## EARL GARY KEEN, PE P.O. BOX 891200 OKLAHOMA CITY, OK 73189

RE: FLOODPLAIN PERMIT FOR 526 SOUTH PICKARD AVENUE NORMAN, OKLAHOMA

The following comments and certifications are made in regard to an application for a floodplain permit for 526 South Pickard Avenue, Norman, Oklahoma.

The subject property is located in the regulatory floodplain and floodway of Imhoff Creek. The owner of this property desires to replace a deck which is located on the south side of the residence and is connected to the residence. This deck appears to be constructed of untreated wooden planks and beams, and this wood has deteriorated due to long-term exposure to the elements. Some of the planks have apparently deteriorated to the point that same were considered unsafe and have been replaced with same. If not replaced, the existing deck will become dangerous to users at some point, which may not be far into the future. The owners have advised that they want to totally replace the deck using a composite material that will have greater resistance to weathering, a material that is commonly used in playgrounds.

The owners actually plan to reduce the area of the replacement deck. I measured the existing deck to be 337 sf and the proposed deck at 245 sf.

In addition to replacing the deck, the owners desire to replace a fence that surrounds the deck (on the south side of the house) and a second fence that is located on the north side of the house. Both of the fences are constructed of a wooden picket type fence. The fence is four feet tall, and the pickets are six inches in nominal width (actual width is five and one half inches). The pickets are placed so that there is two inches of space between the pickets. The owners propose to replace this fence with a similar fence constructed of cedar wood to extend the useful life of their fence.

It is recommended that the same dimensions and spacing of pickets be used in construction of the new fence. The owner agrees.

The stormwater flow along this valley at this location is from the north to the south. The house is located directly north of the deck and the fence on the south side of the house. Accordingly, the walls of the house partially block the flow stormwater across the deck. During a major rainstorm event, there will be flooding of the deck as it is 2.2 feet below the 1% chance BFE. However, there will very little flow velocity across the deck or through the south fence. The only avenue for water to flow across the subject property is around the building and/or through an opening between the house and the detached garage. This opening is less that four feet in width; therefore the flow through this opening will be limited. Actually, the proposed work will not change the flow conditions in any way from what exists at this time.

It is recommended that the elevation of the top of the floor of the deck be constructed at an elevation not higher than the elevation of the existing deck so that the flow characteristics are not changed. Further, it may be necessary to remove some soil in placement of footing and supports for the deck. So, it is necessary to remove this soil from the property and it is recommended that this soil be transported outside the City of Norman for disposal.

## **Engineers Certifications**

As explained above, when this project is carried out as proposed, it is this engineers opinion that there will be no resulting increase in the 1% chance BFE or any other flooding event at any point in the community, as a result of this project.





