

City of Fayetteville Staff Review Form

2019-0692

Legistar File ID

11/19/2019

City Council Meeting Date - Agenda Item Only
N/A for Non-Agenda Item

Alan Pugh

10/31/2019

ENGINEERING (621)

Submitted By

Submitted Date

Division / Department

Action Recommendation:

Approval of Flood Insurance Rate Map Revisions based on studies provided by a proposed project located near W Martin Luther King Blvd and S Stadium Drive (College Branch) in accordance with Chapter 168, Flood Damage Prevention, of the Unified Development Code

Budget Impact:

Account Number	Fund
Project Number	Project Title
Budgeted Item? Yes	Current Budget \$ 0.00
	Funds Obligated \$ -
	Current Balance \$ 0.00
Does item have a cost? No	Item Cost
Budget Adjustment Attached? NA	Budget Adjustment
	Remaining Budget \$ 0.00

V20180321

Purchase Order Number:

Previous Ordinance or Resolution #

Change Order Number:

Approval Date:

Original Contract Number:

Comments:



MEETING OF NOVEMBER 19, 2019

TO: Mayor and City Council

THRU: Don Marr, Chief of Staff
Garner Stoll, Development Services Director
Chris Brown, City Engineer

FROM: Alan Pugh, Staff Engineer

DATE: October 31, 2019

SUBJECT: Approval of Flood Insurance Rate Map Revisions based on studies provided by a proposed project located near W Martin Luther King Blvd and S Stadium Drive (College Branch) in accordance with Chapter 168, Flood Damage Prevention, of the Unified Development Code.

RECOMMENDATION:

Approval of Flood Insurance Rate Map Revisions based on studies provided by a proposed project located near W Martin Luther King Blvd and S Stadium Drive (College Branch) in accordance with Chapter 168, Flood Damage Prevention, of the Unified Development Code.

BACKGROUND:

Chapter 168, Flood Damage Prevention, of the Unified Development Code (UDC) regulates development within the Special Flood Hazard Area (SFHA). This regulation includes several provisions that limit the development in areas designated as Zone A due to the approximate nature of the flood zone. With the Zone A areas there is no detailed engineering study to determine the location of the floodway, and the floodplain is simply approximated using several different techniques by FEMA.

Chapter 168 does, however, allow for the applicant to perform a detailed flood study and provide that with the application process for review. If the City is in agreement, the ordinance also allows for this study to be adopted and treated as the regulatory SFHA within the area of concern. In these areas, this newly adopted floodplain based on a more detailed analysis is then treated as a Zone AE, base flood elevation determined. Specifically, this provision is found within Section 168.10, item (f) as noted below:

(f) In all areas designated as a Zone A on the FIRM where a detailed study has not been completed to specify the floodway and base flood elevations, no building or fill shall be located within a distance of two and one-half (2½) times the width of the stream measured from the top of the bank to the top of bank, or 25 feet on each side, whichever is greater.

(i) Provided, the applicant may choose if not required by other provisions of this chapter, to provide a detailed hydrologic and hydraulic study which delineates the floodway, one hundred

(100) year floodplain boundary, and base flood elevations. At such time a study is provided and adopted by ordinance, the applicant shall meet all requirements for areas designated with floodway, one hundred (100) year floodplain, and base flood elevations.

DISCUSSION:

The proposed detailed study provides additional technical information in determining the extent of the floodplain and floodway as required by the ordinance. While it has not been through the official FEMA review, it does represent the best available information to the community at this time and can be adopted as noted in Chapter 168 of the UDC. At such time that a revised FIRM from FEMA is adopted it would supersede the attached exhibits when they are adopted by the City.

With the referenced section of stream, the applicant has chosen to provide a detailed study at their expense in accordance with Chapter 168. This would allow them to utilize the more detailed information in the same way that others developing near already studied streams can utilize the requirements of the AE zone outlined in Chapter 168. As noted in Chapter 168, before this can be recognized it must be adopted by ordinance before the applicant can be issued a floodplain development permit and proceed with the proposed project. Given that, staff has worked with the applicant and reviewed the proposed flood study with exhibits.

The applicant will also provide evidence that they have notified any impacted property owners upstream or downstream of the proposed development. Those owners will be given the opportunity to voice their opinions on the proposed change by contacted staff or attending the public hearing.

BUDGET/STAFF IMPACT:

There is no budgetary impact except for the staff time spent in review of the proposed project and development of the ordinance information.

Attachments:

Proposed Flood Map Exhibits

Drawn: 3/14/2019
Checked: 3/14/2019
Date: 3/27/2019

GRADING & EROSION CONTROL

GRADING PLAN

1. EARTH SHALL NOT BE REMOVED UNTIL THE APPROPRIATE EROSION CONTROL MEASURES ARE INSTALLED AND THE PRESERVATION FENCING ARE INSTALLED.
2. IT IS NEARLY TO BE REMOVED OR REINSTATED MATERIAL WITHIN THE CITY LIMITS WITHOUT AN OPEN GRADING PERMIT FROM THE DEPARTMENT OF THE CITY OF FAYETTEVILLE.
3. ELEVATION CORRELATIONS ARE REQUIRED PRIOR TO OBTAINING THE EACH OF THE FOLLOWING:
 - a. FLOODING/FLOODING PERMIT
 - b. CERTIFICATE OF OCCUPANCY
 - c. CONTACT PLAN FROM 300-500 FOR ADDITIONAL INFORMATION.
4. CUT OR FILL SLOPES SHALL HAVE A FINISH GRADE NO STEEPER THAN 3:1 (HORIZONTAL TO 1 VERTICAL).
5. ALL GRADING SHALL BE SET BACK A MINIMUM OF 5' FROM THE PROPERTY LINES UNLESS WRITTEN PERMISSION IS GRANTED BY THE ADJACENT PROPERTY OWNER OR A JOINT GRADING PLAN IS SUBMITTED.
6. ALL IMPROVED FILL SHALL BE FREE OF ROCKS GREATER THAN 12" IN DIAMETER AND ANY DETRIMENTAL ORGANIC MATERIAL OR RESIDUE DEBRIS.
7. REVEGETATION OF DISTURBED AREAS SHALL BE IN ACCORDANCE WITH THE CITY OF FAYETTEVILLE GRADING ORDINANCE. (INCLUDE ACTUAL NOTES ON THE PLAN).

EROSION CONTROL

- ALL PROJECTS IN THE CITY OF FAYETTEVILLE MUST IMPLEMENT AND FOLLOW THE GUIDELINES OF SECTION 8.0: EROSION, RUNOFF, AND SEDIMENT CONTROLS FOR CONSTRUCTION SITES, CONTAINED WITHIN THE CITY'S DRAINAGE CONTROL MANUAL.
- REVEGETATION OF DISTURBED AREAS SHALL BE PERFORMED AS SOON AFTER THE COMPLETION OF CONSTRUCTION ACTIVITIES AS IS PRACTICABLE. THE AREA OF DISTURBANCE AT ANY ONE TIME SHALL BE LIMITED TO 25 ACRES. NO ADDITIONAL AREA MAY BE OPEN WITHOUT THE PERMISSION OF THE CITY ENGINEER UNTIL THE PREVIOUSLY DISTURBED AREAS HAVE BEEN REVEGETATED OR PERMANENTLY STABILIZED.
- REVEGETATION SHALL BE REQUIRED TO MEET THE FOLLOWING PERFORMANCE STANDARDS PRIOR TO ISSUANCE OF THE FINAL PLAN OR CERTIFICATE OF OCCUPANCY:

1. TOPSOIL: A MINIMUM OF 4" OF TOPSOIL SHALL BE REQUIRED IN AREAS TO BE REVEGETATED. ANY APPLICATION OF TOPSOIL AND SEEDING UNDER THE SHIP LANE OF A TRUCK SHOULD BE MINIMUM 2" THICK SO AS NOT TO DAMAGE THE ROOT SYSTEM OF THE TRUCK.
2. 2000 TO 1000 GRADE: REVEGETATION SHALL BE A MINIMUM OF SEEDING AND MULCHING. SEEDING SHALL PROVIDE COMPLETE UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF IN NO MORE THAN TWO GROWING SEASONS.
3. 100' UP TO 4" GRADE: REVEGETATION SHALL BE A MINIMUM OF HYDROSEEDING WITH MULCH AND FERTILIZER, OR STANDED SOIL, OR SOD/GRASSCOVER. SOD PLANTING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE THAT MINIMIZES EROSION AND RUNOFF IN NO MORE THAN TWO GROWING SEASONS.
4. 4" TO 3" GRADE: THE SLOPE SHALL BE COVERED WITH LANDSCAPE FABRIC AND HYDRO-SEEDING WITH MULCH AND FERTILIZER OR STANDED SOD GRASSCOVER. SOD PLANTING SHALL PROVIDE COMPLETE AND UNIFORM COVERAGE IN NO MORE THAN TWO GROWING SEASONS.
5. STEEPER THAN 3:1 GRADE: THE SLOPE SHALL BE STABILIZED WITH ONE OR MORE OF THE FOLLOWING:
 - a. RETAINING WALLS
 - b. CHAINING WITH LANDSCAPE FABRIC
 - c. TERRACING WITH GRASSCOVER
 - d. EROSION
 - e. STANDED SOD UP TO 3:1 SLOPES, OR
 - f. IF CHAINING, TERRACING, OR SOD ARE USED, THE SLOPE STABILITY AND EROSION CHARACTERISTICS MUST BE EQUIVALENT TO OR BETTER THAN ITS PREDEVELOPMENT STATE.

LAND SHALL BE REVEGETATED AND RESTORED AS CLOSE AS PRACTICALLY POSSIBLE TO ITS ORIGINAL CONDITIONS SO FAR AS TO MINIMIZE RUNOFF AND EROSION ARE CONCERNED. PREVIOUSLY FORESTED AREAS SHALL FOLLOW THE CITY'S DRAINAGE CONTROL MANUAL FOR MITIGATION OF FORESTED AREAS.

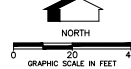
6. ALL DISTURBED AREAS SHALL RECEIVE 4" OF TOP SOIL AND RE-VEGETATED PER SECTION 8.0.
7. EROSION, RUNOFF, AND SEDIMENT CONTROLS FOR CONSTRUCTION SITES, OF THE CITY'S DRAINAGE CONTROL MANUAL, VEGETATION MUST BE ESTABLISHED TO MINIMIZE EROSION PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
8. DEBRIS, MUD AND SOIL SHALL NOT BE ALLOWED ON PUBLIC STREETS BUT IF ANY DEBRIS, MUD, OR SOIL FROM CONSTRUCTION SITES REACHES THE PUBLIC STREET IT SHALL BE IMMEDIATELY REMOVED BY SWEEPING OR OTHER METHODS OF PHYSICAL REMOVAL. DEBRIS, MUD, OR SOIL IN THE STREET MAY NOT BE WASHED OFF THE STREET OR WASHED INTO THE STORM DRAINAGE SYSTEM. STORM DRAINAGE SYSTEMS CONSTITUTE OF A DEVELOPMENT SITE SHOULD BE PROTECTED FROM DEBRIS, MUD, OR SOIL IN THE EVENT THAT DEBRIS, MUD, OR SOIL REACHES THE DRAINAGE SYSTEM.
9. THE PROPERTY OWNER OR MAIN CONTRACTOR (AGENCY) WILL BE RESPONSIBLE FOR RESTORING ALL EROSION AND SEDIMENT CONTROL SYSTEMS AND PUBLIC INFRASTRUCTURE DAMAGED OR DISTURBED BY UNDERGROUND PRIVATE OR FRANCHISE UTILITY CONSTRUCTION SUCH AS WATER AND SEWER SERVICE LEADS, TELEPHONE, GAS, CABLE, ETC. EROSION AND SEDIMENT CONTROL SYSTEMS MUST BE IMMEDIATELY RESTORED AFTER EACH UTILITY CONSTRUCTION.

CONSTRUCTION NOTES

1. GRADING PERMIT TO BE POSTED ON-SITE AT ALL TIMES DURING CONSTRUCTION.
2. CITY OF FAYETTEVILLE STAMPED PLANS MUST BE ON-SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL AREAS UNDER BUILDINGS AND PAVED AREAS SHALL BE TYPED TO TOPSOIL. THE REVEGETATION SOIL GRADE SHALL BE THOROUGHLY COMPACTED. ANY SPOT OR YELLOW AREAS SHALL BE STABILIZED OR REVEGETATED AND REPLACED WITH SUITABLE MATERIAL.
4. FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. ALL FILL SHALL BE MADE IN LIFTS NOT EXCEEDING 4" THICKNESS WITH EACH LIFT COMPACTED TO 90% STANDARD PROCTOR DENSITY. FILL SLOPES SHALL NOT BE STEEPER THAN 3:1 SLOPE.
5. ALL GRADED AREAS SHALL HAVE 4" OF TOPSOIL, SOIL EROSION FABRIC, HERBACIOUS GRASS COVER, AND/OR HYDROSEEDING WITH A WINTER SEASON GRASS. REVEGETATION SHALL BE IMMEDIATELY AFTER THE PHYSICAL ALTERATION OF THE LAND IS COMPLETE. (MINIMUM OF 10 DAYS).
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY GRADING REGULATIONS. SLOTTED, BERING, LENTEN, PONDING, OR OTHER MEANS NEEDED TO MEET THE CITY GRADING REQUIREMENTS SHALL BE PROVIDED AS REQUIRED TO MEET THESE REGULATIONS.
7. ALL HEAVILY TRAVELLED DIRT AREAS SHALL BE WETTED TO PREVENT EXCESSIVE DUST DURING CONSTRUCTION.
8. ALL MATERIAL LEFT ON PUBLIC STREETS OR ADJACENT PROPERTIES AS A RESULT OF THIS CONSTRUCTION SHALL BE REMOVED OR SHIPPED AWAY UNTIL IT IS COMPLETELY REMOVED BY THE CONTRACTOR.
9. OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNERS TO CONSTRUCT RETAINING WALL AT PROPERTY LINE.
10. OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNERS TO CONSTRUCT SLOPE OF 3:1 WITHIN 5 FEET OF PROPERTY LINE.
11. THE SLOPE FROM 1 FOOT BEYOND THE SIDEWALK SHOULD BE 2% TO BACK OF CURB - ADJUST AS NECESSARY TO MEET AND MAINTAIN DRAINAGE.
12. THE APPROXIMATE ACCESS RANGES SHALL NOT EXCEED 10% IN GRADE.

FAYETTEVILLE STANDARD COMMENTS

1. PRIOR TO FINAL ACCEPTANCE BY THE CITY OF FAYETTEVILLE, THE PROJECT SHALL BE SUBJECT TO A JOINT FINAL INSPECTION BY A DESIGNATED REPRESENTATIVE OF THE CITY ENGINEER'S OFFICE, THE ENGINEER OF RECORD FOR THE PROJECT, AND THE CONTRACTOR.
2. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE CITY OF FAYETTEVILLE'S REQUIREMENTS IN THE CASE OF CONFLICT, THE CITY'S CRITERIA SHALL GOVERN.
3. THE ENGINEER OF RECORD SHALL PROVIDE CONSTRUCTION INSPECTION FOR THIS PROJECT.
4. CUT OR FILL SLOPES SHALL HAVE A FINISH GRADE NO STEEPER THAN 3:1.
5. ALL GRADING SHALL BE SET BACK A MINIMUM OF 5' FROM THE PROPERTY LINES UNLESS WRITTEN PERMISSION IS GRANTED BY THE ADJACENT PROPERTY OWNER.
6. ANY RETAINING WALL MORE THAN FOUR FEET IN HEIGHT SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND SHALL BE FIELD NOTICED BY THE DESIGN ENGINEER.
7. SAFETY BARRIERS ARE REQUIRED ON ANY RETAINING WALL GREATER THAN 30" IN HEIGHT. THE SAFETY BARRIERS SHALL BE BUILT IN TO THE MORE STRINGENT REQUIREMENTS OF THE SPEC OR AASHTO. AREAS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 14 DAYS OF THE LAST DISTURBANCE. EROSION CONTROL ACTIVITY IS TO TEMPORARILY CEASE FOR MORE THAN 21 DAYS. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH.
8. THE ENGINEER OF RECORD SHALL PERFORM MONTHLY EROSION CONTROL INSPECTIONS TO EVALUATE THE PERFORMANCE AND CONDITION OF EROSION CONTROL METHODS AND MAKE ADJUSTMENTS TO THE SHIP TO MEET THE CITY AND STATE REQUIREMENTS. THE CITY SHALL RECEIVE A COPY OF THE RECOMMENDATIONS. THE SHIP WILL BECOME PART OF THE GRADING AND DRAINAGE REPORT.



SITE DISTURBANCE NOTE:
0.60 ACRES OF THE PROJECT SITE WILL BE DISTURBED

REVISIONS		DATE
1st SUBMITTAL	3/27/19	
2nd SUBMITTAL	3/27/19	
REVISIONS FOR ENGINEERING	3/27/19	
REVISIONS FOR ENGINEERING	3/27/19	
REVISIONS FOR ENGINEERING	3/27/19	
REVISIONS FOR ENGINEERING	3/27/19	

ARENA VILLAGE EXPANSION
SMALL SITE IMPROVEMENT PLAN
GRADING, DRAINAGE &
EROSION CONTROL PLAN
FAYETTEVILLE, ARKANSAS

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**Arena Village Addition
Proposed FEMA Floodway Aerial
Overview
Fayetteville, Arkansas
October 16, 2019**

