



**CITY OF NORMAN, OK**  
**FLOODPLAIN PERMIT COMMITTEE MEETING**  
225 N. Webster Ave, Development Center Conference Rm B  
Monday, February 06, 2023 at 3:30 PM

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## **AGENDA**

### *AMENDED*

*It is the policy of the City of Norman that no person or groups of persons shall on the grounds of race, color, religion, ancestry, national origin, age, place of birth, sex, sexual orientation, gender identity or expression, familial status, marital status, including marriage to a person of the same sex, disability, retaliation, or genetic information, be excluded from participation in, be denied the benefits of, or otherwise subjected to discrimination in employment activities or in all programs, services, or activities administered by the City, its recipients, sub-recipients, and contractors. In the event of any comments, complaints, modifications, accommodations, alternative formats, and auxiliary aids and services regarding accessibility or inclusion, please contact the ADA Technician at 405-366-5424, Relay Service: 711. To better serve you, five (5) business days' advance notice is preferred.*

### **ROLL CALL**

### **MINUTES**

1. Approval of Minutes from November 7, 2022 Meeting

### **ACTION ITEMS**

2. Floodplain Permit No.666

### **MISCELLANEOUS COMMENTS**

3. a. Discussion of 2022 Floodplain Permit Committee yearly summary  
b. 2023 Floodplain Permit Committee Calendar Review

### **ADJOURNMENT**

FLOODPLAIN PERMIT COMMITTEE MEETING  
 201 West Gray, Building A, Conference Room D  
 Monday, November 7, 2022  
 3:30 p.m.

Minutes

PRESENT: Shawn O’Leary, Director of Public Works  
 Scott Sturtz, City Engineer  
 Lora Hoggatt, Planning Services Manager  
 Bill Scanlon, Citizen Member  
 Sherri Stansel, Citizen Member

OTHERS PRESENT: Jason Murphy, Stormwater Program Manager  
 Amy Shepard, Staff  
 Bethany Rooney, Subtext  
 Ryan Fairsheets, Engineer Kimley-Horn  
 Gunner Joyce, Attorney Rieger Law  
 Libby Smith, Attorney Rieger Law  
 Ellen Stevens, PhD, P.E.

The meeting was called to order by Mr. Shawn O’Leary at 3:30 p.m.

**Item No. 1, Approval of Minutes:**

Five members of the committee were present, and Amy Shepard called roll. Mr. Ken Danner and Ms. Jane Hudson were absent. Mr. O’Leary called for a motion to approve the minutes from the meeting of October 3, 2022. Mr. Bill Scanlon motioned to approve the minutes. The motion was seconded by Mr. Scott Sturtz. The minutes were approved 5-0.

**Item No. 2, Floodplain Permit Application No. 665:**

Mr. O’Leary said this application is for the demolition of an existing motel complex and church building in the Bishop Creek floodplain to allow construction of a new student housing complex. Mr. Jason Murphy gave the staff report. Mr. Murphy said the Applicant is Subtext represented by Bethany Rooney and their Engineers, Ellen Stevens and Kimley-Horn and Associates, Inc. Mr. Murphy said The Verve student housing project is a proposed 5-story

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Multi-family/student housing building that will be developed with approximately 260 units, 625 beds, and 563 parking spaces. Mr. Murphy said the project is located on connecting properties at 2404/2420/2456 Classen Blvd. near the intersection of Classen Blvd. and 12th Ave. SE. Mr. Murphy said the runoff from the northern end of the site flows west to the railroad right of way. Mr. Murphy said the rest of the site flows south to Bishop Creek which is south of the project area. Mr. Murphy said 2404 and 2420 Classen Blvd. are currently developed lots and the site of the old Hope Community Church and OU Motel respectively. Mr. Murphy said these structures will be demolished for the construction of this project with the southernmost lot, 2456 Classen Blvd., being the only section of this project located in the floodplain and is currently undeveloped, with the exception of an existing concrete pad and driveway that served structures that have been previously demolished.

Mr. Murphy presented the project maps and said the only area of this project located in the floodplain would be the southern section of the parking lot. Mr. Murphy said a preliminary drainage report has been submitted with the preliminary plat and includes an underground detention pond system to detain the additional stormwater runoff generated by the project. Mr. Murphy said the applicant submitted a Floodplain Analysis Study developed by Ellen Stevens, PhD, P.E. on their behalf, which includes a HEC-RAS model of the existing and proposed conditions of the creek and floodplain due to this project. Mr. Murphy said this existing conditions model of the floodplain predicts a BFE of 1128', which is approximately 1.5' lower than shown in the published FEMA study from 2008. Mr. Murphy said the model indicates this discrepancy can be attributed to both the Reinforced Concrete Box (RCB) under 12th Ave SE and Classen Blvd. and the railroad bridge west of the site being larger than shown in the current FEMA model.

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Mr. Murphy said if this permit application is approved by the Floodplain Permit Committee, the flood study and as built construction information would be forwarded to FEMA by the applicant's engineer to obtain a Letter of Map Revision (LOMR). Mr. Murphy noted the LOMR would effectively change the FIRM for this section of Bishop Creek to the new floodplain boundaries established by this project. Mr. Murphy said in addition, since this change to the floodplain boundary would be greater than ten percent (10%) of the width of the floodplain, City Council approval is also necessary and would be submitted to Council for their consideration along with the preliminary plat and rezoning request. Mr. Murphy reviewed applicable ordinance sections for Floodplain Application No. 665 and verified all ordinance requirements have been met. Mr. Murphy said staff recommends that Floodplain Permit Application No. 665 be approved with the following conditions: an as-built draining based on actual survey information be provided for the compensatory storage area upon completion, Floodplain Permit Application information be forwarded to City Council for their consideration along with the preliminary plat and rezoning request, and a Letter of Map Revision (LOMR) for this section of Bishop Creek be obtained prior to a Certificate of Occupancy being issued.

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Mr. O'Leary asked for comments or additions from the Applicant or Engineer. Hearing none, Mr. O'Leary asked for questions or comments from the committee. Mr. Sturtz asked for clarification on the plans of the compensatory storage. Mr. Ryan Fairsheets with Kimley-Horn explained that since the compensatory storage ended up with a lower elevation than the Base Flood Elevation then an outlet structure was added to connect the floodplain to the compensatory storage area for storage. Mr. O'Leary confirmed the compensatory storage area is not going to be used for detention. Mr. Fairsheets agreed that the compensatory storage is not intended to be detention. Mr. Todd McLellan verified that detention is included in the plans as

underground storage on the opposite side of the property. Mr. Sturtz asked for the elevation of the floodplain at the location. Mr. Murphy confirmed the BFE was 1129' and pointed out the location on the plans. Mr. Sturtz asked if the compensatory storage area would impede on the floodway. Mr. Fairsheets agreed no part of compensatory storage would impede the floodway. Mr. O'Leary asked the committee to carefully consider the Application and reviewed the conditions recommended by Staff. Mr. O'Leary noted the last Floodplain Permit Application of this size was also a student housing project at Brooks Street. Mr. Scanlon asked if the LOMR would need to be complete before City Council approval. Mr. O'Leary said City Council can consider this with or without the LOMR, but this process has been followed successfully in previous projects. Mr. Sturtz mentioned that to obtain a LOMR the applicant would need finished floor elevations, which would require City Council approval before the submission of the LOMR.

Mr. Sturtz recommended approval of Floodplain Permit Application No. 665 with the conditions an as-built drawing based on actual survey information be provided for the compensatory storage area upon completion, Floodplain Permit Application information be forwarded to City Council for their consideration along with the preliminary plat and rezoning request, and a Letter of Map Revision (LOMR) for this section of Bishop Creek be obtained prior to a Certificate of Occupancy being issued. Mr. Scanlon seconded the motion. The committee voted to approve the application 5-0.

**Item No. 3, Miscellaneous Discussion:**

- a) Mr. Murphy said no Floodplain Committee Applications are pending.
- b) Ms. Stansel asked when this project would be presented to City Council. Ms. Lora Hoggatt said the soonest the project could be presented to City Council would be January 2023.

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**Item No. 4, Adjournment:**

Mr. O’Leary called for a motion to adjourn. Mr. Sturtz motioned to adjourn and was seconded by Mr. Scanlon. The motion was approved 5-0. Meeting adjourned at 3:54 p.m.

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# City of Norman

## Floodplain Permit Application

Floodplain Permit No. \_\_\_\_\_

Building Permit No. \_\_\_\_\_

Date January 18, 2023

### FLOODPLAIN PERMIT APPLICATION (\$100.00 Application Fee Required)

#### **SECTION 1: GENERAL PROVISIONS (APPLICANT to read and sign):**

1. No work may start until a permit is issued.
2. The permit may be revoked if any false statements are made herein.
3. If revoked, all work must cease until permit is re-issued.
4. Development shall not be used or occupied until a Certificate of Occupancy is issued.
5. The permit will expire if no work is commenced within 2 years of issuance.
6. Applicant is hereby informed that other permits may be required to fulfill local, state and federal regulatory requirements and must be included with this floodplain permit application.
7. Applicant hereby gives consent to the City of Norman or his/her representative to access the property to make reasonable inspections required to verify compliance.
8. The following floodplain modifications require approval by the City Council:
  - (a) A modification of the floodplain that results in a change of ten percent (10%) or more in the width of the floodplain.
  - (b) The construction of a pond with a water surface area of 5 acres or more.
  - (c) Any modifications of the stream banks or flow line within the area that would be regulatory floodway whether or not that channel has a regulatory floodplain, unless the work is being done by the City of Norman staff as part of a routine maintenance activity.
9. All supporting documentation required by this application is required along with the permit fee by the submittal deadline. Late or incomplete applications will not be accepted.

10. I, THE APPLICANT, CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

#### **SECTION 2: PROPOSED DEVELOPMENT (To be completed by APPLICANT.)**

APPLICANT: Plains All American Pipeline, LP ADDRESS: 333 Gay Street, Suite 1900, Houston, Texas 77002TELEPHONE: 832 368 5895 SIGNATURE: *Pasha Jara*

BUILDER: \_\_\_\_\_ ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

ENGINEER: Environmental Solutions & Innovations, Inc. ADDRESS: 1158 Dutilh Road, Mars, Pennsylvania 16046TELEPHONE: 513.451.1777 SIGNATURE: *[Signature]*

## PROJECT LOCATION

To avoid delay in processing the application, please provide enough information to easily identify the project location. Provide the street address, subdivision addition, lot number or legal description (attach) and, outside urban areas, the distance to the nearest intersecting road or well known landmark. A sketch attached to this application showing the project location would be helpful.

This project proposed the excavation of a portion of the existing Cushing to Hewitt 16" gas pipeline in order to repair a defect with the pipeline. The dig site is located approximately 0.42 miles west of the South Dobbs Road.

The ground disturbance within the FEMA 100-yr floodplain will be temporary to repair the pipe, and the disturbed area will be returned to existing conditions.

## DESCRIPTION OF WORK (Check all applicable boxes):

### A. STRUCTURAL DEVELOPMENT

#### ACTIVITY

#### STRUCTURE TYPE

- |  |   |                          |
|--|---|--------------------------|
| <input type="checkbox"/> New Structure         | <input type="checkbox"/> Residential (1-4 Family)                                       | <b>* Pipeline Repair</b> |
| <input type="checkbox"/> Addition              | <input type="checkbox"/> Residential (More than 4 Family)                               |                          |
| <input checked="" type="checkbox"/> Alteration | <input type="checkbox"/> Non-Residential (Flood proofing? <input type="checkbox"/> Yes) |                          |
| <input type="checkbox"/> Relocation            | <input type="checkbox"/> Combined Use (Residential & Commercial)                        |                          |
| <input type="checkbox"/> Demolition            | <input type="checkbox"/> Manufactured (Mobile) Home                                     |                          |
| <input type="checkbox"/> Replacement           | <input type="checkbox"/> In Manufactured Home Park? <input type="checkbox"/> Yes        |                          |

ESTIMATED COST OF PROJECT \$       N/A       Work that involves substantial damage/substantial improvement requires detailed cost estimates and an appraisal of the structure that is being improved.

### B. OTHER DEVELOPMENT ACTIVITIES:

- |  |                                 |   |                                  |                          |
|--|---------------------------------|---|----------------------------------|--------------------------|
| <input type="checkbox"/> Fill  | <input type="checkbox"/> Mining | <input type="checkbox"/> Drilling                         | <input type="checkbox"/> Grading | <b>* Pipeline Repair</b> |
| <input checked="" type="checkbox"/> Excavation (Beyond the minimum for Structural Development)                                       |                                 |   |                                  |                          |
| <input type="checkbox"/> Watercourse Alteration (Including Dredging and Channel Modifications)                                       |                                 |   |                                  |                          |
| <input type="checkbox"/> Drainage Improvements (Including Culvert Work) <input type="checkbox"/> Road, Street or Bridge Construction |                                 |   |                                  |                          |
| <input type="checkbox"/> Subdivision (New or Expansion)  |                                 | <input type="checkbox"/> Individual Water or Sewer System |                                  |                          |

In addition to items A. and B. provide a complete and detailed description of proposed work (failure to provide this item will be cause for the application to be rejected by staff). Attach additional sheets if necessary.

This project proposed the excavation of a portion of the existing Cushing to Hewitt 16" gas pipeline in order to repair a defect with the pipeline. The dig site is located approximately 0.42 miles west of the South Dobbs Road.

The ground disturbance within the FEMA 100-yr Floodplain will be temporary to repair the pipe, and the disturbed area will be returned to existing conditions.

### C. ATTACHMENTS WHICH ARE REQUIRED WITH EVERY APPLICATION:

The applicant must submit the documents listed below before the application can be processed. If the requested document is not relevant to the project scope, please check the Not Applicable box and provide explanation.

- A. Plans drawn to scale showing the nature, location, dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood proofing measures, and the relationship of the above to the location of the channel, floodway, and the regulatory flood-protection elevation.
- B. A typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information.
- ☒ Not Applicable:  
Gas Utility Repair
- 
- C. Subdivision or other development plans (If the subdivision or other developments exceeds 50 lots or 5 acres, whichever is the lesser, the applicant **must** provide 100-year flood elevations if they are not otherwise available).
- ☒ Not Applicable:  
Gas Utility Repair
- 
- D. Plans (surface view) showing elevations or contours of the ground; pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream, soil types and other pertinent information.
- ☒ Not Applicable:  
Gas Utility Repair
- 
- E. A profile showing the slope of the bottom of the channel or flow line of the stream.
- ☒ Not Applicable:  
Gas Utility Repair
- 
- F. Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures.
- ☒ Not Applicable:  
Gas Utility Repair
- 
- G. Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development.
- ☒ Not Applicable:  
Gas Utility Repair
-

- H. For proposed development within any flood hazard area (except for those areas designated as regulatory floodways), certification that a rise of no more than five hundredths of a foot (0.05') will occur on any adjacent property in the base flood elevation as a result of the proposed work. For proposed development within a designated regulatory floodway, certification of no increase in flood levels within the community during the occurrence of the base flood discharge as a result of the proposed work. All certifications shall be signed and sealed by a Registered Professional Engineer licensed to practice in the State of Oklahoma.
- I. A certified list of names and addresses of all record property owners within a three hundred fifty (350) foot radius of the exterior boundary of the subject property not to exceed 100 feet laterally from the Special Flood Hazard Area. The radius to be extended by increments of one hundred (100) linear feet until the list of property owners includes not less than fifteen (15) individual property owners of separate parcels or until a maximum radius of one thousand (1,000) feet has been reached.
- J. A copy of all other applicable local, state, and federal permits (i.e. U.S. Army Corps of Engineers 404 permit, etc). \* NO PERMANENT LAND DISTURBANCE WITHIN THE FLOOD PLAIN OR FLOODWAY

**After completing SECTION 2, APPLICANT should submit form to Permit Staff for review.**

**SECTION 3: FLOODPLAIN DETERMINATION (To be completed by Permit Staff.)**

The proposed development is located on FIRM Panel No.: 0335, Dated: September 26, 2008

The Proposed Development:

- ☐ Is NOT located in a Special Flood Hazard Area  
(Notify the applicant that the application review is complete and NO FLOODPLAIN PERMIT IS REQUIRED).
- ☒ Is located in a Special Flood Hazard Area.
- ☒ The proposed development is located in a floodway. \* Pipeline Repair
- ☒ 100-Year flood elevation at the site is ~980 Ft. NGVD (MSL) ☐ Unavailable

See Section 4 for additional instructions.

**SIGNED:** \_\_\_\_\_ **DATE:** January 18, 2023



**SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Permit Staff.)**

The applicant must also submit the documents checked below before the application can be processed.

- ☐ Flood proofing protection level (non-residential only) \_\_\_\_\_ Ft. NGVD (MSL). For flood proofed structures applicant must attach certification from registered engineer.
- ☐ Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- ☐ Certification from a registered engineer that the proposed activity in a regulatory flood plain will result in an increase of no more than 0.05 feet in the height of the 100-year flood (Base Flood Elevation). A copy of all data and calculations supporting this finding must also be submitted.
- ☐ All other applicable federal, state, and local permits have been obtained.

Other: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Chairman.)**

The proposed activity: (A) ☐ **Is**; (B) ☐ **Is Not** in conformance with provisions of Norman's City Code Chapter 22, Section 429.1. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

If BOX A is checked, the Floodplain committee chairman may issue a Floodplain Permit.

If BOX B is checked, the Floodplain committee chairman will provide a written summary of deficiencies. Applicant may revise and resubmit an application to the Floodplain committee or may request a hearing from the Board of Adjustment.

APPEALS: Appealed to Board of Adjustment: ☐ Yes ☐ No  
Hearing date: \_\_\_\_\_

Board of Adjustment Decision - Approved: ☐ Yes ☐ No

Conditions:

\_\_\_\_\_

\_\_\_\_\_

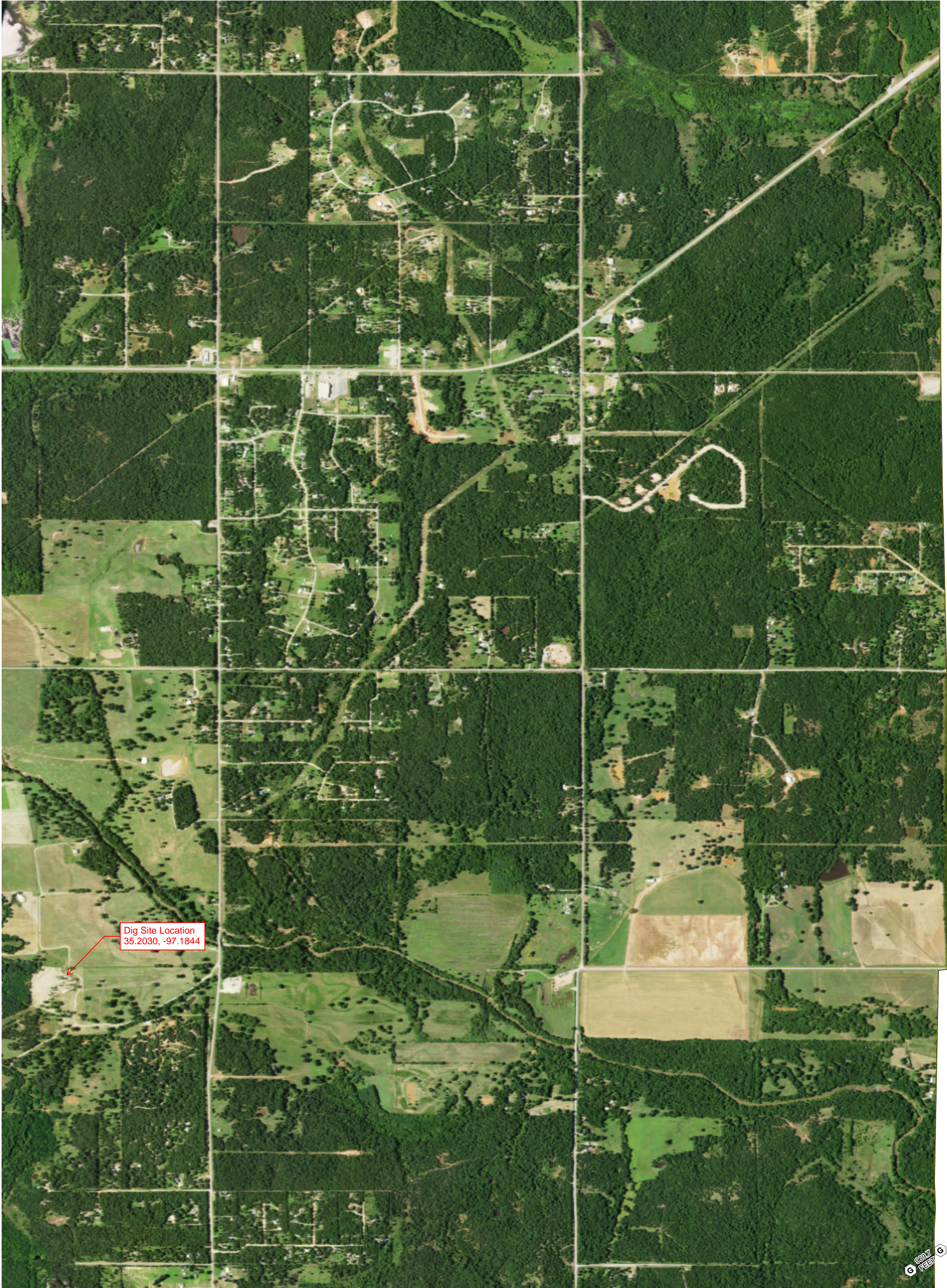
\_\_\_\_\_

**SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Occupancy is issued.)**

1. FEMA Elevation Certificate  
and/or
2. FEMA Floodproofing Certificate

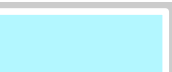
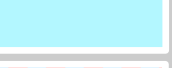





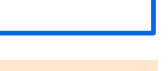


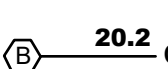
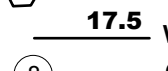
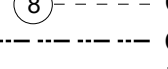



NOTE: The completed certificate will be reviewed by staff for completeness and accuracy. If any deficiencies are found it will be returned to the applicant for revision. A Certificate of Occupancy for the structure will not be issued until an Elevation and /or Floodproofing Certificate has been accepted by the City.





FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP  
FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i> Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee See Notes <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
OTHER AREAS		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		Cross Sections with 1% Annual Chance
		Water Surface Elevation
		Coastal Transect
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-6627) or visit the FEMA Flood Map Service Center website at <https://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

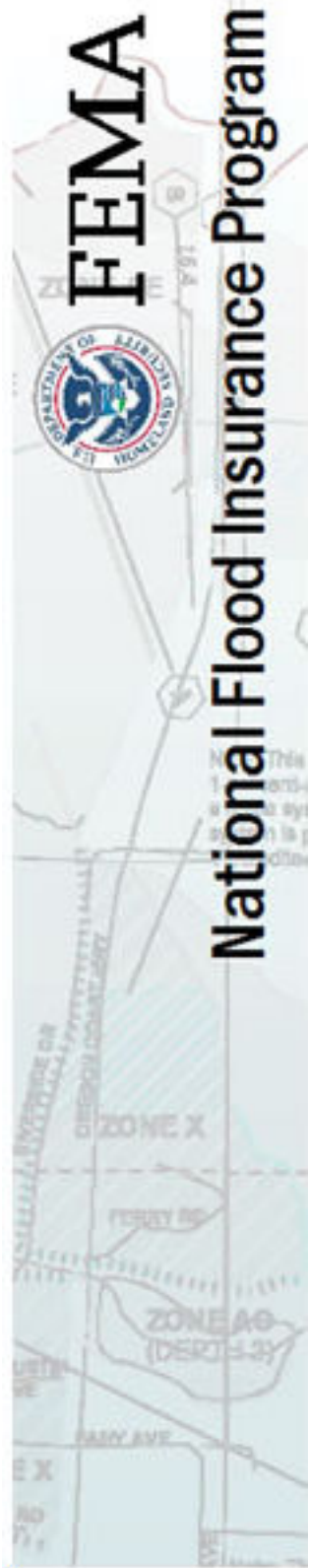
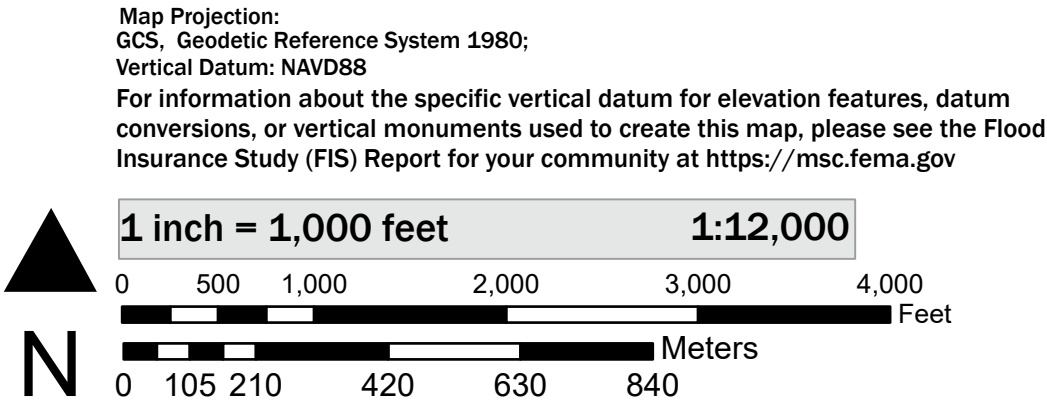
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). The basemap shown is the USGS National Map: Orthoimagery. Last refreshed October, 2020.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **1/18/2023 1:12 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at <https://www.fema.gov/media-library/assets/documents/118418>

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE



NATIONAL FLOOD INSURANCE PROGRAM  
FLOOD INSURANCE RATE MAP

PANEL 335 OF 475

Panel Contains:

COMMUNITY	NUMBER	PANEL
POTTAWATOMIE COUNTY	400496	0335
UNINCORPORATED AREAS		
TOWN OF PINK	400523	0335
ABSENTEE SHAWNEE TRIBE	400580	0335



# National Flood Hazard Layer FIRMMette



97°11'23"W 35°12'25"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000  
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

Item 2.

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR F

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



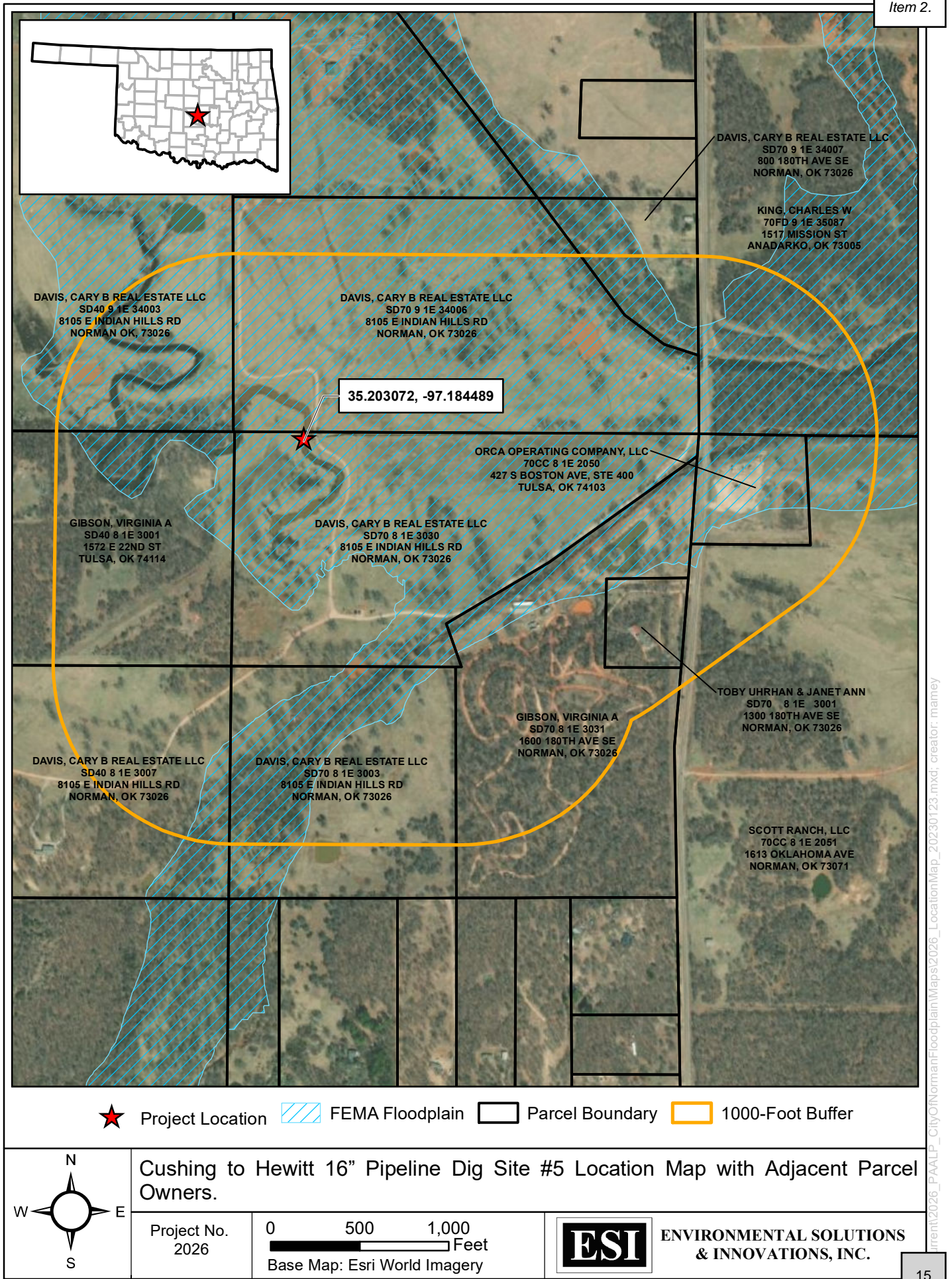
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/18/2023 at 12:56 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifier, FIRM panel number, and FIRM effective date. Map in unmapped and unmodernized areas cannot be used for regulatory purposes.





irent\2026\_PAALP\_CityOfNormanFloodplainMaps\2026\_LocationMap\_20230123.mxd; creator: nmaney

Landowners within 1000-Foot Radius of Parcel SD70 8 1E 3030.

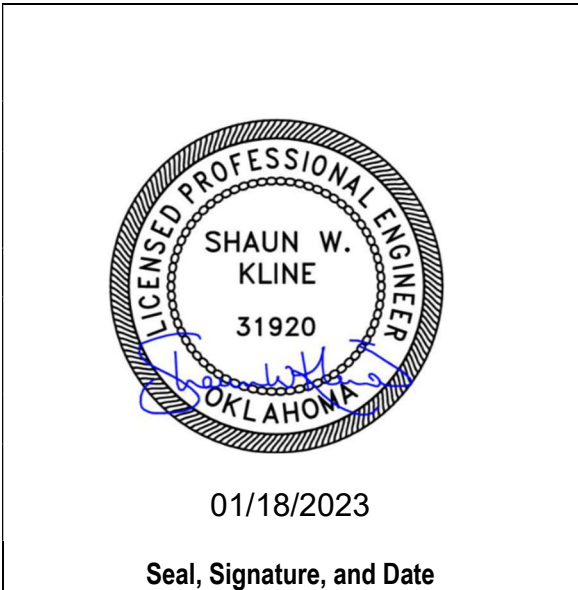
LANDOWNER NAME	PARCEL ID	ADDRESS
DAVIS, CARY B REAL ESTATE LLC	SD70 9 1E 34006	8105 E INDIAN HILLS RD, NORMAN, OK 73026 <sup>1</sup>
DAVIS, CARY B REAL ESTATE LLC	SD70 8 1E 3030	8105 E INDIAN HILLS RD, NORMAN, OK 73026 <sup>1</sup>
DAVIS, CARY B REAL ESTATE LLC	SD70 8 1E 3003	8105 E INDIAN HILLS RD, NORMAN, OK 73026 <sup>1</sup>
DAVIS, CARY B REAL ESTATE LLC	SD40 8 1E 3007	8105 E INDIAN HILLS RD, NORMAN, OK 73026 <sup>1</sup>
DAVIS, CARY B REAL ESTATE LLC	SD40 9 1E 34003	8105 E INDIAN HILLS RD, NORMAN, OK 73026 <sup>1</sup>
DAVIS, CARY B REAL ESTATE LLC	SD70 9 1E 34007	800 180TH AVE SE, NORMAN, OK 73026
ORCA OPERATING COMPANY, LLC	70CC 8 1E 2050	427 S BOSTON AVE, STE 400, TULSA, OK 74103 <sup>1</sup>
GIBSON, VIRGINIA A	SD40 8 1E 3001	2006 TRT-TRTEE, 1572 E 22ND ST, TULSA, OK 74114 <sup>1</sup>
SCOTT RANCH, LLC	70CC 8 1E 2051	1613 OKLAHOMA AVE, NORMAN, OK 73071 <sup>1</sup>
GIBSON, VIRGINIA A	SD70 8 1E 3031	1600 180TH AVE SE, NORMAN, OK 73026
KING, CHARLES W	70FD 9 1E 35087	1517 MISSION ST, ANADARKO, OK 73005 <sup>1</sup>
TOBY UHRHAN & JANET ANN	SD70 8 1E 3001	1300 180TH AVE SE, NORMAN, OK 73026

<sup>1</sup> Available mailing address for landowner. All other listed addresses are property addresses with no available mailing addresses.

# FLOODWAY “NO-RISE / NO-IMPACT” CERTIFICATION

Item 2.

This document is to certify that I am duly qualified engineer licensed to practice in the State of Oklahoma. It is to further certify that the enclosed technical data supports the fact that the proposed Cushing to Hewitt 16” Pipeline Repair will not impact the 100-year flood elevations, floodway elevations and floodway widths on the UNT to Roulette Creek at published sections in the Flood Insurance Study (FIS) for Pottawatomie County and Unincorporated Areas of Town of Pink Absentee Shawnee Tribe (Community Numbers 400496, 400523, and 400580), Oklahoma, dated September 26, 2008 and will not impact the 100-year flood elevations, floodway elevations, and floodway widths at unpublished cross-sections in the vicinity of the proposed development.

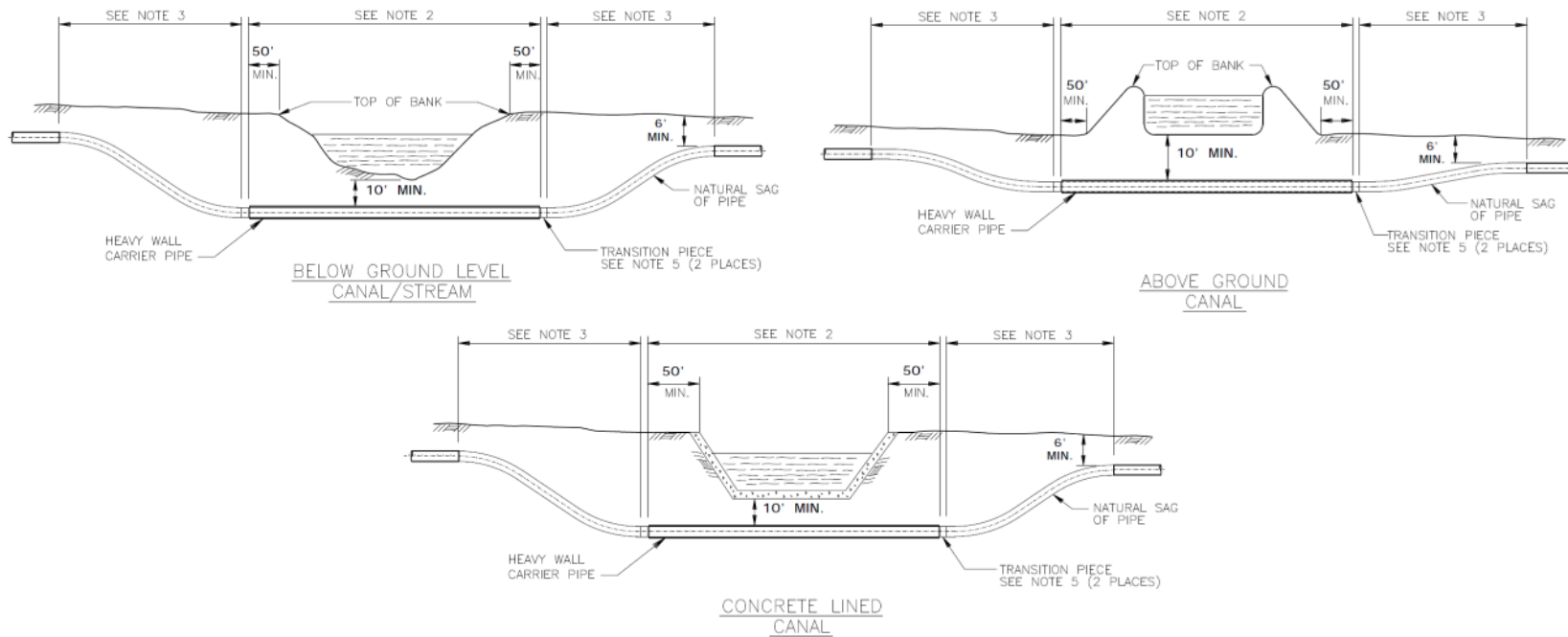


Shaun Kline  
*Printed Name*

Vice President  
*Title*

Environmental Solutions & Innovations, Inc.  
*Company*

1158 Dutilh Road  
Mars, PA 16046  
*Address*

**NOTES:**

- CROSSING INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE PERMITS.
- PIPE SHALL BE LEVEL UNDER CROSSING TO THE LENGTH AND DEPTH SHOWN.
- PIPE SHALL BE LAID TO EXTRA DEPTH AT THESE LOCATIONS TO ACCOMMODATE FREE-STRESS BENDING.
- INSTALL TRANSITION PIECE AS REQUIRED FOR DIFFERENT WALL THICKNESS PIPE AT CROSSING PER ALIGNMENT SHEET.
- THIS STANDARD DRAWING IS APPLICABLE TO ALL FREE-STRESS CANAL/STREAM CROSSINGS UNLESS NOTED OTHERWISE IN THE CONSTRUCTION DRAWINGS OR SPECIFICATIONS.
- CONCRETE-LINED AND ABOVE-GROUND CANAL CROSSINGS SHALL BE INSTALLED BY BORING RIGHT-OF-WAY TO RIGHT-OF-WAY. BELOW-GROUND CANALS/STREAMS MAY BE INSTALLED BY OPEN CUT IF ALLOWED BY THE PERMIT.
- OPEN CUT CANAL CROSSING BACKFILL SHALL BE OF SELECT MOIST BACKFILL MATERIAL, PLACED IN LAYERS AND THOROUGHLY COMPACTED BY MECHANICAL TAMPING TO 90% OF COMPACTION, AS PER ASTM D-1557-70, OR AS REQUIRED BY CANAL OWNER.
- WEIGHTS OR ANCHORS TO BE INSTALLED AS DIRECTED BY PAALP.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO CANAL AND LEVEES AND SHALL REPAIR ANY DAMAGE TO THE SATISFACTION OF THE CANAL OWNER, OR GOVERNING AUTHORITY.



HDD Section    —    Open Cut Section    —



**Assessment:** 2022\_Cushing To Hewitt 16in\_NDT\_UTWT\_DEF

**Vendor Report:** 2022\_Cushing to Hewitt 16in\_NDT\_DEF\_UT\_PT (DEF, UT (Metal Loss))

**Company:** RED RIVER PIPELINE LLC 68.52%, VALERO 31.48%

**Division / District:** MID-CONTINENT PL

**Region / Group:** CHEROKEE PL

**Section:** CUSHING TO HEWITT 16"

**Repair Deadline:** 11/14/2023

## CUSHING TO HEWITT 16"

**Dig Sheet**

**Dig #5**

Priority: Non Planar Lamination



### Weld Location

					65160.0 Girth Weld 329654.72 ft																		
AGM's																							
AGM #53 (2017) 29' D/S 316404.65 ft		AGM #54 (2017) 41' D/S 322529.10 ft		AGM #55 (2017) 2' D/S 326120.81 ft						MLV #10 Check Valve 332607.83 ft		AGM #56 (2017) 37' U/S 336379.33 ft		AGM #57 29' D/S C/L E 342380.63 ft									
6124.45 ft		3591.71 ft		3533.91 ft						2953.11 ft		3771.50 ft		6001.30 ft									
Valve's																							
Valve 215248.48 ft		Valve 248006.36 ft		Valve 314679.95 ft						Valve 332607.82 ft		Valve 357528.23 ft		Valve 390925.64 ft									
32757.88 ft		66673.59 ft		14974.77 ft						2953.10 ft		24920.41 ft		33397.41 ft									
Appurtenance's																							
Full Encirclement Tee 314685.19 ft		Tap/Tee 314689.16 ft		Tap/Tee 314697.44 ft						Flange 332606.19 ft		Flange 332609.46 ft		Tap/Tee 332611.02 ft									
3.97 ft		8.28 ft		14957.28 ft						2951.47 ft		3.27 ft		1.56 ft									
Girth Weld's																							
Joints #		65110.0		65120.0		65130.0		65140.0		65150.0		65170.0 329696.03 ft		65180.0		65190.0		65200.0		65210.0			
41.84 ft		41.89 ft		41.86 ft		41.88 ft		41.76 ft				41.31 ft 1 Anomalies		41.10 ft		41.66 ft		41.79 ft		41.39 ft		41.80 ft	
7:20		3:46		6:54		2:44		6:38				2:48		7:06		4:08		6:26		3:42		2:48	

### Anomaly Information

**Feature Type:** Surface Breaking Laminations

**Odometer:** 329,693.03 ft

**Orientation:** 12:50

**Dent Depth:**

**ML Depth:**

**Crack Depth:**

**Crack Depth Min:**

**Crack Depth Max:**

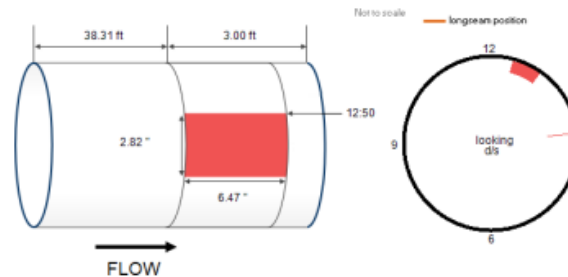
**Length:** 6.47 in

**Width:** 2.82 in

**Comment:** Surface-breaking

**Priority Code Description:** Non Planar Lamination

**Dig Note:** The MOP at this location is 1480 psig.



**Int / Ext:**

**Identifier:** 2110A-329,693.03-5

**Feature ID:**

**Lat:** 35.20307213 deg

**Long:** -97.18448875 deg

**Elevation:** 947.40 ft

**MOP:** 1,480.00 psig

**Pipe Grade:** 60000

**Pipe Wall:** 0.500 in

**Pipe Seam:** ERW

**HCA:** Y (OPA)

**Long Seam:** N

**Eng'r Station:** 3310+80.73

**Milepost:** 62.7047 mi

**Action:** Evaluate

**STAFF REPORT**

2/6/2023

**PERMIT #666**

**ITEM:** Floodplain Permit Application for the excavation and replacement of an existing segment of the Cushing to Hewitt 16" gas pipeline. The dig site is ~ 0.42 miles west of 180<sup>th</sup> Ave. SE and ~1 mile south of Alameda Ave. in the Lower Little River floodplain.

**BACKGROUND:**

APPLICANT: Plains All American Pipeline, LP

ENGINEER: Environmental Solutions and Innovations, Inc.

There is an existing gas pipeline owned by the applicant that is located ~0.42 miles west and ~1.0 miles south from the intersection of Alameda St. and 180<sup>th</sup> Ave. SE in the Lower Little River Floodplain. The dig site is located near an unnamed tributary of Roulette Creek. The installation of this pipeline was granted a floodplain permit in 2016 (#573). Recent testing revealed a possible defect in the pipeline wall that requires repair. The repair is being done as a preventative action and not as an emergency action.

According to the Applicant, the project will replace approximately 1150 feet of pipeline in the floodplain. The ground will be cleared above the repair location in the pipeline right of way to allow the pipeline section to be replaced. Once the new pipe is installed, the excavated area will be backfilled using existing materials and returned to pre-activity conditions. For the area below the stream bed, a 50 foot buffer will be maintained on either side of the channel and pipe will be installed using horizontal directional drilling (HDD). No changes in elevation or contours are expected as a result of this project.

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

**STAFF ANALYSIS:** According to the latest DFIRM, the project site is located in the floodplains of the Little River and Roulette Creek (Zone A).

## Applicable Ordinance Sections:

## Subject Area:

429.1	4(b)(1) .....	Fill Restrictions in the Floodplain
	4(d)(iii).....	Special Requirements for Drilling for Oil and Gas Wells in Special Flood Hazard Area
	5(a)(viii) .....	No Rise Considerations

4(b)(1) Fill Restrictions – The use of fill is restricted in the floodplain. No fill will be brought into the floodplain as part of this project.

## 4(d)(iii) Special Requirements for Drilling Oil and Gas Wells in Special Flood Hazard Area -

All new or replacement flowlines, pipelines, etc. that will cross rivers, streams, creeks, and channels, shall be bored to be below the stream bed. The depth below the stream bed shall be a minimum of 10 feet. The pipe used for the crossing shall be 1 pipe grade higher, or have a wall thickness twice the thickness of the standard pipe used for the flowline, pipeline, etc. If the flowline, pipeline, etc. becomes exposed, the crossing must be rebored. The ground surface shall not be disturbed within 50 feet of the river, stream, creek, or channel banks.

According to the Applicant, the pipeline replacement will be bored under the stream bed and the ground will not be disturbed within 50 feet of the banks. The pipeline will also be installed in a heavy wall carrier pipe below the channel. These actions meet the requirements of this section of the ordinance.

5(a)(1)(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. The

project 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 #666 be approved.

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





The City of Norman assumes no responsibility for errors or omissions in the information presented.

## UNT Roulette Creek



1 inch = 1,923 feet

### Legend

- BFE 2021
- 1% Chance Floodplain
- Floodway
- City Boundary
- Vicinity Streets





The City of Norman assumes no

responsibility for errors or omissions  
in the information presented.

## UNT Roulette Creek





1 inch = 721 feet

### Legend

Street Labels (<1:10,000)

 BFE 2021

 City Boundary

 Vicinity Streets





## December 2022 Satellite Imagery



# office memorandum

**DATE:** February 2, 2023

**TO:** Floodplain Permit Committee Members

**FROM:** Jason Murphy, Stormwater Program Manager

**SUBJECT:** Floodplain Permit Committee 2022 End of Year Summary

## Floodplain Permits

The Department of Public Works received 13 floodplain permit applications in 2022:

- Of the 12 permit applications reviewed, 12 were approved by the committee.
- One permit application was incomplete and never resubmitted.

## Floodplain Violations

Five floodplain violation notices were issued in 2022.

## Letters of Map Revision (LOMR)

No Letters of Map Revision were received in 2022.

## Flood Insurance Studies

No Flood Insurance Studies (FIS) were received in 2022.

## Community Rating System (CRS) Program

Norman's CRS Class rating was changed to back to a 6 from 7 in October 2022 due in part to the City's update to its Flood Hazard Ordinance. As part of the program community outreach requirements, city staff performed the following in 2022:

- Direct mailed approximately 2,100 flood protection brochures and letters to property owners and renters in the floodplain.
- Letters were sent to approximately 80 property owners and renters who own or rent homes in Norman's repetitive loss areas. A Repetitive Loss (RL) property is any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978. The purpose of the letter was to inform affected property owners and renters that their property is subject to flooding, suggest property protection measures, and provide basic facts about flood insurance.

## Hazard Mitigation Plan Update for Year 2022

### Action Item 12 – Miscellaneous Drainage Improvements

The following projects were identified in the City's Storm Water Master Plan or through citizen complaints. The following projects were completed using city maintenance staff or contractors:

- Highland Terrace Stormwater Pipe Joint Sealing Project
- Summit Lakes Addition Stormwater Pipe Replacement Phase II
- Sutton Wilderness Stormwater Pipe Replacement for Pedestrian Walk Path



- Imhoff Channel Erosion Control at Splash Pad Project
- Cherry Stone Street Stormwater Pipe and Inlet Box Replacement Project

Midway Drive Scoping Project - Several houses along Midway Drive have experienced repeated instances of flooding during rain events. Consequently, this area has been identified as a repetitive loss area. In November of 2020, with approval from the City Manager, the City applied for a FEMA Building Resilient Infrastructure and Communities (BRIC) grant through the Oklahoma Department of Emergency Management and Homeland Security (ODEMHS). In February 2022, ODEMHS notified the City of the approval to award funds for the FEMA BRIC Grant for the City of Norman Midway Drive Project Scoping. The City of Norman awarded the project to Garver Engineers and the project is currently underway.

The Vineyard Addition Drainage Project - For several years, residents of The Vineyard Addition have experienced property damage due to flooding. In July 2015, the City hired Meshek and Associates to perform an analysis of the cause of flooding in The Vineyard Addition. This included a review of the previous drainage reports and studies that were available. Additional detailed modeling was done to determine if any structural changes could be made that would reduce the risk of flooding in this area. The modeling determined that enlarging an existing detention pond and doing other drainage improvements would reduce the amount and frequency of flooding. The City has been awarded a FEMA Hazard Mitigation grant to fund 75% of the construction costs. This project is currently awaiting final approval from FEMA before bidding the contract to begin construction.

Flood Warning System Scoping Project - The City of Norman experiences flood events on a regular basis which often lead to road closures. The current process to identify and barricade flooded roadways is a manual process which can take a significant amount of time and puts both the emergency responders and traveling public at risk. In November of 2020, the City applied for a FEMA Building Resilient Infrastructure and Communities (BRIC) grant through the Oklahoma Department of Emergency Management and Homeland Security (ODEMHS). These grants are designed for pre-disaster mitigation and are competitively awarded. In February 2022, ODEMHS notified the City of Norman of the approval to award funds for the FEMA BRIC Grant for the City of Norman Flood Warning System Scoping Project. Several projects identified in the Storm Water Master Plan were not completed due to lack of funding.

#### Action Item 23 – Imhoff Creek Channel Improvements

This project involves the purchase of drainage/access easements and streambank stabilization in central Norman. The City has received 90% construction plans from the consultant. The City has applied for a FEMA Hazard Mitigation grant to fund 90% of the construction costs. This project is currently waiting on FEMA approval.

Action Item 24 – Relocate/Elevate Mobile Home Parks

There were 3 mobile home parks in Norman that were partially located in the floodplain. This project involves property acquisition and/or relocation of the residents to areas outside the floodplain. The parks would then be used for regional detention and green space.

The residents of Ranch Estates Mobile Home Park in the Little River floodplain/floodway were relocated to other areas of town in 2016. The park area is now being developed as green space and designated as Water Quality Protection Zone for the Little River.

The 2 remaining mobile home parks are still in existence. Residents have not been relocated or properties acquired due to lack of funding.

Action Item 25 – Property Acquisition in Floodplain

The City will acquire properties located within the floodplain that frequently flood, remove or demolish structures, and turn into open space as grants and funding allow.

<b>2022 FLOODPLAIN PERMIT COMMITTEE MEETING ATTENDANCE CHART</b>							
<b>Meeting</b>	<b>O'Leary</b>	<b>Scanlon</b>	<b>Stansel</b>	<b>Hudson</b>	<b>Danner</b>	<b>Hoggatt</b>	<b>Sturtz</b>
3/21			Absent				
6/6						Absent	
7/18				Absent		Absent	
8/2				Absent		Absent	
9/6				Absent			
10/3							
11/7				Absent	Absent		

# 2023 Floodplain Permit Committee Calendar

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3 (12/14)	4	5	6	7				1 (2/20)	2	3	4				1 (3/20)	2	3	4							1
8	9	10	11	12	13	14	5	6 (1/18)	7	8	9	10	11	5	6 (2/15)	7	8	9	10	11	2	3 (3/15)	4	5	6	7	8
15	16	17 (12/28)	18 (2/6)	19	20	21	12	13	14	15 (3/6)	16	17	18	12	13	14	15 (4/3)	16	17	18	9	10	11	12 (5/1)	13	14	15
22	23	24	25	26	27	28	19	20 (2/1)	21	22	23	24	25	19	20 (3/1)	21	22	23	24	25	16	17 (3/29)	18	19	20	21	22
29	30	31					26	27	28					26	27	28	29 (4/17)	30	31		23	24	25	26 (5/15)	27	28	29
May							June							July							August						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S		M	T	W	T	F	S
	1 (4/12)	2	3	4	5	6					1	2	3							1			1	2 (8/21)	3	4	5
7	8	9	10	11	12	13	4	5 (5/17)	6	7	8	9	10	2	3 (6/14)	4	5	6	7	8	6	7 (7/19)	8	9	10	11	12
14	15 (4/26)	16	17 (6/5)	18	19	20	11	12	13	14 (7/3)	15	16	17	9	10	11	12	13	14	15	13	14	15	16 (9/5)	17	18	19
21	22	23	24	25	26	27	18	19	20 (5/31)	21	22	23	24	16	17 (6/28)	18	19 (8/7)	20	21	22	20	21 (8/2)	22	23	24	25	26
28	29	30	31 (6/20)				25	26	27	28 (7/17)	29	30		23	24	25	26	27	28	29	27	28	29	30 (9/18)	31		
September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2	1	2 (9/13)	3	4	5	6	7				1 (11/20)	2	3	4						1	2
3	4	5 (8/16)	6	7	8	9	8	9	10	11	12	13	14	5	6 (10/18)	7	8	9	10	11	3	4 (11/15)	5	6	7	8	9
10	11	12	13 (10/2)	14	15	16	15	16 (9/27)	17	18 (11/6)	19	20	21	12	13	14	15 (12/4)	16	17	18	10	11	12	13 (1/2)	14	15	16
17	18 (8/30)	19	20	21	22	23	22	23	24	25	26	27	28	19	20 (11/1)	21	22	23	24	25	17	18 (11/29)	19	20	21	22	23
24	25	26	27 (10/16)	28	29	30	29	30	31					26	27	28	29 (12/18)	30			24	25	26	27 (1/16)	28	29	30