

# Revise the Construction Subcontracting Business System

**[Level of progress]**

Under examination: Details of specific measures are under examination

In progress: Specific measures have been implemented

Completed: Specific measures are completely implemented

No.	Section	Category	Article	Class	Paragraph	Specific implementation method	Time of implementation	Progress		
3	Revise the Construction Subcontracting Business System	A	Improve Processes for the Developing New Products, and others.	(1)	Examine Compliance at the Stage of Product Planning	To conduct a detailed review, including legal compliance, we decided that the development process for new products should be divided into five major steps in August 2019 and established a rule so that each step requires approval by the Compliance Management Division, an independent organization. The Compliance Management Division was added in the approval route and the approval authority rules were updated. The new rules and route have been applied to changes in the existing products but no new products so far.	Completed in August 2019	Completed		
				(2)	Realize Appropriate Execution Management	As an appropriate checkpoint to enable effective execution management, the company started to allow to have self-inspection items if needed. From September 2019, information on any special requirements for each site have been shared between the Design Management Department, the Supervision Technology Department, and the construction contractors.	Started in September 2019	In progress		
				(3)	Re-examine Compliance during Detailed Design; Prepare General Diagram	(a)	Re-examine Compliance during Detailed Design	We decided that the development process for new products should be divided into five major steps in August 2019 and established a rule so that each step requires approval by the Compliance Management Division, an independent organization. The Compliance Management Division was added in the approval route and the approval authority rules were updated. The new rules and route have been applied to changes in the existing products but no new products so far.	Completed in August 2019	Completed
						(b)	Prevent Inconsistency in the General Diagram	In order to utilize BIM for detailed design and construction verification in the new product development, we began to consider a framework for examination and operation for introducing BIM. At present, we are working to confirm consistency and compliance with laws and regulations, which are described in below Category B.	Scheduled to start in July 2021	Under examination
						(c)	Record the Preparers of Important Documents, such as Drawings and Clarify Approval Procedures	In September 2019, we changed the management methods and rules for changing and updating the general diagrams. We have also established rules to describe the entire history of the document not only mentioning the final preparer but including the approvers. The new rules were put in place and the employees were made aware of the changes.	Completed in September 2019	Completed
				(4)	Construction Verification/Performance Verification Stages	We decided that the development process for new products should be divided into five major steps in August 2019 and established a rule so that each step requires approval by the Compliance Management Division, an independent organization. The Compliance Management Division was added in the approval route and the approval authority rules were updated. The new rules and route have been applied to changes in the existing products but no new products so far.	Completed in August 2019	Completed		
				(5)	Construction Manual Preparation Stage, for prevention of inconsistency between the general diagram and the construction manual	In order to utilize BIM for detailed design and construction verification of new product development, we began to construct a system for BIM. In addition, we employed an outside service provider to begin examination of the manuals for existing products and will strengthening the checking system by the line managers.	Scheduled to start in July 2021	Under examination		
				(6)	Build a system for the departments in charge of product development to confirm and verify against the Minister's certification and to ensure the construction companies' comprehension of the specifications.	The construction manuals are being revised so that sub-contractors can fully and easily understand the content. In August 2019, Construction Legal Department started training at the Leoplace21 and its sub-contractors partnership meetings in Tokyo, Saitama, and Osaka areas for specifications such as fireproof and quasi-fireproof structures for the Minister's certification.	Scheduled to start in July 2020	Under examination		
				(7)	Product Release	The Compliance Management Division was added in the approval route for a detailed review of compliance with laws and regulations, and the approval authority rules were updated. The new rules and route have not been yet applied to new products and associated construction manuals so far. We intend to apply those to the development of new products in the future.	Completed in August 2019	Completed		
				B	Review check mechanism at the preparation stage of drawings for confirmation application	We reviewed and started operation of the standard design process in October 2019 so that we can secure sufficient time for verifying consistency between the drawings and their compliance to the related laws and regulations. We will review a check list for design drawings in December 2019 for implementation.	Completed in October 2019	Completed		
				C	Implement Appropriate Construction Supervision by Reviewing the Construction Supervision System	(2)	Incorporate construction supervision implementation days into the construction management process	We reviewed the standard construction supervising process and started the operation in October 2019 so that we can secure sufficient time for field inspection by qualified architects. In addition to monitoring the operation in the future, we began to examine establishing rules for change in accordance with each construction site's conditions based on individual characteristics.	Completed in October 2019	Completed

	D	Assure construction quality by Implementing appropriate construction management	(1)	Assure the Construction Management System by adequately Assigning Qualified Engineers with License and Other Support Engineers	We adopted and began to operate the rules which secure a pre-construction preparation period and solidify the construction system prior to actually starting construction. In addition, the Construction Legal Department began double-checking to ensure that engineers and other personnel are adequately assigned at the planning stage of order placement.	Completed in October 2019	Completed
			(2)	Implement a Third-Party Process Inspection	In August 2019, we conducted third-party inspections for foundation work, framework assembly, waterproofing work, and parting walls work. In August 2019, we introduced fire resistance coating inspections as a new third-party inspection.	Completed in August 2019	Completed
			(3)	Assure and improve construction quality by construction contractors	In October 2019, we implemented a step-by-step modification to the process that allows proper implementation of the constructor inspection, field engineer inspection, and inspection by the Construction Legal Department. In collaboration with external auditing organizations, we began to consider educational programs for contractors aiming at the reconstruction of the construction quality control system.	Completed in October 2019	Completed
			(4)	Provide information to construction contractors	In October 2019, departmental managers participated in the contractors' meeting to introduce the construction quality control system and the new standard construction process so that we should be able to establish a framework to avoid construction defects. We began discussions with contractors on how to prepare contractors organization in order to improve their construction quality.	Completed in October 2019	Completed
			(5)	Incorporate voluntary inspection days into the construction management process	In October 2019, we implemented a step-by-step modification to the process that allows proper implementation of the constructor inspection, field engineer inspection, and inspection by the Construction Legal Department.	Completed in September 2019	Completed
			(6)	Realize proper construction management	In September 2019, we collaborated with an external auditing firm to create an environment and a framework that enables proper construction, provide education and training, and began to improve the construction management system throughout the entire related organizations. The content of the improvement are as follows: (1) Revision of the construction manual; (2) Establishment of the inspection system; (3) Improvement of design documents; (4) Thorough construction supervision; (5) Strengthening of construction management. We are implementing an improvement plan with specific methods and plans for (1) to (5) .	Started in September 2019	In progress
	E	Implement inspections by Construction Legal Department in Compliance Management Division	(1)	Implement inspections concerning construction supervision	In October 2019, we settled inspection items and operation rules by the Construction Legal Department. We began to conduct provisional inspections at some of our offices and are currently building a system for full-scale operation.	Started in October 2019	In progress
			(2)	Full performance of inspections through the triple-check system	In August 2019, we started triple checking by the three parties between the construction contractors' inspection, the field engineer inspection, and the inspection by Construction Legal Department. We are currently in the process of verifying the inspection method and its effectiveness.	Started in August 2019	In progress
			(3)	Secure proper process management for quality assurance	In September 2019, the company invited an external consulting firm to discuss with relevant departments with a view to examining effective methods of exercising the authority of the Inspection Section in relation to the re-execution of inspections and instructions for reviewing the construction schedule. We are in the process of setting new quality targets and setting new evaluation standard.	Started in September 2019	In progress
	F	Implement training by Construction Legal Department in Compliance Management Division		We decided to hold briefings and training sessions at periodic partnership meetings in 11 areas nationwide on the themes such as design aims, construction quality, and the importance of construction supervision. In August 2019, we began training in Tokyo, Saitama and Osaka areas for specifications such as fireproof and quasi-fireproof structures verification for the Minister's certification. The training materials are available on the company website.	Completed in August 2019	Completed	