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ENGINEER'S REPORT  
2601 60TH AVENUE NW, NORMAN, OK

This tract is located on the north side of 60<sup>th</sup> Avenue NW, and approximately 1700 feet north of Rock Creek Road.

Grayco Homes LLC, owner of the property, is proposing to develop the subject 5 acre tract (+/-) by constructing a single family residence including a driveway connecting to 60<sup>th</sup> Avenue North-west, a water well, aerobic individual wastewater disposal system, drainage swales located on the north and south property lines, and a pond that will be source for borrow material needed to fill the floodplain. All of the construction is located in the regulatory floodplain because the existing ground varies from zero to one foot below the base flood elevation established by FEMA.

This property is not located in a regulatory floodplain. According to the NRCS soils map, the soils at the site are sand and/or sandy loam which extends to a depth estimated to be as deep as 16 feet. This location is known to have a relatively shallow floodplain, which has seasonal variations. A similar pond was constructed on a nearby tract, located approximately 1000 feet south of the subject site, and this existing pond has been monitored for approximately one year. This exist pond has a direct connection to the groundwater table. As indicated by the water level in this pond, the groundwater elevation was more than four feet below ground level during the summer season. Consequently, it is proposed to construct a borrow pit/ pond with a depth of four feet. Incidentally, the ground lelevation at the location of the exist pond and the proposed pond as essentially the same.

The builder has specifically stated that none of the fill dirt used on this site will be imported ..

This proposal includes constructing a driveway approach on the right-of-way of 60<sup>th</sup> Avenue NW to serve this site. A culvert being a CGMP A (arched) that has an equivalent flow characteristic of an 18 " diameter round CGMP is proposed. The arched culvert is proposed because it will fit the existing bar ditch and street right-of-way better due to the reduced height of the arched pipe. The driveway approach will be in accordance with the City's standard detail.

The present use of the tract is pasture land and it was a wheat field in the recent past. This tract is heavily vegetated with grass and weeds, and this tract has essentially no shrubs or trees.

This property is impacted by the floodplain of Ten Mile Flat Creek (TMFC), which is located north and east of this site. At the nearest point, TMFC is more than one-half mile from this site. TMFC has been studied by FEMA, and a FEMA firmette is presented to show the details of this study. The BFE at this location is 1129,0 feet, and the proposed minimum finished floor of the residence is 1131.3 feet, with 0.3 feet being added as a safety factor to account for possible construction deviations.

An exhibit showing ground contours is submitted to show information available on the Norman GIS

system, and a topographic survey has been commissioned and the survey results are submitted. The existing topographic survey is in close agreement with the contours obtained from the City's GIS.

The receiving stream will not be disturbed in any way, and the proposed construction will not impact any other properties within the community. This tract is known to be relatively flat with drainage being to the east by overland flow. Due to the flattish terrain, thick vegetation, and the absence of any nearby drainage ways, this area is known to be rather swampy immediately after periods of heavy rainfall. On the afore-mentioned nearby tract, the elevated portions of that lots have been observed to be relatively dry shortly after periods of rainfall, and it is anticipated that elevated portions of this tract will be as well. However, portions of this tract that remain at historic elevations can be expected to be slow to drain and dry-out. At time, this wet condition can create inconveniences, but the proposed structures are expected to be safe from flooding as indicated by FEMA studies/ reports and the City of Norman regulations. It is possible that public streets serving this property might be temporarily impassible by ordinary vehicles at infrequent times due to flooding.

Earl Gary Keen, PE 11,438/Exp. 05-31-2026

*Earl Gary Keen* 06/18/2025

SEAL

