**ITEM:** Floodplain Permit application for the construction of a patio and replacement of a fence at 3124 Meadow Ave. in the Canadian River floodplain.

## **BACKGROUND:**

APPLICANT: Holly Hawk ENGINEER: Gary Keen, P.E.

The applicant owns a condo that is one of four units in the same structure on the fringe of the Canadian River floodplain. Ms. Hawk replaced the masonry blocks that composed her patio with a pour in place concrete pad and replaced a wooden fence. This work was completed without a floodplain permit as the applicant wasn't aware that one was needed. There is a FEMA approved LOMA on the structure but it does not cover the backyard. A previous permit application was filed and denied by the Floodplain Permit Committee due to fence not meeting ordinance requirements and insufficient evidence that fill had not been brought into the floodplain with the work.

For this permit application, the applicant has proposed that the fence be cut off at the elevation of the BFE and wire mesh replaced in the section that was removed to ground level. The applicant has further indicated that they will remove nine shrubs, bushes and hedge plants and all flower bed edging that was installed previously. Additionally, it is proposed that sod be removed from the yard, two inches of soil removed (3.2 cu. yd. total) and sod reinstalled at new grade.

The applicant's engineer also provided a detailed report related to drainage across this property onto and from adjacent properties. Detailed surveying was done of this property and adjacent properties (3122 and 3126 Meadow Ave.). That report indicates that drainage should occur south and east across the backyard of 3124 Meadow Ave and should not hinder flow off of 3122.

## **STAFF ANALYSIS:**

Site located in Little River Basin or its Tributaries? Yes \_\_\_\_ no  $\checkmark$ 

According to the DFIRM, the patio and fence were installed on the fringe of the Canadian River floodplain. The BFE at the planned location is approximately 1100.0'.

Applicable Ordinance Sections:	Subject Area:
36-533 (e)2(a)	Fill Restrictions in the Floodplain
(e)2(e)	Compensatory storage
(e)(3)(j)	Fencing in the floodplain
(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.

Since this work was performed without a floodplain permit, determining fill amounts is difficult in this case. The proposal calls for the removal of 2 inches of soil from the yard or 3.2 cubic yards, along with the removal of the new flower beds and shrubs. Additionally, the manhole that is located in the porch area of the yard was originally flush with the grade and still remains flush with grade after the improvements, indicating that there is no new fill or at least a very minimal amount. Surveys of the yard indicate a drainage direction that is consistent with what was reported as the historical flow pattern. The engineer's report goes into greater detail on the evidence to support that volumes for

fill have been accounted for. Based on the engineer report and the proposed corrections, this proposal would indicate that this section of the ordinance has been satisfied.

(e)(3)(j) Fencing in the Floodplain – All new fences or replacement of existing fences in the SFHA require a floodplain permit. Approved fences shall be designed and installed to be breakaway or in some other manner so that flows will not be impeded.

The applicant has proposed to remove the sections of the fence below the BFE and install a wire mesh type fence along this section. This would allow the free flow of flood waters and meet this ordinance requirement.

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 #703 be approved with the following condition:

1. Photos should be taken before work is started, and during soil removal process, as well as post construction. These photos should be submitted to City staff to help verify that the work was done in accordance with the application.

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