSULTING OFFICE :
VS-A

LOCATION:
MONACO

EXPERTISES:
FACADE,SPECIAL STEEL STRUCTURE,ENERGY STUDIES,BMU

SCOPE OF SERVICES
SCHEMATIC DESIGN TO POST CONSTRUCTION/DEFECTS LIABILITY &
MAINTENANCE PERIOD



FAIRWOOD

PROJECT REFERENCES

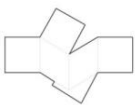
GREEN & SUSTAINABLE BUILDINGS

FACTS

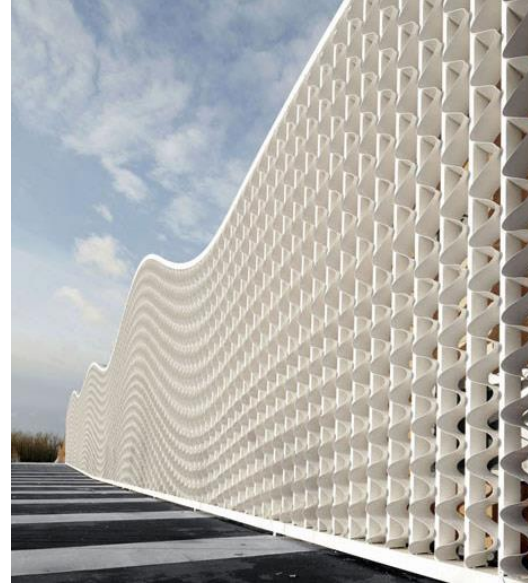
100% OF OUR PROJECTS COMPLY WITH LOCAL REGULATION REGARDING ENERGY

50 % AIM HIGHER PERFORMANCE

20% ARE RATED LEED,BREEAM OR HQE



MANTES LA JOLIE WATER SPORTS CENTRE



ARCHITECTS :
SEARCH

CONSULTING OFFICE :
VS-A

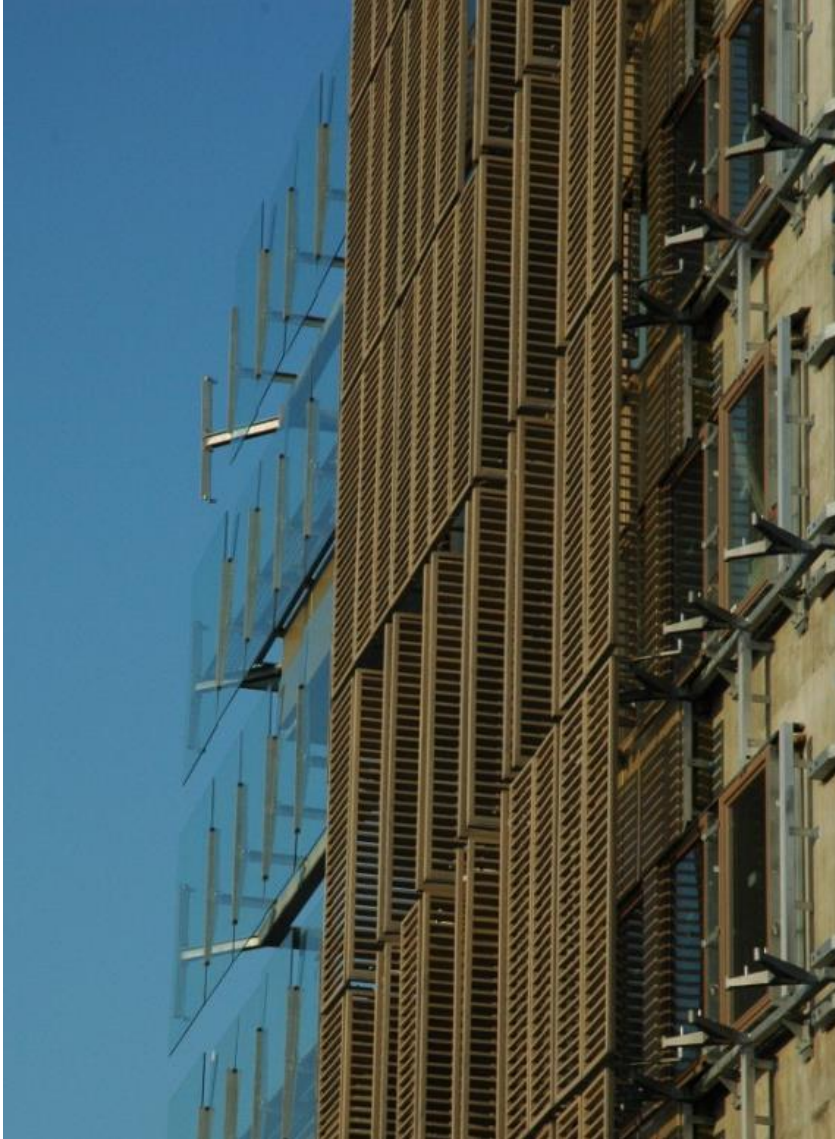
LOCATION:
FRANCE

EXPERTISES:
COMPLEX GEOMETRY, STRUCTURAL MOVEMENTS, SUSTAINABILITY

SCOPE OF SERVICES
SCHEMATIC DESIGN TO PRACTICAL COMPLETION



IGN 1



ARCHITECTS :
CARDUCCI

CONSULTING OFFICE :
VS-A

LOCATION:
FRANCE

EXPERTISES:
SOLAR PROTECTION, ACOUSTICS, SUSTAINABILITY

SCOPE OF SERVICES
SCHEMATIC DESIGN TO PRACTICAL COMPLETION

OLORON SAINT MARIE MULTIMEDIA CENTER



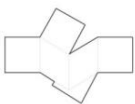
ARCHITECTS :
GUEDOT

CONSULTING OFFICE :
VS-A

LOCATION:
FRANCE

EXPERTISES:
SUSTAINABILITY

SCOPE OF SERVICES
SCHEMATIC DESIGN TO PRACTICAL COMPLETION



FAIRWOOD

ICADE MUNCHEN



ARCHITECTS :
GUEDOT

CONSULTING OFFICE :
VS-A

LOCATION:
FRANCE

EXPERTISES:
SUSTAINABILITY

SCOPE OF SERVICES
SCHEMATIC DESIGN TO PRACTICAL COMPLETION

B 270 PARIS



ARCHITECTS :
BRENAC & GONZALES

CONSULTING OFFICE :
VS-A

LOCATION:
FRANCE

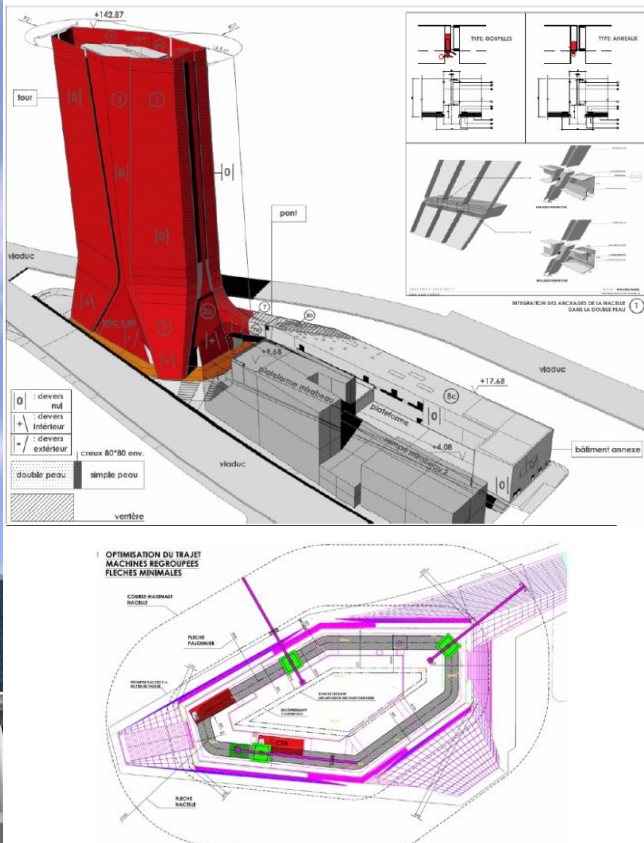
EXPERTISES:
SUSTAINABILITY

SCOPE OF SERVICES
SCHEMATIC DESIGN TO PRACTICAL COMPLETION

PROJECT REFERENCES

BUILDING MAINTENANCE UNITS





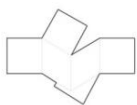
BMU OF CMA –CGM TOWER

FACING THE SEA, THIS BMU HAS A TELESCOPIC JIB AND ELEVATOR TO HIDE THE MACHINE BEHIND THE FACADE. IT CAN LIFT UP TO 1100 daN.



BMU OF MUSEE DES CONFLUENCES

BMU HUNG FROM A CLIMBING CATWALK, WITH A PLATFORM INSTALLED ON A PANTOGRAPH TO REACH SAFELY ALL THE DIFFERENT PARTS OF THE INTERIOR SIDE OF THE FACADE.




FAIRWOOD