

ITEM: This Floodplain Permit Application is for the construction of a private road through the Prairie Creek floodplain for the proposed Ridgeline Estates Certificate of Survey.

BACKGROUND:

APPLICANT: Tim Pollard

ENGINEER: Jim Speck PE, PLS, CFeds

The applicant previously submitted an application for this project in January 2025 that was postponed due to lack of secondary access being resolved at the time that application was considered by the Floodplain Permit Committee. This application is being submitted for consideration with the addition of that secondary access road.

The applicant is the owner of a 160-acre parcel located south of Cedar Lane Road and approximately 3800 feet east of the intersection with 132nd Ave. SE. They have applied for a Rural Certificate of Survey to subdivide the portion of the lot located on the east side of Prairie Creek. Obtaining access to this parcel will require a private access road on the east side of Prairie Creek off Cedar Lane Road through the Prairie Creek Zone A floodplain. Due to the number of proposed lots, a secondary access will be required at the south end of the development. The applicant has indicated that a secondary access road, running parallel to Post Oak Road, will be completed with this project. It is currently indicated as Petunia Lane on the submitted plans.

The applicant included in their application copies of the HEC-RAS model and StreamStats model used to determine the BFE and the flows associated with not only the 100-year elevation but the 2, 5, 10, 25, and 50 year events as well. The BFE for this location was determined to be 1044.8' at Cedar Lane. The lowest elevation on Cedar Lane Road in this area is 1041.5'. According the engineer's report, even at the 2-year event level of 1042.9' Cedar Lane Road would be inundated with flood waters.

The proposed access road (Nico Drive) would be located along the eastern border of the property and is designed so that most of the road is below the elevation of the lowest elevation of Cedar Lane Road. The applicant's engineer indicated in their floodplain analysis report that the HEC-RAS model showed no increase in the BFE as a result of construction. This proposed road also crosses a trib to Prairie Creek and a 64 linear foot 4' X 6' RCB would be installed to handle the flow from this trib through the floodplain. In addition, there is a 24" CMP culvert 48 feet in length to be installed under the drive approach adjacent to Cedar Lane Road. Additionally, the applicant has indicated that CAD program used to design and draw the road calculated that approximately 30,000 CF of compensatory would need to be created. This area is indicated on the plans as a 66' X 300' X 1.5' depth excavation located on the western side of the drive in the floodplain.

As indicated above, the access road would be inundated with flood waters even during a 2-year event, as would Cedar Lane itself. The applicant is proposing the installation of Petunia Lane on the north side of Post Oak Road running east to connect to Post Oak Road outside of Norman City limits. This is particularly important given that Nico Drive would very likely be underwater during most storm events.

STAFF ANALYSIS:

Site located in Little River Basin or its Tributaries? Yes ☐ No ☒

According to the latest FIRM, the site of the proposed work is located in the Prairie Creek floodplain (Zone A). At the proposed site, the BFE is approximately 1044.8 ft.

Applicable Ordinance Sections:

36-533

(e)2(a)..... Fill restrictions

(e)2(e)..... Compensatory storage

(f)3(a)(8)..... No rise considerations

Subject Area:

(e)2(a) and (e)2(e) Fill Restrictions in the Floodplain and Compensatory Storage – Fill is restricted because storage capacity is removed from floodplains, natural drainage patterns are adversely altered, and erosion problems can develop. Compensatory storage must be provided within the general location of any storage that is displaced by fill or other development activity and must serve the equivalent hydrologic function as the portion which is displaced with respect to the area and elevation of the floodplain.

According to the plans submitted by the applicant, approximately 30,000 cubic feet of compensatory storage will be provided in the adjacent floodplain to offset the fill required to construct the road and install the drainage infrastructure.

(f)3(a)(8) 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 is required. For proposed development within a designated regulatory floodway, certification that no increase in the BFE on any adjacent property as a result of the proposed work is required.

The project engineer has indicated in their report that no increase in the BFE would be expected as a result of this project.

RECOMMENDATION: Staff recommends Floodplain Permit Application #729 be approved with the following conditions:

1. As-builts of Nico Drive and compensatory storage are provided before final acceptance.
2. City staff verify that secondary access road is accessible prior to final acceptance.

ACTION TAKEN: _____