

SUSTAINABILITY CASE STUDY

White Peak Chateau Mount Tai

March 2018



LOCATION

White Peak Chateau Mount Tai, Huanshan Road, Tai'an City, Shandong Province, China

SUMMARY

Chateau Mount Tai is a high-quality neo-Chinese residential development located in Tai'an city at the foot of Mount Tai. White Peak ("WP"), a Swedish fund manager and developer, acquired the land in 2014 and developed it with a vision to create one of the most iconic eco-community in this famous and historically significant city.

DESCRIPTION

As part of our vision to promote sustainability and ESG to China, WP has incorporated a variety of sustainable features into Chateau Mount Tai. These address the local customers' needs, which qualifies the project with the Two-Star Chinese Green Building Standard. The project has also strictly implemented the company's Health & Safety (H&S) standards during the construction process. White Peak adheres to the national laws and regulations stipulated by the People's Republic of China. In addition, White Peak's H&S management system is based on OSHAS 18001*. The key for a successful H&S development is to create behavioral change among the workers on the sites. In 2017, Chateau Mount Tai, hosted the first Safety Day Event of the White Peak Group, attended by 291 White Peak employees and 2,800 contractors and construction workers. During the event, all participants signed the safety commitment and participated in discussions to form a detailed action plan to implement the group's H&S standard.

(* OHSAS 18001, Occupational Health and Safety Assessment Series, is an internationally applied British Standard for occupational health and safety management system.)

TYPE AND SCALE

Residential development in two phases, with total site area of 63,000m² and total gross floor area of 66,000m²

TIMEFRAME

Land acquisition: Q4 2014

Construction completion: Phase 1: 2017; Phase 2: 2018



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COST

The sustainability features increased the construction cost by around 10%, and the implementation of H&S management will need a dedicated team to regularly inspect, train and monitor the thousands of construction workers onsite.

MAIN STAKEHOLDERS

Developer and investor: White Peak Real Estate Investment

CONTEXT AND DRIVERS

Many lower tier cities in China are lack of quality residential developments with green and sustainable features. H&S is disregarded on the construction sites, primarily due to the extra costs associated, coupled with cost conscious end users in these markets.

To strike a balance between cost and benefit, Chateau Mount Tai carefully examined various technologies and features to identify the optimal solution that could improve the local customers' living experience and reduce their energy costs.

STRATEGY

Vision

To promote sustainability and ESG in China and to develop one of the most iconic eco-communities in China lower tier cities.

Goals and Targets

- Improve the local living standard and development quality
- Reduce future energy costs for end users
- Deliver outstanding investment return to the fund investors

KEY FEATURES

Green Space and Landscape Design:

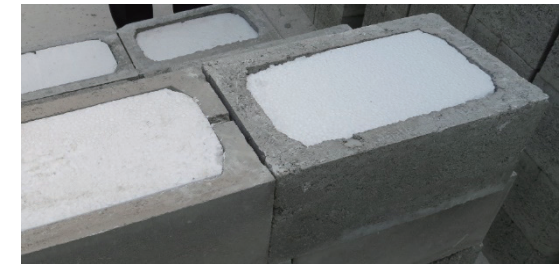
In view of the topography and the natural landscape of the site, the master plan has created multi-level open space focusing on not only visual effect but also well-connected outdoor experience within the community. The area of private gardens traditionally taken as an important selling point were reduced and substituted with public landscape belt connecting the scattered green space. Moreover, above 30% of the green area has the function of rainwater collection, such as the concave green space, rain garden etc. and above 50% of the hard pavement is water permeable. Rainwater collected will be reused in landscape irrigation.



New Material of Façade:

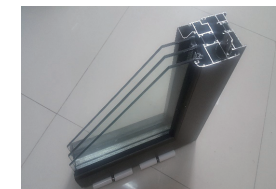
The façade of Chateau Mount Tai is installed with HB self-insulation block, which is rarely seen in local comparable projects.

The façade material has many environmental friendly features including self-insulation, long lasting and easier for construction. There's no harmful gas release during its production process. The thermal insulation coefficient of the HB self-insulation block is 12% lower than normal material, indicating 12% energy saving.



Window:

Chateau Mount Tai is installed with aluminium alloy bridge insulation three layer glass windows, featuring high-precision insulation aluminium alloy profiles, high-quality insulation, steel, and tempered insulating glass. The thermal insulation coefficient of the insulated window is 1.8W/M².k, i.e. 10% energy saving from standard level of 2.0W/M².k.



Materials utilization:

Chateau Mount Tai utilized a high proportion of locally produced building materials, including facade made of local stone and landscape planting using local plants.

Utilizing local material reduces the energy consumption during transportation. The utilization of cast-in-place concrete and pre-mixed mortar reduces the air dust pollution.

IMPLEMENTATION**Approach**

As part of White Peak's vision to promote the best practice of construction processes and standards to China, Health & Safety (H&S) is a major focus for White Peak. White Peak's H&S management system is based on OSHAS 18001. White Peak has a full time corporate H&S manager in Beijing headquarter and H&S representatives from onsite project teams. They conduct monthly H&S site inspections of all the project sites, during which the focus is on the onsite safety management of general contractors. In addition, quarterly H&S inspections are also conducted to review the supervision, training and documentation. White Peak also invites Bureau Veritas to conduct external audit once a year, which will provide scores and improvement strategies. The focus is on danger prevention including but not limited to falling objects, scaffolding, electrical safety and traffic safety.

Challenges

In China lower tier cities, majority of local construction companies do not pay attention to H&S. The situation may improve going forward through continuous education with comprehensive strategy and determination from stakeholders.

Critical Success Factors

Strong corporate culture and integrity are the fundamental to achieve success in sustainability and H&S initiatives which normally require long-term vision. Prudent decision making with effective implementation programs are the key to success.

White Peak has developed policies to effectively implement the H&S strategy. Any H&S issue discovered is reported to senior management and to the organisation as follows:

- All H&S issues are formally reported to CEO on an ongoing basis.
- Any ongoing H&S issues are reported during the bi-monthly management meetings.
- All work sites are regularly inspected by internal staff and audited by Bureau Veritas bi-annually.
- All employees are encouraged to report any issues directly to their line manager.

Progress and Outcomes

- The project received exceptional sales result with transaction price of 30% higher than market competitors.
- Chateau Mount Tai has become an iconic development in Tai'an bringing new living standard to the local market.
- The success of Chateau Mount Tai was followed with a second investment from White Peak in Tai'an.

INFORMATION**Information Sources**

For more details on the project and the company, please contact:

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