

ITEM: Floodplain Permit application for the construction of a new house on the property located at 2601 60th Ave. NW in the 10 Mile Flat Creek Floodplain.

BACKGROUND:

APPLICANT: Jared and Kaylee Gray

BUILDER: Stonewall Homes

ENGINEER: Gary Keen P.E.

The applicant owns a 5-acre tract on the east side of 60th Ave. NW approximately 1700 feet north of Rock Creek Road. The proposed construction includes a driveway connecting to 60th Ave. NW, a water well, aerobic septic system, drainage swales on the north and south property lines, and a pond that will be the source of fill material for elevating structures. Flood depths are between 0 and 1 feet throughout the project area.

This proposal includes a driveway connecting to 60th Ave. NW and will have a CGMP arched pipe installed under the approach that is equivalent to an 18" round pipe. Arched is being used to fit the grade of the existing bar ditch and street ROW. The applicant's engineer has indicated that the drive and approach will be built to City standards.

The BFE at this location is 1129.0'. The applicant's engineer has indicated that proposed minimum finished floor elevation will be 1131.3' in order to provide a safety factor in meeting the ordinance requirement of a two feet of freeboard. The applicant's engineer has also indicated that the existing grade of the road may make the public road impassable during periods of flooding, although contours show most of the road to be at or above the BFE.

STAFF ANALYSIS:

Site located in Little River Basin or its Tributaries? yes__ no✓

According to the DFIRM, the house, drive, septic system and water well will be located in the 10 Mile Flat Creek Floodplain Zone AE. The BFE at the planned residential location is approximately 1129.0'.

Applicable Ordinance Sections:**Subject Area:**

36-533 (e)2(a)	Fill Restrictions in the Floodplain
(e)2(e)	Compensatory storage
(e)2(g)	Fill protection
(e)2(j)	Utilities constructed to minimize flood damage
(e)2(k)	In/exfiltration of flood waters in utility systems
(e)2(m)	On-site waste disposal systems
(e)3(a) & (c)	Elevation of Structures
(f)3(a)8	No Rise Considerations

(e)2(a) and (e)2(e) - Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill in the floodplain is restricted. However, the placement of fill is allowed to elevate structures if compensatory storage is provided.

The applicant's engineer has indicated that the total volume of fill material to construct the drive and house pad is 1941 CY. The proposed pond where fill dirt will be collected from will provide 2133 CY of compensatory storage exceeding the ordinance requirement. The pond will be 4 feet deep which is above the normal summer water table elevation.

(e)2(g) - Fill shall be protected against erosion and sedimentation by such measures as rip-rap, vegetative cover, bulk heading, or sedimentation basins as approved by the City Engineer.

While not specifically discussed in the application, construction activities will include disturbing more than an acre, requiring a general construction permit from the state as well as an Earth Change Permit from the City. Those permits will require stormwater pollution prevention plan (SWP3) that will include stabilization requirements for the entire construction site.

(e)2(j) and (e)2(k) - All new construction or substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

The base flood elevation for this location is 1129.0'. The applicant has indicated that the top of the proposed pad is 1130' with the finished floor elevation being 1131.3'. Additionally, it has been indicated that all electrical and mechanical systems will be installed at a minimum of 1131.0'

(e)2(m) - All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

The applicant has indicated the location of the proposed aerobic septic system and the proposed water well. All septic systems and water well installations should be installed in accordance to guidelines provided by ODEQ and the OWRB. Permitting through the City of Norman Utilities Department is also required which requires that the top of the well be at least two feet above the BFE.

4(b)(13) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

Septic systems should be installed according the requirements of the ODEQ.

4(c)1 and 4(c)(3) Elevation of Structures – Residential and non-residential structures shall be constructed on fill including any attendant utility and sanitary facilities, shall be designed so that the lowest floor (including basement) is elevated at least two feet above base flood elevation and the fill shall be at a level no lower than 1 foot above the base flood elevation for the particular area and shall extend at such elevation at least (15) fifteen feet beyond the limits of any structure or building erected thereon.

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5(a)(viii) No Rise Considerations – For proposed development within any flood hazard area (except for those designated as regulatory floodways), certification that a rise of no more than 0.05 ft. will occur in the BFE on any adjacent property as a result of the proposed work must be provided. For proposed development within a regulatory floodway, certification of no increase in the BFE is required.

The engineer has certified that the project will not cause a rise of more than 0.05 feet to the BFE which meets this ordinance requirement.

RECOMMENDATION: Staff recommends that Floodplain Permit Application #722 be approved with the following conditions:

1. Elevation Certificate provided for the residential structure prior to final acceptance. Additionally, elevation of concrete pad for the residential structure should be submitted to and confirmed by City Staff prior to vertical construction.
2. As-built surveys should be provided for the drive and compensatory storage area (pond) prior to final acceptance.

ACTION TAKEN: _____