

**PTH**

## Steel structure warehouse in Norway

1. Project time: March 2009-April 2011
2. location: Norway
3. Project scale: 1492m<sup>2</sup>
4. type: Steel structure
5. Function : warehouse
6. Features of the project: The project in the extreme cold area has very high requirements on the thermal insulation performance of the project. The purlin material is 250\*125\*3.2\*4.5 H-shaped steel



# PROJECT DESIGN



PTH owns 100+ architect and engineers at home and abroad, to provide customized design service for client with different requirements. We use the relevant information data of construction projects as the basis of the model to build the building model, and simulate the real information of the building through digital information simulation.

At present, we have finished the Revit research and development of company's products, laying a solid foundation to finish design effectively and accurately and also presenting details and three dimensional effects of our company's products to customers.

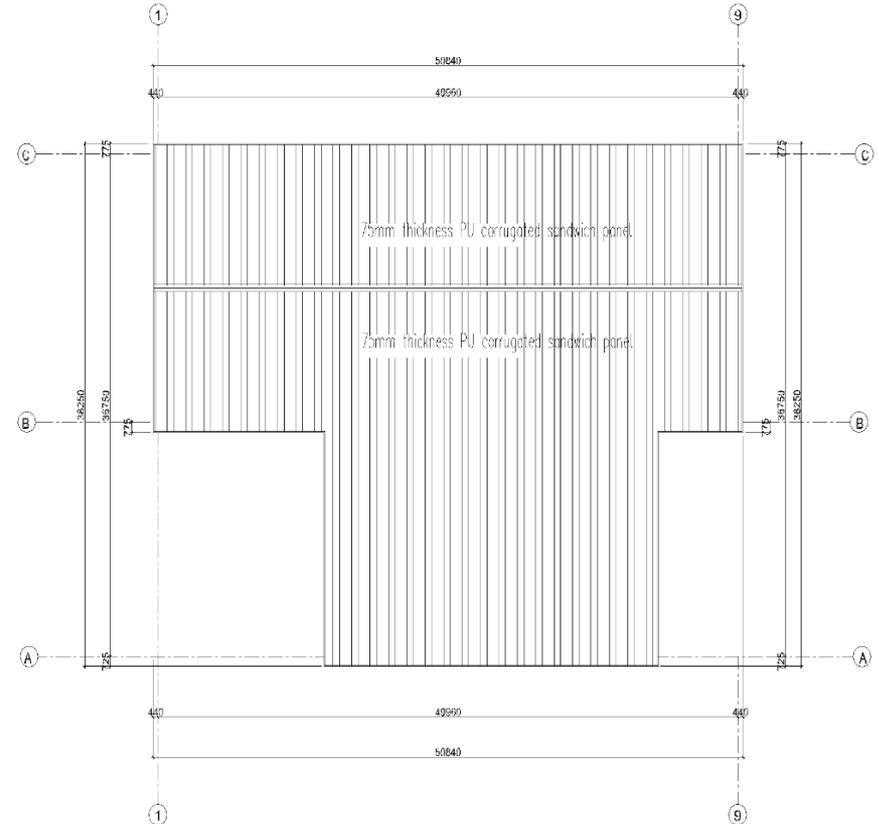
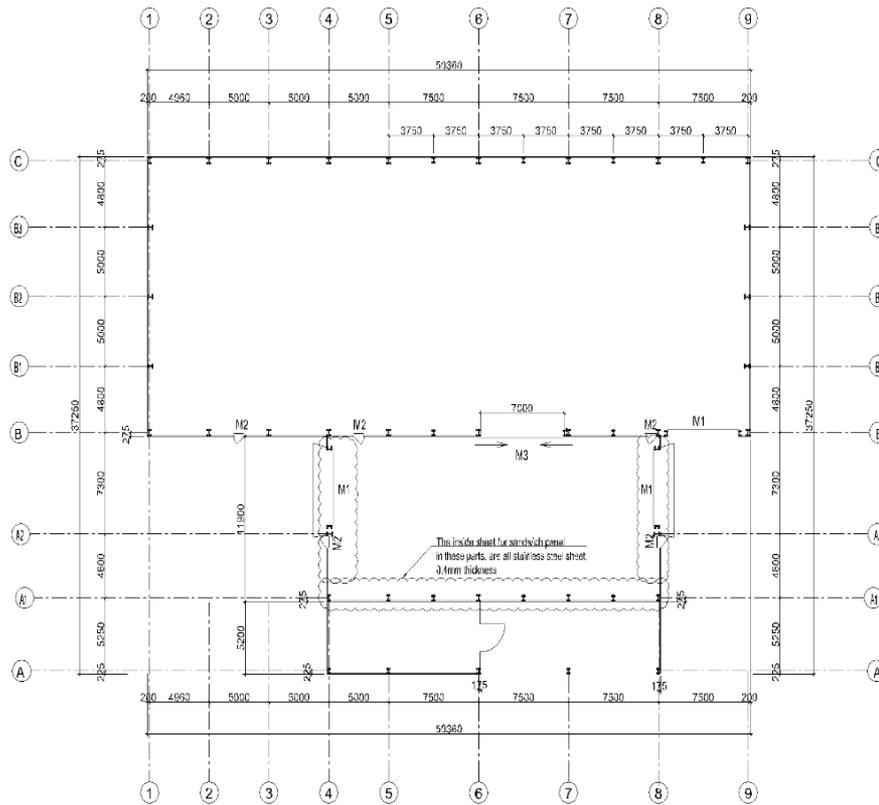
Project characteristics: This project is mainly a 1492m<sup>2</sup> steel structure warehouse, and there is also a frame for discarded cars. The steel frame beams and columns of the main components are Q345B steel.

The snow load of the Norwegian steel structure project reaches 4.5KN/m<sup>2</sup>, and the requirements are extremely high, so the purlin material is 250\*125\*3.2\*4.5 H-shaped steel, and the wall panel is 75mm corrugated sandwich panel to adapt to the local minus 20 Abundant extreme climate.

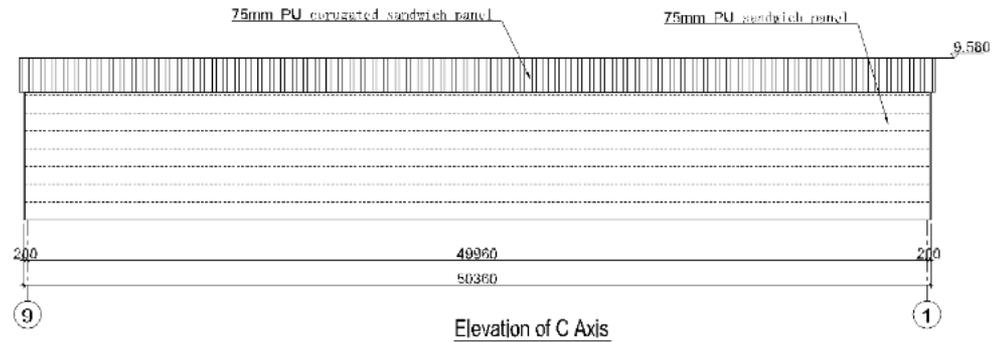
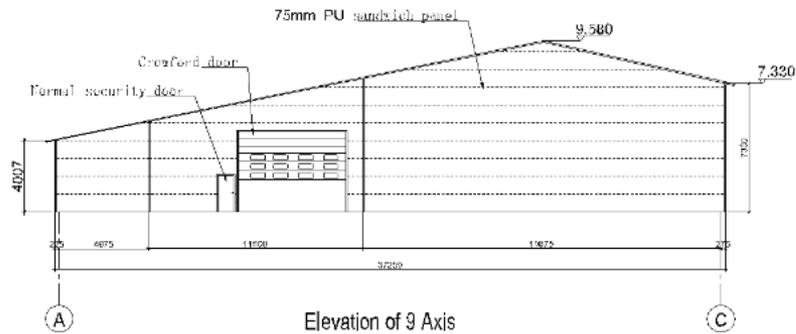
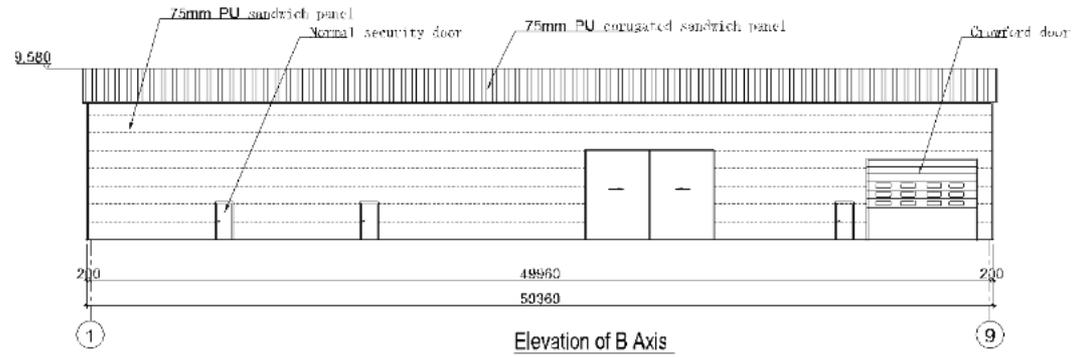
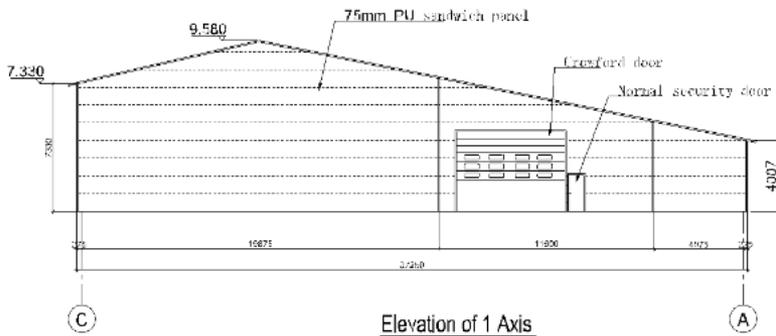
# Design



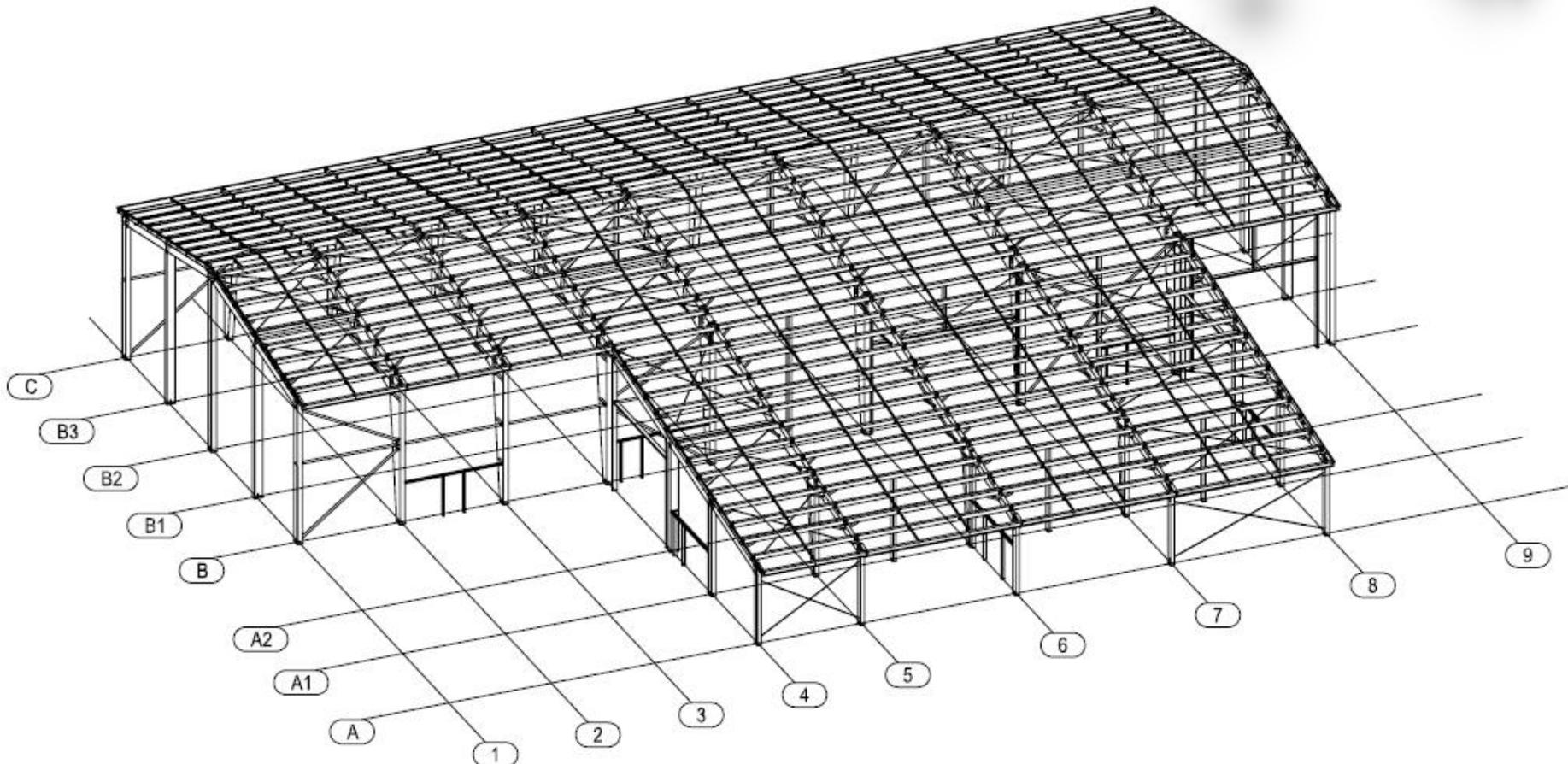
The preliminary design is made in accordance to client's requirement and local building code. After getting the permission by local authority, PTH will do the shop drawing for production. The design concept of this project is based on China's current construction specifications and agreements, and then the design is converted into the requirements of the Norwegian local architectural design department for auditing, and construction begins after the review is passed.



# Design



# Design



PTH deepening division adopts Tekla and FRAMECAD Structure deepening design software. Before deepening the design, you need to check whether the technical information of the design drawing meets the technical requirements of the deepening design, and then carry out the deepening design and production according to the final design drawing.

When deepening the design, we must ensure that the product assembly size deviation standards, welding quality technical requirements, structural connection nodes, product anti-corrosion technology, etc. meet the design technical specifications.

# PRODUCTION & DELIVERY



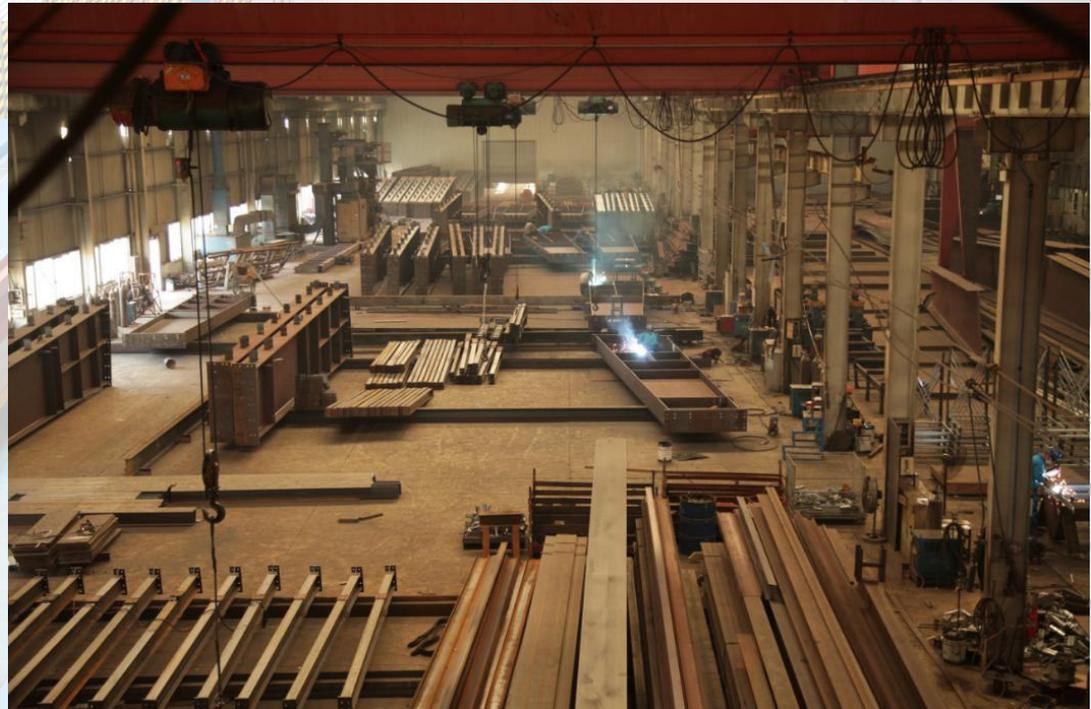
## PROCUREMENT :

PTH has a mature procurement supply chain, including product raw materials, kitchen and bathroom accessories, home equipment and other supporting facilities. Each year, PTH conducts quality assessments of suppliers, resolutely rejects unqualified suppliers, and guarantees the quality of products from the source.



## PRODUCTION :

PTH owns hundreds of fully automatic mechanized production lines, which ensures high production efficiency and timely delivery. In the manufacturing process, PTH can provide production progress reports to customers through pictures and video. PTH has a professional quality inspection team which takes strict quality control in each process, and make sure defect product never be delivered to client.



## TRANSPORTATION :

PTH, who has more than 20 years of international logistics experience. can provide customers with the best transportation routes, customs declaration, commodity inspection and other services, and truly realizes "door to door."

# PRODUCTION



Quality is the life of an enterprise and the foundation of sustainable development. PTH strictly follows the ISO9000 quality system and makes quality control in each process from material procurement to finish product delivery.

For the outsourcing raw material and accessories, it is reported to the ICQC team for inspection. ICQC will inspect according to "Raw Material Inspection Regulations", make sure the material technical specs and quality meets GB standard, then upload the inspection record, QC document and test report to ERP system.

# PRODUCTION



PTH makes random inspection system for the manufacturing process. IPQC makes daily random inspection according to the quality requirement of each order, so as to avoid defect products.

The production team also set up process quality report system. Only those qualified products can be transferred to the next process.



## Pack and load



PTH designs reasonable packaging solutions based on product structure characteristics/customer quality requirements. This project is to rationalize the construction work of Norwegian customers. It is divided into three logistics batches before and after, with a total transport weight of 151000kgs and a total volume of 685m<sup>3</sup>. The container size required for the entire transportation line is 6\*40 feet GP+5\*40 feet OT . PTH adopts the unitized design of components when packaging, which effectively reduces the product packaging volume. Each unit component uses an independent small package, and multiple small packages are combined into an overall package that is easy to transport and install. And because of the overall packaging, it is easy to load and unload, reducing labor costs.



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# INSTALLATION



PTH provides detailed installation drawings and complete instructions for the installation of the joints of roof panels, walls, roofs and doors. In the installation of the roof, the length of the tiles exceeds 12 meters, and the disconnection design needs to be done. The project uses H-shaped steel, and there is no need to attach small steel on the side. Width to connect the upper and lower plates. This project is a hidden horizontal wall panel with no screws visible from the outside.

# INSTALLATION



# INSTALLATION



**INSTALLATION**

**PTH.**



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# INSTALLATION



## CLIENT FEEDBACK



We use BIM system to manage and operate the whole project. For the maintenance, PTH provide online technical support or maintenance service on the site per client requirement.

PTH is in place in detail work and provides many matching and professional services according to customer needs. In after-sales service, PTH's feedback to customers is very timely, and the problem handling method is also relatively complete, which generally improves customer satisfaction with PTH



# CLIENT FEEDBACK



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