

STAFF REPORT

ITEM: Floodplain Permit Application for the repair of the aerial crossing of the sanitary sewer line that crosses Brookhaven Creek near the intersection of NW 36th Avenue and Rock Creek Road.

APPLICANT: City of Norman Utilities

ENGINEER: Nathan Madenwald, P.E.

BACKGROUND

The project consists of replacing an existing 8-inch sanitary sewer aerial crossing over Brookhaven Creek near Buckhorn Drive as part of the City of Norman's Sewer Maintenance Program 18. The proposed work includes removal of the existing sewer pipe and casing and installation of a new sanitary sewer utilizing existing pier structures at the current alignment and slope. No expansion of the crossing footprint is proposed.

The project does not include modification of the creek channel, channel banks, or floodplain geometry. Construction activities will be limited to removal and replacement of the aerial sewer infrastructure using existing supports. Any minor disturbance to the stream banks resulting from construction access will be repaired and restored to pre-construction conditions.

As stated in the engineer's No Rise Certification, the proposed improvements will not result in any increase in flood elevation within the regulatory floodway or on adjacent properties.

STAFF ANALYSIS

The project is located within the Brookhaven Creek floodplain (Zone AE). Based on submitted documentation and engineering certification, the replacement of the aerial sewer crossing will not alter floodplain conveyance or storage and will not result in a rise in the Base Flood Elevation.

The work replaces aging infrastructure with updated sanitary sewer facilities while maintaining the existing crossing configuration. Because the project uses existing supports and does not expand the footprint within the floodplain, impacts are minimal and temporary

APPLICABLE ORDINANCE SECTIONS (36-533)

- (e)(2)(a) - Fill restrictions in the floodplain
- (e)(2)(e) - Compensatory storage
- (e)(2)(j) - Utilities constructed to minimize flood damage
- (e)(2)(l) - Sanitary sewage systems
- (f)(3)(8) - No-rise considerations

DETAILED ORDINANCE ANALYSIS

(e)(2)(a) and (e)(2)(e) - Fill Restrictions and Compensatory Storage

No permanent fill is proposed within the floodplain. Construction activities are limited to removal and replacement of existing infrastructure, and any disturbed areas will be restored to existing grade. Flood storage capacity will not be reduced.

(e)(2)(j) - Utilities Constructed to Minimize Flood Damage

The project replaces an exposed aerial sewer crossing with a buried system designed to reduce vulnerability to flood flows. Installation of new pipe and appurtenances will minimize risk of damage during flood events and improve long-term reliability of the sanitary sewer system.

(e)(2)(l) – Sanitary Sewer Systems

The sanitary sewer will be constructed using watertight pipe and connections designed to prevent infiltration of floodwaters and discharge into floodwaters, consistent with City standards and ordinance requirements.

(f)(3)(8) – No-Rise Requirement

The Utilities Engineer provided a No-Rise Certification.

RECOMMENDATION

Staff recommends approval of floodplain permit application #738.

ACTION TAKEN:
