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ENGINEERING REPORT  
2401, 2421, 2451 AND 2501 60<sup>th</sup> Ave. NW

This report covers a floodplain permit application for constructing a gravel driveway to serve lots addressed as 2401, 2421, and 2501 60<sup>th</sup> Avenue NW, Norman, OK. These properties are located in the famous Ten Mile Flat Area and these properties are located partially in the floodplain of Ten Mile Flat Creek. A Vincent Trust, with Jason Vincent being the trustee, owns the properties addressed as 2421, 2451, and 2501 60<sup>th</sup> Ave. NW, and this trust has obtained a 50-foot wide roadway easement crossing the property addressed as 2401 60<sup>th</sup> Avenue NW. All of these properties abut 60<sup>th</sup> Avenue NW, but the owner plans to take access off Rock Creek Road due to the high cost of constructing suitable culverts and entryways at 60<sup>th</sup> Avenue NW. The high cost is due to the fact that the bar-ditch of 60<sup>th</sup> Avenue NW is actually a major drainage way. As shown by the attached site plan, the owner intends to construct a private driveway to serve his three lots. He has current plans to construct a home and a barn on the property addressed as 2501. This is the middle lot of his three five-acre lots. For now, he plans to develop the middle lot and use the two adjacent lots as buffer zones, but his plans might change in the future.

As shown by exhibits presented these properties are located at the NE corner of 60<sup>th</sup> Avenue NW and Rock Creek Road. The current plan does not include using the proposed driveway for access to the five-acre lot with a different owner and addressed as 2401; but, this might change in the future. Approval of any additional future use of this driveway is not being sought at this time. As shown by the plans, the proposed driveway is a 12' wide gravel drive paved with a six-inch thick layer of crushed rock. To avoid any compensatory storage requirements, the owner proposed to excavate six inches of soil prior to placing six inches of crushed rock. The owner will transport the soil removed to portions of his lots that are located outside the floodplain. This includes the soil removed prior to placing crushed rock, the soil removed to construct bar ditches, and any other soil removed from the floodplain. Bar ditches will be constructed on both sides of the driveway to assist in draining the property and in protecting the roadway by reducing moisture content in the subgrade. In a recent Floodplain Committee Meeting, concern was discussed about risks of traveling a roadway when the roadway is flooded, due to various issues, including visibility of the roadway. This owner is proposing to place metal "T-posts", with light reflectors attached along the side of the roadway so that motorists can tell where the roadway is when under water. These posts will be placed on both sides of the driveway at intervals of approximately 100 feet. Similar "T-posts" are commonly used on public highways in snow country to assist motorists during periods of blowing snow known as "white-outs". This engineer has prepared a profile of the proposed driveway, which is included in the exhibits, that shows the top of the roadway and the BFE. At the deepest point, the 1% chance flood will cover the roadway by just 1-1/8 feet (less than 14 inches). This roadway is located at the very edge of the floodplain; therefore the floodwater velocities experienced at this location are expected to be very low and of little concern. Incidentally, to accurately analyze this situation, many accurate elevation shots were taken on portions of this site by a surveyor and contours were generated (NAVD) and presented in the exhibits.

The owner proposes to construct a barn and a residence on the middle lot (2501), but these structures

will be located outside the floodplain; therefore, these are not included in this permit application. Both of these structures will be elevated to place the lowest floor at an elevation at least two feet above the BFE. The BFE at this lot is 1128.2'; therefore the lowest floor of these structures must be at or above an elevation of 1130.2' NAVD.

In summary, this proposal appears to fully meet the requirements of the City's floodplain regulations, and this engineer recommends approval.

Engineer's Certification

No net fill material will be placed in the floodplain and the construction of the the roadway will not result in an increase in the elevation of the ground at that location. All other construction will be in portions of the property that are located outside the floodplain; therefore the rise on this property or any nearby properties will be minuscule. The width of the floodplain at this location exceeds 4000 feet, and this fact contributes greatly to the opinion expressed herein. Certainly, if constructed according to the proposed plans, the increase in the BFE at this property or any other properties will be less than 0.05 feet.

Signature

*Earl Gary Keen*

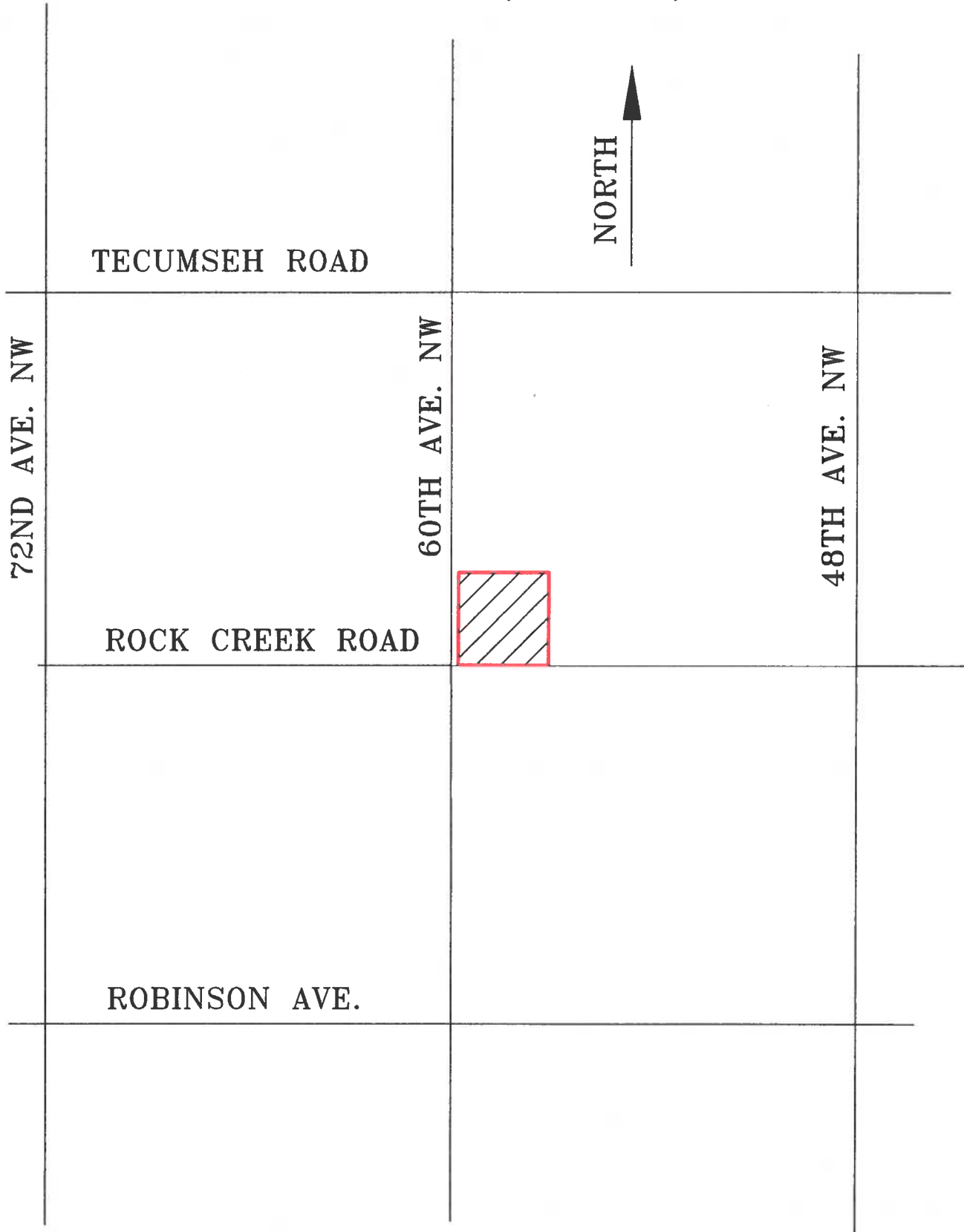
Seal and Date

*05/15/2023*



# LOCATION MAP

2451 60TH AVE. NW, NORMAN, OK



830.26'

