



# CITY OF HOUSTON

Houston Public Works

## Interoffice

Correspondence

**To:** Floodplain Management Office  
Building Code Enforcement

**From:** Joseph T. Myers, P.E., CFM  
City Engineer

**Date:** October 26, 2018

**Subject:** **ELEVATION OF AIR CONDITIONER SYSTEMS  
CONDENSING UNITS**

The purpose of this memorandum is to address the need for elevating air conditioner condensing units in the regulated floodplain. On September 27, 2018, Council Member Brenda Stardig's office received an inquiry from a member of the Texas Air Conditioning Contractors Association (TACCA) regarding the need to elevate air conditioning condensing units. The e-mail is from Suzanne Debien of Central City Air (Central). The issue Central has with the requirement to elevate the condensing units is the hardship the requirement places on homeowners when the only construction taking place is the replacement of the air conditioning system or just the condensing unit.

The National Flood Insurance Program (NFIP) and City of Houston Ordinance, Chapter 19, are consistent on the requirements for elevating equipment. New construction of homes or the substantial improvement of a home requires all equipment to be elevated to the regulatory elevation. Currently the regulatory elevation is the 500-year elevation plus two (2) feet. Replacing an air conditioning system, much less the replacement of the condensing unit alone, should not constitute a substantial improvement to the structure. Therefore, no portion of the system, including the condensing unit, should not be required to be elevated if the value of the replacement does not exceed 50% of the value of the structure. Most, if any, would never reach this value.

The replacement of equipment in single family residential structures only impact the single-family occupants. However, the replacement of any equipment for multi-family or commercial structures impacts more than the single family. The replacement of equipment for these structures needs to be at a higher level. Equipment for these structures may serve multiple floors. Occupants of these floors should be protected to the highest elevation practical. Should this equipment fail then the health and safety of others are in jeopardy. To protect these occupants, new equipment or replacement of equipment should be at the regulated elevation.

The Chapter 19 companion Guidance Document does state that even the stand-alone replacement of equipment should be placed at the regulatory elevation. This is a good idea but is just guidance and would be difficult to enforce. This issue needs to be addressed the next time the ordinance is revised.

In conclusion, it is my opinion the replacement of any equipment should be at the highest elevation possible within reason. However, the NFIP and Chapter 19 of the City of Houston Code of Ordinances only requires the elevation of equipment to the regulatory elevations when the value of that work exceeds 50% of the structure. Based on that condition, the single-family situations, where only the air conditioning system is being replaced, no portion of the system is required to be placed at a regulatory elevation. Multi-family and commercial situations that are in the regulated floodplain will be required to elevate the equipment to the regulatory elevation for health and safety reasons.

Should you have any questions or require additional information, please contact me at (832) 394-9140.