

PRESS RELEASE

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Notice Concerning Receipt of the Survey Report by the External Investigative Committee

Leopalace21 Corporation (“the Company”), as described in the “Notice of Request for Additional Investigation to External Investigative Committee” posted on the Company’s website on June 10, 2019, has conducted an investigation through the External Investigative Committee, established on February 27, 2019, to investigate the cause and develop measures to prevent the recurrence of parting wall construction defects between properties designed by the Company and built by other companies and the parting wall defects posted on the Company’s website on May 29, 2019.

The Company received the final investigative report today, July 31, 2019. An outline of the report follows.

The Company acknowledges the contents of the investigative report and is working to enact measures that will prevent recurrence to earn the trust of all stakeholders.

For details on the measures to prevent recurrence, refer to “Notice Concerning Causes and Measures to Prevent the Recurrence of Construction Defects” dated today and “Notice Concerning Causes and Measures to Prevent Recurrence of Construction Defects of Parting Walls, etc. of Properties Constructed by Leopalace21” dated May 29, 2019.

We sincerely apologize to all of our stakeholders, including tenants and owners, for the distress caused by construction defects in parting walls.

To: Leopalace21 Corporation

Investigative Report on the Problem of Construction Defects (Overview)

July 31, 2019
External Investigative Committee

Chairman Tetsuo Ito, Attorney

Member Hiroshi Kimeda,
Attorney

Member Norimitsu
Yamamoto,
Attorney

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Part 1 Overview of the Investigation

Section 1 Background of the Investigation

On February 21, 2019, Leopalace21 Corporation (hereinafter referred to as “**Leopalace21**”) requested that the legal offices of Nishimura & Asahi, which does not have a stake in Leopalace21, investigate the cause of the defects discovered in apartment complexes built by Leopalace21. The establishment of an External Investigation Committee (hereinafter referred to as “**this Committee**”) was formally decided by the Leopalace21 Board of Directors on February 27, 2019. This Committee conducted an investigation on the defects described above, and on May 29, 2019 reported the investigation results to Leopalace21 (hereinafter, the investigation conducted by this Committee in response to the request made on February 21, 2019, will be referred to as “**the previous investigation,**” and the “Investigative Report on the Problem of Construction Defects” dated May 29, 2019, will be referred to as “**the previous report**”). On June 10, 2019, Leopalace21 requested that this Committee additionally investigate the causes of defects found in apartment complexes designed by Leopalace21 and built by other companies as well as other defects found in apartment complexes built by Leopalace21 (hereinafter, the investigation conducted by this Committee based on this request will be referred to as “**the current investigation**”).

Section 2 Structure of This Committee

This Committee consists of the following three members.

Chairman: Tetsuo Ito (Attorney, Nishimura & Asahi)

Member: Hiroshi Kimeda (Attorney, Nishimura & Asahi)

Member: Norimitsu Yamamoto (Attorney, Nishimura & Asahi)

None of the members have been commissioned for any legal work from Leopalace21 prior to this survey, and they have no stake in the company. In addition, there is no interest between the law offices of Nishimura & Asahi, to which this Committee chairman and members belong, and Leopalace21 as of the date of this investigation.

In order to conduct this investigation, this Committee appointed 20 attorneys as investigation assistants, who belong to Nishimura & Asahi and have no interest in Leopalace21.

To ensure the independence and objectivity of this investigation, this Committee complies with the “Guidelines for Third-Party Committees Relating to Corporate Scandals” published by the Japan Federation of Bar Associations and conducted the investigation based on “Section 2: Securing independence, neutrality, and expertise when establishing third party committees” of the “Principles for Responding to Scandals of Stock Market Listed Companies” published by the Japan Exchange Regulation.

Section 3 Purpose and Scope of This Investigation

The purpose of this investigation is as stated in the Leopalace21 press release issued on June 10, 2019: to confirm the facts and investigate the causes, to examine the responsibility¹ of the parties involved, and to make proposals for measures to prevent recurrence of (1) the defects found in those properties designed by Leopalace21² that Leopalace21 contracted to construction companies instead of undertaking the contract for construction from the land owner (hereinafter referred to as “**properties built by other companies**”), namely parting walls not being built in attic spaces (hereinafter, problems related to such defects are referred to as “**problems in properties built by other companies**”), and (2) the parting wall defects in some steel frame properties built by Leopalace21 that should have been built as fire-resistant buildings according to the law (hereinafter referred to as “**steel-frame, fire-resistant buildings**”) that did not comply with the specifications for fire-resistant buildings required by Articles 27 and 61 of the Building Standards Act, or specifications for the certification by the Ministry of Construction³ (hereinafter referred to as “**Minister’s Certification**”) required by Article 30, Section 2 (currently Article 30) of the Building Standards Act revised June 26, 1992 (hereinafter, problems related to such defects are referred to as “**parting wall specification problems in steel-frame, fire-resistant buildings**”), as well.

In this investigation, the results of the field investigation conducted by Leopalace21 (hereinafter referred to as the “**properties investigation**”) regarding the presence or absence of construction defects (1) and (2) mentioned above (hereinafter referred to as “**the defects**”) are assumed to be accurate.

¹ This report does not judge whether the parties concerned are legally liable.

² This includes cases in which Leopalace21 commissioned the design or other work to external design offices.

³ The Minister of Land, Infrastructure and Transport Certification applies to specifications of properties built on or after January 1, 2001.

Section 4 Method of This Investigation

This Committee (1) collected and scrutinized various drawings (general drawings, application for building confirmation drawings, construction drawings and construction manuals), minutes from the Board of Directors meetings, a variety of meeting materials, approval documents, and materials related to the development of different series that already existed in Leopalace21; (2) conducted digital forensic investigation of officers and employees of Leopalace21; (3) conducted interviews of parties involved (32 people, 49 interviews); and (4) performed a survey of construction contractors (6 out of 40 contractors who built properties in which the defects were found).

Part 2 Facts Found by This Investigation

Section 1 Problems in Properties Built by Other Companies

1 Overview of Problems in Properties Built by Other Companies

(1) Overview of Problems

Currently, it is known that there are defects in the attic parting walls of properties built by other companies. In the following document, properties for which Leopalace21 undertook the construction contract from the owner (as the main contractor) are referred to as “**properties built by Leopalace21.**”

In response to the defects in which parting walls were not built in the attics of properties built by Leopalace21 (hereinafter, problems relating to these defects are referred to as “**problems with attic parting walls**”), which were announced by Leopalace21 on April 27, 2018 and May 29, 2018, Leopalace21 conducted an investigation from April 2018 of all properties built by Leopalace21 (all-building survey)⁴. During this investigation, defects were discovered in which parting walls were not built in the attics of not only properties built by Leopalace21, but also properties built by other companies. Although the previous investigation conducted by this Committee was on properties built by Leopalace21, this section focuses on properties built by other companies.

(2) Overview of Properties Built by Other Companies

Leopalace began as a real estate brokerage firm in 1973, started selling detached houses in 1981, and began the construction of apartment buildings for sale (in lots) in 1984. In the apartment construction

⁴ See page 2 of the previous investigation.

for sale (in lots) business, Leopalace21 buys the land itself, places an order with a construction contractor to build an apartment complex on that land, and sells the land and apartment complex to the customer as a lot. The properties built in this apartment construction for sale (in lots) business are built by other companies.

This apartment construction for sale (in lots) business succeeded and grew in scale year after year. Among properties built by other companies, the number of conventional apartments for which construction was completed increased every year, from 52 in 1985, to 170 in 1986, to 956 in 1988, and 1,009 in 1990. As sales volume increased, Leopalace21 proactively made the business more efficient. As described on pages 9 to 10 of the previous report, Leopalace21 did not require experienced craftsmen because it launched the Cubicle in September 1989. Instead it developed standardized housing that anyone can assemble from factory-made parts, similar to building a plastic model from a kit.

Soon after that, the Japanese asset price bubble collapsed, making it difficult to purchase land. As the construction cost of apartment complexes became a heavy burden for Leopalace21, the company shifted the focus of its business from the apartment construction for sale (in lots) business to the contracted apartment construction (order built) business and the package leased apartment rental business. Of the properties built by other companies, the number of conventional properties built sank from 742 in 1991, to 45 in 1992, and only six in 1993. For that reason, most of the properties built by other companies were built and sold by 1992.

(3) Problem Trends

According to the property investigation, it was found that there were both properties that have no parting walls (Type A) and properties that have parting walls built with defects (Type B). To understand the trends in problems for properties constructed by other companies, and to analyze the causes and backgrounds of these trends, this Committee focused its study on Type A.

According to the results of the property investigation (as of July 24, 2019), over 90% of properties built by other companies (4,400 out of 4,745 buildings) are conventional, and nearly 80% of the properties with defects (110 out of 142 buildings) are conventional. There is an overwhelmingly large number of conventional properties built by other companies and buildings with defects, so the problems in properties constructed by other companies almost entirely applies to conventional buildings.

Conventional refers to wood-frame buildings that use conventional construction methods⁵, built since Leopalace21 launched its apartment construction for sale (in lots) business, and does not refer to any particular series. Looking at the number and percentage of Type A defects in 4,400

⁵ See page 2 of the glossary in the previous report.

conventional properties built by other companies as categorized by the time construction was completed, the defect rate was 50.0% in 1985 (two out of four buildings judged⁶), 42.1% in 1986 (eight out of 19 buildings judged), 27.4% in 1987 (26 out of 95 buildings judged), and about 10% thereafter, with no defects found after 1994.

Conventional properties include only properties built by other companies as well as properties built by Leopalace21. Looking at the number and percentage of Type A defects in conventional properties built by Leopalace21, the rate is high at 25.0% in 1985 (one out of four properties judged), 33.3% in 1986 (five out of 15 properties judged), but declines to the range of seven to 14% after 1987, or about 1/2 to 1/3 of the rate until 1987. Comparing the percentage of conventional properties with defects completed between 1985 and 1993, the defect rate in properties built by other companies (27.4%) was higher than that of properties built by Leopalace21 (7.1%) in 1987, but otherwise they generally follow the same trend.

2 Work Flow at Properties Built by Other Companies

As described in 1(2) above, many of the properties built by other companies were constructed and sold by about 1992.

Until 1993, when the Departments in charge of purchasing that were in charge of buying land, and the Departments in charge of sales that were in charge of selling properties built by other companies in the apartment construction for sale (in lots) business were both eliminated, the specific business was flow was as described in (1) or (7) below.

(1) Purchasing Land

When the Departments in charge of purchasing found land that seemed usable for apartment complexes based on information acquired from real estate agencies, they would calculate the investment yield based on a rough plan made by the Departments in charge of design (hand-written material describing the layout and appearance to identify the shape and number of rooms in the apartment complex likely to be built on that land). If it seemed likely to reach a reasonable balance as a rental property, Leopalace21 would acquire adequate land to build an apartment complex from the owner.

(2) Planning and Design

Next, the Departments in charge of design would create an application for building confirmation

⁶ Properties which have been investigated and judged as to whether or not they have defects.

drawing, and occasionally a construction drawing as well, and provide these drawings to the Departments in charge of construction and Departments in charge of sales. Applications for building confirmation were created by Leopalace21 employees⁷ certified as first-class architects who acted as designers, based on their qualifications.

Before Leopalace21 turned the focus of its business to the contracted construction business and started undertaking construction of standardized housing, the Departments in charge of design had no reference manual, and made drawings from scratch for each property. Because the work was not standardized, the drawings to be made in addition to the application for building confirmation drawing, and the information included in those drawings was left to the discretion of each person in charge of a property. Looking at the drawings checked by this Committee, the method of including information was not necessarily uniform and depended on the person in charge (see Part 4 below for information on drawings regarding parting walls).

(3) Construction

The Departments in charge of construction requested the construction of properties from a contractor, taking into consideration the work volume of the contractor. Once the contractor accepted the request, Leopalace21 entered into a construction contract for the property with the contractor. At that time, the Departments in charge of construction handed over the application for building confirmation drawings and construction drawings, which it received from the Departments in charge of design to the construction contractor.

Among contractors that Leopalace21 used at the time, some had little to no experience building apartment complexes.

Leopalace21 employees served as the chief engineers (or technical supervisors, same applies below) on properties built by Leopalace21, because Leopalace21 undertook construction of the properties from the owner. However, Leopalace21 was the party placing the order for properties built by other companies and the construction companies were the contractors. Unlike properties built by Leopalace21, employees of the construction companies served as the chief engineers.

Before Leopalace21 focused its business on the contracted construction business and started undertaking construction of standardized housing, the construction contractors procured the necessary materials for construction, including the materials necessary for building parting walls.

⁷ Among drawings of properties built by other companies, there are some made under the name of Miyama First-Class Architect Office and Miyama Home First-Class Architect Office. Miyama Co., Ltd. and Miyama First-Class Architect Office are substantially operated as a single unit, and Miyama First-Class Architect Office is substantially a part of the Architecture Department of Miyama Co., Ltd.

(4) Confirmation and Inspection of Construction Status

Although Leopalace21 was the ordering party and the construction company was the contractor for properties built by other companies, the Departments in charge of construction for Leopalace21 were supposed to conduct confirmation and inspection of the construction status.

In particular, the Departments in charge of construction were supposed to visit the construction site once per week to check on progress, and carry out (1) reinforcement arrangement inspection, (2) framework raising inspection, (3) woodwork completion inspection, (4) construction completion construction, and (5) cube inspection⁸. (1) reinforcement arrangement inspection, (2) framework raising inspection, (3) woodwork completion inspection, (4) construction completion construction, and (5) cube inspection⁹ ((4) and (5) were conducted simultaneously) were to coincide with the times when Leopalace21 made installment payments for the construction contract fees to the construction contractor. Leopalace21 would then receive inspection request forms from the construction contractor, make an inspection record table with photographs of the construction site on it, check this table, and confirm progress on the construction site.

However, it is impossible to say that construction status was confirmed or inspections were adequately performed at that time, because, for instance, Leopalace21 employees may not have visited the construction site for the inspection or may have only spent a short time on site if they did visit, because progress was slow. The main reason for this is because the Departments in charge of construction suffered from a shortage of personnel. Especially from 1988 to 1991, Leopalace21 reached 700 to 1,100 properties built per year, but only had three to 16 employees certified as first-class architects in its Construction Section, and nine to 36 people in its entire Departments in charge of construction. Some of these personnel were new hires, so only a handful of employees were capable of performing adequate inspections. According to one employee¹⁰, each employee in the Departments in charge of construction was responsible for 30 to 40 construction sites, meaning they would need to visit six or seven construction sites per day. The time allotted for each construction site was extremely short, only about a five-minute visit per week. According to another employee in the Departments in charge of construction, to perform adequate confirmation and inspection of construction status, the most that one employee could be responsible for would be three construction sites simultaneously, or about 10 to 15 properties per year. Therefore, it is clear that there was a shortage of personnel.

⁸ This determines the suitability as a rental property (see page 31 of the previous report).

⁹ This determines the suitability as a rental property (see page 31 of the previous report).

¹⁰ In this report, the department that a speaker belonged to in the interview is the department that they belonged to when the defect occurred.

(5) Construction Supervision

Employees qualified as class architects were assigned to the Departments in charge of design, and those employees qualified as architects were supposed to conduct construction supervision based on their qualifications as architects. However, employees in the Departments in charge of design were very busy, and often construction supervisors did not go to the construction sites of buildings to supervise construction themselves. Employees of the departments in charge of design who were not construction supervisors also visited construction sites in some cases, but the results of their visits were not always reported to the construction supervisor, so there was almost no supervision of construction by other employees of the Departments in charge of design. Moreover, the Departments in charge of construction sometimes shared with the construction supervisors photographs showing construction status that were taken when inspecting construction status as described in (4) above, and verbally reported on the construction status. However, the Departments in charge of construction were also very busy and frequently did not send photographs, meaning the Departments in charge of construction also did not conduct much construction supervision. Even when construction supervisors received shared information about the construction status, they only confirmed whether the building greatly deviated from expectations, and almost never confirmed whether or not the construction status of the building matched the design documents. Thus, construction supervision was extremely inadequate.

There was a shortage of qualified architects in the Departments in charge of design. At the time, the Departments in charge of design were supposed to concentrate on creating drawings and filing applications for building confirmation work, so staffing was done with that assumption. There was insufficient staff to do construction supervision. In particular, from 1988 to 1991, Leopalace21 built 700 to 1,100 properties per year, as mentioned above, but there were only four to 25 employees qualified as architects in the Departments in charge of design. According to one of the people certified as an architect, to carry out adequate supervision, even with help from assistants, the most that one person could handle would be five construction sites simultaneously, a total of 15 to 20 per year, demonstrating that Leopalace21 was clearly understaffed.

(6) Sales Activities and the Sale of Real Estate

In the beginning, when Leopalace21 first launched its apartment construction for sale (in lots) business, Leopalace21 would conclude real estate sales contracts with the customer between the time that building confirmation was obtained and construction was completed. However, following the collapse of the Japanese asset price bubble, customers became more cautious about concluding contracts, so it became less common for Leopalace21 to conclude real estate sales contracts before the construction of a property was finished. Starting around 1991, Leopalace21 would conclude real

estate sales contracts after the construction of a property was finished and a customer had toured the property.

The Departments in charge of sales were not directly involved in the design and construction of properties. However, when customers requested properties to be completed faster, management in the Departments in charge of sales would request that the Departments in charge of construction shorten the construction period.

(7) Transfer of Properties

Once the construction of a property was completed, the construction contractor would transfer the property to the Departments in charge of construction. Properties were normally transferred by the construction contractor handing over the keys when they visited Leopalace21 to submit the final invoice. Upon transfer, managers from the Departments in charge of construction did not visit the construction site or check the construction status again. This was true whether or not a real estate sales contract had been concluded with the customer upon completion of construction.

When real estate sales contracts were concluded with customers upon completion of construction, the departments in charge of sales sometimes took customers on tours of construction sites, if the customer requested it. However, because most customers purchased properties for investment purposes and did not live there themselves, it was rare for customers to visit construction sites.

(8) Work Flow after the Launch of Standardized Housing

After Leopalace21 shifted its focus from apartment construction for sale (in lots) business to the contracted construction business, there was no difference between the work flows of properties built by other companies and properties built by Leopalace21. Properties built by other companies also followed the work flow described starting on page 18 of the previous report.

3 Necessity of Construction of Attic Parting Walls

(1) Handling by Leopalace21

Neither employees in the Departments in charge of design nor employees in the Departments in charge of construction remember discussions saying that attic parting walls did not need to be constructed in the stage prior to the development of the Nail series. For properties built by other companies (construction for sale), they have said that of course an attic parting wall is necessary. As described in 4(2) below, the results of drawing verification showed that although description methods vary between drawings, of those properties that were found to have A-1 defects, all 66

buildings for which drawings had been kept show attic parting walls. In addition, as described in 4(3) below, the construction manual created by Leopalace21's Departments in charge of construction also indicated the construction of attic parting walls.

In light of these circumstances, it can be said that both the Departments in charge of design and the Departments in charge of construction considered it necessary to build attic parting walls.

Although the Departments in charge of purchasing and Departments in charge of sales were not directly involved in design or construction, and had no knowledge of or interest in construction, it can be said that staff in charge of purchasing and staff in charge of sales were clearly aware of the need for the construction of attic parting walls.

(2) Handling by Construction Contractors

In interviews held by this Committee, a construction contractor that stated that of course it is necessary to build parting walls in attics. In all responses to surveys of construction contractors, they said that it was necessary to build attic parting walls at that time. However, in hearings held by this Committee, there were also staff from construction contractors who said they believe some construction contractors were unaware of the necessity of building attic parting walls, because they had only undertaken contracts to build detached houses until they received orders to construct apartment complexes from Leopalace21. This suggests that construction contractors that lacked experience in the construction of apartment complexes did not clearly recognize the need for building attic parting walls at first.

4 On Drawing Verification

(1) Overview of Drawing Verification

This Committee conducted drawing verifications based on the results of property investigations as of July 24, 2019, received from Leopalace21. According to the results of the property investigations by Leopalace21, among properties targeted by investigations, 797 buildings were found to have defects in properties built by other companies. However, because it was difficult to verify drawings in a limited amount of time for all 797 properties, this Committee decided to focus on the type of defect in which attic walls were not built for the entire attic (Type A-1).

This Committee confirmed whether or not Leopalace21 kept drawings of the 70 properties built by other companies where A-1 defects had been found, excluding four properties in which drawings had not been kept, and verified the drawings of 66 properties.

The drawings are classified into three types: (1) application for confirmation of building drawings, (2) construction drawings, and (3) drawings that cannot be clearly classified as either (1) or (2). This

Committee examined all existing types of drawings for the 66 properties that have been kept.

(2) Results of Drawing Verification

As a result of the drawing verification, it was confirmed that although descriptions vary depending on the drawing, statements were made to the effect that attic parting walls would be constructed in the drawings of all 66 properties. Specifically, as shown in Table 1, it was confirmed that there is hatching indicating the description of attic parting walls in the dwelling areas of the sectional detail drawings and a statement to the effect that attic parting walls should be built for 32 properties. There was hatching in the X-X cross section drawings and a statement to the effect that attic parting walls should be built for 57 properties. There was hatching in the Y-Y cross section drawings and a statement to the effect that attic parting walls should be built for 26 properties. There was hatching in the Y-Y cross section drawings and a statement to the effect that attic parting walls should be built for 26 properties. There was a description that parting walls should reach the attic in the parting wall column of the completion schedule or specifications and a statement to the effect that attic parting walls should be built for 32 properties. Finally, there was a statement to the effect that attic parting walls should be built in other drawings for nine properties.

In addition, the “Status of Investigations by the External Investigation Committee” produced by this Committee and dated June 21, 2019, stated that there are five properties that had no drawings with a statement to the effect that attic parting walls should be built. However, as a result of subsequent drawing verifications and interview investigations, a property investigation by Leoplace21 found that parting walls had been constructed in one of the five properties. In addition, it was found that in four of these five properties, there was a statement to the effect that an attic parting wall should be built in the floor drawing or sectional detail drawing, which were not subject to verification in the previous investigation.

Table 1

Of properties found to have A-1 defects, those for which drawings have been saved	Properties with a statement to the effect that an attic parting wall should be built in the dwelling area of the sectional detailed drawing	Properties with a statement to the effect that an attic parting wall should be built in the X-X cross section drawing	Properties with a statement to the effect that an attic parting wall should be built in the Y-Y cross section drawing	Properties with a statement that the parting wall should reach the attic in the completion schedule or specifications	Properties with a statement to the effect that an attic parting wall should be built in some other drawing
66	32	57	26	32	9

Properties with a statement to the effect that attic parting walls should be built in multiple drawings are counted in each item. Therefore, among the properties that were found to have A-1 defects, the total number of properties for each item is larger than the number of 66 properties for which drawings have been saved.

(3) Description in Construction Manuals

In construction manuals provided by Leopalace21 and dated May 1988 and February 1990, parting walls are described where the upper part should reach the attic and the lower part should reach the bottom of the foundation, and that parting walls should reach the attic, along with a drawing of the parting wall reaching the attic. It is recognized that these statements describe building attic parting walls as a necessity.

5 Causes of Defects

As described in 2 above, for properties built by other companies, (i) the Departments in charge of purchasing purchased properties, (ii) the Departments in charge of design made drawings, and (iii) the Departments in charge of construction ordered construction from construction contractors. Then, (iv) the construction contractor proceeded with construction based on the order from Leopalace21. At Leopalace21, (v) the Departments in charge of construction confirmed the construction status and conducted inspections, and (vi) qualified architects in the Departments in charge of design conducted construction supervision. Next, (vii) the Departments in charge of sales sold the property. Once construction of a property was completed, (viii) the construction contractor transferred the property to the Departments in charge of construction.

Regarding the Departments in charge of design in (ii), as described in 4(2) above, the drawings created by the Departments in charge of design are recognized as a statement to the effect that it is necessary to build attic parting walls. However, the method of description varies, and there are also drawings in which the attic parting walls are not clearly described with hatching or in writing, so it can be said that some drawings are confusing.

Also, regarding the Departments in charge of construction in (iii), in the stage when the Departments in charge of construction ordered construction from construction contractors, the Departments in charge of construction did not scrutinize the content of the drawings received from the Departments in charge of design. Furthermore, when the Departments in charge of construction transferred drawings to construction contractors, it did not explain how to read the drawings or hold briefings to explain important points for construction contractors.

Furthermore, the confirmation of construction status and inspections by the Departments in charge of construction in (v) and the construction supervision by employees qualified as first-class architects in the Departments in charge of design in (vi) were extremely inadequate. As described in 2(4) above, confirmation of construction status and inspections by the Departments in charge of construction was not done adequately, because they did not visit construction sites for inspections, and when they did, their visits were infrequent and spent only a short time on site. In addition, as described in 2(5) above, construction supervision was often not conducted by the construction

supervisors themselves, and other employees in the Departments in charge of design or the Departments in charge of construction did not share information adequately. In the stage when the property was transferred in (viii), while it was assumed that the Departments in charge of construction conducted a construction completion inspection upon completion of construction, and reworking would be performed as necessary based on this inspection, but this was also inadequate.

Regarding the construction by the contractors in (iv), as described in 3(2) above, some construction contractors had only undertaken orders for the construction of detached houses until they received orders for the construction of apartment complexes from Leopalace21, so they did not have sufficient knowledge of building attic walls in the beginning, meaning the construction contractors had inadequate knowledge and experience.

In contrast, the Departments in charge of purchasing in (i) and the Departments in charge of sales in (vii) were not directly involved in design or construction, so it is difficult to imagine whether methods of purchasing or sales caused problems in properties built by other companies.

Also, in interviews conducted by this Committee, some people said that the fundamental reason was that more than 30 years ago, awareness of compliance with laws and regulations in the construction industry as a whole was not as high as it is today. In the survey of construction contractors, some respondents also point out that awareness of compliance with laws and regulations was different in the past; therefore, at that time more than a few construction contractors seemed to have less awareness of compliance with laws and regulations than they do now.

As described in 1(2) above, there are defects in properties built by other companies after Leopalace21 shifted the focus of its business from the apartment construction for sale (in lots) business to the contracted construction business. The general causes of this are thought to have led to the attic parting wall problems in the Nail series and 6 series, which are properties built by Leopalace21. Specifically, these causes include the following. (i) At the time, at Leopalace21, based on the principle of thinking on the go, the first priority was given to emerging from the business crisis and expanding the contracted construction business. As the company became extremely busy with the constant development of new series, the Product Development Department did not assign sufficient human resources for compliance with laws and regulations or quality assurance, and did not send appropriate drawings and manuals to branches. (ii) Similarly, the Departments in charge of design and Departments in charge of construction also had insufficient human resources and were overburdened with work. Each employee in the Departments in charge of construction was responsible for tens of construction sites, meaning that construction management was extremely inadequate. (iii) Only a few specific architects became construction supervisors, and they were tasked with an extremely large number of properties, making construction supervision work also extremely inadequate.

6 Verification of the Possibility of Early Detection of Problems by Leopalace21

In interviews conducted by this Committee, several employees of Leopalace21 said, “Around 1988, tenants in Leopalace21 properties crawled through the attic to enter the rooms of other tenants and steal from them.” At that time, Leopalace21 recognized that there were properties that did not have attic parting walls and conducted a total inspection of properties. However, judging from the fact that the properties were built with defects and those defects were not repaired, it cannot be said that Leopalace21 conducted a truly comprehensive inspection that might be imagined from the total inspection label. It can be assumed that limited inspections were conducted in a narrow range. Leopalace21 should have conducted total inspections with proper methods to detect defects comprehensively and reliably after this event.

As stated from page 67 onwards of the previous report, Leopalace has a risk detection system in which risk information regarding quality problems is not adequately relayed horizontally to relevant departments, it lacks risk sensitivity among management and employees including executives, and it has a head-in-the-sand approach that reduced the problem of construction defects to the level of individual properties. This can be considered equally applicable to dealing with cases of theft in 1988.

Section 2 Parting Wall Specification Problems in Steel-frame, Fire-resistant Buildings

1 Overview of Parting Wall Specification Problems in Steel-frame, Fire-resistant Buildings

In response to the discovery of the attic parting wall problem, Leopalace21 conducted investigations from April 2018 onwards on all properties built by Leopalace21 (all properties investigation)¹¹. In a property investigated on February 25, 2019, Leopalace21 discovered that although the property is a steel frame fire resistant building, the parting walls did not conform to the specifications for parting walls in fire-resistant buildings adopted for this type of property. On February 26, 2019, Leopalace21 reported this matter to the Ministry of Land, Infrastructure and Transport and decided to start drawing investigations and property investigations.

¹¹ See page 2 of the previous report.

2 Results of Property and Drawing Investigations and Investigation Policy

(1) Results of Property Investigations

Since the discovery of parting wall specification problems in steel-frame, fire-resistant buildings, Leopalace21 has started property investigations of all 2,295 steel-frame, fire-resistant buildings built by Leopalace21. These property investigations are ongoing, but as of July 18, 2019, investigations have been completed on 616 buildings. Of these, a total of 129 properties have been recognized as not complying with Specifications certified by the MILT.(hereinafter referred to as “**defective properties**”).

The main types of property defects are as follows.

(i) Type with No Flat Lath Built¹²

In some Gold Bolt and Gold Residence properties, the structure list states specifications for the parting walls of fire-resistant buildings as using Minister Certified W1035 (specifications requiring two gypsum boards with a thickness of at least 12 mm each, stacked on top of each other, with a flat lath stacked underneath), and although there is a statement ordering compliance with this, no flat lath was installed under the gypsum boards.

(ii) Type Where the Wrong Surface Material Was Used

In Gold Residence, Congrazia and other property series, parting walls were built with surface materials that differ from the specifications in the Minister Certification described on the structure list. The type of Minister Certification described on the structure list varies for each property. However, despite the fact that reinforced gypsum board is required by all Minister Certifications, there are defects in which the surface material used on either or both sides is regular gypsum board instead of reinforced gypsum board¹³, or the materials were less than the thicknesses required by Minister Certified specifications.

(2) Results of Drawing Investigations

Leopalace21 investigated the structure lists and internal finishing sheets of 2,295 steel-frame, fire-resistant properties built by Leopalace21, and when structure lists and internal finishing sheets¹⁴

¹² A flat lath is a product made by cutting and flattening a steel sheet into an expanded shape. According to Minister's Certification W1035, it is necessary to use Flat Lath F700 (formerly known as Flat Lath #3, JIS Standard Number: JIS A5505).

¹³ A reinforced gypsum board is made by mixing inorganic fibers into the core of a gypsum board. Usually, it is used as a building material in fire-resistant buildings, semi-fire-resistant buildings and fireproof structures.

¹⁴ Of 2,295 properties, 124 had no structure list or internal finish sheet, so their specifications are unknown.

were kept for a property, after identifying the Minister Certification numbers written on the structure list, Leopalace21 checked the consistency between the Minister Certified specifications and the specifications actually written on the structure list and internal finishing sheet (hereinafter, this process is referred to as “**drawing investigations**”). The drawing investigations conducted by Leopalace21 have been completed for all 2,295 steel-frame, fire-resistant buildings as of the reference date. Of these, Table 2 summarizes the results of the drawing investigations for which property defects were identified during property investigations conducted by Leopalace21.

Table 2: Drawing investigation results of properties acknowledged as having property defects

Product name	Defects and discrepancies	Only defects	Only discrepancies	No defects or discrepancies	No drawings	Total
Gold Bolt	0	0	0	24	4	28
Gold Residence	18	13	0	23	10	64
Others	0	0	0	33	4	37
Total	18	13	0	80	18	129

As shown in Table 2, among properties acknowledged as having property defects (129 properties), 31 properties were acknowledged as having defects¹⁵ or discrepancies¹⁶ in the drawings, all of which were Gold Residence properties. Sixty-four Gold Residence properties were acknowledged as having property defects, and of the 54 properties for which drawings exist, 31 properties have defects or discrepancies in their drawings. In contrast, while property defects have been recognized, no defects or discrepancies in drawings have been found for Gold Bolt, New Gold Residence, Congrazia, S-Zo, Royal Residence, Villa Alta, Villa Sperio or Profeed series.

In addition, the overview of defects and discrepancies actually discovered through drawing investigations are as follows.

(i) Defects Discovered through Drawing Investigations

In some Gold Residence properties, despite statements in the structure lists to the effect that they conform to Minister Certified W1045 (specified as stacking two layers of reinforced gypsum boards, each of which are at least 15-mm thick), other parts of the same structure lists or internal finishing list provide concrete specifications for parting walls saying that they only require two-layered, normal gypsum boards, which are 12.5-

¹⁵ According to Leopalace 21, “defects in drawings” means that either or both the structure list or internal finishing list made for a property have specifications that do not conform to Minister Certification.

¹⁶ According to Leopalace 21, “discrepancies in drawings” means that there are discrepancies in the structure list and internal finishing sheet made for a property.

mm or 15-mm thick. Although it is actually required to build with reinforced gypsum boards, which are highly fire resistant, there is a defect in the sense that drawings say to use normal gypsum board instead of reinforced gypsum board. Furthermore, properties specifying a thickness of 12.5 mm fall short of the thickness of 15 mm that is supposed to be used.

(ii) Discrepancies Discovered through Drawing Investigations

For some properties that belong to the Gold Residence series, as well as the Miranda series, Cleino series and Leo Next series¹⁷ (hereinafter, these are referred to as “three series products”) have different content written regarding specifications of parting walls in their structure lists and internal finishing sheets, despite both being drawings of the same property. For example, in Gold Residence properties, on the structure list it was written that two surface materials with a thickness of 15 mm each are layered together for the parting wall, but on the internal finishing sheet, it was stated that two surface materials with a thickness of 12.5 mm each are layered together. In addition, for the problematic properties belonging to three series products, on the structure list it was written that two surface materials with a thickness of 12.5 mm each are layered together for the parting wall, but on the internal finishing sheet, it was stated that two surface materials with a thickness of 15 mm each are layered together.

3 Causes of Defects and Discrepancies in Drawings of Gold Bolts and Gold Residences

(1) Process of Authorizing Fireproof Specifications

This investigation found no objective data on the process of authorizing specifications for parting walls of fire-resistant buildings in the Gold Bolt series. However, while structure lists have been created as general drawings, which include the Minister Certification numbers for specifications of parting walls in fire-resistant buildings, these general drawings have the stamps of Mr. A or Mr. B as the authorizers. When the Gold Bolt series was being developed, the Product Development Section put this under the direct control and supervision of Yusuke Fukayama¹⁸. However, even in interviews with Mr. C, Mr. B, and Mr. A, who were involved in development at the time, it was not suggested that either Yusuke Fukayama, who was president at the time, or the other directors were directly involved in authorizing specifications for parting walls in fire-resistant buildings in the Gold Bolt

¹⁷ However, this only includes properties for which construction started in or after April 2015, when sales started for the Miranda series and Cleino series.

¹⁸ See page 19 of the previous report.

series. Furthermore, the attic parting wall problem in the previous report started with the idea suggested by Yusuke Fukayama to use gabled attics¹⁹, the parting wall foam urethane problem²⁰ and the outer wall specifications problem²¹ also started with foam panels proposed by Yusuke Fukayama²². However, when it comes to the parting wall specification problems in steel-frame, fire-resistant buildings, it has not been recognized that Yusuke Fukayama or other directors proposed some sort of idea regarding the development of the Gold Bolt series, which have fire resistant specifications. Based on these facts, the specifications for parting walls in fire-resistant buildings are recognized as being authorized by the Product Development Section.

The specifications for parting walls of fire-resistant buildings in Gold Residences, as for Gold Bolt, were authorized by the Product Development Section. The structure lists used as general drawings for Gold Residences include drawings with authorization stamps from Mr. A, Mr. B, and Mr. C. In the Product Development Section at that time, the person in charge was decided for each structure of a building, and the person in charge of that structure would consider which specifications to use to make the main structural parts, such as the parting wall, into fire-resistant buildings, semi fire-resistant buildings or fireproof structures. For Gold Residences, the person in charge of parting walls in the Product Development Section at the time would consider which Minister Certification to use as specifications for parting walls in fire-resistant buildings, then report this to Mr. A or Mr. B and obtain their approval before making a decision.

Yusuke Fukayama was also deeply involved in the Product Development Section when the Gold Residences were being developed, just as when Gold Bolt series was being developed. However, in interviews with Mr. A, Mr. B, and Mr. C, who were all involved in development at the time, it was not suggested that Yusuke Fukayama or other directors were directly involved in authorizing the specifications of parting walls in fire-resistant buildings. Also, just as with Gold Bolt, it was not recognized that Yusuke Fukayama or other directors indicated some ideas for developing Gold Residences, which had fire resistant specifications.

According to the results of drawing investigations by Leopalace21, among the general drawings for the Gold Bolt and Gold Residence series, the main structure lists and internal finishing sheets that describe specifications for parting walls of fire-resistant buildings, depending on the date when a

¹⁹ See page 40 of the previous report.

²⁰ The problem announced by Leopalace21 on February 7, 2019, involving the defect in which rigid polyurethane foam was used instead of glass wool or rock wool mentioned as the insulation of boundary walls in properties built by Leopalace21 (see page 2 of the previous report).

²¹ Problem announced by Leopalace on February 7, 2019, involving the defect in which the construction of the ceiling in properties built by Leopalace21 did not conform to specifications announced by the Ministry of Land, Infrastructure and Transport, which are written in the design documents (see page 2 of the previous report).

²² See page 79 and page 116 of the previous report.

drawing was made in the Production Development Section, it could be assigned to one of the seven categories described in Table 3. No. 1 and 2 in Table 3 are for the Gold Bolt series, while No. 3 onwards is for the Gold Residence series.

Table 3: Contents of structure lists and internal finishing sheets in general drawings

No.	Date made	Minister's certification no. on the structure list	Specifications described on the structure list	Specifications on internal completion schedules
1	January 21, 1995	W2025	Calcium silicate board (12 mm + 12 mm) layering	Calcium silicate board (A) 12-mm substrate
2	November 2, 1995	W1035	Gypsum board (12.5 mm + 12.5 mm) layering	Gypsum board (A) 12.5-mm substrate
3	April 19, 1996	W1035	Gypsum board (12.5 mm + 12.5 mm) layering	Gypsum board (A) 12.5-mm layering substrate
4	May 27, 1996	W1045	Gypsum board (15 mm + 15 mm) layering	Gypsum board (A) 12.5-mm layering substrate
5	November 8, 1996	W1045	Gypsum board (15 mm + 15 mm) layering	Gypsum board (A) 15-mm layering substrate
6	November 18, 1996	W1045	Gypsum board (15 mm + 15 mm) layering	Gypsum board (A) 15-mm layering substrate
7	January 31, 1997	W1045	Reinforced gypsum board (15 + 15) layering	Reinforced gypsum board (A) 15-mm layering substrate

(2) Causes of Defects or Discrepancies in the Structure List and Internal Finishing List

The drawings created by Leoplace21 when building a property can broadly be classified into one of three types, each of which includes a structure list and internal finishing sheet: general drawings created by the Product Development Section in the head office, applications for building confirmation drawings and construction drawings created by the Departments in charge of designs in branch offices. Of these, this investigation discusses the causes of defects and discrepancies in the structure list and internal finishing list of general drawings and construction drawings, because the general drawings that determine concrete specifications for fire-resistant buildings and the construction drawings that determine how the building is actually built based on those specifications are very important.

A Causes of Defects or Discrepancies in the Structure Lists and Internal Finishing Sheets Included in General Drawings

(i) About Structure Lists and Internal Finishing Sheets Using Minister Certification W1035

As described in Table 3 above, in the structure lists of the general drawings for Gold Bolt dated November 2, 1995 (Table 3, No. 2), and the general drawings for Gold Residence dated April 19, 1996 (Table 3, No. 3), state that they comply with Minister Certification W1035, and have specifications saying to layer two normal gypsum boards with a thickness of at least 12 mm each, and layer a flat lath beneath them. However, in other parts of these structure lists and in the internal finishing table, concrete specifications for the parting walls only say to use normal gypsum boards with a thickness of 12.5 mm each, and do not say to layer a flat lath underneath them.

As a result of the interviews conducted by this Committee, it is conceivable that the reason for the lack of directions to layer flat lath underneath the normal gypsum board in the structure list and internal finishing sheet using Minister Certification W1035 was that the person in charge at the time, who had poor knowledge of building laws and regulations, did not properly check the specifications of Minister Certification W1035, and did not stop to consider the necessity of layering flat lath, so they thought that layering normal gypsum board would meet specifications²³.

(ii) About Structure Lists and Internal Finishing Sheets Using Minister Certification W1045

As described in Table 3 above, the structure lists of the general drawings for Gold Residence dated May 27, 1996 (Table 3, No. 4), state that they comply with Minister Certification W1045, and originally had specifications to layer two normal gypsum boards with a thickness of at least 15 mm each. However, in other parts of these structure lists and in the internal finishing table, there is a defect in that concrete specifications for the parting walls only say to use gypsum boards, indicating construction with normal gypsum board instead of reinforced gypsum board. In addition, the internal finishing sheets also have a defect in that they say to use surface materials with a thickness of 12.5

²³ Specifications for boundary walls according to Minister Certification include not only items related to the surface material and filler, but also determine the type of base material, dimensions, spacing during construction, as well as dimensions of screws and nails used for fastening it in place. However, the structure list and internal finishing table are drawings that list an outline of specifications for main structural parts, including the boundary walls, so they do not list all of the materials that compose each structural part. Therefore, because Leopalace21 did not write a statement to the effect that it is necessary to build flat laths on the structure lists or internal finishing sheets in which it used the Minister Certification W1035, these documents cannot be evaluated as having defects in their descriptions. However, the fact has not been acknowledged that the Product Development Section shared information with branch stores and construction contractors about the details of specifications according to Minister Certification W1035, and it is clear that Leopalace21 lacked propriety in that respect.

mm, which falls short of the actual 15 mm requirement.

Furthermore, while the concrete specifications of the parting wall describe the thickness of the surface material as 12.5 mm in the internal finishing sheet, they describe the thickness of the surface material as 15 mm in the structure list, so although there are descriptions of the specifications for the same parting wall, there are discrepancies in the descriptions of surface material thickness.

As a result of the interviews conducted by this Committee, it is conceivable that because the person in charge of drawings had poor knowledge of building laws and regulations, they misunderstood the concrete specifications for Minister Certification W1045.

Also, this Committee believes that the discrepancies were caused when the person in charge of making drawings made general drawings assuming Minister Certification W1045 (Table 3, No. 4), based on general drawings assuming Minister Certification W1035 (Table 3, No. 3), although they corrected the thickness of the surface material to the thickness required by W1045 (15 mm) on the structure list, they forgot to make this correction on the internal specification list²⁴.

Furthermore, the managers who were supposed to check the content of drawings originally created by young employees were extremely busy with product development in a short period, under orders from Yusuke Fukayama, so they were unable to adequately check the content of those drawings and approved the drawings while overlooking defects and discrepancies.

B Causes of Defects and Discrepancies in the Structure Lists and Internal Finishing Sheets Included in Construction Drawings

As a result of investigations by this Committee, it is thought that the Departments in charge of design in branch offices received structure lists and internal finishing sheets with defects or discrepancies as general drawings from the Product Development Section, and by using them for construction drawings without noticing the defects or discrepancies, they passed on the defects and discrepancies to the structure lists and internal finishing sheets included in construction drawings.

4 Causes of Each Type of Property Defect

As described in 2(1) above, in the results of property investigations, it was recognized that property defects are listed separately in a table. In the following, for each main property defect mentioned in 2(1) above, this report considers causes of property defects, taking into consideration the effects of drawing defects and discrepancies.

²⁴ From the descriptions in general drawings, the structure list has a more important meaning than the internal finishing sheet in indicating that they are specifications for parting walls of fire-resistant buildings.

(1) Type Where Flat Laths Are Not Built

One type of property defect is parting walls that are not fire-resistant buildings as a result of flat laths not being built in actual properties, despite the fact that the construction of flat laths is required by the Minister Certification W1035. The main cause of this type of defect is that the Product Development Department did not correctly understand the content of Minister Certification W1035, and made general drawings without fully recognizing that it was necessary to build flat laths. As a result, it is thought that the Departments in charge of design in branch stores made construction drawings without a statement to the effect that it is necessary to build flat laths.

During this investigation, this Committee checked the order forms of properties with the type of defect in which flat laths were not built, and found that the flat laths were not even printed as a material to be purchased on those orders. It is not difficult to conceive that the construction contractors would consider it adequate to only use the type of materials printed on the order form, making it possible that the flat laths missing from these order forms were another cause of flat laths not being constructed.

(2) Type in which the Wrong Surface Material Was Used

Another type of property defect was specifications in which parting walls did not meet the requirements for fire-resistant buildings as a result of construction using surface materials that do not conform to the type or thickness specified in Minister Certifications. One of the causes of this type of defect is thought to be that there were defects in drawings made by Leopalace21 and construction contractors built properties based on construction drawings with defects. Also, as described in 3 above, there are defects in the structure lists and internal finishing sheets included in the general drawings made for some Golden Residences by the Product Development Department in the head office of Leopalace21. Therefore, as described in 3(2) above, the defects in construction drawings referenced by construction contractors were caused by defects that appeared in general drawings continuing to the structure lists and internal finishing sheets included in construction drawings. That is to say, the fundamental cause of property defects is that the Product Development department in the head office made general drawings with defects.

There are also properties in which the wrong surface materials were used for construction, despite there not being defects or discrepancies in the drawings. The direct cause of property defects in this case is thought to be that construction contractors did not properly check or misread the content of structure lists and internal finishing sheets made correctly by Leopalace21, resulting in ordering or building with the wrong materials. However, the Departments in charge of construction in branch offices were in a position to ensure that construction contractors checked the materials used for construction and construction content, and that construction contractors ordered materials and

completed construction according to drawings. Therefore, even if the ordered materials or construction methods used by the construction contractors differed from the drawings, if the Departments in charge of construction in branch offices properly managed this construction, for example, then there was the possibility that they could have recognized property defects and made corrections when construction materials that differed from the parting wall materials described on the structure lists or internal finishing sheets were delivered to the construction sites or when they checked the parting walls that were actually built. In other words, inadequate construction management by the Departments in charge of construction in branch offices is also thought to be a cause of this type of property defect. It is possible that this level of inadequate construction management occurred because until Leopalace21 acquired ISO 9001 certification in 2008, they had an inadequate number of personnel in the Departments in charge of construction of branch offices relative to the number of properties they were building, so each employee was responsible for tens of properties.

Also, regardless of whether drawings made by Leopalace21 had defects or discrepancies, if the company had properly conducted construction supervision, it would have been possible to reference the actual state of construction and design documents and check the content of Minister Certification described on structure lists to correct property defects. However, it is thought that Leopalace21 did not discover property defects, because just as with their construction management system, until they acquired ISO 9001 certification in 2008, only a limited number of certain architects became construction supervisors and each construction supervisor had to deal with a huge number of properties, reducing their construction supervision system to a skeleton crew.

Since Leopalace21 acquired ISO 9001 certification, they have been developing a construction supervision system. Since 2012, prior to the development of the Miranda series and Cleino series, architects have developed construction supervision manuals and make construction supervision reports about each property. It is thought that such efforts have had certain effects on preventing the occurrence of property defects in three series products.

5 Verification of the Possibility of Early Recognition of Problems by Leopalace21

As a result of this Committee investigating requests for Leopalace21's requests for managerial decisions relating to steel-frame, fire-resistant buildings, four of such requests were confirmed to have been made from April 2012 to September 2013 (hereinafter, these memos for managerial decisions are referred to as "**the memos**" and these requests for managerial decisions are referred to as "**the requests**"). All of the requests had been approved by multiple directors following approval by the heads of the Design Oversight Division and Construction Oversight Division, ultimately obtaining approval from President Eisei Miyama.

According to the proposals, one Golden Residence property built in Hyogo Prefecture in 1996 was

thought to be a semi-fire resistant building in the contract with the owner of the building and although initially designed as a semi-fire-resistant building, it was modified to be a fire-resistant building following orders from the government. Building confirmation was obtained for the fire-resistant building (with part of the steel frame using fire-resistant coating), but in fact it was discovered that there was no steel-frame, fire-resistant coating that should be on fire-resistant buildings (as per the application for building confirmation). The cause of this discovery was a remark by the owner, and when the owner conducted an investigation of the property to submit an application for confirmation to change the application of the building, it became clear that there was no steel-frame, fire-resistant coating.

Despite the property mentioned above having received building confirmation as a fire-resistant building, in reality it did not meet the specifications for a fire-resistant building, but after Leopalace21 negotiated with a specific administrative agency, it was refurbished to proper specifications not as a fire-resistant building, but as a semi-fire resistant-building. Therefore, it is thought that in the process of the memos, the type of specifications for Golden Residence were not considered as semi-fire-resistant buildings, nor was it considered whether the properties mentioned above met those specifications, nor was it considered whether the specifications for parting walls written in the structure list and internal finishing sheets met specifications as fire-resistant buildings. Therefore, it is difficult to acknowledge that Leopalace21 recognized parting wall specification problems in steel-frame, fire-resistant buildings before the discovery of property defects.

In the case of attic parting walls not being constructed, which was mentioned in the previous report, owners filed multiple lawsuits and renovations and repairs were made. Unlike that case, it can be understood that with regard to parting wall specification problems in steel-frame, fire-resistant buildings, when multiple requests for managerial approval regarding renovations and repairs occur on a daily basis, it would be extremely difficult to focus on the memos, notice this fact and discover parting wall specification problems in steel-frame, fire-resistant buildings early. However, the building built did not meet specifications as a fire-resistant building despite the fact that building confirmation had been made as a fire-resistant building, so it can be said that it would have been desirable to spread the example of the memos across the company as a whole and conduct necessary investigations into the cause of this kind of property being built. In the future, it would be desirable for Leopalace21 to systematically investigate and analyze individual renovation requests and claims from owners, and when there are more than a certain number of similar claims, or when there is a possibility that the cause of a claim may be found in multiple properties, construct a system and rules to pick up on this and reply appropriately and promptly.

Part 3 Responsibility of Parties Involved

Section 1 Yusuke Fukayama and Executive Management at the Time

As stated in the previous report on properties built by Leopalace21, it cannot be recognized that Yusuke Fukayama instructed or ordered that it was acceptable not to build attic parting walls in violation of the law, with regards to problems in properties built by other companies. However, Mr. Fukayama should have hired adequate human resources and developed a system to objectively grasp the current state of the company and execute business in a legal and proper manner, because the human resources, knowledge, and company structures were inadequate when Leopalace21 decided to and entered the apartment construction for sale (in lots) business. Nevertheless, Mr. Fukayama made employees who were previously responsible for design and construction in the detached house construction for sale business take over design and construction of apartment complexes when Leopalace21 started its apartment construction for sale (in lots). At that time, he did not take measures such as hiring more employees or providing opportunities for sufficient education of employees, and neglected to develop a system related to design, including drawing production, or an investigation system or construction supervision system. Similarly, with regard to the parting wall specification problems in steel-frame, fire-resistant buildings, Mr. Fukayama neglected to develop a system related to design including product development and drawing production, a construction management system, or a construction supervision system.

In interviews conducted by this Committee, with regard to problems in properties built by other companies, Yusuke Fukayama said, "I left management and other construction for sale business to my employees, so I am not aware of the details." Regarding the parting wall specification problems in steel-frame, fire-resistant structures, he said, "The Materials Department and Departments in charge of construction were in charge of deciding materials, so I did not know about them." As stated on page 116 of the previous report, one of the fundamental causes of various problems in this matter is that Mr. Fukayama said that on one hand he gave orders to his managers and employees to conduct product development, while on the other hand he said that he was unaware of legal compliance and quality.

As described in the previous report, the rest of the executive management, excluding Yusuke Fukayama, cannot be acknowledged as having given orders to commit illegal acts regarding these problems, but they should have worked to respond with Mr. Fukayama by supporting him, making recommendations for the necessary verification and considerations, and encouraging him to respond appropriately.

Section 2 Department Staff Responsible for Product Development and Department Staff Responsible for Design

As for problems in properties built by other companies, some of the drawings made by the staff of the Departments in charge of design do not have hatching or text to indicate that attic parting walls should be built, making them confusing to construction contractors who lacked knowledge or experience. The apartment construction for sale (in lots) business was also a new challenge for the construction contractors, and the Departments in charge of design staff should have been easily able to foresee that some construction contractors lacked adequate knowledge or experience in building apartment complexes. Therefore, the Departments in charge of design staff should have made drawings that would be easy for such construction contractors to understand.

Regarding the parting wall specification problems in steel-frame, fire-resistant buildings and properties that required the construction of flat laths, despite the fact that the Product Development Department staff should have fully checked and examined the content of Minister Certifications, and either made general drawings that Departments in charge of construction in branch offices and construction contractors could use to recognize the necessity of flat laths, or explained to Departments in charge of construction and construction contractors that it was necessary to build flat laths, they neglected to do so. Also, with regard to properties that were built using the wrong surface material, despite the fact that the Product Development Department should have correctly understood specifications when making structure lists and internal finishing sheets included in general drawings, they neglected to do so. Therefore, the defects in the structure list and internal finishing sheets included in general drawings continued on the structure lists and internal finishing sheets included in the construction drawings.

Section 3 Departments in Charge of Construction Staff

With regard to problems in properties built by other companies, despite the fact that the Construction Department Staff should have considered the possibility that construction contractors would lack adequate knowledge or experience and given necessary explanations to construction contractors regarding points to be noted when building apartment complexes, they neglected to do so. Also, Leoplace21 filled orders for properties built by other companies, so the construction contractor had the primary responsibility for construction. However, the Leoplace21 Departments in charge of design did the planning and design of properties, and it is thought that Leoplace21 had a more intimate understanding of properties than the construction contractors. Therefore, regardless of legal responsibility, Leoplace21 should have properly conducted checks and inspections of the construction status, for the purpose of preventing defects. On the other hand, despite the fact that the construction contractor should have had an obligation to build buildings according to the drawings

provided by Leopalace21, and conducted adequate construction management to that end, they neglected to do so.

Regarding the parting wall specification problems in steel-frame, fire-resistant buildings, despite the fact that the Departments in charge of construction in branch offices should have checked whether flat laths were being constructed through construction management, and checked whether or not construction contractors were procuring the correct surface materials for construction, they did not conduct adequate construction management and overlooked defects. Although it is thought to be difficult for the Departments in charge of construction to discover and correct defects and discrepancies in drawings, some properties have defects in construction despite the fact that there were no defects or discrepancies in the drawings, so Departments in charge of construction staff should have checked to make sure that materials were being ordered and construction was proceeding according to drawings through construction management.

Section 4 Employees Qualified as First-Class Architects

With regard to both the problems in properties built by other companies and parting wall specification problems in steel-frame, fire-resistant structures, Leopalace21 employees qualified as first-class architects were engaged in work related to construction supervision as construction supervisors. However, these staff were not thorough in their supervision duties, because they did not always check the current construction status themselves or compare the construction status to the drawings.

Section 5 Blame for not Discovering or Responding Quickly

Regarding problems in properties built by other companies, when tenants in Leopalace21 properties went through the attic to enter the rooms of other tenants to steal from them in 1988, the staff who responded to this incident should have recognized that there were properties that did not have attic parting walls. Despite this fact, there were still problems in properties built by other companies and the attic wall boundary problems subject to the previous investigation. As mentioned in Part 2, Section 2, Article 5, the executive management at the time, including Yusuke Fukayama, as well as the management and employees of the Construction Business Division, had a risk detection system in which risk information regarding quality problems was not adequately relayed horizontally to relevant departments, lacked risk sensitivity, and had careless awareness that reduced the problem of construction defects to the level of individual properties.

With regard to parting wall specification problems in steel-frame, fire-resistant buildings, the fact that properties that had received building confirmation as fire-resistant buildings did not actually meet specifications as fire-resistant buildings had been reported to directors including President Eisei

Fukayama (at the time), as well as the heads of the Design Oversight Division and Construction Oversight Division in April 2012 at the latest. In this respect, even though it was actually difficult to quickly discover parting wall specification problems in steel-frame, fire-resistant buildings when many memos to request managerial approval for renovations and repairs were being held on a daily basis, it would have been desirable for Leopalace21 to dig deeper into the examples in memos and spread them horizontally throughout the company.

Part 4 Proposals for Measures to Prevent Recurrence

Regarding problems in properties built by other companies and the parting wall specifications problems in steel-frame, fire-resistant buildings, measures to prevent recurrence are basically the same as for the problems that were the subject of the previous investigation.

In addition to points raised in the previous report, this report below discusses measures to prevent defects and measures to enable quick discovery and response. Some of the measures described overlap in terms and items already examined as measures to prevent recurrence in Leopalace21. This does not mean that measures for preventing recurrence, which have been examined by Leopalace21, are insufficient, but that this Committee wishes to expand on specific measures with regard to overlapping items in light of the causes of these defects.

Section 1 Measures to Prevent Defects

1 Accurately Predict Work Volume, Hire Staff Who Can Support This Volume, and Build the Necessary Work Structure

With regard to problems in properties built by other companies, when Leopalace21 started the apartment construction for sale (in lots) business, it decided to make employees who had previously been in charge of design and construction in their detached house construction for sale business be in charge of the design and construction of apartment complexes, and did not take measures such as hiring more staff.

Also, with regard to parting wall specification problems in steel-frame, fire-resistant buildings, the huge number of products developed and specifications changed, as well as the rapid increase of properties sold caused staff to lack extra time when their work volume increased, so they made drawings with defects and discrepancies, and overlooked construction defects.

When conducting business, it is important to accurately predict the necessary work volume, hire personnel of the appropriate quality and quantity to carry out this work, and establish the necessary work system. This is particularly applicable when starting a new business or developing a new product.

2 Provide Information and Education Including Not Only Leoplace21, But Also Construction Contractors

Regarding problems in properties built by other companies, one of the causes of the defects was a lack of knowledge or experience among construction contractors, and for parting wall specification problems in steel-frame, fire-resistant buildings, one cause of defects was a lack of knowledge among staff in charge of making drawings.

Of course, information should be shared within the company regarding important points in construction, but it is also important to provide proper information to construction contractors and educate them through opportunities such as seminars.

3 Perform Detailed Simulations and Set Checkpoints Properly to Ensure Appropriate Construction Management

Regarding problems in properties built by other companies and parting wall specification problems in steel-frame, fire-resistant buildings, because construction management (checks and inspections of construction status) was inadequate, defects were overlooked.

In order to carry out effective construction management, when developing new products or making major changes in specifications, it is useful to perform detailed process simulations in advance, examine which parts require special attention, and set proper checkpoints. When conducting this kind of simulation, it is also a good idea to use a test building that was built in the process of product development.

When Leoplace21 develops a new product, they have a specific construction contractor carry out the construction and check for problems in construction. It could also be conducted not from the perspective of whether or not construction is possible, but what points should be focused on in which stages in construction management.

Section 2 Measures to Enable Quick Discovery and Response

1 Build Mechanisms for Finding and Verifying Risk Information

Regarding problems in properties built by other companies, there was an incident in which tenants in Leoplace21 properties went through the attic to enter the rooms of other tenants to steal from them in 1988. Although some employees recognized that this meant there were properties that lacked attic parting walls, ultimately the defects were not eliminated.

Furthermore, with regard to parting wall specification problems in steel-frame, fire-resistant

buildings, although memos to request managerial approval for specifications of fire-resistant buildings were held, knowledge of this problem was not spread horizontally, so it was not recognized.

In the future, it would be desirable for Leopalace21 to systematically investigate and analyze individual, specific renovation requests and claims from owners, and when there are more than a certain number of similar claims or when there is a possibility that the cause of a claim may be found in multiple properties, construct a system and rules to detect this and reply appropriately and promptly.

2 Clearly Identify the Maker of Important Documents such as Drawings, and Clarify the Approval Process

During the investigation conducted by this Committee, sometimes it was unclear who had created a general drawing, and despite inquiring with Leopalace21, they could not find this information immediately. General drawings are important documents for analyzing the cause of defects that arise, so in order to respond early, drawings should be made so that the creator is apparent at a glance. For example, this could include making sure that the creator puts their personal stamp on drawings, and that the person in the Architecture Law Section or other section who checked and approved the drawing also puts their personal stamp on it, so that the creation process can be tracked in the future.

3 Clarify Rules for Storage and Management of Important Documents

Many of the documents related to problems in properties built by other companies no longer existed at Leopalace21 or could not be found and checked. Most of these are old documents from 30 years ago or more, so in some cases this cannot be helped, but when documents are discarded, a record should be left that they were discarded.

Also, in the investigation of parting wall specification problems in steel-frame, fire-resistant buildings, no memos regarding decision making on development were found for some series, so the decision-making process could not be immediately understood. It is a problem that a company renewing its brand cannot tell where responsibility lies for important decisions, and it is necessary to clarify storage and management rules for requests for managerial approval.

Part 5 Conclusion

Since this Committee was established in February 2019, it has investigated Leopalace21 for five months, continuing from the previous investigation. During this time, this Committee has scrutinized

a large number of drawings, documents and electronic data, and has conducted 218 interviews. The results of this investigation and the proposals for measures to prevent recurrence are as stated in the previous report and this report. It is hoped that Leopalace21 takes this seriously and wishes to become a stable company.

Leopalace21 should take this investigation as an opportunity to return to its origin as a real estate supply company that supports the homes where people live, and mobilize the entire company to pursue the creation of value. It is necessary for the company to revise its construction system and work flow from the perspective of what is necessary to create the value it wishes to provide, and develop a system that is sufficient for securing the necessary level of construction. It would also be effective for Leopalace21 to clarify the value it wishes to provide as a company and develop the necessary system to do so, not only to contribute to preventing the recurrence of defects, but also to regain the trust from society lost through the series of defects.

This problem of the series of construction defects in Leopalace21 should be an extremely profound experience for Leopalace21 to recognize the importance of its stakeholders, including tenants and owners, and reconsider its knowledge of architecture-related laws. This experience must not only belong to the management employees who work at Leopalace21, but must also be left as an asset of the company for the future. If this problem of the series of construction defects is forgotten in five or 10 years, where future employees only hear tales of it saying, "I don't really know what happened, but the company was in a lot of trouble a while back," then mechanisms for compliance and the intent behind them may not be properly understood, and it will be possible for a similar problem to reoccur. It is important to remember past problems and engrave them in the company's history, for example, by providing opportunities to reflect on them every year in company training.

In addition, Leopalace21 does not seem to be proceeding as expected with its response to this series of defective properties. This situation has the potential to lead to individual disputes with tenants and owners. This Committee hopes that Leopalace21 will recognize this situation and respond sincerely, working as quickly as possible to resolve the distress of stakeholders, including tenants and owners, seeking legal solutions when necessary.

End.