

Dear Seascape/two Homeowner:

The purpose of this letter is to provide each of you with an update on the situation regarding the sinking and sliding of the 140 building parking garage slab. The Board wants each owner to know what we know. Full transparency is the best defense against misinformation.

In order to understand the nature of the problem(s) described below it is helpful to understand the type of construction approach used for each of our buildings; that is, the 110, the 120, the 130 and the 140. Each building is customized as needed, but all are basically modeled on the same basic design, that is, "timber (wood frame) on podium" construction. The "podium", the heart of the each of our buildings, consists of an at-grade, 4" thick concrete ground slab, four masonry walls comprised principally of cinder blocks ("concrete masonry units", or CMU's), a concrete ceiling, and numerous concrete columns encasing re-bar (reinforced iron bar) cages for strength and stability. Thick, continuous concrete footings are provided under the CMU walls, and thick, isolated concrete pads provide footings for the columns and the attachment of the columns to the ceiling. Essentially, a rigid concrete "podium" is constructed, providing the bulk of the support for the floors above, after which the floors and corresponding apartment units are added on top using wood frame construction. This type of construction is valid for condominiums of four to five stories of living space. To the extent possible, the podium, as described above, is a single structural unit, designed for maximum rigidity, upon which the various apartment units sit. In addition to building support, we use our podiums for garages, as many other condominiums do.

#### **A Brief History of the Issue**

In late 2018, a crack in the concrete floor in the lower 140 Building parking garage was observed by Staff. Due to the length and width of the crack, the Association hired a licensed structural engineer to evaluate same. Based upon the engineer's findings, the Association engaged Stoney-Miller Consultants, a Geotechnical Engineering firm, to investigate. In April 2019, a soil investigation was performed, boring holes and collecting soil samples under the 140 garage. The evaluation concluded that the distress to the parking garage slab was attributed to long-term settlement of loose fill and dune sand deposits supporting the foundations of the parking garage. A manometer survey of the western portion of the 140 parking garage indicated a maximum floor elevation difference of 2.2 inches from east to west (the westernmost portion of the slab is lower),

Eventually, the engineering group was able to determine that a portion of the slab, perhaps the ten or twelve feet closest to the ocean (the westernmost portion), was sinking, and splitting from the main portion of the slab. This was indicative of a lack of "bearing" capacity, or capacity to preclude the slab from sinking, of the underlying soil. It wasn't (and still isn't) known what is causing this. It may be poor foundation backfill by the original contractor, or a dilution of the soil from subterranean springs, or rain drainage from the surrounding area. Regardless, it needs to be fixed. With regard to a solution, it was eventually agreed by the engineers working on the problem that there would be no need to raise the slab to its original level elevation, but to stabilize it against future sinking.

In order to prepare bid documents for contractors needed to fix the problem, we hired another engineering group (Ficcadenti, Waggoner and Castle, FWC) to devise a fix and prepare corresponding plans and specifications. Their design incorporated a number of "helical piles" (envison very large steel corkscrews) attached to select existing columns and wall concrete pad footings. We used this design as a bid document, but received only a single proposal, which

proposal we were later to find out was suspiciously low---about one-half the amount estimated by construction professionals. At about the same time, however, we received a proposal from a construction management firm (Design Build Associates, DBA), whose skill set included managing the development of a scope of services for the slab repair ("the work"), outreach to the contracting community in order to insure a reasonable number of bids, and construction management. Given that the Board was lacking in these skills, we contracted with DBA in January 2021 to provide those services.

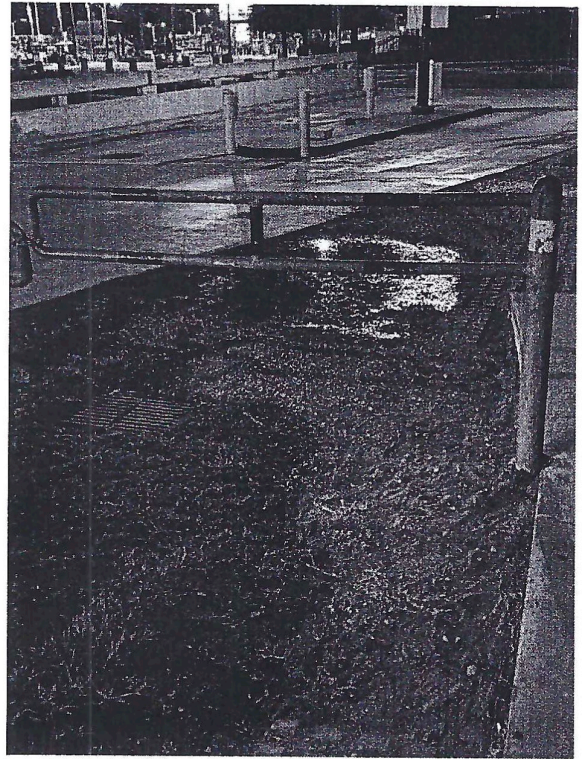
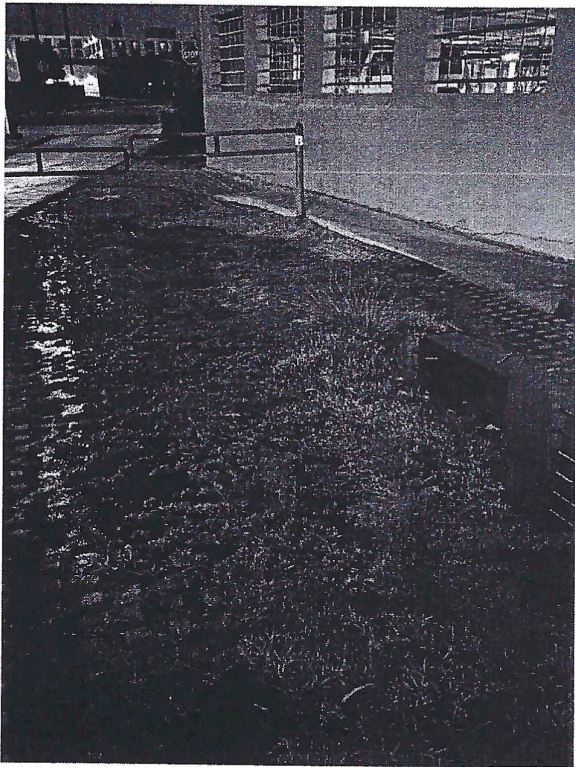
### **A Previously Unknown Problem Surfaces**

Since the placement of helical piers is a complex construction exercise, resulting not only in temporary disruption to parking in the 140 building and the lower parking lot, but engendering significant cost to the homeowners (very roughly about \$625,000), DBA's first task was to hire an independent structural engineer to determine if the drilling of helical piers was both a necessary and effective solution.

After significant study, the structural engineer (Richmond Hoffmayer, Inc.) determined that the soil analysis by SMC was accurate and that the helical pier design and pier placement map authored by FWC was both necessary and appropriate. But Richmond Hoffmayer, Inc., then discovered something else: they discovered that in addition to vertical sinking, the 140 garage parking slab was also sliding horizontally; that is, the slab was sliding toward the ocean. Indicators of this failure were:

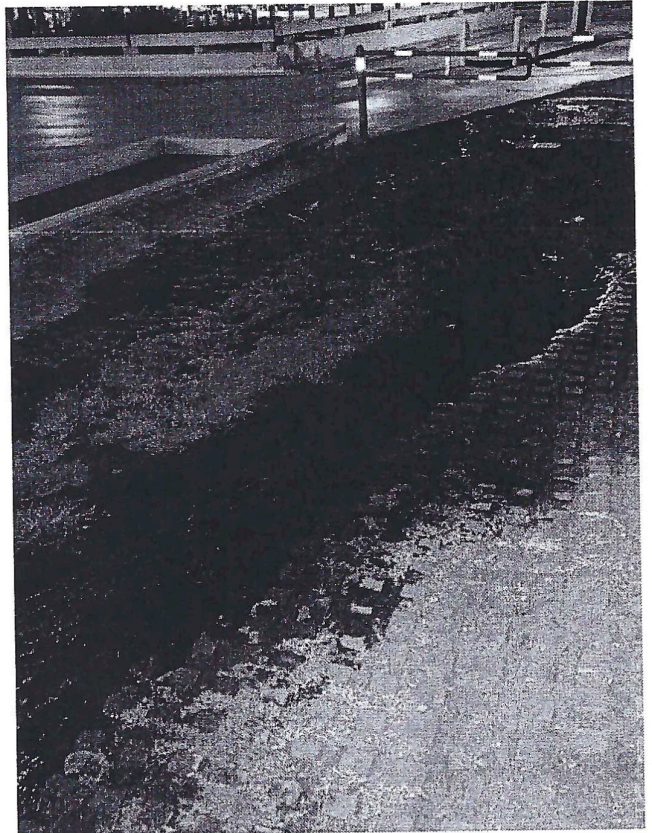
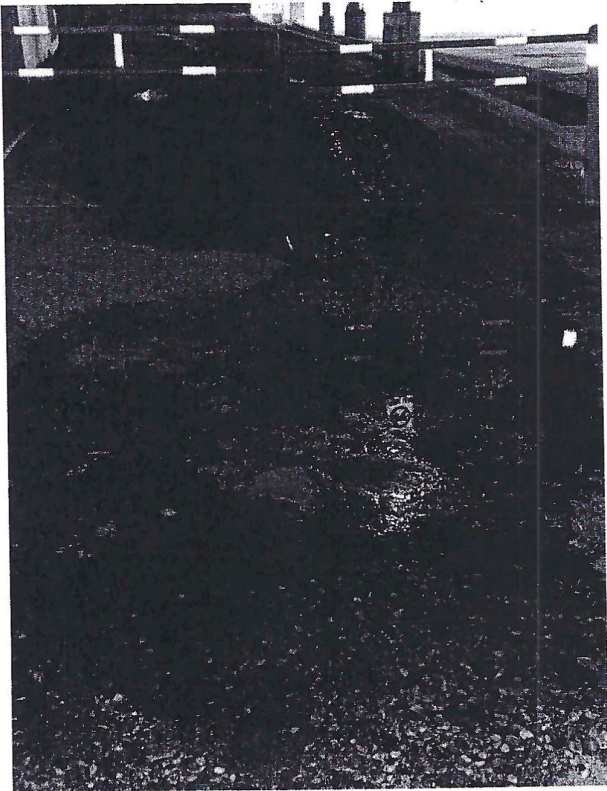
- 1) Cracks in the eastern side of the attachments to the ceiling support columns to the isolated pads above, which pads are also connected to the ceiling. Such cracks could be indicative of the bottom slab sliding sideways (westerly) relative to the ceiling slab.
- 2) Separation of machine-routed channels ("control joints") in the bottom slab used to preclude shrinkage cracks in the slab.
- 3) The western wall of the podium (the cinder block wall closest to the ocean) is out of plumb; that is, the bottom of the wall is approximately two to three inches closer to the ocean than the top of the wall. The wall is leaning in, most likely due to the western lateral movement of the ground slab relative to the ceiling slab of the podium. In other words, the podium west wall is tilting toward Catalina Ave. This effect is most pronounced in that portion of the western wall closest to the outside gate on the access road, about halfway between the wall's two corners. (The access road is that dirt road, roughly ten to twelve feet wide, which runs south to north from Czuleger Park to the intersection of North Pacific Ave. & North Harbor Drive, adjacent to the driveway entrance to our lower parking lot, and east to west between the western wall of the 140 Building and the City of Redondo subterranean parking garage. This garage was constructed after our condominium was constructed.)
- 4) Wet, grassy soil can be found in the access road. Apparently, water from the Czuleger Park sprinklers (and rain runoff) was designed to drain down the access road to a metal grate embedded in the access road proximate to the western wall of the podium. In this regard, note the wooden paving blocks ("pavers") inserted in the access road to retard erosion of the road. See photos following, taken at approximately 5:20 am on 15JUL21, shortly after the Czuleger Park sprinklers were turned off, but there was no rain. Also note the leaning of the podium wall in the first photo.





July 31, 2021

3/8



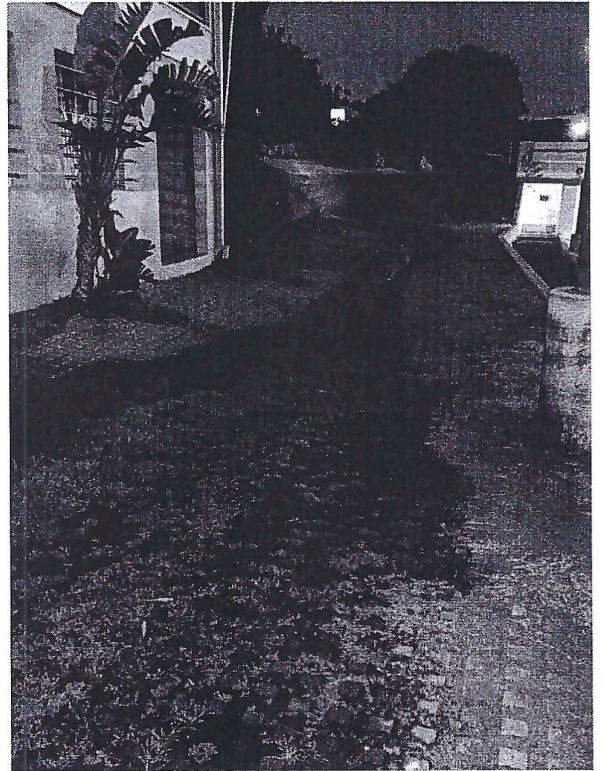
July 31, 2021

4/8





July 31, 2021



5/8