## **Engineer's Report**



SUBJECT:

Foundation performance and suitability for reuse

2505 Park View Drive, Austin, Texas 78757

 JOB NUMBER:
 DATE OF SITE VISIT:

 20167
 October 23, 2020

At his request, I met with builder Dominique Levesque on site to review the current performance of the foundation and to offer an opinion about its suitability for reuse in a renovation. This report is a summary of our discussion and my observations.

Built in the 1950's, the house is a one-story ranch style with a slab-on-ground foundation and wood-framed superstructure clad with brick veneer and siding. Additions were made at the rear, reportedly in 1963 and 1964.

Signs of foundation movement are extensive and widespread: sticking doors and cracks in gyp and brick walls and exposed concrete floors. The floor slab is out-of-level with pronounced edge droop on the order of three inches. I have experience with several houses in the surrounding few blocks where the soil generally consists of a few feet of highly expansive clay over the Austin chalk. The distress I observed on this house is consistent with my observations on the nearby houses built in that era.

Regarding the prognosis for foundation repair, foundation leveling would likely not yield lasting improvements to performance because I believe the slab and grade beams likely lack sufficient size and reinforcement. My belief is based on my observations here and on my experience with similarly constructed foundations on similar soil.

Perimeter drainage is poor at the rear and adverse at the front, and poor drainage is likely contributing to the observed foundation movement. The top of slab is too low relative to surrounding grade and neighboring lots to correct surface drainage without extensive excavation to lower grade, which may jeopardize the surrounding trees.

Given its poor performance and inadequate drainage with no good options for improving either, I believe this foundation has reached the end of its useful life. The foundation deformation has caused enough superstructure distress to make the current house unlivable. Any investment built on this foundation will suffer the same fate.

SIGNED: Dennis Duffy, PE DENNIS DUFF **DISTRIBUTION:** Dominique Levesque with Levesque & Co.

Dominique Levesque with Levesque & Co <u>dom@levesqueco.com</u>