

**ITEM:** This Floodplain Permit Application is for the replacement of a bridge over a tributary to Jim Blue Creek on East Post Oak Road between 96<sup>th</sup> Ave. SE and 104<sup>th</sup> Ave. SE.

**BACKGROUND:**

APPLICANT: City of Norman Streets Department

CONTRACTOR: K&R

ENGINEER: Darryl J. Gary, P.E.

This project involves the replacement of the bridge located on East Post Oak over a tributary of Jim Blue Creek in the Lake Thunderbird watershed and is one of the programmed bridge replacements in the City of Norman Bridge Maintenance Bond. This construction project will consist of removing the existing bridge, excavating to accommodate the new structure, regrading roadway drainage channels, minimal channel restoration and stabilization measures in the immediate vicinity of the bridge.

The existing bridge is a 32' long steel beam structure with a 22-foot wide, clear roadway and has a load rating of 12 tons. The proposed bridge replacement consists of 3 12'x7'x40'-2" at grade reinforced concrete boxes (RCB). Plans indicate a slight change in road grade and the addition of a shoulder for safety. According to the engineering report, for the existing bridge, the water surface elevation upstream of the structure for the 100-year flood event is 1126.11 ft. with 3.85 ft. of backwater compared to the natural condition with no freeboard. For the proposed bridge, the water surface elevation upstream of the structure for the 100-year flood event is 1122.89 ft. with 0.63 ft. of backwater compared to natural conditions with 1.41 ft. of free board.

Site located in Little River Basin or its Tributaries?      yes ☐      no ☒

**STAFF ANALYSIS:**

The project is located in the Jim Blue Creek floodplain (Zone A). Base flood elevation is approximately 1123.0'.

**Applicable Ordinance Sections:**

36-533 (e)(2)(a).....

(e)(2)(e).....

(f)(3)(8).....

**Subject Area:**

Fill restrictions in the floodplain

Compensatory storage

No rise considerations

(e)(2)(a) and (e)(2)(e) Fill Restrictions in the Floodplain and Compensatory Storage – The use of fill is restricted in the floodplain unless compensatory storage is provided.

Plans indicate approximately 1400 cubic yards of cut and 900 cubic yards of fill, for an approximate increase in storage of 500 cubic yards meeting ordinance requirements.

(f)(3)(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 feet will occur in the BFE on any adjacent property as a result of the proposed work must be provided.

The engineer has certified that the project will not cause a rise in the BFE which meets this ordinance requirement.

**RECOMMENDATION:** Staff recommends that Floodplain Permit Application #727 be approved.

**ACTION TAKEN:** \_\_\_\_\_