

ITEM: This Floodplain Permit Application is for the emergency repairs to the sanitary sewer line that crosses Bishop Creek near 730 Stinson.

BACKGROUND:

APPLICANT: City of Norman Utilities Authority

CONTRACTOR: TBD

ENGINEER: Ken Giannone P.E.

This project involved the replacement of an existing 18" sanitary sewer interceptor aerial crossing over Bishop Creek at 730 Stinson (in the "Flats at Norman" apartment complex). The concrete piers supporting the existing sanitary sewer aerial crossing were partially overturned during a recent flood event and must be replaced in order to ensure structural integrity and continued functionality of the crossing. The project will consist of 4 to 5 pairs of new concrete piers with the same general dimensions in the same general locations and constructed of similar materials as the originals. The new piers will be drilled to bedrock to minimize potential for future failure. Approximately 190 LF of existing 18" carrier pipe inside of steel casing pipe will be removed and replaced by carrier pipe and casing pipe of the same size and at the same line and grade as existing. For constructability purposes, two new manholes will also be installed, but both will be outside of the floodplain.

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

STAFF ANALYSIS:

The project is located in the Bishop Creek floodplain (Zone AE). Base flood elevation is 1125.25', and the engineer has certified that there will be no increase in the base flood elevation as a result of this project.

Applicable Ordinance Sections:

36-533 (e)(2)(a).....
(e)(2)(e).....
(e)(2)(j)
(e)(2)(l)
(f)(3)(8).....

Subject Area:

Fill restrictions in the floodplain
Compensatory storage
Utilities constructed to minimize flood damage
In/exfiltration of flood waters in sanitary sewage
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.

The applicant has indicated that no new fill will be brought in as a result of this project, other than what is necessary to replace what has been lost to erosion and to stabilize the banks to prevent erosion. Rip rap and other stabilization material will be installed at grade.

(e)(2)(j) 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. All public utilities and facilities shall be constructed to minimize flood damage.

The sewer line pipe joints have gaskets making the system watertight, and the entire system is leak tested prior to going into service.

(e)(2)(l) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters.

The sewer line pipe joints have gaskets making the system watertight, and the entire system is leak tested prior to going into service.

(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 #718 be approved.

ACTION TAKEN: _____