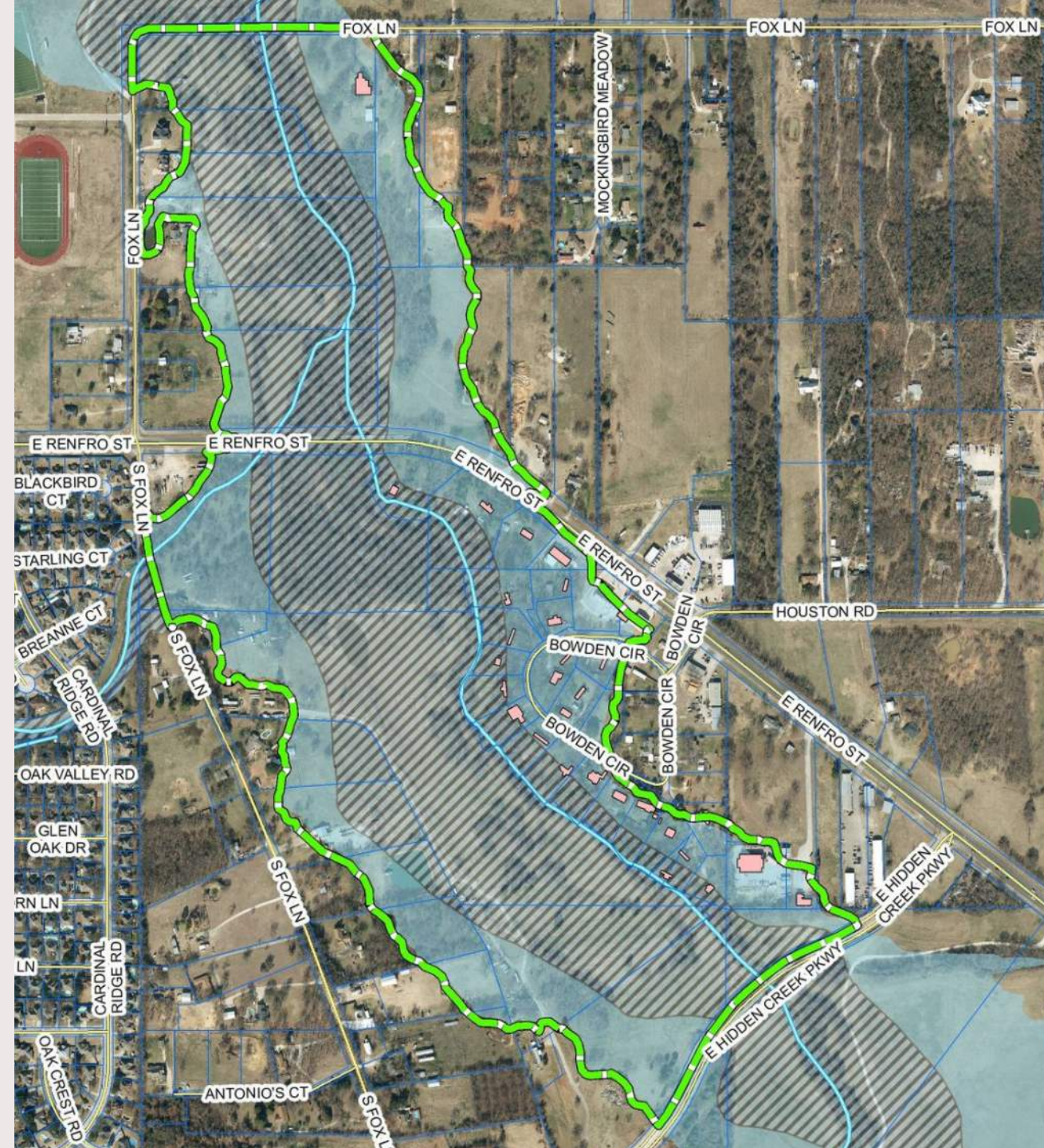


FLOODPLAIN ORDINANCE UPDATE

City Council
September 18, 2023
Final Reading





**DOBSON ROAD -
5/25/2015**

OBJECTIVES

- 1 PROVIDE BRIEF FLOODPLAIN MANAGEMENT OVERVIEW**
- 2 COMPARE CURRENT FEMA AND CITY REGULATIONS**
- 3 DISCUSS PROPOSED MINOR AMENDMENTS TO CURRENT CITY REGULATIONS**
- 4 SEEK COUNCIL FEEDBACK AND ACTION TO UPDATE CURRENT ORDINANCE**

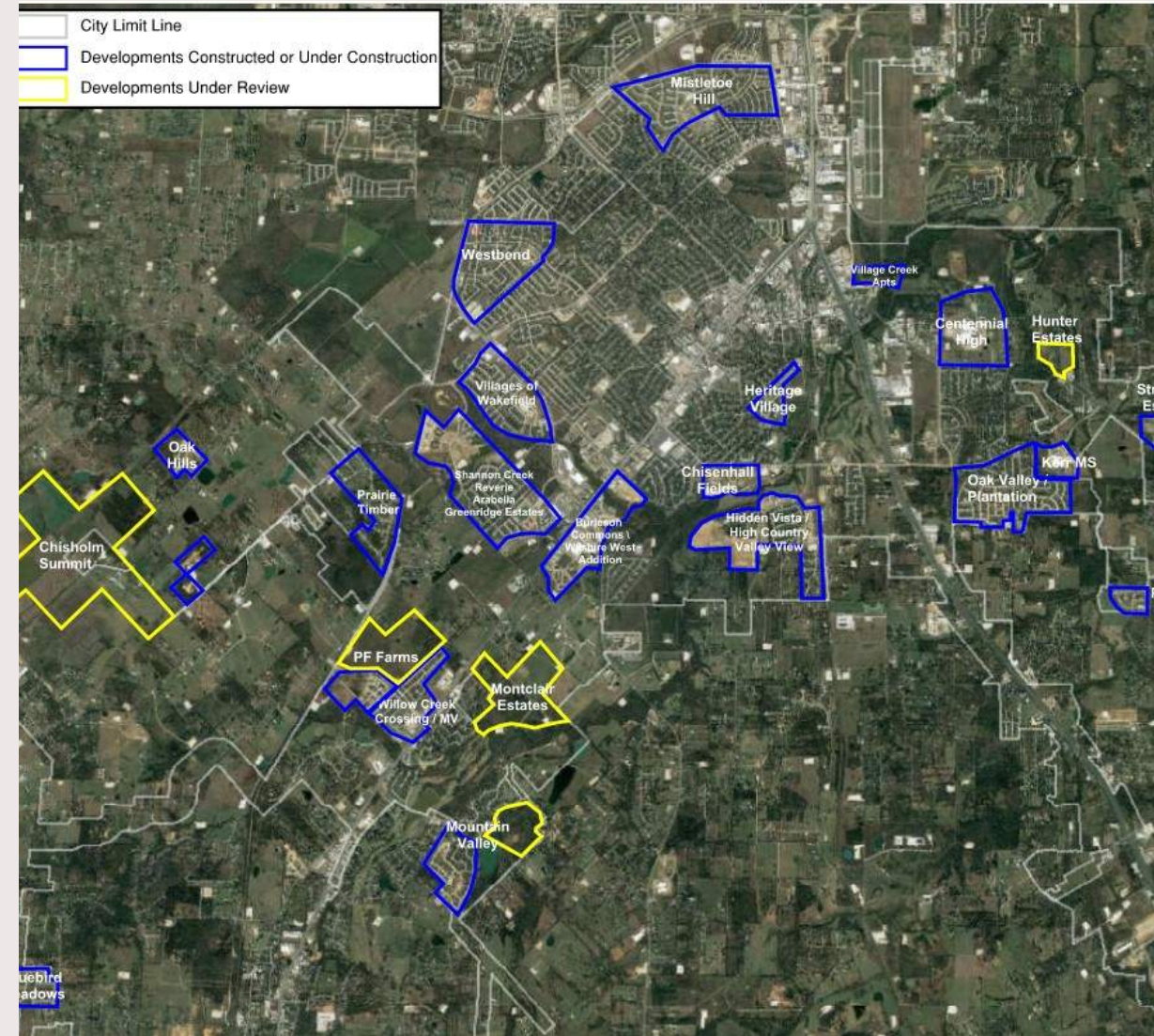
WHY REGULATE DEVELOPMENT IN THE FLOODPLAIN?

Significant city growth over the last 15 years - increased impervious area generates more runoff

- Commercial and industrial development with large parking lots
- Residential subdivisions and apartments

Benefits of regulating development in the floodplain include:

- Helps preserve floodplains for flood water storage
- Makes the City of Burleson eligible for membership in the National Flood Insurance Program (NFIP)
 - Makes the City of Burleson eligible for disaster relief
 - Allows Burleson property owners to purchase flood insurance (FEMA requires insurance for federally backed loans for homes located in the floodplain)



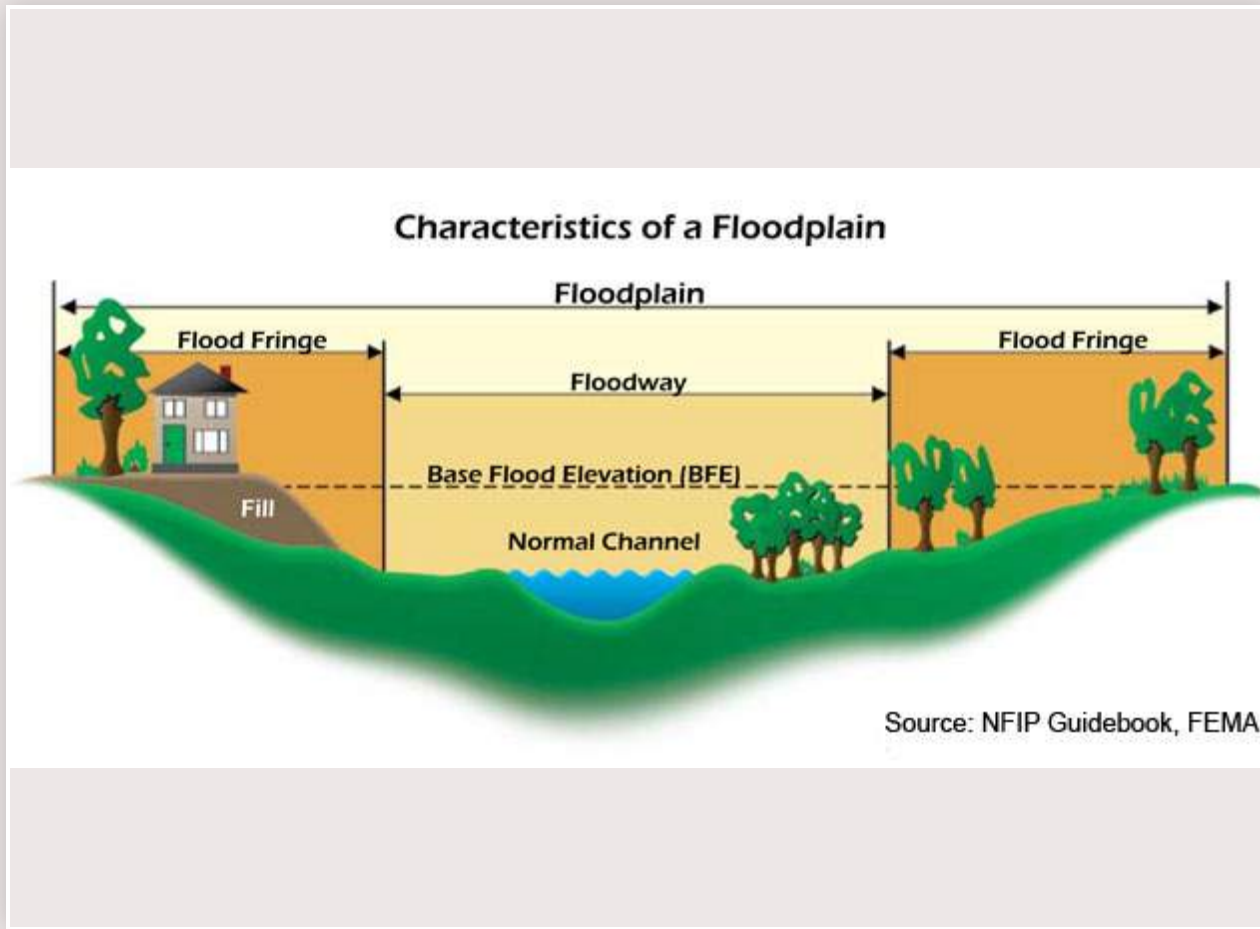
Note: Johnson County regulates floodplains within the ETJ. Their regulations are generally less restrictive than the City's. Development in the county can affect flooding in the city.

[illegible]

- 1973 - First City of Burleson maps issued
- 1991 - County-wide maps issued
- 2012 - Most recent update

- Modifications to existing structures require that the improvements conform with current standards
- If the value of modifications exceed the most recent tax roll value by 50% or more, then the entire structure has to conform with current standards

100-YEAR SPECIAL FLOODPLAIN HAZARD AREA



100-YEAR STORM

- 3.75 inches in one hour
- One percent chance of occurring every year

BASE FLOOD ELEVATION (BFE)

Expected height of river / stream / creek water surface during a 100-year storm event

FLOODWAY

- Channel of the river or stream and the adjacent land that **MUST** remain free from obstruction so that the 100-year flood can be conveyed downstream
- Area of fastest velocities and greatest damage
- FEMA and state regulations permit development to occur but with more restrictions

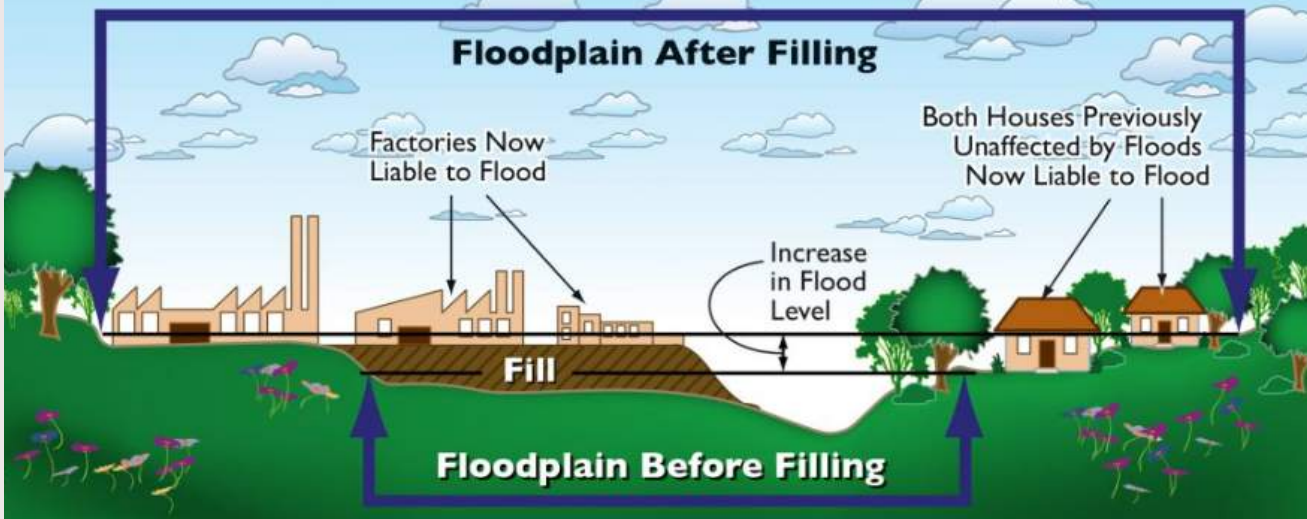
FLOOD FRINGE

Remaining portion of floodplain

FEMA ALLOWS FLOOD FRINGE TO BE FILLED CREATING UP TO A ONE FOOT RISE IN THE WATER SURFACE ELEVATION OR "BFE"

- Modification of the SFHA flood boundary or floodway map, or both (changes map boundary)
- Engineering analysis required with data submitted to FEMA
- Can have significant costs associated with the analysis and FEMA submittal - study can exceed \$50k plus \$8,250 FEMA submittal fee

Today and Tomorrow's Floodplain



Source: ASFPM

If large areas of the floodplain are filled, then there will be an increase in the land area needed to store flood waters. This means your home or business may be impacted.

FEMA vs City Regulations

FEMA Regulations	City Regulations
Modeled to existing conditions - data can be dated and as a result not reflect recent development	Modeled to Buildout Conditions - city models are being updated to reflect existing and updated future land use conditions
Allows flood fringe to be filled creating a one foot rise in water surface elevation	Allows flood fringe to be filled but maintains a zero rise in water surface elevation
RECOMMENDS top of lowest floor a minimum of one foot above base flood elevation	REQUIRES top of lowest floor to be a minimum of two feet above base flood elevation
Allows structures to be built in floodplain if at or above the base flood elevation	New Subdivisions must design so that all structures are out of the floodplain

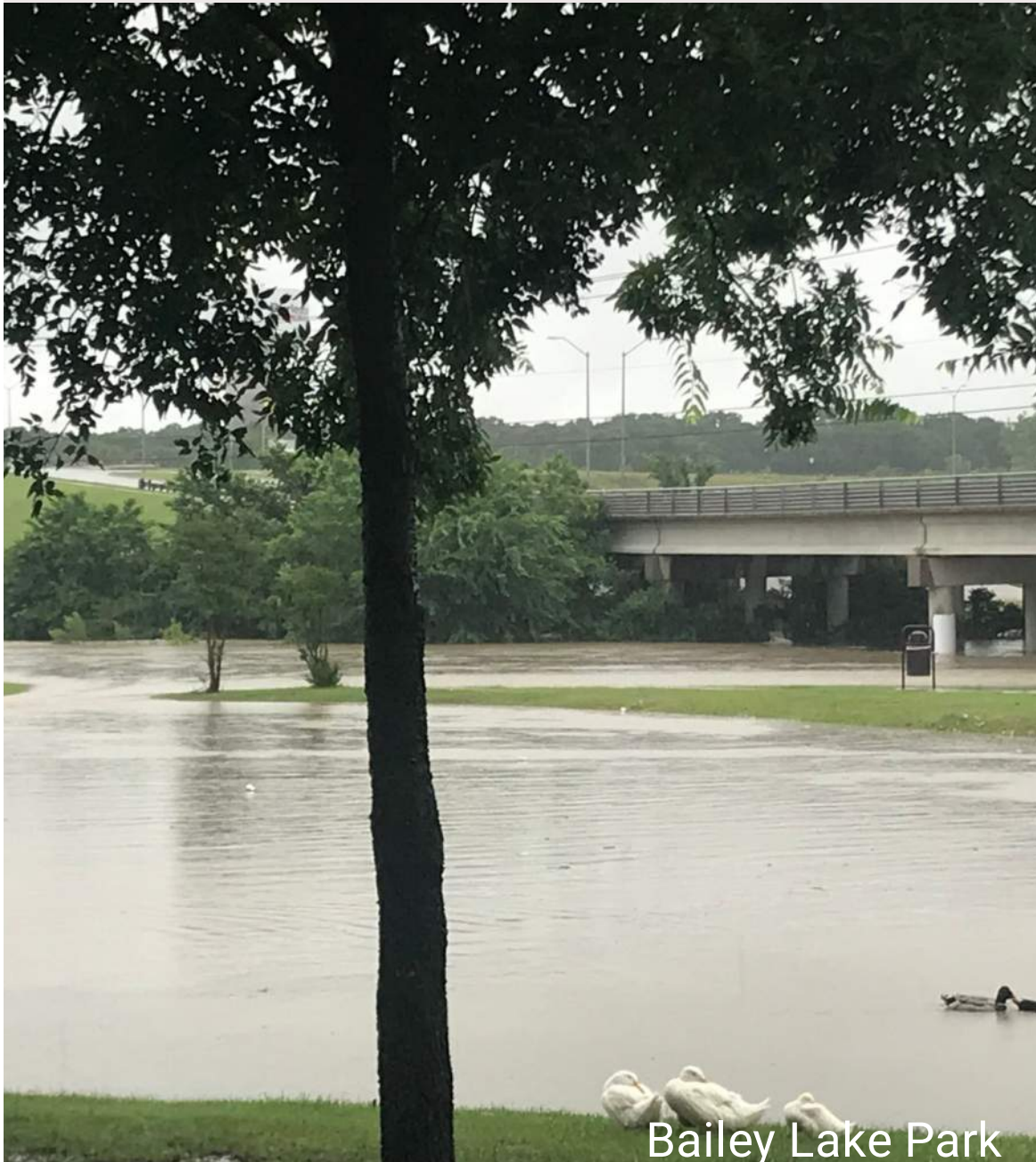
CITY OF BURLESON FLOODPLAIN REGULATIONS

Development less than two acres

- Floodplain development permit required
- Grading plan by engineer required
- Floodplain analysis performed comparing to the City's Master Drainage Study (MDS) - no rise in BFE allowed
- LOMR-F required - submittal to FEMA prior to building permit issuance
- Top of slab set two or more feet higher than BFE
- All electrical equipment two or more feet higher than BFE
- Elevation certificate required to verify elevation of top of slab - pre-construction and post-construction
- FEMA approval prior to final acceptance (possession of structure)

Development greater than two acres

- Floodplain development permit required
- Grading plan by engineer required
- Floodplain analysis performed comparing to the City's Master Drainage Study (MDS) - no rise in BFE allowed; detention analysis required
- LOMR required - submittal to FEMA prior to building permit issuance
- Structures and lots removed from floodplain
- Top of slab set two or more feet higher than BFE (extra factor of safety)
- All electrical equipment two or more feet higher than BFE
- Survey of pad lots from developer showing elevations conform to accepted grading plan prior to substantial acceptance of improvements and building permit issuance
- Form board survey with elevations required prior to pouring slab
- Johnson County has jurisdiction over floodplain requirements within the City's ETJ; however, the City imposes stormwater detention requirements as part of the Subdivision Ordinance within the ETJ



FLOODPLAIN ORDINANCE

FEMA recently completed revisions to county-wide Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRM)

As a member of NFIP, the City is required to adopt ordinance revisions by September 21, 2023

Original ordinance adopted November 1971 and last updated in 2008

Staff proposes additional updates and clarifications to align with the Texas Water Development Board's model ordinance and City's current practices

FEMA and TWDB have reviewed and approved proposed changes

FLOODPLAIN ORDINANCE UPDATE SUMMARY

Flood Plain Ordinance

Summary

1. Section 42-34 (Definitions)	Added definitions for “adverse impacts” and “fully developed”
2. Section 42-42 (Basis for establishing areas of special flood hazards; maps)	Updated language to adopt the recently updated Flood Insurance Study (FIS) with accompanying Flood Insurance Rate Maps (FIRM) for Johnson and Tarrant Counties and incorporated areas Added language adopting the City’s most recent master drainage study models and the resulting floodplain areas for the purposes of regulating adverse impacts and establishing fully developed flood elevations
3. Section 42-43 (Letters of map revision)	Deleted – language included in Section 42-42 that any revisions thereto are adopted by reference and automatically become part of the ordinance
4. Section 42-61 (Floodplain administrator)	Added language restricting new construction, substantial improvements, or other development (including fill) from increasing the base flood elevation or fully developed water surface elevation more than 0.0 feet
5. Section 42-92 (Specific standards)	Deleted “whichever is higher” in provision 1, 2, and 4.c.1 Added “on separate walls” in provision 3a
6. Section 42-94 (Standards for areas of shallow flooding (AO/AH zones))	Deleted “whichever is higher” in provision 2.b
7. Section 42-96 (Severability)	Added a severability clause

Johnson Ave (Warren Park) - April 2022



NEXT STEPS

- 1 **FINAL READING AND ADOPTION -
SEPTEMBER 18, 2023**
- 2 **SUBMIT UPDATED ORDINANCE
TO FEMA AND TWBD**

OPTIONS

RECOMMENDED



APPROVE

Approve an ordinance amending Article III "Flood Damage Prevention" of Chapter 42 "Floods" of the City of Burleson Code of Ordinances



DENY

Deny an ordinance amending Article III "Flood Damage Prevention" of Chapter 42 "Floods" of the City of Burleson Code of Ordinances

