Remodeling to Meet Energy Conservation Standards for Newly-Built Houses^{*1} High Thermal Insulation Remodeling Plan by Shinchiku Sokkurisan Launched Nationwide

- Available from a single room to an entire house -

Sumitomo Realty & Development Co., Ltd. (Headquarters: Shinjuku-ku, Tokyo; President: Kojun Nishima; hereinafter "Sumitomo Realty") has been engaged in the remodeling business of old houses under the brand "Shinchiku Sokkurisan" in 46 prefectures throughout Japan (excluding Okinawa), and the cumulative total of units contracted has reached 150,000 units*² since its launch in1996.

Sumitomo Realty has long been promoting energy-saving remodeling by improving thermal insulation performance, which is an important basic function of a house along with seismic reinforcement. **On December 13 (Mon) we will begin accepting orders nationwide for a high thermal insulation remodeling plan that will enable existing houses with low thermal insulation performance to achieve a thermal insulation performance equivalent to the energy conservation standards for newly-built houses^{*1}.**

This plan is available to the entire house, a single floor, or even to just individual rooms, enabling an increase in the thermal insulation performance only where it is necessary. In addition to insulating the rooms on six sides (the floors, walls and the ceilings) by using heat insulating materials that meet the 2016 energy conservation standards, replacing the sashes and installing internal windows, the 24-hour ventilation with "ductless total heat exchange ventilation system" recovers about 50 to 80% of the heat energy (heat recovery) by reusing the coolness or warmth in the room that escapes during ventilation, reducing the heating and cooling load in both summer and winter.

As there is an increasing awareness for remodeling that ensures thermal insulation from the perspectives of decarbonization and health concerns such as heat shock caused by sudden temperature changes during the winter season, improving the thermal insulation performance of existing houses has become a social and technological mission. With this new plan, we strive to improve the performance of Japanese houses to ensure healthy and comfortable living. By doing so, we will further increase orders and contribute to the longevity of houses and the realization of a stock type society.

*1. Compliant with the 2016 energy conservation standards

*2. Number of units contracted for large-scale remodeling of detached houses and condominiums (as of June 30, 2021)





Composition of final energy consumption (FY2019)



*1. Standards established in 1992 based on the Act on the Rational Use of Energy

*2. Standards established in 1980 based on the Act on the Rational Use of Energy Source: Ministry of Land, Infrastructure, Transport and Tourism, Housing Bureau, estimates based on statistical data, business surveys, etc. (2018)

Source: FY2020 Annual Report on Energy (Energy White Paper 2021)

To achieve carbon neutrality by 2050, it is becoming compulsory for newly-built houses to comply with energy conservation standards. However, as of FY2018, only about 11% of the existing housing stock (about 50 million units) complies with the energy conservation standards, and about 30% has no thermal insulation. In order to decarbonize CO_2 emissions from the household sector, which accounts for about 14% of Japan's total final energy consumption, it is essential to promote thermal insulation retrofitting of existing houses.



"Shinchiku Sokkurisan" Remodeling by Sumitomo Realty



The Shinchiku Sokkurisan remodeling business was launched after the Great Hanshin Awaji Earthquake of 1995 with the desire to renovate existing houses to make them earthquake resistant without the high cost of rebuilding. Based on our concept of safe and secure housing, it boasts the industry's foremost track record for full remodeling featuring earthquake reinforcement work and a clear fixed-price system.

It marked 25th anniversary this year, since its launch in 1996, and the cumulative total of units contracted exceeded 150,000 units (as of June 30, 2021). Today, the Shinchiku Sokkurisan has become so popular across the nation that it is a brand synonymous with full remodeling. By leaving main structural components intact and improving housing functionality without rebuilding, the Shinchiku Sokkurisan remodeling contributes to not only extending the useful lives of existing houses, but also to addressing the social issues concerning houses in Japan by being environmentally friendly, i.e. minimizing industrial waste, CO₂ emissions, and waste of resources.

Unique Features of "Shinchiku Sokkurisan" Remodeling





Interior stripped down to its main frame



(1) Clear fixed-price system with no additional charge* (developed by the Company)

There will be no additional charges in the event that an unforeseen situation arises after construction has begun, such as discovering a rotten pillar that needs to be replaced after a wall is torn down. This relieves customers' concerns about costs, which is often the case with remodeling work, and allows them to leave the work to us with peace of mind.

*Only when there are no changes to the scope of work requested by the customer.

(2) A dedicated sales engineer with knowledge and proposal skills manages the entire project

From initial consultation to planning, estimating, and construction management, a dedicated sales engineer manages the entire project. This prevents problems, such as the customer's requests not being clearly communicated to the constructor and not being reflected in the construction work, and allows us to proceed with the construction of the house based on the customer's requests.

(3) A lineup of reliable seismic resistance and vibration control reinforcements for buildings of all ages

For earthquake countermeasures to ensure the safety of buildings, we have established a system that can propose the most suitable seismic resistance and vibration control reinforcement plan for buildings of all ages. Our plans combine seismic reinforcement proven through our experience in construction and vibration control reinforcement, which includes a new patented method.

(4) Reliable quality through dedicated master carpenters, extensive construction manuals, etc. We achieve reliable construction quality through the mastery of our dedicated master carpenters who are skilled in large-scale remodeling, as well as detailed construction manuals based on data accumulated over many years and a thorough inspection system.

(5) Reliable support system (after-sales service)

As for our regular after-sales service, we visit our clients for inspection one month, three months, and one year after completion. In addition, our Customer Center always responds to inquiries about problems and repairs regardless of the urgency of the situation.







"Shinchiku Sokkkurisan" – Model of extending useful life of existing houses by renovation



Social issues concerning houses in Japan

Although the penetration rate of earthquake resistant houses in Japan is increasing every year, there are still many houses with low earthquake resistance. Moreover, the lives of houses in Japan are relatively short compared with those in Europe and U.S. and the short rebuilding cycle has emerged as an issue in contemporary Japan. Waste from the demolition of houses accounts for a large share of waste discharged by the construction industry. It is called for that lives of houses should be extended to facilitate the shift to a stock-type society where houses could be used by successive generations.



Sources: ① Ministry of Land, Infrastructure, Transport and Tourism"Progress of Earthquake Proofing of Houses"

2 Ministry of Land, Infrastructure, Transport and Tourism"International Comparison of Average Age of Houses Deregistered in 2018"

S Ministry of Land, Infrastructure, Transport and Tourism "Residential Land Session, Panel on Infrastructure Development (36th) "

Shinchiku Sokkurisan initiatives concerning social issues

Extending the useful lives of houses through seismic reinforcement

Shinchiku Sokkurisan offers proposals for improving the house's functionality to make it earthquake resistant without rebuilding mainly through seismic reinforcement work based on earthquake resistance diagnosis that meets the government's safety standards.

Moreover, in the Kumamoto Earthquake of 2016, a series of powerful tremors caused the collapse of houses previously considered not to need seismic reinforcement under current laws. In view of such circumstances, we developed a proprietary method to counter such a series of powerful tremors. With the addition of this new method, we now offer seismic reinforcement and damping plans suitable for houses of all ages.

We are promoting houses where people can continue to live in with peace of mind by improving the safety functions through this reinforcement work.

Contributing to the reduction of the environmental impact

Shinchiku Sokkurisan remodeling contributes to the reduction of the environmental burden by extending the life of the house through earthquake reinforcement while the principal structural elements of the house are retained, thus minimizing industrial waste discharge, CO₂ emission, and waste of resources, compared to the demolition involved in building a new house.

Revised floor plans to suit changing lifestyles

In addition to seismic reinforcement, Shinchiku Sokkurisan offers remodeling that makes living comfortable, with thermal insulation, waterproofing, barrier-free design, etc. Furthermore, in response to changes in family structures and aging population, we offer solutions customized for the lifestyles without rebuilding, such as layout changes, extensions, downsizing, transformation of a two-story house to a one-story house, or a two-family house.

Solution for rapidly increasing disused houses

The high number of disused detached houses has become a social issue in Japan. Through remodeling, turning them into social welfare centers, share- houses, travelers' inns, etc., we contribute to utilization of existing house stocks and support safe and sustainable city.



Interior stripped down to its main frame

[Contribution to SDGs]

The initiatives related to this release contribute to the following SDGs' objectives:



Goal 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Goal 11 SUSTAINABLE CITIES AND COMMUNITIES

Sumitomo Realty has been working to solve social issues through its business activities under its fundamental mission to "Create even better social assets for the next generation." Going forward, the Company will further contribute to realizing a sustainable society by creating high-value social assets with environment and social awareness.

Goal 15 LIFE ON LAND

<Our Initiatives on ESG and SDGs> <u>https://www.sumitomo-rd.co.jp/english/sustainability/</u>