

State Liability of Contractors for Uneven Settlement Caused by Public Works

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1. Introduction

Last month, a ruling was made in a lawsuit filed by the owner of a factory near the site of a public construction project to build a large-scale adjustment area, claiming that the factory was damaged due to uneven settlement. In conclusion, the court found the Osaka prefectural government liable for the damages because the design phase of the project was "defective in installation" as defined in Article 2, Paragraph 1 of the State Compensation Law, but denied the liability of the contractor because it was not negligent.

Although there have been cases in which the orderer and the builder are jointly and severally liable for damages caused to a third party by construction work, the decision that the builder is not liable and only the orderer is liable is unusual.

2. Outline of the case

The construction work in question was ordered by the Osaka prefectural government and involved large-scale excavation to construct the Takaramachi control pond (84 m north-south, 38 m east-west, 25 m deep). Since there were concerns about the impact on surrounding buildings, Nissan Engineering Consultants, which was awarded the design work by the Osaka prefectural government, conducted detailed settlement predictions using a method called elasto-plastic analysis.

At a metal processing factory adjacent to the south side of the pond, uneven settlement during the construction period caused cracks in the interior walls and prevented the indoor crane from operating properly. Since the distance between the north end of the factory and the south end of the pond was only about 14 meters, the factory owner believed that the settlement was caused by the construction of the pond, and filed a lawsuit against Osaka Prefecture and the Zenitaka JV in August 2011, claiming damages.

3. Causes of uneven settlement

The Osaka prefectural government claimed that the factory had been deformed, damaged, and suffered from uneven settlement before the construction, but the court found that at the time of the preliminary investigation, the slope of several parts of the factory did not meet the approximate amount of slope (6 to 8 mm per meter), which is considered to be the standard for building settlement repair by the Architectural Institute of Japan. On the other hand, in the after-the-fact investigation, some of the slopes exceeded the range of the standard, and the court concluded that the slope of the factory facing the adjustment pond had worsened due to the construction

work since the preliminary investigation. The court also pointed out that several buildings located adjacent to the Takaramachi adjustment pond were sinking toward the surface of the construction work, and rejected the Osaka Prefectural Government's claim that there were no external factors related to ground deformation that could cause uneven settlement. The court rejected the Osaka Prefectural Government's argument.

In conclusion, the court concluded that the construction work itself, which involved excavation on a scale of about 38 meters from east to west, 84 meters from north to south, and 24 meters deep (25 meters deep at the time of completion), was highly likely to cause displacement of the surrounding buildings including the plant and other damage related to ground deformation, based on the consideration of settlement at the design stage of the Takaramachi control pond.

4. Osaka Prefecture's Liability for Buildings and Structures

In the case of construction work in general, engineers who are engaged in construction work involving large-scale excavation, such as the construction work in question, need to take some countermeasures to prevent ground subsidence and other phenomena caused by soil movement. The court pointed out that, based on such a general concept of construction technology, the Osaka Prefectural Government, which established the Takaramachi Control Pond, was naturally required to take appropriate measures to prevent damage such as ground subsidence and the resulting displacement of surrounding buildings when designing and constructing the highly dangerous Takaramachi Control Pond. We pointed out that it is a matter of course to take appropriate measures to prevent land subsidence and the resulting displacement of surrounding buildings. Therefore, it is required that the Takaramachi control pond be carefully and appropriately designed not only at the construction stage but also at the design stage to avoid ground subsidence in the surrounding area as much as possible, and that sufficient measures be taken to prevent displacement of the surrounding buildings by implementing auxiliary construction methods for the surrounding ground that is at risk of subsidence. In fact, the Osaka Prefectural Government decided that the retaining wall was not safe enough to be used as a public structure unless such measures were taken. In fact, Osaka Prefecture had taken measures such as installing replacement beams for the earth retaining works and improving the back ground, but the factory had settled far more than the allowable amount of settlement set by Osaka Prefecture due to the construction work in question, and the settlement was so uneven that it exceeded the range of the approximate amount of inclination that is considered to be the standard for requiring repair of settlement of buildings. In addition, the court rejected Osaka Prefecture's measures to prevent the settlement of the surrounding buildings. In addition, the court considered it a problem that there was no consideration of the fact that the depth of the adjustment pond that was actually completed was about 25 meters deeper than the design. In addition, since the case concerned defects in the design and construction of the Takaramachi Adjustment Pond, the issue was whether the defect in the installation of the pond as defined in Article 2, Paragraph 1 of the State Compensation Law included defects in the acts incidental to the construction of the structure. The court held that the defect in the construction of the Takaracho

control pond included the defect in the act incidental to the construction of the structure.

5. Builder's Responsibility

As to whether or not the contractor (Zenitaka JV) was responsible for the construction of the Takaramachi adjustment pond, the court ruled that the contractor was negligent in the following actions: (1) changing the construction method from the SMW method to the CRM method, (2) changing the replacement beam steel from H500 to H350, (3) reducing the number of measuring points for fixed-point observation from those stated in the special specifications, and (4) overlooking the displacement of the earth retaining wall and failing to notice the settlement of the plant. The court denied the negligence of the contractor, saying that the uneven settlement of the factory could not have been avoided without his fault.

6. Evaluation of the Decision

Normally, the legal responsibility for damages caused by construction work to a third party lies with the contractor, who is the party that directly caused the damage, and the ordering party, who is jointly and severally liable with the contractor if it can be said that the ordering party neglected its duty to prevent damage. Therefore, in this case, the orderer was jointly and severally liable with the contractor. Therefore, in this case, it is an unusual decision that only Osaka Prefecture, the ordering party, is responsible and the contractor is not responsible. (For more details on the concept of the contractor's liability, please refer to the newsletter "Contractor's Liability for Construction Site Accidents in Japan" dated February 8, 2021).

In this case, as the court also pointed out, if there was no change in (1) through (3) above, and if the site conditions are such that even if the JV had properly performed the actions in (4), it is assessed that it could not have prevented the harmful subsidence that occurred at the plant, the decision that the contractor was not negligent is understandable. Therefore, it is difficult to have the appellate court accept the responsibility of the builder unless he proves specifically the impact that (1) through (4) had on the settlement, for example, that he continued the construction without taking any measures even though he was aware that harmful settlement was occurring.

As for the responsibility of Osaka Prefecture, as long as the contractor is not responsible for the construction work that directly leads to the occurrence of damage, the ordering party may not be held responsible. However, it is obvious that the excavation will cause settlement in the surrounding ground, and if we look at what should be done to prevent harmful settlement in light of the standards of the technical guidelines, etc., we can conclude that the contractor, Osaka Prefecture, should not be held responsible for the settlement of the surrounding ground because it has predicted the settlement in advance through elasto-plastic analysis. If the measures taken were insufficient, in other words, if harmful settlement exceeding the standard occurred, then the prediction of settlement or the measures taken were judged to be defective. Therefore, the uneven settlement of the factory was not caused by the cause in the construction stage of this project, but by the fact that this project was carried out in a defective condition. In addition, the court calculated that the

plaintiff's damages were about 45 million yen, and judged that the damages causally related to this construction work were 40% of the total damages, considering that the uneven settlement had already occurred in the factory before the construction work.

7. Impact on similar cases

In this case, it was judged that the defect in the design stage, when the regulating reservoir had not yet been completed or put into service, was included in the "defect in installation" under Article 2, Paragraph 1 of the State Compensation Law. In general, when the construction of a public facility causes damage to the surrounding buildings due to subsidence, as mentioned above, it is often questioned whether there were any problems in the construction work or whether the measures to prevent subsidence were insufficient. If these studies are inadequate, the client will be held responsible. In addition, not only in public works, but also in private works, if the owner of the land where the construction site is to be built is the party who ordered the construction and was involved in the design, the party who ordered the construction may be liable for the land structures (Article 717 of the Civil Code) on the grounds of defective installation. Therefore, it can be said that this judgment will have a great impact on similar cases of third party damage caused by construction.

As a client of a construction project that may cause harmful subsidence to the surrounding ground of the construction site, it is not enough to entrust the appropriate construction management to the contractor, but it is also necessary to sufficiently consider the prediction of subsidence and measures to prevent harmful subsidence at the design stage.
